

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 $30.6 + (20 - 16) \div 2$ or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.
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G-213

CITY ENGINEER'S OFFICE

INDEXED
Completely

MICROFILMED

APR 12 1965

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

229+58.26 M.H. # 59 -10.20

+75

230

+25

+50

+75

231

+25

+50

+75

232

+25

+50

+75

233

+25

+50

+75

234

+05.26

M.H. # 60

-10.65

+25

+50

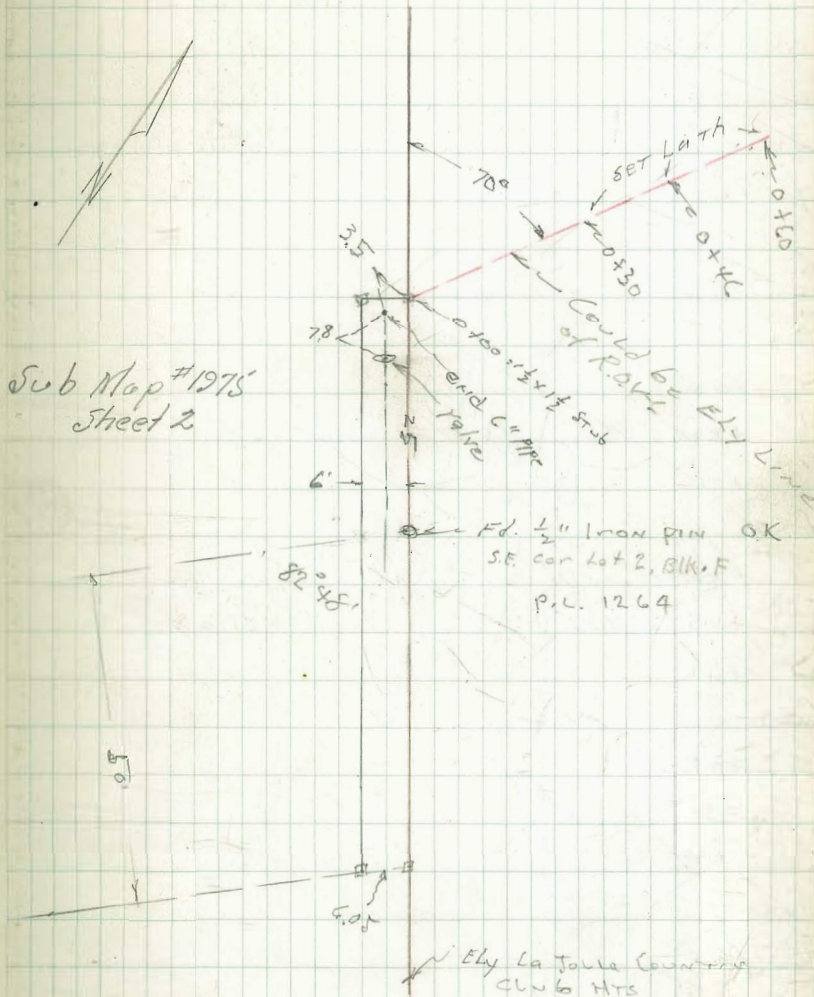
+75

~~Changed~~

Survey for 6" pipe clean-out
on La Jolla Country Club Hts.
Res. on Mt. Solidad.

Office
San Marcos, Ca
12-13-45

Indexed
C. S. R.



235

+25

+50

+75

236

+25

+50

+75

237

+25

+50

+75

238

+25

+45.28 M.H. 461

-11.08

+75

239

+25

+50

+75

240

+25

+50

+75

241

~~changed~~

241 +25

+50

+75

242

+25

+50

+75

+8939 MH #62

-11.53

243

+25

+50

+75

244

+25

+50

+75

245

+25

+50

+75

246

+25

+50

+75

247

~~Changed~~

247 +25

+33.10 M.H. # 63 - 11.97

+50 $\Delta = 7^{\circ} 15' 14''$ Rt.

+75

248

+25

+50

+75

249

+25

+50

+75

+85.76 M.H. # 64 - 12.32

$\Delta = 73^{\circ} 23' 14''$ Lt.

~~+50~~ OUT

+25

+50

+75

251

+25

+50

+75

252

+25

+50

+75

~~See p 6~~

1.50 Sewer Const. on San Elijo

Kellogg N.Ly. For Prall - City
0.7 Grade

NEBP	12.59	46.19		33.60	Rosecrans Kellogg
T.P.	12.79	58.82	0.16	46.03	
T.P.	5.89	<u>64.21</u>	0.50	58.30	

M.H. RIM		4.93		59.28	
" F.L.		10.23		53.98	

Ed G.M.B.R.

Swly Cor	San Elijo and Kellogg	4.56		59.65	
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Moore
Summer Meyer
W. K.M.

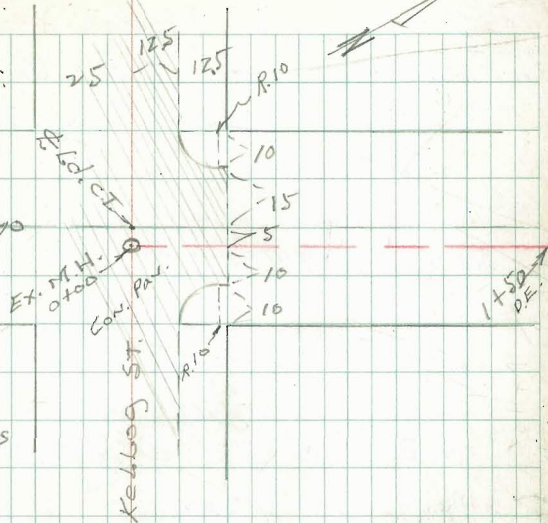
12-8-45.

INDEXED

W.K.

OCT 29 1948

San Elijo



stakes offset
3' ELY
at 25' STATIONS

0125	150	175	1700
<u>54.15</u>	<u>54.33</u>	<u>54.50</u>	<u>54.68</u>
10.06	9.88	9.71	9.53
<u>5.35</u>	<u>5.12</u>	<u>5.30</u>	<u>5.34</u>
C 4.71	C 4.76	C 4.41	C 4.19

1425	1750 = D.E.
<u>54.85</u>	<u>55.03</u>
9.36	9.18
<u>5.87</u>	<u>6.62</u>
C 3.49	C 2.56

Crown on E same elev. as CUT stubs

CSM.

E.S.

W.M. Trunk Sewer Const.

E.B.

216-44 Old Town towards Ocean Beach

Sta. Backed in from Kurtz

20' offsets to LT

254 + 40.76 M.H. #65 - 12.78

254 B.M. Ld. C.T. in S curb Kurtz & Greenwood - 12.74

+75 3.07 - 12.70

+50 5.41 - 12.29

8.43 = H.I.

+25 - 12.67

253 3.07 - 12.64

+75 4.71 - 12.62

7.73 = H.I.

+50 3.82 - 12.59

+25 3.91 - 12.57

3.99

252 7.90 = H.I. - 12.54

4.33

+75 3.57 T.P. M.H. Stub - 12.52

5.31

+50 8.88 = H.I. - 12.49

+25 - 12.47

251 - 12.44

250 + 75 = B.C. - 12.42

+50 - 12.39

+25 - 12.37

250 - 12.34

changed Not Set

249 + 85.76 M.H. #64 A = 72° 13' LT. - 12.30 = out

A = 72° 13' LT.

+50 3-2-44 - 12.19

249 + 25 CSM - 12.16

M.H.

12.78	12.74	12.74	12.69	12.67	12.64
8.43	8.43	8.43	7.73	7.73	7.73
21.21	21.17	21.15	20.42	20.40	20.37
11.21	4.95	4.79	4.17	4.24	3.99
10.00	C16.22	C16.32	C16.25	C16.16	C16.38

12.62	12.59	12.57	12.54	12.52	12.49
7.73	7.90	7.90	7.90	7.90	7.90
20.35	20.49	20.47	20.44	20.42	20.39
3.82	4.18	4.34	4.31	4.39	4.51
C16.53	C16.31	C16.13	C16.13	C16.03	C15.88

12.47	12.44	12.42	12.39	12.37	- 12.34 = M.H.
7.90	7.90	7.90	7.90	7.90	7.90
20.37	20.34	20.32	20.29	20.27	20.24
4.61	4.78	4.68	4.62	4.52	4.33
C15.72	C15.52	C15.62	C15.67	C15.74	C15.87 = OUT

M.H. = - 12.22	- 12.19	- 12.16
7.90	8.88	8.88
20.17	21.07	21.04
4.33	5.43	5.22
C15.79 = IN	C15.64	C15.64

INDEXED
WK
OCT 29 1948

888 H.I. Fwd.

575 Chiseled \square on S. edge walk
3.13 = B.M. approx. 38' N. of M.H. #C3

249	#v	-12.14
+75		-12.11
+50		-12.09
+25		-12.06
248		-12.04
+75		-12.01
+50		-11.99
247 + 33.73	M.H. #C3 $\Delta = 6^{\circ}05'30''$ P.	-11.97

Changed
See P. 8

End
Staking
2-16-46

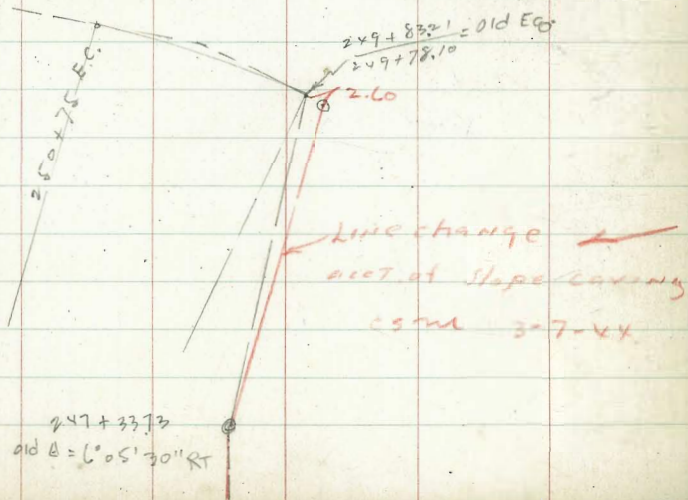
Nail in header

-12.14	12.11	12.09	12.06	12.04	12.01
888	888	888	888	888	888
21.07	20.99	20.97	20.94	20.92	20.89
5.04	5.18	5.11	5.06	5.07	5.03
C15.94	C15.81	C15.86	C15.88	C15.85	C15.86
-11.99	-11.97				
888	888				
20.87	20.85				
5.39	5.55				
C15.48	C15.20				

570. Backed in

250 + 75 = E.C.	-12.40
250 + 52.05	-12.39
250 + 29.10	-12.37
250 + 0.615	-12.34
249 + 83.21 } B.C. = M.H. #64	
249 + 78.10 } = " " " = E.C.	
+50	-12.19
+25	-12.16
249	-12.14
+75	-12.11
52.1	-12.09
+50	-12.06
+25	-12.04
248	-12.01
+75	-11.99
+50	-11.97

247 + 33.73 = Δ 6° 05' 30" RT



3.13 B.M. #2

4.54
7.63 T

-12.34
7.63
19.97
4.81
C 15.16

-12.22
7.63
19.85
4.09
C 15.37

-12.32
7.63
19.95
4.36
C 15.94

-12.22
7.63
20.05
4.41
C 15.66

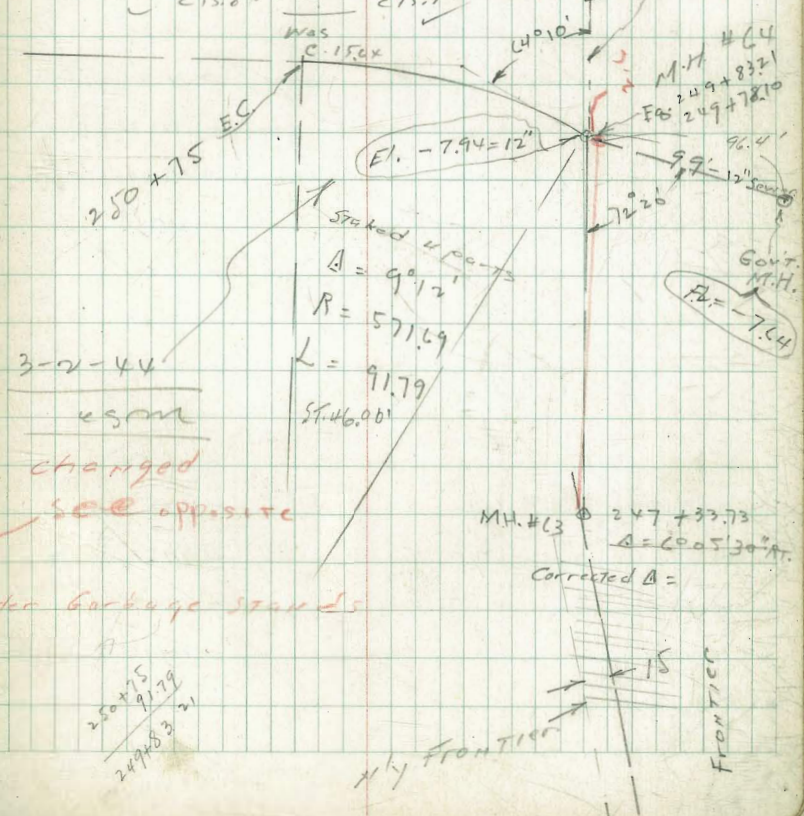
3.13 B.M.

5.87

7.00 H.I.

Check CUTS 3-7-44.

11.97	11.99	12.01	12.04	12.06	12.09	12.11
9.	9.	9	9	9	9	9
20.97	20.99	21.01	21.04	21.06	21.09	21.11
5.77	5.51	5.35	5.19	5.18	5.23	5.29
C 15.20	C 15.48	C 15.66	C 15.85	C 15.88	C 15.86	C 15.87
12.14	12.16	12.19	12.22	12.30		
9	9	9	9	9		
21.14	21.16	21.19	21.22	21.30		
5.18	5.36	5.58	5.48			
C 15.92	C 15.87	C 15.64	C 15.74	C 15.80		



WAS 40 R.P.

M.H. #64

Govt. M.H.

El. = -7.64

M.H. #13 247 + 33.73
Δ = 6° 05' 30" RT
Corrected Δ =

1/4 FRONTIER

FRONTIER

250 + 75
249 + 83.21
249 + 78.10

Front M.H. # 63 Wly on Frontier St.
 & Sewer 15' 15' Sly of N.W. "

offset 40' to North ⊕ on sdw. " BM #
 3.13

Sta. Back in

F.L. 4.93
 8.06 H.L.
 4.72
 3.34 T.P.

247 + 33.73 Δ PT. M.H. # 63

247	- 11.97	
+ 75	- 11.94	
+ 50	- 11.91	
+ 25	- 11.89	
246	- 11.86	
+ 75	- 11.84	
+ 50	- 11.81	
+ 25	- 11.79	
245	- 11.76	3.34 T.P. 5.08
+ 75	- 11.74	8.43 x
+ 50	- 11.71	
+ 25	- 11.69	
244	- 11.66	
+ 75	- 11.64	
+ 50	- 11.61	
+ 25	- 11.59	
243	- 11.56	
242 + 8939	- 11.54	M.H. # 62
+ 75	- 11.53	
+ 50	- 11.51	
+ 25	- 11.49	
241	- 11.46	
+ 75	- 11.44	
+ 50	- 11.41	

CUTS ON 3-7-46

11.97	11.94	11.91	11.89	11.86	11.84	11.81	11.79
8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06
20.93	20.00	19.97	19.95	19.92	19.90	19.87	19.85
4.91	4.95	4.98	5.03	4.93	4.93	4.88	4.86
C 15.12	C 15.05	C 14.99	C 14.92	C 14.99	C 14.97	C 14.99	C 14.99
11.76	11.74	11.71	11.69	11.66	11.64	11.61	11.59
8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06
19.82	19.80	19.77	19.75	19.72	19.70	19.67	19.65
4.90	4.85	5.24	5.16	5.16	5.25	4.75	4.76
C 14.97	C 14.95	C 14.53	C 14.59	C 14.56	C 14.45	C 14.92	C 14.89
		(VOID)	(VOID)	(VOID)	(VOID)	(VOID)	
11.56	11.54	11.53					
8.06	8.06	8.06					
19.62	19.60	19.59					
4.78	4.74	4.73					
C 14.84	C 14.86	C 14.86					

CUTS 2-17-44

- 11.51	- 11.49	- 11.45	- 11.44	- 11.41
8.42	8.42	8.42	8.42	8.42
19.93	19.91	19.88	19.86	19.83
5.07	5.07	5.01	5.00	5.01
C 14.86	C 14.84	C 14.87	C 14.86	C 14.84

F.L.	8.4x111	- 11.39	- 11.39	- 11.34	11.31	11.29	11.26
	5.20			8.4x	8.4x	8.4x	8.4x
242 + 50	3.22	- 11.39	19.81	19.78	19.76	19.73	19.66
	5.20		4.85	4.84	4.88	4.94	4.90
+ 25	8.4x111	- 11.36	C 14.86	C 14.86	C 14.88	C 14.81	C 14.78
241	4.86	- 11.34	11.24	11.21	11.19	11.16	11.14
	3.62 = R.M. #3		8.4x	8.4x	8.4x	8.4x	8.4x
+ 75		- 11.31	19.66	19.69	19.67	19.64	19.59
			5.20	5.31	4.86	4.84	4.85
+ 50		- 11.29	C 14.46	C 14.38	C 14.81	C 14.80	C 14.77
			NO. 11	NO. 11			
+ 25		- 11.26					

Cuts 3-24-44

240	3.67	- 11.24	11.06	11.04	11.01	10.99	10.96	10.94	10.91
	5.33		8.95	8.95	8.95	8.95	8.95	8.95	8.95
+ 75	8.95x	- 11.21	19.01	19.99	19.96	19.94	19.91	19.89	19.86
			5.58	5.20	4.91	4.84	4.39	4.37	4.39
+ 50		- 11.19	C 14.73	C 14.73	C 15.05	C 15.10	C 15.52	C 15.52	C 15.47
+ 25		- 11.16							
239		- 11.14	10.89	10.86	10.84	10.81	10.79		
			8.95	8.95	8.95	8.95	8.95		
+ 75		- 11.11	19.84	19.81	19.79	19.76	19.74		
			4.40	4.40	5.84	5.49	4.52		
238 + 45.68 M.H. #1		- 11.08	C 15.44	C 15.41	C 13.93	C 14.27	C 15.22		
+ 25		- 11.06							

X on Corr. Gut. Nail in Pav.

From here w/ly. 46' offsets to N.Y.

