

CHAPTER 3. OVERVIEW OF TDM ACTIVITIES

This Chapter outlines the specific transportation demand management activities recommended for the Study Area. These recommendations were developed based on the community visioning process, ideas raised by the working group and stakeholders and the conclusions drawn from the analysis of the existing conditions.

The TDM activities recommended for the Study Area are organized in four tiers, and are based on the following conclusions:

- Tier One activities are designed to coordinate and better manage the Study Area's rich, existing transportation resources. The resources include the existing parking supply, excellent transit coverage, and the many entities interested in decreasing traffic on Berkeley's streets. The goal of The Tier One activities is to develop a foundation for all further activity implementation by creating cooperative planning bodies. The Tier One activities are considered enabling strategies. They are discussed in detail in Chapter 4.
- The goal of Tier Two activities is to better manage the Study Area's existing resources to bring them closer to their full potential. Because so many of the Study Area's vehicle trips are generated by commuters living within five miles and residents and visitors coming from short-distances, there is great potential to achieve greater non-SOV mode share from the Study Area's existing TDM resources. These resources include an urban form and transportation infrastructure that inherently promotes the use of alternatives to the car. This infrastructure, however, needs to be better managed and cared for in order to attract more people to transit, bicycling and walking. Tier Two activities are discussed in detail in Chapter 5.
- Once the existing resources are maximized, Tier Three activities move to incrementally expand the existing programs. Each program must be tested and measured as it is expanded to determine the effectiveness of the additional recommended efforts. A full description of Tier Three activities is provided in Chapter 6.
- Tier Four activities include new programs and longer-term options that will help the Study Area become vital and livable as envisioned by the community. Chapter 7 presents a complete overview of the recommended Tier Four activities.

The tiers call attention to how the activities fit into a larger, overall strategy. They are not meant to imply an implementation priority. The activities listed in each tier are expanded upon in

subsequent chapters of this report. Each activity has been given an identification name and number. For example, "Parking 1.1" indicates that this is the first Tier One parking strategy discussed. This identification strategy helps organize the activities throughout the document. It coordinates the introduction of the activity in this chapter with its description in subsequent chapters. The tiers do not refer to recommended start dates. It may be more appropriate for the City or University to begin implementation of a Tier Four activity before addressing a simpler strategy in Tier Two.

**FIGURE 3-1
TDM ACTIVITIES**

Program Area	Specific Actions	Details	Rationale	Issues
Tier One Programs: Enabling Strategies				
<p>Manage the existing parking supply</p>	<p><i>Parking 1.1</i> Parking Coordinating Council</p>	<p>The City, University and local businesses are already working cooperatively to provide information about parking, set sensible rates and coordinate special event access. These efforts should be fully supported and taken to a higher level. Specifically, each entity in the study area that controls a supply of parking should join together to cooperatively manage their resources. The group should begin with the University and City, but it should be expanded to include LBNL, churches, private businesses and others that own parking spaces. The group would be responsible for coordinating parking rates, policies and information programs. The group may also contract out management of individual lots so that it will be cost effective for small lot owners to make their spaces available to the public when not needed by the owners. The organization can be informal at the beginning then evolve into a formal organization governed by a simple MOU, or later become a full JPA or TMA in order to better define the responsibilities and liabilities of member entities.</p>	<p>Currently, each parking owner in the study area manages their spaces independently, resulting in various inefficiencies. Cooperative management can increase the available supply with no new construction and provide better customer service to motorists.</p>	<p>Setting decision making protocols will be complicated and politically wrought. Who will decide what the parking rates are? Who will decide how to allocate short term versus long term spaces? How will the decision-making body be accountable to the public it serves? How will the specific interests of lot owners be protected while serving the larger good?</p> <p>Can UC participate without damaging its tax-exempt financing?</p>

