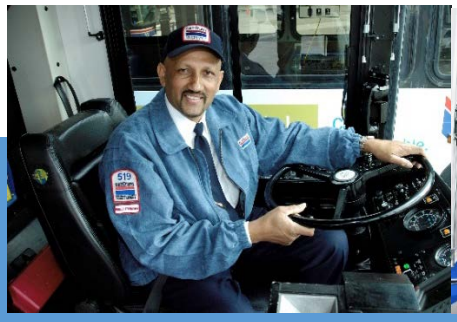
SHORT-RANGE TRANSIT PLAN

FISCAL YEARS 2019-2028

samTrans



San Mateo County Transit District

June 2019

2019 Short Range Transit Plan

Federal transportation statutes require that the Metropolitan Transportation Commission (MTC), in partnership with state and local agencies, develop and periodically update a long-range Regional Transportation Plan (RTP), and a Transportation Improvement Program (TIP) which implements the RTP by programming federal funds to transportation projects contained in the RTP. In order to effectively execute these planning and programming responsibilities, MTC requires that each transit operator in its region which receives federal funding through the TIP, prepare, adopt and submit to MTC a Short Range Transit Plan (SRTP).

Acknowledgements

San Mateo County Transit District Board of Directors

Ron Collins – *Southern Cities*
Carole Groom (Chair) – *Board of Supervisors*
Marina Fraser – *Public Member, Coastside*
Rose Guilbault – *Public Member*
Karly Matsumoto (Vice Chair) – *Northern Cities*
Dave Pine – *Board of Supervisors*
Josh Powell – *Public Member*
Peter Ratto – *Board of Supervisors, Transportation Expert*
Charles Stone – *Central Cities*

Executive Team

Jim Hartnett - *CEO / General Manager*
Michelle Bouchard - *Chief Operating Officer, Rail*
April Chan - *Chief Officer, Planning, Grants, and Transportation Authority*
John Funghi - *Chief Officer, Caltrain Modernization*
Derek Hansel - *Chief Financial Officer / Treasurer*
Carter Mau - *Deputy General Manager*
Seamus Murphy - *Chief Communications Officer*
David Olmeda - *Chief Operating Officer, Bus*

Short Range Transit Plan Project Staff and Contributions

Daniel Shockley – *Project Manager and Senior Planner, Planning*
Gwen Buckley – *Planner, Planning*
Alex Lam – *Senior Planner, Operations Planning*
Amelia Timbers – *Principal Planner, Sustainability, Planning*
Ben Burns – *Deputy Director, Safety and Security*
Brian Fitzpatrick – *Director, Real Estate*
Cannon Han – *Title VI Officer*
Carl Cubba – *IT Director*
Christy Wegener – *Director, Planning*
Dave Harbour – *Deputy Director, Bus Maintenance*
David Pape – *Senior Planner, Planning*
Don Esse – *Senior Operations Financial Analyst*
Greg Moyer – *Deputy Director, Facilities*
Julian Jest – *Market Research Analyst*
Karambir Cheema – *Deputy Director, ITS*
Leslie Fong – *Senior Administrative Analyst*
Michael Stevenson – *Associate Ops Contract Administrator (Shuttles)*
Millie Tolleson – *Principal Planner, Planning*
Patrick Blankenship – *Manager, Scheduling and Planning*
Peter Skinner – *Director, Grants*
Ryan Hinchman – *Manager, Financial Planning and Analysis*
Tina Dubost – *Manager, Accessible Transit Service*
William Grizard – *Director, Safety and Security*

Table of Contents

1 Transit System Overview

This chapter provides an overview of the San Mateo County Transit District and the services it provides:

- Fixed-route bus services
- Paratransit services
- Employer and community shuttle programs

A separate SRTP addresses Caltrain and its performance.

1.1 History and Milestones

The creation San Mateo County Transit District (District) was authorized by the California legislature on August 14, 1974 and approved by voters in November 1974. The Board of Directors convened its first meeting in early 1975. Later that year, the District's first General Manager was hired. SamTrans began service on July 1, 1976, consolidating 11 separate municipal systems to serve a 446 square-mile service area encompassing 20 cities and unincorporated areas of the county.

Though the state gave SamTrans the authority to levy a sales tax to fund operations, the original Board did not impose it until such time as it was needed to support District needs. The first few years involved work to consolidate transit operations provided by cities and predated any involvement in the rail service. As a result, the Board concluded there were adequate subsidies from other sources to pay operating expenses during this time. The District began collecting tax proceeds July 1, 1982.

On July 11, 2018, the SamTrans Board voted to place a ½ cent sales tax measure onto the November 2018 Ballot, called Measure W. Half of the new revenue would be used to fund transit operations in San Mateo County; 22.5% would fund countywide highway congestion improvements; 12.5% would fund local safety, pothole, and congestion relief improvements; 10% would fund regional transit connections; and 5% would be used for bicycle and pedestrian improvements. In November 2018, over two-thirds of San Mateo County residents voted to approve the new tax. The tax will generate approximately $80 million a year in new tax revenue.

Today, the District is the administrative body for public transit and transportation programs in San Mateo County: SamTrans fixed-route bus service, paratransit service, Peninsula Corridor Joint Powers Board (JPB, or Caltrain), and the San Mateo County Transportation Authority (TA). The JPB and the TA have contracted with the District to serve as their managing agency, under the direction of their appointed boards.

Figure 1. District Milestones

Year	*Milestone(s)*
1976	*Consolidated 11 municipal bus systems into the San Mateo County Transit District (SamTrans)*
1977	*Began offering service for customers with mobility impairments through its Redi-Wheels paratransit program*
1978	*Formed unique fare stabilization plan for Southern Pacific rail riders. The plan ultimately led to SamTrans joining Caltrain, Santa Clara Valley Transportation Authority and San Francisco Municipal Transportation Agency in a long-term agreement with Southern Pacific for Caltrain rail service*

Year	Milestone(s)
1982	*Began collecting tax proceeds.*
1986	*Introduced monthly unlimited-ride passes*
1988	*Named managing agency of the San Mateo County Transportation Authority, which administers the voter-approved half-cent sales tax for transportation improvements.*
1989	*Opened the District's largest park-and-ride lot (814 spaces) in Daly City. Provided extra buses on its mainline and transbay routes after the Loma Prieta earthquake.*
1991	*Purchased the Caltrain right of way, San Francisco to San Jose, with the Peninsula Corridor Joint Powers Board.*
1992	*Provided approximately 25 percent of the capital costs for the construction of the Colma BART station. Became managing partner for Caltrain.*
1993	*Became fully wheelchair accessible with purchase of 133 new replacement buses. Continues expansion of Redi-Wheels program with the purchase of 19 new replacement buses and expanded service hours*
1994	*Implemented express route between Daly City BART Station and San Francisco International Airport*
1996	*Opened Colma BART Station/SamTrans Transit Center*
1998	*Earned the Peninsula Emergency Services Association's V. Fitzgerald Award for outstanding emergency service project.*
2001	*Introduced free community shuttles to employment and shopping centers. Offered overnight service for the first time (Route 397).*
2002	*Purchased 55 new 60-foot articulated buses. Established the District's first full-time Transit Police staff through a contract with the San Mateo County Sheriff's Office.*
2003	*Aligned bus service to serve the new South San Francisco, San Bruno and Millbrae BART stations. Repowered 137 buses to lower their emissions and extend their service life*
2004	*Received First Place AdWheel Award from the American Public Transportation Association for a campaign to boost bus token sales. Adjusted 14 routes to bring service into better alignment with demand*
2005	*Marked 50th anniversary of Rosa Park's act of civil disobedience by reserving the front seat on all SamTrans buses in her honor Dec. 1st. Sponsored "Art Takes a Bus Ride" contest for all students.*
2007	*Named Employer of the Year by Northern California Chapter of the conference of Minority Transportation Officials. Extended service on Coastside Routes 14 and 110 as part of a grant-funded pilot program*
2009	*Started the Mobility Ambassador Program, which introduces seniors and people with disabilities to the wide variety of transit options available in the county. Increased ridership on Route 17 almost 23 percent to 8,323 people during January compared to the previous January.*
2011	*Started accepting Clipper, a regional fare card. Began community outreach to get feedback on its SamTrans Service Plan about possible changes to bus service. Took first step into the social networking world with the creation of a SamTrans Youth Facebook page dedicated to helping teen riders.*
2012	*Replace Monthly passes with regional Clipper card. Introduced a Day Pass, which allows a customer unlimited rides all day for a single fare. Introduced weekend Route ECR, providing service every 20 minutes along El Camino Real between Palo Alto and Daly City.*
2013	*Purchased its first fleet of hybrid buses (25), which were manufactured by Gillig in Hayward. Combine mainline Routes 390 and 391 into Route ECR, which travels from Palo Alto to Daly City. The route operates every 15 minutes on weekdays.*
2015	*Implemented the 2015-2019 Strategic Plan. Hired new GM/CEO Jim Hartnett to lead the Transit District. Brought back the SamTrans Bus Roadeo after a seven-year hiatus.*
2016	*The District celebrated its 40th anniversary.*
2018	*Voters approved Measure W, a half-cent sales tax which will create approximately $80 million per year in new investment to relieve traffic congestion and provide expanded mobility options for County residents.*

1.2 Governance

SamTrans is a public transit service administered by the San Mateo County Transit District, which is a California special purpose district. Therefore, it is operationally and financially independent from the county and city governments. A nine-member Board of Directors governs the District. The San Mateo County Board of Supervisors appoints two of its own members and an individual with transportation expertise. The Cities Selection Committee appoints three elected city officials, bringing the SamTrans Board membership to six. These six members then select the remaining three Board members from the general public, one of whom must be a coastal resident, due to a geographical diversity policy in place for public members.

The Board of Directors meets once a month to determine overall policy for the District. Directors serve on standing and ad hoc committees of the Board to review District matters and make recommendations to the full Board. These committees usually meet once a month and include Audit, Community Relations, Finance, Legislative, and Planning, Development and Sustainability.

Table 1. SamTrans Board Members

Board Member	Term Expiration	Representing
Rose Guilbault	December 2020	Public Member
Charles Stone	December 2022	Central Judicial Cities
Ron Collins	December 2022	Southern Judicial Cities
Carole Groom (Chair)	December 2020	Board of Supervisors
Marina Fraser	December 2022	Public Member- Coastside
Karyl Matsumoto (Vice Chair)	December 2022	Northern Judicial Cities
Dave Pine	December 2022	Board of Supervisors
Josh Powell	December 2020	Public Member
Peter Ratto	December 2022	Board of Supervisors – Transportation Expert

1.2.1 Citizens Advisory Committee

The Citizens Advisory Committee (CAC) is a 15-member committee that provides input to the Board. CAC members represent San Mateo County's bus riders, multi-modal transit riders, and the community. CAC members are appointed by the Board, meet monthly and advise the Board on aspects of District policy with the principal objective of articulating the interests and needs of current and future customers.

1.2.2 San Mateo County Paratransit Coordinating Council

SamTrans receives advice from the 21-member San Mateo County Paratransit Coordinating Council (PCC), which includes county paratransit providers, paratransit users, and representatives of human services agencies that serve people with disabilities and seniors. The PCC monitors paratransit service quality and works with SamTrans to ensure that paratransit services comply with the requirements of the Americans with Disabilities Act. The PCC also reviews and makes recommendations on funding

claims. SamTrans uses Transportation Development Article 4.5 funds to provide administrative support for the PCC

1.3 Relationships with Other Agencies

1.3.1 San Mateo County Transportation Authority (TA)

In 1988, San Mateo County voters approved Ballot Measure A, creating a new half-cent sales tax to fund a 20-year Countywide Transportation Program Expenditure Plan. The measure also created the San Mateo County TA, a group of elected officials charged with allocating and overseeing the expenditure of sales tax revenue. The Measure A expenditure plan identified 80 transportation improvement projects and specified annual allocations of sales tax revenues for local street and road improvements, transit-related improvements, transportation systems management and bicycle programs. It also included a $25 million perpetual Paratransit Trust Fund to improve transportation for the mobility-impaired. The measure was due to expire in 2008. In November 2004, voters extended the Measure A tax for an additional 25 years commencing January 1, 2009. The specifics of the new expenditure plan can be found on the TA website (www.smcta.com).

To conserve public funds and limit additional bureaucracy, the TA contracts with the District to provide staffing and administrative services to oversee day-to-day activities. Costs associated with these activities are capped at one percent of the total expenditure plan funding amount.

1.3.2 Caltrain

Caltrain is a 77-mile long commuter rail system that provides service between San Jose and San Francisco, with peak-hour service to Gilroy.

In 1987, the City and County of San Francisco, the District, and Santa Clara Valley Transportation Authority (VTA) formed the Peninsula Corridor Joint Powers Board (JPB) to transfer administrative responsibility for Caltrain from the State of California to the local level. In July 1991, a Joint Powers Agreement was signed by the three parties and outlined the JPB membership and powers, specified financial commitments for each member, and identified the District as the managing agency. The District assumed the administration of Caltrain, and the JPB assumed full ownership of the right-of-way in 1992. Transit America Services Inc. (TASI) is the current contract operator for the Caltrain service and is also responsible for maintenance, repair, and cleaning of equipment and property. A separate SRTP addresses Caltrain and its performance.

1.3.3 Caltrain Business Plan

The Caltrain Business Plan is a joint effort with agency partners and communities along the corridor to develop a better understanding of the region's future transportation needs and identify opportunities and strategies that will meet those needs. The Business Plan addresses the future potential of the railroad over the next 20-30 years. It assesses the benefits, impacts and costs of different service visions, building the case for investment and a plan for implementation. It also allows the community and stakeholders to engage in developing a more certain, achievable, financially feasible future for the railroad based on local, regional, and statewide needs. It is expected to be adopted by the Caltrain Board in 2019.

1.3.4 Regional Agency Partners

The District values the importance of ensuring timed transfers between transit systems, access to regional rail stations and transit centers, and fare coordination. SamTrans frequently coordinates with other agencies on these and other operating, planning, and financial matters. Such agencies include, but are not limited to: The Bay Area Rapid Transit District (BART), San Francisco Municipal Transportation Authority (SFMTA), San Francisco County Transportation Authority (SFCTA), Santa Clara Valley Transportation Authority (VTA), AC Transit, Alameda County Transportation Commission (ACTC) and the Metropolitan Transportation Commission (MTC).

Dumbarton Bridge Regional Operations Consortium

SamTrans is a member of the Dumbarton Bridge Regional Operating Consortium (DBROC), which contracts for transit bus services across the Dumbarton Bridge between Palo Alto, Menlo Park, Newark, and the Union City BART Station. Member agencies include AC Transit, BART, VTA, Caltrain, SamTrans, and Union City Transit. SamTrans provides vehicles for daily operation of the Dumbarton Express services. MTC recently completed the *Dumbarton Forward* study to look at how to improve operational efficiency and build transit ridership along the Dumbarton corridor. Preliminary recommendations include transit-signal priority improvements, route streamlining, bus stop relocation, frequency improvements, and bus-on-shoulder on the Dumbarton Bridge approach. Recommendations would be implemented in 2020 and beyond.

Sustainability

SamTrans frequently communicates and coordinates with other agencies to share information and learn best practices to improve the sustainability program. This includes SamTrans' work with the County and regional stakeholders responding to sea level rise, funding from Caltrans to study climate adaptation planning, and work with the Air District's regional "Spare the Air" resource team, among other collaborations.

SamTrans is a strong supporter of American Public Transportation Association's (APTA) Sustainability Program. In April 2018, SamTrans bus service received Silver Level recognition from APTA. As of May 2018, of the 124 signatories to the sustainability commitment, SamTrans is one of only 46 organizations to have achieved higher-level recognition. Other sustainability efforts are detailed in **Section 3.6.**

US Highway 101 Mobility Action Plan

The US-101 Mobility Action Plan (MAP) project is a regional, multi-agency effort to identify strategies and initiatives with the potential to improve the performance of the US-101 corridor in San Francisco, San Mateo and Santa Clara counties. The MAP project was envisioned to identify and evaluate strategies to increase person throughput, decrease the share of single-occupancy vehicle (SOV) trips, and manage congestion in an environmentally-sustainable way along the US-101 corridor.

The MAP project is funded in equal parts by the San Mateo County Transit District, Santa Clara Valley Transportation Authority, San Francisco County Transportation Authority, City and County of Governments of San Mateo County, and Metropolitan Transportation Commission.

Dumbarton Transportation Corridor Study

In February of 2016, SamTrans initiated the Dumbarton Transportation Corridor Study with the purpose of identifying improvements to enhance mobility in the Dumbarton Corridor between Alameda, San Mateo, and Santa Clara counties. Working collaboratively with project partners, including Facebook, the San Mateo County Transportation Authority (TA), Alameda County Transportation Commission (ACTC), and AC Transit, the study evaluated a variety of transportation alternatives on the Dumbarton Bridge (Highway 84) and its approaches, as well as examined how to rehabilitate and repurpose the Dumbarton rail bridge for transit purposes. In general, the study recommends a multimodal approach with both operational and infrastructure improvements on Highway 84 and the Dumbarton rail bridge that will be phased over time.

An initial draft of the Study was presented to the SamTrans Board of Directors in August 2017 and was followed by an extensive stakeholder and public outreach process throughout August and September 2017. Comments and questions received during the outreach process were documented, answered and incorporated into the Final Dumbarton Transportation Corridor Study. Recommendations included in the Final Dumbarton Transportation Corridor Study are consistent with the draft report, with the exception of one change: The potential bicycle/pedestrian multi-use path in the Dumbarton rail right-of-way from Redwood City to East Palo Alto, which was not previously recommended due to right-of-way constraints, will not be eliminated at this phase of study.

On December 6, 2017 the SamTrans Board of Directors approved the Final Dumbarton Transportation Corridor Study and authorized additional planning and conceptual design work that will come in the form of a technical refinement.

In June 2018, the San Mateo County Transit District Board of Directors approved entering into a public-private partnership agreement with Cross Bay Transit Partners (CBTP), a development team composed of Facebook, Inc. and Plenary Group, an infrastructure developer specializing in public-private partnerships. The goal of the partnership is to explore the feasibility of advancing the Dumbarton Transportation Corridor Study recommendations. In approving the agreement, the Board also outlined a set of goals that they expect will be accomplished through any future public-private partnership. The goals include:

- Enhance mobility and alleviation of congestion
- Facilitate cost-effective improvements with a return on investment
- Minimize environmental impacts and maximize safety
- Ensure that local communities benefit and are protected from adverse impacts

Starting in March of 2019, the District and CBTP will host a series of introductory meetings about the future of the Dumbarton Rail Corridor in both the East Bay and on the Peninsula. The public meetings will acquaint the community with the project partners and allow the community to learn about the project background, goals, funding, timeline, and process.

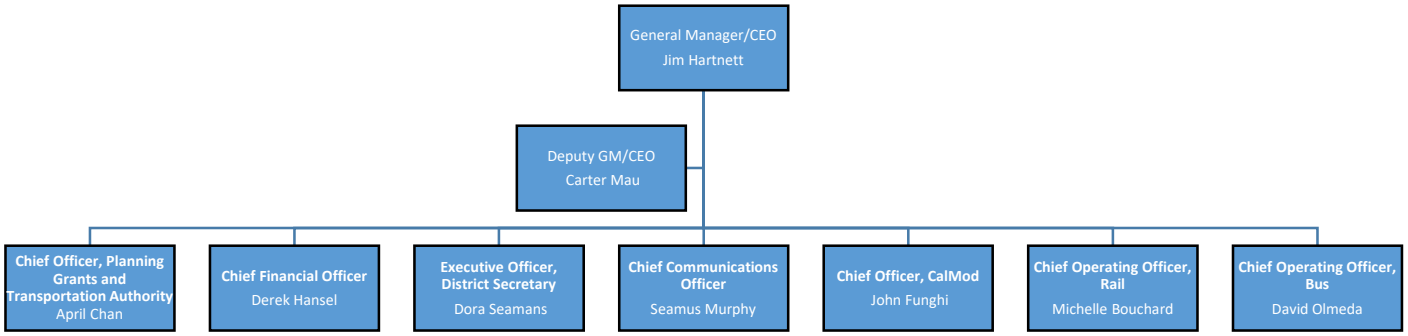
1.4 Organizational Structure

1.4.1 Management and Staff Positions

The District is organized into seven divisions with 722 employees. Top-level reporting relationships are shown in Figure 1 below. Like many organizations, the SamTrans workforce mirrors the Baby Boomer demographics with a wave of staff preparing to retire over the next decade. SamTrans is working to shift

and preserve institutional stability during the upcoming period of change. See the SamTrans Strategic Plan (2015-2019) for more details on specific actions around the goal of managing workforce change.

Figure 2. District Organization Chart



1.4.2 Labor Unions

The Amalgamated Transit Union (ATU) local Division #1574 represents employees of the District in three units: Bus Operators, Bus Maintenance Employees, and Customer Service Employees. SamTrans entered into a labor agreement with the ATU for the period from September 30, 2017 through June 30, 2020 for the purpose of setting the wage schedule, hours, and general rules and regulations affecting employee members of the ATU.

The International Brotherhood of Teamsters, Local Division #856 represents employees of the District in five units: Bus Transportation Supervisors, Bus Contracts Inspectors, Transit Instructors, Utility & Maintenance Supervisors, and Facility Technicians. SamTrans has entered into labor agreements with the Bus Transportation Supervisors, Bus Contracts Inspectors, Bus Transit Instructors, and Utility and Maintenance Supervisors for the period October 4, 2017 through September 30, 2020 for the purpose of setting the wage schedule, hours, and general rules and regulations affecting employee members of the Union. The current contract for Facility Technicians is under negotiation as of July 31, 2018.

1.4.3 Contracted Transportation Services

The District has contracted with MV Transportation (MV) since August 2000 to provide some scheduled fixed-route service (Contracted Urban Bus and Route 17/18), RediCoast ADA, the Pacifica FLX service and rural demand-response (RediCoast non-ADA and SamCoast) services for SamTrans. SamTrans entered into contract with First Transit in January 2015 to provide ADA demand-response (Redi-Wheels) service in San Mateo County.

