

# INFORMATION HANDOUT

**For Contract No. 05-1F7304  
At 05-Mon-156-R0.1/R1.6**

**Identified by  
Project ID 0514000048**

## **MATERIALS INFORMATION**

Material Properties Summary

**STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
GEOTECHNICAL SERVICES**

File: 05-MON-156-R0.17/R1.60  
EA 05-1F7301  
Project ID 0514000048  
High Tension Cable Barrier

## **MATERIALS INFORMATION**

In Monterey County in and near Castroville  
From Junction of Route 1 to near Castroville Overhead

The records from which this  
information was compiled may  
be inspected at:  
The Department of Transportation  
50 Higuera Street  
San Luis Obispo, CA, 93401

Index:

- Boring Locations
- Geologic map
- Seismic Map
- Boring Records
- Material Properties Summary

**ABBREVIATION:**  
HTCB - HIGH TENSION CABLE BARRIER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	156	RO.1/R1.6		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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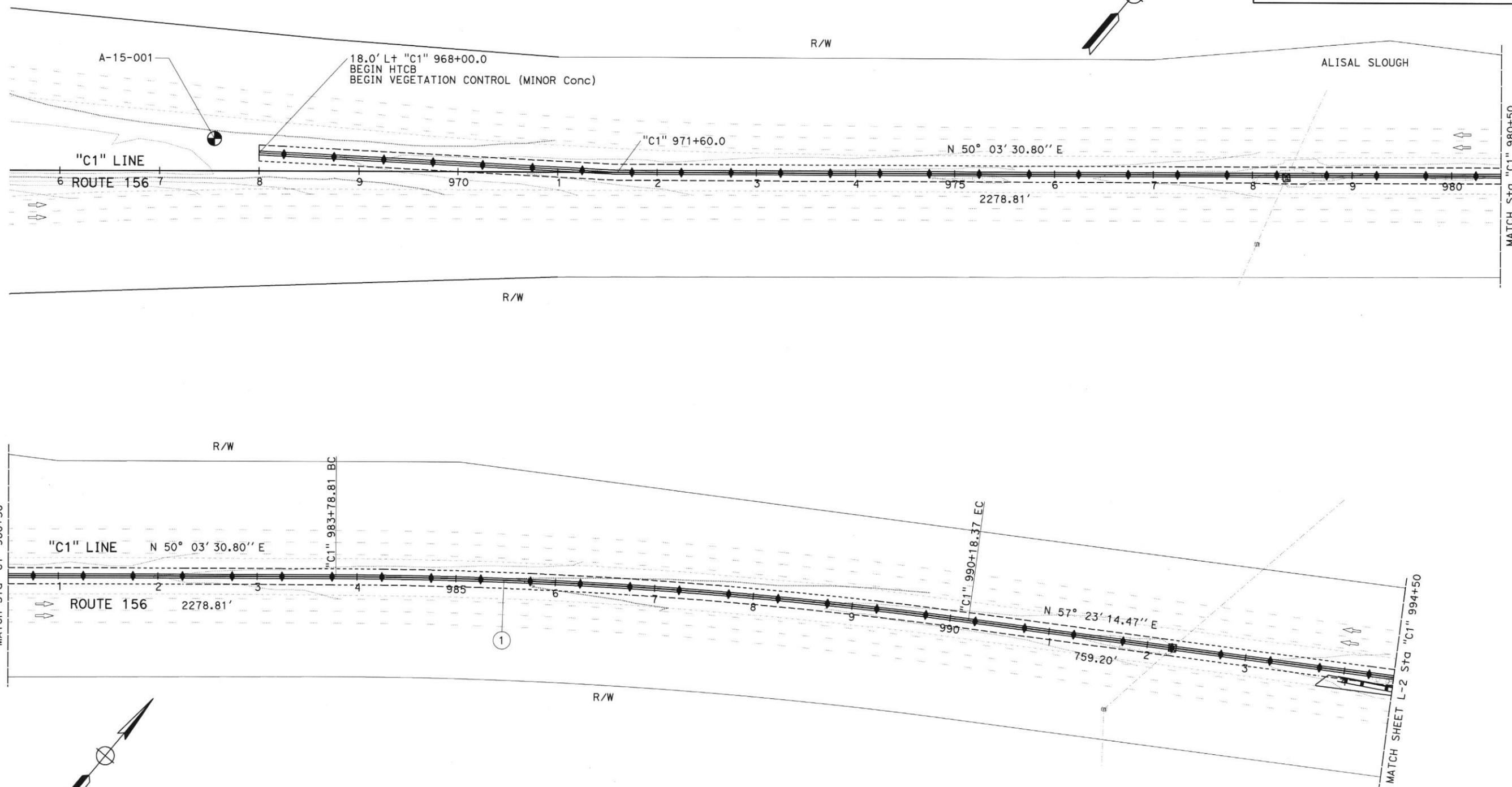
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
DESIGN

