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REVISED STAFF REPORT: REGULAR CALENDAR

Consistency**Certification No.:** CC-016-13**Applicant:** California Department of Transportation (Caltrans)**Location:** Route 101, between the Eureka Slough Bridge, Eureka, and the 11th St. overcrossing, Arcata, east side of Humboldt Bay, Humboldt Co. (Exhibit 1)**Project Description:** Construction of the Eureka - Arcata Route 101 Corridor Improvement Project (Exhibits 2-3, 5-7, & 10-11)**Staff Recommendation:** Objection

SUMMARY OF STAFF RECOMMENDATION

The California Department of Transportation (Caltrans) proposes to construct the Eureka - Arcata Route 101 Corridor Improvement Project in Humboldt County. The primary purpose of the project is to improve safety by eliminating uncontrolled left turn moves at six intersections. Historically, the majority of collisions resulting in serious injuries or fatalities on Route 101 between Eureka and Arcata have occurred at the at-grade intersections (with collision rates exceeding statewide averages as shown in Exhibit 4). Secondary project purposes are reducing operational conflicts and delay, roadway rehabilitation to meet current design standards, and extending pavement service life. Major project features include closing median crossings (i.e.,

eliminating uncontrolled turns across oncoming traffic lanes - Exhibit 6), constructing an interchange at Indianola Cutoff (Exhibits 7-8), replacing the southbound Jacoby Creek Bridge (Exhibit 10), and partially signalizing the Route 101/Airport Road intersection (Exhibit 5).

The standard of review for Commission's review of federal consistency certifications is whether the project is consistent with the enforceable policies of the California Coastal Management Program (i.e., with Chapter 3 of the Coastal Act).

The project would result in the permanent fill of 10.3 acres of wetlands. The staff recommends the Commission find the project inconsistent with the allowable use, alternatives, and mitigation tests of the Coastal Act's wetland fill policy (Section 30233(a)). Caltrans has argued that it meets the allowable use test because it serves an incidental public service purpose. However, the proposed interchange at Indianola Cutoff (a major component of the project) would require some of the wetland fill mentioned above and would increase the highway capacity at that intersection. Based on historic Commission interpretations of the "incidental public service purpose" language, as informed by controlling court cases, road expansions only qualify as incidental public services if they are "necessary to maintain *existing* capacity" and where there is "no other alternative." Thus, the project does not qualify as an incidental public service, and it does not qualify as any of the other allowable uses either.

In addition, even for projects that meet the allowable use test, Section 30233(a) still only allows them to proceed if the Commission finds that there is no feasible less environmentally damaging alternative. The staff recommends the Commission find that the project does not represent the least environmentally damaging feasible alternative. The staff believes a "signalized intersection" at Indianola would be feasible and less environmentally damaging because it would avoid or lessen the effects from the proposed Indianola Interchange, which would include 240,000 cu. yds. of grading, significant natural landform alteration, 25 ft. high fill slopes, adverse effects on scenic public views and the visual character of the area, growth inducement, and potential prejudice to sea level rise planning options.

Section 30233(a) also requires that whenever wetland fill is allowed, the project include feasible mitigation measures to minimize adverse environmental effects. The lands on which Caltrans proposes wetland mitigation (in the form of restoration projects) are mostly wetland and in agricultural operation. Separate from the wetland fill provisions, the Coastal Act limits the conversion of agricultural lands. The Commission has historically not allowed lands in agricultural production in the Humboldt Bay area to be converted to wetland for mitigation purposes. However, the Commission has approved the conversion of agricultural lands to wetlands when: (1) proposed as an independent restoration project; (2) the project presents a conflict between Chapter 3 policies and there are no alternatives to avoid the conflict; and (3) the Commission finds that the restoration is, on balance, most protective of significant coastal resources. Thus, if Caltrans can demonstrate that there are no other (non-agricultural) lands available to use for mitigation, the Commission could consider allowing the use of agricultural lands for mitigation purposes under this sort of approach. Because Caltrans has presented evidence of the limited availability of lands susceptible to wetland restoration in the Humboldt Bay area, the staff is recommending that the Commission find that if the other two wetland tests could be met, that Caltrans could likely meet the mitigation test on the two sites proposed

(Demello and Samoa), if prior to any subsequent Commission review of a coastal development permit for the project, Caltrans would: (1) expand the Samoa restoration concept to include true tidal restoration; (2) provide a biological analysis showing that adequate acreages and/or habitat mixes would, in fact, fully mitigate the project's impacts; (3) submit and receive Commission approval of coastal development permits for the restoration activities at the two sites; and (4) follow up on Caltrans' commitment to further substantiate the unavailability and infeasibility of non-agricultural sites in the Humboldt Bay area.

The staff recommends the Commission find that the proposed Indianola Interchange, with its raised elevation and 240,000 cu. yds. of grading, is inconsistent with the scenic view protection policy (Section 30251) of the Coastal Act, because it would not minimize alteration of natural landforms, would degrade scenic public views, and would be not be compatible with the character of the surrounding area. The staff also recommends the Commission find that this interchange would be growth-inducing (by removing a constraint to growth) and be inconsistent with the public works policy (Section 30254) of the Coastal Act.

The staff recommends the Commission find that the project is inconsistent with the public access and recreation policies of the Coastal Act (Sections 30210-30214) because it does not sufficiently further statewide Coastal Trail goals by including a separated bicycle and pedestrian path component or otherwise provide for a parallel Coastal Trail. Caltrans does allow bicyclists to use this stretch of Route 101; commuters between Eureka and Arcata regularly use it for bicycle transportation. However, by "speeding up" the traffic flow it may become less safe for bicyclists, and closure of medians would make some bicycle trips longer. To address the Coastal Trail needs and public access and recreation policies the staff is recommending that the Commission find that EITHER the project needs to be modified to include at least an interim Coastal Trail in the form of a separated bicycle/pedestrian pathway along the highway shoulder, OR that Caltrans will need to commit, at this time, that it will establish, to the Commission's satisfaction, no later than at the coastal development permit stage of the Commission's review, that an alternative parallel trail nearby (from Arcata to Eureka) will be funded prior to or concurrent with any construction of the 101 Corridor, and that it will have the necessary ownership interests or permissions to be allowed to proceed.

For the above reasons, the staff is recommending that the Commission **object** to Caltrans' consistency certification. Measures that would allow the project to be found consistent with the Coastal Act are listed on page 54.

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I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **concur** with Caltrans' consistency certification CC-016-13 that the project described therein is consistent with the enforceable policies of the California Coastal Management Program (CCMP).*

The staff recommends a **NO** vote on the motion. Failure of this motion to pass will result in an objection to the certification and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution:

*The Commission hereby **objects** to the consistency certification by Caltrans, on the grounds that the project described therein is inconsistent with the enforceable policies of the CCMP.*

II. APPLICANT'S CONSISTENCY CERTIFICATION

Caltrans has certified that the proposed activity complies with California's approved coastal management program (CCMP) and will be conducted in a manner consistent with such program.

III. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

Caltrans proposes the construction of the Eureka - Arcata Route 101 Corridor Improvement Project along the east side of Humboldt Bay in Humboldt County, from the Eureka Slough Bridge in Eureka to the 11th St. overcrossing in Arcata (Postmile (PM) 79.9 to 86.3) (Exhibits 1-3, 5-7, & 10-11). Caltrans characterizes Route 101 in the project reach to be "approximately 5 miles of expressway and 1 mile of freeway." The expressway typically carries high volumes of traffic, and combined with the six at-grade intersections, leads to hazardous uncontrolled crossings at the intersections, which is the primary source of safety concerns in the corridor. Two of the six crossings, Mid-City Motor World and Indianola Cutoff, have collision rates higher than the state average for similar facilities (Exhibit 4). The project's primary purpose is to improve safety by eliminating uncontrolled left turn moves at the unsignalized intersections. Caltrans therefore proposes to control or close all six of the crossings on this stretch of Route 101. Caltrans states secondary project purposes include reduction of operational conflicts and delay, and roadway rehabilitation.

Major project features include closing roadway median crossings, constructing an interchange at Indianola Cutoff, replacing the southbound Jacoby Creek Bridge, upgrading the bridge rail on northbound Gannon Slough and Jacoby Creek Bridges, partially signaling the Route

101/Airport Road intersection, and constructing various roadway improvements such as widening, paving, and restriping (Exhibits 2-3, 5-7, &10). More specifically, the project would include:

Bridge Construction Work at Jacoby Creek and Gannon Slough. At both Jacoby Creek and Gannon Slough, existing pairs of bridges carry Route 101 traffic in both directions. Construction work at northbound Jacoby Creek and Gannon Slough Bridges consists of replacing the bridge rail. Concerning the bridge rail designs, which has been an issue of particular focus by the Commission in recent years, Caltrans has committed that the bridge railings on the bridges will be similar to designs previously approved by the Commission on north coast bridges.

Replacement of the Southbound Jacoby Creek Bridge. The new southbound Route 101 Jacoby Creek Bridge would be approximately 74-feet long and 53.5-feet wide (14.5 feet wider than the current bridge) (Exhibit 10). The additional width would provide improved pedestrian and bicycle passage across this bridge. The new bridge would have about 1,073 sq. ft. of increased surface area compared to the existing bridge. The new bridge would be single span with no piers in the channel (the current bridge is a three-span structure with pier supports within the creek channel).

The new bridge would be erected to the east of the current alignment and serve as a temporary detour bridge. Approximately fourteen 3-ft. diameter cast in place steel shell piles would be oscillated (i.e., no impact pile driving is proposed) into place: seven piles on each side of the bank and three per side of bank for the temporary bridge and four per side of bank for the permanent bridge. The piles would be about 15 feet from the creek - bay mean higher water elevation.

Tide Gate Replacement. Existing tide gates on culverts that extend under the Route 101 roadway minimize inundation of surrounding pasturelands from tidal waters while allowing freshwater to drain. All of the existing tide gates within the project limits (i.e., six locations and a total of nine tide gates) will be replaced (Exhibit 11). The existing tide gates are the standard top hinged flap gate design, either round or rectangular. At the locations where fish may be present, in consultation with the California Department of Fish and Wildlife, National Marine Fisheries Service, and the U.S Fish and Wildlife Service, Caltrans proposes that “fish-friendly” tide gates with an auxiliary door will be installed. To enhance fish habitat, a rock weir will be placed downstream of the tide gates at Gannon Slough. The 101 Slough, Brainard Slough, Old Jacoby Creek, and Gannon Slough are locations where both tidewater gobies and salmonids (special status fish) may be present. The gates with auxiliary doors are similar to the existing gates, with the added feature of a small manually adjustable auxiliary door that can remain open at all times. The small auxiliary door allows muted tidal flow in both directions. The ditch that enters Eureka Slough south of Jacobs Avenue and the California Redwood Sawmill ditch have no special status fish present, so these replacement gates will not use the auxiliary door design.

Extension of Existing Acceleration and Deceleration Lanes. Acceleration lanes and deceleration lanes would be extended at Mid-City Motor World, California Redwood (formerly Simpson) Sawmill, Bracut (east side of highway), and Bayside Cutoff. At Cole Avenue, the

existing acceleration onto Route 101 would be closed and the existing deceleration lane would be extended. The acceleration/deceleration lanes typically would include 4-ft. wide right side shoulders, except at the Indianola Cutoff, where 8-ft. wide right side shoulders would be provided.

To extend the existing acceleration/deceleration lanes on southbound 101 at the California Redwood Sawmill, roadway widening would require realigning the two southbound Route 101 lanes 8 feet towards the median. The realignment would avoid removing any eucalyptus trees to extend the acceleration and deceleration lanes.

The acceleration and deceleration improvements would require placement of up to 40,000 cubic yards of fill. Construction activities would not occur within Humboldt Bay, the 101 slough on the east side of Route 101, and the ditch between the railroad bed and Route 101 roadway.

Close Median Crossings. All remaining Route 101 median crossings would be closed at the following intersecting roads/driveways: Mid-City Motor World, California Redwood sawmill, Bracut, and Bayside Cutoff (Exhibit 6). Median closures would consist of the removal of asphalt-concrete paving and possibly some excavation and seeding bare slopes with native or cultivated grasses. The closed areas are proposed for wetland creation/mitigation.

Interchange at Indianola Cutoff. At this intersection Caltrans proposes to separate the crossing movements vertically, which would eliminate the primary conflicting paths of vehicles turning left and crossing Route 101. Originally designed with typical 2:1 engineered slopes, to reduce wetland impacts, overall footprint, fill quantities, and cost, Caltrans modified the interchange to be a “compact diamond interchange” (Exhibits 7 & 8) “Compact” refers to the fill slopes being steeper than typical standard slopes, with a maximum slope of 1½:1 (horizontal:vertical), and the median reduced to an all paved 22-foot width within the interchange area. Caltrans also notes that “The revised interchange design does not readily accommodate the addition of lanes in the distant future.” The compact design would nevertheless involve placement of 240,000 cubic yards of fill for the interchange. Construction activities would not occur within Humboldt Bay, the 101 slough on the east side of Route 101 and the ditch between the railroad bed and Route 101 roadway. Landscaping is included in the project to visually enhance the interchange.

Half Signal and Intersection work at Route 101 and Jacobs Avenue, Airport Road, and Route 101. A “half signal” would be constructed at the Airport Road Intersection with Route 101. The half signal would operate such that northbound traffic would have signal control to allow for southbound left turns east to Airport Road/Jacobs Avenue, and westbound left turns from Airport Road/Jacobs Avenue to a southbound acceleration lane, while southbound 101 through traffic would not be stopped (Exhibit 5). The Airport Road/Jacobs Avenue intersection would include a slight realignment of Jacobs Avenue to the east (within City of Eureka and County of Humboldt Right of Way), to accommodate a second northbound lane to allow immediate access for northbound traffic to enter Route 101 northbound. Stopping northbound Route 101 traffic with a signal also requires adding a third northbound lane to minimize queue lengths, for shorter signal cycle times, and less potential for diversion to other

routes. The third northbound lane would be added toward the median, and would extend from 400 feet south of the Airport Road Intersection to Mid-City Motor World for a total 3-lane segment length of 3,000-feet. This three lane section is required to ensure vehicles have adequate merging distance between the Airport Road and Mid-City Motor World intersections.

The half signal would be configured to minimize delay to Route 101 traffic (in both directions). To maintain a Level of Service (LOS) C for Route 101, greater delays would be added to the left turning movements to and from Airport Road to southbound Route 101. Based on anticipated increases in traffic volumes, the analysis of the half signal indicated that the delay for the turning movements will become excessive. As the signalized intersection exceeds its capacity based on predicted growth rates, traffic flow would be maintained by using right turns to and from Airport Road and disabling the signal controlling the westbound move from Airport Road to southbound 101; if this occurred, westbound traffic from Airport Road needing to access southbound Route 101 would first need to turn right and proceed northbound on Route 101 and turn around at the proposed grade separation at Route 101 and Indianola Cutoff.

The right turn move from northbound Route 101 to Airport Road and onto Jacobs Avenue is presently not adequate for truck turning without using both lanes of Jacobs Avenue. Jacobs Avenue needs to be widened to the east to prevent interference from these vehicles with queued vehicles on Jacobs Avenue waiting to turn left onto southbound Route 101. To avoid encroaching into the adjacent private property due to elevation differences, a retaining wall up to 4-feet high, 150-feet long, would be constructed along the edge of Jacobs Avenue. An existing 150-feet long by 4-feet wide roadside drainage would be realigned to modify the current drainage through a culvert (approximately 50 feet long) under Jacobs Avenue. The remaining 100 feet of the drainage is an open ditch along the Airport Road shoulder, which would be eliminated and realigned into a 130-feet long, 24-inch diameter culvert.¹

Clear Recovery Zone. Twenty to forty mature Monterey cypress (*Cupressus macrocarpa*) and Monterey pine (*Pinus radiata*) trees would be removed that are currently too close to the edge of the Route 101 traveled way. Large trees can pose potential hazards for errant vehicles or vehicles making emergency maneuvers. Removing or shielding fixed objects that are within 30 feet from the edge of the traveled way, known as the clear recovery zone, would enhance safety.

Traffic Management During Construction. How traffic flow will be maintained during bridge relocation and other construction will be addressed through preparation of a comprehensive transportation management plan (TMP) to maintain flows during the three-year construction period in a manner minimizing disruption to travelers, business owners, customers and residents. The TMP would include limiting long-term lane closures; minimizing peak travel period disruption, keeping open local streets and private driveways, use of changeable message signs and media notifications, prohibiting any road work on holidays (such as the 4th of July or Labor Day weekend) or when special events are scheduled, maintenance of bicycles access

¹ Note: the two paragraphs preceding this footnote represent a clarification to the project description in the consistency certification made by Caltrans in an April 18, 2012, email from Mitch Higa (Caltrans) to Mark Delaplaine (CCC).

through the work zone (including maintenance of a clean shoulder that is safely passable by bicyclists), and maintaining the existing speed limit on Route 101 to avoid diverting traffic to State Route 255 or Old Arcata Road.

Construction is expected to occur over an approximately three year period, beginning in 2015. Caltrans estimates the project cost to be approximately \$46 million.

B. BACKGROUND

Historically, the currently uncontrolled intersections have led to safety problems. In May 2002, due to the increasing frequency of injury and fatal collisions, Caltrans formally established the Eureka – Arcata “Safety Corridor,” which it considered to be an interim solution/safety enhancement to reduce the hazards. This Safety Corridor included a doubled fine for speeding violations, reducing speed limits (from 60-mph to 50-mph), warning signs, actual speed traveled signs, headlights-on requirements, and flashing light warnings at intersections.

While lowering the speed limit for the three year period the Safety Corridor was in place did not eliminate the potential for severe collisions at the at-grade crossings, the Safety Corridor successfully improved driver behavior and awareness. During its first year, the Safety Corridor resulted in 45% fewer collisions, including 80% fewer collisions at intersections. The legislation authorizing the double fine zone expired after several years (on January 1, 2006), and Caltrans maintains that safety corridors are generally considered ineffective as permanent solutions, because driver reversion to former behavior and future growth lead to reduced effectiveness over time. The DEIR/S (p. 15) notes about safety corridors in general:

Moreover, a review of safety corridors on other highways within the State has shown that their effectiveness is short lived. Among the explanations for this loss of effectiveness given by traffic safety engineers is the phenomenon of habituation. It explains why warning signs, which rely upon driver alertness and attentiveness, are not long-term meaningful substitutes for permanent roadway geometric (configuration of roadway elements) improvements engineered using the latest design standards. After an initial enhanced enforcement period (ranging one to three years), the collision rates in these 29 safety corridors approached the pre-safety corridor implementation collision rates. Despite the Safety Corridor, traffic volumes are predicted to increase over time resulting in an increase in traffic collisions even if the reduced speed limit remains in effect.

Specifically for this Corridor, Caltrans states:

Prior to the Safety Corridor, the collision rate five-year averages were higher than the statewide average (for similar highway intersections) at four of the six intersections. After implementation of the Safety Corridor, collision rate five-year averages at Mid-City Motor World and Indianola Cutoff remain above statewide averages; in fact, the collision frequency at Mid-City Motor World and Indianola Cutoff are actually higher than prior to the Safety Corridor.

Exhibit 4 shows pre- and post-Safety Corridor accident statistics, both for accidents in general and severe accidents/fatalities, and compares them to statewide averages. It should be noted that although the total *number* of collisions was greater at two of the six intersections after the Safety Corridor was in place (Exhibit 4, Figure 2-2), the *severe* collision rates (Exhibit 4, Figure 2-3), show that while the severe collision rates are still well above the state average for two of the intersections (Mid-City Motor and Indianola), at all the intersections the rates declined compared to the pre-Safety Corridor rates (and for 4 of the 6 intersections the declines were significant).

In June 2007 Caltrans circulated a Draft Environmental Impact Statement/Environmental Impact Report (DEIR/S) for the project. The 2007 DEIR/S focused on four alternatives: three Build alternatives (numbered Alternatives 1, 2 & 3), and a No-Build Alternative. These are described more fully below.

Working with a number of local, state, and federal agencies and local interest groups, Caltrans refined its alternatives analysis, and after receiving public comments on the Draft EIR/S, Caltrans modified two of the build alternatives to address concerns from local governments, public agencies, and individuals (Alternative 1A and 3A, the second of which would include a modified interchange at Indianola Cutoff and a half signal at Airport Road). After a public meeting in 2008, Caltrans summarized the public's response as follows:

About 75% of the written comments received after the meeting did not mention Alternatives 1A or Alternative 3A. Alternative 3A was favored about two-to-one over Alternative 1A; however, many more comments favored the No-Build Alternative or an alternative that would include a bicycle path. Although Alternative 1A would meet the project need and purpose, two common objections to this alternative were the safety concern anticipated by bicyclists using the turnarounds [i.e., allowing U-turns] and the turnarounds potentially creating driver confusion. Some commentators objected to the interchange feature of Alternative 3A [i.e., the fill slopes and vertical separation of lanes].

In June 2009, Caltrans selected Alternative 3A as its preferred alternative (and under U.S. Clean Water Act 404(b)(1) Guidelines, the "preliminary Least Environmentally Damaging Practicable Alternative (LEDPA). In June 2010, and at the request of the Humboldt County Association of Governments (HCAOG) and Jacobs Avenue residents and businesses, Caltrans considered additional modifications to Alternative 3A, resulting in the currently proposed project referred to as "Modified Alternative 3A." The additional modifications were to the turn moves allowed at the Airport Road signal (referred to in this document as a "half signal"), to allow southbound turn moves from Airport Road. While Caltrans has not finalized the EIR/S (and will not until after Commission action on this consistency certification), it nevertheless states:

Modified Alternative 3A is currently the proposed LEDPA and Preferred Alternative that meets the project need and purpose of safety improvement (and other long-term highway improvements) that would benefit all travel modes, while minimizing traffic access, visual, and wetland impacts.

On November 30, 2011, Caltrans submitted a consistency certification to the Commission for the proposed project (CC-054-11). That consistency certification included Caltrans' responses to public comments on the DEIR/S. While the matter was originally scheduled for Commission action at the May 2012 Commission meeting, the Commission staff had communicated a number of Coastal Act concerns raised by the project, and on April 24, 2012, Caltrans withdrew the certification in order to respond more fully to these concerns. On February 8, 2013, Caltrans submitted the subject consistency certification for the project (CC-016-13), which included an addendum responding to Commission staff concerns, which included:

1. Whether the project was necessary to maintain existing traffic capacity, and thus whether it could be considered an allowable use under Section 30233(a) for wetland fill as an incidental public service facility;
2. Whether a "signalized boulevard alternative" would be an environmentally less damaging feasible alternative, in particular to the proposed Indianola Interchange;
3. Whether the project would be growth inducing in a manner inconsistent with the Coastal Act;
4. Whether a feasible visually less damaging, and less landform-altering, alternative to the Indianola Interchange was available (e.g., a signalized intersection);
5. Whether the project could include a guard-rail separated bicycle/pedestrian path along Route 101; and
6. Whether wetland mitigation sites that did not involve conversion of agricultural land to wetland habitat were feasible or available, and even if not, whether adequate wetland mitigation was included in the project.

Caltrans' responses, which will be discussed in more detail in the following sections of this report, include the above-mentioned addendum, as well as a revised wetland restoration concept plan. In these submittals, Caltrans maintained that its proposal would not increase capacity, induce growth, would be less environmentally damaging, and would minimize fuel consumption and greenhouse gas emissions. Caltrans maintained that a signalized boulevard would be less safe and effective, would not result in improved traffic flow, would involve more wetland fill, would be growth inducing, would not minimize fuel consumption and greenhouse gas emissions, would have more adverse visual effects, and would be more problematic for bicyclists and pedestrians. Caltrans also rejected the Commission staff suggestions for a guard-rail separated bicycle/pedestrian path on 101 because it would involve an additional 7.4 acres of wetland fill and would cost \$12.3 million, and notes that a Coastal Trail is under consideration on the parallel rail corridor just west of 101.

On June 27, 2013, the Commission staff published its previous recommendation on Caltrans' current consistency certification, previously scheduled for Commission action at the July 2013 Commission meeting. In that report the Commission staff recommended objection and continued to raise concerns over: (1) whether the Indianola Interchange was consistent with the allowable use and alternatives test of Section 30233(a) of the Coastal Act; (2) whether at least

an interim bicycle/pedestrian trail needed to be provided along the 101 corridor itself; and (3) whether the wetland mitigation was adequate (and was an appropriate use for former agricultural lands). Since that time, the Commission staff has continued to discuss and refine the issues with Caltrans staff, and on August 27, 2013, Caltrans provided written responses to the Commission staff's previous recommendation (Exhibit 28). The next section of this report: (1) summarizes other public comments received; (2) summarizes Caltrans' responses to the previous recommendation; and (3) provides Commission responses to the comments.

PUBLIC COMMENTS RECEIVED

The Commission staff has received a large number of letters and email communications providing public comments on the proposed project (Exhibit 29).

The Environmental Protection Information Center (letter, Aug. 14, 2013) states that the project should be more comprehensively integrated into community regional transportation and environmental needs, including consideration of sea level rise, and needs to include a safe coastal trail component (the latter comment being one that is reflected in practically all the communications received [and thus will not be repeated below]), and that less damaging alternatives should be considered (as well as a greater degree of community involvement in the planning).

Ralph Faust (letter, Aug. 16, 2013) urges greater consideration of sea level rise and the need to consider how the Corridor will be protected over time in the face of sea level rise, notes the hurdles facing development of the railroad embankment for use as a coastal trail (which include potential inconsistencies with the wetlands and shoreline structures policies of the Coastal Act's (i.e., Sections 30233(a) and 30253(2)), and indicates the Commission's action should await completion of Caltrans' sea level rise study (discussed on page 36 below).

The Humboldt Baykeeper's Aug. 16, 2013 letter states that additional alternatives need to be considered, based on the analysis provided in its traffic consultant's traffic report "Eureka-Arcata Route 101 Corridor Improvement Project Review," Michael Moule, PE, TE and Magnus Barber, Nelson\Nygaard Consulting Associates, August 6, 2013 (Exhibit 27), including continuous Green T intersections (i.e., intersections similar to the "half signal" proposed at Airport Rd.), roundabouts, Michigan lefts, signalization of 2-3 intersections, reducing the number of turning lanes at signalized intersections, maintaining a 50 mph speed limit, and renewing the Safety Corridor legislation enabling doubled traffic fines. Baykeeper also urges more sea level rise planning before committing extensive funds to infrastructure improvements. Baykeeper's Aug. 14, 2013 letter summarizes its traffic consultant's recommendations, stating that the Indianola Interchange would increase highway capacity and traffic speeds, and noting that wetland impacts could be reduced with reduced turning lanes at signalized intersections. Baykeeper's Aug. 11, 2013 letter questions "deferred" mitigation for wetland impacts, raises water quality, night lighting, bicycle safety and other recreational concerns, as well as sea level rise concerns, and states the Indianola Interchange would be growth-inducing and speed up traffic.

Approximately 85 additional commenters raised one or more of the above concerns. Several commenters questioned the safety of the staff's previous recommendation for a guard-rail separated bicycle/pedestrian lane on the highway, and as noted above, most commenters urged completion of planning for a safe permanent coastal pedestrian/bicycle trail.

CALTRANS COMMENTS RECEIVED

On August 27, 2013, Caltrans provided written responses to the Commission staff's previous recommendation, as articulated in its June 27, 2013 staff report (Exhibit 28). In that submittal, Caltrans maintains:

- 1) The project purpose is to reconfigure and upgrade the current facility to reduce the high fatal and injury accident rates that have plagued the Corridor since Caltrans began studying the issue in 2001, and the project would not have the effect of increasing traffic capacity.
- 2) The project minimizes wetland fill.
- 3) The project would maintain as low a visual profile as possible so as to minimally impact coastal views from throughout the Humboldt Bay region.
- 4) The project would supply new and enhanced opportunities for connecting the public with low-cost recreation resources within the coastal area.
- 5) The project would not remove any barriers to growth within the coastal area.
- 6) The project is an allowable use for wetland fill as an incidental public service.
- 7) The Commission has recently approved similar Caltrans projects involving wetland fill: the Alton Interchange in Humboldt County and the I-5/Genessee Overcrossing in San Diego (CDPs 1-07-038 and 6-11-093, respectively).
- 8) The staff-recommended signalized intersection at Indianola would "be infeasible," "would fail spectacularly," and "would actually exacerbate the problems that currently exist in the corridor, rendering it *less* safe." [Emphasis in original]
- 9) The submitted traffic analysis submitted by the Humboldt Baykeeper is "quite rudimentary and deeply flawed," and "Caltrans could not responsibly disregard its own studies in place of the unsubstantiated claims of the Nelson-Nygaard Report, although that is precisely what Commission Staff has done. That report, containing little more than untested conjecture, is not a sound basis for rejecting thirteen years of project development and design."
- 10) Caltrans is continuing to work cooperatively with the Commission staff concerning wetland mitigation options.
- 11) The Commission staff misapplied the County's LCP concerning the analysis of views and the scenic character of the area.
- 12) The project site is not a natural landform; rather it is artificial bay fill.

- 13) “There are public viewing areas elsewhere around the Bay, and from those positions, the interchange is not particularly visible due to its low profile and the presence of significantly taller trees nearby.”
- 14) The project site “is one of the semi-urban sections [which the Commission staff acknowledges elsewhere in the recommendation], which is not to say that it lacks visual value, but rather that it is a reasonable location for a landscaped interchange.”
- 15) “The parties have recently agreed to mitigate for the [visual impacts of the] interchange further by working with the owner [of the outdoor advertising display west of Indianola and 101], advertiser, and relevant Caltrans organizations to fund the removal of the . . . display [that is] currently blighting this area of the corridor.
- 16) Caltrans is not legally obligated under the Coastal Act to fund or build a Coastal Trail. Caltrans is nevertheless “committed to preserving and enhancing coastal access and recreational activities where feasible and within the project scope.”
- 17) The project would improve bicycle safety through a number of the features being added, including the Indianola Interchange.
- 18) “Caltrans is committed to keeping the speed limit at 50 mph within the corridor, insofar as the vehicle code allows.”
- 19) An interim Coastal Trail on 101 itself would undermine efforts to secure the Bay Trail’s future.
- 20) Recent developments disavow the Commission staff assertion that the success of the Bay Trail is speculative. “A recent North Coast Railroad Authority (NCRA) resolution would allow the trail to proceed in the rail right of way under certain conditions, and funding sources are beginning to fall into place.”
- 21) Caltrans will “continue to coordinate and consult with Commission Staff and other interested agencies concerning issues relating to the Coastal Trail in satisfaction of their statutory obligations, but can only expend such efforts in support of the Bay Trail — the more feasible of the options available.”
- 22) The interchange would not be growth-inducing. Overall system capacity would not be expanded, and agricultural lands near the interchange zoned for agriculture lack sewer service, making “development impracticable and the high water table makes it likely to stay that way.”
- 23) If the interchange would be growth inducing, then a signalized intersection would also be growth inducing.
- 24) Caltrans is “is prepared to explore mechanisms to minimize potential growth pressures or zoning changes as necessary ... [such as through] working with the Commission, the County, and the City of Eureka to develop additional and effective

mitigation measures through the coastal land use permitting process to assure that development pressures, if realized, do not induce growth around the Indianola interchange. Currently, ideas include creation of easements or imposition of use restrictions to meet these purposes.”

25) The Indianola improvements will not lead to growth, but they may provide a lifeline to existing businesses in the area.”

26) “Project proponents have worked in good faith with Commission Staff to address their concerns with the Preferred Alternative. The Project proponents accordingly request that the Commission affirms the consistency determination completed by FHWA, allowing the Project to move forward.”

COMMISSION STAFF RESPONSES

In response to the public comments above, the Commission agrees with the many commenters who asserted that a trail component needs to be part of or coincide with the Corridor improvements; this recommendation can be found on pages 51 and 54.

The Commission agrees with the comments emphasizing the importance of studying sea level rise in this area, but it does not agree that critical safety improvements to the low lying infrastructure need to await further sea level rise planning. In addition, some aspects of the proposal already take sea level rise (SLR) into account to the extent possible in light of the need for relatively quick action. For example, Caltrans has designed the Jacoby Creek Bridge replacement assuming that the bridge will have a 75 year structural life, and the proposed bridge is designed to accommodate (or to be fairly easily adapted if sea level rise exceeds predictions) a 51 inch sea level rise (SLR) (i.e., within a range of 40 to 55 inches of SLR by the year 2100 (Consistency Certification Appendix D – Greenhouse Gas Analysis and Sea Level Rise Adaptation Discussion). That document concludes (page 13):

SLR adaptation measures for Route 101 and/or the railroad bed have not been fully studied. Delaying the project to assess, plan and incorporate SLR considerations for the proposed project would substantially delay a project under environmental review since 2001 and needed to enhance safety for the existing Route 101 corridor between Eureka and Arcata. The proposed project includes improvements within the existing roadway that generally would not complicate nor foreclose opportunities for future SLR adaptation improvements. As previously mentioned, the proposed bridge replacement and grade separation structure will be constructed to withstand medium projected SLR for the next 75 years.

That document also states that the proposed Indianola Interchange would be elevated above SLR projections, stating (page 12):

Route 101 at the proposed grade separation at Indianola Cutoff would be elevated to an approximate elevation of 34 feet, which is over 20 feet above the estimated SLR. The local road connection, Indianola Cutoff would be below the highest anticipated tides based on the potential sea-level rise.

The Commission's SLR concern is that it may be premature to authorize the interchange (assuming it were otherwise consistent with the Coastal Act policies) prior to completion of Caltrans' upcoming more focused SLR study for the Corridor area, because it is not clear whether the base of the interchange will need to be raised (thus reducing vehicle clearance space) to accommodate SLR, and because a new interchange would likely require additional modifications to the roadway, drainage structures, and other ancillary roadway elements. In addition, and other options are available to address the safety concerns at this location on either a permanent or an interim basis. The Commission does not agree that the other project components need to await completion of the more focused study being performed.

The Commission agrees with the comment that a rail trail would indeed raise issues with respect to the wetland and shoreline structure policies, but that, given the Coastal Act's mandate for increased access, these issues may be able to be considered and ultimately likely resolved through the conflict resolution policy of the Coastal Act (Section 30007.5). The analysis below supports the comments that additional alternatives need to be considered. The staff did not intend to imply, and the findings adopted by the Commission should not be construed to mean, that a signal light at Indianola would be the *only* alternative that could be authorized under the Coastal Act.

Finally, with respect to many commenters' expression of the need for and superiority of an off-highway coastal trail, the staff agreed and has modified the recommendation to provide for such a separate trail if it can be implemented. As such, the Commission's findings herein provide for that alternative possibility. The remainder of the public comments are addressed in the recommendation below.

Concerning the points raised by Caltrans, points 1-6 do not raise any new issues, beyond what was covered by the staff recommendation issued for the Commission's July, 2013 meeting. Points 1-6 are addressed by the findings below. The prior matters raised in point 7, the Caltrans Alton Interchange south of Fortuna and I-5/Genessee Overcrossing in San Diego, were not similar projects in one critical respect – although both involved wetland fill, the Commission found that they did not increase capacity. The I-5/Genessee project was simply adding lanes to the overcrossing to bring the width up to the number of lanes on the roads leading up to the crossing. An additional difference with the Alton project was that it was located at the intersection of two state highways, which differs significantly from the “boulevard” nature of the 101 Corridor at and near Indianola, which raises different safety implications. In both cases the Commission found the project would not increase capacity, qualified as an incidental public service, and was the least environmentally damaging feasible alternative.

On point 8, the Commission disagrees with Caltrans that a light would be infeasible or less safe than the status quo, for the reasons discussed in the findings below. On point 9, the staff did not rely on the independent study for its previous recommendation, as it had not yet been prepared; however, now that it has been prepared and presented, the Commission believes it provides an additional, substantive, evidentiary basis to support the staff's recommendations and concerns. On point 10, the staff agreed and modified the recommendation accordingly concerning wetland mitigation, and the Commission's findings therefore reflect that.

On point 11, the staff previously acknowledged that the LCP was not the standard of review and did, as Caltrans notes, focus on view from (rather than across) 101. The LCP language was simply raised because the staff believed it provided additional support for the scenic values of the area. The findings now adopted by the Commission, below, reflect those understandings. On point 12, the Commission disagrees that the historical fill that contributed to the nature of the current landform renders the entire setting ineligible for the protection afforded by Section 30251; the expansive nature of the setting remains, as does its waterfront location, and the landform's visual appearance as a scenic and natural waterfront plateau is precisely the sort of landform that Section 30251 is designed to protect. On points 13 and 14, the Commission disagrees that the low profile of the interchange would not have high visibility, given the topography of the area, or that the profile it would have would be an insignificant impact on the character of the area, notwithstanding its semi-urban character. On point 15, the Commission urges Caltrans to continue to work with landowners and other entities to improve the quality of the area, regardless of which alternative is ultimately authorized.

On point 16, for the reasons discussed in this report, the Commission believes the Coastal Act does in fact obligate Caltrans to significantly assist furtherance of the Coastal Trail, based on Coastal Act requirements to maximize public access, to protect, encourage, and provide, where feasible, lower cost visitor and recreational facilities, and to mitigate adverse effects. Also to that point, as well as points 17 and 18, the Commission remains concerned over the effects of the increased speed of highway users on bicycle safety, as well as the difficulty, without significantly increased enforcement measures, in controlling vehicular speed limits on the Corridor. On points 19-21, since the report issued for the July meeting, the staff has expanded the options to acknowledge the preference for an off-highway Rail Trail. These findings therefore now acknowledge that preference and reflect the Commission's position that if it could be secured in a timely manner prior to or concurrent with the Corridor improvements, it would obviate the need for Caltrans to provide a trail on the 101 highway shoulder.

On points 22 -25, the Commission disagrees with the first two points and the last point, for the reasons discussed in the recommendation, rendering the third point irrelevant. Even if a signalized intersection were growth-inducing (which the Commission contests), it would be less so than the proposed interchange. And even if growth were limited by limitations in other infrastructure, such as sewer service, Section 30254 still limits expansion of the roads beyond what is necessary to accommodate the needs of existing permitted development.

On point 26, the staff confirms that Caltrans has worked diligently and in good faith with the staff on the issues raised by the project.

D. PHASED REVIEW

As has historically occurred for Commission review of Caltrans projects that also require an EIR/EIS, and where federal funding is involved, prior to Federal Highway Administration (FHWA) certification of the Final EIS and signing of the Record of Decision (ROD) for the project, FHWA policy guidance is that Caltrans obtain a Commission consistency concurrence before FHWA will sign the ROD and release federal funding for the project. These reviews do not supplant the need for subsequent coastal development permits (CDPs) by the appropriate jurisdictions. When the Commission conducts these types of "pre-coastal development permit" phase federal consistency reviews, the Commission is reviewing the concept, goals and

objectives of the proposed project. At this stage in the review process, the information submitted may not include final project plans or final mitigation and monitoring plans. The Commission needs to determine whether it has sufficient information to find that the project, to the extent the project elements and mitigation measures *have* been described, are generally consistent with the applicable Coastal Act policies, and where details may not have been finalized, to identify the mechanism the Commission will rely on to assure that the final details will be consistent with the Coastal Act. The Commission also generally uses this procedure to indicate to Caltrans what modifications and/or assurances, if any, are needed to enable the project to be found consistent with the Coastal Act.

If (and after) the ROD is signed, Caltrans will complete its design and planning process and apply for any necessary CDPs. In addition, any changes to the project design or mitigation commitments raising Coastal Act policy concerns not previously identified could independently trigger additional federal consistency review under the “reopener” provisions of Section 930.66(b) and/or Section 930.100(b) of the federal consistency regulations (15 CFR Part 930), which provide for re-review, based on “changed circumstances,” of federally permitted and federally funded activities in which the Commission has previously concurred (i.e., based on a determination that the project is having coastal zone effects that are substantially different than originally proposed and, as a result, the project is no longer consistent with the applicable coastal management program policies).

For this project, which spans four CDP jurisdictions, CDPs will be needed from the Commission, Humboldt County, and the Cities of Eureka and Arcata. However, Caltrans has indicated that it intends to request consolidating the permit jurisdictions and apply for one coastal development permit from the Commission (based on the provisions of Section 30601.3 of the Coastal Act). If the CDPs are not consolidated in this matter, any local government-issued CDP for components of this project would be appealable to the Commission.

E. OTHER AGENCY APPROVALS

Other Regulatory approval/permits needed include:

U.S. Army Corps of Engineers Section 404 Permit for filling of wetlands/Waters of the U. S., and possibly a Section 10 permit for the construction of any structure in or over any navigable water of the U.S.

U.S. Coast Guard Approval of Bridges under the General Bridge Act of 1946 (33 U.S.C. 525).

Regional Water Quality Control Board “Section 401 Water Quality Certification” and possibly approval of any waste discharge into waters of the state, under the Porter-Cologne Act (Water Code Section 13260).

U.S. Fish and Wildlife Service/National Marine Fisheries Service Section 7 Consultation for incidental take of any federally listed species under the Endangered Species Act. (The Fish and Wildlife Service has issued a “No Jeopardy” opinion, dated November 22, 2010, and the

National Marine Fisheries Service, has issued a “May affect, but is not likely to affect” letter, dated January 20, 2010. Both these documents contain additional mitigation to protect “listed species” and “Essential Fish Habitat”).)

National Marine Fisheries Service Essential Fish Habitat Consultation under the Magnuson-Stevens Act.

Section 106 Compliance Coordination with the State Historic Preservation Officer (SHPO) under the National Historic Preservation Act for protection of significant archaeological and historical resources. Procedures for dealing with previously unsuspected cultural resources discovered during construction.

California Department of Fish and Wildlife 1602 Streambed Alteration Agreement for activities that would affect a stream, and possibly a California Endangered Species Act (CESA) consistency determination may also be required for effects on Coho salmon.

Humboldt Bay Harbor Recreation and Conservation District permit for bridge construction work at Jacoby Creek and Gannon Slough.

F. WETLANDS

Section 30233(a) of the Coastal Act states, in part:

The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
- (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*

- (6) *Restoration purposes.*
- (7) *Nature study, aquaculture, or similar resource-dependent activities.*

Humboldt Bay is one of California's most important wetland complexes and is the largest bay between Coos Bay, Oregon and the San Francisco Bay. The Bay and its surrounding wetland complexes provide habitat for 316 species of birds, 40 species of mammals, and over 100 species of fish and marine invertebrates, many of which contribute to sport and commercial fisheries, including steelhead, coho and chinook salmon, and Dungeness crab. Despite its current high habitat value, over the past 120 years more than 90% of its wetlands have been diked and filled for agricultural, transportation, and urban uses, and only about 850 acres of salt marsh (out of a historic approximately 9,000 acres) remain.

The Coastal Act recognizes the importance and scarcity of wetlands primarily in Section 30233, which allows only limited types of uses in wetlands and imposes strict alternatives and mitigation tests. According to Caltrans' consistency certification, using the Coastal Act wetlands definition the proposed project would result in 10.3 acres of permanent wetland fill, which it indicates results from: replacement of the southbound Jacoby Creek Bridge; construction of the Indianola interchange; extension of acceleration and deceleration lanes; and construction of a (half) signalized intersection at Airport Road. This fill triggers the 3-part test under Section 30233(a) for projects involving wetland fill: (a) the allowable use test; (b) the alternatives test; and (c) the mitigation test. A project must pass all three tests to be authorized pursuant to Section 30233(a).

Allowable Use

Under the first of these tests, a project must qualify as one of the seven stated uses allowed under Section 30233(a). Caltrans maintains that the project is an allowable use under Section 30233(a)(4), which authorizes wetland fill for "*Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*" Caltrans maintains that the project qualifies for this allowable use for the follow reasons:

The project is needed for public safety improvement and other roadway improvements that would benefit all travel modes. Expansion of an existing road or bridge is an "incidental public service purpose" allowed under Section 30233(a)(4) when no other alternative exists and the roadway expansion is limited and necessary to maintain existing traffic capacity. Since coastal wetlands occur within the existing Route 101 roadway fill prisms and the median, roadway improvements beyond the existing pavement often result in wetland impacts. Although constructing Modified Alternative 3A [i.e., the proposed alternative] would result in wetland impacts, any wetland impacts would be fully compensated off-site. The project would improve coastal access and improve safety for both motorized and non-motorized transit by eliminating uncontrolled left turn moves and constructing an interchange.

Even though the project includes extending acceleration and deceleration lanes, as well as a new interchange, these improvements are for safety purposes and would not increase the capacity of the roadway; the overall number of through lanes would remain the same after project construction. No new travel lanes will be added to the Route 101 corridor's length in either the northbound or the southbound directions. The proposed interchange at Indianola Cutoff would create a roadway grade separation between the lower ranked left turn movements to and from Route 101 and mainline Route 101 through traffic at Indianola Cutoff would not add additional lane capacity to the overall Route 101 corridor. While interchanges have a greater intersection capacity than intersections with at-grade minor street stop control, interchanges alone do not increase the through capacity of freeway-expressway segments. The existing two-lane highway capacity on Indianola Cutoff also will not increase with the construction of an interchange.

In support of these assertions, Caltrans cites several previous Commission approvals of other Caltrans-proposed projects where it believes the Commission relied on a similar analysis in its approval findings. Several of the cases cited by Caltrans as analogous are as follows:

1. CDP 1-07-013, Mad River Bridge Replacement, Route 101 between Arcata and McKinleyville, involving 2 acres of wetland fill, with the relevant Commission finding being:

The Commission has in the past determined that the fill for certain highway safety improvement projects that did not increase vehicular capacity was considered to be for an "incidental public service" pursuant to the requirements of Coastal Act Section 30233(a)(4). In reaching such conclusion, the Commission has typically determined that a bridge replacement is a public safety project – and thus is undertaken for a public purpose -- and further, that the project is incidental to "something else as primary." That is, the project is a public safety project incidental to the primary transportation service provided overall by the existing highway. This finding is supported in part on the basis that the subject bridge project is not part of new route or highway expansion.

2. CDP 1-90-295, Highway 1 widening, realignment and left turn lanes 2 mi. north of Fort Bragg, Mendocino Co., involving 1 acre of wetland fill, with the relevant Commission finding being:

In this case, the fill is proposed in conjunction with a project designed to improve a dangerous access to beaches and parks. The highway rebuilding project is a public service. Therefore, the Commission finds that the purpose of the fill is consistent with subsection (5) of Section 30233. [Note: subsection 30233(a)(5) from 1990 is the same as subsection (a)(4) today]

3. CC-007-95 Route 150 realignment and replacement of two bridges over Rincon Creek, at the Ventura/Santa Barbara Co. line, involving 0.02 acres of wetland fill for slope protection for the bridges, with the relevant Commission finding being:

The project is consistent with Coastal Act wetland policies (Section 30233) because it: is an allowable use as an incidental public service, because it is consistent with the Commission's wetland guidelines allowing fill for highways where no capacity increases are proposed, where it is the least environmentally damaging feasible alternative, and where adequate mitigation is provided.

4. CC-074-05 Highway 1 Ten Mile River Bridge replacement, north of Fort Bragg, Mendocino Co., involving primarily temporary wetland effects but also 113. sq. ft. of permanent wetland fill, with the relevant Commission finding being:

Construction and demolition activities for the project will occur in the river and within and adjacent to freshwater and brackish water wetlands found along the south bank of the river. The project includes new fill of coastal waters and is an allowable use under the "incidental public service" provision of Section 30233(a)(5) [now (4)] as the project is a limited expansion of an existing transportation facility necessary to maintain existing capacity.

The Commission believes that these cases cited by Caltrans are not comparable in that they involved the minimum amount of fill necessary to improve safety without increasing capacity. These cases all involved assessments of whether the proposed projects were for incidental public service purposes pursuant to section 30233(a)(4) and the Commission's 1981 statewide interpretive guidelines ("Statewide Interpretive Guidelines for Wetlands and Other Wet Environmentally Sensitive Habitat Areas" (hereinafter, the "Guidelines")). The Guidelines analyze the allowable uses in wetlands under Section 30233 including the provision regarding "incidental public service purposes." The Guidelines state that fill is allowed for:

Incidental public service purposes which temporarily impact the resources of the area, which include, but are not limited to, burying cables and pipes, inspection of piers, and maintenance of existing intake and outfall lines (roads do not qualify).

A footnote (no. 3) to the above-quoted passage further states:

When no other alternative exists, and when consistent with the other provision of this section, limited expansion of roadbeds and bridges necessary to maintain existing traffic capacity may be permitted.

The Court of Appeal concurred with the Commission's interpretation in the Guidelines of the term "incidental public service purposes" as a permissible one. *Bolsa Chica Land Trust et al. v. Superior Court* ("Bolsa Chica") (1999) 71 Cal.App.4th 493, 516 ("We agree with these aspects of Commission's guidelines"). In *Bolsa Chica*, the court held that:

... we accept Commission's interpretation of sections 30233 and 30240... In particular we note that under Commission's interpretation, incidental public services are limited to temporary disruptions and do not usually include permanent roadway expansions.

Roadway expansions are permitted only when no other alternative exists and the expansion is necessary to maintain existing traffic capacity.

The key tests to determine whether the proposed Eureka-Arcata 101 Corridor project qualifies as an incidental public service under these historic interpretations, and thus with the above cited cases and applicable findings, are the questions of whether the proposed improvements are “necessary to maintain existing traffic capacity” and whether there is “no other alternative” available that would avoid or reduce wetland impacts. The Commission believes neither of these tests is met in this situation.

The Commission agrees with Caltrans that the “operational conflicts” posed by the uncontrolled crossings at the intersections on Route 101 between Eureka and Arcata are indeed safety problems that warrant resolution, although it should be pointed out, as noted on pp. 10-11, that since the Safety Corridor was installed, the data (Exhibit 4) show declines in *severe* collision rates compared to the pre-Safety Corridor rates, and no fatalities have occurred to date since the Safety Corridor began. In any event, the Commission does not agree with Caltrans that resolving these operational conflicts needs to occur in a manner that maximizes traffic flow, as the interchange proposed at Indianola would do. Because the project involves wetland fill, the resolution must be one that does not increase capacity, and it must represent the minimum amount of fill necessary to maintain *existing* traffic capacity.

Caltrans states for safety reasons, it needs to plan and design highways to accommodate an increasingly aging population, and that to accommodate higher future traffic volumes (Caltrans estimates a 30% increase in traffic volumes over the next 20 years), that that intersection Levels of Service (LOS) need to be improved, stating:

There is no substantial delay or capacity problem along the mainline (Route 101 through lanes) in the Eureka - Arcata corridor, however, substantial delays associated with left turn traffic crossing Route 101 currently exist and are expected to deteriorate further if no change is made.

Caltrans’ consistency certification confirms that one of the project purposes is:

Reduce delay at intersections. *Reducing traffic delays at intersections along the Route 101 corridor to provide a LOS D or better along the Route 101 mainline and LOS C at Route 101 for signalized intersection moves through the year 2031 is another project purpose.*

Through this assumption (i.e., the need to accommodate future traffic increases - a 30% increase over 20 years), Caltrans is defining the concept of maintaining existing traffic capacity to include maintaining a particular level of service, which is a broader interpretation than what the Commission has historically relied on when it has determined whether a project is necessary to maintain *existing* capacity.

Caltrans characterizes the project as a means of maintaining existing traffic capacity, but its attempt to define the concept of maintaining existing traffic capacity to include maintaining a particular level of service violates both historic practice and, more importantly, a fundamental

principle established by the case law. Not only is Caltrans framing a broader interpretation than what the Commission has historically relied on when it has determined whether a project is necessary to maintain *existing* capacity, but the courts have rejected the notion that Section 30233(a) could be interpreted to apply to maintaining Levels of Service. For example of the appellate court decision in the above-cited Bolsa Chica case states (at 71 Cal.App.4th at 517):

Although we accept Commission's interpretation of sections 30233 and 30240, we do not accept Commission's application of that interpretation to Warner Avenue Pond. In particular we note that under Commission's interpretation, incidental public services are limited to temporary disruptions and do not usually include permanent roadway expansions. Roadway expansions are permitted only when no other alternative exists and the expansion is necessary to maintain existing traffic capacity. As the trust points out, Commission found that the widening of Warner Avenue was needed to accommodate future traffic created by local and regional development in the area. Contrary to Koll's argument, this limited exception cannot be extended by finding that a roadway expansion is permissible when, although it increases the vehicle capacity of a roadway, it is designed to maintain an existing level of traffic service. Such an interpretation of the exception would entirely consume the limitation Commission has put on the incidental public services otherwise permitted by section 30233, subdivision (a)(2) [sic]. [Emphasis added]

The Commission also notes that Caltrans' growth assumptions have also been questioned by the above-cited traffic consultant study (Moule and Barber) (Exhibit 27), which states (p. 7):

Since the 1950s until 2004, VMT increased at roughly the same rate (the figure shows this trend from 1987 until 2004). Since 2004, VMT has either grown more slowly or even dropped from year to year. The changes in growth in VMT call into question any predictions on the future growth in traffic on any corridor, including Route 101.

The Commission finds that Caltrans' proposed solution, most particularly at Indianola, is one which has the effect of increasing, rather than maintaining, highway capacity. As noted in the following (Alternatives) discussion below, Caltrans' Route Concept Report adopted in 2002 lists (on page 17) the Corridor Project as amongst a number of "capacity increasing" projects (i.e., project list entitled "2000 STIP Programmed Capacity Increasing Improvements") (Exhibit 20). Also as noted in the discussion below, anecdotal information exists to support a conclusion that the interchange would be growth-inducing (and thus capacity-increasing) in the context of an early 1990s proposal by Walmart Stores Inc. (Walmart), later abandoned, to develop a store near the Indianola Cutoff. Caltrans' response to a traffic study conducted for the proposal stated that "...the Walmart project [which the memo indicates would need at least a signal in the short term and probably an interchange in the long term] could be growth-inducing." (Caltrans Response to TJKM Traffic Study" Re: Walmart at Indianola Road, 1-Hum-101-82.67, April 1, 1993) (Exhibit 19).

At this time, Caltrans maintains that highway capacity is determined by the number of through lanes, that capacity is not affected by intersection bottlenecks, that the non-signalized intersections are not major impediments to traffic flow, that extending acceleration and

deceleration lanes serve only to facilitate merging and diverging traffic (i.e., maintaining existing highway capacity by improving level of service), and that the proposal can be considered limited to safety and operational improvements to existing intersection and rehabilitation improvements which are allowable under the incidental use policy.

Caltrans also cites a Commission decision in San Diego as supporting its assertion that intersection improvements do not increase capacity (although it should be noted that the case cited was not one that involved wetland fill and thus did not turn on the question of whether it was an allowable use under Section 30233(a)). The case cited is a 2012 San Diego Caltrans case involving the addition of an auxiliary lane to I-5/I-8 intersection, near Sea World, and where the Commission's findings include the following statements (CDP 6-12-060):

(1) The ... project would not result in an increase of capacity to the general travel lanes of the freeway.

(2) This auxiliary lane project is proposed to alleviate increased congestion on northbound I-5 due to increased traffic volume within the project limits. This increased traffic demand has resulted in a significant backup along I-5 that often extends onto the I-8 connector ramp and further east along I-8.

(3) The proposed project would not increase the capacity of the freeway segment, but would function to improve safety and reduce congestion within the subject area, and all work will occur within the Caltrans right-of-way.

Caltrans' assertion that its proposed improvements would not increase capacity may be a reasonable way to interpret the Corridor intersections *other* than the one at Indianola, and the Commission agrees that the four cases cited above (pp. 22-23) would therefore be comparable to Caltrans' proposed solutions for the other five intersections. However, the solution Caltrans proposes at Indianola goes further than the minimum amount necessary to improve safety and maintain existing capacity at this intersection. The Commission believes that the design for this intersection appears to be based as much on maximizing and improving traffic flow and maintaining Level of Service C (based on present and future projected growth rates), and thus increasing current capacity, as it is to improve safety, unlike the cases Caltrans cited above. The Commission further notes that this design differs significantly from the designs Caltrans proposes for the other Corridor intersections.

Support for this position can be found in the above-cited traffic consultant study (Moule and Barber) (Exhibit 27), which states:

As noted above, an interchange absolutely increases the capacity for the minor streets. Today, due to high volumes on Highway 101, the capacity for left turns from the minor streets is quickly approaching zero, so it is not surprising that the Caltrans studies reported Level of Service (LOS) F for westbound and eastbound left turns from the side streets and driveways, even those with low volumes of left turning vehicles. (p. 5):
[Emphasis added]

...

This letter [i.e. Caltrans letter to CCC staff, July 25, 2012] includes the following quote: “The construction of an interchange does not increase the capacity of a highway segment.” This is not entirely true. It could arguably be true for through movements, but absolutely not for turning movements. The capacity of the proposed interchange is undoubtedly higher than the capacity of the existing stop-controlled intersection. This is evidenced by the LOS F ratings shown for left turning movements in the traffic studies for the project. The reason that these left turn movements show LOS F isn’t necessarily because there are a lot of vehicles turning left, but rather because there are so many vehicles on Highway 101, that there are few gaps for left turning traffic to turn across the traffic stream. Consider that if in theory the volume on 101 increased to a point where there are no gaps in the traffic stream, then the left turn capacity would be zero. With an interchange the left turn capacity isn’t affected by the through volume on 101 in the same manner. It is MUCH higher. (p. 6) [Underlined emphasis added]

Based on the above information, the Commission finds that the proposed project would increase the capacity at the Indianola Cutoff intersection. In addition, as will be discussed in the following section, the Commission will further find that the project is not the least environmentally damaging feasible alternative, and thus the Commission is unable to find that “no other alternative” (that would not result in increased capacity) is available. The Commission therefore concludes that the project does not qualify as an incidental public service and is therefore inconsistent with the first test of Section 30233(a), because it is not limited to improvements *necessary to maintain existing capacity* and because it is not the only (or least damaging, as discussed in the following section) alternative available to improve the safety problem at this intersection.

Alternatives

The currently proposed project is called “Modified Alternative 3A” in the consistency certification and other environmental documents analyzing the project. In its Draft EIR/S, Caltrans focused on four alternatives consisting of:

Alternative 1 - Resurface, restore, and rehabilitate (RRR) with median closures.

Alternative 2 - RRR Project with median closures and interchange at Indianola Cutoff

Alternative 3 - RRR Project With Median Closures and Interchange at Indianola Cutoff and Signalized Intersection at Airport Road

Alternative 7 – No-Build²

Alternative 1 would consist of 14 components, with Alternatives 2 and 3 each adding one more major component to these. **Alternative 1** would be to close Route 101 median crossing and construct the following roadway improvements: (1) improve acceleration lanes and deceleration lanes at intersections; (2) close median crossings; (3) install and reset safety and

² The fourth alternative is numbered non-consecutively (as No. 7) in the NEPA document.

weed barriers; (4) make Route 101/255 improvements; (5) make pavement and striping improvements; (6) replace the southbound Jacoby Creek Bridge; (7) upgrade bridge rail on northbound Jacoby Creek and Gannon Slough Bridges; (8) replace nine existing tide gates; (9) add or replace roadway lighting; (10) protect safety by installing guardrail adjacent to two to three billboards south of Bracut; (11) remove specified large trees within the 30-foot clear recovery zone; and (12) remove Safety Corridor sign from the Eureka Slough Bridge to Gannon Slough.

Alternative 2 would be the same as Alternative 1, with one addition: the construction of an interchange at Route 101 and Indianola Cutoff (i.e., the “Indianola Interchange”). Features of the interchange would include 2,600 ft. long off-ramps, 2,000 ft. long on ramps, elevating Route 101 by 25 ft., constructing separated north and southbound bridges, a 50 ft. median width and a median barrier.

Alternative 3 would be the same as Alternative 2, with one more addition: full signalization of the Route 101/Airport Road intersection, including a southbound left turn pocket (and allowing truck U-turns). Southbound traffic speeds would be reduced for vehicles approaching the intersection. The Airport Rd./Route 101 intersection would be relocated to the north to improve operational efficiency. A lane would be added from the Cole Avenue acceleration lane to the deceleration lane at Mid-City Motor World to maintain traffic flow. To minimize wetland/drainage impacts, a retaining wall would be required for a portion of the lane between Jacobs Avenue and Airport Road.

As noted above, after receiving public comments on the Draft EIR/S, Caltrans considered two additional alternatives involving modifications to the Alternatives 1 and 3, as follows:

Alternative 1A would involve closing the medians with turnarounds at three locations in the corridor and partial signalization (a “half signal”) at Airport Road. No interchange would be involved.

Alternative 3A would involve reducing the footprint, amount of grading, and extent of wetland fill at the Indianola Interchange, by steepening the engineered slopes (from 2:1 to 1.5:1) and reducing the median width (to 22 ft. wide) at the interchange. This alternative would also include the half signal at Airport Road described in the previous paragraph.

As noted in the Background section of this report, after selecting Alternative 3A as its previously preferred alternative, and with additional public agency and other community input, Caltrans identified **Modified Alternative 3A** as the preferred alternative, which further modified the turn moves allowed at the Airport Road signal.

Schematic diagrams of Alternatives 1, 2, 3, 1A, and Modified 3A are shown in Exhibit 12. The chart in Exhibit 13 compares these, as well as the no build alternative. In its consistency certification, Caltrans rejects the no build alternative, which would essentially mean keeping the non-expired elements of the Safety Corridor (e.g., continuation of a posted 50 mph speed limit and daylight use of headlights, but continued discontinuation of a double fine zone for speeding, enhanced public education, and increased traffic enforcement). Caltrans states this would not

adequately address safety needs, in part because two of the intersections are already at double the statewide accident average. Caltrans maintains further that the effectiveness of the safety corridor measures will erode over time, especially as future traffic levels increase.

Caltrans states the other build alternatives it examined (Alternatives 1, 1A, 2, 3, and 3A) would all meet the project's need and purposes, and that Modified Alternative 3A is the least environmentally damaging feasible alternative.

Concerning Alternative 1, Caltrans acknowledges it would involve less permanent wetland fill than the proposed alternative (7.2 acres for Alternative 1A, versus 10.3 acres for the proposed alternative). However Caltrans maintains that the more extensive wetland fill from the proposed alternative is outweighed by other factors. Caltrans concludes:

Modified Alternative 3A meets the LEDPA criteria because it balances overall benefits with environmental impacts. While Alternatives 1 and 1A have less direct impacts to wetlands, they would have the most potential out-of-direction travel impacts to businesses, bicyclists, and Environmental Justice communities. The benefits and advantages of Modified Alternative 3A include:

- *Would avoid or minimize impacts to Environmental Justice communities compared to Alternatives 1, 1A, and 2;*
- *Would reduce out-of-direction travel, which in turn would reduce air quality impacts, fuel consumption, travel delay and costs, and greenhouse gas production, and costs to businesses;*
- *Would substantially improve the safety of public coastal access by eliminating uncontrolled left turn moves while reducing out-of-direction travel with an interchange and a half signal;*
- *Unlike Alternative 1, Modified Alternative 3A would not increase traffic on Old Arcata Road;*
- *Unlike Alternatives 1, 1A, and 2, Modified Alternative would improve the safety of bicyclists crossing Route 101 at two locations;*
- *Modified Alternative 3A would have less wetland impact than Alternatives 2 and 3 while providing nearly the same access benefits as Alternative 3;*
- *Minimal energy and air impacts from out-of-direction travel compared to Alternatives 1, 1A, and 2.*

Caltrans also states that while the Indianola Interchange would result in adverse visual effects (“a moderately high reduction in visual quality for west bound travelers on Indianola Cutoff”), this effect would be offset because “travelers on Route 101 would have better views of the bay as they travel over Indianola Cutoff.”

Concerning the alternative that the Commission staff had previously urged Caltrans to consider on multiple occasions (including in the Commission staff’s 2007 DEIR/S comment letter), Caltrans continues to maintain that a “Signalized Boulevard” alternative would not be environmentally less damaging and did not sufficiently meet the project purpose for inclusion in the EIR/S as among the alternatives analyzed in detail. The consistency certification states:

Other Alternatives and Design Options Considered but Dropped From Consideration

Signalize multiple intersections. Caltrans staff performed a brief operational analysis of a “boulevard” facility in the corridor by signalizing all six intersections and extending southbound Route 101 left turn lanes (no additional through lanes). Assuming a year 2011 opening day, this option would result in poor Level of Service (LOS D or below) for all left turn moves and LOS D for northbound through traffic at Indianola Cutoff and Bracut. When modeling for year 2031 volumes the LOS conditions are further degraded for left turn movements and Route 101 through traffic. Because of the resulting degraded LOS, some traffic would likely divert to Old Arcata Road and State Route 255 and thus increase traffic through residential areas. In addition, it is unlikely that Caltrans would receive funding approval from the California Transportation Commission for a project that does not follow the approved Route Concept and would in fact lower the performance of the facility. For more information, see Appendix C for a discussion of the “Boulevard” Concept.

The consistency certification also included several additional documents to support its conclusions, including:

- (1) Appendix C, entitled Signalized “Boulevard” Analysis;
- (2) schematics and plans for what such a signalized boulevard might look like;
- (3) a Traffic Operational Response to the Commission staff’s previous suggestions and recommendations (July 17, 2012, memo from District 1 Traffic Operations Chief Troy Arseneau) (Exhibit 16);
- (4) a safety analysis (June 28, 2012, Issue Paper – Safety Analysis of Signalization at Indianola Cutoff/Route 101); and
- (5) a chart detailing wetland impacts from a signalized approach (Exhibit 15).

In its consistency certification Caltrans points out that many factors need to be examined before decisions can be made to signalize an intersection, including traffic warrants, engineering and safety analyses, which would need to establish that installing a traffic control signal would improve the overall safety and/or operation of an intersection. Caltrans states:

Surrounding land use, traffic volumes, pedestrian volumes, and the number of correctable collisions occurring at the intersection are some of the factors looked at in the warrant analysis process in addition to looking to see if intermittent non-signal improvements have been previously applied prior to considering signalization. Other considerations such as the Route 101 Concept (discussed in Chapter 1), the characteristics of the highway, and the potential impact of signalization to adjacent segments of highway need to be considered before a decision is made to signalize an intersection.

Caltrans distinguishes Airport Rd., where it is proposing a (half) signal, from Indianola Cutoff, stating that a number of overriding considerations justify placing a signal at Airport Road only, including:

(1) the existence at Airport Rd. of residents and numerous businesses with no secondary access;

(2) its proximity to urbanized Eureka, compared to the remaining intersections;

(3) safety considerations, including the greater ability to warn motorists if only a single signal is installed (Caltrans states: “With numerous signals within this segment of Route 101, there is an expectation that the phenomenon of habituation will leave motorists less aware of a single and specific potential conflict, and reduce the effectiveness of warning systems, and increase the potential for collisions”); and

(4) “Signalizing Route 101 at Airport would not likely remove a constraint to growth at this location compared to signalizing Route 101 at Indianola Cutoff or Bracut: the Airport Road and Jacobs Avenue have less areas of developable potential” (here, and as discussed below, Caltrans maintains that signals at other intersections would be growth inducing).

In consistency certification Appendix C (Signalized “Boulevard” Concept Analysis), Caltrans examined (based on a “brief operational analysis”) a “boulevard” facility, which would consist of signalizing all six intersections and extending southbound Route 101 left turn lanes. To paraphrase this analysis, Caltrans maintains that such alternative would not be feasible and would be more environmentally damaging because:

1. Further analysis of site conditions, consistency with the “approved Route Concept,” and traffic levels that would be transferred to other roads (Old Arcata Rd., Rte. 255) would be needed before a decision could be made to install a signal.

2. It would provide poor levels of service and would divert traffic to Old Arcata Rd. and State Route 255 as a year-2031-expected 30% traffic increase occurs. Upon immediate implementation traffic would be at LOS D at peak periods, and worsen over time if expected traffic increases occur.

3. It may not be eligible for funding approval from the California Transportation Commission if it would not improve the performance of the facility and does not follow the “approved Route Concept.”

4. The Airport Rd. intersection, which is proposed for a half signal, can be treated differently than the more northern intersections because: (a) it is close to the City of Eureka where vehicles will be less likely to be moving at highway speeds, and driver expectations are therefore different; and (b) it would be easier to maintain a less-than-statewide-average rate of collisions if only one intersection is signalized.

5. Drivers are more able to observe warnings at a single intersection than at multiple signalized intersections, as they will habituate to them and warnings will be less effective, leading to more collisions.

6. Signalized intersections will need additional acceleration and deceleration lanes.

7. Installing signals at intersections other than Airport Rd. would be growth inducing “because existing commercial development could be more easily intensified from the opportunity provided by signalized traffic controls.”

8. Signalized intersections, with their inherent stop and go traffic, would increase greenhouse gas emissions, air quality impacts, and not be energy-conserving.

9. Signalized intersections would change the semi-rural character to a more urbanized character.

10. It would be difficult to accommodate pedestrians with signalized intersections.

It should be noted at this point that the above comments do not compare (nor did the Commission staff at that time request Caltrans to compare) the proposed project against a single additional signalized intersection at Indianola. Nor do they either conclusively establish the infeasibility of more than the one proposed signal, or adequately explain why a signal at Indianola would significantly differ from one Airport Rd., given that the distance between the last light in downtown Eureka and the proposed half signal at Airport Rd. (approx. 1.4 mi.) is not significantly shorter than the distance from Airport Rd. to Indianola (approx. 1.9 mi.), in terms of effects on traffic speeds. Also, as discussed below, 1.4 miles itself is sufficient distance for travelers to accelerate to highway speeds.

Caltrans also included in its consistency certification an estimate of wetland fill associated with such alternative (Exhibit 15 - chart showing wetland impacts from a signalized approach). In its February 2013 consistency certification addendum, Caltrans estimates that “a signalized

alternative would require the filling of approximately 15 acres of wetlands as opposed to the approximate 10.3 acres of wetlands that the Preferred Alternative would remove. This is an impact ratio of about 3 to 2.” Caltrans states:

A signalized boulevard alternative would require more highway widening due to the need for additional through and turning/acceleration/deceleration lanes to maintain LOS C performance at the signalized intersections. A signalized boulevard alternative would require four northbound through travel lanes and three southbound through travel lanes. Single left turn lanes would be required at all intersections with dual left turn lanes being required for southbound Route 101 left turning traffic at the Indianola Cutoff intersection.

Because the Commission staff also requested analysis of an “opening day” signalized alternative (i.e., one not taking into account a need to accommodate projected future traffic growth), Caltrans stated the amount of permanent wetland fill associated with a six-signal signalized alternative would be much closer to the proposed alternative (11 acres for an “opening day” scenario as compared to 10.3 acres for the proposed project), stating:

For the signalized boulevard scenario in 2018, three through lanes in both the northbound and southbound directions would be required on Route 101 for LOS C. Based upon this lane requirement, the estimated wetlands impact for the opening day scenario would be 11 acres; however, the wetland impacts for the other alternatives are compared using 20-year design requirements. The wetlands impact for the signalized boulevard scenario is 15 acres for the 20-year design period, due to a fourth through lane being required in the northbound direction.

The Commission staff responded to this information (letter to Caltrans dated June 4, 2013) by requesting that Caltrans compare the proposed alternative with what the Commission staff would call a “Modified Signalized Alternative,” consisting of only providing signals at one intersection (Indianola Cutoff) (aside from the already proposed half signal at Airport Rd.)), elimination of the 4th northbound lane that Caltrans had characterized as would be needed for 20 year projected traffic, and elimination of several turning lanes at Indianola. Caltrans’ response (letter dated June 17, 2013) (Exhibit 17) was that such an alternative would entail 7.91 acres of permanent wetland fill, which would be less than the proposed project. However Caltrans also included as an attachment a June 14, 2013, Traffic Operations Memo (“Traffic Analysis of Two Signal Corridor Scenario”) (Exhibit 18), which states that:

(1) “signalization [at Indianola] is no longer a practical intersection treatment due to the heavy through and left turn volumes ... during peak periods;”

(2) “such an installation would change the nature of the traffic flow through the corridor transforming it from a rural uninterrupted traffic flow environment to an urbanlike interrupted traffic flow environment;”

(3) eliminating the lanes that Commission staff requested analysis of would result in "... traffic flow in all directions ... experienc[ing] added and undesirable congestion as the traffic signal timing could not be fully optimized to serve the most traffic per cycle length."

The memo concludes:

... signalizing Indianola Cutoff is not a viable option for the Eureka-Arcata Corridor. Due to the high level of traffic volumes present in the corridor, a more advanced intersection treatment is required to adequately facilitate traffic through the corridor. For this very reason, a signalized alternative at Indianola Cutoff was eliminated from consideration years ago in the project development process.

A traffic signal at Indianola Cutoff would immediately introduce added congestion to the U.S. 101 corridor between Eureka and Arcata on opening day even if additional lanes were provided to optimize the intersection's signal performance.

The memo also notes that:

Interchanges do not require traffic to stop and wait for the next available green time as is the case with signalized intersections. For this reason, additional lanes are usually not needed on four lane (two lanes in each direction) divided highway/expressway/freeway segments when interchanges are added, unless traffic volume and weaving movement levels on the mainline require it to alleviate congestion. [Emphasis in original]

The Commission questions a number of Caltrans' underlying assumptions and believes Caltrans has artificially constrained the number of alternatives it considers feasible and available to those that would maximize smooth traffic flow, at the expense of coastal resource protection needs and Coastal Act legal requirements.

