

OWNER
SERIAL CANYON PROPERTY
OWNERS ASSOCIATION

CROSS CREEK ROAD BRIDGE AT MALIBU CREEK CITY OF MALIBU

DESIGN NOTES

DESIGN: BRIDGE DESIGN SPECIFICATIONS
(1996 AASHTO WITH INTERIMS AND REVISIONS BY CALTRANS)

f'_c = 4,000 psi
 f_y = 60,000 psi
 n = 8

LIVE LOAD

HS 20-44 & ALTERNATIVE

DEAD LOAD

WEIGHT OF CONCRETE = 150 pcf
WEIGHT OF EARTH = 110 pcf

GENERAL NOTES

- 1) ROUTINE INSPECTIONS SHOULD BE MADE AT LEAST EVERY TWO YEARS BY AN ENGINEER QUALIFIED TO INSPECT BRIDGE STRUCTURES. INSPECTIONS TO ROUTINE INSPECTION SPECIFICATIONS BY A QUALIFIED INSPECTOR SHALL BE PERFORMED AFTER EVERY STORM FLOW THAT OVERTOPS THE DECK OR ANY OTHER EVENT THAT MAY CAUSE STRUCTURAL DAMAGE TO THE BRIDGE SUCH AS EARTHQUAKES, VEHICLE ACCIDENTS, ETC.
- 2) REGULAR MAINTENANCE ACTIVITIES SHOULD INCLUDE KEEPING THE PIERS AND ABUTMENTS FREE FROM ACCUMULATED DEBRIS, INSPECTING THE DRAINAGE AND RUNOFF TREATMENT SYSTEM, ANNUAL REPLACEMENT OF THE FOSSIL FILTER, AND MAKING SURE THAT COLLAPSIBLE RAILINGS ARE UNDAMAGED AND FUNCTIONING NORMALLY.
- 3) THE BRIDGE RAILING SYSTEM AND CURB DESIGN, PRINCIPLE AND DETAILS DEVIATE FROM CALTRANS STANDARD PRACTICE AS THE BRIDGE IS A PRIVATE FACILITY. THE DESIGN CRITERIA AND LEVEL OF PROTECTION OF THE BRIDGE RAILING IS FOR PEDESTRIAN LOADS ONLY. THE CURB SYSTEM IS DESIGNED FOR IMPACT CONDITIONS ASSUMING A 3/4 TON PICKUP IMPACTING THE CURB AT A SPEED OF 15 MPH AT AN ANGLE OF 15 DEGREES. THE BRIDGE PIERS AND DECK SPAN SHALL BE DESIGNED AND ACCEPT THIS LIMITATION FOR DEBRIS BUILD-UP ON THE RAILINGS IN THE EVENT OF FLOODING.

BENCH MARK:

HORIZONTAL DATUM: ASSUMED COORDINATE BASIS

VERTICAL DATUM: NGVD 1929, U.S. SURVEY FEET

NGS C1052 RESET 1994:

