RFP APPENDIX 1: Reference 4

BAIFA
BAY AREA INFRASTRUCTURE FINANCING AUTHORITY

BAIFA Express Lane Network

Toll Collection System

I-680 Civil Design Documents

REGIONAL EXPRESS LANE NETWORK
MTC PHASE 1 PROJECT - I-680 Sign Log

Plan Sheet	Sign Designation	Direction		Location		MUTCD Sign Panel Type	Proposed Overhead Sign Panel Detail	Tolling Equipment Location (Y/N)	Proposed Sign Structure Type	Exist Left Shld Elevation (ft)[1]		Exist Pavement Section at Express Lane (ft)		Proposed Median Concrete Barrier Width at Sign (ft)	Exist Left Shld Width (ft)[2]		Prop Left Shld Width (ft)[2]		Comments
				PM	Station					NB	SB	NB	SB		NB	SB	NB	SB	
1	OS-1A	NB		20.29	485+60		EXPRESS LANE 1 MILE AHEAD	N	Cantilever Truss	359.0	359.0	0.60 AC (TYPE A) 0.25 ATPB 0.50 Cl A CTB 0.67 LTB	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	14.8	10.0	12.2	6.2	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-1B	NB		20.56	499+48	R3-48a Modified	VTMS - Crow Canyon / 24	N	Cantilever Truss	355.5	355.5	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-1C	NB		20.85	514+82		EXPRESS LANE 0.5 MILE AHEAD	N	Cantilever Truss	359.7	359.6	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LT	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LT	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-1D	NB		21.34	540+54	R3-44 Modified	FasTrak ONLY (Begin)	N	Cantilever Truss	366.9	366.9	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	9.4	6.9	6.3	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-1E	NB		21.49	548+41		Reader (No Sign Panel)	Y	Cantilever Gantry	368.5	368.4	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	3.7	10.0	9.8	9.1	8.9	Overhead Sign Foundation Option 3 (Toll Gantry Only).
2	OS-2A		SB	0.46	593+61	R3-45a	EXPRESS RESTRICTION ENDS	Y	Cantilever Truss	414.8	414.7	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.4	10.1	7.3	7.0	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-2B	NB		0.70	606+10	R3-48a Modified	VTMS - Crow Canyon / 24	N	Cantilever Truss	428.8	428.8	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-2C	NB		1.07	625+44	R3-44 Modified	FasTrak ONLY	Y	Three-Post Sign Bridge Truss	449.9	449.8	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.5	10.0	7.5	6.9	Proposed Three-Post Sign Bridge Truss. Overhead Sign Foundation Option 1 (Standard) Type 60GE in median.
	OS-2D		SB	1.07	625+44	R3-48a Modified	VTMS - 580 / Blank	Y	Three-Post Sign Bridge Truss	449.9	449.8	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.5	10.0	7.5	6.9	Proposed Three-Post Sign Bridge Truss. Overhead Sign Foundation Option 1 (Standard) Type 60GE in median.
3	OS-3A	NB		1.70	658+98	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	432.4	432.3	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.4	10.0	7.3	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-3B		SB	1.70	658+98	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	432.4	432.3	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.4	10.0	7.3	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-3C	NB		2.33	692+02	R3-48a Modified	VTMS - Crow Canyon / 24	Y	Cantilever Truss	448.1	448.1	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	4.0	4.0	16.5	3.0	15.5	Overhead Sign Foundation Option 2A (Modified Foundation) at proposed CHP Observation Area.
	OS-3D		SB	2.36	693+52	R3-48a Modified	VTMS - 580 / Blank	Y	Cantilever Truss	447.2	447.1	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	4.0	16.3	4.0	15.3	3.0	Overhead Sign Foundation Option 2A (Modified Foundation) at proposed CHP Observation Area.
	OS-3E	NB		3.16	736+18	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	472.0	471.9	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-3F		SB	3.16	736+18	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	472.0	471.9	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.

REGIONAL EXPRESS LANE NETWORK
MTC PHASE 1 PROJECT - I-680 Sign Log

Plan Sheet	Sign Designation	Direction		Location		MUTCD Sign Panel Type	Proposed Overhead Sign Panel Detail	Tolling Equipment Location (Y/N)	Proposed Sign Structure Type	Exist Left Shld Elevation (ft)[1]		Exist Pavement Section at Express Lane (ft)		Proposed Median Concrete Barrier Width at Sign (ft)	Exist Left Shld Width (ft)[2]		Prop Left Shld Width (ft)[2]		Comments
				PM	Station					NB	SB	NB	SB		NB	SB	NB	SB	
4	OS-4A		SB	3.61	759+50	R3-48a Modified	VTMS - 580 / Blank	N	Cantilever Truss	490.3	490.2	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-4B	NB		3.95	777+75	R3-48a Modified	VTMS - 24 / Blank	N	Cantilever Truss	485.4	485.3	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-4C		SB	4.25	793+54	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	481.7	481.7	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-4D	NB		4.38	799+98	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	480.0	480.0	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-4E		SB	4.60	812+00	R3-48a Modified	VTMS - 580 / Blank	N	Cantilever Truss	477.5	477.5	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
5	OS-5A	NB		5.33	850+39	R3-48a Modified	VTMS - 24 / Blank	N	Cantilever Truss	455.7	455.8	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	8.0	8.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-5B		SB	5.34	851+17	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	455.6	455.6	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	8.0	8.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-5C	NB		6.25	899+03	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	423.6	423.6	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	4.0	4.0	16.3	3.0	15.3	Overhead Sign Foundation Option 2A (Modified Foundation) at proposed CHP Observation Area.
	OS-5D		SB	6.28	900+53	R3-48a Modified	VTMS - Crow Canyon / 580	Y	Cantilever Truss	421.1	421.2	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	4.0	16.0	4.0	15.0	3.0	Overhead Sign Foundation Option 2A (Modified Foundation) at proposed CHP Observation Area.

REGIONAL EXPRESS LANE NETWORK
MTC PHASE 1 PROJECT - I-680 Sign Log

Plan Sheet	Sign Designation	Direction		Location		MUTCD Sign Panel Type	Proposed Overhead Sign Panel Detail	Tolling Equipment Location (Y/N)	Proposed Sign Structure Type	Exist Left Shld Elevation (ft)[1]		Exist Pavement Section at Express Lane (ft)		Proposed Median Concrete Barrier Width at Sign (ft)	Exist Left Shld Width (ft)[2]		Prop Left Shld Width (ft)[2]		Comments
				PM	Station					NB	SB	NB	SB		NB	SB	NB	SB	
6	OS-6A	NB		7.25	950+86	R3-48a Modified	VTMS - 24 / Blank	Y	Cantilever Truss	396.0	396.1	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-6B		SB	7.25	950+86	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	396.0	396.1	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-6C		SB	7.55	966+24	R3-48a Modified	VTMS - Crow Canyon / 580	N	Cantilever Truss	390.4	390.3	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	0.20 RHMA-G 0.35 AC 0.75 Cl A CTB 0.67 LTB	8.1	10.3	10.0	10.3	4.0	Caltrans Std 60GE Concrete Barrier. Located on curve, offset Prop Barrier towards SB Left Shoulder.
	OS-6D	NB		8.16	998+52	R3-48a Modified	VTMS - 24 / Blank	N	Cantilever Truss	400.3	400.3	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-6E	NB		8.44	1013+17	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	396.2	396.3	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-6F		SB	8.44	1013+17	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	396.2	396.3	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
7	OS-7A	NB		9.30	1059+00	R3-48a Modified	VTMS - 24 / Blank	N	Cantilever Truss	352.4	352.4	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-7B		SB	9.30	1059+00	R3-48a Modified	VTMS - Crow Canyon / 580	Y	Cantilever Truss	352.4	352.4	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-7C	NB		10.14	1103+14	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	311.7	311.0	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	6.3	10.0	10.0	5.6	10.0	Overhead Sign Foundation Option 2B (Modified Foundation). Design Approval Required. Located on curve, offset proposed barrier towards NB left shoulder. Using standard 8.1' barrier would reduce the NB shoulder to approximately 3.7'.
	OS-7D		SB	10.35	1114+31	R3-48a Modified	VTMS - Crow Canyon / 580	Y	Cantilever Truss	302.1	302.0	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.

REGIONAL EXPRESS LANE NETWORK
MTC PHASE 1 PROJECT - I-680 Sign Log

Plan Sheet	Sign Designation	Direction		Location		MUTCD Sign Panel Type	Proposed Overhead Sign Panel Detail	Tolling Equipment Location (Y/N)	Proposed Sign Structure Type	Exist Left Shld Elevation (ft)[1]		Exist Pavement Section at Express Lane (ft)		Proposed Median Concrete Barrier Width at Sign (ft)	Exist Left Shld Width (ft)[2]		Prop Left Shld Width (ft)[2]		Comments
				PM	Station					NB	SB	NB	SB		NB	SB	NB	SB	
8	OS-8A	NB		10.71	1133+07	R3-48a Modified	VTMS - 24 / Blank	N	Cantilever Truss	293.5	293.5	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	7.1	6.6	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-8B	NB		11.27	1162+60	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	281.4	281.6	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-8C		SB	11.27	1162+60	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	281.4	281.6	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	10.0	10.0	6.9	6.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE. Cantilever in Dual Configuration.
	OS-8D	NB		11.48	1173+70	R3-45a	EXPRESS RESTRICTION ENDS	Y	Cantilever Truss	276.9	277.1	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	6.3	10.0	10.5	5.5	10.5	Special Concrete Barrier and Foundation Design (Design Approval Required). Located on curve, offset proposed barrier towards NB left shoulder. Using standard 8.1' barrier would reduce the NB shoulder to approximately 3.6'.
	OS-8E		SB	11.75	1188+03	R3-44 Modified	FasTrak ONLY	Y	Cantilever Truss	271.8	271.3	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	4.0	16.0	4.0	15.0	3.0	Overhead Sign Foundation Option 2A (Modified Foundation) at proposed CHP Observation Area.
	OS-8F		SB	12.18	1211+03	R3-48a Modified	VTMS - Crow Canyon / 580	N	Cantilever Truss	261.4	261.5	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.65 Cl A CTB 0.80 Cl 4 AS 0.50 Cl 3 PM	4.0	10.0	0.5	7.9	0.5	Foundation in constrained median. Offset Prop Barrier towards NB Left Shoulder. Using a larger barrier would decrease sight distance in the NB direction.

REGIONAL EXPRESS LANE NETWORK
MTC PHASE 1 PROJECT - I-680 Sign Log

Plan Sheet	Sign Designation	Direction		Location		MUTCD Sign Panel Type	Proposed Overhead Sign Panel Detail	Tolling Equipment Location (Y/N)	Proposed Sign Structure Type	Exist Left Shld Elevation (ft)[1]		Exist Pavement Section at Express Lane (ft)		Proposed Median Concrete Barrier Width at Sign (ft)	Exist Left Shld Width (ft)[2]		Prop Left Shld Width (ft)[2]		Comments
				PM	Station					NB	SB	NB	SB		NB	SB	NB	SB	
9	OS-9A		SB	12.60	1233+08		Reader (No Sign Panel)	Y	Cantilever Gantry	236.8	236.4	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	3.7	9.5	3.3	7.9	3.3	Overhead Sign Foundation Option 3 (Toll Gantry Only). Constrained existing SB left shoulder. Offset prop barrier towards NB left shoulder. Steel Plate Barrier.
	OS-9B		SB	12.77	1241+30	R3-44 Modified	FasTrak ONLY (Begin)	N	Cantilever Truss	217.1	217.5	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	4.0	10.8	1.5	8.8	1.5	Overhead Sign Foundation Option 2A (Modified Foundation). Foundation in constrained median. Offset Prop Barrier towards NB Left Shoulder. Using a larger barrier would decrease sight distance in the NB direction.
	OS-9C		SB	13.27	1272+30		EXPRESS LANE 0.5 MILE AHEAD	N	Cantilever Truss	185.8	185.5	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	13.1	10.0	10.0	6.5	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-9D		SB	13.53	1287+92	R3-48a Modified	VTMS - Crow Canyon / 580	N	Cantilever Truss	175.5	175.4	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	13.8	26.0	10.8	22.9	Overhead Sign Foundation Option 1 (Standard) Type 60GE.
	OS-9E		SB	13.78	1301+36		EXPRESS LANE 1 MILE AHEAD	N	Cantilever Truss	178.6	178.0	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	0.10 HMA (OG) 0.15 RHMA-G 0.20 HMA-A 0.55 AC (TYPE A) 0.75 Cl A CTB 0.67 LTB	8.1	13.8	14.4	10.8	11.3	Overhead Sign Foundation Option 1 (Standard) Type 60GE.

Rev. Date: 2013-08-16

Notes:
1) Shoulder elevation measured approximately 2.0' from face of barrier.
2) Shoulder widths measured from face of barrier to inside edge of traveled way.

Abbreviations:

AC	Asphalt Concrete	HMA-A	Hot Mix Asphalt (Type A)
ATPB	Asphalt Treated Permeable Ba	LTB	Lime Treated Base
CTB	Cement Treated Base	PM	Permeable Material
HMA (OG)	Hot Mix Asphalt (Open Graded)	RHMA-G	Rubberized Hot Mix Asphalt (Gap Graded)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	01	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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

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OAKLAND, CA 94607

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURE (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SEE LAYOUT SHEETS FOR LIMITS OF EXISTING MBGR, CONCRETE BARRIER, AND SOUNDWALL.

TYPICAL STRUCTURAL SECTIONS

EXISTING

1
0.55′ AC (TYPE A)
0.75′ CI A CTB
0.67′ LTB

2
0.67′ PCC
0.33′ CTB
1.00′ AS

3
0.75′ PCC
0.45′ CTB
1.30′ AS

4
0.60′ AC TYPE A
0.25′ ATPB
0.50′ CI A CTB
0.67′ LTB

5
0.20′ RHMA-G
0.35′ AC (TYPE A)
0.75′ CI A CTB
0.67′ LTB

6
0.75′ PCP
0.67′ PCC
0.33′ CTB
1.00′ AS

7
1.05′ JPCP
0.50′ LCB
0.70′ CI 4 AS
0.67′ PCC
0.33′ CTB
1.00′ AS

8
0.25′ AC (TYPE A)
0.75′ TO 0.90′ AB
0.92′ CI 4 AS

9
EXCAVATE 0.65′ AC & AB
0.20′ RHMA-G
0.45′ HMA-A

10
0.75′ PCP
0.75′ PCC
0.33′ CTB (TYPE A)
0.92′ CI 1 AS

11
1.05′ JPCP
0.50′ LCB
0.70′ CI 4 AS
0.75′ PCC
0.33′ CTB (TYPE A)
0.92′ CI 1 AS

12
0.95′ PCC
0.49′ CTB
0.70′ AS

13
0.45′ AC (TYPE A)
0.25′ ATPB
0.70′ AS

14
COLD PLANE 0.15′ AC
0.15′ RHMA-G

15
COLD PLANE 0.30′ AC
0.15′ RHMA-G
0.15′ HMA-A

16
1.05′ JPCP (RSC)
BOND BREAKER
0.35′ LCBRS
1.35′ CI 4 AS
SEC CI B21

17
1.05′ JPCP (RSC)
0.35′ LCBRS
0.70′ CI 4 AS
0.65′ LSS

18
1.05′ JPCP
0.35′ LCB
0.70′ CI 4 AS

19
0.70′ HMA-A
1.10′ CI 2 AB
1.50′ CI 4 AS
SEC CI B2

20
1.05′ JPCP
0.50′ LCB
0.70′ CI 4 AS
0.75′ PCC
0.45′ CTB
1.30′ AS

21
COLD PLANE 0.20′ AC
0.20′ RHMA-G

22
0.10′ HMA (OG)
0.15′ RHMA-G
0.20′ HMA-A
0.55′ AC (TYPE A)
0.75′ CI A CTB
0.67′ LTB

23
IN CUT ONLY
0.10′ HMA (OG)
0.15′ RHMA-G
0.20′ HMA-A
0.55′ AC (TYPE A)
0.65′ CI A CTB
0.80′ CI 4 AS
0.50′ CI 3 PM

24
0.10′ HMA (OG)
0.15′ RHMA-G
0.10′ HMA-A
GPI
0.10′ HMA-A
0.67′ PCC
0.33′ CTB
1.00′ AS
0.50′ PM (CUT ONLY)

25
0.10′ HMA (OG)
0.15′ RHMA-G
0.10′ HMA-A
GPI
0.10′ HMA-A
0.75′ PCC
0.45′ CTB
1.30′ AS OR
0.80′ AS + 0.50′ PM (CUT ONLY)

26
0.10′ HMA (OG)
0.15′ RHMA-G
0.20′ HMA-A
0.30′ AC (TYPE A)
0.90′ CI 3 AB
0.80′ CI 4 AS
0.50′ PM CI 1 (CUT ONLY)

27
0.10′ HMA (OG)
0.15′ RHMA-G
0.20′ HMA-A

28
0.10′ HMA (OG)
0.15′ RHMA-G
0.20′ HMA-A
0.30′ AC (TYPE B)
0.70′ CTB (TYPE A)
1.00′ CI 4 AS

?
UNKNOWN
STRUCTURAL
SECTION

ABBREVIATIONS:

AB	AGGREGATE BASE
AC (TYPE X)	ASPHALT CONCRETE (TYPE X)
AS	AGGREGATE SUBBASE
ATPB	ASPHALT TREATED PERMEABLE BASE
CTB	CEMENT TREATED BASE
GPI	GEOSYNTHETIC PAVEMENT INTERLAYER
HMA-A	HOT MIX ASPHALT (TYPE A)
JPCP	JOINTED PLAIN CONCRETE PAVEMENT
LCB	LEAN CONCRETE BASE
LCBRS	LEAN CONCRETE BASE-RAPID SETTING
LSS	LIME STABILIZED SOIL
LTB	LIME TREATED BASE
PCC	PORTLAND CEMENT CONCRETE
PCP	PRECAST CONCRETE PAVEMENT
RHMA-G	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

I-680 TYPICAL SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK

CALCULATED-DESIGNED BY: CHRIS DOERKSEN
CHECKED BY: BRIAN M. STEWART

REVISED BY: PA
DATE REVISED: 9/17/13

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2013
TIME PLOTTED => 18:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	02	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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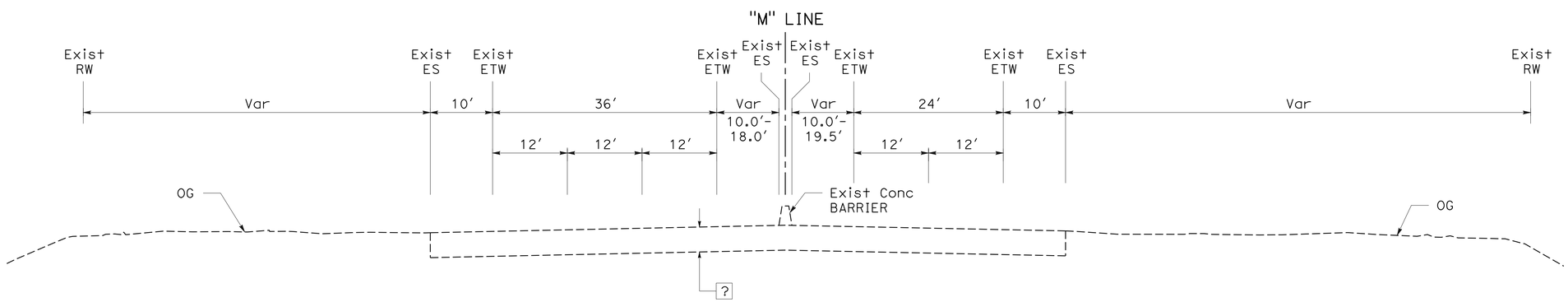
HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



