W.O. 16-6-9

#749

CITY OF SAN DIEGO

CITY OF SAN DIEGO
OFFICE OF HYDRAULIC ENGINEER
WATER DEPARTMENT

INFORMATION REQUEST

No. 52

W.O.NO. 16-6-9

TO Don E. Leonard FROM W.C. Brown DATE 10/4/48

Perform routine staking and checking for Alvarado Regulating Reservoir Roof and Lining from day to day as required by field conditions and as directed.

REFERENCES: DRAWING NO. Plans & Spec. for Alv. Reg. Res. Roof & Lining

USE REVERSE SIDE IF NEEDED
FIELD BOOK NO. 749

REPORT BY _____ TO _____ DATE _____

INFORMATION ON DRAWING NO. _____

USE REVERSE SIDE IF NEEDED
DATA IN BOOK _____

NOTE: PINK COPY TO ASSISTANT HYDRAULIC ENGINEER

FORM 211-A

Distan
ground
column
side stake
side stake
cut or fi
If it does not make the slight adjustment necessary.

W.O. 16-6-9

MICROFILMED
JAN 14 1965

STANCES FROM SIDE STAKES FOR CROSS-SECTIONING

SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

.1	.2	.3	.4	.5	.6	.7	.8	.9	
0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

f slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If arly level, the cut or fill at side stake is located by the double entry method in left top row. The number in body of table in same row and column gives distance from slope stake. If ground is not level estimate the difference in elevation between the d slope stake, lower target by this amount if cut, elevate if fill. Add this amount to d find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

749

CITY OF SAN DIEGO
RECD
OCT 5 1948
RESIDENT ENGINEER

Table XIII—Corrections for Tangents and Externals

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

For Tangents Add

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	03	.06	09	13	16	19	.22	.25	.28	.31	34	38	42	.46
15°	04	10	14	19	24	.29	.34	.39	45	.51	.53	58	.63	.68
20°	06	.13	19	26	.32	.39	.45	.51	.58	.65	.72	79	.84	.90
25°	.08	16	24	.33	40	49	.58	67	.75	.83	90	.99	1.06	1.14
30°	10	19	.29	39	49	.59	.69	79	.89	.99	1.09	1.20	1.29	1.39
35°	11	22	.34	47	.58	.69	.70	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	15	.30	44	60	76	91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	19	38	.57	76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	23	46	.69	.93	1.16	1 40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	25	.51	76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	30	.61	.91	1.22	1.53	1.84	2.15	2.46	2 78	3.10	3.44	3.78	4.12	4.46
85°	33	66	1.00	1.33	1.68	2.02	2.36	2 70	3.05	3.40	3.77	4.14	4.55	4 89
90°	36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4 10	4 50	4.91	5.32
95°	39	79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4 76	5.31	5 86	6.43	7 01	7 60
120°	62	1.25	1 93	2.52	3.16	3.81	4 45	5.11	5.77	6 44	7 12	7.80	8.50	9 22

For Externals Add

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	036	.046	.056	.065	.074	.083	.093	.106	120	127	135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.711	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.985	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

ALVORADO REGULATING RESERVOIR. 1.

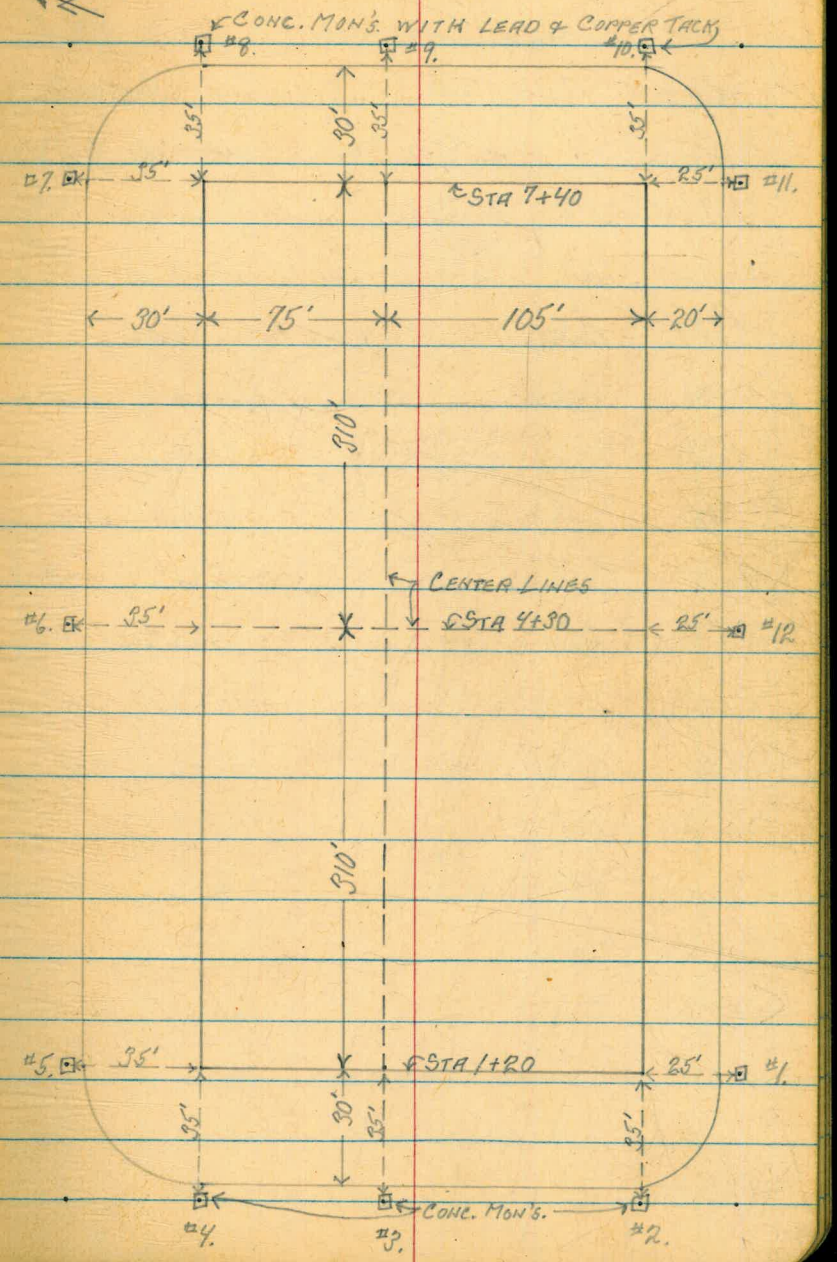
INDEX.

NOTE: 12 CONCRETE MONUMENTS WITH LEAD PLUG AND COPPER TACK AS CENTER SET AROUND TOP OF RESERVOIR AS INDICATED ON OPPOSITE PAGE. EACH MONUMENT IS ABOUT 1' IN DIAMETER BY 1.5' IN DEPTH, WITH THE TOP RECESSED ABOUT 8" BELOW THE SURFACE OF THE ROADWAY.

CONTROL POINTS SET FROM R.P.'S AT THE S.W. CORNER OF THE RESERVOIR AS SHOWN IN F.B. 691, AND USING THE HUB & TACK SET ON THE NORTH SLOPE OF THE CANYON TO ESTABLISH THE LINE OF STATION 1+20.

CONTROL MONUMENTS: ALVORADO REGULATING RESERVOIR.

OCT. 25, 1948. LEONARD SHIPMAN WEST. 1.



ALVARADO REGULATING RESERVOIR. Nov. 3, 1948 LEONARD SHIPMAN WEST. 2.

X-SECTIONS RECHECK. EAST END

STATION.		+	H.I.	−	ELEV.
B.M. on Dam.		+0.93	537.32 ✓		536.39
T.P. on ℄ Mon.		+3.15	532.32 ✓	-8.15	529.17 ✓
Sta. 7+70.6	105 S		GRADE 530.00	2.20	530.12
"	85 S		"	2.19	30.13
"	65 S		"	2.21	30.11
"	45 S		"	2.34	29.98
"	25 S		"	2.19	30.13
"	5 S		"	2.39	29.93
"	15 N		"	2.25	30.07
"	35 N		"	2.18	30.14
"	55 N		"	2.25	30.07
"	75 N		"	2.26	30.06
7+67.6	75 N		GRADE 528.00	4.16	28.16
"	55 N		"	4.07	28.25
"	35 N		"	3.98	28.34
"	15 N	On Ramp	"	2.24	
"	5 S	"	"	2.50	
"	25 S		"	4.26	28.06

STATION.		+	H.I.	−	ELEV.
7+67.6 CONTD.	45 S		532.32 ✓	4.16	528.16
"	65 S	GRADE =	525.00	3.90	28.42
"	85 S		"	4.02	28.30
"	105 S			4.09	28.23
7+64.6	105 S	GRADE =	526.00	6.19	526.13
"	85 S			5.93	26.39
"	65 S			5.91	26.41
"	45 S			6.26	26.06
"	25 S			6.34	25.98
"	35 N			6.02	26.30
"	55 N			6.17	26.15
"	75 N			6.14	26.18
7+61.6	75 N	GRADE =	524.00	8.10	24.22
"	55 N			8.15	24.17
"	35 N			7.94	24.38
"	25 S			8.16	24.16
"	45 S			8.08	24.24
"	65 S			7.79	24.53
"	85 S			8.09	24.23
"	105 S			8.19	24.13

STATION:		+	H.I.	−	ELEV.
7+58.6	105 S		532.32 ✓	10.21	522.11
"	85 S	GRADE =	522.00	10.00	22.32
"	65 S			9.78	22.54
"	45 S			10.09	22.23
"	25 S			9.90	22.42
"	35 N			9.98	22.34
"	55 N			10.32	22.00
"	75 N			10.08	22.24
7+55.6	75 N	GRADE =	520.00	11.99	20.33
"	55 N			12.18	20.14
"	35 N			12.04	20.28
"	25 S			11.97	20.35
"	45 S			12.10	20.22
"	65 S			11.77	20.55
"	85 S			11.94	20.38
"	105 S			11.92	20.40
T.P.	ROCK, S.E. COR.			-13.03	519.29 ✓
		+1.47	520.76 ✓		

		+	H.I.	−	ELEV.
7+52.6	105 S		520.76 ✓	2.49	518.33
	85 S	GRADE =	518.00	2.14	18.62
	65 S			2.20	18.46
	45 S			2.37	18.39
	25 S			2.28	18.48
	35 N			2.48	18.28
	55 N			2.52	18.24
	75 N			2.26	18.50
7+49.6	75 N	GRADE =	516.00	4.25	16.51
"	55 N			4.28	16.48
"	35 N			4.27	16.49
"	25 S			4.22	16.54
"	45 S			4.18	16.58
"	65 S			4.10	16.66
"	85 S			4.09	16.67
"	105 S			4.45	16.31

		+	H.I.	−	ELEV.
7+46.6	105 S		520.76 ✓	6.23	514.53
	85 S	GRADE =	514.00	6.07	14.69
	65 S			6.01	14.75
	45 S			6.16	14.60
	25 S			6.22	14.54
	35 N			6.21	14.55
	55 N			6.20	14.56
	75 N			6.23	14.53
7+43.6	75 N	GRADE =	512.00	8.29	512.47
	55 N			8.10	12.66
	35 N			8.04	12.72
	25 S			8.09	12.67
	45 S			8.18	12.58
	65 S			8.04	12.72
	85 S			8.15	12.61
	105 S			8.39	12.37
T.P. ROCK, S.E. COR.				-1.47	519.29 ✓
T.P. MON. @ 7+75		+11.47	530.76 ✓	-1.60	529.16 ✓
CHECK B.M. ON DAM.		+9.23	538.39 ✓	-2.01	536.38 = 536.39

B.M. on Dam	+	H.I.	−	536.89
	2.12'	538.51 ✓		
T.B.M. ℄ Axis 7+75 Conc. Mon.			-9.84	529.17 ✓
	+6.10	535.27 ✓		
Mon. at 1+20, S 130			-5.52	529.75 ✓
Mon. at 4+80, S 130			-5.44	529.83

X-Sections - Cont'd.		H.I. 534.46	−	
0+95.4	85 S	GRADE = 526.00	-8.47	25.99
"	105 S	"	-8.38	26.08
Check T.B.M.			-4.71	529.75

X-Sections - Recheck — West End.

T.B.M. Conc. Mon. S 130 Sta 1+20		+4.71	534.46		529.75
Sta.	Offset				
0+89.4	105 S	GRADE =	530.00	-4.34	530.12
"	85 S		"	-4.71	29.75
"	65 S		"	-4.61	29.85
"	45 S		"	-4.69	29.77
"	25 S		"	-4.57	29.89
"	05 S		"	-4.61	29.85
"	15 N		"	-4.64	29.82
"	35 N		"	-4.80	29.66
"	55 N		"	-4.81	29.65
"	75 N		"	-4.72	530.24
0+95.4	75 N	GRADE =	526.00	-8.24	526.22
"	55 N			-8.42	26.04
"	35 N			-8.60	25.86
"	15 N			-8.52	25.94
"	05 S			-8.70	25.76
"	25 S			-8.55	25.91
"	45 S			-8.48	25.98
"	65 S			-8.46	26.00

← Contd.

T.B.M.'s.

CHECK LEVELS IN BOTTOM OF REGULATING RES.

B.M.	+1.02	537.41		536.39 ON DAM.
T.B.M. NW. & RES. PIPE			-8.26	529.15
T.P. GAD	+0.265	525.265	-12.41	525.00
T.P. GAD	+1.20	514.415	-12.05	513.215
W. PORTAL OF INLET BOX. CHECK B.M.	□ IN SILL.		-4.445	509.97 = (PAINTED 510.04)
	+4.33	514.30		
T.P. GAD	+11.21	524.45	-1.08	518.22
T.P. GAD	+18.40	536.47	-0.36	524.07
			-0.14	536.33 ON DAM.
B.M.	+1.10	537.49		536.39 ON DAM. (PAGE 2.)
T.P. "MON. ON	E. RES.		-8.32	529.17 = 529.17
	+1.61	530.78		
T.P. GAD			-10.32	520.46
	+0.50	520.96		
B.M. □ IN	SILL OF INLET BOX		-10.92	510.04 = 510.04
T.B.M. SE COR.	W. OUTLET	STR.	-8.95	512.00
	+2.51	514.51		
T.B.M. N.E. COR.	W. OUTLET	STR.	-2.51	512.00
CHECK B.M.	+2.63	514.63	-4.59	510.04

Nov. 19, 1948
Clear.
Floor.