NORTHING: 3797.727
EASTING: 2218.574

3-1/2" BRASS DISK
ELEVATION = 23,675 FEET (NGVD 1929, FEET)
PER CALTRANS FIELD BOOK 96-004, PAGE 19

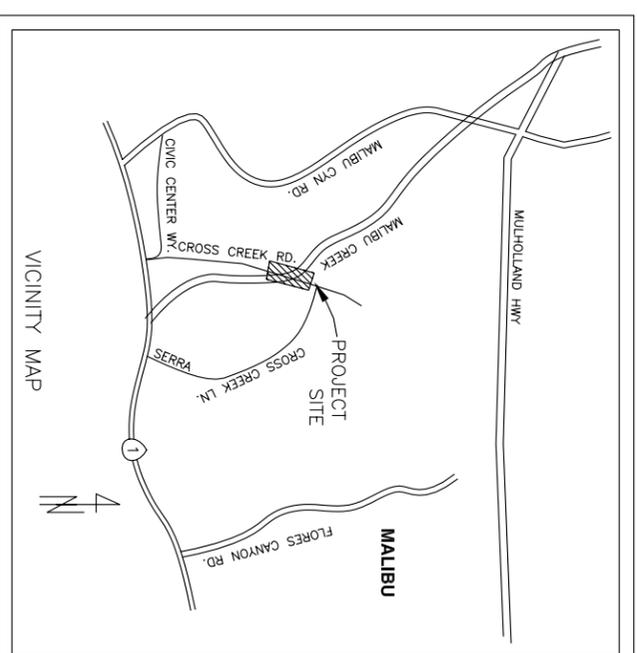
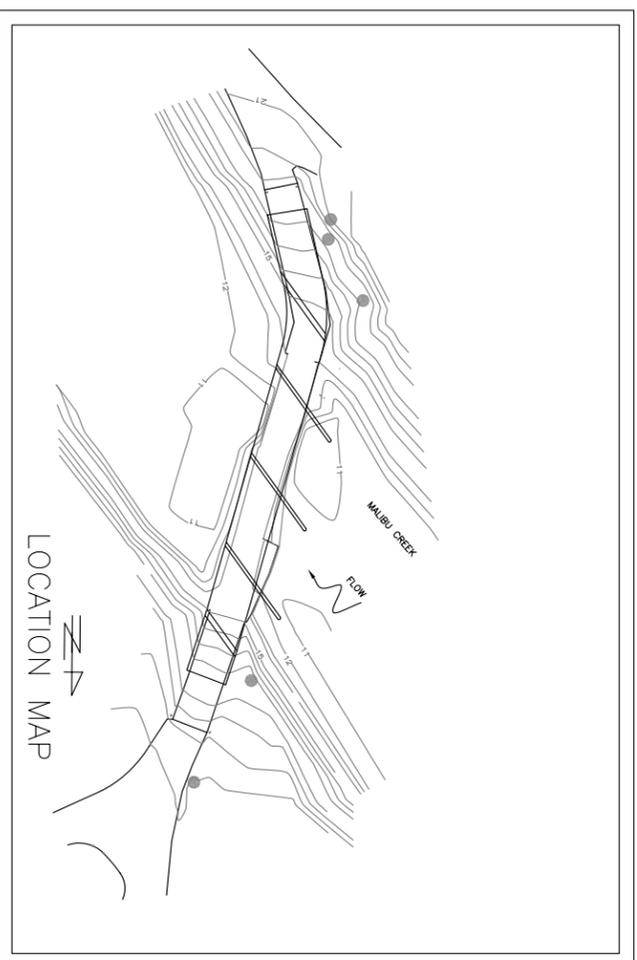
TBM-3:

NORTHING: 4220.846
EASTING: 1992.561

CONCRETE NAIL AND CALTRANS TAG
ELEVATION = 14,798 FEET (NGVD 1929, FEET)
PER CALTRANS FIELD BOOK 96-004, PAGE 18



- ### SHEET INDEX
- 1 - COVER SHEET
 - 2 - PLOT PLAN REVIEW DETERMINATION
 - 3 - STRUCTURAL PLAN
 - 4 - DECK DETAILS
 - 5 - ABUTMENT DETAILS
 - 6 - PIERWALL DETAILS
 - 7 - MISCELLANEOUS DETAILS
 - 8 - DEMOLITION PLAN, DIVERSION DEWATERING, & WATER POLLUTION CONTROL PLAN



