Final Report

Safety and Operational Analysis for Tiburon Schools

for the
Town of Tiburon

in Conjunction with the
Tiburon Peninsula Traffic Committee

June 2001
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June 28, 2001
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Introduction and Forward

In January, 2001 The Tiburon Peninsula Traffic Committee was formed as a cooperative and volunteer effort between St. Hilary School, the Reed Union School District, the Town of Tiburon and the Tiburon Police Department. The committee focused on the following four specific goals.

➤ Improve the safety for Tiburon’s children

➤ Improve the traffic flow on our streets – particularly around school neighborhoods

➤ Increase carpooling, walking and biking to all Tiburon schools

➤ Change driver behavior and attitudes to reflect the village we live in.

Transportation Committee Members

The Traffic Committee was co-chaired by Grace Livingston (Board of Trustees, Reed Schools), and Katie Vogelheim (St. Hilary School Board). There was enthusiastic participation from a cross-section of the community, including the following committee members.

Sub-committee Chairs
• Bill McLaughlin  St. Hilary sub-committee
• Sue Cawdrey  Reed School sub-committee
• Vicki Sodaro  Del Mar School sub-committee
• Heather Selick  Bel Aire School sub-committee

Reed Union School District
• Chris Carter  Superintendent, Reed School District
• Jeri Johnson  Business Mgr, Reed School District

St. Hilary Community
• Fr. James Tarantino  Pastor, St. Hilary Church
• Frank Buscher  Fire Chief Emeritus, Tiburon Fire Dep
• Theresa Canizzaro  Principal, St. Hilary School

Town of Tiburon
• Andrew Thompson  Mayor, Town of Tiburon
• Matt Odetto  Chief of Police, Town of Tiburon
• Alex McIntyre  Town Manager
• Scott Anderson  Planning Director, Town of Tiburon

Traffic Consultant
• Dalene Whitlock  Principal, Whitlock & Weinberger Transportation, Inc.

California Highway Patrol
• Devin Piazza  Public Affairs Officer
The Process

The committee met monthly from January to May culminating in the final presentation to the Tiburon Town Council on June 4, 2001. Sub-committees were formed for each school site and meetings were held with the following representatives of local Homeowners Associations.

- Ann Lacey Pilgrim Heights Homeowners Association
- David Eckland Del Mar Property Owners Association
- Ray Benton Del Mar Property Owners Association
- Sally Burns Hilarita Tenants Association
- Mary Ellen Wetlesen Mt. Tiburon Homeowners Association
- Virginia Brunini Bel Aire Improvements Association

Early in the process, the committee recommended the involvement of a Transportation Engineer to study traffic congestion along the Peninsula. Dalene Whitlock, from W-Trans, was hired through funding contributed by the Reed Union School District, St. Hilary, and the Town of Tiburon.

To determine the cause of traffic congestion and better understand which recommendations would work, the committee conducted programs and gathered data through several efforts, including the following.

➢ The Tiburon Boulevard Traffic Operations Study was completed in June 2001 by Kimley-Horn Associates under a grant from the Metropolitan Transportation Commission to the Town of Tiburon.

➢ The “Kids Safety Program,” sponsored by the Tiburon Police Department, was conducted from February to March, 2001. Police officers were stationed around all four school sites to evaluate and correct traffic behavior and raise awareness of safety issues.

➢ A School Transportation Survey was sent to all school parents to help the Committee understand all of the issues that prevent children from walking and biking to school.

➢ The “Safe Routes to School” Program and other community safety studies provided education materials for walking/biking programs.

From this data and ongoing discussions, the Transportation Committee decided to focus their attention and recommendations on the following areas.

➢ Tiburon Boulevard traffic flow and signal timing

➢ Bike and pedestrian safety

➢ Traffic around all four school neighborhoods (Reed, St. Hilary, Del Mar and Bel Aire)

➢ School Busing
Findings

There is very little growth in population projected for Marin County over the next 20 years, yet congestion is growing at twice the rate of population or employment. Why?

Congestion growth is caused by changes in our behavior. All of our households are taking more, and often shorter, trips per day. Most individuals rely on their auto for these short trips and not on any other form of transportation. Very few of us ever carpool, commute on the bus or ride a bike to run an errand.

Our roadways were designed to handle 6 trips per day per household, and we're currently averaging over 11 trips per day.

The perception that the schools are the sole cause of congestion is not reality. The fact is that 6 percent of all daily traffic is generated by school trips. Interestingly enough, on our peninsula only 15 percent of the households have school age children. So, during the morning commute typically only 15 to 20 percent of the traffic is related to kids being driven to school.

The other 80 to 85 percent of traffic is therefore generated by the greater community. In addition to taking extra trips, our households bring in ancillary traffic such as construction vehicles, Webvan, UPS, the cleaners, the gardener, the plumber, the piano teacher, and others. Between household trips and third party traffic, the congestion on our streets has doubled and shows no sign of stopping.

Peak periods are "spreading" creating congestion all day.

Marin is a "graying" county; by 2002, over 35 percent of our population will be over the age of 66. Retirees typically take more household trips per day than normal commuter types and these trips tend to spread the congestion throughout the day. Further, telecommuting and flexible job schedules are impacting the amount of traffic on our roads during the day. The fact that we have only one artery, Tiburon Boulevard, feeding all of our neighborhoods simply makes the congestion problem worse.

There are no easy solutions...
Issues and Concerns

Through the subcommittees at each of the school sites a number of issues and concerns were brought forth. Following are some of the primary issues identified for each of the school sites by their individual subcommittees; these issues formed the basis of the field review performed by the consultant. For ease of review, the information is provided in alphabetical order by the school names. Copies of the subcommittee notes with additional issues not included in this compilation are provided in Appendix A.

Bel Aire School Subcommittee

➢ There is no passenger loading zone for drop-off.

➢ Congestion is worse during the afternoon pick-up, with safety concerns aggravated by the ice-cream truck that encourages unsafe pedestrian activity.

➢ There is congestion at Tiburon Boulevard/Blackfield Drive due to conflicting streams of traffic, with delays occurring particularly in the left-turn lane on Blackfield Drive, and on Karen Way due to heavy use and parked cars.

➢ The bike path connecting the path along Tiburon Boulevard to the school is unsafe and needs maintenance, including trimming adjoining bushes.

➢ The school’s driveway is too narrow for two-way traffic.

➢ There is no supervision of drop-off and pick-up activities on Corte Palos Verde and Corte San Fernando.

➢ There is insufficient signage and more crosswalks are needed.

➢ There are not enough bus stops.

Del Mar School Subcommittee

➢ The drop-off on Hilary Drive is inefficient as parents often drop off on the wrong side of the road or make U-turns that create congestion.

➢ The intersection of Hilary Drive/Avenida Miraflores is unsafe due to the conflicting flows of traffic.

➢ Congestion exists at the intersection of Tiburon Boulevard/Avenida Miraflores and on Pine Terrace, and is worse in the afternoon than in the morning.

➢ The morning sun presents a visual hazard to drivers traveling uphill on Hilary Drive.

➢ Use of the Stewart Drive crosswalk should be discouraged.

➢ There is no easy access to the bike path for students traveling toward the northwest.
Reed School Subcommittee

➢ The pick-up and drop-off areas are very **congested**, with afternoon pick-up the more critical time period. Impacts extend to the intersection of Tiburon Boulevard/Lyford Drive, where the conflicting streams of traffic result in long queues.

➢ There is **insufficient parking** for staff and pick-up/drop-off activities, resulting in parked vehicles within the white zone, at the Child Care Center, and on the south side of Tiburon Boulevard.

➢ There are concerns about the **safety of the school bus staging area** on Tiburon Boulevard.

➢ **Pedestrian concerns** include the lack of sidewalks on Tiburon Boulevard, the mid-block crosswalk on Lyford Drive and vehicular conflicts with elderly pedestrians at Ned’s Way.

➢ **Inadequate sight distance** is available to see oncoming traffic on Lyford Drive from the driveway exiting the parking lot.

➢ Drivers making **U-turns on Lyford Drive** create congestion.

St. Hilary School Subcommittee

➢ Traffic **speeds are too high** on Hilary Drive and Rock Hill Drive.

➢ There are no **stop signs on Hawthorne Drive** at Rock Hill Drive.

➢ The **turn lanes** on Tiburon Boulevard at Rock Hill Drive are too short, and visibility is limited for vehicles turning onto Rock Hill Drive.

➢ The **school bus** cannot make the left-turn from Tiburon Boulevard to Rock Hill Drive when vehicles stop too close to the intersection.

➢ There are **no crosswalks or sidewalks** on Rock Hill Drive or Hilary Drive.

➢ Drivers sometimes make **U-turns on Rock Hill Drive** to proceed northwest from the tennis club.

➢ There is **no bike lane** up Rock Hill Drive to get the kids from the bike path up to school.
Existing Conditions

Study Area

While the need for circulation improvements extends far beyond the boundaries of the school sites, this study was focused on the streets in the immediate vicinity of the four schools as well as the signalized intersections on Tiburon Boulevard that provide access to the school sites. The Town of Tiburon was working concurrently on a project through the Metropolitan Transportation Commission (MTC) to achieve improved flow along Tiburon Boulevard, so the findings of that study were incorporated where appropriate.

The Bel Aire School is located on Karen Way, has students in the third to fifth grades, and operates from 8:10 a.m. to 2:40 p.m. except on Thursday, when dismissal is at 1:50 p.m. The Del Mar Middle School is located on Avenida Miraflores, educates sixth to eighth graders, and has bell times of 8:20 a.m. and 3:00 p.m. except on Thursday, when the afternoon bell is at 2:05 p.m. St. Hilary School is on Hilary Drive, has children from kindergarten through eighth grade, and operates from 8:20 a.m. to 3:15 p.m. The Reed School has children from kindergarten through second grade, is located on Tiburon Boulevard at Lyford Drive. Classes for first and second graders run from 8:20 a.m. to 2:30 p.m. except on Thursdays, when dismissal is at 1:30 p.m. Kindergarten classes run from 8:20 a.m. to 11:55 a.m. and 10:55 a.m. to 2:30 p.m.

The intersection of Tiburon Boulevard (S.R. 131)/Blackfield Drive serves as primary access to the Bel Aire School and is signalized with separate left-turn pockets and protected left-turn phasing on both Tiburon Boulevard approaches. There are two through lanes each direction on Tiburon Boulevard. The southbound Blackfield Drive approach has a right-turn lane and a shared through/left-turn lane. The northbound Greenwood Drive approach has a single lane. These minor street approaches operate under permitted left-turn phasing. Small islands separate the right-turning movements from through traffic, with unprotected crosswalks connecting the islands to the curb return. Yellow school crossings exist on both Tiburon Boulevard legs of the intersection and on the Blackfield Drive approach.

Tiburon Boulevard (S.R. 131)/Avenida Miraflores is signalized with protected left-turn phasing on the Tiburon Boulevard approaches and permitted phasing on Avenida Miraflores. There are left-turn pockets and one through lane each direction on Tiburon Boulevard, plus a short right-turn lane in the northbound direction. The eastbound Pine Terrace approach has a single lane, while Avenida Miraflores has a separate right-turn lane and a shared through/left-turn lane. There are crosswalks on all but the northwest approach of Tiburon Boulevard. The Del Mar Middle School is located on the northeast corner of the intersection.

