Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1001	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY	DATE REVISED
TG	8/10/09

JIMMY TARQUINIO — CALCULATED-DESIGNED BY
THERESA GAISSER — CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

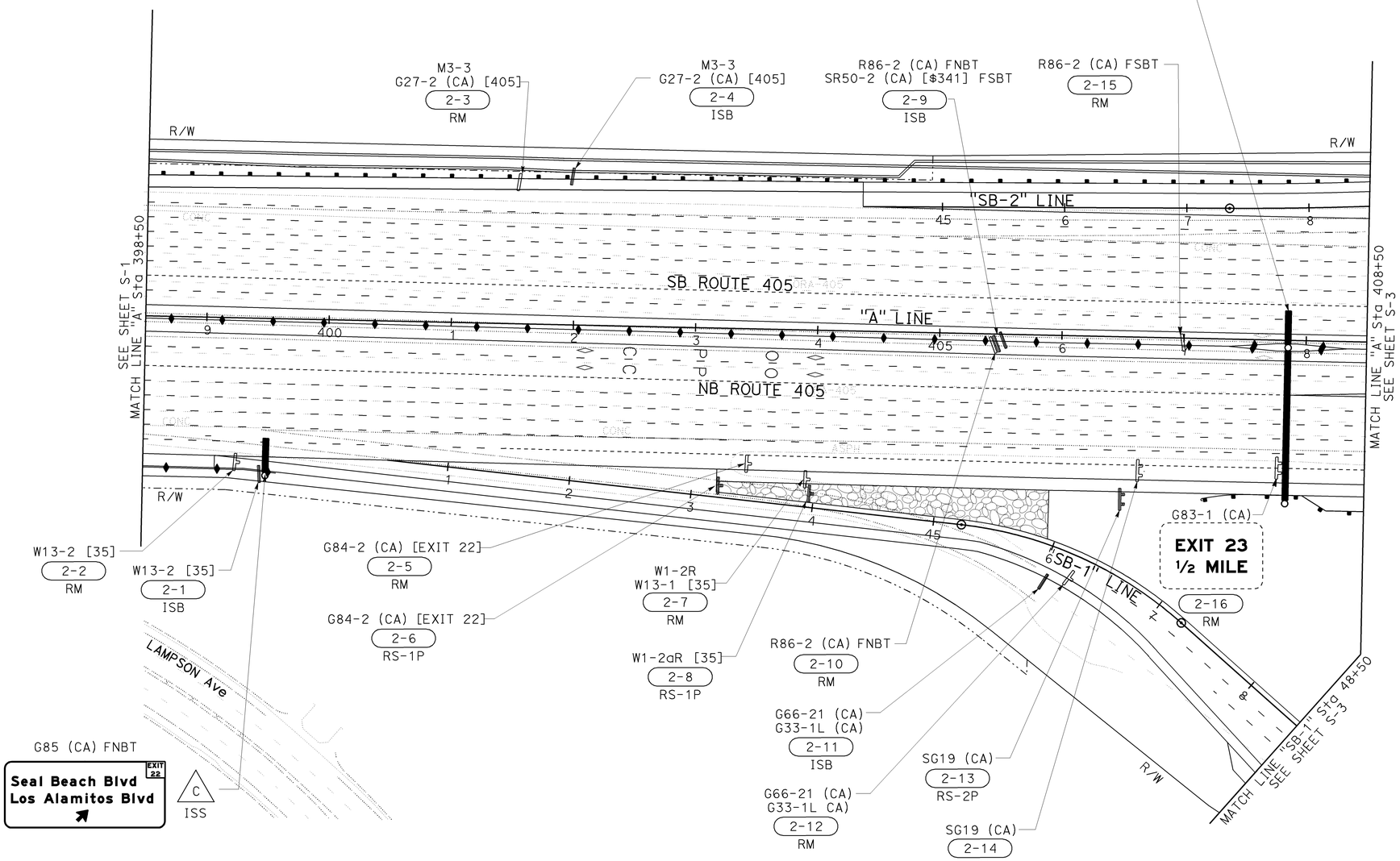
R87-1 (CA) FSBT
CARPOOLS ONLY
2 OR MORE PERSONS PER VEHICLE

G83 (CA) FNBT
CARPOOLS ONLY
405 NORTH ONLY | 405 NORTH ONLY

G24 (CA) FNBT
405 NORTH
Santa Monica

G83 (CA) FNBT
EXIT 23
22 WEST
Long Beach
ONLY

D
ISS



SIGN PLAN

SCALE: 1" = 50'

S-2

THIS PLAN ACCURATE FOR SIGN WORK ONLY

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 07:52

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye DGN FILE => c071163ca002.dgn | CU 12235 | EA 071631

NOTES:
1. SEE SHEET S-20 FOR REMOVALS
2. EXACT LOCATION OF PEDESTRIAN BARRICADES SHALL BE DETERMINED BY THE ENGINEER.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1002	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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ORANGE, CA 92863-1584

REVISED BY: TG — DATE REVISED: 8/10/09
JIMMY TARQUINIO — THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR — KEYVAN PIRBZARI
CALCULATED-DESIGNED BY
CHECKED BY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SIGN PLAN
SCALE: 1" = 50'

S-3

LAST REVISION | DATE PLOTTED => 04-FEB-2010
08-10-09 | TIME PLOTTED => 07:52

THIS PLAN ACCURATE FOR SIGN WORK ONLY

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — USERNAME => trmnguye — DGN FILE => c071630a003.dgn — CU 12235 — EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1003	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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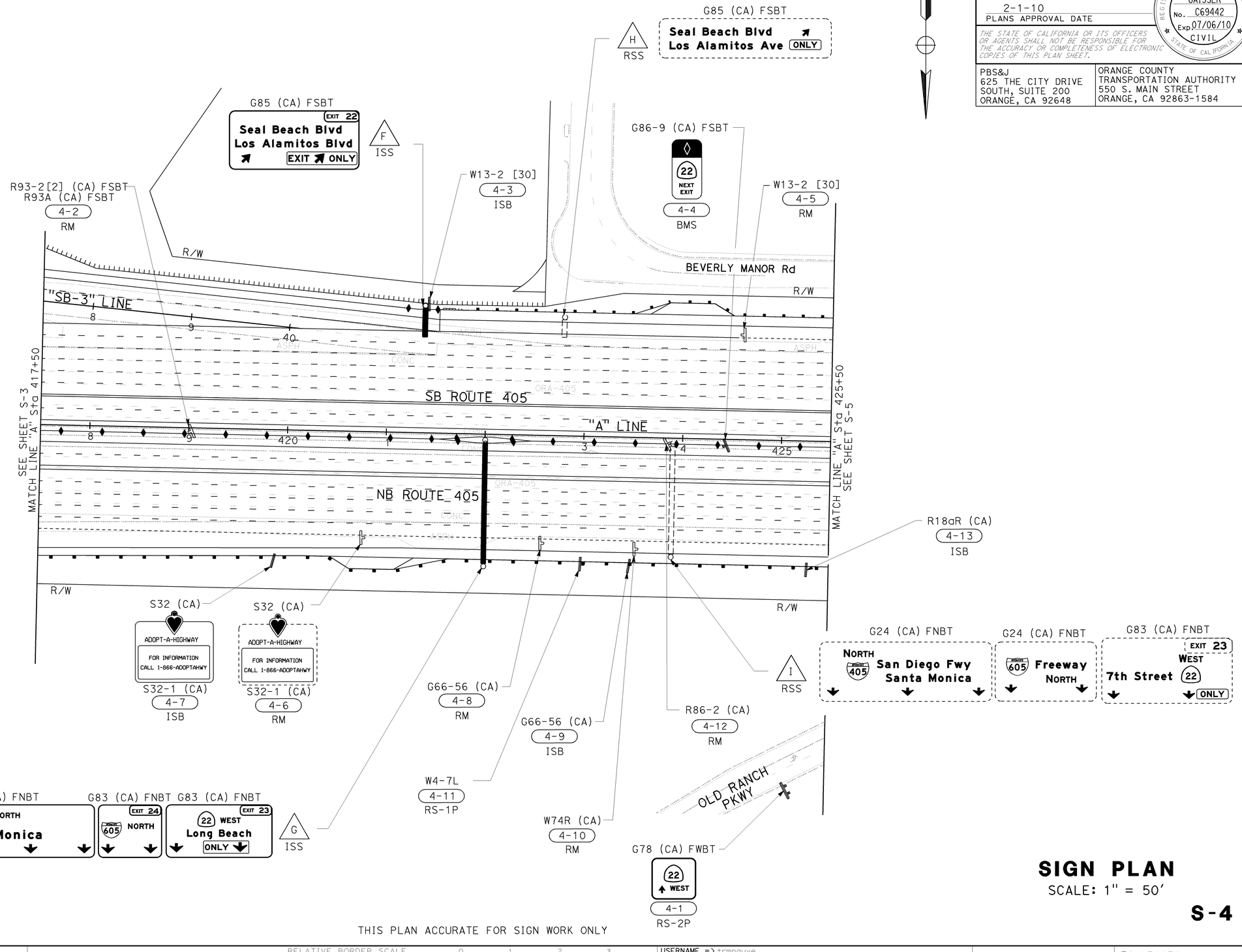
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



SIGN PLAN

SCALE: 1" = 50'

S-4

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 07:52
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c071630a004.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1004	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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ORANGE COUNTY
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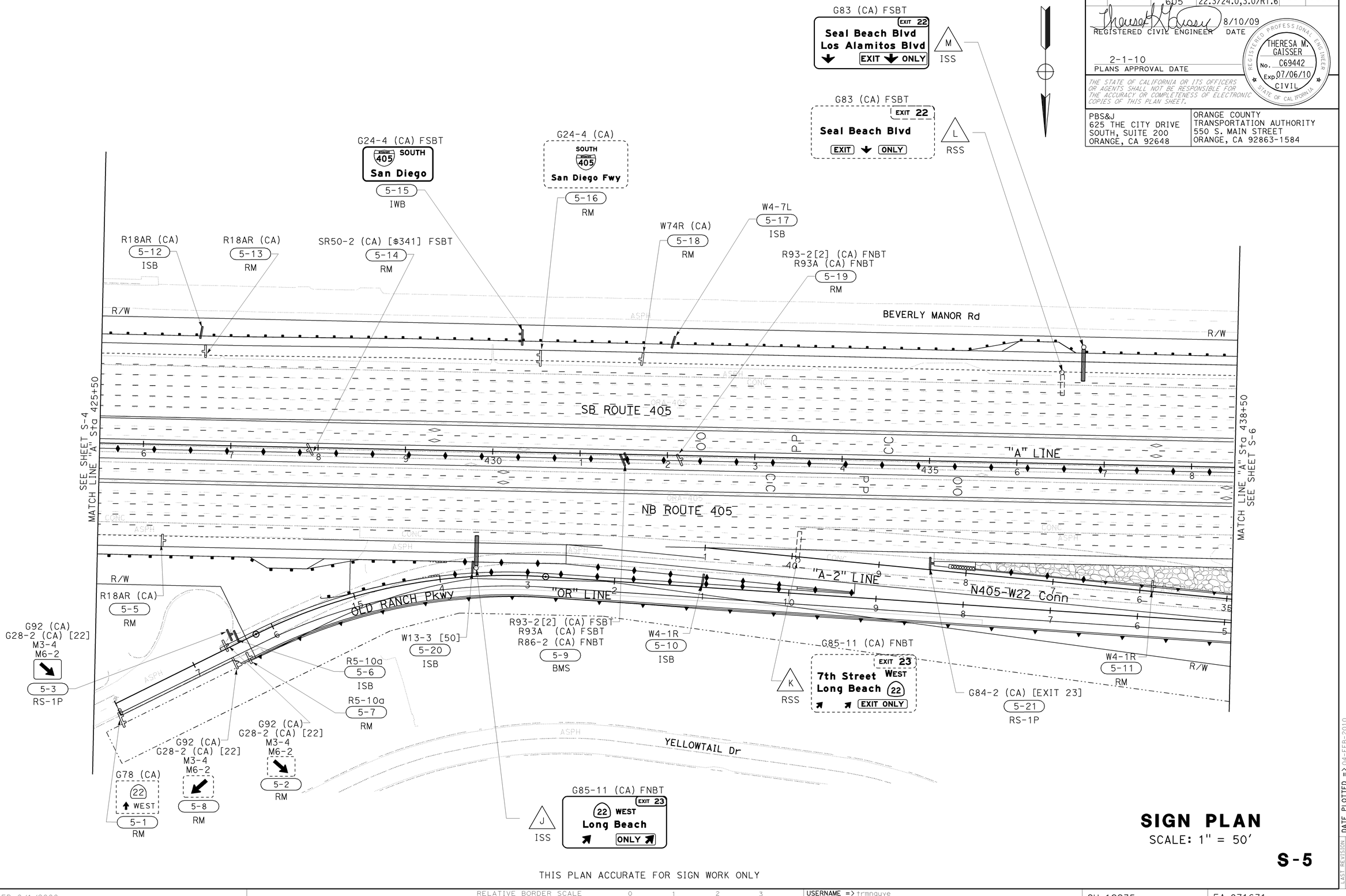
ORANGE, CA 92863-1584



SIGN PLAN

SCALE: 1" = 50'

S-5

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY: THERESA GAISSER
CHECKED BY:

REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 07:52

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c071631oa005.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1005	1929

REGISTERED CIVIL ENGINEER — DATE: 8/10/09

THERESA M. GAISSER, No. C69442, Exp 07/06/10, CIVIL, REGISTERED PROFESSIONAL ENGINEER, STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

R86-2 (CA) FSBT
R93-2[2] (CA) FNBT
R93A (CA) FNBT
6-2
ISB

R93-2[2] (CA) FSBT
R93A (CA) FSBT
6-1
RM

DEL MONTE Dr

W4-3R
6-3
RM

W4-3R
6-4
RS-1P

S32 (CA)
ADOPT-A-HIGHWAY
JOBING.COM
S32-1 (CA)
6-5
RM

G66-21 (CA)
G66-21A (CA)
6-14
ISB

G83 (CA)
Los Alamitos
Seal Beach
NEXT RIGHT
G66-21 (CA)
G66-56A (CA)
NEXT EXIT
6-7
RM

S32 (CA)
ADOPT-A-HIGHWAY
JOBING.COM
S32-1 (CA)
6-6
RS-1P

R/W
BEVERLY MANOR Rd
CONC
"C-3" LINE
E22-S405 Conn
R/W
MATCH LINE "C-3" Sta 36+50
SEE SHEET S-7

SEE SHEET S-5
MATCH LINE "A" Sta 438+50
SB ROUTE 405
NB ROUTE 405
N405-W22 Conn
"A" LINE
"A-2" LINE
ASPH
CONC

G95B (CA)
G95B-1 (CA)
COURTESY OF
FEDERAL SOUTHWEST RECOVERY LAB
6-10
RM

G95B (CA)
G95B-1 (CA)
COURTESY OF
FEDERAL SOUTHWEST RECOVERY LAB
6-9
IWB

MATCH LINE "A-2" Sta 21+50
SEE SHEET S-7

R/W
OLD RANCH PKWY

W13-3 [50]
6-15
ISB

G11-4.1 (CA)
ROUTE 22/405
SEPARATION
BRIDGE 55-333G
405 ORA. XX3 28
6-12
RM

R86-2 (CA) FNBT
R86-2 (CA) FSBT
6-8
6-13
RM

MATCH LINE "A" Sta 451+50
SEE SHEET S-7

R/W

G83-3 (CA) FNBT
CARPOOLS ONLY
605 NORTH ONLY
405 NORTH ONLY
N
ISS

G11-4.1 (CA)
ROUTE 22/405
SEPARATION
BRIDGE 55-333G
405 ORA. XX3 28
6-11
ISB

G85 (CA) FNBT
CARPOOLS ONLY
605 NORTH ONLY
405 NORTH ONLY
O
ISS

G24 (CA) FNBT
405 NORTH
Santa Monica

G83 (CA) FNBT
EXIT 24
605 NORTH
ONLY
R
ISS

SIGN PLAN

SCALE: 1" = 50'

S-6

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 07:53

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c07163oa006.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1006	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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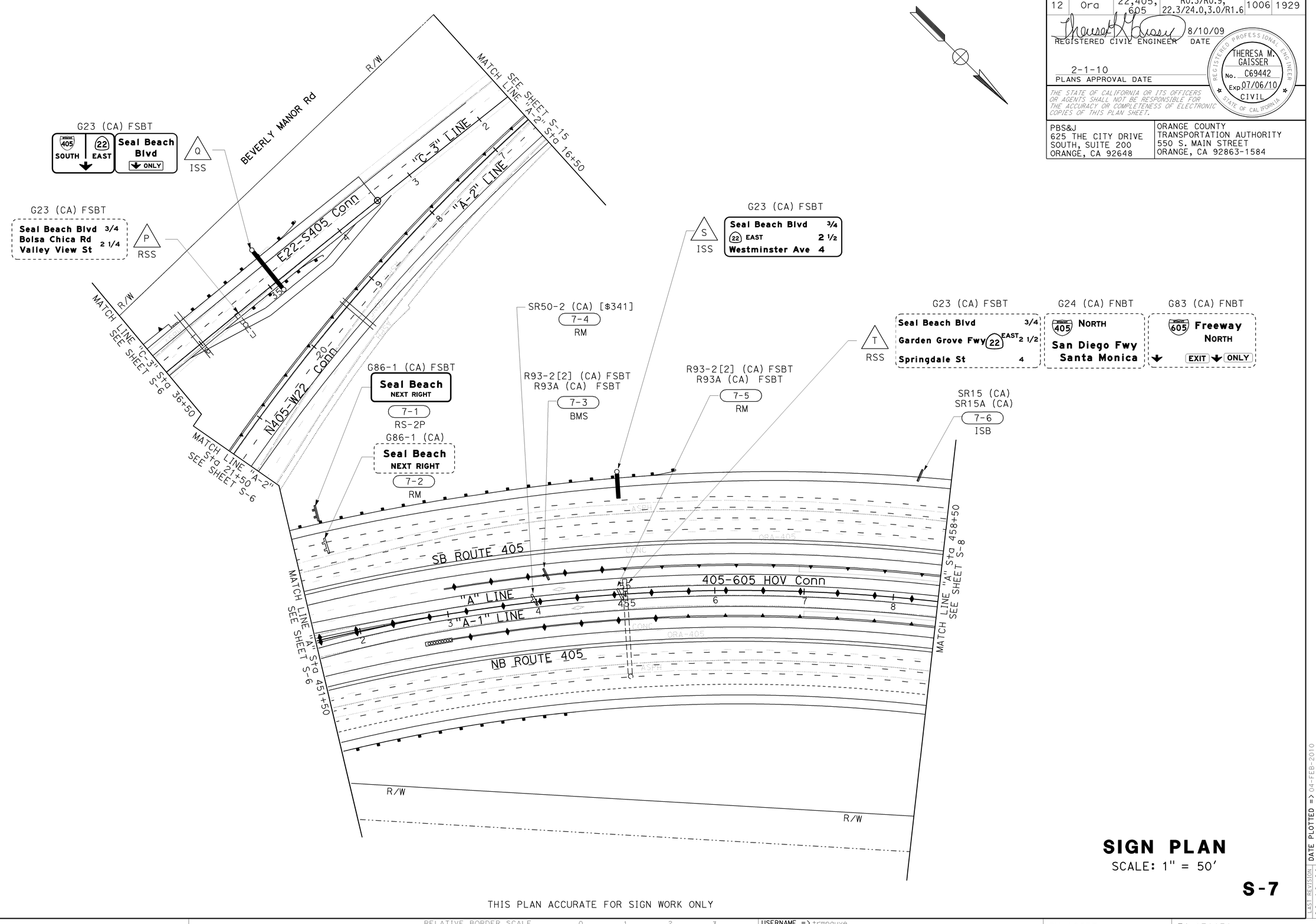
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



SIGN PLAN

SCALE: 1" = 50'

S-7

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY	TG		
DATE REVISED	8/10/09		
CALCULATED-DESIGNED BY	JIMMY TARQUINIO		
CHECKED BY	THERESA GAISSER		
CONSULTANT FUNCTIONAL SUPERVISOR	KEYVAN PIRBZARI		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans		

LAST REVISION DATE PLOTTED => 04-FEB-2010
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1007	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

G83 (CA) FNBT
605 NORTH
405 NORTH
U ISS

"XC-1" LINE
E22-N605 Conn
W4-2R 8-9 ISB
SR50-2 (CA) [$341] 8-11 RM
R93-2[2] (CA) FSBT
R93A (CA) FSBT 8-6 BMS
W4-3R 8-7 RM
W4-3R 8-8 RS-1P
W4-2R 8-10 RM
"B-2" LINE
R93-2[2] (CA) R93A (CA) 8-5 RM
W4-2R 8-3 RM
SR15 (CA) SR15A (CA) 8-1 RM
S605-S405 Conn
405/605 HOV Conn "A-1" LINE
MATCH LINE "A-1" Sta 71+50 SEE SHEET S-9
SB ROUTE 405
"A" LINE
NB ROUTE 405
MATCH LINE "A" Sta 471+50 SEE SHEET S-9
MATCH LINE "A" Sta 458+50 SEE SHEET S-7
R18AR (CA) 8-12 RM
R18AR (CA) 8-15 RS-2P
R86-2 (CA) FSBT 8-14 BMS
R86-2 (CA) FSBT 8-2 RM
R18AR (CA) 8-4 RM
W4-7L 8-13 RS-1P
R/W
CONC
ASPH
GRA ASPH

SIGN PLAN
SCALE: 1" = 50'

S-8

THIS PLAN ACCURATE FOR SIGN WORK ONLY

CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY: TG
DATE REVISED: 8/10/09
JIMMY TARQUINIO
THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 07:53

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c071631oa008.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1008	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

THERESA M. GAISSER, No. C69442, Exp 07/06/10, CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

G24 (CA) FNBT
605 Freeway NORTH
RSS

G83 (CA) FNBT
405 San Diego Fwy Santa Monica
EXIT ONLY

G24 (CA) FNBT
605 NORTH
LEFT 2 LANES
9-13
IWB

G85 (CA) FNBT
405 NORTH
Santa Monica
ONLY
ISS

S405-W22 Conn

S605-S405 Conn

"B-2" LINE

405/605 HOV Conn

"A-1" LINE

E22-N605 Conn

E22-N405 Conn

"C-1" LINE

"C-2" LINE

R18AR (CA)
9-11
RS-1P

MATCH LINE "A-1" Sta 71+50
SEE SHEET S-8

MATCH LINE "A-1" Sta 84+25
SEE SHEET S-10

R2-1 [65]
R48-1 (CA)
9-8
RS-2P

R18AR (CA)
9-12
RM

R2-1 [65]
R48-1 (CA)
9-14
RM

R2-1 [65]
R48-1 (CA)
9-15
ISB

R2-1 [65]
R48-1 (CA)
9-7
RM

SR50-2 (CA) FSBT [$341]
9-2
RM

R86-2 (CA)
9-3
RM

SR50-2 (CA) FSBT [$341]
9-1
BMS

SB ROUTE 405

"A" LINE

NB ROUTE 405

"A-3" LINE

SEE SHEET S-8
MATCH LINE "A" Sta 471+50

MATCH LINE "A" Sta 483+50
SEE SHEET S-10

R93-2[2] (CA) FNBT
R93A (CA) FNBT
9-10
RM

R87-1 (CA) FSBT
CARPOOLS ONLY
2 OR MORE PERSONS PER VEHICLE
ISS

G84-2 (CA)
[EXIT 24]
9-5
RM

R87 (CA) FSBT
CARPOOLS ONLY
2 OR MORE PERSONS PER VEHICLE
RSS

G84-2 (CA)
[EXIT 24]
9-4
RS-1P

N405-N605 Conn

MATCH LINE "A-3" Sta 54+50
SEE SHEET S-10

W13-3 [50]
9-16
RS-1P

G24 (CA) FNBT
405 NORTH
Santa Monica
ISS

G85 (CA) FNBT
EXIT 24
605 NORTH
ONLY

G24 (CA) FNBT
405 NORTH
San Diego Fwy
Santa Monica

G24 (CA) FNBT
EXIT 24
605 Freeway NORTH

RSS

G85-8 (CA)
Seal Beach Blvd
22 EAST
9-6
RM

R86-2 (CA) FNBT
G85-8 (CA) FSBT
Seal Beach Blvd
22
9-9
ISB

SIGN PLAN

SCALE: 1" = 50'

S-9

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 07:53
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c07163oa009.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1009	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THERESA M. GAISSER No. C69442 Exp. 07/06/10 CIVIL STATE OF CALIFORNIA

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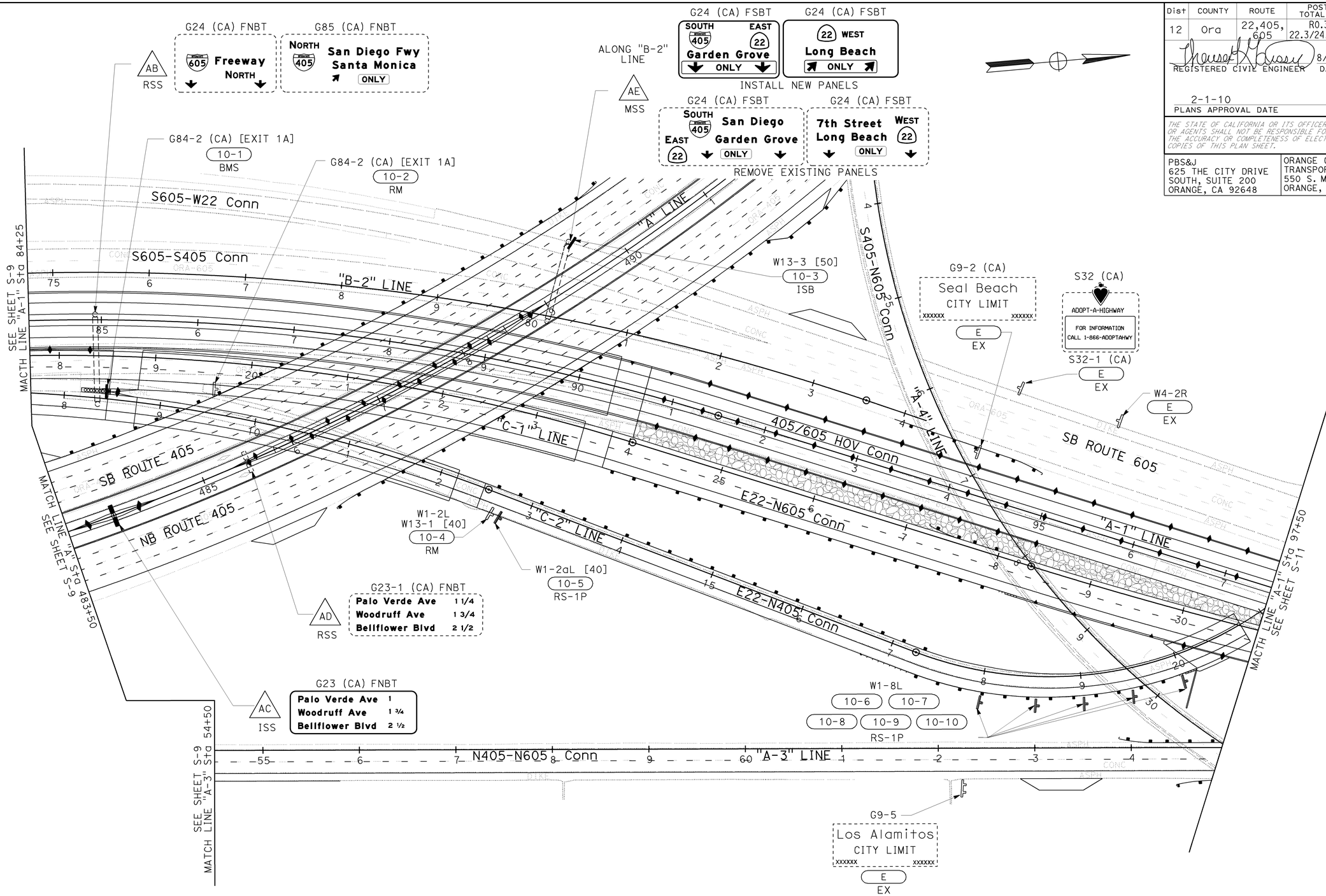
ORANGE, CA 92863-1584



SIGN PLAN

SCALE: 1" = 50'

S-10

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 07:53

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c07163oa010.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1010	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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ORANGE, CA 92648

ORANGE COUNTY
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550 S. MAIN STREET
ORANGE, CA 92863-1584

G23 (CA) FNBT
Katella Ave 1
Willow St 1
Carson St 3

G24 (CA) FSBT
SOUTH 405 San Diego
EAST 22 Garden Grove ONLY

G24 (CA) FSBT
7th Street
Long Beach WEST 22 ONLY

G85 (CA) FSBT
405 San Diego Fwy
Santa Monica
NORTH

AF
RSS

G23 (CA) FNBT
Katella Ave 1
Willow St 1
Carson St 3

G83 (CA) FSBT
CARPOOLS ONLY
SOUTH 405 EAST 22
ONLY

G83 (CA) FSBT
EXIT 1B
SOUTH 405 EAST 22
ONLY

G83 (CA) FSBT
EXIT 1A
22 WEST
Long Beach
ONLY

G85 (CA) FSBT
EXIT 1C
405 NORTH
Santa Monica
ONLY

AG
ISS

G84-2 (CA) [EXIT 1C]
11-4
RS-1P

R93-2[2] (CA) FSBT
R93A (CA) FSBT
11-3
BMS

G66-56 (CA)
M4-4
E
EX

W4-3R
11-1
RS-1P

W4-3R
11-2
RM

W4-3R
11-8
RS-1P

W4-3R
11-9
RM

R4-1
E
EX

S32 (CA)
ADOPT-A-HIGHWAY
XXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
S32-1 (CA)
11-5
RM

S32 (CA)
ADOPT-A-HIGHWAY
XXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
S32-1 (CA)
11-6
RS-1P

G86-8 (CA) FNBT
Katella
/Willow
NEXT
EXIT
11-7
BMS

R86-2 (CA) FSBT
R86-2 (CA) FNBT
11-10
ISB

SEE SHEET S-10
MACTH LINE "A-1" Sta 97+50

MATCH LINE "A-1" Sta 111+00
SEE SHEET S-12

R/W
3"C-2" LINE
E22-N405 Conn
S605-N405 Conn
405/605 HOV Conn
"A-1" LINE
"B-1" LINE
SB ROUTE 605
E22-N605 Conn
"C-1" LINE
NB ROUTE 605
"A-3" LINE
N405-N605 Conn
"A-4" LINE
S405-N605 Conn
MARTHA ANN DR
ASPH
CONC
ORA 605

SIGN PLAN

SCALE: 1" = 50'

S-11

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CALCULATED-DESIGNED BY
CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI
REVISED BY
DATE REVISED
JIMMY TARQUINIO
THERESA GAISSER
TG
8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 07:53
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c071630a011.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1011	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 07/06/10
CIVIL
STATE OF CALIFORNIA

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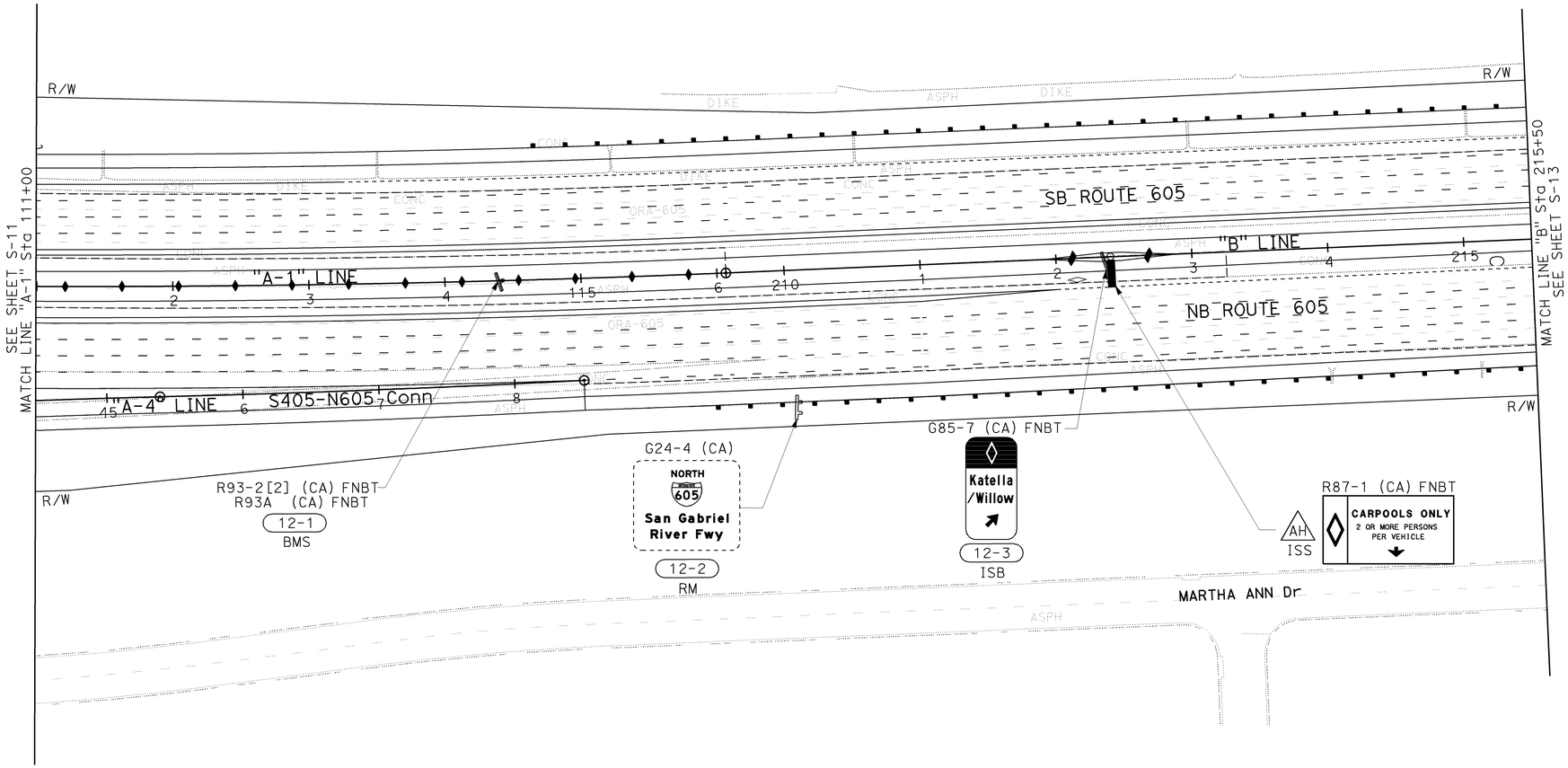
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



SIGN PLAN

SCALE: 1" = 50'

S-12

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 07:53

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c071630a012.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1012	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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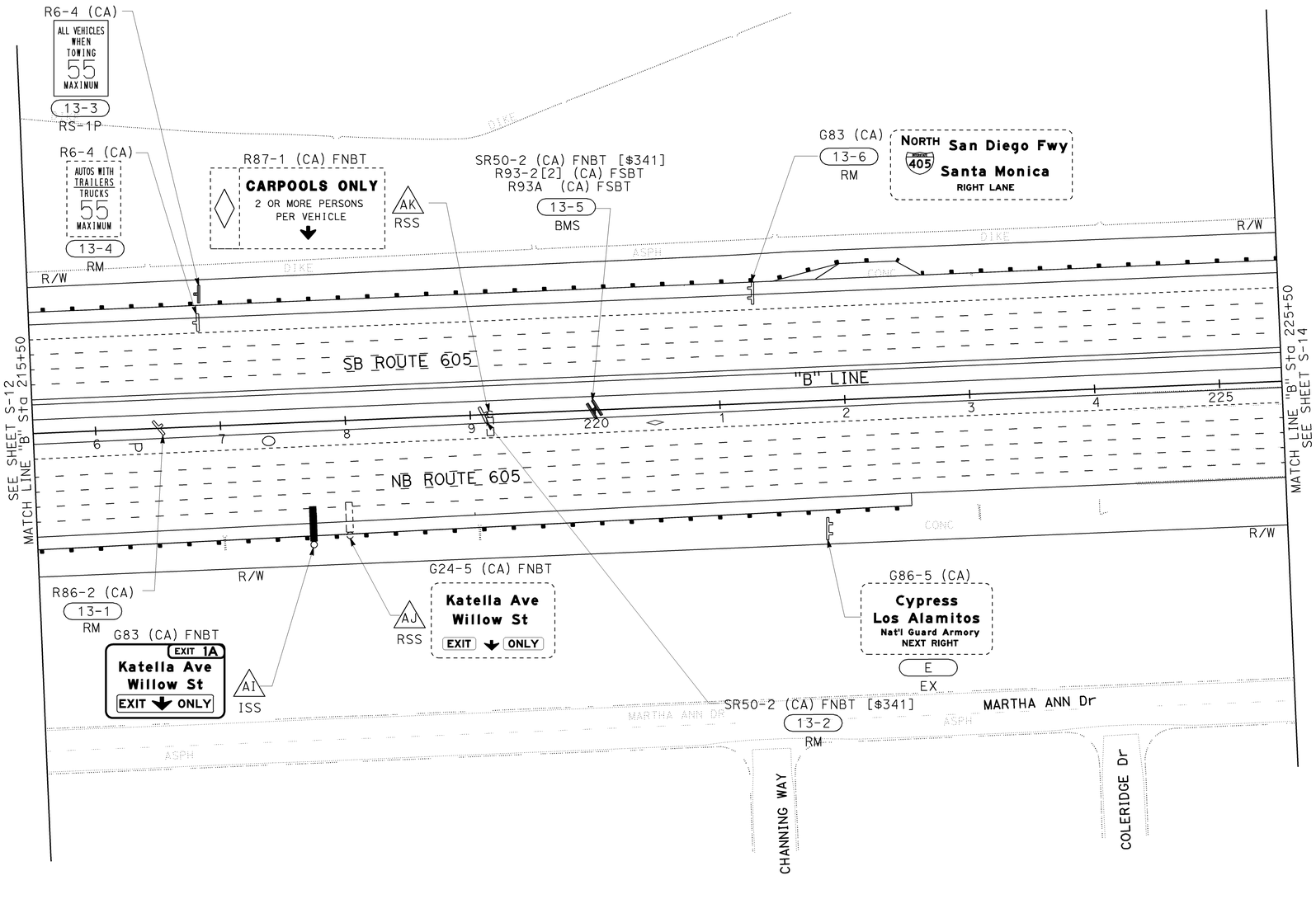

SIGN PLAN

SCALE: 1" = 50'

S-13

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 07:53

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye | DGN FILE => c071630a013.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1013	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THERESA M. GAISSER No. C69442 Exp. 07/06/10 CIVIL STATE OF CALIFORNIA

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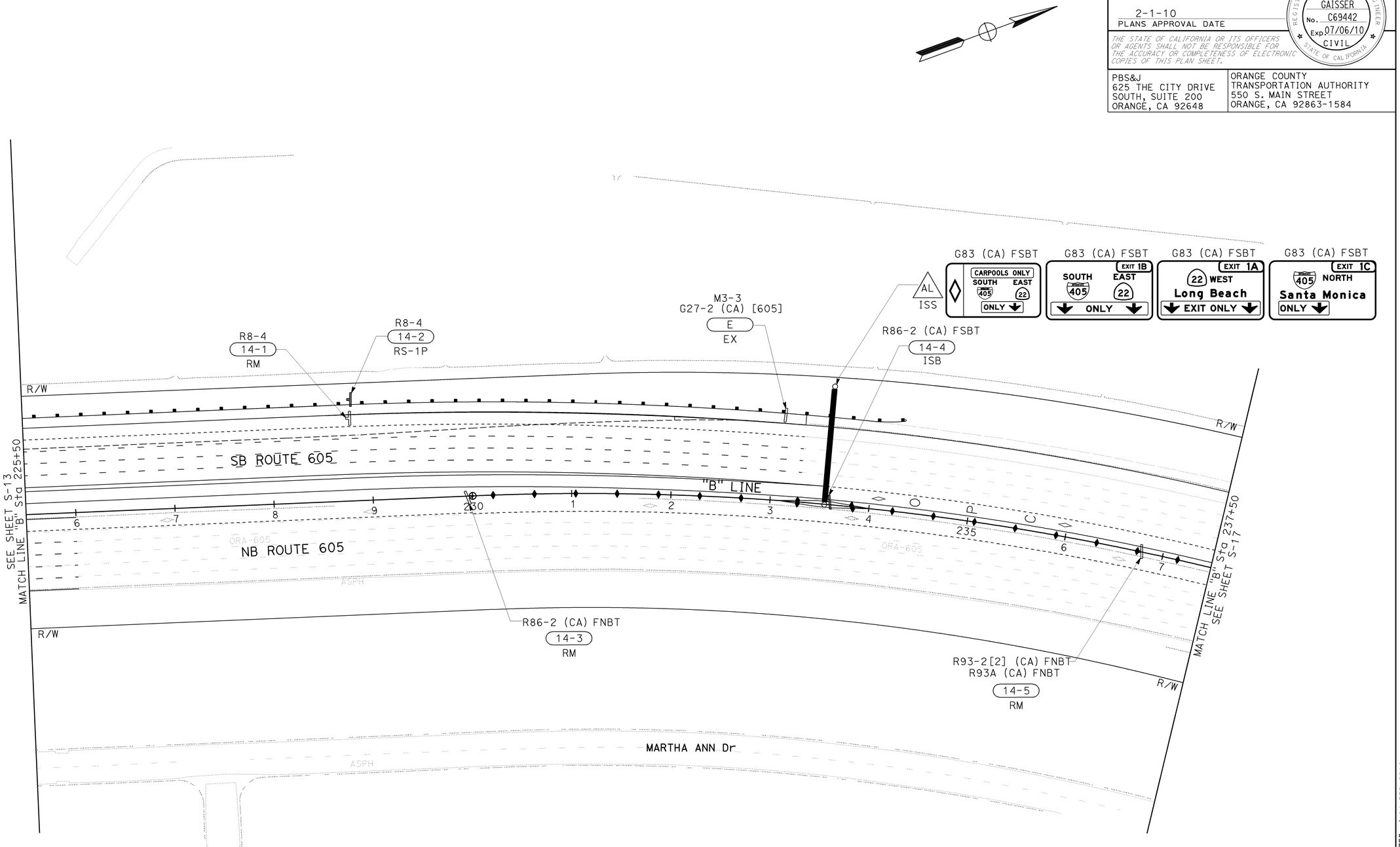

SIGN PLAN

SCALE: 1" = 50'

S-14

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 07:54

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c07163oa014.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1014	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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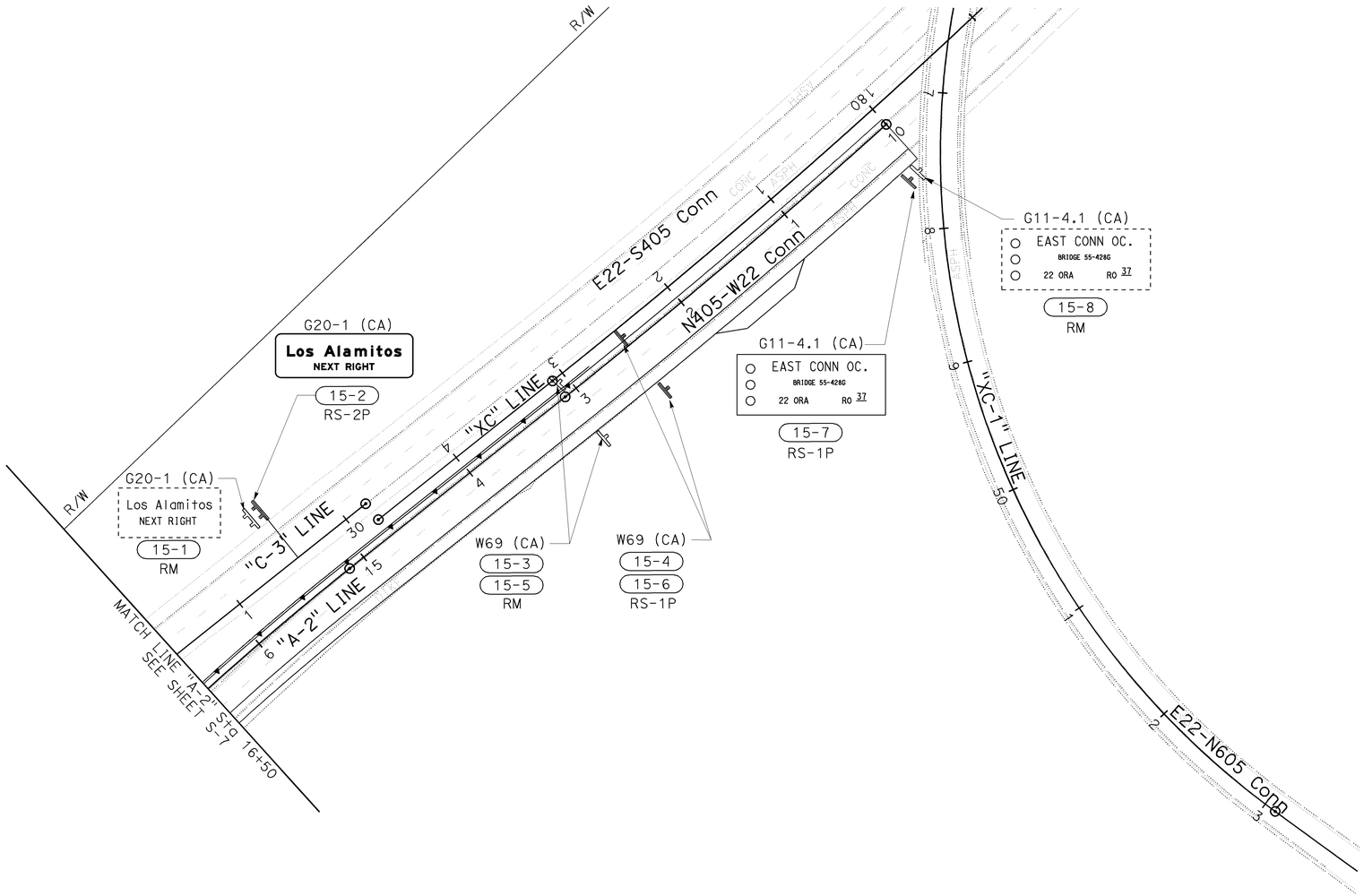
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



SIGN PLAN

SCALE: 1" = 50'

S-15

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION: DATE PLOTTED => 04-FEB-2010; TIME PLOTTED => 07:54; 08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c071631oa015.dgn

CU 12235

EA 071631

NOTE:
1. EXACT LOCATION OF PEDESTRIAN BARRICADES SHALL BE DETERMINED BY THE ENGINEER.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1015	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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TRANSPORTATION AUTHORITY
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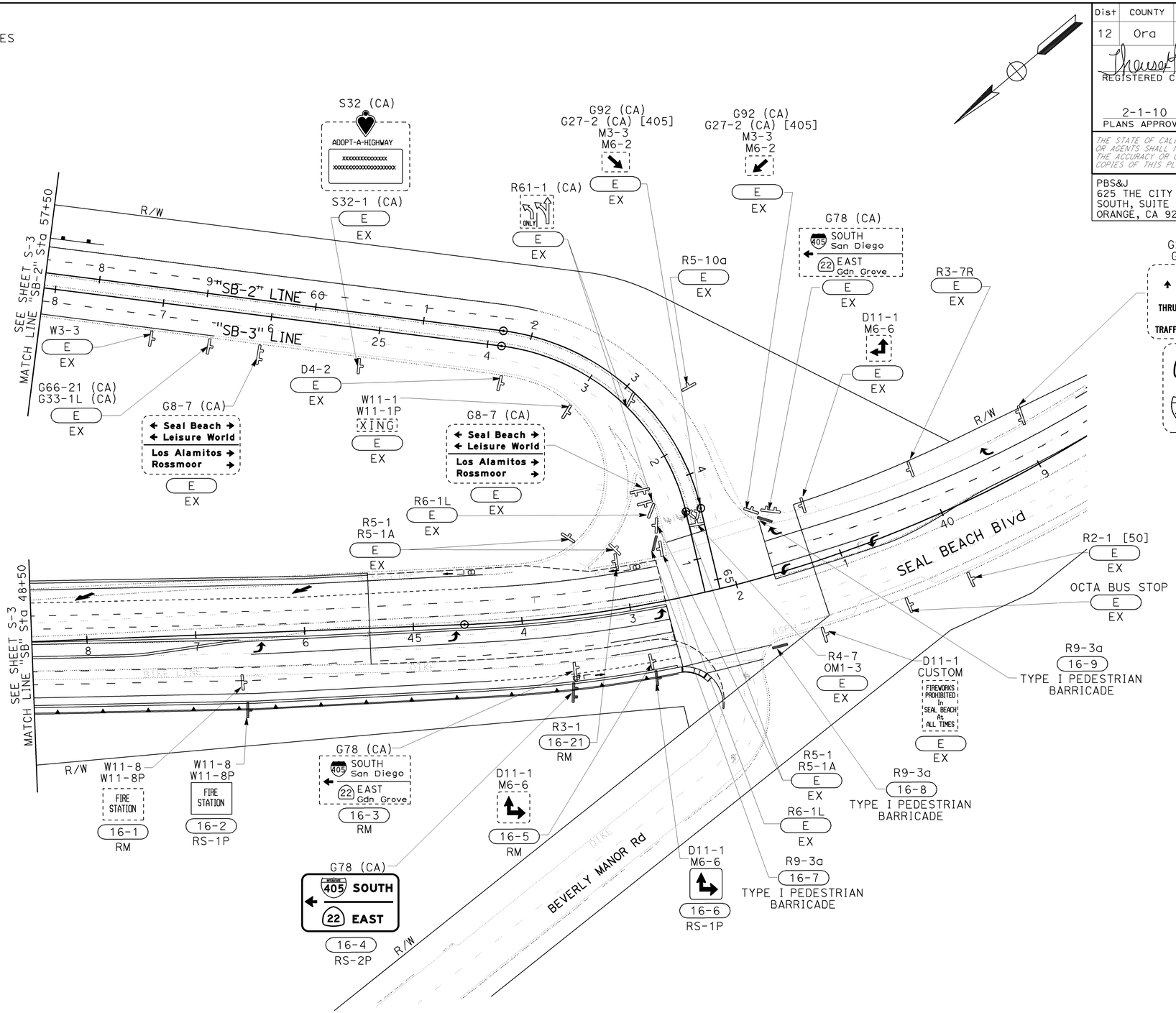

SIGN PLAN

SCALE: 1" = 50'

S-16

THIS PLAN ACCURATE FOR SIGN WORK ONLY

	REVISED BY	DATE REVISED
CALCULATED-DESIGNED BY	TG	8/10/09
CHECKED BY	JIMMY TARQUINIO	
	THERESA GAISSER	

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 07:54

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c07163oa016.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1016	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THERESA M. GAISSER No. C69442 Exp. 07/06/10 CIVIL STATE OF CALIFORNIA