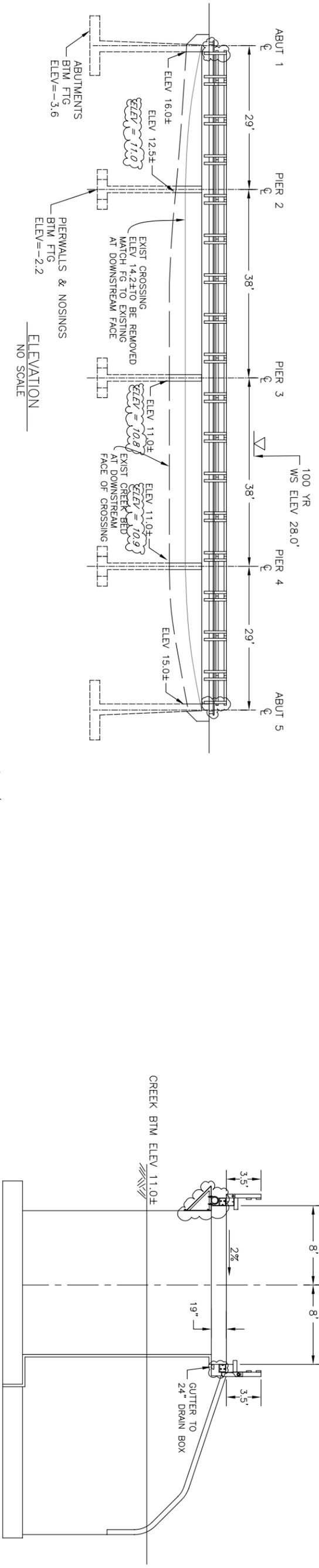
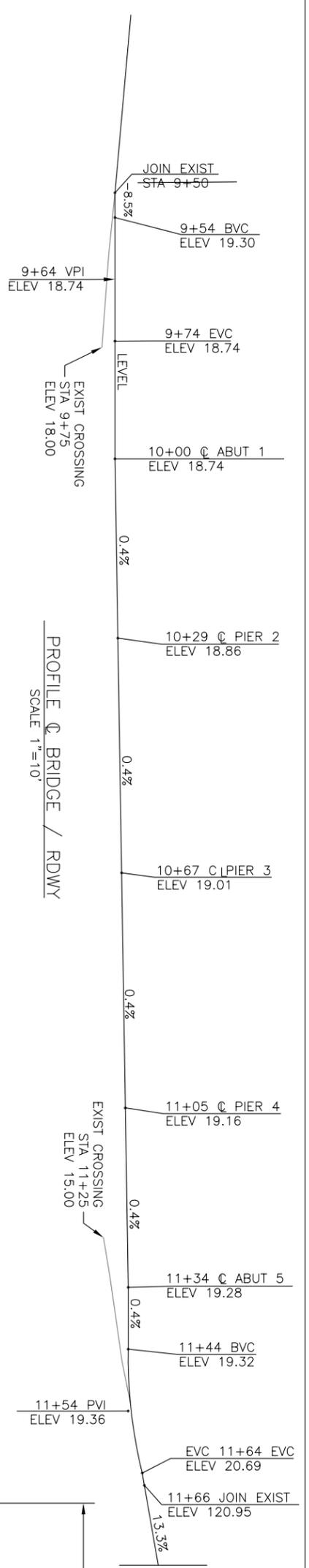
ASBUILT DATE: _____

REVISIONS	DATE	APPROVED: CITY OF MALIBU	GEOLOGICAL ENGINEERING BY:	SPEC. NO.	SHEET NO.
			Earth Systems Southern California		COVER SHEET
					CROSS CREEK ROAD BRIDGE
					MALIBU, CALIFORNIA
					1 OF 8

