



25 April 2022

TO: Humboldt County Planning Commissioners

RE: Old Arcata Road Rehabilitation and Pedestrian/Bikeway Improvements Coastal Development Permit; Bayside area; record Number PLN - 2022 - 17654 (filed 02/28/2022)

Dear Commissioners,

As with any large project, this one has a number of good features (basic roadwork), some that are puzzling at best (e.g., the Hyland St. “sidewalk to nowhere”), some that are mild negatives (paving over the ‘riparian habitat’ ditch along Jacoby Creek Road [JCR]) and at least one that is at best a colossal waste of money and likely will make things worse: the roundabout at the intersection of JCR and Old Arcata Road [OAR].

Background: There has not been a serious/quantitative traffic study of the project area since 2005-2006, and that study did not provide traffic counts for any sites south of Golf Course Road. I have walked/biked/driven the length of the Project almost daily for over 10 years, and spent 7.5 hours (over 5 days in October 2021) observing traffic near the two radar speed signs [RSS] on OAR (I’m happy to provide details; see also my 10/24/21 letter to the City Council). According to the TIMS/SWITRS database (<https://tims.berkeley.edu/>), from 12/31/10 – 12/31/21 there have been four crashes near the JCR/OAR intersection: a DUI, a rear-end at the Post Office entry, a car/bike accident, and a broadside; there were no serious injuries in any of them (over the same period there were 4 crashes each at the Buttermilk and Union St. roundabouts).

There are a number of serious problems associated with the proposed roundabout.

1) Process: The 2017 public charette included a roundabout alternative that was LESS THAN HALF the size of the current proposal (see my 11/22/21 letter to the City Council for methods & details). Despite that lowballing, the roundabout was deeply divisive, being rated the most popular and unpopular alternative. Under a ranked-choice voting system such as Eureka’s voters overwhelmingly approved in 2020, it clearly would have lost – even before doubling in size.

2) Effects on Mistwood school: While the initially presented 2017 version had minimal effects on Mistwood, the subsequent closed-door modifications of both the size and the centroid of the roundabout would have potentially serious negative impacts on the school’s students, which have not been formally discussed in public.

3) Effects on public safety: While there is broad agreement that traffic on OAR needs to be slowed (I observed 20% of 245 northbound cars passing the RSS at over 35mph, 6% ≥ 40mph) it needs to be noted that the TIMS data show the same number of crashes at this intersection as at the two roundabouts north of it. A roundabout would certainly slow northbound traffic on

OAR. However, westbound traffic on JCR would no longer have a stop sign and cars turning north would be likely to take the corner at ~20mph; the view at this corner is obscured by a pumphouse and there are entries to the Post Office immediately before and after the corner. What happens when a car turns north from JCR at 20mph, attention focused toward the south (the direction of oncoming traffic), only to "find" another vehicle entering/exiting the Post Office as it rounds the pumphouse? Would the City and/or County potentially be liable for creating such an obviously unsafe situation?

4) Alternatives: The problems to be solved are (a) fast northbound traffic on OAR, and (b) fast/wide turns from OAR onto JCR. Currently northbound cars on OAR face a series of confusing signs leading up to the intersection, with the first unambiguous speed limit sign (and RSS) north of the intersection and simply not visible until cars are within ~60m of the corner. Furthermore, the RSS itself does not function well; it failed to react at all to about 12% of cars while I watched it. Simply clarifying signage, moving the RSS to south of the intersection (where it would be visible on the long straightaway to the south), and moving the speed-limit reduction from the intersection itself to some distance south will address the fast northbound traffic problem – probably comparable to a roundabout and it could be done in a month for a fraction of the cost. The problem of turns from OAR onto JCR is easily and totally eliminated by placing raised traffic islands at the three approaches to the intersection.

A roundabout will negatively affect a school, nearly double the cost of the project, and I fear will (predictably and therefor potentially culpably) decrease safety at the intersection. Please do not approve this project.