The “tee” intersection of Tiburon Boulevard (S.R. 131)/Rock Hill Drive is signalized, with protected left-turn phasing on the Tiburon Boulevard approach. All three approaches have two lanes to serve each of the two movements available. There are crosswalks on the north and east legs of the intersection with pedestrian phases. It provides primary access to St. Hilary School.

Tiburon Boulevard (S.R. 131)/Lyford Drive is also a signalized “tee” intersection, with two lanes on each approach serving individual movements and protected left-turn phasing for Tiburon Boulevard. The right-turn lane from Tiburon Boulevard to Lyford Drive is only about 100 feet long, and parking is allowed on the northeast side of Tiburon Boulevard southwest of the right-turn pocket.
Crosswalks are marked and served by pedestrian phases on all three approaches to the intersection. Reed School is located on the northeast corner of the intersection.

**Intersection Level of Service Methodology**

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. The LOS designation is accompanied by a unit of measure which indicates a level of delay. Because intersections tend to have a more substantial impact on traffic operation than does the capacity of intervening road segments, operation at critical intersections is typically used to determine whether or not a roadway or circulation system is functioning acceptably. Level of service is helpful in assessing impacts on congestion resulting from changes in traffic patterns or system modifications. In this way improvement alternatives and impacts can be evaluated prior to taking action.

Each of the intersections was analyzed using the “signalized” methodology from the *Highway Capacity Manual*, Special Report 209, Third Edition Update, Transportation Research Board, 1997. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signals are coordinated, truck traffic, and pedestrian activity. Average approach delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. The ranges of delay associated with the various levels of service are indicated in the following table.

<table>
<thead>
<tr>
<th>LOS</th>
<th>Signalized Intersections</th>
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<tbody>
<tr>
<td>A</td>
<td>Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.</td>
</tr>
<tr>
<td>B</td>
<td>Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.</td>
</tr>
<tr>
<td>C</td>
<td>Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.</td>
</tr>
<tr>
<td>D</td>
<td>Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.</td>
</tr>
<tr>
<td>E</td>
<td>Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.</td>
</tr>
<tr>
<td>F</td>
<td>Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.</td>
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**Study Periods**

Two study periods were included in the evaluation. The morning peak period covers the period from 7:00 to 9:00 a.m. and typically includes trips associated with the home-to-work commute as well as students going to school. The midday peak evaluated was for the time period between 2:30 and 3:30 p.m., which was selected due to the high volume of traffic associated with students leaving the schools included in the study.
Operational Standards

The Circulation Element of the Town of Tiburon’s General Plan indicates that all of the study intersections shall operate at LOS C or better, but recognizes that Tiburon Boulevard (State Route 131) is controlled by the California Department of Transportation (Caltrans), so the Town has limited ability to implement improvements should operation fall below this level.

Existing Conditions at Study Intersections

Traffic counts were obtained for the four study intersections were obtained from work prepared previously for the Town of Tiburon. Based on the current volume of traffic using the various study intersections, it was determined that the study intersections are generally operating acceptably at LOS C or better during both peak periods evaluated, however, LOS D operation is being experienced at the Blackfield Drive intersection during the morning peak period and at Tiburon Boulevard/Avenida Miraflores during the mid-afternoon peak, which is below the Town’s adopted minimum standard. The study area is shown in Figure 1, and the Level of Service results are summarized in Table 1.

Table 1
Summary of Intersection Level of Service Calculations

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<th>Intersection</th>
<th>Existing Conditions</th>
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<tr>
<td></td>
<td>AM Peak</td>
<td>MD Peak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>1. Tiburon Blvd (SR 131)/Blackfield Drive</td>
<td>36.7</td>
<td>D</td>
<td>32.4</td>
</tr>
<tr>
<td>2. Tiburon Blvd (SR 131)/Avenida Miraflores</td>
<td>34.1</td>
<td>C</td>
<td>35.4</td>
</tr>
<tr>
<td>3. Tiburon Blvd (SR 131)/Rock Hill Drive</td>
<td>17.4</td>
<td>B</td>
<td>20.8</td>
</tr>
<tr>
<td>4. Tiburon Blvd (SR 131)/Lyford Drive</td>
<td>23.6</td>
<td>C</td>
<td>20.5</td>
</tr>
</tbody>
</table>

Notes: Delay = average delay in seconds per vehicle
        LOS = Level of Service

The calculations prepared also indicate the design queue length for the various approaches and turn pockets. Based on this analysis, it appears that queuing currently extends beyond the end of the marked turn pockets at a number of locations, including the right-turn pockets on Blackfield Drive, Avenida Miraflores, and Lyford Drive, and the left-turn pockets on Tiburon Boulevard at Avenida Miraflores, Rock Hill Drive and Lyford Drive.

While the intersections are generally operating within acceptable parameters, the results of the operational evaluation indicate that there may be issues relative to queuing and delay that could be addressed to provide improved circulation.

Field Observations

Traffic conditions around each of the four schools were observed during both study periods on
Figure 1
Safety and Operational Analysis for Tiburon Schools

City of Tiburon

Whitlock & Weinberger Transportation Inc.
various dates, including February 28, March 15, April 3, and April 13, 2001. The morning observations were performed by the consultant's project manager and the afternoon observations were made by the project engineer. During this field reconnaissance, the following observations were made. As with information previously reported, these observations are provided by school in alphabetical order.

**Bel Aire School**

➤ The efforts undertaken by the staff at this school show impressive results. Both the drop-off and pick-up were generally orderly, with adult supervision in areas where it is most needed.

➤ The school bus unloads and loads in front of the school on Karen Way in the morning, and up in the parking lot in the afternoon.

➤ There is an adult crossing guard at the crosswalk on Karen Way at the site's driveway. After a certain period in the afternoon, any children that have not been picked up were walked back up to the school to wait to be picked up.

➤ Vehicles queued up from the driveway on Karen Way to and along Leland Way.

➤ Teachers or staff arriving within the last few minutes before school started created congestion by turning in front of oncoming traffic.

➤ Pick-ups on the cul-de-sacs appeared to be working well, with minimal impact to the surrounding neighbors. None of the parked vehicles observed blocked any driveways.

➤ Loading and unloading occurs on both the north and south sides of Karen Way.

➤ Pedestrian crossings at Tiburon Boulevard/Blackfield Drive are hampered by the unprotected crossings between the curb returns and the “pork chop” islands.

**Del Mar School**

➤ Vehicles were observed queuing up two and even three abreast on Avenida Miraflures to wait for children to exit the school. Some drivers were observed parking in front of private driveways.

➤ There is a red zone westerly of the school’s driveway, but it was not clear why this area is not being used for parking.

➤ The parking lot on-site is limited to use by staff.

➤ The adult supervising crossings at Felipa Court on Avenida Miraflures was useful in terms of establishing oversight and assisting children.

➤ The available parking spaces near Tiburon Boulevard on westbound Avenida Miraflures were not being utilized, perhaps because the congestion at the intersection resulted in drivers being blocked into those spaces.
> Although there was a fair amount of congestion associated with pick-up activities, it both came on and dissipated rapidly, with most drivers appearing to take it in stride as a natural part of the heavy peaking associated with schools.

> Loading and unloading activities on Hilary Drive are greatly impacted when there are parked vehicles on the south side along the school's frontage.

**Reed School**

> The site is served by a one-way loop entering from Ned's Way, past the Police Department and Public Works yard and into the parking lot.

> There is a long stretch of curb along the northerly side of the site where drivers can wait to pick up children in the afternoon. This area was completely full and drivers were observed violating the red curbed zone on Lyford Drive.

> Some children are being picked up from the parking areas out on Tiburon Boulevard southeast of Lyford Drive.

> There is a “one-way” sign on the north side of the driveway to Lyford Drive that limits sight distance.

> Drivers were observed turning left from Tiburon Boulevard then into the loading zone loop. This maneuver at one point caused a queue of traffic to extend back through the intersection and into the left-turn pocket on Tiburon Boulevard.

> The curb between the outbound driveway from the parking lot and inbound driveway to the loop loading zone is painted yellow. This marking is not consistent with the use.

> Bus unloading and loading occur on Tiburon Boulevard.

**St. Hilary School**

> An adult was posted at the corner of Rock Hill Drive/Hilary Drive observing traffic. This provided a level of “peer pressure” for drivers to be courteous and safe.

> There is sufficient space on-site for drivers to park and wait to pick up children.

> There are no sidewalks or other pedestrian facilities on Rock Hill Drive or Hilary Drive.

> There was occasional congestion at Rock Hill Drive/Hilary Drive as motorists attempted to cross Rock Hill Drive and continue southeast toward the school.

> Traffic waiting to turn left occasionally queues up beyond the end of the left-turn pocket.

> In general, the circulation system for the school works well with loading and unloading occurring entirely on the school's property.
Student and Parent Surveys

Additional data regarding travel patterns to the various schools was obtained through surveys of both students and parents. The student survey was performed by teachers asking the students how they got to school and would return home. Surveys were also sent home for parent responses on the same issues.

Thirty years ago two thirds of all children in America walked or biked to school; today, it is estimated that 80 percent of the students in Marin County arrive at school (in good weather) by car. Compared to Mill Valley we have about the same number of children driven to school, but fewer children walk and bicycle. This difference appears to be due to the terrain and the fact that our schools are spread along the peninsula with Kindergarten through Second Grade at one school, Third to Fifth Grades at another and Sixth to Eight Grades at the third, thereby increasing the distance students must walk or bike.

Student Survey Results

The student surveys were performed over five school days (April 2-6, 2000). About 1,050 students were surveyed on most days, although field trips resulted in lower counts on a couple of the days. The weather varied from rainy to warm and sunny during that week, however, the results did not seem to indicate that patterns changed as a result of different weather. The results of the student surveys indicate during the week of the survey almost one-third of the students arrived in a carpool, with less than 50 percent traveling in a private vehicle, but not a carpool. Less than 10 percent of the students either walked or rode their bicycles to school, and about 15 percent traveled by bus in one or both directions.

Parent Survey Results

The 252 responses received from parents of students in the Reed Union School District and 147 at St. Hilary School were tabulated as follows. All of the Reed Union School District surveys were combined into a single category, while St. Hilary School responses were tabulated separately due to the difference in the area from which these students are drawn. Overall averages for all four of the schools were also tabulated for each of the surveys.

> Almost two-thirds of parents that responded are concerned about the safety of their children either walking or bicycling to school. This concern was stated as the primary reason for driving children to school by 37.5 percent of the respondents.

> More than 58 percent of the children in the families that responded are driven to school as their primary mode of travel. Less than 15 percent of the parents indicated that their children are typically part of a carpool, while slightly more than 15 percent of children travel by bus. About 7 percent of children walk to school and 3 percent ride their bicycles.

> More than half the families responding to the survey have only one child in school, and less than 10 percent have three or more.

> Nearly 60 percent of the children going to these four schools in Tiburon live more than two miles from the school, with nearly 84 percent living more than one mile from their school.
The ratio is even higher for St. Hilary School, where almost 72 percent of the families live more than two miles away, and more than 91 percent are more than a mile from the school. As a result, less than 15 percent of the students at the three public schools and less than 5 percent of St. Hilary School students walk or bicycle to school.

It is interesting to note that the parent surveys, which reflected typical patterns, indicate a much higher dependence on non-carpool vehicle trips than the student surveys. This may be due to the categorization of trips as “carpool” trips if a sibling was also being taken to the same school or even a different school by students, but not by parents.

