DATE: July 17, 2008

TO: City Council Colleagues

FROM: Council Members Kishimoto and Espinosa

SUBJECT: Request for the City Council to consider Library Bike Program

As Palo Alto seeks to lead the nation in fighting climate change, we know that reducing "vehicle miles" represents a great opportunity to lessen greenhouse gas emissions. With unprecedented public awareness of the deleterious effects of CO(2) and record high gasoline prices, policy makers are now looking for creative solutions. Building on Palo Alto's strong biking history and culture, we are asking the Council to have City staff study the feasibility of a public-bike ("bike sharing") system for Palo Alto.

We, along with Mayor Klein, recently heard an excellent presentation about the Library Bike Program (imagine a bike library where bikes are checked-out and returned), which has been extremely successful in other cities, especially across Europe and in bike-friendly cities in the U.S. There are well-supported reasons to believe that we would see similar results here. The Library Bike Program has provided a proposal (see attachment) for Palo Alto. This is a very rough draft, but hopefully you can imagine replicating the Europeans' success -- converting drivers into bicyclists -- while addressing many of the issues (like convenience and bike ownership) that stop people from riding their bikes around our city.

While the attachment provides more details, this proposal can be summarized as follows:

1. Library Bike Program would provide 20 bicycles in one location of the City's choosing.
2. Bicycles would be available to any member of the public who has enrolled as a member in the program at a nominal charge.
3. Enrolled members would be entitled to use bicycles on an as needed basis.
4. Library Bikes manages the membership program and maintains the bicycles throughout the trial.
5. Available bicycles would be stored in portable kiosks provided by the vendor.
6. Bicycles used for the program have been recently retired from Paris' city-wide bike sharing program.
7. The cost of the program $64,860 for the 6 month trial.

This is a unique opportunity to grow a program that has the power to force significant behavioral changes while reducing vehicle miles (and the associated negative environmental impacts) in Palo Alto. We also believe that this work aligns well with City staff's up-coming recommendations regarding reducing the city's carbon footprint. This memorandum encourages Council to have City staff study the feasibility and cost/benefit of the Library Bike Program, along with other similar programs and grant opportunities. And of course, wanting to ensure fiscal responsibility, we urge our colleagues to request that staff evaluate the resource impacts involved with implementing these types of programs and report back to us as soon as possible.

Thank you for the consideration.
July 16, 2008
To: City of Palo Alto

Re: Public Bicycles within Palo Alto
As per: City direction to deliver and operate a bicycle fleet for rent to the public

Dear City,

Please accept our interest to provide bicycle services for the City of Palo Alto.

Our proposal is to provide a bicycle loaning system to the City of Palo Alto that includes:

- A pilot project of 20 bicycles at a single location, that will demonstrate in small scale how an expanded bike loan project can work.

- A bicycle rental cabin/kiosk at the bike loan location within the city. The cabin/Kiosk would be of the size to fit in one car parking space.

- The system will be membership based. A Library Bike card will be given to participants. The card will open the Library Bike cabin door. Proprietary electronics will identify the bicycle that leaves and enters the cabin.

- A two month or six month membership will give the users access to the bikes; the use of the bikes will be free for up to two hours. An hourly charge will be applied after the initial free period. An escalating daily and weekly charge will be applied until return of the bicycle. Users will be responsible for any loss of the bicycle under their care. After two weeks the user of a non-returned bicycle will be charged for a replacement bicycle.

- We will provide a website to sign up for a Library Bike card. The users must be adults and must sign a waiver online.

- The bikes will be available during daylight hours,

- The bikes will have chainguards, fenders, a taillight, a rack and a bell. The 'Roue Libre' bikes from Paris will have an attractive white and green color scheme, and stickers that identify program bicycles.
- The system will be scaleable so growth to private / corporate parking lots can occur and/or other neighborhoods and locations expansion will be possible.

- We will brand the bikes as "Palo Alto" Library Bikes, original public bikes from the 'Roue Libre' bike loaning system of Paris, France.

Our organization has loaned over 4000 Library Bikes over four years in our home city of Arcata (population 16,000). This popular system of lending – renting for long-term bicycle use has proven to produce significant mode shift. We are the West Coast's largest operator of such a system. The system for Palo Alto could grow to include long-term bicycle rentals and a central bicycle "HUB" facility also.

Please review the options and pricing, and we would like to discuss any other options or questions you may have.

Sincerely Yours,

Bill Burton,
Director, Librarybikes.Org
Bill Burton is the pioneer of Library Bikes systems in America. He has written the book "Anybody's Library Bike Book" and has personally worked with over 4200 Library Bike exchanges. He has presented papers about Library Bikes at the Velo-City conferences in Ireland, South Africa, and Germany. He has a degree in Environmental Engineering from Humboldt State University (1985). Bill Burton has a long history of involvement in bicycling including; racing in the 1970's, international exchange of bicycles in the 1980's, running a community bike project in the 1990's, running Library Bikes for 7 years, and authoring California Bicycle Recycling legislation in 2005.

Mr. Burton has run the largest fleet of Library Bikes in the United States. Bill Burton will be director of the Palo Alto program.

Kipp Marzullo is a cyclist – web site designer. He has created the Librarybikes.org website, and hundreds of others. Kipp has managed the Humboldt Campus Recycling Program and has a B.S. degree from Humboldt State University.

Kipp Marzullo will manage the website and electronic communications with the bike loan system.

Moss Bittner is a Harvard grad who lives without a car. He has training in law, engineering, Roman history, and is avid cyclist. He believes the grid pattern of streets given to us by the Romans was not a design intended for modern living, as most travel patterns don’t naturally move in a grid. He will bring writing, cycling, academic, and human interaction expertise to the project. He is a program writer and repair coordinator for Library Bikes.

Librarybikes.org was formed from experiences of Arcata Community Bikes Program. Arcata Community Bike Program is a non-profit program operated by individuals under the direction of ASSIST, a non-profit corporation under the laws of the State of California. ASSIST is governed by a five-member board. (see website www.humboldt1.com/~assist) The chief administrative officer is Art Reeve, who is the Chief Engineer of Del Norte County. Program Manager for Arcata Library Bikes is Bill Burton, who is currently Director. Librarybikes is a for profit entity operated by Bill Burton of Arcata, California.
Public Bikes within Palo Alto

We propose to offer bicycle cabins or kiosks in the city, containing bicycles for loan to Library Bike participants. The bicycles will be ready for use, inside the locked cabin/kiosk. The user will access the cabin with a LibraryBike card, which is given to members. If the rider chooses to keep the bike for over two hours, or all day, a rental will be charged. The system will be automated to log all bike uses and rentals.

We believe the number of bicycles needed to be effective and available transportation for the City of Palo Alto to be in the range of 250 to 400 (population 58,000 night, daytime approximately double; metropolitan area population over 200,000; Stanford population about 13,000 night time, daytime approximately double.)

