CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
710 E STREET • SUITE 200
EUREKA, CA 95501-1865
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MAILING ADDRESS:
P. O. BOX 4908
EUREKA, CA 95502-4908

Th21c

MEMORANDUM

Date: June10, 2008

To: Commissioners and Interested Parties

From: Peter Douglas, Executive Director
Robert Merrill, District Manager, North Coast District
Melanie Faust, Sr. Coastal Program Analyst, North Coast District

Subject: **Addendum to Commission Meeting for Thursday, June 12, 2008 North Coast District Item Th21c, CDP Application No. 1-07-038 (Caltrans – Alton Interchange Project, Humboldt County)**

STAFF NOTE

The purpose of this addendum is to: a) attach new correspondence received from the public on this application by the date of publication (see Attachments 1-4); and b) make corrections and changes to two special conditions recommended by staff, as explained in more detail below, pertaining to the staff report for Coastal Development Permit Application No. 1-07-038.

The proposed development is the construction of an elevated interchange with ramps at the existing at-grade intersection of Highway 101 and Route 36, and related project features. The staff report dated May 29, 2008 recommends approval of the proposed project with twenty special conditions. Staff recommends changes to two of these conditions as discussed below. No other changes to the staff recommendation or findings are proposed.

Revisions: Text is shown in ~~**strikethrough**~~ for deleted language and **<u>underline</u>** for new text.

REVISION No. 1: Modify Special Condition No. 4 on page 12 to reflect revisions proposed by Caltrans in response to staff concerns about wildlife permeability and aesthetic compatibility of the median barrier component of the project, and to correct errors (such as the width of the vegetated strip) noted by Caltrans staff:

4. REVISED MEDIAN BARRIER PLANS

A. Within 120 days of Commission action on CDP 1-07-038, or within such additional time as the Executive Director may authorize for good cause, Caltrans shall submit revised median barrier plans for the review and approval of the Executive Director incorporating the following changes to the proposed project, as proposed by Caltrans:

The proposed median barriers along the Highway 101 portion of the proposed project, between the Van Duzen River Bridge and the area north of the Alton Interchange as shown on Exhibit 6 (to Post Mile 58.2) ~~and~~ **previously** described by Caltrans as:

- Double thrie beam guardrail with a partially paved, variable slope median from the southern limits of the project to south of SR 36
- 6.7 m (22 ft) minimum median with a Type 60 concrete median barrier from SR 36 north to the northern project limits
- 1.6 m (5.3 ft) wide vegetated strips in the median segments being paved

shall be revised to provide for:

double thrie beam guardrail from the southern limits of the project to Post Mile 58.2 to the north, as shown on Exhibit 6, and either thrie beam or concrete median barrier from north of Post Mile 58.2 to the northern limits of the project, with a vegetated strip a minimum of 5.3 feet wide on each side of all new median barrier structures, except in locations where the median is already paved. Where thrie beam is used, the plans shall utilize only a median barrier design that is comprised of a wooden post/metal thrie beam guardrail with adjoining green spaces and natural surfaces (no paving) planted with non-invasive native plant species, and shall be designed in a manner and height providing maximum wildlife permeability and safety, consistent with pertinent crash rail standards. The metal rail shall be of weathered, not shiny, metal finish, and shall be of the lowest finished height consistent with pertinent safety standards. **Where m**~~M~~edian barriers are proposed within the remainder of the project boundaries north of Post Mile 58.2, **the barriers** may be constructed of either the thrie beam design described above, or the concrete median barrier design type only if consistent with

the following limitations**:** ~~:~~ If the concrete barrier design is selected, the barrier shall be finished with faux rock-face treatment **with grout lines inscribed deeply enough to emulate masonry joinings** and coloration in shades of gray that emulate the local palette of natural stone. The concrete barrier design shall incorporate ground-level "scupper" openings of at least 9 inches in height and 18 inches in width, spaced at intervals of not more than 25 linear feet apart. The scupper openings shall be visible from each side to encourage wildlife use. The median barriers of either design shall have a vegetated strip, planted with non-invasive species, of **4 a minimum of 5.3** feet in width on each side of the barrier, except in areas where a concrete surface already exists in the proposed median location.

REVISION No. 2: Modify Special Condition 14 on pages 21-22 regarding the creation of an agricultural crossing of the proposed northern frontage road. Caltrans indicates that the pertinent sight distances from the northbound off-ramp of the proposed interchange to the private agricultural land crossing of the proposed new frontage road north of Fowler Road and west of the 101 corridor, render the installation of a signalized crossing for farming use (called for in Special Condition 14) potentially unsafe (see Exhibit G, Hauck parcel, etc.). Therefore, the following revisions to the special condition allow for an operator—activated flashing yellow safety/caution light system in each direction of travel (to and from the main agricultural lands and the smaller acreage bisected by the proposed new frontage road) at the private driveways adjoining the proposed new frontage road north of Fowler Lane and west of Highway 101. The flashing yellow safety/caution lights could be activated from either direction, thus allowing the farmer to safely traverse the new frontage road that will bisect the existing single agricultural land holding, and thereby preserving safe agricultural access between the portions of existing agricultural lands that will be affected by the new frontage road. Without such a safety feature, the new traffic patterns that will be generated by the proposed project could otherwise conflict with the turning/access movements of heavy agricultural equipment. The following changes are hereby made to the text of Special Condition 14:

14. AGRICULTURAL CROSSING ON NORTHERN FRONTAGE ROAD

A. WITHIN NINETY (90) DAYS OF COMMISSION APPROVAL OF CDP 1-07-038, Caltrans shall submit a plan to scale for the review and approval of the Executive Director for a safe road crossing, either at, above, or below grade, for agricultural equipment, vehicles and livestock on the proposed new frontage road west of Highway 101 and north of Fowler Lane. Caltrans shall include a signalized intersection**, which may consist of operator-activated flashing yellow safety/caution lights north and south of the subject agricultural crossings of the subject frontage road shown on Exhibit G and labeled**

“Hauck” parcel, rather than standard green-yellow-red signal lights, for the benefit of the agricultural operator’s use that may be activated by the operator requiring access to or from the agricultural parcel on the Highway 101 side of the undivided parcel that is traversed by the new frontage road unless the road crossing approved by the Executive Director is above or below grade.

COLLEGE
OF THE
REDWOODS

June 9, 2008

Peter Douglas, Executive Director
California Coastal Commission
710 E Street, Suite 200
Eureka, CA 95501

Dear Peter:

First, on behalf of the faculty and students at College of the Redwoods, I would like to thank you, your staff at the Coastal Commission, and our CalTrans colleagues for the opportunity to be part of the partnership project we have been working on this year. I am convinced that the resources that could be made available to the college through this partnership would make an enormous difference to our agriculture program and specifically to our ability to make continuing productive use of our college farm in Shively.

As I know you have discussed with Vice President Bobbitt earlier this year, the college took possession of the Shively farm at a time when our student enrollment was just beginning to experience what has become a very significant decline. That decline has caused a similar decline in our apportionment funding from the state. Ninety-five percent of the college's base funding is dependent on student enrollment.

Since acquiring the farm, the college has been working to integrate this new laboratory resource into its agriculture program, which has been an important area of instruction at the college for many years. This work has been focused in two primary areas – improvement of the physical infrastructure at the farm site and achieving a level of financial sustainability for the program over time.

The bequest of the farm to the college included approximately $200,000 in cash, which the college spent in the first few years to begin to make much needed infrastructure improvements at the Shively site. These funds have now been exhausted and additional infrastructure improvements remain to be completed.

As the college has begun to operate the farm as an instructional site for the agriculture program, it has also become necessary to supplement the annual operating budget of farm from general fund apportionment revenue. In the current year, this annual subsidy has grown to nearly $100,000.

Office of the President

7351 Tompkins Hill Rd.
Eureka, CA 95501-9300
707.476.4170
FAX:707.476.4402

ATTACHMENT 1

The currently proposed partnership between the Coastal Commission, CalTrans, and the college is exciting and attractive to us because it is designed to address both of these continuing needs of our agriculture program. The immediate support being proposed will enable us to complete our current infrastructure improvements, and more importantly, the ongoing support being proposed will ensure the ultimate viability and sustainability of the farm as an important resource to our local agriculture community. In this respect, it is important to understand that it has been made clear to the college that, should we be unable to sustain the Shively farm as a viable instructional facility at any point in future, the property would pass out of college ownership; it would be converted to a redwood park and its use as agricultural land would be lost forever.

For all of the reasons stated here, the college is extremely grateful to be considered as a potential partner in this project with the Coastal Commission and CalTrans. It has been a pleasure for us to work with everyone from both partner agencies to help bring the project to this point in its development. If there is anything any of us at the college can do to further assist with this effort, please let us know.

Sincerely,

Signature on File

Tom Harris
Interim President/Superintendent

TH:sa

May 3, 2008

California Costal Commission
North Coast Office
710 E Street, Suite 200
Eureka, CA. 95501

Re: CalTrans overPass Hwy 36 & 101 near Alton
Hearing Date May 9th 2008
Item No. - F 17b

Dear Commissioner,

There are few matters on which you will decide that will have a little impact on the coastline, yet so directly impact the Safety of the residents like me who have to Drive east onto Hwy 36 at Alton on 101. I have lost Friends there.

Please approve this CalTrans Request

Sincerely

Signature on File

Alan E French
4764 Hwy 36
Hydesville, CA.
95547

RECEIVED
MAY 05 2008
CALIFORNIA
COASTAL COMMISSION

ATTACHMENT 2

Hansen Truck Stop, Inc.
2404 Sandy Prairie Road
Fortuna, CA 95540

Permit number 1-07-038

May 1, 2008

California Coastal Commission
North Coast District Office
710 E Street, Suite 200
Eureka, Ca 95501

Coastal Commission:

I'm writing this letter on behalf of Hansen Truck Stop and all the families that live on the west side of 101 in Fortuna California. The Department of Transportation is planning to close Drake Hill Road and Sandy Prairie Road to all traffic on to or off the 101 interchange. This makes all traffic to use Highway 36 road to access all properties in this area. That means all emergency responds (fire/medical/police) will need to go all the way to 36 and then travel back to Sandy Prairie or Drake Hill road. Sandy Prairie road is a un-deeded single lane road to now be used by all families on the west side of 101. Caltrans stated that emergency services would be coming from Hydesville and as we all know the only service we have from Hydesville is a voluntary fire department and during the day the men that service this dept. work outside of Hydesville. We are asking that Drake Hill Road and Sandy Prairie Road off ramps from 101 stay open for the good of the people. Caltran is unwilling to consider a frontage road from Fortuna to Highway 36. We already have a setback of 35 feet along 101 that could be used for a frontage road.

Thank you for you time and attention to this letter
Families on the Westside of 101

ATTACHMENT 3

Calif. Coastal Commission
No. Coast District Office
710 E. Street Su. 200
Eureka, Ca. 95501

RE: CalTrans overpass Hwy 36 & Hwy 101 @ Alton
Hearing date May 9 2008
Item # F 17b

Dear Commission -

Please let CalTrans fix the road. This is a very busy & dangerous intersection, and we've waited a number of years for this improvement to take place.

Sincerely

Signature on File

JoAnn French
POBY 334
Hydesville Ca 95547

RECEIVED
MAY 05 2008
CALIFORNIA
COASTAL COMMISSION

ATTACHMENT 4

State of California—Business, Transportation and Housing Agency ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
255 East Samoa Bl.
Arcata, CA 95521
(707) 822-5981
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

June 10, 2008

File No.: 125.10190.11660.

RECEIVED
JUN 10 2008
CALIFORNIA
COASTAL COMMISSION

California Coastal Commission
710 E Street, Suite 200
Eureka, CA 95501

Dear Commissioners:

The Humboldt Area of the California Highway Patrol supports the construction of the Alton Interchange, which intersects US 101 and SR-36.

In its current configuration, this intersection has been the location of numerous accidents investigated by our office. The anticipated improvements to this intersection will greatly enhance safety to the general area. In short, we believe this improvement will save lives. As memory serves, this project was originally scheduled to debut in 2006. Further delay of this project would be disappointing.

If you have any questions regarding this letter, please call me at (707) 822-5981.

Sincerely,

Signature on File

R. J. DEL MESE, Captain
Commander
Humboldt Area

ATTACHMENT 5

CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
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EUREKA, CA 95502-4908

TH21c

Filed: 4/22/08
49th Day: 6/10/08
180th Day: 10/19/08
Hearing: 6/12/08
(postponed from 5/09/08)
Staff Report: 5/30/08
Staff: M.Faust/Eureka

STAFF REPORT: REGULAR CALENDAR

APPLICATION: **1-07-038**

APPLICANT: **Caltrans, District 1 (Eureka)**

PROJECT LOCATION: Intersection of State Routes 101 and 36, at Alton, south of Fortuna, unincorporated Humboldt County.

PROJECT DESCRIPTION: Convert an existing segment of Highway 101 from a four-lane expressway to a four-lane freeway, from just north of the Van Duzen River Bridge (Post Mile 57.0) to just north of the intersection of Highway 101/Drake Hill Road (Post Mile 59.1). Construct an elevated interchange with ramps at the existing at-grade intersection of Highway 101 and Route 36, close seven (7) at-grade intersections, construct frontage roads west of Highway 101, install median barriers, lighting, and new pavement overlay. Demolish (burn) an existing residence and numerous commercial structures, permanently remove 8 billboards (no replacements would be allowed by Caltrans), and after-the-fact application for the demolition of a vintage redwood barn near the southwestern quadrant of the proposed interchange and for removal of a gate, boulders and signage presently blocking a coastal access road to the Van Duzen River.

RECOMMENDATION: **Approval with Conditions**

MOTION & RESOLUTION: Page 7.

LOCAL APPROVALS REQUIRED: None (see procedural notes on page 3),

PROCEDURAL NOTES

1. Revised Staff Recommendation:

The application was originally scheduled for a Commission hearing at the Commission's May, 2008 meeting. After publication of the staff report dated April 16, 2008, and prior to the hearing, Caltrans requested a postponement of the hearing to allow more time for completion of the applicant's revised wetland mitigation plan and for discussion with Commission staff of changes Caltrans was proposing to the recommended special conditions. Caltrans submitted a revised wetland plan on May 16, 2008. Among other things, the revised plan provides additional information that enables the Commission and its staff to determine the precise amount of wetland impact that will result from the project, whether the proposed fill is being placed in the least environmentally damaging manner, and whether the applicant's mitigation proposal is adequate. The previous draft of the mitigation plan left these aspects of the proposed fill and mitigation uncertain, causing the Commission staff to recommend in its previous staff recommendation that a final wetland mitigation plan be submitted in the form of a permit amendment for the review and approval of the Commission, so that the Commission itself could review these fundamental issues of consistency of the proposed project and mitigation plan with the wetland fill policies of the Coastal Act. With the information contained in the revised wetland mitigation plan, staff no longer believes that it is necessary for a final wetland mitigation plan to be brought back for review by the Commission in the form of a permit amendment. Certain further minor revisions to the plan are still necessary, however, and staff has included Special Condition No. 9 in the current staff recommendation requiring that a final mitigation plan be submitted for the review of the Executive Director, rather than the Commission. These changes are included in this current version of the staff recommendation. Other changes to the staff recommendation from the version published in April include revisions to the conditions and findings dealing with the treatment of aerially deposited lead in soils around the project site, changes to the conditions and findings regarding the need for preserving wildlife corridors through the project area, and other miscellaneous changes.

2. To Submit Public Comments:

Public comments concerning this staff report may be provided to the North Coast District Office at the letterhead address. Commission staff cannot ensure receipt of comments via e-mail or facsimile.

3. Availability of environmental information:

All environmental information relied on by the Commission and its staff is available for review at the above-referenced North Coast District Office of the California Coastal

Commission, in Eureka. Caltrans prepared and certified a "Negative Declaration and Initial Study" dated May 2005, to comply with the California Environmental Quality Act (CEQA). Certification documents and environmental information provided by Caltrans subsequent to the certification, and in support of the pending application, are available in the North Coast District Office.

4. Jurisdiction and Standard of Review:

The proposed project area is bisected by the boundary between the retained coastal development permit jurisdiction of the Commission and the coastal development permit jurisdiction delegated to Humboldt County by the Commission through the County's certified Local Coastal Program.

The Coastal Act was amended by Senate Bill 1843 in 2006, effective January 1, 2007. The amendment added Section 30601.3 to the Coastal Act. Section 30601.3 authorizes the Commission to process a consolidated coastal development permit application when requested by the local government and the applicant and approved by the Executive Director, for projects that would otherwise require coastal development permits from both the Commission and from a local government with a certified LCP.

The Humboldt County Board of Supervisors has adopted a resolution authorizing the Planning Director in such situations to submit letters to the Commission requesting consolidated processing of coastal development permit applications by the Commission. Both the County Planning Director and Caltrans submitted a letter requesting consolidated processing of the coastal development permit application by the Commission for the subject project, which was approved by the Executive Director.

The policies of Chapter 3 of the Coastal Act provide the legal standard of review for a consolidated coastal development permit application submitted pursuant to Section 30601.3. The local government's certified LCP may be used as guidance.

The application fee for a consolidated coastal development permit is ordinarily determined by the Commission's permit fee schedule. However, the Commission does not require state or local governments or agencies to pay application fees.

5. Exhibits

Caltrans has provided the exhibit packages attached to this staff report for all Exhibits labeled in alphabetical series (Exhibits A, B, etc.). Additional exhibits are listed in the usual series (Exhibit 1, etc.) In some cases, to save costs and materials, exhibits with colored features are only reproduced in black-and-white, but are provided in color on the Commission's website.

STAFF SUMMARY

Note: Commission staff recommends **approval** of the proposed project with 20 Special Conditions.

Caltrans proposes to undertake a major highway safety improvement project by constructing a grade-separated interchange at the intersection of Highway 101 and Highway 36 at Alton, south of Fortuna, in unincorporated Humboldt County (See Exhibits A—E). Caltrans proposes the project because traffic accidents, including fatalities, are occurring at a rate that is substantially higher than typical for similar facilities elsewhere in the state transportation system.

The interchange will be approximately 30 feet above existing ground elevation, and will provide an overpass crossing for pedestrians as well as vehicles. Caltrans also proposes to close seven at-grade intersections and to re-route traffic via two proposed new frontage roads that would be constructed north and south of Fowler Lane, west of Highway 101.

The rural setting of the project area is characterized by broad expanses of agricultural lands to the west of Highway 101, and scattered rural development as well as temporary gravel mining operations visible to the far west. The lands surrounding the proposed project site tend to be large, relatively flat parcels with prime soils, utilized for livestock grazing, forage production, and crop cultivation. Some scattered residential and commercial development exists in the area, and the interchange location is within the "sphere of influence" of the City of Fortuna to the north.

The interchange would be constructed about a half mile north of the highway crossing of the Van Duzen River, which is located just upstream of the confluence of the Van Duzen and Eel Rivers. The Highway 101 corridor affected by the proposed project is eligible for designation as a Scenic Highway.

The proposed project will address safety hazards that affect coastal visitors who travel the critical Highway 101 corridor to visit the public coastal access and recreation amenities of the north coast. No alternative access to these amenities is available for many miles distant from the project site. In addition, Highway 36 is a coastal access corridor for Red Bluff, Interstate 5, and the Sacramento Valley beyond.

Staff believes that without the proposed improvements, safe and essential public access to the coast, and particularly to areas of coastal recreation, including areas that offer lower cost visitor services and recreational opportunities, would continue to be unsafe. Denial of the proposed project would thus result in the continued operation of the existing highway intersection and coastal accessway with the risks associated with the

operational conflicts and resultant traffic safety hazards identified by Caltrans and discussed in detail in this report. Therefore, staff believes that approval of the project is necessary for safe public access and denial would result in continued significant risk of traffic accident for travelers in this section of Highway 101.

Further, no alternative exists to provide safe public coastal access at the proposed site and to the Van Duzen River, nor does an alternative route exist that would provide coastal visitors with the choice of a safer means of accessing the coastal recreational amenities of the north coast without traveling this section of Highway 101 for many miles. To not approve the project would result in continued safety risks to the public, including coastal visitors, that would be inconsistent with the mandates of Coastal Act Section 30210, which requires, in part, that "maximum access shall be provided for all the people."

On the other hand, approval of the project as proposed would impermissibly convert between 39 and 42 acres of prime agricultural land to highway use, which would be inconsistent with the mandate of Coastal Act Section 30241, which protects prime agricultural lands. Even though the proposed Alton Interchange location is the most suitable of the feasible and available sites for reducing the safety hazards of existing traffic on a public access route, essential to the public's ability to access the coast, approving the construction of the new interchange at the proposed location would not be fully consistent with the requirements of Section 30241 to preserve the maximum amount of prime agricultural land and to avoid cumulatively adverse impacts of development on coastal resources.

In such a situation, when a proposed project is inconsistent with a Chapter 3 policy but denial or modification of the project would be inconsistent with another policy, Section 3007.5 of the Coastal Act provides for resolution of such a policy conflict. Staff believes the proposed project presents such a conflict between Sections 30241 and 30210 of the Coastal Act and it is appropriate for the Commission to invoke the conflict resolution policies of Section 30007.5 of the Coastal Act. This section states that when the Commission identifies a conflict among the policies in Chapter 3, such conflicts are to be resolved in a manner which on balance is the most protective of coastal resources.

As discussed further in the conflict resolution section of this report, although the project proposes to impermissibly convert approximately 39—42 acres of agricultural lands with prime soils, the project is necessary to ensure safe public access and recreation along the highway through this primary regional and statewide coastal access corridor, including coastal visitors traveling from the Sacramento Valley and beyond via Highway 36/Interstate 5 (the highways intersect near Red Bluff), and specifically to the Van Duzen River in the immediate area of the proposed project. If the existing safety problems and operational conflicts are not resolved ad Caltrans proposes, unacceptable safety risks to coastal visitors will continue, and will severely impede public coastal access and recreation, in conflict with the policies of the Coastal Act protective of these public coastal resources.

Staff believes that the impact of not constructing the project would be more significant that the project's agricultural impacts. In addition, Caltrans has agreed to pay $2 million into an agricultural impact mitigation fund that will support the agricultural education programs of the College of the Redwoods, including preservation of the College's 38-acre sustainable agricultural teaching farm in Shively (the staff has recommended that the payment mitigate for the unavoidable conversion of agricultural lands for three proposed Caltrans projects, including the Mad River Bridges replacement on Highway 101 approved in January 2008, and the Klamath Grade Raise on Highway 101 in Del Norte County, for which a permit application has not yet been submitted).

In addition to agricultural mitigation and protection and/or preservation of coastal access and recreation amenities, the recommended special conditions also address wetland mitigation, protection of coastal waters and wetlands from lead contamination, overall water quality protection through control of erosion and re-vegetation of disturbed soils, protection of wildlife corridor passageways and habitat connectivity, avoiding potential growth inducing impacts on adjoining agricultural lands, visual impacts (including design considerations of the overpass, lighting, signage, etc.), and requiring construction practices protective of coastal resources.

Therefore, to ensure that this important public safety project is constructed in a manner that least impacts sensitive coastal resources and is consistent with the Coastal Act, staff recommends that the Commission **approve** the proposed project with 20 Special Conditions.

1.0 STAFF RECOMMENDATION, MOTION, AND RESOLUTION

Motion: *I move that the Commission **approve** Coastal Development Permit No. 1-07-038 subject to conditions set forth in the staff recommendation specified below*.

Recommendation**:** Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of the majority of the Commissioners present.

Resolution to Approve Permit:

The Commission hereby **approves** a Coastal Development Permit No. 1-07-038 for the proposed project, subject to the conditions specified below, on the grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.0 STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgement:** This permit is not valid until a copy of the permit is signed by the Permittee or authorized agent, acknowledging receipt of the permit and the acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration:** Construction activities for the proposed project must be initiated within two years of issuance of this permit. This permit will expire two years from the date on which the Commission approved the proposed project if development has not begun.

3. **Interpretation:** Any questions of intent or interpretation of any condition will be resolved by the Executive Director of the Commission (hereinafter, “Executive Director”) or the Commission.

4. Assignment: The permit may be assigned to any qualified person, provided the assignee files with the Commission the affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land: These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

3.0 SPECIAL CONDITIONS

1. FINAL STATE & FEDERAL AUTHORIZATIONS; RESPONSIBILITY.

A. PRIOR TO ISSUANCE OF CDP 1-07-038, Caltrans shall submit evidence to the satisfaction of the Executive Director (including copies of the pertinent final documents) that final approvals or authorizations of all state and federal agencies with review authority over any portion of the subject project have been received by Caltrans including, but not limited to, clearances from the California Highway Patrol and Air Quality Management District for demolition by controlled burning of structures slated for removal. Notwithstanding this requirement, the Army Corps of Engineers approval may be submitted to the Executive Director after the issuance of CDP 1-07-038, but not less than thirty days prior to commencement of construction. The applicant shall inform the Executive Director of any changes to the project required by any state or federal agency. Such changes shall not be incorporated into the project unless the applicant obtains a coastal development permit amendment unless the Executive Director determines that no amendment is legally required.

B. Responsibility: Caltrans, in accepting the benefits of CDP 1-07-038, agrees to the following:

(1) Caltrans shall ensure that the relevant bidding documents and contract include:
a) sufficient and accurate provisions for Caltrans to ensure the obligation of the winning bidder to comply with all of the conditions of CDP 1-07-038 and to construct the project in accordance with the approved project description; and
b) the specific requirement that the contractor and any employees, subcontractors, agents, or other representatives of the contractor or contractors who are responsible for constructing any portion of the project, shall undertake all related activities in full compliance with the project approved pursuant to CDP 1-07-038, including all terms and conditions imposed by the Commission in approving the permit.

(2) It shall be Caltrans' responsibility to ensure that the bidding documents contain general and special provisions necessary to fully and accurately incorporate all requirements imposed by the Commission, including timelines for review of documents and other potentially limiting measures that may affect construction scheduling or the timing of construction or other parameters of material interest to the participating

parties. It shall also be Caltrans' responsibility to ensure that the winning bid for the construction of the proposed project is adequate to ensure that the selected contractor has taken into consideration and provided for the full cost of compliance with all requirements imposed by the Commission pursuant to the Commission's approval of CDP 1-07-038. A copy of the adopted findings for CDP 1-07-038 and final plans approved by the Executive Director shall be attached to the bidding documents by Caltrans for reference by potential bidders;

(3) After the contract is awarded, Caltrans shall ensure that the contractor(s), subcontractor(s), or other parties selected by Caltrans or otherwise designated to implement any portion of the project approved pursuant to CDP No. 1-07-038, are fully informed of, and continuously comply with, the obligations set forth in the adopted permit terms and conditions referenced in Subparagraph (B)(1) above. Caltrans shall ensure that a complete copy of the adopted findings is maintained on the job site at all times and that each contractor undertaking any portion of the development authorized herein has a copy of the adopted findings upon execution of the contract for the subject project. Nothing in these provisions shall prevent the Commission from taking enforcement action against the contractor or subcontractor(s) for non-compliance with the terms and conditions of CDP 1-07-038, either individually or in addition to enforcement action against Caltrans for such non-compliance;

(4) All activities associated with performing the development authorized pursuant to CDP 1-07-038 shall at all times be undertaken in full accordance with the terms and conditions imposed by the Commission in conditionally approving CDP 1-07-038. It shall be Caltrans' responsibility to ensure such compliance by any party to whom Caltrans assigns the right to construct or undertake any part of the activities authorized herein; this requirement does not relieve other parties of responsibility for compliance with the permit or immunize such parties from enforcement action by the Coastal Commission's enforcement program; and

(5) Caltrans shall ensure that any contractor, subcontractor, or other representative of Caltrans, and Caltrans employees, understand and accept the terms and conditions of CDP 1-07-038, and shall submit evidence to the satisfaction of the Executive Director, prior to commencement of construction by any selected contractor, that all Caltrans contractors, representative, and employees have received and reviewed the approved terms and conditions of CDP 1-07-038 and understand and agree to comply with the requirements set forth therein.

2. CONSTRUCTION RESPONSIBILITIES.

A. This permit authorization requires, and by accepting the benefits of CDP 1-07-038 Caltrans agrees that:

(1) All debris, materials, equipment, vehicles, staging and storage features, concrete washout areas, and any other material or temporary feature associated with project

construction shall be removed immediately after project completion and the affected area returned to pre-construction conditions, in accordance with other special conditions set forth herein.

(2) All waste material or excess graded material generated by demolition, burning of structures to be removed, or construction shall be removed from the construction site and disposed of at a facility that is either:

a) Located outside of the coastal zone, with necessary permits and approvals to accept the material for disposal or recycling, and subject to contractual terms that guarantee that the material will not be disposed thereafter by subsequent acquiring parties in a manner that could potentially produce adverse impacts on coastal resources (for example, by disposal to streambanks, wetlands, open space, or agricultural areas visible to, or hydrologically connected to, coastal resources); or

b) Located inside the coastal zone at a facility demonstrated by Caltrans to the satisfaction of the Executive Director to have all necessary permits and approvals, including a coastal development permit, and subject to contractual terms that guarantee that the material will not be disposed thereafter by subsequent parties in a manner that could potentially produce adverse impacts on coastal resources (for example, by disposal to streambanks, wetlands, open space, or agricultural areas); and

c) The location and volume of project wastes so disposed, and the ultimate placement or use of such material, shall be documented by the Caltrans resident engineer. The resident engineer shall record and retain in the permanent project files the verification of the manner of final disposal of the materials, which shall be guaranteed against re-sale or re-use in a manner that is inconsistent with the requirements set forth herein. The disposal records shall be retained by Caltrans as part of the permanent project files and made available on request.

(3) Fueling shall take place (1) at a commercial station, or (2) in a designated offsite area that is bermed and otherwise set up to fully contain any potential spill without release outside of the designated area(s), or (3) in other locations within the project area where fueling does not take place over permeable ground or coastal waters, nor in areas in or adjacent to wetlands, coastal waters or waters tributary to coastal waters (boundaries of such areas near the project site shall be marked with ESA fencing or other prominent forms of identification, placed and maintained under the supervision of a qualified Caltrans biologist), and where the fueling location and equipment have the necessary BMPs and support equipment to prevent, or in the event of an accident, contain, any fuel spill that may occur. The project site shall be continuously equipped with all materials necessary to control and clean up any spill that may occur. The integrity of the containment berm or other BMPs and the readiness of control and cleanup materials and equipment shall be periodically verified by the Caltrans site supervisor and noted in the permanent project records. In addition, large, relatively immobile equipment, such as cranes, may only be fueled on location by a certified re-

fueler and portable generators may only be fueled at the location of their use, if such fueling is undertaken subject to all of the limitations and requirements set forth in all terms and conditions of this permit.

(4) Cement/concrete shall be prepared and poured or placed in a manner that will prevent discharges of wet cement, or waters that have been in contact with cement/concrete, into coastal waters, or into waters tributary to coastal waters.

(5) Rinsate from the cleaning of equipment, including cement mixing equipment, shall be contained and handled only in upland areas where drainage to coastal waters is fully prevented, and otherwise outside of any environmentally sensitive habitat area or wetland or buffers thereto.

(6) Reporting protocols and contact information for the appropriate public and emergency services/agencies in the event of a spill shall be prominently posted on site at all times.

(7) No vegetation removal, including clearing, grubbing, limbing, trimming, or other disturbance of existing vegetation, other than the mowing of grassy areas within ten (10) feet of roadways or structures, may occur between March 1 and August 31 of any year unless a qualified biologist provides a survey undertaken to the satisfaction of the Executive Director not less than ten (10) days prior to proposed commencement of such activities, demonstrating conclusively that: (a) no migratory birds or other bird species of special concern are nesting in the area that would be affected; (b) the results of the survey are being provided to the Executive Director's satisfaction not less than five (5) days prior to proposed commencement of such activities; and (c) the vegetation removal has been authorized by a California Department of Fish and Game biologist familiar with the bird species likely to nest in the subject area.

(8) Staging and storage of construction machinery, materials, equipment, fuel, or any other material, or storage of debris or graded material, shall not take place within wetlands or sensitive habitat areas. The perimeters of wetlands and sensitive habitat areas shall be identified and marked in the field by a qualified biologist prior to commencement of construction and re-identified as often as needed thereafter to continuously maintain the identification and protection of sensitive habitat areas. ESA fencing shall be placed in an appropriate manner to protect sensitive resources, and provisions shall be included in such placement to ensure that wildlife passage is not blocked by ESA fencing. Wildlife passage features shall be included where deemed necessary by the supervising Caltrans biologist for the purpose of providing continued wildlife corridor connectivity throughout the project area during construction.

B. All project activities shall be undertaken at all times in full compliance with these requirements and with all approved terms and conditions of CDP 1-07-038. Any project changes to these requirements shall be reported to the Executive Director. No changes

to these requirements may be approved without an amendment to CDP 1-07-038, unless the Executive Director determines that no amendment is legally required.

3. FINAL REVEGETATION and EROSION CONTROL PLAN

The proposed project shall be constructed in accordance with the approved Revegetation and Erosion Control Plan, dated May 27, 2008 and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved plan or the approved terms and conditions of CDP 1-07-038 shall be reported to the Executive Director. No changes to the approved plan or the approved terms and conditions of CDP 1-07-038 shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

4. REVISED MEDIAN BARRIER PLANS

A. Within 120 days of Commission action on CDP 1-07-038, or within such additional time as the Executive Director may authorize for good cause, Caltrans shall submit revised median barrier plans for the review and approval of the Executive Director incorporating the following changes to the proposed project, as proposed by Caltrans:

The proposed median barriers along the Highway 101 portion of the proposed project, between the Van Duzen River Bridge and the area north of the Alton Interchange as shown on Exhibit 6 (to Post Mile 58.2) and described by Caltrans as:

> - Double thrie beam guardrail with a partially paved, variable slope median from the southern limits of the project to south of SR 36
> - 6.7 m (22 ft) minimum median with a Type 60 concrete median barrier from SR 36 north to the northern project limits
> - 1.6 m (5.3 ft) wide vegetated strips in the median segments being paved

shall utilize only a median barrier design that is comprised of a wooden post/metal thrie beam guardrail with adjoining green spaces and natural surfaces (no paving) planted with non-invasive native plant species, and shall be designed in a manner and height providing maximum wildlife permeability and safety, consistent with pertinent crash rail standards. The metal rail shall be of weathered, not shiny, metal finish, and shall be of the lowest finished height consistent with pertinent safety standards. Median barriers proposed within the remainder of the project boundaries north of Post Mile 58.2 may be constructed of either the thrie beam design described above, or the concrete median barrier design type only if consistent with the following limitations. If the concrete barrier design is selected, the barrier shall be finished with faux rock–face treatment and coloration in shades of gray that emulate the local palette of natural stone. The concrete barrier design shall incorporate ground-level “scupper” openings of at least 9 inches in height and 18 inches in width, spaced at intervals not more than 25 linear feet apart.

The scupper openings shall be visible from each side to encourage wildlife use. The median barriers of either design shall have a vegetated strip, planted with non-invasive species, of 4 feet in width on each side of the barrier, except in areas where a concrete surface already exists in the proposed median location.

B. Amendment. Caltrans shall undertake development in accordance with the approved final plan and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved final plan or the approved terms and conditions of CDP 1-07-038 shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

5. INITIAL DEMOLITION and SITE PREPARATION PLAN

Not less than thirty (30) days prior to commencement of demolition and preliminary site preparation activities, Caltrans shall submit a plan for the review and approval of the Executive Director for the removal or demolition, by controlled burn or other means, of the existing development slated for clearance from the proposed project site, including, but not limited to, the excavation and removal of septic tanks and associated backfill.

A. The plan shall limit the removal, demolition, or controlled burn of all of the structures to be removed to the time period of each year between September 1, and February 28, unless prior to commencement, a nesting survey has been prepared by a qualified biologist within the ten (10) days prior to the proposed activity and submitted to the Executive Director that provides evidence to the satisfaction of the Executive Director that no birds or bats are nesting in or on the structure(s) to be removed, demolished, or burned. The plan shall include evidence that the Air Quality Management District has granted all necessary approvals for any controlled burn. The plan shall include written evidence that the fire department, California Highway Patrol, and all potentially affected utilities and gas pipeline owners/operators, have been notified of the dates, times, locations, and conditions of such removal and have been given the opportunity to comment on whether the demolition/burning or other means of removing the pertinent structures will be safe and appropriately implemented. The plan shall demonstrate that the necessary fire and life safety protection resources will be present on site when the subject activities commence. The plan shall include the requirement that no demolition or burning activities that may affect property owners, utilities and/or staffing of safety agencies may commence unless representatives of each have been invited to be on-site prior to commencement of pertinent activities and remain present during any portion of the pertinent activities that could result in fire or life safety concerns, or affect the visibility conditions experienced by travelers on the Highway 101 or 36 corridors, local coastal access routes (such as to the Van Duzen River) or along nearby surface streets. The plan shall include provisions for the clean up of all debris, ash, and other wastes that may be generated by the subject activities and for all erosion control measures necessary to ensure the stability of disturbed soils. No grading may be undertaken pursuant to this provision.

B. Amendment. Caltrans shall undertake all development in accordance with the approved final plans and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved final plans or the approved terms and conditions of CDP 1-07-038 shall be reported to the Executive Director. No changes to the approved final plans or the terms and conditions of CDP 1-07-038 shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

6. WILDLIFE CORRIDOR FINAL PLAN.

A. PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT AUTHORIZED BY THIS COASTAL DEVELOPMENT PERMIT, Caltrans shall submit for the review and approval of the Executive Director, a final plan for maximum feasible safe wildlife movement through the project area (during and after construction), including the following:

(1) A wildlife corridor plan showing the size, design and locations of all wildlife passages connecting the northwest, northeast, southeast, and southwest quadrants of the overall project area to the wetland mitigation site.

(2) Measures designed, in accordance with the documented recommendations of a qualified biologist with expertise in wildlife behavior, to ensure that the culverts, median barriers, landscaping, lighting, and fences that will be installed or improved as part of the subject development are made as suitable as is feasible for the passage of wildlife that typically traverse the subject area or will likely be attracted to the proposed wetland mitigation site, including amphibians, reptiles, and small and large mammals.

(3) Provisions for long-term maintenance of the culverts, median barriers, and fences that will be installed or improved as part of the subject development to ensure that these structures will continue to provide wildlife passage for the life of the development approved pursuant to CDP 1-07-038. The final plan shall include a maintenance schedule and statement of responsibilities.

B. Caltrans shall undertake development in accordance with the final plan approved by the Executive Director and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

7. WATER QUALITY and WETLAND PROTECTION

Not less than ninety (90) days prior to the anticipated commencement of any development authorized by CDP 1-07-038, other than development authorized pursuant to Special Condition 5, Caltrans shall submit for the review and approval of the Executive Director:

A. A final Water Quality Protection Plan including but not limited to the following components:

(1) A Storm Water Pollution Prevention Plan (SWPPP) that prevents contamination of wetlands and associated damage to sensitive species from storm water runoff during the proposed construction period; and

(2) Post-construction Best Management Practices (BMPs) plan for water quality protection including methods to filter highway effluent that would otherwise carry oil and grease and other contaminants into wetlands, other waters of the State, and the proposed wetland mitigation site. The plan shall include features for erosion control and water filtration at all culverts, swales, filters, energy dissipaters, or other structures that will be installed or improved at the project site to filter, treat, and/or convey waters affecting any portion of the subject project site. The plan shall include provisions for long term maintenance to ensure that the BMPs will continue to provide water quality protection for the life of the development; and

(3) A plan for the management and/or disposal of soils at the project site identified as contaminated with Aerially Deposited Lead (ADL) that:

a) specifies that any ADL soil that is moved in any way shall be reported to the California Department of Toxic Substance Control (CDTSC) and subject to the requirements of that agency for dealing with hazardous waste;
b) provides that ADL soils within ten (10) feet of bioswales, sand filters, or the mitigation wetland or other earthen drainage features of the subject project shall be removed and replaced with clean soil for the purpose of preventing enhanced movement of ADL or other forms of lead into water quality treatment features or sensitive habitat; and
c) provides that any ADL soils that are exposed by construction activities shall be managed in place with construction Best Management Practices during the course of construction, and, if left in place in a manner that will prevent erosion of these soils into wetlands; and
d) ensures that if on-site retention of ADL soils is authorized by the CDTSC, provides that such soils may be re-compacted in place and watered-in for stabilization, and shall be covered at all points by a compacted and watered-in layer of clean, ADL-free soil not less than six (6) inches thick; and
e) ensures that if permanent on-site retention of ADL soils that are exposed by construction activities is not authorized by CDTSC, that the subject soils shall

be moved, covered, secured for licensed transport, and immediately disposed of in accordance with state hazardous waste regulations and without mixing such soils with other materials or less-contaminated soils; and

f) provides for a sampling program after final capping pursuant to subparagraph (d) above, but prior to revegetation, that is adequate to verify that the upper cap of soil is free of ADL contamination, with results submitted to the satisfaction of the Executive Director; and

g) provides for the management of any ADL soils that are not disturbed during site activities and proposed to be left in place in a manner that will prevent erosion of those soils into wetlands; and

h) provides that if any ADL soils are excavated during the implementation of the proposed project ("excavated" means that the soil is lifted above or removed from the ground, however temporarily, rather than being pushed aside—only--without the action of lifting the pertinent ADL soils), then such soils shall be sequestered from all other materials on site, quantified for the project records, and immediately contained for shipping, labeled, and loaded on trucks for disposal at a licensed hazardous waste facility (with retention by Caltrans in the permanent project records of the receipts and other evidence of the final disposal of all ADL soils excavated during construction of the subject project; and

B. A Staging and Temporary Access Plan including but not limited to a site plan view, to scale, showing the locations and boundaries of: a) all staging, including areas for the storage of materials, fuel and equipment, parking, graded soil storage, or temporary storage of imported fill; b) concrete washout areas and effluent containment boundaries, fueling areas, and all temporary roads. The site plan shall also show the locations and limits of designated wetlands or sensitive habitat areas delineated in the Plan required pursuant to Special Condition 9(A). All designated wetlands and sensitive habitat areas delineated in the Plan required pursuant to Special Condition 9(A) are areas where development, including activities identified in the Staging and Temporary Access Plan, is prohibited. A Caltrans biologist familiar with the sensitive habitat and wetland locations of the subject site shall verify that these areas are accurately shown on the subject plans as areas where development is prohibited, prior to submittal to the Executive Director.

C. Construction shall not commence until the Executive Director has provided final review and written approval of the Water Quality Protection Plan and SWPPP, and the Staging Plan, including verification of any changes requested by the Executive Director.

D. Amendment. Caltrans shall undertake all development in accordance with the approved final Water Quality Plan and with all approved terms and conditions of CDP 1-07-038. Any proposed change to the approved final plans or the terms and conditions of CDP 1-07-038 shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

8. PROTECTION OF FUTURE PUBLIC ACCESS.

A. By acceptance of Commission approval of CDP 1-07-038, Caltrans acknowledges and agrees that (1) continued public access for bicyclists to the paved shoulder along the Highway 101 and Highway 36 corridor and interchange/on/off-ramps, including access to associated frontage roads throughout the project site as generally depicted on Exhibit G, shall be provided by Caltrans; and (2) continued public access for pedestrians to all of the same areas except along the Highway 101 shoulder north of the Alton interchange to the project limits shall be provided by Caltrans. No signage shall be installed within the bounds of the project approved pursuant to CDP 1-07-038 that would restrict pedestrians or bicyclists from the use of these transportation facilities, except along the Highway 101 shoulder north of the Alton Interchange to the project limits in areas where pedestrians may not utilize the freeway shoulder, and in such cases the prohibitive signage shall indicate lawful alternative routes of approximately similar length. Any proposed change to these access amenities for pedestrians and/or bicyclists shall require an amendment to CDP 1-07-038 and such amendment shall not be accepted for processing unless accompanied by a proposal to provide equivalent or superior access alternatives within the same corridor.

B. PRIOR OF ISSUANCE OF CDP 1-07-038, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, evidencing Caltrans' agreement to be bound by the requirements of subsection A.

9. REVISED WETLAND MITIGATION PROGRAM.

A. PRIOR TO ISSUANCE OF CDP 1-07-038, Caltrans shall submit for the review and approval of the Executive Director a revised wetland mitigation plan that at a minimum:

(1) Revises the “Wetland Mitigation and Monitoring Plan for the Alton Interchange Project” prepared by ICF-Jones & Stokes for Caltrans, dated May 16, 2008 in accordance with the recommendations set forth in the Memorandum dated May 20, 2008 prepared by the Commission staff ecologist and attached as Exhibit 5; and

(2) Provides a minimum replacement ratio of 3:1 for all of the significant wetland impacts of the proposed project, using the wetland mitigation site proposed by Caltrans, and an offsite location as necessary; and

(3) Prohibits other significant wetland disturbance that could arise from activities such as, but not limited to, staging, storage, parking, temporary road construction; and

(4) Provides that all installation of plant materials, including seeding, shall be undertaken or supervised by a qualified botanist with expertise in mitigation project implementation, and whose credentials shall be approved by the Executive Director.

The installation shall not be undertaken by a "construction project manager", "construction contractor" or other similarly described party unless qualified by education and experience for such installation and directed by a qualified Caltrans botanist familiar with the approved wetland mitigation plan; and

(5) Provides for the installation of fencing and signage to restrict unauthorized access, hunting, etc. within the mitigation area, including the requirement that fencing installed within or adjacent to the wetland mitigation parcel shall be constructed of materials safely permeable for all wildlife; and

(6) Provides that no lighting, whether temporary or permanent shall be placed in or adjacent to the wetland mitigation site once it has been excavated; and

(7) Provides evidence that the proposed water quality features are sufficient to ensure that all waters entering the wetland mitigation feature that may be contaminated by highway runoff have been treated through biofiltration or other filtering methods adequate to remove contaminants that, individually or cumulatively, are of ecological concern. The waters entering the wetland mitigation site shall be of a quality that safely supports all classes of wildlife that may utilize the mitigation site. Toward this end, the wetland mitigation features shall not function as the primary water filtration; and

8) Includes a monitoring plan for a minimum of five (5) years, including a final monitoring plan for success that shall take place no sooner than three (3) years after the end of all remediation and/or adaptive management actions and maintenance activities other than weeding; and

(9) Provides measures binding on Caltrans and any successor-in-interest for the life of the development authorized pursuant to CDP 1-07-038 to remediate to the standards and ecological goals of the approved final wetland mitigation plan, any disturbance of the wetland mitigation site or its buffering surrounding areas that may be caused by future access to or use of the pipeline easement that traverses the wetland feature, regardless of whether the disturbance is caused by Caltrans, and to implement additional monitoring consistent with the requirements of the monitoring plan approved in accordance with these provisions; and

(10) Provides that all plantings shall be maintained in good condition for the life of the development approved by CDP 1-07-038, and shall be watered, weeded, replaced, and otherwise maintained by Caltrans as necessary to achieve and maintain this standard.

B. Amendment. Caltrans shall undertake development in accordance with the approved final plan and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved final plan or the approved terms and conditions of CDP 1-07-03 shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

10. ASSUMPTION OF RISK.

A. By acceptance of Commission approval of CDP 1-07-038, Caltrans acknowledges and agrees: (i) that the site of the proposed Alton Interchange Project may be subject to hazards from seismic events, tsunamis, liquefaction, storms, floods and erosion; (ii) to assume the risks to employees and assigns of Caltrans, including contractors and subcontractors and their officers, agents, and employees, and to the public utilizing the proposed project during and after construction, and to the property that is the subject of this permit of injury and/or damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense against such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

B. PRIOR TO ISSUANCE OF CDP 1-07-038, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, evidencing Caltrans' agreement to be bound by the requirements of Subsection A.

11. AGRICULTURAL MITIGATION.

A. PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT CDP 1-07-038, an authorized representative of Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, evidencing Caltrans' agreement to be bound by the requirements of Subsection B.

B. PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT AUTHORIZED BY CDP 1-07-038, but only after the Executive Director has indicated that the Commission has entered into an agreement (the "Agreement") with the College of the Redwoods Foundation, the permittee shall provide to the College of the Redwoods Foundation, through a financial instrument subject to the review and approval of the Executive Director, a non-refundable mitigation fee in the sum of $2 million dollars ($2,000,000) payable to the College of the Redwoods Foundation. This mitigation fee to be paid by the applicant to the College of the Redwoods Foundation is the same payment that must be made to satisfy Special Condition 19 of Coastal Development Permit No. 1-07-013 granted by the Commission for the replacement of the U.S. Highway 101 bridges over the Mad River in Humboldt County. This mitigation fee shall solely be used for agricultural purposes as an endowment for the benefit of the Shively Education Center (Shively Farm) and to fund a full-time teaching position for the purpose of agricultural education at the College of the Redwoods in accordance with the terms and Conditions of the Agreement, which, at a minimum, shall include the following provisions:

(1) The subject $2 million agricultural mitigation fee must be deposited in a separate and independent interest bearing account created solely to manage the funds consistent with the Agreement as well as prescribe the use of the funds for administrative purposes; ;

(2) The College of the Redwoods Foundation shall provide a report to the Executive Director annually describing the financial status of the fund and all expenditures from the fund during the previous year;

(3) The fund shall be segregated into two components: a $1.5 million component that shall be reserved, including the re-investment of interest and income from this portion of the fund, for the purpose of permanently endowing a full-time teaching position for the purpose of agricultural education programs at the College of the Redwoods, and a $0.5 million component that shall be reserved, including the re-investment of interest and income from this portion of the fund, for infrastructure improvements at the Shively Education Center (Shively Farm) considered essential to enhancing the agricultural education function of Shively Education Center (Shively Farm) and for the purchase of up to two (2) “green” (hybrid, clean air, high mileage) vans for the transportation of students attending the College of the Redwoods agricultural education program to and from classes and activities at the Shively Education Center (Shively Farm);

(4) The teaching position shall be filled by a candidate, as shall future candidates, with a combination of education, teaching experience, and field experience that provides an excellent foundation for guiding the agricultural education program focused on the use of and support of the Shively Education Center (Shively Farm) as an agricultural teaching facility, including community agricultural outreach and education programs to enhance the skills and success of local agriculturalists;

(5) The agricultural teaching program shall be conducted in a manner that prioritizes revitalizing and sustaining the Shively Education Center (Shively Farm) and increases the farm’s relevance and benefits to the County as a source of agricultural education for students, agriculturalists, community supported agricultural programs, farmers’ markets, schools, and residents/gardeners;

(6) Fuel expenses and vehicle maintenance shall be funded by the College of the Redwoods from other funding sources; and.

(7) The Agreement shall include provisions to address any failure by the College of the Redwoods Foundation to implement the Agreement, including but not limited transfer of the funds to an alternate entity able to implement the Agreement, or, if approved by an amendment to this coastal development permit, to apply the nonrefundable funds to alternative agricultural mitigation.

12. PERMANENT REMOVAL OF BILLBOARDS; NO FUTURE BILLBOARDS OR OTHER VISUALLY INTRUSIVE STRUCTURES

A. In accepting the benefits of CDP 1-07-038, Caltrans acknowledges and agrees that the eight (8) billboards slated for removal as part of the proposed project shall be permanently removed and shall not be replaced, nor any new billboards approved, leased, constructed, or otherwise authorized whether temporary or permanent, by Caltrans, within any area of the subject project site or rights-of-way, nor within the extended rights-of-way adjacent to the highway corridor in the Van Duzen River environs. Caltrans additionally acknowledges and agrees to restrict the posting of signage or lighting within the project area and within the highway corridor of the greater Van Duzen River environs to that signage or lighting strictly necessary to comply with minimum safety standards and further, agrees that no simple informative signage that is not necessary to comply with minimum safety standards shall be installed within this visually sensitive portion of the highway corridor.

B. PRIOR TO ISSUANCE OF CDP 1-07-038, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, agreeing to be bound by the requirements of Subsection A.

13. ENCROACHMENT LIMITATIONS

In accepting the benefits of Coastal Development Permit 1-07-038, Caltrans acknowledges and agrees that:

A. Encroachment permits to utilize for purposes of ingress or egress the new frontage roads that will be constructed as proposed by Caltrans north and south of existing Fowler Lane, west of Highway 101, shall only be granted for: (i) agricultural, open space, public access and recreational uses; or (ii) other lawfully permitted uses of the surrounding properties that exist at the time of Commission action on CDP 1-07-038;

B. For the life of the development authorized herein, Caltrans agrees and accepts the burden of designing, constructing, maintaining, and providing for the safe crossing of the northerly new frontage road consistent with the requirements of Special Condition 14.

C. PRIOR TO ISSUANCE OF CDP 1-07-038, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, agreeing to be bound the requirements of Subsections A and B.

14. AGRICULTURAL CROSSING ON NORTHERN FRONTAGE ROAD

A. WITHIN NINETY (90) DAYS OF COMMISSION APPROVAL OF CDP 1-07-038, Caltrans shall submit a plan to scale for the review and approval of the Executive Director for a safe road crossing, either at, above, or below grade, for agricultural

equipment, vehicles and livestock on the proposed new frontage road west of Highway 101 and north of Fowler Lane. Caltrans shall include a signalized intersection for the benefit of the agricultural operator's use that may be activated by the operator requiring access to or from the agricultural parcel on the Highway 101 side of the undivided parcel that is traversed by the new frontage road unless the road crossing approved by the Executive Director is above or below grade.

B. Amendment. Caltrans shall undertake development in accordance with the approved final plan and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved final plan or the approved terms and conditions of CDP 1-07-038 shall be reported to the Executive Director. No changes to the approved final plan or the approved terms and conditions of CDP 1-07-038 shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

15. CONVEYANCE OF EXCESS LANDS

A. In keeping with Caltrans' representations, and as Caltrans further acknowledges and agrees in accepting the benefits of Coastal Development Permit 1-07-038, the excess agricultural lands located southwest of the pertinent portion of the Highway 101 corridor that is the subject of CDP 1-07-038 that remain after construction of the flood control/wetland mitigation site, and as generally shown in tan crosshatching in the upper left corner of Exhibit H representing the southwesterly corner of the former "Wyman" parcel separated by the levee structure shown in Exhibit H, shall be restricted to continued use for agricultural grazing or open field crop cultivation only and no development shall occur on these lands that would impair such continued use. In addition, only wildlife safe/permeable fencing shall be utilized to control access to these lands. No lighting, paving, or other development shall be installed. Caltrans may only convey the remnant agricultural lands in a manner, such as through merger of the lands with adjoining parcels, that does not result in the excess lands being legalized as a separate parcel.

B. PRIOR TO ISSUANCE OF CDP 1-07-038, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, agreeing to be bound by the requirements of Subsection A.

16. ACCESS for INSPECTION

Caltrans shall allow any Coastal Commission employee or designee to access the work areas of the subject project during the site preparation and construction period, to observe activities, evaluate construction impacts, and to monitor/assess the implementation of wetland or other mitigation requirements. Coastal Commission staff, and other public agency staff that the Coastal Commission staff may coordinate site visits with, shall be authorized to enter the site at any time to observe project activities without prior notice. Caltrans shall ensure that adequate protective gear for visitors is

maintained at the site for such purposes. If activities are underway that could cause a hazard to site visitors, the site supervisor or designee shall require that these activities be temporarily suspended as soon as practicable, for a reasonable amount of time to allow safe site inspection by Commission and agency staff, and the site supervisor or designee shall accompany staff during such site visits. Commission staff shall notify the site supervisor upon arrival.

17. FUTURE DEVELOPMENT RESTRICTIONS

This permit is only for the development described in Coastal Development Permit No. 1-07-038. All future repairs or maintenance of the trunk lines, ditches, drainage conveyances, drainage swales, and related facilities shall require a permit amendment or a new coastal development permit.

18. FINAL PEDESTRIAN OVERCROSSING DESIGN PLAN

Prior to issuance of CDP 1-07-038, Caltrans shall:

A. Submit a plan for the review and approval of the Executive Director that provides for replacing the proposed bare chain link fences along the Alton Interchange overcrossing with vinyl covered chain link fencing that is either black or a dark brown color compatible with the design motif of the overcrossing so as to ensure that the fence will blend as much as possible with its surroundings.

B. Amendment. Caltrans shall undertake development in accordance with the approved final plan and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved final plan or the approved terms and conditions of CDP 1-07-038 shall be reported to the Executive Director. No changes to the approved final plan or the approved terms and conditions of CDP 1-07-038 shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

19. FINAL PUBLIC ACCESS IMPROVEMENTS PLAN

A. WITHIN 120 DAYS OF COMMISSION ACTION ON COASTAL DEVELOPMENT PERMIT 1-07-038 AND PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT AUTHORIZED BY THIS COASTAL DEVELOPMENT PERMIT, Caltrans shall submit a Final Public Access Improvements Plan for the review and approval of the Executive Director. The Plan shall contain, but is not limited to, the following:

1) A site plan, to scale, showing the location of all features or provisions of the Public Access Improvements Plan required pursuant to this Special Condition; and
2) Provisions for the removal of (or evidence that removal has occurred) the Leland Rock Sand & Gravel gate, boulders, and signage located within the Caltrans right-of-

way (the Van Duzen River Access Road), west of Highway 101 prior to commencement of any other development authorized by this coastal development permit; and
3) Location and design details for removable vehicular barriers (such as bollards) to be placed only at the outermost edge(s) of the Caltrans right-of-way road (Van Duzen River Access Road) where the right-of-way road intersects with driveways to the Leland Rock Sand & Gravel facilities (where such barriers obstruct further access to the river or trails in the surrounding area, the barriers must be of a design that is permeable to and safe for wildlife, pedestrian, horseback, and bicycle passage). The barriers shall be designed to limit only the passage of motorized vehicles when in the locked position. Fencing is not authorized under this plan; and
4) Location and design of the public coastal access parking to be constructed at the present entrance to Highway 101 south of Fowler Road (Van Duzen River Access Road ingress/egress Highway 101), where new cul-de-sac will be developed during the construction authorized pursuant to Coastal Development Permit 1-07-038;
5. Location, design and content of signs that shall be posted along Highway 101 where legal pedestrian access ends and northbound pedestrians are re-routed from Highway 101 to the proposed interchange overpass and northward(or southward to the Van Duzen River) via the proposed new frontage roads west of Highway 101; and
6. Location, design and content of public access signage at the public coastal access parking area and along the public access route to the Van Duzen River, sufficient to ensure that coastal visitors locate the appropriate route to the river without the confusion that may otherwise arise due to the proximity of the route to the adjacent Leland Rock Sand & Gravel operations.

