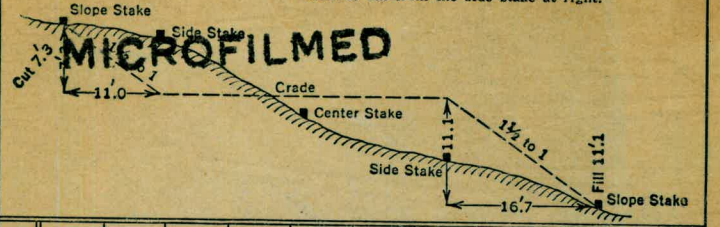
DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

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.

90°
93+50
93+25

REG. B/L. STA.
98
99
100
101
102

SOUNDINGS

12.126-11. ky, a, yh. chss.

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4-7-47

FINAL SOUNDINGS OF

MISSION BAY SUPPLEMENTAL

CONTRACT OF ROCK SHOAL REMOVAL

Disposal Area

STA 93+75 - 0+00 = W. SHORE B/L

LINES ARE RUN AT 90° TO B/L.

DIST	SOUND		DIST	SOUND	
5+00 ✓	13.4		50	12.3	9.8
~~2.6~~	13.4		'	12.7	10.2
08:40	12.4		'	12.7	10.2
2.5	12.4		2.5	13.0	10.5
'	12.4		'	13.0	10.5
50	12.5		7+00	12.7	10.2
'	13.2		'	12.7	10.2
'	13.2		'	12.5	10.0
'	12.6		'	12.4	9.9
'	11.1		'	16.0	13.5
6+00	11.2	8.7	50	18.5	16.0
'	11.4	8.9	'	18.2	15.7
'	11.5	9.0	'	19.4	16.9
'	13.0	10.5	'	18.8	16.3
'	12.8	10.3		18.2	15.7

93+75 - 4-7-47 Indexed (7)

DIST.	SOUND		DIST.	SOUND	
8+00	20.0	17.5	10+00	12.5	10.0
'	20.0	17.5	'	13.0	10.5
'	22.0	19.5	'	15.4	12.9
'	22.0	19.5	'	16.3	13.8
'	22.2	19.7	'	16.2	13.7
50	22.0	19.5	50	18.0	15.5
'	21.2	18.7	'	18.3	16.8
'	20.0	18.5	'	17.4	14.9
2.5	18.0	16.5	2.5	15.0	12.5
'	18.8	16.3	'	11.5	9.0
7+00	17.3	14.8	11+00	11.8	9.3
'	17.3	14.8	'	11.8	9.3
'	17.4	14.9	'	17.0	13.5
'	17.4	14.9	'	19.3	16.8
'	17.4	14.9		19.3	16.8
50	17.0	14.5	50	18.0	15.5
'	15.5	13.0	'	16.4	13.9
'	15.5	13.0	2.6	14.5	12.0
'	13.3	10.8	'	12.0	9.5
'	11.8	8.3	'	12.5	10.0

93+75 4-7-47

DIST	SOUND		DIST	SOUND
12+00	12.8	10.2	14+00	13.5
"	13.0		"	13.5
"	13.0		"	13.5
"	13.0		"	13.5
"	13.1		"	13.0
50	13.0		50	12.0
"	13.3		"	12.8
2.6	13.2		2.6	13.2
"	13.3		"	13.5
"	13.3		"	13.8
13+00	13.2		15+00	13.5
"	13.4		08:38	
"	13.4			
"	13.5			
"	13.5			
50	13.4			
"	13.5			
"	13.4			
"	13.4			
"	13.2			

STA. 93+50 - 0+00 = W/SHORE B/L 4-7-47 (2)

LINES ARE RUN AT 90° TO BASE LINE

DIST	SOUND		DIST	SOUND	
5+00	13.0		"	13.3	10.4
2.9 09:13	12.5		7+00	13.1	10.2
✓	12.5		"	13.0	10.1
2.9	12.5		"	13.0	10.1
"	12.5		"	13.0	10.1
50	12.3		"	12.5	9.6
"	12.2		50	12.5	9.6
"	11.5		"	12.5	9.6
"	11.4		2.9	12.7	9.8
"	12.0		"	13.0	10.1
6+00	12.3	9.4	"	12.8	9.9
"	12.4	9.5	8+00	12.7	9.8
"	13.0	10.1	"	12.5	9.6
"	12.5	9.6	"	12.4	9.5
"	13.0	10.1	"	12.8	9.9
50	13.1	10.2	"	14.5	11.6
"	13.0	10.1	50	15.5	12.6
"	13.0	10.1	"	15.0	12.1
"	13.2	10.3	"	13.4	10.5

STA - 93+50 0+00 = W/SHORE OF B/L (3)

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND
'	12.0	9.1	'	12.5	9.6	'	13.4	'	'	14.1
'	11.8	8.9	'	12.5	9.6	'	13.8		3.0	14.5
9+00	11.6	8.7	11+00	12.5	9.6	13+00	13.5	09:32	15+00	14.5
'	12.0	9.1	'	12.7	9.8	'	13.5			
'	12.0	9.1	'	12.7	9.8	'	13.5			
2.9	11.8	8.9	'	12.8	9.9	'	13.5			
'	11.8	8.9	'	13.0	10.1	'	13.3			
50	11.4	8.5	50	13.0	10.1	50	13.5			
'	11.3	8.4	2.9	12.8	9.9	3.0	13.8			
'	11.0	8.1	'	13.0	10.1	'	13.6			
'	11.4	8.5	'	13.0	10.1	'	13.5			
'	11.5	8.6	'	13.0	10.1	'	13.6			
10+00	11.7	8.8	12+00	13.2	10.3	14+00	13.4			
2.9	11.8	8.9	'	13.5		'	13.5			
'	12.0	9.1	'	13.5		'	14.0			
'	12.0	9.1	'	13.3		'	13.7			
'	11.7	8.8	3.0	13.5		'	13.0			
50	12.3	9.4	50	13.3		50	12.5			
'	12.1	9.3	'	13.4		'	13.5			
'	14.0	11.1	'	13.4		'	13.6			

STA. 93+25 - 0+00 = W/SHORE OF B/L
4-7-47

LINES ARE RUN AT 90° TO B/L

DIST	SOUND	DIST	SOUND
5+00	14.0	"	13.5
"	14.0	7+00	13.5
09:45	13.0	"	13.5
~~3.3~~ "	12.8	"	13.5
3.1	12.3	"	13.5
50	12.0	"	13.5
"	11.6	50	13.5
"	11.3	"	13.5
"	11.8	"	13.7
"	12.0	"	13.7
6+00	12.0	"	13.7
"	12.4	8+00	13.7
"	12.5	"	13.7
"	13.0	"	13.5
"	13.4	"	13.5
50	13.0	3.2	13.5
"	13.2	50	13.2
"	13.5	"	13.0
"	13.5	"	12.8

93+25

DIST	SOUND
"	12.6
"	12.7
9+00	12.8
"	12.7
"	12.8
"	12.6
"	12.7
50	12.7
"	12.8
"	13.0
"	13.0
"	13.0
10+00	13.0
"	13.0
"	13.0
"	12.7
"	12.5
50	12.5
"	13.0
"	13.0

4-7-47 ④

DIST	SOUND
"	13.0
"	13.0
11+00	13.0
"	13.0
3.2	13.2
"	13.0
"	13.4
50	13.4
"	13.4
"	13.3
"	13.0
"	13.3
12+00	13.5
"	14.0
"	14.0
"	14.0
"	13.8
50	13.8
"	13.8
"	14.0

93+25 1-7-47 Indexed

DIST	SOUND		DIST	SOUND
	14.5			15.2
	13.8		(3.3)	15.2
13+00	14.0		15+00	16.0
	13.8		10:04	
	13.0			
	13.0			
	13.1			
50	12.3			
	13.4			
	13.0			
(3.2)	12.2			
	13.5			
14+00	14.0			
	13.8			
(3.3)	13.7			
	13.3			
	13.3			
50	14.2			
	15.0			
	14.6			

STA- 98+00 1-7-47 X (5)

LINES ARE RUN ALONG ~~TO~~ B/L STAS

DIST	SOUND		DIST	SOUND	
1+62	0.0	+3,V⁻	50	13.2	9.7
10:20	1.0	+2.V⁻		12.8	9.3
~~(2.9)~~	2.6	+0.9		12.5	9.0
(3.7)	4.3	-0.8		12.4	8.9
2+00	5.0	-1.V⁻		12.4	8.9
(3.5)	6.0	-2,V⁻	4+00	12.3	8.8
	6.9	-3.4		12.0	8.V⁻
	8.7	V⁻2		12.0	8.V⁻
	10.0	6,V⁻		11.5	8.0
50	11.5	8.0		11.7	8.2
	12.0	8.V⁻	50	12.0	8.V⁻
	12.0	8.V⁻	(3.5)	12.4	8.9
	12.0	8.V⁻	~~2.9~~	12.4	8.9
	12.6	9.1	~~3.7~~	12.5	9.0
3+00	13.5	10.0	(3.5)	12.3	8.8
	14.0	10.V⁻	5+00	12.4	8.9
	13.6	10.1		12.5	9.0
	13.0	9.V⁻		12.8	9.3
40	13.5	10.0	30	13.1	9.6

98+00				4-7-47		X
DIST	SOUND		DIST	SOUND		
'	13.0	9.5	'	27.1	23.6	
50	13.0	9.5	50	28.0	24.5	
'	12.5	9.0	'	28.0	24.5	
'	12.5	9.0	'	27.5	24.0	
'	12.5	9.0	'	27.1	23.6	
'	12.5	9.0	'			
6+00	12.5	9.0	8+00	28.4	24.9	
'	12.5	9.0	'	27.8	24.3	
3.5	12.5	9.0	'	27.8	24.3	
'	12.8	9.3	3.5	28.5	25.0	
'	12.5	9.0	'	28.5	25.0	
50	12.6	9.1	50	28.5	25.0	
'	13.0	9.5	'	28.5	25.0	
'	13.3	9.8	'	28.5	25.0	
'	19.1	15.6	3.6	28.5	24.9	
'	20.5	17.0		28.0	24.4	
7+00	21.0	17.5	9+00	27.5	23.9	
'	13.0	18.5	'	26.6	23.0	
'	23.5	20.0	'	26.0	22.4	
'	25.7	22.2	30	24.3	20.7	

98+00				4-7-47		X (6)
DIST	SOUND		DIST	SOUND		
'	23.0	19.4	'	13.3	9.7	
50	22.4	18.8	50	13.6	10.0	
'	19.0	15.4	'	14.1	10.5	
'	18.3	14.7	'	14.2	10.6	
'	18.0	14.4	'	13.5	9.9	
'	18.2	14.6	'	13.5	9.9	
10+00	17.8	14.2	12+00	13.5	9.9	
'	17.4	13.8	'	13.4	9.8	
'	15.0	11.4	'	13.0	9.4	
3.6	13.8	10.2	'	13.0	9.4	
'	12.0	8.4	'	13.0	9.4	
50	12.5	8.9	50	13.0	9.4	
'	12.6	9.0	3.6	13.0	9.4	
'	13.0	9.4	'	12.8	9.2	
'	13.3	9.7	'	13.0	9.4	
'	13.2	9.6	'	13.0	9.4	
11+00	13.0	9.4	13+00	13.2	9.6	
'	13.0	9.4	'	13.1	9.5	
'	13.0	9.4	'	13.0	9.4	
'	13.0	9.4	30	13.0	9.4	

98+00 4-7-47

DIST	SOUND		DIST	SOUND	
	13.2	9.6		12.4	8.8
50	13.6	10.0	50	12.0	8.4
~~50~~	14.0	10.4		11.0	7.4
	13.5	9.9		11.0	7.4
	14.1	10.5	3.6	11.0	7.4
	14.0	10.4		11.0	7.4
14+00	14.3	10.7	16+00	11.3	7.7
	14.5	10.9		11.2	7.6
3.6	12.6	9.0		11.4	7.8
	12.4	8.8		11.6	7.9
	13.1	9.5		11.5	7.8
50	14.3	10.7	50	11.5	7.8
	14.0	10.4		11.5	7.8
	12.3	8.7	3.7	11.5	7.8
	10.4	6.8		11.5	7.8
	10.0	6.4		11.3	7.6
15+00	9.7	6.1	17+00	11.0	7.3
	10.5	6.9		10.8	7.1
	12.0	8.4		10.7	7.0
30	12.3	8.7		10.5	6.8

98+00 4-7-47 ⑦

DIST	SOUND		DIST	SOUND	
	10.4	6.7		13.8	10.1
50	10.4	6.7	50	13.8	10.1
	10.5	6.8		13.5	9.8
	10.5	6.8		13.5	9.8
	10.4	6.7	3.7	12.5	8.8
	13.0	9.3		11.4	7.7
18+00	13.0	9.3	20+00	9.0	√.3
	13.3	9.6	20+10	7.0	3.3
3.7	13.5	9.8	10:32		
	13.5	9.8			
	13.8	10.1			
50	13.7	10.0	50		
	14.0	10.3			
	14.3	10.6			
	13.5	9.8			
	13.3	9.6			
17+00	14.0	10.3	21+00		
	13.7	10.0			
	14.0	10.3			
30	14.0	10.3			

STA 99+00 0+00 = W/SHORE B/L

Sound East LINES ARE RUN AT To B/L 4-8-47

DIST	SOUND		DIST	SOUND	
1+60	0	+1.8	50	12.8	11.0
	1.0	+0.8	'	11.4	9.6
06:35					
2.0	2.7	-0.9	'	12.0	10.2
(1.8)					
	5.0	-3.2	08:40	11.6	9.8
2+00	6.3	-4.5	'	12.5	10.7
'	7.2	-5.4	4+00	12.5	10.7
'	8.1	-6.3	'	12.0	10.2
'	9.2	-7.4	'	12.4	10.6
'	10.4	8.6	(1.9)	12.4	10.5
50	11.0	9.2	'	12.5	10.6
'	11.1	9.3	50	12.5	10.6
'	11.2	9.4	08:43	12.3	10.4
'	11.4	9.6	'	12.0	10.1
'	12.0	10.2	'	12.2	10.3
3+00	12.8	11.0	'	12.5	10.6
08:38	12.8	11.0	5+00	12.2	10.3
'	12.5	10.7	'	12.5	10.6
'	12.5	10.7	'	12.2	10.3
40	12.6	10.8	30	12.0	10.1

STA 99+00 4-8-47 (8)

DIST	SOUND		DIST	SOUND	
'	12.0	10.1	08:48	25.5	23.6
50	12.0	10.1	50	26.2	24.3
'	12.2	10.3	'	26.2	24.3
08:45	12.0	10.1	'	25.0	23.1
'	11.8	9.9	'	23.0	21.1
'	12.0	10.1	'	22.5	20.6
6+00	11.7	9.8	8+00	22.0	20.1
'	11.8	9.9	'	20.1	18.2
'	11.7	9.8	(2.0)	20.0	18.0
(1.9)	12.0	10.1	'	21.0	19.0
'	12.2	10.3	'	19.5	17.5
50	12.0	10.1	50	17.0	15.0
'	12.0	10.1	08:50	18.0	16.0
'	11.7	9.8	'	17.4	15.4
'	12.0	10.1	'	16.4	14.4
'	15.1	13.2	'	14.2	12.2
7+00	17.3	15.4	9+00	14.0	12.0
'	19.2	17.3	'	13.7	11.7
'	20.5	18.6	'	13.5	11.5
30	24.0	22.1	30	13.2	11.2

99+00 4-8-47

DIST	SOUND		DIST	SOUND	
	12.0	10.0		19.5	17.5
50	12.8	10.8	50	20.0	18.0
	12.2	10.2		19.3	17.3
	12.5	10.5		19.5	17.5
	13.0	11.0		20.0	18.0
	12.0	10.0		18.0	16.0
10+00	12.0	10.0	12+00	16.4	14.4
(2.0)	11.0	9.0	08:57	9.8	7.8
	11.3	9.3		11.2	9.2
08:53	11.2	9.2	(2.0)	12.4	10.2
	9.4	7.4		12.0	10.0
50	10.5	8.5	50	12.2	10.2
	13.5	11.5		12.4	10.4
	15.0	13.0		12.5	10.5
	18.1	16.1		12.5	10.5
	18.5	16.5		12.5	10.5
11+00	19.0	17.0	13+00	12.6	10.6
	18.7	16.7		12.6	10.6
08:55	18.0	16.0		12.5	10.5
30	16.5	14.5		12.5	10.5

99+00 4-8-47 (9)

DIST	SOUND		DIST	SOUND	
	13.4	11.4		12.2	10.1
50	12.7	10.7	50	12.4	10.3
	12.5	10.5		12.4	10.3
	12.4	10.4		12.5	10.4
(2.1)	12.5	10.5		12.4	10.3
	12.3	10.2		12.5	10.4
14+00	12.4	10.3	16+00	12.7	10.6
	12.2	10.1		12.7	10.6
	11.8	9.7	09:03	12.8	10.7
09:00	10.8	8.7	(2.1)	13.0	10.9
	11.8	9.7		12.3	10.2
50	11.4	9.4	50	10.0	7.9
	11.0	9.0		9.6	7.5
(2.1)	11.0	9.0		9.4	7.3
	11.7	9.7		9.5	7.4
	12.3	10.3		9.4	7.3
15+00	12.0	10.0	17+00	9.5	7.4
	12.2	10.1		9.5	7.4
	12.3	10.2	09:05	9.5	7.4
	12.2	10.1		9.4	7.3

