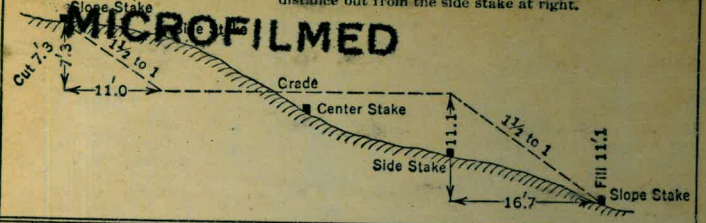
MISSION BAY

No. 36

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO., N. Y.

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MEAN HIGH TIDE & TOPO SURVEY OF

SOUTH PORTIONS OF LOTS 73 & 74

STA.	OBJ.	AZIMUTH	DIST	ROD	ELEV.	REMARKS
B.M.		HI = 30.77		±1.49	29.28	"MORRELL" CONC MON,
B.M.				-2.60	28.17	S.E. CORNER 1-ST STEP IN FRONT OF HOUSE 3976 MORRELL ST.
T.P.				-13.42	17.35	
		HI. = 20.05		+ 2.70	17.35	
B.M.				-11.25	8.80	HAMMER MARKS IN NORTH EDGE OF EAST STEEL RIM ON TOP OF MANHOLE OF MORRELL
		HI = 11.36		+2.56	8.80	
"A"	"B"	185° 48' 30"	520.28			
	1	28° 40'	166.0	5.4	6.0	
	2	21° 02'	90.0	"	"	
	3	202° 12'	40.0	"	"	
	4	203° 41'	145.0	"	"	
	5	204° 39'	260.0	"	"	
T.P. #1				-5.55	5.81	
		HI=10.23		+4.42	5.81	T.P. #1
"B"	"C"	53° 42'	410.75			
	6	329° 28'	219.0	4.2	6.0	
	7	291° 08'	172.0	"	"	

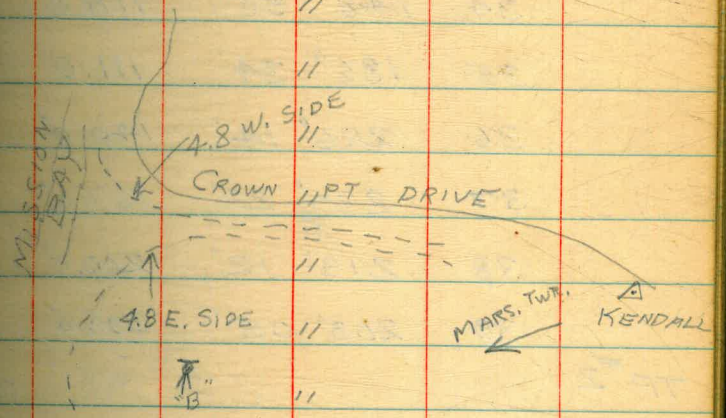
6-29-18

PX

(2)

HI=10.23

STA.	OBJECT	AZIMUTH	DIST.	ROD	ELEV.	REMARKS
"B"	8	246° 35'	212.0'	4.2	6.0	
	9	218° 20'	270.0'	"	"	
	10	220° 00'	360.0'	"	"	
	11	217° 11'	352.0'	5.4	4.8	
	12	206° 13'	368.0'	8.2	2.0	
	13	194° 52'	272.0'	"	"	
	14	218° 39'	230.0'	5.4	4.8	WEST SIDE OF SLOUGH
	15	242° 10'	201.0'	"	"	"
	16	259° 15'	165.0'	"	"	"
	17	266° 55'	130.0'	"	"	"
	18	272° 51'	149.0'	"	"	"
	19	280° 13'	165.0'	"	"	"
	20	311° 23'	173.0'	"	"	"
	21	331° 06'	210.0'	"	"	"
	22	347° 20'	260.0'	"	"	"
	23	358° 08'	340.0'	"	"	"
	24	12° 41'	310.0	5.1	5.1	SIDE SHOT EAST SIDE
	25	30° 03'	290.0	5.1	5.1	SIDE SHOT "
	26	37° 57'	243.0	5.4	4.8	E. SIDE SLOUGH



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(3)

H.I. = 10.23

STA.	OBJECT	AZIMUTH	DIST.	ROD	ELEV.	REMARKS
"B"	27	41° 22'	161.0'	5.4	4.8	EAST SIDE OF SLOUGH
	28	70° 40'	108.0'	"	"	"
	29	124° 11'	72.0'	"	"	"
	30	188° 50'	66.0'	"	"	"
	31	236° 45'	120.0'	"	"	"
	32	78° 02'	160.0'	7.5	2.7	Edge of Grass
	33	105° 35'	120.0'	7.5	2.7	"
	34	148° 55'	118.0'	"	"	"
	35	186° 34'	111.0'	"	"	"
	36	226° 14'	140.0'	"	"	"
	37	234° 22'	167.0'	"	"	"
	38	213° 12'	200.0'	"	"	"
	39	208° 05'	290.0'	"	"	"
TP #2				-5.20	5.03	T.P #2
		HI = 9.58		+4.55	5.03	TP #2
"C"	"B"	233° 42'	410.75'			
	40	267°	130.0'	4.8	4.8	
	41	287° 28'	105.0'	"		
	42	308° 20	100.0'	"		

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PX

④

HI = 9.58

STA.	OBJECT	AZIMUTH H.I. 9.58	DIST.	ROD	ELEV.	REMARKS
"C"	"B."	233° 42'	410.75'			
	43	331° 08'	110.0'	4.8	4.8	
	44	354° 25'	149.0'	"		
	45	12° 02'	200.0'	"		
	46	22° 28'	241.0'	"		
	47	26° 09'	260.0'	"		
	48	35° 39'	28.0'	"		
	49	53° 53'	214.0'	"		
	50	65° 49'	185.0'	"		
	51	94° 00'	180.0			
	52	116° 09'	200.0'			
	53	145° 31'	211.0'			
	54	143° 00'	273.0'			
	55	108° 45'	402.0'			
	56	103° 00'	416.0	6.9	2.7	West Bank of Slough
	57	96° 08'	358.0'	6.9	"	"
	58	82° 14'	320.0	6.9	"	"
	59	71° 45'	310.0	6.9	"	"

PX

Sta.	Object	Azimuth		Dist	Rod	Elev	Remarks
		H.I.	9.58				
"C"	"B"	233°	42'	410.75	~~6.9~~	~~2.7~~ 2.7	
	60	51°	18'	313.0'	6.9		West Bank of Slough.
	61	33°	51'	326.0'	6.9	—	"
	62	23°	05'	356.0'	6.9	—	"
	63	219°	21'	170.0'	6.9	—	South Edge of Grass
	64	196°	21'	170.0'	6.9	—	"
	65	179°	28'	245.0'	6.9	—	"
	66	159°	52'	355.0'	6.9	—	"
T.P. # 3					-4.74	4.84	
		H.I.	9.48		+9.64	4.84	
"D"	"C"	309°	15'				
	67	246°	13'	160.0'	6.8	2.7	South Edge of Grass
	68	181°	18'	155.0'	6.8	—	"
	69	147°	33'	212.0	6.8	—	"
T.P.	# 4				-4.65	4.83	
		H.I	9.71		+4.88	4.83	
"E"	"D"	300°	00'				
	70	229°	03'	85.0	7.0	2.7	South Edge of Grass.

Sta	Object	Azimuth	Dist	Rod	Elev	Remarks
		~~H.I. 9.71~~				
"E"	"D"	300° 00'				
		HI. 9.71				
71	71	137° 04'	113.0'	7.0	2.7	South Edge of Grass
72	72	112.0 06'	202.0'	7.0	—	"
73	73	106° 01'	151.0'	7.0	—	West Edge of Slough
74	74	87° 58'	64.0'	7.0	—	"
T.P. #5	TP#5			-4.87	+8.4	
75	75	12° 56'	73.0'	7.0	7.7	"
76	76	342° 40'	190.0'	7.0	—	"
77	77	332° 39'	304.0'	7.0	—	"
BM				+1.38	8.80	HAMMER MARKS N. EDGE OF MAN-HOLE RIM OPPOSITE "MORRELL"
		HI = 10.18				
"O"	"A"	231° 33'	285.42			
	78	~~165°~~ 265° 35'	125.0'	4.2	6.0	
	79	301° 02'	82.0'	"	"	
	80	329° 19'	80.0'	"	"	
	81	16° 51'	83.0'	"	"	
	82	28° 09'	157.0'	"	"	

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(7)

HI = 10.18

Sta.	Object	Azimuth	Dist	Rod	Elev.	Remarks
"O"	83	42° 37'	179.0'	7.5	2.7	WEST SIDE OF SLOUGH
	84	79° 16'	147.0'	"	"	" " " "
	85	112° 33'	180.0'	"	"	" " " "
	86	125° 37'	280.0'	"	"	" " " "
	87	130° 20'	390.0'	"	"	" " " "
	88	132° 30'	460.0'	"	"	" " " "
	89	137° 10'	530.0'	"	"	" " " "
	90	138° 25'	531.0'	5.4	4.8	" " " "
	91	137° 26'	460.0'	"	"	" " " "
	92	135° 13'	371.0'	"	"	" " " "
	93	126° 28'	280.0'	"	"	EDGE " " " "
	94	112° 19'	173.0'	"	"	" " " "
	95	79° 54'	142.0'	"	"	" " " "
	96	59° 24'	145.0'	"	"	" " " "
	97	41° 15'	175.0'	"	"	" " " "
	TP #6			-3.45	6.73	
		H.I. = 12.11		+5.38	6.73	TP #6
N.	"O"	198° 58'	270.64			
	98	184° 28'	45.0'	6.1	6.0	AROUND KENDALL'S HOUSE

6-30-98 PX ⑧

HI 12.11

STA.	OBV	AZIMUTH	DIST.	ROD	ELEV.	REMARKS
"N"	99	22° 17'	8.0'	6.1	6.0	
	100	319° 53'	11.0'	"	"	
	101	210° 39'	40.0'	"	"	
	102	287° 35'	89.0'	"	"	
	103	308° 33'	135.0'	"	"	
	104	324° 30'	220.0'	"	"	
	105	338° 27'	274.0'	"	"	
	106	355° 45'	228.0'	7.3	4.8	WEST EDGE OF SEWER DITCH
	107	349° 00'	110.0'	"	"	" " " " "
	108	214° 20'	30.0'	"	"	SOUTH END SEWER DITCH
	109	306° 15'	13.0'	"	"	EAST EDGE OF SEWER DITCH
	110	356° 50'	120.0'	"	"	" " " " "
	111	359° 30'	215.0'	"	"	" " " " "
	112	00° 13'	215.0'	6.1	6.0	ON DIKE EAST OF SEWER
	113	03° 29'	213.0'	"	"	" " " " "
	114	357° 43'	110.0'	"	"	" " " " "
	115	04° 05'	109.0'	"	"	" " " " "
	116	332° 09'	20.0'	7.3	4.8	EAST EDGE OF SEWER DITCH
	117	335° 59'	19.0'	6.1	6.0	ON DIKE EAST OF SEWER

6-30-48 (9)

H.I. 12.11 PX

STA	OBJ	AZIMUTH	DIST	ROD	ELEV	REMARKS
"N"	118	09° 44'	18.5'	6.1	6.0	SOUTH DEAD END DIKE EAST OF SEWER
	119	91° 36'	40.0'	7.3	4.8	AT Y IN ~~SLOUGH SEWE~~ SLOUGH AT KENDALL
	120	112° 35'	40.0'	"	"	" " " " " "
	121	95° 02'	30.0'	"	"	WEST SIDE WEST FORK
	122	137° 53'	50.0'	"	"	ADD 2' DIST FOR 2.7 ELEV, MAIN SLOUGH
0	123	166° 20'	140.0'	"	"	" " " " "
0	124	165° 21'	132.0'	9.4	2.7	" " " " "
	125	48° 18'	77.0'	7.3	4.8	NORTH OF FORK WEST SIDE MAIN SLOUGH
	126	48° 18'	79.0'	9.4	2.7	" " " " "
	127	29° 40'	148.0'	7.3	4.8	" " " " "
	128	38° 55'	163.0'	"	"	" " " " " S CURVE IN SLOUGH
	129	41° 28'	141.0'	9.4	2.7	" " " " "
	130	38° 27'	225.0'	7.3	4.8	" " " " "
	132	47° 15'	227.0'	9.4	2.7	" " " " "
	133	48° 11'	129.0'	"	"	EAST SIDE OF SLOUGH
	134	48° 41'	129.0'	7.3	4.8	" " " " "
	135	48° 30'	173.0'	"	"	" " " " "
	136	48° 30'	173.0'	9.4	2.7	" " " " "
	137	42° 08'	140.0'	7.3	4.8	" " " " "

HI = 12.11 PX

STA.	OBJ.	AZIMUTH	DIST	ROD	ELEV.	REMARKS
"N"	138	42° 08'	142.0	9.4	2.7	EAST EDGE OF SLOUGH
	139	36° 57'	132.0'	7.3	4.8	" " " "
	140	32° 45'	144.0'	9.4	2.7	" " " "
	141	74° 22'	82.0'	7.3	4.8	" " " "
	142	74° 22'	55.0'	9.4	2.7	" " " "
	143	102° 19'	81.0'	7.3	4.8	" SIDE " "
	144	148° 43'	122.0'	"	"	" " " "
	145	157° 51'	110.0'	9.4	2.7	" EDGE " "
	146	164° 09'	200.0'	"	"	" " " "
	147	164° 38'	300.0'	"	"	" " " "
	148	163° 41'	380.0'	"	"	" " " "
	149	159° 53'	442.0'	"	"	" " " "
	150	155° 34'	442.0'	7.3	4.8	" SIDE " "
	151	157° 51'	321.0'	"	"	" " " "
	152	153° 15'	220.0'	"	"	" " " "
	153	144° 09'	160.0'	"	"	" " " "
	TP#7			-4.41	7.70	T.P. #7
		HI = 12.80		+5.10	7.70	TP #7

6-30-48

(11)

HI=12.80

PX

STA.	OBJ.	AZIMUTH	DIST.	ROD	ELEV.	REMARKS.
"M."	"N"	182° 04'	392.0'			
	154	246° 14'	80.0'	6.8	6.0	NEAR CROWN PT. DRIVE N. OF KENDALL
	155	320° 00'	102.0'	"	"	" " " " "
	156	326° 04'	190.0'	"	"	" " " " "
	157	333° 48'	193.0'	"	"	" " " " "
	158	341° 42'	175.0'	"	"	" " " " "
	159	00° 14'	151.0'	"	"	ALONG DIKE. EAST OF SEWER
	160	351° 01'	47.0'	"	"	" " " " "
	161	03° 40'	46.0'	"	6.0	" " " " " EAST SIDE
	162	347° 20'	46.0'	8.0	4.8	ALONG SEWER DITCH EAST SIDE
	163	354° 49'	155.0'	"	"	N. END OF SEWER DITCH
	164	02° 59'	150.0'	6.8	6.0	DIKE - EAST SIDE -
	165			8.0	4.8	WEST OF SLOUGH
	166	131° 53'	255.0'	10.1	2.7	" " "
	167	136° 45'	225.0'	8.0	4.8	" " "
	168	128° 18'	230.'	10.1	2.7	" " "
	169	127° 47'	211.0'	8.0	4.8	End " " " Slough
	170	111° 09'	216.0'	10.1	2.7	End of 2.7 Contour in Slough

6-30-48

(13)

PX

Sta	Obj.	Azimuth	Dist	Rod	Elev.	Remarks
"M"	"N"	182° 04	392.0'			
		H.I. - 12.80				
	171	110.°	17'	211.0'	8.0	4.8 West of Slough.
	172	91°	00'	222.0'	8.0	11 " " "
	173	91°	33'	227.0'	9.5	3.3 Bottom of Slough
	174	80°	21'	310.0'	8.8	4.0 " " "
	175	78°	39'	305.0'	8.0	4.8
	176	69°	57'	375.0'	8.0	11
	177	72°	20'	385.0'	8.5	4.3 Bottom of Slough
	178	74°	52'	380.0'	8.0	4.8 East Side of Slough
	179	86°	06'	300.0'	8.0	11 " "
	180	94°	00'	244.0'	8.0	11 " "
	181	114°	22	240.0'	8.0	11 " "
	182	124°	08'	248.0'	8.0	11 " "
	T.P. # 8				- 6.97	5.83 T.P. # 8
					+ 5.55	5.83 T.P. # 8
"L"	N.E. Cor Lot 73	NE Cor 234°	15'	226.15'		
		H.I - 11.38				

11.4
5.4
6.0

6-30-48

PX

(13)

Sta	Obj.	Azimuth	Dist	Rod	Elev.	Remarks
"L"	N.E. Cor Lot 73	234° 15'	226.15			
		H.I	11.38			
	183	216° 27'	328.0'	5.4	6.0	
	184	221.° 47'	250.0'	5.4	"	
	185					
B.M.				2.95	8.43	Top of Concrete Mon. N.E. Cor Lot 73
	186	241° 17'	200.0	5.4	6.0	
	187	272° 33'	128.0'	5.4	"	
	188	313° 44'	144.0'	5.4	"	
	189	24° 29'	117.0'	6.4	"	(TIES TO #223)
	190	40° 20'	151.0'	5.4	"	
	191	40° 46'	165.0'	6.6	4.8	West side of Slough
	192	22° 51'	210.0'	5.4	6.0	" "
	193	23° 39'	214.0'	6.6	4.8	" "
	194	21° 48'	310.0'	5.4	6.0	" "
	194	22° 27'	310.0'	6.6	4.8	" "
	195	26° 44'	432.0'	5.4	6.0	" "
	196	28° 09'	415.0'	6.6	4.8	End of 4.8' Contour.

