



SAN FRANCISCO  
STATE UNIVERSITY

# Transportation Demand Management Plan

FALL 2009



# Executive Summary

## Introduction

In October 2007, the City and County of San Francisco and San Francisco State University entered into a Memorandum of Understanding (MOU). The purpose of the MOU is to address the impact on the City and County of San Francisco from the implementation of the Campus Master Plan and subsequent increase in enrollment on the campus. The creation and implementation of a TDM plan are identified in the MOU as key steps that the University must take to address and minimize the transportation impacts the expanded enrollment will have.

## Purpose and Goal

The primary goal of the TDM plan is to ensure that adequate measures are undertaken and maintained to minimize the transportation impacts of the increase in enrolled students and number of employees as set forth in the Final Campus Master Plan Environmental Impact Report (EIR). More specifically, the plan must outline a program that will minimize the daily AM and PM peak period vehicle trips to the campus.

The plan includes two key elements: a TDM implementation plan and a Monitoring Plan. The TDM implementation plan provides a timeline, broken into one to two years, three to five years and six or more years, within which a number of programs and policies will be implemented to improve access to alternative transportation and to address the anticipated transportation impacts of the increase in enrolled students and number of employees planned for the long term.

The Monitoring Plan will be utilized by the University to ensure that the TDM plan continues to address these issues over time and will be adjusted as needed to best meet evolving transportation needs.

## TDM Program

The University will utilize a wide variety of TDM measures to reduce trip generation by students, staff, faculty and other university affiliates. The proposed measures expand and strengthen the existing programs offered by the University and introduce new programs that are not currently offered. While these measures can stand alone, they make a more significant impact when used together to create a package of options for those travelling to and from San Francisco State University. The University will work to implement the following measures with available funding and make every effort to identify external funding to address anticipated need.

### TDM

- **Transportation Committee** – The University will create a Transportation Committee to serve as the central coordinating body for all transportation matters, including implementation of the University's TDM program. The committee will be composed of representatives from various campus departments concerned with

transportation and will report to the Vice President for Administration and Finance and the Vice President for Student Affairs.

- **Ride Match Program** – The University will strengthen the existing Ride Match program by increasing participation rates and provide staff and students with direct marketing about the Ride Match program.
- **Marketing and Information** – The University will update and revamp its website and print materials to provide more comprehensive information on alternative transportation options to and from the University.
- **Commuter Check Program** – The University will promote and expand participation in its current commuter check program, which offers faculty, staff and administrators the opportunity to purchase transit passes and van pool transit with their pre-tax salary.
- **Car-share** – The University will promote and expand campus use of the existing Zipcar program, which provides self-service access to vehicles by the hour or day.
- **Guaranteed Ride Home Program** – The University will seek funding to implement a Guaranteed Ride Home Program for those faculty, staff, and administrators who enroll in an alternative mode program.

### Shuttle

- Work with BART, SFMTA, and SamTrans to relocate the San Francisco State University Shuttle stop at Daly City BART.
- Improve existing shuttle service.
- Seek to replace current van conversion vehicles with low-floor transit buses.
- Seek to install GPS for real-time tracking.

### Transit

- **Universal Transit Pass** – The University will work with SFMTA, BART, and other public transportation agencies to evaluate the feasibility and funding options for a student universal transit pass program.
- **NextBus Arrival Signage** – The University will install NextBus displays at two campus locations and work with SFMTA to assist with the installation of arrival signage at transit stops serving campus.
- **Offer transit ticket purchase options** – The University will allow the City to install and maintain automated ticket vending machines and will continue to provide ticket sales services for FastPasses and BART tickets.
- **Work to improve transit stop amenities** (lighting, signage, shelter)

### Pedestrian/Bicyclists

- **Bike Barn** – The University will evaluate Bike Barn hours and expand them as needed; install additional bike racks as needed; and explore the feasibility of relocating the Bike Barn and providing a full range of services at the Bike Barn facility.

- **Bike/Pedestrian Paths** – The University will complete the initial phase of the north-south bicycle and pedestrian path, plan for an expanded bicycle network, including the final leg of the north-south path and an east-west path; and study the feasibility of the Valley bridge.

### Parking

- **Parking Fees** – The University will explore the feasibility of implementing gradual parking rate increases for daily and hourly rates.
- **New Parking Facilities** – The University will seek to finance new perimeter parking structures, as feasible.

## Targets

The University will work to achieve the following targets and will use these targets as benchmarks throughout the monitoring process.

1. If average peak period, peak direction passenger loading exceeds 85 percent of combined seated and standing load capacity for shuttle service between the campus and the Daly City BART station, the campus will improve services during the peak period(s) until this standard is met.
2. If the number of auto trips in the PM peak hour of 4:00 PM to 5:00 PM are greater than 5 percent over the baseline of 1,173 vehicle trips,\* the University will conduct cordon counts annually until such trips fall below the 5 percent above the baseline for two years in a row.
3. If the number of peak period, 5:00 PM to 6:00 PM, transit trips on the M-line between the campus and West Portal Station are greater than 5 percent above the baseline of 134 inbound trips and 273 outbound trips\*, the University will extend campus shuttle service between the campus and West Portal Station during the peak period(s).

## Monitoring Plan

San Francisco State University is committed to a comprehensive Monitoring Plan as part of the TDM Plan and the MOU with the City and County of San Francisco.

The Monitoring Plan requires regular periodic evaluation to determine how the TDM Program is achieving the goal of reducing the number of drive alone trips to the campus and minimizing new peak hour trips.

The following measures are recommended to ensure compliance with the Monitoring Plan:

1. **Cordon Surveys** – Every three years but no later than the addition of each 1,000 students in enrollment by headcount, the University will conduct a statistically significant cordon survey of campus commuters during the PM peak hour. This

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\* Baseline established in comprehensive transportation survey conducted April 2008.

survey will abide by the guidelines set forth in the MOU between the University and City and County of San Francisco.

- a. If the cordon surveys show that the PM peak period auto trips to and from campus are greater than 5 percent above the baseline, the cordon surveys will be conducted annually until such trips fall below the 5 percent above the baseline for two years in a row.
2. TDM Report to SFMTA – The University transportation committee will report annually to SFMTA regarding the status of the implementation of the TDM programs described in the TDM Plan.
3. Shuttle Capacity – The University will monitor peak hour utilization of Campus Shuttle buses.
4. The University will monitor peak period transit use on the M Line

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# Chapter 1. Introduction

## 1.1 Background

In November 2005, San Francisco State University began the planning process to develop a campus master plan. The creation of the campus master plan evolved over two years, with participation by both the on-campus community and neighbors. On November 14, 2007, the Board of Trustees of the California State University approved the final campus master plan and an increase in San Francisco State University's enrollment target from 20,000 full-time equivalent students (FTE) to 25,000 FTE, and certified the Final Environmental Impact Report (EIR).

