DEFENSE PUBLIC WORKS
Civic Center San Diego

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36 0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

4.31
1.78
2.53

INDEX

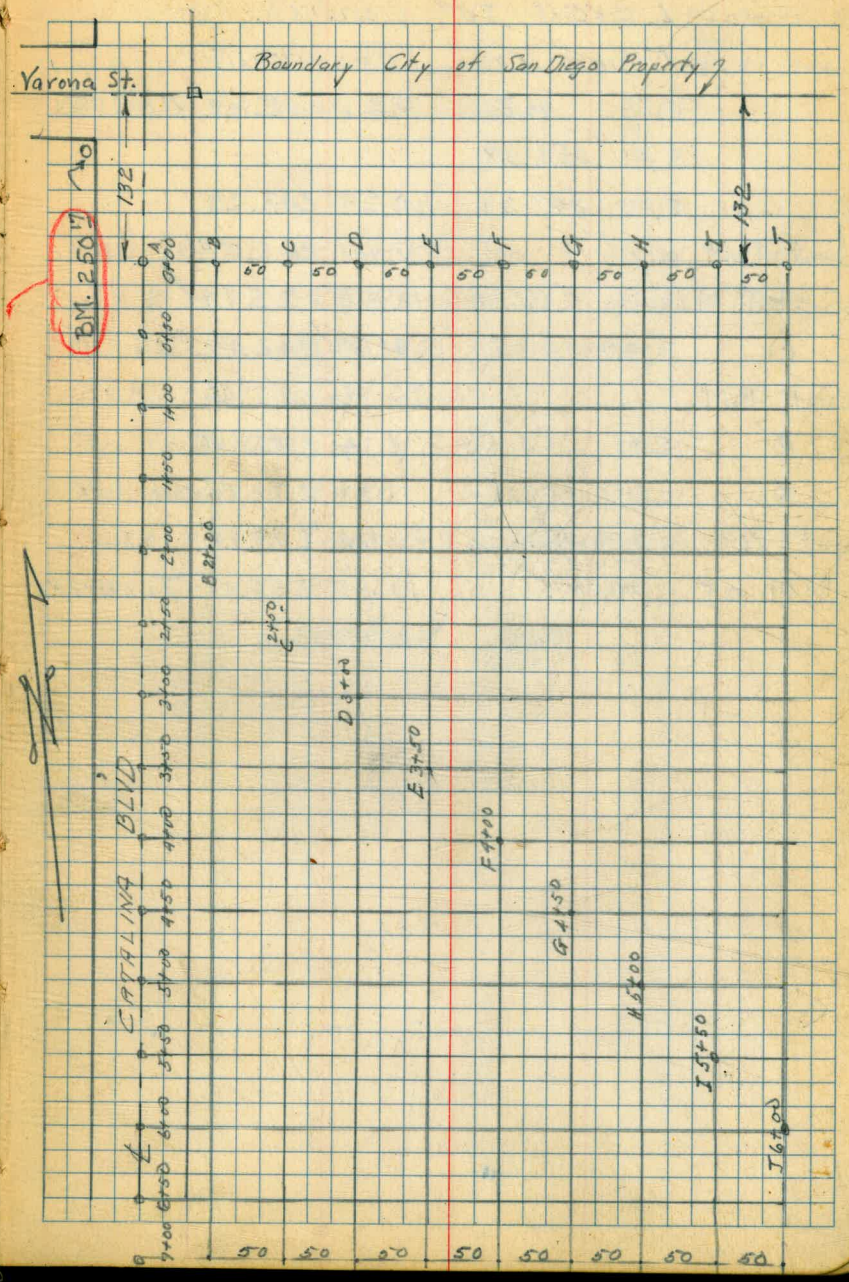
TOPOG. FOR 10 MILLION GAL. RES.
Catalina St near Varona St

General Plan of Grid for
Loction of Elevs.

Jan, 20, 1942.
P.S. Barker
+ Party

1.

I



Levels for Control.
10 Million Gal. Reservoir.

SB 250.82
WCB

	B.S.	H.I.	F.S.	Elev. 250.17
	3.41	253.58		
	5.10	248.39	10.29	243.29
Set BM			2.67	245.72
Set BM.	1.10	236.99	12.50	235.89
⊙	11.40	243.82	4.57	232.42
Set BM.			6.16	237.66
⊙	12.48	254.16	2.14	241.68
⊙	10.06	262.84	1.38	252.78
Set BM	1.34	260.58	3.60	259.24
BM at Start.			10.40	250.18 To check

P.S. Barker & Party
Jan. 20, 1942

BM. S.W. Cor. Verona & Catalina

Nail in SE Cor. of Res Top; 3" below Top inside.
2"x2" - 25 S.E. Privy & 50' S. of SE Cor. Res.
⊙ 20' E. of H 3+00
2"x2" 2° S. of I 6+50
By G 6+50
Red Head C 6+50
Spike in PP. #1080 West Side Curb; Sta. 5+85

Checked MS

ELEVATIONS ON RESERVOIR POINT LOMA.

See p. 2 WCB

245.72 B.M.

T#1	3.30	249.02 ✓		
Nor. Inlet			5.86	243.16 ✓
So. Inlet			3.99	245.03 ✓

OUTLETS ARE IN WATER AND IT IS NOT POSSIBLE TO DETERMINE ELEVS. EXACTLY.

No. Outlet			12.0	235.0 (APPROX)
Meas. fr. water line?				
So. Outlet			11.0	236.0 (APPROX)
B.M. on P. House Floor			3.29	245.73 ✓ B.M.
				245.73 ✓
T#2	5.40	251.13 ✓		
No. 1 Pump Suction			3.40	247.73 ✓
No. 1 Pump Disch.			1.13	247.00 ✓
No. 2 Pump Suct.			4.65	246.48 ✓
" " Disch			4.83	246.30 ✓
No. 3 Suct.			4.69	246.44 ✓
" Disch.			4.95	246.18 ✓
T.P. #1			3.93	247.20 ✓ on Nut #2 Pump
T#3	1.81	249.01 ✓		
			3.30	245.71 ✓ B.M.

JAN. 22, 1942
A. M. WHITLOCK
P. S. BARKER
F. S. GREELY
CLOUDY & RAINY

3

NAIL 3" BELOW TOP AT S.E. COR. PRESENT RES.

ON TOP OF IRON INLET PIPE (6" INSIDE DIAM)

ON TOP OF C.I.P. 8" OUTSIDE DIAM.

Reduced

10" CHECK or FOOT VALVE — Flow line

22" SUCTION FACE — Flow line

CUT IN CONC. FLOOR 1' FROM W. WALL AT DOORWAY

(PUMP TO THE NORTH) NOT THE EMERGENCE UNIT.

(F.L. OF OUTLET DRAIN 230.4)
(THIS IS APPROX. AS THE)
(PIPE APPEARS TO SLANT)
(UPWARDS TOWARD THE RES.)
(BOTTOM OF RES. 234.4)

LEVELS ON GRID 10 MIL. GAL. RES.

	+	H.I	−	
△#1	10.30	260.47		250.17 B.M. CAT⁴ VARONA
TOP OF CURB AT 0+00			8.1	252.4
0+00 A. & ST.			9.2	251.3
21' E. OF 0+00 A.			9.7	250.8
TOP CURB 0+50 A.			6.7	253.8
0+50 A.			8.2	252.3
21' E. OF & 0+50 A			8.9	251.6
23' E. OF & 0+50 A.			7.5	253.0
A 1+00 TOP CURB			6.9	255.1
A 1+00 & ST.			7.4	253.1
20' E. A 1+00			8.2	252.3
22' E. A 1+00			6.3	254.2
& SAVOY ST. A 1+50			5.0	255.5
A 1+50			6.7	253.8
20' 50 A 1+50			7.3	253.2
24' E. A 1+50			5.0	255.5
CURB A 2+00			4.0	256.5
A 2+00			5.4	255.1
22' E. A 2+00			6.7	253.8
26' E. A 2+00			4.8	255.7
CURB A 2+50			3.2	257.3
A 2+50			4.6	255.9
22' E. A 2+50			5.8	254.7
25' E. A 2+50			3.7	256.8

→ See p. 2 WCB

TOE BANK

TOP BANK

TOE BANK

TOP BANK

TOE

TOP

TOE

TOP

TOE

TOP

RES. LEVELS CONT.

STA	+	H.I.	−	ELEV.
T.P. #1		260.47 ✓		
CURB A3+00			2.5	258.0 ✓
A 3+00			3.9	256.6 ✓
22' E. A 3+00			4.4	256.1 ✓
25' E. OF A 3+00			3.3	257.2 ✓
CURB A 3+50			1.8	258.7 ✓
A 3+50			3.3	257.2 ✓
21' E A 3+50			3.9	256.6 ✓
24' " "			2.6	257.9 ✓
CURB A 4+00			1.1	259.4 ✓
A 4+00			2.7	257.8 ✓
20' E. A 4+00			3.6	256.9 ✓
23' " " "			1.8	258.7 ✓
T.P. #1			2.69	257.78 ✓
T.P. #2	4.90	262.68 ✓		
CURB A 4+50			3.1	259.6 ✓
A 4+50			4.6	258.1 ✓
20' E. A 4+50			5.3	257.4 ✓
23' " " "			4.0	258.7 ✓
CURB A 5+00			3.3	259.4 ✓
A 5+00			4.5	258.2 ✓
21' E "			5.1	257.6 ✓
24' " "			3.7	259.0 ✓
CURB A 5+50			3.7	259.0 ✓
A 5+50			4.1	258.6 ✓

JAN 22, 1942

5

5.

TOE

TOP

TOE

TOP

TOE

TOP

NAIL AT A 4+00 (A. LINE)

TOE

TOP

TOE

TOP

RES. LEVELS CONT.

STA	+	H.I	−	ELEV
-Δ #2		262.68 ✓		
20' E A 5+50			5.5	257.2
23' " " "			4.2	258.5
CURB A 6+00			4.0	258.7
A 6+00			5.2	257.5
20' E " "			5.7	257.0
24' " " "			4.3	258.4
CUB A 6+50			4.3	258.4
A 6+50			5.5	257.2
20' E " "			6.2	256.5
22' " " "			4.5	258.2
CURB A 7+00			4.6	258.1
A 7+00			5.7	257.0
21' E " "			5.7	257.0
25' " "			4.5	258.2
B 7+00			6.5	256.2
B 6+50			5.4	257.3
B 6+00			4.2	258.5
7' E OF B 6+00			5.0	257.7
B 5+50			4.4	258.3
B 5+25			5.8	256.9
B 5+00			4.0	258.7
11' E. OF A 5+00			5.0	257.7
23' " " " "			8.0	254.7
B 4+50			3.4	259.3
10' E "			4.6	258.1
18 " 4+50			7.2	255.5

TOE

TOP

TOE

TOP

TOE

TOP

TOE

TOP

TOP OF SLIGHT BREAK

DIP BOTTOM

TOP OF PRONOUNCED BREAK

TOE " " "

TOP OF BREAK "

TOE " "

RES. LEVELS CONT.

STA	+	HI	−	ELEV	
T#2		262.68 ✓			
B4+00			4.7	258.0	−
19' E OF B4+00			5.8	256.9	−
B3+50			5.7	257.0	−
9' E OF B3+50			6.3	256.4	−
19'50 " " "			8.7	254.0	−
B3+00			6.6	256.1	−
10' E OF B3+00			7.3	255.4	−
20' " " "			9.6	253.1	−
B2+50			6.8	255.9	−
12' E. B2+50			7.0	255.7	−
21' " " "			9.9	252.8	−
B2+00			8.3	254.4	−
B1+50			8.8	253.9	−
26' E. OF B1+50			10.5	252.2	−
37' " " "			13.3	249.4	−
B1+00			9.8	252.9	−
B0+50			10.8	251.9	−
B0+21			11.1	251.6	−
B0+18			13.2	249.5	−
B0+00			14.0	248.7	−
T.P#2			8.24	254.44 ✓	
T#3		0.34 254.78 ✓			
C0+00			9.7	245.1	−
C0+43			9.1	245.7	−

TOP OF BREAK

" " "

TOE OF BREAK

TOP

TOE

TOP

TOE

TOP

TOE

TOP BANK

TOE

$\Delta = 80°$

$R = 63$

$T = 52.86$

$L = 87.96$

27.7' per ft

BC 0+00

✓ 0+25 11°27'

✓ 0+50 22°46'

0+75 34°09

PRC 0+87.96 40°00'

1+00 9°31

1+25 29°11

1+38.22 40°00'

1+48.91

1+73.91

End

$\Delta = 80°$

$R = 36'$

$L = 50.24$

$T = 30.21$

8390996
63
25172988
50345976
528632748

1.396263 L
63
4188790.2
837758.04
87.96459.42

1.396263 L
36
837758.04
41887902
50265482.4

839.0996
36
50345976
25172988
30207585.6

11
683
20
83
60
23

9-50
1940
1180
60
580
57
20

47.7
36 | 1718.87

RES. LEVELS. CONT.

