Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2015-0478, **File Type:** Contract **Agenda Number:** 14.

PLANNING AND PROGRAMMING COMMITTEE
JUNE 17, 2015

SUBJECT: METRO COUNTYWIDE BIKESHARE

ACTION: ADOPT A BIKESHARE IMPLEMENTATION PLAN AND AWARD CONTRACT

RECOMMENDATIONS

APPROVED AS AMENDED:

A. adopting the **Regional Bikeshare Implementation Plan for Los Angeles County** ("Plan") (Attachment B).

B. awarding a two-year firm fixed price Contract No. PS272680011357 (RFP No. PS11357), to Bicycle Transit Systems, Inc. (BTS) for the equipment, installation and operations of the Metro Countywide Bikeshare Phase 1 Pilot in the amount of $11,065,673 contingent upon the execution of an MOU between the City of Los Angeles and Metro. Authorization of future phases will be presented for Board approval contingent upon successful completion and operation of the Phase 1 Pilot, and completion and operation of each subsequent phase, availability of funding and interest of participating communities (Attachment A).

C. authorizing the Chief Executive Officer (CEO) to take the following actions to implement the Metro Countywide Bikeshare Phase 1 Pilot in downtown Los Angeles ("Pilot"):

    1. negotiating and executing a Memorandum of Understanding (MOU) between City of Los Angeles and Metro to set the terms of fiscal and administrative responsibility as described in the January 2015 Receive and File (Attachment C); and

    2. amending the Fiscal Year 15/16 bikeshare project budget to include an additional $2.64M for the capital and operating and maintenance costs of the Metro Countywide Bikeshare Phase 1 Pilot (Attachment D).

ISSUE

At the January 2014 meeting, the Board approved the CEO to undertake a study of how a Metro-led bikeshare program could be implemented throughout Los Angeles County (Attachment E). The Board

also authorized the CEO to procure, contract, and administer the bikeshare program through Motion 58 (Attachment F). Per Board direction and in coordination with the Bikeshare Working Group, staff identified a phased approach to implementing the program and how to apply the Board's commitment of funding up to 50 percent of total capital costs and up to 35 percent of ongoing operations and maintenance (O&M) costs for each participating city. At the January 2015 meeting, the Board received and filed staff's recommended business structure for the Metro Countywide Bikeshare (Attachment C). Per the Board's direction, staff proposes to implement a two-year (FY16 & FY17) Pilot in downtown Los Angeles (DTLA) starting in FY15/16 to test the feasibility of a Countywide Bikeshare system. The Pilot will include a bikeshare system with approximately 65 bikeshare stations and 1,090 bicycles.

Prior to the end of the two-year Pilot, staff will return to the Board for a determination on whether to continue the Pilot and/or expand bikeshare to additional bikeshare-ready communities per the Countywide Bikeshare Implementation Plan ("Plan"). Having one contractor for the duration of the program is key to ensuring countywide interoperability and allowing Metro to pursue Federal and State funding. The continuation of the bikeshare program beyond FY17 is dependent upon Board direction, availability of funding and interest of participating communities.

DISCUSSION

Bikeshare is a program designed for point-to-point local trips using a shared use fleet of bicycles strategically located at docking stations throughout a well-defined project area and within easy access to each other.

Bikeshare programs around the country and world have proven to be a strong first and last-mile short -trip transportation option. Currently there are over 50 bikeshare programs operating in cities in the United States. When coordinated with transit, such programs can facilitate reductions in vehicle miles traveled, reduced travel times, improved access, and growth in bicycling as a viable mode of travel.

Implementation Plan

Subsequent to the January 2014 Board direction, staff coordinated the formation of the Bikeshare Working Group to guide the preparation of the Plan. Group members included Metro staff (including TAP, OMB, and Design Studio), as well as representatives from the cities of Los Angeles and Pasadena. Representatives from the cities of Santa Monica and Long Beach also participated to coordinate their efforts and update the Group on their progress on parallel bikeshare efforts.

Since the initiation of the Plan, Metro has had approximately 20 meetings with either the entire Working Group or individually with the cities of Santa Monica, Pasadena, Los Angeles, West Hollywood, Culver City, Beverly Hills, Long Beach and other interested jurisdictions. Metro has also held public Metro Bicycle Roundtable meetings that included discussions about Metro Countywide Bikeshare. Additionally, in order to gauge whether Metro's technical work is in line with community support, Metro solicited feedback through an online crowdsourcing map that identified potential locations for bikeshare stations in the pilot cities of downtown Los Angeles, Pasadena and Santa Monica in September 2014. Metro had a successful response with over 3,000 people viewing the map, over 5,200 location "likes" and 400 suggested locations were received. To follow up on this first map, in December 2014, Metro requested additional input through a second crowdsourcing map. The

second crowdsourcing map identified potential future bikeshare communities identified through the Plan. Similar to the first map, Metro asked that community members provide feedback regarding Metro identified communities. The input collected from these crowdsourcing maps helped confirm the locations that Metro has identified for bikeshare station locations and potential future bikeshare communities. Final bikeshare station locations will be determined by respective city staff in consultation with Metro and the bikeshare operator.

The Plan envisions a bikeshare system that is accessible to Los Angeles County residents, students, workers and visitors, and that integrates with existing Metro transit services to provide a seamless passenger experience and improve the reliability, efficiency and usefulness of Metro's transportation system. Consistent with findings and recommendations from the Plan, the first phase of the Pilot is recommended to be in DTLA. Up to eight additional communities were identified to be bikeshare ready with Pasadena identified as primed for a second phase of the Pilot. As indicated previously, the continuation of the bikeshare program beyond the Phase 1 of the Pilot is dependent upon Board direction, availability of funding and interest of participating jurisdictions.

Memorandum of Understanding

The execution of a MOU between the City of Los Angeles and Metro is necessary to implement a bikeshare system where Metro is acting as the lead agency administering the contract to implement bikeshare stations on City of Los Angeles right-of-way. The MOU sets terms of fiscal and administrative responsibility for the Pilot. The financial participation is set at 50/50 split for capital and 35/65 split for O&M per the direction of Metro Board Motion 58 (Attachment F) and the Receive and File report in January 2015 (Attachment C). The agreement outlines the roles and responsibilities of Metro and the City of Los Angeles for the Pilot by setting the procedures for reimbursement of the capital and O&M costs, the rights of advertisement / sponsorship, and the delivery of bikeshare station locations. Execution of a contract between Metro and BTS, is contingent on Metro executing the MOU with the City of Los Angeles.

Regional Interoperability

True bikeshare interoperability is best achieved through one Countywide Bikeshare vendor system, as bicycles and docks of bikeshare systems are proprietary and are not physically interoperable with one another. In order to develop an interoperable Metro Countywide Bikeshare system in line with the Metro Board's direction, any city or community that would like to participate in a system should ideally use the same vendor system. That vendor should have a proven track record of launching and delivering similarly scaled systems and proven technology.

Santa Monica and Long Beach have chosen to move forward with independent bikeshare systems. However, a more limited level of interoperability can be achieved through operational and/or technological integration of bikeshare facilities throughout the County. Technological integration can occur through web/mobile applications, the TAP system and membership reciprocity. In Motion 58 the Board directed the CEO to develop a Countywide Bikeshare program under the following conditions (Attachment A):

a. Metro needs to be the lead agency in the county that will manage and procure a robust bicycle share program and
b. That a single-point agency will also ensure interoperability among the different jurisdictions

and can also provide a multi-modal transportation system through the use of the Transit Access Program ("TAP") smart card.

Metro commits to working with Santa Monica and Long Beach who are implementing their own bikeshare program to create an interoperable system and will continue to engage both cities in order to achieve this. To develop an interoperable Metro Countywide Bikeshare system in line with the Metro Board's direction, we have set forward objectives of countywide interoperability for these cities (Attachment G). To accomplish this, Metro included requirements for TAP integration in the Metro Countywide Bikeshare RFP that was released in December 2014. TAP integration is intended to provide consistent access across bikeshare platforms at a minimum, and payment and revenue settlement at its fullest capabilities. Metro is committed to working with a bikeshare vendor and Metro's TAP group to develop and implement a system that, at a minimum, is capable of utilizing the TAP card as a membership card. Additionally, Metro is committed to working with the selected Metro Countywide Bikeshare vendor to provide for physical co-location of bikeshare kiosks/stations as needed. Staff will also work with the cities on fare structure, branding, marketing and education and membership reciprocity.

Contract for DTLA Pilot

An RFP for a multi-phased Countywide Bikeshare program was issued on December 15, 2014. The RFP scope included a regional bikeshare system with at least 5 phases including 9 different bikeshare ready communities in Los Angeles County, as identified in the Plan. The scope was tailored to be inclusive of all the regional needs for bikeshare since the best way to ensure regional interoperability is to use one vendor for all of Los Angeles County. Additionally, this procurement approach will best prepare the region for federal and state funding opportunities for future bikeshare phases since the lifetime project costs have been assessed holistically and not piecemealed out.

DETERMINATION OF SAFETY IMPACT

The Metro Countywide Bikeshare Phase 1 Pilot will not have any adverse safety impacts on Metro employees and patrons.

FINANCIAL IMPACT

The proposed FY16 project cost is $7.78M. Of this, $5.8M is a one-time capital cost and $1.98M is the Operating and Maintenance (O & M) cost. Attachment D reflects the funding plan for the Pilot. The FY16 budget currently includes $5.14M for this project. The proposed action will add $2.64M in Cost Center 4320, Project 405301 - 05.01 (Bikeshare Program).

Capital Costs

The capital costs of $5.8M in FY16 will be funded by Metro, $3.8M from toll revenues and $2.0M from two City of Los Angeles Call for Projects grants that are being reallocated to Metro through the June 2015 Call for Projects recertification and deobligation process. The City of Los Angeles has requested to cancel the Call for Projects grants originally programmed to #F3510 - Figueroa Corridor Bike Station and Cycling Enhancements and #F5523 - Expo Line Bike Hubs South Los Angeles, and to reallocate the funds to Metro towards the implementation of the Countywide Bikeshare Phase 1

Pilot in Downtown Los Angeles (the “Pilot”). The reallocation of funds to the Pilot is consistent with the original intent of the Call for Projects grants.

Operating and Maintenance Costs

Total O & M costs in FY16 are 2.0M. $1.3M of this will be funded by City of Los Angeles, which includes the City’s local match of $919,539 from the cancelled Call for Projects mentioned above ($368,213 for the Figueroa Corridor Bike Station and $551,326 for the Expo Line Bike Hubs South Los Angeles) plus an additional City’s contribution of $364,446. The remaining $0.7M is estimated to be Metro’s share. However, anticipated revenues from user fees and potential title sponsorship may reduce Metro’s funding responsibility.

Since this is a multi-year contract, the cost center manager and Chief Planning Officer will be responsible for budgeting the cost in future years, including any phase(s) the Board authorized to be exercised.

Impact to Budget

For contracting purposes, $5.14M is already included in the FY16 budget. This action will add $2.64M to the budget which will be immediately funded from general funds or other eligible and available local funds. This funding will be restored to the general funds with City of Los Angeles’s reimbursements and 2015 Call for Projects fund assignment to ensure revenue neutrality and no impact to other programs supported through the general fund.

ALTERNATIVES CONSIDERED

The Board may choose not to award a contract. This alternative is not recommended, as it is not in line with the June Board Motion 58 directing staff to procure, contract, and administer the bicycle share program.

NEXT STEPS

Bikeshare Marketing and Branding

Staff has been coordinating with the Metro Design Studio and the Bikeshare Working Group regarding design and branding of a Metro Countywide Bikeshare system. Metro is working collectively with the participating cities to determine a design that is representative of Metro while exploring opportunities for local identity. Metro’s Countywide Bikeshare system will utilize the Metro-Bike color palette for branding and designs which will be finalized once the Pilot contract is executed.

Sponsorship

Metro Communications is on schedule to amend the existing Metro system-wide advertising contract to include provisions for a bikeshare title sponsorship starting in June 2015. Communications plans to complete the amendment by fall 2015, well ahead of the estimated Pilot launch in spring 2016. Per the January 2015 Receive and File report in January 2015 (Attachment C), Metro would retain on -bike title sponsorship and reserve the right to sell to sponsor(s) as a source of Metro's funding commitment. On-bike title sponsorship revenue would first be applied towards Metro's financial

commitment. Remaining sponsorship revenues would then be applied towards each city's O&M cost. Any excess sponsorship revenues would then be expended for the bikeshare program under the terms of the MOU. Cities would retain the right to sell advertising or sponsorship at bikeshare stations based on their jurisdiction's policies to meet the local share of capital and operating expenses.

Existing bikeshare systems in Denver, Minneapolis, Washington D.C., Philadelphia and New York have utilized corporate sponsorship/advertisements contracts to generate revenue to cover all or some of the O&M costs in which ads are placed on the bike and/or the kiosks. An average title sponsorship of these bikeshare systems generates $1,375 of revenue annually per bike. Although markets vary and it is unknown at this time what the Los Angeles region's potential is, based on an average from other programs, Metro estimates that the Pilot could generate $1.5 million annually from sponsorship revenues.

Fare Structure & TAP Integration

Staff will return to the Metro Board in fall 2015 with a recommended fare structure and TAP integration strategy for the Pilot in DTLA.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - Regional Bikeshare Implementation Plan for Los Angeles County
Attachment C - Bikeshare Program Receive and File January 2015
Attachment D - Bikeshare Funding/Expenditure Plan
Attachment E - Countywide Metro Bikeshare Board Report January 2014
Attachment F - Metro Board Motion 58
Attachment G - Interoperability Objectives with Existing Local Bikeshare Programs

Prepared by: Avital Shavit, Transportation Planning Manager V, (213) 922-7518
Laura Cornejo, Deputy Executive Officer, (213) 922-2885
Diego Cardoso, Executive Officer, (213) 922-3076
Cal Hollis, Managing Executive Officer, (213) 922-7319

Reviewed By: Ivan Page, Interim Executive Director, Vendor/Contract Management, (213) 922-6383

Nalini Ahuja, Executive Director, Office of Management and Budget, (213) 922-3088

Martha Welborne, Chief Planning Officer, (213) 922-3050

Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

METRO COUNTYWIDE BIKESHARE

1.	**Contract Number**: PS272680011357 **(RFP No. PS11357)**	
2.	**Recommended Vendor**: Bicycle Transit Systems, Inc.	
3.	**Type of Procurement (check one):** ☐ **IFB** ☒ **RFP** ☐ **RFP–A&E** ☐ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued: December 15, 2014	
	B. Advertised/Publicized: December 11-15, 2014	
	C. Pre-proposal Conference: January 6, 2015	
	D. Proposals Due: January 27, 2015	
	E. Pre-Qualification Completed: April 13, 2015	
	F. Conflict of Interest Form Submitted to Ethics: March 4, 2015	
	G. Protest Period End Date: June 24, 2015	
5.	**Solicitations Picked up/Downloaded**: 83	**Proposals Received**: 5
6.	**Contract Administrator**: Lily Lopez	**Telephone Number**: 213-922-4639
7.	**Project Manager**: Avital Shavit	**Telephone Number**: 213-922-7518

A. Procurement Background

This Board Action is to approve a two-year Pilot program in support of Metro's Countywide Bikeshare program; Contract No. PS27268001357 (RFP PS11357). The contract will provide implementation, installation, operation, and maintenance of equipment as well as publicize a network of publicly-available bicycles in a Regional Countywide Bikeshare System ("System"). The System encompasses five (5) phases within Los Angeles County. The two-year Pilot program will launch in downtown Los Angeles (DTLA) with 65 stations and 1,090 bikes and is a subset of Phase I. The balance of Phase I and future phases will be presented for Board approval contingent upon successful completion and operation of the Pilot, completion and operation of each subsequent phase, cities participation, and available funding. Subsequent phases may be rolled out to maintain and/or expand the System as follows:

- Phase I (remaining balance): continue operations and maintenance (O&M) of the Pilot
- Phase II: Pasadena – 34 stations and 490 bikes
- Phase III: Two Expansion Cities/Communities – 65 stations and 936 bikes
- Phase IV: Two Expansion Cities/Communities - 53 stations and 763 bikes
- Phase V: Three Expansion Cities/Communities - 37 stations and 533 bikes

The RFP was issued in accordance with Metro's Acquisition Policy and Procedure Manual and the contract type is firm fixed price.

Five (5) amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on December 31, 2014, provided revisions to the solicitation documents and provided responses to questions received;
- Amendment No. 2, issued on January 7, 2015, provided documents related to the Pre-Proposal conference convened on January 6, 2015, provided responses to questions received and extended the proposal due date;
- Amendment No. 3, issued on January 15, 2015, provided responses to questions related to the statement of work (SOW) received;
- Amendment No. 4, issued on January 21, 2015 provided responses to questions related to the SOW received;
- Amendment No. 5, issued January 29, 2015, after receipt of proposals, provided clarifications to the SOW

A pre-proposal conference was held on January 6, 2015, attended by thirty-four (34) participants representing twenty-six (26) firms. Twelve (12) questions were asked during the pre-proposal conference and an additional thirty-seven (37) questions were asked during the solicitation phase.

Eighty-three (83) firms downloaded the RFP and were included in the planholders list. A total of five (5) proposals were received on January 27, 2015.

B. Evaluation of Proposals/Bids

A Proposal Evaluation Team (PET) consisting of staff from Metro's Countywide Planning and Development, City of Los Angeles and City of Pasadena was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

- Proposer's Expertise and Experience 30%
- Quality of Equipment and Software 25%
- Regional Integration and Execution Plan 20%
- Innovation 10%
- Cost 15%

The evaluation criteria are appropriate and consistent with criteria developed for similar procurements. Several factors were considered when developing these weights, giving the greatest importance to the proposer's expertise and experience. The PET evaluated the proposals according to the pre-established evaluation criteria.

During the week of February 9, 2015, the PET completed its evaluation of the five (5) proposals received and determined that four (4) were within the competitive range. The four (4) firms within the competitive range are listed below in alphabetical order:

1. Bicycle Transit Systems, Inc.
2. CycleHop, LLC
3. Motivate International, Inc.
4. Nextbike, Inc.

One (1) firm, Bewegen Technologies, Inc. was determined to be outside the competitive range and was not included for further consideration as its proposal did not demonstrate it had the required experience on similar projects (bikeshare, carshare, and other sharable transportation service). Additionally, the technology proposed was new and had not been proven successful on a large scale similar to Metro.

After evaluations, the PET determined that oral presentations by the firms within the competitive range were required. During the week of February 17, 2015, the above-mentioned firms were scheduled for oral presentations. The firms' project managers and key team members had an opportunity to present each team's qualifications and respond to the PET's questions. In general, each team addressed the requirements of the RFP, experience with all aspects of the required scope, and stressed each firm's commitment to the success of the project. Each team was asked questions relative to each firm's proposed staffing plans, perceived project issues, implementation of similar projects and previous experience.

At the conclusion of the oral presentations, two of the four firms in the initial competitive range, BTS and Motivate, remained for consideration and were requested to submit Best and Final Offers.

Qualifications Summary of Firms Within the Competitive Range:

Bicycle Transit Systems, Inc. (BTS)

BTS specializes in bikeshare system implementation and operation. BTS' team member experience spans over 25 years of sustainable transportation solutions that bring with them a broad base of skills and experience having provided similar services for both the private and public sectors.

The Project Manager has over ten (10) years of bikeshare management experience and has led the launch of several programs across major U.S. metropolitan cities, such as Philadelphia, Boston, Washington, D.C. and New York.

In terms of overall experience, the staff at BTS/B-Cycle collectively have launched and/or operated approximately 40 bikesharing systems comprising of approximately 20,000 of bicycles at 1,500 stations. The BTS/B-Cycle Team recently implemented and currently operates a 500 bicycle system in Philadelphia and operates systems in Oklahoma. B-Cycle, in separate partnerships, implemented and operates 26 bikeshare systems in locations like Colorado (700 bikes), San Antonio (425), Austin (375), Fort Worth (300) and others.

BTS proposed a smart-dock bikeshare system that utilizes a payment kiosk and a docking station to return the bikes. This system has been proven successful in large North American cities similar in scale to Los Angeles as it easily identifies a known place to find bikes and allows users to walk up to a station and pick-up a bike at any moment. Smart-dock bikes unlock in response to a credit card or a member key, providing a secure locking point to deter theft and safely transmit usage.

The current 2.0 system BTS is proposing for the Phase 1 Pilot is a smart-dock system however, BTS is currently working on the development of a 3.0 system that includes a smart-bike that would be ready as early as 2017.

Additionally, the team has a proven on-time delivery and launch record and an established domestic supply chain with B-Cycle (subsidiary of Trek Bicycle Corporation) to furnish the bikes required for the program. BTS has invested in technology research and development for software systems that has allowed for the development of a new software system to address past industry issues, such as:

- Transit integration and interoperability with other bikeshare systems in the region
- Acceptance of multiple payment methods
- Smart-bikes (which work with or without stations)
- Stations with and without kiosks
- A dedicated smartphone app to Metro that will provide real time and scheduled data for the majority of bus and rail options available in the greater Los Angeles area and surrounding counties for transit connectivity.

During oral presentations, BTS demonstrated the bike being proposed for the DTLA Pilot launch.

BTS' team includes DBE and non-DBE subcontractors. BTS has no previous contract with Metro.

CycleHop, LLC (CycleHop)

CycleHop, founded in 2011 in Florida, and as of 2015 headquartered in Santa Monica, California, specializes in bikeshare system implementation and operation. CycleHop's client portfolio includes cities, universities, hotels and businesses within the U.S., and is proposing to partner with Social Bike (Sobi) to implement a smart-bike bikesharing system that places the technology on the bike rather than a docking station. The CycleHop/Sobi team has experience in the bicycle industry, however, the majority of the experience is related to bike rental and bike parking rather than

bikeshare operations.

The smart-bike technology allows users to drop-off bikes anywhere a bike rack is available and relies on the usage of smartphones to locate bikes. Most cities that deploy smart-bikes create bikeshare stations using bike racks and charge a user an additional fee (approximately $2/per trip) if the bike is not returned to the station. Some of CycleHop/Sobi current projects include bikeshare systems in Phoenix, University of Virginia, Tampa and Hamilton, Canada. CycleHop have planned systems for launch in 2015 for Santa Monica, Atlanta, Providence, Ottawa, Canada and other North American cities. CycleHop has no previous contract with Metro.

CycleHop/Sobi collectively has the fewest operating bikeshare systems compared to the other firms. In addition, a reference for the firm stated there have been delays due to on-bike technology and supply chain issues. The Sobi smart-bicycle technology is so new that they have not had a chance to demonstrate long term viability and large scale reliability. This lack of long-term demonstrated experience and product success resulted in lower scores than the other proposals.

During oral presentations, CycleHop demonstrated the bike being proposed for the DTLA Pilot launch.

CycleHop includes DBE and non-DBE subcontractors.

Motivate International, Inc. (Motivate)

Motivate, founded in 2009 and headquartered in New York City, New York, specializes in bikeshare system implementation and operation. Motivate currently manages bikeshare systems in the U.S., Canada and Australia. Motivate has no previous contract with Metro. Although Motivate has provided financial information at the request of Metro in support of pre-qualification reviews, the data is incomplete and cannot be validated. Motivate also proposed a smart-dock bikeshare system similar to BTS.

During oral presentations, Motivate was not able to demonstrate the bike being proposed for the DTLA Pilot launch as it was under production nor did the firm bring an older existing model for demonstration purposes.

Motivate includes DBE and non-DBE subcontractors.

Nextbike, Inc. (Nextbike)

Nextbike, founded in 2004 and headquartered in Leipz, Germany, specializes in bikeshare system implementation and operation. Nextbike currently manages bikeshare systems in Australia, New Zealand, United Arab Emirates and throughout Europe and has recently began to expand into the U.S. market. Nextbike has no

previous contract with Metro. Nextbike proposed a smart-bike bikeshare system similar to CycleHop.

Nextbike's experience is primarily in Europe but did not demonstrate it had the required experience on similar projects. Additionally, the smart-bike technology proposed is the newest type of bikeshare technology available and has not been proven successful on a large scale similar to Metro.

During oral presentations, Nextbike demonstrated the bike being proposed for the DTLA Pilot launch.

Nextbike includes a DBE subcontractor.

Following is a summary of the PET scores:

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	**BTS**				
3	Proposer's Expertise and Experience	88.00	30.00%	26.40	
4	Quality of Equipment and Software	83.31	25.00%	20.83	
5	Regional Integration and Execution Plan	64.00	20.00%	12.80	
6	Innovation	81.00	10.00%	8.10	
7	Price	53.33	15.00%	8.00	
8	**Total**		**100.00%**	**76.13**	**1**
9	**CycleHop**				
10	Proposer's Expertise and Experience	40.67	30.00%	12.20	
11	Quality of Equipment and Software	57.73	25.00%	14.43	
12	Regional Integration and Execution Plan	78.00	20.00%	15.60	
13	Innovation	75.00	10.00%	7.50	
14	Price	86.67	15.00%	13.00	
15	**Total**		**100.00%**	**62.73**	**4**
16	**Motivate**				
17	Proposer's Expertise and Experience	84.67	30.00%	25.40	
18	Quality of Equipment and Software	64.94	25.00%	16.24	

19	Regional Integration and Execution Plan	50.00	20.00%	10.00	
20	Innovation	80.00	10.00%	8.00	
21	Price	66.67	15.00%	10.00	
22	**Total**		**100.00%**	**69.64**	**2**
23	**Nextbike**				
24	Proposer's Expertise and Experience	53.33	30.00%	16.00	
25	Quality of Equipment and Software	64.29	25.00%	16.07	
26	Regional Integration and Execution Plan	54.00	20.00%	10.80	
27	Innovation	69.00	10.00%	6.90	
28	Price	100.00	15.00%	15.00	
29	**Total**		**100.00%**	**64.77**	**3**

C. Cost Analysis

The Phase I two-year pilot program recommended price of $11,065,673 has been determined to be fair and reasonable based upon Metro's Management and Audit Services Department (MASD) audit findings, an independent cost estimate (ICE), a Project Manager's technical analysis, a cost analysis, fact finding, and negotiations. Bikeshare will encompass five (5) phases within Los Angeles County, inclusive of the Phase I two-year pilot program in downtown Los Angeles. Future expanded phases up to $65,341,029 will be presented for Board approval contingent upon successful completion and operation of the Pilot, completion and operation of each subsequent phase, cities participation and available funding.

	Proposer Name	Proposal Amount	Metro ICE	Negotiated
1.	BTS (Pilot)	$11,756,151	$9,781,553	$11,065,673
	BTS (remaining phases)	$68,758,718	$48,755,302	$65,341,029

D. Background on Recommended Contractor

The recommended firm, BTS, headquartered in Philadelphia, Pennsylvania, has been in business since 2013. BTS' core leadership team consists of experienced planning, product and implementation individuals who have direct hands-on bikeshare experience, such as the launch and operations of a 2,000 bike regional system in Washington, D.C. and the 1,000-bike regional system in Boston. Additionally, the team brings sponsorship experience from its New York Citi Bike program. In addition to the systems mentioned, BTS' team has also worked on

bikeshare systems in Philadelphia, Chicago, San Francisco, Boston, New York, Washington D.C., Chattanooga, Denver, Austin, Houston, Kansas City, Omaha, Charlotte, Santiago, Chile, and Melbourne, Australia.

BTS' core leadership team and also the founding members of BTS previously worked together at Alta Bicycle Share. BTS' business strategy includes decentralization of management and decision making at the local operations center, employee morale, and ensuring leadership has operations experience.

As previously noted, BTS' proposed smart-dock systems aligns with Los Angeles' large, dense environment as the locations are permanently situated and accessible to users.

BTS' manufacturer, B-Cycle, has implemented and operated over 25 systems throughout the U.S., including the first bikeshare system in Denver, and others in cities such as Madison, San Antonio, and Charlotte. B-Cycle offers experience and well-tested technology that is kiosk-based and has three main components, the bicycle, the stations, and the software. The stations are solar-powered, which means that the docks are powered on their own independent of grid power. Each station houses a custom controller board, a proprietary locking mechanism, LED user notification, and an Radio Frequency Identification (RFID) reader for inventory control.

E. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 22% Disadvantaged Business Enterprise (DBE) goal for this solicitation. This contract is funded by the Federal Highway Administration (FHWA) and falls under the Caltrans DBE Program. As such, all DBE groups are counted toward the DBE commitment. Bicycle Transit Systems, Inc. exceeded the goal by making a 22.37% DBE commitment.

Disadvantaged Business Enterprise Goal	22% DBE	Disadvantaged Business Enterprise Commitment	22.37% DBE

	DBE Subcontractors	Ethnicity	% Commitment
1.	Say Cargo Express	Hispanic American	0.68%
2.	Accel Employment Services	Asian Pacific American	15.28%
3.	BikeHub	Asian Pacific American	5.48%
4.	Toole Design Group, LLC	Non-Minority Woman	0.93%
	Total Commitment		**0**

F. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

G. Prevailing Wages

Prevailing wage will be applicable to this contract. Metro will monitor and enforce State and Federal (if applicable) prevailing wage guidelines to ensure that workers are paid at minimum, the appropriate prevailing wage rates, and if applicable, the federal prevailing wage rates. In addition, contractors will be responsible for submitting the required documents needed to determine overall compliance with Metro's prevailing wage monitoring.

H. All Subcontractors Included with Recommended Contractor's Proposal

	Subcontractor	Services Provided
1.	B-Cycle, LLC	Equipment
2.	Kiosk Information Systems	Equipment
3.	Say Cargo Express	Shipping services
4.	RideScout	Software development
5.	Accel Employment Services	Staffing service
6.	BikeHub	Bike repair services
7.	Toole Design Group, LLC	Design services

Attachment B

Regional Bike Share Implementation Plan FOR LOS ANGELES COUNTY

PREPARED BY

FEHR PEERS
600 Wilshire Boulevard, Suite 1050
Los Angeles, CA 90017
213.261.3050

PREPARED FOR

Metro

April 22, 2015

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EXECUTIVE SUMMARY

This Regional Bikeshare Implementation Plan envisions a bikeshare system that is accessible to Los Angeles County residents, students, workers and visitors, and that integrates with existing Metro services to provide a seamless passenger experience and improve the reliability, efficiency and usefulness of Metro's transportation system. The envisioned system begins with 99 stations and 1,580 bikes in the Phases 1 and 2 pilot areas of Downtown Los Angeles and Pasadena, eventually growing to a total of 254 stations and 3,800 bikes in multiple communities around Los Angeles County, with future expansions to bikeshare-ready communities to be identified thereafter.

The Plan includes business plan recommendations for operating a regional bikeshare system in Los Angeles County (Chapter 3), a bikeshare readiness analysis (Chapter 4), and a station siting analysis (Chapter 5).

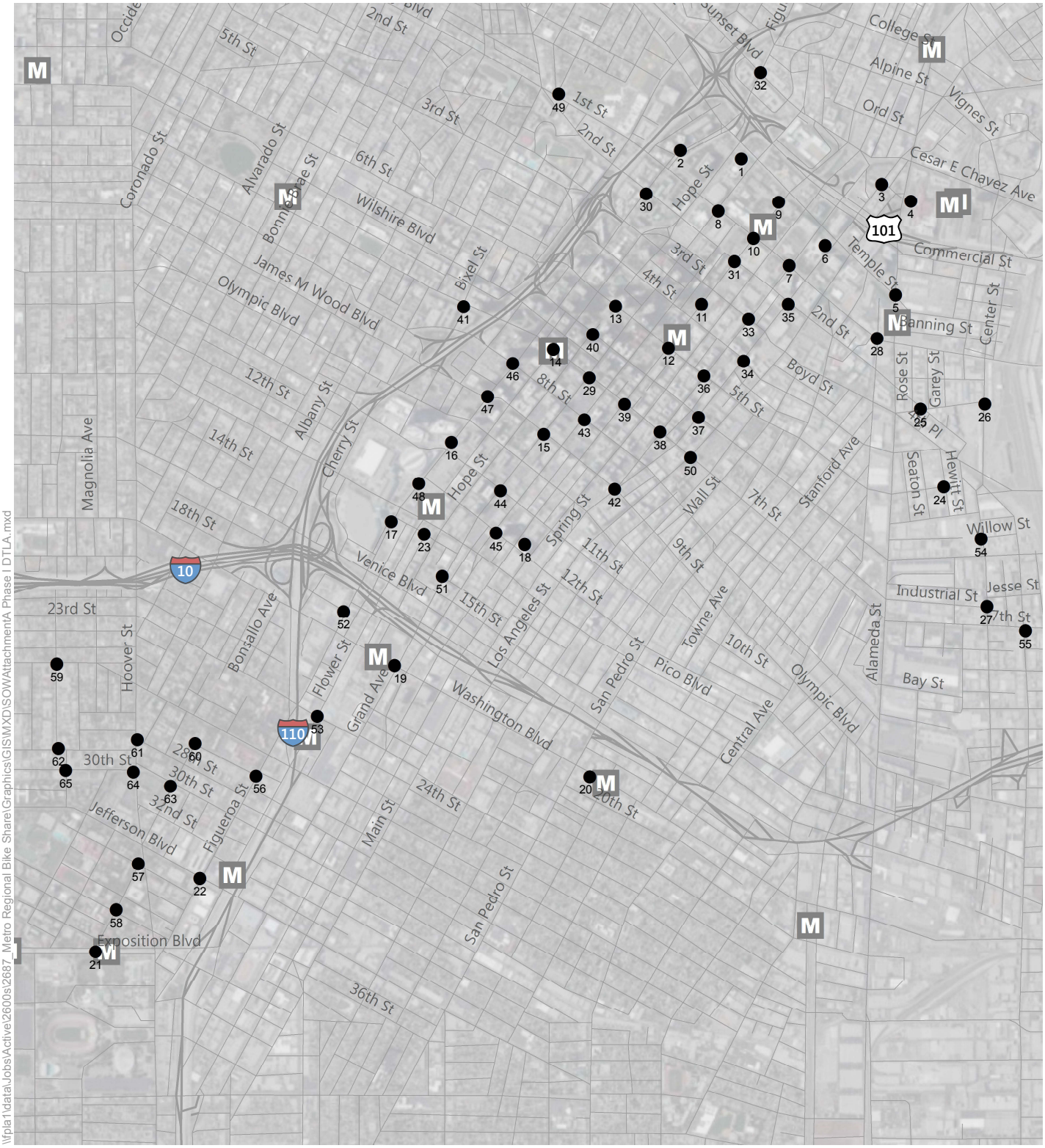
Metro will own and manage the system's equipment and will contribute up to 50 percent of the capital costs. Metro will also manage a master operations contract to provide operations and maintenance for the entire regional system and provide up to 35 percent of the net operating cost of each city's network of stations.

This study explored two options for fare structures: conventional and integrated. If TAP card integration is feasible in the pilot or future phases, an integrated fare structure, consistent with Metro bus and rail fares, along with payment media integrated through Metro's TAP card will provide a seamless passenger experience, encouraging use by existing Metro passengers and promoting use of Metro bus and rail services by new bikeshare customers. System branding, still under development by Metro Creative Services, will further integrate the system with the Metro brand while providing opportunities for sponsorship and recognition of participating jurisdictions.

Potential revenue from sponsorship, which may exceed $10 million[1] over nine years, will be used to offset program operation and maintenance costs.

Key decisions, to be made by Metro in collaboration with a selected bikeshare vendor, are still in progress on the approach to fare structures and TAP integration.

[1] Based on average from D.C., Denver, and New York City sponsorship revenues.



Phase I Stations in Downtown Los Angeles

- Phase I - 65 Stations

Phase I Stations
Downtown Los Angeles, CA

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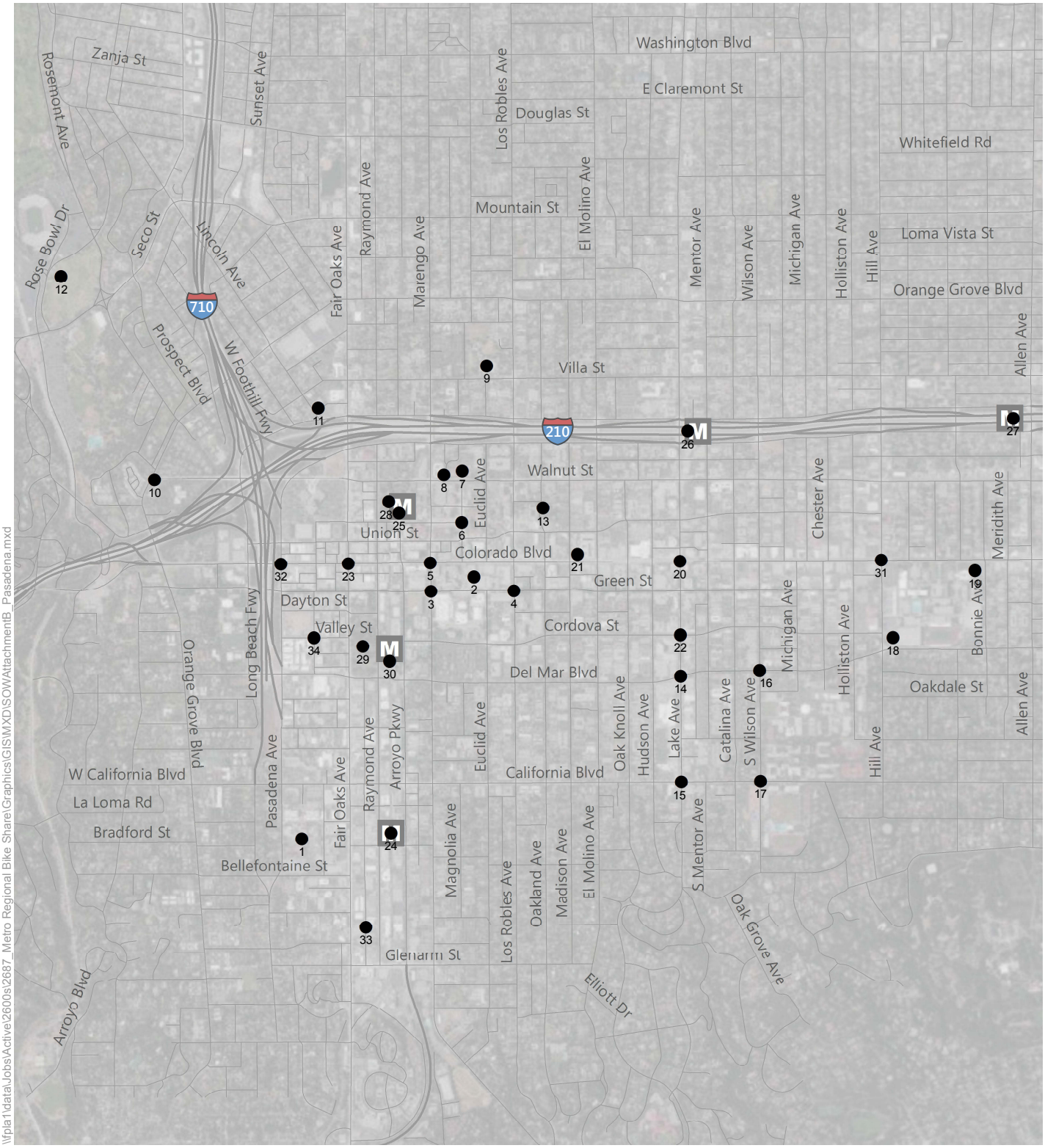

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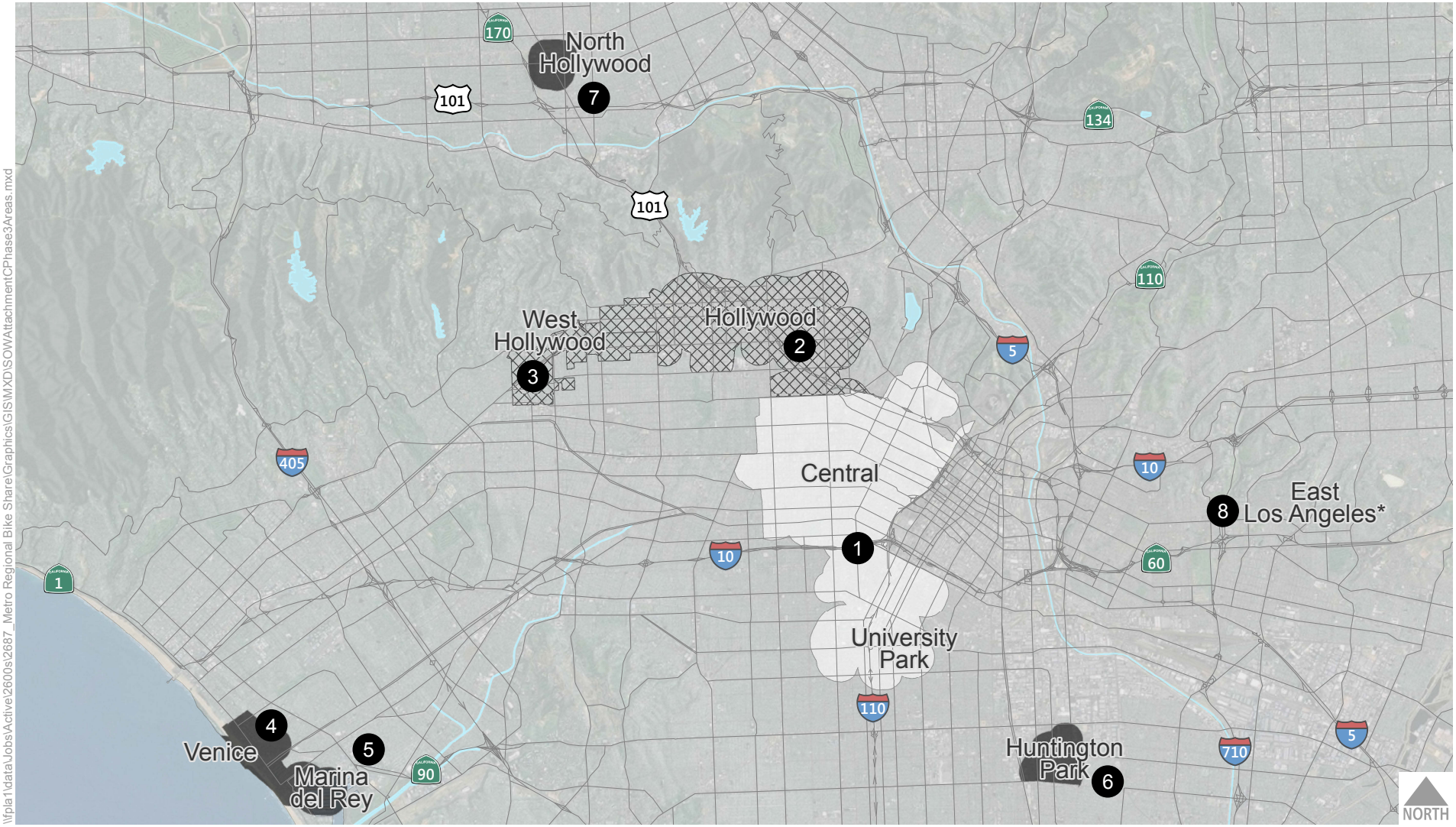
Metro Rail Station

Phase II Stations in Pasadena

- Phase II - 34 Stations

Phase II Stations
Pasadena, CA



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* A specific boundary for the East Los Angeles Expansion Area has not yet been identified.

Potential Bikeshare Expansion Communities

- Phase III - 65 Stations
- Phase IV - 53 Stations
- Phase V - 37 Stations

1 Expansion Area

INTRODUCTION

In January 2014, The Metro Board of Directors approved the Chief Executive Officer to undertake a study of how a Metro-led bikeshare program could be implemented throughout Los Angeles County, to implement the program in a phased approach, coordinating with local cities, and to provide up to 50 percent of total capital costs and up to 35 percent of ongoing operations and maintenance costs for each participating city. The board also authorized the CEO to procure, contract, and administer the bicycle share program.

Metro staff coordinated the formation of a Bikeshare Working Group to guide the preparation of this Regional Bikeshare Implementation Plan. Group members included **Metro** staff, including TAP, OMB, and Creative Services, as well as representatives from the pilot cities of **Los Angeles** and **Pasadena**, and members of the consulting team; representatives from the cities of **Santa Monica** and **Long Beach** also participated to coordinate their efforts and update the Group on their progress.

The consulting team consisted of:

- **Fehr & Peers** – led the consultant team and planning efforts, including the bikeshare readiness analysis, ridership forecasting, station scaling recommendations, planning-level future phase community and station selection, business plan development, and data, technology, and TAP integration recommendations.
- **Sam Schwartz Engineering** – led the field-level station siting effort.
- **Parry Burnap** – provided the bikeshare operator's perspective and experience, informing all aspects of the study.
- **Economic & Planning Systems** – provided capital and operating cost and revenue estimates, potential funding sources, and sponsorship best practices.
- **MIG** – developed branding criteria for the bikeshare system.

Chapter 3 of this Regional Bikeshare Implementation Plan presents the Business Plan recommendations for operating a regional bikeshare system in Los Angeles County.

Chapter 4 describes the process and results of the bikeshare readiness analysis, including a Bikeshare Suitability Index, comparisons of Los Angeles to other bikeshare communities, the identification of expansion communities, ridership forecasting, and station size and bike quantity analysis.

Chapter 5 describes key differences in bikeshare hardware and technology, presents siting considerations and provides an example of the siting materials prepared for the first 99 stations in the Phases 1 and 2 pilot areas.

BUSINESS PLAN

This chapter provides information on the vision for the regional bikeshare system and an overview of the pilot system and future expansion phases, followed by additional details on:

- **Capital Ownership**
- **Operations Model**
- **Fare Structure**
- **TAP Integration**
- **Mobility Hub Coordination**
- **Equity**
- **Operations Funding**
- **Revenue Allocation**
- **Sponsorship**
- **Financial Estimates**

Key decisions, to be made by Metro in collaboration with a selected bikeshare vendor, are still needed on the approach to fare structures and TAP integration:

Fare Structure

- **Integrated as Metro Service** – bikeshare fares integrate seamlessly with Metro bus and rail fares.
- **Integrated as Muni –** bikeshare fares mimic the relationship between municipal transit operators and Metro, requiring a transfer fee.
- **Conventional** – bikeshare fares are unrelated to bus and rail transit fares; users pay a daily, weekly, or monthly membership fee and additional usage fees for longer-duration trips.

TAP Integration

- **Real Time Integration** – Full TAP integration allows real-time communication between the bikeshare back end system and TAP data.
- **Delayed Reconciliation –** TAP data are shared with the bikeshare vendor and reconciled with bikeshare usage data on a regular (e.g., daily) basis.
- **Minimal Integration** – TAP card is used as a unique identifier only.

Each of these approaches is described in more detail below.

VISION

This Bikeshare Implementation Plan draws its vision from Metro's Vision and Mission, as described below.

Metro Vision

> *Safe, clean, reliable, on-time, courteous service dedicated to providing Los Angeles County with a* ***world class transportation system***

Metro Mission

> *Metro is responsible for the* ***continuous improvement*** *of an* ***efficient*** *and* ***effective*** *transportation system for Los Angeles County*

The Plan's vision is also inspired by a recent Metro fare policy change that integrates fares for bus and rail passengers and includes for the first time a two-hour period of free transfers on Metro's bus and rail system when using a stored value TAP (Transit Access Pass) card to pay for the base fare.