238 Note!		- 11.04							
+ 75	Chisel crosses	- 11.01							
+ 50	on sidewalk	- 10.99							
+ 25		- 10.96							
237		- 10.94							
+ 75		- 10.91							
+ 50		- 10.89							
+ 25		- 10.86							
236		- 10.84							
+ 75		- 10.81							
+ 50		- 10.79							

Offsets 4 C' 114

		F.L.	8.95 x
v35+25		-10.76	
v35		-10.74	
+75		-10.71	
+50		-10.69	BM #4
+25		-10.67	3.64
			5.27
			8.91 x
v34+05.60	M.H. #60	-10.65	
	40' + 96' 114		
+75		-10.62	
+50		-10.59	
+25		-10.56	
v33		-10.54	
+75		-10.51	
+50		-10.49	
+25		-10.46	
v32		-10.44	
+75		-10.41	
+50		-10.39	
+25		-10.36	
v31	Common Sommerweyer H. Moore	-10.34	
+75	3-31-44	-10.31	
+50		-10.29	
+25		-10.26	
v30	cross v30+03 Waterline	-10.24	
+75		-10.21	
v29+58.26	M.H. #59	-10.20	

3-24-44

-10.76	-10.74	10.71	10.69	10.67
8.95	8.95	8.95	8.95	8.95
19.71	19.69	19.66	19.64	19.62
4.37	4.37	4.39	4.42	4.64
C15.34	C15.32	C15.27	C15.22	C15.00

3-31-44

-10.65	-10.62	10.59	10.56	10.54	10.51
8.91	8.91	8.91	8.91	8.91	8.91
19.56	19.53	19.50	19.47	19.45	19.42
4.80	5.10	5.15	5.16	5.19	5.22
C14.76	C14.43	C14.35	C14.31	C14.26	C14.20
10.49	10.46	10.44	10.41	10.39	10.36
8.91	8.91	8.91	8.91	8.91	8.91
19.40	19.37	19.35	19.32	19.30	19.27
5.23	5.22	5.22	5.30	5.25	5.22
C14.17	C14.15	C14.13	C14.12	C14.05	C14.01
10.34	10.31	10.29	10.26	10.24	10.21
8.91	8.91	8.91	8.91	8.91	8.91
19.25	19.22	19.20	19.17	19.15	19.12
5.25	5.29	5.29	5.58	5.33	5.38
C14.00	C13.93	C13.51	13.59	C13.82	C13.77

Govt Housing Sewer
 Govt Housing Sewer
 154.5
 55.2
 v34+05.60
 M.H. #60

	FL.	CUTS
229 + 25	-10.17	13.38
229	-10.14	13.44
+75	-10.11	13.52
+50	-10.09	13.58
+25	-10.06	13.50
228	-10.04	13.43
+75	-10.01	13.29
+50	-9.99	13.39
+25	-9.96	13.34
227	-9.94	13.35
+75	-9.91	12.88
+50	-9.89	12.95
+25	-9.86	13.15
226	-9.84	13.14
+75	-9.81	13.13
+50	-9.79	13.08
+25	-9.77	13.04
225 + 14.55 M.H. #58	-9.75	13.01

Next page

Nail in box,

" " "

HC' offsets

BM[#]5

F. h. 3.17
4.97
8.14

225 - 9.74

+75 - 9.71

+50 - 9.69

+25 - 9.66

224 - 9.64

+75 - 9.61

+50 - 9.59

223 +25 - 9.56

223 +0.810 = MH #9 = New Location

222 + 9.155 = stub end. - 9.53

End Barrett Job

Beg. Carroll Job P. 19

4-12-44

13

- 9.74	9.71	9.69	9.66	9.64	9.61
8.14	8.14	8.14	8.14	8.14	8.14
17.88	17.85	17.83	17.80	17.78	17.75
4.90	4.94	4.93	4.94	4.96	5.00
C 12.98	C 12.91	C 12.90	C 12.86	C 12.82	C 12.75

9.50	9.50	9.53		
8.14	8.14	8.14		
17.73	17.70	17.67		
4.99	4.97	5.03		
C 12.72	C 12.73	C 12.74	spike in Pav.	

Frontier + W. P. T. L. M. T. Sewer
B.G. Carroll Job. Grades

Offsets 46' only

F. L.

223 + 08.10 = M.H. # 9 New Location	
222 + 94.55 = Stub end Beg. of Carroll Job.	- 9.53
+ 75	- 9.57
+ 50	- 9.49
+ 25	- 9.46
221	- 9.44
+ 75	- 9.41
+ 50	- 9.39
+ 25	- 9.36
220	- 9.34
+ 75	- 9.31
+ 50	- 9.29
+ 25	- 9.26
219 + 74.55 M.H. # 57 46' and 46' only	- 9.21
+ 50	- 9.19
+ 25	- 9.16
219	- 9.14
+ 75	- 9.11
+ 50	- 9.09
+ 25	- 9.06
218	- 9.04
+ 75	- 9.01
+ 50	- 8.99

changed

See p. 19

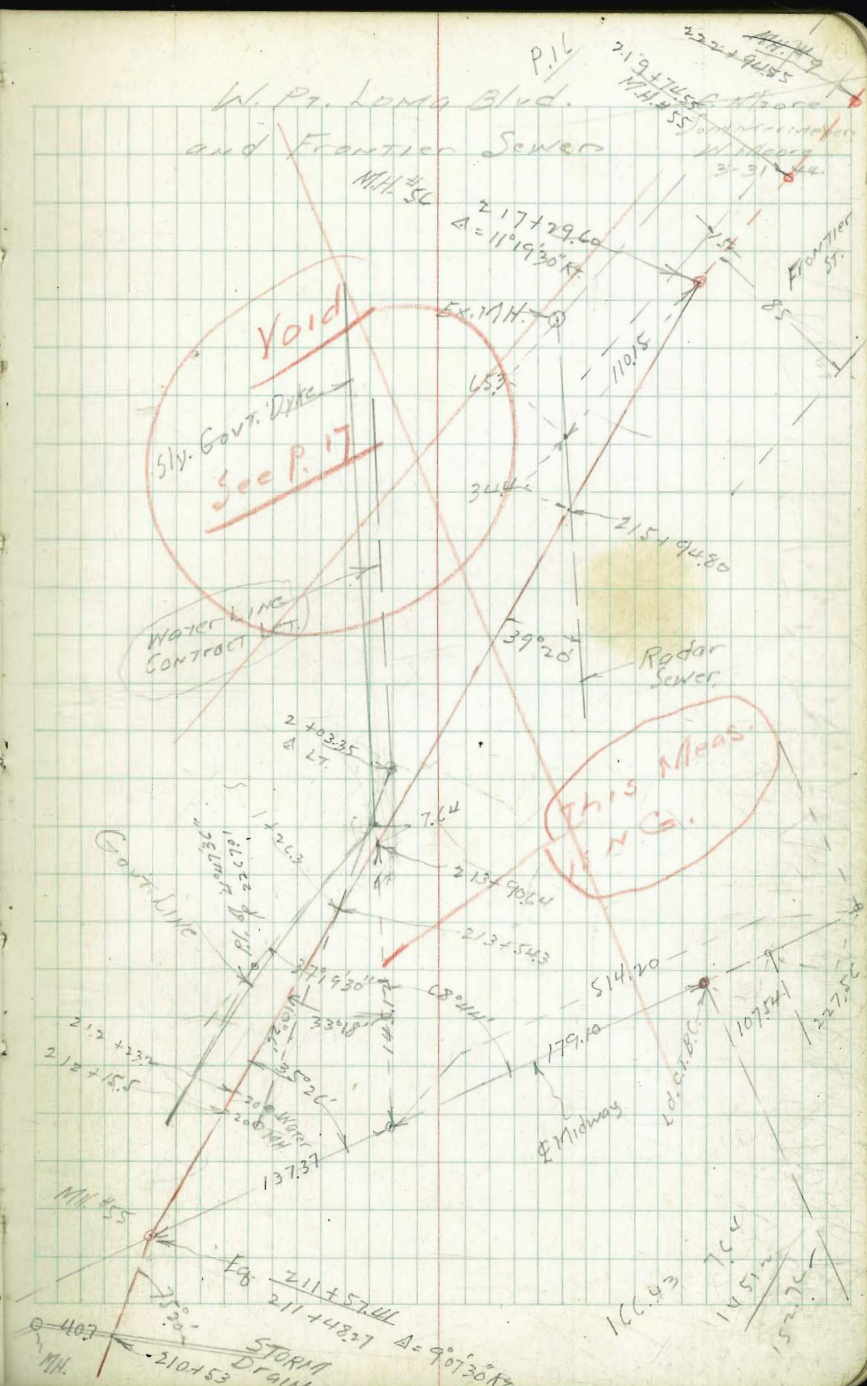
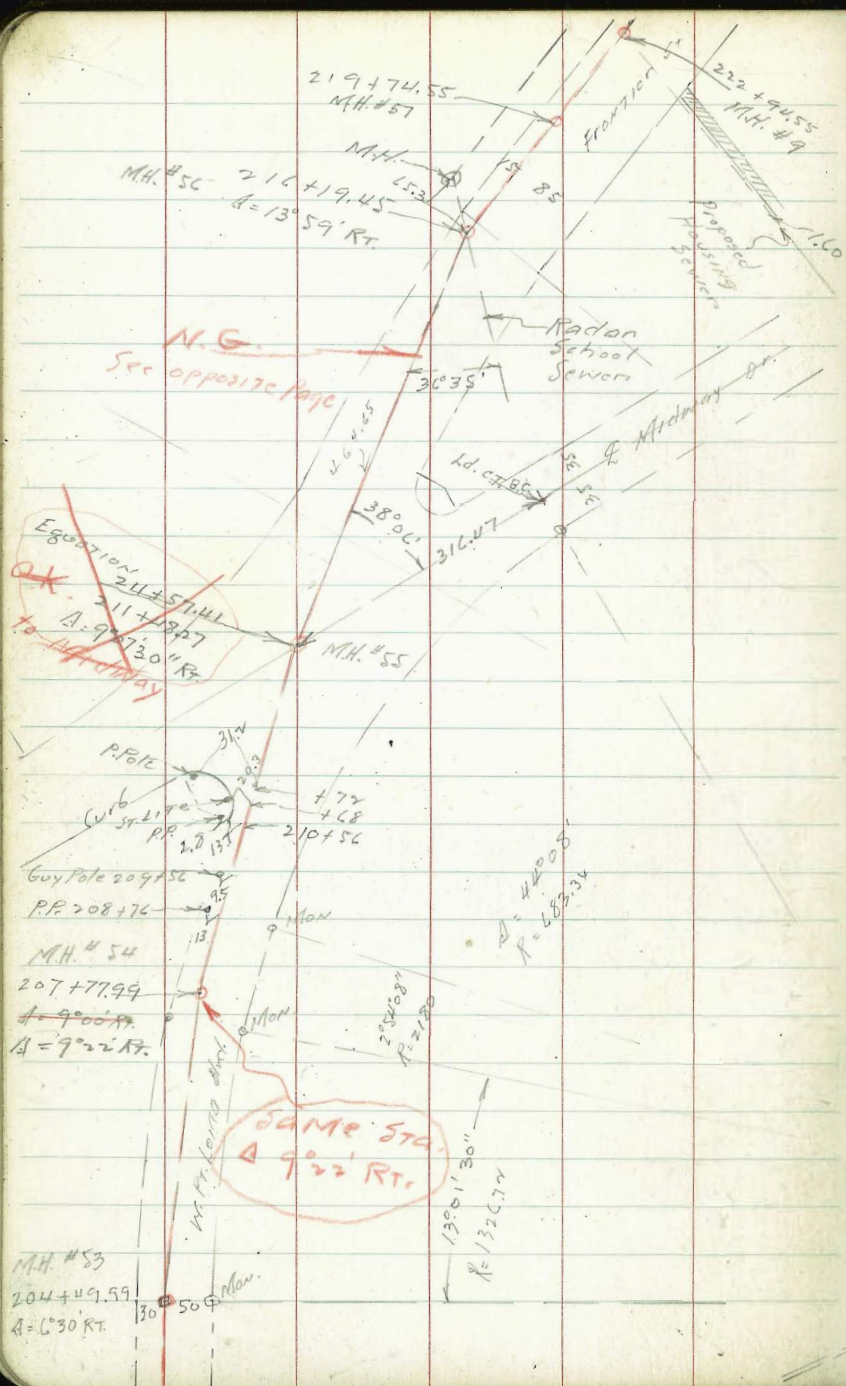
See p. 19

F.L.

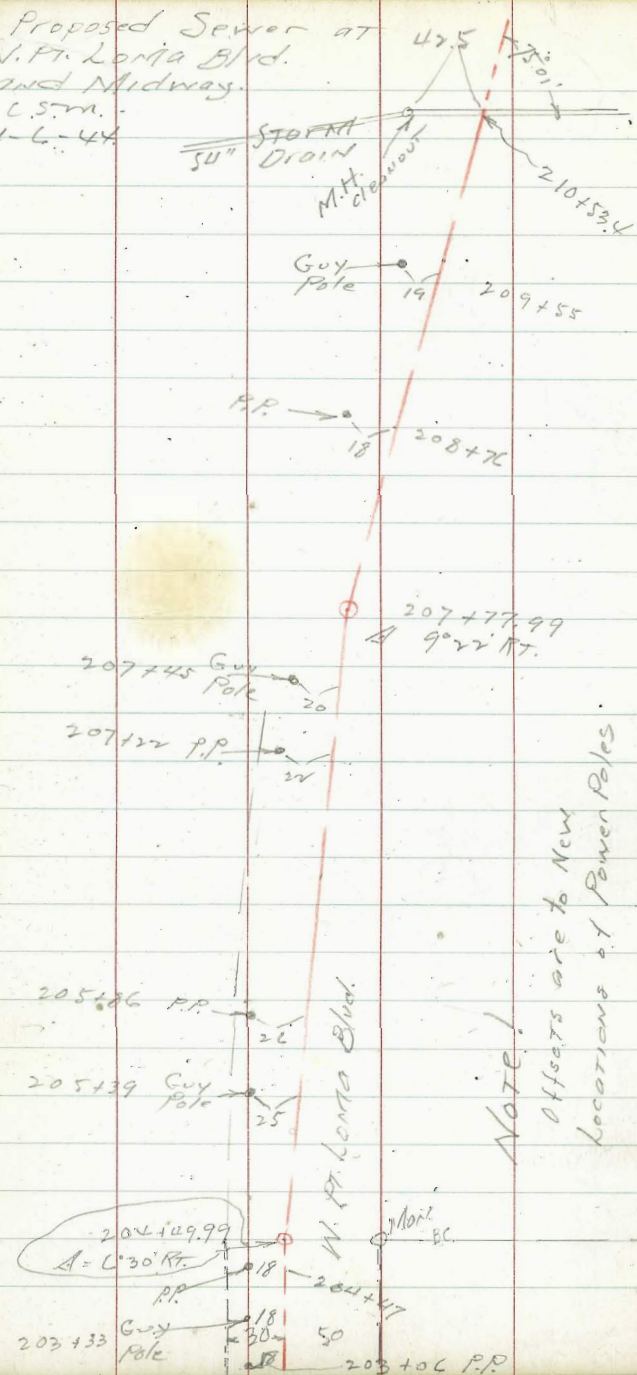
217+25		- 8.96
217		- 8.94
+75		- 8.91
216 + 51.89 =	Shown on Plan	- 8.89
216 + 19.45	$\Delta =$ N.H. 456 = Radar Sewer	- 8.86

Correction
Sec P. 16

P. 19

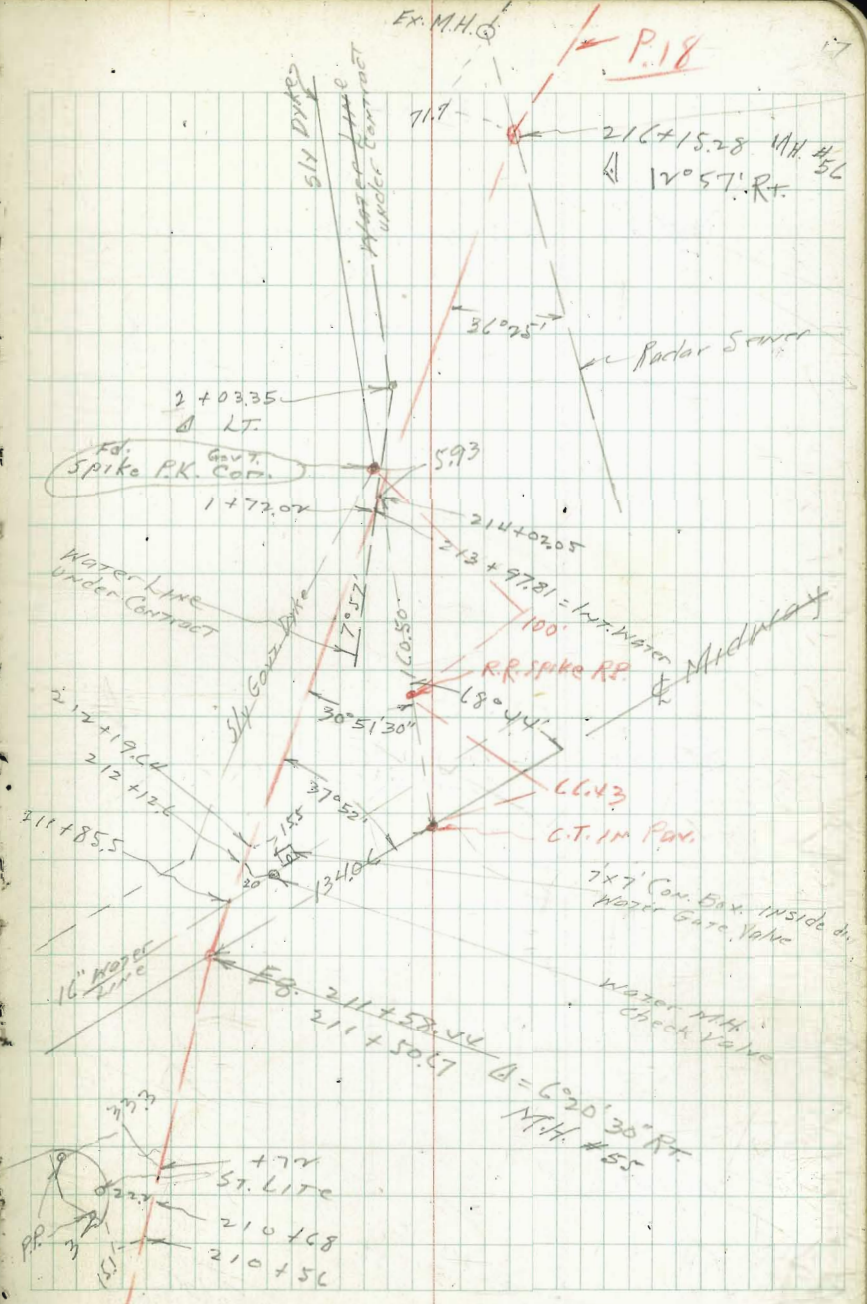


Proposed Sewer at
W. Pt. Loma Blvd.
and Midway.
C.S.M.
4-6-44



NOTE!
Offsets are to New
Locations of Power Poles

Ex. M.H. ① P.18



Curbs
ST. LITE
210+68
210+56

15-85 →

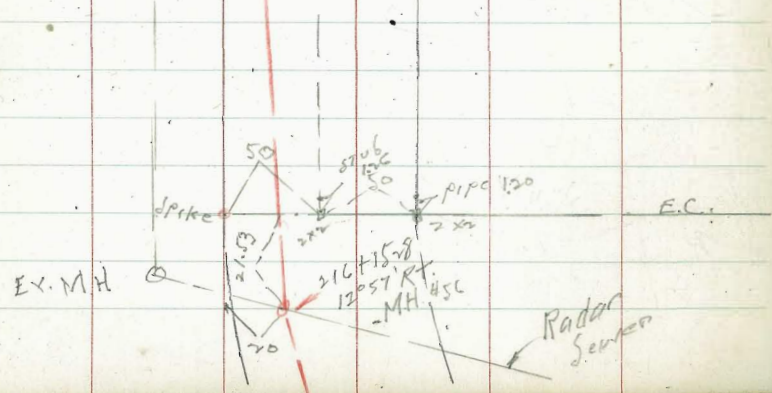
M.H. # 9 ○ 223 + 08.10 = New Location

222 + 94.55 = Stub end

Boq. Carroll CONTRACT

15

M.H. # 57 ○ 219 + 74.55
Δ = 0° 48' Rt.