SOUTHBOUND
"M" 458+37.62 TO 471+55.60 (BB)
474+79.53 (EB) TO 485+13.77

NORTHBOUND
"M" 469+29.01 TO 471+55.60 (BB)
474+79.53 (EB) TO 483+93.12

ALAMEDA COUNTY

I-680 TYPICAL SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK

CALCULATED-DESIGNED BY: CHRIS DOERKSEN
CHECKED BY: BRIAN M. STEWART

REVISED BY: PA
DATE REVISED: 9/17/13

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04	Ala/CC	680	Ala R20.1/ CC 13.9	03	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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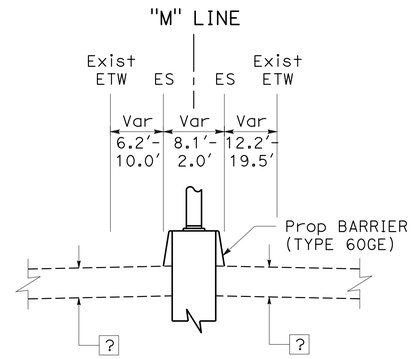
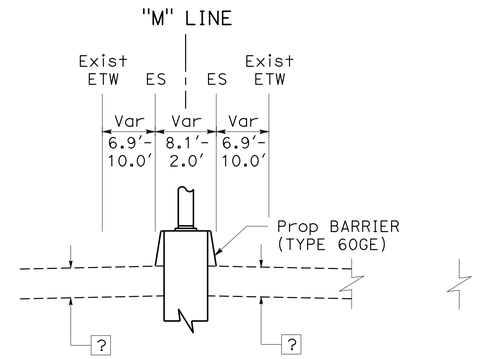
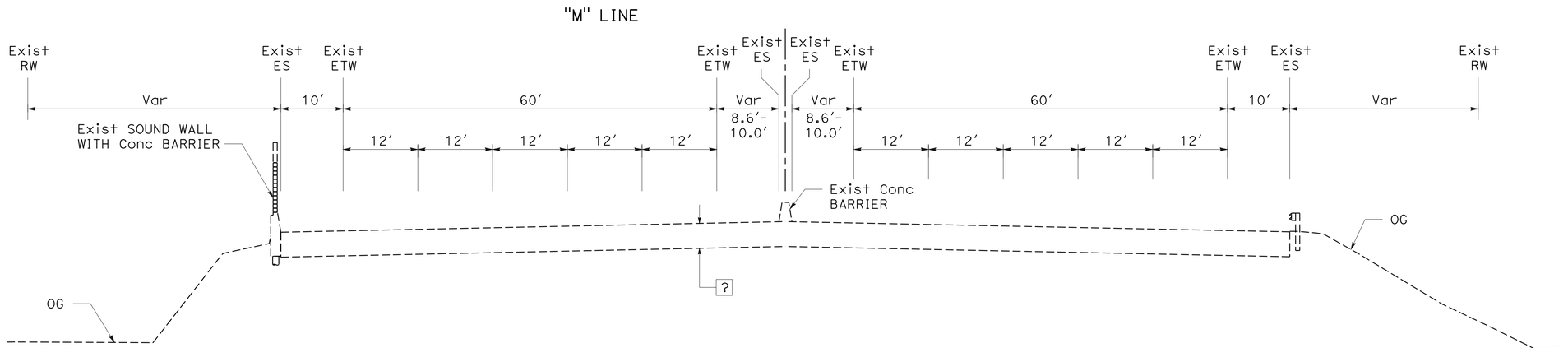
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



"M" 484+44.28 TO 486+89.98

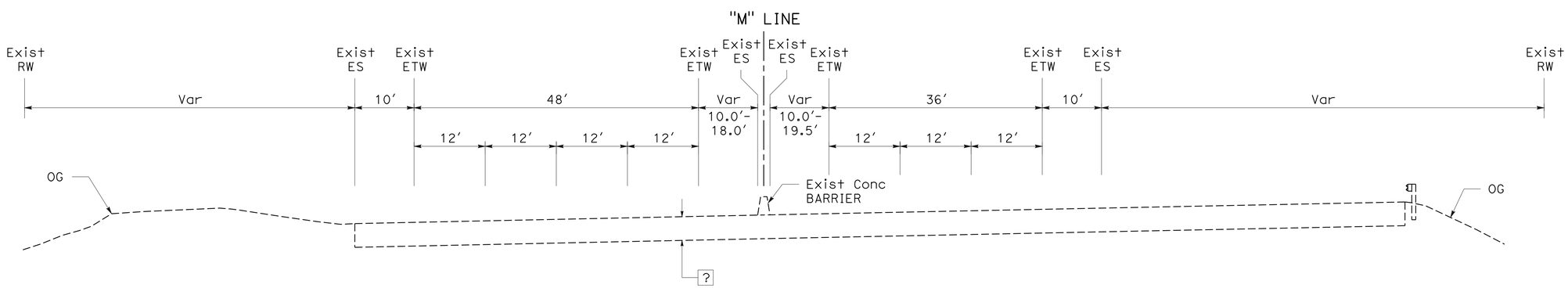


"M" 498+49.07 TO 500+47.07



SOUTHBOUND
"M" 495+82.98 TO 508+60.24 (BB)

NORTHBOUND
"M" 485+59.66 TO 490+62.49 (BB)
492+20.11 (EB) TO 508+60.24 (BB)



SOUTHBOUND
"M" 485+13.77 TO 490+62.49 (BB)
492+20.11 (EB) TO 495+82.98

NORTHBOUND
"M" 483+93.12 TO 485+59.66

ALAMEDA COUNTY

I-680 TYPICAL SECTIONS

NO SCALE

X-3

REVISED BY	DATE REVISED
PA	9/17/13

CHRIS DOERKSEN — CALCULATED-DESIGNED BY
BRIAN M. STEWART — CHECKED BY
CARLTON L. HAACK — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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04	Ala/CC	680	Ala R20.1/ CC 13.9	04	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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METROPOLITAN TRANSPORTATION COMMISSION
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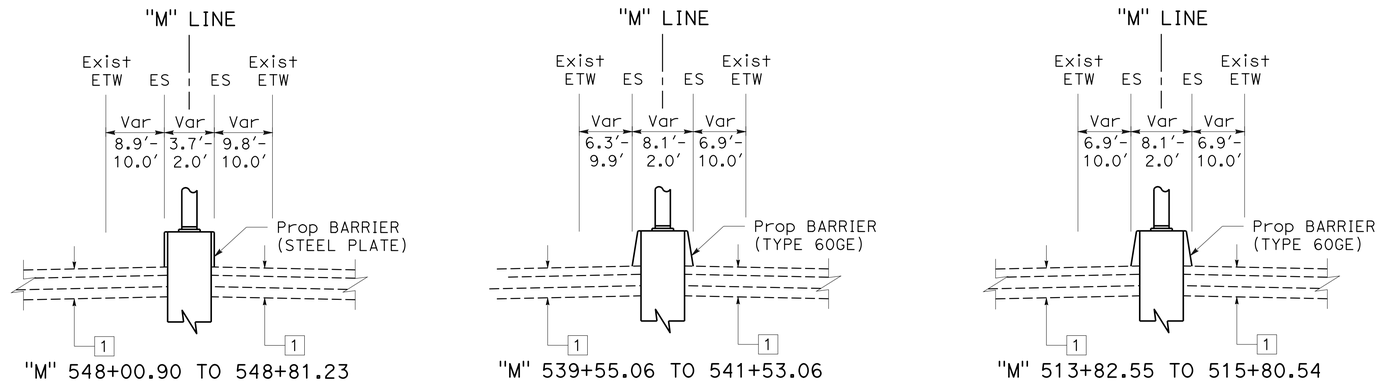
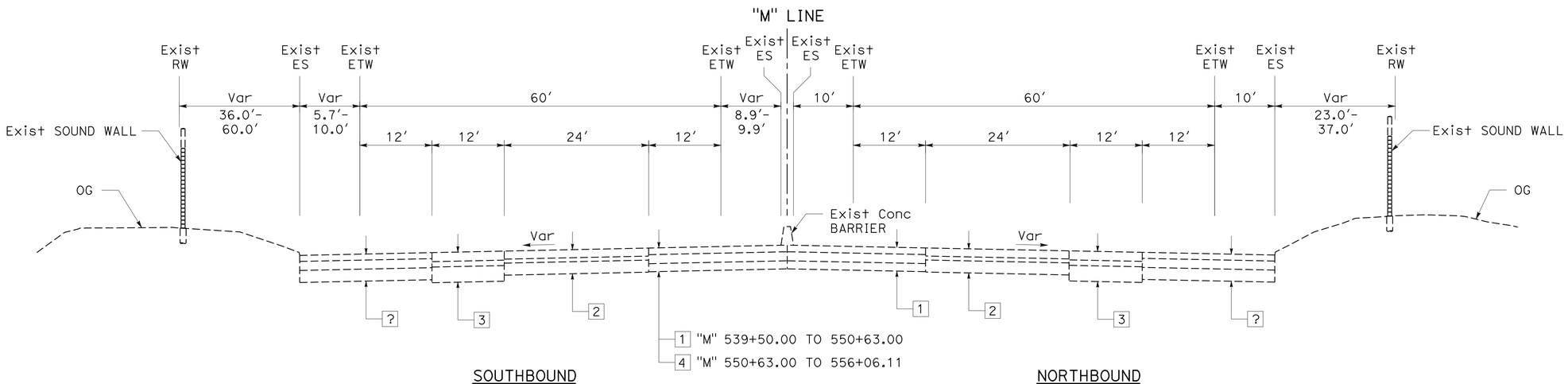
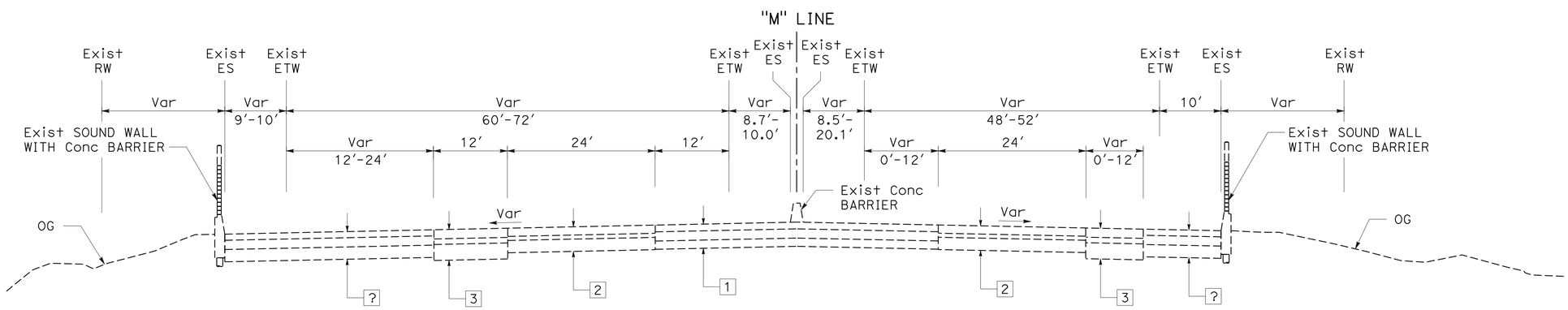
OAKLAND, CA 94607





SOUTHBOUND
"M" 539+50.00 TO 556+06.11

NORTHBOUND
"M" 539+50.00 TO 559+76.42



SOUTHBOUND
"M" 510+26.06 (EB) TO 539+50.00

NORTHBOUND
"M" 510+26.06 (EB) TO 539+50.00

I-680 TYPICAL SECTIONS

NO SCALE

ALAMEDA COUNTY

X-4

REVISED BY	DATE REVISED
PA	9/17/13

CHRIS DOERKSEN — CALCULATED-DESIGNED BY
BRIAN M. STEWART — CHECKED BY
CARLTON L. HAACK — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2013
TIME PLOTTED => 18:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	05	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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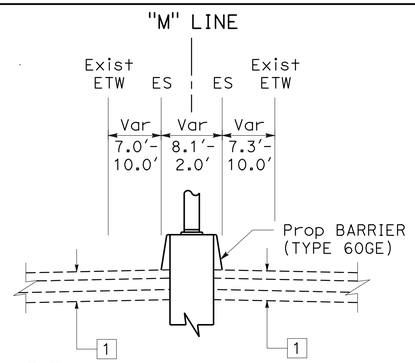
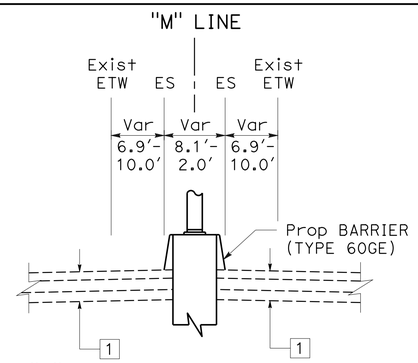
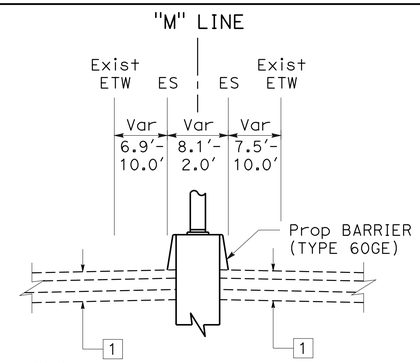
OAKLAND, CA 94607



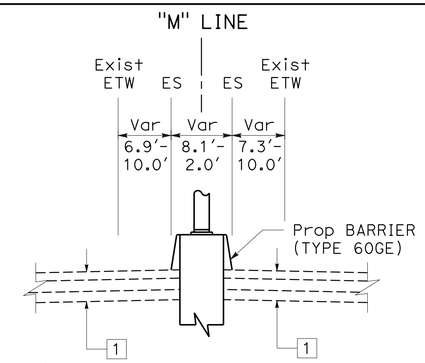
"M" 592+62.24 TO 594+60.24



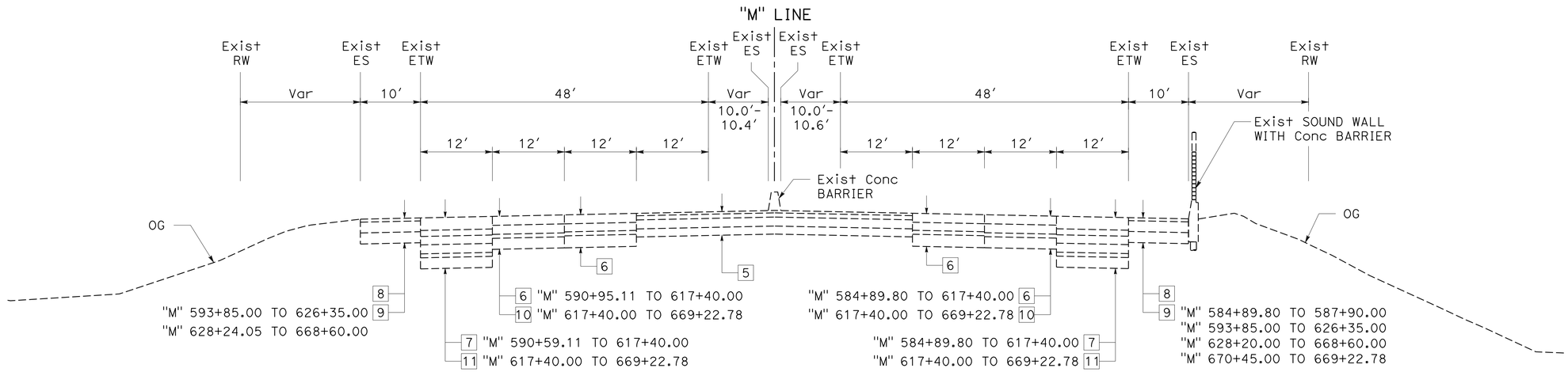
"M" 605+11.63 TO 607+09.63



"M" 624+44.54 TO 626+42.54

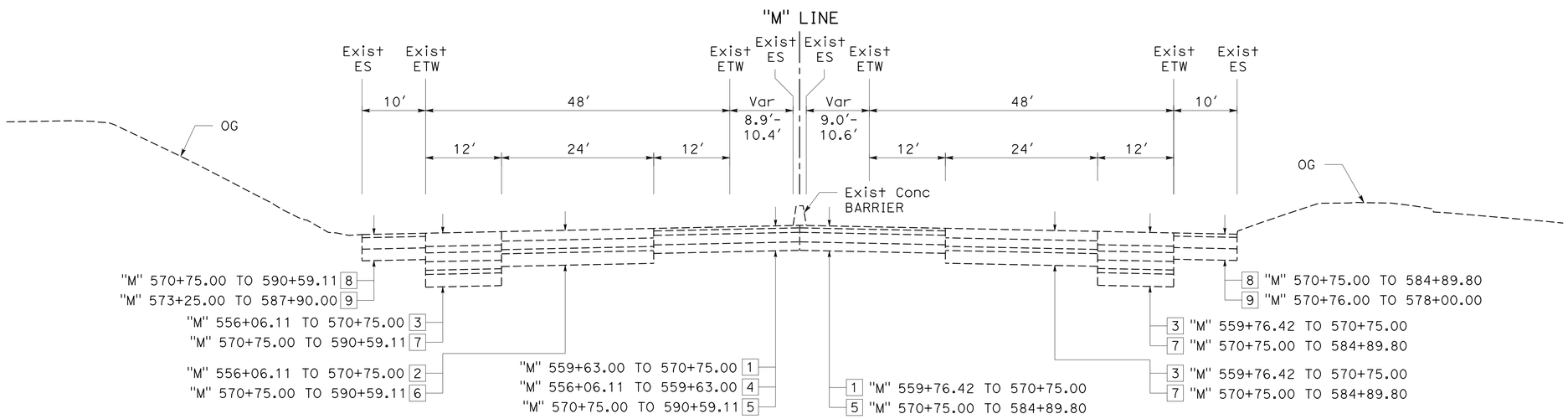


"M" 657+87.75 TO 660+07.71



SOUTHBOUND
"M" 590+59.11 TO 626+97.21 (BB)
"M" 628+24.05 (EB) TO 669+22.78 (BB)

NORTHBOUND
"M" 584+89.80 TO 626+97.21 (BB)
"M" 628+24.05 (EB) TO 669+22.78 (BB)



SOUTHBOUND
"M" 556+06.11 TO 590+59.11

NORTHBOUND
"M" 559+76.42 TO 584+89.80

I-680 TYPICAL SECTIONS

NO SCALE

ALAMEDA/CONTRA COSTA COUNTY

X-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK
CALCULATED-DESIGNED BY: BRIAN M. STEWART
CHECKED BY: CHRIS DOERKSEN
REVISED BY: PA
DATE REVISED: 9/17/13

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2013
TIME PLOTTED => 18:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	06	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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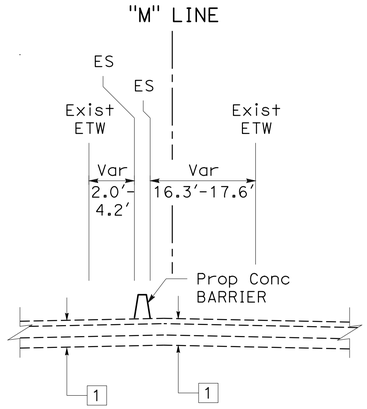
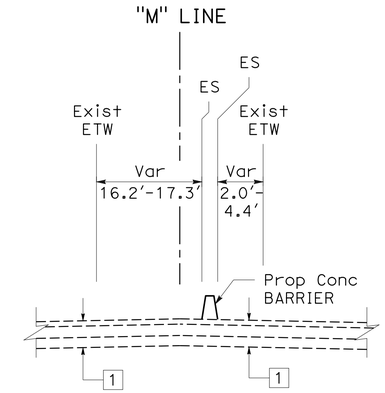
HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

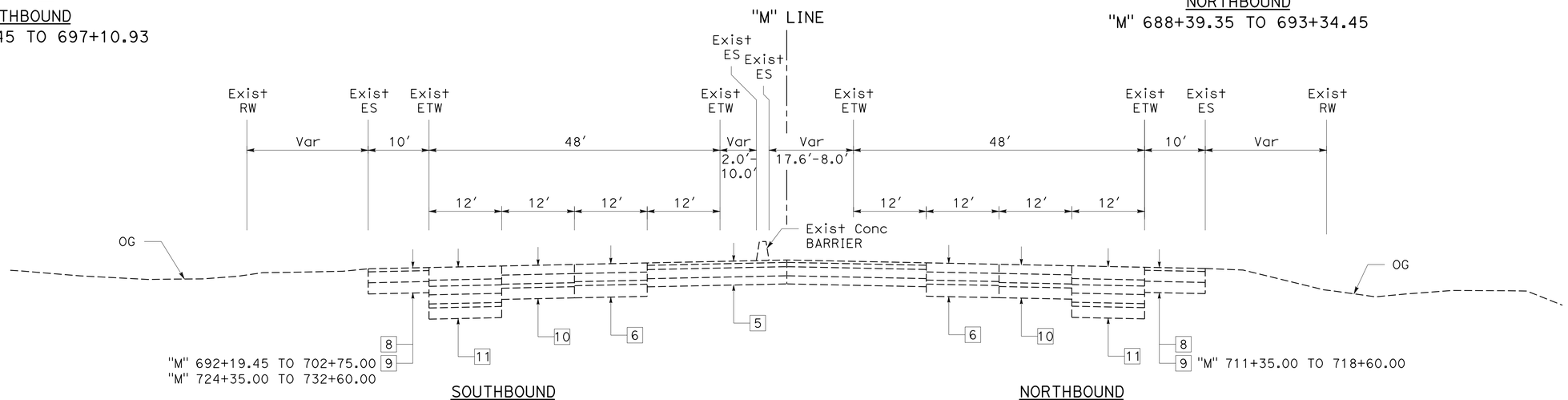
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



