

1703

W. W. BENTON

ENGINEER'S
LEVEL BOOK

No. 407

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 1 $\frac{1}{2}$ see inside of back cover.

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1703

CITY ENGINEER'S OFFICE

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Made in U. S. A.

1- 60 Mission Valley Trunk Sewer

61- 62 Location Bluff West of Ocean Blvd Pacific Beach

For final line see F.B. 2040

Also see F.B. 1629

✓ 1631

L 2054

L 1873

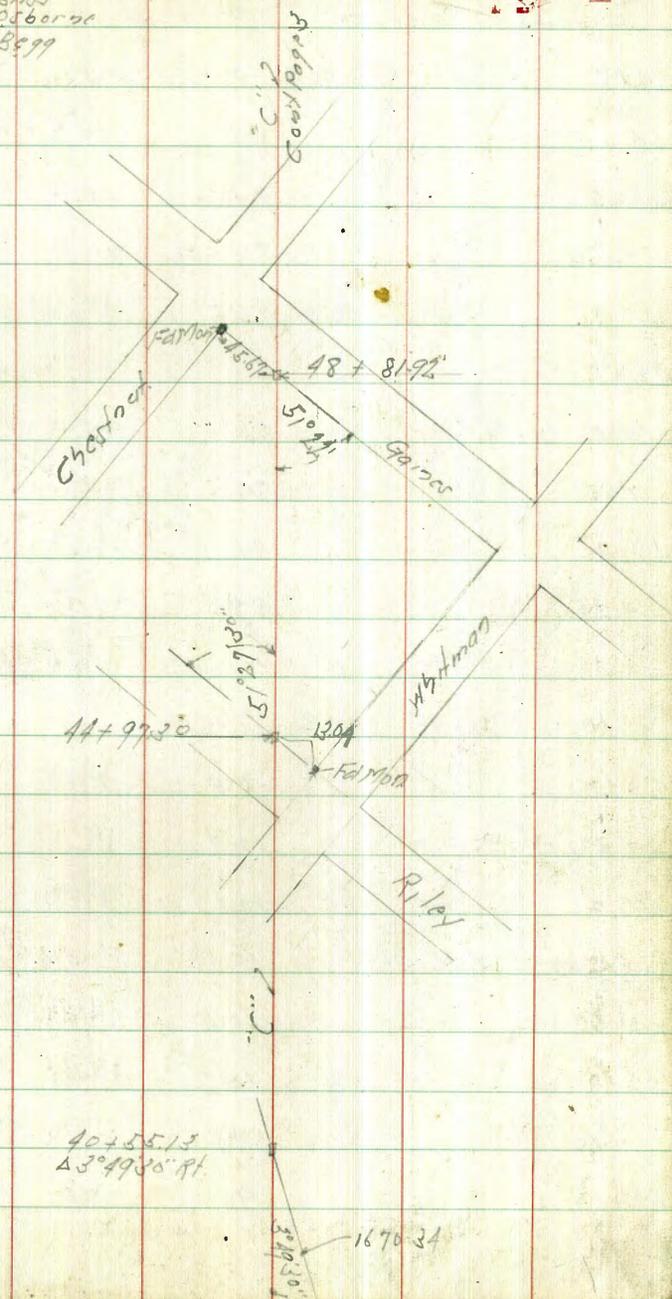
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Proposed Saver Mission Valley Trunk
"C" Line

No Levels From 40+5513 to 51+0

Jan. 2. 46
S. 2009
B. 111
2560720
8599

101



Levels Proposed Section Mission Valley Trunk
 Line Change 54+15 to 64+32.06 H Line
 Alignment 1670-50 7' line

BM	10.33	(29.76)	1993	07 Hub 54+15 1690.62
54+50		93	20.5	✓ 10/20/50
55+0		94	20.4	✓
+50		89	20.9	✓
+62	1.4 1/2 - Sly DO 20" Cone Culvert	9.95	19.81	Flon Line
56+0		92	20.6	✓
+50		97	20.1	✓
+85		95	20.3	✓
57+0		85	21.3	✓
+25		87	21.1	✓
+50		10.0	19.8	✓
+60	8' 1/2 of 2 - Sly Power Pole			
58+0		10.5	19.3	✓
+50		10.7	19.1	✓
59+0		10.6	19.2	✓
+15.00	Δ 3' 20" Pt.	10.46	19.30	07 Hub
+50		10.2	19.6	✓
60+0		10.2	19.6	✓
+50		91	20.4	✓
61+0		96	20.2	✓

King Rd.

Removal
see page 4

see page 4

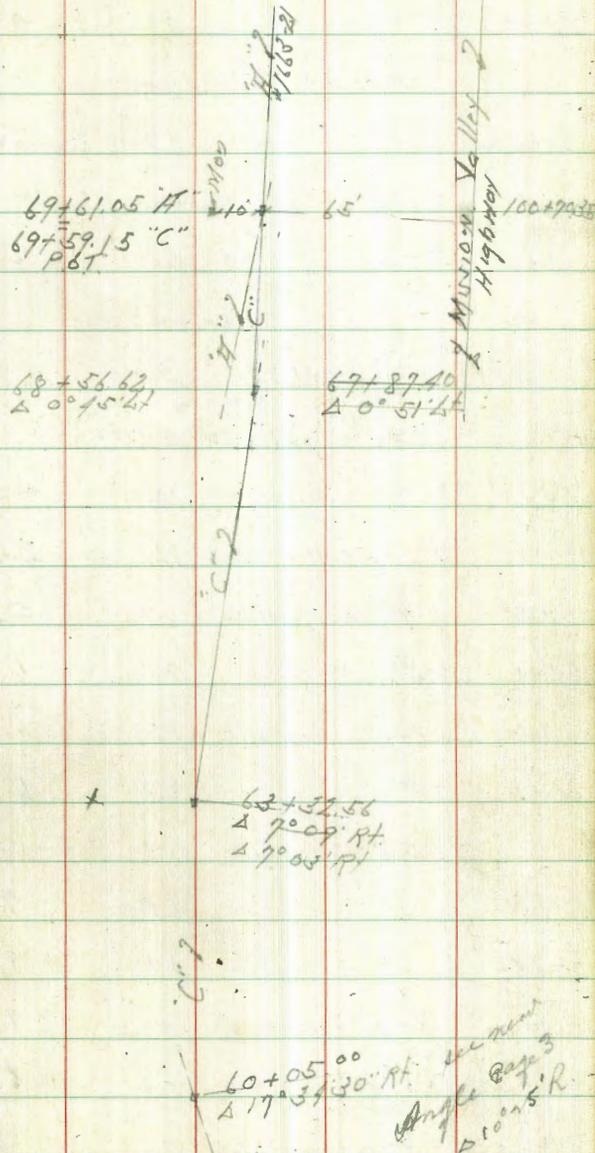
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(2975)

61+50		93	20.5	✓
62+0		87	21.1	✓
BM	6.32	(31.02)	24.70	47' 1/2 N End D. Box Culvert Com. 20' Del. R. 0 + 5' 25"
+36	= Wly D. Shoulder	52	25.8	✓
+37	= " Paring	557	25.45	✓
+39		557	25.45	✓
"	29' 9" of 1/2 D. 3x5 Box Culvert	1050	20.70	Flon Line
"	10.8.6 1/2 of 1/2 D. 3x5 Box Culvert	11.26	19.80	" "
+69	= Fly - of West Island	5.26	25.76	✓
62+01	= Wly East "	5.56	25.46	✓
+40.6		5.72	25.30	✓
"	" RA: 10' lot	9.73	21.29	Flon Line
+61	= Fly Paring	5.70	25.30	✓
64+0		6.8	24.2	✓
"	3' 4" - Sly Par	5.6	25.90	✓
+14.80	Δ 19' 0" 20' Pt. 64+32.06 H"	5.41	25.58	07 Hub

"C" Line Mission Valley Trunk Sewer

Station	Description	Offset	Distance	Elevation	Notes
56+7.11	Top Exist Curb	0.78	19.88	✓	
"	Gutter on Pavement	1.51	19.15	✓	
57+0.45	" " "	1.30	19.36	✓	
"	Top Curb	0.53	20.13	✓	
TP	1.12	20.31	19.19	✓	
+50			2.7	17.6	✓
58+0			6.1	14.2	✓
+50			5.0	15.3	✓
+80			6.1	14.2	✓
59+0	0.7 Rip Rap	8.5	11.8	✓	
TP	0.61	8.06	7.45	✓	
+50	1/4 Rip Rap Above Ground	3.9	4.2	✓	
"	10' 11" Lt = Sky River	6.3	1.8	✓	Water level
60+0.500	17° 34' 30" Rt	4.65	3.41	✓	on Street
"	14' Rt = 1/4 Rip Rap				
+50		4.2	3.9	✓	
61+0		3.1	4.5	✓	
"	5' Rt = 1/4 Rip Rap				
"	155' Lt = Sky River	6.0	2.1	✓	Water level
+50		2.9	5.2	✓	



C Line Mission Valley Trunk Sewer

8.06

5

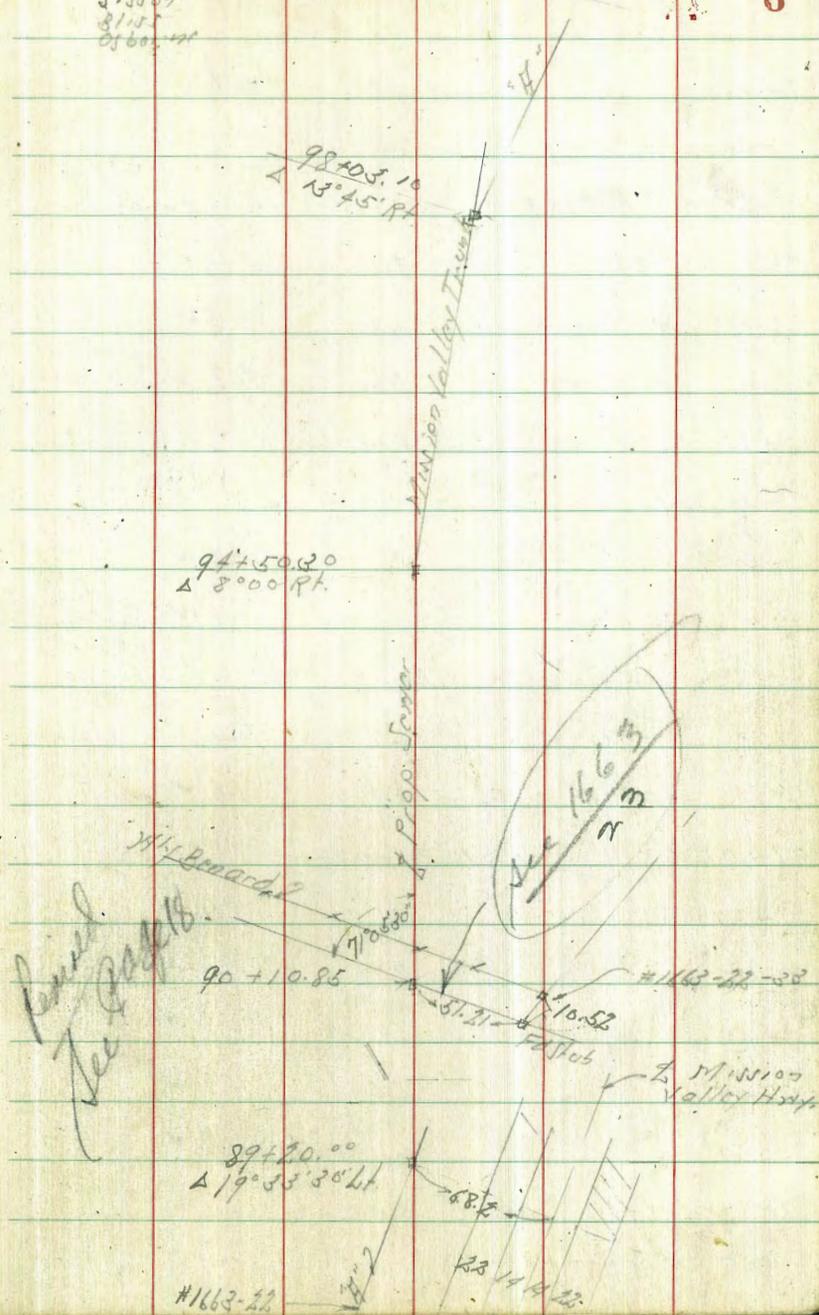
62+0		2.7	4.4 ✓	
"	2' Rt off 1/2" N/4 Rip Rap			
+50		2.9	5.2 ✓	
"	8' Rt off 1/2" N/4 Rip Rap			
63+0		3.1	5.0 ✓	
"	6' Rt off 1/2" N/4 Rip Rap			
+32.56	A 7° 09' Pt	3.57	4.49 ✓	on slab
"	6' R of 2" N/4 Rip Rap			
TP	9.49	62.98 ✓	3.57	4.49 ✓
64+0	1/2" N/4 Rip Rap	10.0	4.0 ✓	
"	63' Lt of 1/2" S/4 River	11.1	2.9 ✓	Water level
+50	7' Rt. N/4 Rip Rap	8.7	5.3 ✓	
65+0	7' Rt. " " "	7.9	6.1 ✓	
+50	6' Rt. " " "	7.2	6.8 ✓	
66+0	7' Rt. " " "	7.2	6.7 ✓	
"	15' Lt. of River	10.8	3.2 ✓	Water level
+50		6.1	7.9 ✓	
+65		4.7	9.3 ✓	
+75.9	4' Rt. outlet to Cone Coll	6.70	7.3 ✓	
"	15' Lt. - N/4 8" Case Apron	7.12	6.9 ✓	
67+0	8' Rt. N/4 Rip Rap	5.4	8.6 ✓	

67+50	8' Rt. N/4 Rip Rap	5.1	8.9 ✓	
+77	1/2" N/4 Paved Ramp	0.6	13.4 ✓	
+87.10	A 0° 51' Lt	6.32	13.66 ✓	on nail
68+0	1/2" N/4 Paved Ramp	0.0	14.0 ✓	
+17	1/2" N/4 Rip Rap	8.8	5.2 ✓	
TP	3.34	16.01 -	1.31	12.67 ✓
+35	1/2" N/4 Rip Rap	9.2	6.7 ✓	
+50		9.1	6.9 ✓	
69+0		8.6	7.4 ✓	
+50		8.4	7.4 ✓	
+59.05		8.10	7.91 ✓	on slab
70+16	11' Lt. Gas Valve Top 8" Conc. Casings	7.05	8.96 ✓	1863-26 891
	Levels + Location 12"			
BM	3.54	11.45	7.91	07 Stub 19+59.05
69+45	Crossing 12" Gas Line	10.45	1.00	Bottom Cone Slab
	see page 35	8.45	3/00	Flow line 18' Gradient
		6.12	5.83	Top Case over Pipe

Levels Proposed Series Mission Valley Trunk
 "A" Line Cont #1663-22
 Across Beard's

BM	3.12	16.86 ✓	13.74	on stub 89+20.00 #1663-22
89+35	37 ft of 1/2" - 1 1/4" Tel Pole			
+50		3.2	13.7 ✓	
90+0		2.5	14.4 ✓	
+19	Top Rock Fill	2.3	14.6 ✓	
+25		4.0	12.9 ✓	
+50		4.6	12.3 ✓	
91+0		4.7	12.2 ✓	
+02	10 ft - Sly 20" Euc Tree			
+16	12.5 ft of 1/2" - Sly 16" "			
+20	8.8 ft " - Sly 15" "			
+40	11.5 ft of 1/2" - Sly 36" "			
+50		4.8	12.1 ✓	
92+0		5.8	11.1 ✓	
+25		6.0	10.9 ✓	
+50	12.5 ft of 1/2" - Sly 14" Euc 48			
+56	10 ft " " 10" "			
+66	8.2 ft " " 18" "			
93+0	12.5 ft " - Sly 18" Euc 47		12.2 ✓	
+40	8 ft " " - Sly 18" Euc tree			
+50		4.9	12.0 ✓	

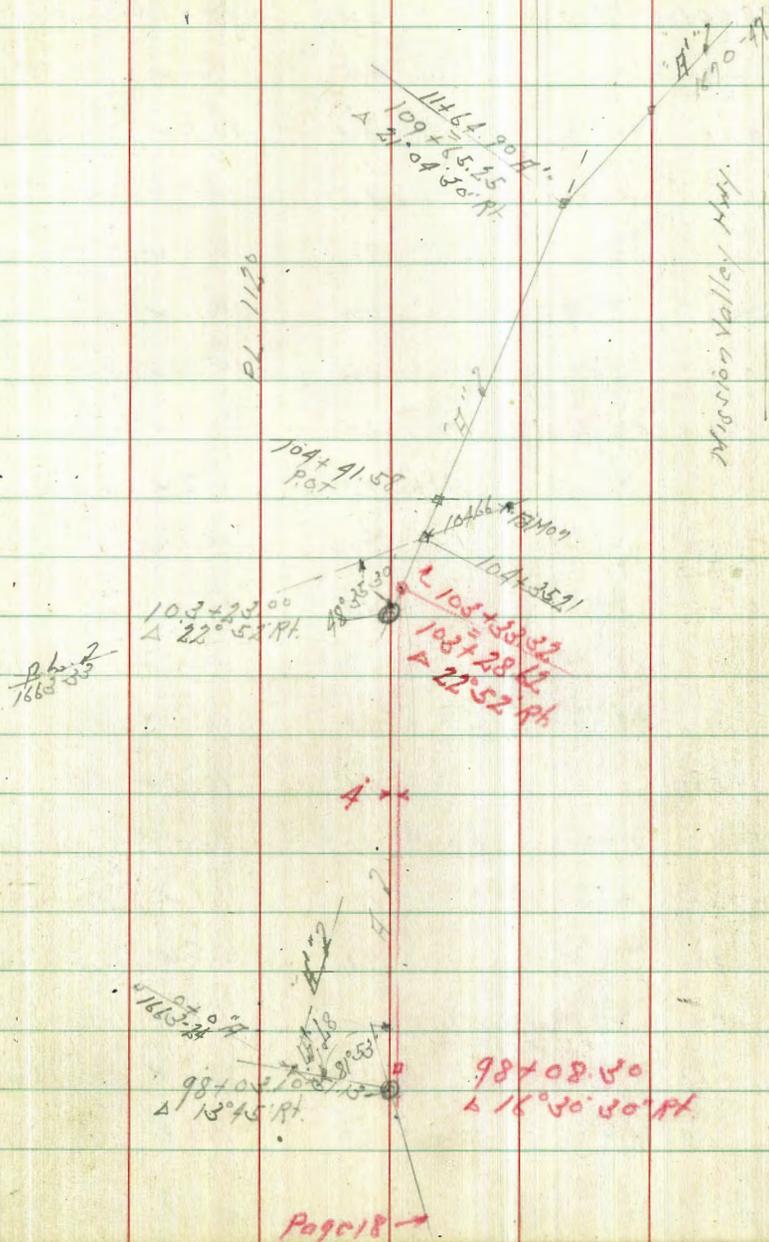
Dec 28-45
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 0560



H. L. 1905

1686

94+0		48	12.1	
+34	4.5 Lt of 2 = 5x38" Euc. Tree			
+50.30	= A 8°00' Rt	377	13.09 ✓	on stub
TP	460	17.69 ✓	377	13.09 ✓
95+0	55 Rt of 2 = 1 1/2" Euc 46		13.1 ✓	
"	30' Lt of 2	80	9.7 ✓	Bottom Old Channel
+85	28 Rt of 2 = 1 1/2" Euc Tree			
+30	26 " " " " 30' " Stump			
+60		22	14.5 ✓	
"	35' Lt of 2	96	8.1 ✓	Bottom Old Channel
+62	105 1/2 of 2 = 5 1/2" Euc T			
+90		56	12.1 ✓	
+96	= 1 1/2" Cone Thicket	59	11.8 ✓	
96+0.5	8 Rt of 2 = 1 1/2" Paper Tree			
+20		81	9.6 ✓	
+30		80	9.7 ✓	
+50		69	10.8 ✓	
99+0		64	11.3 ✓	
+50		67	11.0 ✓	
TP	546	15.10 ✓	605	11.64 ✓
98+0	= Fly Cone Thicket			



H" 171

Note 98 to 103 + 29.66 Wine
moved 4' South. fork & Server
w. Pendley
Revised
Level

15.10

9840310	-A 13' 45"	4.18	10.62 ✓	on Stub
+50		5.5	9.6 ✓	
9940		4.4	10.7 ✓	12 = 11.0
"	40' Lt of A	5.2	9.9 ✓	Sly River River
"	50' Lt "	9.0	6.1 ✓	Sly River Water Level
+50		5.0	10.1 ✓	
10040		7.9	10.2 ✓	
"	45' Lt of A	5.0	10.1 ✓	Sly River River
"	55' " "	8.9	6.2 ✓	Sly River Water Level
+50		5.0	10.1 ✓	
10140		4.9	10.2 ✓	
"	60' Lt of A	4.8	10.3 ✓	Sly River River
"	70' " "	8.8	6.3 ✓	Sly River Water Level
+50		4.6	10.5 ✓	10.2
TP	678	17.81 ✓	4.07	11.03 ✓
10240		6.7	11.1 ✓	-x 10.7
+30		7.3	10.5 ✓	
+50	73' Lt of A = 11.1 18" FUCTOR	5.9	11.9 ✓	12.5
10340		4.1	13.7 ✓	12.9
+08		3.2	14.6 ✓	

17.81

3 ml

10342200	-A 21' 52" H	5.41	12.40 ✓	on Stub
TP	8.60	21.55 ✓	4.86	12.95 ✓
+37	⁺³⁰		8.6	13.0 ✓
+47	5' Lt of A = 11.48" FUCTOR			13.6
+60		4.0	17.6 ✓	
10440		2.5	19.1 ✓	
"	20' Lt. Water in Sump	13.5	8.1 ✓	
+41.58	POT	3.68	17.87 ✓	on Stub
"	3' Lt	5.1	16.2 ✓	
"	13' Lt = Water in Sump	12.9	8.7 ✓	
10540		7.1	14.5 ✓	
+20		8.7	12.9 ✓	
+50		9.3	12.3 ✓	
10640		9.3	12.3 ✓	
+50		9.4	12.2 ✓	
+80		7.5	14.1 ✓	
10740		7.3	14.3 ✓	
+15		7.2	14.4 ✓	
+80		8.7	12.9 ✓	
+50		8.2	13.4 ✓	

"H" List

21.55

9

108+0 6.9 14.7 ✓

+22 6.4 15.2 ✓

+30 Bottom Wash 8.2 13.4 ✓

+40 6.5 15.1 ✓

109+0 7.1 14.5 ✓

+50 7.0 14.6 ✓

+65.25 = 11+64.90 "H" 6.80 14.75 ✓ on H46

TP 967 2686 ✓ 4.26 17.19 ✓

BM 1.60 25.26 ✓

Chisel B. H. 200
A. Fillow
H. G. C. 1/2
25.26
1663-22

vals Proposed Senior Mission Valley
 Di. line alignment #1670-54 North Side Mission
 Valley Hwy.