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TRANSPORTATION AUTHORITY
550 S. MAIN STREET
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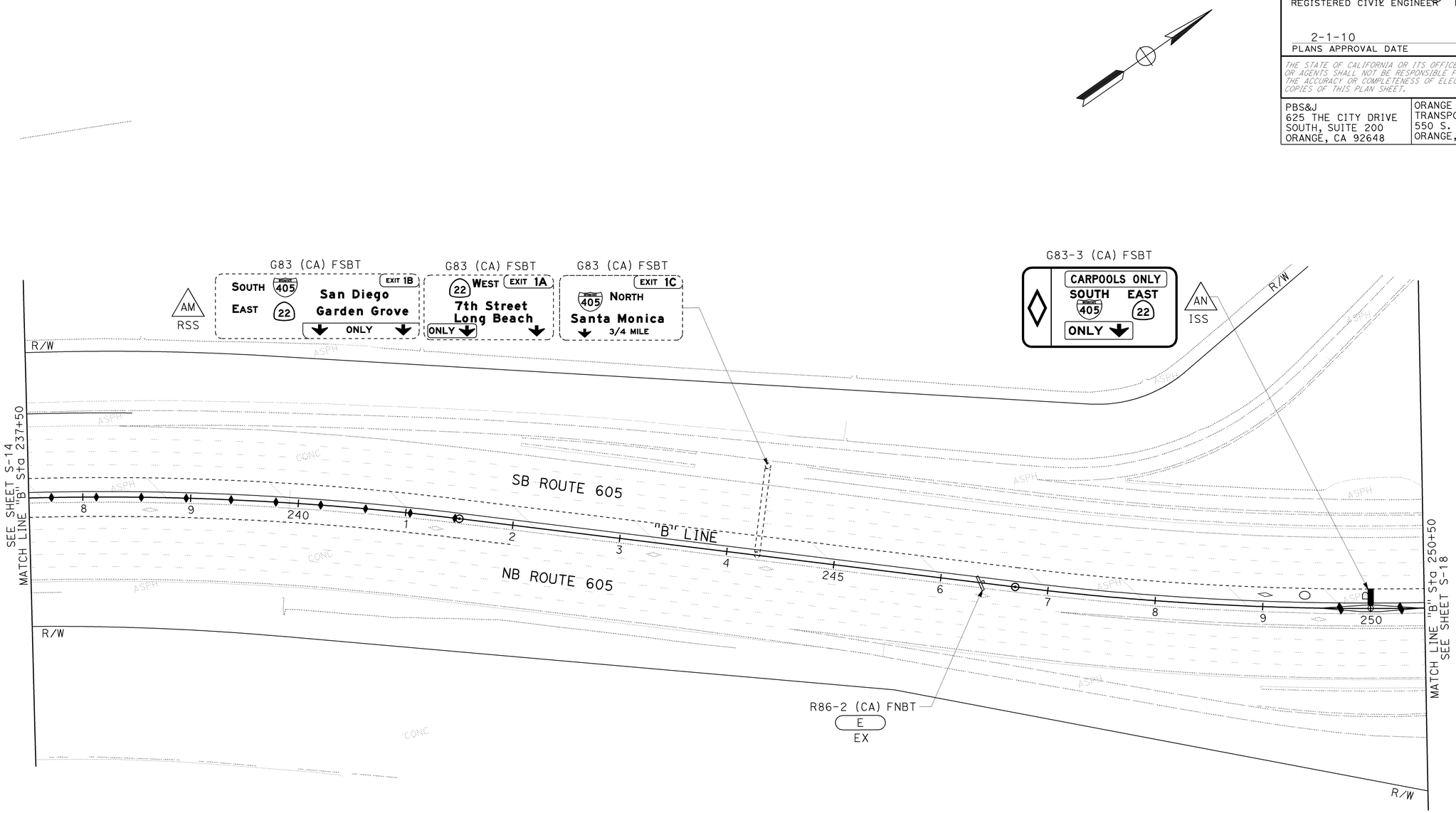

SIGN PLAN

SCALE: 1" = 50'

S-17

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY: JIMMY TARQUINIO

CHECKED BY: THERESA GAISSER

REVISED BY: TG

DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 04-FEB-2010 TIME PLOTTED => 07:54

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c07163oa017.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1017	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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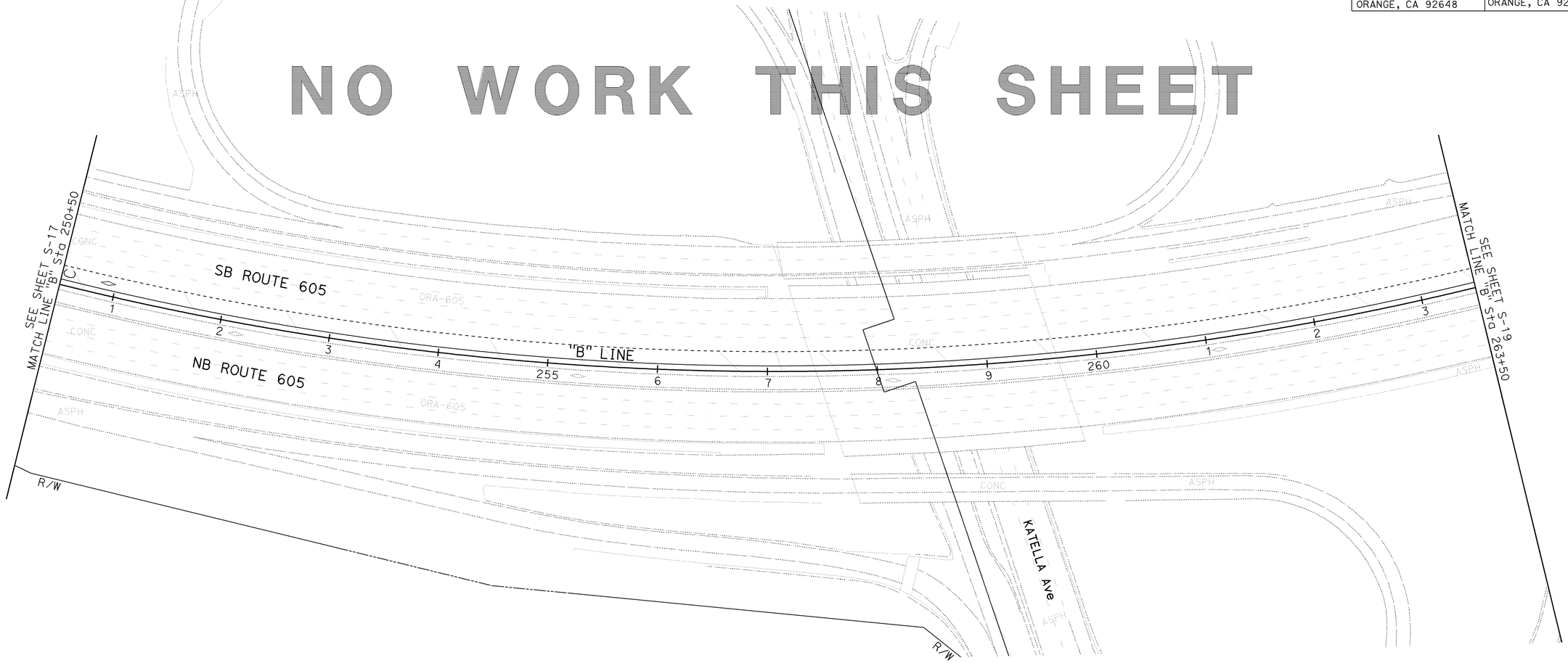
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NO WORK THIS SHEET



SIGN PLAN

SCALE: 1" = 50'

S-18

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	REVISED BY	TG
Caltrans	KEYVAN PIRBZARI	DATE REVISED	8/10/09
	CALCULATED-DESIGNED BY	JIMMY TARQUINIO	
	CHECKED BY	THERESA GAISSER	

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 07:54

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c071630a018.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1018	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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ORANGE COUNTY
TRANSPORTATION AUTHORITY
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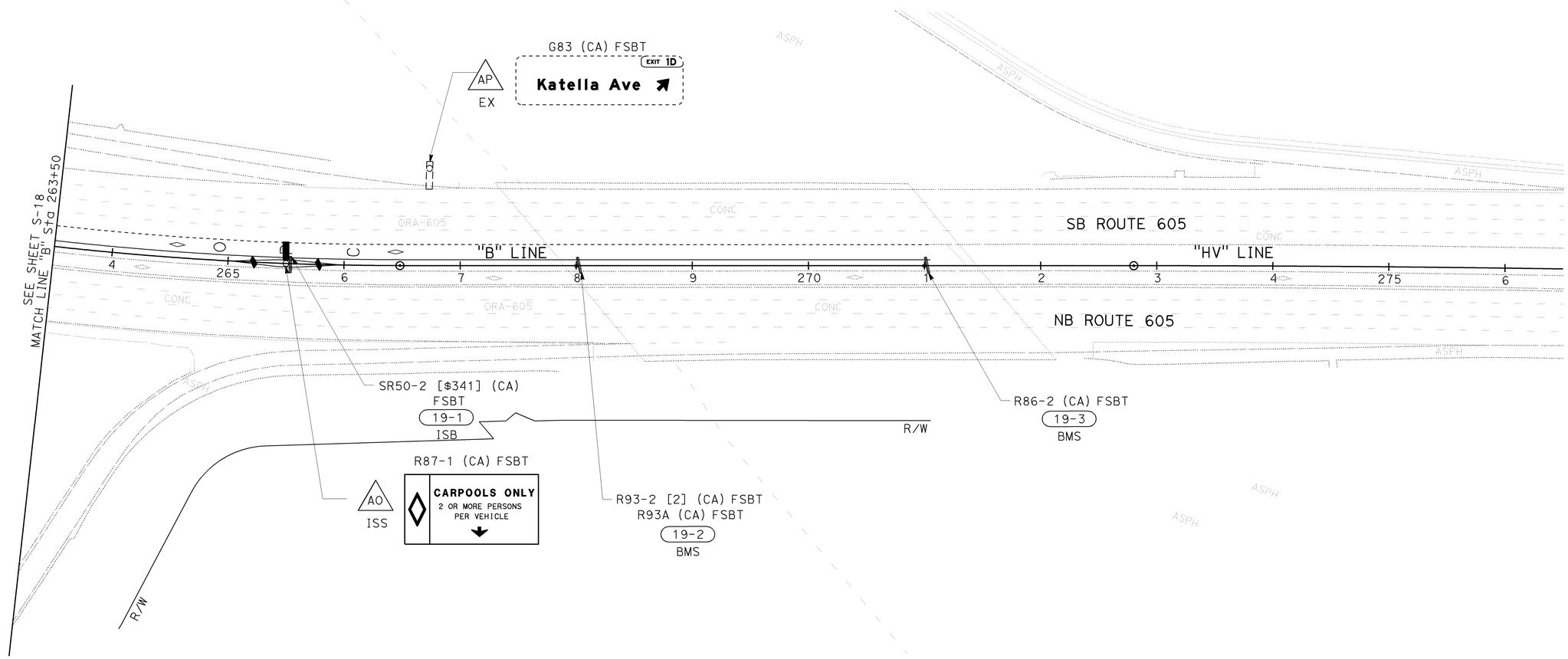
ORANGE, CA 92863-1584



SIGN PLAN

SCALE: 1" = 50'

S-19

THIS PLAN ACCURATE FOR SIGN WORK ONLY

CALCULATED-DESIGNED BY			
CHECKED BY	THERESA GAISSER	DATE REVISED	8/10/09
	JIMMY TARQUINIO	REVISED BY	TG

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 07:54
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmnguye
DGN FILE => c071630a019.dgn

CU 12235

EA 071631

NOTE:
1. SEE SHEET S-3 FOR NEW INSTALLATIONS / EXISTING SIGNS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1019	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

S32 (CA)
ADOPT-A-HIGHWAY
XXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXX

S32-1 (CA)
20-36
RM

W4-1R
20-27
RM

SEE SHEET S-2
MATCH LINE "A" Sta 408+50

SEE SHEET S-2
MATCH LINE "SB-1" Sta 48+50

W3-3
20-8
RM

R5-10a
20-9
RM

W4-1R
20-26
RM

"SB-4" LINE

W1-1R
20-10
RM

G78-4 (CA)
405 NORTH
Long Beach
22 WEST
20-14
RM

G92 (CA)
G27-2 (CA) [405]
M3-1
M6-2
20-12
RM

R61-28 (CA)
ONLY ONLY
20-1
20-2
20-3
20-4
RM

"SB-1" LINE

"SB-5" LINE

R6-1L
20-5
RM

R/W

SB ROUTE 405

NB ROUTE 405

"SB-2" LINE

"SB-3" LINE

"A" LINE

"SB" LINE

SEAL BEACH Blvd

G11-4.1 (CA)
SEAL BEACH BL. OC.
BRIDGE 55-345
405 ORA. 22 54
20-28
RM

SR50-2 (CA)
FNBT [$341]
20-29
RM

G23 (CA) FNBT
E
RSS
7th Street 22 WEST 1/2
405 Freeway 1 1/4
605 Palo Verde Ave 2 1/4

W1-2R
W13-1 [30]
20-30
RM

G11-4.1 (CA)
SEAL BEACH BL. OC.
BRIDGE 55-345
405 ORA. 22 54
20-31
RM

G20-5 (CA)
22 WEST
LEFT LANE
20-35
RM

D11-1
20-32
RM

D11-1
20-34
RM

G84
20-33
RM

MATCH LINE "SB" Sta 48+50
SEE SHEET S-16

MATCH LINE "SB-2" Sta 57+50
SEE SHEET S-16

MATCH LINE "A" Sta 417+50
SEE SHEET S-4

R5-1
R5-1a
20-6
20-7
RM

G92 (CA)
G27-2 (CA) [405]
M3-1
M6-2
20-11
RM

OLD RANCH PKWY

G78-4 (CA)
San Diego Fwy
← Long Beach
20-19
RM

R26(S) (CA)
R81 (CA)
20-18
RM

G92 (CA)
G27-2 (CA) [405]
M3-1
M6-2
20-20
RM

OCTA BUS STOP
20-21
RM

R2-1 [40]
R26(S) (CA)
20-24
RM

G92 (CA)
G27-2 (CA) [405]
M3-1
M6-2
20-22
RM

R26(S) (CA)
R81 (CA)
20-23
RM

G20-3 (CA)
San Diego Fwy
Garden Grove
LEFT LANE
20-25
RM

M3-1
G27-2 (CA) [405]
M3-4
G28-2 (CA) [22]
M6-1
20-16
RM

W11-1
W11-1P
BIKE XING
20-17
RM

D11-1
G33-1L (CA)
20-15
RM

R5-10a
20-13
RM

THIS PLAN ACCURATE FOR SIGN WORK ONLY

SIGN PLAN
SCALE: 1" = 50'

S-20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 07:54
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmnguye
DGN FILE => c071630a020.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1020	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 07/06/10 — CIVIL — STATE OF CALIFORNIA

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ORANGE COUNTY
TRANSPORTATION AUTHORITY
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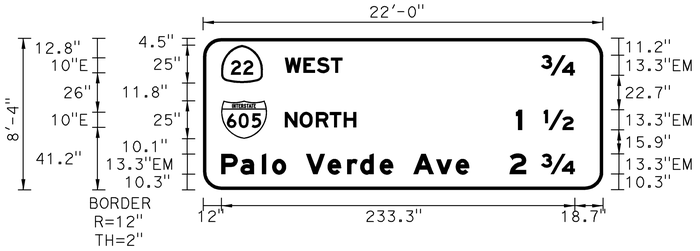
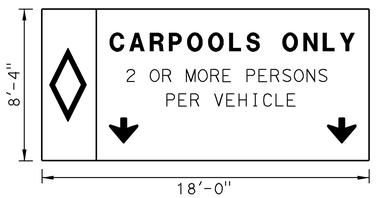
ORANGE, CA 92863-1584



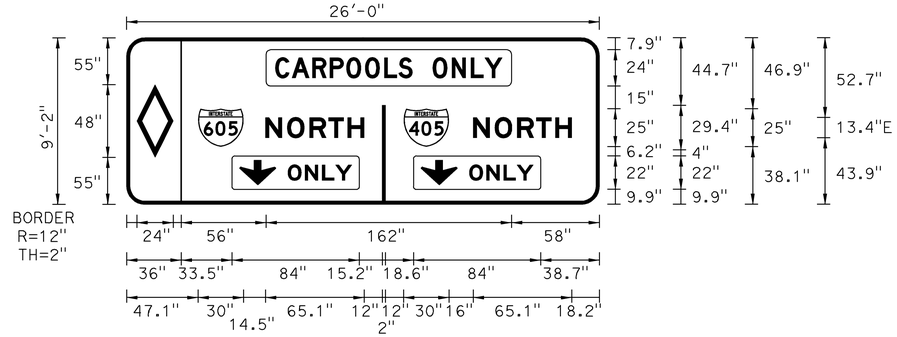
A
"A" 396+05
G23 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

A
"A" 396+05
G23 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

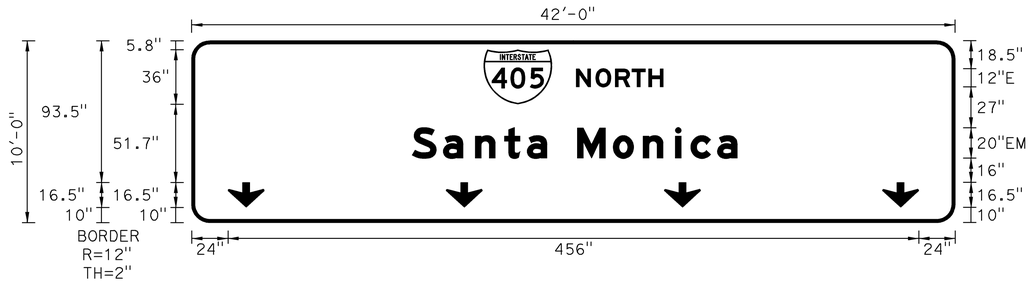
C
"A" 399+50
G85 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



D
"A" 407+85
R87-1 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



D
"A" 407+85
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



D
"A" 407+85
G24 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

THIS PLAN ACCURATE FOR SIGN WORK ONLY

SIGN PANEL DETAILS

NO SCALE

SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: THERESA GAISSER
CHECKED BY: JIMMY TARQUINIO
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:00
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c07163ob001.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1021	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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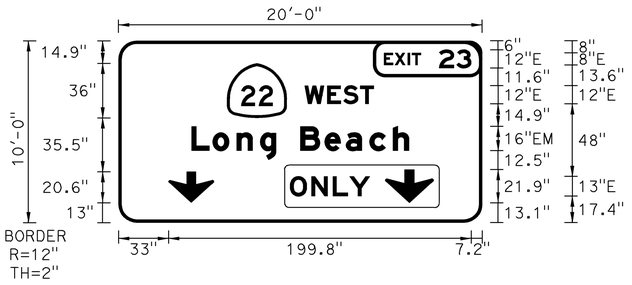
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

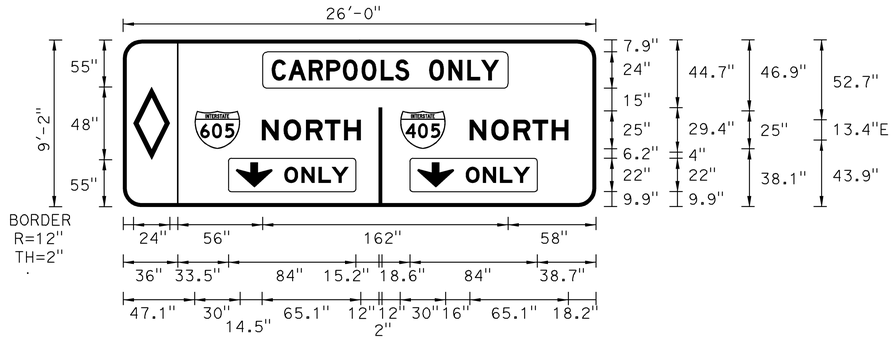


D

"A" 407+85
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

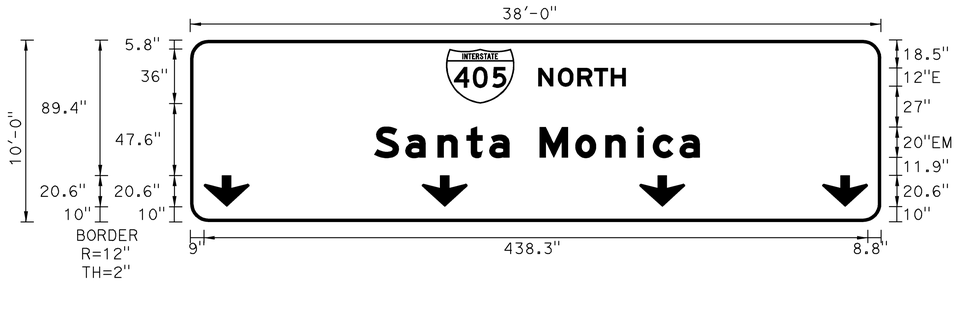
F

"A" 421+28
G85 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



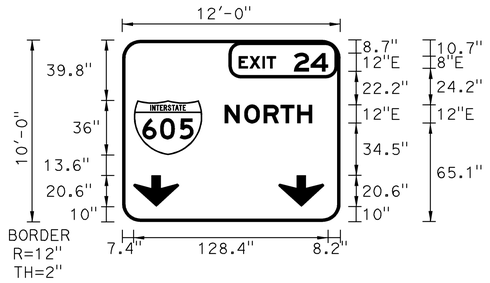
G

"A" 422+00
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



G

"A" 422+00
G24 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



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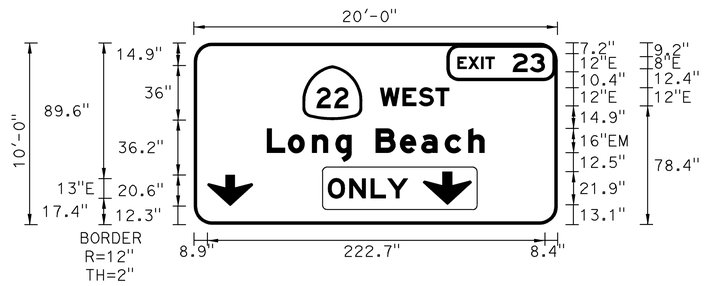
"A" 422+00
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



G

"A" 422+00
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

SIGN PANEL DETAILS

NO SCALE

SD-2

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09
LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:00
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmariak
DGN FILE => c07163ob002.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1022	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — 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.

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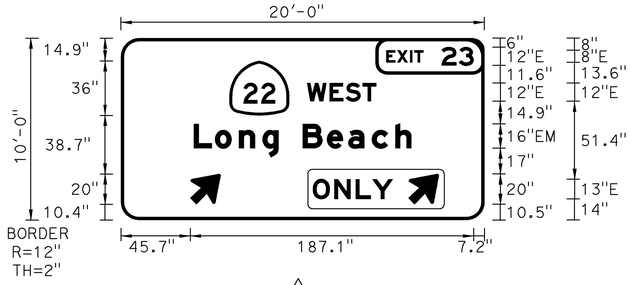
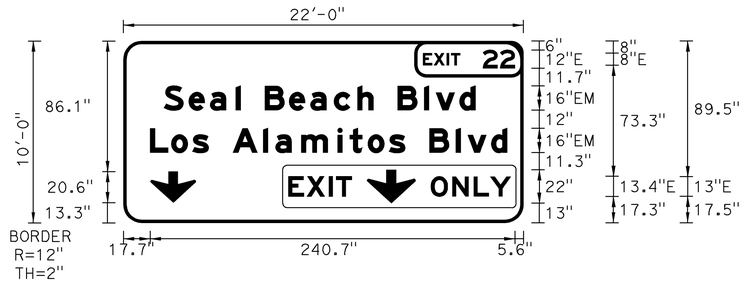
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



J

"A" 429+84
G85-11 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



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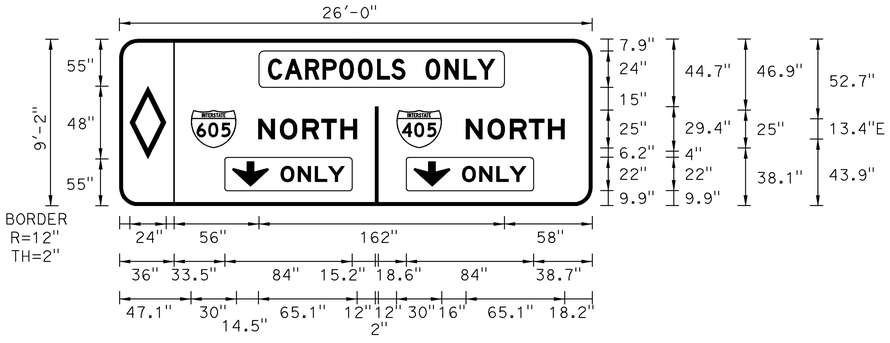
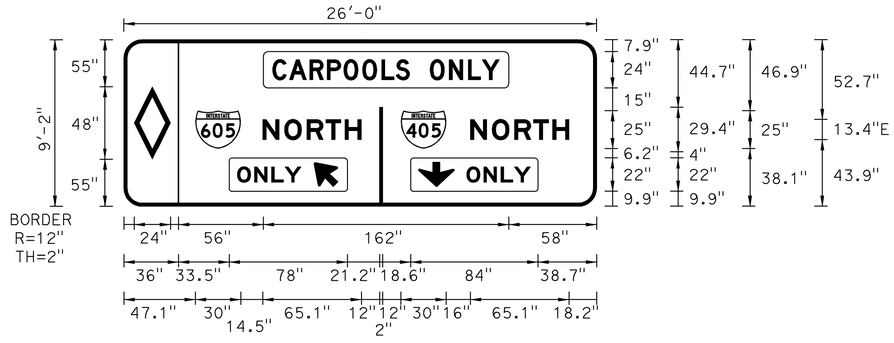
"A" 436+74
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



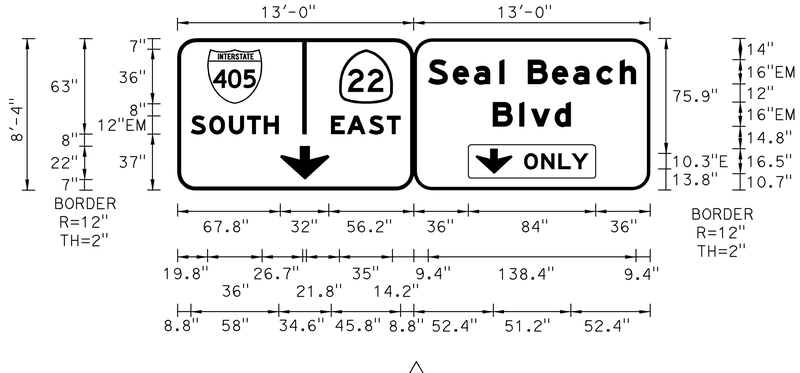
N

"A" 440+50
G83-3 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



O

"A" 446+00
G85 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



Q

"C-3" 34+90
G23 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

SIGN PANEL DETAILS

NO SCALE

SD-3

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER

REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION | DATE PLOTTED => 04-FEB-2010
08-10-09 | TIME PLOTTED => 08:00

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c07163ob003.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1023	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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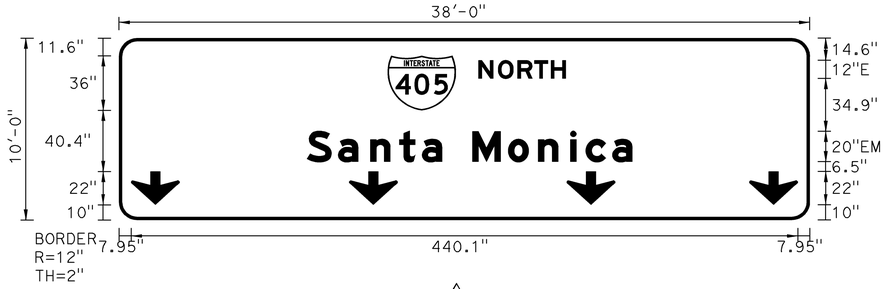
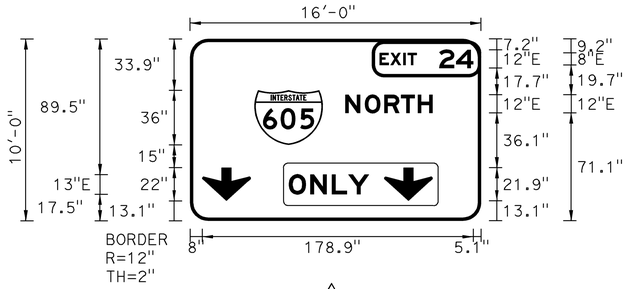
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



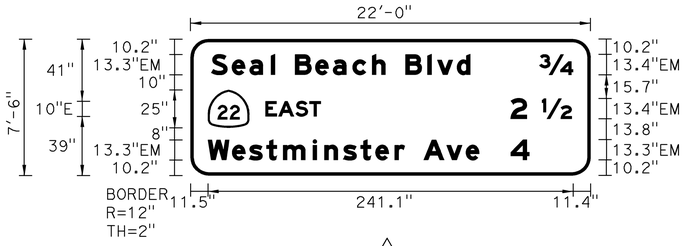
R

"A" 450+75
G24 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



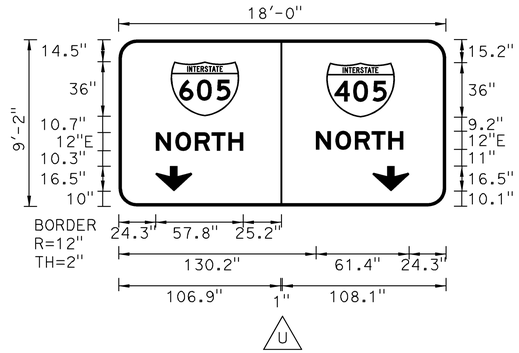
R

"A" 450+75
G83 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



S

"A" 455+00
G23 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

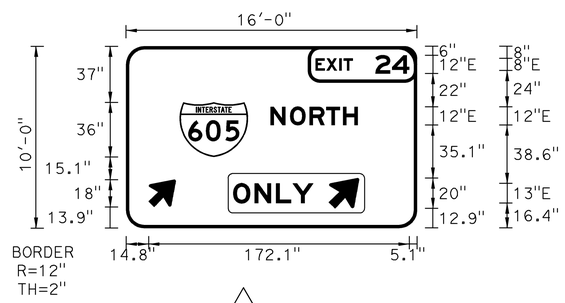


U

"C-1" 55+46
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

V

"A" 472+00
G24 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



V

"A" 472+00
G85 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

SIGN PANEL DETAILS

NO SCALE

SD-4

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
LAST REVISION TIME PLOTTED => 08:00
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c071630b004.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1024	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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ORANGE COUNTY
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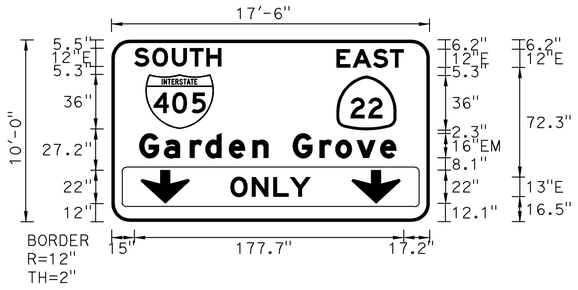
ORANGE, CA 92863-1584

Y

"C-2" 5+00
G85 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

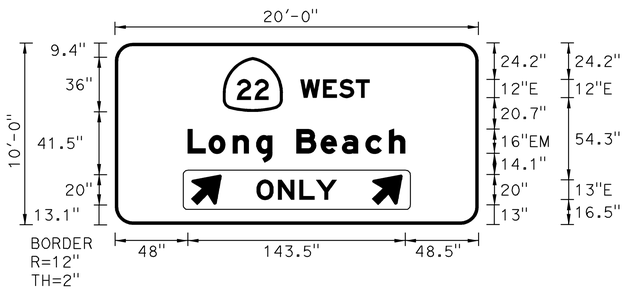
AC

"A" 484+00
G23 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



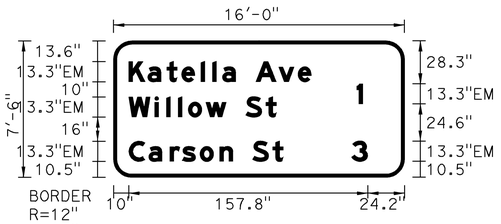
AE

"B-2" 80+17
G24 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



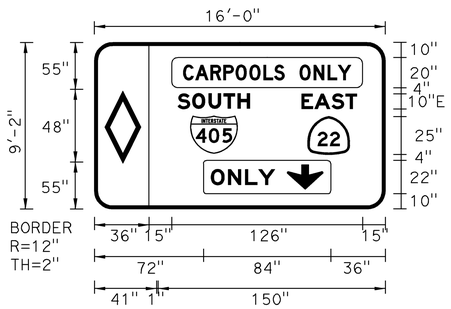
AE

"B-2" 80+17
G24 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



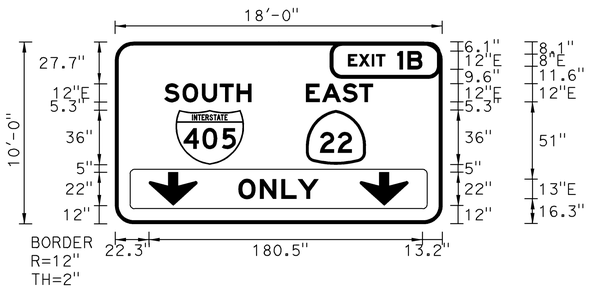
AG

"A-1" 110+24 ("B" 203+74.6)
G23 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



AG

"A-1" 110+24 ("B" 203+74.6)
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



AG

"A-1" 110+24 ("B" 203+74.6)
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

SIGN PANEL DETAILS

NO SCALE

SD-5

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER

REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
LAST REVISION TIME PLOTTED => 08:00
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c07163ob005.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1025	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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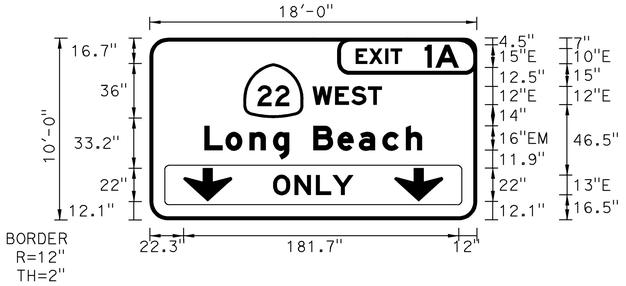
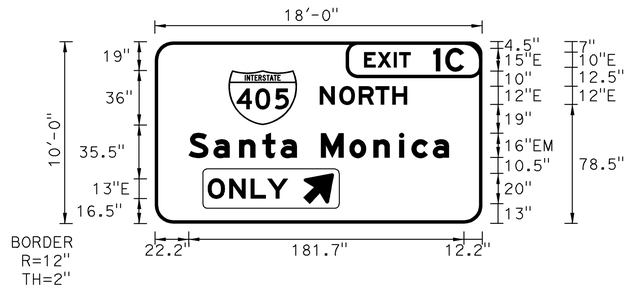
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



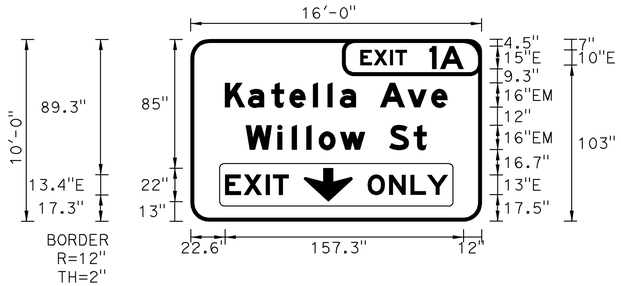
A6

"A-1" 110+24 ("B" 203+74.6)
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



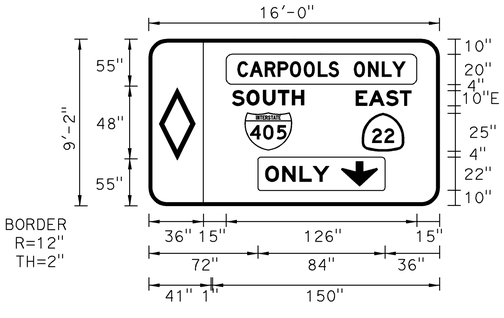
A6

"A-1" 110+24 ("B" 203+74.6)
G85 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



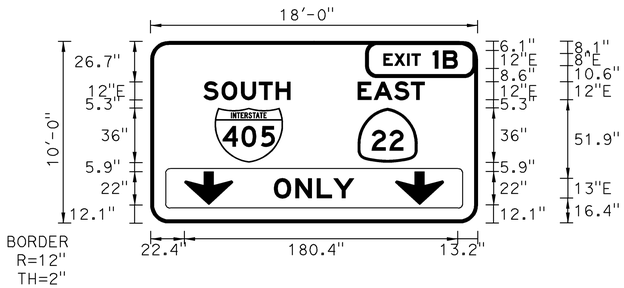
A1

"B" 217+71
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



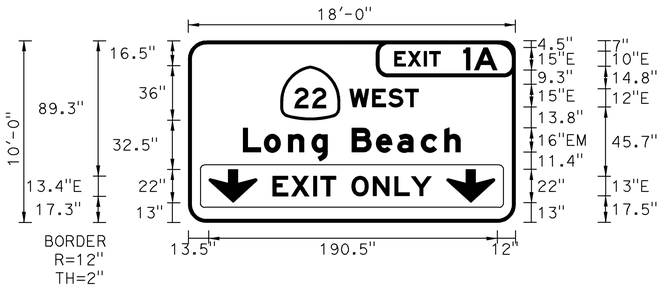
AL

"B" 233+55
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



AL

"B" 233+55
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



AL

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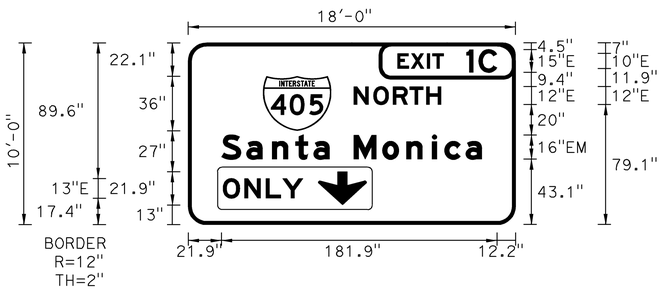
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



AL

"B" 233+55
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

SIGN PANEL DETAILS

NO SCALE

SD-6

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:00
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c07163ob006.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1026	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THERESA M. GAISSER No. C69442 Exp. 07/06/10 CIVIL STATE OF CALIFORNIA

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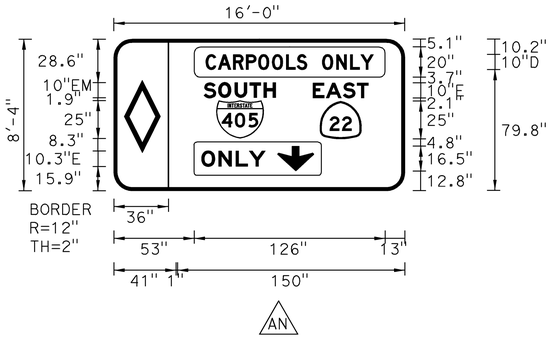
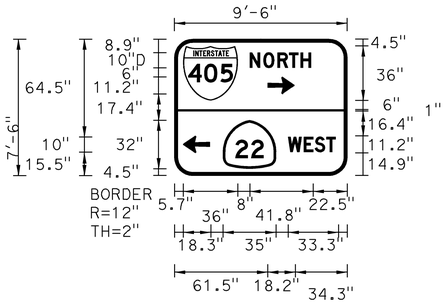
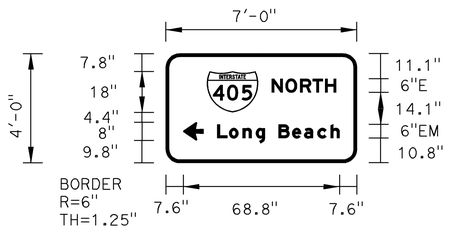


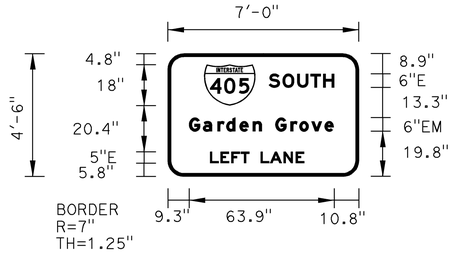
"B" 250+00
G83-3 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



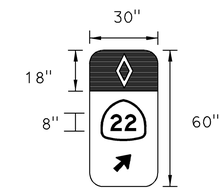
3-13
"SB" 59+00
G78-4 (CA)



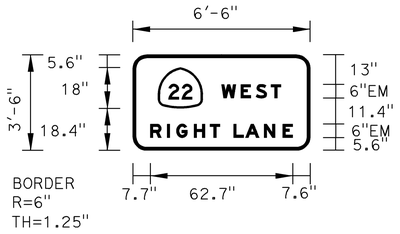
3-20
"SB" 59+78
G78-4 (CA) FNBT



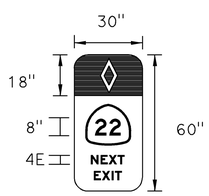
3-26
"SB" 56+73
G20-3 (CA) FNBT



3-28
"A" 411+55
G85-8 (CA) FSBT



3-37
"SB" 48+56
G20 (CA) FSBT



4-4
"A" 424+42
G86-9 (CA) FSBT

SIGN PANEL DETAILS

NO SCALE

SD-7

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1027	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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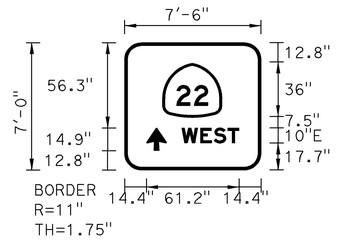
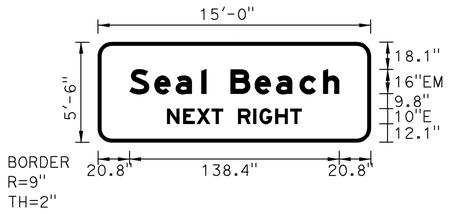
550 S. MAIN STREET
ORANGE, CA 92863-1584

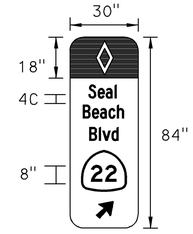


4-1
"OR"
G78 (CA) FWBT

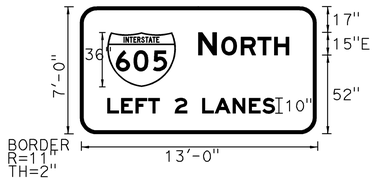
5-15
"A" 430+20
G24-4 (CA) FSBT



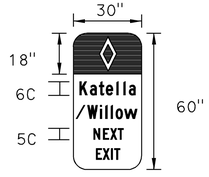
7-1
"A" 451+83
G86-1 (CA) FSBT



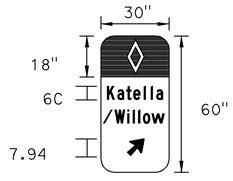
9-9
"A" 481+49
G85-8 (CA) FSBT



9-13
"C-1" 15+00
G24 (CA) FNBT

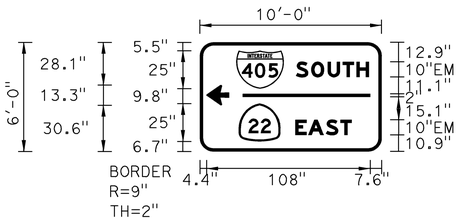


11-7
"A-1" 106+00
G86-8 (CA) FNBT

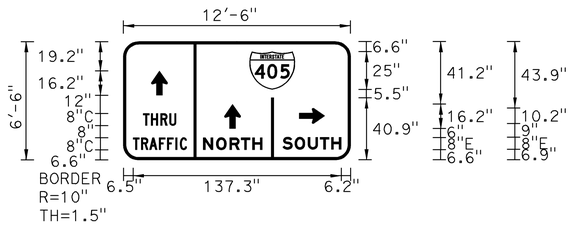


12-3
"B" 212+40
G85-7 (CA) FNBT

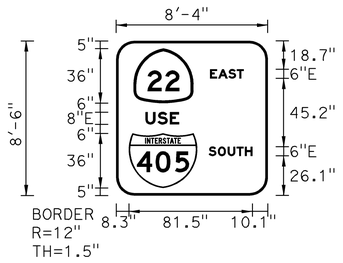
15-2
"B" 30+45
G20-1 (CA)



16-18 16-24 16-34
"SB" 43+48 FSBT / "SB-3" 21+82 FWBT / "SB" 41+46 FSBT
G78 (CA)



16-39
"SB" 39+09
G21-1 (CA) FNBT



16-39
"SB" 39+09
G77A (CA) FNBT

SIGN PANEL DETAILS

NO SCALE

SD-8

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:00
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c07163ab008.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1028	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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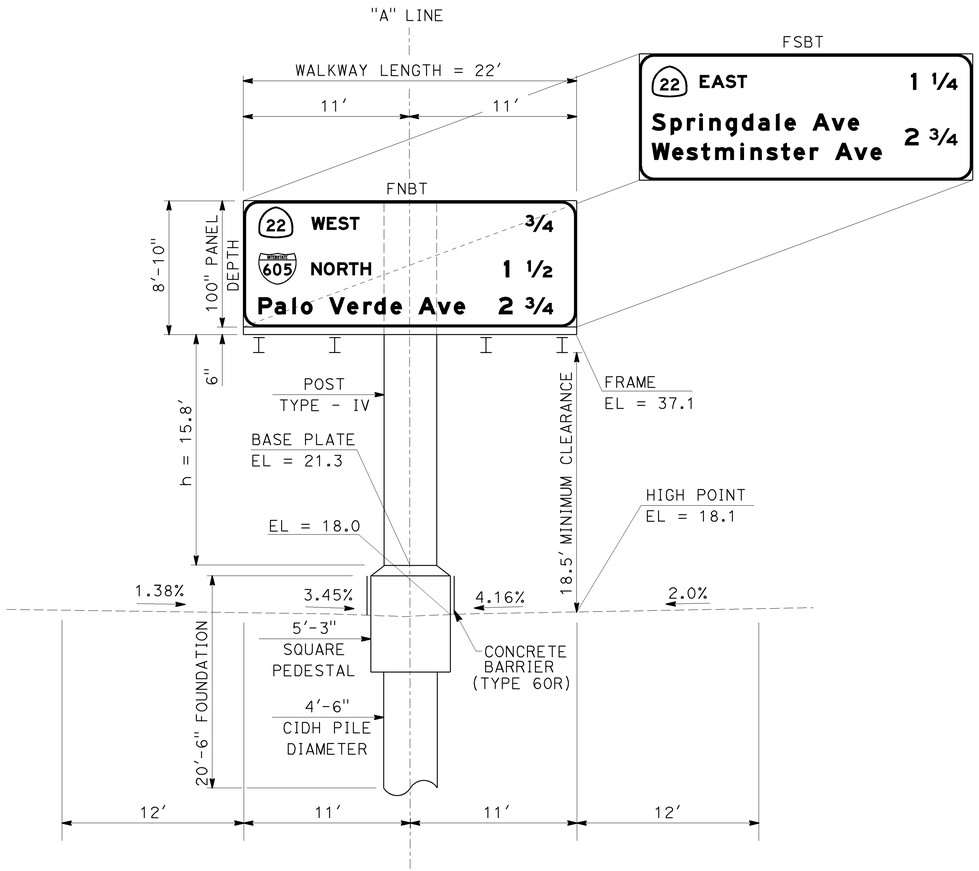
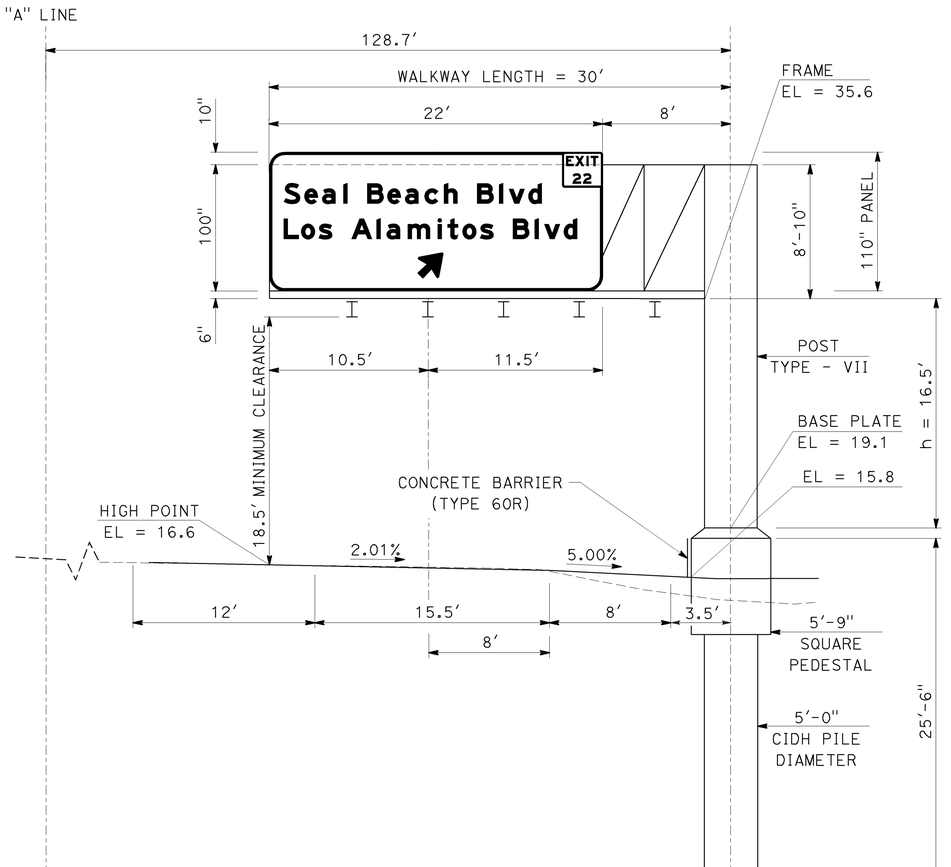
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



A
BUTTERFLY
"A" 396+05
G23 (CA) FNBT / G23 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



C
CANTILEVER
"A" 399+50
G85 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

GENERAL NOTES

1. ALL SIGN ELEVATIONS AND DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. POST LENGTHS "h" SHALL BE ADJUSTED AS REQUIRED TO ACHIEVE SPECIFIED MINIMUM VERTICAL CLEARANCE.
2. INSTALL ELECTRICAL CONDUIT IN SIGN FOUNDATIONS PER THE STANDARD PLANS AND THE ELECTRICAL PLANS.
3. SIGN SUPPORT SPANS SHALL BE LEVEL.
4. ORIGINAL GROUND (OG) SHOWN IS APPROXIMATED BASED ON TOPOGRAPHIC SURVEY.

