



Prepared by the
Berkeley Climate Action Coalition
Transportation Working Group
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MILVIA BICYCLE BOULEVARD: CHANGES NEEDED

One of Berkeley’s most popular bicycle boulevards, Milvia Street, borders the east side of Berkeley High School. Each morning during peak commute time, cars dropping off students either cross through the bike lanes to park next to the curb or “double park,” idling in the bike lane. Both approaches block bicycle travel and create hazards for cyclists, pedestrians, and cars.



Milvia Street at Berkeley High. Source: Google

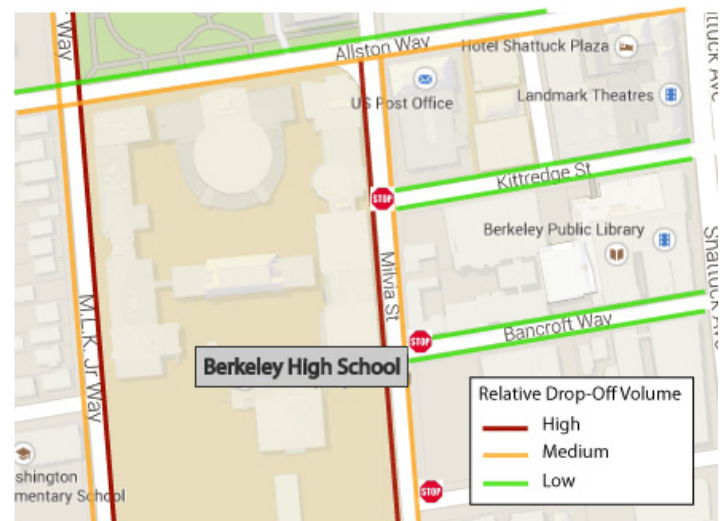
We need to streamline bicycle travel on this important bicycle boulevard to encourage active living and help the city meet its Climate Action Plan goals. The Climate Action Plan envisions that in 2050, “Public transit, walking, cycling, and other sustainable mobility modes are the primary means of transportation for Berkeley residents and visitors” (City of Berkeley, 2009). Perceived danger and ease of commute factor into daily travel choices, so addressing interruptions to bicycle travel along Milvia will be necessary to achieve this goal.

THE PROBLEM

A traffic survey conducted by Berkeley Climate Action Coalition volunteers during morning drop-offs in February 2015 found heavy traffic and car-cyclist conflicts along Milvia Street.

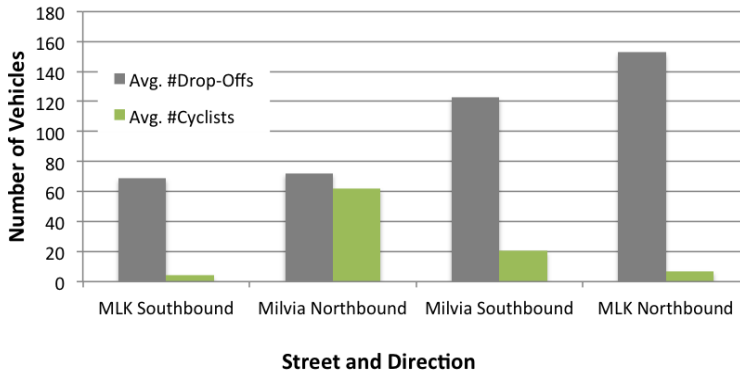
Although it is a bicycle boulevard and 7.5 times more cyclists use Milvia Street, nearly as many cars drop off on Milvia as on adjacent Martin Luther King, Jr. Way, the street bordering Berkeley High’s western edge. The map below shows the school vicinity and a schematic representation of drop-off volumes found by survey volunteers. The figure on the next page shows a side-by-side comparison of drop-offs and bicycle ridership between Milvia Street and MLK Way.

High car traffic takes a major toll on the bicycle boulevard’s safety and effectiveness. For example, volunteers observed a cyclist that was blocked multiple times by different cars while passing through the area, a cyclist that the surveyor believed was nearly hit, and a mom and two kids walking their bikes on the sidewalk to avoid the contentious street scene. One surveyor even observed “Cars driving in [the] southbound bike lane to avoid backup in [the] traffic lane—not to drop off!”