99+00 4-8-47

DIST	SOUND		DIST	SOUND	
	9.8 9.3	6.9 7.2		11.5	9.3
50	9.5	7.4	50	10.0	7.9
	11.0	8.9		8.0	5.8
	11.2	9.1	2.2	5.5	-3.3
	11.2	9.1 09:09	30	1.5	+0.7
	11.7	9.6			
18+00	12.0	9.9	20+00		
	12.0	9.9			
	12.2	10.1			
	12.4	10.3			
2.2	12.8	10.6			
50	13.0	10.8			
	12.8	10.6			
	12.4	10.2			
09:08	12.4	10.2			
	12.4	10.2			
19+00	12.4	10.2			
	12.0	9.8			
	12.0	9.8			
30	12.0	9.8			

STA-100+00 = 0+00 = W/SHORE B/L

Sound East

DIST	SOUND		DIST	SOUND	
1+30	0.0	+2.3		12.0	9.7
2.5 09:23	1.0	+1.3		12.0	9.7
50	3.0	-0.7	09:27	11.5	9.2
2.3	5.4	-3.1	50	11.7	9.4
	8.0	-0.7		12.0	9.7
	9.0	6.7		12.2	9.9
	9.3	7.0	2.4	12.5	10.1
2+00	9.6	7.3		12.5	10.1
	10.1	7.8	4+00	12.2	9.8
	11.0	8.7		12.4	10.0
	11.3	9.0		12.5	10.1
	11.4	9.1		12.4	10.0
50	11.7	9.4		12.4	10.0
09:25	12.0	9.7	50	11.8	9.4
	12.1	9.8		11.4	9.0
	12.0	9.7		11.2	8.8
	11.8	9.5		11.4	9.0
3+00	11.4	9.1		11.6	9.2
	11.8	9.5	5+00	11.5	9.1

100+00 4-8-47

DIST	SOUND		DIST	SOUND	
	11.3	8.9		11.6	9.2
	11.3	8.9		12.3	9.9
	11.3	8.9		12.7	10.3
	11.2	8.8		12.2	9.8
50	11.2	8.8	50	12.2	9.8
	11.4	9.0		11.3	8.9
09:30	11.8	9.4	09:33	10.1	7.7
	11.2	8.8	2.4	11.2	8.8
2.4	11.2	8.8		11.6	9.2
6+00	11.0	8.6	8+00	11.3	8.9
	11.0	8.6		13.4	11.0
	11.6	9.2		16.0	13.6
	12.5	10.1		17.0	14.6
	12.2	9.8		17.8	15.4
50	12.0	9.6	50	18.3	15.9
	11.1	8.7		19.4	17.0
	11.3	8.9		20.0	17.6
	12.0	9.6		20.3	17.9
	12.0	9.6		21.5	19.1
7+00	12.0	9.6	9+00	21.5	19.1

100+00 4-8-47 -1 (11)

DIST	SOUND		DIST	SOUND	
	21.5	19.1		14.5	12.0
	21.2	18.8	09:40	17.0	14.5
09:35	20.3	17.9		17.0	14.5
	19.8	17.4		16.5	14.0
50	19.4	17.0	50	15.3	12.8
	18.5	16.1		15.0	12.5
	17.5	15.1		13.5	11.0
2.5	17.0	14.5	2.5	13.5	11.0
	13.0	10.5		12.6	10.1
10+00	11.8	9.3	12+00	12.0	9.5
	11.8	9.3		12.4	9.9
09:37	12.4	9.9		12.2	9.7
	16.2	13.7		12.5	10.0
	17.0	14.5		13.1	10.6
50	15.0	12.5	50	13.0	10.5
	13.0	10.5		13.0	10.5
	16.5	14.0		13.0	10.5
	17.0	14.5		13.0	10.5
	17.0	14.5	09:43	13.0	10.5
11+00	14.5	12.0	13+00	13.0	10.5

100+00 4-8-47

DIST	SOUND		DIST	SOUND	
	12.8	10.3		14.0	11.√
	13.3	10.8		14.8	12.3
	13.3	10.8		15.0	12.√
	13.3	10.8		15.3	12.8
50	13.5	11.0	50	15.2	12.7
	13.5	11.0		15.2	12.7
	14.5	12.0	2.3	15.0	12.√
2.5	15.0	12.√		15.0	12.√
	15.0	12.√		15.0	12.√
14+00	15.0	12.√	16+00	14.5	12.0
	14.5	12.0		14.0	11.√
	13.5	11.00		13.5	11.0
	13.3	10.8	09:48	13.2	10.6
09:45	13.6	11.1		13.0	10.4
50	13.5	11.0	50	13.4	10.8
	13.2	10.7	2.6	14.0	11.4
	13.2	10.7		14.2	11.6
	12.5	10.0		14.0	11.4
	12.8	10.3		13.1	10.√
15+00	13.6	11.1	17+00	13.1	10.√

100+00 4-8-47 X (12)

DIST	SOUND		DIST	SOUND	
	13.0	10.4		11.3	8.7
	12.8	10.2		10.8	8.2
	12.6	10.0	09:52	9.2	6.6
	12.8	10.2	2.6	8.0	√.4
50	12.5	9.9	50	5.0	2.4
	12.3	9.7	09:53	2.0	-0.6
09:50	12.3	9.7			
	12.3	9.7			
	12.3	9.7			
18+00	12.3	9.7	20+00		
	12.3	9.7			
2.6	12.3	9.7			
	12.2	9.6			
	12.2	9.6			
50	12.0	9.4			
	12.3	9.7			
	12.5	9.9			
	12.0	9.4			
	12.0	9.4			
19+00	12.0	9.4			

STA -101+00 0+00 = W/SHORE B/L 4-8-47

Sound East

DIST	SOUND		DIST	SOUND	
1+15				11.5	
~~2.9~~	0.0	+2.7	3+00	~~10.5~~	8.8
10:04	0.3 ~~0.3~~	+2.4		11.7	9.0
(2.7)	1.0	+1.7		12.3	9.6
	1.8	+0.9	(2.7)	12.5	9.8
50	3.2	-0.5		12.5	9.8
	5.5	-2.8	50	12.8	10.1
	6.1	3.4		13.0	10.3
	7.0	4.3		13.0	10.3
	7.9	5.2	10:10	13.0	10.3
2+00	8.5	5.8		13.0	10.2
	9.8	7.1	4+00	12.7	9.9
	11.1	8.4		12.5	9.7
	11.1	8.4		12.5	9.7
	12.0	9.3	(2.8)	12.0	9.2
50	12.1	9.4		12.0	9.2
10:07	12.2	9.5	50	12.0	9.2
	12.0	9.3		11.8	9.0
	11.8	9.1		12.0	9.2
	11.6	8.9		12.0	9.2

101+00 4-8-47 (13)

DIST	SOUND		DIST	SOUND	
	12.0	9.2		12.0	9.2
5+00	12.0	9.2	7+00	12.0	9.2
	11.7	8.9		12.0	9.2
	11.8	9.0		12.0	9.2
	12.0	9.2	10:15	12.0	9.2
(2.8)	12.2	9.4		11.8	9.0
50	12.1	9.3	50	11.8	9.0
	11.5	8.7		11.6	8.8
	11.5	8.7		11.6	8.8
10:13	11.5	8.7	(2.9)	11.5	8.6
	11.5	8.7		11.5	8.6
6+00	11.5	8.7	8+00	11.8	8.9
	11.5	8.7		12.0	9.1
	11.5	8.7		12.5	9.6
(2.9)	11.5	8.7		12.0	9.1
	11.8	9.0		12.0	9.1
50	11.8	9.0	50	12.0	9.1
	12.0	9.2		11.8	8.9
	12.0	9.2		11.5	8.6
	12.0	9.2		11.5	8.6

101+00 4-8-47

DIST	SOUND		DIST	SOUND	
	11.4	8.√⁻		22.0	19.1
9+00	11.4	8.√⁻	11+00	23.5	20.6
	11.0	8.1		23.5	20.6
10:18	11.0	8.1		24.0	21.1
	11.0	8.1		23.5	20.6
	10.9 ~~10.9~~	8.0		22.0	19.1
50	10.9	8.0	50	20.0	17.1
	10.9	8.0		17.0	14.1
	12.5	9.6		14.7	11.8
(2.9)	14.3	11.4	(2.9)	13.2	10.3
	14.0	11.1		11.4	8.5
10+00	12.5	9.6	12+00	10.6	7.7
	11.3	8.4		10.6	7.7
	14.8	11.9		10.8	7.9
	16.0	13.1		10.8	7.9
	16.4	13.√⁻	10:23	12.0	9.1
50	15.0	12.1	50	13.0	10.1
10:20	15.0	12.1		14.5	11.6
	16.7	13.8		15.3	14.4
	19.5	16.6		16.2	13.3

101+00 4-8-47 (14)

DIST	SOUND		DIST	SOUND	
	17.0	14.1		13.0	10.1
13+00	17.1	14.2	15+00	13.5	10.6
	17.1	14.2		13.1	10.2
(2.9)	16.4	13.√⁻		13.3	10.4
	14.5	11.6		13.3	10.4
	12.8	9.9	(2.9)	13.4	10.√⁻
50					
+7+00	13.4	10.√⁻	50	13.5	10.6
	15.5	12.6		13.1	10.2
10:25	15.3	12.4		13.0	10.1
	15.4	12.√⁻		13.1	10.2
	15.5	12.6	10:29	13.0	10.1
14+00	15.8	12.9	16+00	13.0	10.1
	15.5	12.6	10:30	13.0	10.1
10:26	15.0	12.1		13.3	10.3
	14.6	11.9		13.8	10.8
	14.5	11.6	(3.0)	14.5	11.√⁻
50	14.2	11.3	50	14.8	11.8
	13.8	10.9		14.5	11.√⁻
	13.0	10.1		13.0	10.0
	12.5	9.6		12.8	9.8

DIST	SOUND		101 + 00 DIST	4-8-47 SOUND	
	12.8	9.8		11.1	8.1
17+00	12.8	9.8	19+00	9.0	6.0
	12.5	9.5	3.0	3.3	-0.3
	12.3	9.3	10:34	2.0	+1.0
	12.1	9.1			
	12.0	9.0			
50	12.2	9.2	50		
	12.3	9.3			
3.0	12.3	9.3			
	12.2	9.2			
	12.0	9.0	20+00		
18+00	12.0	9.0			
10:32	11.8	8.8			
	11.6	8.6			
	11.5	8.5			
	12.0	9.0			
50	12.0	9.0			
	12.3	9.3			
	12.4	9.4			
30	12.5	9.5			

STA - 102+00 0+00 = W/SHORE 3/4 4-8-47 (15)

Sound of East DIST	SOUND		DIST	SOUND	
1+01	0.0	+3.1	3+00	12.3	9.2
~~3.2~~	1.0	+2.1	10:48	12.3	9.2
10:43	1.8	+1.3		12.8	9.7
	2.8	+0.3		12.9	9.8
	5.3	-2.2		12.5	9.4
50	6.4	-3.3	50	12.1	9.0
3.1	7.2	-4.1		12.3	9.2
	9.0	-5.9	3.1	12.9	9.8
10:46	9.7	-6.6	10:49	13.2	10.1
	10.5	-7.4		13.1	10.0
2+00	14.0	-10.9	4+00	13.1	10.0
	14.2	-11.2		13.1	10.0
	14.0	-10.9		13.0	9.9
	13.7	-10.6		13.0	9.9
	14.0	-10.9		12.5	9.4
50	12.7	9.6	50	12.3	9.2
	12.5	9.4		12.3	9.2
	12.5	9.4		12.3	9.2
	12.4	9.3		12.3	9.2
	12.3	9.2		12.0	8.9

102+00 4-8-47

DIST	SOUND		DIST	SOUND	
5+00	11.8	8.7	7+00	12.8	9.7
	12.3	9.2		12.8	9.7
	12.5	9.4		12.8	9.7
	12.4	9.3	3.1	12.8	9.7
	12.5	9.4		12.8	9.7
10:52	13.0	9.9	50	13.0	9.9
50	13.0	9.9	10:55	13.0	9.9
	13.6	10.2		13.0	9.9
	14.0	10.9		13.0	9.9
3.1	14.0	10.9		13.0	9.9
	13.5	10.4	8+00	13.0	9.9
6+00	13.5	10.4		13.0	9.9
	13.5	10.4		13.2	10.1
	13.5	10.4		13.2	10.1
	13.5	10.4		13.2	10.1
	13.5	10.4		13.2	10.1
50	13.5	10.4	50	13.2	10.1
	13.3	10.2		13.0	9.9
	13.0	9.9		12.7	9.6
	12.8	9.7		12.3	9.3
	12.8	9.7		12.0	8.9

102+00 4-8-47 (16)

DIST	SOUND		DIST	SOUND	
9+00	12.3	9.2	11+00	11.8	8.6
	12.3	9.2		11.8	8.6
3.1	12.3	9.2		12.0	8.8
	12.3	9.2		12.0	8.8
	12.3	9.2		11.5	8.3
50	12.4	9.3	50	10.5	7.3
10:58	12.5	9.3		11.3	8.1
	12.5	9.3	3.2	10.0	6.8
3.2	12.4	9.2		10.0	6.8
	12.0	8.8		10.2	7.0
10+00	12.0	8.8	12+00	10.2	7.0
	12.0	8.8		10.3	7.1
	12.0	8.8		10.1	6.9
	12.0	8.8		10.0	6.8
	11.8	8.6		10.0	6.8
50	12.0	8.8	50	10.2	7.0
	12.2	8.8		10.2	7.0
	12.0	8.6		10.2	7.0
11:00	11.5	8.3	11:03	10.4	7.2
	11.5	8.3		10.5	7.3

DIST	SOUND	102+00	DIST	SOUND	4-8-47
13+00	12.5	9.3	15+00	12.3	9.0
	13.0	9.8		12.0	8.7
	14.0	10.8		12.0	8.7
	14.8	11.6		12.0	8.7
	15.0	11.8		12.3	9.0
50	15.0	11.8	50	12.3	9.0
	14.7	11.5		12.5	9.2
3.2	14.0	10.8	3.3	13.0	9.7
	13.2	10.0		12.8	9.5
	12.0	8.8		13.0	9.7
14+00	11.0	7.8	16+00	13.2	9.9
	10.6	7.4		13.2	9.9
	10.4	7.2	11:08	12.8	9.5
	10.4	7.2		12.0	8.7
	10.4	7.2		11.5	8.2
50	10.4	7.2	50	11.5	8.2
	11.3	8.1		11.5	8.2
11:05	11.7	8.5		11.3	8.0
3.3	12.0	8.7		11.2	7.9
90	12.0	8.7	90	11.2	7.9

DIST	SOUND	102+00	DIST	SOUND	4-8-47 (17)
17+00	11.2	7.9	19+00		
	11.0	7.7			
	11.0	7.7			
	11.3	8.0			
	11.3	8.0			
50	11.5	8.2	50		
	11.5	8.2			
11:11	11.5	8.2			
3.3	11.5	8.2			
	11.6	8.3			
18+00	11.3	8.0	20+00		
	11.0	7.7			
	10.7	7.4			
	10.3	7.0			
	7.5	4.2			
50	4.3	-1.0			
	2.7	+0.6			
11:12	2.5	+0.8			
90	11:29-	3.7			

STA - 105+00 B/L — 4-8-47

0+00 = CARMEL POINT

DIST	SOUND WEST		DIST	SOUND	
W 2+40	0.0	+3.2		7.1	-3.9
50	0.8	+2.4		8.0	-4.8
13:55	2.1	+1.1	50	8.4	-5.2
(3.2)	5.7	-2.5		8.2	-5.0
	6.6	-3.4		7.4	-4.2
	7.0	-3.8		8.0	-4.8
3+00	7.0	-3.8		8.2	-5.0
	7.4	-4.2	5+00	8.4	-5.2
	8.0	-4.8		9.2	-6.0
	9.0	-5.8	(3.2)	9.4	-6.2
	9.7	-6.5		9.8	-6.6
50	10.8	-7.6		10.0	-6.8
	10.5	-7.3	50	9.0	-5.8
	10.5	-7.3		9.4	-6.2
	12.0	-8.8		8.0	-4.8
	12.0	-8.8	14:00	8.0	-4.8
4+00	11.0	-7.8		7.5	-4.3
	8.8	-5.6	6+00	7.6	-4.4
	4.6	-1.4		7.4	-4.2

105+00 — 4-8-47 (18)

DIST	SOUND		DIST	SOUND	
	6.8	-3.6		4.6	-1.6
	7.4	-4.2		5.4	-2.3
	8.2	-5.0		5.4	-2.3
50	6.3	-3.1	50	5.0	-1.9
(3.2)	6.5	-3.3		4.8	-1.7
	6.7	-3.5	14:06	3.7	-0.6
	6.7	-3.5		3.7	-0.6
14:03	6.7	-3.5		3.7	-0.6
7+00	6.4	-3.2	9+00	3.8	-0.7
	6.2	-3.0		3.2	-0.1
	6.1	-2.9	(3.1)	3.2	-0.1
(3.1)	6.5	-3.4		3.8	-0.7
	7.2	-4.1		4.0	-0.9
50	6.5	-3.4	50	4.5	-1.4
	6.0	-2.9		4.8	-1.7
	5.8	-2.7		4.8	-1.7
	5.8	-2.7		4.7	-1.6
	6.0	-2.9		4.3	-1.2
8+00	5.4	-2.3	10+00	3.4	-0.3
	4.0	+0.9	20	3.7 2.0	-0.6 +1.1

