February 11, 1998

City Transportation Commission
809 Center Street
Santa Cruz, CA 95060

RE: City of Santa Cruz Draft Bicycle Transportation Plan

Dear Commissioners:

The Santa Cruz County Regional Transportation Commission's Bicycle Committee appointed a three-member subcommittee to review the City of Santa Cruz Draft *Bicycle Transportation Plan* and report its assessment to the full Committee. The Sub-committee presented the following report to the full Bicycle Committee at its February 10, 1998 meeting. The Bicycle Committee was unable to fully discuss the Sub-committee's report and cannot forward comments that are endorsed by the entire Bicycle Committee at this time. However, the Bicycle Committee felt that the Sub-committee's report contained some important comments and approved submittal of the Sub-committee's report to the City.

The Sub-committee is pleased that City staff and Commissioners have expended time to compile this document, which is a good start for discussion. Significant improvements are needed in two areas: (1) the need to more specifically describe and prioritize projects, especially maintenance ones, and adjust funding targets accordingly and (2) the need to treat cyclists as equal road users, not relegated to sidewalks. To fulfill these needs the *Plan* must be revised to:

- better explain locations and designs of the Class I and II bikeways (see pp. 1-4 of this letter);
- adjust anticipated costs and prioritize as the most urgent those projects that complete the on-street bikeway system and those that have the best value per dollar (see p. 4 of this letter);
- list, describe, and commit to various maintenance and minor improvement projects (see pp. 5-7 of this letter); and
- delete proposals to move bicycles onto the sidewalks and eliminate the bike lanes that we all have worked so hard to achieve (see pp. 7-9 of this letter).

We also offer various other comments regarding bikes on sidewalks, paths, and bridges, *General Plan* policies, destination signing, other bikeways, collector streets, bikeway design guidelines, one-way streets, Downtown and Beach Area circulation, registration, traffic calming, parking, Highway One/Mission Street, and history that need to be considered in the *Bicycle Plan* (see pp. 9-15 of this letter).

More Specifics Needed:

The City already has a good set of bicycle-related polices and a list of projects to be undertaken in its adopted *1990 General Plan*. The *General Plan* requires that a Bike Master Plan be developed including a time schedule and comprehensive funding program (policy C.3.1). The proposed *Bicycle Transportation Plan* should be that required Bike Master Plan; the Introduction (page 3) should make note of this mandate. Instead, the draft *Bicycle Plan* simply repeats selected *General Plan* policies regarding maintenance and upgrading of facilities including railroad crossings, sweeping, pavement repairs, and re-striping, without amplification or estimated funding. Similarly the *Bicycle Plan* has a fairly detailed list of Class I and II projects and accompanying identification map, but provides little project detail beyond that already in the *General Plan*. Specific cross-sections are lacking for these projects and no maintenance and minor projects are described and prioritized.

Designs and Locations of Proposed Class I and II Projects: This *Bicycle Transportation Plan* should be modeled on the City's previous 1980 bike plan to provide more design detail for each listed project. The *City of Santa Cruz Bikeway Study* (1980) included cross-sections and other specific descriptions for each proposed project. Many of the proposed projects have been long-suggested but have not been installed because they were deemed problematic (for example #15 River Levee was said to be too susceptible to flooding). For outstanding Class II projects there is not room with the existing lane and parking configurations to add regulation bicycle lane striping. We need design and location consensus to ensure that the *Bicycle Plan* contains recommendations that can be implemented and does not remain an unfulfilled wish list. Fuller descriptions than those provided in Table 1 are necessary in many cases.

Some **Class I projects** are to provide links over areas without roads or without roads open to bicycles. The description should clearly state what is to be linked (see following specific comments). For those links where are there are alternative alignments that have not been decided, there should be a text or map note to that effect (e.g., "the route show on this map is conceptual"). These would include #2 Broadway-Brommer Bike Path (alternatives subject to environmental review), #4 Chestnut pathway, #5 Harbor Connection, #14 Rincon Road (alternatives being developed by Pogonip Committee), #15 River levee-Branciforte Creek crossing, and #19 Soquel Avenue to Broadway-Brommer Bike path. The *Plan* should provide that, in addition to complying with the design criteria in the *Plan*, the chosen route shall be the most direct and easily rideable. The *Plan* should also note that, depending on the route chosen, improvements to connecting streets may also have to be made (e.g., adding bike lanes, adding turn pockets, curb cuts, signing, etc. see comment on page 6).
Other Class I projects are shown for existing streets. The *Plan* should clarify how these will be designed. Options include converting the street to a two-way bike path (e.g., #10 Mission Street extension; # 17 River levee connection) , adding a contraflow lane (see comments on page 13), or, possibly in the case of Beach Street converting the road back to two lanes. The *Plan* should note that for these latter two cases, the result will not be a Class I facility. For the same reasons that we are opposed to the proposed Class I, Figure 2 concept (see comments on page 7, below), we are concerned with the possibility that these may be designed as two-way bike paths adjacent to the travel lane, as shown in the *Beach and South of Laurel Comprehensive Area Plan* for Beach Street, in violation of Caltrans standards. If there is no other alternative design available, then such two-way paths must at least be designed to Caltrans standards with a separation from the roadway and proper intersection treatments.