A beginning program may use only 20 to 80 bicycles at a few public locations in Palo Alto. This size is considerably smaller than a system in Paris, (which started with 1000 bicycles, then increased to 4000 over approximately a five-year period) yet the density of one bike per 1000 population is the same that Paris started at. Paris is now (in 2008) providing 20,000 public use bikes. (1 bike/250 persons ratio)

Proposed schedule of ‘Roue Libre’ bicycle deployment:

<table>
<thead>
<tr>
<th>Initial Rental Bikes</th>
<th>Deploy New Inventory Bikes</th>
<th>Bicycle at Cabin/ Kiosk</th>
<th>Automatic Rent Bikes (Velib style)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>20</td>
<td>60</td>
<td>1</td>
</tr>
<tr>
<td>Year 2</td>
<td>80</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Year 3</td>
<td>120</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>Year 4</td>
<td>200</td>
<td>80</td>
<td>14</td>
</tr>
<tr>
<td>Year 5</td>
<td>280</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>Year 6</td>
<td>280</td>
<td>100</td>
<td>14</td>
</tr>
<tr>
<td>Year 7</td>
<td>280</td>
<td>100</td>
<td>14</td>
</tr>
<tr>
<td>Year 8</td>
<td>280</td>
<td>100</td>
<td>14</td>
</tr>
<tr>
<td>Year 9</td>
<td>280</td>
<td>100</td>
<td>14</td>
</tr>
<tr>
<td>Year 10</td>
<td>280</td>
<td>100</td>
<td>14</td>
</tr>
</tbody>
</table>

----------------------------------------city — contractor review of performance — new distributions —

| Year 6               | 280                         | 100                     | 14                               | 100                              |
| Year 7               | 280                         | 100                     | 14                               | 200                              |
| Year 8               | 280                         | 100                     | 14                               | 300                              |
| Year 9               | 280                         | 100                     | 14                               | 400                              |
| Year 10              | 280                         | 0                       | 14                               | 400                              |
At the end of five years there can be 280 public bikes available. At the end of ten years there could be 680 public bikes; 400 public bikes available from automatic racks and 280 from the bicycle cabins. This phased in approach to providing public bikes will get the public accustomed to using the bikes as a mode of transportation.

Initial bicycle deployment will be at one location as selected by the city. Throughout the program on a minimum of a monthly basis, bicycles will get redeployed and/or restocked, (best efforts for weekly redeployment basis will be made).

Automatic rental bike racks are not proposed for the initial 5-year period. However development of a use pattern of 'Palo Alto' bikes will help future decisions about effective locations for automatic rental bike racks.

Our experience shows a short life span for bicycles in public bike use with many different users. With a single renter a 3 to 5 year lifespan is reasonable, however with 50 to 500 renters of a single bike in short-term rentals, the lifespan is about one to two years.

The Bikes
We will provide bicycles from the Roue Libre system of Paris, France for the 'Palo Alto' rental system. These bikes will be the exact bikes of the Roue Libre system, with a uniform green and white color scheme.
Green and White Roue Libre bicycles

The bikes will be multi speed, (3 and 5 speed), comfortable, adjustable comfortable seat. These bikes are equipped with racks, fenders, a bell and tail lights. The bikes will be good utility and commute bikes. If, over time, the supply of French bicycles becomes limited an equal quality substitute will be supplied for service, as approved by the city.

Theft and Vandalism

Theft and vandalism of public bikes can be high percentages; our experience has been about 1/3 of public bikes stolen and 1/3 vandalized each year. Thus we believe a reasonable program will be the above schedule with expected 50% bicycle replacement each year.

We have found that saturation of the community with public bikes has an overwhelming effect of the theft operators. Early in a program some theft operators steal a significant chunk of bikes, like 10 to 15. Soon they realize their efforts are fruitless, there are no buyers of their wares, and a pile up of these extra bikes occurs where the problem theft operator is working. After two to three years of bike program operation the theft rate tapers off.

Vandalism will be a significant work item. Social street tension on the streets of urban América can be high, and street fixtures take the brute force of these expressions of tension. We have observed however that there tends to be a level of respect given to bicycle program equipment. Vandalism is rarely organized, however it usually results in major repairs required to a program bicycle. This is the individual work we are skilled at. We have repaired hundreds of these situations. However as the bikes wear out and as the appearance tapers off people tend to treat the bikes worse. We assess the appearance and safety of each repaired bike, and retire about 1/3 of the fleet per year.
III. Benefit/Cost Ratio Analysis
We have found the costs of operation of a Public Bike fleet are small compared to the city benefits. In this section are some benefit-cost ratios for this program.

**Benefit/Cost Ratio of 100 bike public bike fleet:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 workers production rate cost before vs. 100 workers production rate after</td>
<td>1.0</td>
</tr>
<tr>
<td>100 drivers delay time before vs. 100 drivers delay time after project</td>
<td>1.07</td>
</tr>
<tr>
<td>100 town car fuel savings vs. 100 bikes operation cost</td>
<td>1.61</td>
</tr>
<tr>
<td>100 drivers health cost vs. 100 bike riders health cost</td>
<td>1.8</td>
</tr>
<tr>
<td>100 cars infrastructure demands reduction vs. 100 bikes infrastructure demands</td>
<td>10</td>
</tr>
<tr>
<td>100 mass transit riders 3 miles vs. 100 bike transit riders 3 miles</td>
<td>13.5</td>
</tr>
<tr>
<td>100 less cars in traffic vs. 100 more bikes in traffic -(public safety by street access)</td>
<td>15</td>
</tr>
<tr>
<td>100 bus transit riders 3 miles vs. 100 bike transit riders 3 miles</td>
<td>27</td>
</tr>
<tr>
<td>100 car parking spots eliminated vs. 100 bike parking spots</td>
<td>55</td>
</tr>
<tr>
<td>100 autos carbon emissions eliminated vs. 100 bikes carbon footprint</td>
<td>150</td>
</tr>
<tr>
<td>100 new cars manufacture energy cost eliminated vs. 100 reuse bikes energy cost</td>
<td>200</td>
</tr>
</tbody>
</table>

(Source: LibraryBikes.Org 2007 benefit-cost ratios of 100-bike public bike fleet, page 8)

The benefits are huge and multiple; in less traffic congestion, in reduction of infrastructure maintenance costs, in public health, in pollution reduction, in fuel cost savings. The benefits are of a better social nature also and not easily put into dollar value. However these benefits/costs ratios applied across the whole fabric of the city are worth multiple millions of dollars.

**Carbon Emissions Offsets**
We expect to generate data as the project progresses on the offset of car usage, and associated carbon emissions offset. After year two or three we expect to have enough information to offer these offset amounts to the carbon offset market. Our early projections of the value of this offset to be about $20 to $30/ton of CO2 offset. One bicycle may be able to generate 2 tons of offset a year, thus a high estimate of gross revenue assuming 50 bikes is about $3000 assuming that market begins to function in the U.S.A.

**Bike Check-Out Cabin / Kiosk options**
All check out locations will have windows to view available bikes

- Bike Cabin on trailer
  (Door will be curb level -3 ft. wide)
- Bike Kiosk with Dome Roof
Cost Proposal: July 16, 2008

We will provide a pilot project of bicycle loans from a location in Palo Alto to include 20 original 'Roue Libre' public bicycles. The bicycles will be released from a Bike Library cabin or kiosk placed in a public space like a parking space. The program will make bicycles available to adults in Palo Alto, with the intent of reducing car use in Palo Alto.

Included are:
- Initial 20 Original Roue Libre Bicycles from Paris, France, and one rental cabin/kiosk.
- Website and start of program operations for pilot project first 6 months in Palo Alto,
- One press release event.
- Initiation of program subscriptions, maintenance of bicycles and release equipment.

$64,860.

We will provide additional 'Palo Alto' bicycles for the program, as needed in working condition, safety checked, 1 speed, 3 speed and 5 speed models, (similar to Roue Libre bikes in Paris) and replacement 'Palo Alto' bicycles, for any reason,

$1032./ea.

Insurance:
We provide $1,000,000. liability insurance for our operation. Theft and Damage insurance coverage to the bike while in use, if desired, will be an optional charge to the rider.

Cost plus work will be at a rate of;
(Tax/Worker Burden/Overhead/ Profit) @ 78%

Includes;
- Labor
- Library Bikes Cabin and Kiosk (space for 16 bikes minimum.)
- Minimum of 16 'Roue Libre' bikes allocated per location
- Rental system equipment
Cell Phone service
Website registration maintenance
Liability Insurance
Adjustments in operation 50% up or down

Excludes:
Street Furniture
Public Restroom
Vehicle Insurance, (paid by rider)
Engineering studies.
Any item not specifically noted as included

Clarifications:
Rental and subscription income will be yielded to the bidder as incentive payment to make the system effective and popular
All intellectual property development will be owned by the operator.
Operator reserves the right to vend other auxiliary equipment at the site (helmets, gloves, lights, locks, ect.).
All program equipment will be owned by the program operator.

