

Transportation Solutions Defense and Education Fund

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April 17, 2015
By E-Mail to:
ctp2040@dot.ca.gov

Gabriel Corley, Project Manager
Division of Planning, MS-32
Department of Transportation
P.O. Box 942874
Sacramento, CA 94274

Re: Detailed Comments on the California Transportation Plan 2040

Dear Mr. Corley:

The Transportation Solutions Defense and Education Fund (TRANSDEF) is an environmental non-profit focused on reducing the impacts of transportation on climate change. Having already submitted overview comments on the draft *California Transportation Plan 2040* (the Plan), this letter is intended to convey our detailed comments.

We especially appreciate the inclusion of the following critically important yet typically ignored themes:

p. 23: Millennials' travel habits

p. 58: accessibility

p. 58: a cooperative, continuing and comprehensive planning process

p. 69: locally owned businesses recirculate money within the community

p. 74: Livable and Healthy Communities and Promote Social Equity

p. 77: Integrate health and social equity in transportation planning and decision-making.

p. 77: Design and implement public participation strategies to include those traditionally underrepresented and underserved.

High-Speed Rail

Because the CHSRA has strong support from the Governor, we have no expectation of influencing the text of the CTP. However, the team should be aware that TRANSDEF is litigating ARB's inclusion of the current HSR project in the Scoping Plan as a GHG emissions reduction measure, as well as the Legislature's subsequent appropriation of GHG auction proceeds for HSR.

We intend to show that, based on the record before the ARB, the project will be a net GHG generator for at least the next 20-30 years, a critical period under AB 32 to

achieve GHG emissions reductions. The CO₂ emissions resulting from the production of the cement required for constructing the project's massive civil works were totally ignored in the ARB analysis. These emissions will overwhelm any potential GHG reductions due to passengers shifting from auto mode to HSR for at least the first 20-30 years of operations. [see *High-speed rail with emerging automobiles and aircraft can reduce environmental impacts in California's future*, attached.]

TRANSDEF has been involved in commenting on and litigating against the HSR project since 2004. We litigate to stop it because we believe that, in its current configuration, the inevitable massive failure of this project will destroy public support for passenger rail for generations to come. [see http://transdef.org/HSR/Private_Capital.html]

HOV Lanes

It is an open secret that HOV lanes were Caltrans' strategy to build more highway lanes when the Clean Air Act prohibited new mixed-flow lanes. They covertly expand highway capacity for drive-alones by draining off HOVs from mixed-flow lanes. Once built, however, they have been subject to benign neglect--Caltrans has shown no interest in optimizing the carpooling mode share. This is clear because of the following:

- HOV lanes are not consistently operational during all congested periods, thus failing to provide the incentive of a consistent travel-time advantage to carpools.
- HOV lanes are not enforced, allowing them to become overly congested with drive-alone violators.
- Carpooling is not aggressively promoted.

TRANSDEF urges Caltrans to commit to increasing average vehicle occupancy by maximizing HOV use. HOV facilities are a critical part of a Smart Mobility future. Real-time ride-matching services like Carma could make carpooling convenient for large numbers of people. The mode shift would be significant if adequate incentives were offered, the most important being a significant travel-time advantage resulting from free-flowing HOV lanes on congested highways.

The first step should be fixing the operational issues identified above: 1). Make the HOV lanes operational whenever a highway is routinely congested; 2). Put significant resources into publicizing and enforcing the HOV occupancy restrictions; 3) Develop technical means to monitor occupancy, including infrared video cameras mounted on structures and poles; 4). Enforce the prohibition on overly dark tinted windows (which make enforcement difficult); and 5). Aggressively promote carpooling and real-time ride-matching services like Carma.

We suggest the sponsoring of federal and state legislation to authorize take-a-lane HOV conversions that becomes operative when mode shift in a corridor is successful enough to congest the existing HOV lane (with standards for on-going enforcement of violators).

Operations Focus

It is critical for its political well-being that Caltrans be seen by the general public as involved in and caring about everyday traffic conditions. We suggest the creation of corridor-based websites that provide the real-time data that is already being received by Caltrans' operations centers, along with a listing of the recurring congestion sites. Each listed congested area should have brief analysis of the cause of the problem and proposed solutions, especially ones that are commonsensical and low-cost (signage and re-striping, for example). CMAs should be active partners in creating and maintaining these sites.