MV and First Transit operate these services from offices in San Francisco, Redwood City and Half Moon Bay. The CUB, Redi-Wheels ADA services, and Route 17 are operated primarily with a bus fleet provided by SamTrans. First Transit augments the ADA paratransit fleet with its own sedans and subcontracted private taxis. MV provides the vehicles used for the Pacifica FLX service, RediCoast ADA services, and rural demand-responsive services (RediCoast and SamCoast non-ADA).

MV is responsible for maintaining and repairing SamTrans-owned transit buses used in the fixed-route (CUB and Route 17/18) services. SamTrans has an independent contractor randomly inspect SamTrans buses operated and maintained by MV to ensure the equipment meets SamTrans standards. MV hires and administers personnel for these services, including managers, supervisors, trainers, bus operators, mechanics, and administrative staff. MV's operating budget in FY 2019 for fixed-route service is $19.95 million and $2.15 million for Coastside service.

As noted above, the Redi-Wheels Service contract was executed in January 2015 with First Transit. First Transit has an excellent safety record and achieves monthly performance benchmarks with regularity. These benchmarks include accident frequency rate, on-time performance, customer complaint rate, productivity, and customer call wait-time. First Transit's operation budget in FY 2019 for Redi-Wheels ADA paratransit service is $11.8 million.

The most recent CUB Service contract was executed in January 2013 with MV, consisting of a four-year base contract with a provision for up to six one-year extensions, possibly taking the contract until 2022. The combined Coastside Services contract was executed in November 2012, consisting of a five-year base contract with a provision for up to two multi-year term extensions, possibly taking the contract to 2022. The Redi-Wheels Service contract was executed in 2015 and includes a five-year base contract with up to five one-year extensions, possibly taking the contract to 2025.

1.5 Existing Transit Services and Service Area

The SamTrans service area is coterminous with San Mateo County borders, though a few routes cross into San Francisco and Santa Clara counties. San Mateo County contains 20 incorporated cities and many more unincorporated communities with land uses ranging from urban to rural, with small to moderately-sized central business districts, and clusters of large employer campuses.

Population and employment density are concentrated along the border with San Francisco in North County and along the eastern shore of the Peninsula. Between the western Coastside and eastern Peninsula lie the Santa Cruz Mountains, which create a substantial geographic barrier. Several major transportation facilities are also present in the County, including a major international airport (San Francisco International) and two smaller municipal airports in San Carlos and Half Moon Bay; a marine freight terminal in Redwood City which is in the process of initiating passenger ferry service; and US Highway 101 (US-101) and Interstate Highway 280 (I-280). Two bridges – the San Mateo-Hayward Bridge and the Dumbarton Bridge – provide vehicle and bus transit access to the Peninsula from the East Bay. The Water Emergency Transportation Authority (WETA, dba. San Francisco Bay Ferry) provides ferry service to South San Francisco.

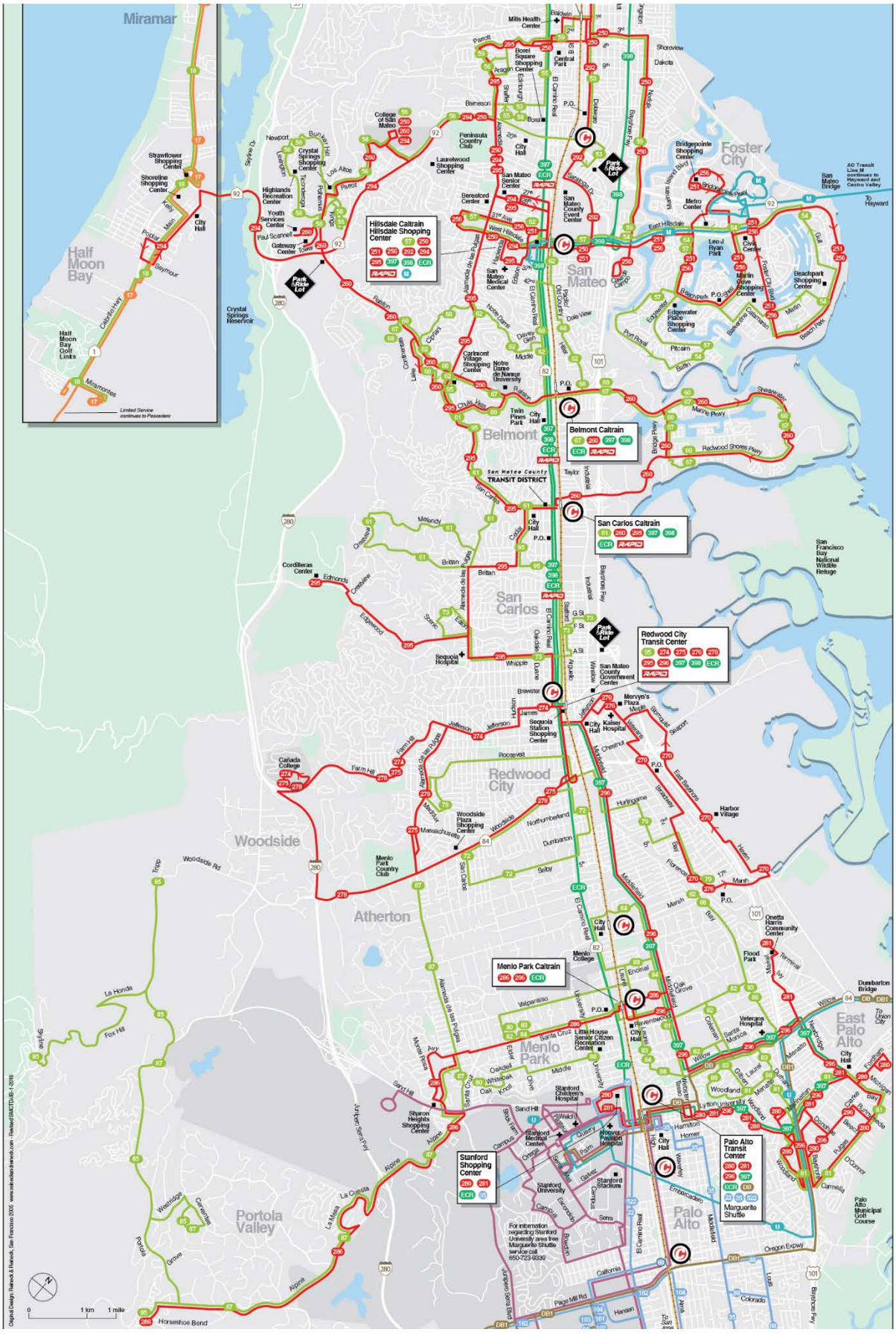
According to the latest SamTrans Triennial Customer Survey conducted in 2018, about three-fourths of SamTrans passengers are either employed or in school, and almost one-third of SamTrans passengers are under the age of 25. On average, SamTrans passengers tend to have low incomes and identify as non-white. The average income per individual is approximately $50,000 per year, and most passengers identified as Hispanic/Latino (32%), White/Caucasian (21%), and Filipino (25%).

Changes from the 2015 to 2018 survey include a decrease in access or ownership of a car, an increase in senior riders and youth riders, and an increase in people paying by Clipper cash value. Complete results from the 2018 Triennial Survey will be posted on the SamTrans website in spring of 2019.

1.5.1 SamTrans Fixed- Route Bus Service

The fixed-route bus system consists of 71 routes, 40 of which provide community service, and 31 of which connect to BART and/or Caltrain. In general, routes can be characterized by their connectivity to Caltrain and/or BART, their frequency, and/or span of service. These distinctions are represented on the SamTrans service map in five color-coded categories, described below.


Pacific Ocean
Daly City BART Station
Serramonte Shopping Center
Colma BART Station
South San Francisco BART Station
San Bruno BART Station
San Francisco International Airport BART Station
Millbrae Transit Center BART + Caltrain
Broadway Caltrain
Burlingame Caltrain
San Mateo Caltrain
Linda Mar Park & Ride
Daly City
Colma
Brisbane
Pacifica
South San Francisco
San Bruno
Millbrae
Burlingame
Hillsborough
San Francisco Bay
Coastside Area
Montara
Moss Beach
El Granada
Princeton


Miramar
Half Moon Bay
Hillsdale Caltrain
Hillsdale Shopping Center
Belmont Caltrain
San Mateo County TRANSIT DISTRICT
San Carlos Caltrain
Redwood City Transit Center
Menlo Park Caltrain
Stanford Shopping Center
Palo Alto Transit Center
Marguerite Shuttle
Foster City
San Mateo
Belmont
San Carlos
Redwood City
Woodside
Atherton
Menlo Park
Portola Valley
Palo Alto
East Palo Alto
Crystal Springs Reservoir
Horseshoe Bend

Community Services – Light Green, Orange, Hatched Orange/Blank
These routes mostly serve local schools, shopping centers, residential areas and government centers. Most run on weekdays only between 6:00 a.m. and 5:00 p.m. with average headways of about 45 minutes or greater.

The Flex Pacifica (FLXP) route serves a local community (Pacifica) with a combination of fixed-route, route deviation, and/or demand-responsive service. Route FLXP operates along a fixed-route, with the option of deviating from the route by up to one-half mile. SamTrans is planning to replace the FLXP with a one-year pilot microtransit service. For more information, refer to **Section 2.4.15.**

BART Connections – Blue
These routes connect to one of the six BART stations within San Mateo County. Nearly all these routes provide service seven days a week, on weekdays from 5:00 a.m. until midnight, and on weekends from roughly 6:00 a.m. until 8:30 p.m.

Caltrain Connections – Red
These routes connect to Caltrain stations. They generally operate between 6 a.m. and 10 p.m., Monday through Friday, with several also providing night and weekend service.

Route 297 operates late evening and early hours through East Palo Alto between the Redwood City Transit Center and the Palo Alto Transit Center.

BART and Caltrain - Green
These lines connect BART and Caltrain stations, in addition to other destinations. These are the "workhorse" routes that provide extensive service seven days a week, including Route ECR which operates seven days a week approximately 20 hours a day, Route 397 which runs from 1:00 a.m. to 6:00 a.m. and Route 398 which runs from 5:00 a.m. to 11:00 p.m. Route 398 provides service between Redwood City Transit Center and San Bruno BART via SFO.

Late evening "owl" service on Route 397 began in January 2002, providing service from the Palo Alto Transit Center to SFO and the Transbay Terminal via University Avenue. It is funded by MTC RM2 (Bridge Tolls).

Express Routes
SamTrans once operated a robust express bus network which was mostly discontinued following the Great Recession. In 2018, SamTrans completed the US-101 Express Bus Feasibility Study which studied and recommended re-introduction of express service in three phases. SamTrans is planning to phase in new express service beginning in 2019. For more information, see **Section 2.4.14.**

1.5.2 ADA Paratransit Service

All SamTrans buses are ADA accessible. However, if people with disabilities are unable to use fixed-route transit, they may be eligible for Redi-Wheels or RediCoast.

Redi-Wheels serves San Mateo County east of I-280, plus the towns of Pacifica, Woodside, and Portola Valley. Redi-Wheels provides access to Palo Alto north of Embarcadero Road, Palo Alto Veterans Administration Medical Center, Vista Center, and the REACH program.

RediCoast serves the San Mateo County coastal area from south of Devil's Slide to the border of Santa Cruz County and La Honda. Redi-Wheels Paratransit (and occasionally RediCoast) also serves the Stonestown area and Bayshore corridor of San Francisco.

Redi-Wheels and RediCoast operate at least during the same hours and serve the same areas as SamTrans fixed-route bus service for their respective locations (exceeding the ¾-mile requirement set forth by the FTA). RediCoast uses small buses, and Redi-Wheels uses small buses, mini-vans, sedans, and taxis to transport customers.

Customers must register and be certified as eligible before they can use ADA paratransit service. Customers with a valid Redi-Wheels/RediCoast paratransit identification card can call to make a reservation for pick-up. Reservations can be made between 8:30 a.m. and 5:00 p.m. daily, one to seven days in advance. Customers with a valid Redi-Wheels/RediCoast identification card can ride SamTrans fixed-route transit for free. In addition, SamTrans provides demand-responsive non-ADA paratransit service through RediCoast and SamCoast (in the Pescadero area) for the general public living on the Coastside. Advanced reservations are required and there are some service area restrictions.

1.5.3 Shuttles

SamTrans, in financial partnership with local employers, the Bay Area Air Quality Management District (BAAQMD) and the San Mateo County Transportation Authority sponsor eight free commuter shuttles linking BART stations to employment centers in the county. Seven shuttles operate in the peak hour and one operates mid-day. These shuttles are administered by the employers or Transportation Management Associations (TMA). The employers or TMAs hire a service provider and administer the schedule and customer service elements, while SamTrans provides a partial operating subsidy.

Commuter shuttles provide important first/last-mile access for commuters to jobs from regional transit connections (BART and Caltrain stations). These free shuttles are open to the public, and typically pick up commuters at BART (partially subsidized by SamTrans) or Caltrain (partially subsidized by Caltrain) stations in the morning and drop them off at or in the vicinity of their employer (trips are reversed in the evening).

SamTrans also allows limited use of its shuttle provider contract to public entities as staff and contract resources permit. These contracted shuttles serve as a cost-saving measure that allows other public entities to use the SamTrans shuttle contract rather than generating and perform their own shuttle service procurement. The public entities generally administer the shuttle schedule and customer service elements, while receiving operating subsidies though non-SamTrans sources.

Caltrain Commuter Shuttles

Caltrain administers an employer shuttle program, which is discussed in the Caltrain SRTP.

SamTrans Community Services and Shuttles

Other community shuttles are provided in San Mateo County by C/CAG and TA grant programs. They provide non-work-based transit options to residents, including lifeline transportation mobility to low-income and senior populations. Depending on the community's needs, these shuttles typically provide midday and weekend service for shopping, medical appointments, dining and other purposes.

Due to the nature of the service they provide, ridership tends to be low. They are, however, important community assets as they provide mobility to populations without access to automobiles and reduce the need for automobile use among populations with access to cars.

In FY20, SamTrans will be launching a Shuttle Study to look at the network of shuttles across the County, to identify gaps in coverage but also to analyze the current service model to identify opportunities for improved service delivery.

1.6 Fare Structure

1.6.1 Fixed-route Bus Fares

Table 2 shows the current fares for SamTrans fixed-route bus service.

Table 2. Fares for SamTrans Fixed-route Bus Service

	Local & into San Francisco				Out of SF		
	Cash	Clipper	Day Pass	Monthly Pass	Cash	Clipper	Monthly Pass
Adult (Age 19-64)	$2.25	$2.05	$5.50	$65.60	$4.00	$3.60	$96.00
Youth (Age 18 & younger)	$1.10	$1.00	$2.75	$27.00	$1.10	$1.00	$27.00
Eligible Discount (Senior/Disabled/Medicare cardholder)	$1.10	$1.00	$2.75	$27.00	$1.10	$1.00	$27.00

SamTrans Fare Policy

In 2019, the Board of Directors adopted the first-ever SamTrans Fare Policy. Based on findings from the 2018 SamTrans Fare Study, the policy is intended to help staff administer fares and manage the fare change process. Future fare changes will be carried out in a manner that is consistent with the Fare Policy and the SamTrans' strategic goals.

The policy focuses on ridership, cost recovery, customer experience, administration and promotional strategy. This includes more specific goals such as encouraging ridership growth by keeping SamTrans affordable and simple to use, fare changes being transparently and rationally justified, and allowing the agency to provide incentives to attract particular markets.

Staff intend to use the SamTrans Fare Policy to evaluate a $0.25 adult base fare increase, originally scheduled to take effect in 2019 but postponed indefinitely by the Board at the December 2018 meeting. A proposal to bring the District's current fare structure into compliance with the SamTrans Fare Policy will be presented to the Board and the public in Summer 2019, following public outreach and analysis as may be required by relevant laws and regulations.

For more information about the SamTrans Fare Study, see **Section 2.4.8**.

1.6.2 Paratransit Fares

The regular ADA paratransit fare is $4.25. The cost for those who qualify for lifeline fare assistance is $1.75. People who receive Supplemental Security Income, General Assistance, or Medi-Cal may be eligible for Lifeline, the fare assistance program.

1.6.3 Shuttle Fares

As the shuttle services are subsidized by employers and agencies, the users do not pay a fare.

1.6.4 Inter-operator Transfer Arrangements and Fares

The San Mateo County Transit District, under SB602 revenue sharing agreements, accepts the following Bay Area public transit agencies' valid fare documents on any SamTrans fixed-route service as indicated:

- Caltrain Monthly Pass, two or more zones = Local Fare Credit
- DB (Dumbarton Express) 31-day Ticket = Local Fare Credit within two hours of tagging Clipper on home system
- VTA Monthly Pass = Local Fare Credit within two hours of tagging Clipper on home system.
- AC Transit 31-day Ticket = Local Fare Credit within two hours of tagging Clipper on home system

As part of the SamTrans Fare Study and Express Bus Study, staff are currently examining various arrangements for inter-operator transfers on future SamTrans express buses.

There are no formal transfer arrangements with BART, Golden Gate, or Muni for SamTrans fixed-route services. SamTrans paratransit services meet similar services from other counties but there are no transfer arrangements or fare agreements currently in place.

1.7 Revenue Fleet

Table 3 identifies the revenue vehicle type and their associated service as of December 2018. SamTrans currently owns a total fleet of 421 vehicles, including vehicles provided to MV Transportation for contract service.

Table 3. Vehicle Types and Services

Vehicle Type	Number of Vehicles	Service Type
Articulated Bus	55	Fixed-route
Standard Bus	247	Fixed-route
Dumbarton Express	16	Fixed-route
Cut-away Bus	46	Demand-Responsive
Minivan	24	Demand-Responsive
Standard Bus	10	Marketing, Disaster Recovery, and Contingency
Total: 398		

SamTrans maintains a reserve fleet of 12 standard buses that are used for marketing, disaster recovery, and other contingencies. These vehicles are not used for daily fixed-route service. In addition, SamTrans provides 16 vehicles to MV transit to operate the Dumbarton Express. For more information on the operating agreement for the Dumbarton Express see **Section 1.3.4.**

The Cutaway vehicles are used for Redi-Wheels, SamCoast, and Coastside services and the minivans are only used for Redi-Wheels services. **Table 23** in **Chapter 5** provides a detailed inventory of the revenue fleet.

1.8 Description of Existing Facilities

1.8.1 Administrative Facility

The District's headquarters (referred to as Central) are in San Carlos within one block El Camino Real and the San Carlos Caltrain Station. Central is a 125,000 square-foot building with a 100,000 square foot parking structure built in 1979 and acquired by the District in 1990. There are 74 non-revenue support vehicles stationed at Central. SamTrans' non-revenue vehicles consist of pool cars, road supervisor's cars, maintenance trucks, and specialty vehicles, such as money-collection and ticket vending machine (TVM) trucks.

1.8.2 Maintenance, Fueling, and Vehicle Storage Facilities

Bus transportation operations are based out of five different locations:

- South San Francisco (North Base)
- San Carlos (South Base)
- Redwood City (Redi-Wheels and Contracted Urban Bus)
- San Francisco (contractor facility)
- Half Moon Bay (contractor facility)

The South San Francisco facility, known as North Base, opened in 1988 and is located on a 27-acre site adjacent to Highways 101 and 380. North Base is designed to house 200 buses and serves as a primary heavy- maintenance and bus-wash facility. North Base has the same basic facilities as South Base, as well as an operator training facility, paint booth, body shop, service-support shop, chassis and brake dynamometer, and two bays for service support vehicles.

The San Carlos facility, also known as South Base, opened in 1984. It is a 13- acre site located east of US-101, off Redwood Shores Parkway. South Base is designed to house 150 standard buses and contains administration, fueling and service buildings, a tire shop, a bus wash facility, and 14 maintenance bays.

Finally, the SamTrans-owned 3,000 square foot Brewster Depot in Redwood City, built in 1940, is currently used by

MV Transportation and First Transit for storage and dispatching. There are no SamTrans-owned service support vehicles stored at Brewster. MV Transportation vehicles also are stored at their Half Moon Bay and San Francisco bases.

1.8.3 Park and Ride Lots

Table 4 identifies cities, locations, owner, parking capacity, bicycle parking, and age of the seven park and ride facilities which SamTrans currently serves and/or operates.

Table 4. Park and Ride Lots

City	Location / SamTrans Service (Yes/No)	Owner	Parking Capacity / Bicycle Parking Capacity	Notes
Brisbane	Old Bayshore Rd/ Tunnel Rd (Yes)	Union Pacific	50 spaces	Leased by Brisbane
Daly City	Colma BART Station (Yes)	SamTrans	802 spaces	Potential redevelopment
Redwood City	Redwood City Caltrain Station (Yes)	SamTrans	315 spaces 18 bike racks and 50 lockers	Partially leased to City for employee parking
Pacifica	Route 1/Linda Mar Blvd (Yes)	Caltrans	178 spaces no dedicated bike parking	Leased by SamTrans
Pacifica	Route 1/Crespi Drive (Yes)	Caltrans	83 spaces 10 bicycles	Leased by Pacifica
San Mateo	Southwest corner of 101 & 92 (Yes)	Caltrans	145 spaces 10 bicycles	SamTrans maintains via encroachment permit

1.8.4 Bus Stops & Shelters

SamTrans maintains 2,717 bus stops. Steel or anodized aluminum and glass passenger shelters are provided at 191 bus stops in the County (53 District-owned shelters and 138 ad shelters owned by Outfront Media). Ad shelters consist of three walls, solar lighting, benches, trash cans, and a system route map. In FY 2019, the ad shelters generated approximately $41,000 in monthly revenue.

By contrast, the SamTrans-owned shelters are more than 30 years old. These shelters have three walls plus front panels, benches, and trash cans, but no lighting. Shelters are cleaned, and the trash receptacles emptied

twice per week. SamTrans recently purchased new amenities with Prop 1B's Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) for Bus Stop Improvements in Communities of Concern. SamTrans is in the process of installing 80 new benches and 80 trash cans in these communities and should complete the project in March 2019.

Shelters are primarily located at or near transfer points, shopping centers, schools, hospitals, Caltrain stations, and park and ride lots. The criteria for stop amenities are approximately 250 daily boardings for a shelter and 100 to 125 daily boardings for a bench. There are 228 free standing benches system wide and 179 trash receptacles. There are nine simme-seats attached to poles, mostly in South San Francisco, where sidewalk widths do not allow for standard benches because of ADA required clearances.