Payment conditions:
-Rental Income unknown, 100% paid to contractor, 0% to City of Palo Alto
-Advertising income on bikes, zero
-All work requested by city on a cost plus basis at @78%
-Annual price escalation of 8%, or prime rate plus 2%, whichever is greater;
-Late payments (beyond 60 days) will be charged at 10%/month.

Rental Schedule: ‘Roue Libre’ —‘Palo Alto’ bikes.
Subscription $11/month, $29/ half year
-first two hours free
-rate $2 / hr. $2 charged after two hours.
-all day $20 / all day (over 8 hrs.)
-24 hrs. $40 (over 24 hrs.)
-one week $150
-two weeks $340 end of billing – bicycle is assumed missing

Expected Rental Income per year:
’Roue Libre’ Bike:
High use 20bikesx$5/dayx5dayx48week/year $24,000
Low use 20bikesx$2/dayx5dayx48week/year $9,800
At the end of first half year an assessment of incomes from rentals will be used to establish viability of future program growth.
Librarybikes.org  
Bill Burton, Director  
Librarybike@hotmail.com

P.O. Box 4343, Arcata, CA., 95518  
(408) 234-3322

References:

City of Arcata, Council Member / ex Mayor Harmony Groves  
E-mail: hgroves@cityofarcata.org  
707-822-0463

City of Sacramento Bicycle Coordinator,  
E-mail: ecox@cityofsacramento.org  
Ed Cox  
916-808-8434

Bike Station Director, and  
City of Vancouver, Transportation Planner  
E-mail: Todd.boulanger @ci.vancouver.wa.us  
Todd Boulanger  
360-487-7726

City of San Francisco Bicycle Coordinator  
E-mail: Oliver.Gajda@sfmta.com.  
Oliver Gajda  
415-701-4467

Maryland Dept of Transportation,  
Office of Planning, Director Bicycle Access  
E-mail: mjackson3@mdot.state.md.us  
Michael Jackson  
410-865-1237

Trips for Kids Director,  
Marilyn Price  
415-458-2986

Cycles of Change Director,  
Maya Carson  
510-595-4625

Institute for Transportation Development Policy (ITDP)  
Vice President,  
Matteo Martignoni  
212-629-8001

League of American Cyclist President,  
E-mail: andy@bikeleague.org  
Andy Clarke  
202-822-1333

Caltrans Bicycle Coordinator,  
E-mail: Ken_Mcguire@dot.ca.gov  
Ken McGuire,  
916-653-2750
Transportation Diet

On this back cover you can see a pie chart of our recommended transportation diet in America. If we can design our lives to ride bikes just 20% of our trips, walk 20% of our trips, take some form of transit for 20% of our daily trips, and drive 20% of our trips, then we have decreased our energy consumption by over half that of current day use. (Over 85% of current trips in America are made by car.) This diet leaves a remaining 20% of trips available for any other mode, including flights.

This transportation diet still uses less than half the transportation energy of the American average. Better, this diet allows for a dynamic life with reasonable freedom, and costs about the same. We all remain the same people, drivers and riders, using all available modes of transportation. Most Americans could use a diet of one sort or another, and a transportation diet including bicycles would be good.
# Attachment B
## Bike Sharing Programs - Sample Cases

<table>
<thead>
<tr>
<th>Palo Alto (Library Bikes proposal)</th>
<th>Arcata, CA</th>
<th>Long Beach, CA</th>
<th>Portland, ME</th>
<th>Washington, D.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration/Season</strong></td>
<td>6 months</td>
<td>temporarily discontinued</td>
<td>4th month of operation; year-long</td>
<td>4th month of trial/year-long</td>
</tr>
<tr>
<td><strong>Target Pop.</strong></td>
<td>commuters</td>
<td>tourists; actual: 26% int'l, 30% other US, 30% MD, 15% local addresses</td>
<td>bikeless (including homeless); tourists (Silver Level bike pathways)</td>
<td>City Employees members or co holders</td>
</tr>
<tr>
<td><strong>Time Limit</strong></td>
<td>one day without extensive charges</td>
<td>one day, extensions may be arranged</td>
<td>5 days</td>
<td>1 day</td>
</tr>
<tr>
<td><strong>Deposit</strong></td>
<td>$11/month or $29/six-month membership</td>
<td>credit card</td>
<td>credit card</td>
<td>$0 deposit or $60-70 membership</td>
</tr>
<tr>
<td><strong>Charge</strong></td>
<td>2 hrs free; $2/hr. after initial 2 hrs.; $20 all day; $40 after 24 hrs.; $150 after one wk.; $340 max</td>
<td>free</td>
<td>free</td>
<td>free</td>
</tr>
<tr>
<td><strong>Stations</strong></td>
<td>cabin or kiosk</td>
<td>bike rack</td>
<td>Café Bicyclette</td>
<td>card/PIN-access keybox; lockers</td>
</tr>
<tr>
<td><strong>#</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2 (16 lockers)</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>approx. 8.5x24'</td>
<td>--</td>
<td>20-25 bike capacity</td>
<td>expandable modules</td>
</tr>
<tr>
<td><strong>Bicycles</strong></td>
<td>retired Roux Libre bicycles</td>
<td>cruisers</td>
<td>cruisers &amp; 3-speed w/logo</td>
<td>standard hybrids (M/W)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20 (current proposal)</td>
<td>7</td>
<td>90 (68)</td>
<td>16</td>
</tr>
<tr>
<td><strong>Lost/Expected annually</strong></td>
<td>2, but repaired</td>
<td>--</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Program Cost</td>
<td>Palo Alto (Library Bikes proposal)</td>
<td>Arcata, CA</td>
<td>Long Beach, CA</td>
<td>Portland, ME</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------</td>
<td>------------</td>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Initial</td>
<td>$64,860</td>
<td>$2,500</td>
<td>$0 (2-yr CMAQ grant)</td>
<td>$15M (self-sustaining)</td>
</tr>
<tr>
<td>Ongoing Oper.</td>
<td>$1,000</td>
<td>$30,010 (two paid staff, 20 hrs/wk)</td>
<td>$16,000 user paid</td>
<td>$18,000 lockers (EPA &amp; State CTR grant)</td>
</tr>
<tr>
<td>Other Costs</td>
<td>$1,032/add. bicycle</td>
<td>cost of parts, repair</td>
<td>$80 locks; $60 paint</td>
<td>$50 battery replacement</td>
</tr>
<tr>
<td>Per Bicycle (City Subsidy)</td>
<td>$3,243</td>
<td>$500</td>
<td>$4,750</td>
<td>$6,000</td>
</tr>
<tr>
<td>Funds</td>
<td>unknown</td>
<td>Transportation</td>
<td>Air District Grant</td>
<td>Air Quality Funds</td>
</tr>
<tr>
<td>Perform. Marks</td>
<td>from 75 uses year 1 to 275 year 2</td>
<td>membership level goal</td>
<td>none</td>
<td>membership (doubled after 1st week)</td>
</tr>
<tr>
<td>Partners</td>
<td>Harbormaster, local bike shop contractor</td>
<td>Bike Fort Collins: local non-profit cycling advocacy group; Fort Collins Bike Coop; FCBikes; governmental agency for grant</td>
<td>Bikestation</td>
<td>Aluminum Company; industrial designer &amp; bicycle designer</td>
</tr>
<tr>
<td>Other</td>
<td>donated bikes (year 1) weren't as popular as cruisers (bought after initial year 1)</td>
<td>open 9am-6pm on F, S, Su, maintenance shop is 3 blocks away, $23 bicycles checked out (on website)</td>
<td>open 9am-6pm</td>
<td>prior program by community cycling center vancouver closed within few mos. of operation</td>
</tr>
</tbody>
</table>

*Louisville, KY; Morgan Hill, CA; Portland, OR; Sacramento, CA; San Francisco, CA; Santa Barbara, CA; and Seattle, WA are omitted from this chart as they have not yet implemented
Annapolis, MD

Program Description: This is the second year of operation. The program is seasonal, conceived as running from Memorial Day to Labor Day. The single Bike Depot is located at the Annapolis Harbormaster's Office on the Annapolis City Dock. The Annapolis and Anne Arundel County Visitor's Center has a ground floor kiosk by the Harbormaster's Office which is located up a flight of stairs on the second floor.