SEA
HANKS & ASSOCIATES
229 PARKWAY SUITE 8
MENDOTA, IL 60942-4811

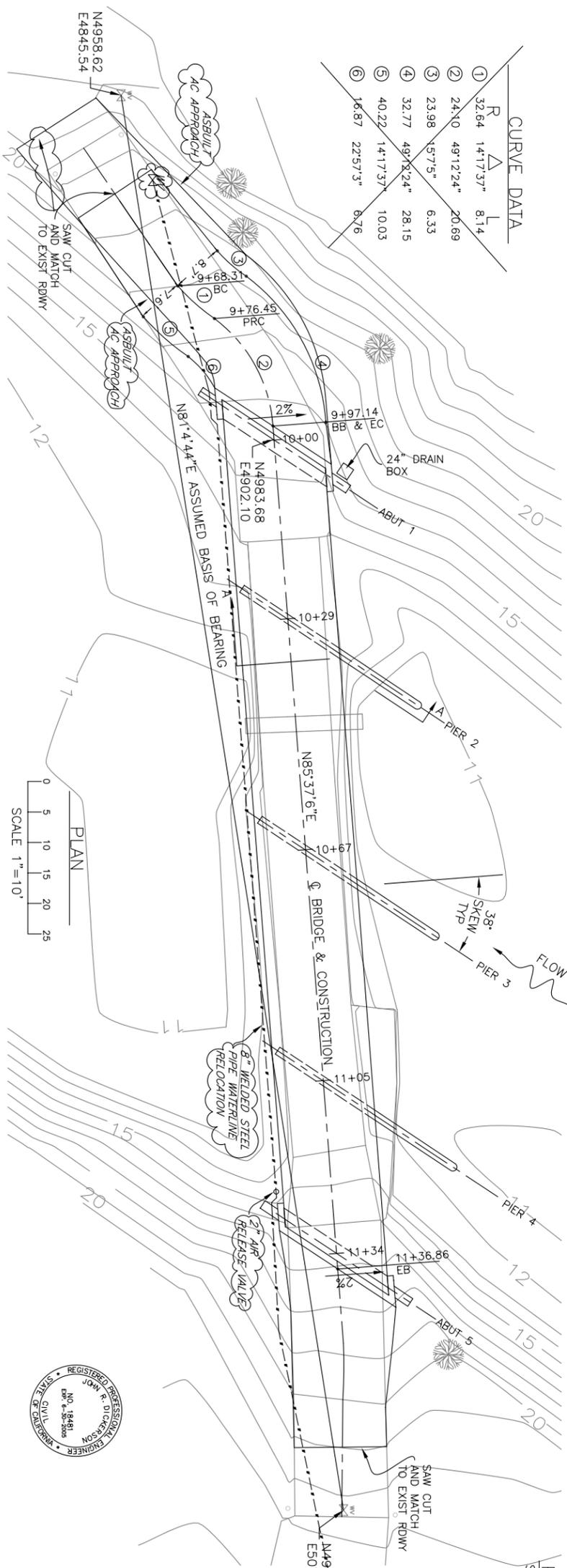
CIVIL ENGINEERING * **SURVEYING**
* 397 Mobil Ave., Suite 5 * Camarillo, California * 93010
* Phone (805) 388-6460 *

PROJ. NO.



CURVE DATA

1	32.64	14°17'37"	8.14
2	241.0	49°12'24"	20.69
3	23.98	15°7'5"	6.33
4	32.77	49°12'24"	28.15
5	40.22	14°17'37"	10.03
6	16.87	22°57'3"	8.76



