



TOWN OF FAIRFAX

STAFF REPORT

March 4, 2015

TO: Mayor and Town Council

FROM: Garrett Toy, Town Manager *GT*

SUBJECT: Approve the purchase and installation of four electronic bike lockers per the Bay Area Air Quality Management District grant

RECOMMENDATION

- 1) Authorize the Town Manager to do everything necessary and appropriate to purchase and install four electronic bike lockers (E-lockers) per the Bay Area Air Quality Management District (BAAQMD) grant
- 2) Appropriate \$30,000 for the E-locker project of which \$20,000 is from the BAAQMD grant for the purchase and up to \$13,000 for the installation of the E-lockers.

DISCUSSION

In August 2014, staff finalized an agreement with BAAQMD for a \$20,000 grant to purchase four (4) E-lockers from an authorized BAAQMD vendor. Each E-locker can accommodate two (2) bikes per locker for a total of eight (8) bikes. The grant does require the Town to provide a matching contribution for the installation of the E-lockers. The estimate by the vendor to install the E-lockers is approximately \$8,000. We added another \$5,000 for the concrete pads required for each E-locker.

The original application to BAAQMD identified the Parkade parking lot as the location for the four E-lockers. However, based on a field review, we determined the possible locations in the Parkade would cause the loss of parking spaces and, possibly, the removal of trees because the E-lockers are solar powered. In an effort to find alternate locations, we discussed the possibility of locating three (3) E-lockers in the parking lot at the Bicycle Museum on Claus and Sir Francis Drake. The owner of the property and Museum operators have indicated they would support such a project. BAAQMD recently approved our request to add the Bicycle Museum as a possible location for the E-lockers. Staff is still evaluating locations for the 4th E-locker. We will be moving forward with the project with the approval by the Council.

E-lockers are accessed as part of the BikeLink system, which is a cardholder system that allows users to access any BikeLink facility. Attached is information on the BikeLink system.

FISCAL IMPACT

The BAAQMD grant will cover \$20,000 for the purchase of the E-lockers. Staff will reallocate \$10,000 in Measure I funds from the CIP sidewalk replacement and tree trimming project fund and \$3,000 from the Public Works Street Maintenance Division to cover the costs of the project. This transfer will not impact the operations of the maintenance division.

ATTACHMENTS: Bikelink materials

AGENDA ITEM # 5

Questions frequently asked by people considering purchasing BikeLink™ equipment.



What is the basic concept behind BikeLink™?

BikeLink™ combines smart technology with smart system management to enable highly efficient shared use of bicycles and secure bike parking spaces.

- Traditionally, bike lockers are rented to cyclists by the year and each cyclist gets his or her own key to a designated space. Assigned bike locker rentals are not an efficient use of resources because most cyclists do not use them every day. In fact, most assigned bike locker rental facilities have long waiting lists, but are actually mostly empty most of the time!
- BikeLink™ is smart. Like curbside parking for cars, BikeLink™ parking spaces are shared. BikeLink™ is an inter-owner network, so you can use your BikeLink™ card at any BikeLink™ facility. Because of its on-demand capability and built-in incentives for turnover, BikeLink™ serves 7 to 10 times more cyclists over the course of a year, as compared to a traditional assigned locker system. BikeLink™ is quick and convenient for regular bike commuters, but since you pay only when you use it, it works great for occasional cyclists, too.

What does it cost to provide BikeLink™ secure parking?

About 30% of what assigned bike lockers cost per cyclist served.

- The installed cost of a traditional assigned bike locker is about \$1,400 per space, while the installed cost of an eLocker is about \$2,700 per space¹. But eLockers using the BikeLink™ system serve 7 to 10 times as many cyclists per year².
- Ongoing operating and software/hardware/mechanical maintenance costs for an eLocker-based BikeLink™ facility range from \$60 to \$160 per space per year depending on level of demand, type of equipment installed, number of spaces at a location, who does periodic on-site monitoring, and several other factors. We can provide a service plan quote once you have configurations and specific locations in mind.

How much space is needed?

Per cyclist served, about 15% of what traditional bike lockers require.

- A four-space Quad eLocker has an 80" x 74.5" footprint. Our usage data shows that in transit applications, four eLocker spaces will serve the parking needs of approximately 30 different cyclists over the course of a year. See brochure for other configurations.