The plan establishes a long-term vision for the physical environment and identifies improvements to occur through the year 2020 that will help the university achieve its strategic vision to become "the nation's preeminent public urban university." The planning process involved the City and County of San Francisco, and various City agencies provided feedback on the Draft EIR regarding the identification and mitigation of off-campus impacts. Under the "Marina decision" (*City of Marina v. Board of Trustees of the California State University*, 2006 California Supreme Court), the University is required to negotiate with the City and seek funding for its "fair share" of mitigation costs to offset the public capital costs of providing City infrastructure. In order to address the environmental impacts resulting from the Campus master plan and determine the fair share contribution, the City and University began discussing the creation of a Memorandum of Understanding (MOU) in June 2007.

## 1.2 Purpose and Need for Plan

In October 2007, the City and County of San Francisco and the San Francisco State University entered into a MOU. The purpose of the MOU is to address the impact on the City and County of San Francisco from the implementation of the campus master plan and anticipated increase in enrollment on the campus.

The MOU identifies a number of measures that the University must take. The creation of this Transportation Demand Management plan addresses requirement 1 in Section B of the MOU. Requirement 1, Section B, states that the University must implement a TDM program to minimize the daily AM and PM peak period vehicle trips to the campus. The objective of the program is to ensure that adequate measures are undertaken and maintained to minimize the transportation impacts of the increase in enrolled students and number of employees as set forth in the campus master plan.

This plan serves to meet the MOU requirement of a TDM Plan and related monitoring plan.

## Chapter 2. Existing Conditions

This chapter provides a discussion of the various travel modes used to access the San Francisco State University campus, including mode split, transit services, pedestrian and bike facilities, transportation demand management programs, and parking. In addition, the results of the April 2008 cordon count, intercept survey and online survey undertaken by the University are also discussed.

### 2.1 Travel Modes

Commuters travel to campus from locations throughout the Bay Area using a wide variety of transportation modes. The following section reviews existing transportation options and services.

#### Mode Split

In April 2008, San Francisco State University conducted an online survey that asked University affiliates how they travelled to and from campus on Wednesday, April 30<sup>th</sup>. A total of 4,386 University affiliates responded to the survey and out of the 4,386 total respondents, approximately 3,300 persons stated that they were on campus on Wednesday, April 30<sup>th</sup>. For the purposes of survey analysis only those persons who stated they were on campus were included. To eliminate the possibility of bias, the online survey was supplemented with a complete hand cordon count of all persons entering and exiting the campus, and the cordon survey was supplemented by an intercept survey asking people a few questions about their mode choice that day. Using these data the mode split for persons travelling to San Francisco State University was determined.

Muni was the most common mode used to arrive on campus, 31 percent, followed by driving, 26 percent. Seventeen percent of commuters arrive via the San Francisco State University shuttle. In comparison, only four percent of commuters arrive at campus via bicycle and 12 percent arrive on campus by foot. Figure 1 shows the last mode people used to arrive at campus.

**Figure 1: Mode of Arrival to Campus (N=3292)**

How Online Survey Respondents Get to San Francisco State University	Percentage
Muni	30.6%
Drive alone	26.0%
San Francisco State University Shuttle	16.9%
Walk	12.3%
Carpool	4.9%
Bike	3.5%
Dropped off	2.4%
Other bus provider (AC Transit/Golden Gate Transit/SamTrans)	1.5%
Other	1.1%
Motorcycle/Moped	0.7%
<b>Total</b>	<b>100%</b>

Approximately 40 percent of commuters rely on more than one mode to get to campus (Figure 2).

**Figure 2: Number of Legs in Journey to Campus (N=3292)**

Number of Legs	Percentage of Respondents
1	58.6%
2	24.7%
3	14.7%
4	2.0%

The majority of university affiliates, 59 percent, use only one mode to get to campus while a quarter use two modes. Only 2 percent have four legs in their journey to campus.

Thirty six percent of respondents used Muni for a portion of the journey to campus. The second most common mode used was driving with 34 percent of respondents stating that they drove for a portion of their trip to San Francisco State University. Approximately 21 percent of respondents took BART and the San Francisco State University shuttle for one leg of their trip and 19 percent walked.

**Figure 3: All Modes Used to Get to Campus (N=3292)**

How Online Survey Respondents Get to San Francisco State University	Percentage
Muni	36.3%
Drive alone	33.6%
BART	21.3%
San Francisco State University Shuttle	20.7%
Walk	18.6%
Carpool	6.8%
Bike	5.5%
Dropped off	4.2%
Other bus provider (AC Transit/Golden Gate Transit/SamTrans)	3.2%
Other	1.6%
Caltrain	1.1%
Motorcycle/Moped	1.0%

## Baseline Auto Trips

The data collected in the April 2008 online survey was used to establish a baseline number of auto trips for the entire campus population.<sup>1</sup>

**Figure 4: Peak Hour Auto Trips (N=total campus population)**

Time	Peak Hour Auto Trips	% of Total Daily Auto Trips	Total Daily Auto Trips
4:00 PM – 5:00 PM	1,173	8.0%	14,723

## Pedestrian

Approximately 12 percent of university affiliates arrive on campus by foot and almost all internal trips are also on foot.

## On-Campus

On the core campus, the University has established a pedestrian-oriented vehicle-free zone within the central area of the campus. This zone is defined by barrier gates at vehicle boundaries to the pedestrian zone, as well as outstanding landscaping which greatly enhances pedestrian amenity within the central core of the campus.

## Surrounding Area

San Francisco State University is situated within walking distance of relatively intensive residential areas as well as active commercial areas such as Stonestown Shopping Mall and Ocean Avenue retail. The close proximity of these land uses provides opportunity for non-motorized access to campus as well as positive pedestrian activity and campus-community interaction. The Campus Master Plan identifies investment strategies to further enhance pedestrian connectivity, particularly to University Park North and along Holloway Avenue.

## Bicycling

Bicycle commuting currently constitutes a very small proportion of the transportation at San Francisco State University with only 3.5 percent of university affiliates commuting by bicycle. Relative to other university campuses with a high proportion of pedestrian and transit users, San Francisco State University’s bicycle mode split is very low and highlights deficiencies in accommodating bicycle transportation in and around San Francisco State University.

<sup>1</sup> The number of persons arriving by car at campus during the peak was calculated by looking at the last mode respondents took to campus and the mode they used to leave campus and correlating these trips to their arrival and departure time. By adding the to campus and from campus trips together for each hour segment, the vehicle peak hour was determined to be 4:00 p.m. to 5:00 p.m. Carpools were included in the vehicle trip calculation; however the total number of carpool trips for each hour was reduced by a factor of 2.4, the average number of persons in a carpool. Persons who drove and then walked 10 minutes or less to or from campus were also counted as vehicle trips rather than walk trips as required by the MOU.

## **Bicycle Access**

Varied bicycle conditions exist within the 3 to 5 mile biking radius of campus, with discontinuities in the bicycle network highlighting potential improvements for bicycle access to campus. The main bicycle corridor providing bicycle access to San Francisco State University from the north is 20<sup>th</sup> Avenue including bicycle connections through Golden Gate Park and Stern Grove. Bicycle routes providing access between San Francisco State University and places to the south of campus include a variety of streets through Parkmerced, as well as Bicycle Route 75, which accommodates bicycles in wide curb lanes along sections of Beverly Street, 19<sup>th</sup> Avenue and St. Charles Avenue to Daly City BART station.

