

SOLANA BEACH BIKEWAY MASTER PLAN ADDENDUM



Prepared for

CITY OF SOLANA BEACH

June 1996

Prepared by

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Introduction

In June of 1993, the Solana Beach City Council adopted a Bikeway Master Plan as directed by the Circulation Element of the City's General Plan. The Solana Beach Bikeway Master Plan was prepared to provide a framework for the planning and development of bicycle programs and facilities through the year 1999. The document was again reviewed by the City Council on November 13, 1996 and readopted for relevancy and consistency to the City's General Plan and community needs.

California Government Code Section 891.4 contains provisions for local agencies to prepare a bicycle transportation plan. The Department of Transportation (Caltrans) requires that the bikeway plan must be reviewed and approved by the Caltrans Bicycle Facilities Unit after December 31, 1993 and before July 1, 1996 in order to be eligible for various funding programs. This plan may be submitted to the local transportation planning agency for approval.

The San Diego Association of Government's Bicycle Facilities Advisory Committee (the local transportation planning agency) reviewed and approved the Bikeway Master Plan in June of 1993. The City of Solana Beach requested the SANDAG's Bicycle Facilities Advisory Committee review and approve the Bikeway Master Plan and the Linear Park Master Plan, a proposed bicycle path within a greenway, on November 15, 1996. They approved both documents and forwarded their recommendation for approval to the Caltrans Bicycle Facilities Unit for approval.

Upon review of the Solana Beach Bikeway Master Plan and in light of recent modifications to Section 891.4, the Caltrans Bicycle Facilities Unit determined that the Bikeway Master Plan was deficient in three areas.

1. The bikeway plan did not estimate the increase of bicycle commuters resulting from implementation of the plan.
2. The bikeway plan did not provide a description of bicycle safety and education programs.
3. The bikeway plan did not include a discussion of how the plan would be implemented and how previous facilities were funded.

The purpose of this addendum is to address the specific elements identified by Caltrans and to complement the existing Bikeway Master Plan.

Background

The City of Solana Beach is a relatively small coastal community located strategically along the San Diego coast. The City is bisected by the scenic coast Highway 101 and the parallel coastal route, Interstate 5. Lomas Santa Fe Drive provides direct access from the freeway to the commercial core of Solana Beach and coastal beach access. Also paralleling the coast highway is an active rail corridor providing commuter rail service, the Coaster, from Oceanside to San Diego, Amtrak services to Los Angeles and along the western coast, and freight service. The recently completed rail and bus transit station is located at the northeast corner of Lomas Santa Fe Drive and Highway 101.

There are two main bicycle facilities in Solana Beach, one located along Highway 101 paralleling the tracks, and the other located along Lomas Santa Fe Drive. These two major roadways include class II bicycle lanes. The Highway 101 bike lane is an active bicycle corridor for cyclists bicycling along the coast and with such destination points as Torrey Pines state park, beach access points, shops and restaurants, while many cyclists' sole purpose is to cycle for exercise and training.

Lomas Santa Fe Drive provides access to the beach from the inland communities of Rancho Santa Fe, Escondido, and Rancho Bernardo along the Del Dios Highway bicycle lanes. The intersection at Lomas Santa Fe Drive and the coast Highway 101 has been documented as having the second highest number of bicyclists, Bicycle Counts at Selected Intersections in San Diego County, SANDAG 1990.

The City included in its Bikeway Master Plan narrative regarding a proposed bicycle path along the railway right-of-way. At the time that the bikeway plan was completed, it was anticipated that SANDAG would pursue the next step of a previous study, Coastal Corridor Bicycle Path Analysis completed in 1989. The 1989 study was a feasibility analysis of a class I bicycle path along the railway from Oceanside to San Diego. The study concluded that it would be feasible to construct a bicycle path along the railroad from Oceanside to San Diego. The City's linear park bicycle path is a segment of the Coastal Corridor Bike Path, currently named the Coastal Rail Trail.

In anticipation of the ongoing effort by SANDAG, the City of Solana Beach embarked on a conceptual design plan for the 1.8 mile segment of the bikeway within its boundaries. The Solana Beach Linear Park Master Plan identifies a class I bike path within a parklike setting along the railway from the southern boundary of Solana Beach, Via de la Valle, to the northern boundary, at the San Elijo Lagoon.

The City is continuing in its effort to develop the bikeway along the San Diego Northern Railway (SDNR) and this is noted within the following report. Construction of the bikeway is anticipated along approximately the schedule as the San Diego Northern Railway's Grade Separation Project which will depress the railway 35' below grade. The bike path will traverse above the depressed tracks with connections provided at four proposed bicycle/pedestrian bridges.

SANDAG is also continuing its effort to proceed on the Coastal Rail Trail project and has embarked on preliminary engineering and a project study report for the entire corridor to be completed in January of 1996. This phase of the project is funded through Intermodal Surface Transportation Efficiency Act (ISTEA) and Transportation Development Act funds. Additional funds have been allocated from other funding sources for construction of segments of the linear park.