FUNCTIONAL SUPERVISOR  
STEVE WYATT

CALCULATED-DESIGNED BY  
CHECKED BY

REVISOR BY  
DATE REVISED

SCOTT D. KIRKISH  
MICHAEL A. O'NEAL



SCALE : 1' = 50'

**BORING LOCATIONS**

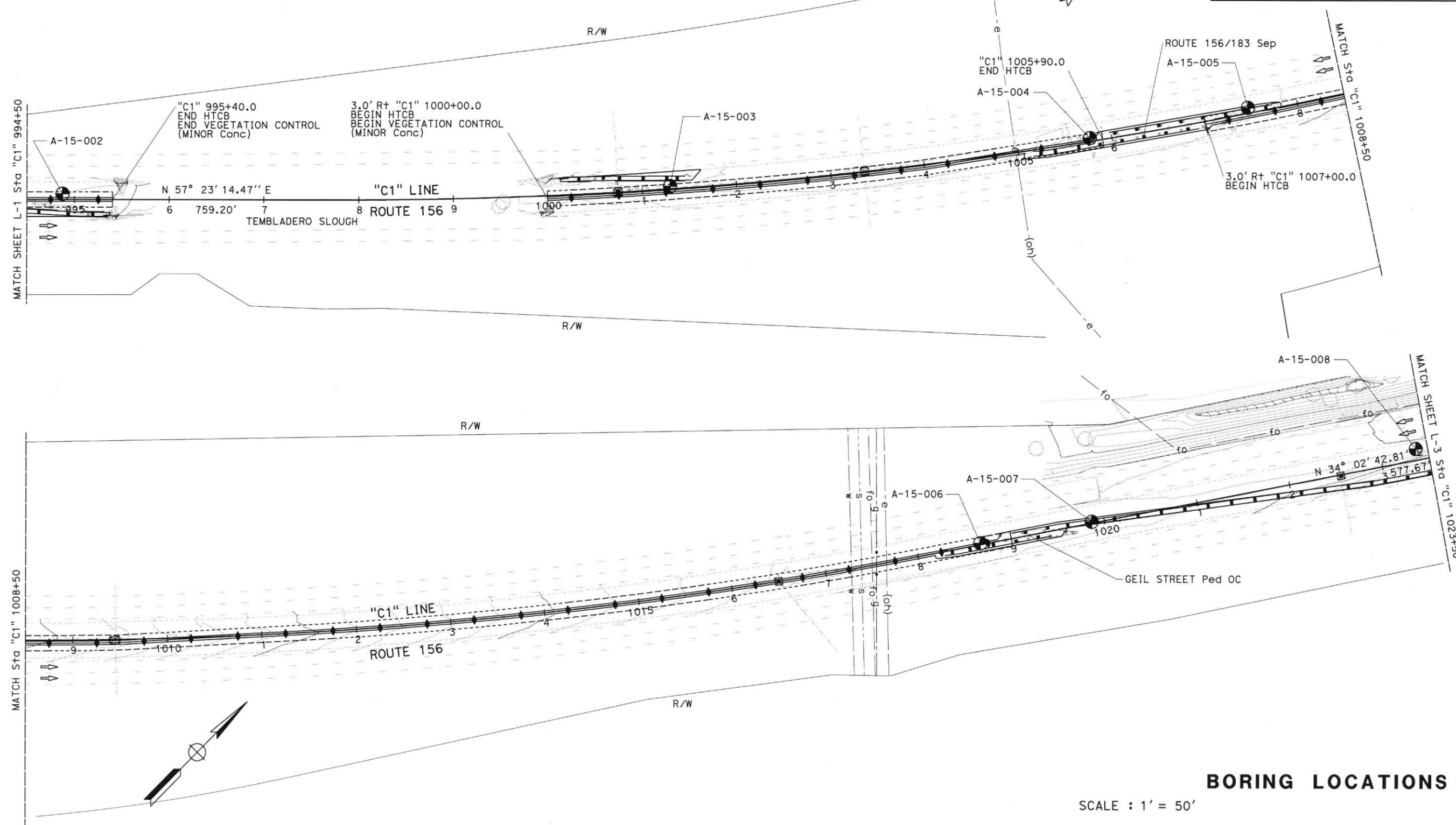
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** DESIGN

FUNCTIONAL SUPERVISOR: STEVE WYATT  
 CHECKED BY: MICHAEL A. O'NEAL  
 DESIGNED BY: SCOTT D. KIRKISH  
 REVISIONS: REVISOR, DATE, REVISIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	156	R0.1/R1.6		

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 PLANS APPROVAL DATE \_\_\_\_\_

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**BORING LOCATIONS**

SCALE : 1' = 50'