The survey results indicate that passenger vehicles are the most widely used means of transportation, but most families are not carpooling. It should be noted that this survey occurred near the end of the school year, when families would have had sufficient time to organize carpools if they were planning to do so. It can also be concluded that the number of children bicycling or walking to school would increase if safer facilities were available, however, given the distance from the school to many of the students’ homes, even with improved facilities many of these children are still going to be driven to school. This is particularly true for the younger children going to Reed School. There is still substantial potential for reducing the number of vehicle trips at each of the schools if carpools can be established by more families. Further data regarding the survey results is provided in Appendix B.

**Parent Survey Comments**

It important to relay some insight into the obstacles we face as we try to decrease the number of cars circling our schools every day. Here are some snapshots into the mind set of the parents who completed our surveys. Concerns about safety were expressed for nearly every street and intersection in the town of Tiburon.

- “Kaiser Permanente does not recommend that children under nine cross or bike through intersections unaccompanied by an adult.”

- “Until I see speed under control and drivers’ judgment improved, my child will not be allowed to get to school on her own.”

- “If the vast majority of residents also do not use public transit or carpool to work or shopping areas.... Why ask the children?”

- Most Children must cross Tiburon Boulevard two times; once to get to the bike path and again to get to the school. The feeling is that crossing Tiburon Boulevard just about anywhere is not safe. “There are no crosswalks nor crossing guards at many crosswalks.” “Tiburon Boulevard traffic does not yield to pedestrians.” “Crossing Stewart is suicidal.” “Drivers drive too fast, run red lights and are too busy on the cell phone.”

- Other street concerns are steep hills, narrow streets and no sidewalks or safe bike paths. “My child cannot ride or even walk up the steep hills.”

- There is no safe walking or bike route from Corte Madera or anywhere along Paradise Drive.
> Children live too far from the schools and are too young to travel without an adult.

> Backpacks are too heavy. "I meet my son and get his backpack before he bikes home from school."

> As regards carpoole; "They are more trouble than they are worth, people are not always dependable." "There is no way to screen potential carpool drivers to see if they are safe drivers." "I don't want to be responsible for other children." "With after school activities, carpooling is too difficult to coordinate."

> Why people like driving their own child. "Talking on the way to school is a very important time together and I would not give it up." "If I did not drive them, I would call the school every day to be sure that they arrived safely." "It is more convenient to drive them on my way to work, then I just keep going."

While there were a number of concerns raised by parents, 39 percent stated they would be willing to try carpooling, walking or bus programs if such programs were available and 17 percent would allow their children to walk or bike to school if the bike system was improved.
Considerations for Increased Busing to Public Schools

The good news is that our community has a very high percentage of children traveling by bus, with 16 percent compared to 1 to 2 percent in other Marin communities. But there are still problems with busing along our peninsula as reflected in these parent comments.

> “The bus costs too much, there is no flexibility, the buses don’t drive through the neighborhoods.”

> “If I have to drive my kids to the bus stop then I might just as well keep going all the way to school because it is convenient.”

Children who ride the buses to Reed Schools pay $357.00 per year for each student’s round trip, or roughly $2.00 per day. The buses are running at capacity with 250 trips a day, but still run at a financial loss for the schools. Most districts in Marin County have eliminated busing altogether, so Reed School District is one of the few that still offers yellow school buses.

After examining busing alternatives for our school children, the committee could not come up with a solution to increase school busing. While there are many reasons, the following are the most critical.

> Bus drivers appear to be a vanishing breed.

> Transporting all of the children on a “free” bus would cost $500,000 per year. This “free” busing would bankrupt the Reed Union School District (RUSD). The state allots RUSD approximately $20,000 a year for all busing needs, including special education transportation. Special Education transportation alone costs more than the entire state transportation allotment.

While there are no immediate opportunities to vastly increase school busing, other busing opportunities may exist and merit follow up. One such opportunity is teaming with Mill Valley to provide a shuttle bus service from the ferry terminal in Tiburon past the community center in Mill Valley and into downtown Mill Valley. Golden Gate Transit, the system St. Hilary School uses, may also be able to provide additional buses and routes to better serve our students and their families.
Recommendations

After completing the field observations and reviewing the notes from the sub-committees and survey results, a number of preliminary ideas and alternatives were developed by the consultant for further consideration. A full listing of these concepts, as presented to the Committee on April 26, are provided in Appendix C. As a result of the Committee's discussion, the list was pared down to a series of measures that would address the goals of the project.

Based on an analysis of those measures that have results that can be quantified and with regard to those that are more qualitative in nature, the following series of recommendations was developed. In order to prioritize the recommendations, consideration was given to the potential for improving safety and circulation, and the time needed to implement the action (immediately, in the near term, or long range), including potential cost and availability of funding for the improvement. The relative priority of individual measures and potential time frame for implementation are indicated in parentheses at the end of the description.

These recommendations were presented at a public meeting on June 4, 2001, and revised to reflect input at that meeting. A copy of the slides used to present the recommendations as well as public comments from the meeting are provided in Appendix D.

Areawide Circulation and Safety Improvements

1. **Improve traffic flow on Tiburon Boulevard.** Through its “Traffic Engineering Technical Assistance Program” (TETAP) project with the MTC, the Town is working toward implementing timing that will improve flow along Tiburon Boulevard. This study further recommends capacity enhancements to improve traffic flow. In addition to the measures identified in the corridor operations study, the following measures are recommended to increase capacity and improve operation at the four signalized intersections that provide access to the four school sites. (High priority, short range)

   A. **Modify the timing at Tiburon Boulevard/Blackfield Drive** to allow additional time for traffic exiting Blackfield Drive during peak periods for school traffic. This improvement could be made as part of the timing project being performed for the Town. (Medium priority, short range)

   B. **Implement a right-turn overlap at Tiburon Boulevard/Avenida Miraflores.** By operating the right-turn onto Tiburon Boulevard simultaneously with the left-turn onto Avenida Miraflores, average delays at the intersection could be reduced by about 10 seconds during both the morning and midday peak periods. This measure is particularly important before and after school when there are children crossing as this limits the green time available for right-turns. The right-turn overlap will provide additional green time for these right-turns without reducing the time available for through traffic on Tiburon Boulevard. (High priority, short range)

   C. **Increase green time for the southbound left-turn and provide a right-turn overlap phase at Tiburon Boulevard/Rock Hill Drive.** More efficient use of the signal phasing would reduce average delays by approximately 5 seconds during both the morning and midday peak periods. Improving signal operation for the southbound left-turn is
particularly important at this location because the 150-foot left-turn pocket is too short to accommodate the volume of traffic entering it, and it cannot be lengthened due to the close proximity between this intersection and the entrance to the Belvedere Tennis Club. (High priority, short range)

D. **Implement a right-turn overlap phase at Tiburon Boulevard/Lyford Drive.** A right-turn overlap at this locations would be expected to reduce average delays at the intersection by about 5 to 8 seconds during the morning and mid-afternoon peak periods. This will also reduce queuing so that the existing right-turn lane can better accommodate the volume of traffic using it. (Medium priority, short range)

E. **Extend the left-turn pocket on southbound Tiburon Boulevard at Avenida Miraflores.** The design queue is currently about ten vehicles during the afternoon peak period, which cannot be accommodated in the existing 150-foot left-turn pocket. It is recommended that the length of the turn pocket be increased to at least 200 feet, with 250 feet being the preferred design length. (Medium priority, short to long range)

F. **Extend the left-turn pocket on southbound Tiburon Boulevard at Lyford Drive.** The design queue is currently about nine vehicles during the morning peak period, which cannot be accommodated in the existing 150-foot left-turn pocket. It is recommended that the length of the turn pocket be increased to at least 200 feet. (Medium priority, short to long range)

G. **Provide a right-turn lane from northbound Tiburon Boulevard to Blackfield Drive.** Although the shoulder is widened on this approach, there is only a very short right-turn lane. With a volume of more than 250 right-turns during the morning peak hour, addition of a right-turn lane would be expected to reduce average delays by more than 10 seconds. It should be noted that the existing configuration includes “pork chop” islands connected to the curb returns by unprotected crosswalks. Because this results in poor safety conditions for pedestrians, it is recommended that the curb return be modified to include a smaller radius for slower turning speeds and a shorter crossing distance, with the poles moved to the curb return, the islands removed, and the crosswalks relocated to be better visible and protected by the traffic signal. (Low priority, long range)

2. **Increase use of carpools, walking and bicycling to school.** One means of increasing carpooling is by providing a means for families that are ideally located to meet. This concept can be further supported by providing dedicated loading zones or parking spaces for use by carpoolers only. Walking could be supported through concepts such as the “walking bus” where an adult accompanies a group of children. A similar concept could be applied to bicycling to school. These measure have substantial potential for significantly reducing the congestion around all of the school sites, and the associated physical improvements are minor. This is just one of several recommendations aimed at changing the behavior of the people using the system rather than trying to change the system to accommodate the behavior. (High priority, immediate to short range)

3. **Continue enforcement.** The Tiburon and Belvedere Police Departments have been providing enforcement near the schools, however, additional enforcement is needed in the areas of parking restrictions and turning movements. If the circulation schemes developed for each
school are to work properly, drivers MUST follow the parking and turn restrictions, which will likely require enforcement of any new restrictions. The Town may even wish to pursue use of community service time as a penalty for violations rather than paying fines in order to further educate drivers regarding the consequences of their actions. (High priority, ongoing)

4. *Institute a public awareness campaign* promoting the concept that everyone needs to do their part to manage congestion and improve traffic circulation. Beyond the physical improvements that can be made by the Town and school, residents should be encouraged to adopt an attitude of cooperation and courtesy. Some of the goals of this campaign will include notifying drivers that children will be present, promoting courteous driving behavior, use of carpools, increased pedestrian and bicycle access, responsible and legal bicycle use, and travel during off-peak times when possible. Copies of materials used in similar campaigns in other areas are provided in Appendix E. (High priority, immediate, then ongoing)

5. *Improve bicycle facilities and connections to the bike trail*. In order for parents to feel comfortable allowing their children to ride to school, better facilities are needed connecting some of the neighborhoods to the schools and the bike trail, as follows. (High priority, immediate to long range)

   A. **Pave the bike trail section connecting Karen Way to Claire Circle.** This segment currently has grass that the adjacent property owners must maintain. A paved surface would be easier to maintain.

   B. **Provide a connection through the Cove Shopping Center.** There is a path from Cecilia Way to the back side of the Cove Shopping Center, but there is not a good way to get through the Center and out to the signal at Blackfield Drive. If a connection to Tiburon Boulevard could be made near the nursery and a path installed along the northerly side of Tiburon Boulevard, parents may be more likely to allow their children to bicycle to school from the Strawberry area.

   C. **Provide bike lanes or routes on Blackfield Drive** to connect local neighborhoods to the school either via Karen Way or the cul-de-sac access points.

   D. **Provide a paved connection from Avenida Miraflores to the bike path.** Constant use has created a worn pathway behind the barriers along the southwest side of Tiburon Boulevard, however, this path needs to be paved.

