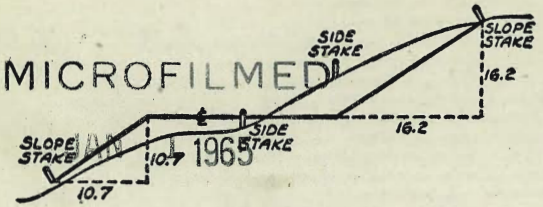
2209

STORM DRAINS

RANK BOOK



Distances from Side Stakes for Cross-Sectioning

Slope 1 to 1. Roadway of Any Width

	0	.1	.2	.3	.4	.5	.6	.7	.8	9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

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

TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

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

FOR TANGENTS ADD

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	03	.06	09	13	16	19	.22	.25	.28	.31	.34	38	42	.46
15°	04	10	14	19	24	.29	.34	.39	45	.51	.53	58	.63	.68
20°	06	.13	19	.26	.32	.39	.45	.51	.58	.65	.72	79	.84	.90
25°	.08	16	24	.33	40	49	.58	67	.75	.83	90	.99	1.06	1.14
30°	10	19	.29	39	49	.59	.69	79	.89	.99	1.09	1.20	1.29	1.39
35°	11	22	.34	47	.58	.69	.70	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	15	.30	44	60	76	91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	19	.38	.57	76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	23	46	.69	.93	1.16	1 40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	25	.51	76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	30	.61	.91	1.22	1.53	1.84	2.15	2.46	2 78	3.10	3.44	3.78	4.12	4.46
85°	33	66	1.00	1.33	1.68	2.02	2.36	2 70	3.05	3.40	3.77	4.14	4.55	4 89
90°	36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	39	79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4 76	5.31	5 86	6.43	7 01	7 60
120°	62	1.25	1 93	2.52	3.16	3.81	4 45	5.11	5.77	6 44	7 12	7.80	8.50	9 22

FOR EXTERNALS ADD

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

INDEX

Pgs

Survey - Drain 400' N. La Jolla Mesa Dr. etc 1-5

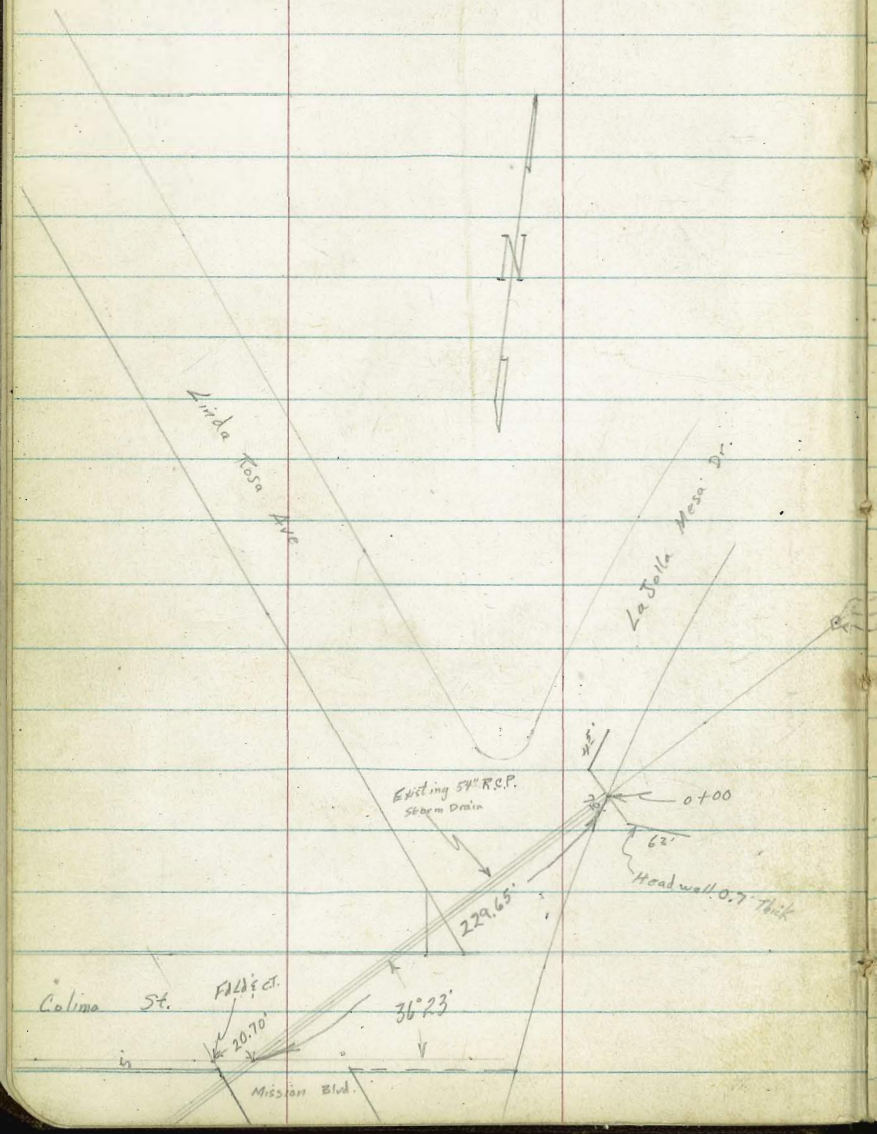
Survey - Tile Drain 4900 Blk W. Mt. View Dr 6

Survey Proposed Drain Diamond, Academy STS 19-31

Roberts
cota
Moore
4-2-52
WO 20006

Survey for Proposed Storm Drain
End of Exist 54" at La Jolla Mesa Dr.
and Linda Rosa Ave. Nly.

5851-L FB2048 pg.2



Cont'd From Page 2

Sta.					
1+50	∠ Lt	22° 00.0'			(on split)
T.P.	9.14	187.80 ⊼	1.06	178.66	
1+00					
0+63					
0+23					
0+00	End Existing 54" R.C.P.				
BM	18.25	179.72 ⊼		161.47	INVERT Exist 54" Drain at 0+00

Lt				℄		Rt
182.3 5.5 / 55	183.7 4.1 / 44	171.3 16.5 / 26	182.4 5.4 / 9	182.5 5.3		181.9 5.9 / 25
				187.80 ⊼		
178.2 1.5 / 46	179.1 0 / 35	168.4 11.3 / 21	177.9 1.8 / 5	178.2 1.5		178.7 1.0 / 25
173.9 5.8 / 37	175.1 4.6 / 25	166.1 13.6 / 13		175.9 3.8		175.9 3.8 / 15
171.1 8.6 / 25	172.2 7.5 / 14	164.4 15.3 / 5		163.9 15.8	169.9 9.8 / 12	172.2 7.5 / 25
				170.2 9.70 Top Headwall	161.47 Elev. Invert	
See F.B. 2048 pg 4				179.72 ⊼		

Cont'd From Page 2

Station	Lt					℄	Rt			
2+88						182.1 5.7				
2+84						182.4 4.4				
2+30				187.8 0 18	184.7 3.1 11	181.6 6.2	179.3 8.5 8	178.7 9.1 23	176.8 11.0 27	179.0 8.8 32
2+10						178.0 9.8				
2+06						175.0 12.8				
1+85	185.1 2.7 52	187.1 0.7 38	177.8 10.0 23	176.5 11.3 8	174.1 13.7 5	173.6 14.2	184.6 3.2 16	185.1 2.7 30		
1+59						185.1 4.7				

187.80 BM

187.80

Cont'd From Page 3

Station					Lt		℄			Rt
3+97							189.6 / 8.4			
3+80					195.8 / 2.2 / 25	191.6 / 6.4 / 8	188.0 / 10.0	186.7 / 11.3 / 3	191.7 / 6.3 / 10	194.0 / 4.0 / 20
							↖ Large Rocks			
3+74							186.5 / 11.5			
3+50							187.9 / 10.1			
T.P.	11.19	197.98 HI ✓	1.01	186.79 ✓			197.98 HI ✓			
3+23	23¾' Lt to 18" R.C.P. from La Jolla Mesa Dr.				192.8 / +5.0 / 33	185.4 / 2.4 / 23¾ INVERT	184.1 / 3.7 / 15	186.9 / 0.9 / 10	187.1 / 0.7	187.8 / 0 / 12
										190.0 / +2.2 / 25
2+92							183.4 / 4.4			

187.80 HI

187.80 HI

Cont'd From Page 4

Lt ℄ Rt 5

Reduced by CRL 4-3-52

Check			4.16	161.46	= 161.47			
T.P.	0.50	185.62	12.86	185.12				
4+00						1964	1909	1892
						1.6	7.1	9.0
						22	17	6
		197.98						

						1885	1863	1910
						9.5	9.7	8.0
							4	8
						197.98		

1965
1.5
20

Clark
Shephard
Bruner
Bryson

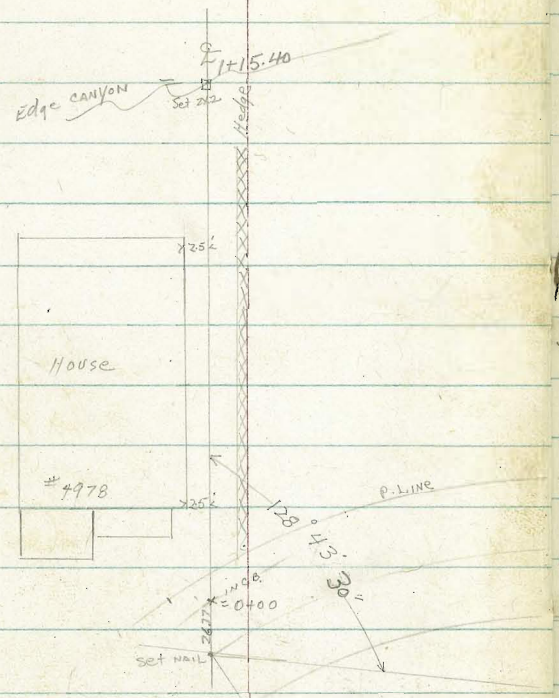
8-5-52
W.O. 21009

SURVEY - Tile DRAIN

4900 BLK. W. MT. VIEW DR.

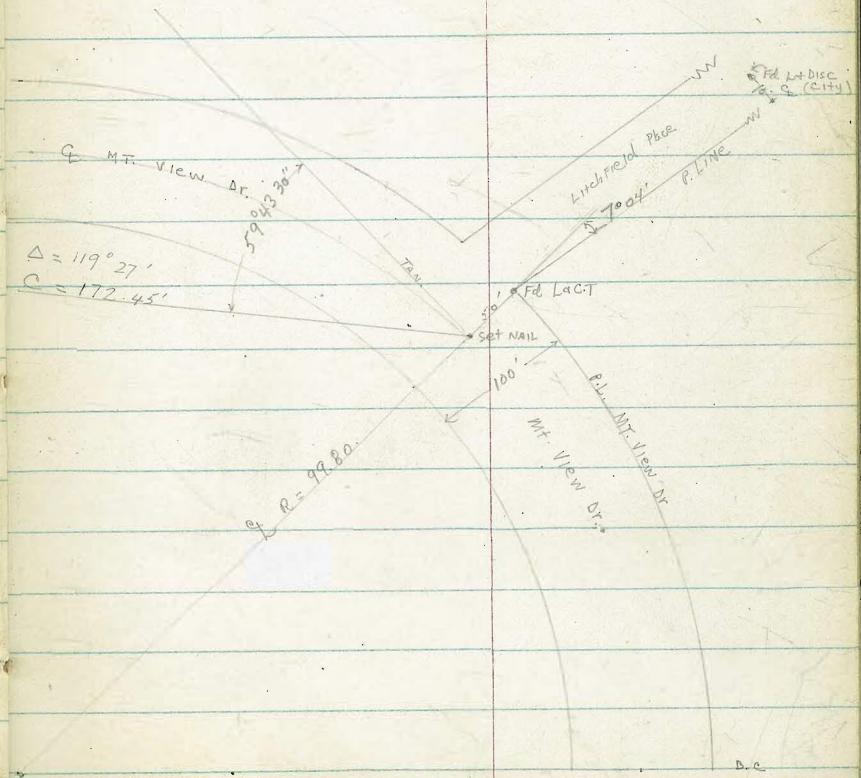
Notes: Pg 7

Not to scale:



Note: { NO DATA AVAILable ON Resub. LOT. 4o NORMAL HTS
No LOT Bearings ETC. No City PTS. Fd, EXCEPT ON
Litchfield Place:

DATA: T.P. #18 - 42
Sheet #2 MAP 1870
985 - NORMAL HTS



Survey - Tile Drain 4900 Blk

W. Mt. View Dr.

		LT.	℄	RT.
0+50		3950	3948	3948
		4.8	5.0	5.0
		2.5		2.5
0+37.80	2.5' LT Beg. house. 3.5' LT end Porch. Picket Fence & gate			
0+32	3.5' LT Frontedge Conc Porch			
0+31	2' LT ℄ 6" Palm	3957	3950	3950
0+25		4.7	4.8	4.8
		2.5		2.5
0+16	2.5' RT Beg 5'x1.5' Hedge			
0+15	BK Edge WALK	3947.81	3948.85	3947.81
		4.90	4.96	4.90
		10		10
0+10.5	Edge WALK (outs along Arc WALK)	3947.66	3948.56	3947.57
		5.15	5.25	5.24
		10		10
0+00 = CB. Line (S/W) Mt. View Drive	(outs taken along Arc - CB.	3947.35	3947.04	3947.06
		5.46	5.77	5.75
		25	G	25
		TP CB		G
		3947.55	3947.46	3947.58
		5.82	5.35	5.23
		25	TP CB	25
		G		TP CB

399.81

5.27 399.81 394.54 = N/W B.P. Litchfield & Mt. View Dr.

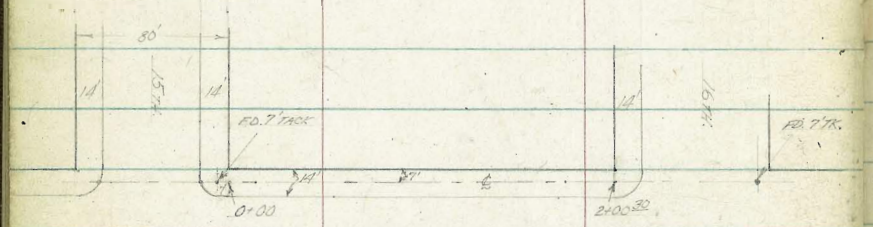
Chk. 5.27 394.54 N/W BP. Litchfield + Mt. View Dr.

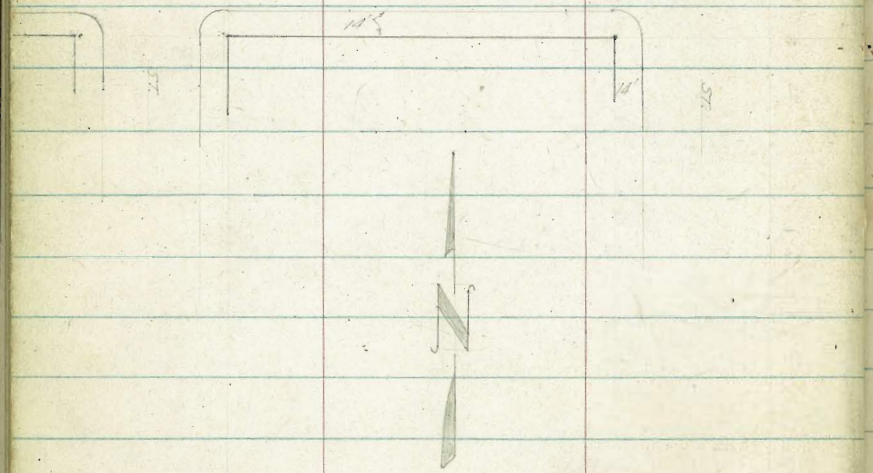
Station	Description	Readings
1+25	on slope canyon	377 8 — 22.0 / 2.5; 378 1 — 21.6; 378 8 — 21 / 2.5
1+15.40	edge CANYON	386 0 — 13.8 / 2.5; 386 6 — 13.2; 387 0 — 12.8 / 2.5
1+09	1.5' RT END 8" wide Conc. Ret. WAll + Picket Fence	392 96 — 6.85 / 1.5 TP. WAll; 389 6 — 10.2 / 1.5 Ft. WAll
1+03	2.2 RT ℄ end 5'x1.5' hedge	
1+02.1	Face 12" wide Ret WAll, Conc.	393 8 — 6.0 / 2.5; (391 1 — 8.7 Ftng WAll; 393 1 — 6.1 TP. WAll); 393 1 — 6.1 / 2.5
0+76	0.2' RT Edge 4"+6" Clothes Line Pole	
0+75	Edge 2' Conc. WAlk	394 6 — 5.2 / 2.5; (394 61 — 5.20 TP WAlk; 394 6 — 5.2 DirT); 394 6 — 5.2 / 2.5
0+66	2.5' LT END house	
	1.5' RT Beg. 8" Conc. WAll + Picket Fence (2.5")	
0+65.80	Face 8"x6" Conc. curb.	(394 86 — 4.95 TPCB; 394 7 — 5.1 dirT); 394 86 — 4.95 / 1.5 TP. WAll; 394 76 — 5.85 / 1.5 Ft. WAll

399.81

SURVEY FOR DRAIN ON BROADWAY 15TH ST. TO 16TH ST.