The Commission disagrees with Caltrans statements that signals would be growth inducing, whereas the proposed intersections would not. Caltrans appears to base this assertion on a purported effect that drivers stopped at lights would be more aware of, and could more easily make turn movements to access, adjacent businesses. If these factors lead to growth inducement, then such an argument would have to be extended to the proposed Indianola Interchange, where Caltrans is proposing to facilitate turn movements and increase visibility to drivers of any surrounding development.

As discussed in the previous ("Allowable Use") discussion, at least anecdotal evidence exists to support a contention that an interchange would be growth-inducing (Caltrans Response to TJKM Traffic Study" Re: Walmart at Indianola Road, April 1, 1993 (Exhibit 19)). That memo also appears to pose (at that time) that a signal could be a reasonable short- to mid-term alternative (for up to 8 to 9 years, which the Commission would argue further supports its feasibility, as well as its continued consideration). At the same time it should be acknowledged that the memo also expresses Caltrans' fairly strong institutional resistance to signals as inconsistent with its route concept and possibly unpopular locally.

The Commission questions Caltrans' statement that installing signals *other* than at Airport Rd. would conflict with a "rural uninterrupted traffic flow environment." The Commission believes this ignores the reality that the 101 corridor between the two cities is both semi-urban and semi-rural environment. The Corridor is a relatively short stretch of highway between two cities, is physically within the City limits of the City of Eureka, and businesses do and will continue to exist adjacent to the Corridor. Due to its proximity to Eureka, any time delays during commute periods that additional signals would pose would be minimal compared to the delays encountered once commuters reach the downtown area, with its numerous signalized intersections on Route 101.

The Commission also questions Caltrans' statement that Airport Rd.'s proximity to Eureka means vehicles would be less likely to be travelling at highway speeds. Airport Rd. is over a mile (approximately 1.4 mi.) from the last in a series of traffic lights in Eureka, and after the existing last light drivers are likely to reach highway speeds quickly when exiting the City to the north. In any event, the Commission has not been provided evidence to support Caltrans' assertion that vehicles would not already be up to highway speeds within this distance.

Further support for the Commission's alternatives analysis can be found in the previously-cited Moule and Barber traffic study (Exhibit 27), which states that: (1) the proposed interchange would be growth-inducing (as discussed above); (2) Caltrans may be exaggerating future growth projections; (3) one or more additional signalized intersections (at Indianola, and possibly at Bayside Cutoff) would be feasible and could be designed to reduce wetland impacts; and (4) additional alternative intersection designs at Indianola may be feasible (such as a continuous Green T intersection (which is another term for what Caltrans has been calling the "half signal" proposed at Airport Rd.), a roundabout, and several other configurations. This study also points out the currently low use of the intersection by pedestrians such that this factor is likely not a significant determinant in alternatives selection (although it notes that any alternative could be refined to improve the safety of pedestrian and bicycle crossings).

The Commission acknowledges Caltrans' argument that a signal would increase fuel consumption and greenhouse gas emissions, as well as electricity use for signals, compared to the proposed interchange. However the Commission finds these effects to be relatively minor and outweighed by the proposed interchange's other adverse effects described in this section.

The Commission also questions Caltrans' assertion that signalized intersections within the corridor would be inherently unsafe. The Commission believes that a safety conflict at an unsignalized intersection could only be *improved* by the installation of a signal, and if only one more signal (at Indianola) is added (to the proposed half signal at Airport Rd.), sufficient warning signs and other devices could be provided to alert drivers to any hazard, and thus avoid the habituation/inattentiveness to and ignoring of warnings/signals Caltrans maintains would occur if all the intersections were signalized. The previously-cited Moule and Barber study points out (p. 9) that:

The northernmost signal and possibly other signals would potentially experience higher than normal red light running incidents. This can be mitigated somewhat by installing warning signs with flashing beacons or changeable message signs, both treatments previously used by Caltrans in similar situations.

The predominant safety problem for the corridor is driver uncertainty as to when to make a safe turn at unsignalized intersections. Both median closing and installing signals would significantly reduce such driver uncertainty. In addition, providing for slower rather than faster traffic, if that is indeed the consequence of signal installation approach, may actually improve bicycle safety and the compatibility of the Corridor for bicycle use.

Moreover, the effect of constructing the proposed raised fill slopes at Indianola would be far more irrevocable, would involve significant alteration of natural landforms, would involve more significant adverse visual effects in a scenic area, and may be premature, in that it may prejudice future planning options being considered in Caltrans “Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California.” This pilot study being undertaken by Caltrans is intended to focus on the vulnerability of four areas of particular concern, one of which is the project area between Eureka and Arcata. Caltrans indicates (June 17, 2013 letter to CCC staff) the study will not be complete until December 2014, and states:

While [Caltrans] staff cannot predict what the study’s short or long-term recommended actions will be, it may be possible that short term recommendations could be incorporated into the project. It is unlikely that the long-term recommendations would be incorporated into the project.

Despite the uncertainties as to the likely study results and ramifications, the Commission notes that installing a signal at Indianola would be less likely to conflict with (and easier to modify to harmonize with) any study outcomes for addressing sea level rise. With a raised interchange the roadway below the overpasses would be fixed at a low level relative to sea level, and it would be much more difficult to raise the roadway elevation and maintain sufficient clearances given the presence of the overpass above. Sea level rise implications may necessitate additional modifications to the roadway, drainage structures, and other ancillary roadway elements. While Caltrans has designed the proposed bridge replacement in the Corridor to accommodate sea level rise to the year 2100, because the remainder of the roadbed is maintained on a far more frequent basis (several years, versus a structural life for bridges of 75 years), Caltrans has not proposed, and the Commission staff has not requested, that the remainder of the existing roadbed be designed to withstand future sea level rise. However as mentioned previously (pp. 16-17 above), it is not clear whether the interchange has been designed to withstand future sea level rise.

The Commission also notes that Caltrans has not provided evidence to support its statement that the California Transportation Commission might not be willing to fund a signalized intersection approach.

In comparing the *extent* of permanent wetland fill alone from the various alternatives, the proposed project would involve 10.3 acres of permanent wetland fill. Caltrans’ Table S-1 in its consistency certification (Exhibit 13) compares the alternatives as follows:

Alternative 1	3.7 acres
Alternative 1A	7.2 acres
Alternative 2	12.5 acres
Alternative 3	15.1 acres
Modified Alternative 3A	10.3 acres (the proposed alternative)
No-Build Alternative	0 acres

As noted earlier, in response to the Commission staff's request to consider signalized alternatives, Caltrans subsequently estimated: (1) a "full-buildout" signalized alternative (signals at each intersection, and extra through and turning lanes) to entail **15 acres** of permanent wetland fill; (2) an "opening day" signalized alternative (signals at each intersection, and the minimum number of through and turning lanes) to entail **11 acres** of permanent wetland fill; and (3) a "modified signalized" alternative (additional signal only at Indianola, with fewer turning lanes at Indianola than shown in the "full-buildout" plan for that intersection) to entail **7.91 acres** of permanent wetland fill.

The previously-cited Moule and Barber study (Exhibit 27, p. 10-11) examined various combinations of turning lanes at Indianola and indicates that the smaller rather than the larger numbers of turning lanes should be adequate for operational efficiency at current traffic levels, and that:

Wetland Encroachment

The discussion of travel lanes above addresses minimizing the highway's footprint in this area. Based on our analysis, the existing traffic can be handled with two through lanes northbound, two through lanes southbound, one southbound left turn lane, one northbound right turn lane, two westbound approach lanes (one for right turns and one for left turns, and one eastbound departure lane. This is a total of 13 approach and departure lanes at the intersection, compared to the total of 23 approach and departure lanes shown in the drawing from Caltrans. This is a significant reduction in the highway's footprint.

If three through lanes for northbound and southbound traffic are used in an effort to maintain the existing through capacity, then the total number of lanes would be 17 lanes.

Having found in the previous section of this report that a signal at Indianola would not increase capacity (a necessary determinant to finding consistency with the incidental public service test of Section 30233(a)), and if closing the median at Indianola is not a reasonable option, the question for the Commission from a wetland acreage impact perspective then becomes: What improved intersection design would minimize wetland fill acreage while still providing for adequate public safety? Of the three signalized alternatives the Commission staff requested Caltrans to look at (listed on the first full paragraph on this page), at least two would entail less than or roughly equal wetland acreage to the proposed interchange. Either of these could be considered less environmentally damaging feasible alternatives to the proposed project, and design refinements may be possible to further reduce wetland effects (such as using some of the

lower quality median wetlands rather than the surrounding wetlands just east and west of 101 for turning lanes).

In conclusion, the Commission finds that Caltrans has not proposed the least environmentally damaging feasible alternative for the Indianola intersection. The 240,000 cu. yds. of grading and 25 ft. height of the proposed interchange fill slopes would significantly alter natural landforms, degrade scenic public views and alter the scenic character of the area, and possibly prejudice sea level rise planning options. The Indianola interchange would also most likely be growth inducing, and regardless, as noted in the previous section of this report, it would increase capacity and not be able to be found consistent with the allowable use test of Section 30233(a). As discussed above, a signalized intersection would avoid or reduce many of these impacts; it would involve fewer or comparable wetland impacts, fewer visual impacts, would be more compatible with the character of the area than the proposed project, would raise fewer growth-related concerns, and could be found consistent with the incidental public service test of Section 30233(a). The Commission therefore concludes that the proposed project is not the least environmentally damaging feasible alternative and is therefore inconsistent with the alternatives test of Section 30233(a) of the Coastal Act.

Mitigation

Temporary wetland impacts (approximately 4.5 acres for the proposed project) would be restored on site. To mitigate the project's permanent wetland impacts, Caltrans' consistency certification states that only limited areas on-site (i.e., within the right-of-way) are available for mitigation, and that for both quantity and quality reasons Caltrans needs to provide offsite mitigation. Caltrans states the off-site wetland mitigation proposal would consist of restoring, enhancing, and preserving tidal wetland "with high value and function to compensate for impacts to wetlands with relatively low value and function within the roadway setting." Caltrans coordinated with a number of public resource agencies, land trusts, restoration professionals, and private landowners in developing its mitigation plan and in its attempts to identify appropriate sites within the Humboldt Bay watershed and the coastal zone.

Caltrans has submitted two Conceptual Mitigation/Restoration Plans (a Conceptual Wetland Mitigation Plans dated April 2011, and a Draft Restoration Plan dated January 2013). The plans provide for wetland enhancement and/or restoration at the following two sites (shown on Exhibit 21).

The **Demello South** site is a 78 acre parcel west of Arcata and adjacent to the Mad River Slough and the U.S. Fish and Wildlife Service (USFWS) Humboldt Bay National Wildlife Refuge's Lanphere and Ma-le'l Dunes Units. The parcel is zoned Agricultural Exclusive within a combining zone for archeological resource area, beach and dune, flood hazard and transitional agricultural lands.

The **Old Samoa Parcel** site is a 38.3 acre parcel south of Arcata and adjacent to the Dept. of Fish and Game (CDFG) Mad River Slough Wildlife Area, as well as the City of Arcata's Marsh and Wildlife Sanctuary. The parcel is zoned Agricultural Exclusive within a combining zone for flood hazard and transitional agricultural lands.

Caltrans owns both sites, which are adjacent to wildlife reserves near Arcata, and are predominantly diked and drained former tidelands, and include wetlands and non-prime agricultural soils. The Concept Plans indicate that 84 acres of wetland restoration could occur on the two sites, with an additional 4 acres of upland buffer. The Plans are conceptual at this point, and propose a range of possible mitigation strategies at these two sites, including: (1) freshwater wetland expansion; (2) muted tidal restoration of salt marsh habitat; or (3) full-tidal salt marsh restoration.

Historically, in reviewing Caltrans mitigation plans at the consistency review stage, as is the case here, when subsequent coastal development permitting (or where applicable, further federal consistency review) can refine and further develop mitigation proposals, the Commission attempts to ascertain whether (and/or the degree to which) concept or draft plans are likely to be implemented in a manner consistent with past Commission actions and fundamental Coastal Act policy goals, and whether they provide sufficient specificity at this stage of the review process and are likely to be able to provide sufficient acreage and appropriate habitat types to mitigate a project's impacts. (In other words, the Commission's review, like the plans, are conceptual at this stage.)

In numerous discussions and meetings with Caltrans, the Commission staff raised several fundamental concerns over the proposed mitigation proposals, primarily: (1) the conversion of agricultural land; (2) whether the restoration included adequate wetland "creation" or "substantial restoration," as opposed to merely "enhancement;" (3) the adequacy of the mitigation ratio; and (4) the types of habitat being created or enhanced. The most recent written iterations of the Commission staff/Caltrans communications can be found in Caltrans' memo entitled "Response to CC-016-13, Staff Report Comments on Draft Wetland Mitigation/Restoration Plan," which summarizes the Commission staff's concerns and responds point by point (Exhibit 22). However it should also be noted that continuing dialogues have been ongoing, as will be reflected at the end of this section.

The **first** of the Commission staff's concerns was that the mitigation plans would convert agricultural lands to wetlands, which the Commission had not previously authorized in the Humboldt Bay area unless the conversion was a pure restoration proposal, rather than mitigation for a project's wetland fill impacts. The former can be accomplished using the conflict resolution policy of the Coastal Act, whereas it is much more difficult to accomplish when the restoration is intended as mitigation, in part because, among other things, it would be necessary to establish that no non-agricultural lands are feasible or available for mitigation (i.e., whether the effect on agriculture can be avoided and thus not raise a conflict at all between Coastal Act policies).

Caltrans has responded to this historic policy concern partially by designing a restoration project as a "stand-alone" project, which may apply to one or more additional projects, and which would be the subject of a separate coastal development permit before the Commission. Caltrans also maintains that it has been unable to find suitable and available non-agricultural sites, has provided a list of sites it has considered (Exhibit 25), and concludes that "Within the Humboldt Bay area, no feasible non-agricultural lands are available for the development of mitigation (restoration) to compensate for impacts to wetland habitat" (Exhibit 22).

Concerning past Commission actions, the Commission staff indicated to Caltrans that the Commission has not, to date, allowed conversion of agricultural lands to be used for wetland mitigation in the Humboldt Bay area. Relevant past Commission actions include the Commission's review of Caltrans' Mad River Bridges coastal development permit (1-07-013), where Caltrans also proposed wetland mitigation at the same "Old Samoa" site being proposed here. In reviewing that permit the Commission found:

Caltrans now proposes, in light of the revised delineation, to undertake riparian wetland mitigation on two acres of the Old Samoa parcel as previously proposed and to undertake an additional 3.4 acres of wetland mitigation at Old Samoa for a total of about 5.4 acres of wetland mitigation at that site. This would raise the total acreage of existing grazed wetland pasturelands at Old Samoa that would be converted to willow and willow-associate species plantings impermissibly and cause a conversion of agricultural lands that would be inconsistent with Coastal Act Section 30242, as discussed below. Although the Old Samoa parcel is not prime agricultural land, this amount of conversion would be significant, and is avoidable. Caltrans could perform the necessary additional riparian wetland mitigation that will be required elsewhere.

Coastal Act Section 30242 protects lands suitable for agricultural use that are not prime agricultural lands or agricultural lands on the periphery of urban areas from conversion to non-agricultural use unless continued agricultural use is not feasible, or such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. In the case of the Old Samoa parcel, cattle grazing (though limited by seasonal inundation and general pasture quality) has been the primary use of the subject site for decades, and would likely continue. Bottomland pastures are considered relatively nutritious compared to upland pastures. Caltrans delineated the parcel as nearly 100% wetlands and alternative development options appear to be severely constrained. Thus, continued agricultural use appears to be feasible, and conversion of the land to non-agricultural use under Caltrans' proposal for riparian mitigation would not preserve prime agricultural land or concentrate development, which the Coastal Act prescribes as the basis for allowing conversion. For these reasons, the proposed conversion of agricultural lands at the Old Samoa parcel would not be consistent with the requirements of Coastal Act Section 30242.
[Emphasis added]

The Commission acknowledges that it *has* historically authorized conversion of agricultural land in the Humboldt Bay area for restoration activities alone, under the conflict resolution policy (Section 30007.5 of the Coastal Act) (e.g., in Consistency Determination CD-007-88, U.S. Fish and Wildlife Service, McBride Ranch Acquisition, and CDP 1-06-036 and 1-06-036-A1, City of Arcata Department of Environmental Services – McDaniel Slough Wetland Enhancement Project).

Responding to historic Commission policy concerns (Exhibit 22), Caltrans:

(1) points out the underlying policy goals in the Coastal Act afforded to wetlands and environmentally sensitive habitat (ESHA);

(2) states that the Coastal Act:

... provides no legislative authority to regulate agricultural use as a priority over habitat protection and restoration, clearly, preservation of agriculture is not intended to take precedence over the protection and restoration of wetlands and ESHA;

(3) cites a recent former chief legal counsel letter to the Commission (dated May 2, 2013), including a statement that it would be:

... a reasonable assumption under the language of the Coastal Act, and prior CCC interpretation, is that ESHA preservation has higher priority than agriculture. Mr. Faust concludes that it is fair to assume that the ultimate goal of the Coastal Act is the preservation of habitat and all else is subordinate, as consistent with Section 30240 of the Act and years of CCC practice.

(4) asserts that the Commission staff has given inconsistent direction to applicants on the subject of the conversion of agricultural land to wetland for mitigation purposes;

(5) cites as support for its position the Commission's approval of the McDaniel's Slough Wetland Enhancement Project, which authorized conversion of 90 acres of grazing lands to wetlands adjacent to the Samoa parcel.

The Commission is not disputing the emphasis in the Coastal Act on wetland and sensitive habitat protection, creation, and enhancement. The Commission disagrees with the statement that infers the Coastal Act lacks legislative authority over weighing agricultural and habitat protection. The legislature has provided for such weighing, as proscribed in the conflict resolution policies (Sections 30007.5 and 30200(b)) of the Coastal Act. One of the principal tenets of the conflict resolution approach is that it can only be invoked if a project creates a true conflict in that there are no feasible alternatives that would achieve the objectives of the project without violating any Chapter 3 policies. Historically, the Commission has approved the conversion of agricultural lands to wetlands only when: (1) proposed as an independent restoration project; (2) the project presents a conflict between Chapter 3 policies and there are no alternatives to avoid the conflict; and (3) the Commission finds that the restoration is, on balance, most protective of significant coastal resources. Thus, if Caltrans can demonstrate that there are no other (non-agricultural) lands available to use for mitigation, the Commission could consider allowing the use of agricultural lands for mitigation purposes under this sort of approach.

On the Commission staff's **second** concern (creation or substantial restoration, versus enhancement), Caltrans quotes several state and national wetland guidance documents (including the Commission's "Procedural Guidance for the Review of Wetland Projects in

California's Coastal Zone") and states that wetland creation is "wrought with uncertainty" and that enhancement of degraded habitat and restoration are generally treated as acceptable forms of mitigation. Caltrans concludes:

The Caltrans mitigation proposal meets the criterion for an acquisition with a restoration component. Additionally, as conceptually proposed, we hope to open up a more-than-equivalent acreage to tidal action. The proposed mitigation proposal more than fully compensates for projected project related impacts to highly degraded jurisdictional wetland, and in fact may over-compensate³. [footnote, and emphasis in footnote, in original]

On the Commission staff's **third and fourth** concerns, which are whether restored habitat types and acreages are adequate, including a Commission staff-expressed preference for use of the Demello site (as opposed to Samoa) and to tidal restoration (as opposed to muted tidal or freshwater habitat restoration), Caltrans states:

In consultation with CCC staff since 2007, Caltrans has proposed to preferentially perform tidal restoration at the site. Any "acknowledgement" of a "likelihood" to instead perform a freshwater restoration, and/or that likely "site-constraints" exist (within the plan dated January 2013) is a mis-wording on Caltrans' part likely resulting from a third repackaging of our mitigation proposal. Our intent is to whole-heartedly pursue tidal restoration at the site. If this does prove to be infeasible, then a muted tidal approach would be pursued; only as a last resort would a freshwater approach be utilized. With regard to feasibility studies, Caltrans has been and continues to seek CCC support for our restoration proposal prior to expending limited funding on hydraulic design studies. [Emphasis in original]

Concerning Caltrans' points (4) and (5) above, the Commission staff disagrees that it has given inconsistent direction to applicants (the staff would need further evidence to more fully rebut this point). Concerning the McDaniel's Slough project, the Commission points out that the McDaniel Slough project predominantly restored the diked seasonal grazed wetlands to salt marsh, the original condition of the site before dikes were installed in the late 1800s, whereas Caltrans' proposal at Samoa would simply convert diked grazed seasonal wetlands to diked riparian wetlands and would not result in the true restoration of the Samoa site to the tidal marsh that originally existed at the site.

³ Proposed mitigation likely over-compensates for projected impacts (fill) to approximately ten acres of highly degraded seasonal wetlands within a narrow strip over a distance of many miles. To-be-filled wetlands have been previously affected by multiple factors including: the previous historic conversion from their natural state as a tidally influenced wetland to a freshwater system; their location beside, and between, a four-lane divided roadway; and, their routine mowing for roadway maintenance reasons. These wetlands exhibit extremely low functionality related to the following function/value criteria: production export, wildlife diversity/abundance, aquatic diversity/abundance, uniqueness or heritage value, recreation value, or storm water treatment. In contrast, proposed mitigation will provide for coastal wetlands with extremely high functionality with regard to the same criteria.

Since the publication of the Commission staff's previous recommendation for this project, Caltrans has continued to refine the mitigation/restoration program to explore historical data on the habitat types historically present in the area, and to explain its rationale for including a mix (or gradient) of habitat types. Caltrans has also provided supplemental information concerning potential alternative sites that would not involve use (or conversion) of agricultural lands for wetland mitigation. In its most recent letter to the Commission staff (dated August 27, 2013) Caltrans notes: (1) that the Commission staff has remained open to the concept that restoration proposals that are truly restoration to historic or near historic conditions could qualify for mitigation of the project's impacts, despite their occurrence on historic agricultural lands; and (2) that an adjacent site to the Samoa parcel may provide the ability to expand the restoration to enable a significant degree of tidal restoration at that site. This letter also notes that the Commission staff requested additional elaboration of its statements concerning the infeasibility or unavailability of non-agricultural sites in the Humboldt Bay area. At the conclusion of the most recent discussions, while the Commission's staff ecologist (Dr. John Dixon) had questioned whether Caltrans' previous proposal for the Samoa Parcel qualified as "restoration," he now states that with the additional potential for significant tidal flow restoration that could be delivered through the adjacent parcel, it could be considered restoration. Dr. Dixon states:

Caltrans has proposed that the creation of riparian habitat would be appropriate mitigation for wetland impacts associated with work on Highway 101. Caltrans has presented convincing evidence that riparian habitat was historically present in many areas surrounding Humboldt bay, once occurring between the tidal wetlands and the forested hillsides. The Commission staff agrees conceptually that a mix of significant tidal wetlands with associated riparian habitat farther inland could provide valuable ecosystem services that would appropriately mitigate for highway-related wetland impacts. Existing development limits the location of such a system such that riparian restoration would now have to occur within the historical range of tidal wetlands rather than at higher elevations. The Commission staff believes that this limitation is acceptable, so long as the riparian restoration is integrated with a significant tidal component.

To conclude, if the project were able to be brought into consistency (as discussed in the previous sections of this report) with the first two tests of Section 30233(a), in looking at the mitigation issues alone (and it should be noted that any alternative meeting the project purpose will entail some degree of wetland fill), Caltrans is exploring restoration concepts that, given the conceptual nature of this review, enable the Commission at this time to find that they have the potential to meet the wetland mitigation test of Section 30233(a). To fully meet this test, prior to any subsequent Commission review of a coastal development permit for the project, Caltrans would need to: (1) expand the Samoa restoration concept to include true tidal restoration; (2) provide a biological analysis showing that adequate acreages and/or habitat mixes would, in fact fully mitigate the project's impacts; (3) submit and receive Commission approval of coastal development permits for the restoration activities at the two sites; and (4) follow up on Caltrans' commitment to further substantiate its assertions concerning the unavailability and infeasibility of non-agricultural sites in the Humboldt Bay area. With these measures and future Commission reviews, the Commission could find the project consistent with the third test of Section 30233(a).

In conclusion, for the reasons discussed above, the Commission finds the project inconsistent with the allowable use and alternatives tests of Section 30233(a) of the Coastal Act, but that if the project were able to be modified to be able to meet these first two tests, and with the additional measures discussed in the previous paragraph, it could be found consistent with the mitigation test of Section 30233(a).

G. PUBLIC VIEWS

Section 30251 of the Coastal Act states:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

The primary public view protection issue raised by the proposed project is the 25 ft. high, raised highway interchange proposed at Indianola Rd., which would alter the level topography along the bay, thus altering natural landforms (240,000 cu. yds. of grading) and modifying the character of this scenic area. While at this stage of the Commission's review (as a federal consistency matter), Local Coastal Programs (LCPs) are not the legal standard of review, the Commission nevertheless looks to the relevant LCPs for guidance in conducting federal consistency reviews, especially where a local government has adopted scenic designations. Such designations are particularly relevant when coastal development permits will need to be obtained later (as is the case here - see p. 19).

Humboldt County does not use the term "highly scenic" in its LCP policies; nevertheless it does designate the area a "scenic coastal area" and contains similar standards to those found in Section 30251 of the Coastal Act for coastal development permit reviews, requiring development in this scenic area to be "subordinate to the character of its setting." The County's Land Use Plan (Humboldt Bay Area Plan, Section 3.40-B), provides:

3. Coastal Scenic Area

In the Coastal Scenic Area designated in the Area Plan Map (Indianola area), it is the intent of these regulations that all developments visible from Highway 101 be subordinate to the character of the designated area, ...

4. Coastal View Areas

In Coastal View Areas as designated in the Area Plan, it is the intent of these regulations that no development shall block coastal views to the detriment of the public; ...

5. *Highway 101 Corridor*

The Humboldt County Board of Supervisors shall initiate the preparation of a Scenic Route Study pursuant to the adopted Scenic Highways Element of the Humboldt County General Plan for the portion of Highway 101 between Eureka and Arcata and that portion south of Fields Landing, inclusively.

The Scenic Route Study shall be prepared by the County Planning Department in cooperation with the California Department of Transportation. The content of the Study is outlined in Appendix E. A special emphasis of the study shall include opportunities for Cal-Trans, the County, and the Humboldt Bay Harbor and Conservation District to eliminate billboarding between Eureka and Arcata, through acquisition and other means, and to identify suitable areas for clustered signing.

New off-site signs may be permitted in suitable areas identified in a County and State Coastal Commission approved Scenic Route Study.

(Unfortunately, while the Land Use Plan (Appendix G) went on to list Caltrans and County responsibilities to be carried forth in the development of the Scenic Route Study described in 3.40-B(5) above, based on recent Commission staff discussions with the County, this study was never carried out.)

The County's LUP maps identify visually significant areas of the County through designations as "coastal scenic areas" and/or "coastal view areas." Route 101 in the Indianola area is designated a coastal view area (CVA) (Exhibit 24,p. 1). Much of the area on both sides of Indianola Cutoff, between Route 101 and Myrtle Ave./Old Arcata Road is designated a coastal scenic area (CSA) (Exhibit 24, p. 2). (Page 3 of the Exhibit shows both the CVA and CSA.)

The County's LCP Zoning Code requires that coastal development permits in the area not be approved unless the County can make the following findings:

312-17.3 SUPPLEMENTAL FINDINGS

In addition to the required findings for all permits and variances, the Hearing Officer may approve or conditionally approve an application for a Special Permit, use Permit, Coastal Development Permit, or Planned Unit Development Permit only if the supplemental findings, as applicable, are made. (See Sections 312-18 through 312-49)

...

312-39 SUPPLEMENTAL COASTAL RESOURCE PROTECTION IMPACT FINDINGS

...

39.3 COASTAL SCENIC AREAS

39.3.1 The project is sited and designed to be subordinate to the character of the setting. ...

...

39.5 COASTAL VIEW AREAS

39.5.1 To the maximum extent feasible, the project is sited so as not to interfere with public views to and along the ocean from public roads and recreation areas. ...

In looking at the map designations, while the County LCP policies appear to be focusing more on the views from Highway 101, rather than across Highway 101, this may be because it did not anticipate the raising of portions of Highway 101. The policies are nevertheless indicative of the scenic resources and importance of public views in the area.

While Caltrans' originally proposed interchange described in the DEIR/S involved more grading and landform alteration (Original Alternative 3), for several reasons discussed in the Alternatives section above Caltrans steepened the slopes and reduced the amount of fill. Nevertheless the interchange would still involve placement of 240,000 cu. yds. of fill, and would raise the highway elevation for a distance of up to approximately one half mile by up to 25. ft. Public views to and across the Bay from Indianola Cutoff would be altered and existing large trees would be removed, which would alter scenic views inland from Route 101. Caltrans states in its consistency certification (p. 75) that the proposed project:

... consists of various roadway improvements that would not substantially alter the existing roadway; however, there are project elements that could change the existing visual setting:

1. A compact diamond interchange would be constructed at Route 101 and Indianola Cutoff. The interchange was designed with steepened fill slopes to reduce the overall footprint of the interchange. See Appendix J [Exhibit 23] for photograph simulations of the interchange. Landscaping is included in the project to visually enhance the interchange.

2. The new southbound Route 101 Jacoby Creek Bridge would be approximately 74-feet long and 53.5-feet wide (about 14.5 feet wider than the current bridge).

3. Modified Alternative 3A would require removing up to 54 mature trees within the roadway median and east side of Route 101 during construction. The project includes landscaping of areas disturbed by construction activities with native plants.

Overall, the proposed project would be designed and constructed to be visually compatible with the character of the surrounding area, which consists of a mix of commercial, industrial, and open space lands.

On page 50 of the same document Caltrans states:

The proposed interchange would result in a moderately high reduction in visual quality for west bound travelers on Indianola Cutoff; however, travelers on Route 101 would have better views of the bay as they travel over Indianola Cutoff.

Caltrans also notes that the replacement trees would be a mixture of Bishop Pines, alders and cypress trees, with a height at maturity of 40-50 ft., that it will make every attempt to avoid tree removal along the entire Route, if such retention can be accomplished in a manner maintaining safe traffic conditions, and finally, that bridge railings designs will be similar to those preferred by the Commission in past Caltrans bridge review projects.

The Commission disagrees with Caltrans that the above minimization and mitigation measures bring the project into conformance with Section 30251, or that view blockage would be offset by improved views for interchange travelers. Under Section 30251 the Commission needs to be able to find that the project would not block public views, would minimize alteration of natural landforms, would minimize public view impacts, and be compatible, if not subordinate to, the character of the area. The Commission is unable to make any of these affirmative findings. Placement of 240,000 cu. yds. in a level area that is barely above sea level, and creation of an approximately half mile long (north to south), up to 25 ft. high, interchange, would block public views to and across the Bay from Indianola Cutoff, and would represent a significant visual intrusion into a scenic area. The Commission further finds that because minimizing visual impacts inherently involves looking at alternatives, based on the discussion in the Alternatives section of this report, alternatives are available that would avoid the need to modify the landforms and topography and the substantial grading associated with a raised interchange. For these reasons the Commission finds the proposed Indianola Interchange would not minimize alteration of natural landforms or public view impacts, would not be compatible with the character of the area, and would be inconsistent with the requirements of Section 30251 of the Coastal Act.

H. PUBLIC ACCESS AND RECREATION

Section 30210 of the Coastal Act provides:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30213 provides:

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

Section 30214 of the Coastal Act provides:

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

...

(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

The primary Coastal Act policy considerations raised by the proposed project involving public access and recreation opportunities are the effects of the project on, and opportunities available to maximize, public access and recreation along the Route 101 Corridor, in particular non-motorized bicycle and pedestrian opportunities. Bicyclists currently are allowed to, and do, traverse the corridor; however the predominant bicycle use is by commuters.

In recent years the Commission has urged implementation of Coastal Trail segments when opportunities have arisen in its permit, federal consistency, and Local Coastal Program reviews. Providing for the Coastal Trail would contribute to the Commission's ability to find that a project has maximized public access and recreation in a manner required under Section 30210 of the Coastal Act. The Coastal Trail is a vision for all Californians and future generations worldwide that has been endorsed by the legislature and the governor, who have directed state transportation and other agencies to coordinate development of the Coastal Trail, including, where applicable, making lands available for completion of the trail (PRC Section 31408(b), as amended by AB 1396 (2007)).

There appears to be a general consensus that two coastal trails should occur between Arcata and Eureka, one on each side of the Bay, which would converge in downtown Eureka before travelling further south. For the trail along the east side of the bay, the City of Arcata has recently issued planning documents for the Coastal Trail through the City and as far south as Bracut (Arcata Rail with Trail Connectivity). For the Route 101 Corridor itself, much of the discussions of the ideal trail location have involved attempts to determine whether a trail fully separated from the highway, and along the North Coast Rail Authority (NCRA) trackbed paralleling the Route 101 Corridor, could be achieved. Serious questions remain concerning whether such a trail alignment could actually be realized, and the Commission has urged Caltrans to consider implementing at least an interim trail as part of the Route 101 Corridor.

In analyzing the project's impacts, Caltrans contends that the proposed project would not adversely affect public access and recreation and would make the Corridor safer for bicyclists, due to the median closures and other roadway improvements, including restriping to assure consistent 10-foot wide outside shoulders throughout the project. Caltrans also contends that the proposed interchange would provide a much safer crossing of Route 101 compared to the existing uncontrolled at-grade intersection; consistency certification (p. 58) states:

The grade separation at Indianola Cutoff is approximately midway between Eureka and Arcata and would provide a convenient means for bicyclists to cross or turn around on Route 101. In addition, the grade separation would provide a much safer crossing of Route 101 compared to the existing uncontrolled at-grade intersection. Finally, the grade separation would provide a safer connection to any potential future bicycle trail on the west side of Route 101 for bicyclists traveling to and from the east side of Route 101 between Eureka and Arcata.

... [T]he Preferred Alternative would maintain the existing accessibility for pedestrians, while adding an ability for pedestrians to use the overcrossing at the Indianola Cutoff interchange to cross Route 101 while being "grade-separated" from mainline traffic, a feature that does not currently exist. Thus, the advantage of the grade separation that is included in Modified Alternative 3A over both the existing⁴ Route 101 condition and the signalization of all intersections is that both pedestrians and bicyclists could safely cross Route 101 at Indianola Cutoff. Although the construction of Modified Alternative 3A would involve out-of-direction travel for bicyclists needing to turn left or cross Route 101 at locations other than Indianola Cutoff, the enhanced safety of a grade separation at Indianola Cutoff, the approximate midpoint between Eureka and Arcata, would outweigh the out-of-direction travel inconvenience. [footnote in original]

In its response to Commission staff recommendations that it consider a physically separated bicycle path along Route 101, Caltrans included plans for and a brief analysis of a separated bike trail along 101 (Caltrans Memo, July 24, 2012: Review of Barrier Separated Trail) (Exhibit 26). That memo:

- (1) identifies a configuration for an 8 ft. wide bike trail with 2 ft. shoulders and a 2 ft. wide by 3 ft. high concrete separation barrier;
- (2) estimates approximately 7.6 acres of permanent wetland fill would be needed for such a trail; and
- (3) estimates construction costs of approximately \$10.8 million (with unknown costs for any wetland mitigation requirements).

⁴ *The Humboldt Bay Area Bike Map*, second edition, 2012, prepared by the Redwood Community Action Agency, lists Indianola Cutoff, Bracut, and Bayside as "difficult" intersections for bicyclists. An explanation of "difficult intersections" is not given, but bicyclists must negotiate four lanes of Route 101 traffic to cross or turn left at these non-signalized intersections.

Caltrans' consistency certification February 2013 Addendum refigures the construction cost to be \$12.3 million. This addendum also states:

The high magnitude of construction cost, permanent wetland impacts, and wetland mitigation would not be feasible for an "interim" coastal trail. However, Caltrans recognizes the importance of completion of the Coastal trail to the Commission, as well as to the public, evidenced by the comments received on the desire for a separate bike and pedestrian path. In addition, at the December 2012 NCRA meeting, the NCRA board took action to approve resolution No. 2012-13 made by the NCRA Humboldt Bay Rail Corridor Committee which included the following:

- *NCRA will authorize clearly defined and strictly limited exceptions to its current trail policy to enable development of a trail in the Humboldt Bay corridor without compromising the prospects of rail service restoration;*
- *NCRA will prioritize rail infrastructure restoration and trail development in the Eureka to Arcata corridor to more clearly align its timing and objectives with those of the joint Humboldt County Association of Governments and Caltrans Route 101 Corridor Improvement Project.*

The preferred alternative will make safety and operational improvements at the existing intersections. This includes eliminating potential conflicts for not only motor vehicles but for bicyclists as well.

The California Coastal Conservancy has published Coastal Trail siting and design standards,⁵ which include:

1. *... Shoreline trail segments that may not be passable at all times should be augmented by inland alternative routes. Special attention should be given to identifying any segments that may need to be incorporated into water-crossing structures and that necessarily must be placed within Caltrans right-of way.*
2. *Where gaps are identified, interim segments should be employed to ensure continuity of the coastal trail. Interim segments should be noted as such, with provisions that as opportunities arise, the trail shall be realigned as close as possible to its optimum location. Interim trail segments should meet as many of the CCT objectives and standards as possible.*
3. *The CCT should be designed and located to minimize impacts to environmentally sensitive habitat areas and prime agriculture lands to the maximum extent feasible. ... For situations where impact avoidance is not feasible, appropriate mitigation measures should be identified, including but not limited to use of boardwalks, reducing width of trails, protective fencing and drainage measures along edges of agricultural land, etc.*

⁵ http://scc.ca.gov/webmaster/pdfs/CCT_Siting_Design.pdf

....

5. The CCT should be designed to avoid being located on roads with motorized vehicle traffic where feasible. In locations where it is not possible to avoid siting the trail along a roadway, the trail should be located off of the pavement and within the public right-of-way, and separated from traffic by a safe distance or by physical barriers that do not obstruct, or detract from, the scenic views and visual character of their surroundings.
[Emphasis added]

The Commission believes these design standards speak directly to the requirements of Section 30214 of the Coastal Act by specifying the manner and balancing considerations that need to be applied in implementing in any Coastal Trail for the area. The Commission disagrees with Caltrans that proposed project itself would not adversely affect access and recreation. The Commission believes the project would adversely affect bicycle use, by cutting off intersections from bicycle access, and requiring out-of-direction bicycle travel for some users of the Route no longer able to turn at medians proposed for closure, and by increasing vehicular traffic speeds along 101, which would increase the potential severity of any collisions with bicyclists.

The Commission believes a Coastal Trail within the 101 Corridor is feasible, but also agrees with Caltrans (as well as many other public commenters) that a rail trail would be a preferable trail, because it could provide much greater safety for pedestrians and bicyclists. While the Commission staff has previously raised concerns over the uncertainties of implementing such a rail trail at this time, the Commission also notes that Caltrans has provided recent information (Exhibit 28, Caltrans August 27, 2013 letter) showing greater momentum for such an alternative Coastal Trail. Given the conceptual nature of this review, and ongoing planning being conducted concerning a separate trail, combined with the fact that the Commission has future coastal development permit authority over the project, the Commission concludes that several options exist to mitigate the project's impacts on non-motorized public access, and to enable the Commission to find that the project will maximize public access, and will protect, encourage, and provide, where feasible, lower cost visitor and recreational facilities, in a manner consistent with the goals and policies articulated in Sections 30210-30214 of the Coastal Act (as well as other state mandates). To comply with these policies, the Commission therefore finds that, EITHER the project needs to be modified to include at least an interim Coastal Trail in the form of a separated bicycle/pedestrian pathway along the highway shoulder, OR Caltrans will need to commit, at this time, that it will establish, to the Commission's satisfaction, no later than at the coastal development permit stage of the Commission's review, that an alternative parallel trail nearby (from Arcata to Eureka) will be funded prior to or concurrent with any construction of the 101 Corridor and that it will have the necessary ownership interests or permissions to be allowed to proceed.

I. PUBLIC WORKS

Section 30254 of the Coastal Act states:

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special

districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

Section 30250 states, in part:

(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

One of the underlying premises of the Coastal Act policies is the expression of the need to size infrastructure (generally roads, water, and sewer public works facilities) in a manner that does not lead to pressure to convert habitat, agricultural lands, or threaten coastal resources in other ways. Concerns have been raised that the proposed Indianola Interchange would increase traffic capacity in the rural area of the coastal zone that surrounds it. This area contains important wetland and agricultural uses and lacks sewer and road capacity for more intensive urban (and non-Coastal Act priority) uses.

Caltrans' DEIR/S "Growth" analysis indicates:

Lands in the vicinity of the Indianola Cutoff are within the jurisdiction of the City of Eureka on the south side and Humboldt County on the north side, with the exception of a relatively small flag lot, which is within Eureka's City limits. The land within the County is designated and zoned for Agricultural use in an approximately 366- meter (1,200-foot) wide band along Route 101 and Rural Residential use to the east of the agricultural band.

The DEIR acknowledged urban development potential in the area, stating:

Because the Eureka-Arcata Route 101 Corridor has high visibility and is the most heavily traveled corridor in the region between the larger population areas, large-scale retailers have been interested in building within the corridor. In addition, the City of Eureka has limited area zoned for commercial development. In 1993, a Sam's Club was proposed in the vicinity of Route 101 and Indianola Cutoff. The project was abandoned because of the infrastructure constraints, permit obstacles (since the area lies within the Coastal Zone and would require a Coastal Development Permit, as well as city permits

and a Caltrans permit to enter) and the potential traffic impact mitigation costs. Both Costco and Wal-Mart subsequently looked at locating in the same area and decided against it for similar reasons. The Wal-Mart proposal encountered staunch local opposition from residents and businesses. In addition, the existing area zoned commercial may be insufficient for off-street parking requirements as well as a large-scale retail building with required street set-backs and landscaping. A recent proposal to expand facilities at Bracut Industrial Park was also abandoned, because of the costs of completing the environmental analysis for the project and potential mitigation costs.

Caltrans further states:

Mitigation for improving growth related effects was not included as part of this project because the Route 101/Indianola Cutoff is already developed and the proposed project would not remove the only major obstacle to growth: growth is possible, but not likely as a result of project construction.

Construction of any large scale retail business, such as Walmart, would be considered intensification in a location that is currently zoned for commercial use. Caltrans has stated that intensification of the existing land use is possible with or without the construction of a grade separation. However, a transportation improvement alone would [not] remove the only major constraint to development intensification: in addition to transportation improvements, intensive commercial development in this area would require improved water service, sewer expansion, and coastal permits.

Caltrans maintains that other existing growth constraints in the area will be adequate to protect coastal resources and limit growth, based on the following factors:

- Lands in the vicinity of the Indianola Cutoff are within the jurisdiction of the City of Eureka on the south side and Humboldt County on the north side, with the exception of a relatively small (approximately 4 acre) lot, which is within Eureka's City limits. The land within the County is designated and zoned for Agricultural use in an approximately 1,200-foot wide band along the Route 101 roadway and Rural Residential use to the east of the agricultural band.*
- Land in the vicinity of the Route 101/Indianola Cutoff intersection within the city limits is zoned for commercial use in the area east of Route 101 and south of Indianola Cutoff, with a small area designated for Estate Residential use; further south and east to Walker Point Road is an area of limited commercial and residential use, isolated at the north end of the city limits, and is separated from the rest of Eureka's urban area by over a mile of sensitive wetland habitat and preserved open space. This sensitive area is well protected by adopted local plans, policies, and zoning.*
- There is no sewer service to the area, and because of the shallow groundwater depth, the land is not suitable for most conventional septic systems. The City of Eureka is*

unlikely to extend sewer service to the area, due to the environmental impacts and costs associated with constructing a new pipeline across protected wetlands.

Historically, the Commission has rejected the notion that potential growth-related pressures resulting from one type of infrastructure (in this case, highway capacity) can be ignored based on either reliance on existing zoning, its ability to review future zoning changes, or the presence of other infrastructure constraints. The Coastal Act requires, and the Commission has repeatedly found, that any increases in infrastructure capacity be sized and tailored to accommodate only development levels and patterns that will remain consistent with Chapter 3 policies. The Commission remains concerned over the potential for increased development pressure that may be intensified by the proposed interchange. When such pressures intensify, land use plans and zoning restrictions, as well as infrastructure, can be modified to accommodate additional development. The evidence discussed above and in the previous sections of this report make a compelling case that business decisions to locate and expand non-Coastal Act priority uses in this area would be more likely to occur if traffic ingress and egress is improved by the proposed interchange. By facilitating such development the interchange would increase pressure to modify other infrastructure constraints and potentially convert high priority uses under the Coastal Act (such as agriculture and sensitive habitat areas) to lower priority uses. The Commission therefore concludes that the proposed Indianola Interchange component of the project would pose cumulative impact and growth pressures in a manner inconsistent with the requirements of Sections 30254 and 30250 of the Coastal Act.

IV. PROCEDURE IF COMMISSION OBJECTS

Section 930.63(b) of the federal consistency regulations (15 CFR Section 930.63(b)) states that, if the Commission's objection is based on a finding that the proposed activity is inconsistent with the CCMP, it may identify measures, if they exist, that would bring the project into conformance with the CCMP. Section 930.63 provides:

§930.63 State agency objection to a consistency certification.

(b) State agency objections that are based on sufficient information to evaluate the applicant's consistency certification shall describe how the proposed activity is inconsistent with specific enforceable policies of the management program. The objection may describe alternative measures (if they exist) which, if adopted by the applicant, may permit the proposed activity to be conducted in a manner consistent with the enforceable policies of the management program.

As described in Sections III A-I above, the proposed project is inconsistent with the CCMP. In order to bring the activity into conformance with the CCMP, Caltrans needs to modify the activity to include the following provisions:

1. Revise the project to eliminate the raised fill slopes and other elements of the Indianola Interchange, and replace it with an at-grade solution such as a traffic light signal design, in a manner minimizing wetland impacts to the degree possible.

2. Provide for a separated bicycle/pedestrian corridor on one or both sides of the highway along the entire Corridor, unless Caltrans commits, at this time, that it will establish to the Commission's satisfaction that an alternative parallel trail nearby (from Arcata to Eureka) will be funded prior to or concurrent with construction of the 101 Corridor and that it will have the necessary ownership interests or permissions to be allowed to proceed.

3. If other issues can be resolved, and prior to any Commission review of a coastal development permit for the project: (1) expand the Samoa restoration concept to include true tidal restoration; (2) provide a biological analysis showing that adequate acreages and/or habitat mixes would, in fact, fully mitigate the project's impacts; (3) submit and receive Commission approval of coastal development permits for the restoration activities at the two sites; and (4) follow up on Caltrans' commitment to further substantiate the unavailability and infeasibility of non-agricultural sites in the Humboldt Bay area.

V. RIGHT OF APPEAL

Pursuant to 15 CFR Part 930, Subpart H, and within 30 days from receipt of the Commission's letter notifying Caltrans of the Commission's action, Caltrans may request that the Secretary of Commerce override the Commission's objection to consistency certification CC-016-13. In order to grant an override request, the Secretary must find that the activity is consistent with the objectives or purposes of the Coastal Zone Management Act, or is necessary in the interest of national security. A copy of the request and supporting information must be sent to the California Coastal Commission, the U.S. Army Corps of Engineers, and the Federal Highway Administration. The Secretary may collect fees from Caltrans for administering and processing its request.

APPENDIX A

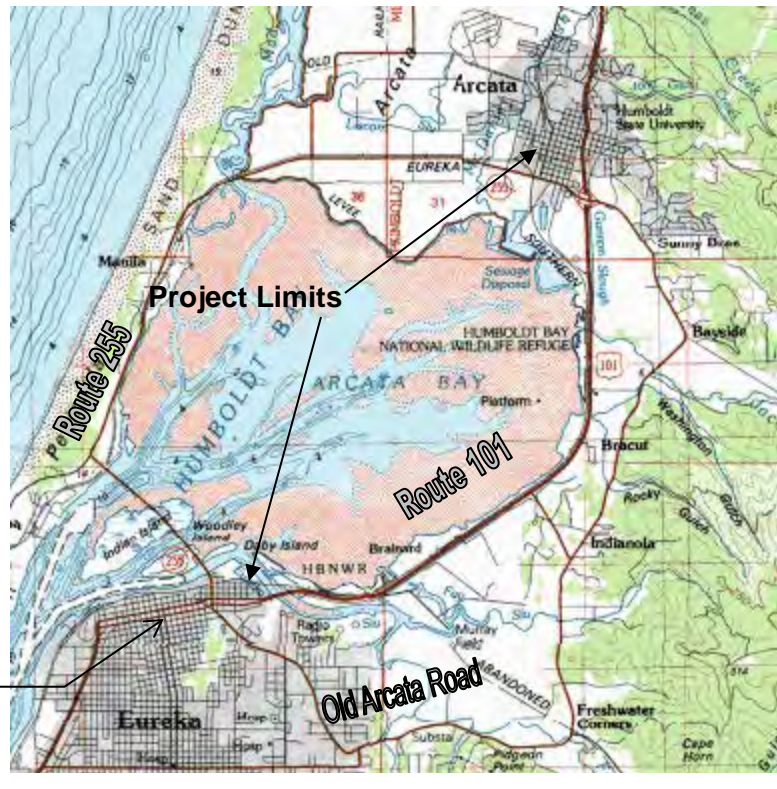
SUBSTANTIVE FILE DOCUMENTS:

1. Consistency Certification No. CC-016-13, Caltrans, Resubmitted Consistency Certification, Eureka-Arcata 101 Corridor, with attachments, February 2013).
2. Consistency Certification No. CC-054-11 (Caltrans, Eureka-Arcata 101 Corridor).
3. Route 101 Eureka-Arcata Corridor Improvement Project Federal Coastal Consistency ADDENDUM, February 2013.
4. Draft Environmental Impact Statement/Environmental Impact Report, Eureka – Arcata Route 101 Corridor Improvement Project, U.S. Department of Transportation, Federal Highway Administration (FHWA) and the State of California Department of Transportation (Caltrans), For the Humboldt County Association of Governments (HCAOG), June 2007.

5. APPLICATION: 1-07-013 Caltrans, Highway 101, Mad River Bridges, Between Arcata and McKinleyville, unincorporated area of Humboldt County.
6. CDP 1-11-048 California Department of Fish and Wildlife After-the-fact authorization for the restoration of 16 acres of seasonal freshwater marsh (diked former tidelands) to restored tidal marsh, CDFW Fay Slough Wildlife Area east of Highway 101 and Humboldt Bay, south of Walker Point Road, Humboldt Co.
7. CDP 1-07-038, Caltrans, Highway 101/Route 36 Alton Interchange, south of Fortuna, Humboldt Co.
8. CDP 6-11-093 Caltrans, Replacement/Construction of I-5/Genessee Ave, San Diego.
9. CDP 1-05-014, RDHC, Vance Dairy wetland pond excavation, near Hookton Rd. and Hwy 101, south Humboldt Bay.
10. CDP 1-06-036 and 1-06-036-A1 (City of Arcata Department of Environmental Services – McDaniel Slough Wetland Enhancement Project).
11. CDP 6-12-060, Caltrans, addition of auxiliary lane to I-5/I-8 intersection, near Sea World, San Diego.
12. Route 101 Concept Report, Caltrans, October 2002.
13. California Coastal Trail (CCT) Definition & Siting and Design Standards, Coastal Conservancy.
14. Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California.



Air quality
monitoring
station, 529 I
Street



No Scale

0

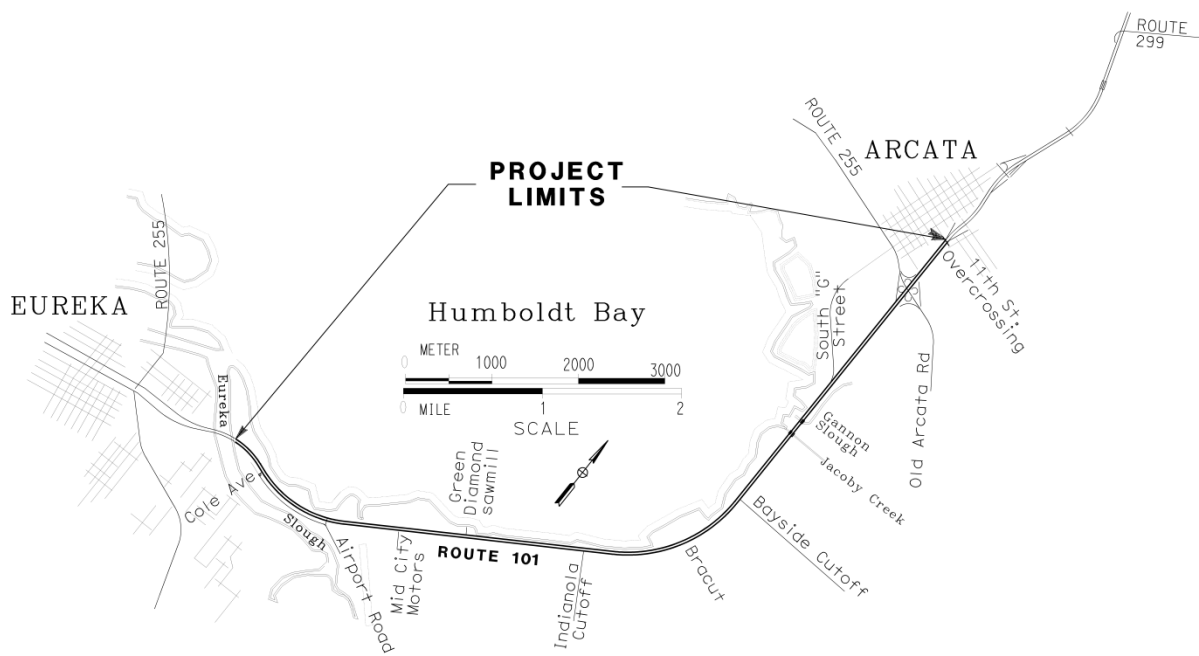


EXHIBIT 1
CC-016-13
CALTRANS

Figure S-1
Project Location Maps

Eureka-Arcata Route 101 Corridor



EXHIBIT 2
CC-016-13
Aerial Photo

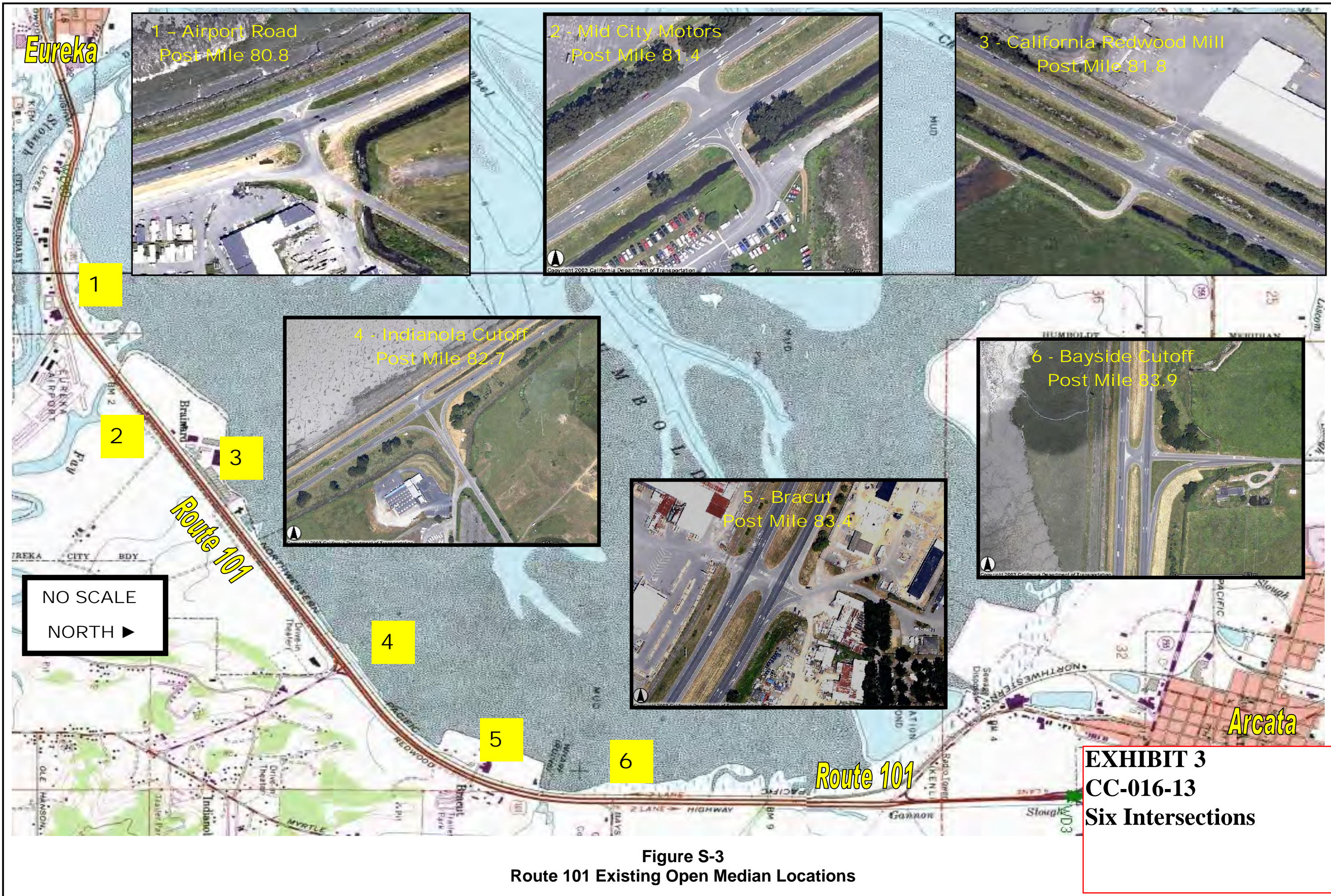
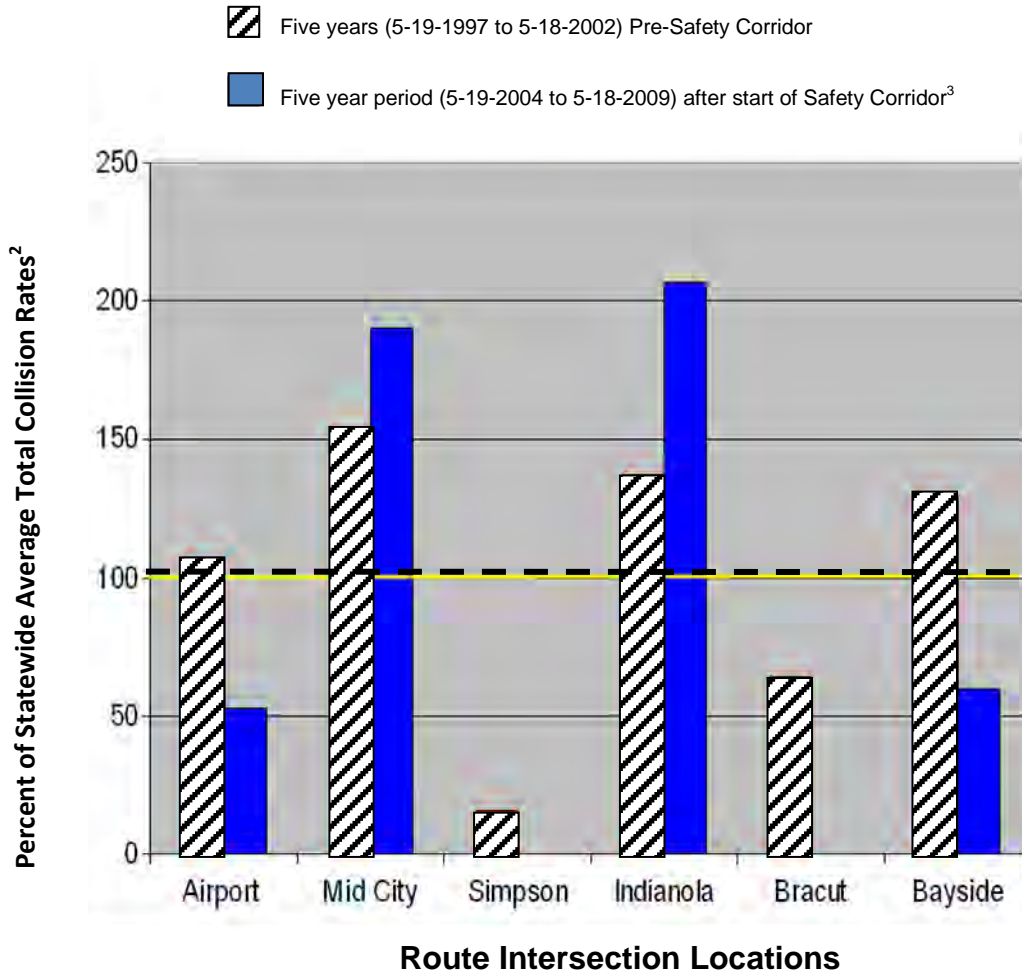


Figure 2-2 – Average Total Collision Rates at Route 101 Intersections as a Percentage of Statewide Average Rates¹



Note 1: Total collisions consist of all types of collisions: fatal, injury, and property damage.

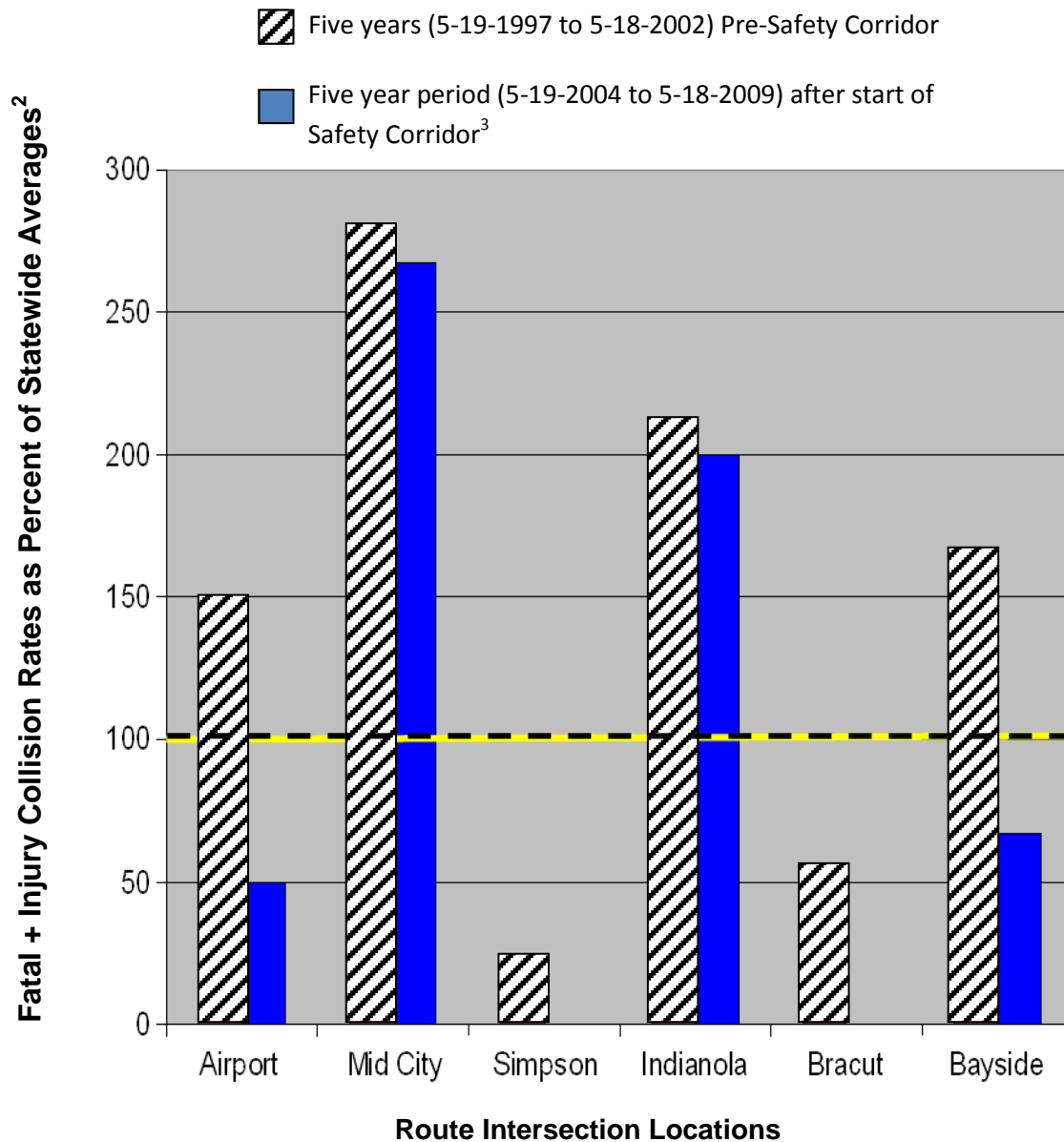
Note 2: For intersections, collision rates are a measure of the number of collisions per million vehicles. One hundred represents the percentage of the statewide average collision rate for similar highway intersections and is designated by the dashed horizontal line in the graph.

Note 3: The Safety Corridor was started on May 19, 2002.

Source: Collision data obtained from Caltrans Transportation System Network (TSN). District 1 Traffic Safety.

EXHIBIT 4
CC-016-13
Collision Rates

Figure 2-3 – Average Severe Collision Rates at Route 101 Intersections as a Percentage of Statewide Average Rates¹



Note 1: Severe collisions consist of fatal and injury collisions.

Note 2: For intersections, collision rates are a measure of the number of collisions per million vehicles. One hundred represents the percentage of the statewide average collision rate for similar highway intersections and is designated by the dashed horizontal line in the graph.

Note 3: The Safety Corridor was started on May 19, 2002.