Program Area	Specific Actions	Details	Rationale	Issues
Better Manage Existing Transit Resources	<i>Transit 1.1</i> Form a transit coordinating council among AC, UC, LBNL and the City.	AC, UC, LBNL and the City should work cooperatively to manage and expand their services in the study area. Their goals should be to improve frequency and services from the users' perspective in the most effective and efficient manner, and to provide services that meet the unique needs of a university community.	These agencies currently work independently of one another, but each is making a significant investment in transit.	AC, which charges a fare for its services, may be worried about losing riders and revenue to expanded free shuttles. These fears may be eased through open communication, cooperative planning and expansion of the Class Pass program.
Cooperatively Manage Transportation Planning	<i>TDM 1.1</i> Develop a leading transportation management body to serve the Study Area	This organization should be positioned to be a leader in transportation planning and management for the Study Area. It should have the four-fold 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; 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. 	Berkeley TRiP represents a unique partnership between the City and University that could be built upon to become the agency that is needed. Such an agency is the ideal body for implementing many of the TDM programs that are presented in this study.	Funding, oversight and overall institutional arrangements will need to be addressed.

Tier Two Programs: Manage Existing Resources to a Higher Level of Effectiveness

Program Area	Specific Actions	Details	Rationale	Issues
Manage the Existing Parking Supply	<i>Parking 2.1</i> Develop a parking information system, including real-time availability info	Print materials, kiosks, changeable message signs and other media should be developed to direct visitors and shoppers to available parking spaces in the area.	Currently, little indication is given as to where parking lots are located in the study area and no indication is given as to where spaces are actually available. The result is considerable search traffic, causing congestion and frustration.	Changeable message signs with realtime information about parking availability are fairly expensive.
Manage the Existing Parking Supply (cont.)	<i>Parking 2.2</i> Explore reallocating short term, long term and private parking to better serve users.	Some of the smaller University-owned lots near Telegraph Avenue might be better used as visitor and shopper lots, and swapped with Sather Gate Garage spaces.	Some visitors and shoppers may feel more comfortable parking in a surface lot. Putting commuters in a garage allows for more reliability for them finding a space.	Ownership and fee issues will need to be addressed. In the long run, this issue may become moot as surface lots make way for new buildings or parking structures.
	<i>Parking 2.3</i> Refine Residential Parking Permit (RPP) program and enforcement.	The RPP program should be refined to reduce abuse and maximize compliance. Other areas should also be explored: Raising permit rates to fund specific neighborhood improvements; limiting number of permits and selling them to new buyers at market rate, similar to a rent control program; limiting non-resident parking to one hour in heavily impacted areas.	A strong residential permit program is critical in changing urban areas in order to prevent spillover parking problems. Creative management of such programs can also result in significant new revenues for new programs	Developing a program will need to be sensitive to concerns of residents in permit zones.

Program Area	Specific Actions	Details	Rationale	Issues
Take better advantage of existing transit resources	<i>Transit 2.1</i> Continue Class Pass program and support AC's efforts to expand service to meet new demand.	The Class Pass Program has been very successful, creating significant new transit demand in the study area. AC Transit is exploring service increases to meet this demand, and the University and City should lend full support to AC's ideas.	Increasing the frequency and reliability of transit in the study area will further increase the attractiveness of transit.	AC Transit faces competing service demands throughout its service area. AC must balance the potential for highly productive service increases in Berkeley against more politically driven service increases elsewhere.
Take better advantage of existing transit resources (cont.)	<i>Transit 2.2</i> Promote public access to UC and LBNL Shuttles.	Ideally, the UC and LBNL shuttles would be free and open to the public. If that is not possible, their availability should be more actively promoted to UC, LBNL and other visitors.	Making transit free is, ironically, one of the most powerful tools for attracting riders who have a choice of modes. UC currently charges 25¢ for non-UC affiliates to use the shuttle. The fee processing costs are as much as the revenue collected. LBNL shuttles are restricted to LBNL employees and their guests.	UC and LBNL may be concerned that dropping fee and use restrictions will result in crowding on their shuttles, especially for trips between the BART station and Southside. If that is the case, funding from City sources should be considered to supplement the service based on the affiliation of riders. Alternatively, increasing service could be a mitigation strategy for new development.
	<i>Transit 2.3</i> Develop joint marketing and information materials for area transit providers	Maps and schedules should be readily available that describe all the transit options available to riders, rather than one operator at a time. BART, AC, UC and LBNL services should be described in one place. Materials should be created specific to the study area.	Most people are not aware of the wealth of transit serving the study area, and this information is rather difficult to acquire.	Moderate expense would be involved, but such materials were recently created by AC Transit for the Dumbarton Express service area.