6. **Replace school crossing signs with bright new signs and trim vegetation.** Signs with the bright yellow green sheeting should be installed just before school starts in the fall to replace all of the existing school crossing signs and supplement existing signing where needed. Trees and bushes should be trimmed as necessary to ensure that the new signs are not covered. (High priority, short range)

7. **Train crossing guards** to improve efficiency at signalized intersections. A manual should be prepared with specific information for each school site as well as general guidelines for providing an effective crossing guard program. Consideration could also be given to training parent or senior citizen volunteers for deployment at minor locations to supplement the crossing guards as primary locations. (Medium priority, short range then ongoing)
8. **Consider additional busing.** The need for additional busing should be included in the considerations for the school district’s next fiscal year. As discussed in a preceding section, this item has a substantial fiscal impact, so while there are insufficient funds in the budget for the 2001-2002 school year, further consideration of increasing the busing should be addressed as the 2002-2003 budget is prepared.

**Bel Aire School**

1. **Provide a dedicated passenger loading zone and covered waiting area.** The loading zone will need to be of sufficient length to accommodate both passenger vehicles and buses, or separate loading zones could be provided for each use. Consideration was given to a number of alternatives for achieving this goal, however, further research will need to be completed before the viability of any of the alternatives can be determined and a preferred alternative selected. (High priority, short to long range)

2. **Widen the school’s driveway** to accommodate two-way traffic. This is one of the measures that affects the school’s ability to develop formal loading/unloading zone, and would allow relocation of at least a portion of these activities from Karen Way to the curb along the front of the school. (High priority, short to long range)

3. With a dedicated passenger loading zone in place, it would be easier to **specify Cecilia Way-Leland Way as the preferred route to access the loading zone.** By placing all vehicles in the same pattern it would be easier to control vehicle activity at the loading zone. While the school can easily undertake the notification aspect of this action through its normal communication with parents, the Town may need to place signs prohibiting U-turns and enforce the restriction to attain compliance. A graphic showing the preferred route is provided in Figure 2. (High priority, immediate upon designation of a passenger loading zone)

4. To address the immediate need for adequate passenger loading areas, **use of the cul-de-sacs for drop-off and pick-up (Corte Palos Verde and Corte San Fernando) should continue.** Drivers should be reminded to park legally AT ALL TIMES and students should be given adequate instruction regarding safe walking. Consideration could also be given to having adult volunteers monitor activity and remind drivers and students of the need for safe habits. (Medium priority, immediate)

5. **Encourage the ice cream truck driver to move his operation away from the school.** This action would be expected to have a substantial positive impact on safety as there are inherent concerns with combining pedestrians in the street with congested vehicular traffic. (High priority, immediate)

**Del Mar School**

See Figure 3 for a graphic representation of the following recommendations.

1. **Create a passenger loading zone along the school’s frontage on Hilary Drive** through appropriate signing and markings, including white curb and signs prohibiting parking during school days. An additional staircase will be needed connecting the school to the loading zone.
Figure 3
Del Mar School Circulation Concept Plan
Safety and Operational Analysis for Tiburon Schools
City of Tiburon

W-TRANS
Whitlock & Weinberger Transportation Inc.
Vehicular access to the loading zone from the east could be improved by widening Hilary Drive slightly on the south side of the Howard Drive intersection to allow more room for westbound vehicles to make a U-turn. By increasing use of the school’s frontage on Hilary Drive for passenger loading, the congestion on Avenida Mirafloros should be reduced and the gridlock that occasionally occurs eliminated. (High priority, immediate)

Although concerns have been expressed regarding the safety of making U-turns at Howard Drive due to limited sight distance, because of the all-way stop controls at this location this should not be a problem. All drivers must stop before entering the intersection, so would have adequate time to react to other vehicles as well as pedestrians. Use of the Rowley Circle route instead of making U-turns at Howard Drive has been suggested as an alternative, and this may be a viable option if drivers can be trained to travel the short extra distance required to make this route.

2. **Modify the parking restrictions on Avenida Mirafloros** to provide a loading zone immediately south of the school’s driveway and diagonal parking between the loading zone and Tiburon Boulevard. With a curb-to-curb width of 30 feet, there is adequate width to mark 45-degree parking stalls and still maintain a 14-foot travel lane for through traffic. The diagonal parking increases the parking supply to offset any lost on Hilary Drive to create the loading zone, and would be a benefit on weekends when the fields are used for sporting events. The area available to drivers waiting to pick up children would be substantially increased by creation of a loading zone on Hilary Drive, so it is anticipated that these spaces would be used predominantly by teachers, staff or visitors to the school. It is therefore expected that there would not be a conflict between the stream of traffic leaving the school after picking up children and vehicles backing out of these diagonal spaces. (Medium priority, immediate to short range)

3. **Install a stop sign on northbound Avenida Mirafloros and direct pedestrian traffic to the protected crosswalk at this intersection.** The existing three-way stop is irregular, so creates confusion for drivers who are unfamiliar with the area. As part of the overall circulation scheme, it is intended that all passenger loading would occur along the school’s frontage, so only those students walking or bicycling would need to cross Avenida Mirafloros, and with the exception of residents of Felipa Court or this section of Avenida Mirafloros, the crosswalk at Hilary Drive is as convenient as any other location. To emphasize the school crossing at Hilary Drive, the crosswalks at and south of Felipa Court should be removed. This measure would have the further benefit in the morning of stopping drivers that have the sun in their eyes, so may not see other drivers or pedestrians, which has been noted as a concern by the site’s sub-committee. (Medium priority, immediate to short range)

**Reed School**

The concept plan indicated in the following recommendations is shown in Figure 4.

1. **Restrict movements at the loop loading zone on Lyford Drive to right-turns in and out and prohibit parking.** Left-turns inbound should be prohibited and outbound movements limited to turning right onto Tiburon Boulevard. Drivers turning left into this loading zone were observed blocking other vehicles and movements, resulting in queues extending through the signalized intersection and causing delay for dozens of other motorists. Similarly, drivers exiting the loading zone and attempting to turn left on Tiburon Boulevard blocked right-turning traffic
so that drivers could not take advantage of breaks in traffic and turn right on red, which significantly reduces the capacity of the intersection, and created longer delays for vehicles behind them in the loading zone. The loop is only wide enough for two lanes of traffic, so parked vehicles eliminate the potential for a vehicle at the rear of the loop to exit until all the vehicles preceding it have done so. (High priority, immediate)

2. **Install sidewalks on Lyford Drive and create a loading zone along this frontage.** Although the school has a long section of frontage on Lyford Drive, there are currently no sidewalks which would allow use of this street for passenger loading. Sidewalks should be installed to provide a continuous pathway from Tiburon Boulevard to north of the driveway exiting the parking area. The area between the two northerly driveways (the exit from the parking lot and the entrance to the loop loading zone) could then be designated for passenger loading to increase the available area and reduce congestion. Drivers coming from Tiburon Boulevard could perform a U-turn at Round Hill Road; this intersection has stop signs on all but the uphill approach and is very wide, so has adequate room for this maneuver. Additional measures necessary to achieve this loading zone include prohibiting parking on the southeast side of Lyford Drive, relocation of the centerline toward that side to provide more room on the downhill side for passenger loading activities and a through travel lane, and construction of a staircase and pathway connecting the loading zone directly to the school grounds. Upon eliminating the parking on the uphill side of Lyford Drive, there would no longer be a need for the crosswalk near the loop loading zone, so it should be removed. (High priority, short range)

3. **Provide a pedestrian path and covered waiting area for bus riders.** Children riding the bus must currently traverse the sidewalk along Lyford Drive and Tiburon Boulevard between the bus stop and school grounds. Construction of a direct connection between the school grounds and the bus stop and a covered waiting area would substantially enhance safety and comfort for these children. (Medium priority, short to long range)

4. **Provide ingress to the rear parking area from Lyford Drive.** Reed School is currently working on plans for the long-range goals at the site. These plans should include construction of either a new driveway or widening of the existing driveway and parking area improvements to allow two-way traffic and circulation into and out of the site from Lyford Drive. If a new exit driveway were to be constructed, it should be designed to achieve sufficient sight distance for drivers entering Lyford Drive. (Medium priority, long range)

**St. Hilary School**

Figure 5 indicates the concept embodied by the following recommendations.

1. **Provide dedicated facilities for pedestrians/bicyclists connecting the school with Tiburon Boulevard.** This can be accomplished by installing a sidewalk on the westerly side of Rock Hill Drive between Hawthorne Drive and Hilary Drive and marking a pedestrian/bicycle lane on the easterly side of Rock Hill Drive from Hilary Drive to and up the school’s exit driveway. The path could be divided from the travelway by an asphalt berm between Hilary Drive and the school grounds. This route would utilize existing sidewalk and crosswalks from Hawthorne Drive to Tiburon Boulevard. Crosswalks should be marked on the westerly side of Rock Hill at Hawthorne Drive and Hilary Drive and across Rock Hill Drive on the northerly side of Hilary Drive. (High priority, immediate to short range)
2. **Install stop controls on Hawthorne Drive at Rock Hill Drive** including limit lines or crosswalks and STOP legends. Further, the intersection could be marked “KEEP CLEAR” to minimize the incidence of queued traffic blocking access to Hawthorne Drive. Finally, U-turns should be prohibited at this intersection because of its close proximity to the signalized intersection at Tiburon Boulevard. (Medium priority, short range)

3. **Stop traffic on southbound Rock Hill Drive (downhill) at Hilary Drive.** Although 3-way stop controls are not typically desirable, there is a precedence for this type of application in the Town of Tiburon (Avenida Miraflores at Hilary Drive, Lyford Drive at Round Hill Drive), and the stop control is desirable to protect the pedestrian crossing recommended for the north leg of this intersection. As an alternative, the Town could make use of a temporary stop sign placed on the centerline before and after school or use a crossing guard. (Medium priority, short range)

4. **Replace the striping on Rock Hill Drive** with raised pavement markers. It may be necessary to relocate the centerline between Hawthorne Drive and Hilary Drive to accommodate the sidewalk recommended for the west side of the roadway. (Low priority, short to long range)
Summary

We have obstacles ahead of us as we try to decrease traffic congestion in Tiburon and around our schools. Perhaps the hardest task we face is changing people’s behavior. The work done by the Committee to develop the following action plan can provide the catalyst needed to accomplish these changes, however.

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<th>Recommendation</th>
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<td>Fall 1 yr 2+ yrs</td>
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<td><strong>Area-wide Circulation</strong></td>
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<tr>
<td>Improve traffic flow on Tiburon Boulevard.</td>
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<td>Increase use of carpool's, walking and biking.</td>
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<td>Continue Police enforcement.</td>
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<td>Implement a Public Awareness campaign.</td>
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<td>Replace school crossing signs.</td>
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<td>Train crossing guards.</td>
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<td><strong>Pedestrians and Bicyclists</strong></td>
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<td>Provide path to St. Hillary on Rock Hill</td>
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<td>Pave trail from Karen to Claire</td>
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<td>Provide path through Cove Shopping Center</td>
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<td>Provide bike lanes on Blackfield</td>
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<td><strong>Bel Aire School</strong></td>
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<td>Provide a passenger loading zone</td>
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<td>Widen the school’s driveway</td>
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<td>Emphasize the preferred circulation route</td>
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<td>Continue use of cul-de-sacs</td>
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<td>Relocate the ice cream truck operation</td>
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<td><strong>Del Mar School</strong></td>
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<tr>
<td>Create passenger loading zone on Hilary</td>
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<td>Modify parking on Avenida Miraflorres</td>
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<td>Install stop sign on Avenida Miraflorres</td>
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<td>Reed School</td>
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<td>Restrict movements at the loop loading zone</td>
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<td>Install sidewalks on Lyford</td>
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<td>Provide a pedestrian path to the bus stop</td>
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<td>Replace striping on Rock Hill</td>
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Finally, it is important to realize that in order to make a difference, everyone must do their part. In the new school year:

- The **schools** will emphasize carpooling and will organize walk and bike pools to try and get children out of cars.