How robust and secure is an eLocker?

eLockers are engineered for exceptional durability and security in all types of environments.

- The electronics are proven in cold, hot, humid, and salt air locations, and will run on normal alkaline batteries for two years. Doors and controller housings are heavy gage stainless steel, and a stainless steel locker frame is a popular option. Other bike lockers will burn and have created serious fires. Our locker frame and roof have been tested and exceed stringent fire resistance standards. Our roof resists strenuous hatchet attacks and the domed shape deters use as a seat or place to sleep. In over 8 years of deployment at 75 locations, with tens of thousands of rentals, we have lost only 4 bikes to theft from an early model of our eLocker at one location.

Why is an hourly charge important for successful bike parking and bike sharing?

A ticking meter is a big motivator. A small hourly charge effectively prevents people from turning a parking spot into a long-term storage facility, or monopolizing the use of a share bike.

- The most popular application for BikeLink™ is to facilitate first and last mile travel at transit nodes. For BikeLink™ facilities associated with transit, cyclists typically purchase their own BikeLink™ cards and this helps defray the cost of the service. In other applications where a facility owner is providing bike parking or bike sharing for its employees, students, or members, it is common for the facility owner to purchase cards on the users' behalf.
- If you wish to provide free bike parking or bike use for your users yet still encourage shared use behavior, we suggest you use the minimum rental rate of \$0.05 per hour, but provide pre-loaded \$20 BikeLink™ cards at no cost to the user and only one card per person every six months.

Why does BikeLink™ keep the rental revenue?

Ongoing rental revenue helps cover costs for card programming and distribution, 24-hour telephone and email support, user vetting and contact information database maintenance, our Free Taxi Ride Home program if user is stranded due to equipment malfunction, web-based usage data analysis tools for owners, free outreach materials and signage, and more...

- Card sales revenue allows us to provide many critical administrative and user support functions for the life of your facility and to do so more cost-effectively and with greater expertise than individual facility owners can. For example, if a user

has a problem or a question about using the system, they can reach our 888 helpline 24 hours a day, 7 days a week. Because BikeLink™ is an inter-owner service, a central cardholder database service³ is needed for effective monitoring and enforcement of parking and sharing rules. If you need to contact one of the over 4,000 BikeLink™ cardholders when they are using your facility, you can log in and look them up in seconds or call our 24-hour 888 support line and we'll reach them for you.

Can I restrict access at my facility to certain cardholders?

Access restriction is easy to implement, even after the facility is operating and cards are issued to users, but is generally not recommended.

- People love the fact that they can access BikeLink™ at multiple locations and BikeLink™ users are carefully vetted when they register, so access restriction is recommended only for special situations. Situations where access restriction provides real value include bike sharing, bike stations, or BikeLink™ parking intended to serve only the employees of a private company but located immediately adjacent to a public transit station. In other situations, access restriction is just an additional inconvenience or potential source of confusion for users.

How do BikeLink™ automated bike stations work?

The BikeLink™ automated bike station allows many cyclists to park in the same room, yet controls user access with an integrated access control system which features a touch screen interface, security cameras, automatic speakerphone, and real-time alerts for facility owners.

- The entry kiosk computer records all rental events, including each user check in, check out, door opening and door closing. You periodically audit the facility to compare users checked in with actual bikes parked or share bikes checked out. BikeLink™ users with bike station access are provided with card number stickers for their bikes that match their BikeLink™ card number.
- To allow for additional vetting, the entry kiosk equipment includes a high resolution camera and automatic speaker phone for remote ID verification during registration. Registration and access restriction can thus be handled by our 24-hour support staff.
- The system can be linked to additional security cameras so that images of each entry or card event are viewable online.
- Hardware for automated bike station is fully sealed and tested for extreme conditions, including brake dust.

How does BikeLink™ bike share work?

The BikeLink™ bike share system lets you select the vending equipment (eLocker, automated bike station, custom docking racks, or existing bike racks retrofitted with a docking tab) appropriate for each location's particular security, layout, user group, and environmental exposure requirements.