The Solana Beach Linear Park bicycle path along the railway will augment the existing class II facility located along Highway 101. Due to the extensive use of the existing facility, it is anticipated that a separated bicycle path along the railway will provide a different experience to cyclists and will encourage bicycling for those who do not desire to utilize a busy roadway. Estimates generated by the National Highway Administration reflect that the majority of all bicyclists are male. Female cyclists may be inhibited by the intensity of traffic, safety, noise, pollution and other factors. Providing a separate path may increase the ridership among females and children.

Bicycle Ridership

Surveys conducted by the 1993 National Bicycling and Walking Study have concluded that more people would bike and walk, if there were more safe, attractive, convenient and well-maintained facilities -- sidewalks, trails, bike lockers, etc. Bicycle counts in some cities suggest bicycle lanes and paths can realize volumes of 1,000 - 2,000 users per day, weather permitting. The April issue of Bicycling magazine gives the results of a Harris poll regarding cycling as a transportation option. The survey, conducted in October 1990, concluded that 1 in 60 adults commute to work by bicycle. If better facilities were available, one in five persons would commute to work.

In the interest of reducing air pollution and traffic congestion, the state and federal governments have created more funding programs for the development of bicycle facilities. In order to justify construction of the facility, the program managers for these funding agencies request the local agency provide an estimation of the anticipated number of users once the facility is built. Estimating potential ridership prior to developing a bicycle facility adds to the potential for obtaining funding. Local agencies must determine how many bicyclists and pedestrians will use a proposed facility in order to get a good indication of its benefits and whether the facility is worth the investment. Bicycle and pedestrian trip generation data is used as a benchmark to understand the current number of users in order to estimate the potential increase in users and to make comparisons once the facility is complete.

In addition to estimating existing ridership, other factors must be considered when determining the potential bicyclists/pedestrians. The reasons for not cycling may be due to personal concerns such as health and age or it may be based more on physical components such as poorly designed or no facility, facility condition, distance from work, nature of work, safety, convenience, lighting, etc.

The Federal Highway Administration's study of bicycling and pedestrian trip generation concluded that "no more than 34% of the bicyclists... on any bikeway had ridden the route prior to the establishment of the bikeway." About one-third of the cyclist indicated they would not have made the trip or would have used a different mode of travel if the bikeway did not exist.

In addition to creating a safe, well-designed bikeway facility, an important component to the Bikeway's success will come from generating local support and enthusiasm for the system. It is recommended that the City develop a marketing strategy to maximize exposure and generate support for the bike system. This may be in the form of press releases, producing a colorful map and guidebook of the bikeway, preparing a short video for release on local television, holding bike fairs, bike tours and bike races.

Encouraging cycling by developing measures to make bicycling a better transportation alternative is the key to increasing bicycle ridership. Bicycling is encouraged in many cities in Europe and North America by the engineering of safe, comfortable and convenient bike routes. In some European cities, 20-30% of all potential vehicle trips are made with the bicycle. In the United States it was found that over half of the trips made were less than 5 miles in length. Increasing bicycle ridership may be achieved by providing safe, comfortable and convenient bike routes.

It is important for the community to realize the potential benefits of cycling. Cycling is beneficial to not only the individual who chooses to cycle as a form of transportation, but to the community and environment as well. Bicycling is more economical; short trips during rush hour traffic may be quicker; cycling is an excellent form of exercise; more bicycles on the road leads to fewer cars and reduced traffic congestion; and bicycles do not consume non-renewable fossil fuels and do not contribute to smog.

Integration of bicyclists on arterial streets offers a direct, quick, and convenient means to get to a destination by cycling on any existing street. Utilizing city streets helps to legitimize the bicycle as a form of transportation by allowing cyclists to assert their legal rights on the road. In addition, integration has the benefit of educating motorists and cyclists about each others' rights and responsibilities which will ultimately increase safety for all involved. Integration can also take advantage of using existing roads that have additional street width and do not require an excessive right-of-way.

The County of San Diego completed a bicycle attitude and use survey in May 1994. The survey stated that "Solana Beach households reported one of the lowest average bicycling participation rates among children (106 times annually vs. 136 times annually on average)." On the other hand, San Diego Association of Governments, Bicycle Counts at Selected Intersections on San Diego County, conducted in 1990 revealed that the intersection at Lomas Santa Fe and Highway 101 had the second highest average hourly count of 62.3 cyclists in San Diego County, second only with the San Diego State University area. This was an increase in the number of cyclist from the earlier study dated 1987 by 6.9%. Based on the Federal Highway Administration's study on bicycle and pedestrian trip generation which concluded that commuting comprises about 9% of bicycling trips for cities with rail, the estimated number of commuters would equal 5.6 per hour.

Bicycle ridership is often times determined by the bicycle travelers inhibitions caused by a reaction to motor vehicle traffic. A person may refrain from using his/her bicycle because of a perceived perception of hazard. Bicyclists/walkers often will not ride or walk a particular road segment due to perceived hazards of sharing the right-of-way with motorized vehicles. The perception of a potential hazard is a major factor in bicyclists'/walkers' route choice, as well as a significant factor in whether a trip is even initiated.