LAST REVISION: DATE PLOTTED => 02-NOV-2015 TIME PLOTTED => 09:43

**GEOLOGIC MAP OF THE  
MONTEREY 30'X60'  
QUADRANGLE AND  
ADJACENT AREAS,  
CALIFORNIA**

**05-MON-156-PM R0.17/R1.60**

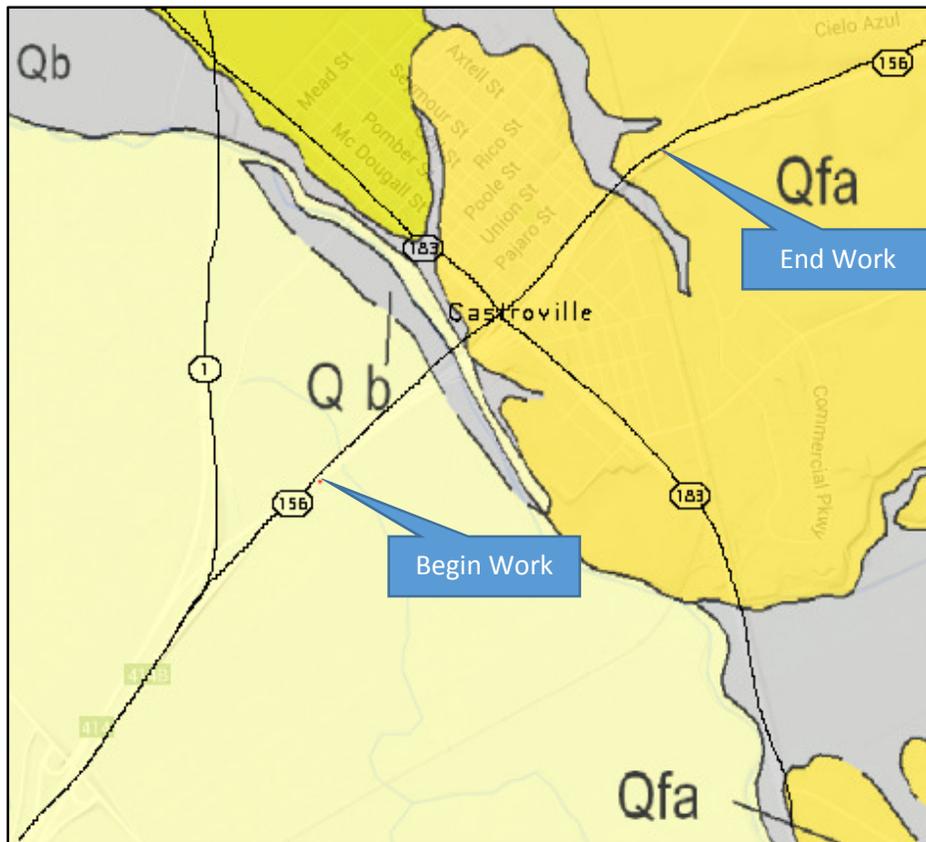
**Castroville Cable Barrier**

California Geological Survey,  
Regional Geologic Map No. 1,  
1:100,000 scale

Compiled by: David L. Wagner, H.  
Gary Greene, George J. Saucedo  
and Cynthia L. Pridmore

2002

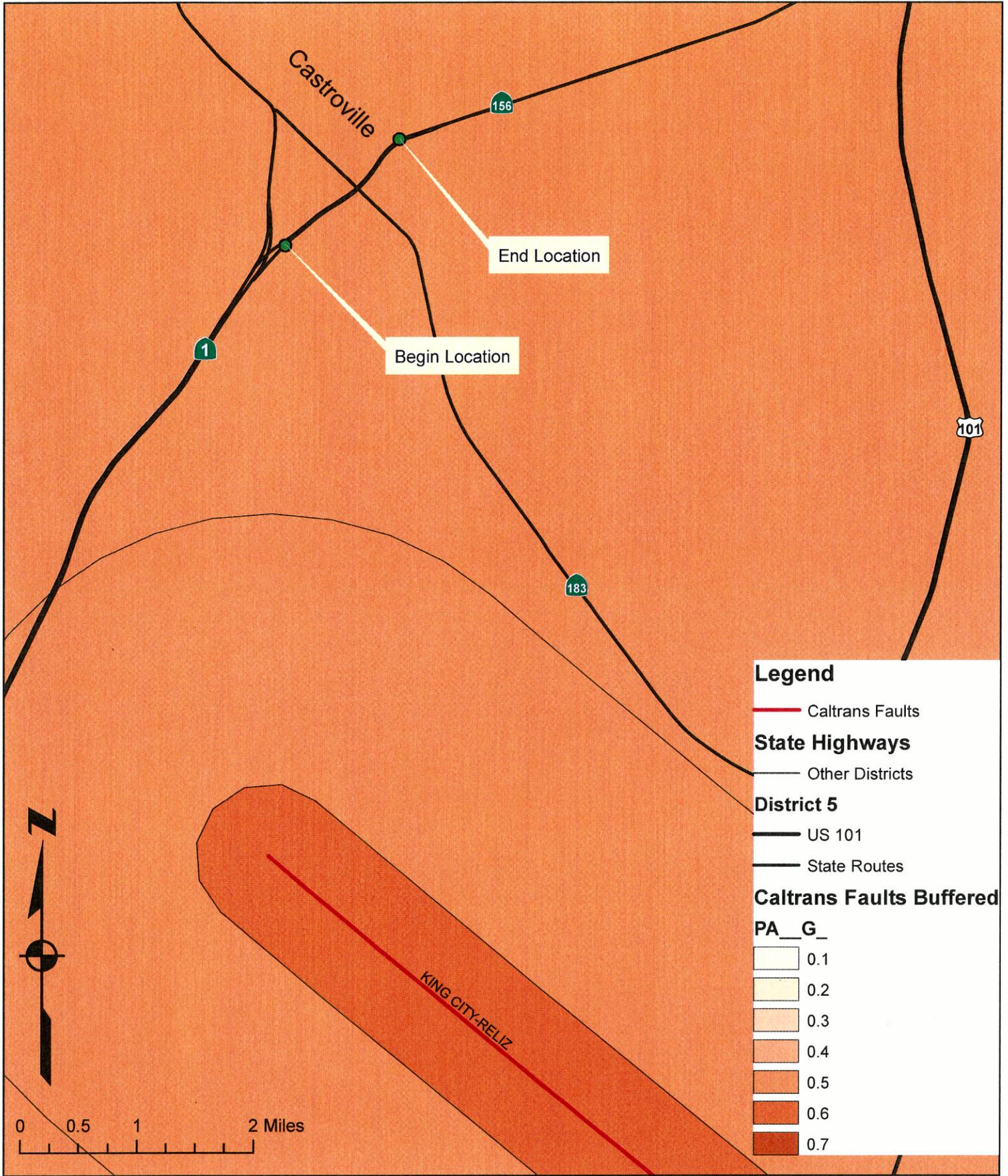
Digitized by: Sarah E. Watkins,  
Jason D. Little, and Joseph J.  
Bizzarro