COTA
MOORE
CULLEN
12-31-52
W.O.# 21069



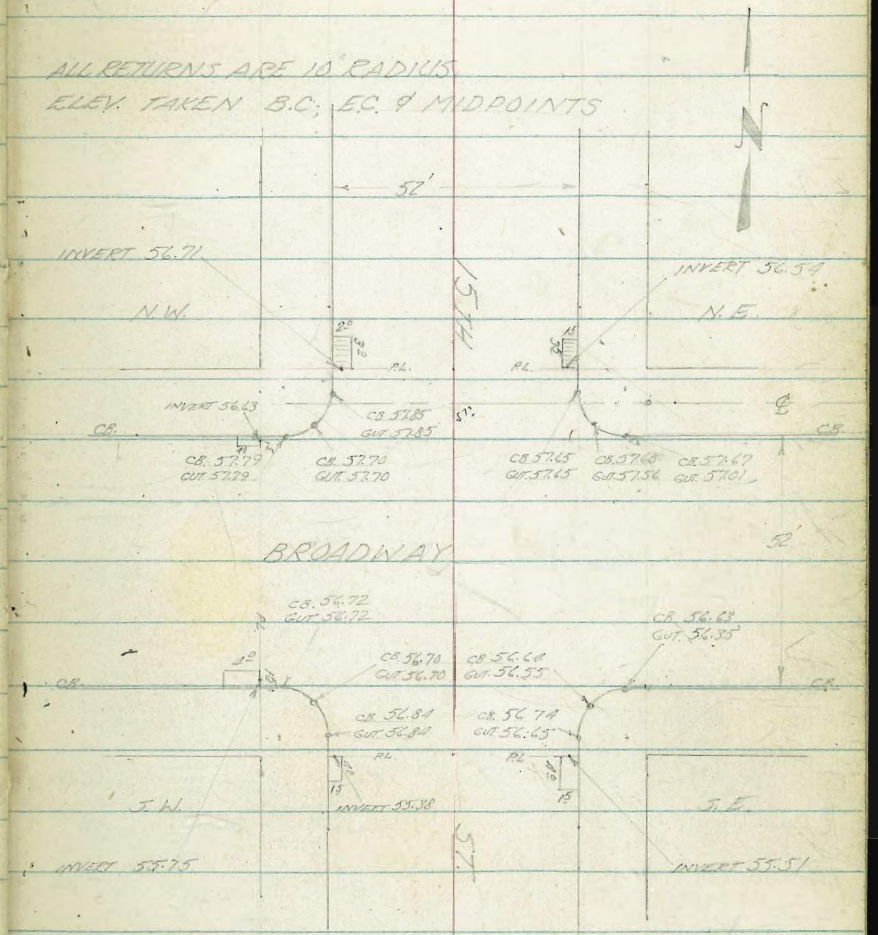


14' COMBINATION SIDEWALK & CB. ON BROADWAY

56.62 INC

9

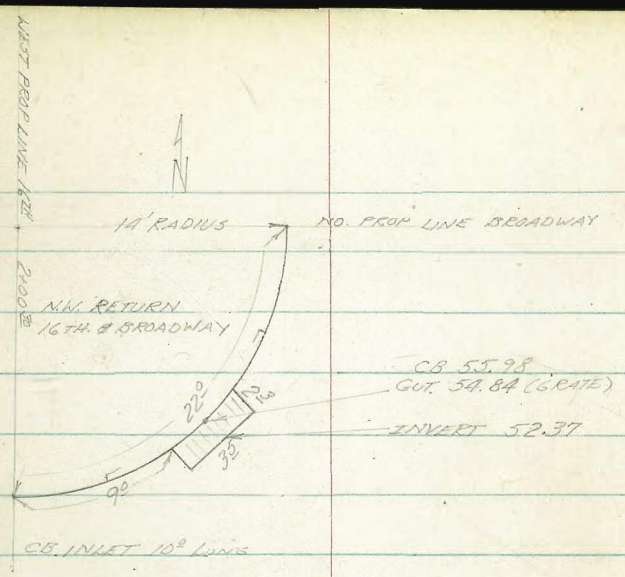
ALL RETURNS ARE 10' RADIUS
ELEV. TAKEN B.C.; E.C. & MIDPOINTS



USED DIRECT ELEV. ROD

0+03	5.5 RT. ℄	FIRE ALARM BOX #146	℄
0+01	5.5 RT. ℄	METAL POLE 16" DIAM.	
0+00	EAST PROP. LINE 15TH. ST.		57.86
0-02	5.0 SOUTH,	CENTER STREET SIGN	
0-13.2	LINE CROSSES N.E. RETURN		57.65 CB & CUT
0-40	℄ 15TH. ST.		57.71
0-66.2	LINE CROSSES N.W. RETURN		57.78 CB 57.71 CUT
0-80	5.5 SOUTH,	CENTER ORN. STREET LIGHT	
DIRECT ELEV. POD.		55.89 S.W.B.P. 16TH. & BROADWAY	

SURVEY FOR DRAIN ON BROADWAY 15TH. ST. TO 16TH. ST.
CONT'D.



CHECK B.M. 55.89 = 55.89 S.W.R.P. 16TH & BROADWAY

2+12.6 LINE CROSSES N.W. RETURN 16TH. ST.

2+00.5 5.5 RT. & ORN. STREET LIGHT.

2+00.30 WEST PROP. LINE 16TH. ST.

1+97 5.5 RT. & 10" DIAM. METAL POST

1+50

1+00

0+50

55.97 CB. 55.01 GUT.

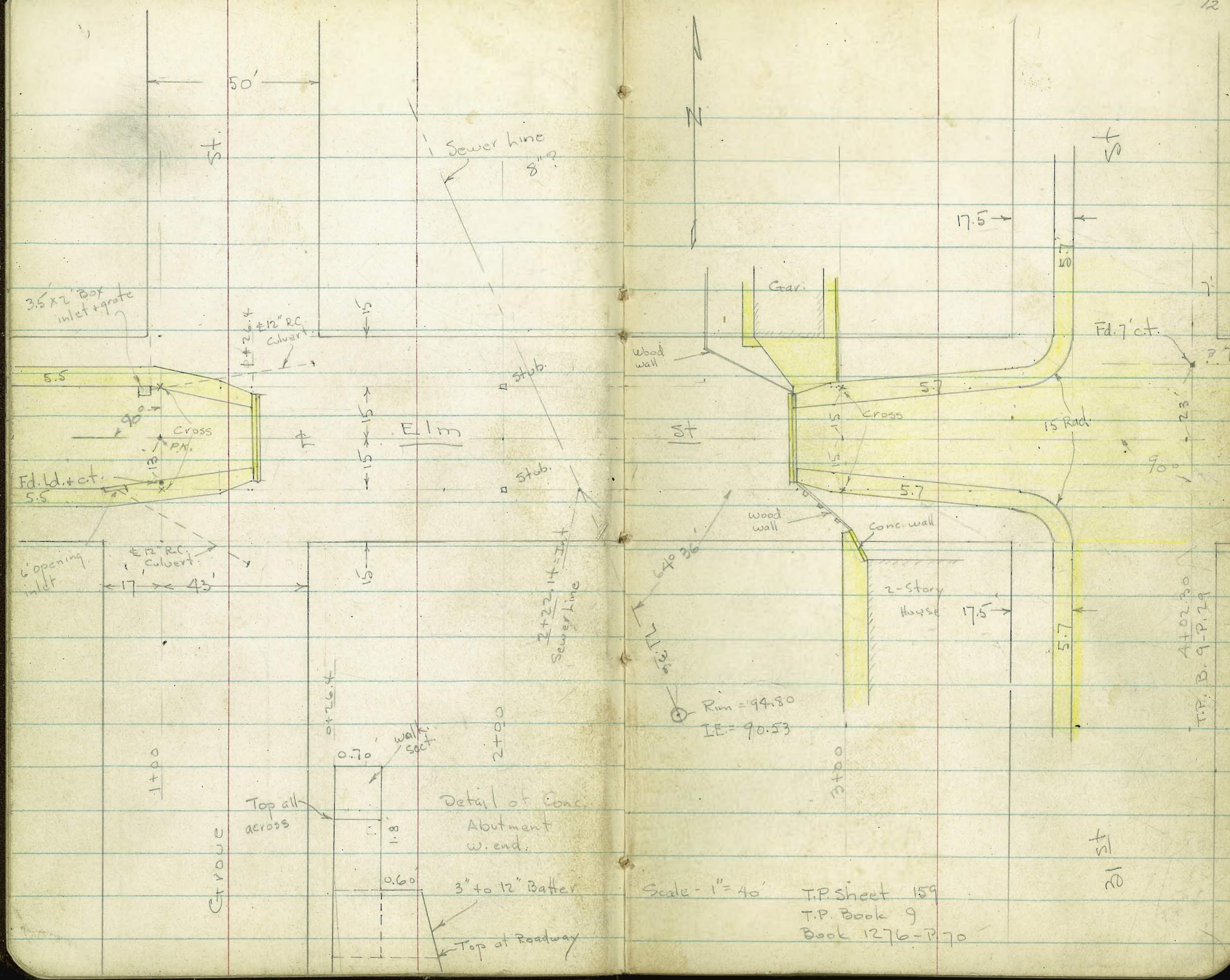
56.07

56.53

56.85

57.39

DIRECT ELEV. R&D


50'
St
Sewer Line
8"?
3.5'x2' Box inlet + grate
12" R.C. Culvert
5.5
90°
Cross
P.K.
Fd. ld. + c.t.
5.5
Elm
St
Stub.
Stub.
6' opening inlet
12" R.C. Culvert
17
43'
15
Grove
1+00
2+00
2+22.14 = Sewer Line
0.70
walk sect.
Top all across
1.8'
0.60'
Detail of Conc. Abutment W. end.
3" to 12" Batter
Top at Roadway
N
Gar.
Wood wall
Wood wall
Conc. wall
Cross
5.7
5.7
15 Rad.
17.5
17.5
Fd. 7' c.t.
90°
23'
64° 36'
2-Story House
Rim = 94.80
I.E. = 90.53
3+00
St
Scale - 1" = 40'
T.P. Sheet 159
T.P. Book 9
Book 1276-P.70

X-Sect. Elm St. - Grove to 31st to Replace Bridge.

± 7503 2-4-53 7.0.

W.O. 21013

1+15

0+97.2 = Ang. pt. in cb. on Lt + Ely. of Conc. Gar.

0+95 = ℄ of 3.5 x 2' Box Inlet on Lt.

0+87 = ℄ 12' Conc. Dr. on Lt

0+86.2 = ℄ of 6' opening cb. inlet - 12" R.C. pipe

0+82.7 = Ang. pt. in curb on Rt.

0+40

B.M = S.W. B.P. Elm + 31st 226.16
Book 1276 - P. 70

Lt.			℄		Rt			
34.4	31.49	31.29	30.79	30.76	30.56	30.84	30.98	32.5
30	17.2 walk	Top	11.8 gut		10.7 gut.	Top	16.4 walk	30
34.02	33.20	33.00	32.20	32.12	31.32	31.66	31.83	31.9
24.6 Cor. Gar. - floor.	20.7 edge walk	Top	15.1 gut.		13.2 gut.	Top	18.8 walk	24
30.61 Ely. Bottom ±I.E. of 12" RC. Pipe	32.23 wly. Bottom	33.10 Top cb.	32.20 15.1 = grate in gut.					
34.01	33.63	33.63	32.63					
24.6 floor gar.	20.7 walk	17.4 Brk	15 gut					
					31.47	32.17	29.79	
					14.7 gut.	Top	I.E. of Box	
	33.92	33.82	32.96	32.97	31.66	32.35	32.54	
	20.7 edge walk	Top	15 gut.		15.1 gut.	Top	20.7 walk	
36.45	36.39	35.59		35.36	34.42	34.79	34.87	
20.6 edge walk	Top	15.1 gut.			15 gut.	Top	20.6 edge walk	

Actual Elev. Shown - 200 fig. Not Noted.

1+67 = ℄ of Bents.

1+66 - 23' Rt. = ℄ Tel. pole # 493377 - H

1+62 - 43' Lt. = ℄ 12" Pepper tree

1+60 = E. face of 9" Conc. wall

1+59 = Show Dirt inside of Conc. wall

1+51.4 - 16.6' Lt. = End of 9" Conc. wall

1+50

2'x2' Tops - 2" to 12" Batter.

1+46.7 = ℄ of Row of Conc. Base for Bents.

from inlet on Lt.

1+44.7 - 21.7' Lt. = ℄ outlet of 12" RC culvert

27.90 = Bottom

1+30 - 5.9' Lt. = ℄ 4" steel water Line - on Bridge

see Detail - P. 12

1+26.4 = end walk & pave at w.ly. of Bridge Abutment

29.65
13.1
Top of Abut. across

1+25 - 37' Rt. = ℄ outlet 12" RC. culvert from 6' inlet on Rt.

Lt. ℄ Rt.

07.6 07.8 11.26 05.2 05.1 05.1 11.26 12.3 13.4
30 20 Top at Cor. 13.8 ground ground 12.3 13 30 outside Top wall

08.2 07.0 11.26 09.3 09.6 09.2 13.2 14.1
30 15 outside wall Top 13.2 = at Cor. 12.3 13 30

11.33
16.6 = top & ground

13.3 12.8 12.9 10.5 13.6 17.7 18.1 18.5 16.3 20.2
60 30 16 10 15 30 40 50 60

14.0 17.00 15.7 19.10 17.4 19.65
Ave Bottom 8.6 Top Ave Bot. ℄ Top Bot 8.3 Top

14.14
21.7 = I.E. of Pipe

24.2 26.0 26.6 24.3 24.3 25.6 29.6 26.6 24.6
45 30 20 13 13 23 30 40

30.16 28.65 27.65 30.21 30.03 30.03 30.02 30.22 27.68 28.68 30.18 29.74
13.1 walk Cor. 9 Top to N. 9 Top to S. Abut. Top end cb. 9 gut. Top pave 9.2 gut. Top end cb. 9.1 Top to N. 9.1 Top to S. 13 walk Cor. 13 Top of Abut. across

27.97 = I.E. of outlet
37 =

Lt. ℄ Rt.

2+50.6 - 19.5 Rt. = Hng. in fence & 30' Rt. = ℄ large clump of Bougenvilla

2+47 = ℄ Bent. - not High

2+37

2+32 - 26.5' Rt. = Cor. of old wire fence - 77' Rt. = Sly. Cor.

2+27 = ℄ Bent - Not High

2+24 = ℄ Row of 9" peppers - 31' Rt. - 47' Rt. - 86.5 Rt. - 61' Rt.

2+20 - 62' Lt. = ℄ 48" Euc.

2+17 = ℄ of wash to S

2+10

2+07 = ℄ of Bent. - Not High

2+07 - 64' Lt. = ℄ 24" Euc.

2+06 - 50' Rt. = ℄ 36" Palm

2+05 - 47' Lt. = ℄ 30" Euc.

2+03.5 - 21.5' Rt. = ℄ 10" Euc.