BM	670	10.41 ✓	32.71	2 nails Pole 62 ft #117-70 1670-29
118+60.00	Δ 19°25'30" Lt	8.47	31.94 ✓	on Stake
119+0		8.2	32.2 ✓	
+50		7.8	32.6 ✓	
120+0		6.8	33.6 ✓	
+50		5.8	34.6 ✓	
"	3 Lt of 1/2 - Top Shoulder	4.3	36.1 ✓	
"	3 Rt " " Top Slope	7.0	33.4 ✓	
121+0		5.2	35.2 ✓	
"	2 Lt - Top Shoulder	4.2	36.1 ✓	
"	3 Rt " Top Slope	6.6	33.8 ✓	
+50		7.0	33.4 ✓	
"	5 Lt - Top Shoulder	4.7	35.7 ✓	
"	3 Rt	7.2	33.2 ✓	
122+0		6.9	33.5 ✓	
+4891	Δ 5°46" Lt	7.48	32.93 ✓	on Stake
123+0		7.5	32.9 ✓	
+50		7.4	33.0 ✓	
124+0		7.3	33.1 ✓	
+50		6.4	34.0 ✓	

			40.41	
125+0			5.4	35.0 ✓
+50			4.9	35.5 ✓
126+0	Δ 51/4 T.C.Paving		5.0	35.4 ✓
+50	0.2 " "		3.85	36.55 ✓
+94	11/4 " "		2.80	37.6 ✓
127+0			3.5	37.9 ✓
+15			2.5	37.9 ✓
+36			5.1	35.3 ✓
+50			5.8	34.6 ✓
+8299	Δ 25°11' Rt		5.24	35.17 ✓ on Stake
128+35.20 "D"			6.07	34.34 ✓ on Stake
223+07.93	Bliss #1626-44			

Jan 2-93
 5.150
 31.04
 056.0-4
 8277

Levels Proposed Sewer Mission Valley Trunk
 C' Line #1 Old Town Bridge
 Sketch Page 3

BM	0.55	(20.55)	20.00	BP 5' End Old Town Bridge
55+0	= 417°26' W	9.10	11.45	02' Stub
+25	= Top of Sly Dyke	2.6	18.0	
+65	P.O.T.	2.19	18.38	02' N
56+0		5.4	15.1	
+25		8.7	11.8	
+48.42	14°10' 81	10.27	10.28	02' Stub
+69	= Wly Bridge	8.2	12.3	
TP	2.39	(23.39)	0.55	(20.00) 02' BP 5' End Br.
57+0		11.2	12.2	
+50		13.8	9.6	
58+0		14.1	9.3	
+35	= Wly Rip Rap	15.7	7.7	
"	25' Lt of 2' = Sly River	2.17	1.7	Water level
"	47' Rt of 2' = Wly Curb	1.7	21.7	of Hwy
+40		13.5	9.9	
+70		11.9	11.5	
TP	2.56	(14.57)	12.38	(11.01)
+85		10.0	4.6	
59+0	= Wly Rip Rap Above Ground	10.4	4.2	

Jan 7-16
 5.5509
 81.55
 0.5600
 8.99

(14.57)

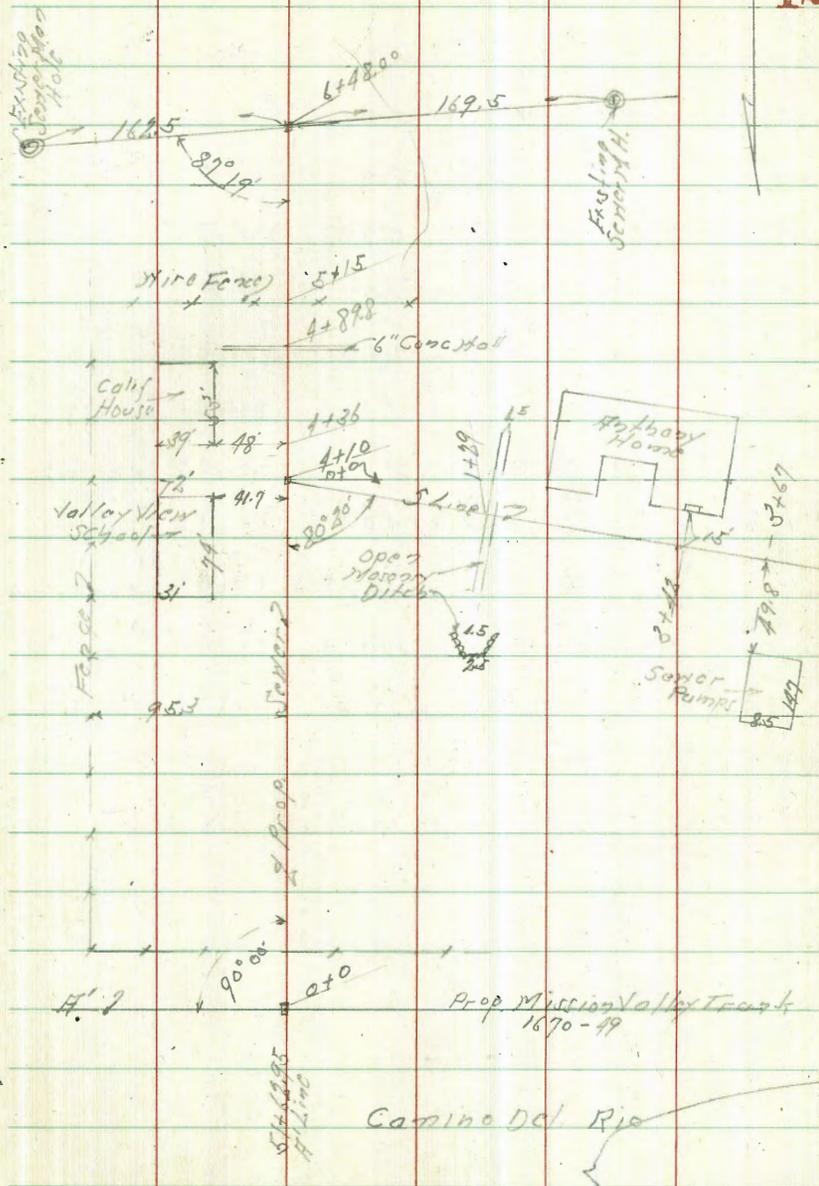
11

59+50		10.9	3.7	
"	7' Rt = Wly Rip Rap			
60+06.46 C'		11.14	3.43	02' Stub
60+05.00 C				Page 4

Proposed Sewer Highway Home
From Mission Valley Trunk to 6th St. Sewer

Station	Distance	Angle	Station	Distance	Notes
B.M.	11.04	$\langle 29.51 \rangle$	1847		Top Mod 18' 8" STA 898 1670-63
0+0	-51+62.95	H	968	19.83	on Stub
+06			111	18.4	✓
+62			10.6	18.9	✓
+70			8.3	21.2	✓
+70			79	21.6	✓
+50			6.7	22.8	✓
2+0			6.4	23.1	✓
+50			5.6	23.9	✓
3+0			4.2	25.3	✓
+50			2.1	27.4	✓
4+0			1.2	28.3	✓
+10	= 0+0, S Line		0.92	28.59	on Stub
TP	12.26	$\langle 40.85 \rangle$	0.92	$\langle 28.59 \rangle$	on Stub 4+10
+50			11.7	29.1	✓
+75			10.0	30.8	✓
+89.8	= Top of Conc Wall		6.83	34.02	✓
5+0			5.3	35.5	✓
TP	12.13	$\langle 52.98 \rangle$	0.0	$\langle 40.85 \rangle$	
+20			13.0	40.0	

Jan. 17-46
S. J. Jones
S. J. Jones



		52.98		✓	
5+50			6.3	✓	46.7
TP	12.64	✓ 5.22	0.40	✓	✓ 2.58
6+0			2.0	✓	63.2
TP	12.30	✓ 5.82	0.70	✓	✓ 4.52
+33			1.0	✓	75.8
TP	11.44	✓ 7.94	0.32	✓	✓ 6.50
+45			5.3	✓	82.6
+48.00	Ex. W. Sider		4.87	✓	83.07
"	162.5 East = Ex. W. MH		7.84	✓	80.10
"	" " " " "		14.52	✓	73.42
"	169.5 West = " " "		10.10	✓	77.82
"	" " " " "		16.42	✓	71.51

Front Porch Home S Line
Sketch Page 13

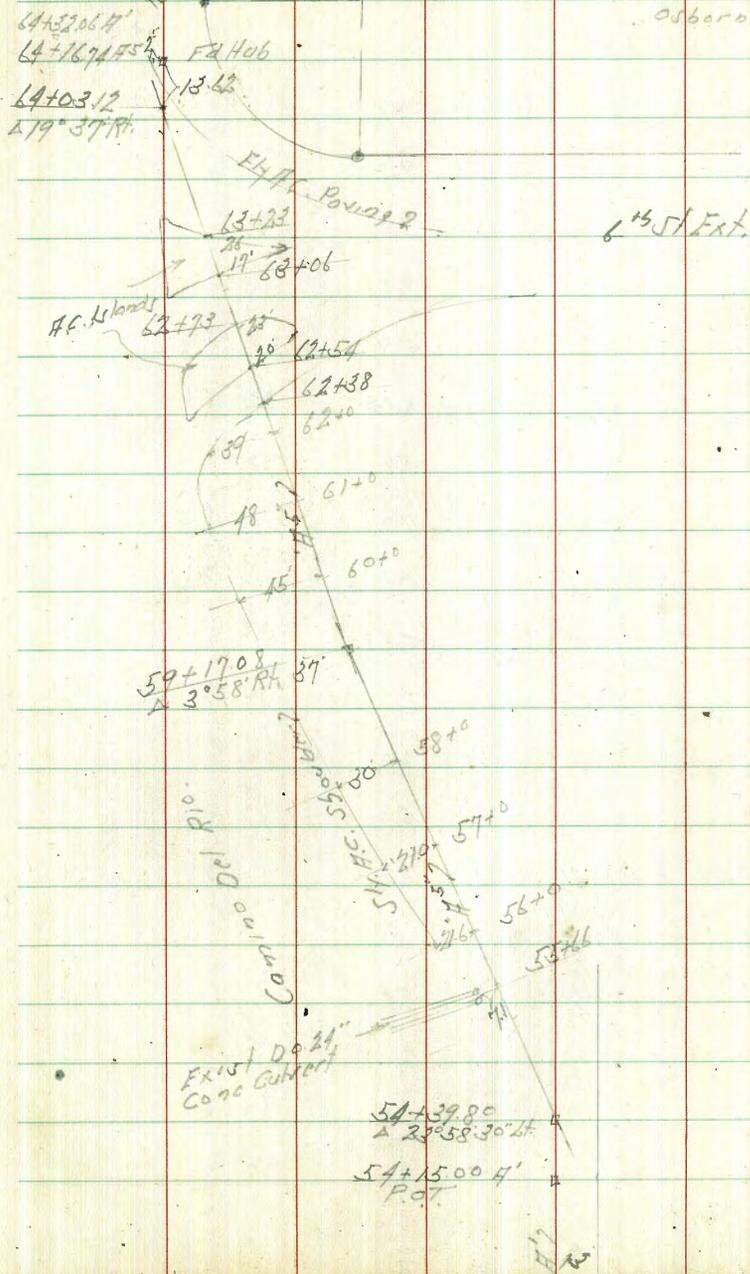
BM	10.27	(38.86)		28.59	02 St/46
0+0 = 1+10				28.59	1+10 Page 12
+50		8.6		30.3	✓
1+0		7.7		31.2	✓
+15		6.2		32.7	✓
+29 = Fly Masonry Ditch		6.19		32.67	✓
+31 = Bottom " "		9.11		29.15	✓
+33.5 = Fly " "		6.15		32.71	✓
+38		4.8		34.1	✓
+56 = Fly Oil Paving		4.1		34.8	✓
2+0	07.11	4.3		34.6	✓
+50	" " "	5.5		33.4	✓
3+0	" " "	6.2		32.7	✓
TP	3.75	(35.81)	6.77	(32.09)	✓
+42		4.0		31.8	✓
"	15' At top of 2" Fly	6.6		29.2	02 Basement Floor
+50 = Fly Oil Pav		4.0		31.8	✓
+67		4.1		31.7	✓
"	49.8 ft = Fly Pumping	7.21		28.63	02 Floor
Basement Floor		7.8		26.0	Estimated

Proposed Senter Mission Valley Trunk
H^s Line Change 54+15 to 64+32.06 H¹"

H¹ line # 1670-50

No levels on this line

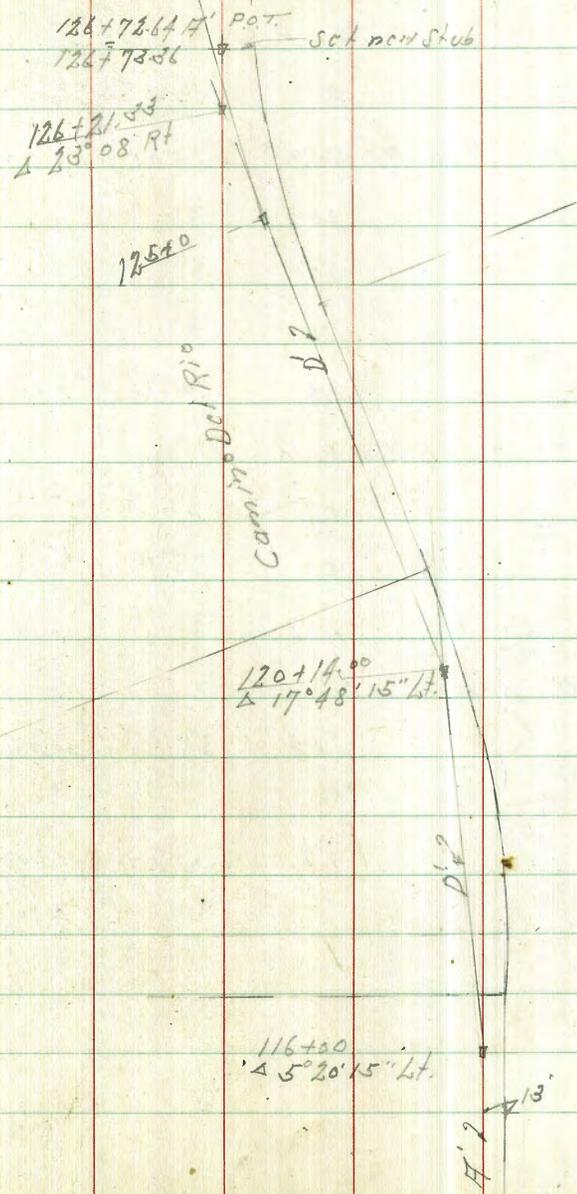
Jan. 18-48
Sisson
Bliss 14
Osborn



Proposed Sewer Mission Valley Trunk
D' Line Change 116+0 to 126+72.64 FT

B.M.	728	(40.62)	33.34	14' Lt. 185+85 #1570-89
116+00	$\Delta 5^{\circ} 20' 15''$ Lt.	9.62	31.00	as Stub
+50		9.2	31.4	✓
117+0		8.7	31.9	✓
+50		7.5	33.1	✓
118+0		5.7	34.9	✓
"	9' Lt of 2 = Sky Parung	6.14	34.48	✓
+50		5.9	34.7	✓
119+0		7.0	33.6	✓
"	3' Lt of 2	5.5	35.3	✓
"	11' Lt " " = Sky Par	5.20	35.34	✓
"	5' Rt of 2	8.1	32.5	✓
+50		7.7	32.9	✓
120+0		8.0	32.6	✓
+14.00	$\Delta 77^{\circ} 48' 15''$ Lt.	8.11	32.51	as Stub
+26	7' Rt of 2 = 1/4 Power Pole		32.7	✓
+50		7.9	33.0	✓
121+0		7.6	32.8	✓
+50		7.8	33.3	✓
122+0		7.3		✓

Cont Page 22



Jan 22-46
S. Brown
2560 ft
3099

		(40.62)		
122+50		7.8	32.8	✓
122+82	7' R 1/2 - 1/4 Perm Pole			
123+0		8.1	32.5	✓
TP	5.84	(10.89)	5.57	(35.05) ✓
+50		8.0	32.9	✓
124+0		7.7	33.2	✓
+50		7.0	33.9	✓
125+0		6.2	34.7	✓
+11	7' R 1/2 - 1/4 Perm Pole			
+50		5.2	35.7	✓
126+0		5.0	35.9	✓
+21.33	Δ 23° 08' Rt	4.89	36.00	✓
..	6' 27" 1/2 - 5/4 Perm	5.53	35.66	✓ 20 Stas
+60	10' R 1/2 - 1/4 Perm Pole			
+73.36		3.52	37.37	✓ 22 New Stas
126+72.64	H.P.O.T.			
BM		7.11	(33.45)	✓
			TOP MON	
			13' R 1/2 - 1/4 Perm	
			33.45	
			# 1670-69	

Proposed Sewer Mission Valley Trunk
To 6th St Sewer

	Station	Offset	Station	Offset	Notes
	5.08	(27.60)	22.52		0.7 Hub 13+48.74 1670-59
0+0	13+48.74	5.1	22.5		✓
+0.4		5.0	22.6		✓
TP	12.59	(40.19)	0.0	(27.60)	
+1.6	Top Cut Bank	8.2	32.0		✓
+2.1	3 Wire Fence				
+5.0		4.5	35.7		✓
+7.0		0.6	39.6		✓
TP	10.44	(50.04)	0.59	(39.60)	
+5.0		5.2	44.8		✓
+94.60	Exist. Sewer MH	2.90	47.14		on Rim
"	"	7.66	42.38		Flux loc

See Revised Alignment

to this M.S. Pg 29

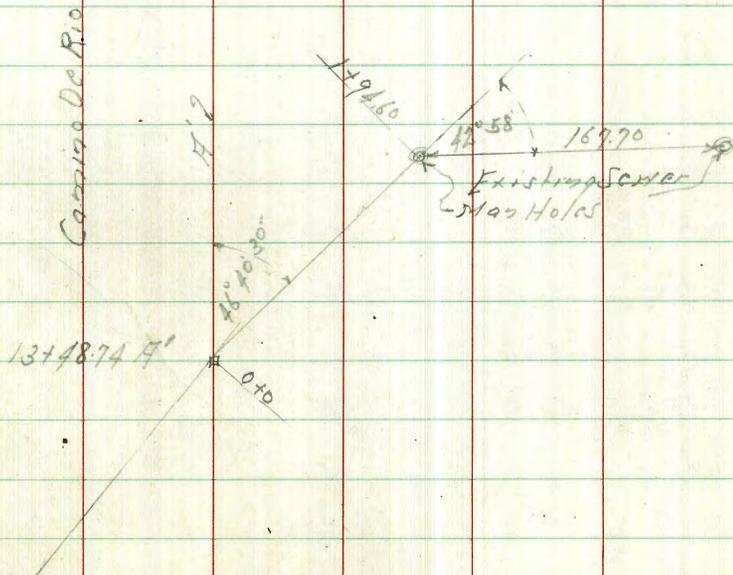
Levels " 36

W.