Program Area	Specific Actions	Details	Rationale	Issues
Take better advantage of existing transit resources (cont.)	<i>Transit 2.4</i> Install shelters throughout City, furnish them will useful information and maintain them to a high standard.	Bus shelters are an important amenity in order to attract year-round transit riders, and they should be installed as planned in AC Transit's bus shelter program. Stops at key locations such as the downtown BART station and at Telegraph Avenue should receive special attention. The City and AC should work together to provide and maintain useful information in the display case in each shelter, and the City should work with the shelter vendor to ensure the vendor complies with its maintenance responsibilities.	Generally, the only cost effective means to install and maintain shelters is through advertising programs such as the one proposed by AC.	Many individuals in the City are concerned about the proliferation of advertising in public spaces. Fortunately, the City would have the ability to dictate types of ads that would be unacceptable in the community, such as tobacco products.
Promote existing TDM programs	<i>TDM 2.1</i> Better manage existing Berkeley TriP Programs	TRiP's current mission is not effectively met due to lack of direction and resources. Existing programs can be made more user-friendly and programs supporting Class Pass, Guaranteed Ride Home, carpool, vanpool, subscription bus and bicycle support programs should be managed to better meet the needs of travelers and especially UC commuters, who make up over 50% of the commute market in the Study Area.	Berkeley TriP is not living up to its full potential as it exists. A revised TRiP-like organization could deliver TDM services throughout the Study Area.	While there is general agreement that TRiP needs more attention, it is not clear how this should be done or paid for.
	<i>TDM 2.2</i> Ensure all local employers are participating in Alameda County's Guaranteed Ride Home Program.	Currently only UC, LBNL and the City are participating in the County's free Guaranteed Ride Home program which is limited to employers of 100 or more employees. The City should work with the Congestion Management Agency to allow the Downtown Berkeley Association and Telegraph Avenue Association to enroll all of their members.	Guaranteed Ride Home programs are an extremely cost-effective tool for supporting other TDM programs.	The County Congestion Management Agency may be concerned about containing the cost of its program while increasing its membership base.
Tier Three Programs: Expand Existing Resources				

Program Area	Specific Actions	Details	Rationale	Issues
Increase appeal of transit by improving reliability, frequency, travel time and customer service	<i>Transit 3.1</i> Develop a City-Supported EcoPass Program	UC employees and employees of other organizations in the study area should have the same option of purchasing fare cards for all their employees at a bulk discount. Program costs can be paid by the employers themselves or as a component of cafeteria-style benefit plans.	Almost all of the prepaid fare programs implemented between employers and transit agencies around the country have been successful, and they have been wise investments for all agencies involved. Transit ridership increases by as much as 30%.	This program may be a significant ongoing cost, and various controversies will arise depending on the source of funding.
	<i>Transit 3.2</i> Make key bus stops and transfer centers special places	Key bus stops should have, at a minimum, shelter from rain and wind, a place to rest, lighting, and information about bus routes, schedules and the surrounding community. They must feel safe and comfortable and provide orientation for passengers. Ideally, they would also incorporate art, good urban design, landscaping, telephones and other amenities to make transit users feel like they are valued citizens.	Part of the stigma against riding transit is that the poor quality and badly maintained support facilities make riders feel like second-class citizens. A lack of information about routes, schedules and the surrounding community is also a significant barrier for first-time users.	Constructing and maintaining first-class facilities entails initial costs and an ongoing funding commitment. Identifying long-term maintenance funding is more important and more difficult than up-front capital funding.
Increase appeal of transit by improving reliability, frequency, travel time and customer service	<i>Transit 3.3</i> Expand shuttle systems to provide new routes	In order to make trips more direct and timely, the current UC shuttle system should be revised to include both clockwise and counterclockwise trips, especially from the BART station to the Sproul Plaza/Berkeley Art Museum area.	Currently, to get from the BART station to Sproul Plaza involves either a long shuttle ride or a significant walk due to the one-way-loop nature of the shuttle system.	Making this connection possible will require additional shuttle funding and/or reduction in service from other lines. Converting Bancroft into a two-way street would facilitate the service, but is not necessary.