PIERWALL AND NOSING SECTION A-A -- NO SCALE

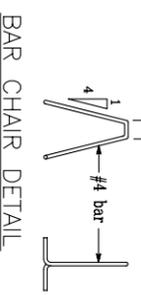
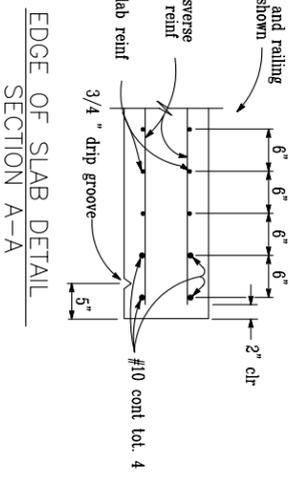
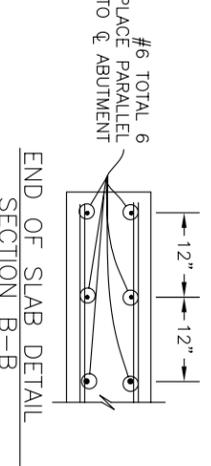
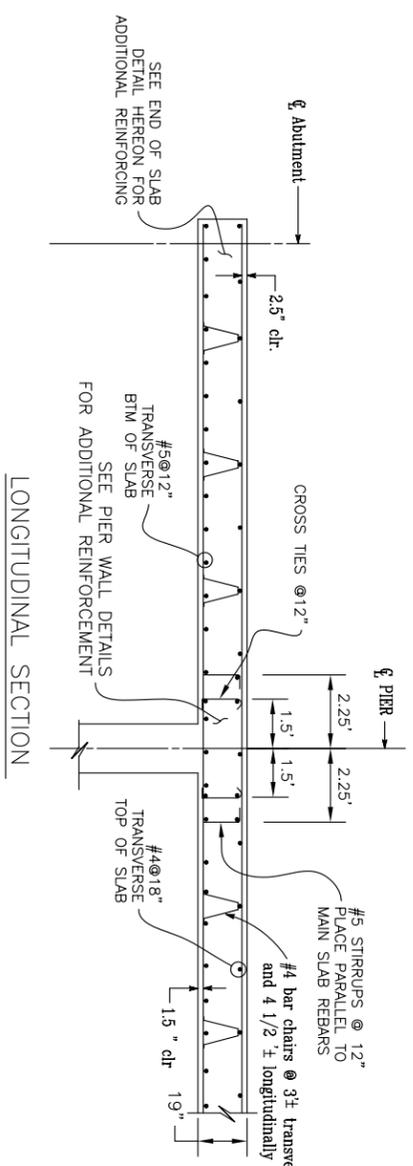
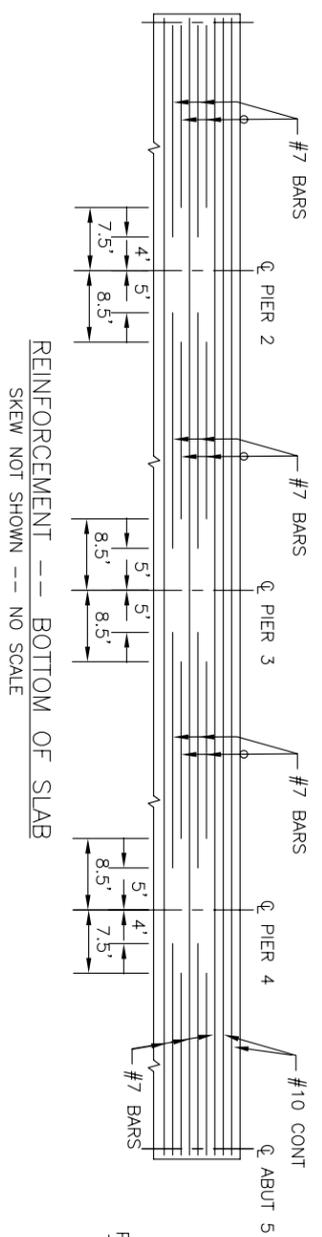
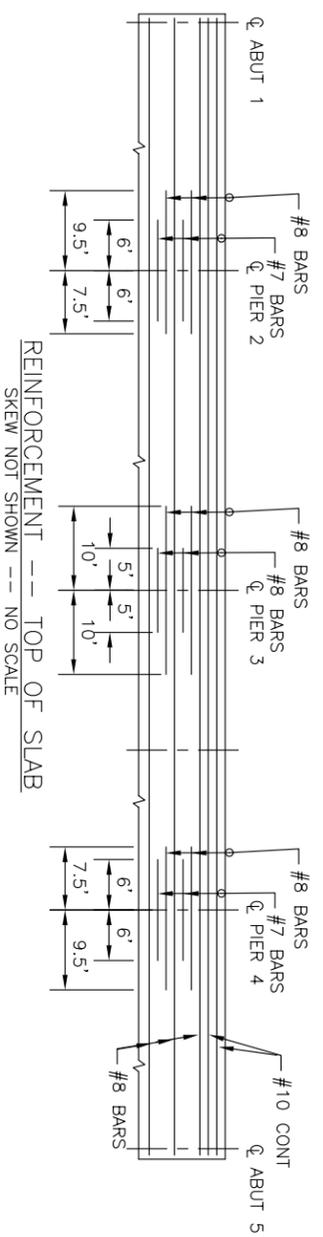
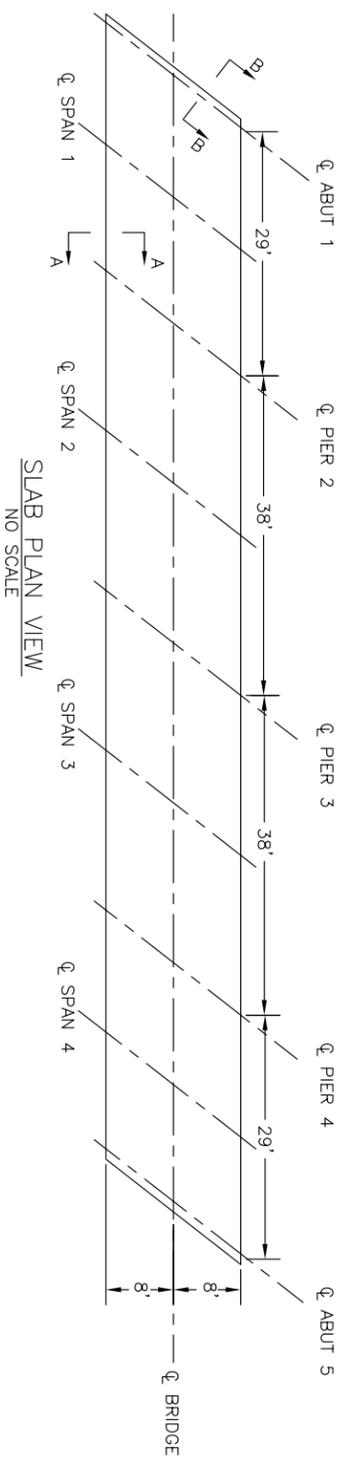
SURVEY CONTROL:
 HORIZONTAL DATUM: ASSUMED COORDINATE BASIS
 VERTICAL DATUM: NGVD 1929, U.S. SURVEY FEET
 TBM-3:
 NORTHING: 4220.846
 EASTING: 1992.561