Jan 22, 16
S. 1160
056000
8599

17

18+65.00
Δ 11° 23' 41"



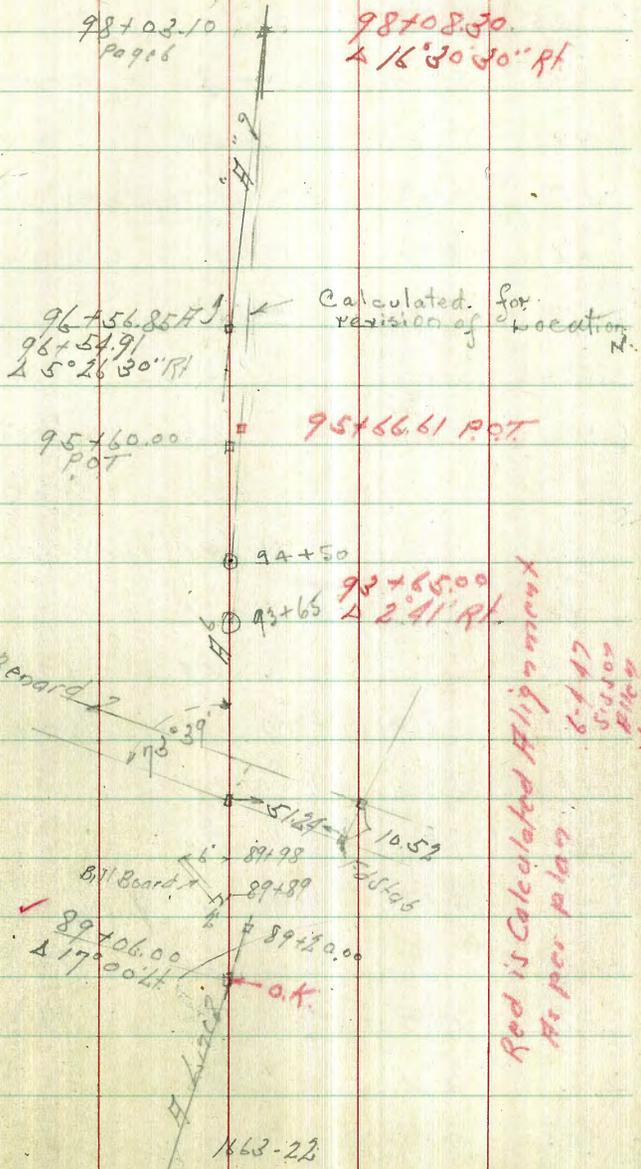
Levels Proposed Sewer Mission Valley Trunk
 H/Line Across Benards

B.M.	4.06	(17.80)	13.74	07 Stubs 89+20.4 1663.29
89+06	117°00"lt	3.97	13.83	07 Stubs
+10	2- Cable and Man			
+35	7.8 ft = 1/4 Tail Pole			
+50		4.1	13.7	✓
90+0		3.3	14.5	✓
+18	Top Rock Fill	3.1	14.7	✓
+22		4.7	13.1	✓
+23	2' Lt of 2- 5/4 20" Eve Stump			
+23	117 Lt of 2- 5/4 31" " Tree			
+50		5.5	12.3	✓
91+0		5.8	12.0	✓
+02	28 Rt of 2- 1 1/4 20" Eve Tree		146 Lt of 2- 5/4 28" Eve Tree	
+02	42 Rt of 2- 1 1/4 12" Eve Stump		28" Eve Tree	
+10	18 Rt " " " 14" " Tree			
+15	17 Lt " " " 5/4 16" " Tree			
+19	14 Lt " " " " " " "			
+41	54 Rt " " " 1 1/4 36" " " "			
+50		5.5	12.3	✓
+91	8 Rt of 2- 1 1/4 30" Eve Stump			
92+0		6.1	11.7	✓
" "	28 Rt of 2- 1 1/4	0.7	17.1	✓
" "	30 Lt " "	5.3	12.5	✓

Jan 24-46
 S. J. 067
 01622
 8699

13

Page 9



(17.80)

92+16	9' Rt of 1/2 = 1 1/4 20" Euc Tree		
+25	9.3 Lt " " " 14" " Stump		
+42	8.7 Rt " " " 20" " Tree		
+50		5.0	12.8 ✓
+52	12 Rt of 1/2 = 1 1/4 14" Euc Tree		
+59	0.8 Lt " " = 5/4 12" " "		
+66	2' Lt " " = 5/4 16" " "		
93+0		4.8	13.0 ✓
"	18 Rt of 1/2	1.0	16.8 ✓
"	18' Lt " " "	5.6	12.2 ✓
+23	13.1 Rt " " = 1 1/4 24" Euc Tree		
+41	22' Lt of 1/2 = 5/4 24" " "		
+50		5.2	12.6 ✓
+67	8.5 Rt of 1/2 = 1 1/4 12" Plum Tree		
+53	8.7 " " " " 3' " "		
481	8.5 " " " " 8' " "		
+98	5.4 9' " " " " 4" Quince "		
94+0		5.0	12.8 ✓
"	17 Rt of 1/2	2.7	17.1 ✓
"	15 Lt " "	5.6	12.2 ✓
+03	9.3 Rt of 1/2 = 1 1/4 15" Plum Tree		

(17.80)

91+29	10.7 Rt of 1/2 = 1 1/4 6" Euc Tree		
+50		4.8	13.0 ✓
+55	28 Rt of 1/2 = 1 1/4 24" Euc Tree		
+99	8 Lt " " = 5/4 14" " "		
95+0	20 Rt of 1/2 = 1 1/4 14" Euc Stump	2.3	14.5 ✓
"	20 Rt of 1/2	0.0	17.8 ✓
"	13 Lt " "	4.5	13.3 ✓
77	4.51 (20.21)	2.10	(15.70) ✓
+07	14.5 Rt of 1/2 = 1 1/4 6" Plum Tree		
+11	20 " " " " 30" Euc Tree		
+14	7.5 Lt " " = 5/4 24" " Stump		
+19	15.8 Rt " " = 1 1/4 4" Plum Tree		
+23	7.6 Lt " " = 5/4 30" Euc Tree		
+26	15.5 Rt " " = 1 1/4 6" Plum Tree		
+28	6.2 Lt " " = 5/4 24" Euc Stump		
+50		4.8	15.4 ✓
"	13 Rt of 1/2 in Dump	4.8	15.4 ✓
"	21 " " " " "	0.0	20.2 ✓
"	17 Lt of 1/2	2.6	11.6 ✓
+67		4.6	15.6 ✓
877		7.11	(13.10) ✓

on stub 95160

on stub 945030 1309 Page 7

120.21

9670		72	13.0	✓
"	16 R 1/2	0.0	20.2	✓
"	10 H "	9.5	10.7	✓
+05	13 R 1/2 = 12" Pepper Tree			✓
+30		10.8	9.4	✓
+5491 H		9.54	10.67	0.2546
+5685 H	18 R 1/2	9.0	11.2	Top Slope
9710	23 R 1/2 = Top Slope			
+39	22.5 R 1/2 = 16" Palm Tree			
+12	26.7 R " " = 24" Cotton Wood Tree			
+50	34 R 1/2 " = Top Slope			
98+03.10 A	29 R 1/2 = " "			

Final Estimate
 Levels remain
 Area 1788/27

"A7"

(23.89)

113+19.3	Ny Comp Pav.	325	20.64	✓
+26	Ny " "	345	20.44	✓
+93.7		557	18.32	✓ as Stub
15+50.29				

For Check 144 (22.45) ^{on Hub} 13+187+77
1170-22

Location & Level 12" Gas Line

B.M.	5.38	(20.17)	14.79	✓ on Hub
109+26.8	-12" Gas Line	5.27	14.90	✓ over Gas
		8.27	11.80	✓ Top 12" Gas

Proposed Sewer Mission Valley Trust
D'Line
Reverts Next Page

22

Requested by L.H.

139+130°
19° 54' R.

Capino Del Rio

SH AC Paying P

A'1

132+28

165+68.35 E.C. Hwy
Fd Pipe

20' 20' 10' 128+11.48
A 12° 31' 30" R.

125+00
A 10° 35' 30" R.

Page 15

(43.06)

137+50		5.5	37.6	✓
132+10	1/2 Sly Berm	5.0	38.1	✓
+50		5.1	38.0	✓
133+10	4' Rt = Sly Berm	4.8	38.3	✓
+38.8	4' Rt of 1/2 = Sly 24" Conc Culv	8.68	34.38	Flank
"	12' Lt of 1/2 = Nly	9.46	33.60	" "
+50		4.6	38.5	✓
134+10	1' Rt = Sly Berm	4.4	38.7	✓
+1.6	1/3 Rt of 1/2 = Nly Pow Pole			
+50	1/2 = Sly Berm	4.3	38.8	✓
135+10	" " "	3.9	39.2	✓
+3.2	4' Rt of 1/2 = Nly Pow Pole			
+50		3.4	39.7	✓
136+10	1/2 = Sly Berm Reg Cul	3.1	40.0	✓
+50		2.1	41.0	✓
TP	9.40	(43.06)	1.87	(41.19)
137+10		9.5	41.1	✓
+1.7	5' Rt of 1/2 = Nly Pow Pole			
+50		8.3	42.3	✓
138+10		8.0	42.6	✓

(50.59)

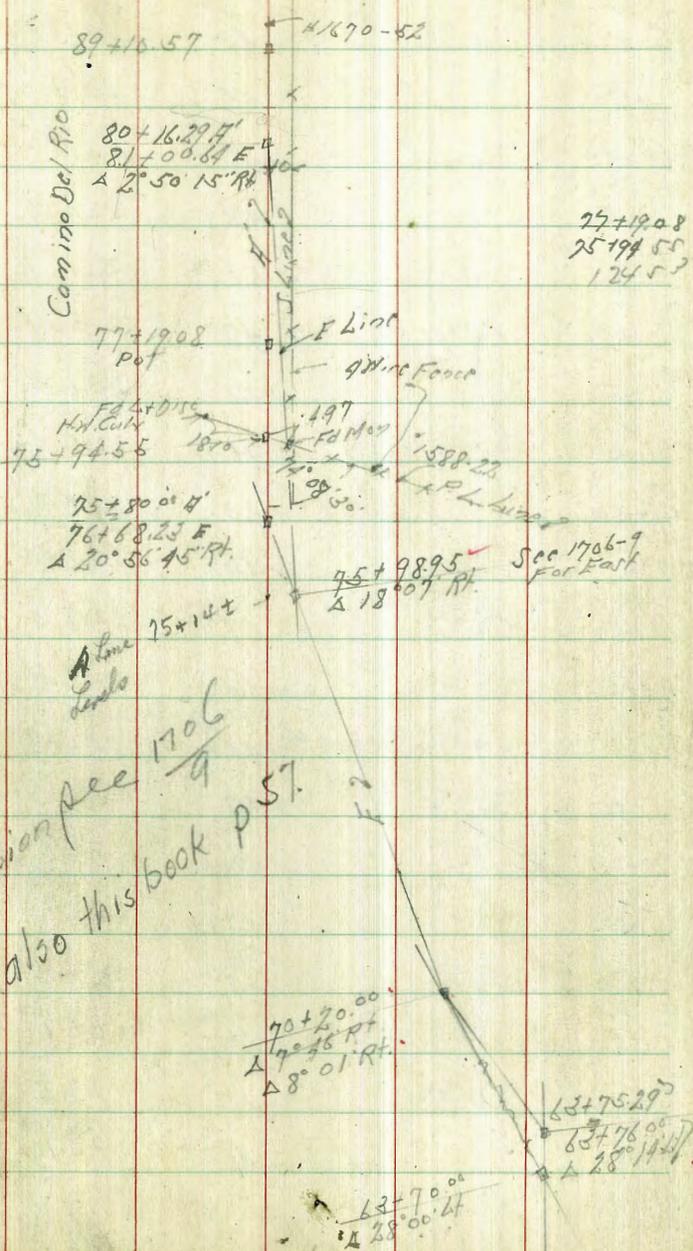
138+13	1/4 H.C. Pav.	7.6	43.0	✓
+50	FLY " "	7.1	43.5	✓
139+10		6.0	44.6	✓
+30.00	2 9/16" ft	6.00	44.59	on Stab
+1.5	1/4 D.I. Rock Pav.	5.7	44.9	✓
+5.9	FLY " " "	5.3	45.3	✓
+7.5	2.5" Lt = Sly Pow Pole			
+8.1	1/4 " " " "	5.0	45.6	✓
+9.3	FLY " " " "	5.0	45.6	✓
140+10		5.1	45.5	✓
+50		4.5	46.1	✓
141+10		4.9	45.7	✓
+50		3.2	47.4	✓
+5.9	8' Lt of 1/2 = SE Cor Conc. Pipe Chamber	4.12	46.47	Top Bar
+9.5	5.4' Lt of 1/2 = SE Cor Conc. V. Pipe Chamber	4.24	46.35	" "
142+10		2.3	48.3	✓
+1.1	2 1/4" Lt of 1/2 = Sly 18" Conc Pipe Culv	5.25	45.34	Flow Line
+23.5	1/4 H.C. Pav	1.6	49.0	✓
+3.7	0.7 " " "	1.05	49.54	✓
+6.0	FLY " " "	1.4	49.2	✓
+7.2	32' Rt of 1/2 = Sly 55" Conc Box Culv	7.4	43.2	Flow Line

3193 ✓

62+17	- 3 Wire Fence N+S	5.6	28.3 ✓	
+27	- W/ly Bottom Ditch	8.7	23.2 ✓	
+33	- Ely	8.1	23.8 ✓	
+34		47	27.2 ✓	
+40	- W/ly H.C. Paving	4.8	27.1 ✓	
+70	- Ely	47	27.2 ✓	
+80		49	27.0 ✓	
+84	- 3 Wire Fence N+S	8.1	23.8 ✓	
63+0		8.5	23.4 ✓	
+50		8.9	23.0 ✓	
+70	Δ 28° 00' Lt	8.8	23.1 ✓	
64+0		9.5	22.4 ✓	
+50		9.6	22.3 ✓	
65+0		9.7	22.2 ✓	
+50		10.1	21.8 ✓	
66+0		9.7	22.2 ✓	
TP	4.24	27.22 ✓	8.95	22.98 ✓
+50		5.0	22.2 ✓	
67+0		4.9	22.3 ✓	
+50		5.0	22.2 ✓	

No Stake
Gone

For Revision see
also this book p 57



2722

2779

68+0		49	22.3 ✓
+50		48	22.4 ✓
69+0		47	22.5 ✓
+50		43	22.9 ✓
70+0		51	22.1 ✓
+20 ⁰⁰	A 7°46' Rt.	479	22.43 ✓ on Stake
+50		51	22.1 ✓
71+0		46	22.6 ✓
+50		43	22.9 ✓
72+0		44	22.8 ✓
+50		44	22.8 ✓
73+0		44	22.8 ✓
TP	4.70	2779 ✓	413 23.09 ✓
+50		47	23.1 ✓
74+0		49	22.9 ✓
+50		47	23.1 ✓
75+0		48	23.0 ✓
+50		47	23.1 ✓
76+0		43	23.5 ✓
+50		41	23.7 ✓

76+8.22 ✓		373	24.06 ✓ on Stake
75+80.00 ✓			
8M		1.85	25.91 ✓
8M	3.21	29.17 ✓	26.96
75+98.95	A 18°07' Rt.	5.89	23.28 ✓ on Stake
76+50		5.7	23.5 ✓
+66	7 ft 1/2 - Nly Tail Pole		
+72	P1 4 Wire N x S Fence	4.7	24.5 ✓
+75	10.5 ft 1/2 - Sly Anchor Pole		
77+0		4.7	24.5 ✓
+50		4.9	24.3 ✓
78+0		4.5	24.7 ✓
+12	P1 3 Wire Fence N x S		
+50		4.6	24.6 ✓
79+0		4.7	24.5 ✓
+37	P1 4 Wire East + West Fence		
+50		4.5	24.7 ✓
80+0		3.9	25.3 ✓
+50		4.4	24.8 ✓
81+20.11	A 2°50' 15" Rt.	4.4	25.03 on Stake
80+11.89 ✓			

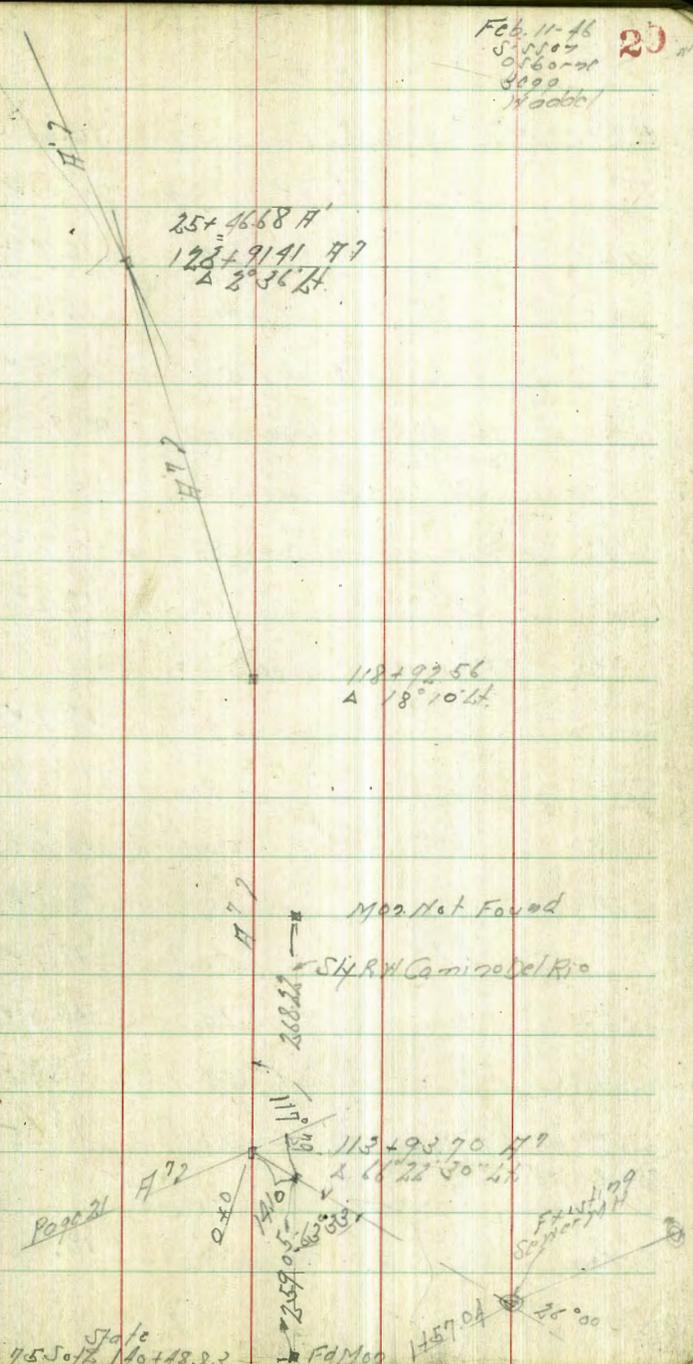
1+Dise 10 H.M.
C.M.
15.21 76+0 ft
25.96
1670-67.11

Proposed Santa Mission Valley Tract
 H⁷ Continued East of Hwy Crossing

B.M.				
446	22.78	18.32		on sheet 113+98.70 H ⁷ page 22
114+0	4.5	18.3	✓	
+50	5.0	17.8	✓	
115+0	5.1	17.7	✓	
+03	13' Lt of 7" Sly 30" Conc Cur Mark	8.28	14.50	✓ Plan 4.4
+11	W/4 Oil Pat	4.1	18.7	✓
+28	Ely ..	4.1	18.7	✓
+50		4.6	18.2	✓
116+0		4.3	18.5	✓
+50		5.6	17.2	✓
117+0		5.8	17.0	✓
+50		5.5	17.3	✓
+76	W/4 Oil Pat	4.3	18.5	✓
+91	Ely ..	4.3	18.5	✓
118+0		5.1	17.7	✓
+26	15' Lt of 7" Top S.W. Cor 8' x 9' Conc Valve Chamber	8.18	19.60	✓
+50		6.3	16.5	✓
	7' Right - W/4 Pat Pole			
+58	7' Rt - W/4 Pat Pole			
+62	3' Lt - Sly Pat Pole 25' Pt - Old Dredge			