SOUTHBOUND
"M" 692+19.45 TO 697+10.93

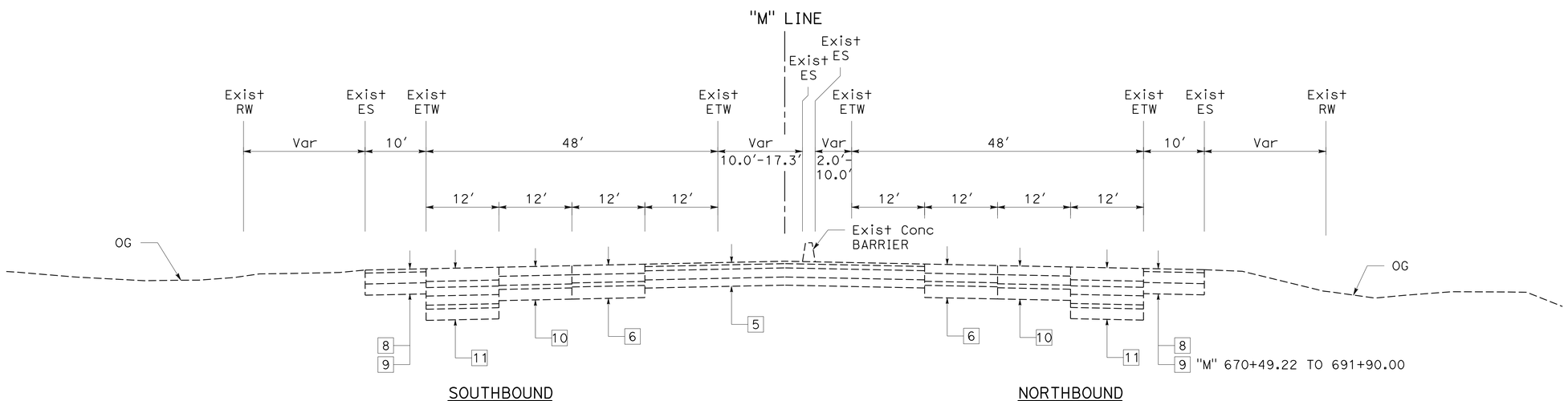


NORTHBOUND
"M" 688+39.35 TO 693+34.45



SOUTHBOUND
"M" 692+19.45 TO 735+48.07

NORTHBOUND
"M" 693+34.45 TO 732+95.00



SOUTHBOUND
"M" 670+49.22 (EB) TO 692+19.45

NORTHBOUND
"M" 670+49.22 (EB) TO 693+34.45

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-6

REVISED BY	PA
DATE REVISED	9/17/13
CHRIS DOERKSEN	BRIAN M. STEWART
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	CARLTON L. HAACK

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 17-SEP-2013 | TIME PLOTTED => 18:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	07	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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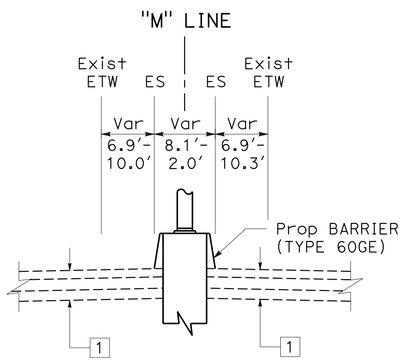
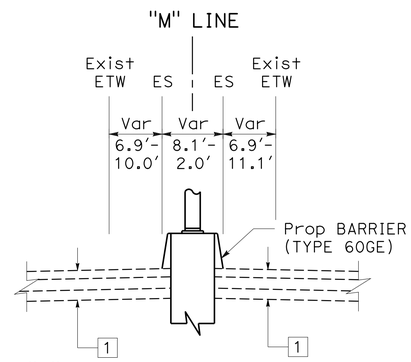
SUITE 475
WALNUT CREEK, CA 94596

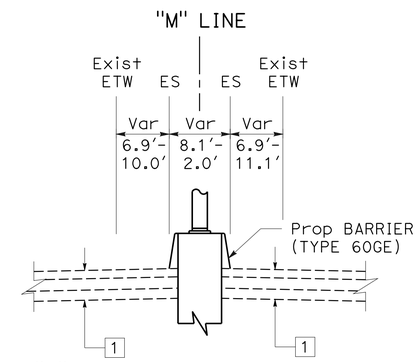
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



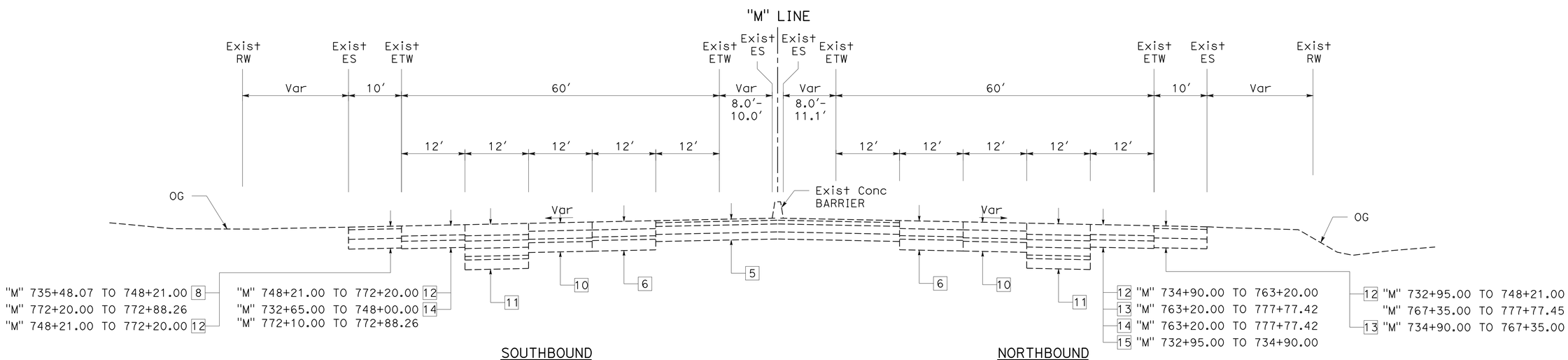
"M" 776+75.55 TO 778+73.55



"M" 758+51.00 TO 760+49.00



"M" 735+12.55 TO 737+25.55



SOUTHBOUND
"M" 735+48.07 TO 772+88.26

NORTHBOUND
"M" 732+95.00 TO 777+77.42

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK
CALCULATED-DESIGNED BY: CHRIS DOERKSEN
CHECKED BY: BRIAN M. STEWART
REVISED BY: PA
DATE REVISED: 9/17/13

LAST REVISION DATE PLOTTED => 17-SEP-2013
00-00-00 TIME PLOTTED => 18:02

BORDER LAST REVISED 7/2/2010
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DGN FILE => XE-SECT-I680_Typical Sections.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	08	16

REGISTERED CIVIL ENGINEER DATE

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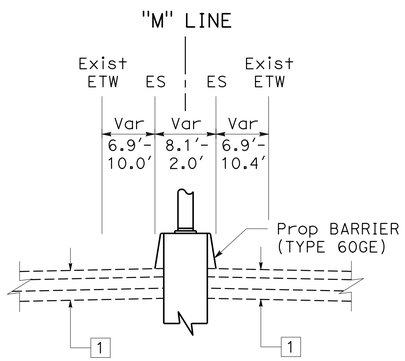
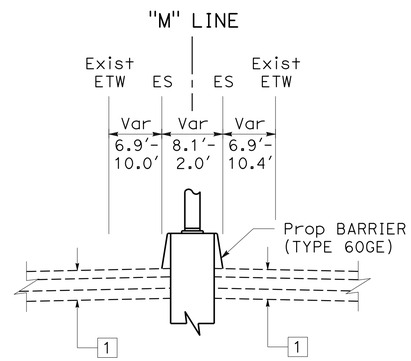
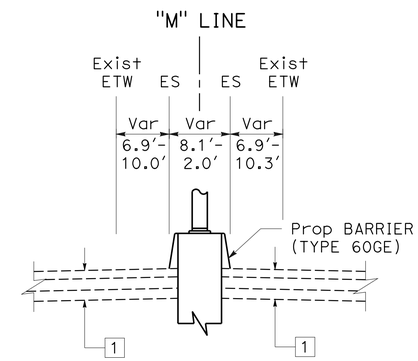
OAKLAND, CA 94607



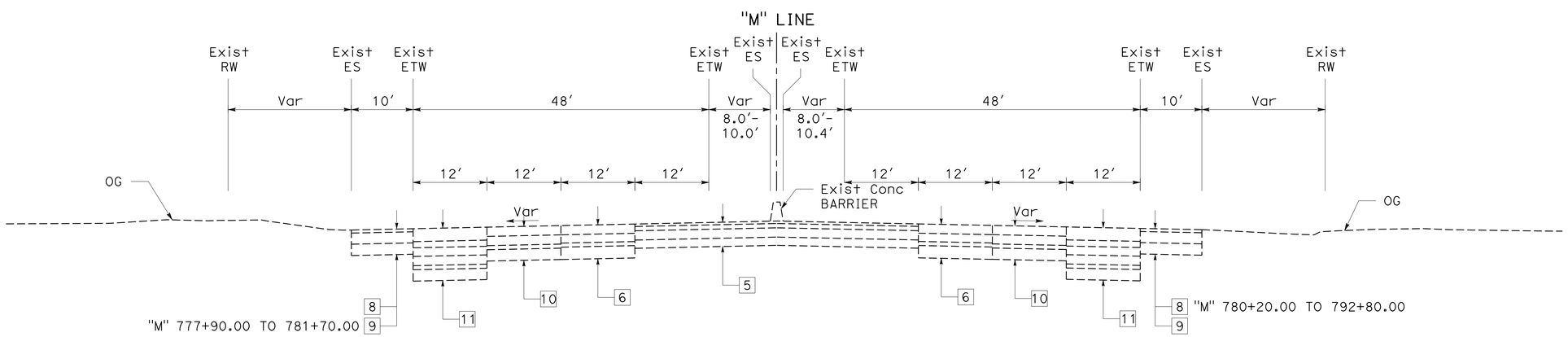
"M" 798+98.93 TO 800+42.28



"M" 792+55.18 TO 794+53.18



"M" 776+75.55 TO 778+73.55



SOUTHBOUND
"M" 772+88.26 TO 803+24.29

NORTHBOUND
"M" 777+77.42 TO 808+74.39

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK
CALCULATED-DESIGNED BY: CHRIS DOERKSEN
CHECKED BY: BRIAN M. STEWART
REVISED BY: PA
DATE REVISED: 9/17/13

LAST REVISION DATE PLOTTED => 17-SEP-2013
00-00-00 TIME PLOTTED => 18:02

BORDER LAST REVISED 7/2/2010
USERNAME => panderso
DGN FILE => XE-SECT-I680_Typical Sections.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	09	16

REGISTERED CIVIL ENGINEER DATE

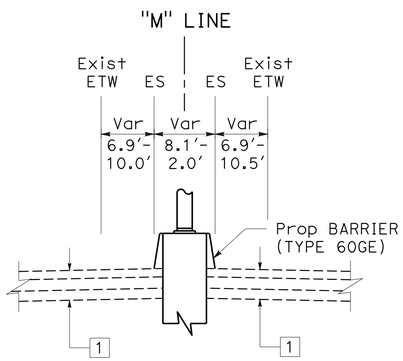
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

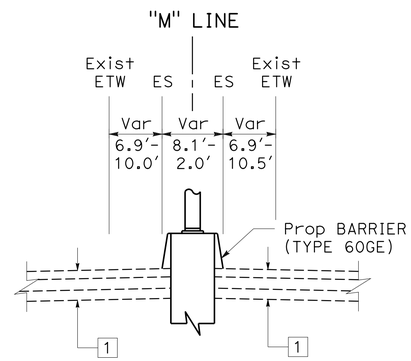
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

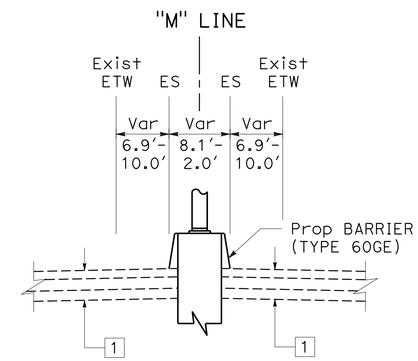
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



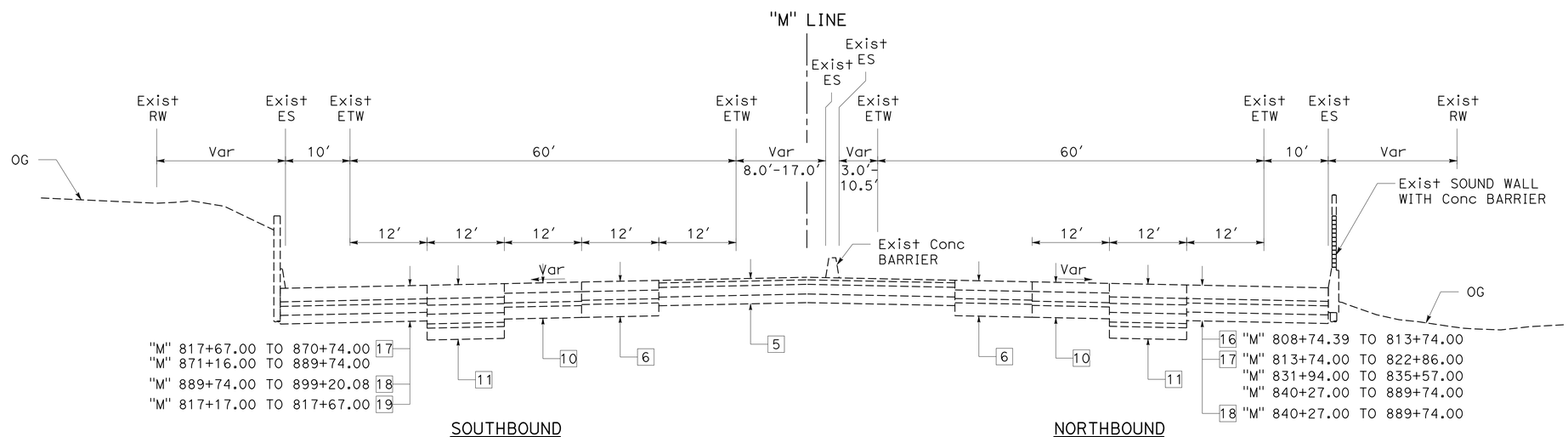
"M" 850+95.03 TO 852+16.42



"M" 849+40.29 TO 850+57.35



"M" 810+98.06 TO 813+01.20



SOUTHBOUND
"M" 803+24.29 TO 899+20.08

NORTHBOUND
"M" 808+74.39 TO 900+35.08

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-9

REVISED BY: PA
DATE REVISED: 9/17/13

CALCULATED-DESIGNED BY: CHRIS DOERKSEN
CHECKED BY: BRIAN M. STEWART

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 17-SEP-2013
00-00-00 TIME PLOTTED => 18:02

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	10	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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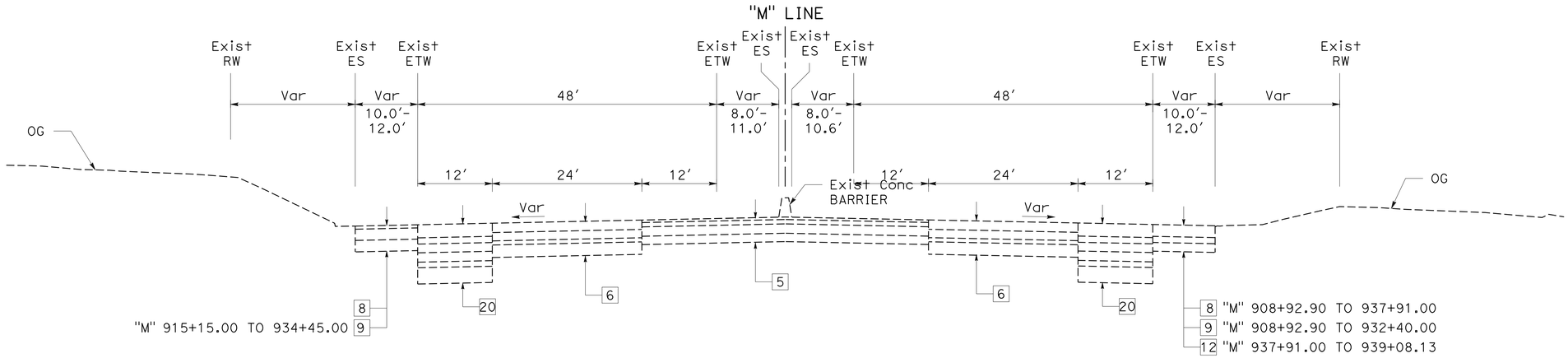
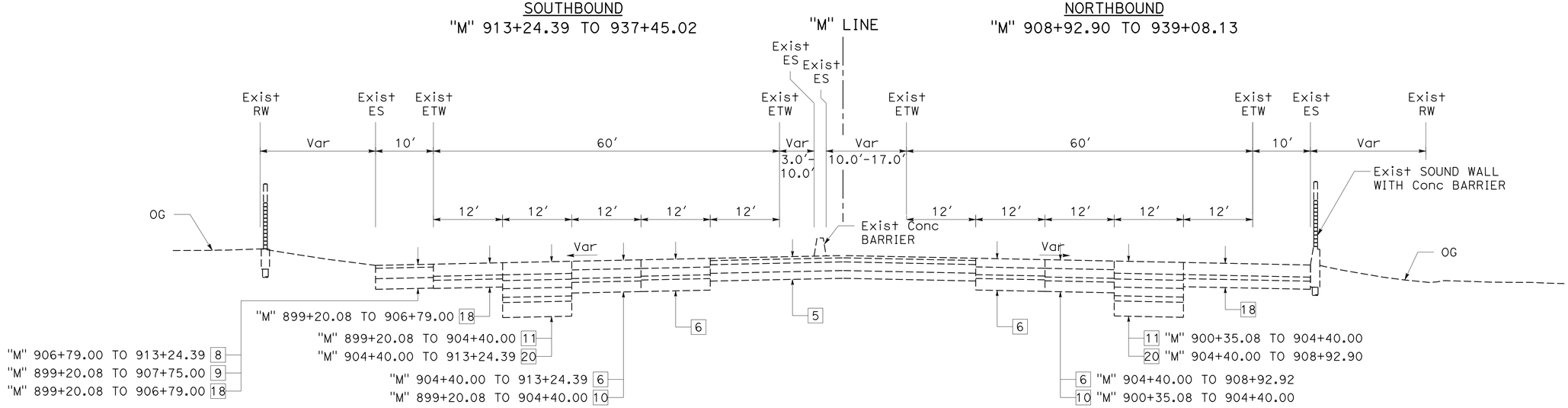
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



SOUTHBOUND
"M" 913+24.39 TO 937+45.02

NORTHBOUND
"M" 908+92.90 TO 939+08.13



SOUTHBOUND
"M" 899+20.08 TO 913+24.39

NORTHBOUND
"M" 900+35.08 TO 908+92.90

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-10

REVISED BY	PA
DATE REVISED	9/17/13
CALCULATED-DESIGNED BY	CHRIS DOERKSEN
CHECKED BY	BRIAN M. STEWART
CONSULTANT FUNCTIONAL SUPERVISOR	CARLTON L. HAACK

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 17-SEP-2013 | TIME PLOTTED => 18:02

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	11	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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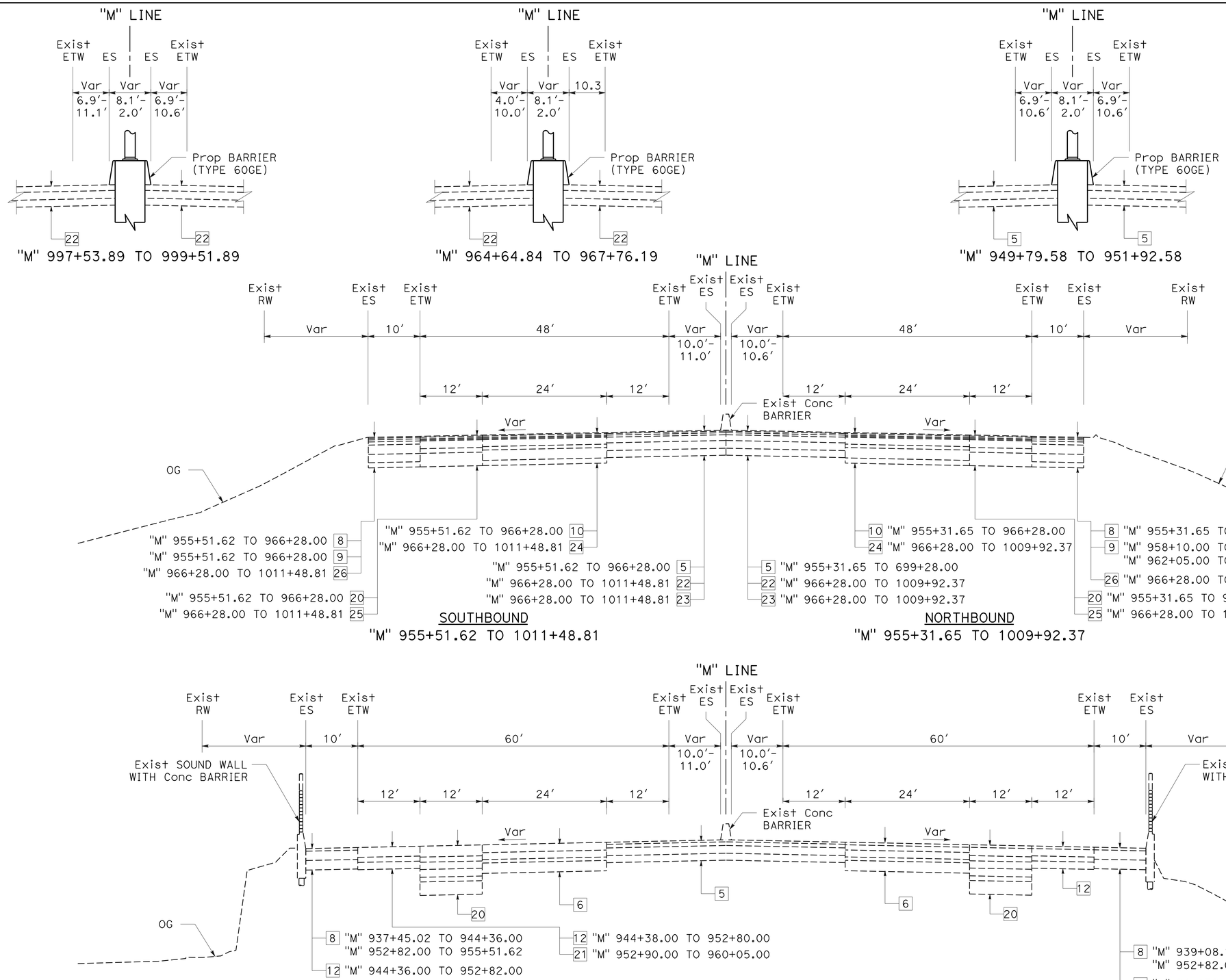
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-11