B. Amendment. Caltrans shall undertake all development in accordance with the approved final Public Coastal Access Improvements Plan and with all approved terms and conditions of CDP 1-07-038. Any proposed changes to the approved final plan or the terms and conditions of CDP 1-07-038 shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

20. DEED RESTRICTION

A. PRIOR TO ANY CONVEYANCE OF ANY PORTION OF THE PROPERTY THAT IS THE SUBJECT OF THIS COASTAL DEVELOPMENT PERMIT APPROVAL, including, but not limited to, the property that contains the new frontage roads proposed and constructed pursuant to this CDP approval north and south of Fowler Lane and west of Highway 101, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to the Commission's approval of this Coastal Development Permit as conditioned herein, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and Special Conditions of this Coastal Development Permit approval as

covenants, conditions and restrictions on the use and enjoyment of the Property. The restriction shall include a legal description of the applicant's entire parcel or parcels. It shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the Standard and Special Conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this Coastal Development Permit approval or the development it authorizes – or any part, modification, or amendment thereof – remains in existence on or with respect to the subject property.

4.0 FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

4.1 PROJECT SETTING

The Alton Interchange Project: Transportation System Context

The proposed project is referred to as the "Alton Interchange Project" because Highways 101 and 36 – the center of the project location -- meet within the small community of Alton. Alton was established in the late 1800's and had a variety of neighborhood commercial activities (general store, school, post office, etc.) that declined in use as the community population declined and as Fortuna (an incorporated city to the north of the project area) grew as the commercial center of the area. The City of Fortuna provides a variety of urban services and infrastructure, and the project area is located within Fortuna's "Sphere of Influence."[1]

Alton was physically divided approximately 40 years ago with the construction of the current alignment of Highway 101. Before that, the highway corridor was the main street of Alton.

Motorized vehicle transportation

[1] The Humboldt County Local Agency Formation Commission (LAFCO) prepared a Sphere of Influence (SOI) Report for the City of Fortuna in 1982. A sphere of influence is defined in the Knox-Nisbet Act as a "plan for the ultimate physical boundaries and service area" of a city or district. The sphere indicates the limits for growth. For growth to take place on large parcels within the project limits, general plan and zoning designations would have to be changed, water and sewer services would need to be provided, and the area would need to be annexed to Fortuna before water and sewer service extensions could occur. The Sphere of Influence map for the City of Fortuna, Exhibit 6 identifies the Planning Area boundaries, the "urban service area" where City services were provided at the time of adoption of the SOI, and "urban growth areas", where the City deems it appropriate for future urban development to occur consistent with the General Plan. The Planning Area and Urban Growth Area includes the northern half of the project limits and ends at the intersection of Highways 36 and 101. Data developed by Humboldt County and by the California Department of Finance indicate that the City of Fortuna has been the fastest growing incorporated area in Humboldt County over the last several years.

Highway 101 is the primary north-south transportation corridor in California's north coast region. Part of the National Highway System, the corridor is heavily used for intercity/interstate commerce as well as access to State and National parks, rivers, ocean fishing, and beach areas. Within the proposed project area, the existing facility is a four-lane, divided expressway located in the lower reaches of the Eel River valley and watershed. The proposed project is located about one-half mile north of the Highway 101 crossing of the Van Duzen River. That crossing is located less than half a mile upgradient of the confluence of the Van Duzen and Eel Rivers. The southerly limits of the City of Fortuna coincide with Drake Hill Road at the northerly boundary of the proposed project limits.

Highway 36 is an east-west, two-lane rural highway route that traverses central Humboldt County, connecting Highway 101 with Interstate 5 at Red Bluff. This route is used for local service, timber and gravel industry related activities, and recreation, and provides an access point for inland coastal visitors to reach the coastal zone in Humboldt County and beyond.

Rail transportation

The tracks of the Northwestern Pacific Railroad (NWP) parallel Highway 101 just east of the highway and intersect Highway 36 at an at-grade crossing (postmile 0.2) in Alton. [2] The railroad, operated by the North Coast Railroad Authority (NCRA), has experienced limited use for the rail lines south of Willits in recent years. Much of the northern segment (including the rail lines in the vicinity of Alton) has been inoperative due to infrastructure damage in the Eel River Canyon in 1998. The NCRA is actively pursuing state financing to repair the damaged section of the line and states that the Authority intends to resume rail restoration activities by 2011.

Public transportation and surface street linkages; coastal access for bicycles and pedestrians

Residential and commercial traffic utilize Highways 36 and 101. At grade-intersections with Highway 101 exist within the limits of the proposed project at the following locations (and such intersections will be closed at seven locations as discussed below):

- River Access Road on the west
- Highway 36 on the east and Fowler Lane on the west
- Hansen Lane on the west
- Sandy Prairie Road on the west
- Drake Hill Road on the west and the east

[2] Alton reached the peak in the mid-1880s when the railroad lines were installed, and the name of Alton was applied to the post office and to the railroad station of the then-named Eel River and Eureka Railroad. Gold mining in the nearby hills may have attracted earlier settlers in the mid-1850s. Farms around Alton were settled in the 1850s. (Negative Declaration, certified by Caltrans May 2005).

A grade-separated interchange is located north of the project limits at Kenmar Road. Hansen Lane, Fowler Lane and River Access Road do not connect with other local side roads, but have direct access to Highway 101.

Caltrans notes that public access for bicycles and pedestrians is presently available through the proposed project area, including on portions of Highways 101, on frontage routes parallel to Highway 101, and on Highway 36. Public access for bicyclists will remain available throughout the Highway 101 corridor, which is also the Pacific Coast Bicycle Route, during and after construction. Public access for pedestrians will also remain available throughout the project area after construction, except along the segment of Highway 101 that extends north from the Alton interchange to the project limits.[3] Through this area, the proposed new frontage roads will provide a safer alternate parallel route for pedestrians along the Highway 101 corridor. Pedestrians will also have access to the new overpass at the Alton Interchange, which offers a designed safe pedestrian route across Highway 101 for the first time at this location.

"River Access Road" – also referred to as Van Duzen River Access Road -- is the only route offering public coastal access to the Van Duzen River in the vicinity of the proposed project. The road connects to the Caltrans right-of-way frontage road that leads south to the Van Duzen River (a roadway also used by Leland Rock Sand & Gravel). Caltrans proposes, as discussed further below and in the coastal access section of these findings, to close off the River Access Road from Highway 101. However, Caltrans proposes to provide an alternative connection via construction of a new frontage road extension from Fowler Lane to the north that would connect to the existing right-of-way frontage road (which turns into a gravel roadbed near the Van Duzen River Bridge) that affords public coastal access to the Van Duzen River. Caltrans also proposes to construct improved public parking facilities along the new frontage road near the location of the existing highway entrance, which will become a sort of cul-de-sac after project construction with a connection to the existing frontage road within the Caltrans right-of-way that provides public access to the Van Duzen River.

The provision of a safer route for public coastal access to the Van Duzen River Access Road and thus to the public coastal access and recreation amenities of the Van Duzen River, is an important benefit of the project. Vehicles seeking direct Highway 101 ingress/egress to visit the Van Duzen River (as well as Leland Rock Sand & Gravel trucks) are subject to hazards due to operational conflicts of such access in the midst of traffic traveling at highway speeds in excess of 65 miles-per-hour, and such vehicles also contribute to hazards faced by other vehicles using the main north-south Highway 101 corridor.

[3] Caltrans staff have confirmed, however, that public access for bicycles and pedestrians to the shoulders of Highways 101 and 36 has been provided by Caltrans local district policy, which is subject to change. It is not uncommon in other parts of the state to see signage banning pedestrians or bicyclists along freeways. Caltrans intends to upgrade the subject section of Highway 101 within the proposed project area to "freeway" status upon completion of construction of the proposed project.

However, as discussed further in the coastal access section below, Commission staff has discovered, while reviewing the proposed Alton Interchange project, conducting site visits, and reviewing the recently completed Van Duzen River southbound bridge replacement construction, that unauthorized development within the Caltrans right-of-way/frontage road to the Van Duzen River, has occurred. Specifically, a gate has been constructed that blocks the roadway to the river, and large boulders have been placed on the outsides of the gate foundations, further discouraging pedestrians, horseback riders, and bicyclists, as well as vehicles, from gaining formerly available public access to the Van Duzen River. It appears that the private gravel operator currently controls the gate. For example, Commission and Caltrans staff found themselves locked into the river side of the gate while inspecting the Van Duzen River Bridge location during a site visit conducted on Thursday, April 3, 2008. The subject gate was apparently locked by a Leland Rock Sand & Gravel employee leaving for the day at 3:30 pm. In addition, the private gravel extraction operation has posted a sign directing that anyone passing the gate point must wear a hardhat and call a special telephone number for permission to proceed. Caltrans staff indicated that they believe the gate is typically kept locked on weekends as well, essentially privatizing the public right-of-way road for Leland Rock Sand & Gravel's commercial use and blocking public coastal access to the Van Duzen River. None of the described development, including the gate, boulder placement, or sign, appears to have been constructed with the benefit of a coastal development permit, and is wholly located within the public property that is the Caltrans right-of-way. This alleged violation is further discussed in the coastal access section of these findings. (See Exhibits 2 and 3 for photographs of the described gate, sign, etc.)

Caltrans submitted a revised project description on April 21, 2008, proposing to remove the gate, and Caltrans staff has further informed Commission staff that the boulders and signage described above have been confirmed as located on state property and will be removed immediately.

Rural Setting

As the aerial photograph in Figure 1 (below) shows, the rural setting of the subject site is marked by broad expanses of agricultural lands to the west of Highway 101, and scattered rural development as well as gravel mining operations visible to the far west, that are temporary, surface disruptions of the landscape.

The lands in the area of the project site tend to be large, relatively flat parcels with prime soils, dedicated to livestock grazing, forage production, and crop cultivation. Most of these lands are zoned Agriculture Exclusive, with 60-acre minimum parcel sizes, and some tracts are in Williamson Act agricultural preserve status (this is a temporary restriction on conversion of agricultural lands in exchange for favorable tax treatment of the subject lands).

The proposed project would permanently convert up to 42 acres of prime agricultural lands to highway use, though Caltrans presently estimates that only approximately 39

acres of agricultural land will be converted to construct the proposed project, based on Caltrans' most recent analysis of right-of-way acquisitions and project plans.

U.S. Route 101 in Humboldt County is eligible for Scenic Highways designation (such designation must be proposed by Humboldt County, but the County has not pursued Scenic Highways status to date). Much of the affected highway corridor within the coastal zone offers pastoral views of the agricultural and open spaces of the Van Duzen and Eel River corridors and valleys and across the wide swath of pasturelands immediately adjacent to the project site. (See Figure 1 on the following page.)

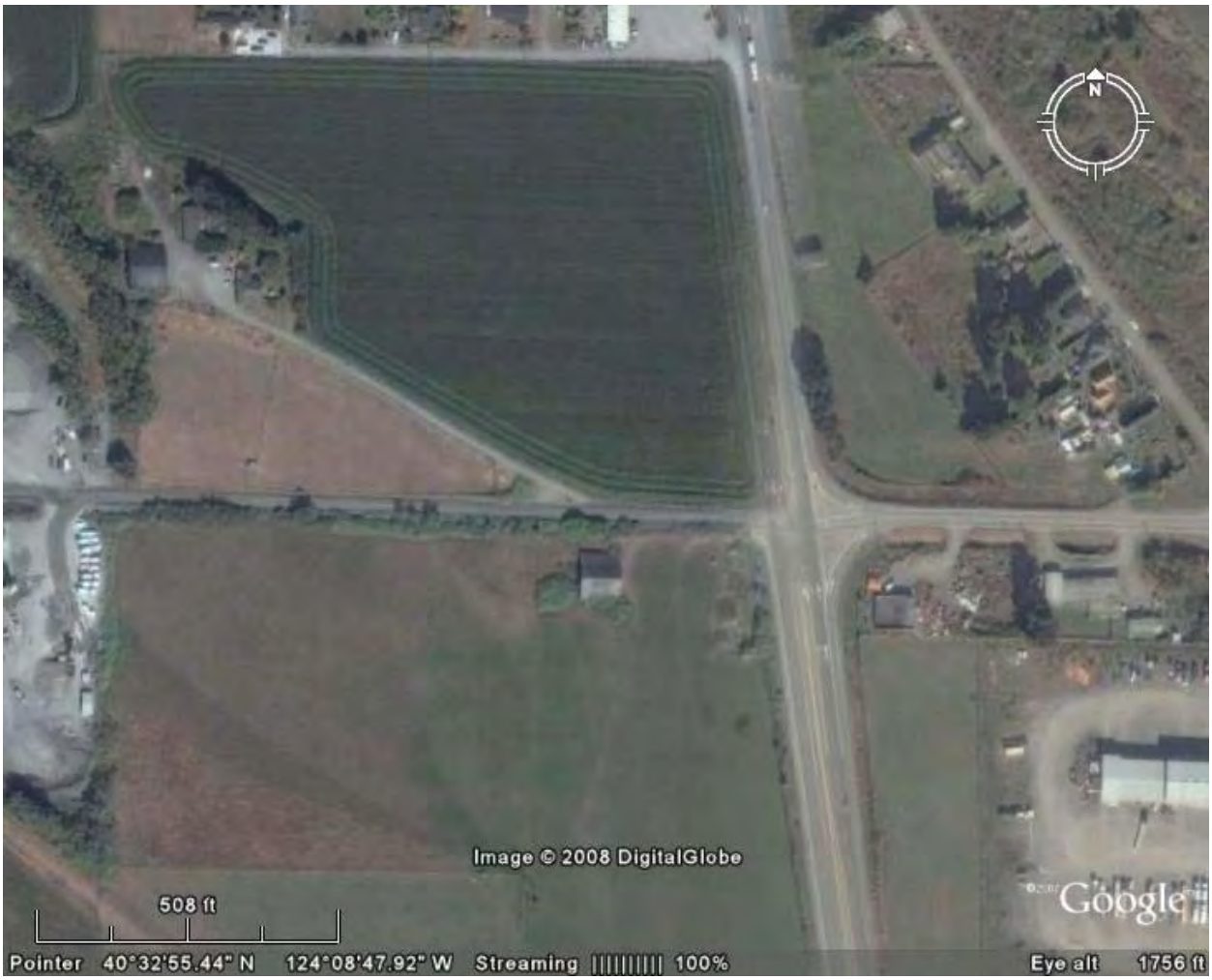

Figure 1. The Alton Interchange area as it exists presently, showing the north-south Highway 101 corridor, with the at-grade Highway 36 intersection on the east side and Fowler Lane on the west side. Source: Google Earth.

4.2 PROJECT PURPOSE AND DESCRIPTION

Public Safety

Caltrans proposes to replace the existing at-grade intersection of rural Highway 101 and Highway 36 (which leads inland to Redding and Interstate 5) just north of the Van Duzen River crossing (south of the City of Fortuna) with a grade-separated interchange. Caltrans states, and local and state fire and life safety and law enforcement agencies confirm, that the existing traffic conditions pose a high risk of traffic accidents and that

the project is essential to providing safe travel for vehicles (and also for bicyclists and pedestrians, who may lawfully use this section of Highway 101), including coastal visitors. In addition to constructing the interchange, Caltrans will address safety problems caused by existing ingress/egress to Highway 101 by constructing new frontage roads and closing medians at intersections in seven locations, thereby restricting direct ingress/egress to Highway 101 from lands adjoining the highway and forcing the use of the more safely-designed interchange network.

One of the existing accessways that will be closed, and traffic thereby re-routed to the interchange/frontage road, is the existing public coastal access route to the Van Duzen River. This route presently takes access off Highway 101 about a half-mile north of the river bridges, and follows the Caltrans right-of-way frontage road to the river's edge. Coastal visitors using this route to the river are presently subject to (and may contribute to) the operational conflicts that produce the elevated traffic safety risks identified by Caltrans. The new configuration will significantly improve public coastal access safety, therefore, not only to the rest of the north coast via the central access "backbone" of Highway 101, but also more locally via improvements to the Van Duzen River public access route.

Caltrans states that the purpose of the proposed project is to address safety and operational concerns at and near the intersection of Highways 101 and 36 in Humboldt County. Caltrans states that improvements are necessary to decrease the collision rate, facilitate merge and turn movements. Caltrans prepared an evaluation of the collision statistics in the Negative Declaration for the project, certified by Caltrans in May of 2005. The ND indicates that five-year collision data (August 1996 – July 2001) was used to evaluate the highway segment and five major access locations between the Van Duzen River Bridge and Kenmar Road interchange to the north of the project limits. At-grade intersection conflicts (including the at-grade intersection at River Access Road that provides public coastal access to the Van Duzen River), rather than mainline conflicts, constituted the majority of the collision concerns in the study area:

> Mainline Highway Segment: Seventy-four total collisions along the segment (inclusive of intersection collisions) during the five-year period included 2 fatal collisions and 34 injury collisions. The five-year mainline collision rate was two times higher than the statewide average for both total and fatal-plus-injury collisions on similar highways.
>
> At-Grade Intersections: Collisions at the major intersections during the five-year period included 1 fatal collision, 23 injury collisions and 46 total collisions. The five-year total collision rate was above the statewide average at 3 of the 5 public intersection locations. The fatal-plus-injury collision rate was above the statewide average at 3 of the 5 public intersection locations.

According to Caltrans, with the exception of the Highway 101/36 intersection, traffic volumes at public intersections are less than 10% of mainline traffic volumes. However, 46 out of 74 of the total collisions (62%) occurred at intersections, 23 out of 34 injury collisions (70%) occurred at intersections, and 1 out of 2 fatal collisions (50%) occurred at intersections. The intersections represent a concern since more than one-half of the collisions occurring at the five public intersection locations resulted in a fatality or injury.

Table 1, shown on the following page, and provided by Caltrans staff on April 17, 2008, contains the most recent collision data for the subject project area, which shows that the elevated traffic accident rate has continued, as predicted when the Negative Declaration for the proposed project was certified by Caltrans in 2005.

5-YEAR COLLISION RATE (7/1/2002 through 6/30/2007) **ALONG ROUTE 101 FROM VAN DUZEN RIVER BRIDGE TO KENMAR ROAD INTCHG** **KP91.73-94.63 (PM 57.0-58.8)**					
Public Access Intersections					
Locations Along Route 101	**Actual # of Collisions[1]**	**Statewide Avg. # of Collisions[2]**	**Actual Rate[3]**	**State Average Rate**	**% of State Average**
River Access Rd					
Fatal	0	0	.000	.004	0%
Fatal + Injury	0			.10	
Total Collisions	1			.22	
Jct 36/Fowler Lane					
Fatal	1	0	.032	.008	400%
Fatal + Injury	5	6	.16	.16	100%
Total Collisions	11	11	.35	.33	106%
Hansen Lane					
Fatal	0	0	.000	.003	0%
Fatal + Injury	0	2	.00	.06	0%
Total Collisions	2	5	.06	.14	43%
Sandy Prairie Rd					
Fatal	0	0	.000	.004	0%
Fatal + Injury	7	3	.21	.10	210%
Total Collisions	18	7	.55	.22	250%
Drake Hill Rd					
Fatal	1	0	.030	.008	375%
Fatal + Injury	7	5	.21	.16	131%
Total Collisions	11	11	.33		
Mainline With Intersections					
Highway Segment					
Fatal	2	1	.037	.018	206%
Fatal + Injury	24	16	.45	.29	155%
Total Collisions	59	33	1.10	.61	180%

1. The actual number of collisions for this particular section of highway.
2. The average number of collisions from similar State highways
3. Collisions per 1.6 million vehicle kilometers (per million vehicle miles) for highway segment. Collisions per million vehicles for intersections.

As noted in the previous section, one of these dangerous intersections is a public coastal accessway route to the Van Duzen River, although during the five years of 1999-2003, 17 accidents occurred within the project study area and none of them (neither fatalities nor injury-only accidents) occurred at the River Access Road location. Nevertheless, users of this accessway continue to contribute to the high risk of collisions, and face the risk posed by other drivers along this segment of the Highway 101 north-south coastal access corridor.

Caltrans states that the pertinent section of Highway 101 is designed to high-speed expressway standards. The at-grade intersections with slower vehicles that are turning, stopping, accelerating in combination with high speed through traffic on Highway 101 are less efficient and safer than having adjacent vehicles moving in the same direction, at similar speeds. Caltrans prefers to upgrade the entire Highway 101 corridor, including all existing "expressways" to Freeway status to the extent feasible (the Confusion Hill bypass, under construction, and the proposed Richardson Grove widening/bypass, Eureka-Arcata 101 corridor upgrade/Indianola Interchange, and other similar projects incorporate this goal, according to Caltrans).

Caltrans states that the most effective tool to create the conditions necessary for an upgrade to Freeway status in the subject area is to develop a grade-separated freeway interchange, as is presently proposed in the pending coastal development permit application. The construction of an interchange is made necessary by the proposal to close seven at-grade intersection crossings that presently exist because alternative routes must be provided for the affected traffic. To remedy the displacement of existing traffic patterns created by the construction of the interchange and the closure of the at grade crossings, Caltrans must also construct new frontage roads through the existing agricultural lands on the west side of Highway 101, thereby connecting Fowler Lane and the properties north and south of Fowler, including Hansen's Truck stop (northwest) and the Van Duzen River public access (and Leland Rock Sand & Gravel) southwest of the proposed interchange.

According to Caltrans, the desired freeway status upgrade cannot be achieved without this combination of improvements because according to Section 504.2(1) of the California Department of Transportation Highway Design Manual,

> "All freeway entrances and exits, except for direct connections with median High Occupancy Vehicle lanes, shall connect to the right of through traffic."

In addition, Caltrans cites "A Policy on Geometric Design of Highways and Streets" (1994) prepared by the American Association of State Highway and Transportation Officials (AASHTO) which states that:

> "Even in the case of major forks and branch connections, the less significant roadway should exit and enter on the right".

Thus, closure of the existing median crossings and construction of the interchange is proposed by Caltrans pursuant to the pending permit application, so that the corridor can be upgraded to freeway status, in addition to making the corridor safer for the public.

PROJECT DESCRIPTION

The proposed project is located south of Fortuna at Alton in Humboldt County. Caltrans proposes to convert the existing four lane expressway segment of Route 101 to a four lane freeway, from just north of the Van Duzen River Bridge No. 4-17 (Post Mile 57.0) to just north of the intersection of Route 101/ Drake Hill Road (Post Mile 59.1). (See Exhibits A and D.)

Proposed construction includes an interchange at the existing at-grade intersection of Routes 101 and 36 and local road extensions on the west side of Route 101 eliminating seven existing at-grade road approaches. (See Exhibits D and E.)

Highway 101 would retain two traveled lanes in each direction (north and south). Highway 36 (which leads eastward to Red Bluff, and Interstate 5) would have an over-crossing structure across Route 101 with two lanes and turn pockets. Caltrans states that continued bicycle access will be available throughout the project, including on the paved shoulders of Highways 101 and 36, and on the interchange features connecting the project to other frontage roads and accessways, to the point of conformity with all existing transportation structures. Public access for pedestrians will remain available throughout the project area except along the segment of Highway 101 that extends north from the Alton interchange to the project limits where the new frontage road will provide a safer alternate route for pedestrians, parallel to Highway 101.

Caltrans proposes to construct a "spread diamond interchange" to replace the at-grade intersection of Highway 101 and 36. Local frontage roads will be constructed west of Highway 101 to connect the interchange to an existing access road leading to the Van Duzen River and northward, to connect the interchange with Sandy Prairie Road/Fowler Lane. Seven existing at-grade road approaches to Highway 101 will be closed: River Access Road to the Van Duzen River, Fowler Lane, Route 36, Hansen Lane, Sandy Prairie Road, and Drake Hill Road (east and west).

Proposed earthwork consists of approximately 23,500 cubic meters (30,740 cubic yards) of excavation and 182,500 cubic meters (238,700 cubic yards) of fill. The newly constructed slopes would have 170,000 square meters (204,000 square yards) of erosion control materials placed to stabilize exposed soils while new plantings become established. Revegetation of the new interchange will be included to provide landscape

screening between new ramps and existing residences. Approximately 24.3 hectares (60 acres) of new right of way will be required.

A vintage redwood barn from the early part of the last century that was located southwest of the proposed interchange was demolished and salvaged for redwood lumber during the summer of 2007 through a contract let by the Caltrans' right-of-way department.[4] The existing farmhouse and outbuildings remain, but are proposed for demolition as are other abandoned structures that were previously acquired and emptied by Caltrans in anticipation of the subject project. The farmhouse no longer retains its original architectural integrity and has been deemed unsuitable for salvage by a consultant retained by Caltrans. Caltrans proposes to allow the local fire department to burn most of the vacant structures as fire training exercises, as a first stage of site preparation for construction.

Caltrans proposes to apply an aesthetic treatment to the concrete outer surface of the overcrossing structure. A Native American geometric design motif will be painted onto the concrete at the request of the local tribal representatives, according to Caltrans. Caltrans also proposes to include the relocation of existing overhead utilities within rights-of-way acquired for the project, to overlay the existing pavement on Sandy Prairie Road with a new surface, and to construct a cul-de-sac at Drake Hill Road to satisfy county fire-safety requirements.

No architectural lighting or non-essential signage is proposed, though required signage and safety lighting for on and off ramps must be included to meet the basic safety design standards of Caltrans. Caltrans states that no other signage or lighting would be constructed (such as signs advertising litter removal volunteers, suggesting calls to 911 to report violations, notifying travelers of the availability of services, solar power arrays, etc.).

Caltrans proposes to remove and permanently retire the eight existing billboards located within the project boundaries, and Caltrans has confirmed that no new billboards will be authorized by Caltrans.

Engineering Features

Caltrans proposes to construct the following development within the affected segment of Highway 101:

- Four-lane freeway with two 3.6 meter (12 ft) lanes in each direction
- Median barrier consisting of:

[4] Although the redwood barn had already been removed by the time of the Coastal Commission tour of the Alton Interchange location (at the turnout on Fowler Lane, just west of Highway 101) in September of 2007, the farmhouse was still present, adjacent to the bus pullout. The barn is visible in Figure 1, just south of Fowler Lane which runs due west of the Highway 36 intersection with Highway 101.

- Double thrie beam guardrail with a partially paved, variable slope median from the southern limits of the project to south of SR 36
- 6.7 m (22 ft) minimum median with a Type 60 concrete median barrier from SR 36 north to the northern project limits

- 1.5 m (5 ft) minimum inside paved shoulder and 3.0 m (10 ft) outside paved shoulders
- Freeway lighting at the interchange (no architectural lighting will be included)
- 1.6 m (5.3 ft) wide vegetated strips in the median segments being paved

Caltrans proposes to construct the following development within the affected segment of Highway 36:

- Two-lane conventional highway with 3.6 m (12 ft) lanes
- Two-way left turn lane between interchange ramp termini
- 18 m (59 ft) wide overcrossing structure with concrete barrier and chain link railings (as shown in Exhibit M)
- 1.2 – 2.4 m (4-8 ft) paved shoulders
- 1.5 m (5 ft) sidewalk on the north side between ramp termini (elevated 6 inches above the roadway shoulder elevation)
- Freeway lighting at the interchange (no architectural lighting will be included)
- Utility relocation
- Highway planting
- Storm water management and drainage improvements

Caltrans proposes to construct the following local frontage roads and related development:

- Two-lane frontage road on the west side of Highway 101 extending:
  - South of Fowler Lane/Highway 36 to connect the interchange to an existing access road to the Van Duzen River (state maintained; county has refused to accept this road)
  - North of Fowler Lane/Highway 36 to connect the interchange with Sandy Prairie Road north of Hansen's Truck Stop (proposed to be county maintained after project completion)
- 3.6 m (12 ft) lanes
- 1.2 m (4 ft) paved shoulders
- Bridge to span the Van Duzen River overflow on the south local road extension
- Existing Sandy Prairie Road to have pavement overlay and shoulder backing of 0.61 m (2 ft)

Access Closures – Caltrans proposes to close seven existing at-grade road approaches to Highway 101:

- River Access Road: Van Duzen River access road west of Highway 101

- Fowler Lane, west of Highway 101
- SR 36, east of Highway 101
- Hansen Lane, west of Highway101
- Sandy Prairie Road, west of Highway 101
- Drake Hill Road, west of Highway 101
- Drake Hill Road, east of Highway 101

The access closures on the west side of Highway 101 would be diverted to local frontage roads as described above, extending from the southern project limits near the Van Duzen River bridge north to the Highway 101/36 interchange and connecting to Sandy Prairie and Drake Hill Roads. A 13.2 m (43.3 ft) diameter cul-de-sac/turn-around is proposed at the northwest end of the project at the junction of Highway Route 101 and Drake Hill Road. A similar turn-around is proposed at the southwest end of the project at the River Access Road - Van Duzen River access road.

An overcrossing structure is proposed in the interchange design to connect Highway 36 with Highway 101. As proposed by Caltrans, the overcrossing would be a cast-in-place pre-stressed concrete box girder bridge. The overcrossing is 52.7 m (173 ft) long with a vertical clearance of 5.5 m (18 ft) and an overall height of 9.5 m (31 ft) from Highway 101's existing pavement to the top of the new chain link fence that Caltrans proposes to place above the bridge rail.

Temporary Construction Detours

Temporary realignment of the Highway 36 intersection is proposed with at-grade intersections south and north of the existing intersection. Short-term detouring of Highway 101 traffic will be required for the placement of falsework beams over the roadway. Long-term temporary connections for Highway 36 are anticipated for construction of the fills for the new overcrossing and ramps. For the west side properties, access to Highway Route 101 would be maintained during construction by constructing the local road extension segment north of Highway 36, allowing traffic from Fowler Lane and Hansen Lane access to the at-grade connection at Sandy Prairie Road. Access to Highway 101 from the east will require construction of temporary connections for Highway 36 north or south of the existing intersection. Acceleration/deceleration and left-turn lanes will be provided for these detour connections.

Hydrology

According to Caltrans, a floodplain evaluation report modeled the potential for floodplain impacts from the proposed highway improvements and concluded that the proposed construction will result in no change to water surface elevations. A combination of open channel and 1050 mm (42 in.) Alternative Pipe Culvert (APC) would replace the existing drainage system which consists of a series of heavily vegetated channels and 750 mm (30 in.) RCP. Caltrans represents that there will be no direct discharge of either onsite

or offsite flows into 303(d) listed water bodies (i.e. the Eel River Delta and the Van Duzen River).

Drainage

Caltrans states that roadway runoff from the new ramps, overcrossing structure, and portions of the local road extensions will be confined along dikes and intercepted by drainage inlets wherever possible to prevent erosion of the proposed fill slopes. As proposed, the drainage inlets would connect individually to overside drains or in combination to storm drain systems, the outlets for each to have flared end sections and rock energy dissipaters.

A parcel in the southwest quadrant, which had been slated for partial acquisition, will serve a dual purpose of effectively meeting drainage design needs and wetland mitigation needs. This parcel, referred to as the "Wyman parcel", was studied extensively for the purposes of drainage requirements and wetland mitigation needs for the proposed project.

The flow pattern to the southwest quadrant of an existing drainage would be modified to provide additional hydrologic storage capacity as required by the proposed project. The design to route water through the southwestern quadrant is based on splitting from a new open channel ditch (conveying the former Fowler Lane ditch) in two locations, allowing the water surface elevation in the quadrant to equalize from two points. A new channel north of the Humboldt County levee easement would connect two wide constructed pond areas and the existing wetland. This channel plus the new open channel ditch parallel to the new Highway 36 would provide a redundant flow path for the open channel ditch water. The Fowler Lane ditch pre-project overflow pattern into the southwestern quadrant is replicated with this mitigation design.

The drainage work proposed by Caltrans for the subject project requires 47 new systems and includes the following items:

- Minor concrete (minor structure) for drainage inlets and headwalls.
- Pipe culverts with sizes ranging from 450-1050 mm
- Ditch excavation for bioswales and open channels
- Concrete aprons
- 300 mm CSP downdrains
- Removal of existing drainage facilities
- Rock energy dissipaters
- AC oversized drains
- AC dike
- RSP slope ditches

Stormwater Quality

Caltrans states that permanent (post-construction) stormwater treatment would be accomplished by maximizing biofiltration. Pollutant capture would occur through the conveyance of roadway runoff over gently sloped grassy areas (bio-strips) and vegetated ditches (bio-swales) prior to entering the main drainage systems. Bio-swales would be located in the areas bounded by proposed ramps. Bio-strips would be located adjacent to the roadway along Highways 101 and 36, interchange ramps, and the River Access Road - Van Duzen River frontage road.

The project includes the following design features to limit erosion:

- Cut and fill slopes flat enough to allow re-vegetation.
- Fractured rock slope facing placed at the abutments for the overcrossing.
- Slopes are rounded.
- Concentrated flow is collected in stabilized drains and channels.

Construction activities involving earthwork will be scheduled during the non-rainy season. Prior to each rainy season, permanent erosion control will be applied on finished slopes and temporary erosion control will be applied to disturbed soil areas. Caltrans states that the project contractor eventually selected through the Caltrans bidding process will be required to submit a Stormwater Pollution Prevention Plan (SWPPP) to minimize erosion. Temporary construction site Best Management Practices (BMPs) would be required in the SWPPP, and would be used to stabilize disturbed surface soils, provide linear sediment barriers, prevent tracking onto roads and mobilization by wind, manage storage of materials, and manage non-stormwater run-off and waste. The SWPPP would also describe the Contractor's plan for prevention of pollution associated with the construction methods.

Wetlands

Caltrans acknowledges that the proposed project will result in the filling of portions of the federal jurisdictional wetland and waters of the U.S. and will also result in filling of coastal zone wetlands in the southwest and northwest quadrants (all are considered coastal wetlands by the Coastal Commission). Two isolated seasonal wetlands occur within the project limits. One is located in the northwest quadrant of the intersection of Highways 101 and 36 and is associated with a farm animal enclosure. The other isolated wetland is located in the southeast quadrant of the highway intersection and is within a trucking business' stormwater detention basin. The ditch located in the southeast quadrant would be filled according to the Caltrans proposal.

As noted above, Caltrans proposes to utilize the former Wyman parcel (since acquired by Caltrans) to meet the drainage and flood control requirements of the proposed project, and to provide on-site wetland and riparian mitigation (at a 2.2:1 ratio) within the same footprint as the drainage control features. The Wyman parcel is located within the

southwest project quadrant of the proposed Alton Interchange project, adjacent to the Highway 101/36 intersection in Humboldt County, within the coastal zone.

Agricultural Land

As presently proposed by Caltrans, the subject project will impact agricultural land, including prime farmland. Approximately 42 acres of prime agricultural land will be displaced or made unusable through acquisition, road construction, drainage improvements, wetland mitigation and access restrictions (Caltrans indicates that the acreage necessary may be reduced to 39 acres).

According to Caltrans, while the Williamson Act generally prohibits a public agency from acquiring prime farmland for a public improvement, the law generally exempts existing state highways from this provision. Caltrans has interpreted the law to allow the additional construction of extended frontage roads requiring the conversion of prime agricultural lands to conform to this requirement by defining these roads as part of the "existing state highway".

Caltrans notes that the remaining portion of the contracted land not taken for the road project conversion will be eligible for a replacement contract and will continue to meet the productivity standards for participation in the Williamson Act.

Public Access Improvements

The proposed project is necessary to improve the safety of the existing coastal access corridors of Highways 101 and 36, and will provide for the first time a safe pedestrian crossing of Highway 101 (via the proposed overpass), leading to the Van Duzen River area west of Highway 101. The proposed project will also improve the safety of existing access to the Van Duzen River. This access is presently taken directly from Highway 101, and includes travel along a driveway owned by Caltrans, and located within the Caltrans right-of-way. The river access route along the right-of-way has historically been used by the public to gain access to the wider network of trails and informal roads that both parallel and lead to the Van Duzen River. Fishing, boating, hiking, nature study, etc., are available to coastal visitors via this route. However, the present access from Highway 101 creates operational conflicts that reduce safety not only for coastal visitors driving the highway to visit the Van Duzen River environs, but also for through-traffic, including coastal visitors accessing the substantial coastal access and recreation amenities of greater Humboldt and Del Norte counties. Caltrans also proposes to construct improved public access parking in the area where the Van Duzen River Access Road presently intersects with Highway 101, and to remove a gate, signage and boulders that have been placed without the benefit of a coastal development permit within the driveway to the Van Duzen River. Bicycle access will continue to be available throughout the corridor.

Hazardous Waste

An Aerially Deposited Lead (ADL) Preliminary Site Investigation was performed in January 2006. The report concluded that ADL was present along the shoulder and median of Highway 101 at concentrations that potentially require disposal as hazardous waste if the soils are excavated and transported. Caltrans ordinarily proposes to haul away to an appropriate hazardous waste disposal facility any ADL contaminated soil that would be excavated and lifted from place as part of a proposed project; however, in the case of the Alton Interchange project, Caltrans indicates that lead –contaminated soils that are graded "in place" are not characterized as hazardous wastes (the same soils, if lifted above the ground during excavation activities, would trigger the technical definition of hazardous waste and require special disposal). This grading recommendation was made by the Caltrans North Region Office of Environmental Engineering on February 21, 2006. Caltrans proposes, therefore, to grade the ADL-contaminated soil in place, which will leave some ADL-contaminated soils along the open roadway shoulders, where the soils would be "compacted and watered in" but otherwise left exposed (no impervious surface would cap the ADL-contaminated material).[5]

Caltrans conducted a Preliminary Site Investigation (PSI) in January 2001. The purpose of the PSI was to determine the presence of contaminated soil in parcels to be acquired for this project. Two ownerships were investigated; the site of the Hansen Truck Stop and the Baird property.

The PSI revealed that the Hansen parcels are locally impacted with petroleum hydrocarbons (diesel, benzene and toluene), semivolatile organic compounds (SVOC) and dioxin.

Caltrans states that the contaminated soils from the Hansen parcels will be buried within the new fills as recommended by the Caltrans North Region Office of Environmental Engineering and approved by the North Coast Regional Water Quality Control Board. Commission water quality unit staff confirmed that this approach is consistent with the NCRWQCB's direction for permanent stabilization and capping of the contaminated soils detected on the Hansen parcels.

[5] Personal communication of Steve Werner, Caltrans North Region Office of Environmental Engineering, as communicated to staff by telephone, upon request, April 2008.

4.3 CONFORMITY TO THE COASTAL ACT, CHAPTER 3

4.3.1 WETLAND FILL, WATER QUALITY, SENSITIVE HABITAT

4.3.1.1 Standard of Review: Applicable Coastal Act Definitions and Policies

Chapter 3 of the Coastal Act sets forth the following pertinent policies and provisions:

Sections 30230 and 30231 of the Coastal Act address the protection of coastal water quality and marine resource:

Section 30230 states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of wastewater discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantially interference with the surface water flow, encouraging, wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233 of the Coastal Act provides as follows, in pertinent part:

(a) 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: (*emphasis added)*

…

(5) 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.

Section 30240 of the Coastal Act addresses the protection of sensitive habitat and species, and states in pertinent part:

> (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
>
> (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

4.3.1.2 Analysis

The above policies set forth a number of limitations on what development projects may be allowed in coastal wetlands, sensitive habitat areas, and coastal waters, or that may affect coastal resources. In situations, as here, where the impacts occur in a wetland area that may also be ESHA, the more specific provisions of section 30233 control over the more general provisions of 30240. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

- **that the purpose of the filling, diking, or dredging is for one of the specific uses allowed (Section 30233);**
- **that the project has no feasible less environmentally damaging alternative (Section 30233);**
- **that feasible mitigation measures have been provided to minimize adverse environmental effects (Section 30233); and**
- **that the biological productivity and functional capacity of the habitat shall be maintained, enhanced and restored (Sections 30230, 30231)**.

Permissible Use for Fill of Wetlands

Caltrans proposes to construct an interchange on Highway 101 where the highway presently intersects at-grade with Highway 36. Wetlands presently exist in the drainage areas surrounding the overall project area. Some of the wetland features exist where the highway features block wetland drainage patterns and other features have arisen within the drainage management/conveyance structures (in some cases, referred to by Caltrans as “ditches”) associated with previous highway construction. In some locations, wetland vegetation has become well established, and includes riparian species such as willows. In these areas, nesting habitat, wildlife cover, corridors for wildlife movement, and other habitat benefits for a variety of species are provided by the wetlands. Therefore, the proposed interchange project and other freeway

improvements proposed for the “Alton Interchange” project constitute the dredging and filling of wetlands as defined by the Coastal Act and thus the project is subject to review by the Commission for consistency with the requirements of Coastal Act Section 30233 and other applicable policies and provisions of the Coastal Act.

The **first test** under Section 30233 for such a project is whether the fill/dredging is for one of the allowable uses under Section 30233(a). The relevant category of use listed under Section 30233(a) that relates to the proposed bridge replacement is subcategory (4), stated as follows:

> (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.

Thus, the Commission examines whether the fill associated with the proposed project is for a use allowable under Section 30233(a)(4), i.e., that it is for a public service purpose, and in addition, that it is for an “incidental” public service purpose.

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 determined that if such a proposed highway project 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," the project is a public safety project incidental to the primary transportation service provided overall by the existing highway. This finding can be made for this coastal development permit application supported in part on the basis that the subject project, an interchange and associated freeway improvements project, is not part of a new route or highway expansion. Caltrans has verified that the proposed project will not increase highway capacity, but rather will improve safety for the existing volume and type of traffic that traverses the affected section of the Highway 101 corridor. Caltrans proposes to construct new frontage road extensions on the west side of Highway 101, north and south of Fowler Lane; however, these extensions are designed to provide alternative routes to compensate for the at-grade crossings that will be closed. Thus, the new frontage roads do not constitute an expansion of the existing highway capacity in the project area, which is consistent with the determination that the construction proposed for safety purpose in the subject project is “incidental” to the overall existing highway and roadway facilities. The proposed project is also not designed to provide for improved ingress/egress that would serve future intensified development; rather, the proposed roads are necessary to provide equivalent ingress/egress opportunities to offset the loss of the existing access/exit points to and near the highways and roadways that will be affected by construction. The proposed fill is thus for an incidental public service purpose within the meaning of Section 30233(a)(4).

Conclusion: first test under 30233 (allowable use)

For all of 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.

Feasible, Less Environmentally Damaging Alternatives to the Proposed Project

The **second test** of Section 30233(a) is whether there are **feasible less environmentally damaging alternatives** to the proposed project. Coastal Act Section 30108 set forth above defines "feasible" as follows:

> 'Feasible' means capable of being accomplished in a successful manner within a reasonable time, taking into account economic, environmental, social, and technological factors.'

The Coastal Act requires, and widely accepted principles of sound environmental planning – including those principles incorporated into the California Environmental Quality Act (CEQA) additionally dictate-- that adverse impacts on the environment be avoided if possible as a first priority when considering a proposed project.

Where a searching analysis determines that adverse impacts on the environment posed by the proposed project cannot be feasibly avoided through the selection of a different alternative, the Coastal Act, CEQA, and environmental planning principles further require the consideration of alternatives that would reduce the unavoidable adverse impacts on the environment posed by the subject project.

Only after determining that a proposed project's adverse impacts on the environment cannot be feasibly avoided or further reduced through the selection of feasible alternatives to the project does the consideration of mitigation for adverse impacts arise, as discussed below.

Therefore, the Commission must undertake a hierarchal alternatives analysis to ensure that the proposed project would:

a) avoid adverse impacts on the environment to the maximum extent feasible, and
b) reduce adverse impacts, through the selection of one or more feasible alternatives to the maximum extent feasible.

If the Commission cannot, through such analysis, conclude that the proposed project is one for which "there is no feasible less environmentally damaging alternative" then the subject coastal development permit application is inconsistent with Coastal Act Section 30233.

If, however, the Commission analyzes the alternatives to the project and determines that there is no feasible less environmentally damaging alternative, then the Commission review of the subject project proceeds through the remaining tests of Section 30233 and the other applicable policies and provisions of the Coastal Act.

Thus, the second test of Coastal Act Section 30233 – the alternatives analysis -- requires that the Commission examine all feasible alternatives to the proposed project that would avoid or reduce the project's adverse impacts on coastal resources, as set forth below.

Evaluation of Potential Alternatives

Caltrans prepared an evaluation of potential alternatives to the proposed project in a Mitigated Negative Declaration dated May 2005, prepared and certified by Caltrans staff. The ND considered and rejected three build-alternatives to the proposed project. The three alternatives were considered inferior to the proposed alternative in terms of safety design, and included the following:

Alternative 1: No project (retain existing highway conditions, including the at-grade intersection of Highways 101 and 36, and the seven other at-grade intersections that would be closed and traffic re-routed through new frontage roads). The no-project alternative would retain the existing highway conditions, which as explained in the first section of this report, above, would fail to provide the safety improvements that are the primary purpose for the proposed project and which are necessary in order for the public to safely access the coast. The hazardous turning movements and geometric design of the existing roadway conditions have resulted in traffic accidents, including fatalities, measured at a rate that is significantly higher than expected (evaluated on a statewide basis). The direct ingress/egress to and from Highway 101 that is presently necessary to access the public coastal access route to the Van Duzen River contributes to the turning conflicts and associated traffic hazards, and the overall elevated risk contributes to hazards for coastal visitors traversing this route. There is no alternative route, except Highway 101, for many miles from the project location. Therefore this alternative would not meet the primary project purpose – safety improvements, including improvements necessary for safe public coastal access. Therefore, the no-project alternative is not a lesser environmentally damaging feasible alternative to the proposed project as conditioned.

Alternative 2: Southbound Loop Onramp. This alternative would construct a modified spread diamond interchange to replace the at-grade intersection of Highways 101 and 36. The modification is to the onramp to southbound Highway 101. A loop ramp would be constructed instead of the diamond ramp. Local road extension construction and existing road approach closures are the same as for the preferred alternative (spread diamond). This alternative requires a longer overcrossing structure than does the spread diamond, and Caltrans staff have explained that the configuration of this version of the interchange would not provide the same degree of safety for on

and off ramp execution movements, particularly by larger vehicles, such as trucks. Caltrans staff has determined that this alternative would not significantly reduce the primary adverse impacts of the project, the use of wetlands and agricultural lands. Therefore, since this alternative would produce less public safety benefit than would the preferred project, and would not significantly reduce project impacts, Caltrans determined that Alternative 2 would not meet the project purpose and need. For these reasons, therefore, this alternative is not a lesser environmentally damaging feasible alternative to the proposed project as conditioned.

Alternative 3: Southbound Loop Offramp. Caltrans considered this alternative, but determined that for reasons similar to Alternative 2, this alternative would not meet the purpose and need of the project, nor would it significantly reduce the adverse impacts of the proposed project on wetlands and agricultural lands. Moreover, this alternative poses the longest structure length of the three "build" alternatives and the structures would have dissimilar lengths. Caltrans projected that this alternative would produce an elevated risk of collisions, rather than reducing such risk. Therefore, Caltrans rejected Alternative 3. For all of these reasons, this alternative is not a less environmentally damaging feasible alternative to the proposed project as conditioned.

Alternative 4: Spread Diamond Interchange and the closure of seven at-grade crossings or intersections of Highways 101 and 36, combined with new frontage roads to provide compensatory routes for existing traffic displaced by the closures. The primary benefit of this alternative coincides with the overall project goal, which is to remedy the existing hazardous conditions of Highways 101 and 36 in the project area. As explained above, no other "build" alternatives would address the existing safety problems while significantly reducing the project's primary adverse impacts on coastal agricultural lands and wetlands. Therefore, Caltrans selected this alternative as the preferred project in certifying the Mitigated Negative Declaration for the proposed project in May 2005.

Conclusion: second test (alternatives)

Therefore, as discussed above, the Commission has considered four alternatives, including the no-project alternative and the proposed project. The Commission finds for the reasons set forth above that the no-project alternative and Alternatives 2 and 3 are not feasible, less environmentally damaging alternatives to the proposed project as conditioned. For all of these reasons, therefore, the Commission finds that there is no less environmentally damaging feasible Alternative to Alternative 4, which is the project alternative preferred – and proposed – by Caltrans.

Feasible Mitigation Measures

The **third test** set forth by Section 30233 is whether feasible mitigation measures have been provided to minimize significant adverse environmental impacts.

Caltrans has determined that the present traffic conditions of the Highway 101 and Highway 36 at-grade intersection, as well as the Highway 101 corridor in the proposed project area generally, are unsafe. A significantly elevated rate of traffic accidents, including fatalities, has been measured in the area and as evaluated above, no less environmentally damaging feasible alternative to this project, which is characterized as an incidental public purpose project, exists. Therefore, the Commission must determine whether all feasible mitigation measures have been incorporated into the proposed project.

IMPACTS TO WETLAND HABITAT

Caltrans proposes to construct the "Alton Interchange Project" which includes the construction of an overpass and associated off-ramps at the intersection of Highways 101 and 36, the construction of two frontage roads (north and south of Fowler Lane, west of Highway 101), the closure of seven at-grade crossings, a stormwater attenuation basin, and wetland creation and enhancement in the same location as the stormwater basin (albeit downstream of bioswales and other water quality treatment structures that will filter highway effluent in a first stage before conveying the waters into the flood control basin). The basin is located on the former "Wyman Parcel" acquired by Caltrans, immediately west of the interchange, and south of Fowler Lane.

Caltrans submitted a draft "Wetland Mitigation and Monitoring Plan for the Alton Interchange Project" (hereinafter referred to as the" Draft Wetland Plan") prepared for Caltrans March 2008 by ICF-Jones & Stokes, and submitted to the Coastal Commission staff on Friday, March 28, 2008. Caltrans indicated at that time that the Plan was a work-in-progress that Caltrans submitted in preliminary form for the purpose of furthering the agency's goal of securing a May hearing by the Coastal Commission. Since that time, Caltrans staff completed further work on the wetlands mitigation proposal and submitted a revised "Wetland Mitigation and Monitoring Plan" dated and submitted on May 16, 2008. Among other changes to the preliminary draft plan, Caltrans deleted references to the potential placement of staging areas and temporary haul roads in unidentified wetland locations, clarifying that the references had been erroneously included. Caltrans has further clarified that although the locations of staging areas and other similar temporary project features, haul roads, etc. have not been finalized, none of these project elements will be located within wetlands anywhere within the project limits. Moreover, Caltrans confirmed that all wetland boundaries will be clearly marked in the field.

The revised wetland plan of May 16, 2008 indicates that the wetland impacts will be as follows: 1.9 acres of coastal wetlands (wetlands delineated with one to two qualifying parameters), 3.13 acres of 3-parameter wetlands, and 0.41 acres of riparian forest – a total of 5.44 acres of significant and permanent wetland impacts. The revised wetland plan clarifies that an additional 0.83 acres of coastal wetlands will be temporarily impacted in a manner deemed to be less than significant. Caltrans proposes to reduce the extent of such impacts by ensuring that the operation of low-ground pressure

equipment (LGP equipment uses wider tracks than conventional equipment resulting in placement of no more than five pounds per square inch on the landscape, according to Caltrans) will be used to construct roadway embankments and over project features, thus limiting compaction and damage to existing vegetation. Nevertheless, Caltrans proposes to mitigate any residual impacts by scarifying and seeding disturbed areas, and monitoring these areas for a minimum of five (5) years to ensure that restoration activities are successful.

The Commission's senior staff ecologist reviewed the revised wetland mitigation plan and provided further recommendations (Exhibit 5), which are incorporated into the requirements established for final wetland mitigation plan review by the Executive Director (Special Condition 9).

Caltrans indicates that the project will also include widened highway shoulders, and a roadway drainage system that will serve the constructed roadway and also alleviate flooding, to a small degree, in the community of Alton. Under existing conditions, surface flows toward the proposed dual stormwater basin/wetland mitigation site include overland flow off the Rohnerville Bluffs, low gradient flow off agricultural fields, roadway pavement, and runoff from the community of Alton. Caltrans determined that runoff that is not stored in the proposed mitigation site flows west into an agricultural field where it either percolates into the soil or is discharged to the Eel River.

Caltrans further states that mitigation wetland water sources will consist of seasonal rainfall, runoff from adjacent fields, surface flow from indirect and direct highway runoff, and runoff from the east side of Highway 101 which will be conveyed to and past the mitigation site in a constructed drainage ditch and culvert system.

Caltrans states that the drainage system will be designed to convey some of the runoff from roadways and drainage ditches into the onsite mitigation area. The drainage system will discharge water onto the mitigation site via three separate culverts and over four separate asphaltic concrete aprons and rock slope protection structures. Caltrans has confirmed that 100% of the waters entering the wetland mitigation site will flow through water quality treatment features, primarily vegetated swales, before reaching the wetland mitigation area.

The Commission staff has reviewed the most recent wetland mitigation plan, as noted above. The plan proposes an approximately 2.53:1 overall mitigation ratio for permanent adverse impacts to wetlands, as has been Caltrans' previous proposal. Commission staff determined that there is not an ecological basis to support such a low mitigation ratio. The wetland mitigation proposed by Caltrans will require a number of years to perform, and even then success is uncertain. The draft plan calls for the construction of a mosaic of wetland habitats, with site grading to achieve hydrology objectives and the connection of proposed features with existing wetland features already present on the proposed mitigation site. Further adaptive management will likely be required as the outcome of the installation is monitored, and the establishment

of the mature, self-sustaining wetland habitat functions the plan is designed to produce could take a decade or longer to achieve.

Therefore, the period between the time the development first affects the wetland habitat and when wetland values are fully restored by the proposed mitigation is relatively long and the temporal loss of habitat values would, therefore, be significant. In approving coastal development permits for wetland fill projects in recent years, the Commission has most often required a mitigation ratio of wetland mitigation to wetland fill of at least 4:1, in part to account for temporal loss, and in part to account for the uncertainty of success that the wetland mitigation will be fully successful in establishing the wetland values the mitigation is intended to provide. For example, in approving Coastal Development Permit No. 1-07-013 for the replacement of the Highway 101 Mad River Bridge in Humboldt County, the Commission required a mitigation ratio of 4:1. The Commission has not approved coastal development permits for wetland fill development in recent years with mitigation ratios as low as the applicant proposes.

The Commission finds that for this proposed application a mitigation ratio of at least 3:1 is necessary to fully offset the temporal loss associated with the proposed wetland fill impacts. Several factors support the use of a 3:1 mitigation ratio in this case. First, the wetlands to be filled include grazed seasonal wetlands with comparatively less complex habitat value to be restored than the riparian wetlands that will be removed to construct the Mad River Bridges project; second, the north coast is generally relatively conducive to successful growth of wetland plantings because of the wet climate (average annual rainfall is 39 inches in the Eureka area); third, the wetlands to be filled are fragmented and thus the proposed wetland mitigation will unify wetland habitat elements for greater potential wildlife value and species diversity per equivalent area; and fourth, water quality will be improved because water treatment measures will be applied upgradient of the proposed wetland mitigation site.

As noted in a memorandum dated May 20, 2008, prepared by the Commission's senior staff ecologist, some revisions to the draft wetlands mitigation plan remain necessary (see Exhibit 5). The memorandum calls for mapping of biofiltration strips and swales, features referenced in the text, and the use of a physical scale on maps provided within the plan. The memorandum notes that 100% water filtration for wetland mitigation site waters should be shown (the draft plan stated that water quality features would treat about 36% of pavement runoff, but the requirement is for 100% treatment of any entering waters derived from highway runoff (which Caltrans staff represents is Caltrans' intended standard and one that will be reflected in the final plan). The memorandum also includes guidance concerning final monitoring standards, plant/propagule sources and installation practices, weed control standards, etc.

The Commission finds that if the draft wetland plan is revised in accordance with the recommendation of the staff ecologist, as set forth in Exhibit 5, the final plan if implemented in accordance with all incorporated measures, will ensure that wetlands adversely affected by project construction will be fully mitigated. Therefore, the

Commission attaches Special Condition 9 which requires Caltrans to incorporate these recommendations into a final wetlands mitigation plan for the review and approval of the Executive Director, prior to issuance of CDP 1-07-038.

The Commission has generally not considered wetland features such as bioswales that are used to treat runoff by filtering contaminants (as runoff passes through wetland vegetation) to constitute wetland mitigation. Therefore, Commission staff advised Caltrans staff that the proposed mitigation can only be performed within the bounds of the highway flood control containment structure if the waters drained by the project are first treated in a preliminary collection and treatment phase, such as through bioswales, before the water is conveyed into the feature that is also proposed to serve as the wetland mitigation site. Caltrans staff has, as noted above, confirmed that 100% of the waters entering the wetland mitigation site will first flow through an upgradient water treatment feature, and that this requirement will be reflected in the revised wetland plan.