Following are our specific comments on the list and map of Class I projects:

#1 should read West Cliff Dr.: Bay to Beach, then Beach St.: West Cliff Dr. to Third St.
#2 should read Broadway Brommer: Frederick St. through Arana Gulch to City Limits (connecting to an

extension of or path from Brommer Street in the County)
#3 should read Brookwood Dr.: Prospect Heights to City Limits (connecting to the County portion of Brookwood Drive)
#4 should read Chestnut pathway: near end of Chestnut Street to Pacific Avenue and/or possibly Beach Street (note this actually may be two paths, one connecting through the old railroad depot site if the City acquires it for a transportation hub and one connecting near Beach Street or to a path along the railroad tracks, which is project #13).
#5 part of the area shown on the map for this proposed path is the harbor access road, open to bicycles; there does not seem to be the room nor need for a separate Class I path; the path should be described as between the Harbor access road and the Broadway-Brommer Bike path and the map revised accordingly; this connection works only with Alternative D2.
#8 should read Highway 1 bridge pathway; River Street to Felker Street and possibly to Ocean Street (the path should not end into the Ocean Street off ramp); on the map it should be shown to extend to Felker Street and possibly to Ocean Street accordingly.
#9 should read Josephine St. bridge: end of Josephine Street to end of Keenan Street; bridge should include a ramp on the East River levee to connect to Keenan St.
#12 or #13 one of these should include the Railroad right of way from East Cliff/Murray to the eastern City limits (low priority) pursuant to SCCRTC's *Major Transportation Investment Study* Working paper #8 and the 1980 City *Bikeway Study*; the map shows the project ending at East Cliff Drive bridge, the connection to the road there is only by a steep, then narrow sidewalk.
#14 should read Rincon Rd../ Spring Trail or other Pogonip trail: Coolidge to Hwy. 9; Rincon Rd. connects to Coolidge at its bend, not where shown on the map; however, the map shows a more level connection
#15 should read River Levee from end of path at Soquel Avenue under bridge to Dakota Street and/or across Branciforte Creek to levee path; this may be two projects, if the creek crossing is problematic the path can still be extended under the bridge and to Dakota Street.
#16 this project could either be the extension of the river levee as shown in the *San Lorenzo River Design concept Plan* or a cantilevered extension of the sidewalk; where the exact limits are is unclear, connections to the roadway at either end will be challenging.
#19 should read Agnes Street to Broadway-Brommer bike path and be mapped accordingly so cyclists can enter Soquel Avenue via South Park Way which has a stoplight.
#54 Murray to Harbor link is a Class I project
#55 West Cliff Drive: Swanton to Bay upgrade is a Class I project.
#56 Spring St. connection to Coolidge is a Class I project.

We recommend the following additional Class I projects:

- 7th Avenue to La Fonda via Harbor High: currently a rough, gravel road, it could be more useful for bicycles if improved to Class I standards; this would have to be a joint project with Santa Cruz County...(low priority)
- Lighthouse Avenue: Class I from end of Lighthouse Avenue through Lighthouse Field State Park connecting with West Cliff Path at "Its Beach" stairway; this would be a useful and inexpensive alternative to using the too-narrow West Cliff Drive bike path around Lighthouse Field. (low priority)
- Highway One (Wilder connection): Shaffer to City limits. This project is already shown on the map. Although the County is taking the lead on this project, it should still be included in the City's *Bicycle Plan* (high priority level 2)

For the proposed **Class II bike lanes**, the *Plan* shows some generalized cross-sections, but not how to accommodate them in each individual project (where right-of-way widths will vary). There are many methods to accommodate bike lanes. Our preferences in order, where current width is not available, are for:

1. removing parking on one or both sides of the street (as was done on part of Front Street),
2. removing median strips,
3. eliminating travel lanes (as proposed for part of Soquel Avenue),
4. narrowing existing travel lanes and/or turn pockets,
5. widening the roadway (as was done on part of River Street), or
6. installing parking bays in planter strips or widening driveways (as was done along part of Soquel Drive).

Methods we do not recommend are installing time-shared bike and parking lanes, where parking is restricted at certain times (as was done on part of Bay Street), and narrowing the width of sidewalks.

Where none of these techniques are workable other ways of accommodating bikes without bike lanes include: maintaining shoulder lanes as wide as possible (as noted on page 8 of the draft *Plan*), installing traffic calming devices to reduce speeds and through traffic (as noted on page 6 of the draft *Plan*), and creating bicycle boulevards (endorsed in the *General Plan*), which are straight through, non-stop routes for bikes but not motor vehicles.

Ideally, for each of the proposed bike lane projects, an appropriate technique should be identified; or perhaps a (doable, inexpensive) short-term and a long-term solution (e.g., short-term: remove parking; long-term widen road). This would make cost projections more reliable and would allow the projects to move forward to be funded. As a fall-back, the *Plan* could show a matrix of projects and possible measures and check for each project which are possible short-term and long-term measures.

Other comments on the list and map of Class II projects:

#35 should read Goss Ave: Market Street to Gilbert Lane & Gilbert Lane: Goss Ave to Rooney.
#46 should read Rooney: Gilbert Lane to Morrissey.
#38 should read La Fonda: Soquel to Prospect Heights
#40 should read Market St./Branciforte Drive: Avalon to City Limits
#45 should read Prospect Heights: Morrissey to Brookwood
#47 Route 9: Route 1 to City limits needs to be completely shown on the map.
#52 should read Hagar Dr. missing section of downhill bike lane from intersection with off-street path near East Field House.

We recommend the following additional Class II projects:

- California Street (Walnut to Laurel) (already in the *General Plan*; promised when the City Council decided against bike lanes on Mission Street; a collector street) .
- East Cliff Drive (Murray to Seabright) (already in the *General Plan*, although the limits are not specified; an arterial street)
- Emeline Street: Fernside to Lee (already shown on the map).
- Lee Street: Emeline to North Plymouth (already shown on the map) (low priority because bikes can go through the Health Center to reach North Plymouth).
- North Plymouth: Lee Street to El Rancho (already shown on the map).

