TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER

DEPARTMENT: PLANNING

DATE: MARCH 18, 2002

CMR:118:02

SUBJECT: PALO ALTO INTERMODAL TRANSIT CENTER: ENDORSEMENT OF CONCEPTUAL PLAN AND AUTHORIZATION OF NEXT STEPS

REPORT IN BRIEF

The Palo Alto Intermodal Transit Center (PAITC) Conceptual Plan and Feasibility Study comprises a design development of ideas first discussed at the Dream Team community workshop in 1993. The vision created at that workshop was to re-create the historic roles of the University Avenue rail passenger station environs as community gateway, civic gathering place, and transportation hub. Over the past two years the City of Palo Alto and Stanford University have joined together to translate this vision into a comprehensive transportation and urban design plan. The PAITC plan and feasibility study was prepared in collaboration with a steering committee consisting of Palo Alto residents, the Chamber of Commerce, the Palo Alto Bicycle and Pedestrian Advisory Committee, and regional transit agencies. Community consultation during the past two years has included two additional community workshops, two Planning and Transportation Commission public hearings, a Council study session, presentations before neighborhood associations, Chamber of Commerce committees and the bicycle advisory committee, and meetings with businesses in the study area.
The PAITC conceptual plan consists of both transportation elements and community amenities. Transportation elements include expanded rail and bus passenger service capacity, an at-grade intersection of Alma Street and University Avenue, the re-design of University Avenue between Alma Street and Palm Drive, and provision of a bicycle and pedestrian undercrossing of Caltrain near Alma and Everett. Community amenities include an urban park and civic space, public art, and urban design features.

The benefits of implementing PAITC include a reduction of between 1,500 and 3,000 vehicles commuting to and from Palo Alto each weekday; enhanced safety for cyclists, pedestrians, and motorists in the train station environs; visual amenities and provision of new civic space; improved way finding for visitors; and safe, pleasant linkages between Palo Alto, the Stanford campus, and the Stanford Shopping Center.

Staff is requesting Council direction to proceed with preliminary engineering and environmental assessment, pursue external funding, prioritize future implementation, and develop an interagency consortium for implementation. Council is also being asked to endorse a PAITC conceptual plan. Staff will return to Council in one year to report on environmental assessment, a proposal for the interagency consortium, and status of external funding.
RECOMMENDATION
Staff and the Planning and Transportation Commission recommend that Council:

A. Endorse Option 1 of the Palo Alto Intermodal Transit Center (PAITC) Conceptual Plan as the basis for the following further actions: 1) preparation of a full CEQA analysis before a final project design is selected, 2) efforts to obtain federal, state, and regional grant funding; and 3) creation of an interagency consortium to complete PAITC engineering design and eventually implement the project. 4) engineering design.

B. Prioritize the major Conceptual Plan components as follows:

1a. Replace the existing rail bridge over University Avenue and creating a four-track, two-platform configuration at the University Avenue Caltrain Station.
1b. Make Alma Street and University Avenue a signalized, at-grade intersection.
2. Extend Quarry Road for bus only access to the bus transfer center at the University Avenue Caltrain station.
3. Create a new bicycle/pedestrian undercrossing of the Caltrain tracks beginning near Everett and Alma Streets.
4. Reconfigure University Avenue between Alma Street and Palm Drive into two one-way sections separated by a new public park.
5. Replace the existing road bridge over El Camino Real.

C. Convey to the Valley Transportation Authority (VTA) Board of Directors through Palo Alto's representative on the Board the importance of early and full allocation of the $45,000,000 devoted to PAITC in the Measure B Expenditure Plan of the 2006-2036 Santa Clara County Transportation Sales Tax reauthorized by the voters in November 2000.

D. Direct staff to return to Council in one year to report on results of the CEQA analysis and the framework for an interagency consortium.