Leonard, Book
West, R
Rhyne, Rod

7.

Check Sub. Grade Hubs in Reservoir

Location	+	H.I.	−	Elev. of hub
B.M.	+ 4.43	514.47		510.04
Sta 7+37 72N	Ground		-3.81	510.66
" "	Hub	Sub Grade 509.63	-4.85	509.64 +01
" 60.7S	Hub	" .41	-5.06	509.41 OK
7+10 102S	"	" .63	-4.79	509.68 +05 .05 Hi
" 60.7S	"	" .41	-5.09	509.38 -03
" 20S	"	" .63	-4.84	509.63 OK
" 32.5N	"	" .37	-5.09	509.88 +01
" 72N	"	" .63	-4.87	509.60 -02
6+80 72N	"	" .63	-4.86	509.61 -02
" 32.5N	"	" .37	-5.10	509.37 OK
" 20S	"	" .63	-4.86	509.61 -02
" 60.7S	"	" .41	-5.07	509.40 -01
" 102S	"	" .63	-4.86	509.61 -02
6+30 102S	"	" .63	-4.84	509.63 OK
" 60.7S	"	" .41	-5.08	509.39 -02
" 20S	"	" .63	-4.85	509.62 -01
" 06.2N	"	" .50	-4.99	509.48 -02
" 32.5N	"	" .37	-5.12	509.35 -02
" 72N		" .63	-4.89	509.58 .05 Low -05

STATION	+	H.I. 514.47 SUB. GRADE	−	ELEV.	
5+80 72N		509.63	-4.86	509.61	-02
" 32.5N		.87	-5.10	509.37	OK
" 6.25N		.50	-4.98	509.54	+04
" 20 S		.63	-4.85	509.67	-01
" 60.7S		.41	-5.05	509.47	+01
" 102S		.63	-4.86	509.61	-02
5+80 102S		.63	-4.82	509.65	+02
" 60.7S		.41	-5.08	509.39	-02
" 20 S		.63	-4.84	509.63	OK
" 6.25N		.50	-4.99	509.48	-02
" 32.5N	HUB IN DITCH	506.54	-7.39	507.08	INV. GRADE IS 507.14
" 72N		509.63	-4.87	509.60	-03
4+80 72N		.63	-4.85	509.62	-01
32.5N		.87	-5.08	509.39	+02
6.25N		.50	-4.98	509.49	-01
20 S		.63	-4.85	509.62	-01
60.7S		.41	-	BURIED 4'	
102S		.63	-	BURIED	
T.B.M. SE. COR.	NORTH BANK OUTLET STR.		-2.47	512.00	

STATION:	+	H.I.	−	ELEV.	
				N. OUTLET STR.	
T.B.M.	2.57	514.57		512.00	S.E. COR.
		SUB. GRADE.			
4+80 72 N		509.63	-4.99	509.58	-03
" 57.5 N		.37	-5.24	509.33	-04
" 42.5 N		.50	-5.08	509.49	-01
" 20 S		.63	-4.96	509.61	-02
" 60.7 S		.41	-5.12	509.45	+04
" 102 S		.63	-4.96	509.61	-02
3+80 102 S		.63	-4.97	509.60	-03
" 60.7 S		.41	-5.20	509.37	-04
" 20 S		.63	-4.99	509.60	-03
" 42.5 N		.50	-5.09	509.48	-02
" 57.5 N		.37	-5.23	509.34	-03
" 72 N		.63	-4.99	509.58	-05
2+80 72 N		.63	-4.98	509.59	-04
" 57.5 N		.37	-5.21	509.36	-01
" 42.5 N		.50	-5.10	509.47	-03
" 20 S		.63	-4.98	509.59	-04
" 60.7 S		.41	-5.21	509.36	-05
" 102 S		.63	-4.94	509.63	OK

STATION	+	H.I.	−	ELEV.	
		514.57			
		SUB. GRADE			
1+80 102S		509.63	-4.94	509.63	OK
" 60.7S		.41	-5.18	509.39	-02
" 20S		.63	-4.95	509.62	-01
" 6.25N		.50	-5.10	509.47	-03
" 32.5N		.37	-5.22	509.35	-02
" 72N		.63	-4.98	509.59	-04
2+30 72N		.68	-4.97	509.60	-03
" 32.5N		.37	-5.21	509.36	-01
" 6.25N		.50	-5.11	509.46	-04
" 20S		.63	-4.96	509.61	-02
" 60.7S		.41	-5.20	509.37	-04
" 102S		.63	-	HUB LOST (SPLINTERED)	
1+80 102S		.63	-4.94	509.63	OK
" 60.7S		.41	-5.16	509.41	OK
" 20S		* .58	-4.94	509.63	+05
" 6.25N		* .55	-5.13	509.44	-11
" 32.5N		.37	-5.20	509.37	OK
" 72N		.63	-4.97	509.60	-03

* PROPORTIONATE DUE TO ANGLE IN DIVERSION WALL.

	+	H.I.	−	ELEV.	
		514.57			
		SUB. GRADE			
1+60 : 72 N		509.63	-4.96	509.61	-02
" 52.5 N		.37	-5.24	509.33	-04
" 6.25 N		* .60	-5.10	509.47	-13
" 20 S		* .53	-4.95	509.62	+09
" 60.7 S		.41	-5.19	509.58	-03
" 102 S		.63	-4.94	509.63	OK
1+23 102 S		.63		BURIED.	
" 60.7 S		.41	-5.20	509.37	-04
" 20 S		* .55	-4.96	509.61	+08
" 6.25 N		* .58	-5.11	509.46	-12
" 32.5 N				NO HUB OUTLET STR.	
" 72 N		.63		BURIED.	
T.B.M. N.E. COR.	WEST END OUTLET STR.		-2.68	511.99 = 512.00	
	+8.53	520.53			
T.P.	+12.80	531.19	-2.14	518.39	HUB IN DRIVE.
CHECK T.B.M. MON.	& REC. 7.75		-2.02	529.17 = 529.17	

* PROPORTIONATE DUE TO ANGLE IN DIVERSION WALL.

Nov. 18, 1948 LEONARD
CLEAR. WEST
PAYNE.

CHECK GROUND ELEV. IN BOTTOM OF RESERVOIR:

		H.I. 514.45		
B.M.	+4.91		-	510.04
7+37 72N			3.80	510.65 +02
" 32.5N			4.60	509.85 +48
" 20S			4.98	.47 -16
" 60.7S			4.94	.51 +10
102S			4.91	.54 -09
7+10 102S			4.98	.47 -16
" 60.7S			4.93	.52 +11
" 20S			4.85	.60 -03
" 32.5N			5.01	.44 +07
" 72.N			4.60	.85 +22
6+80 72.N			4.73	72 +09
" 32.5N			4.99	.46 +09
" 20.S			4.86	.59 -04
" 60.7S			4.95	50 +09
" 102S			4.67	.78 +15
6+30 102S			4.72	.73 +10
" 60.7S			4.91	.54 +13
" 20.S			4.70	.75 +12
" 6.25			4.98	.47 -03

STATION	OFFSET	+	HI	−	ELEV.
			514.45	-	
6+30	32.5A			5.05	509.40 +03
"	7Z N			4.72	.73 +10
5+80	7Z N			4.74	.71 +08
"	32.5 N			5.17	.28 −09
"	6.25 N			4.87	.58 +08
	20 S			4.84	.61 −02
	60.7 S			4.93	.52 +11
	102 S			4.78	.67 +04
5+30	102 S			4.74	.71 +08
	60.7 S			4.98	.47 +06
	20 S			4.85	.60 −03
	6.25 N			5.00	.45 −05
	32.5 N		506.64	8.21	506.24
	7Z N			4.64	.81 +18
T.B.M. S.E. COR. NORTH	OUTLET STR.			2.45	512.00
		2.24	514.24		
T.B.M. N.E. COR. WEST	OUTLET STR.			2.24	512.00

STATION	OFFSET	+	HI	−	ELEV.
			514.24		
4+80	7Z N			4.58	509.66 +03
"	3Z.5N			4.96	.28 -09
"	6.25N			4.80	.44 -06
"	Z0 S			4.64	.60 -03
"	60.7S			4.93	.31 -10
"	102 S			4.39	.85 +22
4+30	102 S			4.47	.77 +14
"	60.7S			4.65	.59 +18
"	Z0 S			4.73	.41 -22
"	6.25N			4.87	.37 -13
"	3Z.5N			4.86	.38 +01
"	7Z N			4.65	.59 -04
3+80	7Z N			4.61	.63 OK
	3Z.5N			4.92	.32 -05
	6.25 N			4.67	.57 +07
	Z0 S			4.52	.72 +09
	60.7S			4.71	.53 +12
	102 S			4.64	.60 -03

STATION	OFFSET	+	HI	−	ELEV.
			514.24	−	
3+30	102 S			4.51	509.73 +10
"	60.7 S			4.77	469.47 +06
"	20 S			4.65	.59 −04
"	6.25 N			4.74	.50 OK
"	32.5 N			4.88	.36 −01
"	72 N			4.54	.70 +07
2+80	72 N			4.60	.64 +01
"	32.5 N			4.97	.27 −10
"	6.25 N			4.71	.53 +03
"	20 S			4.66	.58 −05
"	60.7 S			4.68	.56 +15
"	102 S			4.45	.79 +16
2+30	102 S			4.48	.76 +13
"	60.7 S			4.74	.50 +09
"	20 S			4.58	.66 +03
"	6.25 N			4.76	.48 −02
"	32.5 N			4.97	.27 −10
"	72 N			4.75	.49 −14

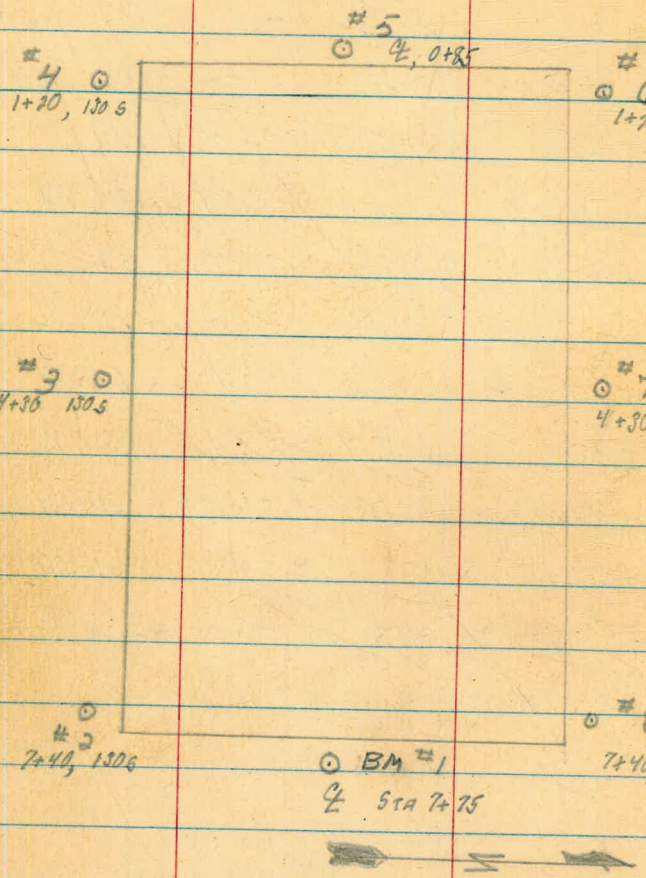
STATION	OFFSET	+	H.I.	−	ELEV.
			514.24	—	
1+80	72 N			4.69	509.55 (-08)
"	32.5 N			4.83	.41 (+04)
"	6.25 N			4.87	.37 (-13)
"	20 S			4.49	.75 (+12)
"	60.7 S			4.80	.44 (+03)
"	102 S			4.61	.63 (OK)
1+50	102 S			4.76	.48 (-15)
"	60.7 S			4.71	.53 (+12)
"	20 S			4.60	.64 (+01)
"	6.25 N			4.72	.52 (+02)
"	32.5 N			4.52	.72 (+35)
"	72 N			4.75	.49 (-14)
1+23	72 N			4.81	.43 (-20)
"	40 N			4.52	.73 (+35)
	6.25 N			4.39	.85 (+48)
	20 S			4.56	.68 (+03)
	60.7 S			4.70	.54 (+13)
	102 S			4.79	.45 (-18)

CHECK ELEV. OF 10" I.D. STEEL DRAIN IN RESERVOIR.

B.M. + 2.36 H.I. 514.36 NORTH OUTLET 512.00 S.E.COR.

LOCATION	CORRECT GRADE	-	ACTUAL GRADE INV. ELEV.
5+05 60.2 S	506.30	-8.04	506.32
" 20 S	505.83	-8.54	505.82
" 32 N. INLET	505.21	-9.09	505.27
" 32.5 N INLET	505.21	-9.17	505.24
" 33 N OUTLET	505.21	-9.17	505.24
5+80 32.5 N	507.14	-7.31	507.05 .09 LOW
CONNECTION TO EXIST LINE	503.3	-11.09	503.27
CHECK T.B.M.		-2.36	512.00

NOTE: .88' ADDED TO SHOTS ON TOP OF PIPE TO SHOW INVERT GRADE.



See page #1 for accurate location of monuments

Elev on monuments at Alvarado Regulating Reservoir.

Nov 26 Windy Cold — West Payne — 18.

Station	+	H.I.	−	Elevation
BM on Dam	0.69	537.08		536.39
TP. BM #1	5.68	534.84	7.92	529.16
BM #2			5.37	529.47
BM #3			5.01	JAN 8S. MON. SETTLED .015 529.83 .815
BM #4			5.09	.76 ADJUSTED 529 ~~.75~~
BM #5			5.21	.64 ADJUSTED 529. ~~63~~
BM #6	USE LEAD PLUG.		5.00	529.84
BM #7	USE LEAD PLUG.		4.91	.92 ADJUSTED 529 ~~.93~~
BM #8	NAIL IN SQUARE		4.95	.90 ADJUSTED 529.~~89~~
check #1			5.68	529.16

NOV. 30, 1948.

NOTE: CONCRETE NAILS DRIVEN INTO B.M.'s ABOVE, EXCEPT #7, AND CEMENT SMOOTHED OFF AROUND NAILS TO MAKE IMPROVED B.M.'s. SEE NEXT PAGE FOR LEVELS OVER B.M.'s AFTER SETTING NAILS.

D. Pennard.

Nov. 30, 1948

LEONARD
WEST
PAYNE

RECHECK B.M.'S ON MON'S AROUND RESERVOIR.