Thank you very much for your attention. I respectfully request that these documents be entered into the record.



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Attachments: MooreLetterCityCouncilOCT21, MooreLetterCityCouncilNOV21

Mayor Stacy Atkins-Salazar
City of Arcata
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—SATkinsSalazar@CityofArcata.org

24 Oct 2021

RE: Old Arcata Road Rehabilitation Project / Proposed Roundabout

Dear Mayor Atkins-Salazar,

I have lived on Jacoby Creek Road (JCR) for about 11 years. My two youngest children both went to Jacoby Creek School; one transferred to Mistwood Elementary and graduated from there. For about the last 5 years my wife and I have walked our dogs down JCR and north on Old Arcata Road (OAR) almost to the roundabout at Buttermilk nearly every day (some 1,600 round trips walking the entire span of the proposed Project). I agree that community safety can be enhanced by some form of traffic calming to slow cars at the JCR/OAR intersection. On the whole I like roundabouts, but not there. Both the Bayside Community Hall and Mistwood Elementary school would suffer significant negative impacts from a roundabout. I have heard people say that those impacts are justified “for the greater good”. We should not forget that the distinction between “for the greater good” and “tyranny of the majority” lies entirely in the perspective of the speaker. *If a general problem can be solved equally well in either of two or more ways, one of which inflicts serious, perhaps existential, costs on a minority of citizens, then common decency demands that we choose the less injurious alternative.*

As a retired scientist, I collected some data with which I could address two questions: how do roundabouts actually influence driving on OAR, and why is the JCR/OAR intersection problematic? I then use those answers (plus informal observations from those thousands of trips through the intersection) to evaluate the proposed roundabout at the intersection. I’m sorry to be submitting this so late in the process but it took me a while to realize that such data and questions seemed to be absent from the planning process.

I observed the two radar speed signs (RSS) on OAR for 7.5 hours (in 15 half-hour samples) over 5 days between 10/13 and 10/21/21, recording the number of cars that passed them, the number that conspicuously slowed from ≥ 30 mph to < 30 mph as they approached, and the number that passed the signs going > 30 mph; I photographed the later to provide a record of my observations. I’m more than happy to provide more details of the methods if anyone is interested. Distances were measured in Google Earth Pro; speeds of course come from the RSS and I did not try to calibrate those.

How does the roundabout at Buttermilk Ln influence southbound traffic on OAR, as measured at the radar speed sign just north of Anderson Ln?

During 5 hours of observation, 249 of 979 cars (~25%) were traveling at ≥ 30 mph when first detected by the RSS. About 45% of those had slowed to < 30 mph by the time they passed the sign. 14% of all cars passed the RSS at > 30 mph; 1.5% at over 34mph.

Assuming cars left the roundabout and speed hump at ≤ 25 mph, it's a matter of opinion whether 25% having sped up to > 30 mph within about 250m is a success (75% were still under 30mph) or a failure (14% were still going > 30 past the RSS, and about 2 cars/hour were > 34 mph). The good news is that the RSS (perhaps combined with other factors like the intersection with Anderson Ln) did have a large effect; these numbers underestimate its effect since I did not record slowing from e.g. 29 to 25mph, or 34 to 31mph.

Why is the JCR/OAR intersection problematic?

I only spent 2.5 hours watching the RSS in front of the Post Office, given that there is no controversy about the fact that a problem exists. Note that I recorded only cars northbound on OAR that passed the sign (i.e., I ignored right turns off JCR and out of the PO parking lot). 51% of 245 cars entered the detection zone at ≥ 30 mph; only 17% of those had slowed to < 30 mph by the time they passed the RSS. Fully 20% of all cars passed the RSS at over 35mph, with 6% blowing through at ≥ 40 mph. Again, these figures underestimate the effect of the RSS since drops in speed within my categories were not recorded.

I then both drove and walked the approach to the intersection from the south, to try to understand why so many cars failed to reduce speed before entering the intersection.

