

Sir Francis Drake Boulevard Rehabilitation Project Bicyclist and Pedestrian Intercept Interviews Report



1. Executive Summary

Sir Francis Drake Boulevard is an essential part of the street network in Central Marin. The Boulevard between Larkspur Landing and San Anselmo acts as a key artery for commuter traffic, but it also serves to connect the community to multiple schools, business districts, shopping centers, parks, Corte Madera Creek, and the Bay Trail. Intercept surveys conducted along the corridor are meant to identify necessary improvements and to inform prioritization of future work along the Sir Francis Drake Corridor.

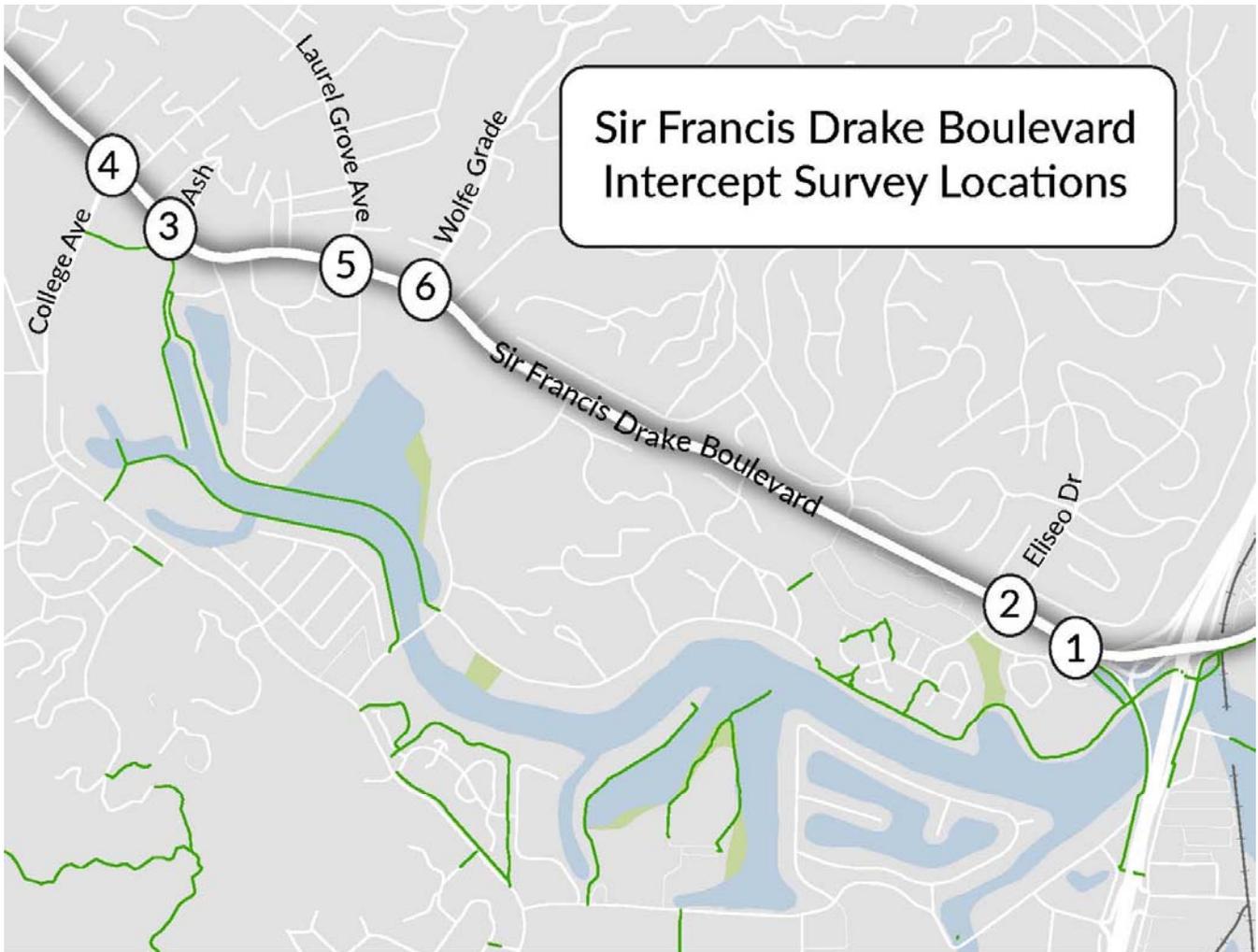
A total of 84 intercept surveys were collected from bicyclists and pedestrians on Sir Francis Drake Boulevard at six locations. Surveys were conducted in the morning and afternoon periods of Saturday, April 25th and Wednesday, April 29th.