6-30-18

PX

(11)

Stg	Obj.	Azimuth	Dist	Rod	Elev	Remarks
		H.I 11.38				
"L"	N.E. Cor Lot 73	234°	15'	226.15'		
	197	28°	29'	480.0'	5.4	6.0 West Side of Slough
	198	31°	09'	410.0'	5.4	" East Side of Slough
	199	28°	14'	303.0'	5.4	" " "
	200	25°	22'	303.0'	6.6	4.8 " "
	201	31°	38'	210.0'	5.4	6.0 " "
	202	31°	12'	210.0	6.6	4.8 " "
	203	57°	23'	200.0	5.4	6.0 " "
	204	57°	11'	189.0'	6.6	4.8 " "
	205	80°	41'	235.0'	5.1	6.0 " "
	206	87°	02'	212.0'	6.6	4.8 " "
	207	107°	31'	318.0'	5.4	6.0 " "
	208	107°	41'	318.0'	6.6	4.8 " "
	209	125°	21'	360.0	5.4	6.0 " "
	210	125°	37'	360.0	6.6	4.8 " "
	211	139°	15'	350.0'	5.4	6.0 West side of Slough
	212	139°	06'	360.0	6.6	1.8

June 30-48

Sta.	Obj.	Azimuth	Dist	Rod	Elev.	Remarks
"L"	N.E. Cor Lot 73	234° 15'	226.15'			
		H.I 11.38				
	213	114° 35'	303.0'	5.4	6.0	West Side of Slough
	214	114° 16'	310.0	6.6	4.8	" "
	215	101° 45'	215.0	5.4	6.0	" "
	216	101° 20'	217.0'	6.6	4.8	" "
	217	73° 36'	155.0'	5.4	6.0	" "
	218	73° 12'	154.0'	6.6	4.8	" "
	219	143° 46'	328.0'	5.4	6.0	" "
	220	134° 04'	244.0'	5.4	6.0	" "
	221	120° 15'	162.0'	5.4	6.0	" "
	222	114° 21'	60.0'	5.4	6.0	" "
	223	52° 02'	22.0'	6.4	6.0	(TIES IN TO POINT #189)
T.P.	#9			-5.71	5.67	
		H.I.=11.42		+5.75	5.67	T.P. #9
CONC MON	L	262° 15'	444.75'			GLOVER'S CONC. MON.
	224	193° 32'	490.0'	5.4	6.0	EAST SIDE OF SLOUGH
	225	178° 24'	530.0'	"	"	" " " "
	226	164° 44'	532.0'	"	"	" " " "

6-30-48

PX

(15)

Sta.	Obj	Azimuth	Dist	Rod	Elev.	Remarks
					HI = 11.42	PA
Conc Mon.	227	155° 00'	673.0'	5.4	6.0	EAST SIDE OF SLOUGH
		HI = 11.42				
T.P. #10				-2.77	8.65	" " " "
		HI = 11.86		+3.21		
T.P. #11				-4.94	6.92	
		HI = 10.60		+3.68		
T.P. #12				-6.01	4.59	
		HI = 9.64		+5.05		
T.P. #13				-4.40	5.24	
		HI = 9.25		+4.01		
T.P. #5				-4.37	4.88	CHECK IN TO T.P. #5 ELEV. 4.84
		HI = 8.99		+4.11		
"F"	"G"	329° 10'	443.21			
	228	285° 55'	256.0'	6.3	2.7	EAST EDGE OF SLOUGH
	229	270° 00'	198.0'	"	"	" " " "
	230	253° 08'	136.0'	"	"	" " " "
	231	188° 32'	104.0'	"	"	" " " "
	232	181° 35'	132.0'	"	"	" " " "
	233	174° 56'	228.0'	"	"	" " " "
	234	158° 15'	330.0'	"	"	" " " "

7-1-98

(17)

HI = 8.99

PX

STA.	OBV.	AZIMUTH	DIST.	ROD	ELEV.	REMARKS
"F"	235	139° 28'	269.0'	6.3	2.7	EAST OF SLOUGH EDGE OF GRASS
	236	114° 27'	235.0'	"	"	" " " " " " "
	237	~~178°~~ 78° 46'	173.0'	"	"	" " " " " " "
	238	37° 00'	220.0'	"	"	" " " " " " "
	239	20° 50'	235.0'	"	"	" " " " " " "
	240	01° 49'	350.0'	"	"	" " " " " " "
TP #13				+4.03	5.24	T.P. #13
		HI = 9.27				
"G"	"H"	330° 00' 30"	515.38'			
	241	11° 10'	268.0'	6.6	2.7	EAST OF SLOUGH EDGE OF GRASS
	242	42° 24'	220.0'	"	"	" " " " " " "
	243	196° 20'	250.0'	"	"	EAST EDGE OF SLOUGH
	244	223° 14'	210.0'	"	"	" " " " " " "
	245	252° 40'	245.0'	"	"	" " " " " " "
	246	274° 05'	350.0'	"	"	" " " " " " "
	247	272° 30'	275.0'	4.5	4.8	EAST OF SLOUGH
	248	249° 35'	145.0'	"	"	" " " " "
	249	296° 05'	105.0'	"	"	" " " " "
	250	336° 55'	120.0'	"	"	" " " " "

STA.	OBV.	AZIMUTH	DIST.	ROD	ELEV.	REMARKS
"C"	251	344° 32'	198.0'	4.5	4.8	EAST OF SLOUGH
TP#13				+4.33	5.24	
		HI=	9.57			
"H"	"I"	31° 53'	558.15			
	252	142° 22'	262.0'	4.8	4.8	EAST OF SLOUGH
	253	127° 48'	165.0'	"	"	" " "
	254	107° 07'	70.0'	"	"	" " "
	255	134° 50'	55.0'	"	"	" " "
	256	223° 45'	11.0'	"	"	" " "
	257	298° 58'	70.0'	"	"	
	258	308° 35'	115.0'	"	"	
	259	319° 28'	160.0'	"	"	
	260	342° 19'	210.0'	"	"	
	261	353° 12'	185.0'	"	"	
	262	04° 50'	195.0'	"	"	
	263	19° 39'	256.0	"	"	
	264	30° 30'	285.0	"	"	
	265	37° 20	355.0'	"	"	

7-1-48

PX

(19)

Sta.	Obj.	Azimuth		Dist	Rod	Elev	Remarks
~~"G"~~							
"H"		H.I 9.57					
	266	42°	35'	435.0'	4.8	4.8	
	267	46°	49'	480.0'	4.8	"	
	268	55°	30'	468.0'	6.9	2.7	S.E. Edge of Grass
	269	55°	08'	350.0'	"	"	" "
	270	63°	35'	203.0'	"	"	East Edge of Grass
	271	96°	42'	265.0'	"	"	" " " "
	272	196°	01'	405.0	"	"	East Edge of Slough
	273	194°	56'	353.0'	4.8	4.8	" "
	274	224°	15'	275.0	6.9	2.7	" "
	275	228°	02'	265.0'	4.8	4.8	" "
	276	262°	10'	327.0'	6.9	2.7	" "
	277	265°	14	302.0	4.8	4.8	" "

7.7 – 5C PX 7-1-48 (29)

Sta	Obj	Azimuth		Dist	Rod	Elev	Remarks
"I"	"J"	65°	03'	643.73'			
		H.I – 10.47				T.P. #12	
					+5.82	4.59	
	278	120°	02	200.0'	5.6	4.8	
	279	120°	43'	260.0'	7.7	2.7	So Edge of Grass
	280	94°	33'	310.8'	5.6	4.8	
	281	101°	40'	360.0	7.7	2.7	So. Edge of Grass
	282	93°	29'	450.0'	7.7	2.7	" " "
	283	86°	27'	467.0'	5.6	4.8	
	284	67°	08'	490.0'	4.4	6.0	
	285	63°	57'	345.0	4.4	6.0	
	286	74°	60'	245.0'	4.4	6.0	
	(TIE TO PL #2 FROM GLOVER'S MON.)						
CONC MON.	"L"	262° 15'					GLOVER'S MON.
	PL #2	233° 11'					CONC. MON ON PUEBLO LOT CORNER S.E. OF GLOVER'S MON. 78.93'
		180					
		S 53° 11' W					

STA	OBJ.	ANGLE	DIST.
	CONC. MON. ELY LINE LT. 72 & NWLY. CR. PT. DRIVE		
U.S.ED. MORRELL	R ↘ MARSTONS TWR.	1. 126°15'00" 2. 252°30'00" AV. 126°15'00"	115.83'
	2 x 2 HUB. 4.71 S. OF S.E. COR. LT. 43 - BLK. 5 VENICE PARK	1. 151°37'00"	
CONC. MON. ELY LINE LT. 72 & CR. PT. DRIVE	R. ↘ U.S.E.D. MORRELL	2. 303°13'30" AV. 151°36'45"	24.66'
	R.E. No. 469 I" I.P.S.E. COR. LT. 25. BLK 2, VENICE PARK	1. 127°07'00" 2. 254.14'00" AV. 127°07'00"	
2 x 2 4.71. S. OF S.E. COR. LT. 73	LT. ↘ CONC. MON. LINE LT. 72. CR. PT. DR.		
	CONC. MON. N/E COR. LOT 74	1. 90°00'00" 2. 180°00'00"	
P.I. & PAC. BCH. DRIVE. & WESTERLY LINE OF MORRELL ST.	R ↘ 2 x 2 4.71' S. OF S/E COR. LOT 73	AV. 90°00'00"	

BARRAGAN
SHERRY
STANLEY

7-14-98
CLEAR
COOL

FINAL X-SECTIONS OF SLOPES DE-ANZA COVE

(SEE F.B. #22 PP. 70-71-72)

179 53 60
94 47 16
85°12'44"

12.09
3.89
15.98

TOP OF BRASS BUTTON IN CONC MON. MKD. CITY B.M. "STATE"

15.98
4.60
11.38
4.08
15.46

STA	+	H.I.	−	ELEV	
B.M.	3.89	15.98		12.09	
T.P.	4.08	15.46	-4.60	11.38	LATH ON CROWN OF S-1

STA-79+00 W

0+00 = STA-W-79+00 DE-ANZA COVE B/L: SECTION DUE N & S. PK

DIST	+	H.I.	−	ELEV
S-0+05		15.46	12.6	2.9
0+00			12.0	3.5
N-0+29			8.4	7.1
N-0+68			5.0	10.5
N-1+00			4.4	11.1

STA-W-80+00

0+00 = STA-W-80+00 DE-ANZA COVE B/L: SECTIONS DUE N & S.

DIST	+	H.I.	−	ELEV	P.X.
S-0+28		15.46	12.5	3.0	
0+00			8.7	6.8	
N 0+16			6.6	8.9	
N-0+36			4.7	10.8	
N-1+00			4.6	10.9	

STA-81+00-W

0+00 = STA-W-81+00 DE-ANZA COVE B/L: SECT. DUE N & S

DIST	+	H.I.	−	ELEV	P.X.
S-0+34			12.5	3.0	
S-0+17		15.46	9.9	5.8	
0+00			7.0	8.5	
N-0+21			4.3	11.2	
N-0+70			4.5	11.0	
N-1+00			4.7	10.8	

STA-82+00

7-14-18

(23)

0+00 = STA-82+00 DE-ANZA COVE B/L: SECT. DUE N & S

DIST	+	H.I.	−	ELEV	P.X.
S-0+29		15.46	12.5	3.0	
S-0+12			9.3	6.5	
0+00			7.1	8.4	
N-0+20			4.7	10.8	
N-0+38			4.8	10.7	

STA-83+00

0+00 = STA-W-83+00 DE-ANZA COVE B/L: SECT. DUE N & S

DIST	+	H.I.	−	ELEV	P.X.
S-0+30		15.46	12.5	3.0	
S 0+15			9.9	5.6	
0+00			7.4	8.1	
N 0+21			4.9	10.6	
N-0+30			4.9	10.6	
T.P.			6.50	8.96	TOP OF STAKE STA-W-83+00

15.46
8.96
6.50

15.46
6 5 0
8.9 6

STA-84+00W

0+00=STA-W-84+00 DE-ANZA COVE B/L: SECT. DUE N E S

DIST	+	H.I.	−	ELEV	P.X.
T.P.	5.05	14.01		8.96	TOP OF STAKE W-83+00
					8.96 5.05 14.01
S-0+31			11.0	3.0	
S-0+13			8.3	5.7	
0+00			6.0	8.0	
N-0+19			3.4	10.6	
N-0+33			3.6	10.4	
N-					

STA-85+00

0+00=STA-85+00W DE-ANZA COVE B/L: SECT. DUE N E S

DIST	+	H.I.	−	ELEV	P.X.
S 0+27		14.01	10.9	3.1	
S-0+12			8.5	5.5	
0+00			6.3	7.7	
N-0+21			~~8.5~~ 3.4	10.6	
N-0+57			~~3.4~~ 3.7	10.3	

STA-86+00

0+00=STA-W-86+00 DE-ANZA COVE B/L: SECT. DUE N.E S

DIST	+	H.I.	−	ELEV	P.X.
S-0+26		14.01	10.9	3.1	
S-0+12			8.5	5.5	
0+00			6.3	7.7	
N-0+07			5.1	8.9	
N-0+18			3.6	10.4	
N-0+28			4.0	10.0	

STA-87+00

0+00=STA-W-87+00 DE-ANZA B/L: SECT. DUE N.E.S.

