FOR CONTRACT NO.: 05-0C8824

INFORMATION HANDOUT

MATERIALS INFORMATION

FOUNDATION REPORT, DATED MARCH 30, 2009

ROUTE: 05-Mon, SBt-1, 68, 101-Var

CONTRACT NO. 05-0C8824
ADDED PER ADDENDUM NO. 1 DATED MAY 12, 2010

State of California
Department of Transportation

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: ROBERTO BANDA
Design Manager, Branch N
Project Development Division

Date: March 30, 2009

File: 05-MON-1-PM R89.45, R90.50
05-MON-68-PM R16.30
05-MON-101-PM 97.55
05-SBT-101-PM 2.00, R4.25
EA: 05-0C8821
Changeable Message Signs

From: **DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES – MS 5

Subject: Foundation Report

This report has been prepared as a follow-up to the District Preliminary Geotechnical Report (DPGR) submitted in December 2008. The DPGR presented preliminary geotechnical recommendations primarily for assessment of constructability for each of the proposed Changeable Message Sign (CMS) systems at the six locations listed in Monterey and San Benito Counties, shown in the table below:

NO	CO	ROUTE	POST MILE	DESCRIPTION	DIRECTION	LAT.	LONG.
1	MON	68	R16.30	NEAR PORTOLA DRIVE EXIT	WESTBOUND	36.61317	-121.68976
2	MON	1	R89.45	NORTH OF SALINAS RIVER BRIDGE	NORTHBOUND	36.73427	-121.78005
3	MON	1	R90.50	MOLERA ROAD ON-RAMP	SOUTHBOUND	36.74942	-121.76894
4	MON	101	97.55	SOUTH OF MALLORY CANYON ROAD	SOUTHBOUND	36.81076	-121.64416
5	SBT	101	2.00	0.41 mi NORTH OF ROCKS ROAD	NORTHBOUND	36.85907	-121.59704
6	SBT	101	R4.25	AT ANZAR ROAD UC	SOUTHBOUND	36.87574	-121.56956

Draft plans received from Design propose construction of a Cast in Drilled Holed (CIDH) pile foundation to support a Model 500 CMS. The following foundation recommendations address the existing ground and soil conditions in proximity to each

location above as well as constructability concerns.

Pertinent Reports and Investigations

The following publications were used to assess site conditions:

1. *Toro Park Soundwall, Log of Test Borings*. Caltrans, 1987
2. *Salinas River Bridge, Log of Test Borings*. Caltrans, 1997
3. *Preliminary Geotechnical Report Prunedale Operational Improvements*, EA 05-0161B0, Caltrans, Ron Richman, July 19, 2001.
4. *Molera Road Overcrossing, Log of Test Borings*. Caltrans, 1973
5. *Anzar Road Undercrossing, Log of Test Borings*. Caltrans, 1970

Ground and Subsurface Conditions

All subsurface soil properties summarized for each proposed CMS location below are estimated from historic Standard Penetration Test (SPT) data obtained from nearby projects. The SPT blow counts, or designated N value equals the cumulative blow counts for the last 12 inches the sampler is driven, have been corrected for the hammer energy ratio (assumed to be 60% for all historic Log of Test Borings (LOTB)), and overburden. These values have been grouped based on logged soil descriptions and correlated to relative density and angle of internal friction (φ). Historic groundwater levels, when available, are used in the computation of φ, and unit weight of soils. All data should be considered only an estimate of subsurface conditions due to distance of data source and heterogeneity of soils.

Location 1:
Highway 68, PM R16.30 southwest of Salinas, Westbound shoulder.

CMS Location 1 is adjacent to the Toro Park Soundwall which parallels the north side of highway 68 and Portola Road on the other side. The subsurface investigation for this structure occurred in July, 1986 and utilized both mud-rotary and auger drilling to recover SPT samples and groundwater data respectively. Standard Penetration Test (SPT) data recorded for mud-rotary hole B-15, which was advanced at the eastern end of the wall at station 704+00, elevation 79.9 ft above msl, is approximately 1,300 feet north east of the proposed CMS foundation (see LOTB and Plan Sheet No. 1). Subsurface soils at this location are primarily medium dense, alluvial fine to coarse micaceous SAND and silty SAND with GRAVEL. Test boring B-15 is correlative to auger hole B-12 (elevation 92.8

feet above msl) which lies within 300 feet of the proposed site. Groundwater was measured at 71.8 feet elevation (approximately 21 feet below ground surface) in B-12.

Soil Parameters for CMS base location 1, MON 68W PM R16.30, B-12/B-15

Soil Type/ USCS	Approx. Elev. (ft)	Depth interval (ft)	Angle of Internal Friction (φ)	Dry Density γ_d (psf)	Cohesion C (psf)
Micaceous SAND to silty SAND with GRAVEL (SW), med dense, moist, mostly fine to coarse SAND, some GRAVEL.	93 - 68	0-25	32°	95	0

Location 2:
Highway 1, PM R89.45 north of Salinas River Bridge, Northbound shoulder

CMS Location 2 is in proximity to the Salinas River Bridge (No. 44-216R/L). The record of LOTBs show the closest mud-rotary boring (B-8) on the northern abutment and west side of the north bound lanes. CMS Base location 2 is approximately 250 feet south of B-8. B-8 was advanced to approximately 60.5 feet below ground surface (bgs) from elevation 26.00 feet above mean sea level (msl). Although groundwater could not be determined due to the drilling method employed, bottom of channel is approximately 8 feet elevation, with expected higher peak seasonal surface elevations. Groundwater is anticipated to be intercepted at between 8-15 feet elevation, or between 11-18 feet bgs. Subsurface soils consisted mostly of loose to medium dense clayey, silty, and poorly graded SAND as summarized in the table below.

Soil Parameters for CMS base location 2, MON 01N PM 89.45, B-8

Soil Type/ USCS	Approx. Elev. (ft)	Depth interval (ft)	Angle of Internal Friction (φ)	Dry Density γ_d (psf)	Cohesion C (psf)
clayey SAND (SC), loose to med dense, damp to moist, mostly fine SAND, some low plasticity fines	26.0 - 13.0	0-13	30°	88	0
Silty SAND (SM) to sandy SILT (ML), loose to medium dense, moist to wet, mostly fine SANDs and non-plastic SILT	13 - (-7.0)	13-20	30°	96	0
Poorly graded SAND (SP), medium dense, wet, mostly fine to coarse SAND	-7- (-30.0)	20-30	34°	110	0

Location 3:
Highway 1, PM R90.50 at Molera Road On-Ramp, Southbound shoulder
CMS Location 3 is approximately 300 feet north of the Molera Road Overcrossing, Bridge No. 44-0217. Mud-rotary boring B-5 was advanced on the western abutment from elevation 11.4 feet above msl to 120 feet below msl (total depth = 131.4 feet) in February, 1970. Subsurface soils are mostly alluvial flood deposits consisting of loose silts and soft clays. The resulting SPT data for the upper 65 feet of B-5 has an average blow count of 7, defining the boundary between more cohesive soils and dominantly, medium density, granular soils (SILT) below. Groundwater was recorded February, 1970 at adjacent Cone Penetration Test hole B-4 at 8.6 feet elevation above msl (approximately 3 feet bgs). Interception of groundwater at location 3 is anticipated to be shallow based on this record.

Soil Parameters for CMS base location 3, MON 01S PM R90.50, B-5

Soil Type/ USCS	Approx. Elev. (ft)	Depth interval (ft)	Angle of Internal Friction (φ)	Dry Density γ_d (psf)	Cohesion C (psf)
Alternating lenses of SILT (ML), CLAY (CH), and silty SAND (SM), soft, moist to wet.	11 – (–52)	0-81	28°	88-92	700-1000

Location 4:
Highway 101, PM 97.55 south of Mallory Canyon Road, Southbound shoulder
CMS Location 4 is located within the Prunedale Improvement Project (PIP) corridor. Mud-rotary borings were advanced in 2001 for development of acceleration and deceleration lanes. Boring B-11 was advanced approximately 30 feet deep, and located 886 feet (270 meters) north of Beatrice Drive, or about 45 feet (14 meters) north of the proposed CMS foundation, on the opposite side of the highway. The elevation of B-11 is approximately 247.6 feet above msl. Subsurface soils encountered in this hole consisted of loose to very dense SANDs and soft CLAY. Groundwater is anticipated to be intercepted between 9-15 feet below the surface based on water data at this location and nearby monitoring well records.