Key findings from the intercept surveys include:

- Of the 84 total surveys, 67 were pedestrians, 15 were bicyclists, and 2 were using other mobility devices.
- Bicyclists and pedestrians interviewed on Saturday skewed towards exercise, recreation, and walking pets.
- Bicyclists and pedestrians interviewed on Wednesday skewed towards school-based trips.
- Bicyclists and pedestrians interviewed on Saturday were more often alone or with a pet.
- More than half of interviewees walked or biked Sir Francis Drake Boulevard daily, and more than three quarters of interviewees walked or biked Sir Francis Drake Boulevard daily or weekly.
- The vast majority of interviewees were White, Non-Hispanic.
- The majority of women interviewed were adults between the ages of 31 and 60.
- The majority of men interviewed were either under 18 or 45 and older.
- Most trips for bicyclists and pedestrians were short, generating within the surrounding community.
- Route choice was overwhelmingly chosen based on the most convenient and direct route to their destination.
- Interviewed bicyclists and pedestrians expressed many concerns with the safety and comfort of crossing Sir Francis Drake Boulevard, both for signal controlled and uncontrolled intersections. A smaller subset of interviewees identified other barriers to walking and biking between their origin and Sir Francis Drake Boulevard.
- Because Bacich Elementary has a half-day schedule on Wednesdays, very few intercept surveys were collected on Wednesday afternoon at Wolfe Grade.

A map detailing survey locations and key interview statistics follows on page 2. More detailed survey result and field observations from each survey location are presented in the report below.



Saturday, April 25, 9:00AM - 1:00PM

① 200' East of Del Monte	 22	 4	 0
② Eliseo Drive/Barry Way	 22	 4	 0

Saturday, April 25, 2:00PM - 6:00PM

③ Ash Avenue	 21	 6	 1
④ College Avenue	 21	 6	 1

Wednesday, April 29, 6:00AM - 10:00AM

⑤ Laurel Grove Avenue	 21	 3	 0
-----------------------	----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------

Wednesday, April 29, 2:30PM - 6:30PM

⑥ Wolfe Grade (Minimum day at Bacich)	 3	 2	 1
---------------------------------------	---------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------

2. Summary of Intercept Survey Objectives

The County of Marin is planning for the rehabilitation of the Sir Francis Drake Boulevard corridor from Highway 101 in Larkspur to the Ross town limits. This rehabilitation project provides a once-in-decades opportunity to make fundamental changes to the way Sir Francis Drake is configured and operates for vehicle traffic, transit operations, and bicycling & walking trips. The County initiated bicyclist & pedestrian intercept surveys as one facet of a larger outreach effort to gather community concerns and priorities for the coming development of projects.

The objectives of the intercept surveys are fourfold. First, the intercept surveys collect trip information and demographic information of residents traveling on or across Sir Francis Drake Boulevard. Second, the intercept surveys solicit feedback from bicyclists and pedestrians on key areas for consideration by the County during their planning process for the corridor rehabilitation. Third, the intercept surveys help better publicize the outreach efforts by the County with residents who will most likely be impacted by any future changes to Sir Francis Drake Boulevard as a result of the corridor rehabilitation. Forth, the intercept survey periods provided an opportunity for staff to conduct field observations for bicyclist and pedestrian behavior and identification of potential improvements along the corridor.

3. Summary of Survey Approach & Locations

Intercept surveys were conducted in two four-hour periods on Saturday, April 25th, and Wednesday, April 29th. The surveys were conducted in the following locations, with the following considerations.

Table 0-1: Select Circulation Element Policies

Location	Day & Time	Survey Location Considerations
Sir Francis Drake Boulevard at Eliseo Dr/Barry Way	Saturday, April 25 9:00AM – 1:00PM	Solicit feedback from residents coming from the Greenbrae neighborhoods north of Sir Francis Drake Boulevard via Eliseo Drive.
200' east off Sir Francis Drake Boulevard at Del Monte	Saturday, April 25 9:00AM – 1:00PM	Solicit feedback from trail users at the intersection of the Corte Madera Creek trail and the Greenbrae interchange pathway.
Sir Francis Drake Boulevard at Ash Avenue	Saturday, April 25 2:00PM – 6:00PM	Solicit feedback from residents crossing Sir Francis Drake Boulevard at the uncontrolled crosswalk.
Sir Francis Drake Boulevard at College Avenue	Saturday, April 25 2:00PM – 6:00PM	Solicit feedback from residents crossing the street at this signalized intersection.
Sir Francis Drake Boulevard at Laurel Grove Avenue	Wednesday, April 29 6:00AM – 10:00AM	Solicit feedback from residents crossing Sir Francis Drake Boulevard at the signalized crossing, especially students and families on their way to school.
Sir Francis Drake Boulevard at Wolfe Grade	Wednesday, April 29 2:30PM – 6:30PM	Solicit feedback from residents crossing Wolfe Grade via the crosswalk at the signalized intersection and feedback from residents crossing Sir Francis Drake Boulevard using the pedestrian overcrossing.

