

TO: BOARD OF SUPERVISORS  
FROM: DENNIS M. BARRY, AICP  
COMMUNITY DEVELOPMENT DIRECTOR



Contra  
Costa  
County

DATE: JUNE 10, 2003

SUBJECT: APPROVAL OF THE DESIGN OF THE IRON HORSE TRAIL OVERCROSSING OF TREAT BOULEVARD AND THE OAK ROAD RIGHT-TURN LANE PROJECT, PLEASANT HILL BART STATION AREA, WALNUT CREEK

**SPECIFIC REQUEST(S) OR RECOMMENDATION(S) & BACKGROUND AND JUSTIFICATION**

**RECOMMENDATIONS**

1. OPEN the public hearing and receive testimony on the proposed design of the Iron Horse Trail Overcrossing and the Oak Road right-turn lane, and CLOSE the public hearing;
2. FIND the Mitigated Negative Declaration prepared for the Iron Horse Trail Overcrossing and Oak Road right-turn lane is adequate and has been prepared consistent with State and County CEQA guidelines;
3. ADOPT the Mitigated Negative Declaration for the Iron Horse Trail Overcrossing and Oak Road right-turn lane;
4. CONSIDER The County Planning Commission's recommendation regarding the Design of the Iron Horse Trail Overcrossing and ADOPT the preferred Arch Design;
5. ADOPT the Mitigation Monitoring Program for the Iron Horse Trail Overcrossing and Oak Road right-turn lane project; and
6. DIRECT the Community Development Department to file a Notice of Determination and pay the filing fees to the County Clerk, and
7. AUTHORIZE the Public Works Director to ADVERTISE the Iron Horse Trail Overcrossing and Oak Road right-turn lane projects at his discretion.

CONTINUED ON ATTACHMENT:

YES

SIGNATURE

RECOMMENDATION OF COUNTY ADMINISTRATOR  
 APPROVE

RECOMMENDATION OF BOARD COMMITTEE  
 OTHER

SIGNATURE(S):

ACTION OF BOARD ON \_\_\_\_\_ APPROVED AS RECOMMENDED  OTHER

VOTE OF SUPERVISORS

UNANIMOUS (ABSENT \_\_\_\_\_)

AYES: \_\_\_\_\_ NOES: \_\_\_\_\_

ABSENT: \_\_\_\_\_ ABSTAIN: \_\_\_\_\_

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF AN ACTION TAKEN AND ENTERED ON THE MINUTES OF THE BOARD OF SUPERVISORS ON THE DATE SHOWN

Contact: Maureen Toms, Community Development- 335-1250

ATTESTED \_\_\_\_\_  
JOHN SWEETEN, CLERK OF THE BOARD OF SUPERVISORS AND COUNTY ADMINISTRATOR

cc: Community Development Department  
Public Works Department-Transportation Eng.  
Public Works Department-Design  
Redevelopment Agency

BY \_\_\_\_\_, DEPUTY

## **FISCAL IMPACT**

The estimated cost of the Arch design overcrossing is \$3.7 million. The project is fully funded by a federal transportation grant (\$500,000), Measure C funds (\$1.5 million), and Redevelopment Agency funds (\$1.7 million). The Agency funds are included in the Agency's adopted budget.

## **BACKGROUND/REASONS FOR RECOMMENDATIONS**

The Project: The Pleasant Hill BART Station Area Specific Plan contains policies regarding two pedestrian bridges across Treat Boulevard. One bridge was proposed to be aligned to cross Treat Boulevard on the east side of Oak Road. The other pedestrian bridge across Treat Boulevard is proposed one block to the east at Jones Road. The alignment of the Jones Road Bridge is on the Iron Horse Trail Corridor and is the subject of this design review.

