

A Safe Route Through the I-280 Page Mill Interchange for Pedestrians and Cyclists

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This can be read in [Russian](#) thanks to [Hum2D](#) , in [Polish](#) thanks to Nadia Karbowska; or in [Czech](#) thanks to Barbora Lebedová.

This is a shorter and simpler version of a proposal made to the Traffic Safety Committee of Los Altos Hills and to the Santa Clara County Department of Roads and Airports on November 18.

Cycling Physics: *Cyclists are generally able to cross an adjacent vehicle lane by waiting for a gap that is large enough, then signaling and crossing the lane quickly. However, in order to cross two adjacent lanes, it is necessary for cyclists to find two larger gaps that appear concurrently in both lanes, which may never happen if there is dense traffic moving fast, such as during rush hours. Note that the current design of the subject interchange forces cyclists going either direction on Page Mill to attempt such a double crossing with a likelihood they will be hit from behind. In order for cyclists or pedestrians to cross two or more lanes of fast traffic, stop signs or traffic lights are required.*

Pedestrian Physics: *Pedestrians, equestrians and other non-vehicular traffic can cross a single lane of traffic without a stop sign or traffic signal if traffic flow has substantial gaps and is not moving fast. However, where there are two or more lanes or high traffic volumes or speeds either a traffic signal or stop sign is required.*

Those safety considerations were ignored in the design of the I-280 interchange with Page Mill Expressway , as observed by the Town Council of Los Altos Hills on June 7, 1965, shortly before the construction of I-280 was completed – see <https://web.stanford.edu/~learnest/280/1965.06.07.pdf> . However, their safety request was ignored by Caltrans.

There were many subsequent attempts to get this dangerous road configuration fixed but the occasional serious injuries to cyclists were not tracked by governmental authorities nor were they addressed. There apparently were few pedestrian injuries because very few such people attempted to get through that interchange since it was obviously dangerous. Instead of fixing those hazards, in 1999 Caltrans reconfigured the interchange so as to make it even more dangerous for both cyclists and pedestrians and, as a result, a cyclist was hit and killed on November 3, 2015 while trying to cross two lanes of fast traffic to reach the bike lane, which was a necessary maneuver in order to get through the interchange.

There is a simple and relatively inexpensive solution to both the cycling and pedestrian problems that I first proposed in 2010, as follows.

1. Immediately remove the pedestrian crossing markings at the bottom of the two-lane northbound off-ramp, which invites westbound pedestrians to step off the curb on the far side of a blind curve to cross two lanes of traffic moving at about 60 MPH, with no traffic light. The only reason no one has been killed there yet is that mature adults can see that it is too dangerous to try crossing. However, a youngster might see the pedestrian crossing lane and proceed. We should not continue to tempt fate since that pedestrian route leads nowhere and the line removal will cost almost nothing.
2. Promptly build a two-way shared path for non-vehicular traffic composed of asphalt 12 feet wide connecting Old Page Mill Road to Arastradero and upper Page Mill Roads by way of the north side of the interchange, as shown below, including button-operated traffic lights to enable safe crossing of the one-lane west to northbound on-ramp and the two-lane west to southbound on-ramp, as shown in the sketch below. The length of the path will be around 100 yards.

This will bypass the dangerous parts of the interchange so as to enable people riding



bikes or trikes as well as pedestrians, equestrians, those in wheelchairs or pushing baby buggies and the blind to get through the interchange safely. Furthermore, this solution will be less expensive and quicker to build than any alternative that provides full non-vehicular access.

This 2010 proposal was subsequently incorporated into County Roads proposals for more advanced designs for motor vehicles, so it can be regarded as a step toward the future. However, the more sweeping proposals shown so far fail to meet the cycling and pedestrian physics standards shown above.

Recommendation. This proposal can and should be implemented promptly so as to greatly reduce the likelihood of further injuries or deaths.