To the east of campus, the main bicycle access route is along Holloway Avenue and portions of Ocean Avenue near Balboa Park station. Along this route a dedicated on-street bike lane provides excellent bicycle access along Holloway Avenue between Font Boulevard and 19<sup>th</sup> Avenue. The bicycles lanes do not continue east of 19<sup>th</sup> Avenue along Holloway, but the street is a fairly low-speed residential street. To the west of campus, bicycle access is provided along a dedicated off-street route along the perimeter of Lake Merced. This route provides excellent off-street service and is well used by recreational walkers and cyclists, though it has poor connectivity to surrounding streets and to the San Francisco State University campus. The campus master plan identifies opportunities to improve bicycle routes through and around the edges of campus. The ongoing San Francisco Bike Plan Update proposes new bicycle lanes in the short term on Holloway from 19<sup>th</sup> Avenue to Junipero Serra with other bikeway improvements continuing east into the Mission District. In fall 2009, San Francisco State University completed construction of a bike path from 20<sup>th</sup> and Buckingham south down the hillside to South State Drive.

## **Bicycle Facilities**

Currently there are a number of bicycle racks located around the perimeter of the campus core and on-campus housing. Racks are provided at Mary Park Hall, Mary Ward Hall, A.S. Children's Center, The Village, Student Services, Fine Arts, HSS, and the Science building for a total capacity of approximately 60 bikes. The Bike Barn has capacity for 250 bikes.

## **Transit**

The San Francisco Muni provides a number of routes that directly serve the San Francisco State University campus. Routes servicing the campus include the M, 17, 18, 28, 28 Limited (28L) and 29. The Daly City BART station is the closest BART stop to the campus and a campus-sponsored shuttle provides access from the station to the University. In addition to BART and Muni services, SamTrans provides service to the campus via Daly City and Colma via Route 122. The route originates at the South San Francisco BART Station and moves north via Serramonte Shopping Center and Seton Medical Center to the Colma BART Station. From there, it stops at Westlake Shopping Center and heads north on Lake Merced Boulevard past the western edge of San Francisco State University to terminate at Stonestown Shopping Center.

Muni and BART are the most heavily utilized transit systems with 36 percent of San Francisco State University commuters riding Muni and 21 percent riding BART for some portion of their journey to campus.

The figure below shows the percentage of Muni trips that were taken to and from campus via the six Muni routes that directly serve campus. Of those commuters who ride Muni to campus, the most heavily traveled routes are bus route 28 and metro line M, with 32 percent and 45 percent respectively, using these routes for the last portion of their journey to campus.

**Figure 5: Daily Muni trips by Muni route (N = total campus population)**

Muni Route	Number of trips	% of all Muni Trips
17	159	1.1%
18	598	4.0%
28/28L	4,764	32.0%
29	2,165	14.5%
88	8	0.1%
M	6,738	45.3%

For campus affiliates accessing campus via Muni, the peak hour of Muni trips occurs between 8 AM and 9 AM in the morning. In contrast, the Muni system wide peak occurs between 5 PM and 6 PM in the evening. Figure 6 shows the number of trips to and from campus on the routes serving campus during both the San Francisco State University Muni peak and the system wide Muni peak.

**Figure 6: Peak Hour Muni Trips (N = total campus population)**

Muni Route	Number of trips 8:00 am – 9:00 am	Number of trips 5:00 pm – 6:00 pm
17	19	10
18	71	36
28	556	285
28L	6	3
29	256	131
88	1	1
M	795	407
Total	1,751	896

The peak hour trends are parallel to the daily trends in level of usage, as the M metro line and bus route 28 are the most heavily utilized.

During the San Francisco State University Muni peak hour of 8:00 AM to 9:00 AM, the majority of trips on the M line are in the outbound direction while trips taken on routes 28 and 28L are the same in both directions. In the evening peak hour, approximately 140 more people are travelling outbound on the M line. Trips on the 28 and 28L are equal in the northbound and southbound directions.

**Figure 7: Peak Hour, Peak Direction Riders for M line and Bus Route 28 (N=total campus population)<sup>2</sup>**

Muni Route	M Line		Bus Routes 28/28L	
	Inbound Trips	Outbound Trips	Northbound Trips	Southbound Trips
8:00 am – 9:00 am	318	477	278	278
5:00 pm – 6:00 pm	134	273	142	142

**Transit Amenities**

San Francisco State University provides a limited number of transit amenities. The most visible are the red canopies located along 19<sup>th</sup> Avenue at Holloway Avenue in front of the stops for Routes 17, 28, 28L, 29 and the San Francisco State University shuttle. They are easy to access by most users and clearly denote a transit waiting area. Benches are also provided underneath and adjacent to the canopies. Though visually appealing, the canopies offer little protection from rain and wind, and no route maps or schedules are posted in the area to provide information on the bus or shuttle services. For riders with visual impairments, there is no tactile wayfinding and it may be difficult to locate the appropriate bus stop pole when the area is crowded or when multiple bus lines pull into the stop together.

San Francisco State University helped fund and maintains the transit shelter at the M-Line platform in the 19<sup>th</sup> Avenue median.

<sup>2</sup> Inbound and outbound trips for the M line during the AM peak hour were determined by applying a 40% inbound - 60% outbound ratio to the total number of M line trips, scaled to represent the campus population, during the AM peak hour. This ratio was determined by using the home zip codes of online survey respondents to determine their direction of travel and the number of trips in each direction. The same methodology was used in the PM peak and a ratio of 33% inbound – 67% outbound was applied. For the 28/28L the same methodology was used and a ratio of 50% northbound – 50% southbound was applied to both AM and PM peak trips.

## 2.2 Parking

Approximately 26 percent of commuters drive alone to campus. Forty six percent of those who drive park on campus and 45 percent park near campus. The April 2008 online survey asked respondents who stated that they parked on or near campus to identify where they parked. Based on the responses received, and scaled to reflect the entire population of the University, Figure 9 provides a breakdown of parkers by location.

The vast majority of on-campus parkers park in the main parking structure at the center of campus. Near campus, 500 university affiliates parked on 19<sup>th</sup> Avenue and approximately 800 parked on Junipero Serra Boulevard, both of which are free and unpermitted.

Survey respondents who stated that they drove to campus were also asked how much they paid to park. The majority of those who drove, 54 percent, had free parking. Twenty percent paid between \$4 and \$7 dollars and 14 percent have a San Francisco State University monthly parking pass. Given the large number of parkers on 19<sup>th</sup> Avenue, Junipero Serra Boulevard, and the surrounding neighborhoods, it is not surprising that the majority of drivers do not pay for parking.