REVISED BY	DATE REVISED
PA	9/17/13

CHRIS DOERKSEN — CALCULATED-DESIGNED BY
BRIAN M. STEWART — CHECKED BY
CARLTON L. HAACK — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 DATE PLOTTED => 17-SEP-2013 TIME PLOTTED => 18:02

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	12	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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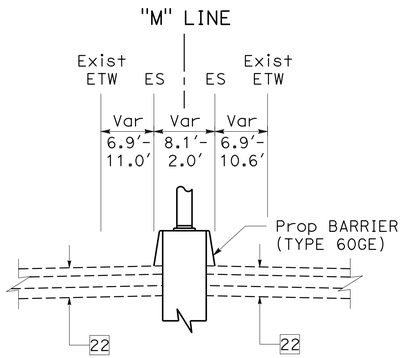
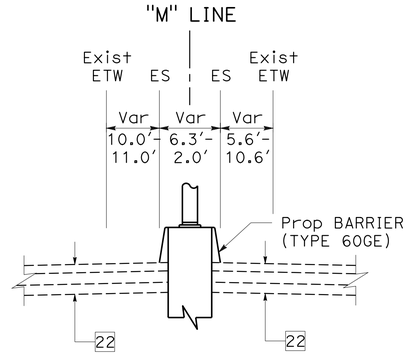
HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

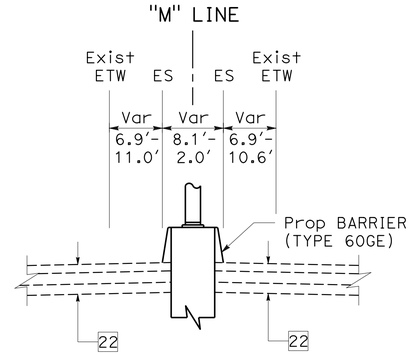
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



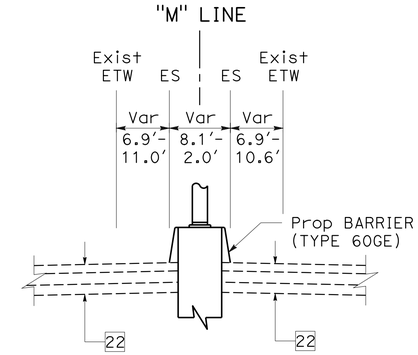
"M" 1113+32.40 TO 1115+30.40



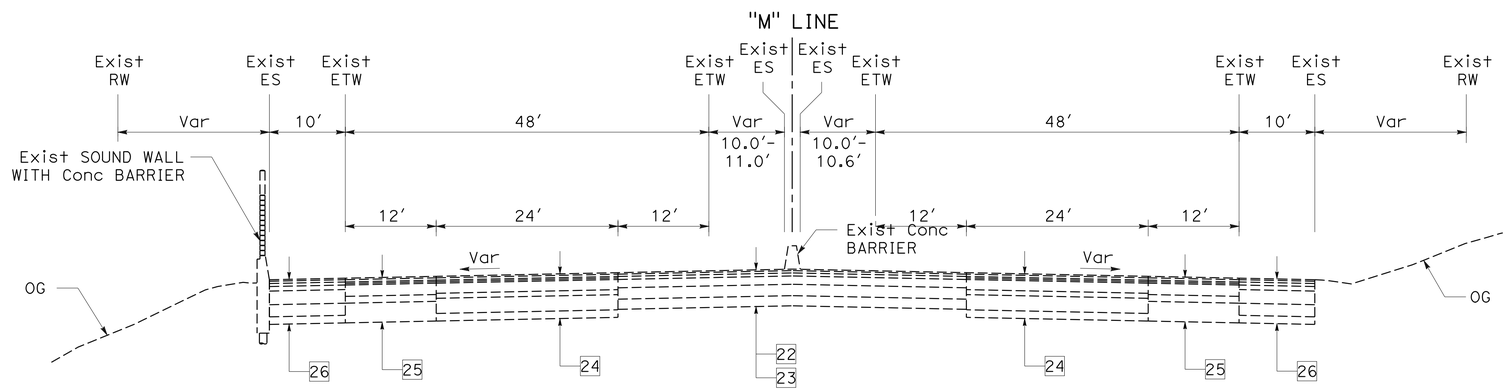
"M" 1101+87.52 TO 1104+40.50



"M" 1057+93.07 TO 1060+06.45

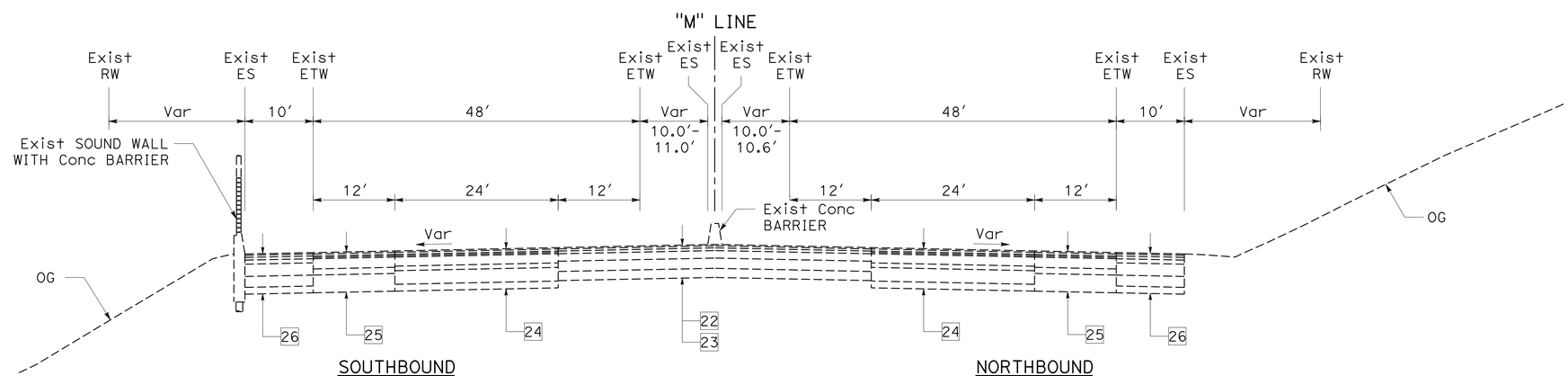


"M" 1012+10.07 TO 1014+23.07



SOUTHBOUND
"M" 1031+44.67 (EB) TO 1056+51.46 (BB)
"M" 1057+93.07 (EB) TO 1115+66.73 (BB)

NORTHBOUND
"M" 1031+44.67 (EB) TO 1056+51.46 (BB)
"M" 1057+93.07 (EB) TO 1115+66.73 (BB)



SOUTHBOUND
"M" 1011+48.81 TO 1030+08.86 (BB)

NORTHBOUND
"M" 1009+92.37 TO 1030+08.86 (BB)

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK
CALCULATED-DESIGNED BY: BRIAN M. STEWART
CHECKED BY:
REVISED BY: PA
DATE REVISED: 9/17/13
CHRIS DOERKSEN

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2013
TIME PLOTTED => 18:02

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	13	16

REGISTERED CIVIL ENGINEER DATE

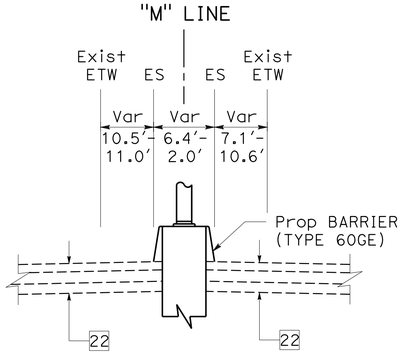
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

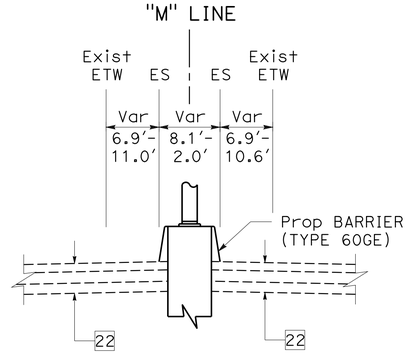
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

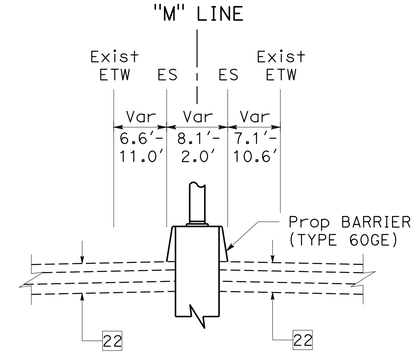
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



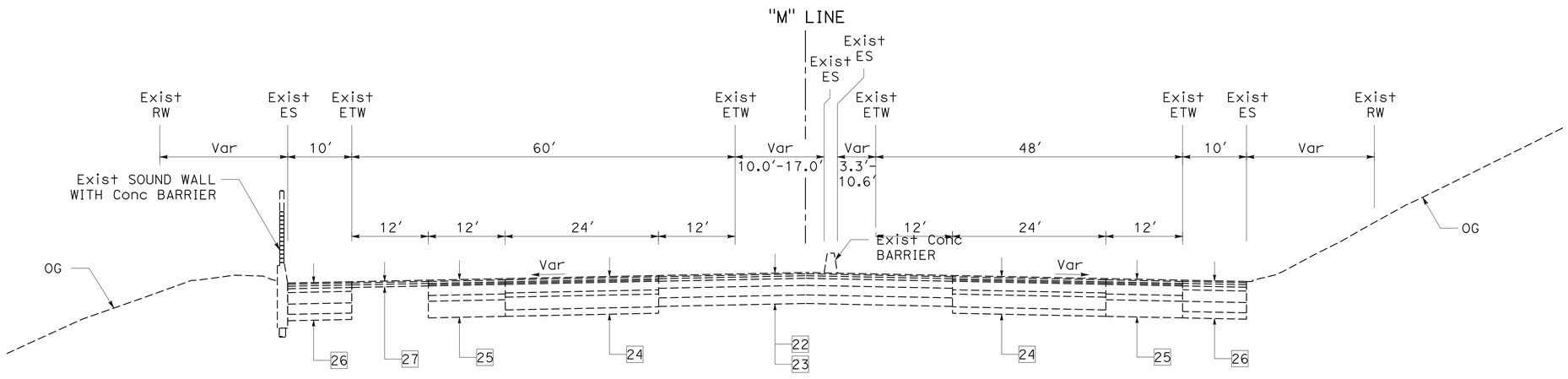
"M" 1172+43.76 TO 1174+96.76



"M" 1161+53.04 TO 1163+68.25

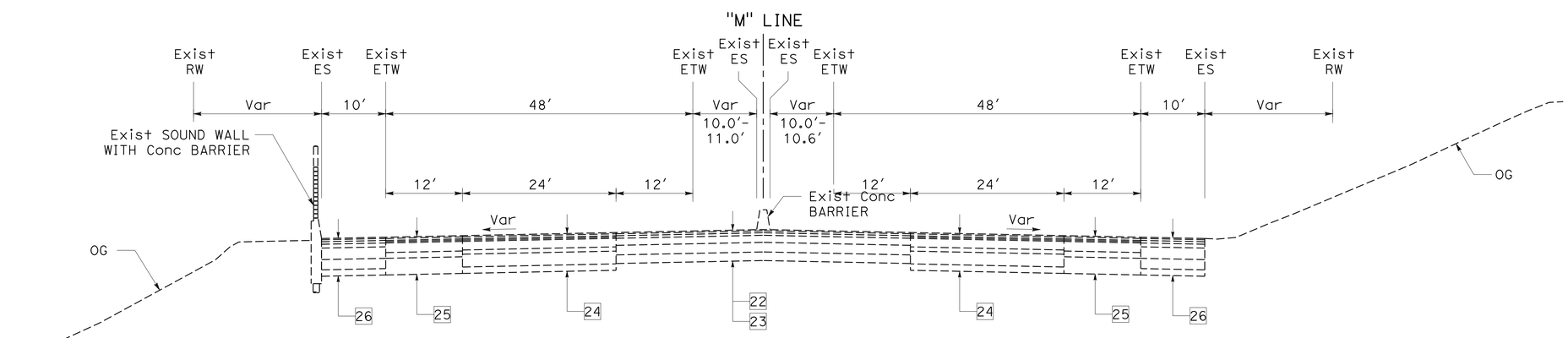


"M" 1132+38.76 TO 1134+36.76



SOUTHBOUND
"M" 1176+85.60 TO 1186+70.55

NORTHBOUND
"M" 1172+72.78 TO 1187+85.55



SOUTHBOUND
"M" 1117+13.78 (EB) TO 1163+68.25 (BB)
"M" 1165+52.89 (EB) TO 1176+85.60

NORTHBOUND
"M" 1117+13.78 (EB) TO 1163+68.25 (BB)
"M" 1165+52.89 (EB) TO 1172+72.78

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK
CALCULATED-DESIGNED BY: BRIAN M. STEWART
CHECKED BY:
REVISED BY: PA
DATE REVISED: 9/17/13
CHRIS DOERKSEN

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2013
TIME PLOTTED => 18:03

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	14	16

REGISTERED CIVIL ENGINEER DATE

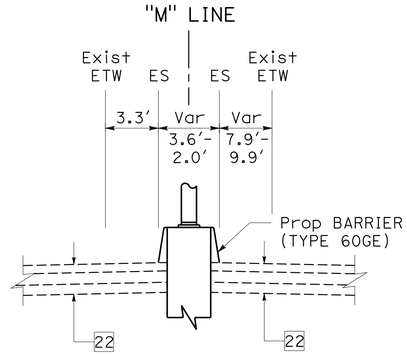
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

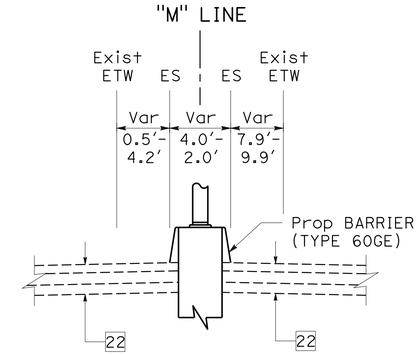
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

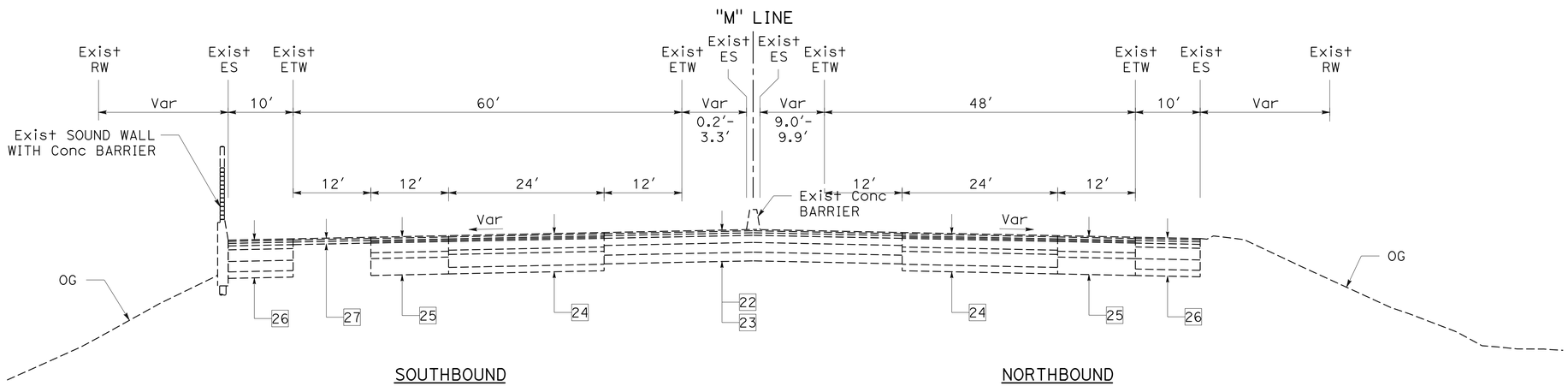
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



"M" 1232+50.62 TO 1233+64.94

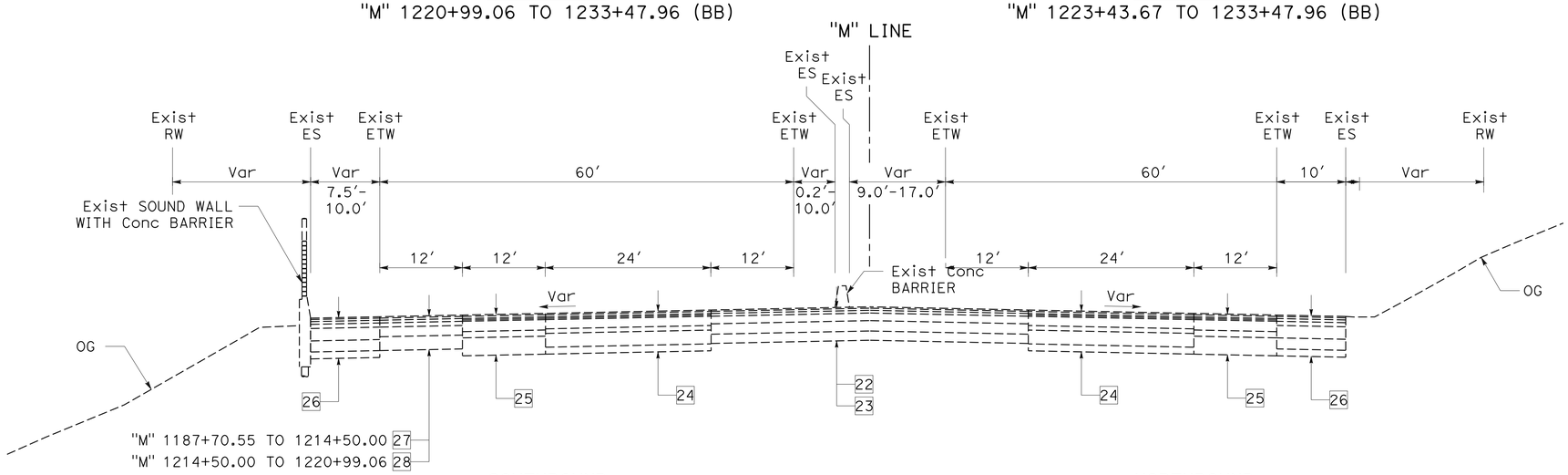


"M" 1210+40.00 TO 1211+66.02



SOUTHBOUND
"M" 1220+99.06 TO 1233+47.96 (BB)

NORTHBOUND
"M" 1223+43.67 TO 1233+47.96 (BB)



SOUTHBOUND
"M" 1186+70.55 TO 1220+99.06

NORTHBOUND
"M" 1187+85.55 TO 1223+43.67

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK
CALCULATED-DESIGNED BY: CHRIS DOERKSEN
CHECKED BY: BRIAN M. STEWART
REVISED BY: PA
DATE REVISED: 9/17/13

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2013
TIME PLOTTED => 18:03

BORDER LAST REVISED 7/2/2010
USERNAME => panderso
DGN FILE => XE-SECT-I680_Typical Sections.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	15	16