Frontier of W.P. Landa Blvd.

Sewer Grades Carroll Cont.

Station	Grade	Notes
5-5-44		
		BN #5 3.17
		F.L. 5.07
		8.24 X
221 + 94.55	- 9.53	Stub end
		4.34
+ 75	- 9.52	3.90
		0.64
+ 50	- 9.49	8.54 X
+ 25	- 9.46	
222	- 9.44	
+ 75	- 9.41	
+ 50	- 9.39	
+ 25	- 9.36	
221	- 9.34	X
+ 75	- 9.31	
+ 50	- 9.29	
+ 25	- 9.26	
220	- 9.24	
219 + 74.55	- 9.22	offset 46' + 96' at top Rt. M.H. # 57
+ 50	- 9.19	
+ 25	- 9.16	
219	- 9.14	
+ 75	- 9.11	
+ 50	- 9.09	
+ 25	- 9.06	
218	- 9.04	

offset 46' on walk

offset 46' N

5-8-44

19

Station	Grade	Notes
- 9.53	9.52	9.49
17.77	17.76	17.73
5.22	5.40	5.13
C12.54	C12.36	C12.60
SPIKE	SPIKE	
9.26	9.24	9.21
17.60	17.58	17.55
5.29	4.96	4.36
C12.31	C12.62	C13.19
9.19	9.16	9.14
17.73	17.70	17.68
6.05	5.71	4.92
C11.68	C11.99	C12.70
SPIKE	X curb	X walk
		X walk
		STUB
		all stubs front home West

	F.L.
	8.54 X
217 + 75	- 9.01
150	- 8.99
+ 25	- 8.96
217	- 8.94
175	- 8.91
150	- 8.89
+ 25	- 8.87
214 + 15.28	- 8.86
214	- 8.84
+ 75	- 8.81
+ 50	- 8.79
125	- 8.76
215	- 8.74
+ 75	- 8.71
+ 50	- 8.69
+ 25	- 8.66
214	- 8.64
+ 75	- 8.61
+ 50	- 8.59
+ 25	- 8.56
213	- 8.54
+ 75	- 8.51
+ 50	- 8.49
+ 25	- 8.47

R 24
C 105740

Radar, Sewer Connection
A 12057 Rt. M.H. #56
offsets 30' + 30' N
on split

30' offsets N
stubs in post

	9.01	8.99	8.96	8.94	8.91	8.89	- 8.87
	17.55	17.53	17.50	17.48	17.45	17.43	17.41
	5.04	5.58	5.06	5.71	5.67	5.75	5.04
	C 11.91	C 11.95	C 11.84	C 11.77	C 11.78	C 11.68	C 11.99
	8.86	8.84	8.81	8.79	8.76	8.74	8.71
	17.40	18.18	18.15	18.13	18.10	18.08	18.05
	5.47	6.25	6.02	5.76	5.46	4.96	4.66
	C 11.93	C 11.93	C 12.13	C 12.37	C 12.70	C 13.12	C 13.39
	8.66	8.64	8.61	8.59	8.56	8.54	8.51
	18.00	17.98	17.95	17.93	17.94	17.92	17.91
	4.24	3.97	3.69	3.47	4.69	4.06	4.26
	C 13.76	C 14.01	C 14.26	C 14.46	C 14.65	C 14.86	C 15.14
	8.47						
	19.25						
	4.05						
	C 15.20						
	C 15.36						

Cuts offset
near line
of sewer

Feb. 10.78 X
 B.M. #7 7.88
 22.90
 - 8.44
 - 8.42 B.M. #8
 5.59
 5.39
 - 8.40
 10.98 X
 5.39
 - 8.37
 5.59
 - 8.35 4.00
 9.65 X
 - 8.33
 - 8.30
 - 8.27
 - 8.25
 - 8.23
 - 8.20
 - 8.17
 - 8.15
 2.90 B.M. #9
 7.20
 10.10 X
 4.39
 5.71 T.P.
 4.02
 9.73 X
 - 8.05
 - 8.03
 - 8.00
 - 7.97
 - 7.95
 M.H. #55
 Δ 6° 20' 30" RT. E Midway
 30 + 30 N. on SPLIT.
 Midway WY
 20' offsets to South
 all spikes
 2nd offsets 60' N
 25' and 15' South on SPLIT
 and 50' North
 20' South = C 1429
 60.70 offset SPLIT
 100.0 " R.P.

5-8-44. 31
 - 8.44 - 8.40 8.40
 19.22 19.20 19.18
 4.08 4.10 4.10
 C 15.14 C 15.10 C 15.08
 C 15.33 C 15.31 5-24-44.
 NEW OFFSETS
 - 8.37 8.35 8.33 8.30 8.27 8.25 8.23
 19.35 19.33 19.31 19.28 19.25 19.23 19.21
 3.96 3.98 4.02 4.21 4.37 4.50 4.57
 C 15.39 C 15.35 C 15.29 C 15.07 C 14.88 C 14.73 C 14.64
 - 8.20 8.17 8.15 8.13 8.10 8.07 8.05
 19.18 19.15 19.13 19.11 19.08 19.05 19.03
 4.64 4.69 4.63 4.64 4.62 4.65 4.70
 C 14.54 C 14.46 C 14.50 C 14.49 C 14.46 C 14.40 C 14.33
 M.H. #54
 - 8.03 8.00 7.97 7.95
 19.01 17.65 17.62 17.60
 4.72 3.48 3.54 3.64
 C 14.29 C 14.17 C 14.08 C 13.96
 T.P.
 2nd STAKING
 C 14074 5-9-44
 - 7.95 7.97 8.00 8.03 8.05 8.07 8.10
 17.68 17.70 17.73 17.70 18.15 18.17 18.20
 4.22 4.27 4.08 4.12 4.24 4.81 4.72
 C 13.46 C 13.43 C 13.65 C 13.62 C 13.71 C 13.34 C 13.48
 T.P.
 8.13 8.15 8.17 8.20 8.23
 18.23 18.25 18.27 18.30 18.33
 4.54 4.72 4.70 4.86 4.71
 C 13.49 C 13.53 C 13.55 C 13.94 C 14.22

		F.L.	9.57
206 +75		-7.93	
+50		-7.90	
+25		-7.87	
206		-7.85	
+75		-7.82	
+50		-7.80	B.M.#8 3.13
+25		-7.77	3.95 7.08 X
205		-7.75	
+75		-7.72	
204 +149.99	M.H. #53 A = C-30' RT.	-7.70	9.73
+25	25' and 35' South on SPLIT and 50' North	-7.67	6.50 3.13 B.M.#8
204	20' South = C 12.13	-7.65	
+75	60.10 North	-7.62	
+50	110.10 "	-7.60	
+25		-7.57	
203		-7.55	7.77 X
+75		-7.52	4.02 313 B.M. #8
+50		-7.50	
+25		-7.47	
202		-7.45	

CUT
Offsets 20' South
all spikes

-7.93	7.90	7.87	7.85	7.82	7.80	7.77
17.58	17.55	17.52	17.50	17.47	17.45	17.42
3.74	3.86	4.01	4.18	4.38	4.59	4.77
C 13.84	C 13.69	C 13.51	C 13.32	C 13.09	C 12.86	C 12.65
5-26-44						
-7.75	7.72	7.70	7.67	7.65	7.62	7.60
17.40	17.37	17.35	17.32	17.30	17.27	17.25
4.93	5.07	5.22	5.37	5.55	5.72	5.87
C 12.47	C 12.30	C 12.13	C 11.93	C 11.68	C 11.42	C 11.21
-7.57	7.55	7.52	7.50	7.47	7.45	
14.65	14.63	14.60	14.58	14.55	14.53	
3.66	3.88	4.06	4.21	4.31	4.38	
C 10.99	C 10.75	C 10.52	C 10.37	C 10.24	C 10.15	
2nd STAKING Cor. North						
-7.93	7.90	7.87	7.85	7.82	7.80	7.77
17.66	17.63	17.60	17.58	17.55	17.53	17.50
4.62	4.96	4.96	4.95	4.82	5.05	5.47
C 13.02	C 12.67	C 12.42	C 12.23	C 12.03	C 11.78	C 11.59
-7.72	7.70	7.67	7.65	7.62	7.60	7.57
17.45	17.43	17.41	17.39	17.37	17.35	17.33
5.90	6.37	6.50	6.62	6.71	6.77	6.82
C 11.55	C 11.06	C 10.64	C 10.50	C 10.18	C 9.97	C 9.85
-7.52	7.50	7.47	7.45			
14.69	14.67	14.64	14.62			
4.94	4.83	4.72	4.73			
C 9.75	C 9.82	C 9.92	C 9.89			

		F.L.	7.08 X
			4.69
			2.39 TP
201 + 75		- 7.45	4.24
			6.63 X
+ 50	2nd Cuts 60' N	- 7.40	5.04
			1.59 TP
+ 25		- 7.37	5.12
			6.71 X
201		- 7.35	
+ 75		- 7.32	
+ 50		- 7.30	
+ 25		- 7.28	
200 + 18.75	M.H. #52 P.O.T.	- 7.27 ✓	
	strike to South		
200 + 00	60' to 100' North	- 7.25	
+ 75		- 7.22	
+ 50		- 7.20	
+ 25		- 7.17	
199		- 7.15	
+ 75		- 7.12	BM #9
			2.03
+ 50		- 7.10	5.14
			7.17 X
+ 25		- 7.07	
198		- 7.05	
+ 75		- 7.02	7.05 X
			5.04
+ 50		- 7.00	7.03 X
+ 25		- 6.97	
197		- 6.95	

M.H. #52 P.O.T.
 strike to South
 60' to 100' North
 2nd Set Cuts 60' N

	-7.45	7.40	7.37	7.35	7.32	7.30		
	14.50	14.48	14.45	14.43	13.95	13.93		
	4.45	4.52	4.51	4.69	4.34	4.44		
	C 10.05	C 9.96	C 9.84	C 9.74	C 9.61	C 9.49		
				T.P.				
	7.28	M.H.	7.25	7.22	7.20	7.17		
	13.91	13.90	13.88	13.85	13.83	13.80		
	4.54	4.54	4.57	4.65	4.75	4.80		
	C 9.39	C 9.36	C 9.31	C 9.20	C 9.08	C 9.00		
	7.15	7.14	7.10	7.07	7.05	7.02		
	13.78	13.75	13.73	13.70	13.68	13.73		
	4.87	4.94	4.97	4.99	5.04	5.08		
	C 8.91	C 8.81	C 8.76	C 8.71	C 8.64	C 8.65		
	7.00	6.97	6.95					
	13.71	13.68	13.66					
	5.01	4.94	4.88					
	C 8.70	C 8.74	C 8.78					
				2nd Set Cuts 60' North	5-29-44	M.H. #52		
	-7.42	-7.40	-7.37	-7.35	-7.32	-7.30	-7.28	-7.27
	14.59	14.57	14.54	14.52	14.49	14.47	14.45	14.44
	4.77	5.01	5.24	5.16	5.06	5.08	5.07	5.04
	C 9.82	C 9.56	C 9.20	C 9.36	C 9.43	C 9.29	C 9.38	C 9.40
				2nd Set Cuts	6-8-44			
				60' North				
	-7.25	7.22	7.20	7.17	7.15	7.12	7.10	7.07
	14.30	14.27	14.25	14.22	14.20	14.17	14.15	14.12
	4.76	5.07	5.10	5.03	4.90	4.92	4.53	4.81
	C 9.54	C 9.20	C 8.85	C 9.19	C 9.30	C 9.24	C 9.62	C 9.31
	-7.05	7.02	7.00	6.97	6.95			
	14.10	14.07	14.05	14.02	14.00			
	4.67	4.70	4.65	4.77	4.65			
	C 9.43	C 9.35	C 9.40	C 9.25	C 9.35			

Fwd.

F.L. 6.71 X
 4.05
 2.66 | 2.57 = BM #10

196 + 75 - 6.92
 + 50 - 6.90
 + 25 - 6.87
 196 - 6.85 2.67
 4.38
 7.05 X

195 + 93 M.H. # 51 P.O.T. Pueblo Line - 6.84 ✓
 spike 20' S
 + 75 HUB 60' N. = CUT STAKE - 6.84
 + 50 2x2 " at 65' - 6.80
 + 25 1 1/2 x 1 1/2 100' R.P. - 6.77 2.67
 4.71
 195 - 6.75 7.38 X
 3.85
 + 75 - 6.72 4.53 = #11 BM.
 4.73
 + 50 - 6.70 9.26 X
 + 25 - 6.67
 194 - 6.65
 + 75 - 6.62
 + 50 - 6.60
 + 25 - 6.57

193 + 03 M.H. # 50 @ 5°00' ht. - 6.55
 • Split of Δ 2°30'
 60.06 N. = CUT STAKE
 95.06 N. R.P.
 Nail 20' S R.P.

M.H. #51 20

	-6.92	6.90	6.87	6.85	6.84
	13.63	13.61	13.58	13.56	13.55
	4.75	4.69	4.46	4.33	4.29
	68.88	69.01	69.14	69.23	69.26

2nd. Set CUTS. 60' North
 C-8-44.
 M.H. #51

	-6.92	6.90	6.87	6.85	-6.84	6.82
	13.97	13.95	13.92	13.90	13.89	14.20
	4.56	4.74	4.69	4.54	4.52	4.90
	69.41	69.21	69.23	69.36	69.31	69.30

C-9-44. 20' North

	-6.80	6.77	6.75	6.72	6.70	6.67
	14.18	14.15	14.13	14.10	14.08	14.05
	5.02	4.90	4.90	4.61	4.51	4.45
	69.16	69.25	69.23	69.49	69.57	69.60

	-6.65	6.62	6.60	6.57	6.55	
	14.03	15.88	15.86	15.83	15.81 = M.H. #50	
	2.21	5.47	5.49	5.58	7.01	
	11.82	110.41	110.37	110.25	8.80	

Nail on Bridge

	F.L.	92 LT
		~90
		6.53 = MH
192 +75	-6.52	6.52 = #12
+50	-6.50	
+25	-6.47	
192	-6.45	
+75	-6.42	
+50	-6.40	
+25	-6.37	
191	-6.35	
+75	-6.32	
+50	-6.30	
190 + 38.75 M.H. #49	-6.29	

60' N = CUT stake

100' N = R.P. 90°

END CARROLL CONTRACT

6-9-44

25

-6.52	6.50	6.47	6.45	6.42	6.40
15.78	15.70	15.73	15.71	15.68	15.66
5.48	4.95	4.89	4.81	4.72	4.53
C10.30	C10.81	C10.84	C10.90	C10.96	C11.13

6.37	6.35	6.32	6.30	6.29	M.H.
15.63	15.61	15.58	15.56	15.55	
4.46	4.52	4.65	5.22	5.30	#49
C11.17	C11.09	C10.93	C10.32	C10.25	

O.B. Sewer 47

Midway & W. Pt. Lanta, Carroll Tab.
offsets 10' N

6-15-44,

B.M. #7

F.L. 290
8.39
11.29

212 + 08.44 - 8.45

+ 98.44 - 8.44

+ 88.44 - 8.43

+ 78.44 - 8.42

+ 68.44 - 8.41

211 + 58.44
211 + 50.67 = Eq. C 20' 30" RT. MH. # 55 - 8.40

10' - 30' - 60' split.