DIST	+	H.I.	+	ELEV	P.X
S-0+25		14.01	10.9	3.1	
S 0+11			8.4	5.6	
0+00			6.6	7.4	
N-0+07			5.3	8.7	
N-0+18			3.9	10.1	
N-0+25			4.0	10.0	

STA-88+00

0+00 = STA-W-88+00 DE-ANZA B/L: SECT. DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
S 0+26		14.01	16.9	3.1	
S-0+14			8.3 +0.9	5.7	
0+00			6.3	7.7	
N-0+07 +14			5.4 8.6	8.6	
N-0+19			4.3	9.7	
T.P.			5.09	8.92	

14.01 − 5.09 = 8.92 TOP OF STA-W-88+00

STA-89+00

0+00 = STA-89+00 DE-ANZA COVE B/L: SECT DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
T.P.	5.30	14.22		8.92	
S-0+25			10.9	3.3	
S-0+11			8.2	6.0	
0+00			6.5	7.7	
N-0+08			5.2	9.0	
N-0+21			3.9	10.3	
N-0+29			4.0	10.2	

TOP OF STA-W-88+00

8.92 + 5.30 = 14.22

STA-90+00

0+00 = STA-W-90+00 DE-ANZA COVE B/L. SECT. DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
S-0+25		14.22	10.9	3.3	
S-0+12			8.2	6.0	
0+00			6.3	7.9	
S-0+12			08 5.1 8.2	9.1	
N-0+25			18 3.5 +0.9	10.7	
N-0+11			3.3 5.1	10.9	
N-0+87			3.5	10.7	
T.P.			6.18	8.04	W-90+00

14.22 − 6.18 = 8.04

8.04 + 5.11 = 13.15

STA-91+00

0+00 = STA-W-91+00 DE-ANZA COVE B/L: SECT. DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
T.P.	5.11	13.15		8.04	W-90+00
S-0+25			9.1	4.0	
S-0+09			6.5	6.6	
0+00			1.6	9.5	
N-0+09			3.2	9.9	
N-0+18			2.0	11.1	
N-0+29			2.0	11.1	

STA. 92+00 W

0+00 = STA-W-92+00 DE-ANZA COVE B/L:

DIST	+	H.I.	−	ELEV	P.X.
S-0+28		13.15	9.0	4.1	
S-0+12			6.7	6.5	
0+00			5.1	8.0	
N-0+12			3.5	9.6	
N-0+28			1.9	11.2	
N-0+35			1.7	11.5	

STA. W-93+00

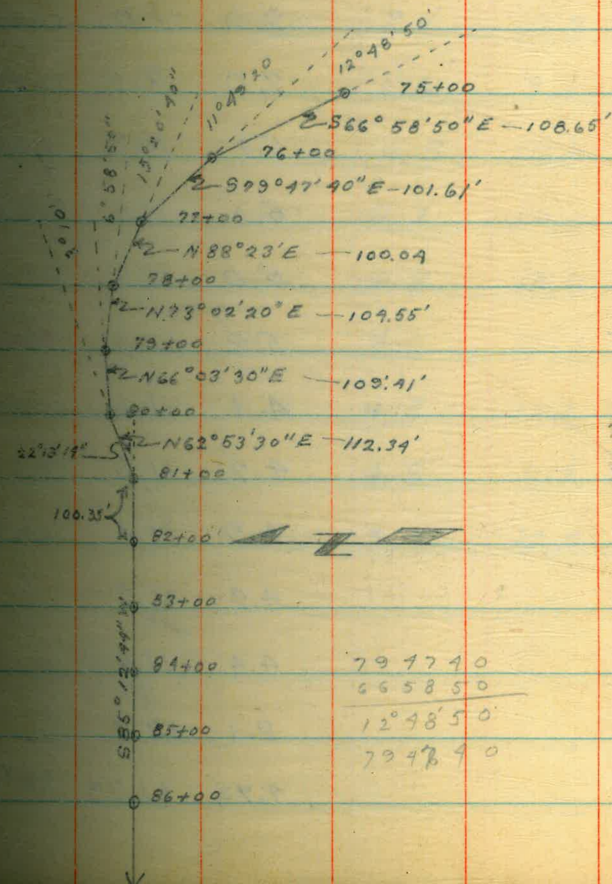
0+00 = STA-W-93+00 DE-ANZA COVE B/L:

DIST	+	H.I.	−	ELEV	P.X.
S-0+93		13.15	9.1	4.0	
S 0+46			7.6	5.5	
S 0+19			6.6	6.5	
0+00			5.0	8.1	
N-0+11			4.3	8.8	
N 0+25			3.4	9.7	
N-0+38			1.9	11.2	
N-0+44			2.1	11.0	2x2 100' S[illegible] 93+00
T.B.M			4.21	8.94	

CHECK LEVELS BACK TO "STATE"

STA.	+	H.I.	−	ELEV	
		13.15			
T.P.	5.18	13.42	4.91	8.24	W-83+00
T.P.	5.71	14.65	4.48	8.94	
T.P.	5.45	16.80	3.30	11.35	
			4.72	12.08	

8.24 / 5.18 / 13.42 / 4.48 / 8.94 / 5.71 / 14.65 / 3.30 / 11.35 / 5.45 / 16.80 — 83+00



89 60 / 88 23 / 1 37

89 59 60 / 79 47 40 / 10 12 20 / 1 37 / 11 49 20

88 23 00 / 73 02 20 / 15 20 40

73 02 20 / 66 03 30 / 6 58 50

66°03 30 / 62 53 30 / 3°10'00

79 47 40 / 66 58 50 / 12°48'50 / 79 47 40

7-10-48

Sta 78+00

0+00 = STA 78+00 W. DE ANZA COVE B/L:

P.X

Dist	+	HI	−	Elev	
	4.70	16.05		11.35	T.P. J.1 & J.2
S. 0+77			12.9	3.1	
S. 0+61			10.9	5.1	
S. 0+45			9.0	7.0	
S. 0+26			7.0	9.0	
0+0			5.1	10.9	
N 0+41			5.0	11.0	
N 0+92			5.0	11.0	
N 1+25			5.2	10.8	
N. 2+50			4.4	11.6	
N. 3+02			4.7	11.3	
N. 3+87			4.9	11.1	
N. 4+30			4.7	11.3	
N. 4+70			4.4	11.6	
N. 5+13			2.1	12.9	
			4.72	11.33	T.P #1

Sta. 77+00

16.80
12.03
4.77

0+00 = STA W. 77+00 DE ANZA COVE B/L:

Dist	+	HI	−	Elev	
	4.42	15.75		11.33	T.P #1 J.1 & J.2
S. 0+75			12.70	3.0	P.X
S. 0+60			11.60	4.1	
S. 0+42			8.4	7.3	
S. 0+21			6.6	9.1	
0+00			4.9	10.8	
N. 0+55			4.7	10.0	
N. 1+08			4.8	10.9	
N. 1+95			4.6	11.1	
N. 2+72			4.5	11.2	
N. 3+38			4.5	11.2	
N. 4+05			2.3	13.4	

STA. 76+00

0+00 = STA W76+00 DEANZA COVE B/L:

DIST	+	H.I.	−	ELEV	T.P.
	4.28	15.61		11.33	T.P.#1
S 0+80			12.8	2.8	P.X.
S 0+63			10.9	4.7	
S 0+46			8.8	6.8	
S 0+27			6.5	9.1	
0+00			4.8	10.8	
N. 0+49			4.6	11.1	
N. 1+05			4.9	10.7	
N. 1+65			4.8	10.8	
N. 2+10			4.4	11.2	
N. 2+50			4.4	11.2	
N. 3+05			3.5	12.1	
N. 3+30			2.1	13.5	

15.62
4.29
4.27

Sta. 75+00

0+00 = STA W-75+00 DEANZA COVE B/L:

D.I.I.	+	H.I.	−	Elev.	
	4.29	15.62		11.33	T.P.#1 LATH BETWEEN J-1 & J-2
S 0+96			12.7	2.9	P.X.
S 0+71			10.6	5.0	
S 0+51			8.7	6.9	
S 0+30			6.8	8.8	
0+00			5.0	10.6	
N. 0+65			5.1	10.5	
N. 1+15			5.1	10.5	
N. 1+75			4.5	11.1	
N. 2+30			4.0	11.6	
N. 2+65			3.0	12.6	
T.B.M.			3.51	12.11	4"x4" N/W OF ROAD ACROSS FILL
CHECK T.P.			4.27	11.33	LATH BETWEEN J-1 & J-2

BARRAGAN
SHERRY
STANLEY

7-15-48

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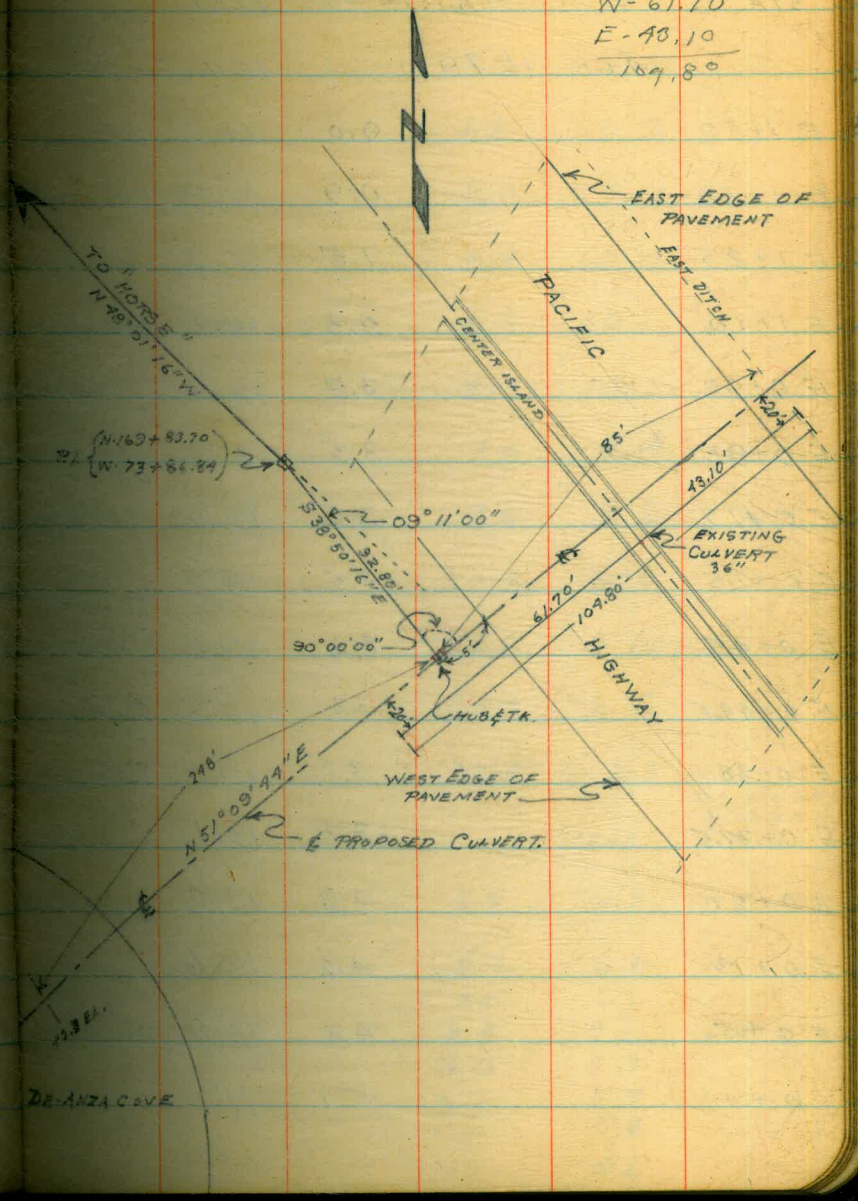
LOCATION OF PROPOSED CULVERT

ACROSS PACIFIC HIGHWAY

STATION	OBJECT	ANGLE	DIST
	"HORSE"	1. 69° 11' 00"	
P.I. {N 169+83.70 W 73+86.84	DEF RT.	2. 18° 22' 00"	92.80'
	2"x2" HUB & TACK = ℄ OF CULVERT	AV. = 09° 11' 00"	
P.I. {N 169+83.70 W 73+86.84		1. 90° 00' 00"	
2x2 HUB & TACK ℄ OF PROPOSED CULVERT	R ↓	2. 180 00' 00"	
	℄ OF PROPOSED CULVERT	AV. 90° 00' 00"	

W-61.70
E-48.10
109.80



7-12-48

PROFILE ALONG ℄ OF PROPOSED CULVERT ACROSS PACIFIC HIGHWAY

0+00 = 2"x2" Hub - 92.80' - S38°50'16"E of P.I. {N 169+83.70 / W 73+86.84}

P.K.

STA	+	H.I.	−	ELEV	
	4.68	16.79		12.11	4"x4" N/W of ROAD ACROSS FILL
E-1+52			0.0	16.8	
E 1+38			0.9	15.9	
E 1+25			1.5	15.3	
E 1+10			2.3	14.5	
E 0+98			3.2	13.6	
E 0+83			3.5	13.3	BOTTOM OF DITCH EAST SIDE OF HIGHWAY
E 0+77			3.2	13.6	Each Edge of Pavement
E 0+55			3.5	13.3	
E 0+45			3.6	13.2	Bottom of Center Island CURB
E 0+44.5			3.3	13.5	Top of Curb East Center Island
E 0+38.			3.3	13.5	Top of Curb West Center Island
E 0+37.5			3.7	13.1	Bottom of West Curb CENTER ISLAND
E 0+27			3.8	13.0	
E 0+13			4.2	12.6	
E 0+05			4.8	12.0	West Edge of Pavement
0+00			5.1	11.7	

BARRAGAN
SHERRY
STANLEY

7-15-48

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Profile for Culvert

Sta	+	HI	−	Elev	
		16.79			
W 0+11			5.2	11.6	
W 0+38			6.6	10.2	
W 0+70			6.9	9.9	
W 0+95			6.8	10.0	
W 1+20			6.7	10.1	
W 1+50			6.7	10.1	
W 1+65			7.4	9.4	
W 1+85			8.6	8.2	
W 2+05			10.3	6.5	
W 2+25			12.2	4.6	
W 2+36			13.3	3.5	
W 2+40			14.5	2.3	
T.B.M	0.21	12.32		12.11	4x4 N/W OF ROAD ACROSS FILL
W 2+00			5.4	6.9	
W 2+10			6.2	6.1	
W 2+20			7.2	5.1	
W 2+30			8.2	4.1	
W 2+40			9.0	3.3	
W 2+50			9.9	2.4	
W 2+58			11.5	0.8	
W 2+59			11.7	0.6	

7-15-48

FINAL X-SECTIONS OF SLOPES DE-ANZA COVE

(SEE F.B. # 22 PAGE # 71)

STA - N-167+00

0+00 = STA-N-167+00 DE-ANZA COVE B/L: SECT. DUE E & W.

DIST	+	H.I.	−	ELEV	
	1.38	13.49		12.11	4"x4" N/W OF ROAD ACROSS FILL, W/ CAP
W-0+83			11.3	2.3	
W 0+54			9.4	4.1	P.X.
W 0+41			7.8	5.7	
W 0+25			6.8	6.7	
0+00			4.9	8.6	
E 0+25			3.4	10.1	
E 0+61			3.5	10.0	
E 0+80			3.4	10.1	

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T.B.M.	5.30	13.58		8.28	2"x4" BETWEEN 63 & 64
N-167+00					
W. 0+83			11.3	2.3	
N-165+00					
W. 0+68			11.0	2.6	
N-164+00					
W. 0+58			10.9	2.7	
N-163+00					
W 0+57			10.8	2.8	

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Sta N.166+00

0+00 = Sta N166+00 De Anza Cove B.L: Sect. Due E. & W.

DIST	+	H.I.	−	Elev	
W. 0+37		13.49	9.0	4.5	P.X
W. 0+21			7.8	5.7	
W. 0+11			6.6	6.9	
0+00			5.6	7.9	
E. 0+10			4.6	8.9	
E. 0+25			3.7	9.8	
E. 0			~~9.1~~		

STA - N. 165+00

0+00 = STA-N.165+00 DE-ANZA COVE B/L: SECT. DUE E. & W.