- The **Town** will provide dedicated resources from the staff and the Police Department to implement the recommendations presented and work to reduce traffic congestion on a long term basis.

- A public awareness campaign will be launched to educate and encourage community involvement

To maintain the village environment that makes Tiburon a unique place, all of us will need to become more aware of our driving habits, and work together to implement change.
Participants and References

Committee Contributors

Introduction, Forward and Summary: Katie Vogelheim
Parent Survey and School Busing Notes: Grace Livingston

Consultant Participants

Project Manager: Dalene J. Whitlock, P.E., P.T.O.E.
Project Engineer: Allan G. Tilton, P.E.

References

TIBURON PENINSULA TRAFFIC COMMITTEE
BEL AIRE SUB-COMMITTEE COMMENTS MAY 14, 2001

KAREN WAY CONGESTION
1. Create 1 or 2 loading zones near the base of Driveway (white zone specific M-F hours only)
2. Encourage parents to use either of 2 prescribed routes through the neighborhood in the afternoon with 2 designated loading zones (white zones specific M-F hours only)
   - Blackfield Drive- Cecilia Way-Leland Way- Karen Way- Blackfield Drive
3. Add a yellow crosswalk across the school driveway
4. Encourage ice cream truck to move from Claire Way
5. Create a covered paved waiting area at the base of the school driveway

CORTE PALOS VERDE AND CORTE SAN FERNANDO
1. Organize parent volunteers to provide adult supervision on these alternate pick up points
2. Organize Parent volunteers to man the crosswalk near Blackfield and Corte San Fernando
3. Add School (or Ped) Xing signs at the cobblestoned crosswalk near Blackfield/Corte San Fernando. Add yellow striping to this crosswalk.
4. Trim foliage for sight line of children exiting the pedestrian way on Corte Palos Verde
5. Paint Curb Red at end of pedestrian walkway onto the cul de sacs
6. Add ped Xing sign at intersection of pedestrian walkway into the cul de sacs

INTERSECTION OF BLACKFIELD DRIVE AND TIBURON BOULEVARD
1. Work with Caltrans to adjust timing of traffic signal at peak time for school traffic

BUSES
1. Optimize bus routes with more stops

BIKEPATH
1. Install bike stop signs (for bikers) at intersections of Cecilia Way, Claire Way and Karen Way
2. Cecilia Way Crosswalk- Trim foliage for greater visibility of bikers and motorists
3. Claire Way Crosswalk- Install yellow crosswalk in street and bicycle Xing signs
4. Bike Path Claire Way to Karen Way- Pave this section it is currently grass
5. Cove Shopping Center- Create a marked bike path through the shopping center
6. Greenwood Cove Road- Install bike path lane entire length to Blackies Pasture

GENERAL IMPROVEMENT
1. Facilitate carpooling with the help of the PTA
2. Integrate walk/ bike to school days with increasing frequency
3. Encourage staggered pick-ups within the 15 minute pick-up window
4. Replace school zone signage with new signs using bright yellow-green background
5. Create a handbook for parents educating them on acceptable do’s and don’ts in this neighborhood
   - Ex. Respect our neighbors, don’t park in driveways, follow prescribed routes,
6. Create a handbook for students
   - Ex. Use crosswalks, never cross without looking, don’t exit your car on the traffic side, respect neighbors’ property
TIBURON PENINSULA TRAFFIC COMMITTEE
DEL MAR SUB-COMMITTEE COMMENTS MAY 17, 2001

INTERSECTION OF AVENIDA MIRAFLORES AND TIBURON BOULEVARD
1. Optimize flow of traffic through this intersection.
   a. Work with Caltrans to optimize traffic signals at Avenida Miraflores by evaluating on
demand timing during school peak traffic.
   b. Implement a Right turn overlap phase
   c. Extend Eastbound Tiburon Boulevard “Left Turn Pocket” from Tiburon Boulevard to
Avenida Miraflores to allow more space for vehicle stacking.
   d. Educate crossing guards and students about pedestrian phase interruption of light timing.

AVENIDA MIRAFLORES- TIBURON BOULEVARD TO HILARY DRIVE
1. Create more parking on Avenida Miraflores for staff and visitors
   a. Remove the existing red curb from south of the school driveway to past the mail box.
   b. Paint, white, parallel parking spaces along curb to red zone just prior to Tiburon Boulevard
2. Place new “School Crossing Signs” (bright, yellow/green) near the three crosswalks
3. Eliminate the suggestion to “Convert existing parallel parking spaces to diagonal parking spaces.
4. Eliminate suggestion to “Eliminate the crosswalks on Avenida Miraflores at Hilary Drive and
   south of Felipa Court in order to emphasize the crossing at Felipa Court.

HILARY DRIVE- HOWARD DRIVE TO AVENIDA MIRAFLORES
1. At the intersection of Avenida Miraflores and Hilary drive place “3 Way Stop” signs indicating
   that uphill Avenida Miraflores traffic does not stop. Place on east and west sides of Hilary Drive.
2. Parking closer to Avenida Miraflores
   a. Encourage staff to park on school side of street from the corner of Avenida Miraflores to
   the crosswalk at Rowley. Paint white parking markers.
   b. Add a staircase down to the school from this area to facilitate ease of access
3. Create a Loading Zone on Hilary Drive
   a. Paint the curb yellow on the school side of Hilary Drive from the crosswalk at Rowley
   Circle to just past the utility box on the West side of the stairs. (Approximately 150 feet).
   b. Signage for school drop off and pick only on school days specific times only
4. Staff parking near Howard Drive
   a. Paint white parking markers on Hilary Drive on the school side of the street from the west
   end of the new loading zone to about 10 feet east of the emergency driveway near Howard Drive.
5. Request town engineer to study the intersection of Hilary Drive and Howard Drive to determine
   feasibility of a traffic circle at this intersection. Suggestions :
   a. Move Howard Drive stop sign back 15-20 feet and paint curb red in front of fire hydrant at
   100 Howard Drive.
   b. Create a turnout onto the school property near the emergency entrance to the school as a
   new loading zone.
BIKEPATH TRANSITION

1. Improve safety of bikepath connection between Tiburon Boulevard and bikepath entrance especially for those traveling towards Blackies Pasture.
Reed School Traffic Subcommittee Report
May 14, 2001 Comments

**Loop loading zone on Lyford Drive**
1. Restrict movements into and out of the loop
   a. Prohibit left turns into loop from Lyford drive.
   b. Prohibit left turns (uphill) when exiting the loop
   c. Prohibit turns into the left turn pocket lane for cars exiting loop
   d. Resolve issue of parents who live uphill off Lyford or need to head towards downtown Tiburon
2. Create an adequate length loading zone on Lyford Drive so drivers can drop off students far enough from the intersection to safely enter the left turn pocket to continue southeast toward downtown. Consider exiting directly onto Tiburon Boulevard as part of facilities upgrade.
3. Eliminate parking in the loop at all times or widen driveway to accommodate parking of 2 cars
4. Encourage parents to make their turnaround at the intersection of Round Hill and Lyford.
5. Add Signs at the Round Hill/Lyford intersection to alert downhill drivers of u-turns from the uphill traffic

**Tiburon Boulevard/ Lyford Drive Intersection**
1. Implement a right-turn overlap phase between the left-turn from Tiburon Boulevard and the right turn from Lyford Drive to allow outbound traffic to move more efficiently when there are not pedestrians present. Make this a number 1 priority.
2. Extend the left-turn pocket for traffic turning from Tiburon Boulevard to Lyford Drive.
3. Work with Caltrans to optimize timing of lights at intersection during peak school traffic
4. Educate crossing guard with respect to maximizing vehicular throughput by exercising restraint in the frequency of pedestrian crossings.

**Lyford Drive**
1. Convert the existing yellow curb to a white loading zone with a sign indicating school days only
2. Eliminate the mid-block crosswalk on Lyford Drive.
3. Move the dividing line on Lyford drive to widen the downhill lane or allow parking on the uphill side of the street
4. Install sidewalk on the Northwest side of Lyford Drive

**Rear Car Line**
1. Expand and restripe the parking lot to create more parking spaces.
2. Design a new driveway that intersects Lyford Drive northerly of the existing driveway to allow two-way circulation and remove site traffic from Neds Way as well as allowing exit of traffic onto Lyford Drive at a place where there is better site distance.
3. Add some type of barrier to protect children and adults standing on the back car line.
4. Remove bus loading zone sign on fence near side access gate.
5. Install a crosswalk and stop sign across the exit driveway at back car line to facilitate the safe movement of pedestrians, both children and adults. Extend back car line sidewalk to intersect new crosswalk.

**Busing**
1. Encourage increased busing to reduce vehicular traffic.
2. Install a foot bridge from school playground across “CalTrans Creek” to bus stop to route children directly to bus in lieu of accessing the bus via the sidewalk adjacent to Tiburon Blvd and Lyford Drive.

**Parking on Tiburon Boulevard**
1. Encourage diagonal parking in dirt area on school side of Tiburon Boulevard by installing railroad ties laid diagonally at either end of the parking area. Add signage that directs people to park diagonally, front end in only.

**General**
1. Restrict construction traffic on Lyford, through the permitting process, for peak school traffic times especially for large projects like the upcoming 1 ½ million gallon water tank replacement.
2. Create a parent traffic guideline chart emphasizing do’s and don’ts.
3. Create a crossing guard handbook.
<table>
<thead>
<tr>
<th>Family Size</th>
<th>Reed Union School District</th>
<th>St. Hilary School</th>
<th>All Schools</th>
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<tbody>
<tr>
<td></td>
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<td>1 child 2 children 3 children</td>
<td>1 child 2 children 3 children</td>
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<tr>
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<td>55.9% 34.8% 9.3%</td>
<td>53.5% 36.8% 9.7%</td>
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<th>1/4-1/2 mi</th>
<th>1/2-1 mi</th>
<th>1-2 mi</th>
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<td>4</td>
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<td>5</td>
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<td></td>
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<td>3</td>
<td>5</td>
<td>9.4%</td>
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<table>
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<th>Too far to walk</th>
<th>Backpack too heavy</th>
<th>Convenient</th>
<th>On way to work</th>
<th>Other</th>
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<tr>
<td>Bike</td>
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<td>Bus</td>
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<tr>
<td>Bike</td>
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<td>Walk</td>
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<tr>
<td>Carpool</td>
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<td>Bus</td>
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<tr>
<td>Bike</td>
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</tr>
<tr>
<td>Walk</td>
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### Reed Union School District

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<th>other</th>
<th>improved paths</th>
<th>slower traffic</th>
<th>crossing guards trained</th>
<th>secure storage</th>
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<tr>
<td></td>
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<td>2</td>
</tr>
<tr>
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### St. Hilary School

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<th>slower traffic</th>
<th>crossing guards trained</th>
<th>secure storage</th>
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<td></td>
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### All Schools

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<td>38.8%</td>
<td>29.2%</td>
<td>16.9%</td>
<td>5.9%</td>
<td>9.1%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>
ST. HILARY SUB COMMITTEE PUBLIC MEETING REPORT

ATTENDEES:
- Bill McLaughlin – Sub-Committee Chair
- Matt Odetto, Police Chief
- Scott Anderson, Planning Director
- Father Tarantino, Frank Buscher – St. Hilary
- 3 residents of lower Hilary
- 2 residents of Upper Hilary
- 2 residents of Rock Hill
- 1 resident of Hawthorne
- 2 residents of Gilmartin

NEIGHBORHOOD SUGGESTIONS:

General
- Put a “no cell phone” zone around school sites
- Temporary & portable “slow down” signs to be placed in the center of streets during peak drive times
- Install signage “School Zone”, “Basic Speed Law Enforced”, “Slow – Children Crossing”
- Ensure a public ad & promotional campaign at the beginning of the school year focusing on safety, speed, attitude, and rules of the road.