+ 40.67 - 8.39

+ 30.67 - 8.38

+ 20.67 - 8.37

+ 10.67 - 8.36

211 + 00.67 - 8.35

+ 90.67 - 8.34

+ 80.67 - 8.33

+ 70.67 - 8.32

210 + 60.67 - 8.31

Cut on Curb

16' North

8.31	8.32	8.33	8.34	8.35	8.36	8.37
19.50	19.61	19.62	19.63	19.64	19.65	19.66
4.47	4.65	4.57	4.51	4.47	4.47	4.48
15.13	14.96	15.05	15.12	15.17	15.18	15.18

16' N on Curb

8.38	8.39	8.40	8.41	8.42	8.43
19.67	19.68	19.69	19.70	19.71	19.72
4.46	4.42	4.41	4.40	4.39	4.39
15.21	15.26	15.28	15.30	15.32	15.33

8.44 - 8.45

19.73 19.74

4.38 4.38

15.33 15.34

C 5m
7-14-44

CONSTRUCTION
4" WATER LINE ON Colusa

Gaines To Linda Vista Hwy

R Hub BM Colusa + Lauretta

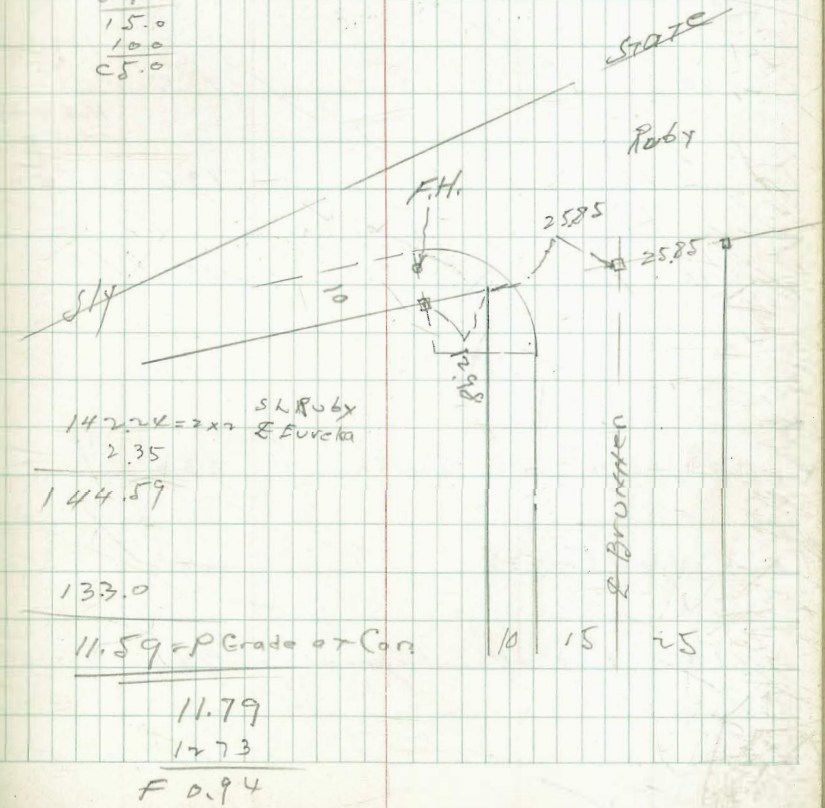
Station	Description	Value	Calculation
0+10	10' S of R Gaines to E	37.2	69.40 1.36 70.82 12.08 58.74
0+52.5	Cross + F.H. curb 4x70	39.2	0.41 59.15 12.46 46.69 3.84
1+00		41.4	50.53 ✓ 0.39 50.14 12.29 37.85 ✓
1+50		43.7	1.22 36.63 ✓ 0.21 36.42
2		46.0	12.80 74.01 ✓
2+50		48.3	
3		50.6	
3+35	S.L. Riley	52.3	
3+50	Cross	52.7	
3+85	M.L. Riley	53.6	
DT00			
0+50		56.3	
1		59.0	

INDEXED
WK
OCT 29 1948

F.H.	Curb	39.2	41.4	43.7	46.0	T.P.
37.2	42.70	39.2	41.4	43.7	46.0	
13.3	7.83	11.3	9.1	6.8	4.5	
9.5	7.20	8.1	5.9	3.6	1.1	
C 3.0	C 0.63	C 3.2	C 3.2	C 3.2	C 3.4	

48.3	50.6	52.3	52.7	53.6	56.3
14.1	11.8	10.1	9.7	8.8	17.7
10.5	8.6	7.2	6.3	3.8	11.7
C 3.6	C 3.2	C 2.9	C 3.4	C 5.0	C 6.0

59.0
15.0
10.0
C 5.0



1 + 50		61.7	74.01 ✓ 0.09 73.92 12.09 86.01 ✓ 0.15 85.86 10.50 96.44 ✓ 0.53
✓		64.5	95.89 7.04
✓ + 10	Tec + (F.H.) curb 68.44	65.0	102.93 ✓ 1.35 101.57 ✓
✓ + 35	CROSS	66.0	101.57 ✓
✓ + 70	NH Laurretta	67.4	101.57
0 + 00			↑
+ 50		73.5	H66 on E Mildred + E. end Colusa
1		79.6	
+ 50		85.7	
✓		91.8	
+ 09.6	= 10' S of SL Mildred	93.0	
+ 34.6	CROSS	93.3	
✓ + 79.6	= 10' N of NH Mildred	94.0	

28

F.H.					
61.7	64.5	68.44	65.0	66.0	67.4
12.3	9.5	5.57	9.0	8.0	6.6
9.0	6.2	5.07	5.7	3.6	0.8
C3.3	C3.3	C0.50	C3.7	C4.4	C5.8
T.P.					
73.5	79.6	85.7	91.8	93.0	93.3
12.5	6.4	10.7	11.1	9.9	9.6
6.8	0.1	3.9	5.0	4.5	3.1
C5.7	C6.3	C6.8	C6.1	C5.4	C6.5
T.P.		T.P.			
94.0					
8.9					
5.4					
C3.5					

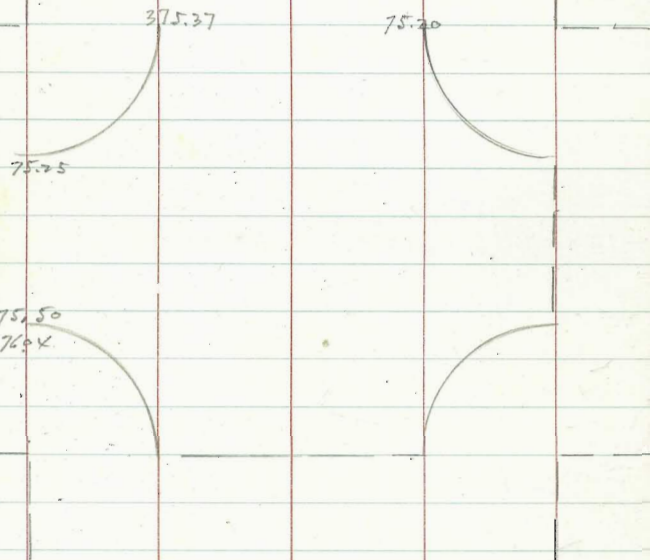
Curb Cuts, gut grades
on South El Cajon to Trojan

8-14-44

$$\begin{array}{r} 375.78 \\ 7.09 \\ \hline 382.87 \times \\ 1.16 \\ \hline 381.71 \text{ T.P.} \\ 5.67 \\ \hline 387.38 \end{array}$$

N.W. Co. Co.

5076 +
Trojan



El Cajon

29

1400.5 — 382.70

383.95 — 10.5

4130	8110	1.50
	80.89	1.49
	80.64	1.05
<u>70' Breaks</u>	80.37	0.30
	80.07	0.54
	9.74	380.24
3+10	9.38	280
		50+457
2+10	7.54	821
	7.17	7.87
	6.88	7.50
<u>20' Breaks</u>	6.57	7.25
	6.24	6.90
	6.14	6.68
0+90	5.98	6.46
0+00	375.37	375.20



Top Curb B.M.
375.78 = 1286-17
375.79 = 1141-71

Trojan

cross grades

Trayak

50th St.

375.25

7550

1170

72.55

73.80

1145

72.95

73.35

1125

72.70

72.50

1400

71.55

71.20

0.40

67.25

68.00

364.55

65.55

E. to Winona



Vertical

1
5
7

CS
9-28-44

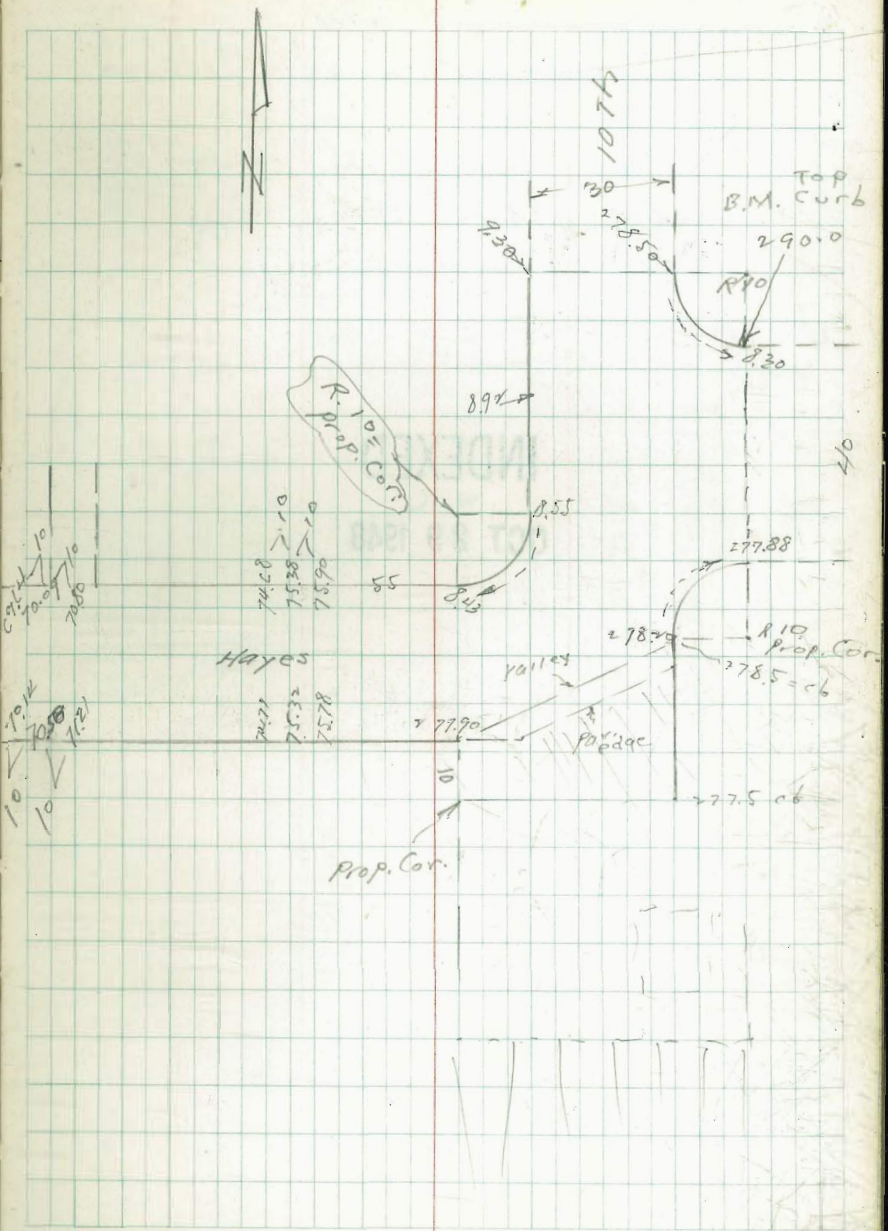
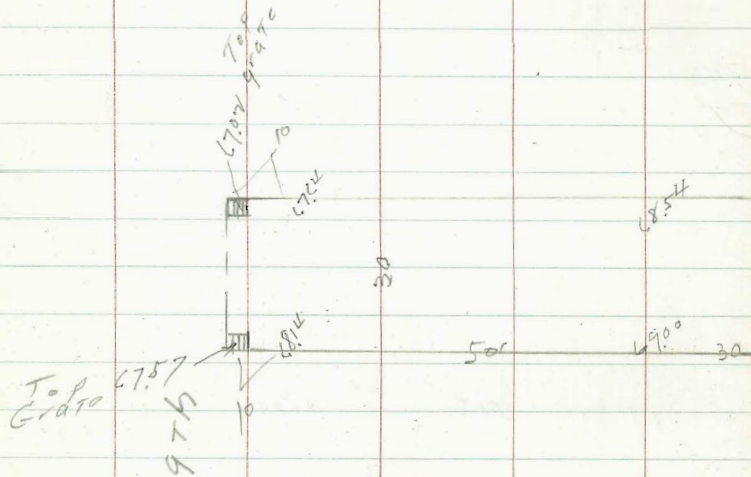
Hayes Ave Pav. grades
9th to E to 10th

B.M. top curb E.L. 10th	→ 779.0
	3.90
N side of Hayes	→ 782.90
	10.41
	→ 772.49
	1.25
	→ 773.74

INDEXED

WIK

OCT 29 1948



CSM

7-9-44 Pax, Emerald

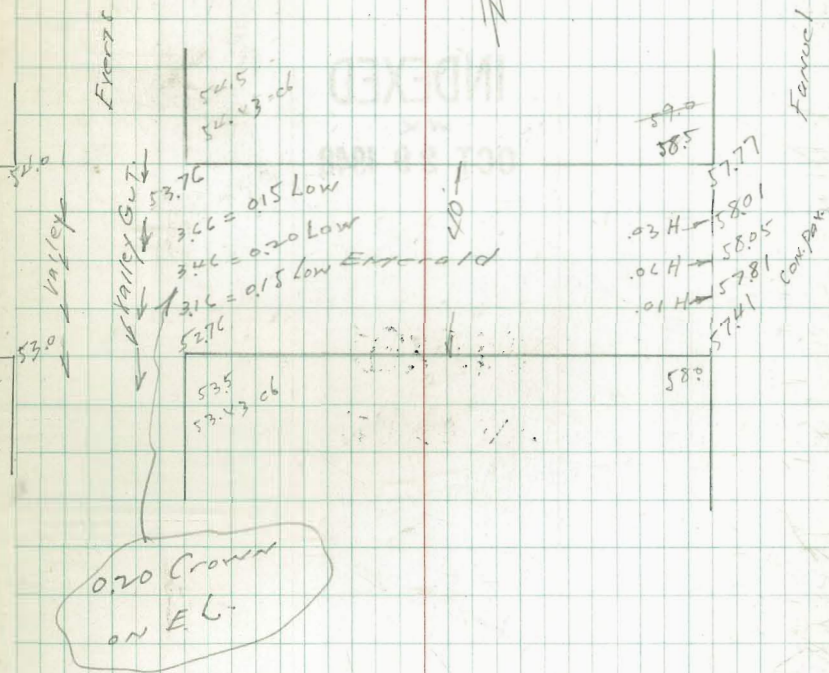
Events to Fannell St. Dept.

BM. Top F.H.				Emerald
SE Cor.	1.47	61.76	60.29	Fannell
T.P.	3.02	58.34	6.44	55.32

o.H. Crown

INDEXED
W.K.
OCT 29 1948

32



CSM
10-2-44

LINE STAKING Tecolote Creek
Santa Fe to Sisters of Mercy Farm
ROW. 5470 L 371-50

+50

INDEXED

WK
OCT 29 1948

+50

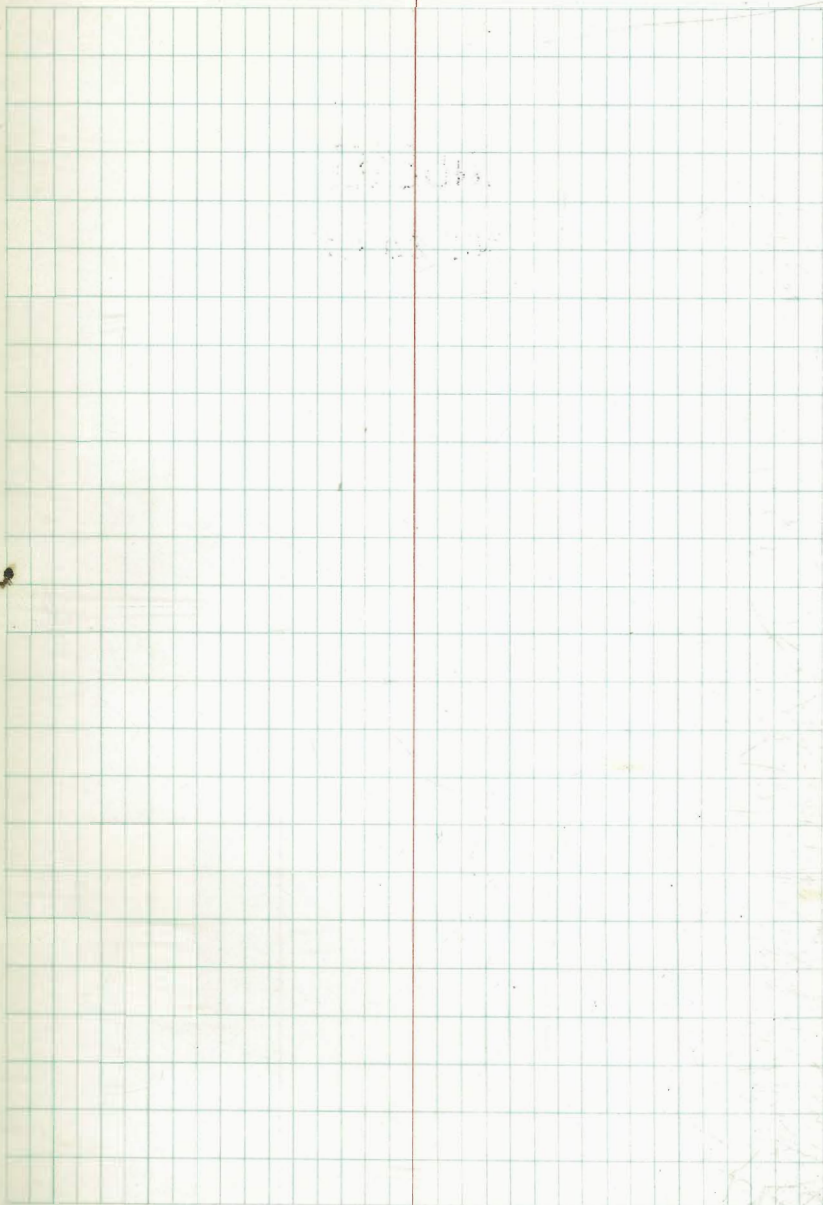
5

+50

4

+50

? +31.79 Ely RR ROW (Santa Fe)



150

10

150

9

150

8

150

7

14

+50

13

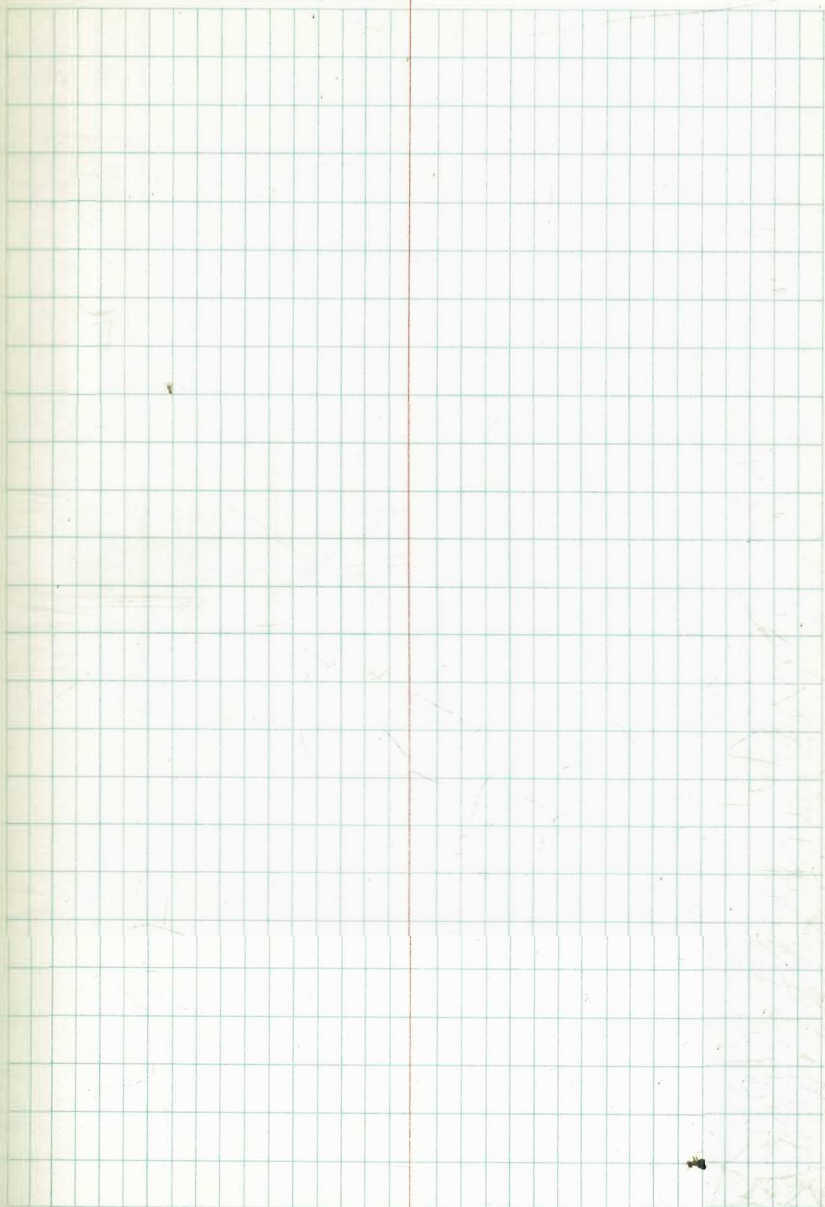
+50

12 + 2209 Δ = 2231 Rr

12

+50

11



21

 $20 + 73.44 \cdot A = 14^{\circ} 18' 30'' \text{ft}$

+ 50

20

+ 50

19

+ 50

18

25

+50

24

+50

23

+50

22

+50

+50

28

+50

27

+50

26

25 + 78.0 EQUATION
25 + 66.84 A = 41°07' R

25 + 50

3-2+47 Δ = 16°50' R

32

150

31

150

30

150

29

36

+50

35

34 + 76.06 Δ 35°41' RT

34 + 50

33 + 95 Δ 18°03' LT

+50

33

38 + 98.83 W.L. JISTERS Ranch

+50

38

+50

37

36 + 50

INDEXED
DEC 25 1900

Stake "A" line Sewer For
 W.F.M. Bayside Country Club Est. Harry Jacobs
 10-30-44
 Lytton & Barnett

	F.h.	
0.40 = DE.	-5.00	
+50	-5.50	
	-6.00	
+50	-6.50	
	-7.00	
+50	-7.50	
	-8.00	
+17 M.H.	-8.17	
3 + 33.21 Make Con. to Ex. Sewer.	-11.0	

INDEXED
 WK
 OCT 29 1948

1.05 BMBP Hd. W. Culv. inlet
 1.87
 2.92 = A

-5.00	-5.50	-6.00	-6.50	-7.00
<u>7.92</u>	<u>8.22</u>	<u>8.92</u>	<u>9.42</u>	<u>9.92</u>
1.29	2.58	4.82	4.99	5.05
C 6.63	C 5.84	C 4.10	C 4.43	C 4.87

-7.50	-8.00	-8.17	-11.0
<u>10.42</u>	<u>10.92</u>	<u>11.07</u>	<u>12.92</u>
5.07	5.16	4.94	5.07
C 5.35	C 5.76	C 6.15	C 8.85

These are 25' EXTRA STA. COSTS

-5.25	-5.75	-6.25	-6.75
<u>8.17</u>	<u>8.07</u>	<u>9.17</u>	<u>9.27</u>
1.40	4.70	4.77	4.93
C 6.77	C 3.97	C 4.40	C 4.74

-7.25	-7.75
<u>10.17</u>	<u>10.67</u>
4.87	5.12
C 5.30	C 5.55

Stakes offset 10' to So.