DIST	+	H.I.	−	ELEV	P.X.
W-0+68			10.9	2.6	13.5
W 0+41		13.49	9.1	4.4	2.6
					10.9
W 0+26			7.8	5.7	
W 0+13			~~6.6~~ 6.6	6.9	
0+00			5.6	7.9	
E 0+13			4.1	9.4	
E 0+24			3.0	10.5	
E 0+41			3.5	10.0	

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STA- N.164+00

STA	+	H.I.	−	ELEV	
0+00 = STA. N.164+00 DE ANZA COVE B/L: SECT. DUE E. & W.					
W. 0+58			10.8	2.7	
W. 0+35		13.49	9.0	4.5	P.X.
W. 0+21			7.9	5.6	
W 0+12			6.6	6.9	
0+00			5.6	7.9	
E. 0+13			4.3	9.2	
E. 0+24			3.0	10.5	
E. 0+47			3.5	10.0	

STA- N. 163+00

0+00 = STA. N.163+00 DE ANZA COVE B/L: SECT. DUE E. & W.					
DIST	+	H.I.	−	ELEV	
W. 0+57			10.7	2.8	
W. 0+32		13.49	8.9	4.6	P.X.
W. 0+19			7.7	5.8	
W 0+09			6.3	7.2	
0+00			5.6	7.9	
E. 0+10			4.7	8.8	
E 0+21			3.4	10.1	
T.B.M.			5.21	8.28	

13.49
5.21
8.28

TOP 2"x4" 35' DN. SLOPE BETWEEN N.163+00 & N.162+00

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STA- 162+00. N

0+00 = STA. N.162+00 DE ANZA COVE B/L: SECT. DUE E. & W.					
DIST	+	H.I.	−	ELEV	
T.B.M.	5.18	13.46		8.28	2"x4" 35' DN N. SLOPE W/STA N. 163+00
W. 0+56			10.6	2.9	8.28 5.18 13.46
W. 0+43			9.5	4.0	P.X.
W. 0+28			8.1	5.4	
W. 0+12			6.5	7.0	
W. 0+00			5.4	8.1	
E. 0+10			4.4	9.1	
E. 0+23			3.7	9.8	
E.					

STA- N. 161+00

0+00 = STA. N.161+00 DE ANZA COVE B/L: SECT. DUE E. & W.					
DIST	+	H.I.	−	ELEV	
W. 0+59		13.46	10.6	2.9	P.X.
W. 0+40			8.9	4.6	
W. 0+19			7.4	6.1	
0+00			5.8	7.7	
E. 0+13			4.8	8.7	
E. 0+25			3.8	9.7	
E. 0+35			3.7	9.8	

STA-N-160+00

0+00 = STA-N-160+00 DE-ANZA COVE B/L: SECT. DUE E. & W.

DIST	+	H.I.	−	ELEV	
W-0+54		13.46	10.5	3.0	P.X.
W-0+37			9.0	4.5	
W-0+18			7.7	5.8	
0+00			5.9	7.6	
E-0+11			4.9	8.6	
E-0+20			4.3	9.2	
E-0+29			3.7	9.8	
E.					

STA-N-159+00

0+00 = STA-N-159+00 DE-ANZA COVE B/L: SECT DUE E. & W.

DIST	+	H.I.	−	ELEV	
W-0+41		13.46	10.6	2.9	P.X.
W-0+27			9.5	4.0	
W 0+15			8.1	5.4	
0+00			6.4	7.1	
E-0+12			5.0	8.5	
E-0+21			4.0	9.5	
E-0+25			3.8	9.7	T.P.
T.P.			6.30	7.16	

STA-N-158+00

0+00 = STA-N-158+00 DE-ANZA COVE B/L.

DIST	+	H.I.	−	ELEV	
T.P.	5.16	12.32		7.16	T.P.
W-0+40			9.2	3.1	P.X.
W-0+23			8.4	3.9	
W-0+11			7.3	5.0	
0+00			5.7	6.6	
E-0+10			4.9	7.4	
E-0+18			3.7	8.6	
E-0+33			3.6	8.7	

STA-N-157+00

0+00 = STA-N-157+00 DE-ANZA COVE B/L.

DIST	+	H.I.	−	ELEV	
W-0+43		12.32	9.2	3.1	P.X.
W-0+36			8.0	4.3	
W-0+25			7.4	4.9	
0+00			6.7	5.6	
E-0+07			-5.6	6.2	
E-0+17			4.6	7.7	
E-0+26			3.6	8.7	
E-0+36			2.7	9.6	
E-0+54			2.3	10.0	

STA. N. 156+00

0+00 = STA. N. 156+00 DE ANZA COVE B/L: SECT DUE E. & W.

DIST	+	H.I.	−	ELEV	
W. 0+34		12.32	9.1	3.2	P.X.
W. 0+17			8.3	4.0	
W. 0+00			7.3	5.0	
E 0+14			5.8	6.5	
E. 0+26			4.3	8.0	
E. 0+40			3.3	9.0	
E. 0+56			3.3	9.0	

STA. N. 155+00

0+00 = STA. 155+00 DE ANZA COVE B/L: SECT DUE E. & W.

DIST	+	H.I.	−	ELEV	
W. 0+27		12.32	9.1	3.2	P.X.
W. 0+13			7.9	4.4	
0+00			6.8	5.5	
E. 0+08			5.9	6.4	
E. 0+19			4.6	7.7	
E. 0+35			4.0	8.3	

STA. N. 154+00

0+00 = STA. N. 154+00 DE ANZA COVE B/L: SECT. DUE E. & W.

DIST	+	H.I.	−	ELEV	
W 0+52		12.32	9.1	3.2	P.X
W. 0+35			8.0	4.3	
W. 0+12			6.8	5.5	
0+00			4.8	7.5	
E 0+16			4.0	8.3	
E. 0+36			4.0	8.3	
E. 0+62			3.6	8.7	
E. 0+79			2.1	9.9	

STA. N. 153+00

0+00 = STA. N. 153+00 DE ANZA COVE B/L: SECT. DUE E. & W.

DIST	+	H.I.	−	ELEV	
N. 1+00		12.32	7.9	4.1	P.X.
N. 0+63			7.2	5.1	
W 0+37			5.5	6.8	
W. 0+20			3.7	8.6	
0+00			3.5	8.8	
E 0+16			2.5	9.8	
E 0+49			2.5	9.8	TOP OF FILL GRADE STAKE
E 1+00			2.4	9.9	
T.B.M.			1.81	10.51	2x2 E/OF STA. 153+00

STA-152+00·N

0+00 = STA. N.152+00 DE-ANZA COVE B/L: SECT. DUE E. & W.

	DIST	+	H.I.	−	ELEV	
	T.P.	4.51	15.02		10.51	2x2 N/STA 152+00
W.	1+26			10.7	4.3	P.X
W.	0+83			10.2	4.8	
W.	0+47			9.5	5.5	
W.	0+20			6.9	8.1	
	0+00			4.7	10.3	
E.	0+50			4.7	10.3	
E.	1+45			4.6	10.4	
E.	2+05			4.8	10.2	
E.	2+50			4.7	10.3	
E.	2+85			4.3	10.7	
E.	3+12			3.7	11.3	
E.	3+35			1.9	13.1	HIGHWAY
	-CHECK-				12.58	STA-N.161+00
	T.B.M.			2.48	12.54	

PROFILE ALONG B/L (S36°45'16"E): 0+00 = STA. N.152+00;

	0+00		4.7	10.3 P.X
S.	0+15		5.5	9.5
S.	0+30		7.0	8.0
S.	0+47		8.9	6.1
S.	0+75		9.9	5.1
S.	0+28		10.3	4.7

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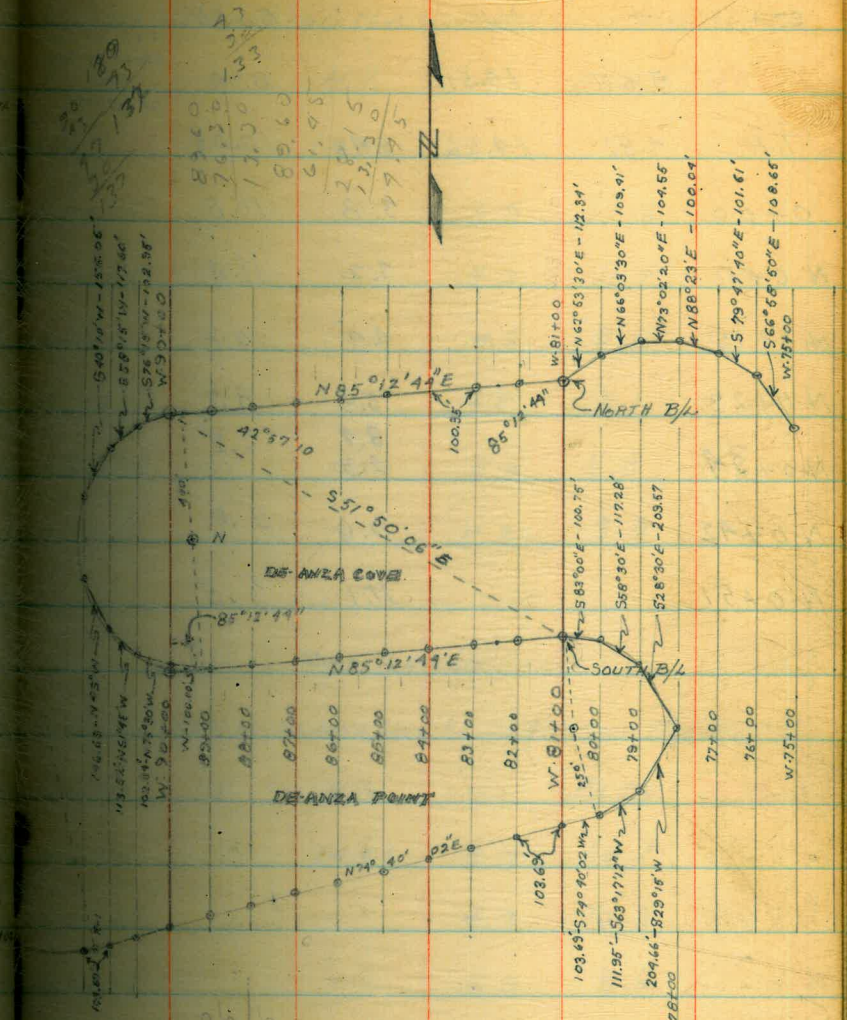
BASE LINE FOR X-SECTIONS OF SLOPES
DE-ANZA COVE - PROJ. #3-1



89 60
85 12
4 48

61 95
43 0
18 95

89 59 60
85 12 44
4 47 16
7
11 47 16

STA-W-90+00

0+00 = STA-W-90+00 DE-ANZA COVE SOUTH B/L: SECT. DUE N.E.S.

STA	+	H.I.	−	ELEV	
	5.57	14.51		8.94	2x2 100' S/S. 93+00 DE-ANZA B/L. 20' N/90+99.3
T.P.	4.51	14.56	4.96	10.05	P.X.
0+00			3.8	10.8	
N·0+11			3.2	11.4	
N·0+15			4.4	10.2	
N·0+23			5.9	8.7	
N·0+34			8.1 ~~7.9~~	6.2	
N·0+42			9.6	5.0	
N·0+51			11.1	3.5	

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STA-W-89+00

0+00 = STA-W-89+00 DE-ANZA COVE SOUTH B/L: SECT. DUE N.E.S.

DIST	+	H.I.	−	ELEV	P.X.
		14.56			
S·0+35			3.4	11.2	
0+00			3.2	11.4	
N·0+07			4.8	9.8	
N·0+16			6.5	8.1	
N·0+28			8.8	5.8	
N·0+42			11.2	3.4	

STA-88+00

0+00 = STA-W-88+00 DE-ANZA COVE SOUTH B/L: SECT. DUE N.E.S.

DIST	+	H.I.	−	ELEV	P.X.
0+00		14.56	3.9	10.7	
N·0+05			4.3	10.3	
N·0+16			6.0	8.6	
N·0+24			7.6	7.0	
N·0+31			9.0	5.6	
N·0+45			11.4	3.2	

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STA-87+00

0+00=STA-W-87+00 DE ANZA COVE SOUTH B/L: SECT. DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
0+00		14.56	4.2	10.4	
N·0+05			4.6	10.0	
N·0+~~0~~14			5.9	8.7	
N·0+20			7.3	7.3	
N·0+30			8.8	5.8	
N·0+96			11.4	3.2	

STA-W-86+00

0+00=STA-W-86+00 DE ANZA COVE SOUTH B/L: SECT. DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
0+00		14.56	4.1	10.5	
N·0+05			4.7	9.9	
N·0+15			5.8	8.8	
N·0+26			7.3	7.3	
N·0+38			9.3	5.3	
N·0+51			11.4	3.2	

STA-85+00·W

0+00=STA-W-85+00 DE ANZA COVE SOUTH B/L: SECT. DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
0+00		14.56	4.5	10.1	
N·0+07			4.8	9.8	
N·0+18			6.3	8.3	
N·0+30			7.7	6.9	
N·0+72			9.5	5.1	
N·0+54			11.6	3.0	
T.P.			5.75	8.81	10' N/ OF STA-84+00 (1"x2")

STA-84+00·W

0+00=STA-W-84+00 DE ANZA COVE B/L (SOUTH): SECT. DUE N. & S.

DIST	+	H.I.	−	ELEV	P.X.
T.P.	6.72	15.53		8.81	10' N/ OF STA W-84+00 (1"x2")
					8.81 / 6.72 / 15.53
0+00			5.7	9.8	
N·0+05			6.1	9.4	
N·0+14			6.9	8.6	
N·0+27			8.1	7.4	
N·0+40			9.7	5.8	
N·0+58			12.5	3.0	

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STA-W-83+00

0+00 = STA-W-83+00 DE-ANZA COVE SOUTH B/L: SECT. DUE N & S.

DIST	+	H.I.	−	ELEV	
0+00		15.53	5.0	10.5	P.K.
N·0+05			5.6	9.9	
N·0+14			6.6	8.9	
N·0+26			7.9	7.6	
N·0+38			9.5	6.0	
N·0+60			12.5	3.0	

STA-W-82+00

0+00 = STA-W-82+00 DE-ANZA COVE SOUTH B/L: SECT DUE N & S.

DIST	+	H.I.	−	ELEV	
0+00		15.53	5.5	10.0	P.K.
N·0+06			5.7	9.8	
N·0+18			6.4	9.1	
N·0+27			7.6	7.9	
N·0+39			8.9	6.6	
N·0+49			10.2	5.3	
N·0+65			12.7	2.8	

STA-W-81+00

0+00 = STA-W-81+00 DE-ANZA COVE SOUTH B/L: SECT. DUE N & S.