Source: Collision data obtained from Caltrans Transportation System Network (TSN). District 1 Traffic Safety.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	CHECKED BY	TOOD LARK	REVISED BY
Ed-Catena		L.R. ASHLEY			DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

FOR DESIGN STUDY ONLY

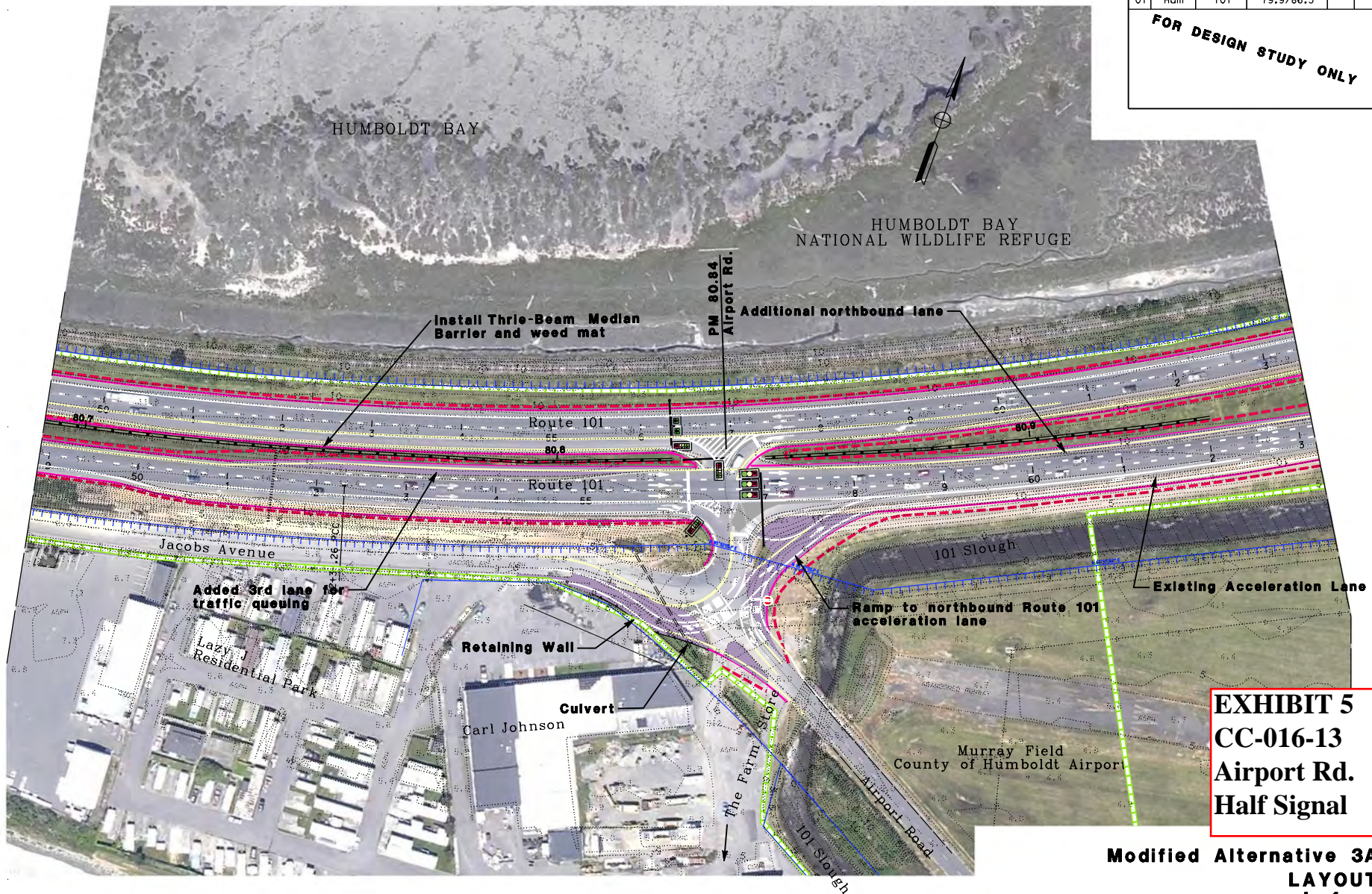


EXHIBIT 5
CC-016-13
Airport Rd.
Half Signal

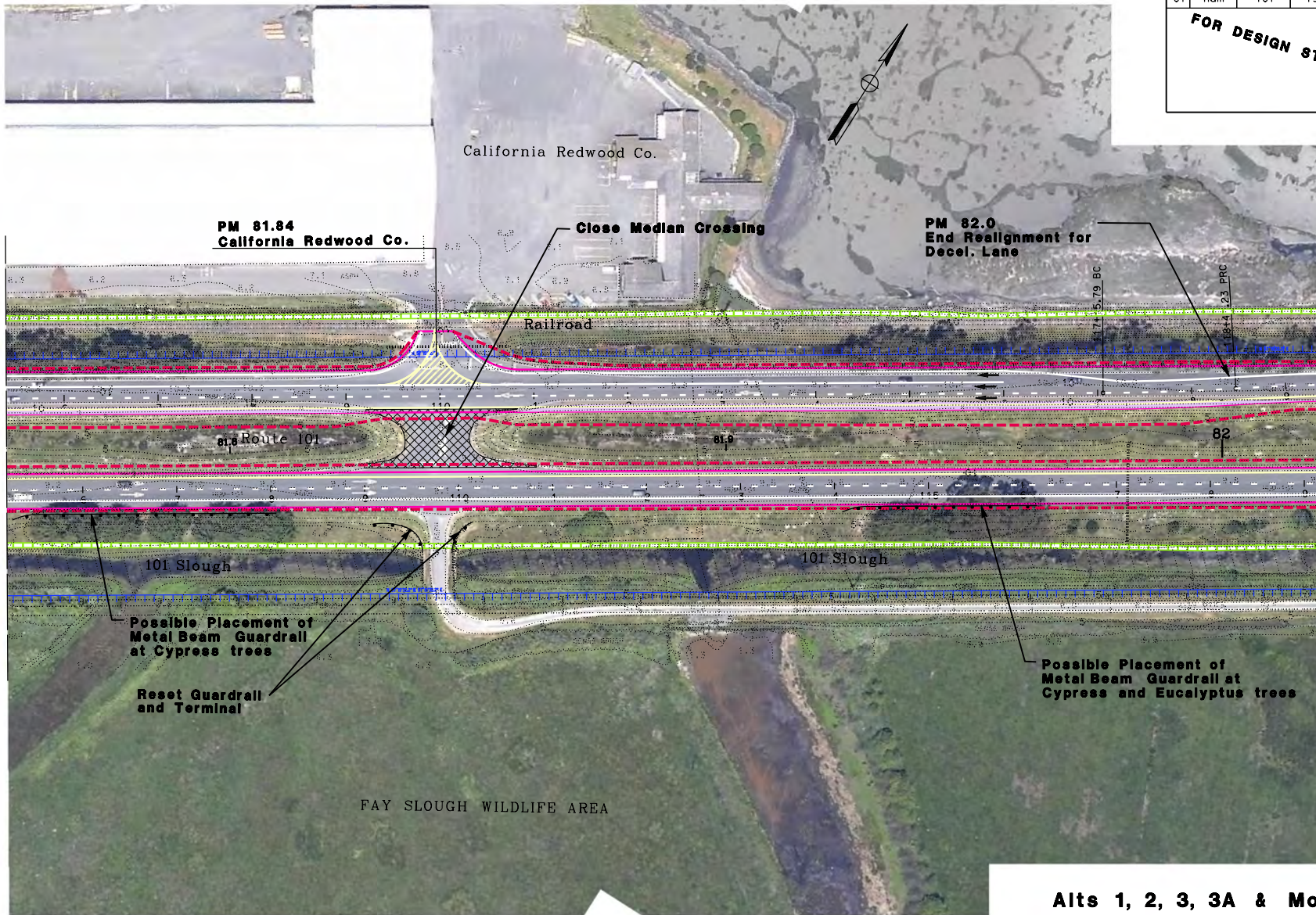
Modified Alternative 3A
LAYOUT
L-4 (iv)

SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED BY	DESIGNED BY	TODD LARK	REVISED BY
Caltrans	L.R. ASHLEY	CHECKED BY			DATE REVISED

DESIGN

BORDER LAST REVISED 4/11/2008



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

FOR DESIGN STUDY ONLY

**Alts 1, 2, 3, 3A & Modified 3A
LAYOUT
L-8**

SCALE: 1"=50'

RELATIVE BORDER SCALE
IS IN INCHES



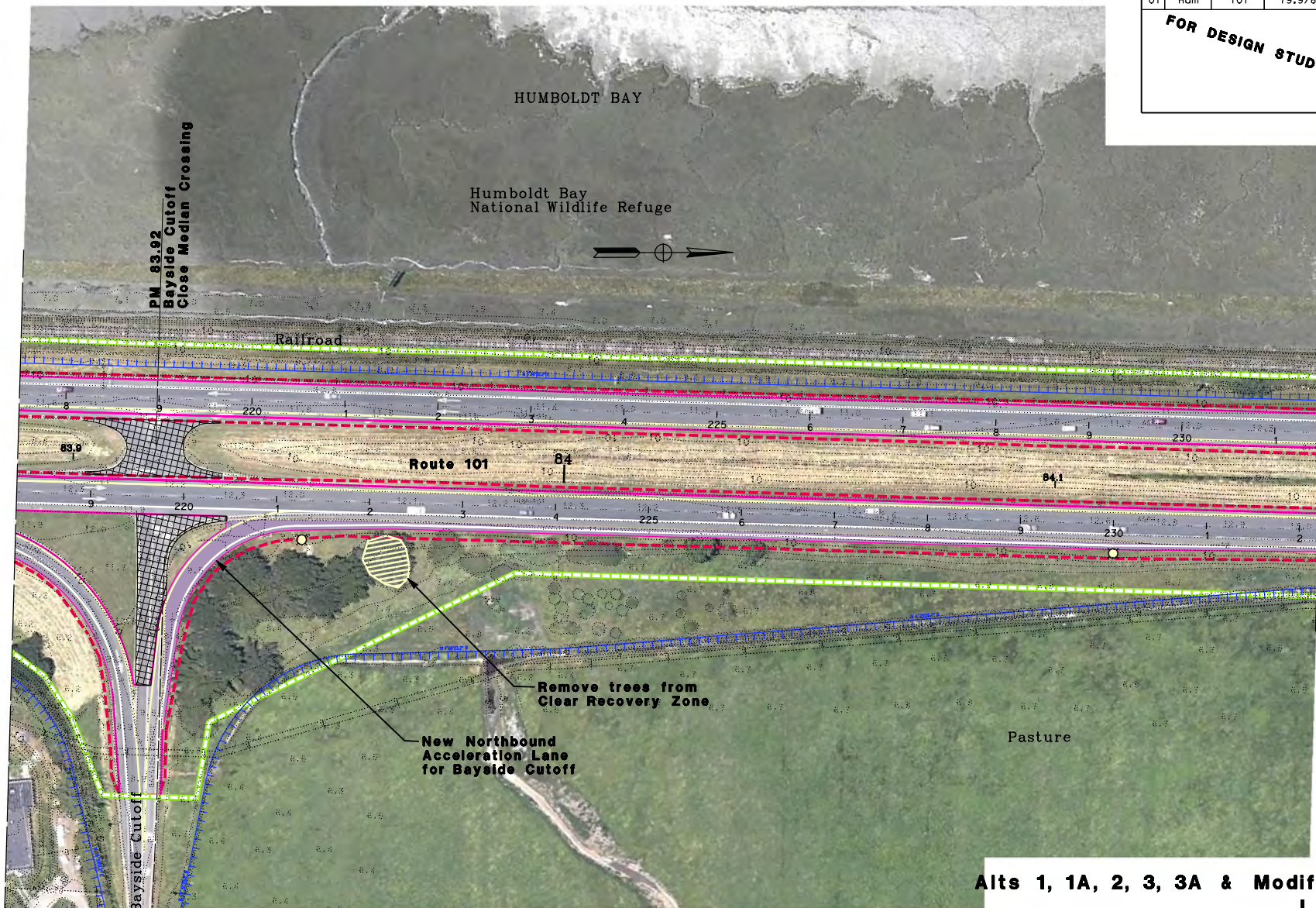
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DGN FILE => 136330ed008.dgn

CU 03232

EA 363301

LAST PLOTTED => 12-OCT-2012
08-11-08 TIME PLOTTED => 15:18

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED DESIGNED BY	TODD LARK	REVISOR BY	
EdGarcia	L.R. ASHLEY	CHECKED BY		DATE REVISED	
DESIGN					



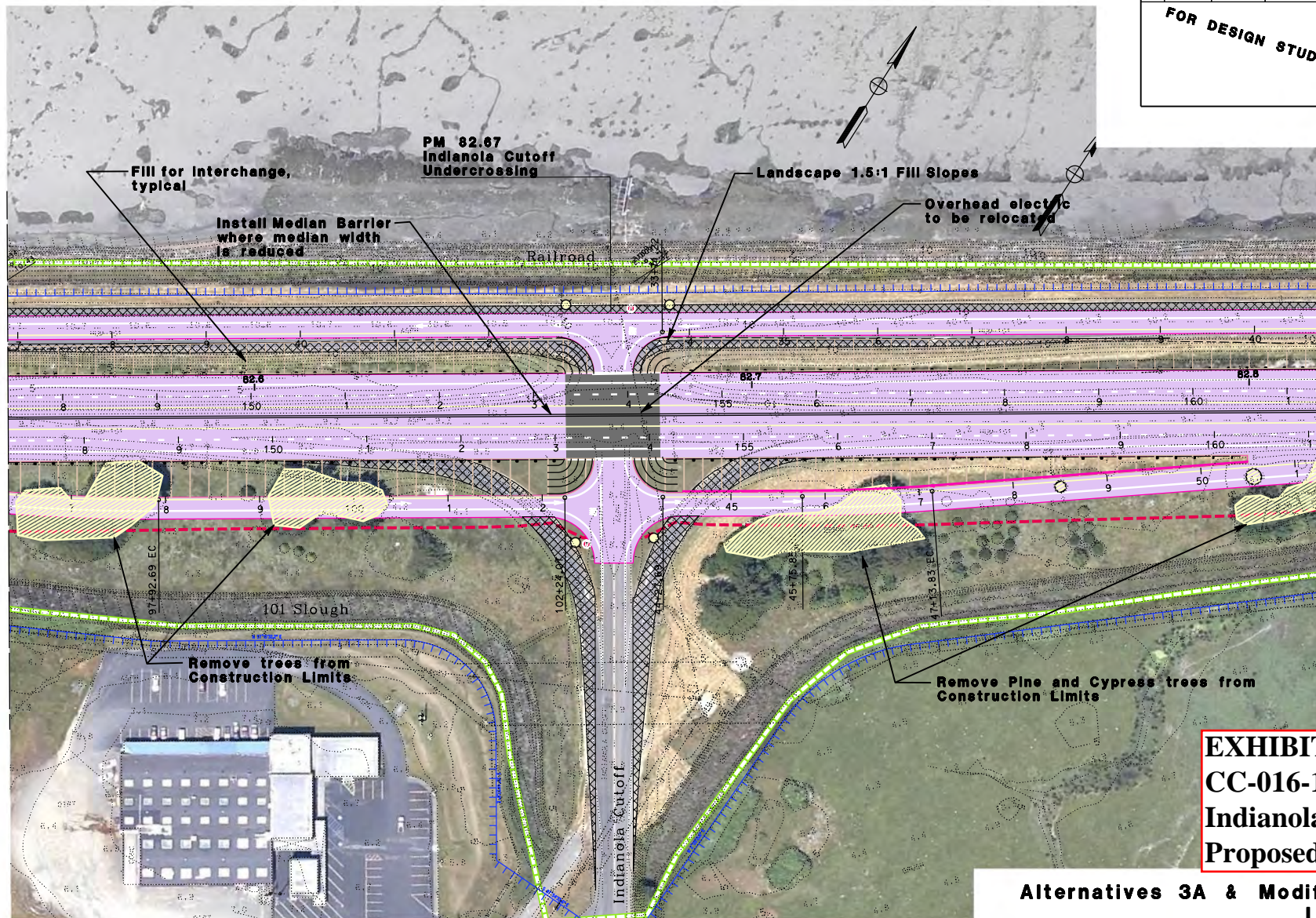
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

FOR DESIGN STUDY ONLY

Exact locations of lighting to be determined.
Trenching for lighting not shown.

**Alts 1, 1A, 2, 3, 3A & Modified 3A
LAYOUT
L-16**

SCALE: 1"=50'



Exact locations of lighting to be determined.
Trenching for lighting not shown.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

FOR DESIGN STUDY ONLY

EXHIBIT 7
CC-016-13
Indianola
Proposed

Alternatives 3A & Modified 3A
LAYOUT
L-11

SCALE: 1"=50'

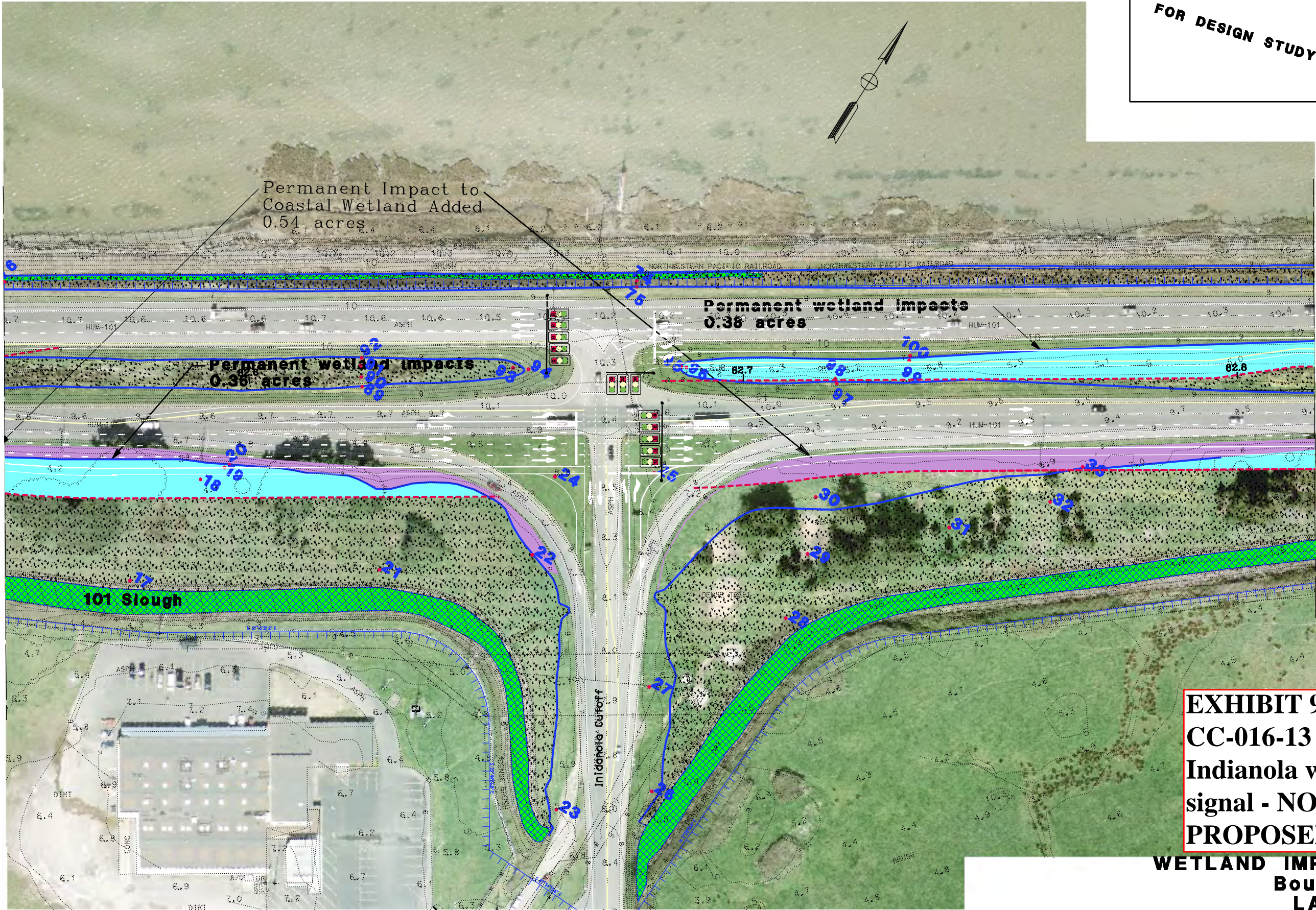
- Motorists on Route 101 as they approach and pass the new interchange from either direction;
- Westbound motorists on Indianola Cutoff as they approach the new interchange;
- A few local residents within the vicinity of Indianola Cutoff; and
- Views from Humboldt Bay looking east toward the shore at the new interchange.

The following Figures 3-7 through 13 represent visual simulations of the proposed interchange configuration as it would appear from different perspectives.



Figure 3-7
Proposed Interchange Design Configuration

EXHIBIT 8
CC-016-13
Indianola
Design Configuration



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

FOR DESIGN STUDY ONLY

EXHIBIT 9
CC-016-13
Indianola with a
signal - NOT
PROPOSED

WETLAND IMPACTS
Boulevard
LAYOUT
L-11

SCALE: 1"=50'

Figure 1

Locations of proposed bridgework and tide gate replacements, EA 363301, HUM 101-79.8/86.3, Eureka-Arcata Corridor Improvements

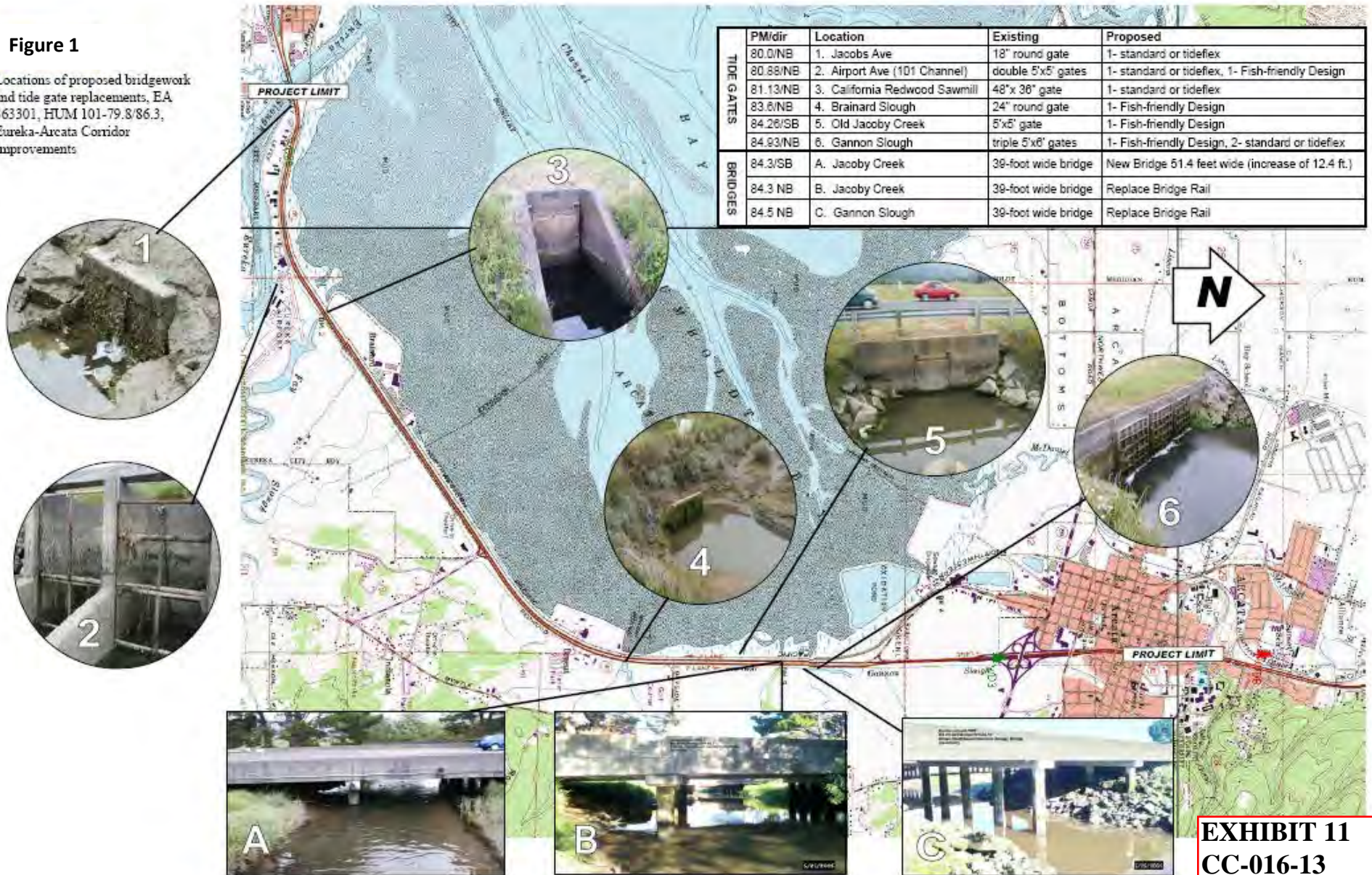
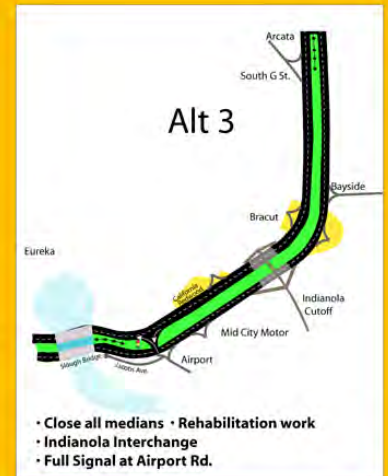


EXHIBIT 11
CC-016-13
Tide Gates

Eureka-Arcata Route 101 Corridor



In Partnership with HCAOG

Overview of Build Alternatives

Figure S-4

EXHIBIT 12
CC-016-13
Alternatives
Overview

Summary of Potential Adverse Environmental Consequences
After Avoidance and Implementation of Measures to Minimize Harm/Mitigation[#]

Environmental Resource/Condition Compared to No Build Alternative	Alternative 1 Close median crossings \$29 Million	Alternative 1A Close median crossings, construct two turnarounds and a southbound only left-turn signal at Airport Road \$38 Million	Alternative 2 Close median crossings, construct interchange at Indianola Cutoff \$55 Million	Alternative 3 Close median crossings, construct interchange at Indianola Cutoff and a full signal at Airport Road \$62 Million	Modified Alternative 3A ⁺ Close median crossings, construct steep slope interchange at Indianola Cutoff and a half signal at Airport Road \$46 Million	No-Build Alternative
Total permanent wetland impact [#] in acres ≤3-Param / USACE Jurisd. / TOTAL	1.3 / 2.4 / 3.7	1.7 / 5.5 / 7.2	2.1 / 10.4 / 12.5	2.2 / 12.9 / 15.1	2.0 / 8.2 / 10.3	0
Total permanent impacts in acres to Other Waters of the U.S. (excludes wetland & habitat enhancements)**	0	0	0	0	0	0
Temporary wetland impact [#] in acres ≤3-Param / USACE Jurisd. / TOTAL	0.3 / 3.8 / 4.1	0.3 / 4.5 / 4.8	0.1 / 5.1/ 5.2	0.1 / 4.9/ 5.1	0.1 / 4.4/ 4.5	Not applicable
Listed, Threatened, Endangered Species	Minor	Minor	Minor	Minor	Minor	No Effect
Water quality during construction	Minor	Minor	Minor	Minor	Minor	No Effect
Floodplain encroachment	Negligible	Negligible	Negligible	Negligible	Negligible	No Effect
Air quality	Minor	Minor	Minor	Minor	Minor	No Effect
Energy: Year 2031 vehicle fuel increase in gallons per day	3,970	340	2,150	60	290	Unknown*
Increase in greenhouse gas emissions compared to the No-Build Alternative	15.6%	1.5%	8.3%	2.4%	1.0%	N/A
Traffic increase on local roads	Substantial	Minor	Minor	Minor	Minor	Moderate*
Pedestrian and bicycle circulation	Substantial	Substantial	Moderate	Minor	Minor	Unknown*
Route 101 Corridor business access	Substantial	Moderate	Substantial	Minor	Minor***	Moderate*
Environmental Justice communities	Substantial	Moderate	Moderate	Minor	Minor***	Moderate*
Out of direction travel / delay	Substantial	Minor	Moderate	Minor	Minor	Moderate*
Potential for growth related/indirect effects	Minor	Minor	Minor	Minor	Minor	No Effect
Noise	Minor	Minor	Minor	Minor	Minor	Unknown*
Hazardous waste	Minor	Minor	Minor	Minor	Minor	No Effect
Cultural resources	No effect	No effect	No effect	No effect	No effect	No Effect
Trees removed, visual quality	23 - Minor	83 - Moderate	64 - Moderate	64 - Moderate	54 - Moderate	No Effect

+ Alternative 3A has been modified since it was introduced at the December 3, 2008 public meeting. The Modified Alternative 3A would permanently impact approximately 0.5 acres of additional wetland compared to the initial Alternative 3A proposal. The additional wetland impact is required for an additional northbound Route 101 lane and a half signal at Airport Road. These improvements would provide a westbound left turn option from Airport Road to southbound Route 101 to serve businesses and an Environmental Justice Community on Jacobs Avenue. The westbound left-turn movement may need to be closed 15 to 20 years after construction as traffic volumes increase.

[#] All temporary and permanent wetland impacts resulting from the project will be fully mitigated pursuant to public resource agencies’ regulations.

*Even though the No-Build Alternative does not include any proposed roadway changes, traffic volumes and speeds are expected to increase in the foreseeable future, which may necessitate closing one or more Route 101 intersection. Closing one or more intersection median openings could potentially restrict access to businesses and residences; add out-of-direction travel and delay; increase fuel consumption; and, adversely affect the Level-of-Service of local streetists and pedestrians as well as motorized vehicles would be affected if this were to occur. In addition, without improvements, left-turn movements onto Route 101 are predicted to degrade to Level-of-Service F in the year 2031 at the following locations: Airport Road, Mid-City Motor World, California Redwood, Indianola Cutoff, Bracut, and Bayside Cutoff.

**Although some work would occur in Section 10/Waters of the U.S., none of the Build Alternatives would result in adverse impacts requiring mitigation.

*** These environmental consequences are only projected for 15 to 20 years after project construction. After this period, unless there are other improvements, the consequences would likely change from minor to moderate.

EXHIBIT 13

CC-016-13

Alternative Comparison

DEPARTMENT OF TRANSPORTATION

DISTRICT 1, P.O. BOX 3700
EUREKA, CA 95502-3700
PHONE (707) 441-5733
FAX (707) 441-5775
TTY 711



*Flex your power!
Be energy efficient!*

June 17, 2013

Mr. Mark Delaplaine, Manager
Energy, Ocean Resources
and Federal Consistency Division
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

File: 01-HUM-101
PM 79.9/86.3
01-366600
Eureka-Arcata Route 101
Corridor Improvements

Dear Mr. Delaplaine:

Per your June 4, 2013 letter requesting additional information:

- A. Updated Traffic Information is included in Attachments 1-4.
- B. Alternative information requested is included in Attachment 5. Per your request the estimated permanent coastal wetland impact for the entire project under this evaluation is 7.91 acres. The US 101 northbound lanes would need to be shifted to the east to accommodate truck turning for both northbound to southbound and southbound to northbound u-turn movements. Also, due to the additional lanes at Indianola Cutoff, the existing box culvert crossing Indianola Cutoff would need to be lengthened, and work to dredge and fill within the slough channel would be required.
- C. Climate Change Adaptation
Per Rex Jackman, Caltrans District 1 Planning Department, the results of the "Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California" will not be complete until December 2014. The Request for Proposals will be out this month and staff hopes to award the work to a consultant in July 2013. While staff cannot predict what the study's short or long-term recommended actions will be, it may be possible that short-term recommendations could be incorporated into the project. It is unlikely that the long-term recommendations would be incorporated into the project.
- D. Draft Wetland Mitigation/Restoration Plan response is included in Attachment 6.
- E. Scenic Route Study – Per the June 7, 2013 email from Coastal staff this has been dropped.

EXHIBIT 14
CC-016-13
Caltrans Letter

Please let me know when the staff report is available. We look forward to having the chance to bring the project before the Commission in the effort to obtain the consistency determination so that the safety and operational improvements for this important, existing transportation corridor can move forward. If you have any questions or require additional information, please contact me at kim.floyd@dot.ca.gov or at (707) 441-5739.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kim Floyd', followed by a large, stylized circular flourish.

KIM FLOYD
Project Manager

Attachments

1. AADT Eureka-Arcata U.S. 101 Corridor (2008-2011)
 2. Eureka Arcata 2011 updated LOS
 3. Evaluation Traffic Impacts November 2005
 4. Evaluation Traffic Impacts Addendum
 5. Two Signal Corridor
 6. Mitigation/Restoration Response
- c: Robert Merrill - North Coast Coastal Commission Office w/enclosures
César Pérez – FHWA w/out enclosure
Marcella Clem – HCAOG w/out enclosure

Wetland Impacts for Boulevard with Signals Airport Rd to Bayside Cutoff

Permanent Wetland Impact Estimate						
Sheet	Wetlands west of highway (acres)		median wetlands (acres)		Wetlands east of highway (acres)	
	ACOE (3-parameter)	Coastal (<3-parameter)	ACOE (3-parameter)	Coastal (<3-parameter)	ACOE (3-parameter)	Coastal (<3-parameter)
1			0.07			
2						
3	0.02		0.25		0.06	
4				0.09	1.01	
5			0.46			
6			0.23		1.06	0.15
7			0.58		0.45	0.24
8			0.84		1.10	
9						
10			0.64		0.75	
11			0.38		0.36	0.54
12			0.75		1.20	
13	0.10		0.30		0.44	
14	0.03				0.06	
15			0.32		0.18	0.25
16			0.38		0.82	
17			0.04			
18	0.01		0.35	0.01		
19			0.12			
20			0.48		0.03	
21						
22						
23						
24						
25						
26						
27						
28						
29						
Totals	0.16	0.00	6.19	0.10	7.52	1.18

Impacts Common to All Alternatives North of Jacoby Creek Bridge:
No additional drawings attached.

Total Permanent Wetlands Impacted (3-Parameter)	13.87 acres
Total Permanent Wetlands Impacted (Coastal <3-Parameter)	1.28 acres
Total Coastal Wetlands Permanently Impacted	15.15 acres

EXHIBIT 15
CC-016-13
Caltrans Chart
Blvd./Wetlands

Memorandum

*Flex your power!
Be energy efficient!*

To: KIM FLOYD, P.E.
Project Manager
District 1 Office of Project Management

Date: July 17, 2012

File: Hum 101
PM 79.8/85.8
Eur/Arc Corridor

From: TROY A. ARSENEAU, P.E., T.E., PTOE
Chief
District 1 Office of Traffic Operations

Subject: Traffic Operational Response to Draft CA Coastal Commission Staff Recommendation Document—Eureka-Arcata Corridor Project

In response to the draft California Coastal Commission (CCC) Staff Report to the Commission regarding the Coastal Permit for the Eureka-Arcata Corridor project, the District 1 Office of Traffic Operations conducted additional analysis comparing the impacts of the Modified 3A (preferred) or “NEPA 404 Least Environmentally Damaging Practicable Alternative (LEDPA)” alternative (interchange at Indianola Cutoff, half signal at Airport Road, and median closures) to a “signalized boulevard” alternative (six signalized intersections). Our results from our analysis and comments regarding the CCC document are indicated below.

1. The District 1 Office of Traffic Operations after completing a traffic operational analysis has concluded that a “signalized boulevard” alternative would not be the LEDPA. The “signalized boulevard” analysis used the same criteria applied to all alternatives analyzed. The following conclusions were arrived at by our traffic operations engineers.
 - A. Our analysis indicated that a “signalized boulevard” alternative would not be as effective in improving safety and operations in the Eureka-Arcata U.S. 101 Corridor as would the preferred alternative.

Per the Fundamentals of Traffic Engineering, 14th Edition, Institute of Transportation Studies of the University of California-Berkeley, 1996, Page 17-1, the disadvantages of signal installations are: “(1) *Most installations increase total intersection delay and fuel consumption, especially during off-peak periods,* (2) *Probable increase in certain types of accidents (e.g., rear-end collisions),* (3) *When improperly located, cause unnecessary delay and promote disrespect for this type of control, and* (4) *When improperly timed cause excessive delay, increasing driver irritation.*”

A “signalized boulevard” alternative would not be as effective in reducing the total number of traffic collisions (Please refer also to the Traffic Safety memo by

Ralph Martinelli, dated June 28, 2012.), and the broadside (right angle) collision concern would not be eliminated by signal control. Interchanges remove crossing conflicts, which greatly reduces or eliminates the potential for broadside collisions from an intersection because all movements on and off the highway (mainline) then are only involving right-in and right-out movements (diverging and merging conflict points). Signalized intersections often cause an increase in rear end collisions, especially on the higher volume mainline street that likely did not have stop control prior to the signal installation. Broadside collisions are not eliminated at signalized intersections because travelers do not always obey the traffic signals or simply try to race through the intersection at the end of yellow time or early beginning of red time. Since broadside collisions involve more fatalities and injuries than other types of collisions, properly designed interchanges tend to experience far less severe injury and fatal collisions than signalized intersections due to the almost total elimination of the more severe broadside collisions. Please refer to the Traffic Safety memo, mentioned above, for more information regarding collision frequency and severity comparisons between the two types of intersection controls.

A “signalized boulevard” alternative would not improve traffic flow in the corridor as it would actually cause an increase in congestion on U.S. 101 by introducing six new traffic signals and new cumulative travel delay to U.S. 101 not currently experienced by drivers. The preferred alternative would have much less negative operational impact to U.S. 101 and minor street traffic. Under a “signalized boulevard” scenario, US 101 traffic (both regional and interregional) traveling through signalized network could be forced to stop three or four times at red lights during peak travel times. With the Modified 3A/preferred alternative, traffic on U.S. 101 within the corridor would generally remain free flow, with the exception of interrupted flow at the Airport Road intersection by some movements due to the installation of a half signal at this location.

Per the Traffic Engineering Handbook, 6th Edition, Institute of Transportation Engineers (ITE), 2009, Page 109: *“Traffic characteristics at signalized intersections differ from those on freeways because they are greatly influenced by the periodic interruption of traffic signals. Such control...precipitates and governs the formation and discharge characteristics of queues...”* While the corridor, which is categorized as an expressway, will not be categorized as a freeway once an interchange at Indianola Cutoff is constructed, it will continue to have several characteristics that are common to freeways. Freeways have the advantage of not having to stop mainline traffic. Drivers in the corridor currently enjoy this advantage, with the exception of mainline left turning vehicles that have to yield to opposing traffic before executing their maneuvers.

Another major disadvantage to a “signalized boulevard” alternative would be in facilitating pedestrian traffic across U.S. 101 mainline. In the District 1 Traffic

Operations modeling effort, it was assumed that pedestrians would be allowed to cross U.S. 101 mainline at the Indianola Cutoff intersection, with only one cross walk crossing U.S. 101 being allowed at the intersection. Under this scenario, mainline traffic delay was found to be greatly increased by each pedestrian call due to the large pedestrian crossing distance. Ideally, pedestrians would only cross one direction of U.S. 101 at a time, make an additional pedestrian call (push the pedestrian button) once in the median pedestrian refuge area for the crossing of the opposing mainline travel lanes, and then wait for the next pedestrian phase to occur to finish crossing the highway.

Challenges would exist by having a raised pedestrian refuge in the U.S. 101 median because of the speeds on mainline U.S. 101. Per the Highway Design Manual, Sixth Edition, California Department of Transportation, Index 405.4 (2), “On facilities with speeds over 45 mph, the use of any type of curb is discouraged,” meaning that a raised pedestrian island in the median would not be desirable and less likely to be deemed “acceptable” by Caltrans Headquarters geometrician and traffic liaisons.

Not having a raised pedestrian refuge island would place pedestrians at considerable risk of being struck by vehicular traffic. This would force the need to have a long enough pedestrian phase (about 45 seconds) to ensure that pedestrians could cross both directions of mainline traffic causing considerable delay to mainline traffic. Our engineering analysis used the pedestrian walking speed of 3.5 feet per second as recommend by the California Manual on Uniform Traffic Control Devices, 2012 Edition, California Department of Transportation, Page 948, and required by Caltrans Traffic Operations Policy Directive 12-01, dated March 30, 2012.

- B. A “signalized boulevard” alternative would have greater wetland impact than the preferred alternative. A “signalized boulevard” alternative and the preferred alternative were modeled in Synchro Version 7.0 traffic analysis software by our traffic operations engineers, and design drawings were created to determine the wetland impact. A signalized alternative would require the removal of approximately 15 acres (as calculated by Project Engineer, Todd Lark using the wetland mapping approved by Coastal Commission staff Dr. Dixon) of wetlands as opposed to the approximate 9.7 acres of wet lands that the preferred alternative would remove. This is a ratio of about 3 to 2, “signalized boulevard” alternative to preferred alternative. A “signalized boulevard” alternative would require more highway widening due to the need for additional through and turning/acceleration/deceleration lanes to maintain LOS C performance at the signalized intersections. A “signalized boulevard” alternative would require four northbound through travel lanes and three southbound through travel lanes. Single left turn lanes would be required at all intersections with dual left turn

lanes being required for southbound U.S. 101 left turning traffic at the Indianola Cutoff intersection.

A “signalized boulevard” alternative would have greater air pollution/greenhouse gas and energy consumption impacts than the preferred alternative. This was determined by our traffic operations engineers using Synchro Version 7.0 traffic analysis software that indicated that the signalized alternative would create about 1.2 times the amount of carbon monoxide (CO), 1.2 times the amount of mono-nitrogen oxides (NO_x), and 1.2 times the amount of volatile organic compounds (VOC) as opposed to the preferred alternative. The software also indicated that a “signalized boulevard” alternative would have 1.2 times the fuel consumption of the preferred alternative, and the preferred alternative would have about a 1.2 times fuel economy advantage over the “signalized boulevard” alternative.

Our traffic operations engineers calculated the potential future electrical power usage at the Indianola Cutoff intersection for signalized at-grade intersection control verses an interchange. A signalized intersection would use about 7 times the kilowatt energy in a 24-hour period than would be required for an interchange. Signalized intersections consume energy from traffic signal operations and intersection lighting at night, while interchanges only require intersection and ramp lighting during nighttime hours. By adding the additional power that would be required for the other five signalized intersections in the signalized alternative, the difference in energy consumption between the two alternatives has a far greater margin verifying that the preferred alternative would require far less energy use than a “signalized boulevard.”

- C. A “signalized boulevard” alternative would very likely also cause some diversion of a portion of the traffic volume on U.S. 101 to parallel routes (State Route 255 and Old Arcata Road). The potential negative impacts associated with diversion of U.S. 101 traffic to parallel corridor routes has long been a concern of many local individuals, groups, and government entities throughout the project’s history.

Studies have indicated that the installation of traffic signals often causes some traffic from the major street (or mainline) to divert to inadequate alternate routes. This can partially be attributed to the driver perception that the new traffic signals cause more delay than would be on the alternate route, whether this is an actual truth or not. Other drivers simply prefer to avoid traffic signals even if the alternate route gives them a longer travel time. Historically, our traffic operations engineers have observed various decreases in traffic volumes on the state highway immediately following the installation of new signals at various locations in the district. It is highly probable that this same phenomenon would occur in the Eureka-Arcata Corridor if six new traffic signals were installed on U.S. 101 in the “signalized boulevard” scenario.

It should be noted that although the 2002 installation of the interim Safety Corridor on U.S. 101 in the Eureka-Arcata Corridor did not include the installation of traffic signals, the reduced speed limit, enhanced California Highway Patrol (CHP) radar enforcement, and other features did influence a noticeable number of drivers to use State Route 255 in lieu of driving through the Safety Corridor, as was evidenced in the recorded rise in traffic volumes on State Route 255 (about 20% over 8 years). While the legislation that established the enhanced CHP radar enforcement in the corridor has since expired, it is believed that the presence of the remaining Safety Corridor features (50 mph speed limit, speed radar feedback signs, special signage, etc.) still influences some overall diversion to State Route 255 even to the present day.

2. Upon review of the draft CCC Staff Recommendation document, we make the following comments:

- A. On Page 2, in the second paragraph, the statement is made, *“The project would increase the highway capacity by removing the major impediment to traffic flow along this stretch of Route 101, which is the non-signalized intersections.”*

This statement is flawed for the following reasons:

Per our District 1 Traffic Operations engineering review, the preferred alternative will **NOT** increase the highway capacity. The project is not a capacity-increasing project because the project is not adding additional supply, or travel lanes, to the overall system. When the project is completely constructed, there will be two lanes of northbound traffic and two lanes of southbound traffic the same as it is today. No additional regular free-flowing travel lanes will be added to U.S. 101. The construction of an interchange does not increase the capacity of a highway segment as highway capacity is influenced mostly by supply on the mainline, the total number of lanes. While the interchange will no longer require vehicles entering the highway from the minor streets to have to stop (but will have to yield upon entering U.S. 101) as they will be able to merge onto the highway at the interchange, the interchange will not increase highway capacity on either U.S. 101 or the minor streets. No new additional supply or travel lanes will be added to any of the minor streets or to U.S. 101; therefore, the project cannot be considered to be capacity increasing.

Secondly, the statement erroneously states that the existing unsignalized intersections in this stretch of U.S. 101 are major impediments to traffic flow. Through traffic on mainline U.S. 101 is **NOT** impeded by the unsignalized intersections in the corridor because it is free flowing, with stop sign control only being in place on the minor streets connecting with U.S. 101 in the corridor. The only mainline traffic movement with restrictions are the mainline left turn

movements (which currently experience poor LOS) to the minor streets which require that the left turning vehicles yield to on-coming mainline traffic (traveling in the opposite direction) before completing their maneuver.

- B. On Page 2, in the third paragraph, Coastal Commission Staff recommends that the Commission find that the project does not represent the LEDPA and that the staff believes that a signalized boulevard approach, previously rejected by Caltrans is feasible and less environmentally damaging.

The District 1 Traffic Operations Office does not concur with the assessment that a “signalized boulevard” is feasible or that it is less environmentally damaging for the reasons stated above in Sections 1 of this memo.

- C. On Page 2, in the fifth paragraph, the statement is made that staff recommends the Commission find the project inconsistent with the public access and recreational policies of the Coastal Act because it does not include a separated (by guard rail) bicycle and pedestrian path components.

We do not agree with this statement. There does not seem to be an example elsewhere in the state where the Coastal Commission required an interchange project to construct a separated bicycle/pedestrian facility parallel to an expressway or freeway segment as a condition of issuing a coastal permit. There was no such separated bicycle/pedestrian facility requirement by the Coastal Commission for the recently completed Alton Interchange project at the junction of U.S 101 and State Route 36, south of the City of Fortuna. Collision records in the Eureka-Arcata corridor did not and currently do not indicate a major significant pattern of either bicycle or pedestrian collisions that would indicate a need for creating separated facilities for bicycle/pedestrian traffic within the corridor. In addition, bicycle and pedestrian volumes remain relatively low in comparison to motorized traffic volumes in the corridor, and existing shoulders along the highway provide space for bicyclists and pedestrians to traverse the highway outside of the travel lanes.

A statement was also made indicating that the project will “speed up” traffic and make it less safe for bicyclists and impact the bicycle trips length. This statement is incorrect because the project geometrical improvements, in themselves, will not cause an increase in vehicular speed on U.S. 101. In addition, speed limits are determined in a separate process, which is mandated by the California Vehicle Code and the California Manual on Uniform Traffic Control Devices (CAMUTCD).

While the closure of medians at some intersections may slightly increase bicycle trip length, depending upon the specific origin and destination of each cyclist, overall through trip travel times on mainline U.S. 101 would not increase because

the mainline will remain free flow. The only exception to this would be for northbound mainline traffic having to stop at the Airport Road intersection (controlled by a half signal) during the red phase. Our modeling efforts have indicated that there will be a slight increase in travel time for bicycles on U.S. 101 under the conditions that would be put in place with the preferred project alternative.

- D. On Page 3, in the fourth paragraph, statements are made indicating a belief that the construction of an interchange will be growth inducing by itself, and that it may be inconsistent with Section 30254 of the Coastal Act.

While Caltrans experience, in the Intergovernmental Review (IGR) and encroachment permit review processes, has revealed that developers prefer intersections to have a traffic signal control or be controlled by interchanges, the reality of whether or not adjacent lands will be more likely to be developed after any such improvement are constructed, is dependent upon the particular location and the constraints that impact the ability to develop the adjacent land. Many of the same constraints on this project will also be on any development wanting to develop privately owned parcels within the corridor. A coastal development permit would also be required for private development in the corridor.

We also do not believe that an interchange would be more growth inducing than a “signalized boulevard” would be. It is very likely that a “signalized boulevard” would create more developer interest in the adjacent lands along the corridor because traffic would be forced to stop at each at-grade intersection, a highly desirable access and visibility feature to developers wanting to make it easier to attract customers to the new businesses.

- E. On Page 13, in the last paragraph (continuing to Page 14), the statement is made, *“The key tests to determine whether the proposed Eureka-Arcata 101 Corridor project qualifies as an incidental public service under these historic interpretations, and thus with the above cited cases and applicable findings, are the questions of whether the proposed improvements are ‘necessary to maintain existing traffic capacity’ and whether there is ‘no other alternative’ available that would avoid or reduce wetland impacts. The Commission believes neither of these tests is met in this situation.”*

This statement is incorrect because the “signalized boulevard,” which has been identified as the alternative that Coastal Commission staff prefers, does not avoid or reduce wetland impacts in comparison to the project’s preferred alternative, and all identified alternatives were deemed not viable.

In addition, our modeling has indicated that the “signalized boulevard” alternative would still have poor LOS for all of the left turn movements on the highway and

the minor streets even with the addition of supplemental travel lanes. In reality, the installation of several signals within the corridor would create a decrease of LOS and an increase in delay for all movements on U.S. 101 and the minor streets.

The preferred alternative passes the test as being necessary to maintain existing capacity because the LOS values for the mainline and minor street left turn lane movements continue to worsen as traffic volumes increase with time. The preferred alternative will greatly improve the LOS to the mainline left turn movements and minor streets movements that are reduced because of stop control delay. This improvement to LOS would not increase the overall capacity of the highway but would allow the existing capacities on both the mainline and minor streets to be available for drivers traveling in the corridor. Because the preferred alternative is the LEDPA and the improvements are necessary to maintain existing capacity, the preferred alternative qualifies as an incidental public service.

- F. On Page 14, in the second paragraph, the statement is made that *“the Commission does not agree with Caltrans that the resolution of these operational conflicts by eliminating most of the intersections, which also results in speeding up the flow of traffic, thereby increasing highway capacity...”*

This statement is incorrect for the following reasons: (1) the preferred alternative of the project does not eliminate any intersections. While some intersections will be restricted to right-in/right-out only movements, no intersections will be eliminated, (2) There is no evidence that indicates that traffic flow will be sped up significantly beyond the existing speed limit in the corridor as a result of the project, and (3) The preferred alternative will not increase highway capacity as no new travel lanes are being added to the corridor (The facility will remain a four-lane divided highway.).

- G. On Page 15, in the second paragraph, the statement is made that *“inherently that Caltrans’ solution is one which has the effect of increasing, rather than maintaining, highway capacity. The various intersection closures and increased acceleration and deceleration lanes intended to increase this capacity...”*

This statement is incorrect. The addition or expansion of acceleration and deceleration lanes as part of the preferred alternative of the project does not increase the overall highway capacity of the corridor. The acceleration and deceleration lanes serve only to more safely facilitate merging and diverging traffic (traffic weaving) while helping to maintain existing highway capacity by improving level of service. As also was stated before in Item F above, no intersections will be closed by the project, and the highway will remain a four-

lane divided highway upon completion of the project. The project will not increase the highway capacity of the corridor.

- H. On Page 15, in the fourth paragraph, the statement is made that *“Upgrading the intersections, which are the primary bottlenecks in this stretch of Route 101, from the current LOS E (and projected to be F in 2030) during peak periods, to LOS C will have the effect of increasing highway capacity.”*

This statement is incorrect for the following reasons: (1) The existing intersections in the corridor are stop controlled intersections where mainline highway traffic is free flow (does not have to stop); therefore, the existing intersections are not bottlenecks on the existing highway, and (2) Increasing the LOS to either specific intersection movements or the overall intersection LOS does not increase the overall highway capacity of the corridor. Upgrading or improving the performance of an intersection in the corridor will not increase the highway capacity of U.S. 101 because the facility will remain a four-lane divided highway once the project is completed.

- I. On Page 16, in the second paragraph, the statement is made that *“the proposed project would increase the capacity at the Indianola Road and Highway 101 intersections, and in so doing, the carrying capacity of the Highway 101 corridor itself...”*

This statement is incorrect for the following reasons: (1) While an interchange at U.S. 101 and Indianola Cutoff will better facilitate left turn movements on both the highway and minor street, the overall highway capacity of the U.S. 101 corridor or any of the minor streets connecting to the corridor will not increase. Again, the proposed project is not a capacity-increasing project because it is not increasing the supply by adding additional travel lanes as would be the case if the project would be converting the four-lane divided highway into a six-lane divided highway.

- J. On Page 27, in the second paragraph, the statement is made that *“...It is unfortunate that Caltrans did not include a level of service analysis of a signalized alternative in a manner comparable to the other “build” alternatives did examine in detail, because, for the reasons discussed in the previous section of this staff report, a signalized alternative may be the only alternative (other than the No-Build alternative) that could be found consistent with the allowable use test of the Coastal Act wetlands policy...”*

Regardless of whether or not a detailed LOS analysis was previously performed for a “signalized boulevard” alternative, such an alternative never was and ever will be a very viable alternative due to the following reasons: (1) Additional lanes would be required to make the signalized intersections work at acceptable level of

service which causes this alternative to have greater wetland impact than most of the alternatives identified in the project study report; (2) Not all of the intersections would be viable candidates for traffic signalization due to most not meeting traffic signal warrants; (3) Signalizing the corridor would introduce congestion and delay not currently experienced in the corridor, (4) The spacing between intersections does not allow for very efficient traffic signal coordination, and (5) Signalizing the corridor would not remove the crossing conflicts at each intersection, which has led to numerous occurrences of broadside (right-angle) collisions.

- K. On Page 28, in the fourth paragraph, the statement is made that *“the Commission strongly disagrees with the Caltrans position that adding signals would be growth-inducing, and that the proposed alternative designed specifically to improve traffic flow and accommodating 30% increase in traffic would not. Certainly no evidence has been provided to suggest that signalizing the intersections along this stretch would increase the capacity of U.S. 101.”*

This statement is flawed for the following reasons: (1) Neither adding traffic signals nor installing an interchange would necessarily be growth-inducing within the corridor, by themselves, because of the existing environmental and physical limitations of the privately-owned lands adjacent to U.S. 101. Both types of intersection treatments can potentially encourage growth, but neither can necessarily induce growth unless other factors are in play, such as the presence of privately-owned land that can be feasibly zoned and developed; and (2) Adding additional lanes for a “signalized boulevard” alternative in order to bring level of service of mainline to acceptable levels would not be capacity-increasing. The additional lanes would function only to restore loss of LOS that the traffic signals would cause due to mainline traffic flow transforming from uninterrupted flow to interrupted flow. For both options, the capacity on U.S. 101 would not increase because the facility would basically remain a four-lane divided highway with additional lanes added only to push through hourly traffic past the signalized intersections, six intersections in the case of a “signalized boulevard” alternative and one signalized (half signal) intersection in the case of the preferred alternative, without having uncontrollable traffic queues that would gridlock the corridor during peak periods.

An important thing to note also is that the freeway entering Eureka to the south and the freeway entering Arcata from the U.S. 101 Eureka-Arcata corridor north to the freeway segment in Arcata will remain four-lane freeway segments after the project is constructed, regardless of what alternative is selected. This project will not increase the highway capacity of the existing freeway segments to the south and to the north, nor will it increase the segment highway capacity between the southern and northern freeway segments (U.S. 101 through Eureka and U.S. 101 through the Eureka-Arcata Corridor).

- L. On Page 28, in the fourth paragraph, the statement is made that, *“It is unclear the degree to which signalized intersections would increase greenhouse gas emissions and air quality impacts, and reduce energy efficiency. Caltrans has not provided sufficient analysis to enable any quantification or weighing of this factor against other coastal resource impacts, such as wetland fill. Highway proponents before the Commission have routinely made the argument that building and widening highways is inherently energy efficient because it reduces traffic congestion. The Commission’s experience has generally been that new and widened highways bring growth and attract traffic, to the degree that they eventually reach congestion conditions, thereby minimizing these purported benefits.”*

In response to this statement, (1) Our recent Synchro Version 7.0 analysis of the “signalized boulevard” alternative and the preferred alternative has indicated that about 20% more greenhouse gases would be produced by the “signalized boulevard” alternative as was noted in Section 1B of this document; (2) The preferred alternative of this project will not create a new highway, and the widening that will occur is minimal. While level of service will be improved for left turn movements from the highway and the minor streets, no additional highway capacity will be added. This project is neither a congestion reducing nor a capacity-increasing project.

- M. On Page 29, in the first paragraph, the statement is made that *“the project DEIR/S notes that ‘Pedestrian use on Route 101 is infrequent from Airport Road northward.’ Caltrans has not provided a comparison of pedestrian opportunities and limitations between the proposed project and a signalized alternative.”*

In response to this statement, it should be noted that the preferred alternative would maintain the existing accessibility for pedestrians, while adding an ability for pedestrians to use the overcrossing at the Indianola Cutoff interchange to cross U.S. 101 while being “grade-separated” from mainline traffic, a feature that does not currently exist. The “signalized boulevard” alternative was modeled with a single pedestrian crossing at the Indianola Cutoff intersection as Indianola Cutoff has the highest minor street traffic volume within the corridor. It would not be appropriate to allow pedestrians to cross U.S. 101 at each intersection in the corridor. As was noted earlier in this document, by allowing a pedestrian phase at Indianola Cutoff, traffic on mainline would be required to stop for about 45 seconds every time a pedestrian push button was activated. Also noted earlier in this document, it would not be practical to provide a raised pedestrian refuge island in the median due to speeds on the highway exceeding 45 miles per hour, so pedestrians would have to be given enough time to safely cross both directions of traffic on U.S. 101. Our modeling has indicated that each activated pedestrian phase will cause significant delay for motorists traveling on U.S. 101 through this

intersection. This delay would not exist with the preferred alternative, where pedestrians would be allowed to cross the highway using the grade-separation bridge at the Indianola Cutoff interchange.

- N. On Page 29, in the second paragraph, the statement is made that, *“the Commission finds that while it may entail some degree of wetland fill, a signalized “boulevard” alternative that the Commission staff previously requested Caltrans to consider (in the Commission staff’s DEIR/S comment letter dated Sept. 28, 2007) should be considered the least environmentally damaging feasible alternative. The Commission finds that given the evidence available to date, such an alternative would not increase highway capacity and would be eligible as an allowable use under Section 30233(a) of the Coastal Act. It would also likely involve fewer wetland impacts, fewer visual impacts (compared to the proposed Indianola Interchange), more opportunities to improve non-motorized transit, fewer growth-related concerns, and would be more compatible with the character of the area than the proposed project. The Commission therefore concludes that the proposed project is not the least environmentally damaging feasible alternative and is therefore inconsistent with the alternatives test of Section 30233(a) of the Coastal Act.”*

In response to this statement, we conclude that the “signalized boulevard” alternative is not the LEDPA because it will require the removal of approximately 15 acres of wetland, it will produce more greenhouse gases, and it will require more electrical energy use within the corridor. The “signalized boulevard” alternative would not be as effective in improving safety and would increase congestion rather than reduce it. For the reasons stated in Section 1 and elsewhere in this memo, we disagree with Coastal Commission staff in their assessment that the preferred alternative does not meet the alternatives test of Section 30233 (a) of the Coastal Act.

- O. On Page 37, in the third paragraph, the statement is made, *“Concerns have been raised that the proposed Indianola Interchange would increase traffic capacity in the rural area that surrounds it. This area contains important wetland and agricultural uses and lack sewer and road capacity of more intensive urban (and non-Coastal Act priority) uses.”*

This statement is not correct in that it is impossible for any interchange, by itself, to increase traffic capacity in the area that surrounds it. While an interchange would improve the LOS of left turn movements both from and to U.S. 101, an interchange would not increase the segment highway capacity of either U.S. 101 or Indianola Cutoff.

- P. On Page 40, Provision Item #1 requires Caltrans (1) to *“permanently retain a speed limit of not more than 50 mph in the subject four-mile section of U.S. 101*

and (2) consider coordinated speed controls/reductions on inter-tied corridors (Highway 255 and Old Arcata Road, for example)."

These "mitigation" requirements are not viable options, are beyond the scope of the project, and/or are located on roadways not within the jurisdiction of the State.

The first condition to retain a maximum speed limit of 50 mph cannot be established without proper engineering justification under existing California law if the speed limit is to be enforceable by the CHP or local law enforcement. Per Section 2B.13 of the California Manual on Uniform Traffic Control Devices, 2012 Edition, Paragraph 01: *"Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering and traffic survey (E&TS) that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles."* As conditions will change within the Eureka-Arcata Corridor upon completion of this project, future speed limit requirements will be subject to potential change when future E&TS's are completed for this segment of highway. Future E&TS's could indicate higher or lower speed limits based upon the calculated 85th percentile speed.

The second condition to require the project to consider coordinated speed controls/reductions on inter-tied corridors is well beyond the purpose and need of this project. Also, no segments of State Route 255 or Old Arcata Road are or have ever been included within the project limits.

- Q. On Page 40, Provision Item #2 requires Caltrans to *"install at-grade traffic lights dependent on emerging 'Intelligent Traffic Management Technology' to facilitate optimal flow of traffic..."*

For reasons stated elsewhere in this memo, a "signalized boulevard" is not a feasible project alternative.

- R. On Page 40, Provision Item #3 requires Caltrans to *"install a guard-rail separated bicycle/pedestrian corridor on one or both sides of the highway..."*

This "mitigation" requirement is beyond the purpose and need of this project.

Should you have any questions regarding these comments, please contact me at: 445-6377.

Memorandum

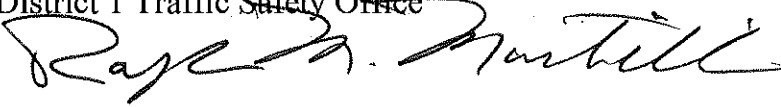
*Flex your power!
Be energy efficient!*

To: KIM R. FLOYD, Project Manager
District 1 Office of Project Management

Date: June 28, 2012

From: RALPH M. MARTINELLI, Chief
District 1 Traffic Safety Office

File: HUM-101-PM 79.8/85.8
EA 01-366000
Eureka-Arcata Corridor
Improvement Project



Subject: **Issue Paper: Safety Analysis of Signalization at Indianola Cutoff/Route 101**

The District 1 Traffic Safety Branch has performed a safety analysis of a full signal at the Route 101 and Indianola Cutoff intersection. Our analysis compared the statewide average number of collisions for 3 alternatives (Interchange, signals, no-build) using average daily traffic (ADT) projected out to the design year of 2040. Also investigated was the existing performance of similar signalized intersections on rural expressways in Northern California. Safety performance information/statistics were also obtained from various research reports, NCHRP Report 500, as well as from traffic engineering professionals in the Caltrans Division of Traffic Operations: Robert Peterson, Branch Chief of the Highway Safety Improvement Program, Craig Copelan, Branch Chief of Traffic Safety Studies, and Thomas Schriber, Traffic Liaison Engineer to Districts 1,7,8, and 9.

BACKGROUND AND HISTORY

Caltrans, in cooperation with Humboldt County Association of Governments (HCAOG) and state and local law enforcement agencies, implemented the Eureka-Arcata Route 101 Safety Corridor as a temporary measure to reduce the high intersection collision rates on the expressway portion of Route 101 between Eureka and Arcata. Although monitoring data at most locations since May 19, 2002 indicates a significant reduction in total, fatal plus injury (F+I), and fatal collisions for the intersections, the Safety Corridor was intended as an interim solution. It has not solved the concern over significantly high total and F+I collision rates at the intersections of greatest concern, Mid-City and Indianola Cutoff. At Mid-City, the total and F+I collision rates are 1.6 and 2.0 times the statewide average, respectively. At Indianola Cutoff, the total and F+I collision rates are 1.9 and 1.7 times the statewide average, respectively.

Since its inception in 2002, the number of collisions has increased on the ancillary routes, SR-255 through the community of Manila and Old Arcata Road. Traffic volumes have increased by 20% over eight years on SR-255, while decreasing slightly on Old Arcata Road. As noted above, the collision rates at Mid-City and Indianola Cutoff remain higher

than the statewide average while the at-grade intersections within the corridor remain open to uncontrolled cross-median traffic. Together with HCAOG, it is the intent of Caltrans to develop and maintain a safe and efficient transportation facility that includes improvements utilizing the latest design standards.

Route 101 Corridor improvements between Eureka and Arcata have historically been an important priority of both Caltrans and HCAOG. In response to HCAOG, Caltrans developed a Project Study Report (PSR), which documented the existing and projected future needs and began the alternative development process that would identify strategies to improve safety and highway operations within the Route 101 corridor. In addition, an iterative value analysis (VA) process and a Supplemental PSR were completed to further develop the range of project alternatives. In May 2003 the two build and the No-Build Alternatives were presented to the public. At that time, a group of individuals representing businesses within the Route 101 corridor made presentations to HCAOG regarding concerns about adverse impacts to their businesses as a result of median closures. Consequently, HCAOG requested Caltrans to evaluate alternatives that included signalization of Route 101 at Airport Road. Thus, a third build alternative was developed, which consists of the same project elements as Alternative 2 but with an addition of a signal at Airport Road.

Alternatives generated by the PSR and VA process also must meet the requirements of the NEPA/404 Integration Memorandum of Understanding (MOU). This MOU requires that Caltrans and the FHWA obtain formal concurrence from various federal agencies on the stated need and purpose of the project as well as the range of alternatives developed. The project need stated in the April 2006 concurrence request letter is to reduce the number of injury and fatal collisions at intersections along the corridor. These at-grade intersections have been the site of numerous collisions resulting in property damage, serious injuries and fatalities. The primary purpose stated is to improve safety by improving how traffic enters and exits U.S. 101 at intersections along the corridor. The signatory agencies have provided their concurrence on the current range of alternatives, which includes Alternatives 1 through Mod 3A and the No-Build.

PREFERRED ALTERNATIVE

Modified Alternative 3A was approved as the Preferred Alternative by HCAOG in June 2009. In general, it includes:

- Half-signal at Airport Road, stopping northbound 101 traffic only, and providing for southbound and westbound left-turns.
- Construct compact diamond interchange at Indianola Cutoff, with steepened slopes (1.5:1) and narrower median (22').
- Close median crossings at Mid-City Motors, Arcata Redwood, Bracut, and Bayside Cutoff intersections.
- Lengthen right side acceleration and decelerations lanes at each of the existing access locations (except Airport Road).

- Construct a third northbound lane from Cole Avenue to Mid-City Motors.

Modified Alternative 3A meets the Safety Conformance Criteria defined for the project.

COMPARISON OF STATEWIDE AVERAGE NUMBER OF COLLISIONS: Interchange, Signals, and No-build

Statewide average collision rates were calculated using highway segment, intersection, and ramp rate groups, base rates, and ADT factors as specified in Highway Safety Improvement Program (HSIP) Guidelines, dated 12/22/09. Statewide average rates, when multiplied by a projected yearly vehicle travel, yield the statewide average number of collisions per year for that facility. Table 1 below contains the number of collisions for the 3 alternatives at Indianola Cutoff: Interchange, Signal, and No-build.

**TABLE 1- Comparison of Statewide Average Number of Collisions for
Indianola Cutoff**
(Design Year 2040, Projected Mainline ADT 51,700 VPD)

Alternative	Number of Collisions Per Year			
	Total	Fatal	Injury	F+I
Interchange	10.81	0.09	3.47	3.56
Signal	19.64	0.18	7.18	7.37
No-build	16.56	0.16	5.99	6.15

Conclusions:

- For Total collisions per year, an interchange will have 55% the number of a signalized intersection.
- For F+I collisions per year, an interchange will have 48% the number of a signalized intersection.
- For Fatal collisions per year, an interchange will have 50% the number of a signalized intersection.
- From a collision standpoint, the No-build will have fewer collisions than the signal alternative.

PERFORMANCE OF EXISTING LOCATIONS IN NORTHERN CALIFORNIA

For comparison only, the performances of eleven northern California signalized intersections were surveyed. The intersections were selected to be comparable in terms of traffic volumes, approach conditions and roadside environments. Following are the results:

Table 2							
Collision Rates 1/01/2006 Through 12/31/2010 Signalized Intersections on Various Routes in District 3 Facility Type: 4-Lane Rnral Expressway							
Intersection	County	Rte	PM	Severity	Collision Rates ¹		
					Actual	State Avg	% of State Avg
Township Road (1 st signal EB) ²	Sutter	20	12.670	Fatal	0.000	0.005	0 %
				Fatal + Injury	0.32	0.22	145 %
				Total	0.64	0.60	107 %
George Washington Blvd	Sutter	20	13.600	Fatal	0.000	0.002	0 %
				Fatal + Injury	0.29	0.19	153 %
				Total	0.51	0.55	93 %
Harter Road	Sutter	20	14.470	Fatal	0.000	0.002	0 %
				Fatal + Injury	0.17	0.11	155 %
				Total	0.21	0.30	70 %
Sunset Blvd	Placer	65	R9.569	Fatal	0.000	0.005	0 %
				Fatal + Injury	0.33	0.22	150 %
				Total	1.05	0.60	175 %
Elverta Road (1 st signal NB) ²	Sacto	99	35.370	Fatal	0.013	0.005	260 %
				Fatal + Injury	0.25	0.22	114 %
				Total	0.64	0.60	107 %
Riego Road	Sutter	99	0.950	Fatal	0.000	0.005	0 %
				Fatal + Injury	0.28	0.22	127 %
				Total	0.56	0.60	93 %
Barry Road (1 st signal NB) ²	Sutter	99	26.120	Fatal	0.028	0.002	1400 %
				Fatal + Injury	0.30	0.19	158 %
				Total	0.39	0.55	71 %
Bogue Road	Sutter	99	27.650	Fatal	0.000	0.002	0 %
				Fatal + Injury	0.44	0.19	232 %
				Total	0.96	0.55	175 %
Lincoln Road	Sutter	99	28.670	Fatal	0.016	0.002	800 %
				Fatal + Injury	0.25	0.19	132 %
				Total	0.90	0.55	164 %
Estates Drive (1 st signal NB) ²	Butte	99	28.360	Fatal	0.000	0.003	0 %
				Fatal + Injury	0.20	0.11	182 %
				Total	0.34	0.30	113 %
Entler/ Southgate	Butte	99	29.367	Fatal	0.000	0.005	0 %
				Fatal + Injury	0.14	0.22	64 %
				Total	0.38	0.60	63 %

Notes: 1. Collisions per million vehicles. Reference Traffic Accident Surveillance and Analysis System (TASAS) Table B Selective Accident Rate Calculations for intersection locations.

2. "1st signal ..." means it is the first signalized intersection in a series of multiple signals after a significant length of uncontrolled high-speed freeway or expressway. The first signal in a series has the highest

approach speeds and could be a surprise to a driver who is not noticing the advance warning systems in place.

Conclusions:

- First signals (i.e., Isolated signals) all have higher F+I rates than expected.
- 2 of 3 high fatal rate locations are first signals. The 3rd location (Lincoln Road) has ADT comparable to Indianola.
- Highway segments with multiple signalized intersections experience high levels of injury accidents.

COLLISION REDUCTION STRATEGIES, TREATMENTS AND COUNTERMEASURES

To achieve the Safety Conformance Criteria defined for the project, i.e. the reduction in severity of collisions in the Eureka-Arcata Safety Corridor, careful application of additional safety strategies for a signal at Indianola Cutoff would need to be added to the scope of work. Many of these features exist at the signalized intersections identified in Table 2, yet still the safety performance is degraded.

In general, there are three main areas where reduction in fatalities and injuries from collisions at signalized intersections may be achieved:

- Sound Traffic Engineering
- Sustained and Effective Education and Enforcement Measures
- Well-designed facilities

Sound Traffic Engineering--The following excerpt from FHWA's *Signalized Intersections: Informational Guide* (FHWA-HRT-04-091) summarizes the key concept of using traffic engineering to provide drivers with effective warning to reduce collision rates: "Approaches are critical components of a signalized intersection. It should be obvious to someone approaching by motor vehicle, bicycle, or on foot that an intersection is ahead, and the traffic control device is a traffic signal. Adequate signing and pavement marking is required to provide the driver with sufficient information to determine the appropriate lane to choose and direction to travel. The pavement on the approaches should provide the driver with a smooth, skid-resistant surface, with adequate drainage. The approaches ideally should meet at right angles and should be at grade and free of unnecessary clutter and obstacles. Sight distance for all approaches should be adequate for drivers proceeding through the intersection, particularly those making a left turn."

The following list of approach treatments is indicative of the many strategies, treatments and countermeasures that would need to be considered in order to encourage successful safety performance of a signal at Indianola Cutoff:

- Provide Advance Warning. These systems are recommended by the MUTCD in cases where the primary traffic control is not visible from a sufficient distance to permit the driver to respond to the signal. Advance warning devices may be an effective countermeasure for: a) rear-end collisions where a driver appears to have stopped suddenly to avoid running a red light and was struck from behind, b) angle collisions caused by inadvertent red light running, and c) queues from a red signal occurring at a location where approaching traffic cannot see it because of a vertical or horizontal curve.

There are two main types of treatments used to provide advance warning to motorists approaching a signalized intersection. There are those that provide a general warning of a signalized intersection ahead, and those that provide a specific warning of downstream signal status or traffic conditions ahead. Of the first type, typical measures used are static signs and pavement markings ("Signal Ahead"), and continuous flashing beacons with signs that may read "Be Prepared to Stop." Radar-feedback and other interactive dynamic signs may also be included.

The more specific type of warning may be activated showing yellow flashing lights or illuminating an otherwise blank changeable message such as "Red Signal Ahead" for several seconds. The sign and the flashers are placed a certain distance from the limit line as determined by the speed limit on the approach.

Another type of potentially effective specific advance warning safety application available is the Queue Detection System. An excerpt from the 2004 NCHRP Report 500 – Vol. 12: *"A Guide for Reducing Collisions at Signalized Intersections"* describes one such system that has been successfully used in Oregon: "Two loop detectors in each lane on the intersection approach detect when a vehicle is stopped at that location. The detectors are connected to an overhead sign with beacons located a half mile upstream. The sign contains the message 'Prepare to Stop When Lights Flash.' When a vehicle is continuously present at a detector, beacons on the overhead sign flash to warn drivers of the stopped vehicle ahead. A preliminary evaluation indicates a reduction in crashes after installation of this system, but additional data are needed to determine if other factors contributed to this decrease. For additional information on this system, refer to the FHWA report *Safety Applications of ITS in Rural Areas*, (Federal Highway Administration, 2002), available online at http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/5_1_1.htm."

Sustained and Effective Education and Enforcement Measures--

1. Education and enforcement programs to increase safety belt usage and decrease drinking and driving, aggressive driving or speeding may help to reduce severe collisions at the intersection. Several enforcement countermeasures that may be effective are:
 - Traditional law enforcement presence.
 - Warning signs for red light and grid-lock vehicle code violations (“\$270 fine for violations”)
 - Red light camera enforcement, if publicly acceptable.
2. The principles of Human Factors and Positive Guidance can be applied to increase safety at signalized intersections. Much of the previous discussion overlaps with these two principles. A fundamental premise of human factors is that insufficient, conflicting or surprising information reduces both the speed and accuracy of human response. Positive guidance is founded on the following concept, from Chapter 2 of FHWA’s *Signalized Intersections: Informational Guide*: “...if drivers are provided with all of the information they need, in a format they can readily read, interpret and apply, and in sufficient time to react appropriately, then the chances of driver error will be reduced, and relative safety will be improved.”

Well-designed Facilities--

Preliminary design features and operational characteristics of a signal at Indianola Cutoff are included in separate analyses prepared by North Region Design and District 1 Traffic Operations for a boulevard with signals at 6 existing intersections between Eureka and Arcata. Included are descriptions of lane configurations, roadway widths, wetland impacts, signal phasing, and signal head placement.

MISCELLANEOUS DISADVANTAGES OF SIGNALIZATION

- Signalization would result in increased corridor travel time with resulting diversion to parallel roadways. Potentially, SR-255 could experience a surge of volume increase similar to that following implementation of the Safety Corridor in 2002. (There was an initial 30% increase in volumes on SR-255, as documented in the Safety Corridor monitoring reports to HCAOG.)
- While signal controlled intersections have been demonstrated to reduce the total number of broadside collisions (while at the same time increasing the number of rear-enders), the potential for broadside collisions is not eliminated because prevention still requires driver compliance to traffic signal commands.

- The location of Indianola Cutoff near Humboldt Bay is prone to adverse atmospheric conditions such as dense fog and heavy rain, which can degrade visual signal warning systems and impair motorists' response.
- By adding an isolated signal at Indianola Cutoff, in addition to the half signal planned at Airport Road, there is the expectation that the phenomenon of habituation will leave motorists less aware of a single and specific potential conflict, and reduce the effectiveness of warning systems, and increase the potential for collisions.
- Bicycle access through the signal would be problematic. Both westbound to southbound and southbound to eastbound moves by bikes would require crossing mainline through lanes to access left-turn channelization and may be perilous and disruptive to the mainline traffic stream. Northbound through movements for bikes would conflict with right turning vehicles and merging vehicles turning onto northbound 101 from Indianola Cutoff.
- Pedestrians are not prohibited on this expressway. Their presence will likely cause more red signal time for mainline creating longer queues and the potential for rear-end collisions or traffic diverting to SR-255 and Old Arcata Road.
- Multiple safety studies have shown that signalized intersections have higher collision rates than stop-controlled intersections (the No-build Alternative). See References 1-3.
- An excerpt from the NCHRP Report 500, Volume 5, "A Guide for Addressing Unsignalized Intersection Collisions" states that: "Experience shows that intersection collision rates frequently increase with signal installation, although the collisions may be less severe. Signalization usually leads to a shift in collision type, with fewer angle/turning collisions and more rear-end collisions." The report goes on to state: "Signalization should be avoided where practical". See reference 4.
- Collision problems are created by unexpected traffic signals on high-speed rural expressways. See reference 5.
- There is increased frequency and severity of collisions involving trucks at intersections controlled by signals. See reference 6.
- Exhibits in NCHRP Report 500, Volume 12, "A Guide for Reducing Collisions at Signalized Intersections" contains the following statistics:
 - 29% of fatal intersection collisions occurred at signalized intersections
 - 59% of fatal collisions at signalized intersections involve angle collisions with other vehicles (meaning one of the vehicles ran the red light)
 - there is little difference in severity distribution of collisions (fatal, injury, PDO) between signalized and stop-controlled intersections. See reference 7.

CONCLUSIONS

Signals are not an appropriate traffic control system for an isolated intersection on a rural expressway with high traffic volumes.

Since there is a well documented, continuing safety problem at Indianola Cutoff, collision projections and existing poor performance of similar facilities prove that installing a traffic signal there would not solve the problem. A grade separated interchange will.

Research studies document that signalization increases collision rates and creates problems rather than solving them for isolated locations on high-speed rural expressways. For these reasons, signalization should be avoided where practical.

Additional collision reduction strategies, treatments, and countermeasures for a signal at Indianola Cutoff would need to be added to the scope of work, thereby increasing costs. Many of these features exist at the signalized intersections identified in Table 2, yet still the safety performance is degraded. In addition, advanced warning features such as signs and flashing beacons will likely degrade the aesthetics along Humboldt Bay.

The suggestion of a signalized boulevard is not supported by this office. Many of the disadvantages stated above for an isolated signal at Indianola Cutoff (diversion, broadside collision potential, adverse weather impacts, warning system habituation, bicycle and pedestrian complications, and overall increased collision potential) apply to the idea of multiple signals through the corridor. In addition, the 1st signal condition described on page 5 would still exist for southbound traffic entering the boulevard from the freeway segment of U.S. 101.