105+00 4-8-47

DIST	SOUND	
	1.7	+1.4
	1.5	+1.6
50	1.3	+1.8
(3.1)	1.0	+2.1
	1.0	+2.1
80	0.5	+2.6
14:09		

DIST	SOUND

0+00 = SOUND WEST

STA - 104+00 CARMEL POINT B/L 4-8-47 (19)

DIST.	SOUND	
2+30	0.0	+3.0
14:20	1.3	+1.7
50	2.7	+0.3
(3.0)	5.0	-2.0
	6.0	-3.0
	8.3	-5.3
	9.5	6.5
3+00	9.6	6.6
	10.0	7.0
	10.4	7.4
	10.5	7.5
	10.8	7.8
50	11.2	8.2
	11.2	8.2
	11.8	8.2
	12.0	-8.4
14:24		
11+00		

DIST.	SOUND

SOUND WEST STA - 103+00 4-8-47 X

0+00 = CARMEL POINT B/L

DIST	SOUND		DIST	SOUND
1+85				
~~1+00~~	0.0	+2.9		
95				
14:29	0.3	+2.6		
~~2.8~~ 05	1.1	+1.8		
15	1.7	+1.2		
25	3.4	-0.5		
35				
2.9 50	3.5	-0.6		
45	5.5	-2.6		
55	9.0	-6.1		
65	9.0	6.1		
75	11.0	8.1		
85				
~~2+00~~	11.0	8.1		
2+95	11.1	-8.2		
14:31				
50				

SOUND EAST 103+00 4-8-47 X (20)

0+00 = CARMEL POINT B/L

DIST.	SOUND		DIST	SOUND
0+55	0.0	+2.9	50	
60	0.4	+2.5		
14:40	1.5	+1.4		
	~~4.0~~	-1.1		
	3.8	-0.9		
1+00	4.0	-1.1		
	5.0	-2.1		
	7.4	-6.5		
2.9	8.5	-7.6		
	8.5	-7.6		
50	9.5	6.6		
	10.6	7.7		
	10.8	7.9		
	10.8	7.9		
	11.0	8.1		
2+00	11.2	8.3		
14:44				

SOUND EAST — 104+00 — 4-8-17

DIST	SOUND		DIST	SOUND
1+73	0.0	+2.8		
14:47	1.0	+1.8		
(2.8)	5.1	-2.3		
2+00	7.0	4.2		
	7.5	4.7		
	10.0	7.2		
	10.6	7.8		
	11.0	8.2		
50	11.4	8.6		
	11.7	-8.9		
14:51				
3+00				

SOUND EAST STA- 105+00 — 4-8-17 — (21)

DIST	SOUND		DIST	SOUND
2+05	0.0	+2.7		
14:55 ~~14:50~~	1.0	+1.7	4+00	
(2.7)	5.5	-2.8		
	7.0	4.3		
	9.0	6.3		
50	8.7	6.0		
	9.0	6.3		
	10.1	7.4		
	10.1	7.4		
	10.6	7.8		
3+00	10.6	7.8		
	10.8	8.0		
14:58	11.0	8.2		
	11.4			
14:59	11.2			
50				

SOUND EAST — STA - 106+00 — 4-8-47

0+00 = CARMEL POINT B/L

DIST	SOUND		DIST	SOUND
2+14	0.0	+2.7	4+00	
15:02	1.2	+1.5		
(2.7)	3.2	-0.5		
	4.8	-2.1		
50	6.1	3.4		
	7.8	5.1		
	8.0	5.3		
	9.2	6.5		
	9.8	7.1		
3+00	10.1	7.4		
	10.2	7.5		
	10.4	7.7		
	10.4	7.7		
	10.8	8.1		
50	11.0	8.3		
15:05	11.0	8.3		

90

SOUND EAST — STA - 107+00 — 4-8-47 — (22)

0+00 = CARMAEL POINT B/L

DIST	SOUND		DIST	SOUND
2+17	0.0	+2.6		
2+20	0.5	+2.1		
15:15	3.2	-0.6		
(2.6)	5.5	-2.9		
50	7.5	4.9		
	8.4	5.8		
	8.5	5.9		
	8.8	6.2		
	9.2	6.6		
3+00	9.5	6.9		
	9.9	7.3		
	10.2	7.6		
	10.2	7.6		
	10.2	7.6		
50	11.0	8.4		
15:18	11.0	8.4		

SOUND EAST — STA - 108+00 — 4-8-47

0+00 = CARMEL POINT B/L

DIST	SOUND	
2+14	0.0	+2.√
15:23	0.8	+1.7
(2.5)	3.2	-0.7
	4.0	-1.√
50	6.5	4.0
	8.1	√.6
	8.8	6.3
	9.4	6.9
	9.8	7.3
3+00	9.8	7.3
	10.0	7.√
	10.4	7.9
	10.6	8.1
	10.7	8.2
50	10.9	8.4
15:25	11.0	-8.√
90		

DIST	SOUND	

SOUND EAST — STA - 109+00.0 — 4-8-47 — (23)

0+00 = CARMEL POINT B/L

DIST	SOUND	
2+13	0.0	+2.√
15:30	1.0	+1.√
(2.5)	4.0	-1.√
	5.7	-3.2
50	7.0	4.√
	7.9	√.4
	8.8	6.3
	9.4	6.9
	9.8	7.3
3+00	10.0	7.√
	10.1	7.6
	10.3	7.8
	10.5	8.0
	10.8	8.3
50	11.0	-8.√
15:32		

STA-110+00 4-8-47

SOUND EAST 0+00 = CARMEL POINT B/L

DIST	SOUND		DIST	SOUND
2+10	0.0	+2.4		
15:36	1.1	+1.3		
(24)	5.3	-2.9		
	6.5	4.1		
50	8.2	5.8		
	9.0	6.6		
	9.0	6.6		
	9.3	6.9		
	9.5	7.1		
3+00	9.8	7.4		
	10.0	7.6		
	10.0	7.6		
	10.3	7.9		
	10.3	7.9		
50	10.3	7.9		
15:39	10.4	8.0		

STA-111+00 4-8-47 (24)

SOUND EAST 0+00 = CARMEL POINT B/L

DIST	SOUND		DIST	SOUND
2+12	0.0	+2.4		
15:43	0.8	+1.6		
(24)	2.5	-0.1		
	5.4	-3.0		
50	8.3	-5.9		
	9.5	-7.1		
	10.4	8.0		
	11.0	8.6		
15:45	11.2	-8.8		
3+00				

SOUND EAST — STA-112+00 — 4-8-47

0+00 = CARMEL POINT B/L

DIST	SOUND		DIST	SOUND
1+70	0.0	+2.3		
15:50	0.5	+1.8		
(2.3)	1.3	+1.0		
2+00	4.0	-1.7		
	6.0	3.7		
	6.8	4.1		
	7.5	5.2		
	8.7	6.4		
50	9.0	6.7		
	10.0	7.7		
	10.4	8.1		
	10.8	8.1		
15:53	11.0	8.7		
3+00				

SOUND EAST — STA-98+00 — ORIGINAL SOUNDINGS — 5-5-47 — (25)

0+00 = EAST CAUSEWAY B/L : LINES ARE RUN AT 81°39'44" TO B/L

DIST	SOUND		DIST	SOUND	
2000 TIED					
20+10	1.5	+1.9	2200	4.5	-1.0
09:02	2.5	+0.9	09:05	5.8	-2.3
(3.4)	3.3	+0.1	(3.5)	6.4	-2.9
	3.7	-0.3		7.1	-3.6
50	4.3	-0.9		7.5	-4.0
	4.8	-1.4	50	6.2	-2.7
	5.1	-1.7		4.4	-0.9
	5.4	-2.0		4.0	-0.1
	5.5	-2.1		3.4	+0.1
21 00	6.5	—		2.5	+1.0
	5.4	2.0	2300	2.0	+1.1
	5.1	1.7		1.8	+1.7
	4.5	-1.1		1.8	—
	4.0	-0.6		1.7	+1.8
50	3.3	+0.1		1.7	—
	3.0	+0.4	50	1.7	—
	2.8	+0.6		1.7	—
(3.4)	2.5	+0.9		1.9	+1.6
21 90	3.0	+0.4	2380	2.0	+1.1

	STA- 98+00			5-5-47	
DIST	SOUND		DIST	SOUND	
2390	2.0	+1.1		1.4	+2.1
2400	2.0	—	2600	1.4	—
(3.5)	2.0	—	(3.5)	1.4	—
	2.0	—		1.4	—
	1.9	+1.6		1.5	+2.2
	1.8	+1.7		1.6	+1.9
50	1.7	+1.8	50	1.5	+2.0
	1.7	—		1.5	—
09:08	1.6	+1.9		1.5	—
	1.6	—	09:10	1.5	—
	1.6	—		1.5	—
2500	1.5	+2.0	2700	1.5	—
	1.4	+2.1		1.5	—
	1.4	—		1.5	—
	1.4	—		1.6	+1.9
	1.4	—		2.0	+1.5
50	1.4	—	50	2.4	+1.1
	1.4	—		2.9	+0.6
(3.5)	14	—	(3.5)	5.8	-4.3
2580	1.4	—	2780	7.3	-3.8

	STA- 98+00			5-5-47	(26)
DIST	SOUND		DIST	SOUND	
2790	10.0	-6.5	2990	15.3	-11.7
2800	12.2	-8.7	3000	15.0	-11.4
(3.5)	14.0	-10.5		13.8	-10.2
	15.2	11.7		12.0	-8.4
	16.4	12.9		10.0	-6.4
	17.0	13.5	09:15	5.7	-2.1
50	17.5	14.0	50	2.0	+1.5
	18.0	14.5		0.9	+2.7
	18.1	14.6	(3.6)	0.0	+3.6
	18.2	14.7	30+80	STAKE +?	COMPLETE
	18.2	—			
2900	18.1	14.6			
(3.5)	18.0	14.5			
09:12	17.8	14.3			
(3.6)	17.4	13.5			
	17.5	13.9			
50	1.5?	—?			
	16.5	12.9			
	15.2	-11.7			
2980	15.0	-11.4			

SOUND EAST — STA. 97+00 — 5-5-17 — "ORIGINALS"

0+00 = EAST CAUSEWAY 3/4 : LINES ARE RUN AT 81°39'44" TO 3/4

DIST	SOUND		DIST	SOUND	
2320 TIED	2.0	+1.8			
2330	2.0	—	2470	1.9	+1.9
09:37	2.0	—	(3.8)	1.9	—
50	2.0	—		1.9	—
(3.8)	2.0	—	25+50 2500	1.8	+2.0
	2.0	—		1.9	+1.9
	2.0	—		1.8	+2.0
	2.0	—		1.8	—
2400	2.0	—		1.7	+2.1
	2.0	—	2600 50	1.7	—
	2.0	—		1.7	—
	2.0	—		1.7	—
	2.0	—		1.7	—
50	2.0	—		1.7	—
	2.0	—	26+50 2600	1.7	—
	2.0	—	09:40	2.0	+1.8
	2.0	—		2.2	+1.6
	2.0	—		2.2	—
2500 50	1.9	+1.9	(3.8)	4.1	-0.9
	1.9		50 2700	9.8	-6.0

STA. 97+00 — 5-5-17 — (27)

DIST	SOUND		DIST	SOUND	
(3.8)	12.1	-8.3	2860	15.2	-11.4
	12.1	—	(3.8)	14.0	-10.2
	12.7	8.9		13.2	-9.4
	14.0	10.2		12.0	-8.2
27+50 2700	15.3	11.1	29+50 2900	11.0	-7.2
	16.8	13.0		4.8 9.0	-1.0
	17.8	14.0		2.0	+1.8
	18.6	14.8	09:45	1.0	+2.8
	19.2	14.4		1.0 0.3	+2.8
2900 50	19.0	14.2	3000 50	0.3	+3.1
	18.0	14.2	51	0.0	+3.8
	19.1	15.3	60	+?	
	19.1	—	30+20 2970	STAKE +?	COMPLETE
	19.1	—	(3.8)		
28+50 2800	19.3	15.5			
	20.0	16.2			
	19.5	15.7			
(3.8)	19.0	15.2			
09:43	17.5	13.7			
2900 2850	16.3	-12.1			

SOUND EAST — STA- 99+00 "ORIGINALS" — 5-5-47

0+00 = EAST CAUSEWAY B/L : LINES ARE RUN AT 81°39'44" FR B/L

DIST	SOUND		DIST	SOUND	
2000 TIED					
2010	1.3	+2.7	2200	4.0	0.0
10:03	1.4	+2.6		4.3	−0.3
(4.0)	1.4	—	(4.0)	5.5	−1.5
	1.4	—		7.0	3.5
50	1.4	—		8.0	4.0
	1.5	+2.5	50	8.7	4.7
	2.0	+2.0		7.5	3.5
	3.0	+1.0		6.1	2.1
	4.3	−0.3		5.1	1.1
2100	5.0	−1.0		4.6	0.6
	5.6	−1.6	2300	4.0	0.0
10:05	6.2	−2.2		2.8	+1.2
	6.0	−2.0		2.8	—
	5.6	−1.6		2.4	+1.6
50	5.1	−1.1		2.4	—
	4.8	−0.8	50	2.3	+1.7
	4.2	−0.2		2.3	—
	3.5	+0.5		2.2	+1.8
2190	2.1	+1.9	2380	2.2	+1.8

STA- 99+00 — 5-5-47 — (28)

DIST	SOUND		DIST	SOUND	
10:08	2.1	+1.9	2590	2.2	+1.8
2400	2.2	+1.8	2600 ~~3000~~	2.3	+1.7
(4.0)	2.2	—	(4.0)	2.3	—
	2.1	+1.7		2.3	—
	2.3	+1.9		2.2	+1.8
	2.2	+1.8		2.2	—
50	2.2	—	50	2.2	—
	2.2	—		2.2	—
	2.3	+1.7		2.2	—
	2.6	+1.4		2.1	+1.9
	2.7	+1.3		2.1	—
2500	2.5	+1.5	2700 ~~3100~~	2.1	—
	2.4	+1.6		2.1	—
	2.3	+1.7		2.1	—
	2.1	+1.9		2.2	+1.8
	2.0	+2.0		2.2	—
50	2.0	—	50	2.5	+1.5
1010	2.0	—		3.0	+1.0
	2.1	+1.9	10:12	5.3	−1.3
2580	2.2	+1.8	2800 ~~3180~~	6.0	−2.0

SOUND

STA - 99 +00

5-5-47

DIST	SOUND		DIST	SOUND	
3190	7.4	-3.4	90	17.0	-13.0
2900 ~~3200~~ 180'	8.4	-4.4	3000 3100	16.7	-12.7
(4.0)	9.8	-5.8	(4.0)	16.0	-12.0
	10.5	6.5		14.8	10.5
	11.3	7.3		13.5	9.5
	13.0	9.0		12.0	8.0
50	15.8	11.8	50	11.3	7.3
	16.3	12.3		10.5	6.5
	16.6	12.6		10.0	6.0
	16.6	—		8.5	-4.5
	16.5	12.5		6.0	-2.0
3000 ~~3300~~ 2900	16.4	12.4	3100 3200	2.5	+1.5
	16.3	12.3		1.7	+2.3
	16.4	12.4		1.0	+3.0
	17.0	13.0	27	0.0	+4.0
	17.5	13.5	3240	STAKE +?	COMPLETE
50	17.5	—	10:18		
	17.5	—	(4.0)		
	17.3	13.3			
3380	17.0	-13.0			

SOUND EAST

STA - 100 + 00 "ORIGINALS" 5-5-47 (29)

0+00 = EAST CAUSEWAY B/L: LINE SAME RUN AT 81°39'44" TO 3/4

DIST	SOUND		DIST	SOUND	
2000 TIED					
2010	1.4	+2.7	2200	3.8	+0.3
10:33	1.4	—	(4.1)	4.0	+0.1
(4.1)	1.4	—	10:35	4.3	-0.2
	1.4	—		6.0	-1.9
50	1.4	—		7.0	-2.9
	1.3	+2.8	50	8.3	-4.2
	1.3	—		8.1	-4.0
	1.3	—		7.5	-3.4
	1.3	—		6.4	-2.3
2100	1.4	+2.7		6.0	-1.9
	1.4	—	2300	5.0	-0.9
	2.5	+1.6		4.7	-0.6
	2.6	+1.5		4.0	+0.1
	4.8	-0.7		2.8	+1.3
50	5.4	-1.3		2.8	—
	5.4	—	50	2.6	+1.5
	5.0	-0.9		2.5	+1.6
	4.8	-0.7		2.5	—
2190	4.0	+0.1	2380	2.5	—

DIST	STA - SOUND	100 +	00 DIST	SOUND	5-5-47 X
2390	2.4	+1.7	2590	2.2	+1.9
2400	2.4	—	2600	2.1	+2.0
(4.1)	2.0	+2.1	(4.1)	2.1	—
	2.0	—		2.0	+2.1
	2.0	—		2.0	—
	2.0	—		2.0	—
50	2.0	—	50	2.0	—
	2.0	—	10:40	2.0	—
10:38	2.0	—		2.0	—
	2.1	+2.0		2.0	—
	2.1	—		2.0	—
2500	2.1	—	2700	2.0	—
	2.1	—		2.0	—
	2.1	—		2.1	+2.0
	2.1	—		2.2	+1.9
	2.1	—		2.3	+1.8
50	2.1	—	50	2.4	+1.7
	2.1	—		2.8	+1.3
	2.3	+1.8		4.1	00
2580	2.2	+1.9	2780	3.8	+0.3