The first year we partnered with the Visitor's Kiosk to register the daily users. This year the Harbormaster's staff is doing the registrations. The first year, we had very simple registration the kiosk is located next to the bike rack, you would just fill in a form and show a picture government ID. There were 75 uses.

This year, the registration process has become more complex. You must walk up the flight of stairs to the Harbormaster, just show an ID and swipe a credit card. To date we have had about 275 uses and have had to purchase additional bicycles.

My point in this comparison being that the conventional logic of easy access did not hold. The Visitor Center staff were enthusiastic about the concept but not the actuality, the Harbormaster staff have be really supportive and have made the program succeed.

Checkout system: Anyone can go to the Harbormaster's Office with proper documents and use a bike all day. They can, with prior arrangements, use the bike for several days. There are no reservations or automation.

Target Audience: Anyone -- in the first year we had primarily visitors. It was about 25% international, 30% other US states, 30% state of MD but also about 15% persons with local addresses. At the end of the Summer we'll tabulate the users for this year.

Time Limits and Fee Schedule: Bikes normally are returned by 9pm when the Harbormaster's office closes but arrangements can be made for multiple day use. No charge for use. The credit card information is reserved if the bike is not returned. So far, no bikes have gone missing.

Station(s): One multiple bike rack station. There are signs on the rack promoting the program.

Bicycles: There are now seven "cruiser" type bikes outfitted with baskets and rear racks. Two bikes were mildly crashed, mostly damage to the front baskets. The bikes were repaired and the baskets replaced.

Costs and Funding Source: It is a city program. The Department of Transportation coordinates and pays for the expenses. We partner with a local bike shop which provides us the materials and technical support under contract. The largest cost factor was buying the bikes. The first year we used donated bikes and they are not as attractive as the current cruisers. We spent less than $2,500 to buy the bikes and outfit them. The actual maintenance parts cost has been minimal.
Staff are required to as daily inspect / occasionally repair the bikes and as needed check-in/out the bikes. The first year we tried setting up volunteer bike repair clinics but that is unreliable. This year we contracted for the maintenance support through Capital Bikes, cost under $1000 for salary and materials. The remainder of the staff time is contributed by Transportation and the Harbormaster. Existing personnel handle bike program tasks along with other duties.

**Performance Measures:** The first year was a test. Conventional wisdom (from the mouths of many city officials) was: A) no one would use the program, B) all the bikes would immediately disappear or be vandalized and C) the city would be sued. None of these situations occurred.

Given the lack of dire consequences, this year we were enabled to purchase bikes and contract for the staff support. The only problem was that the Visitor Center pulled out at the last minute as registration staff. The Harbormaster had always been supportive but we had wanted to avoid making people walk upstairs to register. (Clearly that has not been an issue.)

People are pleased with the program. The use is growing. We would like to have additional depots but that requires a committed and interested staff to volunteer their services. The Harbormaster has requested that we extend the program through October 2 instead of ending Labor Day.

**Arcata, CA**

http://www.arcata.com/greenbikes/  
**Program Description:** temporarily discontinued, while they find a permanent location for a station

**Checkout system:** Manual

**Target Audience:** Also, this provides easy access to alternative transportation for low income residents and students.

**Time Limits and Fee Schedule:** up to 6 months

**Station(s):** Staffed station

**Bicycles:** Keeping bikes from being tossed away while they are still in good use is popular.

**Costs and Funding Source:** The AIR district gave large grants over several years to get the program running and keep it going. The program could pay for itself if done well. The City has given a modest amount (a couple thousand dollars) each year to help the bike library (currently closed due to relocation issues). The bike library was given cheaper rent in a spot while a developer went through the process of deciding what to do with that spot. Now the Council is looking for a permanent home for the bike library.

**Performance Measures:** We needed buy in from the community, but there is strong support for recycling as well as biking so it went well.
Fort Collins, CO
http://www.fcbikelibrary.org/

Program Description: Briefly, the Fort Collins Bike Library operates like a standard book library. Patrons fill out a personal information form, receive their individualized library card, and then ride off on one of our bicycles. Bikes can be checked out for as little as an hour, or as long as 5 days. Patrons are encouraged to sign up on our web page and print out the registration/liability waiver at home and bring it with them on their first visit to our location. The registration/liability waiver needs to be signed only once. The Café Bicyclette, our Fort Collins Bike Library location in Old Town Fort Collins, is staffed by a cadre of volunteers. Hours of operation are from 11:00 am - 6:00 pm Friday, Saturday and Sunday. The library employs two paid staff members, working 20 hrs/week each. One employee manages the library while the other is the fleet maintenance manager. Both are responsible to recruit, rally, and encourage the volunteer staff.

Checkout system: The Fort Collins Bike Library uses a custom-developed web application to make check-in and check-out as smooth as possible. This application’s database tracks necessary information needed to keep track of bikes. Statistics from this database are used for reporting and forecasting purposes.

Target Audience: The target population is anyone who would like to borrow a bike to visit the hundreds of bike paths/lanes/routes in our Silver Level city of 129,000. To date, most of our customers are out-of-town (or country) visitors to Fort Collins. It has been reported that homeless people have used our bikes for transportation to job interviews, and are now earning enough money to purchase their own bikes.

Time Limits and Fee Schedule: We originally had a 7-day check out but had to back it down to 5 days due to high demand. We now find that 5 days brings them back in time for the next weekend. There is no fee to borrow a bicycle.

Station(s): We have one check out location – our Café Bicyclette. We also have a bicycle maintenance shop located three blocks from the Café Bicyclette. The maintenance shop repairs and stores the fleet when not in use. The Café Bicyclette is capable of holding 20-25 bicycles, which are usually checked out within an hour of opening the doors at 11:00am.

Bicycles: Our fleet consists of about 75 single speed cruiser style bicycles and about 10 to 15 3-speed bikes. Most are red in color and depict the Fort Collins Bike Library logo. Negligence is our biggest problem with regard to damages. Two of our bicycles have not been seen since April 15th, and are presumed to be lost or stolen. We are now implementing a credit card deposit to help prevent further damages, or at least recoup some of the cost of repair.

Costs and Funding Source: The Fort Collins Bike Library is funded entirely by a 2-year CMAQ grant which we received in February. This grant has funded the purchase and maintenance of bicycles, the contract labor costs for our fleet and library managers, marketing and web development. We also receive in-kind donations from key business elements in Fort Collins as part of the grant award.
We pay our contract labor $15.63/hour, giving them a 1099 form at the end of the year. Our marketing costs are lowered by tying in with businesses with in-kind donations. Three organizations are responsible for the success of the Fort Collins Bike Library. The day-to-day operations of the Fort Collins Bike Library are managed by Bike Fort Collins, a local non-profit cycling advocacy group; the Fort Collins Bike Coop manages the maintenance; and FCBIkes is the pass-through governmental entity for our grant.