This would indicate to members of the public that Caltrans is aware of the problems they experience each day. Right now, it appears that it is no one's job at Caltrans to be aware of current non-incident-based conditions. Caltrans needs to expand its presence beyond building and maintaining highways. It needs to actively operate them.

Modeling

The modeling is based on the five modal plans and the SCSs. (p. 86.) Please provide a table of the model inputs, listing both the aggregate increases in absolute numbers and in percentages, relative to existing conditions, for Alternatives 1 and 2:

- lane-miles for each roadway type (The 2013 ITSP (p. 11) shows 2131 lane-miles of Focus Route improvements either completed, planned or under construction.)
- seat-miles for aviation
- train-miles for intercity rail
- revenue-hours of transit service

If another metric is more readily available, please substitute that. These inputs are needed to evaluate the reasonableness of model outputs. The absence of this information in the draft Plan makes it impossible to verify that any of the alternatives modeled are consistent with the policy framework set by the Plan. The draft Plan appears to have internal conflict between its policies and the direction of SCSs and modal plans. This would obviously make attaining the Plan goals far more difficult.

If, for example, the model input table we request indicates a substantial increase in highway lane-miles, we request a model alternative be constructed that includes no new lane-miles. It is critical that the model inputs of at least one alternative be fully consistent with the policies of the Plan. It is important that Californians be able to make informed choices about the State's response to the challenge of climate change.

Please provide a fuller description of how the VISION model deals with new and unproven technologies. What degree of confidence can be given to the feasibility of alternatives which are based on mere assumptions of future performance?

Policy Suggestions (keyed to Plan page number)

p. 37: The study by Todd Litman (attached) establishes the cost-disadvantages of sprawl.

p. 45: Because local sources make up such a high percentage of overall transportation funding, achievement of Plan goals will require an enforceable mechanism to align local expenditure plans to State goals and policies. Counties are currently going forward with sales tax proposals based on plans that show 35% increases in VMT. This must stop if the Plan is to succeed.

pp. 55, 94 & 121: It is unclear how the CTP can call for road user charges and still support HOT lanes. In a scenario in which all vehicles are paying road charges, it would be poor public policy to continue to give special treatment to solo drivers--they are the cause of congestion. Helping them get out of congestion while they continue to drive alone is a distraction from the task of increasing average vehicle occupancies. HOT lanes will become a mere transitional step once the implementation of the Plan's call for the pricing of entire roadways is underway. For long-term planning purposes, they are a duplicative distraction. The Plan should be emphasizing the need for pricing, and for the cancellation of HOT projects.

p. 59: While transportation professionals would like to use performance measures to identify high-performance cost-effective investments, the public interest is rarely the priority in project selection, design and execution. The CTP needs an element calling out the problems with transportation projects. G3 might be the right place. See the following attachments:

- *Why is it so expensive to build a bridge in America?*
- *American transit activists need to speak up about exorbitant construction costs*
- *Reforms Key to Controlling Costs on Public Works Megaprojects, Say Experts*
- *What You Should Know About Megaprojects and Why: An Overview*

p. 61: It is far too late for CSMP-recommended improvements and strategies to preserve the viability of the drive-alone mode. The time has come to formally abandon support for peak-period drive-alone, and throw all the resources of the State into alternatives.

p. 64: Add "unbundled parking and parking cashout for all employees receiving free parking, regional impact mitigation fees, and transit passes that are included in rent or homeowners' association dues" to P1-S3. The latter can be mitigations for lowered parking ratios, and serve as sunk costs of transportation, thus easing entry to transit.

p. 66: Sea level rise is a far more important issue for transportation than just public access. Critical facilities will be permanently underwater unless action is taken. [See *Challenges and Opportunities for Integrating Climate Adaptation Efforts across State, Regional, and Local Transportation Agencies*, attached.]

p. 67: Another policy is needed: "Develop funding methods adequate to the financial challenges."

p. 69: The politicization of transportation project selection diverts resources away from more socially beneficial projects. TRANSDEF observes that the current HSR project has an adverse effect on the State's financial ability to improve its infrastructure, while having only a small, distantly beneficial effect on statewide travel.

p. 77: Stress that parking reform is the hidden core of smart growth in P2-S5. Stress reduced vehicle trip generation. Mention TDM as mitigation for reduced parking ratios.