BACKGROUND
Each weekday, nearly 2,250 passengers board or alight at the University Avenue Caltrain terminal in downtown Palo Alto. Each day approximately 40,000 vehicles use the University Avenue and Alma Street interchange and about 30,000 vehicles navigate the El Camino Real and Palm Drive interchange. Nearly 600 transit buses visit the Caltrain station daily. At peak hour during a weekday count in January 2000, 240 pedestrians and 75 bicyclists used the University Avenue/Alma Caltrain undercrossing and 100 pedestrians and 110 bicyclists used the University/Palm Drive overcrossing of El Camino Real. These latter totals rise significantly with milder weather.
Nevertheless, passenger way finding and navigation for motor vehicles and cyclists in this area can be challenging. Walking or bicycling within the area is often difficult and sometimes unpleasant. There is a lack of public green space and public art. Vistas are limited by the configuration of bridges and ramps that were developed to facilitate vehicle movement. No gateway feature celebrates this nexus between town and gown. Rail and bus transit capacity is physically constrained, which limits the potential for growth in high occupancy vehicle use—a major transportation policy objective for both the City of Palo Alto and Stanford. The increasing intensity of transit services and easy access to downtown suggest that transit-oriented development opportunities may be available in the PAITC project area.

The "Dream Team" charrette was held in 1993 to address these issues. Attachment A shows an aerial view of the project area in 1993. Further work was undertaken in 1994 to refine the concepts that were produced at the charrette. This refinement became the basis for the design development work undertaken in the past two years.

The City was awarded a $200,000 Petroleum Escrow Violation Account (PEVA) grant in 1997 to complete the work of creating a PAITC master plan and feasibility study. City staff workload precluded initiating this effort until 1999. The City and Stanford each provided $75,000 to supplement the PEVA grant. The intent of the PAITC planning project has been to prepare a detailed, feasible design concept to inform future funding decisions, engineering work, environmental clearances, and project implementation. The design alternatives have been reviewed in two rounds. During the year 2000, conceptual design alternatives were discussed at meetings of the PAITC Development Team and Steering Committee (see Attachment B for a list of members), a community workshop, a Planning and Transportation Commission public hearing, and a Council study session. In 2001, two project alternatives that evolved from the prior year's work were discussed at additional meetings of both the PAITC Development Team and Steering Committee; a second community workshop; and the Historic Resources Board, Architectural Resources Board, and Planning and Transportation Commission. Materials from the April 28, 2001 community workshop are included in Attachment F. Additional outreach by project staff to date has included discussions with and presentations to the Palo Alto Chamber of Commerce, MacArthur Park Restaurant, the Red Cross, the Sheraton, the Downtown North Neighborhood Association, the University South Neighborhood Group, the Joint Powers Board/Caltrain/Samtrans staff, and the VTA staff. City of Palo Alto and Stanford staff have collaborated together closely throughout the two-year PAITC conceptual planning process.

**DISCUSSION**

Conceptual Plan Alternatives: Option 1
The PAITC Conceptual Plan Option 1 has the following components:
1. The number of rail tracks at the University Avenue Caltrain passenger terminal is increased from two to four, thus accommodating expansion of rail passenger services. Some commuter parking along Alma Street would be lost;

2. The bus transit transfer center is expanded from five standard bays to six articulated (double-length) and six standard bays. Shuttle bus drop-off and pick-up access would also be provided near Everett and Alma Streets on the east side of the Caltrain tracks;

3. A new bicycle/pedestrian undercrossing of Caltrain is created at Everett and Alma Streets;

4. Vehicle circulation is handled by transforming University Avenue between Alma Street and El Camino Real into a large one-way loop around which all movements circulate;

5. Nine inter-connected and coordinated traffic signals are installed on the oval; six of the signals are for traffic handling and three are primarily for pedestrian protection;

6. Bicycle and pedestrian circulation would occur at the periphery and (at intervals) at crossings of the loop. More experienced bicyclists would also be accommodated on bike lanes on the loop road. Bicycle and pedestrian connections will also be provided along an approximate diagonal routing between downtown Palo Alto and Stanford Shopping Center;

7. Access to some of the increased rail passenger service demand will be met through increased bus transit capacity (an increase in excess of 350 percent in terms of bus seats per day) and greatly improved bicycle and pedestrian facilities within the PAITC area. Existing reserve capacity at the new Caltrain commuter parking lot along Alma near Forest will absorb some of the increased demand for passenger access to the Intermodal Transit Center. In addition, there is potential for shared parking among weekday commuters and evening and weekend concert patrons should a proposed Performing Arts Center be located near the PAITC.