**Figure 8: Parking Costs (n=1,373)**

Cost	Percentage of Respondents
Free	53.8%
Less than \$1	0.7%
\$1-\$2	3.9%
\$2-\$4	6.5%
\$4-\$7	20.0%
\$7-\$10	0.5%
More than \$10	0.8%
San Francisco State University Monthly Parking Pass	13.8%

Figure 9: Parking On and Near Campus



## On-Campus Parking

Currently 2,911 parking spaces—excluding residential parking at the Villages, UPS, and UPN—are supplied on campus including 73 parking spaces reserved for people with disabilities. On-campus parking is divided among 6 separate parking lots. Lots 20 and 25 are available to students and visitors with the exception of Level 4I Orange to 4n Orange, which is restricted to staff and faculty between 7 AM and 5 PM Monday – Friday. Lot 20 is open 24 hours per day while lot 25 is only available from 7 AM to 10 PM. Both lots charge \$1 per hour with a \$5 maximum per day for parking.

Lots 1, 2, 6, and 19 (roof level of Lot 20) are restricted to use by faculty and staff with valid campus parking permits from 7 AM to 5 PM Monday – Friday. Students with disabilities and visitors are allowed to park in any disabled parking space in any lot.

Demand for on-campus parking is such that, on average, a maximum overall campus parking occupancy of 80 percent is reached between 11 AM and 2 PM. During certain periods of the day, particularly early afternoon, some small parking lots experience 100 percent occupancy.

## Off-Campus and Student Housing Parking

Off-campus parking is also available, though much of this parking is subject to two-hour parking restrictions imposed by the City of San Francisco's residential parking permit program. Free, unrestricted on-street parking exists along both sides of 19<sup>th</sup> Avenue on the east side of campus, along Junipero Serra Boulevard and along sections of Winston Drive and Lake Merced Boulevard. There is also metered on-street parking on Tapia and Holloway Avenue, some of which is reserved for motorcycle parking.

Designated parking is available to on-campus residential students. At University Park North, parking is provided either in carports or on street. In total, there are 631 carport spaces and 106 reserved on-street parking spaces amounting to 737 spaces. Residents pay \$50 a month for a parking space in addition to their housing costs. University Park South follows a similar configuration, with a total of 231 carport spaces for an extra \$50 a month. The City of San Francisco issues Parking Permit E to those living in Parkmerced to park on street without time restriction for \$60 a year. The Village parking lot houses 80 official spaces, with approximately seven additional unofficial spaces where vehicles can park in circulation areas. A space in the garage costs \$100 a month. Additional vehicles may be accommodated in tandem spaces if valet service is provided. As the lot is currently operated by an attendant, valet parking may be a possibility. All on-campus residential students may purchase a \$225 semester permit to park in Lot 25.

## 2.3 Transportation Demand Management

Current TDM efforts include the San Francisco State University shuttle to Daly City BART, the attended Bike Barn facility, San Francisco State University Ride Match Program, commuter check program, Zipcar program, and information on alternative modes of transport provided by the San Francisco State University transportation website. A description of the programs currently offered is given below:

## San Francisco State University Shuttle Buses

For those who commute by BART and the various bus lines serving the station, the Department of Parking and Transportation provides a free shuttle service to and from the Daly City BART station, stopping at 19<sup>th</sup> and Holloway on campus, with one shuttle making a loop through campus stopping at Creative Arts, the student housing on Font, the Library Annex, University Park North, 19<sup>th</sup> Avenue, and Daly City BART. The direct shuttle operates 7:00 AM to 10:30 PM, Monday through Thursday and 7:00 AM to 7:15 PM on Friday, and the loop shuttle operates 7:00 AM to 5:30 PM, Monday through Friday. The shuttle is well utilized, with approximately 17 percent of survey respondents taking the shuttle for the last leg of their commute to campus.

On a daily basis, the shuttle service has 2,800 to 3,200 rides with an average of three runs per hour per shuttle, and a total of 45 to 50 runs per shuttle per day. For 3,000 rides per day this translates to 66,000 rides per month or 594,000 rides per year (shuttle operates nine months out of the year).

Currently, during the peak hours of 8:00 AM to 9:30 AM and 3:00 PM to 6:30 PM, San Francisco State University shuttles are over capacity, which is defined as 28 persons seated and 10 persons standing. During these time periods, demand is so high that there is a queue of riders waiting in line for a shuttle. In general, over the whole day, 75 percent of the time the shuttles are at 100 percent capacity.

Information on the shuttle is provided on the San Francisco State University Parking and Transportation website. Under the “Shuttle Buses” link, stop locations and hours of operation are given.

San Francisco State University, the City and BART are currently working to relocate the San Francisco State University shuttle stop at Daly City Station to be adjacent to the Muni 28/28L stop. Since the shuttle, 28 and 28L lines are all free to San Francisco State University affiliates between the station and campus, co-locating the stops will allow passengers to choose whichever line arrives first.

## San Francisco State University Ride Match Program

The San Francisco State University Ride Match Program matches faculty, staff and students with others in their area to carpool to campus. If the Transportation Department is unable to create the match, it will work with other Bay Area agencies to find one. Currently, 111 participants are enrolled in the program. A number of marketing methods are used to inform students, staff and faculty about the Ride Match program. Marketing methods used include: Parking and Transportation Department website, campus bulletins, notices on shuttles, flyers in on-campus housing, and a notice in the new hires information packet. At the end of each semester persons who have enrolled in the program are notified by the University and are asked if they would like to remain in the database or be removed.

## Commuter Check Program

The University Parking and Transportation Program and Human Resources, Safety & Risk Management have partnered together to administer a commuter check program that enables faculty, staff and administrators to purchase transit passes with their pre-tax salary. Via payroll deduction, up to \$230 monthly of pre-tax salary can be used for public transportation or vanpool expenses. Participants enroll online through Commuter Check Direct, a nationwide service, and

may choose to have their transit passes mailed directly to them or receive commuter checks which they can then redeem at the Student Center for transit passes.

## **Bike Barn and Information**

As bike parking is not permitted within the central core of the campus, the Department of Parking and Transportation provides an indoor bike parking area in Lot 6 under the gym. The Bike Barn provides secure bicycle parking and all day attendants at no cost to the bicycle rider. The facility is open Monday through Thursday from 7:30 AM to 10:00 PM and Friday from 7:30 AM to 5:00 PM. The Bike Barn is closed on weekends and when school is not in session. Some additional bicycle parking is available at a number of bicycle racks scattered around the campus. The San Francisco State University Parking and Transportation website provides a text summary of the bike routes in the Bay Area as well as bike laws and safety tips.

## **Transit Information**

The San Francisco State University Parking and Transportation website offers information on how to get to campus by bus and shuttle, providing links to the transit providers and 511.org, the Bay Area transportation website. This information is provided on the “Directions to Campus” page. The San Francisco State University Parking and Transportation website is user-friendly, with icons and text to help the user navigate the links.