p. 78: Add VMT/capita and mode split as PMs. They should be captured both as projections during the project approval phase, and as measured performance.

p. 78: To be able to gain credibility on environmental issues, some kind of acknowledgement of the past is needed. After "The CTP 2040 is anchored with the 3 E's of sustainable planning, including "environment."" insert: "It announces a sharp break from a long history of insensitivity to the environment."

p. 86: Are the modal plans fully funded? What is the total cost of the CTP?

p. 90: Both pricing and transportation alternatives are also strategies for mode shift, so mode shift itself cannot be a category at the same hierarchical level as the other two. A better approach would be to place all the strategies that had been under Mode Shift into the Transportation Alternatives group. See also p. 146. [This note is duplicated in the Editorial letter.]

p. 93: When discussing percentages, it is critical to always be clear as to whether one is expressing a change in percentages, or percentage points. The "net five percent increase in carsharing..." failed to be clear. A five percent increase would be unimpressive in 2040, while a five-point increase in mode share would be meaningful.

p. 93: Given the huge effort and expense involved in implementing the transit service improvements, the resulting 6% drop in statewide VMT is disappointing. As disclosed on p. 162, the modeling has not been adequately validated. We wonder if the model is able to meaningfully address a scenario with doubled transit service levels and speeds, as this is so far outside the range of existing data. In short, we have low confidence in that model output.

p. 93: Please confirm that the doubling of transit speeds is of average speeds and not top speeds. If a doubling of speeds is feasible, it will require heavy enforcement of transit preferences over autos in urban areas.

p. 94: A doubling of bike and ped mode shares is unimpressive over a 35-year timeframe, as the bases were so low. The resulting shares are an order of magnitude smaller than Europe's non-motorized mode shares.

pp. 94 & 124: TRANSDEF opposes increasing the occupancy requirements for HOVs. The benefits are modest. Please see our suggestions in the HOV Lanes section, above.

We suspect that if these suggestions were implemented, a significant increase in person-throughput would result. We strongly support converting mixed-flow lanes into HOV lanes, when existing HOV lanes are congested. Please note that this will require both federal and state legislation.

p. 96: The results in Table 18 are counter-intuitive, making them suspect. Even though they reflect far-distant 2040, the results should still be reasonable. The low-income group is surprisingly price insensitive. The high-income group had higher HOV mode shares than the low-income group. The HOV mode shares were much higher than would be expected for that group. We doubt the reasonableness of the modeling.

p. 97: Table 19 is impossible to verify, as the calculations aren't explained. These numbers seem to be for a percentage change, rather than an arithmetic shift in percentage points.

p. 101: The Alternative 1 increase VHT by 2040 is so large that it raises questions about the validity of the model. Because congestion is already very high in the State, that large an increase in VHT should have produced a much larger impact on % Congested. Small increases in traffic where the V/C is in the 90+ percent create big increases in VHD. Yet that didn't happen here. These results are anomalous.

p. 105: Because the Plan's transportation strategies will affect land use patterns, resulting in substantial economic effects, it is troubling that "Broader impacts such as land use, ... are not reflected in this analysis." Please make it explicit that TREDIS is not an urban model with land use linked to transportation improvements. Please provide an indication of how the model outputs would have been different, had the transportation improvements been fed back to the land use model to reflect the advantages future development made of transit investments rather than highway investments.

p. 108: "The CTP 2040 is consistent with the policies and strategies from the Caltrans five modal plans ..." The 2013 ITSP contains a long list of highway/expressway widenings. Caltrans has arrived at a moment of policy incongruence: these projects are not consistent with the policy direction of CTP 2040--even though the ITSP referred on p. 45 to the legislative mandate of SB 391. If the 2015 ITSP Update is adopted consistent with the sample project list, neither the CTP's goals nor the legislative mandates can be achieved. How will Caltrans undertake the profound changes called for by the Plan?

p. 109: PTC is now being installed, with a statutory deadline of December 2015. Is the desired improvement the installation of PTC, or are there features needed that are not currently being provided? If so, identify them.

p. 112: The current Caltrain electrification project is a perfect example of what not to do in implementing the "Support electrification" bullet. The project will do little to increase ridership while obstructing the funding of the Downtown Extension, which would substantially increase ridership. TRANSDEF is convinced that increasing ridership is far more important for GHG reduction than electrification of motive power. Worse yet, the

deal Caltrain made with HSR for funding will prevent Caltrain from increasing its number of trains. TRANSDEF is currently challenging the electrification EIR.