B.M. ON OAM.	+0.910	537.300		536.89
NAIL IN SQUARE. B.M. #9 N.E. COR.			-7.397	ADJ. .904 529.903
	+3.935	533.838		
B.M. #7, LEAD PLUG IN MON. CENTER. NORTH END			-3.922	ADJ. .919 529.916
	+3.794	533.710		
B.M. #6, MON. N.W. COR. ~~2 IN. NAIL IN SQUARE~~ LEAD PLUG IN MON. AT N.W. COR. SAME AS #6.			-3.859	ADJ. .855 529.851
			-3.884	ADJ. .830 529.826
	+5.105	534.931		
B.M. #5, MON. W. ℄ NAIL IN ☐ STA 0+85			-5.293	ADJ. .643 529.638
	5.188	534.826		
B.M. #4, MON S.W. COR. NAIL IN ☐ STA 1+20 130S			-5.071	ADJ. .761 529.755
	+3.945	533.700		
B.M. #3, MON ℄ S. SIDE. NAIL IN ☐ STA. 4+20 130S			-3.882	ADJ. .825 529.818
	+3.788	533.606		
B.M. #2, MON. S.E. COR. NAIL IN ☐ 7+40 130S			-4.144	ADJ. .470 529.462
	+4.363	533.825		
B.M. #1, MON ℄ E. END NAIL IN ☐ 9+75			-4.670	ADJ. .164 529.155
	+11.187	540.342		
CHECK B.M. ON OAM.			-3.961	536.381 = 536.390 RECORD. .009 OFF

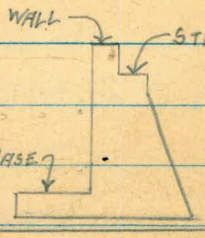
Leonard
West
Payne

Nov. 29, 30, 19. 1948

Fair
Warm

Check forms on north coping wall

Station	+	H.I.	-	Elevation	
BM #6	+3.86	533.71		529.85	
		Grade	Grade rod		
Top of Base		530.00	3.71		
Step Elev		531.84	1.87		
Top of wall		532.26	1.45		
FORM #1.					
STA 1+15.27	Base		-3.77	529.94	.06 LOW
"	Wall		-1.47	532.24	.02 LOW
"	Stys		-1.88	531.83	.01 LOW
1+41.5	Base		-3.85	529.86	.14 LOW
"	Wall		-1.47	532.24	.02 LOW
"	Stys		-1.87	531.84	O.K.
1+67.7	Base		-3.75	529.96	.04 LOW
"	Wall		-1.46	532.25	.01 LOW
"	Stys		-1.87	531.84	O.K.
FORM #2.					
2+20.14	Base		-3.77	529.94	.06 LOW
"	Wall		-1.47	532.24	.02 LOW
"	Stys		-1.87	531.84	O.K.



CHECK FORMS - NORTH COPING WALL - CONT'D

	H.d. 533.71 −	Elev.	
Sta 2+46.4 Base	-3.72	529.99	.01 Low
" Wall	-1.48	532.23	.03 Low
" Stys	-1.87	531.84	O.K.
2+72.59 Base	-3.72	529.99	.01 Low
" Wall	-1.47	532.24	.02 Low
" Stys	-1.	531.84	O.K.
FORM #3.			
3+25.05 Base	-3.72	529.99	.01 Low
" Wall	-1.45	532.26	O.K.
" Stys	-1.86	531.85	.01 Hi.
3+51.3 Base	-3.78	529.93	.07 Low
" Wall	-1.46	532.25	.01 Low
" Stys	-1.87	531.84	O.K.
3+77.52 Base	-3.75	529.98	.02 Low
" Wall	-1.46	532.25	.01 Low
" Stys	-1.86	531.85	.01 Hi.

	H.d. 533.71 −	Elev.	
FORM #4.			
4+29.97 Base	-3.68	530.03	.03 Hi.
" Wall	-1.47	532.24	.02 Low
" Stys	-1.88	531.83	.01 Low
4+56.2 Base	-3.76	529.95	.05 Low
" Wall	-1.45	532.26	O.K.
" Stys	-1.86	531.86	.02 Hi.
4+82.46 Base	-3.72	529.99	.01 Low
" Wall	-1.47	532.24	.02 Low
" Stys	-1.87	531.84	O.K.
CHECK B.M. # 6.	-3.86	529.85	Conc. Mon. N.W. Cor.

Nov. 30, 1948 LEONARD WEST PAYNE.

CHECK FORMS FOR FOOTINGS, NORTH BANK

B.M. OUTLET, W. END N.E. CORNER	+7.30	519.30		512.00
STA 1+15.24 N86.67	#1.	GRADE: 518.91	-0.39	ACTUAL ELEV. 518.91
" 1+41.47 "	2.	518.41	-0.89	518.41
" 1+67.70 "	3.	"	-0.90	518.40
" 1+93.93 "	4.	"	-0.89	518.41
" 2+20.16 "	5.	"	-0.90	518.40
" 2+46.39 "	6.	"	-0.89	518.41
" 2+72.62 "	7.	"	-0.89	518.41
" 2+98.85 "	8.	"	-0.89	518.41
CHECK B.M.			-7.30	512.00

NOTE: A 13½" SQUARE BLOCK, 1" THICK, WILL BE SET IN THE CENTER OF EACH FOOTING FORM AS THE CONCRETE IS POURED, TO FORM THE 1" DEEP RECESS FOR THE END OF EACH PILLER. THIS 1" RECESS BELOW TOP OF FORM AS GIVEN ABOVE WILL MAKE THE CORRECT GRADE WITHIN .01' ON EACH FORM.

Dec. 7, 1948 LEONARD, WEST, PAYNE. 21.

CHECK SUB-GRADE AFTER BLADING. NORTH HALF.

B.M.	+7.38	514.88		512.00 W. OUTLET.
STATION OFFSET		GRADE		ACTUAL ELEV
1+28 55.75N		509.50	-4.85	509.50
" 72N		509.61	-4.95	509.88 Ground
" 06.2 N		509.63	-4.73	509.60
" 72 N		509.61	-4.82	509.61 Set Hub.
" 75 N		509.38	-4.85	509.43 .15 Hi
1+50 6.25N		509.60	4.71	509.62 Hub
" 32.5N		509.87	-4.98	509.95 Hub
" 53.7 N		509.50	-4.82	509.51 Hub
" 72.0N		509.61	-4.51 -4.72	509.52 GROUND 509.61 Set Hub
" 76.0 N		509.33	-4.87	509.46 13 Hi
1+80 6.25N		509.50	-4.91	509.52 Hub
" 32.5N		509.87	-4.95	509.88 Hub
" 53.7N		509.50	-4.83 -4.80	509.50 ~~509.53~~ Hub
" 72.0N		509.61	-4.78	509.60 Hub
" 76.0 N		509.33	-4.79	509.54 .21 Hi
B.M. W. END CHECK H.I.			-2.82	LEVEL SETTLED .01 512.01 = 512.00

CHECK SUB GRADE - NORTH SIDE, CONT'D.

STATION:	OFFSET:	GRADE:	−	ELEV.
H.I.		514.32		
2+30	6.25 N.	509.50	4.85	509.47 HUB
"	32.5 N.	" .37	4.95	" .37 HUB
"	53.7 N	" .50	-4.81	" .51 HUB
"	72.0 N	" .61	-4.72	" .60 HUB
"	75.0 N	" .33	-4.66	" .67 GRD.
2+80	6.75 N	" .50	-4.82	" .50 HUB
"	32.5 N	" .37	-4.95	" .37 HUB
"	53.7 N	" .50	-4.82	" .50 HUB
"	72.0 N	" .61	-4.72	" .60 HUB
"	75.0 N	" .33	-4.42	" .90 GRD.
3+30	6.25 N	" .50	-4.33	" .49 HUB
"	32.5 N	" .37	-4.94	" .35 HUB
"	54 N ~~53.7~~ N	" .50	-4.83	" .49 HUB
"	72.0 N	" .61	-4.72	" .60 HUB
"	75.0 N	" .33	-4.75	" .57 GRD.
3+80	6.25 N	" .50	-4.82	" .50 HUB
"	32.5 N	" .37	-4.96	" .36 HUB
"	53.7 N	" .50	-4.82 -4.82	" .50 .50 HUB

STATION:	OFFSET:	GRADE:	−	ELEV.
H.I.		514.32		
3+80	72.0 N	509.61	-4.73	509.59 HUB
"	76.0 N	" .33	-4.55	.44 HI " .77 GROUND
4+30	6.25 N	" .50	-4.82	" .50 SET HUB
"	32.5 N	" .37	-4.96	" .36 HUB
"	53.7 N	" .50	-4.81	" .51 HUB
"	72.0 N	" .61	-4.73	" .59 HUB
"	76.0 N	" .38	-4.68	.31 HI " .64 GROUND
4+90	6.25 N	" .50	-4.82	" .50 HUB
"	32.5 N	" .37	-4.95 -4.82	.37 " .37 HUB
"	53.7 N	" .50	-4.82 -4.73	.50 " .54 HUB
"	72.0 N	" .61	-4.71 -4.64	.61 " .67 HUB
"	75.0 N	" .33	-4.29	.80 HI 510.13 GROUND
5+30	6.25 N	" .50	-4.82	509.50 HUB
		507.14	-7.25	507.07 PIPE INVERT
"	32.5 N	508.44	-5.88	508.44 TOP SUMP
"	53.7 N	509.50	-4.82	509.50 HUB
"	72.0 N	" .61	-4.71	" .61 HUB
"	75.0 N	" .33	-4.29	.80 HI 510.13 GROUND
NORTH OUTLET STR. CHECK B.M.			-2.31	512.01 = 512.00

CHECK SUB-GRADE, NORTH SIDE, CONT'D,

STATION		GRADE H.d.	-	ELEV.
B.M.	+2.11	514.11		512.00 N. OUTLET.
5+80	6.25 N	509.50	4.61 50 9.50 -4.57 -4.61	509.54 SET HUB
"	32.5 N	" .37	-4.74	" .30 GROUND " .37 HUB SET
"	58.7 N	" .50	-4.61	" .50 "
"	72.0 N	" .61	-4.51	" .60 "
"	75.0 N	" .33	-4.60	" .51 GROUND
6+30	6.25 N	" .50	-4.63	" .48 HUB .07 LOW
"	32.5 N	" .37	-4.81	" .30 HUB
"	58.7 N	" .50	-4.61	" .50 HUB
"	72.0 N	" .61	-4.52	" .59 HUB
"	75.0 N	" .33	4.88	" .45 GROUND
6+80	6.25 N	" .50	-	" RAMP
	32.5 N	" .37		" BURIED-ROCKS ?
	58.7 N	" .50	4.67 4.62	" .44 GROUND " .49 HUB
	72.0 N	" .61	4.52	" .59 HUB
	75.0 N	" .33	4.73	" .38 GROUND
7+10	6.25 N	" .50		" RAMP
"	32.5 N	" .37		" BURIED
"	58.7 N	" .50	-4.60	" .51 HUB

	GRADE	-	ELEV.
H.I.	514.11		
7+10 77 N	509.61	4.51	509.60 HUB
" 76 N	" .33	4.29	" .82
7+37 NOT READY FOR CHECKING.			
CHECK B.M. INLET STR.		-4.08	510.03 = 510.04 REC.
5+05. 32.5 N SUMP INLET	507.56	-6.58	507.58 .03 LOW
5+05 32.5 N PIPE INVERT	505.21	-8.90	505.21
5+05 60.75 SUMP INLET	507.60	-6.51	507.60
5+05 60.75 PIPE INVERT	506.30	-7.80	506.31 .01 Hi
5+30 32.5 N SUMP INLET	508.44	-5.67	508.44
5+30 32.5 N PIPE INVERT	507.14	-7.04	507.07 .07 LOW

DEC. 8, 1948

LEONARD
WEST
PAYNE

CHECK COPING WALL FORMS, N. SIDE.

		H.I.		
B.M.	+5.07	534.90		529.83 MON #6, N.W. CUR. LEAD PLUG IN
STA 1+68	BASE	530.00	-4.98	29.92 08' LOW
"	WALL	532.76	-2.65	32.25
"	STEP	531.84	-3.06	31.84
1+94	BASE		-5.06	29.84 16' LOW
"	WALL		-2.64	32.26
"	STEP		-3.05	31.85
2+20	BASE		-4.98	29.92
"	WALL		-2.65	32.25
"	STEP		-3.05	31.85
2+75	BASE		-4.92	29.98
"	WALL		-2.66	32.24
"	STEP		-3.05	31.85
2+99	BASE		-5.05	29.85 .15' LOW
"	WALL		-2.65	32.25
"	STEP		-3.06	31.84
3+25	BASE		-4.91	29.99
"	WALL		-2.64	32.26
"	STEP		-3.06	31.84

534.90

3+78	BASE	530.00	-4.91	29.99
"	WALL	532.76	-2.65	32.25
"	STEP	531.84	-3.05	31.85
4+04	BASE		-4.94	29.96
"	WALL		-2.65	32.25
"	STEP		-3.06	31.84
4+29	BASE		-4.80	30.10
"	WALL		-2.65	32.25
"	STEP		-3.06	31.84
5+34.87	BASE		-4.89	30.01
"	WALL		-2.63	32.27
"	STEP		-3.05	31.85
5+61.10	BASE		-4.94	29.96
"	WALL		-2.64	32.26
"	STEP		-3.04	31.86
5+87.33	BASE		-4.90	30.00
"	WALL		-2.63	32.27
"	STEP		-3.05	31.85
CHECK B.M.			-4.98	LEAD, CONC. MON 4+30, N. 529.92 = 529.94

CHECK BUTTRESS BLOCK FORMS - W. END

B.M. +5.16	534.99		529.83 LEAD IN MON. 06	
	GRADE:		FORM ELEV.	
0+89 86.66 N	532.46	-2.58	32.97	
" "	531.00	-3.98	31.01	
" 67.33 N	532.55	-2.48	32.56	
" "	531.00	-3.97	31.02	
" 48.00 N	532.65	-2.34	32.65	
" "	531.00	-3.98	31.01	
" 28.66 N	532.75	-2.24	32.75	
" "	531.00	-3.99	31.00	
" 9.33 N	532.84	-2.14	32.85	
" "	531.00	-3.98	31.01	
" 10.0 S	532.94	-2.06	32.95	
" "	531.00	-3.99	31.00	
			MON 05.	
CHECK B.M.		-5.35	529.64 = 529.64	

CHECK FOOTING FORMS, N. BANK

B.M. +7.82	519.97		512.00 N. OUTLET STR.	
			GRADE:	
3+25.08 86.67N			518.41	-1.57 518.40 .01 LOW
3+51.31 "		#10. "		-1.51 518.41
3+77.54 "		11. "		-1.57 518.40 .01 LOW
4+03.77 "		12. "		-1.58 518.39 .02 LOW
4+30.00 "		13. "		-1.51 518.41
4+56.23 "		14. "		-1.51 518.41
4+82.46 "		15. "		-1.53 518.39 .02 LOW
5+08.69 "		16. "		-1.54 518.38 .03 LOW
		H.2.		DEC. 15.
CHECK B.M. +8.50	520.50			-7.92 512.00
			GRADE:	
5+34.92 86.67N			518.41	-2.09 518.41
5+61.15 "				-2.10 518.40 .01' LOW
5+87.38 "				-2.09 518.41
6+13.61 "				-2.09 518.41
6+39.84 "				-2.09 518.41
6+66.07 "				-2.09 518.41
6+92.30 "				-2.09 518.41
7+18.53 "				-2.10 518.40 .01' LOW
7+44.76 "			518.91	-1.60 518.90 .01' LOW
CHECK B.M., INLET STR.				-10.46 510.04 O.K.