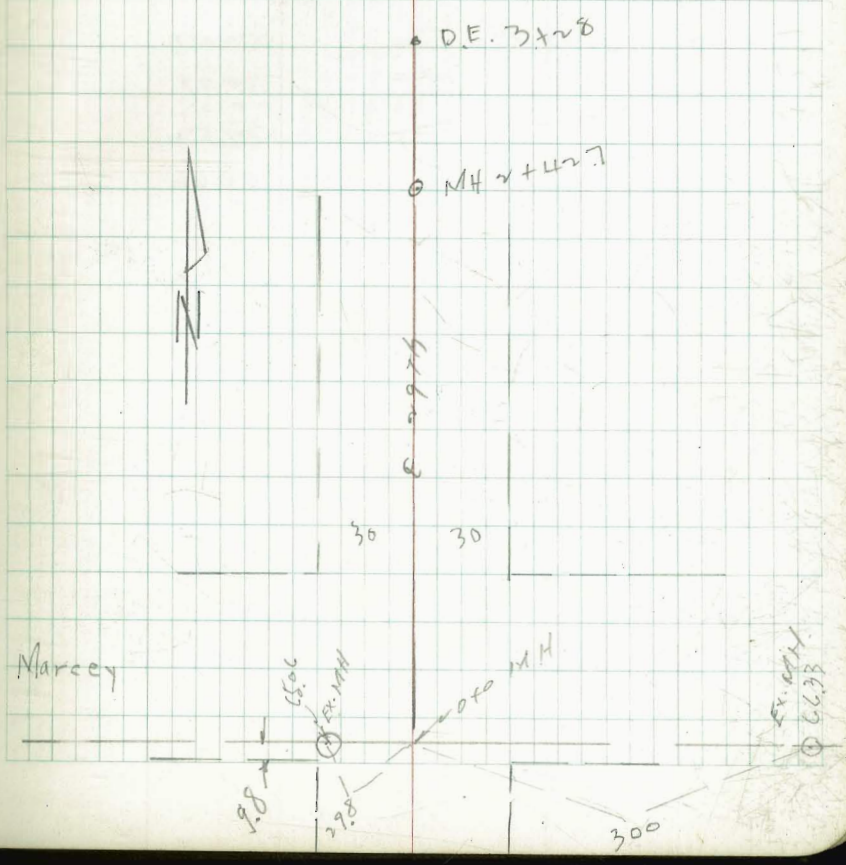
CSME Stake Sewers on 6845
 WFM 771
 10-31-47 977, Marcey Nly to 7616
 Recd. Bldg.

NUMBER
 29th + Logar

070	M.H.	INDEXED	6517
		WK.	
		OCT 29 1948	
+50			6560
			6604
+50			6647
			6691
+47.7	M.H.		6727
+50			6734
			6778
+28	D.E.		6802

offsets S'E

6517	6560	6604	6647	6691
10.99	10.56	10.12	9.69	9.25
646	640	567	511	453
Cv.53	Cv.16	Cv.45	Cv.58	Cv.72
6727	6734	6778	6802	
8.89	8.82	8.38	8.14	
4.01	3.80	2.76	2.23	
Cv.88	Cv.90	Cv.62	Cv.91	



com

11-15-44 S. gut. Grades on Emerald
Ingraham to Haines
For ST. DEPT.

0400	W.H. Ingraham	7433
+50		7414
1		7394
+50		7375
2		7356
+50		7336
3		7317
+50		7298
4		7278
+50		7259
5	E.L. Haines	7240

INDEXED
WK
OCT 29 1948

Mid. rd Return	7230	
E. curb Lime Haines		
0400	Sk. Emerald	7220
+50		7185
1		7150
+50		7115
2		7080
+50		7045
2 +70	N.L. Feldspar	7030

over

78.11 = BMBP School Porch
Ingraham + E

us

83.18					
78.89					
73.29	73.17	72.98	72.78	72.59	72.40
4.61	4.73	4.94	5.12	5.31	5.50
	4.85	5.02	5.22	5.43	5.64
77.90	-0.12	-0.10	+0.10	+0.28	+0.61
4.79					
71.11	71.30	71.20	71.85	71.50	71.15
3.95	5.60	5.70	6.05	6.40	6.75
75.07	4.76	4.81	5.55	5.73	6.12
	+0.84	+0.84	+0.50	+0.67	+0.63

70.80	70.45	70.30
7.10	7.45	7.60
6.23	6.85	6.79
+0.87	+0.60	+0.81

F 66 Line Haines

± Felspar	70.05
0 to Sh "	69.80
± 50	69.50
1	69.20
± 50	68.91
2	68.61
± 50	68.32
2 + 70 N & Garnet, Pav.	68.20

7507 X

46

70.05	69.80	69.50	69.20	68.91
5.02	5.27	5.57	5.87	6.16
4.30	4.53	4.65	4.65	5.90
+ 0.68	+ 0.74	+ 0.92	+ 1.22	+ 0.26

68.61	68.32
6.40	6.75
5.89	6.27
+ 0.57	+ 0.28

11-28-4x Grades on Thorn
Ket to Calif.

49.01
0.75
49.76
7.37
42.39
2.33
44.72
13.08

0100 W/L
Kettner

SL

40.64

N.L.

40.14

31.64
2.37

+50

36.68

36.16

34.01
1.47

32.54
11.48

32.71

32.19

44.02
2.19

+50

28.74

28.21

41.83
7.83

+75

26.73

26.23

49.02
orig. 49.01

2 EL COLIF.

24.74

24.24

Sta. on SL to E rail of E Track

2409

on N.L. Thorn

E rail E Track

10.14

23.87

W "

= M.LINE

10.09

23.92

on SL THORN

E rail on E Track

9.68

24.33

" "

W " = M.LINE

9.75

24.26

10' CTS-

SEBP. JASS. & KET.

47

SL	40.64	36.68	32.71	28.74	26.73	24.74
		4.07	1.3	5.27	7.28	9.27
		5.23	7.9	6.53	7.60	12.13
		-7.90	-6.6	-1.26	-0.32	-7.73

N.L.	40.14	36.16	32.19	28.21	26.23	24.24
		2.15	1.82	5.8	7.78	9.77
		0.71	3.1	3.3	11.5	12.24
		-2.86	-1.28	+2.5	-3.72	-2.43

INDEXED

WK

OCT 29 1948

12-1-44.

Grades ex Thorn, Ket. to Cal.

SEBA SALS + Ket. = 49.01

8" gutters

			49.01
			0.47
			49.48
	5.06		7.45
		14.06	40.03
			1.39
			41.42 X
0.70 W.L. Ket.	40.50 ✓	40.08	40.0
			936
			32.06
			1.90
			33.96 X
+50	36.53	36.11	36.03
1	32.55	32.13	32.05
+50	28.58	28.16	28.08
+65	27.39	26.97	26.89
+75	26.59	26.17	26.09
✓ E.L. Cal.	24.60 ✓	24.18	24.10

x8

5.06.	40.50	36.53	32.55	28.58	27.39	26.59
	0.92	4.89	8.87	5.38	6.57	7.37
	1.72				5.57	6.37
	0.20				+1.0	+1.0

F	40.08	36.11	32.13	28.16	26.97	26.17
	1.34	5.31	9.29	5.80	6.99	
				5.80	5.99	
				+0.60	+1.0	

14.06.	40.0	36.03	32.05	28.08	26.89	26.09
	1.22	5.39	9.37	5.88	7.07	
				4.60	5.27	
				+1.2	+1.8	

CSM

12-14-44. Sewer Const. in Albion St
and Blk 12 Roseville Hts.

0+0 Ex. M.H. 212.0

0+12 = A LT 212.37

0+50 213.54

INDEXED

WK

OCT 29 1948

1+54.04 M.H. 90° LT 216.74

" " " Drop 217.0

1+00 218.43

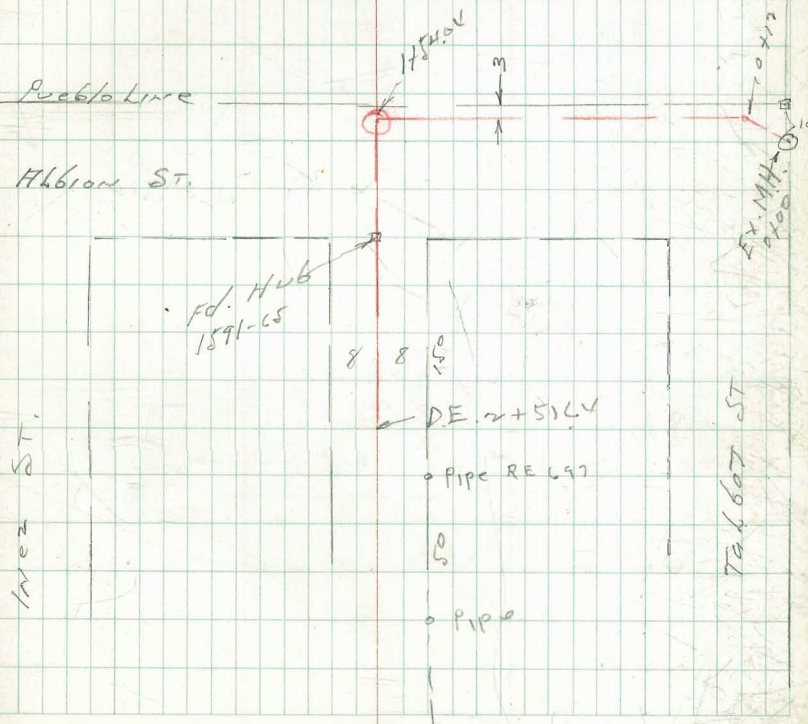
1+51.64 D.E. 220.03

217.90 Chisel x So. Rim M.H.
11.21
229.11
Talbot + Albion

49

212.0	212.37	213.54	215.07
17.11	12.74	15.57	14.04
11.21	11.46	11.00	9.41
C 5.90	C 5.28	C 4.51	C 4.63

M.H.			
216.74	217.0	218.43	220.03
12.37	12.11	10.68	9.08
5.96	5.96	1.96	0.11
C 6.41	C 6.15	C 8.74	C 8.97



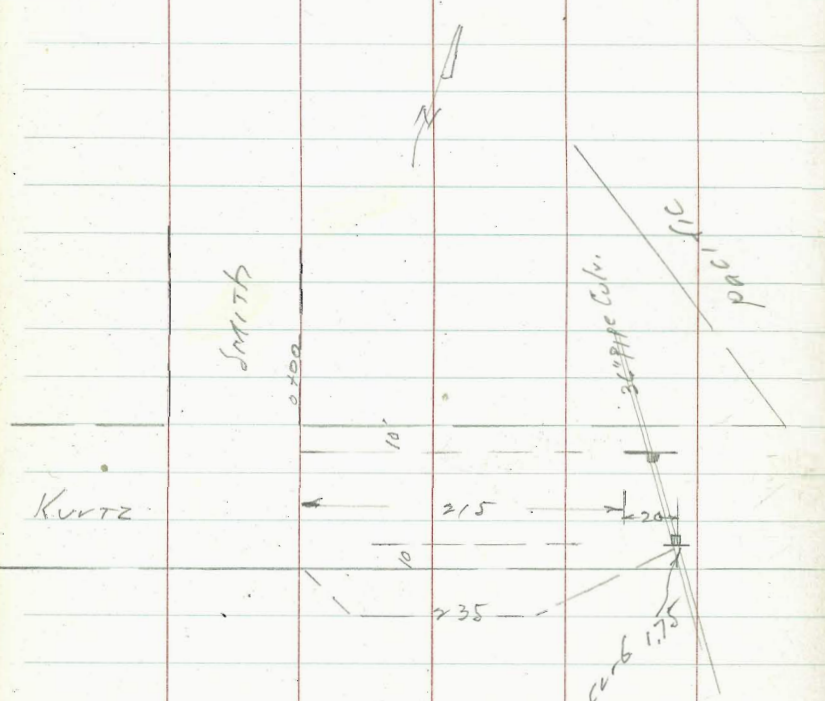
CONST. 2 - 10' c.b. inlets on Kurtz
 Betw. Smith & Pacific

CSM
 1-4-45

INDEXED

WK
 OCT 29 1948

N. side Kurtz, stakes set $2+15 = 179$ c.b. grade
 $2+35 = 175$



431 BM. B.P. W. c.b. Pacific, 800' So. of Rosecrans

4.64	2.77 π
895	3.20
519	9.01 π
3.70	4.70
5.09	4.31 check back
8.85	
5.43	
3.42	
7.35	
6.77 π	

1.75	1.79	
5.02	4.98	
5.68	5.68	
-0.66	-0.70	Stakes offset 5' So. of curb on North side Kurtz

4.77	
9.90	
-3.13	= EL. 36" Pipe on North side

4.77	
9.79	
-3.02	EL. 36" Pipe on South side

CSM
1-8-45.

Conklin Sewer Const. C348L

Roscoans to Midway

0400 CHIMNEY ON ROSCOANS -4.87

+20.5 -4.67

+31.8 -4.55

+60.1 -4.27

+77.6 -4.10

0487 M.H. -4.00

+105 A -3.87 ✓

+25 -3.73

+50 -3.56

+75 -3.38

✓ -3.21

+20 -3.07

+40 DE -2.93

INDEXED

W.K.

OCT 29 1948

0.62 Mau. Midway + Gaines OUT.

51

1.63 = El. chisel x over CHIMNEY

4.78	1.83
6.41 X	3.46
4.58	5.29 X
11.83 T.P.	

-4.87	-4.67	-4.55	-4.27	-4.10	-4.00
6.41	6.41	6.41	6.41	6.41	6.41
11.83	11.83	10.96	10.68	10.51	10.41
4.80	4.55	4.36	4.64	5.05	4.53
C 6.48	C 6.53	C 6.60	C 6.04	C 5.46	C 5.88
✓	✓	✓	✓	✓	✓

-3.87	-3.73	-3.56	-3.38	-3.21
6.41	5.29	5.29	5.29	5.29
10.28 T.P.	9.02	8.85	8.67	8.50
3.28	2.02	4.70	5.01	4.86
C 7.0	C 7.00	C 4.15	C 3.66	C 3.64
✓	✓	✓	✓	✓

-3.07	-2.93
5.29	5.29
8.36	8.22
4.88	4.93
C 3.48	C 3.29
✓	✓

CONST. Sewer Dr. 468

csm
1-9-45. Blks 403-404-430-431 Old Town
BlueBell and Tourledge Auto CTS,

040 = Nly Kurtz -6.83
+50 -6.48
1 -6.23
+50 -5.78
1+98.08 M.H. #1 Δ = 44'09" RT. -5.44
2 +50 -5.08
3 -4.73
+50 -4.38
4 -4.03
4+17.95 M.H. #2 -3.90

50' N -3.55
100' N D.E. #1 -3.20

50' S -3.55
100' S D.E. #2 -3.20

INDEXED
W.K.
NOV 1 1948

197 BMBP SWly Rosecrans + Kurtz 5

4.56
7.53
5.11
242 -6.83 -6.48 -6.13 -5.78 -5.44
4.75 14.00 13.65 13.30 12.95 12.61
7.17x 5.40 5.29 5.00 4.95 4.96
4.96 C 8.00 C 8.36 C 8.30 C 8.00 C 7.65
7.21
5.00
7.81x

-5.08 -4.73 -4.38 -4.03 -3.90
12.89 12.54 12.19 11.84 11.71
5.29 5.25 4.95 5.18 4.65
C 7.00 C 7.29 C 7.24 C 6.66 C 7.00

Nly Line -3.55 -3.20 = D.E.
11.36 11.01
4.49 4.67
C 6.87 C 6.34

Sly Line -3.55 -3.20 = D.E.
11.36 11.01
4.43 4.95
C 6.73 C 6.06

7.81x
4.67
3.14
4.94
8.08
3.77
4.31

431 BMBP W. c. b. Pacific 800' S
of Rosecrans

2-11-45.