Feb. 11-16
 Survey
 of 6000
 3000
 Wood

20



	22.78		
118 + 92.56 A 18' 10" H	6.17	16.61	✓ on stub
TP 626 22.67	5.37	17.41	✓
119 + 64	6.9	16.8	✓
+ 07	8.1	15.6	✓
+ 11	5.4	18.3	✓
" 20' Ho of 4" Sizer Conc Culvert	8.93	14.74	✓ Flange
+ 33 - 2 1/4" Oil Pipe	3.4	20.3	✓
+ 48 - Ely	3.5	20.2	✓
120 + 0	4.5	19.2	✓
+ 23 3 1/2" Ho of 2" Fire Hyd		18.9	✓
+ 50	4.8	18.8	✓
121 + 0	4.9	18.7	✓
+ 50	5.0	18.9	✓
122 + 0	4.8	18.7	✓
+ 50	4.9	18.8	✓
123 + 0	4.9	18.8	✓
+ 50	5.32	18.35	✓ on stub
+ 91.41 & 2' 36" H			
25 + 46.68 H			
For Check	4.71	10.96	✓ on stub 22 + 70.437

Proposed Sector Mission Valley Trunk
 F Line Change Opposite Anthony Home
 Sketch Page 26

B.M.	9.40	28.83 ✓	19.43	07 Hus 54+15 #
49+15.00	Δ 0°34'30" Rt.	8.79	20.04 ✓	on Stake
+36	2' Rt of 2" Nly 24" Cast Iron Curb	11.7	17.1 ✓	Flankline
"	2	8.7	20.1 ✓	
+45	Nly Oil + Rock Pav.	5.1	23.7 ✓	
+65	Ely " " "	4.9	23.9 ✓	
+75		7.8	21.0 ✓	
"	Rt of 2" Ely 24" Cast Iron Curb	11.4	17.4 ✓	Flankline
50+0		8.6	20.2 ✓	
+11	1' Rt of 2" Nly 24" Poplar Tree			
+50		8.5	20.3 ✓	
51+0		8.4	20.4 ✓	
+10	4' Rt of 2" Nly 24" Poplar Tree			
+15		8.0	20.8 ✓	
+21		10.4	18.4 ✓	
"	7' Rt of 2" Sly 24" Conc. Curb	10.32	18.51 ✓	Flankline
+28	5' Rt of 2" Nly Porcelain Pole			
+33		8.0	20.8 ✓	
+50		9.2	19.6 ✓	
52+0		9.2	19.6 ✓	
+12	2' Rt of 2" Nly 24" Poplar Tree			

Feb 14-31
 S. 1107
 Oshorn
 8:39

28.83

52+35	2" Nly 18" Conc Curb	10.1	18.7 ✓	Flankline
+42	Nly Oil + Rock Pav	5.6	23.2 ✓	
+54	E " " "	5.6	23.2 ✓	
+63	2" Ely 18" Conc Curb	9.9	18.9 ✓	Flankline
53+0		9.9	18.9 ✓	
+50		9.8	19.0 ✓	
54+0		9.7	19.1 ✓	
+05	P.I. Wire Fence			
+15.78	Δ 17°22'35" Rt	9.62	19.21 ✓	on Stake
TP	5.08	24.51 ✓	9.40	19.13 ✓
+50	7' Rt of 2" Sly Porcelain Pole	5.3	19.2 ✓	
+59	5' Rt of 2" Cable Road Mark			
55+0		5.4	19.1 ✓	
+50		5.1	19.4 ✓	
56+0		5.1	19.4 ✓	
+50		5.1	19.4 ✓	
57+0		5.0	19.5 ✓	
+50		4.8	19.7 ✓	
58+0		4.7	19.8 ✓	
+50		4.4	20.1 ✓	
59+0		4.0	20.5 ✓	

21.51

59+50	2.6	20.9 ✓	
60+0	3.3	21.2 ✓	
+50	2.9	21.6 ✓	
61+0	2.6	21.9 ✓	
+66.48 · 220°06'30" N	2.46	22.05 ✓	on 26
+26.48 · 61+30° E	2.27	22.21 ✓	on 26 Page 26

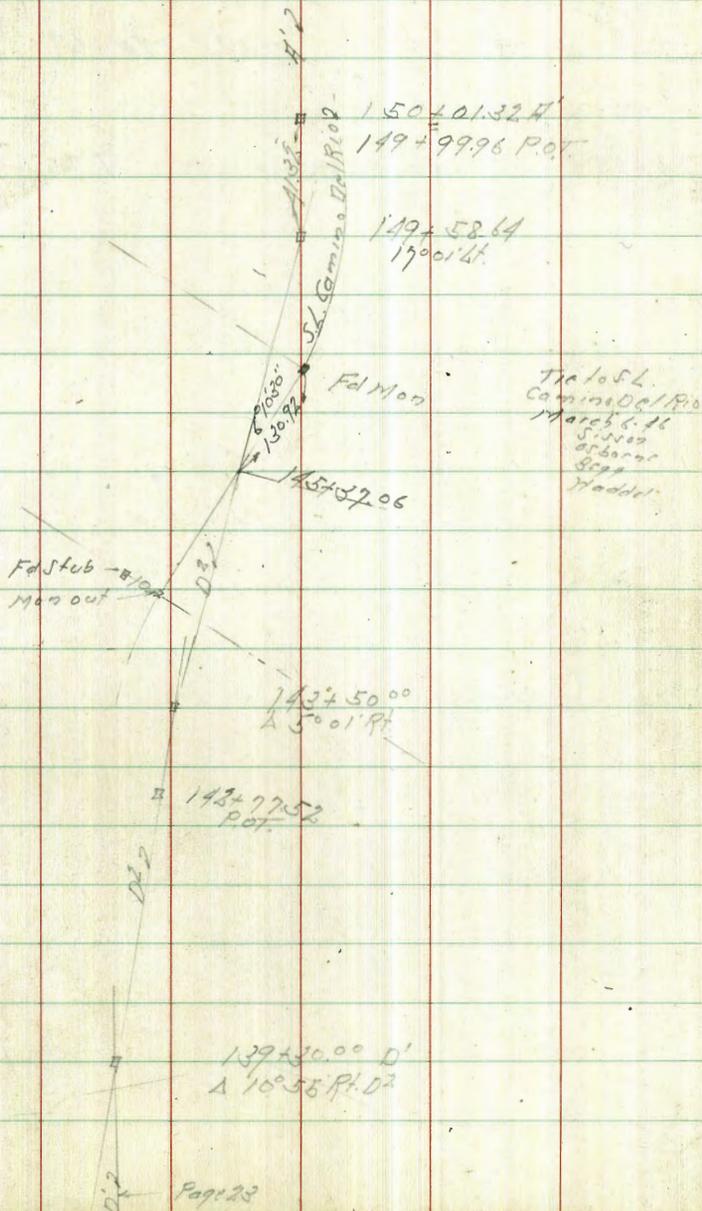
Proposed Searr Mission Valley Trunk
 D² Line Change #1 Texas St
 Sketch Page 24-22

BM	8.69	52.28	44.59	on Stub 139+80.0 D Page 21
139+45	= Wly Oil + Rock Pav	8.4	44.9	✓
+59	= FLY " " "	8.0	45.3	✓
+75	4' Lt of 2" Fly Pav Pav			
+81	= Wly Oil + Rock Pav	7.7	45.6	✓
+93	= FLY " " "	7.6	45.7	✓
140+0		7.7	45.6	✓
+50		7.0	46.3	✓
141+0		6.2	47.1	✓
+47		5.9	47.4	✓
"	13' Lt = Cor Valve Chamber	6.75	46.53	✓
+97		5.0	48.3	✓
"	10' Lt = Cor Valve Chamber	6.91	46.37	✓
142+0		4.8	48.5	✓
+22	= Wly P.C. Pav	3.9	47.4	✓
+37	0.2 " " "	3.5	49.8	✓
+59	= FLY " " "	3.9	49.4	✓
+77.5	POT	3.72	49.56	on Stub
+79	7' Lt = 2" Fire Hyd			
+83	93' Lt = 8" 24" G.P. 3.9			

			52.28		Feb 15-46 S. 1100 016000 8999 Hodder	33
142+88			7.1		46.2	✓
143+0			7.5		45.8	✓
+50.00	A 5° 01' Pl		9.02		49.26	on Stub
+86	= FLY Dir. Drive		8.9		44.4	✓
144+0			10.9		42.9	✓
+50			11.2		42.1	✓
145+0			11.3		42.0	✓
+39	10' Pt = Wly 12" Conc Culv		11.53		41.75	Floor Line
+42	= Wly Oil Pav		10.5		42.8	✓
+52	= FLY " " "		10.5		42.8	✓
+57	10' Pt = FLY 12" Conc Culv		12.03		41.25	Floor Line
146+0			11.5		41.8	✓
+50			11.2		42.1	✓
+62	12' Pt. Wly Fence					
147+0			11.3		42.0	✓
+50			11.5		41.8	✓
+90			12.3		41.0	✓
+98			13.8		39.5	✓
"	7' Lt = 8" 24" Conc Culvert		14.85		38.43	Floor Line
148+0			11.2		42.1	✓

5328

148+50		12.3	41.0 ✓
+57	2 3/4 24" Egg Shaped Steel Culv.	12.0	41.3 ✓ Top Culv.
+63	2 1/4 0.1 x Rock Pak 11.1		42.2 ✓
+74	FLY " " 11.0		42.3 ✓
+84	10 ft = 1/4 Port Pak		
+97	5 5/8 ft - FL 14 Conc. Culvert	12.8	40.5 ✓ Floorline
149+0		10.8	42.5 ✓
+50		11.2	42.1 ✓
+58.64 = A		11.45	41.83 ✓ on Stub
"	3' Pt. - 4 Wire Fence		
150+01.32 17		11.37	41.91 ✓ on Stub



Location + Levels 12" Steel Gas Line

B.M.	6.68	<18.21>	11.53	02 May 1/2 Comm Dr/Rd West of Pole Road 1000 1000
73+60 A	Rt	7.54	10.67	02 Stub
73+95.5	: P.I. Sewer + Gasline		10.55	7.66 - Top 12" Steel Pipe

Location + Levels 12" Gasline

Feb 25-46
S. Brown
D. Brown 35

B.M.	2.61	<11.52>	7.91	02 Stub 69+59.05' C Paper
69+45 C	4' Rt 1/2	8.02	2.50	Top 12" Steel Gas Pipe
"	17.54 1/2	8.73	2.79	Top 14" Steel Gas Pipe

$\frac{4.5}{2.5} = 1.8$
 $1.8 \times 71 = 127.8$
 $127.8 - 124.4 = 3.4$
 CTS = 3.39 top pipe at 82

Levels Tie to Mission Valley High Line Saddle
 From Prop. Mission Valley Trunk
 Sketch page 29

March 6-16
 S. J. J. J.
 36

BM	10.63	(28.95)	18.32	00 Stake 113+937047 Page 22 Front Saddle Cut	
0+0	-	113+937047	10.6	18.3	7.27 11.03
+0V					7.74 10.56
+23			10.6	18.3	12.41 5.09
+33		2: 2' Wire Fence + Cable Dead Man			14.65
+43			5.2	23.7	16.88 6.82
TP	14.78	(40.43)	0.30	28.65	
+72			7.7	32.7	23.37 9.38
+78			3.8	36.6	24.71 11.09
+10			1.9	38.5	29.63 8.07
TP	10.49	(19.38)	1.54	38.99	
+25			6.3	43.1	35.22 7.08
+57.04	-	EXIST MH	2.30	47.08	42.38 4.70

Level 1 Tie to Mission Valley High Line Saver
 From Prop. Mission Valley Trunk West of 615 St
 Sketch Page 26

March 6, 46
 S. J. J. J.
 8299
 Madin 37

BM	1215	(3429) ¹	22.05	00 Stus 61406.485'
0+0	= 61406.485'			
+50		119	22.3	✓
+82		10.1	24.1	✓
"	5' Pt of 8" = 12" Conc Pipe for Irrigation	10.80	23.40	top
+10		85	25.7	✓
+50		77	26.5	✓
2+0		74	26.8	✓
+50		6.8	27.4	✓
+92		5.2	28.9	✓
2+0		4.1	30.1	✓
+20		2.4	31.8	✓
IP	1240	(4660) ¹	0.00	(3420) ¹
IP	1226	(5881) ¹	0.05	(4655) ¹
+45		4.1	54.7	✓
IP	1247	(7106) ¹	0.22	(5839) ¹
IP	1253	(8359) ¹	0.00	(7106) ¹
+78		24	81.5	✓
+8725	= East MH	1.25	82.34	07 Riv
"		5.58	78.01	Flow Line

Tie to Sky RW of Camino Del Rio, Clover Leaf
 East + West of 6th St. as Staked by Gas Co.
 Prop. Server Survey F & F Line

opp Page. → March 12-46
 S. 1107
 Waddell
 Hardin 33

52+69 E 9.7 ft of 1/2" = 180+40 Sky RW

54+59.3 6 ft of 1/2" = 181+89.67 = 1+00 RC

55+56 32.8 ft of 1/2" = 2+10

56+54 50.2 ft of 1/2" = 3+0

57+49.6 58.8 ft of 1/2" = 4+0

58+53.6 59.0 ft of 1/2" = 5+0

59+32.5 52.0 ft of 1/2" = 5+79.58 = P.C.C.

60+50.7 20.7 ft of 1/2" = 7+0

60+92 = P.L.F. & Sky RW = 7+48.3

64+01.5 F 76.1 ft of 1/2" = 7+50

64+86 39 ft " = 2+12.67 F.C.

67+43 39.6 ft " = 6+0

70+20 A 59 ft of 1/2" = 8+81

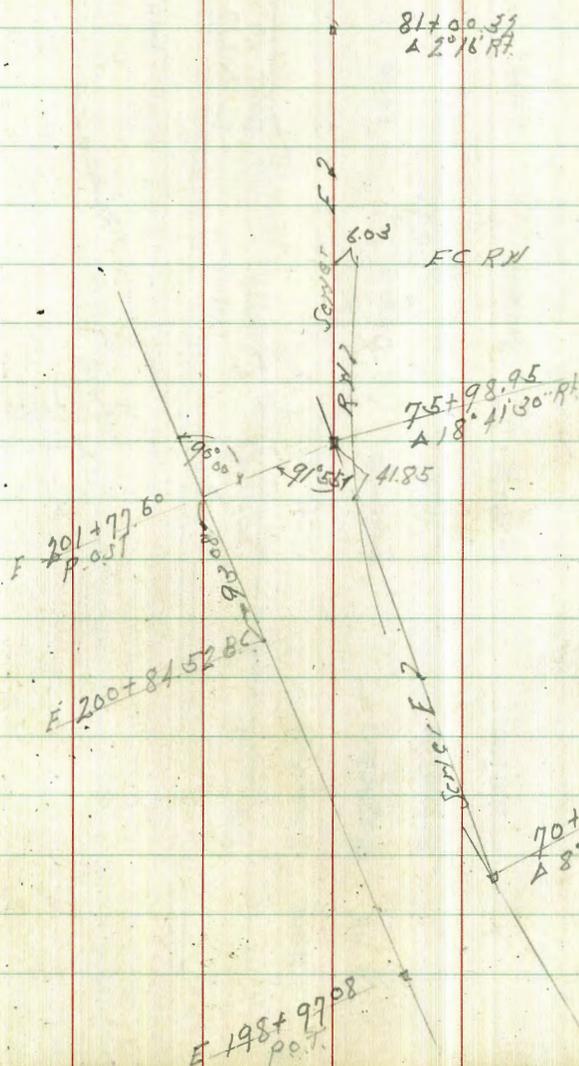
72+39 8.8 ft of 1/2" = 11+0

75+10 12 ft of 1/2" = 13+52.79

75+91.4 5.5 ft of 1/2" = 14+44 Last Point Found

Static Tie Camino Del Rio

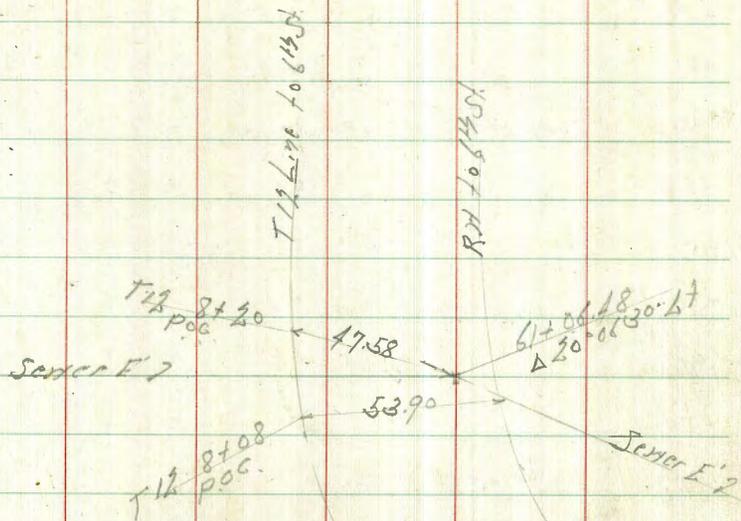
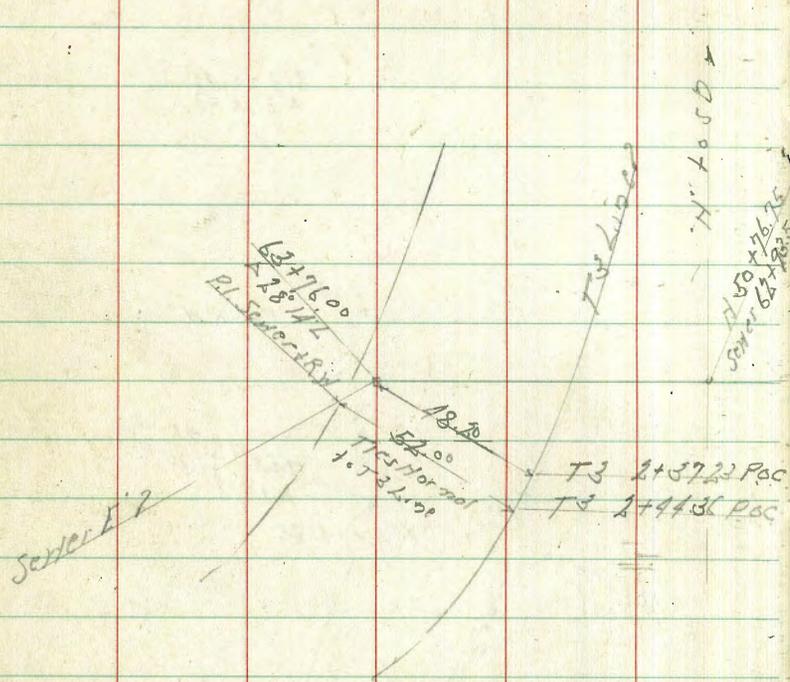
East of 6th St. Taken From State M. Henderson



State Trct 61st South of Camino Del Rio

Taken from States Mr. Anderson

April 13, 46
SUN 39



Mission Valley Trunk Sewer Relocation. ^{12/13/56.} W.O. 20735

Begin at Point off present Sewer 210' Easterly of M.H. No 19. (Location for New M.H. 19A.)

Thence ~~Set point 3 S. of E of M.H. 19 and~~ ^{deflect 5°± Rt and -} ~~run~~ location westerly ^{485'} to Point 102' South of Sta 154+75 of Highway E. = M.H. No. 1.

Thence ^{Δ to Lt. 6°±} continue Ely. 370' to Point 100' Sly of E of Highway. 158+45 = M.H. No 2.

Thence continue Ely 375. to Point 100' Sly of E of Highway at Sta 162+70 = M.H. No 3.

Thence continue Ely 555. to Point 112' Sly of E of Highway at Sta 167+75 = M.H. No 4.

Thence continue Ely ^{460'} ~~560'~~ to Point 112' Sly of E of Highway at Sta 172+35 = M.H. No. 5.

Thence continue Ely on reflection of ^{to Left} ~~11° 30'± to R. & distance of 317'~~ ^{412'} to ~~Point on Extension of Sewer from N and 110' Sly from~~ ^{check distance to old M.H. from new location} Existing Sewer M.H. No 24. = M.H. No. 6 (172' at R angle to Highway E.)