Survey teams were made up of three staff members. Two staff members conducted surveys, while one staff member conducted field observations and recorded site photos. All staff were outfitted with reflective vests and signs were erected on the sidewalk in both directions encouraging bicyclists and pedestrians to stop for a short survey about Sir Francis Drake Boulevard.

During Saturday survey periods, one staffer was placed at each survey location, with the third staff member conducting field observations between locations. During Wednesday survey periods, all three staff conducted surveys at a single location.

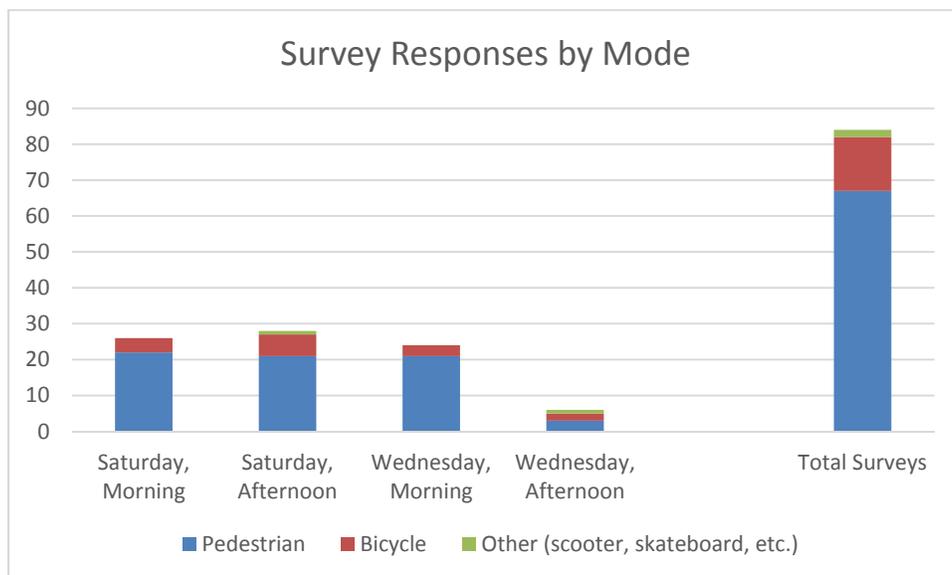
Staff were identified with nametags, were trained on how to ask questions, and distributed fliers for the Sir Francis Drake Boulevard open house on May 1st following the completion of an intercept survey.



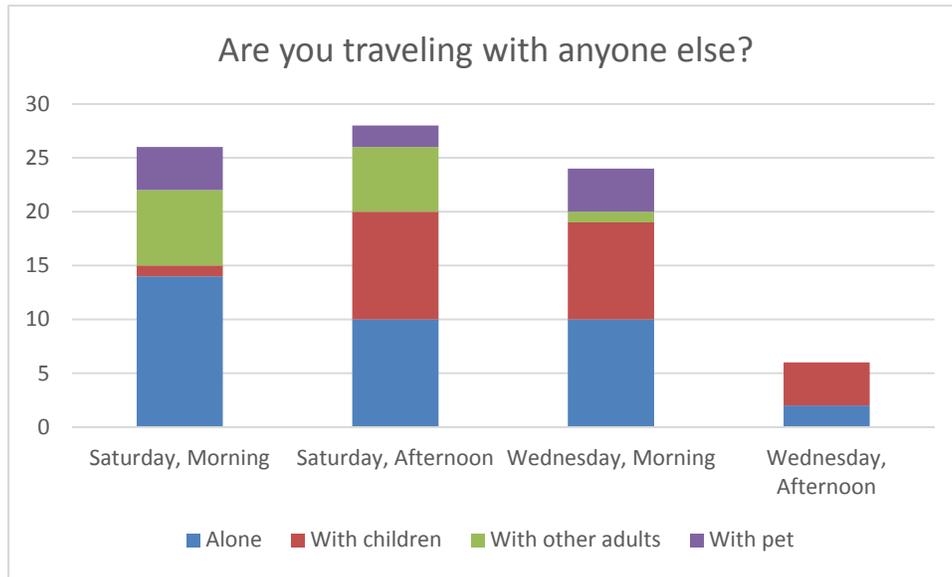
4. Survey Results

The survey questions were designed to be conducted in the field as intercept surveys. The survey was designed to be conducted in less than 2 minutes, maximizing resident willingness to take the survey and maximizing the chance of capturing multiple pedestrians per crosswalk signal phase at signalized intersections.

