Meeting of the Central Valley Flood Protection Board
July 27, 2012

Staff Report – Encroachment Permit No. 18653

California Department of Transportation, District 3
State Route 65 (Lincoln Bypass) Bridges over Auburn Ravine
City of Lincoln, Placer County

1.0 – ITEM

Consider approval of Encroachment Permit No. 18653 and Resolution 2012-31 to authorize two previously constructed reinforced concrete box girder bridges. The bridges were constructed by the California Department of Transportation during fall 2010 without awareness of the need to obtain a Central Valley Flood Protection Board (Board) encroachment permit.

2.0 – APPLICANT

California Department of Transportation, District 3 (Caltrans)

3.0 – LOCATION

Caltrans is constructing a new State Route 65 (SR 65) Bypass (also known as the Lincoln Bypass) to the west of the City of Lincoln and the existing SR 65 in western Placer County (see Attachment A). The bypass will allow SR 65 traffic to avoid the heavily congested existing route through downtown Lincoln. The Auburn Ravine bridges are two of several required to construct the entire bypass.

The bridges cross Auburn Ravine approximately 1.5 miles (7,920 feet) west of the existing SR 65, at latitude 38°52'57.57"N and longitude 121°19'19.54"W. The nearest State Plan of Flood Control (SPFC) project levee is approximately 9.25 miles (48,840 feet) north-west (generally downstream) of the bridges. The area is urbanized or urbanizing as determined by the Placer County Flood Control and Water Conservation District (PCFCWCD).

Caltrans is proposing to open the SR 65 Bypass to vehicle traffic on September 28, 2012. This proposal was agreed to by the Board's Chief Engineer Len Marino subject to Caltrans delivering application materials such that the Board staff could deem

complete all SR 65 bridge applications prior to the July 27, 2012 Board meeting. Caltrans did satisfactorily meet this requirement.

4.0 – DESCRIPTION

Two cast-in-place reinforced concrete box girder bridges, one for the left (southbound) lanes (Caltrans Bridge No. 19-0191L) and one for the right (northbound) lanes (Caltrans Bridge No. 19-0191R) were constructed at this location without a Board encroachment permit. (Note: Caltrans denotes its bridges as "Left" and "Right" while looking north on north / south roadways, or east on east / west roadways.)

Each bridge structure has two 11.8-foot wide travel lanes with 7.9-foot wide left and 9.8-foot wide right shoulders with a total width of 41.3-foot each. Both bridges were divided into six (6) spans (two 78.75-foot long spans and four at 96.75-foot long spans) with a total bridge length of 544.5 feet. All spans were supported on driven H piles (HP 10 x 57) as per the plan. The superstructure depth has a total thickness of 5.4 feet. All elevations in this report are based on the NGVD 29 vertical datum, and all horizontal coordinates are based on the NAD 83 horizontal datum (see Attachment B for typical plan and profile).

5.0 – APPLICABLE REGULATIONS – CALIFORNIA CODE OF REGULATIONS, TITLE 23 (CCR 23)

Pursuant to § 6 (a): Need for a Permit: *Every proposal or plan of work, including the placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment or works of any kind, and including the planting, excavation, or removal of vegetation, and any repair or maintenance that involves cutting into the levee, wholly or in part within any area for which there is an adopted plan of flood control, must be approved by the board prior to commencement of work.*

> The bridges in question are constructed in the floodway of Auburn Ravine and thus require permitting under the Board's jurisdiction.

Pursuant to § 15: Basis for Denial of Permit Applications: *The Board may deny a permit for any of the following reasons: (a) If the proposed work could: … (2) Obstruct, divert, redirect, or raise the surface level of design floods or flows, or the lesser flows for which protection is provided; (3) Cause significant adverse changes in water velocity or flow regimen; …*

The Board has the authority to consider whether or not to deny a proposed project for the reasons described in § 15(a)(2) and (3) above. This authority also allows the Board discretion to condition the approval of encroachment permits such that concerns and adverse impacts related to the above regulations can be mitigated.

Pursuant to § 112: Streams Regulated and Nonpermissible Work Periods:

Auburn Ravine is a Board regulated stream pursuant to Section 112, Table 8.1.

Pursuant to § 128: Bridges (a)(10)(A): The bottom members (soffit) of a proposed bridge must be at least three (3) feet above the design flood plane. The required clearance may be reduced to two (2) feet on minor streams at sites where significant amounts of stream debris are unlikely.

Based on the Caltrans HEC-RAS model, the minimum soffit clearance for the downstream and upstream bridges are 5.51 feet and 6.44 feet, respectively which meet the requirement of §128(a)(10)(A) of Title 23.

6.0 – PROJECT ANALYSIS

Past records reveal that the general area of the project site is prone to sheet flooding.

Approximately 5.8 to 17.3 feet in depth of fill was placed on the original ground to construct the bypass embankment. Some fill was placed in the floodways of Dowd Yankee Slough, Big Yankee Slough, North Yankee Slough, South Yankee Slough, Coon Creek and Auburn Ravine restricting the flood carrying capacities of those streams. To construct the bridge embankment for the State Route 65 Bypass crossing of Auburn Ravine, approximately 12.2 feet high of fill was placed for the left bridge, and approximately 17.3 feet high of fill was placed for the right bridge.

Board's Projects Section Chief reviewed the hydraulic analyses submitted by Caltrans. Based on his review, minor flooding is anticipated in the areas west to north-west of the previously-constructed bridges. The modeling predicts an increase in water surface elevation beginning at the bridge and propagating back upstream at the design flow of 10,000 cubic feet per second (cfs).

6.1 – HYDRAULIC ANALYSIS

Hydraulic analysis for pre- and post-construction conditions was performed using U. S. Army Corps of Engineers HEC-RAS software. Based on the review of the hydraulic analysis, Board staff has concluded the following:

Discharge: The discharge used in the analysis was obtained from the PCFCWCD. A 100-year (1 percent chance of occurrence in any year) discharge of 10,000 cfs was used to evaluate both pre- and post-construction conditions to simulate the impacts of bridge construction. This discharge was reported by CH2M HILL in the Auburn Ravine, Coon Creek and Pleasant Grove Creek Flood Mitigation Report (1993). Additional hydraulic modeling performed by Civil Solutions in 1998 estimated the 100-year discharge to be 10,288 cfs. Projects Section Chief David Williams accepted the 100-year discharge of 10,000 cfs on October 14, 2011 (See Attachment - C for details).

Civil Solutions also used a 200-year (0.5 percent chance of occurrence in any year) discharge of 11,187 cfs. Caltrans determined a discharge of 12,000 cfs (without any associated recurrence frequency) after reviewing the flood channel flow map of the Department of Water Resources (DWR) dated 1985. Caltrans selected this flow as the 200-year discharge for use in the hydraulic analysis since the project site is located in an urbanized or urbanizing area.

Channel Bed Elevation: Based on the hydraulic analysis, it appears that the channel bed elevation for the post-construction condition is 1 to 2 feet lower than that of the pre-construction condition. An issue was raised whether the channel bed was excavated for post-construction condition. Based on Caltrans' justification, the discrepancy was due to the use of two different sets of LiDAR data. LiDAR data gathered in 2008 was used to develop the pre-construction model cross sections while 2011 LiDAR data was used for the post-construction cross sections (See Attachment - D for Caltrans justification along with HEC-RAS profile and typical cross-sections).

DWR LiDAR data was obtained during March - April of 2008 from an altitude of 4,725 feet. According to Caltrans the total precipitation in Lincoln during March and April was 11.04 inches, with flood runoff documented as moving through the creeks, ravines, sloughs and pools. On November 19, 2011 Caltrans began obtaining a second set of LiDAR data from an approximate altitude of 2,000 feet with little observed runoff or standing water in the ravine. Caltrans on-the-ground surveys performed during summer 2006 compared favorably at various ravine sites near the bridges with both the 2008 and 2011 LiDAR data surveys. The ground survey data did not extend over the entire

hydraulic model, so the 2008 and 2011 LiDAR data were used exclusively to develop the cross sections away from the bridges.

In conclusion the elevation discrepancies revealed by the model were not due to actual construction excavations, but are due to differences in the water surface observations made during the 2008 and 2011 LiDAR data gathering activities.

Increase in Water Surface Elevation due to Backwater Effect: The hydraulic model reveals an increase of 2.0 feet in water surface elevation at the upstream bridge face, increasing to a maximum of 2.44 feet a distance of approximately 500 feet upstream, and then tapering back to zero at a distance 2,400 feet upstream. If the 2008 LiDAR data had been corrected to the same base ground level elevation as the 2011 LiDAR data, the model results would indicate increased water surface elevations of an additional 1 to 2 feet.

Local Impacts: An orchard is located in the floodway approximately 600 to 1,600 feet upstream from the bridge. The modeled increase in water surface elevation ranges from 2 feet at the orchard's western boundary (nearest the bridge) to 0.3 feet at its eastern (upstream) boundary. For pre-construction conditions the model results indicated that the orchard would be inundated by the 100-year event to depths of 2.8 to 3.0 feet. Both pre- and post-construction hydraulic analyses, as well as the 2008 Conditional Letter of Map Revision (CLOMR) identify the orchard as a flooded area with similar inundation boundaries.

Board staff also believes there may be errors in certain cross-sections used in the hydraulic models (see Attachment E, Figure 2, cross section 6375.508 and one other). Staff visited the site on July 3, 2012 and could not locate this high ground in the field. The feature constrains floodwaters within the channel when modeled, but based on the field visits no feature exists and actual flooding would further inundate lands to the north.

Caltrans has claimed that the incremental hydraulic impacts to the orchard (depth of flooding) due to bridge construction are insignificant, and has requested the permit application be approved based their supporting justification (See Attachment E).

Due to the uncertainties in the hydraulic model, including the use of LiDAR data sets with inconsistent ground elevations, Board staff does not completely agree with Caltrans' claims and estimations of the anticipated extent and magnitude of bridge-induced flood impacts in Auburn Ravine.

Therefore to mitigate for the potential increase in flood depths and inundation footprint staff proposes to add Special Condition TWENTY-SIX to the permit which would require Caltrans to acquire and maintain a flowage easement or easements to the satisfaction of the Board's Chief Engineer in the Auburn Ravine floodway within one year from the date of issuance of the permit.

Downstream Scour/ Erosion: Based on the hydraulic analyses the velocity downstream of the bridge is 8 to 13 feet per second. Due to this high velocity there is a possibility of increased erosion of the channel bed and bank scour at or near the bridge. This scour may lead to sediment transport downstream. Board staff raised a question about possible maintenance of the areas upstream and downstream of the bridge. In response Caltrans developed a long term maintenance plan to address this concern (see letter of June 21, 2012, Attachment F).

Freeboard/Clearance Requirement: Based on the discharges used in the hydraulic analyses, Board staff has determined there the Auburn Ravine Bridges meet the minimum three (3) feet of freeboard/clearance as required by Title 23, Section 128.

6.2 – GEOTECHNICAL ANALYSIS

The project site lies within Quaternary alluvium and Riverbank Formation as per the Geologic Map of the Sacramento Quadrangle, California, 1:250,000, compiled by D. L. Wagner, C.W. Jennings, T. L. Bedrossian and E. J. Bortugno, published in 1981. Materials observed during the subsurface investigations were indicative of those mapped in the area.

