

3/25/24

TAMC Board Members,

Why is Caltrans delaying the legally required answers, to the Public's questions/comments on the proposed 9 roundabouts on Hwy 68 that were submitted to Caltrans before the January 8 deadline as part of the Draft EIR? Carla Yu, the Caltrans Project Manager confirmed that **the responses will not be released to the Public until October**, which is long after Caltrans is set to make a decision on the Hwy 68 project "**later this Spring.**" Why is Caltrans not posting their answers/responses as soon as they are completed, so the public can view them, hold them accountable and see the reasons for the actions that use millions in taxpayer funds and impact the local community for years to come?

According to Caltrans, "**The preferred alternative is selected by the Caltrans Project Development Team (PDT) based on consideration of several elements, mainly the purpose and need for the project, public comment/input on the DED, TAMC input, environmental impacts, property impacts and cost.**"

I would trust that the TAMC Board Members would want to see the answers/responses from Caltrans to the over 100 questions/comments from the Public, including those objections and concerns from the Monterey County Regional Fire Chief, Monterey County Sheriff, the 240 residences of Pasadera HOA, and Concert Golf with The Club at Pasadera, **BEFORE** giving any input to Caltrans about the project. These questions/comments challenge many of the claims and misleading information used to promote the roundabouts on Hwy 68, so **seeing the responses is critical to understand if the challenges and new information is really addressed or just ignored.**

I urge each Board Member to ask Caltrans to supply their responses to the TAMC Board and also post them for the public to view so the process is transparent and public agencies are accountable for addressing all information before decisions are made. I am listing some of the questions/comments below, that were sent to Caltrans to address as they assess what is the best option for Hwy 68, including the installation of AI Adaptive Signal Controls. I also ask you to review the questions and see if you feel they are relevant and deserve answers.

Thank you for your consideration and involvement,

Dwight Stump

Questions submitted by the Public to Caltrans

1. Since there is only a projected 5 minute reduction in the PM peak commute attributed to the installation of 9 roundabouts and thus only a **5 minute reduction of idling emissions by a few thousand vehicles** for a couple of hours per day, how can Caltrans make the claim of "decreases greenhouse gas" when the 9 roundabouts will actually **increase vehicle emissions** by forcing all 30,000 vehicles per day to slow down to 15-20 mph and then accelerate back up to 55 mph, 9 times in 8 miles, 24/7, (considering that emissions from acceleration are 5-10 times more than emissions from idling)? See Study:

Frey, et al. [1] measured the tailpipe emissions of individual vehicles using onboard instrumentation. They considered episodic nature (nature based on temporary episodes like acceleration, braking and

deceleration) of vehicular emission. They used OEM 1000 (a five gas analyzer) to collect emission data and engine diagnostic scanner to collect engine data like speed, engine rpm, etc. at a busy arterial with signalized intersection. Authors concluded that there is a significant variation in emission of vehicles during temporary events like acceleration, deceleration and cruising. Average emission during acceleration was found to be 5 times more than idling emission for HC and CO₂ and 10 times more for NO and CO. Variation of vehicular emissions with time was found to be sensitive to short term episodes like acceleration and deceleration.

2. Although the DEIR states that a purpose of the proposed 9 roundabouts is to “Improve bicycle and pedestrian access within the project corridor”, exactly what part of the design achieves that and how, given the single lane roundabouts make is less safe for bicyclists based on available statistics and less safe for sight impaired pedestrians. How is it better than the current signalized intersections?

A recent article from The Guardian, based on experience in the UK, stated “Cyclists have a demonstrably harder time with roundabouts. Research suggests that on large urban roundabouts, cyclist have an injury rate [10-15 times](#) that of motorists. There is a tendency for motorists at roundabouts to look through cyclists while watching for other motor vehicles.”

3. If during peak commute, the main flow of traffic is continuously going through the roundabouts, how will traffic from the side roads enter the roundabouts since they need to yield to the vehicles already in the roundabout? If the side road vehicles enter the roundabout, will that disrupt the flow on the main line, thus negatively impacting the peak commute traffic flow and add to the congestion?

4. Why did TAMC and Caltrans not even consider an evaluation of Artificial Intelligence (AI) signal controls as an alternative for the Hwy 68 project, since AI has been installed in congested intersections in the US since 2012 and the articles reporting on the excellent results (especially with traffic congestion and emission reduction) have been easily accessed via Google searches for over 5 years. Will Caltrans hold off on further action with the proposed 9 roundabouts, until AI signal controls are at least evaluated since one of their main advantages is making signals “smart and efficient” which solves the problem stated on page 8 of the DEIR that the “Traffic delay at the corridor intersections is caused, in part, by the inefficiency of the existing intersection signal controls”?