Soil Parameters for CMS base location 4, MON 101S PM R97.55

Soil Type/ USCS	Approx. Elev. (ft)	Depth interval (ft)	Angle of Internal Friction (φ)	Dry Density γ_d (psf)	Cohesion C (psf)
Poorly graded SAND, loose, dry to moist	247 - 240	0-7	31°	108	0
Fat CLAY (CH), soft, moist to wet, high plasticity.	240 - 228	7-19	N/A	--	250-500
silty SAND (SM), medium dense to dense, moist to dry.	228 - 217	19-30	32°	103	0

Location 5:
Highway 101, PM 2.00, 0.41 miles north of Rocks Road, Northbound shoulder

CMS Location 5 is located approximately 1 mile north of the San Juan Bautista Curve Realignment Project which involved multiple soil and rock borings. A hand auger hole was advanced at three locations within a 25 foot radius of the proposed CMS foundation on March 24, 2009. The first two holes were advanced in line, approximately 12 and 17 feet respectively, south of the 101 NB ETW behind the guard rail. Refusal due to interception of rock, was encountered at approximately 2.0 feet below the surface at each of these locations. Hand auger hole HA-09-003 was advanced at the base of the slope, approximately 5 feet lower in surface elevation than HA-09-001. This hole was advanced to refusal at approximately 7.5 feet below the surface (Elevation = 306 feet). Subsurface soils consisted of medium dense silty SAND, with sedimentary rock (sandstone) at the bottom. Interception of groundwater is not anticipated due to site elevation and dry drainages in the vicinity.

Soil Parameters for CMS base location 5, SBt 101N PM 2.00

Soil Type/ USCS	Approx. Elev. (ft)	Depth interval (ft)	Angle of Internal Friction (φ)	Dry Density γ_d (psf)	Cohesion C (psf)
Silty SAND (SM), medium dense, moist, mostly medium to fine angular SAND.	314-306.5	0-7.5	32°	98-105	0
SEDIMENTARY ROCK (sandstone)	306.5-?	7.5-?	NA	NA	NA

Location 6:
Highway 101, PM R4.25 at Anzar Road Under-crossing, Southbound shoulder
CMS Location 6 is located in proximity to the northern abutment, on the southbound side, of the Anzar Road Undercrossing. Mud-rotary boring B-1 was completed in February, 1968 to a depth of about 60 feet (elevation 163.6 feet above msl), about 130 feet south of the proposed CMS foundation. Subsurface soils at B-1 are comprised of sandy CLAY to clayey SAND to 21 feet and well graded to silty SAND with GRAVEL from 21 feet to about 60 feet bgs. Historical groundwater may was recorded at about elevation 152 feet above msl. The ground elevation at location 6, however, appears at least 20 higher than the existing datum due to a constructed embankment. Interception of groundwater is not expected for this reason at this location.

Soil Parameters for CMS base location 6, SBt 101S PM R4.25

Soil Type/ USCS	Approx. Elev. (ft)	Depth interval (ft)	Angle of Internal Friction (φ)	Dry Density γ_d (psf)	Cohesion C (psf)
Sandy CLAY (CL), stiff, moist	163-156	0-7	N/A	---	2000-3000
Clayey SAND (SC), loose, moist, mostly medium to fine SAND with some CLAY.	156-143	7-20	30°	86	0
Well graded SAND with GRAVEL (SW), medium dense to dense, moist, mostly fine to medium SAND, some SILT and GRAVEL.	143-103	20-60	35°	104	0

Geotechnical Recommendations
Anticipated soil types and properties have been summarized above for each of the proposed CMS locations. Soil types range from silty SANDs with GRAVEL inter-layered with CLAY along Highways 101 and 68 spanning the project area, to SILT and CLAY along Highway 1. With exception to location 5, where a hand auger hole was advanced due to lack of nearby geotechnical subsurface data, soil properties at all other locations have been interpreted from historical LOTBs of structures generally within a 500 foot radius of the proposed foundations. Subsurface conditions are variable and in most cases have been grouped by type and estimated strength.

A phi (Angle of Internal Friction) value of 30 degrees or greater is required for

construction of CMS model 500 foundation standard specifications. In all cases with exception to location 3 at the Molera Road on-ramp, phi was 30 degrees or greater and construction of a Standard Plan CMS foundation is recommended.

The foundation soils at Location 3 do not meet the minimum requirements given in Standard Plan sheet S116. In order to determine the required length of pile at this location, please provide the following pile loading condition information: axial load, shear, and moment. Also provide the maximum allowable deflection at the top of pile. After this information has been provided, a lateral pile analysis will be performed and a recommended pile length given.

With exception to locations 5 and 6, interception of groundwater at locations 1-4 is anticipated. Construction of the CIDH may require installation of casing in water-bearing strata and grouting by tremy line.

Access to locations 1 and 2 will require the least amount of effort due to relatively flat terrain, and negligible obstructions such as vegetation. Uneven terrain and limited space observed at locations 3 through 6 will likely require grading for equipment access and stabilization. Where grading is needed for embankment access, the Landscape Architecture Branch should be contacted for erosion control measures to establish vegetation due to loose soil observed at the surface.

If you have any questions, please contact myself at 805-549-3729 of Mike Finegan at 805-549-3194.

PROFESSIONAL GEOLOGIST
M.J. JURASIUS
No. 8618
Exp. 3-31-11
STATE OF CALIFORNIA

Supervised by,

Michael J. Jurasius, PG No. 8618
Engineering Geologist
Geotechnical Design – North
Branch D

MICHAEL S. FINEGAN, PE, Chief
Geotechnical Design - North
Branch D

c: GDN File
Branch D Records
GS File Room
John Stayton – Structures OE (E-copy)

LIST OF ATTACHMENTS

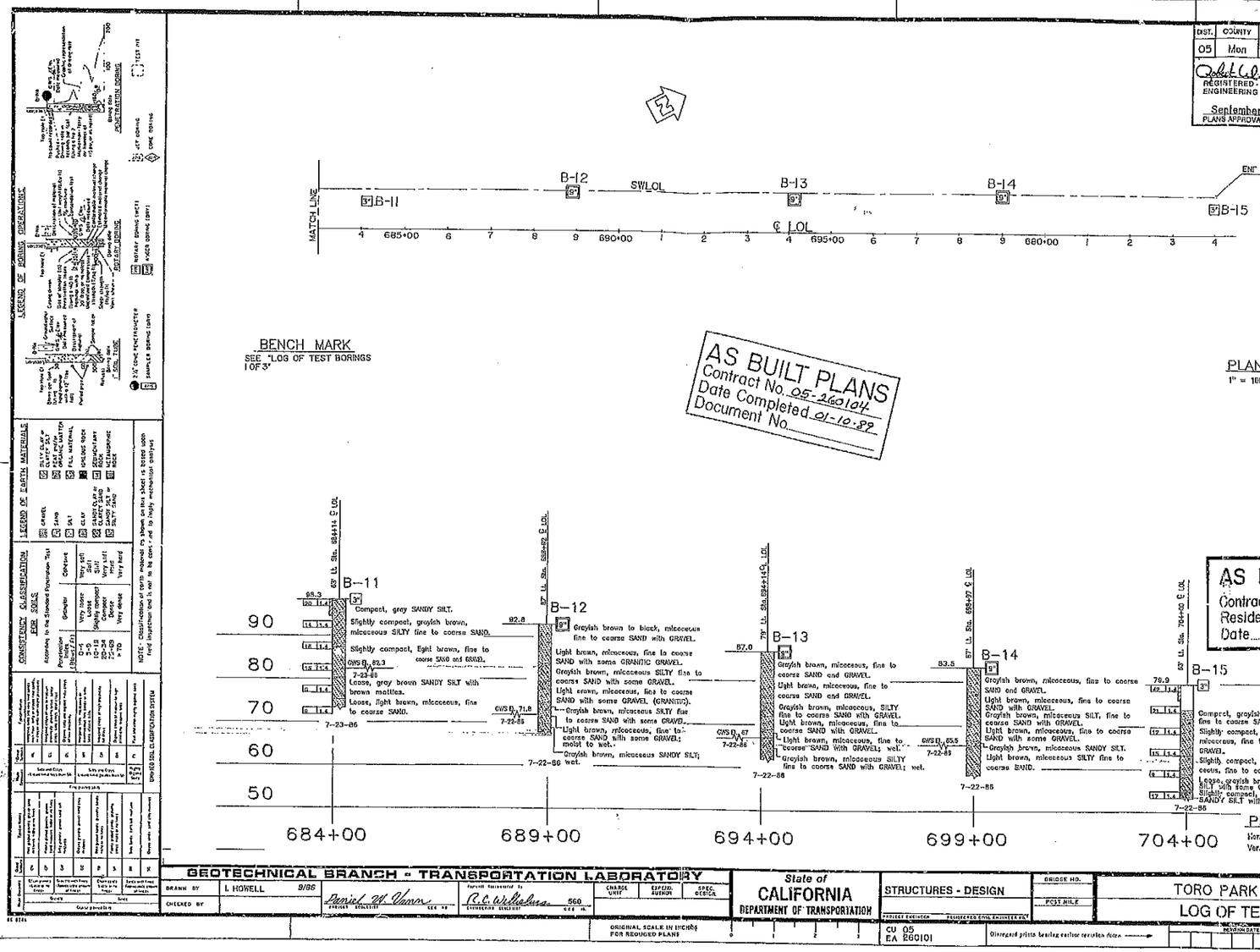
Toro Park Sound Wall LOTB's	Attachment 1
Salinas River Bridge No. 44-216 R/L	Attachment 2
Molera Road Over-crossing Br. No. 44-217	Attachment 3
Prunedale Improvement Project, LOTB B-11-01	Attachment 4
San Benito Co., 101 NB, PM 2.0, HA-09-003 LOTB	Attachment 5
Anzar Road Under-crossing, LOTB's	Attachment 6