- Mission Street extension: Western Drive to Natural Bridges Drive (already shown on the map).

Funding Priorities: As a start, the draft *Bicycle Transportation Plan* provides an Appendix of potential funding sources, projects grouped into four priority categories (Table 1), and estimated costs. Next, it is important to reach consensus on the exact scope of each proposed project in order to determine costs and feasibility and hence priorities, while recognizing that future design and environmental work may dictate changes. Once this is accomplished, revised cost estimates can be provided; some of the estimates shown in the draft *Plan* appear to be rather low. Obviously, there is a big difference between simply striping lanes and widening roadways, obtaining additional right of ways and reinstalling drainage facilities. The *Plan* appears to use the same cost per foot ($5) for each Class II project, not recognizing these differences.

Once we have realistic cost estimates, priorities should be reexamined. The priority categories shown on Table 1 are generally appropriate. Although there are many listed Class I projects, they generally fill gaps in the system without having many intersections with streets or driveways, and, therefore, do not pose the hazards that many bike path projects do. The one exception is Swanton Boulevard which does not need an off-street path, because there are already bike lanes on the street (and there is the alternative of riding through Natural Bridges State Beach).

Finishing the on-street bike lane system in some manner does need to be the highest priority. Thus, the following projects should all be in the highest priority category: Bay Street, Delaware Avenue, Frederick Street, King Street, Laurel Street, Market Street, North Pacific Avenue, Ocean Street, Seabright Avenue, and Soquel Avenue. As noted, there may lower priority longer-term projects on these streets (i.e., full widening) as well, but each of these should have a high priority short-term project to facilitate bicycling from among the options discussed above. In all cases, if some parking was removed, there would be room for bike lanes.

There are several projects not under the jurisdiction of the City (e.g., State Parks, UCSC, Harbor, Caltrans, Union Pacific responsibility). In some cases, however, the City has authority to recommend priorities to or for these agencies, especially Caltrans. While projects in the City to be undertaken by others may be so noted, they should all be included and prioritized in the *Plan*.

Finally, further funding commitments need to be developed and priorities adjusted accordingly. Funding principles to be added to the Financing discussion on page 12 would include

- use of TDA funds (correct page 12 to say roughly $50,000 available annually to the City) for maintenance, inexpensive projects, and local shares of large projects;
- including bike projects as parts of larger road projects that are eligible for other funding sources, especially with more funds available than TDA or the Bike Lane Account;
- applying for all available funding sources by submitting the highest priority projects;
- preparing preliminary designs for several of the highest priority projects to be ready to submit funding applications.

Maintenance Programs And Minor Improvement Projects: The *Bicycle Transportation Plan* needs revising to describe specific maintenance programs and minor improvement projects along the following lines**:**

- **Bike Lane Striping**: To help implement *General Plan* policy C3.2.5, the City will regularly redo

bike lane lines, bike lane stencils and bicycle traffic signal markings when they are faded, using the most cost-efficient long lasting material that is not slippery nor otherwise hazardous for bicycles (currently thermoplastic is the choice). Where faded bike lane lines are substandard, they shall be completely obliterated, and the new ones shall meet the criteria in this *Plan*. New stencils will be placed directly over the old ones, or, if not possible, completely off of the old ones. Immediately after roadwork, any obliterated lines and stencils shall be replaced.

- **Street Sweeping**: To help implement *General Plan* policies C3.2.5, C5.9.3 and C5.9.5, the City will continue to regularly sweep all of its streets in a manner that keeps bike lanes and roadway shoulders clear for cyclists. The City shall ensure that after any accidents or storms the roadway is promptly swept clean of glass and other debris.
- **Railroad Crossings:** To help implement *General Plan* policy C3.2.4, the City will maintain its pavement adjacent to railroad tracks in a smooth condition. The City will actively work with Union Pacific and Big Trees Railroads to have their portions of the pavements maintained or alternative crossing material installed, such as a rubberized crossing at Beach and Cliff Street. Particular attention shall be given to locations where the tracks cross the road diagonally, such as on Bay, Beach, Chestnut, Rankin, and Seaside Streets. "Walk Your Bike" signs are inappropriate; if a street is open to cars, it should also allow unimpeded bicycle access, as well. In the longer term the City will pursue widening narrow crossings such as at Fern and Coral Streets, so cyclists do not have to merge into the motor vehicle travel paths.
- **Medians, Cul de sacs, Barriers, and Bike Path Access:** To implement *General Plan* policies C3.2.1 and C3.2.4, the City will install cut-through and sign with "Bicycles OK" in various medians, cul de sacs, and barriers including Leibrandt at Beach Street, Grandview at Western Drive, Holway Drive at Morrissey, May Avenue at Water Street, Olive Street at King Street, Olive Street at Toledo Street, Limestone Lane to faculty housing parking lot and Palm Street at railroad tracks. The City will also improve entrances to Class I bike paths, including signing, curb cuts, left turn pockets, etc., e.g., at East Cliff Drive at Oceanview Park to turn onto River levee path; ramp from Keenan Street to River levee path (needed when new bike bridge along Route 1 is installed), at Coolidge Drive to turn onto the UCSC bike path (a University project).
- **Storm Drains:** To help implement *General Plan* policy C3.2.5, the City will maintain storm drain grates that do not catch bicycle tires. No drainage grate openings shall be greater than 3 inch long in the direction of travel and greater than ½ inch wide. In the short-term the City will place drain covers over open drains on Soquel Avenue, King Street, etc. or undertake similar measures to ensure that cyclists do not fall into the depressions. In the longer-term the City will replace these with underpavement systems. Such storm sewer upgrades should receive priority over other storm sewer system upgrades.
- **Traffic Signals:** To implement *General Plan* policy C3.2.3, the City will use bicycles to test all traffic signals for sensitivity to cyclists. The City will adjust the sensors as necessary. The City will stencil the roadway (rightmost through and left turn lanes) marking the place where the sensor is most sensitive for cyclists. The City will publish a list of all traffic signals that do not regularly trip for cyclists and support legislation clarifying the legality for cyclists to treat a red light that does not trip as a stop sign or flashing yellow signal. The City will give priority to signal upgrades for locations that are not readily activated by bicycles.
- **Routing**: To help implement *General Plan* policy C1.8.6.3, the City will participate in various efforts to publicize bicycle routing through the City including: advising the SCCRTC Bicycle Committee on "alternative routes" not signed but favorable to cyclists for their map and help distribute the map; maintaining the Pacific Coast Bike Route signs, experimenting with placing special weather-proof bike maps or weather-proof map containers at City entrances (e.g., at kiosks, on the back of existing signs).
- **Planning:** To help implement all of the bicycle-related *General Plan* policies and specifically