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Drop-Offs and Cyclists on Berkeley High's Top Two Drop-Off Streets



The cycling environment on Milvia Street needs to improve, because perceived danger has a major effect on the decision to cycle. For example, the National Center for Safe Routes to School found that more than half of parents who do not let their children cycle or walk to school cite traffic along the route to school as an important factor. Parking in, driving in, and driving through bike lanes obstructs bicycle travel and increases perceived danger, which discourages the use of this low-carbon, active transportation option. If commuting by bicycle is slow and bicycle lanes are blocked, cyclists are likely to turn to other travel options. Additionally, perceived danger will have a greater influence on less confident, beginning cyclists (or their parents!) than more experienced ones, so it's an important barrier to address to increase the number of daily bike commuters.

The City of Berkeley itself found, through before-and-after bicycle counts, that cycling on Milvia Street increased dramatically before and after installing the traffic calming devices that exist on other sections of Milvia. As noted in Berkeley Bicycle Boulevard Design Tools and Guidelines, "[A]fternoon peak hour bicycle travel increased from 52 to 113 and from 73 to 109 on two blocks of Milvia Street before and after traffic calming through neckdowns, chicanes, and speed humps." This suggests that increasing perceived safety through traffic calming is indeed effective at increasing cycling rates.

THE CONTEXT: CLIMATE ACTION PLAN & BICYCLE PLAN

Increasing bicycle travel is key to realizing the City of Berkeley's commitment to reduce greenhouse gas emissions to 80% below 2000 levels by 2050. Transportation accounts for nearly half of Berkeley's greenhouse gas emissions (City of Berkeley, 2009), so much of Berkeley's emissions reductions will need to come from transitioning to alternative transport modes, including cycling. Cycling actually uses less energy per unit distance than any other travel mode (Wilbur Smith Associates, 1998), so increasing cycling rates is one of the most direct ways to realize emissions reductions.

Improvements to the cycling infrastructure along Milvia Street are consequently a natural fit with the city's Climate Action Plan. In fact, one of the action items listed in the Climate Action Plan is to "Identify and implement opportunities to improve the flow of cycling along bicycle boulevards, consistent with public safety..." (City of Berkeley, 2009). This is exactly what the Berkeley Climate Action Coalition proposes.

This action item is part of a broader goal to accelerate the rollout of the city's Bicycle Plan. The Bicycle Plan discusses cycle routes in Berkeley and provides a list of criteria by which to rank proposed

BASED ON CRITERIA FROM THE CITY'S BICYCLE PLAN, STREAMLINING BIKE TRAVEL ON THIS SECTION OF MILVIA SCORES 35 OUT OF 45 POINTS.

bicycle projects. Streamlining bicycle travel on Milvia Street near Berkeley High School would score highly against these criteria (earning approximately 35 of 45 points), indicating that this proposal fits well with the city's priorities. A key reason for this high score: Milvia Street is a major route to downtown Berkeley, and it is one of the most-traveled cycle routes in Berkeley. In fact, a city bicycle count study indicated that "Milvia is the only Bicycle Boulevard in Berkeley

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to record over 250 bicyclists on average in one 2-hour observation period, and it did so in 2010, 2011 and 2012” (Weissman, 2012).

THE SOLUTION: POTENTIAL REMEDIES TRAFFIC CALMING ON MILVIA STREET NEAR BERKELEY HIGH

One option for streamlining cycling on Milvia near Berkeley High is to make use of traffic-calming devices, such as those used elsewhere on Milvia and other bicycle boulevards. The National Center for Safe Routes to School recommends the “half-street closure,” among other traffic-calming options. This is a simple



A sign at a nearby school directs parents to drop off elsewhere.

barrier that restricts traffic entry in one direction. It is already used on other parts of Milvia Street. This would make Milvia Street less appealing as a drop-off location, redirecting cars onto the other streets that border the school.

Just two blocks west of Milvia, on

McKinley Ave, a similar approach is already in use to calm traffic around Washington Elementary.