- Cyclists can use the same card for both bike parking and bike sharing. In fact, many BikeLink™ facilities feature bike sharing – or automated rental of bicycles – rather than bike parking. Because it is very easy to switch the rental mode of an eLocker controller between bike share and bike parking, some locations provide both parking and bike share.

Can other cards or smart devices be used?

Yes, our readers can accept all common contact and contactless (ISO-7816 and ISO-14443A/B) smart devices, including NFC-capable cell phones.

- BikeLink™ equipment already accepts alternate smart cards in some locations, including a regional parking card and a national bike share smart card.
- If your smart card is implemented as a smart debit device with stored value we are allowed to access, or if card memory is available where we can implement a BikeLink™ -specific electronic purse, and if we can both read and write to the card to mark its renting status, then the firmware customization required is relatively straight forward. If your card requires real-time or daily reconciliation with a web-based accounting system, then your BikeLink™ facilities will require BikeLink™ cellular internet gateways and associated monthly internet service. Regional smart cards with web-based reconciliation require more significant firmware customization as well as firmware certification.

¹ Quad configuration with battery power supply and standard finishes.

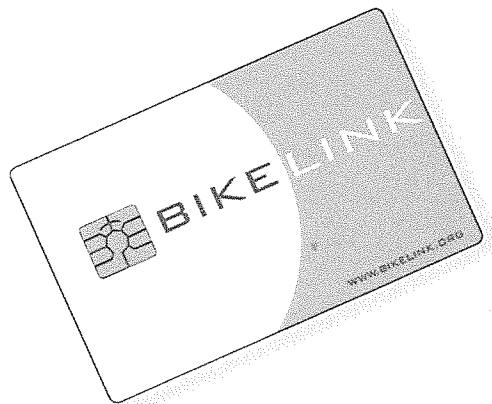
² Based on usage data for BikeLink™ eLocker installations at transit stations.

³ Note that we take many measures to ensure the accuracy and privacy of user contact information.

BikeLink™ System Overview

What is BikeLink?

BikeLink™ is an integrated management and smart technology system designed to facilitate both on-demand secure bike parking and deployment of rental bikes. BikeLink™ integrates microelectronics, wireless mesh networking, cellular technology, and relational databases with administrative procedures and access control systems. BikeLink™ can be used as an operating system for eLockers™, automated bike stations, eRacks™, or with eLock retrofit kits for existing mechanically keyed bike lockers.



The BikeLink™ Card

The BikeLink™ Card acts as both a debit device and access key. It is smart and it never expires. It stores rental information which can help a user if they forget where they parked, and deters several types of system abuses by preventing multiple simultaneous rentals.

As indicated on its back, use of the BikeLink™ Card invokes the BikeLink™ Cardholder Agreement, which can be viewed at www.bikelink.org.

The Benefits of BikeLink™

Operational Flexibility

- Easily switch between parking and vending modes.
- Use with lockers, racks, or automated bike stations.
- All components run on AC power or batteries.
- Works with and without a network.
- Membership-based access control is not required.

Ease of Use

- Clear, intuitive user interface.
- Faster to use than a mechanical bike lock or locker.

Interoperability

- Cardholder can access a national network of facilities.
- System supports a variety of card types.

Low Operating Cost

- The BikeLink system has been continuously refined to minimize administration, service, cleaning, power, and communications costs.

Serves More Cyclists

- Usage data indicates BikeLink serves 7 to 10 times as many cyclists in a year compared to non-shared systems.

How On-Demand Bike Parking Works:



Get a BikeLink™ card

The BikeLink™ Card is sold online at www.bikelink.org, by local facility owners, nearby businesses, or vending machines.



Insert card

The screen guides you through a very quick process to start your rental. It's like using a parking meter.



Park your bike

Once there's time on the meter, the door opens. Put your bike inside, close the door, and walk away. Your bike remains secure even if the meter expires.



End rental

Insert your card, get your bike, and get your refund! Unlike a parking meter, any time you don't use is refunded. If your meter expires you are simply charged for the extra time at a higher rate.

How Automated Bike Share Works:



Get a BikeLink™ card

To facilitate insurance or security deposit requirements, the bike fleet owner may require your card be tagged with an extra electronic access code. You can get a code for your card over the phone, on the web, or by purchasing your card directly from the bike fleet owner.