REGISTERED CIVIL ENGINEER DATE

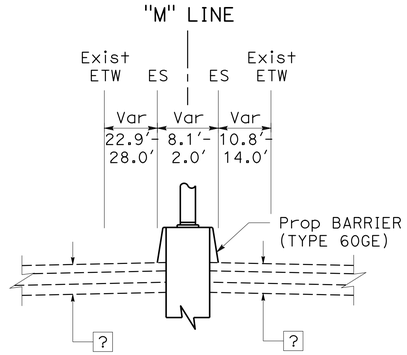
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

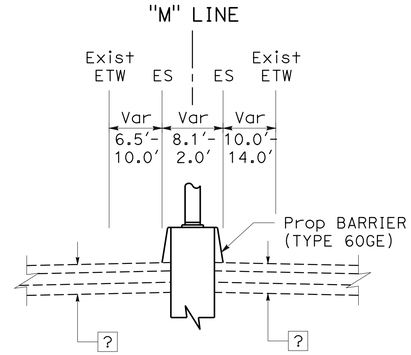
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

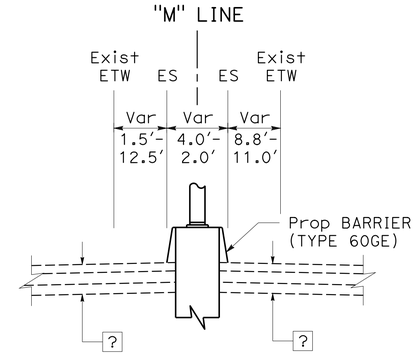
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



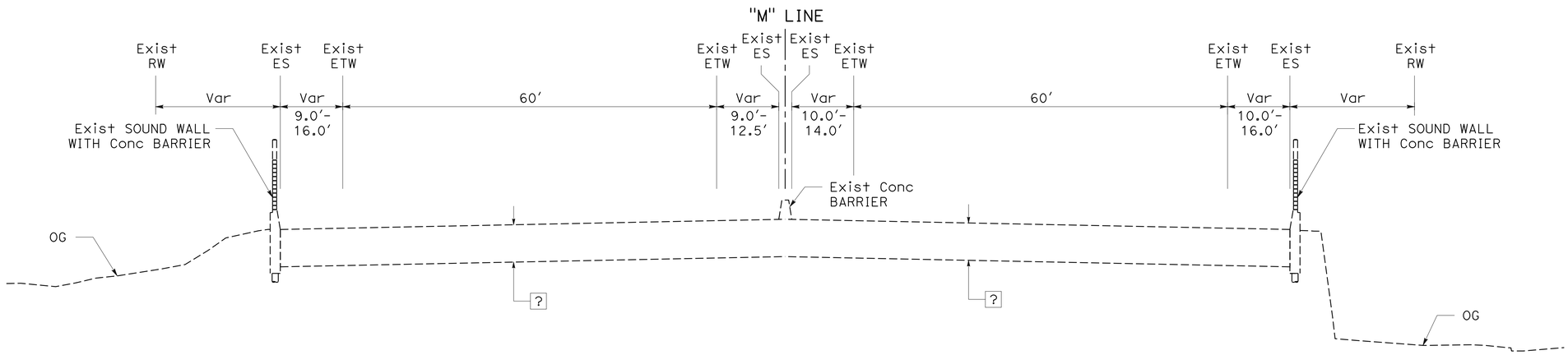
"M" 1286+92.93 TO 1288+91.38



"M" 1271+31.25 TO 1273+29.25

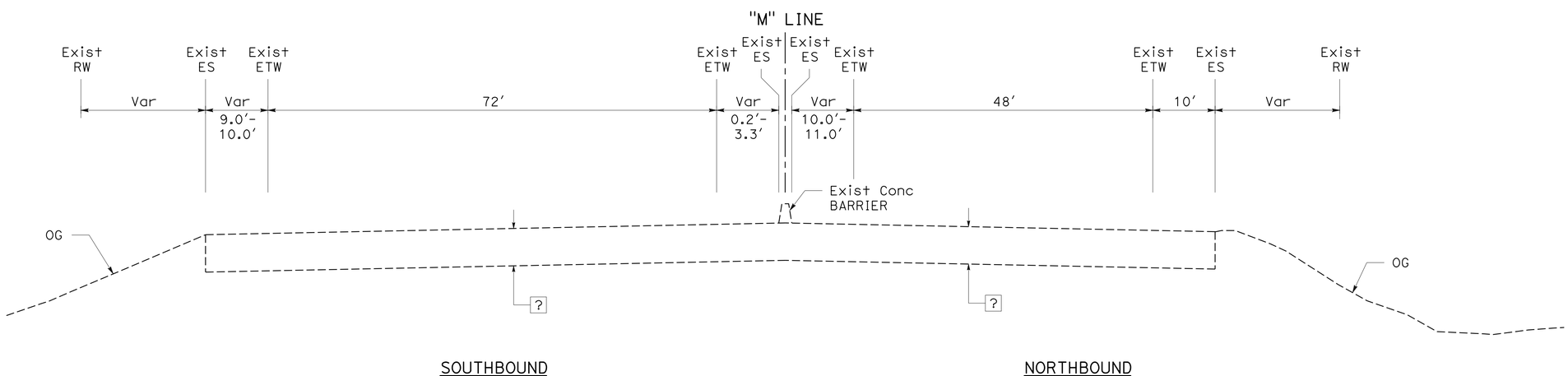


"M" 1240+67.72 TO 1241+93.74



SOUTHBOUND
"M" 1241+33.81 TO 1276+79.07

NORTHBOUND
"M" 1247+43.07 TO 1292+36.81



SOUTHBOUND
"M" 1240+03.25 (EB) TO 1241+33.81

NORTHBOUND
"M" 1240+40.33 (EB) TO 1247+43.07

CONTRA COSTA COUNTY

I-680 TYPICAL SECTIONS

NO SCALE

X-15

REVISED BY	DATE REVISED
PA	9/17/13

CHRIS DOERKSEN — CALCULATED-DESIGNED BY
BRIAN M. STEWART — CHECKED BY
CARLTON L. HAACK — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 17-SEP-2013 | TIME PLOTTED => 18:03

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala/CC	680	Ala R20.1/ CC 13.9	16	16

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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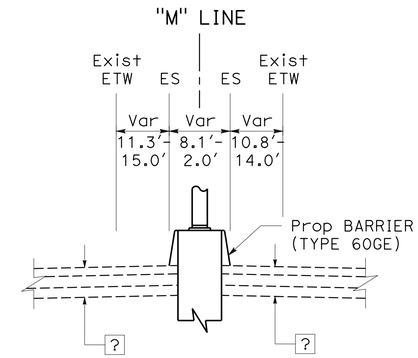
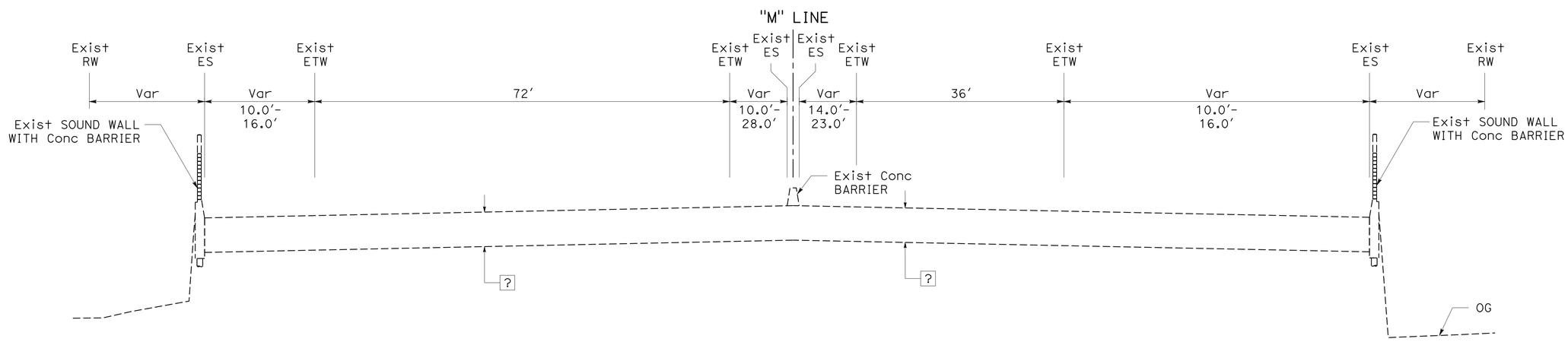
HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH STREET
OAKLAND, CA 94607



"M" 1300+37.17 TO 1302+35.17



SOUTHBOUND
"M" 1276+79.07 TO 1305+65.71

NORTHBOUND
"M" 1292+36.81 TO 1305+65.71

I-680 TYPICAL SECTIONS

NO SCALE

CONTRA COSTA COUNTY

X-16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: CARLTON L. HAACK
CALCULATED-DESIGNED BY: CHRIS DOERKSEN
CHECKED BY: BRIAN M. STEWART
REVISED BY: PA
DATE REVISED: 9/17/13

LAST REVISION 00-00-00
DATE PLOTTED => 17-SEP-2013
TIME PLOTTED => 18:03

DIST	COUNTY	ROUTE	POST MILEAGE	SHEET NO.	TOTAL SHEETS
04	Ala/CC	680	Ala PM:0.0/ CC PM:9.9	01	09

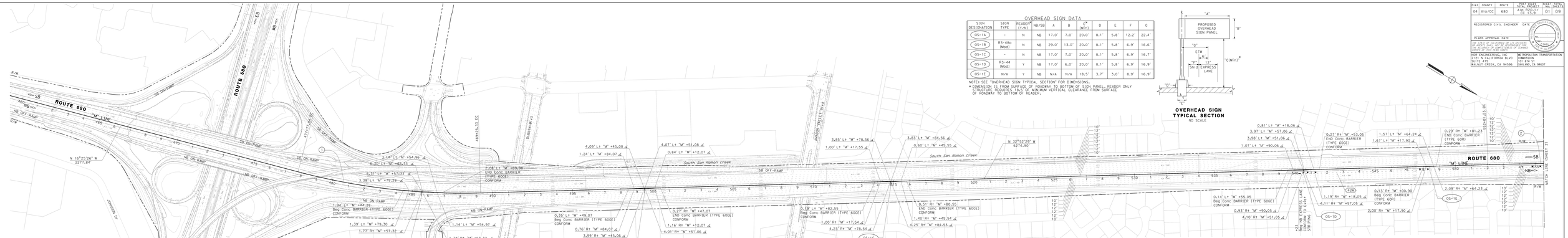
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USER OF CALIFORNIA OF ELECTRONIC DATA IS PROVIDED "AS IS" AND WITHOUT ANY WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607



OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	READER* (Y/N)	NB/SB	A	B	C* (Min)	D	E	F	G
OS-1A	-	N	NB	17.0'	7.0'	20.0'	8.1'	5.8'	12.2'	22.4'
OS-1B	R3-48a (Mod)	N	NB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	16.6'
OS-1C	-	N	NB	17.0'	7.0'	20.0'	8.1'	5.8'	6.9'	16.7'
OS-1D	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	16.9'
OS-1E	N/A	Y	NB	N/A	N/A	18.5'	3.7'	3.0'	8.9'	16.9'

NOTE: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION IS FROM BOTTOM OF ROADWAY TO BOTTOM OF SIGN PANEL. READER ONLY OPTIONAL IF MEETS 5.49 FT. MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.

OVERHEAD SIGN TYPICAL SECTION
NO SCALE

LEGEND:

- (OS-1A) OVERHEAD SIGN DESIGNATION
- (42M) TRAFFIC STRIPE DESIGNATION
- ∠ ANGLE POINT

ABBREVIATIONS:

- VTMS VARIABLE TOLL MESSAGE SIGN
- REA READER
- TCS TRAFFIC COUNT STATION

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. CONCRETE BARRIER CONFORM DIMENSIONS ARE TO CENTERLINE OF EXISTING/PROPOSED BARRIER. CONCRETE BARRIER ANGLE POINTS ARE TO FACE OF BARRIER AT BASE.
3. REMOVE CONFLICTING EXISTING STRIPING AND MARKING.
4. ALL PERMANENT STRIPING AND PAVEMENT MARKING SHALL BE THERMOPLASTIC, UNLESS OTHERWISE NOTED.
5. DETAIL 42M ARE MODIFIED VERSIONS OF PAVEMENT DELINEATION DETAIL 42.
6. FOR DETAILS NOT SHOWN, SEE STANDARD PLAN A20A THROUGH A20D.
7. EXACT LOCATION OF "EXPRS LANE" PAVEMENT MARKING TO BE DETERMINED IN THE FIELD BY ENGINEER.
8. INSTALL 8" WHITE AFTER INSTALL PAVEMENT MARKERS.

OS-1A

FastTrak ONLY
EXPRESS LANE
1 MILE AHEAD

OS-1B

EXPRESS LANE
FastTrak ONLY TOLL
TO Crow Canyon Rd $ 0.50
TO 24 $ 2.00

OS-1C

FastTrak ONLY
EXPRESS LANE
1/2 MILE AHEAD

CURVE DATA

No.(*)	R	Δ	T	L	NORTHING	EASTING
1	4000'	16°23'03"	578.22'	1148.49'	2081266.3188	6149960.5621
2	18000'	2°06'23"	330.91'	661.74'	2081576.6082	6146077.1135

DETAIL 42M
(SEE NOTE 5)
NO SCALE

OS-1D

FastTrak ONLY
TAM-10AM
3PM-6PM
MON-FRI

OS-1E

I-680 L/PD/S

SCALE: 1" = 100'

L-1

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION · Caltrans

CONSULTANT ENGINEER: CARLTON L. HAACK

REVISED BY: PA · REVISED DATE: 01/17/13

CHRIS DOERSEN · BRIAN W. STUART

REVIEWED BY · REVISED DATE

BORDER LAST REVISED 7/2/2010

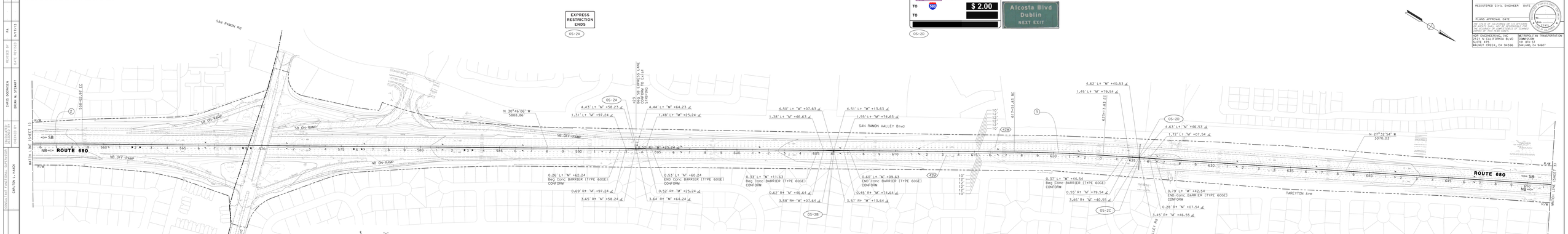
USERNAME = X3 (polyterra)
DGN FILE = X3 680_PR 01_L-PD-S.dgn

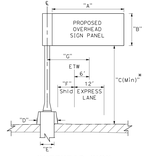
RELATIVE BORDER SCALE IN ON INCHES

UNIT 0000 · PROJECT NUMBER & PHASE · 0000000001

DO NOT DO LINE PLOTTING

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.





OVERHEAD SIGN TYPICAL SECTION
NO SCALE

OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	READER* (Y/N)	NB/SB	A	B	C* (Min)	D	E	F	G
05-2A	R3-45a	N	SB	9.5'	5.5'	20.0'	8.1'	5.8'	7.0'	16.8'
05-2B	R3-48a (Mod)	N	NB	29.0'	13.0'	20.0	8.1'	5.8'	6.9'	17.7'
05-2C	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	8.1'	5.8'	7.5'	17.6'
05-2D	R3-48a (Mod)	Y	SB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.0'

NOTE: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* READER MUST BE 7'VL FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL. READER ONLY STRUCTURE REQUIRES 16.5' OF MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.

05-2B
EXPRESS LANE
FasTrak ONLY — TOLL
TO Crow Canyon Rd — $ 0.50
TO 24 — $ 2.00

CURVE DATA

No. (*)	R	Δ	T	L	NORTHING	EASTING
2	18000'	2°06'23"	330.91'	661.74'	2087576.6082	6146077.1735
3	10000'	3°13'12"	281.07'	562.00'	2093198.8139	6142715.7215

05-2C
FasTrak ONLY
7AM - 10AM 3PM - 6PM MON-FRI

Bollinger Canyon Rd 1¾
Crow Canyon Road 3¼
Sycamore Valley Rd 5½

I-680 L/PD/S

SCALE: 1" = 100'

L-2

Dist	COUNTY	ROUTE	TOTAL PROJECT EXPENDITURE	PROJECT NO.	SHEET NO.
04	Ala/CC	680	Ala: 800-0.4 CC: 13.9	02	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE SEAL OF CALIFORNIA OF ALL DRAWINGS OF ALTERED SHALL NOT BE REFERENCED FOR THE PURPOSE OF COMPLETENESS OF TECHNICAL INFORMATION OF THE PLANS

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT CERTIFICATION
CARLTON L. HAACK

REVISED BY: PA
DATE REVISED: 8/17/23

CHRIS DOERSEN
BRIAN W. STUART

REVISED BY:
DATE REVISED:

REVISED BY:
DATE REVISED:

BORDER LAST REVISED 7/2/2010

USERNAME = X (pordarme)
DGN FILE = X:\680_PR (SL)_PD-S.dgn

RELATIVE BORDER SCALE IN IN INCHES 0 1 2 3 4

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000001

DO NOT DO CAD NOTES

NOTES:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES(ABS)	PROJECT NO.
04	Alc/CC	680	Alc R0.0/7.4 CC T3.9	03 / 09

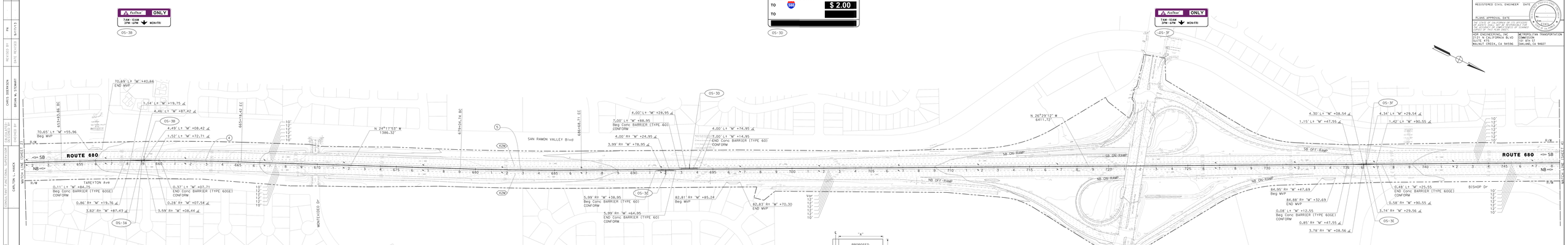
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE SEAL OF CALIFORNIA OR ELECTRONIC SIGNATURE HAS NOT BE REFERENCE FOR THE ACCURACY OR COMPLETENESS OF THE DOCUMENT PRINTED ON THIS PAGE

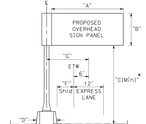
HDR ENGINEERING, INC.
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607



CURVE DATA

No.	R	Δ	T	L	NORTHING	EASTING
4	20000'	3°15'01"	567.43'	1134.56'	2096411.4844	6141022.0597
5	20000'	2°11'19"	382.03'	763.97'	2098695.2655	6139905.6883



OVERHEAD SIGN TYPICAL SECTION
NO SCALE

OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	READER (Y/N)	NB/SB	A	B	C* (Min)	D	E	F	G
05-3A	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	8.1'	5.8'	7.3'	17.7'
05-3B	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	17.2'
05-3C	R3-48a (Mod)	Y	NB	29.0'	13.0'	20.0'	4.0'	5.8'	6.9'	11.0'
05-3D	R3-48a (Mod)	Y	SB	29.0'	13.0'	20.0'	4.0'	5.8'	6.9'	11.0'
05-3E	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	17.0'
05-3F	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	17.0'

NOTES: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION IS FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL, READER ONLY
STRUCTURE REQUIRES 18.5' OF MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.

