Communities By Design, a nonprofit 501c(3) training and education organization, in cooperation with the **City of Redwood City**, is pleased to present:

The Forum at Redwood City

A CONTINUING CONVERSATION ON CITY DESIGN

THE IMPLICATIONS OF HIGH-SPEED RAIL AND CALTRAIN FOR THE PENINSULA AND ITS HISTORIC DOWNTOWNS

2004-05 SEASON: FORUM #8
WEDNESDAY, MAY 4, 2005
LITTLE FOX THEATER
2209 BROADWAY
REDWOOD CITY
6:00 P.M. - 8:00 P.M.

On May 4, 2005, the City of Redwood City and the nonprofit “Communities By Design” hosted the final presentation of the 2004-05 Forum season, with a panel presentation and discussion, “The Implications of High-Speed Rail and Caltrain for the Peninsula and its Historic Downtowns.”

Bruce Liedstrand, Executive Director of Communities By Design and Redwood City’s Community Design Director, introduced the topic by explaining how transportation has – and

continues to – shape the form of our towns and cities. Train service on the Peninsula is changing in two important ways: 1) Caltrain is substantially changing the way it operates, and 2) high-speed rail, which will allow for quick trips between northern and southern California, is on the horizon. From a community perspective, Bruce stressed the importance of focusing on the changes to rail services, including the impacts (favorable and unfavorable) these changes are likely to have on the communities of the Peninsula, particularly the downtowns, and what communities need to do to take advantage of the benefits and minimize the problems.

Bruce then introduced Kristen Pickus of Moore Iacofano Goltsman, Inc. (MIG), who introduced the four panelists, each of whom addressed the impact that changes in rail service will have on communities along the Peninsula, from the perspective of their area of expertise. Kristen also cautioned the audience to remember that with regards to high-speed rail, there are many issues that are still unresolved, including alignment, but for the purposes of tonight's discussion, we are assuming that there will be a connection to San Jose and up the Peninsula.

BOB DOTY
Bob Doty, Director of Rail Transportation for SAMTRANS, began the evening by discussing current and projected service changes for Caltrain, including the "Baby Bullet" express service.

For many years, Caltrain was utilized only because it was an alternative to the Bay Area's congested freeways – not because it was a well-run system. Beginning in June 2004, Caltrain introduced an express train service called the "Baby Bullet." The Baby Bullet has been well received, with total ridership increases of 15-20% when compared to previous years. Express trains generate twice as much revenue as local trains, according to Mr. Doty.

The launching of the Baby Bullet followed on the heels of the CTX program, a $163 million investment in improving Caltrain's infrastructure, and adding new locomotives and rolling stock. This program also included the implementation of a centralized train control system as well as the redesign and improvement of several stations.

Caltrain has changed the way it does business. Caltrain has begun to eliminate outdated protocols such as the "hold out rule", which states that only one train can be in a station at a time. In September of 2003, Caltrain switched to a "Proof of Payment" or POP fare system. Unlike traditional fare systems, POP places the burden of fare verification on the rider, not the operator, thereby freeing up Caltrain personnel to focus on operational aspects of the train. Most importantly, Caltrain has mounted an aggressive rebranding and public outreach campaign. From improved signage and passenger information to citizen advisory committees and public meetings, Caltrain has worked to reintroduce itself to the community.

Mr. Doty concluded by commenting that the U.S. is clearly far behind Europe and much of Asia when it comes to the sophistication of its rail systems. In order to make train service a viable transportation option in the U.S., according to Mr. Doty, "we have to decide that the train system is an attraction and not a nuisance."

ROD DIRIDON
Rod Diridon is the Executive Director of the Mineta Transportation Institute and the Chair of the California High-Speed Rail Authority Board. Mr. Diridon's presentation provided an

overview on high-speed rail, including the system's technology, service area and potential economic benefits.

Of the eleven federally designated high-speed rail corridors in the U.S., California is the most advanced in its study of high-speed train service. California is well positioned for high-speed rail because of forecasts that the state's projected population between 1990 and 2040 will double in size to 60 million. Much of this growth will occur in urbanized areas that are easily served by passenger rail.

