

**FY 2010 Annual Grant Application
Transportation Development Act/*TransNet* Bicycle and Pedestrian Projects**

Applicant (Agency): San Diego Association of Governments (SANDAG)_____

Project Name: Bicycle Locker Retrofits and Upgrades_____

Application Amount: \$50,000_____

Project Type: Bicycle Parking_____

Project Limits: This project will occur mostly in the southern San Diego region along the blue trolley line._____

Project Description: This funding will provide a local match to the Federal JARC funds that were received in FY09 to install electronic lockers in areas where residents have limited means. Locations under consideration include Santa Fe Depot, Imperial Ave Trolley Station, Pacific Fleet Trolley Station, 8th Street, Bayfront/E Street Trolley Station, H Street Trolley Station, and Palomar Street Trolley Station.

Summary of Cost Estimates:

<u>Category</u>	<u>Cost</u>
Feasibility Study	
Engineering	
Project Management	
Contract Engineering	
Environmental Documentation	
Design	
Construction	
Construction Management	
Construction Contract	
Total Cost	\$ N/A

Funding Sources:

<u>Revenue Source</u>	<u>Amount</u>
TDA/ <i>TransNet</i> Claim Amount	\$ 50,000
SANDAG In-Kind Services	15,000
Total	\$ 65,000

Project Location Map:

Please see attached location maps.

Contact Person: Thomas Bruccoleri_____

Title: Senior Transportation Planner_____

Address 401 B Street, Suite 200_____

San Diego, CA 92101_____

Phone: 619.699.7381_____ Fax: 619.699.0709_____

E-mail: tbr@sandag.org_____

Person Authorized to Submit Application:

I certify that I have reviewed the Bicycle and Pedestrian Claims Guidelines and the information submitted in this application is accurate and in accordance with these guidelines.

Name Title

Signature Date

Project Funding:

Total Estimated Project Cost (Please attach a detailed project estimate based on best available engineering) \$ 217,000

Project Cost Estimates – On a separate sheet provide an itemized cost estimate for all eligible expenses. Be as accurate as possible to avoid future cost overruns. Projects with cost overruns have three options for moving the project forward depending on what percentage over the original grant amount the revised project cost will be. Applicants may ask for a recommendation from the BPWG to amend original allocation for up to five percent of the original cost estimate (up to the amount available in the reserve). Projects that require more than five percent additional funding can resubmit the project in a subsequent funding cycle with the adjusted project amount. Lastly, the applicant can choose to complete the project with their own funding.

Matching Funds (Category 9 of Project Evaluation Criteria)

<u>Revenue Source</u>	<u>Amount</u>
SANDG In-kind__	\$ 15,000__
_____	\$ _____
Total	\$ _____

TDA/TransNet (Application Amount as shown in Category 10 of Project Evaluation Criteria) \$ 50,000 _____

Total Revenues \$ 65,000_____

Scope of Work

In the section below, state the project deliverables (including specific quantities and locations of improvements) and anticipated completion dates. Please note that if this project is funded, this scope of work will be added to the grant agreement and the grantee will be held to this scope of work for the purpose of project oversight.

Deliverables:

Task	Completion Date
Pre-RFP Planning	June 2009
Locker Contract Awarded	October 2009
Lockers Manufactured	December 2009
New Lockers Installed	March 2010

Please also see attached scope of work.

Supporting Materials

- A. Community Support/Consistency with Community Plan (Category 1) – The council or governing board of the applicant must authorize this grant application. Please attach a copy of the resolution or minute order documenting that action. Or, if the project is part of an approved Bicycle Plan, please attach a copy of the section that includes the project.

Not Applicable

- B. Minimum Design Standards (Category 2) – Projects applying for construction funds must provide actual drawings or cross-sections from the project itself, not generic standard drawings. If the applicant is seeking funding for the design and construction of a project, proposed cross-sections may be used in lieu of the actual plan drawings. If any part of a project is substandard, clearly illustrate that (provide photographs, if applicable) and provide an explanation as to why the minimum design standard is not being met.

Not Applicable

- C. Connect to Regional Transportation Corridor or Transit Linkage or Regional Bikeway Map (Category 3) – Provide a map which clearly illustrates the projects relationship to existing facilities. Show the project’s direct linkages to any regional bikeway (for bicycle projects) or direct continuous link to a local bus stop or direct link to an LRT/regional transit station. A direct link for a bicycle project is defined as connecting immediately to a regional bikeway with no gaps. A direct link between a pedestrian project and a transit facility is defined as one in which some part of the facility comes within 600 feet of a local bus stop or LRT/regional transit station.