A copy of the survey is at the end of this report.

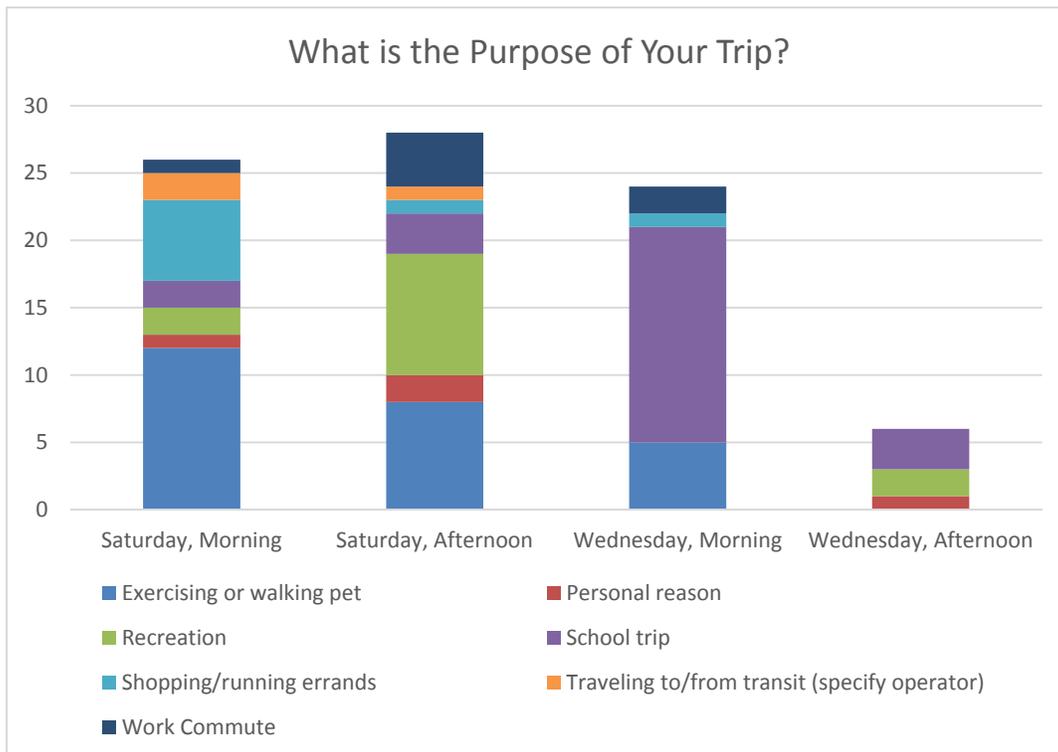


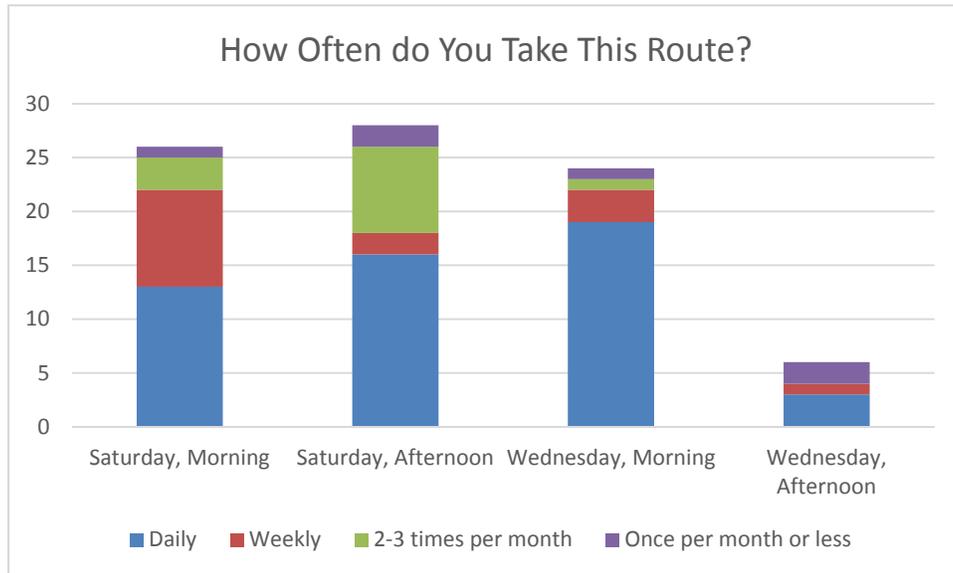
Survey responses were fairly evenly spread throughout the first three survey periods. Because Bacich Elementary had a minimum day on Wednesday, there were very few pedestrians & bicyclists to interview on Wednesday afternoon. The weekend saw more bicyclists on Sir Francis Drake Boulevard than during the week.