1+90

1+87 = ℄ Bent. - not High

1+86 - 36.5' Lt. = ℄ 24" Euc. Tree

1+70

11.0	11.8	09.5	05.5	99.1	97.0	95.9	95.4	93.9		
70	50	30	15		15	30	50	100		
06.0	05.8	03.6	01.0	99.0	98.5	97.5	97.4	95.5	94.6	
70	50	30	15		15	38	50	80	100	
05.1	04.8	03.2	01.9	99.6	97.6	97.0	95.7	95.0	94.3	92.7
100	80	50	30	15		15	30	50	80	100
						℄ wash				
03.2	02.2	00.8	98.5	97.6	97.8	99.3	99.2	97.7	95.5	
100	70	30	15		15	20	50	70	100	
02.1	99.7	99.2	98.0	98.6	99.9	02.6	02.6	01.8		
80	50	30	15		15	30	50	75		
			℄ wash							
05.5	04.2	03.2	03.0	02.3	02.5	04.1	08.8	08.9	07.3	11.7
75	60	45	30	15		9	20	30	50	60

Note: Picket fence on top of wall

2+77.5 - 17.2' Lt. = Ang. in wood Ret. wall

2+74.4 = 30' Lt. = Wly. Cor. of Gar.

2+71.7 - 27.1' Lt. = Wly. of 2.7 Conc. walk along gar.

Note: Sect. out of order.

5.5' Lt. = ℄ of 4" steel water pipe 24.95 = Bottom

2+84 = Bottom of Conc. abutment

2+82.5' = ℄ Bent. - Not High - +21' Rt. = ℄ 14" Euc. stump.

2+75 - 20' Rt. = ℄ Large Cactus

2+72 = 15' Rt. = ℄ Large Cactus

Tp. on Rock 221.30

2+71.5 = 30.7 Rt. = Cor. of shed.

2+70

2+67 = ℄ Bent. - 1-3' High

wall + Cor. of Wooden shed = 9' wide

2+62.5 - 30.7 Rt. = end fence + Nly. of 6" Rock + Conc.

- 26.1' Lt. = Cor. of 3"x12" wood Ret. wall

2+60 - 55.5' Rt. = ℄ 4" Orange

2+54 - 47'+64' Rt. = ℄ 6" Fruit trees

Lt. ℄ Rt.

28.01 23.7
Top. 17.2 = ground

28.57 28.49
30 27
at gar. edge walk 28.45' 28.41
30 27.1 = Conc.

28.66 27.64 27.53 24.7 20.1 18.0 12.0 07.2 05.6
30 17.7 Top of wall 14.5 18 30 50 60
floor gar. edge Conc. Dr. along Ret. wall

27.90 23.0 17.0 16.1 10.6 01.8 00.3 00.0
30 21.2 ℄ 15 30.7 50 80
Top wall at wall along Shed

00.79 00.34 00.03
30.7 50 80
Top Conc. wall Top wall

27.7 27.42 20.6 15.7 10.2 05.2 200.0 96.9 96.7 96.4
45' Top of wall 26.1 gr. at Cor. 15 15 30 35 50 80

3+30

3+07.4 -35.7' Rt. = end E face of wall at Cor. of 2 story House

3+02.4 - 24.5 Rt. = End Wood Ret. wall + Beg. Battered Conc. wall = Batt. to w.

3+01.6 -10.3 Lt. = Dr. outlet 4" Drain thru. cb.

3+00 - Const.

3+00 = wly. of Conc. walk on Rt

2+99.2 = face of wly. 6" Conc. wall on Lt.

2+94.8 = Ely. Cor. of Gar.

2+86.7 - Cont. - 13.5' Lt. = end wood Ret. wall.

13.9' Rt. = Beg. sly. face of 3"x12" well anchored Wood Ret. wall

2+86.7 = Ely. of Bridge Abutment - Same Detail as other end. - Beg. curbs + Walks + pave

Lt.	℄	Rt.
31.2 30	26.98 18.7 edge walk	26.83 Top
	26.24 13 gut.	26.46
	26.61 10.3 = I.E. of Pipe	
30.6 30	30.3 25	27.19 15.9 edge walk
	27.18 12.6 walk	26.64 10.2 gut in Dr.
28.44 on Dr.	30.61 30 Top wall	28.06 24 on Dr.
	30.27 24 Brk = Top	27.25 15.9 = Sly. end of wall at walk
	28.58 30.1 = at Cor. on Conc.	
27.32 13.5 Top	also Beg. Conc. Dr.	27.31 13 Cor. walk + end of Abut.
	25.56 9 Top to N.	
24.56 9 Top To S.	27.38 9 Top end cb.	26.81 9 Top Pave = gut
	26.56 9 Top Abut.	26.53 Top abut. E

Lt.	℄	Rt.
26.11 13 gut.	26.56 Top	26.61 18.7 walk edge
	27.8 30	
35.9 ground.	30.17 35.7 Top wall	19.95 36.4 Toe of wall at House
	19.78 50 = Conc along House	
27.84 26.5 Top wood wall	30.16 Top Conc. wall	19.77 Conc. at Bottom
19.8 24.4 along wall	19.77 27.7 Cor. of Conc.	19.74 50 Top Conc.
	17.7 ground To w.	
26.59 10.3 gut.	27.02 Top	27.07 16 edg. of walk
	27.27 24.4 Top Ret. wall	
24.51 9.2 Top to N.	25.51 9.2 Top to S.	27.27 13.2 Cor. walk + end of Abut.
	27.24 13.9 Top wall	18.4 ground. To S.
26.80 Top of Pave E	26.57 9.2 Top of Abut.	26.74 9.2 Top Pave = gut.
	27.34 9.2 Top = end cb.	

Lt. ℄ Rt.

3+66.9 = W. cb. Line 31 ℄

28.25 Top 27.64 40 gut 27.07 Top =P.C. 26.59 30 gut 25.84 12 gut 25.90 23 around 25.61 12 24.37 30.1 Top =P.C. 25.05 40 gut. 23.43 Top 24.07 23 around

N.W. Ret. 26.13 11.7 = ℄ gut. 26.73 Top

S.W. Ret. 25.31 11.8 ℄ = gut 25.77 Top

℄ of 15' Rad Returns.

3+52 = opp. P.C. of 15' Rad. Ret - Both Sides

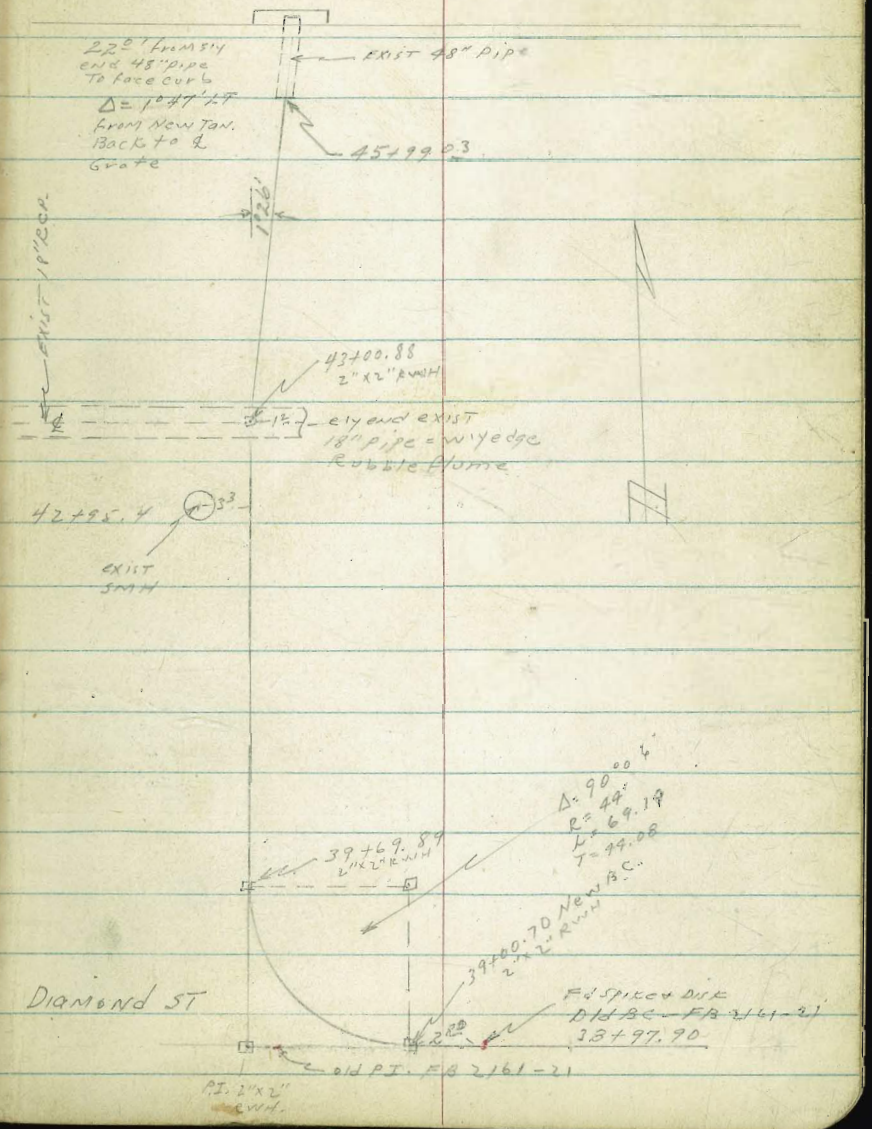
30.6 30 26.77 20.7 edge walk 26.67 Top =P.C. 25.95 15 gut. 26.15

25.73 15 gut. = P.C. 26.03 Top 26.30 20.6 edge walk 27.6 30

26.50 19.4 Both walks 28.20 30 walk

3+37 - = ℄ 8' Conc. walk on Rt. - back of Rt. walk

Revised & proposed storm Drain
between Diamond ST and
Chalcedony -
Ref - L sheet, C957L -
FB 2161 -
WO # 20822
5-25-53
C. Allen
D. S. Sisson
Schotte -

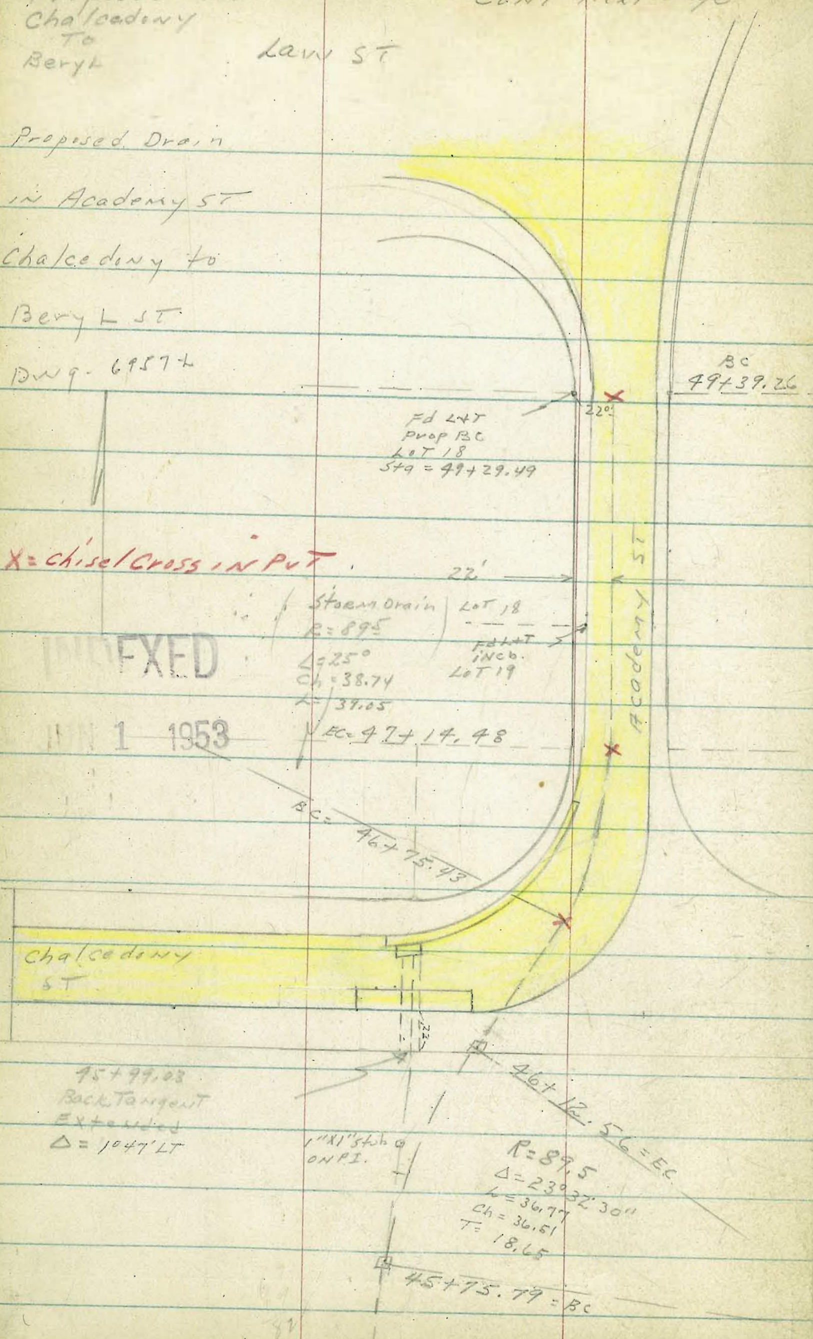


Proposed Storm Drain
Chalcedony
To
Beryl

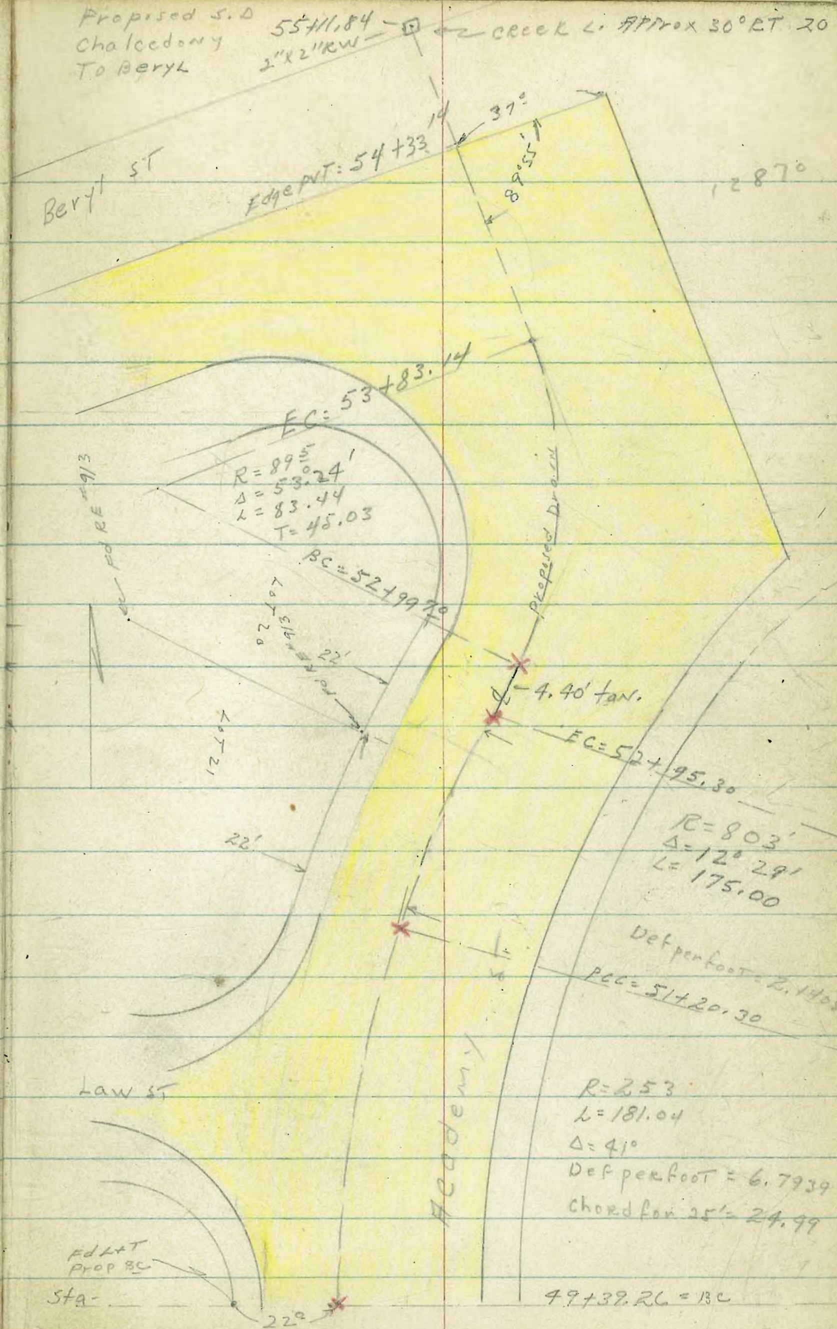
CONT Next Page

Proposed Drain
in Academy ST
Chalcedony to
Beryl ST
DWG. 6957L

X = chisel cross in PvT



Proposed S.D.
Chalcedony
To Beryl



Levels for proposed Stormdrain
Academy ST - Chalcedony to Beryl
See sketch Page 20-
Ref. FB 2161
Dwg. 6957 L.