There are several factors which affect the bicyclist's/walker's perception of interaction hazard. They are:

- volume
- speed
- vehicle characteristic
- proximity of the bicyclist to the motor vehicle traffic
- pavement condition

As the volume, speed, and size of the motor vehicle increases, so does the bicyclist's perception of his/her hazard of interacting. The narrower the outermost roadway lane, and the closer together are the bicycle and motor vehicle travel paths, the closer the bicyclist is to the vehicle results in a higher perception of interaction hazard. Pavement condition also has some effect on the bicyclists' perception of hazard. The more deteriorated the pavement, the more the bicyclists's attention is diverted to the immediate travel line. Thus, the perceived hazard of sharing the right-of-way is magnified. Bicycle ridership will increase when these hazards are reduced.

However, no matter how accustomed to riding on the street one may be, many individuals will find that arterial roads are too dangerous or too intimidating. Integration has had limited success so far in increasing the number of cyclists, as it generally caters to these who already cycle. Bicycling along busy arterial streets also exposes the cyclists to high levels of noise and automobile exhaust.

An alternative to bicycle lanes on the street is to offer the community a class I bike path separated from the roadway. A bicycle path or multi-use path will serve multiple users, such as bicyclists, walkers and joggers. These trails are often times constructed along abandoned railroad corridors, or more recently within an existing active railway such as proposed trail along the SDNR. These trails provide an advantage of traversing through parks, greenways, or other natural settings and are used for recreational and commuter purposes and multi-uses. The most preferred bikeway of San Diego County residents as reported in the Bicycle Use and Attitude Survey is a separate bike path (65%),

The proposed Coastal Rail Trail bicycle path along the San Diego Northern Railway is a similar type of trail. Upon completion it will provide a more rural setting within an urban environment. Most cyclists would choose to ride on a bike path if it were well designed, well maintained, uncongested, direct and would take them where they want to go. The main advantage of a bike path is the elimination of conflicts with vehicles. It is ideal for those who do not want to or cannot cycle in traffic. The further benefit is the improved air quality for those using bike paths that are not adjacent to streets. They can be used by all cyclists with varying abilities and it generally provides a quieter, comfortable, and scenic route.

Another benefit of the separated path is a facility that may be used by a person with a physical

disability. The single most important feature for a disabled person is a continuous path of travel. Additionally, it is important to include access to the site and along the trail, support facilities such as drinking fountains, telephones, etc., and appropriate signage.

The disadvantages to bicycle paths is that they are generally more expensive to install since they require additional property, engineering, construction costs, possibly other amenities such as landscaping, and ongoing maintenance.

Determining the number of users on a bicycle path is difficult when there has been no improved, separated paths in the past. Studies have been completed on numerous bicycle paths throughout the country to document the number of users. However, each facility is unique. Bicycle ridership on a Class I facility may be based on weather conditions, accessibility, surrounding land uses, condition of facility, etc. Since the San Diego region's temperate climate allows for year-round bicycling it is anticipated that the use would be fairly high year-round and even higher during the summer tourist months.

By reducing traffic hazards, the possibility of increase of bicycle ridership and the number of walkers increases based on the incremental decrease of perceived hazards. This "latent demand" for bicyclists/walkers can be quantified into an actual number of increased ridership. However, by removing all of the barriers and providing a "conflict-free" separated path, the increase in ridership is based on the number of trip attractors/generators, distance, demographic and income community characteristic, convenience, physical condition, and weather conditions.

The U.S. Department of Transportation has developed a methodology in which to assess the number of bicycling/walking trips that may be generated if a safe facility was provided. Taking the "low" scenario from the FHA study The Environmental Effects of Bicycling and Walking (January 1993) which projects that bicycling increases from current levels by a factor of 3 and walking increases by a factor of 1.5. Although there have been no studies documenting the number of walkers at the Lomas Santa Fe intersection, we can assume that the number of bicyclists will increase from 62.4/hour to 187.2/hour which would in turn equate to approximately 16-17 commuters per hour. Decreases in the emission levels are based on numerous factors such as the distance traveled, speed, cold start, and vehicle condition. However, the Federal Highway Administration report Benefits of Bicycling and Walking to Health states that the "replacement of vehicles with walking and bicycling would considerably reduce the level of air and noise pollution".

The Burke-Gilman/Sammamish River Trail in Seattle may provide some relative comparisons. A study conducted in May 1990 reflected over 13,000 bicyclists on Saturday and over 4,000 bicyclists on the weekday. The distance traveled on Saturday was twice as great as the distance traveled on a weekday. The weather conditions were favorable, the path is well maintained, and traverses to from residential areas to commercial areas.

The Solana Beach proposed bicycle path along the railway is frequently being used by cyclists on mountain bicycles, walkers, and joggers. Upon completion of both the pathway and the bridge overcrossings, the bicycle path may well exceed estimations of 1,000 - 2,000 users per day. However, a greater increase will occur upon completion of the bicycle/pedestrian bridges and the connecting system to both the northern and southern communities.