1.8.5 Right-of-way, Track, or Guideway

SamTrans owns the Dumbarton rail line and bridge. SamTrans conducted the Dumbarton Transportation Corridor Study (DTCS) to explore short- and long-term improvements for transit service and traffic operations on the Dumbarton Corridor, which includes a railway and highway bridge. The SamTrans Board of Directors adopted a final draft of the DTCS in December of 2017. The study evaluated a wide range of transportation alternatives and recommends operations and infrastructure improvements that would be phased in over time on the Dumbarton Rail Bridge, the highway bridge and its approaches. As a result of outreach efforts, a bicycle/pedestrian multi-use path in the Dumbarton rail right-of-way from Redwood City to East Palo Alto was assessed in subsequent technical refinement analysis.

For more information on the DTCS, see **Section 1.3.4**.

1.8.6 Transit-Oriented Development

SamTrans is developing two transit-oriented development (TOD) projects, described below.

San Carlos TOD

A total of 202 new residential rental units will be constructed on approximately 6.2 acres located just north and south of the existing San Carlos Historic Depot. The project will include 25,800 square feet of new commercial space. To accommodate development, SamTrans relocated the Caltrain parking lot through the construction of a new multi-modal transit center on property located to the south of the development. To date about half of the residential units have been constructed and leased. The entire project should be completed by the first quarter of 2020.

Daly City TOD

SamTrans plans to redevelop the Colma Park and Ride lot, located next to the Colma BART Station in Daly City, as a transit- oriented residential development with 500 residential units, including 75 units of Very Low-Income and Low-Income affordable housing. The original purchase of the site was funded by the Federal Highway Administration. The agency is currently working with FHWA to receive approval for the use change.

1.8.7 Bicycle Facilities and Bike Share

All SamTrans buses are equipped with bicycle racks, which hold two bicycles, except for the 60-foot NABI articulated buses which hold up to three bicycles. Two additional bicycles are allowed inside the bus, depending on passenger loads. Only single rider, non-motorized two-wheel bicycles are permitted.

Riders must be able to load and unload their bikes without help from the bus operator. All SamTrans coaches are being retrofitted with new racks that hold three bicycles.

2 Vision, Guiding Principles, and Performance Metrics

SamTrans has long provided a transit system that addresses the mobility needs of San Mateo County. As those needs change, SamTrans shifts its resources to testing new and innovative transit service concepts to serve them. At the same time, SamTrans is continually evaluating its core services to ensure that it can adequately serve the needs of its current riders.

Fiscal stability is also paramount. SamTrans has many existing commitments: federal paratransit requirements, debt service, and financial partnerships with other agencies such as Caltrain. Therefore, all decisions are made in the context of what can be accomplished with available resources.

In November of 2018, San Mateo County voters approved Measure W, which authorized a half-cent sales tax to create approximately $80 million per year in new revenue. Half the proceeds from this measure will be invested in public transit to maintain and enhance bus, paratransit, rail and other services. This new revenue source is expected to change the agency's outlook on its services and will fund new improvements to enhance mobility and relieve traffic congestion throughout the County.

2.1 Vision and Guiding Principles

SamTrans' current vision, guiding principles and performance measures are established by three documents:

- SamTrans 2015-2019 Strategic Plan
- SamTrans Business Plan (2018)
- SamTrans Service Plan (2013)

These documents are described in more detail in the sections below.

Additional performance measures include those submitted to the National Transit Database (NTD) and those identified in the MTC Transit Sustainability Project.

2.1.1 Strategic Plan

The SamTrans Strategic Plan (2015-2019) serves as the policy foundation from which investment and service decisions are made. To this end, it provides the agency's vision statement:

> *The District is a mobility leader, providing transportation choices and a sustainable future that meets the needs of our diverse communities.*

All subsequent policies and plans, such as the SamTrans Fare Policy and the SSP, follow from the Strategic Plan.

Three priority areas were established in the Strategic Plan to address both external (community) and internal (organizational) needs. The priority areas are to expand mobility options for customers, strengthen fiscal health, and become a more effective organization.

Following from these, SamTrans established five goals for 2015 through 2019:

- Increase weekday fixed-route ridership by 15 percent
- Increase fixed-route farebox revenue by 20 percent
- Reduce debt service by $1.5 million annually
- Improve organizational performance
- Manage workforce change

SamTrans continues to integrate the goals into daily actions within specific departments, guided by input provided by inter-departmental working groups focused on the three Strategic Plan priority areas.

2.1.2 Business Plan

The 2018 SamTrans Business Plan builds upon policy direction from the Strategic Plan by adapting its guidance to reflect ongoing trends of declining bus ridership, rapidly shrinking financial reserves, and revenues that are growing more slowly than expenditures.

The SamTrans Business Plan was created in response to the need for adaptation considering a changing mobility marketplace and concerns about financial stability. It builds upon SamTrans' vision as the County's mobility manager. The plan identifies three core principles of focus for the next 5 to 10 years: Sustaining and enhancing services for the transit-dependent; expanding and innovating mobility services; and promoting programs that relieve traffic congestion. Following from the core principles, the Plan identifies 16 initiatives that are in various stages of implementation or planning. These are:

Sustain and enhance services for the transit dependent

1. Implementation of the 2018 Mobility Plan for Older Adults and People with Disabilities
2. Implementation of 2017 Youth Mobility Plan
3. Pilot Way2Go Pass for Colleges
4. Bus Stop Study and Improvements

Expand and innovate mobility services

1. UC Davis ITS Partnership
2. Mobile Ticketing and Trip Planning Smartphone Application
3. Modernize SamTrans Website
4. Matching Funds to Electrify Fleet and Upgrade Infrastructure
5. Wi-Fi on Buses
6. Transportation Networking Company (TNC) Service Delivery Pilot
7. Microtransit Pilot

Promote programs that relieve traffic congestion

1. Express Bus Services Pilot
2. Implement 2018 Coastside Study
3. Route ECR Rapid Service Expansion
4. Matching/Seed Money for Near-Term Improvements from Dumbarton Corridor Study
5. Countywide Shuttle Study

The Business Plan is rooted in prior planning efforts and documents, especially the 2015-2019 Strategic Plan. The Business Plan addresses Priority 1 of the 2015-2019 Strategic Plan (expand mobility options for

customers) and affirms the role of SamTrans as San Mateo County's mobility manager by identifying specific initiatives.

2.1.3 SamTrans Service Plan

Adopted by the SamTrans Board of Directors in 2013, and fully implemented by staff in 2014, the SamTrans Service Plan (SSP) was a comprehensive operational analysis which recommended extensive network modifications and improvements. Generally, these changes focused on removing duplicative routes and improving service in core transit markets, with the goal of improving system-wide cost effectiveness.

After implementation, ridership increased through 2015. Since then, ridership has declined to pre-2015 levels. SamTrans is currently planning for a new comprehensive operational analysis and major service overhaul to be launched sometime in 2020.

2.2 Performance Measures

The primary metric for monitoring existing service is Average Weekday Ridership (AWR) per Vehicle Service Hour (VSH), for which the current standard (for fixed-route bus service) is 15 AWR/VSH. Routes with this level of performance or lower are analyzed to determine whether current service is appropriately scaled (frequency, routing, daily hours and days of the week) and whether modifications should be considered. This level of performance can be acceptable for routes which provide coverage for isolated areas and/or service to transit-dependent customers.

In addition to AWR/VSH, SamTrans uses other standards in evaluating service, shown in **Table 5.**

Table 5. Performance Standards for Fixed-Route and Paratransit Services

Standard	Performance Threshold
Fixed-Route	
Complaints per 100,000 riders	20 complaints
Miles between preventable accidents	105,000 miles
On-time performance	85%
Passengers per revenue hour	15
Miles between service calls	20,000 miles
Paratransit	
Complaints per 1,000 riders	2.5 to 2.9 complaints
Miles between preventable accidents	70,000 to 74,999 miles
On-time performance	90%
Incoming call wait time	1 to 1.5 minutes
Passengers per revenue hour	1.70 to 1.74 passengers
Miles between service calls	20,000 miles

2.3 MTC Transit Sustainability Project (TSP)

MTC initiated the TSP in 2010 to assist the Bay Area's largest transit operators, which includes SamTrans, plan for projected deficits in capital and operational funding. The TSP requires that operators make a five percent reduction in either cost per service hour, cost per passenger, or cost per

passenger mile by FY 2017, and maintain those reductions thereafter with no subsequent increases beyond the Consumer Price Index (CPI).

In FY 2017, SamTrans met its fixed-route cost per passenger goal. Although paratransit service did not meet any performance goals individually, SamTrans continues to meet the cost per passenger goals in the aggregate (fixed route and paratransit service combined). Pursuant to MTC Resolution 4184, this achievement will represent SamTrans' Productivity Improvement Project (PIP) for the purposes of claiming State Transit Assistance (STA) and Transportation Development Act (TDA) funds.

TSP performance measures for fixed route service are shown in **Table 6**. Paratransit is shown in **Table 7**.

Table 6. Fixed-route TSP Performance

Measure	Target	FY 2016	FY 2017
Cost per Service Hour	$219.97	$184.02	$148.30
Cost per Passenger	$6.77	$7.54	$7.91
Cost per Passenger Mile	$1.45	$1.61	$1.88

Table 7. Paratransit TSP Performance

Measure	Target	FY 2016	FY 2017
Cost per Service Hour	$69.22	$71.16	$85.67
Cost per Passenger	$41.39	$40.56	$45.02
Cost per Passenger Mile	$4.75	$4.22	$4.93

2.4 Fixed Route Service Strategies

This section adopts and builds upon the list of fixed-route service strategies to improve performance listed in the MTC TSP update. It has been updated since the most recent TSP submission to include new activities that are in various stages of planning or implementation.

2.4.1 SamTrans Mobile App

SamTrans launched a mobile ticketing and trip planning application (app) in September 2018. The app allows customers with a smartphone to buy and use bus fares instantly, as well as buy multiple tickets at once for groups. The app also features trip planning functionality as well as real time bus arrival prediction times.

2.4.2 Route Modifications & Implementation of SamTrans Service Plan

At the time of implementation, the SSP increased the number of fixed routes from 49 to 73; heavily modified or eliminated underperforming routes; and adjusted service frequencies, spans, and days of operation. Concurrently, SamTrans launched a comprehensive marketing campaign directed at "choice" passengers who value the cost savings and environmental benefits of public transit.

In the years after implementation, ridership increased at a rate that exceeded the national average. Ridership has since declined back to pre-2015 levels and continues a downward trend. This can be attributed to factors such as the increasing affordability of automobiles, low gas prices, disruption from micro-mobility and transportation networking companies (TNCs), private shuttles, and others.

2.4.3 Reimagine SamTrans (Comprehensive Operational Analysis)

In response to several years of declining ridership, increasing costs, operator hiring/retention difficulties, and the disruption of the public transit industry from innovations in the private sector, SamTrans is preparing to embark on a Comprehensive Operational Analysis (COA) known as *Reimagine SamTrans*. SamTrans is in a unique position to respond to the ridership decline challenges and mobility opportunities because new funding provided by Measure W. The COA will seek to understand specific demographic trends in San Mateo County, identify rider and non-rider markets, understand how SamTrans service operates, identify constraints and tradeoffs, and define a policy service framework with new performance measures. The project will conclude in a recommended route redesign that could include vehicle right-sizing with the 2022/23 bus replacement and an expansion of microtransit or technology-enabled services in lower density communities to replace unproductive bus service. The study may also recommend updated route classifications and performance metrics for not only traditional fixed route services, but also for non-traditional modes or services. The 18-month long project is currently in the planning stages and is tentatively expected to launch mid-2019 with recommendations implemented by 2021.

2.4.4 Grand Boulevard Initiative (GBI)

Since 2006, SamTrans staff have coordinated GBI, a regional effort to promote the revitalization of El Camino Real by encouraging land use and transportation planning that is conducive to public transit service and transit-oriented development (TOD). A long-term approach to building ridership, corridors with transit-supportive land use and infrastructure are expected to grow transit use as people seek out these housing, employment, shopping, and entertainment opportunities along the 43-mile El Camino Real. Key milestones in the GBI program to date include:

- Adoption of the GBI Vision and 10 Guiding Principles.
- Securing of $9.1 million in discretionary grants and $2.5 million in local matching funds to support projects and plans in the Corridor.
- Implementation of a public outreach program with a GBI Message Platform to educate cities, stakeholders, and the public regarding the vision and efforts of GBI.
- Enhancements to the GBI website, with a website upgrade completed by FY 2017.
- Foster support for city-approved higher density development along the Corridor, including 35 Grand Boulevard Initiative Award-winning plans, public improvements, and buildings.
- Participated on an advisory committee to Caltrans in its approving more flexible regulations for highways that are urban arterials.
- Programmed funding for final design and construction of a model streetscape segment on El Camino Real in South San Francisco.
- Supported development of a housing toolkit to support cities in addressing housing affordability in the Corridor.
- Initiate a Transportation Demand Management Resource Guide.
- In partnership with Caltrans, hosted “Partner Session” events to inform the public and city staff about GBI and Caltrans’ multimodal design flexibility.

Efforts are underway to define a future course for the GBI effort which could include a transit bottleneck study, among others.

2.4.5 Part-Time Operators

SamTrans leverages part-time operators to achieve fixed-route cost savings to the extent allowable under existing collective bargaining agreements. With the advent of express bus service and the increasing demand for school-related transportation, the need for the flexibility of part-time work may increase in the near future.

2.4.6 Contracted Labor Agreements

In January 2013, SamTrans staff executed a new contract with MV to provide Contracted Urban Bus (CUB) service. This agreement consists of a four-year base contract with the provision for up to six one-year extensions, possibly taking the contract until 2022.

The combined Coastside Services contract was executed in November 2012, consisting of a five-year base contract with the provision for up to two multi-year term extensions, also possibly taking the contract to 2022.

The Redi-Wheels Service contract was executed in 2015 and includes a five-year base contract with up to five one-year extensions, possibly taking the contract to 2025.

Starting in late 2017, as the economy continued to grow, operator retention and hiring became a challenge. This was especially prevalent in the contracted services where wages and benefits are typically lower.

2.4.7 Operational Efficiencies, Including Fuel Efficiency

SamTrans staff recently implemented an in-field operator relief program which has reduced deadhead miles, resulting in a more efficient fleet deployment from each bus yard. SamTrans staff continued to replace all diesel cutaways with gasoline powered cutaways as they go through their replacement cycles.

2.4.8 Zero-Emissions Bus Implementation

SamTrans has begun to proceed with investments in zero-emissions bus technology to advance California's climate change and energy policy goals. In 2018, SamTrans received the first two of the ten pilot electric buses from Proterra. The remaining eight are expected for delivery in early 2020. SamTrans facilities staff are working on the charging infrastructure for the ten pilot buses at the North Base Facility. The first electric buses will be put into revenue service by mid-2019.

The District anticipates that electric vehicles will result in less maintenance costs, and so electrifying the entire SamTrans fleet could yield lower operational and maintenance costs in the long term. However, it is also possible that the unit cost of electricity could outweigh those savings over time. Therefore, it will be critical for SamTrans staff to identify an affordable source of energy to capitalize on electric buses' cost-saving potential. The District will also be working on an energy planning study to identify and evaluate energy sources and cost, procurement, generation and storage opportunities.

SamTrans is preparing a Zero Emissions Bus implementation plan per the mandate from the California Air Resource Board's Innovative Clean Transit program that will be due to the State by June 2020. The plan will reflect the District's commitment to beat the State of California Zero-Emissions Bus mandate by seven years and achieve zero-emissions status by 2033. The plan assumes full zero-emission bus replacement at every bus replacement cycle with associated facility infrastructure and charging equipment.

In, FY 2019 SamTrans received a $15 million grant award from the California Transit and Intercity Rail Capital Program (TIRCP), which is funded in part by Senate Bill 1 (SB1) gas tax revenues. The TIRCP grant will assist in funding the procurement of more electric vehicles to operate four new Express Bus routes on US 101. These routes are currently being developed as part of the US 101 Express Bus Feasibility Study and are expected to be fully implemented by FY 2023. To learn more about the Express Bus Feasibility Study and implementation plan, please see **Section 2.4.14.**

2.4.9 SamTrans Fare Policy Study

The 2015–2019 SamTrans Strategic Plan called for a comprehensive fare analysis subsequent to a fare increase in 2016. To respond to the recommendations of the Strategic Plan, District staff initiated the SamTrans Fare Policy Study in late 2017.

The primary goal of the study was to develop and propose a SamTrans fare policy, based on study results and staff input. The secondary goal is to recommend fare changes that will balance revenue and ridership; be transparent, logical, and data driven; and be simple to understand, administer, and justify. In April 2018, as a part of the Fare Study, staff conducted an intercept survey onboard 11 routes to solicit passenger feedback about District fare products and passengers' sensitivity to price changes. The survey used a “stated preference” method where respondents are asked how their trip-making on SamTrans would fluctuate given an increase in fares. This approach reveals an individual’s sensitivity to price (also known as elasticity of demand) and facilitates the creation of a model that can estimate the ridership and revenue impacts of fare changes. The survey provides staff with an overview of respondents’ travel behavior, travel preferences, and demographics. Based on the study results, staff estimated the overall ridership elasticity to be -0.13, meaning that for every 10% increase in cost, ridership may decrease by 1.3%. Elasticity is not uniform across demographic groups, meaning that fare changes may have a greater impact on ridership of some groups of riders than others.

Concurrently, the Fare Study project management team convened a staff working group composed of a broader set of District staff stakeholders. The group discussed opportunities to simplify and improve the existing fare structure and provided feedback on the draft Fare Policy.

SamTrans staff are currently conducting a holistic review the Codified Tariff (a legal document that describes all fare products and prices offered by SamTrans) and will recommend fare changes to bring SamTrans’ fare structure into alignment with the policy by Summer 2019. Changes are expected to be minor in nature and intend to simplify the fare structure and make it more affordable to transfer between SamTrans buses.

2.4.10 Clipper Card Usage

Approximately 46% of SamTrans fares are paid with the Clipper card, according to the 2018 Triennial Survey. There is a steadily growing percentage of Clipper card usage throughout the SamTrans system. Because the card aides in reducing dwell time at stops, getting more people to use it can result in reduced operating cost and improved efficiency. Promoting Clipper on SamTrans is supported by the Fare Policy, and staff are continually engaged in marketing efforts to increase customer adoption.

However, the fact remains that it is challenging to get a Clipper card in San Mateo County. For instance, they can only be found at Walgreens stores and the SamTrans headquarters in San Carlos. This is a problem for Coastside residents, where there are no Walgreens. Although passengers can get one

online, cards that require age verification (youth, senior) must be done in-person which means Coastside residents must also travel a long distance.

Efforts are being undertaken by Caltrain to bring Clipper to station ticket vending machines, which will improve Clipper access for San Mateo County transit riders. Additionally, SamTrans is participating in the Clipper 2.0 effort being led by MTC.

2.4.11 Youth Mobility Plan

SamTrans created the Youth Mobility Plan to identify various methods to attract more youth from middle schools, high schools, and colleges to fixed-route bus services and cultivate the next generation of SamTrans riders. The intent is to grow ridership for school, after-school, weekend and summer travel needs. The study identified 14 youth mobility initiatives in the categories of organizational improvements, fare policies and products, marketing and technology, and bus operational improvements. The final plan, adopted by the SamTrans Board of Directors in August 2017, recommended the following eight initiatives for near-term implementation. Current status indicated where applicable.

- Create a Youth Mobility Coordinator Position – *implemented in 2017.*
- Integrate Youth Sensitivity Training into Existing Bus Driver Training
- Launch a Pilot Expansion of the Way2Go Program to Include Colleges – *program currently in planning stages.*
- Increase Social Media Engagement with Youth and Parents
- Enable Purchase of Youth Fares on Mobile Ticketing App – *implemented in 2018.*Launch a Clipper Card Awareness Program
- Increase Visibility of School-Related Route On-time Performance

Additionally, staff is working to enable purchase of the SamTrans Summer Youth Pass on the Mobile Ticketing App for summer 2019. The American Public Transportation Association (APTA) awarded the District first place in its 2019 AdWheel Awards competition for its outreach efforts on the “Plug into SamTrans” campaign promoting the introduction of electric bus service.

2.4.12 El Camino Real Bus Rapid Transit & ECR Rapid

In 2014, SamTrans published the El Camino Corridor Bus Rapid Transit (BRT) Phasing Study, which recommended a phased approach to future BRT service starting with a rapid variant of the ECR overlaid on existing ECR Local service. This Rapid concept would serve 36 stops (the ECR Local has more than 100 stops in each direction) between Daly City and Palo Alto in order to improve overall runtime.

In June 2018, SamTrans implemented a pilot ECR Rapid bus service (Rapid) that overlays on the existing ECR route. The Rapid was based on the BRT Study concept, with some variations. In order to implement the Rapid and remain cost-neutral, the ECR Local service was reduced from 15-minute headways to 20-minutes (Weekdays) and from 20 to 30-minutes (Weekends). Additionally, the Rapid initially served only 12 stops in each direction between Daly City and Redwood City; new stops were added in January 2019 and now the Rapid serves 20 stops in each direction.

As a pilot and new service concept for SamTrans, staff are closely monitoring the route's performance and implementing necessary adjustments to ensure its success. In spring 2019, staff will review the performance data and customer feedback to propose any further applicable recommendations for the service.

2.4.13 Route SFO

In June 2018, SamTrans implemented Route SFO, which provides a direct connection between the Millbrae Intermodal Station and San Francisco International Airport (SFO), including Courtyard A, Terminal 2, Terminal 3, and International Courtyard G. The route is designed as the "Caltrain Connection" and is scheduled to connect with Caltrain at Millbrae. Operating daily with two to three trips per hour, the service utilizes vehicles with additional luggage racks and distinctive exterior branding. SamTrans expects that this route will provide travelers with a cost-effective and efficient alternative to BART.