## **Zipcar**

The University has partnered with Zipcar to provide the campus community with self-service access to vehicles by the hour or day at discounted rates, 24 hours a day, 7 days a week, 365 days a year. Reserved parking for the Zipcars is provided at the South State Drive entrance to the parking garage.

## Chapter 3. TDM Program and Implementation Schedule

The following chapter lays out a comprehensive TDM program that builds on and expands the TDM measures already in use by the University to adequately minimize and mitigate the transportation impacts the University's planned growth will have.

San Francisco State University currently supports a number of TDM programs, including ride matching, bike barn, and shuttle services, as described in Chapter 2. However there is an opportunity to further strengthen and expand these programs to reduce a greater percentage of drive-alone trips. This program encompasses financial incentives such as subsidized transit passes and a Guaranteed Ride Home program to give employees the security to carpool or ride transit; and information and marketing efforts. While these programs can stand alone, they will make a more significant impact when used together to create a package of options for University affiliates.

The mitigation measures and programs are organized by time of implementation: one to two years, three to four years, and five or more years. Figure 10 at the end of this chapter provides a comprehensive look at the timeline for all the measures.

### 3.1 Years One and Two

The following section describes the measures that will be undertaken during the first two years of the implementation of the TDM plan. The measures described in this section are changes that can be undertaken right away.

#### Establish a Transportation Committee

**Strategy:** The University will create a Transportation Committee.

**Description:** The University will create a Transportation Committee, composed of representatives from campus departments involved with transportation and reporting to the Vice President for Administration and Finance and the Vice President for Student Affairs. The committee, co-chaired by the Associate Director of Community Relations and the Campus Planner, will serve as the central coordinating body for all transportation matters, including developing, implementing, evaluating, and managing the University's TDM programs. The committee will oversee coordination and marketing of mobility programs for university affiliates as well as direct marketing to as many staff and students as possible to increase the potential for each of the programs. The committee will also oversee the Monitoring Plan (Chapter 4). The Associate Director of Community Relations / committee co-chair will serve as the University's liaison with the SFMTA.

## Ride Match Program

**Strategy:** The University will strengthen its existing Ride Match program by, 1) Increasing participation rates and 2) Providing all staff and students with direct marketing about the Ride Match program.

**Description:** Ridesharing is one of the most common and cost-effective alternative modes of transportation and one which commuters can adopt part-time. There are numerous benefits to ridesharing. Ridesharing can reduce peak-period vehicle trips and increase commuters' travel choices. It reduces congestion, road and parking facility costs and pollution emissions. Ridesharing tends to have the lowest cost per passenger-mile of any motorized mode of transportation, since it makes use of a vehicle seat that would otherwise be empty. Ridesharing also provides consumer financial savings.

Ridesharing tends to experience economies of scale: as more people use the service the chances of finding a suitable carpool or vanpool increase significantly. Typical conditions for ridesharing success include:

- Corridors that offer a time and/or cost savings, such as avoiding bridge tolls or taking advantage of carpool lanes.
- Locations far enough from campus that driving is a hassle, and where transit service is limited.
- Locations with a significant concentration of San Francisco State University commuters within close proximity of each other.
- Commuters with regular schedules, particularly staff.

Taking all of these factors into account, priority locations for marketing ridesharing include:

- Western Alameda County, where 11% of campus commuters live, including significant concentrations of staff. So many commuters live in this area that there may be a strong vanpool market. Additionally, carpoolers receive the benefit of toll free access to the Bay Bridge.
- Portions of San Francisco relatively far from campus, yet without direct transit service. This would include much of southeastern San Francisco and many of the northernmost portions of the city.
- While there are few commuters coming from the North Bay, South Bay and far East Bay, the commute distances are so long that there is a strong incentive to carpool

Measures that can increase participation and should be implemented include providing real-time rideshare matching. This service could be provided on the Parking and Transportation Department website or an existing service such as Ridespring.com could be utilized. An expanded marketing program that will be implemented should include the promotion of the formation of vanpools at specific locations where a concentration of university affiliates reside along with the use of the commuter check program to reimburse vanpool charges with pre-tax dollars. San Francisco State University should seek to use home address information from the

University payroll system to map home address information geographically and do targeted emails or mailings to employees in locations most suitable for carpooling and vanpooling.

Another potential program that will be explored within this 2-year timeframe is provision of preferred parking for carpools and automatic enrollment of participants in the Guaranteed Ride Home program. Free parking may also be provided for vanpools.

## Marketing and Information on Alternative Transportation Options

**Strategy:** The University will 1) update and revamp its website and print materials to provide more comprehensive information on alternative transportation options to the University; and 2) actively promote the commuter check program and Zipcar.

**Description:** A review of the existing Parking and Transportation Department website as well as feedback provided from students and staff indicates that currently the University is not providing the most comprehensive information on transportation alternatives.

Updates to the website are needed to reflect changes in programs and services. This should include the following:

- A direct and prominent link on the SF State homepage to a comprehensive list of alternative transportation services, including the commuter check program and Zipcar.
- Adding San Francisco or Bay Area bike route maps to the website can promote bicycle commuting.
- Adding shuttle maps, with route and stop locations, and shuttle schedules will reduce the ambiguity of riding the shuttles.
- A direct link to the 511 TakeTransit Trip Planner helps students new to transit identify the best transit route to take from their point of origin to campus.
- Locations where fare media and bus maps can be purchased.

## Guaranteed Ride Home Program

**Strategy:** The University will seek grant funding to implement a Guaranteed Ride Home program for all students, faculty and staff who are registered in the alternative mode program (ridesharing, transit, biking, walking).

**Description:** The Guaranteed Ride Home (GRH) program is an important component of ridesharing and alternative transportation programs as the fear of needing a ride home in case of an emergency during the work day is one of the most cited obstacles to ridesharing or transit use. Many commuters say they are much more likely to use alternative transportation if they have access to an emergency ride home.

Guaranteed Ride Home programs provide an occasional subsidized ride to commuters who use alternative modes, for example, if a bus rider must return home in an emergency, or a carpooler must stay at work later than expected. GRH programs may use taxis, university vehicles or rental cars. GRH trips may be free or they may require a modest co-payment. Commuters

would be allowed a limited number of times they could use the program each year – perhaps four. The cost of offering this service tends to be low because it is seldom actually used. Persons who are planning on using alternative modes of transportation occasionally, part-time, or full-time would register in the GRH program online or using a paper form.

## Universal Transit Pass Program for Students

**Strategy:** The University will evaluate the feasibility and pursue options for funding a universal student transit pass program.

**Description:** In recent years, growing numbers of transit agencies have partnered with universities to provide universal transit passes. These passes typically provide unlimited rides on local or regional transit providers for low monthly fees, often absorbed by the school and students. The advantage of implementing a universal pass system, one where all students participate, is that schools can negotiate a bulk rate with the transit providers.

Free transit passes are usually extremely effective means to reduce the number of car trips in an area. By removing any cost barrier to using transit, including the need to search for spare change for each trip, people become much more likely to take transit to school or for non-school trips. Given the high percentage of students who already use public transit, and in particular Muni, the cost of such a program will be significant and will require a student referendum and administrative approval to increase their student fees to fund the program.

