1649

ENGINEER'S

LEVEL BOOK

No. 4 C.E.

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

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

1649

CITY ENGINEER

Walker-π
Hardin
Wint=Rod
10-27-42

BENCH MARKS

From North End Mission Beach Seg Wall and throughy Lapolla to Scripps Institute of Oly end of Lapolla Shores

U.S. COAST & GEODETIC DATUM

	0.645	16.650		16.005
T.P. #1	8.733	19.381	6.002	10.648
T.P. #2	6.635	20.621	5.395	13.986
T.P. #3	6.563	23.957	3.227	17.394
T.P. #4	7.702	27.977	3.682	20.275
T.P. #5	7.557	32.734	2.800	25.177
T.P. #6	7.701	38.246	2.189	30.545
T.P. #7	7.602	43.853	1.995	36.251
T.P. #8	5.450	46.861	2.442	41.411
T.P. #9	8.728	48.849	6.740	40.121
T.P. #10	9.338	58.033	0.154	48.695
T.P. #11	8.610	66.296	0.347	57.686
T.P. #12	7.843	72.059	2.080	64.216
T.P. #13	7.700	77.640	2.119	69.940
T.P. #14	8.787	84.162	2.265	75.375
T.P. #15	9.568	90.918	2.812	81.350
T.P. #16	9.553	98.018	2.453	88.465

Cont. P 3

Indexed
C.S.K.

Brass Plug in Top Sea Wall Mand Mission Beach.
on Peg
Brass Plug NE Cor Thomas & Ocean Blvd.
Nail in & Paving 50' N of Grand Ave "
" " " Ocean Blvd & Hornblend
Brass Plug NE Cor Garnet & Ocean Blvd
7 Line Felspar & 5 Line " "
Ld & CT NE Cor Felspar & " "
Brass Plug NE. Diamond & " "
" " ~~SE.~~ S.W. " Mission Blvd.
Nail SW Missouri & " "
Brass Plg. NE. Chalcedony " "
" " NE. Law & " "
" " NE. Beryl " " "
" " NE Wilbur & " "
" " NW Loring & " "
" " NW. Opal & " "

		98.018	Cont. from P-2	
T.P. #17	12.045	108.790	1.273	96.745
T.P. #18	10.002	117.712	1.080	107.710
T.P. #19	1.010	116.360	2.362	115.350
T.P. #20	2.843	106.223	12.980	103.380
T.P. #21	0.550	102.943	3.830	102.393
T.P. #22	1.302	91.272	12.273	89.970
T.P. #23	4.068	85.220	10.120	81.152
T.P. #24	4.018	83.493	5.745	79.475
T.P. #25	8.810	87.456	4.847	78.646
T.P. #26	2.689	89.965	0.180	87.276
T.P. #27	3.843	86.718	7.090	82.875
T.P. #28	4.875	85.920	5.673	81.045
T.P. #29	5.507	88.080	3.347	82.573
T.P. #30	5.365	89.625	3.820	84.260
T.P. #31	6.763	92.318	4.070	85.555
T.P. #32	5.760	94.068	4.010	88.308
T.P. #33	2.150	90.866	5.352	88.716
T.P. #34	0.977	86.073	5.770	85.096
T.P. #35	6.565	88.833	3.805	82.268
T.P. #36	5.782	91.425	3.190	85.643

Cont. P-4

Nail in W side Pav. joint Tourmaline & Mission Blvd.

Brass Plug NW. Cor Sapphire " "

" " NW. Mon. Turquoise " "

on Peg 10' N NL " 500± West " "

Brass Disk USC&G. Marked "D61" 1927 — NW. Cor Abutment S.D.E.RR. Bridge over Turquoise 800' West of Mission Blvd. Pg 33

99.423 = USGS.
2.891
102.314 0.021 diff.

on Peg ff Bank 100' W overpass

Brass Plg. in cb E.C. on East side Loyola Blvd — Approx 500' West S.D.E. RR overpass of Turquoise "

Peg Near cb 500' North of Above Point

" " 1000 " " " E.C.

Brass Plg. S.W. Columa & Loyola Blvd.

on Peg Wedge Walk Bet. Columa & Forward

Brass Plg. N.E. Cor Midway & Loyola Blvd.

Peg E side Walk 300' NLY Midway st. on "

Brass Plg. SWLY Cor Forward st & Loyola Blvd.

Peg on WL Ledge Walk 400' NLY of Above BM on "

Brass Plg. S.W. Bird Rock Ave & Loyola Blvd.

Peg 500' N of Bird Rock 25' E of cb " "

Brass Plg. on W cb Loyola Blvd Approx 125' S Camino De La Costa

Peg on W side Walk 500' N of Above B.M.

Cont from P. 3

		91.425			
T.P. #37	2.943	92.683	1.685	89.740	St. Top Fire Hydt. Mira Monte & La Jolla Blvd.
T.P. #38	4.888	93.111	4.460	88.223	Peg on E side Walk 400' N Above BM. on "
T.P. #39	6.740	95.524	4.327	88.784	NWLY BP Via Del Norte & La Jolla "
T.P. #40	4.983	97.837	2.670	92.854	on Peg E side of Walk 500' N Above Bm on "
T.P. #41	2.925	93.127	7.635	90.202	" " 500 N Above on Same side
T.P. #42	3.248	91.008	5.367	87.760	NELY BP Palomar & La Jolla Blvd.
T.P. #43	1.327	90.915	1.420	89.588	Peg in SE ly at Fire Hydt. Rosemont " "
T.P. #44	4.188	88.382	6.721	84.194	Brass Plug S.W. Kolmar & " "
T.P. #45	0.690	81.414	7.658	80.724	Brass Plug SE. Graville & " "
T.P. #46	7.770	82.231	6.953	74.461	Bolt Hd. Top Traffic Wark 300' N on Above BM. "
T.P. #47	9.280	90.568	0.943	81.288	Brass Plg. S.W. Bon Air & La Jolla Blvd.
T.P. #48	3.878	93.299	1.147	89.421	SE. Top Hydt. Nautilus " "
T.P. #49	1.848	89.507	5.640	87.659	Set Nail Plg. N.W. BP Westbourne " "
					Note: old Plg on S.E. " is gone "
T.P. #50	2.662	83.839	8.330	81.177	Temporary on Peg N.E. Fern Glen & La Jolla "
T.P. #51	3.937	82.188	5.588	78.251	Set SE. BP Arenas & " "
					Note. N.W. Old Plg. gone. of Arenas & " "
T.P. #52	4.670	83.775	3.083	79.105	N.W. B.P. Genter & La Jolla Blvd.
T.P. #53	5.612	84.706	4.681	79.094	Nail in E. ob. So of Marine St. on "
T.P. #54	0.655	81.176	4.185	80.521	

Cont. P- 5

Cont. from P. 4

		81.176		USC&G		
TP #55	9.568	85.077	5.667	75.509	✓	Set Brass Plug SELY Cor Pearl & La Solla Blvd.
TP #56	6.367	90.632	0.812	84.265		Peg South Side Pearl in Front Standard Pub Laundry
TP #57	8.032	98.334	0.330	90.302		NELY. Brass Plug Pearl & Cuvier St.
TP #58	7.970	104.281	2.023	96.311		Peg SLY Side Draper 100 N NL Pearl
TP #59	7.421	109.950	1.752	102.529		NELY Top Fire Hydt. Pearl & Draper
TP #60	8.245	113.849	4.346	105.604		Peg WLY Side Pearl 200' N Draper
TP #61	12.222	123.657	2.414	111.435		Set Brass Plg. ~~NELY~~ SELY Pearl & Eads
TP #62	5.782	124.744	4.695	118.962		NWLY. Top Fire Hydt. Pearl & Foy St.
TP #63	0.710	125.234	0.220	124.524	✓	SELY Brass Plug Pearl & Girard St. ✓
TP #64	0.677	116.192	9.719	115.515		Nail in Pav. Girard 175' N Pearl
TP #65	1.552	109.393	8.351	107.841		" " in P " 100' W "
TP #66	7.398	111.861	4.930	104.463	95.45	Set Brass Plg. ~~NELY~~ SELY Girard & ~~Cottage~~ Virginia Way
TP #67	8.762	120.443	0.180	111.681		Peg ELY side Torrey Road 150' N colley
TP #69	8.093	126.976	1.560	118.883		" W side curb & 40' North Herschel & Torrey Road
TP #70			2.160	124.816	12 V. 81C 9.01 115.80 CGS	Brass Plg NE. Herschel & Kline old City 115.51
	Cond., Moore 12-31-47.					
BM. RP	9.057	133.873		124.816	✓	" " " " "
TP #71	10.462	142.85	1.487	132.388		

Contd. from P 5

		142.85 ✓		USC&G	
check to Found BM B.P. in Curb			5.39	137.46	
TP #70x	12.319	153.999	6.17	141.68	
T.P. #73	10.889	164.575	0.313	153.686	
check to U.S.G.S. Stan. disk in Con. Post			6.532	158.043	158.043 x.891 155.152
T.P. #74	5.938	169.918	1.595	162.98	
T.P. #75	7.49	176.536	0.87x	169.046	
T.P. #76	1.846	176.280	2.10	174.436	
T.P. #77	1.547	169.302	8.52x	167.755	
check to 7' BM Ld & C.T.			7.767	161.535	
T.P. #78	1.03	162.517	7.815	161.487	

✓

+28.09 = old City Elev.

137.46
9.01
128.45 N'Wly Ivanhoe & Kline

154.99x "1938 H&C 155" U.S.G.S. "S.W. NW Cor. Ivanhoe Ave. East and Torrey Pines Rd in Cor. of Cb. & walk 47'5 of E Ivanhoe East and 1' in from Cb.

161.656 Walker 1930 1423-10 SEly 7' C.T. Torrey Pines Rd & Prospect

Set BM B.P. City Mon. SEly " " " "
on Ely Line Torrey Pines Rd.
2.5' inside Curb, about Flush with Sdw.

City Dat. = 152.21 F.B. 1650 - Lx
3-27-43.

		Contd. from p 6 162.517 ✓			
T.P. #79	0.21	150.477	12.25	150.267	
T.P. #80	0.097	138.004	12.57	137.907	
T.P. #81	0.41	129.196	9.218	128.786	
check to BM BP in Curb			6.37	122.826	
T.P. #82	0.445	119.376	10.265	118.931	
T.P. #83	0.268	106.971	12.673	106.703	
T.P. #84	0.347	98.316	9.00 ±	97.969	
T.P. #85	5.41	98.596	5.13	93.186	
T.P. #86	9.8 ±	104.27	4.146	94.45	
T.P. #87	7.718	111.726	0.26 ±	104.008	

✓✓

1423-10 - 1930
S.W. Top Curb, Torrey Pines Rd & Coast Blvd.

94.665 = 1423-10 - 1930
Ld. & C.T. & Princess St & E.cb Torrey Pines Rd
IN Curb ← NOTE! This curb may have settled some.

		Contd. from P. 7			
		111.726 ✓			
T.P.	Found check to BM.BP Top Curb		6.126	105.60	
T.P.	T.P. #88	3.83	108.271	7.285	104.441
T.P.	T.P. #89	4.038	105.638	6.671	101.60
T.P.	T.P. #90	1.601	100.999	1.601	99.398
T.P.	T.P. #91	0.04	93.549	7.49	93.509
T.P.	T.P. #92	3.704	86.861	9.892	83.157
T.P.	T.P. #93	0.998	77.587	10.998	76.589
T.P.	T.P. #94	0.36	67.431	10.516	67.071
T.P.	Found check to Small B.P. in Sd. Top Curb		3.49	63.941	
T.P.	Found check to U.S.C.S. B.M.		9.683	57.748 ✓	57.748 2.891 54.857
		over			

105.60
9.01
96.59

96.3+ in My BM. Bk.
NWly Cor. Torrey Pines Rd & Viking Way

99.398
9.01
90.388

Rd. BM BP Top Curb 90.11 Elev. in My Field Book BM.
NWly Torrey Pines Rd & Little St.

63.941
9.01
54.931

54.69 Elev. in My BM Book. from
NEly Torrey Pines Rd & Calle de la Plata

54.73
0.127
High

Chiseled Square U.S. 54.7 BM. N edge of manger.
of Torrey Pines Rd & La Jolla Shores Drive.
on Curb at Base of Lamp Post.
21.5' N.Ely from ℄ of Calle de la Plata.

	Contd. from P8			
		47.431		USC&G
T.P. #95				
Set Con. City Mon. B.P.		9.625	57.806	✓
Moore 1-6-43	Cont. Walker Circuit of			10-27-42
	1.56	59.366		57.806 ✓
T.P. #96	0.851	51.167	9.05	50.316 ✓
T.P. #97	2.375	46.762 ~~45.762~~	6.78 ~~7.78~~	44.387 ~~43.387~~ ✓
T.P. #98	0.748	41.60 ~~40.60~~	5.91	40.85 ~~39.85~~ ✓
T.P. #99	1.658	35.073 ~~34.073~~	8.185	33.415 ~~32.415~~
T.P. #100	3.978	29.806 ~~28.806~~	9.245	25.828 ~~24.828~~
T.P. #101	3.65	27.876 ~~26.876~~ ✓	5.58	24.226 ~~23.226~~

Contd P10

213' NEly from ℄ of Calle de La Plata
1' inside of N. curb of Torrey Pines Rd.
2' Swly from U.S. 54.7 B.M. chiseled square
about flush with curb and 2' Swly
from Lamp Post.

B.M. above Con. Mon. B.P.

57.806
1.125
58.931
8.615
50.316
0.90
51.216
6.83
44.386 ✓
0.001

Set B.M.
Ld + C.T. ℄ Ave. de la Playa & WCL La Jolla Shores Dr.

		27.876 ~~26.876~~	Contd. from P. 9	U.S.C.&G.
T.P. #107	4.90	27.033 ~~26.033~~	5.743	22.133 ~~21.133~~
T.P. #103	7.255	30.448 ~~29.448~~	3.84	23.193 ~~22.193~~
T.P. #104	8.035	37.498 ~~36.498~~	0.985	29.463 ~~28.463~~
Set B.M. Chiseled Square			5.67±	31.826 ~~30.826~~
T.P. #105	5.785	40.363 ~~39.363~~	2.9±	34.578 ~~33.578~~
T.P. #106	5.8±	42.727 ~~41.727~~	3.456	36.907 ~~35.907~~
T.P. #107	4.7±	42.965 ~~41.965~~	4.48±	38.245 ~~37.245~~
T.P. #108	7.79	47.925 ~~46.925~~	2.83	40.135 ~~39.135~~
T.P. #109	8.±3	55.043 ~~54.043~~	1.11±	46.813 ~~45.813~~
T.P. #110	2.05±	54.180 ~~53.180~~	2.909	52.134 ~~51.134~~

Cont'd P. 11

Curb La Jolla Shores Drive
on ℄ of Swly Return ℄ Calle de Frescota

52.134
2.891
49.243

49.068 = U.S.G.S. DAT.
Fd. Stand. disk Mkd. U.S.G.S. "H 55 1938"

→ Top Curb Ctr. of Return Swly Cor.
of La Jolla Shores Dr. and
Camino del Collado.

		54.186 ~~53.186~~	Contd from P 10	
T.P. #111	3.65 v	48.31 ~~47.31~~	9.528	44.658 ~~43.658~~
T.P. #112	0.44	46.883 ~~45.883~~	1.867	46.443 ~~45.443~~
T.P. #113	1.9 v	41.938 ~~40.938~~	6.865	40.018 ~~39.018~~
T.P. #114	5.48 v	40.508 ~~39.508~~	6.71 v	35.226 ~~34.226~~
T.P. #115	3.08	38.488	5.10	35.408
T.P. #116	10.988	46.217	3.459	35.229
T.P. #117	7.487	53.797	0.407	45.81
check to	USC&G	Basic	1.179	52.118 ✓
BM. Tidal 3		I think has been destroyed		
" " 4		New Conc. on Top of pier and disk has been covered over.		

✓

32.387 = 1 ST. order leveling

Note! Marked Reset

Fd. Tidal v Stand. disk stamped "2 1925"
Top Conc. wall at W. side of Museum, 15' S of entrance to Basement Scripps Institute

Stand. disk in 1.5 x 1.5 Conc. Mon. stamped USC&G 1929, approx. 200' N of Museum Scripps Institute "Basic B.M."

Transfer of BM.s Walker Circuit of 10-27-42. to Con. Mon.s

				City Dat.	
	6.445	37.556		31.111	40.121 = 9.01 31.111 = City
T.P	7.58	44.668	0.468	37.008	
T.P.	5.65	48.004	2.314	42.354	
Fd. old City Con. Mon			3.924	44.08	From Walker
T.P	5.787	50.384	3.407	44.597	
T.P	5.444	52.198	3.63	46.754	
check to BM.B.P. in curb			3.521	48.677 ✓	

Transfer and check to U.S.G.S. Mission Blvd. & Turquoise

				City Dat.
	3.459	109.799 ✓		106.34
Transfer old City Mon. NW to SW Cor.			6.005	103.794 ✓
check to USBM			4.624	105.175 ✓

Moore 12-22-42. clear

USC&G P.2
BM.B.P. SW Cor. Mission Blvd. & Diamond St

(Position changed) See P. 18

43.952 = old City El. Con. 8' N of S.W. Cor. & W.L. Bayard
BMBP Mon. SW. Bayard & Missouri

57.686 = Walker P.2
9.01
48.676 NE Cor Mission Blvd. & Chalcedony

115.35 = USC&G Walker P.3
9.01
106.34 old City Con. Mon. NW. Mission Blvd. & Turquoise

Re-set BM.B.P. old City Mon. S.W. Cor. 15' W of W.L. Mission Blvd. 1.6' S of S. Curb Turquoise St.

111.20 = USGS
6.119 chisel Square Top S.E. Curb Return
105.081 Mission Blvd. & Turquoise

This curb must be buckling - ?

105.175
105.081
0.094 dif.

See P.3 for dif. on same line.

Transfer of B.M. "Walker Circuit"
of 10-27-xx.
S.W. BM in Curb, La Jolla Blvd. & Columa
to Con. Mon. with B.P. on N.E. Cor. of
La Jolla Blvd. & Columa St.

			City Dat.
	5.173	83.439	78.266
Transfer to Con. Mon.		5.135	78.204 ✓

Transfer B.M. in Curb to Con. Mon.

			City Dat.
	3.929	83.703	79.774
Transfer to City Con. Mon. (B Plug)		4.571	79.132 ✓

Transfer B.M. La Jolla Blvd. and Bonair

	4.14	76.418	72.278
Transfer to City Con. Mon. Same Corner		4.456	71.962 ✓

Moore 12-23-xx clear

87.276 USC&G = Walker P. 3 10-27-xx also 1423-9
9.01
78.266 BM B.P. S.W. Cb. La Jolla Blvd. & Columa St.

B.P. City Con. Mon. N.E. Cor La Jolla Blvd. & Columa St
55' E'ly of ℄ " " " & 17' N'ly ℄ " "
2' inside Curb and 0.10 below Top Curb

88.784 = USC&G Walker Circuit P. 4, See also 1423-9
9.01
79.774 BM B.P. in Curb N.W. La Jolla Blvd. & Via Del Norte

City Con. B.P. Mon. on W'ly Line of La Jolla Blvd. and 45' N'ly from ℄ of Via Del Norte. 1.5 outside of Brick Wall.