The proposed project involves the construction of a Class I Bicycle/pedestrian Bridge with ramps over Treat Boulevard at the intersection with Jones Road. The ramps would descend into the existing temporary BART parking on the north end of the overcrossing (to be converted to Greenspace in the near future) and would displace the Jones Road northbound right turn lane to Treat Boulevard on the south side. The bridge alignment within the northbound right turn lane provides separation from the John Muir Diablo Health Systems facility and preserves a stand of mature trees along Jones Road. Landing ramps would be constructed on Jones Road. The bridge overcrossing would connect with a realigned portion of the Iron Horse Trail on the north end and the existing trail alignment on the south end. A northbound right turn lane on Oak Road, located one block west of Jones Road, would be constructed to replace the dedicated right turn lane used to construct the overcrossing right of way on Jones Road. The Oak Road right-lane project is proposed to be constructed under a separate contract and expected to be completed prior to the beginning of the bridge construction.

Design Alternatives/Process: Determination of a preferred design has been undertaken through an extensive multimedia public participation process that began in 2000. Because the initial community design program did not conclude with a consensus design, the Redevelopment Agency created a web-based preference survey to further inform decision makers on design options. The web based preference survey which took place in January and February 2003, included four conceptual design options for the Iron Horse Trail overcrossing - the Railroad Truss, Cable-stayed Bridge, Arch Bridge, and Concrete Girder Bridge. Each of these options were described along with a summary of engineering issues in a Summary of Design Options, November 22, 2002 (included herein as Attachment A). Also attached hereto are the following: Attachment B- Pleasant Hill BART Pedestrian/Bicycle Overcrossing Community Design Program: Feasibility Study Report, December 1, 2000; Attachment C-Pleasant Hill BART Bridge Overcrossing Program Summary Report, June 24, 2002; Attachment D summarizes the comments received; Attachment E-Comment Letters; Attachment F-Mitigated Negative Declaration; Attachment G-Mitigation Monitoring Program.

County Planning Commission: The County Planning Commission held a public hearing on April 22, 2003 to consider the design of the bridge. Following the staff presentation, public testimony and Commission discussion, the Planning Commission recommended the arch design for the bridge.

Specific Plan Policy: Policy 2 of the Pleasant Hill BART Station Area Specific Plan states the following:

*A pedestrian and bicycle overpass should be provided at Jones Road for the Iron Horse Trail, provided that the County Board of Supervisors, in approving the project determine that, among other requirements, the form, height, mass, and setback of the Iron Horse Trail overpass is aesthetically and functionally consistent with its proximity to the existing office building at 1400 Treat Blvd. The convenience of pedestrian access to this building and the Treat Blvd. frontage*

*shall be provided for in the design of the overpass. Location and design of the bridge shall be reviewed and approved by County Planning Commission after a public hearing.*

The design team met several times with representatives of the John Muir/Mt. Diablo Health Systems (JMMD) over the past three years to discuss design of the overcrossing. The representatives of JMMD included staff, their Board of Directors, the JMMD architect, and their legal counsel. These meetings included walking the site, the use of story poles to better understand views and reviews of alternative designs. In addition, the JMMD staff and advisors attended and participated in the various design meetings and related discussions (Charrette, Steering Committee, etc.). The total number of meetings held exceeds ten.

The goal of the bridge architectural design was to create a facility that presented the least visible impact on the surrounding area, particularly the adjacent property (occupied by the John Muir/Mount Diablo Health Systems Building). The design program emphasized "light and transparent" presence, so as to cause minimal visual impact on both the intersection and the John Muir Building.

To achieve this desired effect, the design team found it essential to keep the piers out of the roadway system as well as minimizing the sloped ramps so as to comply with the American Disabilities Act (ADA). The structure's deck (which carries the bicyclists/ pedestrians) must be thin, while all other structural elements should be both thin and transparent in design where possible. Given these program limitations, which allow for minimal visual impact, the design team selected four bridge design schemes that would comply with the preceding design criteria. In three of the four cases, the schemes selected would provide a light and transparent option.

