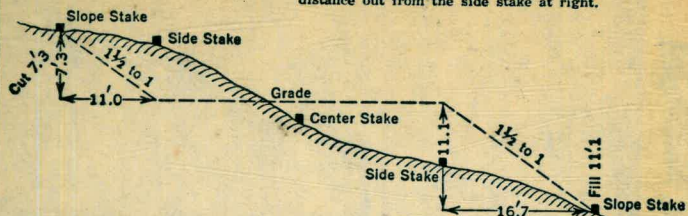


MISSION BAY

61

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.



Book No. 61

BM E132 Reset Elev. 27.32

No 8 8-2-51

MICROFILMED

JAN 7 1965

The paper in this book No. 373A
 is made of 50% high grade rag stock
 with a WATER RESISTING surface sizing.

Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
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

INDEX

#61

<u>Page</u>		<u>DATE</u>
1-23	SOUNDINGS OF MISSION BAY (ORIGINAL) PROJ. # 65031	1-24, 25-51 1-26-51
24-31	Soundings of Flood Channel Sunset Bridge Site $\frac{1}{2}$ - W. 45' - E 45'	3-20-51
32-46	CROSS SECTIONS SLY S. LEVEE MORENA TO AT&S FRR (Pro. # 22054)	6-26-51
47-48	Check on top piers old Morena Br. X. Sec. of Fill Area N. Approach	7-12-51
49-62	New Morena Br.	8-1-51
62-76	Topo. features San Diego Place	8-6-51

MICROFILMED

JUN 7 1982

with a WATER RESISTING material
to make of 100 high grade and more
The cover is this hard as steel

SOUNDINGS OF MISSION
BAY (ORIGINAL) PROJ #65031

Sta. 152+00

0+00 = 340' West of B/L

Dist	Sound	Dist	Sound
0+00	0.2 +5.8	+50	2.6 +3.4
(6.0)	0.6 +5.4	(6.0)	3.1 +2.9
	0.9 +5.1		3.0 +3.0
	1.2 +4.8		2.9 +3.1
	1.4 +4.6		3.0 +3.0
+50	1.5 +4.5	2+00	3.4 +2.6
	2.0 +4.0		3.4 +2.6
	2.2 +3.8		3.5 +2.5
	2.2 +3.8		3.6 +2.4
	2.1 +3.9		3.7 +2.3
1+00	2.1 +3.9	+50	3.8 +2.2
	2.1 +3.9		3.9 +2.1
	2.2 +3.8		3.7 +2.3
	2.6 +3.4		3.9 +2.1
+40	2.6 +3.4	+90	4.0 +2.0

Jan. 24, 1951

PX

Dist	Sound	Dist	Sound
3+00	4.1 +1.9	+70	4.9 +1.1
(6.0)	4.0 +2.0	(6.0)	5.0 +1.0
	4.2 +1.8		5.2 +0.8
	4.2 +1.8	5+00	5.1 +0.9
	4.3 +1.7		5.1 +0.9
+50	4.5 +1.5		5.5 +0.5
	4.5 +1.5		5.5 +0.5
	4.6 +1.4	+50	5.5 +0.5
	4.6 +1.4		5.5 +0.5
4+00	4.7 +1.3		5.5 +0.5
	4.7 +1.3		5.7 +0.3
	4.8 +1.2		5.7 +0.3
	4.9 +1.1	6+00	5.7 +0.3
	5.0 +1.0		5.5 +0.5
+50	5.0 +1.0		6.0 +0.0
	5.0 +1.0	+30	6.0 +0.0

PX

Sta. 152+00 Contd.

Dist	Sound	Dist	Sound
+40	16.0 +0.1	+20	8.9 -2.8
	6.4 -0.3		9.4 -3.3
	6.3 -0.2		10.0 -3.9
(6.1)	6.4 -0.3	+50	11.1 -5.0
	6.4 -0.3		12.0 -5.9
	6.4 -0.3		12.2 -6.1
7 8 +00	6.4 -0.3		12.8 -6.7
	6.1 +0.0		13.0 -6.9
	6.4 -0.3	⁹⁺⁰⁰ 10+00	12.9 -6.8
	6.5 -0.4		13.0 -6.9
	6.6 -0.5		13.0 -6.9
+50	6.7 -0.6		13.0 -6.9
	6.7 -0.6		13.0 -6.9
	7.1 -1.0	+50	12.8 -6.7
	-2.1		
	8.2 -2.0		13.1 -7.0
	7.4 -1.0		13.1 -7.0
8+00	7.1 -1.0		13.2 -7.1
+10	8.0 -1.9	+90	13.2 -7.1
		10+00	13.3 -7.2

24 Jan 51 ②

Sta 151+00 N

0+00 = 170 West of B/L		PX	
Dist	Sound	Dist	Sound
0+00	1.2 (6.2)	+70	2.5 +3.7
	1.2 2.2 +5.0		2.4 +3.8
	1.3 +4.9		2.5 +3.7
	1.4 +4.8	2+00	2.7 +3.5
	1.4 +4.8		2.5 +3.7
+50	1.4 +4.8		2.5 +3.7
	1.4 +4.8		2.6 +3.6
	1.4 +4.8		2.7 +3.5
	1.4 +4.8	+50	2.8 +3.4
	1.4 +4.8		2.8 +3.4
1+00	1.5 +4.7		3.0 +3.2
	1.5 +4.7		3.1 +3.1
	1.8 +4.4		3.1 +3.1
	2.0 +4.2	3+00	3.1 +3.1
	2.2 +4.0		3.1 +3.1
+50	2.3 +3.9		3.2 +3.0
	+3.7		
+60	2.5 +3.5	+30	3.5 +2.7

Sta. 151+00N CONT'D

Sta. 151+00N Cont'd.
Jan 24, 1951

(3)

PX				PX			
Dist	Sound	Dist	Sound	Dist	Sound	Dist	Sound
				+80	5.1 +1.1	+60	6.0 +0.2
+40	3.5 +2.7	+10	4.4 +1.8		5.1 +1.1		6.1 +0.1
+50	3.8 +2.4		4.4 +1.8	7+00	5.1 +1.1	(6.2)	6.0 +0.2
(6.2)	3.5 +2.7	(6.2)	4.4 +1.8	(6.2)	5.1 +1.1		6.0 +0.2
	3.5 +2.7		4.5 +1.7		5.1 +1.1	9+00	6.1 +0.1
	3.5 +2.7	+50	4.6 +1.6		5.2 +1.0		6.3 +0.1
	3.7 +2.5		4.6 +1.6		5.2 +1.0		6.3 -0.1
4+00	3.8 +2.4		4.6 +1.6	750	5.5 +0.7		6.1 +0.1
	4.0 +2.2		4.7 +1.5		5.5 +0.7		6.1 +0.1
	3.8 +2.4		4.7 +1.5		5.5 +0.7	+50	6.0 +0.2
	4.1 +2.1	6+00	5.0 +1.2		5.5 +0.7		6.0 +0.2
	4.1 +2.1		5.0 +1.2		5.5 +0.7		6.0 +0.2
+50	4.1 +2.1		5.0 +1.2	8+00	5.6 +0.6		6.0 +0.2
	4.3 +1.9		5.0 +1.2		5.6 +0.6		6.0 +0.2
	4.4 +1.8		5.0 +1.2		5.7 +0.5	10+00	6.0 +0.2
	4.4 +1.8	+50	5.0 +1.2		5.8 +0.4		6.7 -0.5
	4.4 +1.8		5.0 +1.2		6.1 +0.1		7.2 -1.0
5+00	4.4 +1.8	+70	5.1 +1.1	+50	6.1 +0.1	+30	6.5 -0.3
						+40	6.2 +0.0
						+50	6.3 -0.1

24 Jan 51

PX

Sta 150+00 N.

Sta. 150+00 N.

PX

④

0+00 = 100' West of B/L

DIST Sound DIST Sound

DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND
				+40	3.3 +2.7	+20	4.2 +1.8
0+00	1.3 +4.7	+70	2.3 +3.7	+50	3.3 +2.7		4.2 +1.8
(6.0)	1.3 +4.7	(6.0)	2.3 +3.7	(6.0)	3.4 +2.6	(6.0)	4.3 +1.7
	1.3 +4.7		2.3 +3.7		3.4 +2.6	+50	4.3 +1.7
1.0-	1.4 +4.6	2+00	2.3 +3.7		3.5 +2.5		4.3 +1.7
1.0-	1.4 +4.6		2.4 +3.6		3.5 +2.5		4.4 +1.6
+50	1.5 +4.5		2.5 +3.5	+400	3.6 +2.4		4.4 +1.6
	1.6 +4.4		2.6 +3.4		3.6 +2.4		4.5 +1.5
	1.6 +4.4		2.5 +3.5		3.7 +2.3	6+00	4.5 +1.5
	1.6 +4.4	+50	2.8 +3.2		3.9 +2.1	+50	4.5 +1.5
	1.6 +4.4		2.9 +3.1		4.0 +2.0	7+00	4.6 +1.4
+100	1.6 +4.4		2.9 +3.1	+50	4.0 +2.0	+50	4.7 +1.3
	1.7 +4.3		3.0 +3.0		4.0 +2.0	8+00	4.8 +1.2
	1.8 +4.2		3.0 +3.0		4.0 +2.0	+50	5.0 +1.0
	2.1 +3.9	3+00	3.0 +3.0		4.1 +1.9	9+00	5.1 +0.9
	2.1 +3.9		3.0 +3.0		4.1 +1.9	9+50	5.2 +0.8
+50	2.1 +3.9		3.1 +2.9	5+00	4.1 +1.9	10+00	5.4 +0.6
+60	2.3 +3.7	+30	3.3 +2.7	110	4.2 +1.8	10+50	5.4 +0.6
						11+00	5.5 +0.5
						11+50	6.0 +0.0
						12+00	6.0 +0.0

24 Jan 51

PX

Sta 149+00N.

0+00 = 60' West of B/L

Dist	Sound	Dist	Sound
0+00	1.2 +4.5	+70	2.1 +3.6
(5.7)	1.4 +4.3	(5.7)	2.2 +3.5
	1.8 +3.9		2.4 +3.3
	2.1 +3.6	2+00	2.3 +3.4
	2.2 +3.5		2.2 +3.5
+50	2.3 +3.4		2.5 +3.2
	2.3 +3.4		2.5 +3.2
	2.3		2.7 +3.0
	2.3	+50	2.7 +3.0
	2.3 +3.4		2.6 +3.1
1+00	2.1 +3.6		2.8 +2.9
	2.3 +3.4		2.7 +3.0
	2.4 +3.3		2.8 +2.9
	2.2 +3.5	3+00	2.7 +3.0
	2.4 +3.3		2.8 +2.9
+50	2.1 +3.6		3.0 +2.7
+60	2.2 +3.5	+30	3.0 +2.7

Sta. 149+00N.

PX (5)

Dist	Sound	Dist	Sound
+40	3.1 +2.6	8+00	5.0 +0.7
+50	3.2 +2.5	+50	5.1 +0.6
(5.7)	3.2 +2.5	9+00	5.1 +0.6
	3.2 +2.5	+50	5.2 +0.5
	3.3 +2.4	10+00	5.2 +0.5
	3.3 +2.4	+50	5.3 +0.4
+400	3.4 +2.3	11+00	5.5 +0.2
	3.5 +2.2	+50	5.6 +0.1
	3.5	12+00	5.6 +0.1
	3.5	+50	5.7 0.0
	3.5	13+00	5.8 -0.1
+50	3.5 +2.2	+50	5.8 -0.1
5+00	3.8 +1.9	14+00	5.9 -0.2
+50	3.9 +1.8	+50	5.9 -0.2
6+00	4.0 +1.7	15+00	5.9 -0.2
+50	4.3 +1.4		
7+00	4.4 +1.3		
+50	4.7 +1.0		

24 Jan 51

PX

Sta 148+00 N

0+00 = 50' West of B/L

Dist	Sound	Dist	Sound
0+00	1.5	+3.9	+70 2.5
(5.4)	1.7	+3.7	(5.4) 2.5
	1.8	+3.6	2.5
	2.0	+3.4	2+00 2.6
	2.3	+3.1	2.6
+50	2.4	+3.0	2.6
	2.4	+3.0	2.7
	2.4	+3.0	2.7
	2.3	+3.1	+50 2.7
	2.3	+3.1	2.8
1+00	2.4	+3.0	2.8
	2.2	+3.2	2.8
	2.5	+2.9	2.8
	2.5	} 3+00	3.0
	2.5		3.0
+50	2.5		3.1
+60	2.5	+2.9	+30 3.1

Sta 148+00 N.