Survey respondents were usually alone or with pets, especially on Saturday morning.

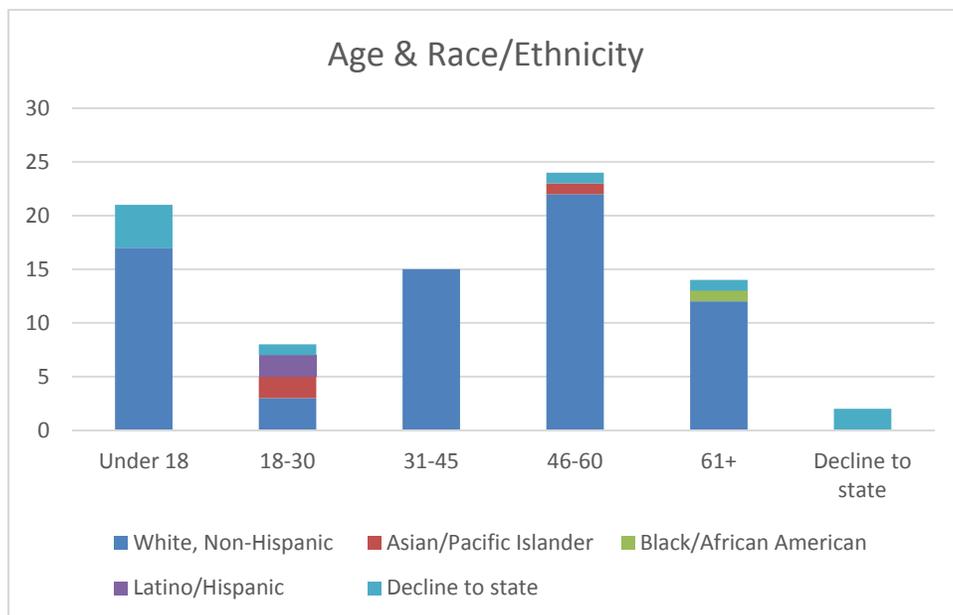
Residents surveyed over the weekend had diverse reasons for their walking and biking trips, while residents on Wednesday were overwhelmingly making school trips. Saturday morning respondents were most likely to be exercising (due to proximity to the bay trail) or making shopping trips (due to proximity to the Bon Air Center). Surprisingly, very few Saturday afternoon residents were shopping, despite the survey location being in a business district.





The majority of residents in all survey locations walk or bike on Sir Francis Drake Boulevard daily. Residents in the Saturday morning location at the Greenbrae interchange were most likely to make the trip weekly (likely due to the Bay Trail being a popular weekend destination), while residents visiting the business district beside the College of Marin were most likely to walk or bike on Sir Francis Drake Boulevard less often. Interviewed parents and students traveling to school on Wednesday morning almost always walk or bike to school.

Almost all residents interviewed were white, with only the 18-30 age group without a white majority. The vast majority of under 18 resident surveys were conducted on Saturday afternoon and Wednesday morning.



5. Saturday, April 25, 9:00AM – 1:00PM 200' East of Del Monte

Approximately two hundred feet east of Del Monte Ave is the junction point for two multi-use paths at the Greenbrae Interchange. One pathway runs down to the Bay Trail along Corte Madera Creek, which leads west towards Ross and east to Larkspur Landing. The other pathway runs along the Highway 101 southbound onramp, with the pathway connecting to Lucky Drive on the south side of Corte Madera Creek. At the junction of these two pathways, they convert to sidewalk on the southern side of Sir Francis Drake Boulevard.

Field Observations

The vast majority of bicyclists and pedestrians observed in this location were transitioning from the Bay Trail to the Greenbrae interchange bridge, and vice versa. Pedestrians and bicyclists were almost always alone or with a pet. Bicyclists tended to be “serious cyclists” in riding kits, and many pedestrians were in jogging clothes.

At Del Monte Avenue, the high-visibility crosswalks were very faded and the curb ramps were missing truncated domes. The intersection had very wide curb radii, creating longer crossings for pedestrians and enabling higher-speed turning movements for drivers.

At the pathway junctions east of Del Monte Avenue, there was no clear pathway to the Greenbrae interchange bridge when coming from the Sir Francis Drake Boulevard sidewalk. There was what appeared to be a very small bike lane segment leading from the roadway directly into the bridge path, although the bike lane striping and stencil was almost completely faded away. In the eastbound approach to this bike lane transition, there is a sign outlining rules for a multi-use pathway, as well as what appeared to be a pedestrian countdown signal (the signal was off, so it could not be confirmed on the day of the survey). It is unclear what the purpose the signal fulfilled.