I-680 L/PD/S

SCALE: 1" = 100'

L-3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT CERTIFICATION
CARLTON L. HAAS

REVISED BY
DATE REVISED
PM
BY/TFS

CHRIS DOCKSEN
BRIAN W. STUART

DESIGNED BY
CHECKED BY

DIVISION OF CONSTRUCTION

BORDER LAST REVISED 7/2/2010

USERNAME =X:\pardemo\
DGN FILE =X:\680_PD_ELL\PD-S.dgn

RELATIVE BORDER SCALE TO THE INCHES 0 1 2 3 4

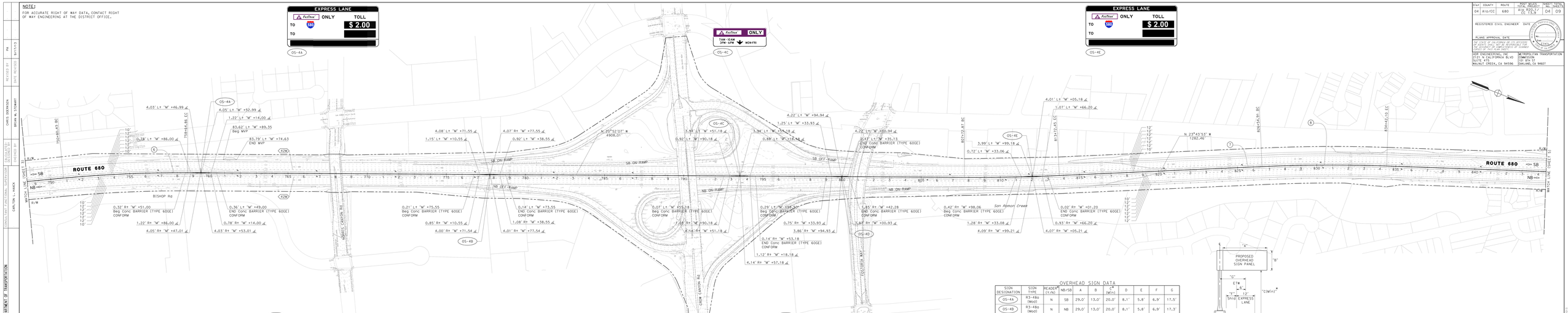
UNIT 0000

PROJECT NUMBER & PHASE

0000000000001

DO NOT DO CAD MATCH LINE ALIGNMENTS

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



Dist	COUNTY	ROUTE	POST MILE(S) (ABS. MILES)	SHEET NO.	TOTAL SHEETS
04	Alc/CC	680	Alc PDD-2.7 CC 13.9	04	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE SEAL OF CALIFORNIA OF ALL DRAWINGS OF ALTERED PLANS MUST BE REPRODUCED ON THE ORIGINAL DRAWINGS IN ORDER TO REPRODUCE THE SEAL ON THE ALTERED PLANS.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th ST
OAKLAND, CA 94607

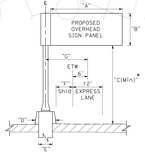
CURVE DATA

No. (*)	R	Δ	T	L	NORTHING	EASTING
6	8000'	5°31'05"	392.53'	784.43'	2105124.1235	6136168.5481
7	12000'	2°51'46"	299.85'	599.58'	2110428.2763	6134705.2964
8	10000'	4°50'37"	393.80'	787.19'	2112156.9743	6135961.6813

OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	READER (Y/N)	NB/SB	A	B	C (Min)	D	E	F	G
05-4A	R3-48o (Mod)	N	SB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.5'
05-4B	R3-48o (Mod)	N	NB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.3'
05-4C	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	17.1'
05-4D	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	17.5'
05-4E	R3-48o (Mod)	N	SB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.0'

NOTE: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION "G" IS FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL. READER ONLY STRUCTURE REQUIRES 18.5' OF MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.



OVERHEAD SIGN TYPICAL SECTION
NO SCALE

I-680 L/PD/S
SCALE: 1" = 100'

L-4

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
Caltrans

CONTRACT NO. 04-0F0204
CAR-TOB-L - MASX

REVISED BY PM
DATE REVISED 8/17/23
REVISED BY CHRIS DOCKSEN
DATE REVISED 8/17/23
REVISED BY DRAWN BY: LYNANT
DATE REVISED 8/17/23

BORDER LAST REVISED 7/2/2010

USERNAME = X3pardeme
DGN FILE = K:\680_PR (ALL)\PD-S.dgn

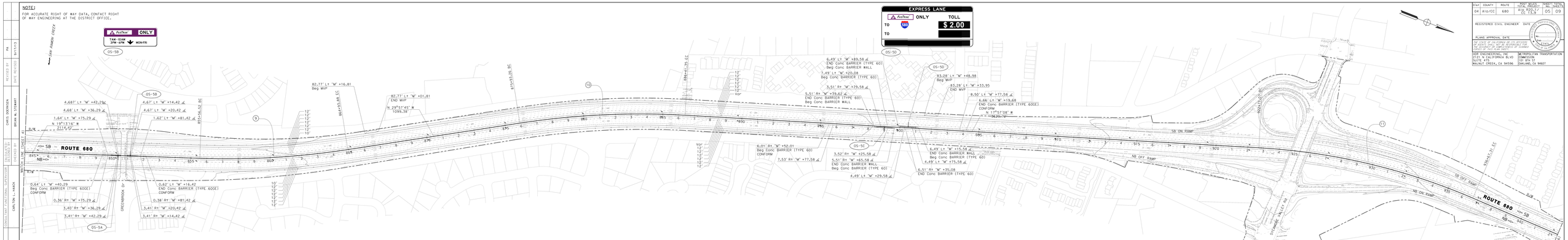
RELATIVE BORDER SCALE TO THE INCHES 0 1 2 3 4

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000

DO NOT SCALE PLOTTED DRAWINGS

NOTE:

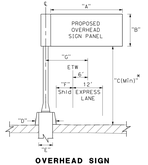
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	READER* (Y/N)	NB/SB	A	B	C* (MIN)	D	E	F	G
05-5A	R3-4BG (Mod)	N	NB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.4'
05-5B	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	16.6'
05-5C	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	4.0'	5.8'	3.0'	11.0'
05-5D	R3-4BG (Mod)	Y	SB	29.0'	13.0'	20.0'	4.0'	5.8'	3.0'	11.0'

NOTE: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION IS FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL. READER ONLY STRUCTURAL REQUIRES A 5.5' MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.



OVERHEAD SIGN TYPICAL SECTION
NO SCALE

CURVE DATA

No.	R	Δ	T	L	NORTHING	EASTING
9	5000'	10°44'29"	470.06'	937.36'	2114885.8727	6132977.4559
10	5000'	12°00'27"	525.97'	1048.09'	2116689.4132	6132036.8783
11	4000'	19°59'59"	705.30'	1396.24'	2121098.4585	6130495.3070

I-680 L/PD/S

SCALE: 1" = 100'

L-5

Dist	COUNTY	ROUTE	POST MILES	TOTAL SHEETS
04	Alameda/CC	680	Alameda PM 0.0/7.4 CC PM 0.0/9.7	05 / 09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USER OF CALCULATIONS OR DATA OBTAINED FROM THIS RECORD MUST BE REFERRED TO THE DISTRICT OFFICE OF CONSTRUCTION TO DETERMINE THE ACCURACY OF THE DATA.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th ST
OAKLAND, CA 94607

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT ENGINEER: CARLTON J. HAACK

REVISED BY: CHRIS DOERSEN
REVISED BY: BRIAN W. STUART
PM

BORDER LAST REVISED 7/2/2010

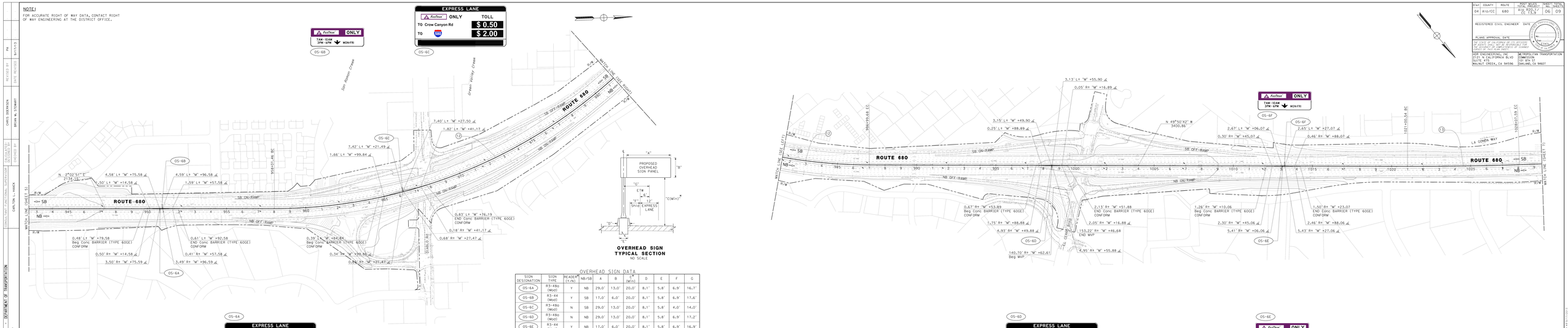
USERNAME = s-jcarpenter
DGN FILE = 4-0 680_PR 05_L-PD-S.dgn

RELATIVE BORDER SCALE TO THE INCHES

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



CURVE DATA

No.	R	Δ	T	L	NORTHING	EASTING
12	3200'	51°53'53"	1551.03'	2896.22'	2124627.0493	6130379.3626
13	20000'	2°01'32"	353.56'	707.05'	2129360.2147	6126645.6639

OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	HEADER* (Y/N)	NB/SB	A	B	C* (Min)	D	E	F	G
05-6A	R3-48b (Mod)	Y	NB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	16.7'
05-6B	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	17.6'
05-6C	R3-48b (Mod)	N	SB	29.0'	13.0'	20.0'	8.1'	5.8'	4.0'	14.0'
05-6D	R3-48b (Mod)	N	NB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.2'
05-6E	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	16.9'
05-6F	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	8.1'	5.8'	6.9'	16.9'

NOTE: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION IS FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL, READER ONLY OPTIONAL. REQUIRED TO BE MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.

Dist	COUNTY	ROUTE	POST MILES(ABS. MILES)	SHEET NO.	TOTAL SHEETS
04	Ala/CC	680	Ala: R20.2/T CC: T3.9	06	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USER OF CONTENTS OF FILE DEVICES OF ALTERED FORMS MUST BE RESPONSIBLE FOR THE ACCURACY OF COMPATIBILITY OF DEVICES WITH ORIGINAL FORMS OF DATA.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607

I-680 L/PD/S

SCALE: 1" = 100'

L-6

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONTRACT LANDSCAPE ARCHITECT
CARLTON L. HAACK

SUPERVISOR
CHRIS DOERSEN

DESIGNED BY
BRIAN W. STEWART

REVISED BY
PA

DATE REVISED
07/13

BORDER LAST REVISED 7/2/2010

USERNAME = s-pcalvero
SCN FILE = K9 680_PR 06_L-PD-S.dgn

RELATIVE BORDER SCALE TO ON INCHES

UNIT 0000

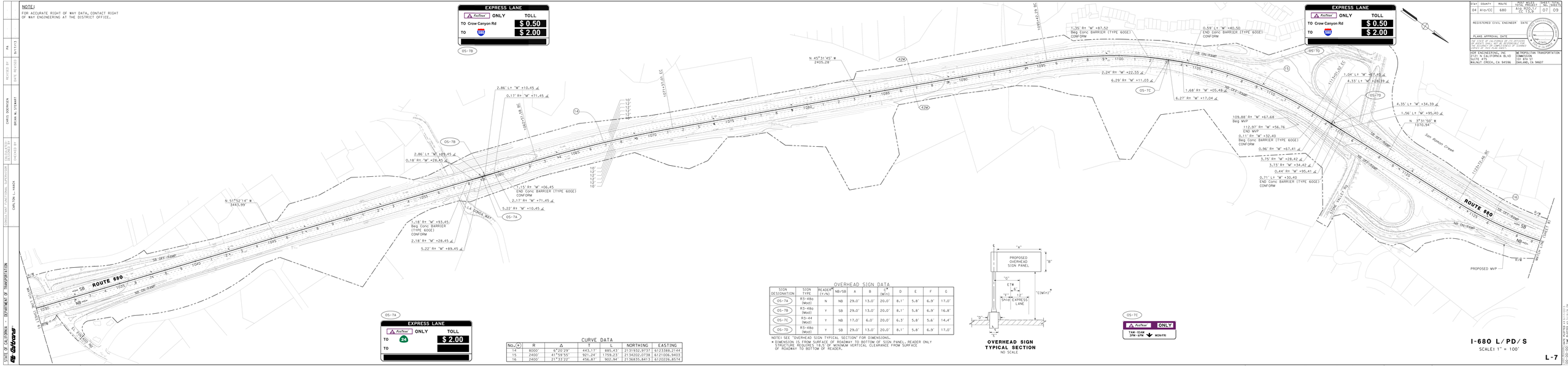
PROJECT NUMBER & PHASE

0000000000:1

DO NOT DO CAD LINE ROTATION

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



Dist	COUNTY	ROUTE	POST MILE(S)	PREV. SHEETS	TOTAL SHEETS
04	Alameda	680	A10.700-L1 CC 13.9	07	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE SEAL OF CALIFORNIA OF ELI DEVORES IS AFFIXED ONLY AS AN ACCEPTANCE FOR THE SECTIONS OF CHAPTER 11 OF THE STANDARD SPECIFICATIONS, 2010 EDITION.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607

OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	READER (Y/N)	NB/SB	A	B	C* (W/in)	D	E	F	G
05-7A	R3-48a (Mod)	N	NB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.0'
05-7B	R3-48a (Mod)	Y	SB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	16.8'
05-7C	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	6.3'	5.8'	5.6'	14.4'
05-7D	R3-48a (Mod)	Y	SB	29.0'	13.0'	20.0'	8.1'	5.8'	6.9'	17.0'

NOTE1 SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION IS FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL, READER ONLY
* DIMENSION IS FROM SURFACE OF ROADWAY TO MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.

CURVE DATA

No.	R	Δ	T	L	NORTHING	EASTING
14	8000'	6°20'29"	443.17'	885.43'	2134932.8737'	6123388.2144'
15	2400'	41°59'55"	921.24'	1759.23'	2134202.0738'	6121006.9403'
16	2400'	21°33'22"	456.87'	902.34'	2136835.8413'	6120226.6574'

OVERHEAD SIGN TYPICAL SECTION
NO SCALE

I-680 L/PD/S

SCALE: 1" = 100'

L-7

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT ENGINEER
CHRIS DOERSEN
REGISTRATION NO. C-13847
REVISED BY
DATE REVISED
PM
DATE

CONSULTANT ENGINEER
BRIAN W. STUART
REGISTRATION NO.
REVISED BY
DATE REVISED

CONSULTANT ENGINEER
CARLTON L. HAACK

BORDER LAST REVISED 7/2/2010

USERNAME = P.devores
SGN FILE = R9-680_PR ST_L-PD-S.dgn

RELATIVE BORDER SCALE TO THE INCHES

UNIT 0000

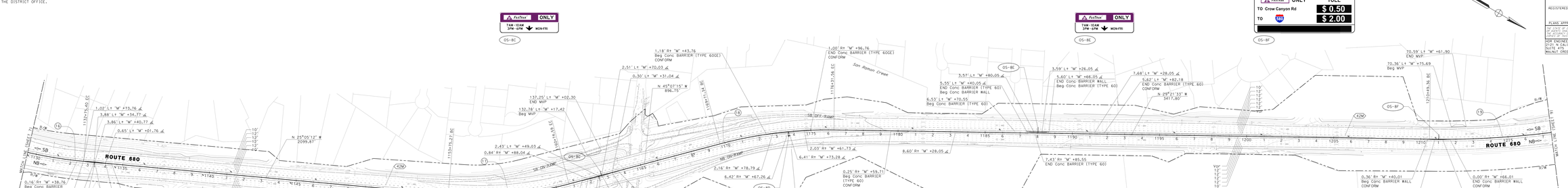
PROJECT NUMBER & PHASE

0000000000001

DO NOT DELETE LINE BELOW THIS LINE

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



Dist	COUNTY	ROUTE	TOTAL PROJECT EXPENDITURE	PROJECT NO.	PROJECT SEQ. NO.
04	Ala/CC	680	Ala/CC-I-680 CC 13.9	08	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USER OF LANDXML OF ALL DESIGNS OF ALIGNED ITEMS MUST BE REVIEWED FOR THE ACCURACY OF COMPUTER OUTPUT BY A REGISTERED CIVIL ENGINEER.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607

OS-8A	OS-8B	OS-8C	OS-8D
EXPRESS LANE FastTrax ONLY 24 TOLL $ 2.00 TO	FastTrax ONLY 7AM - 10AM 3PM - 6PM MON-FRI	EXPRESS RESTRICTION ENDS	

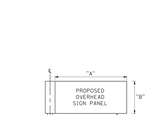
CURVE DATA

No. (●)	R	Δ	T	L	NORTHING	EASTING
16	2400'	21°13'22"	456.87'	902.94'	2136835.8413	6120226.8574
17	2000'	20°02'03"	353.27'	699.32'	2139607.4033	6119114.6917
18	2400'	15°45'42"	332.21'	660.22'	2140809.3759	6118079.1546
19	5000'	9°40'10"	422.91'	843.82'	2144312.1568	6116005.1909

OVERHEAD SIGN DATA

SIGN DESIGNATION	SIGN TYPE	READER* (Y/N)	NB/SB	A	B	C* (Min)	D	E	F	G
OS-8A	R3-48a (Mod)	N	NB	29.0'	13.0'	20.0'	8.1'	5.8'	7.1'	17.1'
OS-8B	R3-44 (Mod)	Y	NB	17.0'	6.0'	20.0'	8.1'	5.8'	6.5'	16.5'
OS-8C	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	8.1'	5.8'	7.1'	17.1'
OS-8D	R3-45a	Y	NB	9.5'	5.5'	20.0'	6.4'	5.8'	4.9'	14.1'
OS-8E	R3-44 (Mod)	Y	SB	17.0'	6.0'	20.0'	4.0'	5.8'	3.0'	12.0'
OS-8F	R3-48a (Mod)	N	SB	29.0'	13.0'	20.0'	4.0'	5.8'	1.5'	7.1'

NOTE: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION IS FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL. READER ONLY STRUCTURE REQUIRES 18.5' OF MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.



OVERHEAD SIGN TYPICAL SECTION
NO SCALE

I-680 L/PD/S
SCALE: 1" = 100'

L-8

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

REVISED BY	DATE REVISED
PA	8/17/23

CHRIS DOCKSTAD
DESIGNED BY
DRAWN BY
CHECKED BY
CONSULTANT LANDSCAPE ARCHITECT
CARLTON L. HAACK
SUPERVISOR

BORDER LAST REVISED 7/2/2010

USERNAME = s3-pcolemro
DGN FILE = K9-680,PR OS_L-PD-S.dgn

RELATIVE BORDER SCALE TO THE INCHES 0 1 2 3 4 5

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000

DO NOT DO CAD WORK OUTSIDE THIS BORDER

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

05-9A

FasTrax ONLY
7AM - 10AM
3PM - 6PM
NON-FTR

05-9B

FasTrax ONLY
EXPRESS LANE
1/2 MILE AHEAD

05-9C

SIGN DESIGNATION	SIGN TYPE	READER* (Y/N)	NB/SB	A	B	C* (Min)	D	E	F	G
05-9A	-	Y	SB	N/A	N/A	18.5'	3.7'	3.0'	3.3'	11.2'
05-9B	R3-44 (Mod)	N	SB	17.0'	6.0'	20.0'	4.0'	5.8'	1.5'	9.6'
05-9C	-	N	SB	17.0'	7.0'	20.0'	8.1'	5.8'	6.8'	16.8'
05-9D	R3-48a (Mod)	N	SB	29.0'	13.0'	20.0'	8.1'	5.8'	22.3'	32.4'
05-9E	-	N	SB	17.0'	7.0'	20.0'	8.1'	5.8'	11.4'	21.4'

OVERHEAD SIGN DATA

NOTE: SEE "OVERHEAD SIGN TYPICAL SECTION" FOR DIMENSIONS.
* DIMENSION IS FROM SURFACE OF ROADWAY TO BOTTOM OF SIGN PANEL. READER ONLY STRUCTURE REQUIRES 18.5' OF MINIMUM VERTICAL CLEARANCE FROM SURFACE OF ROADWAY TO BOTTOM OF READER.