Tiburon Blvd
- Extend and pave northbound right turn lane
- Move limit line
- Extend southbound left turn lane

Lower & Upper Hilary
- “No Parking” signs on both sides of the street during AM drive time (7:30 – 8:30)
- Red Zone on one side of the street
- Pedestrian/bicycle zone painted on the same side of the street as the red zone
- Add a new sign for lower Hilary “Not a through street”
- Investigate speed bumps along upper Hilary to reduce speed of traffic

Upper Rock Hill
- Investigate speed bumps
- Put motorcycle officer on duty during peak times for downhill speeders

Lower Rock Hill
- Red zone (no parking) on one side of the street
- Put a pedestrian/bike zone on the same side as the red zone
- Trim bushes at Tiburon Blvd
- Add raised dots down the center line

Gilmartin
- Address Tiburon Blvd crossing for pedestrians and bicycle
Appendix B

Survey Results
## ARRIVING AT SCHOOL

<table>
<thead>
<tr>
<th>Date</th>
<th>Weather</th>
<th>Walked</th>
<th>Bus</th>
<th>Bicycle</th>
<th>Carpool</th>
<th>Car</th>
<th>Total</th>
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<tbody>
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<td>305</td>
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<td>4/3/2001 Sunny</td>
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<td>37</td>
<td>11</td>
<td>94</td>
<td>137</td>
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<td>9</td>
<td>97</td>
<td>121</td>
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<td>35</td>
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<td>37</td>
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<td>8</td>
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<table>
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<td>47.5%</td>
<td>7.2%</td>
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Preliminary Ideas and Alternatives
Preliminary Ideas and Alternatives

Based on the information supplied at sub-committee and neighborhood meetings as well as field observations, the following ideas were developed by the consultant for consideration, evaluation, and discussion by the entire Committee.

Alternatives and Ideas Apply to Multiple Sites

➢ Train crossing guards to provide safe crossings for children while minimizing disruption to vehicular traffic. This may include waiting until either a minimal amount of time has passed or a sufficiently large group of children has gathered, waiting on a different corner during the morning and afternoon periods, and observing traffic to allow movements when the congestion gets too severe. A training manual with general information that applies to all sites and specific information for each individual site would be useful to have for use with new personnel.

➢ Create dedicated CARPOOL PARKING ONLY spaces at highly desirable locations to encourage and reward carpool activity. Parents participating in active carpools would be issued distinctive dashboard placards which would permit parking in designated spaces.

➢ Replace existing school zone signing with new signs using the bright yellow-green sheeting.

➢ Trim vegetation as necessary to provide better visibility of all regulatory and warning signs around school sites.

➢ Obtain an electronic database of collisions to determine if there are any demonstrated safety problems in the vicinities of the four schools that need further evaluation.

➢ Increase the number of buses and bus stop locations to enhance use of this mode.

➢ Organize carpools by maintaining a database that will allow matching by residence areas and schools attended.

➢ To encourage carpools incentives such as preferred parking at loading zones could be considered.

➢ Institute a public awareness campaign using banner, bumper stickers (some places they have been put on trash cans), yard signs, hand-outs to students, etc. One of the themes of the campaign could be that everyone’s time is important, so drivers need to be considerate and think about how their actions could cause delay and congestion for others. Other potential tools in such a campaign could include neighborhood meetings and picnics to include not only students and their families, but also neighbors that are impacted by activities at the school.

➢ Stage start and end times by longer amounts and geographically (start Bel Aire first, then Del Mar, then Reed, or vice versa) so that drivers are not rushed getting children to multiple schools.

➢ Perform speed surveys in school zones to determine if speed limits of less than 25 mph can be justified.
> Perform license plate speed surveys and work with the Police Department to notify drivers that are traveling at excessive speeds through school zones.

> Maintain the enforcement presence by the Police Department. This is particularly important with regards to loading and unloading activities and parking except in approved locations.

**Bel Aire School**

> Create a dedicated loading zone, preferably with some sort of covered waiting area, and provide an adult to control traffic entering and exiting the loading area. This will likely require that parking be prohibited during school hours along the frontage of one or more of the adjacent homes. Further, enforcement and possibly a towing service may be necessary in order to ensure that if vehicles are parked in the loading zone, they are removed.

> Since the buses currently load and unload in the area immediately east of the school’s driveway, if this area is to be converted to a passenger loading zone it will be necessary to move the bus loading zone. Ideally, the loading zone should be on-site along the frontage of the school, however, this cannot be accomplished without widening the driveway.

> Encourage parents to use Cecilia Way-Leland Way rather than making U-turns anywhere in the vicinity of the school.

> Widen the driveway to allow two-way traffic and loading activities on-site, or else limit traffic to one-way inbound in the morning and outbound in the afternoon.

> Close the driveway to inbound traffic for the last ten minutes before classes start and to outbound traffic for the first ten minutes after school lets out to eliminate conflicts resulting in congestion.

> Improve the bike path between the Cove Shopping Center and the school, including addition of lighting.

> Encourage use of the cul-de-sacs as alternative drop-off and pick-up sites due to the limited street frontage available for this use. Drivers should be reminded of the need to park legally, and never leave their vehicle, *even for a minute*, blocking a driveway. Adult supervision of the activities on these two cul-de-sacs would improve pedestrian safety and could resolve concerns expressed by adjacent neighbors who have opposed this activity.

> Encourage the ice cream truck driver to move his operation to a site that is not immediately involved with the school circulation.

> Work with Caltrans to adjust timing at the traffic signal at Tiburon Boulevard/Blackfield Drive to provide additional time for the side street approaches during peak time for school traffic.

**Del Mar School**

> Implement a right-turn overlap phase between the left-turn from Tiburon Boulevard and the right-turn from Avenida Miraflores to allow outbound traffic to move more efficiently when there
are not pedestrians present. Further efficiency could be gained by redirecting the output from
the detector loops in the right-turn lane to activate the inbound left-turn signal during periods
of peak flow to and from the school.

➢ Extend the left-turn pocket for traffic turning from Tiburon Boulevard to Avenida Miraflores.

➢ Convert existing parallel parking areas to diagonal parking spaces to increase the parking
supply.

➢ Convert the red zone westerly of the driveway to a loading zone and use the loading zone,
which is located further west, for parking.

➢ If diagonal parking is used, install a bulb-out at the site’s driveway to direct traffic out away
from the curb and shorten the crossing distance for pedestrians.

➢ Eliminate the crosswalks on Avenida Miraflores at Hilary Drive and south of Felipa Court in order
to emphasize the crossing at Felipa Court.

➢ Evaluate the need for additional stop signs at Avenida Miraflores/Hilary Drive. If the
northbound Avenida Miraflores approach is to be stop controlled, retain the crosswalk at this
location and eliminate the two at and south of Felipa Court.

➢ Create a loading zone on Hilary Drive by prohibiting parking along the school’s frontage during
school hours. Mark the area as a passenger loading zone. Remove the stop signs at Hilary
Drive/Rowley Circle and/or Hilary Drive/Howard Drive and install traffic circles to allow better
circulation for drivers to access the passenger loading zone. Additional staircases between the
school and Hilary Drive along this frontage may also be needed.

Reed School

➢ Implement a right-turn overlap phase between the left-turn from Tiburon Boulevard and the
right-turn from Lyford Drive to allow outbound traffic to move more efficiently when there are
not pedestrians present.

➢ Extend the left-turn pocket for traffic turning from Tiburon Boulevard to Lyford Drive and/or
increase the time available for left-turning traffic during periods of peak flow.

➢ Increase use of busing in order to reduce the volume of vehicular traffic at this site.

➢ Create an adequate drop-off zone on Lyford Drive so that drivers can make a U-turn far enough
from the intersection with Tiburon Boulevard to safely drop children off and then access the
left-turn pocket to continue southeast toward downtown Tiburon.

➢ Restrict movements into and out of the loop loading zone to right-turns in and outbound to the
right-turn lane and northwest on Tiburon Boulevard only. Drivers should be specifically
prohibited from turning left into this area or leaving the area and attempting to get into the left-
turn pocket at Tiburon Boulevard.
> Restripe the parking lot to include some compact spaces and extend the lot further southeast to gain additional spaces.

> Install sidewalks on the northwest side of Lyford Drive connecting the school to adjacent pedestrian facilities and along Tiburon Boulevard connecting to nearby pathways.

> Eliminate the mid-block crosswalk on Lyford Drive or else engage a crossing guard.

> Provide adult supervision of the loading area in the parking lot to direct pedestrians crossing the street and ensure that parking prohibitions are followed. The subcommittee further suggested that drivers could be given a limited amount of time to wait for their child or children, then they would need to “go to the end of the line” or park in a designated space if the children were not loaded at the end of the specified time. This would obviously take considerable oversight on the part of school personnel, and may be met with considerable opposition.

> Create a “bulb-out” just north of the driveway on Lyford Drive to move through traffic toward the middle of the street and allow exiting traffic to move out further, thereby increasing sight distance. It may even be possible to reduce the length of red curb, thereby creating additional loading or parking areas.

> Convert the existing yellow curb on Lyford Drive to a white-curbed passenger loading zone.

> Enforce parking prohibitions.

> Expand the parking lot and construct a new driveway that intersects Lyford Drive northerly of the existing driveway to allow two-way circulation and remove site traffic from Ned’s Way. If the flow of traffic were reversed, the exit driveway could be located near the crest of the hill where there is better sight distance.

**St. Hilary School**

> Install stop signs with limit lines and STOP legends on both Hawthorne Drive approaches to Rock Hill Drive and add “Keep Clear” markings in the intersection.

> Evaluate the need for additional controls at the intersection of Rock Hill Drive/Hilary Drive. These could be permanent or temporary signs could be placed by school personnel during pick-up/drop-off times only. Note that because of limited sight distance for drivers traveling toward Tiburon Boulevard, it might also be necessary to install a “STOP AHEAD” sign.

> Evaluate the need for a longer right-turn pocket on northbound Tiburon Boulevard.

> Install sidewalks or create a pedestrian/bicycle pathway using an asphalt berm to separate the path from the travelway along one side of Rock Hill Drive. The route should also include crosswalk markings at intersections.

> Stripe Rock Hill Drive to provide a 250-foot long right-turn pocket and implement a right-turn overlap with the southbound Tiburon Boulevard left-turn to better accommodate the high volume of right-turning traffic.
Prohibit U-turns at Rock Hill Drive/Hawthorne Drive.

Continue posting adults at Rock Hill Drive/Hilary Drive to monitor driving behavior.

