

CHAPTER 10. USING THE TDM STUDY

The TDM Study presents many activities that can be used to meet the community goals and objectives presented in Chapter 1. The activities can be applied differently based on a user's viewpoint or policy objective. This chapter applies five "priority policy objectives" to demonstrate how policy-makers can use this document to achieve different trip behavior outcomes. It tells decision-makers which activities are the most applicable to the following goals:

1. Address neighborhood concerns of on-street non-residential **parking in neighborhoods**;
2. Improve **visitor** experience in Berkeley;
3. Improve **commuter** conditions and employee recruitment and retention;
4. Accept existing conditions and plan to accommodate **growth**;
5. **Reduce the amount of traffic** on Berkeley Study Area streets as applied to specific commute markets.

For each priority policy objective, this chapter explains how to implement the most applicable activities and then discusses the pros and cons of accomplishing each priority policy objective goal. Each section concludes with the strategies that can best evaluate the success of the activities in relation to the priority policy objective goal.

This analysis was divided into these five sections because some of the various enabling strategies are in tension with one another, and others should be implemented sooner or later depending on policy priorities. For example, a management strategy that favors visitors would reduce monthly permit parking in favor of more hourly parking, while one that favors commuters would reduce long-term parking rates and raise short-term rates. Similarly, eliminating spill over parking from surrounding residential neighborhoods will make access much more difficult for both commuters and visitors.

Many of the enabling strategies, however, support all five policy focus areas. For example, creating a parking management group helps everyone, as does cooperation among local transit providers. The discussion of each individual focus area below tends to focus on their differences rather than their similarities.

THE ROLE OF THE ENABLING STRATEGIES

The three enabling activities must be implemented to accomplish the goals of all of the priority policy objectives. These activities provide the framework, support and momentum to cooperatively implement TDM programs within the Study Area. To avoid redundancy within the priority policy objective descriptions, Figure 10-1 provides a summary of the relevance of the enabling strategies to each priority policy objective.

FIGURE 10-1 APPLICABILITY OF ENABLING STRATEGIES TO EACH PRIORITY POLICY OBJECTIVE

	Cooperative Parking Management/ Parking Cooperative Council	Transit Coordinating Council	Leading TDM Agency within Berkeley
Priority policy objective 1: Address on-street non-residential parking in neighborhoods	<ul style="list-style-type: none"> C Cooperative rate and policy setting can support a parking supply attractive to long-term parkers to keep them out of residential neighborhoods. C Spill-over parking increases when there are special events taking place in Berkeley. Parking management for special events is a key task of the Parking Cooperative Council. 	<ul style="list-style-type: none"> C Mode shift to transit is needed to reduce the number of cars parking beyond the existing RPP, and this enabling strategy provides the framework to support other programs that can create this shift. 	<p>To best influence mode share among spill-over parkers, the leading TDM agency should provide tangible benefits to the targeted commute populations. This can be achieved by developing a TDM agency to:</p> <ol style="list-style-type: none"> 1. Develop, implement and manage an aggressive TDM program for City employees to meet the City's goal to be a model TDM employer; 2. Develop, implement and manage a TDM program to serve all Berkeley employees and/or residents.
Priority policy objective 2: Improve visitor experience in Berkeley	<ul style="list-style-type: none"> C The PCC will continue and improve upon existing special event coordination strategies. C The PCC can help pool parking supplies, so that more surface spaces can be dedicated to short-term parking and more garage spaces can be dedicated to long-term parking. C The PCC is a venue to hear the views of the different parking users, including merchants and the Cultural Trust. C The PCC can pool rate and location information to provide parking materials to visitors. 	<ul style="list-style-type: none"> C The TCC will be instrumental in developing comprehensive transportation information for the entire Study Area. 	
Priority policy objective 3: Improve commuter conditions and employee recruitment and retention	<ul style="list-style-type: none"> C The PCC would be the lead agency to coordinate the reallocation of parking to benefit commuters. C The PCC would be instrumental in developing a parking information system. C The PCC would be the organization through which more efficient use of small and medium-sized privately-owned lots could be supported. 	<ul style="list-style-type: none"> C 75% of Study Area commuters live within five miles of the Study Area. Improving transit reliability, frequency and appeal to choice riders is thus a critical strategy to reduce the drive-alone mode share of commuters. 	<p>To best influence mode share among commuters and to improve the ability to recruit employees in the Study Area, the leading TDM agency should provide tangible benefits to commute populations. This can be achieved by developing a TDM agency to:</p> <ol style="list-style-type: none"> 1. Develop, implement and manage an aggressive TDM program for City employees to meet the City's goal to be a model TDM employer; 2. Provide an on-site University TDM program that serves UCB customers; 3. Develop, implement and manage a TDM program to serve all Berkeley employees and/or residents.
Priority policy objective 4: Accept existing conditions and plan to accommodate growth	<ul style="list-style-type: none"> C The PCC would be instrumental in developing a parking information system. C The PCC would be the organization through which more efficient use of small and medium-sized privately-owned lots could be supported. 	<ul style="list-style-type: none"> C Measures to improve transit efficiency within the Study Area are necessary to achieve the reduction in the drive mode share necessary to accommodate future growth. Continuation of Class Pass and development of Eco-Pass are key strategies that must be supported by the TCC to manage the Status Quo and shift people from driving to transit. 	<ul style="list-style-type: none"> C Under this priority policy objective, the role of the leading TDM agency would not have to be as broad as defined in priority policy objective 3. The goals of this priority policy objective can be accomplished by developing a TDM agency to meet the mission to: <ol style="list-style-type: none"> 1. Develop, implement and manage an aggressive TDM program for City employees to meet the City's goal to be a model TDM employer; 2. Provide an on-site University TDM program that serves UCB customers.

	Cooperative Parking Management/ Parking Cooperative Council	Transit Coordinating Council	Leading TDM Agency within Berkeley
<p>Priority policy objective 5: Reduce traffic on Berkeley Study Area streets as applied to specific commute markets</p>	<p>C Managing parking more cooperatively is essential to reducing traffic on Study Area streets that is searching for parking. C Implementing an area-wide parking program will have great mode shift potential; this strategy can only be accomplished through cooperative parking management and decision-making.</p>	<p>C Strategies to create the greatest mode shift focus on transit improvement. The TCC provides the framework to support the many recommended transit activities detailed within this priority policy objective.</p>	<p>To best reduce traffic on Study Area streets, the leading TDM agency should have the four-fold mission to:</p> <ol style="list-style-type: none"> 1. Develop, implement and manage an aggressive TDM program for City employees to meet the City's goal to be a model TDM employer; 2. Provide an on-site University TDM program that serves UCB customers; 3. Develop, implement and manage a TDM program to serve all Berkeley employees and/or residents; 4. Become the planning body that will staff and champion the Parking Coordinating Council, the Transit Coordinating Council and further development of TDM strategies.

PRIORITY POLICY OBJECTIVE 1: ADDRESS NEIGHBORHOOD CONCERNS OF ON-STREET NON-RESIDENTIAL PARKING IN NEIGHBORHOODS

This priority policy objective focuses on policies to limit commuter parking in neighborhoods in order to improve quality of life for local residents.