STA	+	H.I	−	ELEV
R#3		254.78	✓	
C 0+50			5.6	249.2
C1+00			7.7	247.1
C1+50			6.7	248.1
C2+00			6.3	248.5
C2+50			5.4	249.4
C3+00			4.6	250.2
C3+50			3.9	250.1
C4+00			3.4	251.4
C4+50			2.9	251.9
C5+00			2.6	252.2
C5+50			2.4	252.4
C6+00			2.3	252.5
C6+50			2.0	252.8
C7+00			2.0	252.8
D 7+00			5.8	249.0
D6+98			9.8	245.0
D6+92			9.8	245.0
D6+90			6.0	248.8
D6+50			4.9	249.9
D6+00			5.3	249.5
D5+50			5.9	248.9
D5+00			6.2	248.6
D 4+50			6.6	248.2
D4+00			7.1	247.7

JAN 22, 1942
WHITLOCK
BARKER ST.
GREELEY

8

TOP OF DRAIN DITCH
IN BOTTOM 50. SIDE
IN BOTTOM No SIDE
TOP No. SIDE

RES. LEVELS. CONT.

STA	+	H.I	−	ELEV
T#3		254.78 ✓		
D.3+50			7.8	247.0
D 3+00			8.4	246.4
D 2+50			9.4	245.4
D 2+00			10.0	244.8
D 1+50			10.8	244.0
D 1+00			11.6	243.2
D 0+50			12.0	242.8
D 0+00			13.0	241.8
T.P#3			9.11	245.67 ✓
T#4	2.01	247.68		
E.0+00			10.6	237.1
E 0+50			9.0	236.7
E 1+00			9.0	236.7
E 1+50			7.1	240.6
E 2+00			6.3	241.4
E 2+50			5.7	240.0
E 3+00			5.1	240.6
E 3+50			4.3	243.4
E 4+00			3.8	241.9
E 4+50			3.3	244.4
E 5+00			2.6	245.1
E 5+50			1.9	245.8
E 6+00			1.0	246.6
E 6+50			1.8	245.9

JAN. 22. 1942
WHITLOCK · NOTES
BARKER Jr. T
GREELEY ϕ

RES. LEVELS. CONT.

STA	+	H.I	−	ELEV	
T#4		247.68 ✓			
E6+65			2.8	244.9	-
E6+66			4.7	243.0	-
E6+69			4.8	242.9	-
E6+70			2.3	245.4	-
E7+00			+0.3	248.0	✓
F 7+00			0.8	246.9	-
F 6+50			5.0	242.7	- L. LOW AERA.
F6+00			4.0	243.7	-
F5+50			4.7	243.0	-
F5+00			5.9	241.8	-
F4+50			6.9	240.8	-
F4+00			7.1	240.6	-
F3+50			7.5	240.2	-
F3+00			8.3	239.4	-
F2+50			9.1	238.6	-
F2+00			10.3	237.4	-
F1+50			11.8	235.9	-
F1+00			14.1	233.6	-
F0+50			15.3	232.4	-
F0+00			15.6	232.1	-
T.P#4			9.23	238.45	✓
T#5	2.95	241.40 ✓			
G0+00			16.0	225.4	-
G0+50			13.5	227.9	-

TOP OF DITCH NO. SIDE

IN BOTTOM

" "

TOP

DITCH NOW FANNED OUT

RESERVOIR LEVELS CONT.

STA	+	H.I	−	ELEV
A# 5		241.40 ✓		
G 1+00			13.0	227.4 –
G 1+50			11.5	229.9 –
G 2+00			8.4	233.0 –
G 2+50			5.5	235.9 –
G 3+00			5.1	236.3 –
G 3+50			4.6	236.8 –
G 4+00			4.6	236.8 –
G 4+50			4.0	237.4 –
G 5+00			2.9	238.5 –
G 5+50			1.6	239.8 –
G 6+00			1.4	240.0 –
G 6+50			0.0	241.4 –
G 7+00			+3.0	244.4 – ✓
H 7+00			+0.5	241.9 – ✓
H 6+50			1.5	239.9 –
H 6+00			3.6	237.8 –
H 5+50			5.3	236.1 –
H 5+00			6.5	234.9 –
H 4+50			7.3	234.1 –
H 4+00			8.4	233.0 –
H 3+50			7.8	233.6 –
H 3+00			8.0	233.4 –
H 2+50			9.1	232.3 –
H 2+00			10.2	231.2 –
T.P #5			12.91	228.49 ✓

RES. LEVELS CONT.

JAN 22, 1942.

STA	+	H.I	−	ELEV	
TP #5				228.49	✓
T #6	1.63	230.12	✓		
H 1+50		"	2.2	227.9	–
H 1+00		"	4.2	225.9	–
H		"			
H 0+20		"			
I 0+50			11.6	218.5	–
I 0+55			11.8	218.3	–
I 0+60		"	10.4	219.7	–
I 0+90		"	8.2	221.6	–
I 1+00		"	6.2	223.9	–
12' W of I 1+50			1.6	228.5	–
8' W of I 1+50		"	3.8	226.3	–
I 1+50			4.6	225.5	–
I 2+00		"	3.4	226.7	–
T #5		241.40	✓		
I 2+50		"	13.4	228.0	–
I 3+00		"	11.5	229.9	–
I 3+50		"	10.7	230.7	–
I 4+00		"	10.7	230.7	✓
I 4+50		"	9.7	231.7	–
I 5+00		"	9.6	231.8	–
I 5+50		"	8.3	233.1	–
I 6+00		"	5.3	236.1	–
I 6+50		"	3.7	237.7	–
I 7+00		"	2.6	238.8	–

BOTTOM OF BREAK RUNNING N. & S.

TOP OF A BREAK NOR. & SO.

TOP OF BANK

BOTTOM OR TOE

JAN 23, 1942

RES. LEVELS CONT.

STA	+	HI	—	ELEV
T#5		241.40 ✓		
J. 7+00		"	5.5	235.9 –
J 6+50		"	6.4	235.0 –
J 6+00		"	7.9	233.5 –
J 5+50		"	9.0	232.4 –
J 5+00		"	11.7	229.7 –
J 4+50		"	13.6	227.8 –
J 4+00		"	14.4	227.0 –
T#6		230.12 ✓		
J 3+50		"	4.2	225.9 –
J 3+00		"	5.8	224.3 –
J 2+50		"	7.6	222.5 –
J 2+00		"	9.5	220.6 –
J 1+50		"	11.2	218.9 –
26' WEST OF J 1+50		"	6.7	223.4 –
J 1+00		"	13.8	216.3 –
38' W. OF J 1+00		"	7.9	222.2 –
26' W. OF J				
T.P#6			11.42	218.70 ✓
T#7	3.18	221.88 ✓		

BOTTOM SLOPE

TOP OF BREAK

TOP OF BREAK

SUPPLEMENTARY SHOTS
RESERVOIR LEVELS

STA	+	H.I	−	ELEV	
T#7		221.88 ✓			
24'E OF I 0+50		"	6.0	215.9	-
29' " " "		"	6.6	215.3	-
J 0+50		"	9.7	212.2	-
J 0+00		"	10.6	211.3	-
I 0+00		"	4.7	217.2	-
H 0+00		"	1.4	220.5	-
H 0+03		"	0.5	221.4	-
T.P#7			0.41	221.47	✓
T#8	12.07	233.54 ✓			
18'E. OF I 1+00		"	1.5	232.0	-
H. 0+50		"	10.0	223.5	-
CENT OF "E" LINE AT 0+75		"	1.5	232.0	-
T.P#8			0.10	233.44	✓
T#9	12.74	246.18 ✓			
0+20 "E" LINE		"	7.9	238.3	-
G 4+25		"	8.6	237.6	-
30'E OF H 5+50		"	12.4	233.8	-
J 4+65		———		225.4	Hand Level
G 2+25		246.18	11.0	235.2	-
20'E OF C 0+70		"	1.0	245.2	-
T.P#9			0.09	246.09	
T#10	10.84	256.93 ✓			

TOP OF BREAK

BOTTOM.

SLIGHT BREAK TOP.

DEPRESSION

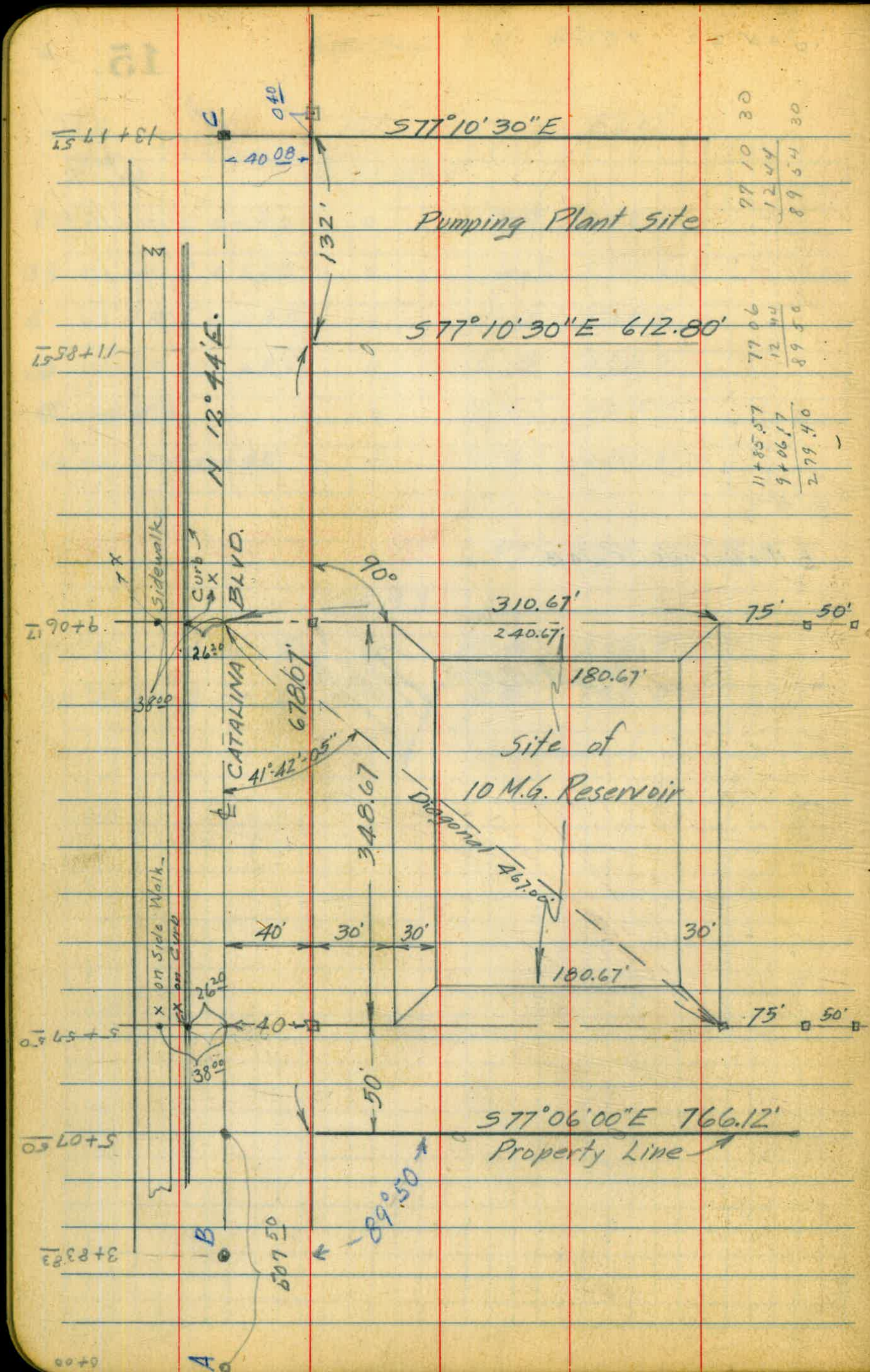
LEVELS ON RES.