81.288 USC&G Walker P. 4. See also 1423-9
9.01
72.278 City SW B.P. in Cb. La Jolla Blvd. and Bonair

Con. BM B.P. Mon. approx. 12' W of W'ly L. La Jolla Blvd. 1.5 S of So. Curb of Bonair St. 3' W'ly of Brass Plug in Curb. 0.2 below Top of Curb

12-23-42.

Transfer and check BM. To Island Pt.

La Jolla Blvd & Bird Rock Ave.

	2.242	81.52		City Data 79.298 ✓
Transfer to	B.P. in City Mon.	2.475	79.045	
T.P.	2.335	~~74.782~~ 77.257	6.598	~~72.447~~ 74.922 ✓
check to	Island Pt. 1887 1933	5.799	71.458	
T.P.	6.211	81.073	2.395	74.862
check to	old B.P. in Curb	1.776	79.297	79.298 (0.001)
check to	B.P. in City Mon	2.049	79.044	79.045 (0.001) ✓

also 14-23-9

88.308 USC&G P.3 Walker 10-27-42

9.01

79.298 BM. B.P. in eb. S.W. La Jolla Blvd & Bird Rock Ave.

Same Cor. approx. mid. La Jolla Blvd. and 1.2 S of S. inside edge of Sdwk. 0.10 below grade of Sdwk

77.393

6.119

71.274 Triangulation Pt. "Island Pt." Stand disk in Con. Post near Bird Rock

0.184 dif.

Moore
12-24-Vw.

Rain
little wind

Transfer Walker B.M. to Con Mon. & check to USGS B.M.

La Jolla Blvd. and Pearl St.

			City Dat.	
Fd. New Brass Plug	2.08	68.579 ✓	66.499	
check to USGS BM		2.43	66.149	
check to 7' Ld. C.T. BM		4.133	64.446	
Transfer to City Con. Mon.		4.893	63.757	

Transfer B.M. S.Ely B.P. in curb to City Con. Mon.

SEly Pearl & Girard Ave.

			City Dat.	
B.P. in Curb 4.87	120.384		115.514	
Set City Con. Mon & B.P.		5.235	115.149	✓

78.509 = USC&G. Walker P. 5 This Book Brass Plug in Curb.
9.01
66.499 SEly Cor. La Jolla Blvd. & Pearl St.

12.09
6.119
65.971 Chisel Square Top Curb, Center Return SEly Cor. La Jolla Blvd & Pearl St.

73.563 = USC&G Walker 1923-9
9.01
64.553 Swly Cor. La Jolla Blvd & Pearl St. on Sidewalk

B.P. City Con. Mon. Nwly Cor. La Jolla Blvd. & Pearl St. 1' Sly & 1' wly of Nwly Cor. on below sdw.

12-28-Vw.

Various other Elevs of This BM.

120.524 = USC&G P. 5
9.01
115.514

City Elev 115.17 ~~115.05~~

S.Ely Cor. of Pearl & Girard Ave

S. Ely Corner Pearl & Girard
5' Sly from Sly Pearl & 2' inside of Ely curb of Girard.
approx. 0.5 below Top cb.

Change of Location & Elev.
of Old City Con. Mon. EB 997.50
SW Bayard & Missouri Sts.

Moore 12-29-44.

			City Dat.		
	4.08	48.16	44.08		
Change Old City Mon.	5.155		43.005	42.88	O.K.
			1650-38	42.88 v.	

From Walker p. 14

Check Levels on Coast Blvd.
Jennen to Girard

				USC&G	
	5.038	49.048		44.01	
T.P.	4.764	50.50	3.31	45.738	
T.P.	6.16	51.955	4.705	45.795	
T.P.	6.773	58.43	0.498	51.657	
Check to BMBP in Curb			2.03	56.40 v	
Set City Con. Mon.			4.115	54.315	

44.08
408
48.16
J 15-5
43.005

Note! See p. 18 This book
Old City Mon. Bayard & Missouri

SW Bayard & Missouri, 1' outside Prop. Cor.
approx. 0.6 deep but 0.25 below St. grade

Curb
1423-10 Walker. NEBP Coast Blvd. & Jennen

USC&G
56.40 SW Coast Blvd & Girard. Walker 1423-10
9.01
47.39 = City = Walker
47.00 = old City Elev.

54.315 NW Cor " " " "
9.01
45.305 Set 1' inside of angle of sidewalk
City
and 0.10 below in City Park Lawn

Moore
1-5-43.

Check Levels from Walker Circuit of USC&G 10-27-1942 See P.H. to USC&G 1ST. Order Leveling. Stand. disk "C L1 1927" at Hi-School Bldg. on Nautilus ST

		↓		USGS DATUM
	7.279	92.058		84.768
T.P #1	10.121	101.468 ~~102.468~~	0.711	91.347 ~~92.347~~
T.P #2	11.315	112.793 ~~113.793~~	0.49	100.978 ~~101.978~~
T.P #3	10.723	121.969 ~~122.969~~	1.047	111.246 ~~112.246~~
T.P #4	10.865	132.159 ~~133.159~~	0.675	121.294 ~~122.294~~
T.P #5	12.85	144.751 ~~145.751~~	0.258	131.901 ~~132.901~~
T.P #6	6.841	150.683 ~~151.683~~	0.909	143.842 ~~144.842~~
		↓		
check to USC&G			1.505	149.178

Cont'd. P. 20

See F.B. 1408 & 1442

87.659 = USC&G Datum P.4
2.891
84.768 Fol. New B.P. in N.W.C.6.

10-27-4th Circuit La Jolla Blvd. and Westbourne

Starting BM. is approx. 0.08 High to check this.

1st. Order Leveling

Stand. disk "C L1 1927" in Top Con. Step of Hi-school on Nautilus

149.100
0.078

Leveling back to starting BM.		150.683	Cont'd from P. 19		
				USGS	
T.P. #1	1.31	145.071	6.922	143.761	
T.P. #2	0.175	132.586	12.66	132.411	
T.P. #3	0.606	121.827	11.365	121.221	
T.P. #4	0.045	111.093	10.779	111.048	
check to old City Brass Plug			1.611	109.482	
T.P. #5	1.53	102.928	9.695	101.398	
T.P. #6	1.595	95.303	9.22	93.708	
T.P. #7	3.197	89.98	8.52	86.783	
check back to start BM.			5.225	84.755 ✓	84.768 / 0.013 error

109.482
6.119
103.363 Brass Plug : See office BM. Bk. Swly Top cb. Westbourne + Draper

in an approx. 4000' loop

Check Levels from Herschel & Kline
to USC&G "A C1 1927" " U.S.G.S. 100.51
1st. order leveling
Bank of Am. Bldg.

	1.08	116.886		City Dat. 115.806
T.P. #1	2.581	111.62nd	7.845	109.041
check to old City B.P. in c6.			7.315	104.307
T.P. #2	5.57	112.956	4.236	107.386
T.P. #3	3.301	110.412	5.845	107.111
T.P. #4	5.098	109.508	6.002	104.41
T.P. #5	2.223	105.43	6.301	103.207
T.P. #6	2.71	99.57	8.57	96.86
check to USC&G "A C1-1927"			5.089	94.481

Cont'd. P 2nd ↓

1-5-43.

124.816 = USC&G Dat. P. 5 10-27-42
9.01
115.806 BM. BP NE Herschel & Kline

103.97 = old City Elev.
0.337
diff. Swly Girard & Kline

100.510 = U.S.G.S. dat.
6.119
94391 USC&G "
Stand dist "A C1 1927" 1st. order leveling
Bank of Am. Bldg. Prospect & Girard
0.09 High

		99.57 ↓	Contd. from P. 21	
				City Dat.
T.P #7	2.48	97.819	4.231	95.339
check to	Old City Brass Plug		3.423	94.396
T.P. #8	0.285	85.254	12.85	84.969
T.P. #9	0.301	72.665	12.89	72.364
T.P #10	1.745	61.455	12.955	59.71
T.P #11	1.828	51.314	11.969	49.486
check to	BM BP in c6		4.068	47.246
check	New City Con. Mon.		6.152	45.162 ↓

9407 = Old City Flev. SEly Prospect & Girard in Curb, on Bank of Rd. Cor.

47.390 = Walker 1930
47.246
0.144 error

Swly Coast Blvd. & Girard

See P. 18

45.305
45.162
0.143 error

Swly " " " " "
1' inside angle of sdwk. in Lawn of City Park

Check Levels at Mission Bay Causeway, So. Bridge

Stand. Disk #1 193x	4.791	12.747		7.956	
check to Brass Plug			4.986	7.761	7.745
					0.016

Reductions Checked. R. M 23 1-11-43

Moore 1-8-43.

Indexed C.S.K.

23

1st. order leveling

Tidal L. at S.D. S.D.Co. Mission Bay Causeway about 100' N of N abut. of S. Bridge Top of E Curb. Stand. disk stamped "No. 1 193x". USC&G

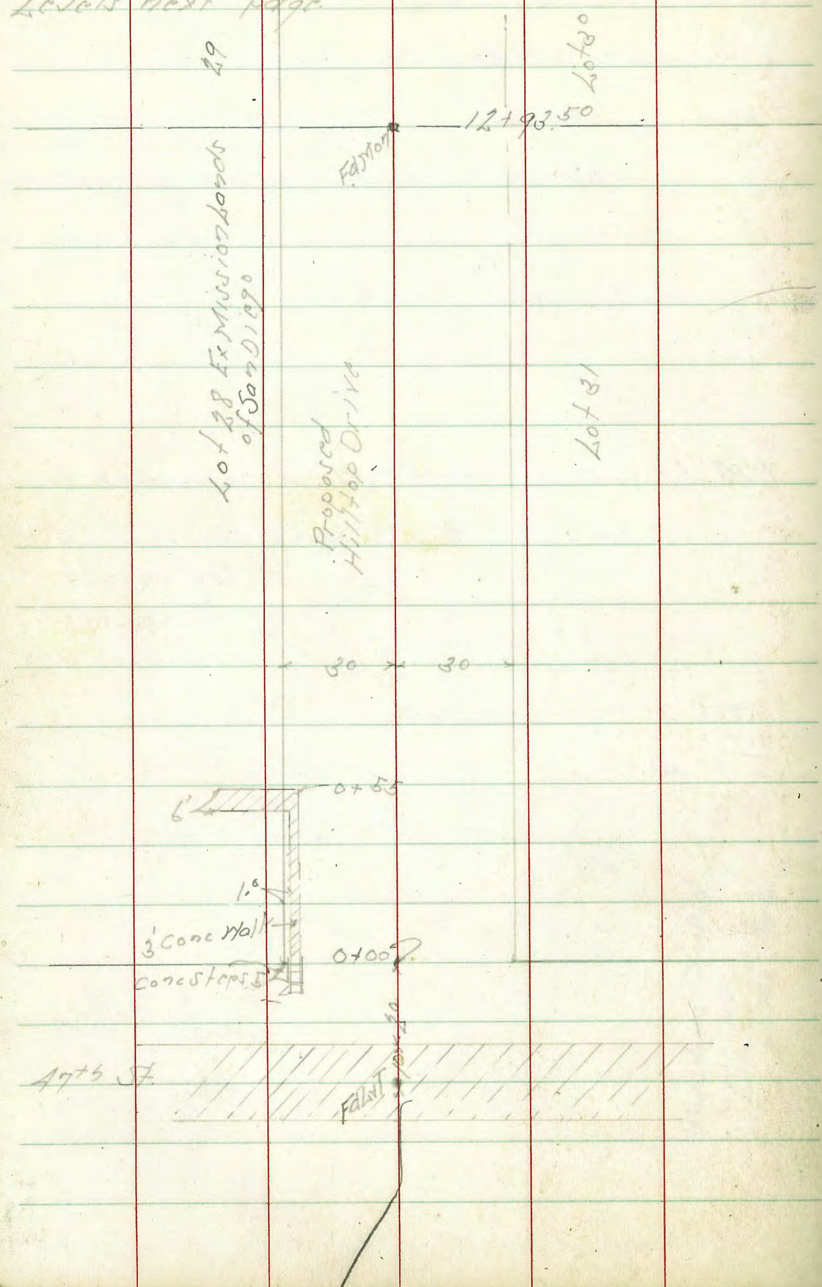
B.M. (City of S.D.) at M.13. Causeway at S. Bridge. Top of N.E. Wing wall. ½" B.P. See 1423-8 USC&G. = 10.777

7.956
7.761
0.195 dif.

Level only check

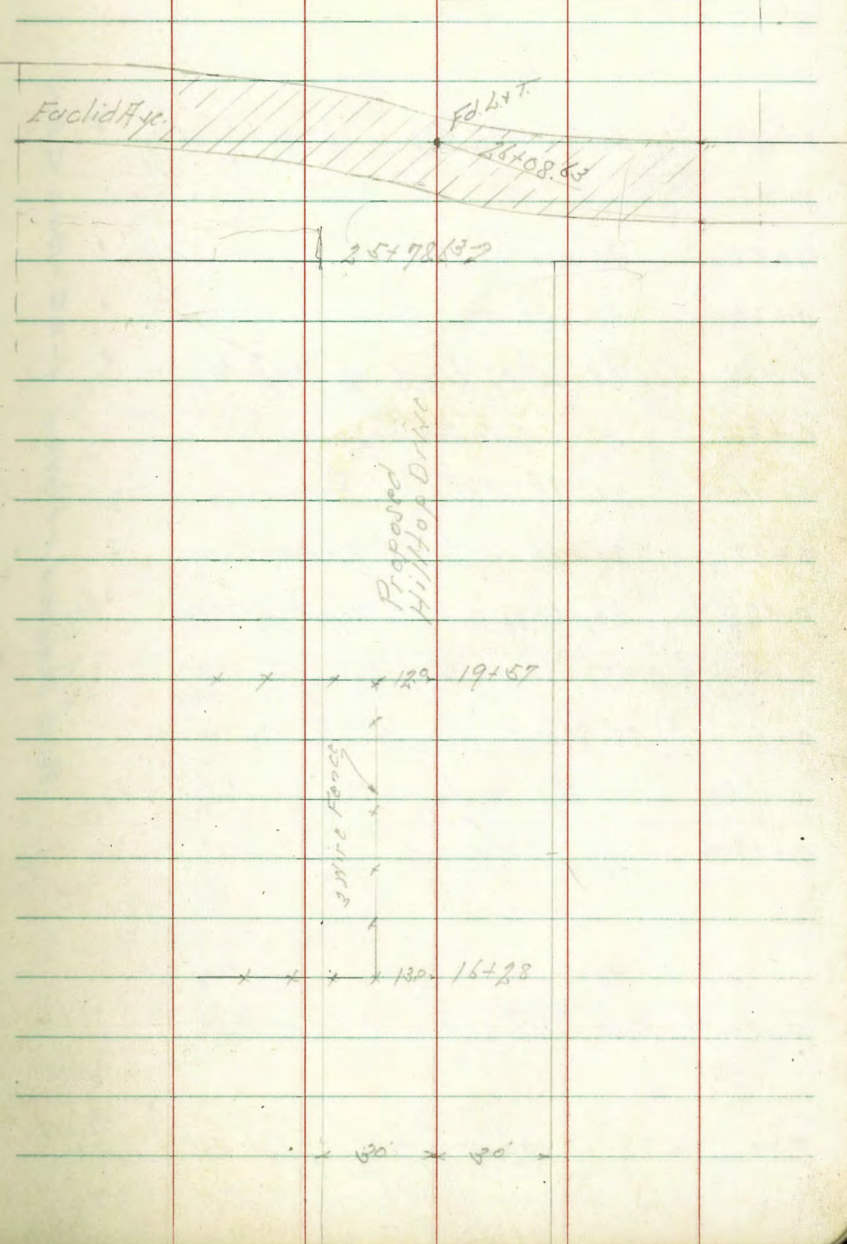
Rod 5.00 N
" 4.808
0.192 dif.

Cross Section Hilltop Drive From 47th St to Euclid Ave.
Levels next page



Indexed
C.S.K.

Jan. 19-44
Sisson
Bliss
Osborne



Cross Section Proposed Hilltop Drive
47th St to Euclid Ave

1+14	24' Lt of ℄ = ℄ 4" Pepper Tree			✓
1+0				
0+99	24' Lt of ℄ = ℄ 4" Pepper Tree			✓
0+81	24' Lt of ℄ = ℄ 4" Pepper Tree			✓
0+69	24' Lt of ℄ = ℄ 12" Pepper Tree			✓
0+55	= Ely of Conc Walk on Lt.			
0+37	24' Lt of ℄ = ℄ 5" Pepper Tree			✓
0+22	24' Lt of ℄ = ℄ 6" Pepper Tree			✓
0+07	24' Lt of ℄ = ℄ 6" Pepper Tree			✓
0+0	= E.L. 47th St.			
0-1	28' Rt of ℄ = Sly Tel Pole			✓
0-12				
0-20	= East Edge of Paving on 47th St.			
BM	5.88	192.69	186.81	℄ Lat. Hilltop & 47th St

Notes Reduced & Plotted 1-26-1944 G.B.H.

Jan. 20. 44
Sisson
Bliss
Osborne

Lt: N — ℄ — Rt: S

1+0: 187.6 (5.1/40), 187.4 (5.3/30), 187.1 (5.6/17.5), 185.7 (7.0), 185.8 (6.9/10), 185.5 (7.2/17.5), 185.6 (7.1/30), 185.3 (7.4/40)

0+55: 189.77 (2.92/40), 189.43 (5.26/30), 189.43 (3.26/26 = SE of Walk), 188.7 (4.0/17.5), 187.8 (4.9), 187.5 (5.2/10), 187.4 (5.3/17.5), 186.6 (6.1/30), 186.5 (6.2/40)

0+0: 189.8 (2.9/40), 189.3 (3.4/30), 189.30 (3.39/26 Sl/s Conc Walk), 188.4 (4.3/17.5), 187.2 (5.5), 187.2 (5.5/10), 187.7 (5.0/17.5), 187.0 (5.7/30), 186.5 (6.2/40)

0-12: 186.5 (6.2/40), 186.5 (6.2/30), 186.4 (6.3/17.5), 186.4 (6.3), 186.3 (6.4/10), 186.1 (7.6/17.5), 186.0 (6.7/30), 185.6 (7.1/40)

0-20: 187.01 (5.68/30), 186.76 (5.93), 186.44 (6.25/30)

192.69

2+45					
2+40	= opp Existing 24" Wood Stave Culvert on Rt				
2+36	= Opp Existing 24" Wood Stave Culvert on Lt				
2+25					
2+0					
1+80	24" Rt = Sly Post + Tel Pole				
TP	0.76	180.91	12.54	180.15	
1+50					
		192.69			

Lt | ℄ | Rt

175.5 | 172.5 | 174.0 | 174.3 | 173.6 | 171.6 | 167.8 | 166.5 | 164.1
5.4 / 50 | 8.4 / 30 | 6.9 / 17.5 | 6.6 | 7.3 / 4 | 9.3 / 10 | 13.1 / 17.5 | 14.4 / 30 | 16.8 / 50

166.81
14.10
15 = Flow Line Gutter 24" Stave Culv.

169.46
11.45
28 = Flow Line 24" Stave Culv.