PX

Dist	Sound	Dist	Sound
+40	3.2	+2.2	10+00 5.3
+50	3.2	+2.2	+50 5.2
(5.4)	3.2	+2.2	(5.4) 11+00 5.2
	3.3	+2.1	+50 5.4
	3.3	+2.1	12+00 5.4
	3.3	+2.1	+50 5.6
4+00	3.4	+2.0	13+00 5.5
+50	3.5	+1.9	+50 5.5
5+00	3.6	+1.8	14+00 5.6
+50	3.7	+1.7	+50 5.6
6+00	3.9	+1.5	15+00 5.6
+50	4.1	+1.3	
7+00	4.1	+1.3	
+50	4.3	+1.1	
8+00	4.4	+1.0	
+50	4.7	+0.7	
9+00	4.8	+0.6	
+50	5.1	+0.3	

PA

Sta 147+00 N.

24 Jan 51

0+00 = 40' West of B/L

Dist.	Sound	Dist.	Sound
0+00	1.1 +4.1	+70	2.4 +2.8
(5.2)	1.2 +4.0	(5.2)	2.4
	1.8 +3.4		2.4
	1.5 +3.7	2+00	2.4
	1.9 +3.3		2.4
+50	2.0 +3.2	+50	2.4 +2.8
	2.0		2.5 +2.7
	2.0		2.5 +2.7
	2.0	+50	2.5 +2.7
	2.0		2.6 +2.6
1+00	2.0		2.6
	2.0 +3.2		2.6
	2.1 +3.1		2.6 +2.6
	2.2 +3.0	3+00	2.7 +2.5
	2.3 +2.9		2.7 +2.5
+50	2.3 +2.9		2.7 +2.5
+60	2.4 +2.8	+30	2.8 +2.4

Sta. 147+00 N.

PX ⑦

Dist	Sound	Dist	Sound
+40	3.0 +2.2	10+00	4.8 +0.4
+50	3.0	+50	4.8 +0.4
(5.2)	3.0	11+00	5.0 +0.2
	3.0	+50	5.1 +0.1
	3.0	12+00	5.1 +0.1
	3.0 +2.2	+50	5.2 +0.0
4+00	3.1 +2.1	13+00	5.2 +0.0
+50	3.2 +2.0	+50	5.3 -0.1
5+00	3.4 +1.8	14+00	5.3
+50	3.6 +1.6	+50	5.3
6+00	3.6 +1.6	15+00	5.3
+50	3.7 +1.5		
7+00	3.9 +1.3		
+50	4.2 +1.0		
8+00	4.4 +0.8		
+50	4.4 +0.8		
9+00	4.5 +0.7		
+50	4.7 +0.5		

PX

Sta 146+00 N.

25 Jan 51

0+00 = 90' West of B/L

Dist	Sound	Dist	Sound
0+00	2.2 (+3.0)	+70	2.6 +2.6
(5.2)	2.2	(5.2)	2.7 +2.5
	2.2		2.7
	2.2	2+00	2.7
	2.2		2.7
+50	2.2 +3.0		2.7 +2.5
	2.3 +2.9		2.8 +2.4
	2.4 +2.8		2.8 +2.4
	2.4	+50	2.9 +2.3
	2.4		2.9 +2.3
1+00	2.4 +2.8		2.9 +2.3
	2.5 +2.7		3.0 +2.2
	2.5		3.0 +2.2
	2.5	3+00	3.0 +2.2
	2.5		3.1 +2.1
+50	2.5 +2.7		3.2 +2.0
+60	2.6 +2.6	+30	3.2 +2.0

Sta. 146+00 N.

PX (8)

Dist	Sound	Dist	Sound
+40	3.3 +1.9	10+00	5.3 -0.1
+50	3.3 +1.9	+50	5.3 -0.1
(5.2)	3.3 +1.9	(5.2)	3.3 +1.9
	3.4 +1.8	+50	5.4 -0.2
	3.4 +1.8	12+00	5.4 -0.2
	3.4 +1.8	+50	5.5 -0.3
4+00	3.4 +1.8	13+00	5.7 -0.5
+50	3.7 +1.5	+50	5.8 -0.6
5+00	3.7 +1.5	14+00	5.8 -0.6
+50	4.0 +1.2	+50	5.8 -0.6
6+00	4.1 +1.1	15+00	5.6 -0.4
+50	4.4 +0.8		
7+00	4.8 +0.4		
+50	4.8 +0.4		
8+00	4.8 +0.4		
+50	5.0 +0.2		
9+00	5.1 +0.1		
+50	5.2 0.0		

PX

Sta 145+00 N

28 Jan 51

0+00 = 60' West of B/L			
Dist.	Sound	Dist.	Sound
0+00	2.0 +3.5	+70	2.9 +2.6
	2.0 +3.5		2.9 +2.6
(5.5)	2.5 +3.0	(5.5)	2.9 +2.6
	2.2 +3.3	2+00	2.9 +2.6
	2.1 +3.4		3.0 +2.5
+50	2.4 +3.1		3.0 +2.5
	2.4 +3.1		3.1 +2.4
	2.5 +3.0		3.1 +2.4
	2.5 +3.0	+50	3.1 +2.4
	2.5 +3.0		3.1 +2.4
1+00	2.6 +2.9		3.2 +2.3
	2.6 +2.9		3.3 +2.2
	2.6 +2.9		3.2 +2.3
	2.6 +2.9	3+00	3.3 +2.3
	2.7 +2.8		3.3 +2.3
+50	2.7 +2.8		3.4 +2.1
+60	2.8 +2.7	+30	3.4 +2.1

Sta. 145+00 N.

PX. ②

Dist	Sound	Dist	Sound	ELEV
+90	3.5 +2.0	6+00	4.6	+0.9
+50	3.5 +2.0	+50	4.8	+0.7
(5.5)	3.5 +2.0	7+00	5.0	+0.5
	3.5 +2.0	+50	5.2	+0.3
	3.7 +1.8	8+00	5.4	+0.1
	3.7 +1.8	+50	5.4	+0.1
4+00	3.7 +1.8	9+00	5.4	+0.1
	4.0 +1.5	+50	5.5	0.0
	4.0 +1.5	10+00	5.5	0.0
	4.0 +1.5	+50	5.7	-0.2
	4.0 +1.5	11+00	5.7	-0.2
+50	4.0 +1.5	+50	5.7	-0.2
	4.1 +1.4	12+00	5.7	-0.2
	4.1 +1.4	+50	5.7	-0.2
	4.1 +1.4	13+00	6.0	-0.5
	4.2 +1.3	+50	5.8	-0.3
5+00	4.2 +1.3	14+00	6.0	-0.5
		+50	6.0	-0.5
+50	4.4 +1.1	15+00	6.1	-0.6

PX

Sta 144+00 N.

25 Jan 51

PX

(10)

0+00 = 150' West of P B/L

Dist	Sound	Elev	Dist	Sound	Dist	Sound	Dist	Sound
			+40	4.6	+1.2	10+00	6.0	-0.2
0+00	2.4	+3.4	+70	3.3	+2.5	+50	4.5	+1.3
(5.8)	2.7	+3.1	(5.8)	3.5	+2.3	(5.8)	4.5	+1.3
	2.6	+3.2		3.5	+2.3		4.5	+1.3
	2.6	+3.2	2+00	3.5	+2.3		4.5	+1.3
	2.5	+3.3		3.5	+2.3		4.6	+1.2
+50	2.7	+3.1		3.5	+2.3	4+00	4.6	+1.2
	2.7	+3.1		3.6	+2.2	+50	5.0	+0.8
	2.8	+3.0		3.8	+2.0	5+00	5.1	+0.7
	2.9	+2.9	+50	3.9	+1.9	+50	5.3	+0.5
	3.0	+2.8		4.0	+1.8	6+00	5.4	+0.4
1+00	2.9	+2.9		4.0	+1.8	+50	5.4	+0.4
	3.0	+2.8		4.0	+1.8	7+00	5.4	+0.4
	3.1	+2.7		4.1	+1.7	+50	5.4	+0.4
	3.3	+2.5	3+00	4.1	+1.7	8+00	5.5	+0.3
	3.3	+2.5		4.2	+1.6	+50	5.6	+0.2
+50	3.3	+2.5		4.3	+1.5	9+00	5.8	0.0
+60	3.4	+2.4	+30	4.5	+1.3	+50	5.9	-0.1

25 Jan 51

PX

Sta 143+00 N

PX⁽¹¹⁾

0+00 = 170' West of B/L				Dist Sound				Dist. Sound			
Dist	Sound	Dist	Sound								
0+00	2.0	+4.0	+70	3.7	+2.3	+40	5.0	+1.0	10+00	6.1	-0.1
(6.0)	2.2	+3.8	(6.0)	3.8	+2.2	(6.0)	5.1	+0.9	11+00	6.4	-0.4
	2.7	+3.3		3.9	+2.1		5.1	+0.9	+50	6.5	-0.5
	2.6	+3.4	2+00	3.9	+2.1		5.3	+0.7	12+00	6.5	-0.5
	2.5	+3.5		3.9	+2.1		5.2	+0.8	+50	6.5	-0.5
+50	2.4	+3.6		4.3	+1.7	4+00	5.2	+0.8	13+00	6.4	-0.4
	2.5	+3.5		4.3	+1.7	+50	5.3	+0.7	+50	6.4	-0.4
	2.5	+3.5		4.3	+1.7	5+00	5.5	+0.5	14+00	6.5	-0.5
	2.5	+3.5	+50	4.5	+1.5	+50	5.5	+0.5	+50	6.5	-0.5
	2.8	+3.2		4.5	+1.5	6+00	5.7	+0.3	15+00	6.6	-0.6
1+00	3.0	+3.0		4.7	+1.3	+50	5.8	+0.2			
	3.2	+2.8		4.7	+1.3	7+00	5.9	+0.1			
	3.4	+2.6		4.6	+1.4	+50	5.9	+0.1			
	3.4	+2.6	3+00	4.7	+1.3	8+00	6.0	0.0			
	3.5	+2.5		4.8	+1.2	+50	6.0	0.0			
+50	3.6	+2.4		4.8	+1.2	9+00	6.1	-0.1			
+60	3.6	+2.4	+30	4.9	+1.1	+50	6.2	-0.2			

PX

Sta 142+00 N

25 Jan 51

0+00 = 170' West of B/L

Dist	Sound	Dist.	Sound
0+00	2.2 +3.8	+70	3.9 +2.1
(6.0)	2.8 +3.2	(6.0)	4.0 +2.0
	2.6 +3.4		4.0 +2.0
	2.4 +3.6	2+00	4.0 +2.0
	2.3 +3.7		4.2 +1.8
+50	2.6 +3.4		4.2 +1.8
	2.8 +3.2		4.3 +1.7
	3.2 +2.8		4.5 +1.5
	3.2 +2.8	+50	4.5 +1.5
	3.2 +2.8		4.5 +1.5
1+00	3.3 +2.7		4.6 +1.4
	3.4 +2.6		4.7 +1.3
	3.5 +2.5		4.7 +1.3
	3.5 +2.5	3+00	4.8 +1.2
	3.6 +2.4		5.0 +1.0
+50	3.7 +2.3		5.0 +1.0
+60	3.8 +2.2	+30	5.0 +1.0

PX (12)

Dist	Sound	Dist.	Sound
+40	5.0 +1.0	10+00	6.4 -0.4
+50	5.1 +0.9	+50	6.3 -0.3
(6.0)	5.1 +0.9	11+00	6.1 -0.1
	5.1 +0.9	+50	6.3 -0.3
	5.1 +0.9	12+00	6.2 -0.2
	5.2 +0.8	+50	6.4 -0.4
4+00	5.2 +0.8	13+00	6.4 -0.4
+50	5.4 +0.6	+50	6.5 -0.5
5+00	5.5 +0.5	14+00	6.7 -0.7
+50	5.5 +0.5	+50	6.6 -0.6
6+00	5.7 +0.3	15+00	6.5 -0.5
+50	5.8 +0.2		
7+00	5.9 +0.1		
+50	5.9 +0.1		
8+00	5.9 +0.1		
+50	6.0 0.0		
9+00	6.0 0.0		
+50	6.1 -0.1		

PX

Sta 141+00 N.

