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To: Urban Design Committee  
From: Planning and Preservation Division  
Date: June 9, 2016  
RE: **Final Section 17.05 Review of stations for City bikeshare system; UDC No. 2016-23**

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**I. APPLICANT**

Jake Helmboldt, City of Richmond Pedestrian, Bicycle and Trails Coordinator

**II. LOCATION**

Citywide within right-of-way and on the grounds of public facilities, as well as by lease agreement on private property

**Property Owner:**

City of Richmond

**III. PURPOSE**

The application is for final approval of stations, including the bikes themselves as well as kiosks, for the City's bikeshare system.

**IV. SUMMARY & RECOMMENDATION**

Staff finds that having the ability to install the bikeshare docking stations at the right location, and make adjustments for operations, is essential to the success of the bikeshare system. Furthermore, Staff finds that by providing bikeshare, and making it more available and visible, the City will be encouraging bicycling for routine transportation trips, promoting a more multi-modal transportation system, and moving towards complete streets.

Staff finds the proposal to be directly supportive of the Citywide and Downtown Master Plan goals of increasing bicycle usage by accommodating the needs of bicyclists. Staff further finds that the proposed improvements are consistent with the recommendations of the Urban Design Guidelines, and will have a positive impact on pedestrian and bicycle activity along the corridor. Therefore, Staff has considered the application and suggests that the Urban Design Committee recommend support of the project.

**Staff Contact:**

Kathleen Onufer, (804) 646-5207

**V. FINDINGS OF FACT**

**a. Site Description and Surrounding Context**

The applicant has identified general station areas, subject to detailed review under installation, for Phase 1 of the bikeshare system. The applicant is requesting permission to install the stations in multiple locations and phases. Additionally, while the stations are secured, they can be moved in response to operational demands or changes in the street environment.

**b. Scope of Review**

The proposed stations and elements are subject to review under Section 17.05 of the Richmond City Charter to “consider and suggest the design” as “public appurtenances”.

**c. UDC Review History**

The UDC reviewed and the Planning Commission approved the first City standard bike rack in 2009. Bikeshare is a new system in Richmond.

**d. Project Description**

The City of Richmond is prepared to launch a public bike share system (System), having executed a contract in February 2016 with Bewegen Technologies (Bewegen), the preferred equipment vendor and their operations subcontractor, Corps Logistics following an RFP procurement and selection process conducted over the prior year. Bewegen is currently the only bike share vendor offering electric-pedal assist bicycles, which provide power assistance to make biking, particularly uphill, easier.

This summer the City will launch Richmond’s bike share system with a fleet of 220 8-speed bikes and 20-22 docking stations. This first phase will be focused primarily in the CBD and surrounding areas including Carver, Jackson Ward, and limited areas of the Fan. The second phase and System expansion in spring 2017 will add pedelec bicycles. With the addition of pedelec bicycles the System will also expand into areas of the City with steeper hills as the pedelec bikes make bike share in these areas more attractive and feasible for a broader range of users.

The bikes themselves have 8-speed gearing, a front basket, and are a step-through shape. Materials are largely aluminum and plastic. Branding is currently being developed as a part of sponsorship discussions, but the proposed color scheme is black and yellow along with dark metallic gray.

The docking stations can have a variety of sizes and orientations, and will be installed in a variety of locations, including public right-of-way, sidewalk and pedestrian ways, as part of public parks, and even on private property with an access easement. The UDC will review bike share docking stations as location, character, and extent when it is a part of a larger project, similar to the location of bike racks and signage within a larger project.

Bike share incorporates a range of technologies that make accessing a bike quick and easy, including an app or by using stations with payment kiosks to acquire a code. A 6.25’ tall kiosk at docking stations contains the ticket vending, as well as an approximately 4’ by 3’ panel for wayfinding maps and possible advertising space. Any wayfinding maps at kiosks for the docking stations will be the City standards used in the new wayfinding system approved by the UDC.

The bikes dock with a mechanism that locks the wheel. There is 1.5’ clear space between each wheel dock, for a 2.5’ offset for each slot in the docking station.

The docking stations themselves require a minimum of at least 4’ clear to traffic, with a preference for 6.75’ clear. The size and dimensions of the station are based on how many bikes they hold and their orientation by angle to the street or right of way. The following dimension table was submitted by the applicant:

12 dock station at 90° - 32 feet  
12 dock station at 35° - 40 feet  
24 dock station at 90° - 62 feet  
24 dock station at 35° - 78 feet  
Depth at 90° - 6.7 feet  
Depth at 35° - 6 feet  
Back-to-back orientation - ~13 feet (x 32 feet for a 24 dock station).

The Department of Public Works will be ultimately responsible for the siting of bikeshare, in consultation with the Department of Public Utilities, the vendor, and the Department of Planning & Development Review. DPW has established these minimum clearances for installation of the docking stations to guide placement: 6' clear sidewalk width (with 5' absolute minimum for constrained sites); 5' clearance to crosswalk ramps; 1' clearance to vaults & poles; 2' clearance to manholes; and 1.5' setback from curb.

The diagrams in the packet show canopies as required to power the docking stations by photovoltaic array; for Phase 1, the City is proposing to tie most docking stations to the electric grid, but also will use the PV panel atop the kiosk model where docking station locations and shading make it feasible.

The City received grant funding from the federal Congestion Mitigation and Air Quality Program for both capital costs and the first year of operational costs. System sponsorship is being pursued to allow a self-sustaining operation that requires minimal or no city subsidy for ongoing operations while also keeping user fees affordable. Phase 2 is tentatively planned for Spring 2017.

**e. Master Plan**

Both the Citywide Master Plan and the Downtown Plan are supportive of increasing the use of bicycles as a mode of transportation. One policy of the Citywide Plan is to “promote ridesharing, bicycle commuting and pedestrian walkways as alternatives to the single passenger automobile” (page 33). A strategy to accomplish that goal is to accommodate the needs of bicyclists by incorporating bike lockers into the design of any new public facilities (page 38). This Plan also notes that there is a “lack of park-and-lock bicycle facilities Downtown” (page 38).

The Downtown Plan notes that “the provision of adequate bicycle parking at either end of the bicyclist’s trip” is critical to encouraging bicycle usage. “Ideally”, the Plan continues, “bicycle parking should be provided in the front of a store or building, in plain sight, easily visible from inside the store or building”. The Plan notes that “based on Richmond’s sidewalk configurations, bike racks should be placed on the sidewalk between tree wells, so that the sidewalk will remain open for pedestrians” (page 5.25). The Plan also has an implementation strategy to install additional bike racks Downtown (page 7.3).

**f. Urban Design Guidelines**

The Urban Design Guidelines are very supportive of bike racks, stating that they “should be installed throughout the City” and that “bike facilities should be incorporated into the design of new public facilities” (page 5). The Guidelines

also note that furnishings, such as bike racks, should be durable, both in construction and finish, and be easy to maintain and to install. They should also be conveniently located but should not obstruct pedestrian circulation (page 25).

**VII. ATTACHMENTS**

- a. Vicinity Map**
- b. Application**
- c. Plans**