THIS PLAN ACCURATE FOR SIGN WORK ONLY

OVERHEAD SIGN DETAIL

NO SCALE

SD-9

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY
CHECKED BY
JIMMY TARQUINIO
THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 08:01

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmariak | DGN FILE => c07163ab009.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1029	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 07/06/10
CIVIL
STATE OF CALIFORNIA

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ORANGE COUNTY
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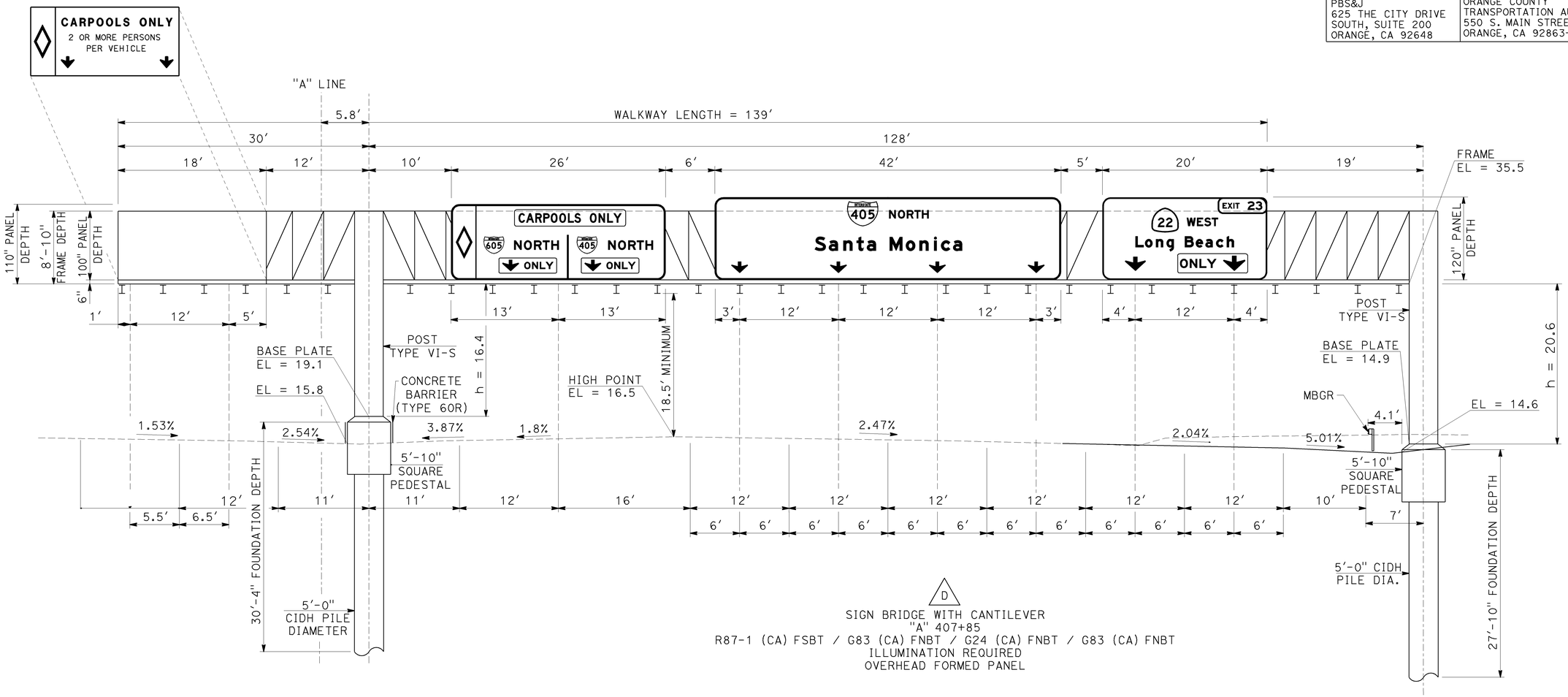
ORANGE, CA 92863-1584



D

SIGN BRIDGE WITH CANTILEVER
"A" 407+85
R87-1 (CA) FSBT / G83 (CA) FNBT / G24 (CA) FNBT / G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-10

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY
CHECKED BY

JIMMY TARQUINIO
THERESA GAISSER

CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:01

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmariak
DGN FILE => c07163ob010.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1030	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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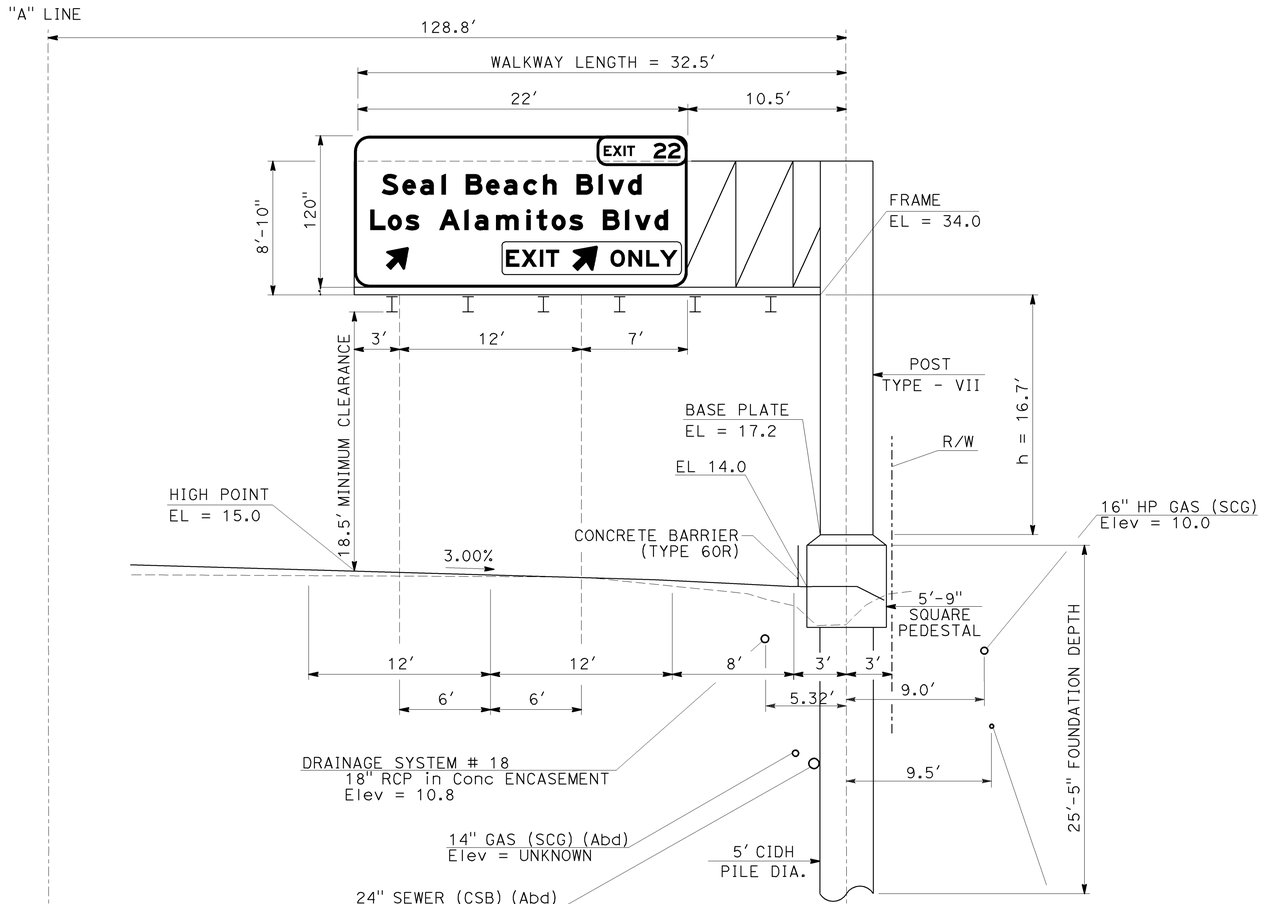
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



F

CANTILEVER
"A" 421+38
G85 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-11

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:01
08-10-09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1031	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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ORANGE COUNTY
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550 S. MAIN STREET
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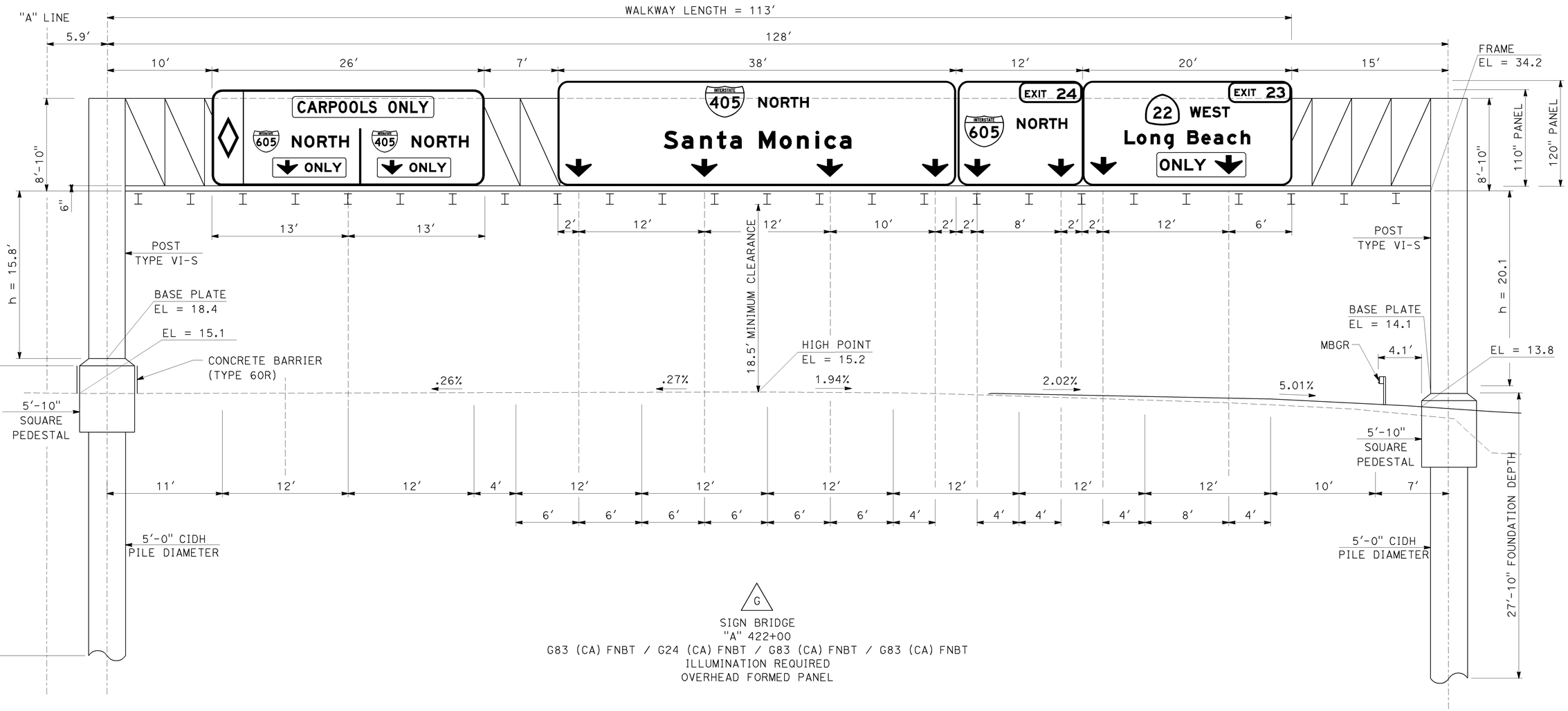

G
SIGN BRIDGE
"A" 422+00
G83 (CA) FNBT / G24 (CA) FNBT / G83 (CA) FNBT / G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-12

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:01
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c071630b012.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1032	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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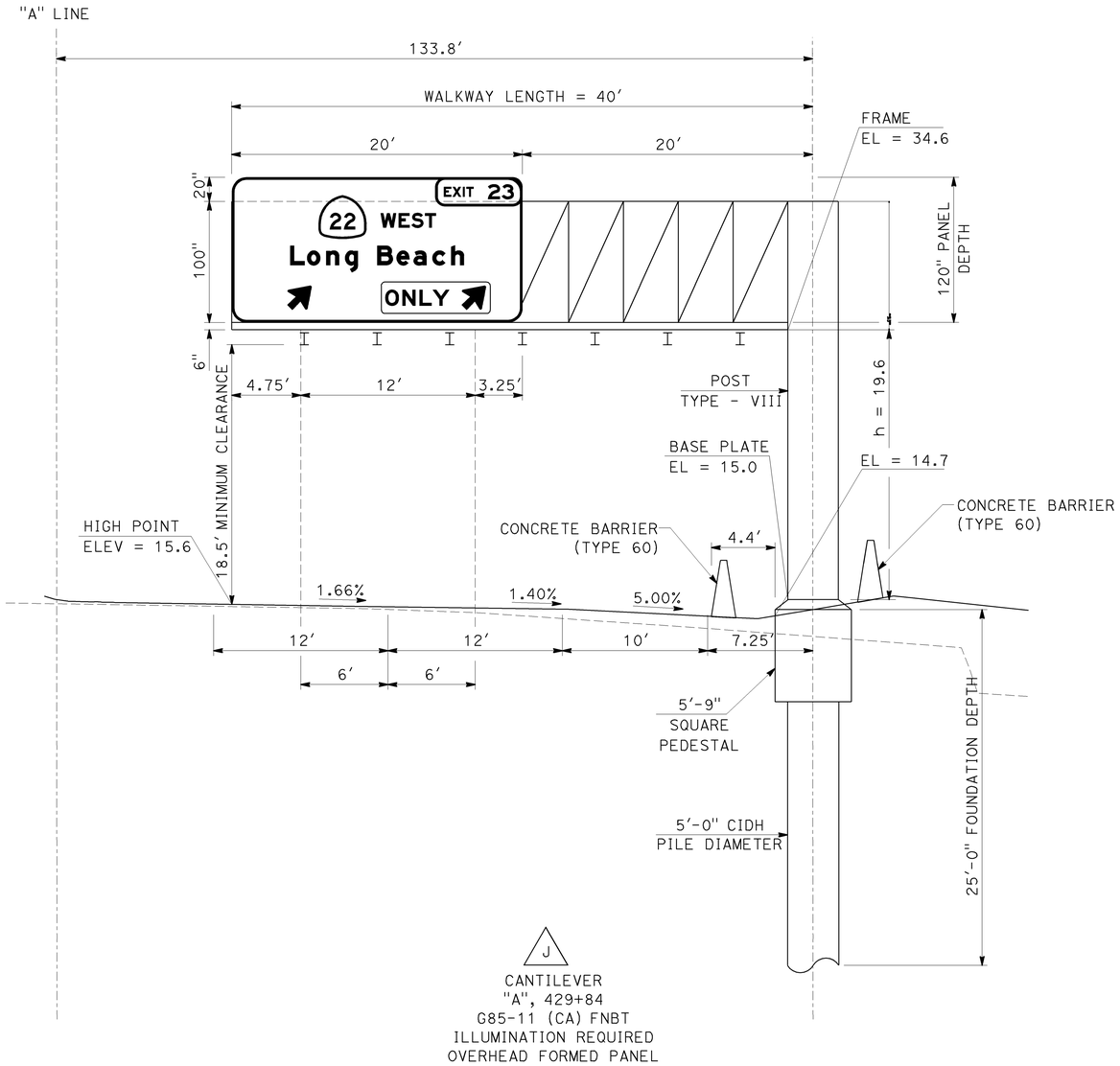
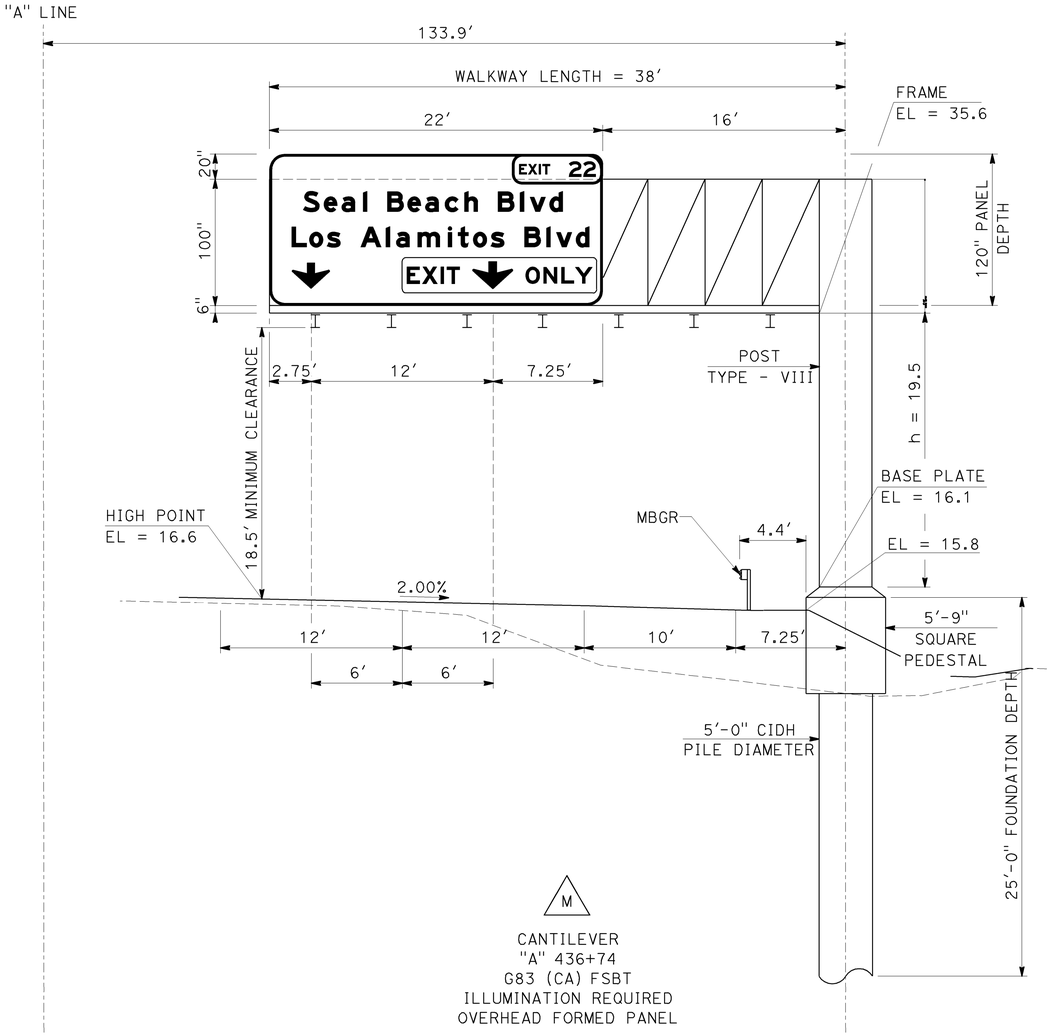
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



J
CANTILEVER
"A", 429+84
G85-11 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



M
CANTILEVER
"A" 436+74
G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-13

THIS PLAN ACCURATE FOR SIGN WORK ONLY

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 08:01

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c071630b013.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1033	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THERESA M. GAISSER No. C69442 Exp. 07/06/10 CIVIL STATE OF CALIFORNIA

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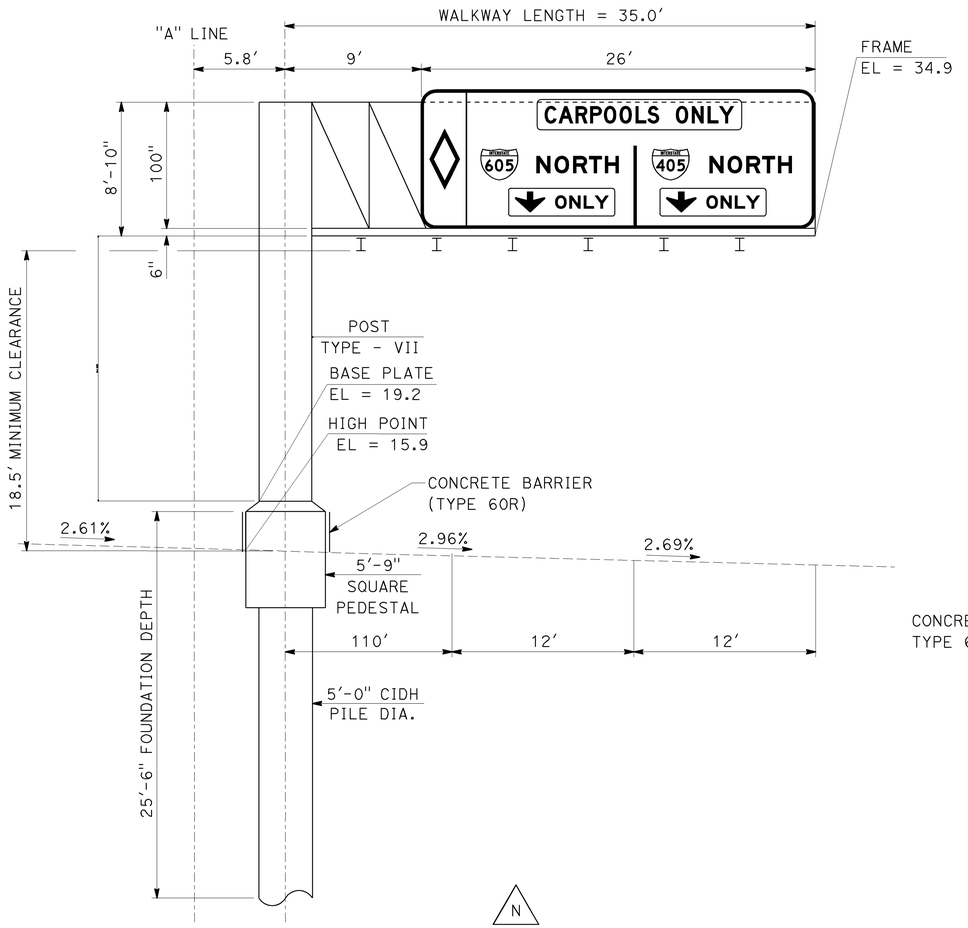
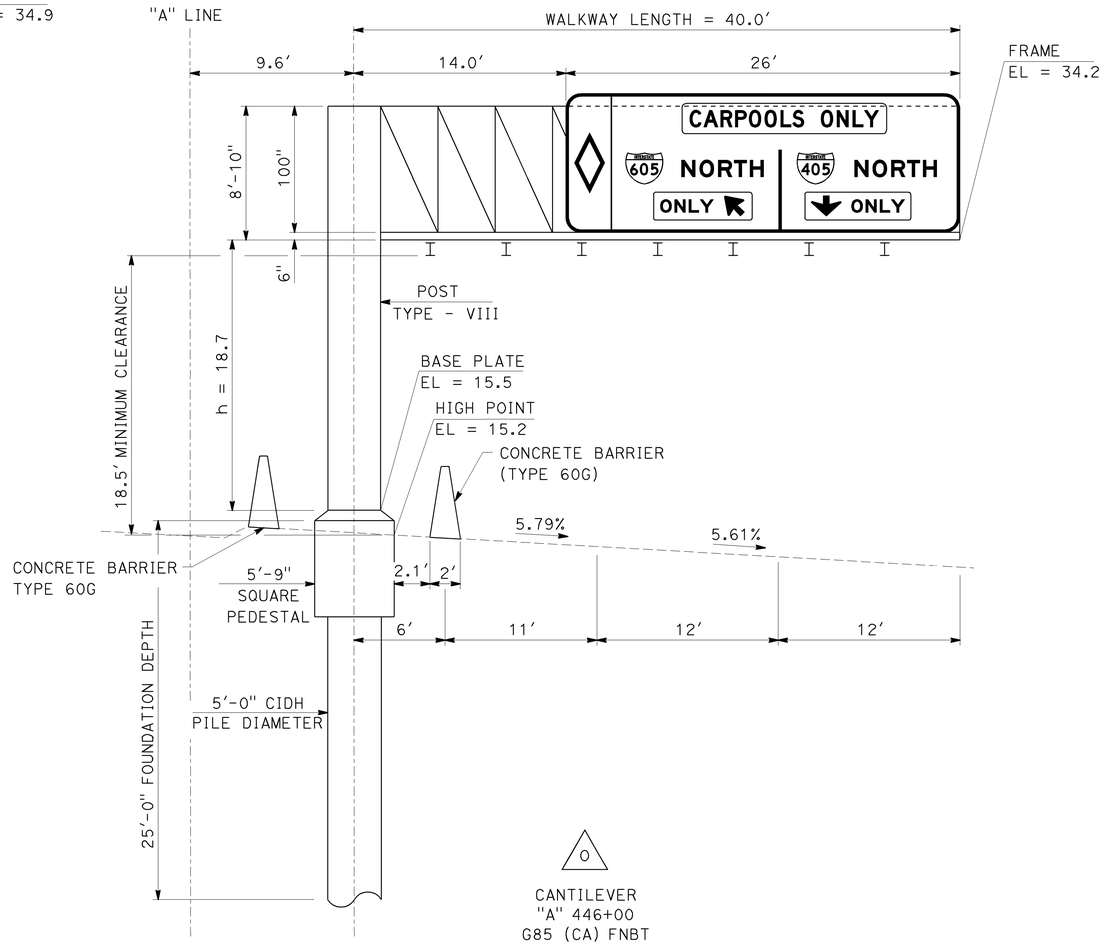
550 S. MAIN STREET
ORANGE, CA 92863-1584



CANTILEVER
"A" STA 440+50
G83-3 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



CANTILEVER
"A" 446+00
G85 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-14

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1034	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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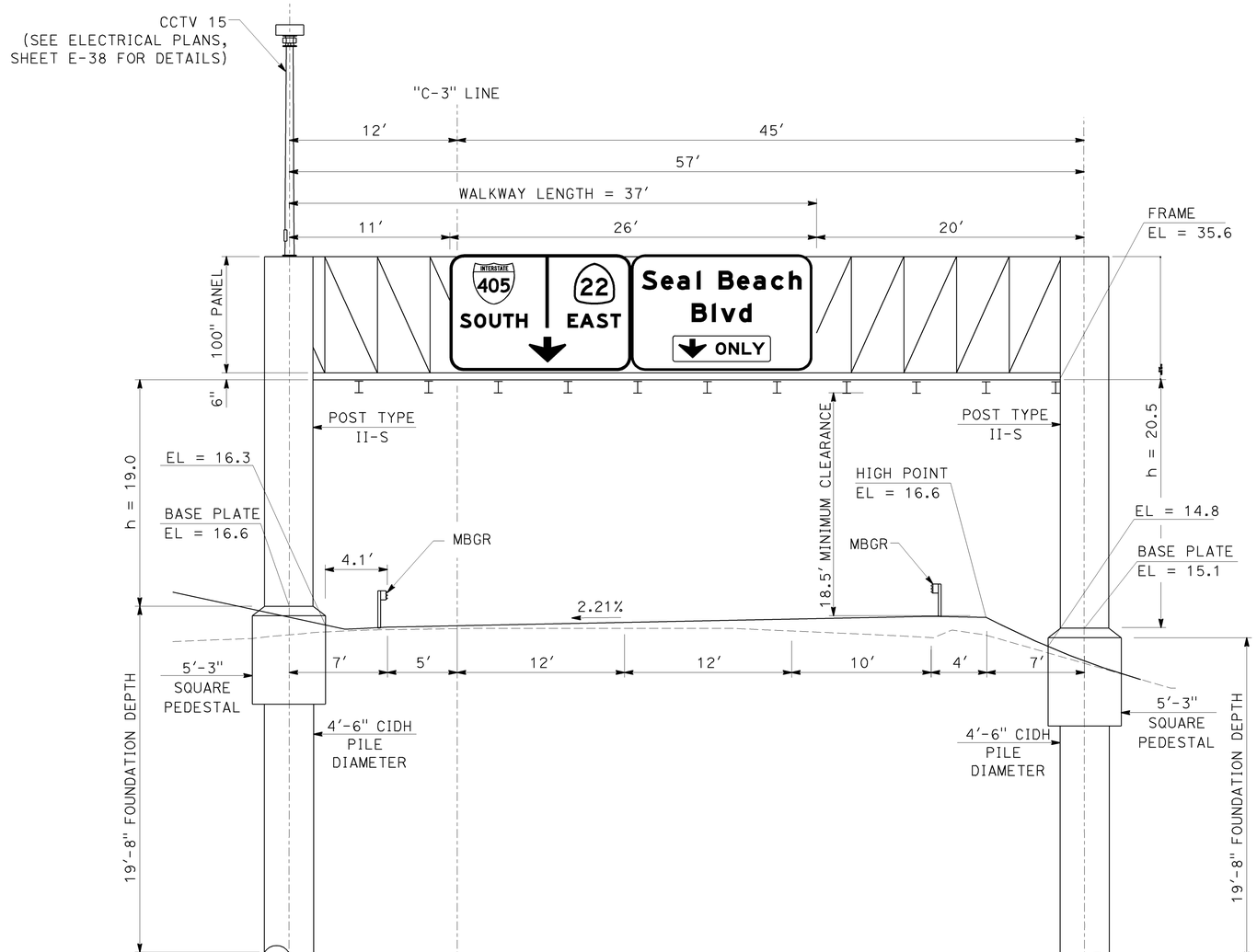

Q

SIGN BRIDGE
"C-3" 34+90
G23 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-15

THIS PLAN ACCURATE FOR SIGN WORK ONLY

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:01
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmariak
DGN FILE => c07163ob015.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1035	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

THERESA M. GAISSER No. C69442 Exp. 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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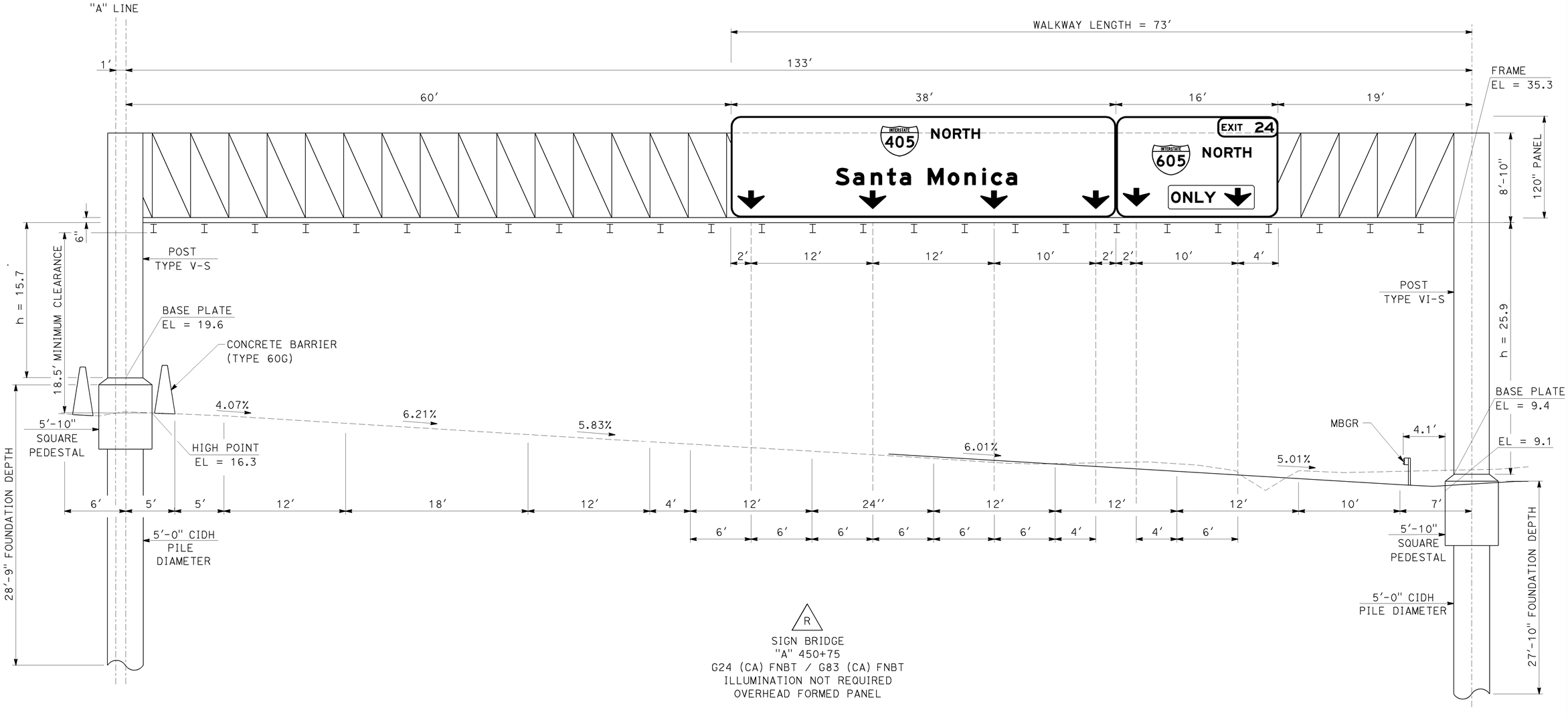
550 S. MAIN STREET
ORANGE, CA 92863-1584



R

SIGN BRIDGE
"A" 450+75
G24 (CA) FNBT / G83 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-16

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 04-FEB-2010 TIME PLOTTED => 08:02

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmarlak
DGN FILE => c07163ob016.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1036	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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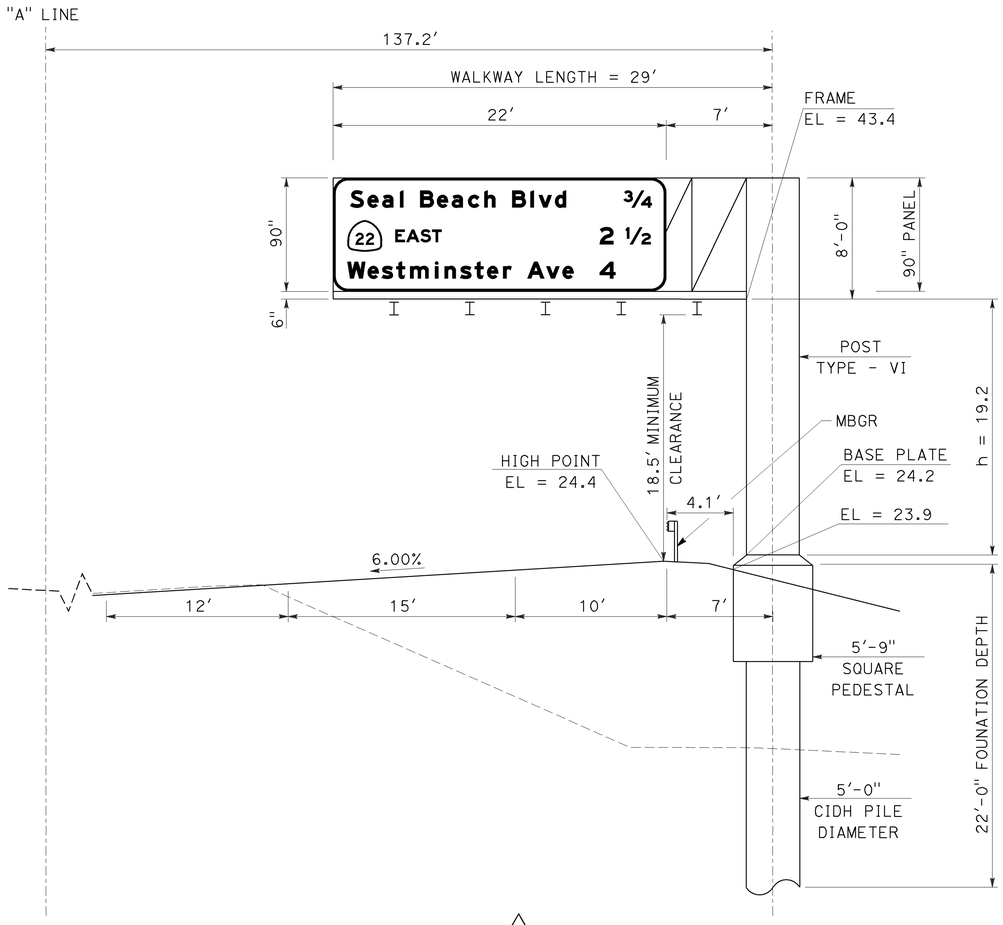
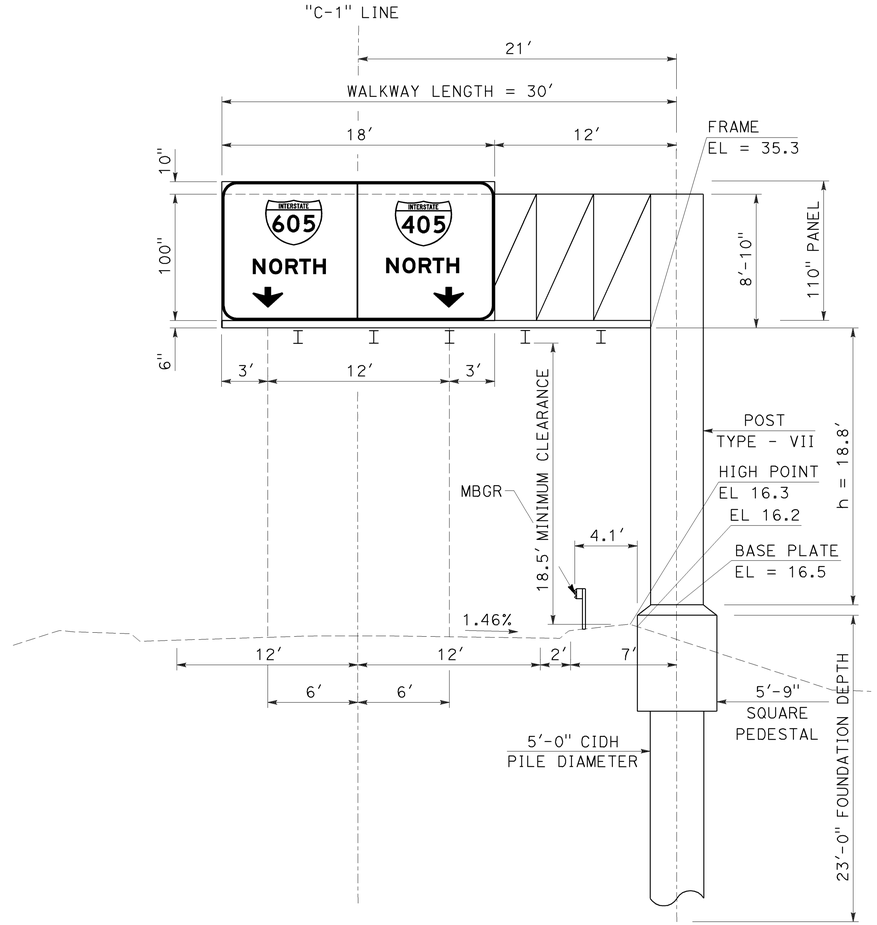
PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



S

CANTILEVER
"A" Sta 455+00
G23 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



U

CANTILEVER
"C-1" 55+46
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-17

THIS PLAN ACCURATE FOR SIGN WORK ONLY

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 08:51

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ob017.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1037	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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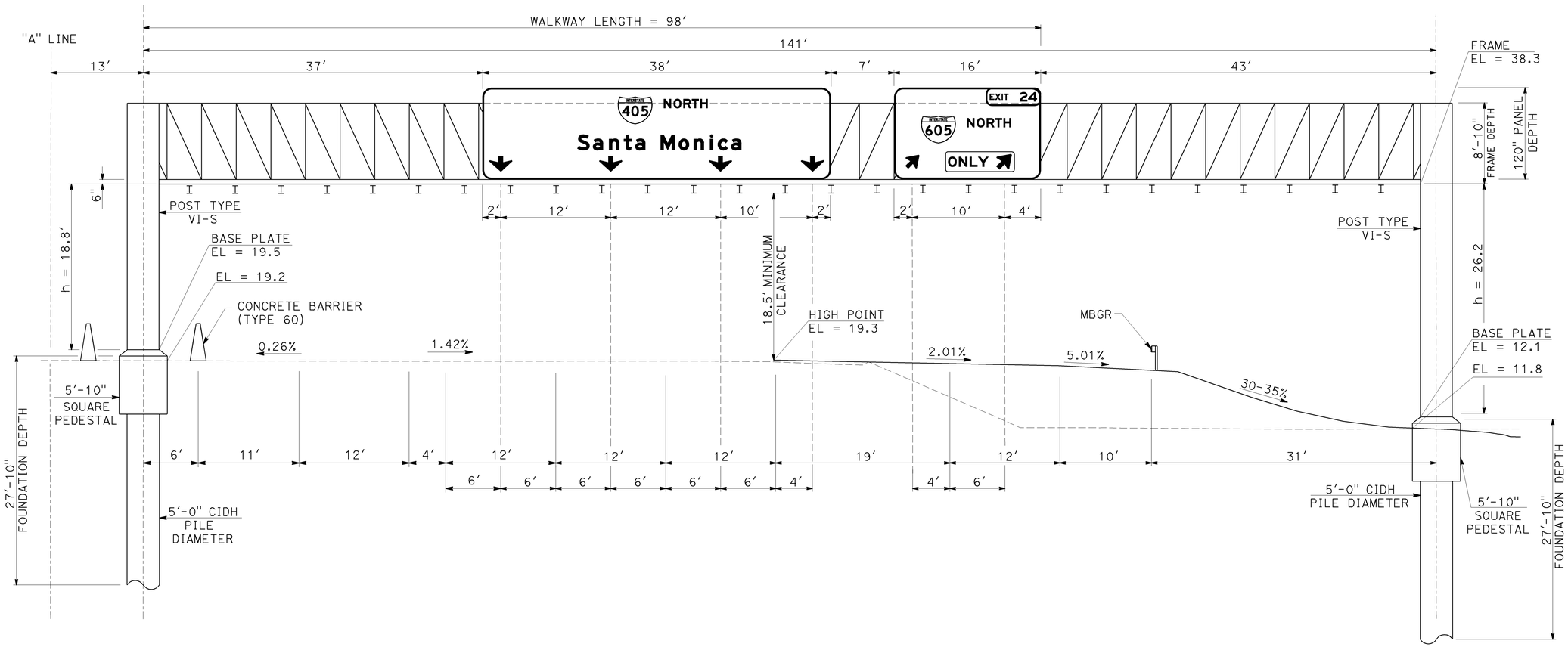
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



V

SIGN BRIDGE
"A" 472+00
G24 (CA) FNBT / G85 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-18

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY: TG — DATE REVISED: 8/10/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010 08-10-09 TIME PLOTTED => 08:52

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ob018.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1038	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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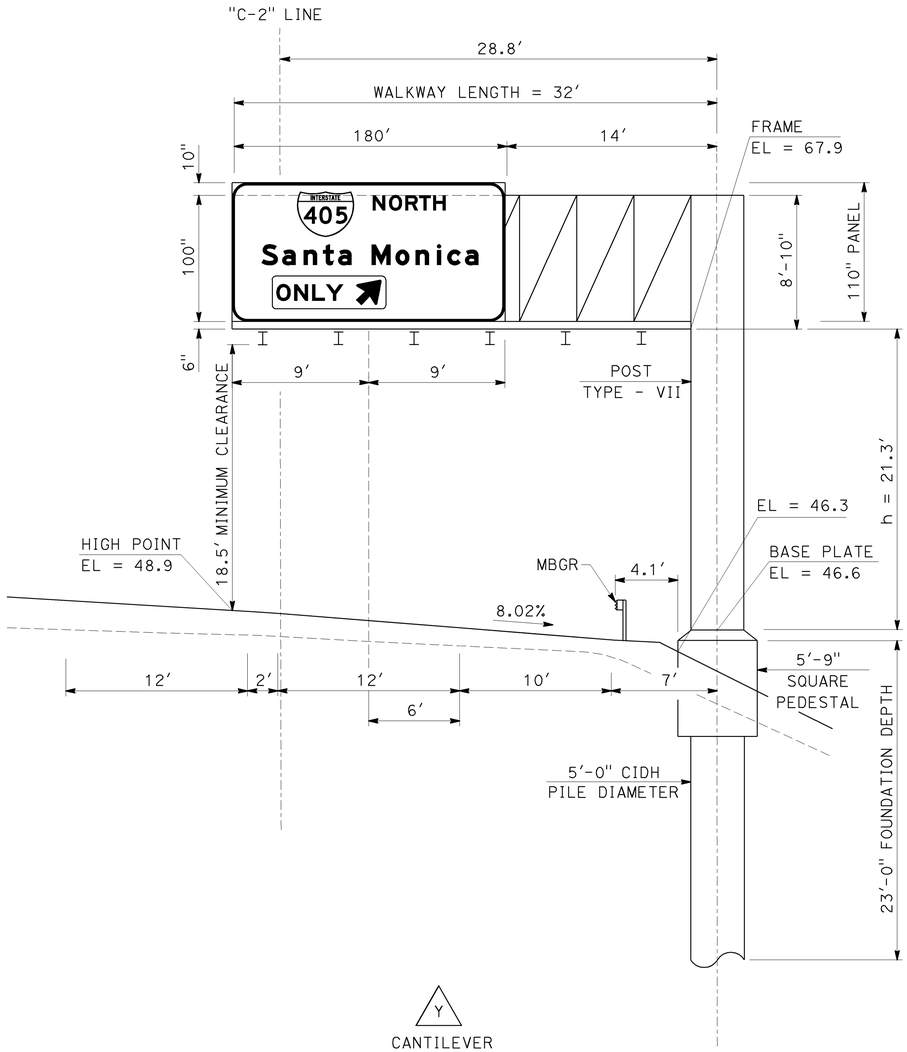
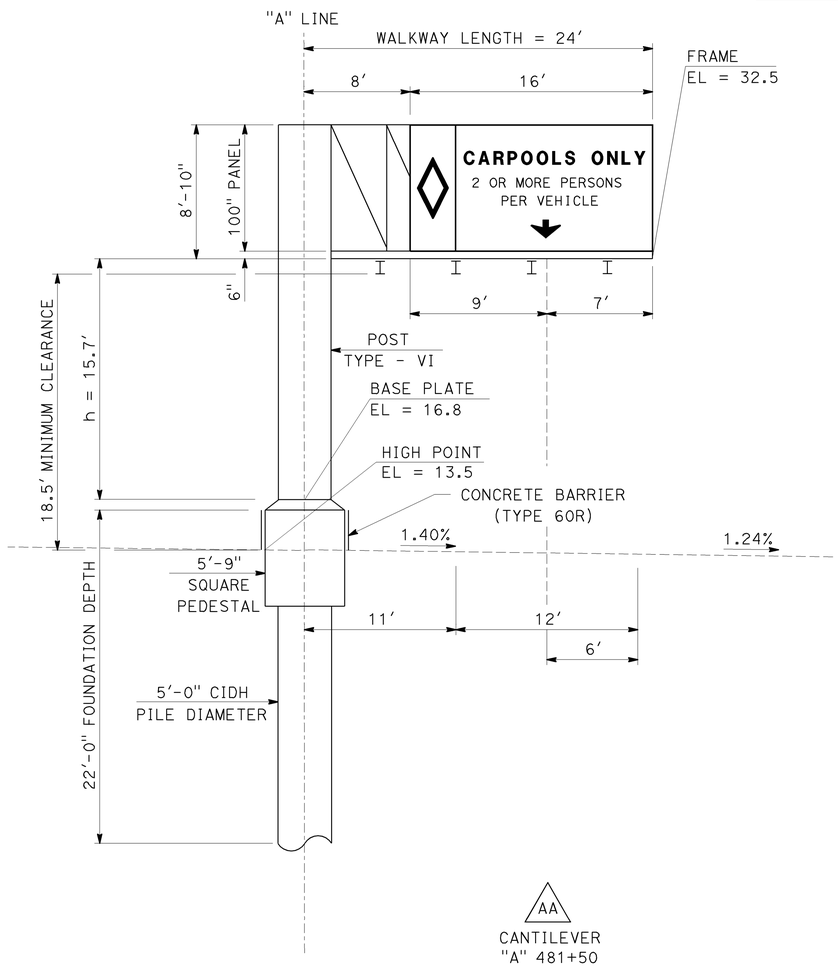
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



Y

CANTILEVER
"C-2" 5+00
G85 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL



AA

CANTILEVER
"A" 481+50
R87-1 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-19

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

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Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:52

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1039	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THERESA M. GAISSER No. C69442 Exp. 07/06/10 CIVIL STATE OF CALIFORNIA

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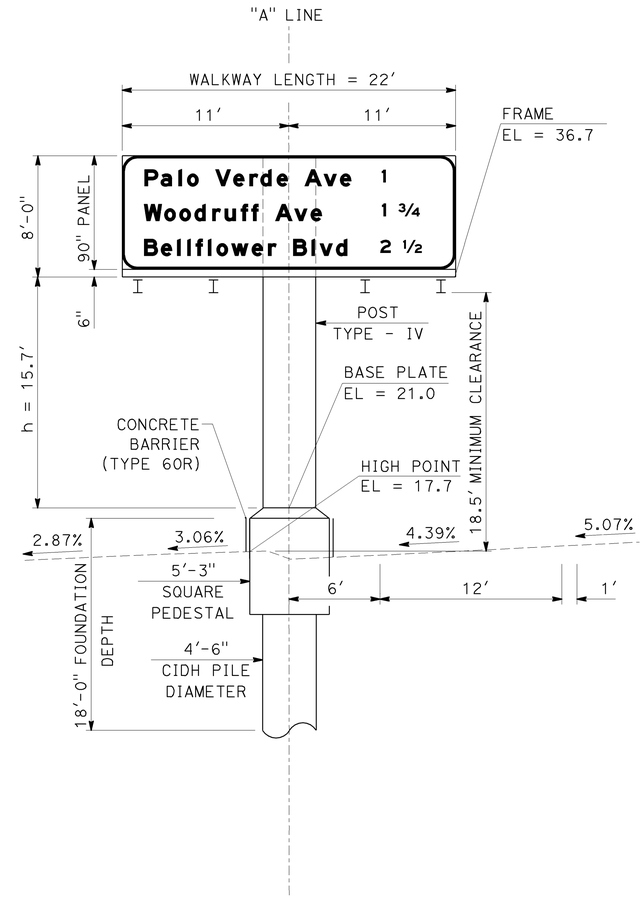
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



AC
BUTTERFLY
"A" Sta 484+00
G23-1 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-20

THIS PLAN ACCURATE FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:52

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => c07163ob020.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1040	1929

Theresa M. Gaisser 8/10/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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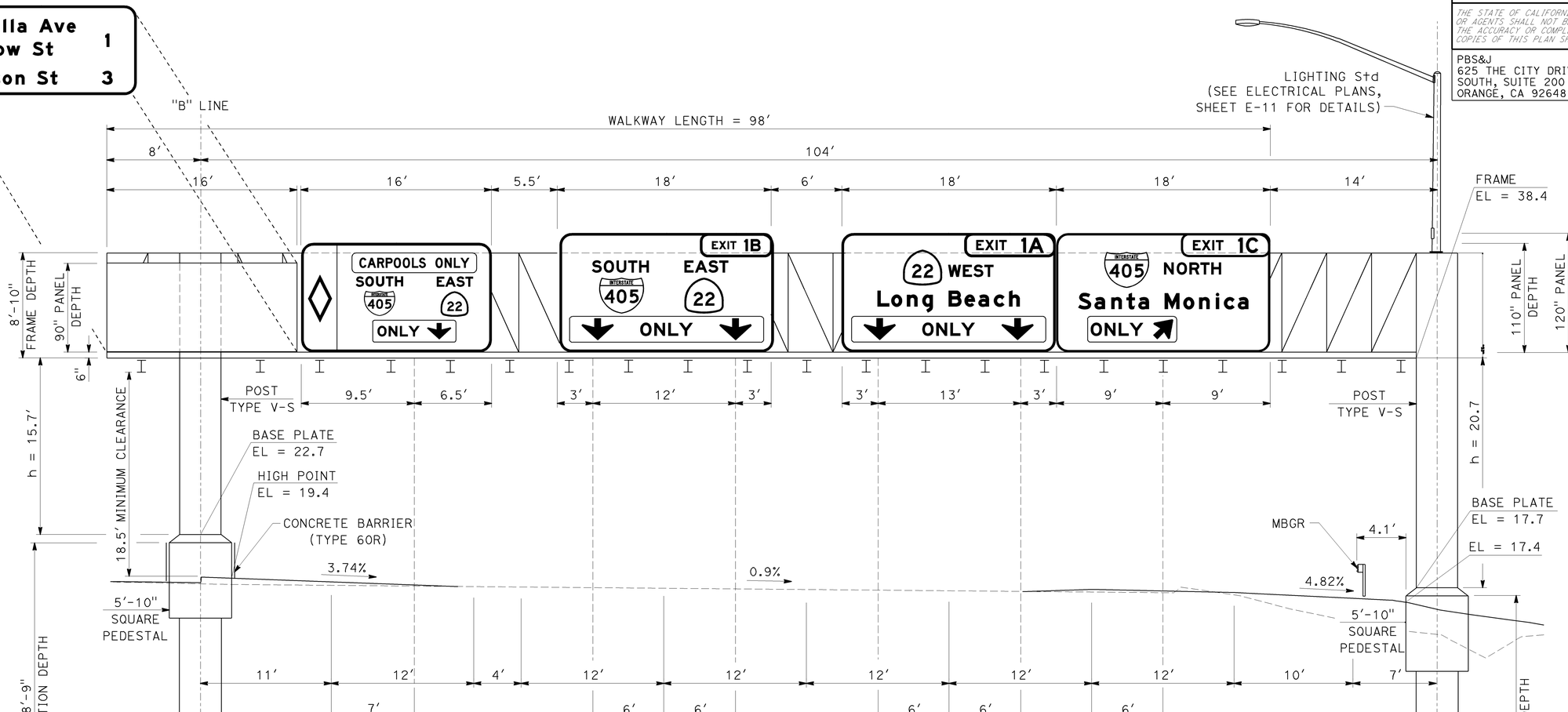
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

Katella Ave 1
Willow St
Carson St 3



AG

SIGN BRIDGE WITH CANTILEVER FSBT
"A-1" 110+24 ("B" 203+74.6)
G23 (CA) FNBT / G83 (CA) FSBT / G83 (CA) FSBT / G83 (CA) FSBT / G85 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

SCALE: 1" = 10'

SD-21

THIS PLAN ACCURATE FOR SIGN WORK ONLY

CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY TG
DATE REVISED 8/10/09
JIMMY TARQUINIO
THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 08:52