**Performance Measures:** In the opening paragraph of Money Magazine’s recent article ranking Fort Collins as the 2nd best place to live in the US, they mention the Fort Collins Bike Library as part of what makes Fort Collins a great place to live. Since our grand opening on April 5, 2008, we have run out of bikes every day of every weekend. The success is nothing less than phenomenal. Our post-rental surveys indicate that our customers are thrilled with the service and experience of the Fort Collins Bike Library.

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**Bikestation—Long Beach, CA**


**Program Description/Checkout system:** This is a fully automated system using the Bikestation access control technology and bike lockers. There are 12 lockers in the center of Long Beach City Hall Plaza, and 4 at the Aquarium of the Pacific. It is a pilot program for City employees only. We will be assessing its success in about a year to see if the City would like to expand it to more locations and for the general public. Members sign up on our website and receive their access control card through the mail, as well as a membership manual and a PIN number. When they want to check out a bike, they simply go to the keybox at the entrance of City Hall, swipe their access control device, enter their PIN number, and take out 1 key that corresponds to the locker with the bike they want. We have various regular men’s and women’s hybrid comfort bikes that we use currently, though that won’t necessarily work for a larger deployment.

**Target Audience:** Target population is city employees for daytime trips from work only. Currently no overnight usage.

**Time Limits and Fee Schedule:** No time constraints currently, except that all bikes must be returned at the end of the work day (no overnight use.) There is no charge to the employee.

**Station(s):** The lockers that we use are the pie-shaped sort, and we’ve created a beautiful wave-type configuration with the pods.

**Bicycles:** 16 total, maintenance weekly, 0 lost or stolen in the 4 months the program has been running.

**Costs and Funding Source:** Initial costs to the City were about $60,000 for 16 lockers, access control system, updating website, grand opening, 16 bikes, 50 helmets, signage, outreach/membership collateral, and staff time for development of the program. The City currently picks up the tab for operations, maintenance, and insurance: about $16,000 per year (contracted to Bikestation).

**Performance Measures:** The program has been a huge success: we had more than 100 employees sign up in the first 24 hours, and more than 100 since then. So about ¼
of the City's 800 employees have signed up. We need to establish a longer time frame before assessing any of the usage numbers (such as number of bikes checked out per day, how long the bikes are checked out for on average, which people/departments are most actively using them, etc.).

In addition, we've had bike-share and small electric vehicle sharing (e-bikes and e-scooters) programs directly out of our Bikestation facilities in Seattle and Long Beach (manual and fully automated), and we are developing one (fully automated) for Bikestation Santa Barbara.

Bikestation plans, designs, and operates bike-transit centers, enabling bicycling and other alternatives to be an integral part of the transportation system

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**Public Bike System (PBS)—Montreal, CANADA**

*Quasi-Judicial subsidiary of Metro District*

http://www.publicbikesystem.com/?page_id=2&lang=en

**Program Description:**
Launch Date was September 22nd, 2008—International Car-Free Day

**Target Audience:** Members and one-time users

**Time Limits and Fee Schedule:**

**Station(s):** Patented solar power management system from Montreal's "Pay & Go" Parking, applied to modular bicycle racks/automated rental stations. Automated, but temporarily staffed for beginning of trial period.

Industrial Designer—Michel Dallaire (also responsible for designing downtown Montreal's street furniture)

Stations …
- Solar-powered automated racks (patented)
- Modular—easily removable (during winter season) and expandable
- Usable within 20 min. of installation (no excavation or wires)
- 300 different locations
- 1.5 docks per bicycle

**Bicycles:** Bicycles are durable, expected to travel 9,000-15,000 miles/year
- Custom designed modern bicycle for urban use
- 40-2,400 bicycles in year 1 (trial)
- 3,500-4,000 bicycles in year 2

**Costs/Funding Source:** Self-sustaining, 80% membership-paid, remainder is from visitors (credit card) or corporate-sponsors (aluminum companies—bicycles made of aluminum)
- Membership: Approx. $60-70/year* (ratio of approx. 15 members per bicycle)
- Visitor: Credit card payment of approx. $8/day*
- + Hourly charge: 1st 30 min. free; $1-2 next hour; $3-5 every hour thereafter*
- Sponsors: expected to cover unknown costs, e.g. theft & vandalism

*Estimates—real rates have not yet been determined
Initial costs—$15M initial funding from Stationnement Montreal (subsidiary of Board of Trade of Metropolitan Montreal)

Ongoing costs—$1,500-2,000/bicycle per year (for overall maintenance, docks, etc.), majority covered by membership fees, approx. 30% covered by visitors (or one-time users)

Program is expected to recoup all costs amortized over 10 years

Performance measures: membership level goal, public survey feedback
Community Involvement—Prevalent throughout, even though idea was initiated by PBS
- Development: Focus group/public surveys
- Evaluation: Public survey
name TBD (through public participation process, 
- 8,800 names contributed online
- Selection committee will narrow down to 5 names
- Community votes online for FINAL name
- FINAL name = Bixi (combination of Bicycle + Taxi)

Note: RFP—PBS has expressed interest in submitting a proposal if the City decides to move forward with an RFP process; they are willing to negotiate in order to accommodate program on a smaller scale
PBS is marketing & selling their program to other cities, to recover R&D costs
- Initial discussions have already taken place w/some southern California cities (i.e. Newport, Santa Monica)
- Executive VP Alain Ayotte will be making a presentation on this system at the Pro Walk/Pro Bike 2008 Conference in Seattle, WA from Sept. 2-5

White Bike—Portland, ME
http://whitebike.org/
Program Description: We sent out the alpha fleet in June 08.

Yes, SOAP employees have been the primary drivers.

We assume some bikes have been stolen. Since we don't have the infrastructure to fully know (i.e central pick-up / dro-off spot), it's anecdotal. We have a great network of people (including the local police) who keep us updated when they see a bike. We go and get them if they are way out of town and bring them back.

The locks have curbed most of the theft. I think a lot of the damage that can happen is late-saturday night/early sunday morning mischief. No one really wants to steal the bike to use it, so the locks with a published code seems to help.

Hardly an expert. We're figuring this out as we go along and are having fun.

Checkout system: Ours is very grass-roots with almost no infrastructure. Bikes (10 at first) were put out around town. Each was painted white and had signage. All had a padlock with a universal code. The code can be found at whitebike.org. This was to curb theft.
Target Audience: Tourist and business people seem to use them most.

Time Limits and Fee Schedule: No time. No charge.

Station(s): Currently, there are no stations. We are working with local businesses to place them outside local shops.

Bicycles: We started with 10, we have 5 more going out. They are all donated, and of varying types. We do most of the repair, but have some local bike shops who donate some time. Repair is a huge issue for us.

Costs and Funding Source: $80 for locks. $60 for paint. We (my company) pays for it all. We have been offered money from local businesses, but have turned it down until we have the right momentum and infrastructure around the program. Funding has been all through sweat equity of a bunch of passionate people, and kind donations (no cash, all bikes and materials) from local businesses.

Performance Measures:
Our goal was to create a dialogue between the city and the people who bike or want a bike friendly city. We have accomplished that. The public support has been great.

Vancouver, WA

I just saw several of Bill’s Library Bikes from Paris riding down a street in Portland. They said that the hotel was renting them for guests.

-Todd

Program Description:

Checkout system: [Prepaid cards issued through BikeLink for eLockers lockers set up to vend bikes vs. park bikes. The cards for fleet bike use have a zone restriction set up so that only certain card holders can use a bike vs. the general access card holders. First come first served using the automatic smart locker. These are a third generation of the lockers Amanda installed on the front of the older lockers you have at your office – I took a tour when I was evaluating them in 2004.]

TB: The wire is a cable for detecting if the bike has been returned. It completes a circuit with a security ID chip. The VPC was one of the ways to minimize this issue, but it is not in service. If the demo works and we get support from RISK then we would screen users (ID plus some form of security) and provide orientation (bike and lockers use plus safety materials). Yes it is only a way rental for now – you have to return it to the home locker. An on-line calendar could be set up for one way rentals, but it has not been a big request for now...as most users need to get back to the bike pod (their office). One way rentals for the Zipcars has been a bigger request.