~~Thence continue Ely on Tangent 337' to Point in Dirt Drive = M.H. No. 7~~

~~Thence deflecting 56°± Lt. 235' to Existing M.H. 25 on Trunk Sewer.~~

~~At M.H. 26 it is desired to Seal this M.H. and Construct New M.H. 26A. over and around existing Sewer. 20 to ^{Wly} box from existing M.H. 26.~~

1062 A-D.
3055-B.

PROPERTY ACQUISITION

(OPENINGS)

6-10-56
7-20-56

W. O. No.	Dwg. No.	Description	Control Engineer	To Property	Property Agent	Property Dept No.	Transmi To Atto
18200	6203-B	Lot 19 Blk 42 Normal Hts, for Madison	Reynolds	6-28-56	Olson	1558	
32223	6166-B	Ptn Torrey Road (clsd) for Amalfi St	Reynolds	6-25-56	Hermes	1557	
21499	6197-B	P L 264 Morena for Knoxville	Reynolds	6-25-56	Hermes	1563	
24682	6189-B	Ptn of P L 1187 for fee (see Water Easement)	Reynolds	6-28-56	Hermes		
24096 (ref 22042)	12822-L	P L 1289 for Torrey Pines Road	Reynolds	7-16-56			
27045	6224-B	Lot 19 Soledad Terrace for Los Altos Road	Reynolds	7-11-56			
27469	6210-B	S E 1/4 of Lot 53 and N E 1/4 of Lot 54 Ex Mission lands (Horton's Purchase) for Euclid Ave.	Reynolds	7-6-56			

*1670- B.M. F + T. East side
N end of bundle Box Subst
Census Del Reg + B. West
See 4.68*

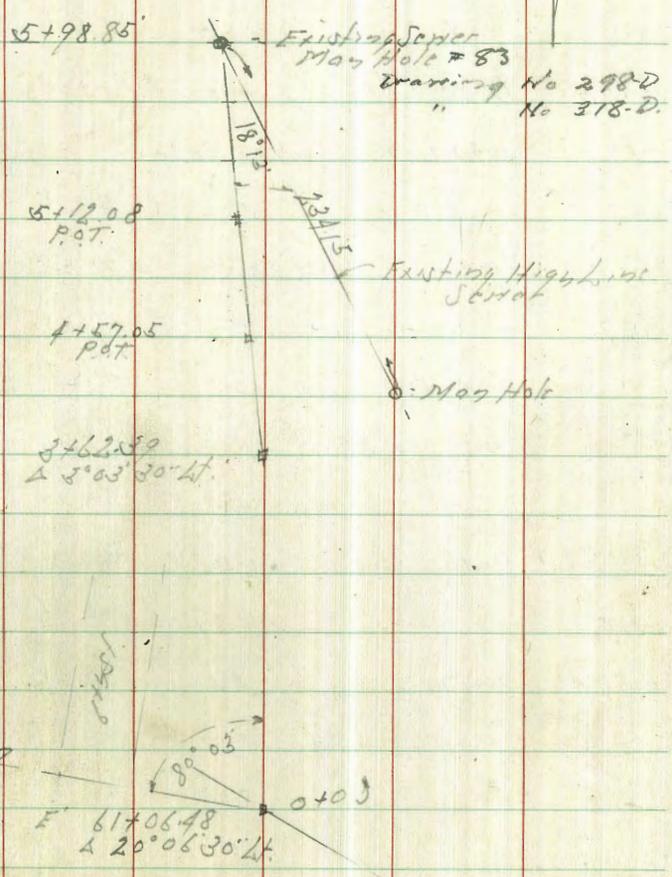
*1703
26739
1703
9
Hand
chisel marks below
Cues. 25.26*

Levels + Tie to Mission Valley High Line Sewer
E Line West of 6th St.

BM	1213	(3418)	22.05	61+06.48 ⁵	69 ft Hub
0+0	=	61+06.48 ⁵	12.1	22.1	61+06.48 ⁵
0+00				22.1	15.2
+50			11.5	22.7	16.9
+81			10.2	24.0	18.0
"	22 ft of 12" Conc Pipe	10.90	23.28	Top Pipe	
+88		8.2	26.0	18.3	
1+0		8.2	26.0	18.7	
+50		2.4	26.8	20.5	
2+0		6.8	27.4	22.3	
+50		5.5	28.7	24.1	
+87	- 2" Wire Cross Fence				
+72		4.7	29.5	24.9	
TP	8.69	(41.35)	1.52	(32.66)	
+91		4.8	36.5	25.6	
3+0		4.6	36.7	25.9	
+35			36.2	27.2	
+50			36.1	27.9	
+55			36.2	28.6	
+62.39	- 13° 03' 30" Lt	4.93	36.4	29.4	
"	9 ft of 8"	5.1	36.3	31.0	
"	15 ft of 8" - 11/4" Man	10.9	30.6	12.5	
+65		interpolate	36.2	31.6	
+71		4.7	36.6	33.5	
+75		interpolate	38.6	34.6	

cut to bottom pipe

April 23, 1946
Sasser
14-1946
Model 40



TP 12.73 $\langle 41.35 \rangle$ 0.25 $\langle 41.30 \rangle$
 4+0 5.4 50.6 ✓ Am.g ✓
 " 10' Lt of 2 13.2 40.8 ✓
 " 10' Rt " " 16.5 60.5 ✓
 TP 12.39 $\langle 16.26 \rangle$ 0.16 $\langle 52.87 \rangle$
 +53 10.5 Lt of 2: 21 1/2 Tel Pole
 +57 10' Lt of 2 3.7 62.6 ✓
 TP 12.08 $\langle 77.84 \rangle$ 0.50 $\langle 15.71 \rangle$
 +57 2 7.7 70.1 ✓ 62.2 ✓
 " 10' Rt of 2 0.4 77.4 ✓
 +60 73.9 63.2 ✓
 +80 72.5 66.2 ✓
 +90 79.3 70.4 ✓
 5+0 5.9 82.2 ✓ 71.5 ✓
 +12.08 P.O.T 3.91 84.14 ✓ 72.5 ✓
 +50 2.8 85.3 ✓ 75.6 ✓
 +59.6 1.4 Lt of 2 1/4 Tel Pole 4.5 83.6 ✓ 76.4 ✓
 +98.85 - First Man Hole 4.09 83.99 ✓ 79.5 ✓
 " - Flow Line 8.49 79.59 ✓
 22.74 H.R. in 234 H.R. 5.71 $\langle 82.04 \rangle$

entire better Ref

77'

79'

77'

75'

79'

89'

10.7'

11.6'

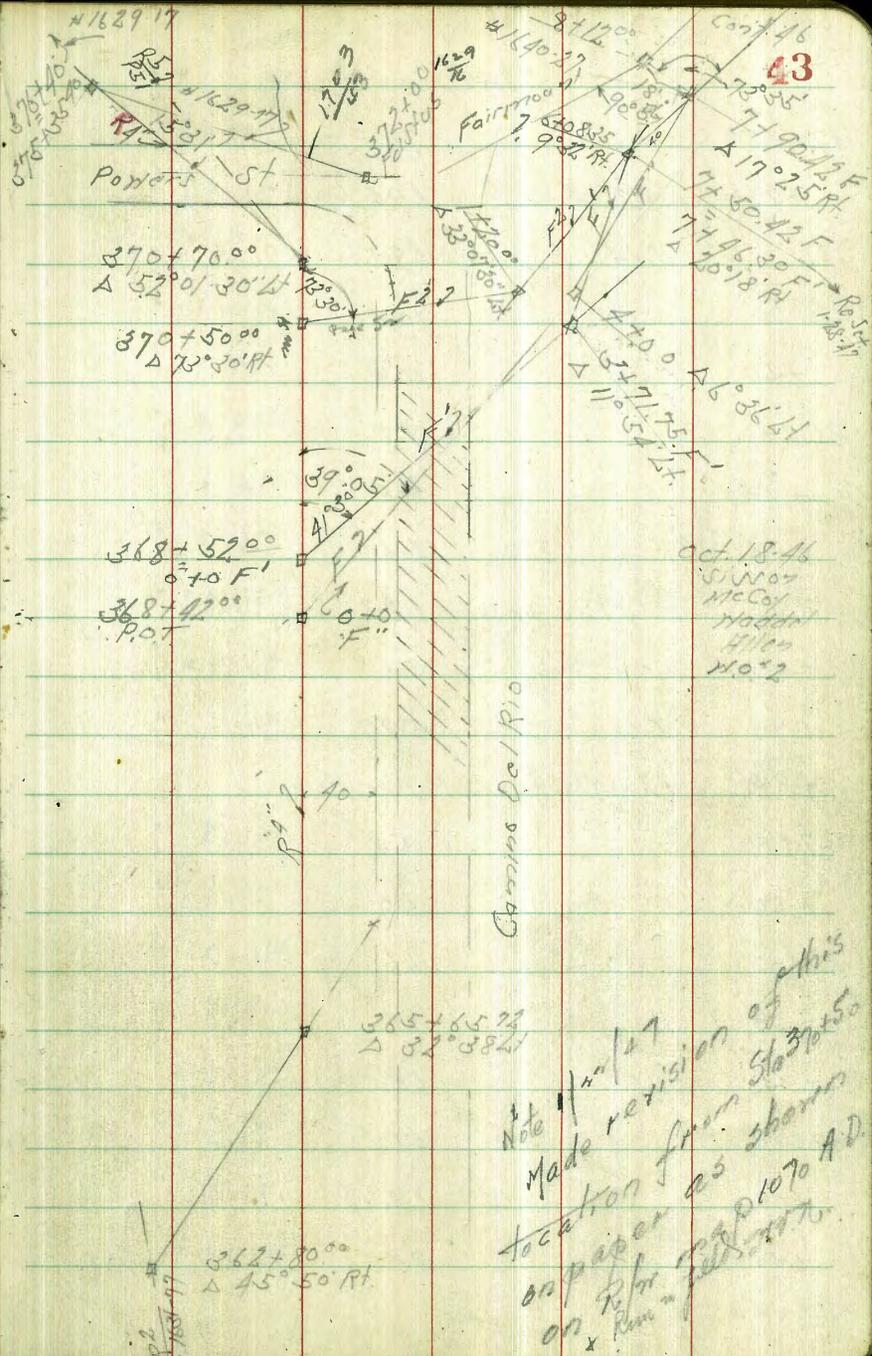
9.7'

7.2'

4.5'

Proposed Senior Mission Valley Trunk
Camino Del Rio West of Fairmount
R⁴ Line

BM #	5.11	78.39	72.28	W of Fairmount
365+65.72 A	32.8	3.87	74.52	on Hub
366+0		5.0	73.4	✓
+25	92 R/O			Nly Tol Pole
+50		5.0	73.4	✓
367+0		6.2	72.2	✓
+42		2.6	70.8	✓
+50		4.4	74.0	✓
+61		8.2	70.2	✓
+69	Sly Bottom Wash	17.2	61.2	✓
+75	Bottom Wash	18.4	60.0	✓
+82	"	18.5	59.9	✓
+90	"	18.4	60.0	✓
368+03		15.8	62.6	✓
+20		5.6	74.8	✓
+32		8.0	70.4	✓
+42	POT	8.21	70.18	on Hub
369+0		8.1	70.3	✓
+50		6.7	71.7	✓
370+0		7.2	71.2	✓



43

Oct. 18.46
S. N. 07
McCoy
Waddell
41104
110.2

Note 11/1/47
Made revision of this
location from Sta 370+50
on paper as shown
on R. H. P. 1070 A.D.
on Rem. Feb. 1947.

R¹ Line $\langle 72.39 \rangle$

370+50		70	71.4	✓
+70.00	2.52° 01/30" H	6.93	71.46	✓ on Stub
IP	11.14	$\langle 82.60 \rangle$	6.93	$\langle 71.46 \rangle$
371+0		10.5	72.1	✓
+50		10.4	72.2	✓
372+0		9.2	73.4	✓
+15		8.5	74.1	✓
+35		6.4	76.2	✓
+45	Wly Paring	6.22	76.37	✓
+67	07 "	5.68	76.92	✓
+93	Ely "	5.97	76.63	✓
+95	12.6 Rtd/7-11/4 Parier Pot			
373+0		5.8	76.8	✓
+50		6.0	76.6	✓
374+0		6.6	76.0	✓
+50		7.1	75.5	✓
+94		6.5	76.1	✓
375+0		5.1	77.5	✓
+09		1.3	81.3	✓
375+35.10		5.48	79.12	✓ on Stub
=				
376+40				

41

Proposed Sewer Mission Valley at Fairmount Ave

Fairmount "F" Line Sketch Page 43

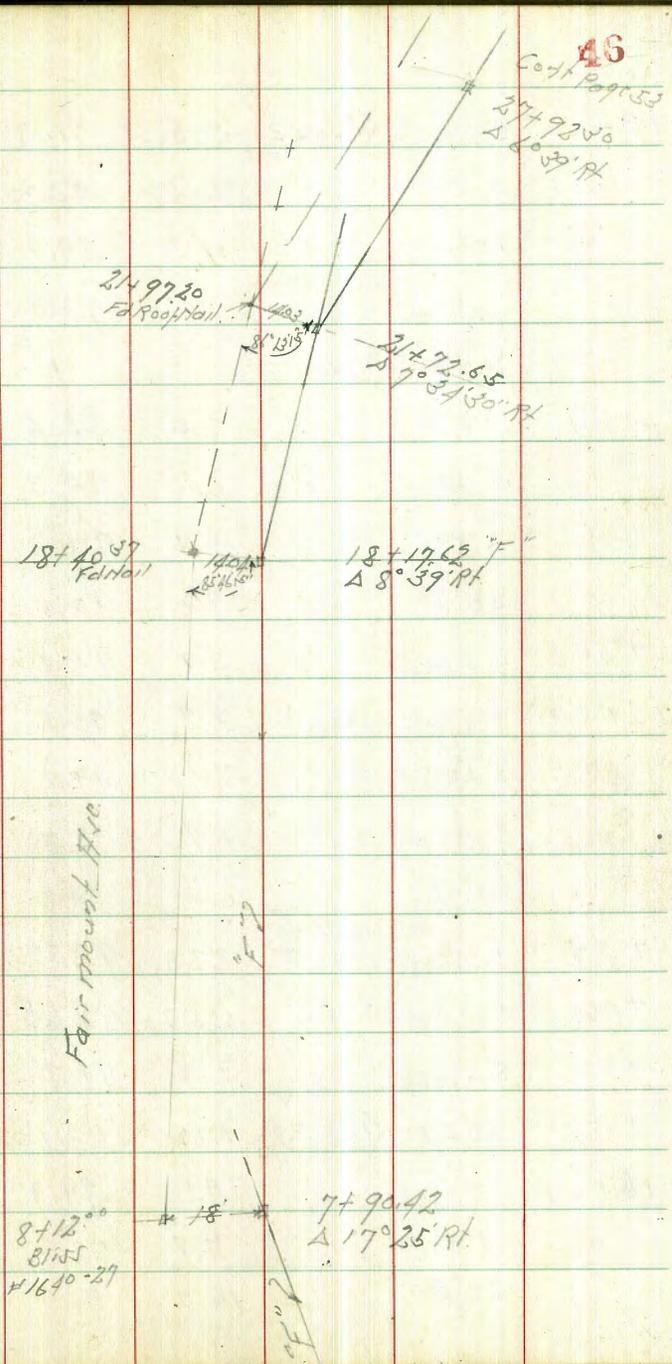
BM 57	3.24	76.52	73.28	W End Sandy Head W of Cuts W of Fairmount
0+0	F-368+428	6.35	70.17	W 10' water
+10		8.2	68.3	
"	6' RT of L	8.8	67.7	
"	10 " " "	16.2	60.2	Bottom 76.43
+33		6.7	69.8	
+40		9.3	67.2	
+50	Return 1703/5	8.8	67.7	
+60		2.6	72.9	
+72	1/4 HC Pavmg	3.44	73.08	
+80	Approx Camino OCIR	2.92	73.60	
+23	5/4 HC Pavmg	3.34	73.18	
+56		3.2	73.3	
+73		5.6	70.9	
2+0		5.9	70.6	
+50		5.5	71.0	
3+0		4.8	71.7	
+50		4.0	72.5	
4+0	AL 36' H	2.82	74.20	on Stake
+50		0.9	75.6	

TP	10.78	76.52	86.17	1.13	75.39
5+0				9.6	76.6
+50				8.5	77.7
6+0				8.1	78.1
+50	Return 1703/5			8.0	78.2
"	14 RT of L			10.9	75.3
"	35 RT " "			14.1	72.1
7+0				8.0	78.2
+15				6.1	80.1
+20				8.4	77.8
+45				7.9	78.3
+70				4.5	81.7
79042				2.27	83.80
8+12	Bliss			1.53	84.64
7+9042	8.60	92.40		83.80	on Stake Δ
8+00	±			8.4	84.0
"	4' RT			8.4	84.0
"	11' R.			13.8	78.6
+39	4' RT Power Pole				

Oct 21-46
S. J. 2007
McCoy Allen
45

10/29/46
McCoy
Allen

"F"				
8+50	±	(92.40)	7.6	84.8 ✓
9+00	±		6.8	85.6 ✓
"	3' RT		7.0	85.4 ✓
"	13' RT		11.5	80.9 ✓
+50	±		6.0	86.4 ✓
10+00	±		4.7	87.7 ✓
"	3' RT		5.2	87.2 ✓
"	11' RT		10.6	81.8 ✓
+50	±		4.0	88.4 ✓
11+00	±		3.1	89.3 ✓
"	3' RT		3.2	89.2 ✓
"	15' RT		5.3	87.1 ✓
"	21' RT		12.9	80.0 ✓
+17	2.6' RT	Power Pole		
+50	±		2.3	90.1 ✓
TP	9.02	(101.22)	0.20	(92.20) ✓
12+00	±		10.5	90.7 ✓
"	2' RT		10.7	90.5 ✓
"	5' RT		11.7	89.5 ✓
+50			9.9	91.3 ✓



13+00	±	(101.22)	9.5	91.7	✓
"	5' RT		11.0	90.2	✓
"	15' RT		11.3	89.9	✓
+50			7.5	93.7	✓
+97	2.5' RT	Power Pole			
14+00			7.6	93.6	✓
"	3' LT		6.5	94.7	✓
"	3' RT		8.9	92.3	✓
"	20' RT		9.2	92.0	✓
+50	±		5.9	95.3	✓
15+00	±		5.4	95.8	✓
"	5' Lt.		4.1	97.1	✓
"	5' RT		7.4	93.8	✓
"	20' RT		6.4	94.8	✓
+04	5' RT	30' Cor. I. Pipe Cattle ±	8.33	92.89	✓
+06	±	on Top. 30' C.I.P.	5.57	95.65	✓
+50	±		3.5	97.7	✓
TP	8.29	(108.39)	1.12	(100.10)	✓
16+00			9.1	99.3	✓
"	5' RT		9.7	98.7	✓
"	20' RT		10.2	98.2	✓

16+50		(108.39)	8.0	100.4	✓
+78	2.5' RT	Power Pole			
17+00	±		6.6	101.8	✓
"	3' RT		6.3	102.1	✓
"	8' RT		9.1	99.3	✓
"	20' RT		11.6	96.8	✓
+50	±		6.3	102.1	✓
18+00	±		5.6	102.8	✓
"	4' RT		5.9	102.5	✓
"	6' RT		7.7	100.7	✓
"	20' RT		7.4	101.0	✓
18+17.62			5.09	(103.30)	✓ on 2x2 Hub ± RT.
TP	8.04	(112.09)	4.34	(104.05)	✓ our nail 1404 Lk. in Post.
+50			8.4	103.7	✓
19+0			7.5	104.6	✓
"	4' RT	± Tac Spac	9.1	103.0	✓
"	15' RT		9.5	102.6	✓
+50			6.5	105.6	✓
+56			8.8	103.3	✓
+58	RT	± Ely Power Pole			

Cont Post 153

"F" Line Fairmount Ave.