Dec. 15, 1945 — Leonard West Payne.

CHECK CORING WALL FORMS, N. BANK.

		H.d.		
B.M. Mon. #8.	9.97	538.87		529.90
		GRADE:		
4+83.46 BASE		530.00	-8.88	529.99
" WALL		532.26	-1.61	532.26
" STEP		531.84	-2.02	531.85 .01 Hi.
5+08.69 BASE			-3.92	529.95
" WALL			-1.60	532.27
" STEP			-2.03	531.84 O.K.
5+34.92 BASE			-3.87	530.00
" WALL			-1.59	532.28
" STEP			-2.01	531.86 .02 Hi
6+89.84 BASE			-3.86	530.01
" WALL			-1.59	532.28
" STEP			-2.01	531.86 .02 Hi
6+66.07 BASE			-3.85	530.02
" WALL			-1.59	532.28
" STEP			-2.02	531.85 .01 Hi
6+92.30 BASE			-3.91	529.96
" WALL			-1.61	532.26
" STEP			-2.02	531.85 .01 Hi
CHECK B.M. #1			-4.72	529.15 = 529.16 Rec.

Dec. 16, 1948 — Leonard West Payne — 26.

CHECK FOOTING FORMS IN FLOOR OF RESERVOIR

				OUTLET STR.
B.M. +2.33		514.33		512.00 W. END
STATION:	OFFSET:	GRADE:		
1+41.47	N 48.00	510.60	-3.74	510.59
"	N 67.33	510.50	-3.84	" .49
1+67.70	N 48.00	.60	-3.73	" .60
"	N 67.33	.50	-3.85	" .48
1+93.93	N 48.00	.60	-3.74	" .59
"	N 67.33	.50	-3.84	" .49
2+20.16	N 48.	.60	-3.73	" .60
"	N 67.33	.50	-3.84	" .49
2+46.39	N 48.00	.60	-3.73	" .60
"	N 67.33	.50	-3.84	" .49
2+72.62	N 48.00	.60	-3.73	" .60
"	N 67.30	.50	-3.83	" .50
2+98.85	N 48.00	.60	-3.72	" .61
"	N 67.30	.50	-3.82	" .51
3+25.08	N 48.00	.60	-3.72	" .61
"	N 67.30	.50	-3.83	" .50

CONT'D NEXT PAGE:
NOTE .05' ADDED FOR 1" FILLER.

	514.33		
Station: Offset:			
3+51.31 N48.00	510.60	-3.72	510.61
" N67.33	" .50	-3.83	" .50
3+77.54 N48.00	" .60	-3.73	" .60
" N67.33	" .50	-3.83	" .60
4+03.77 N48.00	" .60	-3.73	" .60
" N67.33	" .50	-3.83	" .50
4+30.00 N48.00	" .60	-3.73	" .60
" N67.33	" .50	-3.83	" .60
4+56.23 N48.00	" .60	-3.73	" .60
" N67.33	" .50	-3.82	" .51
4+82.46 N48.00	" .60	-3.73	" .60
" N67.33	" .50	-3.84	" .49
5+08.69 N48.00	" .60	-3.72	" .61
Check B.M.		-2.33	512.00
+5.53	515.53		529.90
		-2.95	532.48

Check Coping Wall Forms. North Side.

B.M.	+5.51	515.53		529.92 Mon. #7
5+82.38	Base	530	-5.42	530.01
"	Wall	532.76	-3.16	532.27
"	Step	531.84	-3.56	531.87 .03 H.
613.61	Base		-5.62	529.81
"	Wall		-3.17	532.26
"	Step		-3.58	531.85 .01 H.
659.84	Base		-5.39	530.04
"	Wall		-3.15	532.28
"	Step		-3.59	531.84 .02 H.
6+92.30	Base		-5.47	529.96
"	Wall		-3.17	532.26
"	Step		-3.56	531.87 .03 H.
7+18.53	Base		-5.50	529.93
"	Wall		-3.17	532.26
"	Step		-3.56	531.87 .03 H.
7+44.76			-5.42	530.01
"			-3.17	532.26
"			-3.58	531.85 .01 H.
Check B.M. #1.			-6.27	529.16 = 529.16

CHECK COPING WALL FORMS - SOUTH SIDE.

		H.d.		
B.M. 74	5.41	535.17	529.76	
1+15.27 BASE	550.	-5.21	529.96	
" WALL	532.26	-2.90	532.27	
" STEP	531.84	-3.38	531.86	.01 HI
1+41.50 BASE		-5.28	529.94	
" WALL		-2.90	532.27	
" STEP		-3.32	531.85	.01 HI
1+67.28 BASE		-5.19	529.98	
" WALL		-2.91	532.26	
" STEP		-3.37	531.85	.01 HI
1+93.19 BASE		-5.19	529.98	
" WALL		-2.91	532.26	
" STEP		-3.33	531.84	O.K.
2+18.42 BASE		-5.23	529.94	
" WALL		-2.92	532.25	
" STEP		-3.33	531.84	O.K.
2+72.65 BASE		-5.15	530.02	
" WALL		-2.91	532.26	
" STEP		-3.32	531.85	.01 HI
CHECK B.M. & S.		-5.36	529.92	= 529.93

CHECK FOOTING FORMS - WEST END

	H.d.			
B.M. +2.69	514.69		512.00	OUTLET STR. WEST END
	GRADE (FORMS)			
STA 1+15.24 N38.67	513.95	-0.75	513.94	.01 LOW
" N09.33	514.04	-0.66	514.03	.01 LOW
" S10.00	514.14	-0.56	514.13	.01 LOW
" S29.33	514.04	-0.65	514.04	
" S48.67	513.95	-0.74	513.95	
" S68.00	513.85	-0.84	513.85	
" S87.33	513.75	-0.94	513.75	
	ACTUAL GRADE			CHECK AS
" S106.67	514.58	-0.15	514.54	.04 LOW COMPLETED
" N48.06	513.77	-0.93	513.76	.01 LOW "
" N67.33	513.67	-1.03	513.66	.01 LOW "
CHECK B.M.		-2.69	512.00	

CHECK FOOTINGS AS COMPLETED ALONG SOUTH SIDE:

STA 1+41.47 S106.67	511.83	-2.88	511.81	.02 LOW
1+67.70	"	-2.86	511.83	
1+93.93	"	-2.87	511.82	.01 LOW
2+20.16	"	-2.86	511.83	
2+46.39	"	-2.86	511.83	
2+72.62	"	-2.86	511.83	

FOOTINGS, S. SIDE, CONTD.

		H.I. 514.69 GRADE 511.83		
STA 2+98.85	S106.67		-2.87	511.82 .01 LOW
3+25.08	"	"	-2.87	511.82 .01 LOW
3+51.31	"	"	-2.86	511.83
T.P.	+3.81	H.I. 514.50	-4.00	510.69 ON FOOTING
3+77.54	"	511.83	-2.70	511.80 .03 LOW
4+03.77	"	"	-2.69	511.81 .02 LOW
4+30	"	"	-2.69	511.81 .02 LOW
4+56.23	"	"	-2.69	511.81 .02 LOW
4+82.46	"	"	-2.69	511.81 .02 LOW
5+08.69	"	"	-2.69	511.81 .02 LOW
CHECK FORMS FOR FOOTINGS - S. SIDE				
5+34.92	S106.67	511.91	-2.61	511.89 .02 LOW
5+61.15	"	"	-2.61	511.89 .02 LOW
5+87.38	"	"	-2.62	511.88 .03 LOW
6+13.61	"	"	-2.61	511.89 .02 LOW
6+39.84	"	"	-2.60	511.90 .01 LOW
6+66.07	"	"	-2.61	511.89 .02 LOW
6+92.30	"	"	-2.62	511.88 .03 LOW
7+18.53	"	"	-2.60	511.90 .01 LOW
CHECK B.M. INLET STR.			-4.46	510 .04 = 510.04

JAN. 5, 1949 LEONARD WEST PAYNE 29.

SUB CHECK GRADE OF FLOOR BEFORE POURING, N. SIDE TO 4+30

	GRADE: H.I.	G. ROD	REMARKS.
B.M. +2.23	514.25		512.00 W. OUTLET. AT STA 4+30
N 75.0 TOP OF FORMS	510.00	4.25	VARIES .01 TO .08' HIGH NORTH SIDE O.K. TO 4+30
N 74' TO 75' GROUND	509.99	4.90	HIGH ALONG W. END
N 72.0' "	509.65	4.58	NARROW STRIP 15' LONG STA 3+83 TO 3+98 .04 HIGH
N 67.33' "	509.67	4.61	O.K. WITHIN .02 ALL OVER
N 58.0' "	509.56	4.67	O.K. WITHIN .02
N 48.0' "	509.50	4.73	O.K. WITHIN .02
N 68.08 TOP FORMS	509.96	4.27	VARIES TO .02' ±
N 66.58 " "	509.95	4.28	VARIES TO .02' ±
N 48.75 " "	509.84	4.39	VARIES TO .02' ±
N 48.0' " "	509.83	4.40	FORMS NOT SET YET.
CHECK B.M.		-2.23	512.00

RECHECK BUTTRESS FORMS; W. END JAN 18 '49 LEONARD, WEST, PAYNE.

B.M. MON. # 5	+5.29	534.93	529.64
S 29.33	532.84	-2.09	532.84
S 48.67	532.75	-2.18	532.75
S 68.00	532.65	-2.28	532.65
S 87.33	532.55	-2.38	532.55
S 106.67	532.46	-2.47	532.46
CHECK B.M. #4		-5.17	529.76 = 529.76

JAN. 5, 1949

LEONARD
WEST
PAYNE

CHECK GIRDER ELEV. N. SIDE. N 86.66

		H.I.	
B.M. +5.14	534.97		529.83 B.M. #3.
	GRADE		
STA 0+89 W. END BUTTRESS.	532.46	-2.50	532.47
1+15.24 COLUMN	"	-2.50	" .47
1+41.47 "	"	-2.48	" .49
1+67.70 "	"	-2.51	" .46
1+93.93 "	"	-2.50	" .47
2+20.16 "	"	-2.50	" .47
2+46.39 "	"	-2.50	" .47
2+72.62 "	"	-2.51	" .46
2+98.85 "	"	-2.51	" .46
3+25.08 "	"	-2.51	" .46
3+51.31 "	"	-2.50	" .47
3+77.54 "	"	-2.52	" .45
4+03.77 "	"	-2.52	" .45
4+30 "	"	-2.50	" .47
4+56.23 "	"	-2.50	" .47
4+82.46 "	"	-2.52	" .45
5+08.69 "	"	-2.51	" .46
5+34.92 "	"	-2.50	" .47

CHECK GIRDER ELEV. - CONT'D.

	H.I. 534.97		
	GRADE		
STA. 5+61.15	532.46	-2.51	532.46
5+87.38 COLUMN		-2.51	" .46
6+13.61 "		-2.51	" .46
6+39.84 "		-2.50	" .47
6+66.07 "		-2.51	" .46
6+92.30 "		-2.50	" .47
7+18.53 "		-2.52	" .45
7+44.76 "		-2.51	" .46
7+71 BUTTRESS. E. END		-2.48	" .49 .03 HIGH
CHECK B.M. #2.		-5.50	529.47

CHECK BUTTRES FORMS: WEST END.

	H.I. 534.97		
	GRADE		FORM ELEV.
S 29.33	532.84	-2.13	532.84
S 48.67	532.75	-2.22	532.75
S 68.00	532.65	-2.32	532.65
S 87.33	532.55	-2.42	532.55
S 106.67	532.46	-2.51	532.46

JAN 5, 1949

LEONARD WEST PAYNE.