Resident Input

Residents surveyed at this location were generally positive about their use of Sir Francis Drake Boulevard, with few identifying barriers or improvement locations. Almost all surveyed residents chose their route because it was the most direct, with some stating it was the only route possible for them to use. For those residents that did identify barriers, they most often referred to the Eliseo Drive/Barry Way intersection (see below). One resident mentioned that the intersection of the Bay Trail along Corte Madera Creek has a blind corner caused by the Marin Rowing boathouse.

Sir Francis Drake Boulevard at Eliseo Drive/Barry Way

Eliseo Drive (north) and Barry Way (south) meet at a single intersection at Sir Francis Drake Boulevard. The intersection marks the eastern end of the Bon Air Center. Immediately south off the intersection is Niven Park and the Corte Madera Creek waterfront. North of the intersection is the community of Greenbrae, the street grid for which has limited connections to the surrounding areas, mostly via Sir Francis Drake Boulevard.

Field Observations



The intersection at Sir Francis Drake Boulevard has slip-lanes with pork chop pedestrian islands on the north side of the intersection, and wide curb radii corners on the south side of the intersection. The crosswalk across Sir Francis Drake Boulevard turns at an angle halfway through the intersection to meet the pedestrian pork chop island on the north side. Visibility of pedestrians crossing to the pork chop pedestrian island in the northeast corner is obstructed for westbound drivers on Sir Francis Drake Boulevard by vegetation.

To the west, there is sidewalk only on the north side of the street, and to the east there is sidewalk only on the south side of the street. Bicycle detection stencils on Sir Francis Drake Boulevard are placed at the extreme right side of the travel lane, creating a conflict between through-traveling bicyclists and drivers making right turns onto Barry Way.

Resident Input

Very little bicycle and pedestrian traffic was along Sir Francis Drake Boulevard, instead almost all bicyclists and pedestrians were crossing Sir Francis Drake Boulevard from Eliseo Drive to Barry Way. Most pedestrians were traveling from Greenbrae via Eliseo Drive, traveling either to Nevin Park or the Bon Air Center. There were a wider range of survey respondents at this location, including families and children alone. When asked why they chose their route, most surveyed residents responded that Eliseo Drive was the only route to get out of their neighborhood.

Many surveyed residents identified the intersection as Eliseo Drive as the biggest barrier to walking and biking. Many residents noted the lack of visibility of pedestrians on the north side of the intersection at the pork chop pedestrian islands. Another common concern was the number of driveways at the two gas stations on the south side of the intersection, and the number of conflicts it created with pedestrians on the sidewalk. More than one resident referred to the gas station areas as “an extension of the road”.

Residents also noted that the signal phase is very long for crossing Sir Francis Drake Boulevard, and that the pedestrian signal heads do not automatically show the walk signal when the light is green, showing a pedestrian walk phase only when the push button is activated.



6. Saturday, April 25, 2:00PM – 6:00PM

Sir Francis Drake Boulevard at Ash Avenue

Ash Avenue meets Sir Francis Drake Boulevard at a T-intersection on the north side of the street, with no cross street on the south side. Ash Avenue is near the eastern end of a small business district along Sir Francis Drake Boulevard, ending to the west at College Avenue. There is a single, uncontrolled high-visibility crosswalk across Sir Francis Drake Boulevard at this location. There is a planted median along this portion of Sir Francis Drake Boulevard, with turn pockets in both directions at this intersection. As there is no southern cross-street, it is assumed the westbound left turn pocket is to facilitate U-turns at this location.

Field Observations

For the first hour of the survey, a construction trailer was fully blocking the crosswalk across Sir Francis Drake Boulevard, as parking lot construction was being conducted for the adjacent property. The volume of pedestrians was very low in this area, and there were almost no bicyclists during the survey phase. Approximately half of the bicyclists observed were using the sidewalk. Late in the survey period, there was an increase in pedestrian activity to the nearby florist; it appeared teenagers were picking up corsages for a school dance.

The crosswalk itself appeared to be fairly new, with clear crosswalk striping and truncated domes on all curb ramps. In almost every instance that a pedestrian attempted to cross the street at this location, there were very low rates of yielding by drivers of cars. More than one “multiple threat” situation was observed, where the driver in the first lane stopped for a pedestrian only to have a driver in the second lane drive through at full speed, not having observed the pedestrian’s presence.



Resident Input

Residents surveyed chose to cross the street at this location because they did not want to detour west to the signalized crossing at College Avenue. Surveyed residents had a broader range of reasons for travel than the Saturday morning period, with exercise, shopping, work commute, and recreation all cited.