Based on the Caltrans California Seismic Hazard Map 1996, the controlling fault at the site is the Prairie Creek-Spenceville-Dentman Fault which is located about 9.9 miles northeast of the project site. This fault is capable of generating a maximum credible earthquake moment magnitude of 6.5 Mw. The estimated Peak Bedrock Acceleration based on the above map was 0.3g. Based on the foundation investigation dated June and October 2003, the subsurface soils generally consisted of medium dense to very dense granular soils with layers of stiff to very stiff cohesive soils. Based on these soil consistencies, the potential for liquefaction at the site was considered minimal. There were no known faults projecting towards or crossing the project site. Therefore, the potential for surface rupture at the site due to the fault movement was considered insignificant.

The groundwater measured during the subsurface investigation at the beginning of the bridge location and end of the bridge location were 28.54 feet (elevation 99.08 feet) and

7.87 feet (elevation 114.17 feet), respectively. For design purposes, the highest ground water elevation was used.

The scour potential was calculated based on the FHWA HEC-18 guideline. The Log of Test Borings indicated the presence of a thin layer of lean clay with sand on top of approximately 9-foot thick layer of well-graded sand with silt and gravel. Although the top lean clay layer with sand is expected to be more resistant to erosion than the layer below, the scour was calculated assuming the worst condition considering the sandy soils. The following scour depths were estimated based on the provided revised documents. The estimated local scour was 7.5 feet; the contraction scour was 0.5 feet; the total pile scour was 8.0 feet; and total abutment scour was 1.0 feet for both the left and right bridges. Rock slope protection was provided in the abutment areas only.

Based on the corrosion test results, the site was not corrosive to foundation materials.

The geotechnical report recommended the use of driven steel H piles (HP 250 x 85) at all support locations; the plan indicated the use of steel H piles (HP 10 x 57) at all support locations; and the project description in application says the use of concrete piles. It is not clear at this point the reasons for these discrepancies of using different pile types.

7.0 – AGENCY COMMENTS AND ENDORSEMENTS

The project area is not under the jurisdiction of any local maintaining agency, nor under federal jurisdiction of the U. S. Army Corps of Engineers (USACE). The USACE provided a “non-Fed” letter dated May 11, 2012 stating that the USACE has no comments or recommendations regarding this project. This letter has been incorporated in the permit as Exhibit A.

8.0 – CEQA ANALYSIS

Board staff has prepared the following California Environmental Quality Act (CEQA) findings:

The Board, as a responsible agency under CEQA, has reviewed the Draft and Final Environmental Impact Statement/Environmental Impact Report (SCH Number: 1990020626, May 2006) and Lincoln Bypass Placer County, State Route 65 Project prepared by the lead agency, Caltrans. These documents, including project design,

may be viewed or downloaded from the Central Valley Flood Protection Board website at http://www.cvfpb.ca.gov/meetings/2012/07-27-2012.cfm under a link for this agenda item. These documents are also available for review in hard copy at the Board and Caltrans Office.

Caltrans has determined that the project would not have a significant effect on the environment and approved the project on May 17, 2006 and filed a Notice of Determination on May 30, 2006 with the State Clearinghouse. Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures address impacts to biological resources, water quality, land use and socioeconomics, agricultural resources, hazards and hazardous materials, and cultural resources.

9.0 – WATER CODE SECTION 8610.5 CONSIDERATIONS

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

   The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department of Water Resources or other parties that raise credible scientific issues.

   The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

   This project results in no significant impacts on facilities of the SPFC, as the project is more than nine miles upstream from the nearest SPFC facilities and therefore does not impair the structural or hydraulic functions of the SPFC.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

   None.

10.0 – STAFF RECOMMENDATION

Board staff recommends that the Board adopt Resolution 2012-31 (Attachment G) which constitutes the Board's written findings and decision to conditionally approve Encroachment Permit No. 18653 (Attachment H) authorizing two previously-constructed bridges (19-0191L/R) of the State Route 65 Bypass crossing over Auburn Ravine.

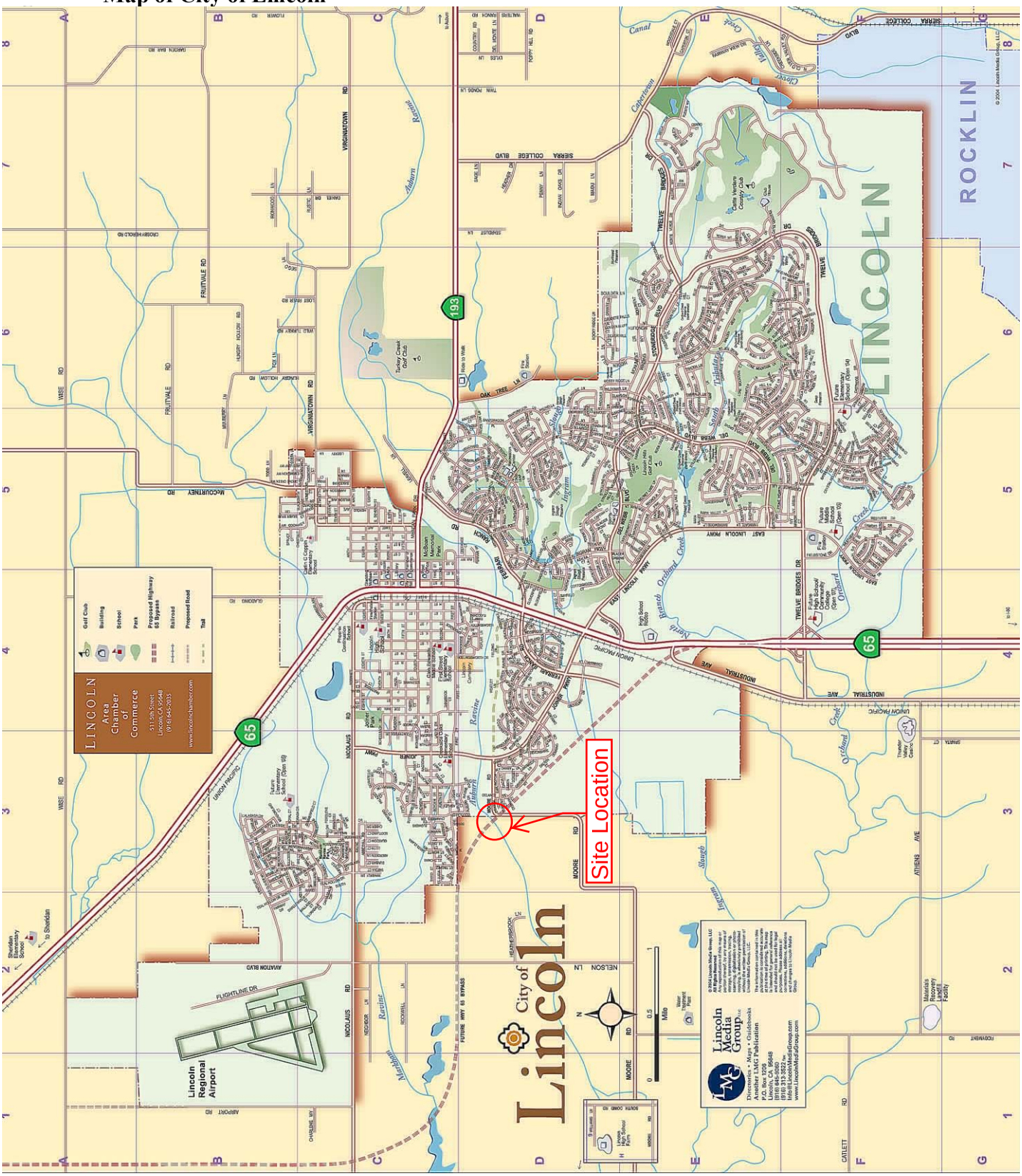
The Resolution includes: (1) Findings of Fact; (2) CEQA Findings; (3) Findings Pursuant to Water Code Section 8610.5; (4) Approval of Encroachment Permit No. 18653, and (5) A directions to the Executive Officer to execute the permit and file a Notice of Determination with the State Clearinghouse for the Board's actions in authorizing the bridges for Caltrans District 3.

11.0 – LIST OF ATTACHMENTS

A. Site Location Map
B. Plans and Sections
C. Discharge Acceptance
D. Caltrans Justification for Channel Excavation
E. Caltrans Justification for Increased WSE
F. Caltrans Long Term Maintenance Plan
G. Resolution 2012-31
H. Draft Permit 18653

Staff Report:	Deb Biswas, PhD, PE
Hydraulic Review:	David R. Williams, PE – Senior Engineer
Geotechnical Review:	Deb Biswas, PhD, PE
Environmental Review:	James Herota, Environmental Scientist
Document Review:	David R. Williams, PE – Senior Engineer
	Eric R. Butler, PE – Supervising Engineer
	Len Marino, PE – Principal Engineer

Map of City of Lincoln



ATTACHMENT - B

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Pla	65			

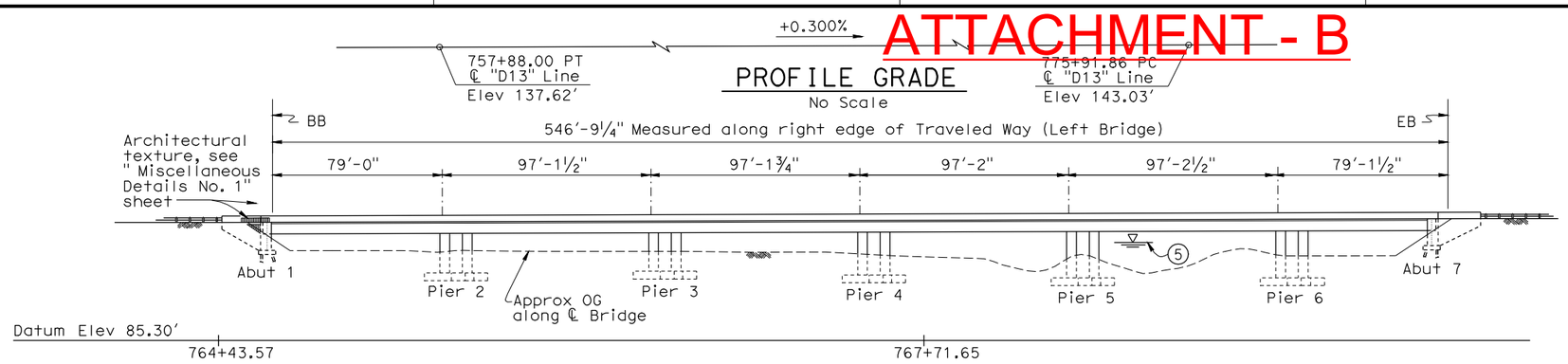
REGISTERED CIVIL ENGINEER — 8-08-07 DATE

M. J. CULLEN No. C 40620 Exp. 03-31-09 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-13-07
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.