ATTACHMENT 1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	Mon	68	15.1/R16.8	88	134

Robert W. Reynolds #165
REGISTERED · CERTIFIED ENGINEERING GEOLOGIST
September 14, 1987
PLANS APPROVAL DATE

REGISTERED GEOLOGIST R.W. REYNOLDS No. 276 Exp. 6-30-87 STATE OF CALIFORNIA



88

LEGEND OF BORING OPERATIONS

LEGEND OF EARTH MATERIALS

CONSISTENCY CLASSIFICATION FOR SOILS

GEOTECHNICAL BRANCH - TRANSPORTATION LABORATORY

DRAWN BY	I. HOWELL 9/86	Daniel W. Varner	Certified Engineering Geologist R.C. Williams 560	CHARGE UNIT	EXPEDITE AUTHOR	SPEC. OFFICE
CHECKED BY						

State of CALIFORNIA DEPARTMENT OF TRANSPORTATION

STRUCTURES - DESIGN

BRIDGE NO.

POST MILE

TORO PARK SOUNDWALL

LOG OF TEST BORINGS 3 OF 3

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 05
EA 260101

Disregard prints bearing earlier revision dates

REVISION DATES (PRELIMINARY STAGE ONLY) SHEET OF

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 11-15-89 SIGNATURE Donald Blackford TITLE SUPERVISOR OF MICROFILM SERVICES

MICROFILM - STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MICROFILM

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

F-P068 (4)

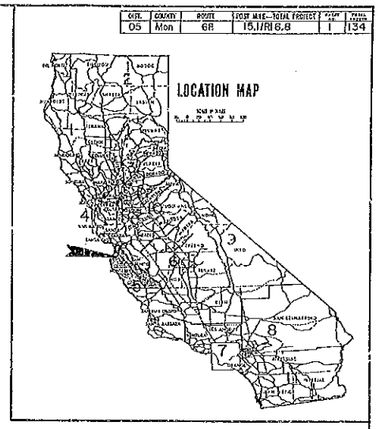
DIST.	COUNTY	ROUTE	POST MILE—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	Mon	68	15.1/R16.8	1	134

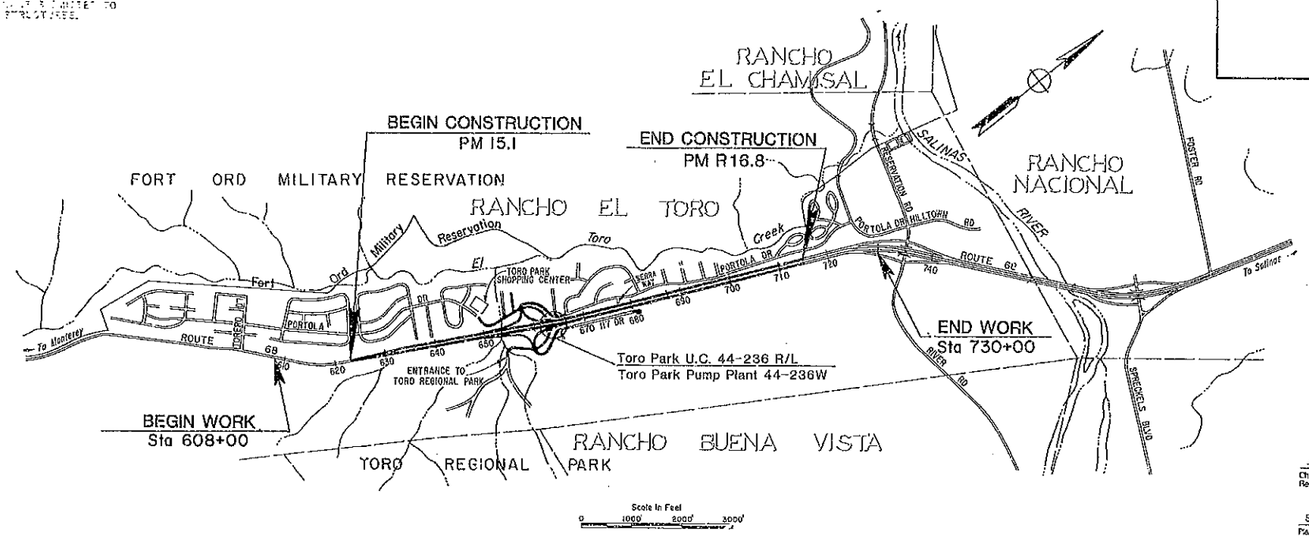
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN MONTEREY COUNTY NEAR SALINAS FROM 0.4 MILE EAST OF TORERO DRIVE TO 0.4 MILE WEST OF RESERVATION ROAD UNDERCROSSING

To be supplemented by Standard Plans dated July, 1984

INDEX OF SHEETS

Sheet No.		
1	Title & Location Map	
2-5	Typical Cross Sections	
6	Standard Plans List	
7	Construction Staking Survey Control Data	
8-14	Layouts	
15-22	Profiles	
23-28	Construction Details	
29-30	Contour Grading	
31-36	Drainage Profiles & Details	
37-38	Drainage Quantities	
39-43	Utilities	
44-49	Stage Construction	
50-56	Construction Area Signs	
57-63	Pavement Delineation	
64-68	Summary of Quantities	
69-76	Sign Plans & Quantities	
77	Crib Wall & Earth Berm	
78-88	Sound Wall Plans, Profiles & Details	
89-90	Lighting Plans	
91-99	Revised Standard Plans	
100-105	New Standard Plans	
STRUCTURE PLANS		
106-119	Toro Park Undercrossing	Br. No. 44-236 R/L
120-134	Toro Park Undercrossing Pumping Plant	Br. No. 44-0236 W
1-31	General Cross Sections	





Chief, Office of Office Engineer
Registered Civil Engineer

September 14, 1987
Plans Approval Date

REGISTERED PROFESSIONAL ENGINEER
R.L. Hollis
No. 18691
Exp. 6-30-89
CIVIL
STATE OF CALIFORNIA

Project Director of Transportation
Registered Civil Engineer No. 13332

AS BUILT PLANS
Contract No. 05-260104
Date Completed 01-10-89
Document No.

AS BUILT PLANS
Contract No. 05-260104
Resident Engineer C.E. Hench
Date 1-10-89

The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors" on page 1 of the Special Provisions.