8. An urban form of train station is created, consisting of two center platforms, reached from a transit concourse at level, with a re-designed University Avenue level (ADA accessible and containing ancillary retail services for passengers). Attachment G shows an artist's view of this concourse as it might appear in Option 2; removing the access to buses below tracks would transform this scene into such a concourse as appears in Option 1.

9. An arrival plaza is created to clarify access for vans, buses, and autos;

10. A bus-only entry and exit is included, via an extension of Quarry Road from El Camino Real. All bus turning moves, other than left turns in, are allowed;

11. A park that is 160 feet by 960 feet (three football fields long) is created within the oval;

12. The preliminary design for the park includes the following: hedges placed along the edge of the park; flowering tree groves placed within a series of terraced berms; a circulation system of fine-grained paths traversing the park; and focal elements such as a pavilion with seating function to provide shaded refuge. There are many other park design possibilities. These are suggested as a framework to engage the community on possible enhancements for the new urban park;
13. As the park crosses El Camino Real on a widened overpass, it terminates at a major ceremonial entry of Stanford, Palm Drive, and includes a public rose garden.

Circulation of the pedestrian, bicycle, and bus modes accessing the PAITC area are shown in Attachments H, I, and J.

Conceptual Plan Alternatives: Option 2
This Option adds the following elements:

1. The bus transit transfer center is expanded from five standard bays to six articulated (double-length) and six standard bays and placed directly beneath the Caltrain tracks and platforms.
2. A possible paseo and transit village (e.g. with affordable housing and transit-supportive retail) could be created to make an especially strong pedestrian connection between downtown Palo Alto and the Stanford Shopping Center;
3. Parking provision below grade at the current bus transfer center location can be scaled to meet the needs of the prospective re-use of land surface and to accommodate future parking needs based on expanded rail passenger services. Access to some of this increased rail passenger service demand will also be met through increased bus transit capacity and greatly improved bicycle and pedestrian facilities within the PAITC area.

PAITC Conceptual Plan Option 1 and Option 2 both include expanded rail and bus transit capacity; improvements to bicycle, pedestrian, and vehicular circulation; and creation of urban design, public art, open space, and recreational amenities in the environs of Palo Alto’s downtown Caltrain station. The only difference between the two is that Option 1 provides for an expanded bus transfer center at grade level in approximately its current location and Option 2 calls for placing the bus transfer center directly beneath the rail track and passenger platforms. It should be noted that Option 2, which places the bus transfer center below the tracks and platforms, was preferred both at the April community workshop and by the PAITC Steering Committee. This preference was largely based on the land re-use opportunities that undergrounding bus transit would provide.

Option 1 and Option 2 both would replace the existing rail bridge over University Avenue with a wider, more open, four-track structure that would allow daylight to shine below decks, creating a more secure and pleasant passage as well as open a vista between downtown and the Stanford campus. The University Avenue at Alma interchange would be transformed into a signal-controlled, at-grade intersection. University Avenue would be separated into two one-way sections between Alma Street and Palm Drive, each section comprising two through lanes and an on-road bicycle lane (with parallel off-road bicycle lanes and walkways in each direction and several protected crossings of the oval park). These intersection and roadway improvements will enhance travel safety for all modes and provide a number of circulation options for cyclists and pedestrians. The two sections of
University Avenue would enclose an oval public park roughly the size of Cesar Chavez Park in downtown San Jose. A new wider highway bridge would be built over El Camino Real near Palm Drive to accommodate the requirements of the new cross-section of University Avenue and the new park between the east- and westbound sections. Both the new El Camino Real bridge and the new University Avenue Caltrain bridge would replace existing structures with substandard vertical clearances. Attachments D and E show Option 1 and Option 2 in plan view.