Bicycle Safety

Riding bicycles along neighborhood streets which have low traffic volumes may not pose problems for the cyclists. Once a cyclist begins to expand his or her horizons and begins bicycling on major streets and arterials is when bicycle accidents occur. Although helmet law legislation and education have decreased deaths and injuries among children, bicycle accidents still remain one of the leading causes of deaths among school-aged children. Education and training are key to a significant decrease in the number of deaths and injuries associated with the most common modes of transportation for youth - bicycling.

Cyclists biking along congested major streets in Solana Beach will find the ride demanding. The Coast Highway 101 and Lomas Santa Fe Drive are highly traveled roads providing primary connections to the coast and the only other north-south route other than the freeway. The intersection at Lomas Santa Fe Drive and Highway 101 is recognized as the second most highly traveled intersection for bicyclists in San Diego County. Cycling to a local store or the local ice cream shop invariably will take the cyclists on either one of these arterial streets.

Bicycle riding in San Diego County is an ideal form of transportation because of the temperate climate. However, more students who are classified as "latch-key" children are cycling or walking on the city streets without the proper supervision and are subject to be victims of bicycling accidents. Preventing bicycle accidents can be accomplished by providing safe routes, relatively free from obstacles, and through education of youths and their parents.

It is not only the youths that need additional training. Deaths and injuries among bicyclists aged 16 and older are increasing according to a report by the Insurance Institute for Highway Safety. For example, the total number of bicycle accidents deaths in the United States fell from 1,003 in 1975 to 804 in 1994, but older cyclists represented a dramatic increase as a percentage of the victims - from 32% of bicyclists deaths in 1975 to 62% in 1994. There are very few education programs for bicycle safety focused on adults which may explain the increase in adult accidents since there has also been a dramatic increase in adult cyclists.

The County of San Diego, in 1994, completed a study on bicycle use and attitudes. The study was funded through Transportation Development Act funds set aside for non-motorized transportation purposes. The purpose of the study was to assess the bicycle use and attitudes of San Diego County residents. Some of the areas of interest included bicycle ownership, frequency of bicycle helmet use, type of bicycling activities, bicycle organization, bicycle accident experience, and reasons not to

bicycle.

The survey was conducted in each of the cities in the County. The survey results related to bicycle safety for the City of Solana Beach reported the following:

1. The highest helmet usage rates were reported among residents of Solana Beach (53% vs. 45%).
2. Bicycle injury accident rate was notably higher among residents of Solana Beach at 11% when compared to the norm of 6%.
3. The highest average mandatory bicycle registration fee volunteered among the 19 geographic sub-areas analyzed was in Solana Beach (\$12.00 vs. \$9.50).
4. Cyclists in Solana Beach more often (40% vs. 30%) reported "never" experiencing interference from motor vehicles.

Bicycle Safety programs are essential to reducing bicycling related accidents. The City of Solana Beach conducts several programs related to bicycle safety and awareness:

1. Bicycle Safety Programs to schools and community groups.
2. Bicycle Protection Program
3. Bicycle Outreach Program

Bicycle Safety Programs

The City of Solana Beach police service is provided by the San Diego County Sheriff's Office in Encinitas. The Crime Prevention unit provides bicycle safety and awareness programs to the schools once a year, the Boys Scouts, Girl Scouts, and the Boys and Girls Clubs. They will also provide this service to any group that request a community service officer to present the program. The City has three schools within the City limits:

Solana Vista School (Kindergarten through Third Grade)
Skyline School (Fourth through Sixth Grade)
Earl Warren Junior High School (Seventh and Eighth grade)

The Crime Prevention Unit provides "bicycle rodeos" to the Skyline School at least once a year. Additionally, a comprehensive bicycle safety program is conducted at Solana Vista School and Earl Warren Junior High School in conjunction with the Children's Hospital and Health Center in San Diego.

Earl Warren Junior High School also includes a section on bike safety within their Life Education Course. The community safety officer will conduct a lecture and video on bicycle safety at the request of the school generally during the Life Education Course.

The Bicycle Rodeo consists of a video, lecture, discussion on safety and security for the bicycle, and a hands-on obstacle course. The purpose of the obstacle course is to demonstrate the correct way to ride a bicycle, improve bicycle handling skills and identify areas requiring improvement, improve cycling skills that relate to on-street traffic skills, how much stopping distance is needed, and how to ride on a straight line along the edge of the street. The program that is put on for the Boys and Girls Club includes a bicycle video and a lecture. The Boys Scouts program is presented at the time a particular unit arrives at the section in the boy scout handbook that requires a badge for bicycle safety. The community safety officer is contacted who will provide a bicycle awareness program to the scout troop.

Bicycle Protection Program

A bicycle protection program developed by the County Sheriff's department allows for engraving the parent's drivers license number on the bicycle. During the off tourist season, the lifeguards will assist the crime prevention office and conduct an engraving session for a two to three block section of a neighborhood, engraving bicycles to prevent theft. The service is also offered at the Solana Beach library.