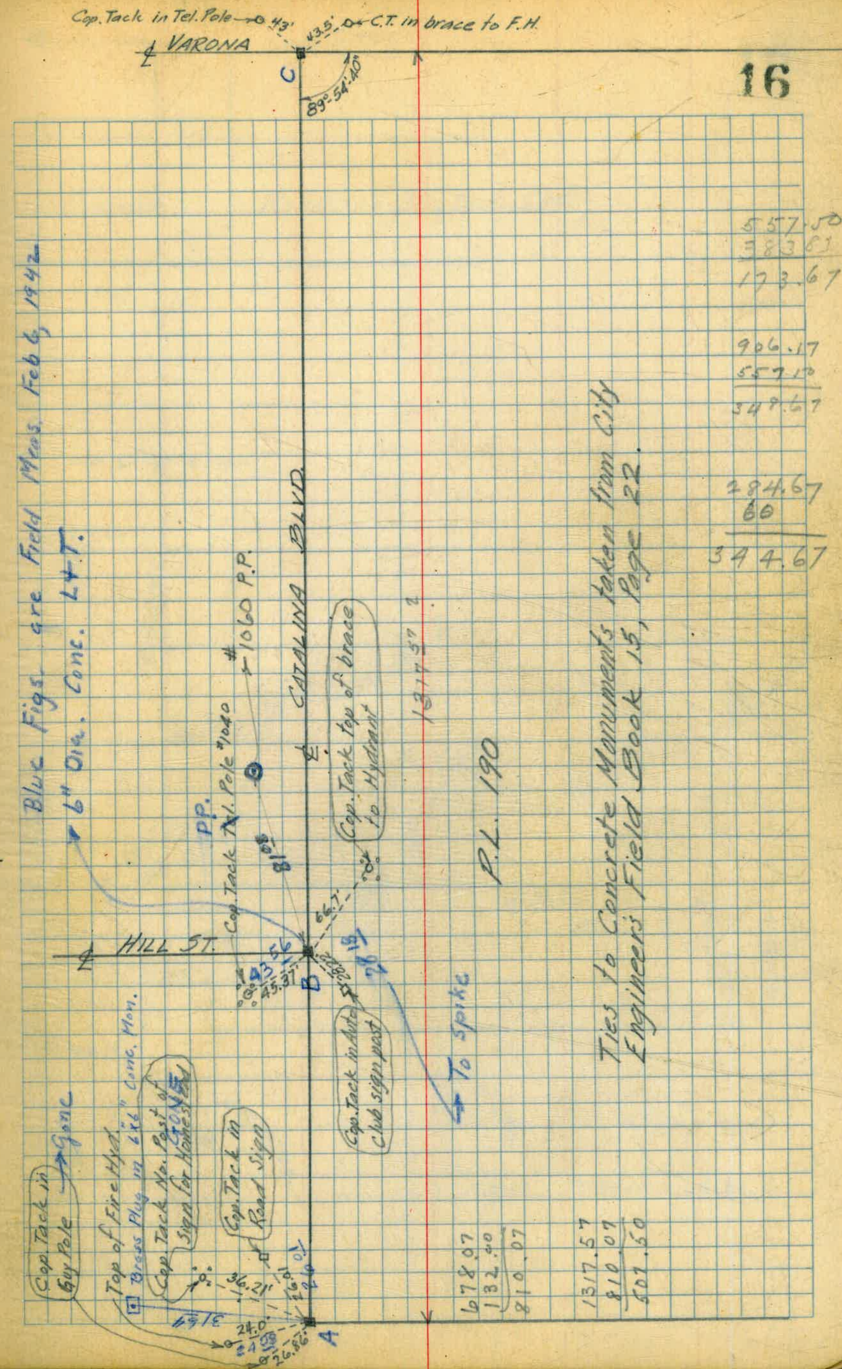
JAN 22, 1942

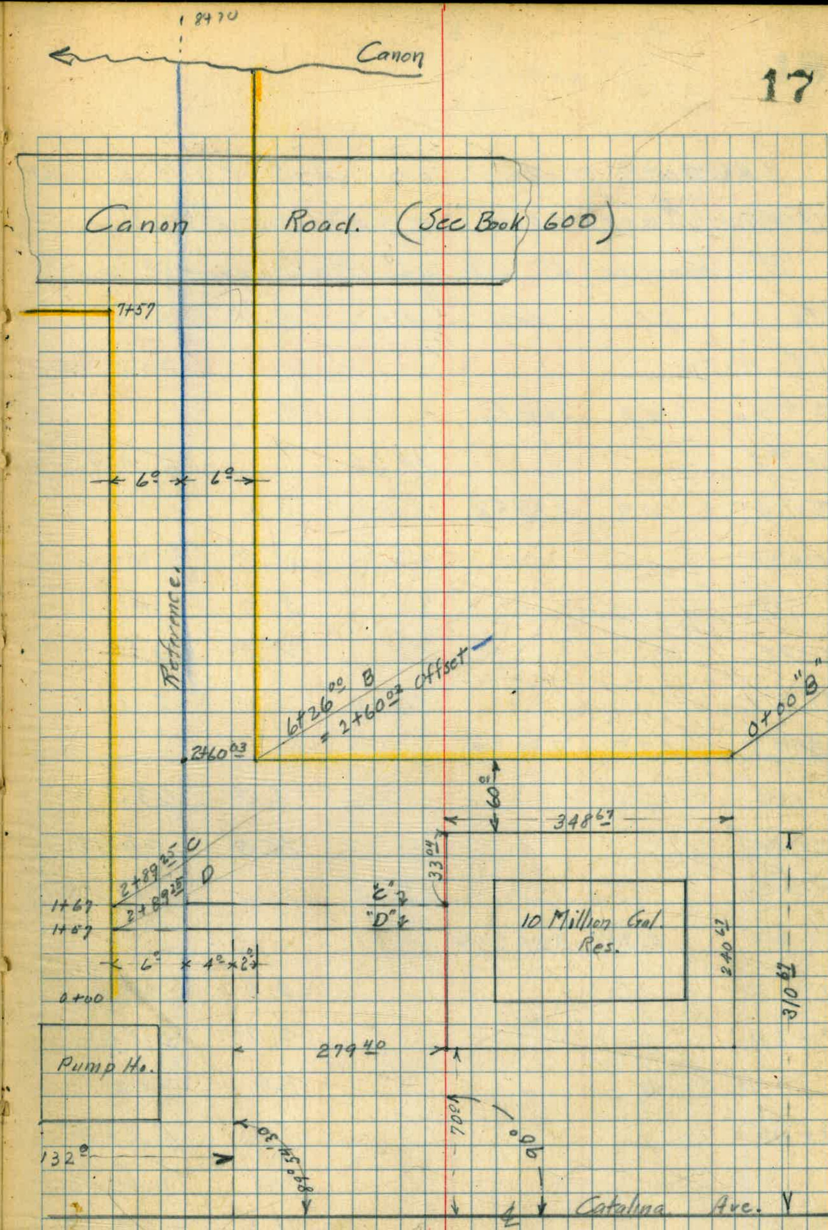
STA	+	HI	−	ELEV	
A #10		256.93 ✓			
20' W OF	C 0+30	"	8.9	248.0	-
23' W OF	C 0+30	"	6.3	250.6	-
5' W OF	C 0+35	"	11.3	245.6	-
15' W OF	C 0+35	"	6.8	250.1	-
C 0+40		"	11.2	245.7	-
10' W OF	C 0+40	"	7.4	249.5	-
				✓0.01	
			6.77	250.16 ✓	B.M.
		256.93			
25' E OF	A 0+12		6.4	250.5	-
25' E OF	A 0+16		4.4	252.5	-

B.M ON CONC. CURB SB 250.82 WCB

Reduced


S77°10'30"E
Pumping Plant site
132'
S77°10'30"E 612.80'
N 12°44'E.
CATALINA BLVD.
Sidewalk
Curb
90°
310.67'
240.67'
180.67'
75'
50'
678.67'
41°-42'-05"
Site of
10 M.G. Reservoir
348.67
Diagonal 467.00
40'
30'
30'
30'
180.67'
40
50'
S77°06'00"E 766.12'
Property Line
89°50
on Side Walk
on Curb
13+17.15
58+11.15
90+6.17
5+45.70
5+07.70
3+83.83
9.77.06
12.44
89.54
11+85.57
9+06.17
279.40
B
A


Cop. Tack in Tel. Pole
C.T. in brace to F.H.
℄ VARONA
C
89°-54'-40"
Blue Figs. are Field Meas. Feb 6, 1942.
6" Dia. Conc. L & T.
#1060 P.P.
CATALINA BLVD.
Cop. Tack in Tel. Pole #1040
Cop. Tack top of brace to Hydrant
1317.57
P.L. 190
Ties to Concrete Monuments taken from City Engineer's Field Book 15, Page 22.
℄ HILL ST.
B
To spike
Cop. Tack in Auto Club sign post
Cop. Tack in Road Sign
Cop. Tack No. Post of Sign for Homestead GONE
Top of Fire Hyd.
Brass Plug on 6x6" Conc. Mon.
Cop. Tack in Guy Pole
Gone
A
678.07
132.00
810.07
1317.57
810.07
507.50
557.50
383.83
173.67
906.17
557.50
348.67
284.67
60
344.67


Canon
Canon Road. (See Book 600)
7+57
6'
6'
Reference.
2+60.03
6+26.00 B
= 2+60.03 Offset
0+00 "B"
60'
348.67
33.04
2+89.25 C
2+89.25 D
1+67
1+67
"C"
"D"
10 Million Gal. Res.
240.67
310.67
0+00
Pump Ho.
279.40
132'
70'
90°
Catalina Ave.

* Messersmith
ϕ Gomez
2/9/42

Levels notes on A-B-C-D Lines From Reservoir on Catalina Blvd.
"B" Line is 6' 50. of Reference Line

Sta	B.S.	H.I.	F.S.	Rod	Elev.
B.M. city					250.17
⚓ #1	3.99	254.16			
T.P. #1			10.26		243.90
⚓ #2	0.62	244.52			
0+00				0.2	244.3
+50				3.3	241.2
1+00				7.7	236.8
T.P. #2			11.02		233.50
⚓ #3	0.39	233.89			
1+50				3.0	230.89
2+00				10.0	223.9
T.P. #3			12.31		321.58
⚓ #4	0.14	221.72 ✓			
2+50				2.0	219.7
2+60				3.1	218.62
" B. Line				1.4	220.3
3+00				5.7	216.0
" B. Line				5.5	216.2
3+50				11.5	210.2
" B. Line				11.7	210.0
	5.14		33.59		

BM 250.17 → SB 250.82 WLB

250.17
5.14
255.31
33.59
221.72

Sta.	B.S.	H.I.	F.S.	Rod	Elev.
		221.72			
T.P.#4			11.56		210.16
℄#5	0.40	210.56			
4+00				5.5	
" B. Line				5.9	204.7
4+50				10.0	
" B. Line				10.2	200.4
T.P.#5			12.77		197.79
℄#6	0.76	198.55			
5+00				2.8	195.8
" B. Line				2.9	195.7
5+50				9.1	
" B. Line				9.1	189.5
T.P.#6			12.35		186.20
℄#7	0.73	186.93			
6+00				1.7	
" B. Line				2.3	184.6
6+19				4.1	182.9
" B. Line				4.4	182.5
6+50				11.6	
" B. Line				12.5	174.4
T.P.#7			12.66		174.27
℄#8	0.99	175.26			
7+00				12.6	
" B Line				12.4	162.9
	2.88		49.34		

221.72
2.88
219.60
49.34
175.26

Sta.	BS	Hi.	FS.	Rod	Elev.
		175.26 ✓			
T.P. #8			12.62		162.64
X #9	0.82	163.46			
7+50	West edge of Road			6.9	156.6
"	B. Line	"		6.5	157.0
7+89	East edge of Road			6.4	
"	B. Line	"		6.0	157.5
8+00				12.6	
"	B. Line	"		12.5	151.0
T.P. #9			12.61		150.85
X #10	4.78	155.63 ✓			
8+07	Top edge of Ditch			6.0	
"	B. Line	"		6.1	149.5
8+09	Bottom of Ditch			8.3	
"	B. Line	"		8.1	147.5
8+13	Top edge of Ditch			5.7	
"	B. Line	"		5.7	149.9
8+26				4.3	
"	B. Line	"		4.2	151.4
8+40	Bottom of Ditch			8.6	
"	B. Line	"		8.6	147.0
8+55				5.1	
"	B. Line	"		5.1	150.5
8+70	end of Line				158.76
"	B. Line	"			158.86
	5.60		25.23		

175.26
5.60
180.86
25.23
155.63

Sta.	B.S.	H.I.	F.S.	Rod	Elev.
	"B." Line				
T.P.#2					233.50
⊼ #1	4.36	237.86			
0+00	"B." Line (See Pg. 17.)			0.0	237.9
+50	"			2.1	235.8
1+00	"			3.5	234.4
+50	"			5.0	232.9
2+00	"			5.2	232.7
+50	"			6.1	231.8
3+00	"			5.6	232.3
+50	"			6.4	231.5
4+00	"			8.2	229.7
+50	"			7.8	230.1
5+00	"			10.4	227.5
+50	"			14.8	223.1
6+00	"			16.9	221.0
6+32	" = 2+60.03 Reference Line.				218.62
	"C" Line				
0+00	"C" Line	H.I. 237.86		0.1	237.76
+50	"			1.5	236.4
1+00	"			4.3	233.6
+50	"			6.6	231.26
2+00	"			8.0	229.9
+50	"			9.7	228.2