Qb	Basin deposits	Qmt	Marine terrace deposits
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**ATTACHMENT 1**

Geologic Map



**ATTACHMENT 2**  
 Regional seismic Map  
 High Tension Cable Barrier  
 MON-156-PM R0.17/R1.60

LOGGED BY <b>J.Scardine</b>	BEGIN DATE <b>8-4-15</b>	COMPLETION DATE <b>8-5-15</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>2169530.9 ft / 5752472.9 ft</b>	HOLE ID <b>A-15-001</b>
DRILLING CONTRACTOR <b>CalTrans</b>	BOREHOLE LOCATION (Offset, Station, Line) <b>32.3' Lt Sta 967+55.2 Line</b>			SURFACE ELEVATION <b>19.4 ft</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>	DRILL RIG <b>CS 2000 (truck)</b>			BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT (1.4")</b>	SPT HAMMER TYPE <b>AutoHammer</b>			HAMMER EFFICIENCY, ERI <b>93% 1.55</b>
BOREHOLE BACKFILL AND COMPLETION <b>Grout</b>	GROUNDWATER READINGS	DURING DRILLING <b>Not Encountered</b>	AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING <b>16.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		SANDY SILT (ML); loose; yellowish brown; moist; some fine SAND.		1	3	6								
1	1					3									
17.40	2					3									
3	3					3									
15.40	4														
5	5														
13.40	6		Poorly graded SAND with SILT (SP-SM); very dense; yellowish brown; moist; mostly fine SAND; few fines.		3	12	41								
7	7					17									
11.40	8					24									
9	9		Fat CLAY with SAND (CH); very stiff; dark greenish gray; moist; little fine SAND ; PP=3.0 TSF.		5	4	9								
11.40	10					4									
9.40	11					5									
11	12		SILT with SAND (ML); loose; brown; moist; few fine SAND.		7	2	6								
7.40	13					3									
13	14		Poorly graded SAND with SILT (SP-SM); medium dense; brown; moist; mostly fine SAND; few fines.		9	3	12								
5.40	15					5									
15	16		- loose.			7									
3.40	17					3	3								
17	18					2									
1.40	19					1									
20	20		Bottom of borehole at 16.5 ft bgs												
			This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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Department of Transportation  
 Division of Engineering Services  
 Geotechnical Services  
 Office of Geotechnical Design - North

REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-15-001</b>	
DIST. <b>05</b>	COUNTY <b>SLO</b>	ROUTE <b>156</b>	POSTMILE <b>0.2/1.4</b>	PROJECT ID <b>0514000048</b>	
PROJECT OR BRIDGE NAME <b>Castroville Cable Barrier</b>					
BRIDGE NUMBER		PREPARED BY		DATE	SHEET <b>1 of 1</b>