If you have any questions or concerns, please contact me at 707-445-6376 or Bob Kornman of my staff at the District 1 Traffic Safety Office, 707-445-6578.

References:

1. David, N.A. and Norman J.R.; "Motor Vehicle Accidents in Relation to Geometric and Traffic Features of Highway Intersections, Volume II—Research Report", Report No. FHWA-RD-76-129, FHWA, 1979
2. Hanna, J.T., Flynn, T.E., and Tyler W.L.; "Characteristics of Intersection Accidents in Rural Municipalities", Transportation Research Board Record 601, 1976
3. Van Maren, P.A.; "Correlation of Design and Control Characteristics with Accidents at Rural Multi-lane Highway Intersections in Indiana", Purdue University, Joint Highway Research Project, July 1980

4. Neuman, T.R., Pfefer, R., and Slack, K.L.; National Cooperative Highway Research Program (NCHRP) Report 500, Volume 5, "A Guide for Addressing Unsignalized Intersection Collisions", Transportation Research Board, 2003
5. Eck, R.W. and Sabra, Z.A.; "Accident Countermeasures at High-Speed Signalized Intersections, Phase I—Synthesis of Practice", Department of Civil Engineering, West Virginia University, August 1984
6. Agent, K.R.; "Results of Study: Traffic Control and Accidents at Rural, High-speed Intersections", University of Kentucky, 1987
7. Neuman, T.R., Pfefer, R., and Slack, K.L.; NCHRP Report 500, Volume 12, "A Guide for Reducing Collisions at Signalized Intersections", Transportation Research Board, 2004

REK/RMM:rek

c:

1. MLSuchanek
2. RMMartinelli
3. REKornman
4. File

1. TAArseneau
2. ESBrunton

1. LRAshley
2. TRLark

Memorandum

*Flex your power!
Be energy efficient!*

To: KIM FLOYD
Project Manager
District 1

Date: June 14, 2013

File: Hum 101
PM 79.8/84.9
Eureka/Arcata Corr.

From: TROY ARSENEAU
Chief, Office of Traffic Operations
District 1

Subject: Traffic Analysis of Two Signal Corridor Scenario

At your request, the District 1 Office of Traffic Operations has performed traffic analysis (requested by the California Coastal Commission) for a two signal scenario in the Eureka-Arcata Corridor for both the anticipated opening day (2018) and the design year (2038). The particulars of this scenario are as follows:

- Full traffic signalization of Indianola Cutoff
- Half signalization of Airport Road (southbound U.S. 101 through, free flow)
- All other corridor intersections with closed medians (right in/out only access)
- Scenarios with and without a 4th northbound through lane on U.S. 101
- Scenarios with and without dual (two) left turn lanes on U.S. 101 and on Indianola Cutoff at the Indianola Cutoff intersection

Traffic Operations performed this analysis using Synchro v8 / SimTraffic v8 and Highway Capacity 2010 Software.

Please refer to Attachment 1 for a summary table of the Level of Service (LOS) and volume to capacity (v/c) ratios for the opening day and design year scenarios in the AM and PM peak periods. Please refer to Attachment 2 for the traffic volume information requested for U.S. 101.

We have listed the volume to capacity ratios in our results table to demonstrate the level of added congestion that signalization at Indianola Cutoff would immediately produce for traffic traveling through the Eureka-Arcata Corridor. We believe that the Indianola

Cutoff intersection is at the volume threshold of where signalization is no longer a practical intersection treatment due to the heavy through and left turn volumes on U.S. 101 and the heavy westbound left turns on Indianola Cutoff during peak periods. While a signal system can be installed with the required additional lanes to optimize the signal timing, such an installation would change the nature of the traffic flow through the corridor transforming it from a rural uninterrupted traffic flow environment to an urban-like interrupted traffic flow environment, due to the levels of traffic delay that will be added to the corridor beginning from Day One when the traffic signals are turned on at Indianola.

The volume to capacity ratio is defined by the Highway Capacity Manual 2010 as: “the ratio of flow rate to capacity of a system element.” In other words, it is the percentage of available lane capacity being used by traffic. A v/c ratio greater than 1.0 means that the system is over capacity and has heavy congestion. In a signalized system, traffic that has $v/c > 1.0$ is severely delayed as vehicles have to wait more than one cycle length to make it past the intersection (cycle failure), and severe traffic queues (back ups) develop, further compounding the congestion problem. A v/c ratio between 0.75 and 1.0 indicates heavy congestion, and a v/c ratio between 0.5 and 0.75 indicates a moderate level of congestion. Below 0.5 indicates zero to low congestion.

Opening Day (2018)

Our analysis for an opening day scenario in 2018 indicated that four northbound U.S. 101 lanes, three southbound U.S. 101 through lanes, two southbound U.S. 101 left turn lanes, and two westbound Indianola Cutoff left turn lanes would be required to optimize the performance of a traffic signal at the intersection of U.S. 101 and Indianola Cutoff.

If only three northbound lanes, one southbound left turn lane, and one westbound left turn lane are provided at Indianola, traffic flow in all directions would experience added and undesirable congestion as the traffic signal timing could not be fully optimized to serve the most traffic per cycle length. The v/c ratios for the northbound through and the southbound left turn movements would be approximately 0.78 and 1.40, respectively. The southbound left turn traffic would be severely delayed, requiring two or more cycle lengths to clear the traffic queue in the left turn lane and there would likely be traffic backup spilling into the adjacent southbound through lane as well during peak periods.

Under the same lane restrictions above, the northbound through movement and the southbound left turn movement would have LOS C and LOS F, respectively. Our

modeling effort reinforced the fact, discovered in prior traffic analysis performed by our office, that a fourth northbound through lane, second southbound left turn lane, and second westbound turn lane would be required at Indianola Cutoff in order to make the traffic signal timing as efficient as possible on opening day, minimizing delay experienced by the traveling public.

Design Year (2038)

Our analysis for the design year scenario in 2038 further confirmed that even with four northbound through, three southbound through, two southbound left turn lanes, and two westbound left turn lanes, a signalized intersection at Indianola would function very poorly, indicating a need for a more advanced traffic control treatment than can be provided by traffic signals.

In the design year, the worst traffic movement affected by the signalization of Indianola Cutoff would be the southbound left turn movement as is the case with the opening day. Even with three southbound left turn lanes, our modeling indicated that southbound left turning vehicles stopping during red time at the intersection would not be all served during one cycle length, with several vehicles being required to wait for a second or even third signal cycle before they could make it past the intersection during green time. If green time for the southbound left turn movement is increased to better serve these vehicles, the modeling indicated that the northbound through movement would experience more traffic queuing (traffic backups) and have LOS E or worse.

Our modeling indicated that the two southbound left turn lanes would need to be a minimum of 750 feet in length in order to keep traffic from backing up into the adjacent southbound through lanes.

Airport Road Half Signal

Our analysis indicated that the half signal at Airport Road would work satisfactory on opening day and at the design year regardless of whether or not a fourth northbound or second southbound left turn lane at Indianola Cutoff were included, with the exception of the westbound left turn movement from Airport Road which is expected to cause intersection signal failure 10-20 years after opening day, necessitating the likely future restriction of westbound left turns out of Airport Road.

Conclusion

In summary, even by providing four northbound through, three southbound through, two southbound left turn lanes, and two westbound left turn lanes at the Indianola Cutoff intersection, which would maximize the efficiency of the traffic signal timing, operational performance would not be at acceptable levels for the design year in 2038, confirming that signalizing Indianola Cutoff is not a viable option for the Eureka-Arcata Corridor. Due to the high level of traffic volumes present in the corridor, a more advanced intersection treatment is required to adequately facilitate traffic through the corridor. For this very reason, a signalized alternative at Indianola Cutoff was eliminated from consideration years ago in the project development process.

A traffic signal at Indianola Cutoff would immediately introduce added congestion to the U.S. 101 corridor between Eureka and Arcata on opening day even if additional lanes were provided to optimize the intersection's signal performance.

Additional lanes are often needed when traffic signals are being installed at an intersection because vehicles need to be “stored” and separated while being required to stop during red time. More importantly, extra lanes are needed to “push through” as many vehicles as possible during green time. Vehicles that cannot make it through the intersection during the green time given to them in a cycle length need to wait until the next cycle before they are given green time again. The additional lanes allow traffic to pass through the intersection side by side during green time, resulting in the green time serving more vehicles. Since each cycle length is a finite period of time, only so much green time can be allocated to each phase of a cycle. Cycle lengths typically vary from 1 to 2 minutes, depending on the specific location and can be longer in some cases. When vehicular demand exceeds the amount of traffic that can be served during the green time, cycle failure occurs resulting in increased backups on the roadway.

Interchanges do not require traffic to stop and wait for the next available green time as is the case with signalized intersections. For this reason, additional lanes are usually not needed on four lane (two lanes in each direction) divided highway/expressway/freeway segments when interchanges are added, unless traffic volume and weaving movement levels on the mainline require it to alleviate congestion.

c: Mark Suchanek, Matt Brady, Todd Lark, Eric Brunton

TAA:taa/esb

Attachment 1 – Results of Operational Analysis of Two- Signal Scenario

Full Signalization at Indianola, 4 NBT, 3 SBT, 2 SBL, 2 WBL (optimized)									
		2018				2038			
Time		NBT	SBT	SBL	WBL	NBT	SBT	SBL	WBL
7-8 AM	LOS	C	A	F	D	C	B	F	D
	V/C	.73	.60	.94	.28	.90	.80	1.15	.33
4-5 PM	LOS	C	A	F	D	C	B	F	D
	V/C	.94	.60	1.41	.31	.97	.76	1.93	.43
Full Signalization at Indianola, 3 NBT, 3 SBT, 1 SBL , 1 WBL (optimized)									
		2018				2038			
Time		NBT	SBT	SBL	WBL	NBT	SBT	SBL	WBL
7-8 AM	LOS	C	B	F	D	C	B	F	D
	V/C	.78	.66	.87	.45	.90	.80	1.21	.56
4-5 PM	LOS	F	B	F	F	F	B	F	F
	V/C	1.02	.73	1.40	1.02	1.44	.89	1.73	1.25

KEY:

NB=northbound

SB=southbound

WB=westbound

T=through lane

L=left turn lane

1, 2, 3, 4 =indicates number of lanes

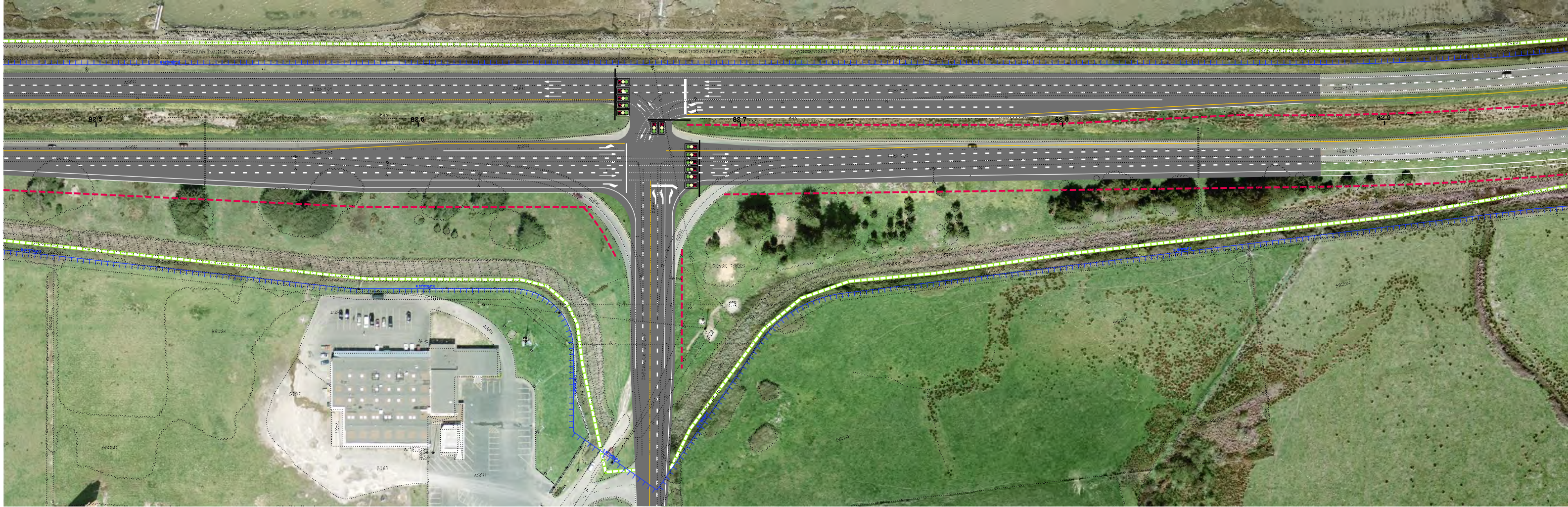
For example: 4 NBT means "4 northbound through lanes"

LOS=Level of Service

v/c=Volume to Capacity Ratio (v/c > 1.0 indicates over capacity)

2018 is opening day year

2038 is design year



EL Wahl

CALTRANS RESPONSE TO TJKM TRAFFIC STUDY RE: WALMART AT INDIANOLA ROAD.
1-Hum-101-82.67

April 1, 1993

TRAFFIC STUDY:

The traffic study acknowledges that the recommended signal is a short-term solution for the Route 101/Indianola intersection. The study suggests signalization should be undertaken as an interim solution along with a commitment that an interchange be constructed within 8 to 9 years. Caltrans cannot commit to an interchange at that location, given the lack of state funds for interchanges to support local development, the limited potential opportunities for local contribution (few parcels zoned for commercial/industrial use in Indianola vicinity), and environmental constraints (wetlands), and physical constraints (railroad).

The traffic study seemed to have acceptable trip generation rates, although it should have included Saturday trip data and data for trips from a fast food business to be located on the out-parcel (as described by the project applicant at the 12/21/92 meeting). Since the traffic study did not make pass-by trip reduction calculations, it errs on the side of caution. The traffic study needs to address impacts to other intersections, such as Bayside Cutoff, Bracut, Mid City Motor World, and Jacobs Avenue. The traffic growth should include growth on Old Arcata Road/Myrtle Avenue in addition to the growth for through traffic on Route 101 (the latter was provided in the traffic study). Since the WalMart project could be growth-inducing, it should be considered jointly by the Cities of Arcata, Eureka, Humboldt County as well as Caltrans.

The traffic study Level of Service (LOS) analysis is for two different facility types, an expressway and a signalized intersection, which are not really comparable. The LOS on turning moves is not a priority to Caltrans. Our priority concerns through traffic LOS.

The traffic study provides a minimal look at the range of alternatives for mitigation purposes. We had previously suggested that the traffic study evaluate alternatives to signalization. The study dismisses an interchange as an alternative "due to funding constraints and the lead time to obtain funding and complete approval...".

SIGNALIZATION:

Pros:

- Some volume warrants may be met
- Would improve flow of cross-traffic
- May provide gaps in traffic flow to improve merges from adjacent intersections

EXHIBIT 19
CC-016-13
Caltrans "Walmart"
Memo

Page 2

April 1, 1993

File: 1-Hum-101-82.67, Indianola WalMart

Cons:

- Long-term need for interchange or grade separation
 - Lack of State funds for interchanges to serve development
 - Environmental constraints
 - Physical constraints
 - Limited local or developer participation (only a few developable parcels zoned for commercial/industrial uses)
- Increased volumes at the intersection (maybe)
- Delay for through traffic
- Possible increase in total accidents
- Sets precedent for signals at adjacent intersections
- Could cause queuing at V St.
- County Public Works is opposed to signalization

There is not a strong reception at Caltrans concerning the idea of signals. Installing a signal at Indianola Road would convert the expressway between Eureka and Arcata to an urban arterial street, which would not be consistent with the concept of freeway/expressway for an inter-regional road and would not likely be well received by the public. A signal would cause delays for through traffic. Caltrans would want to hear from the public before allowing a signal.

If accident/operational problems were to occur at that intersection, independent of any new development, Caltrans would consider closing the median before installing signals. A signal at that intersection raises concerns about safety, given fog conditions that prevail. Accident rates may stay the same, but the type of accident would change from broad-side to rear-enders. There is not enough of an accident history at this intersection to qualify as a safety project. The overall accident rate is 0.24 actual versus 0.25 expected. The actual fatal plus injury accident rate is 0.15 versus the 0.10 expected rate. During the last 5 years, there has been 1 fatality and 8 injuries. The fatality rate is .016 actual and .004 expected.

POSSIBLE ALTERNATIVES:


- Interchange
- Close median at Indianola and/or at adjacent intersections; closing median at Indianola/Route 101 was discussed in the traffic study
- Elevate north-bound lanes
 - could include Caltrans participation
 - Caltrans could provide a range of costs
- Purchase land (corridor preservation for future interchange, to tie into future Eureka freeway or for wetland mitigation banking)
- Install signal for northbound only and create a long merge for west-bound to south-bound

Memorandum

To 1-RSKnapp
2-CSWillis
File

Date June 24, 1993

File No. Indianola WalMart
1-Hum-101-82.67

From :  DEPARTMENT OF TRANSPORTATION District 1
Linda Goff Evans, Associate Transportation Planner

Subject CALTRANS RESPONSE TO TJKM TRAFFIC STUDY RE: WALMART AT INDIANOLA ROAD.

On April 8, 1993 at 2:30 p.m., the following people met to discuss the TJKM traffic study for a proposed Walmart/Sam's Club at Indianola: Jerry Haynes, Rick Knapp, Jim Graham, and Linda Evans from Caltrans; Dan Moody, Gary Boughton and John Arnold from the City of Eureka; Don Raffaelli and Peter Rei from Humboldt County Public Works; Steve Weinberger from TJKM traffic consulting; Craig Eisenberg and Scott Spier from Eisenberg Co. representing Wal-Mart.

The purpose of our meeting was to convey Caltrans' position in response to the TJKM traffic study recommendations, in particular our position on signalization of the Indianola Cutoff/Route 101 intersection.

Caltrans distributed a copy of a draft letter response to Gary Boughton, Acting City Engineer, which described many of our concerns.

Steve Weinberger described the rationale for the signalization proposal and described a similar signal in Sonoma County on Route 12 west of Route 101 at Stony Point Road, between Santa Rosa and Sebastopol. Steve said that the signal has been in and operating sufficiently for 7 or 8 years.

Rick Knapp indicated the differences between the Route 12 signal and the proposed Route 101 signal. Since Route 101 is an inter-regional road, with a concept of freeway/expressway, it does not really compare. Also, the traffic study indicated that the signal would not work well after just a few years due to the volumes that would have to be handled.

Gary Boughton said with the water treatment plant to be constructed at the source of withdrawal, the City expects to see some growth. The City has a water transmission line that will extend south to Eureka along Old Arcata Road.

Don Raffaelli asked about the CTC policy concerning growth-related impacts and cost sharing. Rick responded that the CTC is looking to developers to pay for development generated impacts. However, the CTC is looking more favorably toward funding projects where there is local

contribution/funding from development impact fees.

Craig Eisenberg stated that Wal-Mart wants to proceed in stages with the signal at the beginning, and to look for local participation or other funding sources to finance an interchange in 6 or 7 years when the traffic study projected the need to arise.

Rick stated that signals at Indianola would be precedent-setting in that other intersections along that reach of highway (Jacobs Ave., Mid City, ARCO, Bracut, Bayside Cutoff) would also want signals. Our highest priority is to provide for the through traffic. Jerry Haynes stated that there would be queuing from signals, delays for northbound traffic, and a probable increase in rear-end accidents. If a full interchange would be necessary in the future, the project site is the only logical place to put one due to environmental conflicts with wetlands, Humboldt Bay and physical conflicts with the railroad.

Don Raffaelli reaffirmed the County's opposition to signals at Indianola. He said it would result in a change in functional classification and a reduction in LOS. He stressed the need for local participation in order to finance any highway improvements.

Jerry Haynes said that Caltrans has not studied the possibility of an interchange at this location. However, an interim solution was discussed that would involve elevating the grade of the north-bound lanes at a cost of approximately \$4.5 million (70 mph design speed; 3400' end to end; 15' vertical clearance). Rick indicated that the District is limited on discretionary funds to \$300,000 on any one project. For higher dollar amounts, it would take CTC action.

Craig Eisenberg expressed interest in exploring the feasibility of the partial interchange. He asked about funding options, whether bonds could be made available, whether the business area could be extended. Steve Weinberger asked if an interim signal would be allowed if a serious proposal came forth on the partial interchange. The meeting concluded with the understanding that Eisenberg Co. would be investigating the feasibility of a partial interchange and would bring back a proposal for Wal-Mart.

cc: ELWahl
JGHaynes
MDVanZandt
AOSauls
FULulani
MLSuchanek
GKLuther
1-JEGraham
2-JDTatum
3-SShipman

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ROUTE 101 RCR

PROGRAMMED IMPROVEMENTS

Table III below is a listing of programmed improvements on Route 101 in the 2000 State Transportation Improvement Program (STIP).

TABLE III
2000 STIP PROGRAMMED CAPACITY INCREASING IMPROVEMENTS

POST MILE	IMPROVEMENT	Construction Schedule To Begin	Programmed Cost in 2000 Dollars ¹⁰
MEN-101-PM 5.7/9.2	South Hopland Unit III, four-lane Expressway - 3.4 mi.	Under construction	\$ 16,668,000
MEN-101-PM 8.8/13.0 & MEN-101-PM 13.6/17.6	Hopland Bypass and North Hopland, four-lane Freeway/Expressway (PDS only) 8.8 mi.	PDS only*	\$ 7,200,000
MEN-101-PM T43./52.3	Willits Bypass, four-lane Freeway - 7.8 mi.	2004/05**	\$ 130,000,000
HUM-101-PM 57.0/58.8	Rtes 101/ 36 Interchange and Frontage Roads 1.8 mi.	2005/06 ^x	\$ 4,795,000
HUM-101-PM 79.8/85.8	Eureka/Arcata Corridor Improvements	2008/09	\$ 2,613,000
DN-101-PM R27.5/27.9	Washington Blvd., Freeway Ramp - 0.4 mi.	2001/02	\$ 3,374,000
Programmed cost includes Right of Way, except for PDS only projects. * PDS = project development support, the project is funded through Project Approval and Environmental Document. ** includes funds for construction and R/W only ^x - does not include construction dollars			

In addition to projects programmed in the STIP, nearly 17 projects on Route 101 are programmed in the State Highway Operation and Protection Program (SHOPP) at a cost of approximately \$80 million. These projects generally address safety, rehabilitation, bridge replacement and operational concerns.

V. ENVIRONMENTAL CONSIDERATIONS

Principal environmental concerns along Route 101 in District 1 include:

- Wild and Scenic Rivers: Route 101 follows the Eel River in Mendocino and Humboldt Counties, and crosses the Van Duzen River in Humboldt County and the Klamath and Smith Rivers in Del Norte County. These wild and scenic rivers have critical salmon and steelhead spawning and nursery habitats, and are unique visual resources.
- Salmon and steelhead: The Route 101 Corridor crosses many large and small river systems that support critical habitat and populations of sensitive species, and water quality is of significant concern on these watercourses.
- The impact of gravel extraction on highway structures.
- Soil stability is a factor for concern along many areas of Route 101.
- Route 101 has archaeological and culturally significant sites where the local Native American tribes gather food and materials necessary for everyday life, sites where their ancestors lived and are buried, and sacred sites associated with religious activity.

¹⁰ CTIPS, Current Official STIP Document, September 2000

Exhibit 2 Parcel(s) Location Map.

(Portions of the Eureka, Arcata South, Arcata North and Tyee City USGS 7.5 minute quadrangles)

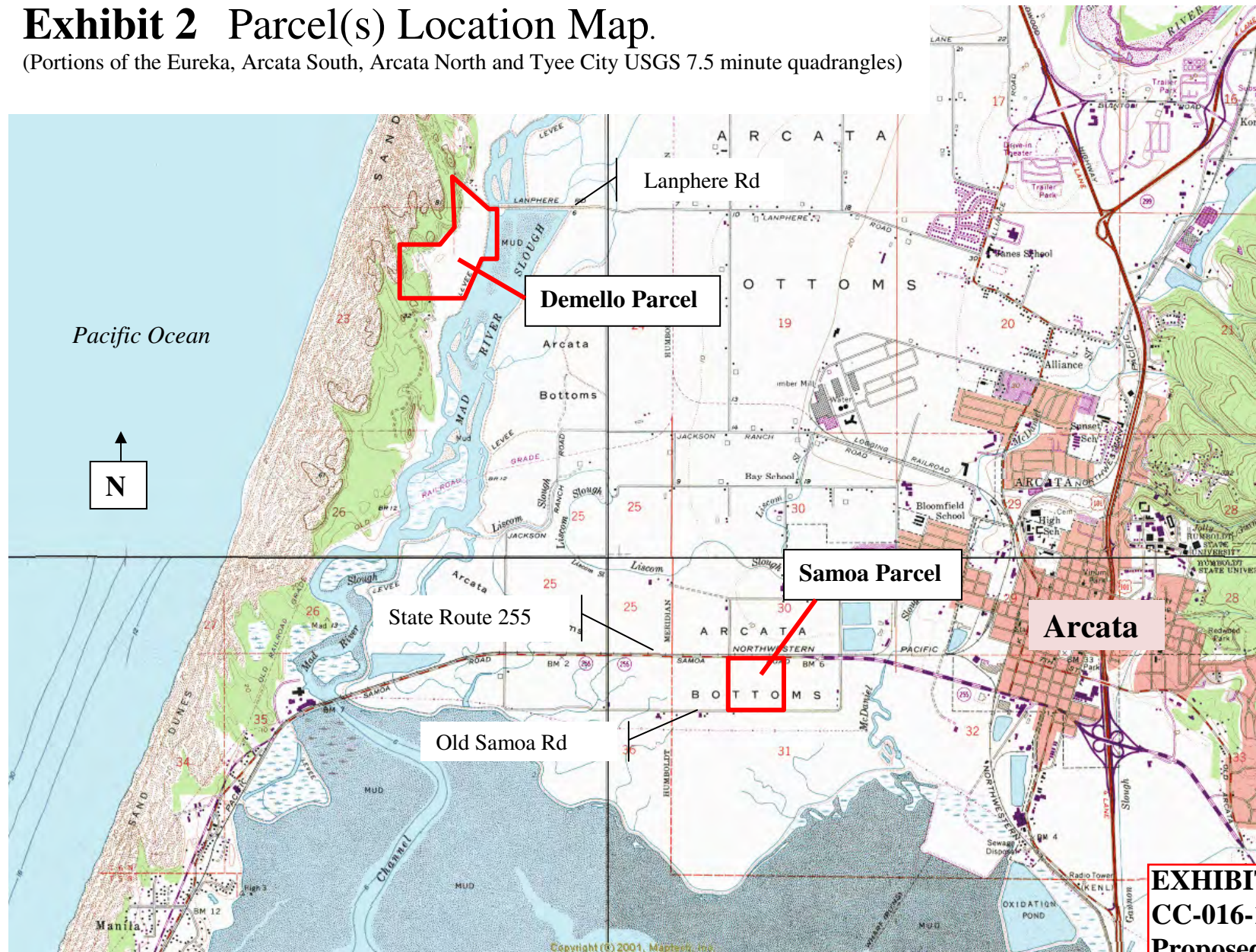


EXHIBIT 21
CC-016-13
Proposed Wetland
Restoration Sites

Exhibit 3a Parcel Adjacency to Public Resource Lands

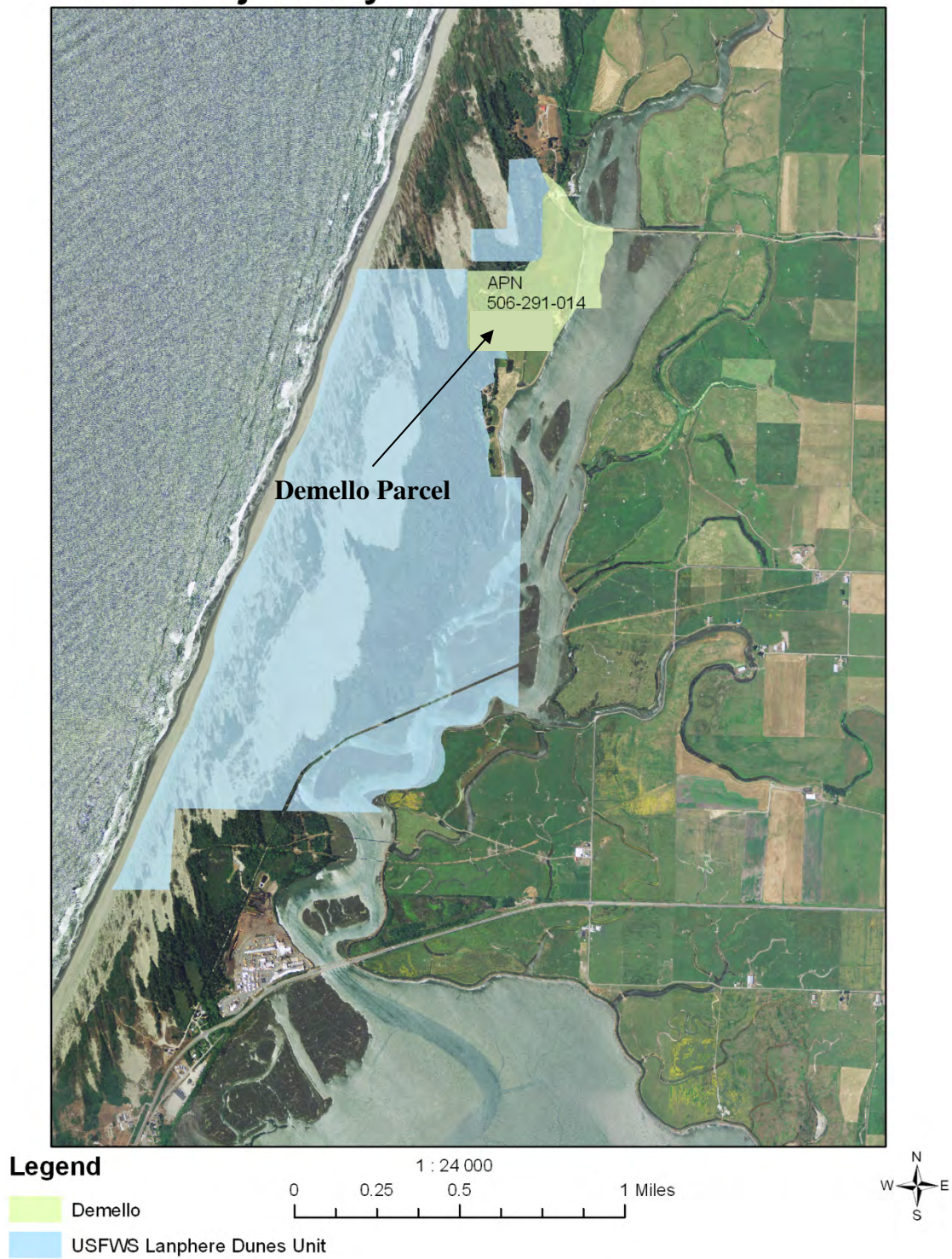
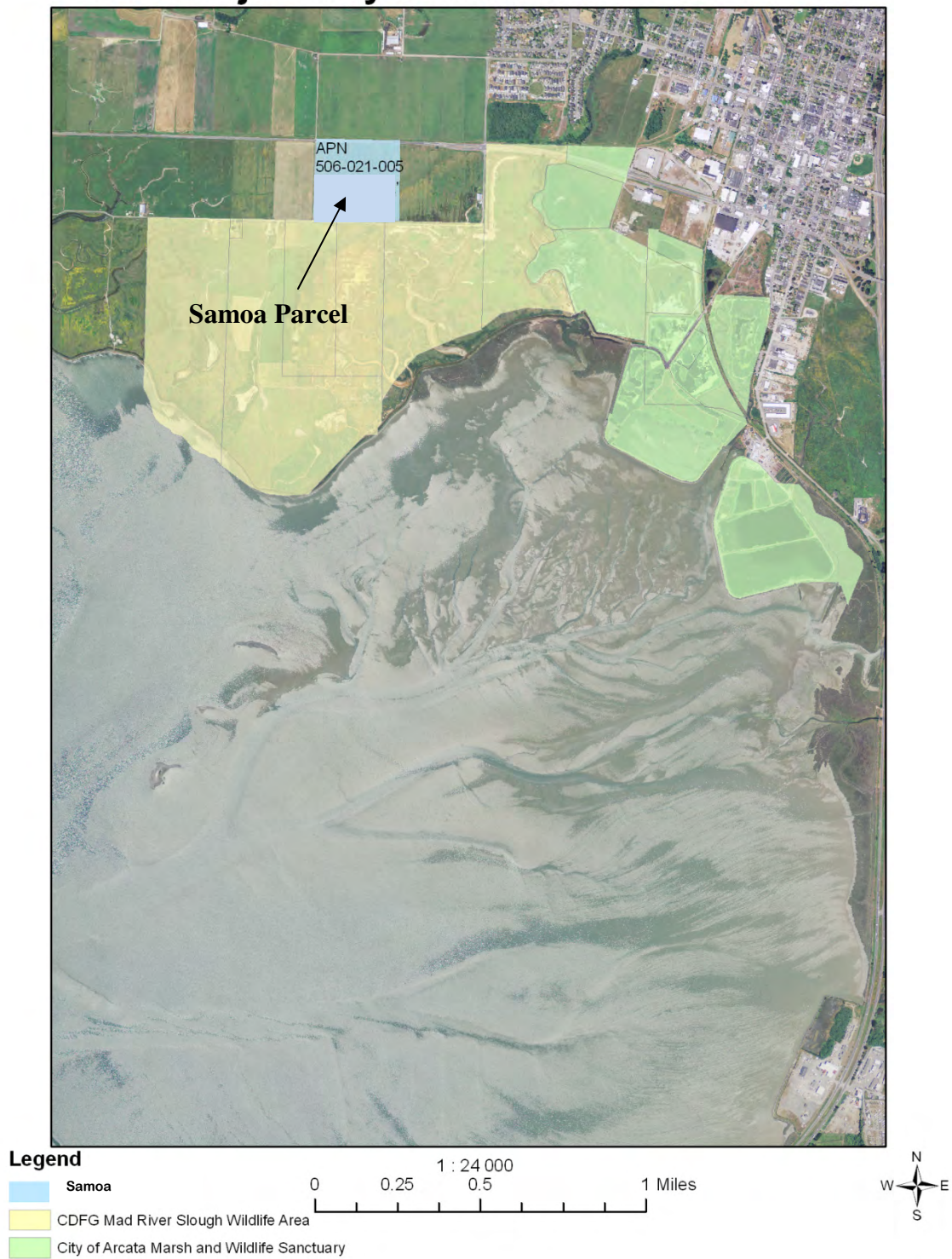


Exhibit 3b

Parcel Adjacency to Public Resource Lands



Response to CC-016-13, Staff Report Comments on Draft Wetland Mitigation/Restoration Plan

California Coastal Commission (CCC) Comment: The draft Restoration Plan for the Demello and Samoa parcels appears to be written in language primarily intended to satisfy U.S. Army Corps of Engineers mitigation guidance.

Because Caltrans must mitigate for impacts to aquatic resources that are under both federal and state jurisdiction, proposed mitigation is written in the language of federal regulation, the “Mitigation Rule” (33 Code of Federal Regulations (CFR) parts 332 and 40 CFR 230). The Coastal Act utilizes California Environmental Quality Act (CEQA) guidelines to establish mitigation practices. It can however be problematic that under joint National Environmental Protection Act (NEPA) and CEQA review, a shared vernacular for mitigation terms is lacking; it would be consistent with CEQA Guidelines Section 15370 if all parties were to utilize the mitigation definitions of the federal Mitigation Rule¹. The Mitigation Rule is a definitive legal document regulating how mitigation for impacts to wetland and waters under federal jurisdiction it is to be defined, *as well as how it is to be performed*. State agencies have the discretionary and independent authority to require mitigation that may be additive to that required under federal authority.

CCC Comment: The draft Plan also asserts that upland buffers may be given mitigation credit, which the Commission has not historically allowed.

Chapter 1 of the “CCC Procedural Guidance for the Review of Wetland Projects in California’s Coastal Zone” (CCC Guidance) states that in establishing wetland buffers one must consider that buffers should provide habitat for species residing in the transitional zone between wetlands and uplands. Chapter 2 goes on to recommend that wetland restoration design consider the establishment and maintenance of buffer areas both for wetland protection and to provide habitat for animals. The proposed restoration of transitional upland habitat, a minor component of our overall restoration plan, should be creditable.

CCC Comment: Caltrans would need to establish, among other things, that no non-agricultural lands are available or feasible to be used as a mitigation site.

Within the Humboldt Bay area, no feasible non-agricultural lands are available for the development of mitigation (restoration) to compensate for impacts to wetland habitat. Caltrans has previously submitted to CCC staff a listing of the numerous mitigation options pursued prior to arriving at the current proposal.

¹ CEQA Guidelines (Section 15370) notes that CEQA has adopted the definition of the term “mitigation” contained within the federal NEPA regulations so that this term will have identical meanings under joint NEPA/CEQA review.

CCC Comment: The Commission has not historically authorized conversion of agricultural lands in the Humboldt Bay area to mitigate wetland fill projects.

In Section 30001 of the California Coastal Act, the California legislature has declared that the coastal zone is a distinct and valuable natural resource of vital and enduring interest and as such it necessary to protect the ecological balance (of the coastal zone) and prevent its deterioration and destruction. Legislation to affect the specific protection of coastal wetlands from development is afforded by Section 30233(a) of the Coastal Act. Additionally, Section 30240 clearly protects environmentally sensitive habitat area (ESHA), stating that ESHA must be protected against disruption of habitat values and that the avoidance of ESHA, for non-resource dependent development, is mandatory.

Section 30241 of the Act protects prime agricultural land while other lands suitable for agricultural use are protected from conversion under Section 30242; however neither of these provisions provides for a ranking of agriculture as a use within the hierarchy of Coastal Act uses. As the Coastal Act provides no legislative authority to regulate agricultural use as a priority over habitat protection and restoration, clearly, preservation of agriculture is not intended to take precedence over the protection and restoration of wetlands and ESHA.

In a letter to the CCC Chair, Ralph Faust, former CCC Chief Counsel (in commenting on the CCC's regulation and preservation of agricultural lands in the coastal zone) reviews a history of CCC assertion of jurisdiction over agriculture (letter dated May 2, 2013). In quoting the first and primary CCC assertion of agricultural jurisdiction, Faust notes the CCC concern over agricultural intrusion into riparian and/or wetland habitat; stating that in a traditional interpretation the assertion of jurisdiction over agriculture was primarily intended to prevent the expansion of agriculture into sensitive habitat. Elsewhere in his letter, Mr. Faust also notes a reasonable assumption under the language of the Coastal Act, and prior CCC interpretation, is that ESHA preservation has higher priority than agriculture. Mr. Faust concludes that it is fair to assume that the ultimate goal of the Coastal Act is the *preservation of habitat* and *all else is subordinate*, as consistent with Section 30240 of the Act and years of CCC practice.

Caltrans is aware of a private developer seeking to construct a mitigation bank in the south area of Humboldt Bay², on lands that are identical to those Caltrans proposes to restore, with respect to existing land use (grazing/haying) and habitat position/condition (former tidelands now expressing as seasonal freshwater wetlands); while these lands are zoned commercial, the current land use is grazing and haying. The private developer proposes to construct mitigation that would restore wetland in a manner identical to that which Caltrans proposes. Per the developer, he has received encouraging feedback from

² Personal Conversation with Jim Hoff, private developer, April 4, 2013.

local CCC staff regarding his proposed endeavor, with local staff additionally encouraging the “creation” of wetlands on site through the excavation of a natural landform (transitional upland habitat).

One might conclude that the subtle but significant difference between the private proposal and the Caltrans’ proposal is zoning; the private developer offers up commercially zoned property while Caltrans offers agriculturally zoned properties; again, the current land use for both proposed ventures is identical (grazing/haying). The Coastal Act regulates prime agriculture and other lands suitable for agriculture, not zoning, and the commercial properties are clearly “suitable for agriculture”. It is puzzling as to why the developer’s lands appear to CCC staff to be more suited to mitigation than those Caltrans has brought forward. The parcels Caltrans proposes for use are contiguous to hundreds of acres of protected natural resource properties; while the developer’s parcels are bisected by a four-lane divided highway which runs down the middle of them.

Caltrans proposes to rectify damages to coastal wetlands and ESHA that have been incurred by both development and continuing agricultural practices. The CCC could find the following:

- The Coastal Act establishes a fundamental and primary goal that is *the protection of habitat* (wetlands and ESHA), and
- Proposed restoration is most protective of coastal resources pursuant to Sections 30007.5 and 30200(b) of the Act (the balancing provisions for resolving policy conflicts).

The CCC did just that with Coastal Development Permit 1-06-036 A-1, the McDaniel’s Slough Wetland Enhancement Project, by permitting the conversion of 90 acres of grazing lands (which coincidentally are adjacent to the Samoa parcel) for wetland restoration purposes by invoking Section 30007.5 to find that implementing the proposed wetland restoration was most protective of coastal resources versus continued agricultural (grazing) use.

Like the McDaniel Slough project, our proposed wetland restoration project is also most protective of coastal resources, because:

- the area in question historically comprised fully functional tidal wetland and freshwater wetland and riparian fringe habitat that was diked and drained to make suitable for agricultural use;
- around Humboldt Bay, a far greater percentage of fully functional coastal wetlands (90%) have historically been lost than have coastal agricultural lands (perhaps 5%);
- with little grading or hydrologic manipulation, the sites are anticipated to return to and maintain historic and natural wetland characteristics, and

- proposed restoration will expand upon existing natural resource properties, providing continuity of use patterns, improved wetland function and habitat connectivity.

CCC Comment: The Commission has not historically allowed “enhancement” to mitigate wetland fill projects; instead creation of new wetlands is normally required to compensate for a net loss (filling) of wetlands associated with a proposed project.

This assertion runs counter to Chapter 2 of CCC Guidance. Chapter 2 acknowledges that the creation of new wetland is an endeavor wrought with uncertainty and warns “CCC staff should be very cautious in recommending wetland creation projects as mitigation for the loss of existing wetlands”. (This guidance goes on to further discuss that *enhancement of degraded habitat* (defined as rehabilitation under the Mitigation Rule) *may be included* in a mitigation plan.)

In 2001, a nation-wide study by the National Academy of Sciences found that across-the-board wetland creation as a compensatory form of mitigation had failed to achieve a no net loss of aquatic function and value. The results of this study precipitated the enactment of the federal Mitigation Rule in 2008, which now *prescribes* that *wetland restoration* is the preferential form of compensation.

Under the federal Mitigation Rule wetland restoration, which is defined to include both wetland re-establishment and rehabilitation, (or “enhancement” and “restoration” in CCC usage of the terms³) *is the preferred form of compensatory mitigation*. Under CEQA, State agencies retain discretionary and independent authority to require mitigation that may be additive to that required under federal authority.

Per Section 30607.1 of the Coastal Act: “*Where any dike and fill development is permitted in wetlands in conformity with Section 30233 or other applicable policies set forth in this division, mitigation measures shall include, at a minimum, either acquisition of equivalent areas of equal or greater biological productivity or opening up equivalent areas to tidal action.*”

With regard to Section 30607.1, Chapter 3 of the CCC Guidance advises that in practice the CCC has interpreted the phrase “at a minimum” to require inclusion of a restoration component in any acquisition plan. An alternative recommended mitigation approach is the “opening up equivalent areas to tidal action”.

The Caltrans mitigation proposal meets the criterion for an acquisition with a restoration component. Additionally, as conceptually proposed, we hope to open up a more-than-equivalent acreage to tidal action. The proposed mitigation proposal more

³ As the terms are utilized in Chapter 2 of the CCC Procedural Guidance for the Review of Wetland Projects in California’s Coastal Zone.

than fully compensates for projected project related impacts to highly degraded jurisdictional wetland, and in fact may over-compensate⁴.

DEMELLO PARCEL

CCC Comment: As noted above, much of this site already qualifies as a coastal wetland, rendering restoration primarily “enhancement” rather than “creation” of new wetland habitat. Restoration of the grazed, lower area to tidal wetlands would be beneficial... however... (Caltrans) acknowledges (p. 10) the likelihood that the final plan will involve implementing freshwater wetland enhancement.

In conformance with the science predicated the Mitigation Rule, Caltrans does not propose to perform the “creation” of wetlands; however, re-establishment of three-parameter wetland and wetland rehabilitation (or enhancement, as CCC uses the term) is proposed.

In consultation with CCC staff since 2007, Caltrans has proposed to preferentially perform tidal restoration at the site. Any “acknowledgement” of a “likelihood” to instead perform a freshwater restoration, and/or that likely “site-constraints” exist (within the plan dated January 2013) is a mis-wording on Caltrans’ part likely resulting from a third repackaging of our mitigation proposal. Our intent is to whole-heartedly pursue tidal restoration at the site. If this does prove to be infeasible, then a muted tidal approach would be pursued; only as a last resort would a freshwater approach be utilized. With regard to feasibility studies, Caltrans has been and continues to *seek CCC support* for our restoration proposal *prior to expending limited funding* on hydraulic design studies.

CCC Comment: While in the past, the Commission has authorized tidal restoration of degraded seasonal, but historically tidal, wetlands as mitigation for wetland impacts (e.g., in San Dieguito wetlands in southern California), as noted above such conversion has been limited locally to the context of pure restoration (versus enhancement) activities.

Our tidal restoration proposal *does* consist of “pure restoration” under the federal definition; it may not under a CCC usage of the term, pointing once again to the fact that a set of common terms is desired. However, linguistic challenges aside the proposal is in full compliance with Section 30607.1 of the Coastal Act which legislates that the opening

⁴ Proposed mitigation likely over-compensates for projected impacts (fill) to approximately ten acres of highly degraded seasonal wetlands within a narrow strip over a distance of many miles. To-be-filled wetlands have been previously affected by multiple factors including: the previous historic conversion from their natural state as a tidally influenced wetland to a freshwater system; their location beside, and between, a four-lane divided roadway; and, their routine mowing for roadway maintenance reasons. These wetlands exhibit extremely low functionality related to the following function/value criteria: production export, wildlife diversity/abundance, aquatic diversity/abundance, uniqueness or heritage value, recreation value, or storm water treatment. In contrast, proposed mitigation will provide for coastal wetlands with extremely high functionality with regard to the same criteria.

up of equivalent areas to tidal action is in itself appropriate mitigation for impacts to coastal wetlands.

CCC Comment: Also, please note that the Commission has historically denied permit applications in the Humboldt Bay area for conversion of seasonal grazed wetlands (diked former tidelands) to freshwater ponds.

Although, we do not have complete Coastal Development Permit (CDP) numbers, Caltrans knows of at least two permit applications, of recent times, within the Humboldt Bay area that were approved for the conversion of seasonal grazed wetlands (diked former tidelands) to freshwater ponds; the McDaniel Slough restoration, and restoration performed at Dr. C.J. Ralph's ranch off Lanphere Rd..

CCC Comment: Thus, we believe planting the gaps in the existing deciduous swamp/riparian wetland along the western boundary to be simple enhancement, and not on its own appropriate as mitigation for this particular project, and that expanding that freshwater habitat into the existing wet pasture and former tidelands is also inappropriate as mitigation, and may serve to make future tidal restoration more difficult to implement. Also, it is unclear from the plan whether future road/utility easement vegetation management may affect the viability of the habitat, and/or whether the utility corridors themselves may cause habitat fragmentation or other diminution of habitat value.

CCC staff analysis of our mitigation proposal appears to have discounted the significant value of the existing deciduous swamp/riparian wetland which is present on-site, yet in need of restoration. Discounting the proposed expansion of this valuable resource, runs counter to the expertise of the adjacent land steward's United States Fish and Wildlife Service, Andrea Pickart, Ecologist, and Dr. C.J. Ralph, United States Forest Service, Research Ornithologist. As previously shared with CCC staff, Dr. C.J. Ralph has stated that the area of extant riparian habitat at Demello offers some of the richest habitat for migratory nesting birds in the state.

Performing planting in-fills to minimize habitat fragmentation to this coastal wetland type exhibiting extremely high habitat value, and/or performing expansion of this habitat into the pasture area, should be considered worthy mitigation in its own right, on an acre-for-acre basis, to offset impacts to the highly degraded, minimally functional, wetland existing within the project area.

It is highly unlikely that expanding this habitat type onto the grazed pasture would in any way preclude future tidal expansion, should that prove to be a future goal. An existing road that CCC staff references, belongs to Caltrans; no modifications will be made to it that could affect the viability of the habitat. The utility easements (extant, maintained power and phone line) are unlikely to offer any additive future level of habitat fragmentation or additive future diminution of habitat value.

CCC Comment: Finally, for this site, the proposal to restore the grazed relict dune to restored coniferous forest appears unrealistic and would presumably take decades or longer to achieve success.

With regard to the relic dune that is currently covered in nonnative grass species palatable to cows, coniferous dune forest (a protected rare and declining habitat type) can easily be established at the site, per United States Fish and Wildlife Service, Andrea Pickart, Ecologist.

SAMOA PARCEL

CCC Comment: For the reasons discussed above, the Commission staff does not believe that conversion of a large portion of the site (a third of the site) to riparian, or the grading of large areas to create ponds, could be authorized as consistent with the Coastal Act.

We do not understand how the Coastal Act could be interpreted to subordinate the protection and restoration of coastal wetlands to the protection of agricultural use. Our mitigation proposal is consistent with the Coastal Act, whose ultimate goal is the protection of habitat. Additionally our proposal is consistent with local restoration projects previously permitted by CCC (e.g. McDaniel's Slough Wetland Enhancement Project, permitting the conversion of 90 acres of grazing lands for wetland restoration including the creation of freshwater ponds; and Dr. C.J. Ralph's conversion of grazed wetland to freshwater ponds).

The CCC staff position on proposed restoration at Samoa ignores a science-based, holistic vision. Restoration of both the riparian fringe habitat (ESHA) and the seasonally saturated wetland habitat at this location will begin to remediate the loss of (likely) 90% of their historic extent. The mitigation location has been sited so as to provide additive and complimentary function to the approximate 850 acres of adjacent publically protected tidal and freshwater wetlands. The value of this proposed restoration (enhancement in Coastal terminology) *is significant*.

CCC Comment: In fact, the conversion of one type of wetland (grazed seasonal) to another (riparian) at this site may involve a net loss of wetland area at the site (e.g., filling of drainage ditches).

Restoration of riparian fringe habitat within a grazed wet pasture will in no way result in a net loss of coastal wetland acreage. Within the area proposed for freshwater fringe riparian habitat, despite the fact that they are artificial features, existing drainage swales will likely be retained in an effort to discourage potential "campers". Backfilling of drainage swales within the remainder area of seasonal wetland will serve to preclude the hastening of water off-site, and yet will not result in the loss of wetlands; filled swales

will continue to express as wetlands, as the land located between swales currently does, due to the parcel's low-lying topography, high water table and clay soil components.

Chapter 3 of the CCC Guidance specifies that the CCC work with the applicant to develop specific mitigation requirements, with the help of other State and Federal agencies. Caltrans has previously received the support of the California Department of Fish and Wildlife, the North Coast Regional Water Quality Control Board, the Environmental Protection Agency, the National Marine Fisheries Service and the United States Army Corps of Engineers for our mitigation proposal.



Figure 3-18A
Aerial Photograph of existing Route 101/Indianola intersection facing east



Figure 3-18B
Photo-simulation of proposed interchange (Alternatives 2, 3) at Indianola Cutoff

EXHIBIT 23
CC-016-13
Caltrans Indianola
Interchange Photo
Simulations



**Photograph of Existing Route 101
facing Humboldt Bay from Indianola Cutoff**



**Visual Simulation of Modified Alternatives 3A Proposed Interchange
facing Humboldt Bay from Indianola Cutoff**



**Photograph of existing southbound Route 101
north of Indianola Cutoff**



**Visual Simulation of Modified Alternatives 3A proposed interchange
north of Indianola Cutoff**



**Photograph of Existing northbound Route 101
south of Indianola Cutoff**



**Visual Simulation of Modified Alternatives 3A Proposed Interchange
south of Indianola Cutoff**



**Photograph of existing southbound Route 101
South of Indianola Cutoff**



**Visual Simulation of Modified Alternatives 3A Proposed Interchange
south of Indianola Cutoff**



EXHIBIT 24, p. 1
CC-016-13
Humboldt County LCP
Scenic areas (CSA)



EXHIBIT 24, p. 2
CC-016-13
Humboldt County LCP
Scenic areas (CVA)



EXHIBIT 24, p. 3
Composite
Orange = CVA
Yellow = CSA

ATTACHMENT 2

Mitigation Options Pursued

(For the Eureka to Arcata Corridor Improvement Project)

City of Eureka, Martin Slough

Contact: Redwood Community Action Agency (RCAA) Don Allen – problems with perpetuity (no ability for Caltrans to transfer endowment dollars to a non-profit), also RCAA has potential for other funding sources.

DFG Lands

Contact: Karen Kovacs. No ability to use DFG lands for external agency mitigation purposes.

Salt River Restoration – in Eel River watershed. Contacts: California Coastal Commission (CCC). CCC prefers mitigation within same watershed.

Security National

Contact: Randy Gans. Previewed approximately 300 acres in various parcels around Humboldt Bay, but later stated they had no interest in selling at this time.

Bode Property

Contact: Spoke with owner (Mr. Bode, 4/04/06). Properties are all developed. Had maybe 4 acres of existing wetland on a 7 acre parcel still available. Suggested property across from Drive-In at Indianola (Agricultural land at Indianola – see below).

Agricultural land at Indianola

This parcel has unpermitted fill on it per Barry Douglas Caltrans (per “Kelly Reid USACE”). This information was passed on to Carol Heidsiek at the Corps; it was never refuted. Further, this land is in ag use.

Moranda Parcel at SR 255

Contact: Earl Moranda. Not interested in selling. Later sold property to City of Arcata.

Dias Parcel (adjacent to Old Samoa parcel)

Landowner contacted, no interest in selling. Later said he’d sell in package deal with another 20plus acre parcel.

Kelley Garrett,
Mitigation Specialist
Caltrans District 1

EXHIBIT 25
CC-016-13
Caltrans List:
Mitigation Options
Pursued

Humboldt State University (HSU) property at Mad River Slough

Approximately 20 acres on SR 255 of filled, cut-off, old slough channels.

Contact: Director of Facilities Planning, Gary Krietsch. Fall 2006 property review, unfortunately it is on a deed with several other properties of no use to Caltrans for mitigation. Gary was adamant that it was a package deal. Caltrans HazMat unit had concerns that hazardous material might be on site.

Rodoni/Rocky Gulch prop

Behind Bracutt Maintenance Station on 101, 20 –25 acres of brackish marsh enhancement (spartina removal) possible. Contact: Jacoby Creek Land Trust. Later ruled out, CCC staff did not like.

Miranda Ranch

North Coast regional Land Trust proposed a partnership to 80 acres of salt marsh. Property later sold, didn't hit the open market.

Brainard Ditch

Replumb the ditch and restore Cutoff Slough. Ruled out because the property is too close to airport (therefore controversial).

Drive-In on 101

Field review (3/31/06). Property does not appear to be wetland. Pack n' Carry very similar but all paved. Caltrans Design noted these parcels are prohibitively expensive due to need to re-locate. Further, the County of Humboldt (County) has also stated we cannot do restoration on commercial industrial props.

Bracutt Mill Yard

Contact: Rick Hess. Owner may be interested to sell 5 acres of former railroad (RR) RR right-of-way (Rick Hess says RR rights have expired). Also interested to sell 3.73 acres already wetland between RR and eucalyptus trees. However, County has stated we cannot do restoration on commercial industrial props.

Highway 101 Slough

Contact: USFWS (RayBosch) . Proposed to retrofit tide gate, convert freshwater habitat to brackish, increase habitat for Goby, decrease flooding as cattails die out. However, this work is being done as part of the project (E/A Corridor).

King Salmon/Pacific Gas and Electric property

Directed to investigate this lead by NEPA 404 meeting. Upon contact the owner responded that a project was being permitted and built to fix a dike and to re-contact in fall 2006. Not re-contacted as other leads were being pursued.

Kelley Garrett,
Mitigation Specialist
Caltrans District 1

Others

Potential to remove ½ acre parking lot at Bracutt Marsh. Not significant enough area to pursue further.

Approximately 1 acre of wetlands in Caltrans right-of-way, near Myrtle Avenue in Eureka. Caltrans could partner up with other adjacent land owners (County Schools) by buying conservation easements and create higher functioning wetland habitat in perpetuity. Caltrans later sold off these parcels as excess lands.

Wetland props on market

7 acres at Humboldt Hill and 101

1 acre at S. Broadway

Explore Conservation Easements on drainages within coastal zone on private property (CCC and poss. USACE jurisdiction) as mitigation. Coastal Conservancy says this has been done successfully on private THP props. Caltrans Right-of-Way thinks this could be public noticed for acquisition. Acquire a corridor?

Site visit on Miller property, proposed conservation easement (C/E) on “enhanced” riparian. Better would be C/E on created saltmarsh (berm to be moved increasing habitat). However this would involve and affect adjacent agricultural parcels

Memorandum

*Flex your power!
Be energy efficient!*

To: Kim Floyd
Project Manager
District 1-Office of Project Management

Date: July 24, 2012

From: TODD LARK
North Region-Design E3

File: 01-HUM-101-PM 79.9/86.3
EA 01-366000
Route 101 Eureka Arcata
Improvement Project

Subject: Review of Barrier Separated Trail

Design has prepared typical cross sections to describe the impact associated with constructing a barrier separated trail between Eureka and Arcata. The attached drawings indicate the segments of the highway improvements planned and the necessary revision to provide a barrier separated trail. The trail was assumed to be placed to the west of US 101, along the southbound right side shoulder.

CONFIGURATION

For a two way Class 1 bicycle path, the minimum width is 8 feet. Class 1 bicycle paths require 2 feet of clearance to obstructions per Section 1003.1 of the Bicycle Transportation Design Chapter of the Highway Design Manual (6th edition). The trail would provide a 2 foot unpaved shoulder in the southbound direction, and a 2 foot wide paved shoulder in the northbound direction, due to the obstruction of the concrete barrier. This 10 foot wide paved trail would meet the minimum width requirements of a Class 1 bicycle trail. However, the requirement for a 5' separation from trail to edge of shoulder is not met (Section 1003.1(6)). The typical cross sections for US 101 also indicate reduced lane and shoulder widths as proposed for the preferred alternative, where an exception to the mandatory design standards had previously been approved. The southbound shoulder of US101 would be 10 feet to provide minimal recovery room for errant vehicles and room for maintenance, enforcement, and disabled vehicles.

WETLAND IMPACT

A temporary barrier separated trail would increase the permanent impact on wetlands, where fill would cover up to 20 feet in additional width of fill. Adding a trail from PM 79.9 to PM 85.0 would permanently impact a minimum of approximately 7.6 acres of wetlands (see table below).

BARRIER SEPARATED TRAIL ESTIMATED PERMANENT WETLAND IMPACTS				
Location		Length	Average Width of wetlands impacted	Area
PM 79.9	Crossing Eureka Slough Bridge	700 feet	14 feet	0.2 acres
PM 79.9/80.6	Eureka Slough to Airport Rd	3,400 feet	8 feet	0.6 acres
PM 80.6/83.3	Airport Rd to Bracut	14,200 feet	14 feet	4.6 acres
PM 83.7/85.0	Bracut to South G Street	6,800 feet	14 feet	2.2 acres
Minimum Increase in Total Permanent Wetland Impacts				7.6 acres

ESTIMATED COST

Costs are estimated based on a typical cross section. Earthwork is estimated based on expected thicknesses and widths of fill at 5 representative segments of US101 from the Eureka Slough Bridge and South G Street in Arcata. Because the widening would be toward the median and under traffic, the hot mix asphalt paving thickness is assumed to be approximately 0.5' thick. A materials recommendation was not obtained for this planning level cost estimate.

It should be noted that the barrier is assumed to be a lower cost, minimum footprint Standard Plan Concrete Barrier Type 60, 2'-0" wide by 3'-0" high smooth concrete, with no traffic screens or architectural treatment. There is approximately 25,000 feet of barrier estimated between the Eureka Slough Bridge and South G Street in Arcata. Barrier rail terminal sections would be assumed to be placed at the beginning of the barrier, and one at each opening in the rail; Bracut Industrial Park, Indianola Cutoff, California Redwood (2 entrances). A decorative steel bridge rail, similar to that used on the Van Duzen River bridge would increase the cost by approximately \$8 million to the cost of a barrier separated trail.

A temporary barrier separated trail was anticipated to include the crossing of Gannon Slough, which is approximately 400 feet long, and would require widening and replacing the barriers on that bridge. The estimate includes extending a segment of the trail under the Eureka Slough Bridges, and extending the trail east of Caltrans Right of Way to Jacobs Avenue. Right of Way costs for purchase of property for mitigation of wetland impacts are not known, nor is the cost of acquiring an easement from Jacobs Avenue to the Eureka Slough Bridges. The estimated construction cost of a temporary barrier separated trail is as follows:

CONSTRUCTION COST ESTIMATE TEMPORARY BARRIER SEPARATED TRAIL	
Earthwork, paving, barrier (type 60 concrete-no aesthetic)	\$ 9,000,000
Gannon Slough Bridge Widening	\$ 1,800,000
Total	\$ 10,800,000

Please contact me for any additional information with regards to a temporary barrier separated trail.

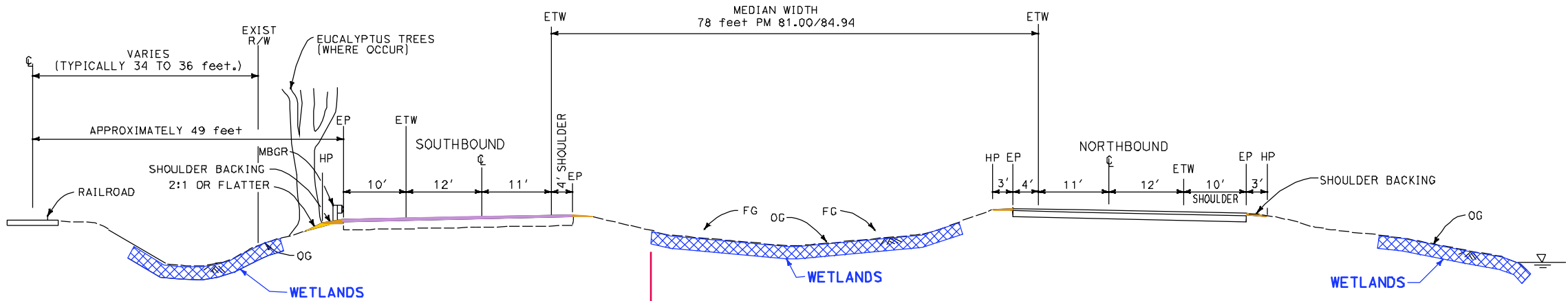
Attachments

Typical cross sections (3 sheets)

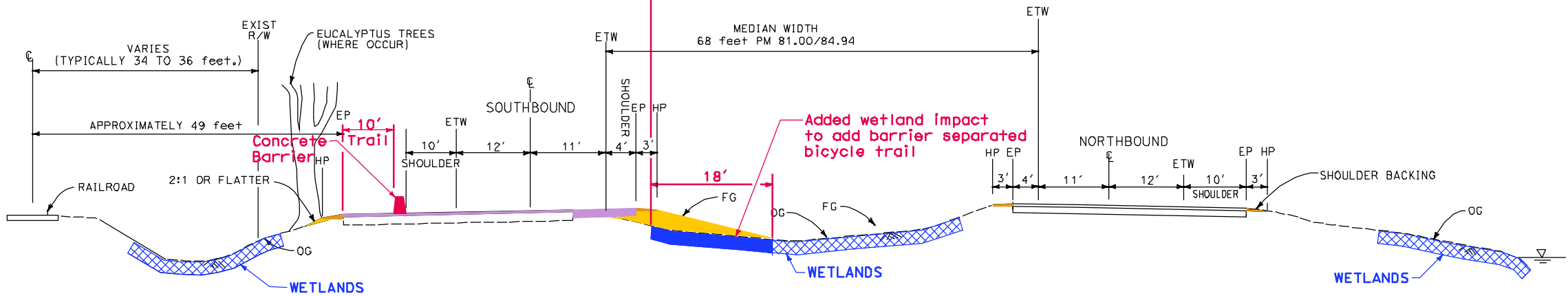
c: Project file

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

FOR DESIGN STUDY ONLY



ROUTE 101
PM 80.6/83.3
AIRPORT ROAD TO BRACUT

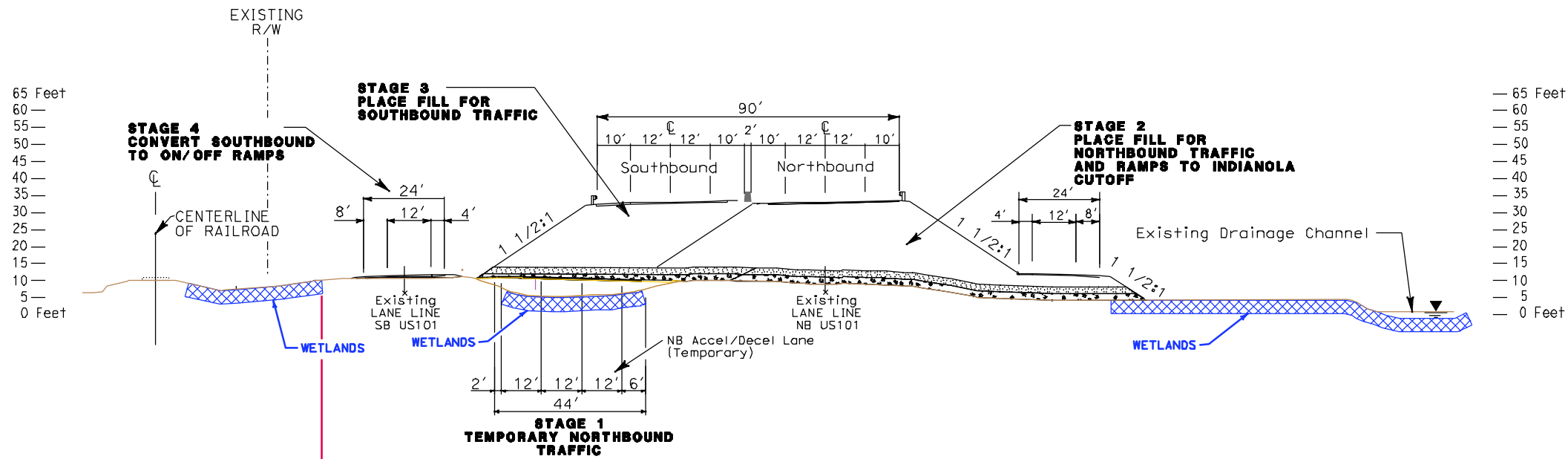


ROUTE 101
PM 80.6/83.3
AIRPORT ROAD TO BRACUT
Realignment for Barrier Separated Trail

BARRIER SEPARATED TRAIL
CALIFORNIA REDWOOD

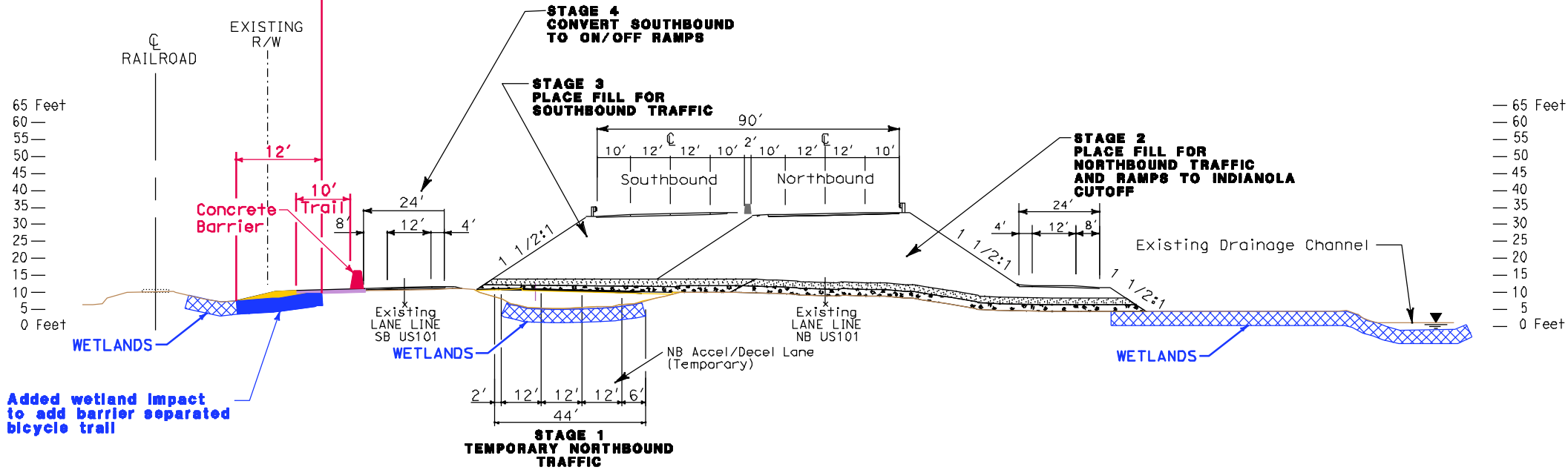
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

FOR DESIGN STUDY ONLY



ROUTE 101 INDIANOLA CUTOFF INTERCHANGE

PM 82.2/83.3

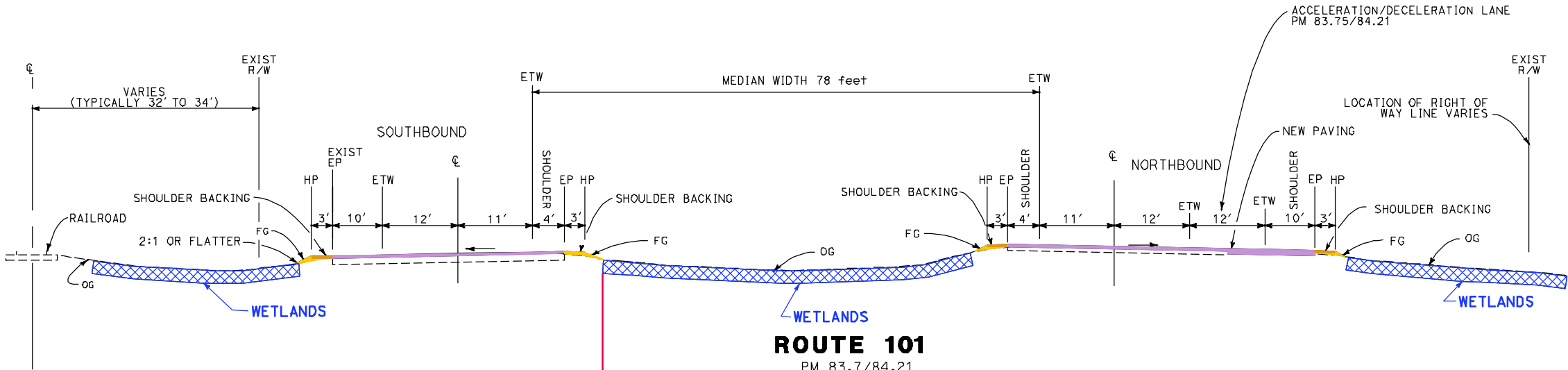


ROUTE 101 INDIANOLA CUTOFF INTERCHANGE

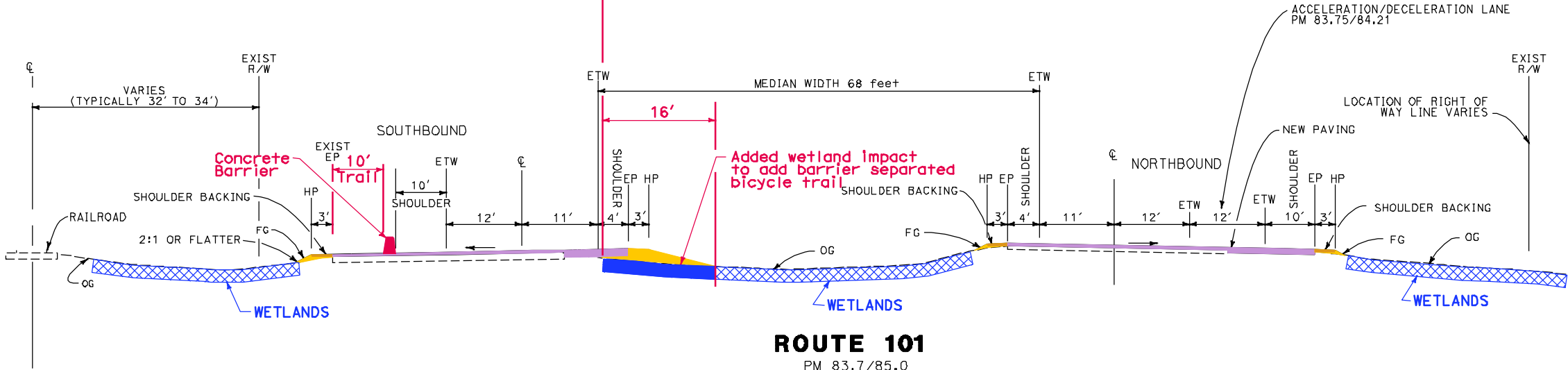
Added Barrier Separated Trail

PM 82.2/83.3

BARRIER SEPARATED TRAIL
INDIANOLA INTERCHANGE
Page 2 of 3



ROUTE 101
PM 83.7/84.21
BRACUT TO SOUTH "G" STREET



ROUTE 101
PM 83.7/85.0
BRACUT TO SOUTH "G" STREET
Realignment for Barrier Separated Trail

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101	79.9/86.3		

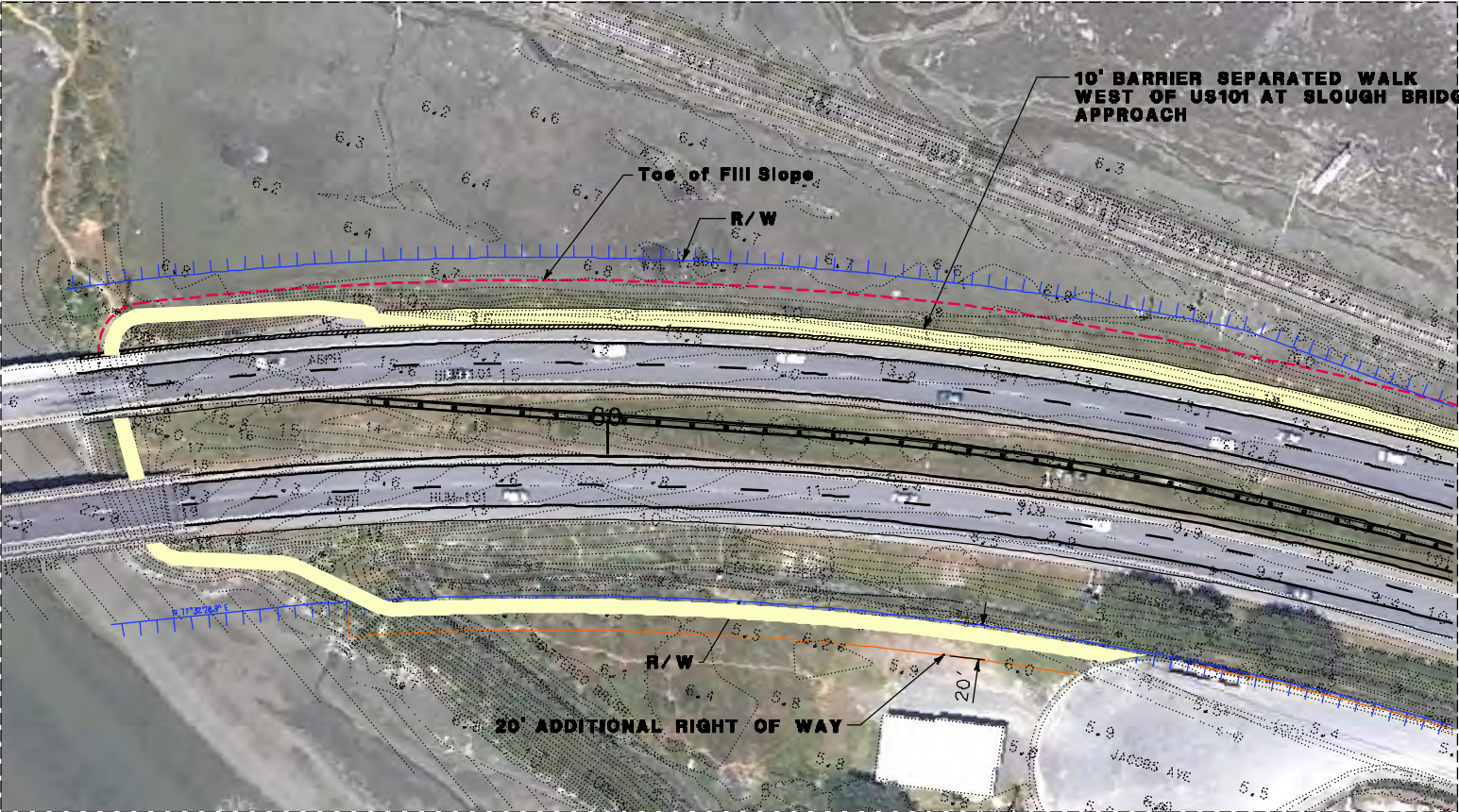
FOR DESIGN STUDY ONLY

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

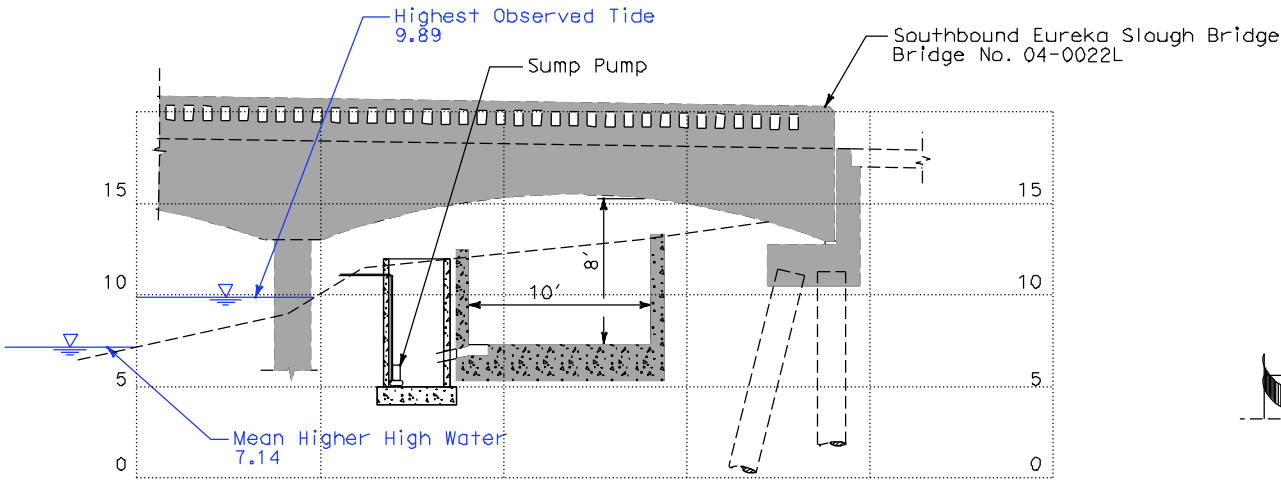
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER CIVIL No. STATE OF CALIFORNIA



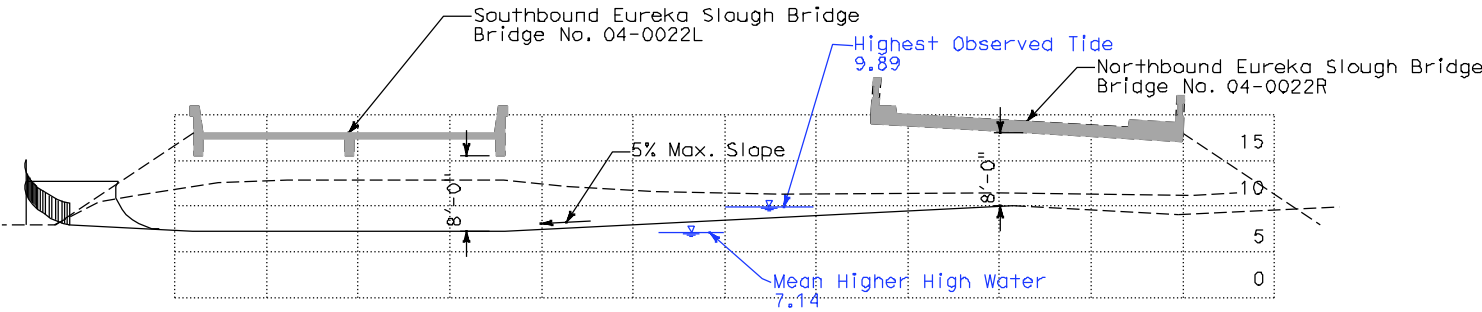
PLAN

Scale: 1"=100'



SECTION

Scale: 1"=10' H & V



ELEVATION (under bridges)

Scale: 1"=20' H & V

JACOBS AVENUE
PEDESTRIAN TRAIL AND
UNDERCROSSING



MEMORANDUM

To: Jessica Hall and Jennifer Kalt, Humboldt Baykeeper
From: Michael Moule, PE, TE and Magnus Barber
Date: August 6, 2013
Subject: Eureka-Arcata Route 101 Corridor Improvement Project Review

PROJECT BACKGROUND

California Department of Transportation (Caltrans) has proposed alterations to approximately 6 miles of the Highway 101 Safety Corridor between Eureka and Arcata, CA. The Safety Corridor is a 50-mile per hour rural divided highway. Bicyclists and pedestrians use the corridor's shoulder to commute, recreate, and tour the coast. Businesses and feeder roads access Highway 101 primarily from the east, with openings in the highway's median to allow for crossings. Old Arcata Road and Highway 255 are significant streets that connect Eureka and Arcata, through farmland, natural habitat and residential areas. Crash rates prior to the installation of the Safety Corridor were above the state average at Indianola Road and the Mid-Cities Motors access road. Crash rates at other crossings are within state averages, despite weather events, such as a fog, that impact visibility.