The first scheme- the railroad truss bridge option- reinforced the idea that the Iron Horse Trail was originally a railroad and provided the community/users with a historical recall. In analyzing this design, the design team understood that there were limitations in reaching the desired lightness through the use of cables, standard "I" beams, and the projectile barrier.

The second scheme- the cable-stayed bridge option- utilizes a thin pedestrian/bicycle deck, fulfilling one of the above mentioned criteria. However, the 120-foot tower that supports the cable system did not promote the desired thinness and transparency. This bridge form, however aided in alleviating some of the long ramp dimensions, which led to the next scheme. Note that the tower was placed on the north side of Treat Boulevard to distance this prominent element from the JMMD property.

The third scheme - the arch bridge option- met the above criteria, achieving a design option that would diminish the structure's impact on the intersection and particularly the John Muir Building. The structural span of this particular scheme allowed for a very thin deck. This thin deck consequently shortened the ramps- thereby decreasing the massing of the overall project. We utilized a steel arch that consisted of numerous thin pipes, thereby creating a transparent structural arch member. This member- when painted in a dark green shade to mimic the surrounding foliage- will tie in with the tree canopy that surrounds part of the site. The arch theme structure, in general, is a common natural form that picks up the surrounding hill shapes and is therefore very contextual in this setting.

The thin cables will also contribute to an overall lightness in structure. These cables are basically vertical in form- blending in with the existing tree forms and perpendicular walls of the John Muir Building, as opposed to the (non-vertical) angles evident in the cable-stayed option. The piers- which anchor the ends of the arch- are also unobtrusive to the eye. Small in form, they make a very small "footprint" on each end of the bridge. The lighting will also offer the users maximum security, while keeping consistent with the design's low profile objective for the neighboring properties. The lights will be hidden within the structure, causing low level illumination for the bridge users. Security lighting will be installed under both

ends of the bridge- which will be controlled so as not to cause any glare impact on neighbors such as the John Muir Building.

The fourth scheme- the concrete girder bridge option- will require a 4-foot deep deck. This heavy deck line will lead to 45 additional feet of ramp on each side of Treat Boulevard. Besides creating a thick, heavy line on the intersection, the concrete girder's form does not allow for transparency of any kind- thus preventing achievement of the main design objectives. The thick decks and longer on ramps would also position the users higher up and in the visual field for a longer time. This height would also infringe upon the privacy of the John Muir Building occupants- since the bridge would allot full views into certain building areas.

In conclusion, considerable efforts were made to explain the many delicacies in the thinness, transparency and lighting of this structure to JMMD and their architect. The Design Team explained the project's aesthetics, received public input and attended numerous meetings with JMMD present. The arch bridge option- colored to match its existing natural context- can appear as a lattice work, thus meeting both the transparency and minimal mass criteria to assure the lightest impact on the neighboring John Muir Building and intersection.

Contra Costa Sanitary District: The Contra Costa Sanitary District (CCSD) submitted a letter in response to the Notice of Intent to Adopt a Mitigated Negative Declaration. The CCSD concerns expressed in a letter focus on construction of the bridge within their easement and adjacent to the existing 60-inch sewer line and the proposed 60-inch sewer line. The CCSD proposed three possible approaches to mitigating this potential conflict: 1) Land the bridge on the west side of Jones Road... 2) eliminate Jones Road... and 3) land the bridge 5 to 10 feet to the west.

Landing the bridge on the west side of Jones would require the trail users to cross Jones Road at a curve. While the traffic on Jones Road is significantly less than Treat Boulevard, the introduction of a new at-grade crossing in this location would diminish the opportunities to improve safety for the trail users, and would take trail users off the Iron Horse Corridor to a non-contiguous area.

The elimination of Jones Road was not considered as Jones Road provides access to the properties on the block bounded by Jones Road, Oak Road and Treat Boulevard and is an alternative to bypass the Oak Road/Treat Boulevard Intersection.