173.8 | 171.0 | 174.3 | 174.5 | 174.2 | 171.5 | 167.4 | 169.1 | 168.2
7.1 / 50 | 9.9 / 30 | 6.6 / 17.5 | 6.4 | 6.7 / 4 | 9.4 / 10 | 13.5 / 17.5 | 11.8 / 30 | 12.7 / 50

174.3 | 174.1 | 175.6 | 175.6 | 175.2 | 174.8 | 174.4 | 174.6
6.6 / 50 | 6.8 / 30 | 5.3 / 17.5 | 5.3 | 5.7 / 10 | 6.1 / 17.5 | 6.5 / 30 | 6.3 / 40

180.4 | 179.7 | 177.8 | 177.3 | 177.4 | 177.4 | 178.8 | 178.2 | 177.7
0.5 / 40 | 1.2 / 30 | 3.1 / 17.5 | 3.6 | 3.5 / 10 | 3.5 / 17.5 | 2.1 / 30 | 2.7 / 50 | 3.2 / 40

180.91

184.2 | 183.6 | 181.9 | 180.9 | 181.2 | 180.7 | 183.3 | 182.0 | 181.3
8.5 / 40 | 9.1 / 30 | 10.8 / 17.5 | 11.8 | 11.5 / 10 | 12.0 / 17.5 | 10.4 / 30 | 10.7 / 30 | 11.4 / 40

192.69

Hilltop Drive

4+62	24' Rt of ℄ = Sly Post x Tel. Pole			
4+50				
4+0				
3+50				
TP	11.75	191.71	0.95	179.96
3+25				
3+21	24' Rt of ℄ = Sly Power x Tel. Pole			
3+0				
2+65		180.91		

Lt.		℄		Rt.			
187.7	187.3	186.7	186.2	186.0	185.8	186.4	186.2
4.0 / 40	4.4 / 30	5.0 / 17.5	5.5	5.7 / 10	5.9 / 17.5	5.3 / 30	5.5 / 50
185.0	184.8	184.1	183.7	183.5	183.9	184.2	183.8
6.7 / 40	6.9 / 30	7.6 / 17.5	8.0	8.2 / 10	7.8 / 17.5	7.5 / 30	7.9 / 50
184.3	183.6	180.7	180.3	180.0	180.8	181.9	181.8
7.4 / 40	8.1 / 30	11.0 / 17.5	11.4	11.7 / 10	10.9 / 17.5	9.8 / 30	9.9 / 40
		191.71					
183.8	181.9	179.6	178.1	177.8	177.8	179.6	180.0
7.9 / 40	7.0 / 30	8.3 / 17.5	9.8	8.1 / 10	8.1 / 17.5	6.3 / 30	6.9 / 40
179.7	178.3	176.4	176.7	175.9	175.7	175.3	175.6	175.9
1.7 / 40	3.6 / 30	4.5 / 25	4.2 / 17.5	5.0	5.2 / 10	5.6 / 17.5	5.3 / 30	5.0 / 40
177.3	176.1	173.4	174.5	174.6	174.4	173.1	176.4	176.6	169.7	170.7
3.1 / 40	4.8 / 30	7.5 / 20	6.4 / 17.5	6.3 / 5.0	6.5 / 1	7.8 / 10	10.5 / 17.5	10.3 / 30	11.3 / 40	10.3 / 50
			180.91							

7+50				
TP	1.57	186.01	7.27	184.44
7+40	25.3 Rt of ℄ = Sly Post x Tel. Pole			
7+0				
6+50				
6+01	24.5 Rt of ℄ = Sly. Post x Tel. Pole			
6+0				
5+50				
5+0				
		191.71		

	Lt.	℄	Rt
	185.0 / 1.0 / 40	184.7 / 1.3 / 30	184.4 / 1.6 / 17.5
	184.2 / 1.8 / 7	183.1 / 2.9 /	183.2 / 2.8 / 10
		186.01	
	187.0 / 4.7 / 40	186.7 / 5.0 / 30	186.2 / 5.5 / 17.5
	185.3 / 6.4 /	185.3 / 6.4 / 10	185.3 / 6.4 / 17.5
	185.4 / 6.3 / 30	185.7 / 6.0 / 40	
	188.6 / 3.1 / 40	188.3 / 3.4 / 30	187.8 / 3.9 / 17.5
	187.4 / 4.3 /	187.3 / 4.4 / 10	187.1 / 4.6 / 17.5
	187.3 / 4.4 / 30	187.9 / 3.8 / 40	
	190.7 / 1.0 / 40	190.5 / 1.2 / 30	189.7 / 2.0 / 17.5
	188.7 / 2.0 /	188.8 / 2.9 / 10	189.1 / 2.6 / 17.5
	189.5 / 2.2 / 30	188.8 / 2.9 / 40	
	190.8 / 0.9 / 40	190.5 / 1.2 / 30	190.2 / 1.5 / 17.5
	189.5 / 2.2 /	189.5 / 2.2 / 10	189.5 / 2.2 / 17.5
	189.6 / 1.9 / 30	189.8 / 1.9 / 40	
	190.4 / 1.3 / 40	190.4 / 1.3 / 20	190.0 / 1.7 / 17.5
	188.2 / 3.5 /	188.2 / 3.5 / 10	188.3 / 3.4 / 17.5
	189.4 / 2.3 / 30	189.1 / 2.6 / 40	
		191.71	

Hilltop Drive

10+50					
TP	0.85	174.25	1.261	173.40	
10+20		25.5 Rt of ℄ = Sly Pow & Tel Pole			
10+0					
9+50					
9+0					
8+80		26' Rt of ℄ = Sly Pow & Tel Pole			
8+50					
8+0					
		186.01			

Lt — ℄ — Rt

Elev.	174.6	174.6	173.9	173.5	172.4	172.0	171.8	170.6	169.6
Rod / Dist.	10.3 / 40	10.3 / 30	0.4 / 17.5	0.8 / 10	1.9	2.3 / 10	2.5 / 17.5	3.7 / 30	4.7 / 40

174.25

Elev.	176.0	175.7	175.1	173.8	173.4	173.1	171.6	171.0
Rod / Dist.	10.0 / 40	10.3 / 30	10.9 / 17.5	12.2	12.6 / 10	12.9 / 17.5	14.4 / 30	15.0 / 40

Elev.	177.1	177.0	177.3	176.8	175.5	175.0	175.0	174.3	174.1
Rod / Dist.	8.9 / 40	9.0 / 30	8.7 / 17.5	9.2 / 8	10.5	11.0 / 10	11.0 / 17.5	11.7 / 30	11.9 / 40

Elev.	178.5	178.2	177.3	176.6	176.3	176.1	175.5	175.2
Rod / Dist.	7.5 / 40	7.8 / 30	8.7 / 17.5	9.4	9.7 / 10	9.9 / 17.5	10.5 / 30	10.8 / 40

Elev.	179.6	179.2	178.4	178.0	177.9	177.8	177.1	176.6
Rod / Dist.	6.4 / 40	6.8 / 30	7.6 / 17.5	8.0	8.1 / 10	8.2 / 17.5	8.9 / 30	9.4 / 40

Elev.	181.2	180.7	179.8	180.4	180.3	180.3	180.0	179.8
Rod / Dist.	4.8 / 40	5.3 / 30	6.2 / 17.5	5.6	5.7 / 10	5.7 / 17.5	6.0 / 30	6.2 / 40

186.01

13+53	=	Existing 24" Steel Pipe Culvert			0° ℄ Mon 12+93.50
BM			3.14	148.80	
TP	2.48	151.94	13.06	149.46	
13+0					
12+97	27.0 Rt of ℄ = S/y Pow+Tel. Pole				
12+50					
12+0					
TP	0.89	162.52	12.62	161.63	
11+60	26.5 Rt of ℄ = S/y Pow+Tel. Pole				
11+50					
11+0					
		174.25			

Lt. ℄ Rt.

Elev.	143.9	143.2	142.6	141.8	141.09	145.7	145.5	140.02	139.9	140.1	139.9
Rod	8.0	8.7	9.3	10.1	10.85	6.2	6.4	11.92	12.0	11.8	12.0
Dist.	60	40	30	17.5	6	0.0	10	17	30	40	60

F.L. Inlet Culv.; Flow Line Outlet Culv.

151.94

Elev.	147.9	148.4	149.1	148.5	148.7	149.1	150.8	150.4	150.4
Rod	14.6	14.1	13.4	14.0	13.8	13.4	11.7	12.1	12.1
Dist.	40	30	17.5		10	17.5	25	30	40

Elev.	154.5	154.6	154.9	154.9	154.9	155.1	155.6	156.0
Rod	8.0	7.9	7.6	7.6	7.6	7.4	6.9	6.5
Dist.	40	30	17.5		10	17.5	30	40

Elev.	159.8	160.1	160.2	160.4	159.4	160.2	160.5	161.1	161.2
Rod	2.7	2.4	2.3	2.1	3.1	2.3	2.0	1.4	1.3
Dist.	40	30	17.5	0.0	2	10	17.5	30	40

162.52

Elev.	165.2	165.3	165.7	165.1	164.5	164.9	164.7	165.5	165.3
Rod	9.1	9.0	8.6	9.2	9.8	9.4	9.6	8.8	9.0
Dist.	40	30	17.5		2	10	17.5	30	40

Elev.	169.8	169.8	169.8	169.8	169.4	168.8	168.9	168.8	169.2	169.1
Rod	4.5	4.5	4.5	4.5	4.9	5.5	5.4	5.5	5.1	5.2
Dist.	40	30	17.5	10	0.0	2	10	17.5	30	40

174.25

Hilltop Drive

TP	10.46	170.84	0.60	160.38
15+50				
15+0				
14+50				
14+37	270° Pt of ℄ = S½ Pow + Tel Pole			
14+25				
TP	10.03	160.98	0.99	150.95
14+0				
13+75				
		151.94		

Lt.			℄		Rt.		
158.9	158.5	158.5	159.2	159.0	158.7	159.2	159.9
2.1 40	2.5 30	2.5 17.5	1.8	2.0 10	2.3 17.5	1.8 30	1.1 40
157.8	159.2	155.8	154.9	154.9	154.2	154.3	153.6	153.9
3.2 40	2.8 30	5.2 17.5	6.1 10	6.1	6.8 10	6.7 17.5	7.4 30	7.1 40
154.4	154.7	154.4	152.9	152.6	152.3	151.9	151.1	150.7
6.6 40	6.3 30	6.6 17.5	8.1 8	8.4	8.7 10	9.1 17.5	9.9 30	10.3 40
152.5	153.4	154.0	151.5	151.3	151.1	151.1	149.6	148.7
8.5 40	7.6 30	7.0 17.5	9.5 10	9.7	9.9 10	9.9 17.5	11.4 30	12.3 40
			160.98					
148.9	148.7	150.0	150.3	148.0	148.0	148.2	148.0	147.6	146.7	145.8
2.0 50	2.2 30	1.9 17.5	1.6 13	2.9 10	2.9	2.7 10	2.9 17.5	4.3 30	5.2 40	6.1 50
144.5	144.8	144.5	144.7	145.9	145.8	144.5	144.0	144.9	143.3
7.4 60	7.1 40	7.4 30	7.2 17.5	6.0	6.1 10	7.4 17.5	7.9 30	7.0 40	8.6 60
			151.94						

Sep. 21. 43

18+62	38' Rt of ℄ = Sly Pow. x Tel Pole				
18+50					
18+0					
17+50					
17+32	27.5 Rt of ℄ = Sly Pow. x Tel. Pole				
17+0					
TP	3.98	174.05	0.77	170.07	Nail in Fence Post Lt. 16+45
16+50					
16+0					
15+80	27' Rt of ℄ = Sly Pow. x Tel Pole				
	170.84				

Lt. ℄ Rt

164.1	164.3	164.5	165.2	166.2	166.8	167.1	167.5
10.0 / 40	9.8 / 30	9.6 / 17.5	8.9	7.9 / 10	7.3 / 17.5	7.0 / 30	6.6 / 40
166.4	166.3	166.8	167.3	168.0	168.3	168.8	169.1
7.7 / 40	7.8 / 30	7.3 / 17.5	6.8	6.1 / 10	5.8 / 17.5	5.3 / 30	5.0 / 40
167.3	167.8	167.7	169.8	170.1	170.0	170.5	171.0
6.8 / 40	6.3 / 30	4.1 / 17.5	4.3	4.0 / 10	4.1 / 17.5	3.6 / 30	3.1 / 40
167.1	168.7	168.8	168.8	169.9	171.0	172.0	171.1
7.0 / 40	5.9 / 30	5.3 / 17.5	5.3	4.1 / 10	3.1 / 17.5	2.1 / 30	3.0 / 40
			174.05				
164.5	165.1	165.8	166.6	166.4	167.9	168.1	167.9	168.8
6.3 / 40	5.7 / 30	5.0 / 17.5	4.2 / 10	4.4	2.9 / 10	2.7 / 17.5	2.9 / 30	2.0 / 40
161.8	162.0	162.9	163.5	163.3	163.5	164.9	164.5	163.3
9.0 / 40	8.8 / 30	7.9 / 17.5	7.3	5.5 / 1	5.3 / 10	5.9 / 17.5	5.3 / 30	5.5 / 40
			170.84				

Hilltop Drive

Station					
20+50					
20+25					
20+0					
19+91	27.5 Rt of ℄ = Sly Pow & Tel Pole				
19+75					
TP	1.82	162.81	13.06	160.99	
19+50					
19+0					
		174.05			

Lt. ℄ Rt.

Station	Cross-section (elevation, rod / distance)
20+50	162.0 (0.8 / 40); 161.2 (1.6 / 30); 159.6 (3.2 / 17.5); 157.1 (5.3); 155.6 (7.2 / 10); 153.8 (9.0 / 17.5); 150.7 (12.1 / 30); 147.3 (15.5 / 45); 150.4 (12.4 / 60)
20+25	161.7 (1.1 / 40); 160.4 (2.4 / 30); 158.3 (4.5 / 17.5); 156.4 (6.4); 154.3 (8.5 / 10); 152.8 (10.0 / 17.5); 150.0 (12.8 / 30); 153.6 (9.2 / 60)
20+0	160.8 (2.0 / 40); 159.5 (3.3 / 30); 157.1 (5.7 / 17.5); 153.9 (8.9); 151.9 (10.9 / 10); 151.3 (10.5 / 17.5); 153.3 (9.5 / 25); 155.4 (7.4 / 30); 157.1 (5.7 / 50)
19+75	159.3 (3.5 / 40); 158.1 (4.7 / 30); 155.5 (7.3 / 17.5); 154.4 (8.4 / 10); 155.7 (7.1); 157.0 (5.8 / 10); 156.9 (5.9 / 17.5); 157.3 (5.5 / 30); 159.1 (3.7 / 40); 159.6 (3.2 / 50)
	162.81
19+50	158.3 (15.8 / 40); 157.5 (16.6 / 30); 155.8 (18.3 / 17.5); 157.0 (17.1 / 10); 157.6 (16.5); 158.9 (15.2 / 10); 159.1 (15.0 / 17.5); 160.3 (13.8 / 30); 162.2 (11.9 / 40)
19+0	161.0 (13.1 / [illegible]0); 160.3 (13.8 / 30); 161.2 (12.9 / 17.5); 162.4 (11.7); 163.1 (11.0 / 10); 163.0 (11.1 / 17.5); 164.2 (9.9 / 30); 167.3 (6.8 / 40)
	174.05

22+76	29° Rt of ℄ - Sly Pow & Tel Pole			
22+50				
22+0				
21+50				
TP	6.03	166.43	2.41	160.40
21+33	28° Rt of ℄ - Sly Pow & Tel Pole			
21+25				
21+0				
20+75				
		162.81		

	Lt.	℄	Rt
	160.9	160.8	160.2
	5.5 / 40	5.6 / 17.5	6.2 / 17.5
	161.0	160.5	159.7
	5.4 / 30	5.9	6.7 / 30
	160.8	160.4	159.3
	5.6 / 17.5	6.0 / 10	7.1 / 40
	161.9	162.0	161.9
	4.5 / 40	4.4	5.0 / 17.5
	161.8	161.7	161.0
	4.6 / 30	4.7 / 10	5.4 / 30
	161.9	162.0	160.5
	4.5 / 17.5	4.4	5.9 / 40
	162.7	161.4	161.6
	3.7 / 40	5.0 / 17.5	4.8
	162.8	162.1	162.0
	3.6 / 30	4.7 / 10	4.4 / 17.5
		161.6	161.6
		4.8	4.8 / 30
		162.2	
		4.2 / 40	
		166.43	
	163.1	162.9	161.4
	+0.3 / 40	+0.1 / 30	1.4 / 17.5
	161.7	161.6	161.1
	1.7	1.6	1.7 / 10
	160.6	159.4	158.1
	2.3 / 17.5	3.4 / 30	4.7 / 45
	156.2		
	6.6 / 60		
	161.1	159.7	158.4
	1.7 / 40	3.1 / 30	4.4 / 17.5
	159.2	158.0	156.7
	3.6	4.8 / 10	6.1 / 17.5
	155.5	153.6	151.0
	7.3 / 30	9.2 / 45	11.8 / 60
	162.0	161.2	159.2
	0.8 / 40	1.6 / 30	3.6 / 17.5
	155.5	153.1	151.9
	7.3	9.7 / 10	10.9 / 17.5
	151.2	149.8	145.6
	11.6 / 30	13.0 / 45	17.2 / 60
		162.81	

Hilltop Drive

24+70				1386
23+75				
TP	1.18	143.94	12.47	142.76
23+50				
23+25				
TP	1.46	155.23	12.66	153.77
23+0				
22+85		166.43		

	Lt			Rt	
	1367	1345	1386		
	7.2	9.4	5.3		
	55	46	40		
		=Bot Work			
	1384	1377	1367	1359	1354
	5.5	6.9	7.2	8.0	8.5
	30	17.5	0.0	10	17.5
1427	1432	1425	1420	1405	1390
1.2	0.7	1.4	1.9	5.4	6.9
60	30	17.5		10	17.5
			143.94		
1498	1506	1502	1491	1483	1469
5.4	4.6	5.0	6.1	6.9	8.3
50	30	17.5		10	17.5
1548	1550	1549	1545	1533	1522
0.4	0.2	0.3	0.7	1.9	3.0
40	30	17.5		10	17.5
			155.23		
1603	1598	1600	1589	1574	1564
6.1	6.6	6.4	7.5	9.2	10.0
40	30	17.5		10	17.5
1606	1602	1606	1598	1593	1595
5.8	6.2	5.8	6.6	7.1	6.9
40	30	17.5		10	17.5
			166.43		

	Rt	
	1333	1314
	10.6	12.5
	40	46
		=Bot Work
1369	1332	1308
7.0	10.7	13.1
30	60	70 =Bot Work
1469	1451	1408
8.3	10.1	14.4
17.5	30	60
1522	1515	1507
3.0	3.7	4.5
17.5	30	50
1574	1567	1564
9.2	10.2	10.0
10	30	50
1596	1589	
6.8	7.5	
30	40	

25+50				
25+0				
24+90				
24+75				
TP	12.39	167.35	0.94	154.96
24+50				
TP	12.74	155.90	0.78	143.16
24+41	30 Rt of ℄ = Sly [illegible] & Tel Pole			
24+30				
		143.94		

Lt ℄ Rt

162.9	162.5	162.2	162.7	163.7	163.7	163.2	162.5		
4.5 / 40	4.9 / 30	5.2 / 17.5	4.7	3.7 / 10	3.7 / 17.5	4.2 / 30	4.9 / 40		
160.8	160.5	162.0	161.8	161.4	161.5	161.2	161.3		
6.6 / 40	6.9 / 30	5.4 / 17.5	5.6	6.0 / 10	5.9 / 17.5	6.2 / 30	6.1 / 40		
159.6	157.7	159.3	161.2	161.1	160.7	160.9	160.8	161.0	
7.8 / 45	9.7 / 35	8.1 / 30	6.2 / 17.5	6.3	6.7 / 10	6.5 / 17.5	6.6 / 30	6.4 / 40	
154.5	153.4	153.4	154.6	155.0	154.8	155.3	155.8	167.6	
12.9 / 50	14.0 / 35	14.0 / 30	12.8 / 17.5	12.4	12.6 / 10	12.1 / 17.5	11.6 / 30	9.8 / 50	
			167.35						
147.5	144.1	145.4	147.8	147.1	147.7	148.6	150.7		
8.4 / 60	11.8 / 30	10.5 / 17.5	8.1	8.8 / 10	8.2 / 17.5	7.3 / 30	5.2 / 60		
			155.90						
138.7	134.9	133.8	133.8	135.4	136.8	137.9	142.2	144.3	145.6
5.2 / 60	9.0 / 30	10.1 / 25 Bot Wash	10.1 / 17.5 Bot Wash	10.5 Bot Wash	7.1 / 10	6.0 / 17.5	1.7 / 30	+0.4 / 40	+1.7 / 60
			143.94						

3

26+08.63 = ℄ Euclid 5pc Field Book #1612-20 For Cross Section of Paving Strip Hilltop + Euclid

BM 7.25 160.10 Lt T ℄ Hilltop F10 Line Euclid 160.07 1612-20

25+93

25+87 8' Rt of ℄ = ℄ 1½" Water Meter

25+85

25+84 36' Rt of ℄ = Sly Pow + Tel Pole

25+78.63 = N Line of Euclid

167.35

Lt	℄	Rt
161.0	160.8	160.6	160.2	159.9	159.7	159.4	159.0
6.4 / 40	6.6 / 30	6.8 / 17.5	7.2	7.5 / 10	7.7 / 17.5	8.0 / 30	8.4 / 40
163.2	163.4	163.0	163.2	162.3	162.0	162.1	162.2
4.2 / 40	4.0 / 30	4.4 / 17.5	4.2	5.1 / 10	5.4 / 17.5	5.3 / 30	5.2 / 40
164.2	164.5	163.1	163.0	162.4	162.0	162.1	162.5
3.7 / 40	3.9 / 30	4.3 / 17.5	4.4	5.0 / 10	5.4 / 17.5	5.3 / 30	4.9 / 40

167.35

indexed
C.S.K.