Regional Bikeshare Vision:

Provide new and existing transit users with an ***accessible, reliable,*** *and* ***efficient*** *mobility option as an* ***integrated*** *part of Los Angeles County's world class transportation system.*

Accessible means that the system is available and easy to use for anyone who wants to bike. Barriers to join the system are minimized and the process of checking out and returning bikes is as simple as possible. The system also promotes equity with an affordable fare structure or fare assistance program and by making stations available in a variety of neighborhoods.

Reliable means that users can easily locate, check out, and return bikes when and where they need to. The bikes and stations are maintained in good working condition and the software and data connectivity are reliable to minimize outages.

Efficient means that the system is cost-competitive with other travel modes, both for passengers and for Metro as an organization. Bikeshare is a cost-effective means of providing a world class transportation system: fare recovery ratios, the amount of the cost of serving each trip that is covered by user fees, are higher for bikeshare than all but the best-performing rail and bus systems (see **Figure 1**). The system will pursue a variety of funding options to ensure that it is financially sustainable. Finally, bikeshare leverages existing transit resources to better serve existing bus and rail passengers and attract new bikeshare users to Metro's bus and rail services.

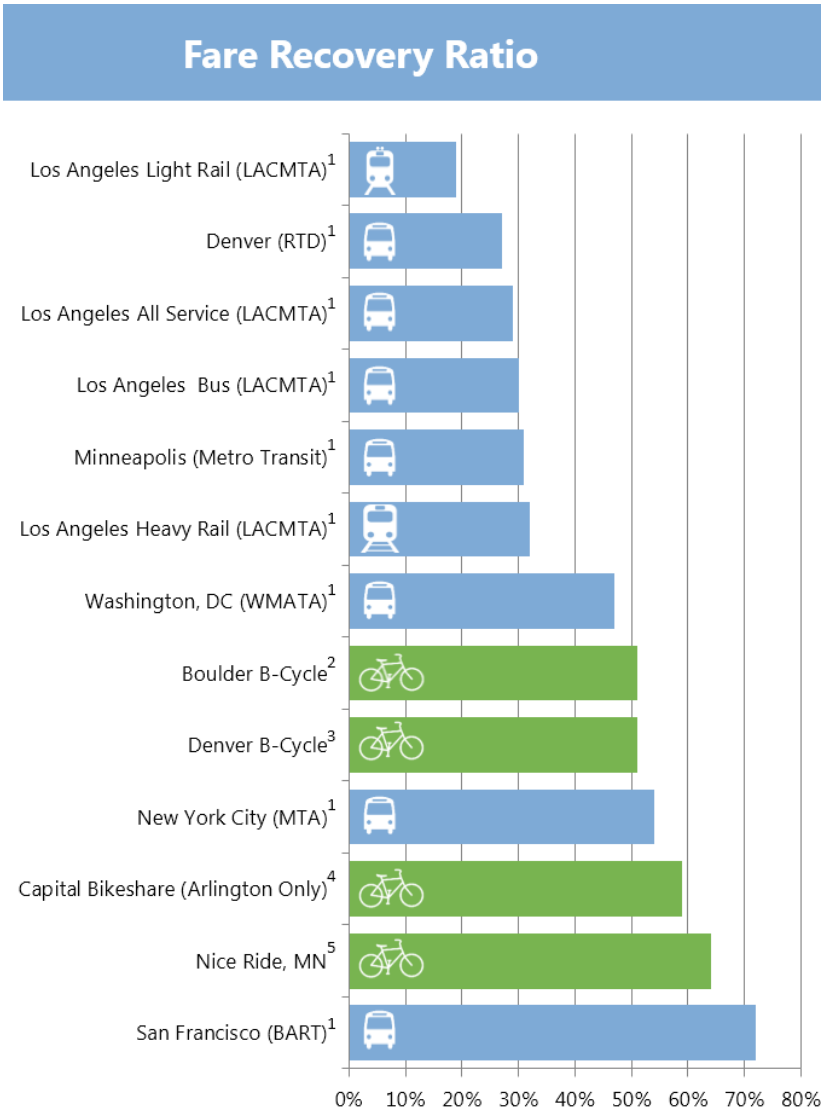


Figure 1 – Fare Recovery Ratios of Major Transit Systems

Integrated means that bikeshare is an integrated part of the public transportation system, alongside bus and rail. An integrated bikeshare system makes Metro's bus and rail services more cost competitive by efficiently serving first- and last-mile connections, thereby reducing the time costs to passengers of transfers and long walks. Bikeshare increases capacity on trains by providing an alternative to passengers bringing their bikes on board. Bikeshare can also replace short-distance bus or rail trips, freeing seats and reducing dwell times in dense and congested areas.

Integration is also accomplished by shared branding, service area, fare media, and integrated and consistent fare structure that provide a seamless passenger experience and reinforce the multimodal connections among all of Metro's services.

Metro's *First-Last Mile Strategic Plan* seeks to "expand the reach of transit through infrastructure improvements." The document conceives of a "trip" as containing three segments: a First Mile, a Metro-provided portion, and a Last Mile (see **Figure 2**). The integration of bikeshare as a first- and last-mile solution would expand Metro's role in the trip and reduce the First Mile and Last Mile portions, likely to a distance of much less than a mile. In the lower panel of **Figure 3** a Trip could consist of a shorter First Mile walk, a Metro-provided bikeshare segment, a Metro-provided rail segment, a second Metro-provided bikeshare segment, and a shorter Last Mile walk.

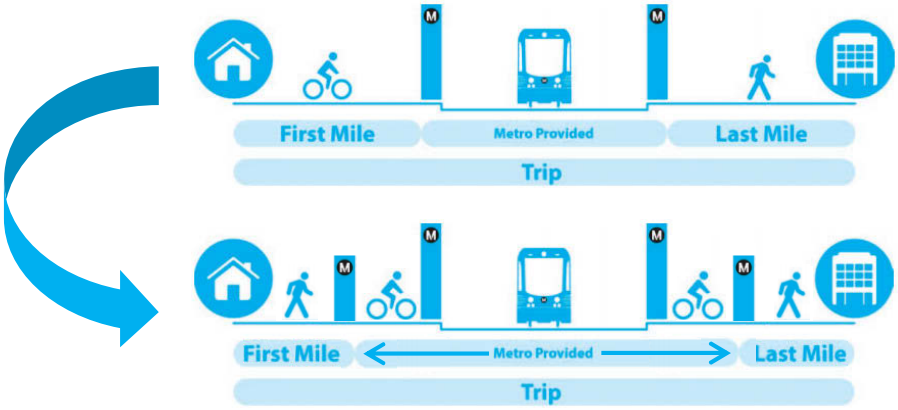


Figure 2 – Bikeshare Serving the First and Last Mile

(Image source: Metro First-Last Mile Strategic Plan)

Bikeshare can also serve as Metro's entire role in the Trip:

Figure 3 – Bikeshare Serving as the Entire Metro Trip

(Image source: Metro First-Last Mile Strategic Plan)

By integrating with bus and rail transit, bikeshare can expand Metro's customer base, growing the access sheds around rail stations and bus stops (see **Figure 4**).

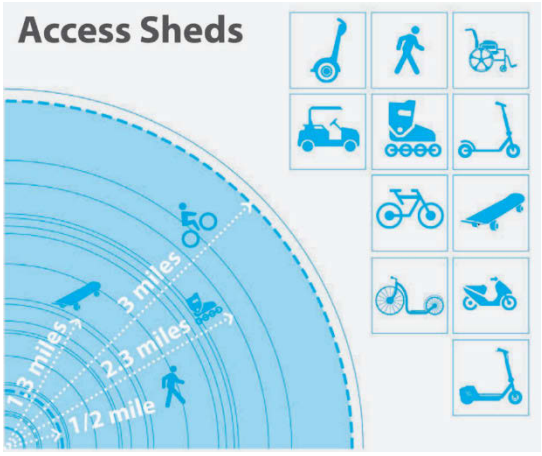


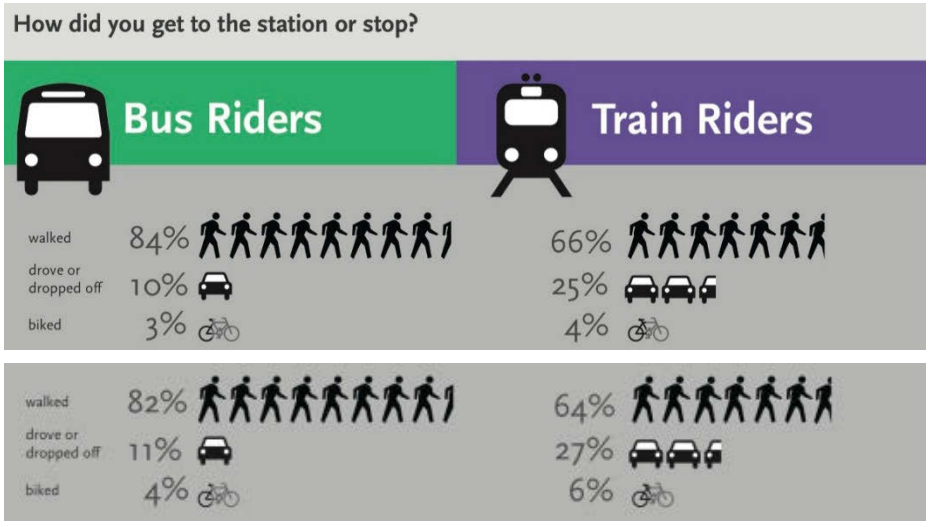
Figure 4 – Access Sheds
(Image source: Metro First-Last Mile Strategic Plan)

Bus and rail integration with bikeshare also helps Metro improve the existing passenger experience. According to Metro customer surveys conducted in 2012 and 2013, over 80 percent of bus riders and approximately two thirds of train riders arrive at their Metro station or stop by walking (see **Figure 5**); these passengers spend an average of 11 minutes walking to their station or stop. With access to bikeshare, this walk could be reduced to 5 minutes, reducing passengers' time costs and making transit more competitive with driving.[2]

For those passengers already biking to Metro's bus and rail services, bikeshare provides an option for access to a bicycle on both ends of their trip without the need to worry about locking their personal bicycles at a station or on the street and without the need for a bike to occupy extra space on transit vehicles.

Finally, some passengers currently traveling by car to begin their bus or rail trip could instead take bikeshare, reducing passenger costs for automobile operation and maintenance, reducing the burden on parents, partners, or friends who are dropping passengers off at stations, and reducing the need to allocate valuable land at Metro stations for parking.

Figure 5 – Metro Customer Survey Results



[2] http://thesource.metro.net/2012/09/19/metro-rider-survey-infographic/; http://thesource.metro.net/2013/10/30/customer-survey-results-for-2013/.

SYSTEM OVERVIEW

The Plan envisions a pilot bikeshare system of 99 stations, implemented in two phases:

- **Phase 1 (Pilot)** – 65 stations and 1,090 bikes in Downtown Los Angeles and surrounding areas, implemented in FY 15/16 and FY 16/17 (see **Figure 6**)
- **Phase 2 (Pilot)** – 34 stations and 490 bikes in Old Town Pasadena and surrounding areas, implemented in FY 17/18 (see **Figure 7**)

In addition, the Plan envisions three future expansion phases (see "Expansion Communities," below), comprising 155 stations in eight communities:

- **Phase 3** – 65 stations and 936 bikes in Westlake, Koreatown, University Park, and surrounding areas, implemented in FY 18/19
- **Phase 4** – 53 stations and 763 bikes in Hollywood, West Hollywood, and surrounding areas, implemented in FY 19/20
- **Phase 5** – 37 stations and 533 bikes in Venice, Marina del Rey, Huntington Park, North Hollywood, and East Los Angeles, implemented in FY 20/21

Appendices A and B provide maps and additional detail on the locations and quantities of stations.

The system will be led by Metro in close coordination with participating local jurisdictions and agencies ("participating jurisdiction"), each with different responsibilities as described below.

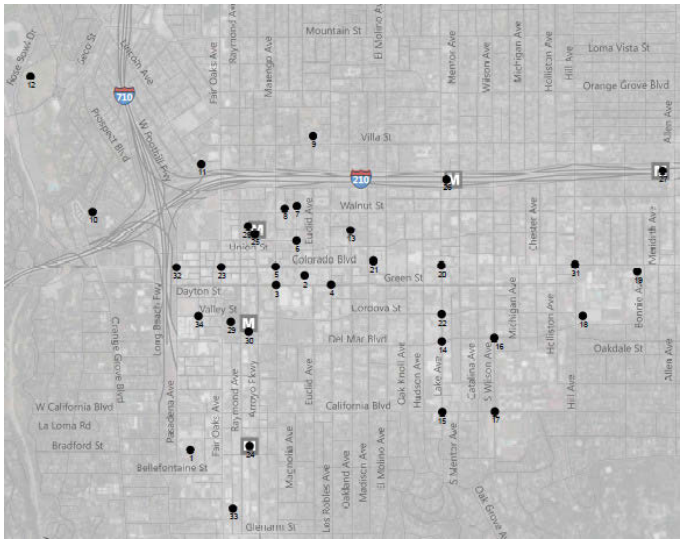


Figure 6 – Phase 1 Pilot Stations
Figure 7 – Phase 2 Pilot Stations
(not to scale)

CAPITAL OWNERSHIP

As described in Staff's January 14, 2015 report to Metro's Planning and Programming Committee, Metro will own and manage the system's equipment, including but not limited to bikes, stations, and kiosk terminals. Metro will contribute up to 50 percent of the capital cost of equipment, while participating jurisdictions will contribute the remaining share of capital costs.

OPERATIONS MODEL

Metro will manage a master operations contract with a single vendor to provide operations and maintenance for the entire regional system. As the manager of operations and maintenance, Metro may later elect to conduct a subset of operations and maintenance activities using Metro staff or other contractors to take advantage of economies of scale.

The goal is to have all parts of the regional system participate in the operation of a single system. However, Santa Monica and Long Beach already have vendors under contract, which might not align with the vendor selected for the Metro system. Metro will continue to coordinate with both jurisdictions and leave open the possibility that they will be integrated into the Regional program in the future.

FARE STRUCTURE

The Bikeshare Working Group explored several fare structures, focusing on three. The first two, called "Integrated as Metro Service" and "Integrated as Muni," attempt to integrate the bikeshare fare structure with Metro's existing fares for bus and rail transit. A third fare structure, called "Conventional," follows the format used in established bikeshare systems across the United States. The current recommendation is to pursue one of the integrated fare structures, depending on the technical capabilities of the vendor and Metro's TAP department.

There is flexibility to transition from one fare structure to another as technology allows and organizational barriers are overcome. Even if a fare structure that is fully integrated with transit fares is achieved, a parallel, conventional fare structure option may be more suitable for some users, such as tourists or other out of town visitors who only intend to use bikeshare on a short-term basis. Discounted fare programs, promotions, and other incentives can also adjust the specific fares. For example, a conventional fare structure can still provide discounts for transit riders through approaches that are less technology-intensive than full TAP integration, such as vouchers or coupons distributed on buses or in rail stations.

Integrated as Metro Service

The Integrated as Metro Service fare structure attempts to align bikeshare fares with existing fares for Metro bus and rail service to promote bikeshare as a Metro service, to encourage existing Metro transit users to use bikeshare, and to encourage new bikeshare users to ride Metro's bus and rail services.

Metro Fares As of 9/15/14	Regular	Senior 62+/ Disabled/ Medicare	College/ Vocational	Student K-12
On TAP				
1-Way Trip Includes transfers to other Metro lines for up to two hours to complete a one-way trip. Additional charges apply to ride: • Metro Silver Line • Metro Express Buses	$1.75	75¢ Peak 35¢ Off-Peak	$1.75	$1
1-Day Pass Valid for 1 day on first tap. Expires at 3am on the following day after first use. Includes: • All Metro services	$7	$2.50	–	–

Regular one-trip fares would be set at $1.75 for 30 minutes for all TAP card holders, with an additional charge of $1.75 for each additional 30-minute period. **Figure 8** illustrates the fare structure for a single bikeshare trip lasting more than 30 minutes.

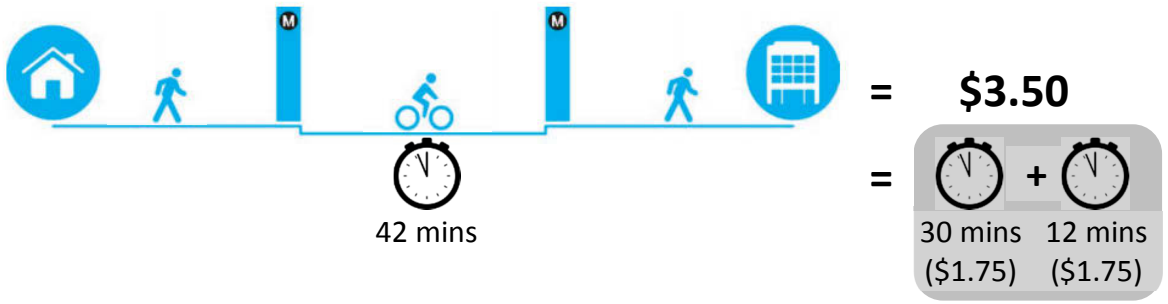


Figure 8 – Integrated Fare Structure Example

The Integrated as Metro Service fare structure takes advantage of Metro's existing infrastructure for offering reduced fares for seniors, students, and disabled passengers, helping to ensure equitable access to the bikeshare system. The fare structure also allows free transfers from a Metro bus or rail trip to bikeshare, which includes trips of up to 30 minutes each at no additional charge to complete a one-way trip within two hours. **Figure 9** illustrates an example where a passenger takes bikeshare to a rail station, disembarks at the destination end and uses bikeshare to complete the trip.

An additional charge of $1.75 for each additional 30-minute period of bikeshare use beyond the first still applies. Implementing this fare structure will require integration with the TAP card to track transit passenger transfers.

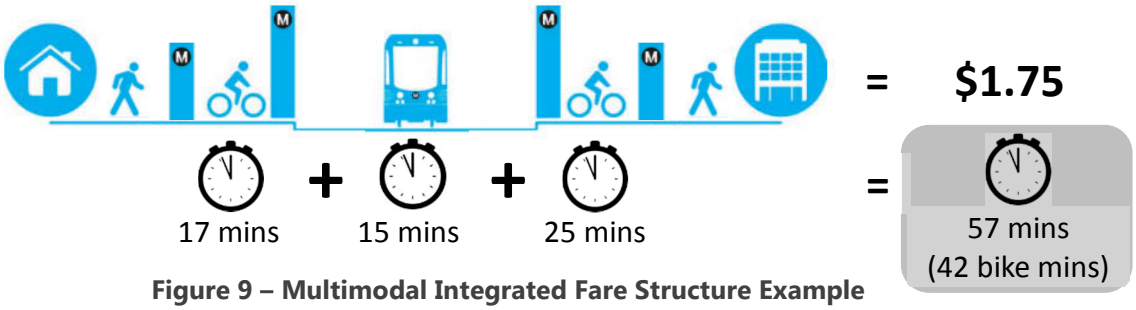


Figure 9 – Multimodal Integrated Fare Structure Example

1-Day, 7-Day, and 30-Day passes are also available through the Integrated as Metro Service fare structure using the same rates as existing passes for bus and rail, currently $7 for a 1-Day pass, $25 for a 7-Day pass, and $100 for a 30-Day pass. In addition to unlimited bus and rail trips, these passes allow an unlimited number of 30-minute bikeshare trips during the pass' active period; any bikeshare trips longer than 30 minutes will incur an additional $1.75 fee per additional 30 minutes. **Figure 10** illustrates the difference in fares with a 1-Day pass between a single bikeshare trip longer than 30 minutes and multiple trips each less than 30 minutes.

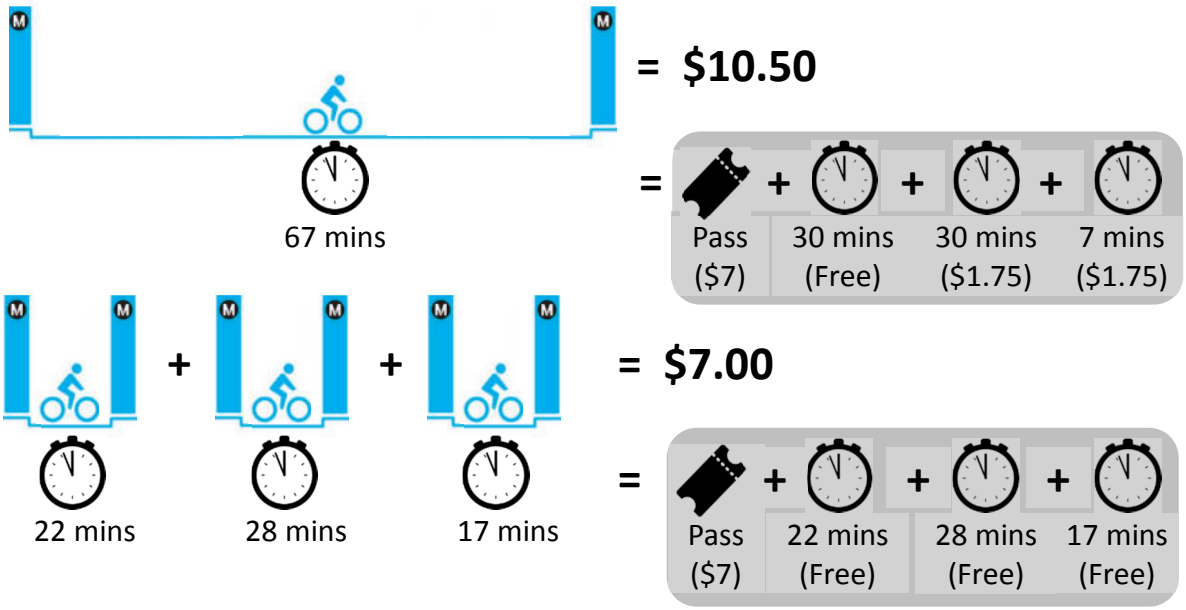
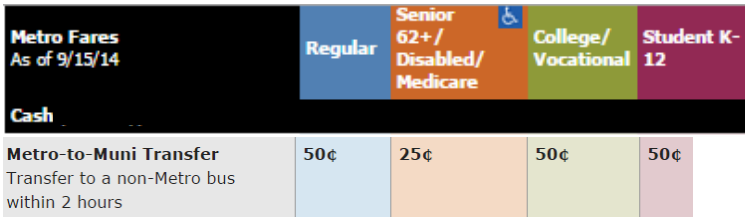


Figure 10 – Integrated Fare Example with 1-Day Pass

Bikeshare users who do not wish to purchase a TAP card connecting them with Metro bus and rail services could also purchase a conventional bike-share-only pass (described below).

Integrated as Muni

The Integrated as Muni fare structure is similar to the Integrated as Metro Service fare structure (above), except Metro bus and rail passengers with TAP cards must pay a 50-cent transfer fee to transfer from bus or rail to bikeshare (see **Figure 11**) . The transfer includes one trip up to 30 minutes in duration; trips longer than 30 minutes incur an additional fee of $1.75 per additional 30 minutes.



Metro Fares As of 9/15/14 Cash	Regular	Senior 62+/ Disabled/ Medicare	College/ Vocational	Student K-12
Metro-to-Muni Transfer Transfer to a non-Metro bus within 2 hours	50¢	25¢	50¢	50¢

Figure 11 – Existing Metro to Muni Transfer Fares

Bikeshare users who do not wish to connect to Metro bus and rail services could also purchase a conventional bike-share-only pass (described below).

Conventional

The Conventional fare structure is similar to the fare structure used in established bikeshare systems across the United States (examples from other bikeshare programs are illustrated in **Figure 12**). With this fare structure, there would be no integration with Metro bus or rail fares; bikeshare fares would be independent of other transit fares and transfers would not be included.

Once the user purchases a membership (this study assumes $7 for a 24-hour pass or $120 for an annual pass), she is allowed to make unlimited 30-minute trips within the active period of the pass. Trips longer than 30 minutes incur increasing "overtime" fees (example from CitiBike below). This study assumes an additional $1.75 fee for each 30-minute period beyond the first).

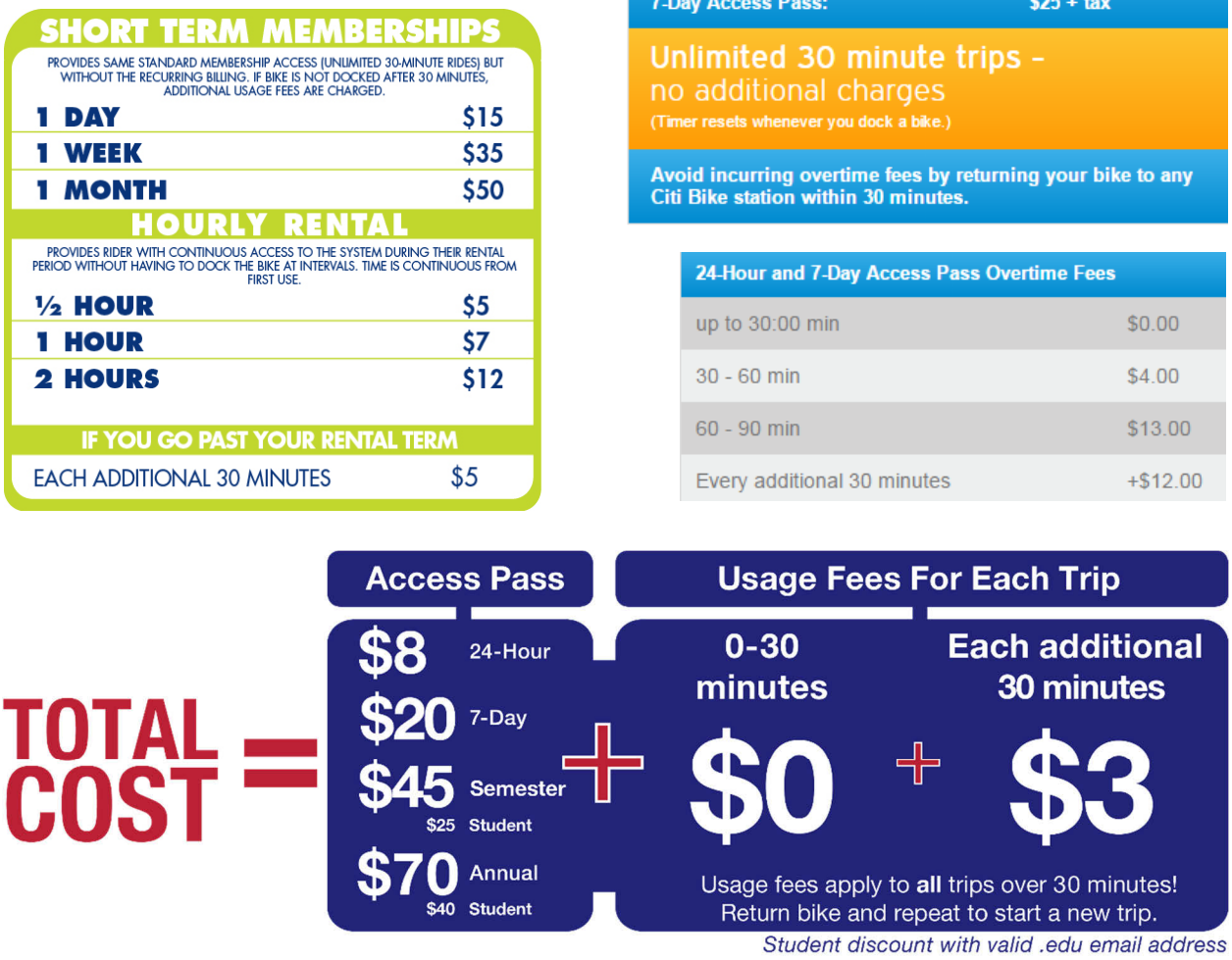


Figure 12 – Examples of Conventional Fares from DecoBike, CitiBike, and Boulder B-cycle Systems (clockwise from top left)

TAP INTEGRATION

Motivation

Integrating bikeshare fare media with the existing TAP card used for Metro's bus and rail services offers the opportunity to simplify the passenger experience, reinforce Metro branding, attract existing Metro passengers to the bikeshare system and encourage new bikeshare users to ride Metro's bus and rail services. TAP integration provides benefits to several stakeholder groups, including new and existing passengers, the bikeshare system, existing bus and transit interests, and third party TAP vendors.

A complex fare payment system can deter passengers from trying bikeshare (see **Figure 13**); creating a seamless payment system with TAP improves the passenger experience by making bikeshare use more convenient and accessible. A common payment method also allows passengers integrated use of bikeshare, bus, and rail transit across jurisdictional boundaries.

The bikeshare system itself benefits in multiple ways. First, providing a seamless user experience increases system ridership.[3] Second, TAP integration provides access to an extensive existing distribution network of Ticket Vending Machines (TVM) at Metro Rail stations and to over 500 Third Party Vendors (TPV) that would be costly for the bikeshare system alone to replicate. This network allows Metro's bikeshare program to connect with a

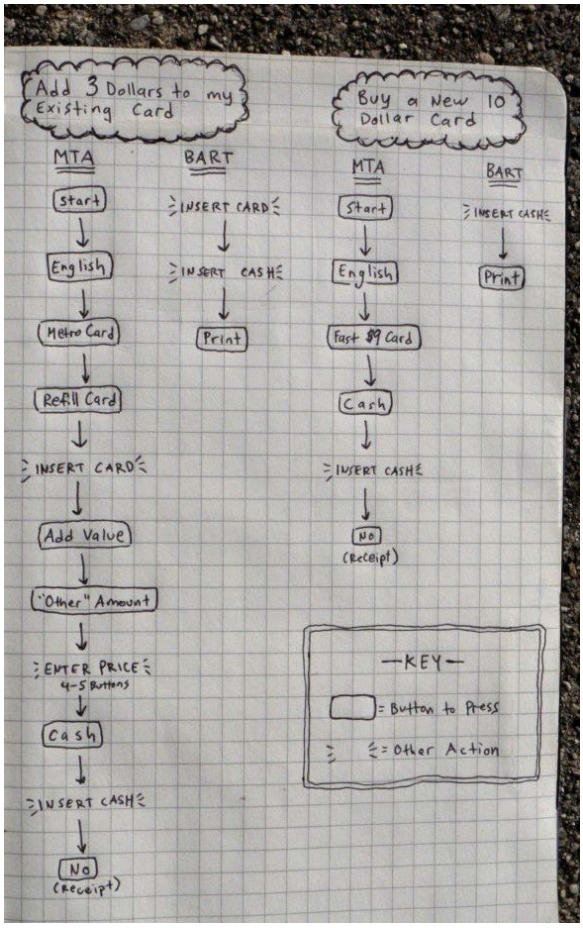


Figure 13 – User impression of fare machine experiences in New York City and San Francisco

[3] Transit Cooperative Research Program (TCRP) Report 95 found that in Cincinnati, most transit passs holders cited convenience as the major factor in their purchase decision; 11 percent of purchasers purchased a pass despite the pass not offering any cost savings for their existing level of transit use (p. 12-23). In Atlanta, cost savings was the most important factor for 56 percent of respondents, but 42 percent of respondents listed convenience-related answers, such as no need for cash, easier boarding, once-a-month payments, and easier transfers, as the primary reason for purchasing a pass.

population of lower-income, transit-dependent riders that other bikeshare systems have had difficulty reaching.

Existing bus and rail transit interests also benefit from bringing bus and rail access to the fingertips of bikeshare users who may not otherwise consider using bus and rail transit. TAP integration improves the potential for increased bus and rail transit ridership for Metro and Municipal transit agencies in areas where bikeshare is deployed. Integrated revenue collection also offers the potential to increase system-wide fare recovery as the Regional Bikeshare System expands (see **Figure 1**, above).

Third party TAP vendors gain additional foot traffic from a new demographic of users: bikeshare users tend to be younger and higher-income than bus and rail transit riders. This benefit may also help Metro attract and retain third party vendors.

Integration Needs

The main goal of TAP integration is a single fare medium that provides a seamless user experience for access to bikeshare and other transit modes. Because of the complexities of integrating with Metro's existing TAP card infrastructure, this section presents three potential approaches: "Real Time" integration, "Delayed Reconciliation," and "Minimal Integration." Variations of these approaches could also achieve varying degrees of integration as technology and organizational processes allow.

For both the Integrated as Metro Service and Integrated as Muni fare structures (described above), real time data integration between bikeshare and the existing TAP system would provide the best user experience and flexibility for system management. However, because this level of integration is likely to be complex and costly, a "delayed reconciliation" approach that requires only daily or weekly data sharing could also be considered.

A third "Minimal Integration" model, in which the TAP card is used as a unique user identifier only, is possible. To users, this model is integrated only in the sense that users use the TAP card as a link to a separate bikeshare account. The fare structure could not be fully integrated because transfer information about bus and rail trips would not be available; mutual benefits to bus, rail, and bikeshare transit would be minimal. Implementation of fare structure and payments would be handled entirely by the bikeshare operator.

The following sections describe in more detail the basic functionality necessary to achieve the desired level of TAP integration. However, a bikeshare system that achieves some integration benefits could be implemented with a subset of the TAP functionality described. Common elements to any approach are described first, followed by options for Real Time Data, Delayed Reconciliation, and Minimal Integration.

Common Functionality

Regardless of the level of integration, users will need to be able to purchase TAP cards. With integration, bikeshare users can use Metro's existing TAP card vending infrastructure. Substantial changes to the

vending infrastructure to accommodate bikeshare are not anticipated. Users who already have TAP cards can use them. Users who do not yet have TAP cards can purchase new TAP cards Online (http://taptogo.net/tap/locator/); from a TVM, located in all Metro Rail stations; from one of over 500 TPVs; or from a Metro Customer Center. Bikeshare could provide new opportunities for TAP card vending from bikeshare kiosks or from new TVMs located near selected bikeshare kiosks.

Users will also need to register for the bikeshare program to provide accountability for the checked out bikes and allow for payment processing. Bikeshare users will register their membership with the bikeshare operator and provide a credit card number that can be charged in the event of theft or damage to the Metro bike. In some options, the credit card number can also be charged to pay fares or "extended use fees" (see below). Users' TAP stored value will not be used to pay fares or fees. Users can register their TAP cards for use on the bikeshare system by the 16-digit number that already uniquely identifies each TAP card. Users can register online through the program's website or on a mobile app; both channels could be managed by the bikeshare operator. If technological barriers can be addressed, users could also sign up for bikeshare at Metro's network of TVMs.

Real Time Data Integration

First, users will need to purchase a 1-Day, 7-Day, or 30-Day pass on TAP. Changes to the process currently in place for purchasing a TAP pass are not anticipated. Users can purchase passes at TAP Vending Machines, at Metro Customer Centers, from Third Party Vendors, online (http://taptogo.net/replenish.php), or by phone (1-866-TAPTOGO).

Figure 14 – Metro Bus and Rail TAP Validators
http://www.metro.net/riding/fares/check-tap-cards-expiration-date/

Users will then need to activate the purchased pass. One option currently available to accomplish this is by tapping it on a Bus or Rail TAP validator. Users would first tap their TAP card on a bus or rail TAP validator to activate a new pass (see **Figure 14**). With this approach, there is the possibility for significant confusion among new users who might not intuit the need to take a bus or rail trip before using bikeshare, reduced adoption of bikeshare, and an increased volume of customer service issues; however there would not be a need for changes to the process currently in place for activating a TAP pass.

A second option for activating the purchased pass is to enable activation of passes for use on bikeshare terminals regardless of whether or not they have previously been used at a bus or rail validator. Bikeshare terminals could be either kiosks located at each station, devices located on each Metro Bike, or both. Passes that have been previously used on bus or rail would already be active for use on bikeshare as well. There are at least two potential options for activating passes for bikeshare use without previous use on bus or rail. First, Metro's TVMs are equipped with TAP validators for loading new passes or stored value onto TAP cards (see **Figure 15**). TVMs could be configured with a new option to activate a previously-purchased pass, avoiding the need to activate passes at bikeshare terminals. Alternatively, users could tap their TAP cards to validators located at each bikeshare terminal. Just as with bus or rail, the first tap would activate the pass, provided another pass is not already active.

Figure 15 – Metro TVM with TAP Validator
http://walknridela.com/wordpress/wp-content/uploads/2010/06/MTATVM23.jpg

Next, the system will need to initiate a bikeshare trip. The user taps the TAP card to the validator on the bikeshare terminal. The validator needs to (1) read the unique identifier of the TAP card, which has already been linked to a unique bikeshare user during the registration step (above) and (2) read whether or not the TAP card is carrying an activated pass. With this information the bikeshare operator's software will release the bike to the user and begin tracking the trip. If the user has an activated pass, there will be no initial charge; otherwise, the user's credit card will be charged as needed.

When the user returns the bike to a designated station or, in the case of a "smart bike" system, locks the bike and ends the trip with a mobile app or on-bike button, the bikeshare operator's software will close the trip record, recording, among other details, the duration of the bikeshare trip. Based on the duration of the trip, the bikeshare operator will charge the user's credit card an Extended Use Fee for trips lasting longer than 30 minutes. The need for additional TAP functionality is not anticipated in this step.

As an optional final step, the TAP system can be used to reconcile user charges and allocate revenue to bikeshare, bus, and rail, as appropriate (see "Revenue Allocation," below). At the end of an agreed-upon period (e.g., monthly, quarterly, annually), Metro staff will reconcile the revenue collected from pass sales based on how the pass is used. The bikeshare operator will provide a data set with trip records for each unique user (identified by the 16-digit TAP card number). Metro staff (or an embedded bikeshare operator employee under Metro supervision) will then join these records to Metro's records of each user's revenue from passes purchased and trips taken on bus and rail. Revenue from each user's pass purchases will then be allocated according to the number of trips taken on bus, rail, and bikeshare.

Delayed Reconciliation

The Delayed Reconciliation approach is similar to the Real Time Data Integration approach (see above), but introduces a lag in user billing because of the need for additional processing. When initiating the bikeshare trip the validator only needs to read the unique identifier of the TAP card. This information will

be stored with a timestamp for later comparison. At the end of an agreed-upon period (daily or weekly), the bikeshare operator will provide a data set with trip records for each unique user (identified by the 16-digit TAP card number). Metro Staff (or an embedded bikeshare operator employee under Metro supervision) will join these records to Metro's records of each user's pass purchase history to determine whether each trip was covered by an active pass. The bikeshare operator will charge the user's registered credit card for any trips not covered by a pass as Walk-Up trips.

Minimal Integration

The TAP card will be used as a "key" or unique user identifier only. The bikeshare terminal (kiosk or bike) only needs to be able to read the TAP card's unique identifier. Memberships and fare structures for bikeshare will be completely separate from bus and rail, and all back-end system functions will be handled by the bikeshare operator.

Funding

Initial conversations with Metro's TAP department suggest that integrating bikeshare with TAP can be costly and complex. To the extent possible, Metro should require the selected bikeshare vendor to make its hardware and payments system compatible with existing TAP infrastructure. To the extent that Metro will need to adjust its infrastructure to interface with bikeshare, it should consider the benefits to the overall mission of the organization of integrating bikeshare with bus and rail when deciding on a level of financial and staff support for implementing TAP integration changes. External funding sources may also be available to support the transition: PeopleForBikes is administering grant funding to bikeshare operators, cities, and local nonprofits to develop and implement strategies that increase bikeshare in underserved communities.[4] Integrating bikeshare with TAP and with bus and rail transit leverages existing equity-focused fare structures and provides new transportation opportunity for underserved communities. Active Transportation Program (ATP), Transportation Investment Generating Economic Recovery (TIGER), and Metro ExpressLanes funding could also be used to offset costs.

Metro's Mission

Metro is responsible for the continuous improvement of an efficient and effective transportation system for Los Angeles County.

MOBILITY HUBS COORDINATION

Funded via a grant from the Federal Transit Administration's Jobs Access Reverse Commute (JARC) program, the Mobility Hubs project may provide integrated bikeshare, carshare, secure bike parking systems and jitney services at strategic locations throughout Downtown Los Angeles, Hollywood and Long Beach. The Mobility Hubs project could also include a guaranteed ride home program, an

[4] http://www.peopleforbikes.org/blog/entry/bike-share-isnt-equitable-lets-change-that

integrated transit pass with Mobility Hub service, and a centralized, online trip planning and reservation system. With a purpose of providing enhanced mobility access and options for eligible low income individuals seeking access to jobs and job-related opportunities (see **Figure 16**), JARC explicitly requires that related funding and implementation of the Mobility Hubs be driven intentionally and explicitly for eligible low-income individuals seeking access to jobs and job-related opportunities.

The selected Metro Countywide Bikeshare vendor will be required to coordinate with the participating jurisdiction and selected vendor(s) of the future Mobility Hubs project to implement, operate and maintain bikeshare station locations. The Mobility Hubs Operating Plan envisions advancing the Hollywood project sooner than is currently anticipated in the Bikeshare Implementation Plan. To effectuate this, Metro, the City of Los Angeles and the selected bikeshare vendor will coordinate and evaluate feasible strategies to advance Hollywood implementation.

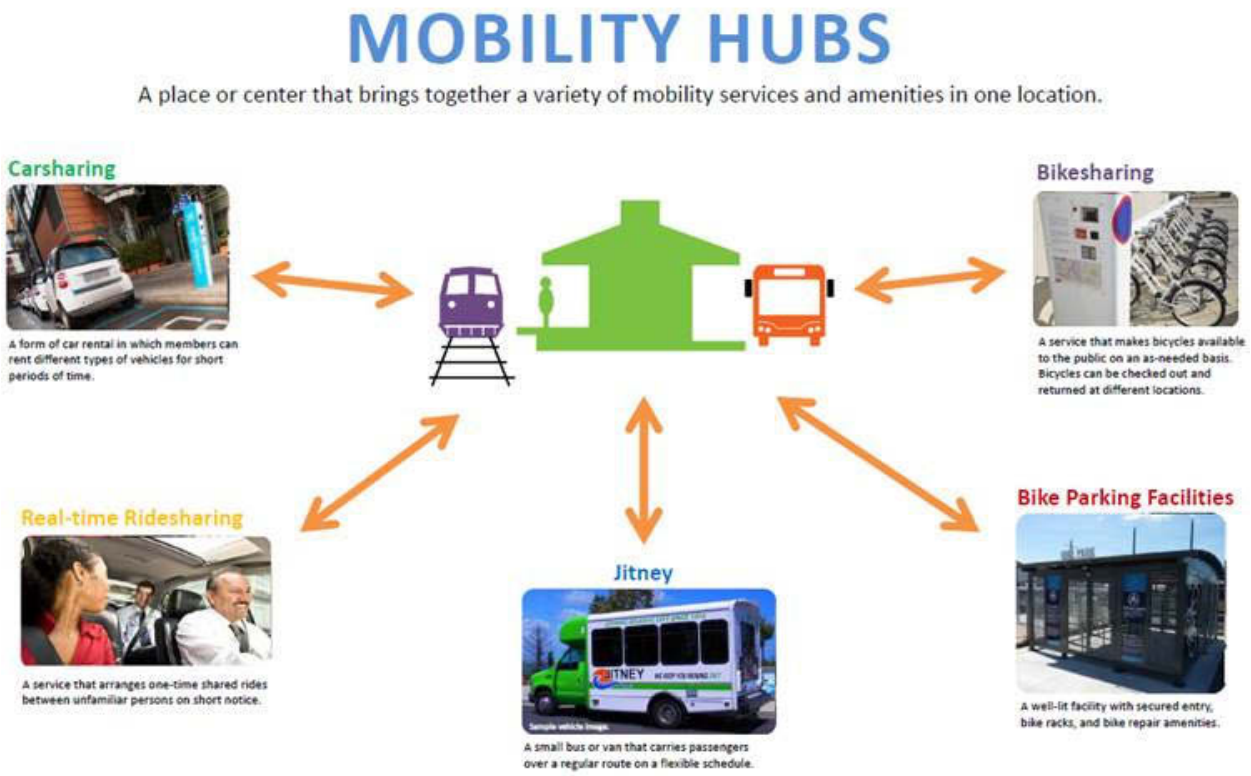


Figure 16 – Mobility Hub Concept Diagram
Needs Assessment Study and Operating Plan for the Los Angeles/ Long Beach Integrated Mobility Hubs Project, funded by JARC

EQUITY

Bicycling in general and bike sharing in particular have historically struggled to attract lower-income individuals and people of color.[5] African-Americans have significantly lower levels of self-reported bicycle use than the general population, and low-income and non-white households are estimated to have significantly lower rates of bicycle ownership.[6] By providing low-cost access to bicycles, bikeshare could help reduce barriers to bicycling and encourage bike use in historically underserved communities. In Washington, D.C., bikeshare users reported significantly lower income than the general cycling population, suggesting that Capital Bikeshare might expand bike access to some lower-income cyclists. Nevertheless, African-Americans make up only 3 percent of Capital Bikeshare users and only 1 percent of Boston Hubway users, while 81 percent of Denver B-cycle users are white and only 21 percent have annual household incomes below $50,000.[7]

Lowering Barriers – Financial Access

Metro should explore multiple options for providing equitable access to bikeshare, including TAP integration and other programs for promoting access to the system.

By integrating fare structures and access through the TAP card, Metro will link the bikeshare program to a large population of transit users traditionally underserved by bikeshare programs. The integration of fares and fare media allows Metro to leverage its existing discounted fare programs for seniors 62 years and older, disabled and medicare-eligible passengers, college and vocational students, and K-12 students.

Other bikeshare systems present additional examples of programs that can be used to improve financial access for underserved communities. Capital Bikeshare has partnered with Bank on DC to offer discounted memberships and debit and credit accounts to unbanked individuals who would not otherwise have access to bikeshare;[8] the program has also reached out to the homeless and unemployed communities, providing discounted memberships to those enrolled in job training sessions.[9] NYC Bikeshare, the

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[5] Federal Highway Administration. "Bikesharing in the United States: State of the Practice and Guide to Implementation." September 2012. http://www.bicyclinginfo.org/promote/bikeshareintheus.pdf.

[6] Buck, Darren. "Encouraging Equitable Access to Public Bikesharing Systems." 22 December 2012.

[7] http://dc.streetsblog.org/2012/10/03/why-isnt-bike-share-reaching-more-low-income-people/

[8] "Capital Bikeshare Launches Bank on DC Program." 16 December 2011. http://www.capitalbikeshare.com/news/2011/12/16/1140

[9] DePillis, Lydia. "Capital Bikeshare Rolls Out Homeless Pilot." 20 March 2012. http://www.washingtoncitypaper.com/blogs/housingcomplex/2012/03/20/capital-bikeshare-rolls-out-homeless-pilot/

operator of Citi Bike, has also partnered with local housing authorities to increase access to its program.[10] New York City Housing Authority residents and select Community Development Credit Union members are eligible for discounted, $60 annual memberships (a $35 savings). Denver Bike Sharing offers free B-cycle memberships, not tied to a credit card, to Denver Housing Authority residents of buildings adjacent to B-cycle stations. Although DBS has found funding to subsidize these membership and usage fees, significant time and effort go into providing the memberships: Housing Authority staff screen applicants for eligibility and good standing and DBS staff visit sites to recruit members; staff also need to manually adjust records in the software system to exempt these users from fees. Minneapolis' Nice Ride system has eliminated the credit card hold held as a deposit, which presented a barrier to some potential users.[11] Finally, discounts for students, seniors and military are common; Denver offers discounted, $60 annual memberships (a $20 savings) to these groups.