Background

- According to the analysis conducted in Chapter 9, there *may* be up to 5,000 cars spilling beyond the Study Area and parking in neighborhoods beyond the RPP zone.
- Given known and estimated demand for commuter parking in the study area, parking for visitors and retail shoppers in the study area may be extremely limited. Study area employee demand (non-UC) needs to be fully characterized by research, survey and data material.
- It is probable that the majority of those parking beyond the RPP are long-term parkers (commuters or students).
- It is estimated that 70 to 90% of non-UC employees would need to use alternatives to driving alone in order to eliminate commuter parking in neighborhoods beyond the Study Area. It would be extremely difficult to achieve a 10% drive alone rate even if all TDM activities were implemented. Thus, to eliminate spillover parking, supplying additional parking in the Study Area is necessary. To gain an optimal split of commuter and visitor parking, a parking increase should be combined with an increase in the share of commuters using alternatives to the automobile.
- To reduce UC parkers from parking beyond the RPP zone, it is estimated that the faculty/staff drive alone mode share would need to be reduced from 50% to about 48% and that the student drive alone mode share would need to be reduced from 15% to about 13%. This is consistent with mode share improvements recommended in the University's 1999 WSA Study.
- Due to limited data sources, the number of off-campus Study Area parkers who park beyond the RPP zone is more speculative than the estimates of UC parkers. These limited data sources indicate that the drive alone rate of off-campus employees would need to fall to between 10% and 30% to eliminate any spill-over parking from this group. It would be extremely difficult, if not impossible, given the level of urbanization in Berkeley to achieve drive alone rates this low.
- Strategies that *only* tighten the parking supply will *not* reduce traffic congestion in Berkeley. Parking strategies must be accompanied by investment in alternatives to the

Single Occupant Vehicle and in creating the environment that supports use of these alternatives.

- Many commuters to the Study Area live within five miles: 46% of UCB faculty/staff¹, and about 75% of UC and non-UC commuters combined² (not including students). Transit, bicycling and walking are the alternative modes that are most applicable to commuters living within five miles of their work location. Factors such as weather, hills, and varying commuter physical abilities can often prevent some members of this large commuter group from bicycling or walking. Thus, much emphasis is placed on improving transit frequencies and reliability as the targeted strategy to address the bulk of commuters' travel needs.

TDM Activities to Implement the Priority Policy Objective

To meet the goal of this priority policy objective without adding significant additional pressure to the retail and visitor parking supply, the supply of parking in the Study Area must be expanded. Strategies to better manage existing parking supply can be immediately implemented while policy decisions are made regarding new parking construction. The quantity of parking to be supplied would be at the discretion of community decision-makers, and would necessarily balance neighborhood, retail, visitor, and commuter considerations.

TDM activities must also be simultaneously implemented. The TDM activities that best accomplish the goal of reducing on-street non-residential parking in neighborhoods represent a combination of parking management and mode-shift strategies, including:.

- Parking 2.1 Develop a Parking Information System
- Parking 2.2 Reallocate Short Term, Long Term and Private Parking
- Parking 2.3 Refine Residential Permit Programs and Enforcement
- Transit 3.1 Develop a City-Sponsored Commute Benefit/Eco-Pass Program
- Transit 3.4 Work with AC Transit to Improve Frequency and Reliability on Core Routes
- TDM 3.1 Make the City of Berkeley a Model Employer for TDM/Expand Commute Benefit Programs
- Housing 4.2 Dis-aggregate the Cost of Parking from Residential and Commercial Rents
- Housing 4.4 Incentives for Institutions to Encourage More Employees/Students to Live

¹ 1996 UC Berkeley Staff and Faculty Housing and Transportation Survey.

² 1990 Journey to Work census data for employees commuting to census tracts in the Study Area, including the UC campus and hill area east of campus.

Locally

Activity Implementation Detail

Parking 2.1 Develop a Parking Information System

Commuters park outside the Study Area, because parking is free and because they do not want to deal with the hassle of looking for spaces within the Study Area. Knowing that real-time information will direct parkers to available lot spaces will encourage more drivers to travel into the Study Area to find parking.

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Implement changeable message signs with real-time information;
- Provide signage that identifies the location of long-term parking;
- Provide all parking rates and contact information in one place (e.g. website, brochure, information phone number) to help commuters comparison shop for long-term parking and easily find out about availability.

Parking 2.2 Reallocate Short Term, Long Term and Private Parking

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Amass larger areas of long-term parking within the Study Area;
- Develop pricing strategies to encourage long-term parkers to park in the Study Area;
- Explore options to allow any Study Area commuter to use UC's Hill parking as satellite parking;
- Designate on-street, metered spaces within the Study Area for commuter vanpool-permit and/or carpool-permit parking. Permits should not be free but should be sold at a monthly rate to prevent abuse and to make effective use of a limited supply. To prevent abuse, carpool-permits should be sold to individual carpool members with the requirement that 2 or more permits be displayed.

Parking 2.3 Refine Residential Permit Programs and Enforcement

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Expand RPP to neighborhoods that are not currently included in the RPP program;
- Increase enforcement of RPP;
- Sell a designated number of RPP permits to commuters. The revenue raised from these permit sales could be used to create a neighborhood benefit district. (Revenue could be used to support neighborhood EcoPass for that particular neighborhood.) The revenue

could also be used to fund TDM strategies in general. RPP monthly permits for commuters should be priced based on distance from the Study Area.

Transit 3.4 Work with AC Transit to Improve Frequency and Reliability on Core Routes

Transit in Berkeley serves the right origins and destinations but is not frequent or reliable enough to attract choice riders. Because many Berkeley commuters live within five miles of the Study Area, frequency and reliability are critical, since people will not tolerate long wait times for transit when their car trip takes just fifteen minutes.

The City must clearly articulate the specific AC Transit improvements needed. For the purposes of this priority policy objective, these include:

- Focus on short-distance commutes (e.g. increase frequency on routes coming from the hills and neighboring cities such as Albany and El Cerrito);
- Short runs of Route 51.

Transit 3.1 Develop a City-Supported Eco-Pass Program

Transit has great potential for attracting commuters who currently drive alone to Berkeley. Providing incentives to commuters to use transit is critical to shifting more trips to transit. The more commuters who use transit, the fewer cars parking beyond the Study Area.

- Through the TCC, develop an employer Eco-Pass program -- obtain up-front commitment from UC and City to buy into the program;
- Develop a strategy to allow small employers to join together to form EcoPass purchasing groups.

TDM 3.1 Make the City of Berkeley a Model Employer for TDM/Expand Commute Benefit Programs

Because commuter mode-shift is critical to preventing spill-over parking, providing commuter TDM incentives is important. These programs would be provided through the leading TDM agency (see Figure 10-1 for more detail).

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Provide community-level employer TDM benefit programs such as carpool formation incentives, "try transit" coupons, or vanpool fare discounts.
- Develop city incentives for employers to develop in-house TDM programs. This may be a promotion of the employer with the best mode split or tax incentives for employers with documented programs.
- Provide a TDM program for City employees – offer transit subsidies, vanpool

coordination, pro-active ridematching, marketing events, discounted parking in City-owned garages for carpoolers, start-up incentives, longevity incentives, etc.;

- Guaranteed Ride Home – work with the Alameda CMA to expand its Guaranteed Ride Home program to employers of less than 100 employees or develop a City of Berkeley-sponsored program for Berkeley employers with less than 100 employees;
- Provide TDM marketing throughout the City and to all employers; especially market the Alameda CMA Guaranteed Ride Home program.

Housing 4.2 Dis-aggregate the Cost of Parking from and Commercial Rents

This activity can be used to implement a Parking Cash-Out ordinance within Berkeley that would require any employer offering free parking to its employees to offer equal commute benefits to those who opt not to park free. This could free up some parking supply within the Study Area as people who park for free may chose to use alternatives. This could allow some of the spill-over parkers to park within the Study Area. It is also an important tool to encourage mode shift.

The most important aspects of this activity in relation to this priority policy objective are:

- Require that commercial landlords dis-aggregate the cost of parking from the cost of building rental space;
- Require employers that lease parking and pass the benefit along to their employees free of charge to implement parking cash-out;
- Require employers that provide an owned supply of parking free to employees to offer parking cash-out benefits based on the market value of parking in the area.

Housing 4.4 Incentives to Encourage More Employees/Students to Live Locally

- Through development review, reward developers and employers who make efforts to encourage their employees to live locally.