C Moore
Sommermeyer
W. Moore
3-13-44

Survey & Levels for Tennis Courts

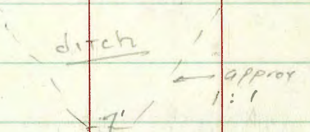
S 90' Lot 7 all 8-9-10-11 and

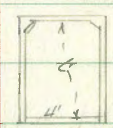
Nly ½ of Ravena St including

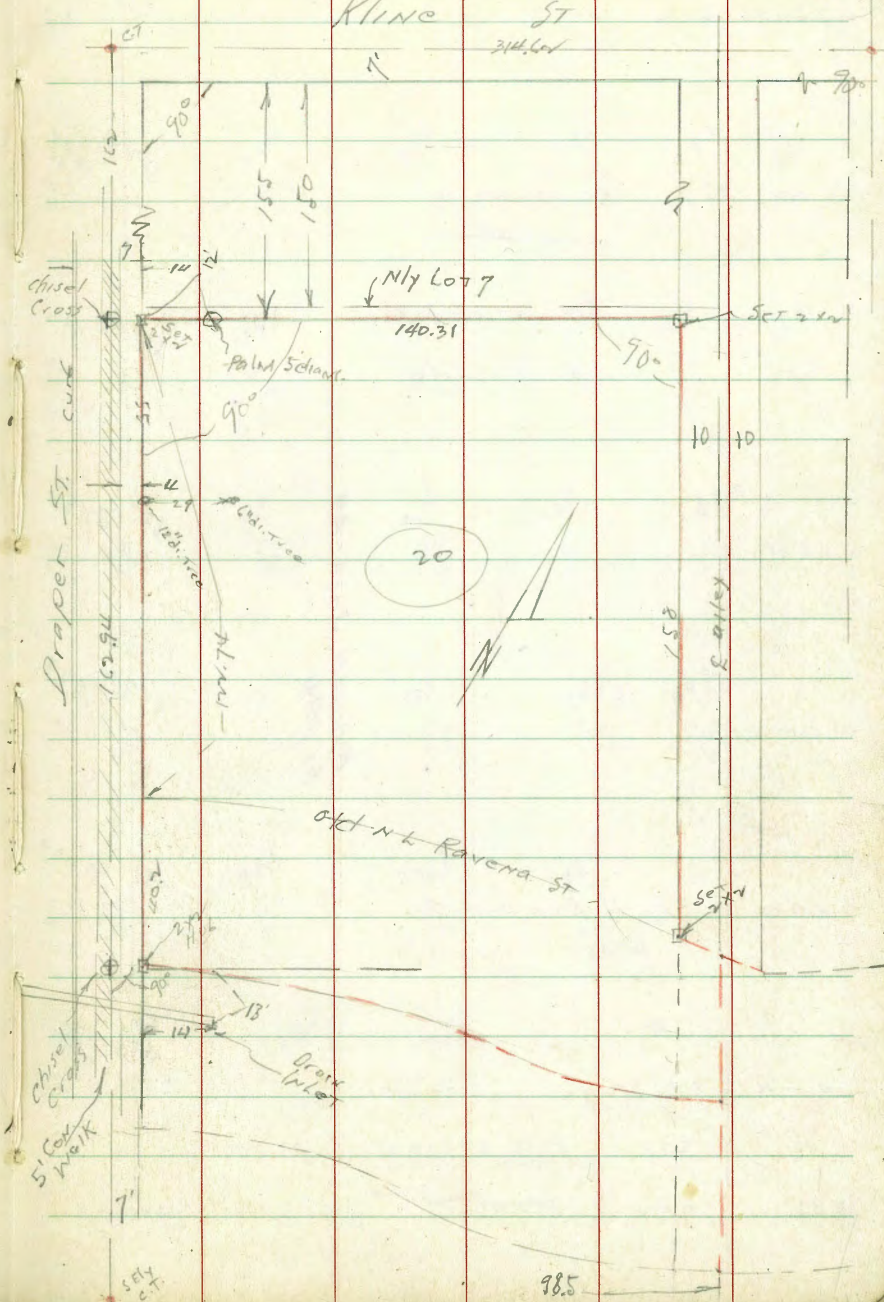
Wly ½ .. alley in closed Ravena St

Ely Draper = 0+00 Baseline for Levels

Nly of PLOT = " " " "




Conc. Box drain



Nly of PLOT = Baseline

RT. = 73.5

Station											
1+40.31 w.l. alley		79.8 / 1.4	79.0 / 2.2 / 15	75.5 / 5.7 / 50	74.2 / 7.0 / 100	73.5 / 7.7 / 140	74.3 / 6.9 / 163	73.0 / 8.4 / 175	65.5 / 15.7 / 184	Mid ditch
1+30	Raining	80.2 / 1.0	79.7 / 1.5 / 15	77.6 / 3.6 / 50	76.6 / 4.6 / 100	75.8 / 5.4 / 140	74.5 / 6.7 / 163	72.2 / 9.0 / 175	65.2 / 16.0 / 184	
1+00	Please check to Profile	80.4 / 0.8	79.8 / 1.4 / 15	77.9 / 3.3 / 50	76.6 / 4.6 / 100	75.9 / 5.3 / 140	75.8 / 5.4 / 168	73.2 / 8.0 / 173	65.0 / 16.2 / 185	
0+50		80.4 / 0.8	78.6 / 2.6 / 15	77.9 / 3.3 / 50	76.0 / 5.2 / 100	75.4 / 5.8 / 140	74.7 / 6.5 / 168	66.7 / 14.5 / 180	Middle ditch	
0+14		79.7 / 1.5	77.9 / 3.3 / 15	76.6 / 4.6 / 50	75.2 / 6.0 / 100	74.8 / 6.4 / 140	74.5 / 6.7 / 165	69.2 / 12.0 / 170 Top Hdwall	62.5 / 18.7 / 170	FL
0+00 = E/y of Draper St.		79.1 / 2.1	77.9 / 3.3 / 15	76.5 / 4.7 / 50	74.7 / 6.5 / 100	74.1 / 7.1 / 140	73.4 / 7.8 / 162.94			
0-4 = E/y edge 5' sidewalk		78.43 / 2.75	77.33 / 3.85 / 15	75.35 / 5.83 / 50	73.25 / 7.93 / 100	71.73 / 9.45 / 140	71.50 / 9.68 / 162.94			
T.P.	5.38	81.18	10.66	75.80		81.18				
SEBP	0.42	86.46		81.04	Kline & Draper					

Reduced 3-14-44
by CBA

C.S.M.
Surveyor
W.E.N.
3-22-44.

Levels on Evergreen
Lowell to Ingelow.
to Re-establish curb grades.

N.W.ly B.P. on cb.	9.29	17.68		8.39	Rosecrans Newell
T.P.	5.98	23.04	0.62	17.06	
T.P.	10.69	28.88	4.85	18.19	
Fd. BM B.P. on Sly Cor. T.P.	8.10	33.48	3.50	25.38	Evergreen Lowell 25.30

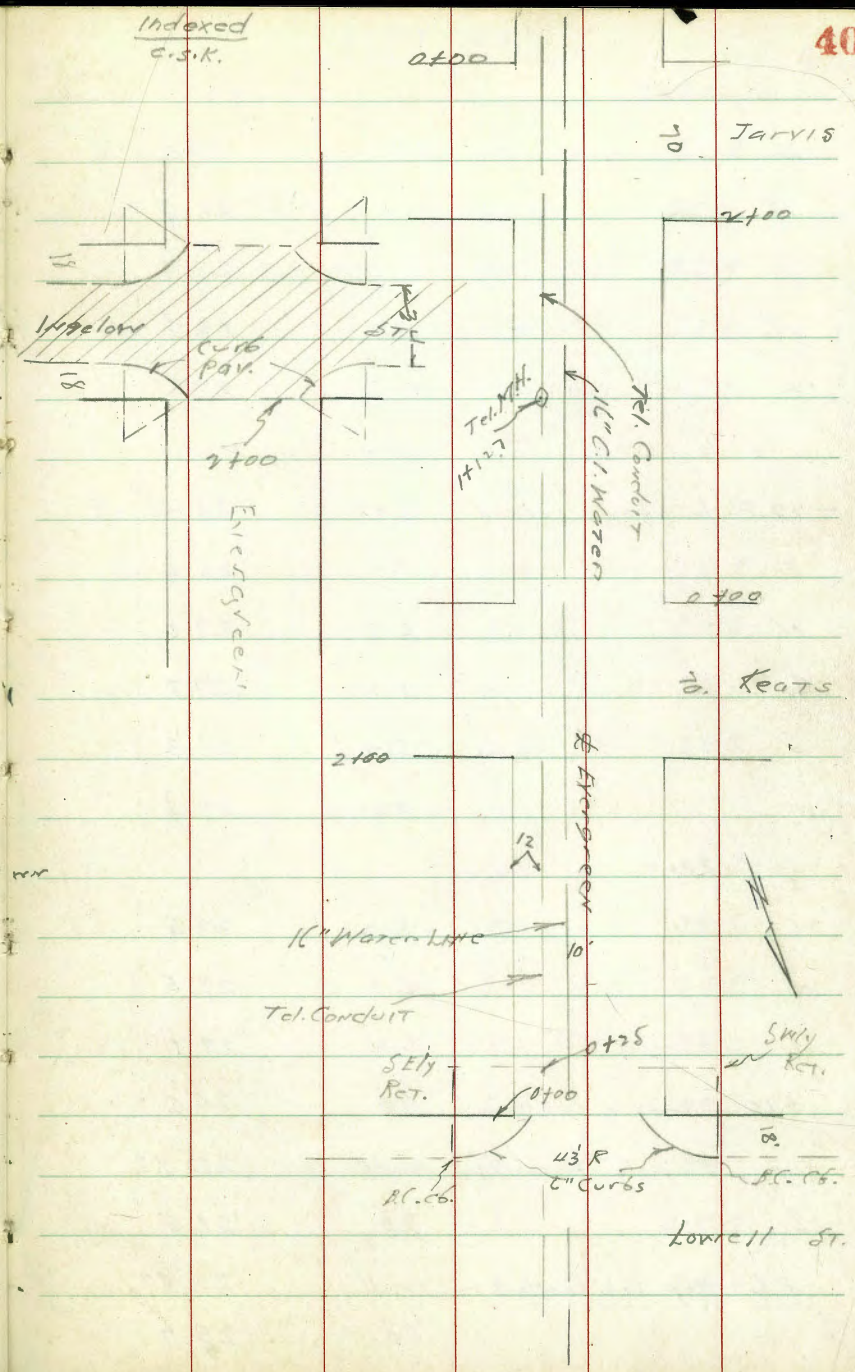
El. Top cb. Sly Ret. Evergreen & Lowell

BC on Lowell 0+00	8.13		25.35
+13.5	7.76		25.72
+27	7.39		26.09
+40.5 = SL Lowell end curb 7x3		26.05	This is right to be broken down

El. Top cb. Wly Ret. Evergreen & Lowell

BC on Lowell	4.37		29.16
+13.5	5.31		28.17
+27	5.99		27.49
+40.5 SL Lowell end Curb	6.39		27.09
0+00 = Sly Lowell			

Reduced & plotted on Profile 3/27-1944



33.X8

	0+25			
W		3.5	30.0	
cb		4.6	28.9	
C		5.8	27.7	
cb		5.X	28.1	
E		6.0	27.5	
	0+66.5			
=9.7 E	da. gar. Con. Floor	7.07	26.41	✓
E		7.1	26.4	
cb		6.5	27.0	
C		5.8	27.7	
cb		5.X	28.3	
W		4.1	29.4	
	1+00			
W		5.0	28.5	
cb		6.0	27.5	
C		6.4	27.1	
+10	ground	6.9	26.6	
"	Top 16" Water Pipe	10.66	22.82	
cb		7.0	26.5	
+6	Top Tel. Conduit	10.61	22.87	
E		7.8	25.7	

33.X8

	1+50		
E		9.1	24.4
cb		8.X	25.1
C		7.C	25.9
cb		6.9	26.6
W		6.2	27.3
	1+75		
W		7.2	26.3
cb		8.0	25.5
C		8.3	25.2
cb		8.9	24.6
E		9.9	23.6
	2+00 = N'ly Keats		
E		10.3	23.2
Cb		9.7	23.8
C		8.9	24.6
cb		8.5	25.0
W		8.0	25.5
	N'ly cb Keats		
W		8.2	25.3
cb		9.1	24.4

		33.48			
c			9.6	23.9	
cb			9.6	23.9	
E			11.0	22.5	
	℄ Keats				
E			11.5	22.0	
cb			10.8	22.7	
c			10.3	23.2	
cb			9.4	24.1	
W			8.3	25.2	
	℄ +10				
X 16' Ely ℄ Evergreen			13.48	20.00	Top 1C" Water Line
	S cb				
W			9.0	24.5	
cb			10.3	23.2	
c			11.1	22.4	
cb			11.8	21.7	
E			12.3	21.2	
	S/y Keats = 0+00				
E			12.8	20.7	
cb			11.9	21.6	
c			11.3	22.2	

		33.48			
c			10.4	23.1	
W			9.4	24.1	
T.P.	5.86	28.09	11.25	22.23	spike P.P. SEly Cor. Evergreen Keats
	0+25				
W			3.8	24.3	
cb			5.4	22.7	
c			6.5	21.6	
cb			7.0	21.1	
E			7.7	20.4	
	0+50				
E			8.3	19.8	
cb			7.6	20.5	
c			7.6	21.0	
cb			5.6	22.5	
W			3.7	24.4	
	1+00				
W			4.1	24.0	
cb			5.4	22.7	
c			7.4	20.7	

28.09

c6		7.9	20.2	
E		8.8	19.3	
	1+12.7			
E+12	Top Tel. M.H. RIM	7.96	20.13	
"	Top Tel. Cond.	10.96	17.13	
"	Bot. Tel. M.H.	15.36	12.73	
E+25	Top 12" Waterline	10.00	18.09	
	1+31			
E		8.7	19.4	
E-1.5	℄ edge 4' x 15.5 Apron Conc.	8.73	19.36	Apron Level
E-5.5	" do. gar. 15.5 door	8.73	19.36	
	1+50			
E		8.8	19.3	
c6		7.5	20.6	
C		6.4	21.9	
c6		5.0	23.1	
W		3.6	24.5	
	1+75			
W		3.6	24.5	
c6		4.4	23.7	
C		5.4	22.7	

28.09

c6		c.1	22.0
E		5.3	19.8
	2+00 N/y Jarvis		
E		7.1	21.0
c6		5.4	22.7
C		5.0	23.1
c6		4.1	24.0
W		3.4	24.7
	4 c6 Jarvis		
W		3.1	25.0
c6		4.0	24.1
C		4.6	23.5
c6		5.1	23.0
E		6.4	21.9
	℄ Jarvis		
E		5.7	22.4
c6		4.7	23.4
C		4.0	24.1
c6		3.6	24.5
W		3.1	25.0

+8.09

℄ Jarvis +8

W		2.3	25.8
c6		5.0	23.1
C		3.6	24.5
c6		4.2	23.9
E		5.4	22.7

S c6 Jarvis – Storm ditch

E		7.9	20.2
+1x Top Tel. Cand.		7.5	20.6
c6		6.6	21.5
c6 +7 Top 1c	4" Water Line	7.2 8	20.81
C		5.7	22.4
c6		5.3	22.8
W		4.8	23.3

S of +6'

W		2.4	25.7
c6		3.8	24.3
C		3.5	24.2
c6		4.3	23.8
E		5.4	22.7

+8.09

Sly Jarvis = 0+00

E		4.9	23.2
c6		3.9	24.2
C		3.3	24.8
c6		3.0	25.1
W		2.0	26.1

T.P. 20d Spike

P.P. Sly Con.	10.24	30.63	7.90	20.19	10.24

0+25

W		3.6	27.0
c6		4.7	25.9
C		5.5	25.1
c6		6.1	24.5
E		6.8	23.8

0+50

E		6.9	23.7
c6		6.0	24.6
C		5.3	25.3
c6		4.8	25.8
W		3.6	27.0

30.63			
1+00			
W		3.3	27.3
c6		4.1	26.5
c		4.5	26.1
c6		4.6	26.0
E		5.3	25.3
1+10			
W - 4.5 ℄ do. Garage		2.64	27.99 Con. floor 16' wide
W on Con apron		3.01	27.62
W + 1.5 ℄ Con. apron		3.32	27.31 apron level
1+50			
E		5.3	25.3
C6		4.3	26.3
c		4.0	26.6
c6		3.5	27.1
W		2.9	27.7
1+79			
W - 4.4 ℄ Sin. Garage		1.59	29.04 Cen. floor
W - 0.4 ℄ apron		2.02	28.61 " apron
c6		3.6	27.0
c		4.4	26.2