45+99 - 4.0 LT = ℄ 4' wide headwall & end 48" pipe

45+85 ℄ Crosses Ely wall Drain
4.0 Rt = ℄ 6" Loquot Tree

45+75.79 = BC RT. Δ = 23°32'30" - See page 20
IN Bottom Conc Drain - Hub ?

TP_2	12.54	117.95x	4.76	105.41
TP_1	10.55	110.17	0.74	99.62
BM.	9.45	100.36		90.91

LT = W'ly ℄ Rt = E'ly

for elevations of 48" pipe see FB 2161
See Smiths survey for Details intersection (FB2161)

109.09
8.86
4.0
Top headwall.

109.0
9.0

105.8
12.2
Bottom Ditch on Dirt

107.88
10.27
4" wall Top

107.68
10.27
3.7
Top Conc Drain 4" walls

107.58
10.37
1.0
Top Conc Drain 4" wall

117.95 x
ON 2"x2" R.W. 45+75.79 BC

2"x2" R.W. Hub - 0+00 FB 2161 page 64.

11^{L} Rt Radial = ℄ Pvt Joint

15.43

= face curb at throat

46+(12.56) = BC LT – 19^{6} LT Radial to Curve

?

46+(24) ℄ Crosses ℄ Joint

along curb Line

18^{5} Rt = N.E. Cor Drive

32^{5} LT = Wly Cor Inlet throat

12^{0} LT = ℄ $5^{0} \times 2^{0}$ Grate for inlet

2^{0} LT = Ely Cor Inlet throat

also NW Cor Drive

46+22^{5} ℄ Crosses Sly Curb Line Chalcedony

46+15 = 1' LT = ℄ 10" power pole #2023

46+12.86 = E.C. 2"x2" RW Hub

46+06 – 9^{0} RT = SW Cor Con Drive

LT = Wly ℄ Rt = Ely

112.08 / 5^{87} / 19^{6} Cb — 111.30 / 6^{65} / 19^{6} Gut — 111.48 / 6^{47} — 111.35 / 6^{60} / 11^{L}

111.08 / 6^{87}

111.36 / 6^{59} / 32^{5} CL — 110.57 / 7^{38} / 32^{5} Gut

111.25 / 6^{70} / 12^{0} Cb — 110.44 / 7^{51} / 12^{0} Grate — 110.53 / 7^{42} / 2^{0} Gut. — 111.28 / 6^{67} / 2^{0} Cb — 111.23 / 6^{72} / Top Cb — 110.58 / 7^{37} / Gutter ℄ — 110.71 / 7^{24} / 18^{5} NE Cor Drive

111.4 / 6^{6} / ground

111.3 / 6^{7} / 10 — 111.1 / 6^{9} — 111.45 / 6^{50} / 9^{0} Cor Drive

117.95

49+29.49 = Curb BC Left Seepage 24

49+00

TP3 10.87 128.77 0.05 117.90

48+50

48+00

47+50

47+14.48 = EC ℄ Curve + BC Wly curb Return

Lt = Wly ℄ Rt = Ely

15° Fcurb

28° PVT Joint

119.62
9 15

128.77 T

117.75
0 20

115.88
2 07

114.05
3 90

3° PVT Joint

112.80
5 15

15° Curb

3° PVT Joint

117.95 T

49+89.26

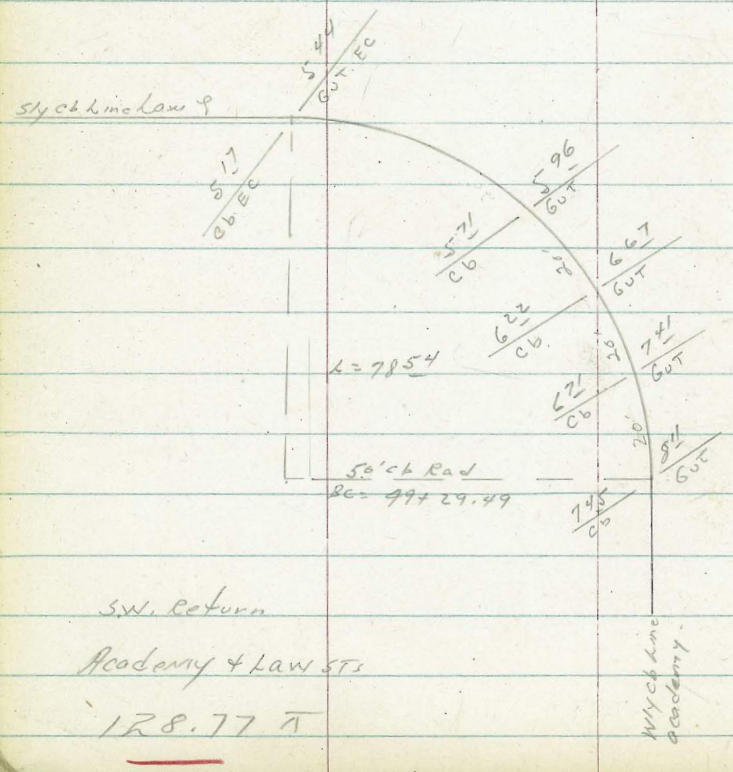
5°39.70'

49+64.26

2°49.85'

See page 20 for curve Data

49+39.26 = BC ℄ + Ely curb line Academy.



S.W. Return

Academy + Law Sts

128.77 ft

℄ T = W'ly ℄ t = E'ly.

122.36

6 4'

PVT Joint

2 9'

121.86

6 9'

2 9'

PVT Joint

121.12

7 6.5'

7 1.7

7 8.3

16.0 cb

2 9' PVT Joint

21.0 E'ly cb

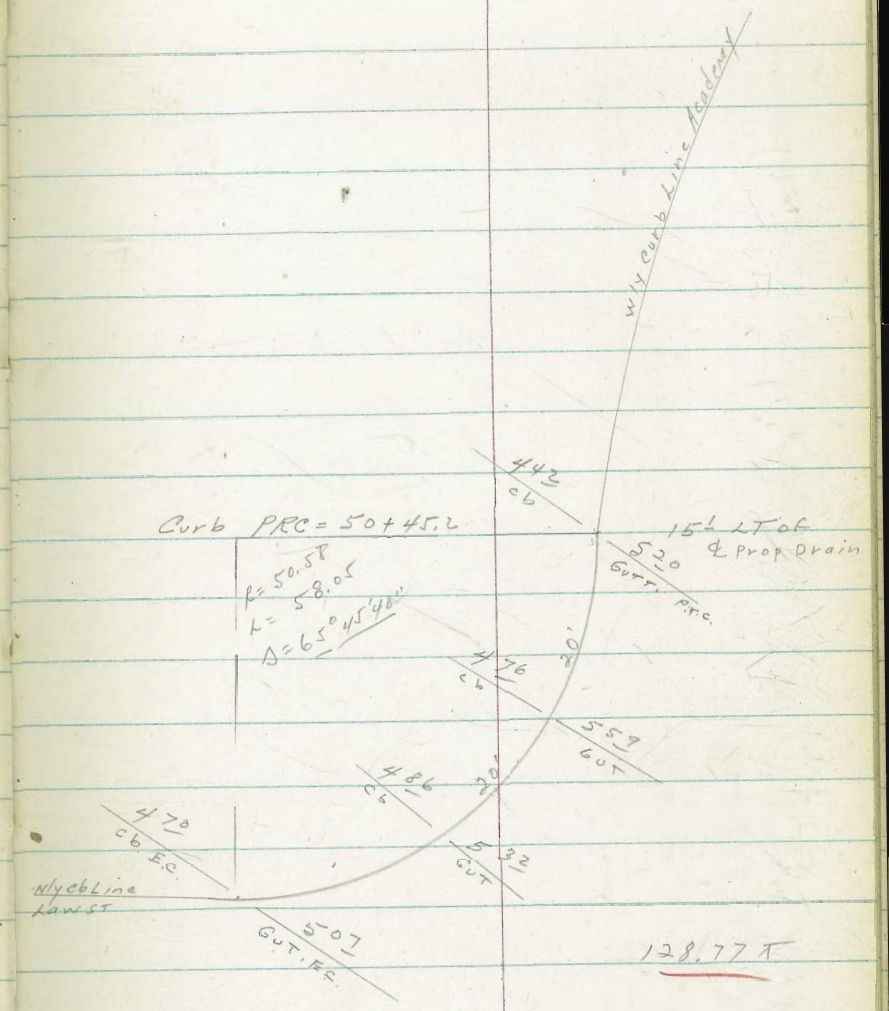
21.0 G.O.T.

128.77 ft

51+20.30 = P.C.C.				
	20°30			
		125.52		
		3 25		PVT Joint 3°
51+14.26				
	19°48.95'	125.38		
		3 39		PVT. Joint 3°
50+89.26		124.81		
		3 96		PVT Joint 3°
	16°59.10'			
50+64.26		124.22		
		4 55		PVT Joint 3°
	14°09.25'			
50+39.26		123.54		
		5 23		3° PVT Joint
	11°19.40'			
50+14.26		122.91		
		5 86		2 9 PVT Joint
	8°29.55'			

LT = wly ℄ Rt = ely

128.77 ⊼



NWly Curb Academy + Law

128.77 ft

Drain in Academy ST Cont

LT = West ℄ Rt = East

52+20.30		127.97 / 0 80	3 0 PVT Joint
	3°34.04'		
51+95.30		127.39 / 1 38	2 9 PVT Joint
	2°40.53'		
51+70.30		126.77 / 2 00	2 9 PVT Joint
	1°47.02'		
51+45.30		126.14 / 2 63	2 9 PVT Joint
	0°53.51'		
51+20.30 =	P.C.C	125.52 / 3 25	

CONT from Page 25

128.77 *

53+15 - 13^{2} LT =		See page 31 PRC Curb Return			130.80 8^{83} 13^{2} Cb	130.18 9^{45} 13^{2} Gut			
							129.94 9^{69}		
52+99.70 = BC to Left - See page 20 for Curve Data								3^{1} Joint	
							129.82 9.81		
52+95.30 = E.C.								3^{1} PVT Joint	
		6°14.57'							
							129.24 10^{39}		
52+70.30								3^{0} PVT Joint	
		5°21.06'							
TP4	11.00	139.63	0.14	128.63			139.63		
							128.57 0^{20}		
52+45.30								3^{0} PVT Joint	
		4°27.55'							
							128.77		

53+83.14 = E.C.

26°42

53+74.70

24°00 from sta 53+49.70

53+60 - proposed ℄ Drain Crosses pvt Joint that is 90° to Beryl.

53+49.70 - 10.0 LT= face curb

16°00'

53+24.70

8°00'00 from BC

131.70
7.93

14.0 fc Cb   3.2 PVT Joint

131.49
8.14

8.1 13.0 Cb   8.69 13.0 Gut   2.6 PVT Joint

131.10
8.53

131.32 8.31 10.0 Curb   130.67 8.96 10.0 Gut   130.93 8.70

130.53
9.10

12.0 Curb   7.4 PVT Joint

139.63 ⊼

56+50

56+00

55+50

55+11.84 ℄ approx 30° RT ℄ intersects Bottom creek.

TPs 11.24 149.70 1.17 138.46

54+73.14 = Nly Line Bery / ST

54+33.14 = Nly edge pavement

54+13.3 Sly curb Line Beryl extended

LT = Wly ℄ RT = Ely 30

139.5	137.7	138.2
10.2	12.0	11.5
25		25

137.1
12.6

137.6	136.3	136.8
12.1	13.4	12.9
45° Toe creek Bank		25 Toe creek Bank

135.4	135.3	135.8	
14.3	14.4	13.9	
25		25	
	149.70 π		

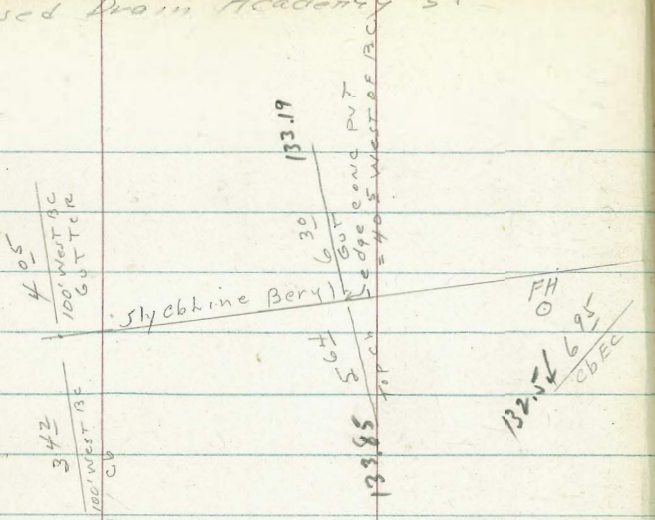
134.2	134.5	134.7	139.1
5.4	5.1	4.9	0.5
43 Bottom Creek		10	50

133.98	132.56	132.40	132.56	133.10	134.06	135.19
5.65	7.07	7.23	7.07	6.53	5.57	4.44
99° Wly edge Conc pave	57°	43	23		17.5	37° Ely edge Pave

132.55	131.98	132.01	132.73	133.60	134.87
7.08	7.65	7.62	6.90	6.03	4.76
57° Ch Wly Bc Gut	57°	23°		17.5	37° Ely edge Pave

139.63 π

Proposed Drain Academy ST

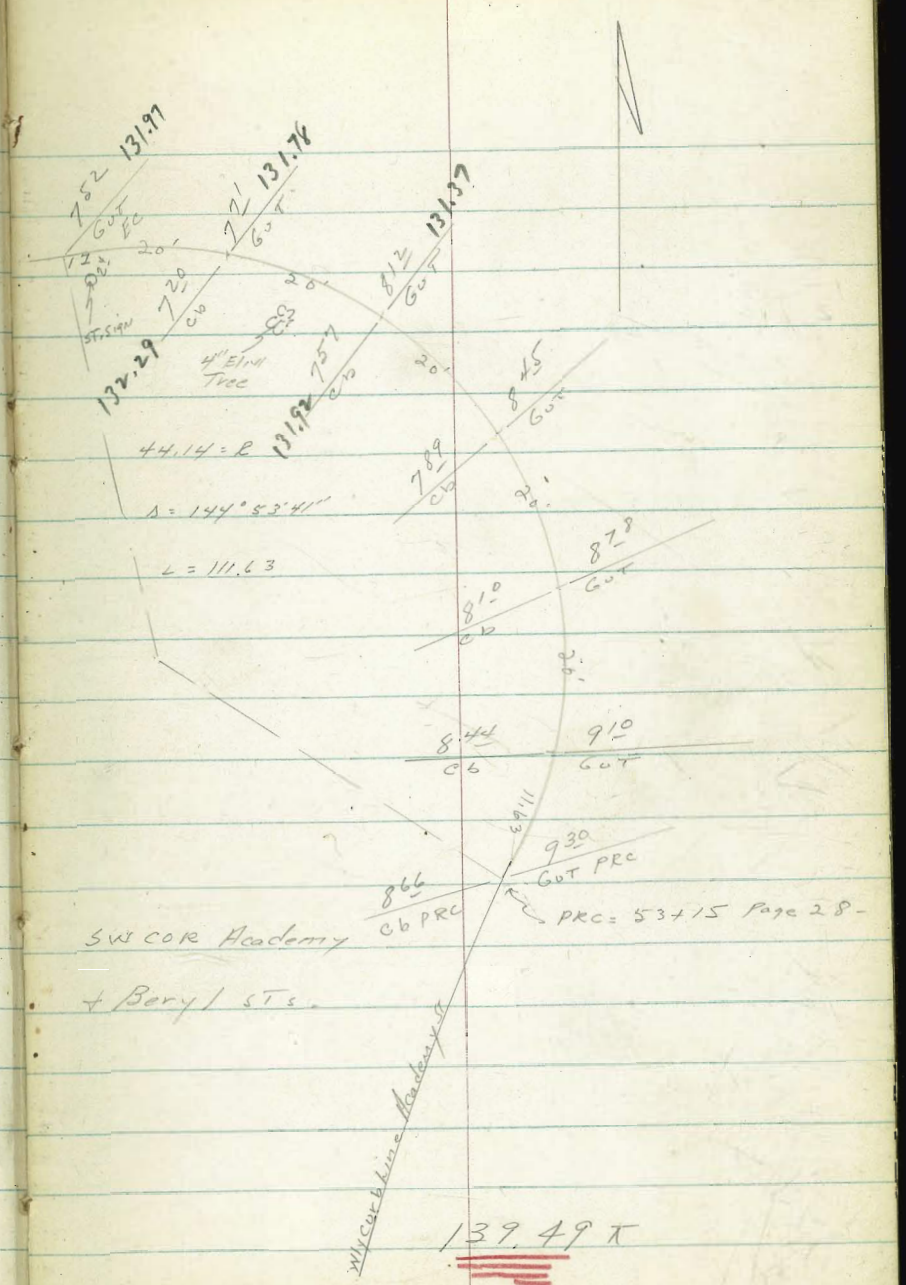


Street Sign (Newstyle) is 1.7 Ely of WlyBC Beryl ST and 2.4' BACK curb face

Fire Hyd. is 5.0 West of wly BC and 3.4' back face curb to FH - 10" Hyd.