The Impacts of Meeting the Goals of This Priority Policy Objective

Pros

- Achieves an important objective of the community vision.
- The number of commuter cars on residential streets in those areas of expanded RPP would decline.
- The addition of parking in the Study Area is a pro to those who currently use alternatives reluctantly and to those who would rather park in the Study Area but cannot currently find parking in the Study Area.
- Increased TDM activity will allow more commuters to shift to non-automobile modes.
- Depending on the amount of parking added in the Study Area, traffic congestion within the Study Area may decrease as parking search traffic declines.

Cons

- Depending upon the amount of parking added in the Study Area, traffic congestion within the Study Area may increase as more commuters travel to the Study Area to find parking.
- Depending upon the amount of parking added to the study area, the amount of available visitor parking within the Study Area could be reduced as more commuters seek parking within the Study Area.
- Use of a valuable supply of on-street parking is not maximized.
- Parking enforcement costs increase with an expanded RPP zone (although expenses are typically offset by fines).
- RPP can make it more difficult for residents' guests and gardeners, etc. to park.
- These actions could push spill-over parking to the next farthest neighborhood.
- A parking cash-out program may not be well received by employers. It could encourage some employers to discontinue offering free parking to their employees, which could push more commuters to park beyond the Study Area.
- Shifting parkers from one location to another does not improve livability within the Study Area but can improve livability in targeted neighborhoods.

Evaluation – Measuring Success

Two dimensions must be measured to determine if the recommended actions meet the goals of this priority policy objective. These are 1) the number of non-residential cars parked in neighborhoods and 2) Study Area mode split. The following recommends strategies for measuring these two aspects of program success.

Measuring Non-Residential Cars Parked on Neighborhood Streets

1. Establish a baseline of spill-over parking within the targeted neighborhood. Counts should compare night-time, on-street parking with day-time on-street parking to determine spill-over. Compare the difference between the night and day counts at baseline with the difference after the strategy has been implemented.
2. An alternative, simpler way to evaluate if the priority policy objective goal has been met is to monitor resident complaints of spill-over parking before and after implementation.
3. To measure the impacts on other areas that could result from this policy, the number of complaints from adjacent neighborhoods should also be compared before and after any changes are made.
4. The availability of short-term parking within the Study Area and violation of on-street parking time limits (either meter or RPP) must also be tracked to determine the impacts on Study Area parking.

Measuring Study Area Mode Split

Because shifting commuters from driving to other transportation alternatives is critical to the success of this strategy, measuring changes in overall commute mode split is needed. To minimize the administrative hassle and resources needed to measure this change, yet still obtain accurate information, the following strategy is recommended.

1. Develop a City ordinance that requires Study Area employers to participate in the survey process (outlined below) as a condition of their business license renewal. Menlo Park has such an ordinance.
2. Conduct a randomized³ sample survey every other year⁴ among Study Area employers. The randomization should be segmented among employers with 100 to 1,000 employees, 50

³ Due to the size of its commuting populations, UC Berkeley must be surveyed each time the survey is conducted. City employees must also be included each time the survey is conducted to set the example of a model employer for TDM.

⁴ UC Berkeley currently surveys every four years. This would require the University to conduct this labor-intensive effort more often. The community survey should occur in the same year as the University surveys.

- to 100 employees, and less than 50 employees. A baseline survey must be conducted first.
3. The City's leading TDM agency (see TDM 1.1) would be the agency responsible for coordinating the bi-annual survey effort. This will require staff time and resources to pay for data entry and results analysis.
 4. Randomly selected employers should be given three options for conducting the survey: a) survey all employees; b) provide an employee list to allow the TDM agency to randomly select employees to be surveyed; c) develop a random sampling plan and administer the survey to those selected.
 5. Survey materials should be made available electronically.

Resource Demand

Enabling Strategies

Enabling Strategy	New FTE Requirements; In-Kind Staff Time	Other Costs
Parking Coordinating Council	<ul style="list-style-type: none"> Ⓒ Supported by TDM Agency Executive Director (see below); Ⓒ City and University – 5 hours per week for first 6 months 	Facilitation & Coordination: \$25,000 to \$40,000
Transit Coordinating Council	<ul style="list-style-type: none"> Ⓒ Supported by TDM Agency Executive Director (see below); Ⓒ City and University – 6 hours per week for first 6 months 	Facilitation & Coordination: \$15,000

Lead TDM Agency	3 FTEs: C 1.0 Executive Director – also staffs PCC and TCC C 0.5 City TDM Program manager C 0.5 TDM Program Manager for City-wide programs C 1.0 Support staff City – 5 hours per week for first 6 months	Office Space and Materials (Program costs outlined below)
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Additional Strategies

The following are order-of-magnitude cost estimates for key elements of this program, divided by up-front capital costs and ongoing operating costs:

Program	One-Time and Capital Costs	Annual Operating Costs
Parking Information System	Changeable Message Signs: \$1,000,000 to \$3,000,000 (depending on need for cabling and number of signs) Other Signs and Information: \$100,000	Maintenance: \$50,000 Staffing: 0.25 FTE
Reallocate Parking	Areawide parking study, included above Striping, signage: \$80,000	Maintenance: \$50,000
RPP refinement and enforcement	Parking study, above Signage improvements: \$15,000	Could be self-funding
City Eco-Pass	Program development: \$50,000	Funding: \$500,000 (may vary by order of magnitude depending on size of program)
AC Transit Core Routes	Multimillion dollar project, primarily funded through non-local sources	Cost savings through improved travel times

Program	One-Time and Capital Costs	Annual Operating Costs
City of Berkeley Model TDM Employer	Program development: \$50,000	Program ops: \$250,000 (may vary dramatically depending on programs)
Parking policies	Program development: \$20,000	No cost.
Housing incentives	Program development: \$20,000	No cost or moderate costs, depending on incentives.
<i>Evaluation</i>	<i>None</i>	<i>Data collection and analysis: \$20,000 every 2 years</i>

PRIORITY POLICY OBJECTIVE 2: IMPROVE VISITOR EXPERIENCE IN BERKELEY

This priority policy objective identifies the activities that will increase short-term parking availability in the Study Area and make it easier for visitors and shoppers to navigate the area both on public transit and in finding parking.

Background

- Visitor access is important to creating a thriving arts and entertainment district as well as a robust retail economy.
- Given known and estimated demand for commuter parking in the study area, parking for visitors and retail shoppers in the study area may be extremely limited. Study area employee demand (non-UC) needs to be fully characterized by research, survey and data material.
- According to the analysis conducted in Chapter 9, there may be 2,600 to 3,300 parking spaces available in the Study Area for visitors on a daily basis. To gain an optimal split of commuter and visitor parking, any parking increase should be combined with an increase in the share of commuters using alternatives to the automobile.
- Nighttime access is important for arts and entertainment activities.
- Visitors are more likely to come to the Study Area in groups (e.g. friends of families traveling together). It is more challenging to get a family out of a car and onto transit or another mode than it is individuals.
- Commuters and visitors compete for parking spaces in the Study Area during the day.

TDM Activities to Implement the Priority Policy Objective

As shown in Chapter 9, commuter parking and visitor parking compete for the same limited parking supply. To meet the goals of this priority policy objective without adding additional pressure to the commuter parking supply, the supply of parking in the Study Area would have to be expanded or significant commuter mode shift would be necessary. The quantity supplied would be at the discretion of the decision-maker, and would necessarily balance neighborhood, retail, visitor, and commuter considerations. Parking supply expansion would occur in combination with the following TDM activities that best accomplish the goal of improving the visitor experience in Berkeley.