policy C1.8, the City Transportation Commission will maintain a Bicycle Subcommittee which meets publicly to ensure that the needs of cyclists are addressed in all relevant transportation matters and to ensure that this *Bicycle Transportation Plan* is carried out expediently. City staff will participate in the Santa Cruz County Regional Transportation Commission's Bicycle Committee and request Committee input on the design of all City bicycle projects.

- **Maintenance:** To help implement *General Plan* policy C.3.2.5 and *Congestion Management Plan* policy 64 , the City will continue to participate in the Santa Cruz County Regional Transportation Commission's bicycle hazard program by promptly responding to hazard reports that it receives.
- **Construction Measures:** To help implement *General Plan* policies C3.2.5 and C3.4, the City shall continue to take the following measures during all construction projects on or impacting the street and shall condition all encroachment permits to other entities working in the roadway to undertake these as well:

- the Caltrans *Traffic Manual* Chapter 5 "Traffic Controls for Construction and Maintenance Work Zones," Section 5-03 "Pedestrian, Bicycle, and Worker Considerations" will be followed;

- bicyclists should not be told to walk their bikes through construction areas that are open to motor vehicles; while alternative routes may be suggested, accommodations must be made for bikes, if they are made for motor vehicles;

- traffic lights may need to be re-timed; if construction results in tearing up the intersection, travel through the intersection will be slow, especially for bikes; the amount of time allocated to clear the intersection will need to be lengthened;

- one-way-traffic-at-a-time control (by lights or flaggers) should accommodate the slower cyclists; timing of signal lights should be timed appropriately, especially in the uphill direction for bicyclists; signs for downhill motorists should warn of bicyclists coming up the roadway;

- in all cases, there should be signs warning motorists to slow down and watch for bicyclists and pedestrians;

- when lanes are narrowed, warning signs to motorists (e.g., "Watch for Bicyclists," "No Passing") should be installed;

- warning signs should be placed out of the bike lanes; these signs should be kept current (especially when delays occur), erect, facing traffic, and at the beginning of the work area; these signs need to alert bicyclists (and motorists) to uneven pavement areas and other road conditions on roads they are coming upon or turning on to;

- night lighting should illuminate specific hazards to cyclists;

- construction work features that may be particularly hazardous to cyclists should be identified with warning signs noting the specific hazard; a 1" or more step parallel to travel lane/edge of pavement should be identified, especially at night;

- debris on bike lanes or areas of roadway bicycles will be traveling on should be cleaned daily;

- temporary pavements or metal plates should be installed for safe bicyclist use with ramps up to the edges;

- the City requirement that contractors must backfill or cover trenches at the end of each working day for safety reasons should be enforced;

- narrow trenches should not be dug in bike lanes, rather the whole width of the bike lanes should be dug out to avoid differential settling later;

- special care and follow-up needs to be taken at potential uneven spots, especially in the travel path of cyclists; the overlay often is not smoothed out at drainage grates, 'manholes,' and gutter pans and debris accumulates creating an uneven surface discernible by cyclists; where the gutter pan is uneven (often cracked), it should be repaired concurrently with the asphalt overlay, or the gap will get worse.

Change in Emphasis Needed:

With regard to treating cyclists as equal road users, the *Plan* places a misplaced emphasis on off-road paths and sidewalk riding. One major premise of the *Plan* is encouraging bicycle travel (page 1). The following philosophy should be included as a basic Objective of the *Plan* (page 6*)*:

> The overall goal of this *Bicycle Transportation Plan* is general-purpose transportation; i.e., facilitation of getting people wherever it is they want to go, with a maximum of safety and minimum of delay. The system has to allow one to go where one wants to go, or it is useless. Transportation bikeways are "through routes." Isolated bikeways are recreation, not transportation. To serve general-purpose transportation, bikeways must form a well-connected network that serves all destinations.
>
> Much of any journey by bicycle will be on the motor vehicle road system. The place of bikeways is to provide alternatives to the problematic parts of the motor vehicle network. Bikeways are not an end in themselves, but are only one means of providing a safe route. In a sense, a bikeway is an admission that the road system is a failure for bicyclists. The value of the bike network is in its contribution to the safety, ease, and speed of the total journey, not just that of the part that is an official bikeway. Often the best answer is not to provide a bikeway, but to improve the safety of the road for bicyclists, for example through traffic calming, traffic reduction, and/or better maintenance (pothole repair, sweeping, trimming). When a bikeway is called for, conflicts with other directions and conflicts with other modes of transportation are to be minimized, both for safety and to reduce delays. This includes potential conflicts with driveways, pedestrians, skaters, bus stops, and opening doors of parked cars, as well as conflicts with moving cars. At the least, the bikeway must be safer than the road for which it provides an alternative, or else why have it?

