

Garrett Glasgow  
Political Science 9420  
UC Santa Barbara  
Santa Barbara, California 93106-9420  
June 20, 2008

Ms. Cathy Stettler, Senior Environmental Planner  
Caltrans District 5  
50 Higuera Street  
San Luis Obispo, California 93401

Via e-mail attachment (Cathy\_Stettler@dot.ca.gov)

RE: Comments on Draft Environmental Impact Report, Proposed Suicide Barrier on  
Cold Spring Canyon Arch Bridge, State Highway 154, Santa Barbara County

Dear Ms. Stettler:

Thank you for the chance to review and comment on this draft environmental document. As my area of expertise is in social science statistics and research design, I will limit my comments to that topic.

1. **Pg. 1, Purpose and Need.** The purpose of the proposed project contradicts earlier analysis and recent public statements by Caltrans officials, making the real purpose of this project unclear. The two goals of the project as stated here are:
  1. Reduce the number of suicides at the Cold Spring Canyon Bridge.
  2. Reduce the risks to emergency personnel such as law enforcement officers or search and rescue teams when attempting to prevent a suicide or recovering a body.

Note that these goals can be achieved by simply diverting suicidal people from the Cold Spring Canyon Bridge to commit suicide elsewhere. Thus, the purpose of the project as stated here is keeping suicidal people off the bridge, not saving the lives of suicidal people.

This contradicts the benefit-cost ratio calculation of August 18, 2006 (File No. 05-SB-154-PM-22.95/23.19), which calculated a safety index based on the assumption that this project would save 1.6 suicidal people per year. As saving the lives of suicidal people is not listed as a purpose for this project, this benefit-cost ratio is irrelevant (and also unsupported by scientific research on suicide prevention barriers). The benefits of achieving the purposes of the project as listed on page 1 have not been formally evaluated – instead, this document simply asserts these benefits are worth the project cost.

Also note that the purpose of this project as stated on page 1 contradicts statements by Caltrans officials, who continue to tell the public that the purpose of the project is to save the lives of suicidal individuals. For instance, on May 20<sup>th</sup> Colin Jones told *The Daily Nexus* “The main message is this is the ultimate safety project. If it was your mother or child out there, wouldn’t you like to spend the money to save them, whether it’s one million or two million dollars?” On June 10<sup>th</sup> Jim Shivers told the *Independent* “We see this as something that will save lives.”

Thus, the purpose of this project is unclear – is it designed to save the lives of suicidal people, or simply to keep suicidal people off of the Cold Spring Canyon Bridge? There is a difference between preventing suicides at a particular location and saving lives, and this document should state explicitly which of these goals the project is designed to achieve. If the goal of the project is simply to keep suicidal people away from the Cold Spring Canyon Bridge, a new benefit-cost ratio for the project must be calculated.

- 2. Pg. 12, The Human Barrier Alternative.** On page 12 the document states “research in the field of suicide prevention shows the human barrier approach has not been successful.” This is false. There is no scientific research that demonstrates that a “human barriers” approach is ineffective, or even less effective than physical barriers.

In fact, the human barriers alternative was explicitly recommended for the Cold Spring Canyon Bridge by Gary Spielmann. Mr. Spielmann is the former Director of Suicide Prevention for the New York State Office of Mental Health, and a consultant for suicide prevention to the New York State Bridge Authority (NYSBA), the New York State Thruway Authority, and the international Peace Bridge Authority. Mr. Spielmann is also the architect of the NYSBA “human barriers” approach to suicide prevention that was presented to Caltrans as a project alternative.

In testimony submitted to Caltrans Mr. Spielmann stated “suicide prevention barriers are an inferior solution to the problem of suicide on bridges.” He also stated “A ‘human barrier’ will outperform any physical barrier and save more lives.” Although Mr. Spielmann is a credible authority on suicide prevention on bridges, his testimony is completely ignored in this document.

The only sense in which a physical barrier has been demonstrated to be superior to a “human barrier” alternative is in keeping suicidal people away from a particular location. Again, if the purpose of this project is simply to keep suicidal people away from the Cold Spring Bridge, without regard for saving lives, then this must be explicitly stated and a new benefit-cost ratio calculated.

3. **Pg. 21, The Benefits of Barriers.** On page 21 the document states “A benefit of the proposed project is that people often do not go elsewhere or substitute another method to commit suicide. This is supported by the information and studies described below.” This is false, at least in the case of barriers on bridges. To date no scientific study has been able to demonstrate that suicide barriers save lives.

It is true that means restriction has proven effective at reducing suicides by some methods. This evidence of the effectiveness of means restriction as a suicide prevention strategy comes from studies of lethal agents people keep in their homes and might use in an impulsive suicide, such as firearms and prescription medications.

While some have argued that the concept of means restriction might also extend to suicides by jumping from bridges, this is purely conjecture. To date every study on the effectiveness of suicide barriers has been inconclusive – nobody knows whether suicide barriers save lives, or just divert suicides to other locations.

The fact that means restriction works for some methods of suicide but is unproven in the case of suicide barriers is well known among researchers and public health officials. For instance, after endorsing means restriction strategies for firearms, domestic gas, and toxic substances, on the topic of suicide barriers the World Health Organization states:

In addition to the measures described, whose efficacy is attested to by the scientific literature, it is thought that other measures, such as the use of fencing on high buildings and bridges, could also contribute to a reduction in suicide rates, although there is no definitive evidence to support this idea. (p. 87)

In more than 30 years of research, not one study has found evidence that suicide barriers save lives. For instance, in the most recent study on the topic (published in December 2007), Reisch et al. conclude “[b]arriers on bridges may prevent suicides but also may lead to a substitution of jumping site or method” (p.681). In sum, there is no scientific evidence that suicide barriers on bridges save lives.

4. **Pgs. 17-23, The Description of the Scientific Literature is Misleading.** The discussion of the scientific literature on suicide barriers in this document is either misleading or misinformed. Studies are cited as if they contain evidence that barriers save lives, when in fact they explicitly state they should not be interpreted in this way.

For example, on page 18 the document cites O’Carroll et al. (1994), but omits any discussion of the conclusion of the study, which states:

Are the data provided sufficient to substantiate the effectiveness (or lack thereof) of bridge barriers as a means to prevent suicide? The answer is no, the data are not sufficient to answer that question, because they do not touch on the issue of whether persons who would have committed suicide by jumping from the Ellington Bridge went on to commit suicide by other means. ... [P]ersons frustrated in their efforts to commit suicide by jumping from the Ellington Bridge are in no sense restricted to committing suicide by jumping from the Taft Bridge. (p. 92)

Most of the other studies cited on pages 17-23 contain similar cautionary notes, but no mention of this is made anywhere in the document. There is no scientific evidence that suicide barriers save lives, but this is not the impression given by this section of the document.

In conclusion, this document is unclear about what the actual purpose of the project is (keeping suicidal people away from the bridge or saving lives). If the actual goal of the project is simply to keep suicidal people away from the Cold Spring Canyon Bridge, this must be made clear in the document and to the public, and a new benefit-cost ratio must be calculated. This document also makes at least two false statements about the scientific literature on suicide prevention on bridges, presents the scientific evidence on the topic in a misleading way, and neglects to even mention testimony from a recognized expert on suicide prevention who recommended an alternative to the physical barrier. Overall, this document gives the distinct impression that the evidence on this topic is being deliberately distorted in order to support the decision to construct a physical barrier.

Sincerely,  
Garrett Glasgow