DIST	+	H.I.	−	ELEV	
0+00		15.53	4.8	10.7	P.K.
N·0+06			5.1	10.4	
N·0+16			5.8	9.7	
N·0+27			7.0	8.5	
N·0+41			8.7	6.8	
N·0+55			10.5	5.0	
N·0+68			12.5	3.0	
T.B.M			4.20	11.33	2×2 ON TOP OF DE-ANZA POINT
T.P	4.75	14.35	5.93	9.60	
T.P	4.03	14.07	4.31	10.04	
CHECK			5.14	8.93	2×2 100'S/STA 93+00 DE-AN: N/B/L

14.07 / 3.95 / 5.13

15.53 / 4.20 / 11.33

4.75 / 14.35 / 4.31 / 10.04 / 4.03 / 14.07 / 8.94

PROFILE ALONG ℄ OF PROPOSED CULVERT ACROSS PACIFIC HIGHWAY - (SEE PAGE 29 THIS BOOK)

STA	+	H.I.	−	ELEV	
T.B.M	4.94	17.05		12.11	TOP OF 4"x4" N/W OF ROAD ACROSS FILL - (W/OF P.I.)
0+00			5.37	11.68	TOP OF HUB - FLUSH WITH GROUND
E 0+04.5			5.15	11.90	WEST EDGE OF PAVED SHOULDER
E 0+08			4.65	12.40	BREAK IN SHOULDER
E 0+14			4.45	12.60	W/EDGE OF HIGHWAY
E 0+27			4.04	13.01	STRIPE BETWEEN SOUTH BOUND LANES
E 0+38.9			4.00	13.05	BOTTOM W/EDGE CENTER ISLAND CURB
E 0+39.3			3.58	13.47	TOP " " " "
E 0+42			3.48	13.57	CENTER OF CENTER ISLAND
E 0+44.7			3.55	13.50	TOP E/EDGE CENTER ISLAND CURB
E 0+46.1			3.85	13.20	BOTTOM " " " "
E 0+57			3.80	13.25	STRIPE BETWEEN NORTH BOUND LANES
E 0+68			3.71	13.34	E/EDGE OF HIGHWAY
E 0+72.5			3.42	13.63	E/EDGE OF PAVED SHOULDER
E 0+78.5			3.50	13.55	W/EDGE OF DITCH
E 0+81.0			4.01	13.04	BOTTOM OF EAST DITCH
E 0+90			3.70	13.35	
BM			4.94	12.11	CHECK

12
14
26
13

68
14
54

FINAL X-SECTIONS OF SLOPES

DE-ANZA COVE - PROJ - #3-1

PX

(SEE PAGE 35 FOR B/L.)

STA - 91+00

0+00 = STA - DE-ANZA COVE "N SOUTH" B/L: SECT DUE N. & S.

DIST	+	H.I.	-	ELEV
T.B.M.	4.46	14.51		10.05
0+00			3.6	10.9
S. 0+48			4.2	10.3
N. 0+13			5.2	9.3
N. 0+28			8.2	6.3
N. 0+50			12.0	2.5

1x3'20"N 90+00

7-22-98

STA - 92+00

PX

0+00 = STA 92+00 DE-ANZA COVE "SOUTH" B/L: SECT. DUE N. & S.

DIST	+	H.I.	-	ELEV
0+00		14.51	3.6	10.9
S. 0+40			3.8	10.7
N. 0+05			3.6	10.9
N. 0+22			5.9	8.6
N. 0+39			8.6	5.9
N. 0+60			11.8	2.7

STA-W-93+00

PX

0+00 = STA-W:93+00 DEANZA COVE (SOUTH) B/L; SECT DUE N. & S.

DIST	+	H.I.	−	ELEV
0+00		14.51	3.2	11.3
S·0+67			3.6	10.9
N·0+03			3.2	11.3
N·0+28			5.1	9.4
N·0+48			7.0	7.5
N·0+69			8.7	5.8
N·0+96			10.4	4.1
N·1+00			10.7	3.8
N·1+14			11.6	2.9
N·1+29			11.8	2.7

STA-80+00

PX

DIST	+	H.I.	−	ELEV	
	3.15	14.48		11.33	2X2 10' DWN. SLOPE BETWEEN F-4 & F-5
0+00			3.6	10.9	
80+38			4.2	10.3	
S·0+64			4.5	10.0	
N·0+05			3.6	10.9	
N·0+23			5.9	8.6	
N·0+37			7.6	6.9	
N·0+57			9.9	4.6	
N·0+70			11.5	3.0	
N·0+					

PX

STA-W-79+00

0+00=STA-W-79+00 DE-ANZA COVE "SOUTH" B/L: SECT N. & S.

DIST	+	H.I.	−	ELEV	
0+00		14.48	4.1	10.4	
N.0+19			5.7	8.8	
N.0+41			7.6	6.9	
N.0+64			9.7	4.8	
N.0+88			11.4	3.1	
S.0+25			4.1	10.4	
S.0+50			4.2	10.3	
S.0+75			4.2	—	
S. ~~0+~~ 1+00			4.4	10.1	
S.1+25			4.5	10.0	
S.1+50			4.6	9.9	
S.1+75			4.8	9.7	14.48 4.34
S.2+00			4.8	—	10.14
T.B.M			4.34	10.14	TOP 2y 2 ON [illegible] MHED. F-1

FINAL X-SECTIONS OF SLOPES PROJ-3-1 PX

STA-W-105+00

0+00=STA-W-105+00 DE-ANZA B/L: SECTION DUE SOUTH.

DIST	+	H.I.	−	ELEV	
T.B.M	6.60	14.42		7.82	STA-N-105+00 DE-ANZA B/L
0+00			6.6	7.8	
S.0+17			6.7	7.7	
S.0+24			5.6	8.8	
S.0+30			4.1	10.3	
S.0+49			4.3	10.1	
S.0+80			4.6	9.8	
S.1+00			4.9	9.5	
S.1+33			5.3	9.1	
S.1+66			6.2	8.2	
S.2+00			6.9	7.5	
S.2+14			7.4	7.0	
S.3+00			7.6	6.8	
T.P.			4.35	T.P. #1 10.07	13' EAST STA-104+00 TOP OF SLOPE

STA-104+00

0+00 = STA-W-104+00 DE-ANZA COVE B/L : SECT. N. & S.

DIST	+	H.I.	−	ELEV	
T.B.M	4.28	14.35		10.07	#① 13' EAST STA-104+00
0+00			5.1	9.3	
N·0+22			4.7	9.7	
N·0+43			4.3	10.1	
N·0+63			4.2	10.2	
N·0+72			4.5	9.9	
N·1+00			5.0	9.4	
N·1+93			4.7	9.7	
N·2+00			5.0	9.4	
S·0+17			5.7	8.7	
S·0+51			6.4	8.0	
S·0+79			7.4	7.0	
S·1+00			7.6	6.8	

8-3-48

(13)

STA-103+00

0+00 = W-103+00 DE-ANZA COVE B/L : SECT. N. & S.

DIST	+	H.I.	−	ELEV	
#① T.B.M	4.95	15.02		10.07	13' EAST STA-104+00 TOP OF SLOPE 100' SOUTH
#② T.B.M	4.07	14.71	4.38	10.64	STA-103+00 TOP OF SLOPE
0+00			4.9	9.8	
N·0+29			4.3	10.4	
N·0+63			4.3	10.4	
N·1+00			4.6	10.1	
N·2+00			4.9	9.8	
N·3+06			5.2	9.5	
N·4+00			5.4	9.3	
S·0+23			5.6	9.1	
S·0+53			6.0	8.7	
S·0+90			7.2	7.5	
S·1+00			7.6	7.1	
S·1+31			9.4	5.3	

15.02
4.38
10.64
4.07
14.71

DX

STA-W·102+00

0+00 = STA-W·102+00 DE·ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV	
		14.71			
0+00			4.8	9.9	
N·0+31			5.2	9.5	
N·0+41			5.2	9.5	
S·0+14			5.1	9.6	
S·0+40			6.3	8.4	
S·0+64			8.0	6.7	14.71
S·0+93			9.4	5.3	10.35
T.B.M #③			4.36	10.35	

8-3-48

(44)

STA-W·101+00

DX

0+00 = STA-W·101+00 DE·ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV	
T.B.M #③	4.39	14.74		10.35	T.B.M. #③ EAST STA·101+00 2×2 TOP OF SLOP
0+00			4.8	9.9	
N·0+43			5.1	9.6	10.35 / 4.39 / 14.74
N·1+00			5.1	9.6	
S·0+09			5.3	9.4	
S·0+26			7.0	7.7	
S·0+47			9.2	5.5	
S·0+61			10.5	4.2	

8-3-18

(15)

STA-W-100+00

0+00 = STA-W-100+00 DE ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV	
0+00		14.74	4.8	9.9	
N. 0+39			4.8	9.9	
N. 0+~~00~~ 1+00			4.8	9.9	
S. 0+09			6.0	8.7	
S. 0+19			7.7	7.0	
S. 0+32			9.5	5.2	14.74 − 9.59 = 5.15
S. 0+43			10.3	4.4	
T.B.M. #④			4.59	10.15	T.B.M. #④ EAST STA 99+00 27Z TOP OF SLOPE

STA-99+00

0+00 = STA-W-99+00 DE ANZA COVE B/L: SECT. N. & S.

DIST.	+	H.I.	−	ELEV	
T.B.M. #④	4.90	15.05		10.15	T.B.M. #④ EAST STA-99+00 27Z TOP OF SLOPE
0+00			4.9	10.2	10.15 + 4.90 = 15.05
N. 0+14			5.1	10.0	
N. 1+00			5.0	10.1	
S. 0+15			7.6	7.5	
S. 0+28			9.8	5.3	
S. 0+35			10.7	4.4	

PX

STA- 98+00

0+00 = STA-W·98+00 DE·ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV	
T.B.M #(A)	5.00	15.15		10.15	T.B.M #(A) EAST 98+00 2x2 TOP OF STAKE
0+00			5.0	10.2	10.15 + 5.00 = 15.15
N·0+28			5.2	10.0	
N·0+58			5.4	9.8	
S·0+06			5.1	10.1	
S·0+14			6.6	8.6	
S·0+31			9.2	6.0	
S·0+50			10.8	4.4	

8-3-48

(46)

STA· 97+00

PX

0+00 = STA-W.97+00 DE·ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
0+00		15.15	5.0	10.2
N·0+34			5.3	9.9
N·0+77			5.3	9.9
S·0+06			5.3	9.9
S·0+14			6.7	8.5
S·0+28			8.7	6.5
S·0+42			10.8	4.4

8-3-48

(17)

STA - 96+00

0+00 = STA - W. 96+00 DE ANZA COVE B/L:

DIST	+	H.I.	−	ELEV
0+00		15.15	5.0	10.2
N. 0+33			5.0	10.2
N. 0+ 1+00			5.1	10.1
S. 0+05			5.1	10.1
S. 0+15			6.5	8.7
S. 0+27			8.4	6.8
S. 0+49			11.0	4.2
T.B.M #5			4.75	10.40

15.15
4.75
10.40

T.B.M. #5
15' EAST
96+00 TOP OF SLOPE

STA - W. 95+00

0+00 = STA W. 95+00 DE ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
T.B.M #5	3.84	14.24		10.40
0+00			4.0	10.2
N. 0+50			4.1	10.1
N. 1+00			4.3	9.9
S. 0+05			4.3	9.9
S. 0+18			6.1	8.1
S. 0+35			8.3	5.9
S. 0+61			10.5	3.7

T.B.M. #5

10.40
3.84
14.24

STA-94+00

0+00=STA-W.94+00 DE-ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
		14.24		
0+00			4.2	10.0
N.0+41			4.3	9.9
N.0+95			4.5	9.7
S.0+07			4.8	9.4
S.0+20			6.5	7.7
S.0+39			8.3	5.9
S.0+62			10.6	3.6

STA-W.93+00

0+00=STA-W.93+00 DE-ANZA COVE (SOUTH) B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
		14.24		
0+00			4.7	9.5
N.0+43			4.5	9.7
N.0+90			4.5	9.7
S.0+05				
~~N.0+95~~			5.1	9.1
S.0+16			6.3	7.9
S.0+35			8.6	5.6
S.0+61			10.8	3.4

PX

STA-W-92+00

0+00 = STA-W-92+00 DE-ANZA COVE (SOUTH) B/L: SECT. N.& S.

DIST	+	H.I.	−	ELEV
		14.24		
N.0+65			4.6	9.6
N.0+31			4.6	9.6
0+00			4.6	9.6
S.0+07			5.2	9.0
S.0+20			6.6	7.6
S.0+35			8.2	6.0
S.0+60			10.7	3.5

STA-W-91+00

PX

0+00 = STA-N-91+00 DE-ANZA COVE (SOUTH) B/L: SECT. N.& SOUTH.

DIST	+	H.I.	−	ELEV
		14.24		
N.0+60			4.6	9.6
N.0+27			4.5	9.7
0+00			4.5	9.7
S.0+10			5.3	8.9
S.0+25			6.9	7.3
S.0+39			8.6	5.6
S.0+61			10.8	3.4

8-3-48

(50)

STA-W. 90+00

0+00 = STA-W. 90+00 DE-ANZA COVE (SOUTH) B/L: SECT. N. & S.

DIST.	+	H.I.	−	ELEV
		14.24		
N. 0+68			4.7	9.5
N. 0+30			4.6	9.6
0+00			4.6	9.6
S. 0+08			5.2	9.0
S. 0+~~39~~ 29			6.6	7.6
S. 0+37			8.5	5.7
S. 0+62			10.7	3.5

STA-W. 89+00

0+00 = STA-W. 89+00 DE-ANZA COVE (SOUTH) B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV	
		14.24			
0+00			4.7	9.5	
S. 0+11			5.3	8.9	
S. 0+21			6.3	7.9	
S. 0+39			8.1	6.1	
S. 0+66			10.8	3.4	20' EAST STA-89+00 2 x 2
T.B.M. #⑥			4.60	9.64	TOP OF SLOPE

STA-

0+00 =

DIST	+	H.I.	−	ELEV

STA-88+00

0+00 = STA-W-88+00 DE-ANZA COVE (SOUTH) B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
T.B.M #6	4.77	14.41		9.64
N. 0+42			4.8	9.6
0+00			4.9	9.5
S. 0+08			5.1	9.3
S. 0+22			6.3	8.1
S. 0+37			7.6	6.8
S. 0+52			9.4	5.0
S. 0+71			11.0	3.4

20'E/STA-88+10 2x2 TOP OF SLOPE

9.64
4.77
14.41

STA-W-87+00

0+00 = STA W-87+00 DE-ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
		14.41		
N. 0+51			4.4	10.0
0+00			4.2	10.2
S. 0+08			5.0	9.4
S. 0+23			6.5	7.9
S. 0+41			8.7	5.7
S. 0+72			11.1	3.3

0+00 = STA -

DIST	+	H.I.	−	ELEV
			4.8	

PX

STA - 86+00

0+00 = STA - 86+00 DE ANZA COVE B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
		14.41		
N. 0+38			4.5	9.9
0+00			4.3	10.1
S. 0+08			4.7	9.7
S. 0+22			6.4	8.0
S. 0+37			8.0	6.4
S. 0+54			9.8	4.6
S. 0+69			11.1	3.3

STA - 85+00

PX

0+00 = STA - W. 85+00 DE ANZA COVE S/B/L: SECT. N. E S.

DIST	+	H.I.	−	ELEV
N. 0+68		14.41	4.8	9.6
0+00			4.2	10.2
S. 0+07			4.6	9.8
S. 0+18			5.5	8.9
S. 0+27			6.6	7.8
S. 0+47			9.0	5.4
S. 0+71			11.1	3.3

STA - W 84+00

PX

0+00 = STA - W. 84+00 DE ANZA COVE S/B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
N. 0+38		14.41	4.6	9.8
0+00			4.8	9.6
S. 0+09			4.9	9.5
S. 0+19			5.6	8.8
S. 0+33			7.1	7.3
S. 0+53			9.1	5.3
S. 0+76			11.3	3.1

STA-W-83+00

PX

0+00 = STA-W-83+00 DE-ANZA COVE S/B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV
N. 0+73		14.41	4.5	9.9
0+00			3.9	10.5
S. 0+08			4.8	9.6
S. 0+21			5.9	8.5
S. 0+38			7.9	6.5
S. 0+55			9.6	4.8
S. 0+75			11.3	3.1

STA-W-82+00

PX

0+00 = STA-W-82+00 DE-ANZA COVE S/B/L: SECT. N. & S.

DIST	+	H.I.	−	ELEV	
N. 0+50		14.41	4.9	9.5	
0+00			5.0	9.4	
S. 0+08			5.3	9.1	
S. 0+18			6.1	8.3	
S. 0+32			7.5	6.9	14.41 / 4.80 / 9.61
S. 0+55			9.7	4.7	
S. 0+75			11.4	3.0	
T.B.M #7			4.80	9.61	T.B.M #9

11.33
10.14

8-3-48

(53)

STA-81+00

PX

0+00 = STA-W-81+00 DEANZA COVE S/B/L: SECT. N. & S.