For all of the above reasons, the Commission finds that the "Wetland Mitigation and Monitoring Plan for the Alton Interchange Project", dated May 16, 2008, prepared by ICF—Jones & Stokes, if revised in accordance with the recommendations of the Commission's senior staff ecologist set forth in the Memorandum of May 20, 2008 attached hereto as Exhibit 5, and as further required to provide for a minimum mitigation ratio of 3:1 for permanent wetland impacts as discussed above, and in accordance with the additional requirements of Special Condition 9, is adequate and consistent with the requirements of Section 30233 of the Coastal Act.

IMPACTS TO WATER QUALITY

Caltrans estimates that construction of the proposed project will require a "Disturbed Soil Area" (this is an estimate of surface area that will be disturbed, not a measure of grading volumes) of 46.5 acres (41.3 acres for roadway construction and 5.2 acres for construction of the flood control/wetland mitigation site). Caltrans further calculates that the proposed roadway construction will add 7.8 acres of impervious surface area (compared to the present coverage), a 37% increase from the existing impervious surface area. Caltrans also states that cut slopes are proposed to be 1:4 (Vertical:Horizontal) or flatter, while fill slopes are proposed to be 1:2 (Vertical: Horizontal), with maximum fill heights of 27.9 feet.

Caltrans has explained that when project construction requires significant soil disturbance, Caltrans performs a variety of assessments and site investigations to determine whether any contaminated soils are present, either from past land use practices, or due to the affects of previous highway use. Caltrans submitted a "Storm Water Data Report" prepared by Caltrans, dated June 2007, summarizing the results of these investigations, and Caltrans' proposed response. The report states, on page 4:

> *"Two areas acquired for the project right-of-way were tested for hazardous material. The site investigation completed by Geocon Consultants, Inc. in*

> *January 2001 found petroleum hydrocarbon soil contamination at levels below current state and federal waste thresholds. Trace amounts of dioxin were detected in 10 percent of soil samples. The estimated volume of contaminated soil in the acquired area is* [2,420 cubic yards]*. The estimated quantity of contaminated soil to be excavated for the project is* [720 cubic yards].
>
> *"Water well sampling and testing by the owner of Hansen's Truck Stop* [located northwest of the proposed interchange, see the disturbed area in the center of the northwest quadrant of the aerial photo shown in Exhibit D, immediately adjacent to and west of Highway 101] *found levels of lead higher than the NCRWQCB* [North Coast Regional Water Quality Control Board] *water quality objectives in groundwater from one domestic well and levels of zinc just below water quality objectives in two domestic wells."*
>
> *"Geocon Consultants, Inc. performed an Aerially Deposited Lead (ADL) Preliminary Site Investigation in January 2006. The report concluded that ADL was present along the shoulder and median of Highway 101 at concentrations that potentially require disposal as hazardous waste if the soils are excavated and transported. The* [Caltrans] *North Region Office of Environmental Engineering-North on November 13, 2006 recommended material containing ADL be pushed aside, but not picked up and moved to other locations on the project. Therefore, this project does not involve reuse of soil containing ADL."*

Caltrans environmental engineering staff[6] explained that the North Coast Regional Water Quality Control Board subsequently determined that the wastes detected at the Hansen's Truck Stop property could be disposed in place by burying the contaminated soils within the project footprint, where the surfacing for roadway construction would ensure that the contaminated soils are capped by an impervious surface. Commission staff verified that the NCRWQCB considers the entombment of these wastes within the capped areas of project construction to be an appropriate treatment for that portion of the Hansen's Truck Stop contaminated soils that would be affected by Caltrans' proposed construction.

Caltrans environmental engineering staff also explained that the soils shown to be contaminated by Aerially-deposited Lead (ADL) would be pushed around on site during grading, but not lifted from the ground (excavated) and transported, and thus would not trigger the technical definition of hazardous wastes requiring special disposal at a licensed facility. Instead, the ADL soils that were not under impervious surfaces after construction would be located along the roadway shoulders, and would be watered and compacted in place. Such soils might be found within the first few feet outside of the paved shoulders along the corridor of the proposed project.

[6]Personal Communication of Steve Werner, Caltrans Environmental Engineering staff, by telephone, on request of Commission staff, March 2008.

Jack H. Gregg, PhD, Supervisor of the Commission's Water Quality Unit, reviewed Caltrans' proposal to contour the ADL-contaminated soils in place, without fully capping such soils with an impervious surface, such as roadway paving or concrete. Dr. Gregg has provided a memorandum of his review of the subject project, attached hereto as Exhibit 4. Dr. Gregg initially advised against leaving ADL-contaminated soils exposed along the roadway shoulders after grading and other project activities, and along water courses. However, Caltrans has explained that the contours that form the fill slopes along the affected highway sections cannot be paved or capped in this manner for a variety of technical reasons, including the fact that such shoulder pavement would not have sufficient foundational support to maintain its integrity and would likely break up over time, thus compromising its ability to cap contaminants. In light of the feasibility problems with capping the shoulders, Dr. Gregg recommended that if approved by the California Department of Toxic Substances Control (CDTSC), Caltrans could recompact and water-in these materials, as proposed, in the limited roadside shoulder areas that would not otherwise drain into the wetland mitigation area, and treat the recompacted areas for erosion control and maintain them free of erosion in the future. Caltrans proposes to contour and water in the ADL-affected soils in layers, which will stabilize the materials, and to cap the ADL layers with a layer of clean soil that will also be contoured, compacted, and watered in, further stabilizing the ADL layers below. Caltrans states that the clean soil cap layer will be a minimum of six (6) inches thick wherever it overlays ADL-affected soils. Erosion control measures, including revegetation and surface stabilization Best Management Practices and long term monitoring pursuant to the Revegetation and Erosion Control Plan (Special Condition 3) will further ensure that the sub-layers of ADL soils will remain stable. Special Condition 7 requires that ADL-contaminated soils within ten feet of bioswales, sand filters, or the mitigation wetland or other earthen drainage features be removed and replaced with clean soil to prevent migration of ADL into wetlands, in recognition of the role these features play in conveying runoff waters to sensitive habitat and coastal waters. Special Condition 7 also provides for disposal of ADL soils as hazardous waste if, during construction, Caltrans discovers that some other ADL-contaminated soils must be excavated after all (Caltrans staff indicate that such excavation is not presently anticipated).

Caltrans states that the cut and fill slopes are flat enough to allow re-vegetation, and that rock slope facing at the separation abutments will limit erosion. Caltrans notes that the slopes have been designed in a rounded manner to reduce concentrated flow of rain runoff. Where runoff is concentrated by project design, the effluent is collected in stabilized drains and channels. Caltrans also proposes erosion control and conveyance systems to be placed as the project construction progresses to provide additional protection from construction storm water impacts in a phased manner tracking project demands. Caltrans proposes to limit construction activities involving earthwork to the non-rainy season as a part of the proposed project description ("Storm Water Data Report" June 2007, page 4). In addition, Caltrans requires the eventually-selected contractor to prepare a Storm Water Pollution Prevention Plan (SWPPP) incorporating a selection of custom-designed Best Management Practices to be implemented

throughout project construction. Separately, Caltrans proposes a series of post-construction water quality treatment stages, including filtering runoff through a series of constructed bioswales and other devices (this is required for all runoff that will flow into the secondary water containment feature that will also function as a wetland mitigation site, thus ensuring appropriate water quality protection for the habitat area). Special Condition 7 requires the implementation of the measures proposed by Caltrans, and in addition allows limited retention of recountoured ADL-contaminated soils if authorized by the CDTSC, final review and approval of the SWPPP by the Executive Director, and other measures protective of water quality. Special Condition 3 requires that Caltrans implement a final revegetation and erosion control plan which will additionally ensure the full restoration of the disturbed areas of the project as well as the control of potential erosion both during and after project construction. Further, Special Condition 6 requires that Caltrans provide a plan for the long term maintenance of erosion control structures. In addition to the measures protective of water quality required by other special conditions discussed herein, Special Condition 2 (Construction Responsibilities) provides standards to ensure that project activities, including grading, demolition, site preparation, fueling, concrete washout, staging and construction must be carried out in a manner that protects water quality and sensitive habitat.

The provisions of these special conditions, fully implemented, will prevent erosion, require adequate treatment, containment, and/or disposal of lead-contaminated soils, provide for full re-vegetation of the affected areas of the project, and require construction practices to be carried out in a manner protective of water quality on and off-site. Therefore, the Commission finds that as conditioned, the proposed project is consistent with the provisions of the Coastal Act protective of coastal water quality.

IMPACTS OF FUTURE MAINTENANCE ACTIVITIES

In the cover memorandum accompanying the submittal of the Draft Wetland Mitigation Plan (March 28, 2008), Caltrans notes that:

> *"…Maintenance of the new Fowler ditch trunkline: A new trunkline will replace the existing ditch along eastbound Fowler Lane and eastbound State Route 36 to convey stormwater through the new highway facility**. It will be routinely mowed and otherwise maintained, including in the event wetland characteristics develop therein, without the need of a Coastal Development Permit."*** [emphasis added]

The Coastal Act and the Commission's regulations provide that although certain repair and maintenance activities are exempt from coastal development permits, repair and maintenance activities such as those described by Caltrans in the excerpt above, including such activities undertaken in or within close proximity to wetlands, are not exempt and require a permit.

Coastal Act Section 30610(d) generally exempts from Coastal Act permitting requirements the repair or maintenance of structures that does not result in an addition to, or enlargement or expansion of the structure being repaired or maintained. However, not all repair and maintenance projects are exempt from coastal development permit requirements. The Commission retains authority to review certain extraordinary methods of repair and maintenance of existing structures that involve a risk of substantial adverse environmental impact as enumerated in Section 13252 of the Commission regulations. Section 13252 of the Commission administrative regulations (14 CCR 13000 *et seq*.) provides, in relevant part, the following:

> (a) For purposes of Public Resources Code section 30610(d), the following extraordinary methods of repair and maintenance shall require a coastal development permit because they involve a risk of substantial adverse environmental impact:…
>
> (3) Any repair or maintenance to facilities or structures or work located in an environmentally sensitive habitat area, any sand area, within 50 feet of the edge of a coastal bluff or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams that include:
>
> (A) The placement or removal, whether temporary or permanent, of rip-rap, rocks, sand or other beach materials or any other forms of solid materials;
>
> (B) The presence, whether temporary or permanent, of mechanized equipment or construction materials.
>
> All repair and maintenance activities governed by the above provisions shall be subject to the permit regulations promulgated pursuant to the Coastal Act, including but not limited to the regulations governing administrative and emergency permits. The provisions of this section shall not be applicable to methods of repair and maintenance undertaken by the ports listed in Public Resources Code section 30700 unless so provided elsewhere in these regulations. The provisions of this section shall not be applicable to those activities specifically described in the document entitled Repair, Maintenance and Utility Hookups, adopted by the Commission on September 5, 1978 unless a proposed activity will have a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean.…
>
> [emphasis added]

Because the mowing and other maintenance proposed in the subject memorandum involves maintenance within twenty feet of Coastal waters, such activities are not exempt under 13252(a)(3). In addition, although the activity might be covered under the 1978 Repair and Maintenance Guidelines pursuant to the latter portion of Section 13252(a), because the mowing activity and whatever other maintenance activities arise would have a substantial risk of adverse impact on wetlands by eliminating wetland

vegetation, the activities would not constitute a project that is exempt from the coastal development permit requirements. To ensure that these requirements are implemented consistent with the Coastal Act and regulations, Special Condition 7, attached, notifies the applicant that pursuant to these provisions of the Coastal Act and the Commission's regulations, any future repairs or maintenance of the trunk lines, ditches, drainage conveyances, and related facilities, will require a permit amendment or a new coastal development permit.

The Commission staff has advised Caltrans that processing a coastal development permit for predictably needed maintenance activities that could affect coastal wetlands could be handled in a manner to minimize delays as well as ensure that significant adverse impacts to coastal resources are avoided where feasible (timing activities to take rainy season, wildlife seasonal sensitivities, etc. into consideration, for example) and appropriate mitigation is developed where no alternatives to avoid adverse impacts to coastal resources exist.

WILDLIFE CORRIDOR

The proposed project would be constructed within the confluence of the Van Duzen and Eel River watersheds, in an area that according to California Department of Fish & Game biologists is an established movement and migration corridor for a wide variety of wildlife. In addition, the proposed mitigation wetland site on the west side of the interchange, once constructed, will attract wildlife. Caltrans has installed miles of median barrier on Highway 101 in this area within the past few years. The barriers are intended to reduce the risk of cross-over, head-on vehicle collisions. However, the installation of these dividers has been accompanied by a significant increase in wildlife mortality – particularly to smaller mammals that cannot easily climb or jump over the barriers. Caltrans has chosen to install solid concrete barriers along most areas selected for such installation, due to the ease of mechanized maintenance these barriers facilitate, and because the concrete structures last longer and do not always need repair after impact. Only a handful of thrie beam sections have been included within the long runs of new median barrier, to provide for wildlife crossings. Small mammals, amphibians, and reptiles have limited ability to locate these crossings, and once in the vicinity of the solid median, are rarely able to find an opening. Few openings (scuppers) have been provided in the concrete style median walls constructed so far, and the scuppers that have been installed are for drainage only and have generally been too small for wildlife use.

Caltrans has revised the proposed project in consultation with Commission staff, to install the thrie beam style of median barrier from the Van Duzen River Bridge up to the proposed Alton Interchange, and northward to Post Mile 58.2 (see Exhibit 6). The latter section had been previously designed to incorporate concrete style of median barrier. The thrie beam style of barrier is the familiar metal beam supported by wooden timbers with relatively large clearance underneath the metal beam which allows small mammals to pass easily under the barrier at any location. In addition, Caltrans will install either

thrie beam median barrier north of Post Mile 58.2 to the northerly project limits, or (the more likely and presently proposed option) Caltrans will install concrete median barriers in this stretch, but with a new scupper design that has been enlarged to provide improved scupper openings that will increase the ability of wildlife to cross the highway where concrete barriers are installed (compared to such barriers without the improved scuppers). The new scupper design will be a half-moon shape with the widest part at ground level, 18 inches wide with a 9-inch upper height. The scuppers will be placed at intervals of not more than 25 feet apart along the length of the runs of median barrier. Either median barrier design will have a 4-foot-wide vegetated strip on each side (except in areas where the median is already paved), to better facilitate wildlife passage as well as aesthetic design and drainage management. Special Condition 4 requires the submittal of a final median barrier plan for the review and approval of the Executive Director. In addition, Special Condition 6 (Wildlife Corridor Final Plan) requires proposed culverts, fences, and other features to be evaluated to ensure that the most wildlife-compatible designs are incorporated. Special Condition 6 requires fencing used throughout the project area, as well as at the proposed wetland mitigation site, to be wildlife safe/permeable (chain-link fencing, for example, would not be acceptable).

The Commission finds, therefore, that with the incorporation of these measures to provide the maximum feasible protection of wildlife crossings and the wildlife corridor associated with the Van Duzen River and the future wetland mitigation site, the proposed project provides maximum feasible mitigation of potential adverse impacts to sensitive habitat that would otherwise occur as the result of construction of the proposed project.

Conclusion: third test (mitigation measures)

The construction of the proposed project could have significant adverse impacts on a variety of coastal resources, including but not limited to wetlands as discussed above. In addition, adverse impacts to agricultural lands, water quality, wildlife habitat, visual resources, and public coastal access and recreation may be caused by construction of the project as Caltrans proposes. These potential adverse impacts have been generally identified and discussed in this staff report and in the attached Exhibits and where mitigation has been deferred to await collection of pertinent data necessary to appropriately scope eventual mitigation (the final public coastal access mitigation plan, for example), the attached Special Conditions have provided the means to evaluate the adequacy of mitigation measures through condition compliance.

The attached Special Conditions, if fully implemented by Caltrans, will ensure that: project timing and construction are undertaken in a manner that also ensures that a full range of measures to avoid or minimize adverse impacts to agriculture, wetlands, water quality, wildlife corridors and visual resources are undertaken to the maximum extent feasible.

Maintenance & Enhancement of Habitat Values

The **fourth test** set forth by Sections 30233, 30230, and 30231 of the Coastal Act is that any proposed dredging or filling in coastal wetlands must maintain and enhance the biological productivity and functional capacity of the habitat, where feasible.

As discussed above, the conditions of the permit will ensure that the amended development will not have significant adverse impacts on the biological productivity and functional capacity of coastal waters or wetlands. Therefore, the Commission finds that the proposed project, as conditioned, will maintain the biological productivity and functional capacity of the habitat consistent with the requirements of Section 30233, 30230, and 30231 of the Coastal Act.

4.3.1.3 Conclusion

For all of the reasons set forth above, the Commission thus finds that the proposed project herein recommended for approval is an allowable use, that there is no feasible less environmentally damaging alternative to the subject proposed project, that feasible mitigation is required to minimize all significant adverse impacts associated with the implementation of the project as proposed by the applicant, and that coastal water quality will be protected against degradation as the result of the proposed project (see applicable special conditions protective of water quality, above), provided the project is constructed in full accordance with the approved project description, and in accordance with all standard and special conditions imposed by the Commission. Therefore, the Commission finds that the proposed project, if implemented in full compliance with the standard and special conditions set forth above, and as conditioned as discussed in this section of the Commission's findings and other pertinent sections by reference, will be consistent with the applicable sections of the Coastal Act set forth above.

4.3.2 GEOLOGIC STABILITY; HAZARDS

4.3.2.1 Standard of Review: Applicable Coastal Act Policies and Standards

The Coastal Act contains policies to assure that new development provides structural integrity, minimizes risks to life and property in areas of high geologic, flood, and fire hazard, and does not create or contribute to erosion. Section 30253 of the Coastal Act states in pertinent part that:

New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) 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 and cliffs.

4.3.2.2 Analysis

The applicant proposes to reduce existing traffic safety problems on the pertinent section of U.S. Highway 101 caused in part by operational conflicts at the intersection of Highways 101 and 36 (Alton). Caltrans proposes to achieve improved safety and to alleviate the existing traffic accident patterns in the subject area by constructing an interchange with ramps at the existing at-grade intersection of Routes 101 and 36, and local road extensions on the west side of Route 101, and by eliminating seven existing at-grade road approaches. Though the project does not traverse any water bodies, the proposed interchange will nevertheless be the equivalent of a bridge over dry land, with constructed road beds on the interchange at about 30 feet above existing grade. For this reason, Caltrans subjects the structures such as those proposed for the Alton Interchange to seismic design review, as a key part of the overall design engineering process.

Caltrans design engineers and seismic safety experts approach the problem of safe bridge design by a method approved by the Caltrans Seismic Advisory Board (composed of independent experts in seismic design). A summary explanation of the current safety design process (which is technically complex) indicates that Caltrans staff first consults the approved Caltrans Seismic Hazard Map, 1996 Edition, which is a map of faults considered active (that is, active within the past 700,000 years) plotted with the highest precision possible on a map of California. Using this location data (which comprises input from sources such as the U.S. Geologic Survey, California Geologic Survey, and the research of the geologists who originally mapped the pertinent faults), and considering attenuation relationships that were state of the practice at the time the map was developed, the map shows contours (which may be thought of as risk contours) that show what the peak ground acceleration would be at various distances from the mapped faults. This information is the basis for understanding the forces that the particular structure under consideration must be designed to withstand.[7]

In the case of the Alton Interchange project, the seismic and design engineering reviewers evaluated this information from the mapped contours, and noted that three faults (the Little Salmon, Goose Lake, and Russ faults) are very close to the project site.

[7]Caltrans seismic design staff note that such engineering and design tasks are by definition a balancing of risk analysis and financial resources. It is not possible to engineer away all possible risk, but rather the goal is to make informed, calculated decisions based on the best information available through methods that are peer reviewed as valid for the task at hand. Personal communications of Mark Willian, Martha Merriam, and Reza Mahallati, seismic and engineering experts of the Offices of Geotechnical Design – North and Geotechnical Support, California Department of Transportation.

The site is located between two map contour intervals that are just below 0.6 g (the measure of the ground motion or peak bedrock acceleration). To be conservative (cautious), it is Caltrans' practice to round up to the higher tenth of a "g" of acceleration when between contours, therefore Caltrans selected 0.6 g as the design parameter.

In addition, Caltrans staff considers whether a specific site has other factors that may add to the risk exposure of the structure and increase the acceleration suggested by the Seismic Hazard Map. These factors may include soil type and depth, and affect the assessment of whether surface rupture hazard or liquefaction may affect the structure under design. In the case of the Alton project, no known special factors affect the site.

Caltrans staff does apply a "close proximity factor" to the acceleration response spectra (ARS) curve which describes the forces that may be exerted on the structure under design. The ARS curve represents oscillation waves of different periods plotted against a time factor. Most bridges in California are designed for periods between 0.7 and 2.0 seconds. It is Caltrans' policy that for bridges proposed within ten miles of an active fault, such as the Alton Interchange, the spectral acceleration (SA) be increased by 20% for periods greater than 1 second, and the SA is linearly interpolated from 0.5 to1.0 second – another way of ensuring conservative seismic design of structures so located.

In response to questions posed by Commission staff, particularly concerning how the Cascadia Subduction Zone may affect the proposed project, Caltrans seismic and design engineering experts at Caltrans headquarters (personal communication by telephone conference with Commission staff, April 9, 2008) explained that the Caltrans Seismic Hazard Map takes the Cascadia Subduction Zone into consideration and that an earthquake generated by a rupture of the plates is calculated to cause an approximately 8.5 magnitude earthquake.[8] The Peak Bedrock Acceleration contours (discussed above) shown on the map indicate that the result could be a 0.7 g near the fault itself (the largest in the state). Even so, the effect of the Cascadia Subduction Zone quake is masked by the faults that are much closer to the site. The acceleration declines or attenuates with distance and by the time the impact of a more distant Cascadia Subduction Zone earthquake reaches the site of the Alton Interchange, the map indicates that (somewhat less than) 0.6 g Peak Bedrock Acceleration contours associated with the closer fault systems become the more significant risk factor controlling the safety design of the Alton Interchange.

Therefore, as explained by Caltrans staff and summarized above, the seismic engineering design for the Alton Interchange takes into account all of the potential earthquake risks that are incorporated into the Caltrans Seismic Hazard Map (1996) and relied on through the methodology approved by the Caltrans Seismic Advisory

[8] An earthquake's magnitude is a measurement of energy released by an earthquake, as expressed on a logarithmic scale measuring the horizontal displacement caused by an earthquake and detected on a seismograph. A magnitude 6 earthquake, for example, produces ten times the amount of ground shaking as a magnitude 5 earthquake.

Board. Thus, while a simple reading of Caltrans' methods could appear to indicate the interchange is designed only to withstand the forces that could be generated by a 6.5 earthquake (Goose Lake fault)-- termed the "Maximum Credible Earthquake" -- less than two miles from the proposed interchange, the seismic analysis combined with the engineering design informed by this analysis actually incorporates a safety design standard that is the function of a much more complex analytical process. Appropriate Caltrans seismic, geotechnical, and engineering design experts have therefore verified that the comprehensive analytical process incorporates the spatial risk matrix associated with a potential Cascadia Subduction Zone earthquake event, and thus the Alton Interchange is designed in consideration of the full range of potential earthquake hazards that could affect the proposed project.

In further support of the pending application, and in response to requests by Commission staff for clarification of the technical analyses performed by Caltrans specialists, Caltrans has supplied additional information noted below. The information includes geotechnical reports, explanations of analytical techniques, and the underlying Negative Declaration for the project prepared by Caltrans pursuant to the requirements of the California Environmental Quality Act (CEQA).

Caltrans seismic review methodology includes, as further explained in e-mail forwarded by the Caltrans project manager on April 4, 2008 (from Martha Merriam, P.G., C.E.G., Caltrans Office of Geotechnical Support), in pertinent part:

> *Deterministic seismic hazard analysis (DSHA) is currently used at Caltrans to predict ground motion expected at structures. This method is one of three methods described by the California Geological Survey in Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California (http://www.conservation.ca.gov/cgs/shzp/webdocs/Documents/sp117.pdf).*
>
> *Caltrans has an extensive history of using DSHA,, also known as MCE based ground motion estimation. A maximum credible earthquake is commonly defined s the earthquake that is based on a reasonable assessment of maximum earthquake potential in light of current tectonics (from L. Reiter,1990, Earthquake Hazard Analysis).*
>
> *Although Dr. Lalliana Mualchin, senior engineering seismologist for Caltrans for many years and a strong proponent for the use of MCE-based ground motion, retired in 2005, according to our latest (2006) Seismic Design Criteria , an MCE based value for horizontal peak ground acceleration is still required for design.*
> *http://www.dot.ca.gov/hq/esc/techpubs/manual/othermanual/other-engin-manual/seismic-design-criteria/sdc.html*
>
> *(Refer in particular to Section 2 and Appendix B of this on-line document.)*

The 2006 Seismic Design Criteria also refers to the Caltrans Seismic Hazard Map Based on Maximum Credible Earthquakes which was developed by Dr. Mualchin. *http://www.dot.ca.gov/hq/esc/earthquake_engineering/Seismology/seismicmap.html*

In the accompanying map report , Dr. Lalliana stressed that the use of DSHA is, ..."prudent, practical, and simple. The resultant ground motions from MCE are the most appropriate consideration for critical structures and for public safety because they are conservative."

Expanded explanation of the method of sorting and evaluating pertinent earthquake faults that may affect the subject project, from e-mail forwarded to Commission staff by Alton Interchange project manager on April 9, 2008, prepared by Reza Mahallati of the Caltrans Office of Geotechnical Design:

Alton Interchange:

1. Page 6 of the Final Geotechnical Design Report list several faults that are in the vicinity of the Alton Interchange (AI). This listing of the various faults provides a generalized setting of the seismic regimes in the area. Based on the 1996 Seismic Hazard Map and Attenuation Curves that were developed to create the map, the peak bedrock acceleration (PBA) caused by the rupture of the Goose Lake Fault is 0.6g, while the other near by faults produce less than 0.6g PBA. Therefore, the ground motion produced by the Goose Lake Fault is considered to be the worst case seismic event.

2. The Maximum Credible Earthquake of moment magnitude for the Little Salmon-Yager Fault as shown on Caltrans Seismic Hazard Map 1996 is 7.0 and not 7.5 as stated in Caltrans Negative Declaration.

3. Based on Caltrans Seismic Hazard Map 1996, a Maximum Credible Earthquake (MCE) of Moment Magnitude of 8.5 was assigned to Cascadia Subduction Zone Fault. In PG&E report of the Nuclear Facility in Humboldt County, the same fault has been given a mean characteristic magnitude range of 8.5 to 9.1.

4. PG&E based its seismic hazard on a synchronous rupture of Little Salmon Fault and the Cascadia Subduction Zone Fault with modification to attenuation relations. However, based on the methodology used by Caltrans, the controlling fault for the design of AI is the Goose Lake fault. The distance from the Goose Lake fault to bridge is estimated to be about 1.6 kilometers. The distance to Cascadia Subduction Zone fault from the Alton Interchange is about 50 kilometers. A synchronous rupture is an extremely rare seismic event with a very low probability. The consideration of such an event may be warranted for the design of a nuclear power plant, but is not considered for the design of this type of facility such as Alton Interchange.

5. Due to critical nature and life span of the PG&E project a return period of 2000 years was selected for design analysis. While Caltrans' bridges are typically designed for a life span of less than 100 years with return periods of much less than 2000 years.

Summary:

Regarding the magnitude earthquake of the Cascadia Subduction Zone Fault. The value used by Caltrans for this fault was based on the current state of practice and is consistent with data shown in the PG&E report. The critical nature of a nuclear power plant facility leads to incorporating significantly more conservative design philosophy. The impact of structural failure of such facilities is far more significant than bridge failure among the general public. Therefore, the use of an MCE of 9.1 by PG&E was based on seismic criteria specific to the HBPP project and are different than the Alton Interchange.

Please note that California Department of Transportation Seismic Design Philosophy is overseen by Caltrans Seismic Advisory Board. The board members are distinguished researchers/professors from University of California, University of Nevada, University of Southern California, PG&E, and Caltrans.

Here is my professional and educational background. I am the Senior Seismic Specialist for the Office of Geotechnical Design North who is responsible for providing seismic recommendations for all the projects within the Caltrans Districts 01, 02, 03, 05, 06, 09, and 10. I received a Master Degree in Engineering from the University of New Orleans. I have been directly involved with geotechnical seismic design recommendations and procedures for the last 12 years, ten of which has been as a senior engineer.

Reza Mahallati, P.E.
Senior Materials and Research Engineer
Office of Geotechnical Design - North

Pertinent excerpts from the "Geology" section of the "Alton Interchange Project Mitigated Negative Declaration" certified by Caltrans in May 2005, commencing with Section 2.2.2 Geology, Subsection 2.2.2.1 Affected Environment, page 45, state that:

"*….The project site is located in the lower reaches of the Eel River and Van Duzen River basins, near the confluence of the two rivers. The rivers meander over relatively flat terrain consisting of unconsolidated alluvial fill. The geologic units found in the project vicinity are: 1) recent alluvial deposits, consisting of unconsolidated deposits of boulders, cobbles, gravel, sand, silt, and clay being deposited in river and stream channel; and 2) terrace deposits, consisting of unconsolidated gravel, sand, silt and clay sited on flat sandstone bedrock. One fault is located within 3.2 km (2 mi) of the project site—the Goose Lake Fault, determined by the California Division of Mines and Geology (CDMG) to be seismically active. The CDMG study notes that the Goose Lake Fault is*

not well defined west of Wolverton Gulch Area (approximately 2.6 km) (1.6 mile) east of the intersection of SRs 36 and 101).

Additional faults in the region include the Little Salmon fault and Cascadia Subduction Zone. The Little Salmon fault appears to be the most active fault in the Humboldt Bay region, and has a maximum credible earthquake of 7.5 (sic: note that the 'Memorandum' states the magnitude as 7.0) *on the Richter scale. The surface trace of the Little Salmon fault is greater than 3.2 km (2 mi) from the project site. Paleoseismic studies of the Little Salmon fault indicate that earthquakes have occurred on the Little Salmon fault about 300, 800, and 1,600 years ago. The Cascadia Subduction Zone represents the most significant potential earthquake in source in the north coast region. A great subduction event may rupture along 200 km (124 mi) or more of the coast from Cape Mendocino to British Columbia, and may be up to magnitude 9.5* [sic]. *The most recent Cascadia event occurred 300 years ago."*

"…The proposed project would not destroy, cover, or modify any unique geologic or physical features. The proposed project would include placing fill to support the ramps and the SR 36 overcrossing over SR 101. The underlying topography would not change appreciably.

The proposed project would not expose the people or property to geologic or seismic hazards. No known geologic hazards or unique geologic formations occur on-site. The project is not located within any mapped fault rupture hazard area according to Alquist-Priolo Fault Hazard mapping. The proposed SR 36 overcrossing of SR 101 and the overflow bridge for the local road extension on the west side of SR 101 would comply with structure design standards for seismic safety."

The Commission relies on these representations and analyses of Caltrans staff who are qualified geotechnical engineers and bridge design experts, and who have provided evidence that the subject project will be safe from seismic hazards to the maximum extent feasible, including the statements of Caltrans senior seismic specialist and engineering geologist to verify that the proposed Alton Interchange and associated freeway improvements project will minimize risks to life and property in areas of high geologic risk, as required by Coastal Act Section 30253.

Thus, for all of the reasons explained above, the Commission finds that the proposed project, if designed and constructed in accordance with the representations and recommendations of the Caltrans seismic and design engineering experts cited herein, minimizes risk to life and property in areas of geologic hazard, pursuant to the requirements of Coastal Act Section 30253.

Coastal Flooding.

As stated above, Caltrans certified a Negative Declaration for the subject project In May, 2005. The document states in pertinent part (page 41) that:

> *"The project is located within the outer fringe limits of the 100-year floodplain of the Eel River. The Sandy Prairie area and a narrow corridor on the east side of U.S. 101 between Kenmar Raod and Alton are within the Eel River flood plain, protected by a flood levee constructed by the U.S. Army Corps of Engineers that extends northwesterly from the Van Duzen River overflow bridge and then angles northwest and runs parallel to the banks of the Eel River. The confluence of the Van Duzen River into the Eel River is approximately 1 km (0.6 mi) southwest of the proposed interchange. Onsite topography is characterized by nearly flat land with localized depressions.*

Caltrans indicates that the proposed project is designed to withstand local flooding that may occur during periods of substantial rainfall and the potential overflow of the Eel River. The project contains numerous features to direct storm water flows in a manner that would avoid actual flooding of the highway facilities included in the subject project. Thus, Caltrans design engineers have verified that the proposed project will be safe from coastal flooding that may affect the subject area.

Assumption of Risk

As stated above, Caltrans acknowledges that the proposed interchange location is subject to potential seismic risks. Further, the location of the proposed interchange renders it subject to the additional natural hazards posed by storms, and floods, as would be true of any project constructed in this portion of the Eel River watershed.

Caltrans geotechnical experts have performed geotechnical testing of the proposed project area and represent that the proposed interchange is designed to withstand the predictable hazards associated with its location to the extent feasible. Nevertheless, it is not possible to remove all associated risk associated with the uncertainties of natural hazards. Residual risks remain.

For these reasons, the Commission finds that even though Caltrans has minimized predictable risks by engineering the proposed interchange to withstand the forces described above, a degree of risk from natural hazards will remain and cannot be fully mitigated. To protect the Commission and its employees from liability for the hazards posed by the subject structures and project features designed and managed by Caltrans, the Commission requires Special Condition 10 (Assumption of Risk).

4.3.2.3 Conclusion: Coastal Act Consistency

Therefore, for all of the reasons set forth above, the Commission finds that the proposed project, as confirmed safe by the Caltrans engineering geologists, seismic experts, and bridge design engineering staff, and as conditioned, is consistent with the pertinent requirements of Coastal Act Section 30253.

4.3.3 PUBLIC COASTAL ACCESS & RECREATION

4.3.3.1 Standard of Review: Applicable Coastal Act Policies

Section 30210. 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 30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212.

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

(1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,
(2) Adequate access exists nearby, or, …

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

Section 30213. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. . . .

Section 30214.

(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.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution . . .

The Coastal Act additionally recognizes the importance of, and protects, fishing:

Section 30234.5 Economic, commercial, and recreational importance of fishing

The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

4.3.3.2 Analysis: Coastal Act Consistency

Caltrans proposes to construct an interchange to replace the existing at-grade intersection of Highways 101 and 36, as well as other freeway improvements, south of Fortuna and north of the Van Duzen River crossing, in unincorporated Humboldt County. (See Exhibits D and E.)

The proposed project is necessary to improve the safety of a critical segment of Highway 101 and 36 routes and thereby more safely maintain an essential link in routes that provide access to the coast and will benefit public coastal access and recreation in four primary ways:

First: The Highway 101 corridor provides a critical link to regional and statewide coastal access and recreation amenities on the north coast. Equivalent access to that provided within the project area is not available for many miles distant from the affected highway corridor. Moreover, Highway 36 offers a route to the coast for inland coastal visitors, linking Highway 101 with Red Bluff and Interstate 5 and the Sacramento Valley beyond. As stated previously, Caltrans has provided evidence that the existing at-grade intersection of Highways 101 and 36, and the seven at-grade intersections that will be closed as part of the project, are contributing to a high rate of traffic accidents, including fatalities within the corridor. The improvements proposed by Caltrans are necessary to ensure safer travel along this key access corridor not only for local, but also regional, statewide and intrastate travelers. Thus, the significant safety improvements provided to Highway 101 and 36 travelers are necessary to safely maintain public access to the coast and coastal recreational opportunities in Humboldt and Del Norte counties and beyond.

Second, the project will provide an elevated pedestrian crossing of Highway 101 from the Alton community area as part of the interchange construction. This overcrossing will have a four-foot-wide pedestrian sidewalk, elevated approximately six inches above the paved shoulder grade, and will be Americans With Disabilities Act (ADA) compliant, with ramps and landings suitable for wheelchair use at each end of the east-west corridor. The overcrossing will lead to the Van Duzen River Access route, and provide both pedestrians and bicyclists with a safer route across the Highway 101 corridor, thereby increasing safe public access and recreational use of the Van Duzen River corridor, which offers opportunities for boating, fishing, nature study, walking, horseback riding, etc.

Caltrans states that legal pedestrian and bicycle access is presently available on the shoulders of Highway 101 and Highway 36 throughout the project area. However, after freeway status is achieved for the section of Highway 101 north of the project, bicycle (but not pedestrian) access will be legal on the Highway 101 shoulder north of the interchange. Caltrans indicates that alternate pedestrian routes will be available from this point northwards. Caltrans has not, however, proposed signage that would help pedestrians arriving at that point in the highway system determine where the legal route northward proceeds. Special Condition 19 requires Caltrans to install signage that provides such instruction for pedestrians, to better ensure continued public coastal access for all categories of coastal travelers, throughout the affected highway corridor – which is a major coastal access thoroughfare for all coastal visitors.

Third, the proposed project includes closure of the at-grade intersection of the Van Duzen River Access Road and Highway 101. However, this accessway will be maintained along the proposed new frontage road that would be constructed parallel to the west side of Highway 101, south of Fowler Road. At the point of closure, a cul-de-sac for improved public coastal access parking will be provided by Caltrans as part of the proposed project. This public parking area will provide a safer, designated parking place for Van Duzen River visitors, outside of the area of the Caltrans right-of-way road (which is also the public coastal access route to the river), which is also shared by the trucks and equipment of the Leland Rock Sand & Gravel (also known as the “Leland Russ Gravel Mining Operation).” Caltrans will provide a means for vehicles to access the river’s edge within the right-of-way, and turnaround, so that people or equipment can be dropped off close to the river, and the vehicles parked at the designated area.

The closure of the direct accessway onto Highway 101 and the installation of the frontage road alternative access will remove the hazard that is presently posed by coastal visitors, and Leland Rock Sand & Gravel trucks, pulling across Highway 101 from a dead stop at the crossing, or slowing within traffic lanes to navigate the turn onto the roadway from the highway. Equal or better access opportunities will be provided, and the hazard to all travelers within the corridor – including coastal visitors – of the at-grade intersection will be eliminated. Parking for coastal visitors will also be improved, as discussed below.

The continued use by the public of the Caltrans right-of-way road to the Van Duzen River is an important coastal access amenity that has been cited in numerous coastal development permit staff reports for projects such as Leland Rock Sand & Gravel permits, and the Caltrans permits for both the northbound and southbound Van Duzen River Bridge projects (CDP 1-04-045 Rock & Dwelley; CDP 1-04-014 and -014A Caltrans Southbound Van Duzen River Bridge Replacement); CDP 1-96-068 Rock & Dwelley; CDP 1-93-05, Caltrans Northbound Van Duzen River Bridge Replacement).

Fourth, although a graveled area near the Van Duzen River is sometimes used for public access parking, the public must park vehicles within an area that is also traversed by the trucks and equipment of the Leland Rock Sand & Gravel operation, which has facilities on both sides of the Van Duzen River Bridge and uses the Caltrans right-of-way road as well.

Caltrans proposes, as part of the Alton Interchange Project, to construct public access parking in a designated cul-de-sac that will be installed near where the Van Duzen River Access Road presently intersects with Highway 101, in the southwestern quadrant of the project. The new parking area will be specifically designated for public coastal access parking, and as discussed further below, the parking area will be fully connected to the gravel road route to the river. An existing gate, signage warning passersby away, and boulders blocking public access, which were all installed without the benefit of coastal development permits, are all proposed for removal by Caltrans or are in the process of being removed at the time of staff report preparation, according to Caltrans staff[9].) Once the public access improvements are completed in accordance with the Final Public Coastal Access Plan required by Special Condition 19, safer and readily identifiable public coastal access parking will be available for visitors to the Van Duzen River corridor.

In addition to providing necessary safety improvements for this section of Highway 101, the proposed project would include significant public coastal access amenities as noted above. While the Coastal Trail is not located within the proposed project site, this section of Highway 101 is designated as the Pacific Coast Bike Route. The widened shoulders and pedestrian sidewalk (which bicyclists could use to walk their bikes across the overpass if desired for a safer crossing) proposed on the interchange and along the highway segments, would significantly enhance safety for bicyclists using the Pacific Coast Bike Route, and would provide a safe pedestrian crossing of the highway, to the Van Duzen River Access Road and other features on the west side of the highway, for the first time in the affected area.

Special Condition 8 (Protection of Future Public Access) incorporates permanent protection of the public access assured by Caltrans, and Special Condition 18 addresses the final design of the pedestrian overcrossing, and public parking features.

[9] Source: Caltrans Project Manager Richard Mullen, by telephone, on request of Commission staff, April 21, 2008.

Aesthetic issues associated with the final design of these features are discussed in the visual resources section below. Special Condition 19 requires Caltrans to permanently protect and provide permanent public access for pedestrians and non-motorized vehicles on the proposed pedestrian overcrossing on the interchange, and to ensure a continued legal and posted access for pedestrians to alternate routes paralleling Highway 101 north of the interchange, where achievement of freeway status as proposed by Caltrans will limit pedestrian use of the freeway shoulder along 101 after construction. The condition also requires Caltrans to permanently provide access to the paved shoulders on the interchange decks and along the freeway for access by bicyclists. The Commission finds that Special Conditions 8, 18, and 19 will ensure that public coastal access amenities included in the applicant's proposal will be provided consistent with the pertinent policies and provisions of Chapter 3 of the Coastal Act.

4.3.3.2 Conclusion: Coastal Act Consistency

The Commission finds that as the proposed Alton Interchange Project and associated freeway improvements, as conditioned: (a) are necessary to improve the safety of a critical segment of the Highway 101 and 36 routes and thereby safely maintain an essential link in the Pacific Coast Bike Route and the key interregional and interstate highway serving the North Coast that provides bicycle and vehicular coastal access to the coastline in the broader region; (b) will provide a pedestrian walkway that will provide safe pedestrian access over the freeway to the west side of Highway 101 for the first time; and (c) will improve public coastal access parking and continued access to the Van Duzen River Access Road. Thus, the proposed project, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act concerning public coastal access and recreation.

4.3.4 VISUAL RESOURCES

4.3.4.1 Standard of Review: Applicable Coastal Act Policies

Section 30251.

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.

4.3.4.2 Analysis

Caltrans prepared a Mitigated Negative Declaration (MND) for the proposed project pursuant to the requirements of the California Environmental Quality Act (CEQA), and certified the document May 2005. The Visual/Aesthetics section of the document, commencing on page 31, states:

> *"Within Humboldt County, SR 101 emerges from the narrow, steep-walled Eel River canyon a few miles south of the proposed project site. The proposed project site is approximately 16 km (10 mi) from the coast. In the vicinity of the proposed project site, the highway traverses river bottomlands that are used for agricultural production and livestock grazing. The Eel River parallels parts of SR 101 leading up to the project site from the south. This segment of SR 101 has been listed as "Eligible" for California Scenic Highway status. Most of the area is flat and characterized by pasture grasslands, scrubby growth and some large trees. Alton, an older, mostly residential area, is located east of SR 101 near the intersection with SR 36. A small older mobile home park is near the southern part of Alton. A few blocks of single family residences make up much of the remainder of Alton and are surrounded primarily by pasture and dairy lands. A trucking business, burl shop and some former commercial parcels, currently used as residences are located along SR 36 adjacent to its intersection with SR 101. Near the northeast quadrant of the intersection of SR 101 and 36, a prominent hillside with a plateau and heavily vegetated cliff-like face, known as the Rohnerville bluffs, can be seen by motorists from all directions. The most dramatic view of this is as a backdrop for those traveling northbound."*
>
> *"SR 36 runs west-east through Humboldt, Trinity, and Tehama counties, linking SR 101 on the west to I-5 and the city of Red Bluff on the east. Immediately east of the project site, SR 36 lies within the lower reaches of the Van Duzen River canyon, as the river passes through forested mountainous terrain to merge with the Eel River just to the southwest of the project site. The Van Duzen River has a Recreational classification on the State and Federal Wild and Scenic River lists. Hydesville, located approximately 6.4 km (4 mi) east of the intersection of SRs 36 and 101, is the first small community encountered when traveling east on SR 36. SR 36 has a larger traffic volume in summer due to recreational travelers accessing county and state parks and national forests. In addition, commercial vehicles carrying timber and gravel add to the seasonal traffic load. There are four operating sawmills within 16 km (10 mi) of the project site and transport of logs and timber products generate much of the commercial and industrial traffic on the SR."*

The MND evaluates the visual impacts of the proposed project, commencing on page 35:

> *"The proposed project would modify the visual setting but would not have a substantial adverse effect on a scenic vista, or scenic resource and would not affect an officially*

designated state scenic highway. The most noticeable change would be the addition of a large bridge/overcrossing structure, fill, on- and off-ramps and local road extensions. The new overpass would momentarily block motorists' views of the middle ground and background in the immediate vicinity of the interchange. The views that would be momentarily blocked are a mixture of rural farmscape, commercial uses and billboards. Residents on Main Street in Alton would lose some views of the middle ground and background toward the southwest because the northbound ramp would be located adjacent to their property lines. The interchange on- and off-ramps would push views of grazing lands west of SR 101 from the foreground to the middle-ground for passing motorists traveling along SR 101. However, travelers on the overpass structure would most likely have improved views of the surrounding region including Alton, the Van Duzen River valley, the Rohnerville and Scotia Bluffs and the Coast Range. Residents and businesses located east of the overpass could lose some middle ground and background views due to the height of the overpass structure." (Note: the MND does not state this, but the overpass would be approximately 30 feet in height above grade.)

Section 30251 requires that permitted development be sited and designed to (a) protect views to and along the ocean and scenic coastal areas, (b) minimize the alteration of natural landforms, and (c) be visually compatible with the character of the surrounding area. Development in highly scenic areas must be subordinate to the character of its setting.

With regard to protecting views to and along the ocean and scenic coastal areas, the project area is not a designated highly scenic area and no views are afforded from Highway 101 within the project limits of the coast or the Eel River. As noted in the MND, the development will have only minor impacts on views of the surrounding area. Therefore, the Commission finds that the project is sited and designed to protect views to and along the ocean and scenic coastal areas.

With regard to minimizing the alteration of natural landforms, the project includes some excavation and filling of the relatively flat flood plain where it is located. However, the only permanent noticeable landform alterations resulting from the project will include (a) placement of fill for highway over-crossing and on and off-ramp approaches, and (b) excavation of the storm water runoff basin. The Commission finds that these landform alterations are not significant given the relatively low height of the over-crossing and freeway ramps and the relatively shallow depth of the storm water runoff basin within the context of the expansive open landscape of the project area. Therefore, the Commission finds that the development minimizes the alteration of landforms consistent with Section 30251 of the Coastal Act.

With regard to whether the development is visually compatible with the character of the surrounding area, as discussed in the MND passage above, the character of the site is largely defined by its rural pastoral setting. To a certain degree, the proposed interchange and frontage road improvements will impose a more urban or industrial

element upon the landscape. In addition, the development contributes to a change in the rural, pastoral setting by removing a barn.

The Coastal Commission toured the proposed interchange area during a bus tour coordinated with Caltrans during the Commission's September, 2007 meeting. During the tour, the Commissioners viewed the old farmhouse that is located southwest of the intersection, on the parcel that is slated partly for interchange construction and partly for flood control/wetland mitigation feature construction. Commission staff noted at the time that a large old redwood barn had been demolished and removed during the summer of 2007 when the Caltrans right-of-way department contracted for this development without notifying the Caltrans environmental permitting staff. Caltrans notified staff that the barn was salvaged for redwood timber. Caltrans proposes to demolish the farmhouse and other abandoned structures that have remained empty since Caltrans acquired the pertinent right-of-way containing these structures, by allowing the Fortuna Fire Department to burn the structures to conduct fire department personnel trainings. Caltrans has determined that the farmhouse is not architecturally intact and does not warrant salvage for historic material reuse.

However, these impacts on the visual character of the project setting will be offset by certain aspects of the approved development. First, Caltrans proposes to permanently remove eight large billboards that are presently located in the areas acquired by Caltrans for right-of-way expansion for the project. Caltrans has proposed the permanent retirement of the billboards and has clarified that this is part of the proposed project description, and moreover, is consistent with Caltrans' policy, which is to not allow or permit any new private billboards within the state right-of-way.[10] Caltrans has also clarified that no architectural lighting is proposed within the project limits and that the only lighting that will be installed is the lighting required by applicable safety design standards at the on- and off-ramps of the proposed interchange. Caltrans further clarified that no advisory/warning types of signs or solar power installations will be installed permanently as part of the project, but that during construction, such signage and solar arrays will be used for temporary warning signs for public safety.[11] To ensure that these benefits to visual resources are not merely temporary, Special Condition 12 requires the applicant to submit a written agreement acknowledging that the billboards shall not be replaced and that the posting of signage or lighting shall be limited to only that needed to comply with minimal safety standards. As conditioned, the removal of the billboards will be a permanent benefit to the visual resources of the Highway 101 corridor in this scenic area, helping to offset the introduction into the viewshed of the urban, 30-foot-high overpass feature.

Second, Caltrans has confirmed that no architectural lighting will be installed on the overpass (which could unnecessarily add potential light pollution to the rural night sky

[10]Caltrans policy clarification provided by Richard Mullen, Project Manager, upon request of Commission staff, via e-mail April 18, 2008.
[11]Project description clarifications provided by Richard Mullen, Project Manager, upon request of Commission staff, via various emails April 15 – April 18, 2008 upon request of Commission staff.

and disrupt wildlife use of nearby wetlands and wildlife corridors). Though the overpass will not have lighting, lighting is proposed for the two on/off-ramp intersections with Highway 36. On the west side of Highway 101, the nearest light would be 262 feet from the overcrossing. These street lights would be 33.8 feet above the ground at the new intersections, the highest of which is on the west side of Highway 101, at 22.6 feet above the existing ground. The total height is 56.4 feet from existing ground to the top of the street light.

Third, Caltrans proposes to submit a final plan for the aesthetic design of overpass safety features, which include chain link fencing of over six feet in height, atop concrete barrier features. Special Condition 18 requires Caltrans to submit a final plan for design of these features in a manner that softens the view of the structure, both for pedestrians, bicyclists and motorists on the overcrossing, as well as for through traffic and views of the structure from public viewing locations. Caltrans additionally proposes to decorate the outside of the overpass, along the lower portion of the concrete siding, with Native American geometric designs based on Wiyot tribal motifs.

Finally, Special Conditions 4, 6, and 9 require the review of fence structures (for wildlife permeability) and the review of proposed signage (to minimize signage only to those signs necessary to provide essential public safety (speed signage, for example, would be appropriate, but not signs advertising trash removal sponsors, or flashing digital signage or solar arrays, etc.). The purpose of these limitations is to reduce the visual impact footprint of the affected section of the Highway 101 corridor and new frontage roads to offset, to the maximum extent feasible, the new structural and lighting intrusions into the viewscape that will be posed by the construction of the interchange overpasses and safety lighting. The Commission finds that the development as conditioned will be compatible with the character of its setting consistent with Section 30251.

4.3.4.3 Conclusion: Coastal Act Consistency

The Commission finds that as the proposed Alton Interchange project and associated freeway improvements, if constructed in accordance with the pertinent special conditions attached by the Commission above, will be consistent with the provisions of Section 30251 of the Coastal Act protective of visual resources.

4.3.5 CONVERSION OF AGRICULTURAL LANDS

4.3.5.1 Standard of review: Coastal Act Policies

Section 30241:

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the area's agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

(a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.
(b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.
(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.
(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.
(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.
(f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.

Section 30242:

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless:
(l) continued or renewed agricultural use is not feasible, or
(2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.

The Coastal Act defines "prime agricultural land" as land that meets one or more of the following, as referenced in paragraphs (1) through (4) of Section 51201(c) of the California Government Code:

> (1) a rating as class I or class II in the Natural Resource Conservation Service land use capability classifications;
> (2) a rating 80 through 100 in the Storie Index Rating; or
> (3) the ability to support livestock used for the production of food and fiber with an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture; or
> (4) the ability to normally yield in a commercial bearing period on an annual basis not less than two hundred dollars ($200) per acre of unprocessed agricultural plant production of fruit- or nut-bearing trees, vines, bushes or crops which have a nonbearing period of less than five years.

4.3.5.2 Analysis

Caltrans proposes to construct an interchange and other associated freeway improvements, including the replacement of the existing at-grade intersection of Highways 101 and 36, and the closure of seven at-grade intersections within the project limits, in Humboldt County, CA (see Exhibits A, D, E, and F-G). The proposed at-grade closures include: two at Highways 36 and 101, one at the River Access Road - Van Duzen River access road (this is the only public coastal accessway to the Van Duzen River within the general project area) one at Hansen Lane, one at Sandy Prairie Road, and two at Drake Hill Road. Caltrans also proposes to construct a local road extension on the west side of State Route 101 (both north and south of Fowler Lane). The local road extension proposed north of Fowler Lane (and west of Highway 101) will be accepted by Humboldt County after construction, according to Caltrans. However, Caltrans indicates that the County refuses to accept the other local road extension, south of Fowler Lane (and west of 101), which will remain the property of Caltrans, and Caltrans will provide for all maintenance requirements associated with the road (including the extended access road that is the public access route to the Van Duzen River, used by both the public and by the local gravel operation (Leland Rock Sand & Gravel). Caltrans proposes to construct public coastal access parking improvements at a cul-de-sac that will be constructed in the area of the existing River Access Road after the road is closed and re-connected via the proposed new southerly frontage road.

The highway construction affecting the area west of Highway 101 is located within the coastal zone, mostly on lands zoned and designated, and in use for, agriculture. Caltrans has submitted evidence that construction of the proposed Alton Interchange project will permanently convert up to 42 acres of prime agricultural land to highway use. Caltrans has also submitted evidence that no alternatives to the interchange project (see alternatives discussion in Section 4.3.7.2 for a more detailed review of project alternatives) as proposed exist that would satisfy mandatory safety design requirements for the interchange alignment and configuration while reducing the conversion of agricultural lands required to construct the project as proposed.

The agricultural value of prime lands, and the importance of such lands to the economy of Humboldt County, was discussed in detail in the staff report for the Mad River Bridges replacement project (CDP 1-07-013, Caltrans) approved by the Commission in January 2008. The findings adopted by the Commission are set forth in pertinent part below (in reduced font) and are also applicable to the presently proposed Alton Interchange project and thus are incorporated herein. The Mad River Bridges project will convert 3.58 acres of prime agricultural lands and the findings for approval of that project included discussion of a packaged agricultural mitigation plan that conceptually included mitigation for the direct conversion of up to 42 acres of agricultural lands associated with the Alton project, discussed below. The mitigation package discussed below also includes provisions for mitigation of up to 2 acres of agricultural land conversion Caltrans anticipates will be required to construct the future Klamath Grade

Raise project near the town of Klamath in Del Norte County (no coastal development permit application has been submitted by Caltrans for that project).

Potential Future Conversion of Agricultural Lands

The Caltrans proposal for conversion of agricultural land for development of the Alton Interchange project originally called for the permanent conversion of approximately 44 acres of agricultural land, but has since been calculated to require approximately 39--42 acres of agricultural lands. Caltrans has additionally determined that all 42 acres are prime agricultural lands as defined by the pertinent provisions of the Coastal Act.

The Alton Interchange project has an additional feature that was not a part of the Mad River Bridges project: the construction of new local frontage roads traversing agricultural lands adjoining the freeway. These new frontage roads would make future conversion of the adjoining agricultural lands easier to accomplish by providing safer vehicular access to the highways.

Unlike the present project, the Mad River Bridges project, although also situated on Highway 101 in Humboldt County, did not change ingress/egress patterns in a manner that could increase the development potential of agricultural parcels adjacent to the affected section of Highway 101. The scope of the Alton Interchange project differs significantly in this regard, as is further discussed in the section of the report that addresses potential growth-inducing impacts of the project, below.

This section of the findings addresses the direct impacts on agricultural lands that will be caused by the construction of the proposed project – that is, the direct permanent conversion of up to 42 acres of prime agricultural lands that are presently in use for grazing, forage, or crop cultivation. Caltrans has verified that all of the approximately 39 - 42 acres of agricultural lands that will be converted to highway use for the “Alton Interchange” project are prime agricultural lands as defined by the Coastal Act. Pertinent Commission findings for CDP 1-07-013 (Caltrans, replacement of Mad River Bridges, Highway 101, Humboldt County), set forth below as applicable, are incorporated herein:

Prime agricultural lands

As stated by the Coastal Act policies set forth above, the maximum amount of prime land shall be maintained in agricultural production to assure the protection of the County’s agricultural economy. The definition of “prime agricultural lands” is also set forth above.

The linkage between prime land production and local agricultural economy is directly stated in the first clause of Section 30241: "the maximum amount of Prime agricultural land shall be maintained in agricultural production . . . . to assure the protection of the area's agricultural economy." This precept reflects the fact that the productivity of prime land is a key economic factor in the overall agricultural viability of Humboldt County.

Impacts of Conversion of Prime Agricultural Lands

Prime agricultural lands are the "engine" of a healthy agricultural economy and typically offer the most return on farming or ranching investment. As noted below in (excerpts from) an article written by a Humboldt County farmer in April 2007, one acre of high quality bottomland pasture in Humboldt County, for example (which may not even have soils or other measures that qualify as "prime") is worth 20 acres of rangeland in the hills. An acre of agricultural land with prime soils is potentially more productive than any other kind of open field agricultural property in Humboldt County – particularly if irrigation is feasible.