DIST	STA - SOUND	100 +	00 DIST	5-5-47 SOUND	(30) X
2790	7.0	-2.9	2990	16.7	-12.6
2800	8.0	3.9	3000	16.4	12.3
(4.1)	8.5	4.4	(4.1)	16.2	12.1
	9.0	4.9		15.8	11.7
	10.0	√.9		15.0	10.9
	10.1	6.0		14.5	10.4
50	9.8	√.7	50	14.0	9.9
	10.0	√.9		13.8	9.7
	15.6	11.√	10:45	12.8	8.7
10:43	15.6	—		11.3	7.2
	17.0	12.9		10.7	6.6
2900	17.2	13.1	3100	10.0	√.9
	16.8	12.7		10.0	—
	16.5	12.4		4.5	-0.4
	16.3	12.2		3.0	+1.1
	16.2	12.1		2.0	+2.1
50	16.0	11.9	50	1.3	+2.8
	16.0	—		0.0	+4.1
	16.4	-12.3	3170	STAKE +?	COMPLETE
2980	16.8	-12.7	(4.1)		

SOUND EAST — STA- 101 + 00 "ORIGINALS" — 5-5-17

0+00 = EAST CAUSEWAY B/L: LINES ARE RUN AT 81°39'44" TO B/L

DIST	SOUND		DIST	SOUND	
2000	TIED				
2010	~~2.4~~ 1.4	+2.7	2200	4.5	-0.4
10:58					
	1.4	—		4.2	-0.1
(4.1)	1.4	—	(4.1)	4.0	+0.1
	1.4	—		4.8	-0.7
50	1.5	+2.6		7.0	-2.9
	1.5	—	50	8.8	-4.7
	1.5	—		8.8	—
	1.6	+2.5		8.5	-4.2
	1.6	—		7.0	-2.9
2100	1.6	—		6.8	-2.7
	1.6	—	2300	5.5	-1.4
	1.6	—		4.3	-0.2
	1.7	+2.4		3.7	+0.4
11:02					
	2.1	+2.0		3.0	+1.1
50	2.5	+1.6		3.0	—
	3.0	+1.1	50	2.4	+1.4
	4.0	+0.1		2.4	+1.7
	4.7	-0.6		2.4	—
2190	4.7	—	2380	2.4	—

STA- 101 + 00 — 5-5-17 — (31)

DIST	SOUND		DIST	SOUND	
2390	2.6	+1.5	2590	2.0	+2.1
2400	2.6	—	2600	2.0	—
11:05			11:08		
	2.6	—		2.0	—
(4.1)	2.5	+1.6	(4.1)	2.0	—
	2.4	+1.7		2.0	—
	2.3	+1.8		2.0	—
50	2.3	—	50	2.0	—
	2.2	+1.9		2.0	—
	2.1	+2.0		2.0	—
	2.0	+2.1		2.0	—
	2.0	—		2.0	—
2500	2.0	—	2700	2.0	—
	2.0	—		2.0	—
	2.0	—		2.0	—
	2.0	—		2.4	+1.7
	2.0	—		2.5	+1.6
50	2.0	—	50	2.7	+1.4
	2.0	—		3.6	+0.5
	2.0	—		6.2	-2.1
2580	2.0	—	2780	8.0	-3.9

DIST	STA- SOUND	101 +	00 DIST	5-5-47 SOUND	
2790	8.3	-4.2	2990	15.0	-10
2800	9.1	√-.0	3000	15.0	-
(4.1)	9.8	√-.7		14.8	10
	10.0	√-.9		14.8	-
	9.5	√-.4		14.7	10.6
	9.4	√.3		14.7	-
50	9.3	√.2	50	15.0	10.7
	9.0	4.9		15.0	-
	8.4	4.3		14.7	10.3
	7.6	3.√-		13.8	9.7
	8.1	-4.0		12.5	8.2
2900	9.0	-√.1	3100	12.0	7.2
11:12	10.1	-6.0		11.5	7.4
	12.5	8.4	11:15	11.0	6.3
	12.5	—	(4.1)	9.8	√.2
	13.1	9.0		9.5	√.2
50	13.1	—	50	8.7	4.6
	14.6	10.√-		7.5	3.7
	14.7	10.6		7.0	-2.9
2980	15.0	-10.9	3180	5.1	-1.0

DIST	STA- SOUND	101 + 00	DIST	5-5-47 SOUND	(32)
3190	2.5	+1.6			
3200	1.7	+2.4			
	1.2	+2.9			
	1.0	+3.1			
3224	0.0 STAKE	+4.1			
3230	+ ?	COMPLETE			
(4.1)					

SOUND EAST — STA- 102+00

0+00 = EAST CAUSEWAY B/L: LINES ARE RUN AT 81°39'44" TO B/L ✗

2000	TIED				
2010	2.5	+1.4	2210	3.1	+0.8
11:38	2.3	+1.6		3.5	+0.4
(3.9)	1.7	+2.2	(3.9)	7.5	-3.6
	1.5	+2.4		8.3	-4.4
50	1.4	+2.5	50	9.0	-5.1
	1.5	+2.4		9.2	-5.3
	1.6	+2.3		9.0	-5.1
	2.0	+1.9		7.4	-3.5
	2.4	+1.5		5.8	-1.9
2100	2.5	+1.4	2300	4.1	-0.2
	2.6	+1.3		3.1	+0.8
11:40	2.7	+1.2		2.5	+1.4
	3.0	+0.9		2.4	+1.5
	2.5 ~~3.5~~	+1.4		2.3	+1.6
50	2.6	+1.3	50	2.1	+1.8
	2.2	+1.7		2.0	+1.9
	2.4	+1.5	11:43	2.0	—
	2.6	+1.3		2.4	+1.5
	2.8	+1.1		2.4	—
2200	3.0	+0.9	2400	2.3	+1.6

STA 102+00 — 5-5-47

DIST	SOUND		DIST	SOUND	✗
2410	2.3	+1.6	2610	1.7	+2.2
(3.9)	2.3	—	(3.9)	1.8	+2.1
	2.2	+1.7		1.8	—
	2.1	+1.8		2.0	+1.9
50	2.0	+1.9	50	2.0	—
	2.5	+1.4		2.0	—
	2.4	+1.5		2.0	—
	2.4	—		2.0	—
	2.4	—		2.0	—
2500	2.3	+1.6	2700	2.0	—
	2.3	—		2.0	—
11:45	2.2	+1.7		2.5	+1.4
	2.2	—		2.8	+1.1
	2.0	+1.9	(3.9)	4.1	-0.2
50	2.0	—	50	6.4	-2.5
	1.8	+2.1	11:48	7.2	-3.3
	1.8	—	(3.8)	8.2	-4.4
	1.7	+2.2		8.0	-4.2
	1.7	—		8.8	-5.0
2600	1.7	—	2800	9.0	-5.2

STA - 102+00 5-5-47

DIST	SOUND		DIST	SOUND	
2810	9.4	-5.6	3010	12.6	-8.8
(3.8)	9.3	5.5	(3.8)	12.8	9.0
	9.0	5.2		13.4	9.6
	8.6	4.8		13.8	10.0
50	8.2	4.4	50	13.5	9.7
	8.0	4.2		13.7	9.9
	7.0	3.2		13.7	—
	6.1	2.3		13.7	—
	5.5	-1.7		13.5	9.7
2900	4.8	-1.0	3100	13.0	9.2
	5.0	1.2		13.0	—
	5.7	1.9		13.0	—
	5.5	1.7		12.8	9.0
	6.4	2.6		12.6	8.8
50	8.4	4.6	50	12.0	8.2
11:50	10.1	6.3		11.3	7.5
(3.8)	11.3	7.5		10.8	7.0
	11.7	7.9	11:53	10.4	6.6
	12.0	8.2		9.5	5.7
3000	12.5	-8.7	3200	8.2	-4.0

STA - 102+00 5-5-47 (34)

DIST	SOUND		DIST	SOUND	
3210	8.0	-4.2			X
(3.8)	7.0	3.2			
	6.6	2.8			
	5.5	-1.7			
50	4.1	-0.3			
	2.7	+1.1			
	2.0	+1.8			
	1.3	+2.5			
	1.1	+2.7			
3300	1.8	+2.0			
11:55	0.0 2.4 STAKE	+3.8 COMPLETE			
3330	+?				
(3.8)					

SOUND WEST

STA - 110 + 00 "ORIGINALS" 5-5-47

0+00 = RANGE 132 : LINES ARE RUN AT 90°00'00" TO R/A

DIST	SOUND		DIST	SOUND	
1978 0+00	2.0	+0,8	190	1.5	+1,3
13:55	1.8	+1,0	1978 200	1.5	—
(2.8)	1.7	+1,1	(2.8)	1.6	+1,2
	1.7	—		1.6	—
	1.6	+1,2		1.6	—
50	1.7	+1.1	(2.8)	1.6	—
	1,7	—	50	1.6	—
	1.7	—	14:00	1.6	—
	1.6	+1,2	(2.7)	1.6	1.1
	1,6	—		1.6	—
1678 1+00	1,6	—		1.6	—
	1,6	—	1978 300	1,6	—
	1.6	—		1.6	—
	1.5	+1,3		1.6	—
13:58	1.5	—		1,6	—
50	1,6	+1,2		1.6	—
	1.6	—	50	1.6	—
	1.5	+1.3		1.6	—
180	1.5	—	370	1.6	—

DIST	SOUND		DIST	SOUND	
380	1.5	+1,2	580	1.6	+1.1
	1.5	—		1.6	—
1978 400	1.5	—	1178 600	1,7	+1,0
	1.5	—		1,7	—
18:03	1.5	—		1.7	—
(2.7)	1.5	—	(2.7)	1.8	+0,9
	1.5	—		1.9	+0,8
50	1.5	—	50	1.9	—
	1.5	—		2.0	+0.7
	1.5	—		2.0	—
	1.5	—		2.0	—
	1.5	—		2.0	—
1978 500	1.5	—	1078 700	2.0	—
	1.9	+0,8		2,0	—
	1.7	+1.0		2.0	—
	1.6	+1,1	(2.7)	2.0	—
14:05	1.8	+0.9	14:08	2.0	—
50	1.6	+1.1	50	1.9	—
	1.6	—	(2.6)	1.9	—
510	1.6	—	770	2.0	+0.6

DIST	STA - 110 + SOUND		DIST	00 SOUND	5-5-47 X
780	2.0	+0.6	980	2.9	-0.3
(2.6)	2.0	—	(2.6)	2.6	—
800	2.0	—	1000	2.5	+0.1
	2.1	+0.1		2.4	+0.2
	2.1	—		2.4	—
	2.2	+0.4		2.4	—
	2.3	+0.3		2.4	—
50	2.4	+0.2	50	2.4	—
	2.4	—		2.4	—
	2.4	—	14:13	2.4	—
14:10	2.5	+0.1		2.2	+0.2
(2.6)	2.5	—		2.0	+0.4
900	2.5	—	1100	1.5	+1.1
	2.7	-0.1		1.4	+1.2
	2.8	-0.2		1.2	+1.4
	2.9	-0.3		1.1	+1.5
	3.0	-0.4	(2.6)	1.1	—
50	2.9	-0.3	50	1.1	—
	2.9	—		1.1	—
970	2.9	—	1170	1.1	—

DIST	STA - 110 + SOUND		DIST	00 SOUND	5-5-47 X
1180	1.2	+1.4			
	1.1	+1.5			
1196					
1200	0.0	+2.6			
	+?				
(2.6)					

SOUND EAST — STA - 103+00 "ORIGINALS" — 5-7-47

0+00 = W/SIDE "NORTH" CAUSEWAY BRIDGE: LINE IS AT 81°39'44" TO CAUSEWAY

DIST	SOUND		DIST	SOUND	X
0+00	4.0	-0.6		1.6	+1.8
11:22	4.2	-0.8	200	1.5	+1.9
	3.5	-0.1		1.6	+1.7
	3.5	-0.1		1.5	+1.7
(3.4)	4.0	-0.6		1.6	+1.8
50	4.2	-0.8		1.6	—
	3.8	-0.4	50	1.6	—
	3.0	+0.4	(3.4)	1.6	—
	2.8	+0.6		1.6	—
	2.5	+0.9		1.6	—
1+00	2.5	+0.9	11:25	1.6	—
	2.0	+1.4	300	1.6	—
	2.0	—		1.7	+1.7
	2.0	—		1.7	—
	1.8	+1.6		1.7	—
50	1.8	—		1.8	+1.6
	1.6	+1.8	50	1.8	—
	1.6	—		1.8	—
80	1.6	—	70	1.8	—

(37)

DIST	SOUND		DIST	SOUND	X
80	1.9	+1.5	80	2.0	+1.4
	1.9	—		2.0	—
400	1.9	—	600	2.0	—
	1.9	—		2.1	+1.3
	1.8	+1.6		2.1	—
	1.8	—		2.1	—
	1.8	—		2.1	—
50	1.8	—	50	2.1	—
	1.9	+1.5		2.1	—
(3.4)	1.9	—	(3.4)	2.1	—
	1.9	—		2.2	+1.7
	1.9	—		2.2	—
500	1.9	—	700	2.3	+1.1
11:27	1.9 ~~1.9~~	—		2.3	—
	1.9	—	11:30	2.3	—
	2.0	+1.4		2.3	—
	2.0	—		2.3	—
50	2.0	—	50	2.4	+1.0
	2.0	—		2.4	—
70	2.0	—	70	2.5	+0.9

STA -103+00					5-7-47
DIST	SOUND		DIST	SOUND	X
780	2.5	+0.9	980	3.0	+0.4
	2.6	+0.8		3.0	—
800	2.7	+0.7	1000	3.0	—
	2.8	+0.6		3.3	+0.1
	2.8	—		3.5	-0.1
	2.8	—	(3.4)	3.6	-0.2
	2.8	—		3.8	-0.4
50	2.8	—	50	4.0	-0.6
(3.4)	2.9	+0.5		4.2	-0.7
	2.9	—		4.5	-1.0
	3.0	+0.4	(3.3)	5.2	-1.7
	3.2	+0.2		6.0	-2.5
900	3.0	+0.4	1100	6.2	-2.7
	3.0	—	11:35	6.2	—
	3.1	+0.3		6.5	-3.0
11:33	3.0	+0.1		6.8	-3.3
	3.0	—		7.1	-3.6
50	3.0	—	50	7.4	-3.9
	2.9	+0.5		7.8	-4.3
70	2.9	+0.5	70	8.4	-4.9

STA -103+00					4-7-47
DIST	SOUND		DIST	SOUND	X
1180	8.5	-0.5		5.0	-1.5
	8.5	—		4.0	-0.5
1200	8.5	—	1400	3.5	0.0
	8.3	-4.8		3.0	+0.5
	8.3	—		3.0	—
	8.5	-0.5		3.0 ~~3.0~~	—
(3.5)	8.6	-0.1		2.8	+0.7
50	9.0	-0.5	50	2.6	+0.9
	9.2	-0.7	11:40	2.4	+1.1
	9.0	-0.5		2.3	+1.2
11:38	9.0	—	(3.5)	2.3	—
	8.5	-0.0		2.0	+1.5
1300	8.4	+0.9	1500	2.0	—
	8.0	+0.5		1.7	+1.8
	7.8	+0.3		1.6	+1.9
	7.6	+0.1		1.6	—
	7.5	+0.0		1.5	+2.0
50	6.8	-3.3	50	1.6	+1.9
	6.5	-3.0		1.6	—
70	6.0	-2.5	70	1.5	+2.0

STA -103+00 — 4-7-47

DIST	SOUND	
80	1.5	+2.0
	1.7	+1.8
160.0	1.6	+1.9
(3.5)	1.4	+2.1
	1.5	+2.0
	1.5	—
	1.4	+2.1
50		

STA -104+00 — 4-7-47 (39)

ORIGINALS

SOUND EAST 2+00 = W SIDE OF NORTH CAUSEWAY BRIDGE: LINES ARE RUN AT 81°29'28" TO B/L

DIST	SOUND		DIST	SOUND	
10:12 0+00	3.1	+0.5	90	1.6	+2.0
	3.1	—	200	1.6	—
	3.7	-0.1		1.7	+1.9
	3.5	+0.1		1.7	—
	2.5	+1.1		1.6	+2.0
50	2.0	+1.6		1.7	+1.9
	1.5	+2.1	50	1.6	+2.0
	1.5	—		1.7	+1.9
(3.6)	1.7	+2.3		1.7	—
	1.5	+2.1	(3.6)	1.8	+1.8
1+00	2.0	+1.6		1.8	—
	2.0	—	300	1.8	—
12:10	1.7 2.7	+1.9	12:53	1.8	—
	1.7 2.7	—		1.9	+1.7
	1.7 2.7	—		2.0	+1.6
50	1.8 2.8	+1.8		2.0	—
	1.8 2.8	—	50	2.2	+1.4
	1.7	+1.9		2.2	—
80	1.6	+2.0	70	2.2	—

STA 104+00				5-7-47	
DIST	SOUND		DIST	SOUND	X
380	2.2	+1.4	580	2.5	+1.1
	2.2	—		2.5	+1.1
4.00	2.3	+1.3	600	2.7	+0.9
	2.3	—		2.7	—
	2.3	—		2.7	—
	2.3	—		2.8	+0.8
(3.6)	2.2	+1.4	12:58	2.9	+0.7
50	2.4	+1.2	50	2.9	—
12:55	2.3	+1.3		2.9	—
	2.3	—		2.9	—
	2.3	—	(3.3)	2.9	+0.6
	2.3	—		2.8	+0.7
500	2.4	+1.2	700	3.0	+0.6
	2.4	—		3.0	—
	2.4	—		3.0	—
	2.4	—		3.0	—
	2.4	—		3.0	—
50	2.4	—	50	3.0	—
	2.4	—		3.0	—
70	2.5	+1.1	70	3.0	—