Both options would transform the University Avenue Caltrain station into a modern rail terminal designed to efficiently facilitate cross-platform transfers between local and express trains. In each option, access to passenger boarding platforms would be via stairs or escalators with elevators provided for those with mobility impairments.

As previously noted, while both alternatives would expand the bus transfer center at the University Avenue Caltrain station, Option 2 calls for placing this facility below the Caltrain tracks, while Option 1 expands the bus center at its current at-grade location to the west of the Caltrain depot. While placing bus transfers beneath the tracks would provide efficient vertical integration of the bus and rail modes as well as potentially opening up space adjacent to the University Avenue Caltrain station for other uses, Option 2 would cost an estimated $51,500,000 more than Option 1. It is highly unlikely that external funding sources would consider the added benefit of vertically integrating transit services worth this large added cost.

In addition, both options would allow the community to benefit from two important regional transit initiatives. The first is Caltrain's Baby Bullet train project, a fully funded effort to reduce rail travel time along the Peninsula corridor approximately in half through various improvements to various rail infrastructure and rolling stock. Secondly, VTA has begun a Federal Transit Administration Rapid Bus Transit demonstration project along its Line 22, including service on El Camino Real and to/from the University Avenue Caltrain terminal. The increased passenger demand generated by these expedited transit services requires expanded rail passenger facilities at major stops along the Caltrain corridor. Increased passenger demand is highly likely at the downtown Palo Alto Caltrain station, which is already the second busiest (to Caltrain's terminus in San Francisco at 4th and King) on the Caltrain system. Dramatic improvement in rail passenger travel time (reductions up to 50 percent) and significant improvement in bus travel time along El Camino Real have great potential for drawing commuters out of single occupant vehicles and off of crowded Palo Alto roadways.

**Significant Issues for Either Conceptual Plan Alternative**

1. **Benefits of Options 1 and 2**

   Option 1 and Option 2 will both result in 1,500 to 3,000 fewer cars commuting to and from Palo Alto each weekday, create a safe and convenient environment for cycling and
walking, enhance traffic safety and visual amenity, and effectively link downtown Palo Alto to Stanford University and the Stanford Shopping Center. Either option will create a civic place of beauty and utility as a gateway to Palo Alto and Stanford.

2. Cost/Funding
Total cost is estimated to range from $195.7 million for Option 1 to $247.2 for Option 2 (see Table 1). Seeing this project through will require partnerships among many entities: the City of Palo Alto, Stanford, Caltrain/Joint Powers Board, the VTA, Caltrans, and the private sector (see Table 2). A phased implementation over time will most likely be necessary. A strong beginning on resource development for the project was the inclusion of $45 million toward PAITC implementation in the re-authorization of Santa Clara County's half-cent transportation sales tax in November 2000. A further $7 million in federal funding has been obtained by VTA for expansion of the current at-grade bus transfer center. Additional opportunities may arise with the re-authorization of the federal Transportation Efficiency Act for the 21st Century (TEA-21) in two years, as well as in future Governor's transportation budgets when California returns to an economic growth path. While significant resources have been committed toward PAITC implementation, between $50.5M and $84.5M in additional grant funding is required.

It is vital to recognize that the high cost of implementing all of the elements of either Option 1 or Option 2 presents a formidable challenge. In the real world of transportation funding, it is highly likely that major elements of the Palo Alto Intermodal Transit Center conceptual design will have to either be eliminated or deferred for an extended period of time, so that a portion of this important project can be implemented. These elements include the following: placing the bus transit center beneath the tracks and platforms, creating the new public park, and replacing the road bridge over El Camino Real. It is important to note that no City of Palo Alto funds are envisioned or requested as part of the proposed PAITC funding strategy.