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => c07163ob021.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1041	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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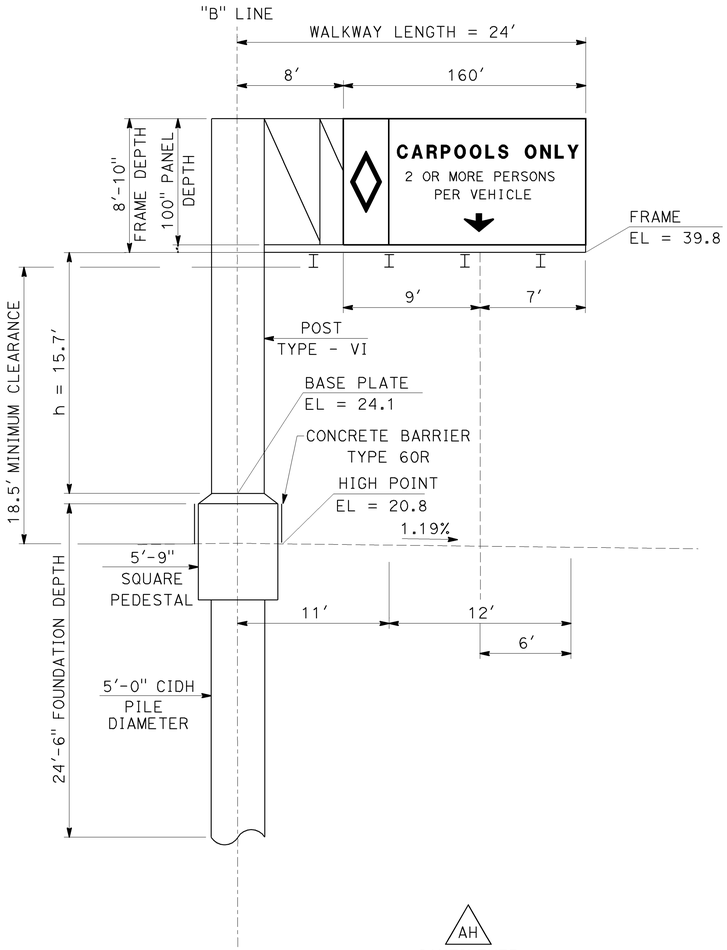
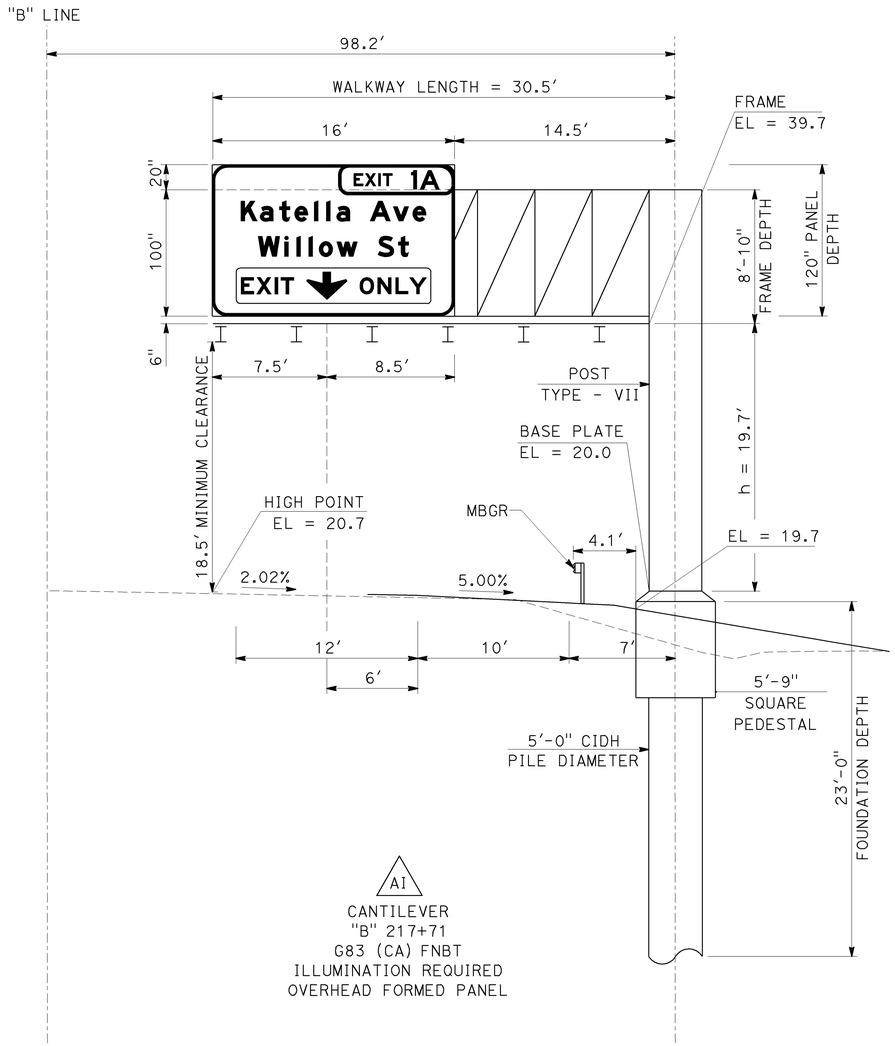
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



AH
CANTILEVER
"B" 212+40
R87-1 (CA) FNBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL



AI
CANTILEVER
"B" 217+71
G83 (CA) FNBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-22

THIS PLAN ACCURATE FOR SIGN WORK ONLY

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JIMMY TARQUINIO	THERESA GAISSER	TG	8/10/09

CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 08:52

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmartin | DGN FILE => c07163ob022.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1042	1929

REGISTERED CIVIL ENGINEER — DATE: 8/10/09

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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SOUTH, SUITE 200
ORANGE, CA 92648

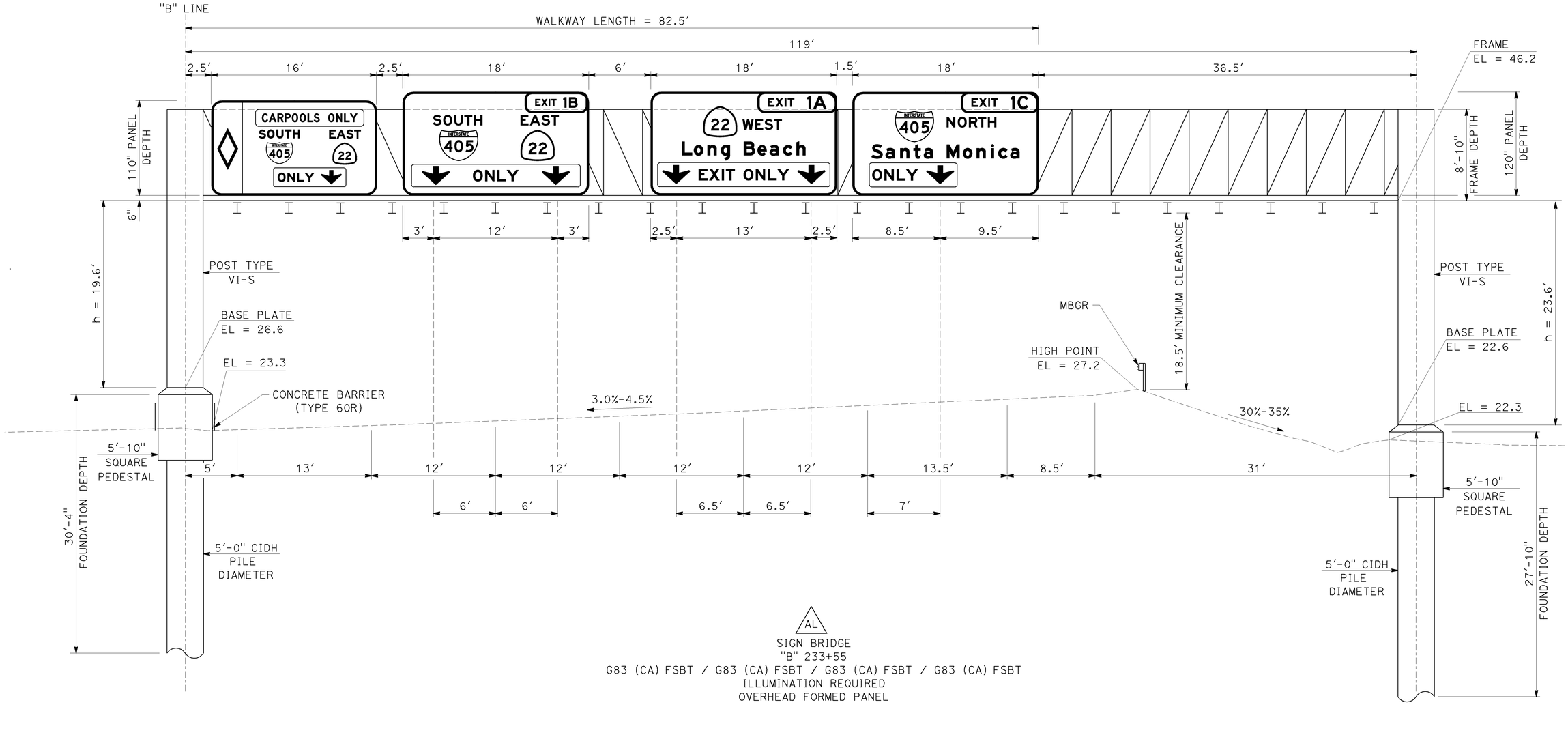
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY	DATE REVISED
TG	8/10/09

JIMMY TARQUINIO
THERESA GAISSER
CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



AL
SIGN BRIDGE
"B" 233+55
G83 (CA) FSBT / G83 (CA) FSBT / G83 (CA) FSBT / G83 (CA) FSBT
ILLUMINATION REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-23

THIS PLAN ACCURATE FOR SIGN WORK ONLY

LAST REVISION 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:52

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c071163ob023.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1043	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

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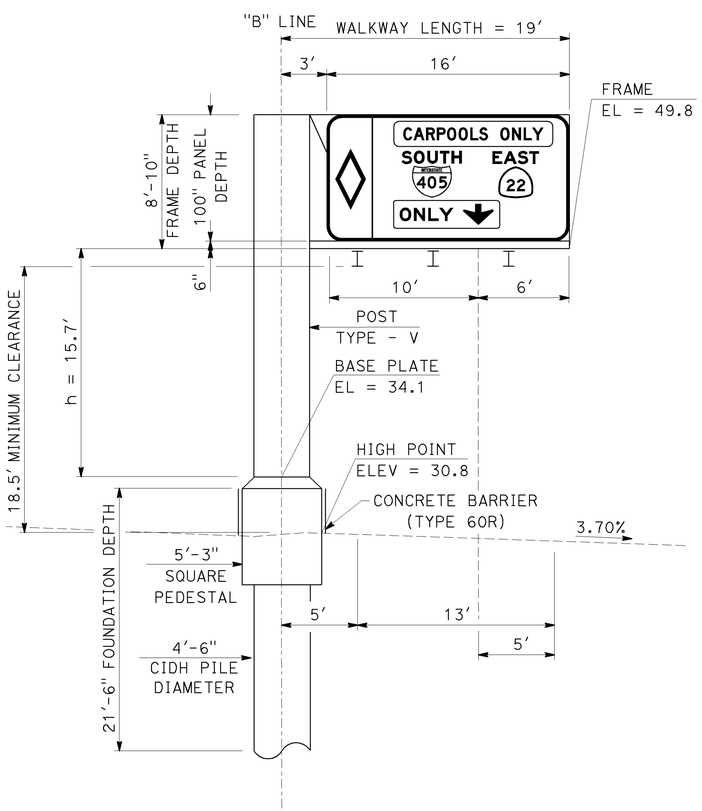
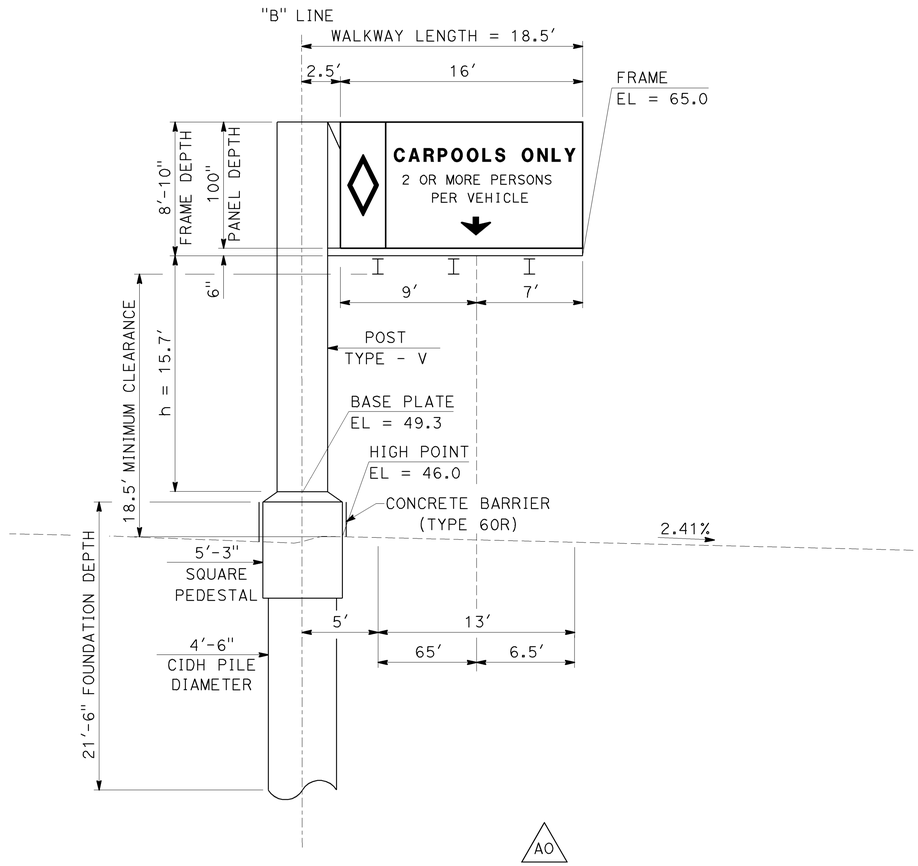
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



AN
CANTILEVER
"B" 250+00
G83-3 (CA) FSBT
ILLUMINATION (NOT) REQUIRED
OVERHEAD FORMED PANEL



AO
CANTILEVER
"B" 265+50
R87-1 (CA) FSBT
ILLUMINATION NOT REQUIRED
OVERHEAD FORMED PANEL

OVERHEAD SIGN DETAIL

NO SCALE

SD-24

THIS PLAN ACCURATE FOR SIGN WORK ONLY

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY	CHECKED BY
JIMMY TARQUINIO	THERESA GAISSER

CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
LAST REVISION TIME PLOTTED => 08:52
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ob024.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1044	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ROSS E. LEW No. C53399 Exp. 6/30/11 CIVIL — STATE OF CALIFORNIA

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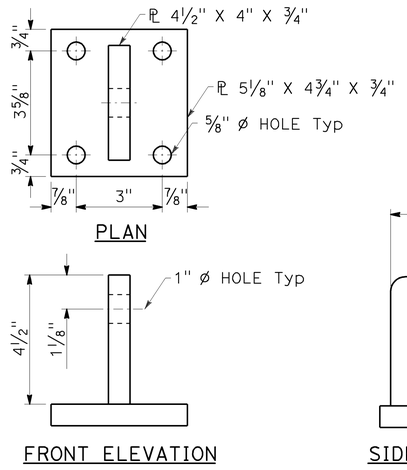
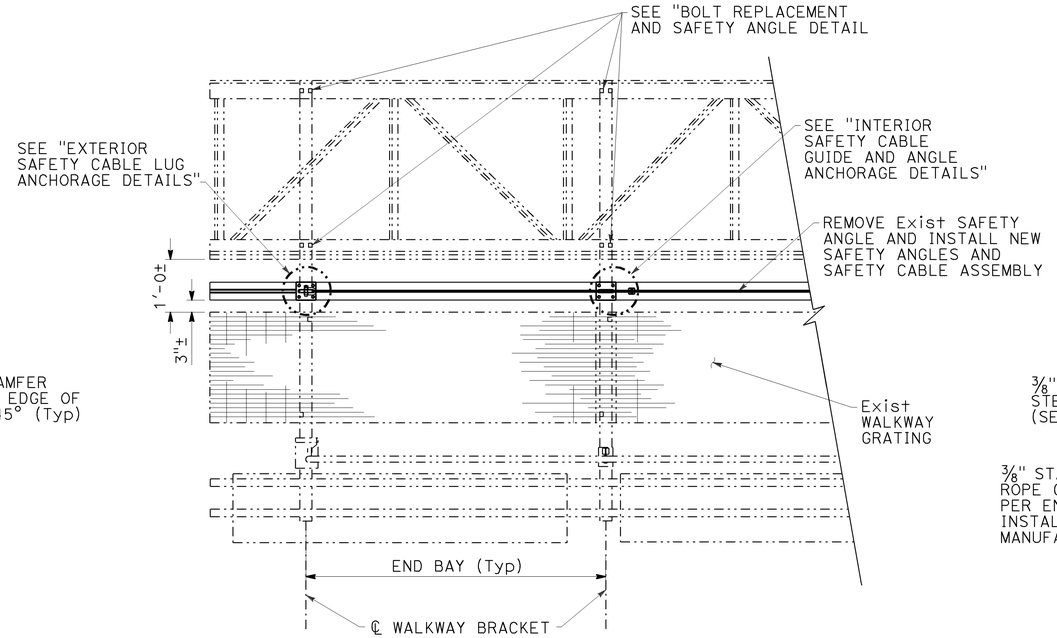
TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



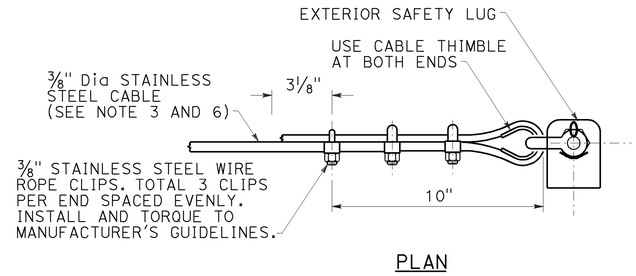
EXTERIOR LUG DETAILS

NOT TO SCALE

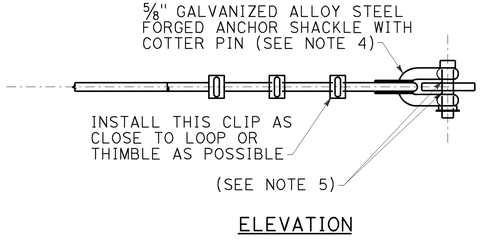


PLAN

NOT TO SCALE



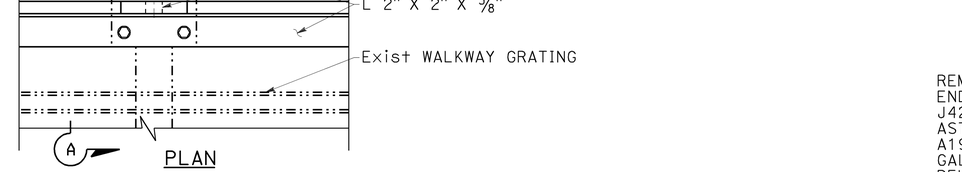
PLAN

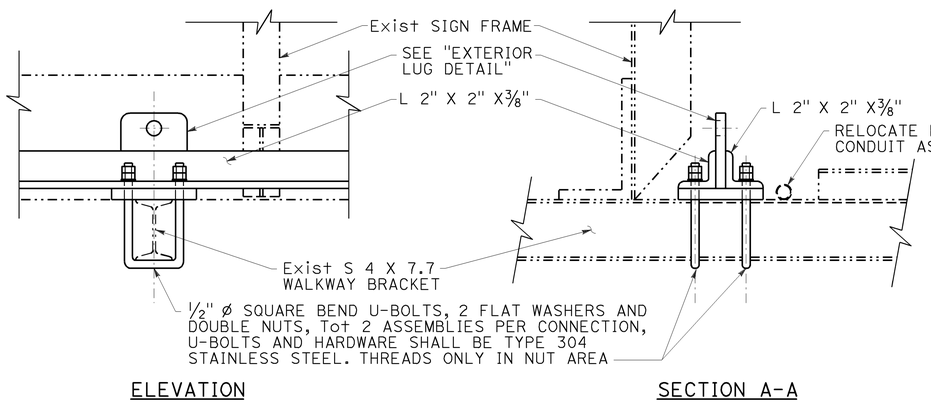


ELEVATION

END SAFETY CABLE

NOT TO SCALE



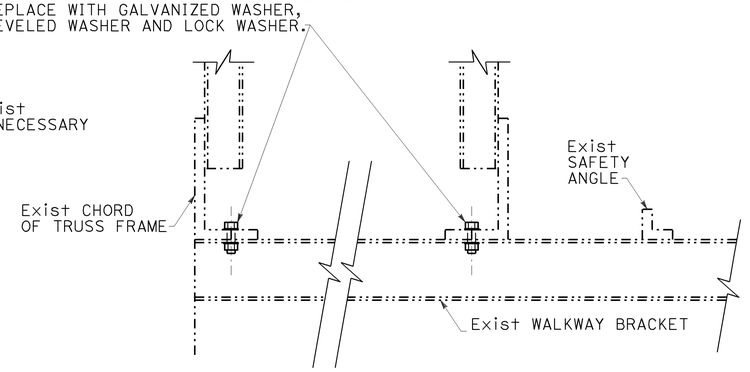


ELEVATION — SECTION A-A

EXTERIOR SAFETY CABLE LUG ANCHORAGE DETAILS

NOT TO SCALE

REMOVE Exist ⅜" ø BOLTS IN BOTH END BAYS AND REPLACE WITH ⅜"ø SAE J429-GRADE 8 BOLTS, (EACH END BAY), ASTM A563 GRADE DH OR DH3 OR ASTM A194 GRADE 2H NUT, MECHANICAL GALVANIZE NUT AND BOLT PER ASTM B695. REUSE WASHER, BEVELED WASHER, AND LOCK WASHER IF IN GOOD CONDITION. OTHERWISE REPLACE WITH GALVANIZED WASHER, BEVELED WASHER AND LOCK WASHER.



BOLT REPLACEMENT AND SAFETY ANGLE DETAIL

NOT TO SCALE

LEGEND:

- EXISTING STRUCTURE
- NEW CONSTRUCTION

NOTES:

1. SAFETY CABLE NOT SHOWN IN ALL VIEWS FOR CLARITY.
2. UNLESS OTHERWISE SHOWN ALL STEEL SHALL BE GALVANIZED AFTER FABRICATION.
3. STAINLESS STEEL CABLE SHALL BE PLAIN WITH 7 X 19 CLASS STRAND CORE CONSTRUCTION USING TYPE 302 OR 304 ALLOY STAINLESS STEEL STRANDS. MINIMUM CABLE BREAKING STRENGTH SHALL BE 10,000 POUNDS. CABLE SHALL BE FREE OF KINKS, KNOTS, OR DEFORMATION AND SHALL BE CONTINUOUS BETWEEN END LUGS. SPLICES NOT ALLOWED. SAFETY CABLE SHALL BE PRESTRETCHED.
4. SHACKLE SHALL BE GALVANIZED STEEL WITH WORKING LOAD LIMIT OF 10,000 POUNDS.
5. PLACE AN EQUAL AMOUNT OF WASHERS ON EACH SIDE TO ALIGN CABLE WITH END LUG WITHOUT RESTRICTING SHACKLE BOLT ROTATION OR CONTACTING CABLE.
6. PRIOR TO TIGHTENING CABLE CLIPS AT EXTERIOR ANCHORAGE, SLACK IN CABLE SHALL BE REMOVED BY THE FULL EFFORT OF A TYPICAL CONSTRUCTION WORKER.

MODIFY SIGN DETAIL

SCALE AS SHOWN

SD-25

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: ROSS LEW | CALCULATED-DESIGNED BY: JASON YAW | CHECKED BY: ROSS LEW | REVISED BY: DBL | DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:52
08-10-09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1045	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

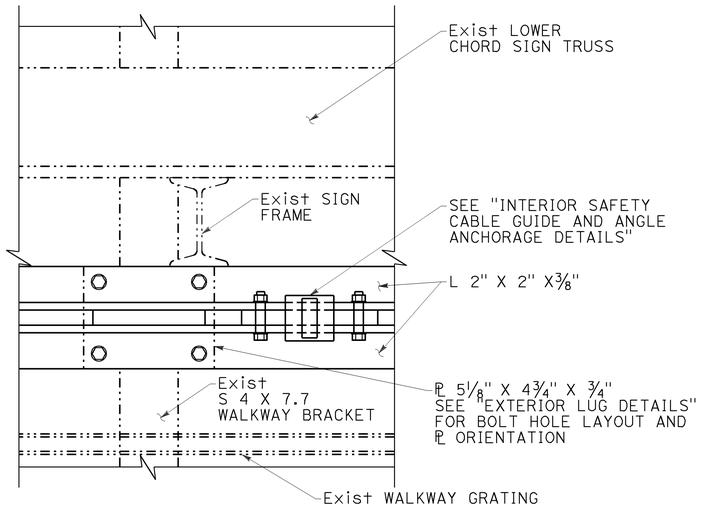
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ROSS E. LEW No. C53399 Exp. 6/30/11 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.

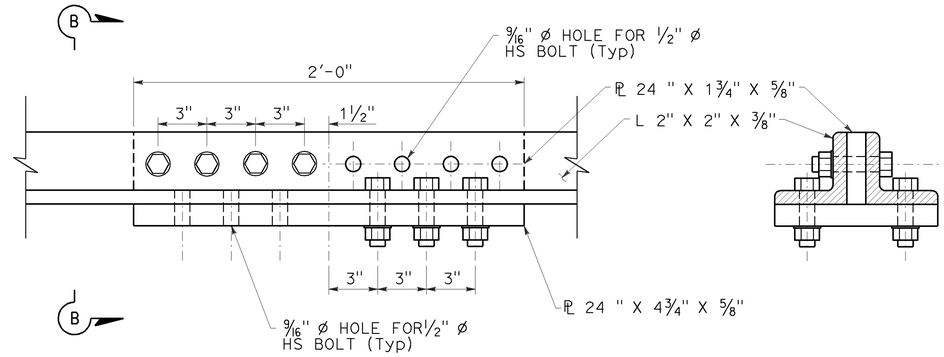
TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

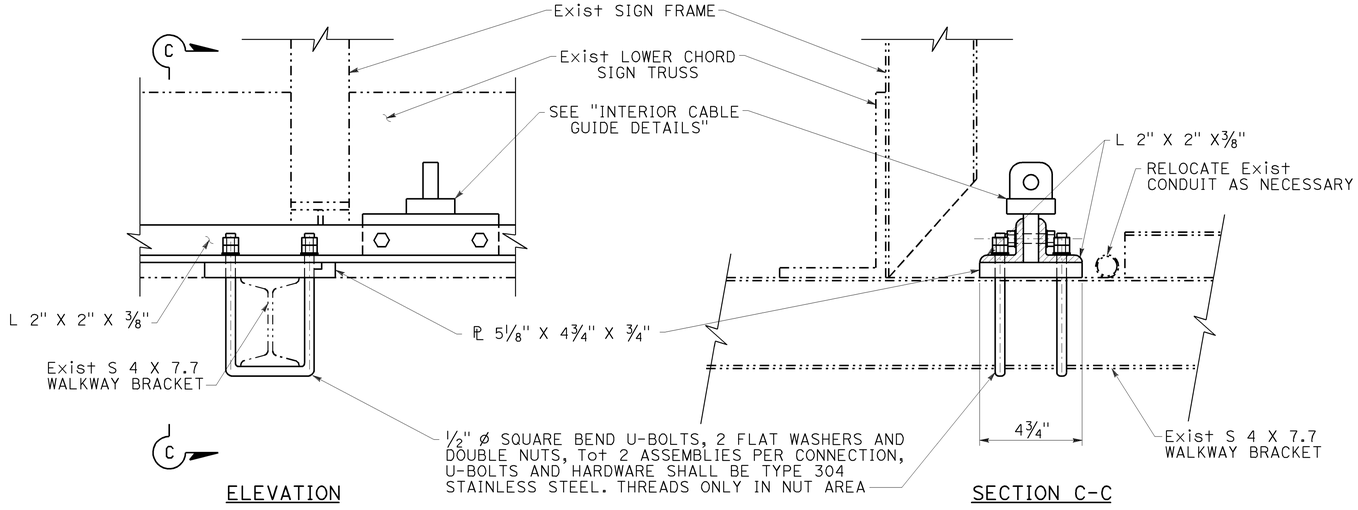
NOTE:
INTERIOR CABLE GUIDE SPACING TO BE Max 5'-6" CC.



ELEVATION — SECTION B-B

ANGLE SPLICE DETAILS

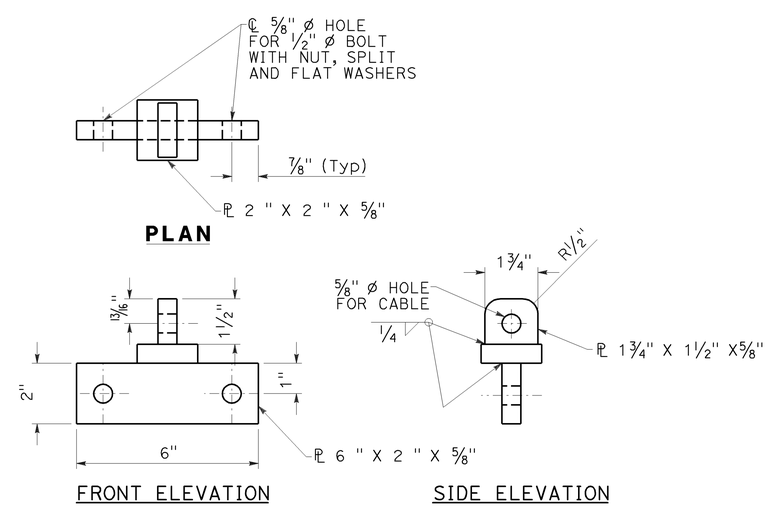
NOT TO SCALE



ELEVATION — SECTION C-C

INTERIOR SAFETY CABLE GUIDE AND ANGLE ANCHORAGE DETAILS

NOT TO SCALE



FRONT ELEVATION — SIDE ELEVATION

INTERIOR CABLE GUIDE DETAILS

NOT TO SCALE

SIGN DETAIL

SCALE AS SHOWN

SD-26

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: ROSS LEW
CALCULATED-DESIGNED BY: JASON YAW
CHECKED BY: ROSS LEW
REVISED BY: DBL
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 08:53

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => c07163ob026.dgn
CU 12235
EA 071631

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1046	1929

8.888
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other

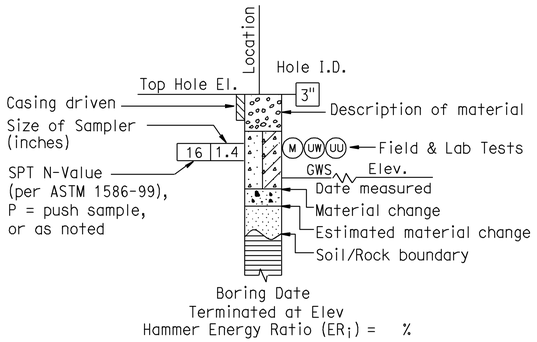
NOTE: Size in inches.

CONSISTENCY OF COHESIVE SOILS

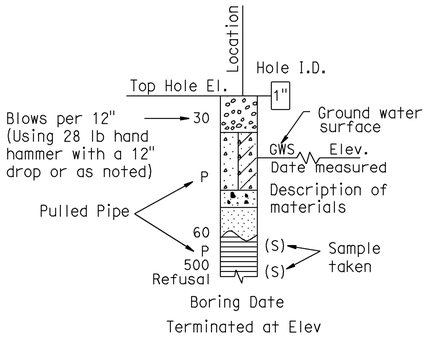
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

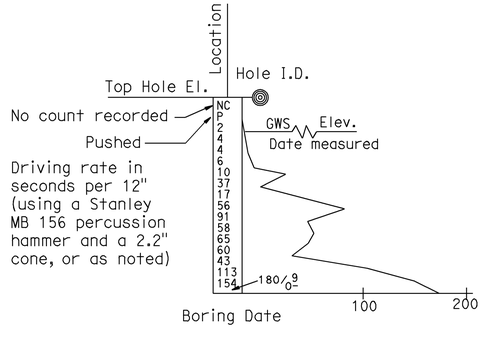
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



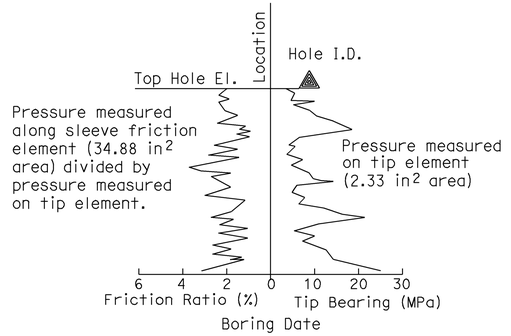
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

LOG OF TEST BORING No. 1
SIGN STRUCTURE

SCALE AS SHOWN

SD-27

REVISED BY	DATE REVISED
K.P	08/10/09

K.PRATHEEPAN — CALCULATED-DESIGNED BY
G.J.GUNARANJAN — CHECKED BY
K.ARULMOLI — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 08:53

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES (0 1 2 3) — USERNAME => trmartin — DGN FILE => c07163ob027.dgn — CU 12235 — EA 071631

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly graded GRAVEL Poorly graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly graded SAND Poorly graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL		
SP-SC	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1047	1929

8.9.8 — REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10 — PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — CIVIL — STATE OF CALIFORNIA

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EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

LOG OF TEST BORING No. 1
SIGN STRUCTURE

SCALE AS SHOWN

SD-28

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:53
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c071630b028.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1048	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — CIVIL — STATE OF CALIFORNIA

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EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

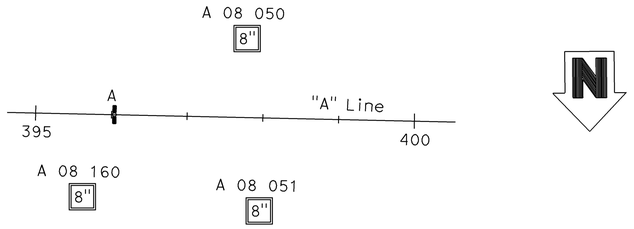
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

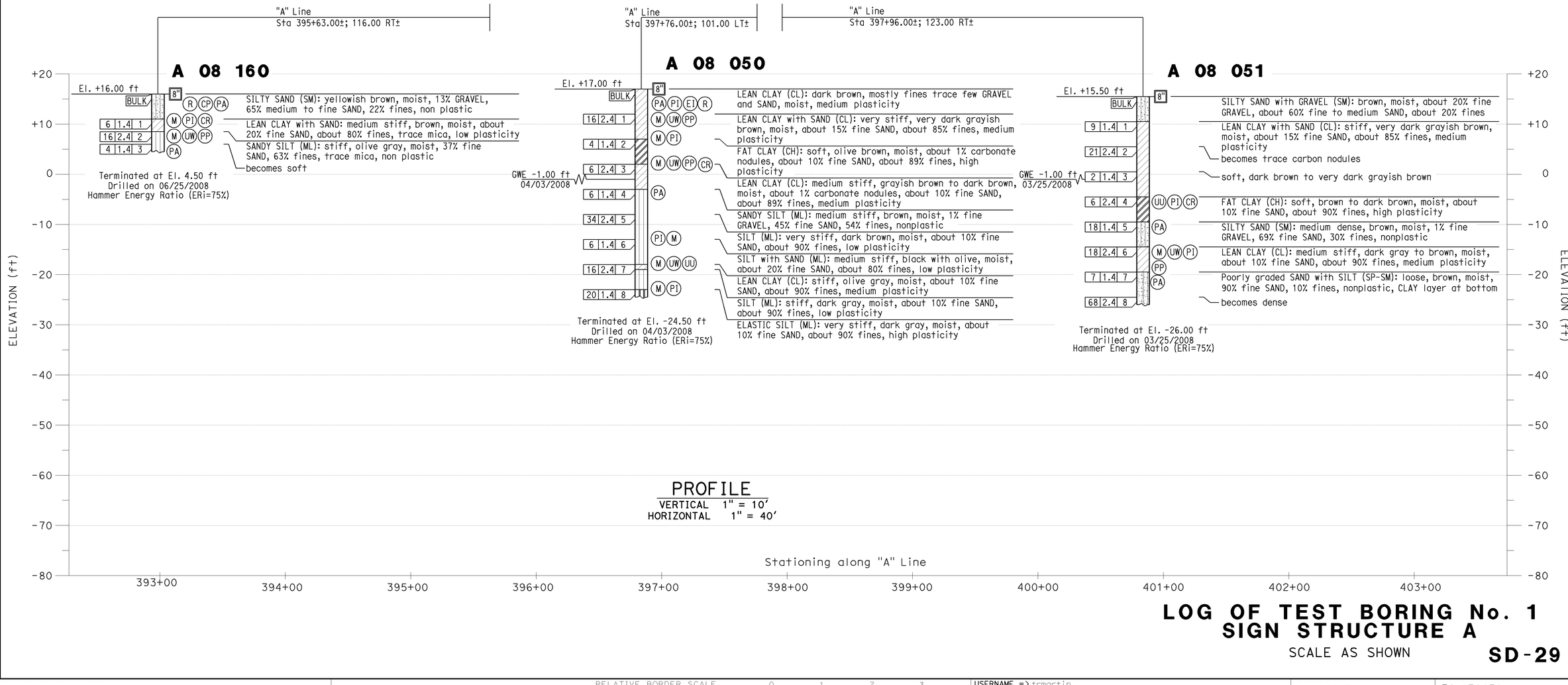
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING No. 1
SIGN STRUCTURE A

SCALE AS SHOWN

SD-29

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:53
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ob029.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1049	1929

8.9.09
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — CIVIL — STATE OF CALIFORNIA

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EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

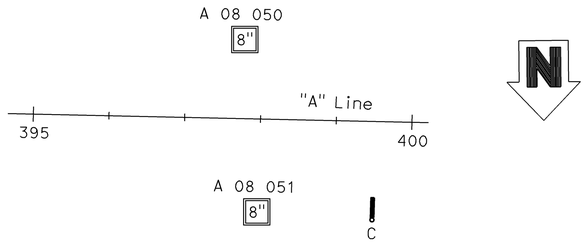
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

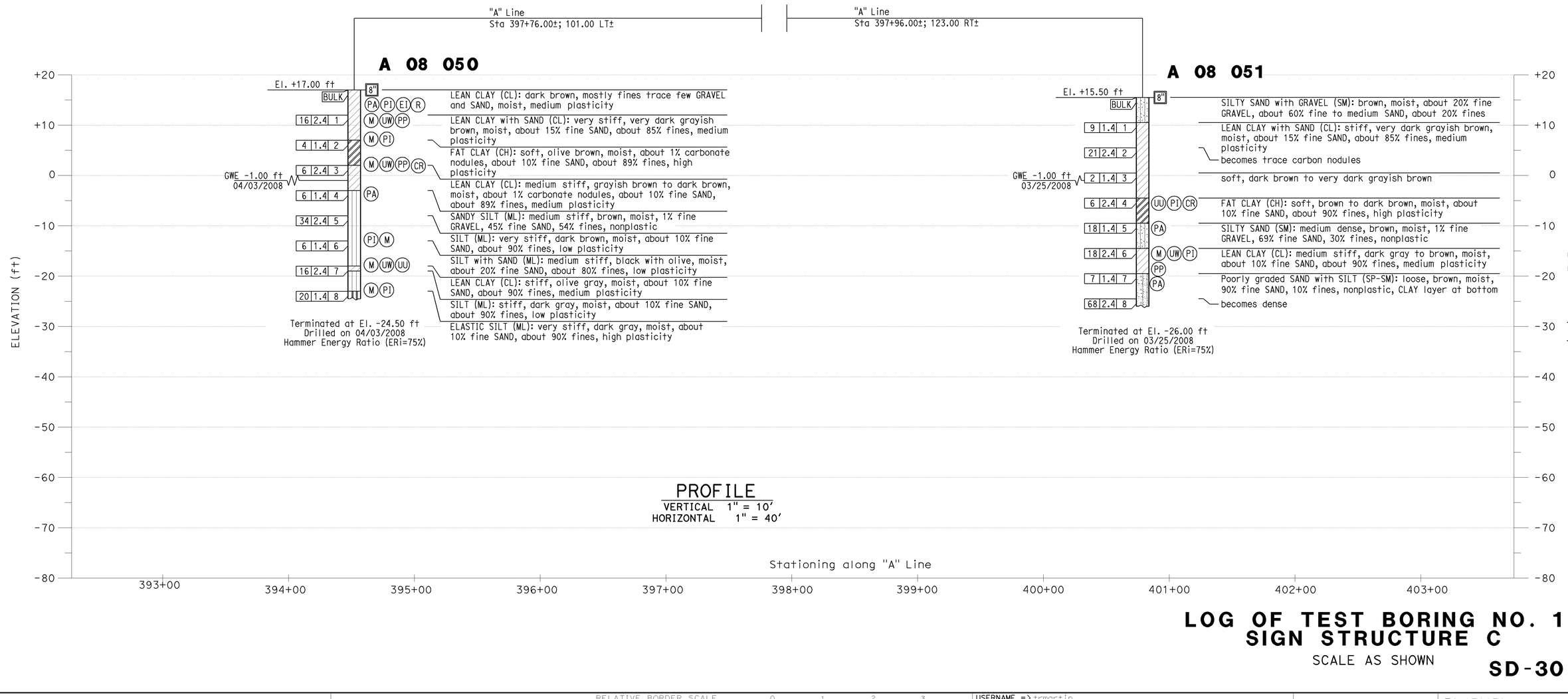
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE C

SCALE AS SHOWN

SD-30

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:53
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ob030.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

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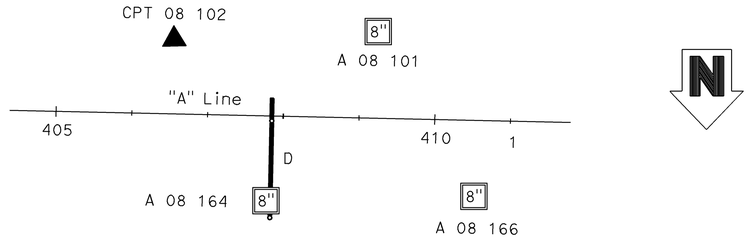


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1050	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — CIVIL — STATE OF CALIFORNIA

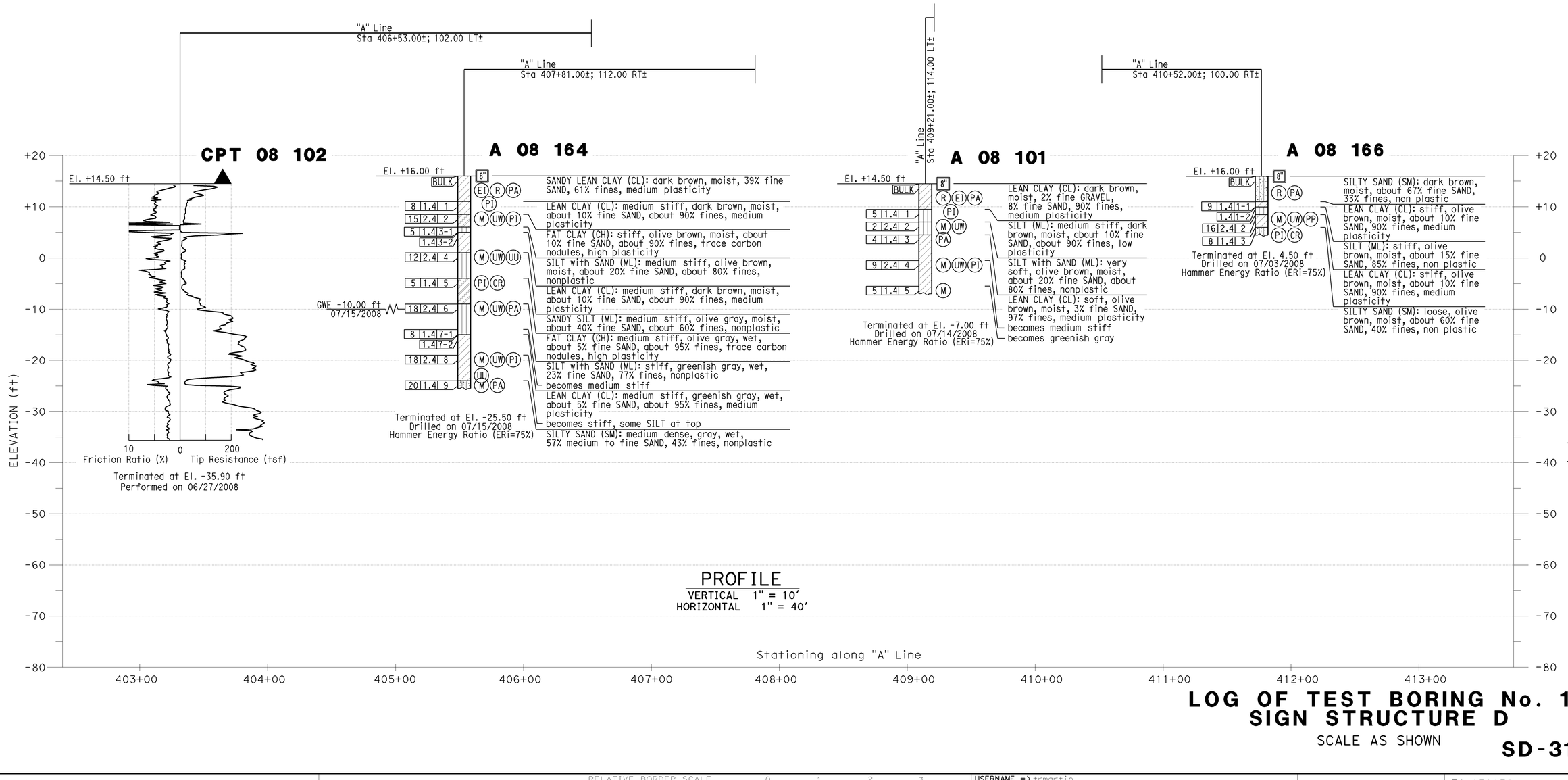
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING No. 1
SIGN STRUCTURE D

SCALE AS SHOWN

SD-31

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION — DATE PLOTTED => 04-FEB-2010 — TIME PLOTTED => 08:53
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ob031.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1051	1929

8.8.8 — REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10 — PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

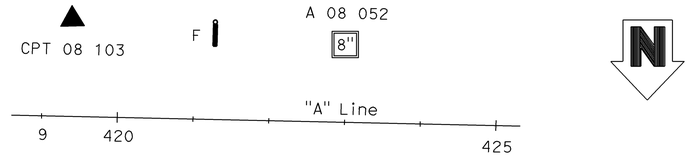
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

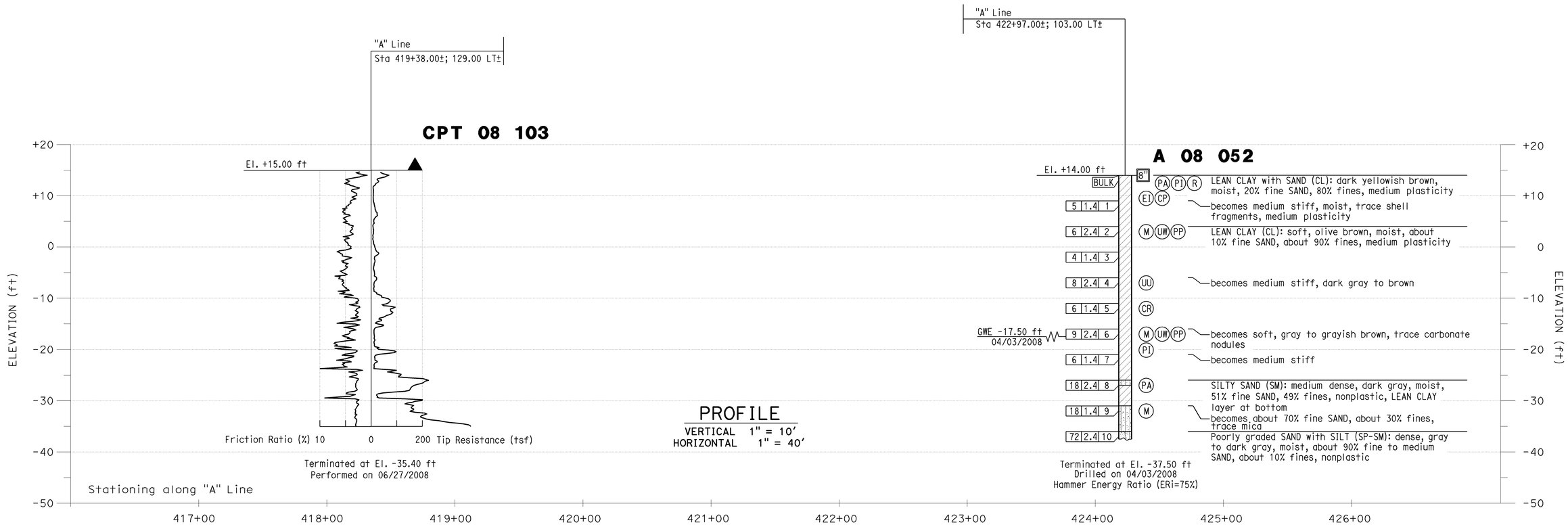
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING No. 1
SIGN STRUCTURE F

SCALE AS SHOWN

SD-32

REVISED BY: K.P — DATE REVISED: 08/10/09
CALCULATED-DESIGNED BY: K.PRATHEEPAN — CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:53
08-10-09

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ob032.dgn

CU 12235 — EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1052	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

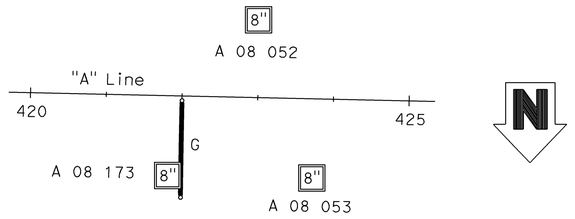
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

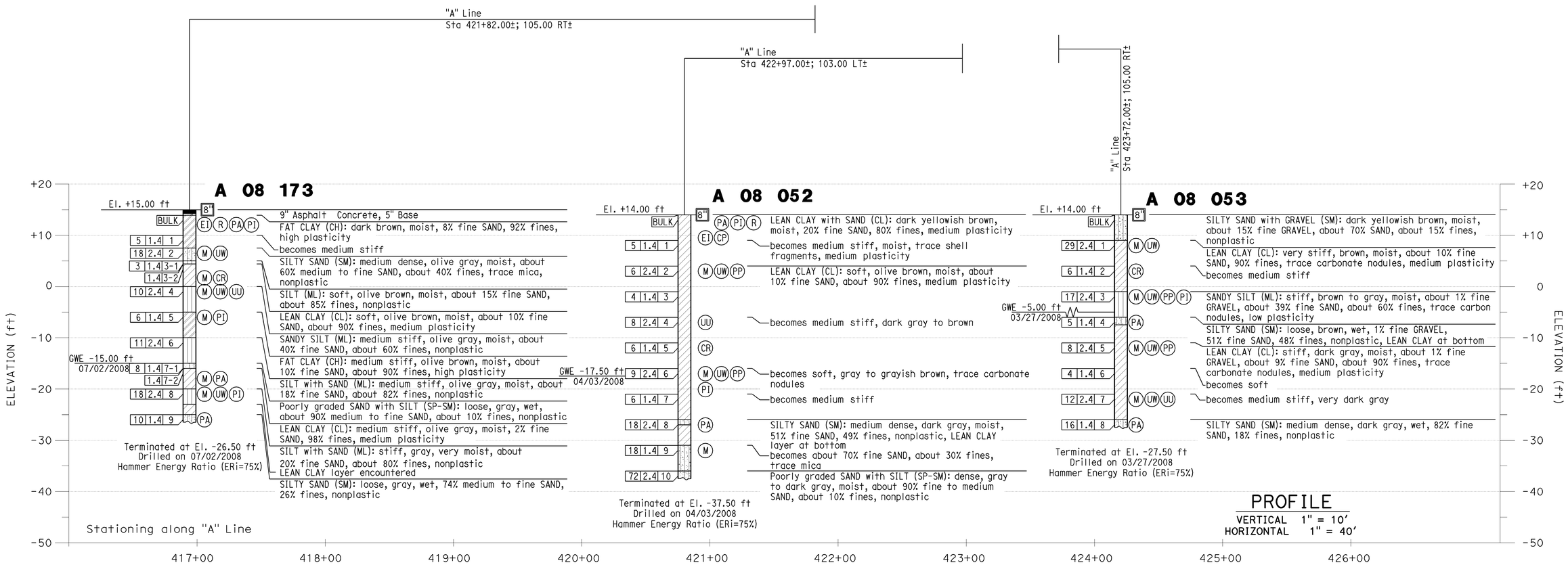
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING No. 1
SIGN STRUCTURE G

SCALE AS SHOWN

SD-33

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 08:54

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmartin | DGN FILE => c07163ob033.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1053	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

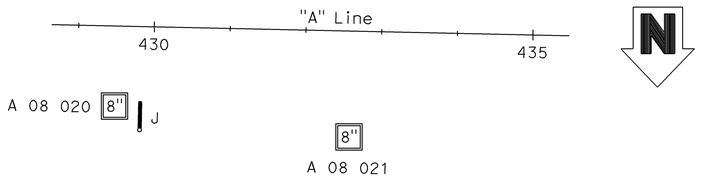
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