As stated in the MOU, the University will work with Muni and BART on establishing a Universal Transit Pass program for students (undergraduate/graduate or both). The price of the passes will be such that the entire program is revenue-neutral for the City and County of San Francisco. Given the concentration of San Francisco State University commuters in San Francisco and northern San Mateo Counties, the program would ideally include Muni, Samtrans and the BART system between Embarcadero and Millbrae stations. If funding is not available for such a program, including Muni only – or BART plus Muni within San Francisco, like the FastPass – would be a valuable start. If additional money is available, and a fare instrument could be found, including BART through northern Alameda County would be highly useful for the 11% of commuters who live there.

The University will also work with student groups to gain support for the program, as a student fee would need to be approved by a vote of students in order for the program to be implemented.

In the April 2008 online travel survey, university affiliates were asked what was the most they would be willing to pay for unlimited Muni access and unlimited BART access within San Francisco.

**Figure 11: Willingness to Purchase a Universal Transit Pass**

Price per Semester	Percentage of Respondents
\$26 - \$50	34.7%
\$51 - \$75	13.5%
\$75 - \$100	13.7%
\$101 - \$125	7.4%
\$126 - \$180	8.0%
I am not interested in a transit pass	22.8%

While 80 percent of respondents would be willing to pay some amount of money to receive a universal transit pass the majority are only willing to pay \$75 or less per semester for one. Given that Muni passes currently cost \$45 a month or about \$180 a semester, some subsidy from the parking fund may be necessary to garner the support of the student population as a whole to implement a universal transit pass program.

## Transit

**Strategy:** The University will offer transit ticket purchase options and amenities.

The University will allow the City and County of San Francisco to locate and maintain automated ticket vending machines and ticket sales services for FastPasses and BART tickets. The appropriate locations for the machines will be determined by the University, but should include one in the immediate vicinity of the M Platform and 28/28L bus stops. The University will continue to provide ticket sales services for FastPasses and BART tickets on campuses.

## Shuttle Service

**Strategy:** The University will: 1) Work with BART, Muni, and SamTrans to shift the San Francisco State University shuttle stop at Daly City BART station, 2) Seek funding to replace current van conversion vehicles with low-floor transit buses, 3) Evaluate extending shuttle service to operate during the summer break, and 4) Improve mapping and schedule information for the shuttle at key shuttle stops, in print materials, and on the Parking and Transportation Department website.

**Description:** The San Francisco State University shuttle service from Daly City BART is an important component of the University’s alternative transportation program and is heavily utilized by persons travelling to and from the campus.

The main area of concern with respect to the San Francisco State University shuttles is that of capacity. Queues and overcrowding are a daily occurrence as shuttles operate at 100 percent capacity three quarters of the time and during the peak hours of 8:00 AM to 9:30 AM and 3:00 PM to 6:30 PM, San Francisco State University shuttles are over capacity. At 19<sup>th</sup> Avenue, a long queue forms and people often have to wait for more than one shuttle as the first one reaches capacity before they are able to board.

Currently, the University utilizes van conversion vehicles for its shuttle service. The passenger occupancy of these vehicles is 28 persons seated and 10 persons standing. In order to address

capacity constraints the University should identify funding to purchase or lease low-floor buses which can transport approximately 35 seated persons for a 30 ft. bus and 40 persons seated in a 40 ft. bus, or arrange for such vehicles through a turnkey shuttle operations contract. In addition, low-floor vehicles enable a greater ease of access for persons with mobility limitations. New transit vehicles should have multiple doors to ease boarding, since no fares are collected.

The University will evaluate the demand for shuttle service during summer months and the related cost to determine whether the benefit—e.g., attracting more students during summer session—warrants the added expense. During this time, the shuttle could operate at a lower frequency and only during the peak commute times.

Currently, at the Daly City BART station the spacing of the San Francisco State University shuttle stop and Muni Route 28 stop make it impossible for persons travelling to campus to see both stops at the same time and take whichever bus/shuttle arrives first. Moreover, switching to standard transit vehicles requires relocating the shuttle stop at the Daly City BART station, since a portion of the current shuttle route under the BART guideway is too low to allow larger transit vehicles. These problems could be addressed by shifting the San Francisco State University shuttle stop to the area currently occupied by Muni Route 54, an arrangement already being pursued by Muni, BART and San Francisco State University.

Shuttle stops currently lack clear route information, schedule information and poles indicating the stops and should be updated to provide this information. Improvements can be made to the Parking and Transportation Department website and materials could be printed to clearly convey shuttle routes and schedules.

## Bicycle Facilities

**Strategy:** The University will upgrade existing bicycle facilities by 1) Evaluating the hours of the bike barn and expanding as needed 2) Installing additional bike racks, 3) Completing phase 1 of the north-south bike path, and 4) Studying phase two of the north-south bike path, including a field trip to UC Davis, Stanford, and UC Santa Barbara.

**Description:** The University has taken significant steps to encourage bicycling to campus. The “Bicycle Working Group” has been established and meets about once every two months. It is comprised of students, faculty, staff, administrators, University Police, SFMTA, and the Bicycle Coalition. This group has been critically important in assisting with bike rack choice and locations, as well as in coordinating all campus offices with any involvement with bikes or related issues. The Bicycle Working Group has identified a number of locations throughout the core campus where 100 bike racks should be installed. A grant from the Bay Area Air Quality Management District will be used to fund this endeavor. The University will install approximately 100 bike racks during the first two years of the TDM plan, based on the recommendations of the Bicycle Working Group.

Bike Barn hours should be evaluated and expanded as needed to further encourage bicycling to campus, particularly extending the hours on Friday evening. At similar “bicycle stations” around the country, 24-hour access is granted by card key to members. Video cameras and restricted access minimize the risk of theft.

The campus master plan calls for a north-south bicycle/pedestrian route from Buckingham Way to Holloway Avenue that would provide campus access to cyclists approaching campus from the

north, while avoiding 19th Avenue. The University has submitted grant proposals seeking funding for such projects, and is considering other funding sources. During the first two years of the implementation period, San Francisco State University will complete Phase 1 of the north-south bicycle path plan that will provide a path from Buckingham Way, near University Park North to the campus core. The University has received \$363,000 in funding from the Bay Area Air Quality Management District's Transportation Fund for Clean Air and completed construction of Phase 1 of the north-south bicycle path in fall 2009.

The University will begin planning for phase two of the north-south bicycle plan that will continue from the campus core, south to Cardenas Avenue. This planning phase will include trips to other campuses such as UC Davis, Stanford, and UC Santa Barbara to meet with staff from the various universities to discuss the work that has been done at their respective institution.

## Pedestrian Facilities

**Strategy:** The University will 1) study the feasibility of adding accessible path connections at either end of the phase 1 north-south bike path.

**Description:** The University will study the feasibility of adding accessible path connections at either end of the phase 1 north-south bike path in order to create a continuous accessible pedestrian pathway between University Park North and the campus core. The phase 1 bike path, constructed in fall 2009, meets ADA accessibility standards.