Caltrans has proposed several alternatives to address the crash rate along this corridor and meet other project goals. The preferred alternative would close medians at most access locations, install an interchange at Indianola Cutoff, and a partially signalized intersection at Airport Road / Jacobs Avenue. Other alternatives studied included the installation of up to six (6) traffic signals at the access locations.

Humboldt Baykeeper asked Nelson\Nygaard Consulting Associates to review background data, assess some of the alternatives proposed by Caltrans, and recommend other possible alternatives. This memo summarizes the findings of this data review and alternatives assessment.

DATA REVIEW

Observations of Existing Conditions

General Observations

Route 101 between Eureka and Arcata is a 4-lane rural divided roadway with a wide median; sometimes called a rural "parkway" design. The shoulders are typical fairly wide (about 8 feet), with a ground in rumble strip under the edge line. One notable exception is the bridge for the northbound lanes over the Eureka Slough – this bridge is older and has a 2-foot shoulder. It also has a 4-foot sidewalk, which is suggested for bicyclists to use, via shared lane markings as shown in the picture below.

Exhibit 27
Moule and Barber
Traffic Study



Roadway Continuity

The conditions at each end of this corridor are important, since the context of Highway 101 varies significantly as it travels through Eureka, Arcata, and the rural areas surrounding these cities. In Eureka, Highway 101 is a one-way couplet on 4th and 5th Streets through downtown, a very urban condition. Northbound 101 is on 5th Street, which is primarily a 3-lane one-way street. Southbound 101 is on 4th Street, which is primarily a 2-lane one-way street. In Arcata, Highway 101 is a limited access freeway, starting just north of Bayside Cutoff and continuing north for more than 20 miles. In the existing condition, the project corridor provides a reasonable transition between the downtown urban street context in Eureka and the limited access freeway context in Arcata.

Intersection and Driveway Access

This corridor has seven access points as follows:

- Two “cross” access points that have connections on both the east and west side of the highway. Both of these access points allow all turning movements, but are not at public streets but rather for private properties typically with industrial land use.
- Two “T” access points have roadway connections on the east side, connecting to the larger street network (Indianola Cutoff and Bayside Cutoff). These both allow all turning movements to just the one side.
- Two “T” access points that allow all turning movements for access to private properties on the east side of the highway (Airport Road/Jacobs Avenue and access for the car dealerships).
- One “T” access point that allows only right turn movements at the south end of Jacobs Avenue, providing access to several private properties. Left turn movements are currently made at the access where the north end of Jacobs Avenue connects to Airport Road.

All access points are one-way or two-way stop control, so that Highway 101 has free-flow traffic, and the side streets or driveways have stop control.

From a bicycling perspective, the existing access points are both good and bad. Full movement access at most locations means that bicyclists can arrive at and depart from destinations without any out-of-direction travel. On the other hand, the unsignalized intersections introduce potential hazards for bicyclists. Bicyclists making left turns at the access points must navigate across two

lanes of traffic, which at times likely has only a few gaps. Bicyclists traveling on the highway shoulder are potentially endangered when motorists turn onto or off of the highway, especially when motorists make left turns. A common bicycle-motor vehicle crash type occurs when motorists turn left to or from a minor street or driveway; drivers are primarily focused on other motor vehicles and sometimes miss seeing a bicyclist, resulting in a crash.

Alternative Routes for Bicyclists

There are two alternative routes for bicyclists connecting Eureka and Arcata. If bicyclists find that travel along Highway 101 becomes more circuitous and/or less safe, these alternate routes become more important connections:

- Highway 255 provides an alternative to 101, but it is a more circuitous route (about 1.5 miles or 20% longer). It has lower traffic volumes and therefore might be a more desirable route, but it does have narrower (but sufficient) shoulders and a higher speed limit along most of its length than the Safety Corridor on Route 101.
- Myrtle Avenue and Old Arcata Road provide another alternative, but this route is even more circuitous, about 4 miles or 50% longer, and has some elevation changes in terrain. Again it has lower traffic volumes and narrower, but sufficient shoulders. For many recreational cyclists, this route might be preferred due to the more varied terrain, but it is the longest of the three routes. The most circuitous part of this alternative is along Myrtle Avenue near Eureka. Many cyclists likely choose to ride Highway 101 near Eureka, and then use Indianola Cutoff or Bayside Cutoff to connect to Old Arcata Road. This may be especially true since 101 becomes a limited access expressway north of Bayside Cutoff. Using 101 and Old Arcata Road reduces the extra distance dramatically to either about 1 mile (about 10%) if Bayside Cutoff is used, or about 2 miles (about 25%) if Indianola Cutoff is used.

Distances from downtown Eureka to downtown Arcata

Route	Length in Miles	Percentage Greater Than the Direct Route on 101
US 101	7.7	0%
California 255	9.1	18%
Myrtle Avenue + Old Arcata Road	11.6	51%
US 101 + Indianola Cutoff + Old Arcata Road	9.6	25%
US 101 + Bayside Cutoff + Old Arcata Road	8.6	12%

Review of Background Studies, Memos, and Reports

November 2005 Traffic Study Report

In this study, the discussion of the alternatives with signals at Airport Road indicates that there would be separate signal phases for Jacobs Avenue and Airport Road. Providing two signal phases for traffic on the east side of Route 101 could significantly increase the amount of time that traffic on Highway 101 is stopped, delaying traffic on 101 a significant amount, and potentially driving the “need” for more through lanes on 101. In order to maintain the fewest possible lanes on Route 101, it is recommended that only one signal phase be provided for these two streets. This may require geometric changes to these streets, as shown in several of the background documents.

DEIR 2007

This document discusses many of the safety reasons for the proposed alternatives, including eliminating uncontrolled left turn movements to or from Route 101, and also reducing left diverge and merge movements. With respect to left merge issues, this document states the following on page 5 of chapter 1:

“A left-merge movement is one where traffic on an acceleration lane merges into, or a deceleration lane merges out of, the main flow of traffic from the left-hand side of the road. This can be an unexpected move to motorists since more than 95% of highway merge movements are right hand merges. Left-merge movements have much higher collision rates than that of right-side ramp exits and entrances. Of the total number of rear-end, sideswipe and overturned vehicle collisions occurring at intersections along Route 101 from 1994 to 1999, three times as many occurred in the left lane as the right. The American Association of State Highway and Transportation Officials (AASHTO) 2001 publication “A Policy on Geometric Design of Highways and Streets” states: “Left-side main roadway exit ramps should be avoided because they may appear to be a right side entrance ramp to a confused motorist.” and later in the guide: “Left-hand entrances and exits are contrary to the concept of driver expectancy when intermixed with right-hand entrances and exits. Therefore, extreme care should be exercised to avoid left-hand entrances and exits in the design of interchanges.”

The concern about left merge movements for the Safety Corridor is perhaps a bit exaggerated. The discussion about the ratio of crashes occurring in the left lane is relevant, although this may or may not be due to left merges. Additionally, the quotes from the AASHTO document (commonly referred to as “the Green Book”) are excerpted from the chapter about “Grade Separations and Interchanges.” This reference would fully apply if this roadway is or will be a limited access freeway. But for unsignalized or signalized intersections, the concerns about left merges and diverges are not as great as they are for limited access freeways. On highways that are not limited access, there is more driver expectation for “friction” along the roadway, including vehicles entering from the left side. This isn’t to say that left merges are completely unproblematic, but perhaps not as bad as the document is making it out to be. For example, when comparing a fully signalized intersection with the Continuous Green T Intersection alternative suggested later in this memo, the tradeoff for southbound 101 is between signal control and occasional vehicles merging into the traffic stream from the left. A traffic signal is likely to be associated with more frequent crashes than the vehicles merging in from the left.

Memo from Troy Arseneau to Kimberly Floyd, July 17, 2012

On page 3, this memo discusses pedestrian crossings at signalized intersections as follows:

“Another major disadvantage to a “signalized boulevard” alternative would be in facilitating pedestrian traffic across U.S. 101 mainline. In the District 1 Traffic Operations modeling effort, it was assumed that pedestrians would be allowed to cross U.S. 101 mainline at the Indianola Cutoff intersection, with only one crosswalk crossing U.S. 101 being allowed at the intersection. Under this scenario, mainline traffic delay was found to be greatly increased by each pedestrian call due to the large pedestrian crossing distance. Ideally, pedestrians would only cross one direction of U.S. 101 at a time, make an additional pedestrian call (push the pedestrian button) once in the median pedestrian refuge area for the crossing of the opposing mainline travel lanes, and then wait for the next pedestrian phase to occur to finish crossing the highway.

Challenges would exist by having a raised pedestrian refuge in the U.S. 101 median because of the speeds on mainline U.S. 101. Per the Highway Design Manual, Sixth Edition, California Department of Transportation, Index 405.4 (2), "On facilities with speeds over 45 mph, the use of any type of curb is discouraged," meaning that a raised pedestrian island in the median would not be desirable and less likely to be deemed "acceptable" by Caltrans Headquarters geometrician and traffic liaisons.

Not having a raised pedestrian refuge island would place pedestrians at considerable risk of being struck by vehicular traffic. This would force the need to have a long enough pedestrian phase (about 45 seconds) to ensure that pedestrians could cross both directions of mainline traffic causing considerable delay to mainline traffic. Our engineering analysis used the pedestrian walking speed of 3.5 feet per second as recommend by the California Manual on Uniform Traffic Control Devices, 2012 Edition, California Department of Transportation, Page 948, and required by Caltrans Traffic Operations Policy Directive 12-01, dated March 30, 2012."

It is true that a curbed roadway is discouraged by Caltrans guidelines, but this doesn't necessarily make it impossible to allow pedestrians to cross the roadway in two stages. A pedestrian walkway could be placed in the median, connecting the two legs of the crosswalk. Waiting on this walkway in the wide median is probably not less safe than waiting at the outside edge of the roadway to cross, with or without a raised curb. At 50 mph, no curb is sufficient to adequately deflect an out-of-control vehicle that is running off of the road. But even if the signals are designed to allow pedestrians to cross all of Route 101 in one signal phase, it is unlikely that pedestrian signals would cause significant delay along the corridor. This is due to the fact that pedestrian usage is very low in this area, and this is unlikely to change unless there are significant changes in land use. It is true that providing signal timing for pedestrians to cross an eight lane roadway would result in a long delay for motor vehicles each time a pedestrian pushes the button to actuate the signal. However, the pedestrian signals would likely only be actuated a handful of times per day, so the overall effect on traffic flow on 101 would be small.

On page 5, this memo includes a long statement about the interchange not increasing capacity. It even states: "While the interchange will no longer require vehicles entering the highway from the minor streets to have to stop (but will have to yield upon entering U.S. 101) as they will be able to merge onto the highway at the interchange, the interchange will not increase highway capacity on either U.S. 101 or the minor streets." As noted above, an interchange absolutely increases the capacity for the minor streets. Today, due to high volumes on Highway 101, the capacity for left turns from the minor streets is quickly approaching zero, so it is not surprising that the Caltrans studies reported Level of Service (LOS) F for westbound and eastbound left turns from the side streets and driveways, even those with low volumes of left turning vehicles.

On page 6, this memo refers to the California Coastal Commission staff report: "A statement was also made indicating that the project will "speed up" traffic and make it less safe for bicyclists and impact the bicycle trips length." Troy Arseneau responds to this by stating, "This statement is incorrect because the project geometrical improvements, in themselves, will not cause an increase in vehicular speed on U.S. 101. In addition, speed limits are determined in a separate process, which is mandated by the California Vehicle Code and the California Manual on Uniform Traffic Control Devices (CAMUTCD)." The statement that the geometric changes will not cause an increase in vehicle speeds is likely inaccurate. A roadway with fewer access points, fewer uncontrolled left turn movements, and longer merge and diverge lanes will generally result in faster vehicle speeds, compared to the existing highway with unsignalized intersections that

create “friction”, which likely reduces motor vehicle speeds. Without left turn conflicts, drivers will experience less friction and will tend to go faster. The reference to speed limits is meaningless because speed limits have little effect on actual travel speeds, unless significant enforcement is provided (as with the Safety Corridor). But it is quite likely that speed limits will increase because the current speed limit is set artificially low due to the safety corridor. As Troy Arseneau stated, CVC and CA-MUTCD standards require speed limits to be set in response to higher measured speeds on the corridor, which is the likely result of reducing friction through the project’s proposed improvements.

Letter from Kimberly Floyd to Mark Delaplaine July 25, 2012

This letter includes the following quote: “The construction of an interchange does not increase the capacity of a highway segment.” This is not entirely true. It could arguably be true for through movements, but absolutely not for turning movements. The capacity of the proposed interchange is undoubtedly higher than the capacity of the existing stop-controlled intersection. This is evidenced by the LOS F ratings shown for left turning movements in the traffic studies for the project. The reason that these left turn movements show LOS F isn’t necessarily because there are a lot of vehicles turning left, but rather because there are so many vehicles on Highway 101, that there are few gaps for left turning traffic to turn across the traffic stream. Consider that if in theory the volume on 101 increased to a point where there are no gaps in the traffic stream, then the left turn capacity would be zero. With an interchange the left turn capacity isn’t affected by the through volume on 101 in the same manner. It is MUCH higher.

Coastal Consistency Addendum February 2013

On page 13, this document states, “It would not be appropriate to allow pedestrians to cross Route 101 at each intersection in the corridor.” By law, pedestrians are allowed to cross 101 anywhere along the corridor as long as they yield to traffic on the roadway. Caltrans probably intends that they don’t recommend providing designated, marked crosswalks at all of the intersections, particularly unsignalized intersections. If either signalized intersections or roundabouts are used, placing crosswalks is more practical. At signalized intersections, traffic can be stopped to allow an occasional pedestrian to cross. At roundabouts, the reduced motor vehicle speeds make it possible for pedestrians to cross much more easily and safely than across an uncontrolled intersection.

This document also discusses challenges with pedestrian crossings at signalized intersections. On pages 13-14, it states: “Simultaneously attempting to maintain acceptable traffic flow, while providing sufficient time for pedestrians to cross Route 101, would be an untenable goal. In order to maintain an acceptable level of service (LOS) on Route 101, additional lanes are required for signalized Eureka-Arcata Corridor Improvement Federal Coastal Consistency intersections. For pedestrians, the signal timing would be set such that there would be insufficient time to allow pedestrians to cross the widened Route 101 because the additional lanes create additional width for pedestrians to cross. If the signal phase time for pedestrians were increased to provide sufficient crossing time, this would result in traffic delay and lower the LOS for the Route 101 through traffic.” As discussed above in response to the memo from Troy Arseneau, pedestrian usage is very low along this segment of Route 101, so the overall delay to traffic on 101 is likely to be minimal. In addition, as discussed later in this memo in the section on the signalized boulevard alternative, the additional lanes may not be necessary.

Traffic Volume Data

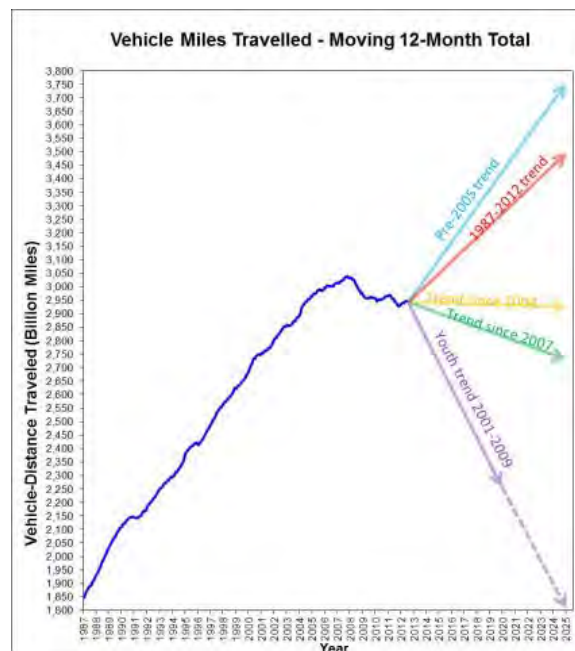
Although there are dozens of background documents and studies that have been provided by Caltrans, thus far very little traffic volume data has been received. There are numerous studies that provide the results of what appear to be very detailed traffic analysis, but the raw count data and detailed analysis results have generally not been received. Thus far, the only actual count data received are total Average Annual Daily Traffic (AADT) for several locations along the corridor, as well as counts of the left and right turning movements at the intersection of Route 101 and Indianola Cutoff.

The turning movement counts at Indianola Cutoff are at the same time both too much and too little information. Caltrans sent a month's worth of counts of all the right and left turning movements at the intersection, at 15 minute intervals. While this detailed 15-minute breakdown is useful to see how turning volumes change throughout the month a typical turning movement count for an intersection such as Indianola and 101 would also include the straight through volumes. As described below in the traffic analysis section of this memo, we have been able to use this detailed information to develop a traditional turning movement count summary for this intersection, but not without some effort and the result is merely an estimate.

Ideally, we would prefer a simple one-page sheet showing the peak hour turning (and through) movements at the intersection, preferably both the existing counts (typically manually counted by a person on site), as well as estimated future counts. Regarding future counts, the main thing we would be looking for is anticipated turning movement (and through) counts based on the change to the road network when the project is built (e.g. when all the left turns are prohibited). They've analyzed this and reported their results, but have not provided the actual count information to easily allow for an independent review.

Increases in Background Traffic

Several of the documents from Caltrans indicate that there will be ongoing traffic growth on the corridor, typically showing an increase factor of 1.4 each year. Using an approximate growth factor has been common practice on projects like this for decades. However, it is critical to note that there has recently been an unprecedented change in the growth in vehicle trips in the United States. The figure at right shows the actual total vehicle miles traveled (VMT) nationwide from 1987 until 2012, with several theoretical trend lines for future years. Since the 1950s until 2004, VMT increased at roughly the same rate (the figure shows this trend from 1987 until 2004). Since 2004, VMT has either grown more slowly or even dropped from year to year. The changes in growth in VMT call into question any predictions on the future growth in traffic on any corridor, including Route 101.



Historical trends for Vehicle Miles Traveled and possible future trends (Sources: Data: Federal Highway Administration. Future trends: interpolated from historical data)

Induced Growth or Development

Many transportation agencies have historically overlooked the potential growth or development inducing effect of roadway construction projects. However, it is now well documented that roadway projects can encourage growth and development, especially projects that increase capacity. But even when the overall mainline capacity isn't increased (e.g. in areas where capacity increases are restricted by the Coastal Act), changes to intersection control can influence future development nearby.

As an example, consider possible signalization of the intersection of Route 101 and Indianola Cutoff or other street or driveway access points to Route 101. The signals on 101 will increase travel time as noted in the Caltrans reports, thus possibly discouraging people from driving on 101, which could have several effects, including drivers shifting to other routes, but also might discourage development in areas that this effects. But on the other hand, right now there is a lot of delay when trying to make a westbound left turn onto Route 101 from the existing access points. Signals at these locations would absolutely make this left turn more convenient, potentially inducing growth on or near these side streets. For the minor streets/driveways on the corridor, signals would absolutely encourage growth on the properties that currently access this stretch of 101, especially compared to the alternatives that eliminate left turns at these locations, which would discourage growth/development at these locations

The installation of roundabouts could have similar traffic inducing effects, and due to lower overall delays might actually induce growth and development more than signals.

SIGNALIZED BOULEVARD ALTERNATIVE

General Evaluation

When compared to other alternatives, the signalized boulevard alternative is by far the worst alternative from an operational perspective. It will result in the most overall delay for traffic on Route 101. From a safety perspective, it falls somewhere in the middle. Traffic signals are better than any alternative that maintains uncontrolled left turns.

But as indicated in several of the documents from Caltrans, signals do result in an increase in rear-end crashes. Therefore, any alternative that eliminates uncontrolled left turn movements without adding signals will be a safer alternative. In addition, reducing the number of signals without allowing uncontrolled left turning movements will improve safety and operations for Route 101.

Although signals will likely result in more overall crashes than the alternatives that eliminate left turns without using signals, it is important to note that most of these crashes will likely be rear end crashes, which have lower severity than the angle crashes that are currently occurring with vehicles making uncontrolled left turns. This said, it is important to note that signalized intersections also experience angle crashes when drivers fail to stop at red signals. Red light running crashes are relatively rare, but in this case, there are other factors that may result in higher incidence of red light running. The context of this section of highway could potentially negatively affect red light running. North of Bayside Cutoff, Route 101 is a limited access freeway, where drivers expect few interruptions in free-flow conditions. Currently, the Eureka-Arcata segment of Route 101 acts as a transition between the freeway context in Arcata and the urban signalized context in Eureka. Southbound drivers see uncontrolled intersections in this

transitional zone before they encounter their first signal. If a series of signals is installed in this segment, this transition would no longer exist. The northernmost signal and possibly other signals would potentially experience higher than normal red light running incidents. This can be mitigated somewhat by installing warning signs with flashing beacons or changeable message signs, both treatments previously used by Caltrans in similar situations.

Number of Traffic Signals

Based on our experience in traffic design and engineering, it is unlikely that Caltrans would build a Signalized Boulevard alternative with six traffic signals. Many of the minor streets or driveways where signals are proposed have traffic volumes well below the thresholds typically necessary to meet the signal warrants in the California Manual on Uniform Traffic Control Devices (CA-MUTCD). It is highly unlikely that Caltrans would install a series of unwarranted signals. Safety and operational goals can absolutely be met with fewer signals. In fact, safety and operations on Route 101 would both be improved if the proposed signals were replaced with intersections with closed medians, prohibiting direct left turn movements. However, as minor street or driveway volumes increase at intersections with median closures, the inconvenience to users becomes greater, so it is more important to provide full movement intersections.

It is recommended that Caltrans consider a signalized boulevard concept with two to four signalized intersections. If a signalized boulevard concept is to be further considered, here are some considerations regarding which intersections should be signalized, listed with the most important intersections to signalize listed first:

1. **Indianola Cutoff:** This road appears to carry the most traffic of all the access points to Route 101, and this intersection's location would allow it to serve as an appropriate place to make U-turns for nearby lower volume access points where only right-in, right-out movements would be allowed. If a signalized boulevard alternative is used, we recommend that this intersection be the highest priority intersection for signalization.
2. **Airport Road / Jacobs Avenue:** This access point serves many businesses of various types, so requiring indirect left turns would make it inconvenient for more users than at other locations. Therefore a signalized intersection is recommended here.
3. **Bayside Cutoff:** This intersection serves as an important access point to the rest of the roadway network, and would be a useful location for a signalized intersection. There is also a long tangent along Route 101 north of this intersection, which makes the intersection visible to southbound drivers for more than a mile. This would make it easier to successfully notify southbound drivers that there is a signal ahead, as they leave the limited access portion of Route 101. On the other hand it is less important to include a signalized intersection here because Bayside Cutoff connects to the larger roadway network, making a full movement intersection here somewhat redundant with one at Indianola Cutoff. Any users who would prefer to access 101 at Bayside Cutoff could detour to Indianola Cutoff. However, users who want to access Bracut would be served by the ability to make U turns at this intersection.
4. **Mid-City Motors:** Of the remaining access points, Mid-City Motors likely has the highest volume of traffic entering and exiting traffic Route 101. In addition, the nearest U-Turn location to the north (Indianola Cutoff) would require 3 miles of out-of-direction travel. So a signal might be useful here, although it seems unlikely that signal warrants would be met.

5. Bracut: The traffic volumes at this location likely don't meet signal warrants. Additionally, if signals at Indianola Cutoff and Bayside Cutoff allow for U-turns, then the out of direction travel is not all that significant for users wishing to access the land uses here. It is recommended that a signal not be installed here.
6. Simpson Sawmill: The few land uses accessing the highway at this location likely generates very little turning traffic, so a signal is not recommended here.

Number of Travel Lanes

The following recommendations about number of lanes at signalized intersections are based on the intersection of Route 101 and Indianola Cutoff. This intersection carries the highest overall turning volumes, and is the only intersection that we have analyzed. Given the lower volumes at other intersections, we anticipate that the same number of (or fewer) travel lanes would be sufficient at other intersections as well.

Through Lanes

As described in the traffic analysis section at the end of this document, our analysis indicates that two northbound lanes and two southbound lanes would be sufficient for Indianola Cutoff with existing traffic volumes. Our estimated left turn and U-turn volumes require relatively short green intervals for the southbound left turn and the westbound left turn, which means that northbound and southbound traffic would experience sufficient green time to move the existing traffic in two lanes. To achieve the best level of service for northbound and southbound traffic in two lanes, the optimal signal timing includes a long signal cycle length of approximately 120 to 150 seconds. This results in relatively long average delays and poor level of service for the westbound and southbound left turn movements. However, we recommend this signal timing in order to favor the through movements on Route 101. Long cycle lengths may also reduce the phenomenon of induced development.

Turning Lanes

Northbound

Caltrans has recommended a deceleration lane for the northbound right turn movement at signalized intersections. The use of a deceleration lane is important to reduce rear-end crashes when drivers make northbound right turns during the northbound green interval. We recommend that this deceleration lane be included in the signalized intersection design.

Southbound

Caltrans has recommended a southbound double left turn lane at Indianola Cutoff. Our analysis indicates that a single left turn lane would be sufficient. We recommend that the signalized intersection include only a single southbound left turn lane, and therefore only one eastbound receiving lane on Indianola Cutoff.

Westbound

Caltrans has recommended two westbound left turn lanes and one westbound right turn lane. Our analysis indicates that one westbound left turn lane would be sufficient. We recommend that only a single westbound left turn lane be installed at this intersection, along with a single westbound right turn lane. However, the use of a double left turn lane does not appear to increase wetland

encroachment, and would further reduce the necessary green time for the westbound left turn movement, increasing green time for the northbound and southbound through movements along 101. So if any additional turn lanes are to be added in order to improve intersection capacity, it is reasonable to add this second left turn lane.

Additional Lanes for Future Year Traffic Volumes

Our analysis did not assume any future growth in background traffic along the Route 101 corridor. Caltrans estimated future traffic growth using a traffic model, and this future growth may be a factor, but they have not provided future estimated turning movement counts. In addition, as we noted in the “increases in background traffic” section of this memo, recent trends in traffic growth indicate that there may not be significant growth in traffic in the future.

Another way to look at the “necessary” number of travel lanes is to compare the through capacity of the existing roadway without signals with the through capacity of Route 101 with traffic signals. This may be especially useful since Coastal Act requirements don’t allow capacity increases in wetland areas. In their memos on this subject, Caltrans seems to ignore overall intersection capacity, and focus primarily on the capacity for through movements. The appropriateness of using intersection capacity versus through capacity is something that we won’t try to address; it is more of a legal question than a technical question. But for the sake of argument, I’ll focus on through capacities for the moment.

The recommendation by Caltrans for three through lanes southbound and four through lanes northbound may be an attempt to maintain the same through capacity for Route 101, even though this roadway is not near its capacity at this time. It is true that signalizing through movement will reduce the capacity of each of the lanes, therefore additional through lanes would be needed to maintain the through capacity. However, we believe that the signal timing at Indianola cutoff can be adjusted in such a way that three through lanes would be sufficient to carry the through traffic at the intersection. This is done by providing a long enough cycle length to ensure that the through movements have a green signal for at least 70% of the signal cycle. Given the low turning volumes, this should be possible if a long cycle length is used. If three through lanes are used for northbound and southbound traffic, it should be possible to add a lane on the approach to the intersection, and drop it again after the signalized intersections, as long as signals are installed at only the three highest ranked intersections in the list provided above. Because these signalized intersections are spaced fairly far apart, it would not be necessary to carry three through lanes for the entire length of the project.

Wetland Encroachment

The discussion of travel lanes above addresses minimizing the highway’s footprint in this area. Based on our analysis, the existing traffic can be handled with two through lanes northbound, two through lanes southbound, one southbound left turn lane, one northbound right turn lane, two westbound approach lanes (one for right turns and one for left turns, and one eastbound departure lane. This is a total of 13 approach and departure lanes at the intersection, compared to the total of 23 approach and departure lanes shown in the drawing from Caltrans. This is a significant reduction in the highway’s footprint.

If three through lanes for northbound and southbound traffic are used in an effort to maintain the existing through capacity, then the total number of lanes would be 17 lanes.

Other Recommendations

The following recommendations are suggested to minimize crashes, improve traffic flow (maintain existing capacity), maintain pedestrian and bicycle access, and/or reduce wetland impacts.

Pedestrian Treatments

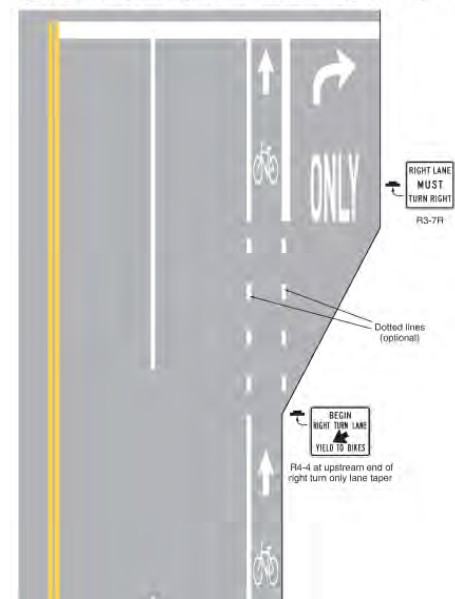
As described above in the review of background documents, it is possible to provide designated pedestrian crossings at the signalized intersections. These could be built as two-stage crossings, where pedestrians cross one direction of Route 101 at a time, or could be built to allow pedestrians to cross all the way across in one phase. Two-stage crossings would reduce the impact on motor vehicle traffic operations, but one stage crossings would provide less delay to pedestrians. Either way, the overall impact on traffic flow is likely to be minimal due to the fact that there are (and likely will be) few pedestrians on this corridor.

Bicycle Treatments

Because bicyclists can more easily travel long distances, bicycle travel on Route 101 is much more common than pedestrian travel. The signalized intersection design will allow bicyclists to make left turns to and from the minor streets more easily. Left turns from Route 101 are more difficult because ideally bicyclists should merge across two lanes of high speed traffic. As indicated in several of the Caltrans documents, this can be a difficult maneuver, especially as traffic volumes increase and there are few gaps in the traffic stream. If a pedestrian crossing is included at the signalized intersections, bicyclists would have the option of stopping at the intersection and crossing Route 101 like a pedestrian.

Another challenge for bicyclists with the signalized intersection design is the right turn lanes. In a typical rural intersection design, there would be a shoulder to the right of the right turn lane, and bicyclists would need to merge across the right turn lane. One solution to this problem in areas where consistent bicycle traffic is expected is to provide shoulder space between the through travel lanes and the right turn lane. This would be similar to the standard bike lane design shown at right (figure 9C-4 from the California MUTCD), except there would be no bike lane markings included.

Figure 9C-4. Example of Bicycle Lane Treatment at a Right Turn Only Lane



Continuous Green T Intersection

As described below in the Potential Alternatives section of this memo, we recommend that a Continuous Green T Intersection design be considered for each of the possible signalized intersections. This is essentially what has been proposed at Airport Road in Caltrans Preferred Alternative 3A, and called a "half signal".

CALTRANS PREFERRED ALTERNATIVE 3A

Caltrans Preferred Modified Alternative 3A includes a full interchange at Indianola Cutoff, and a continuous green T intersection (half signal) at Airport Road.

Indianola Interchange

An interchange at Indianola has both positive and negative aspects for all users. This memo doesn't discuss the significant cost of construction, impact on views of Humboldt Bay, wetland encroachment, and several other environmental concerns with the installation of an interchange. This memo focuses on the effects on the roadway users. On the positive side, it eliminates the need for pedestrians, bicyclists, and motorists to cross at grade, thus providing a safer condition for these crossing movements including left turn movements for bicyclists and motorists. On the negative side, the interchange results in out-of-direction travel for all users, as discussed further under Median Closures below.

Interchanges introduce one additional challenge for bicyclists and pedestrians, specifically the high-speed on and off ramp movements by motorists. These concerns are discussed at length in chapter 9 of the Caltrans document Complete Intersections: A Guide to Reconstructing Intersections and Interchanges for Bicyclists and Pedestrians. The following is a list of common issues with free-flow ramps from this document:

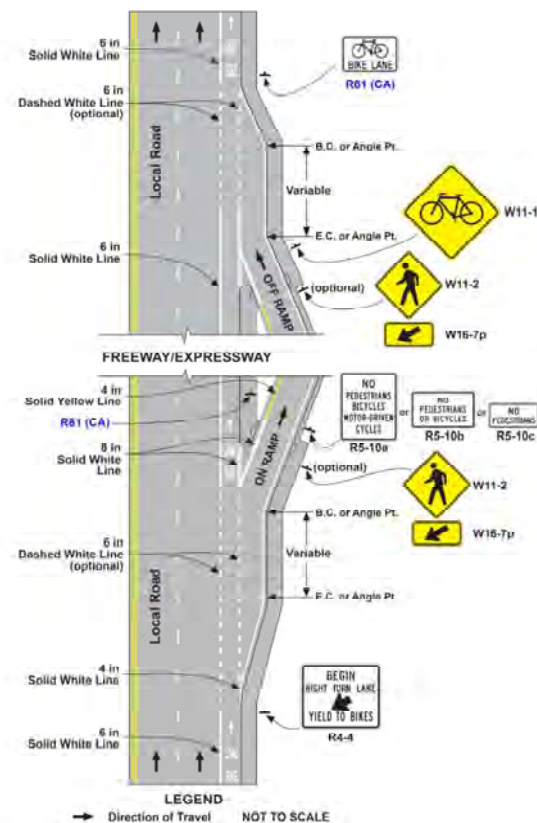
- Acute intersecting angle limits visibility of pedestrians and bicyclists;
- Crosswalks are not marked across ramps.
- Ramp traffic is not controlled, and motorists traveling at high speed are not likely to yield to bicyclists or pedestrians;
- Bicyclists may not use the best travel path when navigating through the intersection;
- Bicyclists must weave through free-flow turning traffic traveling at a much higher speed.

One mitigating solution to the free-flow ramp problem is to provide bike lanes or undesignated shoulder areas between the right turn deceleration lanes and acceleration lanes, as shown in Figure 9C-103 from the California MUTCD, shown at right.

Median Closures

One of the major challenges of this alternative is that it restricts left turning movements to just two locations along the corridor. This will make it increasingly difficult for people to choose to bicycle (or walk) to any of the land uses along this corridor. The theoretical out-of-direction travel

Figure 9C-103 (CA). Example of Bicycle Lane Treatment Through an Interchange



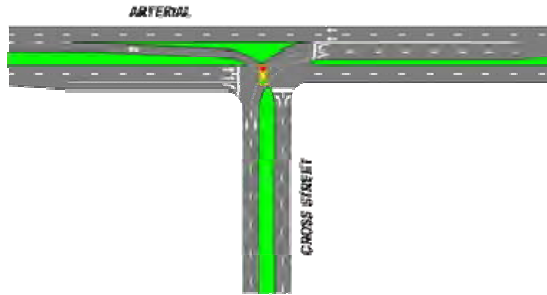
for these users can be considered the same as that calculated for motor vehicles in some of the Caltrans documents. However, when people bicycle or walk, they would be much more likely to choose not to take the circuitous route, and simply cross at random locations along the highway in order to take the shortest possible route; this is simply human nature. If a user is able to physically traverse the median including any guardrails that are used, they are quite likely to do so if this activity will save them a significant amount of time or effort. Design for pedestrian and bicyclists should facilitate movement along direct and simple paths.

POTENTIAL ALTERNATIVES

We propose the following ideas for consideration for the Eureka-Arcata segment of Route 101. We recommend that Caltrans evaluate these alternatives more fully, in order to meet the project goals, minimize environmental impacts, and reduce negative impacts to pedestrians and bicyclists.

Continuous Green T-intersection

This is an alternative design for signalized intersections, where the traffic along the top of the T intersection (in this case southbound Route 101 traffic) would not be stopped at the signal, but traffic in the other (northbound) direction would be stopped in order to allow left turns to and from the stem of the T. The image at right (from the Maryland State Highway Administration (MDSHA)) shows



this design (Route 101 would be the “Arterial” as labeled on this image). This design has been proposed by Caltrans for Airport Road as Modified Alternative 3A, called a “half signal.” We’ve chosen to use the term “Continuous Green T-intersection” (CGT) since this is what is used by the Federal Highway Administration (FHWA), and “half signal” is more commonly used for a special kind of pedestrian signal. For more information about CGTs, see the case study from FHWA at this link (<http://safety.fhwa.dot.gov/intersection/resources/casestudies/fhwasa09016/>). Our recommendation would be to consider the design of CGTs at Airport Road, Indianola Cutoff, and Bayside Cutoff, with closed medians at the remaining intersections and driveways.

Advantages

One major advantage of the CGT alternative is that there would be no southbound traffic signals, until beyond Eureka Slough, which is important due to the fact that southbound drivers have just driven on more than 20 miles of limited access freeway.

Disadvantages

Left Side Merges

One possible disadvantage of a CGT alternative is that it would maintain the situation where left side diverges and merges occur at this intersection. As pointed out in several of the background documents, left merges and diverges are discouraged by Caltrans compared to right merges and diverges. The alternative is traffic signals for southbound 101, which would likely have a much worse safety record than these merges and diverges. In fact, the left side diverge would still be in

place at a signalized intersection. Merging crashes are typically much less severe than the broadside crashes that occur at a signalized intersection when motorists fail to stop at red signals.

Acceleration Lane May Contribute to Wetland Encroachment

Another disadvantage of the CGT alternative is that there would be an acceleration lane along southbound 101 on the south side of each intersection, a feature that would not be necessary for normal signalized intersections. However, there would not need to be a northbound “left” turn lane (actually a U-turn lane) at the intersections. So unless the southbound acceleration lane would need to be longer than the northbound left turn lane, there wouldn’t be a significant difference in wetland encroachment between these two alternatives.

Pedestrian Crossings

The CGT alternative does not provide an easy way to provide a pedestrian crossing at the intersections. There are no pedestrian facilities on Route 101 in the existing condition, and pedestrians who choose to cross at the existing intersections must wait for a gap in traffic to cross each direction of travel. As mentioned above in the discussion about the signalized boulevard alternative, signalized intersections allow for an opportunity to provide pedestrian crossings. In fact, the California MUTCD states that “Signal design shall provide for or prohibit pedestrian movements.” For CGTs on Route 101, the southbound movement would typically not have a red signal that would provide a time when pedestrians can cross. There is an example of a CGT with pedestrian crossings in San Francisco at the intersection of Lake Merced Boulevard and Brotherhood Way (<http://goo.gl/maps/6dZiE>). In this case, the southbound traffic on Lake Merced Boulevard is only stopped when a pedestrian pushes the button to cross the street. This works fine in San Francisco where there are many signals nearby, so a red signal is not unexpected by southbound drivers. But on Route 101, introducing a rarely used red signal would likely result in frequent rear end crashes and red light running incidents, endangering pedestrians and other users. The best recommendation we have for this situation is to provide a signalized pedestrian crossing across the northbound travel lanes and the left turn lane to the island between the southbound through lanes and left turn lanes, and then provide a walkway to the edge of the southbound through lanes. Pedestrians would simply cross the southbound lanes when they found a gap, as they would at an unsignalized intersection. The alternative would be to prohibit pedestrian crossings at this intersection, per the California MUTCD.

Bicycle Treatments

For the most part, the CGT design is the same for bicyclists as a fully signalized intersection. The only difference is that it is difficult to provide a signalized pedestrian crossing as described above, so bicyclists would not have the option of crossing at a signalized pedestrian crossing.

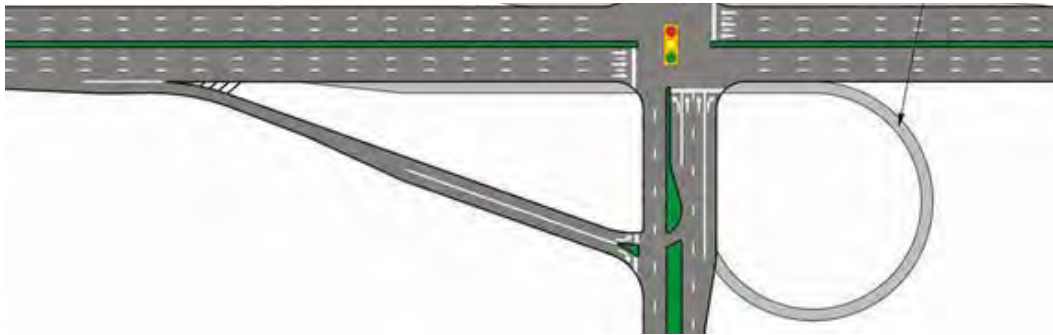
Turning Movements

With the Continuous Green T-intersection, all left and right turning movements would still be possible. Southbound left turns and U-turns would diverge off of southbound 101 to be controlled by the traffic signal, and westbound left turns would go through the traffic signal and then merge onto southbound 101. Caltrans proposed this design for Airport Road but not at other intersections, probably due in part to the desire to allow direct northbound U turns, which are not needed at Airport Road. Indeed there would be no way to allow these U-turns at the intersection. There are several possible ways to allow indirect left turns. Caltrans has already evaluated “Michigan left turns”, but this design creates significant wetland encroachment issues, and has

other problems. We recommend evaluation of two alternative methods of providing for indirect northbound U-turns, both of which have the advantage of occurring along the cross streets and not on Route 101 itself.

Jughandle Intersection

This type of intersection provides for indirect northbound U-turns. The image below from MDSHA shows two different types of jughandles. For Indianola Cutoff and Bayside Cutoff, the design shown on the left side of this image is the preferred design, primarily due to limited available land outside of existing wetlands. To make a northbound U-turn, drivers would make a right turn off of Route 101 in advance of the intersection, then a left turn onto the cross street, and then a left turn onto Route 101. The distance between the jughandle connection and Route 101 would be relatively short (about 180 feet), but given the anticipated low volume of northbound U turns at these locations, this should not be a major concern. Drivers making the left turn from the jughandle onto either Indianola Cutoff or Bayside Cutoff would only need to wait for gaps in traffic coming from the southbound left turn movement –the signal would provide long gaps that would easily allow this movement.



Bowtie Intersection

This type of intersection allows for U-turns at a roundabout (or “fake” roundabout) on the cross street. In this case, there would only need to be one roundabout on the east side of Route 101 (only half of the bowtie). The image below from MDSHA illustrates this solution.

At Indianola Cutoff, it is recommended to evaluate the placement of a roundabout at the intersection of Indianola Cutoff and Indianola Road, east of where 101 Slough crosses underneath Indianola Cutoff. It appears that a roundabout with the necessary 130-foot inscribed circle diameter could be built at this location without significant wetland impacts, and minimal right-of-way requirements, probably just on the north side of Indianola Cutoff.

At Bayside Cutoff, there are two options to evaluate. The first option would include a “fake” roundabout east of the driveway to the residence near this intersection. This option would require a right-of-way on both sides Bayside Cutoff. The second option would include a roundabout at the intersection of Bayside Cutoff and Old Arcata Road, similar to the existing roundabout at Indianola Cutoff and Myrtle Avenue. This option has the disadvantage that this intersection is a half mile away from Route 101.



Roundabout Corridor

In all of the reviewed background information, we did not identify any discussion of using roundabouts along Route 101 itself. There was a mention of a roundabout interchange at Indianola, but nothing on mainline 101. Within the past year, Caltrans has developed a new Intersection Control Evaluation and Selection process that recommends that roundabouts be given more consideration when changes to intersection control are being given. A Caltrans presentation (http://dot.ca.gov/hq/tpp/offices/ocp/ATLC_files/August_2012/6.pdf) about this process identifies several possible performance benefits of roundabouts including the following that are relevant to the Eureka-Arcata segment of Route 101:

- Safety
 - Reduction in Total Crashes by 35%
 - Reduction in Injury and Fatal Crashes by 76%
 - Slower speeds 15-25 mph at and near critical (conflict) area
- Operations
 - Less delay & queuing compared to signalization over a broad range of traffic volumes (for all users)
 - Optimizes intersection efficiency 24hrs a day
- Other
 - Access Management: Facilitate U-turns that can substitute for more difficult midblock left turns.
 - Environmental: Noise, air quality impacts and fuel consumption may be reduced.

Given this, we strongly recommend that Caltrans do a full evaluation of a roundabout corridor along Route 101. We recommend that roundabouts be considered for installation at Indianola Cutoff, Airport Road, and Bayside Cutoff.

Advantages of Roundabouts

Roundabouts have much better safety records than either signalized intersections or two-way stop controlled intersections, as shown in the bullets from the Caltrans presentation above.

Roundabouts would make it very easy for drivers to make U-turns in order to access locations that are anticipated to be restricted by median closures. With roundabouts at the 3 locations

mentioned above, the delay created by out-of-direction travel to the other access points would be less than in any other alternative.

Roundabouts would reduce fuel consumption compared to any signalized alternatives.

When compared to signalized intersections, roundabouts are a much better solution when drivers have just left a limited access freeway corridor. With a signalized intersection, drivers may have to brake abruptly when the signal changes from green to yellow to red. The roundabout is always there and familiar drivers would always expect to have to slow down somewhat as they approach and go through the intersection. In addition, the central island of the roundabout can be designed and landscaped in a way to be very visible to drivers as they approach. In the event of an inattentive driver approaching a roundabout, the resulting crash is typically a fixed object crash instead of a high speed angle (broadside) crash at a signalized intersections (both roundabouts and signals can also have rear-end crashes).

Roundabouts are likely safer than signalized intersections in foggy conditions (a common occurrence adjacent to Humboldt Bay), because the roundabout is always there and slowing is anticipated by familiar drivers.

Because traffic doesn't need to be stopped for a specified time to allow other movements, roundabouts don't typically require additional approach lanes and departure at the intersection. And if additional capacity is desirable at roundabouts, the approach lanes and departure lanes can be quite short, sometimes simply flaring to a wider entry width immediately adjacent to the roundabout. This could result in smaller wetland encroachment than signalized intersections.

Disadvantages of Roundabouts

A full interchange like the one proposed at Indianola Cutoff may improve safety even more than a roundabout.

Roundabouts require slow speeds for through movements regardless of whether or not there is cross traffic. This is one of the reasons that they have a significant safety advantage. However, this slowing results in geometric delay, which would be experienced at each roundabout by every motorist who travels the corridor. On the other hand, stopped delay is typically shorter at roundabouts than at signalized intersections.

Roundabouts require a large footprint at the intersection. In this case, an inscribed circle diameter of 160 to 180 feet is recommended, which is wider than the existing width of the highway. The roundabouts would need to be offset to the east somewhat in order to avoid encroaching into Humboldt Bay, but it appears that the roundabout geometry can be designed to make this work at all 3 locations on Route 101. In addition, in order to provide adequate deflection at the roundabouts, the approach and departure roadways would need to be realigned toward the median of the existing highway, encroaching on the wetlands in the median. These encroachments could easily be mitigated by providing wetlands in the central island as well as the areas vacated by realigning the approach and departure roadways.

Bicyclists at Roundabouts

Roundabouts would serve bicyclists who want to make left turns better than signalized intersections because the roundabouts would make it easier for bicyclists to merge properly to make left turns. Motorists would be physically required to slow to about 20 to 25 mph, a speeds that are much more compatible with bicycling.

The disadvantage for bicyclists is that all bicyclists including through bicyclists would need to merge with motor vehicle traffic in order to continue through the roundabout. For southbound bicyclists, it might be possible to provide a bypass bike lane on the west side of the road so bicyclists don't have to go through the roundabout. This bike lane would be physically separated from the roundabout, which would make for a nice environment, but make it difficult to maintain.

Pedestrians at Roundabouts

It would be recommended to simply provide pedestrian walkways in the splitter islands of the roundabout, showing pedestrians where to cross at the safest location. Given the low volume of pedestrians, sidewalks and marked crosswalks probably wouldn't be necessary, although it might be beneficial to reserve space for future sidewalks around the roundabout. Even without crosswalks and sidewalks, the roundabouts would make it much easier for pedestrians to cross Route 101, because drivers would be driving only 20 to 25 mph.

TRAFFIC ANALYSIS

The traffic analysis discussed below is only for the intersection of Route 101 and Indianola Cutoff, as this intersection has the highest turning volumes along the corridor.

Traffic Counts

Caltrans provided turning movement counts for the intersection, collected at 15-minute intervals for nearly an entire month during September 2012. We used data from Tuesdays, Wednesday and Thursdays to find the average morning and afternoon peak hour turning volumes for a typical weekday. Mondays and Fridays were not used, as they are usually affected by weekend traffic.

To generate the missing through movements, we used the 2011 traffic volumes published by Caltrans in the 2011 Traffic Volumes on California State Highways¹ as shown in the table below. We used the "Back Peak Hour" and "Ahead Peak Hour" volumes to add to the average turning movement counts for a weekday in September. When balancing the volumes at the intersection, we always chose the highest volume in order to err on the side of more traffic, rather than less traffic. The resulting turning movement counts are shown on the left side of the figure on the next page.

2011 Caltrans Traffic Counts at Indianola Cutoff

Route	County	Post mile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
101	Humboldt	82.68	Indianola	3,450	38,000	36,000	3,950	38,000	36,000

Accounting for U-turns

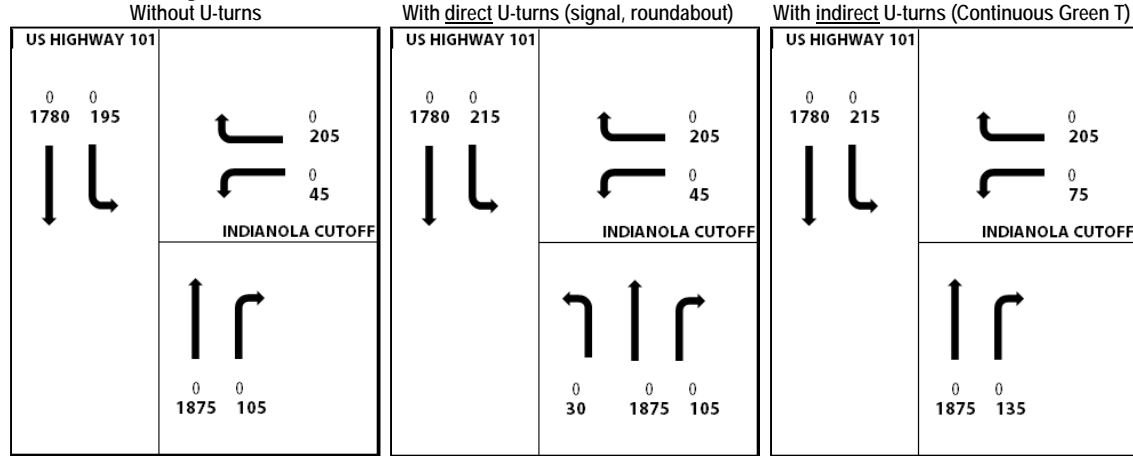
Several of the proposed designs call for closing the median at several intersections and driveways. However, there are properties at these intersections that generate traffic – south of Indianola Cutoff there is a car dealership and a lumber yard, and north of Indianola Cutoff (Bracut) there is

¹ <http://traffic-counts.dot.ca.gov/2012TrafficVolumes.pdf>

an RV park, bicycle camping, and some industrial uses. With the median closed, people entering or exiting these land uses would need to make U-turns at Indianola. For example, vehicles exiting the car dealership and wishing to turn south would need to first turn north and then make a u-turn at Indianola. For the purposes of this analysis, we assumed that Airport Road and Bayside Cutoff would also be signalized or have roundabouts, allowing left turn and U-turn movements. So no U-turn volumes from these intersections were included in the analysis at Indianola Cutoff.

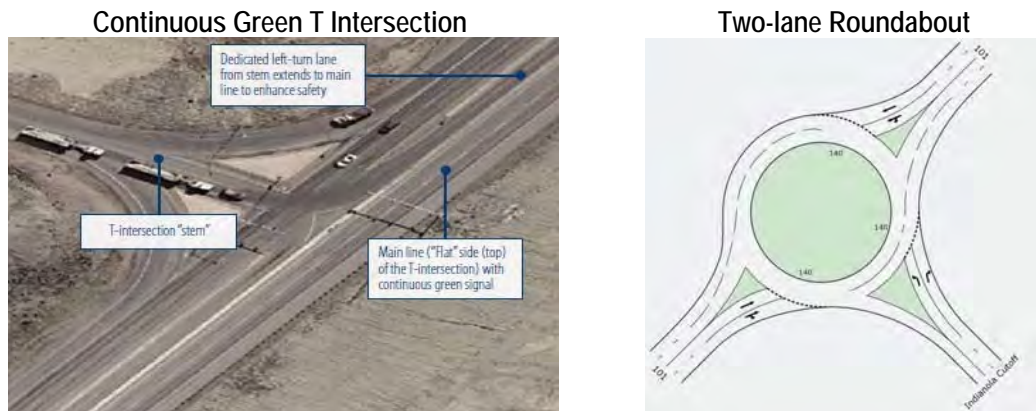
For the signalized and roundabout alternatives, direct U-turns are possible, resulting in the turning movement counts shown in the middle image below. For the Continuous Green T-intersection alternative, only indirect u-turns would be permitted for northbound to southbound U-turns. That is, first turning right onto Indianola Cutoff, then making the u-turn there, and then turning left back onto 101. We consulted the ITE Trip Generation manual for the land uses at the minor intersections in question, and determined that *at most* these land uses would add 30 northbound U-turns (i.e. 30 right turns and 30 westbound left turns for the CGT alternative), and 20 southbound U-turns.

PM Peak Turning Movements



Scenarios

Three different configurations were tested against the existing design – a conventional signalized intersection, a Continuous Green T-intersection, and a two-lane roundabout.



Sources. Left: CDOT/FHWA ©. Right: Nelson\Nygaard and Sidra software.

Summary of Results

Intersection performance was analyzed using Synchro and Sidra, two software packages commonly used in the transportation engineering industry to investigate how intersections perform under varying traffic conditions. Only the PM peak was analyzed, as volumes were overall higher for almost all movements than during the AM peak. For the signalized scenario, the signal timing was optimized to produce the best possible results. As can be seen in the table below, a roundabout would provide the lowest overall delays.

Intersection	Control Type	PM Peak		PM Peak + U-turns	
		LOS	Delay (sec)	LOS	Delay (sec)
Route 101 at Indianola Cutoff	Signalized	B	18.3	C	23.6
	Continuous Green T	B	15.9	B	17.4
	Roundabout	A	9.0	B	11.3

DEPARTMENT OF TRANSPORTATION

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August 27, 2013

File: 01-HUM-101
PM 79.9/86.3
01-366600
Eureka-Arcata Route 101
Corridor Improvements

Mr. Mark Delaplaine, Manager
Energy, Ocean Resources
and Federal Consistency Division
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Subject: Response to 6/27/2013 CCC Staff Report re: Eureka-Arcata Federal Coastal
Consistency Determination/Certification CC-016-13

Dear Mr. Delaplaine:

The California Department of Transportation (Caltrans), on behalf of the Federal Highway Administration (FHWA) and Humboldt County Association of Governments, has prepared the attached response presentation to the 6/27/2013 CCC Staff Report regarding the Eureka-Arcata Federal Coastal Consistency Determination/Certification CC-016-13. This information may be shared with Coastal Commissioners per the Ex Parte Communication requirements.

If you have any questions or require additional information, please contact me at (707) 441-5730.

Sincerely,

SANDRA ROSAS
Branch Chief
North Region Environmental Services Branch E-1

Exhibit 28
Caltrans Response to
July CCC Staff
Recommendation

List of Attachments

Response document
Digital slide presentation
Traffic simulation.

c: Robert Merrill - North Coast Coastal Commission Office
Tami Grove – Central Coast Coastal Commission Office
Shawn Oliver – FHWA
Larry Vinzant – FHWA
Marcella Clem – HCAOG

Federal Highway Administration (FHWA)
California Department of Transportation (Caltrans)
Humboldt County Association of Governments (HCAOG)

Eureka-Arcata U.S. Route 101
Corridor Improvement Project

**U.S. Route 101, between the Eureka Slough Bridge, Eureka
and the 11th St. Overcrossing, Arcata
County of Humboldt**

Applicants' Response to California Coastal
Commission Staff Report Recommendations dated
June 27, 2013 regarding FHWA Federal Coastal
Consistency Determination

Consistency Certification No.: CC-016-13

CCC Hearing September 12, 2013

A copy of this response document has been provided to the
San Francisco CCC staff and the North Coast District CCC staff.

Executive Summary

The California Department of Transportation (Caltrans), the Humboldt County Association of Governments (HCAOG) and the Federal Highway Administration (FHWA) (the Applicants) provide the information below to the California Coastal Commissioners to underscore and summarize the findings developed over thirteen years of rigorous technical analysis and design revisions that support the FHWA Federal Consistency Determination for the U.S. 101 Eureka-Arcata Corridor Improvement Project (the Project). That consistency determination explains that the construction and operation of the Applicants' Modified Alternative 3A (the Preferred Alternative) will be consistent to the maximum extent practicable with the enforceable policies of the state coastal management program.

Commission Staff recently recommended that the Commission object to the consistency determination. For reasons explained in detail below, Applicants demonstrate that this recommendation is contrary to the facts and the Coastal Zone Management Act (CZMA). First, the purpose of the Project is not to increase the corridor's traffic capacity, rather, it is to reconfigure and upgrade the current facility to reduce the high fatal and injury accident rates that have plagued the Corridor since Caltrans began studying the issue in 2001. In addition, the traffic studies support the finding that the Project, in fact, does not have the effect of increasing traffic capacity. The Preferred Alternative best satisfies this vital purpose while requiring fill of very limited wetlands acreage that is more than offset by the Applicants' mitigation commitments. Second, the Preferred Alternative maintains as low a visual profile as possible so as to minimally impact coastal views from throughout the Humboldt Bay region. Third, it will supply new and enhanced opportunities for connecting the public with low-cost recreation resources within the coastal area. And fourth, due to the existence of a variety of external factors, the Preferred Alternative will not remove any barriers to growth within the coastal area.

I. The Project and the Applicants' Preferred Alternative

The six mile stretch of U.S. 101 connecting the cities of Eureka and Arcata (see Exhibit 1 for Project maps) has seen continued unacceptable levels of collisions since Caltrans initiated its environmental study in 2001. (See Exhibit 2 - collision chart, noting increased frequencies at Mid City Motor World and Indianola.) While the safety corridor signage has provided temporary relief, the efficacy of this program is expected to diminish over time as drivers become accustomed to it and enforcement is defunded.

The primary purpose of this Project is to provide a set of safety enhancements and other improvements to reduce the corridor's collision rate. These enhancements are designed to target the principle cause of the danger — the six, at-grade, uncontrolled intersections within the

corridor allowing for dangerous uncontrolled left-turn movements — without impacting the overall carrying capacity of the road facility.

The Applicants developed several distinct design solutions through rigorous analysis, public comment and years of discussion with Commission Staff, ultimately distilling the commentary to five alternatives. Of these five, the Preferred Alternative emerged as the least environmentally damaging practicable alternative. The U.S. Army Corps of Engineers, Federal EPA, and U.S. Fish and Wildlife Service all concurred with the Applicants' determination. FHWA issued its Federal Coastal Consistency Determination based upon the Preferred Alternative in January 2013.

The Preferred Alternative will result in the elimination of uncontrolled left turn movements within the corridor by closing all of the median crossings. Two of those intersections will then reopen: one of them with a grade-separated interchange and the other with signal improvements. Additional safety enhancements include extension of acceleration and deceleration lanes at these intersections and rehabilitation work to bring the corridor up to current traffic engineering design standards to the extent it is feasible to do so. Corridor safety will also be improved by replacing the southbound Jacoby Creek Bridge, bringing it up to current design standards.

II. Federal Coastal Consistency

The Commission Staff report recommends that the Commissioners object to the FHWA Consistency Determination for the Project. This recommendation follows Caltrans' and the other Applicants' extensive collaboration and consultation with Commission Staff over the last thirteen years, during which the Applicants have worked to avoid, minimize, and mitigate the Project impacts to the Coastal Zone. It is based upon such discussions and other analyses that the Applicants are confident in their claims that the Project can be delivered in a manner that is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program.

There are four bases for the Commission Staff recommendation: 1.) that the Project would impermissibly fill wetlands; 2.) that it inadequately protects public views; 3.) that it does not sufficiently support public access and recreation goals; and 4.) that it would induce growth. The information that follows supports the Applicants' positions with respect to each of these areas of Commission Staff concern.

III. The Project requires limited use of wetlands

The Preferred Alternative will have 10.3 acres of permanent wetland impact. Nonetheless, a project that uses wetlands is consistent with the California Coastal Management Program if it: 1.) qualifies under one of seven prescribed allowable uses, 2.) when there are no feasible, less

environmentally damaging alternatives available, and 3.) feasible mitigation measures are provided that will minimize the effects of the wetlands impacts. The Preferred Alternative satisfies all three tests.

A. The Preferred Alternative is an Allowable Use

Section 30233 of the Act lists the limited allowable uses for filled wetlands including uses incidental to public service purposes. Road projects may serve incidental public service purposes when no better alternatives exist and when the project is necessary to maintain the road facility's existing capacity.

The Commission Staff report states that the Preferred Alternative does not meet these qualifications due to a misapprehension that the grade-separated Indianola interchange will increase capacity. Such claims ignore the traffic engineering analyses completed by the Applicants.

The Preferred Alternative would add no new lanes for through traffic on U.S. 101 or the local streets and thus it cannot be capacity-increasing. Instead, the Preferred Alternative will improve the level of service within the facility's existing carrying capacity. This is just as true at Indianola as it is elsewhere within the corridor. The planned interchange maintains existing capacity as it is designed with single-lane ramps. While there is no other grade separation included within the Preferred Alternative, the presence of a grade separation at Indianola does not belie an increase in capacity as the Staff Report suggests, but rather it is a response to the fact that the existing intersection had the highest collision rate anywhere within the corridor.

While capacity will remain constant, the level of service provided is expected to greatly improve. The improved access for left turning drivers throughout the corridor and especially at Indianola will reduce or eliminate the dangerous and frustrating queues that slow drivers within the existing corridor. These drivers become impatient and choose inappropriate times for completing their left turn movements; a frequent cause of fatal and injury broadside collisions. The rates for such collisions are expected to decline under the Preferred Alternative.

The resulting safety benefits would not just accrue to through travelers, but would also benefit coastal visitors in motor vehicles, on bicycles, and on foot, by providing safer access to coastal resources for all of them. Similarly, the grade separation will provide the best way to safely and efficiently access the Bay Trail being developed for the rail right of way immediately west of the corridor, by providing a connection between the west side of U.S. 101 and Old Arcata Road (see part V, below, for more information about the Bay Trail).

Through these enhancements, the Preferred Alternative is expected to provide a public service (improving safety performance) that is incidental to the primary transportation purpose of the existing facility. The Preferred Alternative would thus constitute an allowable use of the wetlands it will permanently impact.

B. The Commission has recently approved similar projects

The Commission has approved very similar projects for similar reasons in the recent past. The Genesee Overcrossing highway improvement project in San Diego and the Alton Interchange project in southern Humboldt County are two such projects where similar wetland impacts were approved.

The primary purpose of the Genesee Overcrossing project was to accommodate both existing and future traffic. To make these accommodations, the Commission allowed 1.12 acres of wetlands fill because the project was found to not increase capacity. Reviewing the consistency certification, the Commission relied on the fact that the existing overcrossing was a four lane bridge, connecting two six lane segments of Genesee Avenue. The Commission understood that bringing the bridge up to six lanes as well did not increase overall capacity, but instead just removed a local bottleneck from the facility.

As at Genesee, with the Preferred Alternative, the constant number of through lanes is the determining factor for evaluating capacity. In addition, neither project is part of a new route or highway expansion and both are described as “improvements.”¹ As at Genesee, the Preferred Alternative constitutes an allowable use for the limited wetlands acreage at issue.