2.4.14 US 101 Express Bus Feasibility Study

The US-101 Express Bus Feasibility Study outlines the agency's plan to use express buses to improve mobility options for long-haul trips in San Mateo County as well as neighboring counties of San Francisco and Santa Clara. The study, which was adopted by the SamTrans Board of Directors in December 2018, began with 15 potential routes that were narrowed to the six top-performing recommendations that will be phased in over the next few years. The first two routes recommended by the study would run between Foster City and downtown San Francisco and between Palo Alto and the west side of San Francisco via Daly City with both routes welcoming passengers in both directions.

The Study recommends phasing in the express bus service. The first two routes are recommended to launch in FY20, with the first launching as early as August 2019. Two of the remaining four routes are recommended to launch in 2022 to complement the opening of the planned US-101 Managed Lanes Project, with the remainder being implemented in 2023 or sooner.

The first route recommended to launch is the Foster City to/from San Francisco Express route. This route was identified though the study as being one of the most promising in terms of potential ridership, especially because of the route's bi-directional market opportunities. Staff is working on a marketing and communications plan that will highlight the new service and is working on building relationships with the Foster City business community to help market the service once launched.

2.4.15 Pacifica Microtransit Pilot (SamTrans On-Demand)

The SamTrans Business Plan identified microtransit as a key initiative for the District to undertake in the near-term. Many transit agencies are exploring microtransit pilots as an alternative service delivery model in low density areas. SamTrans' microtransit pilot will launch in a five square mile area roughly centered on the Linda Mar Park & Ride in Pacifica. The microtransit pilot will replace the existing FLX-P route which is a one-way loop offering deviations of up to ½ mile off route if the deviation is requested one day in advance. When the pilot launches, the scheduled service will be replaced with a fully on-demand, curb to curb service. SamTrans OnDemand service will use an app to route transit vehicles to a requested pick-up and drop off location, and will include a call-in number for riders who do not have access to a smartphone. Once a trip is requested, the passenger is given an estimated pick up time. Service is expected to begin in by late spring or early summer of 2019, with the pilot evaluation to occur by the end of 2019.

2.5 FY 2017 TSP Paratransit Service Strategies

This section adopts and builds upon the list of paratransit service strategies to improve performance listed in the MTC TSP update. It has been updated since the most recent TSP submission to include new activities that are in various stages of planning or implementation.

2.5.1 Fixed-Route Travel Training

SamTrans has provided travel training for over 20 years, currently through contracts with three service providers. Travel training is provided at no cost and uses one-on-one instruction on how to use the SamTrans' fixed-route services. Interested people sign up for travel training at their ADA Certification interview. Additionally, SamTrans offers a Mobility Ambassador program and a Veterans volunteer program that provides group and one-on-one training for people who are not eligible for or interested in paratransit services. This mobility program has been expanded in 2015 with the Veterans MobilityCorps, a volunteer Vet-to-Vet program that provides group and one-on-one training to veterans.

2.5.2 ADA Paratransit Certification Process

Since 2004, SamTrans has utilized a paratransit eligibility contractor to conduct in-person eligibility evaluations. The contract with this provider expires in 2020.

2.5.3 Conditional Eligibility

Conditional eligibility means that paratransit service is only provided for some types of conditions that inhibit the passenger's ability to use fixe route services. For example, travelling on very hot days, or to unfamiliar locations can warrant conditional eligibility. For over 17 years the District has held customers accountable to their conditional eligibility status. The District is currently gathering additional information at the time of initial eligibility screening on customer origins and destinations and conditions to increase the number of conditionally eligible customers. During FY 2018, 20 percent of applicants were given some type of conditional eligibility.

2.5.4 Free Ride Policy

SamTrans continues to offer a ride free on SamTrans policy to encourage paratransit riders to use fixed route service whenever possible. Under the free ride policy, Redi-Wheels/RediCoast customers can ride free on SamTrans fixed-route buses by showing their valid paratransit identification cards. The loss of fare revenue would be offset by paratransit operating costs, which are substantially higher per passenger, service hour, and mile than fixed-route service. Staff is working to update paratransit identification cards to include a magnetic strip which, when used on a bus farebox, will provide SamTrans with valuable program utilization data. The transition to magnetic stripe passes should be complete by late 2019.

2.5.5 No-shows and Late Cancellations

In an effort to reduce paratransit no-shows and late cancelations that increase operating costs, SamTrans has implemented a program that notifies customers whenever they no-show or cancel late and works with them to change their behavior.

In FY 2006, no-shows were approximately three percent of requested trips. In FY 2019, SamTrans continues to see major progress in keeping no-shows at a low level.

2.5.6 Alternative Service Delivery Models

In order to reduce costs, service delivery could be contracted to several independent operators. Currently, taxis are used to supplement the paratransit vehicle fleet, which improves cost-effectiveness by using taxis during low-demand and peak-of-the-peak periods. In FY 2018, taxis provided 32 percent of paratransit trips.

In 2018, SamTrans partnered with UC Davis to conduct an efficiency analysis of SamTrans paratransit service. The objectives of the study were to propose paratransit service modifications that would address the increasing demand for paratransit, the increasing cost of services, and declining revenues.

Reduce Costs

- Align operating policy with ADA requirements spatially or temporally. This could potentially reduce costs by 5% ($700,000).
- Increase pickup window to 30 minutes (currently 20 minutes). This could reduce costs by 2-3% by improving efficiency and reducing the use of taxis.
- Explore technology to improve efficiency and reduce contractor costs. This could include software modules for web booking and real time information.

Increase Revenue

- Consider a premium fare for trips outside of the ¾ -mile ADA requirement. This could increase fare revenue by 40% ($250,000).
- Increase the base paratransit fare.

Demand Management/Innovative Services

- Improve access to fixed-route services.
- Provide subsidized same-day services, such as the taxi voucher pilot program (discussed further in **Section 3.7.3**) and TNCs.
- Explore increasing the number of wheelchair accessible vehicles. This would potentially be necessary for partnerships with TNCs.
- Incentivize or coordinate volunteer driver programs.
- Potential opportunity to explore bringing in TNCs as a service provider for same day or regular paratransit service. Potential opportunity to do this with the next paratransit operating contract.

2.5.7 Volunteer Drivers

Pending funding availability, SamTrans is looking to support implementation of a volunteer driver program to complement ADA paratransit, run by non-profits, using the driver's own or pool vehicles. SamTrans has partnered with the Peninsula Jewish Community Center to expand the PJCC volunteer driver program. SamTrans will support the program through marketing via the Senior Mobility Guide and the virtual Mobility Management Center which recently launched.

2.5.8 Limit ADA Paratransit Service to Legal Requirements

SamTrans currently provides ADA service beyond the required three-quarter mile distance from fixed route service, which increases operating costs beyond what is required. SamTrans will continue to monitor this opportunity.

2.5.9 Premium Charges for Paratransit Service Beyond the ADA minimum

SamTrans may consider charging a higher fare for paratransit service that goes beyond the minimum required distance (three-fourth of a mile from fixed-route service) required by ADA in order to discourage these trips. SamTrans currently charges higher fares for specialized service to adult day agencies which requires a high level of individual service. SamTrans also currently provides ADA paratransit service beyond the fixed-route service hours.

2.5.10 Public-private partnerships

SamTrans is evaluating the potential for partnerships with private transportation network companies (TNCs) to provide paratransit service. This effort will explore the legal, logistical, and policy issues associated with such a partnership.

2.5.11 Monitoring Program

As part of its TSP requirement, SamTrans will continue annual reporting to MTC. Updates will include the latest performance metrics and any policy updates in service of achieving performance goals.

3 Service and System Evaluation

This chapter provides a route-level and system wide evaluation of SamTrans services against the performance metrics described in the previous chapter.

3.1 Fixed-Route Operations

Table 8 shows performance trends for SamTrans fixed-route bus service. The data reflect all regularly operated, standard bus routes from FY 2016 through FY 2018. Since the last SRTP, the ridership decline trend has continued with the system seeing an approximately 10% loss in ridership between 2016 and 2018. Understanding the ridership decline and the demographic changes that are being experienced in San Mateo County will be explored as a part of the *Reimagine SamTrans* effort.

Table 8. Fixed-Route Operations Performance Trends (FY 2016- FY 2018)

Measure	FY2016	FY2017	FY2018	2-Year Net Change
Operating Cost	$104,520,059	$104,963,411	$114,350,328	$5,136,810.50
Annual Change		0.4%	8.9%	4.9%
Fare Revenue	$17,313,304	$16,146,080	$14,854,688	-$1,812,920
Annual Change		-6.7%	-8.0%	-10.5%
Vehicle Revenue Hours[1]	517,180	626,622	630,117	111,190
Annual Change		21.2%	0.6%	21.5%
Vehicle Revenue Miles	6,377,049	6,348,640	6,456,897	25,720
Annual Change		-0.4%	1.7%	0.4%
Passengers	12,801,920	11,824,610	11,133,460	-1,322,885
Annual Change		-7.6%	-5.8%	-10.3%
Operating Cost Per Hour	$202.10	$167.51	$181.47	-$27.61
Annual Change		-17.1%	8.3%	-13.7%
Subsidy per Passenger	$6.81	$7.51	$8.94	$1.41
Annual Change		10.3%	19.0%	20.7%
Passengers per Hour	24.75	18.87	17.67	-6.48
Annual Change		-23.8%	-6.4%	-26.2%
Passengers per Mile	2.01	1.86	1.72	-0.21
Annual Change		-7.2%	-7.4%	-10.7%
Farebox Recovery	16.6%	15.4%	13.0%	-2.4%
Annual Change		-7.1%	-15.6%	-14.4%

[1] In FY2017 the NTD instructed SamTrans to include “layover” and “recovery” time in the Vehicle Revenue Hours. Prior, NTD instructions were to exclude the hours.

Table 9 shows additional performance indicators related to fixed-route transit. Many of these indicators are part of the SSP standards presented in Chapter 2.

Table 9. Fixed-Route Operations Additional Performance Indicators (FY 2016 - FY 2018)

Measure	SSP Performance Threshold	FY2016	FY2017	FY2018	2-Year Net Change
Complaints per 100,000 riders	20	15	13	18	0.5
Annual Change			-13.3%	38.5%	3.3%
Average miles between preventable accidents	105,000	73,995	86,417	77,311	7,869
Annual Change			16.8%	-10.5%	10.6%
On-time Performance (system-wide)	85%	84.4%	82.7%	79.7%	-3.2%
Annual Change			-2.0%	-3.6%	-3.8%
Miles between service calls	20,000	27,620	29,224	25,884	-66
Annual Change			5.8%	-11.4%	-0.2%

3.1.1 Vehicle Service Hours

Between FY 2016 and FY 2017, fixed route operating costs increased by less than one percent (in current dollars), while vehicle service hours increased by 20 percent. This effected a 20 percent decrease in operating cost per hour. The large increase in vehicle service hours relative to cost was due to direction from the National Transit Database (NTD) to expand the definition of vehicle service hour to include recovery time, deadhead, and layover time. These had not been included in prior years. This change was documented in the most recent Triennial TDA audit.

3.1.2 Ridership

SamTrans fixed-route ridership decreased by approximately 10 percent between FY 2016 and FY 2018. Accordingly, subsidy per passenger, passengers per mile, passengers per hour, fare revenue and farebox recovery all decreased in the same period.

There are many theories behind the causes for the ridership decline and transit agencies and researchers continue to attempt to identify root causes. In general, research in Southern California points to the availability of both automobiles and driver's licenses as contributing factors to the ridership decline, especially among immigrant communities which are historic transit riders.[2] For the Bay Area, the increasing cost of living in San Mateo County is driving many low-income and minority families out of the area which are your more typical transit riders. Finally, the rising prevalence of transportation networking companies (TNCs, e.g. Lyft) and micro-mobility (bike share, scooters) is also playing a role in

[2] Manville, Michael, et al. Falling Transit Ridership: California and Southern California. UCLA Institute of Transportation Studies, Jan. 2018, https://www.its.ucla.edu/2018/01/31/new-report-its-scholars-on-the-cause-of-californias-falling-transit-ridership/.

the mode selection of riders. MTC has commissioned a study to understand the specific ridership decline in the Bay Area.

Nevertheless, District staff are continuously engaged in efforts targeted at increasing ridership, including:

- Planning for implementation of a new Express network.
- Implementing Rapid service along the ECR corridor.
- Implementing shuttle service between SFO and the Millbrae BART/Caltrain station.
- Continual service evaluation and incremental improvements.
- Ongoing market research to identify new markets and barriers to using SamTrans.
- Preparing for a new comprehensive operational analysis, to begin in 2019.
- Working with local communities to improve services for youth and seniors.
- Experimenting with new service delivery options, such as Microtransit.
- Identifying low performing routes for potential reallocation of resources to more promising markets.
- Evaluating methods to increase driver recruitment and retention in order to reduce the number of missed runs and improve on-time performance.

3.1.3 Miles between preventable accidents

The two-year net change in miles between preventable accidents has increased slightly over a two-year net, though SamTrans still continues to meet its goal. The calculation is very sensitive because there are only about five or six accidents per month. SamTrans is actively engaged in a two-year safety initiative designed to transform its safety culture. This includes one-on-one "Close Call Clinics," in-house safety videos, posted materials, a safety topic of the month and rule of the week, and safety recognition awards.

3.1.4 Miles between service calls

SamTrans' district miles between service calls continue to remain high, which is indicative of the excellent maintenance program and staff.

3.2 Paratransit Operations

As described in Chapter 1, Redi-Wheels and RediCoast are ADA-compliant, demand-responsive paratransit services for persons with disabilities who cannot independently use SamTrans bus service. ADA regulations require that Redi-Wheels and RediCoast operate during the same hours and serve the same areas as SamTrans fixed-route bus service for their respective parts of the county. SamTrans meets and exceeds both requirements, operating 24-hours in some areas and extending the service area to the whole county (FTA requires service within a three-quarter mile buffer around existing fixed-route service).

Table 10 summarizes the following recent trends in SamTrans paratransit operations performance.

Table 10. Paratransit Operations Performance Trends (FY 2016 – FY 2018)

Measure	FY2016	FY2017	FY2018	2-Year Net Change
Operating Cost	$15,649,240	$18,905,159	$16,835,809	$2,221,244
Annual Change		20.8%	-10.9%	14.2%

Measure	FY2016	FY2017	FY2018	2-Year Net Change
Fare Revenue	$764,727	$894,254	$887,383	$126,091.50
Annual Change		16.9%	-0.8%	16.5%
Revenue Hours	191,695	194,447	187,936	-504
Annual Change		1.4%	-3.3%	-0.3%
Revenue Miles	2,981,879	3,057,391	2,959,214	26424
Annual Change		2.5%	-3.2%	0.9%
Passengers	351,200	361,380	354,680	6,830
Annual Change		2.9%	-1.9%	1.9%
Operating Cost Per Hour	$81.64	$97.23	$89.58	$11.77
Annual Change		19.1%	-7.9%	14.4%
Subsidy per Passenger	$42.38	$49.84	$44.97	$5.02
Annual Change		17.6%	-9.8%	11.8%
Passengers per Mile	0.12	0.12	0.12	No change
Annual Change		No change	No change	No change
Farebox Recovery	4.9%	4.7%	5.3%	0.1%
Annual Change		-3.2%	11.4%	2%

Table 11 shows additional performance indicators related to paratransit. Many of these indicators are part of the SSP standards presented in Chapter 2. SamTrans has met or exceeded these performance thresholds in FY 2016, FY 2017 and FY 2018. Notable trends are discussed in the following sections.

Table 11. Paratransit SSP Performance Indicators (FY 2016 - FY 2018)

Measure	SSP Performance Threshold	FY2016	FY2017	FY2018	2-Year Net Change
Complaints per thousand trips	2.5 to 2.9	0.64	0.41	0.69	-0.09
Annual Change			-35.9%	68.3%	-14.1%
Call Wait Times (minutes)	1 to 1.5	1.3	1	1.4	-0.1
Annual Change			-23.1%	40.0%	-7.7%
Average Miles between Preventable Accidents	70,000 to 74,999	70,450	98,335	63,813	10,624
Annual Change			39.6%	-35.1%	15.1%
On time Performance	90%	91.90%	91.80%	90.30%	-0.8%
Annual Change			-0.1%	-1.6%	-1%
Miles between Service Calls	20,000	55,012	54,211	45,732	-5,040.5
Annual Change			-1.5%	-15.6%	-9.2%
Passengers per Revenue Hour	1.70 to 1.74	1.83	1.86	1.89	0.04
Annual Change			1.4%	1.5%	2.2%

3.2.1 Operating Costs

Paratransit operating costs increased substantially in FY 2017 due to growing demand for services. Recent increases are also due to an escalation in costs for contracted service and insurance. However, in FY 2018 costs decreased by 11 percent, due to a decrease in paratransit ridership. The decrease in paratransit ridership has continued in FY 2019; however, the cost savings is to be determined due to the increased use of taxis.

3.2.2 Passengers

While ridership increased in FY 2017 from FY 2016, it decreased in FY 2018. With the aging baby boomer population, it is expected that ridership will start to increase again.

3.2.3 Fare Revenue

The two-year net increase in revenue can be attributed to the increase in number of passengers and an increase in fares.

3.2.4 Revenue Hours, Miles, and Passengers

Revenue hours and miles have all increased due to the direct relationship with ridership growth. In FY 2018, ridership decreased, leading to subsequent decreases in revenue hours and miles as fewer paratransit trips were dispatched. At the same time, farebox recovery increased as a result of prior fare increases.

3.2.5 Cost per Hour and Subsidy per Passenger

These increases are driven by the increased cost of operating services.

3.2.6 Complaints

Redi-Wheels and RediCoast are responsive to the needs of their customers and exceed the standard of less than 2.5 complaints per one thousand trips.

3.2.7 Incoming Call Wait Time

The two-year net change for call wait times have decreased slightly, demonstrating responsiveness and good customer service.

3.2.8 On-time performance

For paratransit, pick-up within 20 minutes of scheduled time is considered an on-time service. Redi-Wheels and RediCoast on-time performance decreased slightly in FY2018 from 91.8% to 90.3% but still remains above the 90% threshold.

3.2.9 Miles between service calls

Despite the miles decreasing between service calls, this performance metric remains well above the standard of 20,000 miles.

3.3 Shuttle Operations

SamTrans sponsors employer-based shuttle services that serve BART stations. The BART shuttles are primarily funded by employers and the Bay Area Air Quality Management District. All of the shuttles provide a connection between BART and major employment centers and some also extend to Caltrain. All of the shuttles are open to the public with timetables posted on the SamTrans' website.

Table 12 summarizes several trends in SamTrans' shuttle operations performance over the past few years. The Daly City Bayshore and the Weekend Pacifica shuttles moved to the SamTrans contract in FY 2016 (transferred from Caltrain). The Weekend Pacifica ceased operations at the end of FY 2016 and is excluded from FY 2017 and FY 2018 reporting. Notable performance trends are discussed in the following sections.

Table 12. Commuter Shuttle Operations Performance Trends (FY 2016- FY 2018)

Measure	FY2016	FY2017	FY2018	2-Year Net Change
Operating Cost	$1,799,574	$1,782,821	$1,840,763	$12,218
Annual Change		-0.9%	3.3%	0.7%
Grant Subsidy[3]	$166,690	$109,000	$322,950	$49,285
Annual Change		-34.6%	196.3%	29.6%
SamTrans Contribution	$452,610	$195,709	$137,749	-$285,881
Annual Change		-56.8%	-29.6%	-63.2%
Employer Contribution	$1,180,274	$1,478,112	$1,380,064	$248,814
Annual Change		25.2%	-6.6%	21.1%
Revenue Hours	23,326	22,973	22,990	-344.50
Annual Change		-1.5%	0.1%	-1.5%
Revenue Miles	370,441	349,814	338,348	-26,360
Annual Change		-5.6%	-3.3%	-7.1%
Passengers	412,281	401,124	364,053	-29,693
Annual Change		-2.7%	-9.2%	-7.2%
Operating Cost per Hour	$77.15	$77.61	$80.07	$ 1.69
Annual Change		0.6%	3.2%	2.2%
Subsidy per Passenger[4]	$1.50	$0.76	$1.27	-$0.49
Annual Change		-49.4%	66.6%	-32.6%
Passengers per Hour	18	17	16	-1
Annual Change		-1.2%	-9.3%	-5.8%
Passengers per Mile	1	1	1	No change
Annual Change		No change	No change	No change

3.3.1 Decrease in Revenue Hours and Miles

In FY 2018, the shuttle vendor experienced operator shortage for four out of seven routes and caused some intermittent service loss beginning in fall 2017 and continuing through the end of FY 2018. This accounts for a small portion of the revenue mile/hour and ridership loss.

[3] Grant Subsidy includes funding from AB434, administered by C/CAG and San Mateo County Transportation Authority. It does not include employer subsidy, which has its own line item above; BAAQMD TFCA funds distributed in San Mateo County by C/CAG; Financial figures come from adopted budget financial statements for FY 2016 and FY2017 (audited actuals). FY 2018 operating costs based on most available data at the time of Draft SRTP publication, as audited actuals not yet approved by the Board.

[4] Subsidy per passenger includes all public funds directed to the shuttle program

3.3.2 Decrease in Passengers per Hour

Ridership and passengers per hour decreased between FY 16 and FY 18 while passengers per mile remained relatively flat.

3.3.3 Decrease in Subsidy per Passenger

The subsidy per passenger has fluctuated but decreased overall. It is important to note that the grant subsidy from the Transportation Fund for Clean Air (TFCA) varies and is linked with motor vehicle registration fees. Subsidy per passenger calculation for the shuttle program does not include employer subsidies as part of revenue, as they are not public funding. At the end of FY 2016, TFCA reevaluated grant funding for its services, retroactive to FY 2016. Since the services were not meeting TFCA thresholds, this resulted in a sizable reduction in TFCA funds. SamTrans picked up the lost FY 2016 funding. For FY 2017, employers and new Transportation Authority funding replaced the lost TFCA funding.

3.4 Route Analysis

SamTrans monitors route performance monthly and annually. SamTrans gathers data from the new Advanced Communication System (ACS) to monitor on-time performance (OTP) on a daily basis and even hourly on some routes.