As proposed, the high-speed rail system will use a steel-wheel-on-steel rail technology, the same equipment as Japan's Shinkansen train, France's TGV, and Germany's InterCity Express line. At full build-out, the system will connect Northern and Southern California with a $25 billion (1999 dollars), 703-mile network of new lines. According to the High-Speed Rail Authority, a trip from San Francisco to Los Angeles would take two and a half hours. Mr. Diridon explained that high-speed rail's short travel times would make it competitive with other transportation options, including "short-hop" airline travel.

The construction of a high-speed rail system is expected to produce the equivalent of 450,000 job-years (one full-time job for one year) of employment, including over $11 billion in personal income and $872 million in tax revenue.[1] In addition, the system will generate thousands of permanent jobs to maintain and operate the system.

With respect to the Peninsula, Mr. Diridon explained that the system is proposed to be built in the space between existing Caltrain tracks. Both Redwood City and Palo Alto are under consideration for a local high-speed rail stop.

HANS KORVE

Hans Korve, Principal of Korve Engineering, analyzed three different types of rail crossings from a transportation engineering perspective.

At-grade crossings – with the rail lines running on the ground – are the most detrimental type of rail intersection. At-grade lines force communities to elevate roadways up and over tracks, and this approach can quickly become costly. Otherwise, cities must restrict access for 700 to 800 feet on either side of the crossing or close cross streets altogether.

Depressed, or underground, rail crossings are an expensive but effective way for communities to reduce disruptions from rail service. Depressed tracks maintain circulation for street level vehicles, pedestrians and bicyclists while keeping train infrastructure hidden from view. However, underground tracks often carry high construction costs because of numerous technical concerns that must be addressed, including groundwater, creek crossing and utility issues. Building depressed tracks can also be disruptive to cross street access during construction. Mr. Korve cited the Alameda Corridor in Los Angeles as an excellent example of depressed railroad tracks that, although unattractive in design, have little to no impact on the communities through which they pass.

Elevated tracks offer something of a balance between disruption of at-grade crossings and the high capital costs of depressed crossings. Although elevated crossings introduce some noise and sight issues, this design allows vehicle access to continue unaffected at the street level.

[1] According to the California High-Speed Rail Authority.

What's more, elevated tracks can be built at a moderate expense and open up numerous opportunities for "air rights" development underneath the tracks. Mr. Korve showed several of examples of successful restaurants and shops in Berlin that were built in the space beneath elevated tracks.

MICHAEL FREEDMAN

Michael Freedman, Principal of Freedman Tung & Bottomley, discussed issues that communities should be aware of from an urban design perspective, including how station design relates to the urban environment.

Mr. Freedman began his presentation by emphasizing that well-guided growth and development on the Peninsula will require an integration of planning for rail service with the planning of downtowns. One of the first steps in this coordinated approach is for Peninsula cities not to allow rail lines to remain at-grade. Mr. Freedman echoed Mr. Korve's sentiment that at-grade tracks can disrupt or even tear apart the urban fabric of a city. For a downtown to be successful, Mr. Freedman stated, it has to be connected to the neighborhood around it. Mr. Freedman used several simulations of downtown rail crossings in Peninsula cities to demonstrate that this continuity problem is not solved even with depressed streets that go underneath at-grade tracks. Depressed streets still leave an enormous gash in the urban landscape.

Elevated tracks and stations, when designed properly, can help to strengthen the urban landscape. Mr. Freedman cited Chicago and Japan as two places where elevated tracks have been seamlessly integrated into the downtown environment. Bangkok, Thailand has effectively killed the pedestrian experience by building monolithic concrete supports for their elevated tracks, which cast a dark shadow on the streetscape below.

While cities along the Peninsula may be much smaller than the examples Mr. Freedman used in his presentation, the design principles he presented are still applicable. Mr. Freedman closed by urging the audience to consider ways that Peninsula communities can translate the increased pedestrian traffic and interest resulting from improved rail service into design solutions that enhance, rather than destroy, the urban fabric of our cities and towns.

The Forum concluded with an hour-long facilitated discussion between audience members and the four panelists. This dialogue was based on questions that were asked by attendees and then discussed amongst the speakers. The panelists touched on several topic areas, including: the integration of transit service across modes, including strong support or feeder systems; the importance of station design that complements our communities; and the economic benefits of improved rail service.