p. 112: Please note the HSR section above. We contend that HSR harms the environment by diverting cap and trade funds away from projects that would decrease GHGs to one that increases GHGs.

p. 113: While planners call for "Prioritiz[ing] funding toward alternatives that enhance efficient and affordable mobility" the real world operates exactly opposite to that. In Sacramento, the passenger platforms were moved far away from Amtrak station, due to the political clout of an arena proposal. Efficiency and mobility for Amtrak passengers were grievously harmed by this very expensive project, funded by the public. The San Francisco Mayor's political deal with a power broker resulted in the approval of the Central Subway, Muni's most expensive capital project, which will disconnect a major light rail line from the Muni Metro Market Street tunnel while providing minimal travel-time benefits to its supposed beneficiaries. Please also see comments above re: p. 59.

p. 113: Is "Create a transportation State sales tax component" meant to indicate something besides the already existing TDA?

p. 113: Transit operators need to receive operating funds from tax increment and other financing districts. As station areas densify, they need funding to support the increased travel demand.

p. 114: Include the CEQA Guidelines among the documents that need to incorporate climate change resiliency.

p. 114: It will require tools from the State, including a possible Constitutional Amendment limiting the applicability of takings law, if jurisdictions are to be able to successfully deny permits to develop land that is subject to eventual inundation.

p. 120: Relieving traffic congestion before it occurs will remain a fantasy until the privileged access to funding to support the drive-alone mode is formally ended.

p. 124: "Create legislation to implement an aggressive mix of VMT reduction strategies ..." should be a Short-Range recommendation, as it is needed immediately, rather than Mid-Range.

p. 125: TRANSDEF opposes major State investment in hydrogen infrastructure. We believe that the availability of an existing electrical distribution network makes it unreasonable to fund a parallel distribution system for hydrogen. With recent improvements in batteries, EVs are becoming less expensive and more convenient. The electrical grid should be the recipient of any State distribution infrastructure funding.

p. 147: The proposed 50% fare discount would convert HSR into a state-funded transit system. HSR was sold to the public as a self-supporting business. While we certainly

support lowering transit fares to increase ridership and social equity, doing this for HSR does not appear to be feasible. Litigation currently in progress asks the court to determine that the current CHSRA project will not be able to operate without a subsidy, and therefore cannot receive Prop. 1A funds.

p. 162: While it is helpful to note that the transportation sector may need to achieve greater than an 80% reduction to accomplish an 80% statewide reduction, it would be appropriate to add that scientific analyses since 2005 suggest that an 80% reduction will be insufficient, and reductions are needed much sooner.

Conclusion

TRANSDEF is pleased with the draft Plan. It will be essential in steering transportation policy into a direction that is coherent with adopted State GHG emissions reduction goals. We thank Caltrans for its excellent work and offer our assistance in making the policy shift called for by the Plan a reality.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn,
President
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Attachments

Chester, M. & A. Horvath. 2012. High-speed rail with emerging automobiles and aircraft can reduce environmental impacts in California's future. *Environ. Res. Lett.* 7 (2012) 034012. <http://iopscience.iop.org/1748-9326/7/3/034012>

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Cooper, R. (2014) *Why is it so expensive to build a bridge in America?*

Yglesias, M. (2014) *American transit activists need to speak up about exorbitant construction costs*

Flyvbjerg, B. (2009) *Survival of the unfittest: why the worst infrastructure gets built—and what we can do about it* (abstract only)

Flyvbjerg, B. (2014) *What You Should Know About Megaprojects and Why: An Overview*

Dowds, J. & L. Aultman-Hall. 2015. *Challenges and Opportunities for Integrating Climate Adaptation Efforts across State, Regional, and Local Transportation Agencies*. http://ncst.ucdavis.edu/wp-content/uploads/2014/08/04-06-2015-NCST_UVM_ClimateAdaptionWhitePaper_FINAL.pdf

Litman, T. 2015. *Analysis of Public Policies that Unintentionally Encourage and Subsidize Sprawl*. <http://static.newclimateeconomy.report/wp-content/uploads/2015/03/public-policies-encourage-sprawl-nce-report.pdf>