Table 13 details the performance of the system for FY 2017 and FY 2018 in terms of average Weekday Riders (AWR) and Vehicle Service Hours (VSH).

Staff analyzed ridership at the route-level to identify how the individual changes have performed so far. **Table 13** features AWR, the change in service levels (i.e., Vehicle Service Hours), and impacts on each route's productivity (AWR/VSH).

Table 13. Route Analysis (FY 2017-FY 2018)

	Average Weekday Ridership (AWR)				Vehicle Service Hours (VSH)				Ratio of AWR:VSH			
Route	FY17	FY18	Diff.	% Change	FY17	FY18	Diff	% Change	FY17	FY18	Diff	% Change
11	5.5	-	-	-	0.5	-	-	-	11.2	-	-	-
14	29.8	24.0	-5.8	-19.5	2.1	1.7	-0.4	-16.9	14.2	13.8	-0.4	-3.2
16	69.5	73.7	4.3	6.1	1.8	1.8	0.0	1.2	39.3	41.2	1.9	4.8
17	420.1	436.7	16.6	3.9	29.3	29.1	-0.2	-0.6	14.4	15.0	0.7	4.6
18	147.7	125.5	-22.2	-15.0	3.2	3.5	0.3	9.1	45.9	35.7	-10.2	-22.2
19	63.2	58.0	-5.2	-8.2	1.1	1.1	0.0	1.2	56.9	51.6	-5.3	-9.3
24	53.0	60.0	7.0	13.2	1.2	1.2	0.0	1.2	45.9	51.3	5.5	11.9
25	44.6	55.1	10.5	23.4	0.5	0.5	0.0	1.6	94.6	115.0	20.4	21.6
28	87.3	88.2	1.0	1.1	1.9	1.9	0.0	1.1	46.2	46.2	0.0	0.0
29	48.2	28.2	-20.0	-41.6	0.8	0.8	0.0	0.9	58.2	33.7	-24.5	-42.1
35	99.2	93.8	-5.3	-5.4	1.7	1.7	0.0	1.1	58.5	54.7	-3.8	-6.4
37	37.7	34.1	-3.7	-9.7	0.7	0.7	0.0	0.9	55.7	49.9	-5.8	-10.5
38	11.0	10.0	-1.0	-9.5	1.7	1.9	0.2	9.1	6.3	5.3	-1.1	-17.0
39	26.6	33.6	7.0	26.4	0.5	0.5	0.0	1.4	57.2	71.3	14.1	24.6
43	5.9	-	-	-	0.5	-	-	-	12.6	-	-	-
46	146.1	153.6	7.5	5.1	1.9	1.9	-0.1	-2.6	75.1	81.0	6.0	8.0
49	15.2	15.1	-0.1	-0.6	1.4	1.4	0.0	1.0	11.0	10.8	-0.2	-1.6
53	148.7	144.6	-4.2	-2.8	1.7	1.7	0.0	1.2	89.8	86.2	-3.5	-3.9
54	131.6	121.0	-10.6	-8.1	1.4	1.4	0.0	1.2	93.4	84.8	-8.6	-9.2
55	30.8	36.0	5.2	16.8	0.6	0.6	0.0	1.4	54.3	62.5	8.2	15.2
56	33.6	39.7	6.1	18.1	0.9	0.8	0.0	-0.3	39.4	46.7	7.3	18.5
57	39.3	57.5	18.2	46.2	0.9	0.9	0.0	1.0	42.2	61.1	18.9	44.8
58	86.0	106.3	20.3	23.6	1.2	1.3	0.0	1.1	69.4	84.8	15.5	22.3
59	105.8	91.0	-14.9	-14.1	1.5	1.4	-0.1	-7.6	68.5	63.8	-4.8	-7.0
60	339.3	350.8	11.5	3.4	5.4	5.3	-0.1	-1.3	63.3	66.3	3.0	4.8
61	149.6	175.0	25.4	17.0	3.4	3.6	0.2	6.1	43.8	48.3	4.5	10.3
62	45.7	54.0	8.3	18.1	1.5	1.1	-0.5	-30.5	29.9	50.7	20.8	69.8

	Average Weekday Ridership (AWR)				Vehicle Service Hours (VSH)				Ratio of AWR:VSH			
Route	FY17	FY18	Diff.	% Change	FY17	FY18	Diff	% Change	FY17	FY18	Diff	% Change
67	356.7	326.8	-29.9	-8.4	3.9	3.9	0.0	1.1	91.7	83.1	-8.6	-9.4
68	223.6	253.1	29.5	13.2	2.3	2.3	0.0	1.2	98.8	110.5	11.7	11.8
72	85.8	78.6	-7.2	-8.4	0.7	0.7	0.0	1.3	127.3	115.1	-12.3	-9.6
73	44.5	36.5	-8.0	-18.0	0.8	0.8	0.0	1.1	59.3	48.1	-11.2	-18.9
78	-	27.4	-	-	-	0.6	-	-	-	42.4	42.4	-
79	86.8	105.4	18.6	21.5	3.4	2.5	-1.0	-28.5	25.2	42.8	17.6	69.8
80	14.6	10.9	-3.7	-25.5	0.3	0.3	0.0	1.1	48.6	35.8	-12.8	-26.4
81	62.1	66.4	4.3	6.9	2.0	2.0	0.0	-1.1	31.1	33.6	2.5	8.1
82	73.8	76.7	3.0	4.0	0.8	0.9	0.1	8.9	94.4	90.1	-4.2	-4.5
83	142.6	128.4	-14.2	-9.9	2.1	2.1	0.0	1.2	68.9	61.3	-7.6	-11.0
84	19.9	19.0	-0.9	-4.7	0.9	0.9	0.0	1.0	21.4	20.2	-1.2	-5.6
85	26.8	22.1	-4.7	-17.7	1.7	1.7	0.0	-2.8	15.4	13.0	-2.4	-15.4
86	61.1	72.5	11.4	18.6	1.8	1.8	-0.1	-3.6	33.2	40.9	7.7	23.0
87	16.5	19.0	2.5	15.4	1.3	1.2	-0.1	-9.3	12.6	16.0	3.4	27.2
88	34.6	23.1	-11.5	-33.3	1.0	1.0	0.0	0.4	36.1	24.0	-12.1	-33.6
89	2.6	-	-	-	0.4	-	-	-	6.7	-	-	-
95	29.5	46.6	17.1	57.8	0.5	0.5	0.0	1.4	63.6	99.0	35.4	55.6
110	937.1	896.6	-40.4	-4.3	32.4	32.0	-0.3	-1.0	29.0	28.0	-1.0	-3.4
112	416.5	420.8	4.3	1.0	19.8	19.8	0.0	0.0	21.0	21.2	0.2	1.0
118	91.2	101.2	9.9	10.9	3.3	4.2	0.9	26.8	27.5	24.1	-3.5	-12.6
120	4609.7	4453.7	-156.0	-3.4	106.6	106.6	-0.1	-0.1	43.2	41.8	-1.4	-3.3
121	1791.5	1653.5	-138.0	-7.7	68.0	67.9	-0.1	-0.2	26.4	24.4	-2.0	-7.5
122	2396.5	2087.2	-309.3	-12.9	90.9	90.9	0.0	0.0	26.4	23.0	-3.4	-12.9
130	1001.9	1607.8	605.9	60.5	50.0	82.6	32.7	65.3	20.0	19.5	-0.6	-2.9
131	1339.4	1266.6	-72.8	-5.4	51.6	51.7	0.1	0.3	26.0	24.5	-1.5	-5.7
133	360.7	335.1	-25.6	-7.1	11.3	11.3	0.0	-0.3	31.8	29.6	-2.2	-6.8
140	625.8	588.2	-37.6	-6.0	40.8	40.6	-0.1	-0.3	15.3	14.5	-0.9	-5.7
141	153.9	269.8	115.9	75.3	10.7	17.0	6.3	59.1	14.4	15.9	1.5	10.2
KX	164.4	192.3	28.0	17.0	11.7	11.7	0.0	0.0	14.0	16.4	2.4	17.0

	Average Weekday Ridership (AWR)				Vehicle Service Hours (VSH)				Ratio of AWR:VSH			
Route	FY17	FY18	Diff.	% Change	FY17	FY18	Diff	% Change	FY17	FY18	Diff	% Change
250	1383.7	1368.3	-15.5	-1.1	50.6	50.6	0.0	0.1	27.3	27.0	-0.3	-1.2
251	106.1	108.9	2.8	2.7	5.4	5.3	-0.2	-2.8	19.5	20.6	1.1	5.7
252	59.7	13.6	-46.1	-77.3	8.4	4.0	-4.3	-52.0	7.1	3.4	-3.8	-52.7
256	165.9	164.1	-1.8	-1.1	7.5	7.5	0.0	0.2	22.1	21.8	-0.3	-1.2
260	491.8	452.4	-39.3	-8.0	33.7	33.8	0.0	0.1	14.6	13.4	-1.2	-8.1
270	169.2	155.0	-14.2	-8.4	10.0	10.0	0.0	0.0	16.9	15.5	-1.4	-8.4
273	12.1	11.0	-1.1	-8.7	1.0	0.9	0.0	-5.2	12.7	12.3	-0.5	-3.7
274	373.0	360.8	-12.2	-3.3	14.6	14.6	0.0	-0.1	25.5	24.7	-0.8	-3.2
275	309.8	310.8	1.0	0.3	14.3	14.4	0.1	0.7	21.6	21.5	-0.1	-0.4
276	138.2	131.1	-7.1	-5.1	10.4	10.4	0.0	0.0	13.3	12.6	-0.7	-5.1
280	199.5	184.4	-15.1	-7.6	30.7	28.8	-1.9	-6.1	6.5	6.4	-0.1	-1.6
281	888.0	805.5	-82.5	-9.3	68.4	68.5	0.1	0.2	13.0	11.8	-1.2	-9.5
286	48.6	56.2	7.6	15.6	2.7	3.5	0.9	32.9	18.3	15.9	-2.4	-13.0
292	2983.7	2826.5	-157.2	-5.3	152.3	152.6	0.3	0.2	19.6	18.5	-1.1	-5.4
294	146.1	132.1	-14.0	-9.6	18.6	18.6	0.0	0.0	7.8	7.1	-0.7	-9.6
295	253.3	216.8	-36.5	-14.4	21.7	25.6	4.0	18.4	11.7	8.5	-3.2	-27.7
296	2102.5	1987.5	-115.0	-5.5	103.5	104.7	1.2	1.1	20.3	19.0	-1.3	-6.5
297	61.3	51.7	-9.7	-15.8	4.8	4.6	-0.2	-5.0	12.7	11.2	-1.4	-11.3
397	194.7	175.7	-19.0	-9.8	15.7	16.0	0.3	2.0	12.4	11.0	-1.4	-11.5
398	375.4	384.1	8.8	2.3	25.7	25.7	0.0	0.0	14.6	14.9	0.3	2.3
399	-	30.9	-	-	-	8.0	-	-	-	3.9	3.9	-
ECR	10707.3	9665.2	-1042.0	-9.7	350.1	319.5	-30.6	-8.7	30.6	30.2	-0.3	-1.1
ECR Rapid	-	78.3	-	-	-	12.9	-	-	-	6.1	6.1	-
FLXP	89.4	91.3	1.9	2.2	10.0	9.3	-0.6	-6.5	9.0	9.8	0.8	9.2
SFO		24.3	-	-	-	2.4	-	-	-	10.0	10.0	
Total	**38577.6**	**36336.7**	**-2240.9**	**-5.8**	**1546.5**	**1529.7**	**-16.9**	**-1.1**	**24.9**	**23.8**	**-1.2**	**-4.8**

3.5 Status of Equipment and Facilities

Currently, there are no significant equipment or facilities deficiencies which are not addressed in this plan. A description of existing facilities can be found in **Section 1.8**. A detailed listing of scheduled replacement and rehabilitation needs for equipment and facilities is detailed in **Chapter 5**.

3.6 Sustainability, Air Quality, Battery Electric Buses and Clean Energy

SamTrans' core mission improves air quality by replacing trips made in single occupancy vehicles with bus transit services. Between FY2010 to FY2016 SamTrans' services successfully displaced 2,102 Metric Tons CO2 equivalent ($MTCO_2e$).[5] SamTrans is also proactively improving its air quality performance across both its fleet and facilities, reducing its operational greenhouse gas emissions by approximately 14% (by 4,754 $MTCO_2e$) and its Criteria Air Pollutants by about 33% in the same time period.[6] Over 93 percent of CAPs and 76% of its greenhouse gas emissions from its operations result from diesel fuel used in the bus service.[7]

SamTrans' board has committed to ambitious transition targets to transition its fleet from diesel to electric-powered buses ahead of the California Air Resources Board (CARB)'s 2040 deadline for full conversion to electric fleet vehicles. Both SamTrans' criteria air pollutants and greenhouse gas emissions will be very significantly reduced as battery electric buses do not emit tailpipe emissions. To this end SamTrans is currently preparing its Battery Electric Bus Rollout Plan, and has commenced its battery electric bus pilot, which is underway and which sees SamTrans' first electric buses providing service currently. The Battery Electric Bus pilot program is partly funded through the California low carbon transportation operations Program (LCTOP), which is also expected to help fund SamTrans' complete Zero Emissions Bus conversion. More detail on the SamTrans' Zero Emissions Bus program can be found in **Section 2.4.8**.

SamTrans took another key step to improve air quality in 2016 when it began procuring its electric power from Peninsula Clean Energy, a Community Choice Aggregation entity, through its "Deep Green Program". This program supplies SamTrans' operations with 100% renewable energy, compared to 33% renewable energy from the regional investor owned utility. This move also dramatically reduced SamTrans' the greenhouse gas emissions and criteria air pollutants related to its electric power usage. The District continues to utilize natural gas at facilities for heating and some revenue vehicles. The data resulting from these operational changes will be reflected in SamTrans' forthcoming Sustainability Report.

SamTrans continues to collaborate with the California Air Resources Board (CARB) and other Bay Area transit agencies to further the effort of reducing emissions through cooperative participation in regional and state initiatives.

SamTrans has undertaken an Adaptation and Resilience Study that will analyze climate impacts including heat and sea level rise on its facilities and operations. This study is funded from a Caltrans Sustainable

[5] SamTrans 2017 Sustainability Report, p. 12
[6] Supra p.13, p.14
[7] Ibid

Communities grant and will provide recommendations to make the two operating facilities resilient to the impacts of climate change. This is especially critical given the vulnerability of both facilities, especially North Base which is already experiencing some of the impacts of flooding and erosion. With the conversion to battery-electric technology which will require a significant upgrade in the electrical infrastructure over the next ten years, it is essential the SamTrans formulate and execute a plan to protect the District's assets.

3.6.1 Adapting to Climate Change

The District was awarded a grant under CalTrans' ICARP Program funded by SB1 that will deliver an Adaptation and Resilience Plan for SamTrans. The SamTrans Adaptation and Resilience Plan will identify strategies to adapt the SamTrans system to reduce impacts from climate change, and focus on identifying and evaluating adaptation strategies to make the SamTrans' North and South Base maintenance facilities more resilient to the impacts of sea level rise, storm surge and flooding, and address the impact of high heat days on SamTrans facilities, equipment and passengers.

Extended periods of high heat take a toll on passengers, as well as equipment and facilities. Passengers with access and functional needs, in particular elderly passengers, may be especially vulnerable to high heat. Both SamTrans bus base facilities were identified as vulnerable transportation assets in the recently completed San Mateo County Sea Level Rise Vulnerability Assessment. SamTrans must prepare to mitigate these climate impacts and others, and prepare for operational continuity amidst climate impacts to continue delivering crucial transportation services to County residents.

The SamTrans Adaptation and Resilience Plan will build upon the results of and will leverage several ongoing climate change and adaptation planning efforts in the region. The study is expected to be complete in 2021.

3.7 Planning Efforts for Special Needs / Disadvantaged Communities

3.7.1 MTC's Community-Based Transportation Planning Program

With its Community-Based Transportation Planning (CBTP) program, MTC created a collaborative planning process that involves residents in low-income Bay Area communities, community- and faith-based organizations that serve them, transit operators, county congestion management agencies (CMAs), and MTC.

The CBTP program began with pilot projects in 2004 in five communities, including East Palo Alto. Following the successful completion of the pilot program, MTC authorized planning to proceed in the remaining communities identified in the Community-based Transportation Planning Program guidelines in 2005. A total of 25 low-income communities were identified in Phase One of the program, including the Bayshore area of Daly City.

Also in 2005, MTC expanded its financial commitment to improving mobility for the region's low-income residents by launching the lifeline transportation Program, which significantly increased the amount of regional funding for which projects identified in CBTPs are eligible to compete. In 2008, MTC approved phase two funding to complete an additional 18 plans for the remainder of the region's 43 identified low-income communities of concern, including north central San Mateo and San Bruno/South San Francisco.

In January 2018, MTC issued new program guidelines for the 2017-2021 CBTP Cycle and provided a funding allocation to prepare or update CBTPs (MTC Resolution No. 4316). The City/County Association of Governments (C/CAG) is the lead agency implementing the CBTP program in San Mateo County. In early 2019, C/CAG released a request for proposals from qualified firms to prepare CBTP updates for two geographic areas: Daly City and East Palo Alto/Menlo Park/Redwood City (contiguous Communities of Concern). It is anticipated that the consultant will be selected by end of March 2019. The project scope includes a status report summarizing progress since the last CBTPs, a community needs assessment, collaborative planning and outreach, and the development of transportation strategies and an implementation plan. SamTrans will serve on the project's steering committee and technical working group, and provide leadership and technical expertise throughout the planning process.

Four CBTPs were produced for C/CAG by SamTrans planning staff during prior funding cycles. A number of strategies from the CBTPs called for increased SamTrans service; either in terms of extended routes, hours or increased frequencies. The status of the CBTPs are presented below.

East Palo Alto Community- Based Transportation Plan

The East Palo Alto Community-Based Transportation Plan was prepared by SamTrans for C/CAG and approved by the City of East Palo Alto City Council.

On October 4, 2005, among the 13 short, medium, and long-term strategies identified for East Palo Alto, SamTrans was identified as the lead agency on five. The status of each strategy is as follows:

- Improve transit scheduling and connectivity – Implemented
- Provide more pass sales outlets – Implemented
- Enhance transit information in Spanish – Implemented
- Increase frequency of fixed-route transit – Route #296 frequency improved
- Extend Route 297/397 into neighborhoods and extend hours of Route 296 – Implemented

On May 1 2007, a contract was executed between San Mateo County El Concilio (a private non-profit community-based organization) and SamTrans to handle the Bus Pass Subsidy Program. The City of East Palo Alto facilitated the transaction in order to kick-start the program. El Concilio sold adult subsidized bus passes on behalf of the city of East Palo Alto. This agency was paid a three percent commission at the end of the selling cycle each month. This program no longer exists.

Bayshore Community-Based Transportation Plan

A CBTP for the Bayshore Community in Daly City was prepared by SamTrans for the C/CAG in the fall of 2008. Among the 14 short, medium, and long-term strategies identified for the Bayshore neighborhood, SamTrans was identified as the lead or co-lead agency on seven. The status of each strategy is as follows:

- Provide circulator Service – Implemented
- Extend Route 121 to Bayshore neighborhood – Not implemented
- Improve transit stops – Implemented, funded by MTC LTP program
- Create a map of transportation options for Bayshore neighborhood – Not implemented
- Translate transit information into Chinese – Not implemented
- Discount transfers between SamTrans and SFMTA – Not implemented

- Subsidize Monthly passes – Implemented through Welfare to Work Plan (transit Fare assistance)

North Center San Mateo Community-Based Transportation Plan

In February 2011, SamTrans prepared a North Central San Mateo CBTP for C/CAG. Among the ten short, medium, and long-term strategies identified for the north central San Mateo neighborhood, SamTrans was identified as the lead or co-lead agency on four. The status of each strategy is as follows:

- Add stops to Route 250 and extend it to El Camino real – Implemented
- Increase frequency of routes in area – Not implemented
- Improve transit affordability – Implemented through Welfare to Work Plan (transit Fare assistance). Day Pass introduced in 2012 and price reduced in 2014.
- Increase public access to transit information – Implemented

San Bruno/South San Francisco Community-Based Transportation Plan

A CBTP for San Bruno/South San Francisco was prepared by SamTrans for C/CAG in February 2012. Among the nine short, medium, and long-term strategies identified for San Bruno/South San Francisco, SamTrans was identified as the lead or co-lead agency on five. The status of each strategy is as follows:

- Improve bus stop amenities – not implemented
- Improve bicycle amenities – not implemented
- Increase public access to transit information – not implemented
- Increase transit service – Route 131 created
- Improve connectivity of existing bus service – Routes 130 and 133 were realigned to provide more efficient and direct service in the area

3.7.2 MTC Lifeline Program

MTC's Lifeline Transportation Program (LTP), which began in 2005, supports projects that address mobility and accessibility needs in low-income communities throughout the region. It is funded by a combination of federal and state operating and capital funding sources, including the Federal Transit Administration's Jobs Access and Reverse Commute Program, and State Proposition 1B Transit Capital and State Transit Assistance Programs. Funding has been provided in three year cycles since FY 2006. The most recent call for projects occurred in January 2018. In this cycle, SamTrans was awarded lifeline funds for Daly City Bayshore Shuttle, Menlo Park Crosstown Shuttle, Transportation Assistance Program, Fixed Route 280, and operating support for SamCoast service and Route 17 service.

In San Mateo County the LTP is administered by C/CAG, the county-level by congestion management agency, who also oversees MTC's Community-Based Transportation Planning Program.

3.7.3 Senior Mobility Action Plan and Initiative

The 2006 San Mateo County Senior Mobility Action Plan was the work of a broad coalition of concerned entities, with the leadership of the San Mateo county transit district, to keep older people safe and connected to their communities as problems related to aging make it harder for them to get around. The 2006 Action Plan focused on developing strategies for improving the mobility of older adults based on stakeholder involvement and information from previous needs assessments and case studies. A Steering committee was formed consisting of 35 representatives of interested organizations and governments, including advisory and advocacy groups. The Senior Mobility Initiative was formed by

SamTrans and the Steering committee to implement the priority mobility strategies that emerged from the Plan.