25 Jan 51

PX (13)

0+00 = 140' West of B/L

DIST		Sound		DIST		Sound		DIST		Sound	
						+40	4.6	+1.2	10+00	5.9	-0.1
0+00	1.5	+4.3	+70	3.5	+2.3	+50	4.8	+1.0	+50	6.0	-0.2
(5.8)	2.0	+3.8	(5.8)	3.5	+2.3	(5.8)	4.9	+0.9	11+00	6.0	-0.2
11:10	2.3	+3.5		3.6	+2.2		4.9	+0.9	+50	6.0	-0.2
	2.4	+3.4	2+00	3.7	+2.1		5.0	+0.8	12+00	6.3	-0.5
	2.4	+3.4		3.8	+2.0		5.0	+0.8	+50	6.1	-0.3
+50	2.5	+3.3		4.0	+1.8	4+00	5.0	+0.8	13+00	6.3	-0.5
	2.7	+3.1		4.1	+1.7	+50	5.0	+0.8	+50	6.3	-0.5
	3.0	+2.8		4.1	+1.7	5+00	5.2	+0.6	14+00	6.2	-0.4
	3.0	+2.8	+50	4.2	+1.6	+50	5.3	+0.5	+50	6.2	-0.4
	3.0	+2.8		4.3	+1.5	6+00	5.5	+0.3	15+00	6.2	-0.4
1+00	3.1	+2.7		4.4	+1.4	+50	5.5	+0.3			
	3.1	+2.7		4.4	+1.4	7+00	5.5	+0.3			
	3.2	+2.6		4.5	+1.3	+50	5.6	+0.2			
	3.3	+2.5	3+00	4.5	+1.3	8+00	5.6	+0.2			
	3.4	+2.4		4.5	+1.3	+50	5.7	+0.1			
+50	3.4	+2.4		4.6	+1.2	9+00	5.7	+0.1			
+60	3.5	+2.3	+30	4.6	+1.2	+50	6.0	-0.2			

25 Jan, 51

(17)

PX

Sta. 140+00 N.

PX

0+00 = 140' West of B/L

Dist	Sound	Dist.	Sound	Dist	Sound	Dist.	Sound
				+40	4.5	+1.0	10+00 5.5 0.0
0+00	1.4	+4.1	+70 3.3	+2.2	+50	4.5	+1.0 +50 5.5 0.0
(5.5)	1.7	+3.8	(5.5) 3.4	+2.1	(5.5)	4.5	+1.0 11+00 5.6 -0.1
	2.4	+3.1	3.4	+2.1		4.6	+0.9 +50 5.6 -0.1
	2.6	+2.9	2+00 3.5	+2.0		4.6	+0.9 12+00 5.7 -0.2
	2.6	+2.9	3.5	+2.0		4.6	+0.9 +50 5.7 -0.2
+50	2.5	+2.9	3.6	+1.9	4+00	4.6	+0.9 13+00 5.7 -0.2
	2.6	+2.9	3.6	+1.9	+50	4.7	+0.8 +50 5.7 -0.2
	2.7	+2.8	3.7	+1.8	5+00	4.8	+0.7 14+00 5.8 -0.3
	2.7	+2.8	+50 4.0	+1.5	+50	5.0	+0.5 +50 6.0 -0.5
	2.7	+2.8	3.9	+1.6	6+00	5.4	+0.1 15+00 5.9 -0.4
1+00	3.0	+2.5	4.0	+1.5	+50	5.3	+0.2
	2.9	+2.6	4.0	+1.5	7+00	5.3	+0.2
	3.0	+2.5	4.1	+1.4	+50	5.3	+0.2
	3.1	+2.4	3+00 4.2	+1.3	8+00	5.3	+0.2
	3.1	+2.4	4.4	+1.1	+50	5.4	+0.1
+50	3.2	+2.3	4.5	+1.0	9+00	5.3	+0.2
+60	3.3	+2.2	+30 4.4	+1.1	+50	5.4	+0.1

PX

Sta 139+00 N.

25 Jan 51

PX

(15)

0+00 = 150' West of B/L

Dist. Sound

Dist. Sound

Dist. Sound

Dist. Sound

0+00

1.5

+3.5

+70

3.0

+2.0

+50

4.1

+0.9

+50

5.3

-0.3

(5.0)

2.0

+3.0

(5.0)

3.0

+2.0

(5.0)

4.1

+0.9

11+00

5.3

-0.3

2.0

+3.0

3.1

+1.9

4.2

+0.8

+50

5.3

-0.3

2.2

+2.8

2+00

3.2

+1.8

4.3

+0.7

12+00

5.7

-0.7

2.3

+2.7

3.2

+1.8

4.4

+0.6

+50

5.5

-0.5

+50

2.3

+2.7

3.3

+1.7

4+00

4.5

+0.5

13+00

5.8

-0.8

2.5

+2.5

3.3

+1.7

+50

4.5

+0.5

+50

5.8

-0.8

2.5

3.3

+1.7

5+00

4.6

+0.4

14+00

5.5

-0.5

2.5

+50

3.4

+1.6

+50

4.7

+0.3

+50

5.5

-0.5

2.5

+2.5

3.5

+1.5

6+00

4.7

+0.3

15+00

5.6

-0.6

1+00

2.6

+2.4

3.6

+1.4

+50

4.8

+0.2

2.6

+2.4

3.8

+1.2

7+00

5.1

-0.1

2.7

+2.3

3.9

+1.1

+50

5.1

-0.1

2.8

+2.2

3+00

3.9

+1.1

8+00

5.0

0.0

2.9

+2.1

4.0

+1.0

+50

5.1

-0.1

+50

2.9

+2.1

4.0

+1.0

9+00

5.2

-0.2

+60

3.0

+2.0

+30

4.0

+1.0

+50

5.2

-0.2

PX

Sta. 138+00 N.

26 Jan 51

PX

⑬

0+00 = 130' West of B/L

Dist			Sound			Dist			Sound		
						+40	4.0	+1.1	10+00	5.3	-0.2
0+00	1.5	+3.6	+70	2.8	+2.3	+50	4.0	+1.1	+50	5.5	-0.4
(5.1)	1.9	+3.2	(5.1)	2.8	+2.3	(5.1)	4.0	+1.1	11+00	5.6	-0.5
	2.0	+3.1		2.9	+2.2		4.2	+0.9	+50	5.6	-0.5
	2.0	+3.1	2+00	2.9	+2.2		4.2	+0.9	12+00	5.8	-0.7
	2.1	+3.0		3.0	+2.1		4.3	+0.8	+50	5.7	-0.6
+50	2.1	+3.0		3.1	+2.0	4+00	4.4	+0.7	13+00	5.7	-0.6
	2.1	+3.0		3.2	+1.9	+50	4.4	+0.7	+50	5.6	-0.5
	2.1	+3.0		3.2	+1.9	5+00	4.7	+0.4	14+00	6.0	-0.9
	2.1	+3.0	+50	3.3	+1.8	+50	4.7	+0.4	+50	6.0	-0.9
	2.3	+2.8		3.4	+1.7	6+00	4.7	+0.4	15+00	6.0	-0.9
1+00	2.4	+2.7		3.4	+1.7	+50	4.9	+0.2			
	2.5	+2.6		3.5	+1.6	7+00	4.9	+0.2			
	2.5	+2.6		3.6	+1.5	+50	5.0	+0.1			
	2.5	+2.6	3+00	3.6	+1.5	8+00	5.0	+0.1			
	2.7	+2.4		4.0	+1.1	+50	5.0	+0.1			
+50	2.7	+2.4		4.0	+1.1	9+00	5.1	0.0			
+60	2.9	+2.2	+30	4.0	+1.1	+50	5.3	-0.2			

26 Jan 51

PX

Sta 137+00 N

PX (17)

0+00 = 110' West of B/L

				Dist. Sound			Dist. Sound		
Dist	Sound	Dist.	Sound	+40	+1.1	10+00	5.6	-0.3	
0+00	2.0 +3.3	+70	2.9 +2.4	+50	4.2 +1.1	+50	5.5	-0.2	
(5.3)	2.0 +3.3	(5.3)	3.0 +2.3	(5.3)	4.3 +1.0	11+00	5.6	-0.3	
	2.1 +3.2		3.0 +2.3		4.4 +0.9	+50	5.6	-0.3	
	2.3 +3.0	2+00	3.1 +2.2		4.4 +0.9	12+00	6.1	-0.8	
	2.4 +2.9		3.2 +2.1		4.5 +0.8	+50	6.3	-1.0	
+50	2.4		3.3 +2.0	4+00	4.5 +0.8	13+00	6.1	-0.8	
	2.4		3.3 +2.0	+50	4.8 +0.5	+50	6.0	-0.7	
	2.4 +2.9		3.4 +1.9	5+00	4.8 +0.5	14+00	6.0	-0.7	
	2.5 +2.8	+50	3.5 +1.8	+50	4.9 +0.4	+50	6.0	-0.7	
	2.5		3.6 +1.7	6+00	5.0 +0.3	15+00	6.0	-0.7	
1+00	2.5 +2.8		3.6	+50	5.2 +0.1				
	2.6 +2.7		3.6	7+00	5.2 +0.1				
	2.6 +2.7		3.6 +1.7	+50	5.4 -0.1				
	2.8 +2.5	3+00	3.8 +1.5	8+00	5.4 -0.1				
	2.9 +2.4		3.8 +1.5	+50	5.7 -0.4				
+50	2.9 +2.4		4.0 +1.3	9+00	5.5 -0.2				
+60	3.0 +2.3	+30	4.1 +1.2	+50	5.6 -0.3				

26 Jan 51

PX (18)

PX

Sta 136+00N.

0+00 = 90' West of B/L

Dist Sound

Dist Sound

Dist.	Sound		Dist	Sound		Dist	Sound		Dist	Sound	
			+40	4.4	+1.1	10+00	5.9	-0.4			
0+00	2.4	+3.1	+70	3.1	+2.4	+50	4.4	+1.1	+50	5.9	-0.4
(5.5)	2.5	+3.0	(5.5)	3.1	+2.4	(5.5)	4.4	+1.1	11+00	6.1	-0.6
	2.5			3.3	+2.2		4.5	+1.0	+50	6.2	-0.7
	2.5		2+00	3.3			4.5	+1.0	12+00	6.3	-0.8
	2.5			3.3	+2.2		4.5	+1.0	+50	6.3	-0.8
+50	2.5	+3.0		3.4	+2.1	9+00	4.6	+0.9	13+00	6.3	-0.8
	2.6	+2.9		3.4	+2.1	+50	4.7	+0.8	+50	6.3	-0.8
	2.6	+2.9		3.4	+2.1	5+00	4.8	+0.7	14+00	6.4	-0.9
	2.7	+2.8	+50	3.5	+2.0	+50	5.2	+0.3	+50	6.4	-0.9
	2.7	+2.8		3.5	+2.0	6+00	5.2	+0.3	15+00	6.6	-1.1
1+00	2.8	+2.7		3.7	+1.8	+50	5.4	+0.1			
	2.8	+2.7		3.7	+1.8	7+00	5.4	+0.1			
	2.8	+2.7		3.8	+1.7	+50	5.5	0.0			
	2.9	+2.6	3+00	4.0	+1.5	8+00	5.9	-0.4			
	2.9	+2.6		4.0	+1.5	+50	5.7	-0.2			
+50	3.0	+2.5		4.0	+1.5	9+00	5.7	-0.2			
+60	3.1	+2.4	+30	4.1	+1.4	+50	5.8	-0.3			

26 Jan 51

PX

Sta 135+00 N

PX

(10)