Station Siting – Physical Access

Locating bikeshare stations in communities disproportionately underrepresented in bicycling can improve their mobility by providing affordable access to bicycles. Ensuring that stations are placed near neighborhoods and transit lines that low-income riders use will increase the likelihood that they can integrate the system into their regular travel. Siting stations near neighborhoods with transit dependent residents, affordable housing, public transit lines, and off-campus college housing can serve additional users who do not have regular access to a car or bike. Beyond providing stations to improve equity in targeted neighborhoods, the program should also ensure that these stations are well-connected to the rest of the system and provide a diverse range of trip-making opportunities for community members.

For the stations located in Downtown Los Angeles, Metro performed an analysis of the share of minority population within a quarter-mile and half-mile radius of the bike share stations. These percentages were then compared against the Los Angeles County average (see **Table 1**). The analysis shows that the areas within walking distance of the proposed demonstration stations have a higher minority share of residents than the County as a whole. Thus, there is no disproportionate burden imposed upon minority residents by the location of the Downtown Los Angeles stations.

Metro performed a similar analysis for the share of population in poverty (see **Table 2**). The analysis shows a higher percentage of households in poverty within walking distance of the proposed demonstration program stations than for the County as a whole. Thus, there is no disproportionate burden imposed upon households in poverty by the location of the Downtown Los Angeles stations.

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[10] Schmitt, Angie. "Why Isn't Bike-Share Reaching More Low-Income People?" 3 October 2012. http://dc.streetsblog.org/2012/10/03/why-isnt-bike-share-reaching-more-low-income-people/

[11] "Frequently Asked Questions: What about low income New Yorkers?" http://citibikenyc.com/faq#_What_about_low_income

TABLE 1 – MINORITY ANALYSIS			
Analysis Area	**Population**	**Minority Population**	**Minority Population %**
Quarter-Mile Buffer	129,312	103,334	79.9%
Half-Mile Buffer	197,602	168,243	85.1%
Los Angeles County	9,818,605	6,869,996	70.0%
Note: Data aggregated from Census Block level.			

TABLE 2 – POVERTY ANALYSIS			
Analysis Area	**Population**	**Poverty Population**	**Poverty Population %**
Quarter-Mile Buffer	127,618	54,559	42.8%
Half-Mile Buffer	186,883	76,627	41.0%
Los Angeles County	9,604,871	1,508,618	15.7%
Note: Data aggregated from Census Tract level.			

Marketing and Outreach – Information Access

New bikeshare systems typically benefit from lots of mainstream press, but reaching broader communities may be more difficult. Only eight of twenty surveyed operators reported current or planned community-specific outreach efforts; of those that did, several indicate targeted outreach through affordable housing authorities, churches, and community-based organizations.[12] Partnerships with community organizations can help users learn to use bikeshare, ride a bike in traffic, and choose comfortable and convenient biking routes. Partnerships with large employers and unions for awareness building and membership discounts can help to reach service industry workers. Promotional materials in multiple languages can help to reach a wide range of communities. While marketing to diverse communities is important, it is also essential to ensure that these populations have physical and financial access to the bikeshare system, so that marketing efforts can attract new members and new trips.

[12] Buck, Darren. "Encouraging Equitable Access to Public Bikesharing Systems." 22 December 2012.

An Ongoing Effort

Reaching historically underserved communities will require continued effort on the part of the bikeshare operator. Metro should consider employing a broad range of strategies to engage potential bikeshare users and develop a ridership base that reflects the population of Los Angeles County.

OPERATIONS FUNDING

Per Board direction, Metro will provide up to 35 percent of operating costs. The Bikeshare Working Group considered two approaches to calculating Metro's contribution: "Gross" and "Net."

Under the Gross approach, Metro provides up to 35 percent of total operating costs, while participating jurisdictions cover any shortfall between the system's operating revenues (user memberships and fares) plus Metro's 35 percent contribution and the total operating cost of the system. If the system's operating revenues exceed 65 percent of total operating costs, Metro's contribution will be less than 35 percent, and participating jurisdictions will pay nothing. If the system's operating revenues exceed its total operating costs, any surplus will be split in the same proportion, with 65 percent going to the participating jurisdiction and 35 percent going to Metro. Revenues from sponsorship are not included in this calculation, but considered separately (see "Sponsorship," below). **Figure 17** illustrates the sharing of costs and revenues with the Gross approach for three scenarios, where operating revenues equal 50 percent, 70 percent, or 120 percent of the system's operating cost.

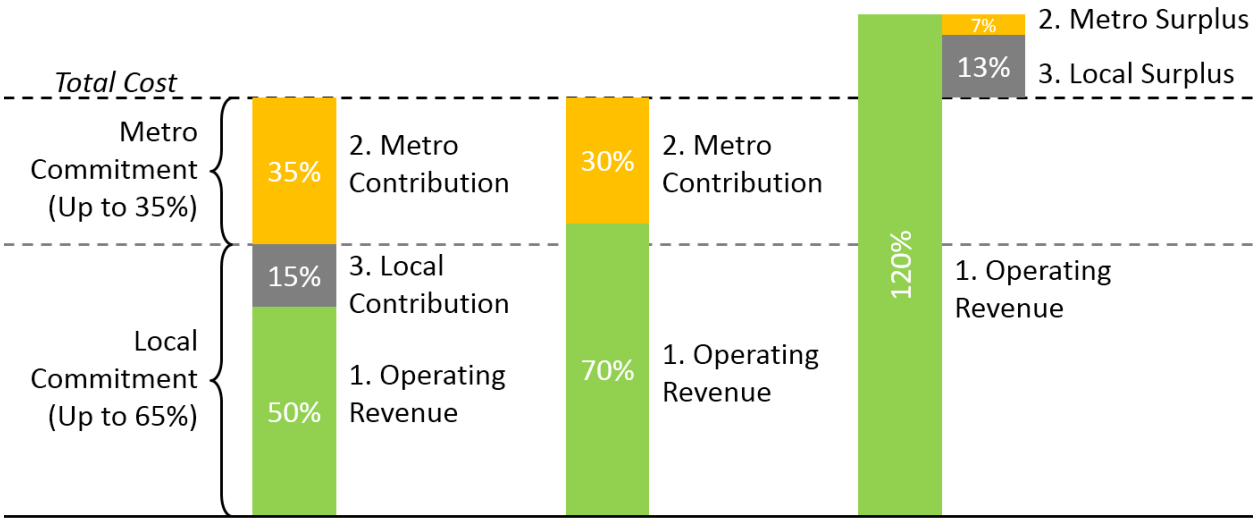


Figure 17 – Gross Operations Funding Model

Under the Net approach, system operating revenues first offset total operating costs. Metro then contributes 35 percent of the resulting shortfall, while participating jurisdictions contribute 65 percent of the shortfall. Surpluses are shared as under the Gross approach. **Figure 18** illustrates the sharing of costs and revenues with the Net approach for same three scenarios.

The current recommendation is to pursue the Net operations funding approach.

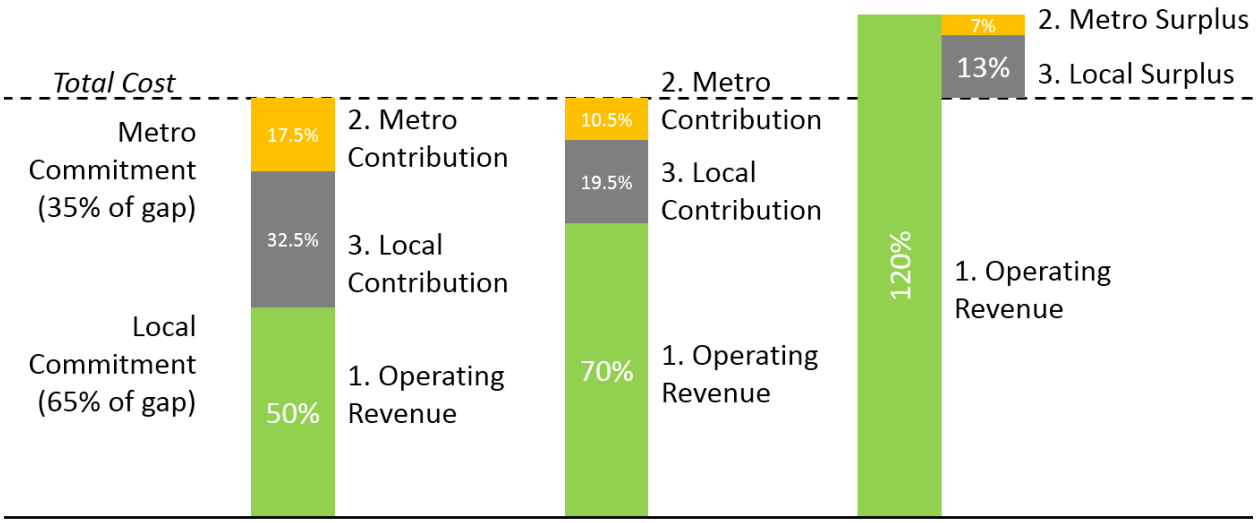


Figure 18 – Net Operations Funding Model

REVENUE ALLOCATION

To calculate the share of contributions by Metro and participating jurisdictions, revenues from bikeshare activities must be tracked separately from other Metro revenue. Given the technological and administrative complexities of full TAP integration, the initial recommendation for bikeshare revenue accounting is simplified, limiting the ability to allocate pass revenue to bikeshare. As a long-term goal, the revenue contributions of bikeshare to Metro's overall operating budget should be quantified along with its costs.

Initial Direction

With the Integrated as Metro Service fare structure, the current revenue allocation direction is for only overtime fees (for trips lasting longer than 30 minutes) and bike-share-only passes to be allocated to bikeshare.

Although a 1-Day, 7-Day or 30-Day TAP pass could be used to access bikeshare, none of the revenue from the sale of those passes would support the bikeshare program. Since the vast majority of bikeshare trips are under 30 minutes (over 91% in the Capital Bikeshare system),[13] most individual bikeshare trips would not generate any revenue for the bikeshare program. **Figure 19** illustrates an example trip in which the passenger purchases a day pass, rides bikeshare to connect to rail, takes a second bikeshare trip at the destination end, and then returns by connecting from bus to rail. The passenger spends $7 for the 1-Day pass and starts her trip. Although two of the five legs of the entire trip are made by bikeshare, all bikeshare trips segments are less than 30 minutes, so none of the collected revenue is allocated to bikeshare.

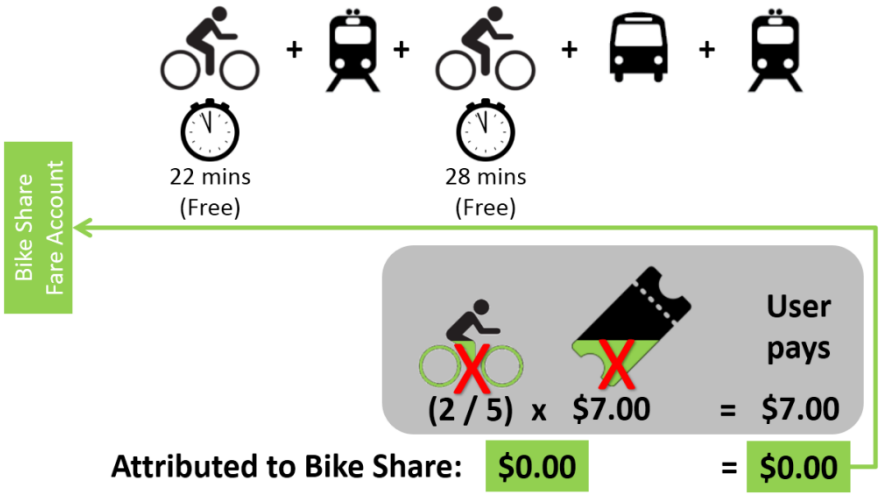


Figure 19 – Integrated-as-Metro Pass Revenue Allocation

[13] http://cabidashboard.ddot.dc.gov/cabidashboard

Revenue allocation for a single one-way trip on TAP is similar. **Figure 20** illustrates an example trip where the passenger uses bikeshare for both the first and last mile connections of the trip. He purchases a one-way trip fare for $1.75, rides bikeshare, transfers to rail, and then takes a second bikeshare trip lasting longer than 30 minutes (as noted above, bikeshare trips longer than 30 minutes are not typical). Two of the three legs of the entire trip are made by bikeshare, but none of the pass revenue is attributed to bikeshare and allocated to the Bikeshare Fare Account. Because one bikeshare leg of the trip lasted longer than 30 minutes, he also incurs an additional $1.75 charge, which is processed separately by the bikeshare operator and allocated to the Bikeshare Fare Account.

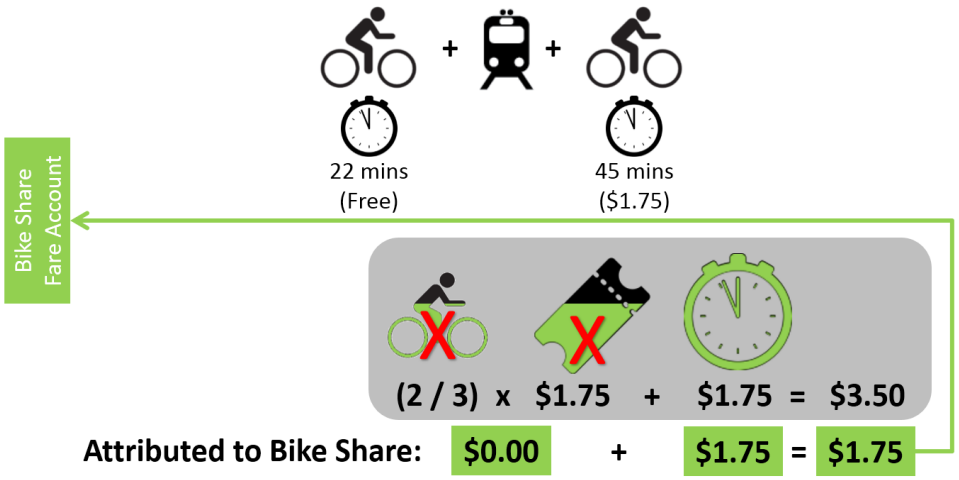


Figure 20 – Integrated-as-Metro Single Trip Revenue Allocation

The Integrated as Muni fare structure would have a similar revenue allocation, with an additional 50-cent transfer fee allocated to bikeshare. **Figure 21** illustrates the same example trip as depicted in Figure 19, in which the passenger purchases a day pass, rides bikeshare to connect to rail, takes a second bikeshare trip at the destination end, and then returns by connecting from bus to rail. The passenger spends $7 for the 1-Day pass and starts her trip on bike share, for which she pays an additional 50-cent fee. She pays a second 50-cent fee for the second bike share leg; the remaining transfers to Metro Bus and Rail are free. Only the two 50-cent fees, a total of $1.00, are allocated to the bike share account.

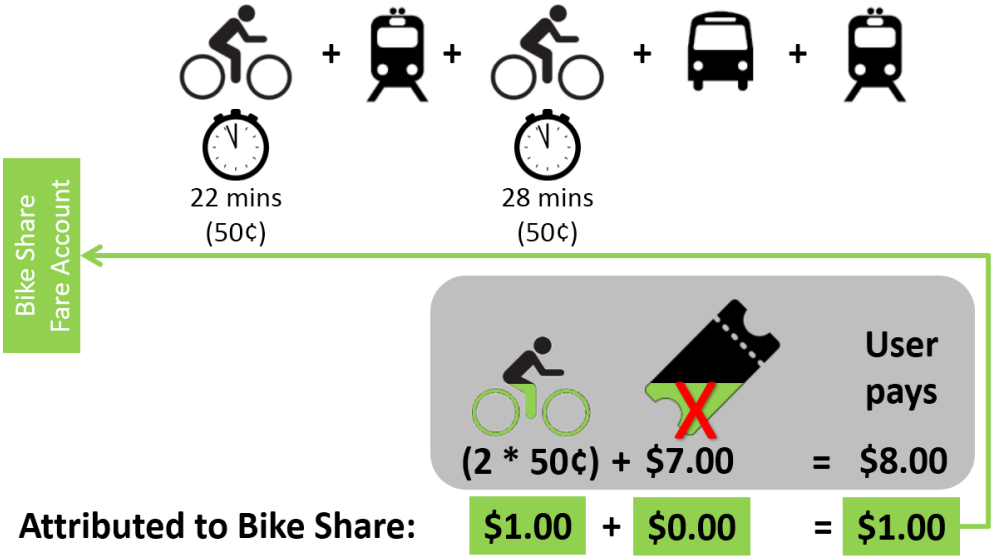


Figure 21 – Integrated-as-Muni Pass Revenue Allocation

Figure 22 illustrates the same example trip as depicted in Figure 20, where the passenger uses bikeshare for both the first and last mile connections of the trip. He purchases a one-way trip fare for $1.75, rides bikeshare, transfers to rail, and then takes a second bikeshare trip lasting longer than 30 minutes. Two of the three legs of the entire trip are made by bikeshare, so he pays two, 50-cent transfer fees, which are attributed to bikeshare and allocated to the Bikeshare Fare Account. Because one bikeshare leg of the trip lasted longer than 30 minutes, he also incurs an additional $1.75 charge, which is processed separately by the bikeshare operator and allocated to the Bikeshare Fare Account. In total, $2.75 ($1.00 in transfer fees and a $1.75 additional use fee) is allocated to the Bikeshare Fare Account.

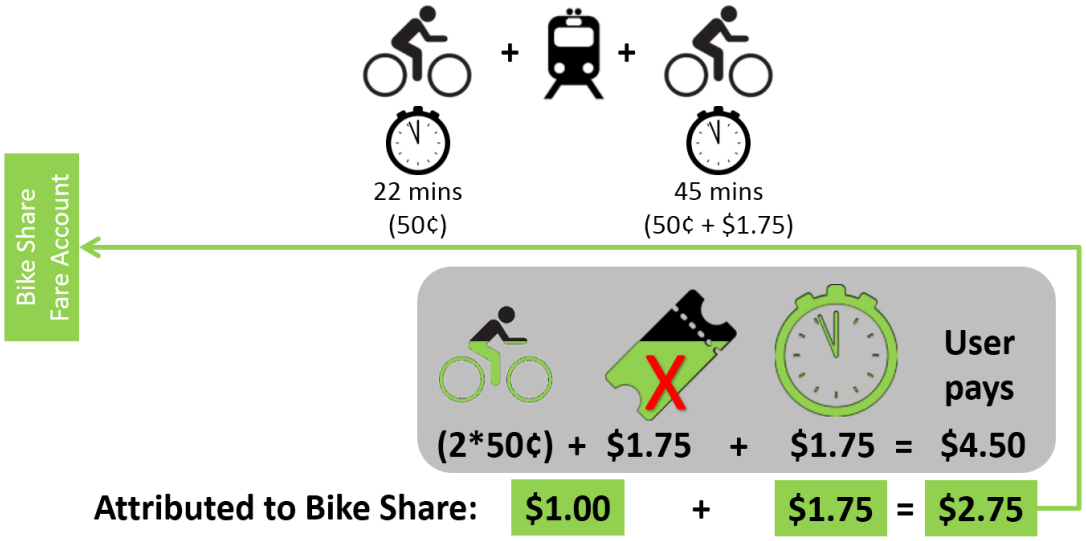


Figure 22 – Integrated-as-Muni Single Trip Revenue Allocation

Fully-Integrated Fare Structure

As technological and institutional barriers to revenue allocation are addressed, the revenue contributions of bikeshare to Metro's overall operating budget should be quantified. One concept for equitable accounting of bikeshare's portion of fare revenue is to allocate revenue in proportion to use. For 1-Day, 7-Day and 30-day TAP passes, pass revenue would be allocated by the percent of trip legs made by each mode. The portion of revenues allocated to bikeshare could be set aside in a Bikeshare Fare Account to offset bikeshare-related expenses.

Figure 23 illustrates the same example trip as depicted in Figure 19, in which the passenger purchases a day pass, rides bikeshare to connect to rail, takes a second bikeshare trip at the destination end, and then returns by connecting from bus to rail. The passenger spends $7 for the 1-Day pass and starts her trip. Two of the five legs of the entire trip are made by bikeshare, so 2/5 of the $7 pass, or $2.80, are attributed to bikeshare and allocated to the Bikeshare Fare Account. If any bikeshare leg of the trip would last longer than 30 minutes, she would incur an additional $1.75 charge for each additional 30-minute period, which would be processed separately by the bikeshare operator and allocated to the Bikeshare Fare Account.

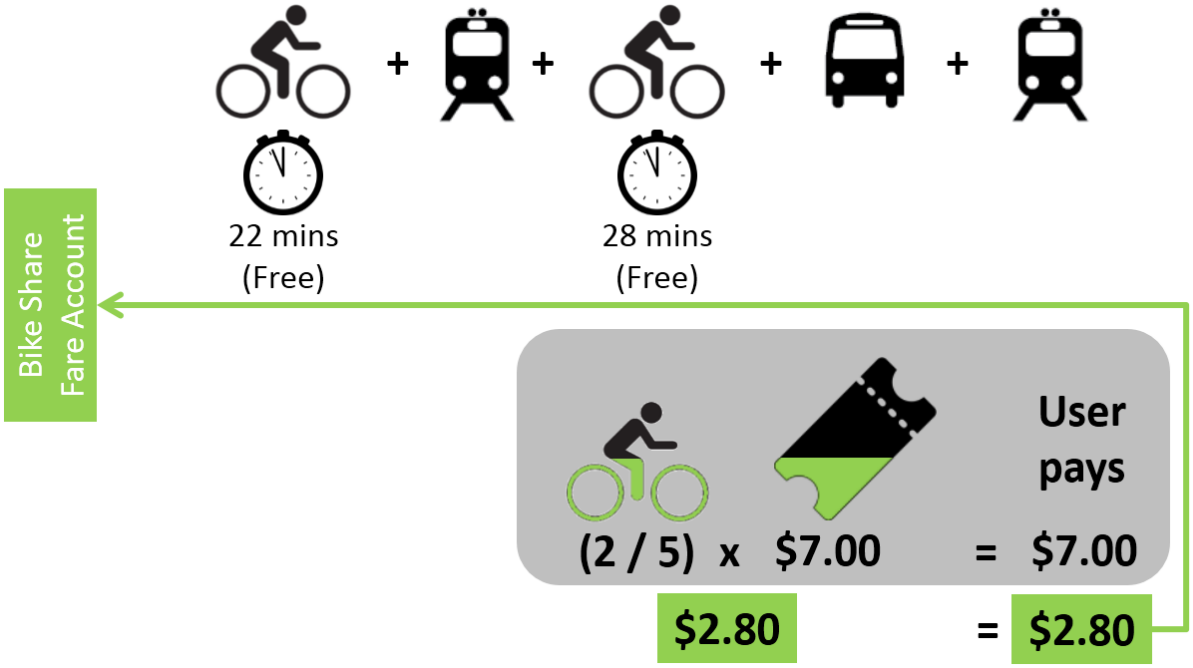


Figure 23 – Fully Integrated Pass Revenue Allocation

Revenue allocation for a single one-way trip on TAP is similar. **Figure 24** illustrates the same example trip as depicted in Figure 20, where the passenger uses bikeshare for both the first and last mile connections of the trip. He purchases a one-way trip fare for $1.75, rides bikeshare, transfers to rail, and then takes a second bikeshare trip lasting longer than 30 minutes. Two of the three legs of the entire trip are made by bikeshare, so 2/3 of the $1.75 fare, or $1.17, are attributed to bikeshare and allocated to the Bikeshare Fare Account. Because one bikeshare leg of the trip lasted longer than 30 minutes, he also incurs an additional $1.75 charge, which is processed separately by the bikeshare operator and allocated to the Bikeshare Fare Account. In total, $2.92 ($1.17 in pass revenue and a $1.75 additional use fee) is allocated to the Bikeshare Fare Account.

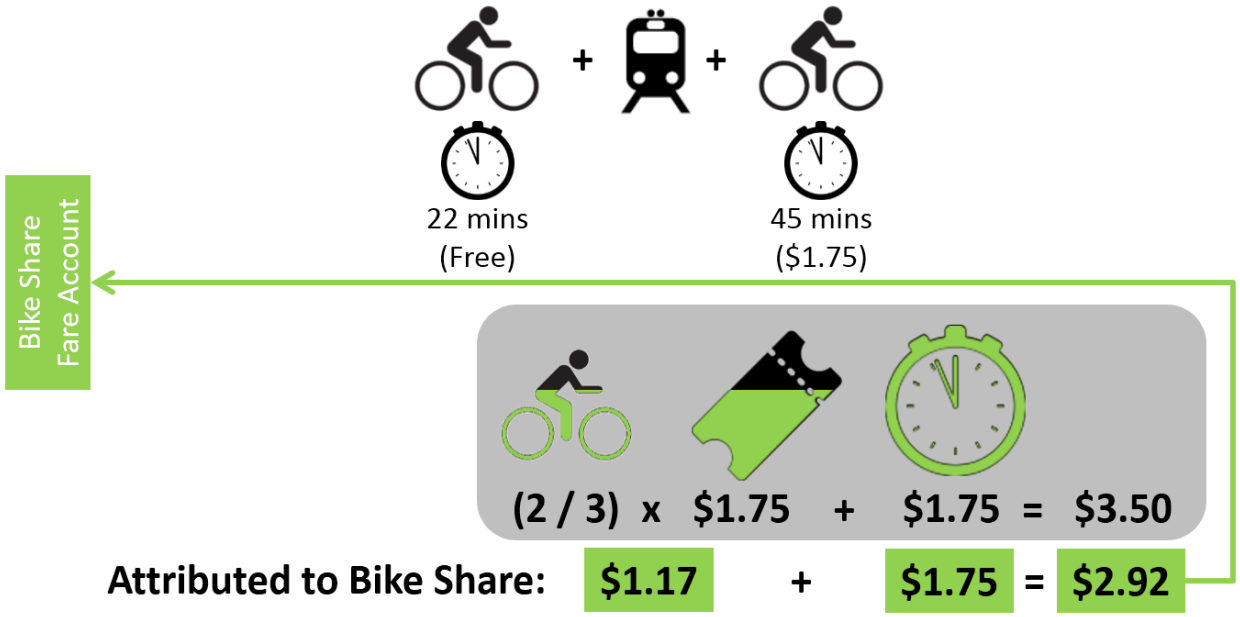


Figure 24 – Fully Integrated Single Trip Revenue Allocation

For Bikeshare Only Annual Passes, 100 percent of pass revenue and 100 percent of additional use fees are attributed to bikeshare and allocated to the Bikeshare Fare Account.

Jurisdictional Revenue Allocation

Under either revenue allocation scenario, revenues for trip fees and one-way bikeshare only fares will be divided among jurisdictions according to the location where the bike was checked out (trip origin) and membership fees for annual passes will be allocated according to the location of the signup. Membership fees from online signups not within a participating jurisdiction (as reported by the member) would be shared among all participating jurisdictions in proportion to their number of docks. As the system grows, Metro may need to revisit the policy of crediting trips by origin location to instead credit half to the check-out location and half to the check-in location if a one-direction imbalance of trips is a persistent problem.

SPONSORSHIP

Metro will pursue and manage a systemwide sponsorship contract, such as naming rights, a title sponsorship, or consistent recognition across all bikeshare equipment. Metro will also retain control over the primary on-bike branding presence. Revenues from the systemwide sponsorship contract will first be applied toward Metro's financial commitment. Any revenues that exceed Metro's commitment will be applied toward the jurisdictions' operating and maintenance share. Any sponsorship revenue beyond what is needed to offset the full operating cost of the program could be retained by Metro for future capital expansion of the program or Metro could come to an agreement with participating jurisdiction on how to dedicate revenue. Participating jurisdictions will manage local sponsors and advertising contracts, such as station-level (kiosk) sponsorships and advertisement, and retain revenue from local sponsorships. Metro will aim to provide participating jurisdictions with a secondary on-bike presence recognizing their contribution.

Because of the unique characteristics of the Los Angeles region and uncertainty about the final amount of on-bike and on-station space available for sponsor recognition, it is difficult to estimate the level of sponsorship revenue that could be expected from the Los Angeles County Regional Bikeshare program. **Table 3** provides sponsorship information from three established U.S. bikeshare systems for reference.

TABLE 3 – SPONSORSHIP EXAMPLES							
System	**Sponsorship Value**	**Years**	**Annual Value**	**Bikes**	**Annual Value / Bike**	**Stations**	**Annual Value / Station**
CitiBike Title Sponsor	$41,000,000	6	$6,833,000	6,000	$1,139	330	$20,707
NiceRide MN Title + Station Sponsors	$4,115,000	–	$1,129,000	1,550	$728	170	$6,640
Title Sponsors Only	*$2,915,000*	*4*	*$729,000*	*1,550*	*$470*	*170*	*$4,290*
Station Sponsors Only	$1,200,000	*3*	*$400,000*	*1,550*	*$258*	*170*	*$2,350*
Denver B-cycle	$1,676,000	3	$559,000	700	$798	84	$6,650

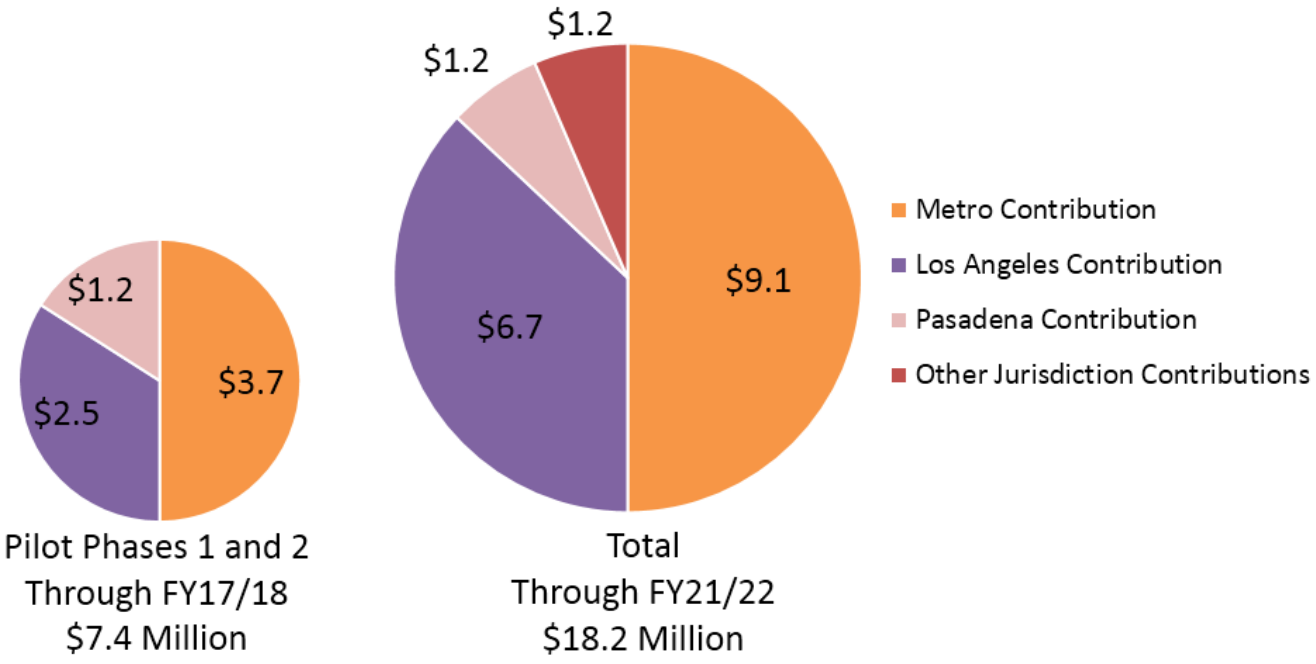
FINANCIAL ESTIMATES

Capital Contributions

Total capital costs were estimated based on Economic and Planning Systems Inc.'s case study research on Capital Bikeshare, Boulder B-Cycle, Denver B-cycle and Nice Ride Minnesota. Capital costs of $77,539 for the stations in Downtown Los Angeles, based on a 30 dock per station average, and $69,584 in other areas, based on a 25 dock per station average, were assumed. **Figure 25** illustrates the distribution of capital contributions among Metro and participating jurisdictions based on Metro's 50 percent capital contribution.

Although these capital cost estimates assume a ratio of approximately 1.8 docks per bike, the recent trend in bike share operations has been to work toward a ratio of two docks per bike to reduce the need for bike rebalancing and reduce the number of instances when all docks at a station are full. Holding the number of bikes constant and installing additional docks would result in higher capital costs. On the other hand, using smart bike hardware would reduce the need for physical docking stations and potentially reduce capital costs.

Figure 25 – Capital Contributions



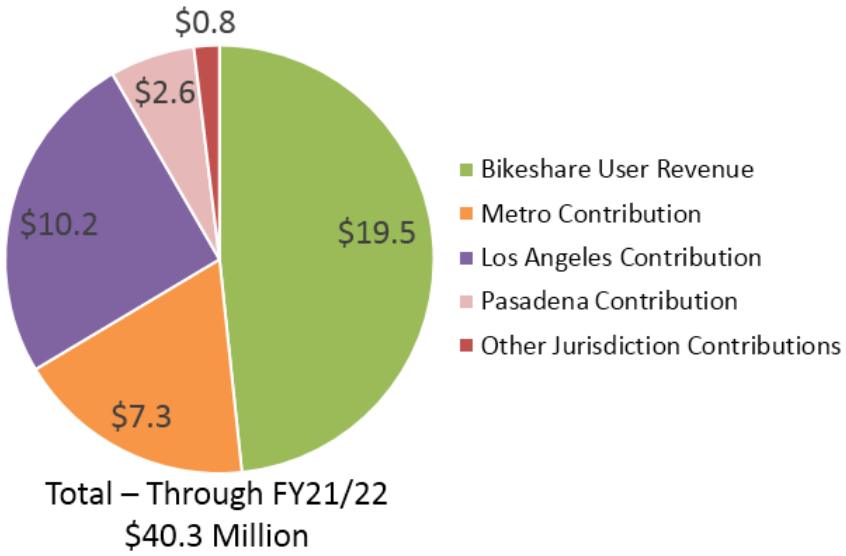
Operating Contributions

Total operating costs were also estimated from Economic and Planning Systems Inc.'s case study research. A per-bike annual operating cost of $2,900, the highest average among the systems studied, was assumed. Despite selecting the high end of the costs for studied systems currently in operation, the estimate could underrepresent actual costs Metro may face due to continued evolution of the bike share industry. As vendors who may have initially offered reduced costs gain experience and a more accurate understanding of the costs and risk of bike share operation, they are adjusting their pricing to capture the full range of costs they incur, including investments in research to advance bike share technology. Bike share operators are also facing increased pressure to provide living wages.

Based on the ridership estimates presented in Chapter 4, below, bikeshare user revenue, including a 50-cent transfer fee and $1.75 per 30 minutes extended use fee, is estimated to total $19.5 million, or approximately 48 percent of total operating cost, through FY21/22.

Figure 26 illustrates the distribution of operating cost contributions among Metro and other jurisdictions, as well as the amount covered by bikeshare user revenue before any sponsorship revenues (see next page) are taken into account.

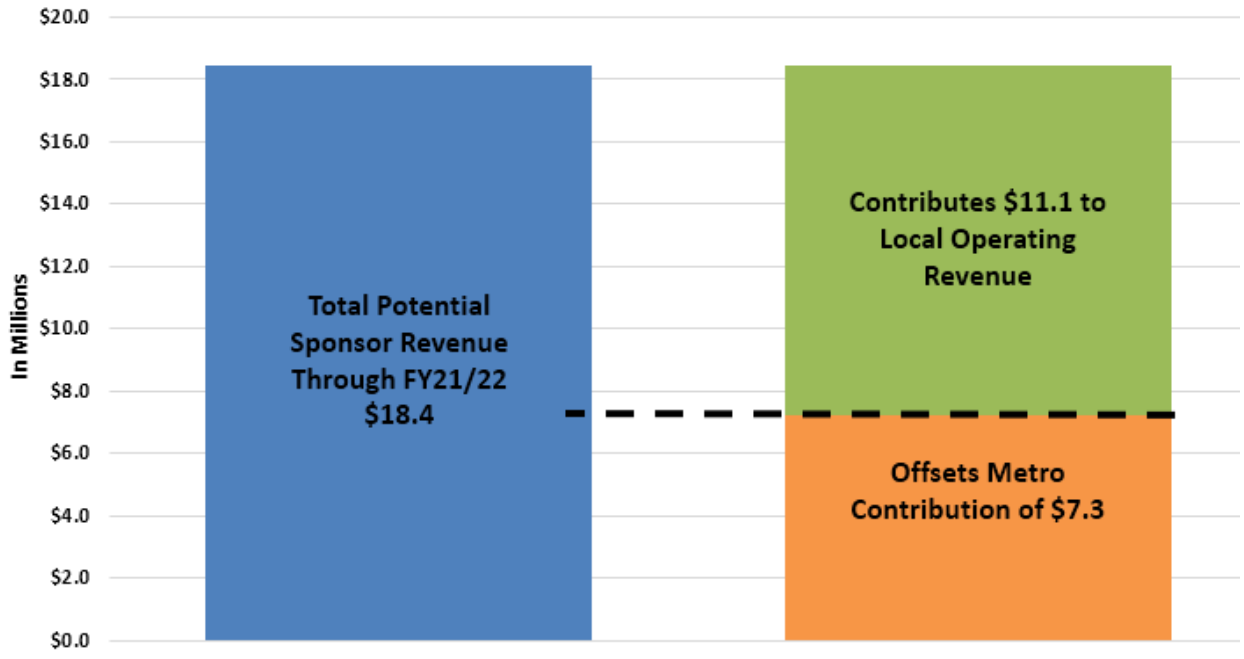
Figure 26 – Operating Contributions



Sponsorship

Although the level of sponsorship revenue that could be expected from the Los Angeles County Regional Bikeshare program is highly uncertain, data from CitiBike, Nice Ride MN, and Denver BCycle suggest that the average annual per-station value of sponsorship could be $11,300, or a total of $18.4 million through FY21/22. **Figure 27** illustrates how this revenue could offset Metro's $7.3 million operating contribution and contribute significantly to offsetting the contributions needed from participating jurisdictions.

Figure 27 – Sponsorship Revenue



BIKESHARE READINESS ANALYSIS

Fehr & Peers developed a Regional Bikeshare Suitability Index based on basic variables associated with high bikeshare ridership. Combining this index with other criteria for financial, political and community support resulted in a ranked list of potential expansion communities. Fehr & Peers then analyzed the effect of the demographic and built environment characteristics on ridership levels in four established bikeshare systems and applied the resulting regression models to estimate ridership for the network of stations proposed for Downtown Los Angeles, Pasadena, and Santa Monica. Comparing the resulting ridership level estimates with the operating characteristics of other established bikeshare systems informed recommendations for the needed number of bikes and docks to support bikeshare demand.

BIKESHARE SUITABILITY INDEX

The Bikeshare Suitability Index combines five broad factors associated with high bikeshare ridership in other major U.S. systems: housing density, population density, employment density, intersection density, and transit frequency. Based on a raster combination of these five variables, the area of Los Angeles County most suitable for bikeshare is generally the crescent of densely developed City of Los Angeles from Exposition Park and Historic South Central Los Angeles north and west through Downtown Los Angeles, Westlake, Koreatown, portions of Echo Park and Silver Lake, East Hollywood, Hollywood, and Beverly Grove/Fairfax, as well as the City of West Hollywood (see **Figure 28**). Portions of the Westside, such as Westwood, Santa Monica, Venice, and Marina del Rey, as well as South Bay cities of Manhattan Beach, Hermosa Beach and Redondo Beach also score well. Smaller clusters of suitability such as North Hollywood, Glendale, Old Town Pasadena, East Los Angeles, Huntington Park, and Downtown Long Beach could also be suitable for bikeshare.

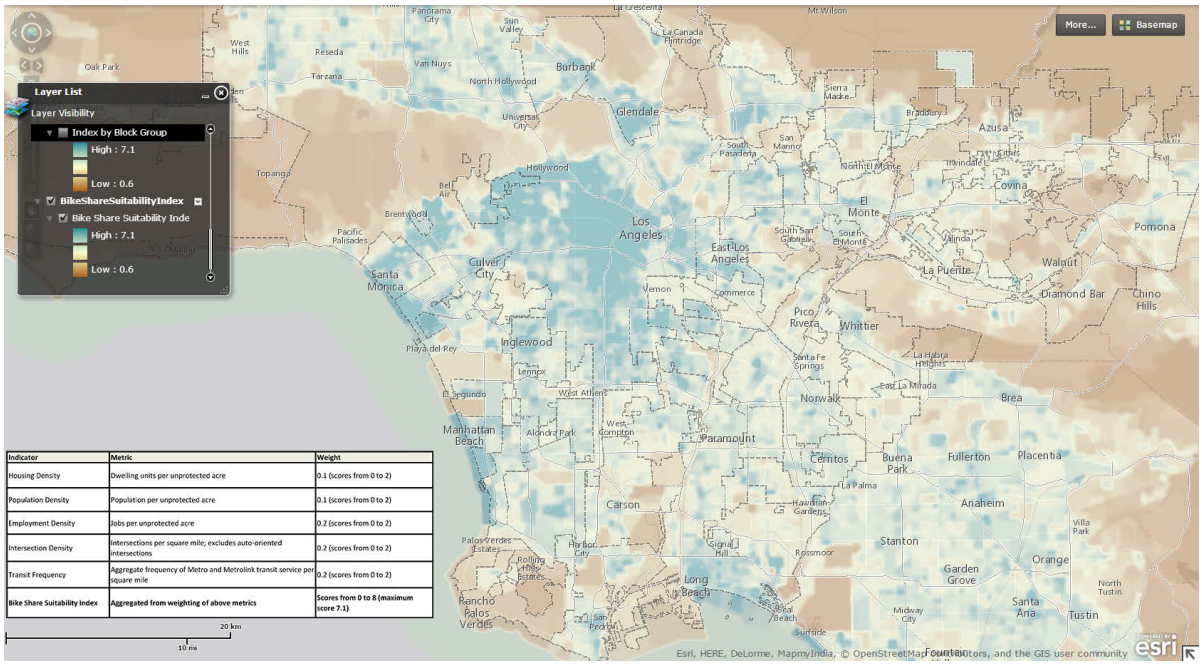


Figure 28 – Bikeshare Suitability Index Web Map

SUITABILITY COMPARISON

Los Angeles County compares favorably to other major metropolitan areas commonly considered to be less sprawling and more conducive to bikeshare. Data available for the Washington, D.C. and San Francisco Bay areas allowed for a direct comparison of the Bikeshare Suitability Index. To help in quantifying the comparisons, areas from each region that scored a 4.0 or above were selected. A quarter-mile buffer (a comfortable walking distance to access a bikeshare station) was then drawn around each high-scoring cluster. In the case of Los Angeles, these buffered areas were further subdivided into cities and communities to aid in selecting and comparing potential expansion areas (see "Expansion Communities," below). The average Suitability Index score for each area was then calculated. Because the quarter-mile buffer reaches beyond areas with a score of 4.0 or above, many area average scores are below 4.0.

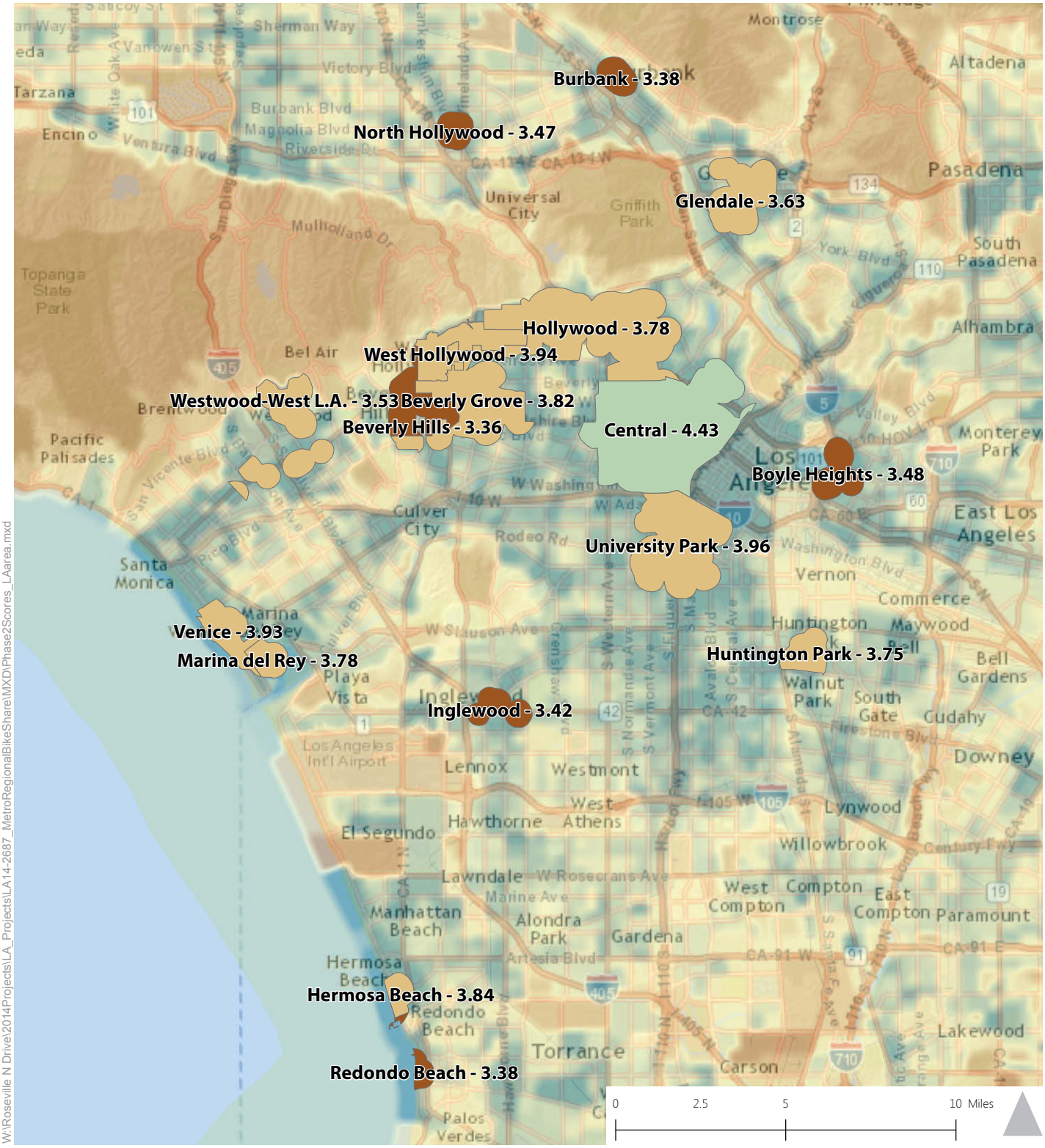
Figures 29 through 31 illustrate the results of the average Bikeshare Suitability Index calculation for these three regions.