Mobility Plan for Older Adults and People with Disabilities

In FY 2017, SamTrans kicked off the SamTrans Mobility Plan for Older Adults and People with Disabilities (Mobility Plan). This planning effort is an update to 2006 San Mateo County Senior Mobility Action Plan and seeks to improve the mobility of older adults, people with disabilities, and veterans with disabilities. Based on input from the stakeholder committee and project staff the goals of the mobility plan process were to:

- Plan innovative transportation services for older adults and people with disabilities, which could be implemented and operated by SamTrans or other partners
- Identify viable alternatives to paratransit
- Form new partnerships with nonprofit and for-profit organizations
- Leverage existing funding and new funding sources

The Mobility Plan updates the seven mobility strategies from the 2006 Action Plan and presents eleven potential programs related to them, some of which are new, and some of which continue and improve existing successful programs. The recommended programs include those that could be led by SamTrans or other organizations throughout the County. Strategies and programs include the following:

1. Countywide Mobility Management
    a. Phone and website for mobility management center.
    b. Improve coordination and information sharing.
2. Leverage Private On-Demand Transportation Services
    a. Taxi Fare Subsidy Pilot
    b. Strategies for increasing wheelchair-accessible taxis
    c. Subsidized ridesourcing program with telephone booking
3. Community Transit
    a. Flexible-route community transit service
4. Community Based Transportation Services
    a. Expand community-based transportation services
5. Encourage the use of Transit
    a. Improve and increase awareness of mobility ambassador and veteran's mobility corps programs
    b. Mobile accessible travel training bus
6. Promote Safe Driving
    a. Improve coordination with local driver safety instruction
7. Active Transportation & Access to Bus Stops
    a. Older adult walking groups

b. Safe Routes to Transit for older adults & people with disabilities

The Final Plan was adopted by the SamTrans Board of Directors on October 3, 2018.

New Freedom Grant Funding

SamTrans has been awarded four new Freedom Grants from MTC to develop and implement various mobility management services for seniors and people with disabilities in San Mateo County. The programs developed and implemented under these grants include:

- Mobility Ambassador Program
- Vehicle Sharing Demonstration Program
- Senior Mobility Guide
- Volunteer Drivers
- Telephone Information & Assistance
- Veterans Mobility Corps

The Mobility Ambassador Program and the Senior Mobility Guide have become important resources to program participants, public services, local government agencies, and health care and home care service providers. As the programs have been implemented, plans are being advanced with partner agencies to develop and implement the volunteer drivers and virtual mobility management programs in the near future.

On-Demand Taxi Voucher Program

The on-demand taxi subsidy pilot program will offer same-day, curb to curb taxi and accessible taxi service at a reduced rate. The service will be provided for older adults (age 65 or older) and people with disabilities. Trips must begin and end in within the cities of San Carlos and Redwood City and the North Fair Oaks area of San Mateo County. The primary goal of the program is to increase mobility for seniors and people with disabilities by reducing or removing barriers to transportation services and expanding their options within the service area. A secondary goal is to reduce demand on SamTrans paratransit services by providing another viable transportation option.

Planning for the taxi program began in March, 2018. The program is funded by the Section 5310 Grant Program which provides $315,000 in grant funds over a three-year period (FY19-FY21).

3.8 Title VI Program

Under federal guidelines updated in October 2012, FTA requires the governing board of federal funding recipients to adopt a Title VI Program every three years. SamTrans Title VI Program was updated most recently in 2016 and includes the following documentation of SamTrans policies, procedures and activities to comply with FTA Circular 4201.B:

- Contents and placement of public notices regarding the public's rights under Title VI of the Civil Rights Act of 1964.
- Title VI complaint form and procedures.
- List of transit-related Title VI investigations, complaints, and lawsuits pending within the last three years.

- Public Participation Plan (PPP) and summary of public engagement processes undertaken in past three years.
- Board-adopted Major Service Change(s), disparate impact and disproportionate Burden policies, with a summary of related outreach, evidence of Board adoption, and results of equity analyses for fare and service changes applying these policies over the past three years.
- Language Assistance Plan (LAP)
- Demographic information on membership of non-elected committees, such as the Citizens advisory committee, and discussion of encouragement of minority involvement.
- Sub-recipient monitoring plan.
- Results of equity analyses for any facilities constructed over the last three years.
- Service area description and demographic profile, including ridership survey results.
- Board-adopted service standards and policies, as well as results of service monitoring under these standards and policies.
    - Record of Board consideration and adoption of Title VI Program the development of elements of this program included significant outreach to the public, including 15 meetings, a third of which targeted specific language groups in a focus-group format. Some elements of the program, including the PPP and LAP, include recommendations for improving outreach efforts associated with new initiatives or planning efforts.

The first SamTrans Title VI Program completed under the current federal guidance was adopted in 2013. An updated Program was adopted three years later in October 2016. SamTrans submitted the Plan to the FTA and it was approved soon thereafter. Analysis conducted as part of Program development concluded that SamTrans complies with all applicable Title VI requirements.

As of 2019, SamTrans is embarking on an update to the Title VI Program.

3.9 FTA Triennial Review Summary

The most recent FTA triennial review of SamTrans was conducted in May 2016. The results of the review are summarized in **Table 14**. Based on the review, SamTrans was found to be deficient in eight of the 17 Triennial Review areas, specifically Financial Management & Capacity, Technical Capacity, Americans with Disabilities Act (ADA), Title VI, Procurement, Disadvantaged Business Enterprise (DBE), Drug-Free Workplace/ Drug and Alcohol Program, and Equal Employment Opportunities (EEO). The deficiencies and the responses and/ or proposed corrective actions by SamTrans are shown below in **Table 14**.

SamTrans had no repeat deficiencies from the 2013 triennial review. Documentation regarding the corrective actions has been submitted to FTA by the requisite response date listed in **Table 14**. As of march 2017, the district has closed out all previously identified deficiencies.

The next FTA Triennial review will take place in summer 2019.

Table 14: FTA Triennial Review Summary

Review Area	Finding	Deficiency	Corrective Action	Response Date
Financial Management and Capacity	D.216	Unresolved internal, state, or local audit findings	The grantee must submit evidence to the FTA regional office of the resolution of the outstanding FMO review finding:	6/27/16

Review Area	Finding	Deficiency	Corrective Action	Response Date
			Weaknesses in Risk Assessment Controls over the Financial Management System. This would include the submission of the risk assessment for FY 2016 in the format agreed upon. The assessment should include whether the weaknesses have been addressed, and if not, submit to FTA the corrective actions and schedule to ensure compliance.	
Technical Capacity	D.208	Inadequate oversight of sub recipient/ third-party contractor/ lessees	The grantee must submit procedures and a staffing plan to the FTA regional office to monitor other entities with responsibility for meeting FTA requirements along with evidence of implementation.	7/26/16
ADA	D.73	ADA complementary paratransit service deficiencies	The grantee must submit documentation to the FTA RCRO that it has taken immediate steps to modify any operating policies that do not meet the regulatory requirements, including the visitor policy, and references to "common wheelchair". The grantee must update and submit to the FTA RCRO public information public information and other documentation relating to these areas.	6/27/16
	D.316	Insufficient no-show policy	The grantee must make information available to riders regarding the no-show policy, including the pickup window. The grantee must revise its no-show policy to only suspend riders who have established a pattern or practice of missing scheduled trips. The grantee must submit evidence of the implemented corrective actions to the RCRO.	7/26/16
	D.109	Limits or capacity constraints on ADA complementary paratransit service	The grantee must submit to the FTA RCRO procedures for monitoring its ADA complementary paratransit service for patterns or practices of capacity constraints.	8/25/16
Title VI	D. 289	Lacking a language assistance plan	The grantee must provide the FTA RCRO with evidence of SamTrans and contractor staff training as outlined in	8/25/16

Review Area	Finding	Deficiency	Corrective Action	Response Date
			the LAP as well as evidence that LAP training will be conducted in accordance with SamTrans' Title VI program in the future.	
Procurement	D.64	No contract administration system	The grantee must provide the FTA regional office with documentation of an adequate contract administration system. The grantee must submit revised contract administration procedures and evidence of staff training on the new procedure	7/26/16
	D.183	No verification that excluded parties are not participating	The grantee must submit to the FTA regional office evidence of training on the requirement to check the SAM.gov website prior to awarding contracts. For the next procurement, the grantee must also submit documentation that the required process was implemented to the FTA regional office.	7/26/16
	D.271	Lacking required cost/price analysis	The grantee must provide the FTA regional office documentation that it has updated its procurement process to include performing a detailed cost and price analysis for every procurement action including contract modifications and evidence of training on this requirement. For the next procurement, the grantee must also submit documentation that the required process was implemented.	7/26/16
DBE	D.345	DBE certifications not adequate	The grantee must submit to the RCRO evidence that it has implemented standards and procedures to determine initial and continued DBE eligibility in accordance with 49 CFR Part 26.61-26.91 and that it has updated the DBE program in TrAMS to reflect the new procedures.	7/26/16
	D.561	DBE directory is not updated timely	The grantee must submit to the RCRO implemented procedures to ensure that DBE directory is updated timely and contains all required information.	7/26/16

Review Area	Finding	Deficiency	Corrective Action	Response Date
	D.308	DBE goal achievement analysis not completed or not submitted	The grantee must submit to the FTA RCRO the required shortfall analysis for the missing year and a corrective action plan, along with a written process to ensure future analyses are completed timely.	7/26/16
	D.264	DBE policy not updated	The grantee must submit an updated DBE program in TrAMS and notify the FTA RCRO.	8/25/16
	D.329	DBE uniform reports do not include required information	The grantee must submit to the FTA RCRO procedures for including all applicable FTA funded contracting activity, including the activity of sub recipients, in future reports and inform the RCRO of the implementation of these procedures with the submission of the next semi-annual report. The grantee must also submit documentation demonstrating how procurement records reconcile with DBE reports	8/25/16
Drug-Free Workplace/ Drug and Alcohol Program	D.173	Drug and/or alcohol program vendors not properly monitored	The grantee must submit to the FTA regional office procedures for monitoring drug and alcohol program vendors along with evidence of implementation	7/26/16
EEO	D.225	EEO monitoring/reporting system deficiencies	The grantee must develop and submit to the FTA RCRO a detailed monitoring and reporting system.	6/27/16

4 Operations Plan & Budget

This chapter presents the operating plan and budget projection for the next ten years, including the key assumptions that form the foundation of the ten-year operating budget for SamTrans.

4.1 Summary of Major Service Assumptions

This section calls out the major fixed-route and paratransit service assumptions used in the ten-year operating plan and budget. **Sections 4.3.1 and 4.3.2** contain a complete documentation of assumptions for costs and revenues.

4.1.1 Fixed-Route Service

Following from the multi-year trend of declining ridership, this plan assumes that ridership will continue to decline at a rate of 1% annually. Revenue, costs, and ridership associated with the implementation of new express bus service are assumed starting in FY 2020.

4.1.2 Paratransit

Based on changing demographics and historical trends, this plan assumes that paratransit ridership and costs will grow 4% annually.

There is a direct relationship to ridership growth and service level growth, i.e. a one percent ridership increase will require a one percent increase in service levels. The SamTrans Mobility Plan for Seniors and People with Disabilities will develop strategies to help manage paratransit growth and shift some riders to fixed-route services.

4.2 Operating Plan

The SamTrans network consists of bus, paratransit and shuttle services.

SamTrans will be monitoring all of its services to ensure the most productive system possible. The district will continue to form partnerships such as those with employers who help fund shuttle services as well as explore and foster relationships to form innovative public- private partnerships to fund transit.

Details of Caltrain operations can be found in the Caltrain SRTP.

4.2.1 Fixed-route

Projected key performance measurements and projections for fixed-route service through FY 2028 are presented in **Table 15**.

Table 15: Fixed-route Service Levels and Ridership Assumptions (FY 2018 - FY 2028)

Year	Ridership	Revenue Miles	Revenue Hours	Fare Revenue	Operating Costs
FY2018	11,133,440	6,456,897	653,107	$14,854,688	$114,350,328
FY2019	10,867,605	6,521,466	659,638	$14,300,000	$129,095,906
FY2020	11,130,729	6,586,681	697,455	$14,355,000	$143,492,401
FY2021	11,394,939	6,652,547	704,118	$16,234,042	$144,160,244
FY2022	11,288,426	6,719,073	710,847	$16,091,928	$150,633,927
FY2023	11,559,978	6,786,264	753,341	$16,976,674	$157,285,191

Year	Ridership	Revenue Miles	Revenue Hours	Fare Revenue	Operating Costs
FY2024	11,982,084	6,854,126	788,112	$18,269,468	$164,082,329
FY2025	12,028,234	6,922,668	795,045	$18,538,214	$171,033,024
FY2026	11,925,918	6,991,894	802,047	$18,401,700	$178,098,178
FY2027	11,824,625	7,061,813	809,120	$18,266,550	$185,663,748
FY2028	11,724,344	7,132,431	816,262	$18,132,752	$193,391,095

Ridership assumptions

In alignment with current trends, system-wide ridership is assumed to decrease by 1% annually. However, Express bus ridership is expected to increase as service is deployed and remain steady thereafter (see **Table 16**). Express bus ridership is based on travel demand modelling done as part of the Express Bus Feasibility Study (**Section 2.4.14**).

Revenue Miles and Hours

Revenue miles and hours are assumed to grow at a rate of one percent per year as a result of ongoing service adjustments in response to changes in demand. Starting in FY 2020, additional revenue miles and hours associated with new express bus service are also included. **Table 16**, below, documents these assumptions, which are taken from the Express Bus Feasibility Study.

Table 16: Express Bus Expansion Service Levels and Ridership Projections

Year	Ridership	Revenue Hours	Fare Revenue	Operating Costs
FY2020	351,000	26,000	$702,000	$4,550,000
FY2021	351,000	26,000	$702,000	$4,550,000
FY2022	351,000	26,000	$702,000	$4,550,000
FY2023	481,000	49,400	$962,000	$8,645,000
FY2024	657,800	59,800	$1,315,600	$10,465,000
FY2025	704,600	59,800	$1,409,200	$10,465,000
FY2026	704,600	59,800	$1,409,200	$10,465,000
FY2027	704,600	59,800	$1,409,200	$10,465,000
FY2028	704,600	59,800	$1,409,200	$10,465,000

Fare Revenue and Operating Costs

The fare revenue assumes no fare increase in FY 2019 and then five percent every three years thereafter. This is consistent with results from the SamTrans Fare Study (see **Section 2.4.8**).

Operating costs are expected to continue rising significantly due to the following drivers and trends:

- Express Bus service increase in FY2023 and FY2024
- New position requests ($2 million) for FY 2020
- An assumed 3% annual increase in wages and 5% in benefits (based on historical data)

- Fuel budget remains flat at $2.10 per gallon in FY 2020 and increases by 3% thereafter.

4.2.2 Paratransit

Projected key performance measurements for paratransit through FY 2028 are detailed in **Table 17**. The district can potentially raise the paratransit fare during the ten-year plan period, from its current fare of $4.25. The current adult fare on fixed-route services is $2.25; therefore, Paratransit fares could be increased to $4.50 as allowed by Federal ADA regulations.

SamTrans provides premium paratransit service to six social service agencies for which these agencies pay a premium fare. All "agency" customers are "automatic subscription" customers, have a standing regular reservation and get a specific drop-off and pick-up window at their origin and at the agency. SamTrans also invoices the agencies for the trips (customers do not pay a fare when riding). The cost structure is defined in the codified tariff: $5.00 (standard) and $2.25 (fare assistance). Paratransit drivers receive additional training to provide this premium service.

SamTrans plans to continue several initiatives to ensure its ability to serve all of the demand for ADA paratransit. These include:

- Using supplemental services provided under contract by one or more taxicab companies to serve trips that would otherwise result in low productivity runs.
- continuing evaluation of the efficiency of installing automated call-ahead notification software to work in conjunction with existing Trapeze software and Advanced Communications Systems (ACS) to alert customers to a ride
- Pick-up short before it arrives.
- Providing travel training to individuals who can use SamTrans fixed-route services instead of paratransit.
- Allowing Redi-Wheels and RediCoast passengers to ride fixed-route service for free.
- Continuing the eligibility screening process with 100 percent in-person assessments conducted by a contractor.
- Working with local jurisdictions and advocates to explore opportunities for partnerships that would help create local services of interest to people with disabilities and older people.
- Continuing Trip-by-trip eligibility - With in-person eligibility, SamTrans can get detailed information about the individual capabilities of Redi-Wheels riders. Applicants can be eligible for paratransit for some trips and SamTrans fixed-route for others. During FY 2018, approximately 20 percent of applicants were given conditional or trip-by-trip eligibility. SamTrans will continue to enforce trip-by-trip eligibility.
- Pursuing implementation of community Transit Services - The District plans to continue working with local jurisdictions and advocates to plan community transit services of interest to people with disabilities, older people, and the general public. Such services may be provided through partnerships between the district and local jurisdictions.

Table 17 summarizes the projected service levels, ridership projections, cost, and farebox revenue for the paratransit system through FY 2026.

Table 17: Paratransit Service Levels and Ridership Projections

Year	Annual Ridership	Revenue Miles	Revenue Hours	Fare Revenue	Operating Costs
FY2018	887,383	2,959,214	187,936	$887,383	$16,835,809
FY2019	900,000	2,988,806	189,815	$900,000	$17,493,002
FY2020	909,000	3,018,694	191,714	$909,000	$19,665,385
FY2021	918,090	3,048,881	193,631	$918,090	$20,452,000
FY2022	973,634	3,079,370	195,567	$927,271	$21,270,080
FY2023	983,371	3,110,164	197,523	$936,544	$22,120,884
FY2024	993,204	3,141,265	199,498	$945,909	$23,005,719
FY2025	1,053,293	3,172,678	201,493	$955,368	$23,925,948
FY2026	1,063,826	3,204,405	203,508	$964,922	$24,882,986
FY2027	1,074,465	3,236,449	205,543	$974,571	$25,878,305
FY2028	1,139,470	3,268,813	207,598	$984,317	$26,913,437

4.2.3 Shuttles

Some additional service is anticipated for the commuter shuttle program over the next ten years, described in more detail **in Section 1.4.3 and 3.1.3**. Although ridership is expected to grow by one percent per year, there is currently enough capacity to accommodate the added ridership. In lieu of fares, employers provide approximately 54 percent of the cost of the service. Nearly one-third of the cost of the program is provided by the Bay Area Air Quality Management District. **Table 18** summarizes the service levels, ridership projections, total operating cost, and SamTrans operating cost for the commuter Shuttles service. Passengers do not pay a fare for these shuttle services.

Employer Shuttles (Caltrain) – Caltrain employer shuttles are part of the Caltrain program and details of the Caltrain Shuttle program can be found in the Caltrain SRTP.

Employer Shuttles (BART) - Approximately 90 percent of the program is financed with Bay Area Air Quality Management District and employer funds. The balance is funded by SamTrans. The funding split is expected to remain relatively unchanged over the next ten years.

Commuter Shuttles – the C/CAG and TA-sponsored shuttle program is grant- based for specific time durations and there are regular calls for projects to provide funding for both existing and new routes.

Table 18. Commuter Shuttles Service Levels and Ridership (FY 2019 – FY 2028)

Year	No. of Routes	Annual Ridership	Total Operating Cost*	SamTrans Cost
FY2019	8	368,000	$2,003,800	$102,600
FY2020	8	372,000	$2,043,876	$104,652
FY2021	9	386,000	$3,142,900	$160,288
FY2022	9	390,000	$3,205,758	$163,494
FY2023	9	394,000	$3,269,873	$166,764
FY2024	10	408,000	$3,590,271	$183,104
FY2025	10	412,000	$3,662,076	$186,766
FY2026	11	426,000	$4,000,318	$204,016
FY2027	11	430,000	$4,080,324	$208,097
FY2028	11	434,000	$4,161,930	$212,258

*Shuttle count has remained the same as the prior report as no new funding has been identified.

4.2.4 Dumbarton Express

The Dumbarton Bridge Regional Operating Consortium (DBROC) will make minor adjustments to Dumbarton Express (DB) routes, schedules and service parameters on an as-needed basis to respond to any budget shortfalls and service needs.

For instance, in response to the DB1 service failing to meet performance requirements by the end of FY 2014/2015 as mandated by regional measure 2 policies, the DBROC will be testing the conversion of the DB1 to all-day rather than peak-only service. The DB1 carries more passengers than the all-day DB service and there may be a latent demand for midday service on the DB1. MTC has recommended the continued and augmented funding of the DB1 to allow for the pilot of all-day service for one year. As a condition of funding, AC Transit is required to evaluate the performance of the additional service after the one-year pilot and demonstrate that the cost per passenger has not worsened since the service change. While changing the service to all day may not necessarily improve the farebox recovery, it lowers the farebox recovery requirement to 20 percent instead of 30 percent. If the pilot is successful, MTC could consider the continued funding of all-day service with Regional Measure 2 operating funds.

Additionally, as part of the Dumbarton Transportation Corridor Study, short- and long-term transportation improvements were proposed for Dumbarton corridor, including potential enhancements to DB services and various infrastructure improvements to improve transit travel time.

In 2018, MTC initiated the Dumbarton Forward study. The goal of this effort is to make recommendations to improve ridership on the Dumbarton bus service that is operated by DBROC, AC Transit and the Stanford Marguerite Shuttle. The study is currently underway. Recommendations may include streamlining routes, improving frequency, relocation of bus stops and the implementation of transit signal priority at key intersections.

4.3 Operations Budget

As discussed in Chapter 2, an important issue which SamTrans has been confronting is its structural deficit, though this has been ameliorated with the passage of Measure W in 2018. Staff is reviewing the

current projected budget deficits and looking for opportunities to increase the sources of funds as well as to contain projected expenditures.

Since the last SRTP, the district has implemented measures to reduce the structural deficit, including lowering its annual debt payments. However, staff and the Board are aware that there is more to be done.