Landing the south ramp of the bridge further to the west would require the elimination of an additional lane on Jones Road. This lane reduction would be in addition to the dedicated right turn lane that is to be eliminated. Secondly, the shift to the west would potentially conflict with the transit easement that has been established in anticipation of a future transit line.

The CCSD's concerns will be addressed by the design of the Iron Horse Trail Bridge over Treat Boulevard. The CCSD's stated objective is to continue to safely operate and maintain the 60-inch sewer and build, operate, and maintain the proposed 66-inch sewer. These objectives can be met by designing the foundations of the bridge such that the existing facilities are avoided and the future excavations and maintenance of the existing and new facilities does not require extraordinary means on the part of CCSD. There are several possible solutions to this including:

- ◇ the use of bridge structure as opposed to retained embankment. This will concentrate foundations at single column locations and reduce the at-grade footprint of the bridge.
- ◇ the use of single column continuous drilled shaft foundations that extend well below the current or proposed CCSD's pipes, thereby eliminating the need to shore the bridge during trenching

- ◇ incorporate CCSD approved provisions in the construction drawings and specifications and provide on-site supervision of the bridge foundation construction to prevent damage to CCSD's facility's.

The bridge design team will continue to work closely with the District during the design and development stage to assure that the District can maintain safe and uninterrupted operation of the existing sanitary sewer facilities and the anticipated new facilities in the Corridor.

Other Comments: One of the property owners (Altman) adjacent to the south ramp has expressed concerns about privacy. The rear portion of their residence is adjacent to the Iron Horse Trail. As proposed, the at-grade sidewalk and landscape strip, totaling 20 ft. in width, would remain in place, while the bridge ramps will be constructed to the west of the sidewalk. Since the ramp will parallel the property approximately 20 ft. west for approximately 50 ft. at a 1:20 slope, the point of the ramp that is abreast of the JMMD/ Altman property line at 2.5 ft. above grade. The existing screening is provided by a six ft. high masonry fence, tall equipment box on the JMMD property, an accessory building at the rear of the residential property and existing trees on the Altman property. The property owners desires additional screening at the corner of the property, where there is a gap in the tree screening. Additional screening can be provided with the planting of another tree (approximately 24-inch box) in the rear of the residence's property or one – two ft. high addition to the top of the masonry wall. It is recommended that staff work with the property owner to find a solution that provides the requested screening and is aesthetically acceptable for the area.

The Sierra Club also submitted a May 12, 2003 letter concerning the alignment of the bridge and their desire for the bridge to be a straight line. The bridge has been designed to land in the most eastern edge of the planned Iron Horse Greenspace to make better use of the greenspace area, provide a more visible bicycle/pedestrian interface, and to eliminate blind spots on the east side of the bridge created by the landing. A straight alignment would bisect the greenspace area and result in conflicts with pedestrians using the area. These conflicts are reduced by placing the landing and trail to the east. In addition, site planning of the landing and eliminating blind areas will be a better deterrent for criminal activity than police patrols of the less visible areas.

On May 14, 2003 the County Grand Jury issued its Report No. 0306, which, among other things, recommended that the County not proceed further with plans to build the Iron Horse Trail Overcrossing of Treat Blvd., citing concerns regarding costs and the appropriateness of using redevelopment funds. The Board of Supervisors received the Grand Jury Report on June 3, 2003, and referred it the County Administrator for response. The Sierra Club has provided an additional letter dated May 27, 2003 stating their position that the Iron Horse Trail Overcrossing should be built, and "strongly urge(d)" the Board of Supervisors to reject the Grand Jury recommendation. The use of redevelopment funds for the overcrossing is eligible under California law.

### **CONSEQUENCES OF NEGATIVE ACTION**

If action is delayed, the Oak Road right-turn portion of the project would not be constructed and completed in advance of the bridge. If action is negative, the entire project would not be constructed.