Parking 2.1 Develop a Parking Information System

Parking 2.2 Reallocate Short Term, Long Term and Private Parking

Parking 2.3 Refine Residential Permit Programs and Enforcement

- Transit 2.2 Promote Public Access to UC and LBNL Shuttles
- Transit 2.3 Develop Joint Marketing and Information Materials for Area Transit Providers
- Transit 3.3 Expand Shuttle System to Provide New Routes
- Transit 3.4 Work with AC to Improve Frequency and Reliability
- Bicycle 3.3 Install Additional Bicycle Parking throughout the City
- Transit 4.2 Implement High Quality Transit on Key Corridors
- Transit 4.4 Provide a Direct BART Connection to San Francisco in the Evening
- Transit 4.5 Extend BART Service Hours or Provide Comparable Surface Transportation Until 2:30 AM

Activity Implementation Detail

Parking 2.1 Develop a Parking Information System

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Provide signage to direct visitors from the BART station to Study Area theaters (e.g. Berkeley Rep, Zellerbach), museums, campus, the Southside, shopping destinations, etc;
- Provide signage that directs visitors from the highways to the Downtown and Southside and provide directional signs within the Study Area to key destinations;
- Provide signage that directs visitors to area parking locations;
- Provide parking lot and alternative transportation information in one place (e.g. website, brochure, information phone number) to help visitors plan their trips.

Parking 2.2 Reallocate Short Term, Long Term and Private Parking

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Through the Parking Coordinating Council, assess the existing supply of parking to identify more surface lot parking spaces for short-term parkers, since surface lots are more conducive to higher turn-over of spaces than are garages;
- "Swap" some University-owned lot spaces near Telegraph Avenue with Sather Gate Garage spaces;
- Allow short-term lots to be used by any parker – university visitors, shoppers, or employees who need temporary parking ;
- Through the PCC, or City taxes on private lots, encourage private lots and garages to emphasize short-term parking; provide liability insurance for general public use of private lots, along with staffing and enforcement support;

- Implement a marketing program to discourage merchants and their employees from parking in metered spaces;
- Improve enforcement of metered parking spaces to ensure turnover.

Parking 2.3 Refine Residential Permit Programs and Enforcement

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Increase RPP enforcement to force turn-over of RPP spaces. These two-hour spaces are a valuable supply of visitor parking.

Local Transit Circulation

Transit 2.2 Promote Public Access to UC and LBNL Shuttles

Transit 3.3 Expand Shuttle System to Provide New Routes

Transit 3.4 Work with AC to Improve Frequency and Reliability

These three activities are grouped together, because they can all be used to address the same aspect of improving the visitor experience:

- Provide a well-defined, high-frequency transit route or shuttle that circulates within Downtown and the Southside and between BART and the Southside that provides free service to anyone traveling within the Study Area.

Transit 2.3 Develop Joint Marketing and Information Materials for Area Transit Providers

- Create detailed, Berkeley-specific maps showing key visitor destinations, AC Transit routes, BART, all shuttle routes, and parking lot locations. The maps should include phone numbers for additional parking and transportation information. The maps should also tell visitors about parking supplies at the MacArthur, Ashby and North Berkeley BART stations (especially for weekend and evening visitors) suggesting a quick BART ride to the Study Area;
- Maps can be distributed by businesses, the Cultural Trust, posted at all transit stops and on the web;
- Maps should be developed to accordion to 3 x 5, so they can be distributed with event promotional items and be convenient for students to keep on hand at all times;
- Other marketing strategies that could be pursued by the PCC or TCC to accomplish this goal are to offer free one-ride transit tickets to entertainment event patrons; or a "validate" your transit ticket campaign by merchants.

Bicycle 3.3 Install Additional Bicycle Parking throughout the City

To meet the goal of this priority policy objective, the most important element of this activity is to:

- Install bicycle racks on key shopping streets such as Telegraph, Bancroft, Durant, Shattuck and University.

Transit 4.2 Implement High Quality Transit on Key Corridors

Although a longer-term strategy, high quality transit such as bus rapid transit or light rail on the Key Corridors coming into the Study Area will be attractive to visitors.

BART Improvements

Visitors often come to Berkeley in the evenings, and the timing of many shows and events makes it difficult or impossible to catch BART after a performance. The following BART improvements are important to improving visitor access.

Transit 4.4 Provide a Direct BART Connection to San Francisco in the Evening

Transit 4.5 Extend BART Service Hours or Provide Comparable Surface Transportation Until 2:30 AM

The Impacts of Meeting the Goals of this Priority Policy Objective

Pros

- Achieves an important objective of the community vision.
- Many of the activities that support access support all travelers.
- Providing more convenient, legible access for visitors can enhance the Study Area economy, and the experience Berkeley families have of their downtown.
- The more visitors, the more activity on the street for longer periods of time and the more vibrant the community.
- Increased visitors can mean increased sales taxes.
- Visitors spread the peak hours of travel demand, which is good for transit. The more passengers per hour transit carries, the more efficient and effective its service.

Cons

- The parking strategies favor short-term parkers over commuters, which can make commuter parking more difficult, depending upon the amount of parking added to the Study Area. This can impact employers' ability to attract and retain employees, and/or encourage more

commuters to park in neighborhoods beyond the Study Area. Several additional activities aimed at commuter parkers, as outlined under Priority policy objective 1, could be implemented to curb these negative effects. These include:

- Transit 3.1 Develop a City-Supported Eco-Pass Program
- Transit 3.4 Work with AC Transit to Improve Frequency and Reliability on Core Routes
- TDM 3.1 Make the City of Berkeley a Model Employer for TDM/Expand Commute Benefit Programs

- Some of the activities are expensive and/or out of the direct control of the City.
- Encouraging more visitors increases the spread of peak demand on the transportation system, such that all modes can be congested for longer periods throughout the day.
- The strategy assumes the continued use of surface parking areas. Long range planning in the Study Area (the draft Southside Plan, the draft General Plan) promotes development of these sites, sometimes with underground parking that may not be conducive to the retail or visitor use.

Evaluation – Measuring Success

The following evaluation tools can be used to determine if the recommended actions improve visitor access to the Study Area.

1. Establish a baseline of parking availability and turn-over and compare it to parking availability and turn-over following the implementation of the strategy. This will include:
 - A. Evaluation of parking space turn-over and peak-hour parking availability in City-owned garages.
 - B. Evaluation of parking space turn-over and peak-hour parking availability in privately owned lots.
 - C. Evaluation of the total number of spaces available for (or dedicated to) short-term parking versus long-term parking.
 - D. Evaluation of parking pricing strategies at privately and publicly-owned parking lots and garages.
2. Distribute an annual survey to Berkeley visitors through businesses and arts entities.

Resource Demand

Enabling Strategies

The following are order-of-magnitude staffing and other costs for the basic enabling strategies:

Enabling Strategy	New FTE Requirements; In-Kind Staff Time	Other Costs
Parking Coordinating Council	<ul style="list-style-type: none"> Ⓒ 1 FTE coordinator who would also staff Transit Coordinating Council; Ⓒ City and University – 5 hours per week for first 6 months 	Facilitation & Coordination: \$25,000 to \$40,000
Transit Coordinating Council	<ul style="list-style-type: none"> Ⓒ 1 FTE coordinator who would also staff Parking Coordinating Council Ⓒ City and University – 6 hours per week for first 6 months 	Facilitation & Coordination: \$15,000
Lead TDM Agency	not critical to this priority policy objective	

Additional Strategies

The following are order-of-magnitude cost estimates for key elements of this program, divided by up-front capital costs and ongoing operating costs:

Program	One-Time and Capital Costs	Annual Operating Costs
Parking Information System	Changeable Message Signs: \$1,000,000 to \$3,000,000 (depending on need for cabling and number of signs) Other Signs and Information: \$200,000	Maintenance: \$50,000 Staffing: 0.25 FTE
Reallocate parking	Additional striping, signage: \$80,000	Maintenance: \$50,000
RPP programs and enforcement	Program development: \$10,000 Signage improvements: \$15,000	Could be self-funding
Public Access to Shuttles	None.	May require increase in shuttle capacity: \$200,000
Joint Marketing with Transit	Marketing materials: \$30,000	Distribution and updates: \$10,000

Expand Shuttles	Study: \$10,000	New services may vary dramatically: \$750,000
Improve AC frequency and reliability	Study: \$50,000 Service Improvements: \$1,000,000, but mostly non-local sources	Maintenance and ongoing improvements: \$100,000, mostly non-local
Bike Parking	New bike parking program: \$300,000	Annual support: \$50,000
High Quality Transit on Key Corridors	Multimillion dollar project, mostly non-local funding	Non-local maintenance.
Direct evening BART to San Francisco	None.	Potentially significant resource issue for BART, non-local funding.
Extend BART service hours	None.	Very significant resource issue for BART and related transit agencies.
<i>Evaluation</i>	<i>None</i>	<i>Annual parking survey: \$50,000</i> <i>Annual visitor survey: \$5,000</i>

PRIORITY POLICY OBJECTIVE 3: IMPROVE COMMUTER CONDITIONS AND EMPLOYEE RECRUITMENT AND RETENTION

This priority policy objective identifies the TDM activities that best meet the goal of improving commuter conditions and employee recruitment and retention.