[This AI traffic system in Pittsburgh has reduced travel time by 25% | Smart Cities Dive](#)

5. What are the **projected speeds** that **each type** of vehicle will need to slow down to in order to navigate the proposed single lane roundabouts and **how much longer** will it take to traverse it as compared to traversing the current intersection with a green light? Car? Dual Axle Trucks? Semi-Trucks? Firetrucks?

6. What happens to traffic when there is a collision within the roundabout and there is no way to go around it since 8 of the 9 proposed roundabouts are single lane?

7. Since the DEIR states that delay is caused in part “by the inefficiency of the existing intersectional signal controls” why did Caltrans and TAMC not even evaluate Artificial Intelligence controlled signals to increase efficiency and decreased congestion since they have been in use since 2012 and have proven congestion reduction results that are 2-3 times better than roundabout?

- 8.** Since most (70%) of collisions are rear end type collisions along the 8 mile stretch of 68, will the proposed nine roundabouts actually cause more rear end collisions during the 20 hours of non-peak commute per day, since the roundabouts will force all vehicles to slow to 10 to 15 mph 9 times over 8 miles, where currently traffic proceeds smoothly through a majority of greenlights.
- 9.** Since the DEIR states that “congestion, coupled with speeding between signalized intersections, is largely the cause of rear end collisions”, how would installing 9 roundabouts make any difference with the speeding component?
- 10.** In Alternative 2, exactly what type of “upgraded signalized intersection, controls” would be used, what would the separate cost be for just those upgraded signal controls, and why can’t they be installed without the intersection widening, which adds more conflict points, and thus more collisions?
- 11.** How much time will 9 roundabouts add to the non-peak commute which Caltrans studies show currently averages 12 to 13 minutes over this 8-mile section Hwy 68 since it forces all traffic to slow to 10 to 15 mph to navigate the nine roundabouts?
- 12.** Why does Caltrans, in the DEIR, try to emphasize the collisions in very “selected” areas on the 8 mile stretch of Hwy 68 when according to SWITRS data from 2011 to 2022 there have been 22 fatalities on the entire length of Hwy 68 and **only one** of those was killed in an intersection (the only type a roundabout may prevent) plus, Caltrans own data shows that this 8 mile stretch of Hwy 68 has been below the state average for all collision since 2017?
- 13.** How will the wildlife crossings be effective in preventing the 8 animals reported killed from 2005 to 2015 and where has a similar design been used and how effective has it been? Additionally, what is the separate cost of the wildlife crossings from both Alternatives?
- 14.** How can Caltrans state that there will be a predicted 2.37 collisions per year from Joscelyn Canyon to Olmstead when there have been “0” observed annual collisions per year?
- 15.** In a PowerPoint slide presentation to the TAMC Board in June 2017, it states that Adaptive Signal Controls will reduce the evening commute by 5.10 minutes compared to roundabouts at 5.00 minutes. What specific kind of adaptive signal controls was it referring to?
- 16.** In the Caltrans TOAR Addendum report (2023), it states that “the AM peak hour performance of the proposed Alternative 1 (9 Roundabouts) is marginally better than the No-Build”, so why are 9 roundabouts being pushed as a solution to peak commute congestion that will cost over \$200 million and not really improve the current AM peak commute?
- 17.** How will construction of the 9 roundabouts be done to minimize the significant impact that it will have on traffic trying to use Hwy 68 during the construction, what specific amount of delay is predicted and how long will it take to build each roundabout?
- 18.** If the current \$68 billion budget deficit in California prevents funds from being available for the

construction of the 9 roundabouts, will just one or two be constructed and how will that be decided? If less than 9 roundabouts are constructed, how will that impact all of the studies that have been done using all 9 and thus the alleged performance values, plus would that not be inconsistent with the promises made to the public and therefore a misuse of their tax funds?

19. How will 9 roundabouts help the current peak AM commute when most of the backup occurs near Portola Drive each morning, where the two lanes merge to one and even TAMC/Caltrans own assessment stated that the 9 roundabouts would only be “marginally better” than doing nothing?