Designer	Date	Project Engineer	Date	Design Engineer	Date	Approval Recommended By
J. D. Walter		J. E. Dryden		P. Ham		M. W. Beckstead

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

Contract No. 05-260104
05201 260101

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

11-10-89 [signature] SUPERVISOR OF MICROFILM SERVICES

SCALE 1" = 50' MICROFILM - STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MICROFILM SCALE 1" = 50'

SCALE 1" = 20' MICROFILM - STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MICROFILM SCALE 1" = 20'

SCALE 1" = 10' or 1" = 100' MICROFILM - STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MICROFILM SCALE 1" = 10' or 1" = 100'

SCALE 1" = 40' MICROFILM - STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MICROFILM SCALE 1" = 40'

ATTACHMENT 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	Mon	1	R89.2	29	31

GEOTECHNICAL PROFESSIONAL

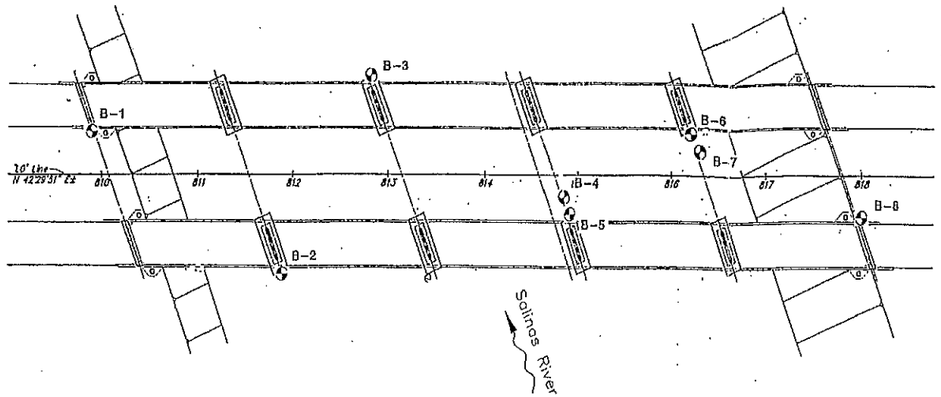
10-20-97
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PARIKH CONSULTANTS, INC. No. 666 Exp. 12-31-97 GEOTECHNICAL STATE OF CALIFORNIA

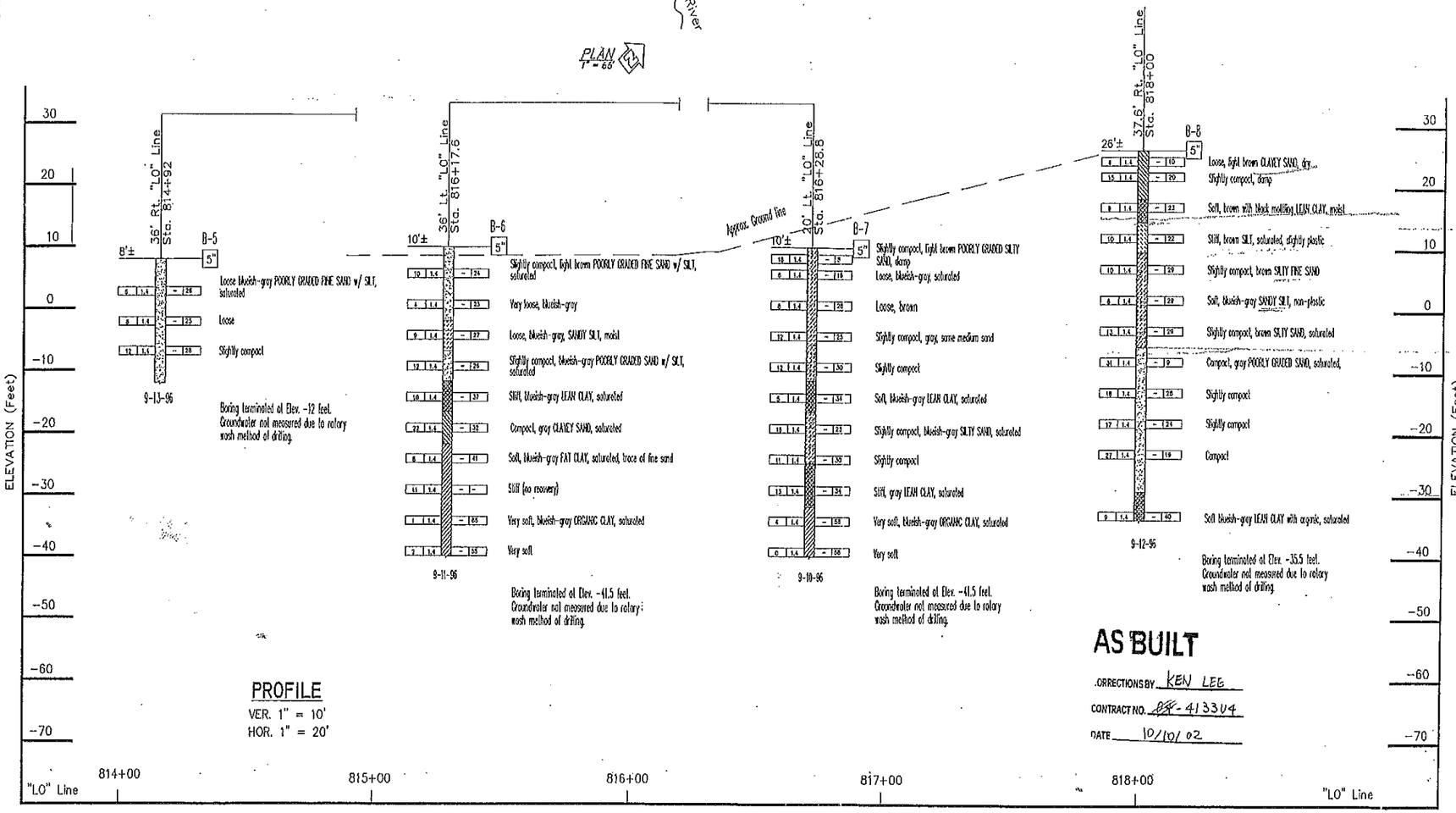
PARIKH CONSULTANTS, INC.
481 VALLEY WAY
MILPITAS, CALIFORNIA 95035

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.

BENCH MARK #04-20:
T-BAR AND CAP 164'RT.
"LO" LINE, STA. 820+63.9,
ELEV. 23.75 FEET.



PLAN
1" = 60'



PROFILE
VER. 1" = 10'
HOR. 1" = 20'

AS BUILT
CORRECTIONS BY KEN LEE
CONTRACT NO. 08X-413304
DATE 10/10/02

LEGEND OF BORING OPERATIONS

ROD = ROCK QUALITY DESIGNATION (%)
RCD = CORE RECOVER (%)

F-1/4" CONE PENETROMETER
SAMPLE BORING (DRY)
ROTARY SAMPLE BORING (WET)
AUGER BORING (DRY)
TEST PIT
DIAMOND CORE BORING
JET BORING
ELECTRONIC CONE PENETROMETER

LEGEND OF EARTH MATERIALS

GRAVEL
SAND
SILT
CLAY
SANDY CLAY or CLAYEY SAND
SANDY SILT or SILTY SAND
SILTY CLAY
CLAYEY SILT
PEAT or ORGANIC LAYER
FILL MATERIAL
IGNEOUS ROCK
SEDIMENTARY ROCK
METAMORPHIC ROCK

CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

Penetration Resistance (Blows/FT)	Granular	Cohesive
0-4	Very loose	Very soft
5-9	Loose	Soft
10-19	Slightly compact	Stiff
20-34	Compact	Very stiff
35-50	Dense	Hard
> 70	Very dense	Very hard

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

William X. Faubush, DESIGN OVERSIGHT; 5 Sep 1997, SIGN OFF DATE	DRAWN BY H. SU	T. RUBY, FIELD INVESTIGATION	
	CHECKED BY Y. D. WANG	INCORPORATION NO. FEBRUARY, 1997	

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Y. D. WANG, PROJECT ENGINEER