233.50
4.36
237.86

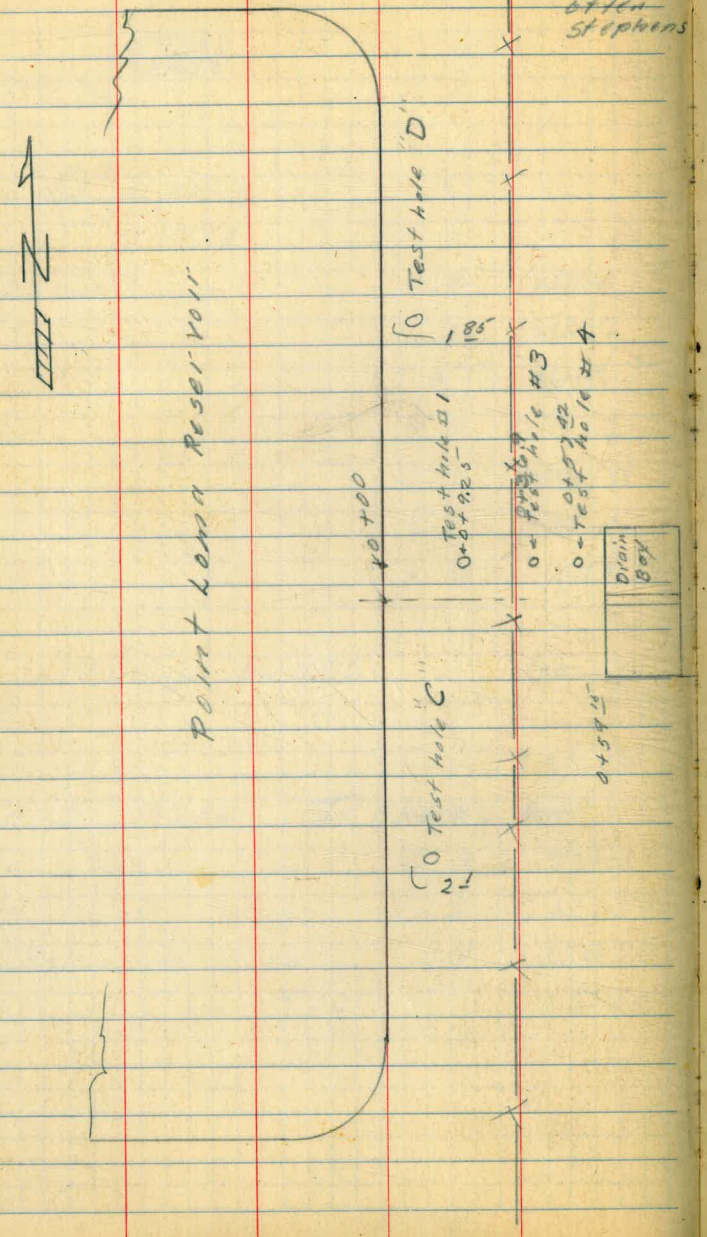
Sta.	BS.	Hi.	FS.	Rod	Elev.
		237.86			
2+83.25	"C" Line			9.7	228.16
	"D" Line				
		237.86			
0+00	"D" Line			0.0	237.86
+50	"			1.0	236.86
1+00	"			3.0	234.86
+50	"			5.4	232.46
2+00	"			7.3	230.56
+50	"			8.7	229.16
2+83.25	"			8.0	229.86
T.P. #2	checking on 4.36				233.50
T.P. #2					233.50
⊼	4.10	237.60	To Check:		—
1+50	"C" Line			6.3	231.30
1+50	"D" Line			5.2	232.40
1+50	Reference Line			6.7	230.90
T.P. #2	checking on 4.10				233.50

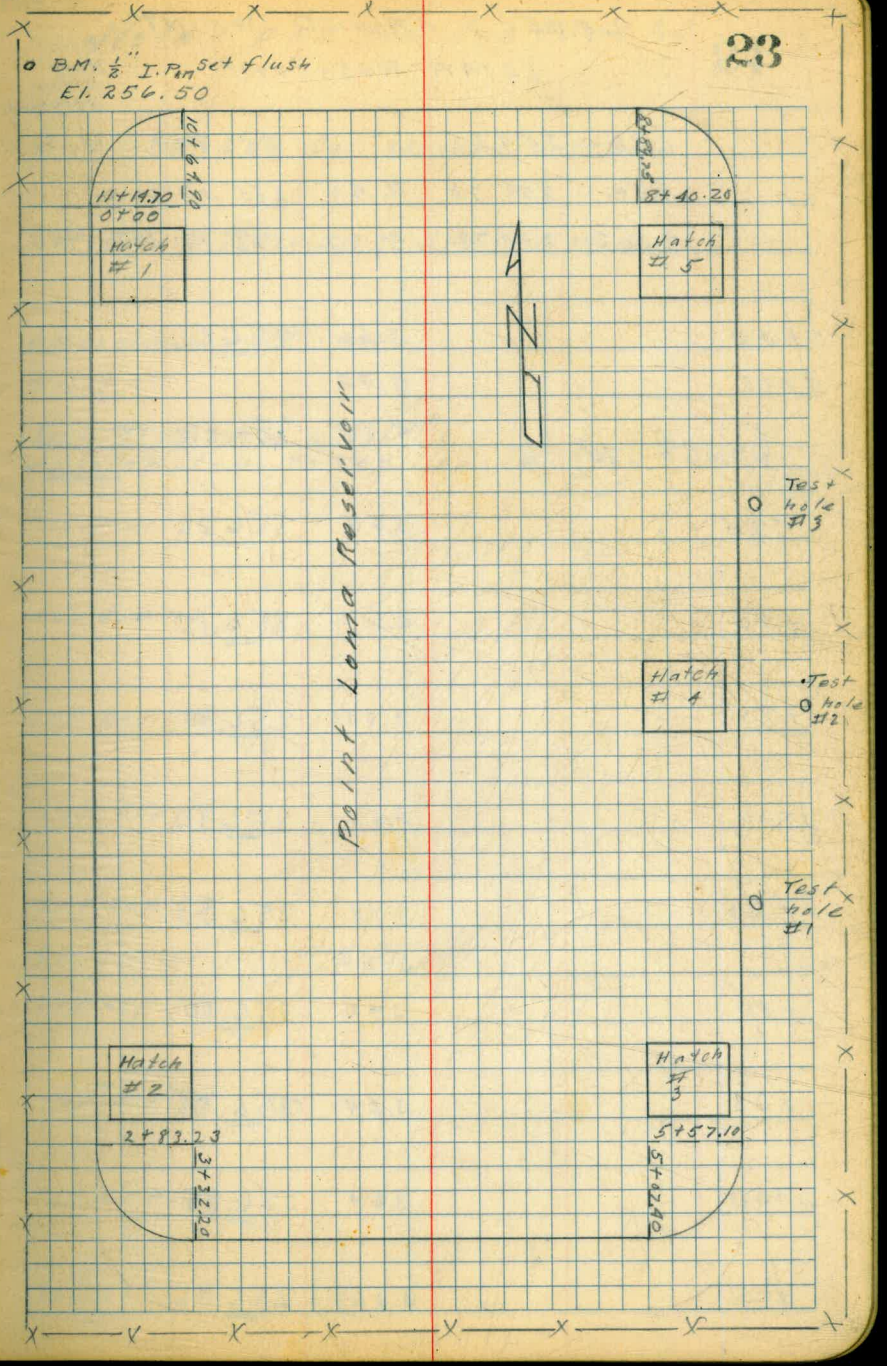
		237.86
		4.36
287.61		233.50

Sketch of Sta. Around Point Loma Reservoir.

8-9-44

By Carl King after Stephens





8-7-94

LEVELS AROUND POINT
LOMA RESERVOIR

Byler
King
Otten
Stephens.

	6.76	257.58		250.82
	4.59	259.72	2.45	255.13
	3.22	259.72	3.22	256.50
0+00			3.66	256.06
0+00			4.98	
			4.79	254.93
+25			3.66	256.06
+50			3.62	256.10
+75			3.63	256.09
1+00			3.62	256.10
+25			3.69	256.03
			5.65	
+50			3.62	256.10
+75			3.64	256.08
2+00			3.64	256.08
+25			3.66	256.06

Note - FOR Sta. See Page 23

B.M. B.P. S.W. Cor. Verona & Catalina.

Set B.M. ½" I.P. Flush & 5' S. of N.W. fence Cor.

on coping around res.

O.N. Par.

First step inside hatch #1
+1.13 Top step To Top coping (wall 256.06)

Top coping.

Top coping

Top coping

Top coping

Top coping

In Gutter Midway W. Side
Top coping

Top coping

Top coping

Top coping

		259.72			
2+50			3.65	256.07	—
+75			3.65	256.07	—
+83 23			4.91		
+83 13			3.66	256.06	—
			5.69		
3+00			3.60	256.12	—
+25			3.63	256.09	—
TP	2.17	259.71	2.18	257.54	
			4.66	255.05	—
3+32 30			3.60	256.11	—
3+32 20			4.86		
			5.66		
+50			3.64	256.07	—
+75			3.58	256.13	—
4+00			3.60	256.11	—
			5.90		
+25			3.59	256.12	—

Top coping

Top coping

on pav.

Top coping

in Gutter opp.

Top coping

Top coping

First step inside notch #2

+1.0 Top step to Top Coping Wall 256.05

on pav.

In Gutter at S.W. Cor.

Top coping

Top coping

Top coping

In Gutter Mid Way S. End on Grate

Top coping

	259.71			
4+50		3.61	256.10	Top coping
+75		3.61	256.10	Top coping
5+00		3.62	256.09	Top coping
+07.40		3.61	256.10	Top coping on Pav.
		4.85		
+25		3.59	256.12	Top coping
		5.45		In Gutter S.E. Cor.
+50		3.59	256.12	Top coping
+57.10		3.59	256.12	Top coping on Pav.
+57.10		4.94		
		4.55	255.16	on Top step inside Hatch #3 +0.90 From Top step to top of coping (Wall 256.06)
+75		3.67	256.04	Top coping
6+00		3.68	256.03	Top coping
+25		3.65	256.06	Top coping
		4.48	255.23 ✓	Test hole #C (Top)

	359.71		
6+50	3.62	256.09	–
+75	3.65	256.06	–
7+00	3.71	256.00	–
	4.63	255.08 ✓	–
	4.66	255.05	–
	6.00		
	5.04		
+25	3.69	256.02	–
+50	3.69	256.02	–
	4.50	255.21	–
+75	3.69	256.02	–
8+00	3.69	256.02	–
+25	3.67	256.04	–
	4.56	255.15	–

Probably in error WCB

Top coping

Top coping

Top coping

Top Test Hole #1

Top step inside Hatch #4 (Wall 256.01)
+0.96 from Top of step to Top of Coping
Gutter Midway E side on Grate
Pav. " " "

Top coping

Top coping

Test Hole #D (Top)

Top coping

Top coping

Top coping

Top step inside hatch #5
+1.10 Top step to Top coping (Wall 256.25)?

		259.71			
8+10.20			3.65	256.06	-
8+10.20			4.96		
+50			3.69	256.02	-
			5.59		
+75			3.69	256.02	-
TP	2.39	259.87	2.23	257.48	
8+89.75			3.86	256.01	-
+89.75			5.19		
9+00			3.85	256.02	-
+25			3.85	256.02	-
+50			3.84	256.03	-
+75			3.84	256.03	-
			6.12		
10+00			3.82	256.05	-

Top Coping on pav.

Top Coping

In Gutter N.E. Cor.

Top Coping

Top Coping on pav.

Top Coping

Top Coping

Top Coping

Top Coping

In Gutter Mid Way N. End on Curve

Top Coping

		259.87			
10+25			3.79	256.08	-
+50			3.76	256.11	-
+64.2			3.80	256.07	-
+64.2			5.09		
+75			3.80	256.07	-
			5.95		
11+00			3.81	256.06	-
			3.38	256.49	
	3.30	259.80		256.50	
			8.97	250.83	

Top Coping

Top Coping

Top Coping
on P.V.

Top Coping

In Gutter N.W. Cor.

Top Coping

Check on B.M. I.P. in El. 256.50

B.M. I. Pin

Check on B.M. B.P. S.W. Cor. Verona & Calabria
El. 250.82

8-7-14

Byler
King
Otten
Stephens

El. of Water Point Loma Res.
IN Relation to Guage

3.15	259.65		256.50
		8.02	251.63
		17'-9 1/8"	
3.37	255.00		

B.M.

El. Taken on Surf. Water

Reading of Res. Guage

Distance from Surf. of Water
To Top of outlet N. End.

} Simultaneous Readings

Pt. Loma Res.

El. of Test Holes & Drain Box

	2.28	257.36 ✓		255.08 ✓
0+36 ±			9.48	247.88 —
TP	2.00	246.89 ✓	12.47	244.89 ✓
0+57 ±			7.69	239.20 —
			8.85	238.04
			18.84	228.05
TP	11.42	256.31 ✓	2.00	244.89 ✓
			1.23	255.08 ✓

Byler
King
Otten
Stephens

8-7-44

(Top test hole #1 W.B)

Top Pipe Test hole #3

Top Pipe Test hole #4

Top of drain Box S.W. Cor.

Floor of drain Box S.W. Cor.