CONVERT THE BIKE LANES INTO PROTECTED BIKE LANES

Protected bike lanes include barriers that separate cyclists from traffic. Cars are physically prevented from driving through or parking in such bike lanes. Protecting the current bike lanes along the target section of Milvia Street would prevent cars from pulling into existing street-parking spaces. However, protected bike lanes and street parking are compatible, with simple design modifications.



Artist's rendition of proposed protected bike lanes on Telegraph Ave. Source: StreetsBlog SF

For example, the Oakland City Council recently approved a plan for protected bike lanes and street parking along Telegraph Avenue. The schematic above, from StreetsBlog SF, shows a rendition of the proposed system. The key is to switch the positions of the bike lanes and parking, such that the bike lanes are between the parked cars and the sidewalk.

PROMOTE NON-CAR TRAVEL TO SCHOOL

If car traffic is reduced on Milvia Street, some other drop-off locations may see traffic increases. Traffic surveyors noted that Allston Way (at Berkeley High's northern edge) was already quite busy and that there were many student jaywalkers. Sending additional traffic through this area of high pedestrian travel is not ideal. It may be preferable for displaced cars from Milvia to drop off along Martin Luther King, Jr. Way.

Rather than merely shuffle car traffic from one street to another, however, the ultimate goal is to encourage mode shifting. In addition to improving access for cyclists heading into downtown Berkeley, bicycle improvements to this section of Milvia Street are likely to encourage some students to cycle to school. Efforts to reduce car travel should also look at bus schedules and routes, to assess whether the school is adequately accessible by non-car modes to those who are not able to cycle or walk.

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REFERENCES:

City of Berkeley. (2000). Berkeley Bicycle Boulevard Design Tools and Guidelines. Retrieved from <http://nacto.org/wp-content/uploads/2012/06/City-of-Berkeley-2000.pdf>

City of Berkeley. (2009). Climate Action Plan. Retrieved from http://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Berkeley%20Climate%20Action%20Plan.pdf

Curry, M. (2014). Oakland Council Approves Protected Bike Lanes on Telegraph Ave. StreetsBlog SF. Retrieved from <http://sf.streetsblog.org/2014/12/10/oakland-council-approves-protected-bike-lanes-on-telegraph-ave/>

McKenzie, B. (2014). Modes Less Traveled—Bicycling and Walking to Work in the United States: 2008–2012. American Community Survey Reports. Retrieved from <http://www.census.gov/prod/2014pubs/acs-25.pdf>

National Center for Safe Routes to School. (Date Unknown). The Use of Traffic Calming Near Schools. Retrieved from <http://library.ite.org/pub/e2661246-2354-d714-51ae-29605f57e234>

National Center for Safe Routes to School. (Date Unknown). Getting Results: National Center for Safe Routes to School | www.saferoutesinfo.org SRTS Programs That Reduce Traffic. Retrieved from http://www.saferoutesinfo.org/sites/default/files/resources/getting_results_reduce_traffic_0.pdf

Weissman, D. (2012). City of Berkeley Bicycle Counts: Summary of Trends 2000 – 2012. Retrieved from <http://goo.gl/mr8nAw>

Wilbur Smith Associates. (1998). Berkeley Bicycle Plan. City of Berkeley. Retrieved from http://www.ci.berkeley.ca.us/uploadedFiles/Public_Works/Level_3_-_General/plan.pdf

ABOUT THE BERKELEY CLIMATE ACTION COALITION

The BCAC is a network of local organizations and community members joining together to help implement the City of Berkeley's ambitious, forty-year Climate Action Plan. We include residents, nonprofits, the City of Berkeley, neighborhood groups, faith-based organizations, schools, businesses, UC Berkeley and anyone else interested in helping to achieve the critical goal of 80% emissions reductions.

TRANSPORTATION WORKING GROUP

The Transportation Working Group is working to address greenhouse gas emissions from transportation, the largest source of emissions in the City of Berkeley. The Working Group is collaborating with parents, administration, and students to reduce traffic congestion and car-drop offs around Berkeley High School.

BERKELEY HIGH SCHOOL TRAFFIC SURVEY & THIS REPORT WERE COMPLETED BY:

Holly Gaston Marjorie Alvord
Linda Currie Leah Fessenden
Sandra Hamlat

WITH HELP FROM MANY STUDENT & COMMUNITY VOLUNTEERS, THANK YOU!



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