3. Timing
The project will likely need to be phased. The rail improvements, creation of an at-grade intersection at University and Alma, and development of an Everett undercrossing may comprise the first phase. The park and replacement of the El Camino Real bridge may need to be undertaken in a subsequent phase. The amount of time between the phases is uncertain since it depends on success in obtaining grants for the most difficult to fund PAITC components.

4. Traffic Management During Construction
PAITC implementation will require closure of University Avenue and Alma in order to replace the Caltrain bridge, take down the Alma bridge, and re-configure University Avenue. While every effort will be made to minimize the time of closure, there will be disruptions to normal traffic flow. A key challenge in traffic management during PAITS
construction is to create convenient alternative routes without causing any traffic infusion into near downtown residential neighborhoods. Page 25 of the draft Final Report (Attachment C) describes traffic management requirements during PAITC implementation.

5. Public Park Configuration and Program
The location, size, design, and facilities of the proposed pubic park land in either Option 1 or Option 2 will determine much of the character of this physical and visual gateway between downtown Palo Alto and Stanford. There will undoubtedly be divergent views in the community on the appearance and use of this park. The possibilities range from passive to active recreation and from simple to elaborate landscape architecture.

6. Roadway Re-Configuration and Traffic
The proposed new bridge over El Camino Real will be expensive and will require Caltrans approval and (potentially) funding. As noted earlier, a traffic management plan will need to be implemented during PAITC construction.

7. Transit-Oriented Development
Option 1 continues the placement, albeit in an expanded footprint, of bus transfer facilities at grade. Option 2 frees up this land for potential transit-oriented development. The mix and intensity of uses will affect the visual character of the PAITC study area, traffic patterns, and transit viability. Opportunities may exist in Option 2 for affordable housing and/or a performing arts center, which could offer joint efficient shared parking with weekday commuter transit, as well as generate evening and weekend transit trips. Shared parking with a performing arts center is also possible if Option 1 is implemented.

8. Connection between Downtown and Stanford Shopping Center
A below-grade bus transfer center as proposed in Option 2 would open up more convenient pedestrian and bicycle connections at-grade between these two major business districts. While Option 1 creates enhanced safety and navigability for cyclists and pedestrians making the diagonal move between downtown and the Stanford Shopping Center, some area of potential conflict with vehicles may remain and thus will require some added circuity for nonmotorized modes in making this connection.

9. Complexity
PAITC will be a complex undertaking in two ways: institutionally and functionally. Institutionally, project implementation will require close cooperation between the City of Palo Alto, Stanford University, VTA, and the Joint Powers Board/Caltrain. Functionally, the difficult task will be to integrate all of the travel modes accessing the PAITC area for safe, efficient operations while providing significant urban design enhancements.
**RESOURCE IMPACT**

Funding to implement PAITC beyond the $45,000,000 allocated to VTA by the Santa Clara County sales tax reauthorization and the $7,000,000 in County sales tax (1996 Measure) funding allocated for expanding the University Avenue bus transfer will be sought from federal, state and regional grants sources. Thus, no City of Palo Alto funding is envisioned as being necessary or is being sought to implement PAITC. The most probable funding mix is as follows:

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<tr>
<td>Caltrain</td>
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To Complete Funding of the full Option 1 Plan –

Future Federal and State Grants $84,500,000 To be obtained

To Complete Option 1 Funding without new El Camino Bridge or Urban Park –

Future federal and state grants $50,500,000 To be obtained

The PAITC draft Final Report section on Financing Strategy, pp. 10-18, describes potential external funding sources in detail.

**POLICY IMPLICATIONS**

The Palo Alto Intermodal Transit Center (PAITC) project implements Program T-14 of the Palo Alto Comprehensive Plan:

“Pursue development of the University Avenue Multi-modal Transit Station conceptual plan based on the 1993-1994 design study.”

The project is strategically important in that it also responds to the first two goals of the Comprehensive Plan Transportation Element:

“Goal T-1 Less Reliance on Single-Occupant Vehicles,"  
"Goal T-2 A Convenient, Efficient Public Transit System that Provides a Viable Alternative to Driving.”