Ultimately, in the long-term SamTrans is working to improve fiscal health and meet shortfalls through the following measures, many of which are discussed in the Strategic Plan:

- Ongoing implementation of the TSP Strategic Plan as required by MTC.
- Evaluating service enhancements that reduce bus operating costs (e.g., car relief for operators and alternative service models for low density suburban areas).
- Incorporating safety, security, and sustainability considerations into financial decision making.
- Investing in fleet and facility improvements that conserve natural resources, reduce waste, and control costs.
- Improving projections of life cycle costs in project decision making.
- Maximizing long-term financial savings by incorporating a full evaluation of economic, environmental, and social costs in the decision-making process.
- Developing a reserves policy

Another critical issue is the pursuit of a dedicated funding source for Caltrain operations.

As part of the Strategic Plan, the district is also pursuing actions to increase revenue including:

- Implementing strategies to increase ridership on fixed-route bus services.
- Developing a fare structure that makes the system easier to use, encourages people to ride and is easier to administer, via the comprehensive Fare Study.
- Including a metric of “return on investment” when evaluating financial and procurement strategies.
- Maximizing potential for cap-and-trade revenue opportunities.
    - Charging market rate for all services and property provided to third parties.
    - Enhancing pursuit of grant opportunities.
    - Exploring creative revenue sources, like expanded sponsorship of SamTrans assets.
    - Considering partnerships with other stakeholders to fund alternatives to traditional SamTrans fixed-route transit service.
    - Assessing all real estate holdings/ leases and evaluate long-term options for increasing revenue, including use of Central, North Base, South Base, Pico Boulevard (access road to South Base) and Brewster Avenue (contractor base in redwood city).

4.3.1 Summary of Operational Cost Drivers and Trends

Table 19 presents the ten-year operating budget for SamTrans. Below is a summary list of assumptions used in developing the projected uses of funds for the next ten years.

- No fare increases are assumed for the SRTP period. Average fare is projected to remain the same. Fluctuations in fares over the SRTP time frame are due to the implementation of express bus services and the projected ridership decline.

- Assumptions for Express Bus service, detailed in **Table 18**, are layered into the projections starting in FY 2020.
- Projections include $2m worth of new position requests for FY20.
- Based on historical trends the cost of fuel is left flat in FY 2020 with 3% growth thereafter. FY 20 fuel budget left flat at $2.10/gallon and 3% thereafter.

4.3.2 Summary of Revenue Assumptions

Major operating budget assumptions for fixed-route services through FY 2028 are summarized described below.

- District sales tax, Measure W and Measure M revenues are projected to grow at 2% annually, which is consistent with long term historical trends.
- Measure W revenues shown equal 50% of total tax revenue.
- Investment interest is held flat due to historical swings.
- Ad income is projected to grow by approximately 3% per year.
- Rental income is adjusted yearly to reflect changes in CPI.
- Due to historically unpredictable growth rates, shuttle funds change at the same rate as other multi-modal programs.

Table 19: FY 2019 - FY 2028 Financial Projections										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Revenue Projections (in $ millions)										
Passenger Fares	15.2	15.3	17.2	17.0	17.9	19.2	19.5	19.4	19.2	19.1
TDA Funds	41.8	48.1	43.4	44.3	45.2	46.1	47.0	48.0	48.9	49.9
STA Funds	5.7	11.7	11.0	11.1	11.2	11.3	11.5	11.6	11.7	11.8
Other Operating Revenue	18.28	16.34	14.68	14.90	15.13	15.36	15.60	15.84	16.09	16.34
Subtotal – Operating Revenue	81.0	91.4	86.3	87.3	89.5	92.0	93.6	94.7	95.9	97.1
Sales Tax and Other	106.5	188.6	190.2	194.4	196.1	200.4	202.2	206.6	208.6	213.1
Total Sources of Funds	187.4	280.0	276.5	281.7	285.5	292.4	295.7	301.4	304.5	310.3
Expense Projections (in $ millions)										
Motor Bus	129.1	143.5	148.3	154.8	163.4	168.9	175.8	182.9	190.5	198.2
A. D. A. Programs	17.5	19.7	20.5	21.3	22.1	23.0	23.9	24.9	25.9	26.9
Caltrain	7.6	9.2	7.4	7.6	7.7	7.9	8.0	8.2	8.4	8.5
Other Multi-modal Programs	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Pass through to Other Agencies	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Land Transfer Interest Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Uses of Funds	157.3	216.9	220.8	228.3	237.9	244.4	252.4	260.6	269.3	278.2
Total Operating Surplus / (Deficit)	**30.1**	**63.1**	**55.7**	**53.5**	**47.6**	**48.0**	**43.3**	**40.8**	**35.2**	**32.0**
Sales Tax Allocation - Capital Program	6.0	10.9	24.7	28.2	49.9	25.2	10.5	15.8	29.5	8.6
Total Debt Service	21.6	19.4	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
Net Annual Surplus / (Deficit)	2.5	32.8	11.8	6.2	(21.3)	3.7	13.7	5.9	(13.5)	4.3

5 Capital Improvement Program

The Capital Improvement Program (CIP) describes the capital programs (vehicles, facilities and equipment) required to provide the services established in the operations plan and budget described in Chapter 4. The CIP provides the basis for requests for federal, state and regional funding for capital replacements, rehabilitation, enhancement, and expansion projects. The CIP is financially constrained in that it reflects SamTrans' reasonable expectation of funding availability during the same time period to support the delivery of the projects.

Several primary planning documents are used to identify SamTrans' capital and operating needs. Current federal and state legislation requires that programs and projects for which SamTrans is seeking funding must first be identified in the SRTP, whether as a specific project or as a general program. Each year, SamTrans determines which programs and projects should be submitted to MTC for possible grant funding.

SamTrans adopts an annual capital budget, driven by the needs in the CIP, updated to reflect the following factors: new funding opportunities, differences in the actual versus anticipated funding allocations, changes in SamTrans capital needs that are identified during the annual budgeting process and improvements required as a result of regulatory or legal requirements.

Programs or projects identified in the SRTP are included in MTC's federal multi-year Transportation Improvement Program (TIP). A scoring process was adopted by the various transit operators in the region to establish priorities for capital funding. MTC, along with the nine county CMAs, develops a Regional Transportation Improvement Program (RTIP). District programs/projects must be in the TIP and RTIP to receive consideration for federal and state-administered transportation funding, respectively.

5.1 Federal Elements

In December 2015, the Fixing America's Surface Transportation (FAST) Act was signed into law—the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorizes $305 billion over fiscal years 2016 through 2020 for highway, motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, research, technology, and statistical analytics. Of this, approximately $61 billion is dedicated to transit through the FTA.

Because SamTrans operates routes in three counties – San Francisco, San Mateo, and Santa Clara – district planning activities must be coordinated with the MTA and Congestion Management Agencies and/or Transportation Authorities for each county.

Other federal legislative acts, such as the Clean Air Act (CAA) and the ADA, also have a major influence on the District's transportation and capital plan.

5.2 Regional Elements

Regional and local mandates and interagency processes within the region play a major role in the district's capital planning processes. Unlike many urbanized areas (UZAs) of the country, the nine-county Bay Area has approximately 20 public transit operators that compete with street and highway projects

for limited capital and operating funds. In response, MTC uses a Regional Priority Model for projects that are eligible in multiple UZAs, to minimize the impact on those operators who are only eligible in one UZA.

The regional planning cycle for grant-funded projects begins with the development of the regional TIP, which includes the transportation-related capital projects for which federal funding is requested. The TIP is updated every two years but is periodically amended between updates. Various public entities, such as municipalities, county agencies, and regional agencies oversee other regional processes that impact SamTrans' capital planning, including:

- Land use and development planning
- Congestion management
- Air quality management

SamTrans uses regional planning documents in its capital planning process, such as:

- Regional Transportation Plan (RTP) for the San Francisco Bay Area (MTC)
- California Transportation Plan (Caltrans)
- California Clean Air Act (State of California)
- Bay Area Clean Air Plan (Bay Area Air Quality Management District)

5.3 SamTrans Elements

The development of SamTrans' CIP is based on SamTrans' Strategic Plan vision statement, goals, and objectives, and the proposed operating program. In addition, active participation in regional transportation planning forums, compliance with federal, state and local mandates and existing regional transportation plans, input from internal departments, and the District's fiscal policies are all integral to the development of the Plan.

5.4 Funding Sources

5.4.1 Federal Transit Administration

Funding programs available from the FTA that have been used by the district to address capital needs are described below.

Urbanized Area Formula Funds (5307)

This section provides funding for the acquisition, construction, improvement, and maintenance of transit facilities and equipment. Resources are allocated to urban areas according to a formula and are usually matched on an 80 percent federal, 20 percent local basis. Up to ten percent of the total annual formula funds can be set aside for paratransit services under the ADA – an amount calculated by the MTC.

Bus and Bus Facilities Program (5339)

This competitive capital program provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. The San Carlos transit center and hybrid bus purchase projects previously received these funds.

Rural Area Formula Grants (5311)

This program provides capital, planning, and operating assistance to support public transportation in rural areas, defined as areas with fewer than 50,000 residents. Funding is based on a formula incorporating land area, population, and transit service. SamTrans typically uses these funds to help subsidize bus service on the Coastside of San Mateo County, though the funds could be used for capital replacement if needed.

Enhance Mobility of Seniors and Individuals with Disabilities (5310)

This program provides discretionary funding to increase the mobility of seniors and persons with disabilities. Funds are apportioned based on each State's share of the targeted populations and are now apportioned to both States (for all areas with a population under 200,000) and large urbanized areas (with a population over 200,000). Projects are selected by MPOs; the MTC in the Bay Area. The former new Freedom program (5317) has been folded into this program. The new Freedom program provides grants for services for individuals with disabilities above and beyond the requirements of the Americans with Disabilities Act (ADA). The District has used these funds to purchase additional cutaway buses to respond to paratransit service increases and travel training programs. The funds are currently being used for the development of a mobility management plan and to expand the Veteran's Mobility Corp.

5.4.2 Federal Highway Administration (FHWA)

Congestion Mitigation and Air Quality Program (CMAQ)

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) provides funding for Clean Air Act projects, State Implementation Plan projects, and other projects that the Department of Transportation and the Federal Environmental Protection Agency determine will help attain mandated air quality standards. Demonstration service projects are eligible for this funding source. MTC has used CMAQ funds for bus retrofit projects to install clean air emission devices on urban coaches. Funds are apportioned to every state based on the population in "non-attainment" areas, adjusted to the severity of the pollution. The Bay Area has been designated as one of these non-attainment areas. These funds can be transferred from the Federal Highway Administration (FHWA) to the FTA.

Surface Transportation Program (STP)

The Surface Transportation Program provides funding for highways, bridges, transit capital, bicycle and car pool programs, and other multimodal uses. It provides flexible funding that may be used for transit capital projects, and intra-city and intercity bus terminals and facilities.

5.4.3 State and Regional Grants

Regional Bridge Tolls

Bridge toll revenues provide funding for transit projects on or near bridge corridors that help to relieve bridge traffic and/or provide alternative public transit services. Types of projects that can receive such funding include bicycle facilities, ferry planning, capital and operations, and rail extensions that serve bridge corridors.

Bridge toll revenues normally serve as state and local match for SamTrans and other operators to leverage federal capital funds. In general, funding available from this source has not been sufficient to provide the match for all funded capital projects. The first priority for matching funds is given to projects funded under the federal Section 5307 and 5339 program.

Bridge Toll Funding Regional Measure 2

Regional Measure 2 (RM2), established in 2004, increased bridge tolls by $1.00 on the seven state-owned toll bridges in the Bay Area to fund projects that help ease congestion in the Transbay bridge corridors and to enhance the convenience and reliability of the Bay Area's public transit system. Transit projects receiving RM2 funds include a BART link to Oakland Airport and the first leg in the planned BART extension to Silicon Valley, redevelopment of San Francisco's Transbay Terminal, seismic retrofit of the Transbay BART tube, expanded Caltrain service along the Peninsula, and planning for the introduction of commuter rail service over a rehabilitated Dumbarton rail bridge. RM2 funds will also support express and local bus service, and new ferries for expanded Transbay service. In addition to capital investments, the Regional Traffic Relief Plan dedicates up to 38 percent of total annual receipts to providing operating funds for commuter rail, express and enhanced bus, and ferry service. These funds have been used to provide real time transit information for both Caltrain and SamTrans. It has also been used to develop an inventory of regional rail right-of-ways.

Bridge Toll Funding Regional Measure 3

In November 2018, Bay Area voters approved a bridge toll increase of $1 beginning January 1, 2019, with two additional $1 toll hikes in 2022 and 2025. Toll revenues will be used to finance highway and transit improvements along the bridges and their approaches.

Transportation Development Act Funding

The Transportation Development Act (TDA) of 1971 established two funding streams for transit operations, the Local Transportation Fund (LTF) and the State Transit Assistance (STA) Fund. This law provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. The LTF is derived from a ¼ cent of the general sales tax collected statewide and funds are allocated based on each county's population. STA funds are appropriated by the legislature to the State Controller's Office (SCO). The SCO then allocates the revenue, by formula. Statue requires that 50% of STA funds be allocated directly to transit operators. State Senate Bill 1 (SB1), signed into law in April 2017,) augments the base of the State Transit Assistance program essentially doubling the funding for this program.

Transportation Fund for Clean Air (TFCA)

The Bay Area Air Quality Management district administers the transportation Fund for clean air (TFCA), program which draws its revenue from vehicle registration fees in the Bay Area. Forty percent of the funds raised in each county, known as program manager TFCA funds, are returned to that county and administered by a designated county agency. In the case of San Mateo County, this is C/CAG's responsibility. The remaining 60 percent go first to certain pre-established programs, with the remainder distributed on a competitive basis as part of regional TFCA funds. Project criteria are very specific and only transportation projects that result in a demonstrable reduction of vehicular emissions in the Bay Area are eligible for funding. SamTrans receives program manager TFCA funding on an annual basis to help underwrite the SamTrans BART shuttle program.

Low Carbon Transportation Operations Program (LCTOP)

The LCTOP program provides state cap and trade funds on a formula basis to transit agencies and metropolitan Planning Organizations to fund transit projects and operations that reduce greenhouse gas (GHG) emissions. Specifically, approved l LCTOP projects will support new or expanded bus service, expand intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate these services or facilities. The amount of funds available is dependent on state-wide auctions of emissions credits. The program is administered by Caltrans in coordination with Air Resource Board (ARB) and the State Controller's Office (SCO).

Local Partnership Program (LPP)

This program was created through SB1 and provides local and regional transportation agencies that have passed sales tax measures developer fees, or other imposed transportation fees with a continuous appropriation of $200 million annually to fund transportation improvement projects. SamTrans is slated to receive over $800 thousand per year from this program and it must be matched dollar for dollar with local funds.

State Transit Assistance State of Good Repair Program

This is another SB1 program which provides transit agencies across the state with formula funding of approximately $105 million annually. These funds are available for eligible transit maintenance, rehabilitation and capital projects that benefit public transit systems. SamTrans receives approximately $900 thousand per year from this program.

5.4.4 Local Funds

San Mateo County Transit District Half-Cent Sales Tax

Since 1982, county merchants have collected a permanent half-cent sales tax for transit purposes. Proceeds are used to help underwrite the SamTrans operating budget, as well as a portion of the capital budget, including as local match to leverage federal, state and regional funding sources.

San Mateo County Transportation Authority Measure A Half-Cent Sales Tax

The Measure A sales tax, initially approved by County voters in 1988, along with its reauthorization, passed by voters in 2004 to extend the sales tax from 2009 through 2033, provides funding for transportation improvements in San Mateo County.

SamTrans receives Measure A funds for San Mateo County's share of capital and operating support to Caltrain, support for the SFO BART extension, SamTrans shuttle services and a Paratransit trust Fund that provides interest income in perpetuity to support accessible paratransit service.

San Mateo County Vehicle Registration Fee

The C/CAG sponsored Measure M, approved by the voters of San Mateo County in 2010, imposes an annual fee of ten dollars ($10) on motor vehicles registered in San Mateo County for transportation-related traffic congestion and water pollution mitigation programs. The revenue is estimated at $6.7 million annually over a 25-year period. Per the expenditure plan, 50 percent of the net proceeds will be allocated to cities/the county for local streets and roads and 50 percent will be used for countywide transportation programs such as transit operations, regional traffic congestion management, water

pollution prevention, and safe routes to school. SamTrans receives approximately $1.4 million annually to support paratransit operations.

San Mateo County Transit District Measure W Half-Cent Sales Tax

On July 11, 2018, the SamTrans Board voted to place a ½ cent sales tax measure onto the November 2018 Ballot, called Measure W. Half of the new revenue would be used to fund transit operations in San Mateo County; 22.5% would fund countywide highway congestion improvements; 12.5% would fund local safety, pothole, and congestion relief improvements; 10% would fund regional transit connections; and 5% would be used for bicycle and pedestrian improvements. In November 2018, over two-thirds of San Mateo County residents voted to approve the new tax. The tax is expected to generate approximately $80 million per year in new investment to relieve traffic congestion and provide expanded mobility options for County residents.

5.5 Ten-Year Capital Improvements Requirements

The ten-year CIP is focused on maintaining and upgrading existing services and facilities. Presented in **Table 20**, the CIP assumes an approximate $405.9 million capital program dependent upon internal and external funding from federal, state and regional sources.

Key components of the CIP beyond ongoing maintenance needs include:

- Vehicle Expansion
    - Purchase of 37 buses for new express service
- Information Technology, Applications, and Networks
    - Upgrade of the Enterprise Resource Planning (ERP) system
- Intelligent Transportation Systems (ITS)
    - ITS System Upgrade
    - Maintenance Management Software (Enterprise/Transit Asset Management)
- Facility and Systems and Heavy Maintenance Equipment
    - Repave South Base
    - ZEB Infrastructure
    - ZEB Charging Equipment

Table 20: FY 2019 - FY 2028 Capital Improvements Program (Year of Expenditure $, in millions)													
Qty	**Year**	**Description**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**10-yr Total**
REVENUE VEHICLES: REPLACEMENT & REHABILITATION													
55	2002	NABI (60' Articulated)	-	-	-	-	-	-	-	-	-	-	$0.0
50	2017	GILLIG (40')	-	-	-	-	-	-	-	-	-	-	$0.0
2	2019	PROTERRA E2 (40' Battery Electric)	-	-	-	-	-	-	-	-	-	-	$0.0
8	2020	PROTERRA E2 (40' Battery Electric)	-	-	-	-	-	-	-	-	-	-	$0.0
13	2013	El Dorado (22' Cutaway, Redi-Wheels)	-	$1.7	-	-	-	-	-	-	$1.9	-	$3.6
21	2015	EL DORADO (22' Cutaway, Redi-Wheels)	-	-	-	$2.8	-	-	-	-	-	-	$2.8
14	2014	EL DORADO (Minivan, Redi-Wheels)	-	$1.0	-	-	-	$0.8	-	-	-	$0.9	$2.7
10	2017	EL DORADO (Minivan, Redi-Wheels)	-	-	$0.6	-	-	-	$0.6	-	-	-	$1.2
9	2017	EL DORADO – (22' Cutaway, Redi-Wheels)	-	-	-	-	-	$1.3	-	-	-	-	$1.3
3	2018	El Dorado (22' Cutaway)	-	-	-	-	-	-	$0.4	-	-	-	$0.4
40	2009	Gillig (35')	-	-	-	$11.3	$11.3	$11.3	-	-	-	-	$34.0
91	2009-2010	Gillig (40')	-	-	$17.9	$19.8	$19.8	$19.8	-	-	-	-	$77.3
4	2009	Gillig (29')	-	-		$1.1	$1.1	$1.1	-	-	-	-	$3.4
4	2013	Gillig (29')	-	-	-	-	-	-	$3.4	-	-	-	$3.4
25	2013	Gillig Hybrid (40')	-	-	-	-	-	-	$21.3	-	-	-	$21.3
21	2014	Gillig (40')	-	-	-	-	-	-	-	$17.9	-	-	$17.9
12	2014	Gillig (29')	-	-	-	-	-	-	-	$10.2	-	-	$10.2
Total			$0.0	$2.7	$18.4	$35.1	$32.3	$34.4	$25.7	$28.1	$1.9	$0.9	$179.4
REVENUE VEHICLES: EXPANSION													

Table 20: FY 2019 - FY 2028 Capital Improvements Program (Year of Expenditure $, in millions)													
Qty	**Year**	**Description**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**10-yr Total**
37	2021	BEB's for Express Service (Fleet Expansion)	-	-	$31.5	-	-	-	-	-	-	-	$31.5
Total			$0.0	$0.0	$31.5	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$31.5
CAPITAL PROGRAM/PROJECT DEVELOPMENT & MANAGEMENT													
Program Development, Management			$0.5	$0.3	$0.5	$0.5	$0.5	$0.6	$0.6	$0.6	$0.6	$0.6	$5.2
Capital Program Contingency			$0.2	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$2.7
Total			$0.7	$0.5	$0.8	$0.8	$0.8	$0.8	$0.8	$0.9	$0.9	$0.9	$7.9
BUS STOPS & STATIONS													
Park & Ride Lots			-	-	-	$1.8	$0.3	-	-	-	-	$0.3	$2.4
Bus Stops & Improvements			$0.1	-	$0.1	$0.1	$0.1	$0.1	$0.1	$0.2	$0.1	$0.2	$1.0
Total			$0.1	$0.0	$0.1	$2.0	$0.4	$0.1	$0.1	$0.2	$0.1	$0.5	$3.4
INFORMATION TECHNOLOGY, APPLICATIONS, AND NETWORKS													
Infrastructure and Systems			$0.9	-	$1.0	$6.3	$6.4	$7.2	$1.7	$2.0	$2.1	$2.4	$30.0
Network and Security			$0.7	-	$0.9	$0.9	$1.1	$1.3	$1.6	$1.8	$2.1	$2.4	$12.9
VOIP			$0.9	-	$0.2	$0.2	$0.2	$1.0	$0.2	$0.2	$0.2	$0.2	$3.4
District Website			$0.6	$0.4	-	-	-	-	-	-	-	-	$1.0
Remote Offices			$0.1	-	-	$0.1	-	-	$0.1	-	-	$0.1	$0.2
Total			$3.1	$0.4	$2.2	$7.5	$7.7	$9.5	$3.6	$4.1	$4.4	$5.1	$47.5
INTELLIGENT TRANSPORTATION SYSTEMS													
ACS, Farebox, Predictive Arrival, Radios			-	-	$1.3	$2.0	$8.3	$7.0	-	$2.3	$2.3	$0.2	$23.5
Cameras on Board			-	-	$0.8	-	-	-	-	$1.0	-	-	$1.8
ITS Replacement			-	-	$0.2	-	-	-	-	-	-	-	$0.2
Total			$0.0	$0.0	$2.3	$2.0	$8.3	$7.0	$0.0	$3.3	$2.3	$0.2	$25.5
PLANNING													
Planning/Ops Analysis/TOD/Sustainability			$0.3	-	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.4	$0.4	$2.9
Total			$0.3	-	$0.3	$0.3	$0.3	$0.3	$0.3	$0.3	$0.4	$0.4	$2.9
FACILITY & SYSTEMS & HEAVY / MAINTENANCE EQUIPMENT													