0+00 = 120' West of B/L

Dist	Sound	Dist.	Sound	Dist	Sound	Dist.	Sound	
				+40	4.5	+1.2	10+00 6.0 -0.3	
0+00	2.5	+3.2	+70 3.4	+2.3	+50	4.7	+1.0 +50 6.2 -0.5	
(5.7)	2.6	+3.1	(5.7) 3.4	+2.3	(5.7)	4.7	+1.0 11+00 6.2 -0.5	
	2.7	+3.0		3.4	+2.3		4.7	+1.0 +50 6.2 -0.5
	2.7	+3.0	2+00	3.5	+2.2		4.7	+1.0 12+00 6.1 -0.4
	2.7	+3.0		3.5	+2.2		4.7	+1.0 +50 6.2 -0.5
+50	2.7	+3.0		3.6	+2.1	4+00	4.9	+0.8 13+00 6.3 -0.6
	2.7	+3.0		3.7	+2.0	+50	5.0	+0.7 +50 6.3 -0.6
	2.8	+2.9		3.8	+1.9	5+00	5.1	+0.6 14+00 6.4 -0.7
	2.9	+2.8	+50	3.8	+1.9	+50	5.3	+0.4 +50 6.4 -0.7
	3.0	+2.7		3.9	+1.8	6+00	5.4	+0.3 15+00 6.4 -0.7
1+00	3.0	+2.7		4.0	+1.7	+50	5.5	+0.2
	3.0	+2.7		4.0	+1.7	7+00	5.5	+0.2
	3.0	+2.7		4.1	+1.6	+50	5.5	+0.2
	3.1	+2.6	3+00	4.2	+1.5	8+00	5.6	+0.1
	3.2	+2.5		4.3	+1.4	+50	5.7	0.0
+50	3.2	+2.5		4.4	+1.3	9+00	6.1	-0.4
+60	3.3	+2.4	+30	4.5	+1.2	+50	6.0	-0.3

PX

26 Jan 51

Sta 134+00 N

(20)

PX

0+00 = 150' West of B/L

Dist.	Sound		Dist.	Sound		Dist.	Sound		Dist.	Sound	
						+40	4.5	+1.1	10+00	5.9	-0.3
0+00	2.5	+3.1	+70	3.4	+2.2	+50	4.5	+1.1	+50	6.0	-0.4
(5.6)	2.5	+3.1	(5.6)	3.4	+2.2	(5.6)	4.5	+1.1	11+00	6.1	-0.5
	2.5	+3.1		3.4	+2.2		4.5	+1.1	+50	6.0	-0.4
	2.6	+3.0	2+00	3.5	+2.1		4.7	+0.9	12+00	6.1	-0.5
	2.6	+3.0		3.6	+2.0		4.7	+0.9	+50	6.1	-0.5
+50	2.6	+3.0		3.8	+1.8	4+00	4.7	+0.9	13+00	6.1	-0.5
	2.7	+2.9	+2.7	3.9	+1.7	+50	4.8	+0.8	+50	6.1	-0.5
	2.7	+2.9		3.9	+1.7	5+00	5.0	+0.6	14+00	6.1	-0.5
	2.8	+2.8	+50	4.0	+1.6	+50	5.4	+0.2	+50	6.0	-0.4
	2.9	+2.7		4.0	+1.6	6+00	5.3	+0.3	15+00	6.0	-0.4
1+00	3.0	+2.6		4.1	+1.5	+50	5.4	+0.2			
	3.0	+2.6		4.1	+1.5	7+00	5.4	+0.2			
	3.1	+2.5		4.1	+1.5	+50	5.4	+0.2			
	3.2	+2.4	3+00	4.2	+1.4	8+00	5.6	0.0			
	3.2	+2.4		4.4	+1.2	+50	5.7	-0.1			
+50	3.3	+2.3		4.4	+1.2	9+00	5.8	-0.2			
+60	3.3	+2.3	+30	4.4	+1.2	+50	5.8	-0.2			

26 Jan 51

PX

Sta 133+00 N

0+00 = 190' West of B/L

Dist Sound Dist Sound

0+00 2.3 +3.0 +70 3.5 +1.8

(5.3) 2.4 +2.9 (5.3) 3.5

2.5 +2.8 3.5

2.5 } 2+00 3.5 +1.8

2.5 } 3.6 +1.7

+50 2.5 +2.8 3.9 +1.4

2.8 +2.5 3.9 +1.4

2.8 +2.5 3.9 +1.4

2.8 +2.5 +50 4.0 +1.3

2.9 +2.4 4.0 +1.3

+1+00 3.1 +2.2 4.1 +1.2

3.1 +2.2 4.1 +1.2

3.1 +2.2 4.1 +1.2

3.1 +2.2 3+00 4.2 +1.1

3.2 +2.1 4.3 +1.0

+50 3.2 +2.1 4.3 +1.0

+60 3.4 +1.9 +30 4.4 +0.9

Dist Sound

+90 4.4 +0.9 10+00 5.8 -0.5

+50 4.5 +0.8 +50 5.8 -0.5

(5.3) 4.5 +0.8 11+00 5.9 -0.6

4.5 +0.8 +50 5.9 -0.6

4.5 +0.8 12+00 6.0 -0.7

4.5 +0.8 +50 5.8 -0.5

4+00 4.5 +0.8 13+00 5.6 -0.3

+50 4.8 +0.5 +50 5.5 -0.2

5+00 4.9 +0.4 14+00 5.5 -0.2

+50 5.1 +0.2 +50 5.5 -0.2

6+00 5.4 -0.1 15+00 5.3 0.0

+50 5.4 -0.1 5.5 3.5

7+00 5.3 0.0

+50 5.4 -0.1

8+00 5.5 -0.2

+50 5.5 -0.2

9+00 5.6 -0.3

+50 5.9 -0.6

PX

(21)

Dist Sound

10+00 5.8 -0.5

+50 5.8 -0.5

11+00 5.9 -0.6

+50 5.9 -0.6

12+00 6.0 -0.7

+50 5.8 -0.5

13+00 5.6 -0.3

+50 5.5 -0.2

14+00 5.5 -0.2

+50 5.5 -0.2

15+00 5.3 0.0

5.5 3.5

5.3 0.0

5.4 -0.1

5.5 -0.2

5.5 -0.2

5.6 -0.3

5.9 -0.6

PX

Sta 132+00 N

26 Van 51

PX

(22)

0+00 = 220' West of B/L

Dist	Sound	Dist	Sound	Dist	Sound	Dist	Sound
				+40	4.4	+0.8	10+00 5.6 -0.4
0+00	2.0 +3.2	+70	3.5 +1.7	+50	4.5 +0.7	+50	5.6 -0.4
(5.2)	2.0 +3.2	(5.2)	3.5 +1.7	(5.2)	4.4 +0.8	11+00	5.5 -0.3
	2.0 +3.2		3.5		4.4 +0.8	+50	5.5 -0.3
	2.4 +2.8	2+00	3.5		4.5 +0.7	12+00	5.4 -0.2
	2.4 +2.8		3.5 +1.7		4.4 +0.8	+50	5.3 -0.1
+50	2.5 +2.7		3.7 +1.5	4+00	4.5 +0.7	13+00	5.0 +0.2
	2.5 +2.7		3.9 +1.3	+50	4.7 +0.5	+50	5.2 0.0
	2.6 +2.6		3.9 +1.3	5+00	4.7 +0.5	14+00	5.0 +0.2
	2.6 +2.6	+50	4.0 +1.2	+50	4.8 +0.4	+50	5.0 +0.2
	2.8 +2.4		4.0 +1.2	6+00	5.0 +0.2	15+00	5.2 0.0
1+00	3.0 +2.2		4.0 +1.2	+50	5.3 -0.1		
	3.1 +2.1		4.0 +1.2	7+00	5.4 -0.2		
	3.1 +2.1		4.1 +1.1	+50	5.4 -0.2		
	3.1 +2.1	3+00	4.1 +1.1	8+00	5.3 -0.1		
	3.2 +2.0		4.1 +1.1	+50	5.2 0.0		
+50	3.3 +1.9		4.1 +1.1	9+00	5.5 -0.3		
+60	3.4 +1.8	+30	4.2 +1.0	+50	5.6 -0.4		

Sta 131+00 N

0+00 =

West of B/L

Dist Sound

Dist. Sound

Dist. Sound

Dist. Sound

+40

0+00

+70

+50

2+00

+50

+100

+50

1+00

3+00

+50

+60

+30

SOUNDINGS OF SUNSET BLVD

3-20-51

(24)

ACROSS FLOOD CHANNEL SOUNDING

Dist Sound

Dist Sound

0+00 = 63' N. of $\frac{1}{2}$ of South Levee

3+20 7.8 -3.4 5+10 6.4 -2.1

9:15 Profile 45' W. of Bridge

7.6 -3.2 9:18 6.5 -2.2

Dist Sound Dist Sound

(4.4) 6.5 -2.1 (4.3) 6.5 -2.2

0+00 0.0 +4.5 60 7.2 -2.7 50 6.7 -2.3 6.6 -2.3

(4.5) 10 2.5 +2.0 70 6.8 -2.3 7.1 -2.7 50 6.9 -2.6

20 6.0 -1.5 80 6.8 -2.3 9:17 7.2 -2.8 6.8 -2.5

30 6.8 -2.3 90 7.0 -2.5 7.2 -2.8 6.8 -2.5

40 6.4 -1.9 2+00 6.7 -2.2 7.2 -2.8 6.5 -2.2

50 6.6 -2.1 (4.5) 6.4 -1.2 4+00 7.2 -2.8 6.4 -2.1

60 5.0 -0.5 6.7 -2.0 7.1 -2.7 6+00 6.3 -2.0

70 5.5 -1.0 7.0 -2.5 7.1 -2.7 9:20 6.3 -2.0

80 5.5 -1.0 7.1 -2.6 7.3 -2.9 6.2 -1.9

90 6.3 -1.8 50 7.0 -2.5 7.6 -3.2 6.4 -2.1

1+00 6.4 -1.9 7.1 -2.6 50 7.7 -3.3 6.8 -2.5

10 6.1 -1.6 7.1 -2.6 7.9 -3.5 50 6.5 -2.2

20 6.3 -1.8 6.8 -2.3 7.9 -3.5 6.4 -2.1

30 7.1 -2.6 6.8 -2.3 8.0 -3.6 6.4 -2.1

40 7.0 -2.5 3+00 6.8 -2.3 7.1 -2.7 6.4 -2.1

50 6.8 -2.3 10 7.2 -2.7 5+00 6.0 -1.6 6.6 -2.3

Profile 45' W. & Contd

3-20-51
PROFILE ON & BRIDGE

(25)

Dist	Sound	Dist	Sound	Dist	Sound	Dist	Sound
7+00	6.3 -2.1		5.8 -1.7	0+00 = 64' N. & South Levee			Sound N.E
	6.0 -1.8	9+50	5.4 -1.3	0+00	0.0 +4.1	1+80	6.4 -2.4
(4.2)	6.0 -1.8		5.4 -1.3	(4.1)	2.0 +2.1		6.8 -2.8
	6.0 -1.8		5.4 -1.3	4.2	-0.1	2+00	6.6 -2.6
	5.9 -1.7		5.1 -1.0	9:30	5.0 -1.0		6.5 -2.5
50	6.5 -2.3		5.6 -1.5	(4.0)	5.0 -1.0	(4.0)	6.7 -2.7
	6.4 -2.2	50	5.6 -1.5	50	7.9 -3.9		6.6 -2.6
	6.6 -2.4		5.3 -1.2		7.3 -3.3		6.6 -2.6
	6.5 -2.3		5.1 -1.0		5.0 -1.0	50	6.6 -2.6
	6.5 -2.3		3.2 +0.9		5.3 -1.3		6.7 -2.7
8+00	6.5 -2.3		2.2 +1.0		5.3 -1.3		7.1 -3.1
	6.0 -1.8	10+00	2.2 +1.3	1+00	5.7 -1.7		7.2 -3.2
	6.0 -1.8		4.8 -0.7		6.5 -2.5		7.0 -3.0
	6.2 -2.0		4.8 -0.7		6.6 -2.6	3+00	7.0 -3.0
	5.8 -1.6		5.5 -1.4		6.5 -2.5		6.9 -2.9
50	5.4 -1.2	(4.1)	4.5 -0.5		6.0 -2.0		6.8 -2.8
9:23	5.8 -1.6	50	2.0 +2.0	50	5.5 -1.5	9:37	6.8 -2.8
	5.4 -1.2	56	0.0 +4.0		5.6 -1.6		7.2 -3.2
	4.7 -0.5	9:30			6.1 -2.1	50	6.8 -2.8