The Alton Interchange project is a highway improvement requiring permanent impacts to prime agricultural lands, another coastal resource protected by the Commission. Impacts of this scale (about four times as large as the impacts of the Preferred Alternative) were acceptable to the Commission because of the improved safety and connectivity with coastal resources that would result from the project. This same rationale is plainly applicable to the Preferred Alternative, where improved safety and access are the intended results of the project.²

C. The Preferred Alternative is the Least Environmentally Damaging

The second test for use of wetlands requires the applicant to demonstrate that the Preferred Alternative is the least environmentally damaging feasible alternative available. Caltrans’ analyses of alternative designs of its own creation, designs developed through the public comment period, as well as the alternative suggested by Commission Staff, all indicate that the

¹ The Genesee staff report dated June 14, 2012, stated that “The Commission has in the past determined that the fill for certain highway improvement projects that was necessary to maintain existing capacity was considered to be for an “incidental public service” pursuant to the requirements of Coastal Act Section 30233(a)(4). This finding can be supported for this coastal development permit application on the basis that the proposed project, an interchange and associated freeway improvements, is not part of a new route or highway expansion. In particular, this interchange project does not expand the capacity of the roadway system which is consistent with the determination that the construction proposed in the subject project is “incidental” to the overall existing highway and roadway facilities. For the reasons set forth above, the Commission finds that the proposed fill is for an incidental public service purpose, and thus **is an allowable use** for placement of fill within a wetland, pursuant to Section 30233(a)(4) of the Coastal Act.

² Addendum to Commission Meeting for Thursday, June 12, 2008, North Coast District Item Th21c, CDP Application No. 1-07-038.

Preferred Alternative is the least environmentally damaging solution for addressing the primary project purpose of improving safety within the corridor.

A feasible alternative must meet the primary purpose of the project.³ Caltrans analyzed the alternative supported by Commission Staff involving a signal at the Indianola intersection (the Signalized Alternative) and found that it would be infeasible.

Caltrans traffic engineers found that the Signalized Alternative would fail spectacularly. Using existing 2013 traffic volumes during the afternoon Peak Hour (4-5 pm), the average traffic queue length for northbound U.S. 101 at Indianola would be about 104 cars or 2,600 feet. The maximum queue would be 120 vehicles long or 3,000 feet. Moreover, closure of the other median crossings for safety would further increase demand at Indianola, lead to longer queues, result in a lower level-of-service, and increase the potential for deadly broadside collisions. In fact, the Caltrans Safety Office has forecast a 45% decline in collisions for the Preferred Alternative against the Signalized Alternative, examining both broadside and rear-end collisions. The likelihood of the latter collision type is increased when a signal is added to expressways in rural settings with high traffic volumes, such as the corridor. The Signalized Alternative would also fail to adequately protect bicyclists and pedestrians who use the facility, as there would be no grade or barrier separation included under the Signalized Alternative. In conclusion, far from enhancing safety, the Signalized Alternative would actually exacerbate the problems that currently exist in the corridor, rendering it *less* safe.

D. The Humboldt Baykeeper's Nelson-Nygaard Memorandum is flawed

Commission Staff largely ignored Caltrans analysis, justifying its decision based on a supposed institutional bias for interchanges and a report compiled at the behest of Humboldt Baykeeper dated August 6, 2013⁴. Commission Staff requested Caltrans respond to the Baykeeper Report and it does so here. As an initial matter, the study was quite rudimentary and deeply flawed, owing to the absence of verifiable data supporting its conclusions (there were no appendices supporting the data claimed, nor was Caltrans ever contacted to provide its data to the reporters). In fact, the traffic volume data that was used in the firm's analysis was not provided anywhere in its report. The report also relies upon specific software programs as they are the only source for certain conclusions reached, and yet there is no evidence that the Humboldt Baykeeper consultant had such software at its disposal. In fact, it is unclear whether the consultant conducted any of its own independent traffic counts.

There were several other flaws to the report. For instance, it is unclear whether the analysis used software default values or the actual parameters used by Caltrans in its signal timing plans (i.e. all red times, yellow times, bicycle accommodation, etc.) The consultant also admitted that it

³ Office of Ocean and Coastal Resource Management, Consistency Appeal of Chevron USA Inc. from an Objection by the California Coastal Commission (Oct. 29, 1990) (upholding Commission objection to offshore drilling based upon alternative that was consistent with the Coastal Plan and satisfied the project's primary purpose).

⁴ Nelson-Nygaard Memorandum dated August 6, 2013

only used existing year traffic analyses, the logic for which is not explained and appears to be inferior to the twenty year planning horizon built into Caltrans designs. The Baykeeper consultant's report actually offered no analysis of future conditions of any kind, nor did the report provide any analysis of the queuing times and distances expected at peak times or the low performance of the overall facility that would result. In general, the Report was vague and unsubstantiated, claiming that the problems Caltrans anticipated would be accommodated through signal timing, yet never identifying what that signal-timing would be.

The consultant's report then concludes by suggesting several more nascent design alternatives, incorporating jug handles, T-intersections, bowtie intersections, and a roundabout corridor, although it fails to provide the information necessary to determine whether the underlying traffic, geometric, or environmental (i.e., wetland impacts) analyses had been performed for any of these suggested alternatives.

Based upon the concerns articulated above, Caltrans could not responsibly disregard its own studies in place of the unsubstantiated claims of the Nelson-Nygaard Report, although that is precisely what Commission Staff has done. That report, containing little more than untested conjecture, is not a sound basis for rejecting thirteen years of project development and design.

E. Feasible Mitigation Will Minimize the Effects of the Wetlands Use

An interagency meeting was held on August 22, 2013, to address CCC staff concerns regarding proposed project mitigation and to come to agreement on appropriate compensatory mitigation for the project. In attendance were representatives from the U.S. Fish and Wildlife Service and the Federal Highway Administration, in addition to CCC Federal Consistency staff (Mark Delaplaine), CCC North Coast office staff (Bob Merrill, Dr. John Dixon), and Caltrans staff and management. The goal of the meeting was to provide recent information of the historical ecology of the Humboldt Bay area with regard to wetlands, providing CCC Federal Consistency staff additional information regarding the mitigation plan and addressing any potential outstanding staff concerns. The outcome of the meeting was positive and meeting objectives were met. CCC staff did request further elaboration on the inability of commercial/industrial sites, previously investigated for mitigation potential, to provide ecologically sound mitigation. Please see Attachment 1 (dated 8/27/13).

IV. Public Views

The Preferred Alternative conforms to the standards and policies of the Coastal Act relating to preservation of coastal visual qualities, and such qualities were considered and protected throughout the design development process. Section 30251 of the Act requires that applicants consider and protect visual resources of public importance, minimize alterations to natural land forms, and that a project remains visually compatible with the character of surrounding areas.

The Preferred Alternative satisfies these criteria. Commission Staff's objection to the Project based on purportedly inadequate attention to public views is not supportable under the Section 30251 standards, nor does the Preferred Alternative fail to satisfy the alternative standards that Commission Staff applied instead.

Commission Staff's objections related exclusively to the Indianola interchange, where the height of the facility would block views of Humboldt Bay from westbound Indianola traffic. After stating the statutory standard applicable to public view protection, the Commission Staff Report then proceeds inexplicably to reference Humboldt County LCPs: "while at this stage of the Commission's review . . . local Coastal Programs are not the legal standard of review, the Commission nevertheless looks to the relevant LCPs for guidance in conducting federal consistency reviews." However, Commission Staff examined the Preferred Alternative's consistency with LCPs at some length, and yet Commission Staff failed to note that these LCPs emphasize views *from* U.S. 101 (views which would be undeniably enhanced by the Preferred Alternative's elevation), rather than views *across* it. Thus the Applicants request that if the Commission Staff is going to apply the standards of the LCPs, then they should do so in their entirety.

The Preferred Alternative would also meet the statutory standard of Section 30251. While it is true that the height of the interchange would block the view from westbound traffic on Indianola until it emerges from under the interchange, there are no public viewing areas to the east of the highway that would be negatively impacted by this limitation. The reason for this is fairly obvious from the photographs from the area revealing that the Bay is barely even visible from the eastern side of the highway. There are public viewing areas elsewhere around the Bay, and from those positions, the interchange is not particularly visible due to its low profile and the presence of significantly taller trees nearby.

Commission Staff additionally objects to the scope of earth moving activity to support the elevated interchange. The statute, however, protects "*natural* land forms" (emphasis added), and the landscape of the Indianola intersection is anything but natural. Instead the landscape is the reclaimed result of more than a century of diking and dredging of Humboldt Bay, predominantly to assure the stability of the railroad right of way running parallel and to the west of the corridor. The non-native trees, billboards, the abandoned rail line itself, or the permanently shuttered drive-in theatre in between the right of way and the bay elements of the natural landscape are also unlikely to be regarded as highly scenic. Elsewhere within the Commission Staff report this reality is well understood, as evidenced by the Commission's earlier statement that: "the reality that the 101 corridor between the two cities is both semi-urban and semi-rural environment." This is one of the semi-urban sections, which is not to say that it lacks visual value, but rather that it is a reasonable location for a landscaped interchange. The parties have recently agreed to mitigate for the interchange further by working with the owner, advertiser, and relevant Caltrans organizations to fund the removal of the outdoor advertising display (shown in photograph below) currently blighting this area of the corridor.



Existing View Westbound Indianola Road



Existing View Northbound U.S. 101

V. Public Access and Recreation

The Commission mandate with respect to public access and recreation arises under the Constitution and sections 30213-14 of the Coastal Act. Provisions relating to the Applicants' coastal trail obligations are found at §31408, and in AB 1396 (2007). (§30214(c).) This authority imposes limited requirements upon coastal consistency applicants, urging them to coordinate, cooperate and consult with the Commission and other coastal actors with the aim of developing the Coastal Trail. Absent from the legislative regime is any obligation requiring the Applicants to fund or build the trail. Nevertheless the Applicants are committed to preserving

and enhancing coastal access and recreational activities where feasible and within the project scope.

Commission Staff is concerned that the Preferred Alternative would adversely affect bicycle use by eliminating the median crossings, thereby extending out of direction travel. Commission Staff also anticipates increased vehicle speeds after the Preferred Alternative is completed that could endanger bicyclists.

These are legitimate concerns that the Applicants share, but such concerns are addressed by several of the design features within the Preferred Alternative. Consistent with the Project purpose and need, and in recognition of the unique difficulties faced by the corridor's bicyclists, Caltrans is proposing phased improvements throughout the corridor. The first phase of these improvements shall include shoulder widening to ten feet, lane narrowing at the lane closest to the median for traffic calming, rumble strip and shoulder stripe installation, and colorizing the shoulder to enhance its visibility. During a second phase, the Indianola interchange would allow for a grade-separated bicycle crossing which would all but eliminate the hazards left turning bicyclists currently face. To a lesser extent, but still much improved over the existing conditions, the half-signalization of the Airport Road intersection will also enhance bicyclist safety, as will lengthening of the acceleration and deceleration lanes and widening the southbound Jacoby Creek bridge to accommodate a separated bicycle/pedestrian trail.

The Coastal staff contends that closing the median openings would negatively impact coastal access since it would thereafter require out of direction travel for some bicyclists at certain intersections. While this is undoubtedly true for a limited number of bicyclists, most bicyclists use the corridor as commuters between its two termini.

Commission Staff also expressed concern about the impact of the Preferred Alternative on bicyclist safety. The Applicants assert, however, that the grade separation at Indianola would improve safety and access for all travel modes, especially commuters (both automobile and bicycle) and touring bicyclists. This latter group is regionally served by the popular Pacific Coast Bicycle Route, allowing bicyclists to use the corridor year round to reach destinations as far south as Mexico. The touring bicyclists are also expected to use coastal campgrounds within the corridor area. Lastly, Caltrans is committed to keeping the speed limit at 50 mph within the corridor, insofar as the vehicle code allows. All bicyclists are expected to appreciate the enhanced safe access the Preferred Alternative will provide to coastal campgrounds and other coastal facilities. The Preferred Alternative would accordingly provide a safer environment for accessing coastal resources for both motorists and bicyclists.



Proposed Grade Separation



Grade Separation with future Bay trail

A. The Applicants support the Coastal Trail

Pedestrian access to coastal recreational activities would also benefit from the Preferred Alternative, due to the Applicants' ongoing support of the proposed enhancements of the Bay Trail. Two roughly parallel trails are currently in various stages of analysis or completion around Humboldt Bay. The more easterly of the two would utilize an existing railroad right of way running between the corridor and the Bay (the "Bay Trail"). Commission Staff, however, indicates a preference for an interim coastal trail immediately adjacent to U.S. 101 to serve coastal visitors until the Bay Trail is complete.

While a trail system with several redundancies providing a variety of options for coastal trail users would be a wonderful addition to the bay coastline, such a system is not a feasible addition to this Project. To add an interim coastal trail as Commission Staff advocates, would require an additional twelve feet of paved area (an eight foot trail with two two-foot shoulders) in addition to a two-foot wide and three-foot high concrete separated barrier. This interim solution would cost an estimated \$12 million to construct (not including wetland mitigation costs) and consume an additional 7.6 acres of wetlands. The interim trail would therefore be inconsistent with certain values the Commission aims to protect. Furthermore, incorporation into this Project would severely undermine the Bay Trail's future, as HCAOG has stated that it could not support both a Bay Trail and an interim trail.

Commission Staff is reluctant to accept the Applicants' claims concerning the Bay Trail because they understand that trail option to be somewhat speculative. However, this understanding is not accurate. The City of Arcata has already developed plans and has completed the environmental process for 5 miles of the Bay Trail and is planning on breaking ground next summer. The section of the Bay Trail from Bracut to Eureka is in the planning stages and project lead HCAOG is identifying funding sources and will begin the environmental approval process in the near future. In Eureka, the Bay Trail will connect to a series of coastal trails, such as the Elk River-Hikshari trail, which was recently opened by the city. The long-term plan for the Bay Trail project is to provide a bicycle/pedestrian trail from old town Eureka to the Heritage Museum in Samoa across Humboldt Bay. Recent developments reinforce the Applicants' position that the Bay Trail is far from speculative. A recent North Coast Railroad Authority (NCRA) resolution would allow the trail to proceed in the rail right of way under certain conditions, and funding sources are beginning to fall into place.⁵ Therefore, the Project proponents will continue to

⁵ One plan requires approximately \$2.7 million for construction and Caltrans has already committed \$1 million for construction of a segment of the rail with trail project. Furthermore, the Caltrans director supports TIGER grant application for the balance of the \$2.7 million needed. Under this plan, Caltrans will supply staff assistance for NEPA approval and to supplement the trail system with elements from the Preferred Alternative, including a separate bike and pedestrian path on the proposed southbound Jacoby Creek Bridge replacement. Portions of HCAOG's regional local transportation funds are also earmarked for the Bay Trail project, and HCAOG staff have confirmed with Coastal Conservancy staff that work on the north coast 3-year plan will commence in October with the Bay Trail as the top priority. In addition, HCAOG intends to get a sales tax initiative on the ballot in 2016 for transportation funding. If the Bay Trail is not funded by then, HCAOG could include it in the Expenditure Plan.

coordinate and consult with Commission Staff and other interested agencies concerning issues relating to the Coastal Trail in satisfaction of their statutory obligations, but can only expend such efforts in support of the Bay Trail — the more feasible of the options available.

VI. The Preferred Alternative will not induce growth

The Indianola Interchange is not projected to induce growth in a manner inconsistent with the legal standard set forth on Section 30254 of the Coastal Act. Several distinct factors are operating to limit growth and development around the Indianola intersection. The Preferred Alternative's proposal for improving the level of service at that intersection, while not increasing its capacity, will not remove those barriers to growth. Section 30254 provides that:

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; . . . Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal-dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

In addition, section 30250 imposes the following restrictions on coastal infrastructure development:

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

Commission Staff indicated concerns that the proposed Indianola grade separation component of the Project would pose cumulative impact and growth pressures in a manner inconsistent with the requirements of sections 30254 and 30250 of the Act. Commission Staff was also concerned that the Indianola interchange would increase traffic capacity in the rural area of the coastal zone surrounding the intersection.

Caltrans maintains that there are mitigating factors that should address the Commission Staff's concerns: principally, there are other constraints limiting growth at Indianola. For instance, the absence of additional lanes in the Project's design means that the overall system capacity is not expanded. In addition, the land near the proposed Indianola interchange is in Humboldt County's jurisdiction and is zoned for agricultural use. South of the interchange, the land is within the City of Eureka's jurisdiction. Further, the absence of a sewage system makes development impracticable and the high water table makes it likely to stay that way.

Indeed, Wal-Mart, Sam's Club, and Costco have all expressed interest in developing near the Indianola cutoff intersection over past years, but none has done so due to the barrier imposed by coastal development permits in addition to those factors noted above. Such developments, if they did somehow occur, would be consistent with the Act due to the mandate of Section 30001.5, which requires the protection and promotion of a broad array of land uses.

Commission Staff has suggested that improved traffic flow resulting from the interchange would spur modification of zoning restrictions and encourage the installation of a sewer, but to the extent this is true, which is by no means certain, it would be equally true of the Signalized Alternative the Commission Staff has recommended.

Consistent with Section 30254, the proposed Indianola grade separation would not adversely affect businesses vital to the local economy located near the Indianola intersection. In 2010, there was a 0.7 % decline in total wage and salary employment, non-farm employment was down to -.3 % and manufacturing had steadily declined for a decade. In addition, the county has the 18th highest unemployment rate in the state. For the agricultural-zoned properties around the northeast side of Indianola Road, the Project proponent is prepared to explore mechanisms to minimize potential growth pressures or zoning changes as necessary. The Indianola improvements will not lead to growth, but they may provide a lifeline to existing businesses in the area.⁶

In addition, the Applicants are committed to working with the Commission, the County, and the City of Eureka to develop additional and effective mitigation measures through the coastal land use permitting process to assure that development pressures, if realized, do not induce growth around the Indianola interchange. Currently, ideas include creation of easements or imposition of use restrictions to meet these purposes.

⁶ Caltrans Economic Analysis Branch. *2011 Humboldt County Economic Forecast*, Sacramento, available at http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2011/Humboldt.pdf

VII. Conclusion

Project proponents have worked in good faith with Commission Staff to address their concerns with the Preferred Alternative. The Project proponents accordingly request that the Commission affirms the consistency determination completed by FHWA, allowing the Project to move forward.

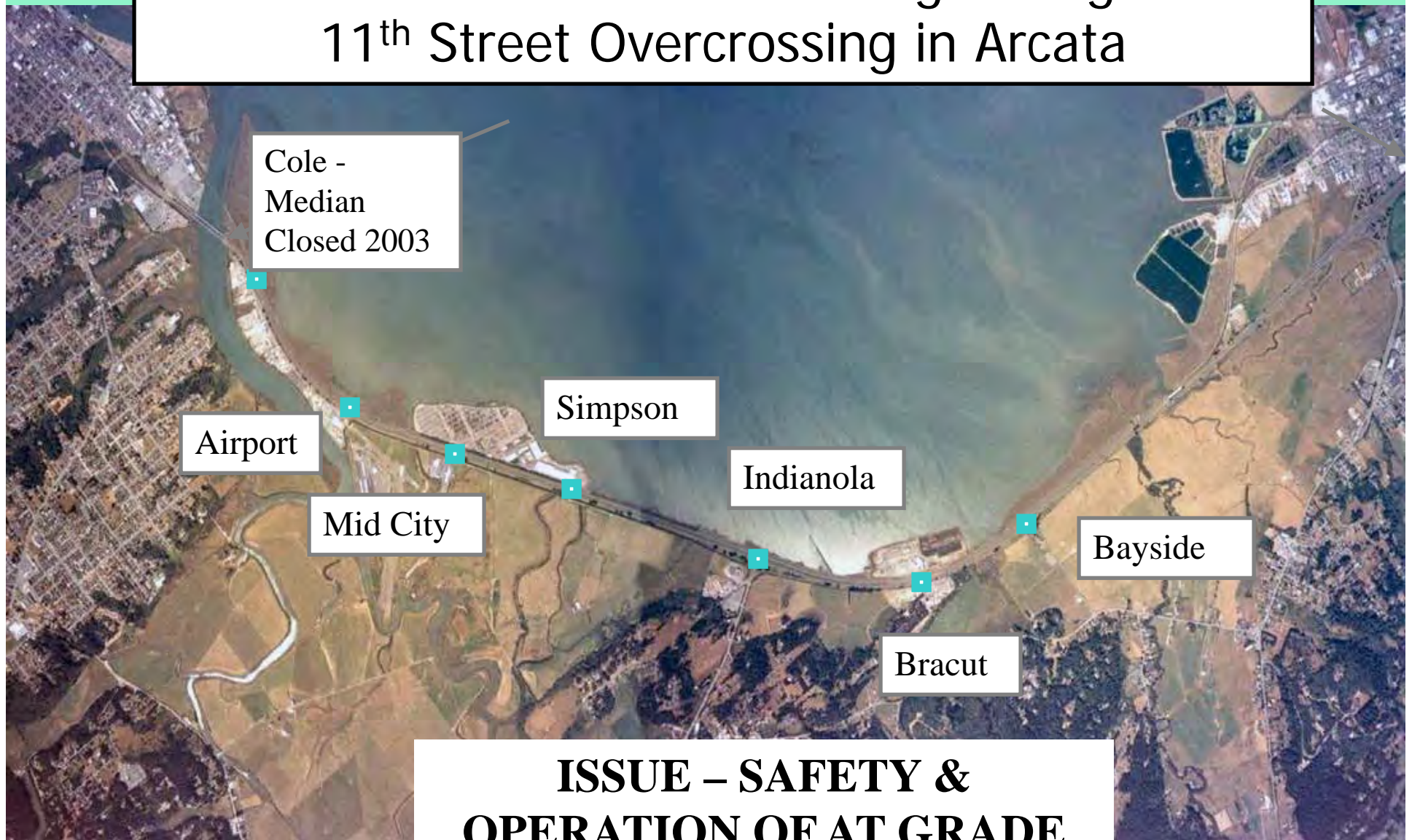
Eureka Arcata US Route 101 Corridor Improvement Project

2013

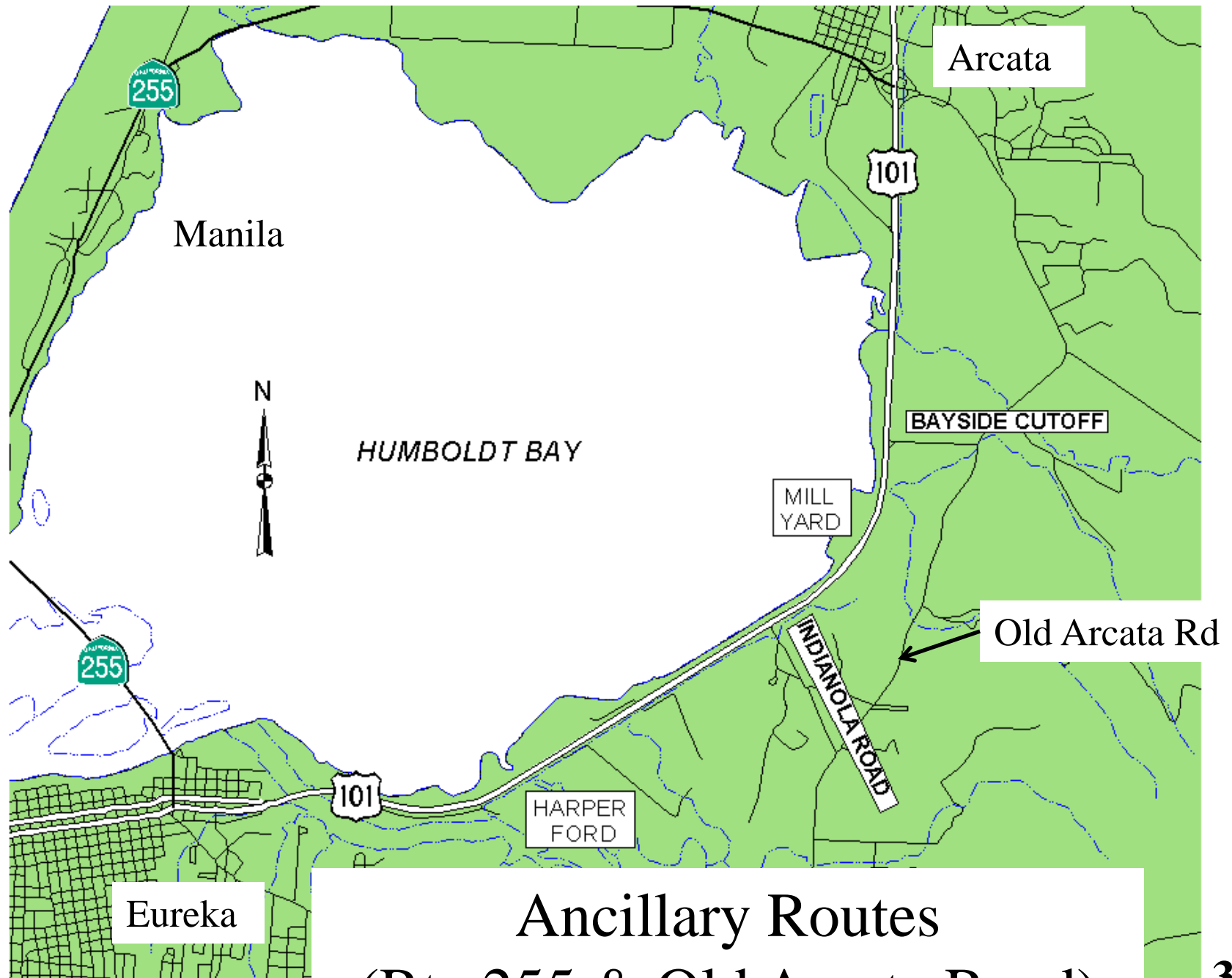
In Cooperation With



Route 101 from Eureka Slough Bridge to 11th Street Overcrossing in Arcata



**ISSUE – SAFETY &
OPERATION OF AT GRADE
INTERSECTIONS**

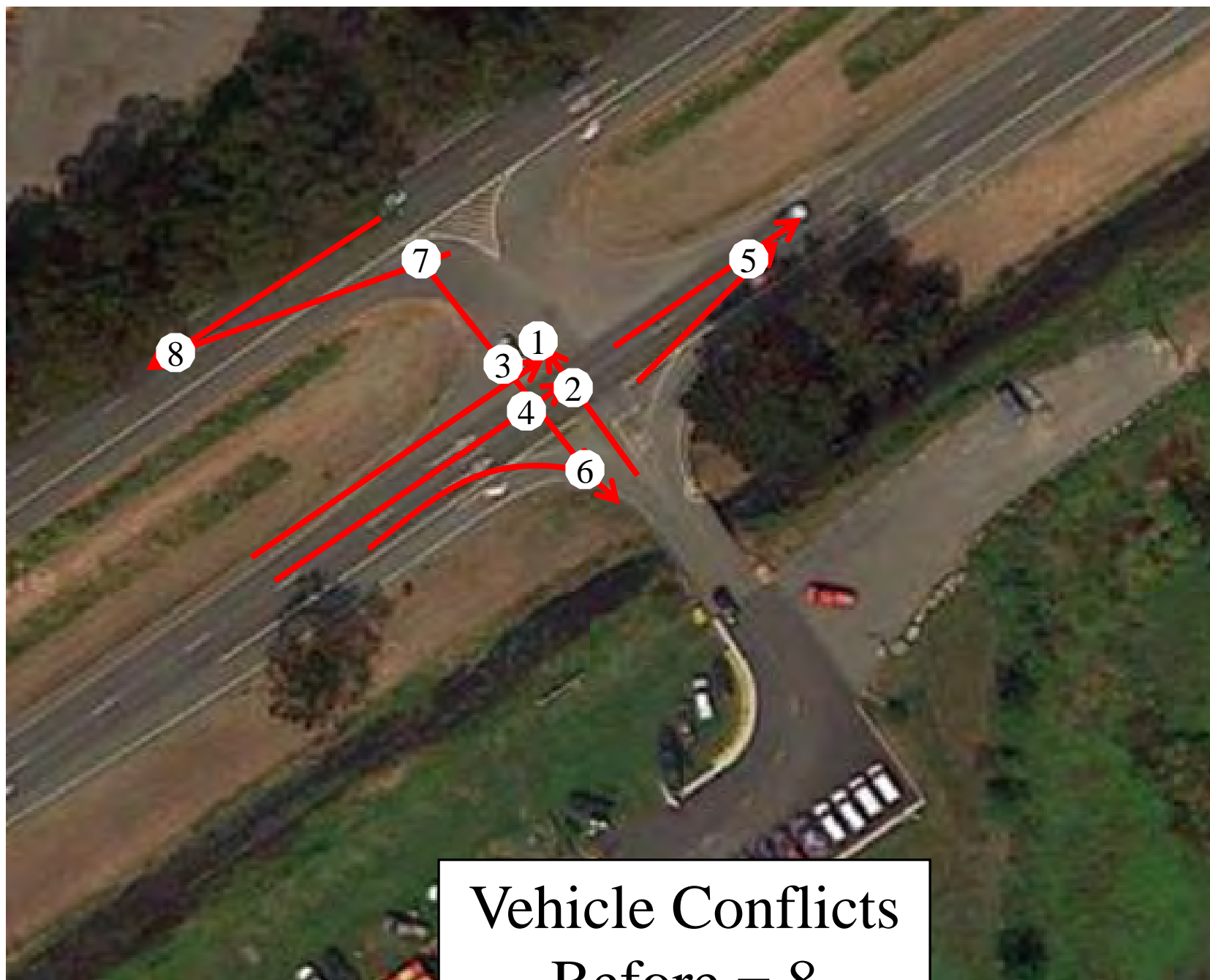


Ancillary Routes
(Rte 255 & Old Arcata Road)

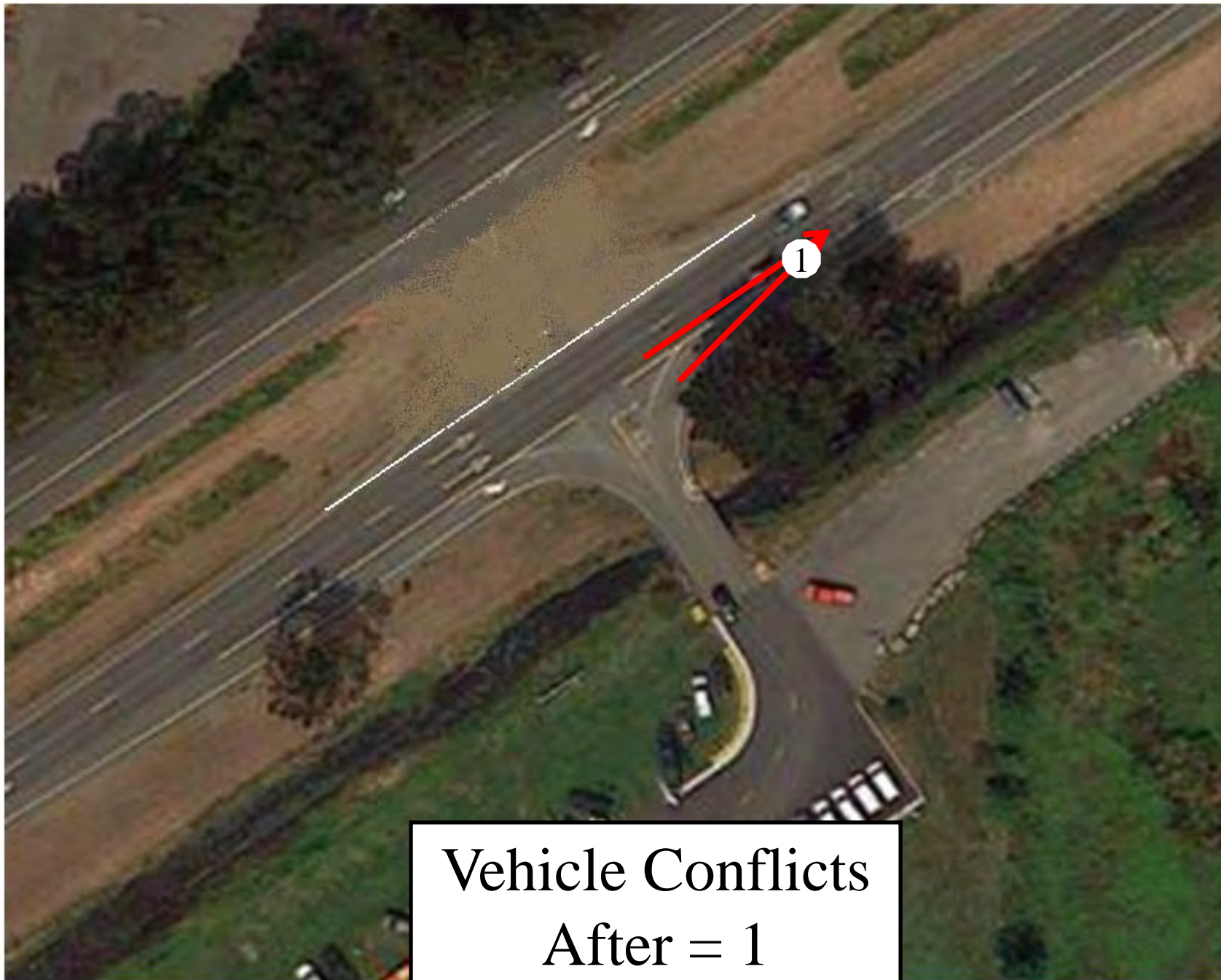
Project Goals



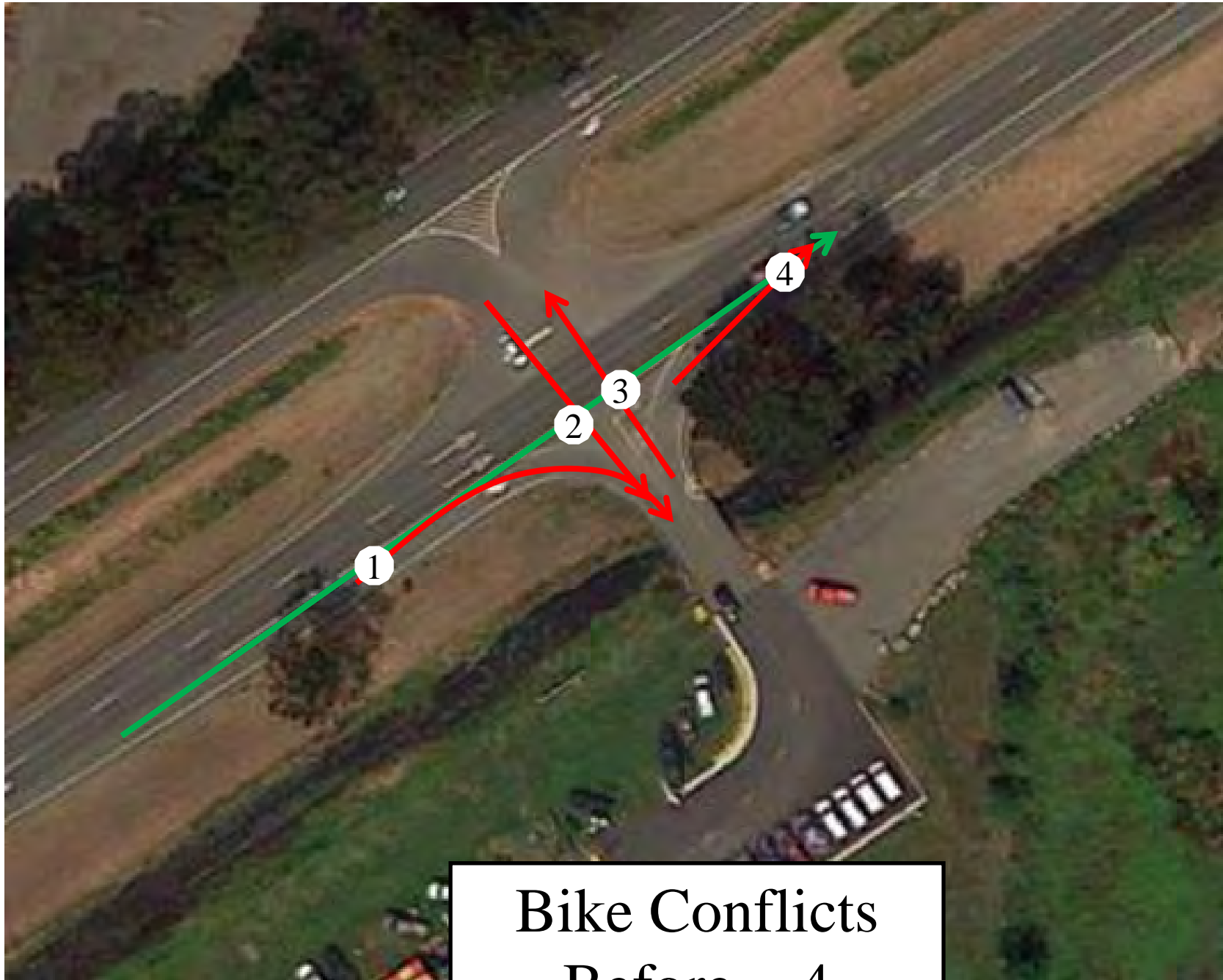
Reduce Operational Conflicts



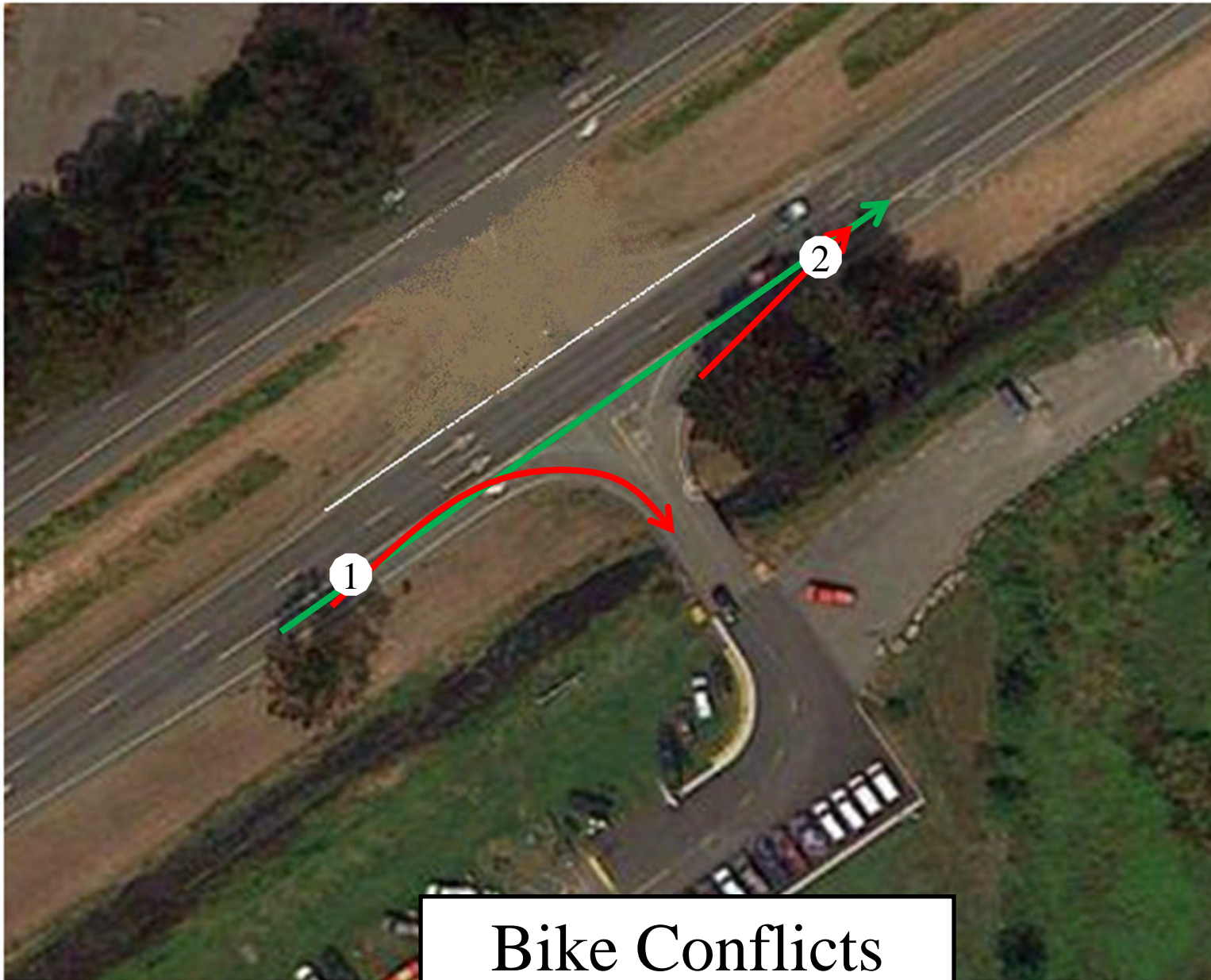
Vehicle Conflicts
Before = 8



Vehicle Conflicts
After = 1



Bike Conflicts
Before = 4

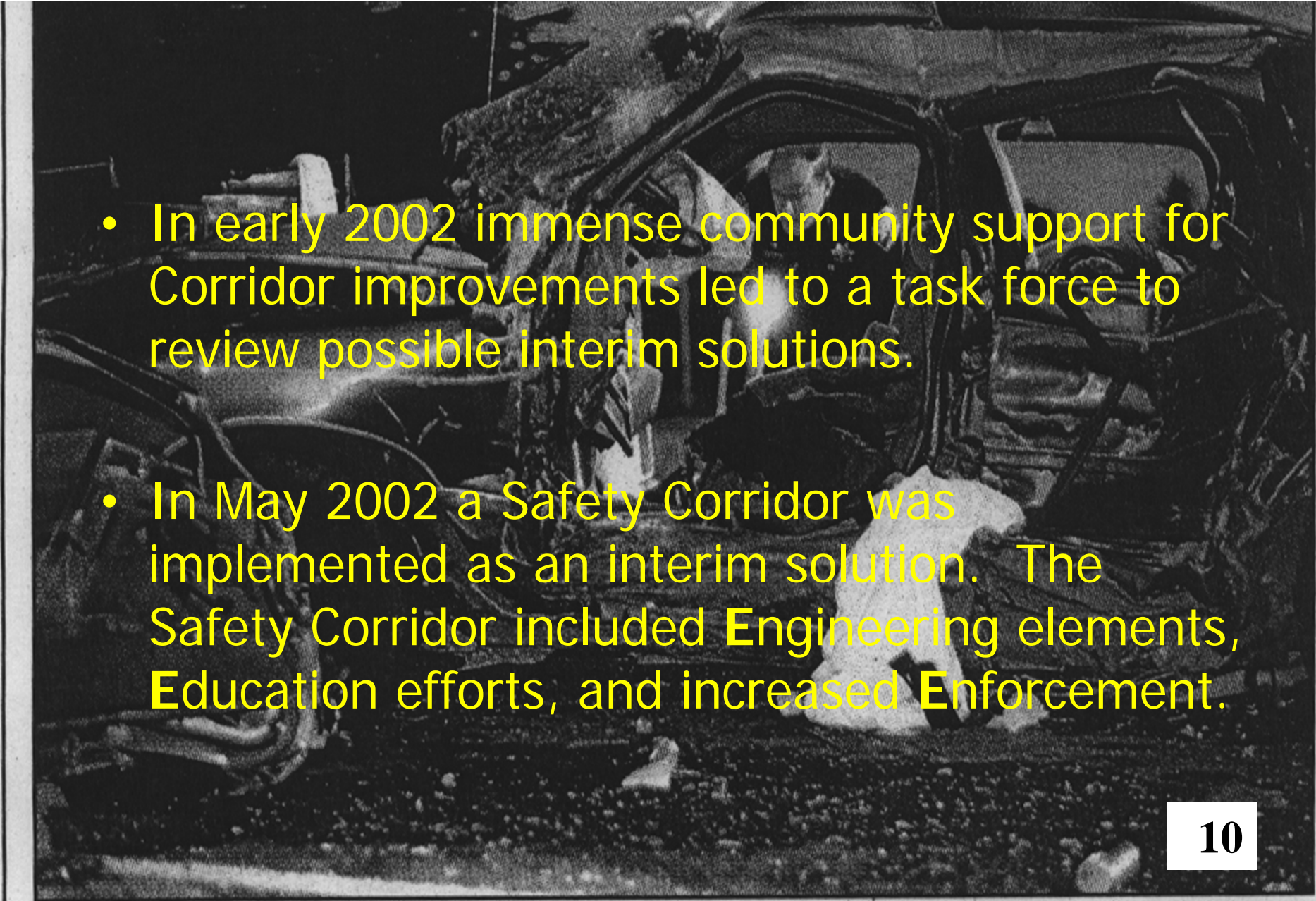


Bike Conflicts
After = 2

Project Goals



Improve Safety at Intersections

- 
- In early 2002 immense community support for Corridor improvements led to a task force to review possible interim solutions.
 - In May 2002 a Safety Corridor was implemented as an interim solution. The Safety Corridor included Engineering elements, Education efforts, and increased Enforcement.

10

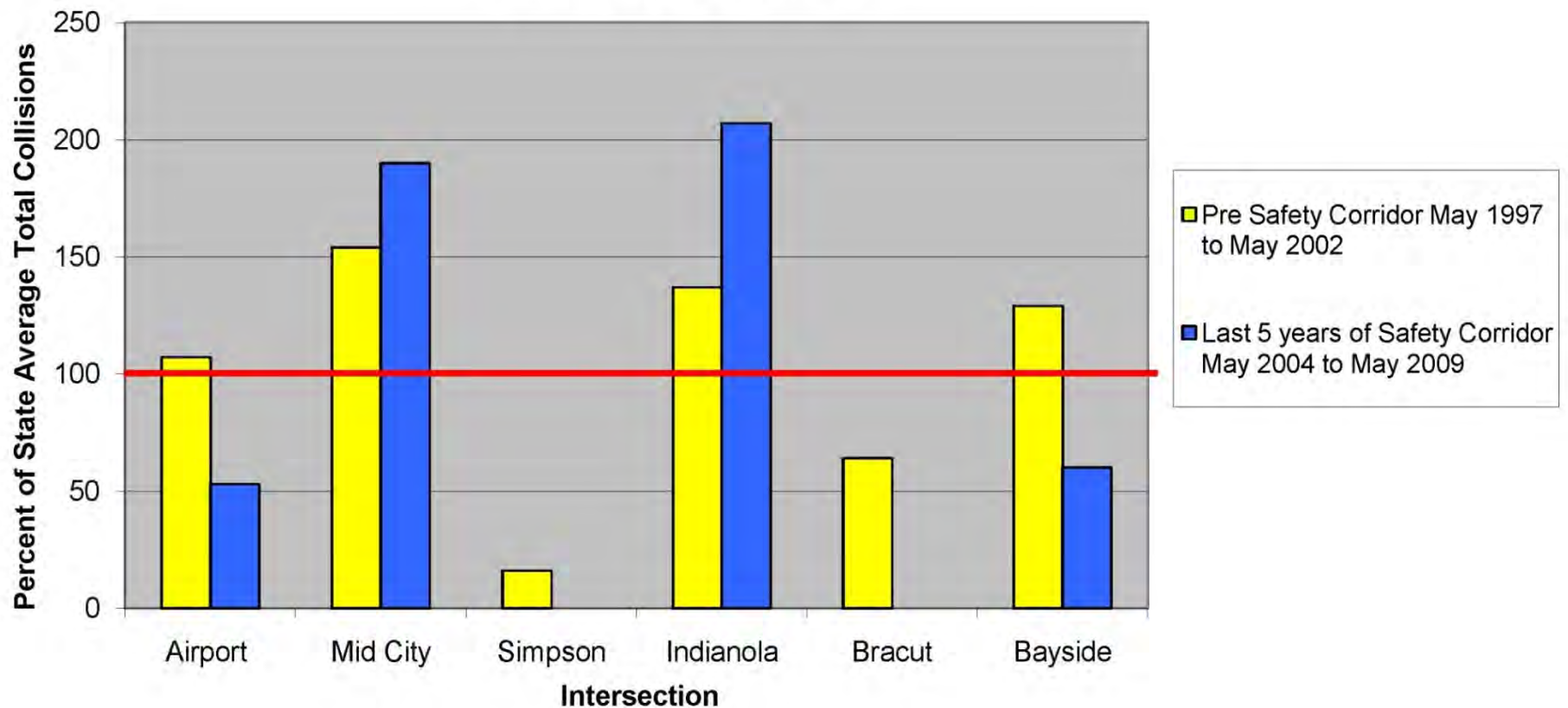
Shaun Walker/ The Times-Standard

A California Highway Patrol officer examines the interior of a 1991 Plymouth Acclaim that was involved in an accident that killed three people on U.S. Highway 101 at the Indianola

Eureka to Arcata
Route 101 Improvement Project

Collision Frequency

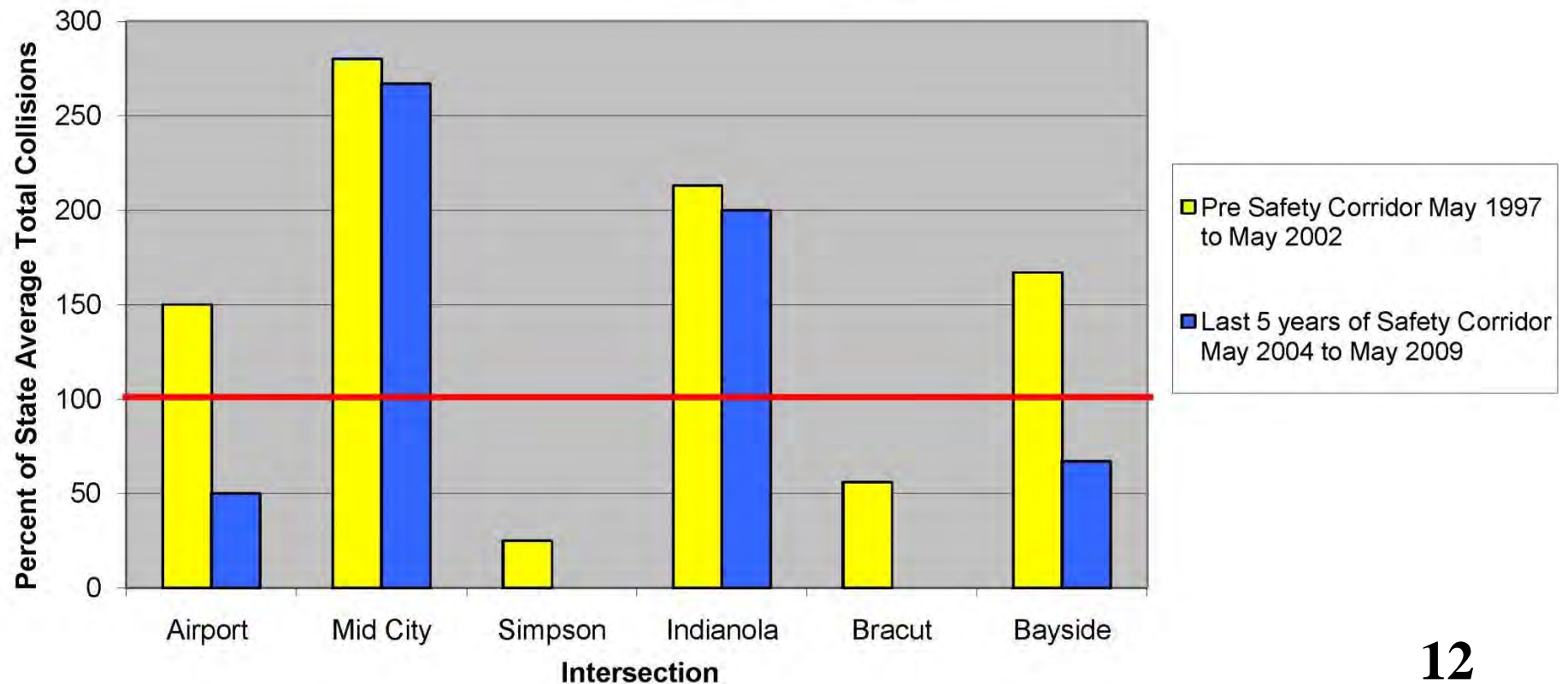
Total Collisions at US Route 101 Eureka Arcata Corridor Intersections -
Goal 100 percent or less



Eureka to Arcata
Route 101 Improvement Project

Collision Severity

Fatal + Injury Collision at US Route 101 Eureka Arcata Corridor Intersections -
Goal 100 percent or less



LEDPA – Least Environmentally Damaging Practicable Alternative

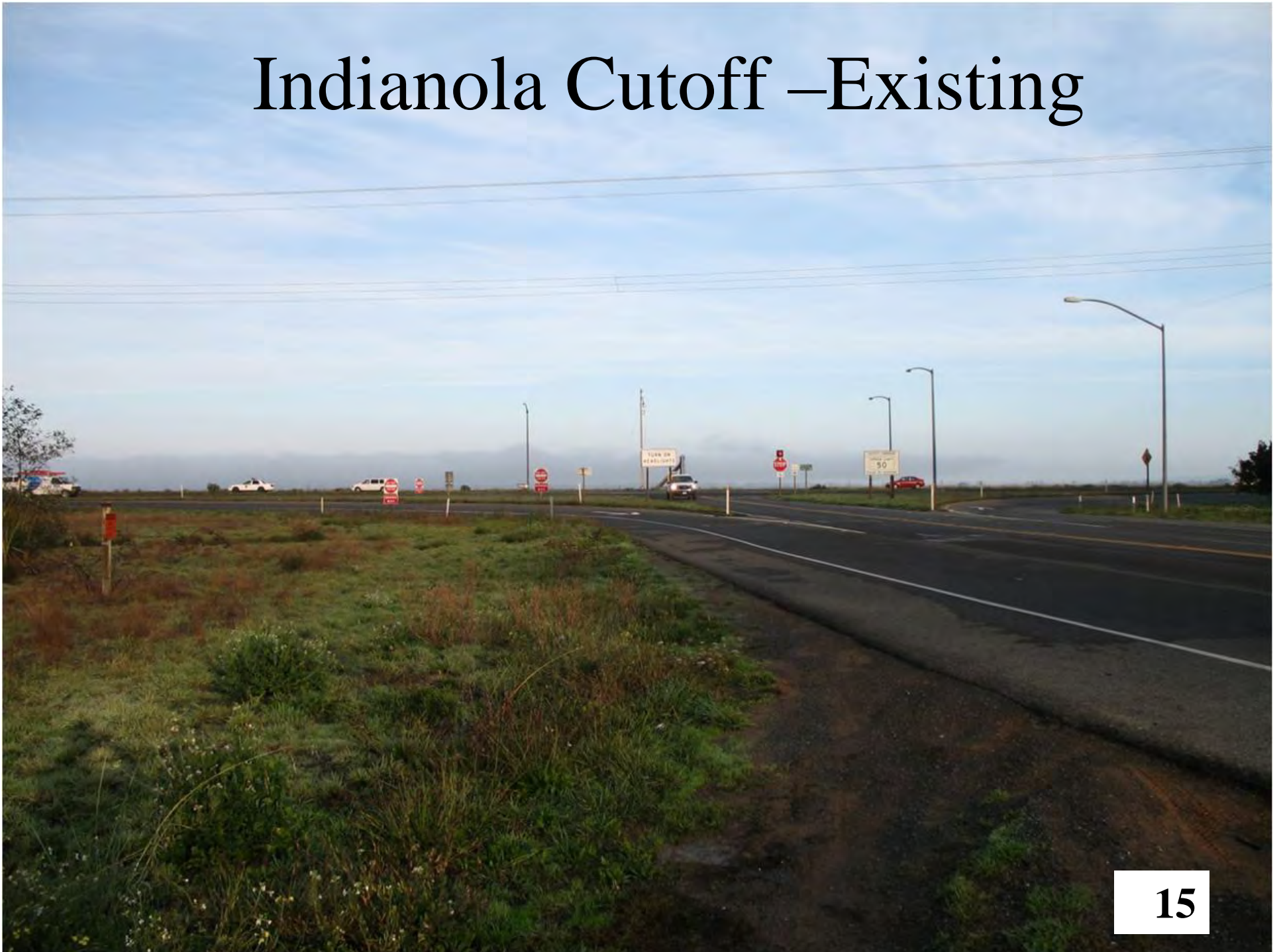
(concurrence from USFWS, EPA, US ACOE)

- Construct grade separation at Indianola Cutoff
- Construct half signal at Airport Road
- Close all remaining median openings
- Construct rehabilitation improvements

Northbound US 101 – Proposed half signal at US 101 and Airport Road



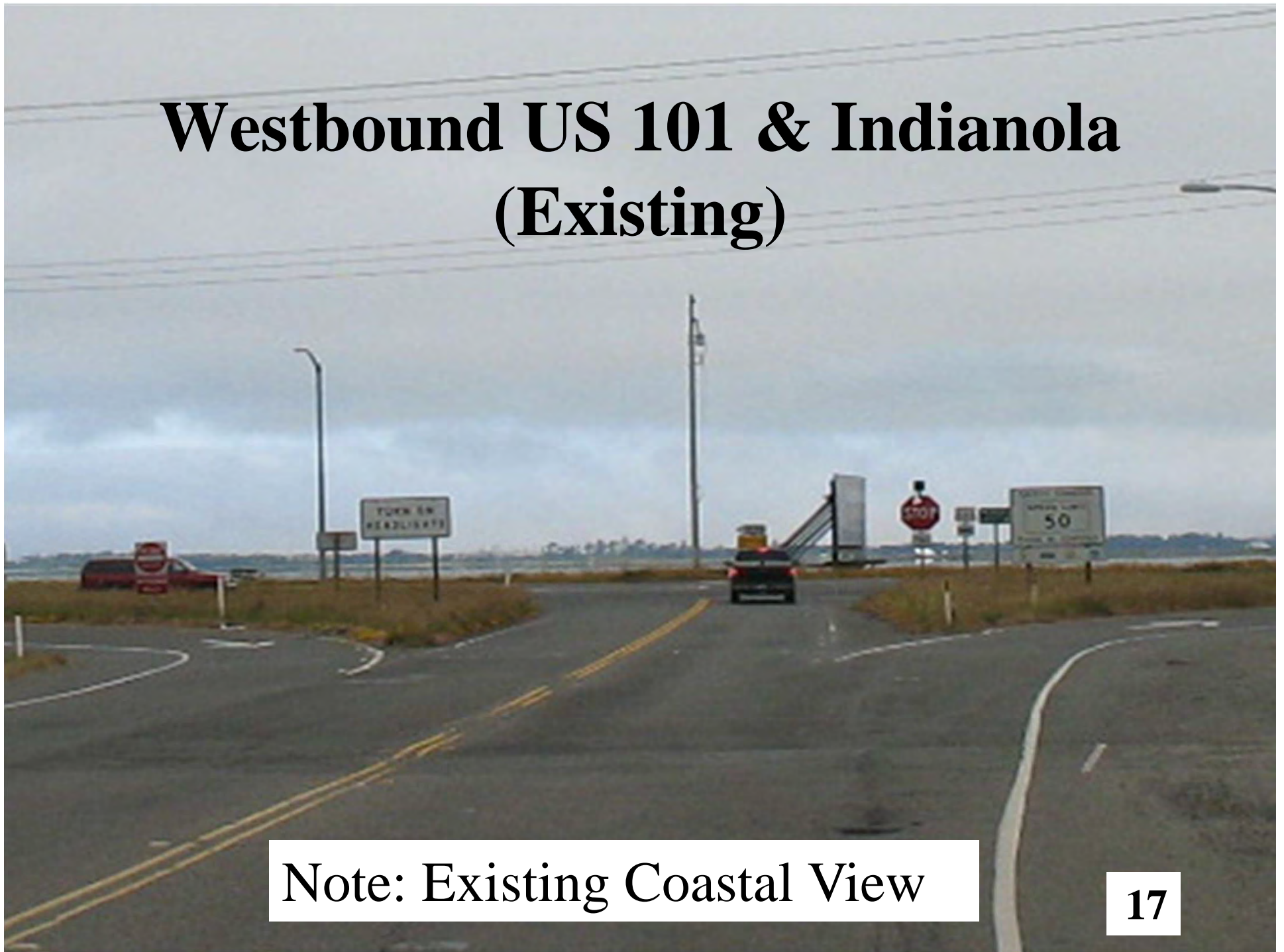
Indianola Cutoff –Existing



Indianola Cutoff – Proposed



Westbound US 101 & Indianola (Existing)



Note: Existing Coastal View

Westbound US 101 and Indianola (Proposed)



Indianola Existing



Indianola Proposed



Indianola Existing



Indianola Proposed



Indianola Proposed (with future Bay trail)



Indianola Existing



Indianola Proposed



Indianola Proposed (with future Bay trail)

Trail Connection



Proposed Indianola grade separation plays key access piece in the proposed Bay Trail plan



<http://baytrailplan.org>

..... proposed Madaket ferry from Old Town Eureka to Redwood Heritage Museum in Samoa

— proposed bike/pedestrian trail from Old Town Eureka to Redwood Heritage Museum in Samoa

----- proposed tourist train from Redwood Heritage Museum in Samoa to Arcata



Existing Indianola Cutoff



Proposed Indianola Cutoff



Commission Staff Alternative

Signal at US 101 and Indianola with no additional lanes

- If installed today could create a northbound US 101 vehicle back up over half a mile long in the PM peak.
- Would likely cause diversion (PM peak) to other roads.
- Would be less safe than the preferred alternative
- Would not provide safe and efficient bike and pedestrian connection from proposed trail to Old Arcata Road inland.
- Would not meet the primary purpose of the project to improve operations and safety at corridor intersections.

Corridor Project Timeline

- Environmental Studies Begin - July 2001
- Safety Corridor Implemented – May 2002
 - Draft EIR/EIS - June 2007
 - Public Meeting – December 2008
- LEDPA (Preferred) Alternative – March 2011
- Conceptual Mitigation Plan Concurrence – July 2011
- Coastal Consistency Determination September 2013
 - Finalize EIR/EIS 2014

Consistency Timeline

- Initial Consistency request submittal: November 2011
- Consistency scheduled for May 2012 Commission meeting
- Caltrans withdraws consistency request: April 2012
- Caltrans provided additional information in response to draft Commission staff report: July 2012
- Caltrans and Commission staff meeting – November 2012
- Resubmitted consistency request: February 2013
- Agreement signed to Stay Consistency Certification Review Period (extends 6 month review period): July 2013

CALIFORNIA COASTAL COMMISSION

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Th 12a

Correspondence

**CC-016-13, Caltrans
Eureka Arcata Route 101 Corridor Improvement Project**

Attached are public comment letters and emails

**Exhibit 29
Correspondence**



Keeping Northwest California wild since 1977

August 14, 2013

Mark Delaplaine
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
Email: mark.delaplaine@coastal.ca.gov

Transmitted via email

Re: California Coastal Commission Review Of and Upcoming Vote On Caltrans Highway 101 Eureka-Arcata Safety Corridor Project

To Mark Delaplaine and the California Coastal Commission:

Please consider these comments on behalf of the Environmental Protection Information Center (EPIC). EPIC is an Arcata, California, based public interest conservation organization, with 2,000 active members and more than 5,000 online activists. Our members live throughout the state and nation, including a significant number of local members who live in Humboldt County, and in the Eureka – Arcata area specifically. Our organization is working on a day-to-day basis to provide a vehicle for our members and grassroots constituency to have access to meaningful public participation on crucial natural resource management and environmental planning issues that can impact the livelihoods and well being of our families and communities. In that vein, these comments are provided by our organization in representation of thousands of people who have a direct interest in transportation planning in our region, and who have translated support for our policy stances into political action.

It is our understanding that the California Coastal Commission will meet in Eureka from September 10-12, and that amongst the items on the agenda will be a Coastal Commission vote on the Caltrans proposal for the Highway 101 Eureka-Arcata Safety Corridor. In this letter we convey the imperative of the Coastal Commission voting NO on the current Caltrans proposal for transportation infrastructure development in this critical section of highway. This project suffers from several flaws, and better alternatives must be designed, proposed, and considered before advancing with the project. Our opposition is based upon an intimate local knowledge of this section of highway, and a study of the proposal that reveals Caltrans plans to be inadequate and lacking in a number of fundamental elements. The remainder of this letter will highlight some of those shortcomings, and what our organization believes might be done to address those inadequacies. We encourage the Coastal Commission to vote NO on the Caltrans proposal, and to remand the project to Caltrans to have the agency engage in a more integrated manner with the local community, and to come up with a plan design for the Safety Corridor that is adequate for the times in which we live, the real transportation needs of our communities, and the sensitive ecosystems that make up the environment in which the highway is located. Caltrans needs to do a better job with project design for the Highway 101 Eureka – Arcata Safety Corridor, and it is imperative

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that the California Coastal Commission exercises their authority to protect our coast and communities, and to encourage Caltrans to work with the local populace to establish a plan that is viable and worthy of public funds.

Public Participation Must Be Prioritized

Caltrans has been enmeshed in a series of high profile environmental conflicts that have resulted in legal challenges in both state and federal court. One of the primary causes of these textbook environmental conflicts has been the lack of transparency on the part of Caltrans, and the absence of meaningful public participation. This project as proposed for the Eureka—Arcata Safety Corridor suffers from the same obstinate agency patterns of project review that led to community resistance and opposition to the Richardson Grove Improvement Project, the Highway 197/199 STAA Access Project, and the Willits Bypass Project, to name just a few local examples. It cannot be overstated that Caltrans is facing criticism across the state for failing to fully address community concerns, and for failing to adequately analyze the impacts of their projects. Our organization is confident that the California Coastal Commission is more than familiar with those dynamics. The Highway 101 Eureka-Arcata Safety Corridor Project suffers from these same problems of lack of public participation, and the current project proposal demonstrates a total disconnect from the true transportation needs and interests of the local community, which have been communicated in various manners to Caltrans. Meaningful public participation must be honored, respected, and nurtured in order that any transportation infrastructure development in the Safety Corridor be based on the needs of the community, and not on outdated and antiquated visions of transportation in a world fast changing from climate change and biodiversity loss.

The Project Must Analyze, Assess, and Plan for Sea Level Rise

An indication of how the current project proposal design is inadequate for 21st century realities along the coast of California is the failure to appropriately include considerations of sea level rise. The highway, trail, and inland areas along this section of Humboldt Bay all rely on the deteriorating railroad berm for protection from rising sea level and/or potential extreme weather events. The erosion of the railroad berm is putting Highway 101 at risk from extreme high tides and major storms. This erosion will only worsen as sea levels rise. The confluence of tidal wetlands ecosystems, climate change, and the anticipated sea level rise is endemic to this project site, yet Caltrans does not adequately address this complex of issues in the specific project design, and in their transportation planning for this area. Millions of dollars of public funding should not be spent on this project until Caltrans completes its sea level rise study for this section of highway. Our understanding is that the agency has communicated to the public that this study will be ready in 2014. At a minimum this project should be halted until the sea level study is completed, the information shared with the public, and the findings integrated appropriately into project design and planning for transportation development in this area. The Coastal Commission should include the rapid and thorough completion of the sea level rise study in its recommendations to Caltrans upon voting NO on the current proposal.

Lack of Safe-Access for Bicyclists and Pedestrians a Fatal Flaw

It is incomprehensible that Caltrans would present a multi-million dollar project proposal that fully fails to include viable options for safe pedestrian and bicyclist travel along the Safety Corridor. This failure on the part of Caltrans to integrate pedestrian and bicycle transportation into their plan demonstrates the lack of vision and absence of innovation in their proposal. The section of trail from Arcata to Eureka is the regions highest priority for completing the California Coastal Trail, and this section of Highway 101 is also designated as part of the world renowned Pacific Coast Bike Route. Turning the Highway 101 Eureka-Arcata Safety Corridor into a high-speed motor speedway without providing for safe access and transit for bicycles and pedestrians is a fatal flaw, and should be sufficient on it's own to convince the

Coastal Commission of the necessity of a NO vote on this project. Broad improvements for this section of highway must provide safe access for bike commuters, touring cyclists, and recreational cyclists, as well as pedestrians and runners. Bicyclists from Bayside and Indianola must also be guaranteed safe access to bike facilities along the Safety Corridor. There is a diverse local community movement that is advocating for the design of a Bay Trail that will meet many of these goals, and the Caltrans proposal for the Highway 101 Eureka-Arcata Safety Corridor must integrate this vision into the project design in order that their proposal be congruent with the true needs and desires of the local community for sustainable and safe transportation options along the bay.

Conclusion—Better Alternatives Are Needed

After review of the project proposal it has become clear to our organization that Caltrans has simply failed to consider and include many of the reasonable alternatives put forth by individuals in the local community, by sustainable transportation planning advocates, and a number of public interest organizations. As previously stated, this failure on the part of Caltrans to integrate the vision and talent of the local community into this project plan suggests that Caltrans is on the verge of repeating a now familiar pattern that has resulted in social conflict and the wasting of literally millions of dollars of public funds in the development of project proposals that the courts are finding to be inadequate in meeting legal obligations for environmental review. It is the opinion of our organization that Caltrans must provide well-developed alternatives for the Safety Corridor Project. It is possible to design a viable project that increases safety and improves transit while not depending on the construction of a massive interchange, and that include holistic approaches to transportation and environmental planning that meets the challenges of climate change, sea level rise, and new housing development. We believe that the California Coastal Commission has an important opportunity to guide Caltrans towards the creation of a truly viable and responsive project, and that a NO vote by the Commission during the Sept 10-12 meeting in Eureka is an important part of providing Caltrans the guidance and supervision that the agency needs.

Thank you very much for the consideration of our letter, and we look forward to a lively debate and exchange during the California Coastal Commission meeting scheduled for September in Eureka, California.

Attentively,



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August 16, 2013

Mary Shallenberger, Chair
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Consistency Certification # CC-016-13 (Caltrans)

Dear Chair Shallenberger and Coastal Commissioners:

I write to you today in support of the Coastal Commission staff recommendation in its report of June 27, 2013 to deny the proposed Caltrans project for the Highway 101 Corridor between Eureka and Arcata in Humboldt County. The proposed project would fill more than 10 acres of wetlands, would block access to and along the coast, would create an elevated concrete structure that mars views to and along the coast, and would facilitate growth in an area where growth has not been permitted by the Commission. For these reasons, staff is correct in asserting that the proposed project is inconsistent with Coastal Act policies contained in Public Resources Code sections 30233, 30251, 30254 and 30210. Nor does the proposed project further any Coastal Act policies in a manner that would allow the Commission to approve it using the Coastal Act's conflict resolution mechanism. This project cannot be approved consistent with the Act.

However, there is one additional reason to send Caltrans back to its drawing board to rethink the project: it fails at the fundamental planning level. Caltrans has intentionally chosen to ignore the impact of sea-level rise and storm inundation upon this segment of roadway. In

its rush to convert a divided highway into a limited access freeway Caltrans has chosen not to consider the particular problems inherent in the unique geographic situation of Highway 101, namely that it is routed on what once was the floor of Humboldt Bay.

When the miners and sawyers first came to Humboldt Bay in the mid-19th century, the edge of the Bay was one-half mile or more inland of the present location of Highway 101. The early trail from Eureka to Arcata followed a path used by the Yuroks, roughly along what is now a County road variously called Old Arcata Road and Myrtle Avenue. The route now followed by Highway 101 was underneath the water of the bay. Early settlers seeking grazing lands diked off the bay, and the grazing lands that Commissioners now can see inland of Highway 101 are the result of this activity. This is how the “farmed wetlands” all around the Bay and in the Eel River bottomlands came to be. In the area of this project, the principal “restraint” of the Bay (the “shoreline protective device”) is the railroad embankment for the old Northwestern Pacific Railroad, which runs just to the bayside of Highway 101 for most of the length of this project.

Attached are several graphics and photographs that illustrate the difficulty of this location. Attachment #1 (HumGIS FEMA Flood Zones Map) is the FEMA 100 year flood zone map for Central Humboldt published by the Humboldt County Community Development Department. In the upper left in blue is Arcata Bay and the flood zone around it. The line that begins in Eureka, goes roughly east until it crosses Eureka Slough near Freshwater, then more or less north along the edge of the blue area, crossing Jacoby Creek, until it reaches Arcata is Myrtle Avenue/Old Arcata Road. This is the traditional path from Eureka to Arcata that, until the bay dikes were constructed by the 19th century settlers, more or less described the eastern shore of the bay. The red line that begins in Eureka and goes, while completely in the blue flood zone, northeast and then north to Arcata is Highway 101. Already Highway 101 is closed occasionally due to storm inundation. This graphic shows clearly the extent that rising seawater with storm inundation will tend to overcome the present highway location.