BRIDGE NO. 44-216R/L
POST MILE 89.2

EARTHQUAKE RETROFIT PROJECT No. 818

SALINAS RIVER BRIDGE

LOG OF TEST BORINGS 2 OF 2

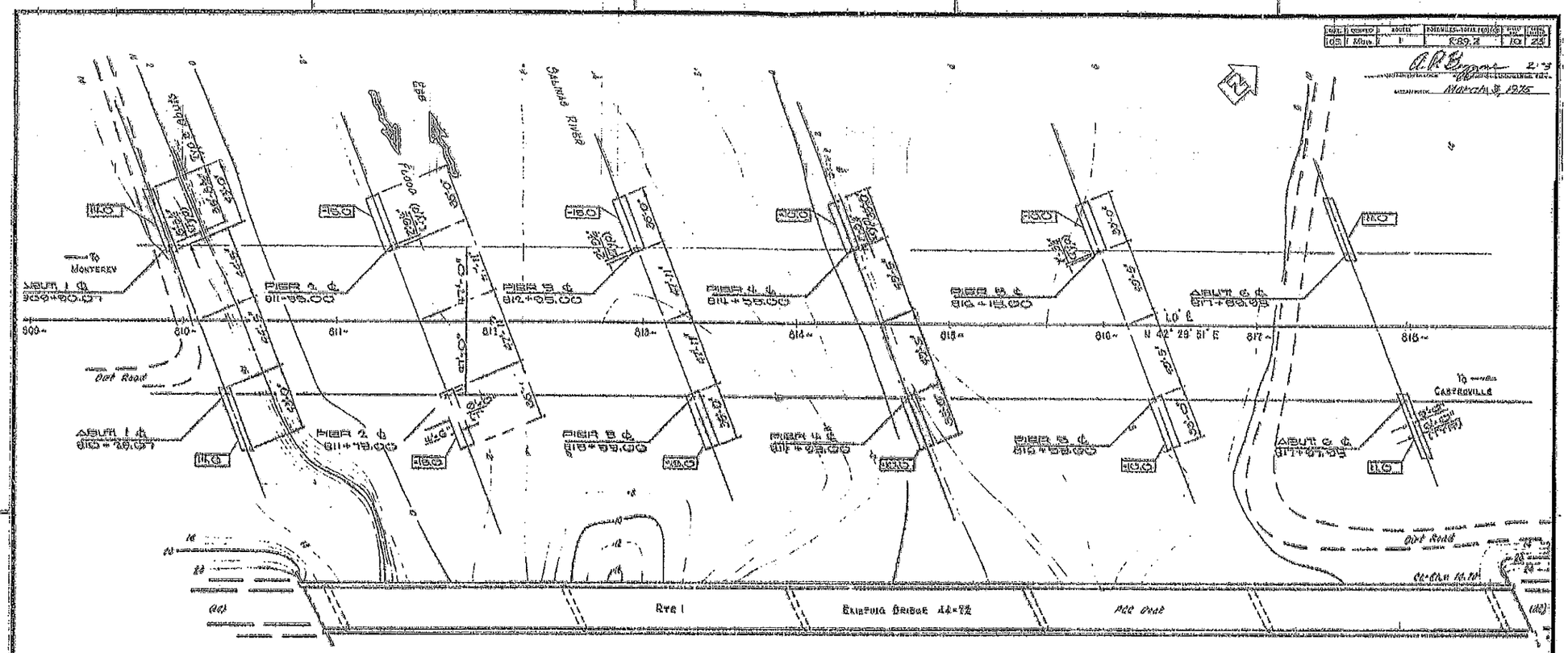
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 59X850
EA 05-413321

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 11 OF 13



GENERAL NOTES

DESIGN: A.A.S.H.O. dated 1969 with revisions and as supplemented by Caltrans Planning and Design Manual.

LIVE LOADING: HS20-44 and alternative

REINFORCED CONCRETE: f'_c = 24,000 psi, except
= 20,000 psi in transverse deck slab

f_c = 1,200 psi, except
= 1,200 psi in transverse deck slabs

n = 10

PILES: Based on ultimate design outlined in "Reinforced Concrete Bridge Manuals" by BPR, August 1964

NOTES:
MEASURE OF ABUTMENTS AND PIERS RIGHT AND LEFT BRIDGE TO BE 1 DEG 30' S.W.
FOR PILE AND EXISTING LAYOUT OF ABUTS. AND PIERS FOR RIGHT AIRPORT OF SEE ABUT DETAILS NO. 1 SHT AND PIER DETAILS NO. 1 SHT
[illegible] INDICATES BOTTOM OF FOOTING ELEV.

AS BUILT PLANS
Contract No. 05-022074
Date Completed
Document No. 5000-2990

NO AS BUILT
CORRECTIONS BY D.B. Carlson
CONTRACT NO. 05-022074
DATE 6-20-74

BM #1018
At Pier one cap
45 ft Rt of ℄ Sta 20
Elev 24.52'

BM # 1030
At Pier nine cap
104 ft Rt of ℄ Sta 83.9
Elev 23.75

SCALE 1" = 10'
LIVE LOADING HS20
FOR AUXILIARY SEE DPT-4473-E-3
CONTRACT AS OF 12-20-69
SITE PLAN TO REPLACE PREVIOUS PLANS
SURVEY BY NBR DATE 12-20-69
DESIGN BY BWH DATE 12-5-70
DRAWN BY JAL DATE 1-15-70

MICROFILMED

10

Cl = Elev 28.00

SPTC

BRIDGE DEPARTMENT
DESIGN SECTION 14
DESIGN ENGINEER M.A. Stevens
DESIGN
DETAILING
QUANTITIES

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

SALINAS RIVER BRIDGE

FOUNDATION PLAN

BRIDGE NO. 44-210 R/L | POST MILE 89.2 | DRAWING NO. 1-1-1 | SHEET 14 OF 17

WO 022071
CU 05801

PR-44210-1

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL, ON THE DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

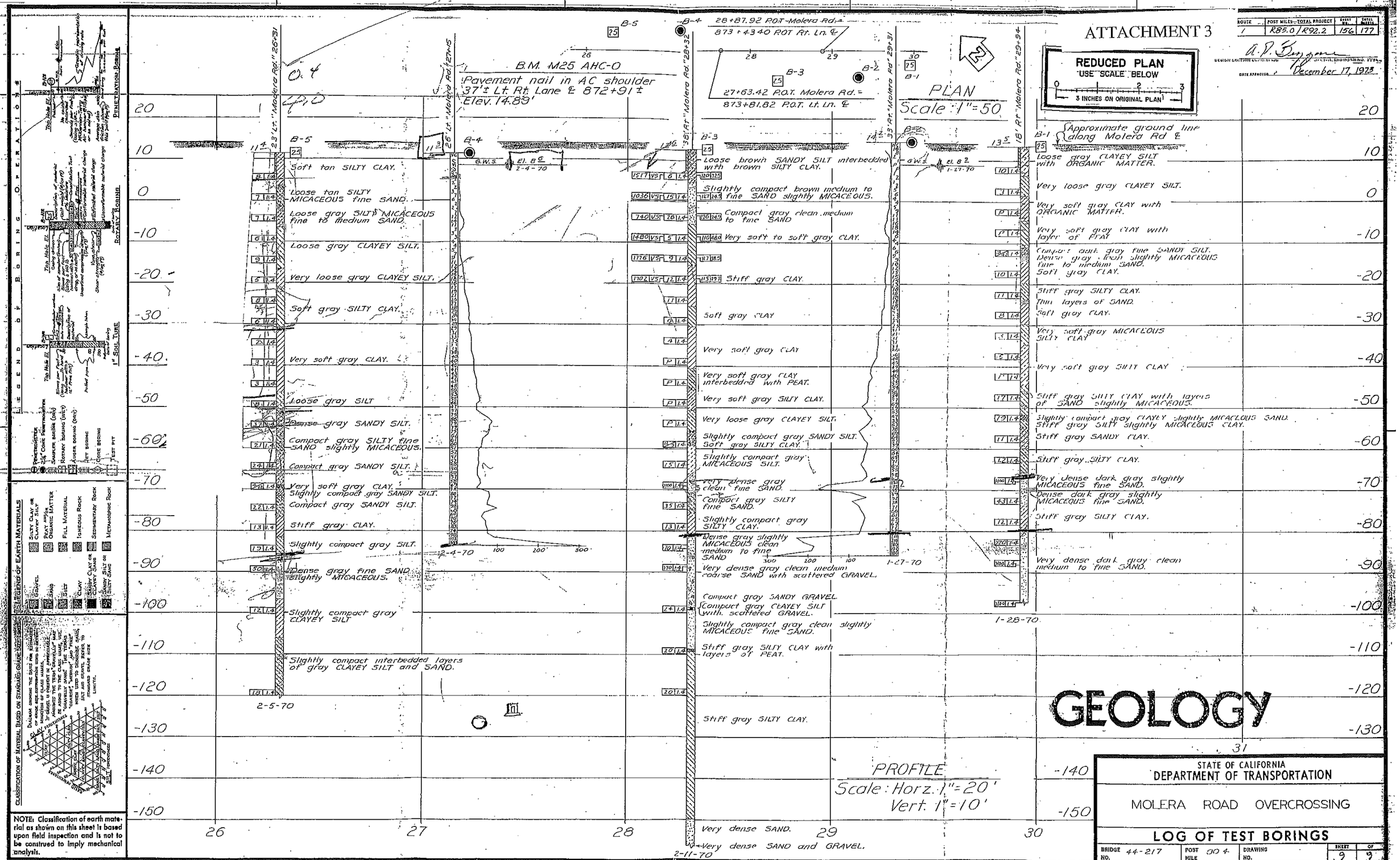
ClibPDF - www.fastio.com

ATTACHMENT 3

ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
1	R85.0/R92.2	156	177

A. P. Bergsma
DESIGN DIRECTION CONTROL OFFICER — CHIEF, CIVIL ENGINEERING NO. 1 (FAB)
DATE APPROVED December 17, 1973

REDUCED PLAN
USE SCALE BELOW
0 2 3
3 INCHES ON ORIGINAL PLAN



DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET	TOTAL SHEETS
05	Mon	1	88.0 / 89.2	116	117