Grades on Oak-Crest Drive

	50th to UNIV AVE		
	E. cb.	W. cb.	
3+93.7	Meas.		
3+96.35	P.C.	338.90	338.30 ←
3+74.35		339.90	339.70
3+56.35		340.60	340.60
	B.M. SW. of UNIV. of 50th St		330.15
			12.71
3+36.35	P.V.C.	341.10	341.20
			342.86
			0.39
			342.47
			8.10
3		341.74	341.95
			350.57 = X
			9.13
			347.44
			2.01
2+50		342.64	342.97
			343.45 = X
2+00	Break	343.50	344.00
1+50		343.90	344.37
1+00		344.30	344.75
0+50		344.70	345.17
0+00		345.10	345.50

R.P. 10' and 28' W of H.C.

53

	45.0	44.7	44.3	43.9	43.5	42.6
E	5.5	5.9	6.3	6.7	7.1	8.0
	5.1	5.5	5.4	6.0	6.1	6.5
	C 0.4	C 0.4	C 0.9	C 0.7	C 1.0	C 1.5
W	45.5	45.1	44.7	44.4	44.0	43.0
	5.1	5.5	5.9	6.2	6.6	7.6
	4.0	4.7	5.4	5.6	5.7	6.5
	C 1.0	C 0.8	C 0.5	C 0.6	C 0.9	C 1.1
E	41.7	41.1	40.6	39.9	38.9	
	8.9	9.5	7.9	3.6	4.6	
	7.1	8.2	2.2	2.4	3.6	
	C 1.8	C 1.3	C 0.7	C 1.2	C 1.0	
			T.P.			
W	40.0	41.2	40.60	39.7	38.3	
	8.6	9.4	2.9	3.8	5.2	
	7.4	8.2	1.6	2.0	2.7	
	C 1.2	C 1.2	C 1.3	C 1.8	C 2.5	

INDEXED
WIK
NOV 1 1948

F.L. OAK-CREST DRIVE P. 53
 343.45 T
 12.51
 E 06
 overnight T.P. 330.94 ✓
 5.72
 336.66 T

39.3	35.4	33.2	31.1	28.9	26.8	23.6
6.2	8.1	10.1	12.4	14.6	9.9	13.1
4.8	6.4	7.5	11.5	14.2	9.2	9.9
C 1.4	C 1.7	C 2.5	C 0.9	C 0.4	C 0.7	C 3.2

✓ 1+75.68 PRC. 323.60
 28°49.50
 lch. of 30.72 ✓ clch. 28.98
 1+44.90 23°46.50 326.80

 ✓ 1+20.75 19°48.75 328.95

 ✓ 1+96.60 15°51.0 331.10

 ✓ 1+74.45 11°53.25 333.25

 ✓ 1+48.30 7°55.50 335.40 F.V.C.

 ✓ 1+24.15 3°59.75 337.30
 lch. of 24.14
 0+00 P.C. 338.90
 lch. = 227.4 ch.

E.L.R. = 174.6

E.L. Oak-Crest Drive

P. 54

139.81	63°54'	304.10	OUT	330.667
				12.89
ch 1971				323.7777
140	53°54'	305.60		0.25
				324.027
				13.04
				310.9877
				0.82
140	44°55'	307.40		311.847
+80	35°56' ✓	309.60		
+60	20°57'	312.60		
140	17°58'	316.40		
+20	8°59'	320.20		
P.R.C. 040		323.60 ✓		

E.L. ch-199

E.L.R. 4368

10' cb ch = 230'

20.2	16.4	12.6	9.6	7.4	5.6	4.10
16.5	20.3	11.4	14.4	16.6	6.7	7.72
10.2	12.6	3.8	6.8	10.1	5.0	7.82
6.3	7.7	7.6	7.2	6.5	6.7	0.10
						on cb.

W. L. Oak-Crest Dr. P. 53
343.45 T

+ 95.29 48°49.5 ✓ 340.30

+ 75.29 43°49.5 ✓ 320.40

+ 55.29 38°49.5 ✓ 321.10

+ 35.29 33°49.5 ✓ P.P.C. 322.40

00
+ 15.29 opp. P.P.C. 1 324.60
28°49.50

+ 95.10 23°46.5 ✓ 327.10

+ 79.25 19°48.7 ✓ 329.25

+ 63.40 15°51.0 ✓ P.P.C. 331.40

+ 47.55 11°53.2 ✓ 332.50

+ 31.7 7°55.5 ✓ 335.40

+ 15.85 3°57.7 ✓ 337.0

0400 P.C. 338.30 ✓

W6 STA.

W. 7' Line

ch. = 5-16.81
1-21.40
9-21.70

and
1-28.34

P. 54

336.66 T

56

37.0	35.4	33.5	31.4	29.2	27.1
6.5	8.1	10.0	12.1	14.3	16.4
3.5	4.0	4.9	5.8	6.9	8.1
C 3.0	C 3.7	C 5.1	C 6.3	C 7.4	C 8.3

24.6	22.4	21.1	20.4	20.3
18.9	21.1	22.4	16.3	16.4
8.9	10.0	13.8	8.9	10.3
C 10.0	C 11.1	C 8.0	C 7.4	C 6.1

T.P.

Δ = 57°39'
W L R = 114.6
L = 115.29

W.L. Oak-Crest Dr. at Univ. Ave

336.66

2018	21.8	22.1	24.5	25.8	27.3
15.9	14.9	13.6	12.7		9.36
9.8	5.1	5.2	4.6	OUT	
66.1	69.8	68.4	67.6		9.46

0.10
TOP
C6
ON UNIV.

312206 80°31.0 327.30

26.77 7834 curb
ch.

2+95.29 73°49.5 325.80

2+75.29 68°49.5 324.50

2+55.29 63°49.5 323.10

2+35.29 58°49.5 321.80

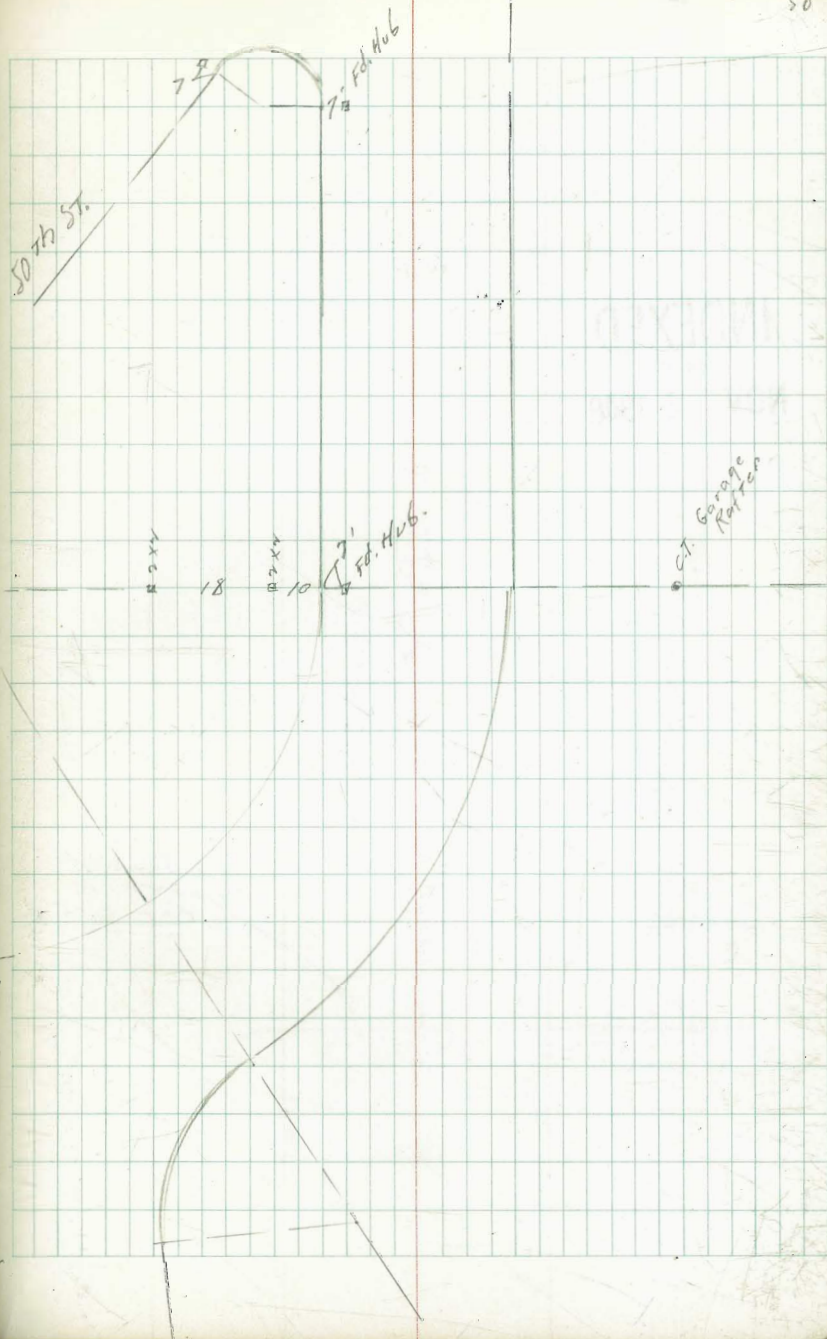
2+15.29 53°49.5 320.80

W.L. STA.

Ties on Oak-Crest Dr.
UNIV. AVE. N.

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WK
NOV 1 1948

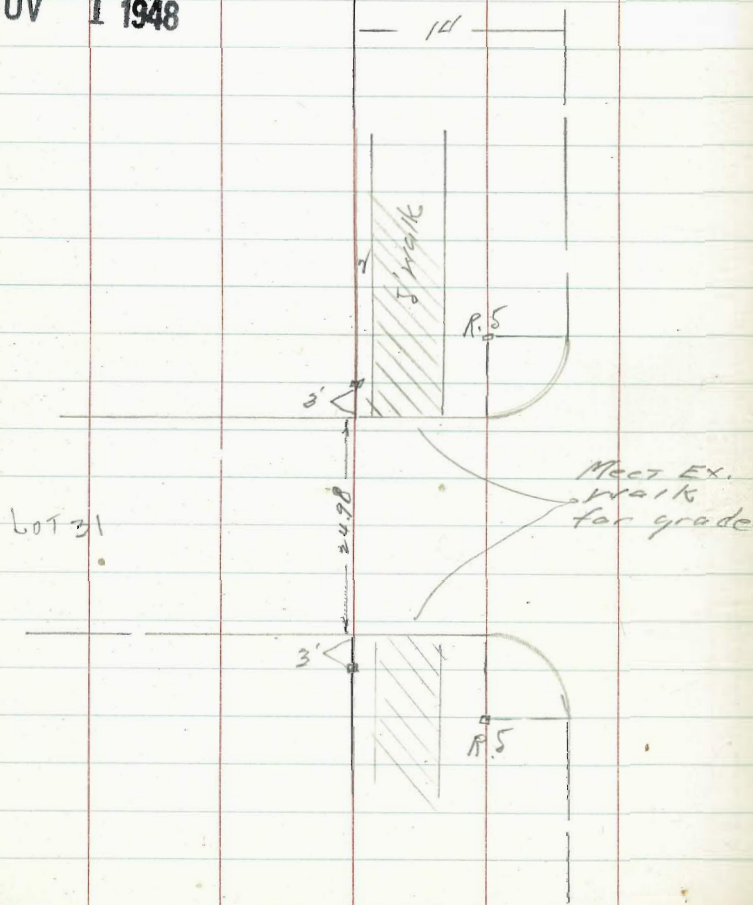
UNIV. AVE.



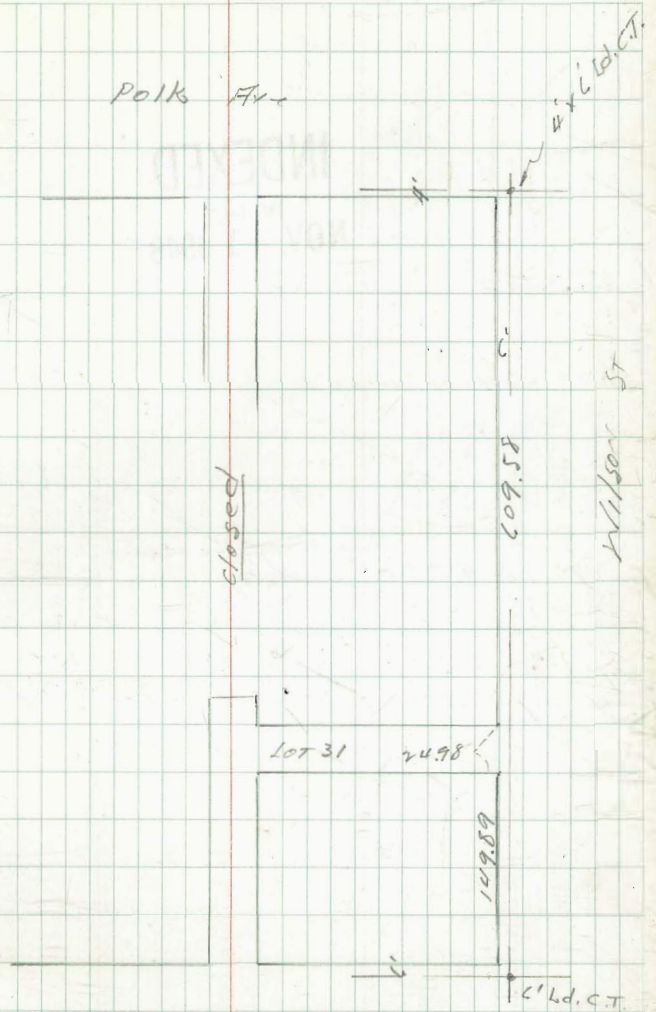
Moore
7-2-45

Survey Lot 31 Blk 33 City Hts.
for alley opening
For School Board.
Set 5' R. Returns

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Polk Ave



Union Ave

Const. drain
32nd & Thorn

CSM
2-6-45

INDEXED
W.K.
NOV 1 1948

0100 Ex. cb. inlet

FL.

298.60

+38

298.35

+76 @ 45° LT. WEST 5'
THIS MAY BE MOVED

298.10

+99.33 Connected to Ex. 24" pipe

297.64

F.L.

305.72
4.00
307.72

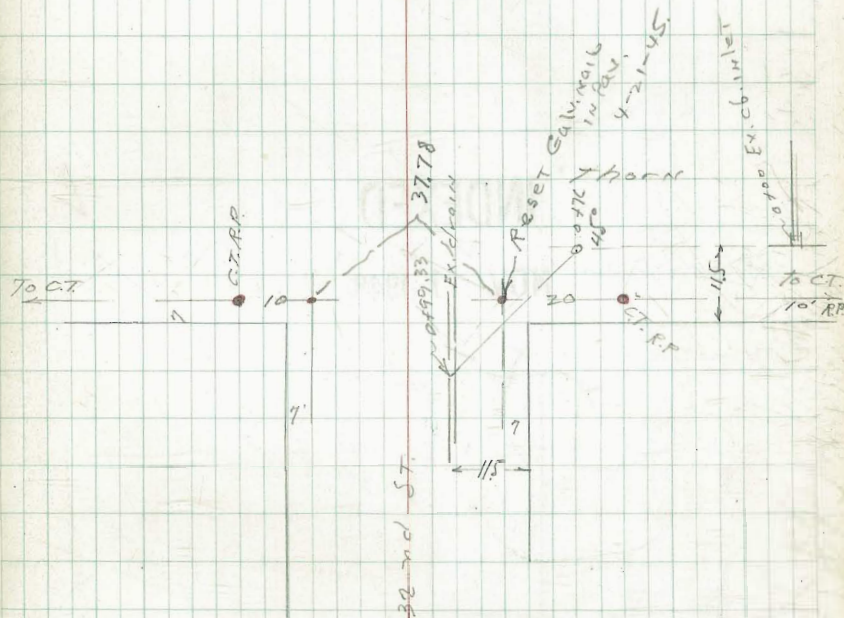
0100

0108

296.87

314.80 SWBP Thorn & 33d.

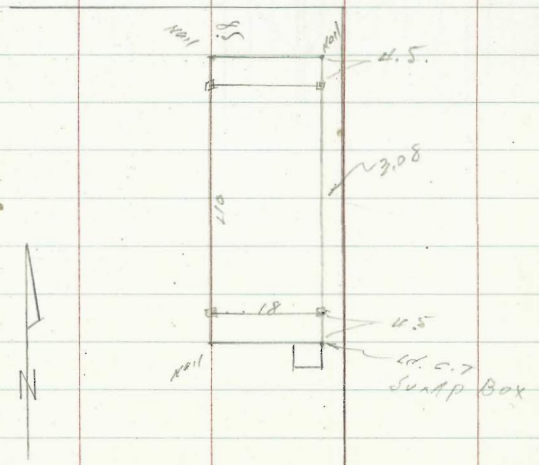
314.80				
1.50				
316.30				
10.58				
305.72				
3.47				
309.197				
3.05	298.60	298.35	298.10	297.64
304.14	10.59	10.84	11.09	11.55
10.08	5.80	5.51	4.49	4.52
310.22	C 41.76	C 5.33	C 0.60	C 7.01
1.40				
311.82				



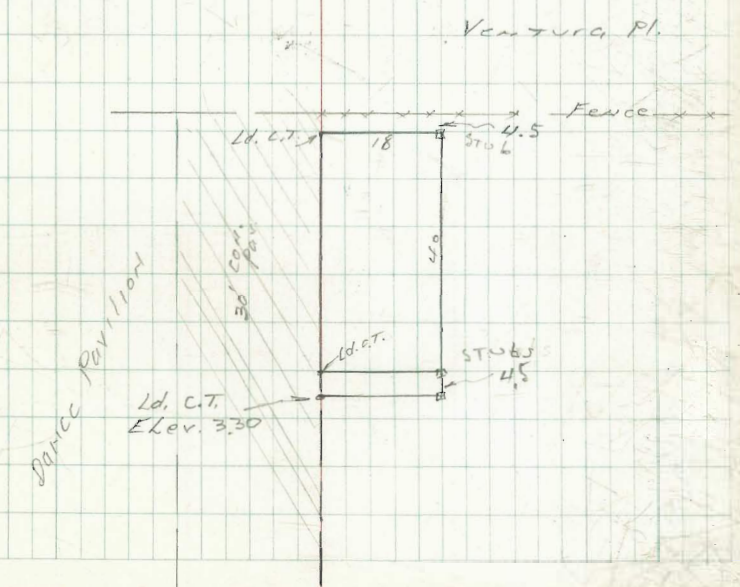
Stake Comfort Sta.			
So. UNIT 1408 Lc			
Mission Beach Enclosure CTG.			
	H.I.		TORNECOR. SUMP BOX
B.M. 1150-78	5.38	7.23	1.85
N.E. Cor. Stub Main Bldg.	Finish floor	2.65	Elev. 4.58 5.25 F 0.67
N.W. " " " " " "	" " " "	2.65	4.58 4.91 F 0.33
S.W. " " " " " "	" " " "	2.65	4.58 5.10 F 0.52
S.E. " " " " " "	" " " "	2.65	4.58 5.35 F 0.77

INDEXED

Prada Way WK
NOV 1 1948



330 Ld. C.T. B.M.			
527			
8.57A North UNIT			
		FINISH floor	3.75
			4.82
N.E. Cor. Main Bldg			5.43 F 0.61
N.W. " " "			4.82 5.19 F 0.37
S.W. " " "			4.82 5.22 F 0.40
S.E. " " "			4.82 5.13 F 0.31



CONST. SERVICE IN

NARRAGANSETT CT. by CITY SERVICE

INDEXED

WK

NOV 1 1948

Supt. Prabh

221-45

C.S.M.
C.S.
W.F.M.