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



PROFILE GRADE
No Scale

ELEVATION
1:400

STANDARD PLANS DATED JULY 2004

A10A	ACRONYMS AND ABBREVIATIONS (A-L)
A10B	ACRONYMS AND ABBREVIATIONS (M-Z)
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B7-1	BOX GIRDER DETAILS
B7-7	DECK DRAIN TYPE D-3
B7-10	UTILITY OPENING BOX GIRDER
B11-56	CONCRETE BARRIER TYPE 736
B14-5	WATER SUPPLY LINE (DETAILS) (PIPE SIZES LESS THAN NPS 4)

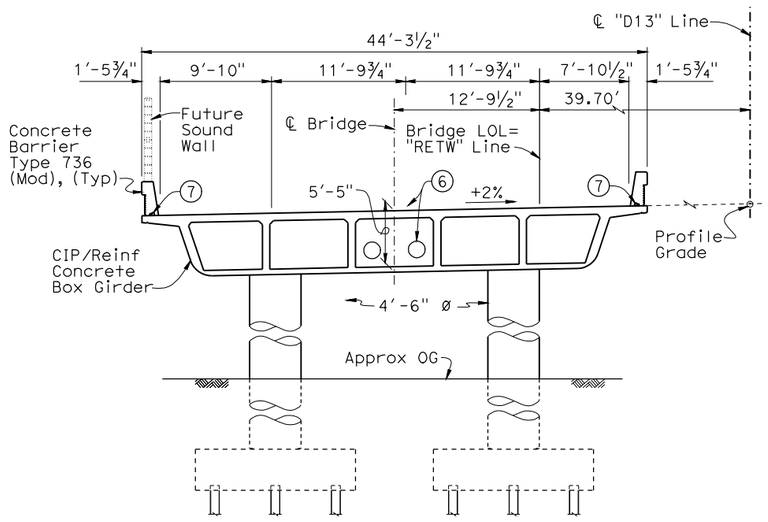
STANDARD PLAN SHEET NO.
DETAIL NO.

Curve Data
"D13" Line
R = 5249.30'
△ = 43°36'18"
T = 2099.80'
L = 3995.00'

INDEX TO PLANS

Notes:
1. Paint "Bridge No. 19-0191L"
2. Paint "Auburn Ravine Bridge"
3. Metal Beam Guard Rail, see "Road Plans"
4. Structure Approach Type N(9S)
5. For Hydrologic Summary see, "Foundation Plan" sheet
6. 2-450 mm ø Future Utility Openings
7. 1-53 mm ø and 1-78 mm ø Electrical Conduits
8. Deck Drain Type D-3 tot 8, see "Deck Drainage Details" sheet
9. See right bridge "General Plan"

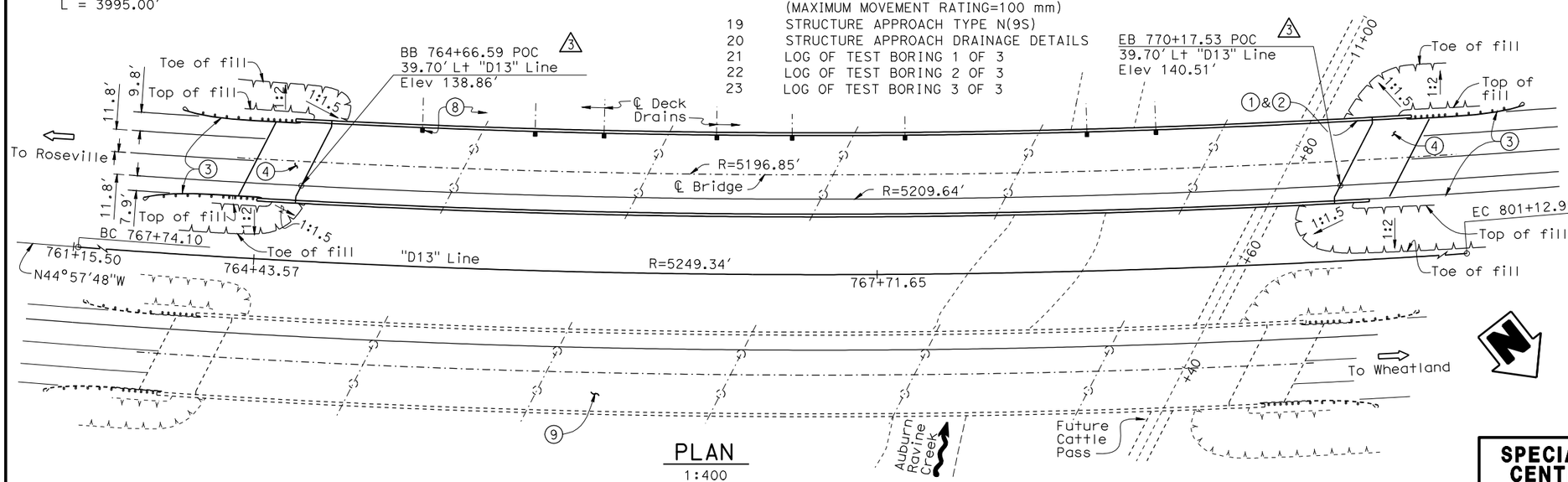
▪ Indicates Deck Drain.
RETW Right Edge Travelled Way



TYPICAL SECTION
1:80

QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	305	m^3
STRUCTURE EXCAVATION (TYPE A)	356	m^3
STRUCTURE EXCAVATION (TYPE D)	579	m^3
STRUCTURE BACKFILL (BRIDGE)	790	m^3
FURNISH STEEL PILING (HP 250 X 85)	2202	m
DRIVE STEEL PILE (HP 250 X 85)	160	EA
SEAL COURSE CONCRETE	68	m^3
STRUCTURAL CONCRETE, BRIDGE FOOTING	268	m^3
STRUCTURAL CONCRETE, BRIDGE	1485	m^3
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	68	m3
BRICK TEXTURE	19	m^2
JOINT SEAL ASSEMBLY (MR 70 MM)	31	m
BAR REINFORCING STEEL (BRIDGE)	286 000	kg
PREPARE AND PAINT CONCRETE	262	m^2
400 MM WELDED STEEL PIPE CASING (BRIDGE) (6 MM THICK)	50	m
MISCELLANEOUS METAL (BRIDGE)	2750	kg
CONCRETE BARRIER (TYPE 736 MODIFIED)	354	m



PLAN
1:400

SPECIAL GENERAL PLAN SHEET PREPARED FOR CENTRAL VALLEY FLOOD PROTECTION BOARD

DESIGN	P. Vijitakula	M. Guadamuz	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD			
DETAILS	S. Jiang	M. Guadamuz	LAYOUT	M. Guadamuz	M. Cullen		
QUANTITIES	M.J. Cullen	M. Guadamuz	SPECIFICATIONS	M. Kopsa	PLANS AND SPECS COMPARED M. Kopsa		

DESIGN ENGINEER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 5

BRIDGE NO.	AUBURN RAVINE BRIDGE - LEFT
POST MILE 14.48	GENERAL PLAN

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

CU 03
EA 333801

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES							SHEET	OF
3-11-08	5-15-08	5-16-08	3-26-12				1 R1	23

FILE => 19-0191l_a_gpv8.dgn

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

USERNAME => s1304?1 DATE PLOTTED => 13-APR-2012 TIME PLOTTED => 08:49

ATTACHMENT - C

"Williams, David R." <davidw@water.ca.gov>
10/14/2011 11:42 AM

To "dennis_jagoda@dot.ca.gov" <dennis_jagoda@dot.ca.gov>, Steve Jaques <steve_jaques@dot.ca.gov>
cc "steve_ng@dot.ca.gov" <steve_ng@dot.ca.gov>, "Samuel_Jordan@dot.ca.gov" <Samuel_Jordan@dot.ca.gov>, "Marino, Len"
bcc
Subject State Route Hwy65 Bypass - Existing flows

History: This message has been forwarded.

Thanks for the update on the Hwy 65 Bridges hydrology for the existing conditions (your letter dated 10-4-2011, attached).
Board staff is in agreement with the 100 year Flows for the 4 Yankee Slough bridge crossings for the preconstruction condition.
For Auburn Ravine our maps show that the 100yr should be 12,000 cfs. Board staff can consider the lesser flow of 10,000 cfs, but we will need to see the calculations estimated by Civil Solutions to consider using the lower flow for existing conditions.
The Coon Creek proposed flow of 21,500 cfs seems high. Board staff would request that calculations be provided to support this pre-construction condition.

The 100 year flow rates for the post- project condition need to be added to 6 existing bridges. Several items will need to be addressed in those post construction analysis such as new upstream development, and changes caused by grading in the Hwy 65 bypass which drain new water into the sub watersheds.

David R. Williams R.C.E.
Central Valley Flood Protection Board
Chief Levee Improvement Section
3310 El Camino Ave., Room 151
(916) 574-2379 Office
(916) 628-7782 Cell

CALTRANS 65bypassHH.PDF

DEPARTMENT OF TRANSPORTATION
DISTRICT 3
703 B STREET
P. O. BOX 911
MARYSVILLE, CA 95901-0911
PHONE (530) 741-4517
FAX (530) 741-5172
TTY 711

ATTACHMENT - C

Flex your power!
Be energy efficient!

October 4, 2011

Mr. David R. Williams
Chief, Levee Improvement Section
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, CA 95821

Dear Mr. Williams:

Central to the matter of providing engineering analyses for the permit applications for the Department's bridges located along the new alignment of State Route 65 are the discharges for each. We welcome the opportunity to provide the substantiation for the hydrology and hydraulics. The purpose of this letter and the accompanying information is to serve as an overview, that is, a means of tying together the efforts utilized in arriving at what we believe to be reliable 100-year estimates for the discharges used in the design for each bridge.

What follows, then, is an executive summary, and a location by location narrative of what was done to arrive at these 100-year discharges. None were developed in a vacuum, and most were discussed with local agencies in order to employ design capacities that would meet local needs, while at the same time recognizing the need for the minimizing environmental impacts and remaining cost-effective.

We are hopeful that your reading of this information can result in a meeting to address questions you may have regarding the strategies employed. We feel that arriving at a consensus of approval before expending significant additional resources would be in the best interest of everyone. It is my intent within a few days of the delivery of this document to call you and determine when a meeting can be scheduled to address anything left unanswered.

Sincerely,

DENNIS JAGODA
Hydraulics Branch Chief

Placer County was made available from the Natural Resource Conservation Service (NRCS). The GIS land use coverage was obtained from Placer County Planning. Both GIS files were reviewed and posted by Caltrans' Headquarters Engineering GIS.

The NOAA website was used to obtain the 24-hour rainfall data for the 2-year and 100-year storm events based upon the longitude and latitude of the Yankee Slough watershed centroid. The 10-year, 24-hour value P24 was interpolated from the NOAA Isopluvial map for the northern half of California. The 24-hour (P24) precipitation for the 2-year, 10-year and 100-year storms is 2.54 inches, 4.00 inches and 6.04 inches respectively.

A majority of the land use from the Placer County coverage was designated as 'Ag or Timber 20 ac. Minimum.' The predominate soils were designated hydrologic group D. The curve numbers for the Yankee Slough sub-basins ranged from 78.9 to 85.1 depending upon the hydrologic soil group.