3-20-51
PROFILE ON & BRIDGE CONTD

Dist	Sound	Dist	Sound
3+60	6.4 -2.5	5+50	5.7 -1.9
	6.7 -2.8	9:41	6.2 -2.4
(3.9)	6.9 -3.0	(3.8)	6.4 -2.6
	7.1 -3.2		6.4 -2.6
9+00	7.3 -3.4		6.4 -2.6
	7.3 -3.4	6+00	6.0 -2.2
	6.8 -2.9		6.0 -2.2
	6.5 -2.6		5.8 -2.0
	6.8 -2.9		5.8 -2.0
50	7.0 -3.1		5.4 -1.6
	7.1 -3.2	50	5.4 -1.6
	7.4 -3.5		5.2 -1.4
	6.6 -2.7		5.2 -1.4
	5.0 -1.1		5.2 -1.4
5+00	5.3 -1.4		5.5 -1.7
	5.4 -1.5	7+00	6.0 -2.2
	5.5 -1.6		5.8 -2.0
	5.5 -1.6		5.3 -1.5
	5.5 -1.6		5.3 -1.5

3-20-51
PROFILE CONTD

(26)

Dist	Sound	Dist	Sound
7+40	5.8 -2.0		5.2 -1.5
50	5.9 -2.1	(3.7)	4.5 -0.8
9:43	5.9 -2.1	50	4.0 -0.3
	5.9 -2.1		3.9 -0.2
(3.8)	5.8 -2.0	9:45	3.2 +0.5
	5.7 -1.9		2.5 +1.2
8+00	5.9 -2.1	9:48	0.5 +3.2
	6.0 -2.2	10+00	2.5 +1.2
	6.3 -2.5		4.4 -0.7
	6.3 -2.5		4.0 -0.3
	5.5 -1.7		4.3 -0.6
50	5.1 -1.3		3.7 0.0
	5.5 -1.7	50	3.0 +0.7
	5.5 -1.7	9:50 60	0.0 +3.7
	5.4 -1.6		
	5.8 -2.0		
9+00	5.4 -1.6		
	5.4 -1.6		
	5.4 -1.6		

PROFILE 45 EAST OF ϕ BRIDGE

3-20-51
PROFILE 45 E. ϕ CONTD

(27)

PROFILE 45 EAST OF ϕ BRIDGE				PROFILE 45 E. ϕ CONTD			
0+00 = 66' ϕ SOUTH LEVEE SOUND NE				DIST SOUND			
DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND
		3+60	6.4 -2.8	5+50	4.9 -1.3		
0+05	0.0 +3.7	6.5 -2.8	10.04	6.6 -3.0	4.9 -1.3		
10:00	2.5 +1.2	(3.7) 6.5 -2.8	(3.6)	6.7 -3.1	(3.6) 4.9 -1.3		
	4.0 -0.3	2+00 6.2 -2.5		6.5 -2.9	10.07 4.8 -1.2		
(3.7)	6.1 -2.4		6.4 -2.7	4+00 6.5 -2.9	4.5 -0.9		
	6.0 -2.3		6.3 -2.6		6+00 4.3 -0.7		
50	3.5 +0.2		6.5 -2.8		6.5 -2.9	4.2 -0.6	
	3.0 +0.7		6.5 -2.8		6.5 -2.9	4.0 -0.4	
	3.0 +0.7	50 6.2 -2.5		6.8 -3.2	4.2 -0.6		
	3.2 +0.5	10:03 6.1 -2.4	50	6.8 -3.2	4.5 -0.9		
	4.9 -1.2		6.1 -2.4		7.4 -3.8	50 4.8 -1.2	
1400	3.8 -0.1		6.2 -2.5		7.2 -3.6		4.8 -1.2
	4.0 -0.3		6.2 -2.5		7.2 -3.6		5.0 -1.4
	4.1 -0.4	3+00 6.2 -2.5		6.1 -2.5	10:08 4.8 -1.2		
	4.4 -0.7		6.2 -2.5	5+00 6.1 -2.5	4.7 -1.1		
	4.6 -0.9		6.4 -2.7		6.1 -2.5	7+00 5.2 -1.6	
50	5.2 -1.5		6.8 -3.1		5.9 -2.3		4.8 -1.2
	5.4 -1.7		6.4 -2.7		5.2 -1.6		4.0 -0.4
	5.5 -1.8	50 6.2 -2.5		5.1 -1.5	4.5 -0.9		

3-20-51

PROFILE 45' E. & CONTD

DIST	Sound	DIST	Sound	STA
7+40	4.8 -1.3	4.2	-0.7	BM
	5.0 -1.5	4.4	-0.9	N. 1+45
10:09	5.0 -1.5	50	5.1	-1.6 N. 1+22
	5.3 -1.8	5.0	-1.5	N. 1+09
(3.5)	5.1 -1.6	3.5	0.0	N. 0+94
	5.1 -1.6	(3.5)	1.5	+2.0 N. 0+88
8+00	5.4 -1.9	10:12	0.5	+3.0 N. 0+70
	5.3 -1.8	10+00	+1.0	+4.5 N. 0+51
	5.3 -1.8			N. 0+24
	5.2 -1.7			0+00
	4.9 -1.4			S. 0+06
50	5.0 -1.5			S. 0+13
	5.0 -1.5			S. 0+29
	5.4 -1.9			S. 0+40
	5.0 -1.5			S. 0+50
	4.6 -1.1			S. 0+60
9+00	4.5 -1.0			
	4.8 -1.3			
	4.2 -0.7			

(28)

PROFILE & N. LEVEE & 45' W & BR.

+	H1	-	ELEV.
3.66	22.46 ⁵		18.80
		10.9	11.6
		10.2	12.3
		10.0	12.5
		7.1	15.4
		4.9	17.6
		4.8	17.7
		4.2	18.3
		4.5	18.0
		4.8	17.7
		5.1	17.4
		5.5	17.0
		9.9	13.1
		12.8	9.7
		16.4	6.1

1 1/2" PIPE

PROFILE OF N. LEVEE & BR.

(29)

PROFILE OF N. LEVEE & 45' E OF BR

STA + HI - ELEV.

BM.	3.27	22.07		18.80
N 1+59			8.8	13.3
N 1+10			7.3	14.8
N 0+72			5.0	17.1
N 0+46			3.7	18.4
N 0+30			3.8	18.3
N 0+10			4.4	17.7
0+00			4.1	18.0
S 0+10			4.6	17.5
S 0+30			10.3	11.8
S 0+45			15.0	7.1
S 0+60			19.7	2.4

STA + HI - ELEV

BM	3.70	22.50		18.80
S 0+60			19.9	2.6 WATER
S 0+40			13.4	9.1
S 0+19			7.2	15.3
S 0+10			4.9	17.6
S 0+04			4.7	17.8
S 0+03			4.3	18.2
0+00			4.1	18.4
N 0+30			4.2	18.3
N 0+50			4.4	18.1
N 0+89			6.5	16.0
N 0+97			11.3	11.2
N 1+29			12.0	10.5

PROFILE @ S. LEVEE @ BR.

STA	+	HI	-	ELEV
BM	11.83	24.33		12.50
TBM			5.27	19.06
S 0+82			14.2	10.1
S 0+65			5.1	19.2
S 0+39			4.4	19.9
S 0+00			4.6	19.7
N 0+05			5.4	19.9
N 0+10			5.3	19.0
N 0+35			11.3	13.0

N.E. CORN
INLET
R.D. STA
0+63
S.L.

ROCK

PROFILE @ S LEVEE @ 45' W @ BR.

STA	+	HI	-	ELEV.
TBM	4.80	23.86		19.06
S 0+79			13.1	10.8
S 0+53			4.4	19.5
S 0+25			4.0	19.9
0+00			5.0	18.9
N 0+06			4.6	19.3
N 0+11			4.9	19.0
N 0+41			13.6	10.3

PROFILE @ S. LEVEE @ 45' E @ BB.

(31)

STA	+ HI	-	ELEV.	
TBM	4.75	29.01	19.06	
S 0+88		13.7	10.3	
S 0+75		13.2	10.8	
S 0+60		4.6	19.4	
S 0+56		5.6	18.4	
S 0+41		5.6	18.4	
N S 0+39		4.6	19.4	
N S 0+21		4.0	20.0	
N S 0+00		4.6	19.4	
N 0+05		5.1	18.9	Rock
N 0+10		5.0	19.0	
N 0+12		13.1	10.9	

CROSS SECTIONS OF FILL
 AREA SLY OF S. LEVEE
 BETWEEN ATSF RR & MORENA BRIDGE

STA	T	H.I.	-	ELEV	PX
B.M.				27.32	USC465 E132
	4.70	32.02			
T.B.M.			4.61	27.41	
	4.67	<u>32.08</u>			

Sta 192+50

14's of Inner Crest of S. Levee

512		5.4	26.7
524		14.8	17.3
573		14.1	18.0
5145		12.2	19.9
5155		10.4	21.7
5203		10.2	21.9
5220		14.1	18.0
5250		15.1	17.0
5265		7.8	24.3
5280		1.1	31.0

Toe of Slope Camino

pt on Slope

" " "

6-26-51

(32)

NOTE: 0+00 Sta = Inner Crest of
 South Levee. Distances ^{out} are from
 Instrument

T. Stampfer
 E. Watson
 A. Sherry
 R. Shorey

CROSS SECTIONS CONTD

6-26-51

(33)

STA	+	H.I	-	ELEV	See P/
T.B.M.				27.41	32

4.84 32.25 Pro # 22054

Sta 193+00

16' S. Inner Crest of S. Levee.

S 272	0.5	31.7
-------	-----	------

Pt on Back Slope Camino

S 240	15.3	17.0
-------	------	------

S 213	17.8	14.4
-------	------	------

Toe Slope Camino

S 195	7.4	24.8
-------	-----	------

S 147	10.2	22.0
-------	------	------

S 125	14.4	17.8
-------	------	------

S 117	12.9	19.3
-------	------	------

S 70	11.3	21.0
------	------	------

S 55	3.7	28.5
------	-----	------

S 35	12.8	19.4
------	------	------

S 21	14.6	17.6
------	------	------

S 8	5.4	26.8
-----	-----	------

CROSS SECTIONS CONTD

STA	+	H.I.	-	ELEV.
T.B.M.	6.96	34.37		27.41

Sta 194+00

PX

77 S. of Inner Crest of S. Levee

N 55		7.2		27.2
N 40		15.6		18.8
N 22		12.1		22.3
N 5		1.4		33.0 "
S 15		12.5		21.9
S 95		9.9		24.5
S 105		4.8		29.6
S 120		4.9		29.5
S 157		19.5		14.9
S N 183		8.9		25.5
S 192		4.6		29.8

After #12.

6-26-51

(34)

CROSS SECTIONS CONTD

6-26-51

(36)

STA + H.I. - ELEV.

TBM.

27.41

5.85 33.26

Sta. 195+00

PX

N 72 S. of Inner Crest of S. Levee

N 50

6.0 27.3

N 37

10.9 22.4

N 17

8.2 25.1

N 7

1.6 31.7 ✓

S 17

12.8 20.5

S 83

8.4 24.9

S 101

2.3 31.0

S 113

2.2 31.1

S 188

3.8 29.5

S 150

18.3 15.0

S 140

18.0 15.3

TBM

27.41

5.00 32.41

TBM.

5.06 27.35

CROSS SECTIONS CONTD

6-26-51

(36)

STA + H.I - ELEV.

(6)

T.B.M.

27.35 See P995

6.17 33.52

Sta 195+50 S. Levee Px

1855 of Inner Crest of S. Levee

N 160	6.4	27.1
N 148	10.1	23.4
N 105	10.2	23.3
N 85	14.1	19.4
N 75	11.8	21.7
N 59	11.7	21.8
N 19	2.7	30.8
N 5	2.6	30.9
S 2	4.8	28.7
S 12	11.3	22.2
S 32	18.3	15.2
S 47	16.5	17.0
S 79	1.1	32.4

1'± Below Top N. Shldr Camino

6-26-51

CROSS SECTIONS CONTD

STA + H.I. - ELEV.