Not Applicable

- D. Completes Connection/Linkage in Existing Bicycle/Pedestrian Network (Category 4) – List and briefly describe the linkages or connections to existing bicycle or pedestrian network. Provide a map which clearly illustrates the projects relationship to existing facilities.

Not Applicable

- E. Project Readiness (Category 5)

Phase	Begin	Complete
Feasibility Study	_____	_____
Preliminary Engineering	_____	_____
Environmental Document/Certification	_____	_____
Final Design	_____	_____
Advertise for Construction	_____	_____

Begin Construction _____
Project Completion _____

F. Geographic Factors/GIS Analysis (Category 6) – SANDAG will perform a GIS analysis as described in the Bicycle and Pedestrian Claims Guidelines based upon a project map provided by the applicant. Briefly describe project limits and provide a location map clearly showing the project alignment. In addition, clearly show and label the following elements:

- a. major traffic generators within the project area (within ½-mile for pedestrian projects and within 1-mile for bicycle projects)
- b. linkage or connections to existing bicycle or pedestrian facilities
- c. linkage to any regional bikeway or public transit stop

Not Applicable

G. Geographic Factors/GIS Analysis (Category 6) – List and briefly describe major traffic generators served by the project.

Not Applicable

H. Safety Improvements (Category 7) – Describe the safety issues addressed by the project. Please attach support documentation for safety and accident history. If collision data is provided, it must be specific in pointing out which collisions are applicable to the project and why it is relevant.

Not Applicable

I. Innovation and Design (Category 8) – Describe any design innovations for bicycle/pedestrian priority measures that are included within the project limits.

Is this project in your agency's adopted capital improvement program (Y/N) N/A

If the project is part of a larger capital improvement project, briefly discuss how the bicycle or pedestrian project costs were identified and a description of the other sources of funds for the overall project.

The bicycle locker locations receiving upgrades from this funding are part of the region's network of almost 1,000 bicycle lockers. Electronic lockers are on-demand, unless the locker is in use anyone with an access card can use any open locker, so they have the potential to be utilized by several users throughout the day. Several stations utilize the electronic lockers and this project would add to the overall system. Eventually, all bicycle lockers in the region will be electronic.

Briefly describe any other aspects of the project that is relevant to its evaluation.

Not Applicable

Bicycle Master Plans, Pedestrian Master Plans, Education/Safety Programs and Bicycle Parking

Bicycle Master Plans, Education/Safety Programs and Bicycle Parking projects will each be considered in a separate category. These types of projects are encouraged and will be evaluated by SANDAG staff.

Basic Guidelines

Bicycle Master Plans – Cities with population up to 75,000 will be eligible for a maximum of \$75,000. Cities with population greater than 75,000 will be eligible for a maximum of \$150,000. Beginning with the 2010 project application cycle, all cities will need to have a SANDAG-approved Bicycle Plan to be eligible for TDA/TransNet funds for individual projects.

Pedestrian Master Plans – An agency may submit an application for a pedestrian master plan no more frequently than once every five years. Jurisdictions with a population over 150,000 may submit applications for up to \$150,000, and jurisdictions with a population under 150,000 may submit applications up to \$100,000. In either case, the amount of the application must be substantiated by providing a scope of work and project budget to SANDAG.

Education/Safety Programs – An agency must submit a scope of work and a proposed schedule to be evaluated by SANDAG staff.

Bicycle Parking – Projects that conform to SANDAG’s Bicycle Parking Guidelines and have a projected cost up to \$50,000 will be eligible.

All claims, including those supporting educational or promotional programs and claims for planning projects, must include a project budget, work program, and project schedule.

Scope of Work

Introduction

In 2008, SANDAG was the recipient of federal Job Access and Reverse Commute (JARC) funds. JARC funds are eligible to fund capital, operating, and mobility management projects providing transportation services to jobs and employment-related activities for persons with limited means. SANDAG applied for, and received, \$168,000 in capital funds for bicycle locker upgrades which require a 20 percent local match (\$33,600). This *TransNet* funded grant would provide the local match for the JARC funding and allow for additional locker upgrades.

The San Diego Regional Bike Locker Program is managed by RideLink, the transportation assistance program within the San Diego Association of Governments (SANDAG). RideLink is tasked with reducing peak-time congestion by facilitating projects that encourage commute alternative to driving alone. The bicycle locker network has over 60 sites throughout the San Diego region and the lockers are along every major transit route (trolley, Coaster, Bus Rapid Transit (BRT), and Sprinter). Several of these locker locations, along the blue trolley route in the southern part of the county, exist in low income areas and are in need of upgrades.