Bicycle Outreach Program

The City of Solana Beach conducts a Fiesta del Sol every year for two days in June. The Sheriff's Department provides a booth on crime prevention and safety. Handouts on bicycle safety are available which are written for the third grade level and above. The American Automobile Association also provides handouts to be distributed at the festival and at the other safety programs which include the helmet law, a brochure on helmets, and the physical safety of bikes.

Summary

In light of the need for bicycling education programs and the ever increasing number of cyclists of all ages, it is recommended that the education program be expanded to the Solana Vista School on a regular basis in order to instill the correct and proper way to ride a bike while the children are just beginning to establish their cycling practices. Additionally, it is the junior high students that will be riding on the major arterial streets to the local hamburger or pizza shop who needs to understand the appropriate way to integrate a bicycling into traffic. Targeting the adults is more difficult, however, bicycle programs can be targeted to local community groups, though bicycle shops, and integrated in adult traffic school programs.

Bikeway Facilities

The City of Solana Beach completed a Bikeway Master Plan in 1993. The master plan was funded by TransNet (Proposition A) funds. The Bikeway Master Plan identifies two designated Class II bikeways in Solana Beach. These two facilities were constructed in the 1970's by the County of San Diego, prior to the City's incorporation. The lanes have been painted several times since then and a berm constructed along Highway 101 has been reconstructed. The funds to maintain the bicycle facilities have been allocated through the General Fund.

The Lomas Santa Fe Drive provides Class II bike lanes in both east and west directions linking the coast to inland communities of Rancho Santa Fe, Rancho Bernardo, and Escondido. The width of the lanes vary from 5' to 7' and is reduced at the undercrossing of Interstate 5 to approximately 4'.

The Highway 101 corridor is a class II facility in both north and south directions. The northbound lane is separated from vehicle travel by an asphalt berm. The bike lane is frequently utilized by pedestrians as well as cyclists. Through the construction of the San Diego Northern Railway's grade separation project the berm will be removed as the temporary track will utilize a portion of the bike lane. The bike lane will be reconstructed upon completion of the grade separation project without the berm.

Additional bicycle facilities located within the City include the installation of a standard Class III bikeway along Highland Avenue and San Andres Drive funded with Transportation Development Act (TDA) funds. The City installed loop detectors at the intersection of North Highway 101 and Solana Vista Drive through the use of TDA funds as well. Installation of loop detectors at the intersection of Lomas Santa Fe Drive and Highway 101 has been funded through a \$14,000 grant Transnet fund and will be installed during the SDNR's Grade Separation project.

Operating and maintenance costs for Class II bike lanes are minimal and generally included in the annual budget for the roadways themselves. Class I bikeways require additional maintenance and enforcement as do bicycle storage facilities, such as bike racks and lockers. The estimated annual maintenance costs for the class one facility is \$14,400 (based on \$8,000 a mile annual maintenance).

The Bikeway Master Plan identified a Class I bikeway path to be installed along the railway right-of-way. In response, the City developed a Linear Park Master Plan, funded through TransNet funds, to address the various components of the linear park.

The Linear Park is a proposed 1.8 mile bicycle path and open space corridor parallel to Highway

101. It forms a segment of the proposed Coastal Corridor Bikeway which will traverse a distance of 42 miles from Oceanside to San Diego. The project lies within the railroad right-of-way connecting transit stations along the corridor. The City of Solana Beach completed the Linear Park Master Plan in August 1995. Upon completion and adoption of the master plan, the City identified a phasing plan for the development of the linear park.

State and Federal funding is available for the planning, design, and construction of bikeway systems. Proposition 116 funding through the state is geared to provide capital grants for bikeway improvements that serve commuters. Other state funding sources include the Bicycle Lane Account administered by California Department of Transportation, and Transportation Development Act Funds and TransNet funds administered by the San Diego Association of Governments (SANDAG)

Federal funding sources have been providing the bulk of new funding for this alternative form of travel. The ISTEA (Intermodal Surface Transportation Efficiency Act) targets funds for bikeway and pedestrian improvements as part of a systems approach for communities. The funds are administered through the regional government body (SANDAG) and are administered on a competitive basis. Other funding programs may be available for separate components of the bicycle path. The California Department of Forestry offers funds for the installation of trees and the California Water Resources Environmental Mitigation and Enhancement program provides a program for landscaping over and above what was required by a related transportation project.

The City has been actively pursuing funding for the implementation of the Linear Park. Funds acquired from the Air Pollution Control District will be used for the completion of engineering plans for rough grading and a retaining wall for the path across from the transit station. The plans will be completed by the fall of 1996 in conjunction with the grading plans for the grade separation project. Upon completion of the grading plans the City will embark on the final design plans for the bikeway. Design of the landscaping will occur during the path design utilizing funds through the Environmental and Mitigation Enhancement program. Construction of the bikeway will occur in fiscal year 1996/97.