LOGGED BY <b>J.Scardine</b>	BEGIN DATE <b>8-4-15</b>	COMPLETION DATE <b>8-5-15</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>2171184.8 ft / 5754645.9 ft</b>	HOLE ID <b>A-15-002</b>
DRILLING CONTRACTOR <b>CalTrans</b>	BOREHOLE LOCATION (Offset, Station, Line) <b>6.0' Lt Sta 994+87.9 Line</b>		SURFACE ELEVATION <b>11.1 ft</b>	
DRILLING METHOD <b>Hollow-Stem Auger</b>	DRILL RIG <b>CS 2000 (truck)</b>		BOREHOLE DIAMETER <b>6 in</b>	
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT (1.4")</b>	SPT HAMMER TYPE <b>AutoHammer</b>		HAMMER EFFICIENCY, ERI <b>93% 1.55</b>	
BOREHOLE BACKFILL AND COMPLETION <b>Grout</b>	GROUNDWATER READINGS	DURING DRILLING <b>Not Encountered</b>	AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING <b>16.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		SANDY SILT (ML); medium dense; dark brown; moist; some fine SAND.		1	3	9								
	1					4									
	2					5									
9.10	3		Fat CLAY (CH); stiff; dark gray; moist; few fine SAND ; pp=1.25 tsf.		3	3	10								
	4					4									
7.10	5		Fat CLAY (CH); stiff; moist; few fine SAND ; mottled yellowish brown and dark gray; pp=1.50 tsf.		5	2	5								
	6					2									
	7					3									
	8		- stiff; pp=1.0 tsf.		7	1	5								
3.10	9					2									
	10		- stiff; dark greenish gray; pp=1.0 tsf.		9	1	2								
	11					1									
	12					1									
-0.90	13		- stiff; pp=1.25 tsf.		11	2	4								
	14					2									
	15					2									
-2.90	16		- very soft; greenish gray; pp=0.25.		13	1	3								
	17					2									
	18					1									
-4.90	19														
	20														
			Bottom of borehole at 16.5 ft bgs												
			This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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 Division of Engineering Services  
 Geotechnical Services  
 Office of Geotechnical Design - North

REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-15-002</b>	
DIST. <b>05</b>	COUNTY <b>SLO</b>	ROUTE <b>156</b>	POSTMILE <b>0.2/1.4</b>	PROJECT ID <b>0514000048</b>	
PROJECT OR BRIDGE NAME <b>Castroville Cable Barrier</b>					
BRIDGE NUMBER		PREPARED BY		DATE	SHEET <b>1 of 1</b>

LOGGED BY <b>J.Scardino</b>	BEGIN DATE <b>8-4-15</b>	COMPLETION DATE <b>8-5-15</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>2171538.1 ft / 5755181.0 ft</b>	HOLE ID <b>A-15-003</b>
DRILLING CONTRACTOR <b>CalTrans</b>	BOREHOLE LOCATION (Offset, Station, Line) <b>2.9' Lt Sta 1001+29.6 Line</b>		SURFACE ELEVATION <b>13.3 ft</b>	
DRILLING METHOD <b>Hollow-Stem Auger</b>	DRILL RIG <b>CS 2000 (truck)</b>		BOREHOLE DIAMETER <b>6 in</b>	
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT (1.4")</b>	SPT HAMMER TYPE <b>AutoHammer</b>		HAMMER EFFICIENCY, ERI <b>93% 1.55</b>	
BOREHOLE BACKFILL AND COMPLETION <b>Grout</b>	GROUNDWATER READINGS	DURING DRILLING <b>Not Encountered</b>	AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING <b>16.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		SANDY SILT (ML); medium dense; brown; moist; some fine SAND.		1	5	7								
	1					3									
	2					4									
11.30	2		Poorly graded SAND (SP); loose; brown; moist; mostly fine SAND; trace fines.		3	2	4								
	3					1									
	4					3									
9.30	4														
	5		- medium dense.		5	4	15								
	6					5									
7.30	6					10									
	7														
	8		- dense; trace subrounded GRAVEL.		7	9	31								
	9					13									
5.30	9					18									
	10		Poorly graded SAND (SP); dense; brown; moist; mostly medium SAND; trace fines.		9	9	26								
	11					12									
	12					14									
3.30	12														
	13		- trace subrounded GRAVEL.		11	8	23								
	14					11									
	15					12									
-0.70	15														
	16				13	6	21								
	17					10									
-2.70	17					11									
	18														
	19														
	20														
			Bottom of borehole at 16.5 ft bgs												
			This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-15-003</b>	
DIST. <b>05</b>	COUNTY <b>SLO</b>	ROUTE <b>156</b>	POSTMILE <b>0.2/1.4</b>	PROJECT ID <b>0514000048</b>	
PROJECT OR BRIDGE NAME <b>Castroville Cable Barrier</b>					
BRIDGE NUMBER		PREPARED BY		DATE	SHEET <b>1 of 1</b>