Resident concerns for walking and biking were almost exclusively about the safety of the crosswalk at Ash Avenue. One residents said that one year prior a wheelchair-bound resident had been killed in that crosswalk by a speeding driver. Residents requested traffic calming measures on that portion of Sir Francis Drake Boulevard, as westbound drivers come around a curve in the roadway and cannot clearly see the crosswalk as their approach. Traffic calming suggestions included a reduction in the speed limit, a stop sign, and a rapid-rectangular flashing beacon.

Sir Francis Drake Boulevard at College Avenue

College Avenue meets Sir Francis Drake Boulevard at a signalized T-intersection on the south side of street, with no cross-street on the north side of the street. The College of Marin is located on the southwest corner of the intersection, and was in the midst of campus construction at the time of the survey. There are yellow high-visibility

crosswalks in both the southern and eastern legs of the intersection. Immediately to the west, Sir Francis Drake Boulevard goes down to 1 lane in each direction.

Field Observations

The intersection at Sir Francis Drake Boulevard & College Avenue appears to have been recently reconstructed, possibly in conjunction with the construction at the College of Marin. The pedestrian push buttons installed also have audible signals announcing which street has an active walk phase. The south side of the intersection has wide curb radii, with the southeast corner even having gore striping placed between the right turn lane and the curb.

A significant number of bicyclists were observed traveling eastbound on Sir Francis Drake Boulevard approaching the intersection and making right turns onto College Avenue. Very few bicyclists continued east on Sir Francis

Drake Boulevard. The bicycle detection stencil was placed in the far right side of the travel lane, creating a conflict for through-traveling bicyclists with right-turning drivers.

The construction fences in place around the College of Marin near the intersection took up half of the available sidewalk, leaving a very narrow pedestrian area.

The survey team observed multiple conflicts between drivers turn right from College Avenue onto Sir Francis Drake with westbound drivers on Sir Francis Drake making U-turns. In at least one instance, this conflict was exacerbated by the presence of pedestrians in the crosswalk.



Resident Input

Surveyed residents at this location had a range of responses equally diverse to those at Ash Avenue. When asked about barriers or areas of improvement, most residents commented on right-turning drivers on College Avenue not stopping for pedestrians in the crosswalk. Other comments were that the signal phase is too long for waiting pedestrians and the crossing distance in the crosswalk is too long. Multiple pedestrians expressed interest in slowing through traffic throughout the business district. One resident complained about the construction fences at College of Marin blocking the sidewalk and one resident asked for more continuous sidewalks between Wolfe Grade and the Bon Air Center.



7. Wednesday, April 29, 6:00AM – 10:00AM

Sir Francis Drake Boulevard at Laurel Grove Avenue

Sir Francis Drake Boulevard at Laurel Grove Avenue is a signalized T-intersection on the north side of the street. There are yellow high-visibility crosswalks in the north and west legs of the intersection and sidewalks on both sides of the street. There are slip-lanes and pork chop pedestrian islands on the north side of the intersection on both sides of Laurel Grove Avenue. Laurel Grove Avenue has no sidewalks.

Bacich Elementary is immediately to the southeast of the intersection, with Marin Catholic High School just east of Bacich. To the west is Kent Middle School.

Field Observations

This weekday survey period was geared primarily around school-based trips, but staff were also able to survey a significant number of adults exercising or walking pets. Before 7:00AM, fewer than 5 bicyclists and pedestrians traveled through the intersection. A crossing guard for Bacich Elementary arrived 7:30, with students and parents regularly arriving after 7:40AM. The crossing guard positioned himself on the pork chop pedestrian island in the northwest corner, which was often overflowing with pedestrians during the peak school trip period.

The high-visibility crosswalks at this intersection were faded in portions. Both fencing and overgrown vegetation made visibility very obstructed for eastbound drivers making right turns via the slip-lane onto Laurel Grove Avenue. Overgrown vegetation on the south side of the intersection rendered half of the sidewalk unusable by pedestrians in some areas. Vegetation also blocked visibility of pedestrian crossing and yield signage in both directions. The sidewalk on the southern side of the intersection was also obstructed by multiple utility boxes, reducing available pedestrian space by half.