Background

- Many commuters to the Study Area live within five miles: 46% of UCB faculty/staff, about 75% of Study Area commuters in general (not including UC students).
- UC Berkeley's faculty/staff drive alone rate is 50%.
- UC Berkeley's student drive alone rate is 15%.
- The best estimate of the drive alone rate of non-UC Study Area employees is 46%⁵.

TDM Activities to Implement the Priority Policy Objective

The TDM activities that best accomplish the goal of improving commuter conditions and employee recruitment are:

- Parking 2.1 Develop a Parking Information System
- Parking 2.2 Reallocate Short Term, Long Term and Private Parking
- Transit 2.2 Promote Public Access to UC and LBNL Shuttles
- Transit 3.1 Develop a City-Supported Eco-Pass Program
- Transit 3.3 Expand Local Shuttle System Routes
- Transit 3.4 Work with AC Transit to Improve Frequency and Reliability on Core Routes
- Transit 3.5 Implement Transit Preferential Measures on City Streets
- TDM 3.1 Make the City of Berkeley a Model Employer for TDM/Expand Commute Benefit Programs
- Bicycle 3.1 Implement Bicycle Plan Recommendations
- Housing 4.3 Increase Housing Supply

⁵ This mode split comes from the 1990 census of employees traveling to the census tracts that make up the Study Area, including the UC campus and the hill area. It is the best data available, although it does not separate out the influence of UC employees. Since UC employees have a slightly higher drive alone rate compared to the census data (50% versus 46%), it can be concluded that 46% is higher than the drive alone rate of non-UC Study Area employees. Unfortunately, the mode split of JUST non-UC Study Area employees is not available, so the best estimate available was used.

Housing 4.4 Incentives for Institutions to Encourage More Employees/Students to Live Locally

Activity Implementation Detail

Parking 2.1 Develop a Parking Information System

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Implement changeable message signs with real-time information, so that commuters do not have to circle to find available parking. Some UC Berkeley commuters have said they sometimes must circulate campus lots for up to 45 minutes looking for an available space;
- Provide signage that identifies location of long-term parking;
- Provide all parking rates and contact information in one place (e.g. website, brochure, information phone number) to help commuters comparison shop for long-term parking and easily find out about availability.

Parking 2.2 Reallocate Short Term, Long Term and Private Parking

To meet the goal of this priority policy objective, this activity should be implemented to:

- Amass larger areas of long-term parking within the Study Area. This could be done by implementing commuter valet parking at more area garages and lots;
- Develop convenient ways for commuters to purchase monthly parking;
- Explore options to allow any Study Area commuter use UC's Hill parking as satellite parking;
- Designate on-street, metered spaces within the Study Area for commuter vanpool-permit and/or carpool-permit parking. Permits should not be free but should be sold at a monthly rate to prevent abuse and to make effective use of a limited supply. To prevent abuse, carpool-permits should be sold to individual carpool members with the requirement that 2 or more permits be displayed.
- Allow commuters to purchase a limited number of permits to park in specific RPP zones on a full-time basis. This will only be effective if enforcement of RPP is increased.

Transit 3.1 Develop a City-Supported Eco-Pass Program

Transit has great potential for attracting commuters who currently drive alone to Berkeley. Providing incentives to commuters to use transit is critical to shifting more trips to transit.

- Through the TCC, develop an employer Eco-Pass program -- obtain up-front commitment from UC and City to buy into the program;
- Develop a strategy to allow small employers to join together to form EcoPass purchasing

groups.

Local Transit Circulation

Transit 2.2 Promote Public Access to UC and LBNL Shuttles

Transit 3.3 Expand Shuttle System to Provide New Routes

- These two activities both provide strategies to help commuters get around the Study Area. Many commuters may bring their cars to work due to the need to get around quickly at lunch or to attend meetings in other parts of Berkeley.
- Provide a well-defined, high-frequency transit route or shuttle that circulates within Downtown and the Southside and between BART and the Southside that provides free service to anyone traveling within the Study Area.

Transit 3.4 Work with AC Transit to Improve Frequency and Reliability on Core Routes

Because many Berkeley commuters live within five miles of the Study Area, frequency and reliability are critical to attracting choice riders. People will not tolerate long wait times for transit, when their car trip takes just fifteen minutes.

The City must clearly articulate the specific AC Transit improvements needed. For the purposes of this priority policy objective, these include:

- Focus on short-distance commutes (e.g. increase frequency on routes coming from the hills and neighboring cities such as Albany and El Cerrito);
- Short runs of Route 51.

Transit 3.5 Implement Transit Preferential Measures on City Streets

Commuters travel at the hours when traffic congestion is at its peak. A way to increase the attractiveness of transit is to speed it through traffic.

- Implement transit signal priority for buses at signalized intersections on San Pablo Avenue, University Avenue, Shattuck, College Avenue and Telegraph Avenue;
- Implement queue jumps for transit at signalized intersections;
- Implement HOV lane treatments on transit corridors.

TDM 3.1 Make the City of Berkeley a Model Employer for TDM/Expand Commute Benefit Programs

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Provide a TDM program for City employees – offer transit subsidies, vanpool coordination, pro-active ridematching, marketing events, discounted parking in City-owned garages for carpoolers, start-up incentives, longevity incentives, etc.;
- Provide TDM marketing throughout the City and to all employers; especially market the Alameda CMA Guaranteed Ride Home program;
- GRH – work with the Alameda CMA to expand its GRH program to employers of less than 100 employees or develop a City of Berkeley-sponsored program for Berkeley employers with less than 100 employees;
- Provide community-level employer TDM benefit programs such as carpool formation incentives, “try transit” coupons, or vanpool fare discounts;
- Develop city incentives to encourage employers to implement TDM programs, such as transit subsidies and bicycle lockers. This may be a promotion of the employer with the best mode split or tax incentives for employers with documented programs.

Bicycle 3.1 Implement Bicycle Plan Recommendations

Because 60 to 70% of Study Area commuters live within five miles of the Downtown/Southside, an integrated, comprehensive bicycle network is important to improving commuters' transportation choices. Existing conditions on Berkeley's streets can make it uncomfortable for commuters to bicycle to work. Commuters who have a choice between bicycling and driving will not bicycle until bike travel-ways are improved, and people's perception of the safety and comfort of bicycling improves.

This activity can best serve the commuter market in the following manner:

- Prioritize bike plan implementation as a task of the transportation planning body developed in TDM 1.1;
- Within the bike plan, prioritize implementation of those bicycle lane/route/boulevards that connect the Study Area with Albany/North Berkeley, Emeryville, and South Berkeley/North Oakland;
- Establish a joint planning effort with UC Berkeley to integrate campus bicycle access with the rest of the bike network.

Housing 4.3 Increase Housing Supply

- Implement the draft General Plan recommendations regarding new housing in the Study

Area and surrounding neighborhood;

- Establish a minimum height limit in the Downtown and encourage housing above retail;
- Eliminate the minimum parking requirement for new housing units in the Downtown Transit Oriented Development area.