Soundings along 16" Harbor Drive P.L.
Across Navy Slough

	0.28	15.54		15.260
TP	1.84	6.24	11.14	4.40
			12.03	- 5.79

Stadia & Sound No.	Stadia	Tide Guage	Depth	El.
	Transit Sta. for Stadia Shots. At Sta. 129+29			
#1	34	1.1	4.4	
#2	60	1.1	11.0	
#3	104	1.1	16.7	
#4	155	1.1	18 2	
#5	173	1.0	21 0	
#6	222	1.0	21 6	
#7	280	1.0	20 0	
#8	340	1.0	18 2	
#9	380	0.9	13 5	
#10	420	0.9	10 5	
#11	460	0.9	4 1	

9-27-44
BY Ket EET
King Sound
often
Stephens Oarsman

B.M. Nail So. End of Cap Bent #2

El. Surf. of water Guage 1.1

	DEPTH 25' left	20' Rt.
	9.4	9.5
	13 0	14 5
	17 3	18 1
	19 2	19 3
	20 2	23 0
	19 6	22 5
	18 3	19 5
	16 3	16 3
	10 0	11 1

Levels to Establish B.M. Near
Sta. 130+65 Harbor Drive P.L.

0.28	15.54		15.260
2.95	7.35	11.14	4.40
		4.38	2.97

9-27-44
Byler
King
Offen
Stephens

B.M. Nail in So End of Cap Bent #2

Set B.M. on Conc. Mon. 15' N of G.V. Chamber Sta. 130+65

July 17, 1945
Soper
King
Stephens

Check elevations at Point Loma Reservoir

B.M.	10.47	261.29		250.82	
TP	3.12	259.62	4.80	256.49	Rec. 256.50
			4.70	254.92	
TP	5.45	260.05	5.02	254.60	
			4.98	255.07	
			6.24	253.81	
4+00			3.92	256.13	
5+00			3.96	256.09	
			5.00		
TP	4.57	259.24	5.38	254.67	
			4.04		
			4.08		
6+00			3.20	256.04	

B.P.S.W. Cor. Verona + Catalina.

Ck on B.M. - Iron pin 5' South of N.W. fence corner

Center, East face, of top step under Hatch #1

Center - East face, of top step under Hatch #2

On painted arrow, on grate, Southend of Res.

Top of coping wall - Note: Level rod can not be held plumb for readings on the coping wall

Top of coping wall

On 3/4" Rein. steel rod 20' South 4+45

On 3/4" Rein. Steel rod. 20' S.E. 5+32

Center, West face of top step under Hatch #3

Top of coping wall

		259.24		
			4.12	
			4.00	
7+00			3.23	256.01
			11.35	
TP	1.83	249.72	11.35	247.89
			10.52	
			11.66	
TP	11.29	259.18	1.83	247.89
			4.10	
			4.14	
			5.46	
			3.97	
			4.38	

On 3/4" Rein. steel rod - 17' East of test hole "C"

Top of pipe - test hole "C"

Top of coping wall

Top of pipe test hole #3

Top of pipe - test hole #4

Top of drain box - S.W. Cor

Top of pipe test hole #1

Center, West face of top step under Hatch #4

On painted arrow, on grate East side of Res.

Top of pipe test hole "D"

On 3/4" Rein. steel rod - 18' East of test hole "D"

		259.18		
8+00			3.12	256.06
			4.23	254.95
			4.18	255.00
TP	4.67	259.29	4.56	254.62
9+00			3.35	255.94
			4.35	
10+00			3.22	256.07
			5.52	253.77
ck on B.M.			2.80	256.49

Top of coping wall

Center, Westface of top step under Hatch #5

On 3/4" Rein. steel rod 20' N.E. 8+65

Top of coping wall - Note: Water standing on oil road here
Obvious settlement in road.

On 3/4" Rein. steel rod, 20 North 9+52

Top of coping wall

On painted arrow, on grate, North end of Res.

Sept 20 1946
Cloudy & Cool

Bliss Notes
King T
Davis Rod.

Check Elevations Pt Loma Reservoir

	3.35	259.84		256.49	BM. iron pin 5' So. N.W. Fence Corner
			4.93	254.91	Center East Face of top step under Hatch #1
			4.76	255.08	Center East face of Top Step under Hatch #2
T.P.	4.82	259.64	5.02	254.82	
			5.83	253.81	on Painted Arrow on Grate South End Reservoir
4+00			3.51	256.13	Top of Coping Wall
			4.60	255.04	Top 3/4" iron pin or rod 20' South of 4+45
5+00			3.55	256.09	Top of Coping Wall
			4.43	255.21	Top of 3/4" Steel Rod 20' S.E 5+32
			4.48	255.16	Center N.W. Face of Top Step under Hatch #3
T.P.	4.38	259.59	4.43	255.21	
6+00			3.55	256.04	Top Coping Wall
			4.47	255.12	3/4" Steel Reinforcing rod 17' East of Test Hole "C"

		25959		
			4.35	255.24
7+00			3.61	255.98
			4.56	255.03
			11.70 (69)	247.90
T.P.	0.60	248.49	11.70	247.89
			9.30	239.19
			10.42	238.07
T.P.	11.61	259.50	0.60	247.89
			4.43	255.07
			5.80	253.70
			4.30	255.20
			4.72	254.78
8+00			3.45	256.05

Top of Pipe Test Hole C"

Top of Coping wall

Center West Face Top Step under Hatch #4

Top of Pipe Test Hole # 3

Top of Pipe Test Hole # 4

Top of Drain Box SW Corner

Top of Pipe Test Hole #1

Painted arrow on Grate East Side of Reservoir

Top of Pipe Test Hole "D"

on 3/4' Steel Rod 18' East Test Hole D

Top of Coping wall

		259.50			
			4.57	254.93	
			4.51	254.99	
TP	4.56	259.55	4.51	254.99	
9+00			3.63	255.91	
			4.62	254.93	
10+00			3.50	256.05	
			5.80	253.75	
Check BM			3.07	256.48	0.01 Error

Center West face Top Step Under Hatch #5

on 3/4" Steel Rod 20' NE 8+65

Top Coping Wall

on 3/4" Reinforcing Rod 20' N 9+52

Top of Coping Wall

Painted arrow on Grate 20 +- N. 10+00 on N.E end of Reservoir

3/4" iron pin 5' So. of N.W Corner

Bliss cloudy + Cool
Leonard X
Fair ϕ
8/26/47

	Check	Elev.s	Pt Loma	Reservoir	
BM	3.04	259.53		256.49	Iron Pin 5' SO N W Fence Cor
			4.62	254.91	
TP	4.96	259.71	4.78	254.75	
T.P. on Step	4.76	259.83	4.64	255.07	
4+00			3.70	256.13	
			6.03	253.80	
4+45			4.78	255.05	
5+00			3.74	256.09	
+35			4.64	255.19	
			4.68	255.15	
TP.	4.45	259.64	4.64	255.19	
			4.40	255 24	

East face

Center Top Step under Hatch #1

Center + East face Top Step under Hatch #2

Top Coping wall at 4+00

Painted arrow on Grate opp 4+00 +- S. End Reservoir

Top iron pin 3/4" 20' So of 4+45

Top Coping Wall

Top 3/4" iron pin 20' South 5+35

Center + W. face Top Step under Hatch #3

On Steel Pin opp 5+35

Top Pipe Test Hole C. Note 6+00 should have been Taken First

		T 259.64		
6+00			3.60	256.04
			4.525	255.115
7+00			3.64	256.00
			4.60	255.04
			4.55	255.09
			5.925	253.715
TP	0.53	255.62	455	255.09
			7.71	247.91
TP	0.58	243.89	12.31	243.31
			4.69	239.20
			5.80	238.09
			4.435	255.205
			4.85	254.79

Top Coping wall

Top iron pin 17.7 East Test Hole "C"

Top Coping wall

Center, East face + Top Step under Hatch #4

Test Hole #1

Painted Arrow Top Grate 18' Rt 7+10+-

Top Pipe Test Hole #3

Top pipe, Test Hole #4. Cap off

Top Drain Box SW Corner

Test Hole "D"

Iron pin 18+- East of Test Hole D

	+	π 25964	−	Elev
8+00			3.59	256.05
			4.715	254.925
	4.64	259.62	466	254.98
9+00			3.70	255.92
			4.68	254.94
10+00			3.545	256.075
			5.85	253.77
Check Starting B.M.			3.14	256.48
				256.48
				0.01 error

Top Coping Wall

Top ± West face of step under Hatch #5

Top steel pin 20' N.E. 8+65

Top Coping wall

3/4" steel pin 20' N 9+52

Top Coping wall

Pointed arrow on Grate 20+ N 10+00

CHECK LEVELS AROUND PT LOMA RESERVOIR

BEATTY + POWELL - BERGER #

MAR. 26, 1952

BM	3.28	259.77		256.49
			4.86	254.91
			5.50	254.27
			4.69	255.08
			5.35	254.42
TP	2.08	259.59	2.26	257.51
CK TP			5.80	253.79 = 253.80
4+00			3.44	256.15
5+00			3.48	256.11
			4.41	255.18
			5.06	254.53
6+00			3.53	256.06
			4.32	255.27
7+00			3.58	256.01
			4.55	255.04
			5.20	254.39
			4.49	255.10
CK TP			5.85	253.74 = 253.715
			4.36	255.23
8+00			3.52	256.07
			4.65	254.94
			5.30	254.29
TP	4.61	259.72	4.48	255.11
CK TP			4.73	254.99

Iron Pin 5' So NW Cor Fence

℄ Top Step Hatch #1

Top of 2nd Step Hatch #1

℄ Top Step Hatch #2

Top of 2nd Step Hatch #2

painted arrow on Rim of drain 4+00 ÷

on Coping wall

on Coping wall

℄ Top Step Hatch #3 (painted)

Top 2nd Step " "

on Coping wall

Top of 2" I.P Test Hole "C"

on Coping wall

℄ Top Step Hatch #4 (painted)

Top 2nd Step " "

Top 2" I.P Test Hole #3

on painted arrow on Rim of Drain

Top 2" I.P. TEST HOLE D

on Coping wall

℄ Top Step Hatch #5 painted

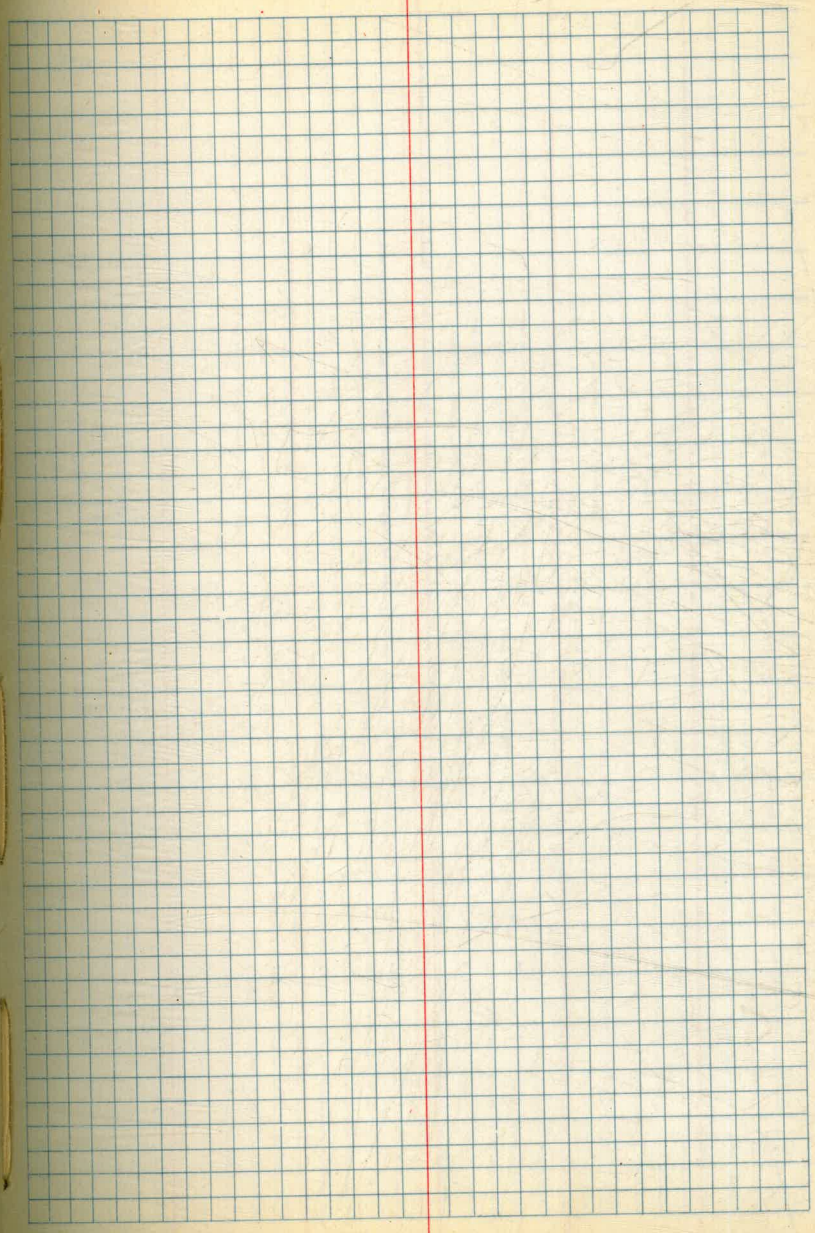
Top 2nd Step " "

Top Iron pin near fence 8+65

Check Levels Around Pt. Loma Reservoir

	259.72		
9+00		3.81	255.91
		4.76	254.96
10+00		3.63	256.09
		5.94	253.78
CK BM		3.23	256.49

on Coping Wall
Top 3/4" I. Pin 9+52 near fence
on Coping Wall
painted arrow on grate 10+
Iron pin 5' So N/W Cor fence



Catalina Pump Plant
Sub-grd Bluetops for paving of Access Road & Adjacent to Bldgs.