The existing stream crossings at county roads and State Route 65 were reviewed in the field. Photos of the slough channels upstream and downstream are on file which document the estimated Mannings "n" value for the channel and overbank areas. The slough channels are vegetated with grass, weeds, berry bushes and willows. The main slough channels typically meander and have irregular sections. The overbank areas typically have less brush than the main channel. The estimated "n" values for the channels range from 0.030 to 0.060 and the overbank values range from 0.040 to 0.050.

South Tributary to Yankee Slough

This watershed is approximately 630 acres (1.0 mi^2). It crosses the new Lincoln Bypass alignment at Station 340+60. The calculated NFF peak discharge for a 100-year event was 908 cfs.

North Yankee Slough Tributary

This watershed is approximately 5112 acres (7.99 mi^2). It crosses the new Lincoln Bypass alignment at Station 354+60. The calculated NFF peak discharge for a 100-year event was 3760 cfs.

Big Yankee Slough and Dowd/Yankee Slough

This watershed is approximately 4620 acres (7.22 mi^2). It crosses the new Lincoln Bypass alignment at Station 358+80. The calculated NFF peak discharge for a 100-year event was 3640 cfs. This NFF value was within five percent of the WMS TR55 value of 3576 cfs.

(Copies of the watershed, area soil coverage and land use maps are attached)

locations on this same watercourse in these same studies. A meeting was held at Caltrans offices on July 17, 2002 to resolve the variances. Present were decision-makers from the City of Lincoln (Nash), Reclamation District 1001 (White and Barnett), Placer County Flood Control (Keating and Darrow) as well as Caltrans representatives. Minutes from that meeting included the following:

> "Discussion on the relinquishment of the existing SR 65 facilities indicated that potential future replacement of Auburn Ravine Br. No. 190005 by City of Lincoln would not change the peak discharge of 10,000 cfs."

The discharge of 10,000 cfs, estimated by Civil Solutions as part of the study done for the City of Lincoln for the South Lincoln Master drainage Plan was therefore selected to be used for the Lincoln Bypass bridge design at Auburn Ravine.

Attachments: ArcView WMS Yankee Slough Watershed Areas
Yankee Slough Area Soils
Yankee Slough Area Land Use

c: Brenda Schimpf, Acting Deputy District Director Program/Project Management, Caltrans District 3
Samuel Jordan, Project Manager, Caltrans District 3
Steve Ng, Chief, Structures Hydraulics & Hydrology and Scour Mitigation, Caltrans
Steve Jaques, Liaison to Central Valley Flood Protection Board, Caltrans

ATTACHMENT - D

DEPARTMENT OF TRANSPORTATION
DISTRICT 3
703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 741-4233
FAX (530) 741-4245
TTY 711

Flex your power!
Be energy efficient!

June 12, 2012

Mr. David R. Williams, Senior Engineer, WR
Central Valley Flood Protection Board
3310 El Camino Avenue Suite 151
Sacramento, CA 95821

Dear Mr. Williams:

The following comments and attachments are in response to your June 6, 2012 email to Steve Jaques et al regarding concerns expressed over the channel profiles depicted in the HEC-RAS modeling of Auburn Ravine, Coon Creek and North Yankee Slough. This letter will address the issues of purported excavation and LiDAR discrepancies and hopefully put to rest the questioned validity of the submitted models.

Excavation

In addition to Caltrans goal to preserve and protect the environment, the permitting process and regulatory agencies charged with oversight establish criteria within which our work is confined. Specifically, channel work is heavily regulated as to whether we're allowed in the channel at all, when that might take place and for what duration. Please recognize that any work performed would have to take place within the State's right of way or acquired easements. The extent to which you identify channel discrepancies is well outside either of these. Attached to this letter are copies of email testimonies provided by Senior Bridge Engineer, William Brook, and Senior Resident Engineer, Carl Berexa, both of whom were on-site during the duration of construction.

Summarizing their written testimonies, no excavation was allowed in the channels of Auburn Ravine or Coon Creek and none was performed. Additionally, representatives from Fish and Game and NOAA Fisheries were present at the work being done at Auburn Ravine. No work was performed in a live stream. The only channel work which took place was indicated on the project plans at North Yankee Slough in order to create a meander and perpetuate the existing channel slope. Carl stated that the pre-existing condition here was a beaver pond.

LiDAR

John Adam (Senior Transportation Surveyor in the Office of Photogrammetry and Preliminary Investigations) contracted the data reduction and LiDAR data acquisition. Attached to this letter is a copy of email testimony by him. Facts: the LiDAR data obtained by DWR - CVFED was from a 2008 flight conducted from an altitude of 4,725 feet in the spring (March and April). Per CDEC, the total precipitation in Lincoln, California was 11.04 inches. Run-off was moving through the creeks, ravines and sloughs and pools were present. The Caltrans initiated 2011 LiDAR flight obtained data from an approximate altitude of 2000 feet on November 19, 2011

LiDAR flight obtained data from an approximate altitude of 2000 feet on November 19, 2011 when all the watercourses were dry (total precipitation was 2.62 inches). Ground survey information obtained by Caltrans during the summer of 2006 compared favorably at various channel sites with the 2008 and 2011 LiDAR shots, in close proximity to the structures. The ground survey did not extend to the far reaches used in the HEC-RAS modeling; instead the 2008 and 2011 LiDAR data was exclusively utilized.

Summarizing then, discrepancies shown in the HEC-RAS modeling are not a consequence of excavations performed during construction, but rather, from changes in conditions beyond the control of Caltrans.

Any further questions regarding this issue can be addressed to me at (916) 396-9494 or via e-mail at samuel_jordan@dot.ca.gov.

Sincerely,

SAM JORDAN
Project Manager

Attachments

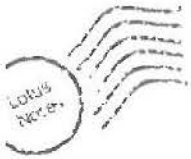
c: Debabrata Biswas, CVFPB
Sungho Lee, CVFPB
Len Marino, CVFPB
Steve Jaques, Caltrans Liaison to the CVFPB
Steve Ng, Chief, HQ Structure Hydraulics
Ronald McGaugh, Structure Hydraulics Engineer
Nesar Formoli, Chief, Design Branch S3
Cornelis Hakim, Project Engineer
Dennis Jagoda, Chief, District 3 Hydraulics Branch

ATTACHMENT - D

bc: Mr. Tom Brannon

Samuel Jordan/slb

ATTACHMENT - D



William Brook/D03/Caltrans/CAGov
06/07/2012 02:09 PM

To Samuel Jordan/D03/Caltrans/CAGov@DOT
cc
bcc
Subject Re: Fw: Profile, Hwy-65 Bypass Bridges

History: This message has been forwarded.

Sam,
As Senior Bridge Engineer and Senior Structure Representative on the Lincoln Bypass 1 project, I was fully aware of all bridge related work in the Auburn Ravine and Coon Creek areas. I was on site during this work and witnessed and supervised my staff during this construction duration. There was no excavation allowed in the creeks and none was performed. In addition, the Auburn Ravine area was witnessed by a Fish and Game representative and a NOAA Fisheries representative since some cobble was placed on the bank per their request. This was coordinated with them and at the time the work was performed the agencies had a representative come out. We can present the numerous photos from the construction of the bridges at these locations if need be. I would be happy to attend or send information(photos) and other documentation for your use at a meeting. We completed the bridge portion at these locations a couple of years ago, however all of this information is readily available since the project is not yet completed.
Feel free to contact me if you need anything else.
Regards,

Bill Brook
Senior Bridge Engineer
Office (916) 858-8630
Cell (916) 801-9675
Samuel Jordan/D03/Caltrans/CAGov

Samuel Jordan/D03/Caltrans/CAGov
06/07/2012 01:48 PM

To William Brook/D03/Caltrans/CAGov@DOT
cc
Subject Fw: Profile, Hwy-65 Bypass Bridges

Bill,

Please see forwarded e-mail chain and provide me with a written testimony as to the extent or absence of any excavation at any of the bridges under CVFPB jurisdiction (Auburn, Coon and the Yankee Bridges). Please provide the information by COB today. This is an urgent matter and the District would need to get back to the Board very soon to keep the permit application process moving.

Thanks,

Sam Jordan, P.E.
Project Manager
530-740-4920
916-396-9494 (Cell)
----- Forwarded by Samuel Jordan/D03/Caltrans/CAGov on 06/07/2012 01:48 PM -----

"Williams, David R." <davidw@water.ca.gov>

To Steve Jaques <steve_jaques@dot.ca.gov>

ATTACHMENT - D

Carl Berexa/D03/Caltrans/CAGov
06/07/2012 05:03 PM

To Samuel Jordan/D03/Caltrans/CAGov@DOT
cc
bcc
Subject Re: Fw: Profile, Hwy-65 Bypass Bridges

History: This message has been forwarded.

Sam

The following is an explanation of the work that occurred at each location from abutment to abutment.

Auburn Ravine
Temporary access across the creek was accomplished by two 60 ft rail cars, side by side, that spanned from low flow channel banks. No excavation occurred at this temporary crossing location. Abutments were built up from original ground using krail and embankment. For the main structures minor contour grading occurred around each pier for falsework pads. Pier 5 received rip rap during construction due to it's proximity to the live flow. The rip rap was removed after construction as a requirement of CDFG of our 1602 Agreement. After falsework removal the area was regraded in accordance with the contract plans. No excavation or embankment was required to complete the contour grading. No work occurred in the live stream at anytime at this location. Roadside ditches on both sides of the roadway on the east side of Auburn Ravine (south side by roadway alignment) were extended to the channel. These ditches are rock lined and are generally perpendicular to Auburn Ravine.

Coon Creek
Temporary access across the creek was accomplished by two 89 ft rail cars, side by side, that spanned the live stream. The south abutment was at the low flow channel bank. The north abutment was placed back from the low flow channel bank. RSP was placed at both abutments. The rip rap was removed after construction as a requirement of CDFG of our 1602 Agreement. Minor grading for falsework occurred around the piers of the permanent structure. No piers are located in the live stream. After falsework removal and access removal the area was regraded to the existing contours as shown on the plans. No excavation or embankment was required to complete the contour grading. The plans did not show maintaining the small overflow channel in proximity to pier 5. This channel does not exist to the full extent of pre-construction. No work occurred in the live stream at anytime at this location. Roadside ditches on both sides of the roadway on the south side of Coon Creek extend to the low flow channel. The ditch on the south east side is incomplete at this time.

North Yankee Slough
Temporary access across the creek was accomplished by the temporary creek crossing as shown on the plans (to the west (downstream) of the bridge), and described in the 1602 Agreement. The channel was realigned as shown on the plans. Pre-construction condition of this area was a beaver pond. Post construction is as planned.

Thanks.