LOGGED BY <b>J.Scardine</b>	BEGIN DATE <b>8-5-15</b>	COMPLETION DATE <b>8-5-15</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>2171939.4 ft / 5755646.0 ft</b>	HOLE ID <b>A-15-005</b>
DRILLING CONTRACTOR <b>CalTrans</b>	BOREHOLE LOCATION (Offset, Station, Line) <b>5.7' Lt Sta 1007+46.3 Line</b>		SURFACE ELEVATION <b>13.9 ft</b>	
DRILLING METHOD <b>Hollow-Stem Auger</b>	DRILL RIG <b>CS 2000 (truck)</b>		BOREHOLE DIAMETER <b>6 in</b>	
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT (1.4")</b>	SPT HAMMER TYPE <b>AutoHammer</b>		HAMMER EFFICIENCY, ERI <b>93% 1.55</b>	
BOREHOLE BACKFILL AND COMPLETION <b>Grout</b>	GROUNDWATER READINGS	DURING DRILLING <b>Not Encountered</b>	AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING <b>16.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		SILTY SAND (SM); medium dense; brown; moist; mostly fine SAND; little fines; trace fine, subangular GRAVEL.		1	6	13								
	1				7	7									
	2				6	6									
11.90	2		Poorly graded SAND (SP); medium dense; brown; moist; mostly fine SAND; trace fines.		3	5	13								
	3				6	6									
	4				7	7									
9.90	4				5	6	17								
	5				7	7									
	6				10	10									
7.90	6				5	6	17								
	7				7	8	18								
	8		Poorly graded SAND (SP); medium dense; brown; moist; mostly medium SAND, trace fine SAND; trace fines; trace fine sub-angular GRAVEL.		9	9									
	9				9	9									
5.90	8				7	8	18								
	9				9	9									
	10				9	7	18								
3.90	10				8	8									
	11				10	10									
	12				11	2	9								
	13		- 9" lense SILT with SAND (ML); medium dense; brown; moist; little fine and medium SAND.		3	3									
	14				6	6									
-0.10	14				13	10	29								
	15		- dense.		12	12									
	16				17	17									
-2.10	16														
	17		Bottom of borehole at 16.5 ft bgs												
	18														
-4.10	18														
	19		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
	20														

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-15-005</b>
DIST. <b>05</b>	COUNTY <b>SLO</b>	ROUTE <b>156</b>	POSTMILE <b>0.2/1.4</b>	PROJECT ID <b>0514000048</b>
PROJECT OR BRIDGE NAME <b>Castroville Cable Barrier</b>				
BRIDGE NUMBER	PREPARED BY	DATE	SHEET <b>1 of 1</b>	

LOGGED BY <b>J.Scardine</b>	BEGIN DATE <b>8-5-15</b>	COMPLETION DATE <b>8-5-15</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>2172791.5 ft / 5756368.7 ft</b>	HOLE ID <b>A-15-006</b>
DRILLING CONTRACTOR <b>CalTrans</b>	BOREHOLE LOCATION (Offset, Station, Line) <b>1.6' Lt Sta 1018+65.8 Line</b>			SURFACE ELEVATION <b>28.4 ft</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>	DRILL RIG <b>CS 2000 (truck)</b>			BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT (1.4")</b>	SPT HAMMER TYPE <b>AutoHammer</b>			HAMMER EFFICIENCY, ERI <b>93% 1.55</b>
BOREHOLE BACKFILL AND COMPLETION <b>Grout</b>	GROUNDWATER READINGS	DURING DRILLING <b>Not Encountered</b>	AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING <b>16.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		SANDY lean CLAY (CL); brown; moist; some fine and medium SAND.		1	9	21								
1	1					12									
26.40	2					9									
3	3		SANDY lean CLAY (CL); very stiff; brown; moist; little fine SAND ; pp=3.0 tsf.		3	4	7								
4	4					3									
24.40	5					4									
6	6		Lean CLAY (CL); very stiff; brown; moist; few fine SAND ; pp=2.0 tsf.		5	5	18								
7	7					8									
22.40	8		SILT (ML); medium dense; brown; moist; trace fine SAND.		7	2	9								
9	9					4									
10	10					5									
18.40	11					2	6								
12	12					2									
16.40	13					4									
14	14		Fat CLAY (CH); very stiff; light brown; moist; trace fine SAND ; pp=2.2 tsf.		11	3	9								
15	15					3									
14.40	16					3	10								
12.40	17					5									
17	18					5									
10.40	19														
20	20														

Bottom of borehole at 16.5 ft bgs

This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.

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 Division of Engineering Services  
 Geotechnical Services  
 Office of Geotechnical Design - North

REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-15-006</b>	
DIST. <b>05</b>	COUNTY <b>SLO</b>	ROUTE <b>156</b>	POSTMILE <b>0.2/1.4</b>	PROJECT ID <b>0514000048</b>	
PROJECT OR BRIDGE NAME <b>Castroville Cable Barrier</b>					
BRIDGE NUMBER		PREPARED BY		DATE	SHEET <b>1 of 1</b>