## Parking

**Strategy:** The University will 1) Explore the feasibility of implementing gradual daily and hourly parking rate increases.

**Description:** The University will explore the feasibility of raising the hourly and daily parking rates or removing the cap on daily parking and charging only by the hour. The additional revenue generated would be set aside to invest in TDM measures that reduce parking demand and/or to fund the construction of new perimeter parking structures that ultimately would replace the central parking garage as called for in the long-term master plan vision.

In the future, the City will likely implement parking pricing for most of the free spaces around campus, including the unregulated parking on Lake Merced Boulevard, Winston Drive, 19<sup>th</sup> Avenue and Junipero Serra Boulevard. Since the majority of campus motorists currently park free off campus, parking charges will create various implications that will also need to be addressed:

- Parking charges on the currently unregulated streets would likely increase demand for parking in the surrounded permit-controlled residential neighborhoods. Currently, two hours of free parking is allowed on these streets, providing convenient free parking for students taking one- and two-hour classes. The City may wish to work with the surrounding neighbors to reduce or eliminate the amount of free time available. To accommodate residents' guests, the City may want to provide more convenient guest passes or install pay machines in the neighborhoods.

- Elimination of free parking around campus will increase the price at which commuter will demand on-campus parking. As a result, the campus will need to be prepared to raise its hourly parking charges in order to ensure adequate parking availability on campus.
- Increasing the price of parking both on- and off-campus will likely result in a significant decrease in rates of driving, and a corresponding increase in demand for other modes. The University will likely need to be prepared to increase shuttle capacity to the Daly City BART station, either through larger vehicles or more frequent service. The City will likely need to identify funding for increasing frequency on the M and 28/28L, perhaps by shifting some of the new revenue raised from parking charges on City streets to these Muni lines.

## 3.2 Years Three through Five

### Bicycle Facilities

**Strategy:** The University will continue to upgrade existing bicycle facilities by, 1) Completing the north-south bike path, 2) Planning for an east-west bike path, 3) Installing bike racks, and 4) Studying the feasibility of relocating the bike barn.

**Description:** During years three through five of the TDM plan, the University will complete the north-south bike path that was initiated during years one and two. Once complete, the north-south route will run from Buckingham Way through campus to Cardenas Avenue and will offer an alternative to the 19th Avenue route proposed in the San Francisco Bicycle Plan. This path would be open to the public at all times.

The University will plan for an east-west bike path that will go from the roundabout at Font Boulevard via the west side of the Humanities and Student Services buildings to the south side of Cox Stadium and will study the feasibility of relocating the bike barn facility to Holloway Avenue or a more appropriate location.

The University will continue to evaluate potential locations for the installation of bike racks as recommended by students, staff, and the Bicycle Working Group. Based on feedback from these groups the University will install new bicycle racks as needed.

### Pedestrian Facilities

**Strategy:** If feasible, the University will 1) construct accessible path connections at either end of the phase 1 north-south bike path.

**Description:** If feasible, the University will construct accessible path connections at either end of the phase 1 north-south bike path, thereby creating a continuous accessible pedestrian pathway between University Park North and the campus core. The phase 1 bike path, constructed in fall 2009, meets ADA accessibility standards.

## Shuttle Service

**Strategy:** The University will continue to improve shuttle service and amenities by 1) Expanding shuttle service as necessary to meet demand, 2) Seeking to install GPS for real-time tracking and NextBus arrivals, and 3) Installing NextBus arrival signs at campus locations.

**Description:** The University will continue to monitor ridership and occupancy on San Francisco State University shuttles, in accordance with the monitoring plan outlined in Chapter 4, to determine if the measures undertaken in years one and two adequately address capacity constraints. If average PM peak period, peak direction passenger loading exceeds 85 percent of combined seated and standing load capacity for service between the campus and the Daly City BART station, the campus will increase shuttle frequency or other measures as deemed appropriate, until this standard is met.

The University will continue to upgrade shuttle amenities and service by seeking to install GPS devices on the shuttle buses to allow for real-time tracking and to install NextBus arrival signs at key locations on campus. This may include shuttle stops, the 19<sup>th</sup> Ave and Holloway Ave entrance, the bookstore, existing information screen in the Student Center, and cafes and other dining areas. The NextBus arrival monitors will provide shuttle riders with a time for the next arrival of the shuttle.

## Transit

**Strategy:** The University will 1) seek student support for the implementation of a Universal Transit Pass program for students, 2) Install real-time arrival signage, and 3) Seek to improve transit stop amenities.

**Description:** Based on the planning work done during the first two years of the TDM plan, the University will endeavor to implement a Universal Transit Pass program for students (under the condition that the students have approved the additional fee and Muni and BART have developed a workable arrangement for San Francisco State University).

The University will work with the City to install real-time arrival signage, such as NextBus, at Muni stops on campus.

Currently, transit shelters located on campus offer little protection from rain and wind and no route maps or schedules are posted to provide information on the bus services. For riders with visual impairments, there is no tactile wayfinding and it may be difficult to locate the appropriate bus stop pole when the area is crowded or when multiple bus lines pull into the stop together. The University will seek to improve transit stop amenities by providing lighting, signage and wayfinding, transit information, coverage from rain and wind where necessary.

## Parking

**Strategy:** The University will seek to implement gradual rate increases.

**Description:** The University will seek to implement parking rate increases based on the study of price sensitivity and potential revenue generation conducted during years one and two of the TDM implementation plan.

The pricing of parking will be adjusted such that the parking system is financially stable, meaning that about 85 to 90 percent of spaces should be full at peak. Revenues generated from the increase in parking rates will be placed in a fund to finance TDM improvements that reduce parking demand and should include subsidies for the universal transit pass program and the purchasing of new shuttle vehicles. Revenues also will be used to build future perimeter parking facilities on campus.

### 3.3 Six or More Years

#### Bicycle Facilities

**Strategy:** The University will upgrade existing bicycle facilities by 1) offering a full service Bike Barn if deemed feasible; 2) completing an east-west bike path and; 3) planning for a pedestrian/bicycle bridge across the valley, 3) continuing to monitor bicycle parking utilization in order to add new racks where needed.

**Description:** As the campus is developed, if private funding can be secured and an appropriate location identified, the Bike Barn will be moved and replaced with a Bike Station. This facility will provide attended bicycle parking with 24-hour access for registered members. It will also provide bicycle repairs, air pumps, bicycle rentals, and transportation information.

The University will complete construction of the east-west bike path that will run from the roundabout at Font Boulevard via the west side of the Humanities and Student Services buildings to the south side of Cox Stadium.

The University will plan for the construction of a pedestrian/bicycle bridge across the valley connecting University Park North and the campus core, as identified in the campus master plan.

The University will continue to evaluate potential locations for the installation of bike racks as recommended by students, staff, and the Bicycle Working Group. Based on feedback from these groups the University will install new bicycle racks as needed.