Carl Berexa
Area Construction Engineer
(916) 624-2769

ATTACHMENT - D

Steve Jaques/HQ/Caltrans/CAGov
06/12/2012 09:05 AM

To samuel_jordan@dot.ca.gov
cc dennis_jagoda@dot.ca.gov, steve_ng@dot.ca.gov, nesar_formoli@dot.ca.gov
bcc
Subject Fw: LiDAR Data Acquisition and CVFED Processed

FYI

Steve Jaques
Liaison to Central Valley Flood Protection Board
Division of Engineering Services
MS 9-Hyd-1/2I
FM I, 4th Floor, Column 11-G
Cell 916-705-3073
----- Forwarded by Steve Jaques/HQ/Caltrans/CAGov on 06/12/2012 09:05 AM -----

John Adam/HQ/Caltrans/CAGov
06/11/2012 02:34 PM

To Steve Jaques/HQ/Caltrans/CAGov@DOT
cc Mark Turner/HQ/Caltrans/CAGov@DOT
Subject LiDAR Data Acquisition and CEFED Processed

Hi Steve,

On October 10, 2011 the Office of Photogrammetry (OoP) executed a Task Order 17 to have the CVFED LiDAR data converted to California State Plane Coordinates and to produce a CAiCE DTM. Towill Inc. completed and the Task Order and OoP delivered the data on October 18, 2011. LiDAR does not do a good job depicting water and will usually show some void in data. If there was standing or running water, the edge of the banks will be the last reliable ground elevations and will force the surface of the water to that elevation, within the expected accuracy. There are orthophotos that accompany the CVFED data that may support the water levels during the data collection from March and April 2008.

On October 27, 2011 OoP executed a Task Order 18 to collect new LiDAR data to cover the same area as the delivered CVFED data from Task Order 17. The new data was delivered on December 7, 2011. The data in the undisturbed areas matched well within the expected accuracies.

If you have any questions or need additional information please contact me.

Thanks,
-John

John A. Adam, PLS
Senior Transportation Surveyor
Office of Photogrammetry and PI
(916) 227-7654
(916) 227-7670....fax

ATTACHMENT - D

"Williams, David R." <davidw@water.ca.gov>
06/06/2012 04:33 PM

To Steve Jaques <steve_jaques@dot.ca.gov>
cc "Biswas, Debabrata" <dbiswas@water.ca.gov>, "Lee, Sungho" <lees@water.ca.gov>, "Marino, Len" <lmarino@water.ca.gov>, "steve_ng@dot.ca.gov"
bcc
Subject RE: Profile, Hwy-65 Bypass Bridges

History: This message has been forwarded.

I understand that there can be discrepancies with two different sets of LIDAR info. However, I believe that there is more involved than that.
During construction of those projects Board Staff saw evidence that excavation in the floodway took place and I believe the two different channel bottom profiles depict where those excavations happened. For instances; on Coon Creek, there are excavated holes in the channel bottom at HEC RAS profile distances:
300 - 2250
The u/s Right Bridge - 4,900
5,500 - 8100
With differential depths of up to 2 feet deep.
Board staff's concern is that these areas will silt in and that the Post Construction hydraulics will be impacted with more of a rise in water surface. Suggest establishing a theoretical silt line for the actual post condition to determine what the hydraulic effects would be.

David R. Williams R.C.E.
Central Valley Flood Protection Board
Chief Levee Improvement Section
3310 El Camino Ave., Room 151
(916) 574-2379 Office
(916) 212-3783 Cell

-----Original Message-----
From: Steve Jaques [mailto:steve_jaques@dot.ca.gov]
Sent: Tuesday, June 05, 2012 3:14 PM
To: Williams, David R.
Cc: Biswas, Debabrata; Lee, Sungho; Marino, Len; steve_ng@dot.ca.gov; dennis_jagoda@dot.ca.gov; samuel_jordan@dot.ca.gov; ronald_mcgaugh@dot.ca.gov; cornelis_hakim@dot.ca.gov; nesar_formoli@dot.ca.gov
Subject: Re: Profile, Hwy-65 Bypass Bridges

David,
Ronald McGaugh, Caltrans Structure Hydraulics Engineer, has provided an explanation (see below) of the differences in ground elevations in the pre and post construction conditions (for Coon Creek, North Yankee Creek and Auburn Ravine) as noted in the HEC-RAS runs. Ronald has offered to provide additional commentary if necessary, he can be contacted. If emails are exchanged or a meeting is called please include: Sam Jordan, Dennis Jagoda, Steve Ng, Ronald McGaugh, Nesar Formoli, Cornelis Hakim and of course me.

Caltrans remains firmly committed to providing quality products and responding to your requests in a timely manner. It is our desire to keep these permits moving forward to ensure that the Lincoln Bypass will open as scheduled in September.

If you require any further assistance please don't hesitate to give me a call.

ATTACHMENT - D

Steve Jaques
Liaison to Central Valley Flood Protection Board Division of Engineering Services MS 9-Hyd-1/2I FM I, 4th Floor, Column 11-G Cell 916-705-3073

----- Forwarded by Steve Jaques/HQ/Caltrans/CAGov on 06/05/2012 10:56 AM -----

Ronald McGaugh/HQ/Caltrans/CAGov

06/04/2012 12:26 PM

To: Steve Ng/HQ/Caltrans/CAGov

cc:

Subject: Re: Fw: Profile, Hwy-65 Bypass Bridges Please review & adjust as necessary(Document link: Ronald McGaugh)

General:
The topographic LiDAR surveys for DWR and the Contract survey were compared and the control points were at a difference of 1 to 2 tenths of a foot vertically, which matches up very well. However points in the creek sometimes varied up to 1.7 feet in the vertical direction. We overlaid the surveys and observed that in some cases there were holes in the riverine areas of the LiDAR for each survey. These holes represent areas of no data. This is due to a variety of factors including standing water, moving water, density of mud, manual point editing, and other natural light absorbing materials. The attached CVFED Data Sheet was used as a guide for the Contract survey.

(See attached file: CVFED DATA sheet.pdf)

For this project two main sources of topographic information were used: the 2008 LiDAR from DWR representing precondition features and the 2011 LiDAR that Caltrans Contracted out to represent post-conditions features. The DWR LiDAR was used to represent the precondition water surface profiles because for these studies the projects had already been in the construction phase and the precondition topography had been altered. The 2011 LiDAR showed topography for the completed portion of the project and the proposed future Phase 2 bridges. The 2011 LiDAR also represents the new water surface profiles that we proposed after final construction.

Coon Creek
The variance in the ground elevations are due to the differences in the two LiDAR surveys that were completed for this model. Referring to the attached Coon Creek profile, the brown line (second lowest) represents the 2008 LiDAR from DWR for the preconditions and the black line (bottom) is from the 2011 LiDAR for the post-conditions . There is no dredging or other excavation intended.

North Yankee

ATTACHMENT - D

The variance in the ground elevations are due to the differences in the two LiDAR runs that were completed for this model. Referring to the attached North Yankee profile, the purple line(second lowest)represents the 2008 LiDAR from DWR for the preconditions and the black line (bottom) is from the 2011 LiDAR for the post-conditions. For the area around the structures, some excavation was done since the creek was realigned. Please see attached photos ny1 for the preconditions and ny2 for the completed realignment.

(See attached file: ny1.jpg)(See attached file: ny2.jpg)

Auburn Ravine
The variance in the ground elevations are due to the differences in the two LiDAR runs that were completed for this model. Referring to the attached Auburn Ravine profile, the purple line (second lowest) represents the 2008 LiDAR from DWR for the preconditions and the black line (bottom) is from the 2011 LiDAR for the post-conditions. There is no dredging or other excavation intended.

Ronald L McGaugh
Transportation Engineer
Scour Mitigation Structure Hydraulics and Hydrology MS 9-Hyd-1/2i
FMP I 1st floor 1H
916-227-8026

Steve Ng/HQ/Caltrans/CAGov
06/01/2012 03:13 PM

To: Ronald McGaugh/HQ/Caltrans/CAGov@DOT
cc: Tony Nedwick/HQ/Caltrans/CAGov@DOT
Subject: Fw: Profile, Hwy-65 Bypass Bridges.

><((((º>`·. .· `·. .· `·... ><((((º> . · `·. . , . .· `·.. ><((((º>
----- Forwarded by Steve Ng/HQ/Caltrans/CAGov on 06/01/2012 03:14 PM -----

"Williams, David R." <davidw@water.ca.gov>
06/01/2012 03:10 PM

To: Steve Jaques <steve_jaques@dot.ca.gov>, "Samuel_Jordan@dot.ca.gov" <Samuel_Jordan@dot.ca.gov>, "steve_ng@dot.ca.gov"

ATTACHMENT - D

<steve_ng@dot.ca.gov>

cc

"Biswas, Debabrata" <dbiswas@water.ca.gov>, "Lee, Sungho" <lees@water.ca.gov>, "Marino, Len" <lmarino@water.ca.gov>, "Punia, Jay" <jpunia@water.ca.gov>, "Butler, Eric R." <erbutler@water.ca.gov>

Subject

FW: Profile, Hwy-65 Bypass Bridges.

The red ground line is existing river bottom, the black w/ squares is the ground line (river bottom) that the post construction HEC RAS was run. This would mean that you intend to cut the channel bottom down to 2' deeper than existing.

David R. Williams R.C.E.
Central Valley Flood Protection Board
Chief Levee Improvement Section
3310 El Camino Ave., Room 151
(916) 574-2379 Office
(916) 212-3783 Cell

From: Lee, Sungho
Sent: Friday, June 01, 2012 2:26 PM
To: Williams, David R.
Cc: Biswas, Debabrata
Subject: Profile

Here is three water surface profiles.

Tahnks,

Sungho Lee, Ph. D.
Engineer, W.R., STATE OF CALIFORNIA
Central Valley Flood Protection Board

3310 El Camino Ave., Room 151
Sacramento, CA 95821
Tel: (916) 574-2384, Fax: (916) 574-0682
E-mail: lees@water.ca.gov
Website: http://www.cvfpb.ca.gov
(See attached file: Coon Crk-Profile-1-J.JPG)(See attached file: N Yankee-Profile-1.JPG)(See attached file: Auburn Ravine-Comp-profile-3 (12000cfs).JPG)

DEPARTMENT OF TRANSPORTATION
DISTRICT 3
703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 741-4233
FAX (530) 741-4245
TTY 711

ATTACHMENT - E

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July 12, 2012

Mr. Jay Punia
Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room #151
Sacramento, CA 95821

Dear Mr. Punia:

Subject: Floodway Encroachment Variance Request – Auburn Ravine, Permit Number 18653

The California Department of Transportation (Caltrans) requests a variance to California Code of Regulations, Title 23, Article 3, Section 15 (Basis for Denial of Permit Applications), Items (a) (2) and (3). The Section and Items read as follows:

The board may deny a permit for any of the following reasons:
(a) If the proposed work could:
(2) Obstruct, divert, redirect, or raise the surface level of design floods or flows, or the lesser flows for which protection is provided;
(3) Cause significant adverse changes in water velocity or flow regimen;

This request is for the newly constructed betterments at the State Route 65 bridges (19-0191L/R) at Auburn Ravine in Lincoln, California. Caltrans' reasoning for the variance request is as follows:

Although there is an increase in the water surface elevation beginning at the bridge face and propagating upstream, it is important to understand this conforms to the pre-construction water surface at a point 2400 feet upstream. The increase in elevation tapers down between these two points. Board Staff have raised concerns regarding an orchard lying approximately 600 to 1600 feet upstream from the bridge where the increase in water surface ranges from 2 feet at its western boundary to 0.3 feet at the eastern one. Keeping in mind that this orchard is already inundated from the 100-year event to a depth of 3 feet at the western boundary to 2.8 feet at the eastern boundary, based upon both Caltrans' Hydraulic Engineering Circular – River Analysis System (HEC-RAS) analysis and the 2008 Conditional Letter of Map Revision (CLOMR), we believe the effects of this increase on the orchard to be insignificant.