9.61
4.38
13.99
T.B.M. #7
E/STA-82+00
27.2
TOP OF SLOPE

DIST	+	H.I.	−	ELEV
T.B.M #7	4.38	14.0 13.99		9.61
N. 0+65			4.5	9.5
0+00			4.7	9.3
S. 0+07			4.9	9.1
S. 0+24 (was 0+36)			5.8	8.2
S. 0+39			7.5	6.5
S. 0+52			9.4	4.6
S. 0+71			11.1	2.9

STA-80+00

PX

0+00=STA-W-80+00 DE-ANZA COVE S/B/L. SECT. N.&S.

DIST	+	H.I.	−	ELEV
N.0+80		14.0 13.99	4.7	9.3
0+00			4.5	9.5
S.0+10			5.0	9.0
S.0+22			6.3	7.7
S.0+40			8.4	5.6
S.0+69			11.0	3.0

STA-79+00

0+00=STA-W-79+00 DE-ANZA COVE S/B/L. SECT. N.&S.

PX

DIST	+	H.I.	−	ELEV
S.0+72		14.0 13.99	11.2	2.8
S.0+52			9.9	4.1
S.0+34			8.1	5.9
S.0+15			6.0	8.0
0+00			4.9	9.1
N.0+50			4.2	9.8
N.0+			4.4	9.6
			2.70	11.29

STA-W-78+00 PX

0+00=STA-W-78+00 DE-ANZA COVE S/B/L. SECT. N.&S.

DIST	+	H.I.	−	ELEV
N.1+56		14.0 13.99	10.9	3.1
N.1+21			9.5	4.5
N.1+00			8.5	5.5
N.0+67			7.1	6.9
N.0+43			6.5	7.5
0+00			6.2	7.8
S.0+27			6.8	7.2
S.0+54			7.4	6.6
S.0+83			8.3	5.7
S.1+00			9.4	4.6
S.1+23			10.7	3.3
B.M.			3.93	10.06

2"x8" 65' N/STA-79+00 (S/COR)

11.33 T.B.M
2.70 +
14.03 H.I.
3.97 − B.M
10.06

13.99
10.06
3.93

BETWEEN F-4 & F-5

T.B.M. 2"x2" ON TIP OF DE-ANZA POINT EL. 11.33

PROGRESS X-SECTIONS

OCEAN FRONT PROJ. # 9

8-5-48

T. STAMPER
A. SHERRY
N. STANLEY

PX

STA 100+00

0+00 = 145' W. SEA WALL B/L

STA	+	H.I.	−	ELEV.
T.B.M.	2.07	15.39		13.32
~~E~~ W 144			4.2	11.2
E 85			4.4	11.0
0 0			4.9	10.5
W 65			5.2	10.2
W 115			5.2	10.2
W 162			5.3	10.1
W 228			9.1	6.3
W 280			11.0	4.4
W 340			13.0	2.4
W 385			14.2	1.2
W 420			15.5	-0.1

(SEE FB 31) X ON WALL BASE AT STA 101+00

STA 105+00

PX

STA + H.I. − ELEV.

0+00 = 210' W. SEA WALL B/L

TBM	2.20	15.36		13.16
E 208			3.7	11.7
E 130			4.4	11.0
E 92			5.7	9.7
E 46			4.8	10.6
0 0			4.7	10.7
W 58			6.0	9.4
W 110			8.8	6.6
W 164			10.8	4.6
W 220			12.5	2.9
W 275			13.6	1.8
W 308			14.0	1.4
W 320			15.0	0.4

X ON WALL BASE AT STA 105+00

OCEAN FRONT SECS CONTD

STA. 95+00

0+00 = 208 W. SEAWALL B/L PX

STA	+	H.I.	−	ELEV.	
TBM.	1.38	14.75		13.37	X-ON WALL BASE AT STA. 95+00
~~E206~~					
E205			3.0	11.7	
E150			3.6	11.1	
E 70			2.9	11.8	
0			4.2	10.5	
W43			4.4	10.3	
W100			4.6	10.1	
W180			9.0	5.7	
W235			10.6	4.1	
W285			12.2	2.5	
W320			13.1	1.6	
W335			13.7	1.0	
W350			14.4	0.3	

8-5-48

STA 90+00 PX

0+00 = 291 W. SEAWALL B/L

STA	+	H.I.	−	ELEV.	
TBM	0.0	13.3		13.32	X-ON WALL BASE AT STA 90+00
290E			2.1	11.2	
E200			4.1	9.2	
E135			3.7	9.6	
E90			3.3	10.0	
E20			3.1	10.2	
0			4.8	8.5	
W48			7.9	5.4	
W100			9.5	3.8	
W155			11.1	2.2	
W178			11.6	1.7	
W200			12.4	0.9	
W215			12.8	0.5	

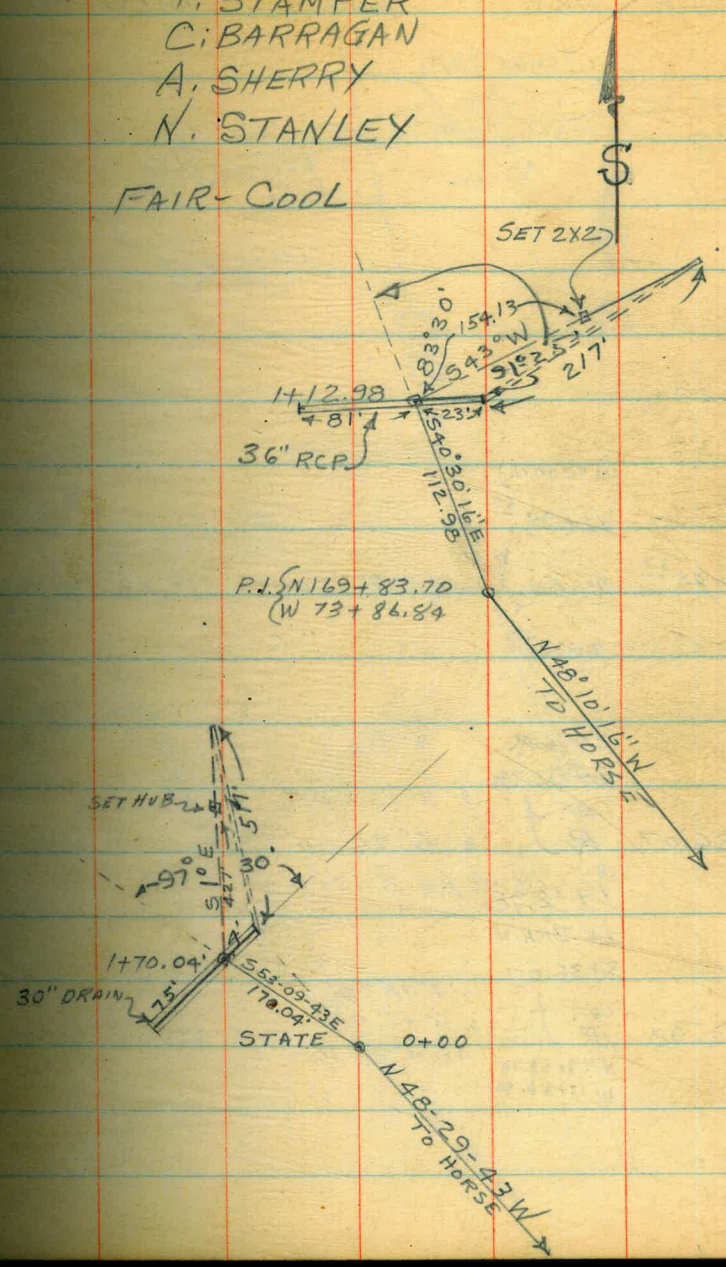
DRAINAGE SURVEY FOR PROPOSED PIPE EXTENSIONS ALONG WLY SIDE OF HI-WAY 101 ADJACENT TO PROJ NO 3.1

8-20-48

T. STAMPER
C. BARRAGAN
A. SHERRY
N. STANLEY

FAIR - COOL

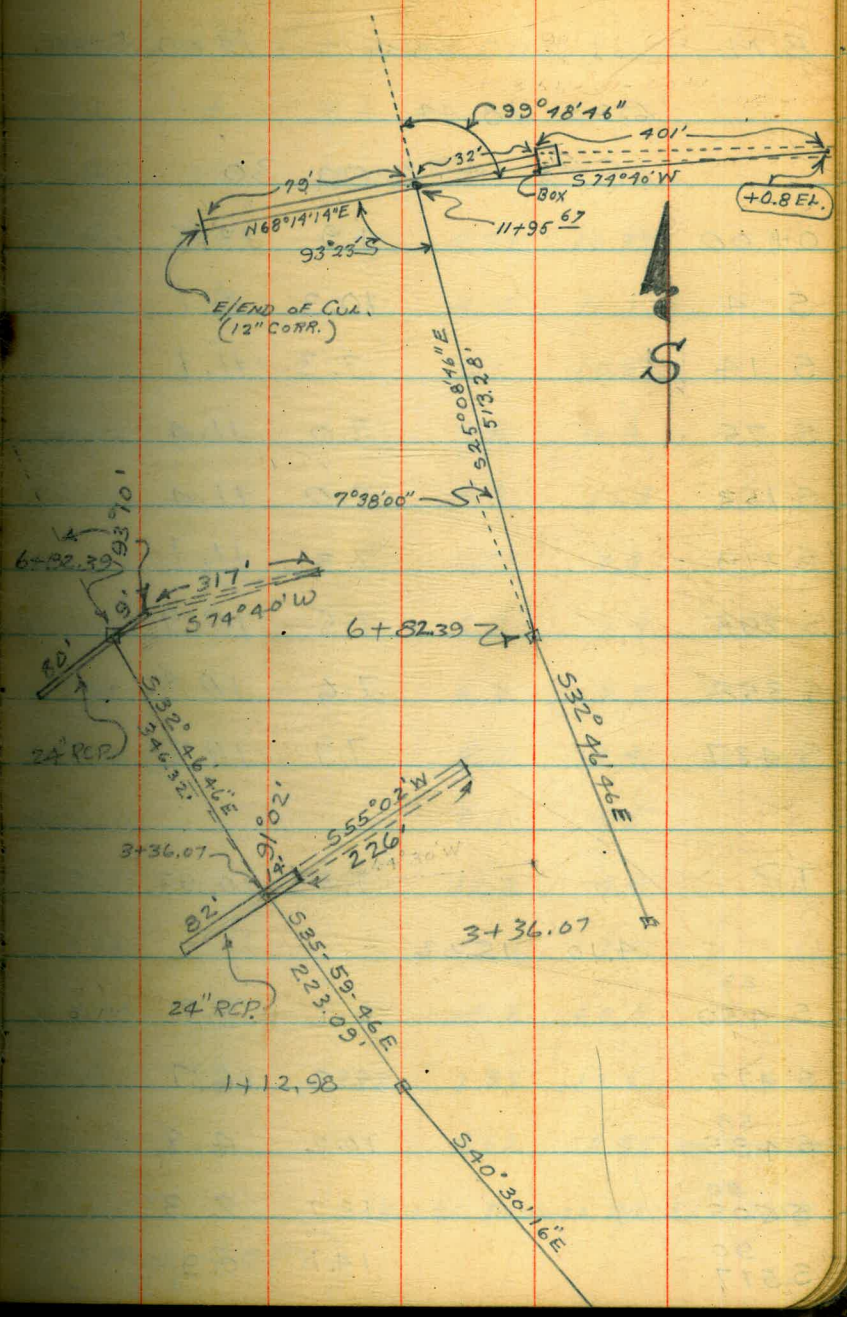
STA	OBJ.	ANGLE	DIST	BEARING
	36" DRAIN			
N169+83.70 W73+86.84	1+12.98 R	① 7°40'00" ② 15°20'00" AV.	112.98	
	HORSE			
	END PIPE			
30" CULV. 1+70.04	+1° ELEV RT			
	STATE			
STATE	1+70.04 LT	① 4°40'00 ② 9°20'00 AV. 4°40'	170.04	S53-09-43E
	HORSE			



DRAINAGE SURVEY CONTD

8-20-48

STA	OBJ.	ANGLE	DIST	BEARING
	(12" CORR.)			
	11+95 67			
6+82 39	DEF. RT. ↗	① 7° 38' 00	513.28'	S 25° 08' 46" E
	3+36 07			
	24" DR.			
	6+82.39			
	DEF. R ↗	1. 3° 13' 00"		
3+36.07		2. 6° 26' 00"		S 32° 46' 46" E
	1+12.98	AV 3° 13' 00"		
	24" DRAIN			
	3+36.07			
	DEF. R ↗	1. 4° 38' 30"		
1+12.98	N 169+83.70	2. 9° 17' 00"	223.09'	S 35-59-46 E
	W 73+86.84	AV. 4° 38' 30"		



Proj #3, 1 - PROFILE LEVELS DRAINAGE AREA

STA	+	H.I.	−	ELEV	
B.M.				12.09	STATE
	6.35	18.44			
STA 1+70.04 30					
0+00			4.9	13.5	
S 4			10.3	8.1	
S 14			7.3	11.1	
S 75			7.0	11.4	
S 153			7.0	11.4	
S 219			7.3	11.1	
S 295			7.5	10.9	
S 358			7.6	10.8	
S 427			7.7	10.7	SET HUB
T.P.			7.52	10.92	
	4.10	15.02			
S 450 23			6.1	8.9	
S 472			8.3	6.7	
S 485 58			10.2	4.8	
S 507 80			12.7	2.3	
S 517 90			14.1	0.9	

8-20-48 PX 60

PROFILE LEVELS DRAINAGE AREA

STA - 11+95 67 (12" CORR. CUL.)

STA	+	H.I.	−	ELEV	
T.P.	3.99	15.11		11.12	
T.P.	4.79	15.58	4.32	10.79	
9+00			4.5	11.1	
W-0+07			5.1	10.5	
W-0+12			3.8	11.8	
W-0+16			4.8	10.8	
W-0+33			5.7	9.9	
W-2+82			6.2	9.4	
W-3+11			6.2	9.4	
W-3+40			6.2	9.4	SET HUB
W-3+60			9.1	6.5	
W-3+77			11.2	4.4	
W-3+95			12.6	3.0	
W-4+33			14.8	+0.8	
T.P.	3.56	17.17	1.97	13.61	
			4.62	12.55	= STATION

151+00 DE-ANZA B/L. EL. = 12.58

TRUE COPY
C.B.

PX

8-20-48

240
23
217

PROFILE CONTD

STA 1+12.98 36" DRAIN

STA	+	H.I	−	ELEV	
T.B.M.	4.65	16.76		12.11	SEE PG. 39 4"X4"
0+00			5.1	11.7	EDGE PAV.
W 10			4.7	12.1	
W 15			6.0	10.8	
W 23					END PIPE
W 46			6.9	9.9	
W 102			6.8	10.0	
W 155			6.7	10 1	
W 159.13					SET 2½"
				12.11	
	2.01	14.12			
W 179 25			6.2	7.8	
W 195 41			8.3	5.7	
W 206 52			9.4	4.6	
W 220 66			10.5	3.5	
W 238 84			12.5	1.5	
W 240 86			13.4	0.7	

STA	+	H.I.	−	ELEV	
		PROFILE CONTD			PX
					SEE PG 61
T.B.M.				12.11	4X4
	3.47	15.58			
		STA 3+36.07			
0+00			5.0	10.6	EE PAV.
W 14			5.1	10.5	
W 80			5.8	9.8	
W 118			5.4	10.2	
W 157			5.8	9.8	SET HUB
W 179			7.8	7.8	
W 201			10.0	5.6	
W 212			11.1	4.5	
W ~~23~~ 240			13.3	2.3	
TP.			4.46	11.12	
	~~3.84~~				

8-20-48

STA.	+	H.I.	−	ELEV	
(STADIA)	2.25	15.29		13.04	B.M. & HIGHWAY 101
0+00 = END OF CULVERT (EXISTING)					
333' W					SET HUB T.B.M.
T.B.M.			5.65	9.64	100' S/ BAY END OF CULVERT
32' E					SET HUB & TACK
313' W					SET HUB & TACK

343
333

10.65
15.29
10.64
9.64

15.29
5.65
9.64

15 1
9 5
5 6

PROFILE CONTD PX

STA 6+82.39

STA	+	H.I.	-	ELEV (SEE PG 62)	
		15.0			
T.BM	3.84	14.96		11.12	
0+00			4.9	10.1	
W 16			4.5	10.5	
W 163			5.0	10.0	
W 215			5.1	9.9	
W 246			4.7	10.3	SET HUB
W 266			6.7	8.3	
W 284			8.8	6.2	
W 297			10.3	4.7	
W 326			12.4	2.6	

8-23-78 63

FINAL SOUNDINGS OF PROJECT #9 PX

(SUPP. TO ORIGINAL CONTRACT.)