The "Negative Declaration" prepared by Caltrans in 2005 [for the Mad River Bridges project] and cited above states on page 16:

> "…*US Census of Agriculture (1997) information indicates approximately 650,000 acres, or more than 25 percent of the total acreage in Humboldt County, was in agricultural use (excluding timber) in 1982. The county has experienced the loss of 3,000 to 5,000 acres of farmlands annually since 1964 due to conversion to non-agricultural uses.*
>
> *"…Dairy farming and milk production is the largest industry in Humboldt County, with nursery, livestock, and field crop production following. Humboldt County dairies produce about one percent of the state's total supply of milk. California is ranked number 1 for milk production in the United States."*

As noted above, the "Negative Declaration" established that Humboldt County has been losing as much as 5,000 acres of farm land *per year* since 1964. While a simple reading of these numbers might indicate that the loss of an acre or two of agricultural land here or there is insignificant, the trend toward conversion of agricultural lands is clearly significant and can best be explained by the cumulative losses of agricultural lands that are in finite supply and subject to increasing demand for conversion to residential and other use.

The "Agricultural Resources Report" prepared in August, 2003 by Humboldt County Department of Community Development Services as part of the Humboldt County General Plan Update, notes that of the applications for subdivisions processed by the County since 1985, 29% (152 applications) have occurred in an agricultural resource zone.

Humboldt County organic farmer John LaBoyteaux, writing on April 10, 2007 in the "Farmer's Almanac" of the Eureka Times-Standard (www.times-standard.com), discussed his view on the adverse impacts of cumulative losses of agricultural land in Humboldt County at a time when agricultural enterprises appear to be experiencing new vitality and need more agricultural resources. The article points out that bottom-land pasture, such as the agricultural land affected by the development, is particularly valuable as an acre of bottom-land pasture, including reclaimed tidelands, has a livestock carrying capacity equal to 20 or more acres of rangeland in the hills. The article indicates that Mr. LaBoyteaux has farmed in the Eel River Canyon since 1980, served five years on the Humboldt County Resource Conservation District, served as president of the Humboldt County Farm Bureau from 2004-2006, and currently chairs the County Williamson Act Advisory Committee:

> *… approximately one-third of the feed required by our dairy industry must be imported to Humboldt County. There is simply not enough available cropland to raise the needed feeds for this industry ($42.5 million gross sales in 2005).*
>
> *An acre of bottom-land pasture, including reclaimed tidelands, has a livestock carrying capacity equal to 20 or more acres of rangeland in the hills. (Carrying capacity is generally the number of cattle or cow/calf pairs that can be sustained on pasture or rangeland with little or no supplemental feeding.) Our beef and livestock industry ($24 million gross sales in 2005) shares and sometimes competes for the same lands used for dairy or crop production.*

Humboldt County's agriculture Industry supports and depends upon an infrastructure of support services, including material suppliers, equipment dealers, transportation providers, processors and marketers. The contribution of these businesses to the economy of Humboldt County and the employment of Humboldt County families is not reflected in the $326 gross sales of agricultural products.

Humboldt County agriculture is much more, and it's expanding. Nursery production has moved ahead of dairy in gross sales. At the same time, there is a resurgence of dairy production through conversion to organic practices, which provides considerably greater return per unit of milk for the dairymen.

The Humboldt Creamery now sells premium organic ice cream nationally. Cattle ranchers delivering to new local brands such as Humboldt Grassfed and Eel River Organic are developing specialty markets for Humboldt beef. Cypress Grove Chevre distributes Humboldt Fog and other cheeses to every state in the country. Local produce is sold through 15 growing farmers markets throughout the county and retail outlets like Northcoast Coop, Eureka Natural Foods, Murphy's Markets, Ray's Markets and various smaller stores and restaurants.

About a dozen row-crop farmers export produce to regional markets in San Francisco and the Sacramento Valley. The Community Alliance with Family Farmers is linking local farms with schools and institutions to improve the quality of foods our children eat in school.

Unfortunately, a decreasing land base threatens the future of local small farms like mine and every other type of agriculture in Humboldt County. The Humboldt County General Plan Update, Agricultural Resources Report is quoted below.

The article points out that there is a tension between the trend in growth of the County's beef and dairy industries, due to competition for the finite supply of the pasture and forage lands to supply feed and pastureland forage. Humboldt County is now a net importer of hay needed to sustain the base of its agricultural economy.

The Humboldt County "Agricultural Resources Report" cited above states (p. 1-3)

> "…Grazing diminished with the expansion of housing and mini-ranches. Protection of AE (Agriculture Exclusive) lands supports the opportunity for specialty ag enterprise and the steady growth of organic blueberries and nursery farms."

Thus, the Commission concludes that agricultural grazing or forage production lands in areas of prime soils (the subject properties are prime agricultural lands), where irrigation is feasible (the subject properties are seasonally irrigated) have very high value for the dairy and beef industries.

The proposed [Mad River Bridges] project would permanently convert 3.58 acres of these lands, with prime soils, to a non-agricultural use for the realigned highway and bridges. As noted by the local farmer/author in the article cited above, these lands may have an equivalent value to almost 70 acres of upland rangelands.

(In the case of the Alton Interchange project, Caltrans staff indicates that the total acreage of prime agricultural land in the Eel River Valley that will be permanently converted to non-agricultural use is approximately 39--42 acres, which translates into almost 800 acres of equivalent upland rangeland in terms of productivity value for grazing or forage).

For every acre of grazing or pastureland lost, the local dairy and beef industries must import more hay from distant sources. As energy prices increase, the cost of transporting tons of hay from distant

producers will rise. The share of feed costs represented by the transportation component will continue to rise. Local pasturelands suitable for forage production are in declining supply due to increased pressure for conversion to subdivisions and other land uses. Thus, the value per acre of local grazing and pasturelands will inevitably rise.

… The article excerpted above (LaBoyteaux 2007) noted that there is more demand for productive land among the small farmers in the County than the available supply can support. Moreover, the long term trends documented since 1964 clearly show that whether by conversion of small acreages or division of large ranches, a strong trend toward the cumulative loss of agricultural land exists in the County and may begin to limit the prospects for expansion of the agricultural economy.

In the case of the Mad River Bridges replacement project, the Commission found that:

Further, for all of these reasons stated above, the Commission finds the permanent loss of the subject 3.58 acres of prime agricultural land that will occur if the [Mad River Bridges] project is constructed as proposed is significant and adverse both on an individual impact and a cumulative impact basis, within the meaning of the provisions of Section 30250(a) and 30241 cited above.

Similarly, in the case of the permanent conversion of 39 - 42 acres of prime agricultural land required for the Alton Interchange project construction, the Commission finds that if the project is constructed as proposed, the impact on coastal agricultural resources is both significant and adverse, in terms of individual and cumulative impacts, within the meaning of the provisions of Coastal Act Section 30241 cited above.

The Commission further notes that in the case of the Mad River Bridges replacement project, Caltrans proposed to convert additional, existing agricultural lands (both on- and off-site) to non-agricultural use for the purpose of undertaking wetland enhancement necessary to mitigate that project's impacts on wetlands. The Commission denied the proposed additional conversion of agricultural lands for this purpose, primarily because there are alternative sites where mitigation can be undertaken and where such mitigation does not require the conversion of agricultural lands in the same manner that construction of essential components of a location-specific highway project required.

In the case of the Alton Interchange project, contrasted with the Mad River Bridges project, Caltrans has presented evidence that a series of flood control structures must be installed to prevent flooding that would otherwise be associated with the operation of the highway after project construction. Caltrans has shown that a network of bioswales and other water quality treatment features are necessary to collect runoff and channel the runoff into a secondary storage area. The secondary area has also been deemed suitable for wetland mitigation by the Commission's staff ecologist (whereas primary flood control structures and water quality treatment structures are not eligible for dual use as wetland mitigation sites) because the first-stage water collection and treatment will provide the necessary water quality control for the secondary facility, and Caltrans has determined that no future dredging or other disturbance of the secondary water storage area will be required. This proposal is considered in more detail in the wetland section above.

At the time of Commission approval of the Mad River Bridges project, staff notified the Commission that Caltrans proposed to mitigate the permanent conversion of 3.58 acres

of prime agricultural land for highway use required by that project, together with up to 42 acres of agricultural land conversion for the future Alton Interchange project and up to 2 acres for the future Klamath Grade Raise project, by funding specific components of the agricultural education program of the local community college, College of the Redwoods. This mitigation proposal is described in more detail below. Staff indicated at the time the Commission acted on the Mad River bridges project that staff would recommend that the Commission approve Caltrans' overall mitigation package as sufficient mitigation for each of the three projects individually proposed by Caltrans in the future, and that the acreage covered by the proposed overall mitigation plan would not be transferable to other Caltrans (or non-Caltrans) projects, nor could the mitigation amount be reduced if either of the remaining two projects failed to materialize in the future.

The Executive Director's opinion that the Shively Farm mitigation measure may be used to mitigate the above-specified conversion of agricultural lands at the Alton Interchange and Mad River Bridges projects cannot legally bind a future Coastal Commission in its future review of the Klamath Grade Raise project.

The Commission finds that the proposed agricultural mitigation package, further described in additional excerpts from the Commission findings for the approval of Coastal Development Permit 1-07-013 for the Mad River Bridges set forth below and incorporated herein, is adequate to mitigate the adverse impacts on coastal agricultural resources that will be caused by the proposed project, to the maximum extent feasible.

Proposed Mitigation

…Full mitigation for the conversion of prime agricultural lands is not possible. At best, partial mitigation may be accomplished—and significant benefits to the agricultural economy may accrue from such efforts -- particularly through the purchase or other means of preservation of agricultural lands threatened by "on-the-ground" development pressure to convert such lands to other uses. Examples of such lands would be parcels zoned or used for agriculture – or suitable for return to such use – but demonstrably pressed for conversion to other developed uses by (for example) the recent extension of services such as sewer or water, nearby conversions to other uses, etc.

…Commission staff considered the Caltrans proposal…

(Caltrans original proposal was to mitigate for conversion of agricultural lands at a 1:1 ratio with a payment of $10,000 per acre lost into an impact fee fund. Caltrans initially proposed the same payment/ratio structure to mitigate the conversion of agricultural lands for the Alton Interchange project)

…but determined that the true cost of attempting even partial mitigation for the loss of prime agricultural lands in Humboldt County, within the general area of the proposed project (between Eureka and McKinleyville, generally, within the coastal zone), as measured by the goal of recovering lands that would otherwise likely be converted to non-agricultural use (that is, lands that had non-agricultural development rights) was considerably higher than $10,000 per acre. As explained in more detail below, staff determined that the cost-per-acre of recovering such threatened lands that were either prime agricultural lands with development rights, or lands that could be farmed as the equivalent of prime agricultural land through amendment and management practices, would cost closer to $100,000 per acre, plus the costs

associated with agricultural management/stewardship (costs would be higher for parcels being returned to agricultural use or converted to enhanced agricultural use).

Since paying a modest in-lieu fee was clearly unlikely to yield even a reasonable level of compensatory agricultural mitigation, staff provided guidance to Caltrans that a specific mitigation property should be identified and purchased for this purpose, and in accordance with the general parameters noted above for identifying suitable properties that could yield agricultural mitigation

The College of the Redwoods, the local community college, owns a 38-acre "sustainable organic agriculture farm" sometimes referred to as the Shively Farm. The farm was bequeathed to the college in 1995, with the condition that the farm be used for agricultural education. If the college failed to use the farm for this purpose, the donor's will specified that the college would forfeit the land to the Save the Redwoods League, and the land would be planted with redwoods and maintained as a park.

According to Caltrans, the college had nonetheless tried to sell the farm to raise money for the school soon after the college received the land, and a protracted legal battle ensued. The lawsuits were resolved, and the college learned that it could not dispose of the land in any other way than to abandon it to the Save the Redwoods League.

Since the courts had determined that College of the Redwoods had to use the land as an agricultural educational facility -- or lose it – the college hired a farm manager and was investing in the improvements the farm needed to be a sustainable organic teaching farm.

However, the College had financial problems sustaining the farm. The funds that had been bequeathed with the land (approximately $200,000) had been used up, college enrollments had declined overall, agricultural teaching faculty had retired, and on the whole – the agricultural program was under consideration for closure. That would mean that the 38-acre Shively Farm would be permanently converted to a non-agricultural use, and the College's agricultural education program might never recover its former strength.

Given the peril faced by the Shively Farm's funding status and the waning agricultural program at College of the Redwoods, Caltrans proposed that funding the substantial preservation of the Shively Farm through College of the Redwoods be considered as mitigation for conversion of agricultural lands associated with the development of the Mad River Bridge project. Providing funding to maintain the College of the Redwoods Shively Farm program would prevent the agricultural lands from being converted to a non-agricultural use.

The Executive Director and Commission staff, the Caltrans District 1 Executive staff, the Mad River Bridges project team, and College of the Redwoods administrators immediately met to consider the possibilities. From that collaborative effort, a new agricultural mitigation initiative --- to be fully funded by Caltrans – emerged.

The new agricultural mitigation proposal contains three key overall features:

1. Endowment of a permanent, full-time agricultural education program faculty position, with an emphasis on filling the position with a candidate well qualified to develop agriculture programs at the College of the Redwoods, and to revitalize and maximize the use of the Shively Farm as a key teaching resource laboratory. In addition to the primary mission of teaching College of the Redwoods agricultural program students, the College's agricultural education program, under the leadership of the selected faculty member whose salary would be funded by the endowment, would include community agricultural outreach and education programs to enhance the skills and success of local agriculturalists, and to educate community members interested in these programs.

2. Improvement of the Shively Farm, focusing on replacing or providing new critical infrastructure support for the farm. Such improvements must be considered essential to enhancing the agricultural education function of the farm and the overall productivity of the farm within that context.

3. Provision of enhanced transportation from the college campus in Eureka to the Shively Farm (an approximately 45-minute drive, one way). Currently, students provide their own transportation at considerable personal expense and inconvenience. Consistent with the goal of reducing greenhouse gases, the program would allow the College to purchase at first one, and then as enrollment increases, two, "green" vans – hybrid high mileage versions – for this purpose. The van(s) would be exclusively dedicated for the agricultural education program's use.

As the mitigation proposal would result in saving approximately 38 acres of prime agricultural land, many times more acreage than the acreage that will be converted by development of the Mad River Bridge project, Caltrans proposes that the mitigation proposal also serve as mitigation for two additional future Caltrans projects within the coastal zone of District 1 that would result in the conversion of agricultural land. The two projects include (1) the Alton Interchange project on Highway 101 and Highway 36, near Fortuna in unincorporated Humboldt County, where up to 42 acres of prime agricultural land would be converted, and the Klamath Grade Raise project near the Klamath River in unincorporated Del Norte County, where up to 2 acres of agricultural lands would be converted to highway improvements. Coastal development permit applications have not yet been filed as complete for these two projects and neither project has been scheduled for a Commission hearing.

To achieve the three key components of the revitalized College of the Redwoods agricultural education program, Caltrans proposes to fully fund a $2 million payment to the College of the Redwoods Foundation for this purpose. The funds would be payable prior to commencement of construction of development authorized by CDP application No. 1-07-013, and would not be refundable if for any reason the other two Caltrans projects for which Caltrans hopes to secure future mitigation consideration by the Commission from the $2 million payment do not progress.

The payment would not be refundable in whole or in part because without the critical mass of the total funding, no sub-component would be adequate to facilitate the College's ability to hold onto the Shively Farm and to revitalize the agricultural education program sufficiently to secure increased enrollment and thus maintain the farm for the long run. Caltrans staff indicate that they understand and have ensured that as an agency Caltrans understands and accepts the risk that if, for any reason, the Commission does not approve the other two projects "in the pipeline," the $2 million would be paid solely toward the mitigation obligation of Caltrans for the agricultural impacts of the Mad River Bridges project alone (3.58 acres of prime agricultural land).

Caltrans determined that the agency could pay $2 million directly to the College of the Redwoods Foundation for management and distribution in accordance with the proposal discussed herein. The College verified that no administrative costs would be required by the Foundation – every dollar of $1.5 million of the total funded by Caltrans, plus all interest earned on that money, would go toward the endowment of the agricultural education program permanent faculty position; $0.5 million of the total funded by Caltrans, plus all interest earned on that money, would go toward the essential infrastructure needs of the Shively Farm and up to two hybrid, high-mileage vans for the transport of students from the college to the farm.

The Caltrans proposal to endow the agricultural education program at the College of the Redwoods in a manner that is focused on vitalizing the Shively Education Center (Shively Farm) provides additional benefits to the broader community of the north coast as well. The College's program would protect and enhance the agricultural teaching function of the Shively Farm; the permanent teaching position would anchor faculty continuity and long term planning of the educational program to maximize the use of the Shively Farm and to provide outreach to the community in matters of agricultural sustainability.

4.3.5.3 Conclusion: Coastal Act Consistency

Even with the proposed mitigation, the conversion of agricultural lands resulting from the development is inconsistent with Coastal Act Section 30241.

The proposed interchange and associated freeway improvements will permanently convert approximately 39 - 42 acres of prime agricultural land. Section 30241 limits the conversion of prime agricultural lands and requires that conflicts between urban and agricultural land uses be minimized through all of the following:

(a) Establish stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses;

(b) Limit conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development;

(c) Permit the conversion of agricultural land surrounded by urban uses only where the conversion of the land would 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;

(d) Develop available lands not suited for agriculture prior to the conversion of agricultural lands;

(e) Assure that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality; and

(f) Assure that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands does not diminish the productivity of such prime agricultural lands.

The Commission finds that the conversion of grazing, forage, and crop production lands to construct the proposed highway improvements is inconsistent with the above criteria on Section 30241 for minimizing conflicts between urban and agricultural use for several reasons. First, the conversion of the subject agricultural lands would not occur in an area that is either surrounded by urban uses or on the periphery of an urban area as

required by criteria (b) and (c) above. To the contrary, the interchange and associated freeway improvements would be performed largely in the middle of an agricultural area, surrounded on all sides by lands locally zoned and used for agriculture. The nearby communities of Alton and Fortuna are separated from the project site by the agricultural lands that surround the development site. Second, the conversion of agricultural lands resulting from the development would not establish a stable boundary separating urban and rural areas and provide a clearly defined buffer between potentially incompatible uses as required by criteria (a) above. As previously discussed, the bridge and highway development does not separate any urban areas within the coastal zone from coastal agricultural areas. Instead, the development merely divides existing agricultural areas from each other. Finally, the development does not develop lands unsuited for agriculture use prior to the conversion of agricultural lands, as affected lands are currently in agricultural use.

However, as discussed further in the conflict resolution section of this report, although the project proposes to impermissibly convert approximately 39 - 42 acres of agricultural lands with prime soils, the project is necessary to ensure safe public access and recreation along the highway through this primary regional and statewide coastal access corridor, including coastal visitors traveling from the Sacramento Valley and beyond via Highway 36/Interstate 5 (the highways intersect near Red Bluff), and specifically to the Van Duzen River in the immediate area of the proposed project. If the existing safety problems and operational conflicts are not resolved as Caltrans proposes, unacceptable safety risks to coastal visitors will continue, and will severely impede public coastal access and recreation, in conflict with the policies of the Coastal Act protective of these public coastal resources.

4.3.6 RESOLVING POLICY CONFLICTS

4.3.6.1 Standard of Review: Coastal Act

Coastal Act Section 30007.5 states:

> The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.

Coastal Act Section 30200(b) states:

> Where the commission or any local government in implementing the provisions of this division identifies a conflict between the policies of this chapter, Section 30007.5

shall be utilized to resolve the conflict and the resolution of such conflicts shall be supported by appropriate findings setting forth the basis for the resolution of identified policy conflicts.

4.3.6.2 Analysis

As noted previously in this report, the proposed project is inconsistent with pertinent provisions of Section 30241 of the Coastal Act. However, as explained below, denying or modifying the proposed project to eliminate these inconsistencies would lead to nonconformity to other Coastal Act policies, namely policies protective of public coastal access and recreation.

Regarding the proposed project's inconsistency with Section 30241, even though the proposed Alton Interchange proposed location is the most suitable of the feasible and available sites for reducing operational hazards of existing traffic on a public access route, essential to the public's ability to access the coast, approving the construction of the new interchange at the proposed location would not be fully consistent with the requirements of Section 30241 to preserve the maximum amount of prime agricultural land and to avoid cumulatively adverse impacts of development on coastal resources. The proposed location of the new bridges would require the permanent conversion of approximately 39 - 42 acres of prime agricultural lands with highly productive soils to non-agricultural use for highway purposes.

However, denying the proposed Alton Interchange project and associated freeway improvements on the basis of these inconsistencies would result in the continued presence of the existing unsafe highway conditions on a critical public access route to the coast, which Caltrans has determined to be substandard and unsafe for reasons discussed in detail in previous sections of this report. Fatality and non-fatality vehicular accidents have been shown to occur within the proposed project limits at a significantly elevated rate, when compared to overall patterns for similar accidents elsewhere in the state. Operational conflicts caused by dangerous turning maneuvers across lanes of high speed traffic, at the intersection of Highway 101 and 36, at the other at-grade intersections proposed for closure, and particularly at the River Access Road, (which is used by coastal visitors to the Van Duzen River and by Leland Rock Sand & Gravel trucks that may enter the highway crossing from a complete stop) crossing lanes carrying highway-speed oncoming traffic posed serious hazards. In addition, bicyclists and pedestrians are allowed on both highways, and these categories of corridor travelers are particularly vulnerable to traffic safety conflicts.

If the operational conflicts posed by the existing patterns of ingress/egress to Highway 101 from Highway 36, by the Highway 101 traffic turning onto Highway 36, and further exacerbated by turning conflicts from coastal access traffic associated with the Van Duzen river coastal accessway south of the proposed interchange and other at grade crossings within the project limits are not resolved as proposed, public access to the

coast-- and particularly to areas of coastal recreation, including areas that offer lower cost visitor services and recreational opportunities -- will become increasingly dangerous and less effective. This would significantly affect the safety of public coastal access and recreation opportunities on the entire north coast as the Highway 101 is a primary link for north coast transportation and to almost all coastal access and recreation destinations north of the proposed interchange location. In addition, Highway 36 is a state highway providing access to the coast from inland areas as far away as Red Bluff, in the Sacramento Valley. Furthermore, coastal visitors accessing the public coastal accessway to the Van Duzen River, would both cause, and be further exposed to, traffic hazards that significantly affect the safety of accessing these amenities. No alternative access route exists for many miles that would permit coastal visitors to seek the coastal access and recreation amenities of the Van Duzen River and the greater north coast area without traversing the proposed project area.

In such a situation, when a proposed project is inconsistent with a Chapter 3 policy but denial or modification of the project would be inconsistent with another policy, Section 30007.5 of the Coastal Act provides for resolution of such a policy conflict.

Applying Section 30007.5

As indicated previously, the standard of review for the Commission's decision on a coastal development permit in the Commission's retained jurisdiction is whether the proposed project is consistent with the Chapter 3 policies of the Coastal Act. In general, a proposal must be consistent with all relevant policies in order to be approved. If a proposal is inconsistent with one or more policies, it must normally be denied or conditioned to make it consistent with all relevant policies.

However, the Legislature recognized through Sections 30007.5 and 30200(b) that conflicts can occur among those policies. It therefore declared that when the Commission identifies a conflict among the policies of Chapter 3, the conflict is to be resolved "in a manner which on balance is the most protective of significant coastal resources", pursuant to Coastal Act Section 30007.5.

That approach is generally referred to as the "balancing approach to conflict resolution." Balancing allows the Commission to approve proposals that conflict with one or more Chapter 3 policies, based on a conflict among the Chapter 3 policies as applied to the proposal before the Commission. Thus, the first step in invoking the balancing approach is to identify a conflict among the Chapter 3 policies.

1) The project, as proposed, is inconsistent with at least one Chapter 3 policy:

For the Commission to apply Section 30007.5, a proposed project must be inconsistent with an applicable Chapter 3 policy. In the case of this proposed project, the inconsistency is with Section 30241 as discussed previously.

2) The project, if denied or modified to eliminate the inconsistency, would affect coastal resources in a manner inconsistent with at least one other Chapter 3 policy that affirmatively requires protection or enhancement of those resources:

A true conflict between Chapter 3 policies results from a proposed project which is inconsistent with one or more policies, and for which denial or modification of the project would be inconsistent with at least one other Chapter 3 policy. Further, the policy inconsistency that would be caused by denial or modification must be with a policy that affirmatively mandates protection or enhancement of certain coastal resources. Denial of the proposed construction of the Highway 101/Highway 36 interchange would be inconsistent with Section 30210 of the Coastal Act.

Section 30210, which requires, in part, that "maximum access shall be provided for all the people". The Highway 101 corridor in the northern portion of Humboldt County is the central coastal route locally and regionally. Caltrans has provided substantial data, as well as testimony from public safety agencies such as the local fire department and the California Highway Patrol urging resolution of the existing traffic safety problems caused by the existing juncture of Highways 101 and 36. Coastal visitors traveling this corridor also utilize existing ingress/egress to Highway 101 from a local frontage road to access the public access roadway that leads to the banks of the Van Duzen River (which is also Caltrans' right-of-way on the west side of Highway 101 south of the interchange to the edge of the Van Duzen River).

Thus, a continuing safety hazard that has resulted in substantially elevated numbers of traffic collisions impedes the ability of the public to safely access the coast along the northerly corridor of Highway 101. In addition, this portion of Highway 101 is classified as a Principal Arterial on the National Highway System. This segment of highway serves interregional and interstate traffic and provides the key transportation gateway for local residents and visitors traveling to a wide variety of coastal access and recreation destinations along the northern California coast. Coastal access opportunities are, and will continue to be compromised if the interchange and associated freeway improvements project is not constructed and the existing operational conflicts and associated elevated risk of accident is allowed to continue.

In most cases, denying a proposed project will not cause adverse effects on coastal resources for which the Coastal Act mandates protection or enhancement, but will simply maintain the status quo. Where denial of a project would result in adverse effects, as would denial of this proposed highway interchange and associated freeway improvement project and its resulting impediment to safe public access, a conflict between or among two or more Coastal Act policies is presented.

3) The project, if approved, would be fully consistent with the policy that affirmatively mandates resource protection or enhancement:

For denial of a project to be inconsistent with a Chapter 3 policy, the proposed project would have to protect or enhance the resource values for which the applicable Coastal Act policy includes an affirmative mandate. That is, if denial of a project would conflict with an affirmatively mandated Coastal Act policy, approval of the project would have to conform to that policy. If the Commission were to interpret this conflict resolution provision otherwise, then any proposal, no matter how inconsistent with Chapter 3 that offered a slight incremental improvement over existing conditions, could result in a conflict that would allow the use of Section 30007.5. The Commission concludes that the conflict resolution provisions were not intended to apply to such minor incremental improvements. The proposed project will eliminate substantial existing hazards posed by out-of-direction turning conflicts and will provide an interchange with safe pedestrian sidewalks, improved coastal access parking, wider paved shoulders for bicyclists, an interchange to eliminate significant hazards to through traffic at the intersection of Highways 101 and 36, and other features described more completely in Sections 4.1 – 4.3 above. Thus, the project as proposed and conditioned, is therefore fully consistent with Coastal Act Sections 30210 as maximum safe coastal access would be provided to all the people.

4) The project, if approved, would result in tangible resource enhancement over existing conditions:

This aspect of the conflict between policies may be looked at from two perspectives – either approval of the project would result in improved conditions for a coastal resource subject to an affirmative mandate, or denial or modification of the project would result in continued degradation of that resource.

Approval of the proposed Alton Interchange and associated freeway improvement project would result in replacement of the existing at-grade intersection of Highways 101 and 36, and the Van Duzen River coastal access ingress/egress to Highway 101 just south of the proposed interchange, that are presently affected by significant operational conflict safety hazards of the existing traffic patterns. Caltrans asserts that if the interchange is not constructed and the present coastal accessway to the Van Duzen relocated and reconstructed in the manner proposed by Caltrans, significant risks to the life and safety of coastal visitors will persist an a level of risk significantly higher than would otherwise be the case for such highway features.

Without the proposed improvements, safe and effective public access to the coast, and particularly to areas of coastal recreation, including areas that offer lower cost visitor services and recreational opportunities, would continue to be unsafe. No alternative exists to provide safe public coastal access at the proposed site and to the Van Duzen River, nor does an alternative route exist that would provide coastal visitors with the choice of a safer means of accessing the coastal recreational

amenities of the north coast without traveling this section of Highway 101 for many miles.

This unsafe situation significantly affects public coastal access and recreation opportunities on the entire north coast as the Highway 101 is a primary link for north coast transportation and to almost all coastal access and recreation destinations north of the proposed bridges location, and including to the Van Duzen River via the nearby accessway just south of the proposed interchange.

Denial of the proposed project would result in the continued operation of the existing highway intersection and coastal accessway with the risks associated with the operational conflicts and resultant traffic safety hazards identified by Caltrans and discussed in detail in the previous sections of this report. Therefore, approval of the project is necessary for safe public access and denial would result in continued significant risk of traffic accident for travelers in this section of Highway 101.

5) The benefits of the project must result from the main purpose of the project, rather than from an ancillary component appended to the project to "create a conflict":

A project's benefits to coastal resources must be integral to the project purpose. If a project is inconsistent with a Chapter 3 policy, and the main elements of the project do not result in the cessation of ongoing degradation of a resource the Commission is charged with enhancing, the project proponent cannot "create a conflict" by adding to the project an independent component to remedy the resource degradation. The benefits of a project must be inherent in the purpose of the project. If this provision were otherwise, project proponents could regularly "create conflicts" and then request that the Commission use Section 30007.5 to approve otherwise unapprovable projects. The balancing provisions of the Coastal Act could not have been intended to foster such an artificial and easily manipulated process, and were not designed to barter amenities in exchange for project approval.

The proposed Alton Interchange and Van Duzen River coastal access relocation project is designed to resolve existing operational conflicts that create an extraordinary risk of traffic accident that directly affects public access to the Van Duzen River and access to other coastal access locations along the north coast. The project as proposed by Caltrans consists of median closures, interchange structures, and accessway relocations designed to eliminate the existing operational conflicts that create the risks identified by Caltrans. Therefore, the benefits to public access along the coast are integral to the project purpose.

6) There are no feasible alternatives that would achieve the objectives of the project without violating any Chapter 3 policies:

Finally, a project does not present a conflict among Chapter 3 policies if at least one feasible alternative would meet the project's objectives without violating any Chapter 3 policy. Thus, an alternatives analysis is a condition precedent to invocation of the balancing approach. If there are alternatives available that are consistent with all of the relevant Chapter 3 policies, then the proposed project does not create a true conflict among those policies.

As noted above, over the past two years Caltrans evaluated a variety of project alternatives to determine the best feasible design for the proposed Alton Interchange and Van Duzen River access relocation. The analysis evaluated the "no project" and onsite alternatives. No offsite alternative was evaluated because the interchange and river accessways must be constructed in a location proximate to the existing highway corridor and the interchange must tie in to the point of conformity with the existing Highway 36/101 Alton configuration and with the existing Van Duzen River public access roadway and trail system on the west side of the highway. It is important to consider that Highway 36 is itself a significant link in the regional transportation system and one of the few connectors to the coast from Interstate 5 and the Red Bluff area, and the greater Sacramento Valley. The "no project" alternative would have Caltrans maintain and require the public to use the current, hazardous traffic conditions imposed by the connection of two highways at an intersection that was not designed to safely serve this purpose, as well as a coastal accessway to the Van Duzen River, taking ingress and egress directly from the highway, rather than from a frontage road system as Caltrans proposes in the subject project.

While the existing highway configuration is not subject to being shutdown due to safety deficiencies, denial of the project proposed by Caltrans would result in continued operation of the existing highway intersection and coastal accessway under conditions that, as noted above, are not designed in accordance with contemporary safety and design standards that Caltrans now applies to such locations and traffic conditions. This situation would, as discussed above, result in further elevated traffic accidents and potential loss of life, and the impairment of safe and effective public coastal access and coastal recreation. Therefore, denial of the proposed project would result in a development inconsistent with the requirements of Coastal Act Sections 30210, and 30214. For the reasons set forth above, the Commission finds that there are no feasible alternatives available within the general project area that could be safely implemented consistent with the public coastal access and recreation policies of the Coastal Act that would reduce the proposed project's adverse impacts on coastal agriculture.

Existence of a Conflict Between Chapter 3 Policies: Based on the above, the Commission finds that the proposed project presents a conflict between Section 30241 on the one hand, and Sections 30210 and 30214, on the other, that must be resolved through application of Section 30007.5, as described below.

4.3.6.3 Conflict Resolution*:* After establishing a conflict among Coastal Act policies, Section 30007.5 requires the Commission to resolve the conflict in a manner that is on

balance most protective of coastal resources. As noted previously, the project would impermissibly and permanently convert prime coastal agricultural lands to highway use, and the approximately 39 - 42 acres of prime agricultural land that would be thus converted represent both individually and cumulatively significant adverse impacts on coastal resources, thus making the project as proposed by Caltrans inconsistent with Section 30241 of the Coastal Act. However, denying the project because of its inconsistency with these policies would result in significant adverse effects on coastal public access and recreation resources due to the continuing operational conflicts and resultant increased traffic accidents in the subject area.

As stated, the conflict resolution provisions require that the conflict be resolved in a manner which on balance is the most protective of significant coastal resources. To meet this test, it is necessary that adverse impacts on coastal agricultural resources be mitigated to the maximum extent feasible. Caltrans proposes to undertake mitigation of the adverse impacts the subject project will have on coastal agricultural resources, including payment of $2 million in mitigation funds to the College of the Redwoods Foundation for the purpose of enhancing the College's agricultural education program specifically to protect and maintain the Shively Farm (the College's 38-acre agricultural teaching farm) and to prevent its conversion to non-agricultural use, as discussed in detail herein, and as required pursuant to Special Condition 11 (Agricultural Mitigation).

The Commissions find that on balance, therefore, approval of the Interchange and coastal access relocation project to provide continued safe and enhanced public coastal access together with the provision of agricultural mitigation proposed by the College of the Redwoods agricultural education program enhancements as explained above and as set forth in Special Condition 11 is more protective of coastal resources than denial of the project. The Commission further finds that the College of the Redwoods agricultural education program enhancements will provide sufficient mitigation through agricultural education program enhancement – including the recovery of a threatened agricultural education program and 38-acre agricultural teaching farm of importance to the North coast agricultural region -- such that with the mitigation, approving the proposed project will resolve the conflict in a manner which on balance is most protective of significant coastal resources.

To ensure that the agricultural mitigation benefits of the project that would enable the Commission to use the balancing provision of Section 30007.5 are achieved, the Commission attaches Special Condition 11, which requires the applicant, prior to commencement of any development, to provide to the College of the Redwood Foundation the proposed non-refundable mitigation fee in the sum of two million dollars after the College of the Redwoods Foundation and the Commission have entered into a agreement detailing how the funds would be used for the benefit of the Shively Education Center Sustainable Agricultural Teaching Farm. The Commission finds that without Special Condition 11, the proposed project could not be approved pursuant to Section 30007.5 of the Coastal Act.

The $2,000,000 deposit to be made into the account for the benefit of the Shively Farm pursuant to this special condition shall mitigate for the conversion of up to 42 acres of prime agricultural land associated with the replacement of the Alton Intersection and associated freeway improvement project as authorized by Coastal Development Permit No. 1-07-038. The Commission finds that the proposed mitigation, which will help keep the approximately 38-acre Shively Farm from being converted to another use, and significantly enhance the College of the Redwoods agricultural education program, which is of significant importance to the ongoing sustainability of agriculture in the North Coast Region, provides sufficient mitigation to compensate for the conversion of up to 42 acres of prime agricultural land associated with the approved development.

The Commission also acknowledges that the $2,000,000 deposit made into the account for the benefit of the Shively Farm may, once approved by the Commission, also serve as mitigation for impacts to agriculture caused by two other Caltrans projects. One such project previously approved by the Commission is the Mad River Bridges replacement project which will result in the conversion of 3.58 acres of prime agricultural land (CDP 1-07-013, Caltrans, approved June 11, 2007). The other project that remains pending is the Klamath Grade Raise project in Del Norte County, which may convert up to 2 acres of agricultural land.

Although the 38 acres of agricultural land that would be saved from conversion at the Shively Farm by the mitigation measure does not represent a straight one for one replacement of the total of 47.58 acres of agricultural land that would be converted for the three Caltrans bridge and highway development projects discussed above (Mad River Bridge, Alton Interchange, and Klamath Grade Raise), the Executive Director believes that certain aspects of the mitigation measure compensate for the smaller acreage. First, all of the 38 acres of agricultural land that would be protected at the Shively Farm consists of prime agricultural land. In addition, the Caltrans proposal to endow the agricultural education program at the College of the Redwoods in a manner that is focused on bolstering and revitalizing the Shively Farm provides other agricultural benefits to the broader community of the north coast as well. The College's program would protect and enhance the agricultural teaching function of the Shively Farm. The training of farmers will help sustain the areas agricultural economy by providing knowledgeable farmers to the region who will produce agricultural products that can sustain agricultural use of the region's agricultural lands. The permanent teaching position would anchor faculty continuity and long term planning of the educational program to maximize the use of the Shively Farm. Finally, the program would provide outreach to the community in matters of agricultural sustainability. It is the Executive Director's opinion that with these added benefits, the mitigation measure as proposed and conditioned would adequately mitigate for the total of 47.58 acres of agricultural land that would be affected by the three bridge and highway projects. The Executive Director's opinion is based on the figures presented by Caltrans for the amount of acreage that would be affected by the three projects. The acreage of permanent direct conversion of agricultural lands to highway use for the Alton Interchange is between 39 and 42 acres. The Klamath Grade Raise project has not been acted on by the

Commission, but represents a maximum of 2 acres of potential conversion that would be mitigated by the $2 million payment to fund the foundation account for support of the Shively Farm and the agricultural education program of the college. The Commission-approved coastal development permit for the Mad River authorizes 3.58 acres of prime agricultural land conversion.

Any additional adverse impacts on agricultural productivity beyond the permanent direct conversion of up to 47.58 acres of agricultural land (or impacts posed by projects other than Alton Interchange, Mad River Bridges, or Klamath Grade Raise projects) would require additional mitigation beyond that proposed in the $2 million College of the Redwoods fund discussed herein.

The Executive Director's opinion that the Shively Farm mitigation measure may be used to mitigate the above-specified conversion of agricultural lands at the Alton Interchange and Mad River Bridges projects cannot legally bind a future Coastal Commission in its future review of the Klamath Grade Raise project. A future Commission is free to accept or reject the mitigation fee as sufficient mitigation for that project. However, the Executive Director has indicated to Caltrans staff that he will recommend at the time the Commission reviews a coastal development permit application for the Klamath Grade Raise project that the mitigation required by Special Condition 11 is sufficient to mitigate not only for the conversion of up to 42 acres of agricultural land associated with the proposed Alton Interchange project and for the conversion of 3.58 acres of agricultural land associated with the previously approved Mad River Bridges project, but also for the conversion of up to 2 acres of agricultural land associated with the proposed Klamath Grade Raise project (no coastal development permit application has been submitted yet for the latter project).

4.3.6.4 Conclusion: Consistency with the Coastal Act

The Commission finds that the construction of the proposed interchange at Alton Highway 36 and Highway 101 and its associated freeway improvements that provide the relocation of the Van Duzen River coastal accessway south of the interchange as proposed by Caltrans would cause adverse impacts on coastal agricultural resources.

Even though the proposed Alton Interchange proposed location is the most suitable of the feasible and available sites for reducing operational hazards of existing traffic on a public access route, essential to the public's ability to access the coast, approving the construction of the new interchange at the proposed location would not be fully consistent with the requirements of Section 30241 to preserve the maximum amount of prime agricultural land and to avoid cumulatively adverse impacts of development on coastal resources. The proposed location of the new bridges would require the permanent conversion of approximately 39—42 acres of prime agricultural lands with highly productive soils to non-agricultural use for highway purposes.

However, the Commission also finds that without the proposed improvements, safe and effective public access to the coast, and particularly to areas of coastal recreation, including areas that offer lower cost visitor services and recreational opportunities, would continue to be unsafe. Denial of the proposed project would result in the continued operation of the existing highway intersection and coastal accessway with the risks associated with the operational conflicts and resultant traffic safety hazards identified by Caltrans and discussed in detail in the previous sections of this report. Therefore, approval of the project is necessary for safe public access and denial would result in continued significant risk of traffic accident for travelers in this section of Highway 101.

No alternative exists to provide safe public coastal access at the proposed site and to the Van Duzen River, nor does an alternative route exist that would provide coastal visitors with the choice of a safer means of accessing the coastal recreational amenities of the north coast without traveling this section of Highway 101 for many miles. The proposed Alton Interchange and Van Duzen River coastal access relocation project is necessary to resolve existing operational conflicts that create an extraordinary risk of traffic accident that directly affects public access to the Van Duzen River and access to other coastal access locations along the north coast.

A true conflict between Chapter 3 policies results from a proposed project which is inconsistent with one or more policies, and for which denial or modification of the project would be inconsistent with at least one other Chapter 3 policy. Further, the policy inconsistency that would be caused by denial or modification must be with a policy that affirmatively mandates protection or enhancement of certain coastal resources. Denial of the proposed construction of the Highway 101/Highway 36 interchange would be inconsistent with Section 30210 of the Coastal Act. In such a situation, when a proposed project is inconsistent with a Chapter 3 policy but denial or modification of the project would be inconsistent with another policy, Section 30007.5 of the Coastal Act provides for resolution of such a policy conflict.

The Commissions find that on balance, therefore, approval of the Interchange and coastal access relocation project to provide continued safe and enhanced public coastal access together with the provision of agricultural mitigation proposed by the College of the Redwoods agricultural education program enhancements as explained above and as set forth in Special Condition 11 is more protective of coastal resources than denial of the project.

The Special Conditions of this report are necessary to ensure the proposed project's adverse impacts are minimized and to the extent feasible, mitigated, and the benefits of the proposed project thus fully realized. Therefore, the Commission finds that approval of the proposed project is "most protective of coastal resources" for purposes of the conflict resolution provisions of Coastal Act Section 30007.5.

4.3.7 GROWTH-INDUCING IMPACTS ON ADJOINING AGRICULTURAL LANDS

4.3.7.1 Coastal Act Provisions

Section 30254 Public works facilities

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. (emphasis added)

Section 30114 Public works

"Public works" means the following:

(a) All production, storage, transmission, and recovery facilities for water, sewerage, telephone, and other similar utilities owned or operated by any public agency or by any utility subject to the jurisdiction of the Public Utilities Commission, except for energy facilities.

(b) All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations, bridges, trolley wires, and other related facilities.

4.3.7.2 Analysis.

The agricultural lands bordering Highway 101 on the west side of the highway are located within the coastal zone and access to these large tracts of grazed and cultivated prime agricultural lands is presently taken from Fowler Lane or directly from Highway 101, which substantially limits any potential for additional development due to existing constraints on ingress/egress via Highway 101. However, the construction of new frontage roads through these agricultural lands removes this barrier to other forms of more intensive, and non-agricultural development. Thus, the proposed project could adversely affect existing agricultural land uses by facilitating, or creating pressure for, future conversion of agricultural land that would otherwise not be accommodated without the new frontage roads.

Section 30254 of the Coastal Act states in part 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 the Coastal Act. As noted above, Sections 30241 and 30242 of the Coastal Act only allow the conversion of agricultural lands in very limited circumstances. Thus, the proposed highway project, as an expanded public works facility, must be designed and limited in a manner that accommodates the needs of the existing agricultural uses of the area but does not accommodate the conversion of these agricultural lands to non-agricultural uses inconsistent with Sections 30241 and 30242 of the Coastal Act.

Therefore, to ensure consistency with Section 30254 of the Coastal Act, staff recommends special conditions limiting Caltrans' issuance of encroachment permits for ingress and egress to the new frontage roads to only agricultural uses and other legally permitted uses already in existence at the time of Commission approval. (Special Condition 13). In addition, staff is recommending a special condition that would restrict to agricultural use any excess piece of agricultural land that Caltrans has acquired but will not be converting directly into a part of the project. Thus Special Condition 15, limiting the use of any excess pieces of agricultural use would also require that Caltrans only convey such excess land in a manner that does not result in the excess land being legalized as a separate parcel.

Furthermore, staff is recommending a Special Condition 14 requiring the submittal of a plan to create an agricultural crossing of one of the new frontage roads to better utilize a portion of agricultural land that would otherwise be isolated from the related agricultural land across the frontage road. Consistent with Section 30254 of the Coastal Act, these three special conditions will ensure that the project will be designed and limited in a manner that accommodates the needs of the existing agricultural uses of the area but does not accommodate the conversion of these agricultural lands to non-agricultural uses inconsistent with Sections 30241 and 30242 of the Coastal Act.

4.3.7.3 Conclusion

Provided the proposed project is constructed in accordance with the requirements of these special conditions, the Commission finds that the proposed project will not contribute to the further conversion of agricultural lands adjoining the subject road facilities but would be designed and limited to accommodate only needs generated by development permitted consistent with the requirements of the Coastal Act. Therefore, the Commission finds that as proposed, the proposed project is consistent with the requirements of Coastal Act Section 30254.

5.0 UNPERMITTED DEVELOPMENT

Development has occurred on site without benefit of the required coastal development permit. Unpermitted development on the site includes demolition and removal of an agricultural barn south of Fowler Road and west of Highway 101 (visible in Exhibits D and G), the construction of a gate (location identified in Exhibit G), placement of large boulders, and posting of signage limiting public access to the existing driveway within the Caltrans right-of-way west of Highway 101, south of Fowler Road, south of the River Access Road turnoff from Highway 101, leading to the Van Duzen River. The affected public right of way that is blocked by the unpermitted development has historically provided public coastal access to the Van Duzen River and environs.

Caltrans is requesting after-the-fact authorization for the removal of the barn as part of the subject application. Caltrans proposes, as part of the subject application, to remove the gate, and has verified that removal of the boulders and signage has commenced.

Special Condition 19 (Public Coastal Access Improvement Plan) requires the submittal of a plan for public access improvements that finalizes the details of the removal of the gate, boulders, and signage, and the installation of public coastal access parking, removable vehicle barriers (such as bollards), and related features of the proposed project. To ensure that the matter of the unpermitted development is addressed in a timely manner, Special Condition 19 requires the Final Public Coastal Access Improvement Plan to be submitted and approved prior to commencement of any development authorized by the permit. Additionally, such plan must also include provisions that ensure that the gate, boulders and signage located within the Van Duzen River access road right of way are removed prior to commencement of any development authorized by this permit.

Although unpermitted development has taken place prior to submission of this permit application, consideration of the permit application by the Commission has been based solely on the consistency of the proposed development with the public access policies of the Coastal Act. Action on this coastal development permit application does not constitute a waiver of any legal action with regard to the alleged unpermitted

development, nor does it imply any finding of legality of any development undertaken on the subject site without a coastal development permit.

6.0 OTHER AGENCY APPROVALS

The project requires review and authorization by the U.S. Army Corps of Engineers. Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the U.S. Army Corps of Engineers, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit.

Air quality permits or certifications may also be required for the proposed project. Caltrans has already presented evidence of the North Coast Regional Water Quality Control Board approval of a Water Quality Certification for the proposed project, dated January 22, 2009. Special Condition 1 requires Caltrans to submit evidence to the Executive Director, prior to issuance of CDP 1-07-038, that all pertinent state and federal authorizations and approvals have been received for the subject project.

7.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Caltrans, acting as lead agency pursuant to the California Environmental Quality Act (CEQA), certified a Mitigated Negative Declaration (SCH 2005032007) for the subject "*Alton Interchange Project*", which incorporated the published responses of Caltrans to public comments, in May 2005.

Section 13906 of the Commission's administrative regulation requires Coastal Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, is consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are any feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full, including all associated environmental review documentation and related technical evaluations incorporated by reference in this staff report. No public comments regarding potential significant adverse environmental effects of the project were received prior to preparation of the staff report. As discussed above, the proposed project has been conditioned to be consistent with the policies of the Coastal Act. As specifically discussed in the findings set forth above, which are hereby incorporated by reference, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible

alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

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April 21, 2008

01-HUM-101-PM57.0-58.5
EA 290302

Ms. Melanie Faust
Coastal Program Analyst
California Coastal Commission
710 E Street, Suite 200
P.O. Box 4908
Eureka, CA 95502-4908

RECEIVED
APR 21 2008
CALIFORNIA
COASTAL COMMISSION

Dear Ms. Faust:

This letter is to provide you with an amendment to the project description for the Alton Interchange (CDP Application 1-07-038). Two changes are proposed: 1) to remove a gate that is located across the river access road near the southern limits of the project, on the west side of Route 101 and 2) to install vehicle barriers separating the adjacent property owned by Leland Rock (APN 201-261-09) from the Caltrans owned right of way and the river access road. Such barriers will not cross perpendicular to the river access road. Specific plans showing the details of this proposed amendment will be provided to your office at a later date.

Should you have any questions or concerns about this proposed amendment, please feel free to contact me at (707) 441-5877.

Sincerely,

Richard Mullen
North Region Project Manager

Enclosures

Mr. Robert Merrill, California Coastal Commission

EXHIBIT NO. 1
APPLICATION NO.
1-07-038
CALTRANS
REVISION TO CALTRANS PROJECT DESCRIPTION (GATE REMOVAL)

EXHIBIT NO. 2

APPLICATION NO.

1-07-038 - CALTRANS

UNPERMITTED GATE PROPOSED FOR REMOVAL IN EXHIBIT 1

EXHIBIT NO. 3

APPLICATION NO.

1-07-038 - CALTRANS

CLOSE-UP VIEW OF UNPERMITTED SIGN SHOWN IN EXHIBIT 2

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

MEMORANDUM

EXHIBIT NO. 4
APPLICATION NO.
1-07-038 - CALTRANS
MEMORANDUM, JACK H. GREGG, PhD, SUPERVISOR, COASTAL COMMISSION WATER QUALITY UNIT

TO: Melanie Faust
FROM: Jack Gregg, Ph.D., Water Quality Supervisor
RE: Alton Interchange Water Quality Review
DATE: April 23, 2008

I reviewed several documents provided by Caltrans on this project and have the following comments. The BMPs described in the SWDR appear to be appropriate project features to protect water quality from highway runoff given the surrounding land uses and topography of the site. Of more concern at this site is preventing pollutants left by past practices from impacting environmental resources, especially the flood control basin that is being counted on to provide wetland habitat value as partial mitigation for project wetland fill.

Post Construction BMPs

Caltrans proposes to reduce the impacts of road generated pollutants at the Alton Interchange by using best management practices (BMPs) selected from a set of BMPs that Caltrans has tested statewide and that satisfy the requirements of the NPDES Permit for Stormwater Discharges (Order No. 99- 06- DWQ) approved by the State Water Resources Control Board in 1999. These include using the proposed new drainage system and wetland mitigation area to attenuate the potential increase in downstream velocities and peak flows due to the increase in impervious surface area. On page 5 of the Storm Water Data Report (SWDR) dated June 2007, Caltrans indicates that the BMP will attenuate peak flows so that they do not exceed the peak flows of the previous drainage system and so that off-site flows will not be increased. Disturbed slopes will be revegetated and slopes will be contoured to reduce concentrated flow. They propose Biofiltration Strips and Swales as permanent Treatment BMPs and will construct 1.9 hectares of Biofiltration BMPs to treat runoff from 3.2 hectares of new impervious surface. The BMPs described in the SWDR appear to be appropriate project features to protect water quality from highway runoff given the surrounding land uses and topography of the site.

Reuse of soils from Hansen's Truck Stop

In a letter of February 21, 2006, Caltrans informed the North Coast Regional Water Quality Control Board (NCRWQCB) staff that they had characterized 2000 cubic yards of shallow soil at Hansen's Truck top as having petroleum hydrocarbon contamination and that they "did not find hazardous waste levels (TTLC or STLC) of any CAM 17 metals in any of the 65 samples submitted for analysis" and that levels of "FOCs, VOCs, SVOCs and PCBs detected were also below levels that required action".

I concur with the June 12, 2006 NCRWQCB staff recommendation to Caltrans that those soils from Hansen's Truck Stop could be used as fill material for construction of the new interchange without being a threat to water quality under the following conditions:

1. Material will be place at an elevation at least 5 feet above groundwater and be underlain by the least permeable material available at the site. An impermeable membrane will be used if low permeable material is not available.
2. Material will be placed under an asphalt/concrete roadway that will act as a low permeability surface.
3. Material will not be placed in drainage ways or wetlands.
4. Comply with local grading ordinance
5. Soils are not transported or exposed during wet weather conditions.
6. Document the location of the placed impacted materials.

Consistent with state law, the NCRWQCB can modify that recommendation at any time if new information comes to light that is contrary to the description of the contamination by Caltrans.

Aerially Deposited Lead contaminated soils

Caltrans has determined that soils along many of its older roadways including the Alton Interchange area are contaminated with Aerially Deposited Lead (ADL) as legacy contaminants left over from the period when lead was a common gasoline additive. ADL is relatively mobile in soils compared to particulate lead, perhaps due to its combination with organic molecules as a gasoline additive and to it subsequent distribution with fine particles in automobile exhaust. As such ADL in roadside soils commonly exceeds hazardous waste regulation thresholds found in California's Health and Safety Code and those soils require special handling and disposal if they are picked up or moved. In some cases the California agency responsible for enforcing hazardous waste regulations (the Department of Toxic Substance Control or DTSC) has granted a variance to those regulations for ADL soils under specific conditions. Those conditions include that the ADL soils can be incorporated into road base materials provided that they are placed at least five feet above the highest groundwater levels and protected from rainwater infiltration by impervious roadway materials. While some Caltrans districts have received this variance, as of the date of this memo, the district including the Alton interchange has not.

As such, Caltrans is not legally able to pick up, move or mix the ADL soils without invoking Health and Safety code requirements to track those soils and take them to an appropriate disposal facility within a specific time frame. Given these constraints, Caltrans may elect to work around the ADL locations and leave that material in place where feasible. They may also pursue the appropriate variance from DTSC to use the contaminated soils in the construction of the road, in such a way that the lead will not be leached from the soils. Caltrans will remain responsible for those soils, maintaining the protective conditions that prevent leaching of the lead and tracking the safe handling of those soils until they are properly treated or disposed in another appropriate facility.

Caltrans will likely try to minimize the amount of ADL contaminated soils that they have to move or handle in order to minimize the application of hazardous waste laws to their project. Nevertheless, they will probably have to move some of the soils and the construction may subject the existing ADL soils to erosion or displacement by construction vehicles. Caltrans should be required to apply construction BMPs that are specifically applied to prevent erosion or displacement of the ADL soils.

Where Caltrans does move the ADL contaminated soils they should be required to notify DTSC and properly handle the soils according to the California Health and Safety Code.

Where Caltrans does expose ADL contaminated soils through their construction project they should be required to manage the soils in place with construction Best Management Practices during the course of construction, cover the exposed soils with asphalt before completion of construction and maintained in place by Caltrans until the subject soils can be moved in accordance with state hazardous waste regulations. The asphalt or other equivalent semi-permanent and maintainable materials will be used to prevent erosion or leaching of the ADL and mark the location of the soils exposed by the construction.

Where ADL soils occur within ten (10) feet of project bioswales, sand filters, or the mitigation wetland or other earthen drainage features of the subject project, they should be removed and replaced with clean soil for the purpose of preventing enhanced movement of ADL or other forms of lead into water quality treatment features or sensitive habitat.

I would recommend allowing the soil to be placed under the roadway if Caltrans can obtain a variance pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code and the variance contains at least the following conditions that are found in the Caltrans District 4 waiver:

1. All lead-contaminated soil that cannot be buried and covered within the same corridor from where it originated shall be managed as a hazardous waste.
2. Lead-contaminated soil will not be moved outside the designated Caltrans corridor boundaries.
3. Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.
4. Lead-contaminated soils shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.
5. The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.
6. The presence of lead-contaminated soil will be incorporated into the project's as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and the volume of lead-contaminated soil. The as-built drawings shall also state the depth of cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

7. Caltrans shall ensure that no other hazardous wastes, other than lead-contaminated soil, are placed in the burial area.
8. Lead contaminated soils shall not be placed within ten (10) feet of culverts or locations subject to frequent worker exposure.

Recommendation

Since Caltrans does not have a variance from DTSC for this project, any ADL soil that is move in any way shall be reported to DTSC and subject to requirements of that agency dealing with hazardous waste. Any ADL soils that are left in place shall be managed to prevent erosion of those soils into waters of the State. Any ADL soils that are exposed by construction activities shall be managed in place with construction BMPs during the course of the construction, covered with asphalt before completion of construction and maintained in place by Caltrans until they can be moved in accordance with state hazardous waste regulations. ADL soils within ten (10) feet of bioswales or the mitigation wetland or other earthen drainage features of this project shall be removed and replaced with clean soil in order to prevent enhanced movement of ADL or other forms of lead into water quality treatment features or sensitive habitat.

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MEMORANDUM

FROM: John Dixon, Ph.D.
Ecologist

TO: Melanie Faust

SUBJECT: Alton Interchange – Mitigation & Monitoring Plan

DATE: May 20, 2007

EXHIBIT NO. **5**
APPLICATION NO.
1-07-038 - CALTRANS
MEMO, J. DIXON, Ph.D., SR. STAFF ECOLOGIST, COASTAL COMM. TECHNICAL SERVICES UNIT (1 of 3)

Documents reviewed:

ICF – Jones & Stokes. May 16, 2008. Wetland Mitigation and Monitoring Plan for the Alton Interchange Project. Prepared for North Region Environmental Management Branch E1 of the California Department of Transportation.