Consider moving the crosswalk on Tiburon Boulevard to the south side of the intersection in order to eliminate the conflict between right-turning traffic and pedestrians and to eliminate the need to cross at Hilary Drive.

Relocate the limit line for the Rock Hill Drive approach to Tiburon Boulevard to provide an adequate turning radius for left-turning buses to enter Rock Hill Drive.

Install a centerline of raised pavement markers on Rock Hill Drive to reinforce lane assignments.

Work with Caltrans to modify the signal timing during critical periods before schools starts and ends to increase the green time available for left-turns. Other potential ways to obtain extra green time would be use of protected/permitted left-turn phasing, which allows left-turns if there is no oncoming traffic, or "conditional service," which allows left-turns at the end of the cycle as well as at the beginning when there is no oncoming traffic.

Post "No Outlet" sign on Hilary Drive south of Rock Hill Drive.

Add a new "School Zone" sign on Rock Hill Drive.

Evaluate use of speed bumps on the uphill curve of Rock Hill Drive and on Hilary Drive.
Presentation Slides and Community Comments
Improve Flow on Tiburon Blvd

- Right-turn overlap phasing

Public Awareness Campaign

- Handouts/brochures
- Bumper stickers
- Banners
- Yard signs
- Radio/print ads
- Public service announcements
Replace School Crossing Signs

- Bright yellow-green sheeting provides improved visibility

Bel Aire Bike Path

- Connection from Karen Way to Claire Circle
Bel Aire Bike Path

- Connect path to Tiburon Boulevard through the Cove Shopping Center
Bel Aire Bike Path

Del Mar Bike Path

- Connection from school to bike path
St. Hilary Ped/Bike Path

- Connect school to Tiburon Boulevard
Bel Aire Loading Zone

- Existing condition

Bel Aire Circulation Route

- Recommended route for school loading and unloading
Del Mar Circulation

- Existing condition at dismissal

Del Mar Circulation

- Concept Plan
Del Mar Circulation

- Loading zone on Hilary Drive

Del Mar Circulation

- Parking on Avenida Miraflores
Reed Circulation

- Loop driveway

Reed Circulation

- Concept Plan
Reed Circulation

- Sidewalk and loading zone on Lyford

Reed Circulation

- Bus stop path
St. Hilary Circulation

- Install STOP signs at Hawthorne at Rock Hill
- Install STOP on Rock Hill at Hilary
- Replace centerline
TIBURON PENINSULA TRAFFIC COMMITTEE
Presentation of Report – Open Town Meeting
June 4, 2001

COMMENTS FROM THE COMMUNITY

GENERAL

1. As Double Fines have reduced accidents on the Golden Gate Bridge, how about tripling fines AND requiring some sort of community service (for those who don't care about triple fines) for any drivers breaking the speed, the safety rules, and/or rude behavior.

2. What is the feasibility of painting in bike/walk lanes in the neighborhoods that are main arteries for the schools since there are NO SIDEWALKS in so many of them.

3. Put speed bumps on down hills (i.e. Blackfield Drive) where construction workers and those on their way to work absolutely fly during the AM drive time.

4. Attitudes must change first! Suggest that you have some professionals lead some groups to address parent attitudes and fears. For example, why can't parents trust their neighbors to drive carpools, why can't they trust their children to walk to school via an agreed upon route? We have a fabulous multi-use path – now it is virtually not used. A number of years ago it was widely used by children visiting and having fun en route to class.

5. Has any thought been given to a jitney running up and down Tiburon Blvd?

BEL AIRE SCHOOL

1. We need to better manage the cul de sacs near Bel Aire School. I recommend installing sidewalks and/or clearly marked bike paths along both cul de sacs as well as Blackfield Drive and Reed Ranch Road to assure a safe path for children to walk/bike to school up to the communities behind Bel Aire.

2. Widening access on driveway should be done to allow loading/unloading at school.

3. Enforce the one-way circulation pattern from Cecilia to Leland to Karen Way.

4. Pave access path from Claire to Karen.

5. If Corte Palos Verdes continues as a Bel Aire drop off/pick up, ask drivers to park – not bunch up – at the end of the cul de sac. At this point, residents are trapped and kids are endangered by drivers bunching up at the end of the cul de sac.
6. Corte San Fernando is a blind cul de sac with no sidewalks. Currently at the PM pick-up, there are 20 SUVs and cars parked every which way with young children trying to pick their way through them to their parents or trying to walk home.

7. Train guards at cross walks and at cul de sacs above school.

8. Bel Aire neighbors no dot want their curbs painted for non-carpool vehicles to dropp off single children.

9. What about a “bike buddy” system of older kids with younger kids on bikes?

**DEL MAR SCHOOL**

1. Emphasizing the use of Hilary between Avenida Miraflores and Howard raises safety concerns. Currently in the PM parents double park for 10-15 minutes and block Hilary to through traffic.

2. Definitely install the stop sign upward (East) on Avenida Miraflores. Parents race up in the morning, do a U-turn on Hilary and screech to a stop by the school. No one drives 25 MPH – 40-50 MPH is the norm.

3. I question diagonal parking on Avenida Miraflores. Frequently two lanes of traffic back up from the stoplight, not only on weekends but also on weekdays. Further study needs to be done and reviewed with the Del Mar neighborhood.

4. The issue of safety at Howard and Hilary is a major concern as it relates to the proposed turn-around.
Sample Materials
HAZARDS

CAN BE STEVENS TRAFFIC

PARENTS

Hand: Thank you for your help.
Concern for our children's education and safety go hand in
hand.

Officers:

The purpose of this program is to encourage parents to
comply with the speed limit in school zones according to
the speed limit in school zones. According to
little cars can also help children who ride in cars a

[Diagram of a school bus and children]

Different sides of the building

Ask the driver, "Do you have any children on the school bus?
Are you picking up children at school?"

Look at the school and away from the congestion.

If there is no such area, another school

Pick-up area. If there is no such area, another school

-area school officials set a special pick-up and

the school on bus stop.

Carpool with neighbors to reduce the number of cars at

-Parents can help minimize traffic hazards for all children.

If you must drive your children to school, please use

PRACTICAL SUGGESTIONS

Distributed by: Stevens School Parent-Teacher Association
every time you ride a bike, think of it as part of your clothes and wear it. We are used to seeing motorcycles wear them. But do you remember when you wore helmets in sports requiring players to wear helmets? We are a very different place. According to the Braintrust, you can make the brain more resistant and all of your senses. Above all, your brain means your brain, but also your brain.

Proper use of a helmet is hard work! Be clear:

1. Don’t take chances. Watch what is going on around you.
2. Don’t ride indoors if possible.
3. Keep your bike in good condition. Check and inspect loose parts and the pressure weekly.
4. Store your bike indoors.
5. Clean and lightly oil moving parts regularly.
6. Drive off the street.
7. Keep the right-hand side of the road. When driving with a group, join a single file.
8. Carry packages in a basket or back.
9. Be extra careful turning left.
10. Move with the flow of the traffic.

First vehicle. It’s your vehicle. Not a toy.

Bicycling is fun.

Tips for Safe Bicycling:

- Always wear a helmet.
- Always wear approved safety clothing.
- Never ride in the dark or in inclement weather.
- Be extra careful turning left.
- Keep the right-hand side of the road.
- Carry packages in a basket or back.
- Drive off the street.
- Inspect loose parts and the pressure weekly.
- Keep your bike in good condition.
- Clean and lightly oil moving parts regularly.
Local distribution courtesy of:

- Footnote: The Document is not legible.

About handshakes:
- Handshakes should be done with the right hand, at eye level.

What about bicycle helmets and masks?
- Helmets and masks are an excellent way to improve safety while riding bikes. They provide protection and can prevent injuries in case of accidents.

Don't make mistakes:
-山

Why do kids need to wear a bicycle helmet?
- Bike helmets are essential for children to protect their heads from injuries in case of a fall or collision.

Program:
- Bike programs are offered in local schools and communities to teach children about bike safety and proper riding techniques.

Wrong:
- Don't teach your child to ride a bike on their own.

Right:
- Teach your child to ride a bike with adult supervision.

More information:
- You can find more information about bike safety and programs through local community organizations and schools.

Some common reasons kids have trouble learning to ride a bike:
- Poor balance, coordination, and motor skills.
- Fear of falling or getting hurt.
- Inadequate instruction or encouragement.

What your child should know:
- Rules of the road, safety signs, and proper riding techniques.
- How to stop and turn safely.
- Importance of wearing a helmet and other protective gear.

Missteps:
- Impatience, lack of encouragement, and not allowing your child to learn at their own pace.

Tips:
- Be patient, consistent, and supportive.
- Encourage your child to learn at their own pace.
- Reward them for progress, not perfection.

Reasons kids struggle with learning to ride a bike:
- Lack of confidence, fear, and anxiety.
- Inadequate instruction or encouragement.
- Poor physical coordination and fine motor skills.

Some tips for making it easier:
- Start with small steps, like pushing the bike.
- Use positive reinforcement and encouragement.
- Provide a supportive and encouraging environment.

How to help:
- Be patient, consistent, and supportive.
- Encourage your child to learn at their own pace.
- Reward them for progress, not perfection.

What to expect:
- Initial frustration and anxiety.
- Progress and improvement with practice.
- Confidence and joy when they succeed.
To school

If you walk your child to school, make sure
you know the safest and shortest route.

- Plan your route in advance.
- Teach your child how to find safe
  crossings.
- Keep your child close to you.
- Avoid crossing streets with your
  child.
- Use crosswalks and signals.
- Use sidewalks when available.
- Avoid areas where
  children are
  unsupervised.
- Always be visible.
- Always be alert.

What CAN YOU DO?

Involved in a collision

Children are at risk for injury or death in

- Collisions
- Pedestrian accidents
- Bicycle accidents
- Motorcycle accidents
- Fatigue
- Drunk driving
- Distracted driving

If you ride a bicycle or motorcycle, be

- Wearing a helmet
- Wearing a seat belt
- Wearing a face mask
- Wearing a mirror
- Wearing lights
- Wearing reflective materials

Walking and riding a bicycle can help reduce

- Car crashes
- Pedestrian accidents
- Bicycle accidents
- Motorcycle accidents
- Fatigue
- Drunk driving
- Distracted driving

In school grounds

- Look out for children playing
- Watch for children running
- Use caution around
  playground equipment
- Use caution around
  school buses
- Use caution around
  school crosswalks
- Use caution around
  school entrances
- Use caution around
  school exits
- Use caution around
  school parking lots

A HAZARDOUS MIX

CHILDREN AND TRAFFIC —
Does your child make any of these common mistakes?

1. **Riding against traffic:**

   It's one of the most common causes of car/bicycle crashes! Kids often ride this way in order to "see the traffic coming."

   Unfortunately, they are often hit by cars coming out of side streets. Drivers just don't look for traffic coming the wrong way.

   **What you can do:** Tell your child there's only one way to ride with traffic. Emphasize the reasons for riding on the right side of the road. Two of these are:
   - Wrong-way riders get hit by cars. One crash in five is caused DIRECTLY by wrong-way riding.
   - The law requires cyclists to ride with traffic.

2. **Riding out of the driveway without looking:**

   It's a fact: nearly half of the young kids killed on bikes die when they ride out of a driveway without stopping or looking. They are hit by passing cars.