END SECTION 150' NORTH

STA-172+00

0+00 = PT. 150' NORTH STA-172+00 "1-2-3" B/L:

DIST	SOUND	SOUND	DIST	SOUND	
		WEST			
0+00	1.7	+2.6	+30	2.0	+2.3 (4.3)
+10	1.8	+2.5		2.0	+2.3
4:25	1.8	(4.3) +2.5	+50	2.0	—
	1.9	+2.4		2.0	—
	1.9	—		4.0	+0.3
50	1.8	+2.5		8.1	-3.8
	1.9	+2.4		11.9	-6.9
	1.9	—	2+00	12.9	-7.9
	1.9	—		12.7	-7.7
	2.0	+2.3		11.5	-6.5
1+00	1.9	+2.4		12.2	-8.2
	1.9	+2.4	11:34	12.1	-8.1
+20	2.0	+2.3	+50	12.6	-8.3
			+60	13.0	-8.7
				12.3	-8.0

8-23-48

END SECTION AT STA-172+00 "1-2-3" B/L. PX

0+00 = STA-W-172+00 "1-2-3" B/L.

DIST. 12:38	SOUND	WEST +1.27	DIST.	SOUND
0+00	2.1	(4.8)	+70	
+10	2.0	+2.8		
	2.0	—		
	1.9	+2.9	2+00	
	2.0	+2.8		
+50	2.1	+2.7		
	2.6	+2.2		
	5.2	-0.4		
	11.5	-6.7	+50	
	13.0	-8.2		
1+00	12.5	-7.7		
	13.0	-8.2		
	12.9	-8.1		
	12.8	-8.0		
12:43	12.7	-7.9		
+50	12.7	—		

STA 1 PX 8-23-48 (6A)

END SECTION 50' N. OF 172+00 "1-2-3" B/L

0+00 = PT. 50' N OF STA. 172+00 "1-2-3" B/L

DIST. 12:53	SOUND	WEST +2.9	DIST.	SOUND	
0+00	1.9	(4.8)	+70	12.0	-7.2
+10	2.0	+2.8		12.1	-7.3
	2.2	+2.6	12:59	12.1	-7.3 (4.8)
	2.2	—	2+00	12.9	-8.1
	2.5	+2.3			
+50	2.9	+1.9			
	3.0	+1.8			
	2.9	+1.9			
	2.4	+2.4			
	2.1	+2.7			
1+00	2.0	+2.8			
	2.5	+2.3			
	4.5	+0.3			
	6.0	-1.2			
	9.1	-4.3			
+50	11.9	-7.1			
	12.0	-7.2			

PX 8-23-48

STA 173+00

0+00 = PT 200' N OF STA 173+00 "1·2·3" B/L

SOUND SOUTH

DIST	SOUND		DIST	SOUND	
13:05		+2.3	+60		-0.4
0+00	2.5	(4.8)	~~+70~~	5.2	(4.8)
+10	2.4	+2.4		9.5	-4.7
	2.4	+2.4		12.0	-7.2
			+90	13.1	-8.3
	2.2	+2.6	2+00	12.8	-8.0
	2.2	—		13.0	-8.2
+50	2.2	—		13.4	-8.6
	2.2	—		13.2	-8.4
	2.2	—		14.7	-9.9
	2.1	+2.7	+50	13.2	-8.4
	2.0	+2.8		13.2	—
1+00	2.1	+2.7		13.2	—
	2.1	—		13.6	-8.8
	2.0	+2.8	13:10	13.5	-8.7
	2.0	—	3+00	13.8	-9.0
	2.0	—			
+50	2.1	+2.7			

PX 8-23-48 (65)

STA 174+00

0+00 = PT 200' N OF STA 174+00 "1·2·3" B/L

SOUND SOUTH

DIST.	SOUND		DIST.	SOUND	
13:16		+2.3			-8.1
0+00	2.5	(4.8)	+70	12.9	(4.8)
+10	2.5	+2.3		13.0	-8.2
	2.5	—		12.9	-8.1
	3.2	+1.6	2+00	12.8	-8.0
	11.2	-6.4		13.2	-8.4
+50	13.0	-8.2		13.0	-8.2
	13.0	—		13.0	—
	12.8	-8.0		13.0	—
	12.8	—	+50	13.4	-8.6
	12.9	-8.1		13.3	-8.5
1+00	12.9	—		13.0	-8.2
	13.0	-8.2		13.0	—
	12.9	-8.1	13:21	13.0	—
	13.0	-8.2	3+00	13.1	-8.3
	12.9	-8.1			
+50	12.9	—			
+60	12.9	—			

PX

PX 8-23-48

STA 175+00

0+00 = PT 200' N. STA. 175+00 "1-2-3" B/L

SOUND SOUTH

DIST.	SOUND		DIST.	SOUND	
13:25		+2.3			-8.2
0+00	2.4	(4.7)	+70	12.9	(4.7)
+10	2.4	+2.3		13.0	-8.3
	2.4	—		13.0	—
	6.5	-1.8	2+00	13.1	-8.4
	10.5	-5.8		13.1	—
+50	11.6	-6.9		13.2	-8.5
	11.9	-7.2		13.0	-8.3
	12.0	-7.3		12.9	-8.2
	12.0	—	+50	13.0	-8.3
	12.3	-7.6		13.1	-8.2
1+00	12.3	—		13.0	-8.3
	12.2	-7.5		13.1	-8.2
	12.4	-7.7	13:32	13.1	—
	12.5	-7.8	3+00	13.1	—
	12.8	-8.1			
+50	12.9	-8.2			
+60	13.0	-8.3			

PX 8-23-48 (66)

STA. 176+00

0+00 = PT 200' N. STA 176+00 "1-2-3" B/L

SOUND SOUTH

DIST.	SOUND		DIST.	SOUND	
13:38		+2.4			-9.0
0+00	2.3	(4.7)	+70	13.7	(4.7)
+10	2.2	+2.5		13.8	-9.1
	2.2	—		13.9	-9.2
	7.5	-2.8	2+00	13.3	-8.6
	12.0	-7.3		13.3	—
+50	13.0	-8.3		13.2	-8.5
	13.2	-8.5		13.0	-8.3
	13.1	-8.4		12.7	-8.0
	13.1	—	+50	12.1	-7.1
	13.2	-8.5		12.7	-8.0
1+00	13.2	—		12.7	—
	13.3	-8.6		12.8	-8.1
	13.2	-8.5		12.8	—
	13.3	-8.6	13:42 3+00	12.8	—
	13.2	-8.5			
+50	13.3	-8.6			
+60	13.3	—			

8-23-48 PX

STA. 177+00

0+00 = PT 200' N. OF STA 177+00 "12-3" B/L

SOUND SOUTH

DIST.	SOUND	+2.5	DIST.	SOUND	-8.8
13:47 0+00	2.1	(4.6)	+70	13.4	(4.6)
+10	2.1	+2.5		13.1	-8.5
	2.0	+2.6		13.1	—
	7.0	-2.4	2+00	13.1	—
	11.0	-6.4		13.2	-8.6
+50	12.5	-7.9		13.0	-8.4
	12.5	-7.9		13.1	-8.5
	12.6	-8.0		12.5	-7.9
	12.5	-7.9	+50	12.5	—
	12.6	-8.0		12.7	-8.1
1+00	12.5	-7.9		12.9	-8.3
	12.6	-8.0		12.8	-8.2
	12.7	-8.1	13:52	12.8	—
	13.0	-8.4	3+00	12.9	-8.3
	13.0	—			
+50	13.1	-8.5			
+60	13.3	-8.7			

PX 8-23-48 (67)

STA. 178+00

0+00 = PT. 200' N OF STA. 178+00 "12-3" B/L

SOUND SOUTH

DIST.	SOUND	+2.7	DIST.	SOUND	-8.2
14:03 0+00	1.8	(4.5)	+70	12.7	(4.5)
+10	1.8	+2.7		12.8	-8.3
	2.1	+2.4		12.8	—
	5.0	-0.5	2+00	12.7	-8.2
	10.3	-5.8		12.8	-8.3
+50	11.9	-7.1		12.6	-8.1
	11.9	-7.1		12.0	-7.5
	12.0	-7.5		11.7	-7.2
	12.3	-7.8	+50	12.1	-7.6
	12.3	—		12.2	-7.7
1+00	12.1	-7.6		12.3	-7.8
	12.1	—		12.6	-8.1
	12.2	-7.7	14:08	12.7	-8.2
	12.7	-8.2	3+00	12.9	-8.4
	12.7	—			
+50	12.8	-8.3			
+60	12.8	—			

8-23-48 PX

STA. 179+00
0+00 = PT. 200' N OF STA 179+00 "1-2-3" B/L
SOUND SOUTH

DIST 14:16	SOUND	+2.5
0+00	1.9	(4.4)
+10	1.9	+2.5
	2.0	+2.4
	6.5	-2.1
	10.3	-5.9
+50	11.9	-7.5
	12.2	-7.8
	12.2	—
	12.0	-7.6
	12.0	—
1+00	12.0	—
	12.3	-7.9
	12.6	-8.2
	12.8	-8.4
	12.9	-8.5
+50	13.2	-8.8
+60	13.1	-8.7

DIST.	SOUND	-8.6
+70	13.0	(4.4)
	12.9	-8.5
	12.9	—
2+00	13.0	-8.6
	13.1	-8.7
	13.2	-8.8
	13.0	-8.6
	12.9	-8.5
+50	12.0	-8.6
	12.0	—
	12.3	-8.9
	12.7	-8.3
14:20	12.8	-8.4
3+00	12.8	—

PX 8-23-48 (68)

STA. 180+00
0+00 = PT 200' N. OF STA. 180+00 "1-2-3" B/L
SOUND SOUTH

DIST. 14:26	SOUND	+2.1
0+00	2.2	(4.3)
+10	2.5	+1.8
	5.5	-1.2
	10.4	-6.1
	11.9	-7.6
+50	11.9	—
	12.0	-7.7
	12.1	-7.8
	12.2	-7.9
	12.5	-8.2
1+00	12.6	-8.3
	12.7	-8.4
	12.8	-8.5
	12.8	—
	12.8	—
+50	12.9	-8.6
+60	12.9	—

DIST.	SOUND	-8.6
+70	12.9	(4.3)
	12.9	-8.6
	12.8	-8.5
2+00	12.7	-8.4
	13.0	-8.7
	12.9	-8.6
	12.7	-8.4
	12.1	-7.8
+50	12.3	-8.0
	12.9	-8.6
	12.9	—
	12.9	—
14:31	12.9	—
3+00	13.0	-8.7

PX 8-23-48

STA. 181+00 "1-23" B/L

0+00 = PT. 200' N. STA 181+00

SOUND SOUTH

DIST	SOUND	+1.9
14:47 0+00	2.2	(4.1)
+10	2.3	+1.8
	6.5	-2.4
	8.0	-3.9
	11.0	-6.9
+50	12.9	-8.8
	12.2	-8.2
	12.7	-8.6
	12.7	—
	12.8	-8.7
1+00	12.9	-8.8
	12.9	—
	13.0	-8.9
	13.2	-9.1
	13.1	-9.0
+50	13.1	—
+60	13.2	-9.1

DIST	SOUND	-9.2
+70	13.3	(4.1)
	13.5	-9.1
	13.4	-9.3
2+00	13.3	-9.2
	13.3	—
	13.3	—
	13.5	-9.4
	13.1	-9.0
+50	12.0	-7.9
	12.0	—
	12.0	—
	12.1	-8.0
14:51	12.1	—
3+00	11.7	-7.6

PX 8-23-48 (69)

STA 182+00 "1-23" B/L

0+00 = PT. 200' N STA 182+00

SOUND SOUTH

DIST.	SOUND	+2.2
15:00 0+00	1.8	(4.0)
+10	1.8	+2.2
	5.0	-1.0
	7.5	-3.5
	11.6	-7.6
+50	12.3	-8.3
	11.9	-7.9
	12.0	-8.0
	12.1	-8.1
	12.0	-8.0
1+00	12.5	-8.5
	12.5	—
	12.5	—
	12.7	-8.7
	12.9	-8.9
+50	12.9	—
+60	12.8	-8.8

DIST.	SOUND	-8.9
+70	12.9	(4.0)
	12.9	-8.9
	12.9	—
2+00	12.9	—
	13.1	-9.1
	13.1	—
	13.3	-9.3
	13.0	-9.0
+50	13.3	-9.3
	12.8	-8.8
	12.1	-8.1
	11.7	-7.7
15:04	11.9	-7.9
3+00	12.1	-8.1

8-30-48

TOM ALLEN
TOM STAMPER

12" CORROGATED IRON PIPE
STA 11+95.67 - PROFILE
EAST ACROSS HI-WAY

STA	+	H.I	-	ELEV	
TBM	5.34	16.45		11.12	
0+00			5.3	11.1	
E 5			4.5	12.0	
E 14			4.2	12.2	
E 37			3.7	12.7	
E 40			3.3	13.1	℄
BM.			3.41	13.04	E. EDGE ℄ DIVIDING STRIP PAINTED YELLOW
E 43			3.7	12.7	
E 66			3.6	12.8	
E 73			3.6	12.8	
E 80			5.53	10.92	LIP SPILLWAY
W 33			5.7	10.7	TOP M.H.
W 31			6.4	10.0	GR. "
			10.2	6.2	F.L. 12" Cor.