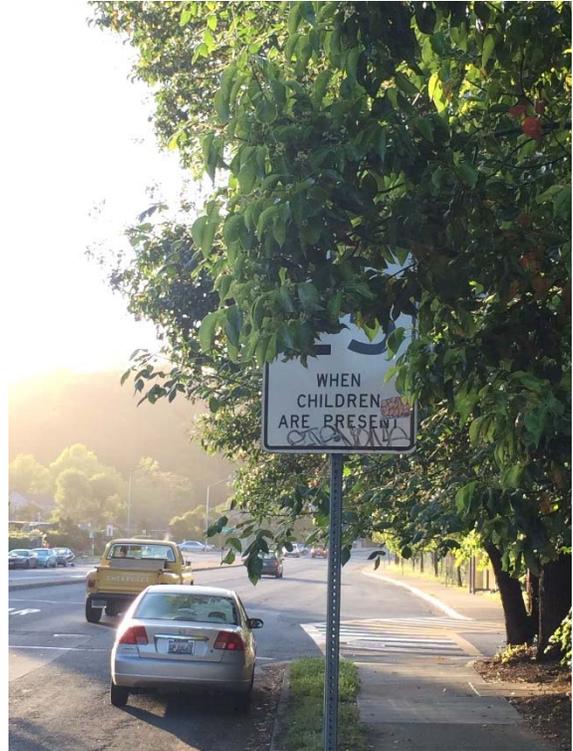
While a 25mph school zone speed limit sign is erected at this intersection, very few eastbound drivers adhered to the speed limit during the survey period. The bicycle detection stencils were placed on the extreme right side of the travel lane.

Resident Input

Residents surveyed comprised mostly of students and parents, although a number of adults exercising and walking pets were also surveyed. Residents chose to cross at Laurel Grove primarily due to the directness of the route.

The largest area of concern by residents were eastbound red-light running drivers at the Laurel Grove Avenue stop light. Residents observed that the rising sun in the morning hours

gets in the eyes of drivers as they round the corner approaching Laurel Grove Avenue, making it hard to see the signal when changed to red. Residents also observed that the eastbound school zone speed limit sign is located immediately east of the Laurel Grove Avenue intersection, not giving drivers advance warning of a school zone crosswalk. Residents also commented on the low rate of westbound driver compliance for pedestrians when turning right onto Laurel Grove Avenue via the slip lane. Student bicyclists crossing the street were observed riding on the sidewalk or (for those going to Kent Middle) riding the wrong way against traffic until merging onto the sidewalk at Rosebank Avenue. Residents requested improvements at the crosswalk on McAllister Avenue, pedestrian space on Laurel Grove Avenue, and an advance warning light on Sir Francis Drake Boulevard, alerting eastbound drivers to when the signal at Laurel Grove Avenue has cycled to red.



8. Wednesday, April 29, 2:30PM – 6:30PM

Sir Francis Drake Boulevard at Wolfe Grade

Wolfe Grade meets Sir Francis Drake Boulevard on the east side of Bacich Elementary; Marin Catholic High School is immediately to the east. The southern leg of the intersection act as a driveway to the Bacich Elementary parking lot. There are yellow high-visibility crosswalks in the northern and southern legs of the intersection and there is a pedestrian bridge over Sir Francis Drake Boulevard in the eastern leg of the intersection. The pedestrian bridge is equipped with bicycle wheel ramps to facilitate residents walking their bicycles.



The intersection has slip lanes and pork chop pedestrian islands in all corners of the intersection except in the southeast. There is a connection in the southeast corner of the intersection to a multi-use trail that leads out to Corte Madera Creek.

Field Observations

While this survey period was meant to capture students and parents from Bacich Elementary, the school had a minimum day on the day of the survey period. As such, there were very few bicyclists and pedestrians traveling on Sir Francis Drake Boulevard during the survey period and staff were only able to collect six surveys. Early in the survey period, there was a jump in pedestrian activity from students leaving Marin Catholic High School, but none of the students were willing to take the survey.

The sidewalks along Sir Francis Drake Boulevard near this intersection are constrained in width, especially alongside the pedestrian bridge stairways. Protective K-rails and overgrown vegetation also constrain sidewalk width.

Visibility for pedestrians crossing to the pork chop pedestrian islands on the north side of the intersection is obscured, especially for eastbound drivers on Sir Francis Drake Boulevard, as the support structure for the pedestrian bridge blocks an advance view of the sidewalk at the adjacent crosswalk across Wolfe Grade. On the day of the survey, the yield sign at the slip lane crosswalk was missing; it appears a driver hit the wooden sign post, leaving only a splintered stump 8 inches high from the pavement.



Resident Input

There was less feedback at this location than others, due to the low volume of bicyclists and pedestrians. Residents requested more consistent sidewalks along Wolfe Grade, sidewalks or bike lanes on Los Cerros Drive, and for repair of sidewalks on Sir Francis Drake between Wolfe Grade and Bon Air Rd.

One resident said that Wolfe Grade is a common route coming back from a well-known pub crawl in San Rafael, and that many drunk drivers in past years have crashed their cars into homes on Wolfe Grade.