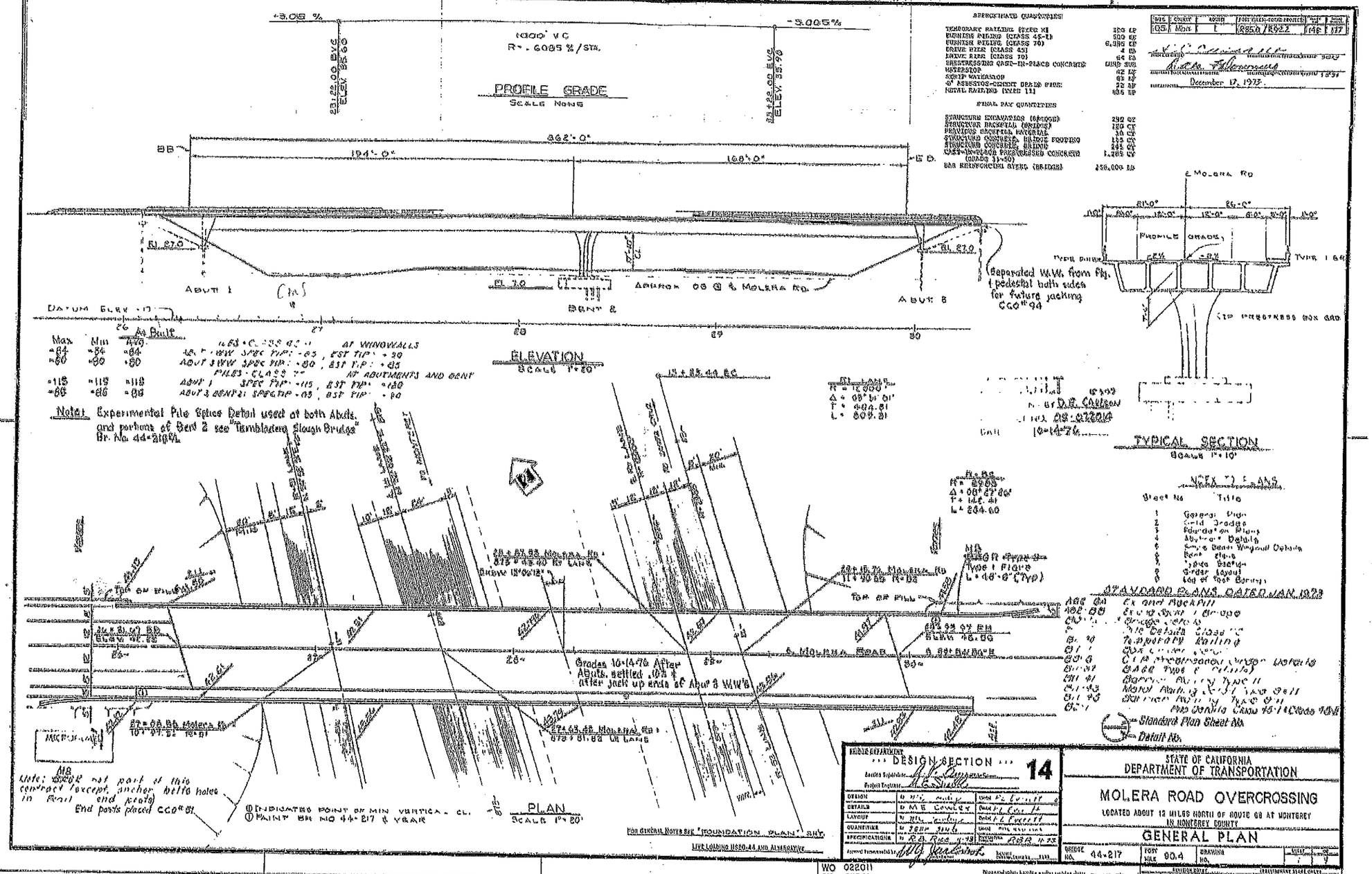
December 17, 1973

ESTIMATE QUANTITIES

TEMPORARY RAILING (TYPE K)	300 LF
FURNISH PILING (CLASS 45-B)	500 LF
FURNISH PILING (CLASS 70)	6,395 LF
DRIVE PILE (CLASS 45)	4 EA
DRIVE PILE (CLASS 70)	64 EA
SHOTCRETE CAST-IN-PLACE CONCRETE	1000 SQ FT
WATERSTOP	42 LF
SCUPPER WATERSPOUT	63 LF
4" ASBESTOS-CEMENT DRAIN PIPE	30 LF
METAL RAILING (TYPE 11)	886 LF

FINAL PAY QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	292 CY
STRUCTURE BACKFILL (BRIDGE)	120 CY
PREVIOUS EXCAVATION MATERIAL	30 CY
STRUCTURE CONCRETE, BRIDGE FOOTING	153 CY
STRUCTURE CONCRETE, BRIDGE	242 CY
CAST-IN-PLACE PRESTRESSED CONCRETE (CLASS 3)-60)	1,285 CY
BAR REINFORCING STEEL (BRIDGE)	250,000 LB



Note: Experimental Pile Splice Detail used at both Abuts. and portions of Bent 2 see "Tembladero Slough Bridge" Br. No. 44-219L

Note: not part of this contract (except anchor bolts holes in rail end posts) End posts placed CCO #81

① INDICATES POINT OF MIN VERTICAL CL.
① PAINT BR NO 44-217 & YEAR

Max	Min	Avg
-84	-84	-84
-80	-80	-80
-115	-115	-115
-86	-86	-86

AT WINGWALLS
AT ABUTMENTS AND BENT

INDEX TO PLANS

Sheet No	Title
1	General Plan
2	Grid Grades
3	Foundation Plans
4	Abutment Details
5	Typical Deck Wingwall Details
6	Deck Plan
7	Typical Section
8	Girder Layout
9	Log of Test Borings

STANDARD PLANS, DATED JAN. 1973

A62 C4	Ck and Rock Fill
A62-B8	Erosion Control Blanket
[illegible]	Bridge Joints
[illegible]	Pile Details Class "C"
B2-10	Temporary Railing
B3-1	Bridge Joints
B3-6	Cast-in-Place Concrete Barrier Details
B3-7	Bridge Type 1 Details
B3-11	Barrier Railing Type 11
B3-13	Metal Railing Type 11
B3-14	Bridge Railing Type 8
B3-[illegible]	Pile Details Class 45-1 & Class 70-1

Standard Plan Sheet No.
Detail No.

DESIGN SECTION 14

Senior Engineer: [illegible]
Project Engineer: [illegible]

DESIGN	[illegible]	Date [illegible]	
DETAILS	D. M. B. Conley	Date [illegible]	
LAYOUT	[illegible]	Date [illegible]	
QUANTITIES	[illegible]	Date [illegible]	
SPECIFICATIONS	R. B. Rice	Date 12-13-73	

Approved Recommended: [illegible]

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MOLERA ROAD OVERCROSSING

LOCATED ABOUT 12 MILES NORTH OF ROUTE 68 AT MONTEREY
IN MONTEREY COUNTY

GENERAL PLAN

BRIDGE NO.	POST MILE	DRAWING NO.
44-217	90.4	

WO 022011
CU 00201

Changed plans bearing earlier revision date

AS BUILT PLANS
Contract No. 05-022014
Date Completed —
Document No. [illegible]

I HEREBY CERTIFY THAT I AM A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 7/28/77 Joseph M. Toth Supervisor

ClibPDF - www.fastio.com

ATTACHMENT 4

Caltrans

SOIL BOREHOLE LOG

Geotechnical Branch 5

Borehole No. B11-01	Location: BEATRICE RD, PRUNDALE, NORTHBOUND LANES : 270M NORTH OF BEATRICE, 0.8M RT OF ETW	E.A. 05-0161B0
Dist.-County-Rt.-PM 05-MON-101 97.3/97.6 -(KP) 156.6/157.1	Project Description: ACCEL/DECEL LANES	Page 1 of 2
Date Started: 20 MAR 01 Completed: 20 MAR 01	Drill Rig: B47, A-LINE, 64Kg SAFETY HAMMER	Depth to Water: 2.91M; 3.0M; Date: 5 APR 01; 20 JUN 01
Surface Elevation: 75.48M	Drill Method/Hammer Type: AUGER, 150mm CATER HEAD (CH)	
Total Depth (ft.) 30.2 (meters) 9.20	Drillers: ELMER GALLETA, DAN BOSTON, DONOVAN BROO	
	Logged By: M. BALLENTINE	