20. How many vehicles, per hour, typically travel through the 8 mile stretch of Highway 68 during peak AM and peak PM commutes and what happens if that exceeds the operational capacity of the proposed single lane roundabouts, either currently or in the future with the predicted increase in traffic, since roundabouts are fixed structures that cannot adapt to changing traffic? Are different calculations used cars vs trucks vs semi-trucks and how does that impact roundabout operational capacity?

21. With the significant, additional land acquisition that will be necessary as described in the DEIR for the construction of the 9 roundabouts, what will happen if a property owner of the land needed for the new roundabouts, not consent to sell their property to Caltrans for the construction of the nine roundabouts?

22. Why does TAMC and Caltrans state as a “Project Benefit” that the roundabouts will “Reduce emergency response times” when a letter from the Monterey County Regional Fire District clearly states exactly the opposite and has done actual tests to show that each roundabout will cause at least a 32 second delay for a total of at least a 5-minute delay caused by the 9 roundabouts (assuming that the roundabouts are not clogged by vehicles)? Is Caltrans aware that the proposed 4 roundabouts in 8 miles on Highway 126 in Ventura County was rejected by the local communities in 2017, mainly due to the roundabouts increasing emergency response times? What was the official reason for Caltrans withdrawing the proposed 4 roundabouts in Ventura County?

23. What portion of the projected cost of each of the two alternatives is allotted to the cost of the wildlife crossings and can the wildlife crossings be installed without either alternative being constructed?

24. Can the \$50 million from Title X that is currently proposed be used in its entirety to partially fund the \$153 million roundabouts, be used instead to pay for AI controlled signals at all 9 intersections at a total cost of ½ Million and use the other \$49.5 Million to pay for pothole repair and other urgent road projects in Monterey County?

25. What was the reason that Caltrans withdrew the proposed 4 roundabouts on Hwy 126 in Ventura County in 2017?

26. What was the total cost to produce the recently released DEIR and what was the cost to produce each of the TOAR’s conducted by Caltrans for this Hwy 68 Project?

27. Is Caltrans aware that there are several proposals for very low and moderate income housing along Hwy 68 for the area between Olmstead Road and the entrance to Monterra for approximately 1400 units (3,000+ cars) and were they included in the traffic analysis in the DEIR and each of the two TOARs? How

will that impact the operation and capacity of the single lane roundabouts proposed for that area?

28. How will one of the stated purposes of the DEIR, that the nine roundabouts will “improve bicycle access within the project corridor” be achieved when all bicyclists will be forced to merge from their current, separate bike line along Hwy 68 into the single lane vehicular traffic in each of the nine roundabouts, or need to get off their bikes and walk their bike through the pedestrian crossings? Did Caltrans consult with local bicycle clubs regarding their preference?

29. It is a well-known fact that roundabouts are dangerous and difficult to use for sight impaired pedestrians, as compared to signalized intersections, so how will nine roundabouts be safer and improve their access compared to the current intersections and achieve the DEIR stated goal that roundabouts will “Improve pedestrian access within the project corridor”?

30. Since Caltrans/TAMC’s own studies predict that the 9 roundabouts will reduce the PM peak commute by only five minutes and the AM peak commute only “marginally better” than doing nothing, how can that predicted reduction get any better with future increased traffic since the roundabouts are physical structures and can’t be changed to accommodate more vehicles during the peak commute?

31. Are you planning to add traffic signals to the roundabouts when they don’t operate effectively as other installations have done with busy roundabouts in Portland, Scotland and the UK, especially when the flow of traffic is unequal as in the case with the 8 miles on Hwy 68? [Why have UK’s roundabouts been gradually replaced by traffic lights? – Quora](#)

32. Does the \$153 Million listed on the current Caltrans website for the 9 roundabouts include design and all other expenses for property acquisition and how much inflation is added for each year of delay until construction actually starts? Also why is the \$153 Million quote significantly different than the \$227 Million total listed on TAMC’s Project Fact Sheet?

33. Why was the public and the TAMC Board of Directors given **misleading or false information** for years, on the benefits of installing 9 roundabouts in 8 miles on Hwy 68, which mislead the public in forming opinions and in the TAMC Board taking actions?

The TAMC Project Fact Sheet stated that the 9 roundabouts would “Reduce emergency response times” when in fact they would increase the response times by at least 5 minutes as reported and tested by the Monterey County Regional Fire District in their 1/2/24 report.