STA 104+00				5-7-47	(40)
DIST	SOUND		DIST	SOUND	X
780	3.0	+0.5	980	7.2	-3.7
1300	3.0	—		7.0	3.5
800	3.0	—	1000	7.0	—
	3.0	—		7.2	3.7
	3.1	+0.4		7.3	3.8
	3.1	—		7.0	3.5
	4.0	-0.5		7.0	—
50	4.7	-0.7	50	6.7	3.2
	5.0	-1.5		6.7	—
(3.2)	5.5	-2.0		6.8	3.3
	6.2	-2.7	(3.5)	6.5	3.0
	6.2	—		6.5	—
900	6.8	3.3	1100	6.5	—
	6.8	—		6.5	—
	7.0	3.5	13:05	6.5	—
	7.5	4.0		6.6	3.1
	7.8	4.3		6.5	3.0
50	7.5	4.0	50	6.5	—
13:32	7.2	-3.7		6.4	-2.9
70	7.2	—	11 70	6.0	-2.5

STA - 104+00

DIST	SOUND		DIST	SOUND	X
1180	5.7	-2.2	1380	2.1	+1.4
	5.0	-1.5		2.1	—
1200	4.4	-0.9	1400	2.1	—
	3.4	+0.1		2.0	+1.5
	3.3	+0.2		2.0	—
	3.5	0.0		2.0	—
	3.0	+0.5		2.0	—
50	3.0	—	50	2.0	—
(3.5)	2.8	+0.7		2.0	—
	2.4	+1.1	(3.5)	2.0	—
	2.4	—		2.0	—
	2.3	+1.2		1.9	+1.6
1300	2.4	+1.1	1500	1.8	+1.7
	2.3	+1.2		1.6	+1.9
	2.2	+1.3	13:10	1.5	+2.0
	2.1	+1.4		1.5	—
13:08	2.1	—		1.5	—
50	2.1	—	50	1.3	+2.2
	2.1	—		1.3	—
70	2.1	—	70	1.2	+2.3

STA 104+00

(41)

DIST	SOUND		DIST	SOUND	X
80	1.1	+2.4			
	1.0	+2.5			
1600	1.0	—			
(3.5)	1.0	—			
	1.0	—			
	1.0	—			
1640	0.9	+2.6			

SOUND EAST

STA - 105 + 00

"ORIGINALS"

5-6-47

0 + 00 = WEST SIDE OF "NORTH" "CAUSEWAY BRIDGE". LINES ARE RUN AT 90° TO CAUSEWAY E/L

DIST	SOUND		DIST	SOUND	
0+00	4.2	-0.8'	190	1.3	+2
13:35	3.4	0.0	200	1.3	—
	3.8	-0.4		1.3	—
	3.6	-0.7		1.3	—
	3.0	+0.4		1.4	+2
50	2.0	+1.4		1.4	—
	1.7	+1.7	50	1.5	+1
(3.4)	2.1	+1.3'	(3.3)	1.5	+1
	2.1	—		1.5	—
	2.0	+1.4		1.5	—
100	1.5	+1.9'	13:40	1.4	+1
	1.4	+2.0'	300	1.4	—
	1.4	—		1.4	—
	1.4	—		1.5	+1
13:38	1.4	—		1.5	—
50	1.4	—		1.5	—
	1.3	+2.1	50	1.6	+1
	1.3	—		1.7	+1
80	1.3	—	70	1.8	+1

STA - 105 + 00

5-7-47 (42)

DIST	SOUND		DIST	SOUND	
380	2.0	+1.3	580	2.9	+0.4'
	2.0	—		3.0	+0.3
400	2.0	—	600	2.9	+0.4
	2.1	+1.2		2.9	—
	2.2	+1.1		3.4	-0.1
	2.3	+1.0'		3.5	-0.2
13:43	2.3	—		3.5	—
50	2.3	—	50	3.5	—
	2.3	—	(3.3)	4.0	-0.7
(3.3)	2.4	+0.9		4.4	-1.1
	2.6	+0.7		4.8	1.5'
	2.8	+0.5'		5.5	2.2
500	2.8	—	700	6.3	3.0'
	2.8	—		6.7	3.4
	2.6	+0.7		7.0	3.7
	2.8	+0.5'		7.2	3.9
	2.6	+0.7		7.4	4.1'
50	2.8	+0.5'	50	7.6	4.3
13:45	2.7	+0.6		7.5	-4.2'
70	2.8	+0.5'	70	7.5	—

STA -105+00					5-7-47
DIST	SOUND		DIST	SOUND	X
780	7.5	-4.2'	980	3.0	+0.3
	7.5	—		2.9	+0.4
800	7.0	3.7	1000	2.5	+0.8'
13:48	6.8	3.5'		3.0	+0.3
	6.5	3.2		3.0	—
	6.3	3.0'		3.0	—
(3.3)	6.5	3.2		2.8	+0.5'
50	6.4	3.1'	50	2.4	+0.9
	6.4	—		2.4	—
	6.2	2.9	(3.3)	2.6	+0.7'
	6.2	—		2.6	—
	5.8	2.5'		2.5	+0.8
900	5.4	2.1'	1100	2.3	+1.0
	5.2	1.9		2.1	+1.2
	3.3	0.0		2.0	+1.3
	3.2	+0.1		2.1	+1.2
13:50	3.1	+0.2	13:53	2.1	—
50	3.5	-0.2	50	2.5	+0.8
	3.4	-0.1		2.5	—
70	3.1	+0.2	70	2.3	+1.0

STA -105+00					5-7-47
DIST	SOUND		DIST	SOUND	X
1180	2.3	+1.0	1380	1.4	+1.9
	2.3	—		1.4	—
1200	2.3	—	1400	1.4	—
	2.4	+0.9		1.4	—
	2.5	+0.8'		1.4	—
	2.5	—		1.3	+2.0
	2.5	—		1.3	—
50	2.8	+0.5'	50	1.2	+2.1'
	2.9	+0.4	(3.3)	1.2	—
(3.3)	2.5	+0.8		1.2	—
	2.2	+1.1'	13:58	1.1	+2.2'
13:55	2.3	+1.0		1.1	—
1300	2.3	—	1500	1.1	—
	2.0	+1.3'		1.3	+2.0
	1.9	+1.4		1.2	+2.1
	1.8	+1.5'		1.1	+2.2
	1.8	—		1.2	+2.1
50	1.6	+1.7'	50	1.0	+2.3
	1.5	+1.8		1.1	+2.2
70	1.5	—	70	1.2	+2.1'

DIST	STA - 105 + 00 SOUND		DIST	5-6-47 SOUND	
1580	1.1	+2.2			
	1.0	+2.3			
1600	1.1	+2.2			
(3.2)	1.1	+2.1			
	1.0	+2.2			
	1.6	+2.2			
	0.7	+2.1			
50	0.6	+2.6			
	1.0	+2.2			

SOUND EAST OF DOE WOOD	STA - 107 + 00 "ORIGINALS" (45) SOE "NORTH" CAUSEWAY BRIDGE: LINES ARE RUN AT 81°39'41" TO CAUSEWAY. B/L				
DIST	SOUND		DIST	SOUND	
	4.0				
0+00	~~3.0~~	-1.0	190	2.4	+0.6
14:16	~~3.4~~ 3.4	-1.4	200	2.2	+0.8
	5.8	-2.8		2.1	+0.9
	5.8	—		2.0	+1.0
	5.5	-2.5	14:50	2.4	+0.6
50	5.5	—		2.4	—
	4.5	-1.5	50	2.5	+0.5
(3.0)	3.8	-0.8		2.5	—
	3.5	-0.5	(3.0)	2.5	—
	2.8	+0.2		2.7	+0.3
100	2.0	+1.0		2.8	+0.2
	1.7	+1.3	300	2.9	+0.1
	1.7	—		3.0	0.0
	1.8	+1.2		3.0	0.0
	2.0	+1.0		3.0	0.0
50	2.1	+0.9		3.0	0.0
	2.3	+0.7	50	2.8	+0.2
	2.3	—		2.8	—
80	2.4	+0.6	70	2.8	—

	STA - 107 + 00				5-7-47
DIST	SOUND		DIST	SOUND	/
380	3.1	-0.1	580	2.8	+0.2
	3.1	—		2.6	+0.4
400	3.2	-0.2	600	2.6	—
	3.1	-0.1		2.6	—
14:53	2.9	+0.1		2.5	+0.1
	3.0	0.0		2.3	+0.1
	3.0	0.0		2.1	+0.2
50	3.0	0.0	50	2.0	+1.0
(3.0)	3.2	-0.2		1.9	+1.1
	3.4	-0.4		1.9	—
	3.4	—	(3.0)	1.8	+1.2
	3.4	—		1.7	+1.3
500	3.4	—	700	1.6	+1.4
	3.3	-0.3		1.5	+1.5
	3.2	-0.2		1.5	—
	3.2	—		1.4	+1.6
	3.1	-0.1	14:58	1.4	—
50	3.0	0.0	50	1.4	—
14:55	3.0	0.0		1.4	—
70	3.0	0.0	70	1.4	—

	STA - 107 + 00				5-6-47 (46)
DIST	SOUND		DIST	SOUND	X
780	1.4	+1.6	980	1.4	+1.5
	1.4	—		1.4	—
800	1.4	—	1000	1.2	+1.7
	1.4	—		1.3	+1.6
	1.5	+1.5		1.3	—
	1.5	—		1.1	+1.8
(2.9)	1.5	+1.4		1.1	—
50	1.4	+1.5	50	1.3	+1.6
	1.4	—		1.1	+1.8
1500	1.4	—	15:07	1.1	—
	1.5	+1.4	(2.9)	1.0	+1.9
	1.4	+1.5		1.3	+1.6
900	1.4	—	1100	1.4	+1.5
	1.4	—		1.3	+1.6
	1.4	—		1.3	—
	1.4	—		1.1	+1.8
	1.4	—		1.1	—
50	1.3	+1.6	50	1.0	+1.9
	1.3	—		1.0	—
70	1.5	+1.4	70	1.1	+1.8

STA 107+00					5-7-47
DIST	SOUND		DIST	SOUND	X
1180	1.3	+1.6	1380	1.5	+1.4
15:05	1.2	+1.7	15:08	1.4	+1.5
1200	1.2	—	1400	1.3	+1.6
	1.4	+1.5		1.3	—
	1.5	+1.4		1.4	+1.5
	1.7	+1.2		1.3	+1.6
	1.9	+1.0		1.4	+1.5
50	1.9	—	50	1.0	+1.5
(2.9)	2.1	+0.8		1.3	+1.6
	2.4	+0.5	(2.9)	1.4	+1.5
	2.4	—	15:10	1.0	+1.2
	2.4	—		1.0	—
1300	2.4	—	1500	1.0	—
	2.2	+0.7		1.0	—
	2.0	+0.9		1.0	—
	2.0	—		1.0	—
	1.7	+1.2		1.0	—
50	1.6	+1.3	30	1.4	+1.5
	1.5	+1.4		0.9	+2.0
70	1.5	—	70	0.8	+2.1

STA 107+00					5-6-47 (47)
DIST	SOUND		DIST	SOUND	X
1580	1.0	+1.9			
	1.0	—			
1600	1.0	—			
	1.0	—			
	1.1	+1.8			
	1.0	+1.9			
	1.0	—			
50	1.1	+1.8			
	1.1	—			
(2.9)	1.1	—			
	0.8	+2.1			
	0.9	+2.0			
1700	0.8	+2.1			

PROFILE SECTIONS ALONE ✓

EAST SIDE OF CAUSEWAY

E. CAUSEWAY B/L = 0+00

STA	+	H.I	−	ELEV.
				2.7
	11.50	14.2		
	STA 81+00			
W4			3.4	+10.8
0			3.4	+10.8
E11			4.2	+11.0
E20.5			9.6	+4.6
E26			11.4	+2.8
	STA 82+00			
W4			3.8	+10.4
0			3.8	+10.4
E9			4.0	+10.2
E16			7.2	+7.0
E20			9.3	+4.9
E32			11.5	+2.7

(48)

8.3+00 5-14-47

STA	+	H.I	−	ELEV.
		14.2		
W4			3.2	+11.0
0			3.2	11.0
E10			3.9	10.3
E16			7.3	6.9
E22			9.6	4.6
E36			11.4	2.8
	84+00			
W4			2.9	11.3
0			2.9	11.3
E10			3.4	10.8
E16			7.1	7.1
E22			9.3	4.9
E41			11.4	2.8
	85+00			
W4			3.0	11.2
0			3.0	11.2
E10			3.1	11.1
E16			6.5	7.7
E21			9.2	↓.0
E46			11.3	+2.9

86+00

STA	+	H.I.	−	ELEV
		14.2		
W 4			2.6	+11.6
0			2.6	11.6
E 9			3.1	11.1
E 13			6.5	7.7
E 21			9.0	5.2
E 48			11.4	2.8
		87+00		
W 4			2.5	11.7
0			2.7	11.5
E 8			3.2	11.0
E 14			6.9	7.3
E 20			9.5	4.7
E 40			11.4	2.8
		88+00		
W 4			2.8	11.4
0			2.6	11.6
E 8			3.2	11.0
E 14			6.9	7.3
E 19			9.3	4.9
E 38			11.3	+2.9

89+00

STA	+	H.I.	−	ELEV
		14.2		
W 4			2.9	+11.3
0			2.8	11.4
E 9			4.0	10.2
E 14			6.8	7.4
E 20			9.4	4.8
E 50			11.3	2.9
		90+00		
W 4			3.0	11.2
0			2.9	11.3
E 7			3.5	10.7
E 13			6.9	7.3
E 18			9.1	5.1
E 48			11.3	2.9
		91+00		
W 4			3.2	11.0
0			3.2	11.0
E 9			3.6	10.6
E 14			6.9	7.3
E 18			9.6	4.6
E 49			11.3	+2.9

STA	+	H.I.	−	ELEV	
		14.2			
W 4			3.4	+10.8	
0			3.4	10.8	
E 5			3.9	10.3	
E 12			7.6	7.6	
E 17			9.5	4.7	
E 31			11.3	2.9	
93+00					
W 4			3.3	10.9	
0			3.3	10.9	
E 7			3.8	10.4	
E 12			7.0	7.2	
E 18			9.8	4.4	
E 30			11.2	3.0	
94+00					
W 4			3.3	10.9	
0			3.2	11.0	
E 6			3.5	10.7	
E 10			6.6	7.6	
E 16			8.9	5.3	
E 37			11.2	+3.0	

STA	+	H.I.	−	ELEV	
		14.2			
W 4			3.1	+11.1	
0			2.9	11.3	
E 6			3.8	10.4	
E 12			7.1	7.1	
E 17			9.5	4.7	
E 50			11.2	3.0	
96+00					
W 4			3.1	11.1	
0			3.2	11.0	
E 8			4.0	10.2	
E 14			7.6	6.6	
E 19			9.8	4.4	
E 50			10.9	3.3	
97+00					
W 4			2.9	11.3	
0			2.9	11.3	
E 6			2.9	11.3	
E 10			5.8	8.4	
E 17			9.1	5.1	
E 44			11.1	3.1	

98+00

STA	+	H.I	−	ELEV	X
		14.2			
W4			2.9	11.3	
0			2.8	11.4	
E7			3.0	11.2	
E11			6.0	8.2	
E16			8.8	5.4	
E24			9.8	4.4	
E47			11.2	3.0'	

99+00

W4			2.5	11.7	
0			2.5	11.7	
E7			3.0	11.2	
E11			6.5	7.7	
E16			8.8	5.4	
E40			11.2	3.0	

100+00

W4			2.6	11.6	
0			2.6	11.6	
E6			2.8	11.4	
E12			7.0	7.2	
E16			9.6	4.6	
E38			11.2	3.0'	

101+00

(57)

STA	+	H.I	−	ELEV	X
		14.2			
W4			2.4	+11.8	
0			2.4	11.8	
E2			2.6	11.6	
E10			6.9	7.3	
E19			9.9	4.3	
E38			11.2	3.0'	

102+00

W4			2.4	11.8	
0			2.4	11.8	
E4			2.2	12.0	
E13			7.2	7.0	
E19			9.8	4.4	
E36			11.2	3.0'	

SOUND EAST — STA - 73+ 00 — 5-15-47

PROJ. NO. 7. DREDGED AREA

00 = W/ CAUSEWAY B/L : LINES ARE RUN AT 81° 39' 44" TO B/L

DIST	SOUND		DIST	SOUND	X
0.0	4.0	-2.5			
13:48	3.5	-2.0			
	4.5	-3.0			
	6.4	-4.9			
	7.3	-5.8			
50	9.4	-7.9			
	10.0	-8.5			
(1.5)	10.0	-8.5			
	9.4	-7.9			
	8.0	-6.5			
100	6.1	-4.5			
	3.8	-2.3			
	3.0	-1.5			
	1.7	-0.2			
	0.6	+0.9			
50	0.2	+1.3			
154	0.0	+1.5			

SOUND EAST — STA - 74+ 00 — 5-15-47 Indexed (62)