The *Plan* states the elderly, young, and inexperienced riders do not feel secure on the roadway and need a separate alternative (page 7). Although studies have shown that being on the road, behaving as a motor vehicle does, is safest, many people will still feel that way.[1] The problem is that the City will be doing a disservice to both those cyclists who feel (or can be made to feel) comfortable on the roadway and those who use the proposed inferior facilities in the mistaken belief that they are safer. With regard to the former, the *Plan* appears to support removal of on-street bike lanes in favor of wider sidewalks. Since cyclists can not legally be made to ride off the road, many cyclists will remain on the street with

narrower travel lanes, exposing themselves to more danger and causing motor vehicle traffic to slow down. With regard to the latter, the City may be exposing itself to increased liability by providing nonstandard facilities.[2] Being safe is more important than feeling safe. And as experience is gained with these facilities, they will become less used and/or require major improvements (witness the costly proposals to redo both East Cliff and West Cliff Drive facilities which were constructed as separate bike paths in the mid 1970's). It should be obvious that mixing cyclists on sidewalks according to Figure 2 will result in:

- conflicts with pedestrians;
- extra maintenance costs;
- inconvenience to cyclists who must go slower than they can in the roadway
- inconvenience to cyclists who wish to make left turns into streets or driveways

all of which go against the articulated philosophy. Therefore, the Class I, One Way sketch on page 9, which is also not in conformance with the *State Highway Design Manual* (and thus likely ineligible for any state funding), should be eliminated. Also, wording about sidewalk riding on page 7 needs to be dropped. Additionally, as mentioned above, funding priorities should be revised more in favor of completing the on-road system.

Other Comments:

Bikes on Sidewalks, Paths, and Bridges: While we do not recommend encouraging sidewalk riding, we are not necessarily in favor of mandating against it, especially until such time as the City's on-street network is improved. The existing bridges (over the San Lorenzo River at San Lorenzo River Park and over Highway One at High Street) should not prohibit bicycles; these are part of the sidewalk system that (except where fronting and adjacent to commercial establishments) does not prohibit cyclists. Additionally, cycling should generally be allowed on paths within City parks. The path through Neary Lagoon is open to cyclists pursuant to the *Neary Lagoon Management Plan* and should be shown on the *Bicycle Plan* map. Although not mentioned nor mapped in the *Plan*, unpaved paths can be open to cyclists, such as the one at Delaveaga Park.

Consistency with General Plan Policies and Projects: The *Bicycle Transportation Plan* lists some *General Plan* policies. Each actual policy number should be cited for reference (pages 6, 7).The *Bicycle Plan* also indicates some changes to the existing *General Plan* policies. In addition to the noted changes, the third- and second- to last listed policies need to be shown as suggested new policies (i.e., shown in italics). The *Bicycle Plan* text should note that these changes are merely suggestions that are not effective until the City amends the *1990 General Plan.* The text notes that the *Bicycle Plan* may be incorporated into the *General Plan* (page 3), in which case policy amendments could be made. However, while we have no objection to the proposed policy revisions, they do not appear significant enough to prolong the *Bicycle Plan* approval process to include amending the *General Plan* at this time.

As for the list of projects shown in Table C-6 of the *General Plan*, we believe that existing policy language would authorize additional projects without the need to amend the *General Plan.* However, this *Bicycle Plan* should explain any differences between its list and Table C-6. We noted above two projects dropped without explanation (California Street and East Cliff Drive). Improving the River levee between Encinal and Sycamore Grove is also dropped, is this because parallel Route 9 bike lanes are proposed? The other projects dropped or reduced in scope should be identified as already completed (e.g., Bay Street (Mission to Escalona), Broadway (Front St. to Frederick St.), Downtown, Front Street, Laurel Street (Pacific Ave. to Front St.), Mission Street (Chestnut to King St.), Ocean Street (Barson to East Cliff), River Street, Seabright (Murray to Pine), and South Branciforte Avenue. West Cliff Drive/

Downtown should be identified as dropped because it is duplicative.

Additionally the draft *Bicycle Transportation Plan* needs to list the following bicycle-related policies of the adopted *1990 General Plan* (on pages 6 and 7):