Elm tree (4"-young) 31.3 along arc Ely of West BC Beryl and 6.0 back of face curb

TP 2.76 139.49 12.97 136.73



Proposed Drain in Academy Cont

TP_{11}	Starting BM		9.67	90.91
TP_{10}	0.95	100.58	7.64	99.63
TP_9	1.45	107.27	12.80	105.82
TP_8	0.66	118.62	11.89	117.96
TP_7	1.05	129.85	10.69	128.80

139.49 π

INDEXED
JUL 3 1953

CROSS SECTION INTERSECTION LINDA ROSA AVE & LA JOLLA MESA DRIVE; TOPOGRAPHIC FEATURES @ EXISTING CULV. HEADWALL

W.O. 21122

CURVE DATA

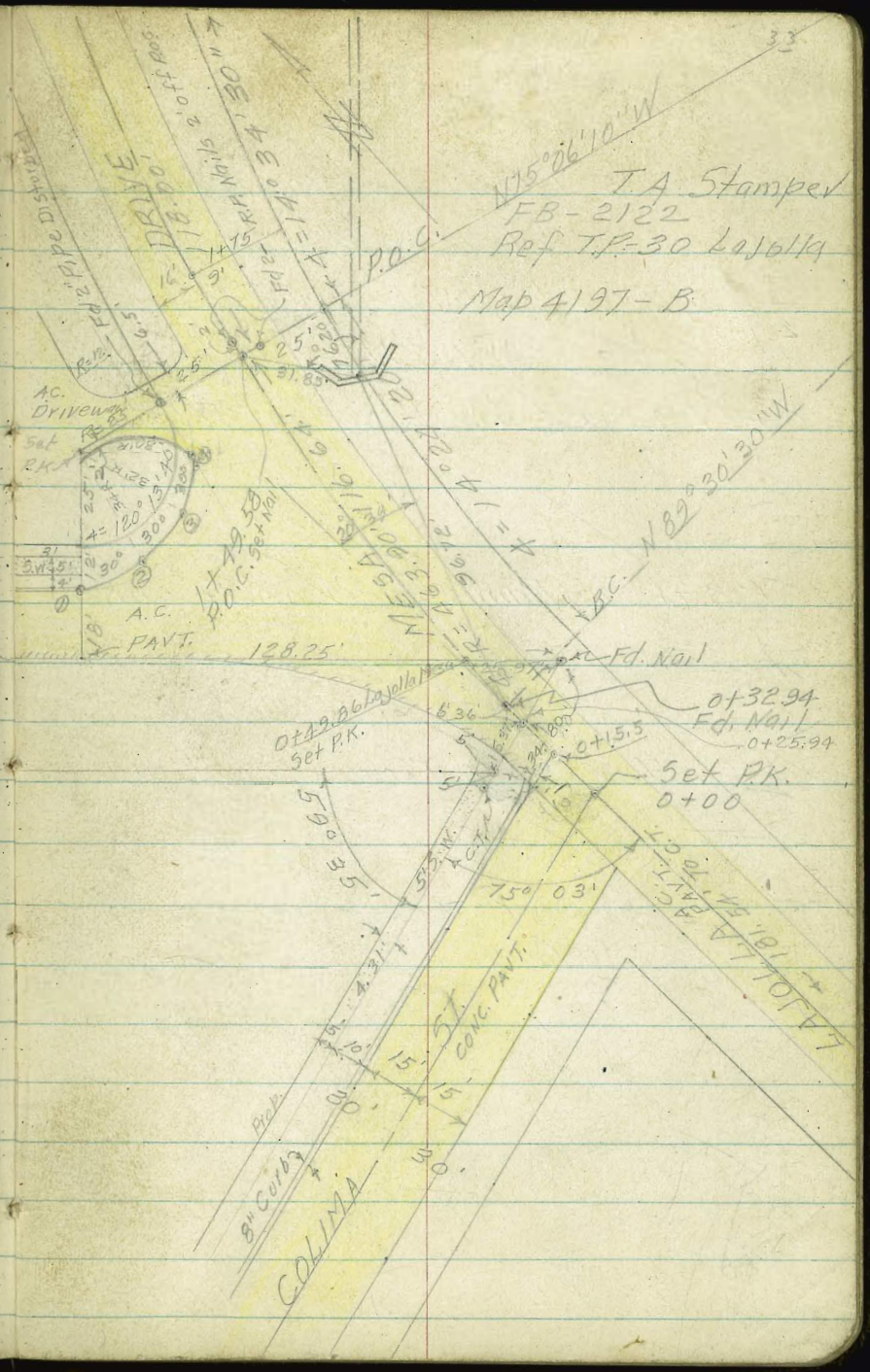
℄ R = 436.90 ∠ = 28°38'50" L = 234.64' d = 3.705°

LINDA ROSA AVE

30'

30'

Sta	Def ∠	Chord
B.C. Rt. 0+32.94	0°00'	0.0
0+49.86	1°01'35"	16.92
0+75	2°35'38	25.14
1+00	4°08'16"	25.00
1+25	5°40'54"	25.00
P.O.C. 1+49.58	7°12'10"	24.58
1+75	8°46'10"	25.42
2+00	10°18'48"	25.00



CROSS SECTIONS OF LAJOLLA MESA

DRIVE FROM ℄ COLIMA ST. N'LY (See Sketch)

Stg
0+30.7 N'ly Edge S. Walk Normal To Colima

W.O. 2122

(see Sketch)
0+25.9 Sec. @ S. Walk Normal To Colima

@ 90° To Lajolla Mesa
0+23.3 Begin Ramp To Sing Car Gar on Rt.

0+16.5 Ely End Curb Normal To Colima

0+15.5 N'ly Curb Colima Normal To Colima

0+00 Sec. Normal To ℄ Colima St. (see Sketch)

B.M. 0.89 172.15 ✓ 171.26

7-2-53

Stamper
Rorer
Sherry

Lt. ℄ Rt.

164.36
7.79
19 2
Top S.W.

164.44
7.71
15 5
Top S.W.

Reduced by
R. Barber
7-9-53

164.92
7.23
39 3
Conc Ramp

164.27 163.66
7.88 8.49
94 94
Cb Gut
@ Ely End

163.12 162.42 164.11 163.41 163.78
9.03 9.73 8.04 8.74 8.47
30 30 14 2 14 2 9 4
Cb Gut Cb Gut
B.C

160.76 162.33 163.34 163.59 163.63 163.57 162.80 162.55 163.55 164.85
11.39 9.82 8.81 8.56 8.52 8.58 9.35 9.6 8.6 8.81
50 25 9.5 3 0 7 21 24 29 38
Edge Conc. E.P.

172.15 ✓

Top of Batt @ Sly End Curb on Ely End of Guard Rail Post @ Lajolla Mesa & Linda Rosa

7-2-53

CROSS SEC'S LAJOLLA MESA DRIVE CONT'D

Sta		Lt.	℄	Rt
0+73	12" P.P. on Rt. No. 5407			38^{5} P.P. / 167.15 / 5.00 / 45 / conc walk
0+61	℄ 3' Conc Walk on Rt.			

0+50

Elev.	169.75	164.95	164.25	165.52	165.89	165.95	165.59	164.95	164.35	166.55
Rod	7.4	7.7	7.50	6.63	6.31	6.20	6.56	7.20	7.8	5.6
Dist.	43	35	25	10	0	4	14	22	30	40
			E.P.					E.P.		

0+36 Nly floor Level To Sing Car Gar — Rt: 171.52 / 0.63 / 79^{0} / Conc floor Level

B.C. Rt. 0+32.94

Elev.	164.95	164.65	164.25	164.50	165.16	165.24	165.02	164.16	163.65	164.95
Rod	7.7	7.5	7.9	7.65	6.99	6.91	7.13	7.99	8.3	7.2
Dist.	40	28	26	14	0	1	10	22	26	39
				E.P.				E.P.		

0+31 Nly Line of Ramp To Sing Car Gar. — Rt: 164.99 / 7.16 / 39^{1} / Conc Ramp

0+29 Sly floor Level To Sing Car gar — Rt: 171.49 / 0.66 / 80 / Conc floor Level

172.15

⊼ 172.15

CROSS SECTIONS LA JOLLA MESA DRIVE CONTD

5+4

1+25

1+09 Nly floor Level To Sing Car Gar

1+00 Sly floor Level To Sing Car Gar on Rt

498 176.24 ✓

TP 0.89 171.26 ✓

0+91 End of Ramp To Sing Car Gar on Rt

0+82 Begin Ramp to Sing Car Gar On Rt

0+75

7-2-53

Lt. ℄ Rt.

167.41 169.11 169.27 168.87 168.64 168.64 168.74 169.64 173.64

8.83 7.13 6.97 7.37 6.6 6.6 7.5 6.6 2.6

31 16 0 11.5 E.P. 23 31 35 57 68

175.69

0.55

87 ℄

Conc floor Level

163.81 165.91 167.60 167.92 167.91 167.49 167.94 167.54 171.71 175.70

12.43 10.33 8.64 8.32 8.43 8.75 8.38 7.45 0.54

60 33.5 16 0 10 15.5 E.P. 31 45 72 91 ℄

E.L. Rosa Ely Gut Linda Rosa Con Ramp Conc floor

℄ 176.24 ✓

167.63

450

453

Conc Ramp

167.71

444

480

Conc Ramp

163.65 163.75 164.70 165.84 166.48 166.79 166.91 166.53 165.85 166.75

8.5 8.4 7.45 6.31 5.67 5.36 5.24 5.62 6.3 5.4

66 56 43 E.P. 22 12 0 8 10 E.P. 30 40

℄ 172.15

CROSS SECTIONS LA JOLLA MESA DRIVE CONTD.

Sta

T.P.I.

2+00

1+75

P.O.C.
1+49.58

1+33 Sec @ Nly End of Wly Culv. Wing Wall

1+27 Sec @ ℄ Culv. Headwall

7-2-53

Lt. ℄ Rt.

NOTE: For X-Sec's from La Jolla Mesa Dr. To End forward St. along Linda Rosa See F.B. 2122 (Barrett).

176.84 176.64 174.34 174.47 174.80 174.83 174.75 174.29 175.64 175.64 175.14
(-0.6) (-0.4) 1.9 1.77 1.44 1.41 1.49 2.0 0.6 0.6 1.1
27 23 17 15 6 10 13 16 25 29
E.P. E.P.

177.64
1.4
35

175.84
0.4
50

179.44 179.24 172.14 172.21 172.76 172.75 172.41 172.34 173.54 173.54 172.34 173.04
1.8 2.0 4.1 4.03 3.48 3.49 3.83 3.9 2.7 2.7 3.9 2.8
28 23 18 16 4 0 9 11 16 21 27 50
E.P. E.P.

173.79
2.5
34

174.64
1.6
66

176.24
0.0
64

171.89 170.22 170.31 170.70 170.83 170.32 171.94 172.24 168.14 170.74
4.35 6.02 5.93 5.59 5.41 5.92 4.3 4.0 7.1 5.5
50 25 19 12 0 10 15 18 24 43
E.P.

172.14 172.44 173.44
4.1 3.8 2.8
53 58 64

168.79 168.93 170.54 170.64 168.64 168.54 166.74
6.50 6.81 5.7 5.6 7.6 11.7 9.5
0 10 13 15 20 22 27
E.P.

169.74 170.74 171.44 173.24
6.5 5.5 4.8 3.0
46 55 56 67

169.38 169.15 170.34 169.77 165.41 168.44 170.04
6.86 7.09 5.9 6.47 10.83 7.86 6.2
0 11 15 25 25 33 52
E.P. ℄ Top Culv. Headwall Top of Pipe @ face of Headwall

171.04 173.14
5.2 3.1
55 66

↑ 176.24

N.W. RETURN LA JOLLA MESA & LINDA ROSA (SEE SKETCH)

7-2-53

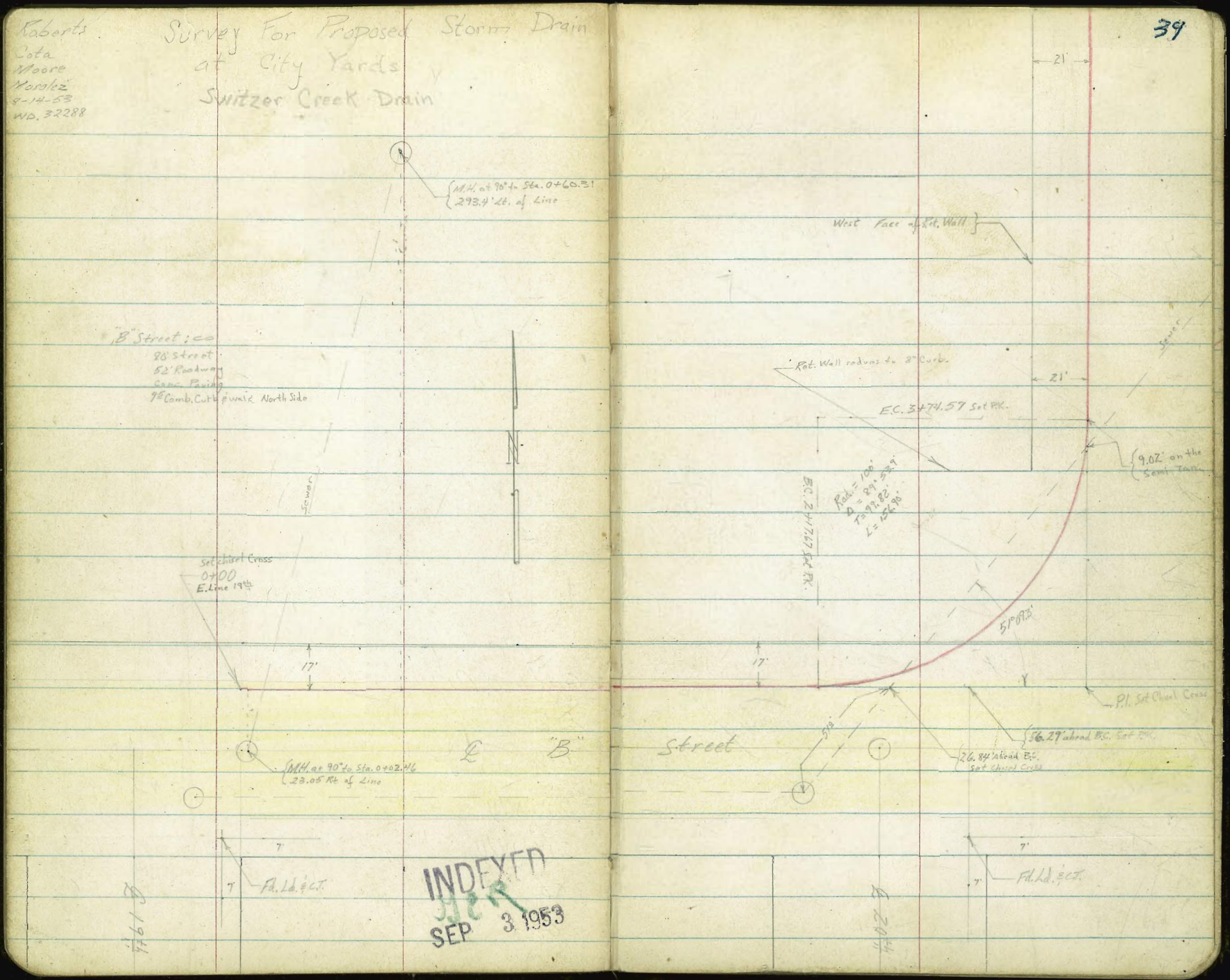
Sta	+	H.I.	−	Elev.	
B.M.			4.98	171.26 ✓	
4			7.33	168.91	Gut on Driveway
③			9.50	166.74	Edge Pavt
②			11.88	164.36	Edge Pavt
①			12.84	163.40	S.W. Nly
①			12.88	163.36	S.W. Wly
①			13.00	163.24	cb
①		176.24	13.55	162.69	Gut