LOGGED BY <b>J.Scardine</b>	BEGIN DATE <b>8-5-15</b>	COMPLETION DATE <b>8-5-15</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>2172890.5 ft / 5756435.5 ft</b>	HOLE ID <b>A-15-007</b>
DRILLING CONTRACTOR <b>CalTrans</b>			BOREHOLE LOCATION (Offset, Station, Line) <b>1.5' Lt Sta 1019+85.0 Line</b>	SURFACE ELEVATION <b>28.8 ft</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CS 2000 (truck)</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT (1.4")</b>			SPT HAMMER TYPE <b>AutoHammer</b>	HAMMER EFFICIENCY, ERI <b>93% 1.55</b>
BOREHOLE BACKFILL AND COMPLETION <b>Grout</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS <b>Not Encountered</b>	TOTAL DEPTH OF BORING <b>16.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		SILTY SAND (SM); loose; brown; moist; mostly fine and medium SAND; little fines; 12" lense Lean CLAY (CL); pp=1.5 tsf.		1	3	6								
26.80	2					4									
						2									
	3		SILT (ML); medium dense; very dark brown; moist; trace fine SAND.		3	2	10								
24.80	4		Lean CLAY (CL); very stiff; dark brown; moist; few fine SAND ; pp=2.0 tsf.			3									
						7									
	5														
22.80	6		Fat CLAY (CH); very stiff; dark brown; moist; trace fine SAND ; pp=2.0 tsf.		5	2	9								
						3									
						6									
	7														
20.80	8		SILT (ML); dense; brown; moist; trace fine SAND.		7	7	20								
						8									
						12									
	9														
18.80	10														
						5	10								
	11		SILT (ML); medium dense; dark brown; moist; trace fine SAND.		9	4									
						6									
16.80	12														
	13		Fat CLAY (CH); very stiff; brown; moist; trace fine SAND ; pp=2.5 tsf.		11	2	8								
14.80	14					3									
						5									
	15														
12.80	16														
	17		Bottom of borehole at 16.5 ft bgs												
	18														
10.80	19		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
	20														

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-15-007</b>	
DIST. <b>05</b>	COUNTY <b>SLO</b>	ROUTE <b>156</b>	POSTMILE <b>0.2/1.4</b>	PROJECT ID <b>0514000048</b>	
PROJECT OR BRIDGE NAME <b>Castroville Cable Barrier</b>					
BRIDGE NUMBER		PREPARED BY		DATE	SHEET <b>1 of 1</b>

LOGGED BY <b>J.Scardine</b>	BEGIN DATE <b>8-5-15</b>	COMPLETION DATE <b>8-5-15</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>2173187.6 ft / 5756624.0 ft</b>	HOLE ID <b>A-15-008</b>
DRILLING CONTRACTOR <b>CalTrans</b>	BOREHOLE LOCATION (Offset, Station, Line) <b>11.8' Lt Sta 1023+36.9 Line</b>			SURFACE ELEVATION <b>28.9 ft</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>	DRILL RIG <b>CS 2000 (truck)</b>			BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT (1.4")</b>	SPT HAMMER TYPE <b>AutoHammer</b>			HAMMER EFFICIENCY, ERI <b>93% 1.55</b>
BOREHOLE BACKFILL AND COMPLETION <b>Grout</b>	GROUNDWATER READINGS	DURING DRILLING <b>Not Encountered</b>	AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING <b>16.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		SANDY lean CLAY (CL); brown; moist; some fine and medium SAND.		1	3	16								
1	1					5									
26.90	2		Fat CLAY with SAND (CH); very stiff; brown; moist; little fine SAND ; pp=3.25 tsf.		3	6	11								
3	3					5									
24.90	4		Lean CLAY with SAND (CL); very stiff; mottled very dark gray, grayish green and brown; moist; little fine and medium SAND ; trace coarse sub-angular SAND; pp=2.5 tsf.		5	3	12								
5	5					5									
22.90	6					7									
7	7														
20.90	8					3	8								
9	9					3									
18.90	10		Fat CLAY (CH); very stiff; dark yellowish brown; moist; trace fine SAND ; pp=2.0 tsf.		9	3	9								
11	11					4									
16.90	12		Fat CLAY (CH); light olive brown; moist; trace fine to coarse, subangular SAND.		11	2	10								
13	13					4									
14.90	14					6									
15	15														
12.90	16					2	6								
17	16					2									
17	16					4									
	17		Bottom of borehole at 16.5 ft bgs												
10.90	18		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
19	18														
20	19														

5 BR - STANDARD CASTROVILLE BARRIER.GPJ CALTRANS LIBRARY (FEB 2013).GLB 11/9/15



Department of Transportation  
 Division of Engineering Services  
 Geotechnical Services  
 Office of Geotechnical Design - North

REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-15-008</b>	
DIST. <b>05</b>	COUNTY <b>SLO</b>	ROUTE <b>156</b>	POSTMILE <b>0.2/1.4</b>	PROJECT ID <b>0514000048</b>	
PROJECT OR BRIDGE NAME <b>Castroville Cable Barrier</b>					
BRIDGE NUMBER			PREPARED BY		DATE
					SHEET <b>1 of 1</b>