*Solana Beach Bikeway Master Plan
Addendum - June 1996*

The following is a summary of the current funding programs the City has either received an award of grant funds or funds are currently pending final approval:

Program	Purpose	Amount
TransNet	Bikeway Master Plan (Complete)	\$ 20,000
TransNet	Linear Park Master Plan (Complete)	\$ 35,000
Transportation Development Act	Loop Detectors (Complete) Solana Vista & Highway 101	\$ 2,000
Transportation Development Act	Highland Drive Class III (Complete)	\$ 2,000
AB2766 APCD Funding	Rough Grading Design	\$ 54,000
TDA & TransNet (Prop. A)	Bicycle path design	\$ 45,000
TransNet (Prop. A 1996/97)	Linear Park Bikeway	\$ 267,230
Transportation Development Act and TransNet (Prop. A)	Class II Bike lane (Lomas Santa Fe Dr. Alignment)	\$ 15,200
Transportation Development Act and TransNet (Prop. A)	Rosa Street Overcrossing Bridge design and Construction	\$ 175,000
Transportation Development Act	Loop Detectors for Lomas Santa Fe Dr. & Highway 101	\$ 14,000
*Transportation Enhancement Act (grant in conjunction with the City of Carlsbad's request for funding partial construction)	Multi-Use Path Construction	\$ 600,000
*TransNet (Prop. A 1996/97)	Coastal Rail Trail	\$ 120,000
**Bicycle Lane Account	Construction of the multi-use path	\$ 90,000
**Environmental Mitigation and and Enhancement Funds	Landscape and irrigation	\$ 200,000
**California Department of Forestry	Trees	\$ 30,000

*Portion to be allocated to Solana Beach

**Grant applications pending

The City is continuing to pursue funds for pedestrian and bicycle overcrossings to provide safe crossings over the railway to the beach. In conjunction with the railway grade separation project, the Lomas Santa Fe Drive at grade crossing will be converted to an overcrossing.

Conclusion

The intent of the Bikeway Master Plan is to provide a comprehensive document for planning for bicycle facilities. Additionally, it is the intent of the bikeway plan to provide facilities that will be used by the community and visitor. Overall, the use of bicycle facilities is based on the quality and type of facility provided, bicycle awareness, personal goals and physical limitations. In order to increase bicycle ridership and frequency which ultimately benefits the community, the air quality and the individual, it is recommended that the City consider a commitment to improve the number of persons who cycle.

The following goals and objectives are suggested for improving bicycling while decreasing bicycle related incidents in Solana Beach:

Goal

To increase the awareness of bicycle safety and to provide a comprehensive program of bicycle safety for the community.

Objective:

1. Bicycle facilities in Solana Beach should provide safe routes for all types of cyclists which minimize cycling and pedestrian conflicts and cyclists and vehicle conflicts.
2. Bicycle safety programs should be incorporated in all age groups to reinforce good riding practices and State of California "Rules for the Road" for bicyclists.
3. Clearly marked bicycle routes should be incorporated on the streets signs to minimize confusion on the roadways and to reduce hazards.
4. Integrate the bicycles and vehicles on the roadway through appropriate education.

Goal:

To improve the existing bikeway facilities and to offer additional types of facilities which will encourage the use of bicycling for commuting and recreation.

Objective:

1. Maintain existing class II facilities in Solana Beach and provide alternative routes when existing routes are being altered or under construction.
2. Develop a Class I bicycle path along the railway right of way.
3. Review existing bicycle facilities and determine how to reduce hazards to cycling.

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ADDENDUM

RESOLUTION NO. 96-58

**RESOLUTION OF THE CITY COUNCIL OF THE CITY
OF SOLANA BEACH APPROVING THE ADDENDUM
TO THE SOLANA BEACH BIKEWAY MASTER PLAN**

WHEREAS, the City of Solana Beach is required by the Circulation Element of the City's General Plan to develop a Bikeway Master Plan; and

WHEREAS, the City of Solana Beach retained a consultant to prepare a Bikeway Master Plan; and

WHEREAS, the City Council passed a resolution on the 17th day of May, 1993 officially adopting the Bikeway Master Plan and on November 20th, 1995 reaffirming the relevancy and consistency of the Bikeway Master Plan; and

WHEREAS, the State of California Department of Transportation (Caltrans) indicated that the Bikeway Master Plan was deficient in three elements of Chapter 517 of Senate Bill 1095 of the Streets and Highway Code and must address these elements in order to pursue grant funds for the implementation of bicycle facilities; and

WHEREAS, the City of Solana Beach contracted with a consultant to address the areas of deficiency which include:

1. Estimate of the increase in bicycle commuters resulting from the implementation of the Bikeway Master Plan.
2. Address existing and potential bicycle safety and awareness programs.
3. Document previous expenses for bicycle facilities.

WHEREAS, it is in the interest of the City of Solana Beach to pursue grant funds for the implementation of non-motorized facilities; and

WHEREAS, the City Council must pass a resolution officially adopting the Addendum to the Bikeway Master Plan before its review by Caltrans.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Solana Beach does resolve as follows:

1. That the foregoing recitations are true and correct.
2. That the Addendum to the Bikeway Master Plan dated June 1996 and on file with the City Clerk is hereby adopted.