Caltrans Staff Biologists Encanta Engleby and Kelley Nelson, while not minimizing the impacts of floodwaters on the orchard, anticipate no increase in detrimental impacts when the depth is increased by an average of one foot over a 12-hour period for the 100-year event. We have also been in communication with Professor Louise Ferguson, Ph.D. of the University of California at Davis (Fruit and Nut Research and Information Center) who has expertise in persimmon

ATTACHMENT - E

orchards. It is her opinion that prolonged exposure to floodwaters (greater than 72 hours) could result in the death of the tree, but that the impacts from an increase in depth are insignificant. We reiterate that our HEC-RAS model for pre- and post construction, as well as the 2008 CLOMR identify this site as being inundated, and confirm that the approximate boundaries of inundation remain the same. Based upon what we have determined as insignificant impacts to the property in question, we believe Caltrans to be under no obligation to compensate the owner in the absence of any anticipated or measurable damages. Further, any compensation would be deemed a gift of public funds and illegal in light of our findings.

Caltrans respectfully requests that the variance be granted for the above justification recognizing that the Central Valley Flood Protection Board has discretionary powers in light of the verbiage used in the Section identified, and that the permit be issued to ensure that the Lincoln Bypass facilities are opened to the travelling public as scheduled on September 28, 2012.

Questions regarding the profile or other aspects of the HEC-RAS model may be directed to Caltrans Structure Hydraulics Senior Engineer Steve Ng at (916) 227-8018 or Ronald McGaugh at (916) 227-8026.

Sincerely,

Jody Jones

JODY JONES
District Director

c: Mr. Len Marino, Chief Engineer – CVFPB
Mr. Curt Taras, Supervising Engineer – CVFPB
Mr. David R. Williams, Senior Engineer – CVFPB

ATTACHMENT - E

bc: Tom Brannon, D3 DDD, Program/Project Management
Samuel Jordan, D3 Project Manager, Program/Project Management
Steve Jaques, Caltrans Liaison to Central Valley Flood Protection Board
Executive Chron Files