1. The locations and footprints of biofiltration strips and swales are not shown (reference is made to a storm water data report). These feature should be mapped.
2. Maps should have features that are referenced in the text labeled (e.g., Van Duzen River levee, Wyman Site, Fowler Lane Ditch, etc.). Maps should include a physical scale in addition to the statement of scale (1:2000).
3. It is stated that water quality features will treat about 36% of pavement runoff. What percentage of water flowing into the mitigation wetlands will have no treatment?
4. Add the following language:
    a. Final monitoring for success shall take place no sooner than 3 years after the end of all remediation and maintenance activities other than weeding. [Remove suggestions about finishing early.]
    b. A final monitoring report should be submitted for the review and approval of the Executive Director of the Coastal Commission at the end of the 5 year monitoring period. The final report shall be prepared by a qualified restoration ecologist and will evaluate whether the restoration site has achieved the goals and success criteria set forth in the approved Mitigation and Monitoring Plan.
    c. If the final report indicates that the restoration project has been unsuccessful, in part or in whole, based on the approved success criteria, the applicant shall submit within 90 days a revised or supplemental restoration program to compensate for those portions of the original program which did not meet the approved success criteria. The revised restoration program shall be processed as an amendment to the coastal

development permit unless the Executive Director determines that no permit amendment is required.

5. Table 3-1 suggests that the monitoring period ends in 2013. However, since planting will not be completed until February 2010, the earliest the monitoring period could end would be February 2015. If irrigation is applied as shown, the earliest monitoring could be completed in the riparian areas would be October 2018.
6. The compaction criterion for the created wetland subsoil should be specified.
7. Plant propagules should be obtained from Sonoma, Mendocino, Humboldt, or Del Norte Counties within 30 miles of the coast. The native plant nurseries that will potentially be used should be identified and the probable availability of seeds or container plants determined.
8. It is stated that restoration areas will be seeded and then container plants installed. In my experience, this is backwards. Seeding generally follows planting so as not to disturb the newly seeded soil. This decision should be explained.
9. *Hordeum vulgare*, a non-native upland plant, and *Vulpia microstachys*, an upland native are proposed for planting in wetlands. These species should be removed from the planting palette. Similarly, *Hordeum vulgare* should be removed from the erosion control palette.
10. The application of soil amendments to riparian plantings should be justified. Generally, restoration plantings are not fertilized.
11. The "as-built" monitoring report should be submitted within 90 days of the completion of planting and seeding.
12. Weed control should not be restricted to invasives. All non-native plants should be removed during the maintenance period. Weed control should be a prominent feature of all restoration areas. If herbicides cannot be used, removing non-natives is likely to be difficult. I suggest that consideration be given to excavating the "enhancement" areas to increase the period of soil saturation to reduce invasion by upland weeds. Controlling wetland weeds may still be a problem.
13. Referring to "restored wetlands" as is done in this report is confusing. These sections would better be captioned "Areas of Temporary Impact."
14. In Table 3-2 the column labeled "Common Name" contains container sizes.
15. It is not clear why "relative percentage of cover" is a performance standard. How does that performance standard differ from the standard for "absolute cover." If there is no difference, delete the former. In any event, "relative cover" is calculated from estimates of "absolute cover"; it is not directly visually estimated as suggested on page 5-4.
16. The text suggests that a performance criterion is that the mitigation areas meet the Corps criterion for "hydrophytic vegetation." This seems redundant. If there is 80% cover of wetland plants as called for in Table 5-1, the vegetation will be "hydrophytic."
17. The performance standards for herbaceous areas should include criteria to insure that there is reasonable biodiversity. As written, all the cover could be provided by a single species.

18. The riparian area should a have a cover requirement in addition survival and vigor standards.
19. The "Monitoring Methods" section should include the following statement: "Sampling will be done with sufficient replication to detect a difference in 5% percent absolute cover with 90% power with alpha=0.10." Determining the appropriate replication will require a statistical power analysis. Placement of around 30 quadrats within each area of interest will probably be required.
20. In the last paragraph on page 5-3, what is meant by "relevant sampling"?
21. On page 5-4, it is stated that plant cover will be visually estimated in each mitigation wetland "in its entirety" and that sub-sampling will not be done. However, on page 5-3 a sampling plan is provided. This apparent conflict should be explained.
22. Photographs at fixed points should be taken at the same time each year. Additional photographs can be taken if desired.
23. Monitoring reports should go to the Executive Director of the Coastal Commission in addition to the resource agencies.

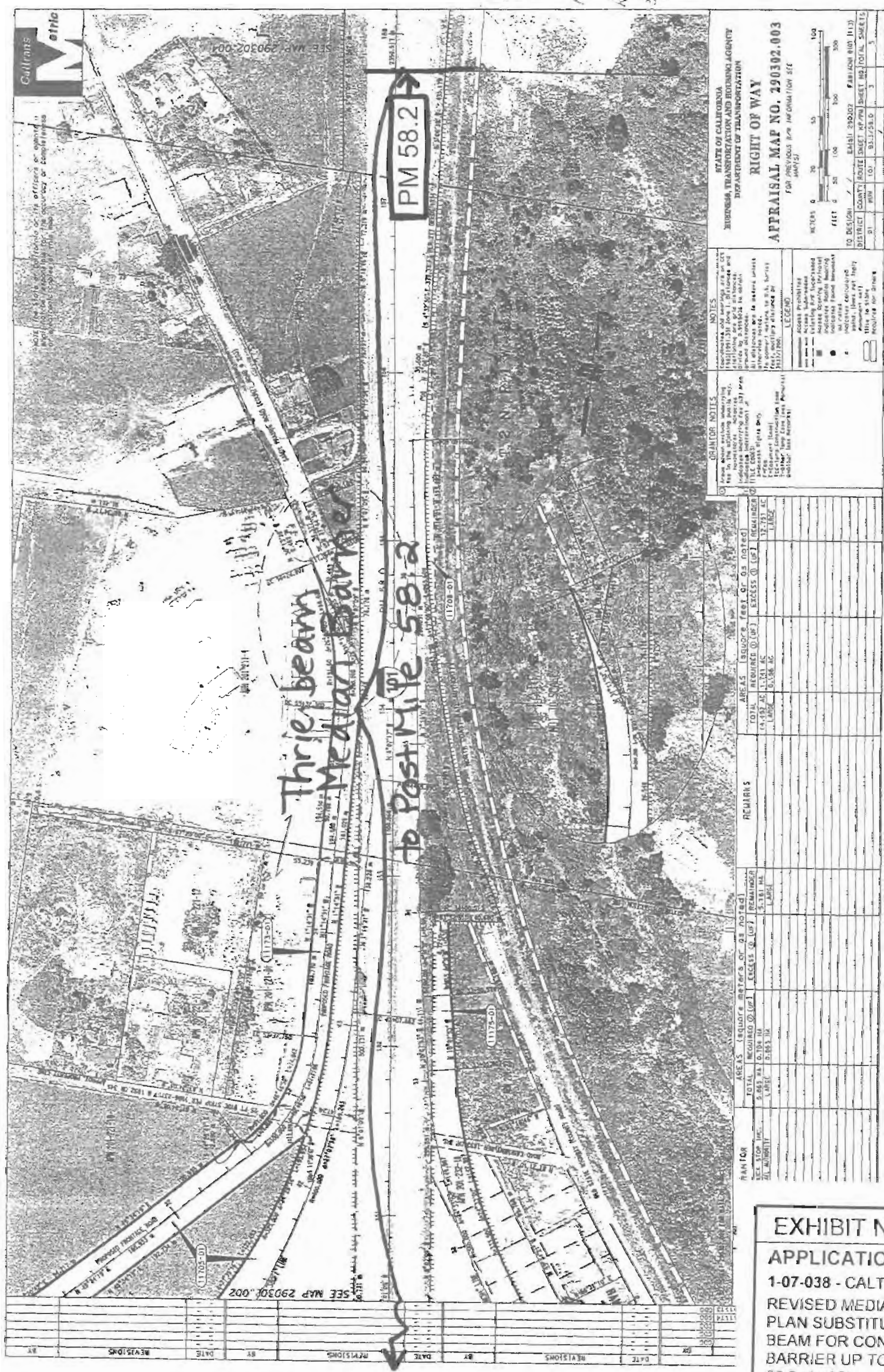


EXHIBIT NO. 6

APPLICATION NO.

1-07-038 - CALTRANS

REVISED MEDIAN BARRIER PLAN SUBSTITUTING THRIE-BEAM FOR CONCRETE BARRIER UP TO POST MILE 58.2 (1 of 2)

State of California
Department of Transportation

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Melanie Faust, Coastal Analyst
California Coastal Commission
710 E Street, Suite 200
Eureka, CA 95501

Date: May 28, 2008

File No.: 01-HUM-101
PM 57.0/59.1

From: Richard Mullen, Project Manager
District 1

Subject: CDP 1-07-038 Alton Interchange Project – revised median barrier description

Please update the project description to reflect the following change to the proposed median barrier:

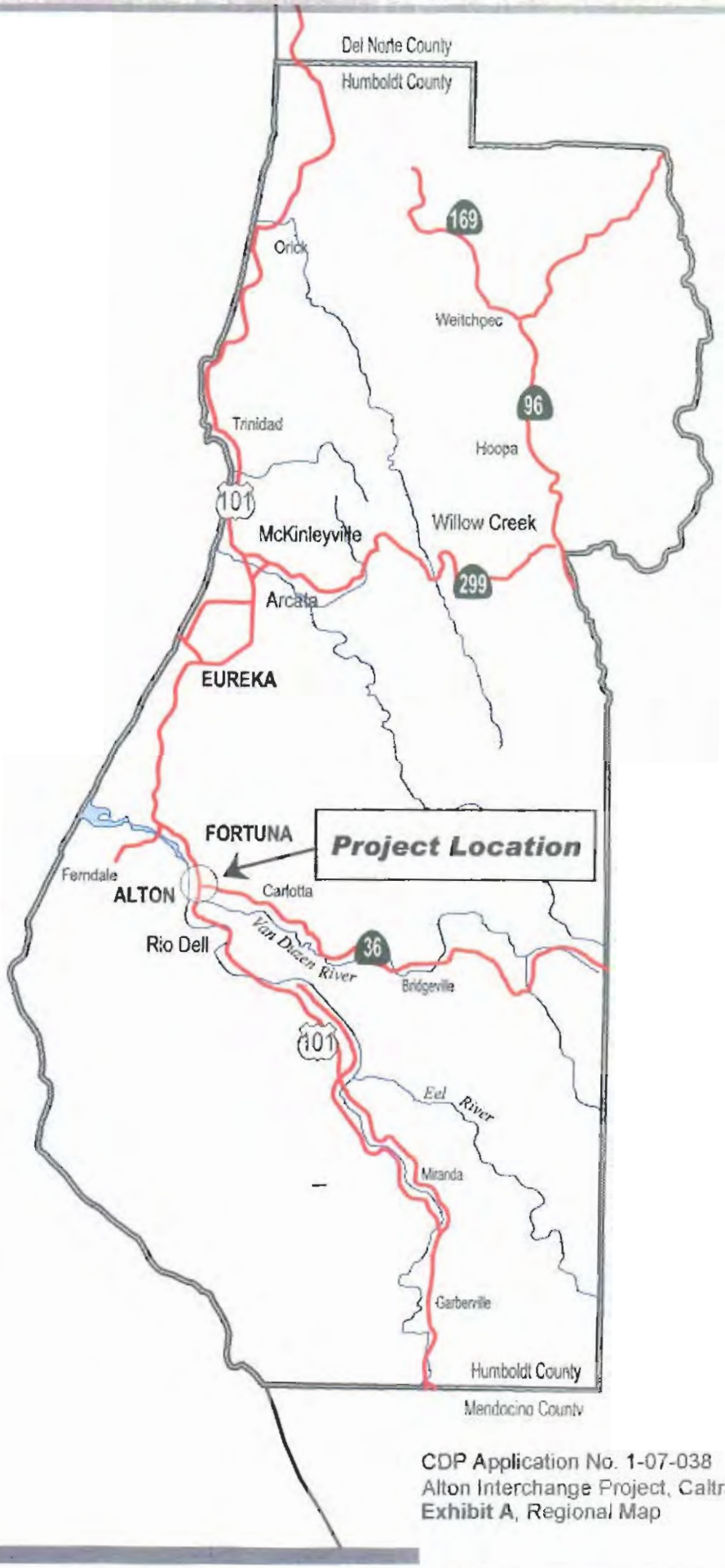
- Thrie beam will now continue north from the 36/101 interchange to PM 58.2. The remainder of the median barrier north of PM 58.2 will be concrete.

Questions may be directed as needed to Linda Evans, Environmental Coordinator, at (707) 441-5840.

Enclosure

2 of 2

Alton Interchange - Regional Map



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit A, Regional Map

Alton Interchange - Local Map

101

EUREKA

101

HUMBOLDT COUNTY

Pacific Ocean

FORTUNA

Project Location

Ferndale

Fowler Lane

36

Carlotta

ALTON

Coastal Access Road

Van Duzen River

Rio Dell

101

Eel River

Caltrans

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit B, Local Map

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
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 ELECTRONIC COPIES OF THIS PLAN SHEET.

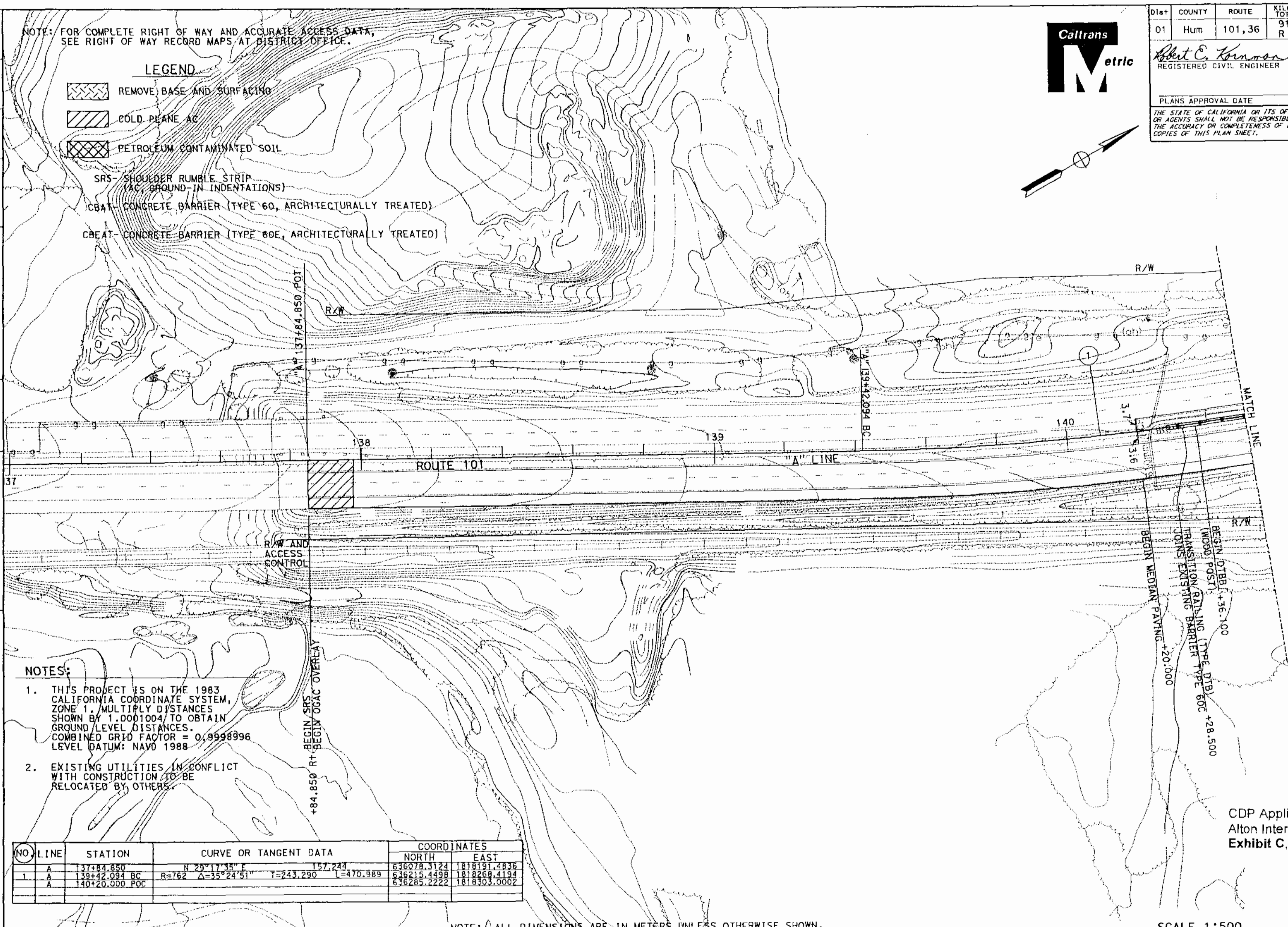
REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

Caltrans Metric

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

LEGEND

- REMOVE BASE AND SURFACING
- COLD PLANE AC
- PETROLEUM CONTAMINATED SOIL
- SRS- SHOULDER RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)
- CBAT- CONCRETE BARRIER (TYPE 60, ARCHITECTURALLY TREATED)
- CBEAT- CONCRETE BARRIER (TYPE 60E, ARCHITECTURALLY TREATED)



NOTES:

1. THIS PROJECT IS ON THE 1983 CALIFORNIA COORDINATE SYSTEM, ZONE 1. MULTIPLY DISTANCES SHOWN BY 1.0001004 TO OBTAIN GROUND LEVEL DISTANCES. COMBINED GRID FACTOR = 0.9998996 LEVEL DATUM: NAVD 1988
2. EXISTING UTILITIES IN CONFLICT WITH CONSTRUCTION TO BE RELOCATED BY OTHERS.

NO.	LINE	STATION	CURVE OR TANGENT DATA	COORDINATES	
				NORTH	EAST
	A	137+84.850	N 29°17'35" E 157.244	636078.3124	1818191.4836
1	A	139+42.094 BC	R=762 Δ=35°24'51" T=243.290 L=470.989	636215.4498	1818268.4194
	A	140+20.000 POC		636285.2222	1818303.0002

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

LAYOUT
L-1

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (1)

STATE OF CALIFORNIA ~ DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY
DESIGN	S.R. HUGHES	S. MARCHI	
		CHECKED BY	DATE REVISED
		R.E. KORNMAN	

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => t11tom
DGN FILE => 129030ea001.dgn

CU 03230

EA 290301

LAST REVISION 00-00-00

2007

NO	LINE	STATION	CURVE OR TANGENT DATA	COORDINATES NORTH	COORDINATES EAST
	H	70+00.000	N 15°49'25" E 0.314	636389.6729	1818304.6064
2	H	70+00.314 BC	R=725 Δ=23°05'26" T=148.100 L=292.181	636389.9746	1818304.6919
	H	70+04.000 BEGIN		636393.5239	1818305.6881

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (2)

LAYOUT L-2

LAST REVISION 00-00-00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR S.R. HUGHES
CALCULATED-DESIGNED BY S. MARCHI
CHECKED BY R.E. KORNMAN
REVISED BY
DATE REVISED

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => tiltom
DGN FILE => 129030ea002.dgn

CU 03230 EA 290301

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

NO.	LINE	STATION		CURVE OR TANGENT DATA				COORDINATES NORTH	COORDINATES EAST
	A	144+13.083	EC	N 6°7'17" W		2359.415		636669.5323	1818361.5124
	H	72+92.494	EC	N 7°16'1" W		113.069		636679.3736	1818326.3419
	H	74+05.563	POT	N 8° 27'42" W		126.115		636791.5341	1818312.0395
3	H	75+31.678	BC	R=175	Δ=38° 52'30"	T=61.756	L=118.737	636916.2761	1818293.4820
	C	10+00.000	BEGIN	N 1°14'31" W		177.357		636717.6402	1818367.2150
4	C	11+77.357	BC	R=400	Δ=19°48'17"	T=69.828	L=138.263	636894.9558	1818363.3705
	E	20+00.000	BEGIN	N 7°16'1" W		100.020		636784.6205	1818338.2073
5	E	21+00.020	BC	R=1000	Δ=2°51'52"	T=25.001	L=49.992	636883.8375	1818325.5553

Caltrans Metric

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

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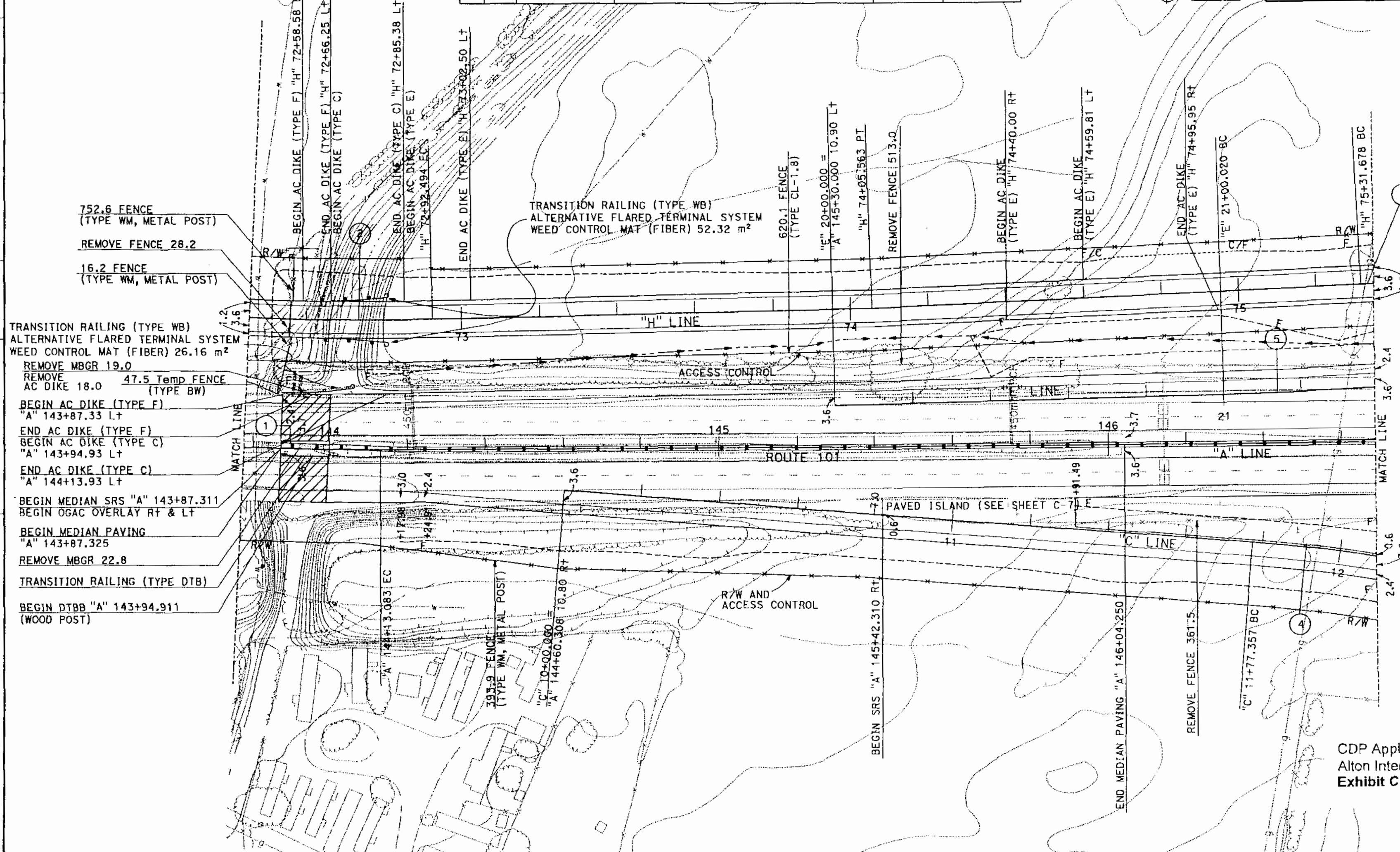

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (3)

LAYOUT L-3

SCALE 1:500

FUNCTIONAL SUPERVISOR	S.R. HUGHES	
CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY
CHECKED BY	R.E. KORNMAN	DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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Caltrans

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => tljeff

CU 03230 EA 290301

LAST REVISION 00-00-00

BORDER LAST REVISED 3/1/2007

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

NO.	LINE	STATION	CURVE OR TANGENT DATA				COORDINATES NORTH	COORDINATES EAST
	H	76+50.415 EC	N 47°20'11" W		116.796		637019.2110	1818238.9828
	C	13+15.621 EC	N 18°33'46" E		58.375		637030.9632	1818384.0862
6	E	21+50.013 PCC	R=200	Δ=35°4'19"	T=63.198	L=122.424	636933.2495	1818317.9949
	E	22+72.437 EC	N 45°12'12" W		76.865		637039.9908	1818262.0320
	DR7	380+00.000 BEGIN	S 42°39'42" W		11.017		637019.2111	1818238.9829
32	DR7	380+11.017 BC	R=15	Δ=40°22'15"	T=5.515	L=10.569	637011.1093	1818231.5168
	DR7	380+21.586 EC	S 2°17'27" W		0.837		637001.5438	1818227.5593
	DR7	380+22.424 END					637000.7071	1818227.5258

Caltrans Metric

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

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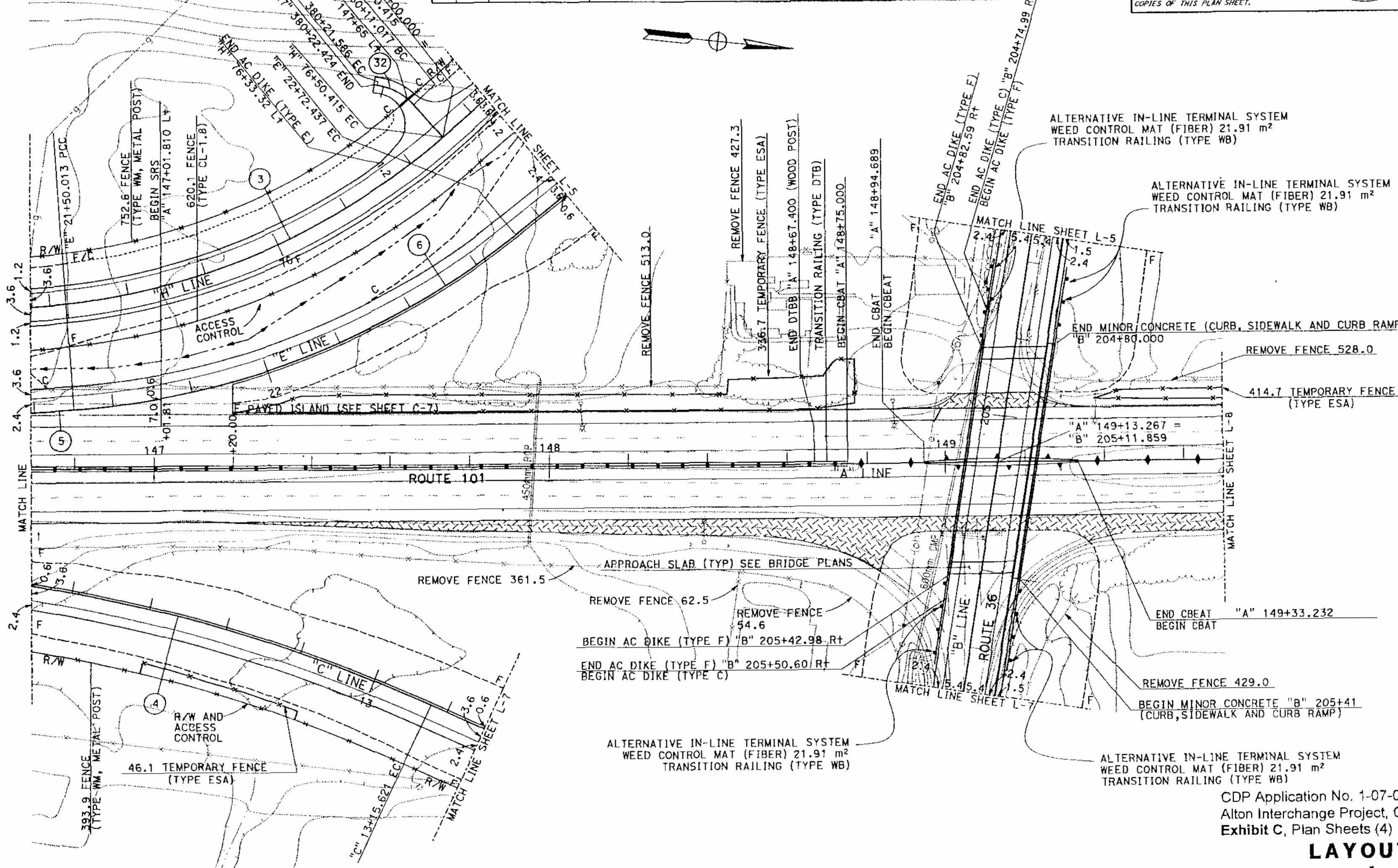

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (4)

LAYOUT L-4

SCALE 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY
DESIGN	S.R. HUGHES	S. MARCHI	
		CHECKED BY	DATE REVISED
		R.E. KORNMAN	

BORDER LAST REVISED 3/1/2007 · RELATIVE BORDER SCALE IS IN MILLIMETERS · USERNAME => tlvall · DGN FILE => 129030ed004.dgn · CU 03230 · EA 290301

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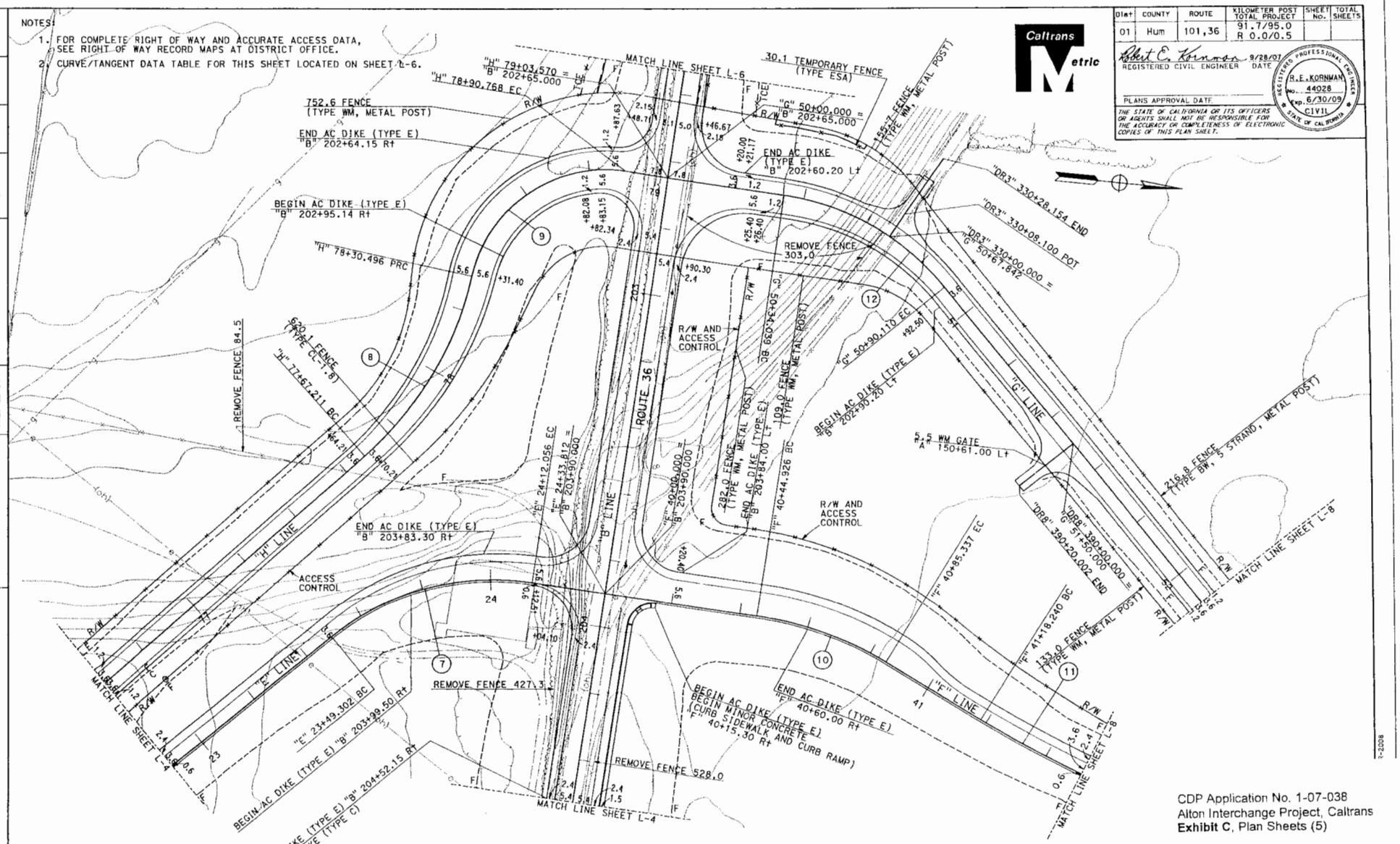

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 EXP. 6/30/09 CIVIL STATE OF CALIFORNIA

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DATE REVISED	REVISED BY

CALCULATED-DESIGNED BY: S. MARCHI
CHECKED BY: R.E. KORNMAN
FUNCTIONAL SUPERVISOR: S.R. HUGHES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

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NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (5)

LAYOUT L-5

LAST REVISION 00-00-00

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => ttvail
DGN FILE => 290301ea005.dgn

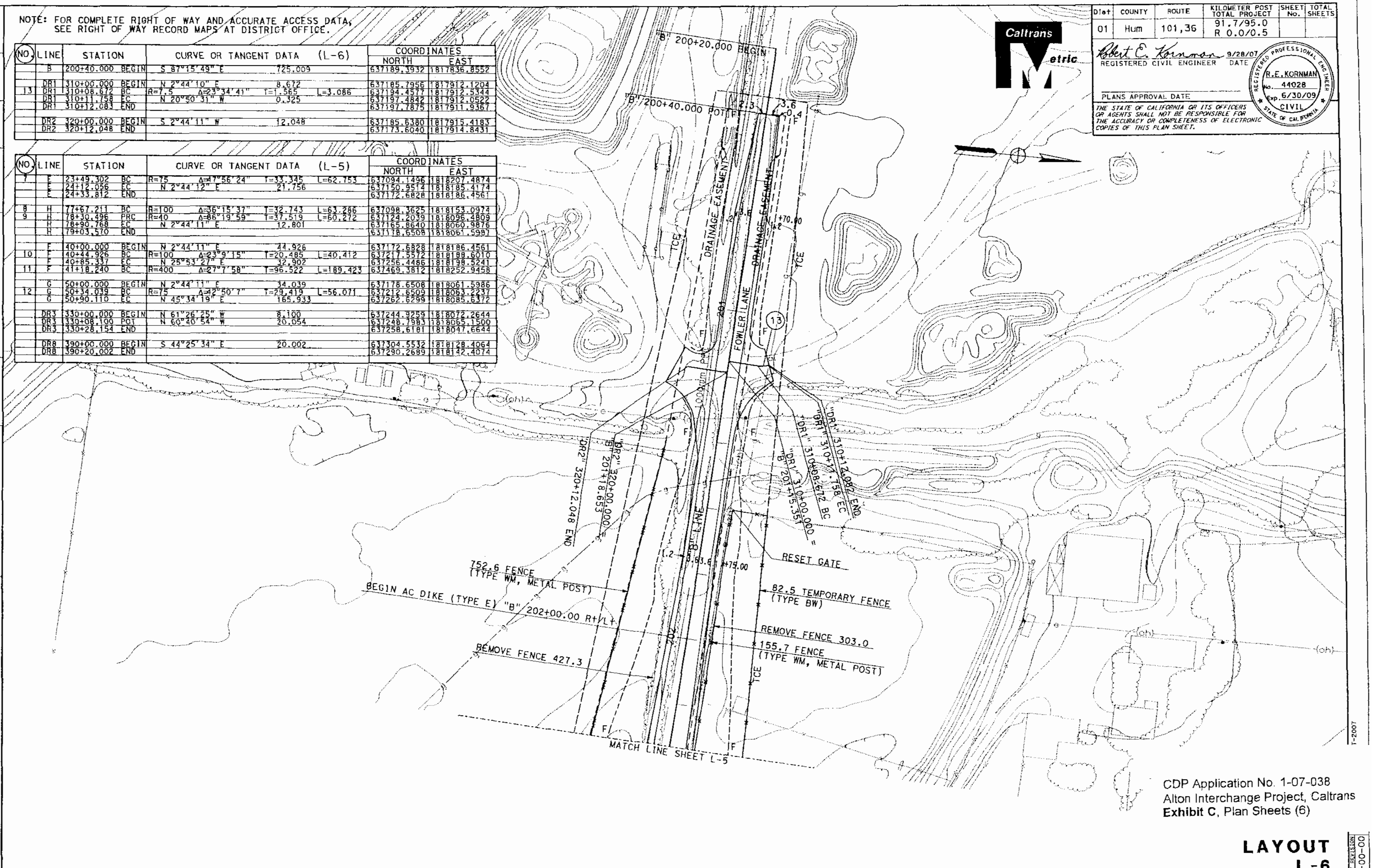
CU 03230

EA 290301

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

NO.	LINE	STATION		CURVE OR TANGENT DATA (L-6)				COORDINATES NORTH	COORDINATES EAST
	B	200+40.000	BEGIN	S 87°15'49" E		725.009		637189.3932	1817836.8552
	DR1	310+00.000	BEGIN	N 2°44'10" E		8.672		637185.7956	1817912.1204
13	DR1	310+08.672	BC	R=7.5	Δ=23°34'41"	T=1.565	L=3.086	637194.4577	1817912.5344
	DR1	310+11.758	EC	N 20°50'31" W		0.325		637197.4842	1817912.0522
	DR1	310+12.083	END					637197.7875	1817911.9367
	DR2	320+00.000	BEGIN	S 2°44'11" W		12.048		637185.6380	1817915.4183
	DR2	320+12.048	END					637173.6040	1817914.8431

NO.	LINE	STATION		CURVE OR TANGENT DATA (L-5)				COORDINATES NORTH	COORDINATES EAST
7	E	23+49.302	BC	R=75	Δ=47°56'24"	T=33.345	L=62.753	637094.1496	1818207.4874
	E	24+12.056	EC	N 2°44'12" E		21.756		637150.9514	1818185.4174
	E	24+33.812	END					637172.6828	1818186.4561
8	H	77+67.211	BC	R=100	Δ=36°15'37"	T=32.743	L=63.286	637098.3625	1818153.0974
9	H	78+30.496	PRC	R=40	Δ=86°19'59"	T=37.519	L=60.272	637124.2039	1818096.4809
	H	78+90.768	EC	N 2°44'11" E		12.801		637165.8640	1818060.9876
	H	79+03.570	END					637178.6508	1818061.5987
	F	40+00.000	BEGIN	N 2°44'11" E		44.926		637172.6828	1818186.4561
10	F	40+44.926	BC	R=100	Δ=23°9'15"	T=20.485	L=40.412	637217.5572	1818188.6010
	F	40+85.337	EC	N 25°53'27" E		32.902		637256.4486	1818198.5241
11	F	41+18.240	BC	R=400	Δ=27°7'58"	T=96.522	L=189.423	637469.3812	1818252.9458
	G	50+00.000	BEGIN	N 2°44'11" E		34.039		637178.6508	1818061.5986
12	G	50+34.039	BC	R=75	Δ=42°50'7"	T=29.419	L=56.071	637212.6509	1818063.2237
	G	50+90.110	EC	N 45°34'19" E		165.933		637262.6299	1818085.6372
	DR3	330+00.000	BEGIN	N 61°26'25" W		8.100		637244.9259	1818072.2644
	DR3	330+08.100	POT	N 60°40'54" W		20.054		637248.7983	1818065.1500
	DR3	330+28.154	END					637258.6181	1818047.6644
	DR8	390+00.000	BEGIN	S 44°25'34" E		20.002		637304.5532	1818128.4064
	DR8	390+20.002	END					637290.2689	1818142.4074



Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6/30/09
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

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Caltrans Metric

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (6)

LAYOUT
L-6

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

LAST REVISION 00-00-00

REVISED BY	DATE REVISED
S. MARCHI	R.E. KORNMAN
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	S.R. HUGHES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => ttom
DGN FILE => 129030ea006.dgn

CU 03230
EA 290301

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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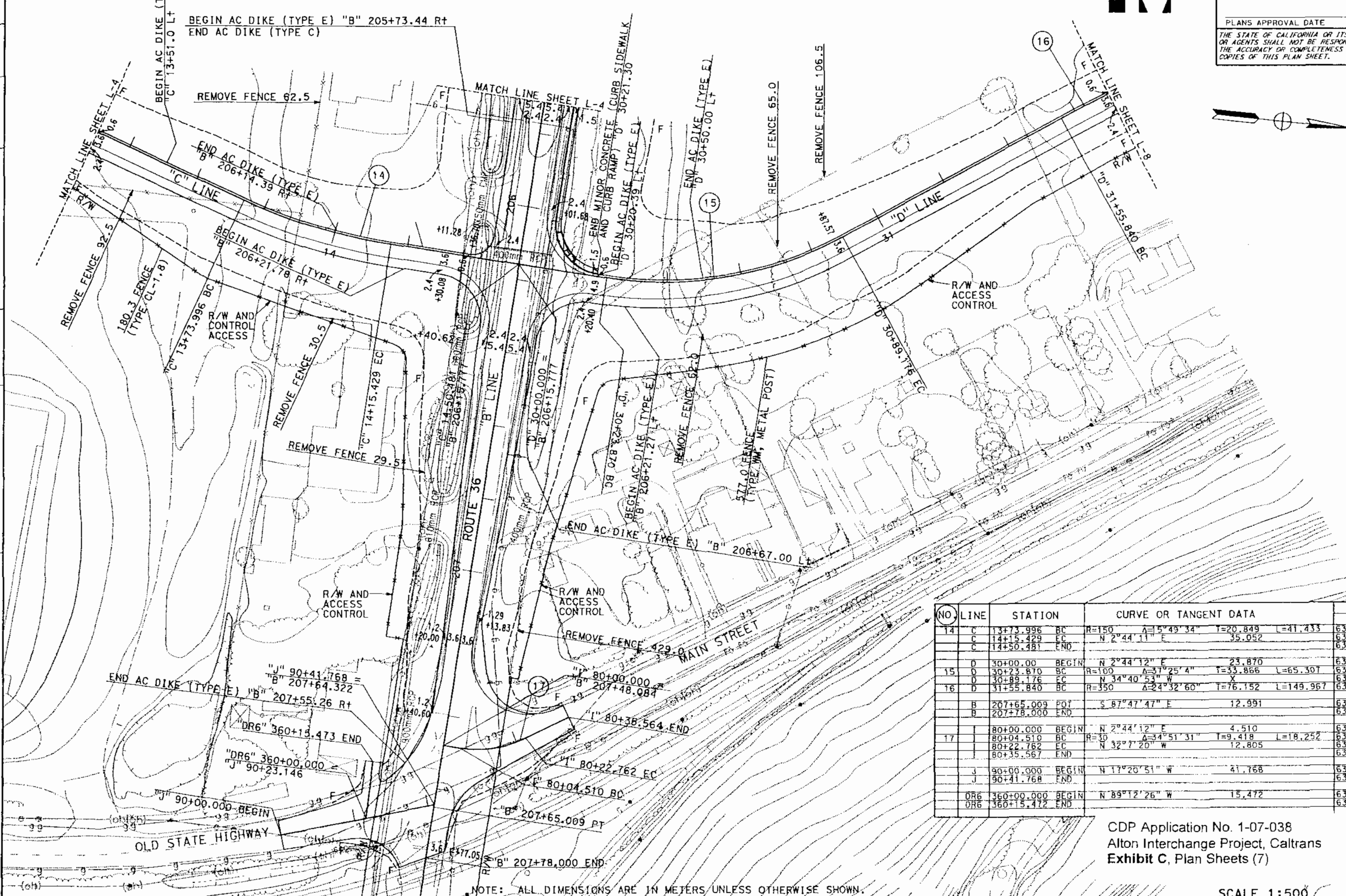
REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

Caltrans Metric



NO.	LINE	STATION		CURVE OR TANGENT DATA				COORDINATES NORTH	COORDINATES EAST
14	C	13+73.996	BC	R=150	Δ=15°49'34"	T=20.849	L=41.433	637086.3017	1818402.6695
	C	14+15.429	EC	N 2°44'11" E		35.052		637126.8916	1818410.3021
	C	14+50.481	END					637161.9035	1818411.9756
	D	30+00.00	BEGIN	N 2°44'12" E		23.870		637161.9035	1818411.9756
15	D	30+23.870	BC	R=100	Δ=37°25'4"	T=33.866	L=65.307	637185.7459	1818413.1152
	D	30+89.176	EC	N 34°40'53" W		X		637247.4214	1818395.4622
16	D	31+55.840	BC	R=350	Δ=24°32'60"	T=76.152	L=149.967	637302.2414	1818357.5295
	B	207+65.009	POT	S 87°47'47" E		12.991		637154.7786	1818561.0376
	B	207+78.000	END					637154.2792	1818574.0189
	I	80+00.000	BEGIN	N 2°44'12" E		4.510		637155.5868	1818544.1320
17	I	80+04.510	BC	R=30	Δ=34°51'31"	T=9.418	L=18.252	637160.0919	1818544.3473
	I	80+22.762	EC	N 32°7'20" W		12.805		637177.4760	1818539.7891
	I	80+35.567	END					637188.3208	1818532.9803
	J	90+00.000	BEGIN	N 17°20'51" W		41.768		637114.9435	1818572.8047
	J	90+41.768	END					637154.8115	1818560.3509
	DR6	360+00.000	BEGIN	N 89°12'26" W		15.472		637137.0368	1818565.9033
	DR6	360+15.472	END					637137.2509	1818550.4323

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (7)

LAYOUT L-7

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY
Caltrans DESIGN	S.R. HUGHES	S. MARCHI	
		CHECKED BY	DATE REVISED
		R.E. KORNMAN	

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => t11om
DGN FILE => 129030ea007.dgn

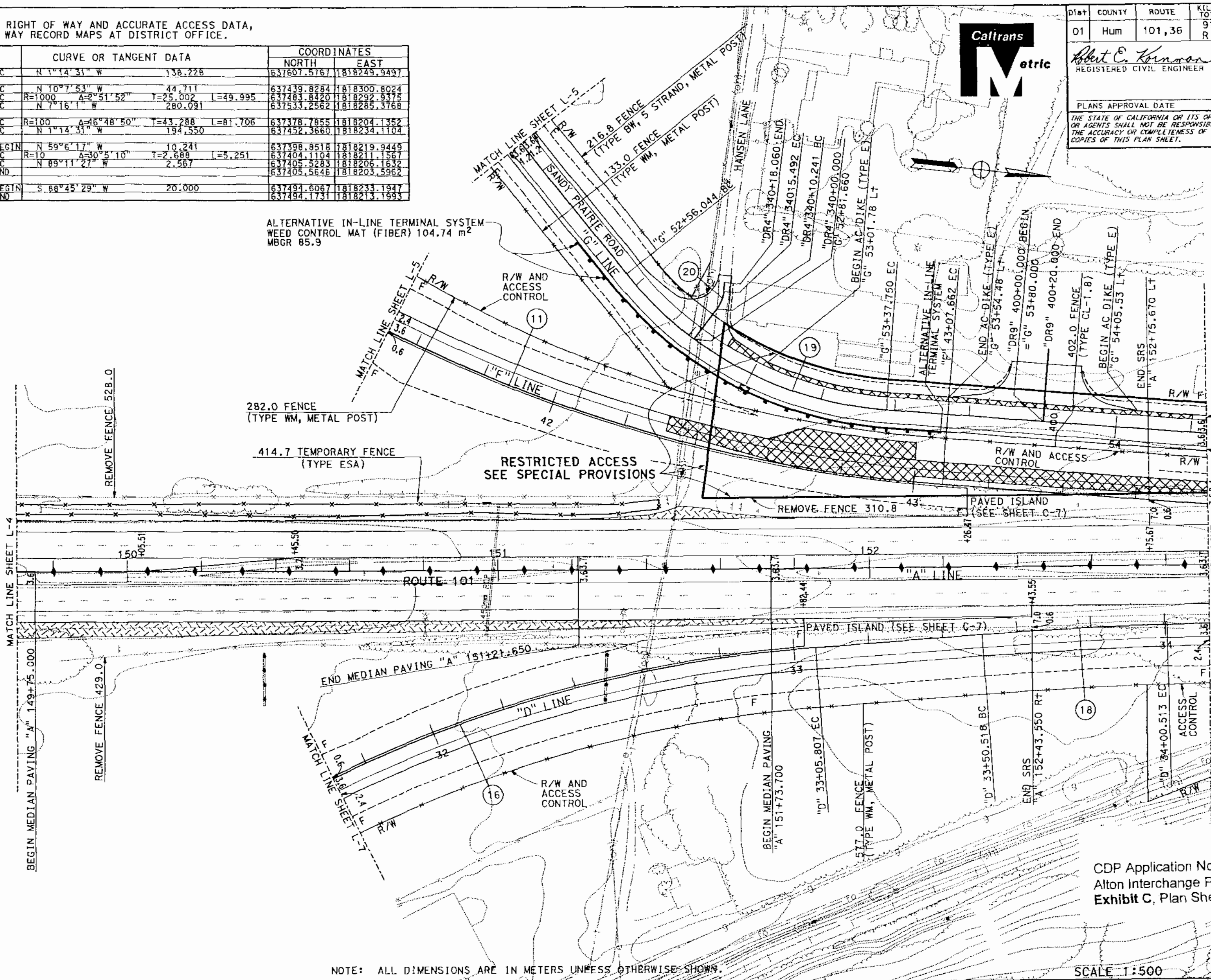
CU 03230

EA 290301

LAST REVISION 00-00-00 DATE PLOTTED => 24-OCT-2007 TIME PLOTTED => 15:09

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

NO.	LINE	STATION		CURVE OR TANGENT DATA				COORDINATES NORTH	COORDINATES EAST
	F	43+07.662	EC	N 1°14'31" W		138.228		637607.5767	1818249.9497
	D	33+05.807	EC	N 10°7'53" W		44.711		637439.8284	1818300.8024
18	D	33+50.518	BC	R=1000	Δ=2°51'52"	T=25.002	L=49.995	637483.8420	1818292.9375
	D	34+00.513	EC	N 7°16'1" W		280.091		637533.2562	1818285.3768
19	G	52+56.044	BC	R=100	Δ=46°48'50"	T=43.288	L=81.706	637378.7855	1818204.1352
	G	53+37.750	EC	N 1°14'31" W		194.550		637452.3660	1818234.1104
	DR4	340+00.000	BEGIN	N 59°6'17" W		10.241		637398.8518	1818219.9449
20	DR4	340+10.241	BC	R=10	Δ=30°5'10"	T=2.688	L=5.251	637404.1104	1818211.1567
	DR4	340+15.492	EC	N 89°11'27" W		2.567		637405.5283	1818206.1632
	DR4	340+18.060	END					637405.5646	1818203.5962
	DR9	400+00.000	BEGIN	S 88°45'29" W		20.000		637494.6067	1818233.1947
	DR9	400+20.000	END					637494.1731	1818213.1993



NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
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 ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

Caltrans Metric

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (8)

LAYOUT
L-8

SCALE 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION			
Caltrans DESIGN	FUNCTIONAL SUPERVISOR S.R. HUGHES	CALCULATED-DESIGNED BY S. MARCHI / CHECKED BY R.E. KORNMAN	REVISED BY / DATE REVISED

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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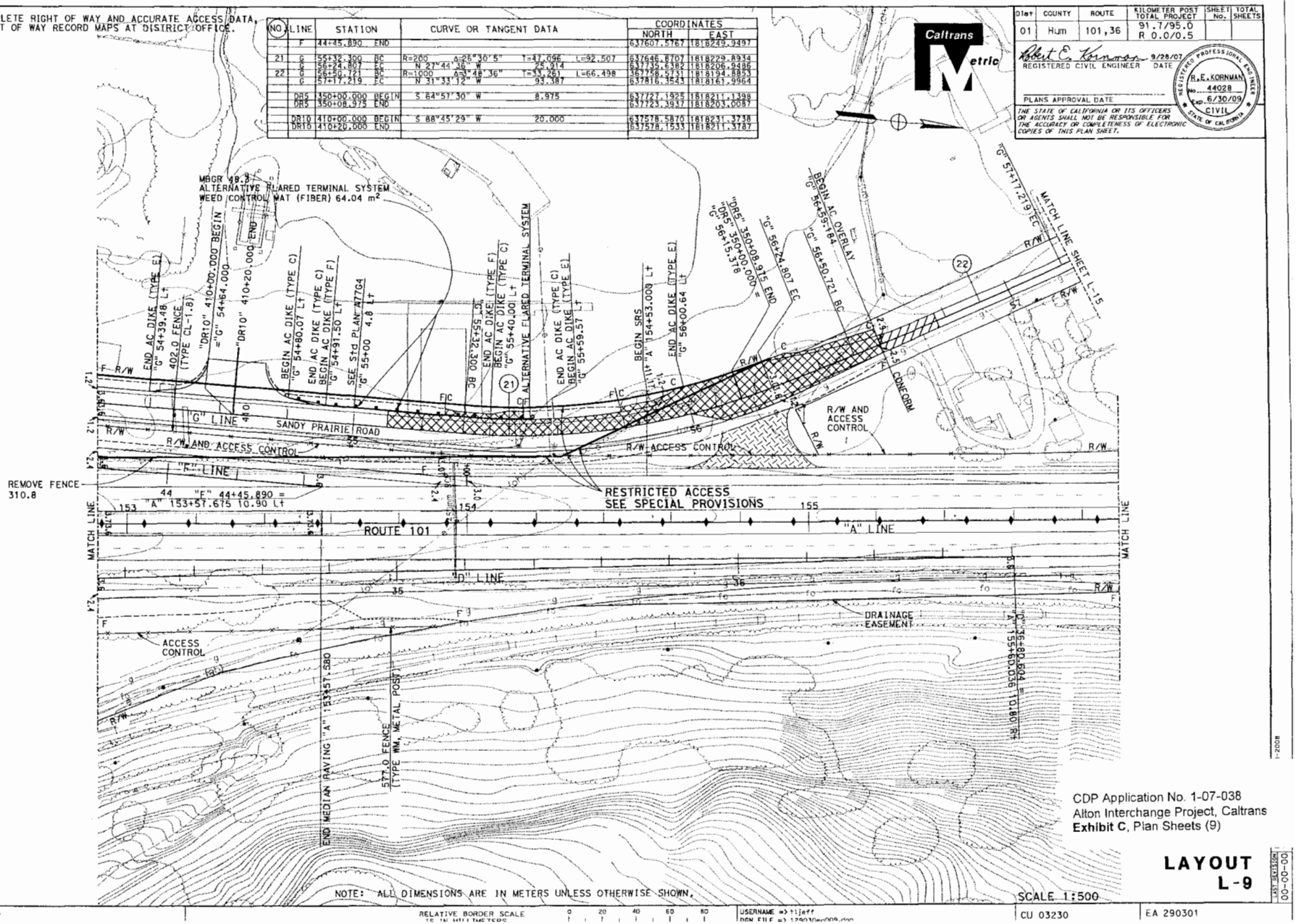
CU 03230 EA 290301

LAST REVISION 00-00-00 DATE PLOTTED => 11-APR-2008 TIME PLOTTED => 14:55



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (9)

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert C. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL

PLANS APPROVAL DATE

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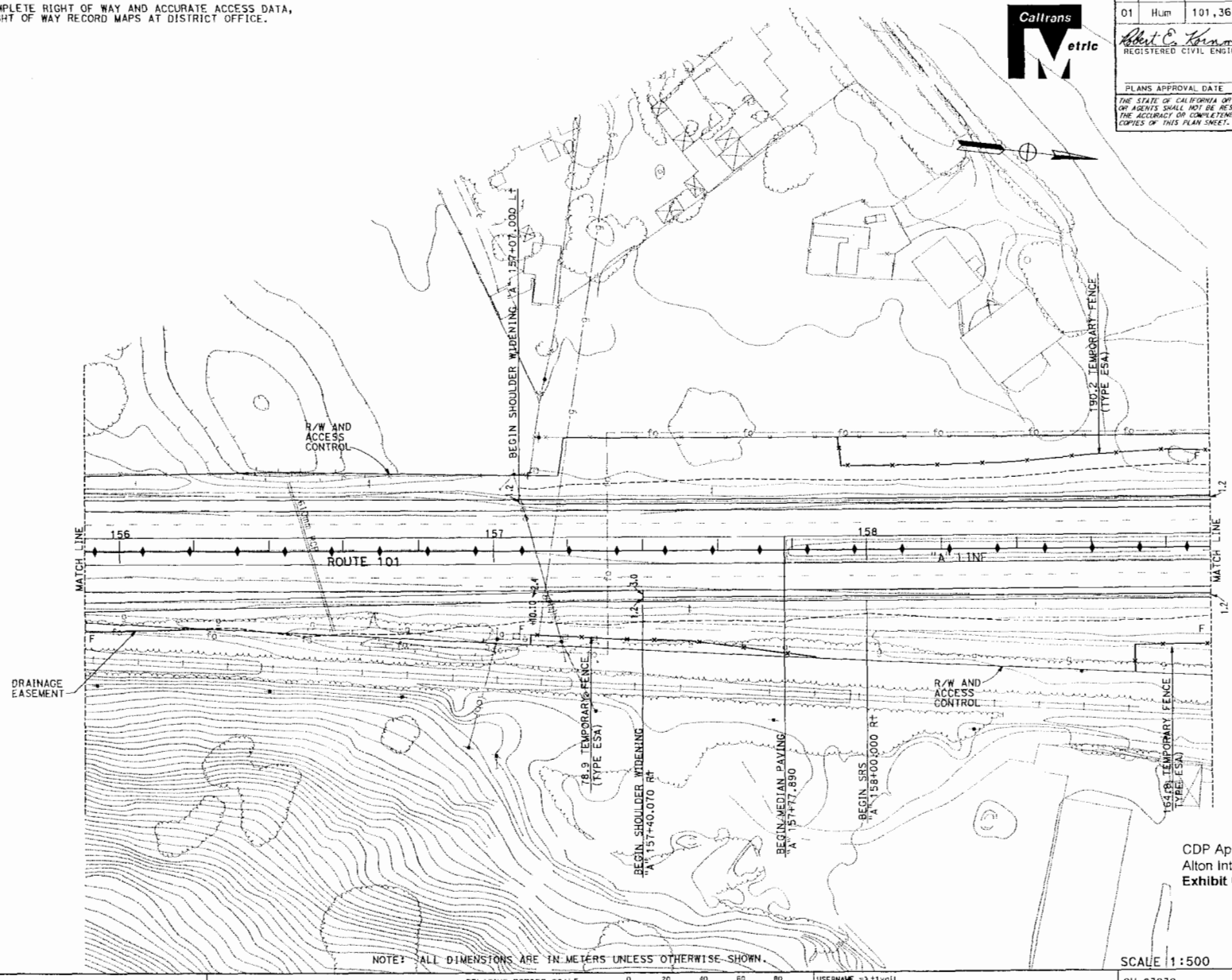
Caltrans Metric



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (10)

LAYOUT
L-10

SCALE 1:500

CALCULATED-DESIGNED BY	FUNCTIONAL SUPERVISOR	REVISED BY
S. MARCHI	S.R. HUGHES	
CHECKED BY		DATE REVISED
R.E. KORNMAN		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

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BORDER LAST REVISED 3/1/2007

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CU 03230 EA 290301

LAST REVISION 00-00-00 0

-2008

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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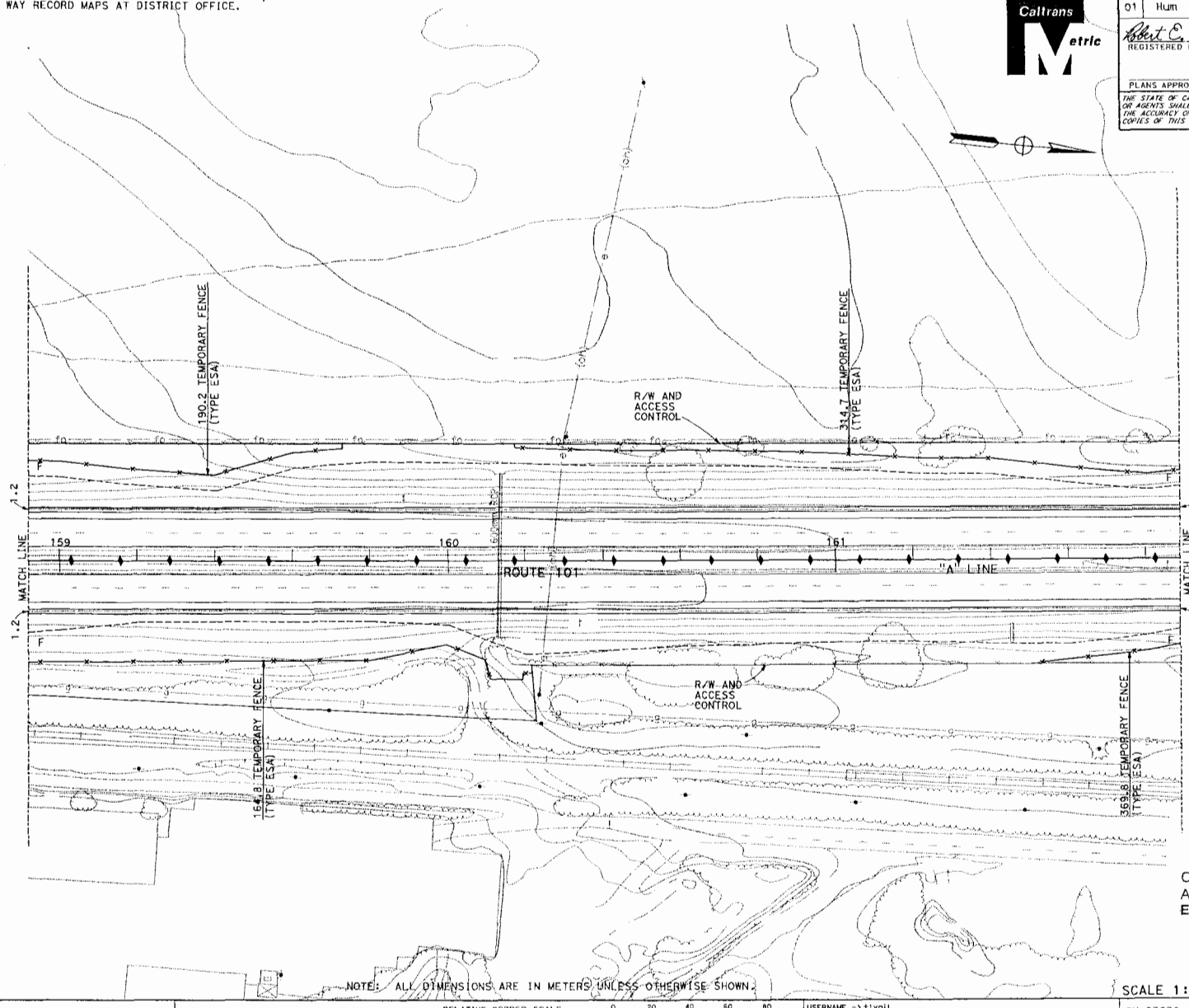
REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

Caltrans Metric



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (11)

LAYOUT
L-11

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: S.R. HUGHES
CALCULATED-DESIGNED BY: S. MARCHI
CHECKED BY: R.E. KORNMAN
REVISED BY
DATE REVISED

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 129030ea011.dgn

CU 03230 EA 290301

LAST REVISION 00-00-00

2006

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Albert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — R.E. KORNMAN — No. 44028 — 6/30/09 — CIVIL — STATE OF CALIFORNIA

CALCULATED-DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR	REVISED BY	DATE REVISED
S. MARCHI	R.E. KORNMAN	S.R. HUGHES		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (12)

LAYOUT
L-12

LAST REVISION 00-00-00

1-2008

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BORDER LAST REVISED 3/1/2007

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DGN FILE => 129030ea012.dgn

CU 03230

EA 290301

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (13)

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

NO	LINE	STATION	CURVE OR TANGENT DATA			COORDINATES NORTH	COORDINATES EAST
23	A	167+72.498 BC	R=2875	Δ=1°19'5"	T=34.437 L=229.470	639015.4947	1818109.9206
		168+41.369 POC				639084.6543	1818103.934
		170+01.968 EC	N 1° 32' 55" W		95.928	639244.5695	1818094.5590
		170+97.896 POT	N 1° 41' 13" W		2.104	639240.4620	1818091.9673
		171+00.000 POT				639342.5639	1818091.9054

Caltrans Metric

DIst	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

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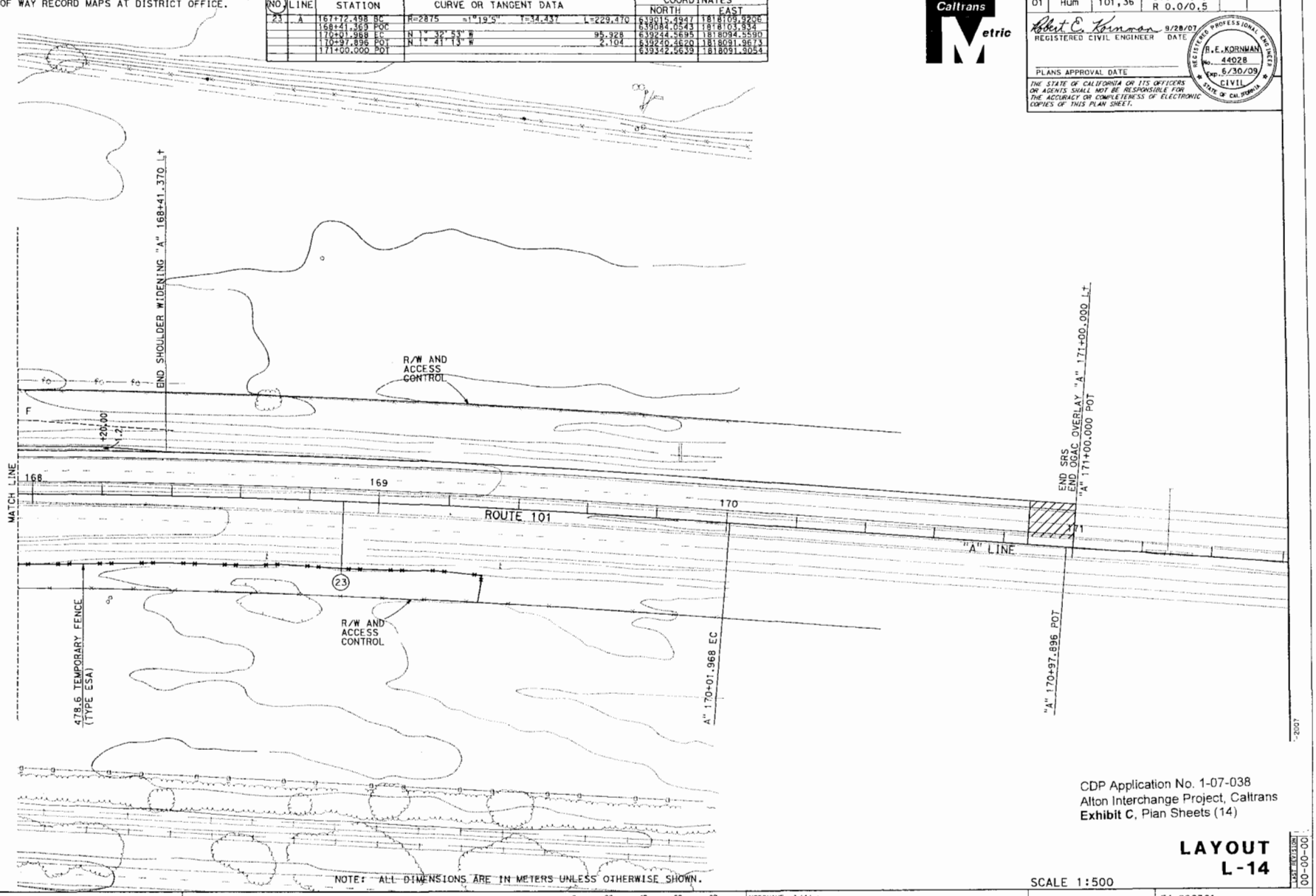

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (14)

LAYOUT
L-14

SCALE 1:500

LAST REVISION 00-00-00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

CALCULATED-DESIGNED BY	FUNCTIONAL SUPERVISOR	REVISED BY
S. MARCHI	S.R. HUGHES	
CHECKED BY		DATE REVISED
R.E. KORNMAN		

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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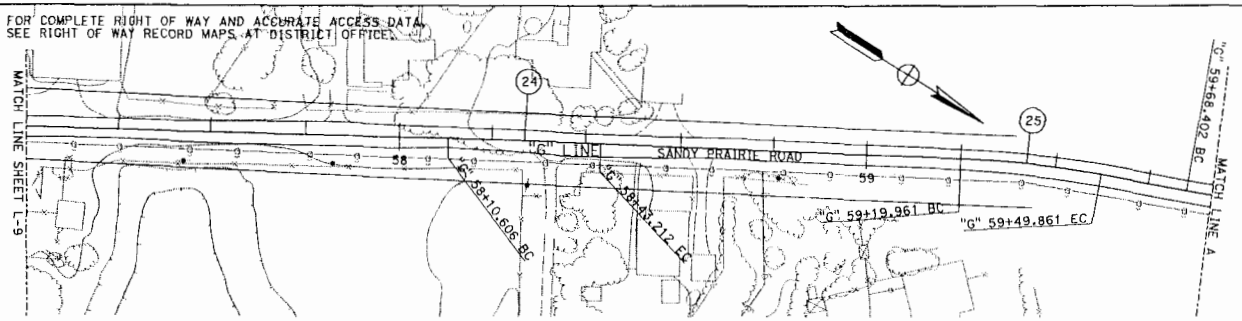
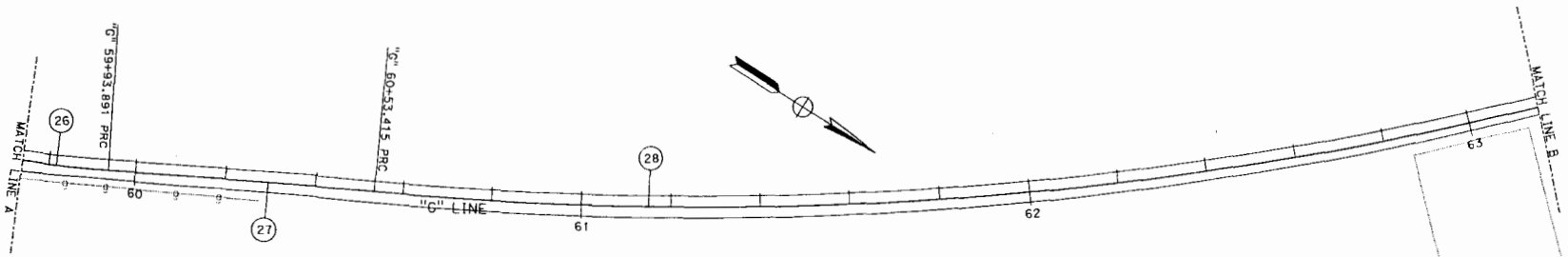
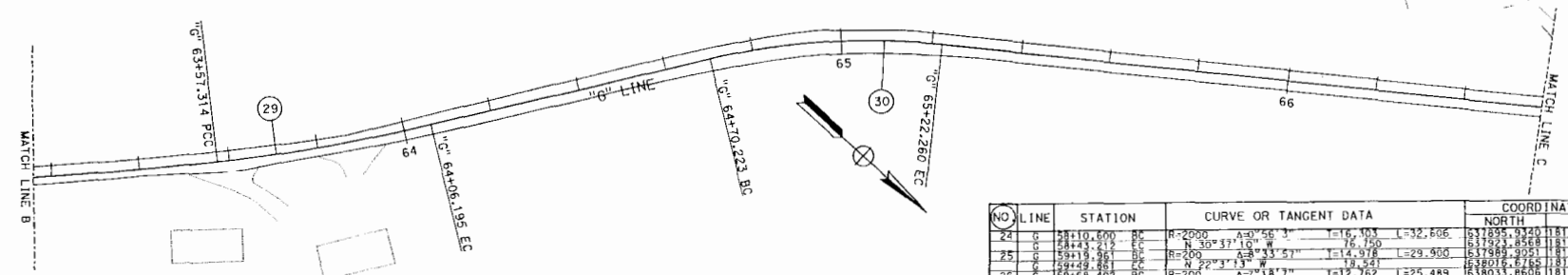
CU 03230 EA 290301

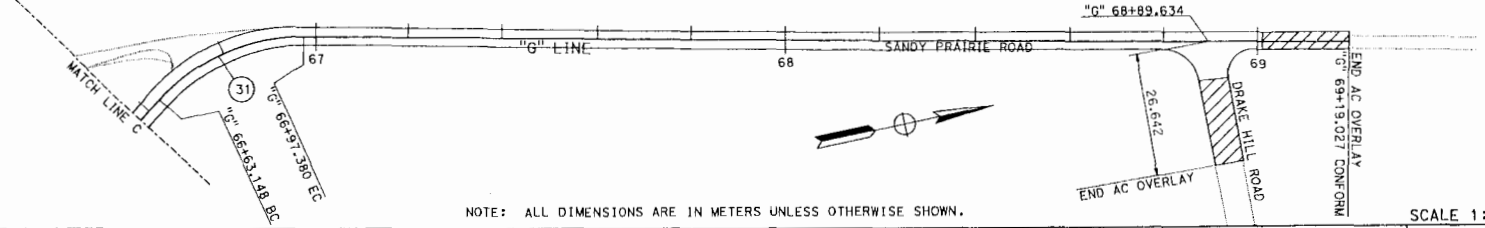
NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.







NO.	LINE	STATION	CURVE OR TANGENT DATA			COORDINATES NORTH	COORDINATES EAST
24	"G"	58+10.600 BC	R=2000 Δ=0°56'3"	T=16.103	L=32.606	637895.9340	1818113.1277
	"G"	58+43.212 EC	N 30°37'10" W	76.750		637923.8568	1818096.2926
25	"G"	59+19.961 BC	R=200 Δ=8°33'57"	T=14.978	L=29.900	637989.9051	1818057.2015
	"G"	59+49.861 EC	N 22°3'13" W	19.541		638016.6765	1818043.9495
26	"G"	59+68.402 BC	R=200 Δ=7°18'7"	T=12.762	L=25.489	638033.8606	1818036.9874
27	"G"	59+93.891 PRC	R=2000 Δ=1°42'19"	T=29.764	L=59.524	638056.8123	1818025.0191
28	"G"	60+53.415 PRC	R=800 Δ=21°45'54"	T=153.803	L=303.598	638109.1201	1817997.4346
29	"G"	63+57.314 PCC	R=400 Δ=7°0'6"	T=24.471	L=48.881	638345.4173	1817809.4522
	"G"	64+06.195 EC	N 56°25'2" W	64.028		638374.8730	1817770.3814
30	"G"	64+70.223 BC	R=150 Δ=39°52'36"	T=26.283	L=52.037	638410.2893	1817717.0406
	"G"	65+22.260 EC	N 36°32'27" W	140.888		638425.9435	1817679.4964
31	"G"	66+63.148 BC	R=40 Δ=49°17'59"	T=18.945	L=34.232	638559.1378	1817595.6125
	"G"	66+97.380 EC	N 12°29'33" E	221.647		638591.8060	1817588.6969
	"G"	69+19.027 END				638808.0058	1817636.6415



NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (15)

LAYOUT
L-15

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 EXP. 6/30/09 CIVIL STATE OF CALIFORNIA

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: S. MARCHI
CHECKED BY: R.E. KORNMAN
FUNCTIONAL SUPERVISOR: S.R. HUGHES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

P:\proj\01\290301\draft\ng\01_290301\1290306e015.dgn

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

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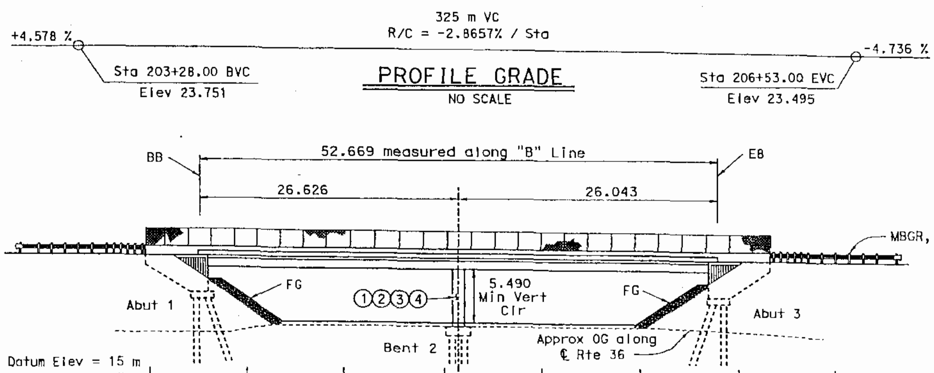
DGN FILE => 1290306e015.dgn

CU 03230 EA 290301

LAST REVISION 00-00-00

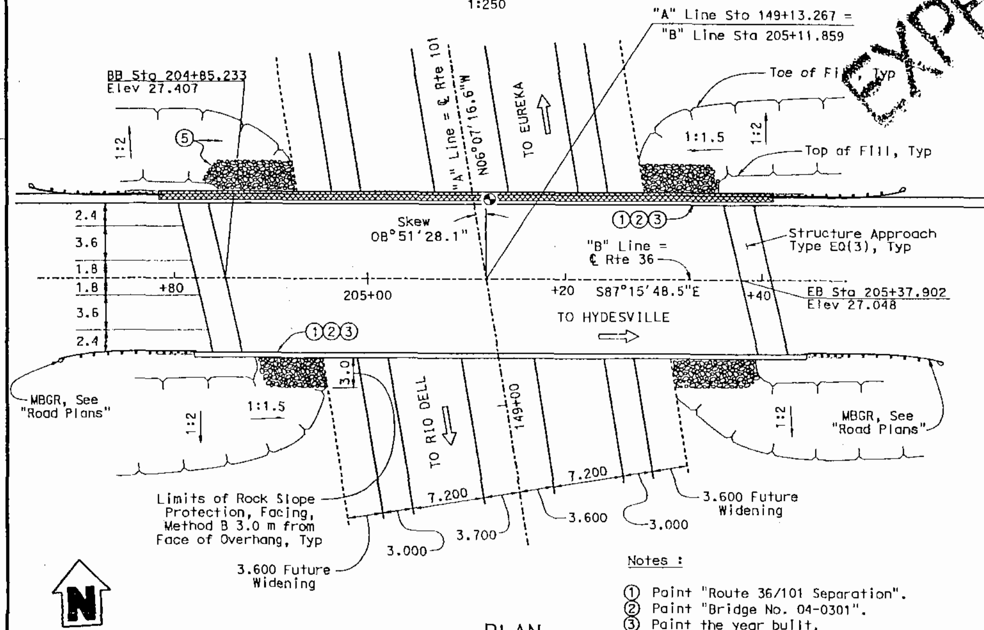


PROFILE GRADE

NO SCALE

ELEVATION

1:250



⊕ Indicates Point of Minimum Vertical Clearance

PLAN

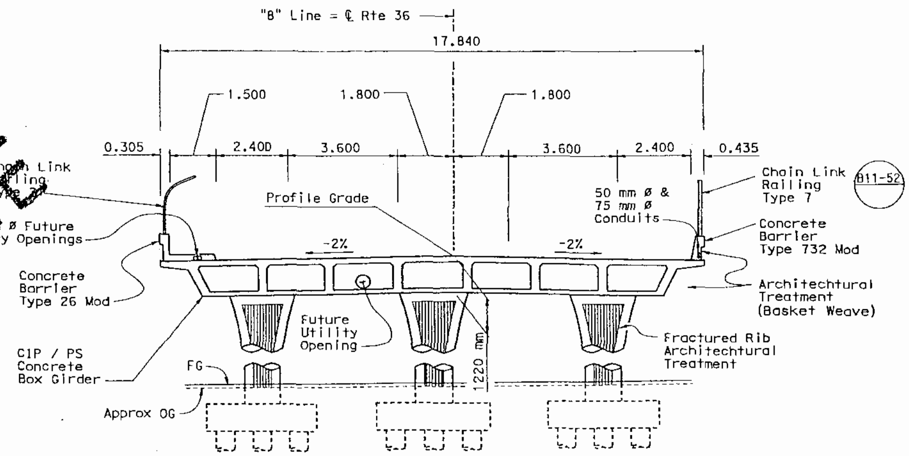
1:250

Notes :

1. Paint "Route 36/101 Separation".
2. Paint "Bridge No. 04-0301".
3. Paint the year built.
4. Paint "Bent 2".
5. Rock Slope Protection, Facing, Method B

PILE DATA - PP610 x 12.7 PILES

Location	Design Loading (Service)	Nominal Resistance Compression	Nominal Resistance Tension	Design Tip Elevation	Specifed Tip Elevation
Abut 1	625 kN	1250 kN	—	7.000	7.000
Bent 2	900 kN	1800 kN	—	1.000	1.000
Abut 3	625 kN	1250 kN	—	7.000	7.000



TYPICAL SECTION

1:80

EXPEDITE

INDEX TO PLANS

For General Notes, see "Deck Contours" sheet.
For 'Standard Plans' references, see "PP610 x 12.7 Pipe Pile Details" sheet.

QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	430	m^3
STRUCTURE BACKFILL (BRIDGE)	210	m^3
PERVIOUS BACKFILL MATERIAL	11	m^3
FURNISH STEEL PIPE PILING (610 mm)	782	m
DRIVE STEEL PIPE PILE (610 mm)	46	EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM	
STRUCTURAL CONCRETE, BRIDGE FOOTING	85	m^3
STRUCTURAL CONCRETE, BRIDGE	748	m^3
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE EQ)	24	m^3
ARCHITECTURAL TREATMENT (BASKET WEAVE)	61	m^2
FRACTURED RIB TEXTURE	52	m^2
JOINT SEAL (MR 40 mm)	36	m
BAR REINFORCING STEEL (BRIDGE)	95 600	kg
BAR REINFORCING STEEL (EPOXY COATED)	1 480	kg
HEADED BAR REINFORCEMENT	72	EA
ROCK SLOPE PROTECTION (FACING, METHOD B)	127	m^3
CHAIN LINK RAILING (TYPE 3L)	63	m
CHAIN LINK RAILING (TYPE 7)	63	m
CONCRETE BARRIER (TYPE 26 MODIFIED)	63	m
CONCRETE BARRIER (TYPE 732 MODIFIED)	63	m

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (16)

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Hum	101			

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Robert C. Jones No. 65576 Exp. 9-10-07 CIVIL STATE OF CALIFORNIA

Caltrans Metric

Jeff Sims DESIGN ENGINEER	DESIGN	BY Greg Jones	CHECKED Mark Simonsen	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING:	HL-93 WITH "LOW-BOY" PERMIT DESIGN VEHICLE
	DETAILS	BY Bob Huddleston	CHECKED Mark Simonsen	LAYOUT	BY Greg Jones	CHECKED Mark Simonsen
	QUANTITIES	BY Greg Thornton	CHECKED Mike Herron	SPECIFICATIONS	BY Jennifer Ramirez	PLANS AND SPECS COMPARED Jennifer Ramirez

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO. 04-0301
KILOMETER POST 92.84

CU 01
EA 290301

ROUTE 36/101 SEPARATION
GENERAL PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES

SHEET 1 OF 17

FILE => 04-0301-a-gp01.dgn

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV. 03-17-04)

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Hum	101			

REGISTERED CIVIL ENGINEER 9-05-07 DATE

PLANS APPROVAL DATE

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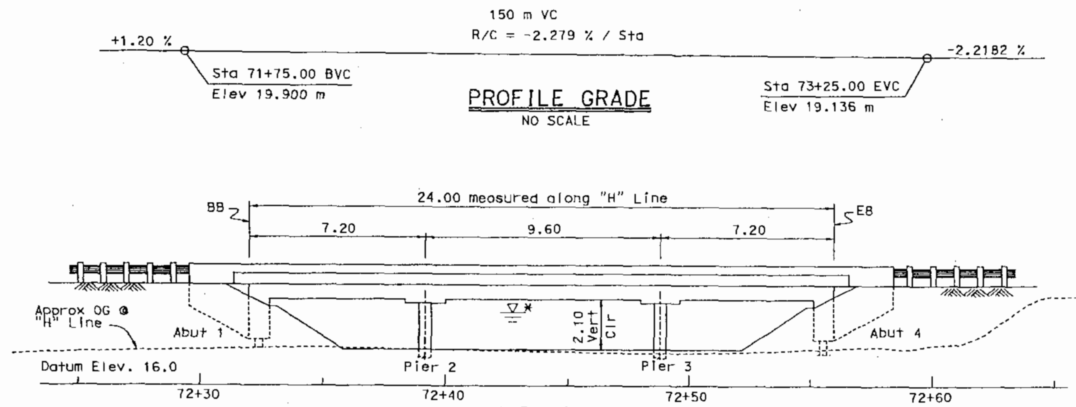
REGISTERED PROFESSIONAL ENGINEER Robert G. Jones No. 65676 Exp. 9-10-09 CIVIL STATE OF CALIFORNIA

Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov

Notes :

1. Paint "Van Duzen Frontage Road Overflow Bridge".
2. Paint "Bridge No. 04-0287".
3. Paint the year built.



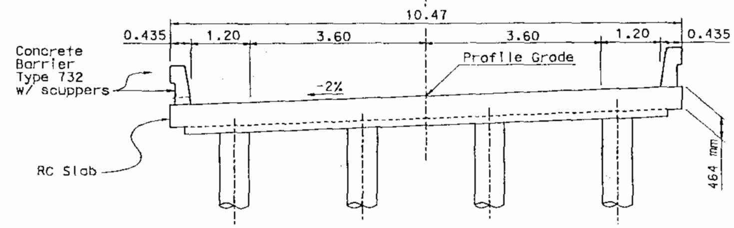
PROFILE GRADE
NO SCALE

ELEVATION
1 : 100

* For Hydrologic Summary see "Foundation Plan" sheet.

Note :

Estimated scour elevation at piers = Elev 16.13 m



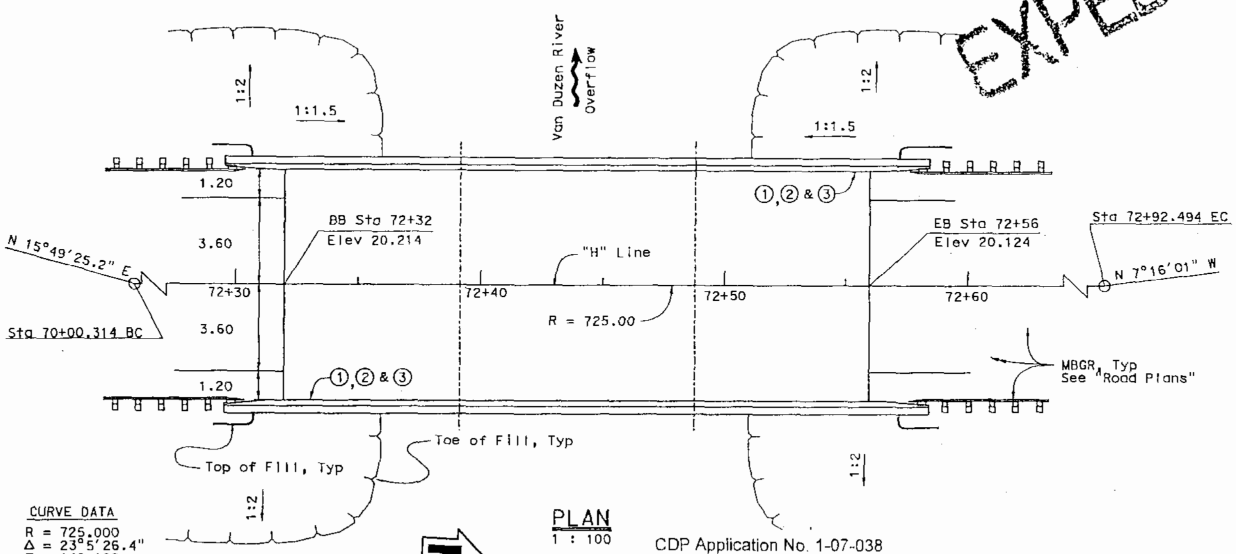
TYPICAL SECTION
1:50

EXPEDITE

PILE DATA - CISS PILE TYPE PP610 x 12.7

Location	Design Loading (kN) (Service)	Nominal Resistance Compression (kN)	Nominal Resistance Tension	Cut off Elev	Design Tip Elev (m)	Specified Tip Elev (m)
Abut 1	625	1250	0	N/A	4.0(1) 4.0(3)	4.0
Pier 2	900	1800	900	N/A	-1.5(1) 0.0(2) 2.5(3)	-1.5
Pier 3	900	1800	900	N/A	-1.5(1) 0.0(2) 2.5(3)	-1.5
Abut 4	625	1250	0	N/A	4.0(1) 4.0(3)	4.0

- Design tip is controlled bythe following demands: (1) Compression, (2) Tension, (3) Lateral.



PLAN
1 : 100

CURVE DATA
R = 725.000
Δ = 23°5'26.4"
T = 148.100
L = 292.181

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit C, Plan Sheets (17)

INDEX TO PLANS

STANDARD PLANS DATED JULY, 2004

A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B11-55	CONCRETE BARRIER TYPE 732

STANDARD PLAN SHEET NO.
DETAIL NO.

QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	72	m^3
STRUCTURE BACKFILL (BRIDGE)	38	m^3
PERVIOUS BACKFILL MATERIAL	4	m^3
FURNISH CAST-IN-STEEL-SHELL CONCRETE PILING (610 mm)	280	m
DRIVE CAST-IN-STEEL-SHELL CONCRETE PILE (610 mm)	16	EA
STRUCTURAL CONCRETE, BRIDGE	174	m^3
BAR REINFORCING STEEL (BRIDGE)	28 000	Kg
CONCRETE BARRIER (TYPE 732)	68	m

Caltrans Metric

Jeff Sims
DESIGN ENGINEER

DESIGN	BY Thanh Le	CHECKED Greg Jones	LRFD	LIVE LOADING: HL-93 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	BY Bob Huddleston	CHECKED Greg Jones	LAYOUT	BY Thanh Le	CHECKED Greg Jones
QUANTITIES	BY Tim Schmolz	CHECKED Jamie Ramirez	SPECIFICATIONS	BY Jennifer Ramirez	PLANS AND SPECS COMPARED Jennifer Ramirez

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

CU 01
EA 290301

BRIDGE NO. 04-0287
KILOMETER POST 92.3

VAN DUZEN FRONTAGE RD OVERFLOW BRIDGE

GENERAL PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES

SHEET 1 OF 10

FILE => 04-0287-a-gp01.dgn

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV. 05-17-04)

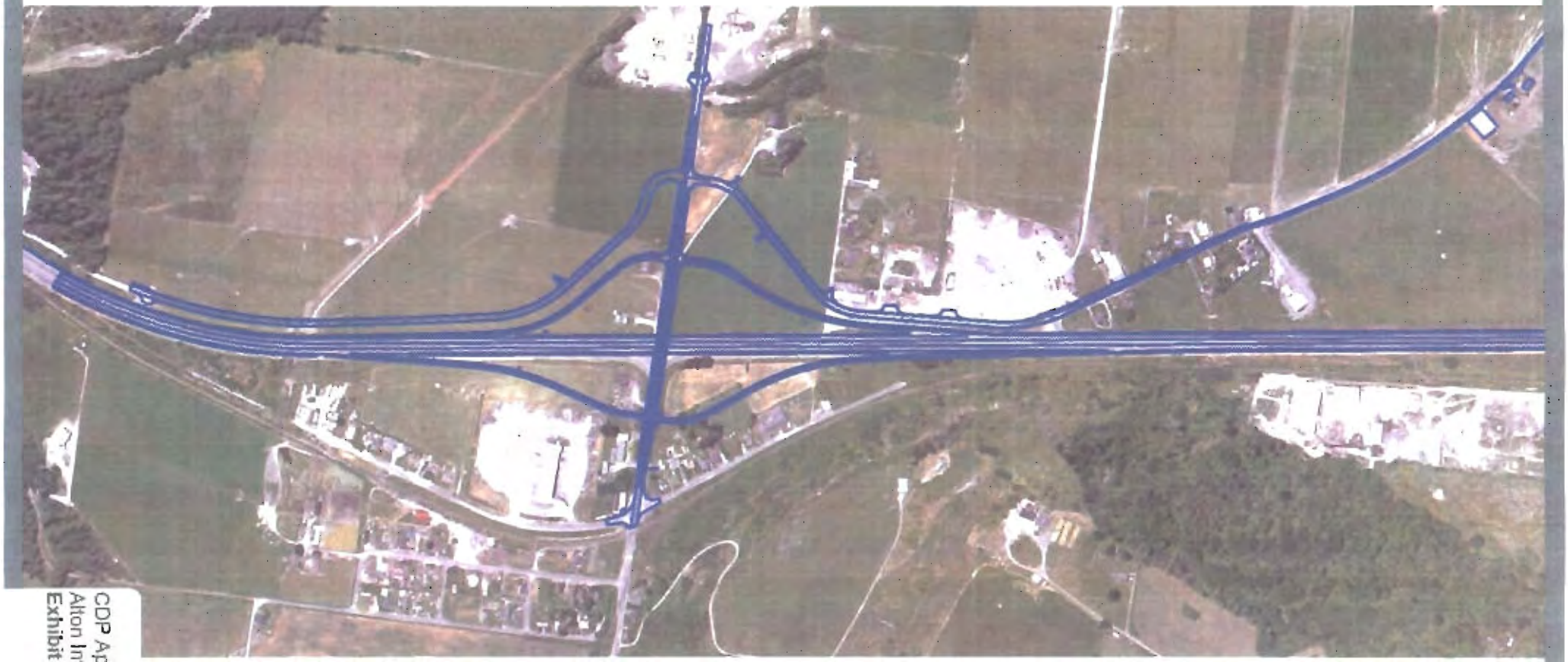
Alton Interchange - Aerial Photo (existing)

N

Caltrans

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit D, Aerial Photo

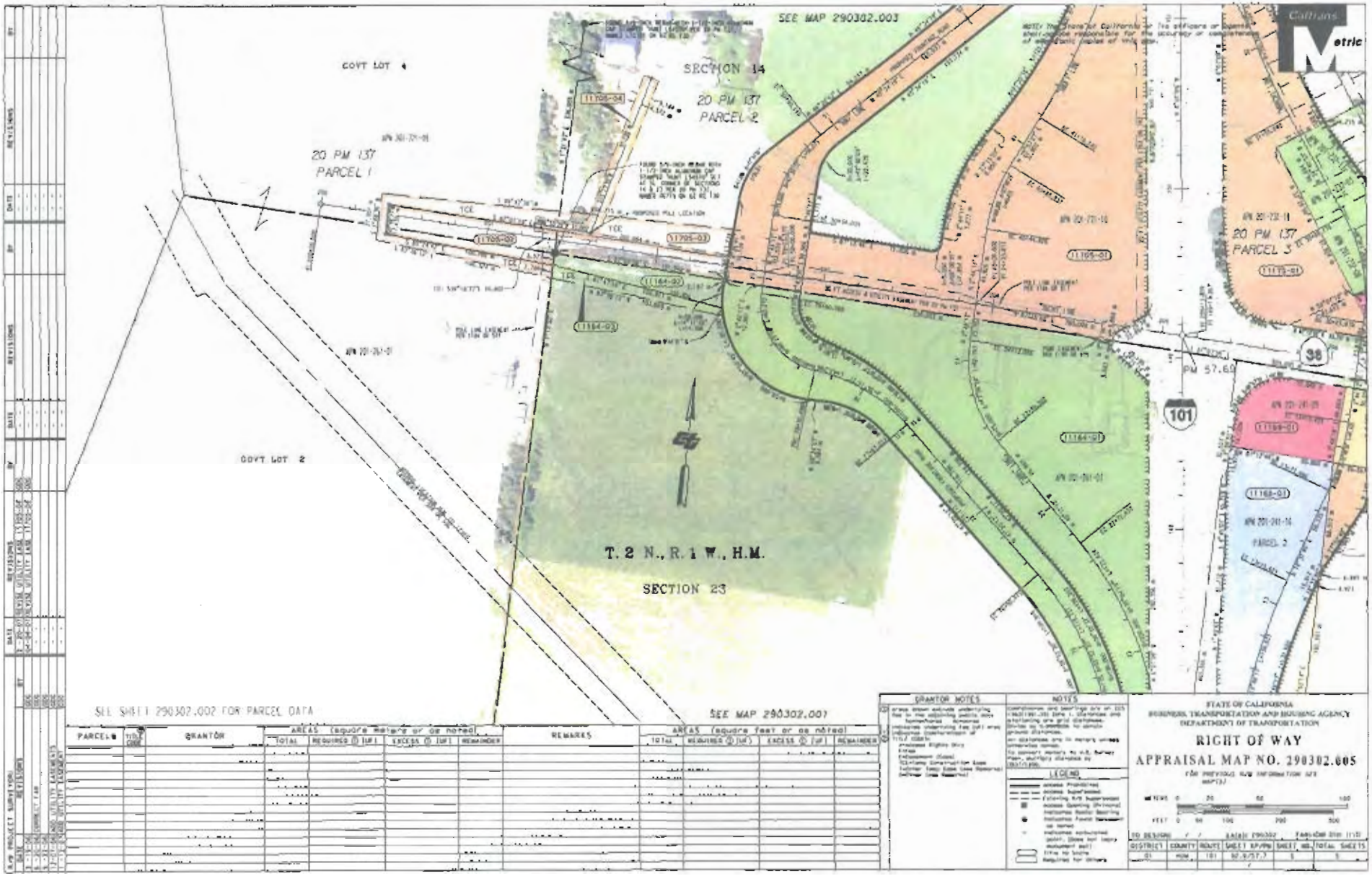
Alton Interchange - Aerial Photo (proposed)



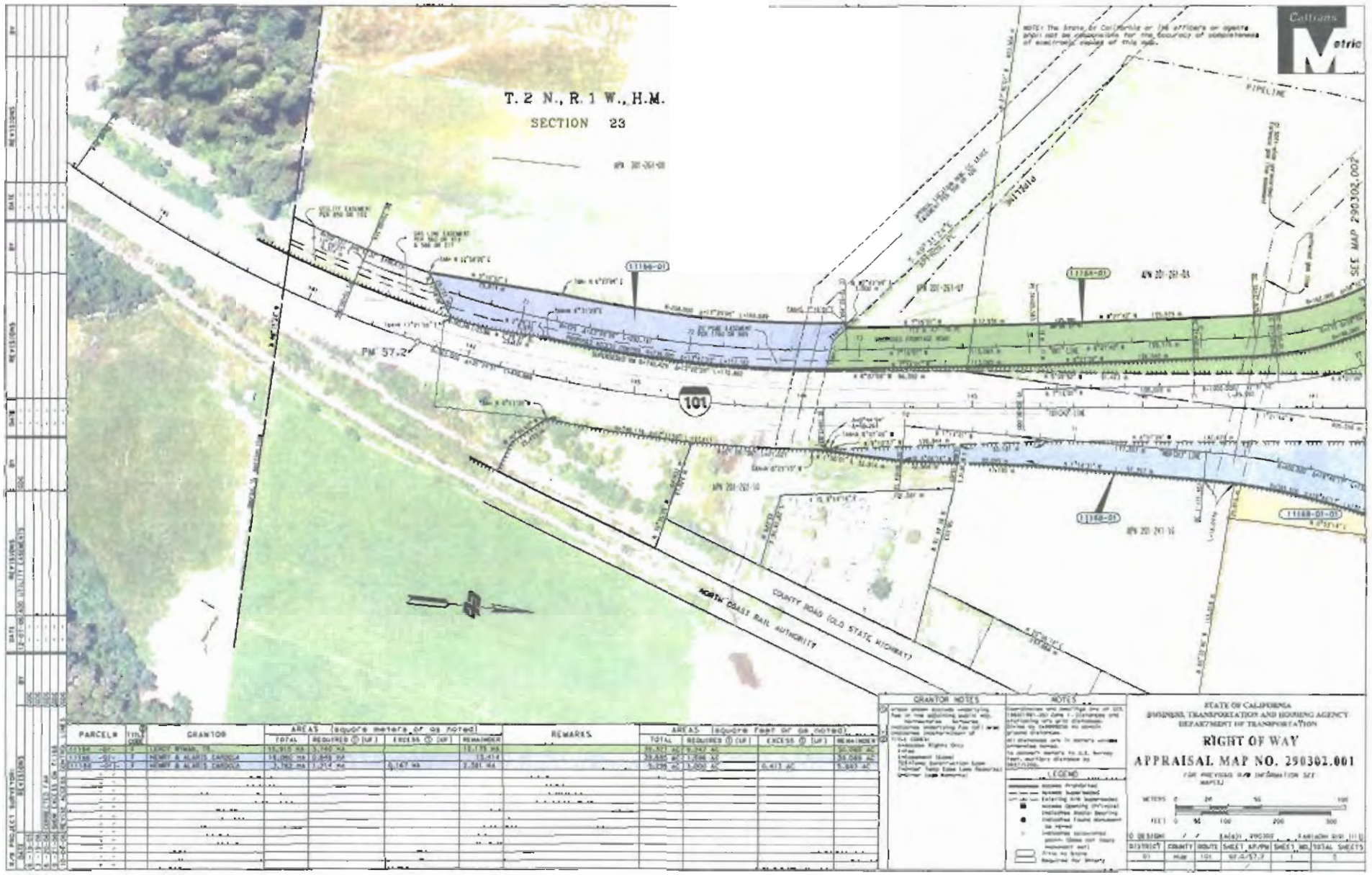
N

Caltrans

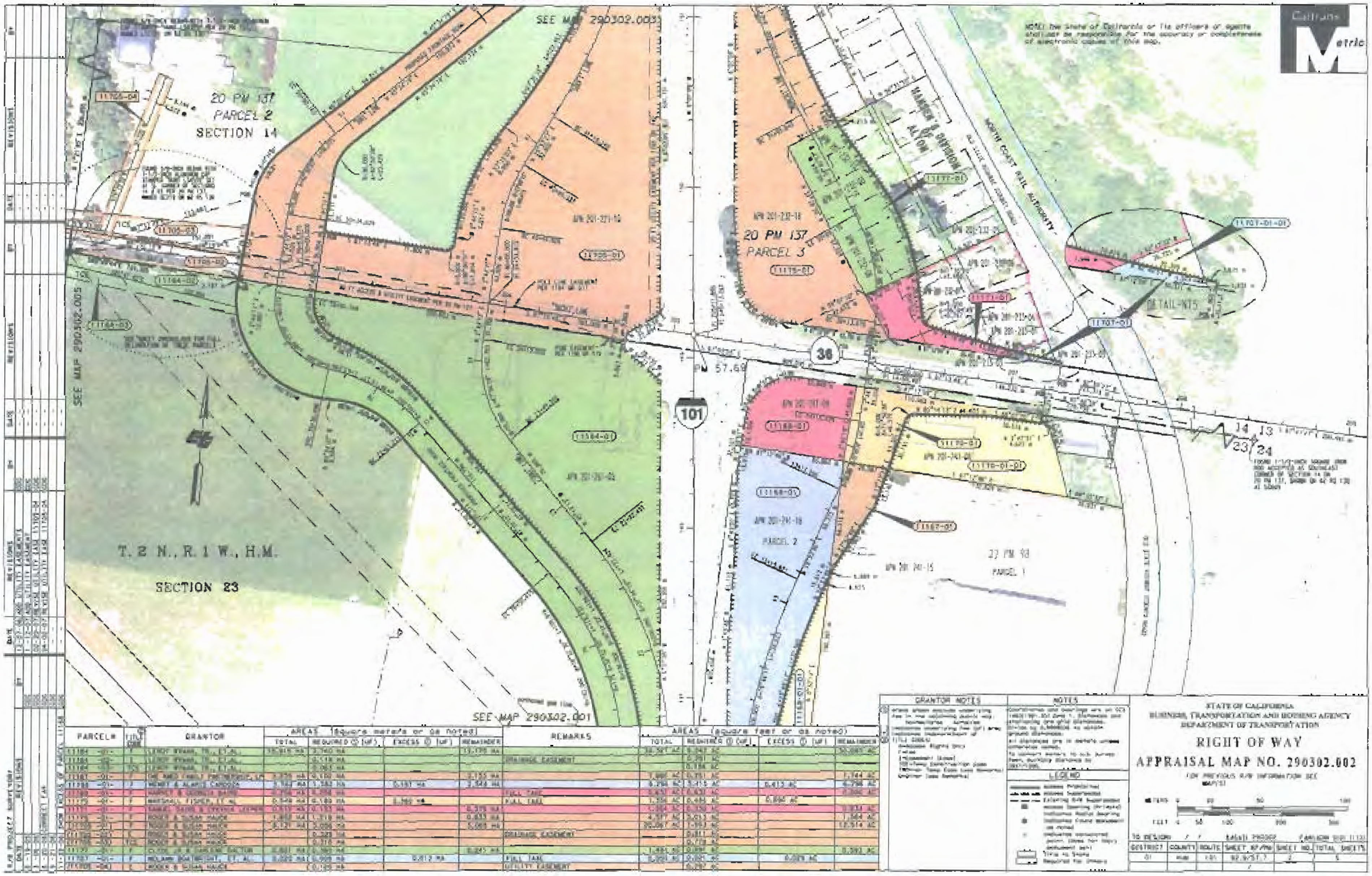
CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit E, Aerial Photo



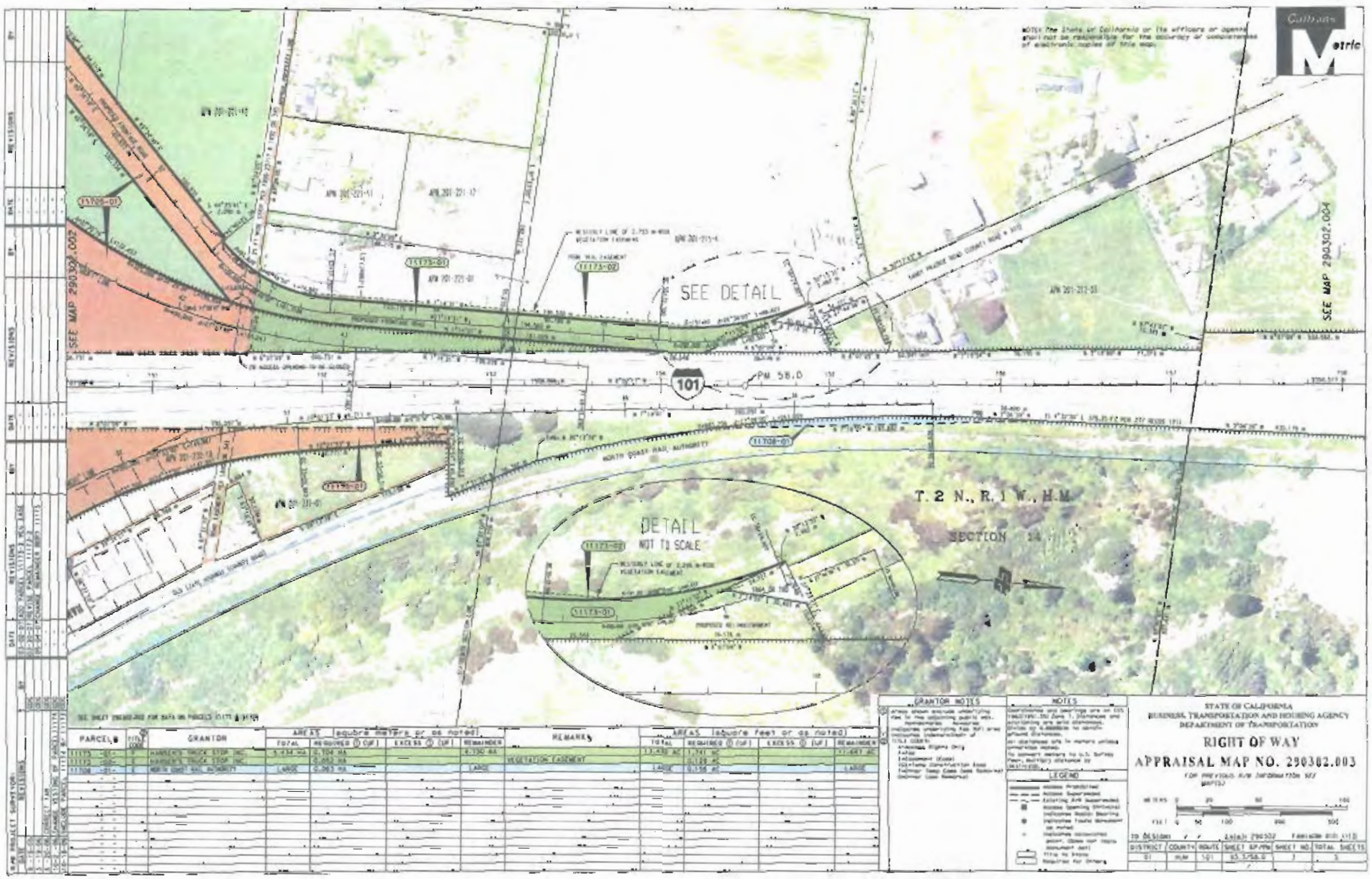
CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit F, ROW Appraisal Maps (1)



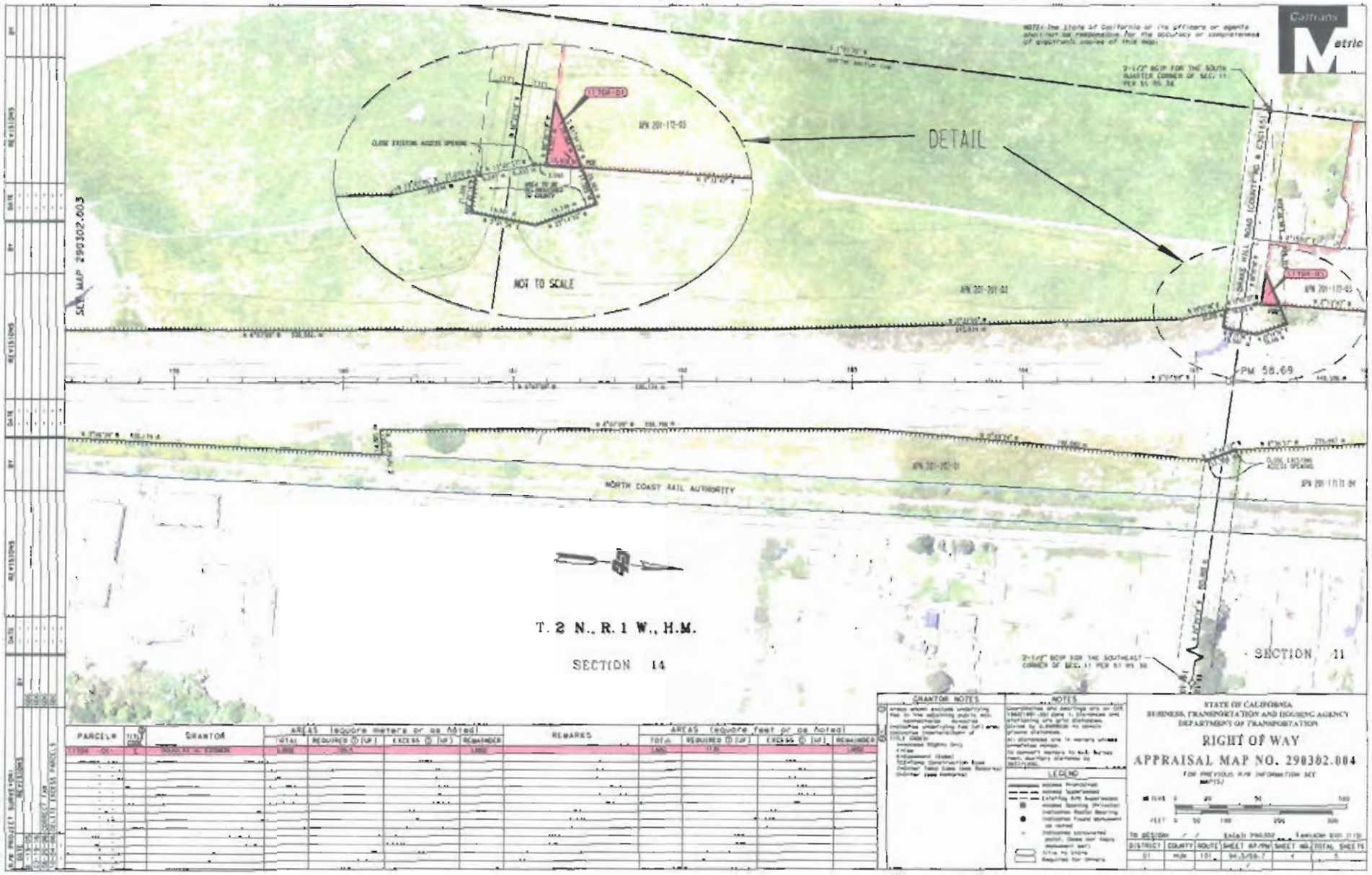
CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit F, ROW Appraisal Maps (2)