- C1.3 Work with SCCRTC, UCSC and other agencies to devise strategies to reduce automobile travel and traffic congestion by enhancing TSM, bicycle, pedestrian, mass transit services along major traffic routes and to major destinations and educating employees and residents about the benefits of using alternative forms of transportation whenever possible.
- C1.3.5.1 Improve direct transit and bicycling linkages between Felton, Scotts Valley, Live Oak, Capitola, Soquel, and Aptos and major employment and destination centers.
- C1.4 Develop a triennial Circulation Report monitoring and evaluating the use, efficiency and safety of all components of the circulation system and TSM strategies. Analysis of pedestrian and bike modes should include: bike and pedestrian counts, bike accident areas, bike parking problem areas, percentage of trips by bicycle and commuter trip patterns for bicycles.
- C1.5.2 Develop a Transportation Impact Fee to ensure that developers pay a fair share of circulation system improvements. Fees shall relate to pedestrian, bicycle, mass transit, and arterial street master plans, and deficiency plans.
- C1.8 Coordinate pedestrian, bike, mass transit, road and highway planning with local and regional agencies to assess regional impacts upon the City's road system, alternative transportation improvements, automobile disincentive, and parking management strategies; and educate people about alternative transportation and transportation safety issues.
- C1.8.2 Seek funding to restore the position of county bike coordinator to full-time status and/or establish a City bike coordinator position.
- C1.8.6.2 Bike safety programs should emphasize enforcement of traffic laws, discourage wrong- way riding, encourage the use of helmets and lights, and improve riding skills.
- C1.8.6.3 Provide bike maps and publicize and increase availability of the City's bike licensing program (e.g., enable bike shops to do bike registration). *(As noted below, the Sub-committee questions the efficacy of the licensing program; this policy could use revision.)*
- C1.8.6.4 Work with appropriate agencies and groups to initiate a program to provide helmets to all school children when riding bicycles.
- C3.1.1 Work with the SCCRTC to develop a level-of-service criteria for bike lanes based on ease of flow and safety (*the Sub-committee believes that such an effort should be given low priority relative to these other pressing needs; AMBAG began such a project, but never completed it*).
- C3.1.2 Develop a time schedule and comprehensive funding program for the proposed bike system improvements and prioritize the development of bike lanes on arterial streets, collector streets and in already-adopted City plans including the East-West Bicycle Task Force Final Report and the Regional Transportation Plan. (*as stated above, the Sub-committee believes that this policy should be stated in the* Bicycle Plan's *introduction since it is the basis for this plan*).
- C3.1.4 Work to install contraflow bike lanes on one-way streets where significant bicycle traffic is expected and safety measures are in place. Establish a demonstration project with a contraflow bike lane on an experimental basis.
- C3.5 Revise the Zoning Ordinance and parking district requirements to require secure, covered bicycle parking and/or storage lockers at private and public facilities including but not limited to multi-family developments (10+ units), employment centers with over 50 employees, schools, park and ride lots, recreational areas, mass transit centers, bus stops, and movie theaters. Provide design guidelines for safe and secure bicycle parking and promote bicycle access for special events.

- C5.9.3 Regularly inspect streets and maintain a pavement condition (including the enforcement of compaction and smoothness standards for repair work) that keeps maintenance costs at a minimum, encourages bicycling, and ensures that repairs are acceptable and long-lasting.
- C5.9.5 Sweep streets at regular intervals to ensure removal of debris that could create a fire hazard, cause skidding conditions, and obscure or deteriorated pavement markings, and also to reduce hazards to bicycle safety.
- C6.1.6 Encourage the development of employee showering and locker facilities in commercial and industrial developments to encourage employees to bike or walk to work.
- C6.2 Develop a program to encourage visitor-serving developments such as hotels to have bicycles and shuttle programs available for patron use.
- C6.4.7 Increase the supply of bicycle parking throughout the City.
- C6.5.3 Encourage SCMTD and other local and long-distance transit providers to install bike racks on buses serving UCSC and other commuter routes and major destinations and to also coordinate bus services between different transit carriers and design and locate bus stops to make it easier for bus patrons to make transfers between buses.
- ED 5.6 Utilize design, signs, alternative transportation such as bikes and shuttles, and programs such as information at major regional airports to better orient visitors through the City and reduce congestion along visitor corridors.
- L5.6 Require land use development to integrate into the larger circulation system by interconnecting its system of roads, pedestrian and bike paths with existing facilities and also design access to nearby areas in a manner that minimizes the necessity for automobile travel and potential automobile and pedestrian/bike conflicts.
- L5.6.1 Reserve land in new development for area-wide bike and pedestrian path systems.
- L5.6.3 Minimize the number of driveways for new developments to reduce automobile and pedestrian/bike conflicts.
- PR1.7.1 Maintain and enhance vehicular, transit, bicycling, and pedestrian access to coastal recreation areas and points.
- PR1.7..1.3 Maintain free bicycle and pedestrian access to the Wharf
- PR1.7.1.5 Provide and encourage provision of adequate bike parking at coastal recreation areas along the coast including Natural Bridges, West Cliff Drive pocket beaches, Main Beach, Seabright Beach, and the Yacht Harbor.
- PR1.7.6 Examine the feasibility of periodic street closure or limiting vehicular access along the length of West Cliff Drive and consider opening up West Cliff Drive between Washington and Beach Streets to bicycles and pedestrians only.

Policy Revisions: If at this time, or when, *General Plan* amendments are to be considered, then we have the following recommendations:

- add the following adopted 1996 *Congestion Management Plan* policy:

  Develop bikeway systems according to the following priorities:

  1. *where bikeways can significantly increase bicyclist safety or access*
  2. *along through routes*
  3. *in high demand, high density areas*
  4. *along popular recreational routes.*

  Where bicyclists' safety is a major concern, these priorities may be modified. (#50)

- add the following adopted 1996 *Congestion Management Plan* policy:

  "Provide and maintain secure long-term bicycle parking with the development of new and existing transit centers and shelters and park and ride lots. Park-and Ride lots should include bicycle lockers." (#57)

- add the following adopted 1996 *Congestion Management Plan* policy:

  "Build all bridges with enough width to safely accommodate bicycle travel. Allow for the four-foot minimum bike lane." (#61)

- add the following adopted 1996 *Congestion Management Plan* policy:

  "Retain all existing bikeways along with roadway improvement projects ensuring that bike lanes are not narrowed to the point that they become substandard" (#62)

- add the following adopted 1996 *Congestion Management Plan* policy to the suggested new policy 15th bullet:

  "When installing bike lanes measure out the bike lane from either side to ensure planned width throughout. At spots of inadequate width to maintain a standard bike lane, instead of painting a substandard bike lane, maintain as wide an outer lane as possible and sign as a Class III bike route." (#65)

- substitute the following adopted *Congestion Management Plan* policy for the 6th bullet:

  "Limit on-street parking on arterial and collector streets, encourage parking alternatives, pursue off-street parking development as methods to provide Class II bike lanes and do not eliminate joint bike lanes/parallel shoulder parking unless the new bike lanes are effectively as wide or wider." (#54)

- substitute the following adopted *Congestion Management Plan* policy for the 10th bullet:

  "Require those entities performing roadside work to maintain the road edge in the best possible condition during construction, explore ways to avoid lengthwise seams in bike lanes, and require prompt repair (even pavement) and re-striping of bike lanes before the project is considered complete." *(#56)*

- substitute the following adopted *Congestion Management Plan* policy for the second half of the 11th bullet:

  "Where bicycle lanes are not possible due to right-of-way restrictions, etc., include a wide curb lane (at least 14' without on-street parking)" (#51)

- adopt the following policy change:

  "Do not require a driver's license in order to qualify for employment with the City, unless the position requires driving a motor vehicle."