Program Area	Specific Actions	Details	Rationale	Issues
	<i>Transit 3.4</i> Work with AC transit to improve frequency and reliability on core routes.	May include short runs of Line 51 between Rockridge and Downtown Berkeley BART stations, GPS bus tracking, bus prioritization treatments and increased frequency.	Good frequency and reliability are critical to attract people who have a choice of modes.	Cost
	<i>Transit 3.5</i> Implement transit preferential measures on City streets.	May include traffic signal prioritization, bus bulbs, and other measures.	Transit preferential measures can improve travel time and reliability, allowing frequency to be increased at no additional cost.	Cost will be an issue, along with potential reductions in automobile capacity. There may also be concerns if such measures reduce on-street parking spaces.
Make Berkeley a Model Employer for TDM	<i>TDM 3.1</i> Make Berkeley a Model TDM Employer and Expand commute benefit programs	Develop a program to make the City a model employer for TDM. A TRiP-like organization could serve as the ETC for the City of Berkeley. The City can also provide TDM programs that can be utilized by other employers.	The City of Berkeley does not have an internal TDM plan for its own employees. The City should be a TDM leader in the community and set an example for all employers.	Union issues around parking policies for certain city employees.
Make Berkeley more bicycle friendly.	<i>Bicycle 3.1</i> Implement the Bicycle Plan recommendations	Implementing the bicycle boulevards and additional bike parking called for in the Bicycle Plan should greatly enhance the attractiveness of bicycling to the study area.	Currently, no continuous, comfortable bike routes connect the study area to the rest of Berkeley.	Developing the bicycle boulevards will require significant expenditures plus time-consuming planning processes, working with affected residents and businesses along the way.
	<i>Bicycle 3.2</i> Promote bicycling as everyday transportation	Berkeley TRiP and/or other organizations should more actively promote bicycling and bicycle education. Programs offered by the City of Davis and UC Davis are excellent models.	Lack of information and cultural attitudes keep many people from cycling.	Bicycle programs require staff time and additional program expense.

Program Area	Specific Actions	Details	Rationale	Issues
	<i>Bicycle 3.3</i> Install additional bike parking at UC and in the City	There is a shortage of bicycle parking throughout the study area and a near absence of secure bicycle parking.	Fear of bike theft is a significant deterrent to increased levels of cycling.	On Telegraph, providing additional bicycle parking may require removing on-street automobile parking spaces, as the City of Palo Alto has done.
	<i>Bicycle 3.4</i> Provide bikes for UC and City departments	City and UC departments should have access to fleet bicycles for running errands and personal trips during the day. Maintenance and supplies should be provided by a central operator in order to maximize economies of scale and ensure project success.	Providing fleet bicycles is a good tool to reduce commuters' need to have a car during the day for errands. It may also reduce the need to have parking spaces immediately at hand.	While such programs are inexpensive to operate, they require someone to be responsible for their success. Liability will also need to be addressed, just as with automobile fleets.

Program Area	Specific Actions	Details	Rationale	Issues
Tier Four Programs: Expand Programs and Plan for the Future				
Develop an areawide parking plan	<i>Parking 4.1</i> Set an areawide parking cap.	Automobile access to the study area is constrained by available street widths and existing congestion levels, so it would be reasonable to calculate a “parking cap” beyond which it simply would not make sense to build more parking. Such a cap would need to consider measures that could ease congestion by eliminating search traffic or spreading out peak travel demand periods. It would need to consider procedures for allocating new parking to new development and tools for allocating parking demand among users. The cap can also be tied to quality of life indicators such as public health and pedestrian comfort levels. Arriving at a final, defensible number will require considerable operational and financial analysis.	If the cap is set above the current supply, a well reasoned parking cap may be the most effective way to increase the supply of parking in the study area. That is, by tying the cap to quality-of-life indicators, local residents could be assured of worst-case future conditions, with a guarantee that conditions will not deteriorate beyond them.	All parking issues in Berkeley will be politically contentious, but taking a values-based, analytical approach to the problem has the greatest chance of succeeding.
	<i>Parking 4.2</i> Adjust parking supply to meet economic development and community livability goals.	This would be a function of the Parking Coordinating Council (Parking 1.1): recommendations as to whether and where the parking system should grow or shrink, and how the spaces should be allocated.	This will enable the jointly managed parking supply to more effectively meet community needs.	Same as above.