Depth (ft / m)	Sampler/Bit	Sample Number	Recovery/Length %	Blows per 150mm	N (SPT)	Pocket Pen. (kpa)	Torvane (kpa)	USCS	Graphic Log	Description of Material (consistency, color, texture moisture content)	Wet Unit Weight (KN/cubic meter)	Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Elevation (m)
										Ground Surface					75.48
										A/C AND BASE MATERIAL					
	CH														75
	SPT	1	100%	3/4/3	07			SP		POORLY GRADED SAND LOOSE, LIGHT BROWN, DRY TO MOIST, FINE SAND, NON PLASTIC.					74
	CH														
	SPT	2	100%	2/2/4	06	72		CH		FAT CLAY FIRM, LIGHT BROWN WITH STREAKS OF BLUE CLAY WITH FINE SAND, MOIST, FINE SAND, HIGH PLASTICITY, SOME ORGANICS.					73
	CH														72
								CH		FAT CLAY VERY SOFT, DARK GRAY, MOIST TO WET, HIGH PLASTICITY.					
	SPT	3	100%	1/1/1	02			CH		FAT CLAY WITH SAND VERY SOFT, YELLOWISH ORANGE, MOIST TO WET, FINE SAND, HIGH PLASTICITY, NO READING ON POCKET PEN.					71
	CM	4								CALIFORNIA MODIFIED SAMPLER (2"), PUSHED 2 FEET, 4 TUBES TAKEN.					
	CH														70
								CH		FAT CLAY SOFT, DARK GREY, MOIST, HIGH PLASTICITY, SOME ORGANICS.					
	SPT	5	100%	1/1/2	03			CL		SANDY LEAN CLAY SOFT, LIGHT GREY, MOIST TO WET, LOW PLACTICITY.					69

Caltrans

SOIL BOREHOLE LOG

Geotechnical Branch 5

Borehole No. B11-01

Location: BEATRICE RD, PRUNEDALE, NORTHBOUND LNS. : 270M NORTH OF BEATRICE, 0.8M RT OF ETW

E.A. 05-0161B0

Dist.-County-Rt.-PM05-MON-101 97.3/97.6 -(KP) 156.6/157.1

Project Description: ACCEL/DECEL LANES

Depth ft	Depth m	Sampler/Bit	Sampler: Sample Number	Sampler: Recovery/Length %	Sampler: Blows per 150mm	Sampler: N (SPT)	Sampler: Pocket Pen. (kpa)	Torvane (kpa)	USCS	Graphic Log	Description of Material (consistency, color, texture moisture content)	Test Results: Wet Unit Weight (KN/cubic meter)	Test Results: Water Content (%)	Test Results: Liquid Limit (%)	Test Results: Plastic Limit (%)	Elevation (m)
23	7	CH									**SANDY LEAN CLAY** VERY STIFF, LIGHT GRAY, MOIST TO WET, FINE SAND, LOW PLASTICITY.					
24		SPT	6	100%	4/11/13	24			CL							68
25									SM		**SILTY SAND** MEDIUM DENSE, LIGHT GRAY WITH DARK GREY STREAKS, MOIST, FINE SANDS, LOW PLASTICITY, SLOW DILATANCY.					
26	8															
27		CH														67
28											**SILTY SAND** VERY DENSE, LIGHT BROWN, DRY TO MOIST, FINE SAND, NONE TO LOW PLASTICITY.					
29	9	SPT	7	100%	16/21/35	56			SM							
30											End of Borehole					
31																66
32																
33	10										*PIEZOMETER INSTALLED, 6.1 METERS OF SLOTTED PIPE (38mm) WITH TOP 3.05 METERS SOLID PIPE. BACKFILLED WITH AQUARIUM GRAVEL, WELL CAP INSTALLED.*					
34																65
35																
36	11															
37																64
38																
39	12															
40																63
41																
42																
43	13															
44																62

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	VAR		

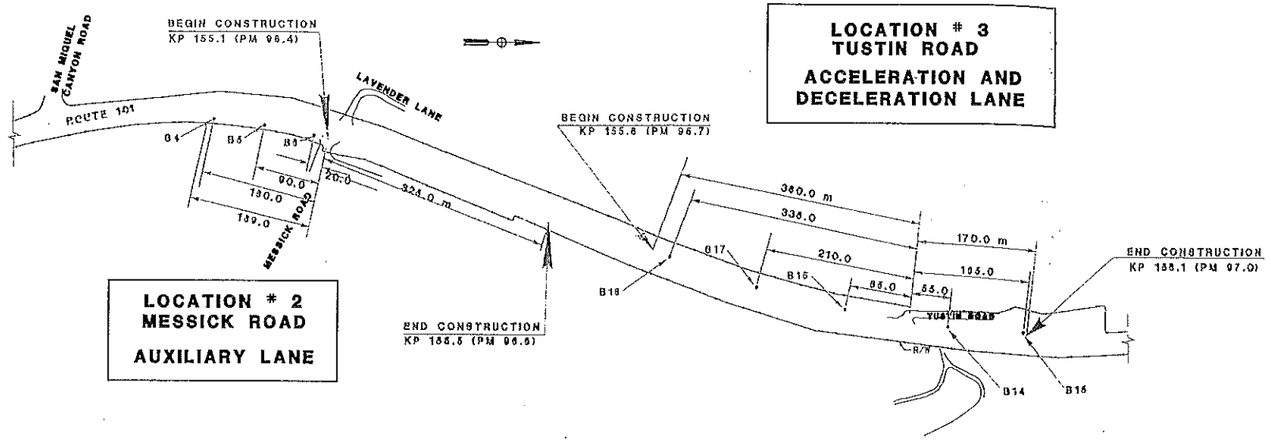
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER NO. EXP. CIVIL STATE OF CALIFORNIA

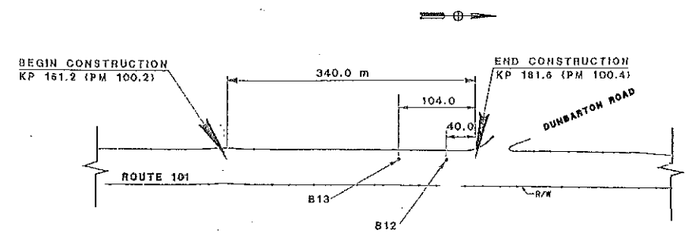
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Caltrans Metric



LOCATION # 3
TUSTIN ROAD
ACCELERATION AND DECELERATION LANE

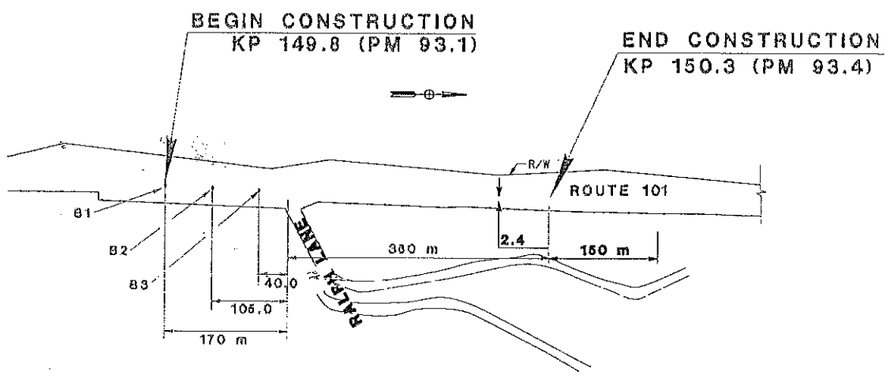
LOCATION # 2
MESSICK ROAD
AUXILIARY LANE



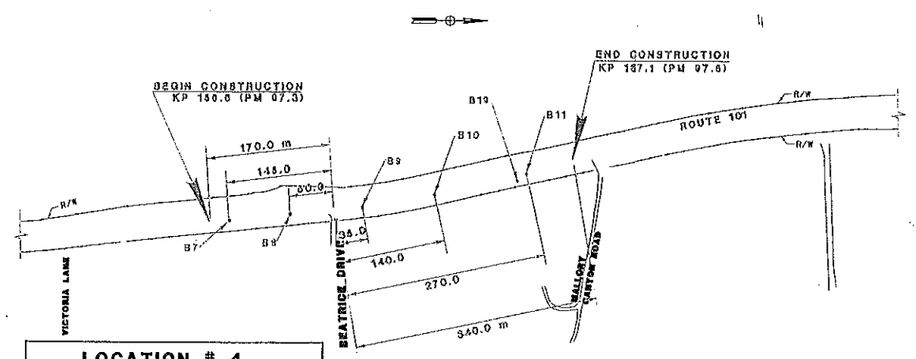
LOCATION # 5
DUNBARTON ROAD
ACCELERATION LANE

LEGEND

⊕ LOCATION OF BOREING
B1-19 BOREHOLE NUMBER



LOCATION # 1
RALPH LANE
ACCELERATION AND DECELERATION LANE



LOCATION # 4
BEATRICE DRIVE
ACCELERATION AND DECELERATION LANE

ALL UNITS ARE IN METRIC
NO SCALE

ATTACHMENT 3

LOCATION MAP WITH BOREHOLE LOCATIONS

05-0161B0
05-MON-101 PM 92.3/100.4

JUNE 2001

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00

DATE PLOTTED => 19-JUL-2001 14:57

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USERNAME => rbottent
DGN FILE => attach3