Target Audience: [Non-bike commuter employees in the government district who wish to use a bike for lunch time errands or meetings; and bike commuters who may need a loaner bike – to test our commuting or during a period when their bike is in for repairs.]
These lockers and bikes were originally tied to our car sharing programme and free use for errands when bike commuters needed to use a Flexcar – funded by the EPA; Clean Air Transportation Communities grant through 2006.] We are only in a demonstration phase now – electric and manual bikes are limited to City and County staff.

**Time Limits and Fee Schedule:** [By the hour - 99 cents per hour after an initial 1 hour free. The locker controller will not allow rates to be set any higher.]

**Station(s):** [10 eLock lockers: 8 for parking and 2 for fleet bike rental. Before the lockers, we had the same bikes checked out/ rented by our Community Cycling Center Vancouver – for tourists, staff use, and as a loaner during repairs. The CCCV closed after a few months of operating the manual valet style library bike services.]


**Bicycles:** [2 in use – none stolen – on going small damage from use. There are other fleet bikes for staff use stored in dumb locker with a lock box and key or inside offices – away from the downtown lockers.]

**Costs and Funding Source:** [$2500 for 2 electric bikes (EPA grant), ~$18,000 for the lockers (EPA & State CTR grant), $0 admin (City: on site cleaning and in person orientation), ~$250 per year in BikeLink card fees (user purchased, these help offset the 800-phone help line for parking, annual locker operating system upgrades for the controllers, occasional warranty work, etc.), and $60 per year in batteries for lockers (City supplies). Commute Trip Reduction grant. I would think that CA would have a lot of CTR or TDM grants – they are the leader after all.]

**Performance Measures:** Lockers have been in use for 2.2 years for parking and 4 months for fleet bike sharing. The lockers work great and have for the most part been low maintenance once the newer OS has been installed – more functions with less power consumption. The bike rental/sharing feature has been slow to take off primarily to the lower priority of vending bikes vs. parking by the manufacturer – these features were developed and refined much later in our contract. Additionally, our office has moved in the last year so the City use of the lockers and fleet bikes has dropped off. The County staff are the primary users now of the fleet bikes from these lockers. The mechanics and the materials of the eLock lockers are very robust for a typical mid sized city environment. The batteries of the eBikes are getting older and the memory effect has been reducing the distance that power is provided on one of the two batteries (4 years old) – it is close to its lifecycle. As this program is still in the demo phase there has not been much public marketing of it other than the parking features due to limited staff resources and the lack of higher security (lack of the eLock proposed 'vehicle presence cable' for bike check ins upon return – this feature stalled out in development – so we are running on the card user honor system). We are working to add more of these lockers to our network and coordinating with other agencies to adopt these on-demand lockers, so that users could have a locker on each end of their trip. The library bike services in the future will likely be still limited to fleet users and perhaps Zipcar members.

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**SmartBikeDC (Clear Channel)**
**Washington, D.C.**
[www.smartbikedc.com](http://www.smartbikedc.com)
Program Description:
Our SmartBike program is at present a pilot project provided through our larger bus shelter contract. See below in red for answers to your questions. In addition, if you have not already done so I recommend that you go to our website and read about our SmartBike program.

Checkout system: See website for detailed information but it is an annual membership program with computerized bike stations.

Target Audience: The membership is available to anyone over the age of 18. We envision that it will be used as an alternate mode of transit for quick trips for example: subway to office, office to lunch, etc.; rather than for a day of sightseeing.

Time Limits and Fee Schedule: Three hours is the limit per bike however a bike can be returned after 3 hours and another bike can be taken out. There is at this time no hourly charge; just the annual membership

Station(s): (See website for details) ten at the present time but we anticipate expanding the program to perhaps 25

Bicycles: (120 for the pilot) Liability? (The first phase is covered by the terms of the bus shelter contract)

Costs and Funding Source: The initial program is provided at no cost to the District as part of the Bus Shelter contract. Although there are no precise expansion costs available at this time we estimate it will cost about $800,000 annually in operating costs and $1.5 million in capital costs.

Performance Measures: One key measure of success will be the utilization of the program. We more than doubled membership in the first week of operation.
Attachment C
Bike Sharing Program
Issues and Considerations
(detailed discussion)

1) Management Issues – Two issues that need to be resolved before soliciting a contractor are:
   a) who (vendor/contractor, partner, or the City) would be responsible for the management of
      the program and ongoing maintenance of bicycles; and
   b) if advertising would be allowed with the program.

In the subject proposal, Library Bikes assumes responsibility for program management and
maintenance of bicycles through the trial period. Per the case study review of different cities,
some programs were controlled internally by municipalities, while others were contracted to
outside contractors or local bike shops for equipment or maintenance services. Some cities have
also partnered with co-ops who provide volunteer services. Some of the contractors used include
Library Bikes (Arcata, CA), BikeStation (Long Beach and Santa Barbara); Clear Channel-
SmartBike (Washington, D.C.), Public Bike System (Montreal); and BikeLink (Vancouver,
WA). Programs such as BikeLink’s E-lockers and GreenEmotors provide infrastructure but
neither management nor maintenance services.

Staff recommends the City procure an agreement holding the contractor and/or partner
responsible for program management and bicycle maintenance.

While the subject proposal does not incorporate any advertising, some larger programs use
advertisements to recover costs or have their program completely sponsored by advertising
media agencies (Clear Channel, Decaux).

2) Trial Phase Issues:
   a) the expected duration of a trial program; and
   b) whether membership will be open or limited (e.g. to City employees, partner employees,
      or those with a Palo Alto work address, etc.).

The current proposal is for a 6-month program which does not specify the target users. The
advantage of a longer trial period is that fluctuations in program use due to seasonal weather and
daylight savings can be accounted for. Some cities restrict use to City or County employees for
the trial phase. Limiting membership to a smaller pool (e.g. City employees or those who
register/show proof of a Palo Alto work/home address) for the trial period or requiring verifiable
personal information in the registration process (e.g. ID, credit card, address, phone #) is another
method of tightening accountability for public bicycles.

Staff recommends a one- to two-year trial period with limited enrollment during this phase (e.g.
City employees, employees of private-partner companies, or those who provide proof of a local
work/residential address); program adjustments would be made at a midpoint evaluation to better
meet user needs.

3) Type of Bicycles – An RFP should specify:
a) new or used bicycles;
b) specifications on bicycle types and amenities
c) the minimum number of bicycles expected for the trial period.

The subject proposal is for use of former *Roue Libre* bicycles from the original bike-share program in Paris, France. A major concern is that public-use bicycles tend to have a lifespan of only 1-2 years (see Attachment A, page 4 of proposal); given that the *Roue Libre* fleet are previously-used public bicycles, extended repair and replacement costs may be significant. Donated bikes have shorter life spans and are not as popular (Annapolis program was less utilized during the trial period with donated bikes than the new cruisers bought from a local bike shop).

Staff recommends that, dependent on funding availability, new bicycles are preferred. If community-donated or other used bicycles are utilized, a contract agreement for repair/maintenance is imperative. Fort Collins, CO and Washington, D.C. both utilize branded bikes with a standard color and logo—this is recommended for both marketing and identification of bikes to prevent theft.

While Library Bikes’ bicycles are only made available during daylight hours with Library Bikes’s current liability coverage insurance plan, a commuter-oriented program would need to be accessible after sunset and include night use equipment (e.g. headlight; front/side/rear reflectors)—especially during winter months when daylight hours are shorter. Head lights, front, rear, and side reflectors, as well as cargo capacity for a typical briefcase, laptop case, etc. weighing up to 20 lbs. is advisable in order to cater to the commuter population. Bicycle locks may have to be provided, depending on the number, location, and likely capacity of stations. As previously mentioned, bicycles can also be equipped with technology to locate each bicycle real-time, or simply identify the last user who checked out the bicycle through proprietary software in order to prevent loss. Because of the high capital cost of such technology, this would be more viable on a larger regional scale.