00 = W/ CAUSEWAY B/L : LINES ARE RUN AT 81° 39' 44" TO B/L

DIST	SOUND		DIST	SOUND	X
0.0	14.5	-13.0	190	8.4	-6.9
12:55	14.5	-13.0	200	8.4	-6.9
	15.0	-13.5		8.5	-7.0
	15.0	-13.5		9.7	-8.3
	15.0	-13.5		9.3	-7.8
50	14.1	-13.2	(1.5)	7.8	-6.3
	13.2	-11.8	50	5.7	-4.2
(1.5)	12.4	-10.9		1.5	0.0
	11.0	-9.5		0.8	+0.7
	10.0	-8.5		0.3	+1.2
100	10.5	-9.0	285	0.0	+1.5
	10.8	-9.3			
	10.5	-9.0			
	10.3	-8.8			
	10.0	-8.5			
50	10.0	-8.5			
	9.5	-8.0			
	9.0	-7.5			
80	8.4	-6.9			

SOUND EAST — STA - 75 + 00 — 5-15-47

0+00 = W/CAUSEWAY B/L : LINES ARE RUN AT 81°39'44" TO B/L

DIST	SOUND		DIST	SOUND	X
0+00	12.0	-10.4	190	9.0	-7.4
14:05	12.0	-10.4	200	8.8	-7.2
	11.8	-10.2		8.3	-6.7
	11.0	-9.4		7.8	-6.2
	8.2	-6.6		7.2	-5.6
50	6.8	-5.2		7.5	-5.9
	5.4	-3.8	50	7.6	-6.0
(1.6)	4.3	-2.7		9.8	-8.2
	3.6	-2.0	(1.6)	11.0	-9.5
	3.2	-1.6		11.5	-9.9
100	3.0	-1.4		11.0	-9.5
	3.1	-1.5	300	11.0	-9.5
	3.4	-1.8	14:08	11.0	-9.5
	4.1	-2.5		11.7	-10.1
	5.4	-3.8		13.7	-12.1
50	6.0	-4.4		13.0	-11.4
	7.3	-5.6	50	11.6	-10.0
	7.1	-5.5		9.8	-8.2
80	7.3	-5.7	370	8.0	-6.4

STA - 75 + 00 — 5-15-47 — (53)

DIST	SOUND		DIST	SOUND	X
380	7.8	-6.2			X
	5.0	-3.4			
400	2.0	-0.4			
(1.6)	1.3	+0.3			
	0.1	+1.5			
422	0.0	+1.6			

SOUND EAST — STA - 76 + 00 — 5-15-47

0+00 = W/CAUSEWAY B/L : LINES ADE RUN AT 81°30' & 8° TO B/L

DIST	SOUND		DIST	SOUND	X
0+00	14.3	-12.6	190	2.7	-1.0
14:15	14.2	-12.5	200	1.5	+0.2
	14.0	-12.3	14:18	2.3	-0.6
	13.0	-11.3		2.1	-0.4
	11.4	-9.7		2.0	-0.3
50	8.8	-7.1		2.0	-0.3
	6.0	-4.3	50	2.0	-0.3
(1.7)	6.1	-4.4		2.1	-0.4
	4.7	-3.0	(1.7)	2.0	-0.3
	4.5	-2.8		2.0	-0.3
100	4.5	-2.8		2.1	-0.4
	5.0	-3.3	300	2.5	-0.8
	4.8	-3.1		3.0	-1.3
	4.4	-2.7		3.2	-1.5
	3.8	-2.1		4.2	-2.5
50	3.5	-1.8	14:20	5.1	-3.4
	3.2	-1.5	50	7.3	-5.6
	3.0	-1.3		8.5	-6.8
180	3.0	-1.3	370	10.6	-8.9

STA - 76 + 00 — 5-15-47 — (54)

DIST	SOUND		DIST	SOUND	X
380	10.4	-8.6			X
	10.4	-8.6			
400	10.4	-8.6			
	10.4	-8.6			
	10.7	-8.9			
	10.5	-8.7			
	11.0	-9.2			
50	10.5	-8.7			
	11.0	-9.2			
(1.8)	10.4	-8.6			
	9.0	-7.2			
	8.0	-6.2			
500	4.9	-3.1			
	3.8	-2.0			
	2.6	-0.8			
	1.7	+0.5			
	0.6	+1.2			
545	0.0	+1.8			
14:21					

SOUND EAST — STA- 77+00 — 5-15-47

0+00 = W/CAUSEWAY B/L ; LINES ARE RUN AT 81°39'44" TO B/L

DIST	SOUND		X
0+00	14.2	-12.4	
14:28	15.0	-13.2	
	14.6	-12.8	
	14.2	-12.4	
	11.0	-9.2	
50	8.0	-6.2	
	7.5	-5.7	
(1.8)	5.4	-3.6	
	6.8	-5.0	
	6.7	-4.9	
100	6.7	-4.9	
	6.7	-4.9	
	6.8	-5.0	
	6.8	-5.0	
	6.5	-4.7	
50	5.7	-3.9	
	5.6	-3.8	
	5.6	-3.8	
180	5.4	-3.6	

STA - 77+00 — 5-15-47 — (55)

DIST	SOUND		X
190	5.0	-3.2	
200	5.0	-3.2	
	4.3	-2.5	
	4.1	-2.3	
(1.8)	3.5	-1.7	
	3.0	-1.2	
50	2.7	-0.9	
	2.8 / 1.8	-1.0	
	2.5 / 1.5	-0.7	
	2.5	-0.7	
14:32	2.5	-0.7	
300	2.4	-0.5	
	2.4	-0.5	
	2.2	-0.3	
(1.9)	2.1	-0.2	
	2.0	-0.1	
50	2.0	-0.1	
	2.0	-0.1	
	2.0	-0.1	
380	2.0	-0.1	

DIST	SOUND	X
390	2.1	-0.2
400	2.6	-0.7
	3.5	-1.6
	4.8	-2.9
	6.4	-4.5
	7.5	-5.6
50	8.0	-6.1
	7.7	-5.8
(1.9)	9.5	-7.6
	10.9	-9.0
	10.7	-8.8
500	11.0	-9.1
	11.2	-9.3
	12.3	-10.4
	12.7	-10.8
	12.0	-10.1
50	11.5	-9.6
60	11.5	-9.6
14:36	9.7	-7.8
	7.0	-5.1
600	4.8	-2.9
	2.0	-0.1
	1.1	+0.8
	0.3	+1.6
625	0.0	+1.9

SOUND EAST — STA 78+00 — 5-15-47

0+00 = W/CAUSEWAY B/L; LINES ARE RUN AT 81° 39' 44" TO B/L

DIST	SOUND		DIST	SOUND	X
0+00	15.5	-13.4		7.7	-5.6
14:50	16.6	-14.5	200	7.5	-5.4
	17.0	-14.9		7.3	-5.2
	16.8	-14.7		7.3	-5.2
	15.3	-13.2		7.0	-4.9
50	14.0	-11.9		6.5	-4.4
	11.0	-8.9	50	6.8	-4.7
(2.1)	8.5	-6.4		6.8	-4.7
	6.5	-4.4	(2.1)	6.6	-4.5
	6.2	-4.1		6.2	-4.1
100	5.8	-3.7		6.0	-3.9
	5.5	-3.4	300	6.0	-3.8
	5.6	-3.5		5.1	-3.0
	6.1	-4.0	14:55	4.5	-2.4
	6.7	-4.6		4.1	-2.0
50	7.0	-4.9		4.0	-1.9
	7.5	5.4	50	3.2	-1.1
	7.8	-5.7		2.4	-0.3
180	8.0	-6.9	370	2.4	-0.3

STA 78+00 — 5-15-47 — (56)

DIST	SOUND		DIST	SOUND	X
380	2.0	+0.1	580	9.3	-7.1
	2.0	+0.1	14:58	9.4 ~~4.7~~	-7.2
400	2.0	+0.1	600	10.8 ~~5.6~~	-8.6
	2.0	+0.1		10.5 ~~5.3~~	-8.3
	2.0	+0.1		10.5 ~~5.2~~	-8.3
	1.8	+0.3		10.5 ~~5.2~~	-8.3
	1.9	+0.2		10.5 ~~5.4~~	-8.3
50	1.9	+0.2	50	10.2 ~~5.3~~	-8.0
	1.9	+0.2	(2.2)	10.0 ~~5.0~~	-7.8
(2.1)	2.2	-0.1		9.7 ~~4.7~~	-7.5
	2.5	-0.4		9.0 ~~4.6~~	-7.8
	2.9	-0.8	15:00	7.5 ~~3.5~~	-5.3
500	3.5	-1.4	700	5.3	-3.1
	4.2	-2.1		3.5	-1.3
	5.8	-3.7		2.2	0.0
	6.5	-4.4		1.5	+0.7
	7.4	-5-3		1.0	+1.2
50	8.0	-6.9	50	0.5	+1.7
	8.8	-6.7	760	0.0	+2.2
570	9.3	-7.2	15:04		

SOUND EAST — STA - 79+00 — 5-15-47

0+00 = W/CAUSEWAY B/L ; LINES ARE RUN AT 81°30'44" TO B/L

DIST	SOUND		DIST	SOUND	X
0+00	17.4	-15.1	190	9.0	-6.7
15:12	17.4	-15.1	200	9.7	-7.4
	18.1	-15.8		9.8	-7.5
	17.0	-14.7		9.8	-7.5
	15.4	-13-1		9.6	-7.3
50	15.0	-12.7		9.5	-7.2
	12.0	-9.7	50	9.4	-7.1
(2.3)	10.8	-8.5		8.5	-6.2
	11.2	-8.9	(2.3)	8.0	-5.7
	10.5	-8.2		8.3	-6.0
100	10.0	-7.7		8.3	-6.0
	9.7	-7.4	300	8.1	-5.8
	9.2	-6.9		7.8	-5.5
	8.0	-5.7		7.1	-4.8
	7.4	-5.1		6.7	-4.4
50	7.0	-4.7		7.2	-4.9
	6.7	-4.4	50	7.0	-4.7
	5.0	-2.7	15:15	6.9	-4.6
180	7.5	-5.2	370	6.5	-4.2

DIST	SOUND		DIST	SOUND	X (57)
80	6.4	+4.1	580	3.2	-0.9
	6.1	+3.8	(2.3)	5.0	-2.7
400	6.0	+3.7	600	5.5	-3.2
	5.6	+3.3		6.3	-4.0
	4.9	-2.6	15:18	6.6	-4.3
	3.7	-1.4		7.4	-5.0
	2.7	-0.4		8.0	-5.6
50	1.8	+0.5	50	9.0	-6.6
	1.8	+0.5		9.7	-7.3
(2.3)	1.7	+0.6	(2.4)	9.6	-7.2
	1.5	+0.8		9.5	-7.1
	1.5	+0.8		9.2	-6.8
500	1.5	+0.8	700	9.0	-6.6
	1.4	+0.9		8.6	-6.2
	1.4	+0.9		8.1	-5.7
	1.3	+1.0		7.7	-5.3
	1.3	+1.0		7.5	-5.1
50	1.4	+0.9	50	7.4	-5.0
	2.3	0.0		7.2	-4.8
570	2.8	-0.5	770	6.7	-4.3

STA - 79+00

DIST	SOUND		DIST	SOUND
7.80	6.5	-4.0		
	6.0	-3.5		
800	5.3	-2.8		
	4.4	-1.9		
	3.6	-1.1		
	3.4	-0.9		
	2.9	-0.4		
50	2.5	0.0		
	2.0	+0.5		
(2.5)	0.5	+2.0		
875	0.0	+2.5		

5-15-

X

SOUNDINGS OF DANA BASIN

6-23-47

SOUND WEST

STA - 72+00 : 0+00 = PT. 190' W. OF STA 72+00 @ 81°39'44" TO CAUSEWAY 3/4

DIST	SOUND		DIST	SOUND	
0+00	0.0	+2.9	1+70	12.2	-9.3
0+10	0.6	+2.3	12:28	12.2	-9.3
12:20	3.7	-0.8	(3.0)	12.4	-9.4
(2.9)	4.7	-1.8	2+00	12.2	-9.2
	5.0	-2.1		12.1	-9.1
50	6.3	-3.4		12.1	-9.1
12:25	8.0	-5.1		13.1	-10.1
	9.5	-6.6		13.8	-10.8
	10.0	-7.1	50	13.6	-10.6
	10.9	-8.0		14.2	-11.2
1+00	11.0	-8.1		14.8	-11.8
	11.0	-8.1		13.3	-10.3
	11.5	-8.6		13.7	-10.7
	12.6	-9.7	3+00	14.0	-11.0
(2.9)	12.4	-9.5		14.0	-11.0
50	12.1	-9.2		14.0	-11.0
1+60	12.1	-9.2	3+30	14.4	-11.4

DY STA - 72+00

6-23-47 BARRAGAN SHEAHY STANLEY (59)

DIST	SOUND		DIST	SOUND	
3+40	13.8	-10.8	5+40	12.7	-9.7
50	12.4	-9.4	12:33 50	12.4	-9.4
12:30	12.7	-9.7		12.4	-9.4
(3.0)	12.5	-9.5	(3.0)	12.4	-9.4
	13.0	-10.0		12.4	-9.4
	13.7	-10.3		12.4	-9.4
4+40	13.3	-10.3	6+00	12.5	-9.5
	13.4	-10.4		12.8	-9.8
	13.2	-10.2		12.8	-9.8
	13.0	-10.0		12.7	-9.7
	12.8	-9.8		12.7	-9.7
50	13.0	-10.0	50	13.0	-10.0
	13.0	-10.0		13.0	-10.0
	13.0	-10.0		13.3	-10.3
	13.0	-10.0		13.3	-10.3
	13.2	-10.2		13.1	-10.1
5+00	13.4	-10.4	7+00	12.8	-9.8
	13.4	-10.4		12.6	-9.6
	13.0	-10.0		12.6	-9.6
5+30	13.0	-10.0	7+30	12.8	-9.8

STA - 72+00 PX

DIST	SOUND		DIST	SOUND	
7+40	12.6	-9.6	9+40	12.0	-9.0
50	12.2	-9.2	50	11.8	-8.8
12:35	12.3	-9.3	(3.0)	12.0	-9.0
(3.0)	12.5	-9.5		12.2	-9.1
	12.5	-9.5	12:38	12.4	-9.3
	12.4	-9.4	(3.1)	12.1	-9.0
8+00	12.0	-9.0	10+00	12.0	-8.9
	11.7	-8.7		12.0	-8.9
	11.7	-8.7		12.1	-9.0
	12.0	-9.0		12.0	-8.9
	12.3	-9.3		12.0	-8.9
50	12.0	-9.0	50	12.5	-9.4
	12.0	-9.0			
	12.0	-9.0			
	12.5	-9.5			
	13.0	-10.0			
9+00	13.1	-10.1			
	12.8	-9.8			
	12.4	-9.4			
9+30	12.1	-9.1			

6-23-97

6-23-97 STA - 71+00 PX

0+00 = PT 360' W. OF STA - 71+00 CAUSEWAY B/L AND

AT 81° 39' 44" TO B/L : SOUND - WEST

DIST	SOUND		DIST	SOUND	
0+00	0.9	+2.4	1+80	13.6	-10.3
12:35					
0+10	3.0	+0.3		13.6	-10.3
(3.3)	5.8	-2.5	2+00	14.2 ~~14.2~~	-10.9
	10.0	-6.7	(3.3)	14.8	-11.5
	10.4	-7.1		16.1	-12.8
50	10.7	-8.4		16.6	-13.3
	12.0	-8.7		16.0	-12.7
	11.7	-8.4	50	17.0	-13.7
	11.3	-8.0	13:00	17.8	-14.5
	12.1	-8.8		17.8	-14.5
1+00	14.0	-10.7		17.1	-13.8
	13.6	-10.3		17.3	-14.0
	12.7	-9.4	3+00	16.5	-13.2
12:38	11.7	-8.4		15.2 ~~15.2~~	-11.9
	12.3	-9.0		16.0	-12.7
50	12.8	-9.5		15.8	-12.5
	12.7	-9.4		15.8	-12.5
1+70	12.6	-9.3	50	15.3	-12.0

STA - 71+00 PX 6-23-77

DIST	SOUND		DIST	SOUND	
3+60	15.8	-12.5	5+60	12.2	-8.9
(3.3)	14.8	-11.5	(3.3)	12.2	-8.9
	14.0	-10.7		12.4	-9.1
	13.2	-9.9		11.8	-8.5
4+00	13.0	-9.7	6+00	12.0	-8.7
	13.0	-9.7		12.7	-9.4
	14.0	-10.7		13.0 ~~13.0~~	-9.7
	14.5	-11.2		13.5	-10.2
	14.1	-10.8		13.2	-9.9
50	13.4	-10.1	50	12.8	-9.5
	13.7	-10.4		13.1	-9.8
	12.1	-8.8		13.0	-9.7
	12.0	-8.7	13:05	13.2	-9.9
	11.5	-8.2		13.2	-9.9
5+00	11.2	-7.9	7+00	13.0	-9.7
13:03	11.2	-7.9		13.0	-9.7
	11.1	-7.8		13.0	-9.7
	11.1	-7.8		13.3	-10.0
	12.0	-8.7		13.3	-10.0
5+50	12.3	-9.0	7+50	13.5	-10.2

STA - 71+00 PX 6-23-77 (61)

DIST	SOUND		DIST	SOUND
7+60	14.0	-10.7		
(3.3)	13.4	-10.1		
	13.0	-9.7		
	12.7	-9.4		
8+00	12.1	-8.8		
	12.1	-8.8		
	12.0	-8.7		
	11.8	-8.5		
	11.8	-8.5		
50				

STA- 70+00 PX, 6-23-47

Pt. 450' W. of STA - 70+00 Causeway

0+00 = B/L: At 81°39'44" To B/L: Sound West.