CU 00000

EA 000000

STATE OF CALIFORNIA * DEPARTMENT OF TRANSPORTATION

ATTACHMENT 5

ROTARY FIELD NOTES

TL-1271a (REV. 05/04/08)

BORING NUMBER	DATE	DIST.	CO.	RTE.	P.M. (K.P.)	BRIDGE #
HA-09-003	3-24-09	05	SBt	101	2.00	

LOCATION (STA/OFFSET or NORTHING/EASTING)

BRIDGE NAME

EA NUMBER: 05-~~0~~C 8821

TOP HOLE ELEVATION: El ≈ 313.796 ft NAVD 88

use PM 1.99 benchmark SBt

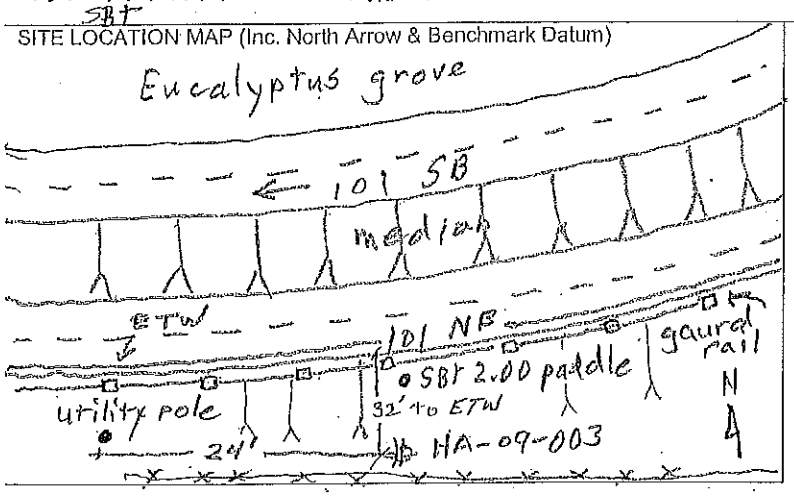
CREW

EQUIPTMENT

CHC NUMBER

HAMMER ID#

SITE LOCATION MAP (Inc. North Arrow & Benchmark Datum)



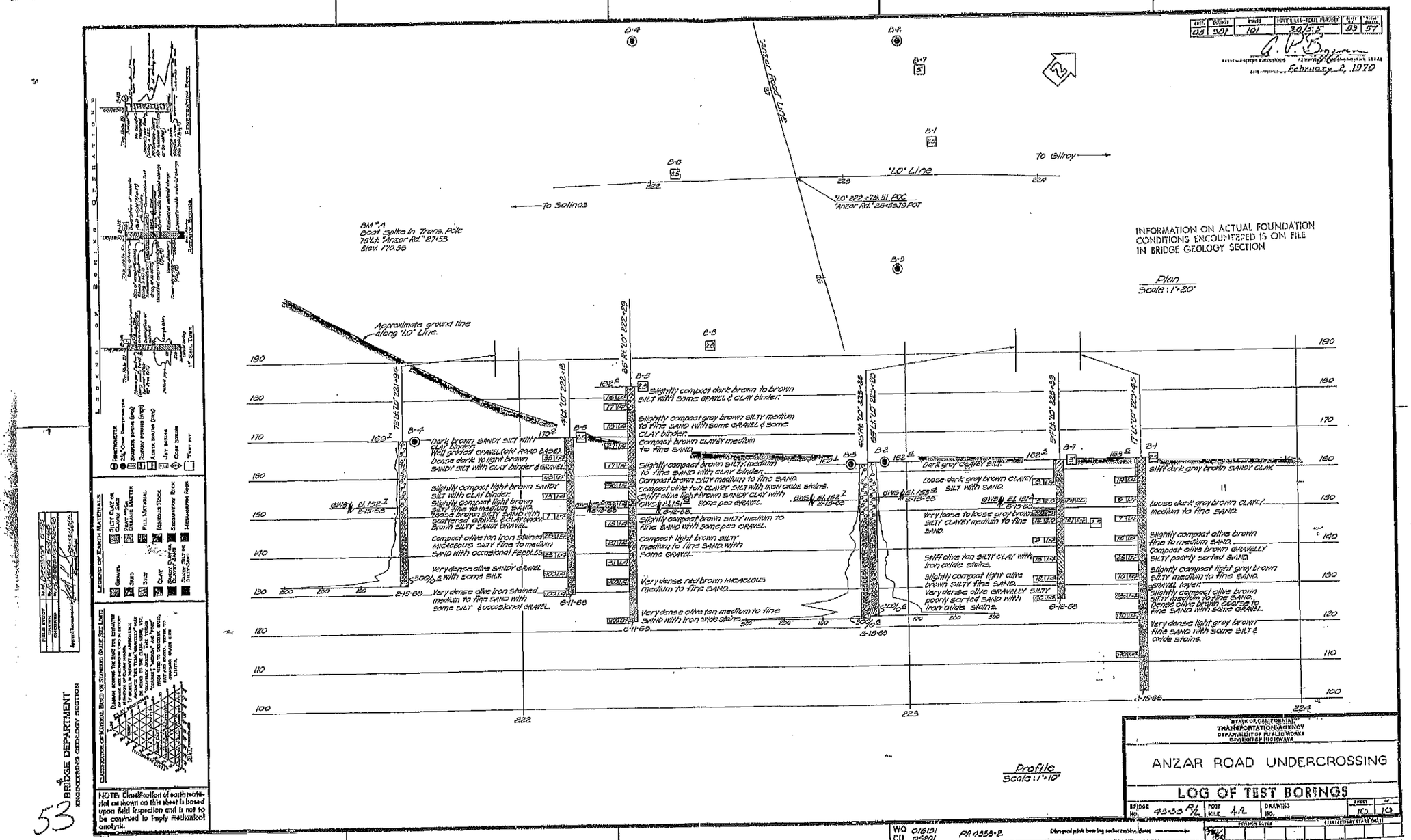
LOGGER: M. Jurasius / W. Hoon

GWS	DATE
GWS	DATE
CASING SIZE	CASING DEPTH
CASING SIZE	CASING DEPTH
SLURRY TYPE	

SURFACE CONDITIONS (Ground Slope, Water, Vegetation, etc): flat (base of gentle slope, No water, humus layer (~1.0')

REMARKS (Tool Sizes/Type - Rods & Bits, etc) (Hole Condition – Caving, Squeezing, Loss of Circulation, etc.) RECOVERY & RQD Drill Rig reactions – slowing, chattering, skipping, blocking off)	FIELD TESTING: SAMPLE #	BLOWS PER 6"	SPT (N)		DEPTH	GRAPHIC LOG	DESCRIPTION Soil Classification (group name, group symbol, consistency/relative density, color, moisture, percent of cobbles or boulders, particle size range, plasticity, cementation, description of cobbles and boulders. Take q_u, s_u, Additional Comments) Rock Classification (Rock name, bedding spacing, color, weathering descriptors, rock hardness, fracture density, discontinuity characteristic: type, weathering, dip & magnitude. Slaking, odor, other characteristics)
0.0 - 2.0	[Correlative N] for 1.4" sampler w 140 lbs						silty SAND (SM), loose to medium dense, v. dark brown 7.5YR 2.5/2 to dark yellowish brown 10YR 4/4, moist, mostly fine SAND, some non plastic fines, trace med to coarse subangular SAND (Aromas Fm)
2.0 - 3.5 1" SPT 1	(10)	32					
refusal	(64)	192			3.0		color becomes yellowish brown, 10YR 5/8.
rock ?		220	Fe	2"			
5.0 - 6.5	(17)	52					medium dense
	(17)	53					
	(19)	57					
					5.5		increase in coarseness (slight)
					7.5		refusal - rock BOH @ 7.5
BOH @ 7.5							

ATTACHMENT 6



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