How close is this inundation to occurring now? Also attached are several photos taken in December 2012 along Highway 101. Attachment #2, taken at Jacoby Creek, shows how close the tide comes to the top of the railroad embankment and the highway level at high tide today. Note that it is a calm and clear, not a stormy day; it is storms that raise and drive the waters of the bay landward until they meet resistance. Attachments #3 and #4 along the railroad at two locations at Bracut show the continuing deterioration of the railroad embankment since maintenance was discontinued; it is clearly in the process of failing, with both ties and rails unsupported. The deterioration of the rail embankment is critical because it is the actual shoreline protective device for most of the route of Highway 101 in this area. Finally Attachment #5 is a graphic (Northern Humboldt Bay Shoreline Protective Structure Inventory) from a local study of sea level rise along Humboldt Bay that shows the existing shoreline protective devices, the actual structures that protect Highway 101 from tidal inundation. Looking at the protective structures along the east side of the Bay, it is clear that with the exception of two old industrial sites protected by dikes (in yellow), all shoreline protection is provided by the railroad embankment (in red).

If the railroad were fully operational, and the embankment properly maintained for train use, Caltrans might reasonably conclude that it could rely upon this protection of Highway 101 for the projected life of this project. But the railroad has not operated for more than twenty years, and the embankment, as the photos show, is steadily deteriorating as it suffers from storm wave attack. There are a few local railroad "buffs" that think that the railroad will operate again. Most of the community thinks that the best use of this right of way would be for a bicycle/pedestrian path, but there are legal and financial constraints that may take years to overcome. In particular no one has yet identified the potential cost or a source of funds to design, build and maintain this trail; and the trail, it must again be emphasized, if it is built on the rail embankment, will also function as the shoreline protective device for this area.

The simple point with respect to this project is that Caltrans cannot reasonably rely upon anyone else (either the railroad or the trail

advocates) to protect Highway 101 from storm inundation and wave attack for the life of this project. What we know will occur with respect to sea level rise over the projected life of this project only exacerbates the problem. It is not as if Caltrans is unaware of this; they just operate with a divided mind. One part of the Caltrans bureaucracy has undertaken a study of sea-level rise adaptation on three target areas of the North Coast, including this particular segment of Highway 101, to be completed in 2014. Another part of the Caltrans bureaucracy builds freeways, and has presented this project to the Commission as if the ongoing sea level rise adaptation study either didn't exist or was completely irrelevant. It is neither; and the project should never precede the study. This is one of the manifestations of Caltrans' planning failure.

The Commission should reject this project not simply for the multiple reasons clearly described in its staff's report, but also because the proposed project in this vulnerable location violates Coastal Act section 30253 (2), which provides that new development shall:

“Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs or cliffs”.

Caltrans should be required to plan this project in a manner that makes clear to the Commission how it intends to address these potential impacts over the life span of the project. Perhaps they intend to rely upon the railroad embankment, and can specify how it will be fortified and maintained. Perhaps they believe that the supporters of the new trail will protect them by rebuilding and maintaining the embankment as the foundation for the new trail. Perhaps they intend to build their own shoreline protective device. Perhaps their adaptation study or Commission staff analysis will suggest that this segment of Highway 101 would be better constructed as a causeway on concrete stilts, under which the storm waters and perhaps eventually the bay waters will flow. What is clear now is that neither Caltrans nor the Commission

knows how this impact will be addressed, and absent this knowledge, the Commission cannot find consistency with section 30253 (2).

For all of these reasons I urge the Commission to object to the consistency certification filed by Caltrans for this project, and send them back to address the consistency issues identified by your staff and in this letter.

Sincerely,

[original signed by]

Ralph Faust

Attachments:

- #1: HumGIS FEMA Flood Zones Map
- #2: Humboldt Bay along 101 Corridor at Jacoby Creek Bridge
- #3: Humboldt Bay looking north along Railroad at Bracut
- #4: Humboldt Bay looking south along Railroad at Bracut
- #5: Humboldt Bay Shoreline Protective Structure Inventory





Humboldt Bay - Railroad Bridge over Jacoby Creek, Arcata, 12-13-12 By Humboldt Baykeeper
<http://www.flickr.com/photos/humboldtbaykingtides/8331373771/in/pool-2129208@N20/lightbox/>



Humboldt Bay - Billboard & Railroad along Hwy 101,12-12-12

<http://www.flickr.com/photos/humboldtbaykingtides/8322844511/in/pool-2129208@N20/lightbox/>



Humboldt Bay - Railroad along Hwy 101 near Bracut, Eureka, 12-12-12

<http://www.flickr.com/photos/humboldtbaykingtides/8323904596/in/pool-humboldtbaykingtides/>



Figure 37. Distribution of shoreline structure types on Arcata Bay: dike (yellow), natural (green), railroad (red), fill (maroon), fortified (blue), and roadway (brown).



August 16, 2013

Mark Delaplaine
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and Federal Consistency Division
California Coastal Commission
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Mark.Delaplaine@coastal.ca.gov

Re: Additional Comments on the Caltrans Federal Consistency Determination for the
Eureka - Arcata Route 101 Corridor Improvement Project

Dear Mr. Delaplaine,

On behalf of the board, staff and supporting members of Humboldt Baykeeper these comments are submitted regarding the proposed Federal Consistency Determination for the Eureka-Arcata Route 101 Corridor Improvement Project ("the Project"). The comments are intended to supplement our previous comments on April 22, 2012; April 11, 2013; Aug. 7, 2013 (potential wetland mitigation sites); and Aug. 14, 2013 (traffic expert review). We also submitted comments on the DEIR/S for the project on Sept. 27, 2007 and called for recirculation of the DEIR/S to address sea level rise on April 13, 2010.

Inadequate Range of Alternatives and the 2002 Route Concept Report

We continue to believe that Caltrans inappropriately narrowed the range of alternatives, in part due to their commitment to the goals listed in the 2002 Route Concept Report for Highway 101.¹ This report lists the 101 Corridor Improvements in the proposed project area (from PM 79.8/85.8) as Capacity Increasing Improvements programmed in the 2000 State Transportation Improvement Program (STIP).

Caltrans appears to be relying on this Route Concept Report to guide its decision making despite the fact that the report has not undergone CEQA review, nor has it undergone public review and comment.

¹ Route Concept Report, Route 101 from the Mendocino-Sonoma County border to the Oregon border. Caltrans District 1, Oct. 2002. http://www.dot.ca.gov/dist1/dltransplan/rcr_101.pdf

Caltrans maintains that a signalized boulevard alternative “may not be eligible for funding approval from the California Transportation Commission if it would not improve the performance of the facility and does not follow the ‘approved Route Concept’” (June 27 Commission staff report, p. 24). Adherence to the Route Concept Report may explain why Caltrans has failed to fully evaluate numerous potential alternatives that have been proposed by transportation advocates, City and County staff, and the public, alternatives which might also meet Caltrans’ stated goal of safety.

The preferred alternative is not the least environmentally damaging alternative. Coastal Act section 30233(a) requires that, for wetland development for one or more of the enumerated permissible use types, there must be no environmentally less damaging feasible alternative. Among the potentially less damaging project alternatives that Caltrans has failed to analyze are:

- (1) Continuous Green T intersections at Indianola Cutoff, Airport Rd. and Bayside Cutoff, as recommended for further evaluation by Moule and Barber.
- (2) Roundabouts, as recommended for further evaluation by Moule and Barber.
- (3) Michigan lefts, as recommended by County staff and evaluated by Caltrans as Alternative 1A in the 2008 Supplemental DEIR/S but omitted from the Federal Consistency Determination. Caltrans estimated that this alternative would require just 7 acres of wetland fill (less than the Preferred Alternative).
- (4) Signalization of 2-3 intersections, rather than 6 signalized intersections as analyzed in the Signalized Boulevard Concept. This alternative would reduce the amount of wetland fill required and would lessen the project impacts on adjacent roadways (SR 255 and Old Arcata Road) as compared to 6 signalized intersections, which would require 15.15 acres of wetland fill (vs. the 10.3 acres of wetland fill required for the Preferred Alternative).
- (5) Maintaining the current number of lanes at signalized intersections, rather than expanding them unnecessarily to three lanes southbound and four lanes northbound in the analyzed Signalized Boulevard Concept, with extra turning lanes. This design unnecessarily increases the amount of wetland fill required for this alternative.
- (6) Maintaining the 50 mph speed limit to eliminate the need for the new acceleration and deceleration lanes to accommodate the California Redwood Company.
- (7) Renewing the Safety Corridor legislation enabling doubled traffic fines, as was supported by numerous commenters in the DEIR/DEIS in 2007.

Sea Level Rise Planning

As previously noted, the 101 Corridor between Eureka and Arcata is already vulnerable to flooding and storm damage, and is well within both the tsunami run-up zone and 100-year flood zone (see Appendix A).

Ongoing research conducted by Cascadia Geosciences (<http://cascadiageo.org/>) and the Humboldt Bay Vertical Reference Group suggests that due to tectonic activity, land subsidence on the North Spit is approximately 2.5 mm/year. The rate of subsidence is higher in the South Bay, while the coast at Crescent City is uplifting at a rate similar to current sea level rise. Studies are ongoing, but preliminary data suggest that the Humboldt Bay area could see a two-fold effect of sea level rise as the land subsides.

The cost of this project (between \$25-65 million) should not be expended prior to appropriate sea level rise planning. Much public discourse has addressed the failing railroad dike, which stands between the highway and Humboldt Bay. This earthen dike was constructed nearly a century ago and was not engineered to withstand storm surge, erosion, and regular tidal action, and it is failing in numerous locations due to the lack of regular maintenance by the North Coast Rail Authority.

Plans to improve the 101 Corridor, revive the defunct railroad, and build a rail-with-trail on the railroad right of way should be planned together to withstand sea level rise while addressing fish habitat and coastal wetlands, which are in danger of drowning without the ability to migrate inland (upward) as sea level rises.

Highway 101 is a critical transportation route, and indeed for many residents is the only transportation route. During the Japanese tsunami event of 2011, it was apparent to many local residents that we are at risk due to the number of times our travel routes pass through tsunami inundation zones. The location of the highway is a quandary that has no easy solutions, but spending millions of dollars in public funds to built additional infrastructure at risk from flooding, storm damage, and increasingly higher tides is poor planning. It will also require future expenditures to further fortify public infrastructure. These public funds would be better spent developing a long-term solution that addresses physical constraints as well as the various concerns raised by the public, including safe bike/ped access, completion of this high-priority segment of Coastal Trail, visual impacts, and impacts to biological resources, as well as safety concerns for motor vehicles.

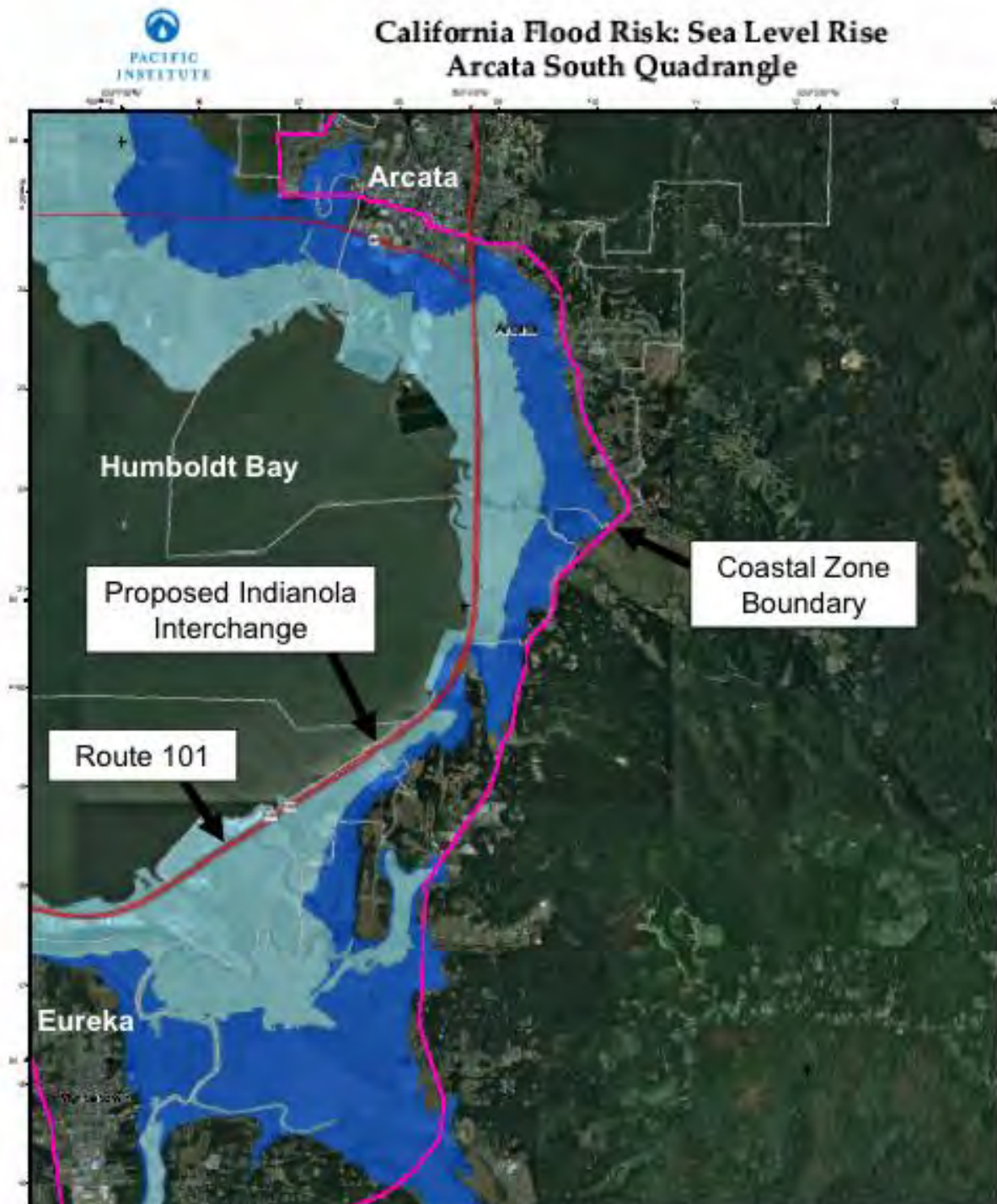
Sincerely,

_____/s/_____
Jessica Hall, Executive Director

_____/s/_____
Jennifer Kalt, Policy Director

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Appendix A. Pacific Institute map showing approximate 100-year flood extent (light blue) and with 1.4 meters sea level rise (dark blue).





August 14, 2013

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and Federal Consistency Division
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Re: Expert Review of the Caltrans Eureka - Arcata Route 101 Corridor
Improvement Project

Dear Mr. Delaplaine,

Enclosed is a review of the Caltrans Eureka - Arcata Route 101 Corridor Improvement Project conducted by Michael Moule, PE and TE, and Magnus Barber of Nelson\Nygaard Consulting Associates, Inc. Mr. Moule has over 17 years of progressive traffic and transportation engineering experience. He specializes in improving conditions for non-motorized users without degrading motor vehicle capacity and balancing the needs of all users within the public right of way.

Key points of interest for the Coastal Commission's analysis are highlighted below.

- **Increased capacity:** Caltrans states that the interchange is not capacity increasing, but according to Moule and Barber, "an interchange absolutely increases the capacity for the minor streets." [p. 5] Caltrans' assertion that construction of an intersection does not increase capacity of a highway segment "could arguably be true for through movements, but absolutely not for turning movements. The capacity of the proposed interchange is undoubtedly higher than the capacity of the existing stop-controlled intersection. This is evidenced by the LOS F ratings shown for left turning movements in the traffic studies for the project." [p. 6]
- **Increased speed:** Caltrans' statement that "the geometric changes will not cause an increase in vehicle speeds is likely inaccurate... CVC and CA-MUTCD standards require speed limits to be set in response to higher measured speeds on the corridor, which is the likely result of reducing friction through the project's proposed improvements... This is evidenced by the LOS F

ratings shown for left turning movements in the traffic studies for the project.” [p. 6]

- **Signalized Boulevard Alternative:** “Many of the minor streets or driveways where signals are proposed have traffic volumes well below the thresholds typically necessary to meet the signal warrants in the California Manual on Uniform Traffic Control Devices (CA- MUTCD). It is highly unlikely that Caltrans would install a series of unwarranted signals...It is recommended that Caltrans consider a signalized boulevard concept with two to four signalized intersections.” p. 9]
- **Number of Travel Lanes:** “As described in the traffic analysis section at the end of this document, our analysis indicates that two northbound lanes and two southbound lanes would be sufficient.” [p. 10]
- **Wetland Encroachment:** “Based on our analysis, the existing traffic can be handled with two through lanes northbound, two through lanes southbound, one southbound left turn lane, one northbound right turn lane, two westbound approach lanes (one for right turns and one for left turns, and one eastbound departure lane. This is a total of 13 approach and departure lanes at the intersection, compared to the total of 23 approach and departure lanes shown in the drawing from Caltrans. This is a significant reduction in the highway’s footprint.” [p. 11]
- **Other alternatives:** In addition to a Signalized Boulevard with 2-4 signals, the consultants recommend that Caltrans fully evaluate other alternatives, including Continuous Green T intersections [p. 14] and roundabouts [p. 17]. A roundabout would provide the lowest overall delays, with an LOS A at Indianola Cutoff using peak P.M. traffic data. [p. 21]

We believe that this expert review supports our view that Caltrans inappropriately narrowed the range of feasible alternatives to meet project objectives. We support the experts’ recommendation that Caltrans fully evaluate access, additional alternatives, and their impacts to bicycle/pedestrian access. Furthermore, Caltrans did not fully evaluate alternatives proposed by local municipalities and transportation advocates.

Humboldt Baykeeper hopes that this expert review will be useful in the Coastal Commission’s analysis of the proposed project’s Federal Consistency Determination.

Sincerely,

_____/s/_____
Jessica Hall, Executive Director

_____/s/_____
Jen Kalt, Policy Director

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April 11, 2013

via email and U.S. Mail

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Manager, Energy, Ocean Resources
and Federal Consistency Division
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Re: Comments on the Federal Consistency Determination for the Eureka - Arcata
Route 101 Corridor Improvement Project as Re-Submitted in February 2013

Dear Mr. Delaplaine,

On behalf of the board, staff and supporting members of Humboldt Baykeeper these comments are submitted regarding the Federal Consistency Determination for the proposed Eureka-Arcata Route 101 Corridor Improvement Project ("the Project"). Humboldt Baykeeper appreciates the opportunity to present you with our concerns regarding this Project. These comments on the February 2013 re-submittal reflect additional concerns and are intended to be supplemental to our comments submitted on April 22, 2012.

Humboldt Baykeeper respectfully requests that the Coastal Commission find the Eureka - Arcata Route 101 Corridor Improvement Project submitted by Caltrans is inconsistent with the California Coastal Act, as explained in detail below, and Deny the Federal Consistency Determination.

Inadequate Alternatives Analysis

The Signalized Boulevard Plan Alternative does not appear to be a fully-studied, practicable alternative. Creating six intersections is not necessary given current conditions, and Caltrans should have addressed how just having signals at Airport Rd. and Indianola Cutoff would affect traffic. The analysis of six signalized intersections rather than two serves to artificially increase the amount of wetland fill that would be necessary for the Signalized Boulevard Alternative, giving the false impression that the

Preferred Alternative is the Least Environmentally Damaging Practicable Alternative, although it may not be.

Deferred Mitigation for Impacts to Coastal Wetlands (Section 30230)

A change was made to the document since it was submitted in 2012 which amounts to deferred mitigation to coastal wetlands:

Caltrans now proposes utilizing a coastal wetland restoration project as mitigation (same locations as in the CMP). The restoration project will be a separate project and will be proposed for mitigation not only for this project but for other projects within the area (including potentially for future work in external efforts to complete the Coastal trail.) The restoration project will be submitted to the Coastal Commission at a later date requesting approval as a separate project and is only described conceptually for this project's consistency review (page 69).

We have concerns about the creation of a conceptual mitigation plan. Our first concern is that it is proposed as a separate project with protection measures that have yet to be disclosed, designed, or budgeted. This does not allow the public, agencies, or the Coastal Commission to evaluate the mitigation measures' effectiveness. Second, reliance on a conceptual mitigation plan amounts to impermissible deferred mitigation. Third, mitigation measures must be fully enforceable, yet because they are not identified and included here, cannot be enforced. The costs of mitigation must be included up front in the overall cost of the project.

Impacts to Water Quality

The proposal to extending deceleration and acceleration lanes would require placement of 40,000 cubic yards of fill into coastal wetlands that currently serve as a biofilter for polluted runoff from the roadway.

According to the application, "None of the project alternatives would increase traffic carrying capacity; consequently, no increase to traffic-related pollutant runoff is anticipated from this project." (page 37). But on page 38, it states that "The increase in impervious areas typically causes an increase in the peak flow and runoff volumes... The existing vegetated slopes that provide biofiltration treatment of storm water runoff will be perpetuated."

Bicycle Safety Concerns

The partial signalization at Airport Road doesn't address bicycle safety at all. For example, southbound bicyclists wanting to turn left onto Airport Rd. would have to cross two lanes of oncoming traffic just to get over to the median. In Alternatives 1 and 2, anyone, bicyclist or motorist, wishing to turn westbound (left) from Airport Rd. onto southbound Route 101 will be required to travel north one mile to a turnaround to then go south. This wastes fuel for motorists, and it significantly inconveniences bicyclists. The full signal proposed in Alternative 3 provides more efficient mobility for all users, but as it is tied to an interchange and other undesirable alterations, should be explored in isolation as described above.

Additionally, closing medians reduces bicycle access from the Bayside Cutoff, and will force bicyclists to either travel north several miles to Arcata to access Highway 101, or to share Old Arcata Road, which has narrower shoulders, hills, poor paving and posted speeds up to 45 mph, with motorists accessing the Indianola interchange. This does not increase safety or accessibility.

The claim that it will benefit all travel modes (page 69) is unsubstantiated. We believe that Caltrans should provide data comparing the number of bicyclists and bicyclist-involved accidents using Highway 101 between Eureka and Arcata, and between Arcata and McKinleyville, which is a freeway with design conditions much like what is proposed here. We believe that the freeway conditions between Arcata and McKinleyville may actually be a deterrent to use and that this can make accident statistics appear lower, creating a false impression that the proposed alterations are safer.

Caltrans must fully address the needs of multi-modal users along this reach of Highway 101. As part of the Pacific Coast Bike Route, the bikeway along Highway 101 is an important resource for coastal access.

KOA Campground

Closure of the median at the KOA Campground will adversely affect bicyclists touring the Pacific Coast Bike Route, since it is the only campground in the area that accommodates tent camping. The KOA Campground is also identified as an EJ community (as defined in Executive Order 12898) whose residents would be adversely affected by the need for out-of-direction travel.

Growth-Inducing Impacts

An interchange at Indianola Cutoff and Route 101 would increase capacity of that intersection, and of Indianola Cutoff and would therefore also have the potential to be growth-inducing. Additionally, although we understand that the basic design maintains an “uncontrolled” highway and therefore does not explicitly increase capacity, we believe that the proposal will result in increased speeds which would in theory accommodate more users. The extension of acceleration and deceleration lanes also seem to be needed primarily to accommodate faster-moving traffic. The shortest acceleration lane currently appears to be at Bayside Cutoff, which was not observed to have accidents above state averages.

Night Lighting

Addition or extension of acceleration and deceleration lanes is noted to come with additional or upgraded lighting. We are concerned about the potential impacts of night lighting on wildlife, which has only recently been recognized to interfere with migration, hormonal production, and reproductive behavior in organisms. While any additional lighting should be appropriately shielded consistent with the principles of the International Dark-Sky Association and to prevent impacts to wildlife, we once again question the need for these additions where accident levels are not above state averages.

Sea Level Rise (SLR)

Although the 2013 re-submittal contains changes to the analysis of sea level rise impacts, however, Caltrans fails to address such impacts in any meaningful way, despite the fact that in 2009, the California Department of Fish and Game commented on the project and impacts related to sea level rise and climate change (attached). Recently, Caltrans applied for and received funding for a “Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California” to analyze four prototype locations, including “a corridor that includes US 101, the Northwestern Pacific Railroad, the Pacific Coast Bike Route, the California Coastal Trail and is adjacent to Humboldt Bay. Previous Vulnerability Assessments have shown this location to be critically vulnerable to SLR.”

Caltrans acknowledges that the project area is critically vulnerable to sea level rise, and yet dismisses the need to address and mitigate potential impacts from sea level rise because they are not fully studied (Appendix D).

Conclusion

Humboldt Baykeeper would like to thank the California Coastal Commission and its staff for the opportunity to provide the above comments. We strongly urge you to find the Eureka - Arcata Route 101 Corridor Improvement Project as submitted by Caltrans inconsistent with the California Coastal Act, and Deny the Federal Consistency Determination.

Sincerely,

_____/s/_____
Jessica Hall, Executive Director

_____/s/_____
Jennifer Kalt, Policy Director

217 E Street
Eureka, CA 95501
(707) 268-8897
www.humboldtbaykeeper.org

Ms. Ali O. Lee
322 Rocky Creek Road
Bayside, CA 95524
Rockygulch95524@gmail.com

August 16, 2013

Mr. Mark Delaplaine
Energy, Ocean Resources & Federal Consistency Manager
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
Mark.delaplaine@coastal.ca.gov

Re: **Deny the HCAOG & CalTrans Proposal for the Highway 101
“Safety Corridor” between Eureka and Arcata**

Dear Mr. Delaplaine and the Honorable Commission:

Thank you for working “to protect, conserve, restore, and enhance environmental and human-based resources of the California coast and ocean” (CCC Mission Statement); I write you to further protect Humboldt Bay from undue human impact in the form of a premature traffic safety plan. Please consider denying the current proposal submitted by the Humboldt County Association of Governments (HCAOG) and CalTrans for the Highway 101 Safety Corridor. The proposed interchange at the Indianola Cut-off is an urban solution for a rural corridor with estuarine habitat not only on either side of the highway, but also in the middle of the highway dividing the northbound and southbound lanes.

HABITAT REDUCTION

Hérons and egrets are common along this primary corridor circumnavigating part of Humboldt Bay—between the City of Arcata and the City of Eureka. Common, too, are traffic accidents, higher than the state average, at the Indianola Cut-off which HCAOG and CalTrans argue as the primary reason for the proposal for “improvements” to the Safety Corridor on Highway 101. While an interchange at the Indianola Cut-off may improve traffic flow and Level of Service rates for motorized vehicles, an interchange does not improve salt marsh habitat, does not increase access to the coast, diverts traffic to habitat sensitive, secondary roads, and does not improve safety regarding water inundation events. In fact, the HCAOG and CalTrans proposal reduces habitat, limits coastal access, and does not address sea-level rise and flooding from natural disasters.

According to January 2013 report on Sea-Level Rise by Aldaron Laird, commissioned by the State Coastal Conservation: “The salt marsh habitat present today is less than 900 acres...significantly less than the nearly 9,000 acres mapped

in 1870 (USCGS); large areas of salt marsh dissected by tidal tributary channels which were once common around the Bay and in the Sloughs, are now rare” (Humboldt Bay Shoreline Inventory, Mapping and Sea Level Rise Vulnerability Assessment, p.100). Please review the attached Salt Marsh Distribution Map (Laird, Figure 33).

DIVERTED TRAFFIC

Two secondary corridors complete the circumnavigation of the bay and are frequently used to travel between Arcata and Eureka: Highway 255 (west of Highway 101) through Manila and Old Arcata Road (east of Highway 101) through the eastern Arcata and unincorporated Bayside which lies in the Jacoby Creek drainage. Near the Indianola Cut-off, Old Arcata Road, traffic travels through outer Eureka when the road changes to Myrtle Avenue, in the Freshwater drainage. What happens to one corridor, impacts the other two. For example, when traffic accidents close Highway 101, then vehicles are diverted onto these secondary roads not designed for highway traffic. During Highway 101 repairs and projects, diverted traffic uses these secondary roads under which openly flow, year-round, salmon-bearing creeks as in the case of Rocky Creek next to which I live and Jacoby Creek, further up the road. Adjacent to Old Arcata Road is a nesting pair of eagles. What happens to these roads happen to these creeks and riparian zones. The HCAOG and CalTrans proposal provides no consideration for diverted traffic, other than to use traffic diversion as an argument against signalized traffic solutions in lieu of the interchange they propose. The proposal also argues for closure of median crossings and the Bayside Cut-off, which will divert traffic onto the secondary roads since access to Highway 101 will be terminated, save for access from Arcata, Eureka, and the Indianola Cut-off.

NO ACCESS TO THE COAST

When there is a bay trail, then according to the proposal, adjacent communities on Old Arcata Road and Myrtle Avenue will not have access to the trail, the corridor, or the coast if median crossings and the Bayside Cut-off are closed. The only access point will be the Indianola Cut-off. Presently, making a left from the cut-off to head south, to Eureka, is extremely hazardous for even experienced bicyclists. The proposal with the raised interchange offers a safe route for bicyclists who enter the highway on-ramp heading north, but southbound bicyclists must negotiate vehicles both leaving and entering the highway—a task difficult for experienced cyclists since motor vehicle drivers tend to roll through stop signs at freeway exits and tend to favor looking left under such conditions and a task dangerous for less experienced cyclists, including child cyclists who may be staying at the KOA Campground, marketed as a bicycle campground, adjacent to the Indianola Cut-off. The proposal does not include safe access to the future bay trail or coastal pedestrian access at the Indianola Cut-off.

NO CLIMATE CHANGE PLAN

What is more, the proposed interchange at the Indianola Cut-off is an estimated \$45 to \$60 million solution for a section of Highway 101 that HCAOG has deemed a vulnerable

asset and for which they have issued a call for proposal for a “Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California.” The study’s findings are tentatively due-out July 31, 2014 (HCAOG Climate Change Adaptation Project, p. 13). Denying the present HCAOG and CalTrans project would allow time for these agencies to study the results of their other project before investing in a solution not fully informed about “reduc[ing] the impacts of climate change and severe weather on state owned transportation facilities...with transportation assets that are critically vulnerable to the impacts of climate change” (HCAOG Request for Proposals for the Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California project, page 1).

The Highway 101 Safety Corridor was named by HCAOG as one of the four vulnerable, critical assets, by the Federal Emergency Management Authority as a flood zone, and by Humboldt County as being in the Tsunami Evacuation Zone (gis.co.humboldt.ca.us/). Please review the attached FEMA floodzone and Humboldt GIS maps.

Recent photographs from Humboldt Baykeeper’s King Tide Initiative, show high water inundation along the Highway 101 Safety Corridor (www.flickr.com/groups/humbolddbayingkingtides/). Given sea-level rise predictions, the safety corridor will soon be breached multiple times a year by king tides, let alone natural disasters involving flooding. Once again, here is an excerpt from Laird’s Sea Level Rise report:

During the last 100 years, sea level along California’s coast has increased an average of 7 inches (2009 California Climate Adaptation Strategy). However, according to the North Spit station records, sea level is rising in Humboldt Bay at a rate of 18.6 inches per century, which is the highest rate in California; Humboldt Bay is subsiding (Russell 2012). The combination of EHT during strong El Nino events or during periods of heavy precipitation can lead to short-term increases in sea level; such as occurred on Humboldt Bay in 2003 and again in 2005/6. A conservative estimation of sea level rise for the coast of California is: 6 inches by 2030, 12 inches by 2050, and 36 inches by 2100. The CCC requires applicants for development permits to evaluate the potential affect of sea level rise on their proposed project, at a minimum of 3 feet and maximum of 6 feet of sea level rise. Relative sea level rise on Humboldt Bay will likely be greater if tectonic subsidence continues to occur (p. 109).

LESS THAN ADEQUATE MITIGATION

As a Bayside resident, bicyclist, and bus rider who commutes between Eureka and Arcata—sometimes with children—I support a safe, multi-modal transportation solution for this rural area’s main corridor, but I do not support this HCAOG and CalTrans project since a guardrail with a bike lane is a minimum mitigation for the proposed interchange and closures of cut-offs and medians do not afford safe community access from communities directly east of Highway 101. A guardrail with a bike lane, adjacent to 50

mph traffic when the Safety Corridor is in place, may be a sufficient solution for experienced cyclists who want a direct route between Arcata and Eureka, but not for cyclists currently entering the highway at access points between the two cities and certainly not for less experienced cyclists who, when they get too close to the guardrail or swerve to miss an obstacle in their path, might lose their balance and tip over the guardrail into traffic while bicycling. The guardrail solution is not an adequate for children who might get off their bikes or trikes and climb over the guardrail into traffic.

The proposed guardrail separation is not safe enough for non-motorized, particularly when the speed limit returns to 65 mph when the Safety Corridor designation expires. Objects flying off motorized vehicles traveling at 50 mph or 65 mph do not obey guardrails and are dangerous for all, but most of all for non-motorized travelers. The shoulders along Highway 101 routinely have objects that bicyclists (and pedestrians who walk from Jacobs Avenue to Eureka) must negotiate; I have recently cycled around objects that have come off vehicles: firewood, a mattress, a picnic cooler, a tire, lumber, a cat carrier (sans cat) and a rearview mirror.

As a disability provider working under a federal grant to serve Older Adults Who Are Blind & Visually Impaired, I do not support this project since the plan does not address coastal access solutions or traffic safety solutions for people with disabilities, especially those who travel on the highway shoulder in both motorized and manual wheelchairs. Their needs are quite different than bicyclists'. Even though the highway is not designed for such travelers, they use Highway 101—particularly along the eastern, north-bound traffic shoulder to travel between Jacobs Avenue to Eureka.

As a Bayside Area Old Arcata Road Transportation Safety Committee Member, I do not support this project since the plan diverts traffic onto secondary corridors not designed for highway traffic and blocks access to the coast.

Thank you for denying this urban solution for rural Humboldt, where the population increased only by 0.2%, from 2010 to 2012, compared to the rest of California whose population increased by 2.1% (United States Census Bureau, Quick Facts for Humboldt County). Please deny this project being rushed by HCAOG and CalTrans before they study the results of their Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California—due out in 2014. This project does not serve CCC's mission "to protect, conserve, restore or enhance" Humboldt Bay. This project only serves to increase traffic flow for motorized vehicles and will encourage community and road development east of Highway 101, between Eureka and Arcata, which add to negative, cumulative impacts on coastal resources, both human and environmental.

Sincerely,

Ali O. Lee

Bayside Resident

| Bayside Area Old Arcata Road Safety Initiative Member







Figure 33. NOAA's Coastal Services Center's, Humboldt Bay 2009 GIS database of salt marsh habitat distribution on Humboldt Bay.



1734 Roberts Way, Arcata CA 95521
August 18, 2013

California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
Attn.: Mark Delaplaine

RECEIVED

AUG 21 2013

CALIFORNIA
COASTAL COMMISSION

Re: Support for Commission Staff report objecting to CalTrans Eureka - Arcata Route 101 Corridor "Improvement" Project

Dear California Coastal Commission:

In summary, the Commission should reject CalTrans' proposal for all the reasons stated in the staff report, because it makes travel more dangerous for some motor vehicles and for all bicycles, because it ignores the benefits of a bike-pedestrian trail, and because it fails to protect the highway from rising sea level.

It appears that CalTrans' goal is to make the corridor into a freeway with 65 + mph traffic, with bicycles right next to it. There is no need for a freeway between Arcata and Eureka because the current 50mph limit is entirely satisfactory for cars, although it is currently quite dangerous for cyclists. As a cyclist I know.

Caltrans' proposal makes travel more dangerous for some cars and for other travelers such as pedestrians and cyclists. For example, CalTrans proposes to close median openings across 101, which degrades neighboring traffic flow.

CalTrans has ignored two key issues: the need to protect the highway from sea level rise and the use of NCRA right-of-way to provide a separate trail or railbanking.

CalTrans has heretofore ignored sea level rise and storm threats to the corridor. **This section of 101 is the one in California most in danger from sea level rise.** The absurdity of CalTrans' current plan for construction without protection from sea level rise is that the proposed Indianola interchange will be an island in salt water before its otherwise useful life is over.

Further, their proposal to contribute a million dollars to a ten million trail project only (maybe) after they've built their interchange is blackmail. This is CalTrans acting like a bully, and I cannot believe that such a scheme came from local CalTrans staff.

The section entitled "What about a separated trail for bicyclists and pedestrians?" in CalTrans' "Bicycle and Pedestrian Access and the Eureka-Arcata Corridor Improvement Project" fails the reasonableness test. For example, CalTrans claims that mixing bicycles and cars at freeway speeds is safe; all recent experience shows this is false, and their proposed bike lanes are more likely to be blood-red colored

than brick-red (CalTrans terminology) colored.

CalTrans should adopt a goal that would make travel safer or at least no worse for everyone, which is Caltrans' obligation in its enabling legislation. Specifically, **CalTrans should provide a trail for cyclists and pedestrians, the potential for eventual rail (perhaps railbanking), and a highway protected from sea level rise.** This plan would make wetland damage much less as well.

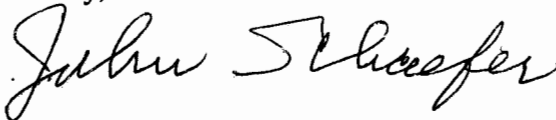
I believe there's plenty of room in CalTrans' right-of-way for highway, rail and trail, even without moving the highway. If I am wrong, then CalTrans can move the entire highway over, as it currently proposes (to save the trees, but why?), so that there is room for rail and a separate trail. They can do that without NCRA.

However, corridor protection must involve the NCRA property, and CalTrans should protect the highway by enhancing the NCRA prism, which is already failing. See photo attached. NCRA is bankrupt and has no plans or resources to do anything with that right-of-way. Like a dog in the manger, NCRA has denied access by opposing railbanking. They've also adopted bicycle trail "standards" that effectively prohibit trails on their property. It is clearly in the public interest to reject NCRA's denial of railbanking. This would also enable a safe coastal trail.

With NCRA bankrupt surely a deal can be cut, if all agencies pull together for a sensible plan. The key agency to make this work is the Coastal Commission.

Thank you, and I shall look forward to hearing your decision.

Sincerely,

A handwritten signature in cursive script, reading "John Schaefer".

John Schaefer, Ph.D.

cc

Senator Noreen Evans

Assemblyman Wes Chesbro



Storm Damage on NCRA Threatens Highway 101 (photo 8/18/13)

RECEIVED

AUG 21 2013

CALIFORNIA
COASTAL COMMISSION

August 19, 2013

Dear Mr. Delaplaine

I am sending you this message (with signed letter to follow) to urge you to **not approve** the CalTrans Eureka-Arcata Route 101 Improvement Project without the addition of a multimodal trail. CalTrans has disregarded its own directive (see below and attached; DD-64-R1) and proposed a Project that will actually make cycling more dangerous than it currently is on the "Safety Corridor." To date, all that CalTrans has done for cyclists on the "Safety Corridor" is added a rumble-strip. The addition of a rumble-strip is not my idea of accommodating cyclists, it's merely an early warning system that lets you know you are about to be hit. Back in 2008, I wrote the attached letter to Ms. Floyd asking CalTrans to follow their own directive and provide this community with what it wants, a way to travel back and forth between Arcata and Eureka on a bicycle without significant risk. In 2008, I was a bike commuter, logging lots of round trips. I no longer commute on a bike because of the imminent danger. Now that we all have smart phones, we are all more distracted while driving than ever before, I trust you understand.

It's important that you know that a lot of people bicycle commute on the "Safety Corridor" daily. The "Safety Corridor" also is used by a large number of touring cyclists. We need a safe route; this Project will not provide safety or multimodal opportunities. Unfortunately, CalTrans does not seem to care about cyclists and the California Coastal Commission will have to act. Please tell CalTrans that this Project must accommodate cyclists, they need to include a trail, and they need Complete Streets!

TITLE

Complete Streets - Integrating the Transportation System

POLICY

The California Department of Transportation (Department) provides for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. The Department views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

The Department develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery and maintenance and operations. Developing a network of "complete streets" requires collaboration among all Department functional units and stakeholders to establish effective partnerships.

Sincerely,



Michael van Hattem

December 12, 2008

Eureka-Arcata Route 101 Corridor Improvement Project

Dear Ms. Floyd,

I attended the open house and discussion of the two additional alternatives for the Eureka-Arcata Route 101 Corridor Improvement Project. I remain puzzled over your agencies inability to provide safe access for cyclists along the corridor. Bicyclists are the second largest user group, our numbers are increasing, and without question many more cyclists will be riding the corridor in the future. I trust that Caltrans understands that bike commuting is a desired approach to transportation in our community.

The current project alternatives do not represent *Complete Streets* as explained and mandated in Deputy Directive # DD-64-R1. Specifically, "The Department (Caltrans) views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system." Furthermore, "The Department develops integrated multimodal projects in balance with community goals, plans, and values." So I ask you- where is it, where is the integration and how is the current set of alternatives multimodal? Adding a rumble strip and supporting the development of an Arcata/Eureka trail independent of Highway 101 stacks up to literally nothing.

I think Caltrans can do better. I logged over 800 commute miles (40+ round trips) this year on my bike on the corridor. I am healthier and happier for it. The corridor is not safe for cyclists now and will be less safe with the alternatives that are proposed. Please follow your own directive and provide a safe and effective means for bicycle commuters to travel our 101 corridor. This is your chance to provide safe access to all users, not just the ones that choose to drive a car.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael van Hattem", with a long horizontal flourish extending to the right.

Michael van Hattem
2033 Haeger Avenue
Arcata, CA. 95521

Deputy Directive

Number: DD-64-R1

Refer to
Director's Policy: DP-22
Context Sensitive
Solutions
DP-05
Multimodal Alternatives
DP-06
Caltrans Partnerships
DP-23-R1
Energy Efficiency,
Conservation and Climate
Change

Effective Date: October 2008

Supersedes: DD-64 (03-26-01)

TITLE Complete Streets - Integrating the Transportation System

POLICY

The California Department of Transportation (Department) provides for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. The Department views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

The Department develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery and maintenance and operations. Developing a network of "complete streets" requires collaboration among all Department functional units and stakeholders to establish effective partnerships.

DEFINITIONS/BACKGROUND

Complete Street – A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility.

The intent of this directive is to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of "complete streets."

State and federal laws require the Department and local agencies to promote and facilitate increased bicycling and walking. California Vehicle Code (CVC) (Sections 21200-21212), and Streets and Highways Code (Sections 890 – 894.2) identify the rights of bicyclists and pedestrians, and establish legislative intent that people of all ages using all types of mobility devices are able to travel on roads. Bicyclists, pedestrians, and nonmotorized traffic are permitted on all State facilities, unless prohibited (CVC, section 21960). Therefore, the Department and local agencies have the duty to provide for the safety and mobility needs of all who have legal access to the transportation system.

Department manuals and guidance outline statutory requirements, planning policy, and project delivery procedures to facilitate multimodal travel, which includes connectivity to public transit for bicyclists and pedestrians. In many instances, roads designed to Department standards provide basic access for bicycling and walking. This directive does not supersede existing laws. To ensure successful implementation of "complete streets," manuals, guidance, and training will be updated and developed.

RESPONSIBILITIES

Chief Deputy Director:

- Establishes policy consistent with the Department's objectives to develop a safe and efficient multimodal transportation system for all users.
- Ensures management staff is trained to provide for the needs of bicyclists, pedestrians, and transit users.

Deputy Directors, Planning and Modal Programs and Project Delivery:

- Include bicycle, pedestrian, and transit modes in statewide strategies for safety and mobility, and in system performance measures.
- Provide tools and establish processes to identify and address the needs of bicyclists, pedestrians, and transit users early and continuously throughout planning and project development activities.
- Ensure districts document decisions regarding bicycle, pedestrian, and transit modes in project initiation and scoping activities.
- Ensure Department manuals, guidance, standards, and procedures reflect this directive, and identify and explain the Department's objectives for multimodal travel.
- Ensure an Implementation Plan for this directive is developed.

Deputy Director, Maintenance and Operations:

- Provides tools and establishes processes that ensure regular maintenance and operations activities meet the safety and mobility needs of bicyclists, pedestrians, and transit users in construction and maintenance work zones, encroachment permit work, and system operations.
- Ensures Department manuals, guidance, standards, and procedures reflect this directive and identifies and explains the Department's objectives for multimodal travel.

District Directors:

- Promote partnerships with local, regional, and State agencies to plan and fund facilities for integrated multimodal travel and to meet the needs of all travelers.
- Identify bicycle and pedestrian coordinator(s) to serve as advisor(s) and external liaison(s) on issues that involve the district, local agencies, and stakeholders.
- Ensure bicycle, pedestrian, and transit needs are identified in district system planning products; addressed during project initiation; and that projects are designed, constructed, operated, and maintained using current standards.
- Ensure bicycle, pedestrian, and transit interests are appropriately represented on interdisciplinary planning and project delivery development teams.
- Provide documentation to support decisions regarding bicycle, pedestrian, and transit modes in project initiation and scoping activities.

Deputy District Directors, Planning, Design, Construction, Maintenance, and Operations:

- Ensure bicycle, pedestrian, and transit user needs are addressed and deficiencies identified during system and corridor planning, project initiation, scoping, and programming.
- Collaborate with local and regional partners to plan, develop, and maintain effective bicycle, pedestrian, and transit networks.
- Consult locally adopted bicycle, pedestrian, and transit plans to ensure that State highway system plans are compatible.
- Ensure projects are planned, designed, constructed, operated, and maintained consistent with project type and funding program to provide for the safety and mobility needs of all users with legal access to a transportation facility.
- Implement current design standards that meet the needs of bicyclists, pedestrians, and transit users in design, construction and maintenance work zones, encroachment permit work, and in system operations.
- Provide information to staff, local agencies, and stakeholders on available funding programs addressing bicycle, pedestrian, and transit travel needs.

Chiefs, Divisions of Aeronautics, Local Assistance, Mass Transportation, Rail, Transportation Planning, Transportation System Information, Research and Innovation, and Transportation Programming:

- Ensure incorporation of bicycle, pedestrian, and transit travel elements in all Department transportation plans and studies.
- Support interdisciplinary participation within and between districts in the project development process to provide for the needs of all users.
- Encourage local agencies to include bicycle, pedestrian, and transit elements in regional and local planning documents, including general plans, transportation plans, and circulation elements.
- Promote land uses that encourage bicycle, pedestrian, and transit travel.
- Advocate, partner, and collaborate with stakeholders to address the needs of bicycle, pedestrian, and transit travelers in all program areas.
- Support the development of new technology to improve safety, mobility, and access for bicyclists, pedestrians, and transit users of all ages and abilities.
- Research, develop, and implement multimodal performance measures.
- Provide information to staff, local agencies, and stakeholders on available funding programs to address the needs of bicycle, pedestrian, and transit travelers.

Chiefs, Divisions of Traffic Operations, Maintenance, Environmental Analysis, Design, Construction, and Project Management:

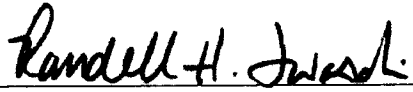
- Provide guidance on project design, operation, and maintenance of work zones to safely accommodate bicyclists, pedestrians, and transit users.
- Ensure the transportation system and facilities are planned, constructed, operated, and maintained consistent with project type and funding program to maximize safety and mobility for all users with legal access.
- Promote and incorporate, on an ongoing basis, guidance, procedures, and product reviews that maximize bicycle, pedestrian, and transit safety and mobility.
- Support multidisciplinary district participation in the project development process to provide for the needs of all users.

Employees:

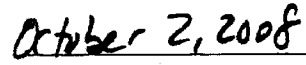
- Follow and recommend improvements to manuals, guidance, and procedures that maximize safety and mobility for all users in all transportation products and activities.
- Promote awareness of bicycle, pedestrian, and transit needs to develop an integrated, multimodal transportation system.
- Maximize bicycle, pedestrian, and transit safety and mobility through each project's life cycle.

APPLICABILITY

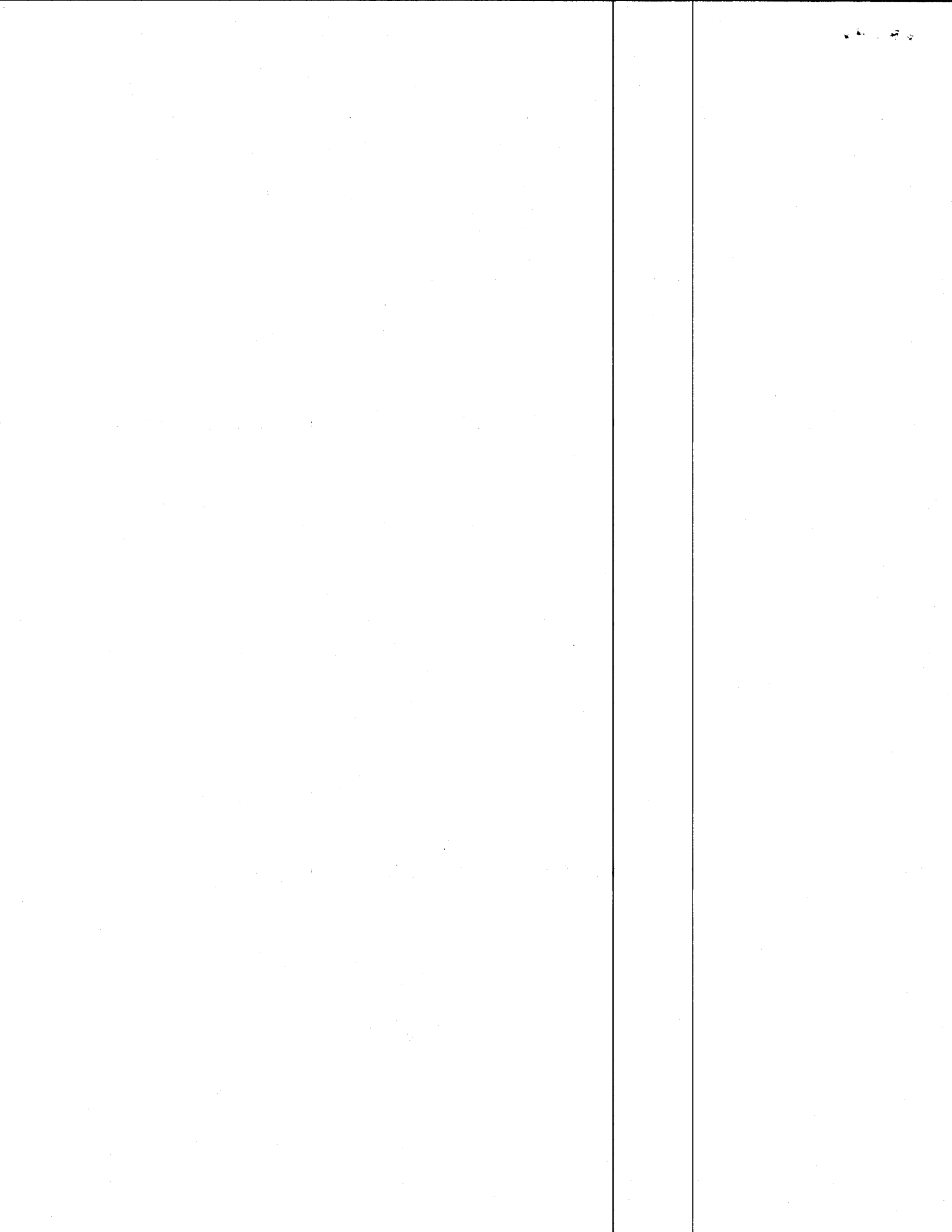
All departmental employees.



RANDELL H. IWASAKI
Chief Deputy Director



Date Signed



Delaplaine, Mark@Coastal

From: Richard Ridenhour <ridenhourrl@gmail.com>
Sent: Saturday, August 24, 2013 5:34 PM
To: Delaplaine, Mark@Coastal
Subject: PROPOSED EUREKA-ARCATA HIGHWAY PROJECT

22 August 2013

Mr. Mark Delaplaine
Manager, Energy, Ocean Resources and Federal Consistency Division
California Coastal Commission
45 Fremont St., Suite 2000
San Francisco, CA 94105-2219

Dera Mr. Delaplaine:

I wish to add my objection to the plan proposed by the California Department of Transportation for changes to Highway 101 between Eureka and Arcata in Humboldt County.

First, the plan does not really consider the status of the railroad paralleling the highway for most of this section. The railroad appears to constitute a major constraint to modification of the lateral roads that access Highway 101. Until a definite decision is made with regard to the future of the railroad, major changes to the highway in this area seem premature.

Second, somewhat contrary to the evidence provided in the project prospectus, the current Safety Corridor seems to have greatly alleviated the serious, and particularly fatal, accidents in this section of the highway. Abidance to the restricted speed seems to vary substantially depending on the appearance of law enforcement efforts.

Third, a major consideration about the future of this portion of Highway should be the effect of likely sea level rises. It is entirely possible that the proposed major changes to the highway without this consideration would necessitate an even more substantive project within a fairly short time.

Fourth, the placement of stop-and-go traffic lights essentially extend the urban traffic controls of Eureka. Granted, these lights, along with the closure of the median crossings (which obviously will be opposed vigorously by affected commercial developments), are intended to resolve the lack of planning in the past but they are poor answers to the problem.

My recommendation is for no project until the railroad question is resolved and the other factors are considered.

Sincerely,

Richard L.Ridenhour
2736 Sunny Grove Ave.
McKinleyville, CA 95519
(707) 839-3300
ridenhourrl@gmail.com

Delaplaine, Mark@Coastal

Subject: FW: Caltrans Bypass in Willits and Caltrans Plan for Putting in High Speed Freeway Here.

----- Forwarded message -----

From: **Anne Hubbard** <sweetfennel@gmail.com>

Date: Fri, Aug 23, 2013 at 9:57 AM

Subject: Caltrans Bypass in Willits and Caltrans Plan for Putting in High Speed Freeway Here.

To: mlovelace@co.humboldt.ca.us

http://abclocal.go.com/kgo/story?section=news/assignment_7&id=9097038

Dear Supervisor Mark Lovelace, and Board of Sups:

Thank you for the letter you took the initiative to write and the subsequent communications to release water into our beautiful Trinity (and Klamath) River. I hope water will be released shortly, and in time to save this record salmon run! Enjoyed watching the commenter-fisherwoman through archives.

The Caltrans bypass in Willits is a questionable use of taxpayer money. Please view the KGO clip I have included: http://abclocal.go.com/kgo/story?section=news/assignment_7&id=9097038. See attachment for the link.

Now Caltrans has plans to make our Safety Corridor into a high-speed freeway. Its urban blight brought to you by Caltrans.

They have cut the Endeavor out of existence, now the senior centers have cut Monday lunch programs out in the last few weeks, and many of our services are being cut. You can't get a partial or dentures on medi-cal, and so many people in California are having to do with no teeth since they cut dental care out of the medi-cal program a couple of years back.

We do not need urban blight at the expense of our security in old age.

Also, Fukushima Nuclear Reactor in Japan is unstable, leaking and in danger of more meltdowns by its 5 or 6 reactors. Shouldn't the government be addressing that and getting involved in safeguarding the population and the rains, foods, tuna and salmon i.e. fish, from radiation contamination? Shouldn't money first be spent on getting involved to help contain the accident before spending money needlessly? At least geiger counters should be used on our foods, and the tuna our pets ingest. You are familiar with the veterinary costs of cancer. Everyone seems to know of someone who has grappled with it. I have read that thyroid disease in infants has risen sharply in California--30% in babies born soon after the melt-down. What next?

Please, Supervisors and especially Mark Lovelace, my supervisor in Arcata, watch the KGO clip I am attaching:

Delaplaine, Mark@Coastal

From: lawrence eitzen <eitzenlaw@gmail.com>
Sent: Wednesday, August 21, 2013 2:10 PM
To: Delaplaine, Mark@Coastal
Subject: Safety Corridor, Hghwy 101

Mark,

I live on Ole Hansen and commute by bike on a close to daily basis to downtown Eureka. My normal course of travel takes me across 101 at the Indianola Cutoff. Crossing 101 is a challenge even with the safety corridor speed. I am surprised to learn that the Dept. of Transportation has not taken the design opportunity to increase my life expectancy and that of many other commuters.

Please use your review authority to change this.

--

Larry Eitzen

Delaplaine, Mark@Coastal

From: Terry Raymer <twraymer@hotmail.com>
Sent: Wednesday, August 21, 2013 9:49 AM
To: Delaplaine, Mark@Coastal
Subject: Caltrans 101 Corridor Project

Dear Mr. Delaplaine,

I am a Humboldt County resident who uses the 101 corridor multiple times per week, but I also bike commute to work sometimes using the corridor. I have the following concerns about the corridor:

- **Please consider a Bay Trail.** Caltrans' project should provide safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.
- **Plan for Coastal Flooding and Sea Level Rise:** Highway 101 is currently at risk of flooding during extreme high tides and major storms. The railroad berm and dikes, which are currently the only protection from high water levels, are eroding – putting the 101 corridor at even greater risk. Sea level rise will only add to these problems. Work on the highway, trail, and rail corridors should all be planned together while taking into account storms, high tides, and projected sea level rise. Caltrans needs to address these issues before any action is taken on the 101 corridor project.
- **Address Impacts to Surrounding Communities:** Closure of the Bayside median and construction of a capacity-increasing interchange is likely to result in increased traffic on Old Arcata Road. Caltrans must consider and address the impacts resulting from the project to Old Arcata Road and other routes. Caltrans should also carefully consider the many reasonable project alternatives put forth by local agencies and the public.

Thank you for the opportunity to express these concerns.

Best, Terry Raymer MD

Delaplaine, Mark@Coastal

From: N Coyne <ncoyne@gmail.com>
Sent: Tuesday, August 20, 2013 9:14 PM
To: Delaplaine, Mark@Coastal
Subject: Humboldt County Safety Corridor

I support the inclusion of non-motorized routes as part of the plan for the safety corridor. A bay trail and the continuation of the California Coastal trail should be a priority in any plan. Safety for all people and vehicles - motorized and non-motorized - should be the goal. I really enjoy the the eucalyptus trees, too.

Thank you!
Nicole Coyne

Works in Eureka.
Lives in Loleta.
Bicycles all over.

Delaplaine, Mark@Coastal

From: lostcoasting . <jzakoren@gmail.com>
Sent: Tuesday, August 20, 2013 5:10 PM
To: Delaplaine, Mark@Coastal
Subject: RE: Caltrans Project and Bay Trail

Dear Mr. Delaplaine,

As a Humboldt local, Eureka resident, and member of Humboldt State University's Environment & Community Master's Program I urge you , in the words of the Humboldt Trails Council, "no project without the Bay Trail!

Caltrans' project must ensure safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a Class I trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project."

Sincerely yours,

Justin Zakoren

Mary Shallenberger,

Chair California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

Re: Consistency Certification # CC-016-13 (Caltrans) aka, 101 Corridor project

I am writing to you today as home owner since 1979 in the Indianola Area between Eureka and Arcata. I have raised two children here at 7310 Myrtle Ave and they both learned to drive while living here. During that time the speed limit was 65 mph on 101, no safety corridor, no flashing lights. I never viewed it as particularly dangerous until about 12 years ago we had a series of fatal accidents at 101 and Indianola. There was a public clamor for something to be done. The Safety Corridor was established. I was skeptical at first, but as enforcement was stepped up, and people really started slowing down. There was a big change and very few accidents, Success.

Cal-trans was not satisfied they wanted to get the speed limit back to 65 so Cal-Trans concocted the 101 Corridor Improvement Project. This plan called for closing all the medians and a full interchange at Indianola Cutoff. The business on Jacobs Ave howled in protest and eventually there was a compromise. A half signal was proposed. During this period one of the median breaks to Jacobs's ave was closed. The message was clear support the project or we will close your other median.

Cal-Trans as never considered or seriously studied reasonable alternatives for this project. I would cite as an example, half signals at Indianola and Bayside. The Eureka-Arcata Route 101 Corridor Improvement Project Review by Nelson Nygaard, provided by Humboldt Baykeeper, spells this out clearly. I concur with its findings.

A signal at Indianola is dismissed as too dangerous by Cal-trans, yet one is purposed for Jacobs ave and a full signal on 101 at Kmart at the South entrance to Eureka exists and is the first stop in nearly two hours of driving. I am not aware of any fatalities there. Cal-trans didn't blink about installing that one.

The Growth inducing effects of an interchange at Indianola are clear to those of us who live here. The pressure has been on this area for many years. Wal-Mart was purposed at the Southeast corner and a strip center purposed on the Northeast corner. Several attempts at large housing development have been made or purposed. The lack of an interchange has been stated as a limiting factor in all of these. Many of us believe that with an interchange the pressure to convert the existing industrial timberlands between Freshwater and Jacoby Creek would be intense and would be inevitable.

Failure to study and plan for sea level rise and storm surge is a huge oversight. It is a storm event a few years ago I witnessed 101 be closed between Indianola and Arcata. I saw small waves breaking in the South bound lanes of 101 depositing drift wood on the highway.

It is my contention that this project is not consistent with the California Coastal Act is a waste of public resources both Highways 299 & 36 are much more dangerous and need safety improvements on them immediately.

The money saved should be used to create a pedestrian and Bike Trail along Humboldt Bay.

Thank you for your consideration,

Larry Glass

7310 Myrtle Ave

Eureka, Ca 95503

larryglass71@gmail.com

RECEIVED

AUG 19 2013

CALIFORNIA
COASTAL COMMISSION

To: the Coastal Commission:

**No to Caltrans 101 Corridor Project
without the Bay Trail!**

We need improvements instead of closures!

Regards,

Elisabeth Hawthorne

640 No, Pebble Beach Dr.

Crescent City, Ca. 95531

and

*531 Jachetta Ct.
Healdsburg, CA. 95448*

RECEIVED

August 15, 2013

AUG 19 2013

CALIFORNIA
COASTAL COMMISSION

Mark Delaplaine
California Coastal Commission

Dear Commissioner Delaplaine,

I'm writing to express my concerns about Caltrans' plans for the corridor between Arcata and Eureka. I am one of many local residents who feel that the current traffic-slowing (special zone 50 mph speed limit) is an acceptable safety measure for this part of Hwy 101.

I am **not** in favor of overpass construction to speed traffic due to its environmental impact on coastal wetlands, and its cost, given that the current Safety Corridor seems to be an effective solution for cross-traffic safety in this stretch.

Also, Highway 101 is currently at risk of flooding during extreme high tides and major storms. The protective railroad berm and dikes are eroding. Work on the highway, trail, and rail corridors should all be planned together while taking into account storms, high tides, and projected sea level rise. **Caltrans needs to address these issues before any action is taken on the 101 corridor project.**

Additionally, closure of the Bayside median and construction of a capacity-increasing interchange is likely to result in increased traffic on Old Arcata Road. **Caltrans must consider and address the impacts resulting from the project to Old Arcata Road and other routes.**

However, if the determination is made that Caltrans' overpass project will go ahead, **Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.** Our community has long been in need of safe bike and pedestrian passage between Eureka and Arcata. The existing (unused) rail lines are an ideal basis for such a trail. (see <http://baytrailplan.org>)

It is unacceptable for Caltrans to turn the 101 Corridor adjacent to Humboldt Bay into a high-speed freeway without safe accommodations for cyclists and pedestrians.

Thanks for your serious consideration of these issues. The current Caltrans proposal would have major long-term (negative) impacts on the on safety and quality of life in our community.

Sincerely,
Kit Davenport
30 East 11th St.
Arcata, CA 95521 davenport.kit@gmail.com

RECEIVED

AUG 19 2013

**CALIFORNIA
COASTAL COMMISSION**

David Callow
69 Riverview Lane
McKinleyville, Cal 95519-9263
dcallow@humboldt1.com
(707) 668-4084

August 16, 2013

California Coastal Commission
Mark Delaplaine
45 Fremont Street, Suite 2000
San Francisco, California 94105-2219

Dear Mr. Delaplaine,

I urge you to scuttle Cal Trans proposed 101 Corridor project between Arcata and Eureka. It would harm local business and residences by restricting local traffic and would not devote sufficient resources to strengthening the railroad dike which is the roadway's only defense against rising water levels. Please defeat this project.

Thanks,

A handwritten signature in black ink, appearing to read "D. Callow", with a long, sweeping horizontal stroke extending to the right.

David Callow

Delaplaine, Mark@Coastal

From: Sarah Torres <steureka89@gmail.com>
Sent: Tuesday, August 20, 2013 12:14 PM
To: Delaplaine, Mark@Coastal
Subject: Humboldt Bay Trail

My name is Sarah Torres. I have lived in Humboldt County since I was 3 years old. I'm soon to be 24... I work for the California Conservation Corp, Humboldt Bay Non Residential. I am all for the Humboldt Bay Trail. We have needed this trail for a long time. Not only would it be a tourist attraction, but locals like me would use it, especially in the summer time. Not only would it be safer for pedestrians and bicyclists, it would promote healthy, outdoor physical activity.... Thank you for listening.

Sarah Torres

Delaplaine, Mark@Coastal

From: yellowgate Road <yellowgateroad@gmail.com>
Sent: Tuesday, August 20, 2013 12:52 PM
To: Delaplaine, Mark@Coastal
Subject: Humboldt county 101 Corridor Project

Dear Mark:

I am very concerned about bicycle and pedestrian safety between Eureka and Arcata. It seems to me that we have a very high rate of pedestrian and bicycle casualties locally. We need a safe way to bicycle between Eureka and Arcata. Please include a trail option in this corridor project. Myrtle Ave/ Old Arcata Road is too dangerous, and is likely to become more so if this project goes through.

Jan

Delaplaine, Mark@Coastal

From: Marianne M. Ahokas <Marianne.Ahokas@humboldt.edu>
Sent: Tuesday, August 20, 2013 12:55 PM
To: Delaplaine, Mark@Coastal
Subject: Humboldt Bay Trail

I'm writing to register with the Coastal Commission my support for safe access for cyclists--both commuters and tourists--and pedestrians in the Eureka-Arcata Safety Corridor plan. I myself am both an avid cyclist and walker and would cycle to Eureka from my home in Arcata if I didn't feel I was taking my life in my hands on 101 by doing so. A safe route for cyclists and walkers should certainly be included!

Thank you for your time.

--
Marianne Ahokas
English Department
Humboldt State University
Arcata, CA 95521

Founders 226
707.822.8385
<http://users.humboldt.edu/mahokas/>

Delaplaine, Mark@Coastal

From: sealhayes@gmail.com on behalf of Dancing Sun Crystals
<dancingsuncrystals@gmail.com>
Sent: Tuesday, August 20, 2013 9:55 AM
To: Delaplaine, Mark@Coastal
Subject: Caltrans highway project in Humboldt

Hello,

We need a bike trail along Humboldt Bay. Do make improvements to Hwy 101 without addressing the needs of a bike trail is an irresponsible act of negligence on the part of Caltrans. We live in a community that bikes! We need safer corridors to get more people riding rather than driving in their cars. Fewer cars on the road will benefit Caltrans and California. Also one of our greatest assets is the beauty of the area and the tourists who are attracted to it. To offer more biking trails will bring in more environmentally friendly tourist. Please help designate 101 as a safe Pacific Coast Bike Route.

Sincerely,
Charlotte Hayes

Delaplaine, Mark@Coastal

From: Kay Schaser <bkshaz@yahoo.com>
Sent: Tuesday, August 20, 2013 9:42 AM
To: Delaplaine, Mark@Coastal
Subject: Highway 101 "improvements" between Eureka and Arcata

To Whom It May Concern,

The reduced speed zone between Eureka and Arcata seems to be working, so a major interchange seems like overkill. But, should the project go forward anyway, it definitely needs to address safe accommodations for cyclists and pedestrians by incorporating the Humboldt Bay Trail, as well as addressing sea level rise and impacts on other roadways. Please don't be narrow in your thinking and carefully consider the many reasonable project alternatives put forth by local agencies and the public.

Thank you for your consideration,

Kay Schaser

Delaplaine, Mark@Coastal

From: Wilhelm Schaser <wkshaz@yahoo.com>
Sent: Tuesday, August 20, 2013 9:32 AM
To: Delaplaine, Mark@Coastal
Subject: Humboldt Trails Project

Dear Mr Delaplaine

Humboldt County is a unique part of California. Despite our drug culture the general public is becoming more aware of environmental issues and sustainable development. The Bay Trail Project is an essential component for our growth towards developing this ethos. Many of us feel strongly that Caltrans should guarantee the bike and hiking corridor before moving forward on their vision. I hope you will use your influence to further the vision we have for the future of Humboldt County.

Sincerely,
Bill Schaser

Delaplaine, Mark@Coastal

From: Lynne Mahony <ldmahony@gmail.com>
Sent: Tuesday, August 20, 2013 8:57 AM
To: Delaplaine, Mark@Coastal
Subject: Hwy 101 Arcata to Eureka, CA

Dear Mr. Delaplaine,

Thank you for reading my input to the the plans for the Eureka to Arcata 101 Corridor project.

The proposed project does not appear to make accomodations for bicycle or pedestrian traffic. My husband and the father of our young children bicycles to work on this route. This act is motivated by both personal well-being and an effort to decrease our nation's dependence on oil. The proposed project does not include a plan for non-motorized commuters and would decrease personal safety for pedestrians and bicyclists.. I urge you to couple the proposed project with a bike, pedestrian trail.

Thank you,
Lynne Mahony
2118 Daina Ct.
Arcata, Ca

Delaplaine, Mark@Coastal

From: Stephen Lindemann <selindemann@gmail.com>
Sent: Tuesday, August 20, 2013 7:54 AM
To: Delaplaine, Mark@Coastal
Subject: Eureka-Arcata 101 Corridor

Greetings Mark,

My name is Stephen Lindemann. Last year was my first time on the North Coast. I had traveled to Arcata from St. Louis, Missouri and made a stay for myself there for the entire year. By no means am I a Native, however, I had spent enough time there to get a real sense of the place and the spirit behind, not only it's landscape, but it's people. During my stay I was a vegetable farmer, mostly around the Indianola Cutoff. I worked and stayed on a piece of property just off of the round-about. I rode my bicycle between Eureka and Arcata quite frequently. Upon hearing of the project, I too thought of the other bicyclists, however, what really struck me was that the quaint, simple yet functional stretch of ground that runs between Eureka and Arcata, will be completely altered with the construction of a new overpass. What is in place now works just fine. Not to mention, the importance of the brackish water ecosystem and the fertile and delicate farmland that will all be compromised. I would like to know why and for what purpose there is a plan for the development of the Eureka-Arcata 101 Corridor. It all seems to be functioning and mutually beneficial the way it sits currently.

Any additional info would be nice, or perhaps your personal ideas. Also, as a Permaculture Designer and Farmer, I know that the execution of this development will be of greater harm than good to the existing systems that are already at play. (Community, Ecosystems, Migratory patterns, and so on..) I am sure that the Environmental Protection and Information Center (EPIC) are already compiling an extensive list of 'collateral damage' and 'values' of Caltrans.

Regards,
Stephen Lindemann

Delaplaine, Mark@Coastal

From: alisha oloughlin <thankfulmama@gmail.com>
Sent: Tuesday, August 20, 2013 6:46 AM
To: Delaplaine, Mark@Coastal
Subject: Caltrans Eureka-Arcata Corridor Project_ NO Project w/o Bay Trail

Dear Mr. Delaplaine:

As a bicycle commuter and former long-time resident, student and homeowner in Humboldt County, I've experienced firsthand the safety obstacles that the Eureka-Arcata Corridor presents to cyclists and pedestrians. Due to the existing conditions for cyclists/peds along this corridor, I was forced to commute for years to/from Eureka and Arcata via bus/bike rather than solely by bike as I would have preferred. I now live in Marin County and am witness to what implementation of great bike facilities can accomplish, as the cycling community here is very strong as a result. The same opportunities exist in Humboldt County and to let one so critically important as the Caltrans' Eureka-Arcata Corridor Project slip by without bike/ped improvements (the Bay Trail) will severely impact generations to come. Now is the time to provide members of the public the opportunity for a healthier and safer community and environment.

The Caltrans' project provides the perfect opportunity to address this long-overdue situation and must ensure safe access for bike commuters, touring cyclists, and pedestrians, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a Class I trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

Thank you,

Alisha Oloughlin
332 Jean Street
Mill Valley, CA 94941

Delaplaine, Mark@Coastal

From: Cranston Snord <pvanmantgem@gmail.com>
Sent: Tuesday, August 20, 2013 5:43 AM
To: Delaplaine, Mark@Coastal
Subject: 101 needs a trail

Dear Mr. Delaplaine:

I'm writing to support the improvements planned on highway 101 between Eureka and California. But Caltrans' project must provide safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

Thank you,
Phil van Mantgem

Delaplaine, Mark@Coastal

From: Lynne Mahony <ldmahony@gmail.com>
Sent: Monday, August 19, 2013 10:56 PM
To: Delaplaine, Mark@Coastal
Subject: Mr. Delaplaine,

I am writing in regards to the plans proposed by CalTrans for the Hwy.101 corridor between Arcata and Eureka. Those plans apparently include a new interchange at Indianola Road and closing off the meridian between other points along the way.

Among my concerns for the proposed changes is that they will allow vehicle speeds to be increased to freeway standards.

Like many Humboldt residents, I was happy to see the speed lowered to 50 mph through the corridor some years back. Lowering the speed addressed safety issues that were present and resulted as well in a highway zone that is relaxing to drive through. For myself, and many others I'm sure, addressing safety issues and keeping lower highway speeds is the best choice for this area.

There is at present no adequate biking route between Arcata and Eureka, other than the 101 corridor. The wide shoulder and 50 mph speed limit combine to make this the safest route. This would be dramatically changed for a bicyclist if the speed limit were to be raised. Even at 50 mph, the traffic running by a cyclist is frightening and intimidating. It would be intolerable at any higher speed.