The Central expansion community in the City of Los Angeles, which covers an area bounded roughly by the 10 Freeway to the south, Beverly Boulevard and the 101 Freeway to the north, Wilton Place to the west, and the 110 Freeway to the east, receives the highest score in the region: 4.43, which compares

favorably with the highest-scoring parts of San Francisco (4.56) and Washington, D.C. (4.12).[14] Los Angeles also features a large, continuous crescent of relatively high-scoring areas reaching from University Park through Hollywood and West Hollywood to Beverly Hills and Beverly Grove. By contrast, the San Francisco Bay's high-scoring areas, though slightly more suitable than Los Angeles', are concentrated in the City of San Francisco itself. Washington D.C.'s highest-suitability area is concentrated in the urban core of the District of Columbia with a spur to the southwest along the Rosslyn-Ballston corridor along the Orange Metrorail line in Arlington County.

Nevertheless, these two regions are operating bikeshare stations (indicated by red dots) in areas outside the very highest-scoring areas, but in areas of moderate suitability (indicated by light blue on the heat map) or even in areas of relatively low suitability. Los Angeles has large swaths of light blue area that have moderately high suitability and could suggest potential for future expansion. This analysis does not consider the extent or quality of bicycle infrastructure, which is essential for providing a safe, comfortable, and convenient place for bikeshare customers to ride. Bike infrastructure is considered in the comparison of potential expansion communities (see **Table 4**).

[14] The Phase 1 and 2 pilot areas were excluded from this analysis to concentrate on potential expansion communities.



W:\Roseville N Drive\2014Projects\LA_Projects\LA14-2687_MetroRegionalBikeShare\MXD\Phase2Scores_LAarea.mxd

Bike Share Suitability Index

High
- 4.51 - 5.00
- 4.01 - 4.50
- 3.51 - 4.00
- 3.01 - 3.50

Low
- 2.50 - 3.00

High : 7.1

Low : 0.6

Figure 29

Los Angeles
Bike Share Suitability Index

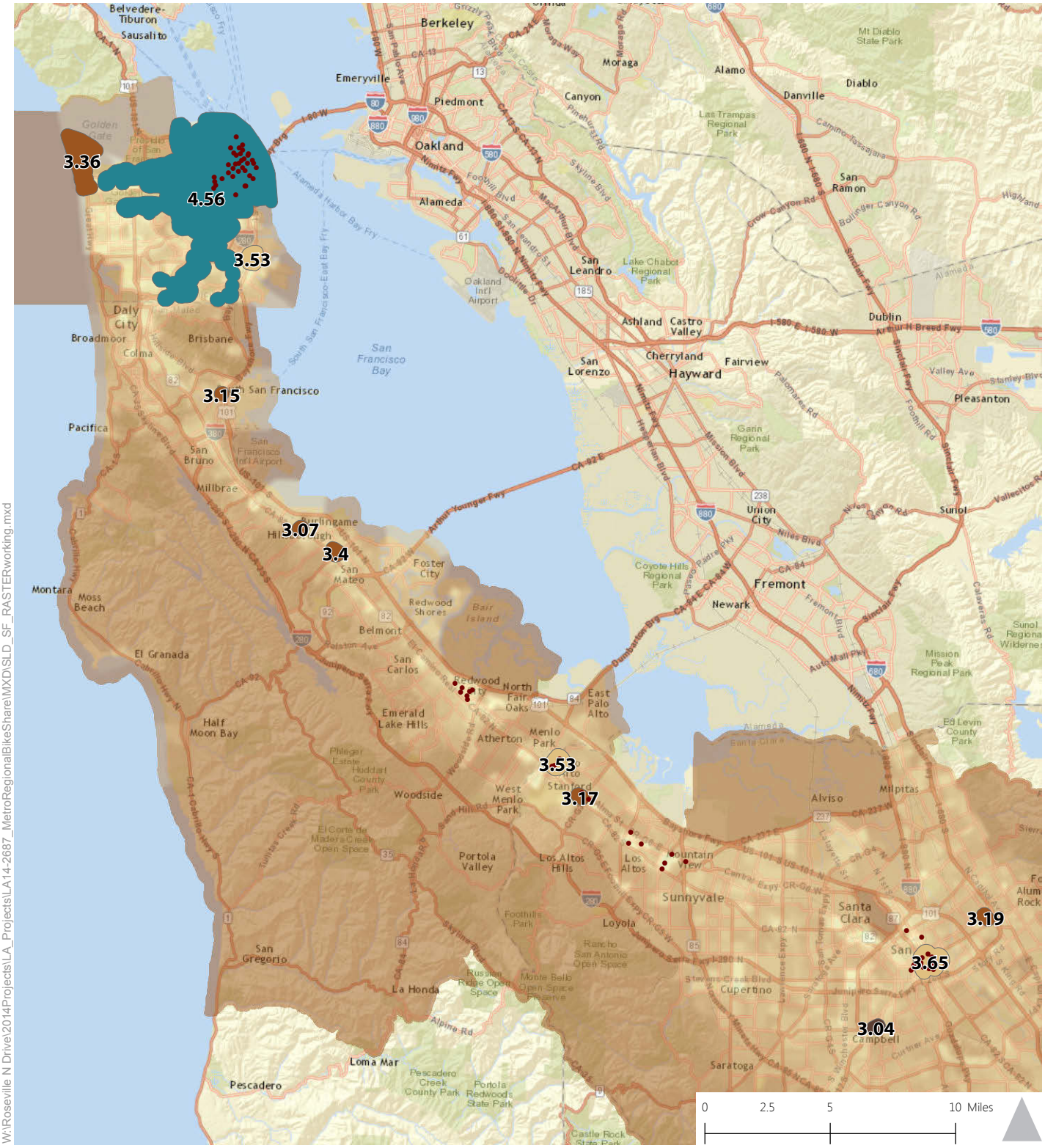


Figure 30

San Francisco
Bike Share Suitability Index

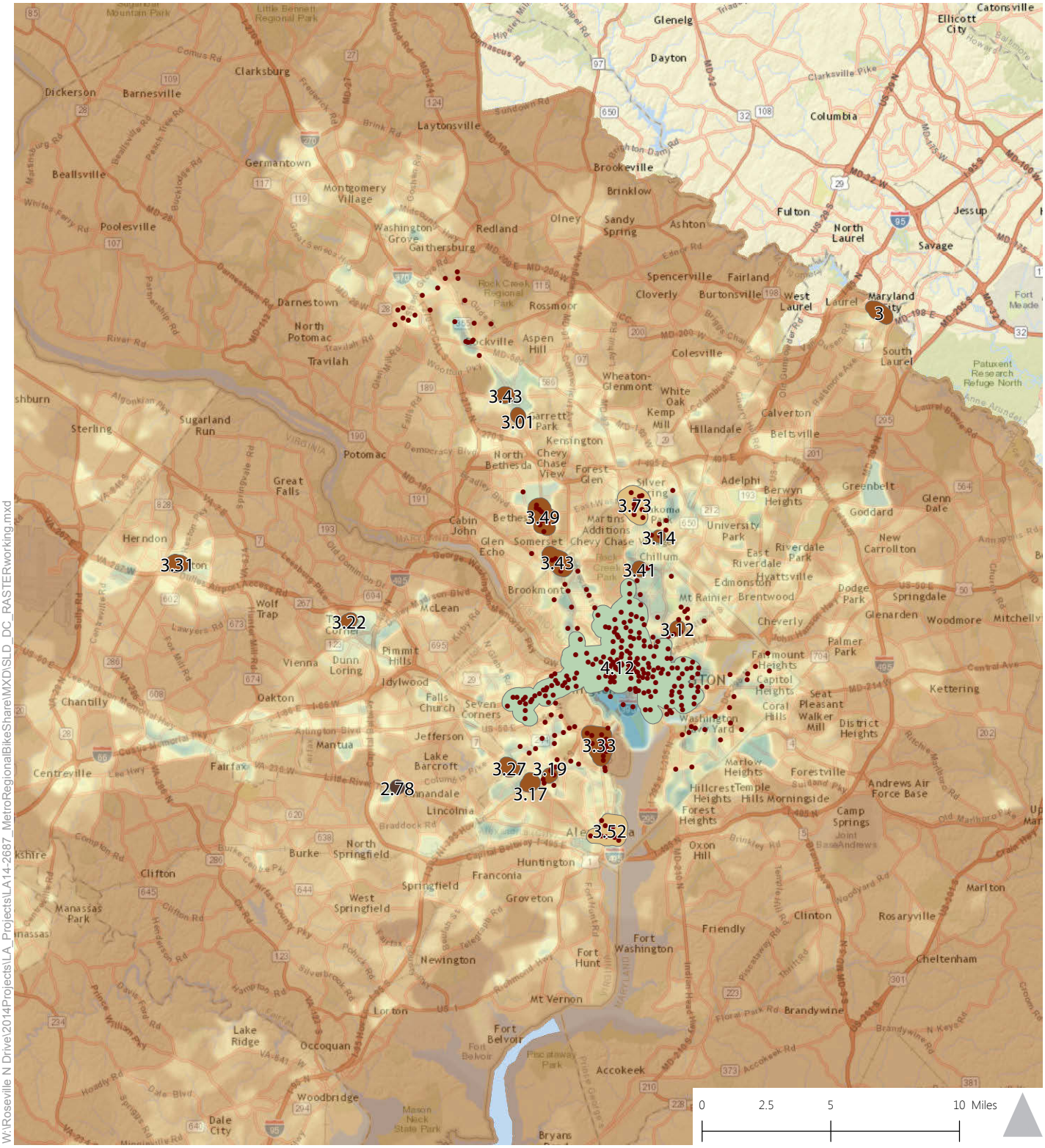


Figure 31

Washington DC
Bike Share Suitability Index

EXPANSION COMMUNITIES

In addition to the quantitative Bikeshare Suitability Index, Fehr & Peers conducted a qualitative assessment of bikeshare system network considerations and financial, community, and political support. Factors considered include:

- **Service area** – size of contiguous area of high bikeshare suitability, according to the Index (see "Suitability Comparison," above)
- **Bike facility coverage –** portion of service area within a quarter mile of a Class 2 (bike lane) or better bicycle facility
- **Connectivity** – proximity of the service area to the pilot service areas and adjacent service areas
- **Active transportation budget** – budget items for walking, bicycling, or transit planning and infrastructure
- **Grants –** current or recent grant pursuits for active transportation or bikeshare projects
- **Programs** – existence of local bike transit services or active transportation programs
- **Advocacy groups** – presence and activity of transportation non-profit or advocacy groups in the community
- **Media coverage** – news and web coverage of local active transportation issues
- **Agenda items** – bikeshare on local government agendas
- **Official support** – expressed support of elected officials or City staff
- **Bicycle plan** – recently updated bicycle plan
- **Bikeshare in plan** – bicycle plan includes planning for bikeshare

Based on these criteria, **Table 4** presents the top-ranking Los Angeles County communities for future bikeshare expansion. Expansion communities include the City of Los Angeles neighborhoods of Central, University Park, Hollywood, Venice, and North Hollywood, as well as the cities of West Hollywood and Huntington Park and the Marina Del Rey and East Los Angeles portions of Los Angeles County. A map of proposed expansion areas is provided in **Appendix D**. **Appendix E** presents suitability scores summarized by city for 88 cities in Los Angeles County. The final schedule and list of participating cities are subject to Metro Board approval and may be adjusted based on Metro Board direction, the outcome of the Phase I Pilot and city readiness of subsequent phases. The cities that participate in the Countywide bikeshare implementation could change based upon a city's desire to participate in the regional program, the availability of funding, and bikeshare readiness, based on community and political support, existing bicycle infrastructure, proximity to transit, land use, and other factors.

	System Network Considerations			Financial, Community, and Political Support								
City / Neighborhood	Service Area	Area within 1/4-Mile of Class 2 or higher Bikeway	Connectivity to Adjacent Service Areas	Budget items for walking, bicycling, or transit planning and infrastructure	Grant pursuits for active transport or bike share	Existence of local bike transit services or active transportation programs	Presence of transport non-profit or advocacy groups	Local media coverage of active transportation issues	Bike share on local government agendas	Expressed support of elected officials or city staff	Updated Bicycle Plan	Bicycle plan includes discussion of/ preparation for bike sharing
Central/University Park	●	●	●	●	●	●	●	●	●	●	●	○
Hollywood	●	●	●	●	●	●	●	●	●	●	●	○
West Hollywood	◒	◒	●	◒	◒	●	●	●	●	●	●	●
Venice	◒	●	●	●	●	●	●	●	●	●	●	○
Marina Del Rey	◒	○	●	●	○	○	○	○	○	●	●	○
Huntington Park	◒	○	○	○	◒	○	○	○	○	○	●	○
North Hollywood	◒	◒	○	●	●	●	●	●	●	●	●	○
East Los Angeles	○	○	○	●	○	○	○	○	○	●	●	○

TABLE 4 – BIKESHARE EXPANSION COMMUNITIES

Key: Suitability	
○	Low
◒	Medium
●	High

RIDERSHIP FORECASTING

Data Collected

Fehr & Peers collected demographic, built environment, and bikeshare system and ridership data on 814 stations in the Divvy (Chicago, IL), CitiBike (New York, NY), NiceRide MN (Minneapolis/St. Paul, MN), and Bay Area Bikeshare (San Francisco / Redwood City / Palo Alto / Mountain View / San Jose, CA) systems to estimate the ridership model. We also collected comparable demographic, built environment, and system structure data to apply the model to 127 proposed bikeshare stations in Los Angeles County: 58 stations in Downtown Los Angeles, 34 stations in Pasadena, and 35 stations in Santa Monica and nearby parts of the City of Los Angeles.

Appendix E provides a complete listing of variables tested in the model. The categories of data collected include:

- Demographic – e.g., population, employment, education, income, race, commute mode; collected in the quarter-mile buffer surrounding each station.
- Built Environment – e.g., transit frequency, configuration of street network; collected in the quarter-mile buffer surrounding each station.
- Station Network Characteristics – e.g., number of stations within a given distance along the street network of each station; collected for each station.
- System Characteristics – e.g., total number of stations, systemwide station density, fee structure, climate variables; collected at the systemwide level.
- Ridership – collected for the first year or season of operation, both as the average monthly number of checkouts at each station and the average monthly number of trips between each pair of stations.

Modeling Structure

The model is organized around pairs of origin and destination stations with demographic, built environment, and station network characteristic data for each origin and destination station, trip data from each origin station to each destination station, and system characteristic data for each system as a whole; total checkout data for each origin station is also available for comparison to the model estimate. The model estimates trips between each pair of origin and destination stations by minimizing the discrepancy between the total estimated trips from the origin station to all other stations and the number of observed checkouts at the origin station. The mathematical form of the model is:

$$\text{Min}\left(S_i - \sum_j F_{ij}\right)^2$$

Subject to:

$$F_{ij} = [\beta_1 * (\text{origin vars.}) + \beta_2 * (\text{destination vars.}) + \beta_3 * (\text{impedance}) + \beta_4 * (\text{System vars.})]$$

Where

$\mathbf{S_i}$ = Average daily number of bikes checked out at each station (observed)

$\mathbf{F_{ij}}$ = Average daily number of trips from station i to station j (estimated)

origin Vars. = demographic, built environment, and station network variables related to the origin station, such as employment, connectivity to other stations, transit frequency, etc.

destination vars. = comparable demographic, built environment, and station network variables related to the destination station

impedance = network-based distance between origin station and destination station

system vars. = variables specific to each bikeshare system, such as density of stations, coverage of service area, weather, membership fee, etc.

The model is solved using a likelihood estimator in Python. This structure provides a more robust estimation of ridership than simple linear regression alone.

Since the stations from the various input systems have different characteristics regarding trip generation and surrounding land use and some stations to be estimated in Los Angeles County are more like stations from some input areas than others, the stations are divided into two clusters based on similar groupings of these characteristics. For example, some parts of Pasadena are more similar to certain parts of Chicago, Minneapolis, San Francisco, and San Jose, while other parts of Pasadena are more similar to other areas of those same cities. More than twenty variables were used to assign stations to clusters; the most distinctive variables were median household income, number of retail jobs, total jobs, high income jobs, and number of residents with bachelor's degree or higher. **Table 5** lists the cluster assignments for stations in Los Angeles and the input systems. Cluster 1 tends to have higher household income, more retail jobs, more total employment, and more residents with bachelor's degrees or higher; however, Cluster 2 has more variability and includes a wider range of these values.

TABLE 5: STATION CLUSTER ASSIGNMENT

Area	*Number of stations in…*			
	Cluster 1	**Cluster 2**	**Other Clusters (not used)**	**Total**
Chicago	153	124	22	299
New York	117	86	128	331
Minneapolis / St. Paul	14	98	3	115
San Francisco	10	11	14	35
Mountain View	7	0	0	7
San Jose	3	12	0	15
Redwood City	0	7	0	7
Palo Alto	3	0	2	5
Los Angeles	0	58	0	58
Pasadena	11	23	0	34
Santa Monica	11	24	0	35
Total	329	443	169	941

Key Factors

Although many factors were considered in developing the ridership forecasting regression equations and assigning bikeshare stations to one of the two model clusters, there are several key factors that drive bikeshare ridership demand. The specific variables and coefficients are different between the two models, but the magnitude and direction of the effects are generally consistent. **Table 6** illustrates the relative importance of these key factors in the two regression equations, ranging from "**+ + + +**" (strongly positive) to "**- - - -**" (strongly negative).

TABLE 6: KEY BIKESHARE RIDERSHIP MODEL FACTORS	
Variable	Effect
Cluster 1 Model	
Percent of Households with No Vehicle Available	+ + + +
Number of bikeshare stations between 1.0 and 1.5 miles from the current station*	+ + +
Total Population over 16 with Bachelor's Degree or Higher*	+
Total Number of Jobs*	+
Total Retail Jobs*	+
Number of bikeshare stations between 2.5 and 3.0 miles from the current station*	- -
Cluster 2 Model	
Total Population over 16 with Bachelor's Degree or Higher*	+ + + +
Number of bikeshare stations between 1.5 and 2.0 miles from the current station	+ + +
Total Retail Jobs*	+ + +
Number of bikeshare stations between 1.0 and 1.5 miles from the current station*	+ +
Total Number of Jobs*	+
Aggregate Transit Frequency	+
Percent of Households with One Vehicle Available	- -
Number of bikeshare stations between 2.5 and 3.0 miles from the current station*	- -

Note: Factors marked with an asterisk appear in both cluster models.

Results

Daily ridership results for Downtown Los Angeles, and Pasadena are presented in **Figures 32 and 33.**

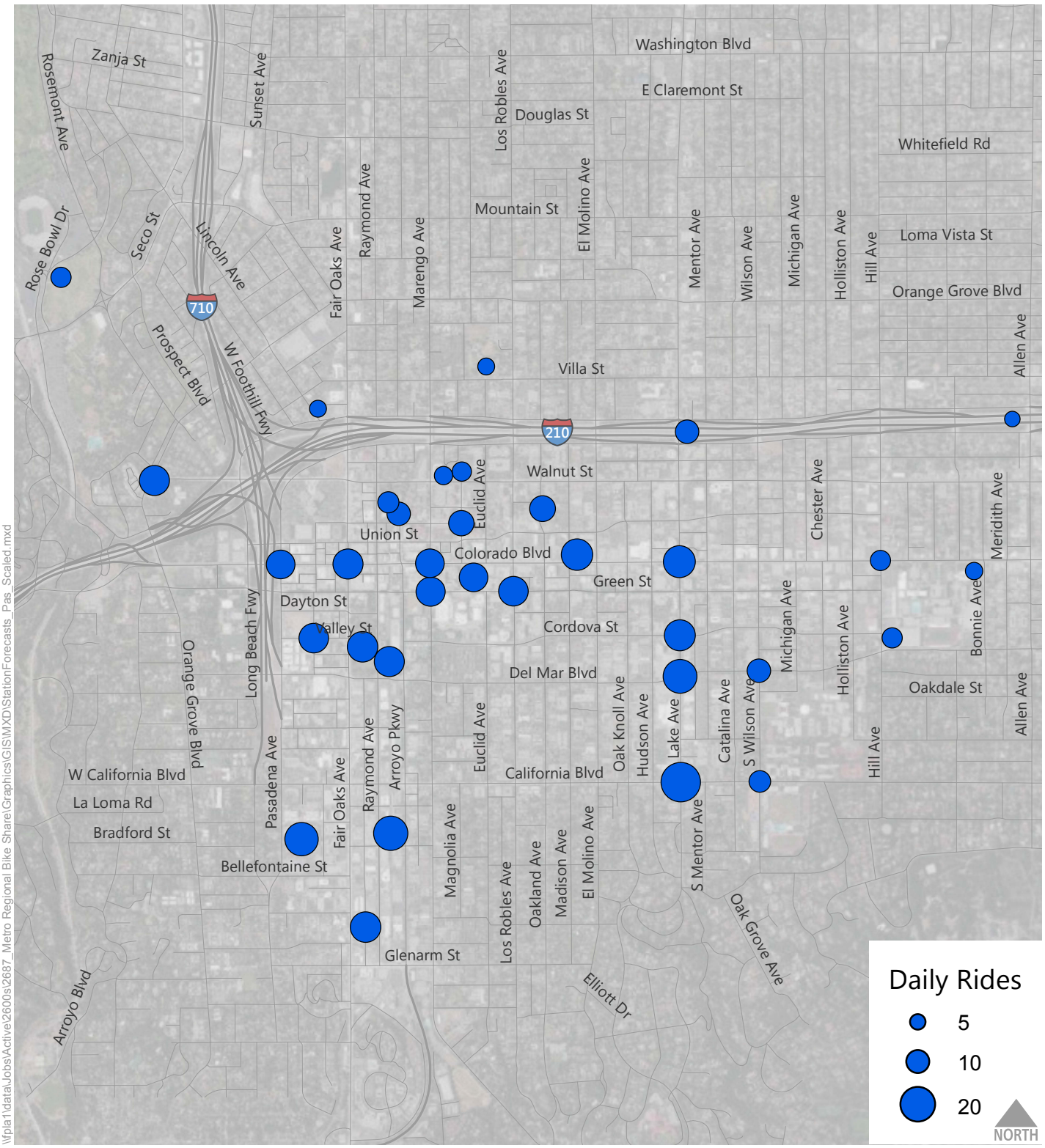
Low, most-likely, and high ridership estimates, based on the confidence bands provided by the model, were developed for each station. Initial model results are based on one year of ridership data, reflecting ridership potential at the six-month mark after system opening. Ridership trends from other U.S. bikeshare systems indicate that ridership increases over time, quickly at first, then leveling off to a stabilized level as new riders familiarize themselves with the system and adopt bikeshare as part of their transportation routine. Six-month, eighteen-month and three-year ridership estimates were also developed to reflect this pattern. Ridership values presented in Figures 27 and 28 represent six-month, most-likely estimates. Values are model estimates only and are subject to significant variation depending on system characteristics such as degree of TAP integration, timing of station roll-out, fare structure and pricing, and level of marketing and promotion.

August 13, 2014

Ridership values represent six-month, most-likely estimates based on ridership patterns in existing U.S. bike share systems. Values are model estimates only and are subject to significant variation depending on system characteristics such as degree of TAP integration, timing of station rollout, fare structure and pricing, and level of marketing and promotion.

Figure 32

Preliminary Station Ridership Estimates
Los Angeles, CA



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August 13, 2014

Ridership values represent six-month, most-likely estimates based on ridership patterns in existing U.S. bike share systems. Values are model estimates only and are subject to significant variation depending on system characteristics such as degree of TAP integration, timing of station rollout, fare structure and pricing, and level of marketing and promotion.

Figure 33

Preliminary Station Ridership Estimates
Pasadena, CA

STATION SIZING

Fehr & Peers developed recommendations for the number of needed bikes and docks at each station for the Phase 1 and Phase 2 Pilot service areas of Downtown Los Angeles and Old Town Pasadena to reflect the anticipated level of ridership provided by the model. First, the three-year (stabilized), high ridership estimate (see "Ridership Forecasting," above) was calculated based on model outputs. Because rebalancing stations with full docks is one of the most costly bikeshare operation activities, high-end ridership estimates were used to provide sufficient dock availability for smooth operation.

Next, a review of operations in eight established U.S. bikeshare systems indicates that, on average, each bikeshare bike can serve 2.8 trips per day.[15] Bikes from systems in larger, denser cities like New York and Boston served more trips per day, while bikes in cities like Boulder and San Antonio served fewer trips per day. For calculation purposes in Los Angeles County, each bike was assumed to be capable of serving three trips per day, establishing a need for between 11 and 27 bikes per station.

Finally, interviews with bikeshare operators and the consulting team's experience suggests that providing a ratio of two docks per bike provides opportunities for customers to check in bikes at high-demand locations and reduces the need to constantly rebalance bikes to maintain service reliability; however, not all systems currently use a two-to-one ratio. The recently-implemented Divvy system in Chicago has a ratio of 1.7 docks per bike; the same ratio was assumed for the Los Angeles County system. After calculating the needed number of docks for each station, the station sizes were rounded up to the nearest bin of typical Third Generation (See "Equipment and Technology," below) system hardware. The rounding results in slightly larger stations with an average of 1.8 docks per bike. **Table 7** provides a summary of recommended station sizes for the Phase 1 and 2 systems.

[15] Institute for Transportation & Development Policy. *The Bike-share Planning Guide*. Available: https://www.itdp.org/the-bike-share-planning-guide-2/

TABLE 7: RECOMMENDED STATION SIZES			
Station Size (Docks)	*Number of stations in…*		
	DTLA	**Pasadena**	**Total**
19	2	5	7
23	23	11	34
27	8	10	18
31	8	7	15
35	9	1	10
39	12	0	12
43	1	0	1
47	2	0	2
Total Stations	**65**	**34**	**99**
Total Bikes	**1,090**	**490**	**1,580**
Total Docks	**1,951**	**870**	**2,821**
Docks per Station	**30.0**	**25.6**	**28.5**
Bikes per Station	**16.8**	**14.4**	**16.0**
Docks per Bike	**1.8**	**1.8**	**1.8**

STATION SITING

EQUIPMENT AND TECHNOLOGY

There are two broad categories of bikeshare equipment currently in use. Third Generation ("Smart Dock / Dumb Bike") bikeshare hardware places the bikeshare IT in the docking station and includes minimal electronics on the bike itself. Many currently-operating bikeshare systems in North America, such as Capital Bikeshare, CitiBike, Denver B-Cycle, and Bay Area Bikeshare use Third Generation equipment. Fourth Generation ("Smart Bike / Dumb Dock") bikeshare hardware is an emerging technology that places the bikeshare IT on the bike itself. **Table 8** summarizes key differences in the two technologies.

TABLE 8: KEY BIKESHARE TECHNOLOGY DIFFERENCES

	Third Gen (Smart Dock / Dumb Bike)	Fourth Gen (Smart Bike / Dumb Dock)
Vendors	PBSC, B-cycle, Decobike, Cyclocity, ClearChannel, Bewegen	SoBi, Smoove, Nextbike
Connection	Docks are wired together via plates or top bar. Cell / satellite connection at each station kiosk.	No physical connection. Near-field communication or cell/satellite connection at each bike and kiosk
Power	Solar power via kiosk	Solar power to kiosk; small battery and solar power for each bike
Kiosk	Kiosk must be at every station	Kiosk not necessary
Lock	Via each dock	Via each bike
Arrangement	Different configurable styles (see **Figure 34**)	Hub stations can be arranged in any geometry and in distinct parts

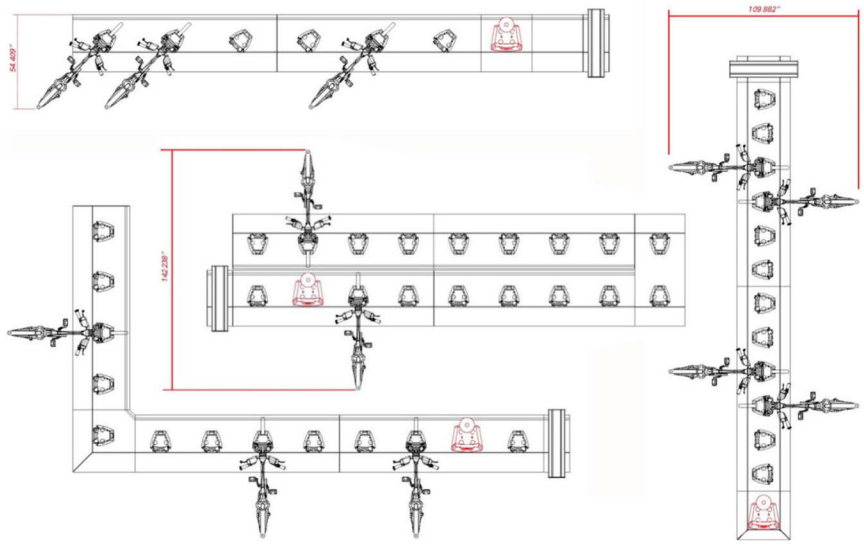


Figure 34 – Example: Smart Docking Station Styles

SITING CONSIDERATIONS

Although Fourth Generation systems allow more flexibility in siting, the consulting team evaluated sites assuming that a vendor using Third Generation technology could be selected. The team considered a variety of factors when evaluating potential bikeshare station sites:

Space

Space is the most basic siting constraint. There must be enough space to accommodate the base plates of the station itself (typically in 6′ by 10′ modules) as well as a clear zone of approximately six feet for backing the bikes out of the station (see **Figure 35**). Clearances around street furniture, curb cuts, high pedestrian volumes, and vertical elements must also be considered. ADA compliance is a key consideration.

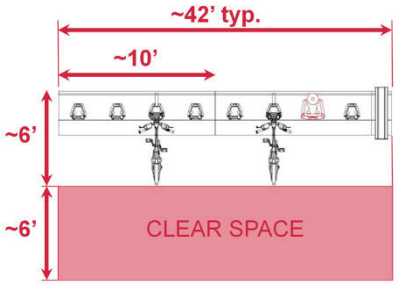


Figure 35 – Typical Modular Station Footprint

Safety

Safety considerations include sufficient clear space to allow users time to check out and return bikes, safety of equipment and users from vehicle collisions, and personal safety (night time lighting and eyes on the street) for users and maintenance staff.

Access

Access is important from multiple perspectives. The station must be easily accessible to users. For station installation and relocation, a crane truck will be needed for approximately half an hour, so the site must be accessible to a larger truck. During operation, vans will need to be able to park briefly to maintain and rebalance bicycles. Maintenance drivers prefer two-way streets so that their routes can be more flexible for quick service; mid-block locations on minor one-way streets where service vans will need to double park are challenging (see **Figure 36**). Locations far from public roadways should be avoided unless easy access for maintenance vehicles is possible.

Figure 36 – Service Van Blocks Right Travel Lane to Rebalance Bikeshare Bike

Visibility

Visibility for users is most important. Stations should be placed in major destinations and transit stations where users will be expecting them. Seeing a station in action is the best way for new users to learn about

the system and visualize themselves using it. Visibility for advertising is a secondary concern. So far, advertisers have valued visibility to automobile traffic more than pedestrian traffic, so street furniture that could block views of the station should be avoided. Not all locations that are highly visible to users will be ideal for advertising.

Property Ownership

Property ownership can affect applicable regulations and the need to negotiate for space. Relationships with major chain stores, universities and hospitals can facilitate station siting in those locations.

Solar Access

Observation and intuition are typically sufficient for ensuring solar access. Bridges, overhangs, and awnings should be avoided. North-facing walls and dense tree canopy can also impair solar access. For essential stations, solar coverage can be sacrificed without the need to hard-wire stations; maintenance crews can replace rechargeable batteries as needed.

Route Planning

Station sites should be evaluated from the perspective of a user who will travel from one station to another. Connections should be established between major transit stations and key destinations; major barriers such as freeway crossings and rivers should be avoided. Midblock locations on one-way streets tempt riders to travel the wrong way to access the station; locating the station at an intersection is better for visibility and allows riders to use crosswalks to access the station if they approach from the opposite side of the street. If possible, stations adjacent to bike lanes should be placed on the same side of the street as the bike lane to reduce the need for street crossings.

Bikeshare Network

A dense, contiguous network of stations is best for attracting and serving riders. Stations located in close proximity provide a backup in case the station is full when the user reaches her destination. Actual station locations should also be checked against planning-level station map to ensure that stations remain well-distributed throughout the siting process. Actual sites can vary from the planned location by as much as a block, so if two adjacent stations are displaced, they could end up being on the same block face.

Street Design Regulations and Guidelines

Bikeshare stations must not cover utility access points. Local guidelines should govern clearances from fire hydrants, crosswalks, driveways, standpipes, doorways, sidewalk widths, and effective widths.

EXAMPLE SITING MATERIALS

The consulting team evaluated each proposed bikeshare site in the field and prepared graphical summaries of candidate sites that were identified. Each proposed station location has multiple candidate sites that could accommodate a bikeshare station. The station siting packet includes an overview aerial image map for each station location with approximate footprints of the candidate sites (see **Figure 37**). Each lettered footprint corresponds to a marked-up photograph further illustrating the conditions at the candidate site (see **Figure 38)**. Finally, an online overview map shows the locations of each proposed station within the region (see **Figure 39)**.

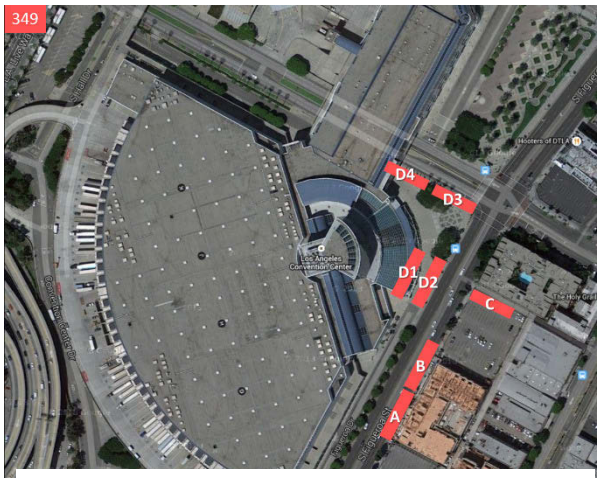


Figure 37 – Aerial Image with Station Footprint Options

Figure 38 – Photograph Illustrating Footprint Option

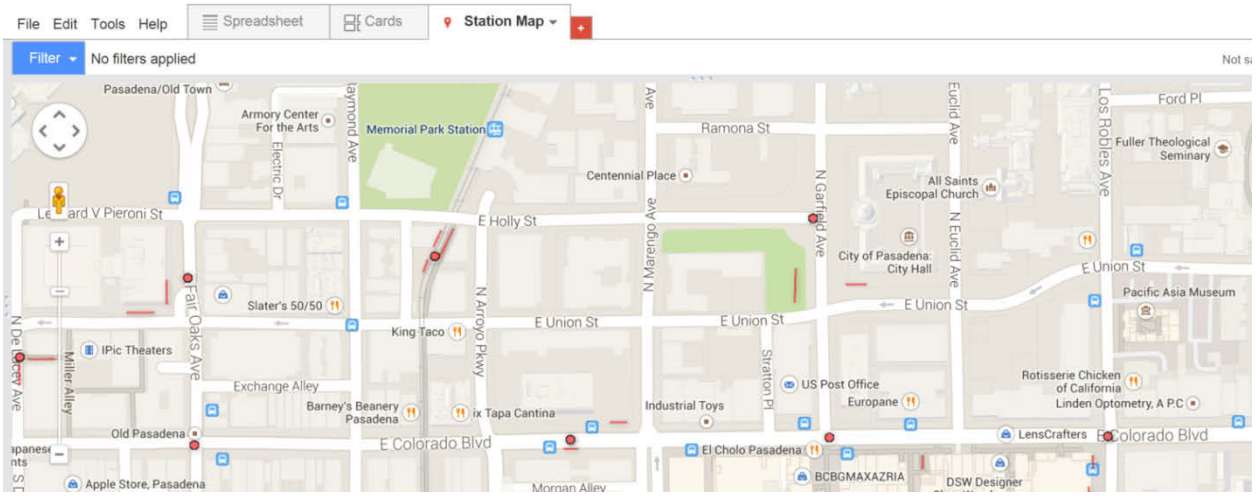


Figure 39 – Overview Map Illustrating Proposed Stations

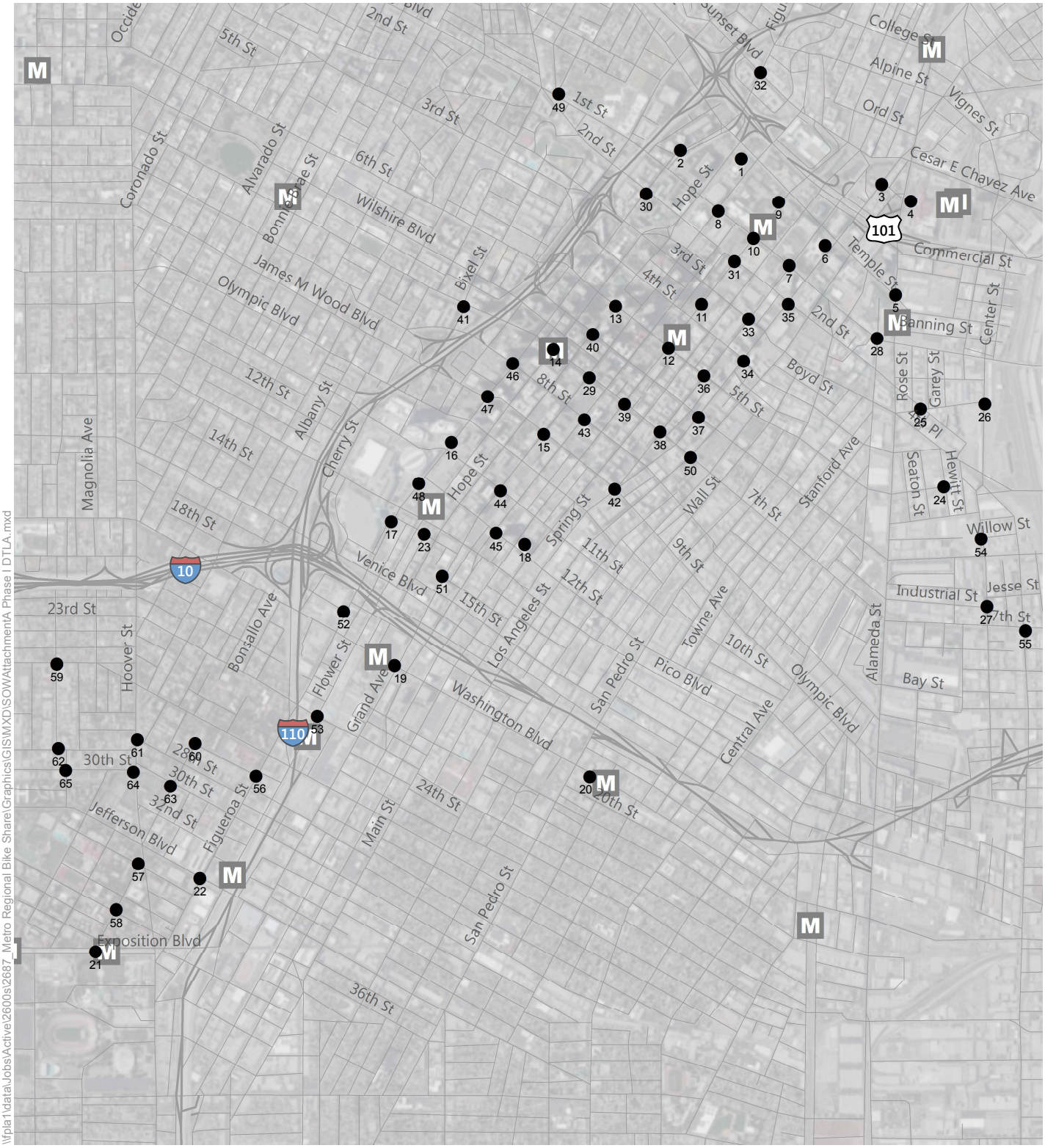
CONCLUSION

A bikeshare system that is accessible to Los Angeles County residents, workers and visitors, and that integrates with existing Metro services can provide a seamless passenger experience and improve the reliability, efficiency and usefulness of Metro's transportation system. With continued investment in bicycle infrastructure, Los Angeles County has several areas that are well-suited for bikeshare ridership, enabling an expansion from 99 stations and 1,580 bikes in the Phase 1 and 2 pilot areas of Downtown Los Angeles and Old Town Pasadena to a total of 254 stations and 3,800 bikes in multiple communities around Los Angeles County that become bikeshare-ready.

Table 9 provides a preliminary timeline for key bikeshare implementation milestones.

TABLE 9: PRELIMINARY BIKESHARE IMPLEMENTATION SCHEDULE

Fiscal Year	Milestone	New Bikes / Stations	Total Bikes / Stations
FY 14/15	Award of Operator Contract	—	—
FY 15/16	Phase 1: Downtown L.A. Pilot	1,090 / 65	1,090 / 65
FY 17/18	Phase 2: Old Town Pasadena Pilot	490 / 34	1,580 / 99
FY 18/19	Phase 3: Central / University Park	936 / 65	2,516 / 164
FY 19/20	Phase 4: Hollywood and West Hollywood	763 / 53	3,279 / 217
FY 20/21	Phase 5: Venice, Marina Del Rey, Huntington Park, North Hollywood, and East L.A. / Boyle Heights	533 / 37	3,812 / 254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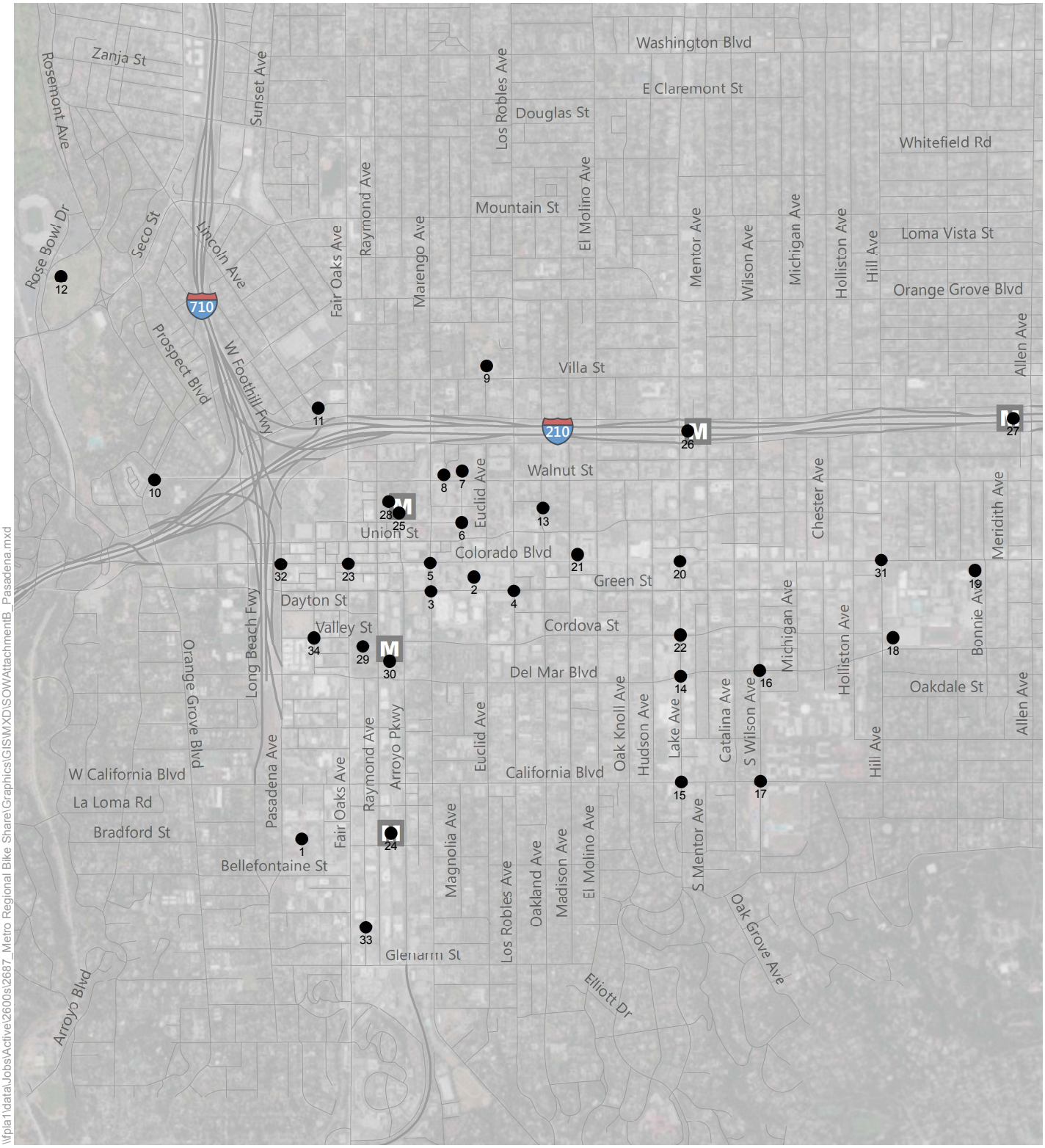
Metro Rail Station
Recommended Regional Expansion Stations
Phase I - 65 Stations

Recommended Regional Expansion Stations

Phase I Pilot: Downtown Los Angeles

ID	Station	ID	Station
1	Hope / Temple	34	4th / Main
2	Figueroa / Diamond (Figueroa Plaza)	35	2nd / Main
3	North Main / Olvera	36	5th / Spring
4	Alameda (Union Station)	37	6th / Main
5	Alameda / Temple	38	7th / Spring
6	Main / Temple (City Hall)	39	7th / Hill
7	1st / Spring	40	6th / Hope
8	1st / Grand	41	7th / Bixel
9	Hill / Temple (Grand Park)	42	9th / Main
10	1st / Hill	43	8th / Olive
11	Hill (Angel's Flight)	44	11th / Grand
12	5th / Hill (Pershing Square)	45	12th / Olive
13	5th / Hope stairs (Library)	46	8th / Figueroa
14	7th / Flower (Metro Center)	47	9th / Figueroa
15	9th / Grand	48	12th / Figueroa
16	11th / Figueroa	49	1st / Toluca
17	Pico / Figueroa (Convention Center)	50	7th / Los Angeles
18	12th / Hill (DPW)	51	14th / Grand
19	Washington / Grand (Grand Station)	52	18th / Figueroa
20	Washington (San Pedro Station)	53	23rd / Flower
21	Exposition (Expo Park/USC Station)	54	Willow / Mateo
22	Jefferson / Figueroa (Jefferson/USC Station)	55	7th / Santa Fe
23	Cameron / Flower (Pico Station)	56	27th / Figueroa
24	5th / Hewitt	57	34th / Trousdale
25	3rd / Traction	58	36th / Trousdale
26	3rd / Santa Fe	59	W Adams Blvd / Ellendale Pl
27	Industrial / Mateo	60	W 27th St / University Ave
28	1st / Central	61	W 28th St / Hoover St
29	7th / Grand	62	Ellendale Pl / W 29th St
30	2nd / Figueroa	63	University Ave / W 30th St
31	2nd / Hill	64	McClintock Ave / W 30th St
32	Cesar E Chavez / Figueroa	65	Orchard Ave / W 30th St
33	3rd / Spring		

Note: Tentative locations are for planning purposes only and are subject to relocation based on policy and physical constraints.