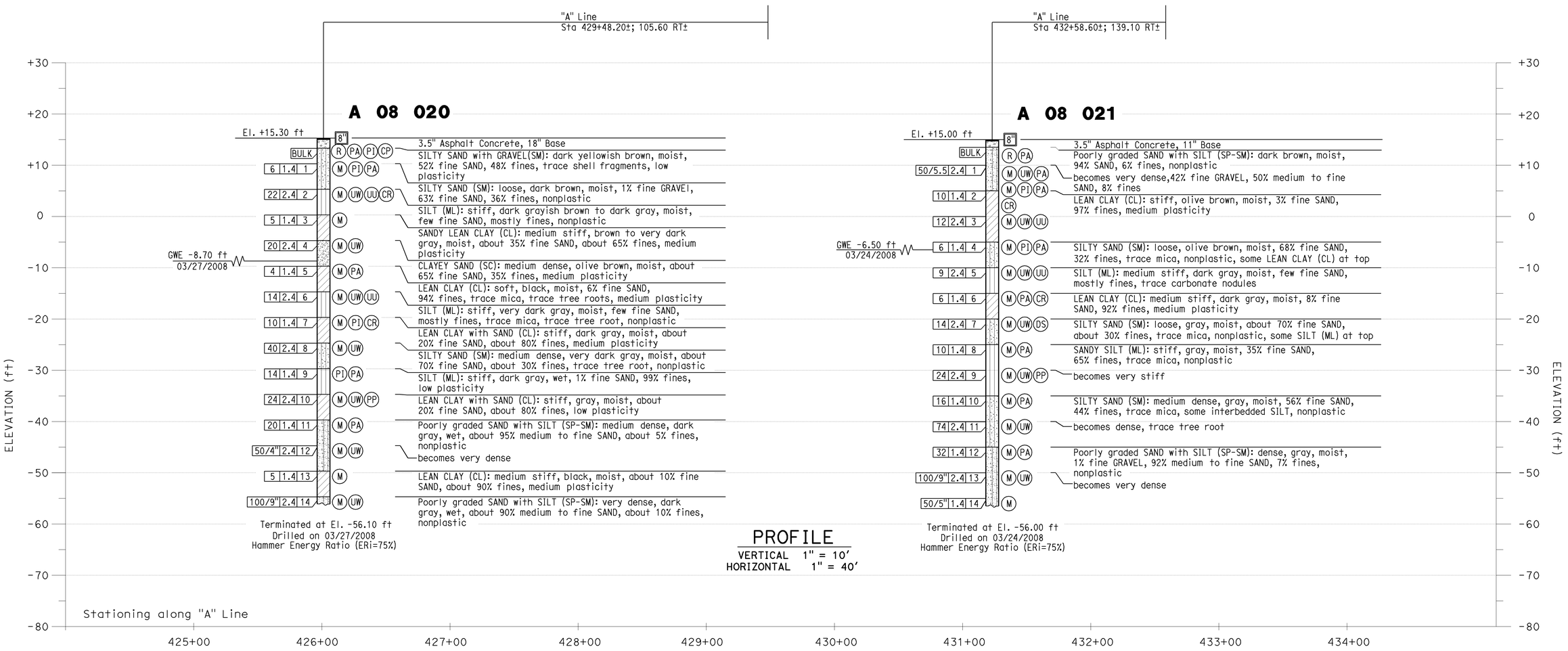
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



LOG OF TEST BORING No. 1
SIGN STRUCTURE J

SCALE AS SHOWN

SD-34

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI | CALCULATED-DESIGNED BY: K.PRATHEEPAN | CHECKED BY: G.J.GUNARANJAN | REVISED BY: K.P | DATE REVISED: 08/10/09

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 08:54

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmartin | DGN FILE => c07163ob034.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1054	1929

8.88 — REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10 — PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

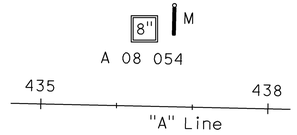
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

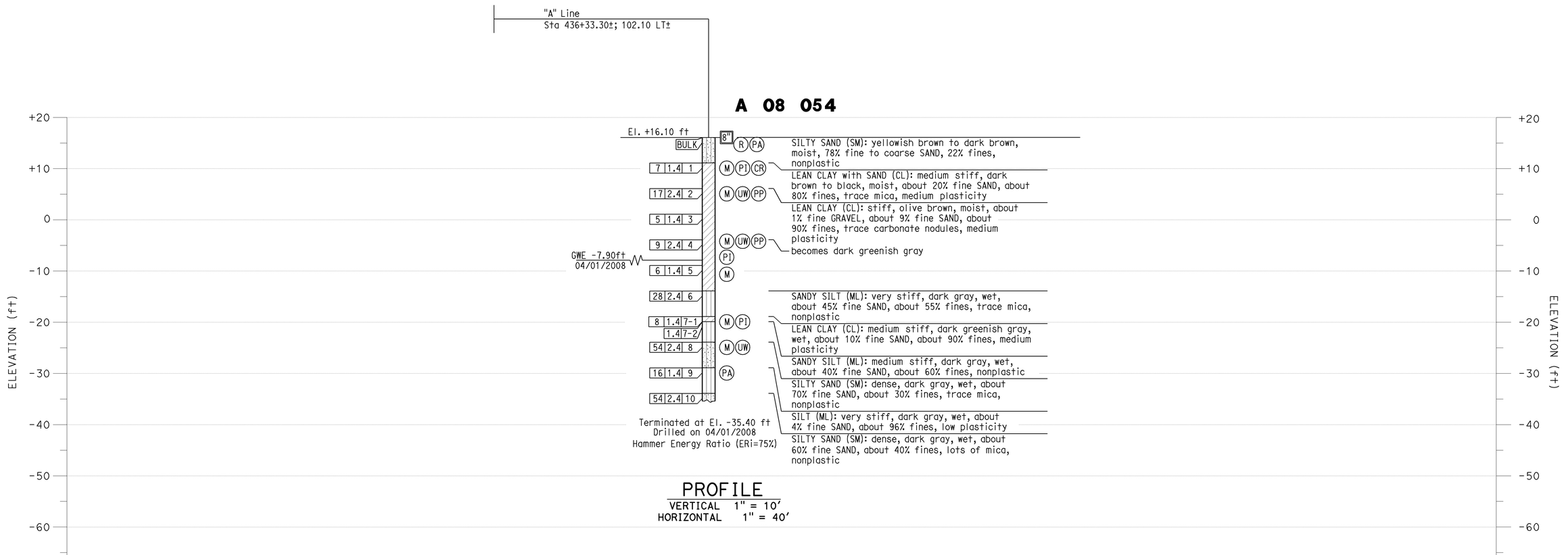
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING No. 1
SIGN STRUCTURE M

SCALE AS SHOWN

SD-35

CALCULATED-DESIGNED BY	CHECKED BY
K.PRATHEEPAN	G.J.GUNARANJAN

REVISED BY	DATE REVISED
K.P	08/10/09

CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010 — 08-10-09 — TIME PLOTTED => 08:54

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => c07163ab035.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1055	1929

8.988
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

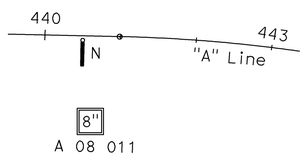
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

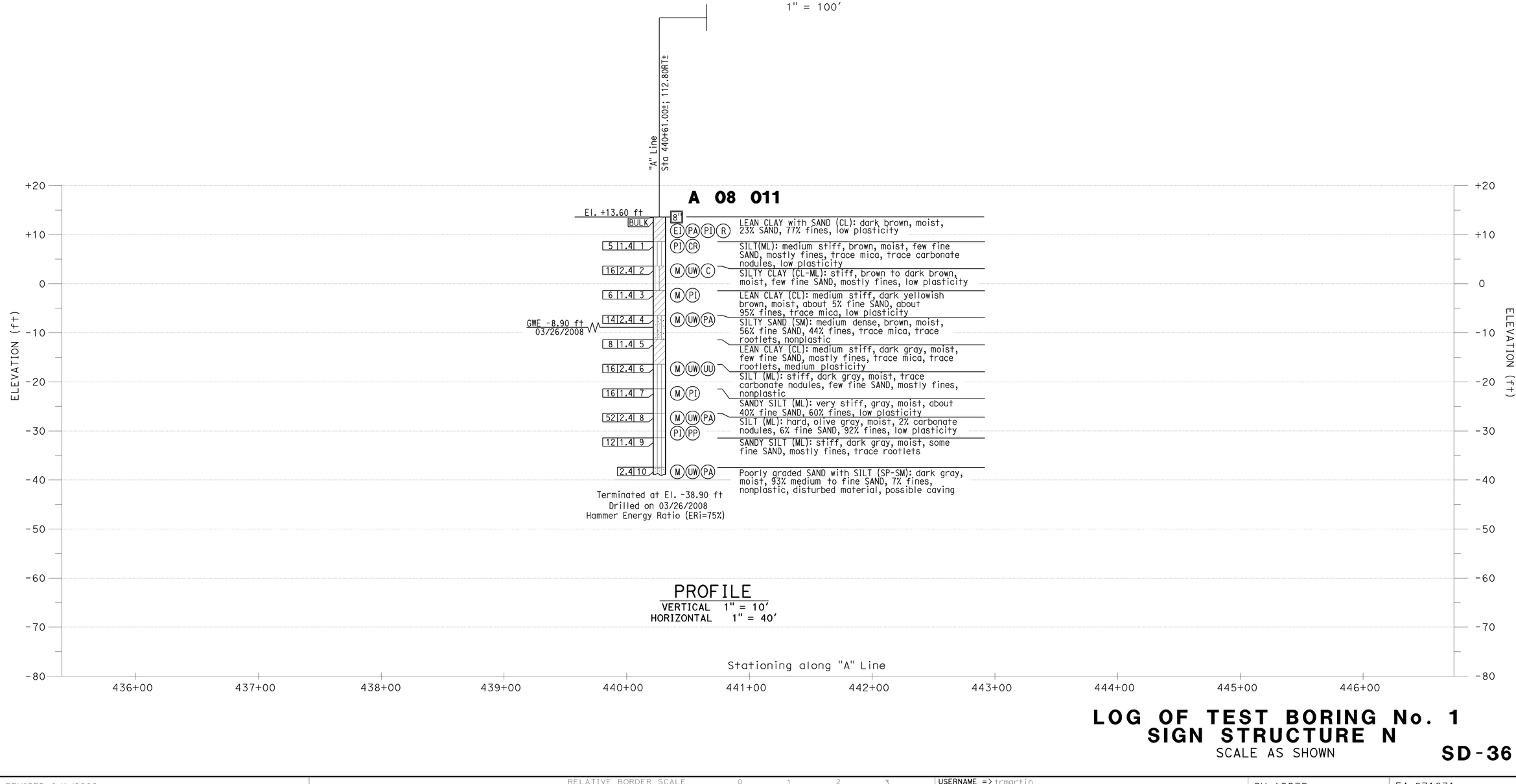
EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING No. 1
SIGN STRUCTURE N

SCALE AS SHOWN

SD-36

CALCULATED-DESIGNED BY	CHECKED BY
K.PRATHEEPAN	G.J.GUNARANJAN

REVISED BY	DATE REVISED
K.P	08/10/09

CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:54
08-10-09

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmartin DGN FILE => c07163ob036.dgn | CU 12235 | EA 071631

BENCHMARKS:

Monument: 1A-144-04

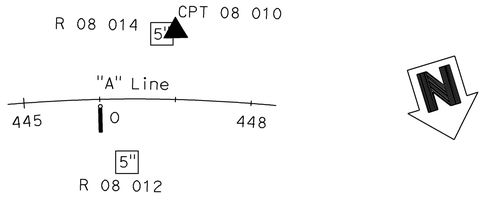
Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) A rope and cat-head hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1056	1929

8.9.09
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

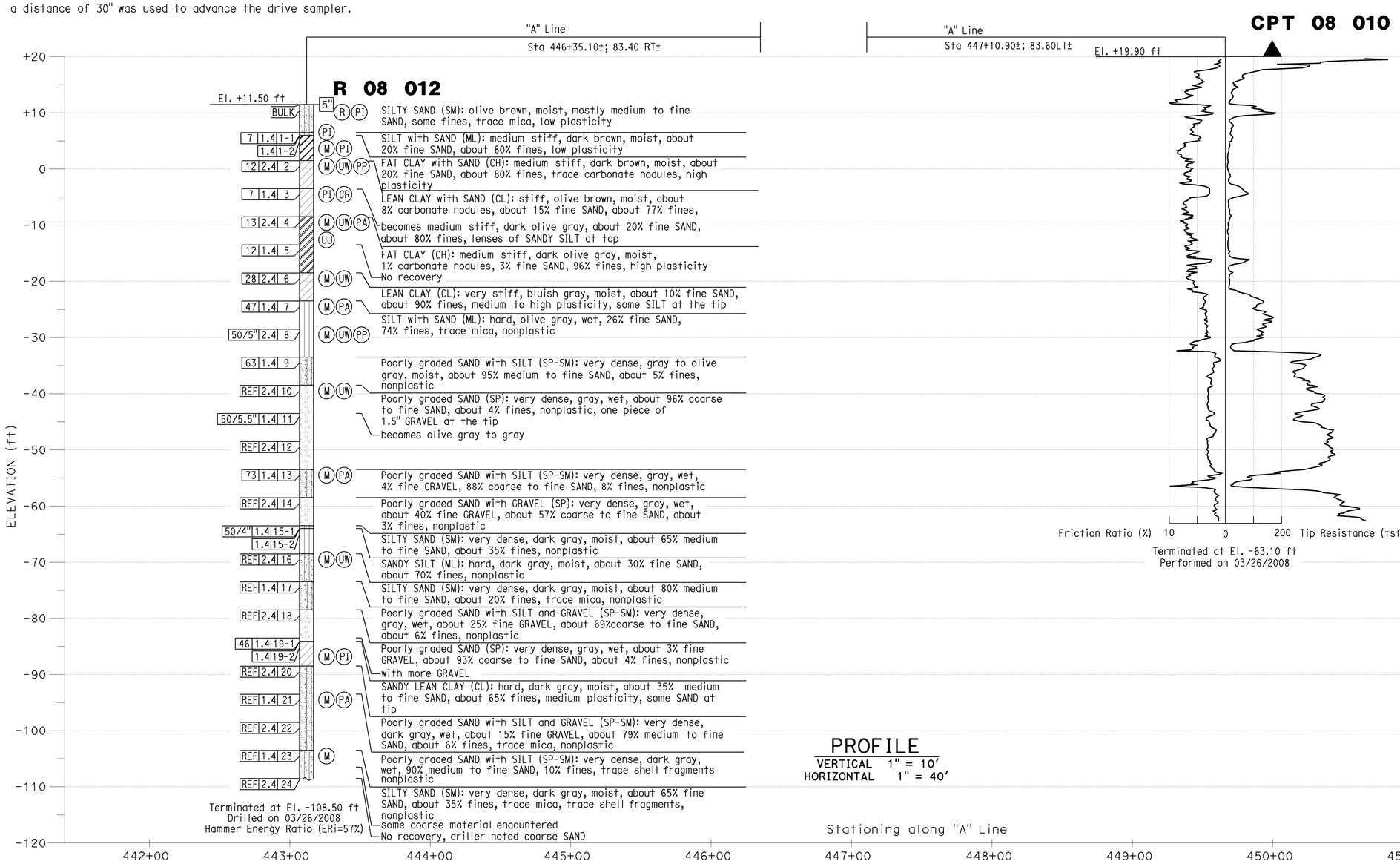
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE O

SCALE AS SHOWN

SD-37

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:19
08-10-09

DESIGNED BY	CALCULATED-	CHECKED BY
K.PRATHEEPAN	G.J.GUNARANJAN	

CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

REVISED BY	DATE REVISED
K.P	08/10/09

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c07163ob037.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1057	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

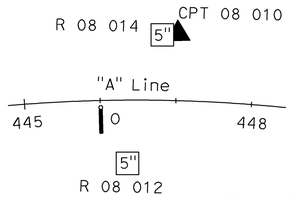
Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk.
Elevation: 15.37 feet

NOTES:

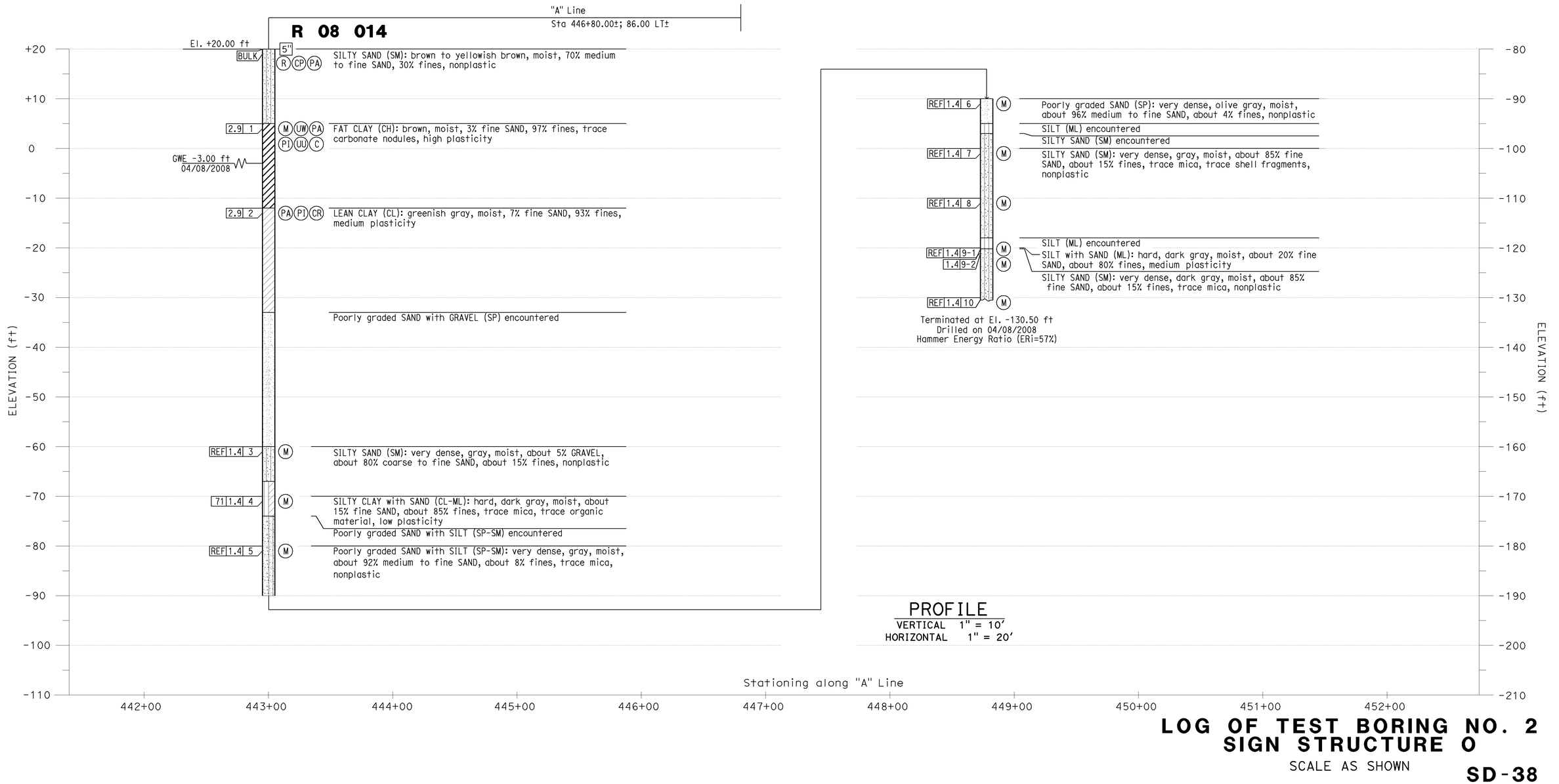
(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) A rope and cat-head hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN
1" = 100'



PROFILE
VERTICAL 1" = 10'
HORIZONTAL 1" = 20'

LOG OF TEST BORING NO. 2
SIGN STRUCTURE O

SCALE AS SHOWN

SD-38

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:19
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trcarol
DGN FILE => c07163ob038.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1058	1929

8.8.8 — 8/10/09
REGISTERED CIVIL ENGINEER — DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

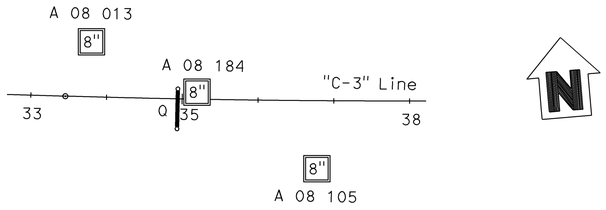
BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).
(2) 2.4" samples were taken using a California Modified Sampler.
(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.



PLAN

1" = 100'

PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE Q

SCALE AS SHOWN

SD-39

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION: 08-10-09
DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:20

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trcarol
DGN FILE => c07163ob039.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1059	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

G.J. GUNARANJAN No. C71758 Exp.12/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

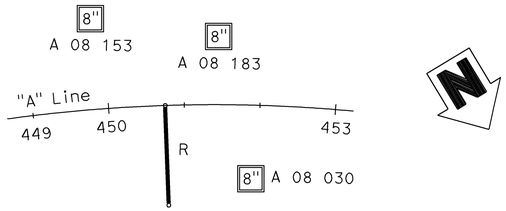
Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

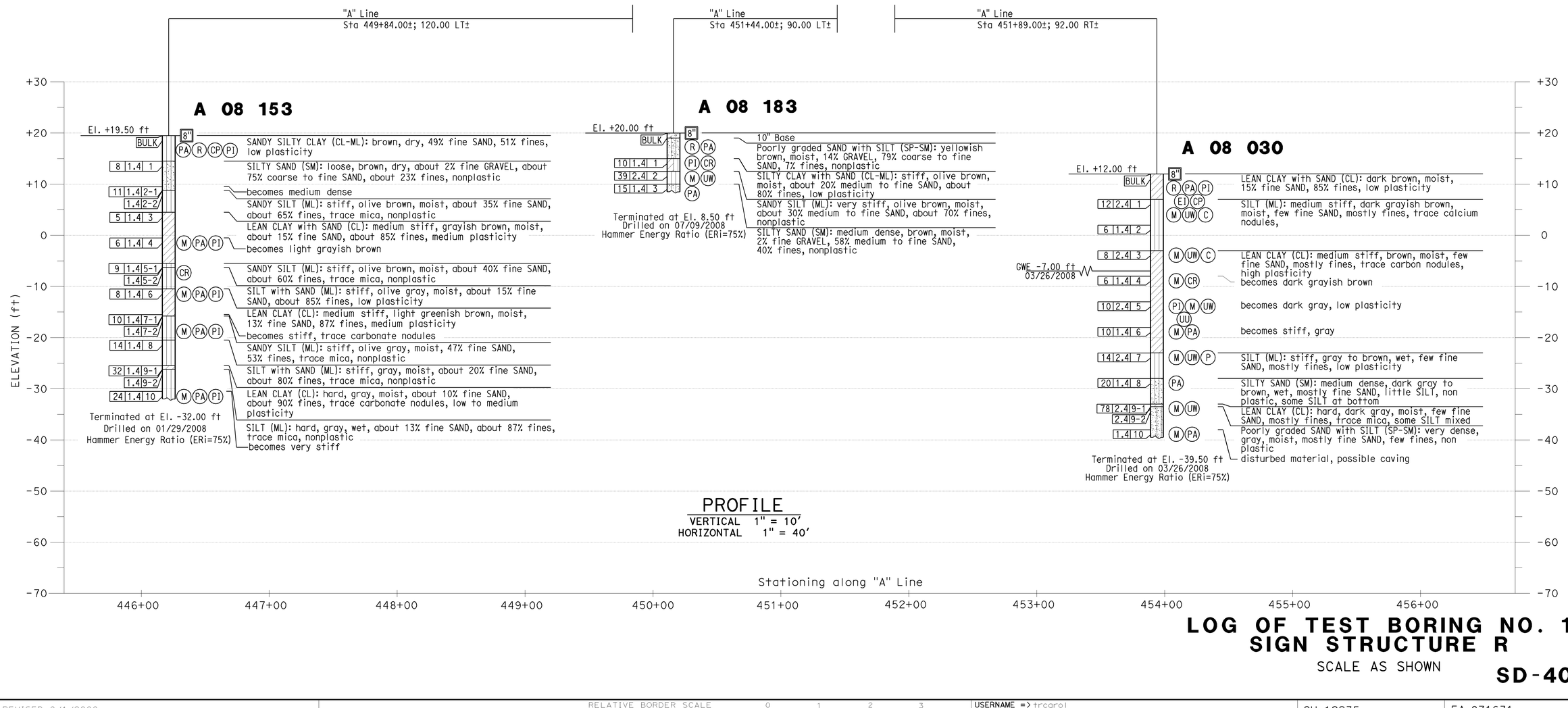
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE R

SCALE AS SHOWN

SD-40

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
K.PRATHEEPAN	G.J.GUNARANJAN	K.P	08/10/09

CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:20
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trearol
DGN FILE => c07163ob040.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1060	1929

8.988
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 CIVIL — STATE OF CALIFORNIA

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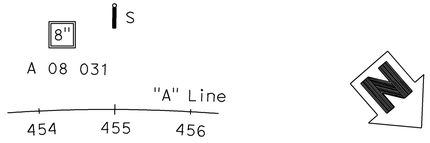
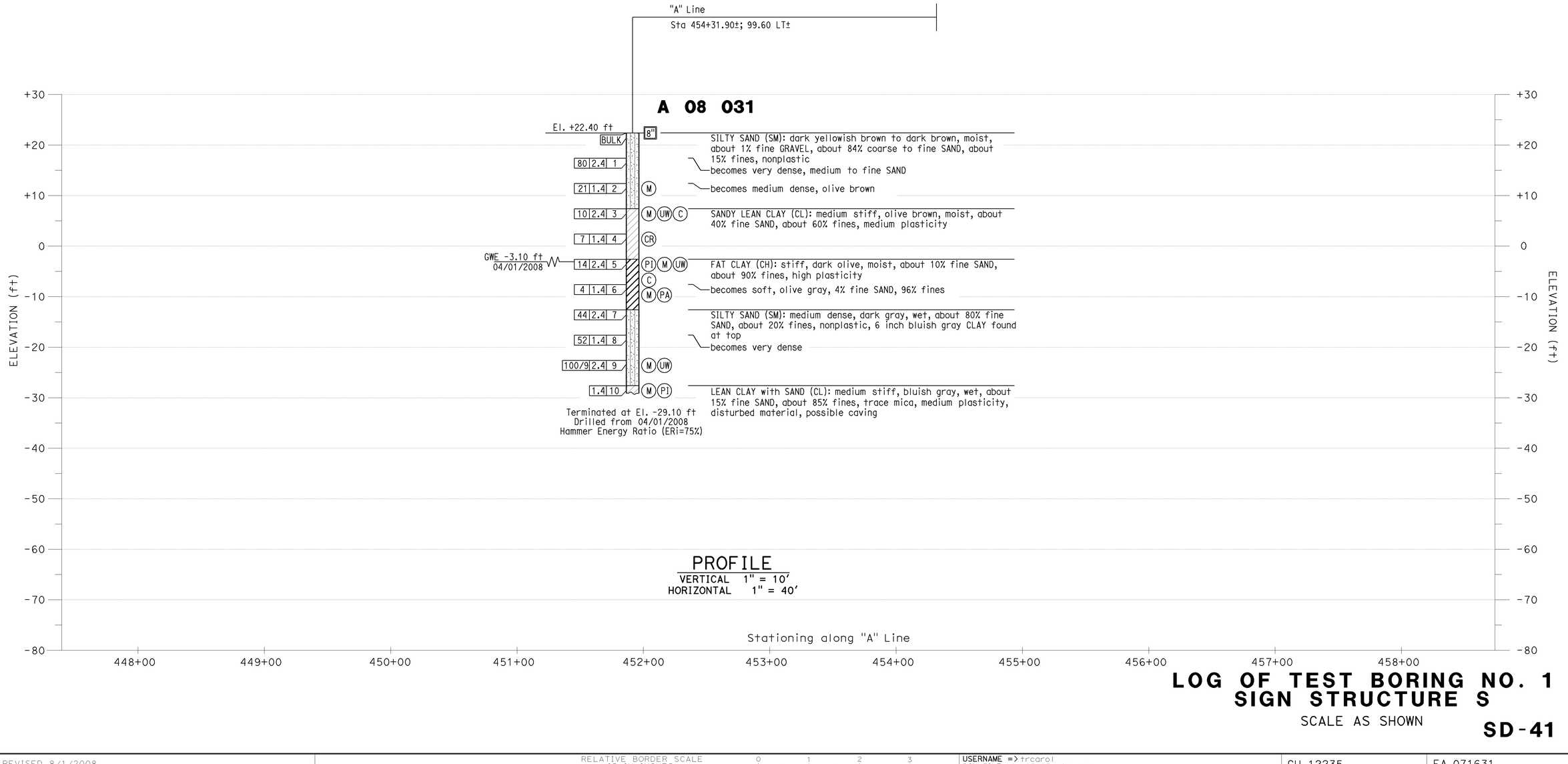
EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE S

SCALE AS SHOWN

SD-41

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:20
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c07163ob041.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

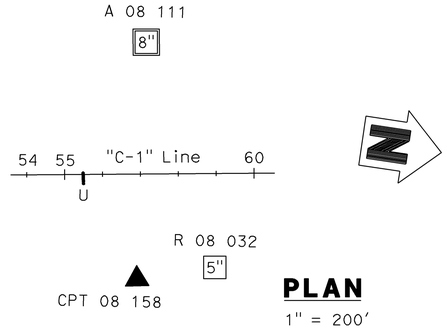
Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.



PLAN

1" = 200'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1061	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

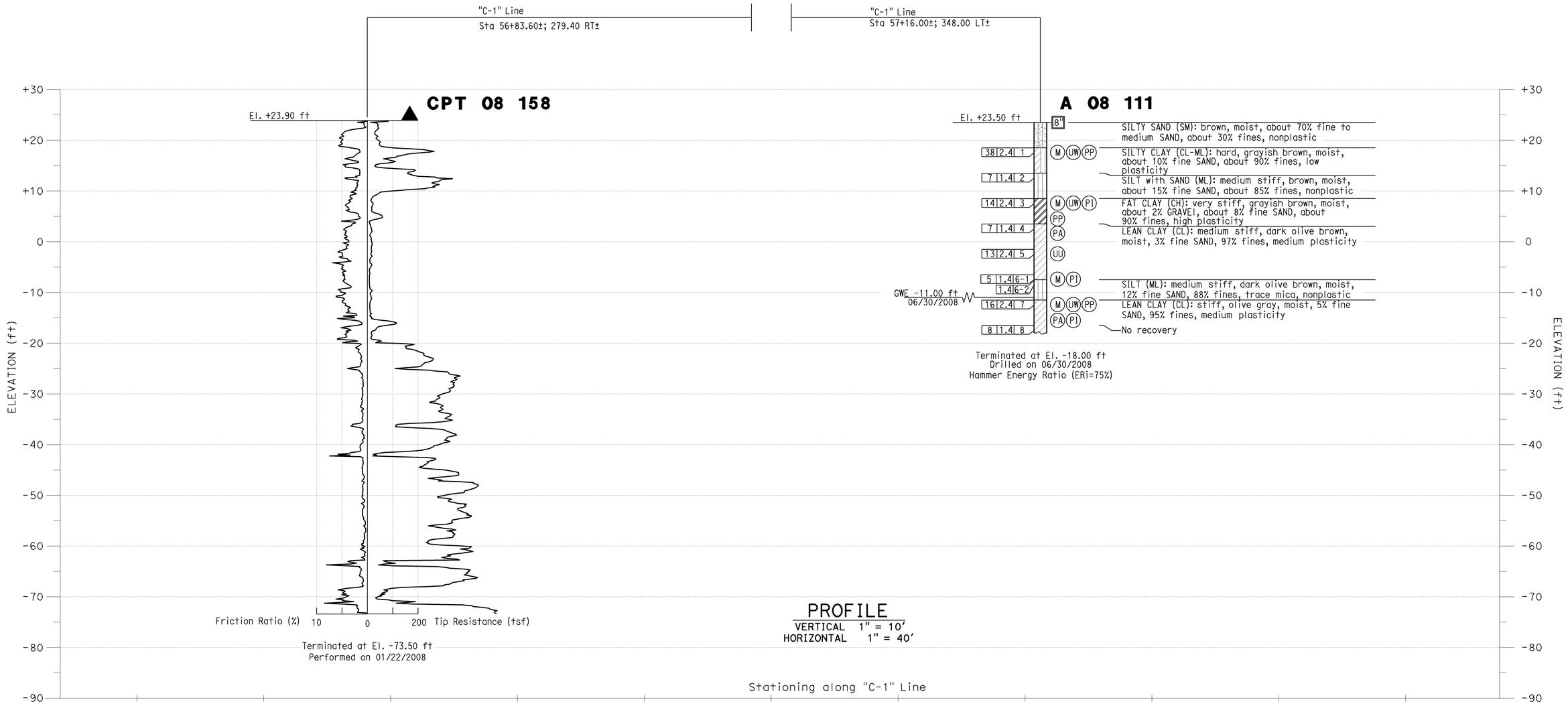
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



LOG OF TEST BORING NO. 1
SIGN STRUCTURE U

SCALE AS SHOWN

SD-42

K.PRATHEEPAN — G.J.GUNARANJAN — K.P — 08/10/09

CALCULATED-DESIGNED BY — CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:20

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c071630b042.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

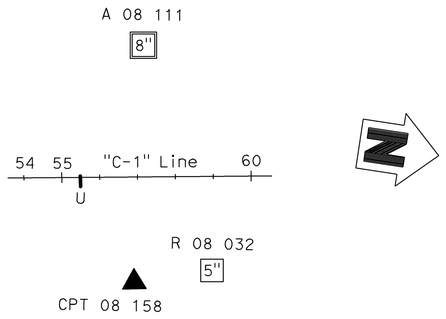
Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

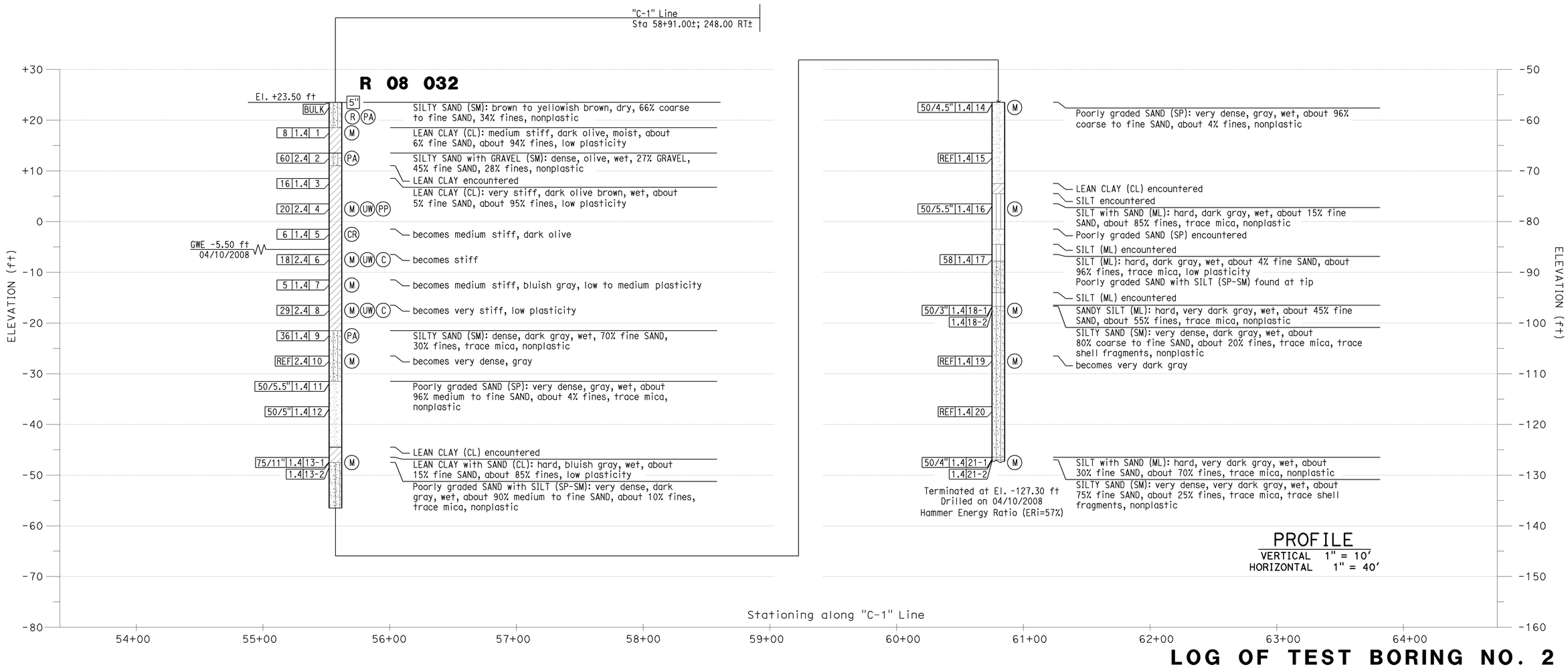
(2) 2.4" samples were taken using a California Modified Sampler.

(3) A rope and cat-head hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 200'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 2
SIGN STRUCTURE U

SCALE AS SHOWN

SD-43

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1062	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

G.J. GUNARANJAN No. C71758 Exp.12/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:20
08-10-09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1063	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

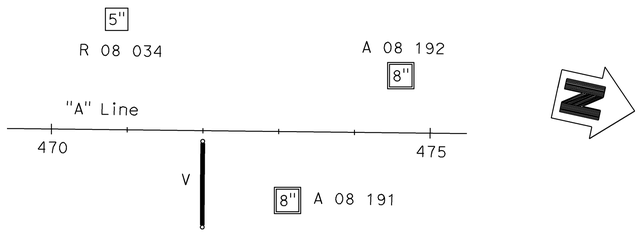
BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

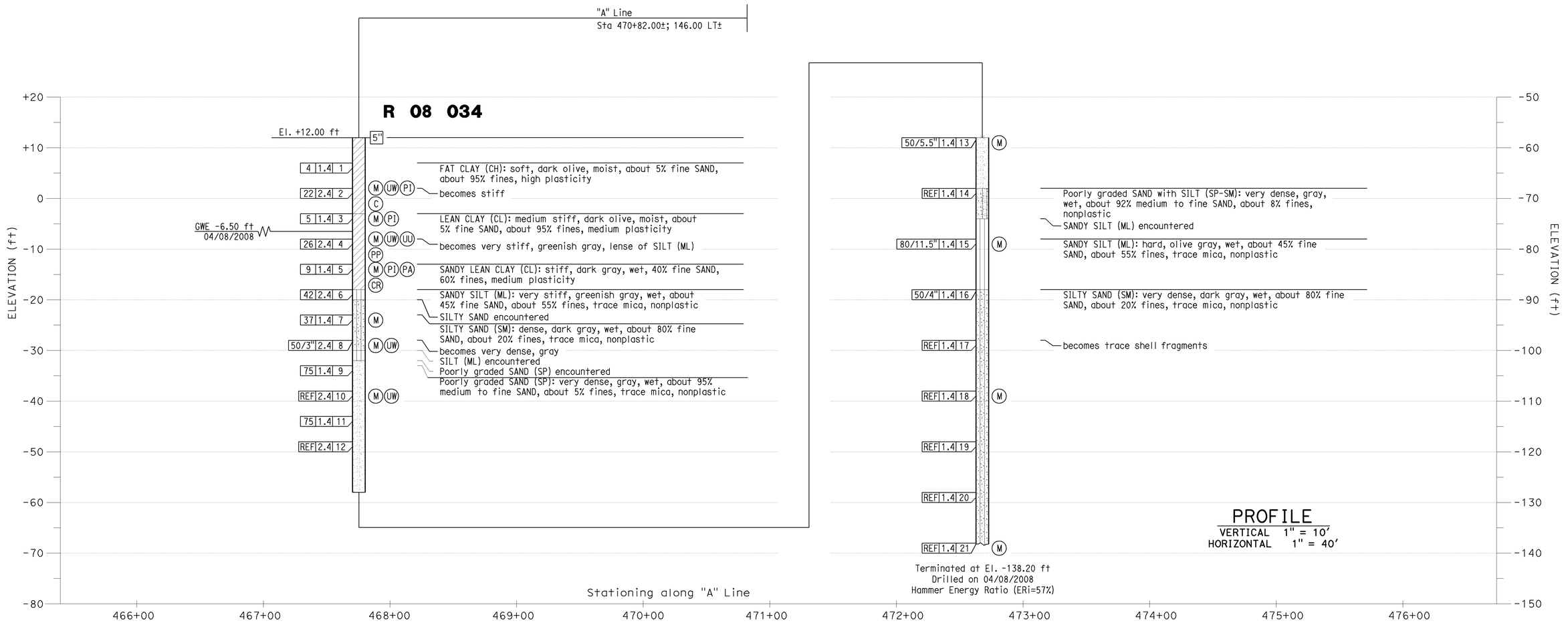
NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).
(2) 2.4" samples were taken using a California Modified Sampler.
(3) A rope and cat-head hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE V

SCALE AS SHOWN

SD-44

REVISED BY	DATE REVISED
K.P	08/10/09

K.PRATHEEPAN — CALCULATED-DESIGNED BY
G.J.GUNARANJAN — CHECKED BY
K.ARULMOLI — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION — DATE PLOTTED => 04-FEB-2010 — TIME PLOTTED => 08:20 — 08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c07163ob044.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk.
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1064	1929

8.8.08
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

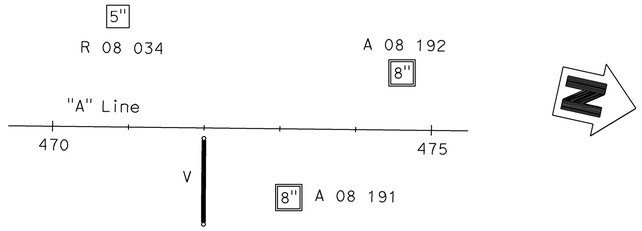
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 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.

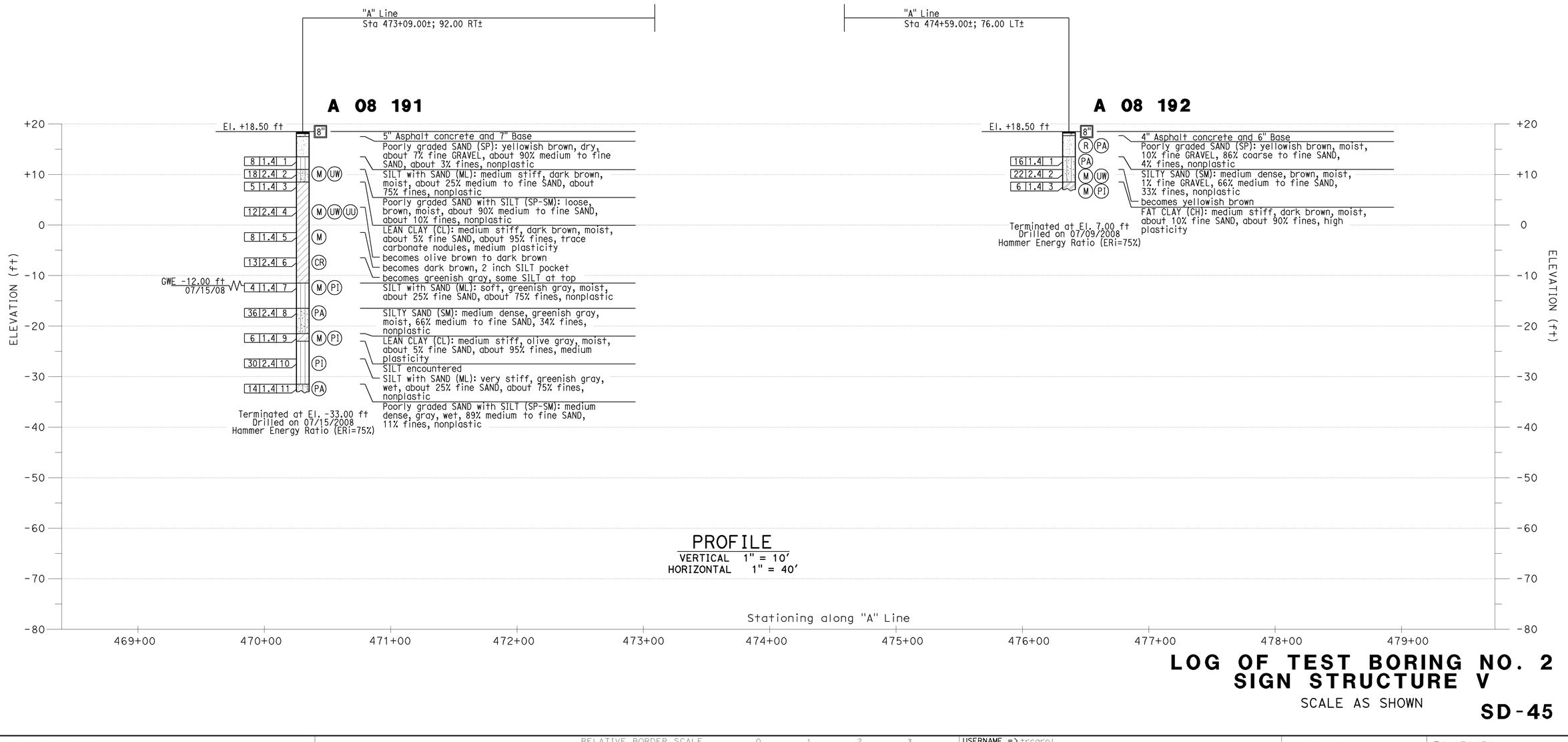
EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 2
SIGN STRUCTURE V

SCALE AS SHOWN

SD-45

K.P	08/10/09		
REVISED BY	DATE REVISED		
K.PRATHEEPAN	G.J.GUNARANJAN		
CALCULATED-DESIGNED BY	CHECKED BY		
CONSULTANT FUNCTIONAL SUPERVISOR	K.ARULMOLI		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 08:21

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trcarol | DGN FILE => c07163ob045.dgn | CU 12235 | EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) A rope and cat-head hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.

(4) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1065	1929

8.8.08
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

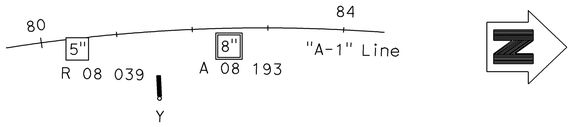
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

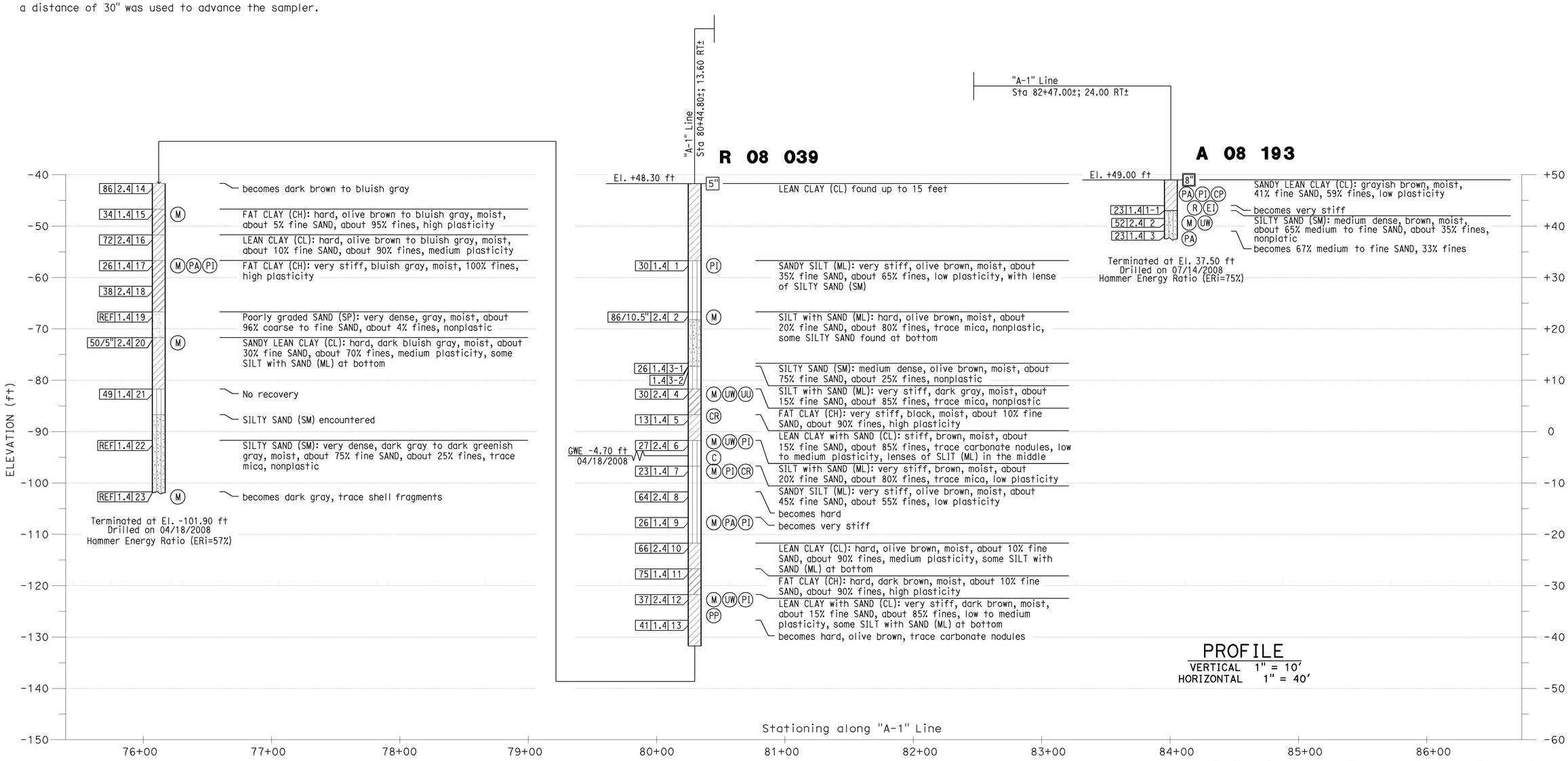
EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE Y

SCALE AS SHOWN

SD-46

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 08:21

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trcarol DGN FILE => c07163ob046.dgn | CU 12235 | EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1066	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

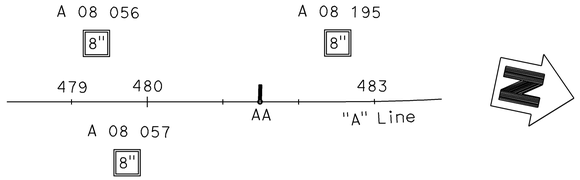
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

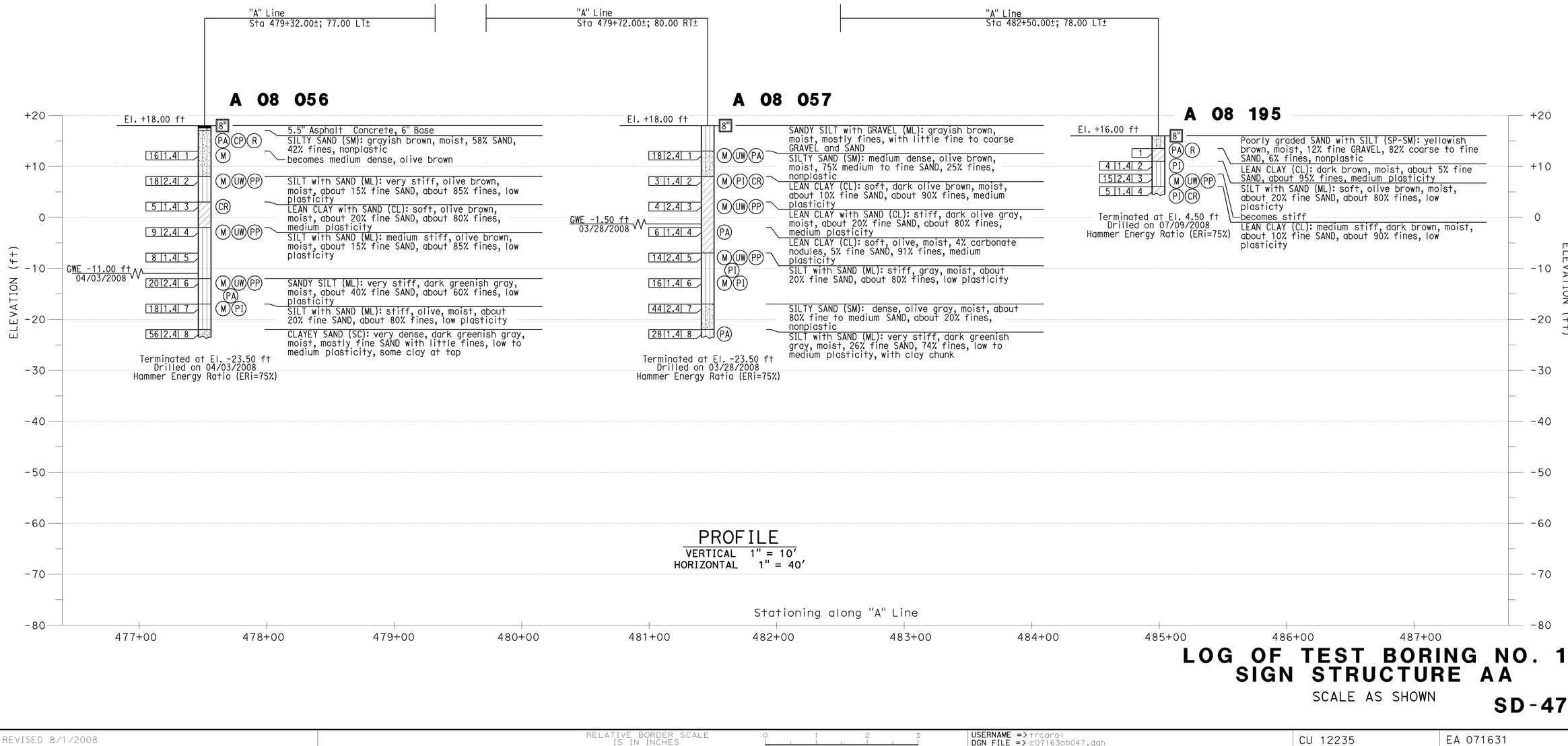
EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE AA

SCALE AS SHOWN

SD-47

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN G.J.GUNARANJAN
CHECKED BY:
CONSULTANT FUNTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010
08-10-09 TIME PLOTTED => 08:21

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c07163ob047.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

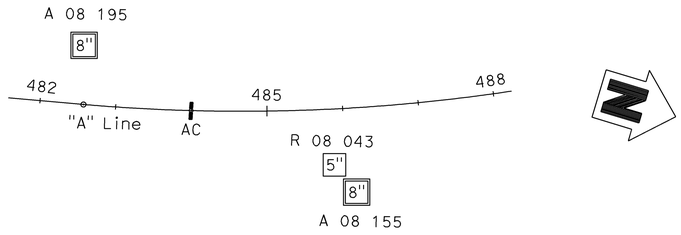
Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) A rope and cat-head hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1067	1929

8.9.10 — REGISTERED CIVIL ENGINEER — 8/10/09 DATE

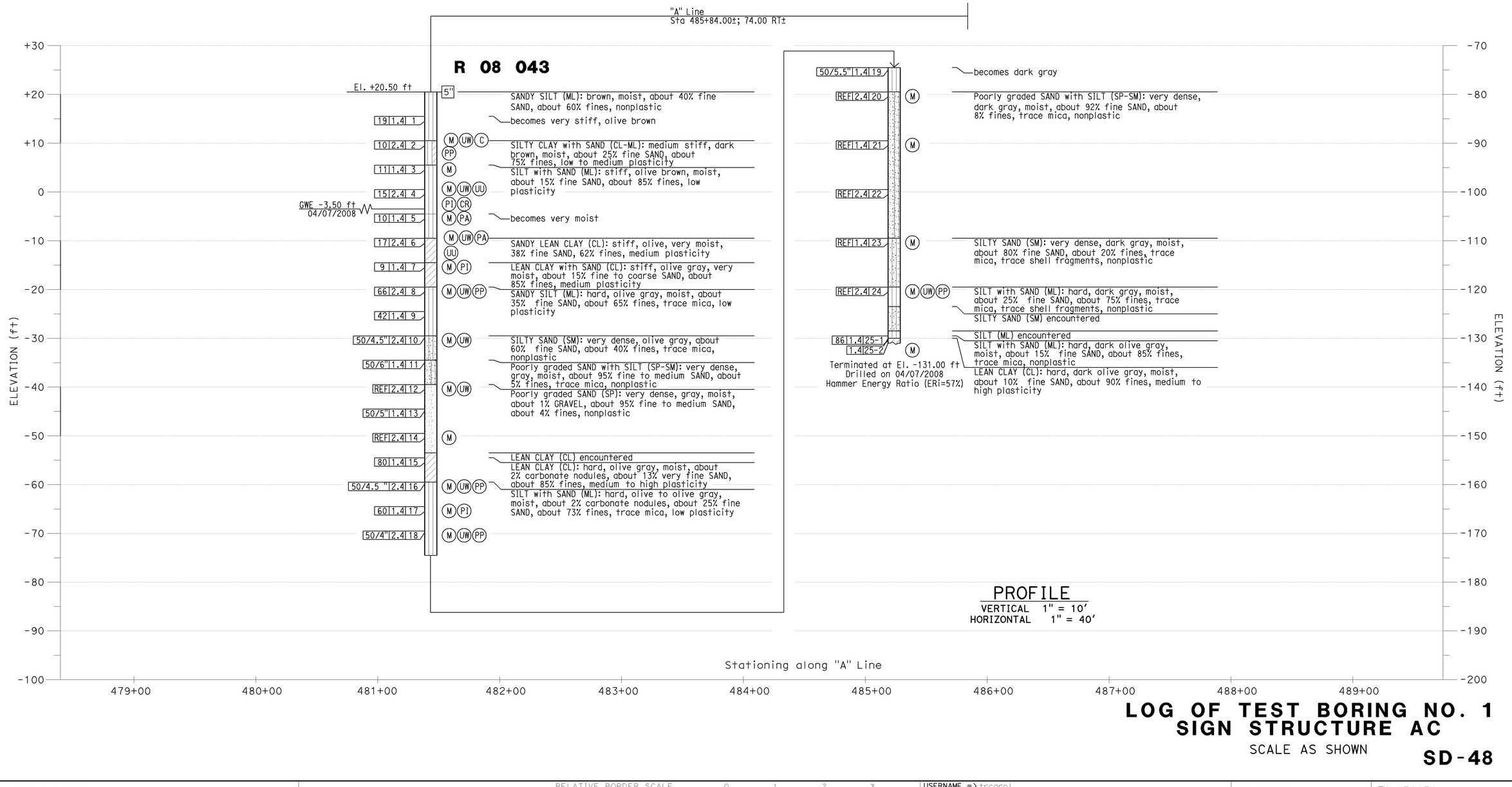
2-1-10 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE AC

SCALE AS SHOWN

SD-48

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 08:21

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trcarol | DGN FILE => c071163ob048.dgn | CU 12235 | EA 071631

BENCHMARKS:

Monument: 1A-144-04

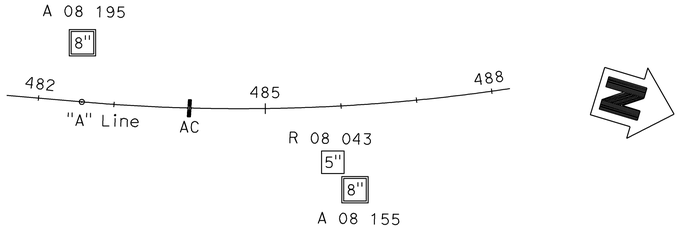
Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.