Sketch Page 43 Revised from Page 45

BM #57	3.25	(76.55)	(73.28)	By Prof. Dr. H.M. Gilbert of Fairmount w/ 10/20/46
0+0	= 368 + 52° R	6.91	69.62	02546
+20		6.6	69.9	✓
"	9 R/0/2	6.9	69.6	✓
"	4 R " "	13.9	62.6	✓
+30		6.7	69.8	✓
+38		8.8	67.1	✓
+47		8.6	67.9	✓
+60		3.8	72.1	✓
+70	= 1/4 AC. Pav 109	3.42	73.11	✓
+94	= Approx " "	2.91	73.62	✓
+117	= 5/4 AC. " "	3.32	73.21	✓
+45		2.9	73.6	✓
+60		5.4	71.1	✓
+70		5.8	70.7	✓
"	8 R/0/2	2.8	73.7	✓
"	18 " " "	7.2	69.3	✓
"	26 " " "	11.2	65.2	Bottom Ditch
+50		4.1	72.4	✓
+40		4.3	72.4	✓

(76.55)

3+0	6 R/0/2	1.6	74.9	✓
"	16 R " "	8.6	67.9	Bottom Ditch
+36		4.0	72.5	✓
+71.75	A 11° 54' Lt.	0.80	75.7	on Stake
"	6 Lt/0/2	2.9	73.6	✓
"	7 R " " Top Bank	3.3	73.2	✓
"	12 " " "	7.6	68.9	Bottom Ditch
4+0		1.2	75.3	✓
+10		1.9	74.6	✓
+50		0.7	75.8	✓
TP	9.98	(85.86)	0.65	(75.88)
5+0		9.1	76.8	✓
+50		8.4	77.5	✓
6+0		8.0	77.9	✓
+50		7.3	78.6	✓
+90		5.3	80.6	✓
+93		7.6	78.3	✓
7+28		7.3	78.6	✓
+39		3.2	82.7	✓
+46.30	A 20° 18' R	2.89	82.97	on Stake
77.50 + 2.5		1.22	84.64	on Stake
For Check			84.64	8412845

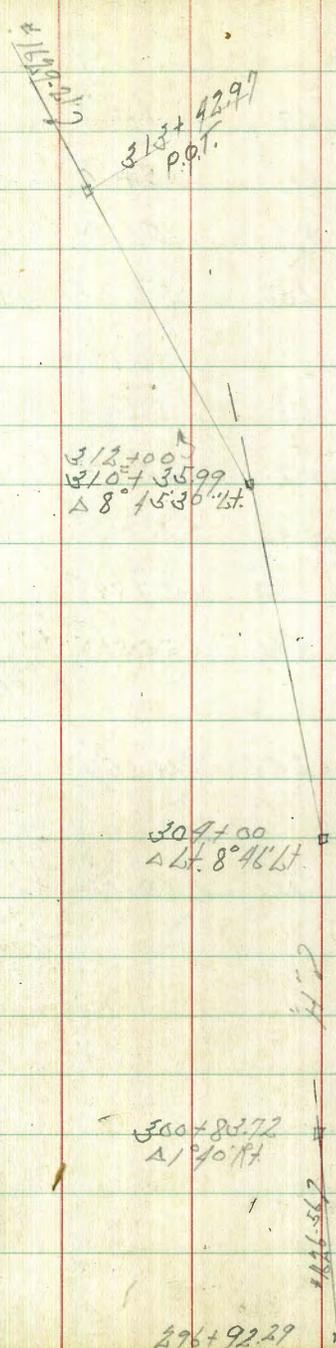
Oct. 29. 46

S. 1805
McCoy
Haddel
11/10

43

Proposed Server Mission Valley Trunk
"H Line"

B.M.	4.62	<55.98>	<57.36>	07 Stub 296+92.29 1828-5.4
300+83.72	$\Delta 1^{\circ}40' R$	3.1	<52.57>	07 Stub
301+0		3.4	52.6	✓
+50	3 Wire H Fence	2.4	53.6	✓
302+0		0.9	55.1	✓
TP	11.75	<65.97>	<54.20>	
+50		11.8	54.1	✓
303+0		8.2	57.7	✓
+50		6.4	59.5	✓
304+0	$\Delta 8^{\circ}46' L$	5.10	60.85	07 Stub
+50		6.4	59.5	✓
305+0		10.9	55.0	✓
+50		11.6	54.3	✓
306+0		11.9	54.0	✓
+50		6.7	59.2	✓
307+0		11.7	54.2	✓
TP	7.64	<61.42>	<53.78>	
+50		7.8	53.6	✓
308+0		7.7	53.7	✓
+50		7.7	53.7	✓



Nov. 4-46
Sims
McCoy
Madden
Allen

300+83.72
 $\Delta 1^{\circ}40' R$

296+92.29

		$\langle 61.92 \rangle$		
309 +0		6.9	54.5	✓
+50		6.6	54.8	✓
310 +0		5.2	56.2	✓
+3599	$\Delta 8^{\circ} 45' 30''$	4.07	$\langle 57.35 \rangle$	on Hub
312 +00				
+50		5.8	55.6	✓
313 +0		5.2	56.2	✓
+4297	P.O.T.	5.42	$\langle 56.00 \rangle$	02 Hub
TP	5.90	$\langle 63.79 \rangle$	3.53	$\langle 57.89 \rangle$
For Check		8.25	$\langle 55.54 \rangle$	on Hub 31717687 1689-23 555
TP	9.42	$\langle 70.77 \rangle$	2.44	$\langle 61.35 \rangle$
BY # 48		1.61	$\langle 69.16 \rangle$	Spl 70/104 15-21 312-1004 69.11 *129-8

Proposed Server Mission Valley Trunk
 Camino Del Rio West of Fairmount
 Sketch Page 45

BY #	Dist	8398	7328	Notes
0+0	= 370 x 50 ft	12.55	71.43	90 Hub
+15		119	72.1	
+32		150	69.0	
+35		10.1	73.9	
+47	= 1/4 176 Parings	9.76	74.22	
+65	0.7 "	9.14	74.84	
+84	= 5/4 " "	9.97	74.01	
+93	= Top 36" Water Pipe Conc Top	14.32	69.66	
1+0		10.5	73.5	
+20	= Δ 33° 07' 30" W	12.19	71.49	0.7 Stub
+46	464 to 1/2 Power Pole # 79875	11.4	72.6	
+50		100	74.0	
+50		9.8	74.2	
3+0		8.7	75.3	
+50		7.9	76.1	
4+01		6.9	77.1	
+18	275 ft of 1/2 Power Pole # 79983	6.0	78.0	
+50		5.7	78.3	
+50		4.1	79.9	

8398

Jan. 28-47
 S. McCoy
 M. Allen 52

5+95		1.7	82.3
6+08.35	= 7+50.42 "F"	1.22	92.96

To Page #5 65



EC

Camino Del Rio

S. Camino Del Rio

Water Pipe

Existing Hub
 + 81 ft of pipe

9.9

148+38.5

BC

9.90 Power Pole

144+00 Stub Out

142+58.64
 150+11.90 Fd Stub
 Δ 16° 05' 30"

Proposed Sewer Fairmount H.S.C.

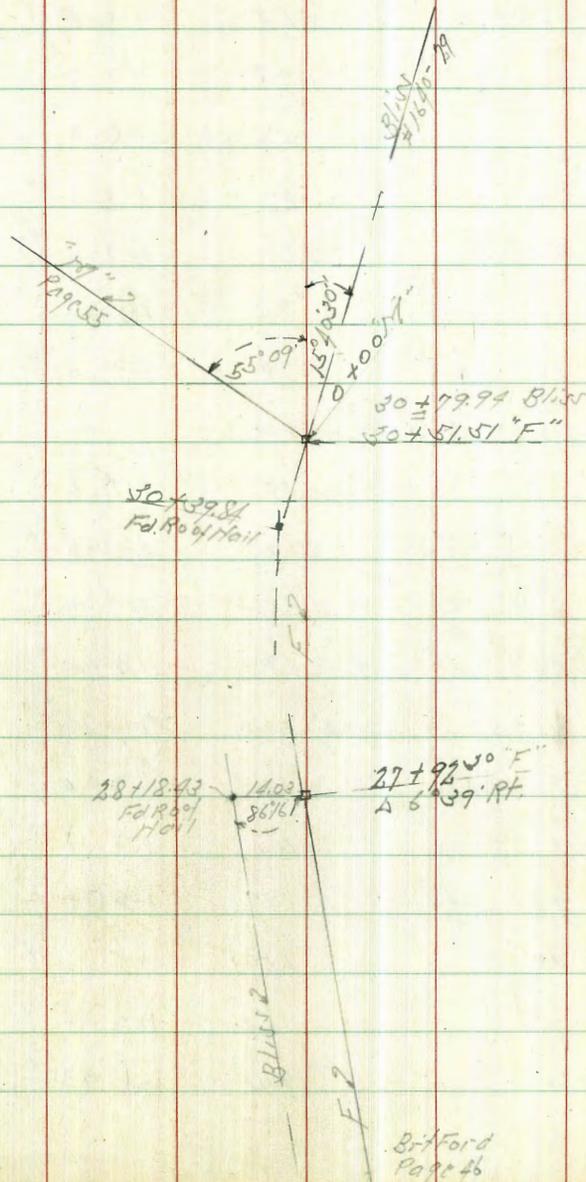
112078 Ford Page 147

20+0	- Top Slope	7.9	104.2	✓
"	15' Lt of 1/2	7.9	104.2	✓
"	4' Lt	5.7	106.4	✓
+50		5.6	106.5	✓
21+0		4.6	107.5	✓
"	3' Rt of 1/2	6.0	106.1	✓
"	15' " "	5.6	106.5	✓
+50		2.1	109.0	✓
+72.65	Δ 7°34'30" Rt	2.40	109.7	on Hand
22+0		4.5	110.6	✓
"	7' Rt of 1/2	1.9	110.2	✓
"	12' " "	4.0	108.1	✓
TP	9.66 (120.85) 0.90 (111.19)			✓
+42	12' Rt of 1/2 Fly Power Pole			
+50		9.2	111.6	✓
23+0		8.4	112.4	✓
"	10' Rt of 1/2	8.9	112.0	✓
"	13' Rt " "	11.1	109.7	✓
+50		7.6	113.2	✓
+78	4' Rt of 1/2 = Outlet 18" Corq. Iron Culvert 6' Concrete Head Wall	10.74	110.11	Floor Level

Feb 26-47

S. J. 5507
M. Collier
H. H. Collier
#1104

53



Bliss Ford
Page 46

"F" Line		120.85	
24+0		59	115.0 ✓
"	3' R 1/2	6.4	114.4 ✓
"	" " " "	7.8	113.0 ✓
+50		4.4	116.4 ✓
25+0		37	117.1 ✓
"	3' R 1/2	3.7	117.1 ✓
"	8 " " "	7.4	113.4 ✓
"	15 " " "	7.9	113.0 ✓
+30	12' R 1/2 = Ely Power Pole		
+50		3.2	117.6 ✓
26+0		1.3	119.5 ✓
"	3' R 1/2	1.5	119.4 ✓
"	12 " " "	6.8	114.0 ✓
TP	12.59	1.00	119.85
+50		12.4	120.0 ✓
27+0		11.3	121.1 ✓
"	7' R 1/2	10.7	121.7 ✓
"	15 " " "	15.3	117.1 ✓
+50		10.4	122.0 ✓
+92.20 A		9.51	122.93 ✓ 20' Hub

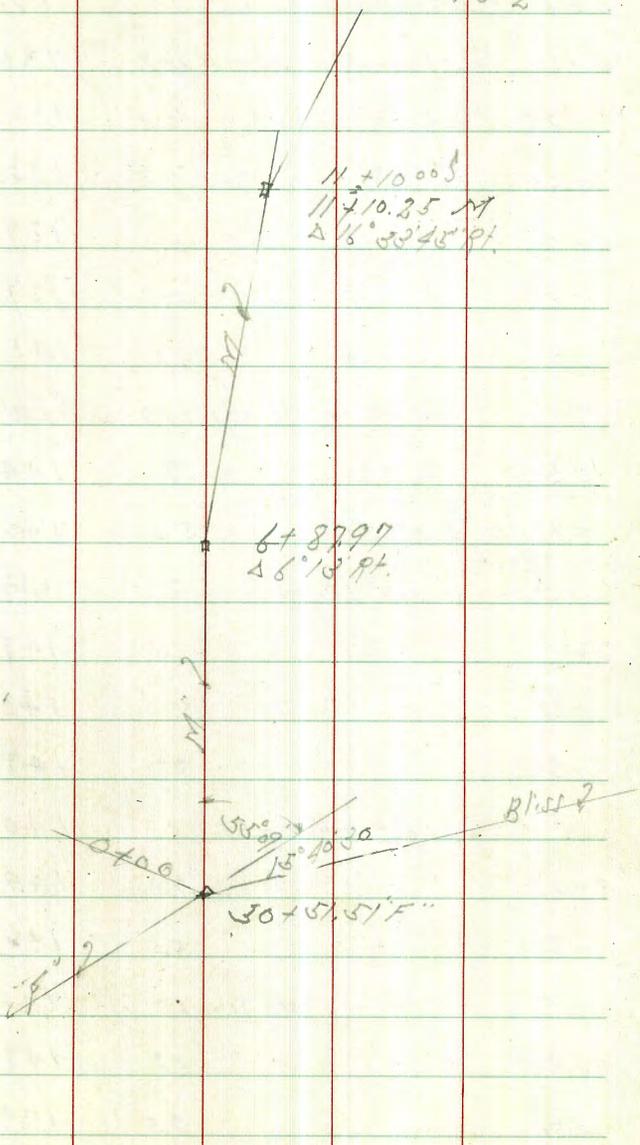
		132.44		51
28+0		9.2	123.2 ✓	
"	4' R 1/2	9.5	122.9 ✓	
"	15 " " "	14.1	118.3 ✓	
+29	6.5' R 1/2 = Ely Power Pole			
+50		7.4	125.0 ✓	
29+0		5.7	126.7 ✓	
"	2' R 1/2	6.0	126.4 ✓	
"	11 " " "	10.6	121.8 ✓	
+50		3.8	128.6 ✓	
30+0		2.3	130.1 ✓	
"	2' R 1/2	1.7	130.7 ✓	
"	20 " " "	10.3	122.1 ✓	
+51.51 A		2.58	129.86 ✓ 20' Hub	
BM #1		3.37	129.07	Checked on H. H. Conc. Hand Hall of Culvert 12899 "1640 38

Proposed Sewer E/Carrito + College Park
Outfall Fairmount Ave. East

BM #	506	(134.05)	(128.99)	Chisel H Hwy Conctn Culvert Fairmount + adjacent	
0+0	= 30.515' F"	4.27	129.78	✓	
+02.4	= H.L. Pav 129	4.10	129.95	✓	
+7.95		2.17	130.88	✓	
+40.2	= E.H. Parking	3.02	131.03	✓	
+50		1.6	132.4	✓	
+57		0.9	133.1	✓	
+68		6.1	128.0	✓	
+88		6.6	127.4	✓	
+99		2.8	131.2	✓	
1+0		3.2	130.8	✓	
+07'		6.5	127.5	✓	
+24		6.8	127.2	✓	
+32		5.1	129.0	✓	
+50		5.2	128.8	✓	
2+0		4.4	129.6	✓	
+50		1.9	132.1	✓	
TP	9.90	(142.10)	0.85	(135.20)	✓
2+0			8.9	134.2	✓
+50			8.0	135.1	✓

Feb 28 1947
S. Sison
McCoy
Wardell
Ellen
W.O. 2

55



142.10

3+81		8.0	135.1	✓
4+0	= Bottom Barrow Pt	11.2	131.9	✓
7+8		10.5	132.6	✓
7+50		7.6	135.5	✓
5+0		5.9	137.2	✓
7+50		5.4	137.7	✓
6+0		12	141.9	✓
TP	10.15	122	141.82	✓
7+50		7.1	144.9	✓
787.97	Δ 6' 13" Pt	5.30	146.67	on Stab
"	7' Lt of L	8.7	143.3	✓
7+0		6.3	145.7	✓
+09		9.0	143.0	✓
+50		8.2	143.8	✓
"	3' Lt of L = Bottom B.P. 1	12.0	140.0	✓
8+0		7.3	144.7	✓
+50		5.3	146.7	✓
+62	= Bottom open Seam	6.0	146.0	✓
9+0		4.2	147.8	✓
7+50		2.5	149.5	✓

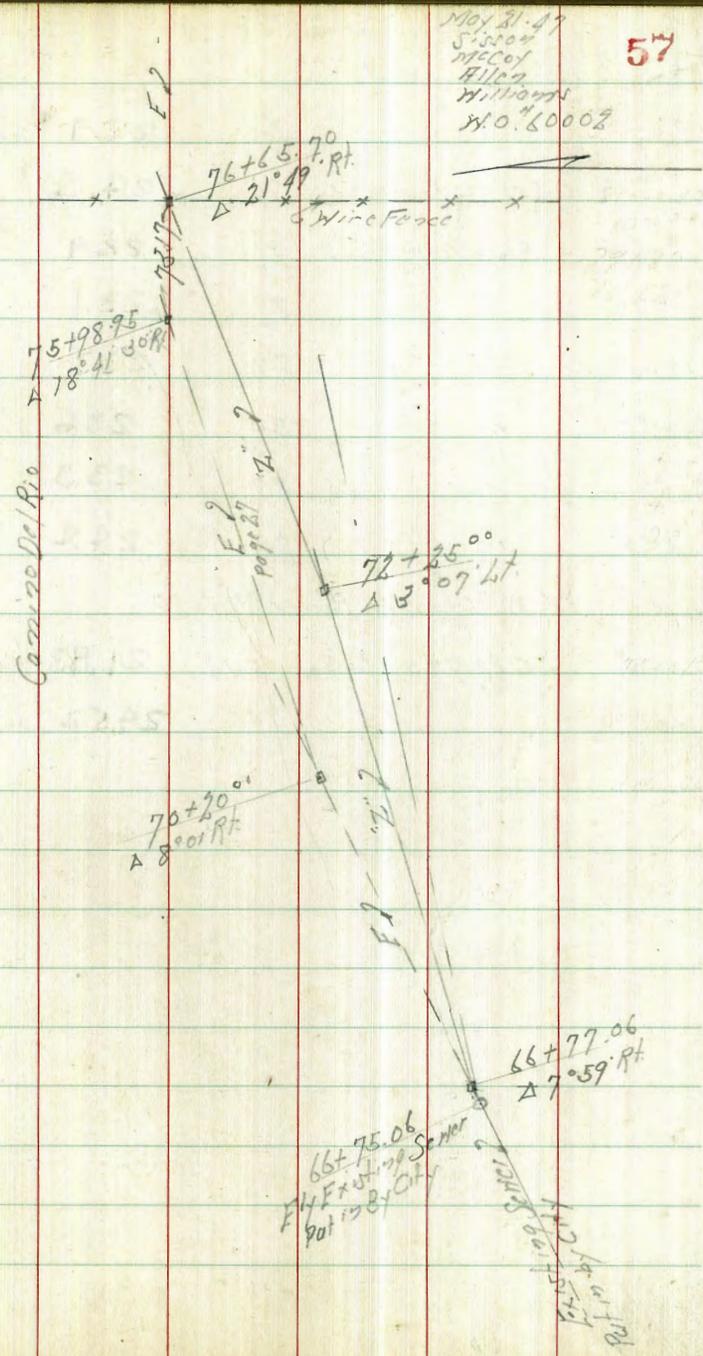
53

151.97

10+0		1.8	150.2	✓
TP	9.54	166	150.31	✓
7+8		7.2	150.6	✓
7+33	= Bottom Mark	8.5	149.3	✓
+50		7.8	150.0	✓
7+61		6.6	151.2	✓
7+90		6.2	151.6	✓
7+92	= Bottom Mark	7.6	150.2	✓
11+02		5.3	152.5	✓
+10.25	Δ 18' 33" 45" Pt	5.21	152.67	on Hub
+10.00	8/151			152.66
				#1640-15

Proposed Sewer Mission Valley Trunk
East of 51st St. Ext South Camino Del Rio
7. Line

RM	600	3196	25.96	1x disc 1200 15' Lt 76+04 1690.67
66+75.06	= FH Existing Sewer	14.60	17.36	top pipe
+77.06	$\Delta 7^{\circ}59' Rt$	9.90	22.06	on Hub
67+0		9.8	22.2	
+50		9.8	22.2	
68+0		9.7	22.3	
+50		9.6	22.4	
69+0		9.1	22.9	
+50		9.4	22.6	
70+0		9.2	22.7	
+50		9.3	22.7	
71+0		9.3	22.7	
+50		9.1	22.9	
72+0		9.2	22.7	
+25.00	$\Delta 3^{\circ}07' Lt$	9.17	22.79	on Hub
+47	Sly Prop. Fill	9.1	22.9	Ground
"	Approx. Finish Grade	7.1	24.9	
73+0		9.2	22.8	
+50		9.1	22.9	
+77	15' Lt of $\frac{1}{2}$ " Sly Anchor Pole			
+91	21' Rt of $\frac{1}{2}$ " Sly Power Pole # 273250			