- The RSS itself is not visible at all until cars are about 100m from it, only ~60m from entering the intersection. The Anderson Ln RSS can be glimpsed through trees from ~200m and is continuously visible from 140m, and the RSS on Jacoby Creek Rd is visible for > 500 m. Distant visibility alerts drivers to the display well in advance if there is someone in front of them.
- The RSS does not trigger until vehicles are within about 50m; on a number of occasions it first flashed only when the car was past the middle of the intersection (< 25 m from the RSS).
- The RSS itself has problems; it failed to react to cars at all about 12% of the time. The failure rate was much higher on 10/21, a very cloudy day, and may be related to power issues. The futility of having a fair-weather-only RSS in this region should be obvious.
- Signage approaching the intersection from the south (distances are to the RSS, which is ~25m north of the middle of the intersection). My speculations about interpretations are not meant to suggest actual conscious thought processes, but to indicate potential cognitive "noise" that could contribute to not fully processing the speed limit change in a timely manner.
 - "Reduced Speed Ahead" (240m). This doesn't specify how reduced, or how far ahead.
 - "School: Speed limit 25 when children are present" (215m). At this point, Mistwood Elementary school is not visible, and to be visible children would have to be on the outside of the chain-link fence bordering the road. A driver might easily conclude this was just a general alert about behavior near schools.

- Sideways “T” indicating approaching intersection (~190m)
- “Reduced Speed 25” (66m). While legally the meaning may be explicit, it is easy to read this as an elaboration of the earlier “reduced speed ahead”, finally telling the driver what the new speed will be – but crucially, not when it takes effect.
- “Speed Limit 25” (0m). Finally an unambiguous notification, on the same pole as the RSS, and 25m NORTH of the intersection.

I believe that the answer to “why is the intersection problematic” is at least partially that existing signage (including the RSS) is woefully inadequate for the job. How LARGE that part is remains to be seen.

The proposed roundabout.

Jacoby Creek Road: Eliminating the existing stop at the westbound lane of JCR and further “cutting the corner” for northbound cars turning east onto JCR will allow vehicles in those lanes to travel faster than at present (significantly so for westbound cars on JCR, going from a stop sign to c. 20-25mph). Vehicles southbound on OAR that turn east onto JCR will probably not change their maximum (i.e., when no other cars are present) speed much; since they wouldn’t need to wait (as much) for northbound cars to pass, their overall average speed would presumably increase slightly. The roundabout would prevent cars turning from OAR onto JCR from swinging wide into the oncoming lanes, which is a genuine problem there. *It is not clear that increasing speeds at the western end of Jacoby Creek Road, with entries to the Community Hall, Mistwood Elementary, Stream Guys and the Post Office all within 120m of the intersection, will improve safety on JCR. The problem of swinging wide onto JCR can be fully addressed with a mountable median island, as planned in Alternative 2.*

Southbound Old Arcata Road: Anecdotally, some vehicles do begin the transition to a 45mph speed limit before they arrive at the intersection. However illegal, it isn’t clear how much of a safety problem this is as long as they don’t begin the increase too far north of the intersection. In any case, *because the proposed roundabout is off-center, this southbound lane is minimally affected by the curve and is unlikely to physically constrain vehicles to below 30-35mph.*

Northbound Old Arcata Road: This is the main target of the project, and a roundabout would presumably physically force vehicles to obey the reduction in speed limit from 45mph to (under) 25mph. This is a worthy goal. Implicit in the proposal is the idea that “signage hasn’t solved the problem, so we need a physical obstacle to speeding”; the problem is that the existing speed limit transition and associated signage is in totally the wrong place, and so does not represent a failure in principle – only in execution. *The City should attempt to solve the problem with appropriate signage before committing to an expensive roundabout that imposes significant social as well as monetary costs on the school and community hall.*