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M Metro Rail Station

Recommended Regional Expansion Stations

- Phase II - 34 Stations

Recommended Regional Expansion Stations

Phase II: Pasadena

ID	Station
1	Huntington Hospital
2	Garfield (Paseo Colorado)
3	Green / Marengo
4	Green / Los Robles
5	Colorado / Marengo
6	Garfield / Holly (Pasadena City Hall)
7	Pasadena Library
8	Garfield / Walnut (Library west)
9	Villa / Euclid (Villa Park)
10	Orange Grove / Walnut
11	Lincoln / Eureka / Maple
12	Arroyo (Rose Bowl)
13	Union / Oakland (Fuller Seminary)
14	Del Mar / Lake
15	California / Lake
16	Del Mar / Wilson
17	California / Wilson
18	Del Mar / Hill (Pasadena Community College)
19	Colorado / Bonnie (Pasadena Community College)
20	Colorado / Lake
21	Colorado / Madison
22	Cordova / Lake
23	Colorado / Fair Oaks
24	Raymond / Filmore (Fillmore Station)
25	Holly (Memorial Park Station)
26	Lake (Lake Station)
27	Allen (Allen Station)
28	Memorial Park
29	Central Park
30	Del Mar / Arroyo (Del Mar Station)
31	Colorado / Hill
32	Colorado / Pasadena
33	Edmondson Alley
34	Valley / DeLacey

Note: Tentative locations are for planning purposes only and are subject to relocation based on policy and physical constraints.

APPENDIX C – PRELIMINARY BIKESHARE FINANCIAL ESTIMATES

Integrated as Muni Fare Structure; Net Operations Funding

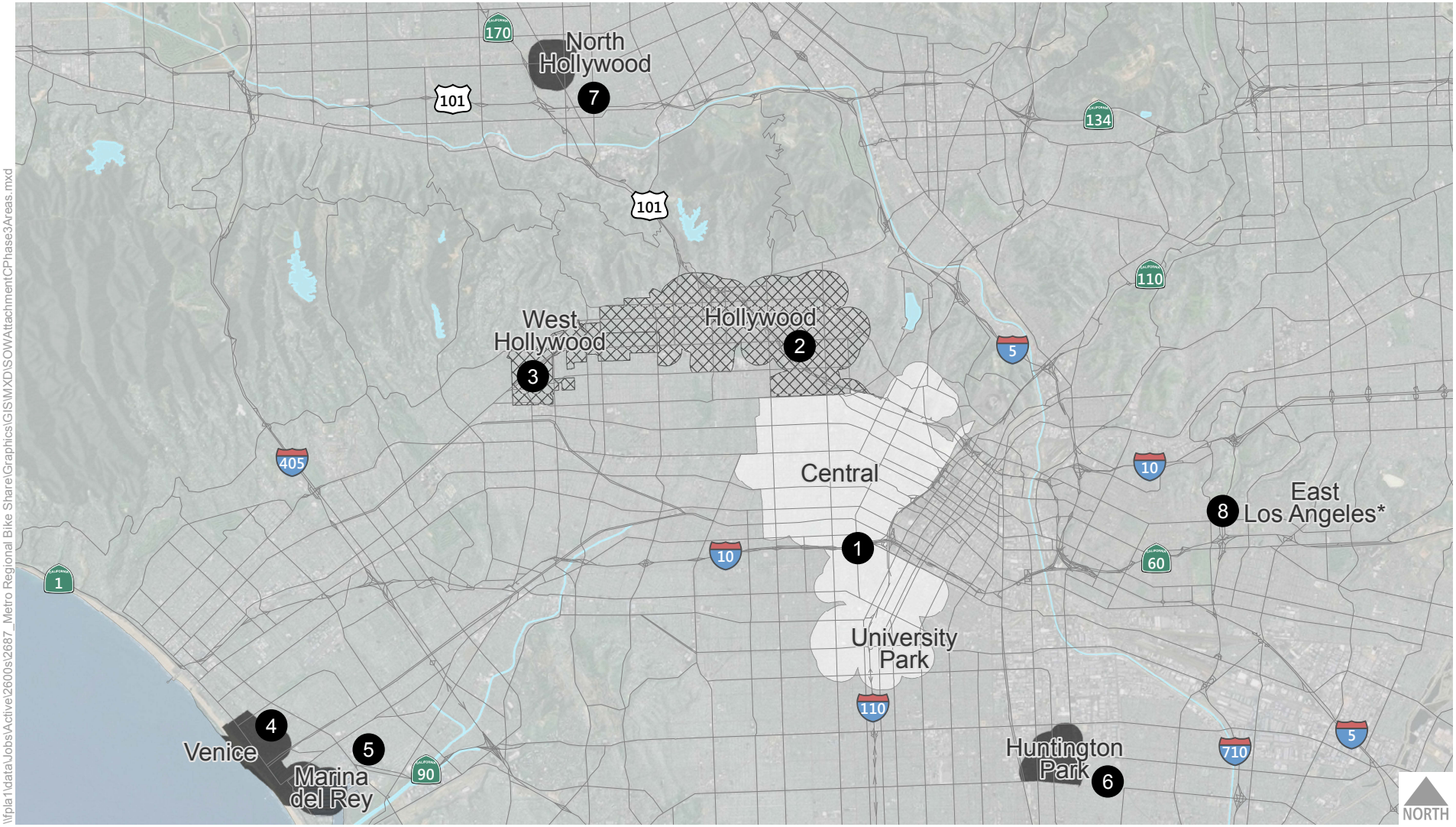
			Cost Per station:*	$ 77,539	$ 69,584	$ 69,584	$ 69,584	$ 69,584	$ 69,584	$ 69,584	$ 69,584	$ 69,584
				FY 15/16	**FY 16/17**	**FY 17/18**	**FY18/19**	**FY 19/20**	**FY 20/21**	**FY 21/22**	**FY 22/23**	**FY 23/24**
Bikes and Docks				**Phase 1: DTLA Pilot +65 Stations & O&M (1.5 yrs)**		**Phase 2: Pasadena +34 Stations**	**Phase 3: +65 Stations**	**Phase 4: +53 Stations**	**Phase 5: +37 Stations**	**Full System O&M**	**Full System O&M**	**Full System O&M**
	Total Bikes			1,090	1,090	1,580	2,516	3,279	3,812	3,812	3,812	3,812
	Total Stations			65	65	99	164	217	254	254	254	254
Capital*												
Costs	***Bikes***			1,090		490	936	763	533	0	0	0
	Stations	Bikes per /Station Ratio**	16.7 for DTLA , 14.4 for others	**65**		**34**	**65**	**53**	**37**	0	0	0
				5,040,035	-	2,365,856	4,522,960	3,687,952	2,574,608	-	-	-
	Rebalancing Vans	*Provided by Operator as part of O&M agreement*		-		-	-	-	-			
Funding/Revenue	***Metro Contribution (50% Capital)***			2,520,018	-	1,182,928	2,261,480	1,843,976	1,287,304			
	Los Angeles Contribution (50% Capital)			2,520,018			2,261,480	1,461,264	487,088			
	Pasadena Contribution (50% Capital)					1,182,928						
	Other Cities Contribution (50% Captial)							382,712	800,216			
O&M*												
Costs	***Annual Per Bike $***	$ 2,900	**Total:**	**1,580,500**	**3,161,000**	**3,161,000**	**4,582,000**	**7,296,400**	**9,509,680**	**11,054,800**	**11,054,800**	**11,054,800**
	Phase 1 - DTLA			1,580,500	3,161,000	3,161,000	3,161,000	3,161,000	3,161,000	3,161,000	3,161,000	3,161,000
	Phase 2 - Pasadena			-	-	-	1,421,000	1,421,000	1,421,000	1,421,000	1,421,000	1,421,000
	Phase 3			-	-	-	-	2,714,400	2,714,400	2,714,400	2,714,400	2,714,400
	Phase 4			-	-	-	-	-	2,213,280	2,213,280	2,213,280	2,213,280
	Phase 5			-	-	-	-	-	-	1,545,120	1,545,120	1,545,120
Funding/Revenue	*Estimated User Revenue - DTLA*			748,749	1,552,219	1,606,940	1,669,526	1,669,526	1,669,526	1,669,526	1,669,526	1,669,526
	Estimated User Revenue - Pasadena			-	-	-	402,819	441,053	462,890	462,890	462,890	462,890
	*Estimated User Revenue - Phase 3****			-	-	-	-	1,536,814	1,649,130	1,713,359	1,713,359	1,713,359
	*Estimated User Revenue - Phase 4****			-	-	-	-	-	1,160,730	1,201,650	1,248,451	1,248,451
	*Estimated User Revenue - Phase 5****			-	-	-	-	-	-	413,695	452,961	475,388
	Total Estimated User Revenue			**748,749**	**1,552,219**	**1,606,940**	**2,072,346**	**3,647,393**	**4,942,276**	**5,461,120**	**5,547,187**	**5,569,614**
	as % of operating cost			47%	49%	51%	45%	50%	52%	49%	50%	50%
	- plus -											
Net	*Metro Contribution (35% Net O&M) - DTLA*			291,113	563,073	543,921	522,016	522,016	522,016	522,016	522,016	522,016
	Metro Contribution (35% Net O&M) - Pasadena			-	-	-	356,363	342,981	335,338	335,338	335,338	335,338
	Metro Contribution (35% Net O&M) - Phase 3			-	-	-	-	412,155	372,845	350,364	350,364	350,364
	Metro Contribution (35% Net O&M) - Phase 4			-	-	-	-	-	368,392	354,071	337,690	337,690
	Metro Contribution (35% Net O&M) - Phase 5			-	-	-	-	-	-	395,999	382,256	374,406
	Los Angeles Contribution - DTLA			540,638	1,045,708	1,010,139	969,458	969,458	969,458	969,458	969,458	969,458
	Pasadena Contribution - Pasadena			-	-	-	661,817	636,966	622,771	622,771	622,771	622,771
	Los Angeles Contribution - Phase 3			-	-	-	-	765,431	692,426	650,677	650,677	650,677
	Los Angeles Contribution - Phase 4			-	-	-	-	-	684,157	657,560	627,139	627,139
	Other Cities Contribution - Phase 5 (includes some areas of City of Los Angeles)			-	-	-	-	-	-	735,426	709,904	695,326
Total cost/yr (cap + exp)				**6,620,535**	**3,161,000**	**5,526,856**	**9,104,960**	**10,984,352**	**12,084,288**	**11,054,800**	**11,054,800**	**11,054,800**
				TOTAL PHASE I	9,781,535				**TOTAL ALL Years**	**58,536,791**	**69,591,591**	**80,646,391**
			Total Metro Contribution (Net)	2,811,130	563,073	1,726,849	3,139,859	3,121,128	2,885,895	1,957,788	1,927,665	1,919,815
			Total Cities Contributions (Net)	3,060,656	1,045,708	2,193,067	3,892,755	4,215,830	4,256,116	3,635,892	3,579,949	3,565,371

Phase 3,4 & 5 Neighborhoods			
Cities	**Neighborhood**	**Stations**	**Installation**
City of LA	Central / University Park	65	FY 18/19
City of LA	Hollywood	42	FY 19/20
West Hollwywood	West Hollywood	11	FY 19/20
City of LA	Venice	4	FY 20/21
City of LA/ County	Marina Del Rey	3	FY 20/21
Huntington Park	Huntington Park	10	FY 20/21
LA City	North Hollywood	10	FY 20/21
LA County	East L.A. / Boyle Heights	10	FY 20/21

* The per-station capital costs and per-bike operating costs are based on Econmic Planning Systems Inc.'s case study research on Capital Bikeshare, Boulder B-Cycle, Denver B-cycle and Nice Ride Minnesota. We assumed capital costs of $55,000 per station We assumed per-bike annual operating costs of $2,500. Inlcudes kiosks, docking, hardware/software and installations.

**Bikes/Station Ratio was estimated by Fehrs and Peers to 16.8 for LA, 14.4 for Pasadena. We are using 14.4 ratio for all phase 3 cities

***Revenue for Phases 3, 4, and 5 is estimated in proportion to estimated ridership for the stations anticipated in each phase.



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* A specific boundary for the East Los Angeles Expansion Area has not yet been identified.

Preliminary Regional Expansion Areas

- Phase III - 65 Stations
- Phase IV - 53 Stations
- Phase V - 37 Stations

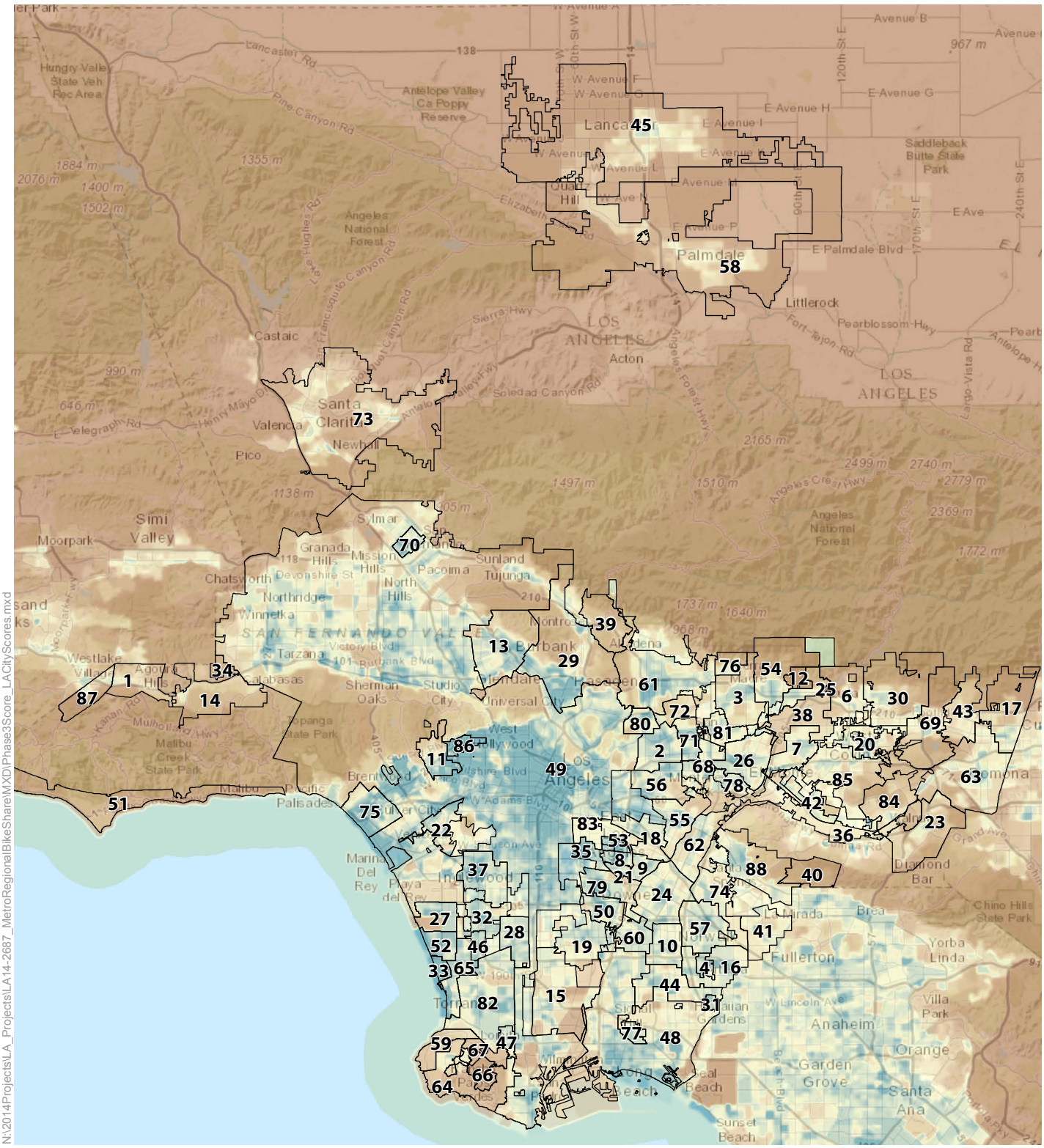
1 Expansion Area

Preliminary Regional Expansion Areas

Phase III, IV, and V Communities

#	Community
Phase III – 65 Stations	
1	Central / University Park
Phase IV – 53 Stations	
2	Hollywood
3	West Hollywood
Phase V – 37 Stations	
4	Venice
5	Marina Del Rey
6	Huntington Park
7	North Hollywood
8	East Los Angeles*

Note: A specific boundary for the East Los Angeles Expansion Area has not yet been identified.



Appendix E

Los Angeles Regional Bike Share Suitability Index Los Angeles Cities

Bike Share Expansion Communities

City/Neighborhood	Suitability Index Score	City/Neighborhood	Suitability Index Score
Central	4.43	Marina Del Rey	3.78
University Park	3.96	Huntington Park	3.75
Hollywood	3.78	North Hollywood	3.47
West Hollywood	3.94	East Los Angeles	n/a - area not yet defined
Venice	3.93		

Los Angeles Regional Cities Bike Share Suitability Index

Map ID	City	Suitability Index Score	Map ID	City	Suitability Index Score
1	Agoura Hills	1.34	45	Lancaster	0.89
2	Alhambra	2.47	46	Lawndale	2.16
3	Arcadia	1.88	47	Lomita	2.23
4	Artesia	2.46	48	Long Beach	2.15
5	Avalon	2.05	49	Los Angeles	2.05
6	Azusa	1.42	50	Lynwood	2.38
7	Baldwin Park	2.54	51	Malibu	0.92
8	Bell	2.45	52	Manhattan Beach	2.05
9	Bell Gardens	2.33	53	Maywood	2.95
10	Bellflower	2.18	54	Monrovia	1.21
11	Beverly Hills	2.27	55	Montebello	1.98
12	Bradbury	0.68	56	Monterey Park	2.19
13	Burbank	2.01	57	Norwalk	2.28
14	Calabasas	1.20	58	Palmdale	0.85
15	Carson	1.77	59	Palos Verdes Estates	1.43
16	Cerritos	2.26	60	Paramount	2.31
17	Claremont	1.20	61	Pasadena	1.65
18	Commerce	2.14	62	Pico Rivera	1.93
19	Compton	2.14	63	Pomona	1.73
20	Covina	1.97	64	Rancho Palos Verdes	1.36
21	Cudahy	2.34	65	Redondo Beach	2.55
22	Culver City	2.38	66	Rolling Hills	0.83
23	Diamond Bar	1.31	67	Rolling Hills Estates	1.35
24	Downey	2.20	68	Rosemead	2.18
25	Duarte	1.95	69	San Dimas	1.16
26	El Monte	2.19	70	San Fernando	2.55
27	El Segundo	2.37	71	San Gabriel	2.35
28	Gardena	2.40	72	San Marino	1.69
29	Glendale	1.81	73	Santa Clarita	1.14
30	Glendora	1.20	74	Santa Fe Springs	1.99
31	Hawaiian Gardens	2.55	75	Santa Monica	2.76
32	Hawthorne	2.59	76	Sierra Madre	1.49
33	Hermosa Beach	2.81	77	Signal Hill	2.23
34	Hidden Hills	1.02	78	South El Monte	2.18
35	Huntington Park	3.03	79	South Gate	2.28
36	Industry	2.10	80	South Pasadena	2.19
37	Inglewood	3.50	81	Temple City	2.10
38	Irwindale	1.47	82	Torrance	2.31
39	La Canada Flintridge	1.20	83	Vernon	2.04
40	La Habra Heights	0.83	84	Walnut	1.36
41	La Mirada	1.91	85	West Covina	1.72
42	La Puente	2.07	86	West Hollywood	3.91
43	La Verne	1.45	87	Westlake Village	1.07
44	Lakewood	2.10	88	Whittier	1.81

APPENDIX F:

Variables Considered in Ridership Forecasting Model

- Total Stations within 3200 Meters
- Average Median Household Income
- Total Population
- Percent of Population Aged 20-34
- Percent of Population Aged 35-54
- Percent of Population by Race: Latino
- Percent of Population by Race: White
- Percent of Population by Race: Black or African American
- Percent of Population by Race: American Indian
- Percent of Population by Race: Asian
- Percent Non-White Population
- Percent Bike Commuters
- Percent Alternative Commuters (Bike + Walk + Public Transit)
- Percent of Workers Who Commuted by Car, Truck or Van
- Percent of Households with No Vehicle Available
- Percent of Households with 1 Vehicle Available
- Percent of Households with 2 Vehicles Available
- Percent of Households with 3 or More Vehicles Available
- Total Population over 16 with less than a High School Diploma or Equivalent
- Total Population over 16 with High School Diploma or Higher
- Total Population over 16 with Some College or Associates Degree or Higher
- Total Population over 16 with Bachelor's Degree or Higher
- Percent of population between the ages of 16 and 64 who worked 35 or more hours per week 40 or more weeks per year (Full-Time Employed)
- Percent of Population Ages of 16 and 64 who worked 1 to 34 hours
- Total number of jobs
- Total Number of jobs with earnings greater than $3333/month
- Total Number of jobs in NAICS sector 44-45 (Retail Trade)
- Aggregate Transit Frequency
- Number of bikeshare stations within 0.5 mile of the current station
- Number of bikeshare stations between 0.5 and 1.0 miles from the current station
- Number of bikeshare stations between 1.0 and 1.5 miles from the current station
- Number of bikeshare stations between 1.5 and 2.0 miles from the current station
- Number of bikeshare stations between 2.0 and 2.5 miles from the current station
- Number of bikeshare stations between 2.5 and 3.0 miles from the current station
- Number of bikeshare stations more than 3.0 miles from the current station
- Total Stations in the system
- Station Density (per SqMi) in the system
- System Area Covered (1/2 mile buffer)
- Member Free Trip Time Period (mins)
- Walk-Up Free Trip Time Period (mins)
- Annual Membership ($)
- Day Membership ($)
- Annual Precipitation Days
- Heating Degree Days (below 60)
- Cooling Degree Days (above 80)

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

PLANNING AND PROGRAMMING COMMITTEE
JANUARY 14, 2015

SUBJECT: METRO COUNTYWIDE BIKESHARE

ACTION: RECEIVE AND FILE METRO COUNTYWIDE BIKESHARE BUSINESS STRUCTURE

RECOMMENDATION

Receive and file Metro Countywide Bikeshare business structure.

ISSUE

At the January 2014 meeting, the Board authorized staff to develop a Countywide Bikeshare Implementation Plan (Plan). The proposed business plan has been developed as part of the Plan and is based on the framework presented to the Board in in January 2014 and in response to Board Motion 58 (Attachment A & B).
The Metro Bikeshare Phase 1 Pilot in DTLA will apply and test the feasibility of the proposed Bikeshare business plan in preparation for expansion to Pasadena and eight other proposed Bikeshare ready communities. This report identifies the program structure.

DISCUSSION

Status

Simultaneously, Metro staff are working on the completion of the Countywide Bikeshare Implementation Plan and initiating a bikeshare pilot project in Downtown Los Angeles. This report addresses the basic structure that would be implemented both for the pilot project and the expanded program in the future. Concerning the pilot project, the Request for Proposals was issued on December 15th and responses are due to Metro on January 20th.

Bikeshare Implementation Plan

In preparing the Plan, we have worked closely with the Bikeshare Working Group including the cities of Santa Monica, Pasadena, and Los Angeles. Our focus has been to identify and define a regional business model that would lay out the financial parameters and commitments by each party. As part of this effort we also identified potential Bikeshare station locations for the pilot cities. In coordination with Los Angeles

and Pasadena, the locations were further vetted through a feasibility site analysis that determined right-of-way availability and public ownership (Attachment C).

During the preparation of the recommended business plan, due to timing constraints associated with their bikeshare funding, Santa Monica decided to procure a bikeshare vendor, independent of Metro's regional effort. We continue to coordinate with Santa Monica and leave open the possibility that Santa Monica could be integrated into the Metro Bikeshare system in the future. We also continue to coordinate with Long Beach, as they too have an existing contract with a bikeshare vendor.

Business Plan

Model: Metro owns and contracts out operations and maintenance of Bikeshare system

In January the Metro Board directed staff to develop a Bikeshare business plan in which Metro would fund up to 50% of total capital costs per each city and up to 35% of total operations and maintenance (O&M) costs per each city on an on-going basis. Using this framework we have identified the business model wherein the Bikeshare program operates as a publicly owned/privately operated system. Under this model Metro owns the Bikeshare infrastructure and contracts out O&M. This is the model that tends to be adopted by larger bikeshare programs, especially those wherein multiple jurisdictions participate in one regional program. The advantages of this model include providing the jurisdiction with the flexibility to expand offerings of Bikesharing as is deemed appropriate and necessary, while bringing the experience and innovation of a tried and tested operator. Our research indicated that a majority of the 20 plus bikeshare programs in the United States operate using this model, including the Bay Area, Boston, Chicago and Washington D.C./Arlington/Alexandria bikeshare programs. Based on program success, program size and multi-jurisdictional collaboration, we have found these programs to be most representative of a Los Angeles region endeavor.

Operations Costs: Metro and cities will split Operations & Maintenance (O&M) based on net costs

Metro would manage the master contract with a single contractor to install and operate a bikeshare system. Metro would establish MOU's, subject to negotiations, with participating local cities to set terms of engagement, contribution levels and advertising responsibilities. In the case of Santa Monica, in the short-term Metro will continue to coordinate with them and explore ways to eventually integrate them into the regional system, at which time they may be eligible for Metro funding.

Under the proposed business model Metro would own the countywide integrated Bikeshare system, including capital elements such as the bikes, kiosks and technology. We would contract for the installation and operations. Metro would contribute up to 50% of capital cost with cities contributing the balance for the initial capital investment. Metro would retain ownership of the regionally integrated system in all cities for the long-term regardless of vendor contracts for systems.

Metro and cities would split O&M costs by 35/65% based on a net (of membership and user fees) balance of the costs. The O&M costs include repair and maintenance of bikes, rebalancing bikes among stations, technology & website, customer service, outreach and marketing. Bikeshare user fees from annual/monthly memberships and daily use fees will pay for a portion of the O&M costs.

Sponsorship: Metro will negotiate title sponsorships, in close cooperation with participating cities

Metro will work closely with participating cities in attracting and negotiating a title sponsorship agreement. Metro would retain on-bike title sponsorship and reserve the right to sell to sponsor(s) as a source of Metro's funding commitment . Metro will solicit, in collaboration with local cities, and maintain a separate contract for on-bike title sponsorship and other revenue generating opportunities. Cities would retain the right to sell advertising or sponsorship at Bikeshare stations based on their jurisdiction's polices to meet local share of capital and operating expenses.

On-bike title sponsorship revenue would first be applied towards Metro's financial commitment. Remaining sponsorship revenues would then be applied towards each city's O&M cost. Any excess sponsorship revenues would then be expended for the Bike Share program under the terms of the MOU's to be negotiated with the local communities.

Existing Bikeshare systems in Denver Colorado, Minneapolis Minnesota, Washington DC and New York have utilized corporate sponsorship/advertisements contracts to generate revenue to cover all or some of the O&M costs in which ads are placed on the bike and/or the kiosks. An average title sponsorship in these Bikeshare systems generates $11,000 of revenue annually per bike. Although markets vary and it is unknown at this time what the Los Angeles region's potential is, based on an average from other programs, we estimate that a Metro Bikeshare system could generate $1.12 Million annually in the first 3 years with expansion to Downtown Los Angeles and Pasadena.

Fare Structure: Metro will further explore potential for an integrated fare structure

We considered two types of fare structures, integrated and conventional. For purposes of the initial pilot, TAP integration will be limited, with the initial fare structure developed with the selected vendor. Under an integrated structure, bikeshare fees are reflective of Metro's bus and rail fare structure and can be set up so as to either treat bikeshare as a part of our system or require a transfer fee from our system to bikeshare (similar to how transfers between Metro and a municipal operator currently function). To accomplish this, a certain level of Transit Access Pass (TAP) integration will be needed. Under a conventional fare structure, bikeshare fees would stand alone and have no relationship to Metro's bus and rail fare structure. We have estimated that an integrated fare structure versus a conventional one would generate twice the ridership on the Bikeshare system and slightly raise ridership on the Metro transit system. As a transportation authority and transit agency, Metro has a unique opportunity to develop a Bikeshare fare structure in which the program can be positioned to best address first and last mile challenges while encouraging transit ridership. We are working with the

TAP group to establish best practices for integrating the bikeshare fare structure and have identified this as an eventual program goal in the technical specifications.

We will continue to work with the TAP group, participating cities and the Bikeshare vendor in exploring opportunities for an integrated fare structure.

Jurisdictional Coordination and Public Input

Since the initiation of the Bikeshare Implementation Plan we have had over 16 meetings with either the entire Working Group or individually with the pilot cities of Santa Monica, Pasadena and Los Angeles and have held a Public Metro Bicycle Roundtable meeting that included discussions about Metro Bikeshare. Additionally, in order to gauge whether our technical work is in line with community support, we solicited feedback through an online crowdsourcing map that identified potential locations for Bikeshare stations in the pilot cities of Downtown Los Angeles, Pasadena and Santa Monica in September 2014. We had a successful response with over 3,000 people viewing the map, over 5,200 location "likes" and 400 suggested locations were received. To follow up on this first map, in December 2014, we requested additional input through a second crowdsourcing map. The second crowdsourcing map identified potential future bikeshare communities identified through the Plan. Similar to the first map, we asked that community members provide feedback regarding our identified communities. The input collected from these crowdsourcing maps helped confirm and inform the locations that we have identified for Bikeshare station locations and potential future bikeshare communities. Final Bikeshare station locations will be determined by respective city staff, Metro and the Bikeshare operator.

Bikeshare Marketing & Branding

We have been coordinating with the Design Studio and the Bikeshare Working Group regarding design and branding of a regional Metro Bikeshare system. We are working collectively with the pilot cities to determine a design that is representative of the individual jurisdictions and Metro. The Metro Bike Program's identifying color palette will be used in designing the graphic elements of the bikes and/or the docks and we will continue to coordinate with the Working Group and study how other mulit-jurisdictional bikeshare programs address the issue of local identity. Concepts will be fully fleshed out once a bikeshare vendor is identified.

Bikeshare Request For Proposals

We have released a request for proposals (RFP) for a Bikeshare vendor for Phase 1 Pilot in Downtown Los Angeles (DTLA) in order to test the bikeshare market in the region as well as apply the recommended business plan. As the pilot, this first phase will be launched within a focused area with an estimated 65 to 80 bikeshare stations (Attachment C). We anticipate returning to the Board in Summer 2015 with a recommended bikeshare vendor/operator and expect to roll out the program within 9 months of award of contract and once the MOU between Metro and the City of Los Angeles has been executed.

As part of the Plan, we have identified other bikeshare ready communities that should be considered for future phases. Pasadena has been identified as Phase 2 of the Pilot effort, with an additional eight communities to be considered thereafter (Attachment D). Bikeshare "readiness" was determined by a number of variables, including, but not limited to population and employment density, job and trip attractors, topography, bicycle infrastructure, community support and funding availability. Potential future bikeshare communities beyond DTLA and Pasadena have preliminarily been identified to include Venice, Marina Del Rey, Hollywood / Silverlake / Echo Park, West Hollywood, East Los Angeles, North Hollywood, Korea Town/ Macarthur Park, University Park/USC, and Huntington Park. We will return to the Board once financial readiness, station siting and supporting bicycle infrastructure have been confirmed, and as it is determined each community is ready to be folded into the Metro Bikeshare program.

DETERMINATION OF SAFETY IMPACT

Approval of this program will have no impact on the safety of our employees or patrons.

FINANCIAL IMPACT

We have explored a number of eligible grant opportunities to support the costs of the program including the State Active Transportation Program, ("ATP") funds, State "Cap & Trade" funds, Federal bicycle and active transportation funds, and all other eligible funding sources.

In our review of Bikeshare programs around the country, we have found that a variety of sources of funding are used by the various cities to support their programs. No one single source of funding covers either capital or operating and maintenance costs, with programs relying on various combinations of user revenues, advertising/sponsorship revenues, federal and local funds.

A $3.8 Million ExpressLanes grant, previously secured by Metro in partnership with the City of Los Angeles, will pay for the capital costs for the Phase 1 Pilot in DTLA. Funding for future capital expansion may be funded through the Active Transportation Program (ATP), CMAQ or other funding programs. We estimate that considering user fee revenue but not advertising sponsorship revenue, Metro's 35% O&M share for the DTLA pilot would be approximately $500,000 annually. Once the program is underway, we will pursue sponsorship and advertising opportunities and anticipate Metro's 35% net O&M contribution to be covered by sponsorship and advertising revenue. Since the Bikeshare is a multi-year program, the cost center manager and Chief Planning Officer will be accountable for budgeting the O&M and capital costs in future years.

Impact to Budget

A previously awarded $3.8 million ExpressLanes grant will pay for the capital costs for Phase I: Downtown Los Angeles (DTLA) Pilot. This fund is not eligible for bus and rail operating and capital expenditures. Staff will coordinate with Regional Programming to determine the best source of funding for O&M and future phases. The final funding

source will be programmed and identified by the department of OMB and Regional Programming. Should other eligible local funding sources become available, they may be used in place of the originally identified funds.

NEXT STEPS

We will negotiate an MOU with the cities and return to the Board for authorization to execute the MOU. We will also return to the Board to request the award of a contract for Metro Bikeshare Pilot in DTLA.

ATTACHMENTS

A. January 2014 Bikeshare Board Report
B. Metro Board Motion 58
C. Map & List of Proposed Bikeshare Locations for Los Angeles, Pasadena
D. Map & List of 8 Proposed Bikeshare Ready Expansion Communities/Area

Prepared by: Avital Shavit, Transportation Planning Manager V (213) 922-7518
Laura Cornejo, Deputy Executive Officer (213) 922-2885
Diego Cardoso, Executive Officer Countywide Planning (213) 922-3076
Cal Hollis, Managing Executive Officer (213) 922-7319

Martha Welborne, FAIA
Chief Planning Officer

Arthur T. Leahy
Chief Executive Officer

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

EXECUTIVE MANAGEMENT COMMITTEE
JANUARY 16, 2014

SUBJECT: BIKE SHARE PROGRAM

ACTION: APPROVE DEVELOPMENT OF IMPLEMENTATION PLAN

RECOMMENDATION

Authorize the Chief Executive Officer (CEO) to undertake a study of how a Bike Share Program could be implemented throughout the County, including the following provisions:

1) Coordinate with the recommended pilot cities before adopting a plan;
2) Funding for the Bike Share Program will be the responsibility of the cities, Metro will only play a coordinating role;
3) Complete the study within six months and return to the Board with the recommended approach.

ISSUE

At the October meeting, the Board approved Motion 66 (Attachment A), providing direction to staff to report back to the Board at the January 2014 meeting with a business case analysis, including recommendations on how to proceed to develop a regional bicycle share program.

At the November Executive Management Committee, we provided information on the Industry Review that was held (Attachment B). Since that time, additional work has been done. We are requesting Board approval to develop a Bike Share Implementation Plan in coordination with pilot cities, with an intent to explore cooperative funding by local participants as the principal source of project funding. We feel that the analysis that will be provided by this six month study is necessary before the pilot cities can launch into a regional bike share program.

DISCUSSION

Bike Share is a program designed for point-to-point local trips using a shared use fleet of bicycles strategically located at docking stations throughout a well-defined project area and within easy access to each other.

Bike Share programs around the country and world have proven to be a strong first and last-mile short-trip transportation option. When coordinated with transit, such programs can facilitate reductions in vehicle miles traveled, reduced travel times, improved access, and growth in bicycling as a viable mode of travel.

Funding Sources

In our review of Bike Share programs around the country, we have found that a variety of sources of funding are used by the various cities to support their programs, and in no case are transit agencies paying for these programs. Some programs are supported by sponsorships, some are funded privately, many cities rely on CMAQ funds (Congestion Mitigation and Air Quality Improvement Program), and other local funds are used. If Metro were to fund a countywide Bike Share program, resources needed to build the transit corridors would be diminished.

Area Readiness

With Metro's regional rail network currently expanding, the region is primed for a Bike Share program that will support and enhance first-last mile connections and intra-jurisdictional local trips. According to the 2000 National Household Travel Survey, bicycling in Los Angeles County accounted for 1% of all trips. For comparison purposes, 3% of trips were made on transit. The 2012 Southern California Association of Governments (SCAG) Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS), notes that between 2000 and 2009, bicycling as a means of transportation increased by 75%.

Pointing to the role of bicycling as a first-last mile solution, a recent sampling of Metro's rail system showed approximately 8,560 daily bike boardings on Metro's rail network, a 42% increase from fiscal year 2012. Average daily bicycle boardings per station are included in Attachment C.

Important to a successful Bike Share program is having the bicycle infrastructure in place to support bicycling. Per the 2012 RTP/SCS, Los Angeles County has almost 1,270 miles of bicycle infrastructure with approximately an additional 1,030 miles planned. Metro rail stations also house a total of 624 bike lockers, 1,231 bike racks and three secured bike parking hubs will be opened within the coming year.

Bike Share Implementation

Metro's role has been to facilitate Bike Share implementation, including providing funding to local jurisdictions through the Call for Projects and coordinating regional compatibility efforts such as addressing technology and software issues. Metro's 2012 Bike Share Concept Report used a number of key criteria to identify where within Los Angeles County Bike Share would be most successful. Based on the report's findings a Bike Share Working Group was established and several communities have been awarded Call funding, including Long Beach, Los Angeles and Santa Monica.

Supporting the 2012 Concept Report findings, these cities have attempted or are in the process of launching Bike Share within their city boundaries, each with varying degrees of progress and success. Other cities are considering initiating similar efforts. Each of these cities has also acknowledged the importance of a seamless regional system.

In light of the varying degrees of progress each of these cities have made and the growing interest to have a regional, seamless program, both the Bike Share Working Group and Bicycle Roundtable recommended that Metro take a lead role. To ensure a user friendly system and facilitate first-last mile connections across Metro's rail network, it is particularly important that Metro facilitate the development of a Bike Share program where users are able to access Bike Share systems seamlessly throughout key cities in the County. The primary role for Metro may be to create a common platform that can be expanded throughout the County, as local communities dedicate facilities and operating revenues.

Based on area readiness, as identified in the 2012 Concept Report and expressed interest from cities, we would recommend an initial Bike Share launch in three key areas: Downtown Los Angeles, Pasadena and Santa Monica/Venice. We would also coordinate with Long Beach, as they are independently pursuing Bike Share and anticipate launching in early 2014. Areas that should be considered for future early phases and that would further enhance first-last mile connections to our transit system or would facilitate intra-jurisdictional travel may include Boyle Heights, Burbank, Culver City, East Los Angeles, Echo Park/Silver Lake, Glendale, Hollywood, Marina Del Rey, UCLA, USC and West Hollywood (Attachment D). Future Bike Share phasing and timeframes would be confirmed as we develop the Implementation Plan and in conjunction with each jurisdiction as they develop funding programs.

Bike Share Pilot Launch

Using Metro's rail network as the foundation for the Bike Share program, we identified key rail stations within each of the recommended pilot areas- Downtown Los Angeles, Pasadena, and Santa Monica, then identified a one mile radius around each of these stations to identify the minimum and maximum number of potential Bike Share stations that could be located within these jurisdictions. We assumed two spread options- the densest is based on findings established by the 2012 Mineta Transportation Institute report, "Public Bike Share in North America: Early Operator and User Understanding",

where the recommended distance between docking stations is considered to be approximately every one-quarter mile. The second, less dense distancing is based on minimum densities as cited in the 2012 USDOT/FHWA "Bike Sharing in the United States: State of the Practice and Guide to Implementation" where a half mile distance is noted. For each of the pilot jurisdictions, preliminary potential locations within the public right-of-way have been identified by each city. As such, these locations, in addition to the recommended rail station locations are noted in the three maps included in Attachment E.

Within the Downtown Los Angeles area we identified five key rail stations and created one mile buffers around them: Union Station, Civic Center, Pershing Square, 7th/Metro and Pico/Chick Hearn. This netted a 7.68 square mile Bike Share station aggregated buffer area. At a one-quarter mile density, 123 Bike Share stations could potentially be located within this area. At a half mile density, 31 Bike Share stations could potentially be located within this area. Because the Chinatown and Little Tokyo/Arts District stations fall within the buffer range and due to characteristics that indicate bike sharing would be successful, we would also recommend docking stations at these rail stations.

In Pasadena, five rail stations were identified: Fillmore, Del Mar, Memorial Park, Lake and Allen stations. A one mile buffer around each of these stations netted an 8.91 square mile Bike Share aggregated buffer area. At a one-quarter mile density, 142 Bike Share stations could potentially be located within this area. At a half mile density, 36 Bike Share stations could potentially be located within this area.

In Santa Monica, three future Expo Stations were identified: 26th Street/Bergamot, 17th Street/Santa Monica College and Downtown Santa Monica. A one mile buffer around each of these stations netted a 6.39 square mile Bike Share aggregated buffer area. At a one-quarter mile density, 102 bike share stations could potentially be located within this area. At a half mile density, 25 Bike Share stations could potentially be located within this area.

As indicated in Attachment E, each of the Bike Share aggregated buffer areas have the bicycle infrastructure in place to support bicycling as a form of transportation. Within three miles of the Union Station, Civic Center, Pershing, 7th/Metro, Little Tokyo, and Chinatown stations, there are 62.3 miles of bicycling infrastructure. Pasadena has 75 miles of bicycle infrastructure and Santa Monica has 42 miles.

Bike docking locations within the public right-of-way and at Metro rail stations will be solidified as we develop the Implementation Plan and will be finalized based on a number of variables, including sources of demand, availability of space, real estate costs and jurisdictional support.

Business Model

Three Bike Share business models dominate the industry: (1) Public agency owns capital and contracts for the operations and maintenance, (2) a non-profit public/private

partnership, created specifically to provide Bike Share service owns capital and contracts for the operations and maintenance and (3) private company owns capital, operates and maintains. We have been focusing on the first and third models as potential options for a Metro led Bike Share program.

The first model, public agency owns and contracts operations/maintenance is the model that tends to be adopted by larger jurisdictions and those wherein multiple jurisdictions that have implemented a regional program. The advantages of this model include providing the jurisdiction with the flexibility to expand offerings of Bike Sharing as is deemed appropriate and necessary, while bringing the experience and innovation of a tried and tested operator. A primary disadvantage is the jurisdiction assuming capital investment and all liability. Cities and regions operating under this model include: Alexandria, Arlington, Aspen, Boston, Broward County, Cambridge, Chicago, Columbus, Fort Worth, Houston, Madison, Nashville, Santa Clara County/San Francisco (Bay Area) Pilot, and Washington, D.C. Based on program success, program size and multi-jurisdictional collaboration, we have found the Bay Area, Chicago and Washington D.C./Arlington/Alexandria programs to be most representative of a Los Angeles region endeavor.

Under this model, participating agencies would purchase and own the Bike Share infrastructure- bicycles, docking stations and kiosks. Attachment F breaks down the potential capital investment. Reflecting the minimum and maximum number of potential Bike Share stations per each pilot jurisdiction at a per bike cost of $4,500 (based on Bay Area, Washington D.C. and vendor estimates of system and bike costs) we find that the total capital investment could range between $4,815,000 and $17,190,000. These cost figures do not include potential real estate costs.

The second model, private company owns and operates is akin to what the City of Los Angeles had previously pursued and Long Beach is now pursuing. Advantages of this model are that the burden of liability and cost of implementing a Bike Share program lies with the vendor. The disadvantages may include a profit driven decision making process whereby Bike Share stations are strictly business decisions with limited consideration for equity issues and regional distribution. Cities operating under this model include: Charlotte, Miami Beach, New York City, and Tampa Bay.

Both business models assume revenues would be derived from membership fees, and advertising and/or sponsorships. Via the Industry survey that we conducted all participating vendors confirmed that advertising and sponsorships would be relied upon to some extent. It was noted that in cases where advertising policies are highly restrictive, then sponsorship policies needed to allow for the maximum potential sponsorship revenues. Vendors also confirmed that advertising and/or sponsorship revenues are especially relied upon in models where the vendor is required to carry the full risk. In the few instances where neither advertising or sponsorships are options, the jurisdiction funds the revenue gap.

Discussions with potential pilot cities all indicate that each of their advertising policies prohibits advertising and most limit or prohibit sponsorship opportunities as well.

However, each of the cities also indicated that efforts are underway to re-examine and revise outdoor policies so as to allow some level of sponsorships.

Preliminary Bike Share Cost Analysis

For this exercise, we examined 14 Bike Share programs currently in place throughout the United States (Attachment G). In doing so we studied their respective business models, membership structures and funding sources. Because the Bay Area, Chicago and Washington D.C./Arlington/Alexandria programs are most reflective of a Los Angeles County-wide effort, many of the cost assumptions are derived from these programs. Locally, we also looked at the model the City of Long Beach is pursuing.

The Preliminary Bike Share Cost Analysis (Attachment H) was developed using several assumptions. These assumptions are as follows:

- Year 1 estimates of 250 stations and 2,500 bikes based on averages from Metro's Preliminary Bike Share Analysis. Year 2 to Year 5 bike fleet growth is based on Metro recommendations for regional Bike Share growth (assuming an average of 25 Bike Share stations per jurisdiction). After 5 years, 10% of fleet is expected to need replacement each year.

- Cost per bike is based on estimates from Washington D.C., Bay Area Pilot, and vendor provided estimates.

- Operating and Maintenance costs per kiosk based on Washington D.C. and Denver systems.

- User Fees in Washington D.C. were $20,000 per station in the first year. Long Beach's preliminary estimates are $15,000 per station. Our model assumes a rate structure of $19,000 per station.

- The $1,000,000 sponsorship revenue is based on Long Beach's preliminary estimates. New York City's sponsorship was $8 million in the first year. We have shown a low number due to currently restrictive sponsorship policies in multiple jurisdictions.

- Advertising revenues shown are based on Long Beach's preliminary estimate. We have kept this number low number due to current strict advertising policies in multiple jurisdictions.

- Grant funding assumptions are based on the Bay Area Pilot, Boston Hubway and Washington D.C. trends.

The Cost Analysis is also model neutral, meaning, we do not identify who owns the capital and the cumulative pretax cash flow should be regarded as the program's overall cash flow. It is the cash flow that is typically divided between the jurisdiction(s) and vendor/operator based on negotiated revenue splits.

Per our cost analysis, the bike share program would begin to recover the capital cost and to make a profit in the fifth year of operation. We assumed the program would grow as it becomes a truly regional effort growing from 2,500 bicycles in the initial year to approximately 5,775 bikes by the sixth year. Potential for additional growth would be assessed as part of the Implementation Plan.