BM	2.67	253.49		250.82	
0+18.5	(75 RT & LT)				251.25
0+40	" " "				249.65 ~~249.95~~
0+80	(" " " Begin Berm 1'Ely)				246 ~~246~~ 246.75
1+30	85 RT & LT				242.05 ~~242.25~~
P	1.13	241.63	12.99	240.50	
1+60	(" " ")				238.77
1+93	(85 LT, 105 RT BC)				234.95
2+18	(℄ ℄ 85 LT)				232.75 ~~232.85~~
2+24.67	(℄ ℄ 85 LT. BC)				232.65 ~~232.75~~
PRC	LT				232.35 ~~232.45~~
EC	LT Wly line Bldg				232.25 ~~232.30~~
2+60.74	End Berm				231.75
2+63.74	NWly Cor Chamb.				231.85
	SWly Cor Chamb.				231.95
P	5.15	237.43	9.35	232.28	
CK TBM			5.12	232.31	232.32
	NE Cor Bldg.				232.25
	NW Cor Bldg, SW Cor Bldg.				233 ~~00~~
	BC on RT				~~SHK~~ 234.75
	11.4 on Curve RT				234.07
	13' on Curve RT				233.29
	136 on Curve RT To EC.				232.55
	BC. 10' Rad.				232.15
	EC 10 Rad.				232.05

Aug. 12 1954
Beatty Myers Martell Alexander

BP SW Cor Verona & Catalina & Shldr
2.24 2.44 vv
~~3.54~~ ~~3.74~~ vv 3.84 4.04 vv
~~6.74~~ ~~6.94~~ 7.19 7.39 vv
~~11.24~~ ~~11.44~~ 11.44 11.64 vv

2.86 3.06 vv
6.68 6.88 vv
~~8.78~~ ~~8.98~~ " 8.88 9.08
~~8.88~~ 9.08 8.98 9.18
~~9.18~~ 9.28
~~9.33~~ 9.43
9.88
9.78
9.68

Chs ⊡ SE Cor Chamber
5.18
4.43
3.35
4.14
4.88
5.38
5.38

8/12/52

		237.29			subgrd
	NWly Cor Trans. Pad				233.0
	SWly Cor " "				232.65
	NWly Control House				232.65
	SWly " "				232.35
P		4.18	236.28	5.33	232.10
	SE Cor Control Hse				232.25
	NE Cor " "				232.55
	End Berm & Paving SE Cor				231.75
	SE Cor Trans Pad				232.55
	NE Cor Trans Pad				232.75
	SE Cor Pump House				232.75
					232.86
					232.75
CK BM		5.10	237.42	3.96	232.32
					233.57
					232.79

4.43

4.78

4.78

5.08

4.03

3.73

4.53

3.73

3.57

3.53

3.42

3.53

3.85

4.63

CATALINA PUMP PLANT
④ GRDS for ELECTRIC CONDUIT

BM.	2.76	253.58		250.82	
0+00	BK of Curb W side CATALINA BLVD.		+0.4	254.0	249.5
0+28			0.9	252.7	248.4
0+50			1.8	251.8	247.6
0+69 80	2' Ely prop line Δ = 17°33' RT.		3.7	249.9	246.7
1+09 80			7.2	246.4	243.5
1+59 80			11.6	242.0	239.0
TP	1.51	243.51	11.58	242.00	
2+09 80			7.1	236.4	233.3
2+22 80	(P.C.)		8.7	234.8	231.7
2+30	℄ PT	30°14' RT	9.6	233.9	230.9
2+55			11.0	232.5	229.4
2+75					
2+79 5	FACE Pump house 830 from SW Cor.		10.6	232.9	230.0
2+30	℄ PT.	43°05' RT			230.9
2+55			11.0	232.5	229.4
2+80			10.5	233.0	229.7
3+02 16	Stub up position Trans. 1250.		10.9	232.6	230.0
CK BM			11.19	232.32	= 232.32

May 6, 1952
Beaty, Storey, Farrel, Alexander

(5)

SW Cor. Catalina & Verona.

C45 +0.5 c — 0+00.5 (Gutter) 253.8 0.8 c

C43 0.9 c — 0+45 ± 251.6 2.0 — 6 12"CI

C42 1.6 c

= 3.5 below Fin grd & Access rd. C32 3.8 c

Bott 12" 248.9 1.3 247.6

C29 7.3 c

C30 11.5 c

C32 7.1 c

C31 8.7 c

C30 9.6 c — .028 0.28 — 2.8 — 30.5 — 7.6 — 1.06 c — .83 c

C31 ✓ 11.0 c

C29 14.3

C31 ✓ 11.0 c

C33 14.9 c

C26 14.8 c

CATALINA PUMP PLANT
12" & 16" C.I Pipe STK.D

April 15 1954
BEATTY
SHOREY
MARTEL
ALEXANDER

BM	3.26	254.08	250.82	
1+00.05	Top Existing 12" C.I	4.21	249.87	Bott 248.14
	Top " 12" C.I	9.45	244.63	Bott 243.50
0+00	Top " 16" Cross	11.13	242.95	Bott. 241.45
0+00				241.4
0+11	45° Bend (16")	8.43	245.65	241.4
0+35.55	℄ 16" Wye	7.10	246.98	243.53
0+42.65	45° Bend (12")	6.67	247.41	243.53
1+00.05	12" TEE (12)	3.10	250.98	248.7
CK BM		3.26	250.82	

SW Cor Verona & Catalina

in Catalina Blvd.

Bell end of Catalina Pipeline

Existing 16" Cross to be replaced by 16" 45° Bend

(45 offset ℄ 25 0+11 = 10.3 Lt ℄ 1+04.55

(45 offset ℄ 45 0+35.55 = 10.36 Lt ℄ Sta 0+80

(5) offset ℄ 388

(5) offset ℄ 228

Catalina Pump Plant

& & Grd Pump Bases.

BM	5.21	237.53		232.32	
			4.90	232.63	234.54
			4.71	232.82	234.54
			4.71	232.82	235.13
			4.70	232.83	235.13
			4.61	232.92	235.13

ck on Subgrade

NW Cor Pump House	233.00
NW Cor Trans Plat	233.00
SW Cor Trans pad	232.65
SW Cor Control House	232.35
NE Cor pump House	232.95
	232.25
SE Pump House	232.75
SE Cor Trans pad	232.55

ck BM			5.21	232.32	
BM	12.71	245.03		232.32	
			6.93	244.10	244.8

2.99 F191 N (2)
F173 S (2)

2.36 F231 N (2)
2.36 F230 S N (2)
2.36 F221 S (2)

4.53
4.53
4.84
5.18
4.58
5.28

4.78
4.98

F07

CATALINA PUMP PLANT
SUB-GRADE STK.S

BM.	2.92	253.74		250.82	SUB-GRD.
0+18.5					251.25
0+40					249.95
0+80					246.75
1+30					242.25
P	0.23	243.29	11.18	242.56	
1+93					238.95
2+18					232.85
2+24.67					
2+43					233.00
2+63					232.95
					232.25
					231.95
					231.85
					231.75
			BC. LT.		232.65
			PRC. LT.		232.45
			EC. LT		232.30
BM.			10.97	232.32	
					232.75
				EC. RT	232.55
				1/4 PT.	233.65

E Grid Rod	Stkd.
2.49	2.69
3.79	3.99
6.99	7.19
11.49	11.69
8.34	8.54
10.44	
10.34	
11.04	
11.34	
11.44	
11.54	
10.64	
10.84	
10.99	
10.54	
10.74	
9.64	

243.29

B.C. 10° RAD 232.15

½ PT.

EC. 10° RAD 232.05

Bldg. line 231.95

Bldg. line 231.75

230.8

231.0

231.2

232.85

11.14

11.24
8.6 C/L

11.34
7.5 C/L 7.5

11.52 13.30 20' out

12.5 C/L
11.0

12.3
10.8 C/L

12.2 C/L
12.1 11.1 C/L

10.44

Catalina Pump Plant
Intercepting Ditch
Slope Stakes Set

BM.	12.91	245.23		232.32	
0+00	= 15' RT 1+30		1.1	244.1	244.0
0+06	= 15' RT 1+36		1.3	243.9	242.9
0+31			2.2	243.0	241.7
0+56			3.4	241.8	240.7
0+81			4.4	240.8	239.7
0+93.96	P.R.C.		3.8	241.4	239.4
1+06			4.1	241.1	238.6
1+18.5			5.5	239.7	237.7
1+31			6.8	238.4	236.8
1+44.22	EC		8.7	236.5	235.5
1+52.9			9.4	235.8	234.7
1+79.9	End Ditch		11.6	233.6	232.6

Mar. 26 1954
Beatty
Shortell
Martell
Alexander

C1.5 = 2.0 base — 0.8 / 3.5 — C1.5 15' out

C1.3 = 2.3 base — 1.6 / 4.2 — C1.9 1.9 out

C1.1 = 2.1 base — 2.8 / 3.8 — C1.7 1.7 out

C1.1 = 2.1 base — 3.5 / 4.1 — C2.0 2.0 out

C2.0 = 3.0 Base — 3.4 / 5.4 — C2.4 2.4 out

C2.5 = 3.5 Base — 3.2 / 6.9 — C3.4 3.4 out

C2.9 = 3.2 Base — 4.5 / 6.0 — C3.0 3.0 out

C1.6 = 2.6 Base — 6.5 / 4.5 — C1.9 1.9 out

C1.0 = 2.0 Base — 7.9 / 3.8 — C1.8 1.8 out

C1.1 = 2.1 Base — 9.3 / 3.3 — C1.2 1.2 out

C1.0 = 2.0 Base — 11.6 / 3 — C1.0 1.0 out

Catalina Pump Plant
Cont'd

BM	2.45	253.27		250.82	
0+40			2.70	250.6	250.2
0+80	Begin Berm		6.2	247.1	247.0
1+30			9.5	243.8	242.5
TP	2.76	243.25	12.78	240.49	
1+93			4.6	238.7	235.2
2+26.67	(B.C) LT		8.1	235.2	233.0
	P.R.C LT				232.8
	E.C. LT				232.7
	End cut LT.				232.3
	Mid pt. Curve RT				233.9
	EC Curve RT				232.8
	BC Curve 10' RAD				232.9
	Mid pt				232.3
	EC Curve 10' RAD				

3/25/53

SW BP Varona & Catalina

RT 3/4

LT N1/4

	6.1	C0 3/9 3	C0 4/8	C1 8/11 1	2.1	3.3
	1:1	C0 6/9.1	C0 1/8	C0 8/9 3	1:1	6.5
	1:1	C1 7/10 2	C1 3/8	C1 5/10 9	1:1	11.0
		C3 5/12.0	4.8	3.5/8	4.3	C4 0/12 5 8.3
10.5	1:1	C5 0/13.5		C2 2/6		
10.5	1:1	C4.7/14.7				
10.6	1:1	C1 2/16 2	9.4			
11.0		C0 2 @ Cor Chamber				
9.4		C4 2/4 2	5.3			
R.5		C6 1/6 1	4.4			
10.9		C7 7/7 7	3.2			
11.0	1:1	C6 1/6 1	4.9			

Catalina Dump Plant
Cont'd

	243.25		
EC Curve 10° RAD			232.3
25' E/y			232.2
50' E/y			232.0
Control House			
NE	9.53	233.72	C 0 88
NW	8.50	234.75	C 191
SE	8.92	234.31	C 147
SW	8.35	234.90	C 206
Transformer Pad			
NW	8.91	234.34	233.0
SW	8.64	234.61	233.0
NE	10.79	232.46	232.8
SE	10.57	232.68	232.8
Pump House			
NE	11.35	231.90	233.17
NW	10.18	233.07	
SE	10.93	232.32	
SW	9.17	234.08	
CK BM	10.94	232.31	= 232.32
Valve Chamber			233.30

4.0	C 52 / 52	5.8	
11.1	C 35 / 35	7.6	
11.3	C 16 / 16	9.7	
232.84 Subgrade			233.17 / 33 / 232.84
	C 134		
	C 161		
	F 034		
	F 012		
	F 127		
	F 01		
	F 085		
	C 091		