T.B.M. 27.35 See P931

5.87 33.22

Px

Sta 196+00

1180 S. of Inner Crest of S. Levee

N. 147 6.2 27.0

N. 122 6.6 26.6

N 111 9.9 23.3

N 73 11.7 21.5

N 45 9.5 23.7

N 30 4.3 28.9

0 3.9 29.3

S 21 12.4 20.8

S 35 18.7 14.5

S 45 17.8 15.4

S 58 12.2 21.0

S 77 2.7 30.5

Top N. Shldy Camino.

6-26-51

CROSS SECTIONS CONTD.

STA	+	H. I.	-	ELEV.
T.B.M.				27.35 See Pgs
	2.70	30.05		
	Sta 197+00			

PX

173 S. of Inner Crest of S. Levee.

N 150		3.0		27.0
N 142		8.5		21.5
N 77		8.2		21.8
N 22		2.9		27.1
N 2		3.2		26.8
S 11		9.5		20.5
S 27		15.0		15.0
S 49		10.6		19.4
S 70		2.9		27.1

Top of N. Shldr Camind

CROSS SECTIONS CONTD

6-26-51

39

STA + H.I. - ELEV.

T.B.M.

27.35 See Pgs

8.29 35.64

Sta 198+00

PX

N 1455. of Inner Crest of S. Levee

N 114 9.3 26.3

N 100 16.8 18.8

N 82 9.3 26.3

N 65 13.3 22.3

N 21 1.8 33.8

N 8 1.3 34.3

S 12 8.1 27.5

S 43 19.8 15.8

S 59 19.0 16.6

S 73 13.7 21.9

Top S^N Shldr Camine

CROSS SECTIONS CONTD

6-26-57

(40)

STA	+	H.I.	-	ELEV.
T.B.M.				27.35 See P. 35

7.24 34.59

Sta 199+00

P1

A 138 S. of Inner Crest of S. Levee

N 106 6.8 27.8

N 90 16.4 18.2

N 63 14.8 19.8

N 54 8.1 26.5

N 25 2.0 32.6

N 10 1.6 33.0

S 8 6.5 28.1

S 40 18.9 15.7

S 52 18.1 16.5

S 63 14.6 20.0

Top N. Side Camino

T.B.M. 6.62 27.97

CROSS SECTIONS CONTD

6-26-51

(41)

STA	+	H.I.	-	ELEV.
TBM.				27.97 See P. 100

3.25 31.22

Sta. 200+00

A 138 S. of Inner Crest S. Levee

N 107	3.7	27.5
N 95	12.4	18.8
N 79	12.1	19.1
N 69	6.6	24.6
N 58	7.1	24.1
N 36	7.0	24.2
N 19	1.8	29.4
N 8	1.4	29.8
0	4.5	26.7
S 32	16.6	14.6
S 44	12.1	19.1

Top N. Side Camino

CROSS SECTIONS CONTD

6-26-51

(42)

STA	+	H.I	-	ELEV.
T.B.M.				27.97

0.16 28.13

27.68

Sta 201+00

Px

125 S. of Inner Crest S. Levee

N 88 1.3 26.8

N 55 5.9 22.2

N 8 3.4 24.7

S 30 12.5 15.6

S 36 11.8 16.3

S 43 8.6 19.5

8.0 20.1

T.B.M. 7.08 21.05 21.04

Top N. Side Camino

Top Cross Arm Grade @ Sta 202+00

Top Bolt on Back Gd. Rail @ Bus Stop on

N. Side Camino Approx Opposite Sta 202+00

CROSS SECTIONS CONTD

6-26-51

(73)

STA + H.I. - ELEV.

T.B.M. 27.97

6.73 34.50

TOP LEVEL

27.77

Sta 202+00

49' S. of Inner Crest of S. Levee

N 24 7.6 26.9

N 16 7.6 26.9

N 7 6.9 27.6

S 18 13.1 21.4

S 57 12.3 22.2

S 81 18.4 16.1

S 90 17.7 16.8

S 98 14.4 20.1

Top of N. Shldr Camino

CROSS SECTIONS CONTD

70' Blt South
6-26-51

STA	+	H.I	-	ELEV.
T.B.M.				21.04
Top Level				
27.85	7.67	28.71		
		Sta 203+00		
		70 S. of Inner Crest of S. Levee		
554		6.6	22.1	
546		10.7	18.0	
540		13.7	15.0	
528		9.1	19.6	
512		5.3	23.4	
N 3		5.2	23.5	
N 26		-5.1	33.8	
N 39		-0.6	29.3	
TBM		1.40	27.31	

PX

See Pg 42

Top N. Shldr Camino

Top 2'x10' Gd. Post N. Shldr Camino
Approx Opposite Sta 204+00

28.7
8.3
37.0

8.7
8.3
3.2
5.1

CROSS SECTIONS CONTD.

6-27-51

(75)

STA	+	H.I.	-	ELEV.	See Pg
T.B.M.				27.31	44

28.95

4.15

33.00

27.89 1.54 28.85

Sta. 204+00

PK

A 70' S. of Inner Crest of S. Levee

5.33 5.1 23.7

Top N. Side of Camino

5.28 7.4 21.4

5.23 5.9 23.0

5.5 6.2 22.6

N 16 -2.2 31.0

N 28 0.9 27.9

T.B.M.

3.76 25.09

Spike on N. Side G.d. Post Approx Sta 204+50

CROSS SECTIONS CONTD

6-27-51

46

STA	+	H.I.	-	ELEV.
TBM.				27.31
		10.25		37.56
Top Levee				27.96
				Sta. 205+00

PX

36.0

1.8

34.2

6.8

29.2

↗ 46' S. of Inner Crest of S. Levee

S 37		12.6	25.0
S 28		18.3	19.3
0		3.5	34.1
N 13		10.7	26.9
N 22		11.1	26.5

Top N. Shldr. Camino

Sta. 206+00

TBM.	5.26	32.57	27.31
------	------	-------	-------

↗ 70' S. of Inner Crest of S. Levee

0		5.4	27.2
N 2		5.4	27.2
N 19		-1.6	34.2
N 30		3.4	29.2
N 37		6.8	25.8

CHECK ON TOP OF PIERS

7-12-51

(47)

T. Stamper

E. Watson

A. Sherry

R. Shorey

OLD MORENA BRIDGE

STA	+	H.I.	-	ELEV.
T.B.M.				27.31 See P344
	5.51	32.82		
			9.80	23.02
			9.82	23.00
			9.86	22.96
			9.86	22.96
			9.86	22.96

Top S. Abut Seat.

Top Cap 1-st Pier North

" " 2-nd " "

" " 3-rd " "

Top N. Abut. Seat.

18 Jul 51

GRADES - ROUGH FILL

(78)

N. APPROACH MORENA BR.

Sta	+	H.I.	-	Grade	PI L.V. & Morena Mar 51	Elev.	Cut or Fill	Rt. Elev.	Cut or Fill	Lt. Elev.	Cut or Fill
BM	4.22	27.50		23.28							
10+00				22.75		23.02	C0.27	23.05	C0.30		
10+50				22.97		22.78	F0.19	22.86	F0.11		
11+00				23.53		22.88	F0.65	21.91	F1.62	27.50	
11+50				24.43		23.14	F1.29	20.90	F3.53	23.17	F1.26
12+00				25.66		23.20	F2.46			23.50	F2.16
12+50				27.24		23.33	F3.91			23.28	F3.96

CROSS SECTIONS OF FILL
AREA N. APPROACH NEW
MORENA BLVD BRIDGE PROJ #22057

8-1-51

(49)
T. Stamper
E. Watson
A. Sherry
R. Shorey

PX

Sta. + H.I. - Elev
B.M. 23.28 P.I. L.V. Morena Blvd

5.03 28.31

Sta. 8+50

W 16	4.9	23.4
W 20	6.9	21.4
W 42	6.7	21.6
W 64	7.3	21.0
W 73	11.8	16.5

Sta. 8+75

W 16	5.0	23.3
W 19	6.4	21.9
W 55	7.9	20.4
W 65	11.7	16.6
W		

FILL SECTIONS CONTD

8-1-51

(50)

Sta + H.I = Elev.

Sta 9+00

28.31

W 8	5.0	23.3
W 30	6.4	21.9
W 54	6.8	21.5
W 61	11.4	16.9

Sta 9+25

0	5.1	23.2
W 25	5.8	22.5
W 51	6.1	22.2
W 59	11.5	16.8

Sta 9+50

E 9	4.9	23.4
0	5.3	23.0
W 25	5.5	22.8
W 47	5.7	22.6
W 56	11.5	16.8

FILL SECTIONS CONTD

8-1-51

(51)

Sta + H.1 - Elev

Sta 9+75

28.31

E 21	4.8	23.5
0	5.3	23.0
W 25	5.4	22.9
W 42	5.6	22.7
W 53	11.8	16.5

Sta 10+00

E 27	5.0	23.3
0	5.2	23.1
W 20	5.4	22.9
W 38	5.5	22.8
W 49	10.8	17.5

Sta 10+25

E 40	5.0	23.3
0	5.1	23.2
W 20	5.4	22.9
W 38	5.4	22.9
W 49	11.0	17.3

FILL SECTIONS CONTD

8-1-51

(52)

Sta + Hill - Elev

Sta 10+50

28.31

E 51 5.0 23.3

E 24 4.8 23.5

0 5.1 23.2

W 20 5.3 23.0

W 36 5.3 23.0

W 46 10.8 17.5

Sta 10+75

E 59 4.9 23.4

E 57 4.7 23.6

E 32 4.8 23.5

0 5.2 23.1

W 18 5.5 22.8

W 37 5.4 22.9

W 47 11.3 17.0

FILL SECTIONS CONTD

8-1-51

(53)

Sta + H.I - Elev

Sta 11+00

28.31

E 67	4.9	23.4
------	-----	------

E 64	4.6	23.7
------	-----	------

E 32	4.9	23.4
------	-----	------

0	5.2	23.1
---	-----	------

W 20	5.5	22.8
------	-----	------

W 37	5.8	22.5
------	-----	------

W 47	10.6	17.7
------	------	------

Sta 11+25

E 86	4.7	23.6	Berm
------	-----	------	------

E 77	8.3	20.0
------	-----	------

E 72	5.2	23.1
------	-----	------

E 67	4.8	23.5
------	-----	------

E 38	4.9	23.4
------	-----	------

0	5.2	23.1
---	-----	------

W 19	5.5	22.8
------	-----	------

W 38	5.5	22.8
------	-----	------

W 49	10.3	18.0
------	------	------

FILL SECTIONS CONTD

8-1-51

(54)

Sta + H.I. - Elev

28.31

Sta 11+50

E 74	9.7	18.6
E 66 ^{68.5}	4.5	23.8
E 62	4.3	24.0
E 28	4.4	23.9
0	5.1	23.2
W 20	5.5	22.8
W 38	5.5	22.8
W 44	8.9	19.4
W 48	8.9	19.4
W 54 ³	10.8	17.5

Toe Slope

Shoulder

FILL SECTIONS CONT'D

8-1-51

(55)

Sta + H.I - Elev.

Sta. 11+75

28.31

E 70	10.2	18.1
E 58 ⁶²	3.7	24.6
E 31 ²	3.8	24.5
0	4.6	23.7
W 17	5.1	23.2
W 33	5.1	23.2
W 47	11.0	17.3

Toe of slope

Shoulder

Sta 12+00

E 66	10.1	18.2
E 53 ⁵⁴	3.0	25.3
E 26	3.4	24.9
0	4.2	24.1
W 24	4.8	23.5
W 37	10.4	17.9

Toe of slope

Shoulder

FILL SECTIONS CONTD

8-1-51

(56)

Sta + H.I. - Elev

28.31

Sta 12+25

E 65	10.2	18.1
E 56	5.4	22.9
E 33	5.3	23.0
E 49 ⁵⁰	2.9	25.4
E 26	3.1	25.2
0	3.8	24.5
W 15	4.1	24.2
W 27	10.4	17.9

Sta 12+50

E 63	10.1	18.2
E 56	5.8	22.5
E 52	5.6	22.7
E 47 ⁴⁸	2.9	25.4
E 26	3.0	25.3
0	3.6	24.7
W 9	3.6	24.7
W 23	10.7	17.6

FILL SECTIONS CONTD

8-1-51

(57)

Sta + H.I - Elev

28.31

Sta. 12+75

E 63 9.9 18.4

E 56 6.6 21.7

E 53 6.1 22.2

E 47 3.2 25.1

E 25 2.9 25.4

0 3.5 24.8

W 8 3.3 25.0

W 21 11.1 17.2

TBM 9.20 19.11

7.75 26.86

Top N.W. Cor CONC. Block @ S.W
Cor G.F. Atkinson Office Bldg

FILL SECTIONS CONTD

8-2-51

(58)

Sta + H.I - Elev.