OVERHEAD SIGN TYPICAL SECTION
NO SCALE

EXPRESS LANE
FasTrax ONLY TOLL
TO Crow Canyon Rd $ 0.50
TO 680 $ 2.00

05-9D

FasTrax ONLY
EXPRESS LANE
1 MILE AHEAD

05-9E

DIST	COUNTY	ROUTE	POST MILE(S)	TOTAL PROJECT EA	PROJECT NO.
04	Ala/CC	680	Ala: R0.0/7.4 CC: T4.9	09	09

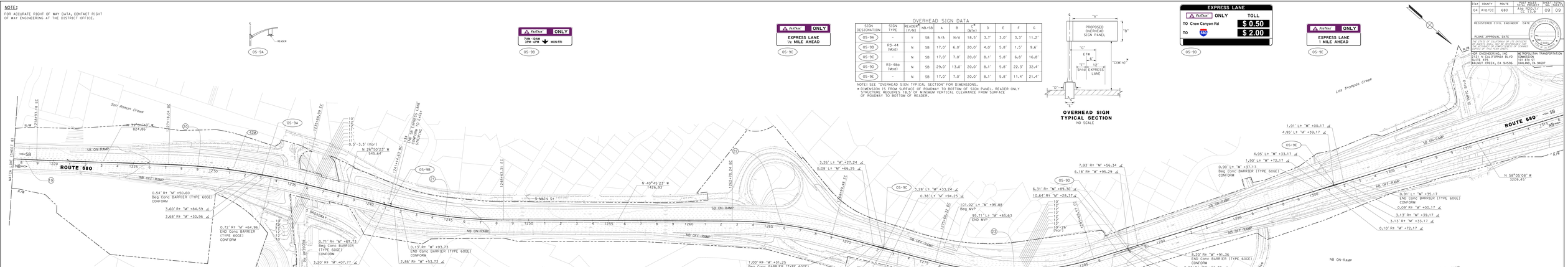
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE LEGAL RIGHTS OF ANY PARTY OR PARTIES WHO MAY BE AFFECTED BY THE USE OF THIS DRAWING IS LIMITED TO THE TERMS OF THE CONTRACT.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607



CURVE DATA

No.	R	Δ	T	L	NORTHING	EASTING
19	5000'	9°40'10"	422.91'	843.82'	2144312.1568	6116005.1909
20	4000'	12°11'20"	427.09'	850.95'	2145650.0639	6115012.1095
21	3000'	13°55'00"	366.14'	728.68'	2148849.7771	6114303.9877
22	2468.43'	14°36'20"	316.34'	629.24'	2148534.7120	6112968.0803
23	1800'	31°56'05"	515.03'	1003.26'	2149656.6850	6112328.2434

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

PM | REVISED BY | DATE REVISED | DESIGNED BY | DRAWN BY | CHECKED BY | CONC PAVEMENT CAN TON L-MASX

I-680 L/PD/S
SCALE: 1" = 100'

L-9

BORDER LAST REVISED 7/2/2010

USERNAME = X3 (polyerro)
DGN FILE = X3 680_PR (BL) PD-S.dgn

RELATIVE BORDER SCALE TO THE INCHES

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000

DO NOT DO CAN LINE ROTATE

DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
04	ALA/CC	680	ALA: R20.0/R22.7 CC: T3.9	01	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USAGE OF CALIFORNIA OTS CEQUIPS IS ADVISED THAT IT IS ACCEPTABLE FOR THE DESIGN OF COMPONENTS OF SIGNAL AND LIGHTING PROJECTS ONLY.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

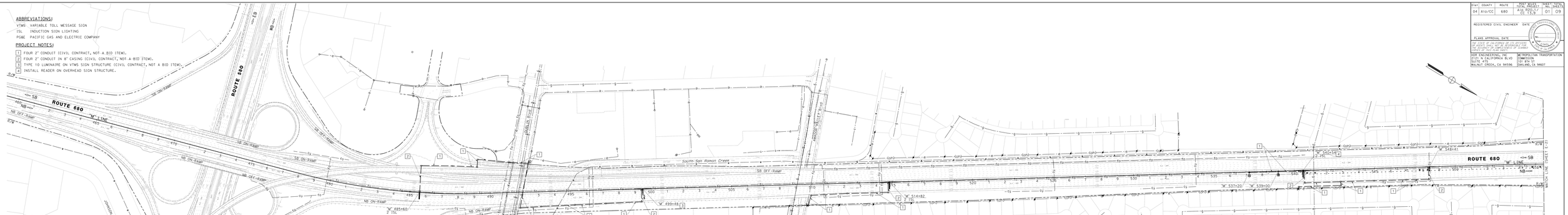
METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607

ABBREVIATIONS:

VTMS VARIABLE TOLL MESSAGE SIGN
ISL INDUCTION SIGN LIGHTING
PG&E PACIFIC GAS AND ELECTRIC COMPANY

PROJECT NOTES:

1. FOUR 2" CONDUIT (CIVIL CONTRACT, NOT A BID ITEM).
2. FOUR 2" CONDUIT IN 8" CASING (CIVIL CONTRACT, NOT A BID ITEM).
3. TYPE 10 LUMINAIRE ON VTMS SIGN STRUCTURE (CIVIL CONTRACT, NOT A BID ITEM).
4. INSTALL READER ON OVERHEAD SIGN STRUCTURE.



DIST	COUNTY	ROUTE	POST MILE(S)	SHEET NO.	TOTAL SHEETS
04	ALA/CC	680	ALA R0.0-7.7 CC 13.9	02	09

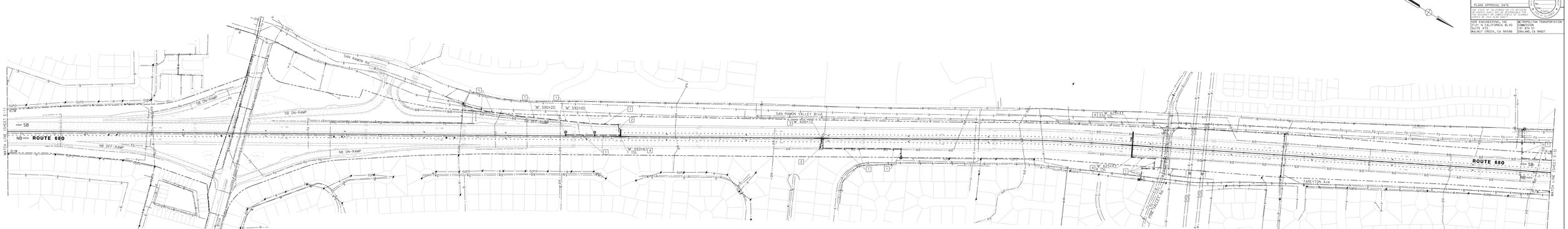
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USAGE OF CALIFORNIA OF ELECTRONIC DATA DELIVERED TO AGENCY PARTNERS IS INTENDED FOR THE ESTABLISHMENT OF COMMON MAPPING, ENGINEERING, DESIGN, AND PLANNING PURPOSES ONLY.

HDR ENGINEERING, INC
2121 N CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607



I-680 UTILITIES

SCALE: 1" = 100'

E-2

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSULTANT LANDSCAPE ARCHITECT SUPERVISOR
CARLTON L. HAACK

REVISED BY: N. FUNG
DATE REVISED: 8/17/23

N. FUNG
BRIAN M. STUART

REVISED BY
DATE REVISED

BORDER LAST REVISED 7/2/2010

USERNAME = X3 (polyderes)
DGN FILE = K9-680,PR 02_UMTTTY.dgn

RELATIVE BORDER SCALE TO THE INCHES

UNIT 0000

PROJECT NUMBER & PHASE

0000000000001

DOCUMENT NAME = 0000000000001
PLOT SCALE = 1:1
PLOT DATE = 8/17/2023

DIST	COUNTY	ROUTE	POST MILE(S)	SHEET NO.	TOTAL SHEETS
04	Alc/CC	680	Alc R00.0/ CC 13.9	03	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF, OR RELIANCE UPON, EXHIBITS OBTAINED FROM THE ENGINEER.

HDR ENGINEERING, INC.
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607

I-680 UTILITIES

SCALE: 1" = 100'

E-3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT LANDSCAPE ARCHITECT | REGISTRATION | DATE | SIGNATURE

ALIGN. LINE (SHEET 1 OF 2)
CAR/SRA - MAXX

PROJECT ENGINEER: N. CHAC
DESIGNED BY: BRIAN & STUART

REVISED BY: N. CHAC
DATE REVISED: 04/17/13

BORDER LAST REVISED 7/2/2010

USERNAME = X (pw:pw:rw)
DGN FILE = K:\680_PM 03_UTILITY.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4 5

UNIT 0000 | PROJECT NUMBER & PHASE | 0000000000001

DO NOT DO THE MATH
DO NOT SCALE PRINTS

DIST	COUNTY	ROUTE	POST MILE(S)	PREV. SHEETS	TOTAL SHEETS
04	Alc/CC	680	Alc R00.0/ CC 13.9	04	09

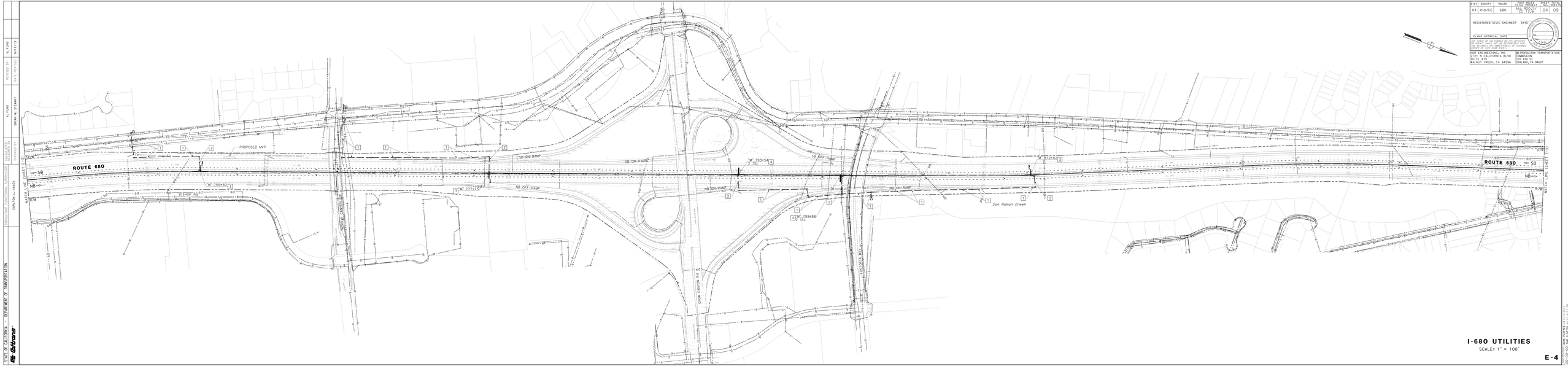
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF COMPUTER-AIDED DESIGN DRAWINGS PRINTED TO SCALE.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607



I-680 UTILITIES

SCALE: 1" = 100'

E-4

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT LANDSCAPE ARCHITECT
CARLTON L. HAAS

REVISED BY: N. FUNG
DATE REVISED: 04/14/23

N. FUNG
DRAWN BY: D. STUART

DESIGNED BY: N. FUNG
CHECKED BY: N. FUNG

BORDER LAST REVISED 7/2/2010

USERNAME = X (pw:pw:nx)
DGN FILE = K:\ 680_PM \K_UTILITY.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000 1

DO NOT DO UNE NOTES

DIST	COUNTY	ROUTE	POST MILEAGE	PREF. NO.	SHEETS
04	ALA/CC	680	ALA: R20.0/R21.4 CC: 13.9	05	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USER OF INFORMATION OF THIS DRAWING IS ADVISED THAT NOT ALL INFORMATION THAT IS RELEVANT TO THE PROJECT IS CONTAINED ON THIS DRAWING.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607

I-680 UTILITIES

SCALE: 1" = 100'

E-5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSULTANT CERTIFICATION
CARLTON L. HAACK

REVISED BY
DATE REVISED

V. CHAO
BRIAN W. STUART

PREPARED BY
DESIGNED BY

MATCH LINE SHEET C-6

SB ROUTE 680

NB

W 850+39

W 851+13

PROPOSED MVP

W 899+03

W 900+53.34

PROPOSED MVP

SB ON RAMP

NB OFF RAMP

SB OFF RAMP

NB ON RAMP

ROUTE 680

SB

NB

STANDARD PALLET PIPE

MATCH LINE SHEET C-8

BORDER LAST REVISED 7/2/2010

USERNAME = X (pw/pw=x)
DGN FILE = K:\680_PM 05_UPLITITY.dgn

RELATIVE BORDER SCALE TO IN INCHES

UNIT 0000

PROJECT NUMBER & PHASE

0000000000001

DIST	COUNTY	ROUTE	POST MILE(S)	SHEET NO.	TOTAL SHEETS
04	ALA/CC	680	ALA: R0.0/L1.7 CC: L3.9	06	09

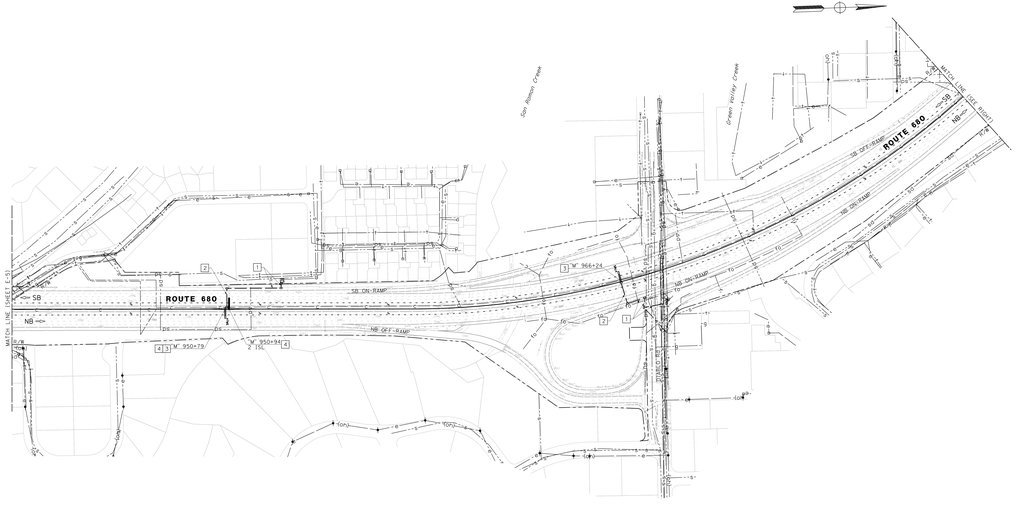
REGISTERED CIVIL ENGINEER DATE

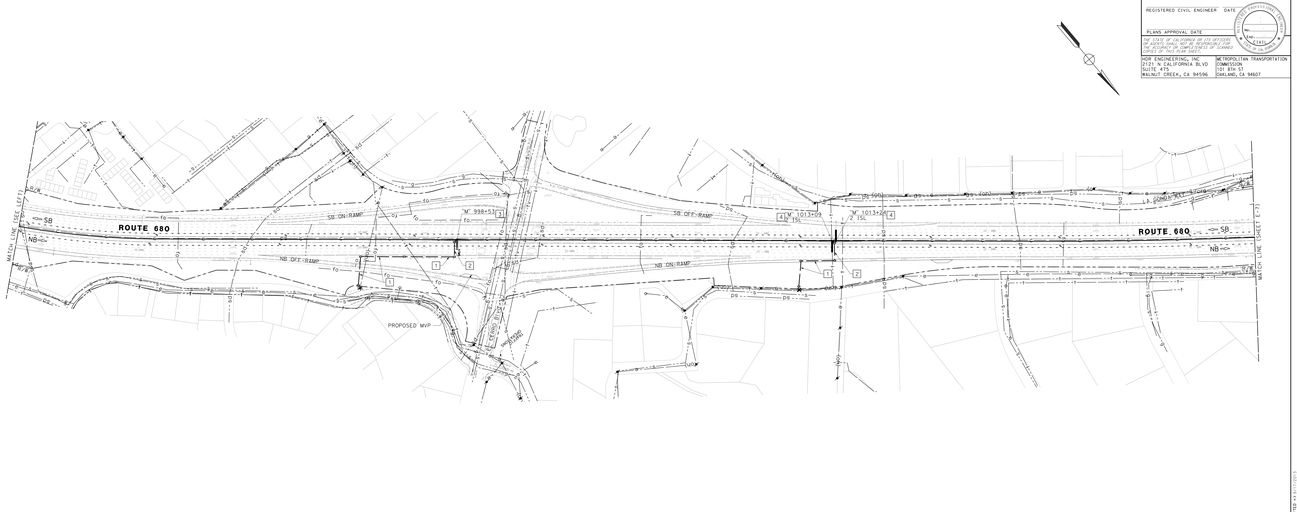
PLANS APPROVAL DATE

THE USER OF CONTENTS OF FILE DEVICES OF ALPHA (MAP) MUST BE AUTHORIZED FOR THE SPECIFIC PURPOSE OF THE TRANSFER OF DATA TO THE PROJECT FILE.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607





I-680 UTILITIES

SCALE: 1" = 100'

E-6

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSULTANT LANDSCAPE ARCHITECT SUPERVISOR | CONSULTANT LANDSCAPE ARCHITECT | DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED | REVISED BY | DATE REVISED

CARLTON L. HAACK | V. CHAC | BRIAN M. STUART | | V. CHAC | 07/17/13

BORDER LAST REVISED 7/2/2010

USERNAME = X (porterro)
DGN FILE = K:\680_PR_DG_UPLITTY.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000001

DO NOT DO THE MATH! THIS DRAWING IS NOT TO SCALE

DIST	COUNTY	ROUTE	POST MILE(S)	SHEET NO.	TOTAL SHEETS
04	ALA/CC	680	ALA: R00.0/R7.4 CC: 13.9	07	09

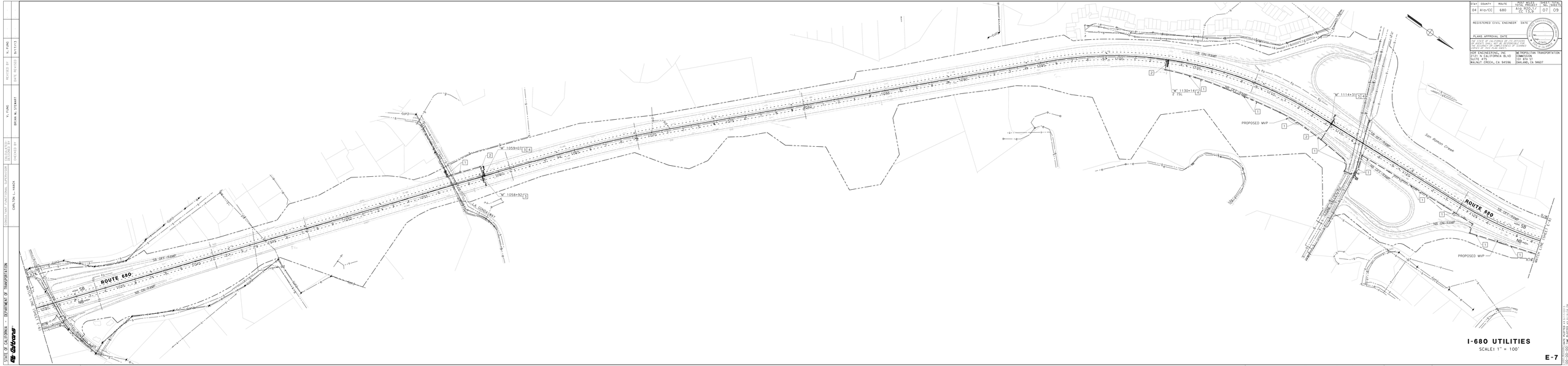
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF, OR RELIANCE UPON, EXHIBITS PRINTED ON THIS MEDIUM.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th ST
OAKLAND, CA 94607



I-680 UTILITIES

SCALE: 1" = 100'

E-7

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT ENGINEER'S SUBMISSION
CARL DEL - MARX

REVISED BY	DATE REVISED
V. CHAC	01/15/13
BRIAN W. STUART	01/15/13

DESIGNED BY	DATE DESIGNED
V. CHAC	01/15/13
BRIAN W. STUART	01/15/13

BORDER LAST REVISED 7/2/2010

USERNAME = X3 (polymtn)
DGN FILE = K:\680_PM_ST_UTILITY.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000001

DO NOT SCALE PRINTS

DIST	COUNTY	ROUTE	POST MILE(S)	SHEET NO.	TOTAL SHEETS
04	Alc/CC	680	Alc R00.0/R14.7 CC 13.9	08	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE LEGAL OF CALIFORNIA OF ALL DEVICES OF ALTERS SHALL NOT BE REFERRED TO THE ACCURACY OF COMPLETENESS OF SUBMITTED DATA UNDER THIS SEAL.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607

Dist	COUNTY	ROUTE	POST MILES(ABS) TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Alc/CC	680	Alc R00.0/ CC 13.9	09	09

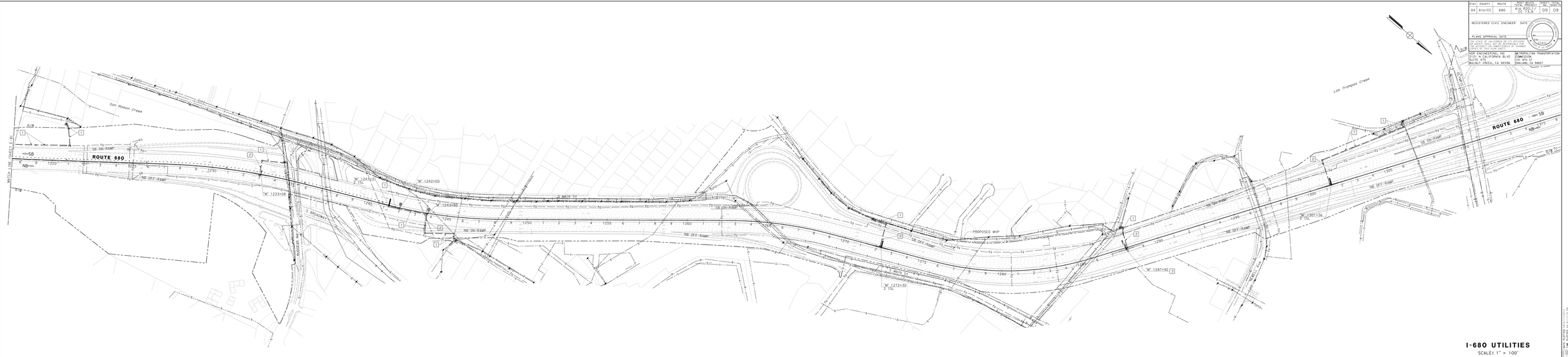
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF COMPUTER MEDIA REPRODUCED FOR INFORMATION ONLY.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607



I-680 UTILITIES

SCALE: 1" = 100'

E-9

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT ENGINEER
CARLTON L. HAACK

REVISED BY: N. FUNG
DATE REVISED: 8/17/23

REVISED BY: N. FUNG
DATE REVISED: BRIAN & STUART

DESIGNED BY: RICHARD W.
CHECKED BY: RICHARD W.