Destination Signing: The *Bicycle Plan* (page 7) notes that the Class III bike route concept is not effective and we concur. However, as noted elsewhere in this letter, the *Plan* should indicate that destination signing (e.g., "Bike Route" sign with a destination sign below, such as for the Pacific Coast bike route), bicycle boulevards and other traffic calming, and wide shoulder lanes where there are not bike lanes are appropriate roadway treatment measures in addition to Class I and Class II bikeways.

Other Bikeways: The *Bicycle Plan* needs to include a caveat on page 8 under "Bikeway Development," that the projects listed and mapped are based on the existing roadway system and are not all-inclusive. Pursuant to *General Plan* policy L5.6.1 and others, the *Bicycle Plan* needs to be clear that even though it does not specifically list projects in new developments, they would still be bound by the *General Plan* policies to provide bike facilities. A recent example is the Gateway Shopping Center which was required to improve the River Levee path and install a connection to it. New development on the west side of Santa Cruz, redevelopment of the Beach and South of Laurel Areas, reconstruction of the San Lorenzo River levees, and completion of the Pogonip Master Plan may similarly offer opportunities to provide additional bicycle facilities beyond those listed in the *Bicycle Plan*.

Collector Streets: As quoted, the *1990 General Plan* calls for prioritizing bike lanes on arterial and collector streets; this policy would suggests that all collector streets be considered for bike lanes. Indeed, Santa Cruz County policy is for all collector streets to have bike lanes. Currently, only a minority of the City's collector streets have bike lanes and this *Plan* only adds a few more (e.g., Encinal, Goss, Harvey West, King, Prospect Heights, Rooney). The text should contain some discussion of why/how these streets were picked; i.e., what are the criteria for determining which collector streets rate bike lanes. We would suggest that if traffic or accident counts increase on collector streets without bike lanes in the future, that they be considered eligible for bike lanes (i.e., placed in the low priority category).

Bikeway Design Guidelines: We recommend these additional standards for Class I and Class II facilities regarding grades and obstructions, in part to increase safety for bicycle trailers, be included on page 8:

- within 4' (1.2 m.) from the center of lane stripe (or from the center of pavement if it is an unstriped Class I path), there shall be no longitudinal steps exceeding 1/4 inch and no more than 5% cross slope over any 2 foot width within this riding area;
- within 5' from the center of lane stripe, there shall be no steps of more than 1 inch, regardless of orientation; and there shall be no overhead obstructions less than 8 feet above the highest point of the lane;
- within 6' from the center of lane stripe, there shall be no lateral obstructions between pedal height (6") and shoulder height (6'); a curb not more than 6" high is acceptable, but not a signpost, parking meter, hydrant, etc.

We also recommend against weaving bike lanes, as installed on Front Street and Laurel Street from Center to Chestnut Streets.

One-Way Streets and Contraflow Lanes: The *Bicycle Plan* should recommend a demonstration contraflow project to implement *General Plan* policy C3.1.4. High Street from Storey to Highland would be a good demonstration project. Other candidate one-way streets that should be listed in the *Bicycle Plan* for contraflow lanes are Beach Street, Pacific Avenue, Front Street by the post office, Riverside Avenue, Barson Street, lower Ocean Street, and West Cliff Drive leading to the bridge. Since there are no Caltrans standards for contraflow lanes, the City should follow Oregon's. The *Bicycle Plan* should state that from a bicyclist's perspective making streets one-way is undesirable: they make it more

inconvenient for law-abiding cyclists and foster disobeying the law. The Bicycle Committee has gone on record as objecting to making parts of River Street and North Pacific Avenue each one-way.

Downtown and Beach Area Circulation: Downtown and Beach Area circulation needs to be revisited. Downtown needs to be listed on page 4 under "Bicycle Activity Centers." Downtown is not bicycle-friendly. There are too many one-way streets: part of Front Street, Pacific Avenue, Moon Alley. Pacific Avenue is especially frustrating changing direction three times. Countless bicyclists disobey the law to travel on Pacific Avenue or its sidewalks. We recommend that the *Bicycle Plan* should contain an endorsement of allowing bicycles to travel in a contraflow direction or transforming Pacific Avenue into a bike-pedestrian thoroughfare.

Similarly, in the Beach Area it is very difficult to exit with all the one-way streets. More streets need to be made two-way or have contraflow lanes added; better signing is needed as well to direct cyclists. Implementation of Beach Area redevelopment offers a chance to expand bicycle routes.

Registration: The *Bicycle Plan* should contain an endorsement of abolishing the City bike registration program. This would require recommending that *General Plan* policy C1.8.6.3 be amended. There is no compelling reason to have bicycles registered. The City can only require city residents to register bicycles; many riders on city streets are not city residents. The police trace stolen bikes by serial number, not by registration (the alleged reason for having the program). Administrative costs are probably higher than the registration fees return. The program is not well publicized and inconvenient.