Sta. 12+90 Toe Rd.

26.86

E 63	8.7	18.1
E 47	1.8	25.0
E 25	1.6	25.2
0	2.0	24.8
W 6	1.9	24.9
W 18	9.5	17.3

Sta 13+00

E 61	8.2	18.6
E 45	1.5	25.3
E 21	1.5	25.3
0	1.9	24.9
W 12	2.5	24.3
W 32	5.6	21.2
W 61	7.2	19.6
W 107	10.2	16.6

FILL SECTIONS CONTD

8-2-51

(59)

Sta + Hill - Elev.

Sta 13+25

26.86

E 149	3.7	23.1
E 128	5.8	21.0
E 90	5.2	21.6
E 45	2.5	24.3
E 20	1.7	25.1
0	1.8	25.0
W 35	3.4	23.4
W 62	6.4	20.4
W 86	8.5	18.3
W 105	10.1	16.7

FILL SECTIONS CONT'D

8-2-51

60

Sta + H.I. - Elev

26.86

Sta 13+50

E 159	3.9	22.9
E 142	5.1	21.7
E 113	7.7	19.1
E 81	8.6	18.2
E 62	8.4	18.4
E 56	7.4	19.4
E 46	1.4	25.4
E 23	1.3	25.5
0	1.2	25.6
W 27	1.5	25.3
W 43	1.9	24.9
W 58	10.3	16.5

FILL SECTIONS CONTD

Sta	+	H.I	-	Elev
		26.86		

Sta. 13+75

E 151		10.4	16.4	
E 136		9.4	17.4	
E 119		11.3	15.5	
E 99		11.7	15.1	
E 83		10.6	16.2	
E 56		6.7	20.1	
E 47		1.5	25.3	
E 23		1.5	25.3	
0		1.0	25.8	
W 19		0.9	25.9	
W 41		1.1	25.7	
W 56		10.4	16.4	
W				
T.B.M.		3.57	23.29	

N.P.I.L.

#Mores

8-2-51

⑥

Sta	+	H.I	-	Elev
		26.86		

Sta 14+00 = Last Sta Pay

E 147		14.4	12.4	
E 142		12.9	13.9	
E 123		14.1	12.7	
E 108		14.0	12.8	
E 90		11.4	15.4	
E 48		2.4	24.4	
E 22		1.9	24.9	
0		2.2	24.6	
W 23		2.5	24.3	
W 41		2.3	24.5	
W 55		11.3	15.5	

TOPOGRAPHIC FEATURES

8-6-51

(62)
T. Stamer
A. Sherry
R. Shorey

SAN DIEGO PLACE

PX

Sta	Dist	Azim	Rod	Elev.	Bearing
B.M.				9.33	U.S.E.D. Diego

H.I.
+5.12 14.45

↖ @ Diego		90° 37'			S 80° 23' E To Martins Tower
1	488	327° 50'	10.45	4.0	N 32° 10' W
2	488	327° 00'	8.45	6.0	N 33° 00' W
3	450	328° 20'	10.4	4.0	N 31° 40' W
4	450	327° 50'	8.4	6.0	N 32° 10' W
5	400	329° 25'	10.4	4.0	N 30° 35' W
6	400	328° 25'	8.4	6.0	N 31° 35' W
7	340	327° 25'	10.4	4.0	N 32° 35' W
8	343	326° 35'	8.4	6.0	N 33° 25' W
9	288	325° 10'	10.4	4.0	N 34° 50' W
10	288	324° 35'	8.4	6.0	N 35° 25' W
11	245	323° 50'	10.4	4.0	N 36° 10' W
12	248	322° 55'	8.4	6.0	N 37° 05' W
13	215	322° 40'	10.4	4.0	N 37° 20' W
14	218	322° 20'	8.4	6.0	N 37° 40' W

TOPOGRAPHY CONT'D

8-6-51

63

H.I. = 14.45

Sta	Dist	Azim.	Rod	Elev	Bearing
15	160	322°45'	10.4	4.0	N37°15'W
16	157	320°20'	8.4	6.0	N39°40'W
17	112	331°00'	10.4	4.0	N29°00'W
18	109	³ 325°35'	8.4	6.0	N24°25'W
19	85	356°50'	10.4	4.0	N3°10'W
20	72	347°35'	8.4	6.0	N12°25'W
21	60	38°10'	10.4	4.0	N88°10'E
22	41	29°30'	8.4	6.0	N29°30'E
23	66	62°10'	10.4	4.0	N62°10'E
24	62	61°20'	8.4	6.0	N61°20'E
25	70	103°00'	10.4	4.0	S77°00'E
26	55	101°20'	8.4	6.0	S78°40'E
27	75	133°40'	10.4	4.0	S46°20'E
28	52	131°10'	8.4	6.0	S48°50'E
29	83	170°15'	10.4	4.0	S3°45'E
30	75	178°10'	8.4	6.0	S1°50'E
31	130	171°50'	10.4	4.0	S8°0'E
32	142	193°16'	8.4	6.0	S13°10'W

8-6-51

(69)

H.I. = 14.45

Sta	Dist	Azimuth	Rod	Elev	Bearing
33	188	166°25'	10.4	4.0	S13°35'E ✓
34	198	172°10'	8.4	6.0	S7°50'E ✓
35	195	160°00'	10.4	4.0	S20°0'E
36	200	161°40'	8.4	6.0	S18°20'E
37	240	155°10'	10.4	4.0	S24°50'E
38	230	188°20' 65*	8.4	6.0	S21°40'E S5°20'W?
39	290	161°00'	10.4	4.0	S19°00'E
40	275	165°15'	8.4	6.0	S23°45'E
41	321	170°30'	10.4	4.0	S29°30'E
42	297	173°55'	8.4	6.0	S26°05'E
43	330	179°55'	10.4	4.0	S0°05'E
44	320	181°00'	8.4	6.0	S1°00'W
45	340	185°40'	10.4	4.0	S5°40'W
46	330	184°40'	8.4	6.0	S4°40'W
47	350	192°35'	10.4	4.0	S12°35'W
48	348	192°20'	8.4	6.0	S12°20'W
49	352	202°30'	10.4	4.0	S22°30'W
50	343	204°35'	8.4	6.0	S24°35'W

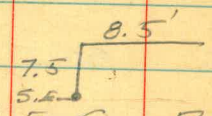
TOPOGRAPHY CONTD

8-6-51

(65)

H.I. = 14.45

Sta	Dist	Azim	Red	Elev	Bearing	
51	352	208°00'	10.4	4.0	S 28° W	
52	350	207°55'	8.4	6.0	S 27° 55' W	
53	311	185° 50'	1.45	15.0	S 55° 50' W	Ed Obs. Tower S.E. Cor. P. Form
54	306	186° 20'	1.45	13.0	S 6° 20' W	" " " " " " Tower
55	308	188° 00'	1.36	13.0	S 8° 00' W	" " " " " " S W " "
56	286	185° 20'	3.50	11.0	S 55° 20' W	Base Flag Pole
57	266	189° 15'	6.5	8.0	S 59° 15' W	S.E. Cor Bldg Gear Shack 8x12' ^{EXW NX5}
58	255	190° 25'	6.6	7.9	S 10° 25' W	N.E. Cor. Bldg.
59	258	192° 10'	6.6	7.9	S 12° 10' W	N.W. Cor " " P.P. 3' S. S.W. Cor. Bldg
60	230	193° 00'	5.2	9.3	S 13° 00' W	S.W. Cor. Pier Walkway 3.5' wide Dig.
61	226	193° 30'	5.2	9.3	S 13° 30' W	S.E. " " " "
62	208	185° 40'	5.5	9.0	S 58° 40' W	N.W. " " " "
63	210	185° 10'	5.5	9.0	S 25° 10' W	N.E. " " " "
△ 64	270.20	207° 22'			S 27° 22' W	2x2 Hub 3'E. old E. Corb 5's. Sign
B.M.			9.33			USED Diego Post S.D. Pl. & Mission Blvd.
	+4.40	13.73				



TOPOGRAPHY CONTD

8-7-51

66

Sta	Dist	Azim	Rod	Elev	Bearing
T@A 64		H.I. = 13.73			
65	83	206° 35'	9.7	4.0	S26°35'W
66	80	208° 00'	7.7	6.0	S28°00'W
67	104	237° 25'	9.7	4.0	S57°25'W
68	95	239° 35'	7.7	6.0	S59°35'W
69	143	261° 35'	9.7	4.0	S81°35'W
70	125	263° 45'	7.7	6.0	S83°45'W
71	198	359 60 273° 15'	9.7	4.0	N86°45'W
72	200	277° 25'	7.7	6.0	N82°35'W
73	275	274° 30'	9.7	4.0	N85°30'W
74	288	277° 10'	7.7	6.0	N82°30'W
75	322	269° 45'	9.7	4.0	S89°45'W
76	334	270° 00'	7.7	6.0	West
77	300	258° 55'	9.7	4.0	S78°55'W
78	305	261° 55'	7.7	6.0	S81°55'W
79	320	259° 30'	9.7	4.0	S79°30'W
80	324	260° 50'	7.7	6.0	S80°50'W
81	350	265° 20'	9.7	4.0	S85°20'W
82	348	266° 10'	7.7	6.0	S86°10'W

TOPOGRAPHY CONTD

8-7-51

(27)

Sta	Dist	Azim	Rod	Elev	Bearing
		H.I. = 13.73			N 89° 05' W
83	380	270° 55'	9.7	4.0	Top Jetty @ E. End
84	376	271° 40'	7.7	6.0	N 88° 20' W " " "
85	308	33° 50'	5.7	8.0	N 33° 50' E " " "
86	310	33° 40'	4.7	9.0	N 33° 40' E
87	263	34° 30'	5.7	8.0	N 34° 30' E
88	263	32° 05'	4.7	9.0	N 32° 05' E
89	212	33° 35'	5.7	8.0	N 33° 35' E
90	212	33° 05'	4.7	9.0	N 33° 05' E
91	148	35° 55'	5.7	8.0	N 35° 55' E
92	147	35° 55'	4.7	9.0	N 35° 55' E Vertical
93	110	38° 10'	5.7	8.0	N 38° 10' E
94	112	36° 15'	4.7	9.0	N 36° 15' E
95	72	51° 40'	5.7	8.0	N 51° 40' E
96	105	31° 25'	4.7	9.0	N 31° 25' E
97	70	27° 10'	5.7	8.0	N 27° 10' E
98	115	25° 35'	4.7	9.0	N 25° 35' E
99	48	14° 10'	5.7	8.0	N 14° 10' E
100	91	8° 05'	4.7	9.0	N 8° 05' E

TOPOGRAPHY CONTD

8-7-51

(68)

Sta	Dist	Azim	ROA	H.W	Bearing
		H.I. = 13.73			
101	60	347° 30'	5.7	8.0	N. 12° 30' W
101	120	356° 00'	4.7	9.0	N. 04° 00' W
102	56	323° 10'	5.7	8.0	N. 36° 50' W
103	112	338° 20'	4.7	9.0	N. 21° 40' W
104	78	307° 45'	5.7	8.0	N. 52° 15' W
105	81	340° 40'	4.7	9.0	N. 19° 20' W
106	141	303° 00'	5.7	8.0	N. 57° 00' W TOP E Corb Miss Blvd
107	93	317° 00'	4.7	9.0	N. 43° 00' W
108	150	305° 20'	5.7	8.0	N. 54° 40' W
109	112	311° 20'	4.7	9.0	N. 48° 40' W
110	166	303° 00'	5.7	8.0	N. 55° 00' W GUTTER DRIVE WAY
111	143	312° 25'	4.7	9.0	N. 47° 35' W
112	228	304° 40'	5.7	8.0	N. 55° 20' W E GUTTER MISS BLVD
113	142	324° 45'	4.7	9.0	N. 35° 15' W
114	102	293° 35'	5.7	8.0	N. 66° 25' W E TRAFFIC LANE
115	157	321° 45'	4.7	9.0	N. 38° 15' W
116	59	272° 40'	5.7	8.0	N. 87° 20' W
117	171	311° 35'	4.7	9.0	N. 48° 25' W