Attachment I includes a list of potential funding sources that could be considered for the Bike Share program's capital cost. Availability of listed funds has not yet been analyzed. Funding sources, including private investment opportunities, would be identified through development of the Implementation Plan and brought back to the Board for approval at a future date.

Implementation Plan

In conducting the industry review it became clear that given the number of agencies involved with a regional Bike Share program, the development and successful implementation requires resolution of a number of issues that need to be addressed prior to releasing a Request For Proposals (RFP) to potential bike share vendors.

Some of the items include identifying the best business model that meets the program purpose and addresses each jurisdiction's financial capacity and flexibility; advertising and sponsorship policies need to be solidified as this will inform the program budget; permitting processes need to be established by each jurisdiction so as to facilitate Bike Share implementation; identifying number and locations for Bike Share stations within the public right-of-way; determining if Metro, each jurisdiction or vender will be responsible for Bike Share marketing, outreach and education; determining revenue split among participating jurisdictions and Metro's role in distributing revenue; coordinating Transit Access Pass (TAP) integration; identifying available real estate or associated costs; identifying a sustainable source of funding; establishing inter-agency agreements; and identifying phase two and three communities. We have therefore concluded that the best approach is to undertake an Implementation Plan to address these issues prior to launching the bike share program by local participating jurisdictions..

DETERMINATION OF SAFETY IMPACT

Approval of this program will have no impact on the safety of our employees or patrons.

FINANCIAL IMPACT

Funding for the study of how a Bike Share Program could be implemented throughout the County is included in the FY14 budget under cost center 4320, project number 405510, task 06.001.11. Once the program is actually underway, no Metro funds are envisioned to be used for the program.

Impact to Budget

The funding source for this activity is Proposition A Administration dollars. This fund is not eligible for bus and rail operating and capital expenditures. No other source of funds was considered.

ALTERNATIVES CONSIDERED

The Board could decide to not authorize the development of an Implementation Plan. However, this would be contrary to the October 2013 Board directive to examine the implementation of a Regional Bike Share program

NEXT STEPS

Upon approval, we will issue a RFP for the development of an Implementation Plan. It is anticipated that an Implementation Plan can be developed within six months of award.

ATTACHMENTS

A. October 2013 Bike Share Motion 66
B. December 2013 Receive and File Bike Share Industry Review Status
C. Rail System Bike Boardings
D. Potential Bike Share Expansion Map
E. Pilot City Maps
F. Bicycle Share Preliminary Capital Cost Estimates
G. Bicycle Share Business Models
H. Preliminary Bicycle Share Cash Flow Analysis
I. Bicycle Share Funding Options

Prepared by: Laura Cornejo, Director Countywide Planning, (213) 922-2885
Diego Cardoso, Executive Officer Countywide Planning, (213) 922-3076

Martha Welborne, FAIA
Chief Planning Officer

Arthur T. Leahy
Chief Executive Officer

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MAYOR ERIC GARCETTI,
SUPERVISOR ZEV YAROSLAVSKY,
SUPERVISOR DON KNABE,
DIRECTOR MIKE BONIN, AND DIRECTOR PAM O'CONNOR

Countywide Bicycle Share Program

October 17, 2013

MTA needs to lead and supplement its regional public transportation system by supporting bicycles and bicycle infrastructure in completing the first and/or last leg of a trip (e.g., from a train station to the workplace).

Bicycle ridership will also help reduce dependency on automobiles, particularly for short trips, thereby reducing traffic congestion, vehicle emissions, and the demand for parking.

A bicycle share program will also promote sustainable and environmentally friendly initiatives.

Bicycle share is a program designed for point-to-point short trips using a for-rent fleet of bicycles strategically located at logical stations locations.

Beginning in 1993, a series of successful bicycle share programs were implemented in Europe.

Currently the US is home to a number of bicycle share programs in cities such as Chicago, Denver, Minneapolis, New York City, San Francisco, etc.

According to the Earth Policy Institute, the number of bicycles in the U.S. bicycle share fleet is set to double by the end of 2014.

The Los Angeles region has seen a variety of bicycle share efforts, but none have taken hold because of a lack of regional coordination.

Given its role as the countywide transportation agency, in July 2011 the MTA board passed a motion directing staff to develop a strategic plan for implementing bicycle share in Los Angeles County.

CONTINUED

WE THEREFORE MOVE that the MTA Board direct the CEO to:

A. Adopt as policy MTA's support of bicycles as a formal transportation mode.

B. Convene a bicycle share industry review in November 2013 in order to advise on procuring a regional bicycle share vendor for Los Angeles County.

C. Report back to the Board at the January 2014 meeting with the results of the industry review, including a business case analysis and recommendations on proceeding with a Request for Proposals (RFP) to implement a regional bicycle share program.

D. Include in the analysis a phased approach for implementing this program based on area readiness, including, but not limited to, an examination of existing bicycle infrastructure, existing advertising policies, current ridership trends, and transit station locations.

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Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

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EXECUTIVE MANAGEMENT COMMITTEE
NOVEMBER 21, 2013

SUBJECT: BIKE SHARE PROGRAM

ACTION: RECEIVE AND FILE

RECOMMENDATION

Receive and file this update on the Bike Share Program in response to the October 2013 Board Motion 66 (Attachment A).

ISSUE

At the October meeting, the Board approved Motion 66, providing direction to:

A. Adopt as policy MTA's support of bicycles as a formal transportation mode;

B. Convene a Bicycle Share Industry review in November 2013 in order to advise on procuring a regional bicycle share vendor for Los Angeles County;

C. Report back to the Board at the January 2014 meeting with the results of the industry review, including a business case analysis and recommendations on proceeding with a Request for Proposals (RFP) to implement a regional bicycle share program; and

D. Include in the analysis a phased approach for implementing this program based on area readiness, including, but not limited to, an examination of existing bicycle infrastructure, existing advertising policies, current ridership trends, and transit station locations.

This report provides the status of the Board directive.

DISCUSSION

Connected by the Metro transit system, bike share can help address first-last mile gaps around transit stations, increase the station catchment area and can introduce new users to bike transportation by removing barriers, such as bicycle ownership, maintenance, and security and can increase mobility while decreasing automobile use.

Most recently, Metro's role has been to facilitate bike share implementation, including providing funding to local jurisdictions for bike share through the Call for Projects and coordinating regional compatibility efforts such as addressing technology and software issues.

Status

In response to the Motion, we initiated the first phase of the industry review. We have met with bike share industry stakeholders and municipal planners, convened as the Bike Share Working Group and Metro's Bicycle Roundtable on November 4th and November 5th, respectively. The goal of the meetings were to gauge what role stakeholders and municipalities deemed appropriate for Metro to take and what opportunities as well as concerns existed by Metro taking on a larger role in a regional bike share effort. In anticipation of the next phase of the industry review which will be to conduct a market survey as well as developing the business case and next steps, we established a rudimentary understanding of the level of flexibility municipalities would need if Metro led a regional effort and highlighted areas that still need to be vetted further.

The following is a summary of the Bike Share Working Group and Bicycle Roundtable input received:

- One contractor, or multiple contractors with compatible technologies is key to achieving regional connectivity
- Metro, as a regional agency, should lead the effort and set the regional framework for cities to leverage at the local level
- A single system with local flexibility
- Bike Share must connect to a larger transit network
- Infrastructure, such as bike lanes and way finding, should support bike share implementation
- Phasing, especially pilot phase is key to success
- Local universities and colleges should be invited to participate
- Increase bike mode Call for Project funding to facilitate regional participation and infrastructure to support bike share

If we move forward with a greater role in establishing a regional bike share program, the following items surfaced during the two meetings as needing to be addressed:

- Revenue Split with Cities: Would Metro serve as a clearing-house or would cities receive their split directly from vendors
- Advertising/Sponsorship: How would differing advertising policies potentially affect proposed business plans
- Software: Develop a program that allows flexibility for evolving software and bike technology
- Payment: Can Transit Access Pass be adapted to allow for bike share payment
- Implementation: Pilot area and subsequent phasing and timing for roll out
- Inter-jurisdictional Operability: Bike redistribution and cost split, multi-jurisdictional membership cards

NEXT STEPS

We will return to the Board in January with the results of the market survey, business case and recommended next steps.

ATTACHMENT

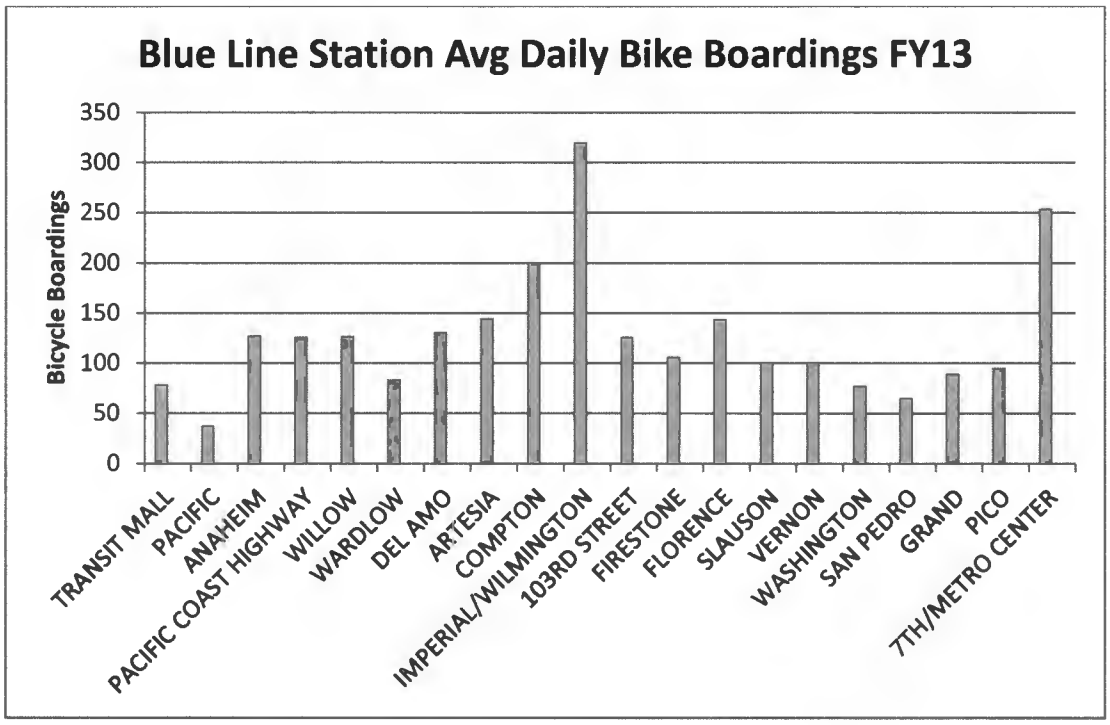
A. October 2013 Motion 66

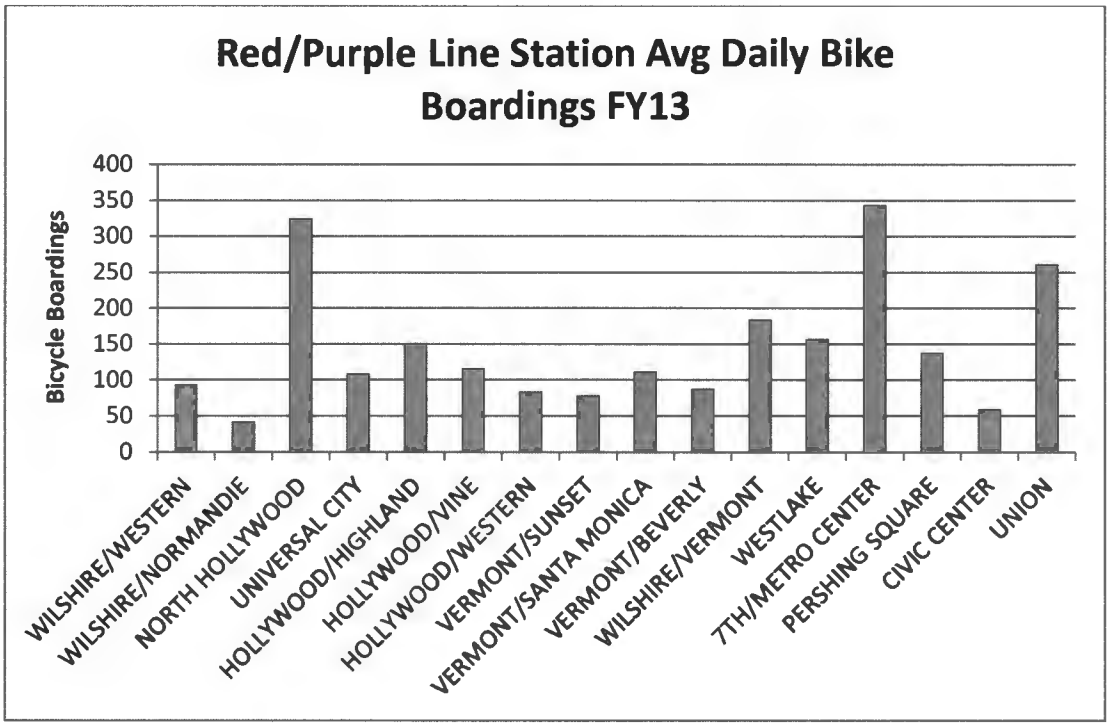
Prepared by: Laura Cornejo, Director, (213) 922-2885
Diego Cardoso, Executive Officer, (213) 922-3076

Martha Welborne, FAIA
Chief Planning Officer

Arthur T. Leahy
Chief Executive Officer

ATTACHMENT C





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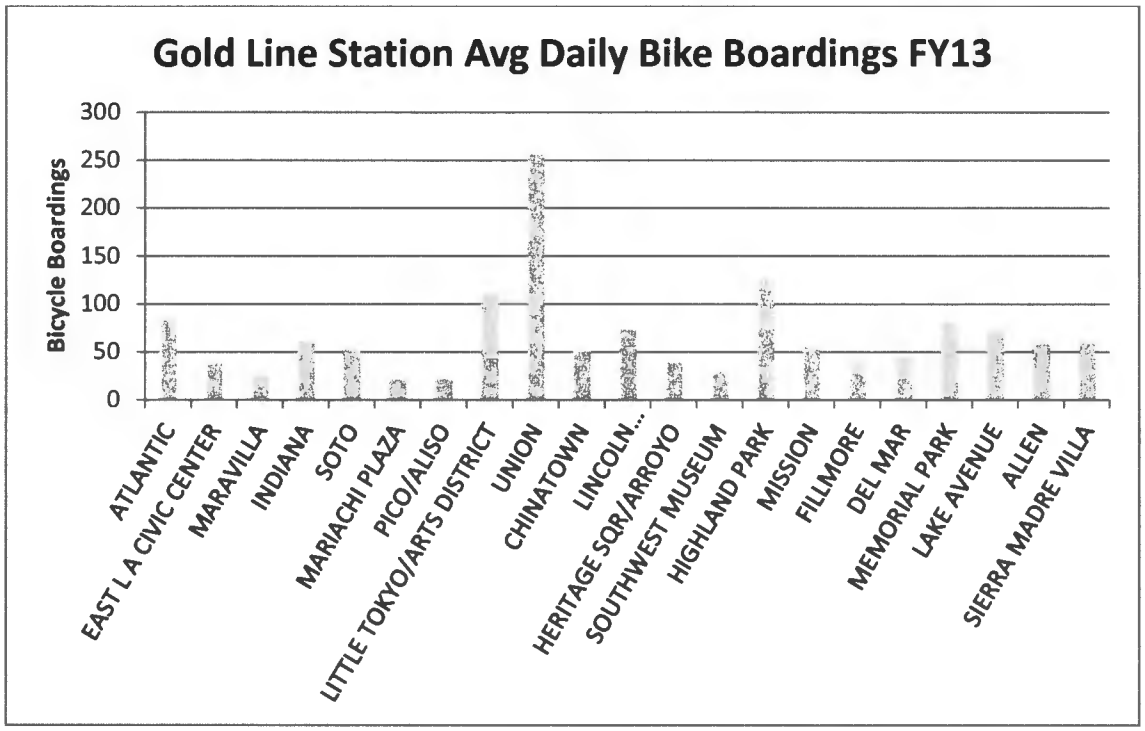
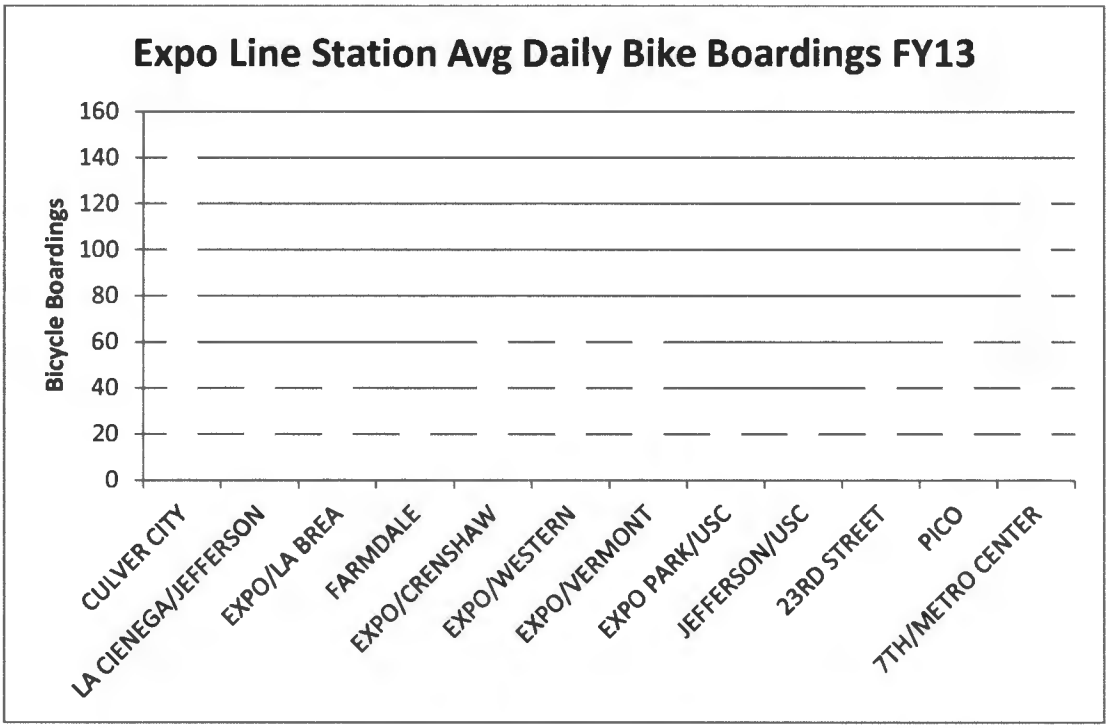
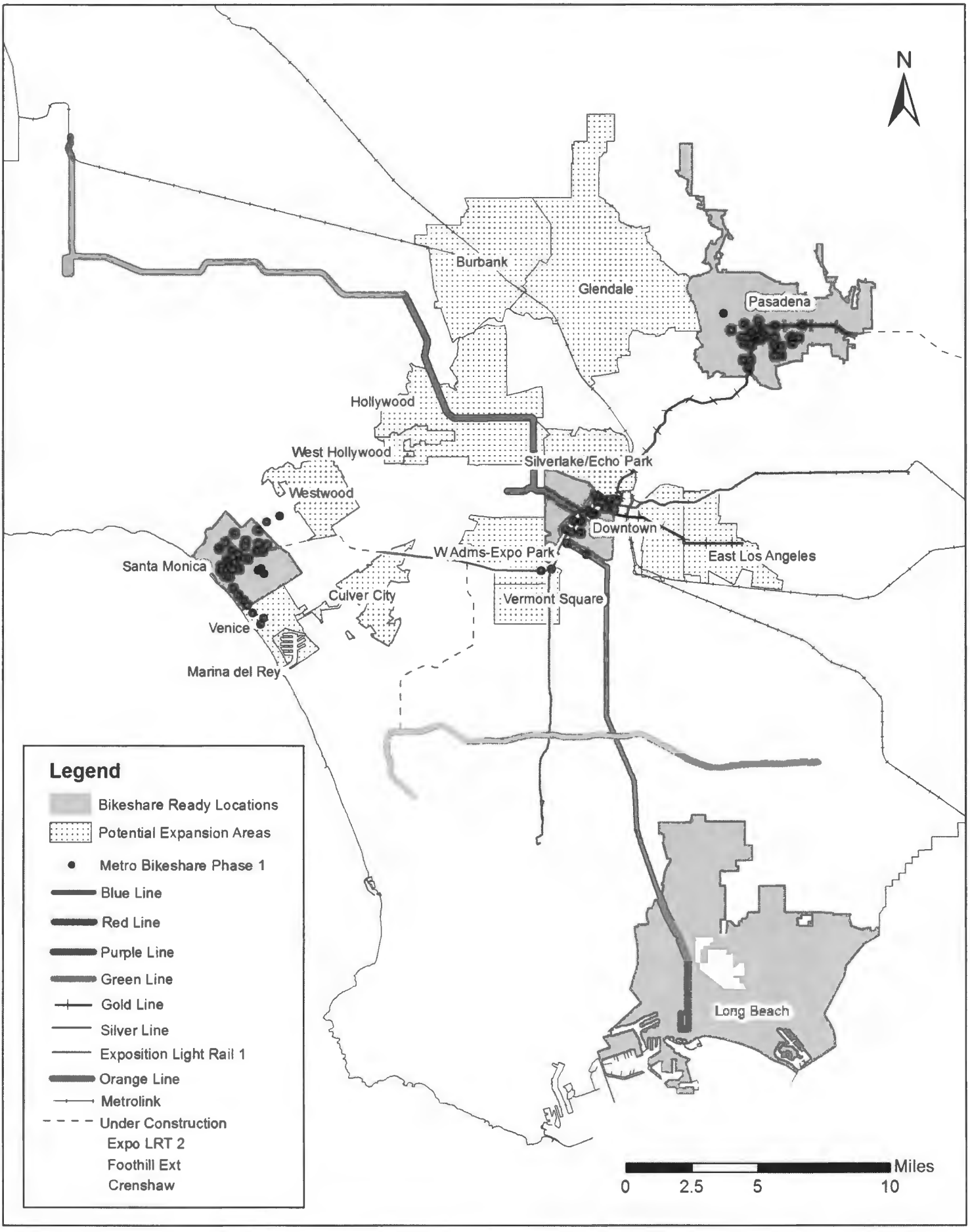


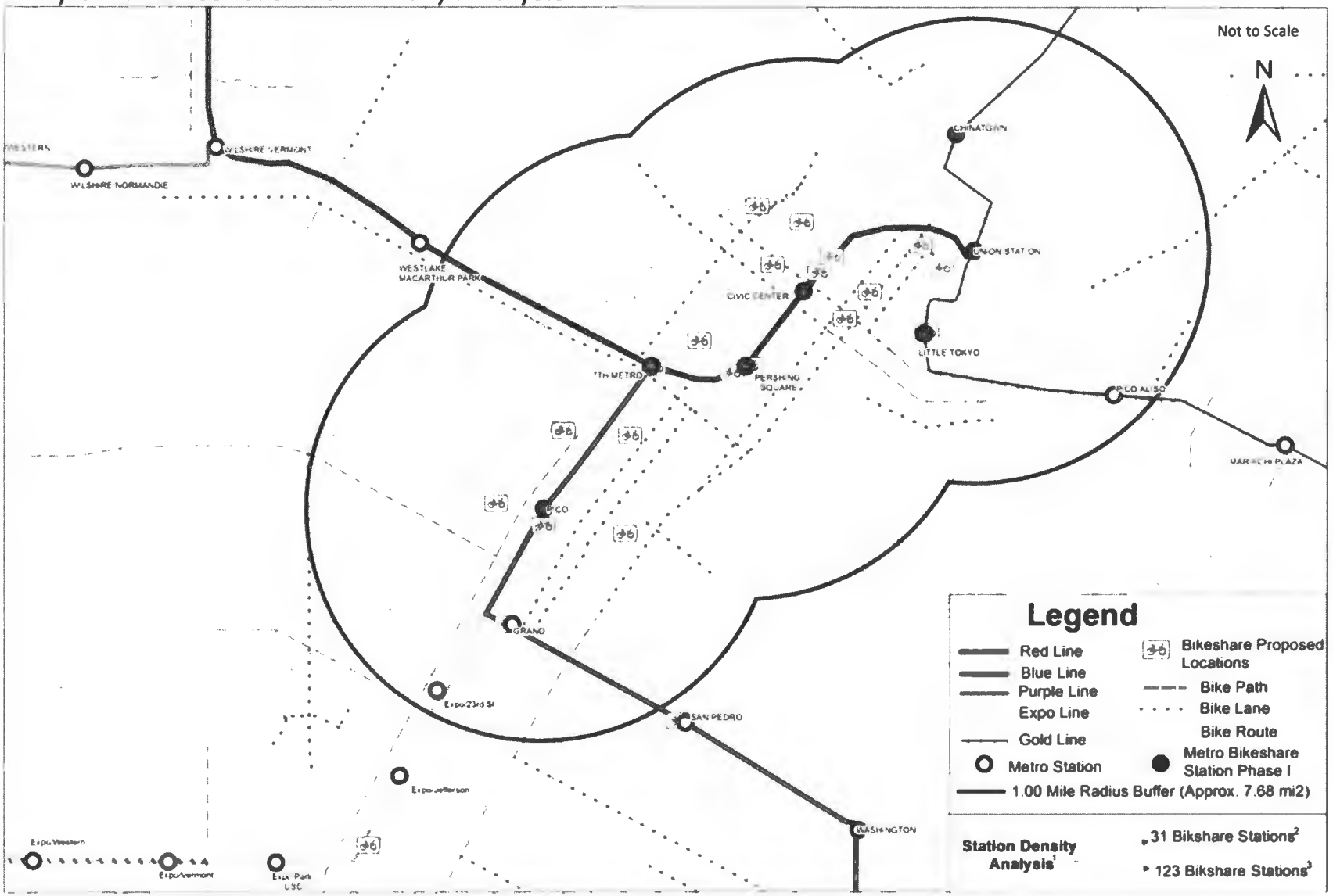


Potential Bikeshare Expansion Areas



ATTACHMENT E

City of LA Bikeshare Preliminary Analysis



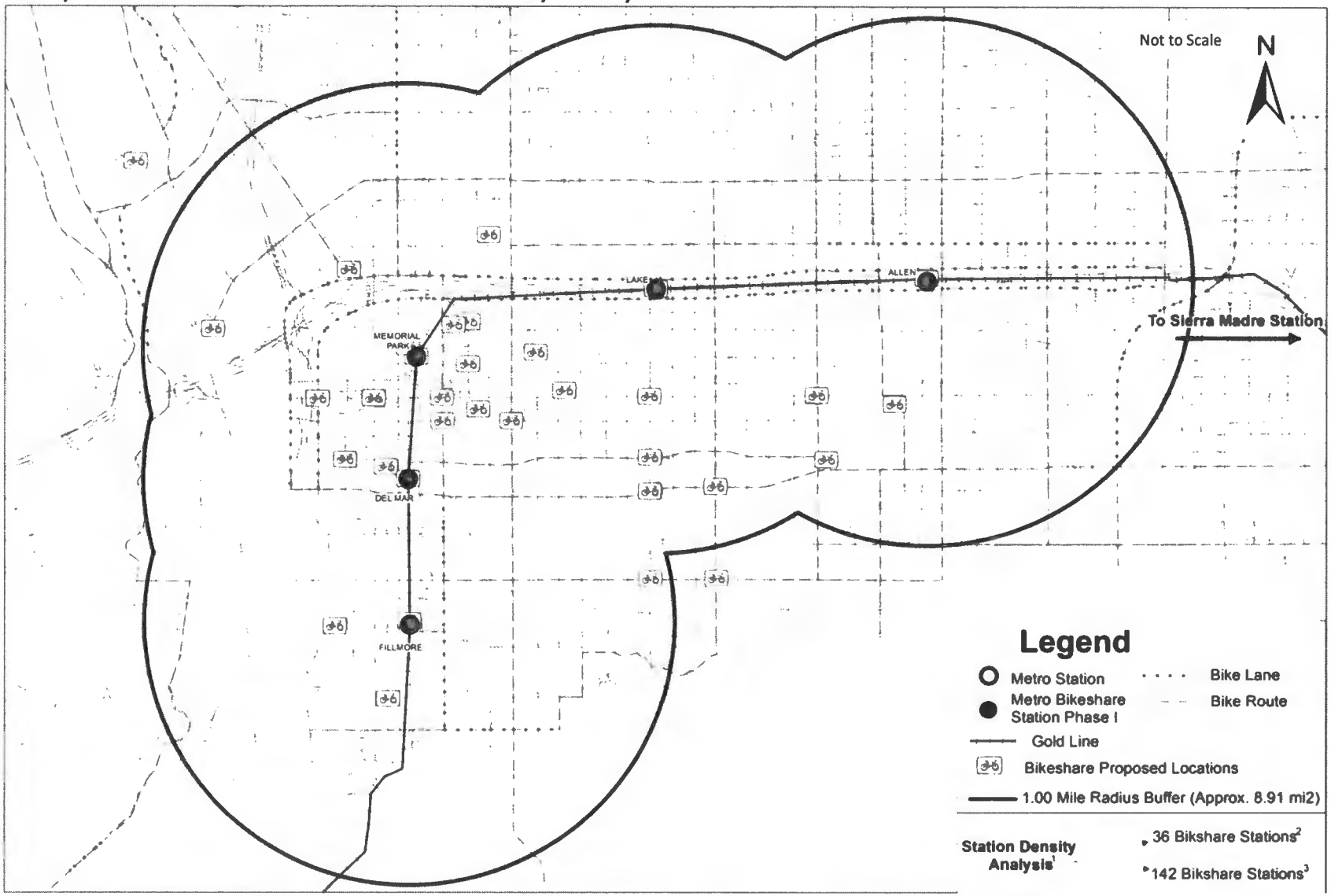
1. "Bike Sharing in the United States: State of the Practice and Guide to Implementation- USDOT/FHWA 2012", indicates a range of 3.5 to 5 bikeshare stations per square mile of service area for most existing systems. For denser urban areas, 14 stations or more per square mile may also be recommended. MTI Report 11-26, Public Bikesharing in North America: Early Operator and User Understanding (2012), found that out of 19 operators 53% preferred distance between docking stations 300 yards to one-quarter mile apart. For this assessment one-quarter mile and one-half mile between docking stations was used.
2. 4 bikeshare stations per square mile at one-half mile apart.
3. 16 bikeshare stations per square mile at one-quarter mile apart.

Disclaimer: This map is for preliminary analysis only. Actual quantities and locations of bikeshare stations will be determined upon feasibility study and implementation in conjunction with local jurisdictions

Metro Bike Program

ATTACHMENT E-3

City of Pasadena Bikeshare Preliminary Analysis



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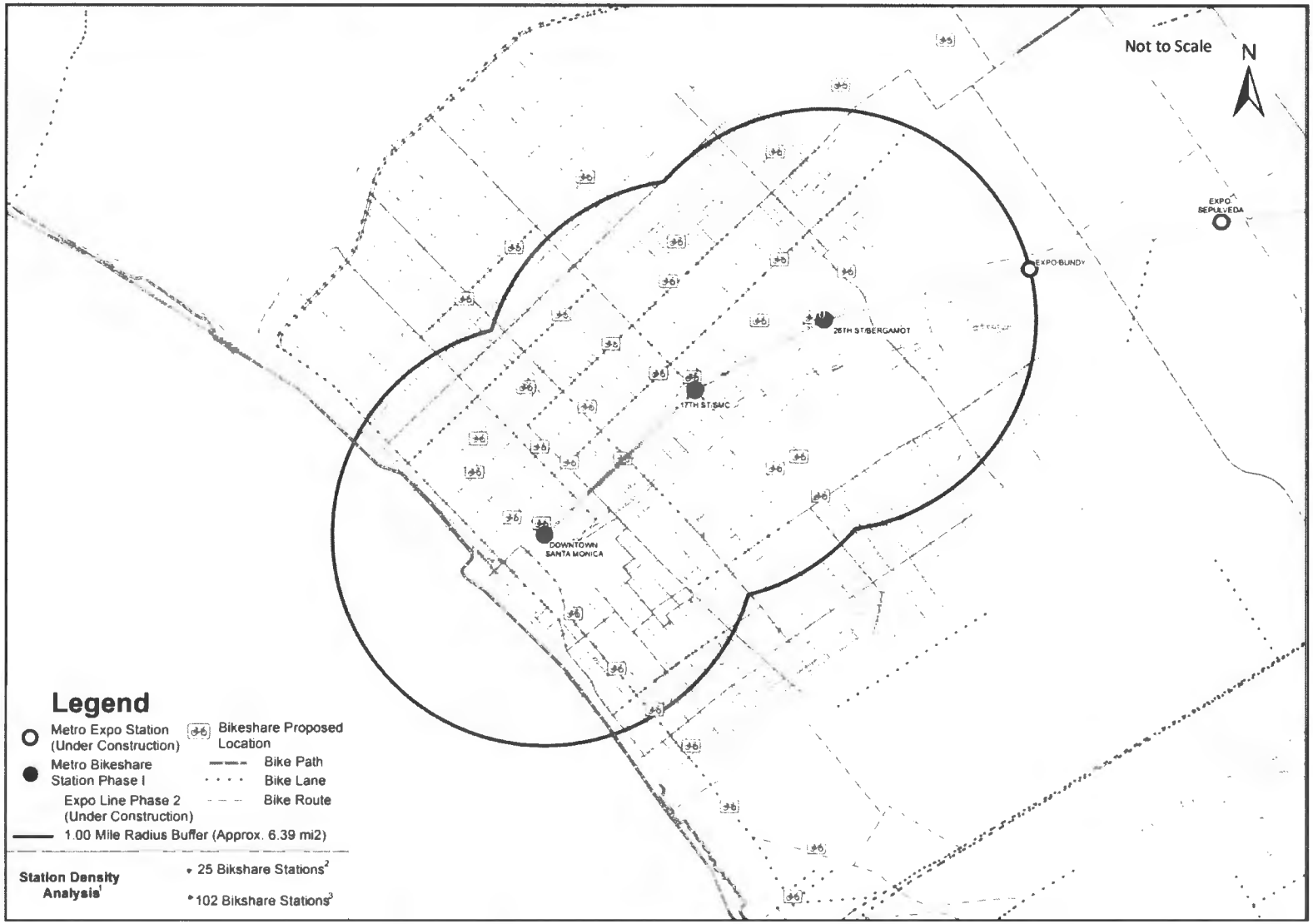
Metro Bike Program

ATTACHMENT E-4

City of Santa Monica Bikeshare Preliminary Analysis



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Metro Bike Program

ATTACHMENT F

PRELIMINARY BIKE SHARE CAPITAL COST ESTIMATES

Based on figures from bike share locations in other regions across the United States and vendor estimates, cost ranges were calculated for the Los Angeles Region accounting for low and high density station locations and average costs of equipment (bikes per dock), as follows:

LOS ANGELES STATION COST[1]	Low Density (31 Stations)[2]	High Density (123 Stations)[2]
Cost ($4,500)[3]	$1,395,000	$5,535,000

PASADENA STATION COST	Low Density (36 Stations)[2]	High Density (142 Stations)[2]
Cost ($4,500)[3]	$1,620,000	$6,390,000

SANTA MONICA STATION COST	Low Density (25 Stations)[2]	High Density (102 Stations)[2]
Cost ($4,500)[3]	$1,125,000	$4,590,000

Combined regional costs based on costs per stations in each city and the number of Metro stations in each jurisdiction yield potential cost ranges:

TOTAL COST AT METRO STATIONS IN EACH CITY[4]	Metro Stations	Cost ($4,500)[3]
Los Angeles	7	$315,000
Santa Monica	3	$135,000
Pasadena	5	$225,000
TOTALS	15	$675,000

TOTAL COST AT METRO AND CITY STATIONS[4]	Low Density (107 Stations)[2]	High Density (382 Stations)[2]
Cost ($4,500)[3]	$4,815,000	$17,190,000

[1] Gold Line Station Pico/Aliso and Blue Line Station Grand are located within the City of Los Angeles buffer area, but not included in calculation due to physical space constraints at station locations.

[2] Methodology for calculating preliminary station ranges is detailed in Bikeshare Preliminary Analysis.

[3] Bicycle per docking station costs calculated based on estimates from Washington D.C., Bay Area Pilot, Denver B-Cycle and Alta Bike Share. Actual costs will vary from location to location. Costs assume 10 bikes will dock at each station.

[4] Cost does not assume any real estate transactions or land use considerations.

DISCLAIMER: This cost analysis is for preliminary analysis only. Actual costs will depend on the number of bike share stations determined by a feasibility study, vendor technology and land use considerations.

ATTACHMENT G

BICYCLE SHARE BUSINESS MODELS

BIKE SHARE BUSINESS MODELS

- Modern Information Technology-based bicycle share capital development appears in three forms:
    1) Public agency owns and contracts with private (for-profit or non-profit) company for operations
        - Advantages: Expands offerings of jurisdiction's transportation service, while bringing the experience and innovation of a tried and tested operator
        - Disadvantages: Jurisdiction assumes all liability
        - Cities operating under this model: Alexandria, Arlington, Aspen, Boston, Broward County, Cambridge, Chicago, Columbus, Fort Worth, Houston, Madison, Nashville, Santa Clara County & San Francisco Pilot, and Washington D.C.
    2) Non-profit public/private partnership, created specifically to provide bike share service, owns and contracts with private (for-profit or non-profit) company for operations
        - Entities can include city, county, chamber, public health department, redevelopment agency, or the private sector
        - Advantages: Receives funding from the jurisdiction, while relieving liability from the jurisdiction
        - Disadvantages: Splitting control amongst multiple stakeholders is difficult
        - Cities operating under this model: Chattanooga, Boulder, Des Moines, Denver, Milwaukee, Minneapolis, Oklahoma City, Omaha, San Antonio, and Salt Lake City, and San Antonio
    3) Private company owns and operates
        - Advantages: Relieves jurisdiction from committing resources
        - Disadvantages: Does not ensure equity, quality service, and may fail if not profitable in first few years
        - Cities operating under this model: Charlotte, Miami Beach, New York City, and Tampa Bay

CAPITAL/OPERATIONAL COSTS & FUNDING SOURCES

- Direct Capital Costs
    - Bicycles
    - Docking stations
    - Kiosks or User interface technology
    - Real estate transactions
- Direct Operational Costs
    - Administration: Website, Mobile apps, Registrations
    - Redistribution of bicycles: Manual redistribution and/or pricing incentives
    - System monitoring: Call centers and on-call repair
    - Maintenance: Keeping bicycles, software, etc. in running order
    - Power supply: Maintaining solar, battery, or grid power supply
    - Data Reporting: Maintenance, planning and real time data
- Associated Capital Costs
    - Construction of infrastructure: Bicycles, docks, kiosks or user interface
    - Streetscape improvements

- Associated Operational Costs
    - Insurance
    - Maintenance of infrastructure and bikeways
    - Bicycle safety training and education
- Real Estate Costs
    - Land Use Negotiations:
        - Metro Property: Where Metro does not own sufficient land, negotiations with private owner or entity
        - Public Right-of-Way: Negotiations with Cities or County of Los Angeles
        - Private Property: Negotiations with private owner
    - Spatial Considerations:
        - Sidewalk: ADA compliance, right-of-way negotiations
        - In-Street: Removal of street parking negotiations, safety considerations
- Funding Sources
    - Municipalities: Federal, state, local or other grants and funding
    - Advertising: Kiosk or Station advertising
    - Sponsorship: Title, presenting, station, dock, bike/fender, web, helmets, or other opportunities
    - Memberships & user fees
    - Public-private partnerships: Sponsorship or corporate donor

The business model matrix below captures the business models and funding sources for bike share for 14 systems in the United States:

COMPARISON TABLE OF EXISTING UNITED STATES BIKE SHARE PROGRAMS

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
Boston & Cambridge, MA	July 2011	Hubway (Alta Bike Share)	600/60	36,000 annual/ 30,000 casual, 140,000 rides (in 4 months)	$85/year $20/month $12/3-day $5/day	Owned/Managed by County, operated by Alta (for-profit)	$4.5 m (75% public FTA/CMAQ, 25% private). Each municipality responsible for own sponsorship
Boulder, CO	May 2011	Boulder B-Cycle	110/15	1,171 annual/ 6,200 casual	$50/year $15/week $5/day	Owned/Managed by Non-Profit & operated by B-Cycle (non-profit)	Revenue from parking fees, citations; Transportation and Distribution Services
Broward County (Fort Lauderdale), FL	December 2011	Broward County B-Cycle	200/27	37,000 rides (in 1 year)	$45/year $25/week $5/day	Owned/Managed by Broward County, operated by Broward County B-Cycle (non-profit)	$1.1 m (63% private, 27% public)
Chattanooga, TN	July 2012	Bike Chattanooga (Alta Bikeshare)	300/30	400 annual, 12,600 rides (in 6 months)	$75/year $6/day	Owned/Managed by Non-Profit, operated by Alta (for-profit)	$2 m CMAQ

ATTACHMENT E-3

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
Chicago, IL	June 2013	Divvy (Alta Bikeshare)	750/68	3,7000 annual, 50,000 trips (in 1 month)	$75/year $7/day	Owned/Managed by City, operated by Alta (for-profit)	$22 m in fed/local grants
Denver, CO	April 2010	Denver B-Cycle	520/52	2,659 annual/ 40,600 casual, 100,000 rides	$65/year $30/Month $20/week $6/day	Owned/Managed by Non-Profit, operated by B-Cycle (non-profit)	Capital $1.5 m (CDOT, EPA, FHWA, gifts); 16% public (Vehicle registration tax), 84% private
Des Moines, IA	Sept 2010	Des Moines Bicycle Collective B-Cycle	22/5	20 annual, 109 rides	$50/year $30/month $6/day	Owned/Managed by Non-Profit, operated by B-Cycle (non-profit)	Capital $120,000 funded by private contributors, sponsorships
Fullerton, CA	TBD: Planned for Fall 2014	BikeLink (Bike Nation)	TBD: Planned 165/15	N/A	$75/annual, $45/annual (student), $12/week, $5/day	Owned/Managed and operated by Bike Nation (for-profit)	Capital $1.48 m (OCTA federal grants, local Mobile Source Aire Pollution Reduction Review Committee Grant)

ATTACHMENT E-4

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
Miami Beach, FL	Mar 2011	DecoBike	800/91	2,500 annual/ 338,828 casual	$15/month (regular) $25/month (deluxe) $35/month (visitors) $24/day (visitors)	Owned/Managed and operated by DecoBike (for-profit)	$4 m Private investor DecoBike – revenues split between DecoBike and City
Minneapolis, MN	June 2010	NiceRide Minnesota B-Cycle	1,300/145	3,521 annual/ 37,103 casual	$60/year $30/month $5/day	Owned/Managed & operated by Non- Profit	Capital $5.3 m (FHWA); 63% public funds; 37% private funds.
New York City, NY	May 2013	Citibike (Alta Bikeshare)	5,700/330	80,000 annual (in 3 months)	$95/year $25/week $10/day	Owned /Managed and operated by Alta (for-profit)	Private financing
San Antonio, TX	March 2011	San Antonio B-Cycle	210/23	1,000 annual/ 2,800 casual, 16,100 rides (in 6 months)	$60/year $24/week $10/day	Owned/Managed by City and operated by B-Cycle (non-profit)	$840,000 DOE/CDC funds, $235,000 and $58,000 in station sponsorships

ATTACHMENT G-5

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
San Francisco/ Bay Area Cities, CA PILOT	August 2013	Bay Area Bikeshare (Alta Bikeshare)	700/34	2,080 annual, 14,591 trips (in 1 month)	$88/year $22/3-day $9/day	Owned/Managed by Bay Area AQMD, operated by Alta (for-profit)	$4.3 m Metropolitan Transportation Commission (Bay Area Climate Initiatives – CMAQ), $1.4 m Clean Air Grant (BAAQMD)
Washington D.C. ***(first attempt)***	2008	SmartBike (Alta Bikeshare)	120/10	1,050 annual	$40/year	Owned/Managed and operated by Alta (for-profit)	DDOT funding & Advertising revenue
Washington D.C., Arlington, VA & Alexandria, VA ***(second attempt)***	Sept 2010 & 2011	Capital (CaBi) Bikeshare (Alta Bikeshare)	1,200/140	19,200 annual/ 105,644 casual	$75/year $25/month $15/3-day $7/day	Owned/Managed by DDOT & City of Arlington, operated by Alta (for-profit)	Capital $8 m fed (CMAQ)/state funds. Minimal private sponsorships & revenue.

ATTACHMENT G-6

	250	300	375	450	525	525	525	525	525	
	2,500	**500**	**750**	**750**	**750**	**525**	**525**	**525**	**525**	
	250	50	75	75	75	-	-	-	-	
4,500	11,250,000	2,250,000	3,375,000	3,375,000	3,375,000	2,362,500	2,362,500	2,362,500	2,362,500	2
	35,000	-	35,000	-	35,000	-	35,000	-	35,000	
000	5,750,000	6,900,000	8,625,000	10,350,000	12,075,000	12,075,000	12,075,000	12,075,000	12,075,000	12
	17,035,000	9,150,000	12,035,000	13,725,000	15,485,000	14,437,500	14,472,500	14,437,500	14,472,500	14
000	4,750,000	5,700,000	7,125,000	8,550,000	9,975,000	9,975,000	9,975,000	9,975,000	9,975,000	9
000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1
000	3,000,000	3,600,000	4,500,000	5,400,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6
	8,750,000	10,300,000	12,625,000	14,950,000	17,275,000	17,275,000	17,275,000	17,275,000	17,275,000	17
	(8,285,000)	1,150,000	590,000	1,225,000	1,790,000	2,837,500	2,802,500	2,837,500	2,802,500	2
	-	4,000,000	1,000,000	-	-	-	-	-	-	
	11,285,000	13,535,000	16,945,000	20,320,000	23,730,000	26,092,500	28,490,000	30,852,500	33,250,000	35
	5,750,000	12,650,000	21,275,000	31,625,000	43,700,000	55,775,000	67,850,000	79,925,000	92,000,000	104
	17,035,000	26,185,000	38,220,000	51,945,000	67,430,000	81,867,500	96,340,000	110,777,500	125,250,000	139
	8,750,000	23,050,000	36,675,000	51,625,000	68,900,000	86,175,000	103,450,000	120,725,000	138,000,000	155
	(8,285,000)	(3,135,000)	(1,545,000)	(320,000)	1,470,000	4,307,500	7,110,000	9,947,500	12,750,000	15

Assumptions:

Year 1 estimates of 250 stations and 2,500 bikes based on averages from Metro Preliminary Bike Share Analysis. Year 2 to Y based on Metro recommendations for regional bike share growth (assuming average density of 25 stations throughout 11 juris 10% of fleet expected to need replacement each year.

10 bikes per station. Cost per bike divides total system costs over the number of bikes.

Cost per bike based on estimates from Washington D.C., Bay Area Pilot, and bike share vendors.