9.95	NW	12.18	SW	12.18	NE	12.25	SE	12.20
		9.95		9.95		9.95		9.95
		F 2.23		F 2.23		F 2.30		F 2.25

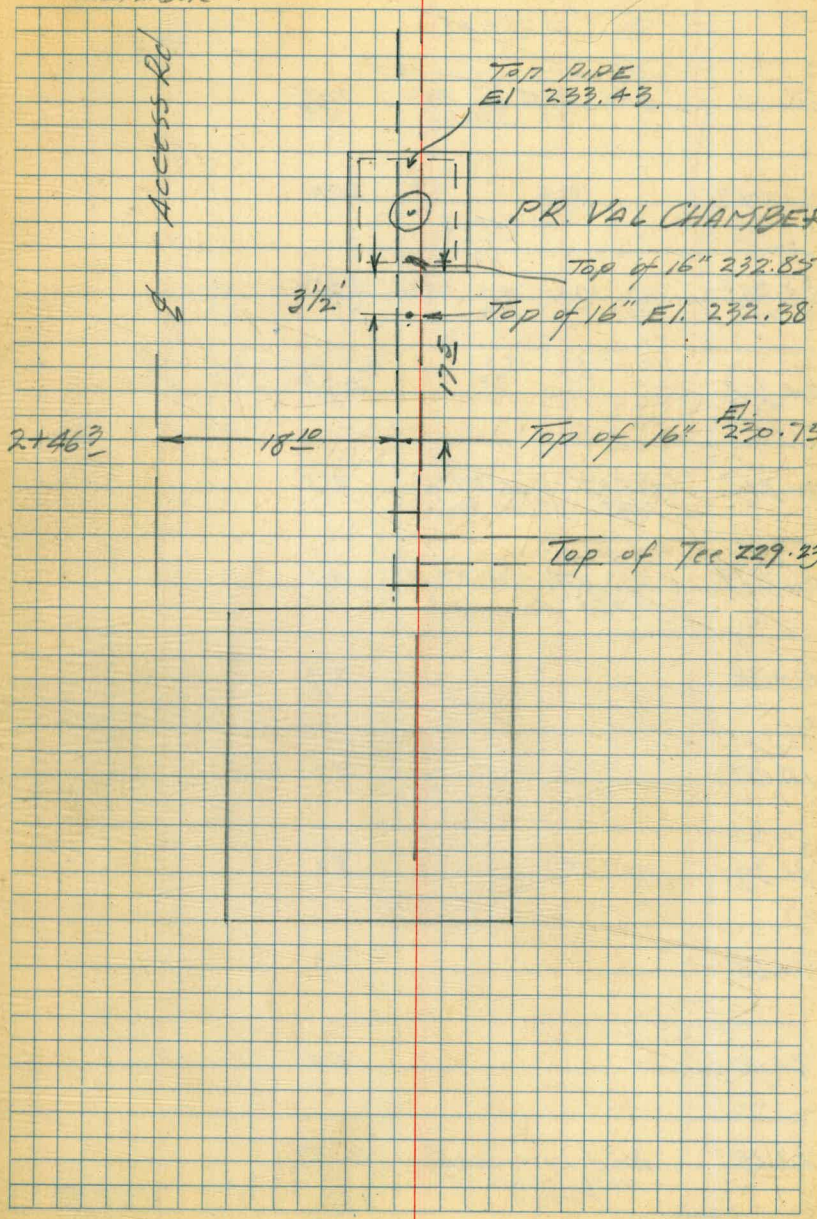
CATALINA PUMP PLANT
ELEV. Top 16" C.I.

BM	8.13	240.45	232.32
Top 16" C.I. 3½' E. Val Ch		8.07	232.38
Top 16" C.I. inside E. Val Ch.		7.60	232.85
Top. 16" C.I. inside W. Val Ch		7.02	233.43
CK BM		8.13	232.32

6/23/53

BM	5.51	237.83	232.32
Top 16" C.I. 17½ E Val Ch.		7.08	230.75
Nat. Grd " " " "		4.5	233.33
CK BM		5.51	232.32

6/11/53
Keith Martell Alexander



Catalina Pump Plant
& Profile Proposed Intercepting Ditch

6-3-53

	W. 254.48	
0+00	25 RT. Edge Conc. Dr. 845 LT. To Cor. Elec. Station	2.55
0+089		2.70
	W. 247.55	
0+293		2.35
0+303		2.35
0+312	(90° RT.) = 16' RT. of 1+32 Access Road	2.7
0+372	(45° RT.) = 16' RT. of 1+35± Access Rd.	3.1
0+50		2.3
1+00		4.2
1+39	(45° LT.)	8.2
1+50		9.3
2+00		14.4
2+19	End proposed Intercepting Ditch	16.5

LT. (W'ly) RT. (E'ly)

			2.40 / 2.5	2.55 / C	2.42 / 2.5			
			2.50 / 2.5	2.70 / C	2.55 / 2.5			on Conc.
2.0 / 2.5	2.1 / 1.5	2.30 / 0.8	2.35 / C	2.30 / 0.8	1.95 / 1.6	2.20 / 2.5		Drain
2.2 / 3.8	2.3 / 2.7	2.05 / 1.7	2.30 / 0.9	C	2.30 / 0.9	1.95 / 1.7	2.30 / 2.5	

Catalina Pump Plant
& Profile & X-Sects
Access Road

BM	3.66	254.48		250.82
0+20 ±	Ely prop. line Catalina			
0+50			4.75	
1+00			8.8	
P	3.03	247.55	9.96	244.52
1+35			3.95	
	Rim of M.H. Val Chamb.		3.62	243.93
1+50			4.7	
1+65			6.9	
2+00			9.4	
2+02.25	E00 = N100	G210	9.9	237.7
P	1.18	239.19	9.54	238.01
	Top Val Chamb 10" RT 2+72.62		8.15	231.04
	Top 16" C.I. 6' RT 2+76		11.45	227.74
	Top 18" Conc & Steel 30' LT 2+58.2		10.22	228.97

Top Val Chamb 18" LT 2+20.73

Remained of elev.s Chambers, Top of pipes are shown on topo. sheet.

ck BM			6.88	232.31 - 232.32

6/4/53

BP Su Cor Vanna & Catalina

LT (NH)

					RT (SH)
249 2	249 1	250 0	250 9		
5.0 10	4.8 C	4.5 2	3.6 10		
246 13	245 9	245 7	245 8	246 5	
6.35 11.7	8.6 10	8.8 C	8.7 6	8.0 10	
Top Conc Curb					
244 0	243 6		243 7		
3.6 10	3.95 C		3.8 10		
243 4	242 9	242 2	242 8		
4.2 10	4.7 C	5.3 7	4.8 10		
241 3	240 1		241 4		
6.3 10	6.9 C		6.3 10		
238 1	238 2		238 3		
9.5 10	9.4 C		9.4 10		
237 8	237 7		237 9		
9.8 10	9.9 C		9.7 10		

Notes redrawn by JTT 6-12-53

St Cor Val Chamber

TIES MADE FROM ℄ ACCESS ROAD

2+72.20 — 7.5 RT — Press. Riser Pipe (30'± High)

2+80.00 — 5.55 RT — 15.53 RT
2+72.65 — 5.55 RT — 15.53 RT } Val Chamb Conc. Wood Top.

2+80.78 — 7.5 LT
2+81.10 — 21.8 LT
2+63.23 — 7.5 LT
2+63.74 — 21.5 LT } Conc Val Chamber

2+58.7 — 23.4 LT to GV, 40'± to ℄ RT in Line 45° LT.?

2+28.75 — 14.53 LT — 21.55 LT
2+20.75 — 14.53 LT — 21.55 LT } Conc. Val Chamber

2+02.25 — Intersection of Grid. (See pg. 74)

1+64 — 27' RT. Acacia Clump.

1+45 — 19.6 RT. Acacia Clump.

1+34 — End 1"-2" AC 8' LT.

1+35.5 — 17' RT.
1+30.5 — 17' RT } Conc. Drain from Fire Station

1+40.30 — LT. 8.3 × 9.3 Conc Val Chamber

1+32.7 — Begin 1"-2" Cold AC 2' LT.

1+32 — 12.15 LT., 8.3 × 9.3, Conc Val Chamber

1+26.5 — 24' LT. 8" Avocado Tree

1+19 — 20' RT. 7" Acacia Tree

1+17 — 23.4 LT. 5" Locquot Tree

1+06.90 — 11.75 LT. End 6" Curb

1+00.75 — 15.32 LT, 51.72 LT. Cor Existing Pump House

0+84.4 — 17.2 RT 2" Locquot Tree

0+80 — 11.9 LT Beg Conc Curb

0+84.4 — 11.2 LT Edge Conc Curb, 15.4 LT Cor Existing Pump Platform

0+85 — 5.3 LT 8" Mock Orange Tree (2-4" Trunks)

0+76.6 — 9.8 LT Po. Pole

0+51 — 11.3 RT near edge 36" Dia. Cyp. Palm

0+40 = Prop. LINE

0+36.6 — 28.7 LT Po. Pole (#P.C 1172)

0+00 = ℄ CATALINA Blvd. & ℄ Access Road.

6-4-53

71

2+76.4 } 22' RT ℄ 16" MAINS
2+67.- }
2+66.7 } 81' RT ℄ 16" MAINS
2+76.5 }
2+76.5 } 100' RT ℄ 16" MAINS
2+67.5 }
} To RESERVIOR

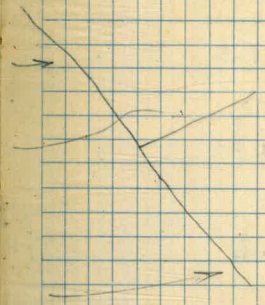
0+74.80 } 38.25 LT, 44.35 LT Conc Val Chamb. Wood Top
0+80 }

0+74.4 } 20.9 LT., 26.6 LT Conc Val Chamb. Wood Top.
0+66.9 }

Proposed Catalina Pump Plant
Additional X-Sections

TBM	2.01	234.37		232.32	SE Cor Dble Val. Chamber
N 00	E 70		1.1	233.2	
N 00	E 81		2.5	231.8	℄ Ravine
N 00	E 89		0.8	233.5	Top Dike
N 00	E 97		3.7	230.6	Bottom Dike
N 00	E 120		5.1	229.2	
N 00	E 140		6.2	228.1	
N 00	E 145		6.5	227.8	
N 20	E 120		5.4	228.9	
N 20	E 129		4.4	229.9	Top dike
N 20	E 136		6.8	227.5	
N 20	E 140		6.9	227.4	
N 20	E 145		7.4	226.9	
N 40	E 105		1.9	232.4	Top dike
N 40	E 120		5.6	228.7	
N 40	E 140		8.4	225.9	
N 40	E 145		8.8	225.5	
N 60	E 116		6.7	227.6	℄ Ravine
N 60	E 120		5.9	228.4	
N 60	E 140		9.9	224.4	℄ Ravine
N 60	E 145		10.8	223.5	
N 80	E 120		7.7	226.6	
N 80	E 134		10.0	224.3	℄ Ravine
N 80	E 137		9.2	225.1	
N 80	E 140		10.2	224.1	
N 80	E 145		10.8	223.5	

Notes Reduced
By GFT



CATALINA PUMP PLANT
Cont'd

		234.33		
N 100	E 120	8.8	225.5	
N 100	E 140	10.9	223.4	
N 100	E 145	11.5	222.8	
N 100	E 147	12.9	221.4	
N 100	E 148	13.6	220.9	℄ RAVINE
N 100	E 153	10.9	223.4	
N 120	E 120	11.5	222.8	
N 120	E 140	13.3	221.0	
N 140	E 145	13.8	220.5	
N 140	E 120	13.0	221.3	
N 140	E 140	14.0	220.3	
N 140	E 145	14.2	220.1	
CK BM		2.01	232.32	

Cross Section Intersection of

BM	4.71	255.53	250.82	BP 55 Cor Varena & Car
0+00	Ely Prop line Catalina Blvd (on dirt)	4.8	250.7	
0+215	Edge 1/2" A.C. Pavt	4.0	251.5	
0+23	Gutterline 3" A.C. Pavt	4.2	251.3	
0+26	on 2" A.C.	3.9	251.6	
0+40	℄ Catalina 4" A.C. PAVT.	3.2	252.3	
CK BM		4.71	250.82	

Meter Reduced
by ℄ 1

Access Road & Catalina Blvd. (See sketch pg 74.)