In conclusion, I support Alternative 2 for the JCR/OAR intersection, with the transition from 45mph to 25mph shifted ~240m south, and the RSS moved ~90+m south so that it would be visible for over 500m. Rumble strips at the 240m south position would alert drivers to the change without creating excessive noise for residents (it's open fields on both sides) or forcing emergency vehicles to slow down. As casual observations suggest, and my observations at the Anderson Ln RSS confirm, no matter what is done there will be some drivers who exceed the speed limit. I strongly support installing one or more radar speed cameras in the area; programmed to ONLY photograph vehicles speeding well above the limit, the only "privacy right" being challenged is the right to commit a crime and endanger community members. This is the only way that speeding on JCR and OAR can be (nearly) eliminated.

I have heard speculation that the (poor) placement of signage at the JCR/OAR intersection is a consequence of jurisdictional issues between the City of Arcata and County of Humboldt. I sincerely hope that to the degree that there's truth in this, it only reflects the inevitable hiccups coordinating policy and action across jurisdictions, and NOT an unwillingness or inability to do so. That would be shameful.

Thank you very much for your time and attention to this Project, which is on the whole very welcome to the community.

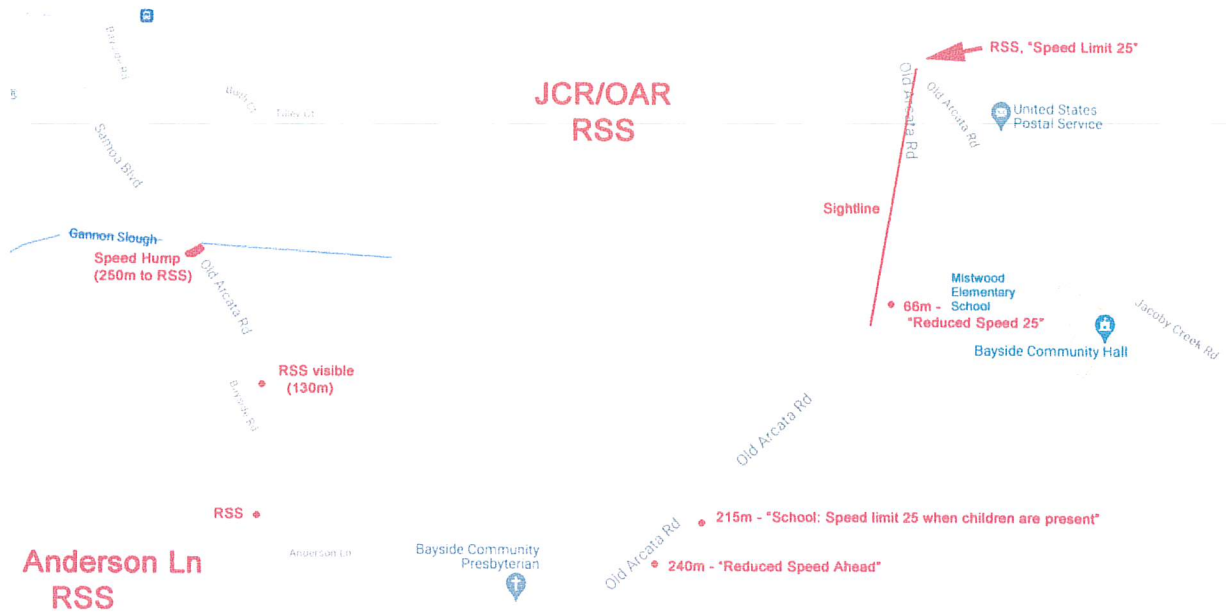
Sincerely yours,



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PS: The RSS near Anderson Ln has two problems that reduce its efficacy. First, it is aligned improperly and registers receding, northbound cars; if there is traffic, southbound drivers cannot be sure whether the display indicates their own vehicle or those in the northbound lane. Second, it registers only up to 34mph and above that displays nothing (the JCR RSS flashes "SLOW DOWN" between 40-45mph and "--" above that, and the Post Office one flashes the speed up to 44mph and "--" above that). Simply going blank means the fastest drivers get no feedback.