PLAN

1" = 100'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1068	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

"A" Line
Sta 482+50.00±; 78.00 LT±

A 08 195

El. +16.00 ft

8" — Poorly graded SAND with SILT (SP-SM): yellowish brown, moist, 12% fine GRAVEL, 82% coarse to fine SAND, 6% fines, nonplastic (PA, R)

1 | 4 | 1.4 | 2 — LEAN CALY (CL): dark brown, moist, about 5% fine SAND, about 95% fines, medium plasticity (PI)

15 | 2.4 | 3 — SILT with SAND (ML): soft, olive brown, moist, about 20% fine SAND, about 80% fines, low plasticty (M, UW, PP)

5 | 1.4 | 4 — becomes stiff (PI, CR)

LEAN CLAY (CL): medium stiff, dark brown, moist, about 10% fine SAND, about 90% fines, low plasticity

Terminated at El. 4.50 ft
Drilled on 07/09/2008
Hammer Energy Ratio (ERi=75%)

"A" Line
Sta 486+10.00±; 111.00 RT±

A 08 155

El. +14.50 ft

8" — SILTY SAND (SM): brown, moist, about 70% fine to medium SAND, about 30% fines, nonplastic

9 | 1.4 | 1-1 / 1.4 | 1-2 — becomes loose, dry

11 | 1.4 | 2 — LEAN CLAY with SAND (CL): stiff, dark brown, moist, about 20% fine SAND, about 80% fines, trace carbonate nodules, low to medium plasticity (PI, CR)

5 | 1.4 | 3-1 / 1.4 | 3-2 — SILT with SAND (ML): medium stiff, olive brown, very moist, about 25% fine SAND, about 75% fines, nonplastic (M, PI, PA)

10 | 1.4 | 4-1 / 1.4 | 4-2 — LEAN CLAY (CL): medium stiff, dark grayish brown, moist, about 10% very fine to fine SAND, about 90% fines, trace carbonate nodules, medium plasticity

7 | 1.4 | 5 — SILT with SAND (ML): stiff, olive, moist, about 25% fine SAND, about 75% fines, nonplastic (M, PA, PI)

8 | 1.4 | 6 — LEAN CLAY with SAND (CL): stiff, grayish brown, moist, about 15% very fine to fine SAND, about 85% fines, low plasticity (M, PI)

6 | 1.4 | 7 — SANDY SILT (ML): medium stiff, olive, very moist, 40% fine SAND, 60% fines, nonplastic (M, PI)

18 | 1.4 | 8-1 / 1.4 | 8-2 — LEAN CLAY with SAND (CL): medium stiff, olive gray, moist, about 15% fine SAND, about 85% fines, medium plasticity (M, PI, M, PA)

33 | 1.4 | 10 — FAT CLAY (CH): medium stiff, olive brown, to olive gray, moist, about 10% very fine to fine SAND, about 90% fines, high plasticity

35 | 1.4 | 11 — SILT with SAND (ML): very stiff, olive gray, moist, about 25% fine SAND, about 75% fines, nonplastic

SILTY SAND (SM): medium dense, gray, wet, 68% fine SAND, 32% fines, nonplastic

Terminated at El. -37.00 ft
Drilled on 01/23/2008
Hammer Energy Ratio (ERi=75%)

ELEVATION (ft) +20 +10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100

Stationing along "A" Line
477+00 478+00 479+00 480+00 481+00 482+00 483+00 484+00 485+00 486+00 487+00

PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 2
SIGN STRUCTURE AC

SCALE AS SHOWN

SD-49

REVISED BY	DATE REVISED
K.P	08/10/09

K.PRATHEEPAN
G.J.GUNARANJAN
CALCULATED-DESIGNED BY
CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:21
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trcarol
DGN FILE => c071630b049.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1069	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp.12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

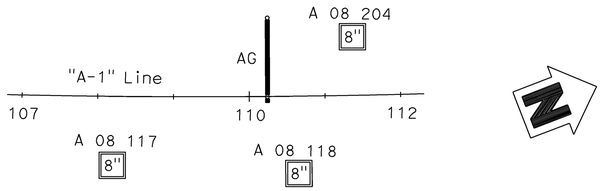
BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk.
Elevation: 15.37 feet

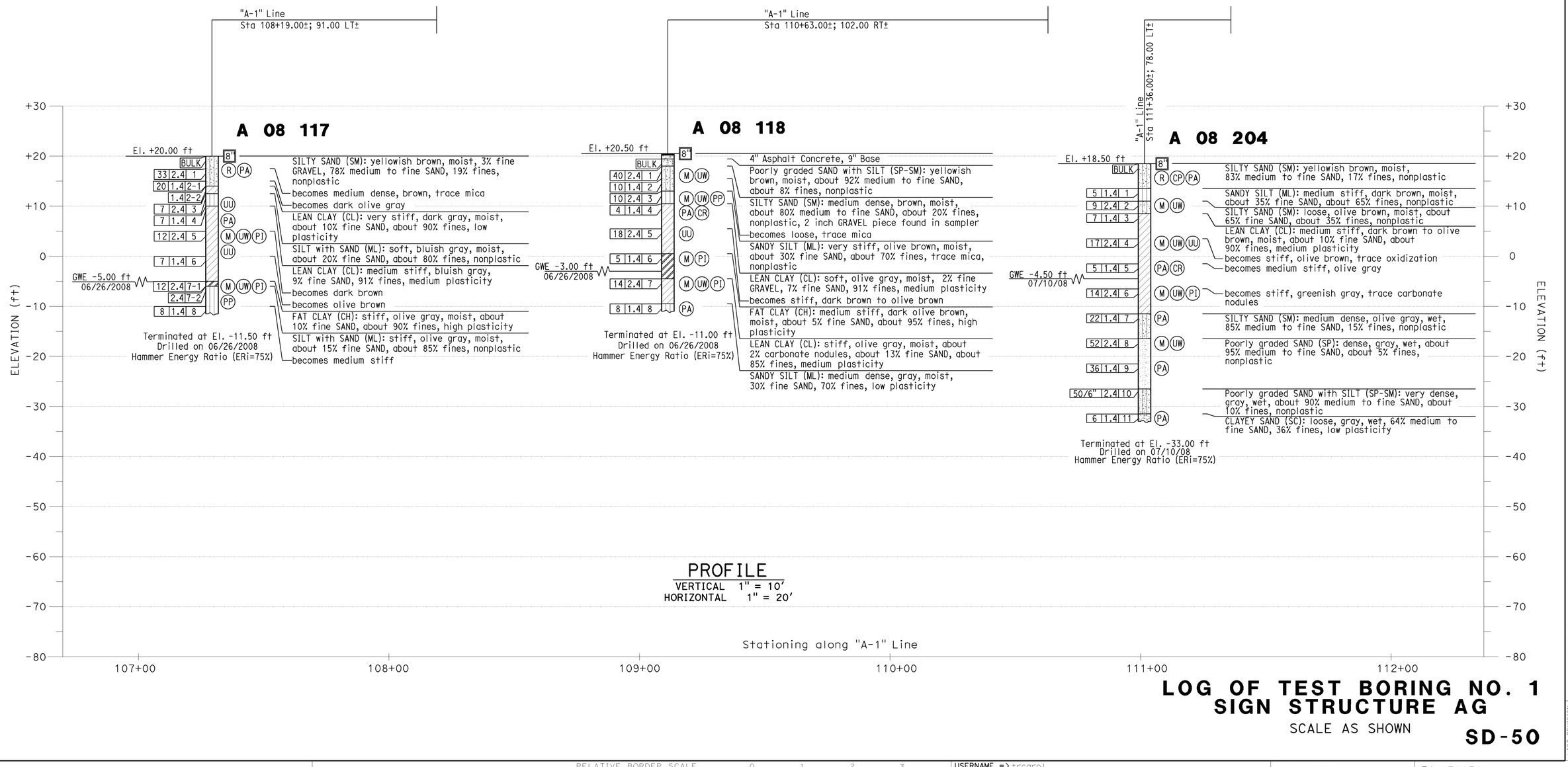
NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).
(2) 2.4" samples were taken using a California Modified Sampler.
(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 20'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE AG

SCALE AS SHOWN

SD-50

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:21
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trcarol
DGN FILE => c07163ob050.dgn
CU 12235
EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1070	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

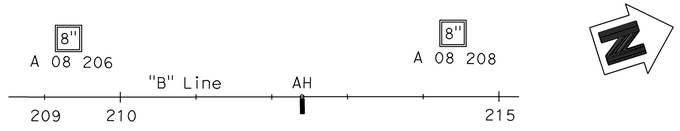
2-1-10 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 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.

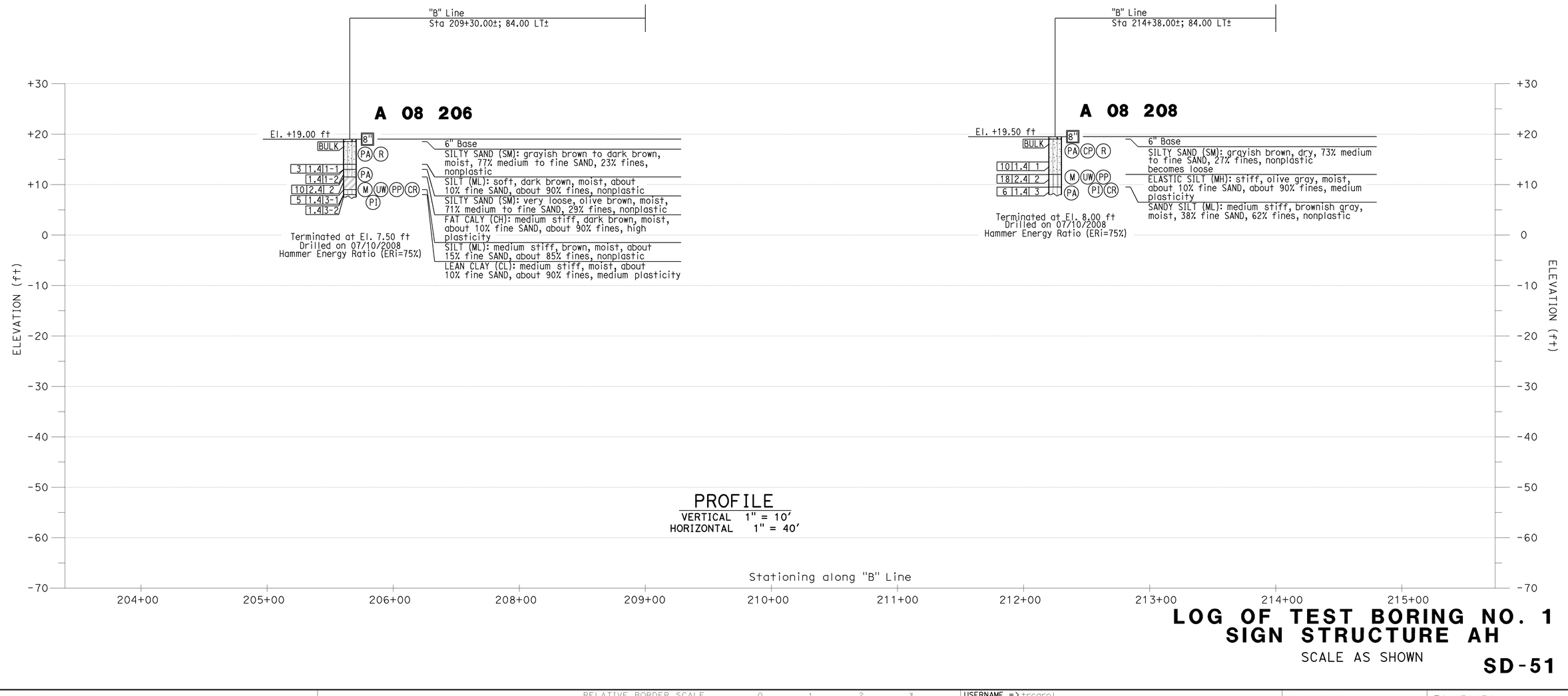
EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE AH

SCALE AS SHOWN

SD-51

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:21
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c07163ab051.dgn

CU 12235

EA 071631

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulvard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the side walk. Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the sampler.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1071	1929

8.9.09
REGISTERED CIVIL ENGINEER — 8/10/09 DATE

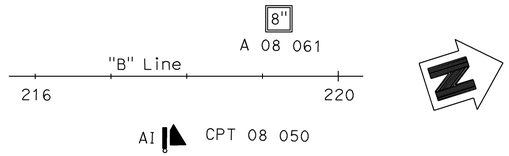
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 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.

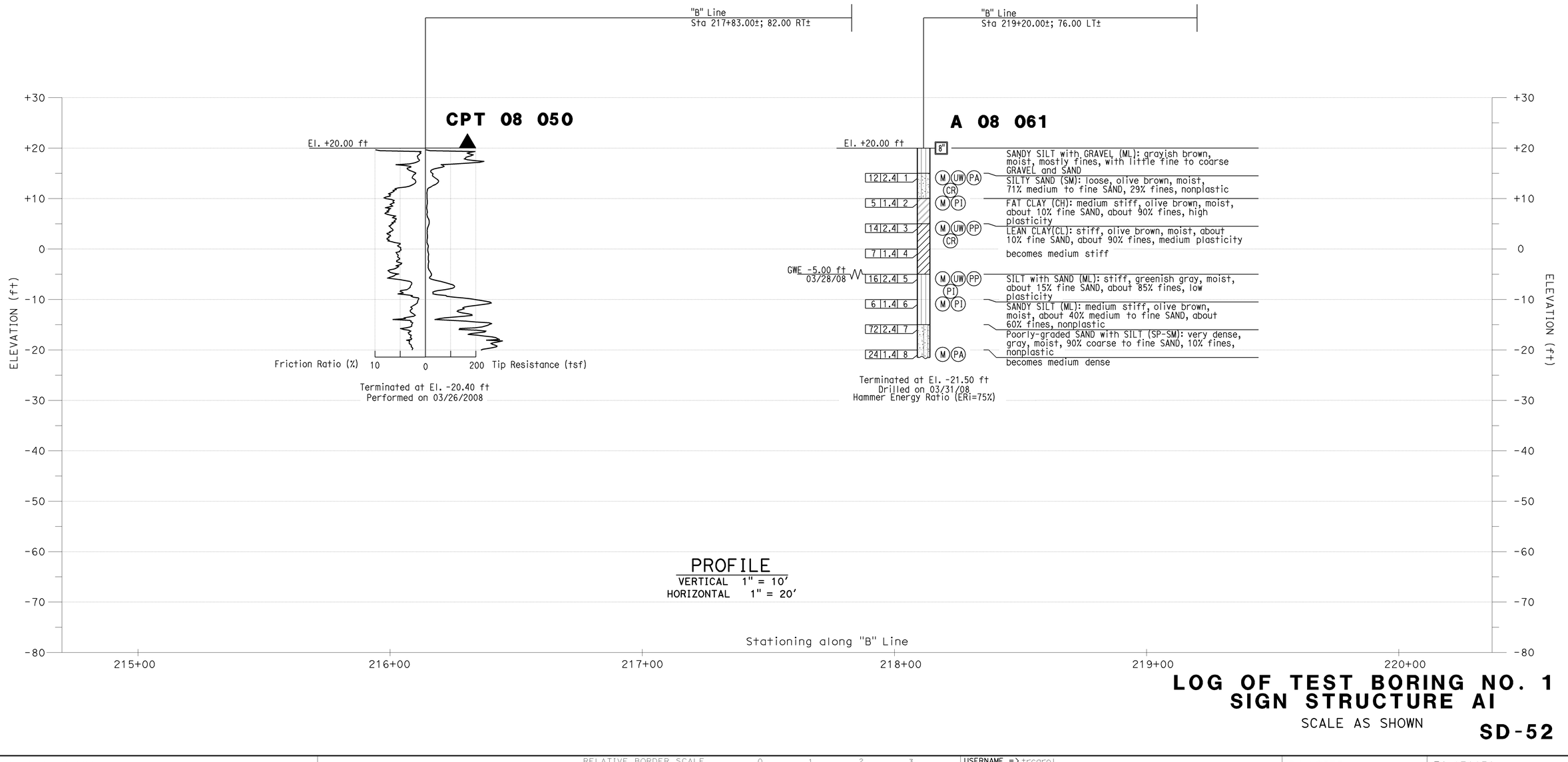
EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 20'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE AI

SCALE AS SHOWN

SD-52

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:21
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trcarol
DGN FILE => c07163ob052.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1072	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

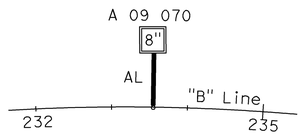
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

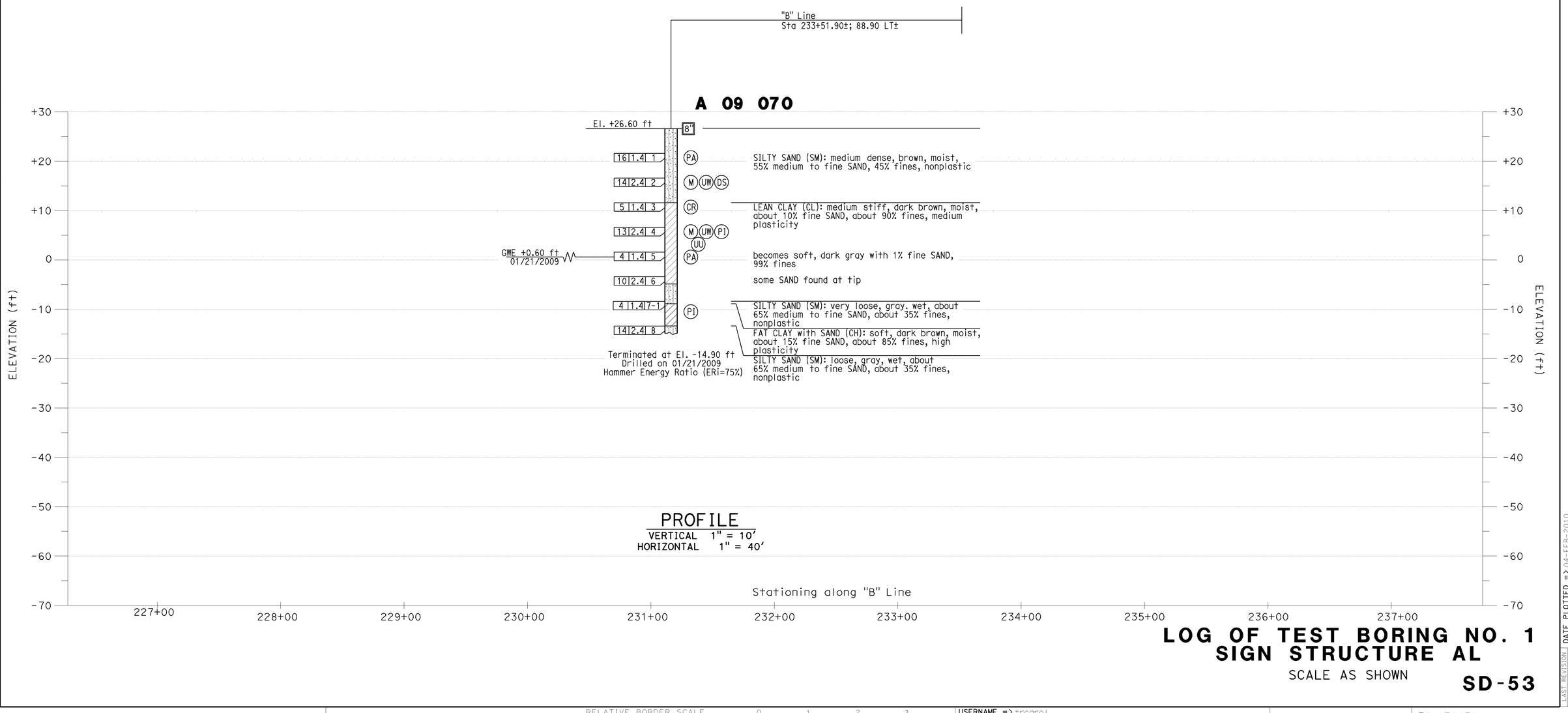
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE AL

SCALE AS SHOWN

SD-53

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY	CHECKED BY
K.PRATHEEPAN	G.J.GUNARANJAN

CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:22
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c07163ob053.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1073	1929

8/10/09
REGISTERED CIVIL ENGINEER — DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN — No. C71758 — Exp. 12/31/10 — 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

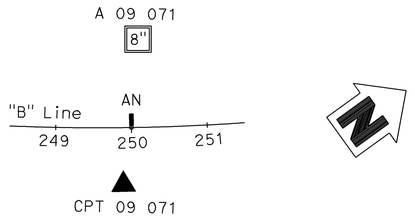
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

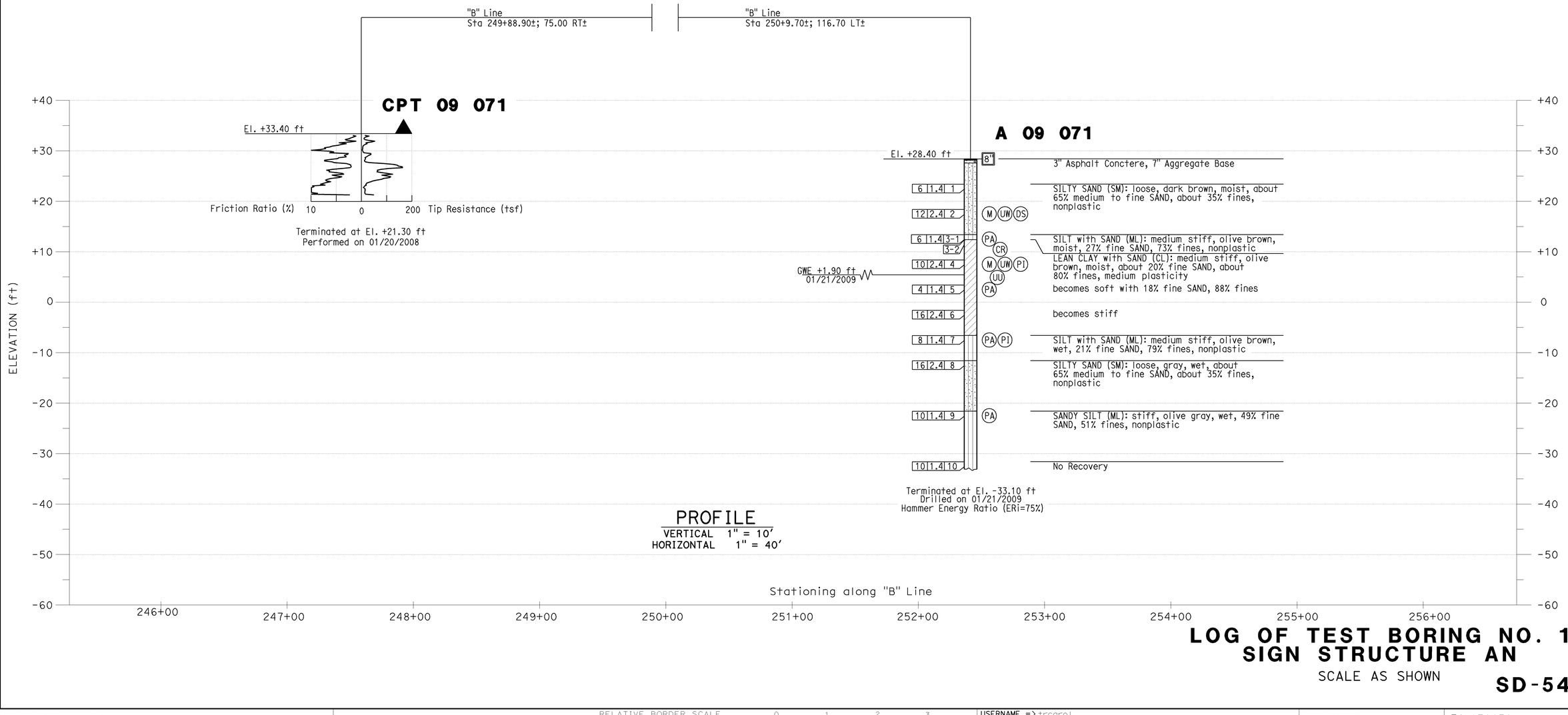
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



LOG OF TEST BORING NO. 1
SIGN STRUCTURE AN

SCALE AS SHOWN

SD-54

REVISED BY: K.P | DATE REVISED: 08/10/09
K.PRATHEEPAN | G.J.GUNARANJAN
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:22
08-10-09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1074	1929

REGISTERED CIVIL ENGINEER — 8/10/09 DATE

2-1-10 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — G.J. GUNARANJAN No. C71758 Exp.12/31/10 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.

EARTH MECHANICS, INC.
17660 NEWHOPE ST. SUITE E
FOUNTAIN VALLEY, CA 92708

OCTA
550 S. MAIN STREET
ORANGE, CA 92863-1584

BENCHMARKS:

Monument: 1A-144-04

Described by OCS 2005 - Found 3.75" OCS aluminum benchmark disk stamped "1A-144-04", set in the southwesterly corner of a 4.4 ft by 4.4 ft concrete catch basin. Monument is located in the northeasterly corner of the intersection of Seal Beach Boulevard and St. Cloud Drive, 44 ft easterly of the centerline of Seal Beach Boulevard and 58 ft northerly of the centerline of St. Cloud Dr. Monument is set level with the sidewalk.

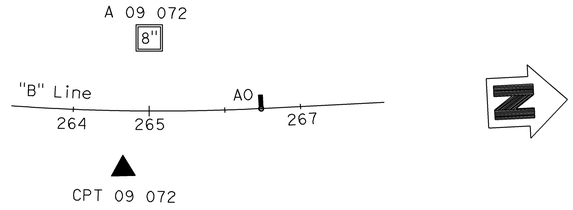
Elevation: 15.37 feet

NOTES:

(1) This LOTB sheet (Boring Record) was prepared in accordance with the Caltrans Soil and Rock Classification Logging, Classification and Presentation Manual (June 2007).

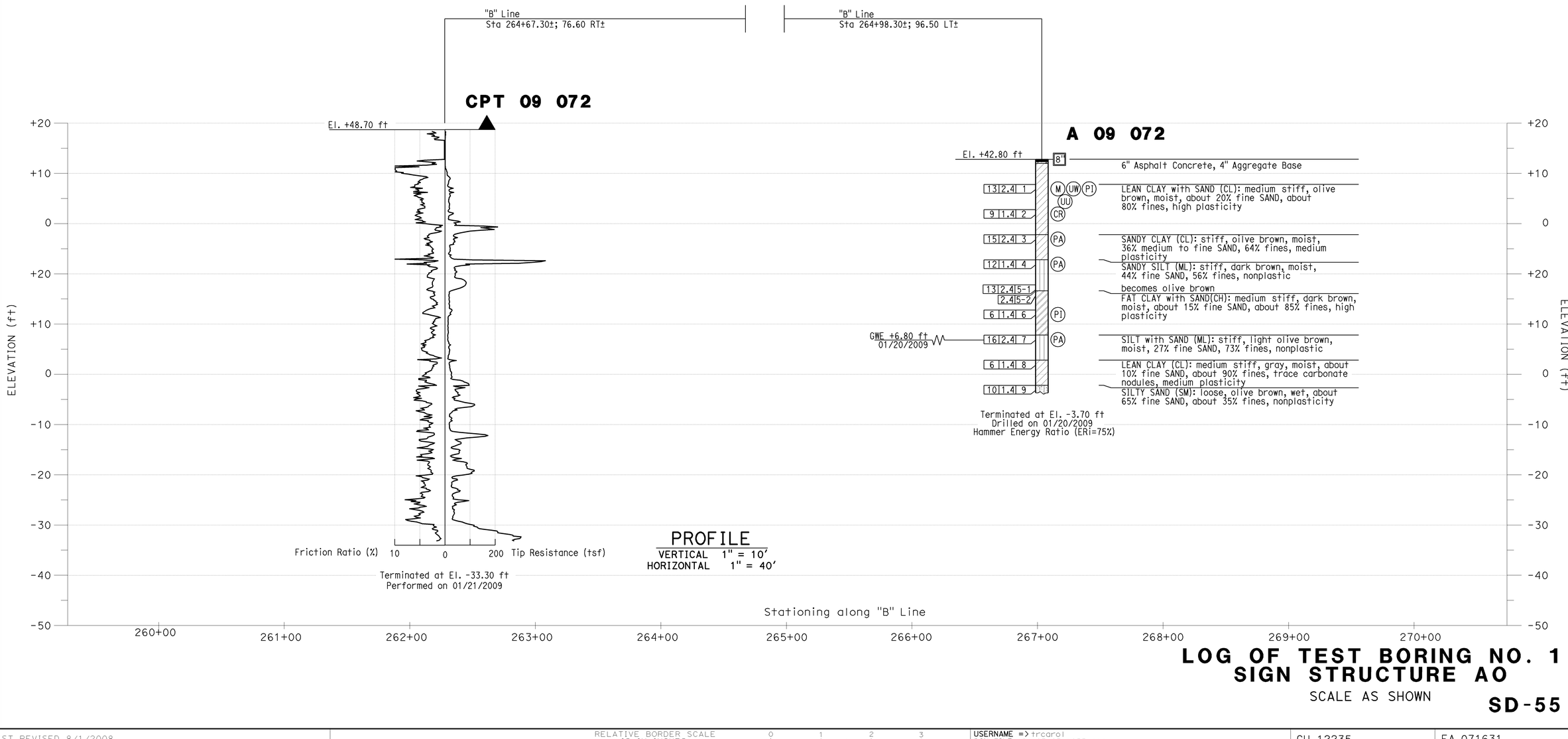
(2) 2.4" samples were taken using a California Modified Sampler.

(3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the drive sampler.



PLAN

1" = 100'



PROFILE

VERTICAL 1" = 10'
HORIZONTAL 1" = 40'

LOG OF TEST BORING NO. 1
SIGN STRUCTURE AO

SCALE AS SHOWN

SD-55

REVISED BY	DATE REVISED
K.P	08/10/09

CALCULATED-DESIGNED BY: K.PRATHEEPAN
CHECKED BY: G.J.GUNARANJAN
CONSULTANT FUNCTIONAL SUPERVISOR: K.ARULMOLI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 08:22
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => c07163ob055.dgn

CU 12235

EA 071631

OVERHEAD SIGN QUANTITIES

SHEET NO.	SIGN NO.	LOCATION		CIDH CONC PILE (SIGN FOUNDATION)		SIGN STRUCTURES (TRUSS)		POST TYPE (STD PLAN)	REMOVE SIGN STRUCTURE	MODIFY SIGN STRUCTURE	SIGN CODE	
				54-INCH	60-INCH	FURNISH	INSTALL				PANEL NO.	PANEL CODE
		STATION	DIRECTION	LF	LF	(lb)	(lb)		EA	EA		
S-1	A	''A'' 396+05; 0'	FNBT	20.5		11810	11810	IV			1	G23 (CA)
			FSBT								2	G23 (CA)
	B	''A'' 397+78; 2' (Rt)	FSBT						1		1	G23 (CA)
			FNBT								2	G24 (CA)
			FNBT								3	G83 (CA)
			FNBT								4	G85 (CA)
S-2	C	''A'' 399+50; 128.7' (Rt)	FNBT		25.5	16870	16870	VII			1	G85 (CA)
	D	''A'' 407+85; 5.8' (Rt)	FSBT		30.3	68610	68610	VI-S			1	87-1 (CA
			FNBT								2	G83 (CA)
			FNBT		27.8						3	G24 (CA)
			FNBT								4	G83 (CA)
S-20	E	"A" 414+37; 6' (Rt)	FNBT						1		1	G23 (CA)
S-4	F	''A'' 421+38; 128.8' (Lt)	FSBT		25.4	18170	18170	VII			1	G85(CA)
	G	''A'' 422+00; 5.9' (Rt)	FNBT		30.3	56060	56060	VI-S			1	G83 (CA)
			FNBT								2	G24 (CA)
			FNBT		27.8						3	G83 (CA)
			FNBT								4	G83 (CA)
	H	''A'' 422+79; 120' (Lt)	FSBT						1		1	G85 (CA)
	I	''A'' 423+90; 6' (Rt)	FNBT						1		1	G24 (CA)
			FNBT								2	G24 (CA)
			FNBT								3	G83 (CA)
S-5	J	''A'' 429+84; 133.8' (Rt)	FNBT		25.0	22390	22390	VIII			1	85-11 (C
	K	''A-2'' 39+93; 4' (Lt)	FNBT						1		1	G85 (CA)
	L	''A'' 436+50; 104' (Lt)	FSBT						1		1	G83 (CA)
	M	''A'' 436+74; 133.9' (Lt)	FSBT		25.0	15220	15220	VIII			1	G83-3(CA
S-6	N	"A" 440+50; 5.8' (Rt)	FNBT		25.5	18030	18030	VII			1	G83 (CA)
	O	''A'' 446+00; 9.6' (Rt)	FNBT		25.0	15000	15000	VIII			1	G85 (CA)
	R	"A" 450+75; 1' (Rt)	FNBT		28.8	54450	54450	V-S / VI-S			1	G24 (CA)
			FNBT		27.8						2	G83 (CA)
S-7	P	"C-3" 34+50; 15.5' (Lt)	FSBT						1		1	G23 (CA)
	Q	''C-3'' 34+90; 12' (Lt) / 45' (Rt)	FSBT	19.7		21110	21110	II-S			1	G23 (CA)
				19.7								
	S	"A" 455+00; 137.2' (Lt)	FSBT		22.0	17130	17130	VI			1	G23 (CA)
	T	''A'' 455+00; 0' (Lt) / 92.5' (Rt)	FSBT						1		1	G23 (CA)
			FNBT								2	G24 (CA)
			FNBT								3	G83 (CA)
S-8	U	"C-1" 55+46; 21' (Rt)	FNBT		23.0	17200	17200	VII			1	G83 (CA)
S-9	V	''A'' 472+00; 13' (Rt)	FNBT		27.8	62520	62520	VI-S			1	G24 (CA)
			FNBT		27.8						2	G85 (CA)
	W	''C-1'' 8+75; 36' (Lt)	FNBT						1		1	G24 (CA)
			FNBT								2	G83 (CA)
	X	''A'' 477+38; 0'	FNBT						1		1	G24 (CA)
			FNBT								2	G24 (CA)
	Y	''C-2'' 5+00; 28.8' (Rt)	FNBT		23.0	18800	18800	VII			1	G85 (CA)
	Z	''A'' 479+71; 0'	FSBT						1		1	R87 (CA)
	AA	''A'' 481+50; 0'	FSBT		22.0	13660	13660	VI			1	R87 (CA)
			SHEET TOTAL	59.9	469.8	447030	447030		11			

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1075	1929

Theresa M. Gaisser 12/22/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 7/06/10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY: TG | DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SIGN QUANTITIES

SQ-1

LAST REVISION 12-22-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 08:22

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trcarol | DGN FILE => c07163oc001.dgn | CU 12235 | EA 071631

OVERHEAD SIGN QUANTITIES

SHEET NO.	SIGN NO.	LOCATION		CIDH CONC PILE (SIGN FOUNDATION)		SIGN STRUCTURES (TRUSS)		POST TYPE (STD PLAN)	REMOVE SIGN STRUCTURE	MODIFY SIGN STRUCTURE	SIGN CODE	
				54-INCH	60-INCH	FURNISH	INSTALL				PANEL NO.	PANEL CODE
		STATION	DIRECTION	LF	LF	(lb)	(lb)		EA	EA		
S-10	AB	''C-1'' 18+38; 43' (Lt)	FNBT						1		1	G24 (CA)
			FNBT								2	G85 (CA)
	AC	"A" 484+00; 0'	FNBT	18.0		11060	11060	IV			1	G23 (CA)
	AD	''A'' 485+50; 0'	FNBT						1		1	G23 (CA)
	AE	''B-2'' 80+17; 5.5' (Rt)	FSBT							1	1	G24 (CA)
			FSBT								2	G24 (CA)
S-11	AF	''A-1'' 106+45; 7.7' (Lt)	FNBT						1		1	G23 (CA)
			FSBT								2	G24 (CA)
			FSBT								3	G24 (CA)
			FSBT								4	G85 (CA)
	AG	''A-1'' 110+24; 0' / 104' (Lt)	FNBT		28.8	47200	47200	V-S			1	G23 (CA)
			FSBT								2	G83 (CA)
			FSBT		26.3						3	G83 (CA)
			FSBT								4	G83 (CA)
			FSBT								5	G85 (CA)
S-12	AH	''B'' 212+40; 0'	FNBT		24.5	13660	13660	VI			1	R87 (CA)
S-13	AI	''B'' 217+71; 98.2' (Rt)	FNBT		23.0	17830	17830	VII			1	G83 (CA)
	AJ	''B'' 218+00; 92' (Rt)	FNBT						1		1	G24 (CA)
	AK	''B'' 219+16; 0'	FNBT						1		1	R87 (CA)
S-14	AL	''B'' 233+55; 0'	FSBT		30.3	56750	56750	VI-S			1	G83 (CA)
			FSBT								2	G83 (CA)
			FSBT		27.8						3	G83 (CA)
			FSBT								4	G83 (CA)
S-17	AM	"B" 244+30; 0'	FSBT						1		1	G83 (CA)
			FSBT								2	G83 (CA)
			FSBT								3	G83 (CA)
	AN	''B'' 250+00; 0'	FSBT	21.5		10930	10930	V			1	G83 (CA)
S-19	AO	"B" 265+50; 0'	FSBT	21.5		10820	10820	V			1	R87 (CA)
	AP	"B" 266+70; 82' (Rt)	FSBT								1	G83 (CA)
			SHEET TOTAL	61.0	160.7	168250	168250		6	1		
			GRAND TOTAL	120.9	630.5	615280	615280		17	1		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1076	1929

Theresa M. Gaisser 12/22/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 7/06/10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 12/22/09
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SIGN QUANTITIES

SQ-2

LAST REVISION | DATE PLOTTED => 04-FEB-2010
12-22-09 | TIME PLOTTED => 08:22

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trcarol
DGN FILE => c07163oc002.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1077	1929

Theresa M. Gaisser 12/22/09
REGISTERED CIVIL ENGINEER DATE

THERESA M. GAISSER No. C69442 Exp. 7/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

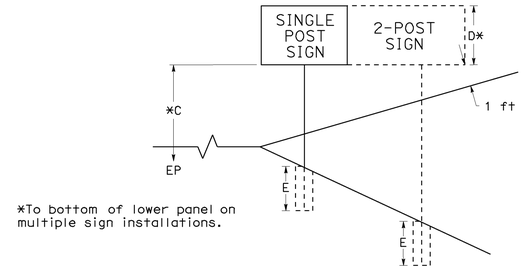
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE		POST DIMENSIONS									ROADSIDE SIGN		INSTALL				REMOVE	
					POST DIMENSIONS			Min POST LENGTH		POST SIZE											
			HORI	VERT	D	C	E	LEFT	RIGHT	4"X4"	4"X6"	6"X6"	6"X8"	ONE POST	TWO POST	LAMINATED WOOD BOX POST (TYPE M)	SIGN (STRAP & SADDLE BRACKET METHOD)	METAL (RAIL MOUNTED SIGN)	METAL (SOUNDWALL MOUNTED SIGN)	ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)	ROADSIDE SIGN
			INCH	INCH	FT	FT	FT	FT	FT					EA	EA	EA	EA	LBS	LBS	EA	EA
S-2	2-1	W13-2	48	60	5.0	7.0											1				
S-2	2-2	W13-2	48	60																	1
S-2	2-3	M3-3	30	15																	
S-2		G27-2 (CA)	42	36																2	
S-2	2-4	M3-3	30	15	4.3	7.0											2				
S-2		G27-2 (CA)	42	36																	
S-2	2-5	G84-2 (CA)	54	48																	1
S-2	2-6	G84-2 (CA)	54	48	4.0	7.0	5.0	16.3				1		1							
S-2	2-7	W1-2R	48	48																	1
S-2		W13-1	30	30																	
S-2	2-8	W1-2aR	48	48	5.7	7.0	5.0	17.9				1		1							
S-2	2-9	R86-2 (CA)	30	60	5.5	7.0											2				
S-2		SR50-2 (CA)	30	66																	
S-2	2-10	R86-2 (CA)	30	60																1	
S-2	2-11	G66-21 (CA)	30	30	3.3	7.0											2				
S-2		G33-1L (CA)	30	8																	
S-2	2-12	G66-21 (CA)	30	30																	1
S-2		G33-1L (CA)	30	8																	
S-2	2-13	SG19 (CA)	90	54	4.5	7.0	4.5	15.5	15.3		2				1						
S-2	2-14	SG19 (CA)	90	54																	1
S-2	2-15	R86-2 (CA)	30	60																1	
S-2	2-16	G83-1 (CA)	96	78																	1
S-3	3-1	R61-17 (CA)	72	30	2.5	7.0	4.5	19.3			1				1						
S-3	3-2	R61-17 (CA)	72	30	2.5	7.0	4.5	14.1			1				1						
S-3	3-3	R61-17 (CA)	72	30	2.5	7.0	4.5	14.6			1				1						
S-3	3-4	R61-17 (CA)	72	30	2.5	7.0	4.5	13.4			1				1						
S-3	3-5	R6-1L	36	12	1.0	1.0	3.5	4.5		1				1							
S-3	3-6	W3-3	48	48	5.7	7.0	5.0	17.7				1		1							
S-3	3-7	R5-10a	30	36	3.0	7.0	4.5	14.9			1			1							
S-3	3-8	W4-10	48	48	5.7	7.0	5.0	17.1				1		1							
S-3	3-9	W4-1R	48	48	5.7	7.0	5.0	18.1				1		1							
S-3	3-10	G92 (CA)	48	30	7.3	3.3	4.5	15.1			1			1							
S-3		G27-2 (CA)	30	25																	
S-3		M3-1	30	15																	
S-3		M6-2	21	15																	
S-3	3-11	G92 (CA)	48	30	7.3	4.8	4.5	16.6			1			1							
S-3		G27-2 (CA)	30	25																	
S-3		M3-1	30	15																	
S-3		M6-2	21	15																	
S-3	3-12	R5-10a	30	36	3.0	7.0	4.5	16.1			1			1							
S-3	3-13	G78-4 (CA)	114	90	7.5	7.0	7.5	23.6	23.4							1					
S-3	3-14	D11-1	24	18	2.1	7.0	3.5	14.2		1				1							
S-3		G33-1L (CA)	24	6																	
													SHEET TOTAL	11	5	1	7			4	6



*To bottom of lower panel on multiple sign installations.

NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
2. POST LENGTHS GIVEN ARE APPROXIMATE. EXACT LENGTH TO BE DETERMINED BY THE ENGINEER.
3. 'C' DIM = VERTICAL CLEARANCE FROM EP TO BOTTOM OF SIGN PANEL.
4. 'D' DIM = TOTAL DEPTH TO BOTTOM SIGN PANEL ON MULTIPLE SIGN INSTALLATION.
5. FRP = FIBERGLASS REINFORCED PLASTIC.