True F.L. Ex. M.H. 10.40 190.99

0+00 Ex. M.H. or Ave. Narr. 191.13 ✓

+50 191.63

1 192.13

+50 192.63

1+91 D.E. 193.04

198.01 Top 2" PIPE BC.PT. Mid. Lot 4.
3.38 E.P.L. Narr. CT.
201.39

					D.E.
191.13	91.63	92.13	92.63	93.04	
10.40	9.70	9.76	8.70	8.35	
4.79	5.06	4.92	4.69	4.47	
5.47	4.70	4.34	4.07	3.88	

offsets 5' WEST = chisel X 5

Recreation Bldg. Pac. Beach

150' sidewalk & Curb on S. side

Corner of DIAMOND, Gresham Ely.

SMYON
W.F.M. 3-22-45

0+00 E.L. Gresham 70.00

0+10 P.C. Curb 70.12

0+50 INDEXED 70.60

WK
NOV 1 1948

1+00 71.20

1+50 71.80

4.20
5+00 W.L. Haines 76.00

30' R Return

Stakes 3' Back Curb
and set to grade

20' sidewalk

70.31 N.W. BP Diamond & Gresham

11.41
70.72 T

4.80
69.92 TOP Curb on E.L. Gresham

70.12 70.60 71.20 71.80
4.50 4.12 3.52 1.1

70.31 B.M.
4.33
74.64 T

3-30-45
C.S.M.

Prop. grades for walks to Bldg

0+00 0+35.8 1+14.2
Grade
Prop. for
70.20 70.63 71.57
4.01 3.07

No. 100
 ENTRY
 WEST
 4-7-45

Sewer CONST. ON UNION
 JUNIPER to KALMIA

SWBP	460	10243		97.83	1/44 & UNION
T.P.	913	<u>105.65</u>	591	96.52	
check T.P. back	7.53	10244	10.54	95.11	
Starting B.M.			4.81	97.83	

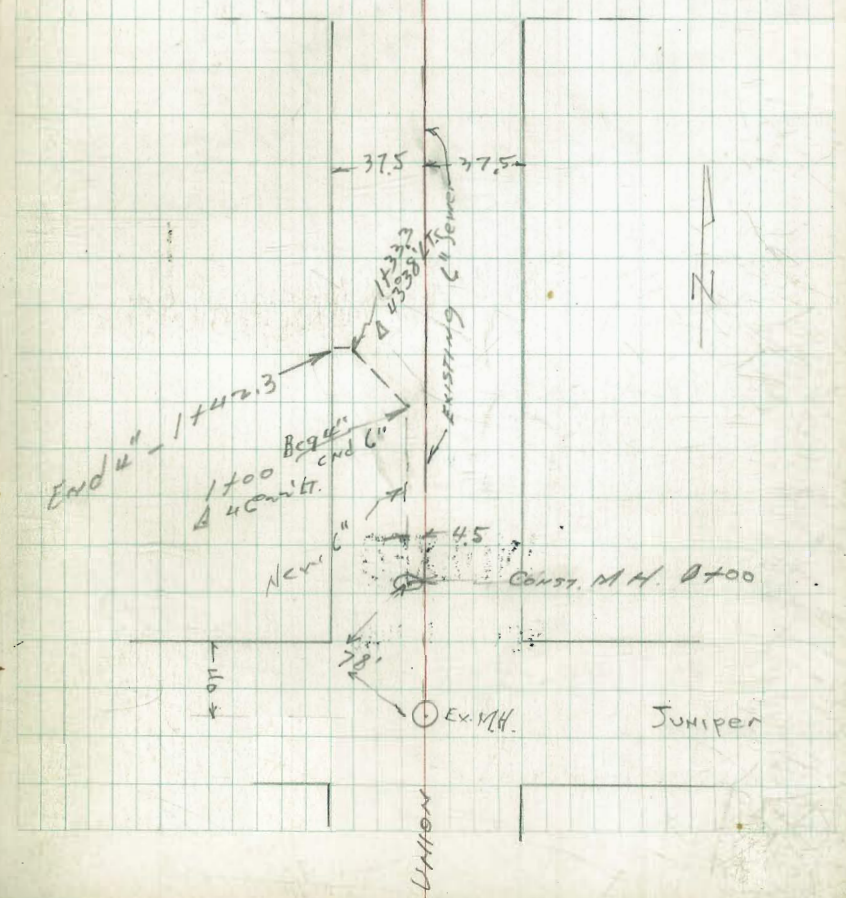
78' N of E Juniper - 0+0	FL. C" Pipe =	97.26	93.49
0+25		98.62	93.63
0+50		99.93	93.77
0+75		101.29	93.91
1+00 = End C" & Beg 4" Lat.		102.69	94.05
1+00 Beg. 4" Lat		102.69	94.15
1+33.3 = Δ 43° 38' LT		103.04	94.65
1+42.3 = W.L. UNION		103.14	94.79

INDEXED
 W.R.
 NOV 1 1948

1+00 (4)

93.49	93.63	93.77	93.91	94.05
12.16	12.02	11.88	11.74	11.60
8.59	7.93	5.72	4.36	2.96
C 3.77	C 4.99	C 6.16	C 7.38	C 8.64

1+00 =	94.15	94.65	94.79	
	11.50	11.00	10.80	
	2.96	2.61	2.51	
	C 8.54	C 8.39	C 8.35	KALMIA



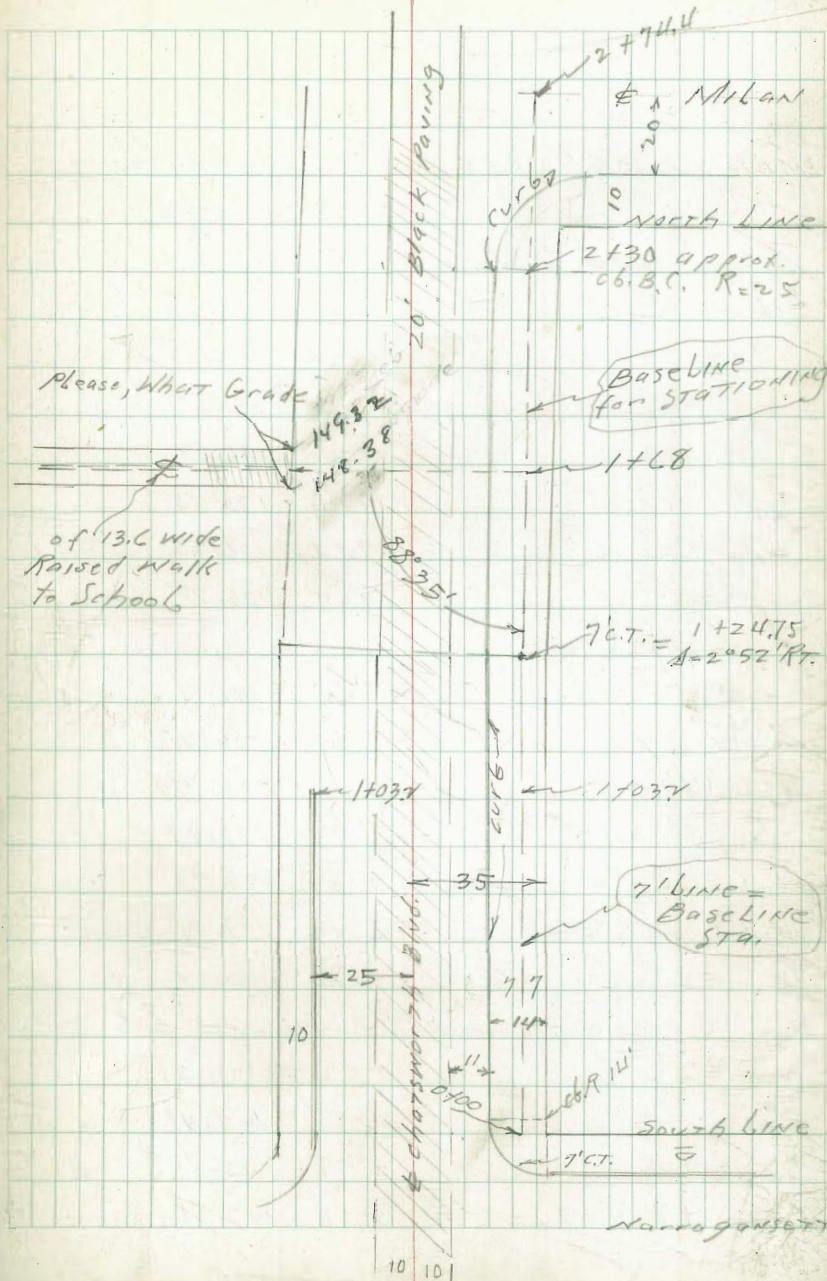
Curb Levels on
 Chatsworth Blvd.
 Narragansett to Milford
 to establish grade of
 Raised School Walks

C. Moore
 Surveyor
 5-12-45.

INDEXED
 WK
 NOV 1 1948

	13319
	1308
	146.27
	2.55
	143.52
148.80	7.76
2.58	151.38

150.00
1.38



Curb Levels on Charlestown
Narrowgansett to N. Main

WCB	136.5	145.84	133.19	Charlestown Narrowgansett
0 + 0 St. Main Ave.				
wcb	9.20	136.64		
qt	9.84	136.00		
wl Pav	9.27	136.57		
E "	9.20	136.64		
EL "	9.29	136.35		
E QT	9.61	136.23		
E cb	9.05	136.79		
0 + 50				
E cb	5.83	140.01		
qt	6.43	139.41		
EL Pav	6.07	139.77		
E "	5.93	139.91		
wl "	6.07	139.77		
qt.	6.43	139.41		
wcb	5.80	140.04		
1 + 03.2 = end cb + walk on E side				
wcb	1.53	144.31		
qt	2.38	143.46		
wl Pav	2.38	143.46		
E "	2.18	143.66		

Wcb 10' ^{diff} 145.84
E cb 14'
qt paving 20' st

CL

EL Pav	2.27	143.57	
qt	2.69	143.15	
E cb end - start + curb		143.62	
1 + 24.75 = Δ 2° 52' RT.			
cb ground	0.70	145.1	
EL Pav	0.37	145.47	
E "	0.39	145.45	
wl "	0.50	145.32	
qt	0.52	145.26	
T.P.	12.70	158.30	9.26
			145.58

wcb	12.09	146.21	
1 + 50			
wcb	10.28	148.02	
qt	11.07	147.23	
wl Pav	11.03	147.27	
E "	10.80	147.50	
EL "	10.93	147.37	
E cb ground	10.9	147.4	

1 + CB			
EL	ON TOP	9.39	147.91
	wood deck	10.15	148.15
13.6 wide			

5 1/2" above = Finish
Walk

158.30

2100			
E cb ground	6.9	151.40	
EL Pav	6.68	151.62	
q "	6.58	151.72	
WL "	6.56	151.64	
qT gnd	6.7	151.6	
WL cb	5.92	152.38	

2.430

Wcb approx B.C.	3.45	154.85	
qT dirt 25' R	4.2	154.1	
WL Pav	4.24	154.06	
q "	4.06	154.24	
EL "	4.21	154.09	
E cb dirt	4.2	154.1	

cb NL Milan	2.03	156.27	
qT " "	2.77	155.53	

cb FWL chas shunt	0.66	157.64	
qT " "	1.30	157.00	

qT EC qT	0.39	157.91	
cb EC	+ 0.21	158.51	

TP	0.45	145.5	1310	145.20
orig. BM			1246	133.9

67

Indexed
C.S.K.

Location of 2 story Stucco house
on Nly Side of Bonair St.
Ely of Draper St, La Jolla

Entrance

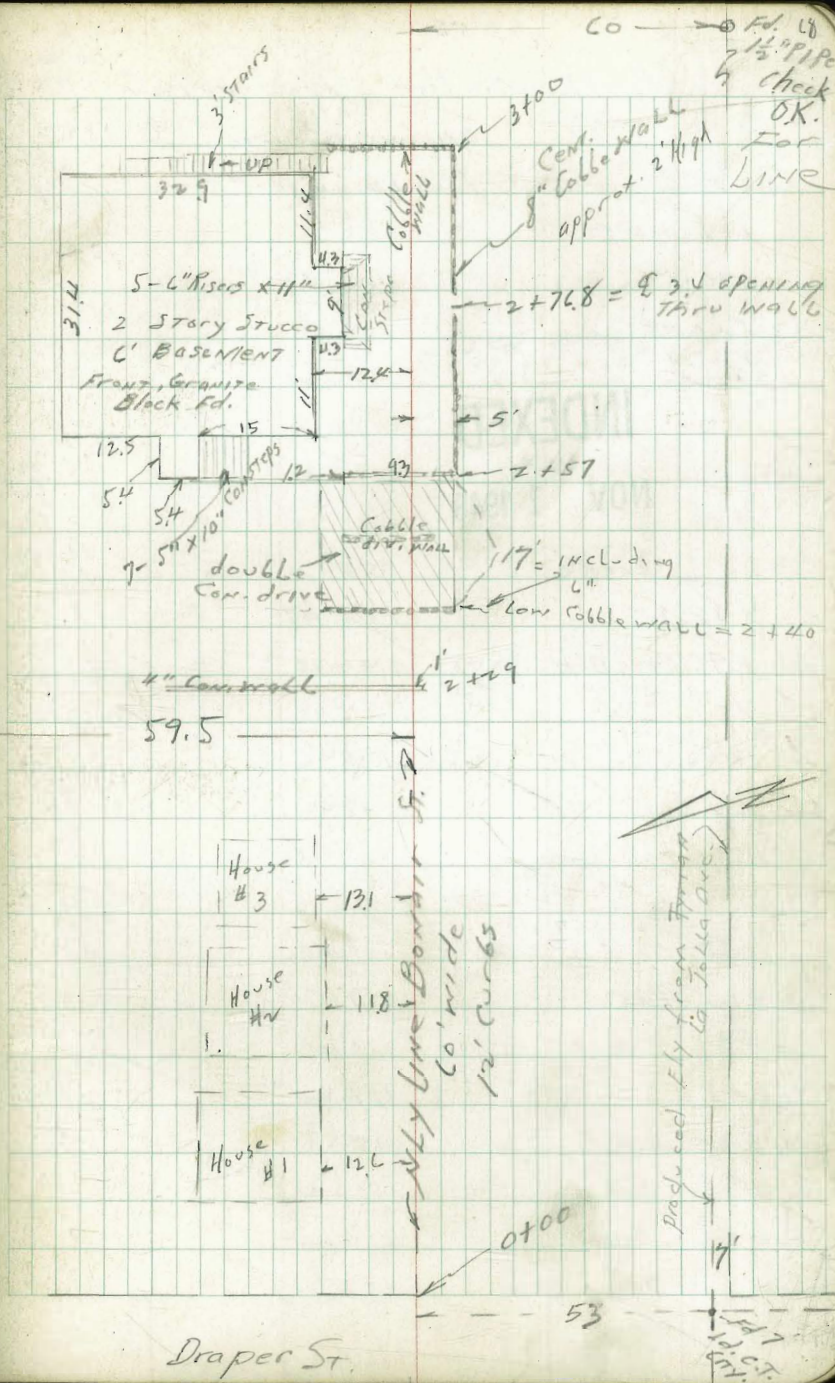
Somebody

W. Moore

5-17-45.

See FB. 1661-61

For 1 1/2" pipe



5-28-45

6358 L To 6360 L

SW BR

Pt. Loma Ave., Water Line

CUTS

Santa Barb

Pt. Loma Ave.

Barber & Conto.

182.26

6.27

47+00 Brk 184.40 P. 72

188.53

12.90

+15.45 RT 183.75

175.63

+40.74 182.44

0.01

175.69

47+66.48 = NS RT Brk.

181.53

12.60

E 647 + 87.8

180.04

163.07

48+00

0.29

+50 173.94

163.36

INDEXED

WK

49 167.84

13.02

NOV 1 1948

+50 161.74

150.34

0.13

50 Break 155.64

150.27

13.04

+38.31 150.97

137.23

0.30

+76.62 Brk 146.30

137.73

12.50

51 143.96

125.23

0.17

+50 138.96

145.40

12.93

52 133.96

+50 128.96

112.47

0.18

53 123.96

+50 118.96

116.65

+6.8 Brk. 117.16

+8.4 Brk. 116.14

54 +0.8 115.40

+3.2 Brk. 114.68

+4.8 Brk. 113.62

+6.4 Brk. 112.02

55 Brk. 107.70

69

84.00 83.75 82.62 81.53 80.02

P. 72 4.78 5.89 7.00 8.09

0.47 1.55 2.76 4.16

C 3.81 C 4.24 C 3.20 C 4.33

73.94 67.84 61.74 55.64 50.97

14.59 7.85 13.95 7.72 12.39

10.15 3.37 9.26 3.06 7.68

C 4.44 C 4.48 C 4.49 C 4.60 C 4.71

46.30 43.96 38.96 33.96 28.96

17.06 6.51 11.51 16.51 8.77

12.25 2.62 6.77 11.72 3.96

C 4.81 C 3.89 C 4.74 C 4.79 C 4.81

23.96 18.96 17.16 16.12 15.40

13.77 6.44 8.24 9.28 10.00

9.04 1.62 3.41 11.92 5.34

C 4.73 C 4.80 C 4.83 C 4.36 C 4.66

14.68 13.62 12.02 10.770

10.72 11.78 13.38 4.75

5.89 6.24 8.58 0.16

C 4.83 C 5.14 C 4.80 C 4.79

55 + 50		109.70	112.65 X
56		95.70	1302
+ 50		89.70	99.63
57		83.70	0.25
+ 25 Brk		80.70	99.88
+ 50 Brk		78.55	1309
58		75.71	86.79
+ 50		72.86	0.12
59		70.01	86.91
+ 50		67.16	13.11
60		64.31	73.80
+ 37.08 Brk = E.L. Froode		62.20	0.50
+ 53.08 = Tee		61.34	74.20
+ 74.79		61.34	1302
61 + 12.5 Brk		60.7	48.81
+ 50		58.60	0.48
62		56.10	49.29
+ 50		53.60	12.76
63	Brk	51.10	36.53 T.P.
+ 50		48.60	0.01
64		46.10	36.5X X
+ 50		43.60	
65		41.10	
+ 50		38.60	
66		36.10	
+ 50		33.60	
66 + 95.72 Brk = E.L. Ebers		31.31	