Dist	Sound		Dist	Sound	
0+00	+?		1+80	14.0	-10.5
0+10	0.5	+3.0		13.5	-10.0
20	2.0	+1.5	2+00	13.5	-10.0
13:22	3.2	+0.3	13:25	13.3	-9.8
(3.5)	5.3	-1.8	(3.5)	13.5	-10.0
50	7.0	-3.5		13.8	-10.3
	8.8	-5.3		14.2	-10.7
	9.4	-5.9	50	14.0	-10.5
	12.0	-8.5		15.1	-11.6
	12.0	-8.5		16.5	-13.0
1+00	12.0	-8.5		17.0	-13.5
	11.8	-8.3		16.4	-12.9
	11.5	-8.0	3+00	16.4	-12.9
	12.7	-9.2		15.4	-11.9
	13.5	-10.0		16.7	-13.2
50	13.0	-9.5	(3.5)	18.0	-14.5
	13.0	-9.5		17.0	-13.5
1+90	14.0	-10.5	3+50	14.8	-11.3

STA- 70+00 PX 6-23-47 (52)

Dist	Sound		Dist	Sound	
3+60	14.4	-10.8	5+60	12.4	-8.8
13:27	16.4	-12.8	13:30	12.5	-8.9
(3.6)	16.4	-12.8	(3.6)	12.1	-8.5
	16.4	-12.8		11.8	-8.2
4+10	16.0	-12.4	6 7+00	12.5	-8.9
	16.0	-12.4		12.1	-8.5
	15.1	-11.5		12.0	-8.4
	15.0	-11.4		12.4	-8.8
	15.0	-11.4		12.8	-9.2
50	14.5	-10.9	50	13.4	-9.8
	15.3	-11.7		13.7	-10.1
	16.8	-13.2		13.8	-10.2
	16.4	-12.8		13.5	-9.9
	15.0	-11.4		13.5	-9.9
5+00	14.4	-10.8	7 8+00	13.6	-10.0
	14.0	-10.4			
	13.5	-9.9			
	13.5	-9.9			
	13.1	-9.5			
5+50	12.7	-9.1			

STA- 697 00 PX 6-23-41

0+00 = Pt. 450' W. of STA- 697+00 Causeway B/L and at 81°29'44" To B/L: Sound West

Dist	Sound		Dist	Sound	
0+9	0.0	+3.8	1+90	11.2	-7.4
0+20	1.8	+2.0	2+00	11.4	-7.6
13:47 30	3.5	+0.3		11.6	-7.8
(3.8)	5.0	-1.2	(3.8)	11.8	-8.0
50	6.1	-2.3		11.4	-7.6
	8.0	-4.2		11.8	-8.0
	9.5	-5.7	50	12.8	-9.0
	11.0	-7.2		12.1	-8.3
	11.2	-7.4		13.5	-9.7
1+00	11.4	-7.6		13.8	-10.0
	11.4	-7.6		13.6	-9.5
	11.4	-7.6	3+00	13.7	-9.9
	11.2	-7.4		13.6	-9.8
13:50	11.0	-7.2		14.0	-10.2
50	11.1	-7.3		14.2	-10.4
	11.0	-7.2	13:53	14.4	-10.6
	11.0	-7.2	50	14.0	-10.2
1+80	11.0	-7.2	3+60	13.0	-9.2

STA- 697 00 PX 6-23-41 (63)

Dist	Sound		Dist	Sound	
3+70	13.3	-9.5	5+70	20.8	-17.0
	15.0	-11.2		19.0	-15.2
(3.8)	15.0	-11.2	(3.8)	19.4	-15.6
4+00	14.5	-10.7	6+00	21.2	-17.4
	15.2	-11.4		21.0	-17.2
	15.0	-11.2		20.0	-16.2
	14.5	-10.7		18.5	-14.7
	14.0	-10.2		18.1	-14.3
50	15.0	-11.2	50	17.8	-14.0
	16.8	-13.0	13:57		
	16.0	-12.2			
13:55	18.5	-14.7			
	18.0	-14.2			
5+00	17.8	-14.0			
	18.1	-14.3			
	19.2	-15.4			
	20.0	-16.2			
	19.4	-15.6			
50	20.5	-16.7			
5+60	20.5	-16.7			

0+00 = Pt. at 81°39'44" To	STA- 380' W.	68+00 of STA- B/4 :	68+00 Sound	PX Causeway West	6-23-87 B/4 Sound
Dist	Sound		Dist	Sound	
0+07	0.0	+4.0	1+90	12.0	-8.0
0+20	1.0	+3.0	2+00	12.3	-8.3
30	2.3	+1.7		12.5	-8.5
14:10 40	3.4	+0.6		12.5	-8.5
50	4.0	0.0	(4.0)	12.9	-8.9
(4.0)	5.8	-1.8	(4.1)	13.0	-8.9
	7.0	-3.0	50	12.0	-8.9
	8.0	-4.0		13.4	-9.3
	8.5	-4.5		13.0	-8.9
1+00	10.1	-6.1		13.1	-9.0
	11.3	-7.3		12.0	-7.9
	11.5	-7.5	3+00	12.0	-7.9
	12.6	-8.6		12.0	-7.9
	12.4	-8.4	14:20	11.7	-7.6
50	12.4	-8.4		12.0	-7.9
14:18	12.0	-8.0		12.1	-8.0
	12.0	-8.0	50	12.3	-8.2
1+80	11.8	-7.8	3+60	12.0	-7.9

Dist	STA- 68+00 Sound		Dist	PX 6-23-87 Sound	
3+70	12.8	-8.7	5+70	13.0	-8.9
	13.4	-9.3		12.7	-8.6
	12.5	-8.4		12.5	-8.4
4+00	12.8	-8.7	6+00	13.1	-9.0
(4.1)	13.4	-9.3	14:23	13.1	-9.0
	13.2	-9.1	(4.1)	13.1	-9.0
	13.0	-8.9		13.6	-9.5
	13.6	-9.5		13.8	-9.7
50	12.6	-8.5	50	13.5	-9.4
	12.8	-8.7		13.5	-9.4
	13.0	-8.9		13.3	-9.2
	13.0	-8.9		13.2	-9.1
	12.8	-8.7		13.4	-9.3
5+00	13.0	-8.9	7+00	13.4	-9.3
	13.2	-9.1	14:25		
	13.3	-9.2			
	13.2	-9.1			
50	13.0	-8.9			
5+60	13.0	-8.9			

PX. X-SECTIONS - DANA BASIN 6-2[illegible]
STA- 62+00 PROS. NO. 7

0+00 = { R- 110+40.66 / STA-62+00
0+00 = A RANGE LINE 1150' W. OF STA.- 61+00 CAUSEWAY B/4

SECTIONS ARE RUN AT 90° TO RANGE LINE.

DIST	+	H.I.	−	ELEV.	
T.B.M.	4.88	15.90		11.02	STAKE AT STA-62+[illegible]
E 0+00			5.0	10.9	
E 0+84			5.1	10.8	
E 1+50			6.0	9.9	
E 1+90			6.8	9.1	
E 2+10			8.6	7.3	
E 2+45			12.6	3.3	
B.M.	7.97	15.97		8.00	TOP [illegible] ON TIDE GAUGE
T.B.M.			10.96	5.01	STA- 67+00
T.B.M.			6.17	9.80	STA- 66+00
T.B.M			5.72	10.35	STA- 65+00
T.B.M.			5.09	10.88	STA- 64+00
T.B.M.			5.25	10.72	STA- 63+00
T.B.M			4.95	11.02	STA- 62+00

PX STA - 63+00 6-25-47 BARRAGAN SHERRY STANLEY CLA. & BRIGHT (65)

0+00 = { R- 110+40.66 / STA- 63+00
0+00 = RANGE LINE 1150' W. OF STA- 61+00 CAUSEWAY B/4:

SECTIONS ARE RUN AT 90° TO RANGE LINE.

Indexed

DIST	+	H.I.	−	ELEV	
T.B.M.	5.05	15.77		10.72	STAKE AT STA-63+00
E 1+66			12.5	3.3	
E 1+48			9.7	6.1	
E 1+21			5.8	10.0	
E 0+63			5.3	10.5	
0+00			5.0	10.8	

6-25-47

6+00 = { R-110+40.66 / STA-64+00 } STA- 64+00

0+00 = RANGE LINE 1150' WEST OF STA- 61+00 CAUSEWAY B/L

PX

SECTIONS ARE RUN AT 90° TO RANGE LINE

DIST	+	H.I.	−	ELEV.	
T.B.M	4.95	15.83		10.88	STAKE AT STA 64
E 0+48			5.6	10.2	
E 0+88			6.5	9.3	
E 1+09			9.6	6.2	
E 1+26			12.4	3.4	

STA- 65+00

0+00 { R-110+40.66 / STA-65+00 }

0+00 = RANGE LINE 1150' OF STA- 61+00 CAUSEWAY B/L

SECTIONS ARE RUN AT 90° TO RANGE LINE

DIST	+	H.I.	−	ELEV	
T.B.M.	5.12	15.47		10.35	STAKE STA-65+00
E 1+18			11.8	3.7	
E 1+02			8.7	6.8	
E 0+76			6.2	9.3	
E 0+44			5.4	10.1	
0+00			5.1	10.4	

6-25-47 (66)

{ R-110+40.16 / STA-66+00 } STA- 66+00 PX

0+00 = RANGE LINE 1150' W. OF STA 61+00 CAUSEWAY B/L

SECTIONS ARE RUN AT 90° TO RANGE LINE

DIST	+	H.I.	−	ELEV	
T.B.M.	4.99	14.79		9.80	STAKE AT STA-66+00
0+00			5.0	9.8	
E 0+34			5.0	9.8	
E 0+79			6.2	8.6	
E 0+96			9.0	5.8	
E 1+08			11.3	3.5	
E 0+69			4.6	10.2	
E 0+50			4.5	10.3	
E 0+28			4.7	10.1	
E 0+05			6.9	7.9	
E 0+05			8.7	6.1	
E 0+60		STAKE	10.8	4.0	

0+00 = {R-110+40.66 / 61+00} P.X.

6-25-47 BARRAGAN SHERRY STANLEY

STA- 6.7 + 00

0+00 = RANGE LINE 1150' W. OF STA- 61+00 CAUSEWAY

SECTIONS ARE RUN EAST & WEST AT 90° TO RANGE LINE

DIST	+	H.I.	−	ELEV
T.B.M.	4.90	9.91		5.01
W- 0+98			6.3	3.6
W- 0+66			5.0	4.9
W 0+28			4.8	5.1
0+00			4.9	5.0
E 0+32			6.3	3.6

STAGE AT STA-

0+00 = {110+40.66 / 61+00}

STA- 61+ 00

DIST	+	H.I.	−	ELEV
T.B.M	7.97	15.97		8.00
0+00			3.2	9.8
E 0+75			4.5	10.5

P.X

X-SECTIONS PROJECT # 8

7-15-47 BARRAGAN SHERRY STANLEY (67)

Indexed

STA- 94 + 00

0+00 = STA-94+00 CAUSEWAY B/L: SECTIONS ARE AT 81°40' TO B/L.

DIST	+	H.I.	−	ELEV.
B.M.	4.54	15.75		11.21
5+00			4.7	11.0
4+10			4.7	11.0
3+15			5.1	10.6
2+08			3.6	12.1
1+12			3.2	12.5
1+88			2.8	12.9
2+75			3.3	12.4
3+40			3.4	12.3
4+10			3.2	12.5
4+90			3.2	12.5
5+60			3.6	12.1
6+46			3.2	12.5
7+35			3.4	12.3
8+05			3.7	12.0
8+85			3.5	12.2

T&P HUB STA-95+00 CAUSEWAY

7-15-47 GB

PX Sta 94+00 Cont.

Dist	+	HI	-	Elev
		16.75		
W 985			3.6	12.1
W 1075			3.1	12.6
W 1200			3.5	12.2

Sta 93+00

0+00 = Sta 93+00 Causeway B.L Sect at [illegible]

Dist	+	HI	-	Elev
B.M.	4.59	15.70		11.11
W 1210			3.4	12.3
W 1130			3.3	12.4
W 1005			3.4	12.3
W 890			3.6	12.1
W 825			3.8	11.9
W 730			3.8	11.9
W 605			2.8	12.9
W 505			3.1	12.6

PX Sta 93+00 Cont.

Dist	+	HI	-	Elev
		15.7		
E 385			3.3	12.4
W 275			4.9	10.8
E 190			4.8	10.9
W 125			4.4	11.3
0+00			5.3	10.4
[illegible]			6.2	9.5
W 0-13			6.9	8.8
W 0-7			4.8	10.9
Top of [illegible] 0+00			4.8	10.9

PX

Sta. 92+00

7-15-47

0+00 - Sta 92+00 Causeway Bl. Sect at 81°40' to Bl

Dist	+	H.I.	−	Elev	
B.M.	4.71	15.68		10.97	Top of Hub Sta 92+00
0+00			4.7	11.0	
W 10			5.2	10.5	
W 15			7.0	8.7	
W 170			7.2	8.5	
W 255			6.6	9.1	
W 400			5.5	10.2	
W T.P.			3.99	11.69	Top Wire Sta 92+00
W 485			6.2	9.5	
W 585			5.9	9.8	
W 675			3.5	12.2	
W 800			3.6	12.1	
W 865			3.4	12.3	
W 960			3.9	11.8	
W 1070			4.2	11.5	
W 1160			3.9	11.8	
W 1225			3.1	12.6	

PX

STA. 86 + 00

7-15-47

(69)

STA 86+00 CAUSEWAY B/L: SECT. AT 81°40' TO B/L.

DIST	+	H.I.	−	ELEV.	
	4.71	15.86		11.15	TOP HUB STA-86+00 CAUSEWAY
0+00			4.5	11.4	
0+10			~~4.7~~ 4.7	11.2	
86+14			5.8	10.1	
W 50			5.9	10.0	
W 120			5.8	10.1	
W 135			5.5	10.4	
W 230			5.7	10.2	
W 295			5.3	10.6	
W 310			5.0	10.9	
W 335			5.8	10.1	
W 345			1.8	14.1	
W 355			10.0	5.9	

7-15-47

PX STA- 85+00

0+00 = STA-87+00 CAUSEWAY B/L: SECTIONS AT 81°40' TO B/L.

DIST	+	H.I.	-	ELEV	
B.M	4.62	15.96		11.34	TOP HUB STA-85+00 CAUSEWAY
W 380			10.0	6.0	
W 375			5.7	10.3	
W 370			1.4	14.6	
W 365			3.5	12.5	
W 355			5.4	10.6	
W 312			5.2	10.8	
W 270			4.8	11.2	
W 205			3.5	12.5	
W 155			4.0	12.0	
W 120			4.0	12.0	
W 82			4.3	11.7	
W 58			4.6	11.4	
W 15			5.0	11.0	
0+9			4.5	11.5	
0+00			4.8	11.2	

449

7-15-47

(70)

PX STA- 84+00

0+00 = STA-84+00 CAUSEWAY B/L: SECTIONS AT 81°40' TO B/L.

DIST	+	H.I.	-	ELEV	
B.M	4.49	15.64		11.15	TOP HUB STA-85+00 CAUSEWAY
0+00			4.6	11.0	
0+9			4.0	11.6	
W 80			3.7	11.9	
W 155			2.7	12.9	
W 260			2.9	12.7	
W 370			3.5	12.1	
W 470			2.6	13.0	
W 600			2.8	12.8	
W 745			2.8	12.8	
W 775			0.9	14.7	
W 850			3.4	12.2	
W 930			4.4	11.2	
630 W 1040			5.8	9.8	
690 W 1180			7.5	8.1	

PX

7-15-47

STA - 83 + 00

0+00 = STA - 83+00 CAUSEWAY B/L. SECT. AT 81°40' TO B/L.

DIST	+	H.I.	−	ELEV.	
B.M.	4.42	15.47		11.05	TOP HUB STA-84+00 CAUSEWAY
~~550~~ ~~W 1000~~			~~3.5~~	~~12.07~~	
495 W 990			2.5	13.0	
445 W 890			1.7	13.8	
W 780			0.8	14.7	
W 695			1.0	14.5	
W 580			1.2	14.3	
W 465			2.5	13.0	
W 365			2.5	13.0	
W 260			2.1	13.4	
W 160			2.8	12.7	
W 68			3.5	12.0	
W 15			3.9	11.6	
0+00			4.5	11.0	

PX

7-15-47

(71)

STA - 82 + 00

0+00 = STA - 82+00 CAUSEWAY B/L. SECT. AT 81°40' TO B/L.