[Also sent to Karen Diemer, Emily Goldstein, Meredith Mathews, Sarah Schaefer, Brett Watson & Mike Wilson]



- In my experience it is difficult to drive the roundabout at over 25mph; ditto for the speedhump following it. I assume that cars are traveling ≤ 25 mph when they leave the roundabout.
- Of 979 cars observed over 5 hours, 249 (about 25%) were traveling ≥ 30 mph when the RSS picked them up approximately 315-360m south of the roundabout (faster cars seem to be detected sooner); this is about 140-80m north of the RSS. Note the speedhump is about 120-180m north of the detection range.
- Of that 25%, about half had slowed to < 30 mph by the time they reached the RSS.
- About 1.5% of cars passed the RSS at over 34mph (the sign simply goes blank above 34). This is very roughly 2 cars/hour.

Stacy Atkins-Salazar
Emily Goldstein
Meredith Mathews
Sarah Schaefer
Mike Wilson

22 Nov 2021

In recent neighborhood discussions of the proposed JCR/OAR roundabout, both online and in person, a number of people have reacted angrily to my concerns about negative impacts of the roundabout on Mistwood school and the Bayside Community Hall. With real frustration, they have pointed out that such negative impacts were not even mentioned during the 2017 charette process and that during that process attendees voted about 80:40 in favor of the roundabout, so get over it.

2017 was a long time ago, predating the current City Council and a bit dim around the edges in my memory, so I went back to the July 2017 "Community Charette for Design Success / Old Arcata Road Improvements Project" document to try to understand what was going on. The roundabout (Figure 8, page 20) looked different, so I went to work with Google Earth imagery and Photoshop measuring tools, and discovered that from 2017 to now, the proposed roundabout has *MORE THAN DOUBLED IN SIZE*. Not only does the increased diameter move the roadbed farther toward Mistwood, but because the roundabout is bounded on the west by a steep embankment and on the northeast by the pumphouse outside the Post Office, enlarging it has forced the center to move toward Mistwood, increasing the encroachment even further.

The reason that significant negative impacts on Mistwood school and the BCH didn't come up during the 2017 charette process is that the version presented to the neighborhood in the charette process didn't have any.

Further, it is worth noting that "[t]he roundabout option was the most controversial design alternative that was considered for this project. The roundabout option engendered the strongest responses from participants in the design charette, both for and against. More than 80 different individuals indicated their support for a roundabout during the course of the project, and about half that number indicated that they did not want a roundabout..." In contrast, Alternative #1 (Narrowed Intersection with Raised Islands) "was considered acceptable by many of the participants, and was the preferred option for nearly half of all participants" (p. 19). No numbers are given but if we take the total respondents to be about 120 (80 + "about half that") then apparently around 55 preferred Alternative #1 and it was considered acceptable by significantly more. Note that while 80 "supported" a roundabout, this isn't saying they preferred one; the figure of 80 presumably contains both "preferred" and "acceptable" opinions on the roundabout.

As you consider the OAR Improvements Project, please keep in mind that all conclusions and opinions based on community input during the 2017 charette process are based on a version of the roundabout that NO LONGER EXISTS. There is no reason to think there was a deliberate "bait and switch" involved, but the consequences for Mistwood school and the BCH are the same. Traffic (noise, pollution & risk) will be moved significantly closer to a classroom and playground, and parking will be lost (forcing parents to park on the Post Office side and cross JCR to access the school). Furthermore, even with the half-size roundabout of 2017, public opinion was comparably supportive of both Alternatives, but less strongly negative toward Alternative #1 (which has become Alternative #2 in the current proposal).

Thank you very much for your consideration.

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Cc: Delo Freitas, Netra Khatri, David Loya, Keala Roberts, Karen Diemer, Bridget Dory