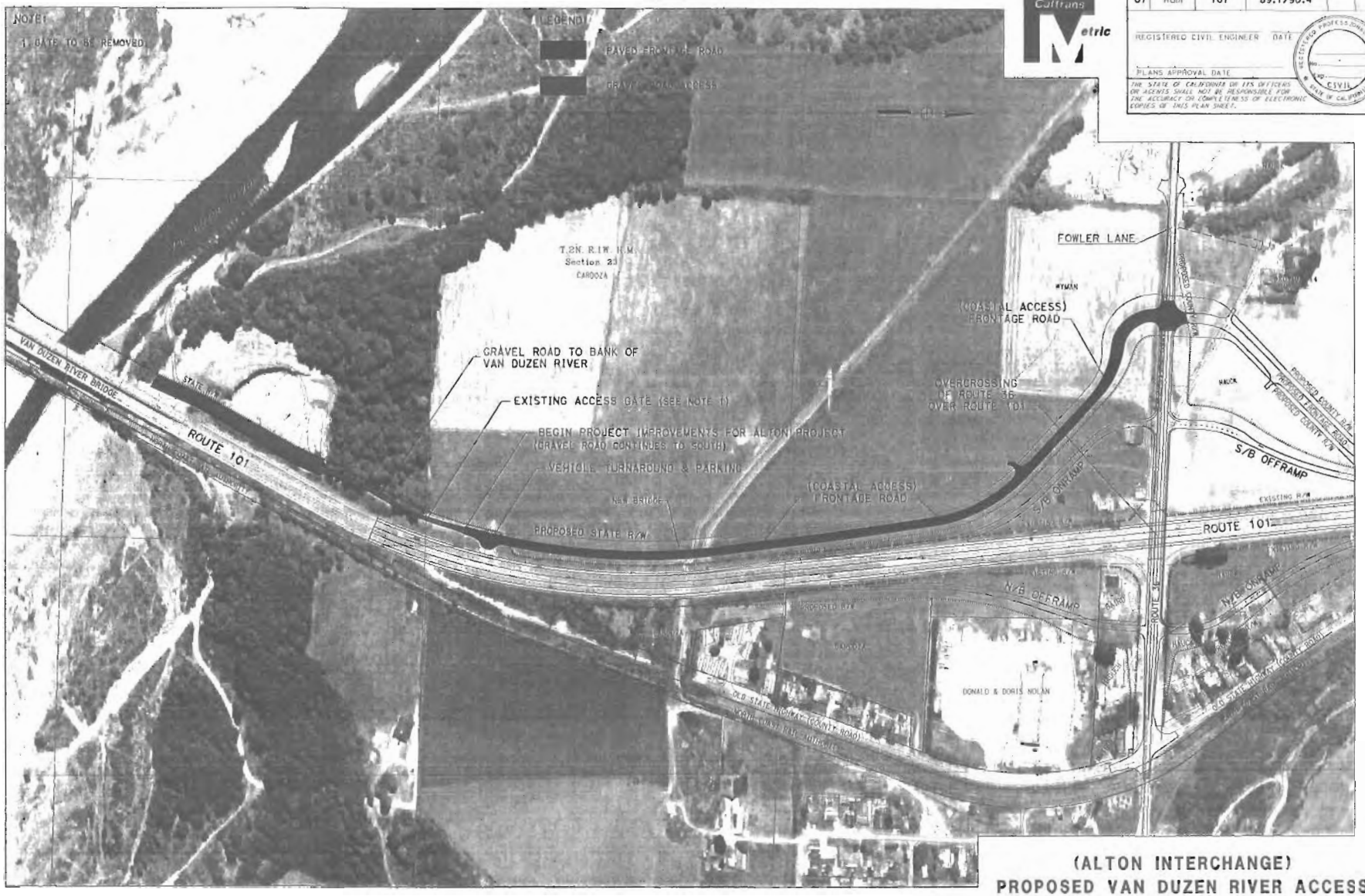
CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit F, ROW Appraisal Maps (3)



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit F, ROW Appraisal Maps (4)



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit F, ROW Appraisal Maps (5)



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	101	89.1/90.4		

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 ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA

Caltrans Metric

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ENVIROMENTAL
FUNCTIONAL SUPERVISOR: MELINDA VOLNAR
CALCULATED-DESIGNED BY
CHECKED BY
CINDA EVANS
REVISED BY
DATE REVISED

(ALTON INTERCHANGE)
PROPOSED VAN DUZEN RIVER ACCESS

SCALE 1:2000

CU 03232

BORDER LAST REVISED 8/13/2001

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => rivet
DGN FILE => cc_evans.dgn

DESIGN DATE PLOTTED => 12-JAN-2008
12-08 TIME PLOTTED => 11:38

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit G, Right of Way Map

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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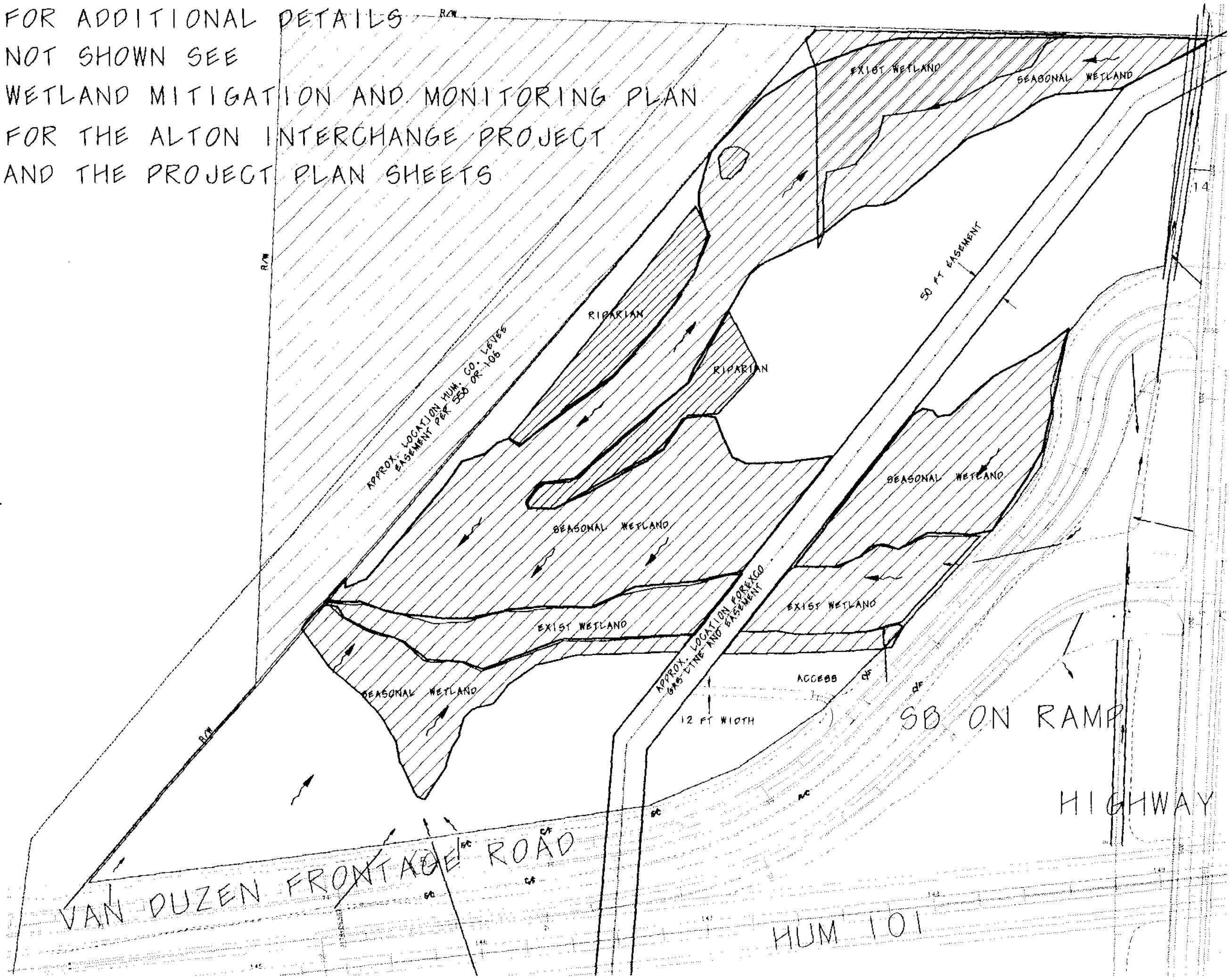
REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

To get to the Caltrans web site, go to: http://www.dot.ca.gov

Caltrans Metric

FOR ADDITIONAL DETAILS
NOT SHOWN SEE
WETLAND MITIGATION AND MONITORING PLAN
FOR THE ALTON INTERCHANGE PROJECT
AND THE PROJECT PLAN SHEETS



LEGEND

		ACRES
///	FOREXCO GAS LINE AND EASEMENT	
	CREATED SEASONAL WETLANDS MAXIMUM 16.7 M CONTOUR LINE	10.2
	AREA WITHIN WYMAN PARCEL, NOT INCLUDED IN MITIGATION SITE	8.6
	RIPARIAN CREATION	≥ 1.2
	EXIST WETLAND / WETLAND ENHANCEMENT	1.5
	FLOW PATH	
	TOE OF SLOPE	
R/W	PROPOSED RIGHT OF WAY	
	BARBED WIRE FENCE	
	NEW CULVERT	
	NEW OPEN DITCH	

ALTON INTERCHANGE
HUM 101 PM 57.0/59.1

NO SCALE

EA 290301

DRAINAGE AND WETLAND MITIGATION PLAN

PLAN VIEW

FOR DESIGN STUDY ONLY

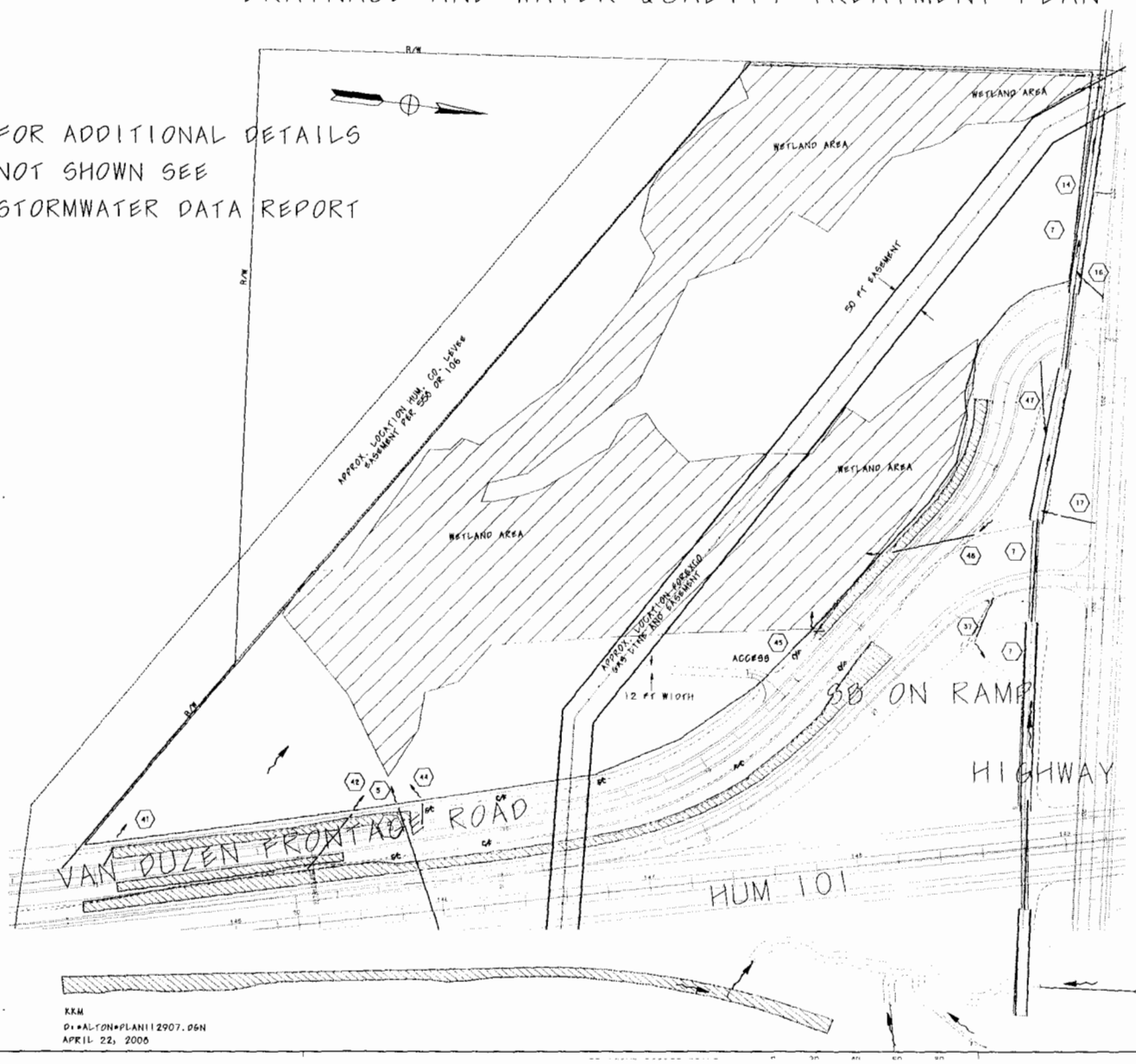
D:•ALTON•PLAN020408.DGN
APRIL 23, 2008
KKM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER | CALCULATED/DESIGNED BY | CHECKED BY | DATE | REVISED BY | DATE REVISED

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit H, Drainage & Wetland
Mitigation Plan, Plan View

DRAINAGE AND WATER QUALITY TREATMENT PLAN



FOR ADDITIONAL DETAILS
NOT SHOWN SEE
STORMWATER DATA REPORT

LEGEND

- ALL WETLANDS, EXISTING, FLOODED, AND CONSTRUCTED INCLUDING FORESCO EASEMENT WETLANDS WITHIN THE MITIGATION SITE
- (7) DRAINAGE SYSTEM NUMBER
- FORESCO GAS LINE AND EASEMENT
- BIOFILTRATION STRIP
- BIOFILTRATION SWALE
- FLOW PATH
- TOE OF SLOPE
- R/W PROPOSED RIGHT OF WAY
- BARBED WIRE FENCE
- NEW CULVERT
- NEW OPEN DITCH

PLAN VIEW
ALTON INTERCHANGE
HUM 101 PM 57.0/59.1

NO SCALE

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit I, First Stage Drainage & Water Quality Treatment Plan, Plan View

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

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To get to the Caltrans web site, go to: http://www.dot.ca.gov

DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY

CHECKED BY

PROJECT ENGINEER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

KKM
D:*ALTON*PLAN112907.DGN
APRIL 22, 2008

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

REGISTERED CIVIL ENGINEER 9/28/07 DATE

PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

Caltrans Metric

NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR LOCATION OF AC DIKE, SEE LAYOUT AND SUMMARY OF QUANTITY SHEETS.
4. FOR LOCATION OF MBGR, SEE LAYOUT AND SUMMARY OF QUANTITY SHEETS.

DESIGN DESIGNATION (ROUTE 101)

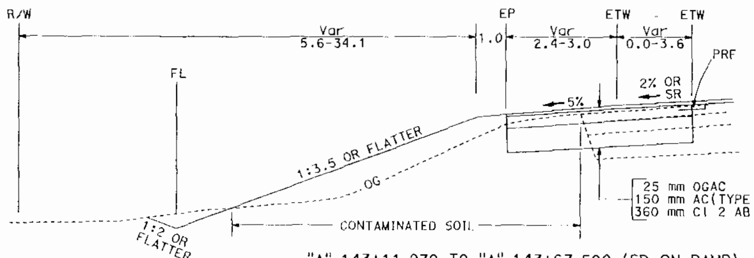
(2005) AADT=20200 D=60%
(2025) AADT=27300 T= 9%
DHV= 3080 V=110 km/H

DESIGN DESIGNATION (ROUTE 36)

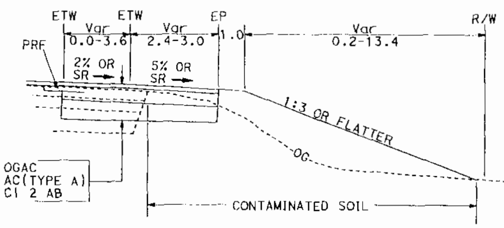
(2005) AADT=4620 D=60%
(2025) AADT=6240 T=10%
DHV= 910 V=75 km/H

LEGEND

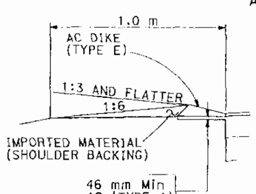
SR = SUPERELEVATION RATE



"A" 143+11.970 TO "A" 143+67.500 (SB ON RAMP)
"A" 143+87.325 TO "A" 145+30.000 (SB ON RAMP)
"A" 153+57.680 TO "A" 154+00.000 (SB OFF RAMP)

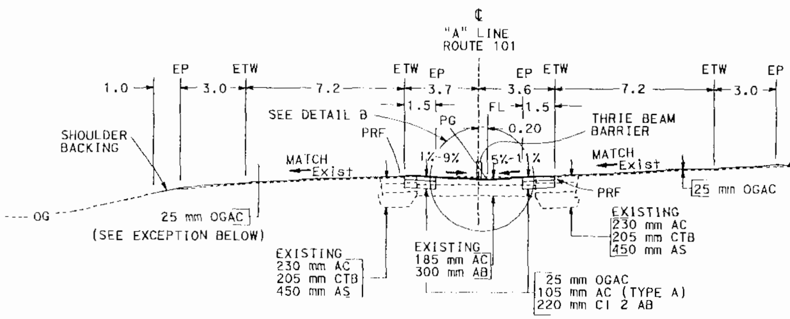


"A" 144+17.980 TO "A" 144+60.310 (NB OFF RAMP)
"A" 155+60.037 TO "A" 157+40.070 (NB ON RAMP)

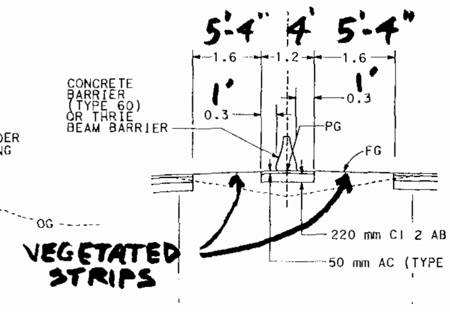


CUT AND FILL

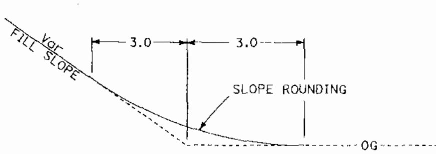
DETAIL A



"A" 140+20.000 TO "A" 141+00.000 (0 mm OGAC Lt)
"A" 141+00.000 TO "A" 143+67.500
"A" 143+87.325 TO "A" 144+80.000

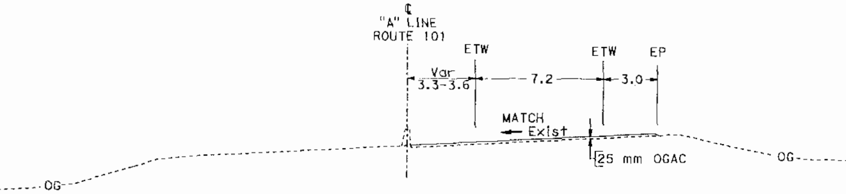


DETAIL B



SLOPE ROUNDING DETAIL

"B" 202+30.000	TO	"B"	204+82.327	Lt & Rt
"B" 205+40.503	TO	"B"	206+80.000	Lt & Rt
"C" 13+40.000	TO	"C"	14+20.000	Lt & Rt
"D" 30+35.000	TO	"D"	30+50.000	Lt
"D" 30+25.000	TO	"D"	30+60.000	Rt
"E" 23+20.000	TO	"E"	24+00.000	Lt
"E" 23+40.000	TO	"E"	24+00.000	Rt
"F" 40+25.000	TO	"F"	41+30.000	Lt & RT
"G" 50+25.000	TO	"G"	50+53.000	Lt & Rt



"A" 137+84.850 TO "A" 140+20.000

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (1)

TYPICAL CROSS SECTIONS X-1

NO SCALE

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans DESIGN

FUNCTIONAL SUPERVISOR S.R. HUGHES
CALCULATED-DESIGNED BY S. MARCHI
CHECKED BY R.E. KORNMAN
REVISED BY
DATE REVISED

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

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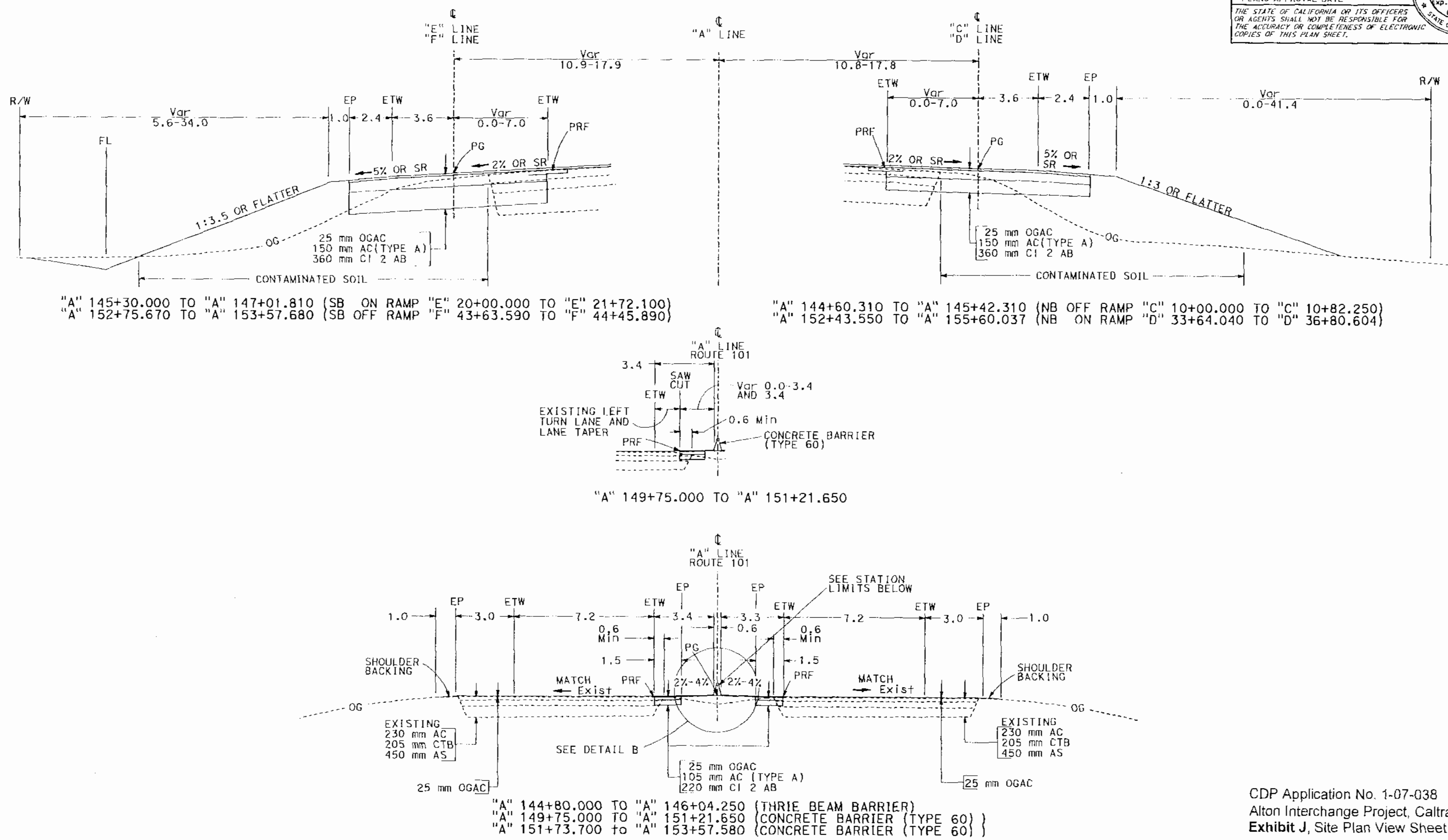
Caltrans Metric



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (2)

TYPICAL CROSS SECTIONS
X-2

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY
DESIGN	S.R. HUGHES	CHECKED BY	R.E. KORNMAN	DATE REVISED

Caltrans

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => t1tom

LAST REVISION 00-00-00 DATE PLOTTED => 24-OCT-2007 TIME PLOTTED => 15:07

p:\proj\101\29030\drafting\01_290301\1290301cc002.dgn

CU 03230 EA 290301

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

REGISTERED CIVIL ENGINEER 9/28/07 DATE

PLANS APPROVAL DATE

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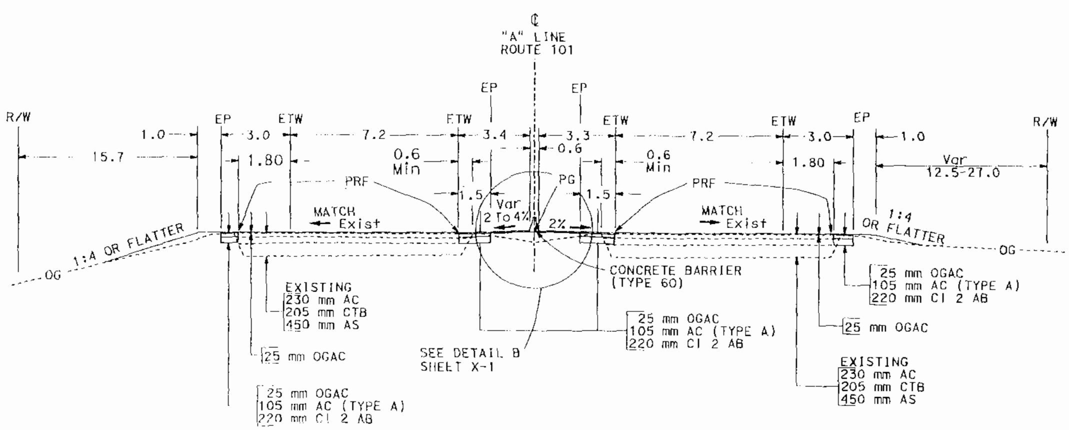
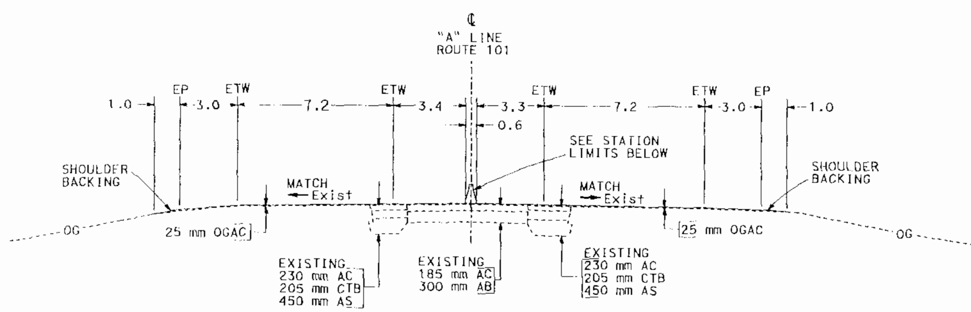
REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

Caltrans Metric



"A" 157+77.890 TO "A" 162+02.250



"A" 146+04.250 TO "A" 148+75.000 (THRIE BEAM BARRIER)
"A" 148+75.000 TO "A" 148+94.689 (CONCRETE BARRIER (TYPE 60))
"A" 148+94+689 TO "A" 149+33.232 (CONCRETE BARRIER (TYPE 60E))
"A" 149+33.232 TO "A" 149+75.000 (CONCRETE BARRIER (TYPE 60))
"A" 151+21.650 TO "A" 151+73.700 (CONCRETE BARRIER (TYPE 60))
"A" 153+57.580 TO "A" 157+07.000 (CONCRETE BARRIER (TYPE 60))

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (3)

TYPICAL CROSS SECTIONS
X-3

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans DESIGN

FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY
S.R. HUGHES	S. MARCHI	
	CHECKED BY	DATE REVISED
	R.E. KORNMAN	

p:\proj1\01\29030\drafting\01_290301\1290300003.dgn

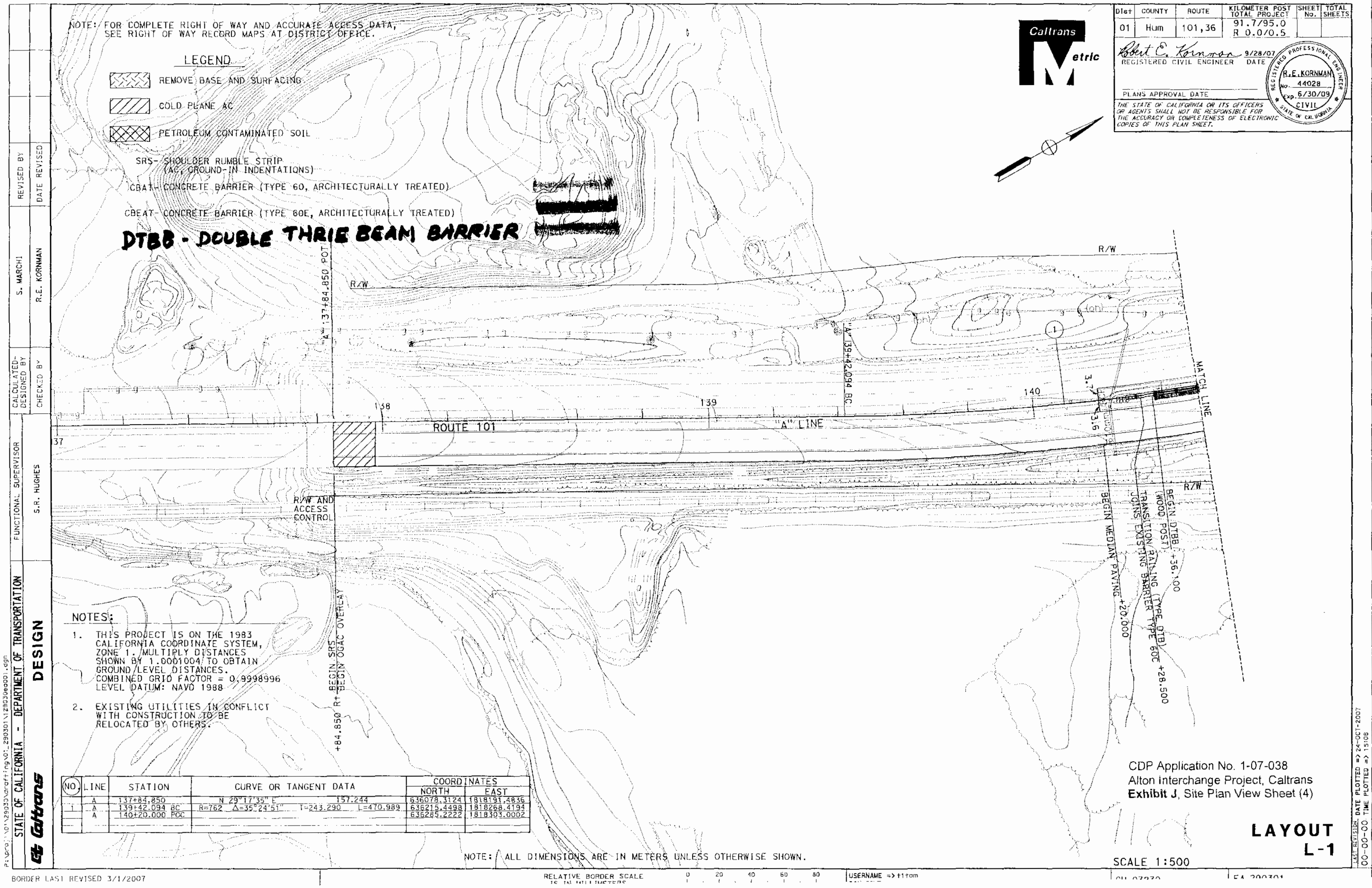
BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => t1tom

CU 03230 | EA 290301

LAST REVISION 00-00-00 DATE PLOTTED => 24-OCT-2007 TIME PLOTTED => 15:07


NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
LEGEND
REMOVE BASE AND SURFACING
COLD PLANE AC
PETROLEUM CONTAMINATED SOIL
SRS- SHOULDER RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)
CBAT- CONCRETE BARRIER (TYPE 60, ARCHITECTURALLY TREATED)
CBEAT- CONCRETE BARRIER (TYPE 60E, ARCHITECTURALLY TREATED)
DTBB - DOUBLE THRIE BEAM BARRIER
Caltrans
Metric
Dist | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET No. | TOTAL SHEETS
01 | Hum | 101,36 | 91.7/95.0 R 0.0/0.5
Robert E. Kornman 9/28/07
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 ELECTRONIC COPIES OF THIS PLAN SHEET.
REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6/30/09
CIVIL
STATE OF CALIFORNIA
R/W
"A" 137+84.850 POT
"A" 139+42.094 BC
MATCH LINE
ROUTE 101
"A" LINE
137
138
139
140
3.7
3.6
R/W AND ACCESS CONTROL
+84.850 R+ BEGIN SRS
BEGIN OGAC OVERLAY
BEGIN DTBB +36.100
(WOOD POST)
TRANSITION RAILING (TYPE DTB)
JOINS EXISTING BARRIER TYPE 60C +28.500
BEGIN MEDIAN PAVING +20.000
NOTES:
1. THIS PROJECT IS ON THE 1983 CALIFORNIA COORDINATE SYSTEM, ZONE 1. MULTIPLY DISTANCES SHOWN BY 1.0001004 TO OBTAIN GROUND LEVEL DISTANCES. COMBINED GRID FACTOR = 0.9998996 LEVEL DATUM: NAVD 1988
2. EXISTING UTILITIES IN CONFLICT WITH CONSTRUCTION TO BE RELOCATED BY OTHERS.
NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (4)
LAYOUT
L-1
SCALE 1:500
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR
S.R. HUGHES
CALCULATED-DESIGNED BY
CHECKED BY
S. MARCHI
R.E. KORNMAN
REVISED BY
DATE REVISED
BORDER LAST REVISED 3/1/2007
RELATIVE BORDER SCALE IS IN MILLIMETERS
USERNAME => ttom
DATE PLOTTED => 24-OCT-2007
TIME PLOTTED => 15:08

NO.	LINE	STATION	CURVE OR TANGENT DATA	COORDINATES NORTH	COORDINATES EAST
	A	137+84.850	N 29°17'35" E 157.244	636078.3124	1818191.4836
1	A	139+42.094 BC	R=762 Δ=35°24'51" T=243.290 L=470.989	636215.4498	1818268.4194
	A	140+20.000 POC		636285.2222	1818303.0002

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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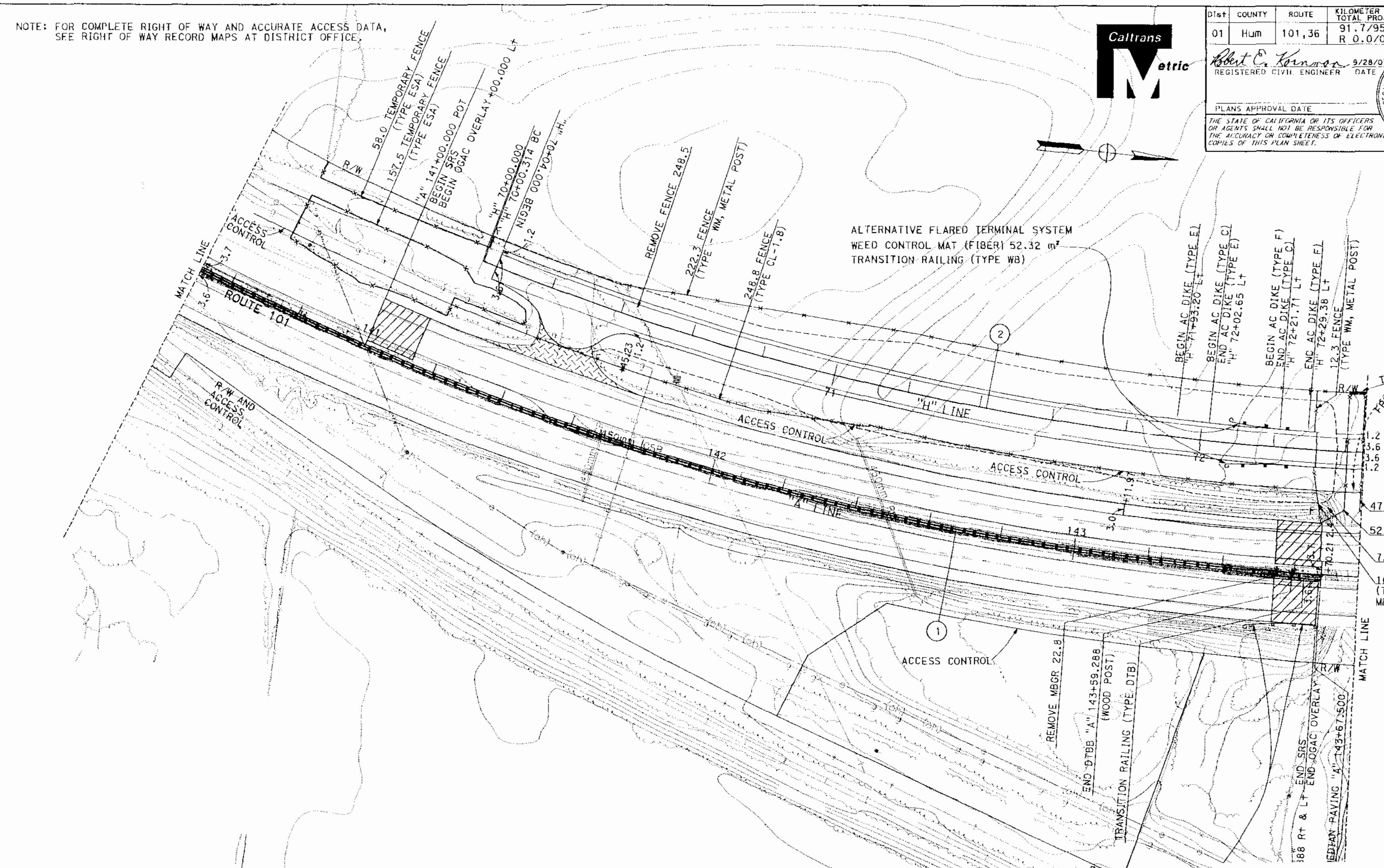
REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

Caltrans Metric

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (5)

NO.	LINE	STATION	CURVE OR TANGENT DATA	COORDINATES NORTH	COORDINATES EAST
	H	70+00.000	N 15°49'25" E 0.314	636389.6729	1818304.6064
2	H	70+00.314 BC	R=725 Δ=23°05'26" T=148.100 L=292.181	636389.9746	1818304.6919
	H	70+04.000 BEGIN		636393.5239	1818305.6881

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

LAYOUT L-2

SCALE 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans DESIGN

FUNCTIONAL SUPERVISOR	CALCULATED- DESIGNED BY		REVISED BY
S.R. HUGHES	CHECKED BY	R.E. KORNMAN	DATE REVISED
		S. MARCHI	

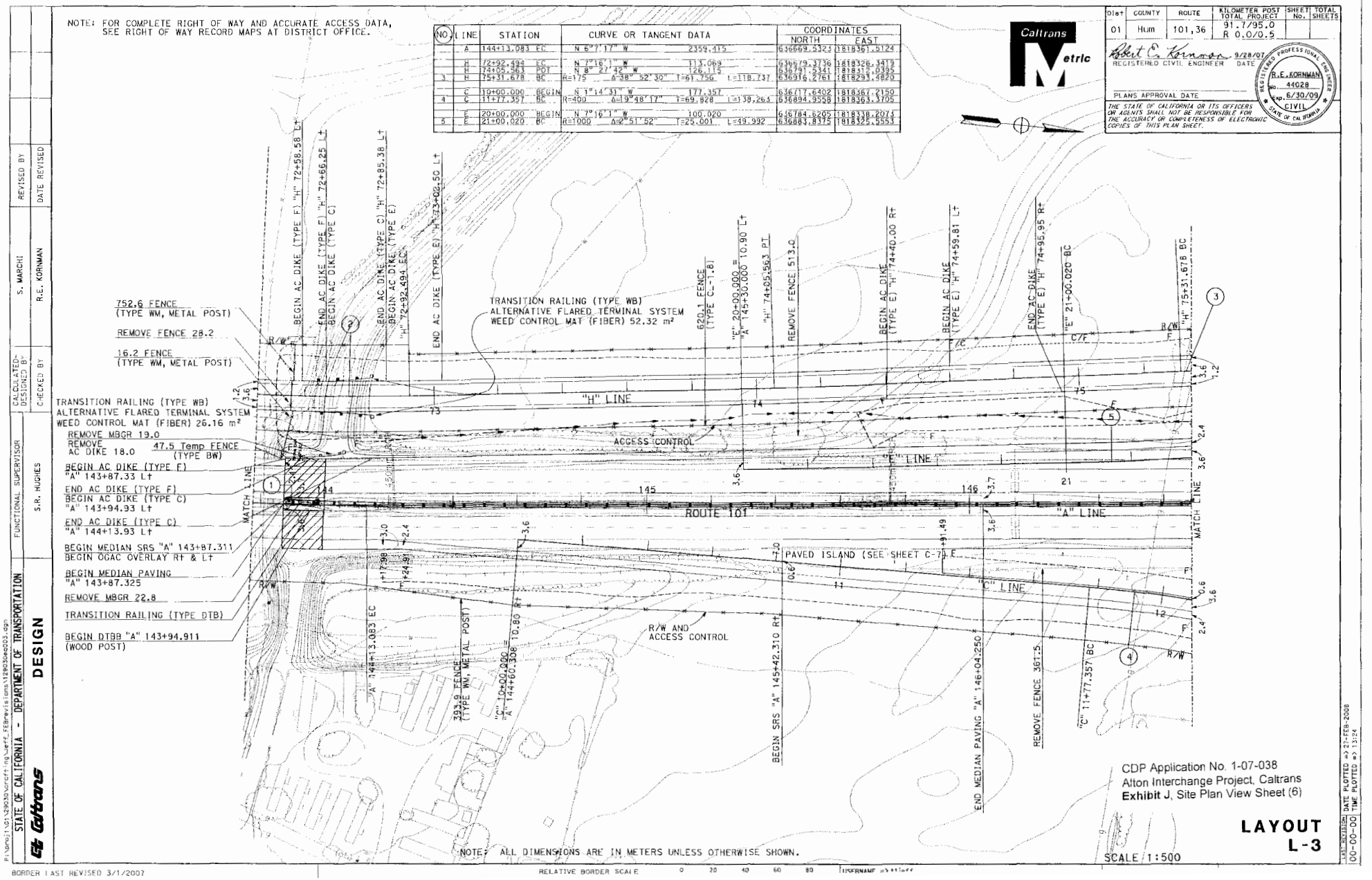
BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => t1tom

CU 03230 EA 290301

LAST REVISION 00-00-00 DATE PLOTTED => 24-OCT-2007 TIME PLOTTED => 15:08



NO	LINE	STATION	CURVE OR TANGENT DATA	COORDINATES NORTH	COORDINATES EAST
	A	144+13.083 EC	N 6°7'17" W 2359.415	636669.5323	1818361.5124
	H	72+92.494 EC	N 7°16'1" W 113.069	636779.3736	1818326.3413
	H	74+05.563 POT	N 8° 27' 42" W 126.115	636891.2341	1818317.0395
3	H	75+31.678 BC	R=175 Δ=38° 52' 30" T=61.756 L=118.737	636916.2761	1818293.4820
	C	10+00.000 BEGIN	N 1°14'31" W 177.357	636717.6402	1818367.2150
4	C	11+77.357 BC	R=400 Δ=9°48'17" T=69.828 L=137.063	636894.9558	1818363.5705
	E	20+00.000 BEGIN	N 7°16'1" W 100.020	636784.6205	1818338.2074
5	E	21+00.020 BC	R=1000 Δ=2°51'52" T=25.001 L=49.992	636883.8375	1818325.5553

Caltrans Metric

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL — STATE OF CALIFORNIA

CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY	
CHECKED BY	R.E. KORNMAN	DATE REVISED	
FUNCTIONAL SUPERVISOR	S.R. HUGHES		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

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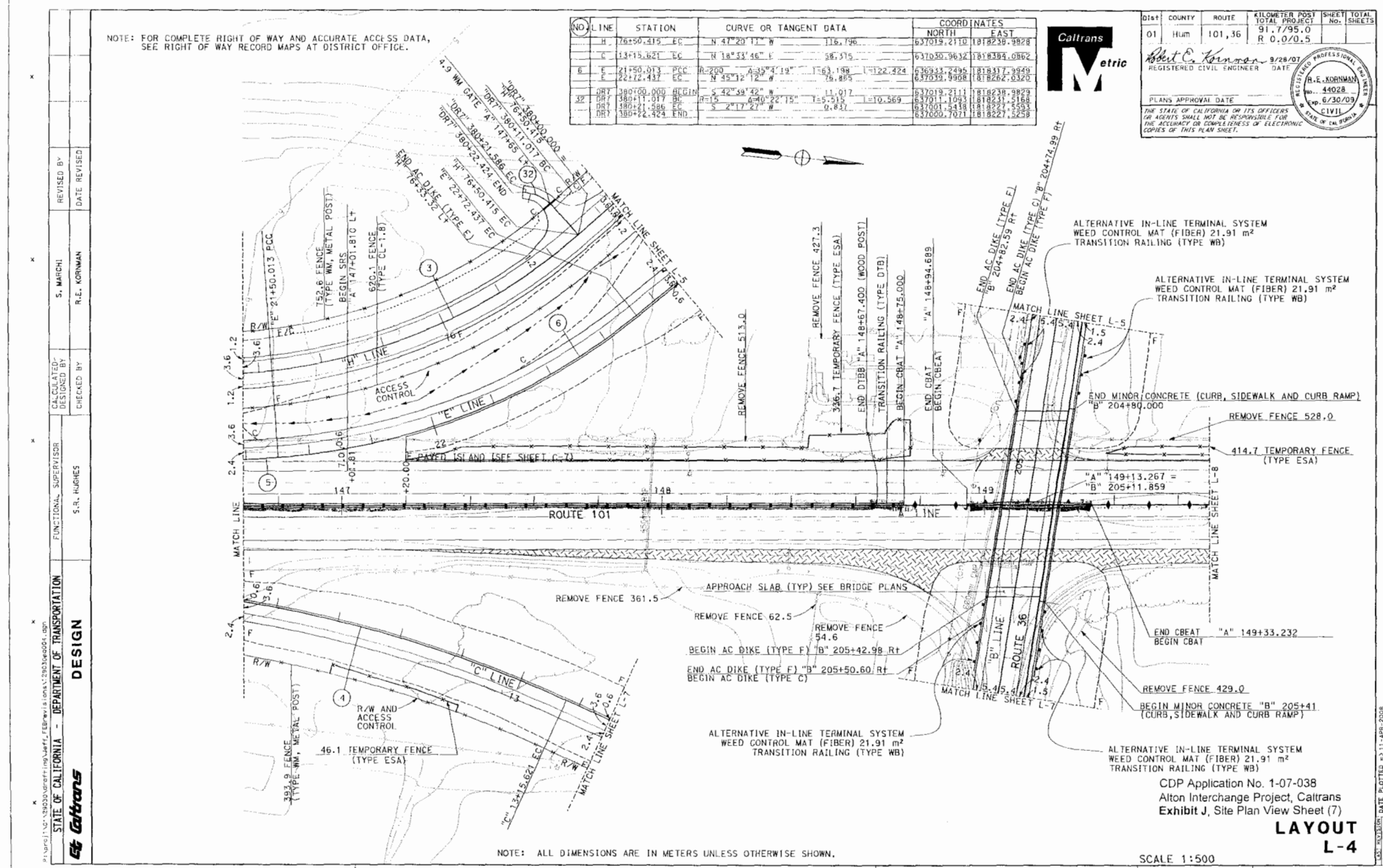
CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (6)

LAYOUT L-3

LAST REVISION 00-00-00 DATE PLOTTED => 27-FEB-2008 TIME PLOTTED => 13:24

BORDER LAST REVISED 3/1/2007 RELATIVE BORDER SCALE 0 20 40 60 80 USERNAME =>



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	H	76+50.415 EC	N 47°20'11" W			116.796	637019.2110	1818238.9828
	C	13+15.621 EC	N 18°33'46" E			58.515	637030.9632	1818384.0862
6	E	21+50.013 PCC	R=200	Δ=35°41'19"	T=63.198	L=122.424	636943.2495	1818317.3949
	E	22+72.437 EC	N 45°12'12" W			78.885	637039.9908	1818262.0320
	DR7	380+00.000 BEGIN	S 42°39'42" W			11.017	637019.2111	1818238.9829
32	DR7	380+11.017 BC	R=15	Δ=90°22'15"	T=15.515	L=10.569	637001.1093	1818231.2168
	DR7	380+21.586 EC	S 2°17'27" W			0.821	637001.5418	1818221.5593
	DR7	380+22.424 END					637000.7071	1818221.5258

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 exp. 6/30/09 CIVIL STATE OF CALIFORNIA

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STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

CALCULATED-DESIGNED BY	FUNCTIONAL SUPERVISOR	REVISED BY
S. MARCHI	S.R. HUGHES	
CHECKED BY		DATE REVISED
R.E. KORNMAN		

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (7)

LAYOUT
L-4

LAST REVISION 00-00-00
DATE PLOTTED => 11-APR-2008
TIME PLOTTED => 14:54

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RELATIVE BORDER SCALE 0 20 40 60 80
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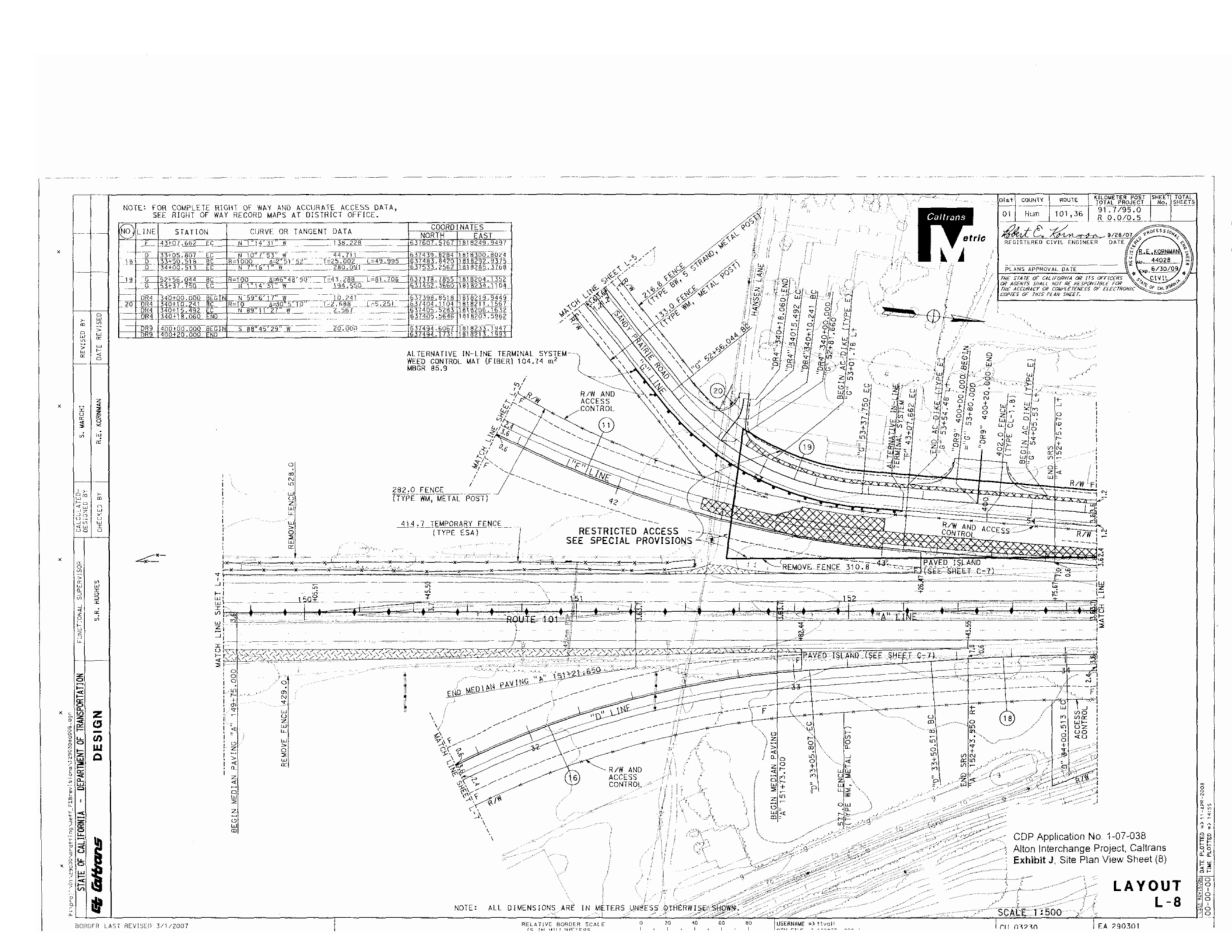
EA 290101


NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
NO | LINE | STATION | CURVE OR TANGENT DATA | COORDINATES NORTH | EAST
F 43+07.662 EC N 1°14'31" W 38.228 6377607.5767 1818249.9497
G 33+05.807 BC N 10°7'53" W 44.711 6377439.8284 1818300.8024
18 D 33+50.518 EC R=1000 A=2°51'52" T=25.002 L=49.995 6377393.8490 1818292.3375
D 34+00.513 EC N 7°16'1" W 280.041 6377533.2562 1818285.3168
19 G 52+56.044 BC R=100 A=46°48'50" T=43.288 L=81.706 6377378.7855 1818204.1352
G 53+37.750 EC N 1°14'31" W 194.550 6377452.3660 1818234.1104
DR4 340+00.000 BEGIN N 59°6'17" W 10.241 6377398.9518 1818219.9449
20 DR4 340+10.241 BC R=10 A=30°5'10" T=2.688 L=5.251 6377404.1104 1818211.1567
DR4 340+15.492 EC N 89°11'27" W 2.567 6377405.5243 1818206.1612
DR4 340+18.060 END 6377405.5646 1818203.5962
DR9 400+00.000 BEGIN S 88°45'29" W 20.000 6377394.6067 1818233.1947
DR9 400+20.000 END 6377394.1731 1818213.1933
ALTERNATIVE IN-LINE TERMINAL SYSTEM
WEED CONTROL MAT (FIBER) 104.74 m²
MBGR 85.9
MATCH LINE SHEET L-5
R/W
216.8 FENCE (TYPE BW, 5 STRAND, METAL POST)
133.0 FENCE (TYPE WM, METAL POST)
SANDY PRAIRIE ROAD
"G" 52+56.044 BC
HANSEN LANE
"DR4" 340+18.060 END
"DR4" 340+15.492 EC
"DR4" 340+10.241 BC
"DR4" 340+00.000 BEGIN
"G" 52+81.660
BEGIN AC DIKE (TYPE E) "G" 53+01.78 LT
"G" 53+37.750 EC
ALTERNATIVE IN-LINE TERMINAL SYSTEM "F" 43+07.662 EC
END AC DIKE (TYPE E) "G" 53+54.48 LT
"DR9" 400+00.000 BEGIN "G" 53+80.000
"DR9" 400+20.000 END
402.0 FENCE (TYPE CL-1.8)
BEGIN AC DIKE (TYPE E) "G" 54+05.53 LT
END SRS "A" 152+75.670 LT
R/W AND ACCESS CONTROL
11
19
20
"F" LINE
282.0 FENCE (TYPE WM, METAL POST)
414.7 TEMPORARY FENCE (TYPE ESA)
RESTRICTED ACCESS SEE SPECIAL PROVISIONS
REMOVE FENCE 529.0
REMOVE FENCE 310.8
PAVED ISLAND (SEE SHEET C-7)
MATCH LINE SHEET L-4
ROUTE 101
"A" LINE
MATCH LINE
150
151
152
END MEDIAN PAVING "A" 151+21.650
"D" LINE
REMOVE FENCE 429.0
BEGIN MEDIAN PAVING "A" 149+75.000
MATCH LINE SHEET L-7
16
18
BEGIN MEDIAN PAVING "A" 151+73.700
"D" 33+05.807 EC
577.0 FENCE (TYPE WM, METAL POST)
"D" 33+50.518 BC
END SRS "A" 152+43.550 RT
"D" 34+00.513 EC
ACCESS CONTROL
NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
SCALE 1:500
LAYOUT L-8
CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (8)
Caltrans Metric
Dist 01 | COUNTY Hum | ROUTE 101,36 | KILOMETER POST TOTAL PROJECT 91.7/95.0 R 0.0/0.5 | SHEET No. | TOTAL SHEETS
REGISTERED CIVIL ENGINEER 9/28/07 DATE
R.E. KORNMAN No. 44028 exp. 6/30/09 CIVIL STATE OF CALIFORNIA
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR S.R. HUGHES
CALCULATED-DESIGNED BY S. MARCHI
CHECKED BY R.E. KORNMAN
REVISED BY
DATE REVISED
BORDER LAST REVISED 3/1/2007
RELATIVE BORDER SCALE 0 20 40 60 80
USERNAME => ttvoll
DATE PLOTTED => 11-APR-2008
TIME PLOTTED => 14:55
CU 03230
EA 290301

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

NO.	LINE	STATION	CURVE OR TANGENT DATA	COORDINATES NORTH	COORDINATES EAST
	F	44+45.890 END		637607.5767	1818249.9497
21	G	55+32.300 BC	R=200 Δ=26°30'5" T=47.096 L=92.507	637646.8707	1818229.8934
	G	56+24.807 EC	N 27°44'36" W 25.914	637735.6382	1818206.9486
22	G	56+50.721 BC	R=1000 Δ=3°48'36" T=33.261 L=66.498	367758.5731	1818194.8853
	G	57+17.219 EC	N 31°33'12" W 93.387	637816.3543	1818161.9964
	DR5	350+00.000 BEGIN	S 64°57'30" W 8.975	637727.1925	1818211.1398
	DR5	350+08.975 END		637723.3937	1818203.0087
	DR10	410+00.000 BEGIN	S 88°45'29" W 20.000	637578.5870	1818231.3738
	DR10	410+20.000 END		637578.1533	1818211.3787