Roberts
Cota
Moore
Morales
8-14-53
WO. 32288

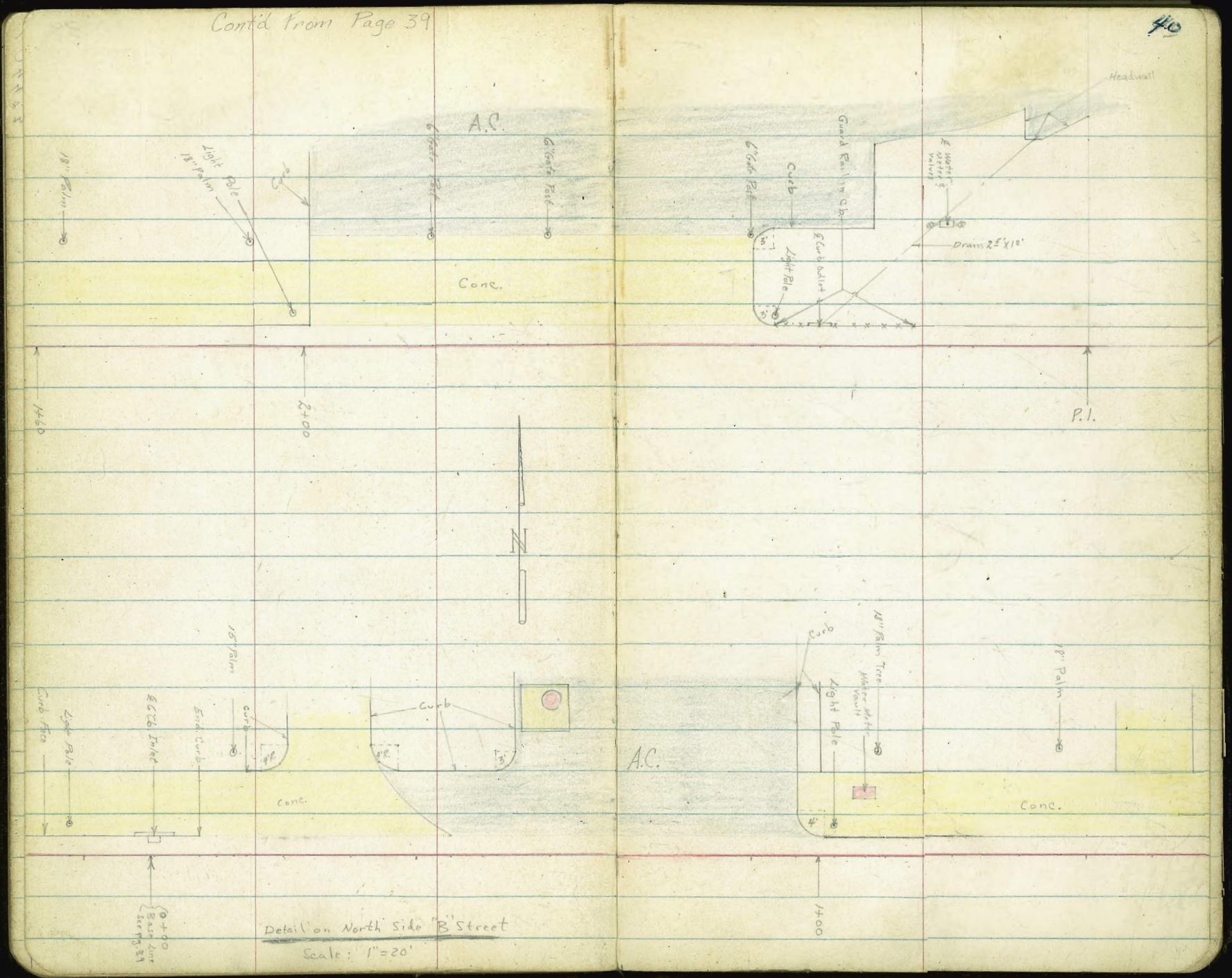
Survey For Proposed Storm Drain at City Yards

Switzer Creek Drain

39



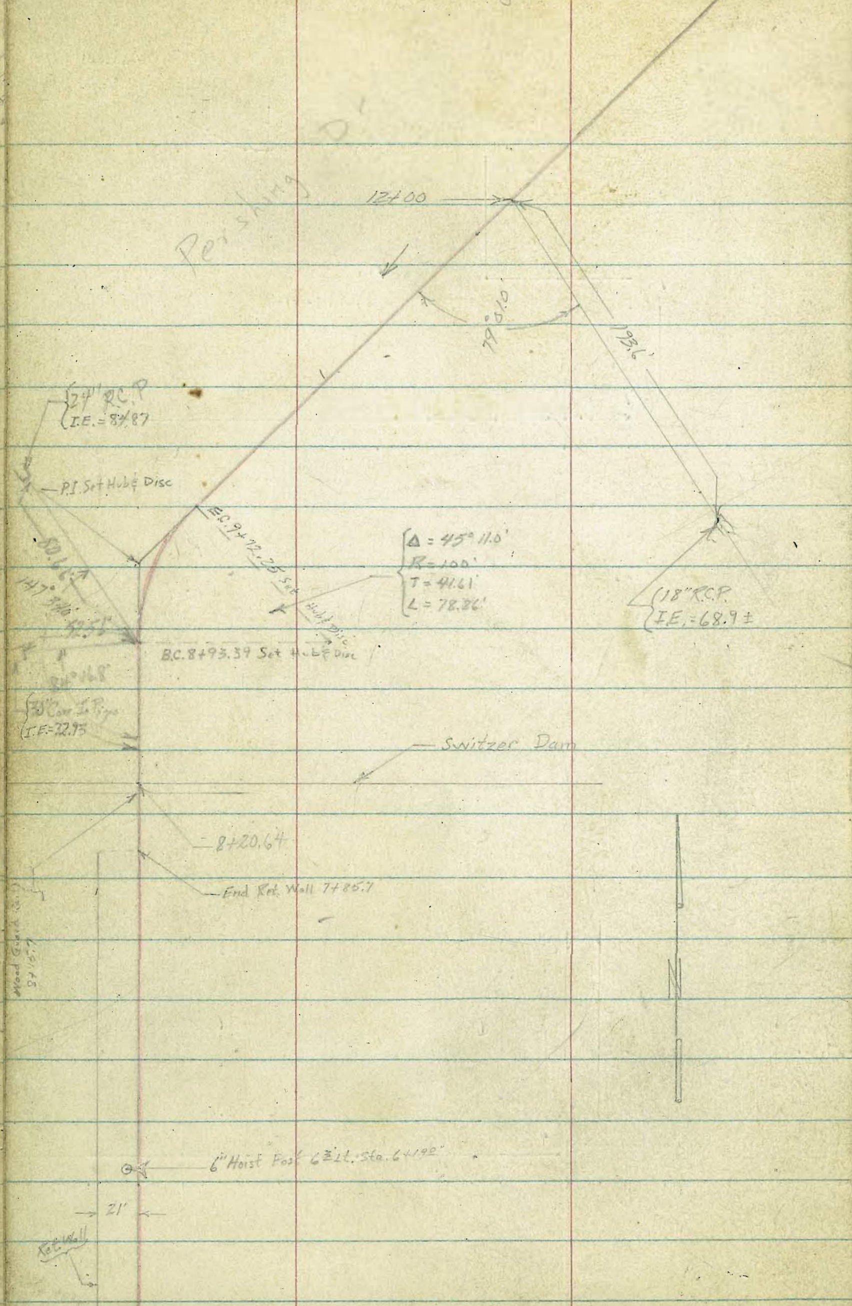
Cont'd from Page 39



Detail on North Side "B" Street

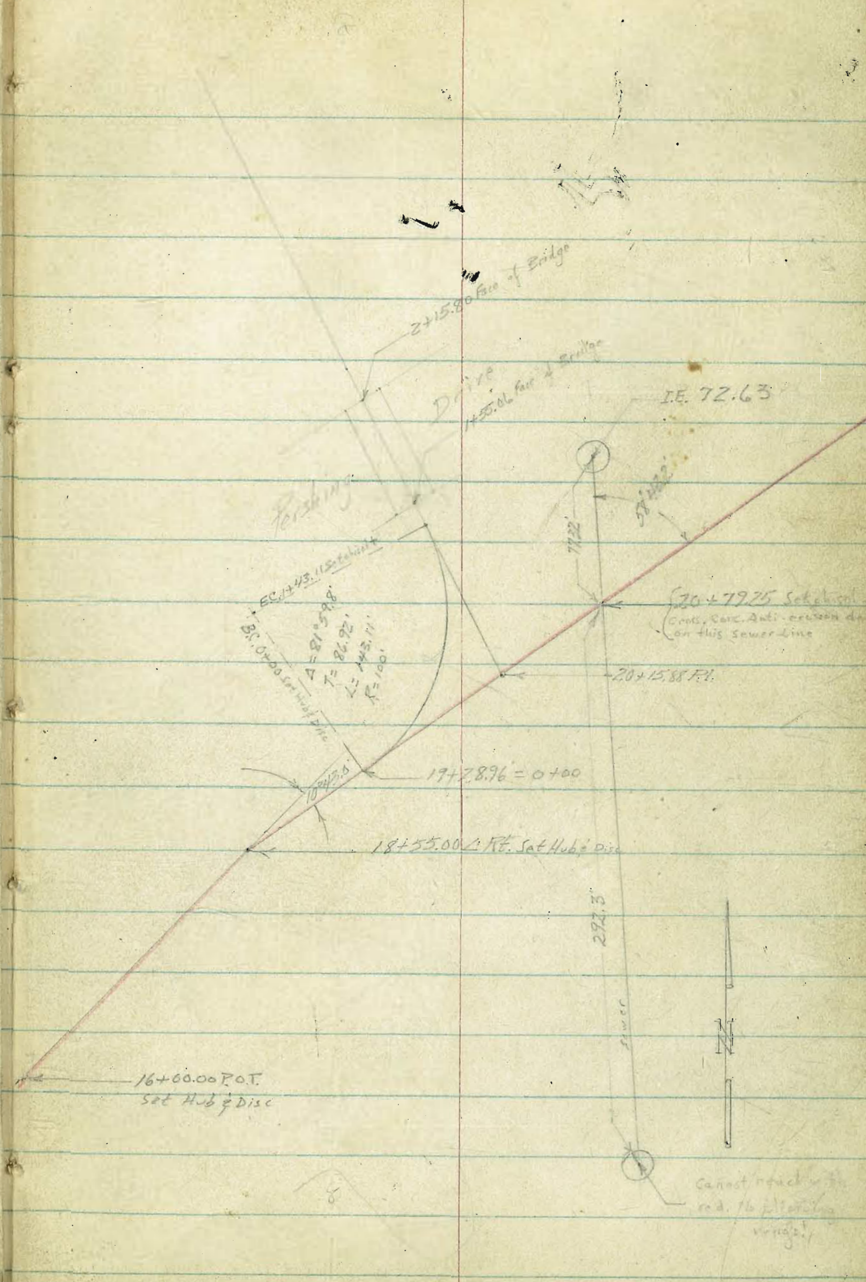
Scale: 1"=20'

Cont'd From Page 40



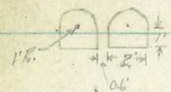
Cont'd From Page 39

2079.25
1929.96
150.29

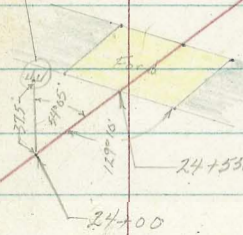


Cont'd From Page #1

Outlet of
Double barrel Culvert I.E. 85.44



San Diego Municipal Golf Course



7+85.7

Bldg. #33

conc. Ramp

7+45±

7+14.5
7+12.5
7+10

Sheet Metal Bldg. #47

conc. Curb

Steel Storage

conc. Foundation & Floor

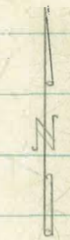
6+75
6+72.3
6+69

Sly. face Ret. Wall

Conc. slab.