FOPO CONTD

8-7-51

(69)

Sta	Dist	Azim	Rod	Flon	Bearing
		H.I. = 13.73			
✓ 118	45	234° 30'	5.7	8.0	S. 59° 30' W
✓ 119	172	313° 00'	4.7	9.0	N. 47° 00' W
✓ 120	27	182° 00'	5.7	8.0	S. 62° 00' W
✓ 121	169	324° 30'	4.7	9.0	N. 35° 30' W
✓ 122	30	132° 25'	5.7	8.0	S. 47° 35' E
✓ 123	227	325° 50'	4.7	9.0	N. 34° 10' W
✓ 124	6	265° 45'	5.7	8.0	S. 85° 45' W
✓ 125	264	321° 00'	4.7	9.0	N. 39° 00' W
✓ 126	30	333° 40'	5.7	8.0	N. 26° 20' W
✓ 127	319	321° 20'	4.7	9.0	N. 38° 40' W
✓ 128	40	0° 40'	5.7	8.0	N. 0° 40' E
✓ 129	366	318° 20'	4.7	9.0	N. 41° 40' W
✓ 130	20	22° 45'	5.7	8.0	N. 22° 45' E
✓ 131	353	315° 00'	4.7	9.0	N. 45° 00' W
✓ 132	19	94° 50'	5.7	8.0	S. 85° 10' E
✓ 133	83	111° 40'	5.7	8.0	S. 68° 20' E
✓ 134	93	112° 00'	4.7	9.0	S. 68° 00' E

TOPO CONTD

8-7-51

(70)

Sta	Dist	Azim	Rad	Hev	Bearing
		H.I = 13.73			
✓ 135	101	112° 00'	5.7	8.0	S. 68° 00' E
✓ 136	101	112° 40'	4.7	9.0	S. 67° 20' E
✓ 137	122	120° 10'	5.0	8.0	S. 59° 50' E
✓ 138	130	123° 10'	4.7	9.0	S. 56° 50' E
✓ 139	132	123° 10'	5.7	8.0	S. 56° 10' E
✓ 140	105	138° 50'	3.7	10.0	S. 41° 10' E
✓ 141	112	139° 20'	5.7	8.0	S. 40° 40' E
✓ 142	87	159° 15'	3.7	10.0	S. 20° 45' E
✓ 143	96	160° 00'	5.7	8.0	S. 20° 00' E
✓ 144	76	180° 00'	3.7	10.0	S. 0° 00' E
✓ 145	80	180° 00'	5.7	8.0	S. 0° 00' E
✓ 146	69	180° 40'	3.7	10.0	S. 0° 40' W
✓ 147	68	189° 10'	5.7	8.0	S. 9° 10' W
✓ 148	68	150° 50'	3.7	10.0	S. 29° 10' E
✓ 149	65	214° 30'	5.7	8.0	S. 34° 30' W
✓ 150	81	128° 30'	3.7	10.0	S. 51° 30' E
✓ 151	83	237° 10'	5.7	8.0	S. 57° 10' W
✓ 152	99	114° 10'	3.7	10.0	S. 65° 50' E

TOPO CONT'D

8-7-51

(71)

Sta	Dist	Azim	Red	Elev.	Bearing
		H. I = 13.73			
✓ 153	103	261° 40'	5.7	8.0	S. 81° 40' W
✓ 154	128	123° 10'	3.7	10.0	S. 56° 50' E
✓ 155	128	272° 40'	5.7	2.0	N. 87° 20' W
✓ 156	150	274° 40'	5.7	8.0	N. 85° 20' W
✓ 157	182	278° 00'	5.7		N. 82° 00' W
✓ 158	210	279° 20'	5.7		N. 80° 40' W
✓ 159	248	280° 35'	5.7		N. 79° 25' W
✓ 160	285	277° 30'	5.7		N. 82° 30' W
✓ 161	313	275° 00'	5.7		N. 85° 00' W
✓ 162	343	273° 50'	5.7		N. 87° 10' W
✓ 163	325	266° 15'	5.7		S. 86° 15' W
✓ 164	312	262° 00'	5.7		S. ⁸² 72° 00' W
✓ 165	325	2 ⁶ 82° 20'	5.7		S. ⁸² 72° 20' W
✓ 166	352	2 ⁶ 87° 20'	5.7		S. ⁸⁷ 77° 20' W
✓ 167	375	272° 00'	5.7	8.0	N. 88° 00' W
✓ 168	106	130° 20'	1.1	12.6	S. 49° 40' E
✓ 169	92	141° 00'	1.1	12.6	S. 39° 00' E
✓ 170	81	156° 10'	0.6	13.1	S. 23° 50' E

TOPO CONTD

8-7-51

(72)

Sta	Dist	Azim	Rad	Flt	
		H.I. - 13.75			
4171	77	174° 40'	0.8	13.0	
4172	68	129° 00'	5.0	8.7	East Gutter
4173	60	165° 10'	5.6	8.1	Approx 4
4174	6	252° 05'	6.0	7.1	E. Gut
4175	23	324° 00'	6.1	7.6	E. Ret. Approx 4
4176	41	358° 40'	6.1	7.6	End Curb Gut Shot
4177	116	25° 25'	4.5	9.2	Gut Line @ Walk 6' wide
4178	92	282° 00'	5.4	8.3	± Rd @ S. End div. Str.
4179	57	314° 05'	5.8	8.0	End Ret N. Lane Gut
4180	72	300° 40'	6.7	7.0	S. Edge Cb. Inlet Ext 3' N. 2' W
4181	190	285° 20'	5.4	8.3	W. Gutter Miss Blvd
4182	140	303° 00'	6.0	7.7	E. Gut @ S. Ret. Miss Blvd
4183	149	307° 00'	5.6	8.1	S. Gut @ Ret G.
4184	232	290° 00'	5.3	8.2	W. Gut Miss Blvd
185	157	307° 00'	5.6	8.1	± Top Sewer M.H.
186	310	295° 15'	5.2	8.5	W. Gut Blvd
187	168	296° 30'	5.4	8.3	6" Gate Valves
188	379	298° 30'	4.8	9.0	W. Gut Blvd @ Strandway

TOPG CONTD

8-7-51

Sta	Dist	Azim	Ref	Elev	
		Hike 13.75			
489	186	298°05'	5.3	8.0	G. Valve & curb 4' wide
490	382	303°20'	4.2	9.5	Gut to @ End & Ret. P.P. & 3'S.
491	165	306°50'	5.5	8.2	End Ret. N.
492	171	309°25'	5.5	8.2	Top S.W. & A'R, Cb Ret.
193	252	305°20'	5.6	8.1	E Gut Blind.
494	335	306°50'	5.2	8.5	E Gut Blind.
495	168	327°45'	4.2	9.5	& Sewer M.H.
496	166	343°20'	4.1	9.6	Gas Meter
197	262	327°16'	4.3	9.4	Random Slip & Pav & St N.
198	365	323°00'	4.6	9.1	" " " "
499	200	4°05'	2.7	11.0	" " " "
200	104	22°50'			P.P. Service Life Gd Sta.
201	12	309°35'			" " " "
B.M.				9.33	
	+5.05	14.38			

TOPO CONTD

8-8-51

74

Sta	Dist	Azim	Rod	Flat	Bearing
⊙@ Diego		H.I = 14.38		9.33	
202	55	66° 55'	6.38	8.0	N 66° 55' E
203	19	86° 40'	4.38	10.0	N 86° 40' E
204	33	79° 40'	4.4		N 79° 40' E
205	53	67° 40'	4.4		N 67° 40' E
206	55	64° 10'	4.4		N 64° 10' E
207	55	57° 35'	4.4		N 57° 35' E
208	57	57° 35'	6.4		N 57° 35' E
209	34	49° 05'	4.4		N 49° 05' E
210	37	44° 00'	6.4		N 44° 00' E
211	21	27° 15'	4.4		N 27° 15' E
212	50	20° 10'	6.4		N 20° 10' E
213	27	353° 50'	6.4		N 6° 10' W
214	31	334° 05'	6.4		N 25° 55' W
215	50	332° 40'	6.4		N 27° 20' W
216	34	279° 40'	9.4	10.0	N 80° 20' W
217	76	323° 50'	6.4		N 36° 10' W
218	61	302° 15'	4.4		N 57° 45' W
219	93	316° 40'	6.4		N 43° 20' W

TOPO CONTD

75

Sdg	DIST	Azim	Rd	Elev	Bearing
		$H_1 = 14.38$			
220	148	306° 10'	4.4		N. 53° 50' W
221	118	318° 15'	6.4		N. 41° 45' W
222	140	318° 30'	6.4		N. 41° 30' W
223	180	318° 00'	6.4		N. 42° 00' W
224	204	319° 05'	6.4		N. 40° 55' W
225	211	311° 20'	4.4		N. 48° 40' W
226	230	321° 05'	6.4		N. 38° 55' W
227	250	320° 10'	6.4		N. 39° 50' W
228	282	321° 25'	6.4		N. 38° 35' W
229	322	323° 55'	6.4		N. 36° 05' W
230	369	325° 30'	6.4		N. 34° 30' W
231	421	327° 20'	6.4		N. 32° 40' W
232	22	62° 00'	3.2		N. 62° 00' E
233	52	62° 00'	3.4	11.0	N. 62° 00' E
234	39	228° 30'	4.4		S. 40° 30' W
235	31	201° 05'	4.4		S. 21° 05' W
236	45	198° 40'	4.4		S. 18° 40' W
237	59	206° 30'	4.4		S. 26° 30' W

TOPO CONTD

8-8-51

76

Sta	Dist	Azimuth	Red	Blk	Bearing
		H. 1 = 14.38			
238	110	205° 45'	4.4		S. 25° 45' W
239	68	286° 15'	4.4		N. 73° 45' W
240	82	268° 30'	4.4		S. 88° 30' W
241	70	269° 45'	4.4		S. 84° 45' W
242	48	280° 40'	4.4		N. 79° 20' W
243	90	255° 50'	3.2	16.2	S. 75° 50' W
244	124	208° 35'	4.4		S. 28° 35' W
TA 64 + 5.7		H. 1 13.8		8.1	
245	153	14° 40'	3.8	10.0	N. 14° 40' E
246	151	7° 10'	3.8		N. 7° 10' E
247	155	357° 20'	3.8		N. 2° 40' W
248	148	347° 50'	3.8		N. 12° 10' W
249	139	349° 20'	3.8		N. 10° 40' W
250	142	340° 30'	3.8		N. 19° 30' W
251	162	353° 30'	3.8		N. 6° 30' W on W. side of N. 9° 10' W against Blk
252	175	350° 50'	3.9		

800.072

S. Levee

189+00	26.81
190+00	26.88
195+00	27.24
200+00	27.60
205+00	27.96

B.M. on Power Pole Spike El. 25.01

Approx S. Levee Sta 202+00

Bis Stop Nut on Back Rail El 21.04

23.0 @ RR.

P.P.B.M.

19.0

of Bus Stop B.M.

2.0 Below Level Grade

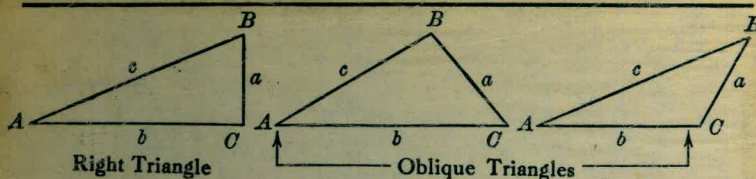
7.49' N/L

7.55

Controls

Engr Atkinson
Perriory

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

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

Given	Required	Formulas
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	$B = 90^\circ - A$, $b = a \cot A$, $c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A$, $a = b \tan A$, $c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A$, $a = c \sin A$, $b = c \cos A$

Solution of Oblique Triangles

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

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. $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ ft.

Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\cos 5^\circ 10' = .9959$. $1 - .9959 = .0041$. $319.4 \times .0041 = 1.31$. $319.4 - 1.31 = 318.09$ ft.

When the rise is known, the horizontal distance is approximately: the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft. slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.