Humboldt Bay is a beautiful part of our county and heritage. Let's make choices that help us protect and retain an appreciation for that beauty. Working on the interchanges might make the roadway safer, but we need to make sure we look at all alternatives and the impacts of any proposed changes. It certainly would be unacceptable to make changes that result in an even less safe environment for bicyclists.

Thank you,

Doug Moyer
2118 Daina Court
Arcata, CA 95521

Delaplaine, Mark@Coastal

From: julie neander <julienneander@gmail.com>
Sent: Monday, August 19, 2013 10:28 PM
To: Delaplaine, Mark@Coastal
Subject: Eureka Arcata 101 Corridor Improvement Project

**Eureka-Arcata 101 Corridor Improvement Project
Revised Project Alternatives**

Dear Mr. Delaplaine:

Thank you for the opportunity to comment on the revised project alternatives for the Eureka-Arcata 101 Corridor Improvement Project. The California Department of Transportation (Caltrans) proposes spending \$30-60 million on this project with the stated purpose of improving safety and reducing traffic conflicts and intersection delays.

I believe this project is significantly flawed because it does not meet the requirements of the coastal act Section 30212 (a) - Public Access from the nearest public roadway to the shoreline and coast shall be provided in new development projects. It does not adequately address needed improvements to regional public transportation and bicycle and pedestrian mobility and coastal access in the Corridor project area. It also does not adequately address the projects green house gas impacts and mitigation for those impacts.

The project and its current alternatives focus almost entirely on motorized transportation issues and inadequately addresses public access to the coast and the multimodal transportation needs and issues on the Corridor and in the greater Humboldt Bay Region that could provide public access to the coast.

This project is ill-conceived because it does not adequately address public access related improvements to bicycle and pedestrian mobility and coastal access on the Corridor. Because of this, it is also incompatible with the Coastal Act as well as State and County Transportation Plans.

The Humboldt County Association of Governments (HCAOG) is the final authority for all of the decisions generated in the region's transportation planning and programming arena. HCAOG has developed the Humboldt County 2006 Regional Transportation Plan Update (County Transportation Update) to guide the County's transportation planning process over the next twenty years. The County Transportation Update has a goal to: "Create a transportation system that provides inter-community and intra-community non-motorized pedestrian, bicycle travel throughout the region." To meet this goal, the County Transportation Update includes nine policies to promote bicycle and pedestrian access and mobility in the County. Two of these policies and an objective of the County Transportation Update include:

"D-5 Policy: Encourage bicycle-friendly design on all streets and roadways through new technologies, "best practices" standards, guidelines, and innovative treatments where appropriate on new roadways and multiuse paths.

D-9 Policy: HCAOG recognizes the high level of public support for provision of a dedicated bicycle and pedestrian facility between Arcata and Eureka.

This Project is not compatible or consistent with any of the policies in the County Transportation Update Bikeways and Pedestrian Facilities Section because it virtually ignores the important issues of bicycle and pedestrian access and mobility.

Because this project does nothing to improve air quality or reduce petroleum energy consumption, provides no enhancements to bicycle and pedestrian access and mobility, and indeed is virtually silent on this issue, it appears this project is

incompatible with the state green house gas reduction policies. Rather, this project is growth-inducing and promotes automobile use and long-term traffic congestion which is in direct conflict with green house gas reduction requirements..

For these reasons this project is inconsistent with state and local policies and the Coastal Act. If the project were to be approved, it must be made compatible with State and County transportation plans and the Coastal Act by incorporating adequate coastal access and a robust bicycle and pedestrian element that includes a separate dedicated bicycle and pedestrian facility as well as substantial improvements to public transportation.

Sincerely Yours,

Julie Neander

1812 Fischer Ave.
McKinleyville, CA 95519

Delaplaine, Mark@Coastal

From: Karen Brooks <kbrooks61@gmail.com>
Sent: Monday, August 19, 2013 9:32 PM
To: Delaplaine, Mark@Coastal
Subject: Fwd: CalTrans Eureka-Arcata

Dear Mark

The Coastal Commission can play a proactive role in an upcoming Hwy 101 improvement. Millions of dollars are planned to be spent on an interchange/improvement between Eureka and Arcata.

I live off of Bayside Cutoff, which is an entrance/exit, on this Hwy 101. This project will affect me, my family and the 900 people living in this area.

The sentiment here is to use the funds targeted for this project on a sea level rise rail and trail improvement. **I would like the Coastal Commission to ask Cal Trans two things:**

1. **Work with NRCA (rail authority) and NWP (rail operator) to elevate and widen the rail prism to allow for both a rail with a trail on the bay side (west) of the Eureka to Arcata section of Hwy 101.**
2. **Use CalTrans' 60-100' right of way on the east side of Hwy 101 for another trail network. This will feed into several key neighborhoods: Sunnybrae, Bayside, Indianola, and Freshwater.**

More people would walk, bike, run, ride their horse, etc between Eureka and Arcata if they could do that safely. **Having pathways on BOTH SIDES OF THE HWY would greatly improve non-motorized modality.** These two paths would greatly improve our quality of life, provide modality to the elderly and poor, and most importantly.....save lives.

Thank you for reading and considering this.

Karen Brooks

707 498-1010 cell

707 822-7736 home

707 822-3085 fax

--

Abolitionist, Frederick Douglass, sought to embody three keys for success in life and I believe these are still true today:

- **Believe in yourself.**
- **Take advantage of every opportunity.**
- **Use the power of spoken and written language to effect positive change for yourself and society.**

Delaplaine, Mark@Coastal

From: Lorraine Dillon <ldillon@turfside.com>
Sent: Monday, August 19, 2013 8:18 PM
To: Delaplaine, Mark@Coastal
Subject: Eureka-Arcata Safety Corridor Project

Dear Mark Delaplaine,

My thanks to the Coastal Commission for reviewing CalTrans plans for the Eureka-Arcata Safety Corridor on Hwy 101.

It is most important that any project along this corridor be adapted to include a safe bike and walking route between the two major cities in Humboldt County. While I am able to ride my bicycle on Highway 101 for my commute to my job at Humboldt State University, I am afraid to do so because of the high number of collisions and fatalities that have been suffered by bicycle riders in our county. Riding from Eureka to Arcata necessitates crossing several interchanges where cars exit the highway at a high rate of speed. This section of 101 is the most used by bicyclists locally, and we need to have a trail component to encourage and protect non-motorized travel.

Thank you for your consideration.

Lorraine Dillon
2480 Redwood St.
Eureka, CA 95503
707 442-7367
707 616-7398 (cell)

Delaplaine, Mark@Coastal

From: Michael van Hattem <66steelfish@gmail.com>
Sent: Monday, August 19, 2013 7:56 PM
To: Delaplaine, Mark@Coastal
Subject: Eureka-Arcata 101 Improvement Project Comments
Attachments: dd_64_r1_signed_CALTRANS Multimodal.pdf;
VanHattem101CorridorDEIRcomments12-08.pdf

August 19, 2013

Dear Mr. Delaplaine

I am sending you this message (with signed letter to follow) to urge you to **not approve** the CalTrans Eureka-Arcata Route 101 Improvement Project without the addition of a multimodal trail. CalTrans has disregarded its own directive (attached) and proposed a Project that will actually make cycling more dangerous than it currently is on the "Safety Corridor." To date, all that CalTrans has done for cyclists on the "Safety Corridor" is added a rumble-strip. The addition of a rumble-strip is not my idea of accommodating cyclists, it's merely an early warning system that lets you know you are about to be hit. Back in 2008, I wrote the attached letter to Ms. Floyd asking CalTrans to follow their own directive and provide this community with what it wants, a way to travel back and forth between Arcata and Eureka on a bicycle without significant risk. In 2008, I was a bike commuter, logging lots of round trips. I no longer commute on a bike because of the imminent danger. Now that we all have smart phones, we are all more distracted while driving than ever before, I trust you understand.

It's important that you know that a lot of people bicycle commute on the "Safety Corridor" daily. The "Safety Corridor" also is used by a large number of touring cyclists. We need a safe route; this Project will not provide safety or multimodal opportunities. Unfortunately, CalTrans does not seem to care about cyclists and the California Coastal Commission will have to act. Please tell CalTrans that this Project must accommodate cyclists, they need to include a trail, and they need Complete Streets!

Sincerely,

Michael van Hattem

December 12, 2008

Eureka-Arcata Route 101 Corridor Improvement Project

Dear Ms. Floyd,

I attended the open house and discussion of the two additional alternatives for the Eureka-Arcata Route 101 Corridor Improvement Project. I remain puzzled over your agencies inability to provide safe access for cyclists along the corridor. Bicyclists are the second largest user group, our numbers are increasing, and without question many more cyclists will be riding the corridor in the future. I trust that Caltrans understands that bike commuting is a desired approach to transportation in our community.

The current project alternatives do not represent *Complete Streets* as explained and mandated in Deputy Directive # DD-64-R1. Specifically, "The Department (Caltrans) views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system." Furthermore, "The Department develops integrated multimodal projects in balance with community goals, plans, and values." So I ask you- where is it, where is the integration and how is the current set of alternatives multimodal? Adding a rumble strip and supporting the development of an Arcata/Eureka trail independent of Highway 101 stacks up to literally nothing.

I think Caltrans can do better. I logged over 800 commute miles (40+ round trips) this year on my bike on the corridor. I am healthier and happier for it. The corridor is not safe for cyclists now and will be less safe with the alternatives that are proposed. Please follow your own directive and provide a safe and effective means for bicycle commuters to travel our 101 corridor. This is your chance to provide safe access to all users, not just the ones that choose to drive a car.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael van Hattem", with a long, sweeping horizontal line extending to the right.

Michael van Hattem
2033 Haeger Avenue
Arcata, CA. 95521

Deputy Directive

Number: DD-64-R1

Refer to
Director's Policy: DP-22
Context Sensitive
Solutions
DP-05
Multimodal Alternatives
DP-06
Caltrans Partnerships
DP-23-R1
Energy Efficiency,
Conservation and Climate
Change

Effective Date: October 2008

Supersedes: DD-64 (03-26-01)

TITLE Complete Streets - Integrating the Transportation System

POLICY

The California Department of Transportation (Department) provides for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. The Department views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

The Department develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery and maintenance and operations. Developing a network of "complete streets" requires collaboration among all Department functional units and stakeholders to establish effective partnerships.

DEFINITIONS/BACKGROUND

Complete Street – A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility.

The intent of this directive is to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of "complete streets."

State and federal laws require the Department and local agencies to promote and facilitate increased bicycling and walking. California Vehicle Code (CVC) (Sections 21200-21212), and Streets and Highways Code (Sections 890 – 894.2) identify the rights of bicyclists and pedestrians, and establish legislative intent that people of all ages using all types of mobility devices are able to travel on roads. Bicyclists, pedestrians, and nonmotorized traffic are permitted on all State facilities, unless prohibited (CVC, section 21960). Therefore, the Department and local agencies have the duty to provide for the safety and mobility needs of all who have legal access to the transportation system.

Department manuals and guidance outline statutory requirements, planning policy, and project delivery procedures to facilitate multimodal travel, which includes connectivity to public transit for bicyclists and pedestrians. In many instances, roads designed to Department standards provide basic access for bicycling and walking. This directive does not supersede existing laws. To ensure successful implementation of "complete streets," manuals, guidance, and training will be updated and developed.

RESPONSIBILITIES

Chief Deputy Director:

- Establishes policy consistent with the Department's objectives to develop a safe and efficient multimodal transportation system for all users.
- Ensures management staff is trained to provide for the needs of bicyclists, pedestrians, and transit users.

Deputy Directors, Planning and Modal Programs and Project Delivery:

- Include bicycle, pedestrian, and transit modes in statewide strategies for safety and mobility, and in system performance measures.
- Provide tools and establish processes to identify and address the needs of bicyclists, pedestrians, and transit users early and continuously throughout planning and project development activities.
- Ensure districts document decisions regarding bicycle, pedestrian, and transit modes in project initiation and scoping activities.
- Ensure Department manuals, guidance, standards, and procedures reflect this directive, and identify and explain the Department's objectives for multimodal travel.
- Ensure an Implementation Plan for this directive is developed.

Deputy Director, Maintenance and Operations:

- Provides tools and establishes processes that ensure regular maintenance and operations activities meet the safety and mobility needs of bicyclists, pedestrians, and transit users in construction and maintenance work zones, encroachment permit work, and system operations.
- Ensures Department manuals, guidance, standards, and procedures reflect this directive and identifies and explains the Department's objectives for multimodal travel.

District Directors:

- Promote partnerships with local, regional, and State agencies to plan and fund facilities for integrated multimodal travel and to meet the needs of all travelers.
- Identify bicycle and pedestrian coordinator(s) to serve as advisor(s) and external liaison(s) on issues that involve the district, local agencies, and stakeholders.
- Ensure bicycle, pedestrian, and transit needs are identified in district system planning products; addressed during project initiation; and that projects are designed, constructed, operated, and maintained using current standards.
- Ensure bicycle, pedestrian, and transit interests are appropriately represented on interdisciplinary planning and project delivery development teams.
- Provide documentation to support decisions regarding bicycle, pedestrian, and transit modes in project initiation and scoping activities.

Deputy District Directors, Planning, Design, Construction, Maintenance, and Operations:

- Ensure bicycle, pedestrian, and transit user needs are addressed and deficiencies identified during system and corridor planning, project initiation, scoping, and programming.
- Collaborate with local and regional partners to plan, develop, and maintain effective bicycle, pedestrian, and transit networks.
- Consult locally adopted bicycle, pedestrian, and transit plans to ensure that State highway system plans are compatible.
- Ensure projects are planned, designed, constructed, operated, and maintained consistent with project type and funding program to provide for the safety and mobility needs of all users with legal access to a transportation facility.
- Implement current design standards that meet the needs of bicyclists, pedestrians, and transit users in design, construction and maintenance work zones, encroachment permit work, and in system operations.
- Provide information to staff, local agencies, and stakeholders on available funding programs addressing bicycle, pedestrian, and transit travel needs.

Chiefs, Divisions of Aeronautics, Local Assistance, Mass Transportation, Rail, Transportation Planning, Transportation System Information, Research and Innovation, and Transportation Programming:

- Ensure incorporation of bicycle, pedestrian, and transit travel elements in all Department transportation plans and studies.
- Support interdisciplinary participation within and between districts in the project development process to provide for the needs of all users.
- Encourage local agencies to include bicycle, pedestrian, and transit elements in regional and local planning documents, including general plans, transportation plans, and circulation elements.
- Promote land uses that encourage bicycle, pedestrian, and transit travel.
- Advocate, partner, and collaborate with stakeholders to address the needs of bicycle, pedestrian, and transit travelers in all program areas.
- Support the development of new technology to improve safety, mobility, and access for bicyclists, pedestrians, and transit users of all ages and abilities.
- Research, develop, and implement multimodal performance measures.
- Provide information to staff, local agencies, and stakeholders on available funding programs to address the needs of bicycle, pedestrian, and transit travelers.

Chiefs, Divisions of Traffic Operations, Maintenance, Environmental Analysis, Design, Construction, and Project Management:

- Provide guidance on project design, operation, and maintenance of work zones to safely accommodate bicyclists, pedestrians, and transit users.
- Ensure the transportation system and facilities are planned, constructed, operated, and maintained consistent with project type and funding program to maximize safety and mobility for all users with legal access.
- Promote and incorporate, on an ongoing basis, guidance, procedures, and product reviews that maximize bicycle, pedestrian, and transit safety and mobility.
- Support multidisciplinary district participation in the project development process to provide for the needs of all users.

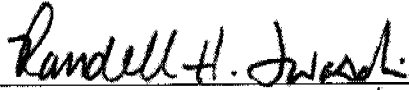
Employees:

- Follow and recommend improvements to manuals, guidance, and procedures that maximize safety and mobility for all users in all transportation products and activities.
- Promote awareness of bicycle, pedestrian, and transit needs to develop an integrated, multimodal transportation system.
- Maximize bicycle, pedestrian, and transit safety and mobility through each project's life cycle.

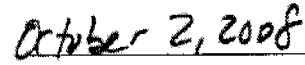
APPLICABILITY

All departmental employees.

Deputy Directive
Number DD-64-R1
Page 5

A handwritten signature in dark ink, reading "Randell H. Iwasaki". The signature is written in a cursive style with a horizontal line underneath it.

RANDELL H. IWASAKI
Chief Deputy Director

A handwritten date in dark ink, reading "October 2, 2008". The date is written in a cursive style with a horizontal line underneath it.

Date Signed

Delaplaine, Mark@Coastal

From: Gordon Leppig <gleppig@humboldt1.com>
Sent: Monday, August 19, 2013 7:14 PM
To: Delaplaine, Mark@Coastal
Subject: Eureka-Arcata 101 Corridor Improvement Project

**Eureka-Arcata 101 Corridor Improvement Project
Revised Project Alternatives**

Dear Mr. Delaplaine:

Thank you for the opportunity to comment on the revised project alternatives for the Eureka-Arcata 101 Corridor Improvement Project. The California Department of Transportation (Caltrans) proposes spending \$30-60 million on this project with the stated purpose of improving safety and reducing traffic conflicts and intersection delays.

I believe this project is significantly flawed because it does not adequately address needed improvements to regional public transportation and bicycle and pedestrian mobility and coastal access in the Corridor project area. The project and its current alternatives focus almost entirely on motorized transportation issues and inadequately addresses multimodal transportation needs and issues on the Corridor and in the greater Humboldt Bay Region.

All project alternatives, including the revised alternatives presented in December 2008, are incompatible with the Caltrans Deputy Directive #DD-64-R1, the California Transportation 2025 Plan (CTP), the Humboldt County Association of Governments (HCAOG) Humboldt County 2006 Regional Transportation Plan Update.

HCAOG Bicycle and Pedestrian Goals and Policies

This project is ill-conceived because it does not adequately address improvements to bicycle and pedestrian mobility and access on the Corridor. Because of this, it is also incompatible with State and County Transportation Plans.

The Humboldt County Association of Governments (HCAOG) is the final authority for all of the decisions generated in the region's transportation planning and programming arena. HCAOG has developed the Humboldt County 2006 Regional Transportation Plan Update (County Transportation Update) to guide the County's transportation planning process over the next twenty years. The County Transportation Update has a goal to: "Create a transportation system that provides inter-community and intra-community non-motorized pedestrian, bicycle travel throughout the region." To meet this goal, the County Transportation Update includes nine policies to promote bicycle and pedestrian access and mobility in the County. Two of these policies and an objective of the County Transportation Update include:

"D-5 Policy: Encourage bicycle-friendly design on all streets and roadways through new technologies, "best practices" standards, guidelines, and innovative treatments where appropriate on new roadways and multiuse paths.

D-9 Policy: HCAOG recognizes the high level of public support for provision of a dedicated bicycle and pedestrian facility between Arcata and Eureka.

Objective: Promote the study of alternatives for a dedicated facility between Arcata and Eureka."

This Project is not compatible or consistent with any of the policies in the County Transportation Update Bikeways and Pedestrian Facilities Section because it virtually ignores the important issues of bicycle and pedestrian access and mobility.

Incompatibility with the California Transportation Plan

The Caltrans Mission is to "Improve mobility across California." By this, according to the Caltrans website, it means improved mobility for all means of transportation, not just automobiles and trucks. To help guide and implement this mission over the coming decades, the State developed the CTP.

According to the Caltrans website, "the CTP is a statewide, long-range transportation plan that provides for the movement of people, goods, services, and information. The CTP offers a blueprint to guide future transportation decisions and investments that will ensure California's ability to compete globally, provide safe and effective mobility for all persons, better link transportation and land use decisions, improve air quality, and reduce petroleum energy consumption."

The CTP Executive Summary states: "Often our only viable (transportation) alternative is to drive alone just like millions of other Californians already on our roadways. The lack of options for getting from here to there is the result of choices—individual choice, but also choices made by those responsible for building our communities and the supporting infrastructure." The Executive Summary goes on to ask, among other questions: "Can I easily walk or ride my bicycle?" "I can choose to make informed decisions about how our communities will grow into the future...integrating decisions about how I provide mobility and access; and how I enhance the environment in which I live."

The CTP vision is one of a "fully integrated, multimodal, sustainable transportation system that supports quality of life, a prosperous economy, and quality environment, and social equity." The CTP has a Bicycle and Pedestrian Element intended to provide a long-term vision and guidance for developing bicycle and pedestrian facilities in California. Improving air quality and reducing petroleum energy consumption are central tenants of the CTP, yet none of the project alternatives substantially addresses these issues. Rather, this project is growth-inducing and promotes automobile use and long-term traffic congestion.

Because this project does nothing to improve air quality or reduce petroleum energy consumption, provides no enhancements to bicycle and pedestrian access and mobility, and indeed is virtually silent on this issue, it appears this project is incompatible with the CTP.

Consequently, I don't believe this project comports with state or local Policy or the Coastal Act. If the project were to be approved, it must be made compatible with State and County transportation plans and the Coastal Act by incorporating adequate coastal access and a robust bicycle and pedestrian element that includes a separate dedicated bicycle and pedestrian facility as well as substantial improvements to public transportation.

Sincerely Yours,

Gordon Leppig

1812 Fischer Ave.
McKinleyville, CA 95519

Delaplaine, Mark@Coastal

From: Colleen Clifford <dunebean@gmail.com>
Sent: Monday, August 19, 2013 3:40 PM
To: Delaplaine, Mark@Coastal
Subject: 101 project

NO PROJECT WITHOUT THE BAY TRAIL INCLUDED IN THE PLANNING!
Please.

Thanks,
Colleen Clifford
Manila, CA

Delaplaine, Mark@Coastal

From: Lawrence Wieland <lawrencewieland@gmail.com>
Sent: Monday, August 19, 2013 3:09 PM
To: Delaplaine, Mark@Coastal
Subject: Bike trails Eureka to Arcata

Hi,

I am a resident in Eureka. I do not think Caltrans should be doing any revising of the 101 corridor between Eureka and Arcata without developing a safe bike trail. The section from Eureka to Arcata for safe bike passage without the dangers of cars is critical to the advancement of alternative transportation, healthy living and recreational activities.

Lawrence Wieland, MD

Delaplaine, Mark@Coastal

From: Eugene Perricelli <ceperr@sbcglobal.net>
Sent: Monday, August 19, 2013 2:23 PM
To: Delaplaine, Mark@Coastal
Subject: Highway 101 Eureka Safety Corridor

It is unconscionable that this project is even being considered without improvements for cyclists and pedestrians, let alone taking sea level rise into consideration.

The current structure actually works pretty well, better I fear than the Cal Trans wished for alternative would.

Thank you for considering my opinion. I am a regular user of the corridor, both in car and on bike.

Claire Perricelli, 2259 16th, Eureka, 95501

Delaplaine, Mark@Coastal

From: Rick Littlefield <ricknatural@yahoo.com>
Sent: Monday, August 19, 2013 2:14 PM
To: Delaplaine, Mark@Coastal
Subject: Eur/Arcata Safety Corridor-Humboldt Bay Trail

Hello Mark,

I would like to register our concern and sincere hope that the Eureka - Arcata Safety Corridor Project must include a pedestrian and bicycle friendly trail in this project. May of our customers and several of our employees use this primary access for work and tell us that it is currently unsafe. Please add our concerns to the list of folks that insist that this access include a bike and pedestrian friendly trail. Thanks,

Rick Littlefield, Owner
Eureka Natural Foods
707.442.6325 707.442.8199(fax)

Delaplaine, Mark@Coastal

From: Mike Cox <mgcox2@yahoo.com>
Sent: Friday, August 16, 2013 6:11 PM
To: Delaplaine, Mark@Coastal
Cc: Mike Cox
Subject: Caltrans project in Eureka

No project without the Bay Trail! Caltrans' project must provide safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

Additional concerns I have about Cal Tran's plan include:

- **The plan for Coastal Flooding and Sea Level Rise:** Highway 101 is currently at risk of flooding during extreme high tides and major storms. The railroad berm and dikes, which are currently the only protection from high water levels, are eroding – putting the 101 corridor at even greater risk. Sea level rise will only add to these problems. Work on the highway, trail, and rail corridors should all be planned together while taking into account storms, high tides, and projected sea level rise. Caltrans needs to address these issues before any action is taken on the 101 corridor project.
- **Address Impacts to Surrounding Communities:** Closure of the Bayside median and construction of a capacity-increasing interchange is likely to result in increased traffic on Old Arcata Road. Caltrans must consider and address the impacts resulting from the project to Old Arcata Road and other routes. Caltrans should also carefully consider the many reasonable project alternatives put forth by local agencies and the public.

Delaplaine, Mark@Coastal

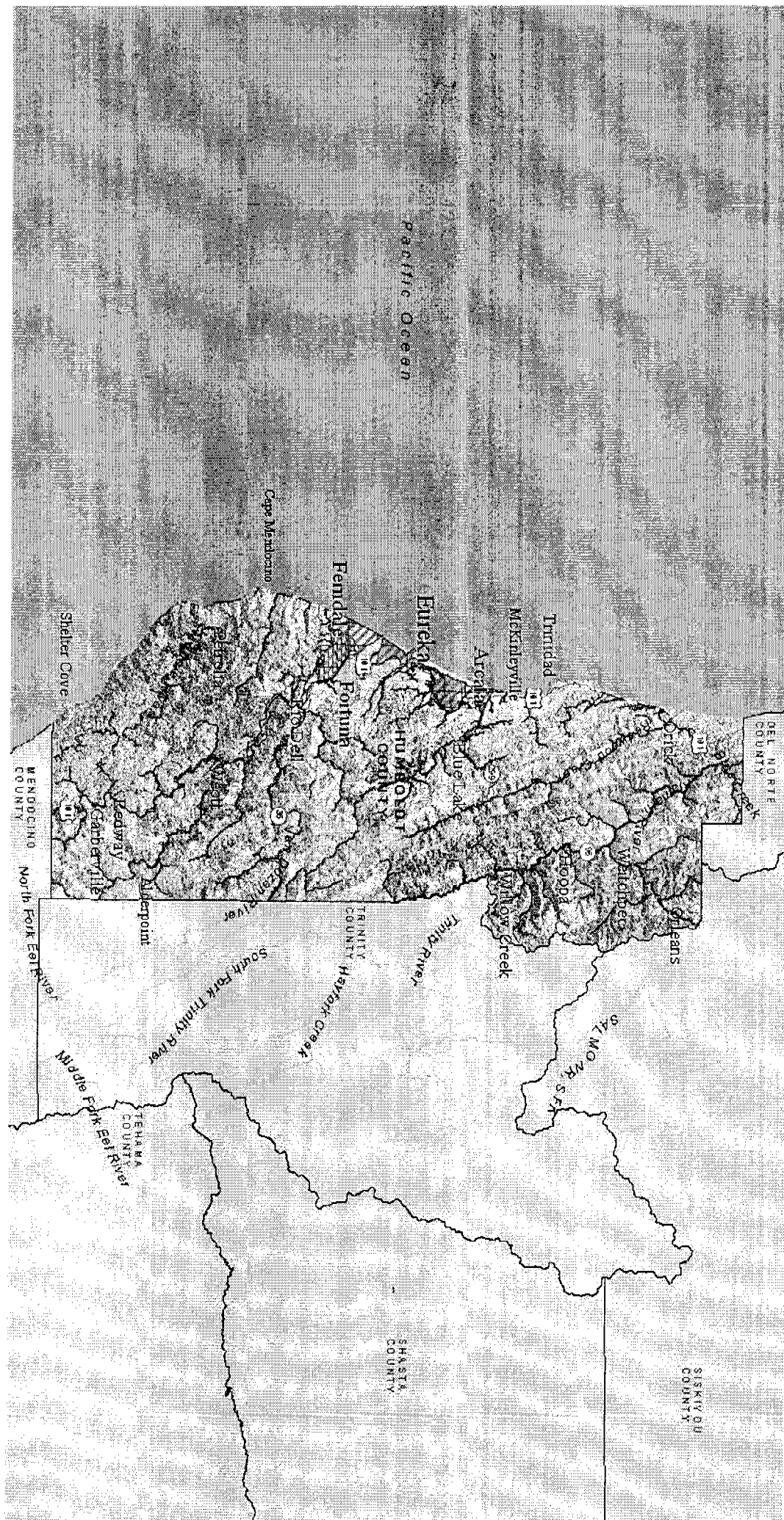
From: A Lee <rockygulch95524@gmail.com>
Sent: Friday, August 16, 2013 8:45 PM
To: Delaplaine, Mark@Coastal
Subject: Fwd: Public Comment for CCC: Deny HCAOG and CalTrans Consistency Certification for the Highway 101 Corridor Project
Attachments: HumGIS FEMA Flood Zones Map.php.jpg; HumGIS Tsunami Evac Map.php.jpg; HumGIS inundation map.php.jpg; Humboldt Bay Sea Level Rise Rept Laird A Figure 33 Salt Marsh Distribution 2009.doc; Public Comment for CCC 08 16 13 Ali O Lee.doc

Mr. Delaplaine and the California Coastal Commission:

Please accept the attached letter and maps for the public comment process in response to the Humboldt County Association of Governments and CalTrans' Highway 101 Corridor Proposal under consideration.

Thank you.

Ali O. Lee
322 Rocky Creek Road
Bayside, CA 95524
rockygulch95524@gmail.com



Delaplaine, Mark@Coastal

From: Briar Bush <briarbush@lostcoast.com>
Sent: Monday, August 19, 2013 12:10 PM
To: Delaplaine, Mark@Coastal
Subject: Humboldt Trails Council Support

To Whom it may Concern and Mark Delaplaine,

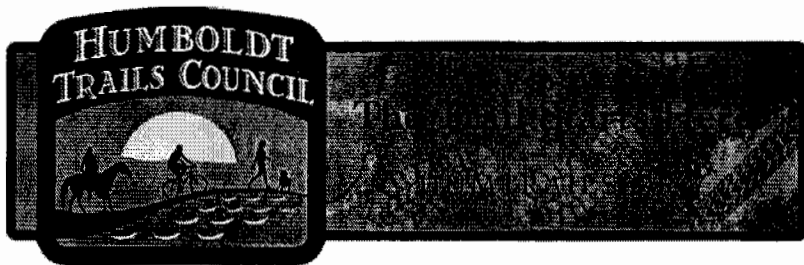
As a cyclist, motorist and long time resident of Eureka/Arcata I find myself on the Safety Corridor very frequently for work and pleasure logistics. At age 57 I pay far more attention to safety in this corridor than perhaps a couple of decades ago. Increased traffic and cyclist activity is certain to expand (as it has over the past few decades) in coming years compounding fears that exist on that corridor and/or other roads that mitigate that corridor's use.

I also realize that a "chain is only as strong as its weakest link". The CalTrans project to ensure safety between the two communities is a must and should remain a high priority towards resolve that includes bike/cyclist safety as well as automobile.

I urge you and all involved to adopt a program for a comprehensive Bay Trail that will allow for better/effective cycling/biking travel between Eureka-Arcata on the Safety Corridor.

Thank you,

Dean "Briar" Bush
Resident, Employed and Conscientious Citizen
Eureka, CA



Dear Briar,

This email clarifies/updates the views of the HTC board regarding the Bay Trail and CalTran's project. Please review and consider sending comments to the Coastal Commission TODAY.

For the Humboldt Trails Council, our top priority is safe non-motorized transportation and enhanced opportunities for recreational trails. Although there are many issues related to the Eureka-Arcata Safety Corridor project, we feel that the improvements should be made for safe bike and pedestrian facilities as a part of projects that provide safety improvements for vehicles. This is a regional project and Caltrans and local agencies have the duty to provide for the safety and mobility needs of all who have legal access to the transportation system.

Therefore we urge you to tell the Coastal Commission **No project without the Bay Trail!** Caltrans' project must ensure safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a Class I trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

Please send your comments to the California Coastal Commission by August 20!

by email: mark.delaplaine@coastal.ca.gov

by U.S. mail:

Mark Delaplaine 45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Thank you for your support during this critical planning period. Input from the community is key.

Respectfully,

The Humboldt Trails Council

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Humboldt Trails Council
PO Box 6625
Eureka, CA 95502
US



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Delaplaine, Mark@Coastal

From: Ken Miller <tamer1@suddenlink.net>
Sent: Monday, August 19, 2013 10:33 AM
To: Delaplaine, Mark@Coastal
Subject: Eureka rcata 101 Corridor Project

Mark Delaplaine 45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Dear Sir,

No project without the Bay Trail!

In addition to the other issues regarding sea level rise and the Indianola Interchange.

Thank you,

**Ken Miller, MD
1658 Ocean Drive
McKinleyville, CA 95519**

Delaplaine, Mark@Coastal

From: Julie Fulkerson <juliefulkerson@mac.com>
Sent: Monday, August 19, 2013 8:28 AM
To: Delaplaine, Mark@Coastal
Cc: Fulkerson Julie
Subject: Humboldt 101 Corridor Project

Honorable Coastal Commissioners,

I am writing to urge you to consider the Bay Trail project proposed in conjunction with the 101 Corridor improvements. Originally I opposed this road expansion because I have noted for years, the importance and value of a safe recreational trail project. Now, with the addition of the trail, it seems a more appropriate project since non-motorized vehicles and pedestrians will be included. This will provide a rare opportunity to observe Bay habitat and the natural environment.

I am excited that this project could ensure safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a Class I trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route.

This will be a model project for the State of California. I am sure the trail will swarm with bicycles as soon as the path is open. This is a coastal and environmental dream come true...and it will have enormous economic and tourism advantages as well.

with gratitude,

Julie Fulkerson
Business Owner
Former Member of Humboldt County Board of Supervisors Current Mayor of Trinidad

Delaplaine, Mark@Coastal

From: Lori Goodman <loribg@suddenlink.net>
Sent: Monday, August 19, 2013 7:46 AM
To: Delaplaine, Mark@Coastal
Subject: Eureka - Arcata Coastal trail

Dear Mr. Delaplaine,

I am appalled and surprised to learn that cal trans is even considering not installing a trail between Eureka and Arcata. This has been in the works for many years, is supported by the community, is necessary to help complete the California Coastal Trail, and a very necessary part of this community.

I urge that there be no Eureka Arcata coriander improvement without a trail!!

Sincerely,

Lori Goodman

Delaplaine, Mark@Coastal

From: Chris Weston <chriswestonsr@yahoo.com>
Sent: Monday, August 19, 2013 7:28 AM
To: Delaplaine, Mark@Coastal
Subject: No Hwy 101 Arcata-Eureka Project Without the Bay Trail

Hi Coastal Commission:

For the Humboldt Trails Council and many other local organizations and residents, our top priority is safe non-motorized transportation and enhanced opportunities for recreational trails. Although there are many issues related to the Eureka-Arcata Safety Corridor project, including the need to accommodate sea level rise due to global warming, we demand that the improvements be made for safe bike and pedestrian facilities as a part of projects that provide safety improvements for vehicles. This is a regional project and Caltrans and local agencies have the duty to provide for the safety and mobility needs of all to the transportation system.

Therefore, we urge the Coastal Commission to tell Caltrans: **No project without the Bay Trail!**

Caltrans' project must ensure safe access for bike commuters, touring cyclists, and other non-motorized recreationalists and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a Class I trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans must not be allowed to move forward until they agree to provide a safe route for cyclists, other non-motorized recreationalists and pedestrians alike by incorporating the Humboldt Bay Trail as part of the project.

Regards,

Chris Weston
P.O. Box 185, Phillipsville, CA 95559
Tel. 707-223-2226

Delaplaine, Mark@Coastal

From: Timothy Daniels <twowheelintim@sbcglobal.net>
Sent: Monday, August 19, 2013 6:47 AM
To: Delaplaine, Mark@Coastal
Subject: Highway 101 project

Good Day Mr. Delaplaine,

I'm writing to urge you to recommend Caltrans never be allowed to proceed with the 101 corridor project between Arcata and Eureka. That stretch of road is one of the last few sections of highway that is even remotely safe to ride around here. It is a key artery for cyclists to traverse between Arcata and Eureka, and several points in between. Even if a trail were to be built (which I sincerely doubt will ever happen), the 101 project will effectively cut off cyclists from Bayside Road, Indianola Cutoff, and the KOA half way between the two, a very popular camping spot for bicycle tourists passing through. As the KOA is on the east side of the highway, southbound cyclists must cross over the highway to get there.

I don't believe that saving motorists ninety seconds is worth cutting off people who chose to not drive a car. It's just plain wrong.

Sincerely,

Timothy Daniels

A concerned bicycle commuter.

1734 Roberts Way, Arcata CA 95521
August 18, 2013

California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
Attn.: Mark Delaplaine

Re: Support for Commission Staff report objecting to CalTrans Eureka - Arcata Route 101 Corridor "Improvement" Project

Dear California Coastal Commission:

In summary, the Commission should reject CalTrans' proposal for all the reasons stated in the staff report, and because it makes travel more dangerous for some motor vehicles and for all bicycles, and because it fails to protect the highway from rising sea level.

It appears that CalTrans' goal is to make the corridor into a freeway with 65 + mph traffic, with bicycles right next to it. There is no need for a freeway between Arcata and Eureka because the current 50mph limit is entirely satisfactory for cars, although it is currently quite dangerous for cyclists. As a cyclist I know.

Caltrans' proposal makes travel more dangerous for some cars and for other travelers such as pedestrians and cyclists. For example, CalTrans proposes to close median openings across 101, which degrades neighboring traffic flow.

CalTrans has ignored two key issues: the need to protect the highway from sea level rise and the use of NCRA right-of-way to provide a separate trail or railbanking.

CalTrans has heretofore ignored sea level rise and storm threats to the corridor. **This section of 101 is the one in California most in danger from sea level rise.** The absurdity of CalTrans' current plan for construction without protection from sea level rise is that the proposed Indianola interchange will be an island in salt water before its otherwise useful life is over.

Further, their proposal to contribute a million dollars to a ten million trail project only (maybe) after they've built their interchange is blackmail. This is CalTrans acting like a bully, and I cannot believe that such a scheme came from local CalTrans staff.

The section entitled "What about a separated trail for bicyclists and pedestrians?" in CalTrans' "Bicycle and Pedestrian Access and the Eureka-Arcata Corridor Improvement Project" fails the reasonableness test. For example, CalTrans claims that mixing bicycles and cars at freeway speeds is safe; all recent experience shows this is false, and their proposed bike lanes are more likely to be blood-red colored

than brick-red (CalTrans terminology) colored.

CalTrans should adopt a goal that would make travel safer or at least no worse for everyone, which is Caltrans' obligation in its enabling legislation. Specifically, **CalTrans should provide a trail for cyclists and pedestrians, the potential for eventual rail (perhaps railbanking), and a highway protected from sea level rise.** This plan would make wetland damage much less as well.

I believe there's plenty of room in CalTrans' right-of-way for highway, rail and trail, even without moving the highway. If I am wrong, then CalTrans can move the entire highway over, as it currently proposes (to save the trees, but why?), so that there is room for rail and a separate trail. They can do that without NCRA.

However, corridor protection must involve the NCRA property, and CalTrans should protect the highway by enhancing the NCRA prism, which is already failing. See photo attached. NCRA is bankrupt and has no plans or resources to do anything with that right-of-way. Like a dog in the manger, NCRA has denied access by opposing railbanking. They've also adopted bicycle trail "standards" that effectively prohibit trails on their property. It is clearly in the public interest to reject NCRA's denial of railbanking. This would also enable a safe coastal trail.

With NCRA bankrupt surely a deal can be cut, if all agencies pull together for a sensible plan. The key agency to make this work is the Coastal Commission.

Thank you, and I shall look forward to hearing your decision.

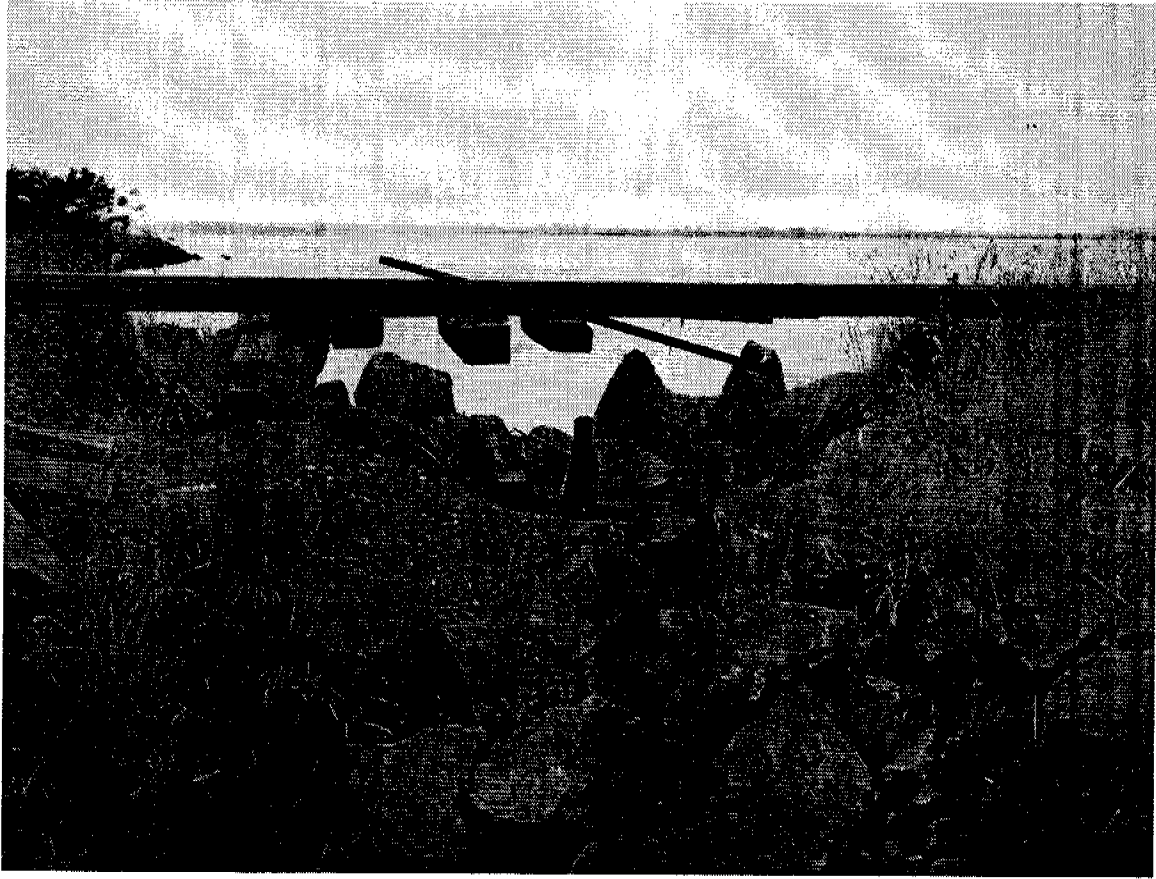
Sincerely,

John Schaefer, Ph.D.

cc

Senator Noreen Evans

Assemblyman Wes Chesbro



Storm Damage on NCRA Threatens Highway 101 (photo 8/18/13)

Delaplaine, Mark@Coastal

From: Kelly Love <kelly29love@gmail.com>
Sent: Saturday, August 17, 2013 4:27 PM
To: Delaplaine, Mark@Coastal
Subject: Caltrans 101 project

I am a long time resident of Humboldt county. I am a father of three and I have a granddaughter. All members of my family are cyclist. We are also very conscious of ecology and practice environmental sustainability. As a cycling commuter who uses the 101 highway for traveling, I am not in support of any changes to the 101 safety corridor that prevents cyclist from safely traveling between Arcata and Eureka. Do not proceed with any construction on 101 that inhibits cyclist from safely traveling this route. Old Arcata Road does not have safe cycling lanes for the entirety of the road. The route over the bridges to Manila is not safe for cyclist. We want the 101 to be safe for all forms of transportation.

Delaplaine, Mark@Coastal

From: paula brockington <paulabrock@sbcglobal.net>
Sent: Saturday, August 17, 2013 9:19 AM
To: Delaplaine, Mark@Coastal

Dear Mr. Delaplaine,

I am writing this letter to express my concern over Cal Trans's proposed overpass project on Hwy 101. Many dedicated and motivated citizens are currently riding their bikes to and from work between Arcata and Eureka, and risking their lives to do so. We have had several tragic loss of lives on 101 in the past few years from cars hitting cyclists. The proposed Bay Trail needs to take priority as it will be an important link to completing the coastal trail that everyone can enjoy safely. Closing 101 for any length of time will cause considerable problems for commuters as Old Arcata Rd. is the only alternate route and cannot accomodate the increased traffic. The risk for flooding on 101 is also a permanent threat. Please require Cal Trans to provide safe and thorough study and public consideration of this project and require them to complete the Coastal Trail for those health conscious and environmentally responsible citizens. Humboldt should be considered a bicycle-friendly community as so many of our northern Californian neighbors. Thank-you for your consideration.

Sincerely, Paula Brockington, RN

Delaplaine, Mark@Coastal

From: Lee House <leehouse@suddenlink.net>
Sent: Friday, August 16, 2013 10:36 PM
To: Delaplaine, Mark@Coastal
Subject: Eureka-Arcata Hwy 101

Dear Sir, This note may not be exactly on target, but the current safety corridor (50 mph) is a peaceful, pleasant situation. I do not mind the slow down and relax opportunity. Normally I like to drive as fast as anyone, but that particular stretch of road is much better now than it used to be, when all the cars (i.e. drivers) were trying to edge slightly faster than the other, often needing to go over 65 mph to maintain advantage. That weird feature, that feeling, is unique to the segment between Arcata and Eureka.

Certainly a priority for any future improvements should be directed to adding a pedestrian & bicycle designated pathway.

Sincerely, Lee House.

Delaplaine, Mark@Coastal

From: Colin Fiske <colin.fiske@gmail.com>
Sent: Friday, August 16, 2013 12:25 PM
To: Delaplaine, Mark@Coastal
Subject: Comments Regarding Consistency Certification CC-016-13 (Caltrans Eureka-Arcata Rte 101 Project)

Mr. Delaplaine:

I am extremely concerned at the implications of the proposed Caltrans "Corridor Improvement Project" on Route 101 between Eureka and Arcata. My concerns are two-fold:

(1) The destruction of wetlands, particularly in this type of coastal environment bordering Humboldt Bay, is unwarranted and unwise. With all that is now known about the important ecological functions provided by wetlands, and the likely impacts to this coastal environment in the near future resulting from climate change and sea level rise, it is hard to believe we are still considering destroying large acreages for highway expansion projects.

(2) The project would increase traffic speeds without making any accommodation for bicyclists and pedestrians. As a bicyclist who lives in this community and has traveled this corridor, I can say that I would use it more if better infrastructure were in place, and would use it less if traffic speeds increased with no additional safety measures in place. Our community critically needs a better, safer, more convenient bicycle and pedestrian route between Arcata and Eureka, and this project takes a step in the wrong direction.

Therefore, I agree with the Coastal Commission's staff recommendations, and urge the Commission to make a finding of inconsistency if no major changes are proposed to reduce or eliminate wetlands impacts, to include critical bicycle and pedestrian infrastructure, and to address issues of climate change and sea level rise.

Thank you for your consideration.

Sincerely,

Colin Fiske
1440 Anderson Ave.
McKinleyville, CA 95519

Delaplaine, Mark@Coastal

From: richard kossow <richardk@humboldt1.com>
Sent: Friday, August 16, 2013 4:03 PM
To: Delaplaine, Mark@Coastal
Subject: Arcata-Eureka freeway corridor

Please do not allow the Caltrans changes without better provisions for non-vehicular travel. Actually keeping the speed limit as it is would be in the public interest.

RKossow, Arcata

Delaplaine, Mark@Coastal

From: Patricia-Anne WinterSun <p-aws@sbcglobal.net>
Sent: Thursday, August 15, 2013 12:38 PM
To: Delaplaine, Mark@Coastal
Subject: No to Caltrans 101 Corridor Project without the Bay Trail

Mark Delaplaine
California Coastal Commission
Dear Sir,

We are opposed to the Caltrans' proposal for the Eureka-Arcata 101 Corridor. Increasing speeds along this corridor is not an improvement for cyclists and pedestrians. This part of 101 is also designated as the Pacific Coast Bike Route so any project thereon must at least not decrease the safety of those using the Route. Caltrans' project must provide safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a trail along Humboldt Bay. **It is unacceptable for Caltrans to turn the 101 Corridor adjacent to Humboldt Bay into a high-speed freeway without safe accommodations for cyclists and pedestrians.** Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

--
Yours in bicycling for fun and transportation,
Patricia-Anne and George WinterSun
Eureka, California 95501

Delaplaine, Mark@Coastal

From: barefootbutner@gmail.com on behalf of Chris Butner
<chris.butner@completestreetsadvocate.org>
Sent: Thursday, August 15, 2013 10:10 AM
To: Delaplaine, Mark@Coastal
Subject: Eureka/Arcata highway 101 improvement project

Hi Mark,

I writing to you today to express my feelings of the 101 Eureka/Arcata safety corridor. First, I want to thank the commission for holding the hearing before the local residents in Eureka.

In our community non-motorized transportation has been gaining a lot of momentum. Similar to other communities throughout the nation. I also consider our 101 safety corridor coastline to be a beautiful section to enjoy the Humboldt bay wildlife, and I wish I had easier access to this jewel.

I want to encourage that the commission hold your ground that the proposed overpass is too much environmental impact for this area. Also keep in mind that the current corridor conditions have already reduced greatly collisions at the cross traffic locations. So why do we need to create new impacts to this delicate environment, that will reduce coastal access? The combination of all proposed changes will encourage Caltrans to increase speeds in due time. A freeway in this section is not warranted under these conditions with the coast, and the desired increase in non-motorized users.

Caltrans repaving project is currently increasing the shoulder to ten feet, and it will be colorized. This is a great short term step, but this is not a long term solution. With the current posted speed it is a very unpleasant space to ride a bicycle, and a few extra feet won't change this. We do have movement with the high profile rail with trail next to the highway, and Caltrans has put up 1 million dollars towards the project. I feel that since Caltrans is a multi modal agency they can contribute more funding to the project. The rail with trail is estimated at 18 million, and Caltrans should be more involved in pushing this project forward.

I ask that you deny the current proposals from Caltrans. I believe it is important to remember that the 101 is a public right of way. The community plays an important role in how we move forward. I ask that the coastal commission understand the communities need for better non-motorized access to our precious coastline. The current Caltrans proposal is not good enough to meet this need. I would like to see Caltrans delay the improvement project so the bay trail can be implemented, then we can review what changes to make to the 101 corridor highway.

I appreciate your time very much, and appreciate the commission taking my comments under consideration. I've also created a new space online that allows all of us interested to see what the rail line conditions look like, currently. I'd be happy to share these [pictures with you](#).

I look forward to hearing your decision in the upcoming hearing.

Chris Butner
<http://completestreetsadvocate.org/>

August 15, 2013

California Coastal Commission
1385 8th Street, Suite 130
Arcata, CA 95521

Attention: Mr. Mark Delaplaine

I am writing to request that the California Coastal Commission deny the Highway 101 Eureka - Arcata Corridor Project as proposed by CalTrans.

After living along Old Arcata Road in Bayside, California for 39 years, I believe that CalTrans must dedicate adequate attention to critical details in planning for this project on Highway 101. My concerns are:

- (1) Closing the Bayside Cut-off will restrict access from the Bayside community to the Humboldt Bay, causing all residents living between the Bayside Post Office and the Rocky Creek area to drive several extra miles to access the Bay.
- (2) Traffic from 101 will shift over to Old Arcata Road, with more cars driving faster through our residential community with three elementary schools and no mitigation proposed.
- (3) The project will fill more than 10 acres of wetlands without adequate mitigation. CalTrans' traffic volume studies from several years ago have proven to be inaccurate; there are less vehicles than they had projected and it is reasonable to anticipate fewer vehicles in the future. The significant negative environmental impacts of this project are not a reasonable trade-off for the anticipated amount of traffic.
- (4) We have observed increased flooding. The Humboldt County Association of Governments is conducting a "Climate Change Adaptation Pilot Strategy for Critically Vulnerable Assets in Northwest California" study that has not been completed. This report will have critical information for this project. With sea level rise, it will be necessary for a firm commitment from CalTrans for ongoing maintenance of a trail built along the Bay.

It's time for CalTrans to go back to the drawing board, complete and update its studies and work much more closely with the community for the best project.

Sincerely,



Margaret A. Gainer
2290 Graham Road
Bayside, California 95524

Delaplaine, Mark@Coastal

From: cemone@reninet.com
Sent: Thursday, August 15, 2013 7:53 AM
To: Delaplaine, Mark@Coastal
Subject: 101 Corridor comment

Dear Coastal Commission:

I thank the Northcoast Environmental Center for providing the following three points, with which I agree completely:

1. It is unacceptable for Caltrans to turn the 101 Corridor adjacent to Humboldt Bay into a high-speed freeway without safe accommodations for cyclists and pedestrians. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.
2. Highway 101 is currently at risk of flooding during extreme high tides and major storms. The railroad berm and dikes, which are currently the only protection from high water levels, are eroding – putting the 101 corridor at even greater risk. Sea level rise will only add to these problems. Work on the highway, trail, and rail corridors should all be planned together while taking into account storms, high tides, and projected sea level rise. Caltrans needs to address these issues before any action is taken on the 101 corridor project.
3. Closure of the Bayside median and construction of a capacity-increasing interchange is likely to result in increased traffic on Old Arcata Road. Caltrans must consider and address the impacts resulting from the project to Old Arcata Road and other routes. Caltrans should also carefully consider the many reasonable project alternatives put forth by local agencies and the public.

Carol Moné
Box 223
Trinidad, California 95570

"We must not be frightened nor cajoled into accepting evil as deliverance from evil. We must go on struggling to be human, though monsters of abstractions police and threaten us." -Robert Hayden [Asa Bundy Sheffey], poet and educator (1913-1980)

Delaplaine, Mark@Coastal

From: Jane Williams <janewilliams99@gmail.com>
Sent: Thursday, August 15, 2013 7:51 AM
To: Delaplaine, Mark@Coastal
Subject: Caltrans needs to do a better job!

As a resident of Trinidad, I object to allowing Caltrans to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

No project without the Bay Trail!

Caltrans' project must provide safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route.

Jane Williams, MD

Delaplaine, Mark@Coastal

From: Ed & Anna Bernard <eabern@aol.com>
Sent: Thursday, August 15, 2013 7:45 AM
To: Delaplaine, Mark@Coastal
Subject: 101 corridor between Arcata and Eureka

Hi Mark,

Firstly, I am against this project altogether: 101 corridor between Arcata and Eureka

I lived in LA for 25 years where freeways are everywhere and are needed to support the volume of traffic.

I have lived in Humboldt County for 8 years and I see NO NEED TO EXPAND THE 101 between Arcata and Eureka.

There just is not enough traffic to justify spending the money on this project.

The people that live here and drive on the 101 know this is true.

Caltrans appears to have a mission to expand the 101 from Mexico to Oregon, whether it is needed or not.

The beauty of Humboldt Bay should be taken into consideration and protected.

Secondly, if we are beyond the point of no return (and the expansion will happen no matter what), then...

I do agree with the Northcoast Environmental Center:

- 1) incorporate a Bay Trail
- 2) take rising tides and deteriorating sea walls into account and repair or improve
- 3) increased road traffic due to closure of exits needs to be addressed.

Thanks for your efforts to protect our coastline.

Anna Bernard
3232 Alliance Road
Arcata, CA 95521
707 826-7247

Delaplaine, Mark@Coastal

From: Russell Kramer <northcoastrat@gmail.com>
Sent: Thursday, August 15, 2013 7:33 AM
To: Delaplaine, Mark@Coastal
Subject: 101 corridor improvements

Hello Mark,

I'm writing in regards to CalTrans' proposed "improvements" between Arcata and Eureka on HWY 101. Increased speeds (from 55 to 65 mph) for the 8.4 miles between the cities would lead to decrease a commute time from 9.2 to 7.8 minutes. Does this justify an overpass and what I am guessing is over 1 million dollars in expenditures?

If the objective is increased safety rather than commute time this project will also be a bust. Whenever I travel this section of highway there are always cyclists and sometimes pedestrians walking to and from Eureka. Who are we trying to increase safety for? Everyone, or just motorists? It would be folly to allow CalTrans to continue with these plans without also having a plan in place for alternative modes of transportation. It is time we become more progressive in coastal development. This 101 corridor is the only broken link between the very popular Hammond trail and the bike route coastal to Eureka. I am positive that a safe pedestrian/bike trail between Arcata and Eureka would become very popular and allow for increased safety to all. It would also mitigate the increase in danger to non-motorists from an increase in highway speeds.

Sincerely,
Russell Kramer

Delaplaine, Mark@Coastal

From: Jessica Frisk <jeßsyfrisk@gmail.com>
Sent: Thursday, August 15, 2013 8:24 PM
To: Delaplaine, Mark@Coastal
Subject: No to Caltrans 101 Corridor Project without the Bay Trail!

Hello Mark, I am writing you in regards to the Caltrans 101 corridor project. It is unacceptable for Caltrans to turn the 101 Corridor adjacent to Humboldt Bay into a high-speed freeway without safe accommodations for cyclists and pedestrians.

Caltrans' project must provide safe access for bike commuters, touring cyclists, and pedestrians alike, and ensure that such travelers from Eureka, Arcata, Bayside, Indianola, and places in between can access a trail along Humboldt Bay. The section of trail connecting Arcata and Eureka is the region's highest priority for completing the California Coastal Trail. This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

Additionally, highway 101 is currently at risk of flooding during extreme high tides and major storms. The railroad berm and dikes, which are currently the only protection from high water levels, are eroding – putting the 101 corridor at even greater risk. Sea level rise will only add to these problems. Work on the highway, trail, and rail corridors should all be planned together while taking into account storms, high tides, and projected sea level rise. Caltrans needs to address these issues before any action is taken on the 101 corridor project.

Thank you for your time.
Jessica Frisk
6089 Beechwood Dr.
Eureka, CA 95503

Delaplaine, Mark@Coastal

From: Carla Paliaga <carlapaliaga@yahoo.com>
Sent: Thursday, August 15, 2013 9:27 PM
To: Delaplaine, Mark@Coastal
Subject: CAL TRANS 101 project

Dear Mr. Delaplaine,

I have been living in Arcata for the last 3 years and off of Old Arcata Road at 1420 Old Arcata Road for the last year. I am very concerned about the 101 project. My largest concerns involve the flood plain situation, the increased traffic on Old Arcata Road and the bike lane. I strongly suggest that we get more information before proceeding with this project. I have 2 young children (ages 7 and almost 4.) We often bike and walk along Old Arcata Road to Jacoby Creek Road where their grandparents live. We appreciate the new radar feedback signs and also notice that many drivers continue to speed along Old Arcata Road.

I was wondering the other day as I traveled through Eureka on 101, why there needs to be increased speed along the safety corridor when the speed limit through Eureka is at most 45mph. Also, why not put in lights at the Bayside cutoff and/or continue to keep the lower speed limit?

Thank you for your time,
Carla Paliaga
1420 Old Arcata Rd.
Arcata, CA 95521
707-633-5483

Delaplaine, Mark@Coastal

From: Susanna Weber <susannaweber@yahoo.com>
Sent: Thursday, August 15, 2013 9:46 PM
To: Delaplaine, Mark@Coastal
Subject: Highway 101 Caltrans project

Dear Mr. Delaplaine,

We're concerned about the upcoming decision which will decide the fate of the Highway 101 corridor between Eureka and Arcata. We feel that it's very important to build a trail between these communities, to allow safe travel for pedestrians and bikers, especially in light of the possibility of increased traffic speeds. YES to the Bay Trail!

Thank you,
Susanna and Michael Ausema

Delaplaine, Mark@Coastal

From: Mark S. Wilson <Mark.S.Wilson@humboldt.edu>
Sent: Friday, August 16, 2013 9:54 AM
To: Delaplaine, Mark@Coastal
Subject: Comments on CalTrans 101 Corridor Project

Hello,

I'm concerned about CalTrans current plans for the stretch of 101 between Arcata and Eureka. Their goal is to turn this stretch of currently 50 mph road into a high speed, limited access freeway. While such a plan might make sense for Los Angeles or San Diego, it ignores local realities and will endanger cyclists and pedestrians.

This stretch of road joins two small communities (population of Eureka ~27,000 and Arcata ~17,000). The area and economy are growing much more slowly than the rest of the state; the population of Eureka today is less than what it was 25 years ago. Locally, the CalTrans project is called "The \$100 million dollar solution to a problem that doesn't exist". Worse than just wasting money, though, this 'solution' exacerbates a very serious problem that already does exist. That problem is the lack of a safe route for pedestrians and cyclists between the two communities.

There needs to be a Bay Trail component to this project which accommodates the needs of the many pedestrians and cyclists that already use this stretch of 101, as well as the many more that would use it if a safer route was available.

Thank you,

Mark Wilson
1301 M St
Eureka CA 95501

826 8960

Ginni Hassrick, LCSW
517 Third St. Ste. 35
Eureka, Ca. 95501
707 444 8797

RECEIVED

AUG 14 2013

CALIFORNIA
COASTAL COMMISSION

Mark Delaplaine
California Coastal Commission

Dear Mark,

I understand that CalTrans is planning to alter the Safety Zone on 101. I have done some research on the traffic patterns here with the assistance of the CHP. I live on Old Arcata Road, between Bayside and Indianola....and have had 5 accidents occur on this stretch of road since I bought my home. Two came through my fence, into my front yard...another nearly killed a young man, running into the barn next door, car flipped...requiring jaws of life...another found a young woman, drunk in the ditch on the road, car went off road, and another was a close call with a bike and car ... a friend's son.

The current design and speed limit on 101 seems to be working. Few accidents occur at the interchanges as they are now designed. If the plan goes forward, the impact on small roads, such as Old Arcata Road would be deadly. As it is, people go 45 on Old Arcata Rd. only 5 miles less than 101...which, in reality, means they drive at least 55 on my road and 55-60 on 101. 101 is monitored by CHP. Old Arcata Rd. is not monitored.

If you restrict access from Bayside to Bay by closing off Indianola...you restrict and cause more driving than simplifying and lessening impact on air quality. If you move into the wetlands, you are taking all of our right to enjoy birding and wetland wildlife away.

We already have problems with higher water levels and they are rising...why create more contracts on 101? why not raze tracks and create trails so bikes and people have choices beyond highway usage?

If something isn't broken...why fix it? What is broken is the attitude of Cal trans towards community needs and planetary design. Less is better. Rails to trails is best.

Don't fill my wetlands...don't impact my home with more traffic...

Ginni Hassrick, LCSW

Ginni Hassrick
3261 Old Arcata Rd

California Coastal Commission
1385 8th Street, Suite 130
Arcata, California 95521
Attention: Mark Delaplaine

15 August 2013

Regarding Cal Trans' Proposal for Highway 101

We are longtime Bayside Residents who feel very protective toward what is left of the Humboldt Bay ecosystem. Many individuals, agencies and a few Land Trusts have given decades of dedication to protecting the ancient stream channels, restoration of native plants and re-creating habitat. A plan that calls for destruction of more than 10 acres of wetland without adequate mitigation is untenable.

The State of California, in its history of human development, has lost a vast amount of healthy regenerative wetland. We have no doubt that this behemoth of a California State agency regards 10 acres as perhaps nothing more than a margin with troublesome stability. We fervently hope in this time of worldwide assault on sustainability that you, the Coastal Commission will use your reasoned power to protect against the irretrievable loss of every single acre left of this ecosystem.

Sincerely,



Charlotte Dixon

Chip and Charlotte Dixon
4156 Brookwood Drive
Bayside, California 95524

ccdixon@suddenlink.net

Delaplaine, Mark@Coastal

From: Erin Kelly <erinckloverkelly@gmail.com>
Sent: Thursday, August 15, 2013 2:03 PM
To: Delaplaine, Mark@Coastal
Cc: Floyd, Kim R@DOT
Subject: CalTrans 101 corridor project

Hello Mr. Delaplaine and Ms. Floyd,

I'd like to voice my support for a pedestrian and bicycle path to augment proposed changes to the current 101 corridor. I am a professor at Humboldt State University and I have students and colleagues who commute between Eureka and Arcata. The danger they are exposed to is ridiculous and should be very concerning to Caltrans.

As you know, Caltrans rejected the option of building a bicycle/pedestrian path on 101 because of financial concerns and presumably because of wetland fill concerns. In its response to the Coastal Commission recommendations, Caltrans objections to a bicycle/pedestrian path seem 1) disingenuous (reliance on vague ideas for a parallel bicycle path that is not in the planning stages), 2) out of touch (reference to "through trip travel" while basically ignoring commuter travel), and 3) dismissive (noting that there are more cars than bicycles or pedestrians - as if bicycle use wouldn't increase with a bicycle path, or as if the prevalence of cars on the road would somehow negate the importance of bicycle safety). I can blame Caltrans for poor authorship, though I do not know the specific policy constraints on the agency regarding the substance of these concerns. At the very least, I would like to see Caltrans more clearly and honestly deal with the bicycle and pedestrian concerns.

It is most disheartening to me that this opportunity to expand bicycle and pedestrian safety between Eureka and Arcata is being neglected. I strongly support the Coastal Commission objection to the Caltrans proposals. I am signing this as an individual and not as a representative of the university.

Sincerely,

--

Erin Kelly

Assistant Professor | Dept. of Forestry and Wildland Resources
Humboldt State University | 1 Harpst St.
Arcata, CA 95521
office: 707-826-4150
cell: 707-932-1180

August 15, 2013

California Coastal Commission
1385 8th Street, Suite 130
Arcata, CA 95521

Attention: Mr. Mark Delaplaine

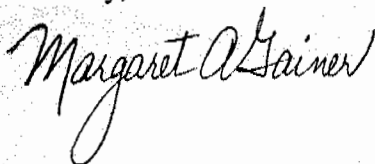
I am writing to request that the California Coastal Commission deny the Highway 101 Eureka - Arcata Corridor Project as proposed by CalTrans.

After living along Old Arcata Road in Bayside, California for 39 years, I have repeatedly observed that CalTrans has not dedicated adequate attention to critical details in planning for its projects along Highway 101. My concerns are:

- (1) Closing the Bayside Cut-off will restrict access from the Bayside community to the Humboldt Bay, causing all residents living between the Bayside Post Office and the Rocky Creek area to drive several extra miles to access the Bay and any Bay trail.
- (2) Traffic from 101 will shift over to Old Arcata Road, with more cars driving faster through our residential community with three elementary schools and no mitigation proposed.
- (3) The project will fill more than 10 acres of wetlands without adequate mitigation. CalTrans' traffic volume studies from several years ago have proven to be inaccurate; there are less vehicles than they had projected and it is reasonable to anticipate fewer vehicles in the future. The significant negative environmental impacts of this project are not a reasonable trade-off for the anticipated amount of traffic.
- (4) We have observed increased flooding every winter. CalTrans is conducting a sea level rise study that has not been completed. With sea level rise, it will be necessary for a CalTrans firm commitment to ongoing maintenance of a trail built along the Bay.

It's time for CalTrans to go back to the drawing board, complete and update its studies and work much more closely with the community for the best project.

Sincerely,



Margaret A. Gainer
2290 Graham Road
Bayside, California 95524

Delaplaine, Mark@Coastal

From: Krista Miller <mskristamath@gmail.com>
Sent: Thursday, August 15, 2013 3:57 PM
To: Delaplaine, Mark@Coastal

To Whom it May Concern,

I would like to enter my public comment on the CalTrans 101 corridor improvement project. I am a second generation Humboldt county resident. I bought my home here and struggle to stay employed here. I live here because it is a unique, natural, and diverse coastal environment. I ride my bicycle everywhere and frequently commute to Arcata where my father and mother live. Currently the "safest" route from Eureka to Arcata is on the 101 corridor because it has the largest and most consistent shoulder/bike lane. The pedestrian fatality statistics show this to be true as well. I am asking the Coastal Commission to halt CalTrans 101 corridor improvement project until a safe bay trail for pedestrian/bicycle commuters/tourists/children, etc is included in the plans. California transportation includes all modes of transportation not just vehicles and that is a real diverse investment for the future. Diversity means survival. Please take a stand for trails. Thank you.

--

Krista Miller

Delaplaine, Mark@Coastal

From: Stacy Becker <sbecker@reninet.com>
Sent: Thursday, August 15, 2013 6:33 PM
To: Delaplaine, Mark@Coastal
Subject: No to Caltrans 101 Corridor Project without Bay Trail

Dear Mr. Delaplaine,

Please support the building of the Bay Trail- settle for no less than this with Caltrans. This area needs a safe passage for non-motorized vehicle travelers between two of our major cities (and beyond). Thank you for helping make the right environmental, economic and social decisions.

Stacy Becker
2364 Hewitt Rd.
McKinleyville, CA 95519

Delaplaine, Mark@Coastal

From: David Beard <majipoorsbeard@gmail.com>
Sent: Thursday, August 15, 2013 6:58 PM
To: Delaplaine, Mark@Coastal
Subject: CalTrans and 101 corridor between Eureka and Arcada

Sir,

It may be indeed be desirable to finish this stretch of freeway. I feel it is a bit irresponsible to disregard the need for a connector trail and the protection that it's development would add to deal with future sea level rise. This is already a tsunami danger zone indicating it is potential inundation zone. The future of a the existing rail infrastructure is also endangered from this lack of prevention. Trail development in conjunction with the highway improvement should shore up that infrastructure. What good will it do to have a high speed road corridor that is submerged? On one hand is economic concerns and on the other recreational health concerns. Why not both?

David Beard
Humboldt County

Delaplaine, Mark@Coastal

From: jeff foley <jefffoley10@hotmail.com>
Sent: Thursday, August 15, 2013 7:27 PM
To: Delaplaine, Mark@Coastal
Subject: 101 corridor project

No project without the Bay Trail! This part of 101 is also designated as the Pacific Coast Bike Route. Caltrans should not be allowed to move forward until they agree to provide a safe route for cyclists and pedestrians by incorporating the Humboldt Bay Trail as part of the project.

Michael V. Hoes
1961 Locke Street
Manila CA 95521

RECEIVED

AUG 28 2013

CALIFORNIA
COASTAL COMMISSION

August 26, 2013

Attention:

California Coastal Commission, c/o Mark Delaplaine, 45 Fremont St., Suite 2000,
San Francisco, CA 94105.

It has come to my attention that the California Coastal Commission will be holding a meeting in Eureka during the month of September, 2013 to discuss and perhaps come to conclusions regarding changes planned for Highway 101. Apparently the changes under discussion will be; an interchange at Indianola Road, the closure of Bayside Cutoff, and a traffic light at Airport Road, plus the closure of all other median crossing places. It is my understanding that construction of the project would take approximately 3 years. I have several concerns listed as follows:

1. While under construction I believe more drivers will choose Hwy 255 to travel between Arcata and Eureka due to delays etc. during the construction. That is, they will find the Hwy 255 route faster and more convenient due to the inevitable construction delays. We in Manila already feel the effects of the Hwy 101 speed limit and our traffic has increased due to this. We find it a danger to Manila citizens whose community is already cut in half by Hwy 255 becoming a safety hazard for our children, dogs, and of course ourselves.
2. I see no provision for a "Bike and Walking" trail between Arcata and Eureka. This is hard to understand as much interest has been expressed for such a trail both in the interest in finding alternative means of transportation plus the obvious need for healthy ways to pursue our lives such as using bicycles, walking, etc. Due to the obvious interest, "rails to trails, etc.", not planning for such a trail must be an oversight. It is difficult for me to believe that such a trail would not be included in this major overhaul of Hwy 101 between Eureka and Arcata.
3. Having friends and family who live "off of" Old Arcata Road I am also concerned about the increased traffic which they will need to endure during construction and due to the lack of the Bayside Cutoff road.

I have lived in Humboldt County for 45 years and have seen the traffic increase as population pressure increases. I have had several friends killed on Hwy 101 due to the problems that it presents with uncontrolled crossings etc. I am sympathetic to the fact the changes need to be made. I am concerned that we will be missing an opportunity for a really "great" improvement if we do not consider all of these factors.

Sincerely,
Michael V. Hoes (a 25 year Manila resident)



Delaplaine, Mark@Coastal

From: TM <moss6@sbcglobal.net>
Sent: Sunday, August 25, 2013 6:51 AM
To: Delaplaine, Mark@Coastal
Subject: Bayside cutoff

Dear Coastal Commision,

I am writing urging you to keep the Bayside cutoff open. As a resident of Bayside, I feel this closure would adversely affect our community.

There are many issues that Bayside residents have repeatedly raised about the CalTrans plan for 101 over the past ten years. The primary issues are:

- (1) Closing the Bayside Cut-off will restrict access from the Bayside community to the Humboldt Bay and to Eureka, causing everyone living between the Post Office and the Rocky Creek area to drive several extra miles to get to Eureka.
- (2) Traffic from 101 will shift over to Old Arcata Road, with more cars driving faster through our residential community with three elementary schools and no mitigation proposed.
- (3) The project will fill more than 10 acres of wetlands without adequate mitigation.

Thank you for your consideration.

Sincerely, Tara Moss