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

SIGN QUANTITIES

SQ-3

REVISED BY	DATE REVISED
TG	12/22/09

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010
12-22-09 TIME PLOTTED => 10:51

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trliim
DGN FILE => c07163oc003.dgn
CU 12235
EA 071631

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE		POST DIMENSIONS										ROADSIDE SIGN		INSTALL				REMOVE	
			HORI	VERT	POST DIMENSIONS			Min POST LENGTH		POST SIZE					ONE POST	TWO POST	LAMINATED WOOD BOX POST (TYPE M)	SIGN (STRAP & SADDLE BRACKET METHOD)	METAL (RAIL MOUNTED SIGN)	METAL (SOUNDWALL MOUNTED SIGN)	ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)	ROADSIDE SIGN
					D	C	E	LEFT	RIGHT	4"X4"	4"X6"	6"X6"	6"X8"									
			INCH	INCH	FT	FT	FT	FT	FT						EA	EA	EA	EA	LBS	LBS	EA	EA
S-3		M3-1	30	15																		
S-3		G27-2 (CA)	30	25																		
S-3	3-15	M3-4	30	15	8.8	0.8	4.5	14.1			1				1							
S-3		G28-2 (CA)	30	31																		
S-3		M6-1	21	15																		
S-3	3-16	W11-1	24	24	4.3	7.0	4.5	17.1			1				1							
S-3		W11-1P	24	18																		
S-3	3-17	R5-1	36	36	5.1	7.0	5.0	18.9				1			1							
S-3		R5-1A	36	24																		
S-3	3-18	R5-1	36	36	5.1	1.2	4.5	10.6			1				1							
S-3		R5-1A	36	24																		
S-3	3-19	R26(S) (CA)	12	18	2.3	7.0	3.5	12.8		1					1							
S-3		R81 (CA)	12	8																		
S-3	3-20	G78-4 (CA)	84	48	4.0	7.0	4.5	14.0	9.7		2					1						
S-3		G92 (CA)	48	30																		
S-3		G27-2 (CA)	30	25	7.3	2.7	4.5	14.5			1				1							
S-3	3-21	M3-1	30	15																		
S-3		M6-2	21	15																		
S-3	3-22	OCTA BUS STOP	18	18	1.5															80		
S-3		G92 (CA)	48	30																		
S-3		G27-2 (CA)	30	25	7.3	3.0												4				
S-3	3-23	M3-1	30	15																		
S-3		M6-2	21	15																		
S-3	3-24	R2-1	36	48	5.6															80		
S-3		R26(S) (CA)	12	18																		
S-3	3-25	R26(S) (CA)	12	18	2.3															80		
S-3		R81 (CA)	12	8																		
S-3	3-26	G20-3 (CA)	84	54	6.4															80		
S-3	3-27	W4-1R	48	48	5.7	7.0	5.0	17.7				1			1							
S-3	3-28	G85-8 (CA)	30	60	5.0	7.0		9.3											80			
S-3	3-29	G11-4.1 (CA)	44	18	1.5	3.0	3.5	6.2		1					1							
S-3	3-30	R93-2 (CA)	30	72	7.1	7.0		11.4											80			
S-3		R93A (CA)	30	12																		
S-3	3-31	W1-1aR	48	48	5.7	7.0	5.0	17.8				1			1							
S-3	3-32	G11-4.1 (CA)	44	18	1.5	3.0	3.5	8.4		1					1							
S-3	3-33	D11-1	24	18	1.5	7.0	3.5	13.2		1					1							
S-3	3-34	G84-2 (CA)	54	48	4.0	7.0	5.0	16.3				1			1							
S-3	3-35	D11-1	24	18	2.1															80		
S-3	3-36	W4-2	48	48	5.7	7.0	5.0	17.2				1			1							
S-3	3-37	G20 (CA)	78	42	3.5	7.0		11.1								1						
S-3	3-38	W1-8R	18	24	2.0	7.0	3.5	12.1		1					1							
S-3	3-39	W1-8R	18	24	2.0	7.0	3.5	12.0		1					1							
S-3	3-40	W1-8R	18	24	2.0	7.0	3.5	11.8		1					1							
S-3	3-41	W1-8R	18	24	2.0	7.0	3.5	11.1		1					1							
S-3	3-42	W1-8R	18	24	2.0	7.0	3.5	11.5		1					1							
S-3	3-43	W1-8R	18	24	2.0	7.0	3.5	12.2		1					1							
S-3	3-44	W1-8R	18	24	2.0	7.0	3.5	11.9		1					1							
S-3	3-45	W1-8R	18	24	2.0	7.0	3.5	11.9		1					1							
S-3	3-46	W1-8R	18	24	2.0	7.0	3.5	11.8		1					1							
S-3	3-47	R9-3a	18	18	1.5	3.0																
S-3	3-48	R9-3a	18	18	1.5	3.0																
S-3	3-49	R9-3a	18	18	1.5	3.0																
S-3	3-50	R9-3a	18	18	1.5	3.0																
														SHEET TOTAL	22	2		4	160	400		

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1078	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 7/06/10 — 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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

SIGN QUANTITIES

SQ-4

REVISED BY: TG | DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
LAST REVISION: DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 10:51
12-22-09
BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlim
DGN FILE => c07163oc004.dgn
CU 12235
EA 071631

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE		POST DIMENSIONS									ROADSIDE SIGN		INSTALL				REMOVE	
					POST DIMENSIONS			Min POST LENGTH		POST SIZE											
			HORI	VERT	D	C	E	LEFT	RIGHT	4"X4"	4"X6"	6"X6"	6"X8"	ONE POST	TWO POST	LAMINATED WOOD BOX POST (TYPE M)	SIGN (STRAP & SADDLE BRACKET METHOD)	METAL (RAIL MOUNTED SIGN)	METAL (SOUNDWALL MOUNTED SIGN)	ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)	ROADSIDE SIGN
			INCH	INCH	FT	FT	FT	FT	FT					EA	EA	EA	EA	LBS	LBS	EA	EA
S-3	3-51	R4-7	24	30	4.6	7.0	4.5	16.1			1			1							
S-3		OM1-3	24	24																	
S-3	3-52	R4-7	24	30	4.6	7.0	4.5	16.1			1			1							
S-3		OM1-3	24	24																	
S-4	4-1	G78 (CA)	90	84	7.0	7.0	6.0	19.7	19.6				2		1						
S-4	4-2	R93-2 (CA)	30	72																2	
S-4		R93A (CA)	30	12																	
S-4	4-3	W13-2	48	60	5.0	7.0											1				
S-4	4-4	G86-9 (CA)	30	60	5.0	7.0		9.0										80			
S-4	4-5	W13-2	48	60																	1
S-4	4-6	S32 (CA)	54	42																	1
S-4		S32-1 (CA)	15	18																	
S-4	4-7	S32 (CA)	54	42	0.1	7.0											2				
S-4		S32-1 (CA)	15	18																	
S-4	4-8	G66-56 (CA)	24	24																	1
S-4	4-9	G66-56 (CA)	24	24	2.0	7.0											1				
S-4	4-10	W74R (CA)	48	48																	1
S-4	4-11	W4-7L	48	48	5.7	7.0	4.5	18.6			1			1							
S-4	4-12	R86-2 (CA)	30	60																1	
S-4	4-13	R18AR (CA)	66	48	4.0	7.0											1				
S-5	5-1	G78 (CA)																			1
S-5	5-2	G92 (CA)	48	30																	1
S-5		G28-2 (CA)	24	25																	
S-5		M3-4	24	12																	
S-5		M6-2	21	15																	
S-5	5-3	G92 (CA)	48	30	7.1	3.2	4.5	15.0			1			1							
S-5		G28-2 (CA)	24	25																	
S-5		M3-4	24	12																	
S-5		M6-2	21	15																	
S-5	5-5	R18A (CA)	66	48																	1
S-5	5-6	R5-10a	30	36	3.0	7.0											1				
S-5	5-7	R5-10a	30	36																	1
S-5	5-8	G92 (CA)	48	30																	1
S-5		G28-2 (CA)	24	25																	
S-5		M3-4	24	12																	
S-5		M6-2	21	15																	
S-5	5-9	R93-2 (CA)	30	72	7.1	7.0		14.3										80			
S-5		R93A (CA)	30	12																	
S-5		R86-2 (CA)	30	60																	
S-5	5-10	W4-1R	48	48	5.7	7.0											1				
S-5	5-11	W4-1R	48	48																1	
S-5	5-12	R18A (CA)	66	48	4.0	7.0											1				
S-5	5-13	R18A (CA)	66	48																	1
S-5	5-14	SR50-2 (CA)	30	60																	1
S-5	5-15	G24-4 (CA)	162	80	6.7	7.0		15.7	17.1							1					
S-5	5-16	G24-4 (CA)																			1
S-5	5-17	W4-7L	48	48	5.7	7.0											1				
S-5	5-18	W74 (CA)	48	48																	1
S-5	5-19	R93-2 (CA)	30	72																	1
S-5		R93A (CA)	30	12																	
S-5	5-20	W13-3	48	60	5.0	7.0											1				
S-5	5-21	G84-2 (CA)	54	48	4.0	7.0	3.5	14.4		1				1							
													SHEET TOTAL	4	1	1	9	160		4	14

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1079	1929

Theresa M. Gaisser 12/22/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 7/06/10
CIVIL
STATE OF CALIFORNIA

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ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

SIGN QUANTITIES

SQ-5

LAST REVISION DATE PLOTTED => 04-FEB-2010
12-22-09 TIME PLOTTED => 10:52

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 12/22/09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlim
DGN FILE => c071163oc005.dgn
CU 12235
EA 071631

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE		POST DIMENSIONS										ROADSIDE SIGN		INSTALL				REMOVE	
					POST DIMENSIONS			Min POST LENGTH		POST SIZE												
			HORI	VERT	D	C	E	LEFT	RIGHT	4"X4"	4"X6"	6"X6"	6"X8"		ONE POST	TWO POST	LAMINATED WOOD BOX POST (TYPE M)	SIGN (STRAP & SADDLE BRACKET METHOD)	METAL (RAIL MOUNTED SIGN)	METAL (SOUNDWALL MOUNTED SIGN)	ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)	ROADSIDE SIGN
			INCH	INCH	FT	FT	FT	FT	FT						EA	EA	EA	EA	LBS	LBS	EA	EA
S-6	6-1	R93-2 (CA)	30	72																		
S-6		R93A (CA)	30	12																		1
S-6	6-2	R86-2 (CA)	30	60	7.1	7.0																
S-6		R93-2 (CA)	30	72														3				
S-6		R93A (CA)	30	12																		
S-6	6-3	W4-3R	48	48																		1
S-6	6-4	W4-3R	48	48	5.7	7.0	4.5	18.0			1				1							
S-6	6-5	S32 (CA)	54	42																		1
S-6		S32-1 (CA)	15	18																		
S-6	6-6	S32 (CA)	54	42	5.1	7.0	5.0	18.8				1			1							
S-6		S32-1 (CA)	15	18																		
S-6	6-7	G83 (CA)	162	80																		
S-6		G66-21 (CA)	30	30																		1
S-6		G66-56A (CA)	24	18																		
S-6	6-8	R86-2 (CA)	30	60																	1	
S-6	6-9	G95B (CA)	108	72	8.1	5.0	6.0	23.2	24.5								1					
S-6		G95B-1 (CA)	108	24																		
S-6	6-10	G95B (CA)	108	72																		1
S-6		G95B-1 (CA)	108	24																		
S-6	6-11	G11-4.1 (CA)	44	18	1.5	7.0												1				
S-6	6-12	G11-4.1 (CA)	44	18																		1
S-6	6-13	R86-2 (CA)	30	60																	1	
S-6	6-14	G66-21 (CA)	30	30	4.1	7.0												2				
S-6		G66-21A (CA)	30	18																		
S-6	6-15	W13-3	48	60	5.0	7.0												1				
S-7	7-1	G86-1 (CA)	180	66	5.5	7.0	6.0	17.5	15.6				2			1						
S-7	7-2	G86-1 (CA)	180	66																		1
S-7	7-3	R93-2 (CA)	30	72	7.1	7.0		11.7											80			
S-7		R93A (CA)	30	12																		
S-7	7-4	SR50-2 (CA)	30	66																		1
S-7	7-5	R93-2 (CA)	30	72																		
S-7		R93A (CA)	30	12																	2	
S-7	7-6	SR15 (CA)	18	24	3.6	7.0												2				
S-7		SR15A (CA)	18	18																		
S-8	8-1	SR15 (CA)	18	24																		
S-8		SR15A (CA)	18	18																		1
S-8	8-2	R86-2 (CA)	30	60																	1	
S-8	8-3	W4-2R	48	48																		1
S-8	8-4	R18AR (CA)	66	48																		1
S-8	8-5	R93-2 (CA)	30	72																		
S-8		R93A (CA)	30	12																		1
S-8	8-6	R93-2 (CA)	30	72	7.1	7.0		11.8											80			
S-8		R93A (CA)	30	12																		
S-8	8-7	W4-3R	48	48																		1
S-8	8-8	W4-3R	48	48	5.7	7.0	5.0	17.5				1			1							
S-8	8-9	W4-2R	48	48	5.7	7.0												1				
S-8	8-10	W4-2R	48	48																		1
S-8	8-11	SR50-2 (CA)	30	66																		1
S-8	8-12	R18AR (CA)	66	48																		1
S-8	8-13	W4-7L	48	48	5.7	7.0	5.0	18.9				1			1							
S-8	8-14	R86-2 (CA)	30	60	5.0	7.0		9.1											80			
S-8	8-15	R18AR (CA)	66	48	4.0	7.0	4.5	17.5	19.0		2					1						
S-9	9-1	SR50-2 (CA)	30	66	5.5	7.0		9.5											80			
														SHEET TOTAL	5	1	1	11	240		5	16

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1080	1929

12/22/09
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 7/06/10
CIVIL
STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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PBS&J
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SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

SIGN QUANTITIES

SQ-6

REVISED BY: TG — DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 10:52

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlim
DGN FILE => c071163oc006.dgn
CU 12235
EA 071631

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE		POST DIMENSIONS										ROADSIDE SIGN		INSTALL				REMOVE	
			HORI	VERT	POST DIMENSIONS			Min POST LENGTH		POST SIZE					ONE POST	TWO POST	LAMINATED WOOD BOX POST (TYPE M)	SIGN (STRAP & SADDLE BRACKET METHOD)	METAL (RAIL MOUNTED SIGN)	METAL (SOUNDWALL MOUNTED SIGN)	ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)	ROADSIDE SIGN
					D	C	E	LEFT	RIGHT	4"X4"	4"X6"	6"X6"	6"X8"									
			INCH	INCH	FT	FT	FT	FT	FT						EA	EA	EA	EA	LBS	LBS	EA	EA
S-9	9-2	SR50-2 (CA)	30	66																		1
S-9	9-3	R86-2 (CA)	30	60																		1
S-9	9-4	G84-2 (CA)	54	48	4.0	7.0	5.0	16.3				1			1							
S-9	9-5	G84-2 (CA)	54	48																		1
S-9	9-6	G85-8 (CA)	30	84																	1	
S-9	9-7	R2-1	48	60																		
S-9		R48-1 (CA)	48	24																		1
S-9	9-8	R2-1	48	60	7.1	7.0	5.0	22.1	22.5			2				1						
S-9		R48-1 (CA)	48	24																		
S-9	9-9	R86-2 (CA)	30	60	7.1	7.0												2				
S-9		G85-8 (CA)	30	84																		
S-9	9-10	R93-2 (CA)	30	72																		
S-9		R93A (CA)	30	12																		1
S-9	9-11	R18AR (CA)	66	48	4.0	7.0	5.0	16.9				1			1							
S-9	9-12	R18AR (CA)	66	48																		1
S-9	9-13	G24 (CA)	156	84	7.0	7.0	6.0	21.4	23.2								1					
S-9	9-14	R2-1	48	60																	2	
S-9		R48-1 (CA)	48	24																		
S-9	9-15	R2-1	48	60	7.1	7.0												2				
S-9		R48-1 (CA)	48	24																		
S-9	9-16	W13-3	48	60	5.0	7.0	5.0	17.5				1			1							
S-10	10-1	G84-2 (CA)	54	48	4.0	7.0		7.6											80			
S-10	10-2	G84-2 (CA)	54	48																		1
S-10	10-3	W13-3	48	60	5.0	7.0												1				
S-10	10-4	W1-2L	48	48																	2	
S-10		W13-1	30	30																		
S-10	10-5	W1-2aL	48	48	5.7	7.0	5.0	17.7				1			1							
S-10	10-6	W1-8L	18	24	2.0	7.0	3.5	12.5		1					1							
S-10	10-7	W1-8L	18	24	2.0	7.0	3.5	12.5		1					1							
S-10	10-8	W1-8L	18	24	2.0	7.0	3.5	12.5		1					1							
S-10	10-9	W1-8L	18	24	2.0	7.0	3.5	12.5		1					1							
S-10	10-10	W1-8L	18	24	2.0	7.0	3.5	12.5		1					1							
S-11	11-1	W4-3R	48	48	5.7	7.0	5.0	17.9				1			1							
S-11	11-2	W4-3R	48	48																		1
S-11	11-3	R93-2 (CA)	30	72	7.1	7.0		9.9											80			
S-11		R93A (CA)	30	12																		
S-11	11-4	G84-2 (CA)	54	48	4.0	7.0	5.0	16.2				1			1							
S-11	11-5	S32 (CA)	54	42																		1
S-11		S32-1 (CA)	15	18																		
S-11	11-6	S32 (CA)	54	42	5.1	7.0	5.0	21.5				1			1							
S-11		S32-1 (CA)	15	18																		
S-11	11-7	G86-8 (CA)	30	60	5.0	7.0		9.0											80			
S-11	11-8	W4-3R	48	48	5.7	7.0	5.0	18.0				1			1							
S-11	11-9	W4-3R	48	48																		1
S-11	11-10	R86-2 (CA)	30	60	5.1	7.0												2				
S-11		R86-2 (CA)	30	60																		
S-12	12-1	R93-2 (CA)	30	72	7.1	7.0		11.2											80			
S-12		R93A (CA)	30	12																		
S-12	12-2	G24-4 (CA)	84	60																		1
S-12	12-3	G85-7 (CA)	30	60	5.0	7.0												1				
S-13	13-1	R86-2 (CA)	30	60																		1
S-13	13-2	SR50-2 (CA)	30	66																		1
														SHEET TOTAL	13	2	1	8	400		5	11

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1081	1929

Theresa M. Gaisser 12/22/09
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 7/06/10
CIVIL
STATE OF CALIFORNIA

2-1-10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY: TG — DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO — CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 10:52

SIGN QUANTITIES

SQ-7

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE		POST DIMENSIONS										ROADSIDE SIGN		INSTALL				REMOVE	
					POST DIMENSIONS			Min POST LENGTH		POST SIZE												
			HORI	VERT	D	C	E	LEFT	RIGHT	4"X4"	4"X6"	6"X6"	6"X8"		ONE POST	TWO POST	LAMINATED WOOD BOX POST (TYPE M)	SIGN (STRAP & SADDLE BRACKET METHOD)	METAL (RAIL MOUNTED SIGN)	METAL (SOUNDWALL MOUNTED SIGN)	ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)	ROADSIDE SIGN
			INCH	INCH	FT	FT	FT	FT	FT						EA	EA	EA	EA	LBS	LBS	EA	EA
S-13	13-3	R6-4 (CA)	48	60	5.0	7.0	5.0	19.4				1			1							
S-13	13-4	R6-4 (CA)	48	60																		1
S-13	13-5	SR50-2 (CA)	30	66	7.1	7.0		11.1											80			
S-13		R93-2 (CA)	30	72																		
S-13		R93A (CA)	30	12																		
S-13	13-6	G83 (CA)	180	78																		1
S-14	14-1	R8-4	48	36																		1
S-14	14-2	R8-4	48	36	3.0	7.0	4.5	16.5			1				1							
S-14	14-3	R86-2 (CA)	30	60																		1
S-14	14-4	R86-2 (CA)	30	60	5.0	7.0												1				
S-14	14-5	R93-2 (CA)	30	72																	2	
S-14		R93A (CA)	30	12																		
S-15	15-1	G20-1 (CA)	78	42																		1
S-15	15-2	G20-1 (CA)	204	66	5.5	7.0	4.5	17.0			1					1						
S-15	15-3	W69 (CA)	48	48																		1
S-15	15-4	W69 (CA)	48	48	5.7	7.0		12.7				1			1							
S-15	15-5	W69 (CA)	48	48																		1
S-15	15-6	W69 (CA)	48	48	5.7	7.0		12.7				1			1							
S-15	15-7	G11-4.1 (CA)	44	18	1.5	3.0	3.5	5.0		1					1							
S-15	15-8	G11-4.1 (CA)	44	18																		1
S-16	16-1	W11-8	36	36																		1
S-16		W11-8P	36	18																		
S-16	16-2	W11-8	36	36	5.7															80		
S-16		W11-8P	36	18																		
S-16	16-3	G78 (CA)	72	120																		1
S-16	16-4	G78 (CA)	72	120	10.0	7.0	6.0	22.2	22.1				2			1						
S-16	16-5	D11-1	24	18																		1
S-16		M6-6	21	15																		
S-16	16-6	D11-1	24	18	2.8															80		
S-16		M6-6	21	15																		
S-16	16-7	R9-3a	18	18	1.5	3.0																
S-16	16-8	R9-3a	18	18	1.5	3.0																
S-16	16-9	R9-3a	18	18	1.5	3.0																
S-17	16-10	R9-3a	18	18	1.5	3.0																
S-19	19-1	SR50-2 (CA)	30	66	5.5	7.0												1				
S-19	19-2	R93-2 (CA)	30	72	7.1	7.0		7.1											80			
S-19		R93A (CA)	30	12																		
S-19	19-3	R86-2 (CA)	30	60	5.0	7.0		5.0											80			
S-20	20-1	R61-28 (CA)	48	30																		1
S-20	20-2	R61-28 (CA)	48	30																		1
S-20	20-3	R61-28 (CA)	48	30																		1
S-20	20-4	R61-28 (CA)	48	30																		1
S-20	20-5	R6-1L	36	12																		1
S-20	20-6	R5-1	36	36																		1
S-20		R5-1A	36	24																		
S-20	20-7	R5-1	36	36																		1
S-20		R5-1A	36	24																		
S-20	20-8	W3-3	48	48																		1
S-20	20-9	R5-10a	30	36																		1
S-20	20-10	W1-1R	48	48																	1	
S-20	20-11	G92 (CA)	48	30																		1
S-20		G27-2 (CA)	30	25																		
S-20		M3-1	30	15																		
S-20		M6-2	21	15																		
													SHEET TOTAL		5	2		2	240	160	3	22

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1082	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 7/06/10 — 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.

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625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY: TG — DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 10:52
12-22-09

SIGN QUANTITIES

SQ-8

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — USERNAME => trijm — DGN FILE => c07163oc008.dgn — CU 12235 — EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1083	1929

Theresa M. Gaisser 12/22/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 7/06/10 — CIVIL — STATE OF CALIFORNIA

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ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE		POST DIMENSIONS									ROADSIDE SIGN		INSTALL				REMOVE	
					POST DIMENSIONS			Min POST LENGTH		POST SIZE											
			HORI	VERT	D	C	E	LEFT	RIGHT	4"X4"	4"X6"	6"X6"	6"X8"	ONE POST	TWO POST	LAMINATED WOOD BOX POST (TYPE M)	SIGN (STRAP & SADDLE BRACKET METHOD)	METAL (RAIL MOUNTED SIGN)	METAL (SOUNDWALL MOUNTED SIGN)	ROADSIDE SIGN (STRAP & SADDLE BRACKET METHOD)	ROADSIDE SIGN
			INCH	INCH	FT	FT	FT	FT	FT					EA	EA	EA	EA	LBS	LBS	EA	EA
S-20		G92 (CA)	48	30																	
S-20		G27-2 (CA)	30	25																	
S-20	20-12	M3-1	30	15																	1
S-20		M6-2	21	15																	
S-20	20-13	R5-10a	30	36																	1
S-20	20-14	G78-4 (CA)	120	120																	1
S-20	20-15	D11-1	24	18																	1
S-20		G33-1L (CA)	24	6																	
S-20		M3-1	30	15																	
S-20		G27-2 (CA)	30	25																	
S-20	20-16	M3-4	30	15																	1
S-20		G28-2 (CA)	30	31																	
S-20		M6-1	21	15																	
S-20	20-17	W11-1	24	24																	1
S-20		W11-1P	24	18																	
S-20	20-18	R26(S) (CA)	12	18																	1
S-20		R81 (CA)	12	8																	
S-20	20-19	G78-4 (CA)	84	48																	1
S-20		G92 (CA)	48	30																	
S-20	20-20	G27-2 (CA)	30	25																	1
S-20		M3-1	30	15																	
S-20		M6-2	21	15																	
S-20	20-21	OCTA BUS STOP	18	18																	1
S-20		G92 (CA)	48	30																	
S-20		G27-2 (CA)	30	25																	
S-20	20-22	M3-1	30	15																4	
S-20		M6-2	21	15																	
S-20		R26(S) (CA)	12	18																	
S-20	20-23	R81 (CA)	12	8																	1
S-20		R2-1	36	48																	
S-20	20-24	R26(S) (CA)	12	18																	1
S-20	20-25	G20-3 (CA)	84	54																	1
S-20	20-26	W4-1R	48	48																	1
S-20	20-27	W4-1R	48	48																	1
S-20	20-28	G11-4.1 (CA)	44	18																	1
S-20	20-29	SR50-2 (CA)	30	66																1	
S-20		W1-2R	36	36																	
S-20	20-30	W13-1	30	30																	1
S-20	20-31	G11-4.1 (CA)	44	18																	1
S-20	20-32	D11-1	24	18																	1
S-20	20-33	G84 (CA)	54	48																	1
S-20	20-34	D11-1	24	18																	1
S-20	20-35	G20-5 (CA)	48	60																	1
S-20		S32 (CA)	54	42																	
S-20	20-36	S32-1 (CA)	15	18																	1
													SHEET TOTAL						5	24
													GRAND TOTAL	60	13	4	41	1200	560	26	93

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

SIGN QUANTITIES

SQ-9

LAST REVISION DATE PLOTTED => 04-FEB-2010
12-22-09 TIME PLOTTED => 10:52

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 12/22/09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlim
DGN FILE => c07163oc009.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1084	1929

Theresa M. Gaisser 12/22/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp. 7/06/10
CIVIL
STATE OF CALIFORNIA

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625 THE CITY DRIVE
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ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SHEET No.	SIGN No.	HORZONTAL PANEL SIZE	VERTICAL PANEL SIZE	PANEL AREA	SINGLE FACED	BACKGROUND		LEGEND		GRAFFITI	OVERHEAD	DESCRIPTION
						SHEETING COLOR	RETROFLECTIVE ASTM TYPE	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	PREMIUM	FORMED WITH RSPF	
		INCH	INCH	SQFT							SQFT	
S-1	A	264	100	183.33	X	GREEN	III	WHITE	IV	X	X	
		264	100	183.33	X	GREEN	III	WHITE	IV	X	X	
S-2	C	264	110	201.67	X	GREEN	III	WHITE	IV	X	X	
	D	216	100	150.00	X	WHITE	IV	BLACK		X	X	
		312	110	238.33	X	GREEN	III	WHITE	IV	X	X	
		504	120	420.00	X	GREEN	III	WHITE	IV	X	X	
		240	120	200.00	X	GREEN	III	WHITE	IV	X	X	
S-4	F	264	120	220.00	X	GREEN	III	WHITE	IV	X	X	
	G	312	110	238.33	X	GREEN	III	WHITE	IV	X	X	
		456	120	380.00	X	GREEN	III	WHITE	IV	X	X	
		144	120	120.00	X	GREEN	III	WHITE	IV	X	X	
		240	120	200.00	X	GREEN	III	WHITE	IV	X	X	
S-5	J	240	120	200.00	X	GREEN	III	WHITE	IV	X	X	
	M	240	120	200.00	X	GREEN	III	WHITE	IV	X	X	
S-6	N	312	110	238.33	X	GREEN	III	WHITE	IV	X	X	
	O	312	110	238.33	X	GREEN	III	WHITE	IV	X	X	
	R	456	120	380.00	X	GREEN	III	WHITE	IV	X	X	
		192	120	160.00	X	GREEN	III	WHITE	IV	X	X	
S-7	Q	312	100	216.67	X	GREEN	III	WHITE	IV	X	X	
	S	264	90	165.00	X	GREEN	III	WHITE	IV	X	X	
S-8	U	216	110	165.00	X	GREEN	III	WHITE	IV	X	X	
S-9	V	456	120	380.00	X	GREEN	III	WHITE	IV	X	X	
		192	120	160.00	X	GREEN	III	WHITE	IV	X	X	
	Y	216	110	165.00	X	GREEN	III	WHITE	IV	X	X	
	AA	192	100	133.33	X	WHITE	IV	BLACK		X	X	
S-10	AC	264	90	165.00	X	GREEN	III	WHITE	IV	X	X	
	AE	210	120	175.00	X	GREEN	III	WHITE	IV	X	X	MAINTAIN EXISTING STRUCTURE INSTALL NEW PANELS
		240	120	200.00	X	GREEN	III	WHITE	IV	X	X	
S-11	AG	192	90	120.00	X	GREEN	III	WHITE	IV	X	X	
		192	110	146.67	X	GREEN	III	WHITE	IV	X	X	
		216	120	180.00	X	GREEN	III	WHITE	IV	X	X	
		216	120	180.00	X	GREEN	III	WHITE	IV	X	X	
		216	120	180.00	X	GREEN	III	WHITE	IV	X	X	
S-12	AH	192	100	133.33	X	WHITE	IV	BLACK		X	X	
S-13	AI	192	120	160.00	X	GREEN	III	WHITE	IV	X	X	
S-14	AL	192	110	146.67	X	GREEN	III	WHITE	IV	X	X	
		216	120	180.00	X	GREEN	III	WHITE	IV	X	X	
		216	120	180.00	X	GREEN	III	WHITE	IV	X	X	
		216	120	180.00	X	GREEN	III	WHITE	IV	X	X	
S-17	AN	192	100	133.33	X	GREEN	III	WHITE	IV	X	X	
S-19	AO	192	100	133.33	X	WHITE	IV	BLACK		X	X	
										TOTAL	8129.90	

SIGN QUANTITIES

SQ-10

REVISED BY: TG | DATE REVISED: 12/22/09
JIMMY TARQUINIO | THERESA GAISSER
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 04-FEB-2010
12-22-09 | TIME PLOTTED => 10:52

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trlim | DGN FILE => c07163oc010.dgn | CU 12235 | EA 071631

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SHEET No.	SIGN No.	SIGN CODE	FURNISH PANEL							PANEL MATERIAL SUMMARY (N)				
			SINGLE SHEET				LAMINATED		PANEL	BACKGROUND		LEGEND		GRAFFITI FILM
			FRAMED ALUMINUM		UNFRAMED ALUMINUM									
			0.063"	0.080"	0.063"	0.080"	1" - TYPE A	1" - TYPE B	SINGLE FACED	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	PREMIUM
			SQFT	SQFT	SQFT	SQFT	SQFT	SQFT						
S-2	2-1	W13-2				20.0			X	YELLOW	IV	BLACK		X
S-2	2-4	M3-3			3.1				X	BLUE	IV	WHITE	IV	X
S-2		G27-2 (CA)			10.5				X	BLUE	IV	MULTI	IV	X
S-2	2-6	G84-2 (CA)				18.0			X	GREEN	III	WHITE	IV	X
S-2	2-8	W1-2aR				16.0			X	YELLOW	IV	BLACK		X
S-2	2-9	R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-2		SR50-2 (CA)			13.8				X	WHITE	IV	BLACK		X
S-2	2-11	G66-21 (CA)			6.3				X	BLUE	IV	WHITE	IV	X
S-2		G33-1L (CA)			1.7				X	BLUE	IV	WHITE	IV	X
S-2	2-13	SG19 (CA)		33.8					X	BLUE	IV	WHITE	IV	X
S-3	3-1	R61-17 (CA)	15.0						X	WHITE	IV	BLACK		X
S-3	3-2	R61-17 (CA)	15.0						X	WHITE	IV	BLACK		X
S-3	3-3	R61-17 (CA)	15.0						X	WHITE	IV	BLACK		X
S-3	3-4	R61-17 (CA)	15.0						X	WHITE	IV	BLACK		X
S-3	3-5	R6-1L			3.0				X	WHITE	IV	BLACK		X
S-3	3-6	W3-3			16.0				X	YELLOW	IV	BLACK		X
S-3	3-7	R5-10a			7.5				X	WHITE	IV	RED	IV	X
S-3	3-8	W4-10				16.0			X	YELLOW	IV	BLACK		X
S-3	3-9	W4-1R				16.0			X	YELLOW	IV	BLACK		X
S-3	3-10	G92 (CA)				10.0			X	GREEN	III	WHITE	IV	X
S-3		G27-2 (CA)			5.2				X	BLUE	IV	MULTI	IV	X
S-3		M3-1			3.1				X	BLUE	IV	WHITE	IV	X
S-3		M6-2			2.2				X	BLUE	IV	WHITE	IV	X
S-3	3-11	G92 (CA)				10.0			X	GREEN	III	WHITE	IV	X
S-3		G27-2 (CA)			5.2				X	BLUE	IV	MULTI	IV	X
S-3		M3-1			3.1				X	BLUE	IV	WHITE	IV	X
S-3		M6-2			2.2				X	BLUE	IV	WHITE	IV	X
S-3	3-12	R5-10a			7.5				X	WHITE	IV	RED	IV	X
S-3	3-13	G78-4 (CA)						71.3	X	GREEN	III	WHITE	IV	X
S-3	3-14	D11-1			3.0				X	GREEN	III	WHITE	IV	X
S-3		G33-1L (CA)			1.0				X	GREEN	III	WHITE	IV	X
S-3	3-15	M3-1			3.1				X	BLUE	IV	WHITE	IV	X
S-3		G27-2 (CA)			5.2				X	BLUE	IV	MULTI	IV	X
S-3		M3-4			3.1				X	GREEN	III	WHITE	IV	X
S-3		G28-2 (CA)			6.5				X	GREEN	III	WHITE	IV	X
S-3		M6-1			2.2				X	GREEN	III	WHITE	IV	X
S-3	3-16	W11-1			4.0				X	YELLOW	IV	BLACK		X
S-3		W11-1P			3.0				X	YELLOW	IV	BLACK		X
S-3	3-17	R5-1			9.0				X	WHITE	IV	RED	IV	X
S-3		R5-1A			6.0				X	WHITE	IV	RED	IV	X
S-3	3-18	R5-1			9.0				X	WHITE	IV	RED	IV	X
S-3		R5-1A			6.0				X	WHITE	IV	RED	IV	X
S-3	3-19	R26(S) (CA)			1.5				X	WHITE	IV	RED	IV	X
S-3		R81 (CA)			0.7				X	WHITE	IV	BLACK		X
S-3	3-20	G78-4 (CA)					28.0		X	GREEN	III	WHITE	IV	X
S-3	3-21	G92 (CA)				10.0			X	GREEN	III	WHITE	IV	X
S-3		G27-2 (CA)			5.2				X	BLUE	IV	MULTI	IV	X
S-3		M3-1			3.1				X	BLUE	IV	WHITE	IV	X
S-3		M6-2			2.2				X	BLUE	IV	WHITE	IV	X
S-3	3-22	OCTA BUS STOP			2.3				X					X
		SHEET TOTAL	60	34	179	116	28	71						

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1085	1929

REGISTERED CIVIL ENGINEER — DATE 12/22/09

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 7/06/10 — CIVIL — STATE OF CALIFORNIA

2-1-10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

SIGN QUANTITIES

SQ-11

REVISED BY: TG — DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010 — 12-22-09 TIME PLOTTED => 10:52

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — USERNAME => trliim — DGN FILE => c07163oc011.dgn — CU 12235 — EA 071631

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SHEET No.	SIGN No.	SIGN CODE	FURNISH PANEL							PANEL MATERIAL SUMMARY (N)				
			SINGLE SHEET				LAMINATED		PANEL	BACKGROUND		LEGEND		GRAFFITI FILM
			FRAMED ALUMINUM		UNFRAMED ALUMINUM		1" - TYPE A	1" - TYPE B	SINGLE FACED	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	PREMIUM
			0.063"	0.080"	0.063"	0.080"								
			SQFT	SQFT	SQFT	SQFT	SQFT	SQFT						
S-3		G92 (CA)				10.0			X	GREEN	III	WHITE	IV	X
S-3	3-23	G27-2 (CA)			5.2				X	BLUE	IV	MULTI	IV	X
S-3		M3-1			3.1				X	BLUE	IV	WHITE	IV	X
S-3		M6-2			2.2				X	BLUE	IV	WHITE	IV	X
S-3	3-24	R2-1			12.0				X	WHITE	IV	BLACK		X
S-3		R26(S) (CA)			1.5				X	WHITE	IV	RED	IV	X
S-3	3-25	R26(S) (CA)			1.5				X	WHITE	IV	RED	IV	X
S-3		R81 (CA)			0.7				X	WHITE	IV	BLACK		X
S-3	3-26	G20-3 (CA)					31.5		X	GREEN	III	WHITE	IV	X
S-3	3-27	W4-1R				16.0			X	YELLOW	IV	BLACK		X
S-3	3-28	G85-8 (CA)			12.5				X	WHITE	IV	BLACK		X
S-3	3-29	G11-4.1 (CA)			5.5				X	WHITE	IV	BLACK		X
S-3	3-30	R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-3		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-3	3-31	W1-1aR				16.0			X	YELLOW	IV	BLACK		X
S-3	3-32	G11-4.1 (CA)			5.5				X	WHITE	IV	BLACK		X
S-3	3-33	D11-1			3.0				X	GREEN	III	WHITE	IV	X
S-3	3-34	G84-2 (CA)				18.0			X	GREEN	III	WHITE	IV	X
S-3	3-35	D11-1			3.0				X	GREEN	III	WHITE	IV	X
S-3	3-36	W4-2				16.0			X	YELLOW	IV	BLACK		X
S-3	3-37	G20 (CA)		22.8					X	GREEN	III	WHITE	IV	X
S-3	3-38	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-39	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-40	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-41	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-42	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-43	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-44	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-45	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-46	W1-8R			3.0				X	YELLOW	IV	BLACK		X
S-3	3-47	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-3	3-48	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-3	3-49	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-3	3-50	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-3	3-51	R4-7			5.0				X	WHITE	IV	BLACK	IV	X
S-3		OM1-3			4.0				X	YELLOW	IV			X
S-3	3-52	R4-7			5.0				X	WHITE	IV	BLACK	IV	X
S-3		OM1-3			4.0				X	YELLOW	IV			X
S-4	4-1	G78 (CA)		52.5					X	GREEN	III	WHITE	IV	X
S-4	4-3	W13-2			20.0				X	YELLOW	IV	BLACK		X
S-4	4-4	G86-9 (CA)			12.5				X	GREEN	III	MULTI	IV	X
S-4	4-7	S32 (CA)				15.8			X	MULTI	IV	MULTI	IV	X
S-4		S32-1 (CA)			1.9				X	MULTI	IV	MULTI	IV	X
S-4	4-9	G66-56 (CA)			4.0				X	BLUE	IV	WHITE	IV	X
S-4	4-11	W4-7L				16.0			X	YELLOW	IV	BLACK		X
S-4	4-13	R18AR (CA)	22.0						X	WHITE	IV	BLACK		X
S-5	5-3	G92 (CA)			10.0				X	GREEN	III	WHITE	IV	X
S-5		G28-2 (CA)			4.2				X	BLUE	IV	MULTI	IV	X
S-5		M3-4			2.0				X	BLUE	IV	WHITE	IV	X
S-5		M6-2			2.2				X	BLUE	IV	WHITE	IV	X
S-5	5-6	R5-10a			7.5				X	WHITE	IV	BLACK		X
		SHEET TOTAL	22	76	192	108	32							

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1086	1929

REGISTERED CIVIL ENGINEER — DATE 12/22/09

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 7/06/10 — CIVIL — STATE OF CALIFORNIA

2-1-10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

SIGN QUANTITIES

SQ-12

REVISED BY: TG — DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010 — 12-22-09 TIME PLOTTED => 10:53

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — USERNAME => trliim — DGN FILE => c07163oc012.dgn — CU 12235 — EA 071631

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SHEET No.	SIGN No.	SIGN CODE	FURNISH PANEL							PANEL MATERIAL SUMMARY (N)				
			SINGLE SHEET				LAMINATED		PANEL	BACKGROUND		LEGEND		GRAFFITI FILM
			FRAMED ALUMINUM		UNFRAMED ALUMINUM									
			0.063"	0.080"	0.063"	0.080"	1" - TYPE A	1" - TYPE B	SINGLE FACED	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	PREMIUM
			SQFT	SQFT	SQFT	SQFT	SQFT	SQFT						
S-5		R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-5	5-9	R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-5		R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-5	5-10	W4-1R				16.0			X	YELLOW	IV	BLACK		X
S-5	5-12	R18A (CA)	22.0						X	WHITE	IV	BLACK		X
S-5	5-15	G24-4 (CA)					90.0		X	GREEN	III	WHITE	IV	X
S-5	5-17	W4-7L				16.0			X	YELLOW	IV	BLACK		X
S-5	5-20	W13-3				20.0			X	YELLOW	IV	BLACK		X
S-5	5-21	G84-2 (CA)				18.0			X	GREEN	III	WHITE	IV	X
S-6		R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-6	6-2	R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-6		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-6	6-4	W4-3R				16.0			X	YELLOW	IV	BLACK		X
S-6	6-6	S32 (CA)				15.8			X	MULTI	IV	MULTI	IV	X
S-6		S32-1 (CA)			1.9				X	MULTI	IV	MULTI	IV	X
S-6	6-9	G95B (CA)		54.0					X	BLUE	IV	WHITE	IV	X
S-6		G95B-1 (CA)		18.0					X	GREEN	III	WHITE	IV	X
S-6	6-11	G11-4.1 (CA)			5.5				X	WHITE	IV	BLACK		X
S-6	6-14	G66-21 (CA)			6.3				X	BLUE	IV	WHITE	IV	X
S-6		G66-21A (CA)			3.8				X	BLUE	IV	WHITE	IV	X
S-6	6-15	W13-3				20.0			X	YELLOW	IV	BLACK		X
S-7	7-1	G86-1 (CA)						82.5	X					X
S-7	7-3	R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-7		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-7	7-6	SR15 (CA)			3.0				X	WHITE	IV	BLACK		X
S-7		SR15A (CA)			2.3				X	WHITE	IV	BLACK		X
S-8	8-6	R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-8		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-8	8-8	W4-3R				16.0			X	YELLOW	IV	BLACK		X
S-8	8-9	W4-2R				16.0			X	YELLOW	IV	BLACK		X
S-8	8-13	W4-7L				16.0			X	YELLOW	IV	BLACK		X
S-8	8-14	R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-8	8-15	R18AR (CA)	22.0						X	WHITE	IV	BLACK		X
S-9	9-1	SR50-2 (CA)			13.8				X	WHITE	IV	BLACK		X
S-9	9-4	G84-2 (CA)		18.0					X	WHITE	IV	BLACK		X
S-9	9-8	R2-1			20.0				X	WHITE	IV	BLACK		X
S-9		R48-1 (CA)			8.0				X	WHITE	IV	BLACK		X
S-9	9-9	R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-9		G85-8 (CA)			17.5				X	GREEN	III	MULTI	IV	X
S-9	9-11	R18AR (CA)				22.0			X	WHITE	IV	BLACK		X
S-9	9-13	G24 (CA)						91.0	X	GREEN	III	WHITE	IV	X
S-9	9-15	R2-1				20.0			X	WHITE	IV	BLACK		X
S-9		R48-1 (CA)				8.0			X	WHITE	IV	BLACK		X
S-9	9-16	W13-3			20.0				X	YELLOW	IV	BLACK		X
S-10	10-1	G84-2 (CA)				18.0			X	GREEN	III	WHITE	IV	X
S-10	10-3	W13-3			20.0				X	YELLOW	IV	BLACK		X
S-10	10-5	W1-2aL				16.0			X	YELLOW	IV	BLACK		X
S-10	10-6	W1-8L			3.0				X	YELLOW	IV	BLACK		X
S-10	10-7	W1-8L			3.0				X	YELLOW	IV	BLACK		X
S-10	10-8	W1-8L			3.0				X	YELLOW	IV	BLACK		X
S-10	10-9	W1-8L			3.0				X	YELLOW	IV	BLACK		X
S-10	10-10	W1-8L			3.0				X	YELLOW	IV	BLACK		X
		SHEET TOTAL	44	90	257	254	90	174						

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1087	1929

REGISTERED CIVIL ENGINEER — DATE 12/22/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 7/06/10 — 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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

SIGN QUANTITIES

SQ-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
REVISED BY: TG
DATE REVISED: 12/22/09

LAST REVISION: DATE PLOTTED => 04-FEB-2010
12-22-09 TIME PLOTTED => 10:53

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlim
DGN FILE => c07163oc013.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1088	1929

REGISTERED CIVIL ENGINEER — DATE 12/22/09

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp. 7/06/10 — CIVIL — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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625 THE CITY DRIVE
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ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SHEET No.	SIGN No.	SIGN CODE	FURNISH PANEL							PANEL MATERIAL SUMMARY (N)				
			SINGLE SHEET				LAMINATED		PANEL	BACKGROUND		LEGEND		GRAFFITI FILM
			FRAMED ALUMINUM		UNFRAMED ALUMINUM		1" - TYPE A	1" - TYPE B	SINGLE FACED	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	PREMIUM
			0.063"	0.080"	0.063"	0.080"								
			SQFT	SQFT	SQFT	SQFT	SQFT	SQFT						
S-11	11-1	W4-3R				16.0			X	YELLOW	IV	BLACK		X
S-11	11-3	R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-11		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-11	11-4	G84-2 (CA)				18.0			X	GREEN	III	WHITE	IV	X
S-11	11-6	S32 (CA)				15.8			X	MULTI	IV	MULTI	IV	X
S-11		S32-1 (CA)			1.9				X	MULTI	IV	MULTI	IV	X
S-11	11-7	G86-8 (CA)			12.5				X	GREEN	III	MULTI	IV	X
S-11	11-8	W4-3R				16.0			X	YELLOW	IV	BLACK		X
S-11	11-10	R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-11		R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-12	12-1	R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-12		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-12	12-3	G85-7 (CA)			12.5				X	GREEN	III	MULTI	IV	X
S-13	13-3	R6-4 (CA)				20.0			X	WHITE	IV	BLACK		X
S-13	13-5	SR50-2 (CA)			13.8				X	WHITE	IV	BLACK		X
S-13		R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-13		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-14	14-2	R8-4				12.0			X	WHITE	IV	BLACK		X
S-14	14-4	R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
S-15	15-2	G20-1 (CA)		93.5					X	GREEN	III	WHITE	IV	X
S-15	15-4	W69 (CA)				16.0			X	YELLOW	IV	BLACK		X
S-15	15-6	W69 (CA)				16.0			X	YELLOW	IV	BLACK		X
S-15	15-7	G11-4.1 (CA)			5.5				X	WHITE	IV	BLACK		X
S-16	16-2	W11-8			9.0				X	YELLOW	IV	BLACK		X
S-16		W11-8P			4.5				X	YELLOW	IV	BLACK		X
S-16	16-4	G78 (CA)						60.0	X	GREEN	III	WHITE	IV	X
S-16	16-6	D11-1			3.0				X	GREEN	III	WHITE	IV	X
S-16		M6-6			2.2				X	GREEN	III	WHITE	IV	X
S-16	16-7	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-16	16-8	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-16	16-9	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-17	16-10	R9-3a			2.3				X	WHITE	IV	BLACK		X
S-19	19-1	SR50-2 (CA)			13.8				X	WHITE	IV	BLACK		X
S-19	19-2	R93-2 (CA)			15.0				X	WHITE	IV	BLACK		X
S-19		R93A (CA)			2.5				X	WHITE	IV	BLACK		X
S-19	19-3	R86-2 (CA)			12.5				X	WHITE	IV	BLACK		X
		SHEET TOTAL		94	208	130		60						
		GRAND TOTAL	126	294	836	608	150	305						

(N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

SIGN QUANTITIES

SQ-14

REVISED BY	TG		
DATE REVISED	12/22/09		
JIMMY TARQUINIO			
THERESA GAISSER			
CALCULATED-DESIGNED BY			
CHECKED BY			
CONSULTANT FUNCTIONAL SUPERVISOR			
KEYVAN PIRBZARI			
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION			

LAST REVISION | DATE PLOTTED => 04-FEB-2010
12-22-09 | TIME PLOTTED => 10:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1089	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — THERESA M. GAISSER — No. C69442 — Exp 07/06/10 — CIVIL — STATE OF CALIFORNIA

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PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

OVERHEAD SIGN QUANTITIES

SHEET No.	SIGN No.	LOCATION		CIDH CONC PILE (SIGN FOUNDATION)		SIGN STRUCTURES (TRUSS)		POST TYPE (STD PLAN)	REMOVE SIGN STRUCTURE	MODIFY SIGN STRUCTURE	SIGN CODE		HORZONTAL PANEL SIZE	VERTICAL PANEL SIZE	PANEL AREA
				54-INCH	60-INCH	FURNISH	INSTALL				PANEL No.	PANEL CODE			
		STATION	DIRECTION	LF	LF	(lb)	(lb)		EA	EA			INCH	INCH	SQFT
S-1	A	"A" 396+05; 0'	FNBT	20.5		11810	11810	IV			1	G23 (CA)	264	100	183.33
			FSBT								2	G23 (CA)	264	100	183.33
	B	"A" 397+78; 2' (RT)	FSBT						1		1	G23 (CA)			
			FNBT								2	G24 (CA)			
			FNBT								3	G83 (CA)			
			FNBT								4	G85 (CA)			
S-2	C	"A" 399+50; 128.7' (RT)	FNBT		25.5	16870	16870	VII			1	G85 (CA)	264	110	201.67
	D	"A" 407+85; 5.8' (RT)	FSBT		30.3	68610	68610	VI-S			1	87-1 (CA	216	100	150.00
			FNBT								2	G83 (CA)	312	110	238.33
			FNBT		27.8						3	G24 (CA)	504	120	420.00
			FNBT								4	G83 (CA)	240	120	200.00
S-20	E	"A" 414+37; 6' (RT)	FNBT						1		1	G23 (CA)			
S-4	F	"A" 421+38; 128.8' (LT)	FSBT		25.4	18170	18170	VII			1	G85(CA)	264	120	220.00
	G	"A" 422+00; 5.9' (RT)	FNBT		30.3	56060	56060	VI-S			1	G83 (CA)	312	110	238.33
			FNBT								2	G24 (CA)	456	120	380.00
			FNBT		27.8						3	G83 (CA)	144	120	120.00
			FNBT								4	G83 (CA)	240	120	200.00
	H	"A" 422+79; 120' (LT)	FSBT						1		1	G85 (CA)			
	I	"A" 423+90; 6' (RT)	FNBT						1		1	G24 (CA)			
			FNBT								2	G24 (CA)			
			FNBT								3	G83 (CA)			
S-5	J	"A" 429+84; 133.8' (RT)	FNBT		25.0	22390	22390	VIII			1	85-11 (C	240	120	200.00
	K	"A-2" 39+93; 4' (LT)	FNBT						1		1	G85 (CA)			
	L	"A" 436+50; 104' (LT)	FSBT						1		1	G83 (CA)			
	M	"A" 436+74; 133.9' (LT)	FSBT		25.0	15220	15220	VIII			1	G83-3(CA	240	120	200.00
S-6	N	"A" 440+50; 5.8' (RT)	FNBT		25.5	18030	18030	VII			1	G83 (CA)	312	110	238.33
	O	"A" 446+00; 9.6' (RT)	FNBT		25.0	15000	15000	VIII			1	G85 (CA)	312	110	238.33
	R	"A" 450+75; 1' (RT)	FNBT		28.8	54450	54450	V-S / VI-S			1	G24 (CA)	456	120	380.00
			FNBT		27.8						2	G83 (CA)	192	120	160.00
S-7	P	"C-3" 34+50; 15.5' (LT)	FSBT						1		1	G23 (CA)			
	Q	"C-3" 34+90; 12' (LT) / 45' (RT)	FSBT	19.7 19.7		21110	21110	II-S			1	G23 (CA)	312	100	216.67
	S	"A" 455+00; 137.2' (LT)	FSBT		22.0	17130	17130	VI			1	G23 (CA)	264	90	165.00
	T	"A" 455+00; 0' (LT) / 92.5' (RT)	FSBT						1		1	G23 (CA)			
			FNBT								2	G24 (CA)			
			FNBT								3	G83 (CA)			
S-8	U	"C-1" 55+46; 21' (RT)	FNBT		23.0	17200	17200	VII			1	G83 (CA)	216	110	165.00
S-9	V	"A" 472+00; 13' (RT)	FNBT		27.8	62520	62520	VI-S			1	G24 (CA)	456	120	380.00
			FNBT		27.8						2	G85 (CA)	192	120	160.00
	W	"C-1" 8+75; 36' (LT)	FNBT						1		1	G24 (CA)			
			FNBT								2	G83 (CA)			
	X	"A" 477+38; 0'	FNBT						1		1	G24 (CA)			
			FNBT								2	G24 (CA)			
	Y	"C-2" 5+00; 28.8' (RT)	FNBT		23.0	18800	18800	VII			1	G85 (CA)	216	110	165.00
	Z	"A" 479+71; 0'	FSBT						1		1	R87 (CA)			
	AA	"A" 481+50; 0'	FSBT		22.0	13660	13660	VI			1	R87 (CA)	192	100	133.33
		SQ-15 SUBTOTAL		59.9	469.8	447030	447030		11	0					5536.67

OVERHEAD SIGN QUANTITIES

SQ-15

REVISED BY	DATE REVISED
TG	8/10/09

JIMMY TARQUINIO — CALCULATED-DESIGNED BY
THERESA GAISSER — CHECKED BY
KEYVAN PIRBZARI — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 10:53

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trliim | DGN FILE => c07163oc015.dgn | CU 12235 | EA 071631

OVERHEAD SIGN QUANTITIES

SHEET No.	SIGN No.	SINGLE FACED	BACKGROUND		LEGEND		GRAFFITI	OVERHEAD	DESCRIPTION
			SHEETING COLOR	RETROFLECTIVE ASTM TYPE	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	PREMIUM	FORMED WITH RSPF	
S-1	A	X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
	B								REMOVE EXISTING STRUCTURE
S-2	C	X	GREEN	III	WHITE	IV	X	X	
	D	X	WHITE	IV	BLACK		X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
S-20	E								REMOVE EXISTING STRUCTURE
S-4	F	X	GREEN	III	WHITE	IV	X	X	
	G	X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
	H								REMOVE EXISTING STRUCTURE
	I								REMOVE EXISTING STRUCTURE
S-5	J	X	GREEN	III	WHITE	IV	X	X	
	K								REMOVE EXISTING STRUCTURE
	L								REMOVE EXISTING STRUCTURE
	M	X	GREEN	III	WHITE	IV	X	X	
S-6	N	X	GREEN	III	WHITE	IV	X	X	
	O	X	GREEN	III	WHITE	IV	X	X	
	R	X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
S-7	P								REMOVE EXISTING STRUCTURE
	Q	X	GREEN	III	WHITE	IV	X	X	
	S	X	GREEN	III	WHITE	IV	X	X	
	T								REMOVE EXISTING STRUCTURE
S-8	U	X	GREEN	III	WHITE	IV	X	X	
S-9	V	X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
	W								REMOVE EXISTING STRUCTURE
	X								REMOVE EXISTING STRUCTURE
	Y	X	GREEN	III	WHITE	IV	X	X	
	Z								REMOVE EXISTING STRUCTURE
	AA	X	WHITE	IV	BLACK		X	X	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1090	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY: TG | DATE REVISED: 8/10/09
CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
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08-10-09

OVERHEAD SIGN QUANTITIES

SQ-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1091	1929

8/10/09
REGISTERED CIVIL ENGINEER DATE

THERESA M. GAISSER No. C69442 Exp 07/06/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
PLANS APPROVAL DATE

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PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

OVERHEAD SIGN QUANTITIES

SHEET No.	SIGN No.	LOCATION		CIDH CONC PILE (SIGN FOUNDATION)		SIGN STRUCTURES (TRUSS)		POST TYPE (STD PLAN)	REMOVE SIGN STRUCTURE	MODIFY SIGN STRUCTURE	SIGN CODE		HORZONTAL PANEL SIZE	VERTICAL PANEL SIZE	PANEL AREA
				54-INCH	60-INCH	FURNISH	INSTALL				PANEL No.	PANEL CODE			
		STATION	DIRECTION	LF	LF	(lb)	(lb)		EA	EA			INCH	INCH	SQFT
S-10	AB	''C-1'' 18+38; 43' (LT)	FNBT						1		1	G24 (CA)			
			FNBT								2	G85 (CA)			
	AC	"A" 484+00; 0'	FNBT	18.0		11060	11060	IV			1	G23 (CA)	264	90	165.00
	AD	''A'' 485+50; 0'	FNBT						1		1	G23 (CA)			
	AE	''B-2'' 80+17; 5.5' (RT)	FSBT							1	1	G24 (CA)	210	120	175.00
			FSBT								2	G24 (CA)	240	120	200.00
S-11	AF	''A-1'' 106+45; 7.7' (LT)	FNBT						1		1	G23 (CA)			
			FSBT								2	G24 (CA)			
			FSBT								3	G24 (CA)			
			FSBT								4	G85 (CA)			
	AG	''A-1'' 110+24; 0' / 104' (LT)	FNBT		28.8	47200	47200	V-S			1	G23 (CA)	192	90	120.00
			FSBT								2	G83 (CA)	192	110	146.67
			FSBT								3	G83 (CA)	216	120	180.00
			FSBT		26.3						4	G83 (CA)	216	120	180.00
			FSBT								5	G85 (CA)	216	120	180.00
S-12	AH	''B'' 212+40; 0'	FNBT		24.5	13660	13660	VI			1	R87 (CA)	192	100	133.33
S-13	AI	''B'' 217+71; 98.2' (RT)	FNBT		23.0	17830	17830	VII			1	G83 (CA)	192	120	160.00
	AJ	''B'' 218+00; 92' (RT)	FNBT						1		1	G24 (CA)			
	AK	''B'' 219+16; 0'	FNBT						1		1	R87 (CA)			
S-14	AL	''B'' 233+55; 0'	FSBT		30.3	56750	56750	VI-S			1	G83 (CA)	192	110	146.67
			FSBT								2	G83 (CA)	216	120	180.00
			FSBT		27.8						3	G83 (CA)	216	120	180.00
			FSBT								4	G83 (CA)	216	120	180.00
S-17	AM	"B" 244+30; 0'	FSBT						1		1	G83 (CA)			
			FSBT								2	G83 (CA)			
			FSBT								3	G83 (CA)			
	AN	''B'' 250+00; 0'	FSBT	21.5		10930	10930	V			1	G83 (CA)	192	100	133.33
S-19	AO	"B" 265+50; 0'	FSBT	21.5		10820	10820	V			1	R87 (CA)	192	100	133.33
	AP	"B" 266+70; 82' (RT)	FSBT								1	G83 (CA)			
		SQ-17 SUBTOTAL		61.0	160.7	168250	168250		6	1					2593.33
		GRAND TOTAL		120.9	630.5	615280	615280		17	1					8130.00

REVISED BY	DATE REVISED
TG	8/10/09

CALCULATED-DESIGNED BY: JIMMY TARQUINIO
CHECKED BY: THERESA GAISSER
CONSULTANT FUNCTIONAL SUPERVISOR: KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 04-FEB-2010
08-10-09 | TIME PLOTTED => 10:53

OVERHEAD SIGN QUANTITIES

SQ-17

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trliim
DGN FILE => c07163oc017.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1092	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

REGISTERED PROFESSIONAL ENGINEER
THERESA M. GAISSER
No. C69442
Exp 07/06/10
CIVIL
STATE OF CALIFORNIA

2-1-10
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.