   **What you can do:** Talk to your child about the problem. Mention the points discussed above.

   Go over the proper way to enter the road:
   1. Stop at the end of the driveway;
   2. Look left, right, left for traffic;
   3. Go when safe.

   **A fun driveway lesson:**

   Draw two cartoon cars, using pieces of scrap cardboard (about two feet by two feet square). With help from a spouse or friend, stand out in the road near your driveway, one person on either side.

   Have your child ride out to the end of the driveway and stop. Explain that if you are holding a "car" up, that means there is traffic coming. If you hold the "car" at your side, that means it is clear.

   Explain that if he or she goes when one of you is holding a "car" up, then you get a point. If your child waits until it is all clear, he or she gets a point.

   Then you start the game. Take it easy at first; the idea is to teach your child to look left, right, left for traffic and ONLY go when it's clear.

   Once a child has the basic idea, gradually make it tougher. Turn the "car" aside, then turn it back. Pretend there is a lot of traffic coming from either way.

   **Note:** This game can be a fun one for the neighborhood. Get lots of kids involved.

3. **Swerving suddenly across the road:**

   This is another common cause of bike crashes involving kids. While riding down the road, they dart left in front of a car without warning. They don't look back, they don't yield, they don't signal... and they get hit.

   Kids often forget to check for traffic before they turn but it's so important!

   **What you can do:** Ride with your child to a local playground or quiet parking lot. Take along a couple of colored flash cards or one of the cardboard cars from lesson two.

   Find a nice straight painted line and stand just to the left of it. Explain how important it is to look back before making a left turn.

   Explain that you want your child to ride past you on the line and look back on command. He or she should identify the color of the card (or whether your're holding up the "car" or not).

4. **Running stop signs:**

   Another common mistake kids (and adults!) make is to run stop signs. And because youngsters can't judge the speed and distance of oncoming cars very well, they tend to get hit.

   One point the crash studies have shown is this: most cyclists who get hit know the law. They just choose to ignore it.

   **What you can do:** Teach your child to stop at stop signs and red lights. One of the best ways to get this lesson across is your own example.

   You can't expect your kids to obey stop signs if you don't. Show them how. And as you ride or drive, talk about what your doing and why. The many little facts adults have learned about traffic are important for kids too!
Prevent Pedestrian Crashes: Preschool Children

A Message for Parents of Preschool Children

Here are some facts you should know:

Preschool children are quick and often unaware of danger. Each year, many children are injured or killed when they suddenly dart into the path of a car.

- Most preschoolers are injured near their home or on their own street.
- Most crashes involving preschool children happen between 3 p.m. and 6 p.m.
- Most crashes involving preschoolers occur in fair and warm weather.
- Twice as many preschool boys are injured than preschool girls.

This is How You Can Prevent These Tragedies:

Supervise preschoolers at all times. Preschoolers should NOT be allowed to cross the street alone. Teach them who can help them cross the street safely.

Teach by explaining. Explain to your child the safe way you cross a street. Say: “When I cross a street, I always stop at the curb. I look for cars. I look left for any traffic coming, and then I look right for traffic coming that way. Then I look left again. When it is clear, I cross the street, and keep looking left and right.”

Teach by example. When you cross a street with your child, always:

- Stop at the curb.
- Look LEFT-RIGHT-LEFT for traffic in all directions.
- Cross when it is clear.
- Keep looking for cars as you cross.

Encourage your child. As you both safely cross the street together, praise the child for copying your safe actions or words. Practice what you teach at ALL times.
Prevent Pedestrian Crashes: Elementary School Children

A Message for Parents of Elementary School Children

Below are some common myths that children believe about being a pedestrian. Make sure your child knows the facts.

Myth A green light means that it is safe to cross.
Fact A green light means that you may stop and search for cars. Before you step off the curb, look LEFT-RIGHT-LEFT, and if it is safe to do so, cross and keep looking left and right as you do so. Be alert for vehicles making a right turn on red.

Myth You are safe in a crosswalk.
Fact You may cross at a crosswalk, but before you do, you must stop at the curb. Look LEFT-RIGHT-LEFT for cars. When it is clear, cross and keep looking left and right.

Myth If you see the driver, the driver sees you.
Fact The driver may not see you. Make certain the driver sees you and stops before you cross in front of the car. Try to make eye contact with the driver.

Myth The driver will stop if you are in a crosswalk or at a green light.
Fact The driver may not see you. The driver's view may be blocked. The driver may run a traffic light illegally. The driver may turn without looking for pedestrians.

Myth Wearing white at night makes you visible to drivers.
Fact Even if you and your child wear white clothes, drivers will have a difficult time seeing you at night. Carry a flashlight. Wear retroreflective clothing. Walk facing traffic.

Remember, when crossing a street your child should always:

- Stop at the edge of parked cars, the curb, or other vehicles.
- Look LEFT-RIGHT-LEFT for moving cars.
- Cross when clear, and keep looking left and right.
- Walk, not run or dart, into the street.
- Look for signs that a car is about to move (rear lights, exhaust smoke, sound of motor, wheels turning).
- Walk alertly.
Motorists!
Protect pedestrians at crosswalks.

RULE 1 Come to a complete stop at least 30 feet before crosswalk.

RULE 2 Wait until pedestrians have crossed at least one lane beyond yours before proceeding.

RULE 3 Be alert for children using crosswalks. They often dart out into traffic.

RULE 4 Never pass stopped or slowing vehicles at crosswalks. Exert care on multi-lane streets.

Crosswalk Safety

Courtesy helps create an environment in which crashes are less likely. Thank drivers who yield at crosswalks.

On average: a pedestrian is seriously injured everyday in Pinellas County, and one is killed every two weeks. Most were struck while crossing the street.

Drivers must yield to pedestrians. It's the law!!!

A project funded by the Florida Department of Transportation supported by the City of St. Petersburg's Triple E Committee, the Center for Urban Transportation Research (USF), and the Pinellas County School Board. Prepared by the Center for Education and Research in Safety.

E-mail cers@rib.sympatico.ca, rvhcerstss@aol.com, www.cers-safety.com
Pedestrians!
Make crosswalks work for you.

RULE 1 Stop. Look left-right-left. Wait for the WALK signal.

RULE 2 When the WALK signal comes on place only one foot into the crosswalk. Extend arm to alert drivers. Wait for cars to stop.

RULE 3 Cross and keep looking for moving cars. Watch for turning vehicles.

RULE 4 Look before stepping past stopped vehicles.

RULE 5 Watch for cars that don’t stop. Not all drivers obey traffic signals.

RULE 6 Watch for turning vehicles. Keep watching as you cross. Thank drivers with a wave and a smile.

Crosswalks and traffic lights don’t stop cars! The WALK signal does not mean it is safe to cross. It only means it is your turn to cross.
Support traffic enforcement in your community.

Community traffic enforcement is like a good thing that comes in a small package. You get more than you thought you would.

For more information on how traffic enforcement can
- Make your streets safer
- Fight crime
- Stabilize your taxes, write:

Traffic Law Enforcement Division
National Highway Traffic Safety Admin. NTS-13
U.S. Department of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590
or look up the organizations below on the World Wide Web.

What has a patrol officer done for you lately?
So you speed sometimes and gingerly run an occasional stop sign. No problem. Until a stop-sign runner goes down your street or a driver speeds through a school zone where your kids wait for the bus.

Patrol officers keep this kind of activity in check. They enforce the laws for the safety of everyone -- in cars, on bikes and on foot.

No one likes to get a ticket, but if a ticket stops us from doing things that put safety at risk, we all benefit.

Routine traffic stops for speeding or red-light running often turn out to be not so routine. Uninsured motorists. Suspended licenses. Drunk drivers. Illegal firearms. Drugs. Fugitives.

Discoveries like these are all in a day's work for many patrol officers.

And because the bad element generally steers clear of communities with visible traffic enforcement, burglary and vandalism drop.

Who would have guessed that traffic enforcement would be such a great way to fight crime?

Believe it or not, patrol officers save you money. Say a guy -- an uninsured driver not wearing a seat belt -- speeds down the road, loses control and hits a guardrail.

Crashes are expensive. But costs are controlled every time patrol officers enforce the laws designed to protect us and keep us safe.

Who pays for rescue and emergency services, his hospital stay, physical therapy and guardrail repairs? Not the guy, but your local government, which is generously funded by You The Taxpayer.

And patrol officers encourage us to do things -- like wear our seat belts -- for protection when we do have crashes. Thanks to patrol officers, we all save money through stabilized taxes.
NTSA
People Saving People
http://www.nhtsa.dot.gov

SCHOOL BUS

Kids & YOU

Transportation
Traffic Safety
DOT HS 808423
http://www.nhtsa.dot.gov
July 1997
Learn and obey the school bus laws in your state. Learn the "flashing signal light system" that school bus drivers use to alert motorists of pending actions:

Yellow flashing lights indicate that the bus is preparing to stop to load or unload children. Motorists should slow down and prepare to stop their vehicles.

Red flashing lights and extended stop arms indicate that the bus has stopped, and that children are getting on or off. Motorists must stop their cars and wait until the red lights stop flashing, the extended stop sign is withdrawn, and the bus begins moving before they can start driving again.

When backing out of a driveway or leaving a garage, watch out for children walking or bicycling to school.

When driving in neighborhoods with school zones, watch out for young people who may be thinking about getting to school, but may not be thinking about getting there safely.

Slow down. Watch for children walking in the street, especially if there are no sidewalks in the neighborhood.

Slow down. Watch for children playing and congregating near bus stops.

Be alert. Children arriving late for the bus may dart into the street without looking for traffic.

wait until the bus stops, the door opens, and the driver says that it's okay before stepping onto the bus.

If you have to cross the street in front of the bus, walk on the sidewalk or along the side of the road to at least five giant steps (10 feet) ahead of the bus before you cross. Be sure that the bus driver can see you, and you can see the bus driver.

Use the handrails to avoid falls. When exiting the bus, be careful that clothing with drawstrings, and book bags with straps don't get caught in the handrails or doors.

Never walk behind the bus.

Walk at least three giant steps away from the side of the bus.

If you drop something near the bus, tell the bus driver. Never try to pick it up because the driver may not be able to see you.

Teach children to follow these common sense practices to make school bus transportation safer.
Walking is very cool - it's free, it's great exercise, and you can do it to get almost anywhere! You can visit your friends, travel to school, or go to movies, shopping, worship, museums, or sporting events.

What's not cool is when young people are killed or injured while walking. So here are some important things to remember so you stay safe and healthy.

Safety tips for crossing the street:

- Stop at the curb, or the edge of the road if there is no curb.
- Stop and look left, then right, then left again for moving cars, before you step into the street.
- If you see a car, wait until it goes by. Then look left, right, left again until no cars are coming.
- If a car is parked where you are crossing, look to make sure there is no driver and that the car is not running.
- Then go to the edge of the car and look left-right-left to see if cars are coming.
- When no cars are coming, walk - do not run - across the road. Keep looking for cars while you are crossing.

Things to remember when walking:

- Walk on sidewalk if there is one.
- If there is no sidewalk and you have to walk on the road, be sure to walk facing traffic.

Be safe. Be seen. Brightly colored clothing makes it easier for drivers to see you during the daytime. But at night, you need to have a flashlight or wear special reflective material on your shoes, cap, or jacket that bounces the car's lights off you and back to the driver.

Darting out in front of a parked car is dangerous.
The driver of the car coming down the street can't see you.