Housing 4.4 Incentives for Institutions to Encourage More Employees/Students to Live Locally

- Through development review, reward developers and employers who make efforts to encourage their employees to live locally.

The Impacts of Meeting the Goals of this Priority Policy Objective

Pros

- Achieves an important objective of the community vision.
- Strategies aimed at achieving mode shift among commuters (e.g. EcoPass, Bike Network) reduce traffic at the peak hours.
- Reducing the number of commuters who drive alone can reduce the number of cars parked on residential streets.
- The more choices commuters have to get out of their cars, the greater the benefits to individual commuters and their employers.
- Bicycling and walking to work can improve employee health and reduce stress.
- Employees who are less stressed about getting to work are more relaxed and productive, may improve recruitment and retention.
- Efforts to improve parking management can reduce traffic searching for parking.
- Increased transportation options improves the attractiveness of Berkeley as a place to work.

Cons

- Parking policies designed to favor long-term parkers can reduce the amount of parking within the Study Area that is available for visitors and retail shoppers.
- Any effort to improve the convenience of long-term parking could make some commuters who currently use transportation alternatives start driving. Equal or greater effort to improve HOV, transit and biking conditions is necessary to offset the negative impacts of latent parking demand and keep transportation alternatives on an equal playing field with driving.

Evaluation – Measuring Success

1. Measure changes in overall commute mode split among Study Area employees. (See

Evaluation Plan for Priority policy objective 1 -- Measuring Study Area Mode Split.)

2. Measure employers' perception of the transportation barriers employers face recruiting and retaining employees. Include a cover survey with the bi-annual Study Area Mode Split survey to be completed by the business-owner or human resources manager at the company. The cover survey should capture employers' perspective about transportation conditions, barriers, improvements and problems facing the Study Area and impacting recruitment and retention. It will be necessary to separate general recruitment issues – such as the current economic condition – from transportation issues impacting recruitment and retention.

Resources Needed

Enabling Strategies

Enabling Strategy	New FTE Requirements; In-Kind Staff Time	Other Costs
Parking Coordinating Council	<ul style="list-style-type: none"> Ⓒ Supported by TDM Agency Executive Director (see below); Ⓒ City and University – 5 hours per week for first 6 months 	Facilitation & Coordination: \$25,000 to \$40,000
Transit Coordinating Council	<ul style="list-style-type: none"> Ⓒ Supported by TDM Agency Executive Director (see below); Ⓒ City and University – 6 hours per week for first 6 months 	Facilitation & Coordination: \$15,000

Lead TDM Agency	5 FTEs: C 1.0 Executive Director – also staffs PCC and TCC C 0.5 City TDM Program manager C 0.5 TDM Program Manager for City-wide programs C 2.0 TDM Program Managers for UC programs C 1.0 Support staff City & UC – 5 hours per week for first 6 months; continued guidance	Office Space and Materials (Program costs outlined below)
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Additional Strategies

The following are order-of-magnitude cost estimates for the key program components in this priority policy objective:

Program	One-Time and Capital Costs	Annual Operating Costs
Parking Information System	Changeable Message Signs: \$1M to \$3M (depending on need for cabling and number of signs) Other Signs and Information: \$100,000	Maintenance: \$50,000 Staffing: 0.25 FTE
Reallocate Parking	Additional striping, signage: \$80,000	Maintenance: \$50,000
Public Access to Shuttles	None.	May require increase in shuttle capacity: \$200,000
City Eco-Pass Program	Program development: \$50,000	Funding: \$500,000 (may vary by order of magnitude depending on size of program)
Expand Local Shuttles	Study: \$10,000	New services may vary dramatically: \$750,000

Program	One-Time and Capital Costs	Annual Operating Costs
Improve frequency and reliability on Core Routes	Study: \$50,000 Service improvement, etc: \$1,000,000, but mostly non-local sources	Maintenance and ongoing improvements: \$100,000, mostly non-local
Transit Preferential Streets	Low-cost to multimillion dollar project, depending on scope. Many non-local sources.	Modest ongoing maintenance costs.
Berkeley a Model Employer	Program development: \$50,000	Program ops: \$250,000 (may vary dramatically depending on programs)
Bike Plan Recommendations	Multimillion dollar project to implement all recommendations.	\$500,000 annual support costs for programs.
Increase Housing Supply	Could be significant if City of Berkeley bond-finances new housing as San Francisco is doing.	Could be significant if City of Berkeley provides on-going support for housing construction as San Mateo County is doing.
Incentives for Commuters to Live Locally	None.	Policy matter: may be no costs involved.
<i>Evaluation</i>	<i>None</i>	<i>Data collection and analysis: \$20,000 every 2 years</i>

PRIORITY POLICY OBJECTIVE 4: ACCEPT EXISTING CONDITIONS AND PLAN TO ACCOMMODATE GROWTH

This priority policy objective assumes that the current conditions in Berkeley are acceptable, and does not attempt to improve existing conditions. The goal is to use the TDM activities outlined in this plan to accommodate growth over the next decade and not significantly alter the status quo mode split.

Background

- Employment in the Study Area, not related to UC Berkeley, may grow 4% in the coming decade.
- Campus employment may grow 10% between 1999 and 2010/11.
- UC Berkeley student enrollment may grow 4% between 1999 and 2010/11.
- If mode splits did not change, 915 additional parking spaces may be needed in the Study Area to accommodate this potential growth. If these spaces are estimated at \$35,000 per space (below grade as part of mixed use project) and financed over 30 years, possible costs would be approximately \$100 million.
- If no additional parking spaces were provided, the drive alone rates of the different traveler groups would have to change as follows to accommodate growth:
 - UC Faculty/Staff: From 50% to 42-45%
 - UC Students: From 15% to 14-14.5%
 - Off-Campus, Study Area Employees: From 46% to 42-43.5%
- It is eminently possible to achieve these mode splits through TDM activities that have a wide impact on the traveling market.

TDM Activities to Implement the Priority Policy Objective

The TDM strategies recommended to achieve the goal of this priority policy objective is to:

- A) Squeeze more efficiency out of the existing parking supply through PCC activities to develop shared supplies of parking and better utilize all parking - including small and medium-sized privately owned lots -- during times of peak demand (Parking 1.1, 2.1);
- B) Implement a transit Eco-Pass program which has broad applicability to the largest traveler-markets in Berkeley: employees living within five miles of the Study Area (Transit 3.1);
- C) Implement the aspects of several different TDM activities that can provide low-cost improvements (Includes one or two action items from several activities).

Activity Implementation Detail

Parking 2.1 Develop a Parking Information System

To meet the goal of this priority policy objective, the most important elements of this activity are:

- Implement changeable message signs with real-time information;
- Provide signage that identifies the location of long-term and short-term parking locations;
- Provide signage to direct visitors from the BART station to Study Area theaters (e.g. Berkeley Rep, Zellerbach), museums, campus, the Southside, shopping destinations, etc;
- Provide signage that directs visitors from the highways to the Downtown and Southside and provide directional signs within the Study Area to key destinations;
- Provide parking lot and alternative transportation information in one place (e.g. website, brochure, information phone number) to help visitors plan their trips and to help commuters comparison shop for long-term parking and easily find out about availability.

Increase the Capacity of the Existing Parking Supply through Shared Parking Arrangements (Parking 1.1, Parking 2.1)

- Obtain a more comprehensive view of the total parking supply;
- Contract with a third party parking management organization (could be UC) to work with small and medium-sized lot owners. Make these facilities available to the public and sell any under-utilized spaces to monthly parkers;
- Cooperatively manage the supply to provide shared supplies of long-term and short-term parking;
- Provide information about parking lot locations, pricing, options, and contact information in one easy-to-access location;
- Develop the PCC into a formal organization.

