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## Fwd: Comments for TAC on STIP Projects

**Beth Burks** <beth.burks@hcaog.net>  
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Tue, Oct 3, 2023 at 2:48 PM

On Tue, Oct 3, 2023 at 11:56 AM Colin Fiske <colin.fiske@gmail.com> wrote:

Hi Beth,

Please accept these comments on the proposed 2023 STIP projects, and please forward them to TAC members as well.

The list of proposed STIP projects highlights the need for a reliable, consistent and quantitative scoring and prioritization tool. The self-attested check-box method for assessing whether projects help promote RTP goals is not working, as the paperwork accompanying these proposals demonstrates. Specifically:

- **A project cannot simultaneously increase vehicular capacity (or improve LOS) and also reduce VMT or encourage mode shift.** The principle is simple and extensively researched: increased vehicular capacity induces more driving. A project that provides new infrastructure for bikes and pedestrians may improve bike/ped safety, which is very important. But if it also increases vehicular capacity, it will still induce more driving, and will not shift a significant number of trips or miles from cars to other modes.
  - The Arcata Sunset Ave Interchange project and the Fortuna Kenmar Interchange projects add some safety features for bikes and pedestrians (more on this below). But they are also specifically designed to increase vehicular capacity/improve LOS. Therefore, the boxes for "Mode Shift" and "Lowers VMT" should not be checked for these projects. In fact, these projects will likely increase VMT.
- **Significant mode shift can only occur when facilities are designed to provide low levels of traffic stress for a broad cross-section of potential users.** Simply providing a standard bike lane or crosswalk on a busy road may improve safety for existing users, which is important. But it will not induce a significant number of new people to walk or bike if the level of traffic stress (LTS) is still high, because research shows that the vast majority of Americans will only walk or bike under low-stress conditions.
  - The county's Central Ave project proposes to add Class II bike lanes to a stretch of road with a 45 mph speed limit. This will improve safety somewhat over current conditions, but based on a standard methodology would still result in a LTS 3 or 4 facility - one that fewer than 15% of the population would consider using. Therefore, the boxes for "Mode Shift" and "Lowers VMT" should not be checked for these projects.
- **Mode shift lowers VMT.** Mode shift involves converting trips or miles traveled from cars/trucks to other modes. Mode shift therefore automatically lowers VMT. (Non-replacement bike/ped/transit trips can also be stimulated, such as new recreational trips, but this isn't mode shift. And VMT can also be lowered by reducing driving trips without converting them to other modes, but these kinds of TDM programs are rarely if ever proposed for HCAOG funding.) The fact that three projects check the box for "Mode Shift" without also checking "Lowers VMT" indicates some fundamental confusion about the meaning of HCAOG's Safe & Sustainable Transportation targets:
  - The Arcata Sunset Ave Interchange project, as discussed above, will result in neither mode shift nor VMT reduction.
  - The Eureka Myrtle Ave project may be able to claim Mode Shift & VMT reduction if it results in a bike LTS of 1 or 2. However, the project does not appear to address intersection safety for bicyclists, which if unaddressed will leave LTS high enough that neither Mode Shift nor VMT reduction could feasibly be claimed.
  - The Eureka Bay to Zoo Trail can make a good argument for Mode Shift and thus also for VMT reduction, and both should be counted.
- **Safety is often dependent on design details.** Safety improvements for vehicles do not always translate into safety improvements for other modes, and it is quite difficult to assess the safety impact of many projects for particular groups of users without a greater degree of design detail. For example, roundabouts generally have a very strong record of improving safety for motorists, but their impacts on other modes seem to depend largely on design.
  - The Arcata and Fortuna Interchange projects both prominently feature roundabouts. These will likely improve safety for motorists. The Arcata project will also likely improve safety for bicyclists due to the inclusion of a Class IV bikeway. However, the safety impacts on pedestrians (and bicyclists in Fortuna) is

not as clear from the design concepts presented. Both projects present concepts with excessive turning radii for vehicles, encouraging higher speeds, and substantial crossing exposure for pedestrians (and bicyclists). It is therefore unclear from the information provided whether and to what extent these projects will improve safety for all modes and all users.

- As noted above, the extent of safety improvements of the Eureka Myrtle Ave project for bicyclists are also uncertain, based on the apparent lack of intersection improvements. This project does not seem to propose safety improvements for other modes.
- **There is no clear and consistent application of the "Access to Essential Destinations" category.** The definition of "essential destinations" is somewhat subjective, as is the definition of "access" itself. Nevertheless, some of the box-checking in this category is clearly inconsistent.
  - The Bay to Zoo Trail provides new safe, low-stress access to clearly essential destinations like the hospital district. The city has not checked the "access" box, but should.
  - The Central Ave project could perhaps make an argument for access to essential destinations, and the county has checked the box, but it is not clear to which destinations they are referring and for whom.
  - The Myrtle Ave project could likely make as strong a claim for improved access as the Central Ave project, but the box is not checked.
- **Every opportunity for improving safety and encouraging mode shift and VMT reduction should be taken.** It is unclear to us why the county would undertake pavings projects such as those proposed on Hubbard Lane and Redwood Drive without incorporating safe complete streets infrastructure. Repaving is the cheapest and easiest time to implement many such improvements.

After a more realistic re-assessment of the proposed projects based on these considerations, only one of the eight proposed projects (the Bay to Zoo Trail) can make a strong case for mode shift and VMT reduction based on the information provided - that's 13% of the projects, not the self-reported 77% and 39%, respectively. Significant questions remain about whether and to what extent the various projects will improve safety and access for different types of road users, putting these categories into question as well.

Clearly, the self-attested box-checking is not an adequate method. HCAOG should adopt a consistent system for objective assessment of the degree to which each project contributes to - or hinders - achievement of each of the major RTP goal areas. And this system should be used to prioritize projects, but also to improve projects when the initial concepts are insufficient to make them competitive for funding.

Thank you.

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