Both Option 1 and Option 2 facilitate expansion of bus and rail transit capacity and services at the second busiest station stop on the Caltrain system. A downtown Palo Alto station able to accommodate high speed “baby bullet” (as much as a 50 percent reduction in trip times
over current operations) express service between San Francisco and San Jose, supported by expanded connecting bus services, could have a significant and positive impact on commuting by Palo Alto residents and workers. This would implement Policy T-6 of the Palo Alto Comprehensive Plan: "Improve public transit access to regional destinations, including those within Palo Alto." Substantial increases in rail and bus transit use by those who work in Palo Alto bus live outside the city as well as by Palo Alto residents will reduce traffic congestion on Palo Alto streets, improve regional air quality, and reduce regional dependence on nonrenewable energy sources.

**Bicycle and Pedestrian Circulation**
Both options foster increased use of the bicycle and pedestrian modes of travel to, from, and within the PAITC area. This implements Policy T-14 of the Palo Alto Comprehensive Plan: "Improve bicycle and pedestrian access to and between local destinations, including public facilities, schools, parks, open space, employment districts, shopping centers, and multimodal train stations." Project elements that contribute to this policy include provision of off-street paths and sidewalks throughout the PAITC, on-street bicycle lanes on University Avenue, and a new Caltrain bicycle/pedestrian undercrossing near Everett and Alma.

**Vehicle Circulation**
Both options accommodate existing and future projected traffic volumes on University Avenue and Alma Street.

**Urban Design, Civic Space, and Public Art**
Both options open up a large expanse of civic space. Both schemes create a gateway between the Palo Alto and Stanford and both offer many opportunities for public art and enhanced urban design amenities in the PAITC area.

**Transit-oriented Development**
Option 2 allows for potential transit-supportive uses to be developed in the PAITC area. The scale and nature of these uses is a policy question. Placing the bus transit plaza below grade could open up a significant and desirable area for such uses as affordable housing, public parking, transit-supportive retail, nonprofit office space, and/or community facilities.

**Parking**
Parking provision for PAITC needs to attain an equilibrium between adequately responding to increased demand for access to downtown Palo Alto's Caltrain station stop, the need to encourage use of alternative access modes where possible, and the need to deter any spillover rail patron parking into nearby residential streets. Existing excess parking capacity at the new Caltrain commuter lot at Alma and Forest will be fully occupied with implementation of PAITC. Additional parking, at-grade or structured, may be obtained in a joint use arrangement with a proposed new performing arts center near the University...
Avenue depot. Additional shuttle bus services to and from the terminal, along with the improved access for cyclists and pedestrians, can provide access alternatives to many of the new passengers drawn to the transit center by improvements in regional rail and bus transit.

**NEXT STEPS**

1. Solicit additional federal and state grants. (2002-2006)
2. Obtain VTA commitment for early allocation of County Transportation Sales Tax revenues to PAITC. (2002)
3. Execute $200,000 federal grant agreement for environmental assessment and engineering design. (2002)
4. Negotiate and execute interagency consortium agreement for PAITC implementation stakeholders, including the City of Palo Alto, Stanford, VTA, and Caltrain. (2002)
12. Complete construction (2011)

**ENVIRONMENTAL REVIEW**

An Environmental Assessment will be prepared prior to implementation of the preferred design.
ATTACHMENTS
A. Aerial Photo of Project Area
B. PAITC Steering Committee and Development Team
C. PAITC Draft Final Report
D. Site Plan – Option 1
E. Site Plan - Option 2
F. April 28, 2001 Workshop Materials
G. View of Transit Concourse
H. Pedestrian Circulation Plan
I. Bicycle Circulation Plan
J. Bus Circulation Plan
K. Project Objectives
L. Project Evaluation Criteria

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Planning and Transportation Commission
Architectural Review Board
Historic Resources Board
Chamber of Commerce
Palo Alto Bicycle Advisory Committee