Program Area	Specific Actions	Details	Rationale	Issues
<p>Maximize the effectiveness of transit</p>	<p><i>Transit 4.1</i> Implement Southside Plan recommendations regarding Bancroft.</p>	<p>The Southside Plan is examining whether it is appropriate to convert Bancroft into a two-way transit priority street. From a TDM perspective, this step should only be taken if it improves transit travel time in the short run and protects it over the long run. By allowing straight-through transit traffic but forcing turns every two blocks for other vehicles, delivery and shopper access can be continued.</p>	<p>Improving and protecting transit travel time is critical if growth or improved quality of life is desired. Moving transit to its own right-of-way on Bancroft would also help improve the legibility of the transit system for new users. Moreover, it is perceived as being both a "University" and "City" street, serving both UC and the Southside.</p>	<p>Careful design attention must be paid to allow deliveries to continue to businesses whose only access is from the street. Shifting some on-street parking spaces elsewhere would help make the street function more smoothly, but is not necessary. Similar issues on Durant will need to be addressed, including the retailer impacts of concentrating more transit users on Bancroft and more motorists on Durant.</p>

Program Area	Specific Actions	Details	Rationale	Issues
Maximize the effectiveness of transit (cont.)	<i>Transit 4.2</i> Implement high quality transit on each of the key corridors serving the study area.	Reconstruct College, Telegraph, Shattuck, University and Bancroft to provide high quality, frequent, high speed transit between the study area and surrounding communities. Potential technologies could include light rail, subways, suspended rail, Curitiba-style busways, and/or Smart-Corridor transit preferential measures. The goal should be to provide the most attractive transit service in the most cost effective manner.	Berkeley's constrained street widths require that growth in the area be accommodated through increased transit use. If transit is constrained by the same congestion, little growth will be possible. While light rail is very appealing to many people, further study is needed to determine whether it is the most effective means of attracting large numbers of people to transit. In many communities, busways have proven just as effective at a fraction of the cost.	These programs may be extremely expensive. Depending on the means chosen, construction may be very disruptive to existing businesses and residents. Moreover, automobile capacity or on-street parking may need to be significantly reduced in order to make room for dedicated rights of way for transit. Light rail is only advantageous if it has an exclusive right of way.
	<i>Transit 4.3</i> Reconstruct the Downtown BART station and plazas.	The Downtown BART station should be friendlier and more attractive. While the recent improvements have helped, additional changes could result in further improvements.	Major transit centers need to be special places in order to help transit users feel like first-class citizens.	Cost will be a significant issue. Design details that affect traffic movement or merchant visibility will also need to be addressed.