* Operation and Maintenance costs per station based on Washington D.C. and Denver systems, with 85% of fleet requiring mair

** User Fees in Washington D.C. were $20,000 per station in first year. Long Beach estimates $15,000 per station. To be conser a lower return.

*** The $1,000,000 sponsorship revenue is based on Long Beach's estimates. New York City Sponsorship was $8,000,000 in 1st low number due to strict sponsorhsip policies in multiple jurisdictions.

may be split between jurisdictions

ATTACHMENT I

Bicycle Share Funding Options
(in millions)

Fund Type	*$*	*Allocation Process*	*Programming Action Needed by the Board*	*Eligibility Criteria & Parameters*	*Applications in Existing Bike Share Programs*
Federal					
ATP	$116.6 yearly**	Discretionary	No (Programming is made by CTC & SCAG)	**Capital and non-infrastructure active transportation projects.** **State guidelines have not been finalized.	
CMAQ	$18 yearly	Discretionary	Yes	**Capital and non-infrastructure costs.** For projects that reduce single occupancy vehicle driving and improve air quality.	Has been used by Capital Bikeshare for infrastructure in Washington DC & Virginia.
JARC	$8.35 Total	FTA grant	No	**Capital and non-infrastructurel costs for commute and reverse commute options for low income individuals in Long Beach & City of LA.** FTA does not officially recognize bike share as public transit so the purchase and operation costs of individual bikes may be restricted. Station infrastructure may be covered.	Capital Bikeshare is using JARC to provide free membership, bike education programs and free helmets to low income participants.
Local					
CRD (Toll Lane Revenue)	$4.2 - $5.2 yearly*	Discretionary	Yes	**Capital costs for active transportation & first-last mile solutions.** Must be located within three miles of either the I-110 & I-10 Corridor) or provide regionally significant improvements for the 110 or 10 Corridor. *Fund estimate applies to FY14 only. Future funding contingent on 1-10 & 110 HOT lane project approval	
Local Return - Measure R 15% - PC20%	$245 yearly	Formula By Population	No	**Capital costs.** Local cities could elect to use their share to pay for future phases or as a match.	Local sales tax funds have been used to match/supplement federal grants in many bike share schemes.
MR 25% Highway Operational Improvements	$345 total	Discretionary to only Arroyo Verdugo and Malibu Las Virgenes Subregions	Yes	**Capital costs.** Potential to fund future bike share phases for cities within the subregion.	

58

MOTION BY:
MAYOR ERIC GARCETTI & DIRECTORS ZEV YAROSLAVSKY, MIKE BONIN, JOHN FASANA & DON KNABE

Item 58 — Bicycle Share Program Implementation Plan

In October 2013, the MTA Board adopted, as policy, bicycle use as a formal transportation mode.

Staff was asked to: a) conduct an industry review on procuring a regional bike share vendor; b) prepare a business case analysis and recommendations on proceeding with a Request for Proposals to implement a regional bicycle share program; 3) make recommendations on a phased approach for implementing this program.

Bicycle share offers an alternative means of transportation for short trips that might otherwise have been made by vehicles.

A recent study named "The Bike-Sharing Planning Guide" (Institute for Transportation & Development Policy, December 2013) said "bike-share, more than any other form of urban transport, has the ability to improve and transform our cities."

This means a robust and regional bicycle share program needs to be adopted to address first-mile and last-mile transportation challenges.

An MTA bicycle share program will help connect and expand its transportation coverage to multiple jurisdictions along its transit system.

This is why MTA needs to be the lead agency in the county that will manage and procure a robust bicycle share program.

A single-point agency will also ensure inter-operability among the different jurisdictions and can also provide a multi-modal transportation system through the use of the Transit Access Program ("TAP") smart card.

MTA can also simplify the management of the program by having one agency provide proper accountability and proper management.

MTA needs to also provide a fair-share of funding to support the initiation and maintenance and operations (O&M) costs for the program.

WE, THEREFORE, MOVE that the MTA CEO:

A. Undertake a study of how a Bike Share Program could be implemented throughout the County.

B. Procure, contract and administer the bicycle share program once the implementation study is completed.

C. Implement the program in a phased approach and partner with the cities identified in the Phase I of the bicycle share program so MTA funds at least:
   1. Up to 50% of total capital costs per each city
   2. Up to 35% of total O&M costs per each city (on-going)

D. Identify a financial business plan that includes:
   1. User fees
   2. Advertising fees
   3. Corporate sponsors
   4. A recommendation on a revenue split for all fees/revenues identified above.

E. Prioritize eligible grants to support the costs of the program including:

   1 State Active Transportation Program ("ATP") funds
   2. State "Cap &Trade" funds
   3. Federal bicycle and active transportation funds
   4. All other eligible funding sources

F. Develop a robust system-wide branding and educational effort that supports the use of bicycle share as part of the implementation study.

G. Update on all of the above at the April 2014 Board meeting.

DIRECTOR O'CONNOR'S MOTION REGARDING BIKE SHARE:

1. Is there a firm timeline for Metro's procurement?

2. How will this effort related to the procurement Long Beach is pursuing

3. How will this effort work with Santa Monica's RFP/market test?

4. Will there be coordination with the subregions? What form will that take?

5. Has LA solved its legal outdoor advertising problem?

6. Will there be flexibility for different business case models to operate within the Metro umbrella?

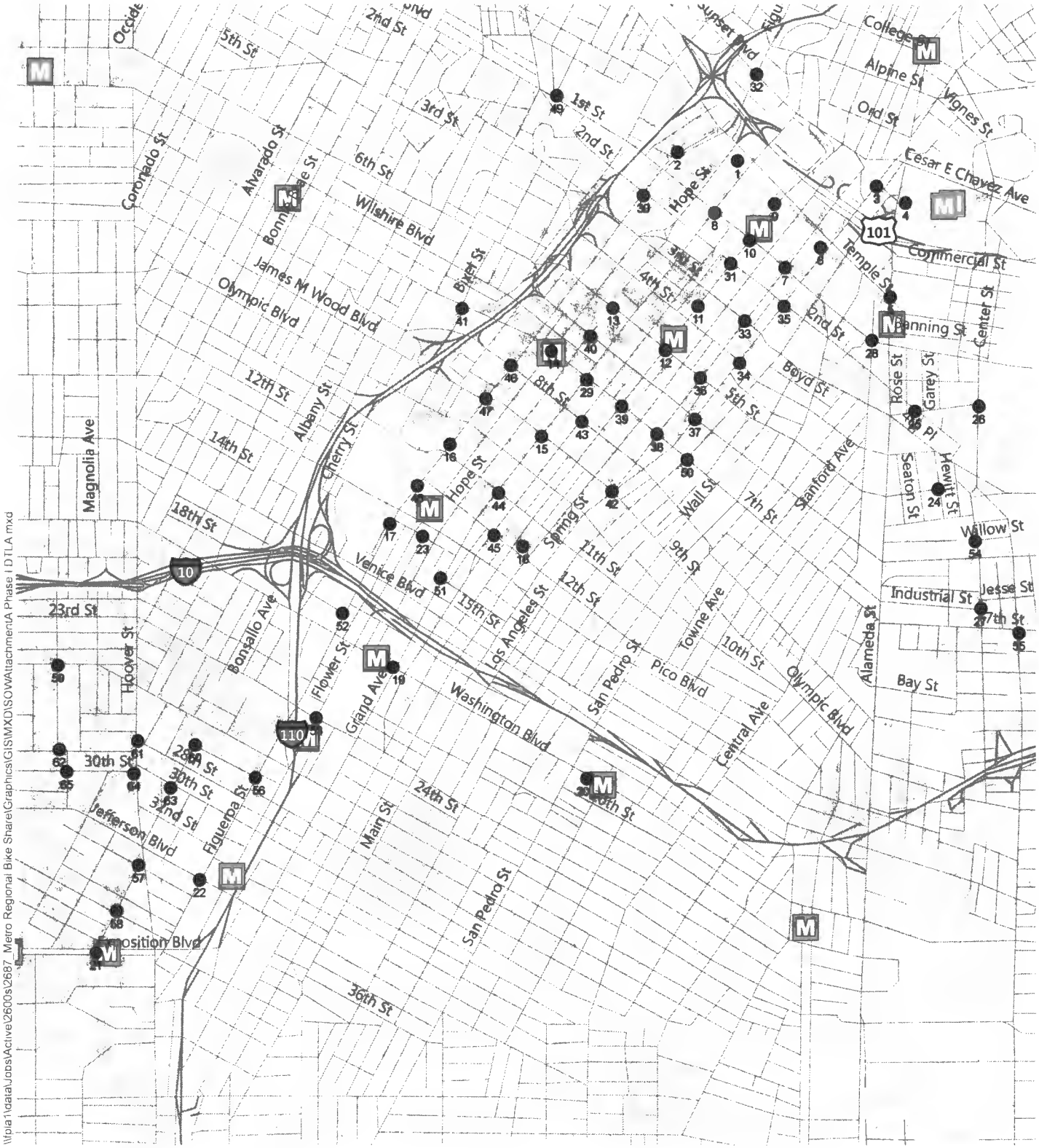
7. Will the Metro's Bikeshare program go beyond the Metro stations? Can the program be expanded to include greater coverage for cities?

6. What does Metro being the lead agency mean? Is this a clearing house for revenue sharing? What other elements are included?

7. What funding is available for phasing the rollout of the program during the first year of implementation on both capital and operating expenditures? How will allocations be made?

8. How will the system enable jurisdictions to make choices about how (what sources) they want to fund the operating gap?

This motion should be fortified with a fact sheet that informs regional cities on the "nuts and bolts" of the business model Metro is pursuing, the timeline for implementation, and subregional coordination.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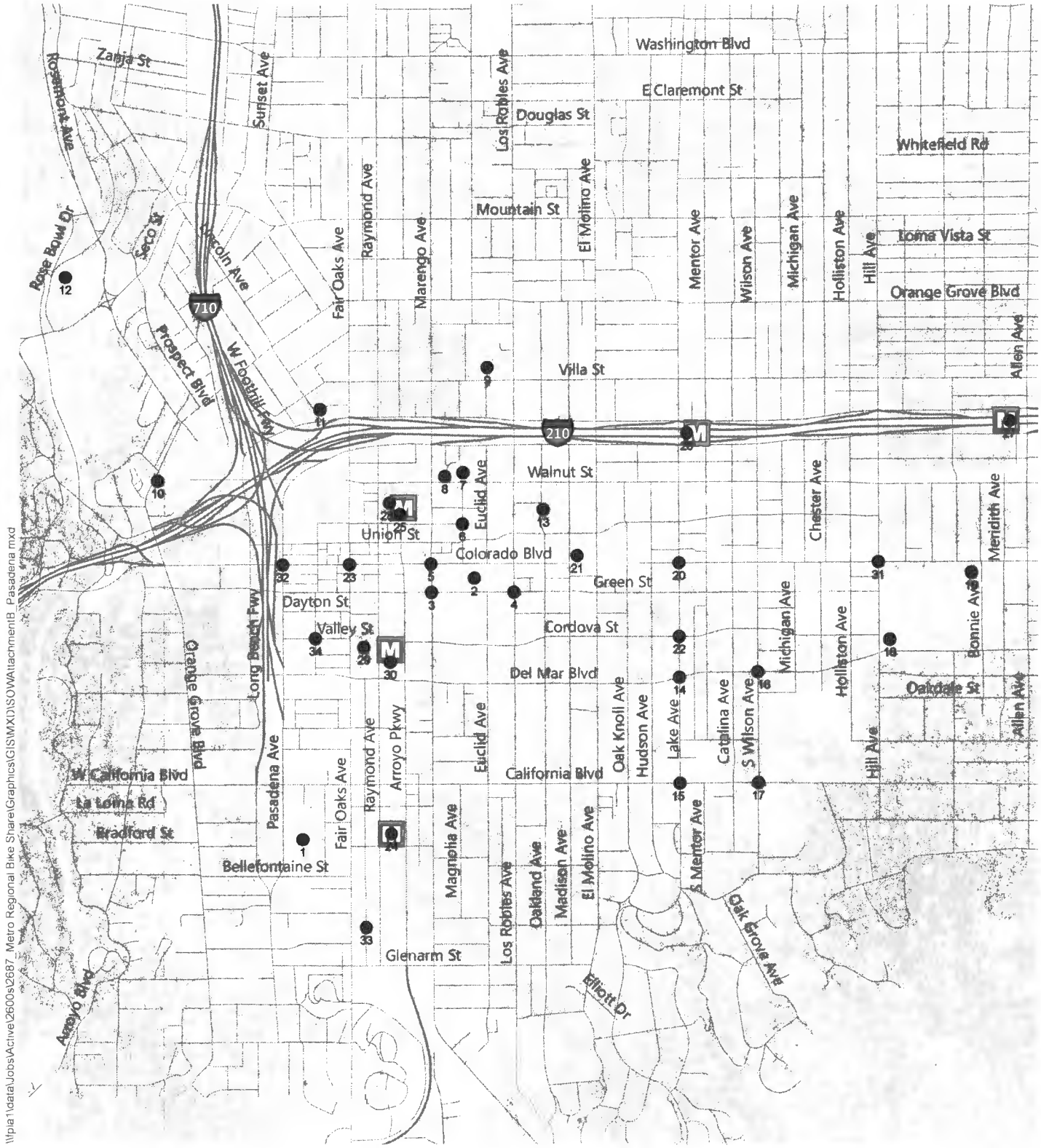
Metro Rail Station
Recommended Regional Expansion Stations
Phase I - 65 Stations
Phase I Pilot
Downtown Los Angeles, CA

Recommended Regional Expansion Stations

Phase I Pilot: Downtown Los Angeles

ID	Station	ID	Station
1	**Hope / Temple**	**34**	**4th / Main**
2	Figueroa / Diamond (Figueroa Plaza)	35	2nd / Main
3	**North Main / Olvera**	**36**	**5th / Spring**
4	Alameda (Union Station)	37	6th / Main
5	**Alameda / Temple**	**38**	**7th / Spring**
6	Main / Temple (City Hall)	39	7th / Hill
7	**1st / Spring**	**40**	**6th / Hope**
8	1st / Grand	41	7th / Bixel
9	**Hill / Temple (Grand Park)**	**42**	**9th / Main**
10	1st / Hill	43	8th / Olive
11	**Hill (Angel's Flight)**	**44**	**11th / Grand**
12	5th / Hill (Pershing Square)	45	12th / Olive
13	**5th / Hope stairs (Library)**	**46**	**8th / Figueroa**
14	7th / Flower (Metro Center)	47	9th / Figueroa
15	**9th / Grand**	**48**	**12th / Figueroa**
16	11th / Figueroa	49	1st / Toluca
17	**Pico / Figueroa (Convention Center)**	**50**	**7th / Los Angeles**
18	12th / Hill (DPW)	51	14th / Grand
19	**Washington / Grand (Grand Station)**	**52**	**18th / Figueroa**
20	Washington (San Pedro Station)	53	23rd / Flower
21	**Exposition (Expo Park/USC Station)**	**54**	**Willow / Mateo**
22	Jefferson / Figueroa (Jefferson/USC Station)	55	7th / Santa Fe
23	**Cameron / Flower (Pico Station)**	**56**	**27th / Figueroa**
24	5th / Hewitt	57	34th / Trousdale
25	**3rd / Traction**	**58**	**36th / Trousdale**
26	3rd / Santa Fe	59	W Adams Blvd / Ellendale Pl
27	**Industrial / Mateo**	**60**	**W 27th St / University Ave**
28	1st / Central	61	W 28th St / Hoover St
29	**7th / Grand**	**62**	**Ellendale Pl / W 29th St**
30	2nd / Figueroa	63	University Ave / W 30th St
31	**2nd / Hill**	**64**	**McClintock Ave / W 30th St**
32	Cesar E Chavez / Figueroa	65	Orchard Ave / W 30th St
33	**3rd / Spring**		

Note: Tentative locations are for planning purposes only and are subject to relocation based on policy and physical constraints.



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M Metro Rail Station

Recommended Regional Expansion Stations

- Phase II - 34 Stations

Phase II Regional Expansion Area
Pasadena, CA

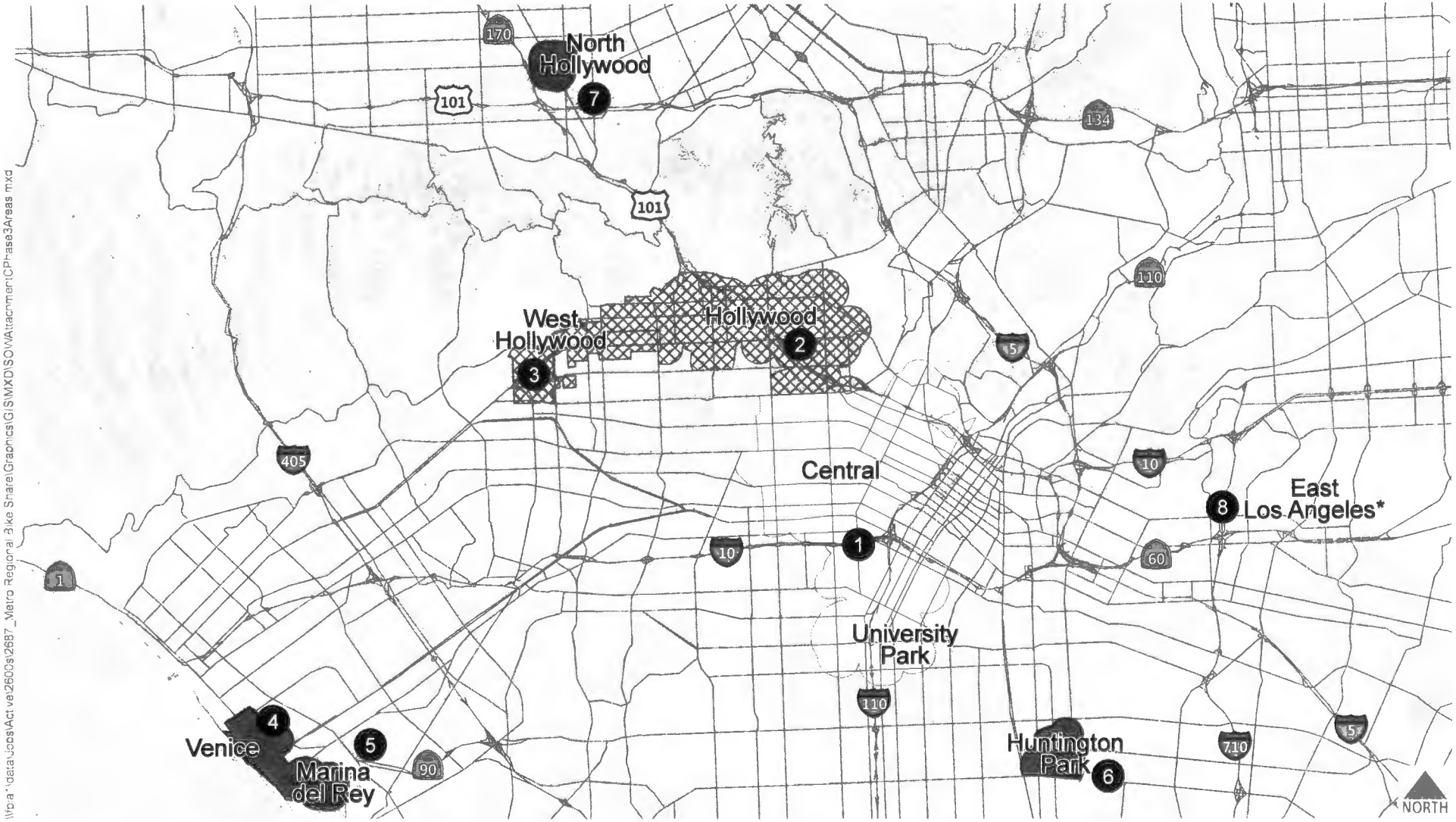
Recommended Regional Expansion Stations

Phase II: Pasadena

ID	Station
1	**Huntington Hospital**
2	Garfield (Paseo Colorado)
3	**Green / Marengo**
4	Green / Los Robles
5	**Colorado / Marengo**
6	Garfield / Holly (Pasadena City Hall)
7	**Pasadena Library**
8	Garfield / Walnut (Library west)
9	**Villa / Euclid (Villa Park)**
10	Orange Grove / Walnut
11	**Lincoln / Eureka / Maple**
12	Arroyo (Rose Bowl)
13	**Union / Oakland (Fuller Seminary)**
14	Del Mar / Lake
15	**California / Lake**
16	Del Mar / Wilson
17	**California / Wilson**
18	Del Mar / Hill (Pasadena Community College)
19	**Colorado / Bonnie (Pasadena Community College)**
20	Colorado / Lake
21	**Colorado / Madison**
22	Cordova / Lake
23	**Colorado / Fair Oaks**
24	Raymond / Filmore (Fillmore Station)
25	**Holly (Memorial Park Station)**
26	Lake (Lake Station)
27	**Allen (Allen Station)**
28	Memorial Park
29	**Central Park**
30	Del Mar / Arroyo (Del Mar Station)
31	**Colorado / Hill**
32	Colorado / Pasadena
33	**Edmondson Alley**
34	Valley / DeLacey

Note: Tentative locations are for planning purposes only and are subject to relocation based on policy and physical constraints.

ATTACHMENT D



* A specific boundary for the East Los Angeles Expansion Area has not yet been identified.

Preliminary Regional Expansion Areas

Phase III - 65 Stations

Phase IV - 53 Stations

Phase V - 37 Stations

1 Expansion Area

Attachment C

Preliminary Regional Expansion Areas

Preliminary Regional Expansion Areas

Phase III, IV, and V Communities

#	Community
Phase III – 65 Stations	
1	Central / University Park
Phase IV – 53 Stations	
2	Hollywood
3	West Hollywood
Phase V – 37 Stations	
4	Venice
5	Marina Del Rey
6	Huntington Park
7	North Hollywood
8	East Los Angeles*

Note: A specific boundary for the East Los Angeles Expansion Area has not yet been identified.

Attachment D

BIKESHARE FUNDING / EXPENDITURE PLAN

				FY 15/16	FY 16/17	TOTALS
Bikes and Docks				**Phase 1: DTLA Pilot +65 Stations & O&M (1.5 yrs)**		
	Total Bikes			1,090	1,090	
	Total Stations			65	65	
Capital Costs						
	Bikes			1,090		
	Stations			**65**		
	Cost/station	**$89,323.60**	**TOTAL**	**$5,806,034**		**$5,806,034**
City/Metro Contributions	***Metro Contribution (50% Capital)***			$2,903,017		
	Los Angeles Contribution (50% Capital)			$2,903,017		
Expresslanes Grant (split btw City & Metro)				$3,792,893		
Balance of Capital Cost				$2,013,141		
Reallocated CFP Grants F3510 and F5523				$2,013,141		
Balance of Capital Cost				$0		
Operation and Maintenance (O&M) Costs						
			Pre-Launch	$1,249,113		
			Operations & Maintenance	726,249	$3,284,277	
	Metro Contribution (35% Gross O&M) - DTLA			$691,377	$1,149,497	$1,840,874
	Los Angeles Contribution (65% Gross O&M) - DTLA			$1,283,985	$2,134,780	$3,418,765
			TOTAL	$1,975,362	$3,284,277	**$5,259,639**
Total cost/yr (capital + Annual O&M)				$7,781,396	$3,284,277	**$11,065,673**
Revenues						
*Total Estimated User Revenue**				**$267,010**	**$1,275,574**	$1,542,584
Estimated Title Sponsorship**		*Annual per bike*	*$1,375*	**$374,599**	**$1,498,397**	$1,872,996
			TOTAL	$641,609	$2,773,971.25	$3,415,580
		as % of operating cost		32%	84%	

* Estimates based on Metro Countywide Bikeshare Implementation Plan

** Estimate based on a per bicycle average from Denver B-Cycle, Minneapolis Nice Ride, New York CitiBike and Philadelphia Indego bikeshare systems.

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

EXECUTIVE MANAGEMENT COMMITTEE
JANUARY 16, 2014

SUBJECT: BIKE SHARE PROGRAM

ACTION: APPROVE DEVELOPMENT OF IMPLEMENTATION PLAN

RECOMMENDATION

Authorize the Chief Executive Officer (CEO) to undertake a study of how a Bike Share Program could be implemented throughout the County, including the following provisions:

1) Coordinate with the recommended pilot cities before adopting a plan;
2) Funding for the Bike Share Program will be the responsibility of the cities, Metro will only play a coordinating role;
3) Complete the study within six months and return to the Board with the recommended approach.

ISSUE

At the October meeting, the Board approved Motion 66 (Attachment A), providing direction to staff to report back to the Board at the January 2014 meeting with a business case analysis, including recommendations on how to proceed to develop a regional bicycle share program.

At the November Executive Management Committee, we provided information on the Industry Review that was held (Attachment B). Since that time, additional work has been done. We are requesting Board approval to develop a Bike Share Implementation Plan in coordination with pilot cities, with an intent to explore cooperative funding by local participants as the principal source of project funding. We feel that the analysis that will be provided by this six month study is necessary before the pilot cities can launch into a regional bike share program.

DISCUSSION

Bike Share is a program designed for point-to-point local trips using a shared use fleet of bicycles strategically located at docking stations throughout a well-defined project area and within easy access to each other.

Bike Share programs around the country and world have proven to be a strong first and last-mile short-trip transportation option. When coordinated with transit, such programs can facilitate reductions in vehicle miles traveled, reduced travel times, improved access, and growth in bicycling as a viable mode of travel.

Funding Sources

In our review of Bike Share programs around the country, we have found that a variety of sources of funding are used by the various cities to support their programs, and in no case are transit agencies paying for these programs. Some programs are supported by sponsorships, some are funded privately, many cities rely on CMAQ funds (Congestion Mitigation and Air Quality Improvement Program), and other local funds are used. If Metro were to fund a countywide Bike Share program, resources needed to build the transit corridors would be diminished.

Area Readiness

With Metro's regional rail network currently expanding, the region is primed for a Bike Share program that will support and enhance first-last mile connections and intra-jurisdictional local trips. According to the 2000 National Household Travel Survey, bicycling in Los Angeles County accounted for 1% of all trips. For comparison purposes, 3% of trips were made on transit. The 2012 Southern California Association of Governments (SCAG) Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS), notes that between 2000 and 2009, bicycling as a means of transportation increased by 75%.

Pointing to the role of bicycling as a first-last mile solution, a recent sampling of Metro's rail system showed approximately 8,560 daily bike boardings on Metro's rail network, a 42% increase from fiscal year 2012. Average daily bicycle boardings per station are included in Attachment C.

Important to a successful Bike Share program is having the bicycle infrastructure in place to support bicycling. Per the 2012 RTP/SCS, Los Angeles County has almost 1,270 miles of bicycle infrastructure with approximately an additional 1,030 miles planned. Metro rail stations also house a total of 624 bike lockers, 1,231 bike racks and three secured bike parking hubs will be opened within the coming year.

Bike Share Implementation

Metro's role has been to facilitate Bike Share implementation, including providing funding to local jurisdictions through the Call for Projects and coordinating regional compatibility efforts such as addressing technology and software issues. Metro's 2012 Bike Share Concept Report used a number of key criteria to identify where within Los Angeles County Bike Share would be most successful. Based on the report's findings a Bike Share Working Group was established and several communities have been awarded Call funding, including Long Beach, Los Angeles and Santa Monica.

Supporting the 2012 Concept Report findings, these cities have attempted or are in the process of launching Bike Share within their city boundaries, each with varying degrees of progress and success. Other cities are considering initiating similar efforts. Each of these cities has also acknowledged the importance of a seamless regional system.

In light of the varying degrees of progress each of these cities have made and the growing interest to have a regional, seamless program, both the Bike Share Working Group and Bicycle Roundtable recommended that Metro take a lead role. To ensure a user friendly system and facilitate first-last mile connections across Metro's rail network, it is particularly important that Metro facilitate the development of a Bike Share program where users are able to access Bike Share systems seamlessly throughout key cities in the County. The primary role for Metro may be to create a common platform that can be expanded throughout the County, as local communities dedicate facilities and operating revenues.

Based on area readiness, as identified in the 2012 Concept Report and expressed interest from cities, we would recommend an initial Bike Share launch in three key areas: Downtown Los Angeles, Pasadena and Santa Monica/Venice. We would also coordinate with Long Beach, as they are independently pursuing Bike Share and anticipate launching in early 2014. Areas that should be considered for future early phases and that would further enhance first-last mile connections to our transit system or would facilitate intra-jurisdictional travel may include Boyle Heights, Burbank, Culver City, East Los Angeles, Echo Park/Silver Lake, Glendale, Hollywood, Marina Del Rey, UCLA, USC and West Hollywood (Attachment D). Future Bike Share phasing and timeframes would be confirmed as we develop the Implementation Plan and in conjunction with each jurisdiction as they develop funding programs.

Bike Share Pilot Launch

Using Metro's rail network as the foundation for the Bike Share program, we identified key rail stations within each of the recommended pilot areas- Downtown Los Angeles, Pasadena, and Santa Monica, then identified a one mile radius around each of these stations to identify the minimum and maximum number of potential Bike Share stations that could be located within these jurisdictions. We assumed two spread options- the densest is based on findings established by the 2012 Mineta Transportation Institute report, "Public Bike Share in North America: Early Operator and User Understanding",

where the recommended distance between docking stations is considered to be approximately every one-quarter mile. The second, less dense distancing is based on minimum densities as cited in the 2012 USDOT/FHWA "Bike Sharing in the United States: State of the Practice and Guide to Implementation" where a half mile distance is noted. For each of the pilot jurisdictions, preliminary potential locations within the public right-of-way have been identified by each city. As such, these locations, in addition to the recommended rail station locations are noted in the three maps included in Attachment E.

Within the Downtown Los Angeles area we identified five key rail stations and created one mile buffers around them: Union Station, Civic Center, Pershing Square, 7th/Metro and Pico/Chick Hearn. This netted a 7.68 square mile Bike Share station aggregated buffer area. At a one-quarter mile density, 123 Bike Share stations could potentially be located within this area. At a half mile density, 31 Bike Share stations could potentially be located within this area. Because the Chinatown and Little Tokyo/Arts District stations fall within the buffer range and due to characteristics that indicate bike sharing would be successful, we would also recommend docking stations at these rail stations.

In Pasadena, five rail stations were identified: Fillmore, Del Mar, Memorial Park, Lake and Allen stations. A one mile buffer around each of these stations netted an 8.91 square mile Bike Share aggregated buffer area. At a one-quarter mile density, 142 Bike Share stations could potentially be located within this area. At a half mile density, 36 Bike Share stations could potentially be located within this area.

In Santa Monica, three future Expo Stations were identified: 26th Street/Bergamot, 17th Street/Santa Monica College and Downtown Santa Monica. A one mile buffer around each of these stations netted a 6.39 square mile Bike Share aggregated buffer area. At a one-quarter mile density, 102 bike share stations could potentially be located within this area. At a half mile density, 25 Bike Share stations could potentially be located within this area.

As indicated in Attachment E, each of the Bike Share aggregated buffer areas have the bicycle infrastructure in place to support bicycling as a form of transportation. Within three miles of the Union Station, Civic Center, Pershing, 7th/Metro, Little Tokyo, and Chinatown stations, there are 62.3 miles of bicycling infrastructure. Pasadena has 75 miles of bicycle infrastructure and Santa Monica has 42 miles.

Bike docking locations within the public right-of-way and at Metro rail stations will be solidified as we develop the Implementation Plan and will be finalized based on a number of variables, including sources of demand, availability of space, real estate costs and jurisdictional support.

Business Model

Three Bike Share business models dominate the industry: (1) Public agency owns capital and contracts for the operations and maintenance, (2) a non-profit public/private

partnership, created specifically to provide Bike Share service owns capital and contracts for the operations and maintenance and (3) private company owns capital, operates and maintains. We have been focusing on the first and third models as potential options for a Metro led Bike Share program.

The first model, public agency owns and contracts operations/maintenance is the model that tends to be adopted by larger jurisdictions and those wherein multiple jurisdictions that have implemented a regional program. The advantages of this model include providing the jurisdiction with the flexibility to expand offerings of Bike Sharing as is deemed appropriate and necessary, while bringing the experience and innovation of a tried and tested operator. A primary disadvantage is the jurisdiction assuming capital investment and all liability. Cities and regions operating under this model include: Alexandria, Arlington, Aspen, Boston, Broward County, Cambridge, Chicago, Columbus, Fort Worth, Houston, Madison, Nashville, Santa Clara County/San Francisco (Bay Area) Pilot, and Washington, D.C. Based on program success, program size and multi-jurisdictional collaboration, we have found the Bay Area, Chicago and Washington D.C./Arlington/Alexandria programs to be most representative of a Los Angeles region endeavor.

Under this model, participating agencies would purchase and own the Bike Share infrastructure- bicycles, docking stations and kiosks. Attachment F breaks down the potential capital investment. Reflecting the minimum and maximum number of potential Bike Share stations per each pilot jurisdiction at a per bike cost of $4,500 (based on Bay Area, Washington D.C. and vendor estimates of system and bike costs) we find that the total capital investment could range between $4,815,000 and $17,190,000. These cost figures do not include potential real estate costs.

The second model, private company owns and operates is akin to what the City of Los Angeles had previously pursued and Long Beach is now pursuing. Advantages of this model are that the burden of liability and cost of implementing a Bike Share program lies with the vendor. The disadvantages may include a profit driven decision making process whereby Bike Share stations are strictly business decisions with limited consideration for equity issues and regional distribution. Cities operating under this model include: Charlotte, Miami Beach, New York City, and Tampa Bay.

Both business models assume revenues would be derived from membership fees, and advertising and/or sponsorships. Via the Industry survey that we conducted all participating vendors confirmed that advertising and sponsorships would be relied upon to some extent. It was noted that in cases where advertising policies are highly restrictive, then sponsorship policies needed to allow for the maximum potential sponsorship revenues. Vendors also confirmed that advertising and/or sponsorship revenues are especially relied upon in models where the vendor is required to carry the full risk. In the few instances where neither advertising or sponsorships are options, the jurisdiction funds the revenue gap.

Discussions with potential pilot cities all indicate that each of their advertising policies prohibits advertising and most limit or prohibit sponsorship opportunities as well.

However, each of the cities also indicated that efforts are underway to re-examine and revise outdoor policies so as to allow some level of sponsorships.

Preliminary Bike Share Cost Analysis

For this exercise, we examined 14 Bike Share programs currently in place throughout the United States (Attachment G). In doing so we studied their respective business models, membership structures and funding sources. Because the Bay Area, Chicago and Washington D.C./Arlington/Alexandria programs are most reflective of a Los Angeles County-wide effort, many of the cost assumptions are derived from these programs. Locally, we also looked at the model the City of Long Beach is pursuing.

The Preliminary Bike Share Cost Analysis (Attachment H) was developed using several assumptions. These assumptions are as follows:

- Year 1 estimates of 250 stations and 2,500 bikes based on averages from Metro's Preliminary Bike Share Analysis. Year 2 to Year 5 bike fleet growth is based on Metro recommendations for regional Bike Share growth (assuming an average of 25 Bike Share stations per jurisdiction). After 5 years, 10% of fleet is expected to need replacement each year.

- Cost per bike is based on estimates from Washington D.C., Bay Area Pilot, and vendor provided estimates.

- Operating and Maintenance costs per kiosk based on Washington D.C. and Denver systems.

- User Fees in Washington D.C. were $20,000 per station in the first year. Long Beach's preliminary estimates are $15,000 per station. Our model assumes a rate structure of $19,000 per station.

- The $1,000,000 sponsorship revenue is based on Long Beach's preliminary estimates. New York City's sponsorship was $8 million in the first year. We have shown a low number due to currently restrictive sponsorship policies in multiple jurisdictions.

- Advertising revenues shown are based on Long Beach's preliminary estimate. We have kept this number low number due to current strict advertising policies in multiple jurisdictions.

- Grant funding assumptions are based on the Bay Area Pilot, Boston Hubway and Washington D.C. trends.

The Cost Analysis is also model neutral, meaning, we do not identify who owns the capital and the cumulative pretax cash flow should be regarded as the program's overall cash flow. It is the cash flow that is typically divided between the jurisdiction(s) and vendor/operator based on negotiated revenue splits.

Per our cost analysis, the bike share program would begin to recover the capital cost and to make a profit in the fifth year of operation. We assumed the program would grow as it becomes a truly regional effort growing from 2,500 bicycles in the initial year to approximately 5,775 bikes by the sixth year. Potential for additional growth would be assessed as part of the Implementation Plan.

Attachment I includes a list of potential funding sources that could be considered for the Bike Share program's capital cost. Availability of listed funds has not yet been analyzed. Funding sources, including private investment opportunities, would be identified through development of the Implementation Plan and brought back to the Board for approval at a future date.

Implementation Plan

In conducting the industry review it became clear that given the number of agencies involved with a regional Bike Share program, the development and successful implementation requires resolution of a number of issues that need to be addressed prior to releasing a Request For Proposals (RFP) to potential bike share vendors.

Some of the items include identifying the best business model that meets the program purpose and addresses each jurisdiction's financial capacity and flexibility; advertising and sponsorship policies need to be solidified as this will inform the program budget; permitting processes need to be established by each jurisdiction so as to facilitate Bike Share implementation; identifying number and locations for Bike Share stations within the public right-of-way; determining if Metro, each jurisdiction or vender will be responsible for Bike Share marketing, outreach and education; determining revenue split among participating jurisdictions and Metro's role in distributing revenue; coordinating Transit Access Pass (TAP) integration; identifying available real estate or associated costs; identifying a sustainable source of funding; establishing inter-agency agreements; and identifying phase two and three communities. We have therefore concluded that the best approach is to undertake an Implementation Plan to address these issues prior to launching the bike share program by local participating jurisdictions..

DETERMINATION OF SAFETY IMPACT

Approval of this program will have no impact on the safety of our employees or patrons.

FINANCIAL IMPACT

Funding for the study of how a Bike Share Program could be implemented throughout the County is included in the FY14 budget under cost center 4320, project number 405510, task 06.001.11. Once the program is actually underway, no Metro funds are envisioned to be used for the program.

Impact to Budget

The funding source for this activity is Proposition A Administration dollars. This fund is not eligible for bus and rail operating and capital expenditures. No other source of funds was considered.

ALTERNATIVES CONSIDERED

The Board could decide to not authorize the development of an Implementation Plan. However, this would be contrary to the October 2013 Board directive to examine the implementation of a Regional Bike Share program

NEXT STEPS

Upon approval, we will issue a RFP for the development of an Implementation Plan. It is anticipated that an Implementation Plan can be developed within six months of award.

ATTACHMENTS

A. October 2013 Bike Share Motion 66
B. December 2013 Receive and File Bike Share Industry Review Status
C. Rail System Bike Boardings
D. Potential Bike Share Expansion Map
E. Pilot City Maps
F. Bicycle Share Preliminary Capital Cost Estimates
G. Bicycle Share Business Models
H. Preliminary Bicycle Share Cash Flow Analysis
I. Bicycle Share Funding Options

Prepared by: Laura Cornejo, Director Countywide Planning, (213) 922-2885
Diego Cardoso, Executive Officer Countywide Planning, (213) 922-3076

Martha Welborne, FAIA
Chief Planning Officer

Arthur T. Leahy
Chief Executive Officer

66

MAYOR ERIC GARCETTI,
SUPERVISOR ZEV YAROSLAVSKY,
SUPERVISOR DON KNABE,
DIRECTOR MIKE BONIN, AND DIRECTOR PAM O'CONNOR

Countywide Bicycle Share Program

October 17, 2013

MTA needs to lead and supplement its regional public transportation system by supporting bicycles and bicycle infrastructure in completing the first and/or last leg of a trip (e.g., from a train station to the workplace).

Bicycle ridership will also help reduce dependency on automobiles, particularly for short trips, thereby reducing traffic congestion, vehicle emissions, and the demand for parking.

A bicycle share program will also promote sustainable and environmentally friendly initiatives.

Bicycle share is a program designed for point-to-point short trips using a for-rent fleet of bicycles strategically located at logical stations locations.

Beginning in 1993, a series of successful bicycle share programs were implemented in Europe.

Currently the US is home to a number of bicycle share programs in cities such as Chicago, Denver, Minneapolis, New York City, San Francisco, etc.

According to the Earth Policy Institute, the number of bicycles in the U.S. bicycle share fleet is set to double by the end of 2014.

The Los Angeles region has seen a variety of bicycle share efforts, but none have taken hold because of a lack of regional coordination.

Given its role as the countywide transportation agency, in July 2011 the MTA board passed a motion directing staff to develop a strategic plan for implementing bicycle share in Los Angeles County.

CONTINUED

WE THEREFORE MOVE that the MTA Board direct the CEO to:

A. Adopt as policy MTA's support of bicycles as a formal transportation mode.

B. Convene a bicycle share industry review in November 2013 in order to advise on procuring a regional bicycle share vendor for Los Angeles County.

C. Report back to the Board at the January 2014 meeting with the results of the industry review, including a business case analysis and recommendations on proceeding with a Request for Proposals (RFP) to implement a regional bicycle share program.

D. Include in the analysis a phased approach for implementing this program based on area readiness, including, but not limited to, an examination of existing bicycle infrastructure, existing advertising policies, current ridership trends, and transit station locations.

###

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

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EXECUTIVE MANAGEMENT COMMITTEE
NOVEMBER 21, 2013

SUBJECT: BIKE SHARE PROGRAM

ACTION: RECEIVE AND FILE

RECOMMENDATION

Receive and file this update on the Bike Share Program in response to the October 2013 Board Motion 66 (Attachment A).

ISSUE

At the October meeting, the Board approved Motion 66, providing direction to:

A. Adopt as policy MTA's support of bicycles as a formal transportation mode;

B. Convene a Bicycle Share Industry review in November 2013 in order to advise on procuring a regional bicycle share vendor for Los Angeles County;

C. Report back to the Board at the January 2014 meeting with the results of the industry review, including a business case analysis and recommendations on proceeding with a Request for Proposals (RFP) to implement a regional bicycle share program; and

D. Include in the analysis a phased approach for implementing this program based on area readiness, including, but not limited to, an examination of existing bicycle infrastructure, existing advertising policies, current ridership trends, and transit station locations.

This report provides the status of the Board directive.

DISCUSSION

Connected by the Metro transit system, bike share can help address first-last mile gaps around transit stations, increase the station catchment area and can introduce new users to bike transportation by removing barriers, such as bicycle ownership, maintenance, and security and can increase mobility while decreasing automobile use.

Most recently, Metro's role has been to facilitate bike share implementation, including providing funding to local jurisdictions for bike share through the Call for Projects and coordinating regional compatibility efforts such as addressing technology and software issues.

Status

In response to the Motion, we initiated the first phase of the industry review. We have met with bike share industry stakeholders and municipal planners, convened as the Bike Share Working Group and Metro's Bicycle Roundtable on November 4th and November 5th, respectively. The goal of the meetings were to gauge what role stakeholders and municipalities deemed appropriate for Metro to take and what opportunities as well as concerns existed by Metro taking on a larger role in a regional bike share effort. In anticipation of the next phase of the industry review which will be to conduct a market survey as well as developing the business case and next steps, we established a rudimentary understanding of the level of flexibility municipalities would need if Metro led a regional effort and highlighted areas that still need to be vetted further.

The following is a summary of the Bike Share Working Group and Bicycle Roundtable input received:

- One contractor, or multiple contractors with compatible technologies is key to achieving regional connectivity
- Metro, as a regional agency, should lead the effort and set the regional framework for cities to leverage at the local level
- A single system with local flexibility
- Bike Share must connect to a larger transit network
- Infrastructure, such as bike lanes and way finding, should support bike share implementation
- Phasing, especially pilot phase is key to success
- Local universities and colleges should be invited to participate
- Increase bike mode Call for Project funding to facilitate regional participation and infrastructure to support bike share

If we move forward with a greater role in establishing a regional bike share program, the following items surfaced during the two meetings as needing to be addressed:

- Revenue Split with Cities: Would Metro serve as a clearing-house or would cities receive their split directly from vendors
- Advertising/Sponsorship: How would differing advertising policies potentially affect proposed business plans
- Software: Develop a program that allows flexibility for evolving software and bike technology
- Payment: Can Transit Access Pass be adapted to allow for bike share payment
- Implementation: Pilot area and subsequent phasing and timing for roll out
- Inter-jurisdictional Operability: Bike redistribution and cost split, multi-jurisdictional membership cards

NEXT STEPS

We will return to the Board in January with the results of the market survey, business case and recommended next steps.