CHECK COPING WALL FORMS: S. SIDE:

		H.d.		FORM ELEV.	
B.M. #3	+5.14	534.97		529.83	
Sta. 1+67.70	BASE	GRADE: 530.00	5.00	529.97	.03 LOW
"	WALL	532.26	2.70	532.27	
"	STEP	531.84	-3.17	531.85	
1+93.93	BASE		5.09	529.88	
"	WALL		-2.70	532.27	
"	STEP		-3.13	531.84	
2+20.16	BASE		-5.00	529.97	
"	WALL		-2.70	532.27	
"	STEP		-3.17	531.85	
2+25.08	BASE		-4.98	529.99	
"	WALL		-2.71	532.26	
"	STEP		-3.17	531.85	
3+51.31	BASE		-4.95	530.04	
"	WALL		-2.70	532.27	
"	STEP		-3.18	531.85	
3+77.54	BASE		-4.98	529.99	
"	WALL		-2.71	532.26	
"	STEP		-3.12	531.85	

H.d. 534.97

4+30	BASE	-4.98	529.99	
"	WALL	-2.71	532.26	
"	STEP	-3.12	531.85	
4+56.28	BASE	-5.00	529.97	
"	WALL	-2.70	532.27	
"	STEP	-3.12	531.85	
4+82.46	BASE	-4.99	529.98	
"	WALL	-2.71	532.26	
"	STEP	-3.12	531.85	
5+34.92	BASE	-4.97	530.00	
"	WALL	-2.70	532.27	
"	STEP	-3.11	531.86	
5+61.15	BASE	-5.05	529.92	
"	WALL	-2.69	532.28	
"	STEP	-3.11	531.86	
5+87.38	BASE	-5.00	529.97	
"	WALL	-2.72	532.25	
"	STEP	-3.12	531.85	
CHECK B.M. #2.		-5.50	529.47	

CHECK COPING WALL FORMS: S. SIDE

B.M. # 8	+5.30	535.13		529.83
2+76.62	Base	580.00	5.15	529.98
"	Wall	582.26	-2.85	532.28
"	Steps	581.84	-3.27	531.86
2+98.85	Base	30.00	-5.28	529.85
"	Wall	32.26	-2.87	532.26
"	Steps	31.84	-3.27	531.86
3+26.08	Base	30.00	-5.10	530.08
"	Wall	32.26	-2.85	532.28
"	Steps	31.84	-3.27	531.86
3+77.54	Base	30.00	-5.13	530.00
"	Wall	32.26	-2.86	532.27
"	Steps	31.84	-3.27	531.86
4+03.77	Base	30.00	5.70	529.93
"	Wall	32.26	2.86	532.27
"	Steps	31.84	-3.27	531.86
4+30	Base	30.00	5.10	530.08
"	Wall	32.26	2.86	532.27
"	Steps	31.84	3.27	531.86
CHECK B.M. # 4			-5.87	529.76

CHECK SUB-GRADE & FORMS IN FLOOR, N. SIDE, 4+30 TO 7+40

B.M. +2.47	514.47		512.00 N. OUTLET
POSITION	GRADE.	G. ROD.	REMARKS
N 76.0 TOP OF FORM	510.00	4.47	O.K. WITHIN ±.01
N 74 TO 76 GROUND	509.83	5.14	O.K. EXCEPT BETWEEN 6+40 TO 6+92 .1' HIGH
N 72 "	509.65	4.82	O.K. ALL PLACES.
N 67.33 "	509.62	4.85	" " "
N 58.0 "	509.56	4.91	" " "
N 48.0 "	509.50	4.97	" " "
* N 68.08 TOP FORM	509.96	4.51	O.K. WITHIN ±.01'
N 66.58 " "	509.96	4.52	" " "
N 48.76 " "	509.84	4.63	" " "
* N 48.00 " "	509.83	4.64	" " "
CHECK B.M.		-2.47	512.00

NOTE: SECTION BETWEEN 5+35 AND 5+61 NOT CHECKED DUE TO BEING POURED BEFORE SURVEY PARTY ARRIVED.

CHECK FOOTING FORMS, 387.55

B.M. +2.29	514.29		512.00 W. OUTLET	5+61.15	510.50	-3.97	510.60
1+41.47	510.50	-3.78	510.51	5+87.58	"	-3.97	510.50
1+67.70	"	-3.79	510.50	6+13.61	"	-3.97	510.50
1+93.93	"	-3.78	510.51	6+39.84	"	-3.97	510.50
2+20.16	"	-3.78	510.51	6+66.07	"	-3.98	510.49
2+46.39	"	-3.77	510.51	6+92.30	"	-3.98	510.49
2+72.62	"	-3.78	510.51	7+18.53	"	-3.98	510.49
2+98.85	"	-3.78	510.51	CHECK B.M. INLET STR.		-4.44	510.03 = 510.04
3+25.08	"	-3.77	510.51	CHECK B.M. N. OUTLET		-2.47	512.00
3+51.31	"	-3.78	510.51				
3+77.54	"	-3.78	510.51				
4+03.77	"	-3.78	510.51				
4+30.	"	-3.79	510.51				
T.P. - B.M. N. OUTLET		-2.30	511.99 = 512.00				
+2.47	514.47						
4+56.23	510.50	-3.97	510.50				
4+82.46	"	-3.97	510.50				
5+08.69	"	-3.97	510.50				
5+34.92	"	-3.97	510.50				

514.47

JAN. 19, 1949 LEONARD WEST PAYNE.

CHECK FOOTING FORMS S 68.0

B.M. +2.30	514.80		512.00 W. OUTLET
	GRADE		
STA 1+41.47	510.60	-3.70	510.60
1+67.70	"	-3.70	510.60
1+95.93	"	-3.69	510.61
2+20.16	"	-3.69	510.61
2+46.39	"	-3.70	510.60
2+72.62	"	-3.70	510.60
2+98.85	"	-3.70	510.60
3+25.08	"	-3.69	510.61
3+51.31	"	-3.69	510.61
3+77.54	"	-3.70	510.60
4+03.77	"	-3.70	510.60
4+30	"	-3.69	510.61
			4+30
T.P.		-4.74	509.56 BOLT HEAD
	H.I.		
+4.86	514.42		
4+56.28	510.60	-3.81	510.61
4+82.46	"	-3.83	510.59
5+08.69	"	-3.82	510.60
5+32.92	"	-3.82	510.60

	514.42		
5+61.15		-3.82	510.60
5+87.38		-3.82	510.60
6+13.61		-3.82	510.60
6+39.84		-3.82	510.60
6+66.07		-3.82	510.60
6+92.30		-3.83	510.59
7+18.53		-3.82	510.60
CHECK B.M.		-2.42	512.00 N. OUTLET INLET STR.
" "		-4.385	510.035 = 510.04

JAN 28 '49 LEONARD WEST.

CHECK FLOOR FORMS S 87.33 TO S 105.00

			SILL OF
B.M. +4.49	514.47		510.04 INLET.
	GRADE	G. ROD	NO LOW SPOTS.
S 105.	510.00	-4.47	O.K. WITHIN +.01'
			NO LOW SPOTS +
S 87.33	509.91	-4.56	O.K. WITHIN +.02'
	H.I.		
T.P. +2.17	514.17	-2.47	512.00 N. OUTLET
			NO LOW SPOTS 1 SPOT.
S 105		-4.17	O.K. EXCEPT .03 HI. CHANGED TO
			NO LOW SPOTS.
S 87.33		-4.86	O.K. WITHIN +.02'
CHECK B.M.		-2.17	512.00 W. OUTLET

JAN 25, 1949 — LEONARD WEST PAYNE

CHECK COPING WALL — FORMS, S. SIDE.

		H.I.		
B.M. #1.	+5.96	534.92		529.16
		GRADE		
5+87.88	BASE	530.10	-4.90	530.02 .02 HI
"	WALL	532.76	-2.66	532.26 O.K.
"	STEP	531.84	-3.07	531.85 .01 HI
6+13.61	BASE		-4.91	530.01 .01 HI
"	WALL		-2.65	532.27 .01 HI
"	STEP		-3.06	531.86 .02 HI
6+39.84	BASE		-4.88	530.04 .04 HI
"	WALL		-2.66	532.26 O.K.
"	STEP		-3.06	531.86 .02 HI
6+92.30	BASE		-4.96	529.96 .04 LOW
"	WALL		-2.65	532.27 .01 HI
"	STEP		-3.06	531.86 .02 HI
7+18.53	BASE		-4.97	529.95 .05 LOW
"	WALL		-2.66	532.26 O.K.
"	STEP		-3.06	531.86 .02 HI
7+44.76	BASE		-4.91	530.01 .01 HI
"	WALL		-2.66	532.26 O.K.
"	STEP		-3.06	531.86 .02 HI
CHECK B.M. #8			-5.02	529.90.

FEB 11, 1949 — LEONARD WEST PAYNE — 35.

CHECK INVERT ELEV. OF GUTTERS:

	H.I.		
B.M. + 2.38	514.38		512.00 N. OUTLET.
N 32.R5	GRADE:		
STA: 5+05	507.81	-6.57	507.80
" 4+88	507.92	-6.47	507.91
" 4+69	507.99	-6.41	507.97
" 4+55	508.06	-6.34	508.04
" 4+43	508.12	-6.27	508.11
" 4+30	508.18	-6.20	508.18
" 4+00	508.31	-6.06	508.32
" 3+78	508.42	-5.94	508.44
" 3+63	508.50	-5.86	508.52
" 3+51	508.56	-5.81	508.57
" 3+38	508.62	-5.75	508.63
" 3+25	508.69	-5.69	508.69
" 3+00	508.84	-5.54	508.84
" 2+73	508.97	-5.41	508.97
" 2+59	509.04	-5.35	509.03
" 2+46	509.11	-5.26	509.12
" 2+33	509.17	-5.22	509.16
" 2+20	509.24	-5.15	509.23

CHECK GUTTER - CONT'D.

H.I.	514.38			
N 32.25.	GRADE			
2+00	509.54	-5.06	509.32	.02 LOW
1+68	509.50	-4.97	509.41	.09 LOW
CHECK B.M.		-2.38	512.00	
+2.30	H.I. 514.30			
5+14	GRADE 509.26	-5.09	509.21	.05 LOW
6+21	509.47	-4.90	509.40	.07 LOW
5+30	508.69	-5.62	508.68	.01 LOW
5+35	508.71	-5.61	508.69	.02 LOW
5+49	508.79	-5.55	508.75	.04 LOW
5+61	508.85	-5.47	508.83	.02 LOW
5+75	508.91	-5.41	508.89	.02 LOW
5+87.4	508.98	-5.32	508.98	
6+00	509.04	-5.25	509.05	.01 HI
6+40	509.24	-5.09	509.21	.03 LOW
6+58	509.33	-5.04	509.26	.07 LOW
6+66	509.37	-4.94	509.36	.01 LOW
6+80	509.44	-4.88	509.42	.02 LOW
6+92	509.50	-4.80	509.50	
CHECK B.M.		-2.30	512.00	

CHECK ELEV. ON FOOTINGS AT S 48.67

B.M. +2.86	514.86		512.00 W. OUTLET
	GRADE		
STA: 1+41.47	510.70	-3.66	510.70
1+67.70	"	-3.66	" .70
1+93.93	"	-3.66 -3.64	.70 " .72
2+20.16	"	-3.66	" .70
2+46.39	"	-3.66	" .70
2+72.62	"	-3.65	" .71
2+98.85	"	-3.66	" .76
3+26.08	"	-3.65	" .71
3+51.30	"	-3.66	" .70
3+77.54	"	-3.65	" .71
4+03.77	"	-3.66	" .70
4+30	"	-3.66	" .70
T.P.		-4.63	509.73 BOLT HEAD
+4.69	514.42		
	GRADE		
4+56.23	510.70	-3.72	510.70
4+82.46	"	-3.71	" .71
5+08.69	"	-3.72	" .70
5+34.92	"	-3.72	" .70

CHECK FOOTINGS: S 48.67 - CONT'D.

H.I.	514.4R		
	GRADE		
STA: 5+61.15	510.70	-3.72R	510.70
5+87.38	"	-3.72	" .70
6+13.61	"	-3.72	" .70
6+39.84	"	-3.72	" .70
6+66.07	"	-3.73	" .69
6+92.30	"	-3.72	" .70
7+18.53	"	-3.72	" .70
			INLET SILL.
CHECK B.M.		-4.38	510.04 = 510.04

CHECK SUB-GRADE UNDER FLOOR, AND FLOOR FORMS:

B.M. +2.32 514.3R 512.00 W. Outlet.

LOCATION	G. ROD	ELEV.	REMARKS
N 09.33 TOP OF FORMS, STA 1+41.5 TO 1+67.9	-4.47	509.85	O.K. WITHIN ± .02'
" WEST END	-4.32	510.00	HUMP .04 HI.
SUB. GRADE N 09.4	-4.80	509.52	O.K. ± .04'
" " N 28.6	-4.89	509.43	O.K. ± .04'
CHECK B.M.	-2.32	512.00	

March 4, '49 — Leonard Payne

Elev. on Roof	After	Removing Forms N96.33	on Lead Plug Mon. #6.
B.M. + 5.660	535.490		529.83
Sta 1+46.5		-2.768	532.722
1+54.6		-2.776	" .714
1+67.7		-2.772	" .718
1+80.8		-2.761	" .729
1+93.9		-2.750	" .740
2+07.		-2.736	" .754
2+20.2		-2.737	" .753
2+33.3		-2.750	" .740
2+46.4		-2.769	" .721
2+59.5		-2.758	" .732
2+72.6		-2.760	" .730
2+85.7		-2.755	" .737
2+98.8		-2.764	" .726
3+11.9		-2.773	" .717
3+25.1		-2.778	" .712
3+38.2		-2.768	" .722
3+51.3		-2.757	" .733
3+64.4		-2.741	" .749

Feb 15, 1949. — Leonard West Payne: — 38.

Elev. on Roof Slab Before	Removing Forms: N96.33.	on Lead Plug. 529.83 Mon. #6.
B.M. + 5.425	535.255	
Sta. 1+46.5	-2.502	532.753
1+54.6	-2.513	532.742
1+67.7	-2.513	532.742
1+80.8	-2.500	532.755
1+93.9	-2.488	532.767
2+07	-2.482	532.773
2+20.2	-2.480	532.775
2+33.8	-2.494	532.761
2+46.4	-2.513	532.742
2+59.5	-2.505	532.750
2+72.6	-2.509	532.746
2+85.7	-2.506	532.749
2+98.8	-2.507	532.748
3+11.9	-2.515	532.740
3+25.1	-2.523	532.732
3+38.2	-2.515	532.740
3+51.3	-2.508	532.747
3+64.4	-2.498	532.757

ELEV. ON ROOF AFTER REMOVING FORMS, CONT'D.

H.I.	535.490		
STA. 3+77.5		-2.772	532.718
3+90.6		-2.760	" .730
4+03.8		-2.760	" .730
4+16.9		-2.759	" .731
4+30		-2.754	" .736
B.M.#7 ON LEAD PLUG.		-5.572	529.918
+5.508	535.426		
4+43.1		-2.697	532.729
4+56.2		-2.697	" .729
4+69.3		-2.707	" .719
4+82.4		-2.707	" .719
4+95.6		-2.712	" .714
5+08.7		-2.694	" .732
5+21.8		-2.708	" .718
5+34.9		-2.707	" .719
5+48		-2.708	" .718
5+61.2		-2.706	" .720
5+74.3		-2.696	" .730

ELEV. ON ROOF SLABS BEFORE REMOVING FORMS - CONT'D.

H.I.	535.255	
STA. 3+77.5	-2.525	532.730
3+90.6	-2.508	" .747
4+03.8	-2.508	" .747
4+16.9	-2.510	" .745
4+30	-2.508	" .747
T.P. B.M.#7 ON LEAD PLUG	-5.340	529.915 ON PLUG.
H.I. +5.332	535.247	
4+43.1	-2.498	532.751
4+56.2	-2.498	" .751
4+69.3	-2.515	" .740
4+82.4	-2.521	" .726
4+95.6	-2.521	" .726
5+08.7	-2.496	" .751
5+21.8	-2.509	" .738
5+34.9	-2.511	" .736
5+48	-2.513	" .734
5+61.2	-2.513	" .734
5+74.3	-2.505	" .742

ELEV. ON ROOF AFTER REMOVING FORMS, CONT'D.