Insert card

The screen guides you through a very quick process to select a bike and start your rental.



Remove rental bike

When you start your rental, if you're using an eLocker the door opens. If you're using an eRack, your selected bike is released.



End rental

You can return your bike to a different location from where you rented it. If you're using an eLocker, insert your card, view and accept your receipt, replace bike and attach docking device. If you're using an eRack, just dock your bike at any slot and then insert your card to view your receipt and close out the transaction.

Summary of BikeLink™ Operating Services

This document summarizes standard BikeLink™ benefits and services, as well as supplemental operating services available. Please refer to Comprehensive BikeLink™ Operating Terms and Conditions and Supplemental Services Agreement for additional details.

Standard Benefits & Services

Because BikeLink™ collects revenue when it sells access devices, standard benefits and services are available to BikeLink cardholders and facility owners indefinitely and at no additional charge to the user or facility owner as long as owners agree to charge at least 3¢ per hour for use of the system. Owners may alternatively elect to compensate BikeLink™ on a per-transaction basis for standard benefits and services and have actual rental revenue at their facilities credited to them on an annual basis.

BikeLink™ Standard Benefits & Services for Users:

- Immediate access to any public BikeLink™ facility
- Prompt web & email support
- 24-hr Phone Support
- 24-hr Free Taxi Home if stranded
- Purchase access device or add value online, by telephone, or through a local vendor
- Online locations mapping, and other location-specific useful information
- One-time codes over the phone for lost card and similar situations

BikeLink™ Standard Benefits & Services for Facility Owners:

- BikeLink™ User agreement maintenance
- System-wide user database maintenance and archiving
- Access device production, programming, and distribution
- Owner-specific web page with specific settings, configuration, and mapping for each location
- Database access & search tools (data by owner zip codes upon request)
- Planning tools such as automatic geo-coding of user addresses
- Online access to BikeLink trouble and service ticket system and service logs for owner's locations
- For manual monitoring: printable location-specific monitoring forms and secure monitoring data entry/archiving capabilities
- Equipment and system reference documents
- Free outreach flier templates and promotional programs tools
- Ability to create special access zones at any time and selectively issue access codes to users
- Ability to switch facilities from Bike Parking to Bike Share on the fly
- Web-based usage reporting and analysis tools

Supplemental Services

While the BikeLink™ system is engineered to be reliable and self-regulating on a day-to-day basis, we offer supplemental service plan packages to ensure the best end user experience as well as stream lining operations for the owner.

Proactive Service & Operation Plan

The Proactive Service & Operation Plan is the cornerstone of our operating service plans, and is intended to be a comprehensive package for maintenance, monitoring, and repairs, as well as regulatory enforcement of usage rules.

Features

- No limit on the amount of field service we will provide to ensure that no more than 10% of controllers remain out of service for more than one week due to malfunction, low batteries, abandoned rental, or user error.
- Field monitoring of facility usage and enforcement of rules.
- Automatic battery replacement and critical software patches.
- Cost effective preventative maintenance, such as lubricating moving parts and field inspections.
- Our standard customizable BikeLink™ “BIKE PARKING” or “BIKE SHARING” sign and our promotional outreach materials are provided at no additional cost.
- Annual usage reports are included with your Proactive & Operation Plan as well as periodic reports of usage and performance.

Other Supplemental Services

Graphic design services for outreach materials

Our in-house staff includes graphic designers who are happy to assist you in developing outreach materials or promotional programs. We have existing web application tools that facilitate management of promotional programs.

Replacement Parts Coverage (available as an add-on to the Proactive Service & Operation Plan)

Over the first few years, extending your Proactive Service & Operation Plan to include a Replacement Parts Plan will likely cost the same as paying for replacement parts individually, however the Replacement Parts Plan is a great way to stabilize and plan out your operating costs for the long term.

Next-Day On-Site User Support (available as an add-on to the Proactive Service & Operation Plan)

We offer the option to extend your Proactive Service & Operation Plan to cover next-business-day on-site user support to return a user's bicycle in the event of vandalism or malfunction. If you do not purchase the Next-Day On-Site User Support plan, it is important that you make arrangements to provide it yourself on an as-needed basis.