Bicycle locker upgrades consist of replacing the old, mechanical lockers with electronic, on-demand lockers. The electronic lockers are an upgrade from the more traditional mechanical lockers for several reasons including durability, safety, and usage. Electronic lockers have a durability advantage because they are constructed of perforated steel panels with a solid steel frame that is bolted to the concrete unlike the mechanical lockers. The perforated steel panels also provide a safety aspect because the locker contents can be easily viewed from all sides. Electronic lockers are accessed using a smart card system. When a user approaches the locker, they are able to access any locker that is unoccupied. This gives each locker the potential to have several users over the course of one day. An additional advantage of the smart card system is that it allows bicyclists to access *any* electronic locker region-wide. The locations that currently have electronic bicycle lockers are Old Town Transit Center, Sabre Springs BRT, Sorrento Valley Coaster Station, and Encinitas Transit Center with additional stations being added annually.

The Project

Currently all the stations along the blue trolley line with bicycle lockers have the mechanical lockers. The proposed project would add electronic, on-demand bicycle lockers at several trolley stations along the blue trolley line. As mentioned above, electronic lockers are an upgrade from mechanical ones because card holders can access any unoccupied locker. With the mechanical system, one key per locker space is assigned to one user and when the assigned user does not have their bicycle in the locker, it sits empty.

The first step of the project, the pre-Request for Proposals (RFP) planning has already taken place. The sites designated for upgrades are Santa Fe Depot, 12th and Imperial Street, Pacific Fleet, 8th Street, Bayfront/E Street, H St, and Palomar Street trolley stations. If time and funds allow, additional locations for electronic lockers include Harborside, 24th Street, Palm Avenue, Morena/Linda Vista, and Grossmont trolley stations. It is anticipated that an RFP for electronic bicycle lockers will be announced this summer with the contract being awarded in September or October 2009. Once the contract is signed, it will take three to four months for the lockers to be manufactured. During that time, SANDAG will be applying for permits to install the new lockers and coordinating the change-over with current locker users at the aforementioned sites. Complete electronic bicycle locker specifications can be found below.

The electronic lockers will meet the following standards and specifications:

High-Level Requirements:

- Provide access for one bike per point of entry into locker.
- Be of adequate size to hold an adult-size standard or mountain-style bike.
- Be capable of storing a bike up to 50 pounds in weight without possible deformation or failure due to bike leaning against the storage unit.
- Provide adequate security level for 24-hour storage.
- Be structurally sufficient to withstand abuses such as kicking, hitting, and being stood upon.
- Be easily repairable should an accident or vandalism incident occur.
- Provide shelter from the elements.
- Capable of restricting access to approved users based on location or "zones".
- Be capable of withstanding the specific local weather for the approximately 20-year life-cycle of the locker.
- Allow 24-hour, on-demand access to available lockers for approved users.
- Restrict access to only one user at a time. When locker is occupied by user, only the same user may open the locker to retrieve his/her bike.
- Capable of existing within an online reservation system, allowing user to depend on use of the locker they reserved.
- Minimize costs of battery replacement and/or maintenance. Ability to operate off of hard-wired current, rechargeable batteries, solar, or a combination thereof. Battery systems utilizing reusable batteries that are easily replaced and cost-effective to maintain on a monthly basis are desirable.
- Provide maximum flexibility by being adaptable and expandable to accommodate new technology, including but not limited to: new interfaces such as phone, credit cards, or other passkey in addition to the Compass Card (smart card).
- Provide maximum durability and vandalism resistance, and minimum maintenance, of electronic interface hardware and components.
- Enable System Administrator to block any given user once an infraction has occurred.
- Ability to enable System Administrator to control remotely the management and operation of lockers, including but not limited to: addition of user, deletion of user, locker lock/unlock/reset, usage data collection. An additional feature would allow the user to call a service center and obtain a security code to open their locker.

General:

- Lockers shall be of a modular design that allows for easy replacement of bike locker components such as doors, door frames, top and side panels, locks, and latching mechanisms.
- Lockers shall be capable of operation in temperatures ranging from: 0-120°F
- Bike lockers shall be capable of operating continuously in fully-exposed conditions, and in coastal marine environments.
- Lockers shall restrict the entry of debris into the bike parking space.
- Lockers shall have adjustable feet for anchoring and leveling on site (adjustment range: 1/2-inch to 3-inches at each leveling foot).
- Lockers shall have a clearly defined numbering system that can withstand the elements.
- Lockers shall have no exposed fasteners that would enable locker disassembly from

the outside.

- Locker external finish shall enable the removal of graffiti without damage to finish.
- Lockers shall be equipped for permanent mounting to concrete or paved surfaces using expandable anchors.