PBS&J
625 THE CITY DRIVE
SOUTH, SUITE 200
ORANGE, CA 92648

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

OVERHEAD SIGN QUANTITIES

SHEET No.	SIGN No.	SINGLE FACED	BACKGROUND		LEGEND		GRAFFITI	OVERHEAD	DESCRIPTION
			SHEETING COLOR	RETROFLECTIVE ASTM TYPE	SHEETING COLOR	RETROFLECTIVE ASTM TYPE	PREMIUM	FORMED WITH RSPF	
S-10	AB								REMOVE EXISTING STRUCTURE
	AC	X	GREEN	III	WHITE	IV	X	X	
	AD								REMOVE EXISTING STRUCTURE
	AE	X	GREEN	III	WHITE	IV	X	X	MAINTAIN EXISTING STRUCTURE
		X	GREEN	III	WHITE	IV	X	X	INSTALL NEW PANELS
S-11	AF								REMOVE EXISTING STRUCTURE
	AG	X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
S-12	AH	X	WHITE	IV	BLACK		X	X	
S-13	AI	X	GREEN	III	WHITE	IV	X	X	
	AJ								REMOVE EXISTING STRUCTURE
	AK								REMOVE EXISTING STRUCTURE
S-14	AL	X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
		X	GREEN	III	WHITE	IV	X	X	
S-17	AM								REMOVE EXISTING STRUCTURE
	AN	X	GREEN	III	WHITE	IV	X	X	
S-19	AO	X	WHITE	IV	BLACK		X	X	
	AP								DO NOT DISTURB

CALCULATED-DESIGNED BY
CHECKED BY

REVISED BY: TG
DATE REVISED: 8/10/09

JIMMY TARQUINIO
THERESA GAISSER

CONSULTANT FUNCTIONAL SUPERVISOR
KEYVAN PIRBZARI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

OVERHEAD SIGN QUANTITIES

SQ-18

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 10:54
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trliim
DGN FILE => c07163oc018.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1093	1929

12/22/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JASON YAW
No. C73422
Exp.12/31/10
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.

TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REMOVE CONCRETE BARRIER

SHEET No.	STATION	LOCATION	LF
C-1	"A" 395+50 TO "A" 398+50	Rt	360
C-2	"A" 398+50 TO "A" 408+50	Rt	1,000
C-3	"A" 408+50 TO "A" 417+50	Rt	1,070
C-4	"A" 417+50 TO "A" 425+50	Rt	870
C-5	"A" 425+50 TO "A" 438+50	Rt	1,300
	"OR" 5+93 TO "OR" 15+33	Rt	960
	"OR" 4+95 TO "OR" 16+33	Rt & Lt	1,114
C-6	"A" 438+50 TO "A" 451+50	Rt	1,300
	"A-2" 26+59 TO "OR" 4+95	Rt & Lt	856
C-7	"A" 451+50 TO "A" 458+50	Med	700
C-8	"A" 458+50 TO "A" 471+50	Med	1,300
C-9	"A" 471+50 TO "A" 481+24	Med	1,171
C-10	"A" 483+52 TO "A" 484+48	Med	96
	"A" 485+30 TO "A" 489+00	Med	370
	"A-1" 90+65 TO "A-1" 97+50	Lt	686
	"A-1" 91+69 TO "A-1" 97+50	Lt	580
C-11	"A-1" 97+50 TO "A-1" 107+03	Rt & Lt	955
	"A-1" 97+50 TO "A-1" 111+00	Lt	1,350
	"A-4" 34+29 TO "A-4" 35+78	Rt	150
C-12	"A-1" 111+00 TO "A-1" 116+06	Lt	508
	"B" 211+92 TO "B" 212+88	Med	96
C-14	"B" 230+00 TO "B" 237+50	Med	750
C-15	"B" 237+50 TO "B" 241+50	Med	400
	"B" 249+52 TO "B" 250+50	Med	96
C-17	"B" 265+02 TO "B" 265+98	Med	96
		TOTAL	18,134

REMOVE CONCRETE SIDEWALK

SHEET No.	STATION	LOCATION	SQFT
C-3	"SB" 56+12 TO "SB" 56+26	Rt	84
	"SB" 56+20 TO "SB" 60+21	Lt	3,360
	"SB" 60+00 TO "SB" 60+10	Rt	100
	"SB" 60+99 TO "SB" 61+24	Lt	420
	"SB" 60+90 TO "SB" 62+40	Rt	1,090
		TOTAL	5,054

REMOVE CONCRETE CURB

SHEET No.	STATION	LOCATION	LF
C-2	"SB-1" 45+77 TO "SB-1" 48+50	Rt	400
	"SB-1" 47+13 TO "SB-1" 48+50	Rt	
C-3	"A" 408+85 TO "A" 409+30	Lt	80
	"SB" 48+50 TO "SB" 51+30	Rt	280
	"SB" 56+12 TO "SB" 56+26	Rt	15
	"SB" 55+90 TO "SB" 58+55	Lt	264
	"SB" 58+43 TO "SB-4" 35+90	Rt	560
	"SB" 59+69 TO "SB" 60+21	Lt	135
	"SB" 60+99 TO "SB" 61+24	Lt	40
	"SB" 61+31 TO "SB" 61+31	Rt & Lt	20
	"SB-1" 48+50 TO "SB-1" 52+04	Rt	900
	"SB-1" 48+50 TO "SB" 62+40	Rt	
	"SB-2" 48+82 TO "SB-2" 52+55	Rt	400
	"SB-2" 53+44 TO "SB-2" 55+80	Lt	236
	"SB-3" 29+80 TO "SB-3" 33+30	Lt	250
	"SB-3" 29+80 TO "SB-3" 35+26	Lt	475
	"SB-4" 34+82 TO "SB-4" 35+95	Lt	115
C-5	"OR" 16+20 TO "OR" 18+00	Lt	180
C-6	"A" 444+07 TO "A" 445+09	Lt	110
	"C-3" 43+13 TO "C-3" 44+20	Lt	105
C-10	"C-2" 12+17 TO "C-2" 20+75	Lt	855
C-11	"A-4" 39+29 TO "A-4" 43+96	Lt	467
C-19	"SB" 45+40 TO "SB" 48+50	Rt	310
		TOTAL	6,197

REMOVE CONCRETE (MISCELLANEOUS)

SHEET No.	STATION	LOCATION	SQFT
C-1	"A" 397+00	Rt	4
C-2	"A" 398+60	Lt	4
C-6	"A" 439+50	Lt	4
	"C-3" 41+30	Rt	4
C-7	"A" 453+00	Rt	4
	"A" 453+00	Lt	4
	"A-2" 17+10	Lt	4
C-8	"A" 465+00	Lt	4
	"A" 466+50	Rt	4
	"B-2" 59+95	Lt	4
C-9	"A" 480+60	Rt	4
	"A" 477+90	Lt	4
	"A-3" 51+90	Rt	4
	"C-2" 6+40	Rt	4
C-10	"A" 492+10	Rt	4
	"A" 490+90	Lt	4
C-11	"A-1" 107+40	Rt	4
	"A-1" 110+20	Lt	4
C-20	"XB-3" 61+98	Lt	4
		TOTAL	76

REMOVE CONCRETE PAVEMENT

SHEET No.	STATION	LOCATION	SQYD
C-3	"A" 414+38 TO "A" 416+15	Rt & Lt	630
	"SB" 58+55 TO "SB" 59+69	Lt	170
C-5	"A" 432+00 TO "A" 438+50	Rt	2,500
C-6	"A" 443+00 TO "A" 451+00	Rt & Lt	1,900
	"A-2" 34+95 TO "A-2" 26+74	Rt	2,220
	"A" 438+75 TO "C-3" 36+50	Rt & Lt	3,500
	"A-2" 21+50 TO "A-2" 22+70	Lt	260
C-7	"A" 453+00 TO "A" 458+50	Rt & Lt	5,010
	"A-2" 16+50 TO "A-2" 21+50	Lt	1,330
	"C-3" 33+45 TO "C-3" 36+50	Rt & Lt	820
C-8	"A" 458+50 TO "A" 461+50	Rt & Lt	2,740
	"A" 462+54 TO "A" 463+34	Rt & Lt	680
	"A" 464+60 TO "A" 465+33	Rt & Lt	430
	"A" 466+65 TO "A" 467+42	Rt & Lt	440
	"B-2" 52+79 TO "B-2" 60+30	Rt & Lt	2,070
C-9	"A-3" 45+70 TO "A-3" 53+60	Rt & Lt	2,120
	"C-1" 8+25 TO "C-1" 17+70	Rt & Lt	2,560
C-10	"A" 485+77 TO "A" 488+49	Rt & Lt	840
	"C-1" 17+70 TO "C-1" 19+51	Rt & Lt	450
	"A-1" 90+04 TO "A-1" 96+28	Lt	1,650
	"C-2" 8+16 TO "C-2" 8+70	Rt & Lt	80
	"C-2" 12+03 TO "C-2" 12+48	Rt & Lt	60
C-11	"A-3" 65+30 TO "A-1" 109+00	Rt & Lt	6,480
	"C-1" 33+39 TO "A-1" 109+00		
C-18	"A-2" 10+00 TO "A-2" 16+50	Lt	1,750
		TOTAL	40,690

SUMMARY OF QUANTITIES

Q-1

DBL	12/22/09
REVISED BY	DATE REVISED
JASON YAW	DAVID LEW
CALCULATED-DESIGNED BY	CHECKED BY
ROSS LEW	
CONSULTANT FUNCTIONAL SUPERVISOR	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION DATE PLOTTED => 04-FEB-2010
12-22-09 TIME PLOTTED => 10:54

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlim
DGN FILE => c07163pa001.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1094	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JASON YAW No. C73422 Exp.12/31/10 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.

TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REMOVE MBGR

SHEET No.	STATION	LOCATION	LF
C-1	"A" 396+95 TO "A" 397+87	Rt	92
C-3	"A" 413+25 TO "A" 414+80	Rt	150
	"A" 415+39 TO "A" 416+60	Lt	127
	"SB" 50+35 TO "SB" 51+30	Rt	80
	"SB" 55+60 TO "SB" 56+10	Lt	53
	"SB-3" 29+50 TO "SB-3" 36+50	Rt & Lt	600
	"SB-2" 49+50 TO "SB-2" 57+50	Lt	788
C-4	"A" 420+20 TO "A" 423+40	Lt	322
	"A" 423+20 TO "A" 424+00	Rt	80
C-5	"A" 436+50 TO "A" 427+25	Lt	80
C-6	"A" 447+30 TO "A" 448+60	Rt	131
	"A-2" 21+50 TO "A-2" 22+50	Rt	99
	"A-2" 27+50 TO "A-2" 28+00	Lt	50
	"C-3" 38+25 TO "C-3" 38+90	Rt	65
C-7	"A" 454+30 TO "A" 455+10	Rt	82
	"A-2" 16+50 TO "A-2" 21+50	Lt	500
	"C-3" 34+95 TO "C-3" 35+70	Lt	65
C-8	"XC-1" 61+74 TO "XC-1" 63+64	Rt	190
C-9	"A-3" 46+95 TO "A-3" 47+50	Rt	55
	"C-1" 8+15 TO "C-1" 12+15	Lt	406
	"C-1" 8+20 TO "C-1" 8+88	Rt	68
	"C-2" 7+00 TO "C-2" 7+50	Rt	66
C-10	"A" 485+00 TO "A" 489+70	Lt	455
	"A" 486+40 TO "A" 490+30	Rt	415
	"A" 491+40 TO "A" 492+60	Rt	120
	"A-1" 94+20 TO "A-1"94+90	Rt	71
	"A-3" 64+00 TO "A-3" 64+90	Lt	90
	"A-3" 64+63 TO "A-3" 64+90	Rt	24
	"B-2" 81+20 TO "B-2" 82+50	Rt	155
	"C-1" 17+80 TO "C-1" 18+51	Lt	170
	"C-1" 19+30 TO "C-1" 19+50	Rt	60
	"C-2" 7+65 TO "C-2" 8+00	Rt	33
	"C-2" 17+10 TO "C-2" 20+75	Rt	369
C-11	"A-3" 64+90 TO "A-3" 65+66	Rt	76
	"A-4" 34+00 TO "A-4" 34+29	Rt	30
	"B-1" 19+90 TO "B-1" 20+75	Lt	84
C-12	"A-4" 48+31 TO "B" 215+50	Rt	720
C-13	"B" 215+50 TO "B" 224+00	Rt	850
C-18	"A-2" 10+00 TO "A-2" 16+50	Rt	694
C-19	"SB-2" 57+50 TO "SB-2" 58+00	Lt	50
C-21	"XB-3" 65+80 TO "XA-5" 34+89	Rt	822
		TOTAL	9,437

REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)

SHEET No.	STATION	LOCATION	LF
C-3	"SB" 48+50 TO "SB" 59+99	Lt	1,150
	"SB" 48+50 TO "SB" 59+99	Rt & Lt	3,320
C-5	"A" 432+00 TO "A-2" 34+90	Rt	652
C-6	"A-2" 21+50 TO "A-2" 34+90	Lt	1,371
C-7	"A-2" 16+50 TO "A-2" 21+50	Lt	491
C-8	"B-2" 52+55 TO "B-2" 61+65	Rt	775
C-9	"A-3" 45+70 TO "A-3" 54+50	Lt	885
	"C-1" 8+25 TO "C-1" 17+70	Rt	945
C-10	"A-1" 97+00 TO "A-1" 97+50	Lt	50
	"A-3" 54+50 TO "A-3" 64+95	Med	1,044
	"C-1" 17+70 TO "A-1" 97+50	Rt	1,319
C-11	"A-1" 97+50 TO "A-1" 108+00	Lt	1,050
	"A-1" 97+50 TO "A-1" 109+00	Rt	1,151
	"A-3" 64+95 TO "A-3" 69+00	Med	413
C-18	"A-2" 10+00 TO "A-2" 16+50	Lt	650
C-19	"SB" 42+68 TO "SB" 48+50	Lt	590
	"SB" 42+70 TO "SB" 48+50	Rt & Lt	2,330
		TOTAL	18,186

REMOVE SOUND WALL

SHEET No.	STATION	LOCATION	SQFT
C-4	"A" 420+40 TO "A" 422+75	Lt	2,400
C-5	"OR" 4+95 TO "OR" 16+33	Rt & Lt	13,620
C-6	"A-2" 26+83 TO "A" 26+94	Rt	780
	"C-3" 38+88 TO "A" 439+12	Lt	16,704
	"OR" 4+95 TO "A-2" 31+20	Lt	4,464
C-8	"A" 463+47 TO "A" 464+36	Rt	1,240
		TOTAL	39,208

REMOVE RETAINING WALL

SHEET No.	STATION	LOCATION	SQFT
C-5	"OR" 4+90 TO "OR" 6+33	Rt & Lt	4,000
C-6	"A-2" 26+59 TO "OR" 4+90	Lt	5,056
		TOTAL	9,056

REMOVE CHAIN LINK FENCE

SHEET No.	STATION	LOCATION	LF
C-1	"A" 395+50 TO "A" 398+50	Rt	300
	"A" 395+50 TO "A" 398+50	Lt	300
C-2	"A" 398+50 TO "SB-1" 6+25	Rt	760
	"A" 398+50 TO "A" 408+50	Lt	1,000
C-3	"A" 408+50 TO "SB-2" 50+00	Lt	140
	"A" 415+40 TO "A" 415+98	Rt	58
	"SB-5" 5+12 TO "SB-5" 7+30	Rt	222
C-5	"A-2" 34+94 TO "A-2" 36+30	Lt	143
C-6	"A-2" 26+94 TO "A-2" 34+94	Lt	828
	"C-3" 36+50 TO "C-3" 38+69	Rt	247
C-7	"C-3" 33+45 TO "C-3" 36+50	Rt	310
C-8	"B-2" 53+84 TO "B-2" 54+32	Lt	297
C-11	"A-4" 34+68 TO "A-4" 35+95	Rt	127
		TOTAL	4,732

REMOVE CRASH CUSHION (SAND FILLED)

SHEET No.	STATION	LOCATION	EA
C-3	"A" 416+60	Lt	1
		TOTAL	1

REMOVE SLOPE DRAIN

SHEET No.	STATION	LOCATION	EA
C-6	"A" 443+20	Rt	3
		TOTAL	3

SUMMARY OF QUANTITIES

Q-2

DBL	12/22/09
REVISED BY	DATE REVISED
JASON YAW	DAVID LEW
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	ROSS LEW

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 12-22-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 10:46

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trpierce | DGN FILE => c07163pa002.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1095	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

REGISTERED PROFESSIONAL ENGINEER — JASON YAW No. C73422 Exp.12/31/10 CIVIL — STATE OF CALIFORNIA

2-1-10
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.

TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

PAVEMENT STRUCTURAL SECTION

SHEET No.	DESCRIPTION	STATION	STRUCTURAL SECTION	CLASS 2 AGGREGATE BASE	CLASS 2 AGGREGATE SUBBASE	HOT MIX ASPHALT	HOT MIX ASPHALT (OPEN GRADED)	COLD PLANE ASPHALT CONCRETE PAVEMENT	JOINTED PLAIN CONCRETE PAVEMENT	CONCRETE PAVEMENT (RAMP TERMINI)	CONCRETE PAVEMENT (RAMP TERMINI RAPID STRENGTH CONCRETE)	PAVEMENT REINFORCING FABRIC	LEAN CONCRETE BASE RAPID SETTING	TACK COAT	SEAL PAVEMENT JOINT	SEAL ISOLATION JOINT
			No.	CY	CY	TON	TON	SQYD	CY	CY	CY	SQYD	CY	TON	LF	LF
L-1	NB ROUTE 405	"A" 395+50 TO "A" 398+50	1			243			240					1	1,529	600
	NB ROUTE 405	"A" 395+50 TO "A" 398+50	2	83		113										
	SB ROUTE 405	"A" 395+50 TO "A" 398+50	1			206			203							
	SB ROUTE 405	"A" 395+50 TO "A" 398+50	2	83		113										
L-2	NB ROUTE 405	"A" 398+50 TO "A" 408+50	1			943			931					2	5,982	2,000
	NB ROUTE 405	"A" 398+50 TO "A" 408+50	2	164		221										
	SB ROUTE 405	"A" 398+50 TO "A" 408+50	1			951			940							
	SB ROUTE 405	"A" 398+50 TO "A" 408+50	2	146		197										
	NB RAMP SB-1	"A" 339+09 TO "SB-1" 48+50	3	1,029		1,146										
	SB RAMP SB-2	"SB-2" 44+35 TO "SB-2" 48+50	4	376		343	76									
L-3	NB ROUTE 405	"A" 408+50 TO "A" 417+50	1			1,157			1,142					8	7,842	2,935
	NB ROUTE 405	"A" 408+50 TO "A" 417+50	2	93		126										
	SB ROUTE 405	"A" 408+50 TO "A" 417+50	1			852			841							
	SB ROUTE 405	"A" 408+50 TO "A" 417+50	2	214		289										
	NB SEAL BEACH BLVD	"SB" 48+50 TO "SB" 62+41	3	1,421		1,583										
	NB SEAL BEACH BLVD	"SB" 48+50 TO "SB" 62+41	12			501		742								
	SB SEAL BEACH BLVD	"SB" 48+50 TO "SB" 61+50	3	1,321		1,471										
	SB SEAL BEACH BLVD	"SB" 48+50 TO "SB" 61+50	12			729		1,080								
	SB SEAL BEACH BLVD	"SB" 48+50 TO "SB" 61+50	13	57												
	NB RAMP SB-1	"SB-1" 48+50 TO "SB-1" 51+98	3	326		363										
	NB RAMP SB-1	"SB-1" 48+50 TO "SB-1" 51+98	7	41		42										
	NB RAMP SB-1	"SB-1" 48+50 TO "SB-1" 51+65	14			278				292						
	NB RAMP SB-1	"SB-1" 51+65 TO "SB-1" 51+98	16								46		22			
	SB RAMP SB-2	"SB-2" 48+50 TO "SB-2" 55+80	4	892		813	181									
	SB RAMP SB-3	"SB-3" 29+80 TO "SB-3" 37+50	4	1,051		958	213									
	SB RAMP SB-3	"SB-3" 29+80 TO "SB-3" 37+50	7	25		25										
	NB RAMP SB-4	"SB-4" 34+95 TO "SB-4" 45+20	3	1,282		1,428										
	NB RAMP SB-5	"SB-5" 5+41 TO "SB-5" 9+94	3	373		415										
	MVP LOCATION 1	"SB-1" 48+80	7	14		15										
	MVP LOCATION 2	"A" 408+64	7	14		15										
	MVP LOCATION 3	"SB-2" 51+50	7	15		15										
	MVP LOCATION 4	"SB-2" 53+40	7	14		15										
	MVP LOCATION 5	"SB-3" 29+90	7	14		14										
	MVP LOCATION 6	"SB-4" 37+60	7	14		14										
	MVP LOCATION 7	"SB-4" 41+00	7	14		14										
	MVP LOCATION 8	"A" 412+00	7	14		15										
	MVP LOCATION 9	"A" 415+90	7	14		15										
		SHEET TOTAL		9,104		15,638	470	1,822	4,297	292	46		22	11	15,353	5,535

SUMMARY OF QUANTITIES

Q-3

REVISED BY	DBL	JASON YAW	CALCULATED-DESIGNED BY	CONSULTANT FUNCTIONAL SUPERVISOR	ROSS LEW
DATE REVISED	12/22/09	DAVID LEW	CHECKED BY	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans

LAST REVISION | DATE PLOTTED => 04-FEB-2010
12-22-09 | TIME PLOTTED => 14:34

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye DGN FILE => c071163pa003.dgn | CU 12235 | EA 071631

PAVEMENT STRUCTURAL SECTION

SHEET No.	DESCRIPTION	STATION	STRUCTURAL SECTION	CLASS 2 AGGREGATE BASE	CLASS 2 AGGREGATE SUBBASE	HOT MIX ASPHALT	HOT MIX ASPHALT (OPEN GRADED)	COLD PLANE ASPHALT CONCRETE PAVEMENT	JOINTED PLAIN CONCRETE PAVEMENT	CONCRETE PAVEMENT (RAMP TERMINI)	CONCRETE PAVEMENT (RAMP TERMINI RAPID STRENGTH CONCRETE)	PAVEMENT REINFORCING FABRIC	LEAN CONCRETE BASE RAPID SETTING	TACK COAT	SEAL PAVEMENT JOINT	SEAL ISOLATION JOINT
			No.	CY	CY	TON	TON	SQYD	CY	CY	CY	SQYD	CY	TON	LF	LF
L-4	NB ROUTE 405	"A" 417+50 TO "A" 425+50	1			854			843					2	4,989	1,612
	NB ROUTE 405	"A" 417+50 TO "A" 425+50	2	204		276										
	SB ROUTE 405	"A" 417+50 TO "A" 425+50	1			747			737							
	SB ROUTE 405	"A" 417+50 TO "A" 425+50	2	111		149										
	SB RAMP SB-3	"SB-3" 37+50 TO "A" 421+52	4	554		505	112									
	MVP LOCATION 10	"A" 421+10	7	14		15										
	MVP LOCATION 11	"A" 423+85	7	14		15										
L-5	NB ROUTE 405	"A" 425+50 TO "A" 438+50	1			1,079			1,065					4	6,948	2,565
	NB ROUTE 405	"A" 425+50 TO "A" 438+50	2	244		330										
	NB ROUTE 405	"A" 428+39.62 TO "OR" 09+90.78	7	123		125										
	NB ROUTE 405	"A" 435+07.74 TO "A" 435+55.15	7	4		4										
	SB ROUTE 405	"A" 425+50 TO "A" 438+50	1			1,300			1,284							
	SB ROUTE 405	"A" 425+50 TO "A" 438+50	2	361		488										
	NB CONNECTOR A-2	"A" 430+87 TO "A-2" 34+90	5			2,453										
	NB CONNECTOR A-2	"A-2" 34+90 TO "A-2" 36+44.53 L†				4						70				
	NB OLD RANCH PKWY	"OR" 4+90 TO "OR" 18+00	3	1,118		1,245										
	NB OLD RANCH PKWY	"OR" 7+76.71 TO "OR" 14+73.75 L†				18						314				
	MVP LOCATION 12	"A" 427+90	7	14		15										
	MVP LOCATION 13	"A" 436+00	7	14		15										
L-6	NB ROUTE 405	"A" 438+50 TO "A" 451+50	1			1,854			1,831					4	18,989	3,192
	NB ROUTE 405	"A" 438+50 TO "A" 451+50	2	344		464										
	NB ROUTE 405	"A" 443+00 TO "A" 451+00	7	153		155										
	SB ROUTE 405	"A" 438+50 TO "A" 451+50	1			1,849			1,826							
	SB ROUTE 405	"A" 438+50 TO "A" 451+50	2	222		300										
	SB ROUTE 405	"A" 443+00 TO "A" 451+00	7	35		36										
	WB CONNECTOR A-2	"A-2" 21+50 TO "A-2" 34+90	1			73			72							
	WB CONNECTOR A-2	"A-2" 21+50 TO "A-2" 34+90	5			1,624										
	WB CONNECTOR A-2	"A-2" 30+16.07 TO "OR" 4+00 L†				10						171				
	WB CONNECTOR A-2	"A-2" 30+89.80 TO "A-2" 34+90 L†				12						212				
	EB CONNECTOR C-3	"C-3" 36+50 TO "C-3" 49+20	1			660			652							
	EB CONNECTOR C-3	"C-3" 36+50 TO "C-3" 49+20	2	181		257										
	EB CONNECTOR C-3	"C-3" 36+50 TO "C-3" 49+20	6			1,169			1,027							
	EB CONNECTOR C-3	"C-3" 43+58.05 TO "C-3" 48+65.16 R†				13						230				
	NB OLD RANCH PKWY	"OR" 4+00 TO "OR" 4+90	3	70		80										
	NB OLD RANCH PKWY	"OR" 4+00 TO "OR" 4+76.10 L†				2						37				
	MVP LOCATION 14	"A" 440+35	7	15		15										
	MVP LOCATION 15	"A" 449+10	7	14		15										
	MVP LOCATION 16	"A" 447+50	7	15		16										
	MVP LOCATION 17	"A" 449+70	7	15		16										
	MVP LOCATION 18	"C-3" 37+45	7	14		15										
		SHEET TOTAL		3,853		18,272	112		9,337			1,034		10	30,926	7,369

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1096	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

JASON YAW No. C73422 Exp.12/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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 PLAY SHEET.

TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY: DBL | DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JASON YAW | CHECKED BY: DAVID LEW
CONSULTANT FUNCTIONAL SUPERVISOR: ROSS LEW
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

SUMMARY OF QUANTITIES

Q-4

LAST REVISION DATE PLOTTED => 04-FEB-2010
12-22-09 TIME PLOTTED => 14:34

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmnguye DGN FILE => c07163pa004.dgn | CU 12235 | EA 071631

PAVEMENT STRUCTURAL SECTION

SHEET No.	DESCRIPTION	STATION	STRUCTURAL SECTION	CLASS 2 AGGREGATE BASE	CLASS 2 AGGREGATE SUBBASE	HOT MIX ASPHALT	HOT MIX ASPHALT (OPEN GRADED)	COLD PLANE ASPHALT CONCRETE PAVEMENT	JOINTED PLAIN CONCRETE PAVEMENT	CONCRETE PAVEMENT (RAMP TERMINI)	CONCRETE PAVEMENT (RAMP TERMINI RAPID STRENGTH CONCRETE)	PAVEMENT REINFORCING FABRIC	LEAN CONCRETE BASE RAPID SETTING	TACK COAT	SEAL PAVEMENT JOINT	SEAL ISOLATION JOINT
			No.	CY	CY	TON	TON	SQYD	CY	CY	CY	SQYD	CY	TON	LF	LF
L-7	NB ROUTE 405	"A" 451+50 TO "A" 458+50	1			1,235			1,220					3	17,845	2,626
	NB ROUTE 405	"A" 451+50 TO "A" 458+50	2	183		246										
	SB ROUTE 405	"A" 451+50 TO "A" 458+50	1			1,187			1,172							
	SB ROUTE 405	"A" 451+50 TO "A" 458+50	2	207		279										
	NB/SB HOV CONNECTOR	"A" 453+00 TO "A" 458+50	8			869			858							
	WB CONNECTOR A-2	"A-2" 16+50 TO "A-2" 21+50	1			614			606							
	EB CONNECTOR C-3	"C-3" 33+46 TO "C-3" 36+50	6			454			403							
	EB CONNECTOR C-3	"C-3" 33+46 TO "C-3" 36+50	7	45		45										
L-8	NB ROUTE 405	"A" 458+50 TO "A" 471+50	1			2,058			2,033					4	21,081	4,181
	NB ROUTE 405	"A" 458+50 TO "A" 471+50	2	345		466										
	SB ROUTE 405	"A" 458+50 TO "A" 471+50	1			2,119			2,093							
	SB ROUTE 405	"A" 458+50 TO "A" 471+50	2	219		295										
	NB/SB HOV CONNECTOR	"A-4" 58+50 TO "A" 461+08	8			341			336							
	EB CONNECTOR B-2	"B-2" 49+50 TO "B-2" 60+30	1			1,405			1,388							
	EB CONNECTOR B-2	"B-2" 49+50 TO "B-2" 55+15	2	159		214										
	MVP LOCATION 20	"B-2" 50+00	7	15		15										
	MVP LOCATION 21	"A" 462+20	7	14		15										
	MVP LOCATION 22	"A" 468+25	7	14		15										
	MVP LOCATION 23	"A" 471+10	7	14		15										
L-9	NB ROUTE 405	"A" 471+50 TO "A" 483+19	1			421			415					3	16,564	2,432
	NB ROUTE 405	"A" 471+50 TO "A" 483+19	2	214		289										
	SB ROUTE 405	"A" 471+50 TO "A" 482+58	1			600			592							
	SB ROUTE 405	"A" 471+50 TO "A" 482+58	2	308		416										
	NB CONNECTOR A-3	"A-3" 43+00 TO "A-3" 53+60	1			1,480			1,461							
	NB CONNECTOR A-3	"A-3" 43+00 TO "A-3" 47+00	2	111		150										
	NB CONNECTOR C-1	"C-1" 8+25 TO "C-1" 17+70	9		907	1,225			1,285							
	NB CONNECTOR C-2	"C-2" 4+40 TO "C-2" 7+65	9		203	274			288							
	MVP LOCATION 24	"A-3" 46+10	7	14		15										
	MVP LOCATION 25	"A" 478+75	7	14		15										
	MVP LOCATION 26	"A" 483+03	7	14		14										
L-10	NB ROUTE 405	"A" 485+80 TO "A" 488+50	1			142			141					3	11,727	598
	SB ROUTE 405	"A" 485+80 TO "A" 488+50	1			142			140							
	NB/SB HOV CONNECTOR	"A-1" 90+62 TO "A-1" 97+50	8			1,142			1,128							
	NB CONNECTOR C-1	"C-1" 17+70 TO "C-1" 30+80	9		661	893			937							
	NB CONNECTOR C-2	"C-2" 7+65 TO "C-2" 18+90	7	15		15										
	NB CONNECTOR C-2	"C-2" 7+65 TO "C-2" 18+90	9		69	93			98							
	NB CONNECTOR C-2	"C-2" 7+65 TO "C-2" 18+90	10			1,867										
	MVP LOCATION 27	"A" 485+85	7	15		15										
	MVP LOCATION 28	"B-2" 82+75	7	14		15										
	MVP LOCATION 29	"A" 491+85	7	15		15										
	MVP LOCATION 30	"A-3" 63+50	7	14		15										
		SHEET TOTAL		1,963	1,840	21,140			16,594					13	67,217	9,837

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1097	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

JASON YAW No. C73422 Exp.12/31/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

2-1-10
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.

TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

REVISED BY: DBL — DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JASON YAW — CHECKED BY: DAVID LEW
CONSULTANT FUNCTIONAL SUPERVISOR: ROSS LEW
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 12-22-09 | DATE PLOTTED => 04-FEB-2010 | TIME PLOTTED => 14:34

SUMMARY OF QUANTITIES

Q-5

PAVEMENT STRUCTURAL SECTION

SHEET No.	DESCRIPTION	STATION	STRUCTURAL SECTION	CLASS 2 AGGREGATE BASE	CLASS 2 AGGREGATE SUBBASE	HOT MIX ASPHALT	HOT MIX ASPHALT (OPEN GRADED)	COLD PLANE ASPHALT CONCRETE PAVEMENT	JOINTED PLAIN CONCRETE PAVEMENT	CONCRETE PAVEMENT (RAMP TERMINI)	CONCRETE PAVEMENT (RAMP TERMINI RAPID STRENGTH CONCRETE)	PAVEMENT REINFORCING FABRIC	LEAN CONCRETE BASE RAPID SETTING	TACK COAT	SEAL PAVEMENT JOINT	SEAL ISOLATION JOINT
			No.	CY	CY	TON	TON	SQYD	CY	CY	CY	SQYD	CY	TON	LF	LF
L-11	NB HOV CONNECTOR	"A-1" 97+50 TO "A-1" 111+00	1			508			502					5	23,165	1,766
	NB/SB HOV CONNECTOR	"A-1" 97+50 TO "A-1" 111+00	8			1,984			1,959							
	MVP LOCATION 32	"A-1" 109+80	7	14		15										
	NB CONNECTOR A-3	"A-3" 65+30 TO "A-1" 109+00	1			1,369			1,352							
	MVP LOCATION 31	"A-3" 67+00	7	14		14										
	NB CONNECTOR A-4	"A-4" 40+00 TO "A-4" 44+50	5			1,450										
	SB CONNECTOR B-1	"B-1" 16+50 TO "B-1" 23+75	2	111		150										
	SB CONNECTOR B-1	"B-1" 16+50 TO "B-1" 23+75	6			331			294							
	SB CONNECTOR B-1	"B-1" 16+50 TO "B-1" 23+75	11			803										
	NB CONNECTOR C-1	"C-1" 34+57 TO "C-1" 40+11	1			617			609							
	NB CONNECTOR C-1	"C-1" 30+80 TO "C-1" 34+57	9		385	520			546							
	SB ROUTE 605	"A-1" 110+25 TO "A-1" 111+00	2	21		28										
	SB ROUTE 605	"A-1" 110+25 TO "A-1" 111+00	6			99			88							
L-12	NB/SB HOV CONNECTOR	"A-1" 111+00 TO "A-1" 116+07	1			37			36					2	6,337	3,584
	NB/SB HOV CONNECTOR	"A-1" 111+00 TO "A-1" 116+07	2	170		229										
	NB/SB HOV CONNECTOR	"A-1" 111+00 TO "A-1" 116+07	6			380			338							
	NB/SB HOV CONNECTOR	"A-1" 111+00 TO "A-1" 116+07	8			550			543							
	NB CONNECTOR A-4	"A-4" 44+50 TO "A-4" 48+51	5			1,064										
	NB ROUTE 605	"B" 209+57 TO "B" 215+50	1			171			169							
	NB ROUTE 605	"B" 209+57 TO "B" 215+50	2	166		224										
	NB ROUTE 605	"B" 209+57 TO "B" 215+50	8			201			199							
	SB ROUTE 605	"B" 209+57 TO "B" 215+50	2	165		222										
	SB ROUTE 605	"B" 209+57 TO "B" 215+50	6			465			413							
L-13	NB ROUTE 605	"B" 215+50 TO "B" 222+50	1			60			59					1	2,577	1,606
	NB ROUTE 605	"B" 215+50 TO "B" 222+50	2	194		263										
	SB ROUTE 605	"B" 215+50 TO "B" 225+50	2	278		375										
	SB ROUTE 605	"B" 215+50 TO "B" 225+50	6			788			700							
	SB ROUTE 605	"B" 221+46 TO "B" 222+65	7	34		34										
	MVP LOCATION 33	"B" 222+00	7	14		15										
L-14	SB ROUTE 605	"B" 225+50 TO "B" 233+30	2	220		296								1	1,020	737
	SB ROUTE 605	"B" 225+50 TO "B" 233+30	6			432			384							
L-16	NB ROUTE 605	"B" 260+70	7	16		17										
L-18	EB CONNECTOR A-2	"A-2" 10+00 TO "A-2" 16+50	1			868			857					1	3,867	39
	MVP LOCATION 19	"A-2" 11+30	7	15		15										
L-19	NB SEAL BEACH BLVD	"SB" 45+40 TO "SB" 48+50	3	579		645								3		
	NB SEAL BEACH BLVD	"SB" 42+67 TO "SB" 45+40	12			929		1,376								
	SB SEAL BEACH BLVD	"SB" 42+38 TO "SB" 48+50	3	1,012		1,127										
	SB SEAL BEACH BLVD	"SB" 42+67 TO "SB" 45+40	12			687		1,017								
L-22	MVP LOCATION 34	"XB-3" 51+20	7	14		14										
	DRAINAGE*					41										
	STAGE CONSTRUCTION**			2,479		27,209										
		SHEET TOTAL		5,516	385	45,246		2,393	9,048					13	36,966	7,732
		GRAND TOTAL		20,436	2,225	100,296	582	4,215	39,276	292	46	1,034	22	47	150,462	30,473

* SEE DRAINAGE QUANTITIES
** SEE STAGE CONSTRUCTION QUANTITIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1098	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JASON YAW No. C73422 Exp.12/31/10 CIVIL — STATE OF CALIFORNIA

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TRC
21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

SUMMARY OF QUANTITIES

Q-6

REVISED BY: DBL — DATE REVISED: 12/22/09
JASON YAW — DAVID LEW
CALCULATED-DESIGNED BY — CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: ROSS LEW
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION: DATE PLOTTED => 04-FEB-2010 — 12-22-09 TIME PLOTTED => 14:34

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — USERNAME => trmnguye — DGN FILE => c07163pa006.dgn — CU 12235 — EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1099	1929

REGISTERED CIVIL ENGINEER — 12/22/09 DATE

2-1-10 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JASON YAW No. C73422 Exp.12/31/10 CIVIL — STATE OF CALIFORNIA

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ORANGE COUNTY
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550 S. MAIN STREET
ORANGE, CA 92863-1584

MINOR CONCRETE
(CURB, GUTTER, SIDEWALK, BUS PAD, ROCK BLANKET & ANCHOR BLOCK)

SHEET No.	STATION	LOCATION	CURB (TYPE A1-8)	CURB (TYPE A2-6)	CURB (TYPE A2-8)	CURB (TYPE B2-6 MOD)	CROSS GUTTER	SIDEWALK	ANCHOR BLOCK	BUS PAD	ROCK BLANKET
			CURB								
			CY	CY	CY	CY	CY	CY	CY	CY	CY
L-3	"A" 409+46.39 TO "A" 410+02.40	R†									1
	"SB" 48+50.00 TO "SB" 50+10.52	L†			10						
	"SB" 48+50.00 TO "SB" 50+86.01	R†			15						
	"SB" 48+50.00 TO "SB" 60+20.10	L†						76			
	"SB" 48+50.00 TO "SB" 61+50.00	L†								53	
	"SB" 55+62.27 TO "SB" 58+40.00	L†			18						
	"SB" 58+40.00 TO "SB" 60+20.10	L†			4						
	"SB" 58+75.20 TO "SB" 59+84.75	R†			8						
	"SB" 59+84.75 TO "SB" 61+54.85	R†					35				
	"SB" 60+97.08 TO "SB" 61+33.91	L†			7						
	"SB" 60+97.08 TO "SB" 61+33.91	L†						6			
	"SB" 61+04.94 TO "SB" 62+40.70	R†						14			
	"SB" 61+31.19	Med	1								
	"SB" 61+54.85 TO "SB" 62+40.70	R†			5						
	"SB-1" 49+59.00 TO "SB-1" 51+90.09	Med			15						
	"SB-1" 50+00.00 TO "SB-1" 51+50.75	R†			10						
	"SB-2" 54+05.00 TO "SB-2" 55+80.00	Med				8					
	"SB-3" 29+80.00 TO "SB-3" 31+06.77	R†				8					
	"SB-4" 34+95.52 TO "SB-4" 37+29.07	Med			19						
	"SB-4" 35+12.53 TO "SB-4" 35+73.77	R†				4					
	"SB-5" 07+75.20 TO "SB-4" 35+73.77	Med				10					
L-5	"OR" 16+32.89 TO "OR" 18+00.00	L†		10							
L-8	"A" 464+85.84 TO "A" 466+89.95	L†									1
L-10	"A-1" 90+70.00 TO "A-1" 97+50.00	R†									2
	"C-2" 17+37.33 TO "C-2" 20+75.00	Med		20							
L-11	"A-3" 66+93.50 TO "C-1" 34+56.46	R†									1
	"A-4" 33+92.13 TO "A-4" 34+01.22	R†							2		
	"A-4" 34+28.82 TO "A-4" 39+28.98	Med									
	"A-4" 39+28.98 TO "A-4" 42+24.20	Med				18					
	"B-1" 15+20.00 TO "B-1" 16+94.21	Med				11					
L-19	"SB" 42+37.19 TO "SB" 42+67.90	L†	2								
	"SB" 42+40.77 TO "SB" 48+50.00	L†						39			
	"SB" 42+67.90 TO "SB" 48+50.00	L†			37						
	"SB" 45+03.30 TO "SB" 48+50.00	R†			20						
L-23	"XA-5" 34+53.45 TO "XA-5" 34+62.78	L†							2		
	SUBTOTAL		3	30	168	59	35	135	4	53	5
	TOTAL		492								

CHAIN LINK FENCE (TYPE CL-6)

SHEET No.	STATION	LOCATION	CHAIN LINK FENCE (TYPE CL-6)	12' CHAIN LINK GATE (TYPE CL-6)
			LF	EA
L-1	"A" 395+50.00 TO "A" 398+50.00	R†	300	
L-2	"A" 398+50.00 TO "SB-1" 46+25.00	R†	760	
L-5	"A-2" 34+90.00 TO "A-2" 38+54.27	L†	367	
L-6	"A-2" 34+90.00 TO "A-2" 30+89.80	L†	401	
	"C-3" 36+50.00 TO "C-3" 38+68.72	R†	219	
L-7	"C-3" 33+45.71 TO "C-3" 36+50.00	R†	304	
L-8	"B-2" 53+83.81 TO "B-2" 54+32.35	L†	297	
SW-17	"A-3" 44+78.76	R†		1
SW-19	"A-3" 52+76.07	R†		1
SW-20	"A-3" 60+81.63	R†		1
SW-22	"A-3" 62+23.55	R†		1
SW-23	"A-4" 34+94.10	R†		1
	TOTAL		2,648	5

ROCK BLANKET

SHEET No.	STATION	LOCATION	SQYD
L-2	"A" 403+19.94 TO "A" 405+91.91	R†	642
L-3	"A" 409+46.39 TO "A" 410+02.40	R†	127
	"A" 409+68.47 TO "A" 410+59.02	L†	227
	"A" 414+08.30 TO "A" 417+40.00	L†	849
L-5	"A" 435+55.15 TO "A" 438+50.00	R†	648
L-6	"A" 438+50.00 TO "A" 439+67.72	R†	465
	"A" 444+61.13 TO "A" 446+38.69	L†	473
L-8	"A" 464+85.84 TO "A" 466+89.95	L†	528
L-9	"A" 477+00.12 TO "A-3" 49+70.68	R†	550
L-10	"A-1" 90+70.00 TO "A-1" 97+50.00	R†	1,365
L-11	"A-1" 97+50.00 TO "A-1" 98+40.97	R†	108
	"A-1" 103+42.83 TO "B-1" 19+75.16	L†	564
	"A-3" 66+93.50 TO "C-1" 34+56.46	L†	447
	"A-4" 39+28.98 TO "A-4" 42+24.20	L†	765
	TOTAL		7,758

SUMMARY OF QUANTITIES

Q-7

REVISED BY: DBL — DATE REVISED: 12/22/09
CALCULATED-DESIGNED BY: JASON YAW — CHECKED BY: DAVID LEW
CONSULTANT FUNCTIONAL SUPERVISOR: ROSS LEW
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION DATE PLOTTED => 04-FEB-2010
LAST REVISION TIME PLOTTED => 10:47
12-22-09

BORDER LAST REVISED 8/1/2008 — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — USERNAME => trpierce — DGN FILE => c07163pa007.dgn — CU 12235 — EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1100	1929

12/22/09
REGISTERED CIVIL ENGINEER DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JASON YAW
No. C73422
Exp.12/31/10
CIVIL
STATE OF CALIFORNIA

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21 TECHNOLOGY Dr
IRVINE, CA 92618

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONCRETE BARRIER

SHEET No.	STATION	LOCATION	TYPE 60	TYPE 60C	TYPE 60D	TYPE 60G	TYPE 60GC	TYPE 60R	TYPE 60S	TYPE 736B
			LF	LF	LF	LF	LF	LF	LF	LF
L-1	"A" 395+50.00 TO 395+57.00	Med				7				
	"A" 395+57.00 TO 396+53.00	Med						96		
	"A" 396+53.00 TO 398+50.00	Med				197				
	"A" 395+50.00 TO 398+50.00	Rt				300				
L-2	"A" 398+50.00 TO 407+37.00	Med				887				
	"A" 407+37.00 TO 408+33.00	Med						96		
	"A" 408+33.00 TO 408+50.00	Med				17				
	"A" 398+50.00 TO 400+00.00	Rt				72		37		
L-3	"A" 408+50.00 TO 413+86.00	Rt				536				
	"A" 413+86.00 TO 416+67.00	Rt						281		
	"A" 416+67.00 TO 417+50.00	Rt				83				
	"SB" 58+91.73 TO 59+47.23	Lt		58						
	"SB-4" 43+20.00 TO 415+25.00	Rt	205							
L-4	"A" 420+99.00 TO 421+55.00	Lt						56		
	"A" 417+50.00 TO 421+52.00	Rt				402				
	"A" 421+52.00 TO 422+48.00	Rt						96		
	"A" 422+48.00 TO 425+50.00	Rt				302				
L-5	"A" 425+50.00 TO 438+50.00	Rt				1,300				
	"A-2" 36+44.53 TO 37+90.00	Lt		145						
	"OR" 9+25.00 TO 14+00.00	Rt	475							
	"OR" 9+25.00 TO 429+50.00	Rt	469							
L-6	"A" 438+50.00 TO 440+02.00	Rt				152				
	"A" 440+02.00 TO 440.98.00	Rt						96		
	"A" 440+98.00 TO 444+00.00	Rt				504				
	"A" 443+00.00 TO 446+25.00	Rt					323			
	"A" 446+25.00 TO 451+50.00	Rt				522				
	"A" 446+50.00 TO 451+50.00	Lt				502				
L-7	"A" 451+50.00 TO 453+00.00	Lt				150				
	"A" 451+50.00 TO 453+00.00	Rt				150				
	"A" 453+00.00 TO 458+50.00	Med				550				
	"A-1" 53+00.00 TO 55+48.53	Rt		245						
	"A-1" 53+00.00 TO 54+96.73	Lt		200						
L-8	"A" 458+50.00 TO 461+08.00	Med				258				
	"A" 461+41.50 TO 465+25.00	Lt	385							
	"A" 465+25.00 TO 466+74.00	Lt						149		
	"A" 466+74.00 TO 471+50.00	Lt	476							
	"A" 461+32.14 TO 461+41.50	Rt			9					
	"A" 461+32.36 TO 461+41.50	Lt			9					
	"A" 461+41.50 TO 471+50.00	Rt	1,009							
	"A" 466+65.00 TO 467+08.00	Lt						46		
	"A" 467+08.00 TO 468+51.00	Lt	147							
	"A" 468+51.00 TO 469+15.00	Lt						64		
L-9	"A" 471+50.00 TO 480+76.00	Rt	926							
	"A" 471+50.00 TO 480+76.00	Lt	926							
	"A" 480+76.00 TO 481+97.00	Med						121		
	"C-1" 6+32.00 TO 8+44.00	Lt	212							
	"C-1" 8+44.00 TO 9+02.00	Lt						58		
	"C-1" 9+02.00 TO 17+69.61	Lt	869							

CONCRETE BARRIER

SHEET No.	STATION	LOCATION	TYPE 60	TYPE 60C	TYPE 60D	TYPE 60G	TYPE 60GC	TYPE 60R	TYPE 60S	TYPE 736B
			LF	LF	LF	LF	LF	LF	LF	LF
L-10	"A" 483+50.00 TO 484+48.00	Med						96		
	"A" 485+30.00 TO 489+00.00	Med						370		
	"A-1" 90+70.00 TO 95+05.53	Rt	437							
	"A-1" 90+70.00 TO 97+50.00	Med				680				
	"A-1" 91+11.27 TO 97+50.00	Lt	640							
	"C-1" 17+69.62 TO 18+56.48	Lt	88							
	"C-1" 18+54.17 TO 18+86.01	Rt								32
	"C-1" 18+54.17 TO 18+75.33	Rt								28
L-11	"A-1" 97+50.00 TO 109+76.00	Med				1,226				
	"A-1" 97+50.00 TO 101+20.89	Lt	371							
	"A-1" 109+76.00 TO 110+72.00	Med						96		
	"A-1" 110+72.00 TO 111+00.00	Med				28				
	"C-1" 30+80.53 TO 33+20.89	Lt								240
L-12	"A-1" 111+00.00 TO 116+06.61	Med				507				
	"B" 211+92.00 TO 212+88.00	Med						96		
L-14	"B" 233+00.00 TO 237+50.00	Med						96	654	
L-15	"B" 249+52.00 TO 250+48.00	Med						96	400	
L-17	"B" 265+02.00 TO 265+98.00	Med						96		
L-18	"A-2" 10+00.00 TO 12+87.64	Rt	283					96		
		TOTAL	7,918	648	18	9,332	323	2,238	1,054	300

CRASH CUSHION

SHEET No.	STATION	LOCATION	TYPE REACT 95CBS
			EA
L-5	"A-2" 47+90.00	Rt	1
L-7	"A-1" 53+00.00	Rt	1
L-10	"C-1" 18+54.17	Rt	1
L-11	"A-1" 101+20.89	Lt	1
	TOTAL		4

SUMMARY OF QUANTITIES

Q-8

DBL 12/22/09 — REVISED BY / DATE REVISED
JASON YAW / DAVID LEW — CALCULATED-DESIGNED BY / CHECKED BY
ROSS LEW — CONSULTANT FUNCTIONAL SUPERVISOR
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LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 10:47
12-22-09

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trpierce DGN FILE => c07163pa008.dgn | CU 12235 | EA 071631