CITY OF SOLANA BEACH

AGENDA REPORT

TO: HONORABLE MAYOR AND CITY COUNCIL MEMBERS

FROM: COMMUNITY SERVICES DIRECTOR

DATE: JUNE 12, 1996

SUBJECT: APPROVAL OF ADDENDUM TO SOLANA BEACH BIKEWAY MASTER PLAN

RECOMMENDATION:

Adopt resolution which will enable staff to move forward with the procurement of additional grant funding for a multi-use pathway for the City's proposed linear park.

BACKGROUND:

California Government Code Section 891.4 contains provisions for cities to submit claims to the California Department of Transportation (CALTRANS) for grant funding via its Bicycle Lane Account Program. Those agencies who submit claims must have a Bicycle Facility Master Plan which complies with all elements contained in the Bicycle Transportation Plan of the Streets and Highways Code.

The City of Solana Beach prepared a Bikeway Master Plan which was presented to and approved by the City Council on May 17, 1993. On November 20, 1995 the City Council passed Resolution No. 95-82 which re-approved the Master Plan. The Bicycle Facilities Master Plan was subsequently approved by the San Diego Association of Governments (SANDAG) and forwarded to CALTRANS for approval. City staff subsequently submitted a grant application in the amount of \$90,000 to CALTRANS to assist in funding the design and construction of the multi-use pathway to be contained in the City's proposed linear park. CALTRANS staff responded that the elements of the State of California Bicycle Transportation Plan had recently been modified via Senate Bill 1095 and that the City needed to provide a current addendum to its Bicycle Facilities Master Plan in order to remain eligible for grant funding. The Bikeway Master Plan was found to be deficient in the following areas:

1. Estimate of the increase in bicycle commuters resulting from the implementation of the Bikeway Master Plan.
2. Description of bicycle safety and awareness programs.
3. Document previous expenses for bicycle facilities.

CITY COUNCIL ACTION: _____

AGENDA ITEM #

ADDENDUM TO THE BIKEWAY MASTER PLAN

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DISCUSSION:

In order to address the deficiencies in the master plan, the City contracted with Transtech, Inc. to complete an Addendum to the Bikeway Master Plan.

The adoption of the Addendum to the Bikeway Master Plan will assist the City in obtaining future funds for additional bicycle facilities including the construction of the linear park proposed for the City's rail corridor.

FISCAL IMPACT:

Since the completion of the Bikeway Master Plan, City staff has pursued various funding mechanisms for the implementation of the Bikeway Master Plan. The following is a summary of the current funding programs the City has either received an award of grant funds or funds are currently pending final approval:

Program	Purpose	Amount
Transnet	Bikeway Master Plan (Complete)	\$ 20,000
Transnet	Linear Park Master Plan (Complete)	\$ 35,000
Transportation Development Act	Loop Detectors (Complete) Solana Vista & Highway 101	\$ 2,000
Transportation Development Act	Highland Drive Class III (Complete)	\$ 2,000
AB2766 APCD Funding	Rough Grading Design	\$ 54,000
TDA & TransNet (Prop. A)	Bicycle path design	\$ 45,000
TransNet (Prop. A 1996/97)	Linear Park Bikeway	\$ 267,230
Transportation Development Act and TransNet (Prop. A)	Class II Bike lane (Lomas Santa Fe Dr. Alignment)	\$ 15,200
Transportation Development Act and TransNet (Prop. A)	Rosa Street Overcrossing Bridge design and Construction	\$ 175,000
Transportation Development Act	Loop Detectors for Lomas Santa Fe Dr. & Highway 101	\$ 14,000
*Transportation Enhancement Act (grant in conjunction with the City of Carlsbad's request for funding partial construction)	Multi-Use Path Construction	\$ 600,000

BIKEWAY MASTER PLAN ADDENDUM

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*TransNet (Prop. A 1996/97)	Coastal Rail Trail	\$ 120,000
**Bicycle Lane Account	Construction of the multi-use path	\$ 90,000
**Environmental Mitigation and and Enhancement Funds	Landscape and irrigation	\$ 200,000
**California Department of Forestry	Trees	\$ 30,000

*Portion to be allocated to Solana Beach

**Grant applications pending

The City is continuing to pursue funds for pedestrian and bicycle overcrossings to provide safe crossings over the railway to the beach. In conjunction with the railway grade separation project, the Lomas Santa Fe Drive at grade crossing will be converted to an overcrossing.

In order for the California Department of Transportation to continue their review of the City's application for Bicycle Lane Account (BLA) funds, the City must adopt an addendum to the Bikeway Master Plan. The Addendum, in turn, must address the above elements requested by Caltrans. Accordingly, staff is requesting the Council adopt the Addendum to the Bikeway Master Plan.