30.63					
c6			4.5		26.1
E			5.1		25.5
2+00 Nly Jugalow					
E			6.3		24.3
+10 Top c6 end			6.25		24.38
" gut Pav			6.76		23.87
C Pav.			5.76		24.87
+25 gut pav			5.12		25.51
" Top c6 end			4.64		25.99
W			4.3		26.3

Levels on Walks & Drives on Jarvis Locust to Evergreen

					indexed in S.K.
TP Spike PP	0.83	21.02	10.44	20.19	= above P. 44 BM.
Wly Locust 0+00					
N ground			9.7		11.3
0+16.5					
N ℄ 3' Con. walk			9.22		11.80
0+42					
N ℄ do. Con. ribbon drive			8.51		12.51

Plotted Profile #1709

21.0 N

	0+60			
N	℄ do. ribbon Con. drive	8.40	12.62	
	0+79.5			
N	℄ 3' Con. walk	7.55	13.47	
	1+17			
N	℄ 3' Con walk	6.63	14.39	
	1+41			
N	℄ do. Con. rib. drive	5.96	15.06	
	1+44			
S-15	℄ Sw. gar	4.60	16.42	Con. floor
	1+60			
N	℄ do. 2.5 do. rib. Con. do.	5.49	15.53	
	1+79.5			
N	℄ 3' Con walk	5.26	15.76	
	2+16.5			
N	℄ 3' Con walk	4.26	16.76	
	2+42			
N	℄ do. 2.5 Con drive R.G.	3.63	17.39	
	2+67			
N	℄ 3' Con. walk	2.31	18.71	

Levels on Walks drives etc on Keats St. Locust to Evergreen

Indexed

BM Spike	2.75	14.98		12.23	P. 44
	0+00 W/y Locust				
S	on ground	12.6		12.4	
	0+15				
S E	3' Con. Walk	12.42		12.56	
	0+41.5				
S E	of 7' Con. drive	11.87		13.11	
	0+49.7				
S	Top 8" Con. Ret. Wall	11.40		13.58	
	0+57.2				
S E	do. Con. 2' Rib drive	11.82		13.16	
	0+84				
S E	3' Con. Walk	11.11		13.87	
	1+16				
S E	3' Con. Walk	10.08		14.90	
	1+43				
S E	2' Con Rib. drive	9.31		15.67	

Plotted on Profile # 2426

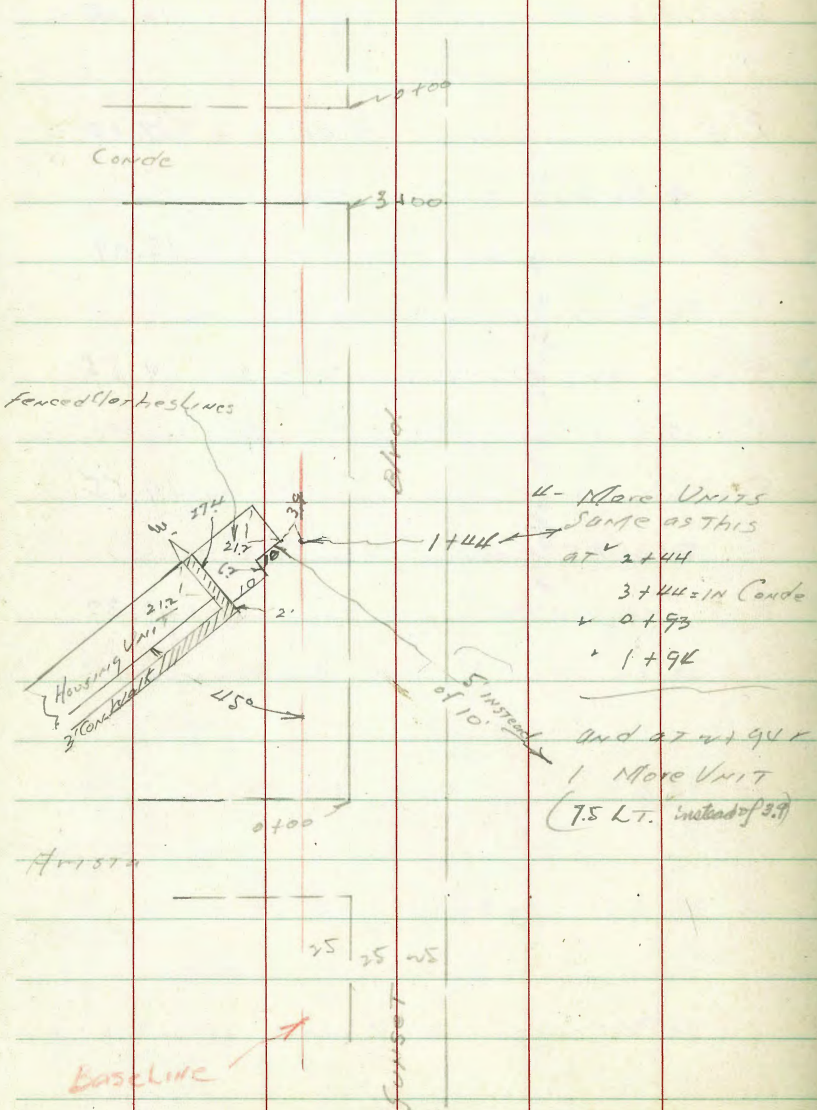
14.98

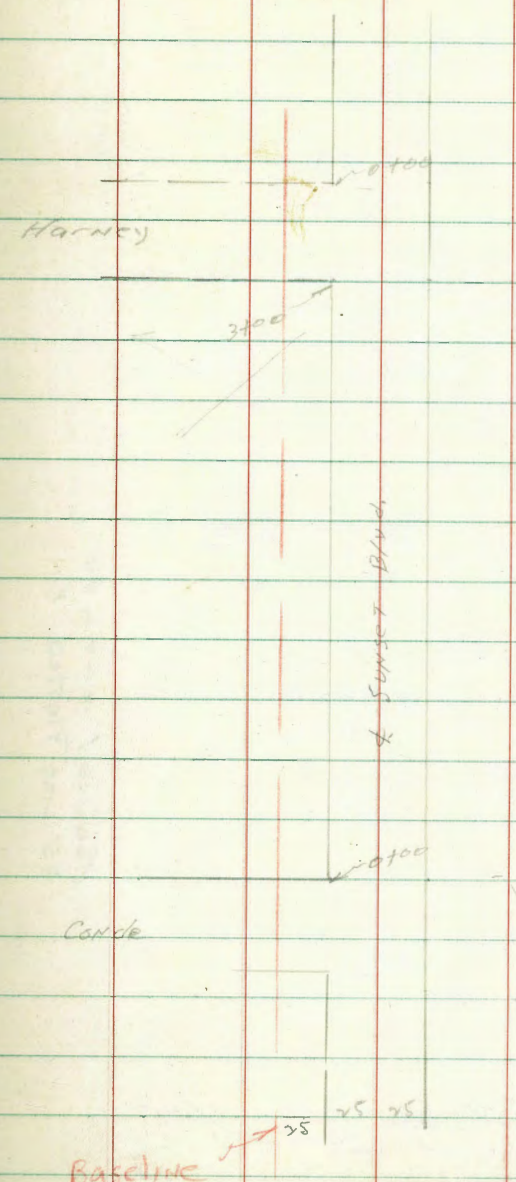
1+57.3			
S E	do. 2' Con. Rib drive	8.9	16.04
1+84			
S E	3' Con. Walk	7.88	17.10
2+16			
S E	3' Con walk	6.79	18.09
2+43			
S E	2' Con. rib. drive	5.43	19.55
2+57			
S E	2' Con. rib. drive	5.43	19.55
2+85			
S E	3' Con. walk	4.61	20.37

Levels on Excavation on Sunset Blvd. Arista to Harney

G S M 4-3-44.

Indexed
C.S.K.





0+25					
T.P.	0.01	136.50	12.86	136.49	
0+00 pk Arista					
0-7					
T.P.	1.84	149.35	1.84	147.51	
0-4					
0-25 = E Arista St.					
T.P.	0.18	160.35	1.98	160.17	
BM. on Con Mon at Conde Sunset Blvd	0.57	173.15		177.58	

Produced 4-4-44
25' Line Plotted

Lt.	Bk.	Rt.
129.7 / 6.8 / 10	131.8 / 4.7	
	136.50	
136.2 / 13.4 / 10	138.3 / 11.1	
136.7 / 12.7 / 10	139.5 / 9.9	153.5 / + 4.1 / 25
	149.35	
	150.6 / 9.4	153.4 / 7.0 / 25
	152.0 / 6.4	
	160.35	

Sunset St. Cross Sections 1583-52

					L7	B.K.	R7
T.P.	0.36	111.50	13.02	111.14			
1+75					112.8 / 11.4 / 10	112.2 / 14.0	112.7 / 11.5 / 4
1+50					115.3 / 8.9 / 10	115.0 / 9.2	115.9 / 8.3 / 4
1+25					116.1 / 8.1 / 10	117.3 / 6.9	117.6 / 6.6 / 3
1+00					117.0 / 7.2 / 10	118.1 / 6.1	121.7 / 2.5 / 5
0+75					118.9 / 5.3 / 10	121.2 / 3.0	12.62 / +2.0 / 10
T.P.	0.49	124.16	12.83	123.67		124.16	
0+50					122.2 / 14.3 / 10	123.7 / 12.8	124.5 / 12.0 / 4
		136.50				136.50	

		Lt.	Bk.	Rt.	
0+00	W/L Conde	98.8 / 12.7 / 10	99.6 / 11.9	100.1 / 11.4 / 3	102.9 / 8.6 / 6
	L Conde	100.1 / 11.4 / 10	100.8 / 10.7	101.2 / 10.3 / 3	
3+00	℄ L Conde	102.0 / 9.5 / 10	102.4 / 9.1	103.1 / 8.4 / 5	
~~2+75~~		104.0 / 7.5 / 10	103.6 / 7.9	104.4 / 7.1 / 11	
~~2+50~~		105.7 / 5.8 / 10	105.2 / 6.3	105.9 / 5.6 / 9	107.7 / 3.8 / 13
~~2+25~~		105.9 / 5.6 / 10	106.9 / 4.6	107.9 / 3.8 / 6	110.6 / 0.9 / 11
~~2+00~~		110.1 / 1.4 / 10	109.8 / 1.7	110.6 / 0.9 / 5	
	111.50		111.50		

1+75					
1+50					
1+25					
1+00					
0+75					
0+50					
0+25					
T.P.	0.75	99.56 111.50	12.69	98.81	

90.4 Lt 9.2 10	90.8 8.8	91.5 8.1 10
91.5 8.1 10	91.8 7.8	92.9 6.7 11
92.9 6.7 10	93.1 6.5	94.1 5.5 11
93.5 6.1 10	94.0 5.6	94.7 4.9 7
93.9 5.7 10	95.1 4.5	95.6 4.0 4
96.3 3.3 10	96.9 2.7	97.3 2.3 3
97.9 1.7 10	98.8 0.8	99.5 0.1 5
	99.56	

7+00

2+90

2+87

2+75

2+50

2+25

2+00

99.56

83.4 / 16.2 / 18	83.9 / 15.7 / 8	89.4 / 10.2 / 4	89.6 / 10.0	94.9 / 4.7 / 10
83.9 / 15.7 / 10	83.9 / 15.7 / 2	88.1 / 11.5	90.4 / 9.2 / 10	
83.9 / 15.7 / 10	84.0 / 15.6	87.8 / 11.8 / 2	88.9 / 10.7 / 10	
83.5 / 16.1 / 10	84.9 / 14.7	87.3 / 12.3 / 12		
86.0 / 13.6 / 10	87.0 / 12.6	88.0 / 11.6 / 12		
87.6 / 12.0 / 10	88.0 / 11.6	88.8 / 10.8 / 9		
87.9 / 11.7 / 10	88.8 / 10.8	90.0 / 9.6 / 9		

99.56

Check to B.M. Mon.	Line Harney Sunset	1.85	121.83	121.8	
T.P.	12.90	123.68	0.3	110.78	
3+25 E Harney					
T.P.	12.96	111.10	0.7	98.84	
3+15					
3+12					
		99.56			

93.0 / 18.1 / 10

97.4 / 12.7

99.2 / 11.9 / 1

103.0 / 8.1 / 10

111.10

91.3 / 8.3 / 15

94.1 / 5.5

95.5 / 4.1 / 5

101.1 / +1.5 / 10

94.3 / 8.3 / 15

93.6 / 1.0

96.9 / 2.7 / 10

99.56

Recr. Bldg.

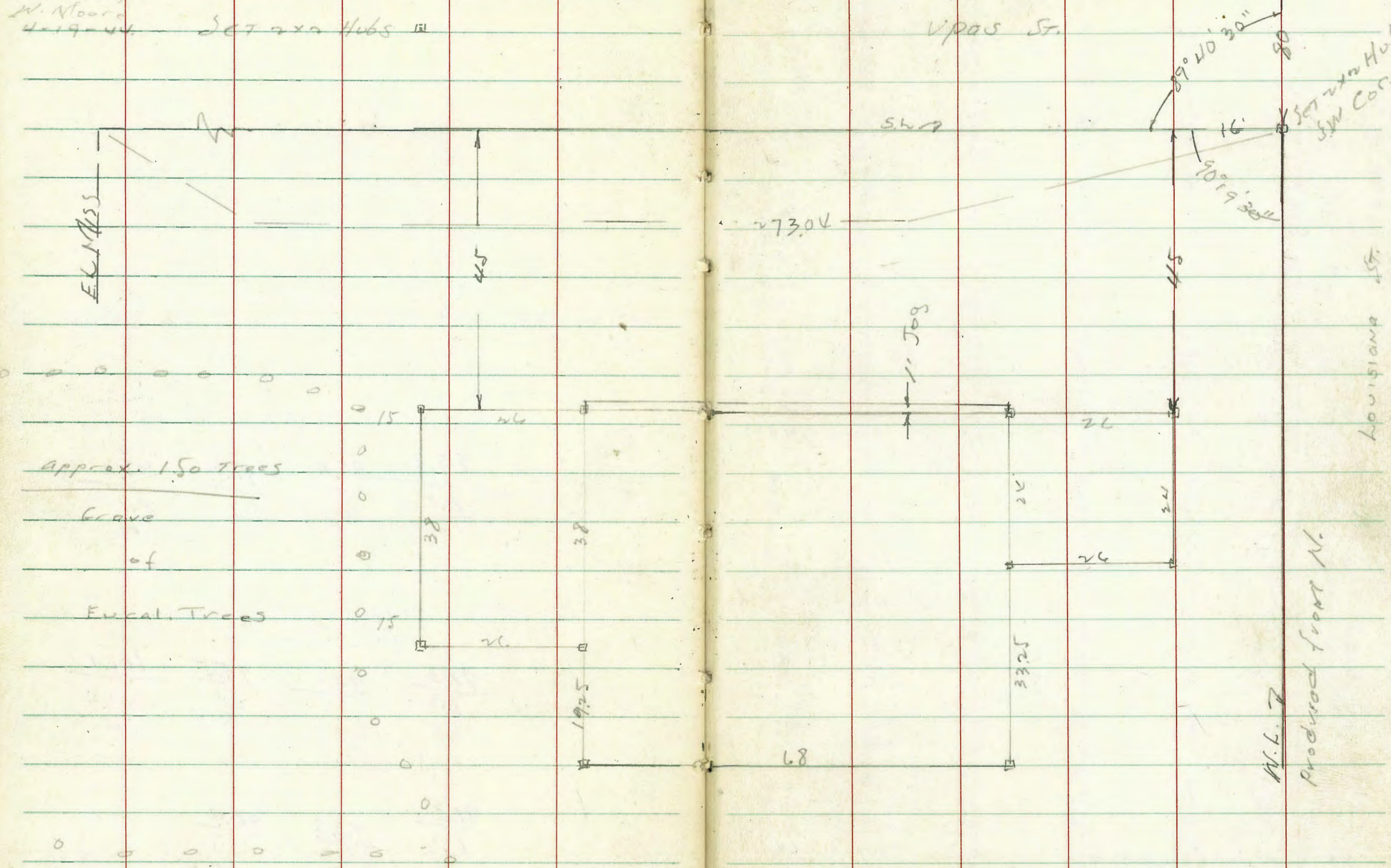
Moor- Sommermeyer W. Moore 4-19-44

S.W. Cor. Upas & Louisiana

Set 2x2 Hubs

Indexed C.S.K.

Plotted - C.S.K.



Levels on Site of Recr. Bldg.
SW Cor. Upas + Louisiana

Contd. P. 59

Lt. = to So. — S. L. Upas — Rt.

Station								
1+36	276.8 / 5.7 / 145	276.8 / 5.7 / 102.25	276.87 / 5.62 / 83 Hub	277.06 / 5.43 / 45 Hub	277.1 / 5.4	276.5 / 6.0 / 18	274.8 / 7.7 / 20	275.19 / 7.35 / 40
1+10	276.7 / 5.8 / 145	276.76 / 5.73 / 102.25 Hub	276.91 / 5.58 / 83 Hub	277.15 / 5.34 / 45 Hub	277.30 / 5.2	276.9 / 5.6 / 18	275.10 / 7.4 / 20	275.44 / 7.05 / 40
0+76	276.7 / 5.8 / 145	277.0 / 5.5 / 102.25	277.3 / 5.2 / 69	277.6 / 4.9 / 45	277.6 / 4.9	277.5 / 5.0 / 18	275.6 / 6.9 / 20	275.9 / 6.59 / 40
0+42	276.8 / 5.7 / 145	277.14 / 5.35 / 102.25 Hub	277.45 / 5.04 / 69 Hub	277.45 / 5.04 / 45 Hub	277.5 / 5.0	277.5 / 5.0 / 18	276.0 / 6.5 / 20	276.40 / 6.09 / 40
0+16	276.4 / 6.1 / 145	276.8 / 5.7 / 102.25	276.95 / 5.54 / 69 Hub	277.14 / 5.35 / 45 Hub	277.5 / 5.0	277.5 / 5.0 / 18	276.2 / 6.3 / 20	276.75 / 5.74 / 40
0+00 = W.L. Louisiana	276.1 / 6.4 / 145	276.6 / 5.9 / 102.25	276.8 / 5.7 / 69	277.1 / 5.4 / 45	277.38 / 5.11 Hub	277.6 / 4.9 / 18	276.4 / 6.1 / 20 edge oil Pav.	276.96 / 5.53 / 40 edge Black Pav.

Fd BMBP NE Cor. in Curb — 4.40 — 282.49 — 278.09 Upas + Louisiana — 282.49

Location of Trees etc.