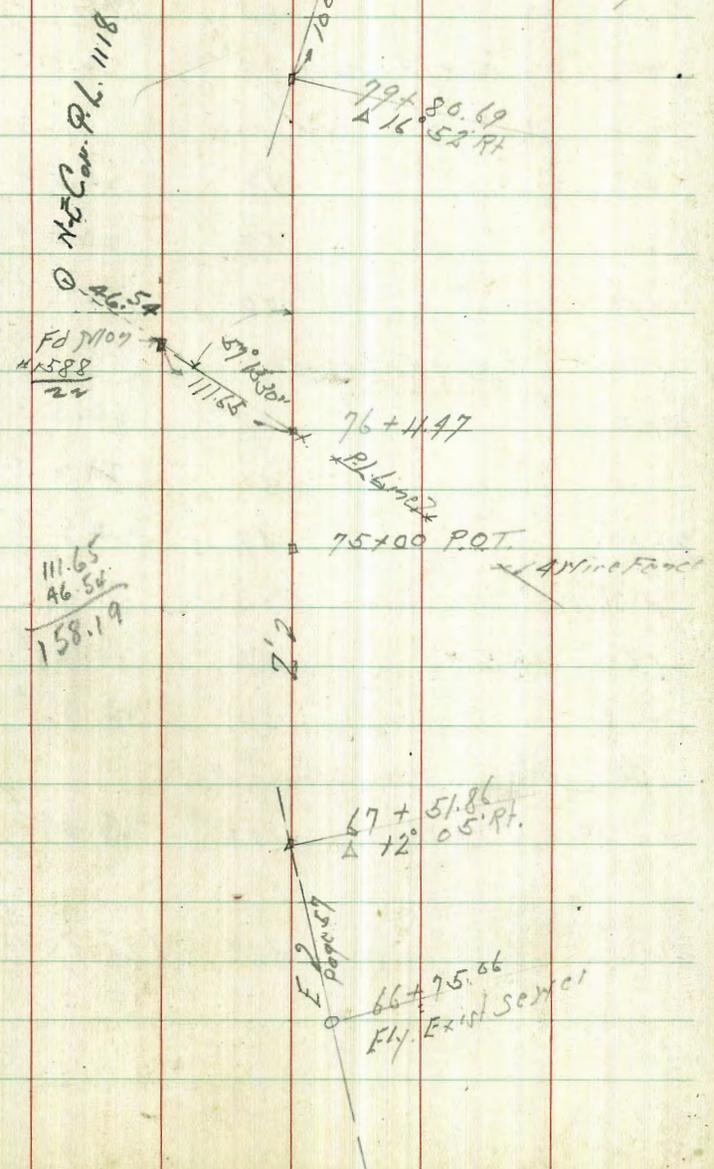


74+0		9.1	22.9	Ground
"	Approx Finish Grade	2.8	24.2	
+14	= Fly Prop. Fill	9.1	22.9	
+50		8.9	23.1	
75+0		8.7	23.3	
+50		8.4	23.6	
76+0		8.7	23.3	
+50		7.6	24.4	
"	6 ft of 2" Fly Prop. or Pole #4687			
+61.2	2.5 ft of 2" Fly Gas 2.5 ft of 2"	10.12	21.83	Top Pipe
+65.70		2.44	24.52	02/466

Line Change Mission Valley Trunk Sewer
 East of 51st St. South of Camino Del Rio.
 2" dia

B.M.	7.56	29.62	22.06	on Hub 66+77.06 P. 9587	
67+0		69	22.7	on 7/1/47	
+50	151.86	12° 05'	7.73	21.89	on Hub
"	108	1/2 of 1/2 S. by AC. Pariap.			
68+0		68	22.8	✓	
+50		66	23.0	✓	
69+0	235	1/2 of 1/2 S. by AC.	68	22.8	✓
+50		71	22.5	✓	
70+0		69	22.7	✓	
+50		70	22.6	✓	
71+0	108	1/2 of 1/2 S. by	69	22.7	✓
+50		68	22.8	✓	
72+0		67	22.9	✓	
+50		68	22.8	✓	
73+0	256	1/2 of 1/2 S. by	65	23.1	✓
+50		67	22.9	✓	
IP	561	(29.23)	600	(23.62)	✓
74+0	481	1/2 of 1/2 S. by AC. B.V.	60	23.2	✓
+50		60	23.2	✓	
75+0		584	(23.39)	on Hub	

June 30 - 47
 S. Wilson
 McCay
 Williams
 N.O. 60002



29.23

75+50		5.7	23.5	✓
76+0		5.5	23.7	✓
+11.5	= 4' Wire Fence NWS	4.4	24.8	✓
+40	9' ht off: 4 Cable Dead Man to Herby			
+50		4.9	24.3	✓
77+0		4.7	24.5	✓
+50		5.0	24.2	✓
+81	= 5' Wire Fence NWS			
78+0		4.9	24.3	✓
+50		5.0	24.2	✓
79+0		4.7	24.5	✓
+36	= 4' Wire Fence NWS			
+50		4.2	25.0	✓
+58	5' ft = Sump	5.9	23.3	✓
+66	= Horse 7' Wire Fence E + W			
+80.69	16' 52" ft	3.98	25.25	✓ post
B.M.		3.29	25.94	✓

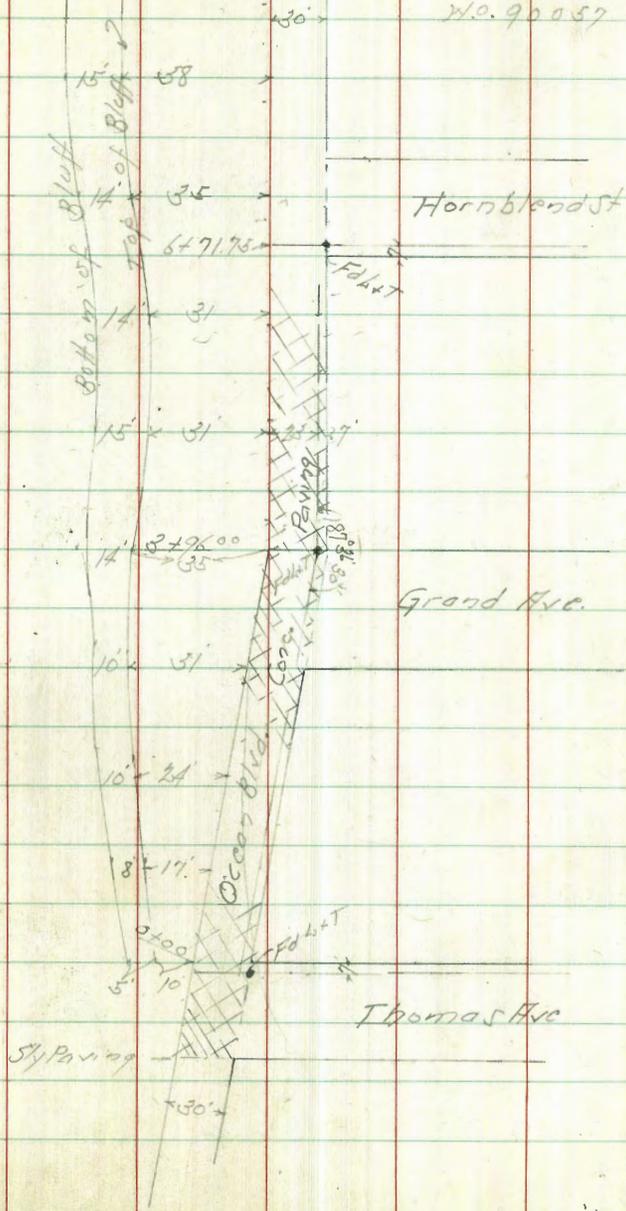
BY DISC
15 11 76+0#
2596

Location of Bluff West of Ocean Blvd.
 Thomas Ave to Feldspar St.
 Pacific Beach

	Bottom of Bluff 16 ft of	Top of Bluff w. Ocean Blvd
8+0	53	38
7+0	49	35
6+0	45	31
5+0	46	31
3+96.00	49	35
3+0	41	31
2+0	34	24
1+0	25	17
0+00	15	10

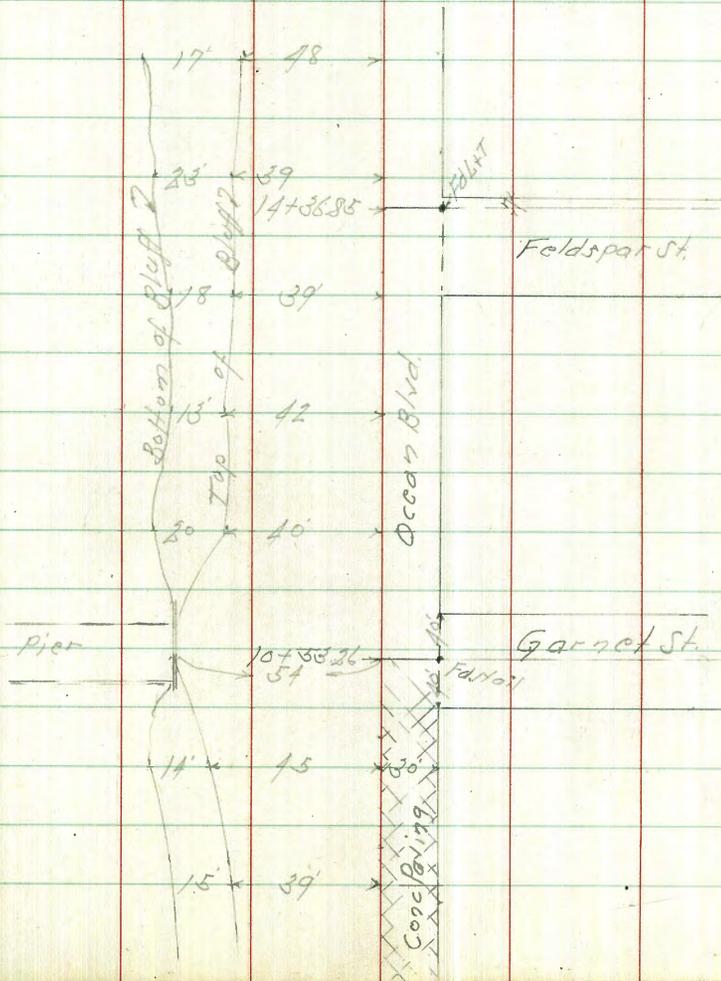
Indexed
 C.S.K.

July 29, 1961
 S. Wason
 McCay
 Hillon
 No. 90057



Bottom of Bluff West of Ocean Blvd
Top of Bluff Ocean Blvd

14+36.85	65	48	38. Ely Ramp 38. Wly Ramp
14+0	62	39	
13+0	57	39	
12+0	55	42	
11+23	66	40	
10+53.26		54	54. Ball of Head Bluff
9+91 = 51+81.69	59	45	
9+0	54	39	



Survey Ocean Blvd North of Pacific Ave.
 Tie Base line Mean High Tide Also
 Mission Beach Sea Wall

Aug. 5-17

Sisson

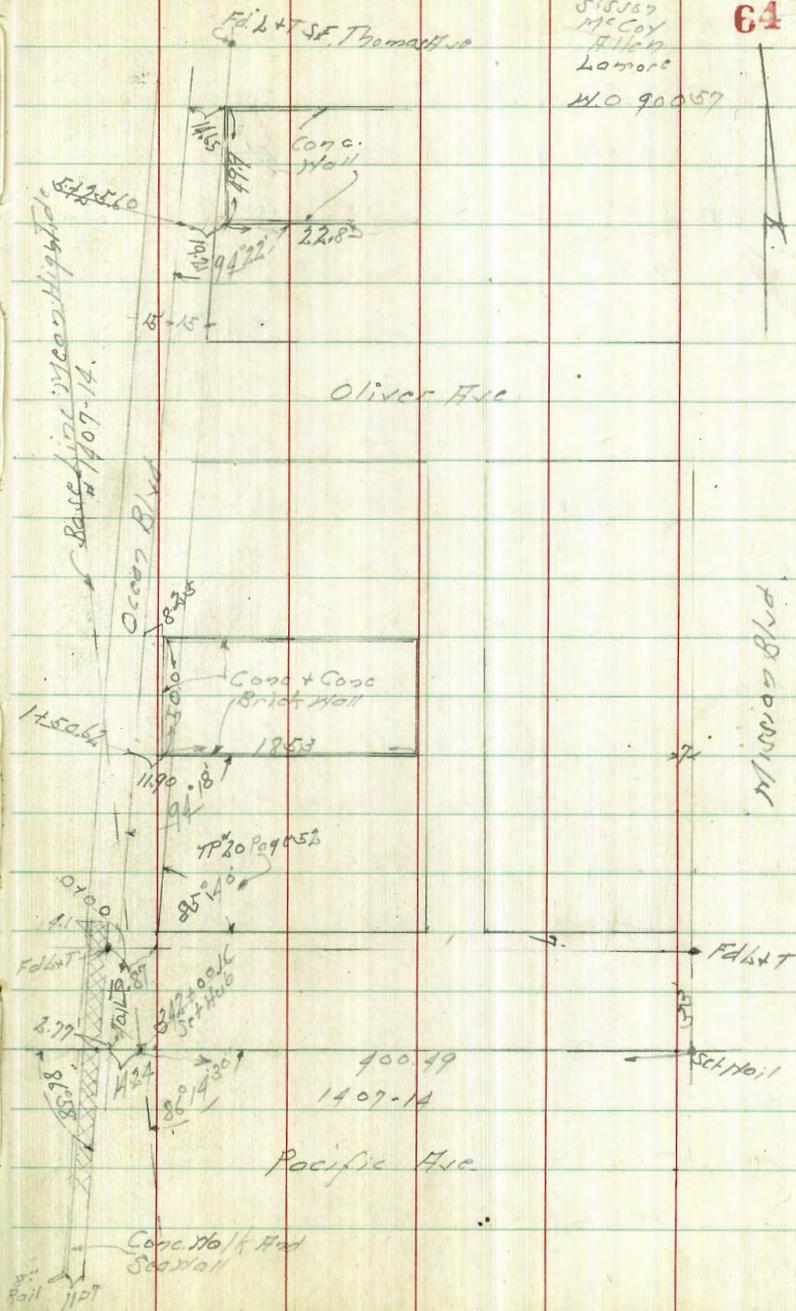
McCoy

Allen

Lamore

W.O. 90057

64

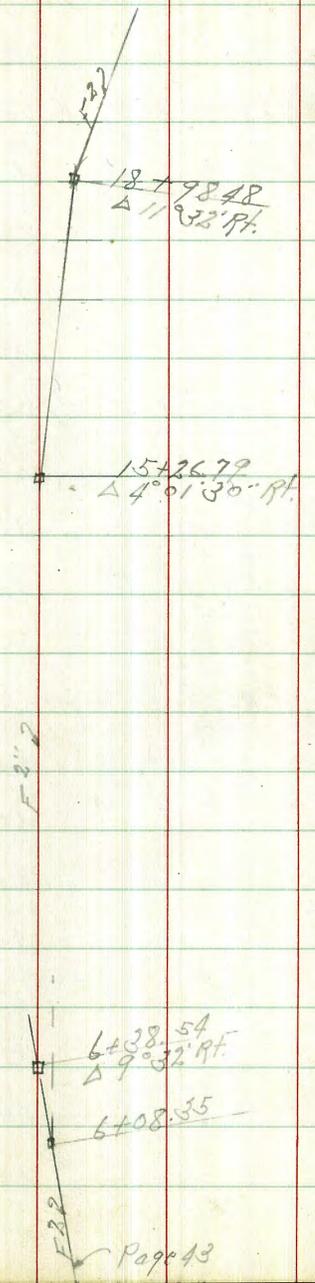


Proposed Sexter Fairmount Arc And
Montezuma Canyon F2 Line Cont

BM #57	8.84	(82.12)	73.28	Chico A Wood So. Hill Culvert West Fairmount
TP	9.81	(90.71)	1.22	(80.90) ✓ 95147m
6+48.54	A 9°32' Rt	6.95	(83.76)	02466
+97	85 Rt of 1/2 - Fly Power Pole #		79984	
7+0		5.8	84.9	✓
"	15 Rt of 1/2 - Top Slope	11.8	78.9	✓
+50		4.8	85.9	✓
8+0		3.9	86.8	✓
+50		3.0	87.7	✓
9+0		2.1	88.6	✓
+50		1.2	89.5	✓
TP	9.61	(99.66)	0.66	(90.05) ✓
+76	7.5 Rt of 1/2 - Fly Power Pole # None			
10+0		9.4	90.3	✓
"	15 Rt of 1/2	12.2	87.5	✓
+50		8.6	91.1	✓
11+0		7.7	92.0	✓
+50		7.0	92.7	✓
12+0		5.2	93.9	✓
"	15 Rt of 1/2	8.8	90.9	✓

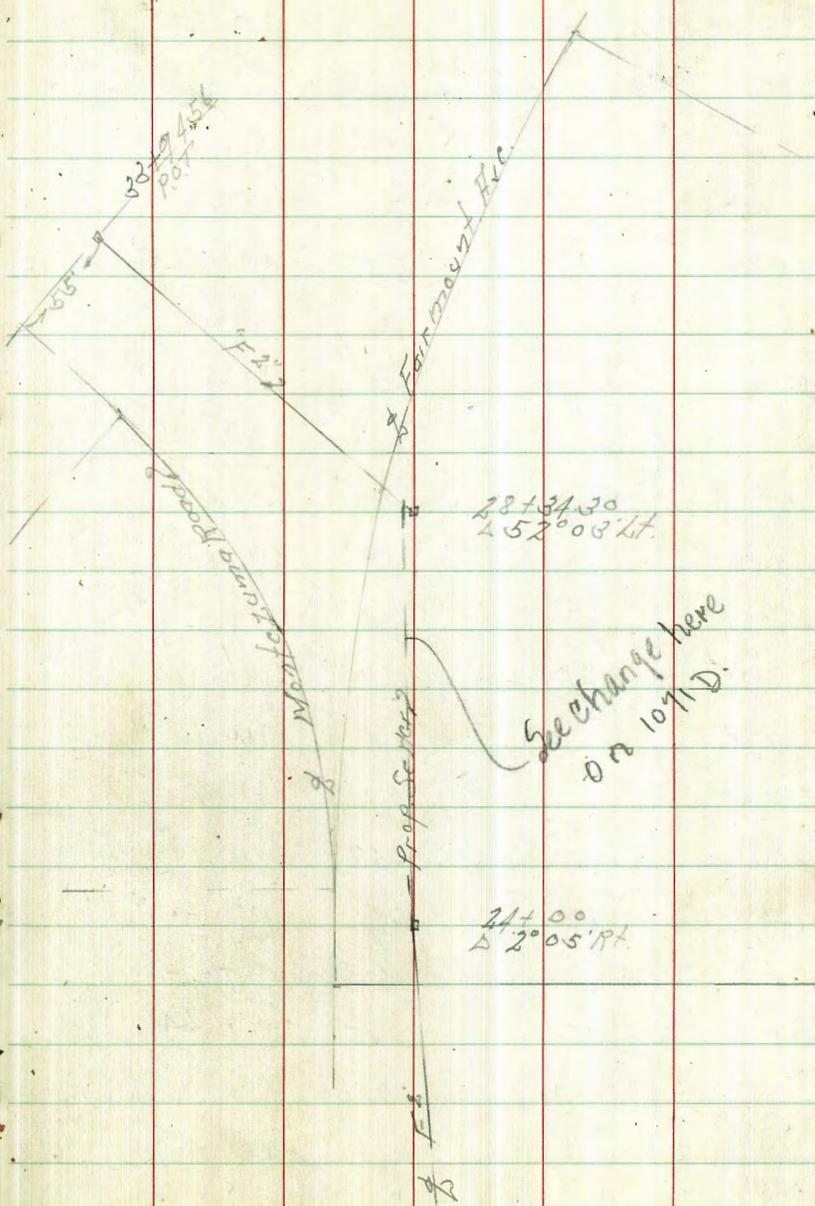
97.00
6+38.54
58

Aug. 27-47
H. O. 60002
McCoy
Allen

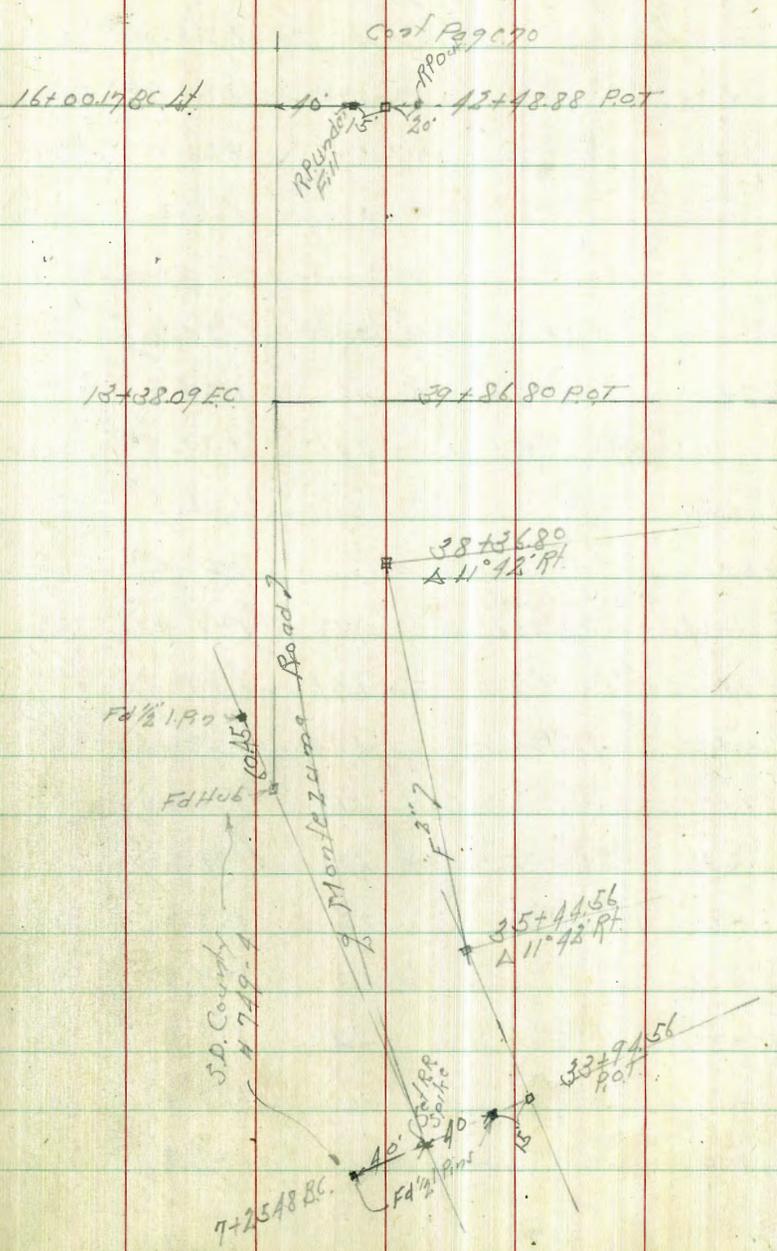


[9966]