The “Fact Sheet” also stated that the 9 roundabouts would “Decrease Greenhouse gas” when in fact they will increase emissions since they force all vehicles to slow to 15 mph and then accelerate to 55 mph, 9 times in 8 miles, 24/7 and studies show that emissions from acceleration is 5-10 times greater than emissions from idling which TAMC claims would be reduced by only 5 minutes during the PM peak commute, from the installation of the 9 roundabouts.

Even the claim that the roundabouts will “reduce collisions rates” is not defined or quantified and is probably false since over 70% of the current collisions on Hwy 68 are rear end type and forcing all vehicles to slow to 15 mph, 9 times over 8 miles, 24/7, will likely increase rear end collisions.

The “Fact Sheet” claim that the roundabouts will “Improve traffic flow” fails to quantify by how much when in fact, the “improvement” by Caltrans own computer simulations is alleged to be an **only 5 minute improvement** in the current 36 minute PM commute and does not reveal that the 9 roundabouts will actually increase the non-peak (about 20 hrs/day) commute time, since it forces all vehicles to slow to 15 mph 9 times in 8 miles when currently traffic proceeds through a majority of green lights since side traffic is minimal.

The “Fact Sheet” also claims that the roundabouts will provide safe passage for wildlife when those wildlife crossings are totally separate and could be done without the roundabouts being installed.

TAMC states that the roundabouts will facilitate the relocation of the Laguna Seca Racetrack’s entrance when it could be done totally separate and added to the current intersection at Laureles Grade.

These false or misleading statements, along with the total omission of the well established and published **negatives of roundabouts**, is a blatant disregard of the responsibility of Caltrans and TAMC to provide transparent, objective, and unbiased information to the public and voting TAMC Board Members. Why has that been done and why have these statements continued to be posted online, even when false?

34. How is the calculation done in Table 1.3 of the DEIR where it shows an Actual Fatal Rate for the SR18/Hwy 68 intersection of 0.022 for 3 years and does that mean there was a fatality at that intersection during that span of time and what were the exact circumstances? Since there are Actual Fatal Rates of “0” for all the other 8 intersections in this 8-mile stretch, does that mean that there were no fatal collisions in any of those intersections in that 3-year period?

35. Why does Caltrans in the DEIR, cherry pick 3 small portions (0.1 miles, 1 mile, 2 miles) out of the entire 8 miles of Hwy 68 to make it seem like the collision rates on Hwy 68 exceed the state average when the **average collision rate for the entire 8 miles of Hwy 68 is below the state average since 2017** as shown in Caltrans’ own data obtained through a Public Records Request this year. Is the purpose to make Hwy 68 collision rates appear higher or more significant than they actually are?

36. Why has Caltrans and TAMC not considered and evaluated as a viable alternative for the Hwy 68 project, Artificial Intelligence (AI) controlled signals when:

AI can be installed at all 9 of the intersections for a cost of only **\$440,000**, while the 9 roundabouts will cost over **\$200 Million**.

AI will use the current Opticom system at each intersection which allows the fire departments to turn the lights green in the direction that they are traveling and thus allow the fire trucks to maintain highway speeds through the intersections, while **the 9 roundabouts will add as least 5 minutes** (32 seconds per roundabout) to their emergency response times according to the **Monterey County Regional Fire District**, and that is assuming that the roundabouts are not clogged with drivers that are unfamiliar with exiting them in an emergency.

AI can be **installed without any traffic disruption** and without any impact to the environment or need for an Environmental Impact Report since it can use the existing intersections and the current signal lights, while the 9 roundabouts will require acquisition of land at each intersection, impact the

environment significantly and cause years of **extreme traffic congestion** while the roundabouts are being built and commuters having no other option for travel.

AI has been shown to **decrease traffic congestion by 25-40%**, while TAMC says that 9 roundabouts will only reduce congestion by 5 minutes (13%) in the PM peak commute but actually increase commute time in the non-peak commute (20 hrs/day) by causing all vehicles to slow to 15 mph, 9 times in 8 miles.

AI has **decreased vehicle emissions by 20%** by optimizing traffic flow in real time, while **9 roundabouts will increase emissions** by forcing all 30,000 vehicles per day to slow to at least 15 mph and then accelerate to 55 mph, 9 times in 8 miles and studies have shown that emissions from vehicle acceleration are 5-10 times more than emissions from idling and the only idling that the roundabouts claim to reduce is the 5 minutes in the PM commute.