The current proposal is for 20 public-use bicycles during the trial period. The range of bicycles in a fleet from the case studies was 2 bicycles (Vancouver, WA) to 2,400-3,500 bicycles (Montreal, CANADA); but, only 40 bicycles were available for the trial in Montreal. The largest number of bicycles in the trial period for the U.S. is 120 (Washington, D.C.). The number of bicycles we can accommodate in the program is directly related to the City Subsidy.

4) **Stations** – Other specifications to be included in an RFP are:
   a) the type of stations (e.g. cabin, kiosk, covered racks, e-lockers, solar-powered);
   b) whether the stations should be automated or staffed, and
   c) the number of stations expected for the trial program.

Whereas, the current Library Bikes proposal seeks only one parking space for the footprint of the bike cabin, at least two parking spaces seem necessary to accommodate up to 20 bicycles, including ingress/egress. The proposal does not recommend automatic rental bike-racks for the initial 5-year period, until use patterns and nodes to appropriately locate them are identified through the trial. One advantage of the proposed bike cabin is that it is portable and does not require a new foundation—which would be more costly and not allow for flexibility if another location is found to be better-suited as a station. Other automated, covered station options
should be taken into consideration with a phone help line or shorter staffed period limited to the beginning stages of the trial period. Stations that could be easily moved or modified to serve as bicycle parking are recommended for the trial period. (see Appendix of Sample Stations, attached).

The location for the station is not identified in the Library Bike proposal. Most stations from the case studies were found centrally located in downtown/oldtown areas, near transit hubs, or throughout the city (when there are multiple stations). Palo Alto’s Caltrain Stations—University Avenue with 2,092 peak AM alightings and California Avenue with 388 peak AM alightings — would be key locations for central bike-share stations. More stations can be identified depending on program objectives and working with local partners.

5) Fee Schedule – Depending on the objectives of the program, Council should provide direction:
   a) on whether a long-term or short-term rental program should be pursued; and
   b) if one-time credit card users should be allowed during the trial phase.

The current proposal by Library Bikes encourages short trips of 2 hours or less with one station in the City of Palo Alto. The fee schedule is reflective of the program’s objectives—trip lengths can be influenced by cost structures with incentives, graduated rates for length of use, or fines. In order to tailor the program toward the Palo Alto commuter population, longer (minimum one day to several month-long reservations) rental provisions with one station, or short trip rentals with multiple stations would be required.

If the objective is to have as many daily uses and member users as possible, short-term trips would be the recommended action. Online reservation systems mitigate risks of users being stranded without a bicycle for their return trip in a short-term rental program. Although, more impactful in terms of number of members the program can be made available to, multiple stations would require higher initial capital infrastructure and technology costs for the program.

Alternatively, if the goal is to allow commuters to experience bicycle commuting on a trial basis, longer-term borrowing would provide a more convenient experience for the user. One short-fall of the single station, long-term rental model is that it would limit the daily users to the number of bicycles—e.g. Caltrain riders would probably take a bicycle in the morning and not return it until the end of the workday, precluding any other users from using it in the time between. Since peak demand periods are estimated to be during commute hours and lunch, one could argue that the number of uses is already restricted.

Staff believes the multiple station, short-term rental model (daily or less) with potential partner employment sites as hubs is ideal—if funding is available to support the additional costs associated with real-time reservation system technology.

6) City Subsidy– Council should provide further guidance on the level of City subsidy, including:
   a) a total, not-to-exceed amount for this program; and
   b) a reasonable per bicycle subsidy level: low subsidy—$0-499/bicycle; moderate subsidy—$500-2,499/bicycle; heavy subsidy—$2,500+
The original Library Bike proposal suggested a $3,243 per bicycle subsidy from the City for a 6-month trial period. This was considered a heavy subsidy by City Council; where only a moderate subsidy was deemed to be appropriate. In the Library Bikes proposal's payment conditions (see Attachment A, page 9 of proposal), 100% of rental income is to be paid to the contractor, which doesn't allow for any cost recovery to the city. Collecting subscription membership and user fees is one method of recouping some of the project's initial capital investment cost.

Other cities' subsidy levels (per bicycle) were as follows:
- $14—Portland, ME
- $30—Vancouver, WA
- $500—Annapolis
- $4,750—Long Beach
- $6,000—Montreal
- $19,167—Washington, D.C.

Given the wide range of subsidy levels, staff recommends the following categorization: the $0-500 range to be considered a low subsidy threshold; $500-2,500 moderate subsidy; and $2,500+ heavy subsidy. The explanation for the lower subsidies of some programs were informal programs requiring less technology, and off-set costs through funding grants and volunteers. The custom-designed programs with special technology (i.e. automated bike racks, specially-designed bicycles, tracking systems) tended to require higher subsidies because of the initial costs—even if costs are expected to be recovered later through advertising or user fees.

Because of different reporting methods, it is difficult to compare initial and ongoing costs of programs among cities. Some cities reported no initial program costs because of grant allocations, while others have reported the cost of program in value (even if grants cover start-up costs, including capital). The most expensive program at on-set, in Montreal, proposes a $15M initial investment which is recovered on an amortized-basis over 10 years through user-fees; ongoing costs for maintenance and operation are estimated at $1,500-2,000 annually per bicycle in circulation.

Staff finds that a higher investment has a direct effect on the quality, security, and technology features available with the program; although, requiring a portion of the membership and user fees to be paid to the City, as well as local partner sponsorships could help off-set costs.
Appendix

Sample Stations

There are several options for electronic lock and self-service/automated stations. Long Beach utilizes bicycle lockers with regular keys but with an electronic key access system (key boxes are opened with access control devices w/PIN-key). GreenEmotors and Public Bike System offer solar energy-powered automatic bike stations; while GreenEmotors uses solar energy as a source to charge electric bicycles, Public Bike System uses solar only to power the automated check-out system.

Library Bikes (current proposal):

Cabin
- Dimensions- Length: 24 feet; Width: 8.5 feet
- Entrance- Single swing door
- Ramp- Entrance height adjustable 0.8 to 2.0 feet
- Roof- Long life metal roofing (Green), ceiling insulated and sheet-rocked
- Walls- Oregon fir logs, log home miter construction, every log inter-pinned
- Windows- Dual-paned with security dividers

Kiosk
- Dimensions-16x16 feet, 10x14 feet, 12x16 feet
- Roof- Domed as per World Shelters or equivalent (http://worldshelters.org/)
- Capacity to add lighting where necessary to facilitate nighttime use of kiosk and adjustment of bicycles and to reduce vandalism
- Capacity to add emergency call buttons
- Ability to remove kiosk during winter or to easily move a kiosk to a different location without leaving behind attachment points that could impede a snowplow, street sweeper or trip a pedestrian
- Where feasible, alternative energy sources are favored (some kiosks may be installed in parking garages and other buildings where solar panels will not function, in which case a power outlet needs to be provided)
GreenEmotors:

<table>
<thead>
<tr>
<th>Model</th>
<th>Classification</th>
<th>Charging Options</th>
<th>Station Type</th>
<th>Cost</th>
</tr>
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<tr>
<td><strong>EV 301CS</strong>&lt;sup&gt;*&lt;/sup&gt;</td>
<td>Level 1 &amp; 2&lt;br&gt;Position Two</td>
<td>eBikes, eScooters, NEVs, PHEVs</td>
<td>Dual 110VAC station&lt;br&gt;4' Pedestal</td>
<td>$2,200</td>
</tr>
<tr>
<td><strong>EV401CS</strong>&lt;sup&gt;*&lt;/sup&gt;</td>
<td>Level 1, 2 &amp; 3</td>
<td>eBikes, eScooters, NEVs, PHEVs</td>
<td>Single 110VAC station&lt;br&gt;&amp; LSV-100 NEV Fast Charger&lt;br&gt;4' Pedestal</td>
<td>$13,490</td>
</tr>
<tr>
<td><strong>EV501CS</strong>&lt;sup&gt;**&lt;/sup&gt;</td>
<td>Level 1, 2 &amp; 3</td>
<td>eBikes, eScooters, NEVs, PHEVs</td>
<td>Five Single 110VAC stations&lt;br&gt;Three Duel 110VAC stations&lt;br&gt;One LSV-100 NEV Fast Charger&lt;br&gt;4' Pedestal</td>
<td>$95,000</td>
</tr>
</tbody>
</table>

* Assumes labor and materials required for installation. Permits required, but electrical supply within 20 ft of installation. No trenching required. Adequate concrete footer installed.
** Assumes labor and materials required for installation. Permits required, but electrical supply within 20 ft of installation. Assumes some trenching required. Adequate concrete base and footers installed. Assumes design and tooling has been amortized and is not included in the cost.

Note: The above are just basic examples of options available. There are many variations of each that can be fully explored once some initial feedback is provided on needs, budgets, timing, etc.
Public Bike System, Montreal:

Technical Platform
- Bike and a station card for bike door entry
- Inform module - LED display
- Some cards for station and bike lock
- Some are valid for non-renewable
- Electronic reader reader module
- No card validation in man machine - it continues to work when they are blocked
- Electronic

Bike Dock
- Bike parking
  - Electric control for door activation
  - Wire no blocking
  - Electronic display to indicate operation, price, etc.
- Technical data such as availability on the platform
- Bike availability - bike is in use or available
- Bike back-up system (emergency)
- Electronic display of access in real-time
- Electronic card reader - card reader module

Pay Station
- bike parking
  - Electric control for door activation
  - Wire no blocking
  - Electronic display to indicate operation, price, etc.
- Technical data such as availability on the platform
- Bike availability - bike is in use or available
- Bike back-up system (emergency)
- Electronic display of access in real-time
- Electronic card reader - card reader module

BikeLink E-Lockers, Vancouver:

Vancouver, WA utilizes BikeLink E-Lockers for their public employee shared bicycle system. Palo Alto currently contracts with Palo Alto Bicycles for the operation of the Palo Alto BikeStation and uses BikeLink's E-Lockers in the Bryant/University and Alma/High parking garages. The BikeStation has an electronic access system for members only. BikeLink cards can be modified into zones for use, so only members of the bike-share program can have access to the shared-bicycles; these lockers would need to be demarcated to distinguish them from the privately-used bike lockers, or a system installed to identify when shared-bicycles are stored in these lockers.
BikeStation, Long Beach:

Long Beach uses their BikeStation as one hub for shared-bikes as well as private bicycle parking and repair, restrooms, and changing/shower rooms; they also have 16 automated lockers in two different locations, Long Beach City Hall Plaza and the Aquarium of the Pacific.

Some other concepts that can be explored are the existing Caltrain depot buildings, private employment sites, BikeLink E-Lockers, or the bike tube concept developed by a local architect. Not all these options need to take the place of parking spaces.
Meeting Minutes  
Tuesday, August 5, 2008

Members Present: Cedric de La Beaujardiere, Ellen Fletcher, Paul Goldstein, Bob Jackson, Richard Swent (Chair), Bill Zaumen, Rob Robinson, Bill Courington
Guests Present: Tim Pratt
Staff Present: Gayle Likens, Rafael Rius

1. ORAL COMMUNICATIONS
Tim Pratt addressed the committee on the problem of bicycle theft and need for increase police attention to this problem in Palo Alto. He reported his personal experience of having 3 bicycles stolen in downtown Palo Alto. Members of the committee asked staff to talk to the Police Department to get more information on this matter and report back.

Ellen Fletcher noted that signs on East Bayshore reading “Bike Path closed ahead” should read “Bike Lane closed ahead.”

2. APPROVAL OF MINUTES
The minutes of June 10, 2008 were approved unanimously.

3. AGENDA CHANGES
None.

4. VTA BPAC REPORT
Rich Swent reported on the BPAC discussion of the County Expressway improvement projects.
- The committee reviewed the optional improvements for the Oregon Expressway project. Michelle DeRobertis questioned County staff about the need to remove one marked crosswalk under the 6-phase signal options. A meeting with Midtown residents has been scheduled.
- Almaden Expressway widening project will add another vehicle lane. County staff reported project will meet County bicycle accommodation guidelines but not VTA bicycle technical guidelines.
- County bicycle plan will go to the VTA Board on August 7 for approval.

5. REPORT ON EMERSON/EMBARCADERO SAFETY EVALUATION
Staff reported on the proposed improvements recommended by the City traffic engineer. The project will include striping and signing to channelize traffic turning from Embarcadero onto Emerson and add bike/ped crossing warning signs. The location does not meet warrants for a marked crosswalk. Committee members expressed support for the proposed improvements. Staff will evaluate intersection again after school starts to monitor the level of ped/bike activity during school commute hours.

6. DISCUSSION OF WRONG-WAY RIDING ON HOMER AVENUE
Staff reported that the plans for the mixed-use housing/commercial project on the old city
substation property have been expanded to the full block between Homer and Channing along Alma Street. The project plans include a contra-flow bike lane on Homer between Alma and High. This would be done in conjunction with converting High to two-way traffic between Forest and Channing. An EIR will be prepared for the project and the traffic study will address all of these issues.

7. DISCUSSION OF BICYCLE COUNTS
Staff distributed copies of the last set of citywide bicycle counts from 1997. Committee members urged staff to update the counts this year. Most of the counts were west of Alma. Members requested additional counts in the easterly section of the city, including Newell/Embarcadero, along Middlefield, as well as at the Homer undercrossing, Sand Hill/Pasteur, Embarcadero rail trail and Alma Bike Bridge. Staff indicated counts would be done in October and May. Staff will return with a complete list of locations at a later meeting.

8. REPORT ON COUNCIL ACTION ON LIBRARY BIKES PROPOSAL
Staff reported on the Council assignment for staff to report back on the feasibility of establishing a library bikes program in Palo Alto modeled after the one in Arcata as proposed by Bill Burton of librarybikes.org. Committee members expressed skepticism about the library bikes concept and its value to residents of Palo Alto, commented that the bike loan program should target commuters, and suggested that the City explore a loaner/rental bike program at the bikestation that could accommodate casual bike use. Members also indicated their interest in prioritizing projects listed in the Bicycle Transportation Plan over this proposal.

Motion: PABAC has reservations about the Library Bikes concept and specifically the proposal submitted by LibraryBikes.org. The committee feels other items in the existing Palo Alto Bicycle Transportation Plan should be given priority instead, for example the bicycle route signage project, Park Boulevard bicycle boulevard project, other new bicycle boulevards and bicycle parking throughout the City, etc. Motion approved unanimously.

9. INFORMATION ITEMS
- Oregon Expressway project: staff awaiting traffic study.
- Mid-Peninsula bike routes map: comments from PABAC members and staff submitted to Ariadne.
- Caltrain bicycle plan will be available later this month. Caltrain has requested comments within an 11 day period.
- Vineyard/Quarry intersection: problem with video detection at reported by Paul Goldstein
- Members asked to be notified of Council date for Google childcare center project. Staff reported that Google expressed interest in all year round bike crossing of Highway 101, but not another seasonal undercrossing at Matadero Creek.
- Wilkie Way bike bridge legends need to be corrected. Missing tiles are a safety hazard where raised screws remain. Need for convex mirror at curve in path to improve sight lines.