Dennis Jagoda/js

ATTACHMENT - E

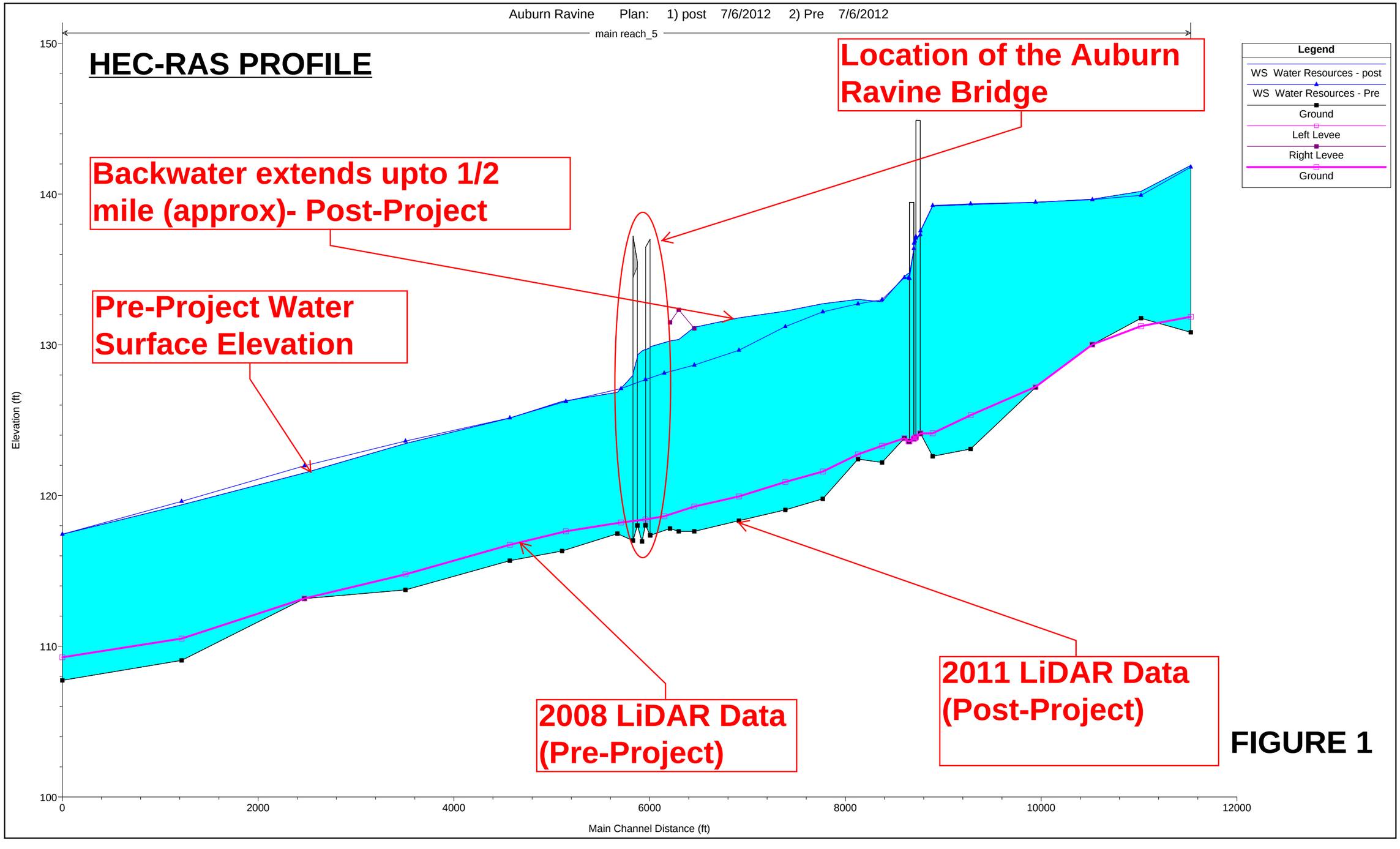

FIGURE 1

ATTACHMENT - E

Auburn Ravine Plan: 1) post 2) Pre

TYPICAL HEC-RAS CROSS SECTION AT STN 6375.508

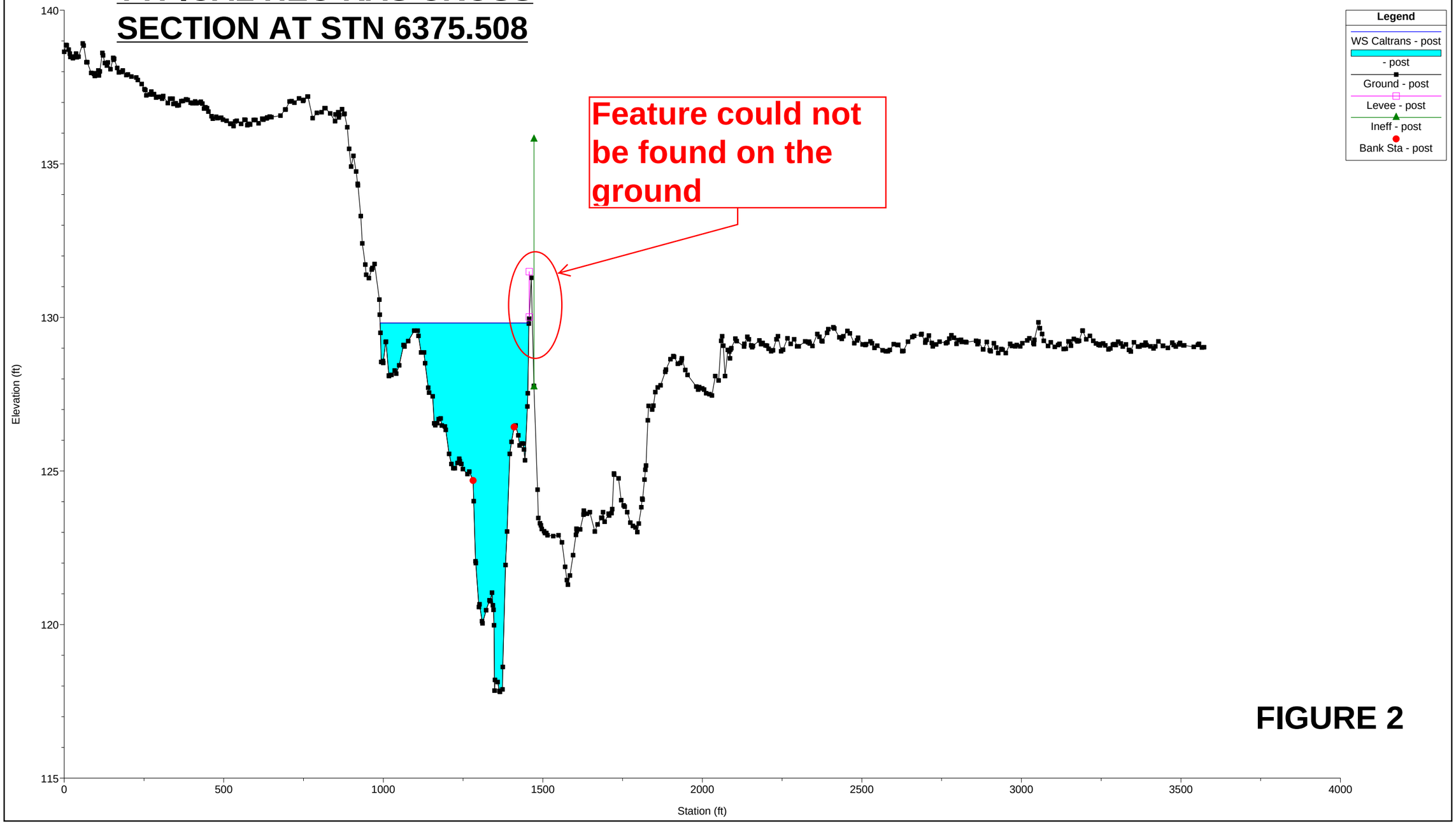

FIGURE 2

ATTACHMENT - E

Auburn Ravine Plan: 1) post 2) Pre

HEC-RAS CROSS SECTION AT STN 7080.111

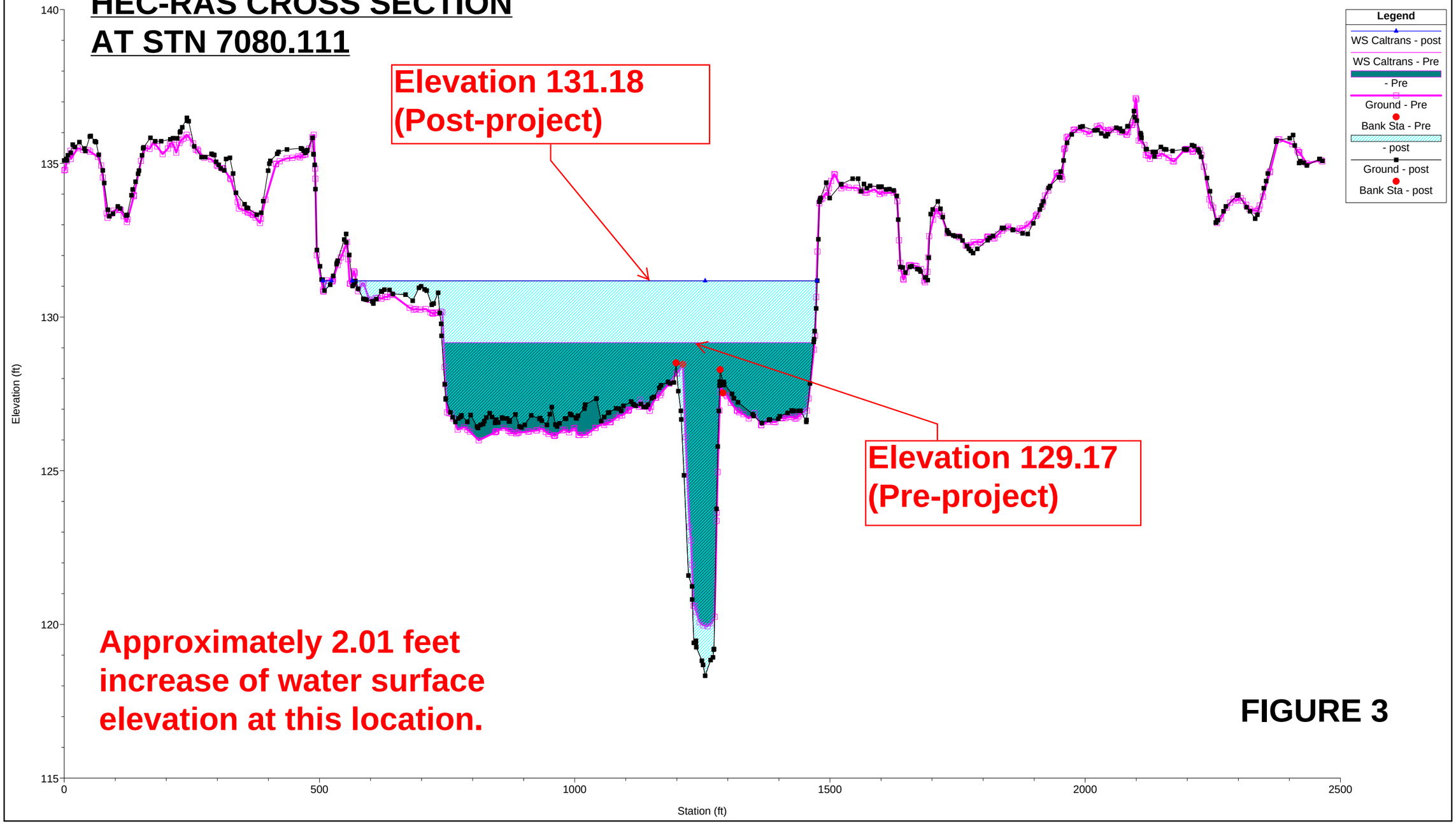

FIGURE 3

ATTACHMENT - F

DEPARTMENT OF TRANSPORTATION
DISTRICT 3
703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 741-4233
FAX (530) 741-4245
TTY 711

Flex your power!
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June 21, 2012

Mr. David R. Williams
Senior Engineer, WR
Central Valley Flood Protection Board
3310 El Camino Avenue, Suite 151
Sacramento, CA 95821

Dear Mr. Williams:

The following endorsement is in response to your June 18, 2012 email to Steve Jaques et al regarding the California Department of Transportation (Caltrans) long term maintenance within State right of way.

The goal of Caltrans is to maintain existing facilities as nearly as possible to the original condition as constructed or improved. The Maintenance Program is assigned the care and upkeep of State highways. Proper care and upkeep conserves the public's investment in the highway system, and ensures that the system will continue to provide maximum benefits to the traveling public. See attached list of Maintenance Activities.

The legal definition of maintenance as provided by the California Streets and Highways Code, General Provisions, Section 27, include the following:

(A) The preservation and keeping of rights of way, and each type of roadway, structure, safety convenience or device, planting, illumination equipment and other facility, in the safe and usable condition to which it has been improved or constructed, but does not include reconstruction or other improvement

(B) Operation of special safety conveniences and devices, and illuminating equipment

(C) The special or emergency maintenance or repair necessitated by accidents or by storms, or other weather conditions, slides, settlements or other unusual or unexpected damage to a roadway, structure or facility

Many routine maintenance operations have the potential to affect water quality. The Maintenance Program, in cooperation with the Environmental Program, has developed procedures to protect water quality. These are included in the Maintenance Manual, and in the Caltrans Statewide Storm Water Management Plan. Caltrans has a statewide storm water permit. All districts are required to abide by the permit requirements.

To comply with federal regulations, all bridge structures over 20 feet long are inspected by qualified Area Bridge Maintenance Engineers (ABME) at a maximum interval of two (2) years, and more frequently if conditions require a more frequent inspection. As part of the inspection,

engineering evaluation is made regarding the condition of all structural components, and work recommendations are made for any corrective actions required.

Periodic walk-through inspections are made by District Maintenance Supervisors to detect obvious defects, hazards or potential problems, and also to monitor known problems. The purpose of these inspections is to supplement the more detailed, but less frequent inspections by the ABME. Special attention is given to any condition that affects the safety and/or structural capacity.

After a major storm, earthquake, or other natural event that may cause damage to bridges, area supervisors inspect all bridges in the affected area for signs of damage. Any damage found is reported to the Structure Maintenance and Investigations Unit for follow up action.

Depending on the scope of work and monetary size of the recommended work, it can be performed in one of the five methods below:

- By District 3's local special crews: bridge, sign, or road maintenance crews
- By local agencies (City/County), as per Highway Maintenance Agreement
- By Maintenance Contract, funded by the Major Maintenance funds (HM3-115)
- By the State Highway Operations and Protection Program, funded by the bridge programs
- By Service Contract

Caltrans Maintenance will react promptly to emergencies while taking steps to protect employees, the public, and the environment. In addition, the Maintenance Program will practice proper scheduling and planning of routine maintenance procedures to keep delays at a minimum. Reasonable efforts are made to correct conditions that interfere with the flow of water under our structures, including clearing debris.

If you have any further questions you may contact Samuel Jordan, Project Manager, by phone at (916) 396-9494 or by email at samuel_jordan@dot.ca.gov.

Sincerely,

Jody Jones

JODY JONES
District Director

c: Mr. Len Marino, Chief Engineer -- CVFPB

ATTACHMENT - F

bc: Tom Brannon, D3 DDD, Program/Project Management
Steve Jaques, Caltrans Liaison to the CVFPB
Steve Kirkpatrick, D3 DDD, Maintenance and Operations
Samuel Jordan, D3 Project Manager, Program/Project Management
Executive Chron File
Executive Program/Project Management File

Samuel Jordan:slb/js

Williams, David R. ATTACHMENT - F

From: Tom Brannon [tom_brannon@dot.ca.gov]
Sent: Thursday, June 21, 2012 4:24 PM
To: Williams, David R.
Cc: Jody Jones; Steve Kirkpatrick; Samuel Jordan; Steve Jaques; Dennis Jagoda
Subject: Re: Fw: Hwy -65 Bypass
Attachments: David Williams - CVFPB Endorsement 6-20-12.pdf

Mr. Williams,

Attached is a PDF of a letter to you committing the District to our maintenance of the State R/W under our structures. We made a request to the County of Placer for a similar document but unfortunately are unable to provide this. The lands upstream and downstream of the structures are held by private owners, which makes it difficult to obtain a committment from a government agency to maintain land not their own.

Please contact either Sam Jordan or me if you have any questions or if we can provide any further information.

(See attached file: David Williams - CVFPB Endorsement 6-20-12.pdf)

Tom Brannon
D3 Deputy District Director
Program Project Management
916 826 6052

----- Original Message -----
From: Steve Jaques
Sent: 06/21/2012 11:48 AM PDT
To: davidw@water.ca.gov
Cc: Samuel Jordan
Subject: Fw: Hwy -65 Bypass

David,
I have yet to hear anything regarding this issue. Sam will be responding directly to you with a cc to me.

Steve Jaques

STATE OF CALIFORNIA
THE NATURAL RESOURCES AGENCY
CENTRAL VALLEY FLOOD PROTECTION BOARD

FINDINGS AND DECISION AUTHORIZING ISSUANCE OF ENCROACHMENT PERMIT NO. 18653 CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 3 STATE ROUTE 65 (LINCOLN BYPASS) PROJECT AUBURN RAVINE BRIDGES

PRIOR CONSTRUCTION:

WHEREAS, The California Department of Transportation, District 3 (Caltrans) constructed two bridges in 2010 over Auburn Ravine as part of their State Route 65 (SR 65) Lincoln Bypass project through the City of Lincoln, Placer County; and

WHEREAS, Caltrans did not obtain a Central Valley Flood Protection Board (Board) encroachment permit prior to construction; and

WHEREAS, Caltrans is proposing to open the SR 65 Bypass to vehicle traffic on September 28, 2012; and

PERMIT APPLICATION:

WHEREAS, Caltrans submitted an Encroachment Permit Application dated March 11, 2011 to authorize the previously constructed bridges (Bridge Numbers 19-0191L/R). This application was deemed incomplete by Board staff and returned; and

WHEREAS, Board staff worked with Caltrans to develop an acceptable application package, and Caltrans submitted a revised Encroachment Permit Application dated May 4, 2012 which was deemed complete by Board staff; and

PROJECT LOCATION:

WHEREAS, The project site is located at the SR 65 Bypass crossing of Auburn Ravine, approximately 1.5 miles (7,920 feet) west of original SR 65 in the City of Lincoln, Placer County, more than nine (9) miles southeasterly and upstream of the nearest State Plan of Flood Control facilities ; and

WHEREAS, In addition to urban development bordering the Auburn Ravine floodplain, a walnut orchard lies just upstream of the new bridges which is subject to flood inundation from the 100-year flood event with or without the bridges; and

APPLICABLE REGULATIONS:

WHEREAS, Title 23, California Code of Regulations (CCR 23), Section 6, Need for a Permit states:

> *Every proposal or plan of work, including the placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment or works of any kind, and including the planting, excavation, or removal of vegetation, and any repair or maintenance that involves cutting into the levee, wholly or in part within any area for which there is an adopted plan of flood control, must be approved by the board prior to commencement of work.; …*

The bridges in question are constructed in the floodway of Auburn Ravine and thus require permitting under the Board's jurisdiction; and

WHEREAS, CCR 23, Section 15, Basis for Denial of Permit Applications states:

> *The Board may deny a permit for any of the following reasons: (a) If the proposed work could:*
>
> *… (2) Obstruct, divert, redirect, or raise the surface level of design floods or flows, or the lesser flows for which protection is provided;*
>
> *(3) Cause significant adverse changes in water velocity or flow regimen; …*; and

WHEREAS, Caltrans has requested the Board to grant a variance from Title 23, CCR Section 15(a) (2) and 15 (a)(3). Board staff has reviewed and understands the intent and nature of the request. Strictly interpreted, requests for variances only apply to the Board's Standards in CCR 23, Article 8, Sections 111 through 138.