DIST	+	H.I.	−	ELEV	
B.M.	4.25	15.30		11.05	TOP HUB STA - 83+00 CAUSEWAY
0+00			4.4	10.9	
0+66			4.4	10.9	
1+15			3.5	11.8	
1+29			3.4	11.9	
1+115			3.1	12.2	
1+190			2.6	12.7	
1+285			3.0	12.3	
1+375			2.8	12.5	
1+450			3.2	12.1	
1+553			1.2	14.1	
1+667			4.5	10.8	
1+768			9.5	5.8	
260 W 520			11.0	4.3	

PX

7-15-47

STA- 81 + 00

Indirect

0+00 = STA- 81+00 CAUSEWAY B/L : SECTIONS AT 91°45' TO B/L

DIST	+	H.I.	−	ELEV	
B.M.	4.56	15.55		10.95	TOP NUB 82+00 CAUSEWAY
W 470			11.4	4.2	
W 460			5.1	10.5	
W 455			1.3	14.3	
W 446			3.1	12.4	
W 372			3.6	12.0	
W 275			2.7	12.9	
W 172			2.8	12.8	
W 100			3.3	12.2	
W 35			4.1	11.4	
W 12			4.2	11.3	
W 8			4.8	10.7	
0+00			4.5	11.0	

0+00 = STA- 81+50 / STA- 105+50

STA- 105+50 PROJECT # 8 (73)

9-16-47

) SOUND EAST

DIST	SOUND		DIST	SOUND	
2+00			3+90	10.7	-7.6
2+10	11.0	-7.9	4+00	10.6	-7.5
14:20	11.2	-8.1		11.0	-7.9
(3.1)	11.0	-7.9	PX	11.0	-7.9
	11.0	-7.9		11.0	-7.9
50	11.6	-8.5		11.0	-7.9
	11.6	-8.5	50	11.9	-8.8
	12.1	-9.0		10.8	-7.7
	12.1	-9.0		10.6	-7.5
	11.8	-8.7	(3.1)	10.5	-7.4
3+00	11.4	-8.3		10.5	-7.4
	11.2	-8.1	5+00	10.5	-7.4
	11.1	-8.0		10.5	-7.4
	11.1	-8.0		10.5	-7.4
	11.0	-7.9		10.5	-7.4
50	11.2	-8.1		10.8	-7.7
	10.8	-7.7	50	10.9	-7.8
	~~10.8~~ 11.0	-7.9		10.9	-7.8
3+80	10.8	-7.7	5+70	10.5	-7.4

DIST	SOUND	105+50	DIST	SOUND	9-16-97
5+80	8.0	-4.9	7+80	6.5	-3.4
				6.5	-3.4
6+00	8.0	-4.9	8+00	6.3	-3.2
	8.0	-4.9	14:25	6.0	-2.9
	8.0	-4.9		6.0	-2.9
	7.0	-3.9		5.0	-1.9
(3.1)	6.5	-3.4	(3.1)	5.0	-1.9
50	6.5	-3.4	50	7.0	-3.9
	6.5	-3.4		6.5	-3.4
	5.8	-2.7		6.0	-2.9
	6.5	-3.4		3.0	+0.1
	8.7	-5.6		6.5	-3.4
7+00	7.5	-4.4	9+00	7.3	-4.2
	6.3	-3.2		8.1	-5.3
	6.3	-3.2		8.3	-5.2
	6.5	-3.4		8.1	-5.0
	6.3	-3.2		7.0	-3.9
50	6.5	-3.4	50	7.5	-4.4
	7.1	-4.3		7.3	-4.2
7+70	7.0	-3.9	9+70	8.0	-4.9

DIST	SOUND	105+50	DIST	SOUND	9-16-97	(73)
9+80	8.0	-4.9	11+80	6.8	-3.7	
	6.8	-3.7		9.7	-6.6	
10+00	6.0	-2.9	12+00	10.5	-7.4	
	6.0	-2.9		10.3	-7.2	
	6.0	-2.9		10.0	-6.9	
	5.0	-1.9		10.0	-6.9	
	5.3	-2.2		11.0	-7.9	
50	6.8	-3.7	50	10.8	-7.7	
(3.1)	6.5	-3.4		11.6	-8.5	
	6.0	-2.9	14:30	11.2	-8.1	
	6.0	-2.9	(3.0)	10.8	-7.8	
11:28	5.5	-2.4		10.3	-7.3	
11+00	6.0	-2.9	13+00	11.0	-8.0	
	5.5	-2.4		11.7	-8.7	
	6.0	-1.9		11.5	-8.5	
	5.0	-1.9		11.3	-8.3	
	5.2	-2.1		11.0	-8.0	
50	7.5	-4.4	50	10.5	-7.5	
	7.0	-3.9		11.3	-8.3	
11+70	6.0	-2.9	13+70	11.3	-8.3	

105+50 9-16-47

DIST	SOUND		DIST	SOUND	
13+80	11.5	-8.4	15+80	9.3	-6.3
	12.0	-9.0		9.0	-6.0
14+00	12.0	-9.0	16+00	10.4	-7.4
	12.0	-9.0		10.4	-7.4
	12.2	-9.2		10.2	-7.2
	12.0	-9.0		10.2	-7.2
(3.0)	12.0	-9.0		10.5	-7.5
50	12.0		50	10.7	-7.7
	12.0		(3.0)	10.9	-7.9
	12.0	-9.0		11.0	-8.0
	11.8	-8.8		11.2	-8.2
	11.5	-8.5		10.5	-7.5
15+00	11.3	-8.3	17+00	10.0	-7.0
	10.7	-7.7		5.0	-2.0
	10.0	-7.0		5.5	-2.5
	9.5	-6.5		5.8	-2.8
	9.5	-6.5		6.6	-3.3
50	10.2	-7.2	50	8.0	-4.0
	10.2	-7.2		9.0	-6.0
15+70	9.7	-6.7	17+70	9.5	-6.5

105+50 9-16-47 (74)

DIST	SOUND		DIST	SOUND	
17+80	9.6	-6.6	19+80	11.1	-8.1
	10.0	-7.0		10.7	-7.7
18+00	9.0	-6.0	20+00	10.8	-7.8
	10.1	-7.1			
	10.2	-7.2			
	10.5	-7.5			
18+35	10.8	-7.8			
50	10.8	-7.8			
	10.0	-7.0			
(3.0)	9.5	-6.5			
	9.2	-6.2			
	8.3	-5.3			
19+00	7.0	-4.0			
	7.1	-4.1			
	9.2	-6.2			
	11.0	-8.0			
	11.3	-8.3			
50	11.6	-8.6			
	11.0	-8.0			
19+70	11.0	-8.0			

STA- 105+00 9-16-17 PROJECT #8

0+00 = (A-81+80 / STA-105+00)

SOUND EAST

DIST	SOUND		DIST	SOUND	
2+00	10.5	-7.5	3+90	11.0	-8.0
14:47	10.5	-7.5	4+00	11.0	-8.0
	10.5	-7.5	PX	10.8	-7.8
	10.5	-7.5		10.8	-7.8
	10.7	-7.7		11.0	-8.0
50	10.7	-7.7		11.0	-8.0
	10.6	-7.6	50	11.3	-8.3
(3.0)	10.7	-7.7		11.0	-8.0
	10.8	-7.8		10.8	-7.8
	13.2 ~~13.2~~	-10.2		10.7	-7.7
3+00	12.7	-9.7		11.1	-8.1
	12.4	-9.4	5+00	11.0	-8.0
	12.0	-9.0		11.0	-8.0
	11.4	-8.4	14:49	11.0	}
	11.4	-8.4	(30)	11.0	}
50	11.0	-8.0		11.0	-8.0
	10.8	-7.8	50	12.8	-9.8
	10.5	-7.5		12.8	-9.8
3+80	10.5	-7.5	5+70	12.8	-9.8

105+00 9-16-17 (35)

DIST	SOUND		DIST	SOUND	
5+80	12.7	-9.7	7+80	10.8	-7.8
	12.7	-9.7		10.5	-7.5
6+00	12.5	-9.5	8+00	10.3	-7.3
	12.5	-9.5	PX	10.3	-7.3
	12.5	-9.5		10.3	-7.3
	10.5	-7.5		10.2	-7.2
	10.3	-7.3		10.2	-7.2
50	10.3	-7.3	50	10.0	-7.0
	10.5	-7.5	(3.0)	10.5	-7.5
	10.8	-7.8		10.3	-7.3
	11.0	-8.0		10.2	-7.2
	11.4	-8.0		10.2	-7.2
7+00	11.4	-8.4	9+00	10.0	-7.0
	11.4	-8.4		9.8	-6.8
14:50	11.5	-8.5		10.0	-7.0
	11.5	-8.5		10.0	-7.0
	11.5	-8.5		10.3	-7.3
50	11.3	-8.3	50	10.4	-7.4
	11.0	-8.0		10.5	-7.5
7+70	11.0	-8.0	9+70	10.2	-7.2

105+00 9-16-47

DIST	SOUND		DIST	SOUND	
9+80	11.0	-8.0	11+80	11.8	-8.8
	11.0	-8.0		11.8	-8.8
10+00	11.0	-8.0	12+00	11.6	-8.6
	10.8	-7.8		11.6	-8.6
	10.5	-7.5	PX	11.5	-8.5
	10.3	-7.3		11.6	-8.6
	10.0	-7.0		11.6	-8.6
50	10.0	-7.0	50	11.3	-8.3
	10.4	-7.4		11.0	-8.0
(3.0)	10.4	-7.4	(2.9)	11.0	-8.1
	10.0	-7.0		11.0	-8.1
	10.0	-7.0		11.5	-8.6
11+00	10.6	-7.6	13+00	10.5	-7.6
	11.0	-8.0		10.7	-7.8
	11.4	-8.4		10.5	-7.6
	11.4	-8.4		10.7	-7.8
14:53	11.3	-8.3		11.0	-8.1
50	11.0	-8.0	50	11.1	-8.2
	12.0	-9.0		11.3	-8.4
11+70	11.5	-8.5	13+70	11.4	-8.5

105+00 9-16-47

DIST	SOUND		DIST	SOUND
13+80	11.5	-8.6	XP	
	11.5	{		
14+00	11.5	}		
	11.5	-8.6		
	11.7	-8.8		
	11.7	-8.8		
	11.6	-8.7		
50	11.4	-8.5		
(29)	11.1	-8.2	PX	
	11.0	-8.1		
	11.0	-8.1		
	11.6	-8.7		
15+00	11.4	-8.5		
	11.2	-8.3		
	12.0	-9.1		
	12.0	-9.1		
	12.0	-9.1		
50	11.6	-8.7		
14:56				

1550

0+00 = {A-81+70 / STA-104+00}

STA- 104+00 PROJECT #8 9-16-47

SOUND EAST

DIST	SOUND		DIST	SOUND	
2+00	10.0	-7.2	3+90	11.3	-8.5
+10	10.1	-7.3	4+00	11.7	-8.9
15:03	10.3	-7.5		12.0	-9.2
	10.4	-7.6		11.3	-8.5
	10.5	-7.7	15:05	10.5	-7.7
50	10.4	-7.6		10.5	-7.7
	10.5	-7.7	50	10.7	-7.9
(2.8)	10.4	-7.6	(2.8)	10.8	-8.0
	10.4			10.9	-8.1
	10.4			10.9	
3+00	10.4			10.9	
	10.4		5+00	10.9	-8.1
	10.4	-7.6		10.5	-7.7
	10.1	-7.3		10.5	
	10.3	-7.5		10.5	
50	10.2	-7.4		10.5	
	11.0	-8.2	50	10.5	-7.7
	10.8	-8.0		10.4	-7.6
3+80	11.0	-8.2	5+70	10.4	-7.6

104+00 9-16-47 (77)

DIST	SOUND		DIST	SOUND	
5+80	10.3	-7.5	7+80	10.5	-7.7
	10.1	-7.3		10.5	-7.7
6+00	10.3	-7.5	8+00	10.5	-7.7
	10.1	-7.3		10.1	-7.3
	10.4	-7.6		10.6	-7.8
	10.8	-8.0		11.0	-8.2
	10.8	-8.0		11.1 ~~10.1~~	-8.3
50	10.7	-7.9	50	11.1	-8.3
	10.8	-8.0	(2.8)	11.0	-8.2
(2.8)	10.8	-8.0		10.5	-7.7
	10.6	-7.8		10.3	-7.5
	10.5	-7.7		10.2	-7.4
7+00	10.3	-7.5	9+00	10.1	-7.3
	10.1	-7.3		10.1	-7.3
	10.4	-7.6		10.1	
	10.7	-7.9		10.1	
	11.0	-8.2		10.1	-7.3
50	11.0	-8.2	50	10.2	-7.4
	10.8	-8.0		~~10.2~~	-7.4
7+70	10.5	-7.7	9+70	10.0	-7.2

		104+00			3-16-17
DIST	SOUND		DIST	SOUND	
9+80	10.0	-7.3	11+80	10.8	-8.1
	10.0	-7.3		10.8	-8.1
10+00	10.1	-7.4	12+00	10.7	-8.0
	10.2	-7.5		10.7	-8.0
	10.4	-7.7		10.5	-7.8
	10.8	-8.1		10.3	-7.6
2.7	10.8	-8.1	2.7	10.3	
50	10.7	-8.0	50	10.3	
	10.5	-7.8		10.3	-7.6
	10.6	-7.9		10.2	-7.5
	10.9	-8.2		10.2	-7.5
	11.1	-8.4		10.0	-7.3
11+00	11.1	-8.4	13+00	10.3	-7.6
	11.0	-8.3		10.5	-7.8
	11.0	-8.3		10.6	-7.9
	10.8	-8.1		10.6	-7.9
15:10	11.0	-8.3		10.5	-7.8
50	11.0		50	10.5	-7.8
	11.0			10.8	-8.1
11+70	11.0	-8.3	13+70	11.0	-8.3

		104+00			3-16-17	(78)
DIST	SOUND		DIST	SOUND		
13+80	11.0	-8.3	15+80	10.8	-8.1	
	11.1	-8.4		10.8	-8.1	
14+00	11.2	-8.5	16+00	11.0	-8.3	
	11.5	-8.8	15:14			
	11.8	-9.1	15:17			
	12.0	-9.3	(2.6)			
	12.0					
50	12.0					
	12.0					
2.7	12.0	-9.3				
	11.8	-9.1				
	11.5	-8.8				
15+00	11.1	-8.4				
	11.1					
	11.1					
	11.1	-8.4				
	11.0	-8.3				
50	11.0					
	11.0					
15+70	11.0	-8.3				

STA - 102+00 PROJ #8 9-16-47

0+00 = (STA-100+00 / STA-102+00) SOUND WEST

DIST	SOUND	
13+00	9.6	-7.4
15:42	11.7	-9.5
(2.2)	12.0	-9.8
	11.2	-9.0
	10.5	-8.3
50	10.3	-8.1
	10.2	-8.0
	10.5	-8.3
	11.1	-8.9
	11.2	-9.0
14+00	11.0	-8.8
	12.3	-10.1
	11.0	-8.8
	10.5	-8.3
	10.4	-8.2
50	11.0	-8.8
	11.0	-8.8
	10.8	-8.6
14+80	10.8	-8.6

DIST	SOUND	
14+90	11.0	-8.8
15+00	11.0	-8.8

PX

STA - 100+00 PROJ #8 9-16-47 (79)

1+00 = (STA-97+50 / STA-100+00) SOUND WEST

PX

DIST	SOUND	
6+00	10.3	-8.2
+10	10.9	-8.3
600	10.8	-8.7
	11.4	-9.3
	12.0	-9.9
50	12.0	-9.9
	11.5	-9.4
(2.1)	11.0	-8.9
	11.0	-8.9
	10.8	-8.7
7+00	10.5	-8.4
	10.2	-8.1
	10.3	-8.2
	10.3	-8.2
	10.3 / ~~+0.3~~	-8.2
50	10.5	-8.4
	11.1	-9.0
	10.8	-8.7
7+80	10.9	-8.8

DIST	SOUND	
7+90	10.6	-8.5
8+00	10.4	-8.3
	10.2	-8.1
	10.1	-8.0
	10.0	-7.9
	10.2	-8.1
50	10.3	-8.2
	11.1	-9.0
(2.1)	11.2	-9.1
	11.0	-8.9
	10.8	-8.7
9+00	10.5	-8.4
	10.4	-8.3
	10.4	-8.3
	10.5	-8.4
16:03	10.6	-8.5
50	10.7	-8.6
	10.5	-8.4
9+70	10.5	-8.4

(80) 100+00 PROJ. # 8 9-16-17

DIST	SOUND		DIST	SOUND	
9+80	10.4	-8.3	11+80	12.7	-10.6
	10.4	-8.3	(2.1)	12.8	-10.7
10+00	10.4	-8.3	12+00	12.3	-10.2
	10.3	-8.2	16:06		
	10.3	-8.2			
	10.4	-8.3			
	10.3	-8.2			
50	14.0	-11.9			
	14.2	-12.1			
(2.1)	14.0	-11.9			
	14.2	-12.1			
	12.5	-10.4			
11+00	12.1	-10.0			
	12.2	-10.1			
	12.2	-10.1			
	12.2	-10.1			
	12.2	}			
50	12.2	}			
	12.2	-10.1			
11+70	12.0	-9.9			

72 - 180
71 - 360
70 - 470 450
69 - 470 - 450
68 - 390 - 380
67 - 380
66 - 250
65 -
64 -
63 -
62
61

61406 - 1080 - 4.6
1050 - 6.2

12,80
0.26
13,06
5.09
7,97
5,14
13,11
2.11
11,00

8.00
7.97
15.97
5.05
10.92

11.69
4.56
16.25
13.00
3.25
2.25

7.97 T.P

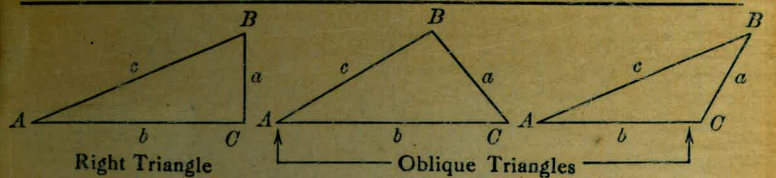
67-2. 10.96
66-3. 6.17
65-4. 5.72
64-5. 5.09
63-6. 5.25
62-7. 4.95

15.97
10.96
5.01
15.97
6.17
9.80
15.97
5.72
10.25
15.97
5.09
10.88
15.97
5.25
10.72

15.97
4.95
11.02

.525
2
11 30

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

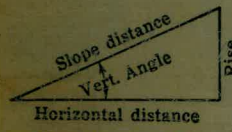
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

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 example, the following result is obtained. Cosine 5° 10′ = .9959. 1 — .9959 = .0041. 319.4 × .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.