Program Area	Specific Actions	Details	Rationale	Issues
Maximize the effectiveness of transit (cont.)	<i>Transit 4.4</i> Provide direct BART connection to San Francisco in evenings	The last Richmond-San Francisco train leaves Downtown Berkeley station at 6:54 pm on weekdays and 6:20 pm on Saturdays. Thereafter, passengers must transfer at MacArthur or 12 th Street stations. The City should work with BART to either provide a turnback at downtown Berkeley, and/or reconfigure Richmond line service to connect directly into San Francisco, particularly on Friday and Saturday evenings.	Direct evening connections between Berkeley and San Francisco have long been desired by Berkeley's performing arts organizations, among others. The transfer at MacArthur, even though cross-platform and generally well timed, discourages patrons from using BART.	If this direct service is in addition to existing Richmond-Fremont service, cost will be an issue. If Richmond-Fremont trains are shifted to become Richmond-San Francisco trains, there will be scheduling and political complications.
	<i>Transit 4.5</i> Extend BART service hours and/or provide comparable surface transportation until 2:30 am.	Although the study area is a 24-hour community, late night transit service is currently very limited, with only the AC Transit Line 51 and short-run UC shuttles running past midnight. Transit frequency on Telegraph should be at least every half hour during the night and there should be regular connections into San Francisco.	In order to support car-free lifestyles, welfare-to-work commitments and an active nightlife, communities need to invest in late night transit.	Ongoing operating costs will be a significant issue and cannot be met with AC Transit's current resources.
Maximize the effectiveness of bicycling	<i>Bicycle 4.1</i> Create better bicycle routes through and around the UC campus.	Improved north-south and east-west routes through the UC campus that align with City routes should be created. Similarly, streets that surround the campus, including Hearst, Gayley, Bancroft and Oxford, should be made to feel more safe for bicycling.	The UC campus is currently a major barrier to through bicycle traffic, even along its edges. Since bicycles are not allowed on most campus paths, little travel time savings is currently possible by bicycle compared to other modes.	Steep grades, limited right-of-way and high pedestrian volumes are severe impediments to improved bicycle routes on the UC campus. One-way traffic on Bancroft and high volume, high speed auto traffic on all perimeter streets also limit bicycle friendliness.

Program Area	Specific Actions	Details	Rationale	Issues
	<i>Bicycle 4.2</i> Provide secure bicycle parking in the study area.	A secure bicycle parking facility near the corner of Telegraph and Bancroft or at surface level near Shattuck and Center would encourage more people to ride bicycles.	Fear of bike theft is a significant deterrent to increased levels of cycling.	Secure bike parking involves significant capital and ongoing operating costs, plus it may consume valuable land in important areas..
Increase housing supply to better meet needs generated by jobs and students in the area.	<i>Housing 4.1</i> Eliminate minimum parking requirements in coordination with areawide parking plan and parking cap.	Excessive parking requirements contribute significantly to the high cost of housing and the difficulty of building new projects on in-fill sites. These requirements should be eliminated from the zoning code in conjunction with a stronger Residential Parking Permit program that may include restrictions against new project residents from buying these permits.	While necessary in suburban places where the car is the only transportation option, in more complex urban environments the market should determine the number of spaces built -- if any -- so long as negative externalities are prevented through a stronger and more refined Residential Permit Program.	It will be important to protect on-street parking supply from further crowding. This can be accomplished by strengthening enforcement efforts and restricting eligibility requirements. That is, residents of new buildings that do not provide parking may be ineligible to receive a permit for adjacent on-street spaces.
Increase housing supply to better meet needs generated by jobs and students in the area.	<i>Housing 4.2</i> Require that costs for renting parking be disaggregated from the costs of renting housing or commercial space.	Many renters must pay for parking spaces as part of their rent whether they use them or not. Parking should be rented separately in order to increase affordability of housing.	This is another program that would allow the market to function more appropriately around cars.	Implementing such a concept will be challenging and will require considerable legal review.

Program Area	Specific Actions	Details	Rationale	Issues
	<p><i>Housing 4.3</i> Implement draft General Plan recommendations regarding new housing in the study area and surrounding neighborhoods.</p>	<p>The draft General Plan recommends establishing a <i>minimum</i> height limit in the Downtown and encouraging housing above retail. It also eliminates the minimum parking requirement for new housing units in the Downtown Transit Oriented Development area.</p>	<p>These provisions and others support the construction of more housing that is well suited to the types of jobs in the area.</p>	<p>Increased density, if done carelessly, will generate significant opposition among local residents. Any increase in density must be done very thoughtfully to improve the design character of the study area and reduce negative impacts.</p>
	<p><i>Housing 4.4</i> Explore incentives for institutions that encourage more of their employees, students and visitors to live locally</p>	<p>Some communities offer mortgage assistance or other support to police officers or teachers who live locally. Others encourage more full-time jobs rather than part-time or have "living wage" ordinances to make it more likely that local workers can afford to live nearby.</p>	<p>If employees and students live locally, their commute needs will be lower, so there will be less demand on the transportation system.</p>	<p>This program would be very politically contentious if it involved mandates rather than encouragements.</p>

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