Caltrans Metric

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101, 36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE

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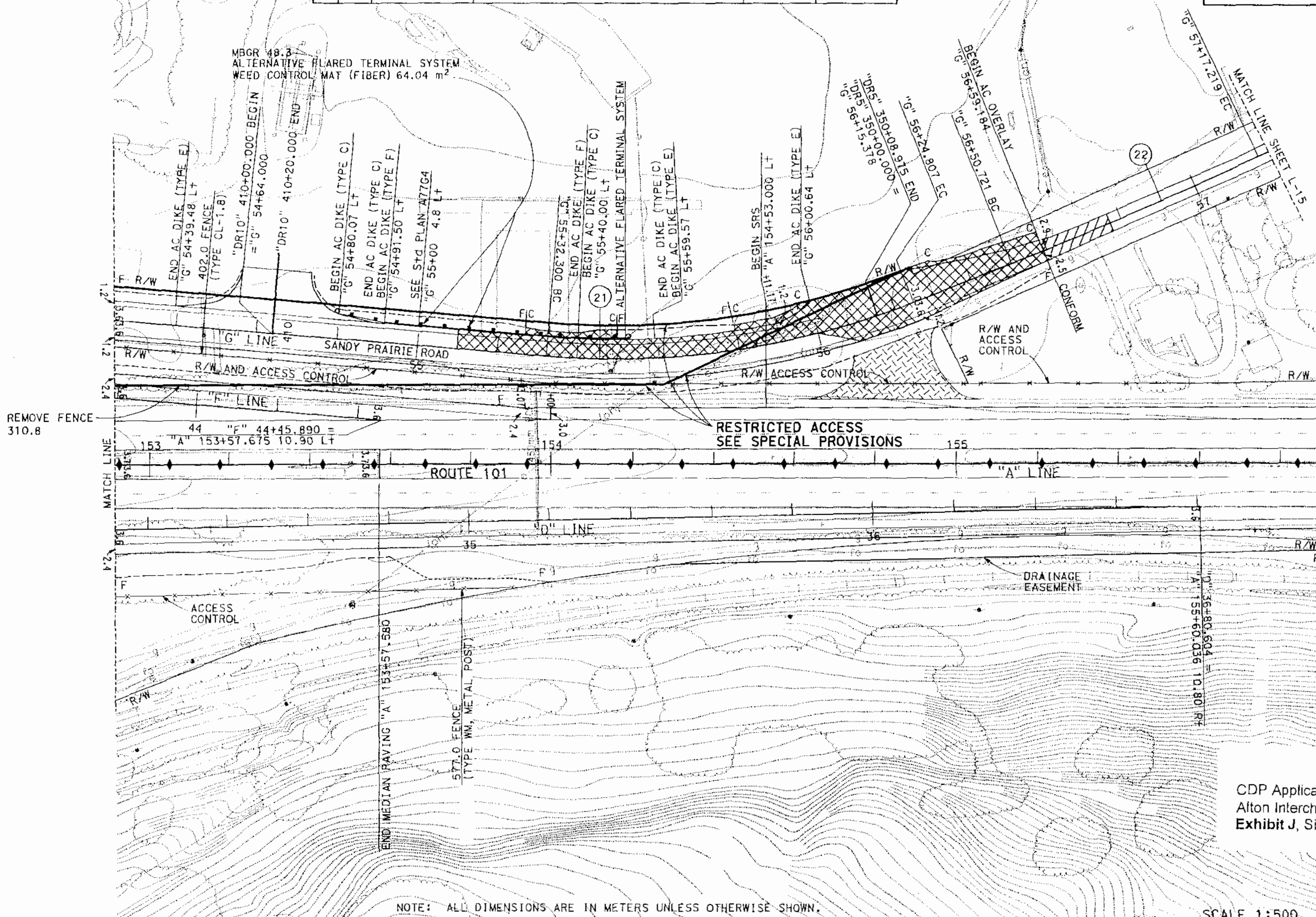

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (9)

LAYOUT L-9

SCALE 1:500

RELATIVE BORDER SCALE 0 20 40 60 80

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY
Caltrans DESIGN	S.R. HUGHES	CHECKED BY	R.E. KORNMAN	DATE REVISED

BORDER LAST REVISED 3/1/2007

LAST REVISION 00-00-00 DATE PLOTTED => 22-FEB-2008 TIME PLOTTED => 09:20

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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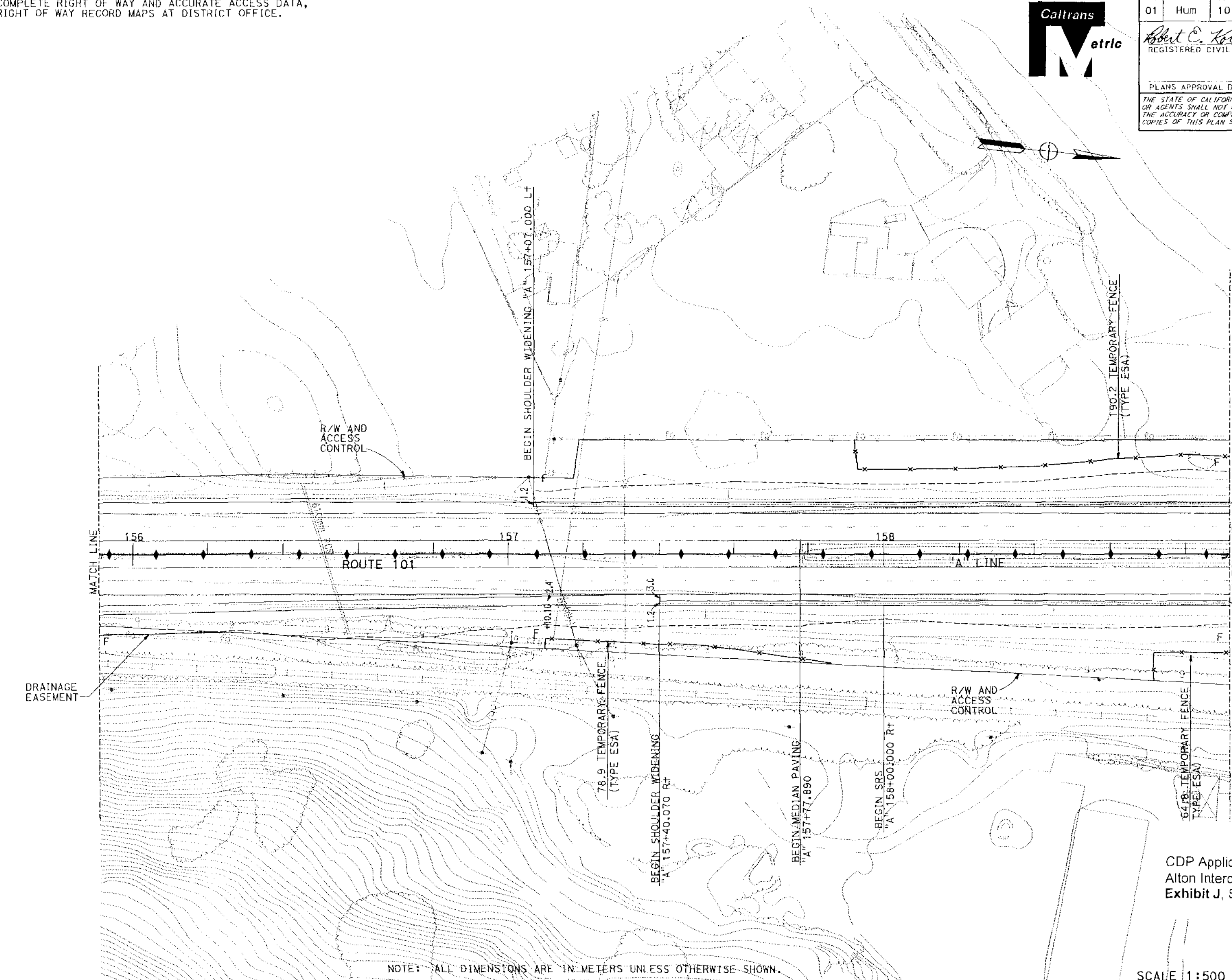
REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA



CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (10)

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

LAYOUT L-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY
Caltrans DESIGN	S.R. HUGHES	CHECKED BY	R.E. KORNMAN	DATE REVISED

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE 0 20 40 60 80

USERNAME => ttvall

LAST REVISION 00-00-00 DATE PLOTTED => 11-APR-2008 TIME PLOTTED => 14:55

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NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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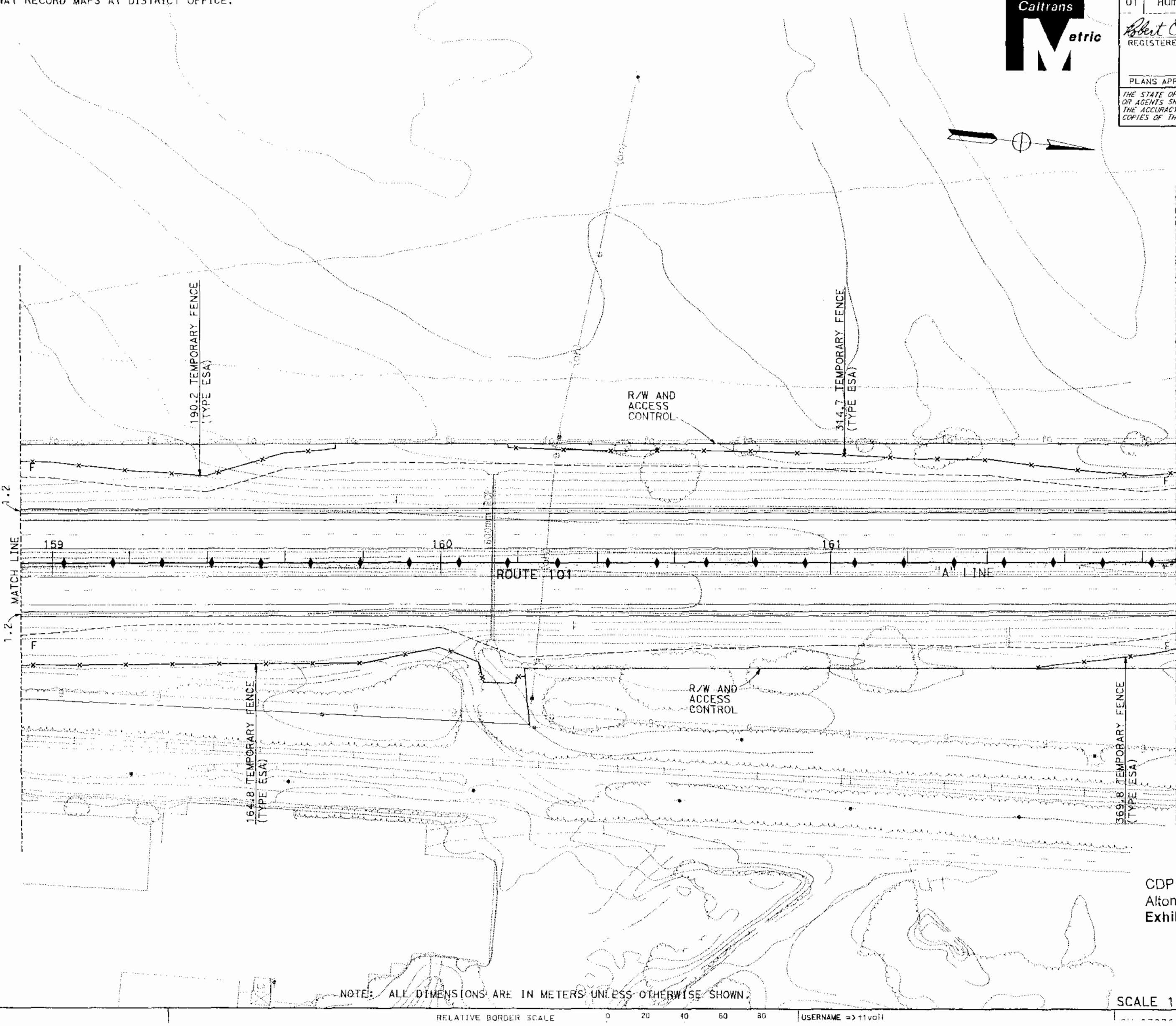
Caltrans Metric



NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (11)

LAYOUT L-11

SCALE 1:500

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY
Caltrans DESIGN	S.R. HUGHES	CHECKED BY	R.E. KORNMAN	DATE REVISED

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BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE 0 20 40 60 80

USERNAME => t1vall

LAST REVISION 00-00-00
DATE PLOTTED => 11-APR-2008
TIME PLOTTED => 14:55

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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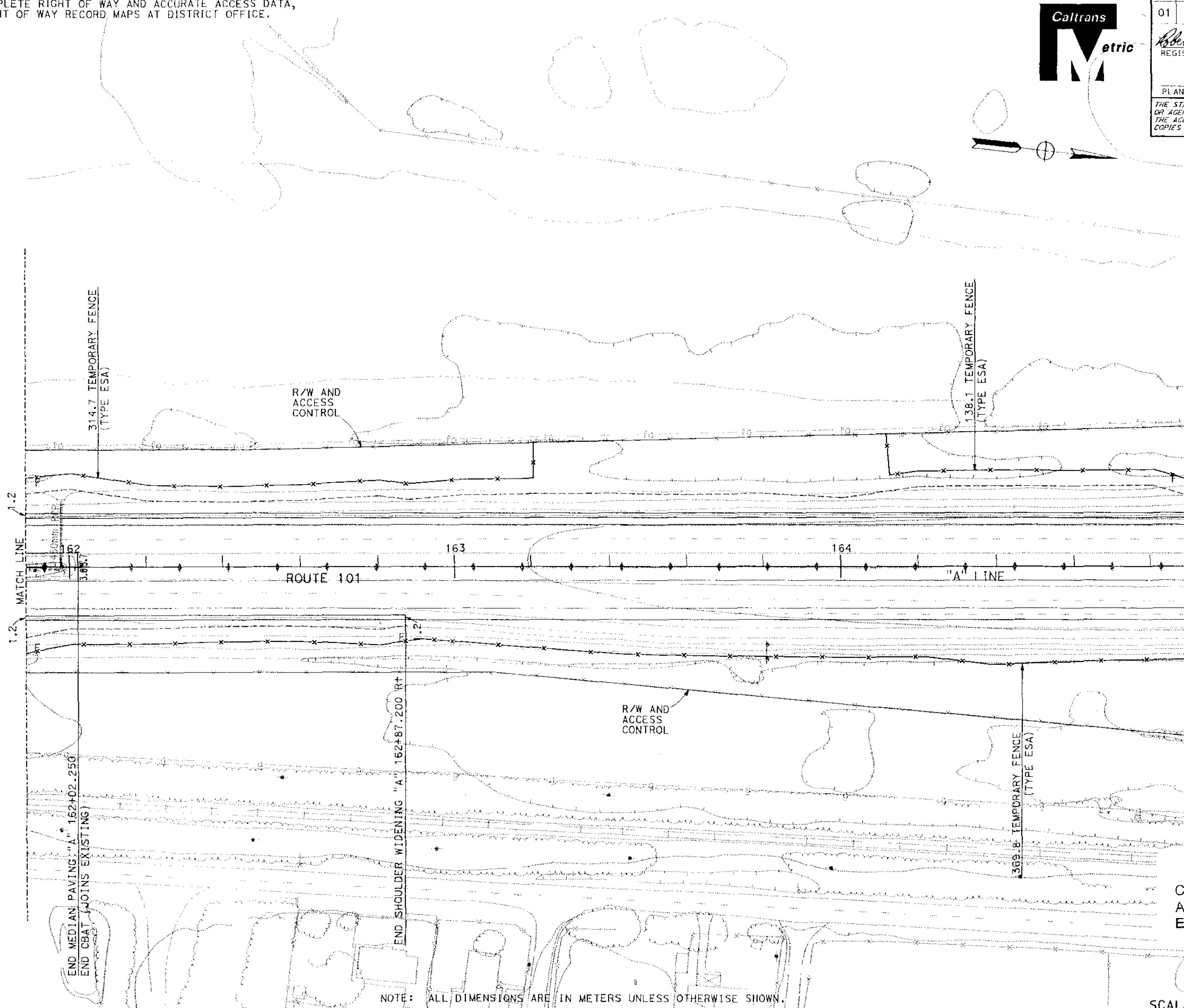
REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit J, Site Plan View Sheet (12)

LAYOUT L-12

SCALE 1:500

CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY
CHECKED BY	R.E. KORNMAN	DATE REVISED

FUNCTIONAL SUPERVISOR S.R. HUGHES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

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LAST REVISION 00-00-00 DATE PLOTTED => 11-APR-2008 TIME PLOTTED => 14:55

BORDER LAST REVISED 3/1/2007 RELATIVE BORDER SCALE 0 20 40 60 80 USERNAME => t1vail

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 Exp. 6/30/09 CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE

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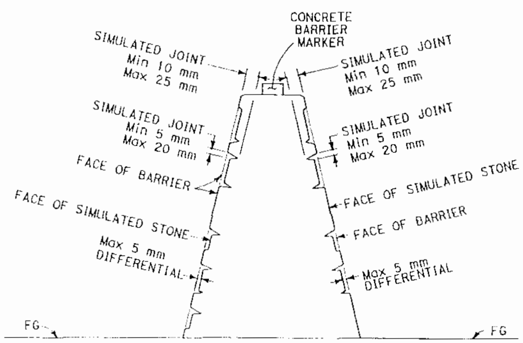
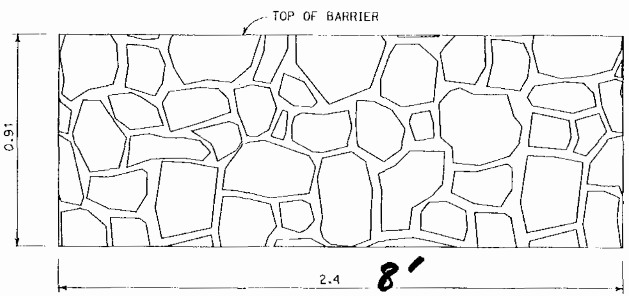
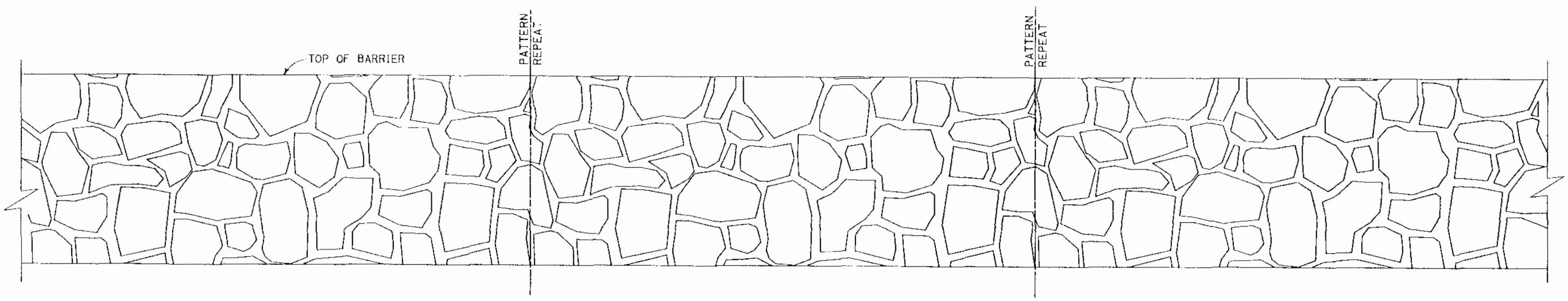
Caltrans Metric



TYPICAL CROSS SECTION



REPEATING PATTERN



PROFILE

ARCHITECTURAL DETAIL
CONCRETE BARRIER (TYPE 60)
(ARCHITECTURALLY TREATED)

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit K, Construction Detail Sheet

CONSTRUCTION DETAILS
C-8

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	S. MARCHI	REVISED BY
Caltrans DESIGN	S.R. HUGHES	CHECKED BY	R.E. KORNMAN	DATE REVISED

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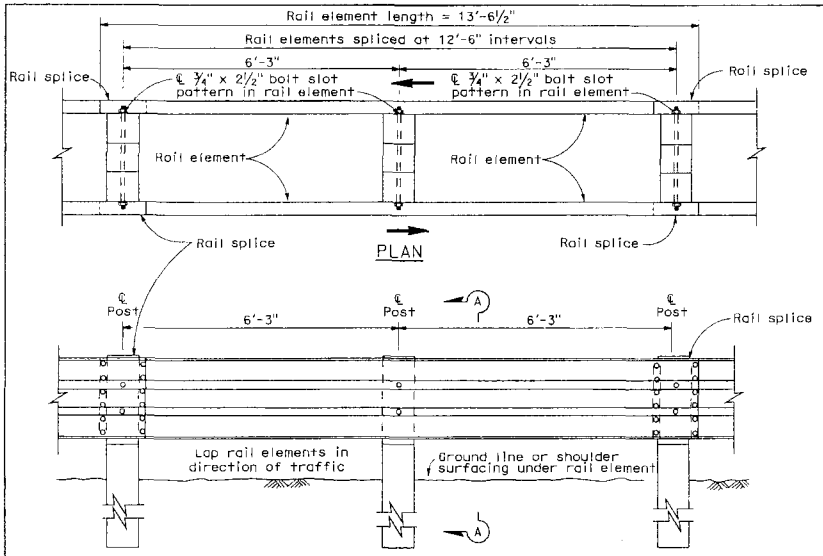
BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE 0 20 40 60 80

USERNAME => t11om

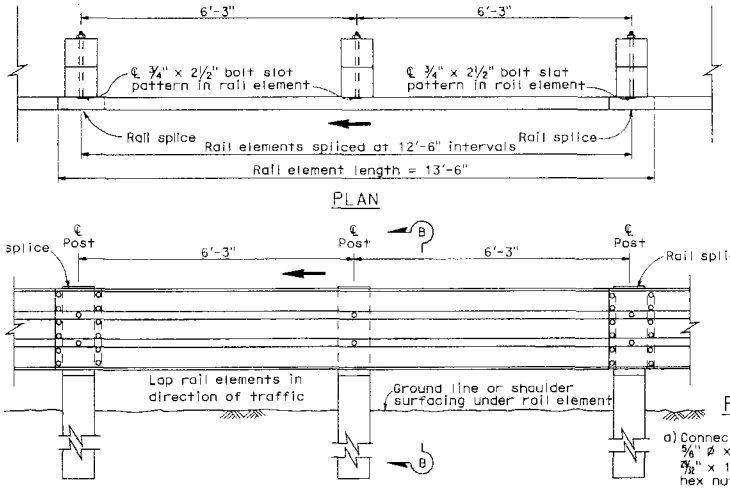
LAST REVISION 00-00-00 DATE PLOTTED => 24-OCT-2007 TIME PLOTTED => 15:13



ELEVATION

DOUBLE THRIE BEAM BARRIER

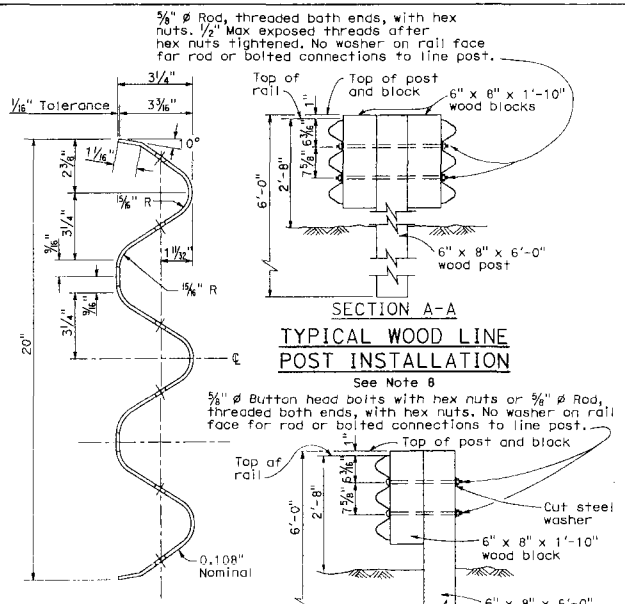
(Wood post and blocks)
See Note 1



ELEVATION

SINGLE THRIE BEAM BARRIER

(Wood post and blocks)
See Note 1



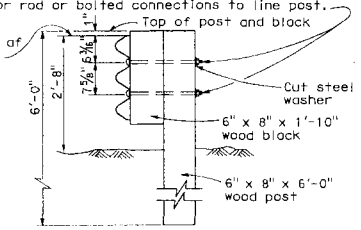
SECTION A-A

TYPICAL WOOD LINE POST INSTALLATION

See Note 8

SECTION THRU RAIL ELEMENT

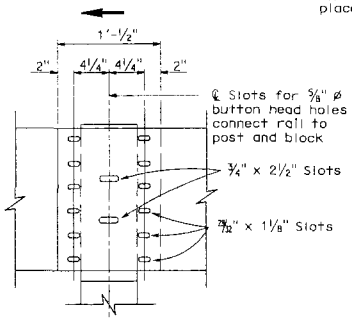
⅝" ø Button head bolts with hex nuts or ⅝" ø Rod, threaded both ends, with hex nuts. No washer on rail face for rod or bolted connections to line post.



Where bolts are used, install so that the threaded end of the bolts and nuts are placed away from traffic side of rail.

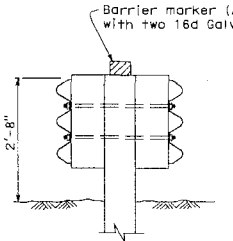
SECTION B-B

TYPICAL WOOD LINE POST INSTALLATION



ELEVATION

RAIL ELEMENT SPLICE DETAIL



THRIE BEAM BARRIER DELINEATION

See Note 10

a) Connect the overlapped ends of the thrie beam rail elements with ⅝" ø x 1⅜" button head oval shoulder bolts inserted into the 29/32" x 1⅛" slots and bolted together with ⅝" ø x 1⅜" recessed hex nuts. Recess of hex nut points toward rail element. A total of 12 bolts and nuts are to be used at each rail splice connection.

b) The ends of the rail elements are to be overlapped in the direction of traffic (see details).

c) Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used. Where a return cap is to be attached to the ends of rail elements, a total of 8 of the above described splice bolts and nuts are to be used.

NOTES:

1. For details of steel post thrie beam barrier, see Standard Plan A78B.
2. For details of standard hardware, posts and blocks used to construct thrie beam barrier, see Standard Plans A78C1 and A78C2.
3. Thrie beam barrier post spacing to be 6'-3" center to center, except as otherwise noted.
4. Top of barrier rail to be 2'-8" above ground line or shoulder surfacing under the rail element.
5. For barrier end treatments and barrier connections, see Standard Plans A78E1, A78E2, A78E3, A77F1, A77F2, A78G and A78H.
6. For connection to Concrete Barrier (Type 60), see Standard Plans A78I.
7. For details of thrie beam barrier on bridge see Standard Plan A78D2. For details of thrie beam barrier at fixed object, see Standard Plan A78D1.
8. Where offset roadway grades are encountered and height of rail element for each roadway cannot be obtained as shown in Section A-A, use saw tooth installation as shown on Standard Plan A78B.
9. Direction of traffic indicated by →.
10. Median barrier delineation to be used when required by the Special Provisions. Spacing of barrier markers to match spacing of raised pavement markers on adjacent median edgeline pavement delineation.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Randall D. Hiatt
REGISTERED CIVIL ENGINEER

May 1, 2006
PLANS APPROVAL DATE

Registered Professional Engineer — Randall D. Hiatt — No. C50200 — Exp. 6-30-07 — CIVIL — State of California

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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

THRIE BEAM BARRIER STANDARD BARRIER RAILING SECTION (WOOD POST WITH WOOD BLOCK)

NO SCALE

A78A

1-17-06

2006 STANDARD PLAN A78A

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit L, Construction Detail Sheet

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Hum	101			

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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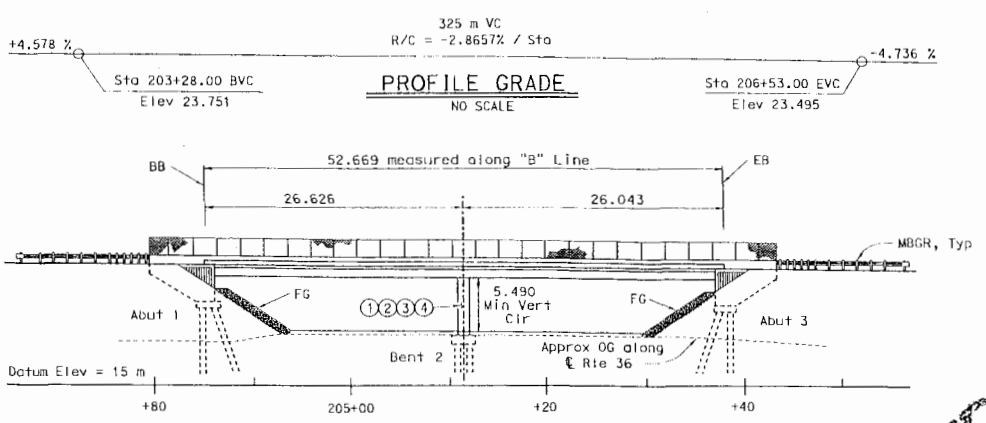
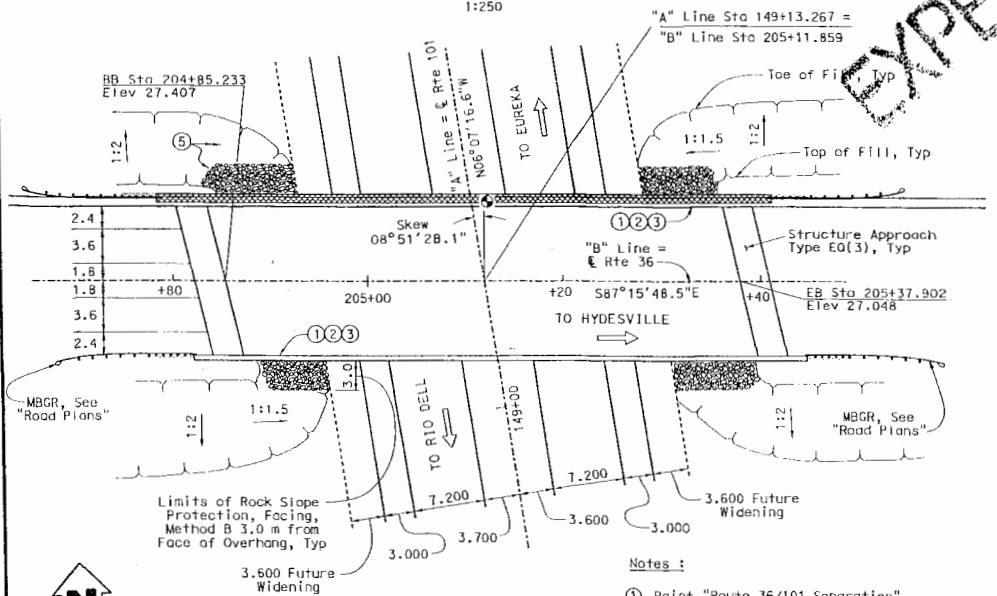
PILE DATA - PP610 x 12.7 PILES

Location	Design Loading (Service)	Nominal Resistance		Design Tip Elevation	Specifed Tip Elevation
		Compression	Tension		
Abut 1	625 kN	1250 kN	———	7.000	7.000
Bent 2	900 kN	1800 kN	———	1.000	1.000
Abut 3	625 kN	1250 kN	———	7.000	7.000

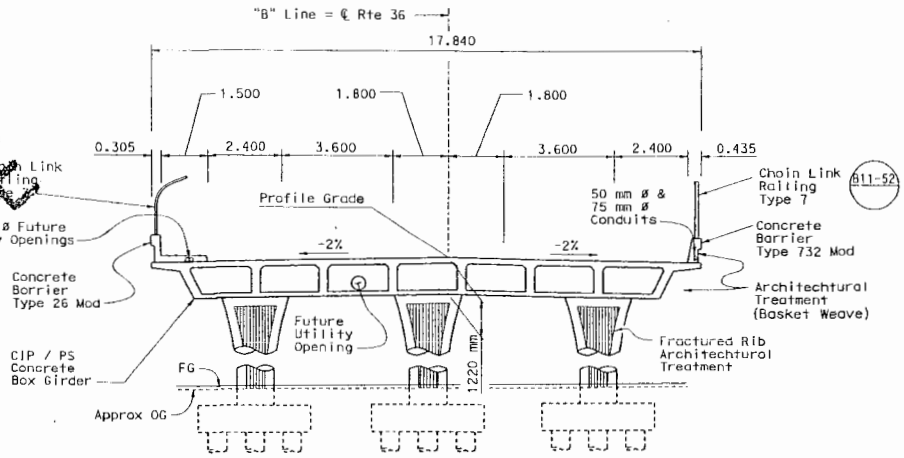




Indicates Point of Minimum Vertical Clearance

Notes :

1. Paint "Route 36/101 Separation".
2. Paint "Bridge No. 04-0301".
3. Paint the year built.
4. Paint "Bent 2".
5. Rock Slope Protection, Facing, Method B



TYPICAL SECTION

1:80

INDEX TO PLANS

For General Notes, see "Deck Contours" sheet.
For 'Standard Plans' references, see "PP610 x 12.7 Pipe Pile Details" sheet.

QUANTITIES		
STRUCTURE EXCAVATION (BRIDGE)	430	m^3
STRUCTURE BACKFILL (BRIDGE)	210	m^3
PERVIOUS BACKFILL MATERIAL	11	m^3
FURNISH STEEL PIPE PILING (610 mm)	782	m
DRIVE STEEL PIPE PILE (610 mm)	46	EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	85	m^3
STRUCTURAL CONCRETE, BRIDGE	748	m^3
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE EQ)	24	m^3
ARCHITECTURAL TREATMENT (BASKET WEAVE)	61	m^2
FRACTURED RIB TEXTURE	52	m^2
JOINT SEAL (MR 40 mm)	36	m
BAR REINFORCING STEEL (BRIDGE)	95 600	kg
BAR REINFORCING STEEL (EPOXY COATED)	1 480	kg
HEADED BAR REINFORCEMENT	72	EA
ROCK SLOPE PROTECTION (FACING, METHOD B)	127	m^3
CHAIN LINK RAILING (TYPE 3L)	63	m
CHAIN LINK RAILING (TYPE 7)	63	m
CONCRETE BARRIER (TYPE 26 MODIFIED)	63	m
CONCRETE BARRIER (TYPE 732 MODIFIED)	63	m

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit M, Constr. Detail Sheet (1)

CalTrans Metric

Jeff Sims
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Greg Jones	Mark Simonsen
DETAILS	Bob Huddleston	Mark Simonsen
QUANTITIES	Greg Thornton	Mike Herron

LOAD & RESISTANCE FACTOR DESIGN — LIVE LOADING: ML-93 WITH "LOW-BOY" PERMIT DESIGN VEHICLE

	BY	CHECKED
LAYOUT	Greg Jones	Mark Simonsen
SPECIFICATIONS	Jennifer Ramirez	PLANS AND SPECS COMPARED Jennifer Ramirez

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

CU 01
EA 250301

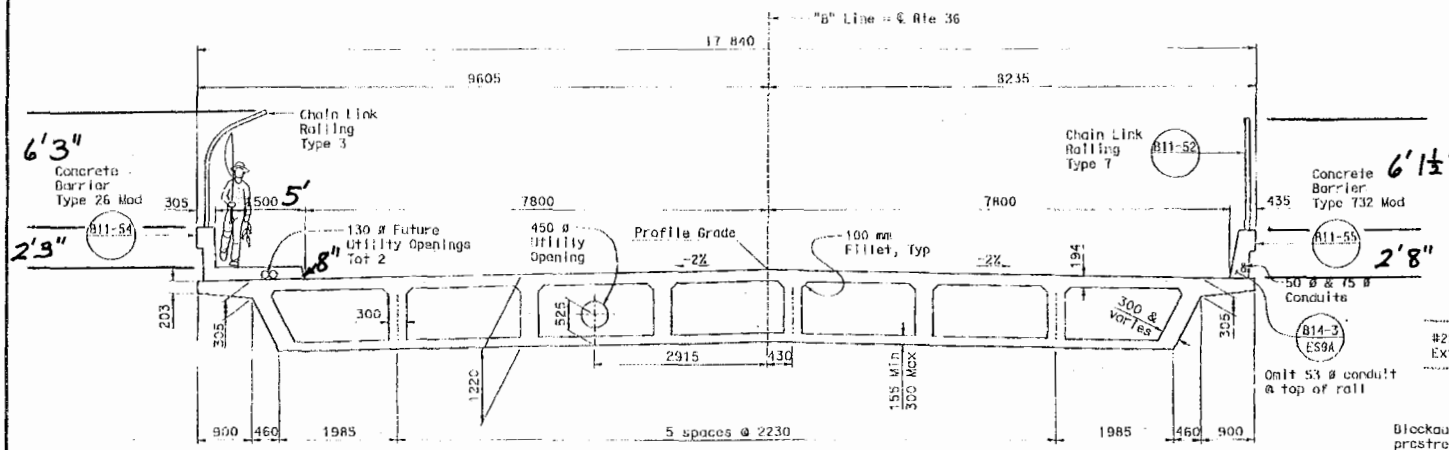
BRIDGE NO. 04-0301
KILOMETER POST 92.84

DISREGARD PRINTS BEARING EARLIER REVISION DATES

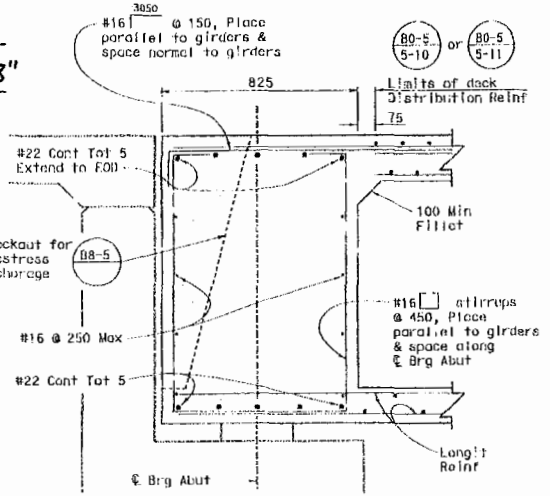
REVISION DATES: 4-26-05 | 9-04-07 | 10-11-07 | 11-14-07 | 11-28-07 | 12-12-07 | 12-26-07 | 2-24-07 | 4-28-07

ROUTE 36/101 SEPARATION
GENERAL PLAN

SHEET 1 OF 17

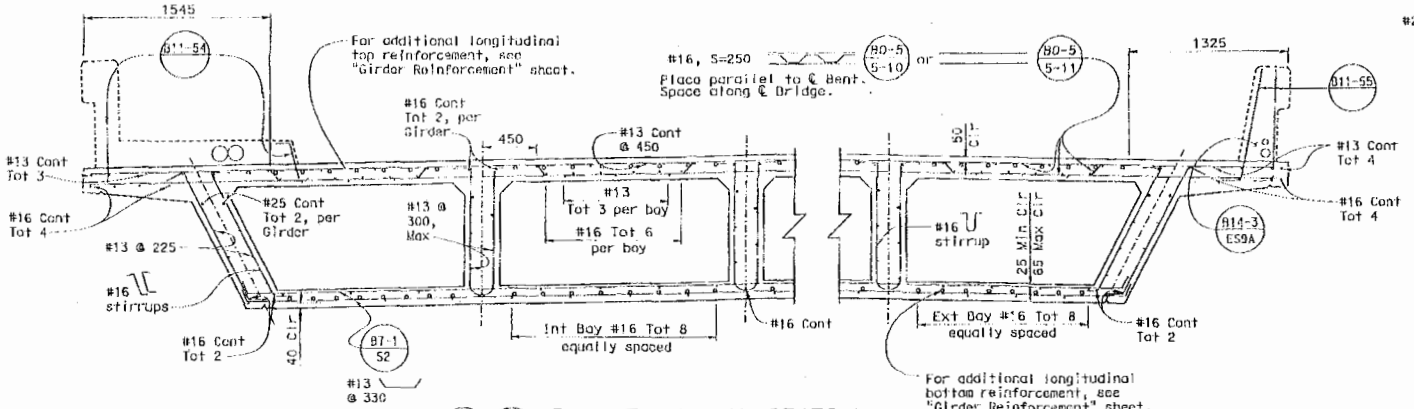


TYPICAL SECTION
1:40



Note: Section is cut normal to ℄ Brg Abut.

END DIAPHRAM
1:10



B8-5 B7-1 B0-5 PART TYPICAL SECTION
1:20

Note : All Typical Section Reinf Steel to be service spliced

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit M, Constr. Detail Sheet (2)

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Hum	101			

Robert G. Jones 9-05-07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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Robert G. Jones No. 65876 Exp. 9/30/08 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER

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Caltrans Metric

	BY	CHECKED
DESIGN	Greg Jones	Mark Simonsen
DETAILS	Bob Ruddleston	Mark Simonsen
QUANTITIES	Greg Thornton	Mike Herron

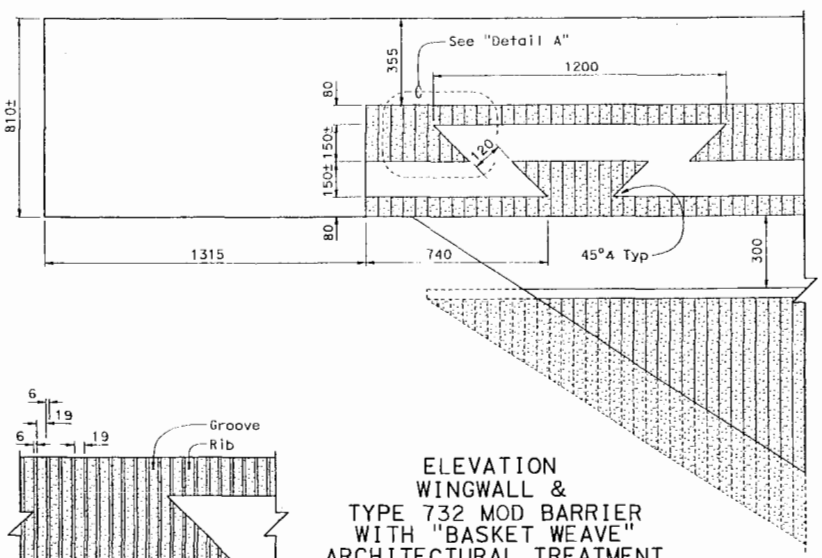
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 1

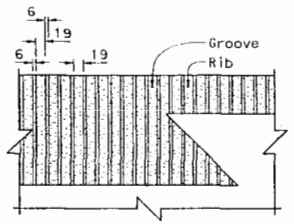
CU 01

BRIDGE NO.	ROUTE 36/101 SEPARATION
04-0301	
KILOMETER POST 92.84	TYPICAL SECTION

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

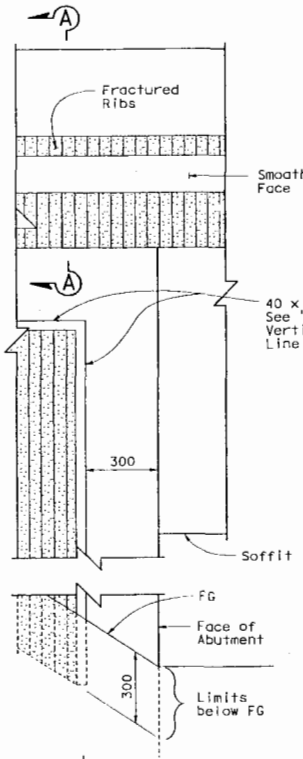


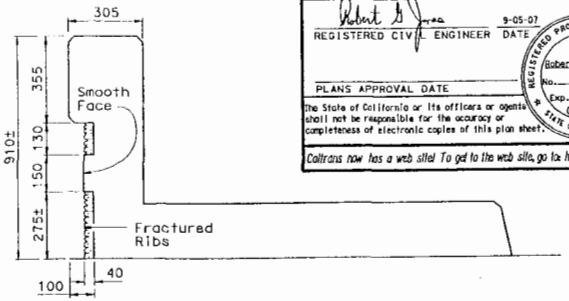
ELEVATION
WINGWALL &
TYPE 732 MOD BARRIER
WITH "BASKET WEAVE"
ARCHITECTURAL TREATMENT
1:10



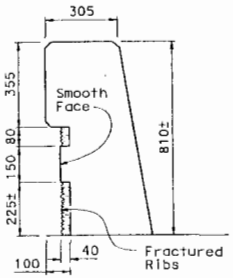
DETAIL A
1:5

Note: See "Fractured Rib Detail".

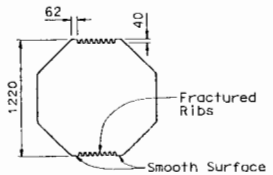




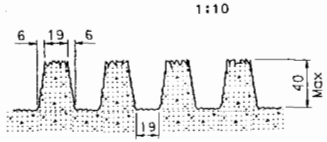
SECTION B-B
1:10



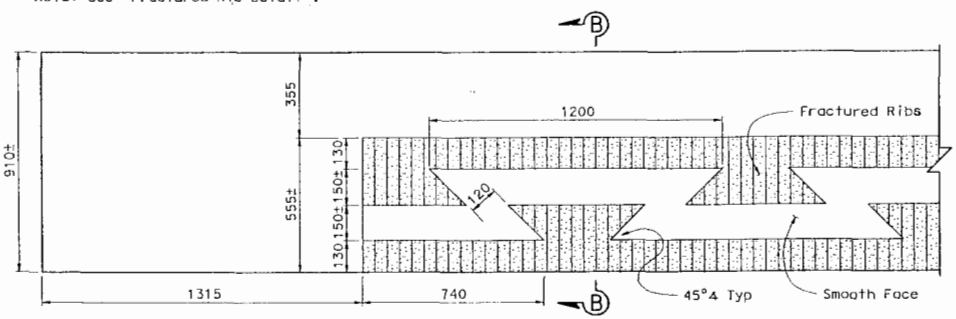
SECTION A-A
1:10



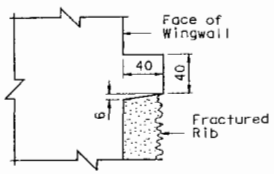
SECTION C-C



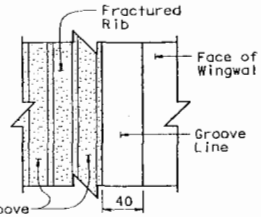
FRACTURED RIB DETAIL
1:2



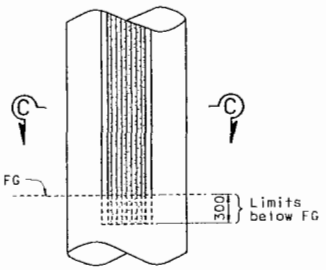
ELEVATION
TYPE 26 MOD BARRIER
WITH "BASKET WEAVE"
ARCHITECTURAL TREATMENT
1:10



HORIZONTAL
GROOVE LINE DETAIL
1:2.5



VERTICAL
GROOVE LINE DETAIL
1:2.5



ELEVATION

COLUMN TREATMENT

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit M, Constr. Detail Sheet (3)

Note: Reinforcement not shown

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Hum	101			

Robert G. Jones 9-05-07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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Robert G. Jones No. 65676 Exp. 9/10/09 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

INSPIRATION BY :

Table Bluff Reservation
Wiyot Tribe

	BY	CHECKED
DESIGN	Bill Flemming	Greg Jones
DETAILS	Bob Huddleston	Greg Jones
QUANTITIES	Greg Thornton	Mike Herron

SHOWN

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

STATE OF **CALIFORNIA** DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 1

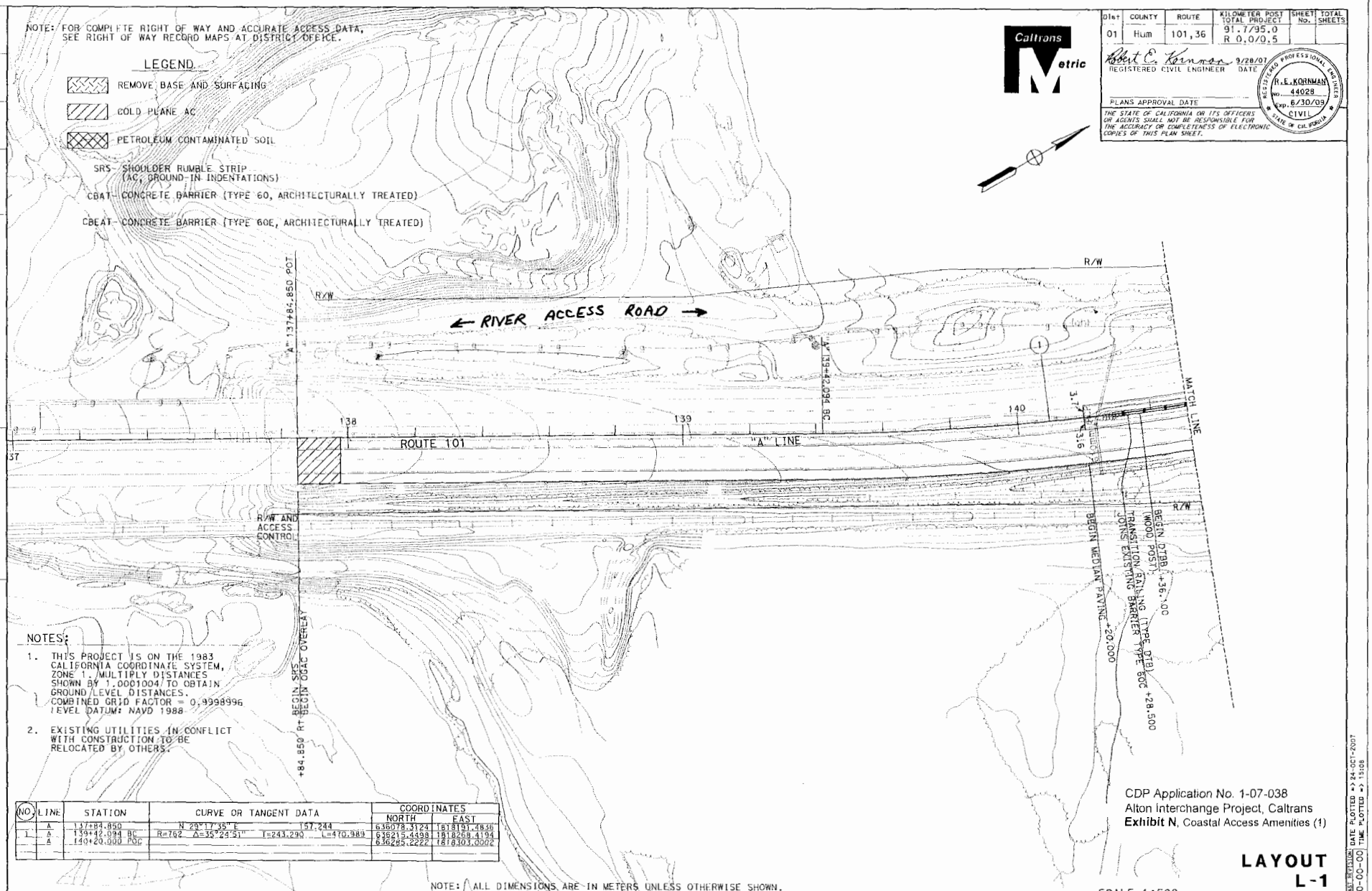
CU 01
EA 290301

BRIDGE NO.	ROUTE 36/101 SEPARATION
04-0301	
KILOMETER POST 92.84	ARCHITECTURAL TREATMENT

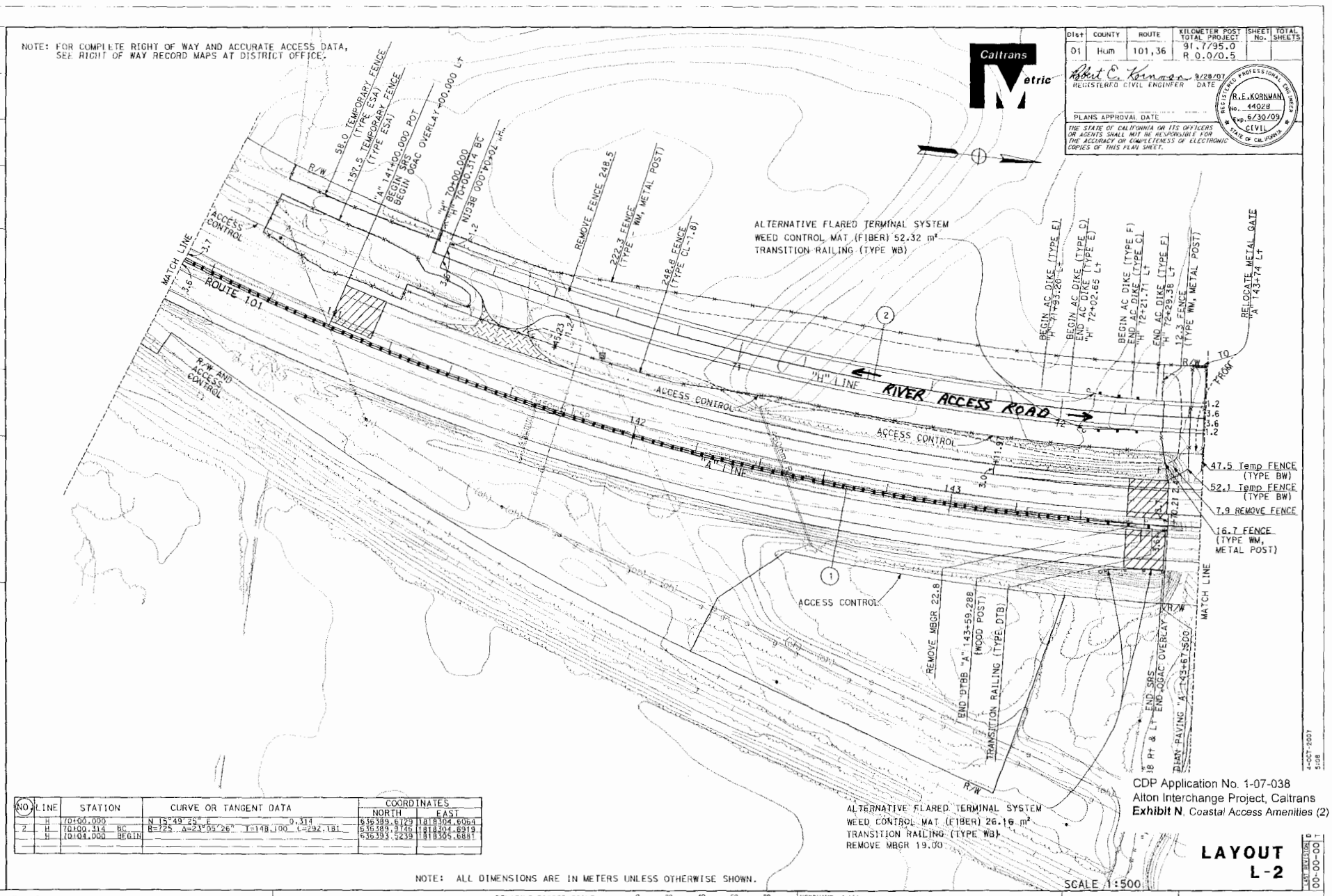
DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES

SHEET 12 OF 17



NO	LINE	STATION	CURVE OR TANGENT DATA				COORDINATES NORTH	COORDINATES EAST
	A	137+84.850	N 29°17'35" E		157.244		636078.3124	1818191.4836
1	A	139+42.094 BC	R=762	Δ=35°24'51"	T=243.290	L=470.989	636215.4498	1818268.4194
	A	140+20.000 POC					636283.2222	1818303.0002



Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	101,36	91.7/95.0 R 0.0/0.5		

Robert E. Kornman 9/28/07
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER R.E. KORNMAN No. 44028 EXP. 6/30/09 CIVIL STATE OF CALIFORNIA

NO.	LINE	STATION	CURVE OR TANGENT DATA	COORDINATES NORTH	EAST
1	H	70+00.000	N 15°49'29" E 0.314	636389.6729	1818304.6064
2	H	70+00.314 BC	R=725 Δ=23°05'26" T=148.00 L=292.181	636389.9766	1818304.6919
	H	70+04.000 BEGIN		636393.5239	1818305.6881

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit N. Coastal Access Amenities (2)

LAYOUT L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: S.R. HUGHES
CALCULATED-DESIGNED BY: S. MARCH
CHECKED BY: R.E. KORNMAN
REVISED BY
DATE REVISED

BORDER LAST REVISED 3/1/2007
RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80
USERNAME =>jilton
CU 03230 EA 290301
LAST REVISION 00-00-00
4-OCT-2007 5:08

Alton Interchange

Project Location/Shively Farm Agricultural Mitigation

Weitchpec

Trinidad

96

Hoopa

101

McKinleyville

Willow Creek

299

Arcata

EUREKA

Pacific Ocean

FORTUNA

Project Location

Ferndale

ALTON

Carlotta

Van Duzen River

Rio Dell

36

Shively

College of the Redwoods
Shively Farm
Agricultural Mitigation

101

Eel River

Miranda

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit O-1, Agricultural Mitigation Location

Garberville

Alton Interchange

Project Location/Shively Farm Agricultural Mitigation

Legend

College of the Redwoods
Shively Farm

CDP Application No. 1-07-038
Alton Interchange Project, Caltrans
Exhibit O-2, Agricultural Mitigation
Location