101.70	95.70	89.70	83.70	80.70	
10.95	16.95	10.18	16.98	6.21	
6.17	12.26	5.92	12.27	1.50	
C 4.78	C 4.75	C 4.74	C 3.91	C 4.71	
78.55	75.71	72.86	70.01	67.16	64.31
8.36	11.20	14.05	16.90	7.04	9.89
3.68	6.55	9.24	12.61	2.16	5.02
C 4.68	C 4.65	C 4.81	C 4.79	C 4.88	C 4.87
62.20	61.34	60.47	58.60	56.10	
12.00	12.86	12.73	15.60	5.73	
6.96	8.41	8.98	10.77	0.94	
C 5.04	C 4.45	C 4.75	C 4.83	C 4.81	
53.60	51.10	48.60	46.10	43.60	
8.23	10.73	13.23	15.73	5.69	
3.34	5.93	8.35	10.89	0.77	
C 4.89	C 4.80	C 4.88	C 4.84	C 4.92	
41.10	38.60	36.10	33.60	31.31	
8.19	10.69	13.19	15.69	17.98	
3.22	5.62	9.02	10.67	12.76	
C 4.97	C 5.05	C 4.75	C 5.02	C 5.22	

67 + 35.36		30.35	36.54 T 130 V
67 + 75	Brk.	29.40	23.50 3.02
68		28.20	26.52 T 1.99
+ 50		25.80	19.53
69		23.40	10.31
+ 50		21.90	29.84 1.54
+ 75	Brk	19.80	28.20 T
70 + 00		19.25	28.13
+ 25	Brk	18.70	4.00
+ 62.5		18.25	Sunset Cliffs Pescadero
71	Brk	17.80	
+ 25	Leave this out Conn. for	17.80	
+ 33.9	Δ 45° LT	17.80	
+ 69.2	Δ 45° LT	17.80	
71 + 70 +		17.80	
71 + 74.7		17.80	

Santa Barbara Line
Pescadero to Pt. Loma

40 + 59.97	S.L. Pescadero	217.97	}
" "	Valve Box	—	
+ 70 +	2" PSV Valve	217.39	
41 + 15	Brk.	214.78	
+ 70		210.93	
42 + 25	Brk.	207.08	

30.35	29.40	28.20	25.80	23.40
C 1.19	7.14	8.34	10.74	13.14
1.50	2.04	3.62	5.91	8.22
C 4.69	C 5.10	C 4.72	C 4.83	C 4.92

21.00	19.80	19.25	18.70
15.54	16.74	17.29	7.82
10.57	11.84	13.04	3.53
C 4.97	C 4.90	C 4.25	C 4.29

18.25	17.80	8.72	8.72
8.27	8.72	4.75	4.94
3.40	4.30	C 3.97 = Δ	C 3.78
C 4.37	C 4.42		

182.26				
17.51				
194.77	217.97	17.39	14.78	10.93
	12.31	12.89	4.43	8.28
219.21 T.P. 72	7.91	8.59	0.67	4.63
5.67	C 4.40	C 4.30	C 3.76	C 3.65
218.54				
11.74				
230.28 T	207.08			
	12.13			
	8.14			
	C 3.99			

230.28	
5.38	
224.90 = spike SW Con Pole	
Pescadero to Santa Barbara	
224.89 T	

42 + 75		203.79
42 + 25 Brk		200.50
+ 50		199.55
44		197.63
+ 50		195.71
45 Brk		193.80
+ 50		191.45
46		189.10
+ 50		186.75
47 Brk		184.40

BYA. P. C. 9

182.26
12.51
194.77
0.75
194.02
12.78
206.80
0.16
206.64
12.57
219.21

72

203.79	200.50	99.55	97.63
15.42	6.30	7.25	9.17
11.72	2.26	3.61	4.89
C 3.70	C 4.04	C 3.64	C 4.28
95.71	93.80	91.45	89.10
11.09	13.00	14.35	5.67
6.99	9.10	11.40	2.00
C 4.10	C 3.90	C 2.91	C 3.67
86.75	84.40		
8.02	10.37		
4.41	6.82		
C 3.61	C 3.55		

cuts backed up

Showers
Windy 19

cm.
C.S.
W.M.
E.B.
B.M. Levels for Sewer Const.
17-44 Old Town to Ocean Beach

B.M. #1	4.71	7.73	3.02	3.02
T.P. #1	3.99	7.90	3.82	3.91
T.P. #2	5.31	8.88	4.33	3.57
T.P. #3				
B.M. #2	4.87	8.00	5.75	3.13
T.P. #4	5.09	8.27	4.82	3.18
T.P. #5				
B.M. #3	5.30	8.90	4.67	3.60
T.P. #6	4.36	8.66	4.60	4.30
T.P. #7				
B.M. #4	4.80	8.41	5.05	3.61
T.P. #8	4.82	8.20	5.05	3.36
T.P. #9				
B.M. #5	4.74	7.89	5.05	3.15
T.P. #10	4.59	7.87	4.61	3.28
T.P. #11				
B.M. #6	6.48	9.31	5.04	2.83

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WK

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CONT'D NEXT PAGE

Ad. C.T. 25.3 R.P. on Sly Curb Nurtz + R Greenwood

Chisel □ S. edge sdw. 38' N of 24743373
M.H. # 630 N.S. FRONTIER
D.H. # 3340

Chisel □ S. edge sdw. N.S. FRONTIER FRONT of Defense
House # 3462

Chisel □ S. edge sdw. N.S. FRONTIER FRONT of D.H. # 3558
Near Civic Ctr. + School

Chisel □ S. edge sdw. N.S. FRONTIER, FRONT of D.H. # 3672

Chisel □ S. edge sdw. N.S. FRONTIER FRONT of D.H. # 3762

Wly end of Housing Project.

~~Too Windy~~
~~VOID~~
~~SEE NEXT PAGE~~

9.31 Amd.

TP #12	473	10.68	3.36	5.95
check to B.M. B.P.		7.84	2.84	stipulated 2.90

2-18-44 check above levels
 clear, AM on Frontier ST
 no wind Kurtz to Midway

B.M. #1	516	8.18		3.02
---------	-----	------	--	------

TP #1	419	8.69	3.98	4.20
-------	-----	------	------	------

TP #2	516	7.93	5.92	2.77
-------	-----	------	------	------

T.P. #3 B.M. #2	477	7.90	4.80	3.03 ✓ 3.03
--------------------	-----	------	------	------------------------

TP #4	418	7.99	4.09	3.81
-------	-----	------	------	------

T.P. #5	489	8.42	4.46	3.53
---------	-----	------	------	------

T.P. #6 B.M. #3	521	8.83	4.80	3.62 ✓
--------------------	-----	------	------	--------

TP #7	516	9.03	4.96	3.87
-------	-----	------	------	------

~~Void~~ TO WINDY
 See below

Top S. Adwall Triple Box Culv. N.P.T. Loma Blvd. and Midway

O.K.

Ld. C.T. R.P. Greenwood & Kurtz
 in S. Curb

D.H. #3340
 Chisel II S. edge Sdr 38' N of 247+3373 M.H. #63

Chisel II S. edge Sdr n. side Frontier, front of
 D.H. #3462

9.03 Fwd.

T.P.#8	4.74	8.50	5.27	3.76
T.P.#9 BM#4	4.49	8.13	4.86	3.66
T.P.#10	4.81	8.20	4.74	3.39
T.P.#11 BM#5	4.90	8.07	5.03	3.17
T.P.#12	4.44	8.31	4.20	3.87
T.P.#13 BM#6	5.75	8.61	5.45	2.86
T.P.#14	4.91	10.75	2.77	5.84
BM#7			7.85	2.90 2.90

channel □ S edge side N. side Frontier, front of D.H. #3558 near Civic Ctr.

" " " " N. side Frontier, front of D.H. #3672

" " " " N. side Frontier front of D.H. #3762 Wly end Housing Project

BMBP on SWly 2 Top Triple Box Culv. on Midway about 200' Nly of West Pt Laundry Bldg

B.M. Levels on
West Pr. Loma Blvd.

INDEXED

WK
NOV 1 1919

~~BM #7~~
B.M. B.P. 7.8x 10.7x 2.90

~~BM #8~~
on B.M. City Mon. Destroyed 5.59

T.P. #1 3.86 8.75 5.85 4.89

T.P. #2 4.36 6.76 6.35 2.40

T.P. #3 4.13 6.09 4.80 1.96

~~T.P. #4~~
~~BM #9~~ 4.86 7.95 3.00 3.09

T.P. #5 5.66 8.88 4.73 3.22

T.P. #6 3.90 8.86 3.92 4.96

T.P. #7 3.97 7.70 5.13 3.73

T.P. #8 4.78 6.51 5.97 1.73

check to xx Hub 4.86 1.65

R Top
Wly Ad. rail Triple Box Cul. at Midway approx. 200
Wly of Loma.

9' S of SL (Destroyed by Carroll
West Pr. Loma Blvd. about 41/2 Wly Midway
on Wly Con. Fire Sta. SITE)

#4101
B.M. R.R. Spike N. Side Power pole on Sly S.
of W. Pr. Loma Blvd approx 300' Wly of Curve EC
about on Sly Line RL. 219

(165) E.B. 1646-3 Sta 182+58.02 old A FT.

W Pt. Loma Blvd.

Bench Marks

5-20-44.

BM #8	Destroyed by Carrol 5/19 City Map				
BM #7	6.87	9.77		2.90	B.P.
T.P.	4.44	9.25	4.96	4.81	
T.P. B.M. #8	4.07	7.20	6.12	3.13	2"x3"
T.P. B.M. #9	5.02	7.05	5.17	2.03	4"x3"
T.P.	4.71	7.37	4.39	2.66	
check to B.M. RR spike			4.27	3.10	3.09
T.P. B.M. #10	4.67	7.34	4.70	2.67	2"x3"
T.P. B.M. #11	4.83	9.36	2.81	4.53	
T.P.	5.51	9.79	5.08	4.28	
T.P. B.M. #12	3.14	9.46	3.47	6.32	✓
T.P. B.M. #13	4.59	8.05	6.00	3.46	High Con
T.P.	4.60	6.60	6.05	2.05	
check to xxv Hub			4.95	1.65	✓

B.M. spike RR S.E. Con Fairfosa W. Pt Loma 308

W. 4d. W. Culx. Midway + W. Pt. Loma Blvd
 100' N. of M.H. # 53 204 + 49.99
 80' N. " " # 52 200 + 18.75
 RR S. side W. Pt. Loma Blvd. on S.H. Pk. #19
 85' N of M.H. # 51 195 + 93
 RR spike Top Pike W. Con RR Bridge 100' N of ¹⁹⁴⁷⁰⁰ RR Spike
 RR spike P.P. # 4167 S. side Blvd. 190 + 00
 S. 7" Con. Map on B.C. Blvd. approx 187 + 00
 old A.P.T. 182 + 58.00 1046-3 N. Line Blvd.

Trunk Senior Cont. from P. 79

4.56

Station			Elev. Flow
185+00		2.29	2.27 -5.75
184+60		2.87	1.69 -5.71
+20		2.69	1.87 -5.67
183+80		2.91	1.65 -5.63
+40		4.93	-0.37 -5.59
183+00		7.05	-2.49 -5.55
182+60		4.09	0.47 -5.51
182+20	in Detour Road (left out)		
182+05		4.40	0.16 -5.46
181+80		6.36	-1.80 -5.43
+40		4.10	0.46 -5.39
181+01.70	Δ NH 10' 12'		
		3.40	1.16 -5.35
180+70		3.06	1.50 -5.31
180+35	TP 6.53 8.80	2.29	2.27 -5.28
179+85.72		3.64	5.16 -5.23
+30.91		3.56	5.24 -5.18
178+84.60		3.55	5.25 -5.13
178+77.09	Δ H. 35' 38"	3.55	5.25 -5.12
	10.42' from Above Point = 2' NH	3.57	5.23 -4.38
		4.99	3.81
	by Cont. 10"	7.30	3.49
TP	4.47 6.57	6.70	2.10
chk. Spk BM in Pole		3.47	3.10
St. Cor. for p. 80			3.08 -Plan.
			0.02 -diff
	checked BMs. Back to NH		
	on opp. page		

Cuts.	offsets.	
8.02	12' RT.	B.M. Spk in Pole = 3.08
7.40		Cont. from Lower Left Page 3.47 +
7.54		6.55 *
7.28		3.29 -
5.22		3.26 TP
3.06		6.53 +
5.98		2.79 *
		16.08
		chk. Flow NH #49 - 6.29
		- 6.29 - Plan
		0.00
		2.79 *
		4.96
		Rim Above NH = 4.83
		Plan. - 5.03
5.85		Above BM = 3.08
6.51	12' on diaphragm	4.67 +
6.81	12' RT	FB 1633-23 7.75 -
7.55	12' RT	chk 175+00.14 3.63
10.39	Nail on & on Bridge Tie	4.12
10.42	" " " " " "	4.02 = FB 1633
10.38	" " " " " "	2.0 Error.
10.37	7.5' East & Nail	7.75 - Above
9.61	16.30' East Nail in Bridge Timber	3.63
		4.12 - TP
		5.48 +
		FB 1633-23 9.60 +
		chk 170+00.05 4.61
		4.99
		4.91
		0.08 Error.

Walker
Hazard
Hudson
7-18-45

Construction Grades - A Portions
of No. 4 Trunk Sewer in West-
Point Loma Blvd. ^{and} Loma Alta No 2

Drawing # 1164-D

Location of line changed at
request of Contractor to give
more clearance of Water ^{Finishing} Main Near MH # 48

see sketch Page 80

16.08 9.79

-6.29

B.M. on Flow
East MH
49
Elev.
Flow line

-6.29

Stations
190+36.5 - 1/2 NH # 49
190+32 = Sub end
190+30.38

INDEXED

WK.

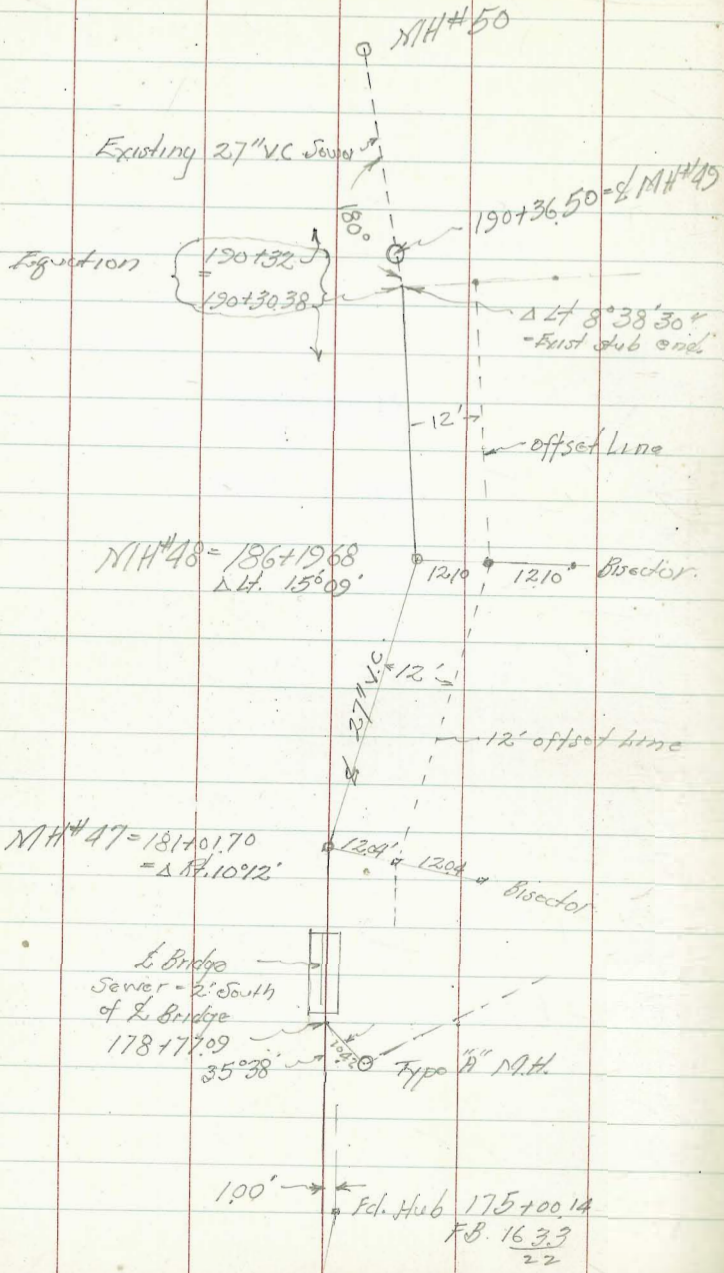
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190+20	4.74	5.05	-6.27
189+80	4.79	5.00	-6.23
+40	4.85	4.94	-6.19
189+00	4.97	4.82	-6.15
188+60	5.13	4.66	-6.11
188+20	5.43	4.36	-6.07
187+80	5.65	4.14	-6.03
+40	5.68	4.11	-5.99
187+00	5.72	4.07	-5.95
+60 NH # 48	5.88	3.91	-5.91
186+19.68 = Δ 15°09'4"	6.13	3.66	-5.87
TP 0.90 4.56	6.13	3.66	
185+80	1.14	3.42	-5.83
+40	1.66	2.90	-5.79

Cuts offsets

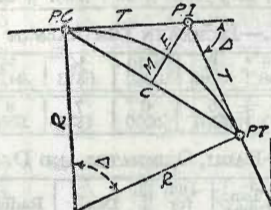
11.32	12' Rt.
11.23	
11.13	
10.97	
10.77	
10.43	
10.17	
10.10	
10.02	
9.82	
9.53	12.10 ondiag. Bisector.
9.25	12' Rt.
8.69	

Cont. Page 78



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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CURVE FORMULAS

- Radius— $R = \frac{50}{\sin \frac{\Delta}{2}}$ (1) Degree of Curve— D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)
- Tangent— $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve— $L = 100 \frac{\Delta}{D}$ (4)
- Middle ordinate— $M = R(1 - \cos \frac{\Delta}{2}) = R \text{vers} \frac{\Delta}{2}$ (6)
- External— $E = T \tan \frac{\Delta}{4} = R \div \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)
- Long Chord— $C = 2 R \sin \frac{\Delta}{2}$ (10) Δ —Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C. = Sta. P. I. — $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T. = Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = 158 — Sta. P. C. = 54.50, hence offset = $7.27 (54.50 \div 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. = (in minutes) $.3 \times C \times D^\circ$ or defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$ or $2^\circ 16.2'$, or $= 2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 115.27$ and from Table V correction = .10 or $E = 115.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

W1.7' = B.L.
14032 of 9" E.
124.75 to 7 Δ 252" R
2430 approx B.L. 25" R
2474. J ⊕

1468 88°35' ✓

21.9°
11.9
9.9

124.75
21.55
103.2

207+77.99 9°22' R+ 203+06 184 PP
 207+37 124 G
 204+47 184 PP
 205+39 254 G
 205+86 264 PP
 207+22 224 PP
 207+45 204 G
 308+76 184 PP
 209+55 194 G
 210+55.15 1/2 Curb
 210+55.185 1/2 PP
 +66.5 1/2 ST LT
 210+70 333 PP

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2
 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	26.2	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.