Board staff considered the "variance" request, but applied it to as a request to ask the Board to set aside its authority stated in CCR 23, Section 15 (a)(2) and (3) as basis to deny this application.

This authority allows the Board to consider whether or not to deny a proposed project for the reasons described in § 15(a)(2) and (3) above, and it also interpreted to allow the Board discretion to apply special conditions to the approval of encroachment permits such that concerns and adverse impacts related to the above regulations can be mitigated; and

WHEREAS, CCR 23, Section 112, Streams Regulated and Nonpermissible Work Periods lists streams under Board regulation:

Auburn Ravine is a Board regulated stream pursuant to Section 112, Table 8.1; and

WHEREAS, CCR 23, Section 128, Bridges states:

> *(a)(10)(A) The bottom members (soffit) of a proposed bridge must be at least three (3) feet above the design flood plane. The required clearance may be reduced to two (2) feet on minor streams at sites where significant amounts of stream debris are unlikely.*

Caltrans hydraulic analysis concluded that the minimum soffit clearance for the downstream and upstream bridges are 5.51 feet and 6.44 feet, respectively which meet the requirements of §128(a)(10)(A); and

TECHNICAL REVIEW:

WHEREAS, Caltrans provided pre- and post-project hydraulic modeling analysis using U.S. Army Corps of Engineers HEC-RAS one-dimensional methodology, at a 100-year discharge of 10,000 cubic feet per second (cfs), and two sets of LiDAR data from 2008 and 2011 for pre- and post-construction channel cross section elevations, respectively; and

WHEREAS, Caltrans position is that the modeled incremental increase in water surface elevation of up to 2.44 feet upstream of the bridges, and from 0.3 to 2.0 feet over the orchard, is insignificant and does not anticipate increases in detrimental impacts due to flood inundations of up to 12 hours for the 100-year event.

Caltrans further believes to be under no obligation to compensate the owner in the absence of any anticipated or measurable damages, and considers any compensation would be deemed a gift of public funds and illegal in light of their findings; and

WHEREAS, Board staff have reviewed all Caltrans submitted reports, findings, conclusions and opinions.

Board staff believes there may be errors in certain cross sections used in the hydraulic model, and thus is concerned about the accuracy of Caltrans numerical results.

Board staff concluded that the two sets of LiDAR data inconsistently represent the onsite ground elevations, and thus believe that actual depths of flood inundation may be one to two feet greater than showed in the modeling; and

AGENCY COMMENTS:

WHEREAS, A "non-Fed" letter from the U. S. Army Corps of Engineers (USACE) dated May 11, 2011 was received stating that the USACE has no comments or recommendations regarding the project; and

WHEREAS, There are no local maintaining agencies in the project area; and

CEQA LEAD AGENCY ACTIONS:

WHEREAS, Caltrans as lead agency pursuant to the California Environmental Quality Act, Public Resources Code sections 21000 *et seq.* ("CEQA") prepared an Draft and Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (SCH Number: 1990020626, May 2006) and Mitigation Monitoring and Reporting Plan (MMRP) for the Lincoln Bypass Placer County, State Route 65 Project (incorporated herein by reference and available at offices of the Central Valley Flood Protection Board or Caltrans); and

WHEREAS, Caltrans certified the EIS/EIR, adopted mitigation measures and a MMRP on the Project, approved findings pursuant to CEQA and the CEQA Guidelines (incorporated herein by reference); and filed a Notice of Determination with the State Clearinghouse on May 30, 2006 approving the Project; and

PUBLIC HEARING

WHEREAS, The Board has conducted a public hearing on Permit Application No. 18653 and has reviewed the reports of its staff, the documents and correspondence in its file, and the application and supporting hydraulic analysis and environmental documents prepared by Caltrans.

NOW, THEREFORE, BE IT RESOLVED THAT,

1. The Board has reviewed all Attachments, Exhibits, Figures, and References listed in the Staff Report, and adopts as findings the testimony set forth in the Staff Report.

2. Due to the uncertainties in the hydraulic modeling, and inability to verify certain modeled features with their on the ground physical counterparts, Board staff cannot completely agree with Caltrans' claims and estimations of the anticipated extent and magnitude of bridge-induced flood impacts in Auburn Ravine.

3. To mitigate for uncertain magnitudes of flood depth and inundation footprint, Board staff recommends that Board permit approval be contingent upon the addition of Special Condition TWENTY-SIX to the permit. This condition will require Caltrans to acquire and maintain a flowage easement or easements in the Auburn Ravine floodway to the satisfaction of the Board's Chief Engineer within one year from the date of issuance of the permit.

CEQA FINDINGS:

4. The Board, as a responsible agency under CEQA, has reviewed the Draft and Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (SCH Number: 1990020626, May 2006) and Lincoln Bypass Placer County, State Route 65 Project prepared by the lead agency, Caltrans.

5. The Board, after consideration of the EIS/EIR, MMRP, and Caltrans findings, adopts the project description, analysis and findings which are relevant to approval of Encroachment Permit No. 18653 for the State Route 65 Auburn Ravine Bridge Project.

FINDINGS PURSUANT TO WATER CODE SECTION 8610.5:

6. Evidence Admitted into the Record. The Board has considered all the evidence presented in this matter, including the original and updated applications, Staff Reports and attachments. The Board has also considered all letters and other correspondence received by the Board and in the Board's files related to this matter.

7. Best Available Science. In making its findings, the Board has used the best available science relating to the issues presented by all parties.

8. Effects on State Plan of Flood Control. This project shall have no effects on facilities of the State Plan of Flood Control with the incorporated special permit condition number TWENTY-SIX.

9. Effects of Reasonably Projected Future Events. There are no other foreseeable projected future events that would impact this project.

STAFF RECOMMENDATION - APPROVAL OF PERMIT

10. Board staff recommends that the Board adopt Resolution 2012-31, including special condition TWENTY-SIX, authorizing two previously-constructed bridges (19-0191 Left and Right) crossing Auburn Ravine on the State Route 65, Lincoln Bypass project.

11. Based on the foregoing, the Central Valley Flood Protection Board hereby approves the State Route 65 Auburn Ravine Bridge Project and approves issuance of Encroachment Permit No. 18653 in substantially the form provided as Staff Report Attachment H, and final 100% plans and specifications.

11. The Board directs the Executive Officer to take the necessary actions to prepare and execute Encroachment Permit No. 18653 and all related documents and to prepare and file a Notice of Determination pursuant to CEA for the State Route 65 Auburn Ravine Bridge Project (SCH No. 1990020626).

CUSTODIAN OF RECORD

The custodian of the CEQA record for the Board is its Executive Officer, Jay Punia, at the Board offices at 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

This resolution shall constitute the written decision of the Board in the matter of Encroachment Permit application No. 18653.

PASSED AND ADOPTED by vote of the Board on _____, 2012

_____
William H. Edgar
President

_____
Jane Dolan
Secretary

ATTACHMENT - H

DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY

THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18653 BD

This Permit is issued to:

CALTRANS - District 3
703 B Street
Marysville, California 95601-0911

To authorize two existing cast-in place reinforced box girder concrete bridge structures (No. 19-0191R and 19-0191L) crossing Auburn Ravine, each consisting of the following: (1) Two 11.8-foot wide travel lanes; (2) 7.9-foot left and 9.8-foot right shoulders; (3) A median bridge span of 544.6-feet; (4) 6 segments varying in length from 78.7-feet to 97.22-feet; (5) Five groups of 2 concrete reinforced piers, each approximately 4.5-feet in diameter; (6) A total bridge deck thickness of 5.4-feet; (7) 30-foot long fill approach embankments for the beginning and end of each bridge, consisting of approximately 4,000-CY. Located on the E side of the Central Valley, part of the State Route 65 Lincoln Bypass crossing Auburn Ravine near Moore Road, about 25 miles (40.3 km) north of Sacramento, in western Placer County, just north of the City of Roseville (Section 17, 20, T12N, R6E, MDB&M, Placer County Flood Control and Water Conservation District, Auburn Ravine, Placer County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: _____

_____
Executive Officer

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

ATTACHMENT - H

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 18653 BD

THIRTEEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

FOURTEEN: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources or any other agency responsible for maintenance.

FIFTEEN: The Central Valley Flood Protection Board and Department of Water Resources shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

SIXTEEN: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

SEVENTEEN: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District,

ATTACHMENT - H

Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

EIGHTEEN: The permittee shall be responsible for repair of any damages to the project levee and other flood control facilities due to construction, operation, or maintenance of the proposed project.

NINETEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

TWENTY: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

TWENTY-ONE: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

TWENTY-TWO: Upon completion of the project, the permittee shall submit a final completion letter and as-built drawings to the Central Valley Flood Protection Board, 3310 El Camino Avenue, Suite 151, Sacramento, California 95821 and Department of Water Resources, Flood Project Inspection Section, 3310 El Camino Avenue, Suite 256, Sacramento, California 95821.

TWENTY-THREE: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated May 11, 2011, which is attached to this permit as Exhibit A and is incorporated by reference.

TWENTY-FOUR: If the bridge is damaged to the extent that it may impair the channel or floodway capacity, it shall be repaired or removed prior to the next flood season.

TWENTY-FIVE: Any additional encroachment(s) on the levee section or waterward berm, require an approved permit from the Central Valley Flood Protection Board and shall be in compliance with the Central Valley Flood Protection Board's regulations (Title 23 California Code of Regulations).

TWENTY-SIX: There is an orchard lying approximately 600 to 1600 feet upstream from the bridge where the increased water surface elevation due to the project construction ranges from 2 feet at its western boundary to 0.3 feet at the eastern boundary. Caltrans shall acquire and maintain a flowage easement to the satisfaction of the board in the above flooded areas within one year from the date of issue of this permit to mitigate this potential flooding.

EXHIBIT - A

DEPARTMENT OF THE ARMY
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

REPLY TO
ATTENTION OF

Flood Protection and Navigation Section (18653)

MAY 11 2011

Mr. Jay Punia, Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, California 95821

Dear Mr. Punia:

We have reviewed a permit application by the California Department of Transportation (application number 18653). This project includes authorizing two existing cast-in place reinforced box girder concrete bridge structures (Numbers 19-0191R and 19-0191L) across Auburn Ravine. The project is located near the town of Lincoln and is part of the State Route 65 Lincoln Bypass, just north of the City of Roseville, at 38.8828°N 121.3226°W NAD83, Placer County, California.

The District Engineer has no comments or recommendations regarding flood control because the proposed work does not affect a federally constructed project.

A Section10 and/or Section 404 permit (199500363) has been issued for this work.

A copy of this letter is being furnished to Mr. Don Rasmussen, Chief, Flood Project Integrity and Inspection Branch, 3310 El Camino Avenue, Suite LL30, Sacramento, CA 95821.

Sincerely,

Meegan G. Nagy, P.E.
Chief, Flood Protection and Navigation Section