12+50		51	94.6	✓
+56	72 Rt of $\frac{1}{2}$ = Fly Power Pole #79986			
13+0		41	95.6	✓
+50		28	96.9	✓
+67	11.3 Rt of $\frac{1}{2}$ = Outlet 6.72		(92.94)	30' Cor. 19.5 ft. on Flow Line
14+0		19	97.8	✓
IP	8.39	(107.78)	0.27	(99.39)
+50		86	99.2	✓
15+0		75	100.3	✓
+26.79	$\Delta 1^{\circ} 01' 30''$ Rt	6.84	(100.94)	0.2 Hus
"	20 Rt of $\frac{1}{2}$	10.8	97.0	✓
+37	66 Rt of $\frac{1}{2}$ = Fly Power Pole #79987			
+50		62	101.6	✓
16+0		60	101.8	✓
+50		6.3	101.5	✓
17+0		4.5	103.3	✓
+50		3.2	104.6	✓
18+0		2.2	105.5	✓
+17	68 Rt of $\frac{1}{2}$ = Fly Power Pole #79988			
+50		1.3	106.5	✓



18+98.48	Δ 11°32' Rt	0.58	(107.20)	07 Hub
TP	9.80	(117.00)	0.58	(107.20) 07 Hub
19+0		9.8	107.2	18+98.48
+50		9.4	107.6	
20+0		8.5	108.5	
+50		7.1	109.9	
21+0		5.8	111.2	
"	45 Rt of 1/2	18.0	99.0	Bottom Main Channel
+04	95 Rt of 1/2 - Fly Power Pole # 79999			
+50		4.9	112.1	
22+0		4.4	112.6	
+37	3' Rt of 1/2 outlet	6.90	(110.10)	18' Corral in 1115' H.W. Floor High
+50		2.4	114.6	
23+0		0.7	116.3	
TP	8.73	(125.06)	0.67	(116.33)
+50		7.7	117.4	
+88	125 Rt of 1/2 - Fly Power Pole # 99990			
24+0	Δ 2°05' Rt	7.42	(117.64)	07 Hub
"	70 Rt of 1/2	19.1	106.0	Bottom Main Channel
+50		5.7	119.4	



(125.06)

25+0		51	120.0 ✓
+50		39	121.2 ✓
26+0		37	121.4 ✓
+50		29	122.2 ✓
+88	46 Rt of 1/2 Fly Pariser Pol # 279464		
TP	11.44 (136.00)	0.50	(124.56) ✓
27+0		116	124.4 ✓
"	50 Rt of 1/2	245	111.5 ✓ Bottom Main Chamber
+50		95	126.5 ✓
28+0		86	127.4 ✓
+21.30	W/y HC Paying A 52° 03' 15"	757	(128.43) ✓ on Hub
BM #1		696	(129.04) ✓ Ch. 11.11 Con. H.W. 138.99
+50	09 HC Paying	634	(129.66) ✓
29+0	" " "	512	(130.88) ✓
+38	= 5 Fly HC Paying	180	(131.20) ✓
+50	- Top Burr	28	133.2 ✓
+71		62	129.7 ✓
30+0		54	130.6 ✓
+85		56	132.4 ✓
+50		82	127.8 ✓

(136.00)

31+0		90	127.0 ✓
+50	1/2 = 11/4 Open Javel	85	127.5 ✓
32+0	" " " "	75	128.5 ✓
+82	" " " "	73	128.7 ✓
+50		42	131.7 ✓
TP	12.47 (146.91)	1.56	(134.44) ✓
+75		111	135.8 ✓
33+0		103	136.6 ✓
+50		75	139.4 ✓
+75		63	140.6 ✓
+85		39	143.0 ✓
+94.56	POT	5.86	(141.05) ✓ on Hub
34+0		63	140.6 ✓
"	21 Rt of 1/2	86	138.3 ✓
"	27 Rt of 1/2	135	133.4 ✓ Bottom Gorrans Pit
+15		62	140.7 ✓
+30		42	142.7 ✓
+50		38	143.1 ✓
+54		13	140.6 ✓
+85		64	140.5 ✓

"F2"

146.91 ✓

34+90		21	144.8 ✓
35+0		16	145.3 ✓
TP	8.80	141	145.50 ✓
+25		8.2	146.1 ✓
+31		5.2	149.1 ✓
+14.56	A 11°42' P1	5.37	148.93 ✓ on Hub
"	28 R1 of 2	15.4	138.9 ✓ So. Hom Borroff P1
+50		4.9	149.4 ✓
36+0		4.2	150.1 ✓
+16		9.2	145.1 ✓
+50		7.6	146.7 ✓
37+0		5.4	148.9 ✓
+50		5.2	149.1 ✓
38+0		5.1	149.2 ✓
+35.80	A 11°42' P1	5.58	148.71 ✓ on Hub
"	30 R1 of 2 =	5.2	149.1 ✓
TP	12.71	5.58	148.77 ✓ on Hub 38+35.80
+50		12.5	148.9 ✓
39+0		11.0	150.4 ✓
+50		9.0	152.4 ✓
+88		6.5	154.9 ✓

161.43 ✓

Sept 8 '47
S. 1800
McCoy
7/11/47
Zamorra

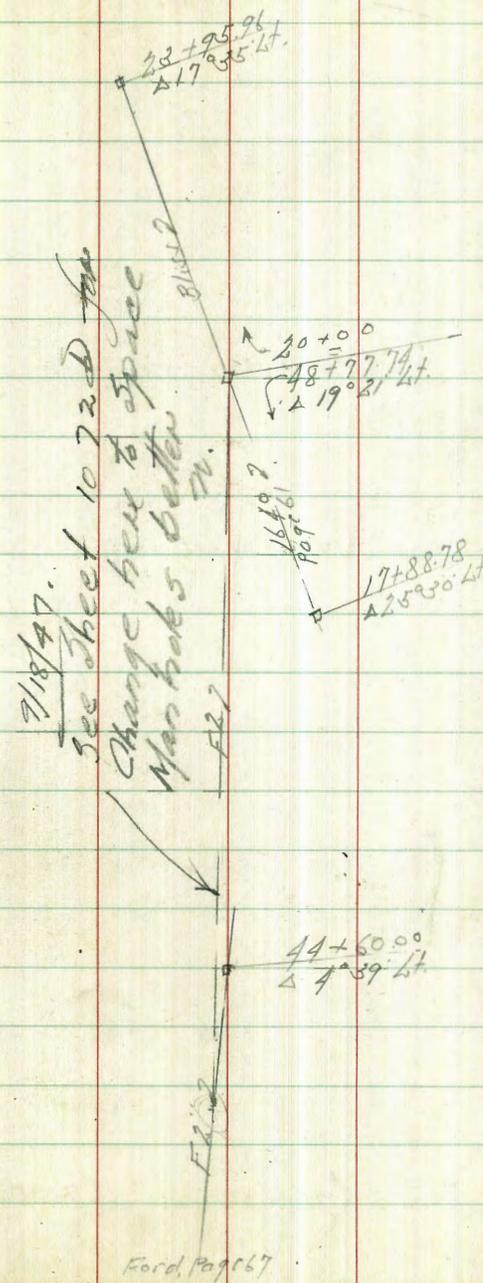
69

40+0		7.4	154.0 ✓
+50		7.4	154.0 ✓
+63		6.1	155.3 ✓
41+0		5.3	156.1 ✓
"	35 R1	6.5	155.1 ✓
+50		4.4	157.0 ✓
42+0		2.3	159.1 ✓
+50		1.3	160.1 ✓
TP	12.78	0.61	160.82 ✓
43+0		12.6	161.0 ✓
+50		10.4	163.2 ✓
44+0		9.5	164.1 ✓
+50		7.1	166.5 ✓
+60.00	A 4°39' P1	6.56	167.04 ✓ on Hub
45+0		3.3	170.3 ✓
TP	8.12	0.63	172.97 ✓
+50		3.1	173.0 ✓
+75		2.2	173.9 ✓
46+0		3.8	172.3 ✓
+50		6.1	170.0 ✓

<176.09>

46+75		4.5	171.6	✓
+85		5.0	171.1	✓
+90		6.5	169.6	✓
47+0		6.5	169.6	✓
+50		4.1	172.0	✓
+70		3.5	172.8	✓
48+0		2.5	173.6	✓
+50		1.5	174.6	✓
TP	5.14	<179.62>	191	<174.18>
+77.71	Δ 19° 21' Lt	4.34	175.28	07 Hub
20+00 ?				

TP	3.34	<175.84>	710	<172.53>
BY		5.47	<170.39>	07 Hub 177.88.78 170.33 1640.66



Levels Proposed Sewer Mission Valley East R² Line
of Ward Road. Sketch Page 42

Sept. 4-47
S. J. 5007
McCoy
Hill
La more

Lt. H

Z

R1-5

71

343+36

60.4	61.4	60.4	56.6	56.9	58.8	68.81
158	148	156	19.4	19.1	17.19	7.20
25	15	5		11	18.8	18.8 = Top Wall

343+25.4 = Z Culvert Prod taken on line of Culvert

56.2	56.8	58.0A	62.50
19.8	19.7	17.09	13.51
	15	23.9	14.2 = SH on Bottom

343+25 = opp King Hall 27.7

56.6	54.9	56.2	64.5	70.9
19.4	26.1	19.8	11.7	5.1
30	22 = FH + Bot.	Bottom	Top of King Hall	31

343+11

54.6	59.5	59.9	63.0	70.4	70.0
21.4	16.5	16.1	13.0	5.6	6.0
10	2		15	2.5	

343+0

59.3	60.0	62.4	64.8	70.4	70.0
15.7	16.0	13.6	11.2	5.8	6.0
2.5	11	9		10	2.5

343+83

66.0	69.4	69.5	69.3
10.0	6.6	6.5	6.7
15	4		2.5

BM 5.57

(76.0)

(70.50)

27 Stab
343+76.97
343+86.13
Page 43

76.01

343+76.97 Δ 45°51'30" Lt. Take 90° off Boat

343+67

343+60

343+50 - opp Wing Wall of Rt

343+46

343+43

76.01

70.6'
~~5.4~~
25

70.5'
~~5.5~~
25

71.6'
~~1.1~~
14

70.5'
~~5.5~~
23

66.3'
~~9.7~~
22

67.4'
~~8.6~~
17

69.8'
~~6.2~~
22

69.7'
~~6.2~~
15

72.0'
~~4.0~~
22

63.7'
~~13.3~~
22

62.3'
~~12.7~~
17

64.1'
~~11.9~~
10

66.3'
~~9.7~~
22

67.2'
~~8.8~~
9

68.1'
~~7.9~~
15

71.6'
~~4.4~~
22

61.6'
~~14.4~~
25

62.1'
~~13.9~~
16

60.5'
~~15.5~~
10

63.1'
~~12.9~~
22

64.6'
~~11.6~~
22

71.9'
~~4.1~~
23

H.C. of Wing Wall

61.8'
~~14.2~~
25

62.0'
~~14.0~~
15

63.1'
~~12.9~~
22

59.4'
~~16.6~~
2

58.5'
~~17.5~~
2

67.0'
~~8.97~~
23

71.5'
~~4.5~~
23

H.C. of Wing Wall
H.C. of Top of Wing Wall

61.0'
~~15.0~~
25

61.0'
~~15.0~~
18

62.2'
~~13.8~~
13

63.1'
~~12.9~~
3

63.9'
~~12.1~~
2

59.0'
~~19.0~~
4

57.2'
~~18.9~~
11

58.95'
~~17.06~~
11

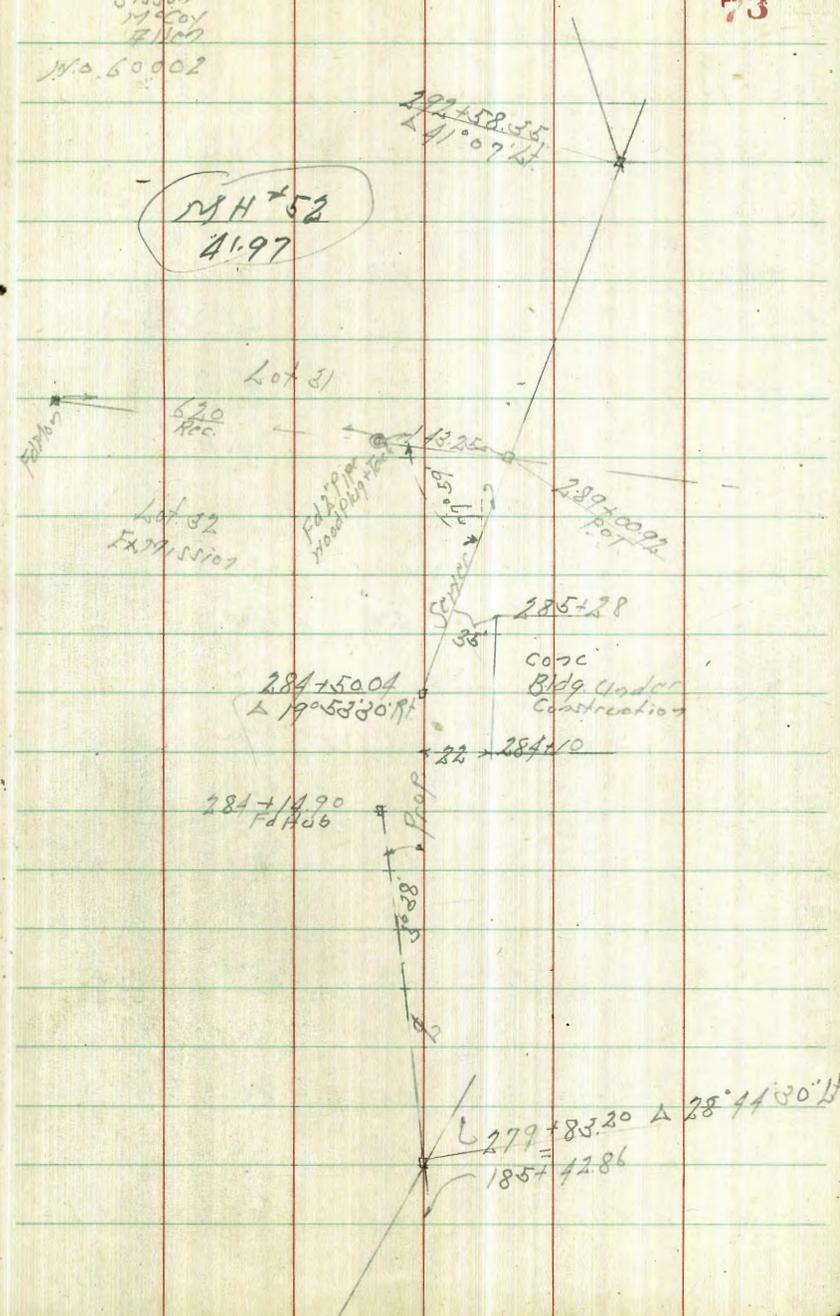
H.C. of Bottom

76.01

Levels Proposed Sewer Line Change MISSISSAUGA
 Valley Trunk Sta. 278+ to 300+

Station	Proposed	Existing	Notes
277+45	2.52	56.90	
185±12.86			
279+83.20	8.40	48.50	on street
280+0	8.7	48.2	
+50	8.7	48.2	
280	2 Wire Cross Fences		
281+0	7.9	49.0	
+50	7.6	49.3	
282+0	7.1	49.8	
+50	6.3	50.6	
283+0	5.8	51.1	
+50	5.0	51.9	
285	2 Wire Cross Fences		
+70	4.6	52.3	
284+0	5.6	51.3	
+50.04	6.50	50.40	on street
+71	6.3	50.6	
+75	4.9	52.0	
285+0	4.9	52.0	
+50	4.4	52.5	
+78	4.1	52.8	
+78	3 Wire Cross Fences		

Oct 10-17
 S. 5500
 M. 500
 #11107
 No. 60002



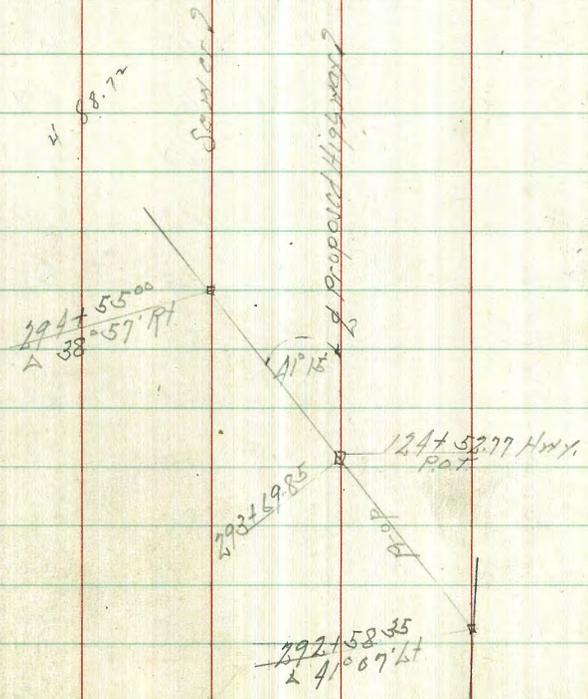
(5690)

285+93 = 3' Wire Cross Fence	59	51.0	
+95	51	51.8	
286+0	56	51.3	
+50	6.8	50.1	
287+0	73	49.6	
+50	72	49.7	
288+0	69	50.0	
TP 124 (5627)	687	(50.03)	
+50	60	50.3	
289+0	37	52.6	
+66 = Wire Cross Fence			
+50	36	52.7	
290+0	32	53.1	
+50	31	53.2	
291+0	40	52.3	
+50	49	51.4	
County #13 8th	495	(51.37)	Iron Pin 291+93.7 Pt. 57.41
292+0	55	50.8	
+15	55	50.8	
+58.85 A 41°07' H	3.42	52.85	0.25/46

74

300+83.72
POT

299+13.72
A 27°12'30" Pt.



Location Conc. Culvert
Camino Del Rio west of Fairmount

75

		(56.27)		
293+0		59	50.4	✓
+50		74	48.9	✓
294+0		79	48.4	✓
+43.72	$\Delta 38^{\circ} 52' R$	8.15	48.12	07 Stab
"	12' Lt of S	129	43.4	✓
TP	7.50	(55.62)	48.12	07 Stab 294+43.72
295+0		71	48.5	✓
"	12' Lt of S	118	43.8	✓
+50		6.6	49.0	✓
296+0		6.1	49.5	✓
+50		5.4	50.2	✓
B.M.		4.26	(51.35)	07 old Stab 296+92.21 51.85 1236.54
297+0		4.5	51.1	✓
+50		5.0	50.6	✓
298+0		5.1	50.2	✓
+50		5.9	49.7	✓
299+0		5.4	50.2	✓
+43.72	$\Delta 2^{\circ} 12' 30" R$	4.68	(50.94)	07 Stab
300+0		3.8	51.8	✓
+50		3.6	52.0	✓
+83.72	P&T	3.08	52.54	07 Stab

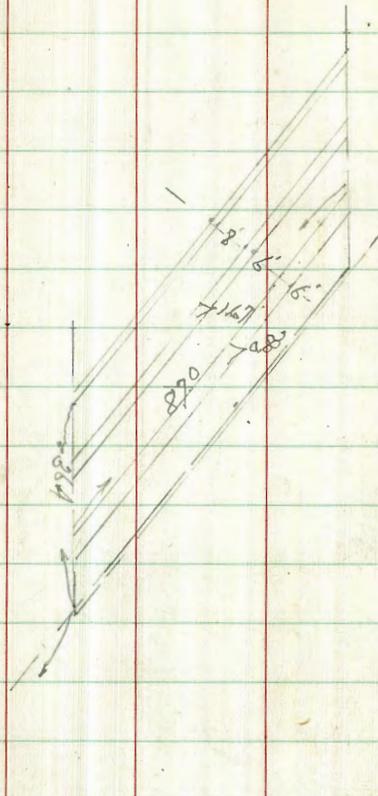
Nov. 12-47

Sisson
McCoy
Hill

368+52' Fall Hub

Prop. Section

357+72



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	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 $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

MADE IN U.S.A.