**MATERIAL PROPERTIES SUMMARY**

DESCRIPTION	BORING OR SAMPLE No.	A-15-001	A-15-001	A-15-002	A-15-002	A-15-002	A-15-002	A-15-002	A-15-002	A-15-003	A-15-004	A-15-005	A-15-006	A-15-006	A-15-006	A-15-006	A-15-006	A-15-007	A-15-007	A-15-007	A-15-008	A-15-008	A-15-008	A-15-008	A-15-008	A-15-008	A-15-008	A-15-008			
	DATE SAMPLED	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015		
STATION	967+55.2	967+55.2	994+87.8	994+87.8	994+87.8	994+87.8	994+87.8	994+87.8	994+87.8	1001+29.5	1005+75.9	1007+46.3	1018+65.7	1018+65.7	1018+65.7	1018+65.7	1018+65.7	1019+85.0	1019+85.0	1019+85.0	1023+36.8	1023+36.8	1023+36.8	1023+36.8	1023+36.8	1023+36.8	1023+36.8	1023+36.8	1023+36.8		
LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE	"C1" LINE		
DISTANCE FROM LINE (Rt. OR Lt.)	Lt 32.3'	Lt 32.3'	Lt 6.0'	Lt 6.0'	Lt 6.0'	Lt 6.0'	Lt 6.0'	Lt 6.0'	Lt 6.0'	Lt 2.9'	Rt 3.4'	Lt 5.6'	Lt 1.6'	Lt 1.6'	Lt 1.6'	Lt 1.6'	Lt 1.6'	Lt 1.5'	Lt 1.5'	Lt 1.5'	Lt 11.8'	Lt 11.8'	Lt 11.8'	Lt 11.8'	Lt 11.8'	Lt 11.8'	Lt 11.8'	Lt 11.8'	Lt 11.8'		
DEPTH (FEET)	7.5'-10.0'	9.0'-10.0'	2.5'-4.0'	5.0'-6.5'	7.5'-10.0'	12.5'-14.0'	15.0'-16.5'	7.5'-10.0'	7.5'-10.0'	7.5'-10.0'	7.5'-10.0'	0.0'-1.5'	3.0'-4.0'	5.0'-6.0'	7.5'-10.0'	12.5'-14.0'	7.5'-10.0'	13.0'-14.0'	15.0'-16.0'	0.0'-1.5'	2.5'-4.0'	5.0'-6.5'	7.5'-9.0'	7.5'-10.0'	10.0'-11.5'	12.5'-14.0'	15.0'-16.0'	15.0'-16.0'			
USCS CLASSIFICATION		CH	CH	CH	CH	CH	CH	CH	CH				CL	CL	CL		CH		CH	CL	CL	CL	CL	CL	CL	CL	CH	CL	CH		
SIEVE ANALYSIS	38 mm (1 1/2")																														
	19 mm (3/4")																														
	12 mm (1/2")																														
	9.5 mm (3/8")																														
	4.75 mm (No. 4)																														
	2.36 mm (No. 8)		100	100	100			100	100				100	100	100					100											
	1.18 mm (No. 16)		100	99	100			100	100				98	100	100					100		99	100	100	100	100			98	100	100
	600 µm (No. 30)		98	96	99			99	99				96	99	100					100		99	99	100	100	100			95	100	100
	300 µm (No. 50)		93	92	97			98	99				90	96	99					100		98	98	99	100	100			94	100	98
	150 µm (No. 100)		88	88	96			97	97				76	87	97					96		97	87	97	96	97			94	100	96
75 µm (No. 200)		80.0	85.8	92.4			95.8	93.0				65.5	72.5	85.9					92.5		96.1	57.5	77.8	74.3	75.4			92.5	93.3	93.7	
5 µm																															
1µm																															
CLASSIFICATION TEST SUMMARY	IN-PLACE DENSITY (DRY WT. kN/m3)																														
	IN-PLACE MOISTURE (PERCENT)																														
	SPECIFIC GRAVITY																														
	LIQUID LIMIT		52	77	71			68	53				45	45	50				52		53	66	41	50	34	35			67	48	105
	PLASTICITY INDEX		30	48	44			43	31				29	29	29				30		37	39	21	29	12	17			39	25	71
SOIL STRENGTH Direct Shear Test	EFFECTIVE STRESS																														
	FRICTION ANGLE (DEGREES)																														
	COHESION (kPa)																														
	TOTAL STRESS																														
	FRICTION ANGLE (DEGREES)																														
CORROSION	RESISTIVITY (ohm-cm)	3420	1001	508*	628*	649*	509*	505*	11,875	14,617	13,231	1056	910*	845*	1050	960*	1122			889*	1004	824*	1038	1039	1008	575*	1120	718*			
	pH	8.13	7.32	8.23	8.39	8.39	8.53	8.45		8.7	8.12	8.01	8.07	8.29	8.55	8.56	7.88	8.32		8.07	8.07	8.39	8.31	8.18	8.16	8.03	7.95	7.59			
	SULFATES (ppm)			329	152	194	267	373						156	114		73				42		242				225	24			
	CHLORIDES (ppm)			170	159	157	158	265						41	62		82				25		83				200	85			
	? Is Sample Corrosive?			NO	NO	NO	NO	NO						NO	NO		NO				NO		NO				NO		NO		

\*NOTE: 10-16-2015, Sample sent to Translab for sulfate and chloride testing.