Table 20: FY 2019 - FY 2028 Capital Improvements Program (Year of Expenditure $, in millions)													
Qty	**Year**	**Description**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**10-yr Total**
Facility & Equipment Upgrade & System Rehab & Replacement			$1.7	$9.5	$0.9	$2.3	$2.0	$0.7	$0.7	$0.7	$0.7	$0.7	$20.0
Maintenance Software			-	$0.2	-	$5.2	-	-	-	-	-	-	$5.4
ZEB Infrastructure			-	-	-	-	$18.0	-	-	-	$15.0	-	$33.0
ZEB Chargers			-	-	$9.7	-	$4.9	-	-	-	$4.4	-	$19.0
Total			$1.7	$9.7	$10.6	$7.6	$24.9	$0.7	$0.7	$0.7	$20.1	$0.7	$77.4
TOOLS & EQUIPMENT													
Maintenance Equipment & Tools			$0.1	$0.1	$0.2	$0.6	$0.2	$0.1	$0.2	$0.7	$0.2	$0.1	$2.5
Revenue Vehicle Component Replacement *			$1.7	$0.6	$1.2	$1.3	$1.3	$1.3	$1.4	$1.4	$1.4	$1.5	$13.0
Total			$1.8	$0.7	$1.4	$1.9	$1.5	$1.4	$1.5	$2.1	$1.6	$1.5	$15.5
SERVICE VEHICLES													
Shop Vehicles			-	-	-	-	$0.1	-	-	-	$0.5	-	$0.6
Support Vehicles			$0.1	$0.2	$0.3	$0.2	$0.8	-	-	-	-	-	$1.6
Total			$0.1	$0.2	$0.3	$0.2	$0.9	$0.0	$0.0	$0.0	$0.5	$0.0	$2.2
SAFETY / SECURITY													
Facility Security Systems			-	$0.2	$0.5	$0.5	$0.2	$0.2	$0.1	$0.2	$0.2	$0.2	$2.1
Access Control System Improvements			-	-	$0.1	$0.2	$0.3	$0.2	$0.1	$0.2	$0.2	$0.2	$1.3
Threat and Vulnerability Studies			-	-	-	$0.1	-	-	-	$0.1	-	$0.1	$0.3
Total			$0.0	$0.2	$0.5	$0.8	$0.5	$0.4	$0.1	$0.5	$0.4	$0.5	$3.7
PROPOSED FUNDING SOURCES			2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	10-Yr Total
		FEDERAL (5307)		$2.0	$15.1	$28.8	$26.5	$28.2	$21.1	$23.0	$1.5	$0.7	$146.9
		STATE	$1.2	$1.3	$20.5	$1.2	$1.3	$1.3	$1.3	$1.4	$1.4	$1.4	$32.3
		OTHER	$0.5		$8.0								$8.5
		LOCAL DISTRICT SALES TAX	$6.0	$10.9	$24.7	$28.2	$49.9	$25.2	$10.5	$15.8	$29.5	$8.6	$209.2
		TOTAL FUNDING	$7.7	$14.2	$68.3	$58.2	$77.6	$54.7	$32.8	$40.1	$32.5	$10.8	$396.9
		TOTAL CIP COST	$7.7	$14.2	$68.3	$58.2	$77.6	$54.7	$32.8	$40.1	$32.5	$10.8	$396.9

5.5.1 Revenue Vehicle Fleet Inventory

Table 21 presents an inventory of existing vehicles in the SamTrans revenue fleet, both fixed-route and paratransit.

Table 20: Revenue Vehicle Inventory

	QTY	BUS #	FUEL	YEAR	MAKE	LNGTH	MODEL	ENGINE ARB CERTIFICATION YEAR	VEHICLE TYPE	FUND	SEATS	IN SERVICE DATE
NORTH BASE	FIXED ROUTE											
	21	120-140	D	2002	NABI	60'	436.1	CUMMINS ISL 330/2002	URBAN BUS	F	58	Sep '02-Jan '03
	29	400-428	D	2009	GILLIG (LF)	40'	G27D102N4	CUMMINS ISL 280/2009	URBAN BUS	F	39	Dec '09-Mar '10
	14	515-528	D	2009	GILLIG (LF)	35'	G27B102N4	CUMMINS ISL 280/2009	URBAN BUS	F	32	Feb-10
	27	600-626	D	2017	GILLIG (LF)	40'	G27D102N4	CUMMINS ISL9 280 HP	URBAN BUS	F	39	July '17 - Aug '17
	13	700-712	D	2013	GILLIG HYBRID	40'	HYBRID BRT	CUMMINS ISB/2013	URBAN BUS	F	39	Nov'13 - Dec'13
	11	900-910	D	2014	GILLIG (LF)	40'	G27B102N4	CUMMINS ISL9 280/'14	URBAN BUS	F	39	Sep '14 - Oct'14
	3	2950-2952	D	2014	GILLIG (LF)	29'	G27B102N4	CUMMINS ISL9 280/'14	URBAN BUS	F	26	Nov '14
	118	Revenue Total						NOTE: #134 & #400 ,#700, #900, & #2950 ARE "AD FREE" BUSE				
	REDI-WHEELS											
	14	200-213	G	2014	EL DORADO	17'	AMERIVAN	DODGE 3.6 PINSTAR	MINIVAN	F	3	Nov '14
	1	239	G	2015	EL DORADO	22'	AEROTECH	6.8L Triton V10/2015	CUT-AWAY	F	9	Nov-14
	10	240-249	G	2013	EL DORADO	22'	AEROTECH	6.8L Triton V10/2013	CUT-AWAY	F	9	Nov '12
	10	250-259	G	2017	EL DORADO	17'	AMERIVAN	DODGE 3.6L/2016	MINIVAN	F	3	July '17 - Aug '17
	9	260-268	G	2017	EL DORADO	22'	AEROTECH	6.8L Triton V10/2017	CUT-AWAY	F	9	July '17 - Aug '17
	3	270-272	G	2013	EL DORADO	22'	AEROTECH	6.8L Triton V10/2013	CUT-AWAY	F	9	Apr '12
	47	Total									42	
SOUTH BASE	FIXED ROUTE											
	20	100-119	D	2002	NABI	60'	436.1	CUMMINS ISL/2002	URBAN BUS	F	58	Sep '02-Jan '03
	18	429-446	D	2009	GILLIG (LF)	40'	G27D102N4	CUMMINS ISL 280/2009	URBAN BUS	F	39	Mar '10 - May '10
	15	500-514	D	2009	GILLIG (LF)	35'	G27B102N4	CUMMINS ISL 280/2009	URBAN BUS	F	32	Feb-10
	23	627-649	D	2017	GILLIG (LF)	40'	G27D102N4	CUMMINS ISL9 280 HP	URBAN BUS	F	39	July '17 - Aug '17
	12	713-724	D	2013	GILLIG HYBRID	40'	HYBRID BRT	CUMMINS ISB/2013	URBAN BUS	F	39	Nov'13 - Dec'13
	10	911-920	D	2014	GILLIG (LF)	40'	G27D102N4	CUMMINS ISL9 280/'14	URBAN BUS	F	39	Sep '14 - Oct'14
	7	2953-2954, 2957-2961	D	2014	GILLIG (LF)	29'	G27E102N2	CUMMINS ISL9 280/'14	URBAN BUS	F	26	Nov 2014
	105	Revenue Total			NOTE: # 500 IS AN "AD FREE" BUS AT SB							
	REDI-WHEELS											
	3	216-218	G	2018	EL DORADO	22'	AEROTECH	6.8L Triton V10/2018	CUT-AWAY	F	9	Jun-18
	20	219-238	G	2015	EL DORADO	22'	AEROTECH	6.8L Triton V10/2015	CUT-AWAY	F	9	Nov-14
	23	Total										
CONTRACTED	CONTRACTED											
	FLX - MV											
	3	***1522-1524	D	2013	STARCRAFT	22'	FORD E 450	6.8L Triton V10/2013	CUT-AWAY		18	
	***CONTRACTOR PROVIDED											
	ROUTE 17 - HALF MOON BAY											
	4	2900-2903	D	2009	GILLIG	29'	G27E102N2	CUMMINS ISL 280/2009	URBAN BUS	F	26	Feb. '10
	4	2910-2913	D	2013	GILLIG	29'	G27E102N2	CUMMINS ISL 280/2013	URBAN BUS	F	26	Dec. '13
	2	2955-2956	D	2014	GILLIG (LF)	29'	G27E102N2	CUMMINS ISL9 280/'14	URBAN BUS	F	26	Nov 2014
	10	Total			29' Bus has only 1 exit							
	MV TRANSPORTATION - S.F.											
	14	141-154	D	2002	NABI	60'	436.1	CUMMINS ISL/2002	URBAN BUS	F	58	Sep '02-Jan '03
	44	447-490	D	2009	GILLIG (LF)	40'	G27D102N4	CUMMINS ISL 280/2009	URBAN BUS	F	39	Dec '09-Mar '10
	11	529-539	D	2009	GILLIG (LF)	35'	G27B102N4	CUMMINS ISL 280/2009	URBAN BUS	F	32	Feb-10
	69	Total										
	DUMBARTON EXPRESS											
	16	201-216	D	2015	GILLIG	40'	G27D102N4					
	16	Total										

TOTALS	NB & SB FIXED ROUTE FLEET		PARATRANSIT:		CONTRACTED			
	BUSES:		REDI-WHEELS		MV BUSES:			
	NORTH BASE	118	CUT-AWAY	46	ROUTE 17 (bus)	10	FLX - MV (CUTAWAYS)	3
	SOUTH BASE	105	MINIVANS	24	MV TRANS.	69	DUMBARTON	16
	FIXED ROUTE	223	REDI-WHEELS	70				

Contingency Fleet	1	DR1 (651)	D	1998	GILLIG	40'	C21D102N4	CUMMINS M-11/1998	URBAN BUS	F	41	Sep '98-Jan '99
	1	DR2 (637)	D	1998	GILLIG	40'	C21D102N4	CUMMINS M-11/1998	URBAN BUS	F	41	Sep '98-Jan '99
	10	300, 312, 321, 323, 326,336, 338, 339, 349,	D	2003	GILLIG (LF)	40'	G20D102N4	DETROIT S-50 EGR/2003	URBAN BUS	F	37	Dec '03 - May '04

Fund: Federal/Local Match...F = Federal, L = Local, S = State

note: bus 308 is being used as a training tool for A.D.A. at CARE Evaluators in Burlingame

Revised: Feb 6, 2019 (Rev A) - RUN Book 128

5.5.2 Revenue Vehicles: Replacement, Rehabilitation, & Expansion

Revenue Vehicle Replacement Program

Table 22 displays a detailed list of the number and type of vehicles to be replaced over the next ten years. It is assumed that current equipment will be replaced with like equipment. This replacement schedule, which conforms to FTA requirements, is updated on a regular basis to address service needs and regulatory changes.

Table 21. Revenue Vehicle Replacement

No. of Vehicles to be replaced	Est. Year of Manufacture	Est. Year Vehicle will be placed in service	Vehicle Length	Vehicle Type	Service Type	Estimated Cost of Replacement[8]
13	2013	2020	22’	Cutaway	On-Demand	$1,703,000
14	2014	2020	17’	Mini-van	On-Demand	$784,000
21	2015	2022	22’	Cutaway	On-Demand	$2,835,000
10	2017	2021	17’	Mini-van	On-Demand	$570,000
9	2017	2024	22’	Cutaway	On-Demand	$1,251,000
3	2018	2025	22’	Cutaway	On-Demand	$423,000
55	2002	2020	60’	Articulated	Fixed-Route	$49,775,000
40	2009	2022	35’	Standard Bus	Fixed-Route	$34,000,000
91	2009	2021	40’	Standard Bus	Fixed-Route	$77,350,000
4	2009	2022	29’	Standard Bus	Fixed-Route	$3,400,000
4	2013	2025	29’	Standard Bus	Fixed-Route	$3,400,000
25	2013	2025	40’	Hybrid	Fixed-Route	$21,250,000
21	2014	2026	40’	Standard Bus	Fixed-Route	$17,850,000
12	2014	2026	29’	Standard Bus	Fixed-Route	$10,200,000
37	2021	2021	40’	Electric	Fixed-Route	$31,450,000
50	2017	Beyond 2028	40’	Standard Bus	Fixed-Route	TBD
2	2019	2019	40’	Electric	Fixed-Route	$1,563,750
8	2020	2020	40’	Electric	Fixed-Route	$6,255,000

SamTrans follows the FTA guidelines for vehicle replacement, which are as follows:

- Fixed-route buses (Gillig, NABI) - 12 years
- Paratransit cutaways (El Dorado) - 7 years
- Paratransit minivans or high-tops (El Dorado) - 4 years

[8] Pricing reflects projected cost of a replacement gas vehicle and assumes $850,000 per bus for 40’ battery electric bus with 440 kW battery pack. Pricing for Standard Bus vehicles reflect the year-to-year 1.23% increase used by MTC.

Future vehicle procurements will maintain the same standard of two wheelchair slots on fixed-route buses and paratransit cutaway vehicles and one wheelchair slot on paratransit mini-vans. Also, front-end three-bike bike racks are part of all fixed route buses (except 29-foot vehicles).

Electric Bus Pilot Program

As part of the Advanced Clean Transit Initiative, the CARB has set a state-wide goal of transforming all transit fleets to zero-emissions bus technology by 2040, which became official in fall 2018.

The District has been collaborating with the CARB and other Bay Area transit agencies on efforts to further reduce emissions from the conventional bus fleet by phasing in zero emissions bus purchases leading up to this milestone. SamTrans is currently working on a zero-emissions bus implementation plan which will outline how the District will achieve 100% zero-emissions buses ahead of the 2040 deadline. This plan is due to CARB in June 2020. The Zero Emissions Bus implementation planning activities are detailed in **Section 2.4.8.**

Revenue Vehicle Rehabilitation Program

The District anticipates replacing all vehicles when their life cycle ends. There is no rehabilitation planned for revenue vehicles.

Revenue Vehicle Expansion

The CIP includes funds for an expansion of the revenue vehicles for implementation of express bus services for a total of $31.5m over the ten-year period (37 buses).

5.5.3 Summary of Revenue Vehicle Fleet Inventory

Table 23 shows a summary of the vehicle fleet characteristics. SamTrans does not maintain a reserve fleet for either fixed- route or demand-responsive vehicles.

Table 22: Summary of Vehicle Fleet Inventory

Total Fixed-Route Vehicles	318
Spare Ratio of Fixed Route Vehicles	24%
Total Demand-Response Vehicles	70
Spare Ratio of Demand-Response Vehicles	17%

Useful Life of Revenue Vehicles	Bus: 12 years Cut-away: 7 years Minivan: 4 years
Next Replacement of Vehicles	Bus: 2020 Cut-away: 2022 Minivan: 2020

As shown in **Table 23**, SamTrans currently has a spare ratio of 24%. The Federal Transit Administration (FTA) establishes rules and regulations pertaining to transit vehicle fleets – in particular, FTA Circular 9030.1C, "Urbanized Area Formula Program: Grant Application Instructions" states that an agency's spare ratio should not exceed 20 percent of the number of vehicles operated in maximum service.

In previous SRTPs, SamTrans has been able to maintain a spare ratio of approximately 20%. SamTrans has only recently exceeded regulations due to the ongoing implementation of block scheduling (also known as in-field operator relief). This practice facilitates more efficient operations by reducing deadhead miles. Operators who need to take a scheduled break or who are finishing their shift may be relieved by a supervisor while on the road as opposed to taking their vehicle out of service or returning to the yard. By reducing the number of times a vehicle goes out of service, the overall need for peak-service vehicles is reduced. Staff anticipate that the extra resources freed up by this new procedure will be re-allocated for the initial launch of express bus service in 2019 or 2020 (discussed further in **Section 2.4.14**). Re-allocating all vehicles in excess of the FTA-mandated spare ratio can be re-allocated to express service should again reduce the spare ratio to approximately 20%.

SamTrans will continue to monitor the spare ratio as buses are re-allocated to other service. If the spare ratio continues to exceed the 20% threshold after the implementation of new service, SamTrans will explore options, in consultation with the FTA, to bring the spare ratio back to 20%.

5.5.4 Facilities, Tools, and Equipment

This section reviews safety/ security, maintenance, operating equipment and facilities.

Bus Stops and Stations

The CIP identifies improvements to the US-101/92 Park-and-Ride lot in the year 2022, which is a recommendation from the US 101 Express Bus Feasibility Study. Bus stops and stations category include rehabilitation of pavement at bus stops and at park and rides throughout the service area. The total ten-year cost is $3.2m.

Information Technology, Applications, and Networks

SamTrans will be procuring a new Business Intelligence (BI) system in FY20. This new BI system will streamline data collection/analysis across multiple disciplines (operations, finance, etc.) across the District. The CIP also includes an upgrade of the Enterprise Resource Planning (ERP) system beginning in FY22.

Information technology/applications support the district's operations, maintenance, development, administration, and communications functions are also included in this category. This includes items

such as computers, servers, printers, copiers, other miscellaneous hardware and necessary software upgrades/enhancements.

SamTrans has programmed $43.2m for this category.

Intelligent Transportation Systems

The SamTrans electronic fare collection system was implemented in 2009. It is used to record passenger data, validate collected fares, and print tickets. The CIP includes funding for equipment that should be replaced every five to 15 years and a mid-life rebuild scheduled for FY2023 and 2024. SamTrans is looking to replace the ITS system with a new, upgraded system within the next several years.

In FY21, SamTrans will be hiring a consultant to conduct a technology needs assessment and develop a scope of work/design for a new ITS system. The new ITS system is expected to fully replace the existing system and bring additional technological features to the buses and for the riders. Once the technology needs assessment is complete, the 135 replacement buses purchased in 2022/23 will be designed with the new ITS system onboard. The CIP does not include a specific line-item for the ITS replacement at this point; if it is determined that a retrofit of the new system on the entire fleet is required, the funding will be included in the CIP. Otherwise, the funding for the ITS system is included in the bus replacement cost.

Another key project ITS project is the El Camino Real (State Highway 82) traffic signal priority (TSP) technology for SamTrans buses between the Palo Alto and Daly City. This project, funded through an MTC Transit Performance Initiative Grant, will improve transit speed along the corridor by extending green lights at traffic intersections. SamTrans will build on the existing El Camino Real Smart Corridor Project, implemented by Caltrans and C/CAG, and deploy wayside antennas at intersection and transponders aboard buses as the primary TSP detection technology to provide maximum communication precision. This project is fully funded, and is in the procurement phase. SamTrans expect to see the system operational in 2020.

The ten-year total cost of ITS related infrastructure and updates are $23.3m.

Facility and Systems and Heavy Maintenance/Equipment

SamTrans will be replacing the SPEAR Computerized Maintenance Management System (CMMS) with a new Enterprise Asset Management system (EAM) by FY22. The CIP includes funds in FY20 for a consultant to develop the scope of work and design for the new system, and will include the addition of a Transit Asset Module (TAM). The procurement is expected to occur in FY22.

This category includes funding to repave the South Base Operating Facility in FY20.

The CIP includes funding to support the District's first major purchase of Zero Emissions Buses including $24 million in infrastructure costs and $9.6 million in charging equipment over FY20 and FY21, respectively. The next phase of ZEB costs will occur with the FY26/27 bus replacement cycle. Additional infrastructure and charger costs are expected to occur in FY23 and FY27 as the District moves to full Zero Emissions Buses. The Zero Emissions Bus implementation planning activities are detailed in **Section 2.4.8.**

This category also includes systematic rehabilitation and replacement of fixed and heavy equipment, and upgrades to electrical, mechanical, heating ventilation and air conditioning, and other sub- systems.

Fixed equipment replacement and rehabilitation include but is not limited to bus washers, vacuum equipment, lifts, and hydraulics. Included in this category is also regular maintenance and improvements to buildings and facilities such as space reconfiguration, pavement rehabilitation and roofing, and rehabilitation of water treatment facilities.

The total ten-year cost in this category is $108.9m.

Tools and Equipment

Tools and equipment include systematic replacement of non-fixed maintenance equipment for revenue and non-revenue vehicles. The total ten-year cost is $14.1m.

Service Vehicles

SamTrans' non-revenue vehicles consist of pool cars, road supervisor's cars, maintenance trucks, and specialty vehicles, such as money collection and TVM trucks. There are a total of 74 non- revenue vehicles in the SamTrans fleet.

The ten-year total cost for the service vehicles is $2.3m. Non-revenue vehicles are replaced approximately every six to seven years. However, the exact replacement schedule depends on the condition of the vehicle, as mileage can vary.

Safety/Security

Basic safety and security program costs include security kiosks due to deterioration and lack of security controls and replacement of the PPT phone system with multichannel radios and base station in the Security Operations Control center. The program includes enhancements to the closed circuit television (CCTV) system at Central, North, South and Brewster bases in the form of software and camera upgrades. The total ten-year cost of safety-related programs is $3.6m.

5.5.5 Other Capital Projects

Capital Program/Project Development and Management

Capital program, project development and management costs, and a capital program contingency are projected to be $7.5m over the next ten years.

Planning Initiatives

Other capital projects include a Comprehensive Operations Analysis (described previously in **Section 2.4.3**), capital enhancements efforts, and planning- level studies of sustainability and transit oriented development. Over the ten-year planning horizon, SamTrans has programmed $2.7m.