SW Cor upas & Louisiana by A and Stadia

Transit on SW Cor upas & Louisiana. F.S. on S.L. upas 0°00' to West

✓	18°07' Lt	33'	Dead Man	
✓	25° 40' Lt	79	12" di.	Eucal.
✓	29° 10' Lt	70	14" "	"
✓	31° 32' Lt	84	8" "	"
✓	36° 49' Lt	78	10" "	"
✓	40° 20' Lt	118	8" "	"
✓	41° 41' Lt	111	10" "	"
✓	43° 22' Lt	126	4" "	" STUMP
✓	43° 20 Lt	77	9" "	"
✓	44° 52' Lt	94	14" "	"
✓	45° 47' Lt	69	10" "	"
✓	46° 37' Lt	113	6" "	Acasia
✓	49° 03' Lt	88	9" "	Eucal.
✓	52° 37' Lt	68	10" "	"
✓	56° 53' Lt	57	12" "	"
✓	57° 00 Lt	93	8" "	Acasia
✓	" "	125	9" "	"
✓	58° 18' Lt	138	6" "	"
✓	58° 51' Lt	111	10" "	"
✓	" "	65	15" "	Eucal
✓	59° 19' Lt	85	7" di.	Acasia
✓	63° 13' Lt	126	10" "	"
✓	63° 47' Lt	100	8" "	"
✓	64° 46' Lt	110	6" "	"
✓	65° 00' Lt	57	10" "	Eucal. STUMP
✓	66° 10' Lt	83	5" "	Acasia
✓	67° 10' Lt	99	6" "	"
✓	67° 47' Lt	76	18" "	Eucal.
✓	68° 53 Lt	106	6" "	Acasia
✓	70° 14' Lt	99	9" "	"
✓	70° 48' Lt	121	11" "	"
✓	71° 11' Lt	89	7" "	"
✓	72° 00 Lt	110	6" "	"
✓	" "	57	7" "	Eucal.
✓	73° 18' Lt	43	6" "	" STUMP
✓	72° 53 Lt	81	6" "	Acasia
✓	74° 56 Lt	107	6" "	"
✓	75° 00 Lt	136	12" "	"
✓	75° 59 Lt	124	6" "	"
✓	77° 18 Lt	101	7" "	"
✓	" "	114	6" "	"

Contd. P. 58

Location Trees

✓	79°17' Lt 51	13" dr. Eucal.
✓	79°20' Lt 108	6" dr. Acasia
✓	82° 30 Lt 122	9" " "
✓	83° 42 Lt 10.3	16" dr. Power Pole with St. Lite
✓	84° 44 Lt 74	4" " Acasia
✓	85° 30 Lt 153	3" " "
✓	86° 24' Lt 81	9" " "
✓	87° 31' Lt 125	12" " "
✓	88° 53' Lt 167	3" " Eucal.
✓	92° 29 Lt 107	9" " Acasia
✓	93° 57' Lt 94	9" " "
✓	94° 24' Lt 65	12" " Eucal.
✓	105° 38' Lt 25	Road Sign

Station	Description	Lt.	SL (upas)			Rt.	
			SL upas.				
2+86	E. edge oil Pav. Strip	273.5 / 9.0 / 20	273.1 / 9.4			272.5 / 10.0 / 20	273.05 / 9.44 / 40
2+83	E cb Line Miss.	275.0 / 7.5 / 20	274.2 / 8.3		272.9 / 9.6 / 5	272.7 / 9.8 / 20	273.09 / 9.40 / 40
2+73	E.L. Miss. St	274.8 / 7.7 / 20	274.7 / 7.8	274.7 / 7.8 / 12	272.9 / 9.6 / 14	272.9 / 9.6 / 20	273.25 / 9.24 / 40
2+65		274.9 / 7.6 / 20	274.9 / 7.6		275.0 / 7.5 / 17	273.1 / 9.4 / 20	273.4 / 9.10 / 40
2+50		275.2 / 7.3 / 20	275.1 / 7.4		275.2 / 7.3 / 18	273.5 / 9.0 / 20	273.57 / 8.92 / 40
2+00		276.20 / 6.3 / 20	276.4 / 6.1		276.20 / 6.3 / 18	274.20 / 8.3 / 20	274.24 / 8.25 / 40
1+50		277.0 / 5.5 / 20	277.0 / 5.5	276.5 / 6.0 / 18		274.7 / 7.8 / 20	274.92 / 7.57 / 40

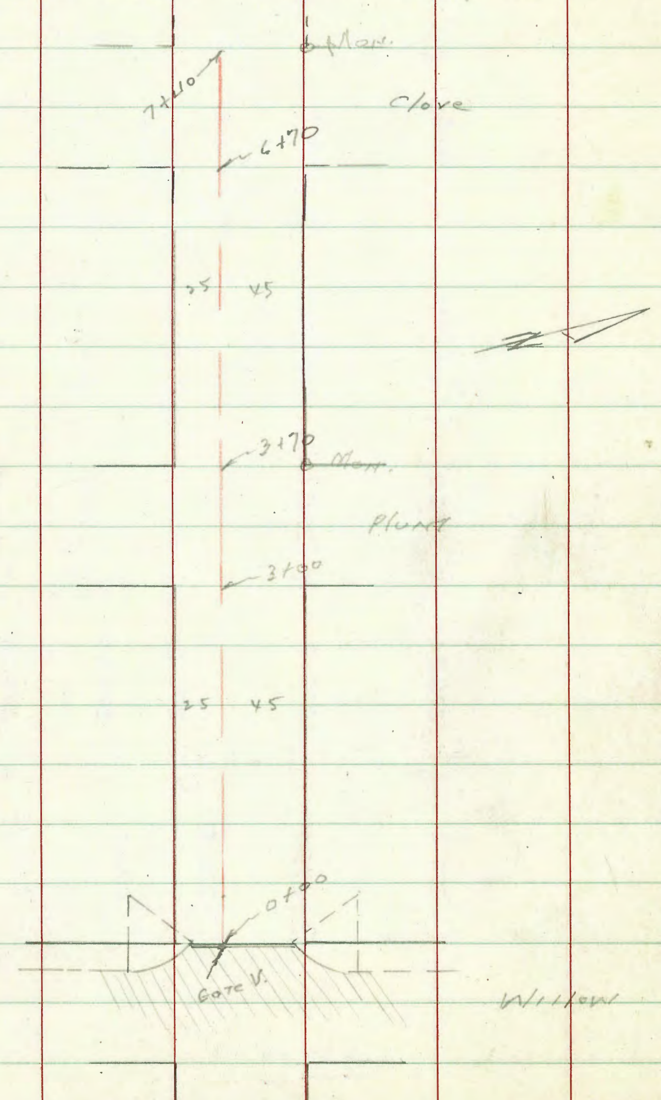
282.49

282.49

Moore
Smermyr
W.E.M.
5-2-44.

Water Levels on Dickens St.

Willow to 100' N of Clove



Indexed E.S.K.

Sw BP	0.14	86.54		86.40	Willow Carleton
Fd. "			10.10	76.44	Willow Dickens
Fd " 2 BM's here 3.7 apart			10.24	76.30	
T.P.	12.42	88.21	10.75	75.79	
0+00 W'ly Willow St.			13.15	75.06	Pav.
" " "			15.90	73.31	Top Valve Stem
0+00			12.6	75.6	
+12			8.9	79.3	
+25			2.1	86.1	
T.P.	12.57	100.65	0.13	88.08	
+33			12.1	88.6	
+50			10.8	89.9	
+57			9.9	90.8	
+75			5.5	95.2	
1+00			0.1	100.6	
T.P.	12.80	113.45	0.00	100.65	

Reduced & Plotted on Profile #2589

		113.45		
1+30			7.8	105.7
+55			4.8	108.7
+75			3.3	110.2
T.P	7.18	119.50	1.13	112.37
1+85			9.1	110.4
"			8.9	110.6
+35			8.1	111.4
+50			9.5	110.0
+75			9.4	110.1
+90			8.3	111.2
3 Ely Plum			7.7	111.8
+25			4.4	115.1
T.P	12.81	131.84	0.47	119.03
3+45			12.8	119.0
+55			10.7	121.1
3+70 W/y Plum			7.6	124.2
+85			5.8	126.0

Dickens

		131.84		
3+95			0.8	131.0
T.P	12.91	144.71	0.04	131.80
4+06			11.2	133.5
+21			11.1	133.6
+28			11.6	133.1
+35			10.5	134.2
+70			6.3	138.4
5+00			2.7	142.0
T.P	12.84	156.85	0.70	144.01
5+50			10.1	146.8
6+00			5.6	151.3
+50			3.2	153.7
6+70	Ely Clove St.		2.4	154.5
7+05			1.5	155.4
T.P	6.63	162.02	1.46	155.39

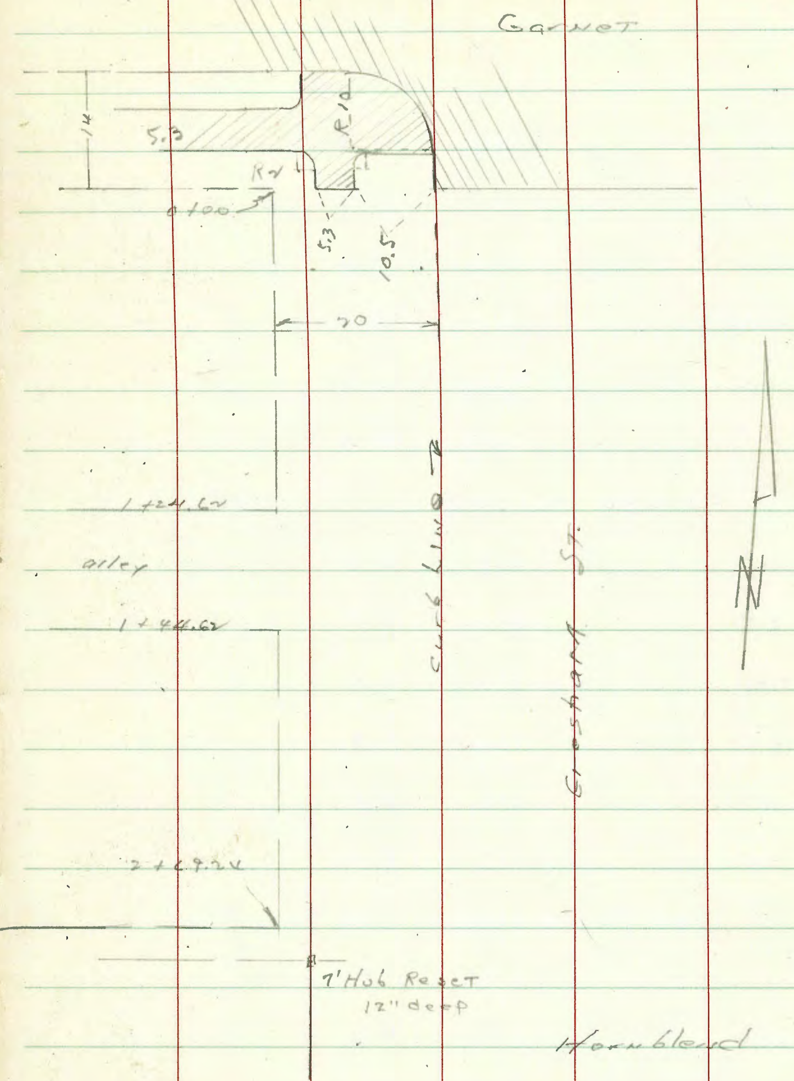
		162.02			
7+40	Wly Clove		5.7	156.3	
+80			4.1	157.9	
8+20	approx. Puckle Line		2.2	159.8	
Mwly Cor. Mon.		Dickens Clove	8.34	153.68	
T.P.	0.95	151.29	11.68	150.34	
T.P.	0.50	140.55	11.24	140.05	
SWBPcd.		Carleton + Plum	6.44	134.11	134.09 0.02

Levels on N.W. Cor. of Gresham + Hornblend

C Swe
C.S.
W.F.M.
5-10-42.

NWBP	2.12	72.49		70.37	Diamond & Gresham
T.P.	1.78	65.07	9.20	63.29	
T.P.	2.43	59.38	8.12	56.95	
T.P. 7'C.I.	2.73	55.16	6.95	52.43	S.W. Cor. Garnet & Gresham 52.42
0+00 S.L. Garnet					
W			2.7		
+7 or edge walk			2.65		
c6 Top			3.06	52.10	52.0 = Grade
gut. pav.			3.69		
W ¼ "			3.11		
0+50					
W			3.7		
+10			3.7		
c6			3.6		
+4			3.7		
+5			4.5		
¼			4.1		

Indexed
C.S.K.



5516

	1+00		
W			4.9
+10			4.9
C6			4.4
+5			4.6
+6			5.0
1/4			4.9
	1+34.6N	NL alley	
W			4.9
+10			4.8
C6			4.8
+6			4.9
+7			5.4
1/4			5.4
	1+44.6N	SL alley	
W			5.5
+10			5.2
C6			5.1
+6			5.2
+7			5.8
1/4			5.7

5516

	2+00		
W			6.6
+10			6.4
C6			6.0
+7			6.2
+8			6.7
1/4			6.7
	2+35		
W			7.2
+10			6.9
C6			6.6
+7			6.7
+8			7.2
1/4			7.2
	2+69.2N	NL Hornblend	
W			7.9
+10			7.5
C6			7.1
+7			7.4
+8			7.8
1/4			7.8

		55.6			
T.P.	x.93	49.22	8.87	46.49	

Levels N. side Hornblend, Gresham Hy 150'

e x00 W.C. Gresham

N		1.9
+10		1.8
+20	c6	2.0
+28		3.2
+30 = N ¼		3.2
0+50		
N		3.1
+10		3.1
+20	c6	3.4
+28		4.3
+30 = N ¼		4.1
1+00		
N		4.5
+10		4.5
+20	c6	4.9
+26		5.0

49.22

Hornblend

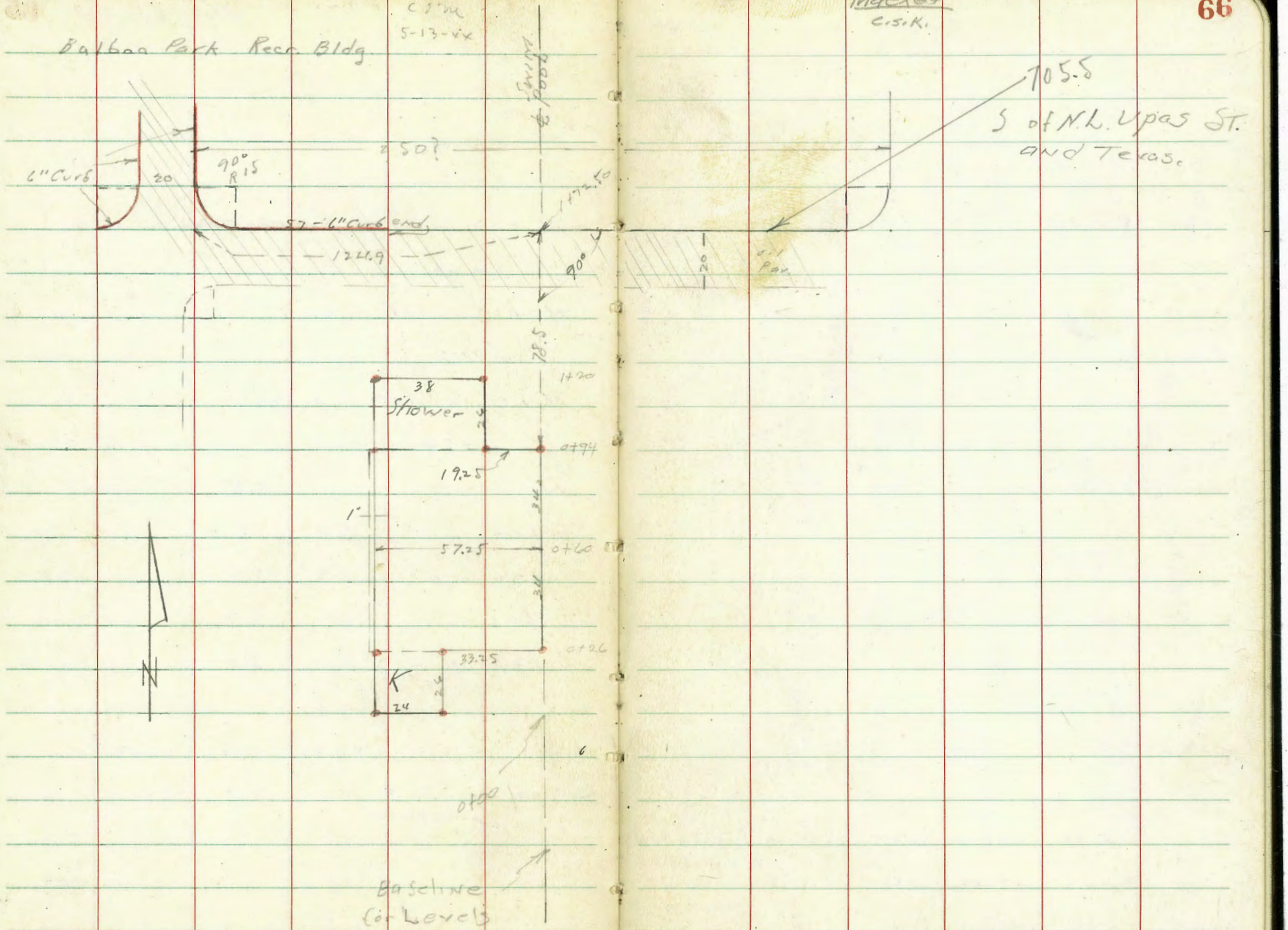
N +30 = N ¼	5.1
1+03	
N +13 = 30" dr. Pepper Tree	
1+43	
N +13 = 18" " "	
1+48	
N +6 = 10" Cypress	
1+50	
N	4.8
+10	4.8
+20 = c6 Line	5.3
+26	5.7
+30 N ¼	5.6

T.P.	9.51	55.80	x.93	46.49	
Sw. T'CT. Garnet & Gresham			3.37	52.43	52.42

Indexed
C.S.K.

Balboa Park Rec. Bldg.

C.S.M.
5-13-4x



Levels on Recr. Bldg. Site, Balboa Park

Station		Readings (elev. / rod / dist.)
0+94		274.60 / 6.7 / 100; 275.65 / 5.65 / 57+5 Hub; 275.9 / 5.4 / 42; Lt. 277.4 / 3.9 / 33; 277.5 / 3.8 / 25; 276.90 / 4.40 / 19+5 Hub; B.Lot 276.97 / 4.33 / Hub; 277.3 / 4.0 / 30; Rt. 277.5 / 3.8 / 60
0+60	℄ Bldg.	275.5 / 5.8 / 100; 275.7 / 5.6 / 60; 276.5 / 4.8 / 32; 277.6 / 3.7 / 26; 276.8 / 4.5 / 21; 276.8 / 4.5; 277.1 / 4.2 / 30; 277.2 / 4.1 / 60
0+26		275.8 / 5.5 / 100; 276.49 / 4.81 / 57+5 Hub; 276.8 / 4.5 / 40; 277.72 / 3.58 / 33+5 Hub; 277.8 / 3.5 / 24; 276.8 / 4.5 / 21; 276.91 / 4.39 / Hub; 277.0 / 4.3 / 30; 277.1 / 4.2 / 60
0+00	S.L. Bldg.	276.2 / 5.1 / 100; 276.62 / 4.68 / 57+5 Hub; 276.82 / 4.48 / 33+5 Hub; 277.7 / 3.6 / 26; 277.7 / 3.6; 276.8 / 4.5 / 10; 276.9 / 4.4 / 30; 276.8 / 4.5 / 60
0-14		276.3 / 5.0 / 100; 276.8 / 4.5 / 50; 276.8 / 4.5 / 20; 277.4 / 3.9; 277.7 / 3.6 / 30; 277.8 / 3.5 / 60
0-20		276.5 / 4.8 / 100; 277.1 / 4.2 / 65; 277.0 / 4.3 / 32; 276.3 / 5.0; 276.4 / 4.9 / 30; 276.9 / 4.4 / 60

T.P.	6.98	281.30	5.72	274.32	Spike Tel. Pole Sw Cor. Swim Pool Blk. 281.30
T.P.	3.69	280.01	4.58	276.35	
NE BP	2.84	280.93		278.09	Upas & Louisiana

281.30
6.98
274.32
6.00
280.32
3.72
276.60
4.0
280.60
2.55
278.05
2 on 3 B.M.