Traffic Calming: The Bicycle Committee is supportive of traffic calming, which is given very brief mention in the draft *Bicycle Plan* as an objective (page 6). The Committee reviewed a menu of traffic calming measures that the City chooses from and noted that some are favorable to bicycle travel while others are not. Therefore, we recommend that the *Bicycle Plan* discuss traffic calming in more detail, noting that speed humps (not bumps), street closures that include bicycle access, diagonal road closure with bicycle cut-throughs, and modified intersections are the preferable measures. One concept worthy of attention and mention is a bicycle boulevard, which is an enhanced route for cross-town bike travel (traffic signals or 4-way stops at all arterial crossings are essential), while preventing or discouraging motor vehicles from also using the street as a thoroughfare. Successful bike boulevards have low volumes of auto traffic and slow auto speeds, and therefore do not require striped bike lanes. The primary way to prevent the street from being used as an auto thoroughfare (which the recommended traffic controls at arterial crossings would otherwise encourage) is to use "traffic calming devices" to slow down traffic. Possible bike boulevards would be King Street, West Cliff Drive, Pine Street, and Pacific Avenue. Shared zones, modified street design, two-lane slow points, chicanes, stops signs, shoulder stripes (which appear to be bike lanes, but are not so marked and are not standard width), cobblestones, textured pavement, and rumble strips are not recommended. How various calming measures are designed is crucial as to whether they will favorable or not to cyclists. Perhaps our evaluation can be included as an Appendix to the *Bicycle Plan.* The *Plan* should also recommend that favored traffic calming measures be installed immediately on all non-arterial streets slated for eventual bike lanes. In some cases, if such devices work to slow and reduce motor vehicle traffic, bike lanes may not be needed.

Bike Parking The draft *Bicycle Plan* references the parking ordinance (page 8) which has been revised pursuant to *General Plan* policy C3.5. We recommend that a summary of, or, the complete Parking Ordinance pertaining to bicycles be included as an Appendix to this *Bicycle Plan*, as it is a model law. Design guidelines are available for bicycle parking as specified in *General Plan* policy C3.5, but the Committee has observed that many racks are nonetheless improperly placed. The *Bicycle Plan* should

contain a recommendation that building officials be trained as to proper bicycle parking location and not sign-off final permits until such parking is installed. New park-and-ride lots and train stations should contain bike-locking facilities, the Metro Center needs more bike parking, and Downtown establishments should be held to the standards in the Parking Ordinance. Currently, Downtown businesses do not have to provide the required parking, they have to pay a deficiency fee. But, there is no requirement that the fee go towards installing an amount of bike parking equal to that required by the ordinance. Also, the *Bicycle Plan* should contain an endorsement of abolishing the City law making it illegal to lock bicycles to parking meters. There are already laws against obstructing sidewalks. There are often insufficient bike parking posts. As an alternative, where there are nearby posts, the City could place signs on the meters, stating "Please park your bike at a bike rack instead."

Highway One/Mission Street: The *Bicycle Plan* should contain an endorsement of opening Highway One from Chestnut Street to River Street to bicycles. A connection should be made between route One and the start of the new High-Portrero bike path. the City should also request that Caltrans strip the left travel lanes of revamped Mission Street no more than 11 feet to allow for wider shoulder lanes for bicycles.

History: The *Bicycle Transportation Plan* should include an expanded history section on page 3 under the Existing Bikeway System section or in an appendix. Mention should be made of the 1977 Bicycle Route Demonstration Project, *City of Santa Cruz Bikeway Study* (1980), 1983-84 Bikeway Program, and East-West Bicycle Task Force (1987), Regional Transportation Plans, Congestion Management Plan, and Capital Improvement Programs as well as bicycle provisions contained in 1980 Harbor Master Plan, 1983 Downtown Plan, 1987 Beach Area Traffic Circulation and Parking Study, Downtown Recovery Plan, and other documents. We would be happy to provide additional text for this.

We hope that these comments are helpful. We realize that they are extensive. However, we have a rare opportunity to produce a really comprehensive and understandable plan. Therefore, we urge you to rework the *Plan* to include all of these concerns. We will be happy to work with you as we have with Santa Cruz County, Watsonville, and Scotts Valley.

Sincerely,

Kem Akol
Chairman, Bicycle Committee
cc: City Council

[1] see for example, Forester, *Effective Cycling*, "Bike paths in general are 2.6 times more dangerous than average roadways for competent cyclists," page 171; Wachtel and Lewiston, "Risk Factors for Bicycle-Motor Vehicle Collisions at Intersections," *ITE Journal* September 1994, "The average cyclist in this study incurs a risk on the sidewalk 1.8 times as great as on the roadway" page 33; Moritz, "Adult Bicyclists in the United States--Characteristics and Riding Experience in 1996, paper presented at TRB meeting, January 1998, "Multi-use trails have a crash rate about 40% greater than would be expected of based on the miles cycled on them, while cycling on the sidewalk is extremely dangerous."

[2] from the Caltrans *Highway Design Manual* Section 1003.3 "Sidewalk Bikeway Criteria. In general, the designated use of sidewalks (as a Class III bikeway) for bicycle travel is unsatisfactory. It is important to recognize

that the development of extremely wide sidewalks does not necessarily add to the safety of sidewalk bicycle travel, as wide sidewalks will encourage higher speed bicycle use and can increase potential for conflicts with motor vehicles at intersections, as well as with pedestrians and fixed objects...;" Section 1003.1(5) "A wide separation is recommended between bike paths and adjacent highways. bike paths closer than 1.5 m from the edge of the shoulder shall include a physical barrier to prevent bicyclist from encroaching onto the highway;" Section 1003.2(1a); "Bike lanes shall not be placed between the parking area and the curb."