H.d.	535.426		
STA. 5+87.4		-2.696	532.730
6+00.5		-2.682	" .744
6+15.6		-2.709	" .717
6+26.7		-2.692	" .734
6+39.8		-2.696	" .730
6+52.9		-2.686	" .740
6+66.1		-2.681	" .745
B.M. NAIL IN MON #8.		-5.492	529.934
B.M. #7.		-5.508	529.918

ELEV. ON ROOF SLABS BEFORE REMOVING FORMS CON'D.

H.d.	535.247		
STA. 5+87.4		-2.504	532.743
6+00.5		-2.494	" .753
6+15.6		-2.510	" .737
6+26.7		-2.494	" .753
6+39.8		-2.497	" .750
6+52.9		-2.487	" .760
6+66.1		-2.488	" .759
B.M. #8 NAIL IN MON.		-5.324	529.904 529.923 =
RECHECK ELEV. ON B.M.'S		FEB 16, '49	LEONARD, WEST.
B.M. ON ODM +2.850	539.240		536.39
B.M. #8 NAIL IN MON.		-9.316	529.924
B.M. #1 NAIL IN MON.		-10.082	529.158
B.M. #2 NAIL IN MON		-9.776	529.464
CHECK B.M. IN ODM.		-2.850	536.39

ELEV. ON ROOF OVER GIRDERS, BEFORE REMOVING FORMS:

			ON LEAD PLUG.
B.M. +5.98	535.223		529.85 MON #6
STA 1+54.6 AT N86.7		-2.419	532.804
" 1+80.8		-2.420	532.803
" 2+07		-2.425	532.800
" 2+33.3		-2.418	532.805
" 2+59.5		-2.419	532.814
" 2+85.7		-2.418	532.805
" 3+11.9		-2.416	532.807
" 3+38.2		-2.417	532.806
" 3+64.4		-2.423	532.800
" 3+90.6		-2.425	532.798
" 4+16.9		-2.426	532.797
T.P. MON. #7 ON LEAD.		-5.308	529.915
+5.353	535.268		
STA 4+43.1		-2.464	532.804
" 4+69.3		-2.479	532.789
" 4+95.6		-2.490	532.778
" 5+21.8		-2.480	532.788
" 5+48		-2.474	532.794

H.I. 535.268		
STA. 5+74.3	-2.482	532.786
6+00.5	-2.471	532.797
6+26.7	-2.463	532.805
6+52.9	-2.461	532.807
CHECK B.M. MON #8 ON MAIN.	-5.350	529.918
CHECK B.M. MON #7 ON LEAD.	-5.354	529.914
	0.004	DIFF.
PEG LEVEL: MON #7.	5.306	
SET ROD ON:	5.810	

FEB. 17 '49.

RECHECK ELEV.'s, 1ST. SECTION, AFTER FORMS REMOVED.

B.M. #6 +5.393	535.228	529.83	
N96.3 STA 1+41.5	-2.493	532.735	-.023
" 1+54.6	-2.498	532.725	-.017
" 1+67.7	-2.489	532.734	-.008
N86.7 1+54.6	-2.417	532.806	+.002
CHECK B.M.	-5.394		

CHECK LEVELS UNDER-SIDE OF ROOF SLAB, N 96.5E

B.M. +13.31 525.31 512.00 W. OUTLET

		Bottom.	Top.
STA. 1+41.5	+7.25	532.56	.753
1+54.6	+7.18	" .49	.742
1+67.7	+7.18	" .49	.742
1+80.8	+7.17	" .48	.735
1+93.9	+7.22	" .53	.769
2+07.	+7.18	" .49	.775
2+20.2	+7.17	" .48	.735
2+33.3	+7.16	" .47	.761
2+46.4	+7.22	" .53	.742
2+59.5	+7.20	" .51	.730
2+72.6	+7.20	" .51	.746
2+85.7	+7.20	" .51	.749
CHECK B.M.	-13.31		

CHECK FOOTING FORMS: N 09.5V

B.M. +2.36	514.36		512.00 W. OUTLET.
	GRADE		
STA 1+47.47	510.79	-3.57	510.79
1+67.70	"	-3.57	.79
1+98.98	"	-3.57	.79
2+20.16	"	-3.58	.78
2+46.59	"	-3.56	.80
2+72.62	"	-3.56	.80
2+98.85	"	-3.56	.80
3+26.08	"	-3.56	.80
3+51.31	"	-3.56	.80
3+77.54	"	-3.57	.79
4+03.77	"	-3.57	.79
4+30.00	"	-3.57	.79
T.B.M. +2.25	514.28	-2.36	512.00 N. OUTLET.
4+56.23	510.79	-3.50	510.78
4+82.46		-3.50	.78
5+08.69		-3.50	.78
5+34.92		-3.50	.78
5+61.15		-3.50	.78
← CONT'D			

H.d.	514.28		
5+87.38	GRADE = 510.79	-3.50	510.78
6+13.61	"	-3.50	.78
6+39.84	"	-3.51	.77
CHECK B.M. INLET STR. SILL		-4.26	510.02 = 510.04 Rec.

MAY 9, 1949 PAYNE CARVER

N77.00

ELEV. ON ROOF AFTER REMOVING FORMS

BM + 5.156	534.986		529.83
STA. 0+89		-2.136	532.850
1+02.1		-2.193	" .793
1+15.2		-2.172	" .814
1+28.3		-2.199	" .787
1+41.5		-2.212	" .774
1+54.6		-2.208	" .778
1+67.7		-2.208	" .778
1+80.8		-2.208	532.778
1+93.9		-2.179	" .807
2+07		-2.179	" .807
2+20.2		-2.169	" .817
2+33.3		-2.176	" .810
2+46.4		-2.215	" .771
+59.5		-2.188	" .798
+72.6		-2.201	" .785
+85.7		-2.193	" .793
+98.8		-2.196	" 790
CHECK B.M. #7		-5.067	529.919

MARCH 7, 1949 LEONARD PAYNE

CHECK ELEVATIONS ON ROOF BEFORE REMOVING FORMS: N77.00

B.M. +5.455	535.285		529.83
STA. 0+89		-2.450	532.835
" 1+02.1		-2.429	" .856
" 1+15.2		-2.429	" .856
" 1+28.3		-2.436	" .849
" 1+41.6		-2.451	" .834
" 1+54.6		-2.448	" .837
" 1+67.7		-2.464	" .821
" 1+80.8		-2.450	" .835
" 1+93.9		-2.431	" .854
" 2+07		-2.430	" .855
" 2+20.2		-2.424	" .861
" 2+33.3		-2.434	" .851
" 2+46.4		-2.469	" .816
" 2+59.5		-2.443	" .842
" 2+72.6		-2.466	" .819
" 2+85.7		-2.451	" .834
" 2+98.8		-2.450	" .835
CHECK B.M.		-5.455	529.830

ELEV. ON ROOF AFTER REMOVING FORMS CONT'D

H.I.	534.986		
STA. 3+11.9		-2.164	532.822
3+25.1		-2.176	532.810
3+38.2		-2.189	532.797
3+51.3		-2.179	532.807
3+64.4		-2.179	532.807
3+77.5		-2.186	532.800
3+90.6		-2.178	" .808
4+03.8		-2.184	" .802
4+16.9		-2.184	" .802
4+30		-2.190	" .796
4+43.1		-2.178	" .808
4+56.2		-2.199	" .787
4+69.3		-2.184	" .802
4+82.4		-2.174	" .812
4+95.6		-2.190	" .796
5+08.7		-2.174	" .812
5+21.8		-2.174	" .812
5+34.9		-2.169	532.817
CHECK BM. #6		-5.156	529.83

ELEVATIONS ON ROOF BEFORE REMOVING FORMS; N 77.0'

B.M. MON "7.	535.414	+5.494	529.92 ON LEAD,
3+11.9		-2.548	532.866
3+25.1		-2.562	" .852
3+38.2		-2.572	" .842
3+51.3		-2.559	" .855
3+64.4		-2.562	" .852
3+77.5		-2.572	" .842
3+90.6		-2.571	" .843
4+03.8		-2.569	" .845
4+16.9		-2.565	" .849
4+30		-2.578	" .841
4+43.1		-2.563	" .851
4+56.2		-2.583	" .831
4+69.3		-2.566	" .848
4+82.4		-2.567	" .847
4+95.6		-2.570	" .844
5+08.7		-2.560	" .854
5+21.8		-2.558	" .856
5+34.9		-2.559	" .855

ELEV. ON ROOF AFTER REMOVING FORMS. CONT'D

BM # 7 + 5.485	535.405		529.92
5+48		-2.604	532.801
5+61.2		-2.608	" .897
5+74.3		-2.604	" .801
5+87.4		-2.604	" .801
6+00.5		-2.600	" .805
6+13.6		-2.616	532.789
CHECK B.M. # 6		-5.586	529.818

ELEVATIONS ON ROOF BEFORE REMOVING FORMS. N 77.0

H.d.	535.414		
5+48		-2.572	532.842
5+61.2		-2.564	" .850
5+74.3		-2.560	" .854
5+87.4		-2.564	" .850
6+00.5		-2.559	" .855
6+13.6		-2.574	" .840
CHECK B.M. # 7.		-5.493	529.921

CHECK FOOTINGS. S 29.33 GRADE = 510.79 ON TOP OF FORM.

B.M. +2.88 514.88 512.00 W. OUTLET.

STA. 1+46.47	-4.07	510 81
1+67.70	-4.08	510.80
1+95.93	-4.08	510.80
2+20.16	-4.08	510.80
2+46.39	-4.08	510.80
2+72.62	-4.09	510.79
2+98.85	-4.09	510.79
3+25.08	-4.09	510.79
3+51.31	-4.09	510.79
3+77.54	-4.09	510.79
4+03.77	-4.08	510.80
4+30.	-4.08	510.80
4+56.23	-4.08	510.80
4+82.46	-4.09	510.79
5+08.69	-4.09	510.79
5+34.92	-4.09	510.79
5+61.15	-4.09	510.79
5+87.38	-4.09	510.79

CHECK FOOTINGS	529.88		
H.I.	514.88		
Sta. 6+13.61		-4.09	510.79
6+39.84		-4.09	510.79
6+66.07		-4.09	510.79
6+92.30		-4.09	510.79
7+18.53		-4.09	510.79
CHECK B.M.		4.84	510.04 X IN SILL. INLET STR.

CHECK BUTTRESS BLOCKS & TOP OF COPING WALL - E. END

B.M. ON DAM +4.72	541.11		536.39
BUTTRESS 5106.67	532.46	-8.65	532.46
" 587.53	532.55	-8.54	532.57
" 568.00	532.65	-8.44	532.67
" 548.67	532.25	-8.34	532.37
" 529.33	532.84	-8.25	532.86
CHECK B.M.		-4.72	536.39 ON DAM.

CHECK ELEVATIONS ON CIRCULAR COPING WALL, S.E. COR.

B.M.	3.51	539.90		536.39 ON DAM.
STA 751.67		GRADE.		
S 186.42	B.C.	532.26	-7.62	532.28
"	STEP	531.84		
2.6'	WALL	532.27	-7.62	532.28
"	STEP	531.85		
5.2'	WALL	532.28	-7.62	532.29
"	STEP	531.86		
7.8'	WALL	532.29	-7.61	532.29
"	STEP	531.87		
10.4'	WALL	532.30	-7.60	532.30
"	STEP	531.88		
13.0'	WALL	532.31	-7.59	532.31
"	STEP	531.89		
15.6'	WALL	532.32	-7.58	532.32
"	STEP	531.90		
18.2'	WALL	532.33	-7.57	532.33
"	STEP	531.91		
20.8'	WALL	532.34	-7.56	532.34
"	STEP	531.92		

CHECK ELEV'S. ON CIRCULAR COPING WALL, S.E. COR.

H.I.		559.90		
		GRADE:		
R3.4'	WALL	532.35	-7.56	532.34
	STEP	531.93		
R6.0'	WALL	532.36	-7.55	532.35
"	STEP	531.94		
STA. 7+71.42	WALL.			
S 107.67	E.C.	532.37	-7.58	532.37
"	STEP	531.95		

1ST. SECTION OF COPING WALL - S.E. END. STA 7+71.42

S 105.67	WALL	532.38	-7.55	532.35
"	STEP	531.96		
S 88.33	WALL	532.45	-7.45	532.47
"	STEP	532.03		

LEVELS ON ROOF DURING POURING OPERATIONS

LOAD CONSISTED OF BARROW FULL OF CONCRETE AND MAN PUSHING SAME:

POSITION #1. FIRST ROW.	ROD:
BEFORE:	2.456
DURING LOAD	2.458
AFTER.	2.457
POSITION #2. SECOND ROW.	
BEFORE:	2.341
DURING LOAD	2.341
AFTER	2.340
POSITION #3. THIRD ROW.	
BEFORE:	2.252
DURING LOAD	2.254
AFTER	2.251

SEE NEXT PAGE FOR #4.

Position #4	Third Row.	Rod:	
Before		-2.235	
During Load		2.235	
After.		2.235	

Aug. 4, 1949. Leonard, Baker Payne., Carver.

Check levels on B.M.'s.

B.M. + .25	536.64		536.39 on Dam.
Check B.M. #8		-6.70	529.94 = Rec. 529.90
+5.40	535.84		
Check B.M. #7.		-5.42	529.92 = Rec. 529.92
+5.47	535.89		
Check B.M. #6.		-5.55	529.84 = Rec. 529.83

Check Sub Grade Under Division Wall.

B.M. + 2.55	514.55		51R.00 N. Outlet
Sub Grade:		Grade Rod	
S 10	509.58	4.97	Some High Spots.
S 20	509.50	5.05	O.K. to Low .1'
S 29.88	509.58	4.97	Some High Spots.
Key under wall	509.87 *	4.68	O.K. .00 to -.02'
Under Wall, 1½" High. Sub Grade Holds	Set for 509.63	4.92	O.K. to -.03
Check B.M.		-2.55	51R.00

* Contractor used 1 9/16" material for key forms.