ATTACHMENT

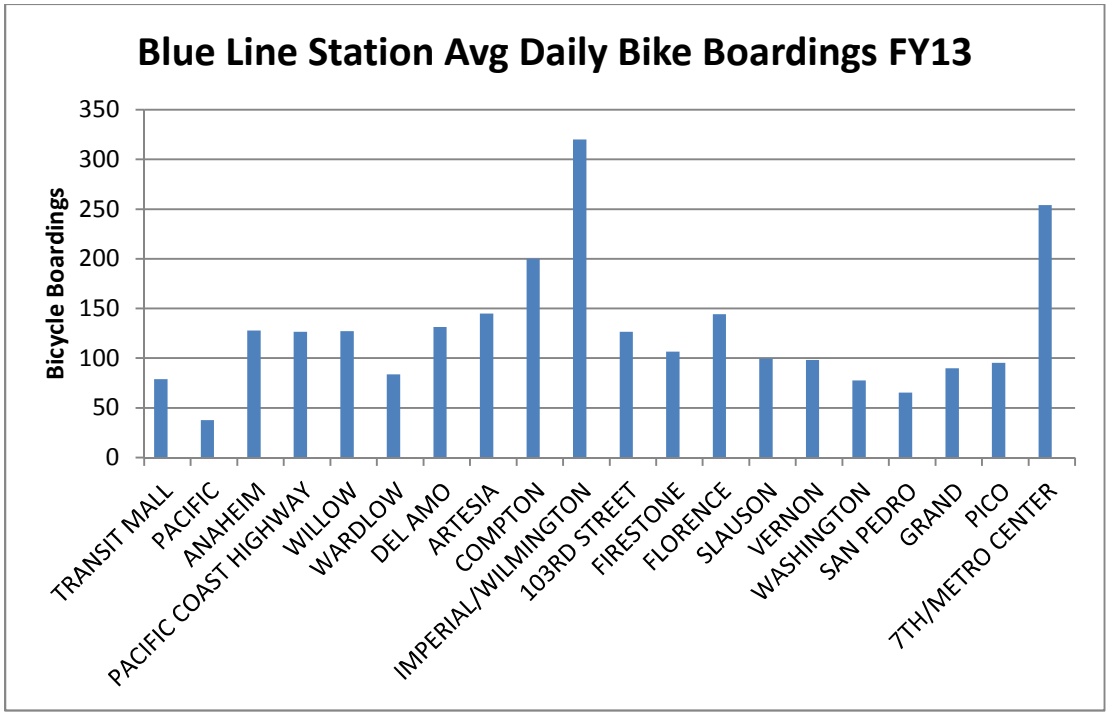
A. October 2013 Motion 66

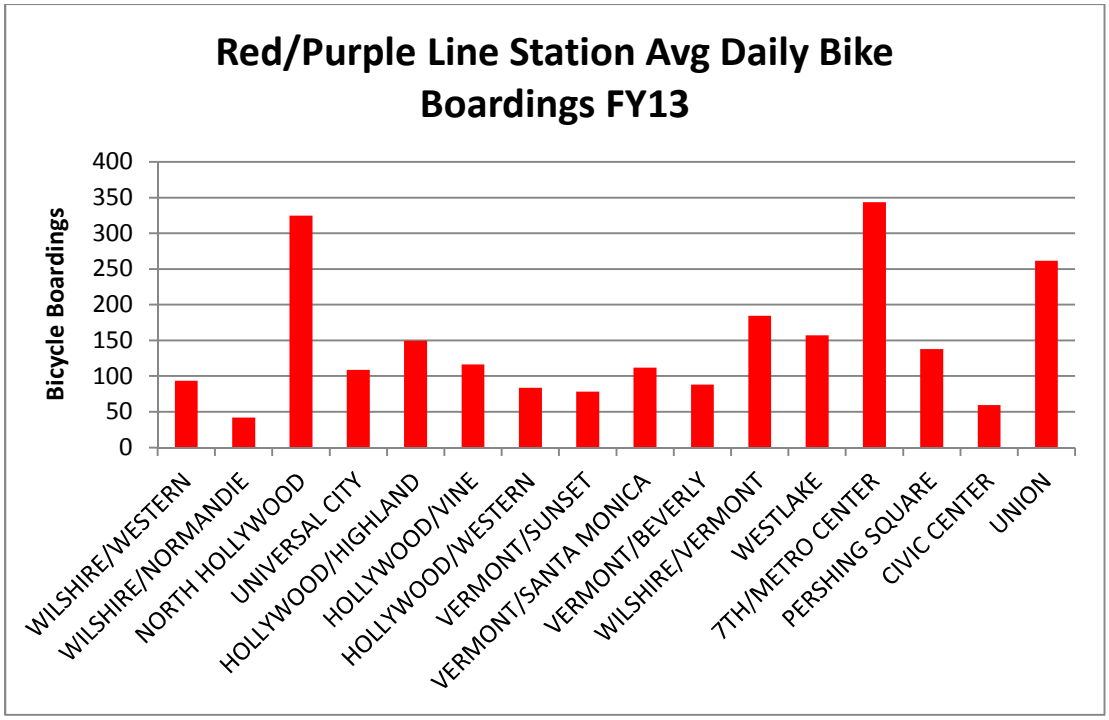
Prepared by: Laura Cornejo, Director, (213) 922-2885
Diego Cardoso, Executive Officer, (213) 922-3076

Martha Welborne, FAIA
Chief Planning Officer

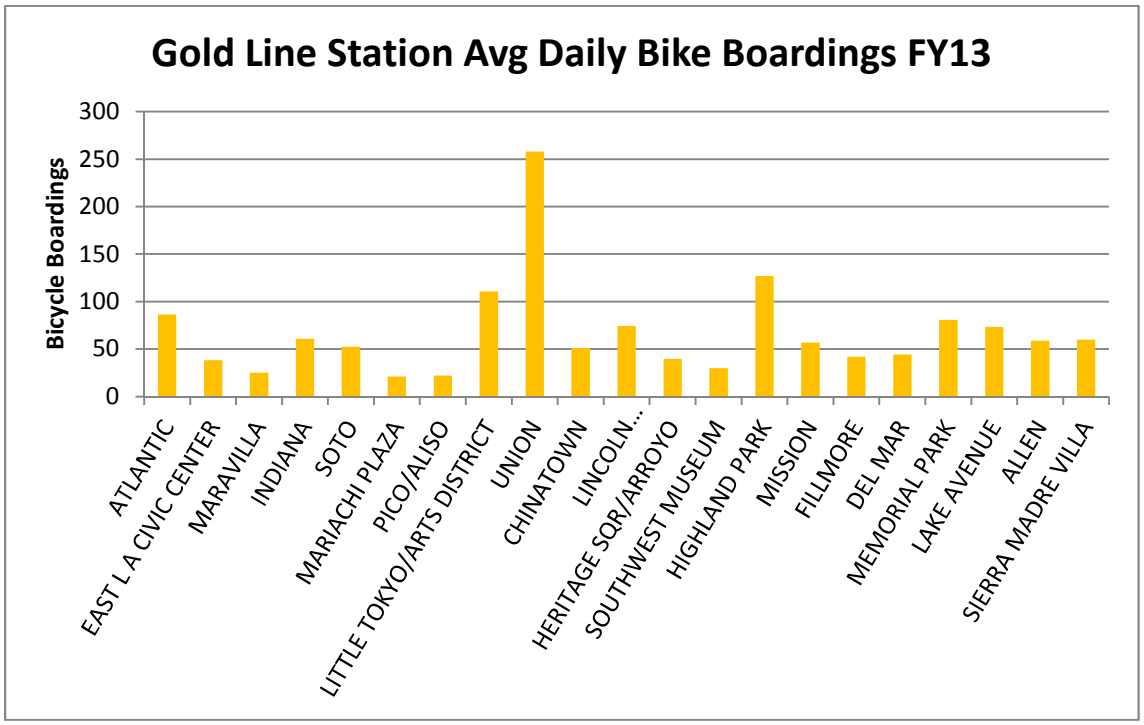
Arthur T. Leahy
Chief Executive Officer

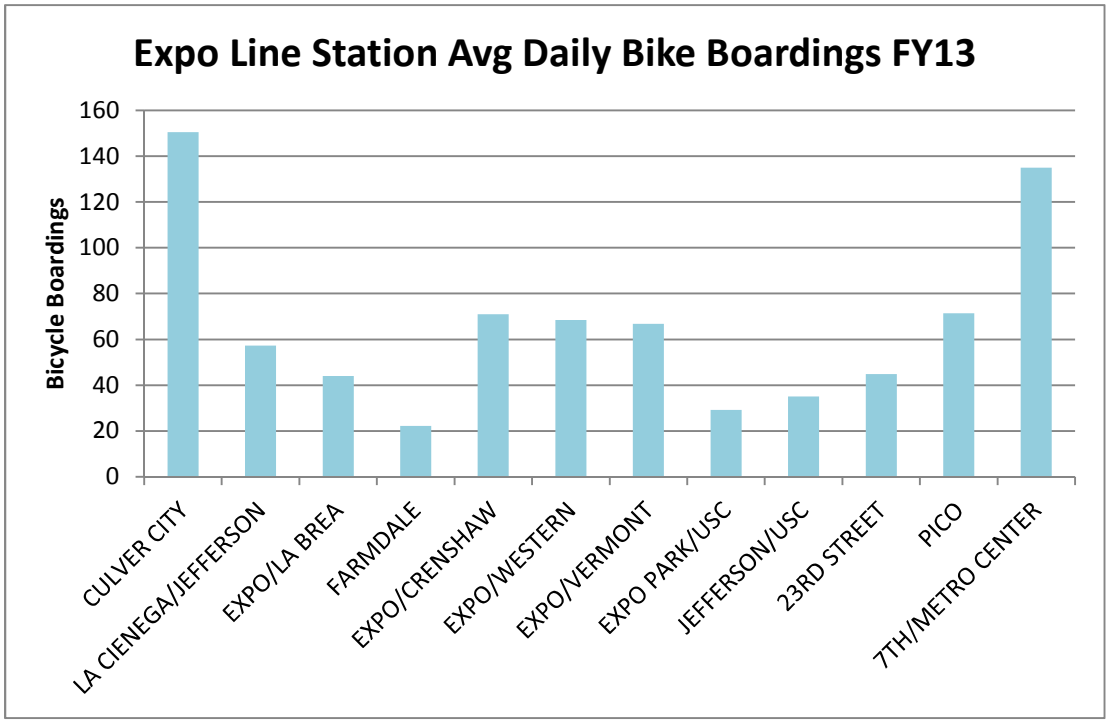
ATTACHMENT C



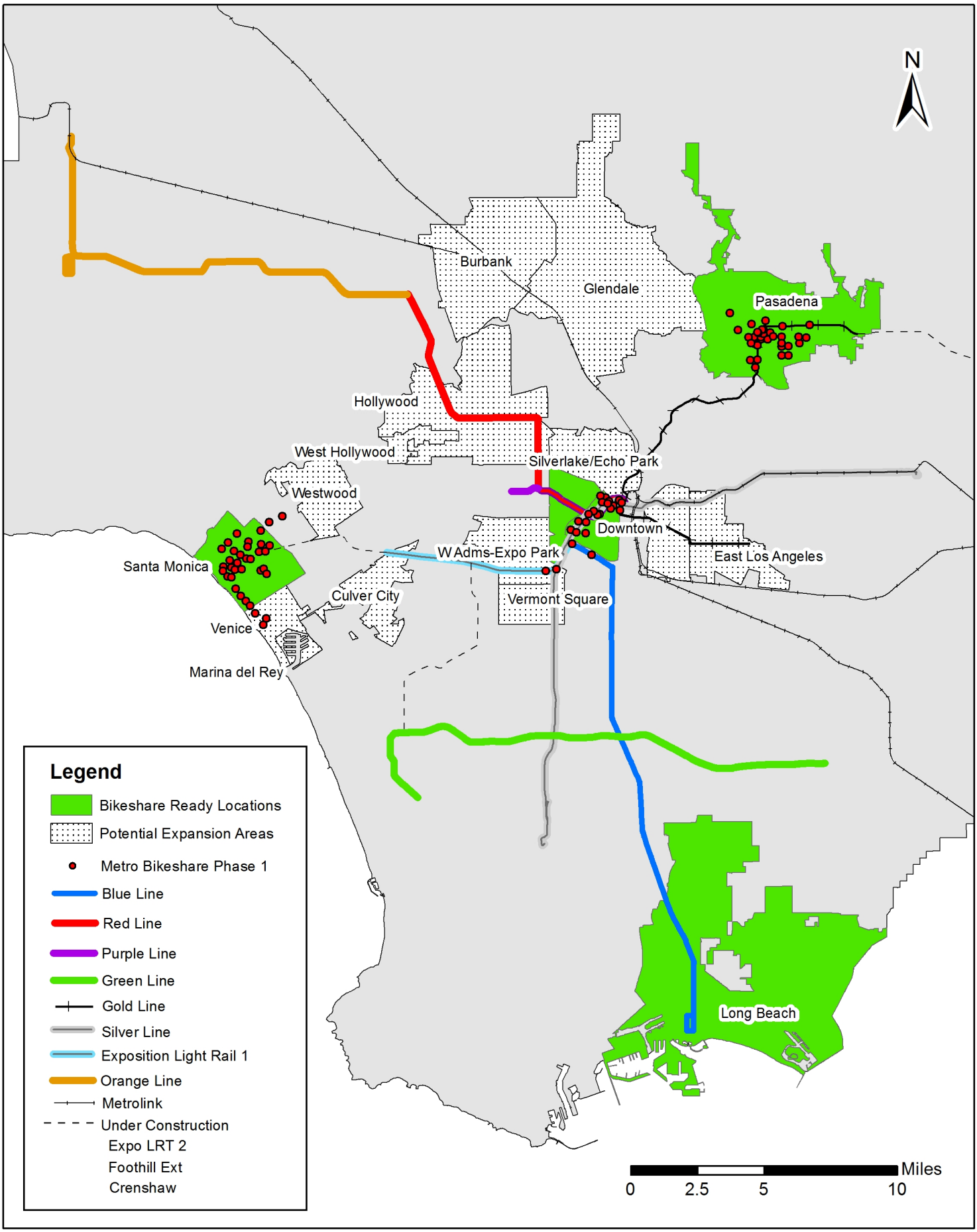


ATTACHMENT C-2

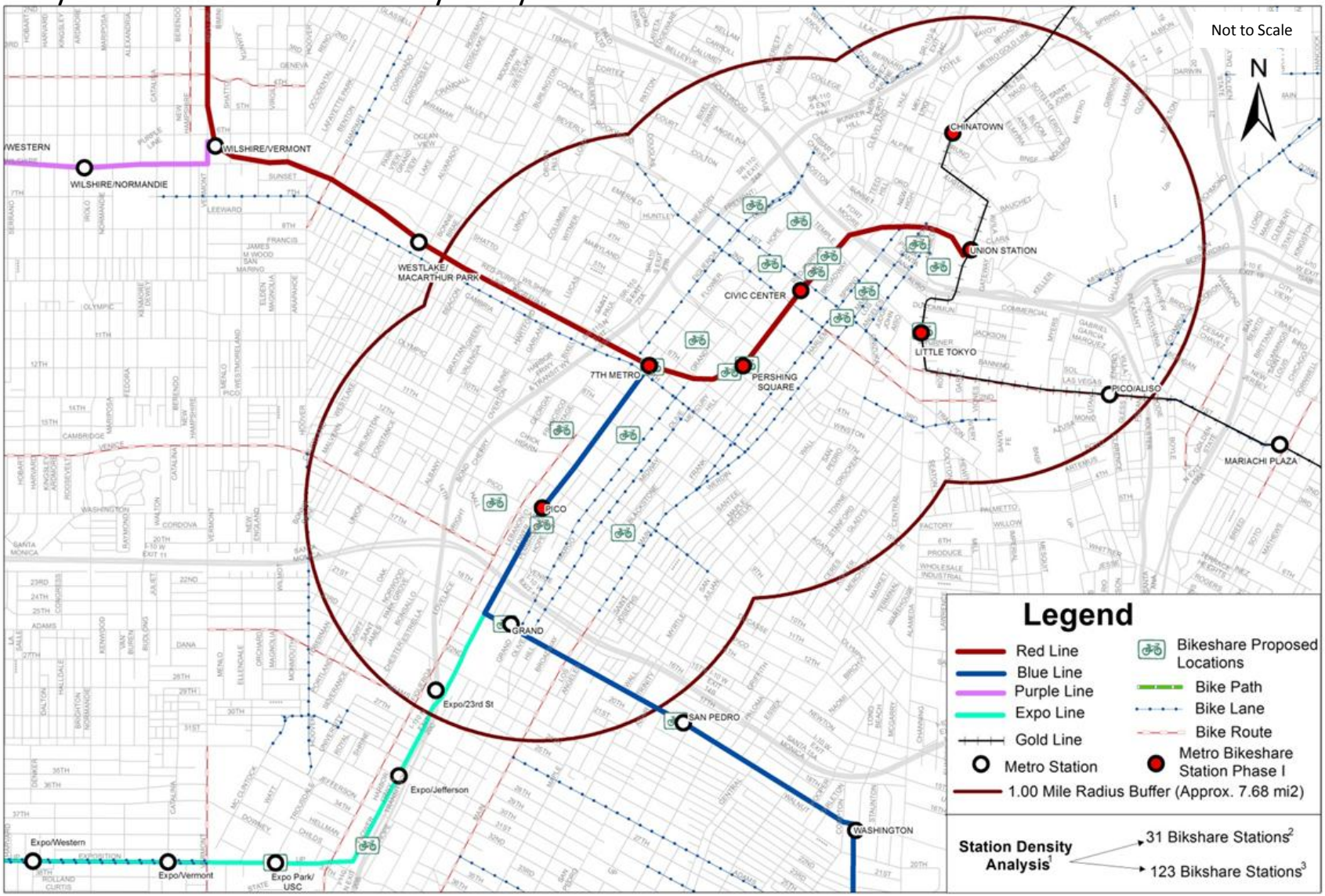




Potential Bikeshare Expansion Areas



City of LA Bikeshare Preliminary Analysis

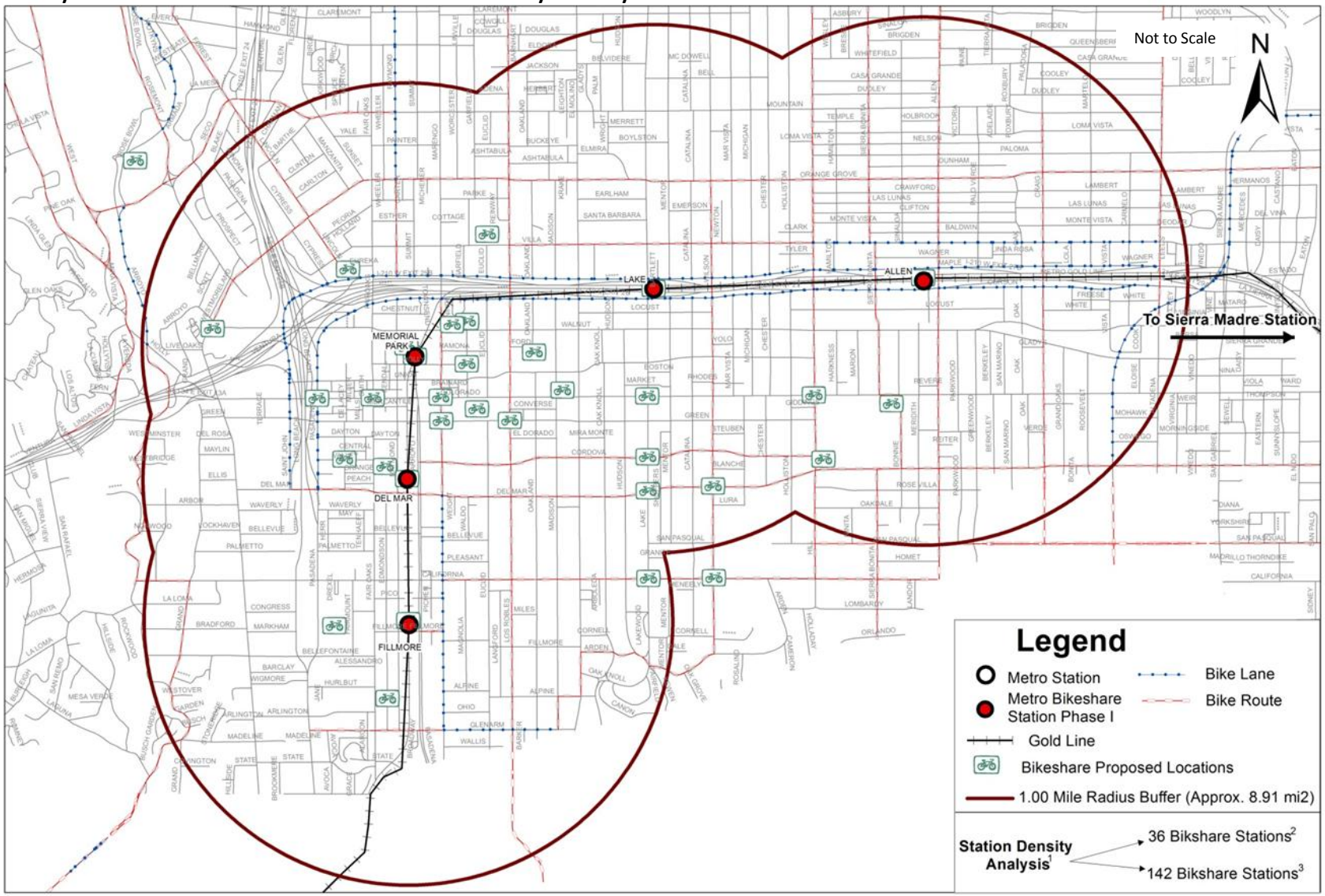


1. "Bike Sharing in the United States: State of the Practice and Guide to Implementation- USDOT/FHWA 2012", indicates a range of 3.5 to 5 bikeshare stations per square mile of service area for most existing systems. For denser urban areas, 14 stations or more per square mile may also be recommended. MTI Report 11-26, Public Bikesharing in North America: Early Operator and User Understanding (2012), found that out of 19 operators 53% preferred distance between docking stations 300 yards to one-quarter mile apart. For this assessment one-quarter mile and one-half mile between docking stations was used.
2. 4 bikeshare stations per square mile at one-half mile apart.
3. 16 bikeshare stations per square mile at one-quarter mile apart.

Disclaimer: This map is for preliminary analysis only. Actual quantities and locations of bikeshare stations will be determined upon feasibility study and implementation in conjunction with local jurisdictions

Metro Bike Program

City of Pasadena Bikeshare Preliminary Analysis



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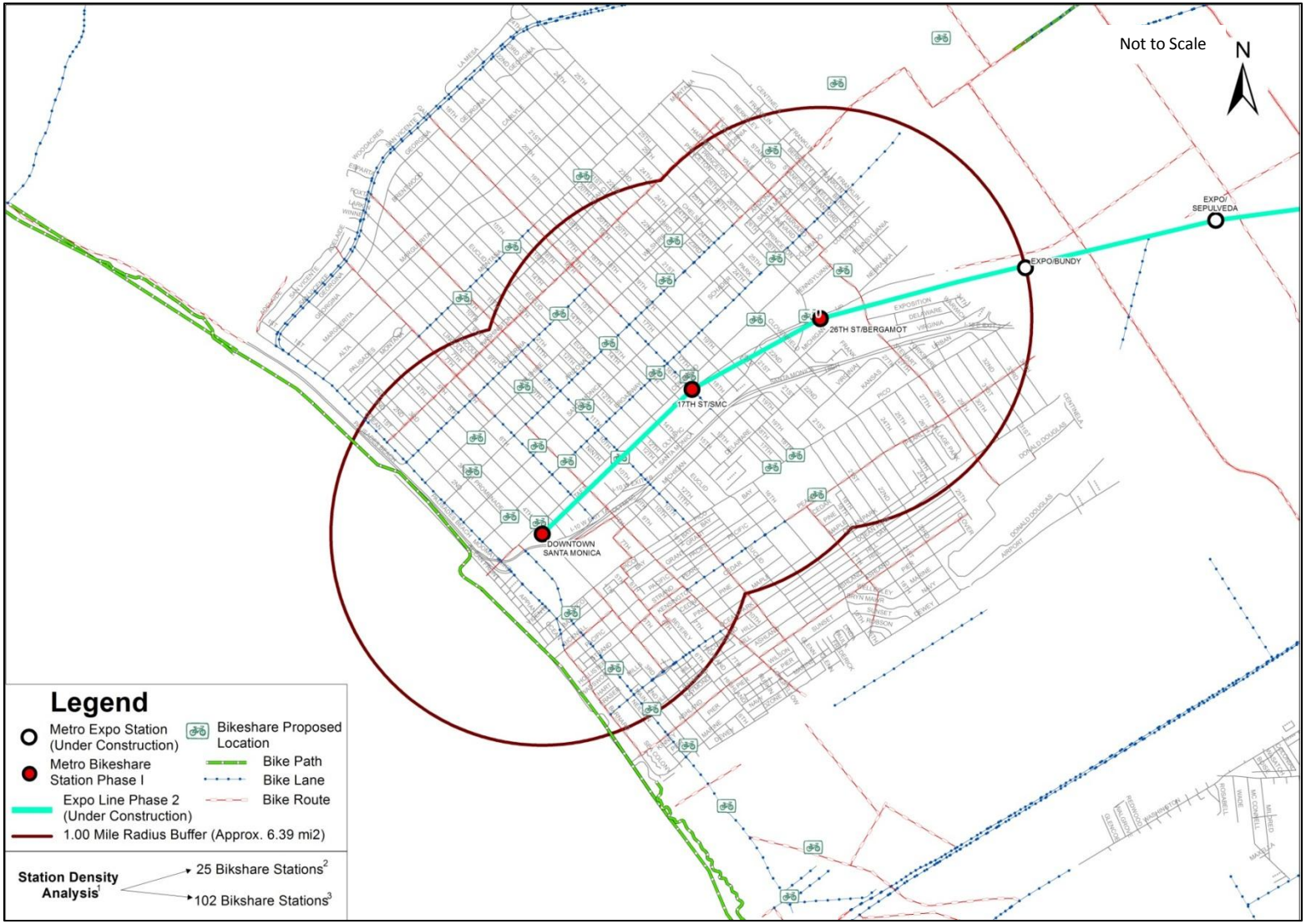
2. 4 bikeshare stations per square mile at one-half mile apart.
3. 16 bikeshare stations per square mile at one-quarter mile apart.

Disclaimer: This map is for preliminary analysis only. Actual quantities and locations of bikeshare stations will be determined upon feasibility study and implementation in conjunction with local jurisdictions

Metro Bike Program

City of Santa Monica Bikeshare Preliminary Analysis



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Disclaimer: This map is for preliminary analysis only. Actual quantities and locations of bikeshare stations will be determined upon feasibility study and implementation in conjunction with local jurisdictions

Metro Bike Program

ATTACHMENT F

PRELIMINARY BIKE SHARE CAPITAL COST ESTIMATES

Based on figures from bike share locations in other regions across the United States and vendor estimates, cost ranges were calculated for the Los Angeles Region accounting for low and high density station locations and average costs of equipment (bikes per dock), as follows:

LOS ANGELES STATION COST[1]	Low Density (31 Stations)[2]	High Density (123 Stations)[2]
Cost ($4,500)[3]	$1,395,000	$5,535,000

PASADENA STATION COST	Low Density (36 Stations)[2]	High Density (142 Stations)[2]
Cost ($4,500)[3]	$1,620,000	$6,390,000

SANTA MONICA STATION COST	Low Density (25 Stations)[2]	High Density (102 Stations)[2]
Cost ($4,500)[3]	$1,125,000	$4,590,000

Combined regional costs based on costs per stations in each city and the number of Metro stations in each jurisdiction yield potential cost ranges:

TOTAL COST AT METRO STATIONS IN EACH CITY[4]	Metro Stations	Cost ($4,500)[3]
Los Angeles	7	$315,000
Santa Monica	3	$135,000
Pasadena	5	$225,000
TOTALS	15	$675,000

TOTAL COST AT METRO AND CITY STATIONS[4]	Low Density (107 Stations)[2]	High Density (382 Stations)[2]
Cost ($4,500)[3]	$4,815,000	$17,190,000

[1] Gold Line Station Pico/Aliso and Blue Line Station Grand are located within the City of Los Angeles buffer area, but not included in calculation due to physical space constraints at station locations.
[2] Methodology for calculating preliminary station ranges is detailed in Bikeshare Preliminary Analysis.
[3] Bicycle per docking station costs calculated based on estimates from Washington D.C., Bay Area Pilot, Denver B-Cycle and Alta Bike Share. Actual costs will vary from location to location. Costs assume 10 bikes will dock at each station.
[4] Cost does not assume any real estate transactions or land use considerations.
DISCLAIMER: This cost analysis is for preliminary analysis only. Actual costs will depend on the number of bike share stations determined by a feasibility study, vendor technology and land use considerations.

ATTACHMENT G

BICYCLE SHARE BUSINESS MODELS

BIKE SHARE BUSINESS MODELS

- Modern Information Technology-based bicycle share capital development appears in three forms:
    1) Public agency owns and contracts with private (for-profit or non-profit) company for operations
        - Advantages: Expands offerings of jurisdiction's transportation service, while bringing the experience and innovation of a tried and tested operator
        - Disadvantages: Jurisdiction assumes all liability
        - Cities operating under this model: Alexandria, Arlington, Aspen, Boston, Broward County, Cambridge, Chicago, Columbus, Fort Worth, Houston, Madison, Nashville, Santa Clara County & San Francisco Pilot, and Washington D.C.
    2) Non-profit public/private partnership, created specifically to provide bike share service, owns and contracts with private (for-profit or non-profit) company for operations
        - Entities can include city, county, chamber, public health department, redevelopment agency, or the private sector
        - Advantages: Receives funding from the jurisdiction, while relieving liability from the jurisdiction
        - Disadvantages: Splitting control amongst multiple stakeholders is difficult
        - Cities operating under this model: Chattanooga, Boulder, Des Moines, Denver, Milwaukee, Minneapolis, Oklahoma City, Omaha, San Antonio, and Salt Lake City, and San Antonio
    3) Private company owns and operates
        - Advantages: Relieves jurisdiction from committing resources
        - Disadvantages: Does not ensure equity, quality service, and may fail if not profitable in first few years
        - Cities operating under this model: Charlotte, Miami Beach, New York City, and Tampa Bay

CAPITAL/OPERATIONAL COSTS & FUNDING SOURCES

- Direct Capital Costs
    - Bicycles
    - Docking stations
    - Kiosks or User interface technology
    - Real estate transactions
- Direct Operational Costs
    - Administration: Website, Mobile apps, Registrations
    - Redistribution of bicycles: Manual redistribution and/or pricing incentives
    - System monitoring: Call centers and on-call repair
    - Maintenance: Keeping bicycles, software, etc. in running order
    - Power supply: Maintaining solar, battery, or grid power supply
    - Data Reporting: Maintenance, planning and real time data
- Associated Capital Costs
    - Construction of infrastructure: Bicycles, docks, kiosks or user interface
    - Streetscape improvements

- Associated Operational Costs
    - Insurance
    - Maintenance of infrastructure and bikeways
    - Bicycle safety training and education
- Real Estate Costs
    - Land Use Negotiations:
        - Metro Property: Where Metro does not own sufficient land, negotiations with private owner or entity
        - Public Right-of-Way: Negotiations with Cities or County of Los Angeles
        - Private Property: Negotiations with private owner
    - Spatial Considerations:
        - Sidewalk: ADA compliance, right-of-way negotiations
        - In-Street: Removal of street parking negotiations, safety considerations
- Funding Sources
    - Municipalities: Federal, state, local or other grants and funding
    - Advertising: Kiosk or Station advertising
    - Sponsorship: Title, presenting, station, dock, bike/fender, web, helmets, or other opportunities
    - Memberships & user fees
    - Public-private partnerships: Sponsorship or corporate donor

The business model matrix below captures the business models and funding sources for bike share for 14 systems in the United States:

COMPARISON TABLE OF EXISTING UNITED STATES BIKE SHARE PROGRAMS

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
Boston & Cambridge, MA	July 2011	Hubway (Alta Bike Share)	600/60	36,000 annual/ 30,000 casual, 140,000 rides (in 4 months)	$85/year $20/month $12/3-day $5/day	Owned/Managed by County, operated by Alta (for-profit)	$4.5 m (75% public FTA/CMAQ, 25% private). Each municipality responsible for own sponsorship
Boulder, CO	May 2011	Boulder B-Cycle	110/15	1,171 annual/ 6,200 casual	$50/year $15/week $5/day	Owned/Managed by Non-Profit & operated by B-Cycle (non-profit)	Revenue from parking fees, citations; Transportation and Distribution Services
Broward County (Fort Lauderdale), FL	December 2011	Broward County B-Cycle	200/27	37,000 rides (in 1 year)	$45/year $25/week $5/day	Owned/Managed by Broward County, operated by Broward County B-Cycle (non-profit)	$1.1 m (63% private, 27% public)
Chattanooga, TN	July 2012	Bike Chattanooga (Alta Bikeshare)	300/30	400 annual, 12,600 rides (in 6 months)	$75/year $6/day	Owned/Managed by Non-Profit, operated by Alta (for-profit)	$2 m CMAQ

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
Chicago, IL	June 2013	Divvy (Alta Bikeshare)	750/68	3,7000 annual, 50,000 trips (in 1 month)	$75/year $7/day	Owned/Managed by City, operated by Alta (for-profit)	$22 m in fed/local grants
Denver, CO	April 2010	Denver B-Cycle	520/52	2,659 annual/ 40,600 casual, 100,000 rides	$65/year $30/Month $20/week $6/day	Owned/Managed by Non-Profit, operated by B-Cycle (non-profit)	Capital $1.5 m (CDOT, EPA, FHWA, gifts); 16% public (Vehicle registration tax), 84% private
Des Moines, IA	Sept 2010	Des Moines Bicycle Collective B-Cycle	22/5	20 annual, 109 rides	$50/year $30/month $6/day	Owned/Managed by Non-Profit, operated by B-Cycle (non-profit)	Capital $120,000 funded by private contributors, sponsorships
Fullerton, CA	TBD: Planned for Fall 2014	BikeLink (Bike Nation)	TBD: Planned 165/15	N/A	$75/annual, $45/annual (student), $12/week, $5/day	Owned/Managed and operated by Bike Nation (for-profit)	Capital $1.48 m (OCTA federal grants, local Mobile Source Aire Pollution Reduction Review Committee Grant)

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
Miami Beach, FL	Mar 2011	DecoBike	800/91	2,500 annual/ 338,828 casual	$15/month (regular) $25/month (deluxe) $35/month (visitors) $24/day (visitors)	Owned/Managed and operated by DecoBike (for-profit)	$4 m Private investor DecoBike – revenues split between DecoBike and City
Minneapolis, MN	June 2010	NiceRide Minnesota B-Cycle	1,300/145	3,521 annual/ 37,103 casual	$60/year $30/month $5/day	Owned/Managed & operated by Non- Profit	Capital $5.3 m (FHWA); 63% public funds; 37% private funds.
New York City, NY	May 2013	Citibike (Alta Bikeshare)	5,700/330	80,000 annual (in 3 months)	$95/year $25/week $10/day	Owned /Managed and operated by Alta (for-profit)	Private financing
San Antonio, TX	March 2011	San Antonio B-Cycle	210/23	1,000 annual/ 2,800 casual, 16,100 rides (in 6 months)	$60/year $24/week $10/day	Owned/Managed by City and operated by B-Cycle (non-profit)	$840,000 DOE/CDC funds, $235,000 and $58,000 in station sponsorships

JURISDICTION	LAUNCH DATE	SYSTEM NAME	SYSTEM SIZE (BIKES/ STATIONS)	ANNUAL/ CASUAL MEMBERS, RIDES	FARES	BUSINESS MODEL	FUNDING SOURCES
San Francisco/ Bay Area Cities, CA PILOT	August 2013	Bay Area Bikeshare (Alta Bikeshare)	700/34	2,080 annual, 14,591 trips (in 1 month)	$88/year $22/3-day $9/day	Owned/Managed by Bay Area AQMD, operated by Alta (for-profit)	$4.3 m Metropolitan Transportation Commission (Bay Area Climate Initiatives – CMAQ), $1.4 m Clean Air Grant (BAAQMD)
Washington D.C. ***(first attempt)***	2008	SmartBike (Alta Bikeshare)	120/10	1,050 annual	$40/year	Owned/Managed and operated by Alta (for-profit)	DDOT funding & Advertising revenue
Washington D.C., Arlington, VA & Alexandria, VA ***(second attempt)***	Sept 2010 & 2011	Capital (CaBi) Bikeshare (Alta Bikeshare)	1,200/140	19,200 annual/ 105,644 casual	$75/year $25/month $15/3-day $7/day	Owned/Managed by DDOT & City of Arlington, operated by Alta (for-profit)	Capital $8 m fed (CMAQ)/state funds. Minimal private sponsorships & revenue.

ATTACHMENT H

PRELIMINARY BICYCLE SHARE CASH FLOW

			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Bikes and Docks													
Total Bikes			2,500	3,000	3,750	4,500	5,250	5,775	5,775	5,775	5,775	5,775	
Total Stations			250	300	375	450	525	525	525	525	525	525	
Capital cost													
Bikes			2,500	500	750	750	750	525	525	525	525	525	7,875
Stations			250	50	75	75	75	-	-	-	-	-	525
	Cost/bike	4,500	11,250,000	2,250,000	3,375,000	3,375,000	3,375,000	2,362,500	2,362,500	2,362,500	2,362,500	2,362,500	35,437,500
Vehicles													
	Cost		35,000	-	35,000	-	35,000	-	35,000	-	35,000	-	175,000
O&M*													
	$ 23,000		5,750,000	6,900,000	8,625,000	10,350,000	12,075,000	12,075,000	12,075,000	12,075,000	12,075,000	12,075,000	104,075,000
Total cost/yr (cap + exp)			17,035,000	9,150,000	12,035,000	13,725,000	15,485,000	14,437,500	14,472,500	14,437,500	14,472,500	14,437,500	139,687,500
Revenue													
User Fees**	$ 19,000		4,750,000	5,700,000	7,125,000	8,550,000	9,975,000	9,975,000	9,975,000	9,975,000	9,975,000	9,975,000	85,975,000
Sponsor/yr***	$ 1,000,000		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000,000
Ads/kiosk****	$ 12,000		3,000,000	3,600,000	4,500,000	5,400,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	54,300,000
Total			8,750,000	10,300,000	12,625,000	14,950,000	17,275,000	17,275,000	17,275,000	17,275,000	17,275,000	17,275,000	150,275,000
Yearly free cash flow			(8,285,000)	1,150,000	590,000	1,225,000	1,790,000	2,837,500	2,802,500	2,837,500	2,802,500	2,837,500	10,587,500
Cumulative cash flow													
Total Grants*****			-	4,000,000	1,000,000	-	-	-	-	-	-	-	5,000,000
Capital			11,285,000	13,535,000	16,945,000	20,320,000	23,730,000	26,092,500	28,490,000	30,852,500	33,250,000	35,612,500	35,612,500
O&M			5,750,000	12,650,000	21,275,000	31,625,000	43,700,000	55,775,000	67,850,000	79,925,000	92,000,000	104,075,000	104,075,000
Total cost			17,035,000	26,185,000	38,220,000	51,945,000	67,430,000	81,867,500	96,340,000	110,777,500	125,250,000	139,687,500	139,687,500
Total Revenue			8,750,000	23,050,000	36,675,000	51,625,000	68,900,000	86,175,000	103,450,000	120,725,000	138,000,000	155,275,000	155,275,000
Cum pretax cash flow			(8,285,000)	(3,135,000)	(1,545,000)	(320,000)	1,470,000	4,307,500	7,110,000	9,947,500	12,750,000	15,587,500	15,587,500

Assumptions:

Year 1 estimates of 250 stations and 2,500 bikes based on averages from Metro Preliminary Bike Share Analysis. Year 2 to Year 5 bike fleet growth based on Metro recommendations for regional bike share growth (assuming average density of 25 stations throughout 11 jurisdictions). After 5 years, 10% of fleet expected to need replacement each year.

10 bikes per station. Cost per bike divides total system costs over the number of bikes.

Cost per bike based on estimates from Washington D.C., Bay Area Pilot, and bike share vendors.

* Operation and Maintenance costs per station based on Washington D.C. and Denver systems, with 85% of fleet requiring maintenance.

** User Fees in Washington D.C. were $20,000 per station in first year. Long Beach estimates $15,000 per station. To be conservative, this model assumes a lower return.

*** The $1,000,000 sponsorship revenue is based on Long Beach's estimates. New York City Sponsorship was $8,000,000 in 1st year. We have shown a low number due to strict sponsorhsip policies in multiple jurisdictions.

**** Advertising revenues shown is based on Long Beach estimate. We have kept this number low due to strict advertising policies in multiple jurisdictions.

***** Grant funding based on Bay Area Pilot, Boston Hubway and Washington D.C. trends.

Disclaimer: Cumulative Pretax Cash Flow may be split between jurisdictions and vendor/operator based on negotiated revenue split.

Inputs

ATTACHMENT I

Bicycle Share Funding Options
(in millions)

Fund Type	*$*	*Allocation Process*	*Programming Action Needed by the Board*	*Eligibility Criteria & Parameters*	*Applications in Existing Bike Share Programs*
Federal					
ATP	$116.6 yearly**	Discretionary	No (Programming is made by CTC & SCAG)	**Capital and non-infrastructure active transportation projects.** **State guidelines have not been finalized.	
CMAQ	$18 yearly	Discretionary	Yes	**Capital and non-infrastructure costs.** For projects that reduce single occupancy vehicle driving and improve air quality.	Has been used by Capital Bikeshare for infrastructure in Washington DC & Virginia.
JARC	$8.35 Total	FTA grant	No	**Capital and non-infrastructurel costs for commute and reverse commute options for low income individuals in Long Beach & City of LA.** FTA does not officially recognize bike share as public transit so the purchase and operation costs of individual bikes may be restricted. Station infrastructure may be covered.	Capital Bikeshare is using JARC to provide free membership, bike education programs and free helmets to low income participants.
Local					
CRD (Toll Lane Revenue)	$4.2 - $5.2 yearly*	Discretionary	Yes	**Capital costs for active transportation & first-last mile solutions.** Must be located within three miles of either the I-110 & I-10 Corridor) or provide regionally significant improvements for the 110 or 10 Corridor. *Fund estimate applies to FY14 only. Future funding contingent on 1-10 & 110 HOT lane project approval	
Local Return - Measure R 15% - PC20%	$245 yearly	Formula By Population	No	**Capital costs.** Local cities could elect to use their share to pay for future phases or as a match.	Local sales tax funds have been used to match/supplement federal grants in many bike share schemes.
MR 25% Highway Operational Improvements	$345 total	Discretionary to only Arroyo Verdugo and Malibu Las Virgenes Subregions	Yes	**Capital costs.** Potential to fund future bike share phases for cities within the subregion.	

MOTION BY:

MAYOR ERIC GARCETTI & DIRECTORS ZEV YAROSLAVSKY

& MIKE BONIN

Item 58 – Bicycle Share Program Implementation Plan

In October 2013, the MTA Board adopted, as policy, bicycle use as a formal transportation mode.

Staff was asked to: a) conduct an industry review on procuring a regional bike share vendor; b) prepare a business case analysis and recommendations on proceeding with a Request for Proposals to implement a regional bicycle share program; 3) make recommendations on a phased approach for implementing this program.

Bicycle share offers an alternative means of transportation for short trips that might otherwise have been made by vehicles.

A recent study named "The Bike-Sharing Planning Guide" (Institute for Transportation & Development Policy, December 2013) said "bike-share, more than any other form of urban transport, has the ability to improve and transform our cities."

This means a robust and regional bicycle share program needs to be adopted to address first-mile and last-mile transportation challenges.

An MTA bicycle share program will help connect and expand its transportation coverage to multiple jurisdictions along its transit system.

This is why MTA needs to be the lead agency in the county that will manage and procure a robust bicycle share program.

A single-point agency will also ensure inter-operability among the different jurisdictions and can also provide a multi-modal transportation system through the use of the Transit Access Program ("TAP") smart card.

MTA can also simplify the management of the program by having one agency provide proper accountability and proper management.

MTA needs to also provide a fair-share of funding to support the initiation and maintenance and operations (O&M) costs for the program.

WE, THEREFORE, MOVE that the MTA CEO:

1. Undertake a study of how a Bike Share Program could be implemented throughout the County.

2. Procure, contract and administer the bicycle share program once the implementation study is completed.

3. Implement the program in a phased approach and partner with the cities identified in the Phase I of the bicycle share program so MTA funds at least:
   A. Up to 50% of total capital costs per each city
   B. Up to 35% of total O&M costs per each city (on-going)

4. Identify a financial business plan that includes:
   A. User fees
   B. Advertising fees
   C. Corporate sponsors
   D. A recommendation on a revenue split for all fees/revenues identified above.

5. Prioritize eligible grants to support the costs of the program including:
   A. State Active Transportation Program ("ATP") funds
   B. State "Cap & Trade" funds
   C. Federal bicycle and active transportation funds
   D. All other eligible funding sources

6. Develop a robust system-wide branding and educational effort that supports the use of bicycle share as part of the implementation study.

7. Update on all of the above at the April 2014 Board meeting.

Attachment G

Metro Countywide Bikeshare:
Interoperability Objectives with Existing Local Bikeshare Programs

In order to create an interoperable Metro Countywide Bikeshare system in which a customer could travel as seamlessly as possible between jurisdictions across the county, standards are necessary to ensure that users have a consistent experience. Cities that have executed a contract with a bikeshare vendor prior to issuance of a notice to proceed for Metro's selected vendor are identified as "existing bikeshare programs". To participate in the Metro Countywide Bikeshare Program and be eligible to receive the capital and net operations and maintenance (O&M) financial support, cities with "existing bikeshare programs" are asked to work with Metro to achieve the following interoperability objectives.

1. Branding & Marketing
Existing systems that would like to be included in the Countywide Bikeshare program and receive financial support must include in their branding image and all marketing media recognition of their being a part of the Metro Countywide System.

2. Title Sponsorship
Existing systems that request financial support from Metro to participate in the Countywide Bikeshare program must reserve the title sponsorship (and associated revenues) on the bikes for Metro. Sponsorship revenues will first be applied towards Metro's financial commitment. Excess revenues will then be applied toward each community's share of operating and maintenance costs. Existing cities could elect to maintain local sponsorship and may then forgo Metro financial support.

3. Membership Reciprocity
Existing systems that participate in the Countywide Bikeshare program, will provide reciprocal membership access and privileges to the Metro Bikeshare system. This reciprocity will allow a single membership to access multiple bikeshare systems. Allocation of membership revenues will be negotiated between Metro and existing cities. Metro and existing cities will cooperate in implementing systems that allow a TAP card to be a member identifier in each system. Metro and existing cities will equitably devote resources to make the necessary accommodations to achieve this objective.

4. Reciprocal Docks
Docks or racks should be co-located in limited areas where existing cities systems and Metro Countywide Bikeshare overlap and utilize different bikeshare technology. Metro will reserve one ad panel space on the kiosk for the host community to use for their own ad generating revenue opportunities if permitted under local ordinances.

5. Unified Fare Structure
Existing cities and Metro will work towards a unified Metro Bikeshare fare structure that meets the financial objectives of the parties.

Metro Countywide Bikeshare DTLA Phase 1 Pilot

Planning & Programming Committee Meeting
June 17, 2015

Metro

Recommendation

A. Adopt the Regional Bikeshare Implementation Plan for Los Angeles County ("Plan")

B. Award a two-year firm fixed price to Bicycle Transit Systems, Inc. (BTS) in the amount of $11,065,672 for the equipment, installation and operations of the Metro Countywide Bikeshare Phase 1.

C. Authorize the Chief Executive Officer (CEO) to take the following actions to implement the Metro Countywide Bikeshare Phase 1 Pilot in downtown Los Angeles ("Pilot").

1. Negotiate and execute a Memorandum of Understanding (MOU) between City of Los Angeles and Metro.
2. Amend the Fiscal Year 15/16 bikeshare project budget to include an additional $2.64M for the capital and operating and maintenance costs of the Metro Countywide Bikeshare Phase 1 Pilot.

Metro

Implementation Plan

- **Developed in response to Motion 58 (January 2014)**
- **Jurisdictional Coordination & Public Input**
  - Bikeshare Working Group: Pasadena, Long Beach, Los Angeles and Santa Monica
  - Over 16 meetings with working group, pilot cities, elected office briefings
  - Launched two Crowdsourcing Maps
- **Identified Bikeshare Ready Communities**
- **Plan informed development of Request for Proposal**

Metro

Countywide Bikeshare Program

- RFP released December 15, 2014
- Bicycle Transit Systems, Inc. to Install, Operate and Maintain Metro Countywide Bikeshare Program

- MOU to be executed between Metro and City of Los Angeles
  - Execution of contract between Metro and BTS is contingent on Metro executing MOU with City of Los Angeles
  - Sets fiscal and administrative responsibilities

Metro

Interoperability Objectives

- Branding & Marketing
- Title Sponsorship
- Membership Reciprocity
- Reciprocal Bikeshare Docks
- Unified Fare Structure

Metro

Next Steps

- **Fall 2015 –** Return in fall 2015 with a recommended fare structure and TAP integration strategy
- **Spring 2016-** Launch DTLA Pilot Phase 1
  - 65 Stations
  - 1090 Bicycles
- Continue to coordinate with Santa Monica and Long Beach

Metro