DOCKET: June 17, 1996

Respectfully Submitted,



ANDREW M. O'LEARY, Director
Community Services Department

Reviewed by,



ROBERT W. SEMPLE
City Manager

ZIP CODE = 92024

SITE NO. 819 LOMAS SANTA FE DR AND PACIFIC HIGHWAY

DATE: 10-11-90 DAY: THUR

HOURS	ADULT	MOPED	CHILD	TOTAL
600 - 700	16	0	1	17
700 - 800	95	1	1	97
800 - 900	54	1	2	57
1500 - 1600	44	9	2	55
1600 - 1700	69	3	5	77
1700 - 1800	63	4	4	71

PERCENTAGE OF	91.2	4.8	4.0
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HOURLY AVG CNT	56.8	3.0	2.5	62.3
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	ENTERING INTERSECTION	LEAVING INTERSECTION
LOMAS SANTA FE DR		
EASTBOUND	28	68
WESTBOUND	55	27
PACIFIC HIGHWAY		
NORTHBOUND	141	152
SOUTHBOUND	150	127

BICYCLE COUNTS AT SELECTED INTERSECTIONS IN SAN DIEGO COUNTY 1990

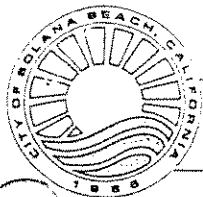
FEBRUARY 1991



First Interstate Plaza
401 B Street • Suite 800
San Diego, CA 92101
(619) 595-5300

This project was financed with federal funds from the U.S.
Department of Transportation, Urban Mass Transit Administration,
Transportation Development Act funds and local funds
from SANDAG member agencies.

MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas,
Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway,
San Diego, San Marcos, Santee, Solana Beach, Vista, and County of San Diego
ADVISORY/LIAISON MEMBERS: California Department of Transportation, U.S. Department of Defense,
and Tijuana/Baja California Norte



CITY OF SOLANA BEACH

635 SOUTH HIGHWAY 101 • SOLANA BEACH, CALIFORNIA 92075-2215 • (619) 755-2998

January 19, 1995

Kenneth D. Allen, Supervisor
Community Education
Children's Hospital and Health Center
3020 Children's Way
San Diego, California 92123-4282

Dear Mr. Allen:

Thank you for agreeing to assist the City of Solana Beach in providing a comprehensive bicycle safety program for our local schools.

A meeting has been scheduled to review the program's content and to provide an approximate date and time for each presentation. This meeting will take place on January 25, 1995 at 3:15 pm at the office of the Superintendent of Schools located at 309 North Rios Avenue in Solana Beach. Representatives from the City of Solana Beach, Earl Warren Junior High School and the Solana Beach School District will be in attendance.

Thank you for your time and your support. I look forward to meeting you and working with your staff. Please feel free to contact me at 755-3073 if you have any questions or comments pertaining to this request.

Very truly yours,

ANDREW M. O'LEARY, Director
Community Services Department

cc: Robert W. Semple City Manager
Dr. Bruce Givner, Superintendent
Steve Ludwiczak, Principal Solana Vista School
Kevin Riley, Principal Skyline School
Marilyn Pugh, Principal Earl Warren Junior High School
Chandra Collure, City Engineer
Pearl Smith, Recreation Supervisor

DEPARTMENT OF TRANSPORTATION

STATE AND LOCAL PROJECT DEVELOPMENT PROGRAM

1120 N STREET
P.O. BOX 942874, Mail Station 1
SACRAMENTO, CA 94274-0001
TDD (800) 735-2929
(916) 653-2750
FAX (916) 654-2409

February 1, 1996

Mr. Andrew O'Leary
Marine Safety Director
City of Solana Beach
111 South Sierra Avenue
Solana Beach, CA 92075

Dear Mr. O'Leary:

I am writing in response to your request for specific comments regarding the City's Bikeway Master Plan. As we discussed on Friday, January 19, Chapter 517 of the Statutes of 1993 (Senate Bill 1095), modified the Streets and Highways requirements for elements that need to be included in an approved Bicycle Transportation Plan.

I have reviewed the City's plan and offer the following comments. The plan addresses items b, c, d, e, f, h, i, and j adequately. Supplemental information will be necessary to satisfy the following requirements:

- a. The plan estimates the existing number of bicycle commuters; I am unable to find an estimate of the increase in bicycle commuters resulting from implementation of the plan.
- g. The plan discusses possible approaches to implementing safety and education programs. I am unable to find a description of the program currently underway.
- k. The plan discusses future needs. I am unable to find a discussion of past expenditures for bicycle facilities. How were the two existing bikeways and existing bicycle parking facilities funded?

I think the City's plan is excellent and will be in compliance with the current Bicycle Transportation Plan requirements of the Streets and Highways Code with the addition of supplemental information addressing a, g, and k, above. I hope this information is helpful. Please call me at (916) 653-2750 if you have questions.

Sincerely,

Original Signed by

KEN McGUIRE
Bicycle Facilities Unit
Office of Local Programs
Program Management

FAX (916) 653-2750

bcc: KMcGuire ✓
OLP Files - L: Bicycle Facilities

KM:dcj:jl

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"We'll Find a Way"