ELEV. ON ROOF BEFORE REMOVING FORMS. N 19.00

B.M. 5.204	535.124		529.92	MON. #7.
N19 326.1		-2.009	533.115	
" 338.2		-2.008	.116	
351.3		-1.985	.139	
364.4		-1.989	.135	
377.5		-1.992	.132	
390.7		-1.990	.134	
403.8		-1.978	.146	
416.9		-1.985	.139	
430.0		-1.988	.136	
443.1		-1.986	.138	
456.2		-1.973	.151	
469.3		-1.985	.139	
482.4		-1.995	.129	
495.5		-1.988	.136	
508.6		-1.965	.159	
CHECK B.M.		-5.204	529.92	

April 29, 1949 Leonard. Paine. Carver.

Elev. on Roof Before Removing Forms:

B.M. + 5535	535.456		529.92 Mon #7
N 38.33			
5+08.7		-2.403	533.052
521.8		-2.417	.038
534.9		-2.405	.050
548.0		-2.421	.034
561.1		-2.394	.061
574.3		-2.413	.042
587.4		-2.409	.046
600.5		-2.404	.051
613.6		-2.408	.047
626.7		-2.421	.034
639.8		-2.420	.035
652.9		-2.425	.030
666.0		-2.403	.052
Check B.M.		-5.535	529.92

REGULATING RESERVOIR.
PROFILE FOR 12" DRAIN TILE FROM ROADWAY;

B.M. +5.28 535.11 — 529.83 MON. #6.

AT WEST END 0+00 = STA 0+79, 18.61 N.
LINE RUNS PARALLEL TO DELAWARE ST., 10' SOUTH OF CITY PROP. LINE ON N. SIDE OF DELAWARE.

SEE PAGE 69 FOR ALTERNATE LOCATION.

0+00 WEST END.	-5.0	530.1
0+11 TOP OF BANK	-6.6	529.5
0+16	-9.1	526.0
0+21	-13.0	522.1
T.P. PROP COR ON HUB.	-12.29	522.82
+2.67 525.49		
0+26 TOE OF SLOPE.	-6.3	519.2
0+28 PROPOSED STILLING CHAMBER.	-6.5	519.0
SET T.B.M. N.E. COR. 9'x9' BOX.	-9.05	516.44
+12.67 529.11		
T.P. ROCK	-1.75	527.36
+7.53 534.89		
CHECK B.M.	-5.08	529.81=529.83

AT EAST END 0+00 = STA. 7+87, 86.66 N.
LINE BEARS 7° LEFT OF RESERVOIR AXIS.

B.M. +1.94 534.41		COR. OF 532.47 BUTTRESS
0+00 EAST END.	-4.4	530.0
0+21	-4.6	529.8
0+43 IN EXIST. CUT	-6.8	527.6

PLOTTED 7-18-49 ack

July 21st, 49

LEONARD
BAKER T.&NOTES
PAYNE H.C
CARVER, R.C

X-SECTION OF AREA EAST OF RESERVOIR

USING EAST WEST AXIS OF RESERVOIR

AS A BASE LINE STARTING AT N-0 & 7+80

	H.I. 537.92 Rod	ELEV.
B.M on DAM +1.53		536.39
7+80 N-0	-7.8	530.1 ✓
N-10	-8.0	529.9 ✓
N-20	-7.9	530.0 ✓
N-30	-7.7	530.2 ✓
N-40	-7.7	530.2 ✓
N-50	-7.8	530.1 ✓
N-60	-7.7	530.2 ✓
N-70	-7.8	530.1 ✓
S-10	-7.7	530.2 ✓
S-20	-7.7	530.2 ✓
S-30	-7.7	530.2 ✓
S-40	-7.9	530.0 ✓
S-50	-7.7	530.2 ✓
S-60	-8.2	529.7 ✓
S-70	-8.2	529.7 ✓
S-80	-8.2	529.7 ✓

H.I. 537.92

		ROD	ELEV.
7+80	S.90	-8.0	529.9
	S100	-7.9	530.0
7+90	N-0	-8.1	529.8
	N 10	-8.2	529.7
	N 20	-8.2	529.7
	N 30	-8.1	529.8
	N 40	-8.2	529.7
	N 50	-8.2	529.7
	N 60	-8.3	529.6
	N 70	-8.3	529.6
	S 10	-8.0	529.9
	S 20	-8.0	529.9
	S 30	-8.1	529.8
	S 40	-8.0	529.9
	S 50	-8.0	529.9
	S 60	-7.9	530.0
	S 70	-7.4	530.5
	S 80	-7.5	530.4

H.I. 537.92

		ROD	ELEV.
7+90	S-90	-7.5	530.4
	S-100	-7.5	530.4
8+00	N-0	-5.0	532.9
	N-02	-4.5	533.4
	N10	-6.4	531.5
	N15	-7.5	530.4
	N20	-8.0	529.9
	N 30	-8.4	529.5
	N 40	-8.6	529.3
	N 50	-8.6	529.3
	N 60	-8.6	529.3
	N 70	-8.5	529.4
	S 10	-4.5	533.4
	S 20	-4.4	533.5
	S 30	-4.6	533.3
	S 40	-5.1	532.8
	S 50	-7.3	530.6
	S 60	-7.6	530.3
	S 70	-6.6	531.3
	S 80	-5.8	532.1

	H.I.	Rod	Elev.
	537.92		
8+00 S 90		-5.1	532.8 ✓
" S 100		-4.5	533.4 ✓
8+10 N 0		-4.1	533.8 ✓
N 10		-4.3	533.6 ✓
N 20		-7.4	530.5 ✓
N 30		-8.9	329.0 ✓
N 40		-8.9	529.0 ✓
N 50		-8.9	529.0 ✓
N 60		-8.9	529.0 ✓
N 70		-8.6	529.3 ✓
S 04		-3.3	534.6 ✓
S 10		-1.7	536.2 ✓
S 20		-1.7	536.2 ✓
S 30		-1.7	536.2 ✓
S 40		-4.0	533.9 ✓
S 50		-4.9	533.0 ✓
S 60.		-6.0	531.9 ✓
S 70		-6.1	531.8 ✓
S 80		-5.3	532.6 ✓
S 90		-4.4	533.5 ✓

	H.I.	Rod	Elev.
	537.92		
8+10 S 100		-3.6	534.3 ✓
8+20 N 0		-4.1	533.8 ✓
N 10		-4.2	533.7 ✓
N 20		-7.2	530.7 ✓
N 30		-8.9	529.0 ✓
N 40		-9.0	528.9 ✓
N 50		-9.0	528.9 ✓
N 60		-9.1	528.8 ✓
N 70		-9.0	528.9 ✓
S 04		-3.7	534.2 ✓
S 10		-1.8	536.1 ✓
S 20		-1.8	536.1 ✓
S 30		-1.8	536.1 ✓
S 40		-4.5	533.4 ✓
S 50		-4.7	533.2 ✓
S 60		-5.0	532.9 ✓
S 70		-5.1	532.8 ✓
S 80		-4.7	533.2 ✓
S 90		-4.1	533.8 ✓

H.I
537.92

		ROD	ELEV.
8+30	S 100	-3.0	534.9
8+30	N-0	-4.4	533.5
	N 10	-4.6	533.3
	N 20	-7.9	530.0
	N 30	-8.9	529.0
	N 40	-9.1	528.8
	N 50	-9.3	528.6
	N 60	-9.1	528.8
	N 70	-9.1	528.8
	S 03	-4.3	533.6
	S 10	-1.9	536.0
	S 20	-1.9	536.0
	S 30	-1.9	536.0
	S 40	-3.9	534.0
	S 50	-4.3	533.6
	S 60	-4.3	533.6
	S 70	-4.2	533.7
	S 80	-3.7	534.2
	S 90	-3.1	534.8

H.I
537.92

		ROD	ELEV.
8+30	S 100	-2.6	535.3
8+40	N 0	-4.4	533.5
	N 03	-4.3	533.6
	N 10	-5.3	532.6
	N 14	-5.2	532.7
	N 20	-6.9	531.0
	N 30	-9.1	528.8
	N 40	-9.1	528.8
	N 50	-9.2	528.7
	N 60	-9.0	528.9
	N 70	-9.8	528.1
	S 08	-4.9	533.0
	S 10	-5.1	532.8
	S 21	4.6	533.3
	S 30	-4.6	533.3
	S 40	-4.3	533.6
	S 50	-4.0	533.9
	S 60	-3.7	534.2
	S 70	-3.8	534.1
	S 80	-3.1	534.8
	S 90	-2.6	535.3

537.92

		ROD	ELEV.
8+40 S100		-2.1	535.8
8+50 N-0		-4.9	533.0
N 10		-5.2	532.7
N 20		-6.4	531.5
N 30		-7.7	530.2
40		-8.2	529.7
50		-8.6	529.3
60		-8.8	529.1
70		-9.4	528.5
S 10		-4.6	533.3
S 20		-4.5	533.4
S 30		-4.3	533.6
S 40		-4.0	533.9
S 50		-3.6	534.3
S 60		-3.4	534.5
S 70		-3.3	534.6
S 80		-3.0	534.9
S 90		-2.3	535.6

537.92

	ROD	ELEV.
8+50	-2.0	535.9
8+60 N 0	-3.8	534.1
N 10	-4.2	533.7
N 20	-4.8	533.1
N 30	-5.6	532.3
N 40	-6.4	531.5
N 50	-6.6	531.3
N 60	-7.1	530.8
N 70	-7.6	530.3
S 10	-3.6	534.3
S 20	-3.8	534.1
S 30	-3.8	534.1
S 40	-3.7	534.2
S 50	-3.5	534.4
S 60	-3.3	534.6
S 70	-3.0	534.9
S 80	-2.7	535.2
S 90	-2.3	535.6

H.I. 537.92

		ROD	ELEV.
8+60 S100		-2.0	535.9 ✓
8+70 N 0		-1.8	536.1 ✓
10		-1.7	536.2 ✓
20		-1.9	536.0 ✓
30		-2.5	535.4 ✓
40		-3.4	534.5 ✓
50		-4.5	533.4 ✓
60		-5.1	532.8 ✓
70		-5.7	532.2 ✓
S 10		-2.6	535.3 ✓
20		-2.7	535.2 ✓
30		-3.0	534.9 ✓
40		-3.0	534.9 ✓
50		-3.0	534.9 ✓
60		-2.9	535.0 ✓
70		-2.8	535.1 ✓
80		-0.90	537.02 ✓
90		-2.2	535.7 ✓

H.I. 537.92

	ROD.	ELEV.
8+70 S100	-1.9	536.0 ✓
CHECK B.M. ON DAM.	-1.53	536.39 = 536.39
B.M. ON DAM + 1.45	H.I. 537.84	536.39
7+80 N80	ROD -7.7	ELEV. 530.1 ✓
7+90 N80	-8.0	529.8 ✓
8+00 N80	-8.3	529.5 ✓
8+10 N80	-8.2	529.6 ✓
8+20 N80	-8.7	529.1 ✓
8+30 N80	-9.7	528.1 ✓
8+40 N80	-10.2	527.6 ✓
8+50 N80	-10.1	527.7 ✓
8+60 N80	-8.0	529.8 ✓
8+70 N80	-6.2	531.6 ✓
7+80 N90	-7.6	530.2 ✓
7+90 N90	-8.0	529.8 ✓
8+00 N90	-8.1	529.7 ✓
8+10 N90	-7.7	530.1 ✓
8+20 N90	-8.8	529.0 ✓

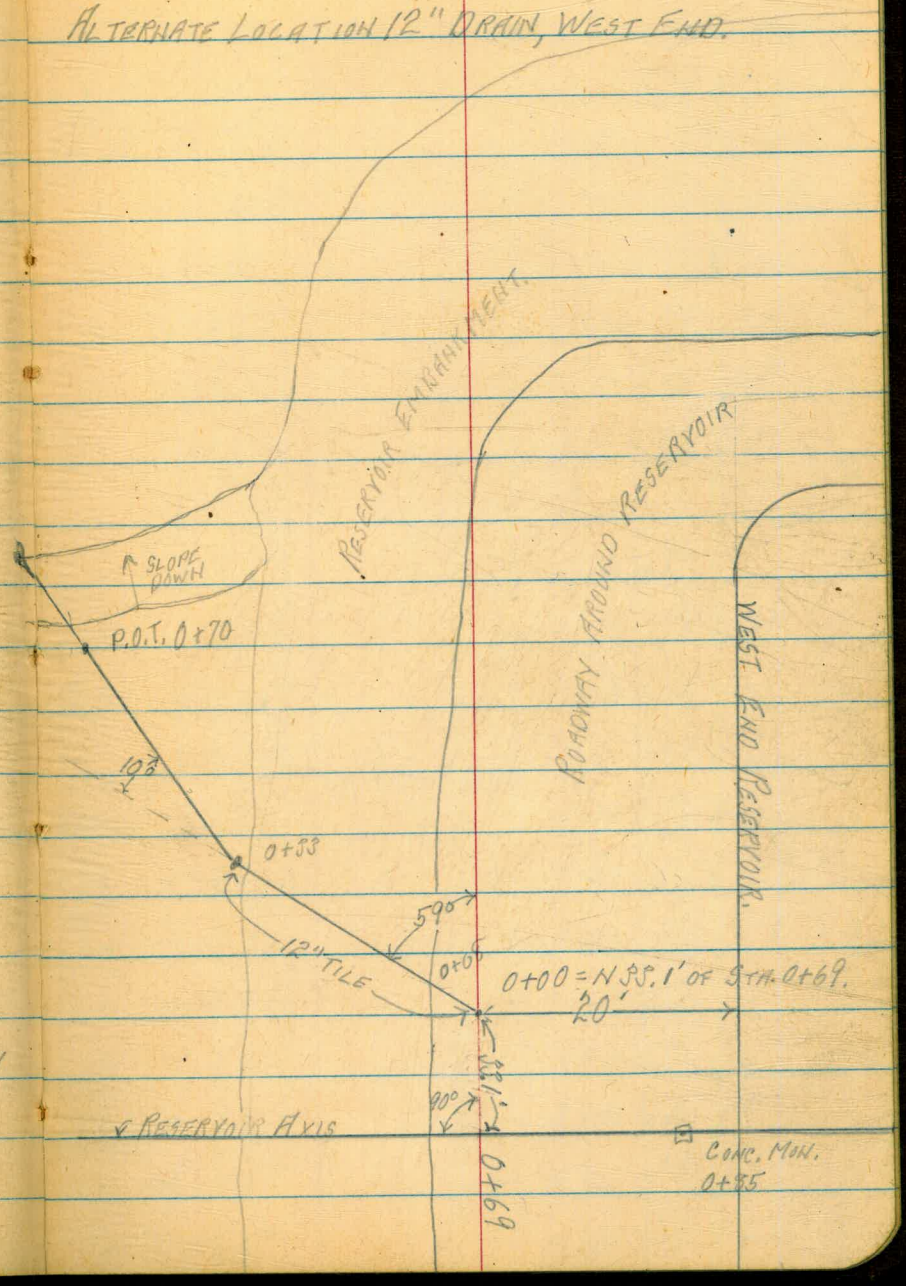
		H.I. 537.84 Rod	
8+29 N 90 S	EDGE OF DITCH WEST	-10.2	527.6 ✓
8+40 N 90	EAST EDGE OF DITCH	-11.1	526.7 ✓
8+50 N 90		-10.5	527.3 ✓
8+60 N 90		-8.5	529.3 ✓
8+70 N 90		-7.0	530.8 ✓
CHECK B.M.		-1.45	536.39 ✓

JULY 22, 1949 LEONARD BAKER WAYNE CARVER.