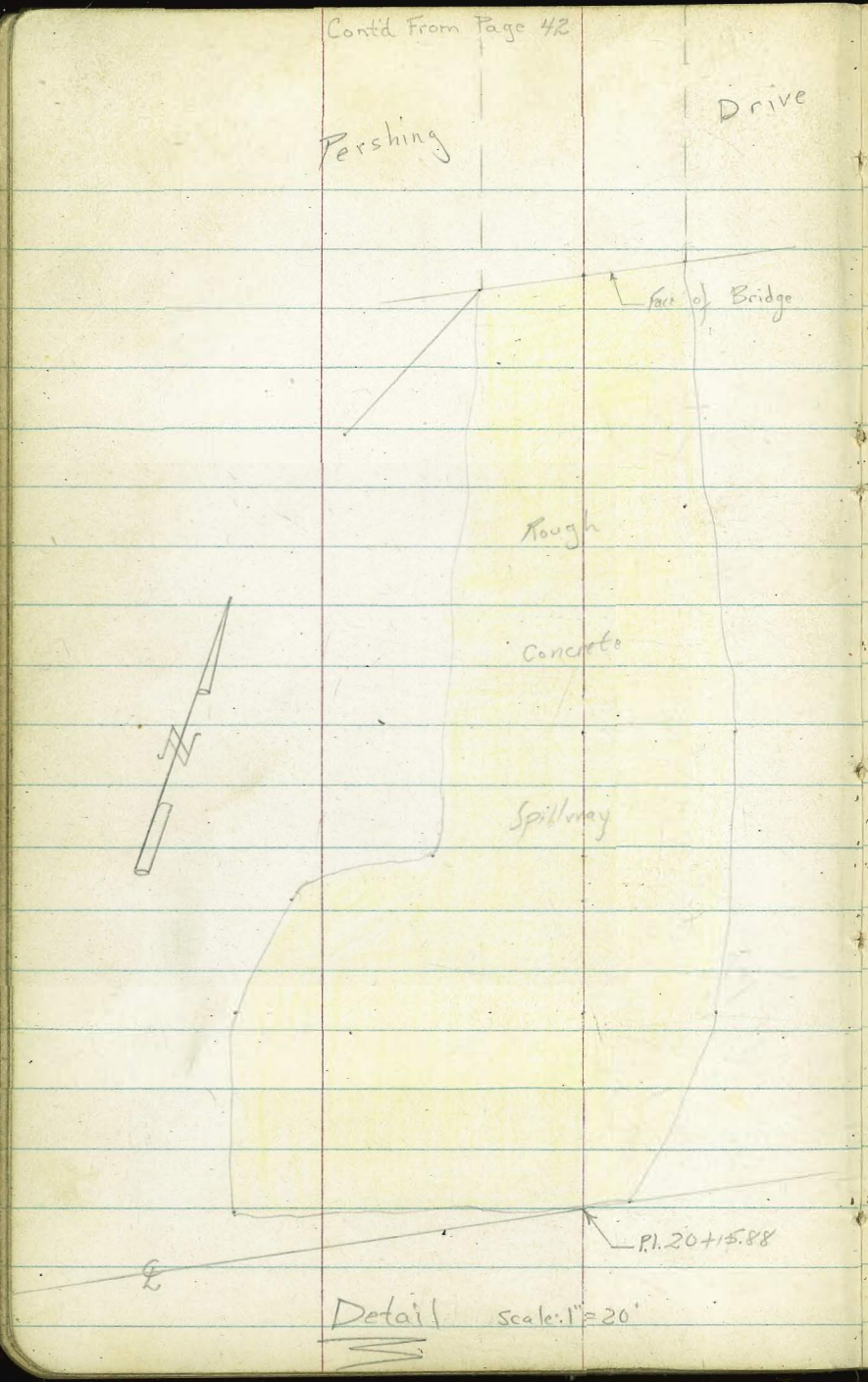
Steel Plate Storage Racks

7+20

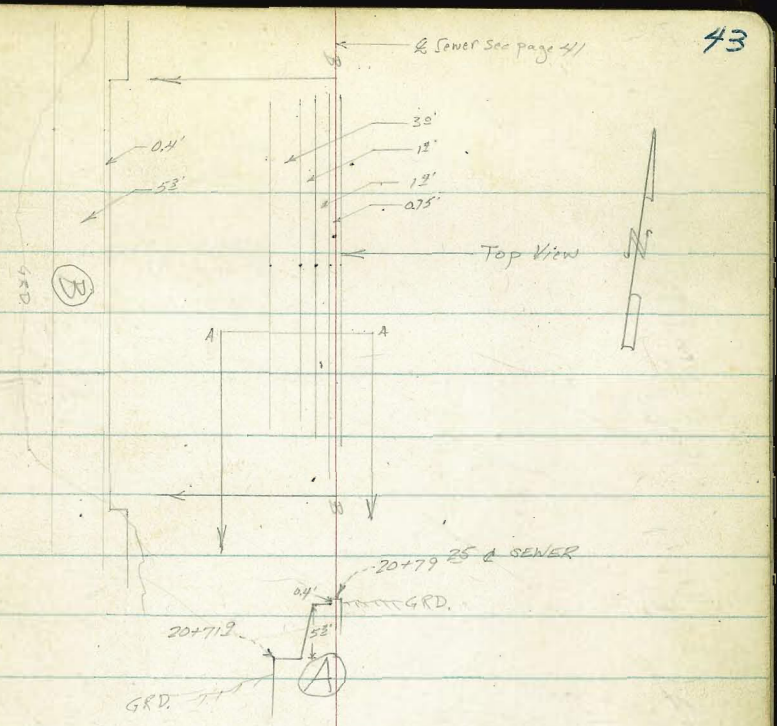


Detail Scale 1"=20'

Contd From Page 42



Detail Scale: 1" = 20'



Detail Sketch of Anti-erosion Pan at Sta. 20+79.25

Contd from Page 43

				Lt	℄	Rt
0+96.6				64.20 63.88 64.04 63.91 63.29 63.42 64.21 6.52 6.84 6.68 6.91 7.43 7.30 6.51 15 15 7 7 3 15 cb Gut cb Gut		
0+50				63.42 63.11 62.64 62.32 62.48 63.13 7.3 7.61 8.88 8.40 8.24 7.54 15 12.5 12.5 3 15 cb G.t Gut.		
0+07.5	End Curb on Lt.			63.02 62.38 62.14 61.37 61.51 62.17 7.7 8.34 8.58 7.55 9.21 8.55 15 12.5 3 3 15 walk cb Gutt		
0+02.46	23.0' Rt Sewer MH					53.21 17.51 2.30 INVERT
0+00.6	℄ 6' Curb inlet on Lt			59.17 54.82 11.55 15.90 3 1 Invert Box Invert outlet Pipe		
0+00	East Line 19th Street			62.72 62.27 62.10 61.30 61.40 62.06 8.0 8.45 8.62 9.42 9.32 8.66 15 12.5 3 3 15 walk cb Gutt		
0-17	40.4' Rt Sewer MH.		Couldn't open M.H.			
BM	0.49	70.72 ✓	70.23 ✓	SEBP 20.4' ℄ B'	70.72 ✓	

Contd From Pg 44 — Lt — ℄ — Rt

2+36.5 25' Rt Sewer MH

62.36
8.36
25±
INVERT

2+17.67 B.C.

66.49 (65.49)
7.23
15

66.19
4.53
3

66.25
4.47

67.19
3.53
15

2+12 40 Rt. Sewer MH

59.01
11.71
40
INVERT

2+00 9

66.24
4.48
15
Cb

65.92
4.80
15
Gut

66.02
4.70
3
Cb

65.57
5.15
3
Gut

65.41
5.31

66.69
4.03
15

1+50

65.26
5.46
15

65.21
5.51
12±

65.01
5.71
3
Cb

64.45
6.27
3
Gut

64.66
6.06

65.51
5.21
15

1+00 6

64.32
6.4
15

64.22
6.50
125
Walk

64.04
6.68
3
Cb

63.39
7.33
3
Gut

63.50
7.22

64.25
6.47
15

70.72 ↑

70.72 ↑

STORM DRAIN CITY YARDS (CONT'D)

		LT.	℄	RT.
2+91.5	Cross Curb	68.81 1.91 Cb		68.24 2.48 Gut
2+77.5	Cross Curb	68.09 2.63 Gut		68.53 2.19 cb
2+75	Cross Fence	67.70 3.02 15	67.85 2.87 16 Gut	68.46 2.26 16 cb 68.62 2.1 69.52 1.2 15
2+72.5	13" RT ℄ Curb & Hdt			67.78 2.94 13" INVERT
2+69.3	Cross Curb	68.28 2.44 cb		67.74 2.98 Gut
2+50		67.36 3.37 15 67.19 3.53		67.75 2.97 15
	70.72 H.I.			70.72 H.I.

Contd From Page #6

	Lt	℄	Rt
4+00	24° Lt. to Bldg. 29± Rt to Bldg.	71.00 5.50 15	71.13 5.37 5
3+74.57 EC.		71.00 5.50	70.70 5.80 7
5± So. of EC on Semi-tan.	29± Rt begin Bldg.	71.11 5.39 15	
	23± Lt begin Bldg.		
3+56	17± Lt begin Rt. Wall	67.40 9.10 21 Bottom	71.41 5.09 20 Top
		70.71 5.79 20	70.85 5.65 6
		70.78 5.72	70.49 6.01 7
		71.00 5.50 15	
3+25		66.50 8.0 19± Bottom GRD	71.36 5.14 17± Top
		70.42 6.08 17± GRD	70.82 5.68 3
		70.66 5.84	70.24 6.26 7
		70.38 6.12 15	
3+10.5	15.8 Rt Inlet Drain	69.91 6.39 19	70.47 6.03 10
		70.47 6.03	70.49 6.61 9
		69.64 6.86 18	
			69.04 7.46 15± INVERT
I.P. 6.17	76.50 ℄ 0.39 70.33	76.50 ℄	
3+00		68.51 221 15	69.62 1.1
		70.42 0.3 6	70.80 +0.8 15
	70.72 ℄	70.72 ℄	

Contd. From Page 47

Station					Lt	℄	Rt
6+50					66.37 13.62 21 Bottom — 73.86 6.13 20± Top wall — 71.19 6.8 20± GRD	73.36 6.63	73.13 6.86 10 — 73.32 6.67 15
6+05±	12± Lt ℄ conc. Steps 4± wide				65.39 14.6 24 Bldg Floor — 66.40 13.59 21 Bottom For Drainage — 67.49 12.50 21 Bottom Step Steel Plate — 73.44 6.55 12± Top Step Conc.		
T.P.	6.68	77.99 ⊼ ✓	3.19	73.31 ✓		77.99 ⊼ ✓	
6+00					73.30 3.20 15	72.83 3.67	72.61 3.87 9 — 72.81 3.69 15
5+50					72.25 4.25 15	72.34 4.16	72.32 4.18 8 — 72.57 3.93 15
5+00					71.90 4.60 15	71.97 4.53	71.74 4.76 8 — 72.05 4.45 15
4+50					71.21 5.23 15	71.40 5.10	71.31 5.19 8 — 71.59 4.91 15
4+30	29± Rt End bldg begin parking shed						
		76.50 ⊼				76.50 ⊼	

		Lt	℄	Rt
7+13.7	℄ Leaves Curb	73.92 / 6.07 / Gut	74.69 / 5.30 / cb	
7+12.8	℄ Hits Curbing	74.69 / 5.30 / cb	73.93 / 6.06 / Gut	
7+10	29.2 Rt End parking shed			
7+00		73.69 / 6.3 / 52	73.69 / 6.3	73.69 / 6.3 / 0.3 / Gut; 74.40 / 5.30 / 0.3 / cb; 74.40 / 5.50 / 1 / cb; 73.69 / 6.30 / 1 / Gut; 73.53 / 6.46 / 11; 73.69 / 6.30 / 15
6+75	5.8 Lt begin bldg.	74.10 / 5.89 / 52 / Conc Floor	73.30 / 66 / 58 / GRD	
6+71.6	℄ leave curb	73.50 / 6.49 / Gut	74.18 / 5.81 / cb	
6+70.6	℄ Hits Curbing	74.18 / 5.81 / cb	73.37 / 6.62 / Gut	
		79.99π	79.99π	

Cont'd From Page 49

	Lt	℄	Rt
8+05	74.39 5.6 15	75.49 4.5	77.19 2.8 15
7+91.5 on Roadway	74.69 5.3 15	75.99 4.0	77.49 2.5 15
7+89	76.89 3.1 15	77.69 2.3	77.59 76.89 76.99 78.09 78.49 2.4 - 3) 3.0 1.9 15 2 4 6 8 15
7+81	74.39 5.6 15	74.29 5.7	74.89 72.89 5.1 7.1 10± 10± GRD Foot Ftn.
7+55± 10± Rt begin Bldg			74.46 72.79 1.53 7.2 10± 10± Floor Face of Foundation
7+45± 10± Rt begin Conc. Loading Ramp	65.91 74.66 73.99 14.08 5.33 6.0 21 20± 20± Bottom Top wall GRD	74.31 5.68	74.29 78.35 5.7 1.64 10± 10± GRD Top Ramp
7+38 23± Lt End bldg.			
79.99 ℄		79.99 ℄	

Cont'd From Page 50

Lt ℄ Rt

8+93.39 B.C.
77.70 ~~67.70~~ 64.20 63.20 62.90 62.30
+5.0 8.5 9.5 9.8 10.4
60 33 17 65

8+65
70.70 63.40 62.60 62.10 66.10 67.60
2.0 9.3 10.1 10.6 6.6 5.1
83 63 29 44 62

8+40 Ground meets sloping dam face.
71.30 60.06 61.40 62.40 62.60 64.50 71.10
1.4 12.64 11.3 10.3 10.1 8.2 1.6
88 63 53 8 28 50
INVERT CULVERT

T.P. 5.28 72.70 ⊼ 12.57 67.42 ✓
72.70 ✓

8+20.64 Face Switzer Dam
75.60 75.67 75.71
4.39 4.32 4.28
15 15

8+17
74.79 76.09 77.49
5.2 3.9 2.5
15 15

79.99 ⊼
79.99 ⊼

7-SEC. CITY YARDS (CONT'D)

12+00

I.P. 7.18 72.32 H.I. 7.56 65.14

11+00

10+63, 10° LT., CENTER RP # C 1445

10+00

9+72.25 E.C.

9+58, 5° RT. CENTER 18" EUC. TREE

MID POINT CURVE

72.70 H.I.

	LT.			℄			RT.	
80.32 ~~64.32~~								75.62 ~~64.02~~
+8.0	6.8.2	67.12		66.02	63.02	68.32	65.12	+5.3
35 NOT TOP	35	5.2		6.3	9.3	9.0	7.2	20.2
	16			12	20	90	180	

72.32 H.I.

80.00 ~~65.10~~								70.80
+7.3	64.70	64.60		63.20	62.70	63.70	70.20	
29 NOT TOP	8.0	8.1		9.5	10.0	9.0	2.5	1.9
	8			11	78	150	167	231

83.20 ~~62.70~~								69.30
+10.5	63.90	64.00		62.20	62.10	62.00	66.90	
34 NOT TOP	8.8	8.7		10.5	10.6	10.7	5.8	3.4
	9			14	57	108	125	167

81.70 ~~65.70~~	72.70							68.90
+9.0	0.0	64.70	64.00	62.80	62.40	67.40		
31 NOT TOP	22	8.0	8.7	9.9	10.3	5.3		3.8
		7		15	100	116		167

77.70 ~~64.70~~								
+5.0	63.90	63.50		62.10	62.30			
35	8.8	9.2		10.6	10.4			
	12			20	60			

72.70 H.I.

X-SEC. CITY YARDS (CONT'D.)

LT. | ℄ | RT.

16+00

86.59
~~71.59~~ 77.99 75.89 75.09 75.09 72.69 64.79 64.79 65.09 85.09 ~~72.09~~
+7.5 1.1 3.2 4.0 4.0 6.4 14.3 14.3 14.0 +6.0
34 25 15 5 14 24 116 205 215
ON TOP.

15+15, 19° LT., CENTER P.P. # 1505

15+00

88.09
~~70.09~~ 74.19 74.19 74.1 (74.00) 70.79 63.99 63.79 64.89
+9.0 4.9 4.9 5.0 8.3 15.1 15.3 14.2
35 12 8 18 27 125 219
ON TOP TOE

14+00

86.09
~~72.09~~ 74.19 73.29 72.99 64.49 63.69 64.09 70.99 83.09 ~~75.09~~
Has to be! GFR → (+)? → 7.0 4.9 5.8 6.1 14.6 15.4 15.0 8.1 +4.0
30 11 8 24 135 218 246 264
NOT TOP

13+83, 16.5 LT., P.P. # C1485

T.P. 7.19 79.09 H.I. 0.42 71.90 ✓ ✓

79.09 H.I.

13+00

80.82
~~63.82~~ 70.52 70.52 70.32 63.62 64.02 64.72 76.32 ~~68.32~~
+8.5 1.8 1.8 2.0 8.7 8.3 7.6 +4.0
28 10 6 24 111 206 241
NOT TOP

12+24, 13° LT., CENTER P.P. # C1465

72.32 H.I.

72.32 H.I.

X-SEC. CITY YARDS (CONT'D)

T.P.	8.89	79.31 H.I.	12.12	70.42
19+75				
19+00				
18+62, 28° LT; CENTER PP# C1549				
18+55 00 ANGLE PT. RT. (SECTION TAKEN AT ANGLES TO BACKLINE)				
18+00				
T.P.	5.50	82.54 H.I.	2.05	77.04
17+06, 22.5 LT, CENTER PP# C1525				
17+00				

79.09 H.I.

LT. ℄ RT.

STILL IN PROCESS OF FILLING OK RIGHT IN THIS AREA

74.74	70.04	66.74	66.24	68.34	68.54	
7.8	12.5	15.8	16.3	14.2	+6.0	
20	5		22	96	132	

84.54	79.54	77.44	76.24	64.74	66.44	66.14
+2.0	3.0	5.1	6.3	17.8	16.1	16.4
53	44	25	8	TOE	55	134
TOP						TOE

45.24	79.84	77.64	77.64	64.94	66.24	67.34
+2.7	2.7	4.9	4.9	17.6	16.3	15.2
12	35		4	9	95	175
						TOE

85.54	77.24	75.64	65.14	64.94	66.54	87.84
+3.0	5.3	6.9	17.1	17.6	16.0	+5.3
13	33		8	92	188	215
TOP						TOP

82.54 H.I.

~~81.39~~ 81.79	78.09	77.09	77.09	76.09	64.99	64.89	64.49	66.69
+7.7	1.0	2.0	2.0	3.0	14.1	14.2	14.6	12.4
39	25	17		1	12	106	165	192
TOP								TOE

79.09 H.I.

X-SEC. CITY YARDS (CONT'D.)