Lockers:

- Shall be of galvanized, stainless steel construction or have an industrial grade corrosion barrier such as a Tnemec® or a super-durable TGIC polyester powdercoat barrier.
- Doors shall be 1/4-inch on 3/8-inch staggered, round-hole, perforated panels of no less than 12-gauge steel. Doors shall have interior reinforcement, such as an x-brace, to reduce warping and to maintain door panel in a rigid, secure state when closed and locked.
- Door casings shall be no less than 16-gauge steel. A reinforced stainless steel alternative, no less than 16-gauge, is also acceptable.
- Roofs shall be no less than 16-gauge steel or similar construction such as a reinforced polymer. Panels shall also have interior reinforcement to reduce warping and to maintain structural integrity.
- Roofs shall be crowned to enable proper water run-off.
- Side panels and interior panels shall be 1/4-inch on 3/8-inch staggered, round-hole, perforated panels of no less than 16-gauge steel. A reinforced stainless steel side panel is also acceptable provided it is no less than 16-gauge.

Finish:

- All hardware (such as nuts, bolts, hinges and locking assemblies) must be zinc plated or better.
- Locker color shall be as specified, per location requirements.
- All steel structural components must be hot-dipped galvanized and must not be passivated (clear coated). Passivated galvanizing must first be stripped according to Tnemec standards before applying paint. Paint shall consist of one coat (2-3 mil) of Tnemec V69 primer and one top coat (2-3 mil) Tnemec 1075, or equal such as TGIC polyester powdercoat. In exception to this, floor panels do not require paint and, if not painted, must be passivated.

Electronics:

- Lockers shall be capable of operating on either DC or AC power sources.
- Lockers shall be capable of being equipped with internal, built-in conduits for use when AC or direct-wired DC power system is specified. Conduit must be modular as well and not hinder disassembly of the lockers, or relocation of lockers. All electrical components shall be securely concealed within the locker(s) to prevent tampering.
- Battery powered lockers shall be capable of being field serviceable to enable batteries to be easily removed on a regular basis, by maintenance staff, with a key or secure tool without damaging the battery, the battery housing or locker.
- Lockers shall be capable of being hardwired or wirelessly networked with each other and to an off-site network.

User Interface:

- Locker shall be equipped with an easily read, tamper-resistant user interface that provides users with vital locker information such as, 'Available', 'Secured', 'Expired', and 'Unavailable.'
- User interface shall also provide valid card holders with account information such as, number of rental units remaining, a warning when rental account status falls below prescribed minimums, and a warning when the card is invalid.

Locking System and Smart Card Access:

- Bicycle lockers shall be equipped with electronic locks. Locks shall be smart card accessible, compliant with ISO-14443 asynchronous.
- Lock shall be capable of reading any ISO-14443 asynchronous standard card, providing the smart card has been granted system access through SANDAG.
- Any available locker must be accessible by a valid smart card.
- The locking system shall be compatible with 3rd-party electronic purse systems. It is understood that this may require custom firmware development or similar type of security integration before implementation.
- Locks must remain in a secure mode while in the 'available' mode, meaning the locker is closed and cannot be opened by anyone except the holder of a valid smart card.
- Locks must remain dedicated while in a 'secured' mode, meaning the locker is closed, secure, and cannot be opened by anyone except the authorized user who initially engaged the lock in the 'secured' mode.
- Locks shall be capable of being opened at anytime, while in any mode, by SANDAG's System Administrator.
- Locks shall be capable of being field serviced and shall be easily removed, by maintenance staff, with a secure key or secure tool, from the outside of the locker without damaging the lock, locker or any related components. Lock shall be accessible regardless of whether the locker has power or not.
- The locking system shall be capable of being manually operated from the outside of the locker by SANDAG maintenance staff should power be cut to the lock, or should the electronic locking system malfunction for any reason.

Deliverables:

Task	Completion Date
Pre-RFP Planning	June 2009
Locker Contract Awarded	October 2009
Lockers Manufactured	December 2009
New Lockers Installed	March 2010

Bicycle Locker Upgrades and Improvements - Budget

<u>Task</u>	<u>Project Total</u>	<u>BPWG Grant</u>	<u>JARC</u>	<u>In-Kind</u>
Pre-RFP Planning	\$10,000		\$7,500	\$2,500
Locker Contract Awarded	\$5,000		\$3,000	\$2,000
Lockers Manufactured	\$80,000	\$20,000	\$60,000	
Existing Lockers Removed			\$2,000	
New Lockers Installed	\$122,000	\$30,000	\$95,000	
Totals	\$217,000	\$50,000	\$167,500	\$4,500