Transit 3.1 Develop a City-Supported Eco-Pass Program

- Through the TCC develop an EcoPass program;
- Market the program to Berkeley employers;

- Develop a mechanism for small Study Area employers to collectively participate in the EcoPass program by using funds from downtown parking resources or creating a transit assessment district.

Additional Lower Cost Improvements to Gain Mode Shift

- UC Berkeley TDM Programs: For the purposes of this priority policy objective, it is recommended that UCB's TDM efforts to serve the University be removed from Berkeley TRiP. UC Berkeley's TDM efforts should become an on-site TDM program focused solely at UC students, staff and faculty. Continue Class Pass. (This strategy includes concepts developed in TDM 1.1, and TDM 2.1, and Transit 2.1)
- Promote public access to UC and LBNL Shuttles (Transit 2.2)
- Develop joint marketing and information materials for area transit providers (Transit 2.3)
- Better market and promote the Alameda County Guaranteed Ride Home Program (TDM 2.2)
- Develop a supply on on-street carpool and vanpool parking (Parking 2.2).
- Install additional bike parking on the UC campus and in the City (Bicycle 3.3)

The Impacts of Meeting the Goals of this Priority Policy Objective

Pros

- Existing traffic congestion in Berkeley would not increase disproportionately to growth.
- More efficiencies are gained from the existing parking supply.
- More efficiencies can be gained from UC Berkeley's TDM expenditures to target the largest peak traveler markets coming into the Study Area.

Cons

- Existing traffic congestion and neighborhood commuter parking impacts in Berkeley would not significantly improve over time.
- Unless the City decided to continue funding TRiP's pass sales function, this would not be continued. The effectiveness of this program should be evaluated to determine its importance to mode shift within Berkeley.

- No improvement in visitor or retail parking availability.

Evaluation – Measuring Success

The success of these strategies can be measured by implementing the bi-annual Study Area commute survey described in Priority policy objective 1. The requirement for success would be to reach the target mode split objectives for UC student, UC faculty and staff, and off-campus Study Area employees.

Resources Needed

Enabling Strategies

Enabling Strategy	New FTE Requirements; In-Kind Staff Time	Other Costs
Parking Coordinating Council	<ul style="list-style-type: none"> ⌄ 1 FTE (also supports TCC); ⌄ City and University – 5 hours per week for first 6 months 	Facilitation & Coordination: \$25,000 to \$40,000
Transit Coordinating Council	<ul style="list-style-type: none"> ⌄ 1 FTE (also supports PCC); ⌄ City and University – 6 hours per week for first 6 months 	Facilitation & Coordination: \$15,000
Lead TDM Agency	<ul style="list-style-type: none"> ⌄ 0.5 City TDM Program manager ⌄ 0.5 TDM Program Manager for City-wide programs ⌄ 2.0 TDM Program Managers for UC programs ⌄ City & UC – 5 hours per week for first 6 months; continued guidance 	Office Space and Materials (Program costs outlined below)

Additional Strategies

The following are order-of-magnitude cost estimates for the key program components in this

priority policy objective:

Program	One-Time and Capital Costs	Annual Operating Costs
Parking Information System	Changeable Message Signs: \$1M to \$3M (depending on need for cabling and number of signs) Other Signs and Information: \$100,000	Maintenance: \$50,000 Staffing: 0.25 FTE
Parking Information and Reallocation	3 rd Party Management: possible subsidy from City may be needed -- \$50,000 to \$100,000	Maintenance: \$50,000 Staffing: 0.25 FTE
City Eco-Pass Program	Program development: \$50,000	Funding: \$500,000 (may vary by order of magnitude depending on size of program)
UCB TDM Programs	Shift funding from TRiP's community activities to specifically target UCB customers.	Additional program funding: \$250,000 to \$500,000 (will vary depending on programs)
City of Berkeley a Model Employer	Program development: \$50,000	Program ops: \$250,000 (may vary dramatically depending on programs)
Public Access to Shuttles	None.	May require increase in shuttle capacity: \$200,000
On-Street Carpool/Vanpool Parking	Program development & signs: \$15,000	.25 FTE \$5,000 annual maintenance and marketing
Bike Parking	New bike parking program: \$300,000	Annual support: \$50,000
Joint Marketing with Transit	Marketing materials: \$30,000	Distribution and updates: \$10,000

Program	One-Time and Capital Costs	Annual Operating Costs
<i>Evaluation</i>	<i>None</i>	<i>Data collection and analysis: \$20,000 every 2 years</i>

PRIORITY POLICY OBJECTIVE 5: REDUCE THE AMOUNT OF TRAFFIC ON BERKELEY STUDY AREA STREETS

This priority policy objective looks at the activities needed to improve traffic congestion within the Study Area by targeting measures to each of the following travel markets:

- The City of Berkeley as an employer
- UC Berkeley as an employer
- All other commuters
- Visitors
- Non-commute traffic

The strategies most applicable to achieving mode shift from each group are broken out on two levels: those that are less logistically difficult and/or less costly to implement and those that are more difficult to implement but that will have the greatest impact on mode share.

The City of Berkeley as an Employer

The City of Berkeley must develop and implement a TDM program aimed at its own work force to set an example for the rest of the City's employers.

More Readily Implementable Measures *(all concepts included in TDM 3.1)*

- Develop a mode-split target for City employees working in the Study Area that sets the standard for what the City would like to see throughout the Study Area. An appropriate target would be a 30 to 40% drive alone rate;
- Renegotiate Union contracts to eliminate free parking for all City employees working in the Study Area;
- Eliminate free parking for City Council members;
- Offer a transit subsidy program to all City employees;

- Provide reduced-cost carpool parking to employees;
- Staff a City TDM manager position.

More Difficult Measures – Greatest Impact on Mode Share

- If the City is unable to eliminate the free parking currently required in Union contracts, then the City should offer parking cash-out to all its employees.
- Offer transit subsidies to all employees by working with AC Transit to develop an EcoPass program. Provide a complimentary BART subsidy.

UC Berkeley as an Employer

More Readily Implementable Measures (*all concepts included in TDM 2.1*)

- Revamp Berkeley TRiP into a new organization to better serve UC Berkeley (see Figure 10-1, Enabling Strategies);
- Tie UCB's TDM program funding to programs that specifically target UCB students, faculty and staff, since this is the largest single travel market within the Study Area (see Figure 10-1, Enabling Strategies);
- Update UCB's transportation programs web site;
- Provide marketing materials to staff and faculty through the Human Resources and Work/Family departments. Make these departments as familiar with UCB's TDM programs as is the Parking and Transportation department;
- Provide TDM services on-site;
- Automate TDM services and benefits (e.g. through web registration and order-by-mail);
- Combine the transit subsidy and the pre-tax program for transit riders;
- Evaluate the fare-box revenue on shuttle vehicles and develop a business case for making the shuttles free to users in the summer;
- Change the requirement that people who live within one mile of campus are not eligible to ride the shuttle for free;
- Develop an option for UC commuters to purchase Individual Commuter Tickets at a rate that provides users of transportation alternatives with more flexibility to drive occasionally;
- Implement pro-active ridematching:
 - More actively promote carpool registration when students, staff and faculty register for parking permits;
 - Post employee home-location dots maps on the UC TDM web site to show people their

potential to carpool;

- Increase the cost differential between Hill parking and closer-to-campus parking.

More Difficult Measures – Greatest Impact on Mode Share *(all concepts included in TDM 2.1)*

- Implement parking technology that allows student, faculty and staff parkers to pay for parking via a "smart card" identification card that increases the daily parking rate each time the person parks to the point that the person "maxes out" at the monthly parking rate;
- Add the capability within the parking technology to allow more than one ID card to swipe per parking space to encourage casual carpooling;
- Add BART to Class Pass for students;
- Deepen the parking discount for carpoolers.