			LT			BL.	RT.	
1+72.5	℄ cb	272.74 / 8.56 / 159.9 end cb Ret.	273.05 / 8.25 / 144.9 Pav	273.52 / 7.78 / 124.9 Pav	274.20 / 7.10 / 109.9 cb P.C.	275.81 / 5.49 / 53 cb end	277.20 / 4.1	278.0 / 3.3 / 30	278.4 / 2.9 / 60
1+72.4	Gut. oil Pav	271.99 / 9.31 / 160			273.80 / 7.50 / 110	275.10 / 6.20 / 53	277.0 / 4.30	277.85 / 3.45 / 30	278.37 / 2.93 / 60
1+52.5	S edge oil Pav			273.56 / 7.74 / 125	273.93 / 7.37 / 100	275.34 / 5.96 / 50	277.02 / 4.28	277.78 / 3.52 / 30	278.29 / 3.01 / 60
1+40				274.2 / 7.1 / 100	275.5 / 5.8 / 50		276.9 / 4.4	277.7 / 3.6 / 30	278.7 / 2.6 / 60
1+28				274.2 / 7.1 / 100	275.3 / 6.0 / 60	276.1 / 5.2 / 32	277.8 / 3.5 / 20	277.9 / 3.4	278.3 / 3.0 / 30	278.8 / 2.5 / 60
1+20	NL Bldg.			274.3 / 7.0 / 100	275.35 / 5.95 / 57.25 Hub	276.0 / 5.3 / 34	277.89 / 3.41 / 19.25 Hub	277.2 / 4.1	277.4 / 3.9 / 30	277.7 / 3.6 / 60

281.30

281.30

Walker
Hogard
Hurdis
Boggs
5-21-14

Survey for Proposed Water Main

From 5th and Laurel Sts.
to 7th " "
on LAUREL STREET.

Cont. on P. 70

2+36.9 = Int. cb. Return

2+25 = Beginning Full width Walk ground Return

2+24.2 = ℄ Elec Pole 2.1' Lt. = S edge Pole

2+18.9 = W.L. 6th Ave

1+47 = Water Meter Service Box 1' Lt. = S edge

1+38.5 = ℄ Elec. Pole, South edge Pole = 1.5' Lt.

1+38.2 = End Full width Side Walk

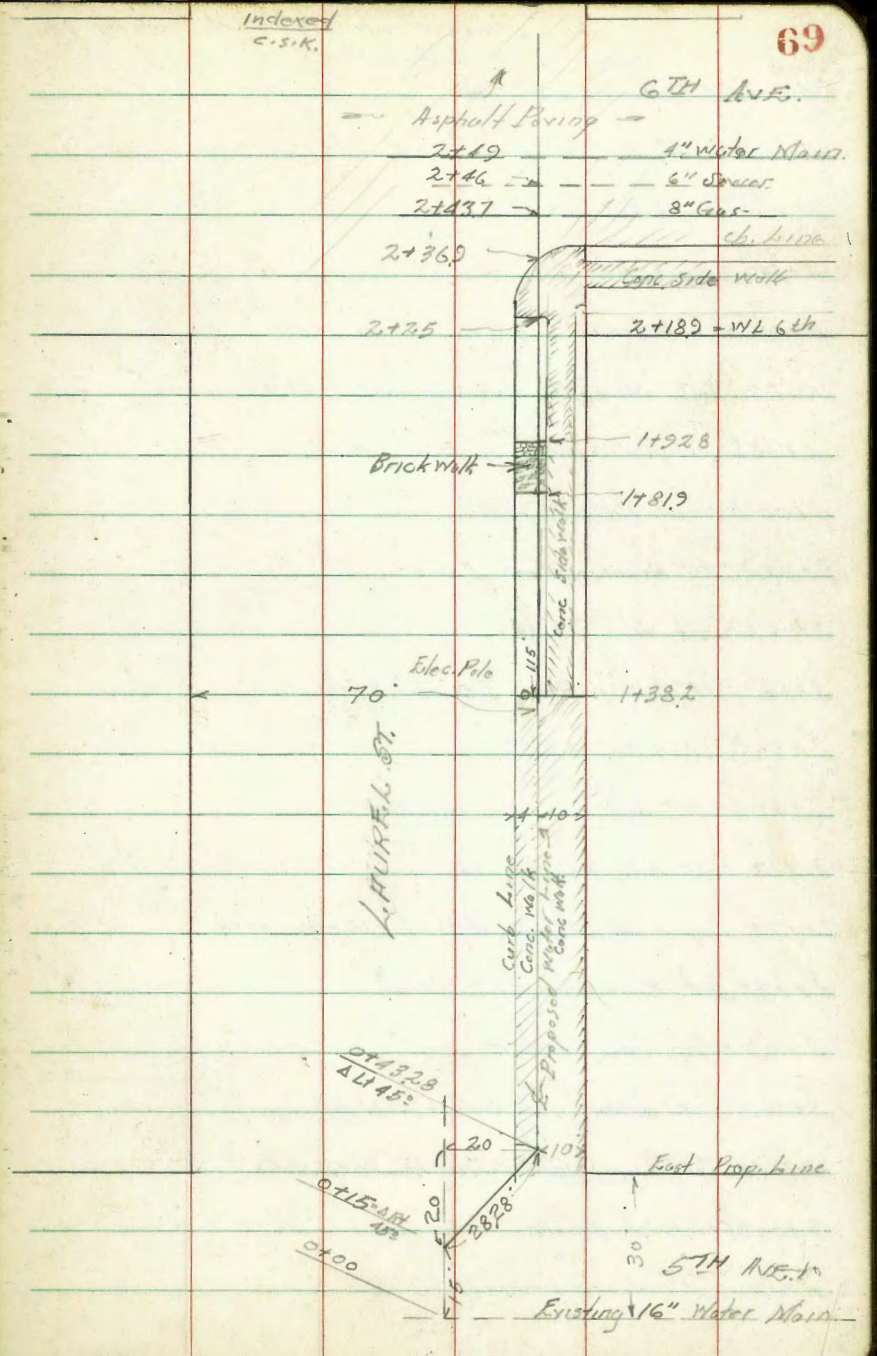
0+14.328 = Δ Lt. 45°

0+15 = Δ Rt 45°

0+00 = ℄ Existing 16" Water Line

Indexed
C.S.K.

69



Location Proposed 24" Water Main
Laurel St.

Cont. p. 71

4+67.2 = Sprk Hd. 2.8' Rt.

4+60 = 12" Accacia Tree 5' Rt.

4+50.7 = Sprk. Hd. 2.8' Rt.

4+34 = Sprk. Hd. 2.8' Rt.

4+25 = 6" Accacia 5' Rt. = N edge

4+17 = Sprk. Hd-2.7' Rt Also Light standard = 4.5' Rt. = N edge

4+08.5 = 8" Accacia Tree 5' Rt. = N edge

4+00.5 = Sprk Hd. 2.7' Rt.

3+92 = 10" Accacia Tree 5.0 Rt.

3+67 = Sprk Hd 2.8' Rt

3+58 = 14" Accacia Tree 5.0' Rt. = N. edge

3+56.5 = Sprk Hd. 2.7' Rt

3+41.5 = 10" Accacia Tree 6.0' Rt. = N edge

3+18 = Sprinkler Hd 2.6' Rt.

3+17 = Light Standard 4.4' Rt. = N edge Base.

3+13 = Int. East edge Asphalt Walk

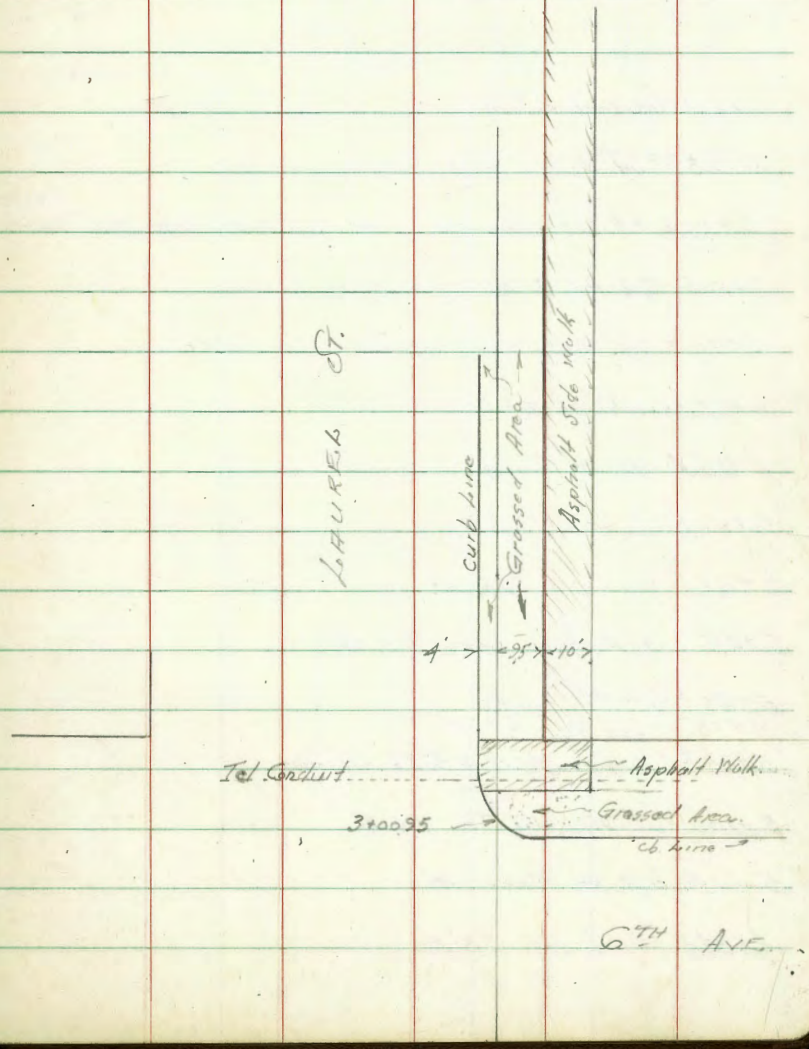
3+09 = Int. Tel. Conduit

3+06.2 = Int. Asphalt side walk = West side

3+04.8 = Sprinkler Control Valve 1.2' Rt = E Valve

3+00.95 = Int. cb. Return

Cont. from p. 69



Location Proposed 24" Water Main
— Laurel St.

7+00.3 = Int. 24" Water

6+35.2 = Int. curb Return

6+23.2 = Int. Asphalt Walk

6+19.2 = Light Standard 5' Rt Water Meter Box = 2.2' Lt. 5 edge

6+17.5 = Spk Hd 3' Rt

6+11 = 16" Accacia 5' Rt

6+02 = Spk Hd 2.8' Rt

5+85.4 = Spk Hd 2.8' Rt

5+68.7 = Spk Hd 2.8' Rt

5+51.5 = Spk Hd 2.8' Rt

5+43 = 14" Accacia Tree 5.2' Rt

5+35 = Spk Hd 2.8' Rt

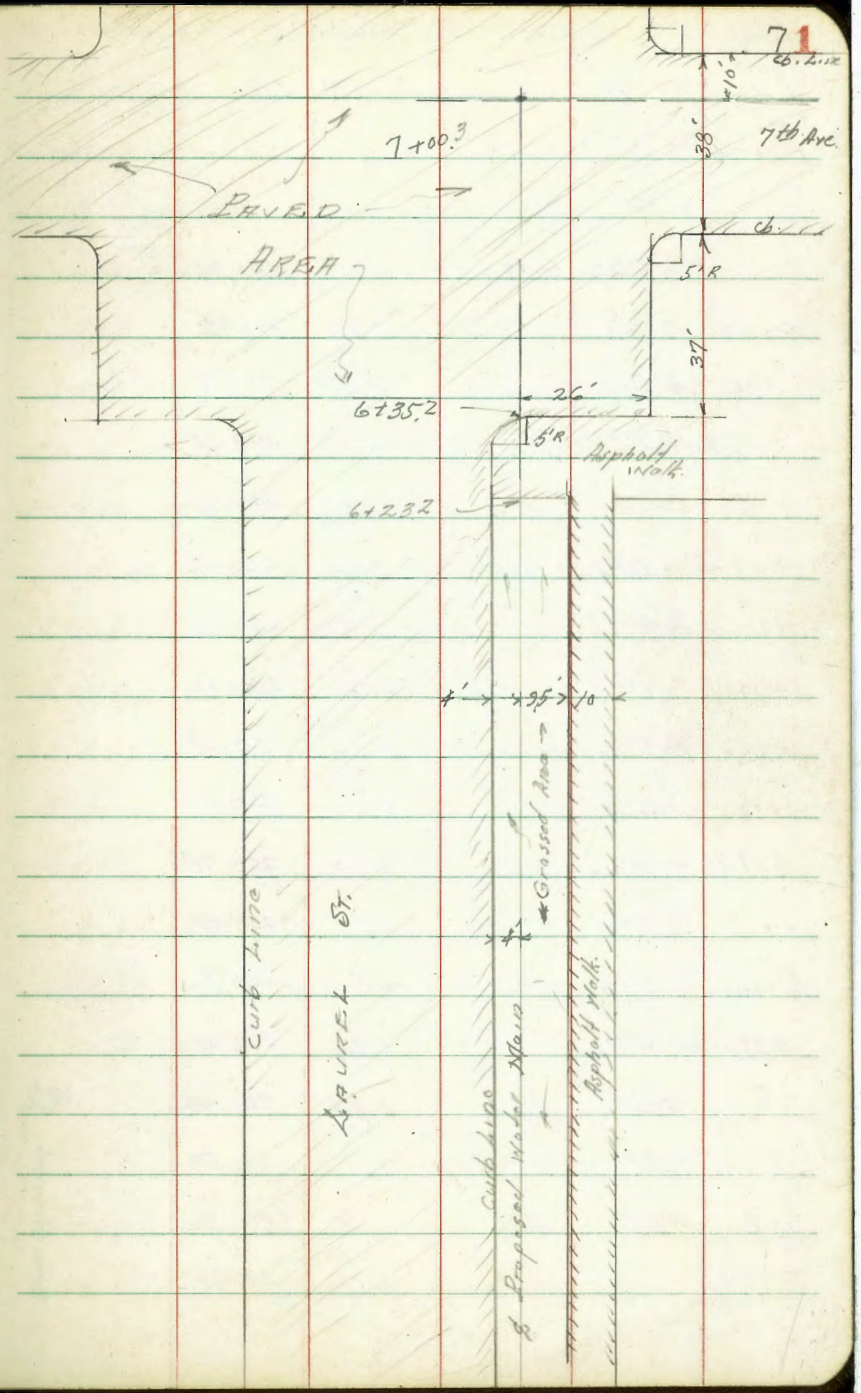
5+18.2 = Spk Hd = 2.7' Rt

5+18.2 = Light Std. 4.5' Rt = N edge

5+10 = 5" Accacia Tree 5.9' Rt

5+01.5 2.7' Rt. = Spk Hd.

4+84.8 = Spk Hd. 2.8' Rt.



Walker
Hazard
Hardin
Baggs.
5-26-44

Levels for Proposed Water Main on Laurel St. Between 5th & 7th Ave

Location R-69 - 71

	5.43	255.38		249.95	NW. B.P. 5th & Laurel
0+00			5.43	249.95	
+15 = Δ Rt. 45°			5.67	249.71	
+37.3 = Int. cb. on Gut.			5.87	249.51	
" " " " cb.			5.45	249.93	
+43.28 = Δ Lt 45° on Walk			5.38	250.00	
+50 on Walk			5.28	250.10	
1+00 " "			4.96	250.42	
+38.2 = end Full width Walk			4.81	250.57	
1+58 on Grass			4.7	250.7	
+81.9 " Brick Walk			4.60	250.78	
+92.8 " "			4.57	250.81	
2+00			4.5	250.9	
+35 on Walk			4.30	251.08	
+36.9 " cb.			4.34	251.04	
" " Lat.			4.84	250.54	
T.P.	4.47	255.51	4.34	251.04	
2+50			4.59	250.96	

Notes Reduced

255.51 ✓

12

2+69 = Δ 6th st Roadway	4.24	251.27	
3+00	4.70	250.81	
+01 on cb.	4.31	251.20	
+06.2 on Asphalt Walk	4.24	251.27	
+13 " " "	4.15	251.36	
3+50	4.2	251.3	
4' Lt. on cb.	4.31	251.20	
4+00	4.6	250.9	
4' Lt " "	4.53	250.93	
4+50	5.0	250.5	
5+00	5.5	250.0	
4' Lt. " "	5.57	249.93	
5+50	5.9	249.6	
6+00	6.3	249.2	
4 Lt. on cb.	6.42	249.09	
6+2.32 on Int. Walk.	6.46	249.05	
+6.33 on cb.	6.44	249.07	
" " Gut. Lacing.	7.02	248.49	
6+50	7.13	248.38	
7+00.3 = End	7.65	247.86	
Chk. B.M. B.P.	3.56	251.95 ✓ OK	NW. 6th & Laurel

C. Moore
Sommermeyer
W. E.K.I.
Beggs
7-19-44

Indexed
C.S.K.

Levels on Recr. Bldg.