BORDER LAST REVISED 7/2/2010

USERNAME = s-jangarwa
DGN FILE = R-680_PM 09_UMTTTRY.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4 5

UNIT 0000

PROJECT NUMBER & PHASE

0000000000001

DO NOT DO LINE ROTATION
DO NOT DO LINE SCALING

Dist	COUNTY	ROUTE	TOTAL PROJECT FUNDING	PROJECT NO.	SHEET NO.
04	Alc/CC	680	$10,000,000 CC-724.4	01	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF COMPUTER FILES OF DRAWINGS OTHER THAN THOSE SEALED AND DATED.

HDR ENGINEERING, INC
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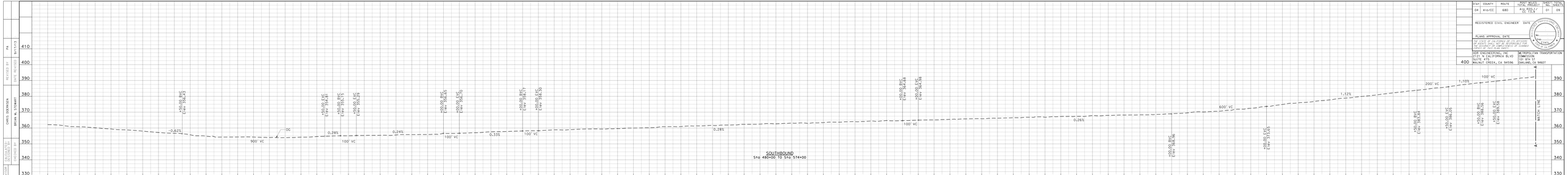
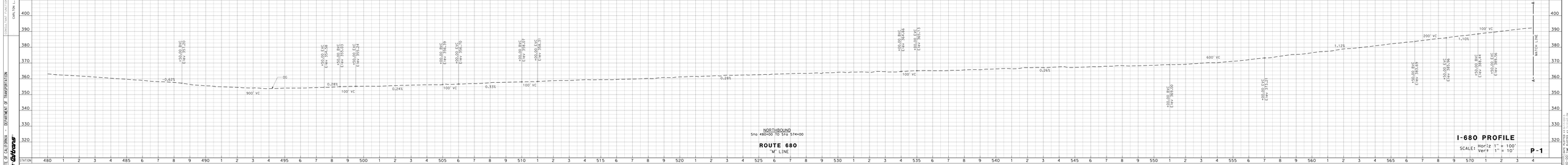
SUITE 470
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607





I-680 PROFILE

SCALE: Horiz 1" = 100'
Vert 1" = 10'

P-1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT LANDSCAPE ARCHITECT
CARL DIN ... MARCH

DISTRICT DIRECTOR
DAVID ... WALKER

DESIGN MANAGER
CHRIS DOERKSEN

DESIGNED BY
Martin & Stewart

REVISED BY

DATE REVISED

PA

BORDER LAST REVISED 7/2/2010

USERNAME = kfpolanco
DGN FILE = K:\680 PM 01\Profiles.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

DO NOT SCALE PLANS ON THIS SHEET

District	COUNTY	ROUTE	TOTAL PROJECT FUNDS	PROJECT NO.	SHEET NO.
04	Alc/CC	680	$15,723,000	02	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USER OF CALIFORNIA DEPT OF TRANSPORTATION OF ALFRED (MAX) WEST BE RESPONSIBLE FOR THE ACCURACY OF COMPUTER FILES OF DESIGNS, DRAWINGS, PLANS, SPECIFICATIONS

HDR ENGINEERING, INC
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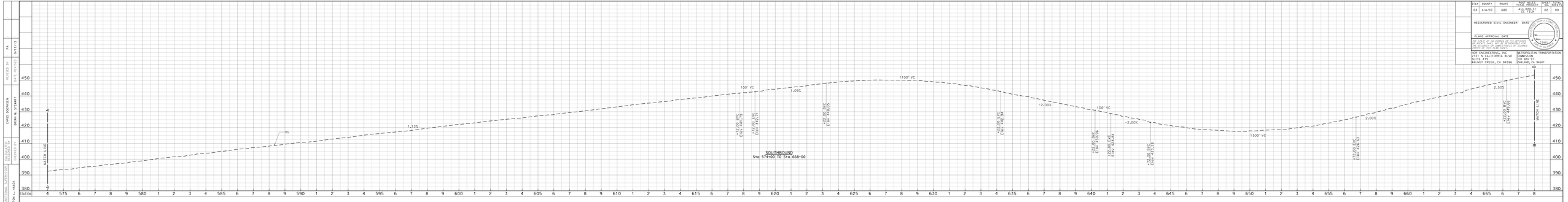
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607



I-680 PROFILE

SCALE: Horiz 1" = 100'
Vert 1" = 10'

P-2

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

CONSULTANT LANDSCAPE ARCHITECT

CONSULTANT ARCHITECT

CONSULTANT ENGINEER

CARLSON L. MAXX

DATE REVISED BY

DATE REVISED BY

CHRIS DOERKSEN

DESIGN & DRAFT

PA

BORDER LAST REVISED 7/2/2010

USERNAME = kfpoderes
DGN FILE = K:\680 PM 02\Profiles.dgn

RELATIVE BORDER SCALE TO IN INCHES

UNIT 0000

PROJECT NUMBER & PHASE

00000000001

DO NOT DO UNE NOTES

Dist	COUNTY	ROUTE	TOTAL PROJECT EA.	SHEET NO.	TOTAL SHEETS
04	Alc/CC	680	01-0F910 / 04-CC-TD-4	03	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF TRANSFERRED ELECTRONIC DATA FILES

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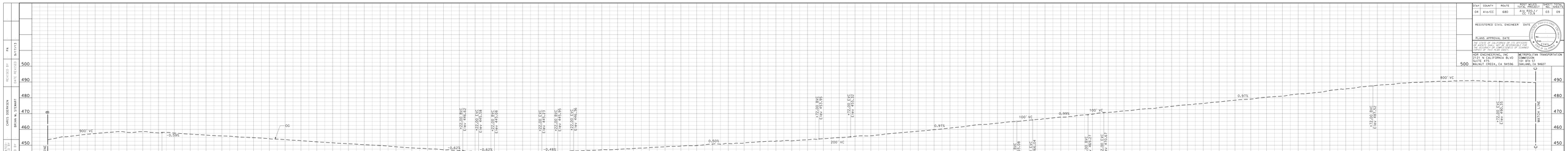
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607

500



I-680 PROFILE

SCALE: Horiz 1" = 100'
Vert 1" = 10'

P-3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT LANDSCAPE ARCHITECT
CARLSON, L. MARX

REVISED BY
DATE REVISED
PA
8/17/23

CHRIS DOERKSEN
DESIGN & STRUCT

RECOMMENDED BY
APPROVED BY

BORDER LAST REVISED 7/2/2010

USERNAME = rjcordero
DGN FILE = P3-680 PM 05_Profiles.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

DO NOT SCALE PLANS

DIST	COUNTY	ROUTE	TOTAL PROJECT EA	SHEET NO.	TOTAL SHEETS
04	ALA/CC	680	01-0F324 / 04-0C724	04	09

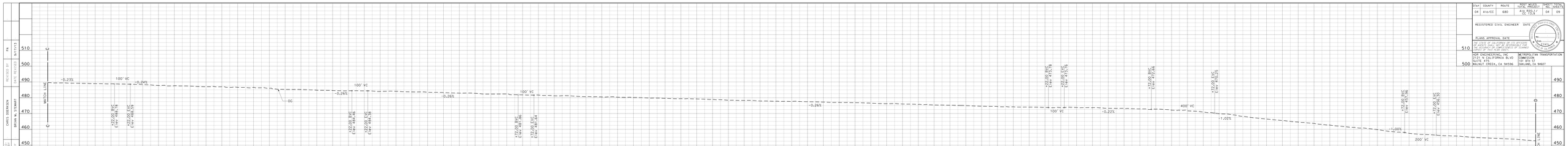
REGISTERED CIVIL ENGINEER DATE

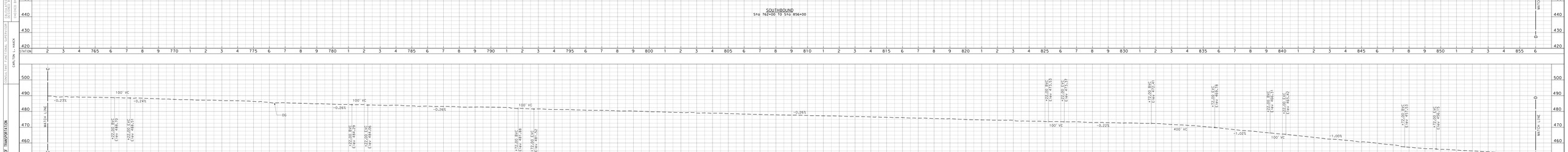
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF COMPUTERIZED DATA DERIVED FROM THIS PLAN AND/OR DATA.

HDR ENGINEERING, INC
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607





ROUTE 680
"M" LINE

I-680 PROFILE

SCALE: Horiz 1" = 100'
Vert 1" = 10'

P-4

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT LANDSCAPE ARCHITECT

CARLTON L. HAYES

REVISED BY

DATE REVISED

CHRIS DOERKSEN

JOHN & STUART

PLANNED BY

DATE PLANNED

BORDER LAST REVISED 7/2/2010

USERNAME = s-jcordero
DGN FILE = P-680 PM GA_Profiles .dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000

PROJECT NUMBER & PHASE

00000000001

DO NOT SCALE PRINTS

Dist	COUNTY	ROUTE	TOTAL PROJECT EA	SHEET NO.	TOTAL SHEETS
04	Alameda	680	4J0-0C 0C-T243	05	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE USER OF CALIFORNIA DOT DATA DERIVED OR RECEIVED FROM THIS SOURCE MUST BE RESPONSIBLE FOR THE ACCURACY OF THE DATA AND FOR THE SUITABILITY OF THE DATA FOR ANY PURPOSE.

HDR ENGINEERING, INC
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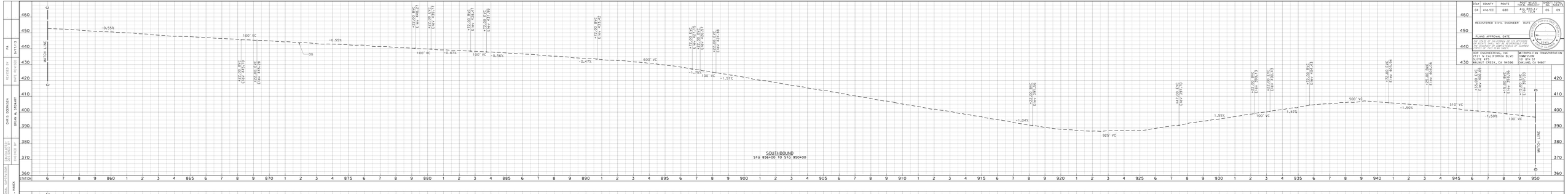
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607



STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT CERTIFICATION

CHRIS DOERSKEN
Licensed in California

REVISED BY

REVISED DATE

PA

CHRIS DOERSKEN

CAPS-TON L. HAKIX

BORDER LAST REVISED 7/2/2010

USERNAME = cdoersken
DGN FILE = P-5 680 PR 05_Profiles.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000

PROJECT NUMBER & PHASE 0000000000

DO NOT SCALE PLANS ON THIS SHEET

DIST	COUNTY	ROUTE	TOTAL PROJECT EFF. PROJECT	SHEET NO.	TOTAL SHEETS
04	ALA/CC	680	0.0/R.7.4 / 0.0/R.7.4	06	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF COMPUTER MADE COPIES OF PLANS OR SPECIFICATIONS

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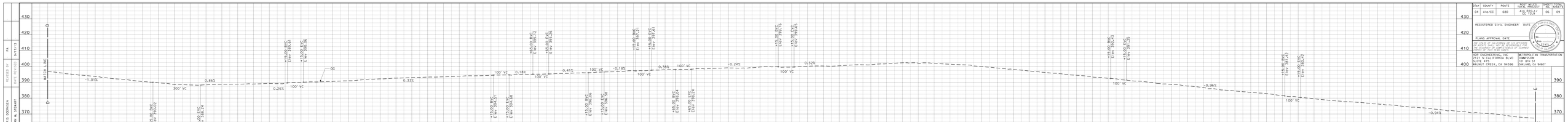
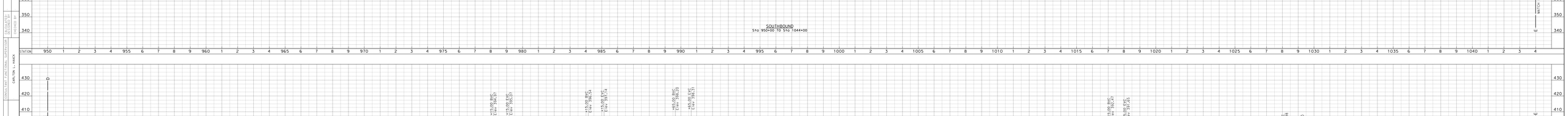
101 8th St
OAKLAND, CA 94607





ROUTE 680
"M" LINE

I-680 PROFILE

SCALE: Horiz 1" = 100'
Vert 1" = 10'

P-6

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT LANDSCAPE ARCHITECT
CARLSON, LAMAK

CHRIS DOERKSEN
Carlson & Lamak

REVISED BY

PA

DATE REVISED

REVISION

BORDER LAST REVISED 7/2/2010

USERNAME = kfrancisco
DGN FILE = K:\680 PM 06_Profiles.dgn

RELATIVE BORDER SCALE TO IN INCHES 0 1 2 3 4

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

DO NOT SCALE PRINTS

DIST	COUNTY	ROUTE	TOTAL PROJECT EA	SHEET NO.	TOTAL SHEETS
04	SOL/CC	680	4J0000 / 04-0F324	07	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA DOES NOT ASSUME THE LIABILITY OF ANY KIND, NOR ITS OFFICERS OR EMPLOYEES SHALL BE RESPONSIBLE FOR THE ACCURACY OF COMPUTER DATA OR DERIVATIVES THEREOF, OTHER THAN PAPER PLANS.

HDR ENGINEERING, INC
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SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8TH ST
OAKLAND, CA 94607

SOUTHBOUND
Sta 1044+00 TO Sta 1138+00

NORTHBOUND
Sta 1044+00 TO Sta 1138+00

ROUTE I-680

"M" LINE

I-680 PROFILE

SCALE: Horiz 1" = 100'
Vert 1" = 10'

P-7

REVISED BY	DATE
PA	8/17/23

CHRIS DOERKSEN
LOUIS & STUART

CAR-TON L-MAX

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

BORDER LAST REVISED 7/2/2010

USERNAME = s-pardeep
DGN FILE = K:\680 PM 07\Profiles .dgn

RELATIVE BORDER SCALE TO INCHES

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

DO NOT SCALE PLANS ON THIS SHEET

DIST	COUNTY	ROUTE	TOTAL PROJECT EA	SHEET NO.	TOTAL SHEETS
04	ALA/CC	680	01-0F324 / 04-0F324	08	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF TRANSMITTED DATA, INCLUDING PLANS AND SPECIFICATIONS.

HDR ENGINEERING, INC
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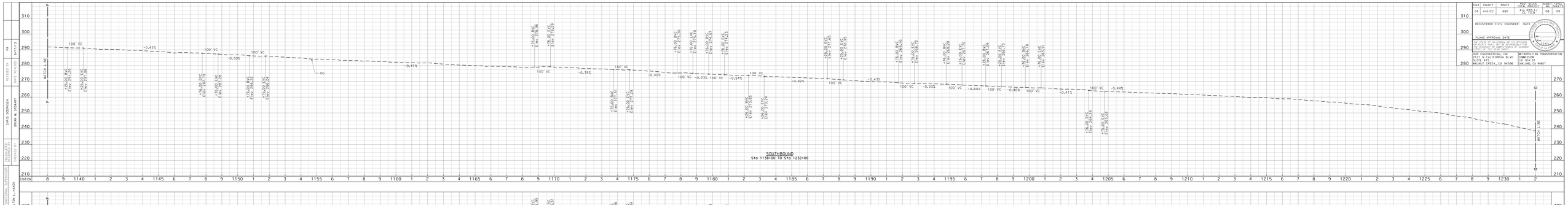
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607



STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT LANDSCAPE ARCHITECT

CARLTON L. HAKS

REVISED BY | DATE | DESIGNED BY | DATE | CHECKED BY | DATE

CHRIS DOERKSEN

DRAWN BY STUART

DESIGN EXCEPTION APPROVED BY | DATE

DESIGN EXCEPTION APPROVED BY | DATE

BORDER LAST REVISED 7/2/2010

USERNAME = rjcordero
DGN FILE = P-680 PR 08_Profiles.dgn

RELATIVE BORDER SCALE TO IN INCHES

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

DO NOT SCALE THIS PLAN

District	COUNTY	ROUTE	TOTAL PROJECT EA.	SHEET NO.	TOTAL SHEETS
04	Alc/CC	680	01-0F324 / 04-0C724	09	09

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF COMPUTERIZED DATA DERIVED FROM THIS PLAN/DRAWING

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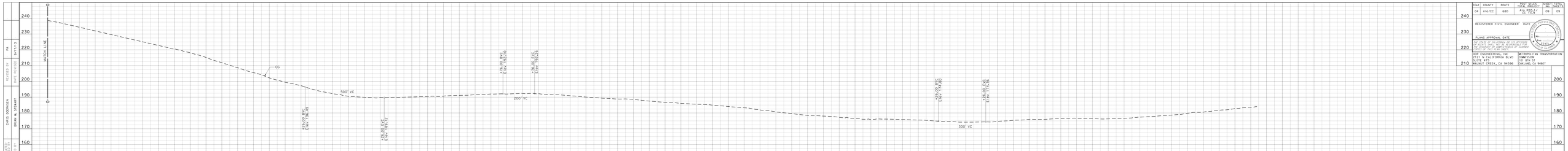
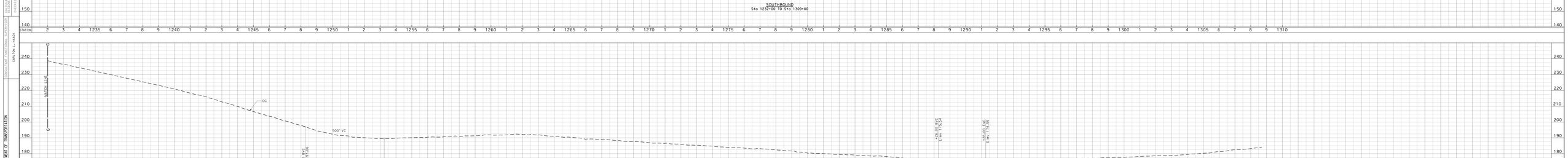
2121 N. CALIFORNIA BLVD
SUITE 475
WALNUT CREEK, CA 94596

METROPOLITAN TRANSPORTATION COMMISSION
101 8th St
OAKLAND, CA 94607





I-680 PROFILE

SCALE: Horiz 1" = 100'
Vert 1" = 10'

P-9

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT ENGINEER
CARLSON L. HAGX

DESIGNED
CHRIS DOERKSEN
DRAWN & CHECKED
DRAWN & CHECKED BY

REVISED BY
DATE REVISED
PA

BORDER LAST REVISED 7/2/2010

USERNAME = s-pacheco
DGN FILE = P:\680 PM 26.0\Profiles.dgn

RELATIVE BORDER SCALE TO BE INCHES

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

DO NOT SCALE PLANS ON THIS SHEET