#### Parking

**Strategy:** As feasible, the University will 1) increase daily and hourly parking fees, and construct perimeter parking structures.

**Description:** As the campus grows and new buildings are constructed, the University will assess the feasibility of building new parking structures. The location of these facilities may include those outlined as preferred and alternative parking solutions in the Campus Master Plan, including the new Creative Arts complex, new gym/recreation wellness center, Lot 25 parking site, and the University Conference Center.

### 3.4 Potential Future Mitigation Measures

The MOU between the City and County of San Francisco and the University outlines a number of measures specifically addressing the Muni M line corridor and platform. The MOU states that these two entities will work together to improve speed, reliability and frequency on the M line, which will be partly achieved by track reconfigurations that will facilitate “short-run” service between Holloway and Embarcadero Station.

If the track reconfiguration project is not implemented and if Muni reports that M line average peak period, peak direction passenger loading between the campus and the West Portal Station exceeds 85 percent of combined seating and standing load capacity for two years in a row throughout the West Portal/Holloway corridor, and if the cordon counts show that peak period transit trips on the M-line between the campus and West Portal Station are greater than 5 percent above the baseline established in 2008, the University will extend campus shuttle service between the campus and West Portal Station during the peak period(s).

This additional campus shuttle service will be operated with adequate capacity, such that capacity does not exceed 85 percent of combined seating and standing load capacity target, but the capacity will not be greater than 15 percent of the total peak hour net new transit demand in this corridor associated with campus growth. This additional campus shuttle service will be operated until the track reconfigurations are implemented, or additional, alternative transit improvements are agreed upon.

### 3.5 Implementation Schedule

Figure 10 provides a breakdown of TDM programs and projects by time.

**Figure 10 Implementation Schedule**

TDM Measures and Programs	
Years One and Two	
	<p><b>TDM Programs</b></p> <ol style="list-style-type: none"> <li>1. Establish Transportation Committee</li> <li>2. Improve participation rate in existing Ride Match program</li> <li>3. Update marketing information, website and print materials</li> <li>4. Promote and expand participation in the commuter check program.</li> <li>5. Promote and expand campus use of Zipcar program.</li> <li>6. Seek grant funding to implement a Guaranteed Ride Home program</li> </ol> <p><b>Transit</b></p> <ol style="list-style-type: none"> <li>7. Evaluate feasibility and funding options for a Universal Transit Pass Program for students</li> <li>8. Offer transit pass purchase options on campus, including City-operated and maintained vending machines.</li> </ol> <p><b>Shuttle</b></p> <ol style="list-style-type: none"> <li>9. Work with BART, Muni, and SamTrans to relocate San Francisco State University shuttle stop at Daly City BART station</li> <li>10. Seek funding to replace existing van conversion vehicles with low floor transit buses</li> <li>11. Improve shuttle information on website, shuttle stops, and in print materials</li> </ol> <p><b>Bicycle</b></p> <ol style="list-style-type: none"> <li>12. Evaluate Bike Barn hours and expand as needed</li> <li>13. Install bike racks</li> <li>14. Complete phase 1 of the north-south bike path</li> <li>15. Study Phase 2 of the north-south bike path</li> </ol>

# Transportation Demand Management Plan

SAN FRANCISCO STATE UNIVERSITY

TDM Measures and Programs	
	<p><b>Pedestrian</b></p> <p>16. Study feasibility of adding accessible pedestrian path connections at either end of the phase 1 north-south bike path</p> <p><b>Parking</b></p> <p>17. Explore feasibility of implementing gradual hourly and daily parking rate increases</p>
Years Three through Five	
	<p><b>Transit</b></p> <p>1. Install NextBus arrival signage at two campus locations</p> <p>2. Work to improve transit stop amenities</p> <p>3. Seek student support for Implementation of a Universal Pass Program</p> <p><b>Shuttle</b></p> <p>4. Seek to replace shuttle vehicles</p> <p>5. Expand shuttle service to meet demand</p> <p>6. Seek to install GPS for real-time tracking and NextBus arrivals</p> <p>7. Install NextBus arrival signs at campus locations</p> <p><b>Bicycle</b></p> <p>8. Complete north-south bike path</p> <p>9. Plan for an east-west bike path</p> <p>10. Install bike racks as needed</p> <p>11. Study the feasibility of relocating the Bike Barn</p> <p><b>Pedestrian</b></p> <p>12. If feasible, construct accessible pedestrian path connections at either end of phase 1 north-south bike path</p> <p><b>Parking</b></p> <p>13. Seek to implement gradual rate increases</p>
Six or More Years	
	<p><b>Bicycle</b></p> <p>1. Offer a full service Bike Barn, if feasible</p> <p>2. Complete east-west bike path</p> <p>3. Install bike racks as needed</p> <p>4. Plan for pedestrian/bicycle bridge across the valley</p> <p><b>Parking</b></p> <p>5. Construct new parking structures, as feasible</p> <p>6. Increase the price of parking, as feasible</p>

## Chapter 4. Targets and Monitoring Plan

### Targets and Thresholds

The University will work to achieve the following targets and will use these targets as benchmarks throughout the monitoring process.

1. If average peak period, peak direction passenger loading exceeds 85 percent of combined seated and standing load capacity for shuttle service between the campus and the Daly City BART station, the campus will improve shuttle services during the peak period(s) until this standard is met.
2. If the number of auto trips in the PM peak hour of 4:00 PM to 5:00 PM, are greater than 5 percent over the baseline of 1,173 vehicle trips, the University will conduct cordon counts annually until such trips fall below the 5 percent above the baseline for two years in a row.
3. If the number of peak period, 5:00 PM to 6:00 PM, transit trips on the M-line between the campus and West Portal Station are greater than 5 percent above the baseline of 134 inbound trips and 273 outbound trips, the University will extend campus shuttle service between the campus and West Portal Station during the peak period(s).

### Monitoring Plan

San Francisco State University is committed to a comprehensive Monitoring Plan as part of the TDM Plan and the MOU with the City and County of San Francisco.

The Monitoring Plan requires regular periodic evaluation to determine how the TDM Program is achieving the goal of reducing the number of drive alone trips to the campus and minimizing new peak hour trips.

The following measures are recommended to ensure compliance with the Monitoring Plan:

1. Cordon Surveys - Every three years or no later than the addition of each 1,000 students in enrollment by headcount, the University will conduct a statistically significant cordon survey of campus commuters during the PM peak hour. This survey will abide by the guidelines set forth in the MOU between the University and City and County of San Francisco.
  - a. If the cordon surveys show that the PM peak period auto trips to and from campus are greater than 5 percent above the baseline, the cordon surveys will be conducted annually until such trips fall below the 5 percent above the baseline for two years in a row.
2. TDM Report to SFMTA - The University transportation liaison will report annually to SFMTA regarding the status of the implementation of the TDM programs described in the Transportation Demand Management Plan.
3. Shuttle Capacity - The University will monitor peak hour utilization of Campus Shuttle buses.
4. The University will monitor peak period transit use on the M Line.