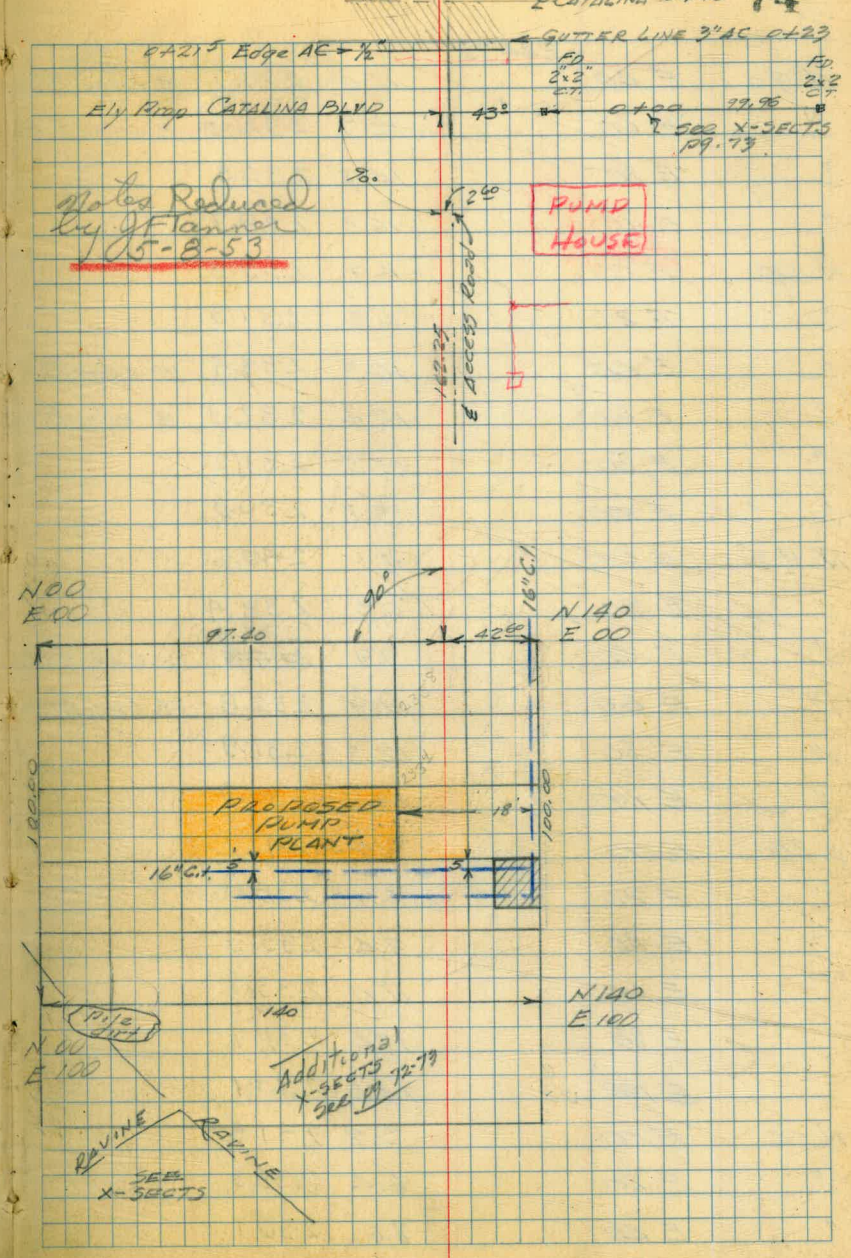
LEFT Sly					RIGHT-Nly
2.1 / 18	3.7 / 11	4.5 / 6	4.8 / ℄		5.8 / 25
	3.6 / 25		4.2 / ℄		4.4 / 25
	3.7 / 25		4.2 / ℄		4.6 / 25
	4.3 / 25		3.9 / ℄		3.5 / 25
	2.6 / 25		3.2 / ℄		3.8 / 25

PROPOSED CATALINA PUMP PLANT
CROSS-SECTIONS
20' GRID

BM.	4.26	255.08		250.82	BTF. SW COR Verona & CATALINA
TP	0.40	242.97	12.51	242.57	
SET TBM	12.43	224.75	10.65	232.32	SE COR DBL VAL CHAMBER
N 140	E 00		+3.75	241.0	?
"	E 09		+3.75	241.0	(RES. Roof)
"	E 09		0.92	243.8	(RES. Roof)
"	E 20		2.0	242.5	
"	E 40		10.5	234.2	
"	E 60		13.3	231.4	
"	E 80		15.6	229.1	
"	E 100		19.2	225.5	
N 120	E 00		3.6	241.1	
"	E 20		6.6	238.1	
"	E 40		10.5	234.2	
"	E 60		13.1	231.6	
"	E 80		14.8	229.9	
"	E 100		18.6	226.1	
N 100	E 00		7.1	237.6	
"	E 20		8.9	235.8	
"	E 40		11.3	233.4	NW COR BUILDING
"	E 60		12.7	232.0	NE COR BLDG.
"	E 80		14.4	230.3	
"	E 100		16.2	228.5	
N 80	E 00		6.0	238.7	
"	E 20		8.4	236.3	

May 8, 1953
BEATTY
MORTELL
ALEXANDER

74



CATALINA PUMP PLANT
Cont'd

		244.75		
N 80	E 40	11.0	233.7	W. edge Bldg
"	E 60	12.7	232.0	E. edge Bldg
"	E 80	14.2	230.5	
"	E 100	16.0	228.7	
N 60	E 00	4.9	239.8	
"	E 20	6.8	237.9	
"	E 40	10.3	234.4	W. edge Bldg
"	E 60	12.4	232.3	E. edge Bldg
"	E. 80	13.5	231.2	
"	E 100	13.8	230.9	
N 40	E 0.0	4.1	240.6	
"	E 20	6.3	238.4	
"	E 40	9.9	234.8 ~~244.8~~	SW. Cor. Bldg
"	E 60	11.9	232.8	SE Cor. Bldg
"	E 80	12.8	231.9	
"	E 100	13.8	230.9	
N 20	E 00	3.5	241.2	
"	E 20	6.7	238.0	
"	E 40	9.4	235.3	
	E 60	11.0	233.7	
	E 80	13.0	231.7	
	E 100	14.6	230.1	
N 00	E 00	3.2	241.5	
"	E 20	6.4	238.3	
"	E 40	8.6	236.1	

Notes Reduced
by GT Tenney
5-8-53

CATALINA PUMP PLANT (Cont'd.)

		222.75			
N 00	E 60		10.4	234.3	
"	E 80		12.6	232.1	
"	E 100		13.5	231.2	
CK TBM			12.43	232.32	
"	11.04	254.49	1.30	243.45	
CK BM			3.67	250.82	= 250.82

Notes reduced
by JF Tanner
5-8-53

5" Cor. Obl. Val. Chamber

BP. Std. Cor. Verona & Catalina.

Elevations of Top of pipes at Catalina Pump Plant

Sta	+	HI	−		
	2.56	253.38		250.82	
			3.66	249.72	
			10.44	242.94	
			2.56	250.82	=250.82

West
Williams
Varonfakis

6-30-53

BM BP SW cor Varona + Catalina

Top 12" Pl. 125' south of 2x2

Hub + Tack on Pl.

Top of 16" cross 11.5 east of pump house

BM BP

COTTONWOOD ST.

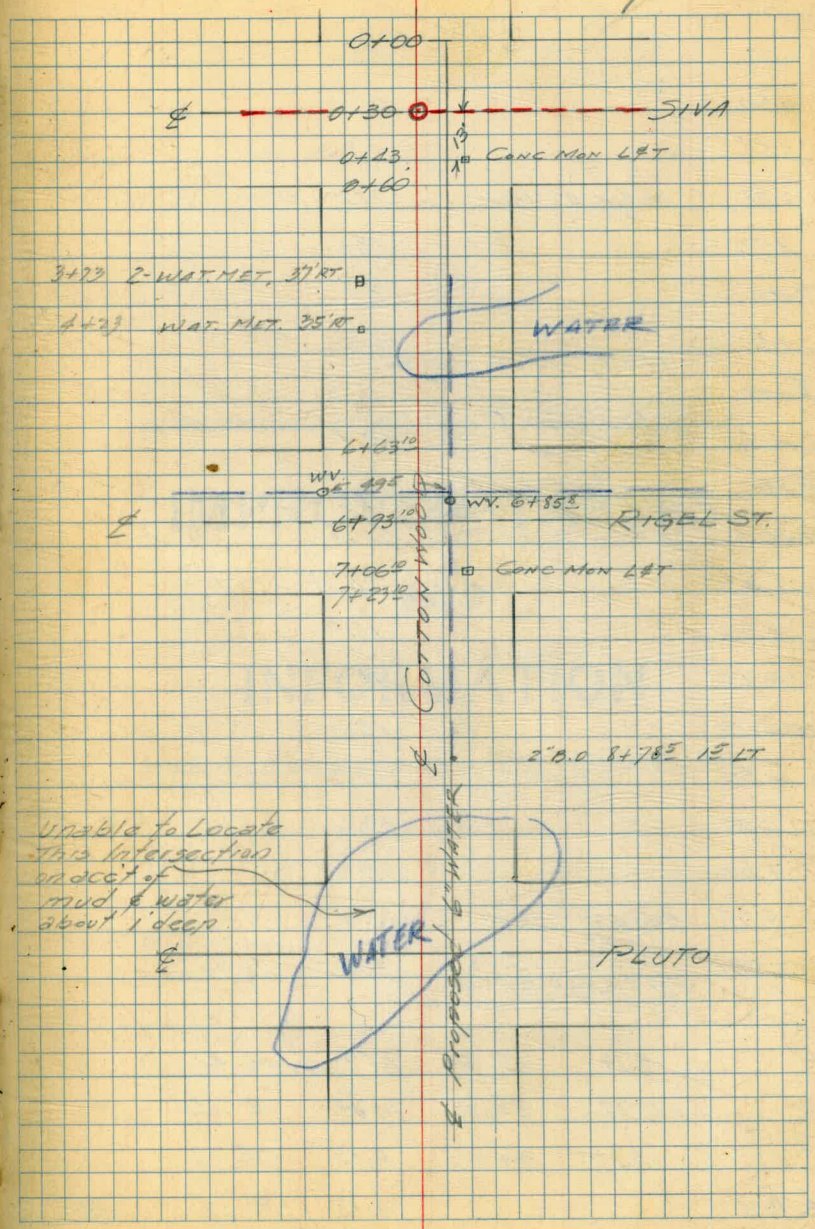
SIVA To PLUTO

PROPOSED 6" WATER MAIN

		H.I.		
				Chis Ch. SW Cor Main & Thor
BM	4.20	11.48 ✓		07.28 ✓
P	9.96	14.49 ✓	6.95	04.53 ✓
	Elev. Conc Mon 13' offset		10.86	Note: Conc Cover cemented on.
	Elev. Top Sewer M.H.		7.17	
0+00			10.5	
+50			10.8	
1+00			10.7	
+50			10.8	
2+00			10.8	
+50			10.7	
3+00			11.6	
+50			12.1	
+60			12.4	
+71	at B.O		11.1	
+73	2-WAT. MET. 37' RT.			
4+00			4.0	
+12			2.5	
+23	WAT MET 35' RT		2.3	
+38			2.8	
+50			5.6	
+70	Edge of water		12.2	
5+00	in water		14.2	
+31	Edge of water		12.2	
+50	WAT MET 20 LT		6.6	
+80			1.1	
P	3.69	17.35 ✓	0.83	13.66 ✓

MAR. 20, 1952
BEATTY, POWELL, BERGER

78

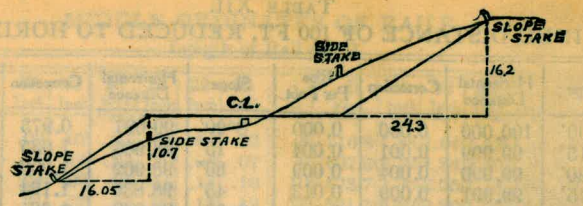


COTTONWOOD ST
Cont'd

		17.35		
6+00			2.5	
+50			0.5	
+66			1.0	
+76	Edge A.C. Pavt.		2.3	
+93			1.85	
7+00			2.1	
+50			4.5	
	7+87	16' LT WAT. MET		
8+00			6.8	
	8+08 31' RT WAT. MET			
+50	8+25 18' LT " "		9.1	
	8+58 13' LT " "			
9+00	8+60 34' RT. " "		10.1	
	8+80 33' R 2-WAT MET			
9+04	End A.C. pavt.		10.2	
+45			12.4	
+50			11.9	
+75			11.2	
10+00			12.3	
+50			13.3	
11+00			13.6	
+50			13.9	
+75	Edge of Water		14.3	
SET TBM	2.08	15.98	3.45	13.90
	N211 in pole SW Cor Rigel & Cottonwood			
P	8.79	15.20	9.57	06.41
P	13.19	25.85	2.54	12.66
P	13.31	39.03	0.13	25.72
OK BM.			0.18	38.85 - 38.86

BP NE Cor 32nd & MAIN

IMPROVED TABLES AND INFORMATION



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	71.25	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

Computed by L. Leland Locke.

8470 = 4.7 = 158.76

B.Lino 4.6 = 158.86

163.46
4 60
138.86

221.72
38.1
218.62.

233.50
4.10
237.60

233.89
12.31
221.58
0 14
221.72
11.56
210.56
12.77
197.79
0.76
198.55
12 35
186.20
0.73
186.93
12 66
174.27
0 99
175.26
12 62
162.64
0 82
163.46
12.61
150.85
4 78
155.63

10 x 7 up 575

15 x 15 up 660

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	25.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9+(20—16)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.