Why Choose BikeLink™?

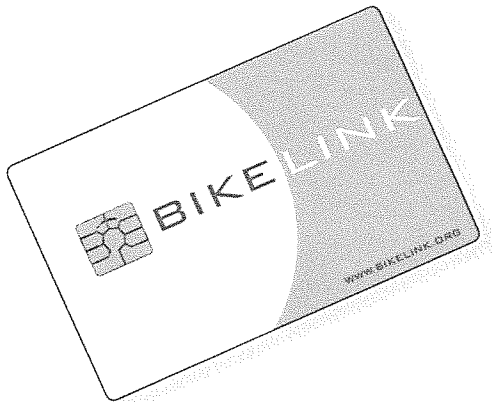
Experience and Flexibility

BikeLink™ is a national network of facilities that provide the means for you to get on a bicycle and go!

Whether your ride takes you to work, a transit station, or a river front trail, BikeLink™ is there to help. The same card can park your bike in a locker at a transit station, and check out a share bike across town to complete the other end of your trip!

BikeLink™ pioneered electronic on-demand bicycle parking over a decade ago with the goal of bridging the "last mile" between transit stations and commuters' homes. Tens of thousands of "last miles" later, BikeLink™ has over 1,200 spaces deployed nationally, and is the adopted standard throughout the San Francisco Bay Area and in the San Diego region.

BikeLink™ is the only bike parking and sharing system designed from the ground up to be flexible, easy to use, and viable in the long term. BikeLink™ system products are equally at home at trailheads, downtown, in transit stations, or on campuses. Because BikeLink™ products are designed to work with any off-the-shelf bicycle, facilities can be tailored for the local geography – cruisers for the river trail, city bikes for downtown, even Segway®s, scooters, and special needs bicycles!



Planning and Information Tools

BikeLink.org lets users, technicians, and administrators connect with information, and each other!

BikeLink™ is more than just a kit of hardware -- administrators can use the powerful kit of web-based tools to easily create customized usage reports, review service records, create promotions and incentives for users, create outreach materials, and use geocoded user data to see what areas are being best served by their facilities.

Users can log in to BikeLink.org to add value to their card, review their share bike trips, monitor their parking usage, make advanced reservations, and send feedback to facility operators.

BikeLink™ is updatable – We are always working to improve, and BikeLink™ products are designed to stay on the cutting edge! From established standards like magnetic stripe cards, contact and contactless smart cards to the latest technology like NFC-enabled cell-phone payments, flexible solar panels, and ultra-low power wireless communications, BikeLink™ engineers always design with the future in mind.

BikeLink™ is smart – As needs change, BikeLink™ products can be reconfigured on the fly to meet demand. Secure bike parking can be converted to bike share, and bike share into secure parking, without any gaps of service for existing users. New access devices can be integrated with plug-in upgrades, and power supplies can be easily switched to solar or battery power if a facility goes off-grid.

BikeLink™ is dynamic -- On-locker and on-kiosk displays can relay context-sensitive information or advertising to users.

BikeLink™ is sustainable -- Parking or vending spaces can be quickly added and removed without the need for trenching or heavy equipment. Plenty of other bike parking and sharing technologies are essentially throw-away technology – BikeLink™ is truly green, because it is designed to last for decades, and ready to meet your needs.

BIKELINK

Frequently Asked Questions

What is BikeLink™?

BikeLink™ is an inter-agency network of shared, on-demand parking and vending facilities for bicycles and other small vehicles. Facilities include on-demand bicycle lockers, group-access BikeLink stations, and on-demand shared bikes.

Where can I get a card?

BikeLink™ cards can be purchased online, over the phone, or from participating retailers. They cost \$20 and have \$20 in rental value on them. Check locker info screens, or BikeLink.org for retailer locations near the BikeLink™ facility you want to use, or call 1-888-540-0546 to buy a card over the phone.

Will my BikeLink card work at any BikeLink™ facility?

Yes! BikeLink™ is an inter-agency network. This means your BikeLink™ card will work at BikeLink™ facilities provided by different owners and in different regions. Some owners may choose to require an additional access code for a portion of their facility to ensure that their own employees have priority access. Contact the facility owner if an on-screen message indicates that an access code is required.