PROFILE OVER ALTERNATE LOCATION.

B.M.	+5.04	554.87	529.83 Mon. #6.
0+00		-4.9	550.0
0+08 EDGE BANK		-5.3	539.6
0+18		11.4	523.5
T.P.		-12.08	528.79
	+0.27	525.06	
0+29		-4.9	518.2
0+33 TOE BANK		-6.8	516.3
0+50		-7.4	513.7
0+72 TOP BANK		-8.0	515.1
T.P.		-16.55	510.51
	+0.56	511.07	
0+90 TOE OF SLOPE		-5.3	505.8
0+95 ORIGINAL GD.		-5.8	505.3
T.P.		-2.09	508.98
	+11.54	520.52	
CHECK T.B.M.		-4.06	516.47 = 516.44

ALTERNATE LOCATION 12" DRAIN, WEST END.



Aug. 4, 1949 Leonard Baker T Note 64, Payne H.C. Carver R.C

ELEV. ON ROOF OVER COLUMNS; RESERVOIR EMPTY.

B.M. +8.42	538.26		529.84 Mon. #6
STATION: OFFSET.			
115.24 N86.67		−5.45	532.81
" N67.33		−5.37	532.89
" N48.00		−5.26	533.00
" N28.67		−5.20	533.06
" N09.33		−5.08	533.18
" S10.00		−4.98	533.28
" S29.33		−5.09	533.17
" S48.67		−5.17	533.09
" S68.00		−5.26	533.00
" S87.33		−5.38	532.88
" S106.67		−5.44	532.82
114.47 N86.67		−5.45	532.81
" N67.33		−5.37	532.89
" N48.00		−5.26	533.00
" N28.67		−5.15	533.11
" N09.33		−5.07	533.19
" S10.00		−4.97	533.29
" S29.33		−5.06	533.20
" S48.67		−5.16	533.10

H.I = 538.26

141.47 S 68.00		- 5.26	533.00
S 87.33		- 5.37	532.89
S 106.67		- 5.45	532.81
167.70 N 86.67		- 5.47	532.79
N 67.33		- 5.39	532.87
N 48.00		- 5.28	532.98
N 28.67		- 5.19	533.07
N 09.33		- 5.08	533.18
S 10.00		- 4.99	533.27
S 29.33		- 5.08	533.18
S 48.67		- 5.18	533.08
S 68.00		- 5.26	533.00
S 87.33		- 5.37	532.89
S 106.67		- 5.46	532.80
193.93 N 86.67		- 5.45	532.81
N 67.33		- 5.38	532.88
N 48.00		- 5.27	532.99
N 28.67		- 5.16	533.10
N 09.33		- 5.08	533.18
S 10.00		- 4.98	533.28

H.I. = 538.26

193.93	529.33	5.08	533.18
S 48.67		-5.16	533.10
S 68.00		-5.26	533.00
S 87.33		-5.36	532.90
106.67		-5.45	532.81
220.16 N 86.67		-5.45	532.81
N 67.33		-5.36	532.90
N 48.00		-5.27	532.99
N 28.67		-5.17	533.09
N 09.33		-5.10	533.16
S 10.00		-5.00	533.26
S 29.33		-5.09	533.17
S 48.67		-5.18	533.08
S 68.00		-5.27	532.99
S 87.33		-5.37	532.89
S 106.67		-5.46	532.80
246.39 N 86.67		-5.47	532.79
N 67.33		-5.37	532.89
N 48.00		-5.25	533.01
N 28.67		-5.15	533.11

H.I. 538.26

246:39 N 09.33		-5.07	533.19
S 10.00		-4.97	533.29
S 29.33		-5.07	533.19
S 48.67		-5.16	533.10
S 68.00		-5.25	533.01
S 87.33		-5.36	532.90
S 106.67		-5.44	532.82
272.62 N 86.67		-5.47	532.79
N 67.33		-5.39	532.87
N 48.00		-5.27	532.99
N 28.67		-5.18	533.08
N 09.33		-5.10	533.16
S 10.00		-4.98	533.28
S 29.33		-5.09	533.17
S 48.67		-5.17	533.09
S 68.00		-5.28	532.98
S 87.33		-5.36	532.90
S 106.67		-5.45	532.81
298.85 N 86.67		-5.44	532.82
N 67.33		-5.35	532.91

H.I.= 538.26

298.85 N48.00		− 5.25	533.01
N38.67		− 5.16	533.10
N09.33		− 5.08	533.18
S10.00		− 4.96	533.30
S29.33		− 5.08	533.18
S48.67		− 5.17	533.09
S68.00		− 5.26	533.00
S87.33		− 5.37	532.89
S106.67		− 5.46	532.80
325.08 N86.67		− 5.45	532.81
N67.33		− 5.36	532.90
N48.00		− 5.26	533.00
N38.67		− 5.17	533.09
N09.33		− 5.09	533.17
N10.00		− 4.99	533.27
N29.33		− 5.09	533.17
1 48.67		− 5.14	533.12
S 68.00		− 5.25	533.01
S 87.33		− 5.38	532.88
S106.67		− 5.45	532.81

H.I 538.24

			Ok
T.P.#1 on Res. +	4.29	537.10 H.I. - 5.45	532.81
351.31 N 86.67		- 4.26	532.84
N 67.33		- 4.18	532.92
N 48.00		- 4.10	533.00
N 28.67		- 3.99	533.11
N 09.33		- 3.91	533.19
S 10.00		- 3.80	533.30
S 29.33		- 3.89	533.21
S 48.67		- 4.00	533.10
S 68.00		- 4.09	533.01
S 87.33		- 4.22	532.88
S 106.67		- 4.29	532.81
377.51 N 86.67		- 4.30	532.80
N 67.33		- 4.21	532.89
N 48.00		- 4.10	533.00
N 28.67		- 4.01	533.09
N 09.33		- 3.93	533.17
S 10.00		- 3.81	533.29
S 29.33		- 3.91	533.19
S 48.67		- 4.02	533.08

H.I. 537.10

			or
377.51 S 68.00		- 4.11	532.99
S 87.33		- 4.22	532.88
S 106.67		- 4.32	532.78
403.77 N 86.67		- 4.29	532.81
N 67.33		- 4.19	532.91
N 48.00		- 4.10	533.00
N 28.67		- 4.01	533.09
N 09.33		- 3.88	533.22
S 10.00		- 3.81	533.29
S 29.33		- 3.93	533.17
S 48.67		- 4.02	533.08
S 68.00		- 4.11	532.99
S 87.33		- 4.21	532.89
S 106.67		- 4.30	532.80
430.00 N 86.67		- 4.29	532.81
N 67.33		- 4.20	532.90
N 48.00		- 4.10	533.00
N 28.67		- 4.01	533.09
N 09.33		- 3.93	533.17
S 10.00		- 3.80	533.30

H.I. 537.10

430.00	29.33	-3.92	533.18
S	48.67	-4.01	533.09
S	68.00	-4.12	532.98
S	87.33	-4.22	532.88
S	106.67	-4.30	532.80
4562	3N 86.67	4.31	532.79
N	67.33	-4.19	532.91
N	48.00	-4.09	533.01
N	28.67	-4.00	533.10
N	09.33	-3.89	533.21
S	10.00	-3.81	533.29
S	29.33	-3.91	533.19
S	48.67	-4.00	533.10
S	68.00	-4.09	533.01
S	87.33	-4.19	532.91
S	106.67	-4.29	532.81
4824	6N 86.67	-4.31	532.79
N	67.33	-4.22	532.88
N	48.00	-4.12	532.98
N	28.67	-4.03	533.07

H.I. 537.10

482.46N09.33	-3.94	533.16
S10.00	-3.83	533.27
S29.33	-3.93	533.17
S48.67	-4.01	533.09
S68.00	-4.13	532.97
S87.33	-4.21	532.89
S106.67	-4.31	532.79
508.69N86.67	-4.29	532.81
N67.33	-4.19	532.91
N48.00	-4.10	533.00
N28.67	-4.00	533.10
N09.33	-3.91	533.19
S10.00	-3.81	533.29
S29.33	-3.93	533.17
S48.67	-4.00	533.10
S68.00	-4.10	533.00
S87.33	-4.21	532.89
534.92S106.67	-4.29	532.81
534.92N86.67	-4.31	532.79
N67.33	-4.20	532.90

H.I. 537.10

534.92 48.00		-4.10	533.00
-4.00 28.67		-4.00	533.10
3.93 09.33		-3.93	533.17
3.83 10.00		-3.83	533.27
3.94 29.33		-3.94	533.16
4.02 48.67		-4.02	533.08
4.10 68.00		-4.10	533.00
4.20 87.33		-4.20	532.90
4.31 106.67		-4.31	532.79
561.15 N 86.67		-4.20	532.80
N 67.33		-4.21	532.89
N 48.00		-4.08	533.02
N 28.67		-4.00	533.10
N 09.33		-3.90	533.20
S 10.00		-3.79	533.31
S 29.33		-3.90	533.20
S 48.67		-4.00	533.10
S 68.00		-4.11	532.99
S 87.33		4.18	532.92
S 106.67		-4.29	532.81

H.I. 537.10

T.B.M. 2 on Res. Top	+5.27 H.I. 538.09	-4.28	532.82
587.30 N86.67		-5.29	532.80
N 67.33		-5.18	532.91
N 48.00		-5.09	533.00
N 28.67		-5.00	533.09
N 09.33		-4.89	533.20
S 10.00		-4.80	533.29
S 29.33		-4.92	533.17
S 48.67		-5.00	533.09
S 68.00		-5.09	533.00
S 87.33		-5.20	532.89
S 106.67		-5.28	532.81
613.61 N86.67		-5.28	532.81
N 67.33		-5.18	532.91
N 48.00		-5.08	533.01
N 28.67		-4.97	533.12
N 09.33		-4.88	533.21
S 10.00		-4.80	533.29
S 29.33		-4.89	533.20
S 48.67		-4.99	533.10

H.I. 538.09

	S 68.00		-5.08	533.01
	S 87.33		-5.20	532.89
	S 106.67		-5.28	532.81
639.84	N 86.67		-5.26	532.83
	N 67.33		-5.19	532.90
	N 48.00		-5.09	533.00
	N 28.67		-5.00	533.09
	N 09.33		-4.93	533.16
	S 10.00		-4.80	533.29
	S 29.33		-4.92	533.17
	S 48.67		-5.00	533.09
	S 68.00		-5.10	532.99
	S 87.33		-5.20	532.89
	S 106.67		-5.28	532.81
666.07	N 86.67		-5.29	532.80
	N 67.33		-5.18	532.91
	N 48.00		-5.08	533.01
	N 28.67		-4.98	533.11
	N 09.33		-4.89	533.20
BM ON DAM +1.78		HI = 538.17		536.39
	S 10.00		-4.86	533.31

H.I 538.17

666.07	S29.33		-4.97	533.20
	S48.67		-5.06	533.11
	S68.00		-5.16	533.01
	S87.33		-5.27	532.90
	S106.67		-5.37	532.80
		H.I 538.09		
692.30	N86.67		-5.28	532.81
	N67.33		-5.20	532.89
	N48.00		-5.09	533.00
	N28.67		-5.00	533.09
	N09.33		-4.90	533.19
B.M ON DAM	+1.78	H.I. 538.17		536.39
S 10			-4.90	533.27
	S29.33		-4.99	533.18
	S48.67		-5.05	533.12
	S68.00		-5.17	533.00
	S87.33		-5.23	532.94
	S106.67		-5.36	532.81
		H.I. 538.09		
778.53	N86.67		-5.29	532.80
	N67.33		-5.20	532.89
	N48.00		-5.08	533.01
	N28.67		-5.00	533.09

	HI. 538.09		
718.53 N69.33		-4.91	533.18
BM. ON DAM +1.78	HI. 538.17		536.39
S10		-4.89	533.28
S 29.33		-4.95	533.22
S 48.67		-5.06	533.11
S 68.00		-5.17	533.00
S 87.33		-5.26	532.91
S 106.67		-5.36	532.81
	H.I. 538.09		
744.76 N86.67		-5.29	532.80
N 67.33		-5.18	532.91
N 48.00		-5.11	532.98
N 28.67		-5.03	533.06
N 09.33		-4.90	533.19
CK B.M. MON # 8		8.18	529.91
MON # 7		-8.16	529.93
B.Mon DAM +1.78	538.17		536.39
744.76 S 10		-4.85	533.32
S 29.33		-4.96	533.21
S 48.67		-5.07	533.10
S 68.00		-5.14	533.03

H.I = 538.17

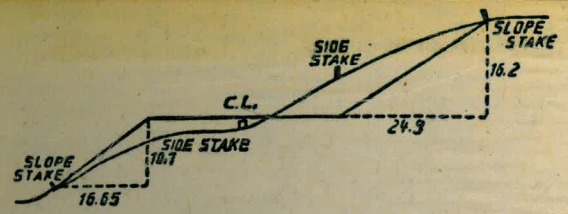
744.76 S 87.33		-5.28	532.89
S 10660 7		-5.38	532.79
CK BM.		-1.78	= 536.39 OK
			= 536.39 OK.

538.03
+ 4.067
542.097
- 4.09
538.007

538.09
529.92
8.17

538.09
529.90
8.19

CITY OF SAN DIEGO
RECD
OCT 5 1948
RESIDENT ENGINEER



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

THE NATIONAL BLANK BOOK COMPANY
HOLYOKE MASSACHUSETTS
NEW YORK CHICAGO BOSTON SAN FRANCISCO