All Study Area Commuters

More Readily Implementable Measures

- Provide signage that identifies the location of long-term parking supplies (Parking 2.1);
- Provide all parking rate and contact information in one place to help commuters comparison shop for long-term parking and easily find out about availability (Parking 2.1);
- Designate on-street, metered spaces within the Study Area for commuter vanpool-permit and/or carpool-permit parking (Parking 2.2);
- Explore opportunities to allow general commuters to use UC's Hill parking as a satellite parking option (Parking 2.2);
- Sell a designated number of RPP permits as general commuter parking (Parking 2.2);
- Market the Alameda Guaranteed Ride Home program (TDM 2.2);
- Develop a City-sponsored GRH program for employers with less than 100 employees (TDM 2.2);
- Develop City-provided TDM incentives that benefit all employers such as start-up incentives for carpoolers (TDM 3.1);
- Promote public access to UC and LBNL shuttles to help commuters get around the Study Area (Transit 2.2);
- Develop an employer Eco-Pass program (Transit 3.1).

More Difficult Measures – Greatest Impact on Mode Share

Because 75% of commuters live within five miles of the Study Area, they have greater elasticity to shift modes from driving alone than do long distance commuters. The strategies that will create the greatest mode shift, therefore, are those that concentrate on the shorter-distance commute market. Fortunately, many of these strategies can also influence visitor and non-commute trips as well.

- Provide a well-defined, high-frequency shuttle that circulates within Downtown and the Southside and between BART and the Southside and that provides free access to anyone traveling within the Study Area (Transit 3.3 and/or Transit 3.4);
- Implement transit preferential measures on city streets (Transit 3.5);
- Implement bicycle plan recommendations (Bicycle 3.1);
- Develop an area-wide parking plan
 - Set parking maximums on new construction, and complement these with transit, bike and pedestrian infrastructure improvements
 - Implement a transportation management impact fee
 - Implement a city ordinance that requires employers who offer free parking to offer parking cash-out

Visitors

More Readily Implementable Measures

- Provide signage to direct visitors from the BART station to Study Area destinations; provide signage from the highways to the Downtown and Southside and to parking lots;
- Provide parking and transportation alternatives information all in one place (e.g. website, brochure, information phone number); include information about BART, AC Transit, and private shuttles (Parking 2.1 and Transit 2.3);
- Provide a well-defined, high-frequency transit route or shuttle that circulates within Downtown and the Southside and between BART and the Southside and provides free service to anyone traveling within the Study Area (Transit 2.2, Transit 3.3 or Transit 3.4);

More Difficult Measures – Greatest Impact on Mode Share

- Implement high quality transit on key corridors (Transit 4.2)
- Extend BART service hours until 2:30 AM (Transit 4.5)

Non-Commute Trips

More Readily Implementable Measures

- Provide a well-defined, high-frequency transit route or shuttle that circulates within Downtown and the Southside and between BART and the Southside and provides free service to anyone traveling within the Study Area (Transit 2.2, Transit 3.3 or Transit 3.4);
- Install additional bicycle parking throughout the City (Bicycle 3.3)

More Difficult Measures – Greatest Impact on Mode Share

- Improve frequency and reliability of transit (Transit 3.4)
- Implement high quality transit on key corridors (Transit 4.2)
- Increase housing supply in Downtown. Aggressively pursue General Plan objectives to develop the downtown as a Transit Oriented Development (Housing 4.3)

The Impacts of Meeting the Goals of This Priority Policy Objective

Pros

- Achieves an important objective of the community vision.
- Creates an overall shift of commute mode-split to non-automobile modes.
- Fewer cars on Study Area streets improves conditions for pedestrians and bicyclists.
- Improving transportation options and reducing traffic increases the attractiveness of the Study Area as a place to work, live or visit.
- More efficiencies can be gained from UC Berkeley's TDM expenditures to target the largest peak traveler markets coming into the Study Area.
- Making the City a model employer for TDM will set the example throughout the City of what the City wants to achieve. If the City cannot make tough choices to encourage usage of transportation alternatives, then the City cannot expect other employers to follow suit.

Cons

- Requires constant assessment of TDM programs and continued aggressive actions to achieve goals.

- Requires actions by the City which will be unpopular with its employees.
- Some of the activities are expensive and/or out of the direct control of the City.

Evaluation – Measuring Success

The success of these strategies to reduce traffic congestion on Study Area streets should be measured in two ways:

1. Develop and conduct the bi-annual TDM survey process described in the evaluation strategy for Priority policy objective 1.
2. Conduct annual traffic counts on Study Area streets and compare increases to employment and population growth.

Resources Needed

Enabling Strategies

Enabling Strategy	New FTE Requirements; In-Kind Staff Time	Other Costs
Parking Coordinating Council	<ul style="list-style-type: none"> ☒ Supported by TDM Agency Executive Director (see below); ☒ City and University – 5 hours per week for first 6 months 	Facilitation & Coordination: \$25,000 to \$40,000
Transit Coordinating Council	<ul style="list-style-type: none"> ☒ Supported by TDM Agency Executive Director (see below); ☒ City and University – 6 hours per week for first 6 months 	Facilitation & Coordination: \$15,000

Lead TDM Agency	6 FTEs: C 1.0 Executive Director – also staffs PCC and TCC C 1.0 Planner C 0.5 City TDM Program manager C 0.5 TDM Program Manager for City-wide programs C 2.0 TDM Program Managers for UC programs C 1.0 Support staff C City & UC – 5 hours per week for first 6 months; continued guidance	Office Space and Materials (Program costs outlined below)
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Additional Strategies

The following are order-of-magnitude cost estimates for the key program components in this priority policy objective:

Program	One-Time and Capital Costs	Annual Operating Costs
Parking Information System	Signs and Information: \$200,000	Maintenance: \$50,000
Reallocate Parking	Additional striping, signage: \$80,000	Maintenance: \$50,000
On-Street Carpool/Vanpool Parking	Program development & signs: \$15,000	.25 FTE \$5,000 annual maintenance and marketing
Parking Information System	Areawide Parking Study: \$400,000 Implementation: \$1,500,000	Maintenance: \$50,000 Staffing: 0.25 FTE
Public Access to Shuttles	None.	May require increase in shuttle capacity: \$200,000
City Eco-Pass Program	Program development: \$50,000	Funding: \$500,000 (may vary by order of magnitude depending on size of program)
Expand Local Shuttles	Study: \$10,000	New services may vary dramatically: \$750,000
Improve frequency and reliability on Core Routes	Study: \$50,000 Service improvement, etc: \$1,000,000, but mostly non-local sources	Maintenance and ongoing improvements: \$100,000, mostly non-local
Transit Preferential Streets	Low-cost to multimillion dollar project, depending on scope. Many non-local sources.	Modest ongoing maintenance costs.

Program	One-Time and Capital Costs	Annual Operating Costs
City of Berkeley a Model Employer/City-wide Commute Benefit	Program development: \$75,000	Program ops: \$250,000 to \$500,000 (may vary dramatically depending on programs)
UC Berkeley TDM Programs	Existing TRiP funding would need to be coordinated with development of new TDM agency	Program ops: \$250,000 to \$500,000 (may vary dramatically depending on programs)
UC Parking Technology	\$1,000,000	\$10,000 annual maintenance
Bike Plan Recommendations	Multimillion dollar project to implement all recommendations.	\$500,000 annual support costs for programs.
High Quality Transit on Key Corridors	Multimillion dollar project, mostly non-local funding	Non-local maintenance.
Direct evening BART to San Francisco	None.	Potentially significant resource issue for BART, non-local funding.
Extend BART service hours	None.	Very significant resource issue for BART and related transit agencies.
Increase Housing Supply	Could be significant if City of Berkeley bond-finances new housing as San Francisco is doing.	Could be significant if City of Berkeley provides on-going support for housing construction as San Mateo County is doing.
<i>Evaluation</i>	<i>None</i>	<i>Data collection and analysis: \$20,000 every 2 years Traffic counts: \$50,000</i>

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