N W Cor. Lincoln & Idaho

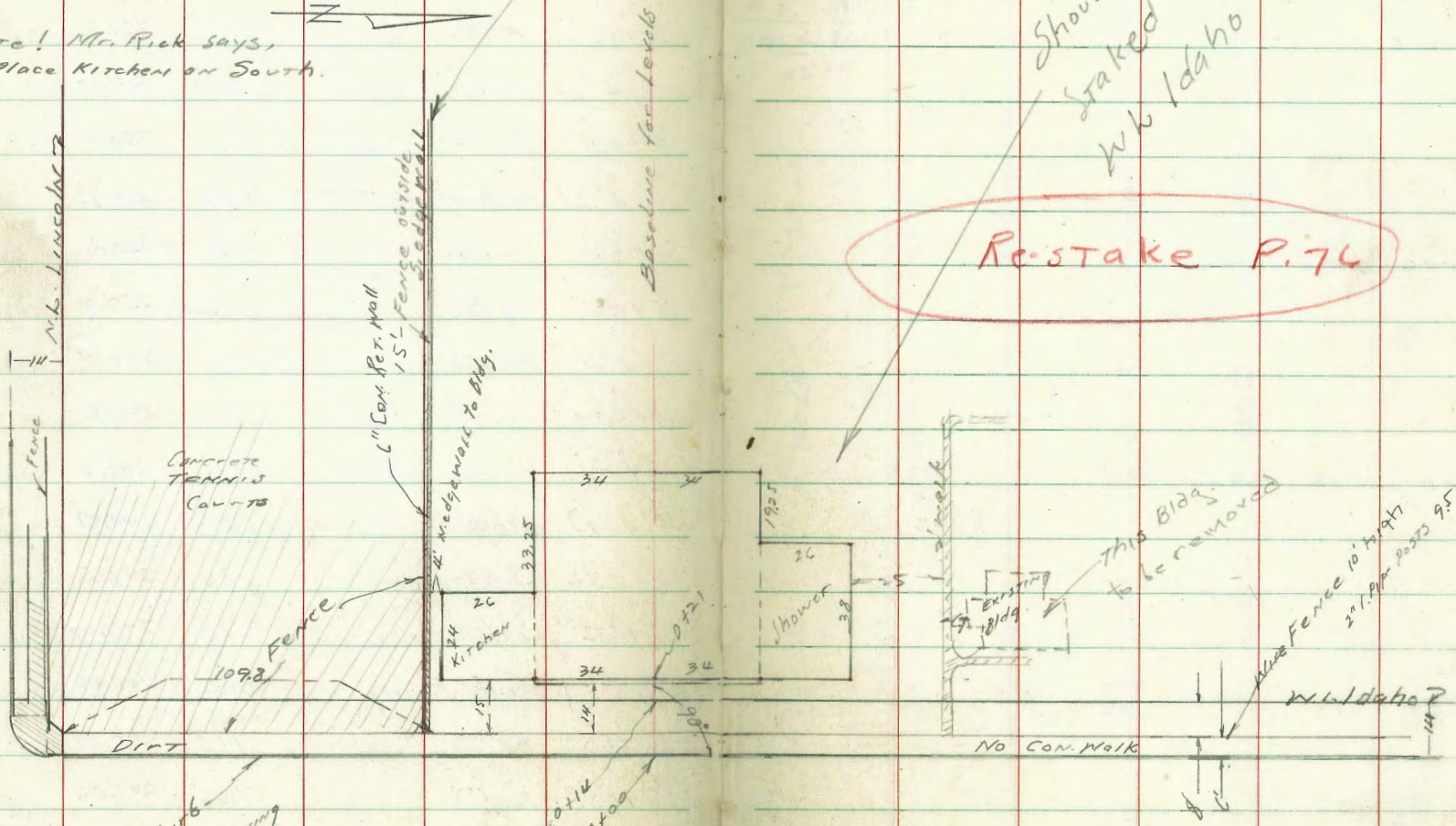
• = 2x2 Hubs set

109.8 N.L. Lincoln to N. edge 6" Con. Ret. Wall

Note! Mr. Rick says, Place Kitchen on South.

Should have been staked 15± Back of W.L. Idaho

Re-stake P. 76



Levels on Site Recr. Bldg
NW Lincoln & Idaho

Baseline

RT. = to North

Station	Description			Top 6" wall	Lt.			Baseline		RT.
0+14	W. b. Idaho			363.74 / 4.89 / 64	362.93 / 5.7 / 64	362.93 / 5.7 / 60	363.23 / 5.4 / 34	363.83 / 4.8	364.33 / 4.3 / 34	364.63 / 4.0 / 60
0+06.5				363.75 / 4.88 / 64	363.13 / 5.5 / 64	363.03 / 5.6 / 60	363.33 / 5.3 / 34	363.83 / 4.8	364.33 / 4.3 / 34	364.63 / 4.0 / 60
0+06	10' High fence					362.63 / 6.0 / 60	363.13 / 5.5 / 34	363.53 / 5.1	363.93 / 4.7 / 34	364.43 / 4.2 / 60
0+00	W. cb. Idaho					362.62 / 6.01 / 60	363.04 / 5.59 / 34	363.42 / 5.21	363.99 / 4.64 / 34	364.37 / 4.26 / 60
0+00	W. gut. Idaho					362.07 / 6.56 / 60	362.49 / 6.14 / 34	362.89 / 5.74	363.37 / 5.26 / 34	363.82 / 4.81 / 60
BM BP in cb SE Cor.	7.78	368.63	360.85	Lincoln & Idaho				368.63		

Lt. Baseline Rt.

1+00			362.95	362.23	362.13	362.43	362.93	363.73		364.33	
			5.68	6.4	6.5	6.7	5.7	4.9		4.3	
		Top wall	6.4	6.4	6.0	3.4		3.4		6.0	
0+78.25	Back Line of Bldg		363.22	362.33	362.33	362.63	363.23	363.93		364.33	
			5.41	6.3	6.3	6.0	5.4	4.7		4.3	
		Top wall	6.4	6.4	6.0	3.4		3.4		6.0	
0+59	Back Line of Showroom		363.36	362.43	362.63	362.93	363.63	364.03		364.33	
			5.27	6.4	6.0	5.7	5.0	4.6		4.3	
		Top wall	6.4	6.4	6.0	3.4		3.4		6.0	
0+45	Back Line Kitchen		363.50	362.83	362.73	363.13	363.63	364.13		364.53	
			5.13	5.8	5.9	5.5	5.0	4.5		4.1	
		Top wall	6.4	6.4	6.0	3.4		3.4		6.0	
0+11	Back Front Bldg.		363.73	362.93	362.93	363.23	363.73	364.23		364.53	
			4.90	5.7	5.7	5.4	4.9	4.4		4.1	
		Top wall	6.4	6.4	6.0	3.4		3.4		6.0	

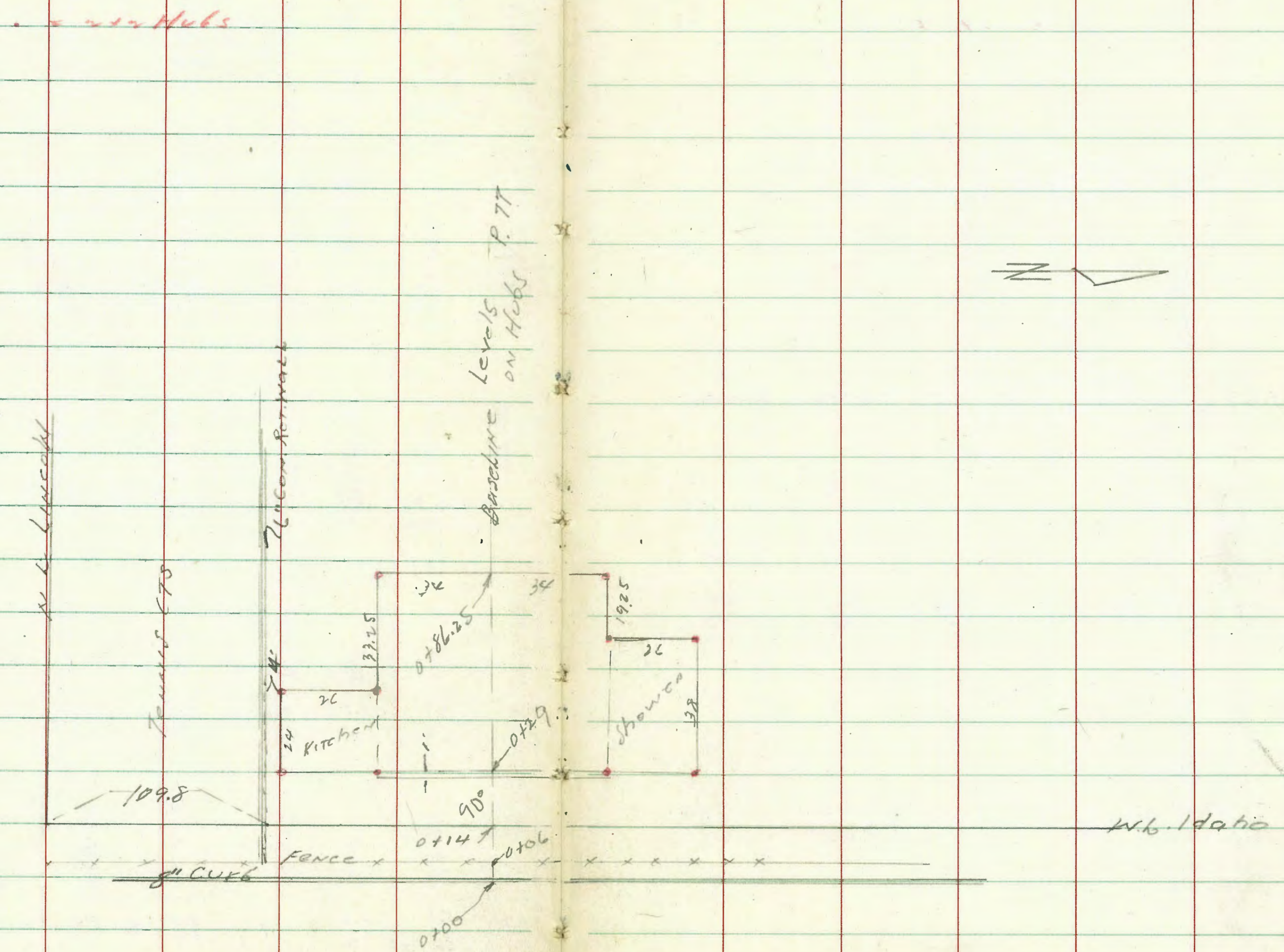
368.63

368.63

Recr. Bldg. Lincoln + Idaho

Re-stake from P. 73 C.S.M. 7-22-44

Levels on Hubs P. 77



Levels on Hubs
on Re-stake
Sketch p. 76

Station	Description	LT	℄ Bldg. Baseline		RT. = To North
0+86.75	Back Line Bldg		5.88 / 34, 362.53	4.45 / 34, 363.96	
0+67	Back Line of Shower Room			4.44 / 34, 363.97	4.11 / 60, 364.30
0+53	Back Line Kitchen	5.75 / 60, 362.66	5.35 / 34, 363.06		
0+29	Front Line Wings	5.47 / 60, 362.94	5.19 / 34, 363.22	4.23 / 34, 364.18	3.88 / 60, 364.53

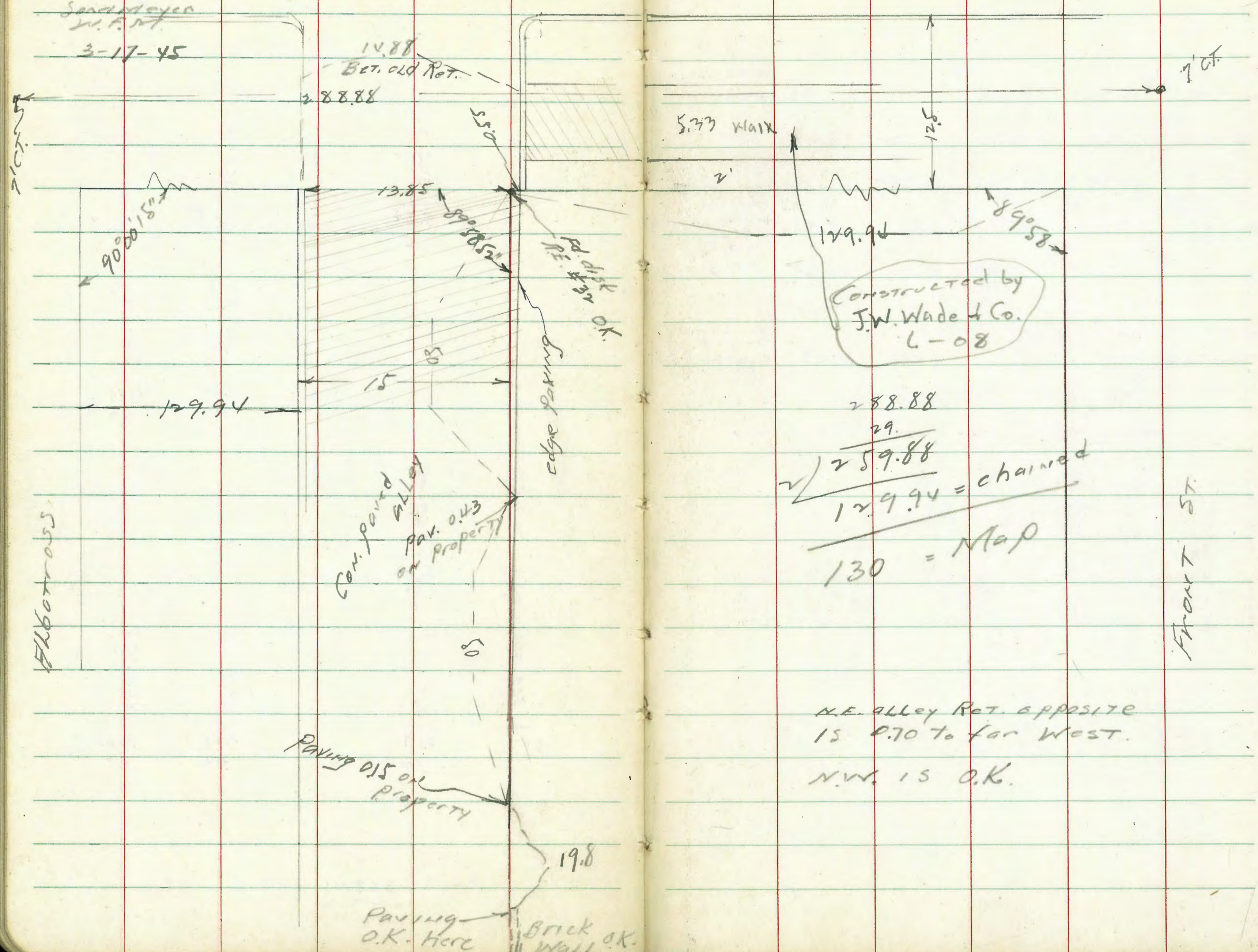
BM P.74 7.56 368.41 360.85

368.41

Check alley line in Blk C Cleveland Hts.

3-17-45

Robinson Ave.



Seven Levels at Etiwanda S. of Castellan — C S M — 1-30-46.

S.W.Ly Spike in P.P.	5.98	30.04		24.06	W. Pt. Loma B. Mentone
T.P.	3.25	32.16	11.13	18.91	
T.P. Stan. di 3K Con. Mon.	10.39	32.21	0.3V	21.82	
T.P. USGS-H-60 19.38	8.16	34.67	3.70	28.51	W.Ly Cor. of W. Pt. Loma B.Lv. Seaside 28.033 FB 1317-Co
T.P.	7.42	41.34	2.75	33.92	
Set B.M.B.P. on W.Ly Curb	approx. 66. B.C		7.66	33.68	Etiwanda and Castellan

41.34
10.88
30.46

41.34
4.39
36.95

41.34
8.02
33.32

41.34
6.00
35.34

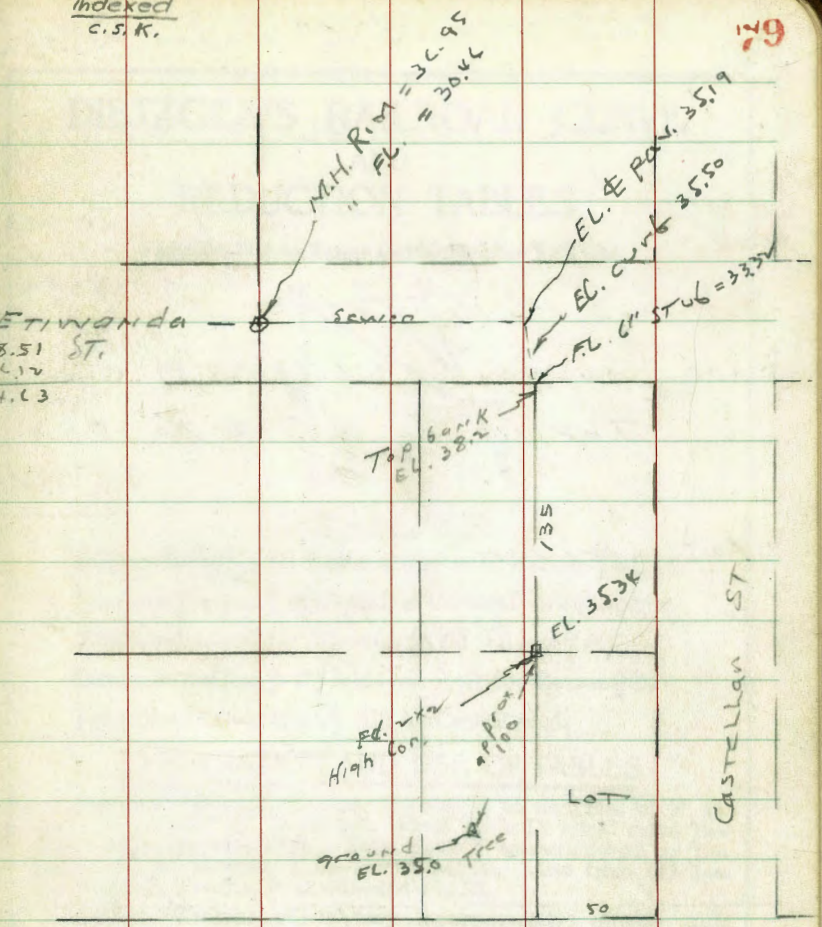
41.34
6.3E
35.0

41.34
5.8E
35.50

41.34
6.15
35.19

indexed
C.S.K.

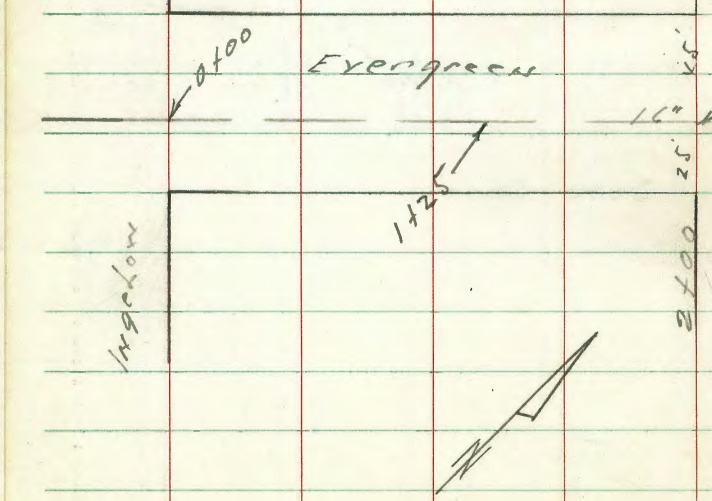
179



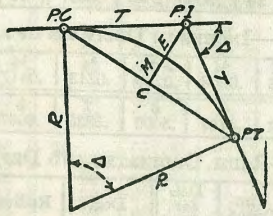
EL.s Top of 16" Water Main on Evergreen

Betw. Ingelow & Jarvis

S.E. 7' Mon.		7.87	30.72	22.85	Jarvis Evergreen 1728-27
0+00	on pav.		6.13	24.59	Moore Begg Green Roberts
"	Top 16" Water Line		9.67	21.05	5-29-47 W.O. 31283
1+25	ground		5.5	25.2	
"	Top 16" Water Line		9.05	21.67	



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

Radius=R=$\frac{50}{\text{sin. } D/2}$ (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. $\frac{\Delta}{2}$) (5) =R vers $\frac{\Delta}{2}$ (6)

External=E=T tan $\frac{\Delta}{4}$ (7) =R ÷ cos. $\frac{\Delta}{2}$ −R (8)=R 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. Δ=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and ÷8⅓=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 ÷ 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 ÷ (2 x 688.26)=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6 ÷ 8⅓=91.27 and from Table V correction=.10 or E=91.37 ft. Or suppose Δ=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.