How much does it cost to use the system?

Rates vary by location and are displayed on-screen. Typical parking rates are 3-5 cents per hour.

If I am using a locker, what happens if I return after my meter expires?

If you are using a locker, the locker remains secure. For the extra time, you are charged a higher rate - usually three times the normal rental rate. If you leave a meter expired too long, the rental is considered abandoned. Press the button on any meter to see information screens with location-specific rental terms.

If I am using a locker, what if I do not have enough value on my card to pay for an expired meter?

We don't want to leave you stranded. You can still end the rental and get your bike, but your card will be unable to start a new rental until you add value to it.

What about when my card runs out? Can I add value to it?

Yes. Call 888-540-0546, or go to BikeLink.org and click "add value to card" to purchase a unique code which will allow you to add value onto your card the next time you are at a locker. If you are using a BikeLink Station, the value will be added automatically next time you use your card at the station.

Can I use any other card besides the BikeLink card?

Yes. In Santa Cruz for example, you can use the City's Park Card for both automobile and BikeLink parking. We have made provisions for accepting regional transit smart cards like the Clipper card. When this can happen depends on policy decisions by the agencies that manage these cards.

Will my bike fit in the locker?

This is not an easy question to answer because our system is installed on many different sizes and types of lockers. For tall bikes or bikes with very wide handlebars, locker height is the most important factor. Also, keep in mind that you can turn your handlebars and tilt the bike to fit it in. Almost every standard bike will fit in the lockers we manufacture (with a domed translucent roof). These have a door opening of 29" x 45.5" and the triangular parking space is 74" deep. Most recumbent bikes will not fit. Retrofitted lockers in the San Diego area and at some BART stations (perforated metal sides and doors with a flat top) have a door opening of 33.5" x 41.25" and the triangular parking space is 74" deep. Very tall bikes, or tall bikes with very wide handlebars may not fit in these lockers.

BIKELINK

Will there always be a space when I need it?

BikeLink™ facilities operate on a first-come, first-served basis. At any facility, you can also rent an empty space in advance. As long as you do not let your rental go expired, we will not cancel the rental on an empty locker. But please do not abuse this privilege: if you do let a rental expire on an empty space, your card will be disabled when we cancel the rental. We also monitor usage regularly. When local demand warrants it, and if the facility owner wishes to upgrade, the facility can be networked so you will be able to check availability or make a reservation online. Please keep in mind that it's not up to BikeLink™ to upgrade any equipment; it is up to the facility owner and is subject to funding limitations.

Why not just debit my card at the end of the rental?

Our research has indicated that pay-at-end systems make it a bit too easy to park and forget about it, especially if the hourly rate is low and the payment device is a debit card. Pay-at-end can be marginally more convenient; however, we consider it more important to encourage turnover so that secure bike parking is available to as many people as possible. By making you think up front about how much time to put on the meter you are more likely to use the system as a short-term shared resource like metered parking for automobiles.

Can I rent more than one locker at a time?

Yes, but you need to use more than one card.

Who do I turn to if there's a problem?

Email us at info@bikelink.org or call (888) 540-0546. We provide phone and email support 24/7, but typically cannot provide immediate on-site assistance. We love feedback and will work hard to help you.

What if I lose my card?

Email us at info@bikelink.org or call (888) 540-0546. Until you let us know your card is lost, you will be responsible for its misuse by another party. If you lose your card when your bike is in a locker and need emergency assistance, check the info screens or signage at that facility to see if on-site assistance is available.

Can you refund the value on my lost card?

Your BikeLink™ card is like a key and cash combined. The value is stored on the card itself, not on a network. Therefore, it is not possible to have your card deactivated or have value on it refunded if you lose it.

Can you refund my BikeLink™ card purchase?

If you find that BikeLink™ is not right for you after trying it once, you may return your card for a full refund within 30 days of your purchase, provided the card is in new condition and has less than \$.50 value used. Email us at support@bikelink.org for return authorization. We are not able to offer refunds on cards beyond 30 days of purchase, or cards no longer in re-sellable condition.

I am a transit municipality or private company. How do I get involved with BikeLink™?

Email us at info@bikelink.org or call (888) 540-0546 for additional information.