CONCRETE NAIL AND CALTRANS TAG
 ELEVATION = 14,798 FEET (NGVD 1929, FEET)
 PER CALTRANS FIELD BOOK 96-004, PAGE 18

3-1/2" BRASS DISK
 ELEVATION = 23,675 FEET (NGVD 1929, FEET)
 PER CALTRANS FIELD BOOK 96-004, PAGE 19

ASBUJLT DATE: _____

REVISIONS	DATE	DESIGNED K.C. IMMEL	APPROVED: CITY OF MALIBU	SPEC. NO.	SHEET NO.
		DRAWN K.C. IMMEL			
		CHECKED J.R. DICKERSON			
		APPROVED B.C. RAMOS			
		CIVIL ENGINEERING * SURVEYING * 397 Mobil Ave., Suite 5 * Camarillo, California * 93010 * Phone (805) 388-6460 *			
		REGISTERED CIVIL ENGINEER R.C.E. 18481 EXP. 6-30-01			
		HAWKS & ASSOCIATES 2208 PONTIAC ROAD SUITE B MALIBU, CA 90263 (805) 638-6611			
		REGISTERED PROFESSIONAL ENGINEER JOHN R. DICKERSON NO. 4948 EXP. 6-30-04 CIVIL ENGINEER			
		CROSS CREEK ROAD BRIDGE MALIBU, CALIFORNIA			
		3 OF 8			



- GENERAL NOTES**
- 1) Splices in top main bars to be located near center of span.
 - 2) Splices in bottom main bars to be located near bent.
 - 3) Spacing of all transverse bars is measured along \mathcal{C} -structure.
 - 4) Place transverse slab bars perpendicular to \mathcal{C} -structure.
 - 5) Place main rebars parallel to \mathcal{C} -structure.
 - 6) Spacing of main rebars is 6" O.C.
 - 7) Stirrup placement per Caltrans Standard Detail Sheets, XS 12-55, Slab Reinforcement Details.

BAR SPLICE LENGTH										
Bar size	#4	#5	#6	#7	#8	#9	#10	#11		
All bars, except top bars	23"	28"	34"	39"	45"	68"	76"	85"		
Top bars	23"	28"	34"	53"	60"	77"	97"	120"		



ASBUILT DATE: _____

REVISIONS	DATE

DESIGNED: K.C. IMBEL
 DRAWN: K.C. IMBEL
 CHECKED: J.R. DICKERSON
 APPROVED: B.C. RANOS

APPROVED: CITY OF MALIBU
 DATE: _____
 BY: _____



SPEC. NO. _____
 PROJ. NO. _____

DECK DETAILS
 CROSS CREEK ROAD BRIDGE
 MALIBU, CALIFORNIA

SHEET NO. **4** OF **8**