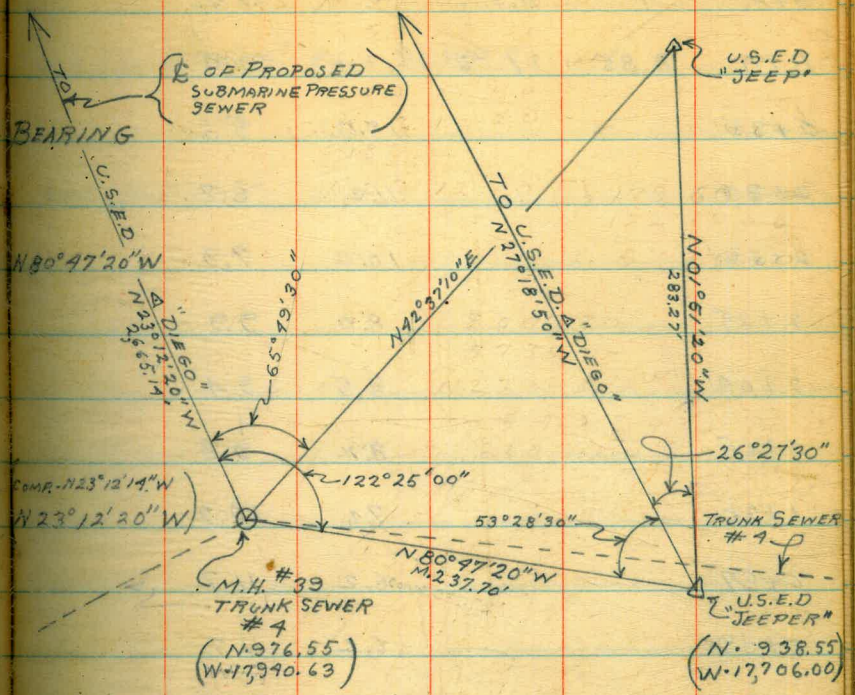
9-2-48 BARRAGAN WATSON

(71)

TRAVERSE TIE OF MAN HOLE #39 TRUNK SEWER #4

& U.S.E.D. △ PTS. "JEEPER" & "DIEGO"

STATION	OBJECT	ANGLE	DIST	BEARING
	U.S.E.D. △ "DIEGO"	① 53° 28' 30"		
U.S.E.D. △ "JEEPER"	INT. LEFT ↓	② 106° 57' 00"	237.70'	N 80° 47' 20" W
	M.H. #39 TRUNK SEWER #4	AV. 53° 28' 30"		
	U.S.E.D. △ "DIEGO"	① 122° 25' 00"		
M.H. #39 TRNK. SEW. #4	INT. RIGHT ↓	② 241° 50' 00"	2,665.14'	(COMP. N 23° 12' 14" W) (N 23° 12' 20" W)
	U.S.E.D. △ "JEEPER"	AV. 122° 25' 00"		
	U.S.E.D. △ "DIEGO"	① 65° 49' 30"		
M.H. #39 TRNK. SEW. #4	INT. RIGHT ↓	②		N 42° 37' 10" E
	U.S.E.D △ "JEEP"	AV. 65° 49' 30"		



PROFILE ALONG LINE OF PROPOSED SEWER — ACROSS MISSION BAY CHANNEL ENTRANCE

0+00 = M.H. # 39 TRUNK SEWER #4

STA.	+	H.I.	−	ELEV.
B.M.	8.85	17.89		9.04
2+35			12.3	5.6
2+30			11.2	6.7
2+26			10.0	7.9
2+25			8.0	9.9
2+04			8.5	9.4
1+65			8.1	9.8
1+30			7.2	10.7
0+87			6.2	11.7
0+49			6.2	11.7
0+27			6.1	11.8
0+09			5.2	12.7
0+00			4.8	13.1

PX

U.S.E.D. A "JEEP" EL. = 9.036

SET HUB "2×2"

7.19

9-2-98

(73)

PROFILE ALONG ℄ OF PROPOSED SEWER — ACROSS MISSION BAY CHANNEL ENTRANCE

STA	+	H.I.	−	ELEV
B.M				
0+00	4.61	13.94		+9.33
0+22			5.3	+8.6
0+50			5.2	+8.7
0+84			8.2	+5.7
1+10			10.9	+3.0
1+34			11.4	+2.5
1+66			11.6	+2.3
1+75			11.7	+2.2

PX

U.S.E.D. Δ "DIEGO" EL = 9.33
4.61
13.94

PROFILE ALONG ℄ OF PROPOSED SEWER — 9-3-48

0+00 = (USED) "DIEGO"

SOUND SOUTH

DIST.	SOUND		DIST	SOUND	PX
10:17					
+90	0.0	+5.0	+40	4.9	+0.1
1+00	1.0	+4.0	+50	4.9	—
+80	3.1	+1.9	(5.0)	5.0	0.0
(5.0)	3.3	+1.7		4.5	+0.5
2+00	3.5	+1.5		4.6	+0.4
	3.8	+1.2		5.7	-0.7
	3.9	+1.1	4+00	5.0	0.0
	4.2	+0.8		5.2	-0.2
	4.0	+1.0		6.2	-1.2
+50	4.1	+0.9		6.3	-1.3
	4.2	+0.8		6.3	—
	4.8	+0.2	+50	5.9	-0.9
	4.3	+0.7		6.7	-1.7
	4.5	+0.5		6.1	-1.1
3+00	4.8	+0.2		5.1	-0.1
	4.7	+0.3		4.9	+0.1
	4.6	+0.4	5+00	5.2	-0.2
+30	4.8	+0.2	+10	5.1	-0.1

ACROSS MISSION BAY CHANNEL ENTRANCE — 9-3-48 — PX (74)

DIST	SOUND		DIST	SOUND	
10:24					
+20	4.8	+0.2	7+00	10.3	-5.2
	4.9	+0.1		10.3	—
(5.0)	5.0	0.0	(5.1)	8.7	-3.6
+50	6.5	-1.5		8.5	-3.4
	7.0	-2.0		9.8	-4.7
	8.0	-3.0	+50	9.9	-4.8
	8.2	-3.2		7.0	-1.9
	8.3	-3.3		7.0	—
6+00	8.4	-3.4		11.5	-6.4
	8.5	-3.5		13.1	-8.0
	9.0	-4.0	8+00	12.8	-7.7
	9.6	-4.6		12.6	-7.5
	9.3	-4.3		11.9	-6.8
+50	9.6	-4.6		10.9	-5.8
	10.3	-5.3		10.1	-5.0
	10.1	-5.1	+50	8.6	-3.5
	7.5	-2.5		7.9	-2.8
+20	8.4	-3.4	+70	7.0	-1.9

SEWER PROFILE CON'T 9-3-48

DIST	SOUND		DIST	SOUND	P/
10:30			10:32		
+80	7.5	-1.4	+60	10.5	-5.2
(5.1)	6.3	-1.2	(5.1)	10.7	-5.6
9+00	6.4	-1.3		11.2	-6.1
	7.2	-2.1		12.0	-6.9
	6.8	-1.7	11+00	11.0	-5.9
	6.9	-1.8		11.9	-6.8
	7.5	-2.4		11.9	—
+50	7.5	—		11.8	-6.7
	8.4	-3.3		11.9	-6.8
	8.5	-3.4	+50	10.9	—
	8.9	-3.8		10.8	-5.7
	9.2	-4.1		12.9	-7.8
10+00	9.5	-4.4		10.9	-5.8
	10.1	-5.0		10.6	-5.5
	10.1	—	12+00	9.8	-4.7
	11.0	-5.9		9.9	-4.8
	11.0	—		10.6	-4.5
+50	10.3	-5.2	+30	9.9	-4.8

SEWER PROFILE CON'T. 9-3-48

DIST	SOUND		DIST	SOUND	P/
10:35			10:39		
+40	10.2	-5.1	720	13.0	-7.8
(5.1)	10.2	—	(5.2)	12.8	-7.6
	10.6	-5.5		11.9	-6.7
	10.1	-5.0	+50	12.0	-6.8
	11.3	-6.2		12.2	-7.0
	12.1	-7.0		13.1	-7.9
13+00	10.9	-5.8		12.0	-6.8
	10.6	-5.5		12.0	—
	10.3	-5.2	10:41	12.0	—
	13.1	-8.0	15+00		
	11.5	-6.4			
+50	10.9	-5.8			
	11.0	-5.9			
	10.5	-5.4	+50		
	10.5	—			
	11.2	-6.1			
14+00	11.8	-6.9			
+10	12.2	-7.1	+90		

PROFILE ALONG ℄ OF PROPOSED SEWER ACROSS MISSION BAY ENTRANCE CHANNEL
0+00 = PT 230' N. OF MH #39 TK SEWER #4 9-3-48 PX (76)
SOUND NORTH

DIST. 11:02	SOUND		DIST. 11:05	SOUND	PX	DIST. 11:07	SOUND		DIST 11:09	SOUND	
+10	0.3	+5.0	+90	4.3	+1.0	+70	6.5	-1.1	+50	11.0	-5.6
(5.3)	~~2.5~~ 1.5	+3.8	2+00	4.8	+0.5	(5.4)	5.9	-0.5	(5.4)	11.0	—
	2.5	+2.8	(5.3)	5.7	-0.4		5.5	-0.1		11.0	—
	2.4	+2.9		6.3	-1.0	4+00	5.6	-0.2		11.3	-5.9
+50	2.9	+2.4		7.8	-2.5		6.0	-0.6		11.1	-5.7
	3.0	+2.3		8.9	-3.6		6.4	-1.0	6+00	10.9	-5.5
	3.1	+2.1	+50	9.7	-4.4		6.8	-1.4		10.5	-5.1
	3.2	+2.1		10.1	-4.8		7.4	-2.0		10.6	-5.2
	3.3	+2.0		10.5	-5.2	+50	8.5	-3.1		10.5	-5.1
1+00	3.4	+1.9		10.8	-5.5		9.4	-4.0		10.3	-4.9
	3.3	+2.0		11.0	-5.7		9.8	-4.4	+50	9.9	-4.5
	3.4	+1.9	3+00	10.6	-5.3		9.9	-4.5		10.1	-4.7
	3.4	+1.9		10.2	-4.9		10.0	-4.6		9.9	-4.5
	3.5	+1.8		10.0	-4.7	5+00	10.4	-5.0		10.3	-4.9
+50	3.5	—		10.0	—		10.5	-5.1		10.1	-4.7
	3.1	+2.2		10.0	—		10.5	—	7+00	9.9	-4.5
	3.2	+2.1	+50	9.1	-3.8		10.4	-5.0		10.9	-5.5
+80	3.6	+1.7	+60	8.0	-2.7	+40	10.9	-5.5	+20	10.9	—

SEWER PROFILE CON'T 9-3-48

DIST.	SOUND		DIST	SOUND
11:11				
+30	11.9	-6.5		
(5.4)	11.5	-6.1		
+50	11.1	-5.7		
	11.2	-5.8		
	11.4	-6.0		
	11.2	-5.8		
	11.5	-6.1		
8+00	11.8	-6.4		
	12.8	-7.4		
	12.7	-7.3		
	12.1	-6.7		
	13.1	-7.7		
+50	12.6	-7.2		
	13.4	-8.0		
	12.9	-7.5		
	14.0	-8.6		
11:13	13.2	-7.8		
9+00	12.9	-7.5		

SOUTH CAUSEWAY BRIDGE PROFILE CONTD. (77)

STA	+	H.I	—	ELEV.	
5+75		34.45	10.03	24.42	W.G.
			9.73	24.72	℄
			9.90	24.55	E
6+10			12.12	22.33	W
			11.83	22.62	℄
			12.04	22.41	E
TP	2.36		11.50	22.95	
6+45		25.31	5.01	20.30	W
			4.78	20.53	℄
			4.98	20.33	E
6+80			7.20	18.11	W
			6.91	18.40	℄
			7.13	18.18	E
7+15			9.47	15.84	W
			9.17	16.14	℄
			9.32	15.99	E
7+50			11.42	13.89	W
			11.13	14.18	℄
			11.33	13.98	E
4 CAUSEWAY B/L. 81+00			14.28	11.03	2"X2" HUB

11-1-48

ELEVATIONS OF TOP OF PAVING SOUTH CAUSEWAY BRIDGE

NOTE: 0+00 = SOUTH END OF BRIDGE BRIDGE

STA	+	H.I.	−	ELEV.	
				16.96	℄ HISL. @ STA 73+00
	11.10				
0+00		28.06	14.16	13.90	W. GUTTER
			13.85	14.21 ✓	℄
			14.07	13.99	E. GUTTER
0+35			11.92	16.14	W. GUTTER
			11.73	16.33 ✓	℄
			11.85	16.21	E. GUTTER
0+70			9.86	18.20	W. GUTTER
			9.62	18.44 ✓	℄
			9.87	18.19	E. GUTTER
1+05			7.77	20.29	W. "
			7.54	20.52 ✓	℄
			7.69	20.37	E. "
1+40			5.71	22.35	W "
			5.46	22.60 ✓	℄
			5.63	22.43	E "

CONTD

PROFILE. S. CAUSEWAY BRIDGE

11-1-48

STA	+	H.I	-	ELEV.	
1+75		28.06	3.54	24.52	WEST GUTTER
			3.30	24.76 ✓	℄
			3.53	24.53	EAST GUTTER
2+10			1.44	26.62	W "
			1.21	26.85 ✓	℄
			1.44	26.62	E "
TP.			1.41	26.65	
	7.80				
2+45		34.45	5.80	28.65	W. "
			5.54	28.91 ✓	℄
			5.74	28.71	E
2+80			3.63	30.82	W.
			3.41	31.04 ✓	℄
			3.63	30.82	E
3+15			2.30	32.15	W
			2.12	32.33 ✓	℄
			2.45	32.00	E

PROFILE CONT'D 11-1-48

STA	+	H.I.	-	ELEV.	
3+50		34.45	1.60	32.85	W.G.
			1.33	33.12	℄ ✓
			1.59	32.86	E
4+00			1.50	32.95	W.
			1.28	33.17	℄ ✓
			1.52	32.93	E
4+35			2.20	32.25	W
			1.98	32.47	℄ ✓
			2.21	32.24	E
4+70			3.68	30.77	W
			3.40	31.05	℄ ✓
			3.60	30.85	E
5+05			5.74 (5)	28.70	W
			5.53	28.92	℄ ✓
			5.76	28.69	E
5+40			7.93	26.52	W
			7.64	26.81	℄ ✓
			7.80	26.65	E

(SEE PG 77)

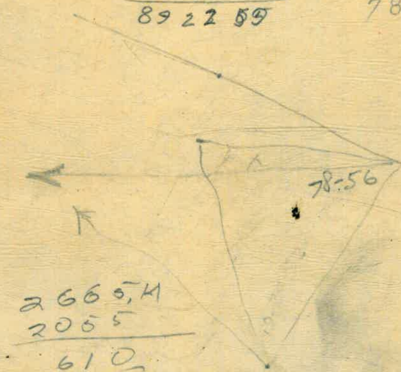
JEEPER TO-DIEGO N 27° 18' 50" W
H_2O TANK N 61° 19' 28" E
JEEP N 01° 51' 20 W
JEEP EL. = 9.036

S 23-12-20 E
66-11-
89 23 20

14
23 12 20
66 10 45
89 22 55

27 18 50
1 51 20
25° 27' 3 0" RT.
53 28 20
78 56 00

122 25 00
65 19 30
56 35 30
78 56 00
135° 31 30"
47 28 30
180 00 00



2665.M
2055
610
230
MAR 380 ON

63
4 | 180
45

DIEGO = MH

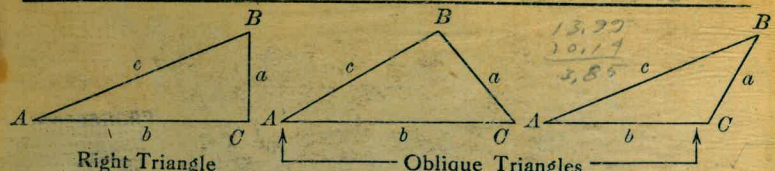
(1) 66-11
RH (2) 132-21
(4) 264-43
66.-10 45

01-51-20
42° 37 10
44 28-30

79 10 7 20
01 51 20
78-56 00
65-49-30
43-88-30
189 34 00

+1.6 2+00
-1.3 4+70
-4.6 7+40
-4.6 10+00
-7.0 15+00
20+55

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a\sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c\sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90° - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90° - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90° - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180° - C, \tan \frac{1}{2}(A - B) = \frac{(a-b)\tan \frac{1}{2}(A+B)}{a+b}, c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a+b+c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}, \sin \frac{1}{2}B = \sqrt{\frac{(s-a)(s-c)}{ac}}, C = 180° - (A+B)$
a, b, c	Area	$s = \frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL

Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10′. From Table, Page IX. cos 5° 10′ = .9959. Horizontal distance = 319.4 × .9959 = 318.09 ft. Horizontal distance also = Slope distance minus slope distance times (1 − cosine of vertical angle). With the same figures as in the preceding exam… ing result is obtained. Cosine… 319.4 × .0041 = 1.31. 319.4 − 1.31 = …

When the rise is known, the horizontal distance is apr… ance less the square of the rise divided by twice the slope… slope distance = 302.6 ft. Horizontal distance = 302.6 − $\frac{14 \times}{2 \times 30}$