AI can **monitor actual traffic in real time**, communicate between intersections and adjust the signals accordingly to provide efficient flow where and when it is needed most, thus decreasing congestion, while the single lane roundabouts are a permanent physical structure that cannot adapt in any way to changing traffic patterns during the day or adapt to unusual traffic challenges like Laguna Seca events.

AI can **adapt and be upgraded** as technology evolves and traffic increases and done so without any traffic disruption, while roundabouts are permanent structures that cannot adapt to anything without major construction demolition and rebuild which will cause even more congestion during the process.

AI can adapt better to changes along Hwy 68, such as **airport expansion or additional housing** being built since it can be programmed for those changes including addition of more lanes at an intersection, while roundabouts are physical structures that cannot be changed without major demolition and construction.

AI will **move traffic efficiently** and not increase the number of times vehicles are required to slow down, thus decreasing the chance of rear end collisions which comprise 70% of the current collisions on this stretch of Hwy 68, while 9 roundabouts will force all vehicles to slow down to 15 mph or stop to yield to cross traffic, 9 times over 8 miles, 24/7, 365 day per year which **increases the potential of more rear end collisions**.

AI **adapts to dominate traffic flows on the main line** which is the case on Hwy 68 where that traffic volume is much greater than any side road traffic, while roundabouts work best in situations where traffic volume is balanced in all four directions which is definitely **not** the case on Hwy 68. In non-balanced flows, traffic from the side streets has difficulty in entering the roundabout since needing to yield to the main flow.

AI uses existing signals which are **very familiar to the driving public**, while roundabouts are very new and challenging to many drivers, both local and out of town, thus they will not operate as the computer simulation does, and will not function as planned

Will Caltrans please address **each** of these comparisons and show why 9 roundabouts are better than AI controlled signals and explain why Caltrans and TAMC have not even evaluated AI and why it is not logical to hold off on the roundabouts until an evaluation is done?

37. Why is Caltrans and TAMC proposing 9 roundabouts as the preferred alternative when the DEIR states on page 7 that "The project proposes to improve bicycle and pedestrian access within the project

corridor” , however roundabouts are being removed in the UK due to bicycle safety and operational failure and recent data and reports show clearly that roundabouts are unsafe **(40% increase in the number of fatal or serious injuries)** for bicyclists?

Recent reports are as follows:

An article from The Guardian in March 2015 titled **“Traffic lights are so dictatorial...but are roundabouts on the way out? The UK is quietly replacing roundabouts with traffic lights”** states

“It’s just begun. In the west of the city, the doughnut-shaped Cowgate roundabout is next to go, its “hole” filled with polystyrene blocks so they can build a new road over top with traffic lights. The same is happening in other UK cities, which have decided that **signal junctions are better for traffic flow and safer for cyclists.**”

An article published in VELO in March 2021 titled **“Roundabouts suck for Cyclists”** states “A 2008 study of [91 roundabouts in Flanders](#), Belgium showed that the installation of roundabouts led to a 27% increase in “bicyclist injury collisions” and **an increase of more than 40% in the number of fatal or serious injury crashes involving cyclists**. Meanwhile, a 2013 study of more than 300 roundabouts in Denmark found that the installation of roundabouts led to a **65% increase in bike crashes and a [40% increase in injuries.](#)**”

If safety is so important, why is this data not being considered or addressed?

38. There are a number of limitations or negatives for roundabouts according to Mike Spack, a nationally recognized expert on roundabouts, a Professional Transportation Operations Engineer and past president of the North Central Section of the Institute of Transportation Engineers. He described them in a recent Webinar “Are Roundabouts a Silver Bullet to Traffic Issues?”

- *Roundabouts cannot be customized like signals or upgraded after being built
- *Roundabouts are not as efficient as signals for emergency response vehicles.
- *Roundabouts are not recommended for situations where the traffic is not balanced in flow as when the majority of traffic is flowing along one main line.
- *Roundabouts cannot give priority to the mainline traffic like signals can.
- *When roundabouts get to gridlock as capacity is reached, it takes significant time to undo it.
- *Minor traffic from the left can take over the mainline movement in a roundabout.
- *Traffic is slow going into and coming out of roundabouts.
- *Roundabouts are a problem for sight impaired pedestrians.

It is clear that a number of these negative conditions are present in this stretch of Hwy 68, yet TAMC and Caltrans just ignore them and hide them from the public.

Can you please address why all of these have been omitted in the DEIR, Public Hearing information, TAMC website on the project, and can you clarify if any of these, impact the 9 roundabouts proposed for Hwy 68?