	LT.			℄			RT.		
20+53	79.81	79.51	75.31	68.21	66.01	66.91	67.91	71.81	72.81	87.31
	+0.5	+0.2	4.0	1.1	1.3	12.4	11.4	7.5	6.5	+8.0
	35	21	13	11	4		14	18	30	60
		TOP								TOP
20+43	79.51	79.21	71.01	66.71	66.31		67.01	67.91	78.21	
	+0.2	0.1	8.3	12.6	12.6		12.3	11.4	1.1	
	30	17	5	3			10	21	36	
		TOP							TOP	
20+17	69.04	69.44	67.87	66.81	66.31		66.81	66.81	79.31	
	10.27	9.87	11.44	12.5	13.0		12.5	12.5	0.0	
	25	14		1	12		22	22	41	
		SPILL - WAY							TOP	
20+00	68.7	67.67	67.01	66.31	66.91		80.31			
	10.59	11.64	12.3	13.0	12.4		+1.0			
	25	3		14	28		49			
	SPILLWAY						TOP			
19+91	68.90	67.75	66.71	66.71	72.01					
	10.41	11.56	12.6	12.6	7.3					
	25	10		31	55					
	ON CONC. SPILL-WAY									

79.31 H.I.

79.31 H.I.

(℄-SEC., CITY YARDS, CONT'D.)

LT. ℄ RT.

22+25

84.7' 77.0' 75.8' 76.4' 78.0' 78.6' 88.0'
+5.4 2.3 3.5 2.9 1.3 0.7 +8.7
32 29 23 15 8 18
TOP TOP

22+00

83.6' 83.6' 75.6' 75.8' 77.5' 77.6' 87.7'
+4.3 +4.3 3.7 3.5 1.8 1.7 +8.4
37 27 22 14 3 18
TOP

21+50

81.1' 82.7' 82.7' 75.3' 75.7' 76.1' 87.6'
+1.8 +3.4 +3.4 4.0 3.6 3.2 +8.3
40 34 24 16 9 24
TOP TOP

21+00

79.7' 74.8' 74.7' 75.0' 88.6'
+0.4 4.5 4.6 4.3 +9.3
29 6 19 37
TOP

20+79.25 ℄ SEWER ON TOP OF DAM

18.41

79.8' 78.3' 77.08 75.3' 75.3' 75.22 76.2' 77.14 78.9'
+0.5 0.90 2.23 4.00 4.00 4.09 3.1 2.17 0.4
37 26 6.7 6.6 22 25 37.7 40
GRD. END DAM DAM & DIRT. DIRT. DAM DIRT

SECTIONS TAKEN PARALLEL TO SEWER LINE & DAM

77.6'
69.4' GRD.

20+71.9 BEGIN ANTI-EROSION DAM. SEE SKETCH PAGE 13

80.3' 76.9' 69.06 69.0' 66.7' 69.06 66.7' 69.06 69.4'
+1.0 2.4 10.8 10.3 12.6 10.25 12.6 10.25 9.9
31 19 14 14 GRD. TOP BASE GRD. 14 TOP BASE 26 GRD.
GRD. (TOPS) GRD. TOP BASE

79.31 H.I. 79.31 H.I.

Z-SEC. CITY YARDS, (CONT'D.)

	LT.	℄	RT.
24+17	85.27 89.57 88.57 83.17 83.07 83.57 83.77 89.87 90.57 1.3 +2.0 +2.0 3.4 3.5 3.0 2.8 +3.3 +4.0 25 19 15 14 7 3 13 23		
24+10	92.07 85.67 84.17 82.57 82.47 83.37 83.67 90.27 90.57 +5.5 0.9 2.1 4.0 4.1 3.2 2.9 +3.7 +4.0 40 35 23 20 9 3 12 22		
24+00	92.07 91.57 81.47 81.67 82.67 82.97 89.07 90.07 +5.5 +5.0 5.1 4.9 3.9 3.6 +2.5 +3.5 44 34 29 12 3 12 25		
23+50	89.57 89.27 78.27 78.97 80.77 81.07 88.07 88.57 +3.0 +2.7 8.3 7.6 5.8 5.5 +1.5 +2.0 41 31 25 11 4 14 25		
23+00	86.57 86.57 77.07 77.87 79.27 80.37 84.47 85.47 0.0 0.0 9.5 8.7 7.3 6.2 1.6 1.1 42 32 23 10 5 15 25		
22+35	84.57 84.57 77.07 75.97 78.37 79.27 81.87 81.87 88.57 2.0 2.0 9.5 10.6 8.2 7.3 4.7 4.7 +2.0 45 31 31 20 12 20 27 35		
T.P. 8.19 86.57 H.I. 1.23 78.08 79.31 ↑		86.57 H.I.	

X-SEC; CITY YARDS, (CONT'D.)

SECTIONS TAKEN PARALLEL TO FORD

		LT.		℄		RT.		
24+55.19	END COBBLE SPILLWAY, BEGIN CONC. FORD. LINE CROSSES FENCE HERE	91.65 1.26 30 FORD END	91.65 1.26 30 SP.WY.	91.23 1.68 22 FORD	89.41 3.50 22 SP.WY.	89.09 3.82 SPILL-WAY	90.73 2.18 FORD	89.15 3.76 18 SP.WY.	90.94 1.97 18 FORD	91.52 1.39 30 FORD & SP.WY
24+46.3	BEGIN ROUGH CORBLESTONE SPILLWAY	91.70 1.21 22 END COBBLES	88.61 4.30 15	87.97 4.94 10	87.89 5.02			87.87 5.04 16	87.91 5.00 24	90.94 1.97 30.5 END COBBLE
24+46.2	END ROUGH CONC. SPILLWAY	91.71 1.2 22 DIRT	88.61 4.30 15	86.27 6.64 10	85.86 7.05			85.95 6.96 16	87.91 5.00 24	90.91 2.0 31 DIRT
24+39	BEGIN ROUGH CONC. SPILL-WAY	88.81 4.1 12 DIRT.	86.33 6.58 9 END CONC.	84.99 7.92 6	84.38 8.53			84.48 8.03 21	87.47 5.04 27 END CONC	91.71 1.2 32 DIRT
24+32		92.91 0.0 29.5 FENCE	92.31 0.6 16	87.71 5.2 8	84.81 8.1 6	84.41 8.5		84.71 8.2 6	90.41 2.5 13	90.91 2.0 20
T.P.	7.63 92.91 H.I. 1.29 85.28					92.91 H.I.				
24+21		92.57 +6.0 25	89.37 +2.8 13	83.37 3.2 12	83.67 2.9	83.87 2.7 3	+4.0 13	90.57		90.57 +4.0 23
	86.57 H.I.					86.57 H.I.				

X-SEC., CITY YARDS (CONT'D.)

26+00

25+50

25+25

25+10.8 35° LT. CENTER 30" R.C.P. OUTLET

25+00.9 ℄ CROSSES CENTER OF DOUBLE BARREL CULVERT - INLET

24+94.6 END FORD

SECTIONS TAKEN PARALLEL TO FORD

24+55.5 LINE CROSSES METAL RAILING

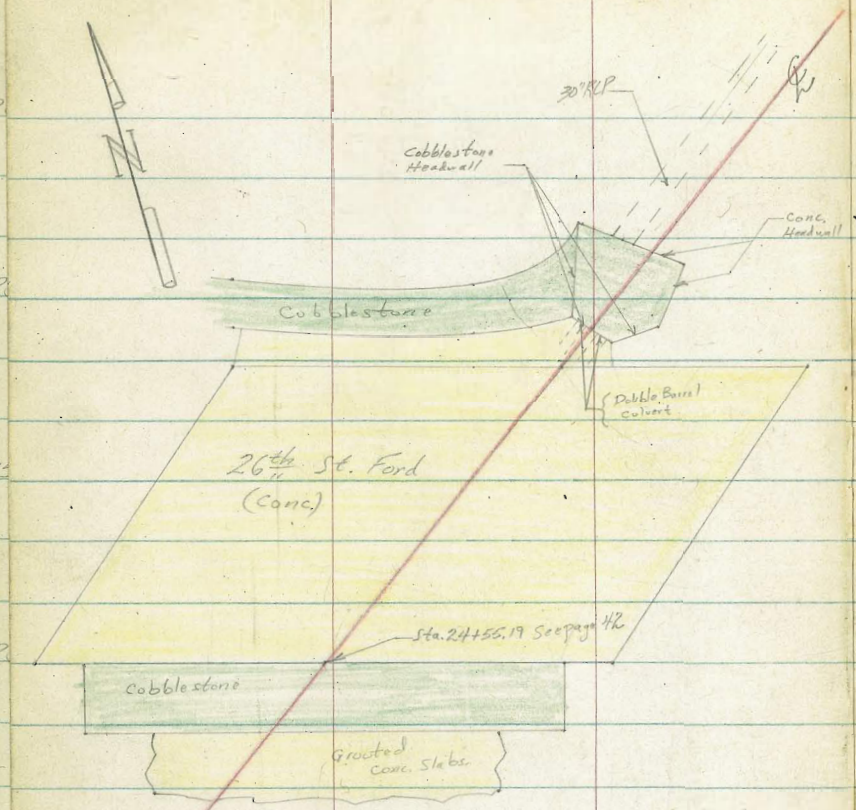
92.91 H.I.

	LT.		℄	RT.
26+00	91.91	90.91	93.31 / 92.51	94.61 / 91.21
	1.0	2.0	+0.4	+1.7
	30	18		30
25+50	97.91 / 87.91	92.81	91.91	89.91
	+5.0	0.1	1.0	3.0
	10	27	20	10
	91.91	92.21	93.31 / 92.51	93.81 / 92.01
	1.0	0.7	+0.8	+0.9
	4		10	30
25+25	92.91	89.71	89.81	90.91
	0.0	3.2	3.1	2.0
	20	8	3	
	92.21	93.41 / 92.41		
	0.7	+0.5		
	6	30		
25+10.8			86.60	
			6.31	
			3.5	
			INVERT	
25+00.9			86.52	
			6.39	
			INVERT	
24+94.6	91.43	90.74	90.67	90.68 / 91.36
	1.48	2.17	2.24	2.23 / 1.35
	31.5	20		10 / 25.5
	END			END

Checked reduction rgh 6/29/60

92.91 H.I.

T-SEC. FOR DRAIN-CITY YARDS (CONT'D.)



Detail on Ford Crossing at 26th St.
Scale: 1" = 20'

T.P.	12.49	82.92	9.85	70.13
T.P.	0.24	80.28	12.87	80.04

Co'td From Page 60
Branch Line to Pershing Dr. Bridge

Lt | ℄ | Rt

0+93.5

79.9	78.3	73.5	73.2	70.9	69.4	69.4	79.2
3.0	4.6	9.4	9.7	12.0	13.5	13.5	3.7
25	12	3	TOP	Bottom	10	20	32

0+87

79.4	78.9	76.2	71.2	69.8	69.2	69.3	75.4
3.5	4.0	6.7	11.7	13.1	13.7	13.6	7.5
25	12	6	6		6	23	31

0+75

78.9	78.6	70.1	69.3	68.4
4.0	4.3	12.8	13.6	14.5
25	14		2	25

0+50

77.5	75.3	72.1	67.0	66.6
5.4	7.6	10.8	15.9	16.3
25	10		12	25

0+25

75.7	73.1	67.9	66.8	66.5
7.2	9.8	15.0	16.1	16.4
25	11		5	25

0+00 = 19+28.96 Main Line BC Branch Line

77.2	76.2	75.3	66.4	65.9	66.0
5.7	6.7	7.6	16.5	17.0	16.9
25	18	9		11	25

82.92 ↑

82.92 ↑

Cont'd From Page 61

Station	Description	+	H.I.	−	Elev.
2+15.80	Nly Face of Bridge (Section Parallel to Bridge)				
T.P.		5.96	81.64 ✓	7.24	75.68 ✓
1+55.06	Face Bridge (Section Parallel to Bridge)				
1+43.11 E.C.					
11.95					
1+33	℄ Crosses Fence with water Lift gate.				
1+25	10± Rt to ℄ P. Pole # C1565				
1+13					
1+08					
			82.92		

Cross sections (elevation / rod reading / distance, Lt to Rt):

Station										
2+15.80	83.14 +1.5 11½	78.54 3.1 11	78.44 (~~77.44~~) 3.2 6	76.64 5.0 4	76.64 5.0 ℄	77.74 3.9 11	83.44 (~~79.84~~) +1.8 16			
T.P.	81.64									
1+55.06	81.02✓ 1.9 11½	77.42✓ 5.5 11 Top	75.42✓ 7.5 11 Bot	76.22✓ 6.7 Top	75.52✓ 7.4 Bot	76.32✓ 6.6 6 Top	77.42✓ 5.5 6 Bot	78.72✓ 4.2 11	81.12✓ 1.8 11½	83.92✓ +1.0 16
1+43.11	84.22✓ +1.3 19	79.22✓ 3.7 18	75.52✓ 7.4 13	74.82✓ 8.1 ℄	74.92✓ 8.0 5	85.52✓ +2.6 24				
1+25	80.02✓ 2.9 25	77.02✓ 5.9 17	75.42✓ 7.5 15	75.52✓ 7.4 10	74.42✓ 8.5 ℄	74.72✓ 8.2 4	80.02✓ 2.9 13	81.12✓ 1.8 25		
1+13	78.82✓ 4.1 25	76.72✓ 6.2 19	74.92✓ 8.0 17	74.52✓ 8.4 8	74.02✓ 8.9 ℄	74.12✓ 8.8 2	79.42✓ 3.5 15	80.22✓ 2.7 25		
1+08	79.42✓ 3.5 25	76.62✓ 6.3 17	75.22✓ 7.7 15	74.22✓ 8.7 7	73.82✓ 9.1 ℄	73.82✓ 9.1 3	77.32✓ 5.6 12	72.52✓ 10.4 18	79.42✓ 3.5 23	
	82.92									

Contd. From Page 62

					Lt	℄	Rt
Check		1.43	89.85 = 89.88	B.P. in Pershing Drive Bridge			
2+95					87.18 / 4.1 / 15	82.18 / 9.1	79.58 / 11.7 / 4
					77.48 / 13.8 / 20	77.98 / 13.3 / 27	85.18 / 6.1 / 45
2+50					81.28 / 10.0 / 25	79.38 / 11.9 / 2	76.88 / 14.4
					76.88 / 14.4 / 7	78.08 / 13.2 / 19	85.58 / 4.7 / 29
T.P.		9.89	91.28 ℸ	0.25 81.39		91.28 ℸ	
2+34					81.34 / 0.3 / 25	78.64 / 3.0 / 3	76.44 / 5.2
					77.64 / 4.0 / 14	~~87.14~~ ~~76.14~~ / +5.5 / 25 Top	
2+21					~~86.84~~ ~~76.84~~ / +5.2 / 14	76.64 / 5.0 / 5	76.74 / 4.9
					77.44 / 4.2 / 11	~~83.44~~ ~~79.84~~ / +1.8 / 16	
			81.64 ℸ			81.64 ℸ	

Roberts
Cota
Moore
Morales
11-10-53
W.O. 32288

Survey in 13th St. - L to Newton
to Determine Possible Route
for Switzer Drain
Rough Work: per Simmonds
However levels will be good

			Lt. Gutter	Rt. Gutter
4+19				
			3.24	3.28
			7.00	6.96
3+84	N. Side Imperial	BC Curb Returns.		
			2.40	2.45
			7.84	7.79
3+00				
			3.01	3.00
			7.23	7.24
2+00				
			3.89	3.75
			6.35	6.49
0+80	S. Line "L"			
			4.91	4.82
			5.33	5.42
0+00	N. Line "L"			
			4.81	4.79
BM	7.24	10.24 ℄	N.E.B.P. 300 Imperial &	Thirteenth 10.24 ℄

Contd From Page 64

					Lt. Gutter	Rt Gutter
7+50					3.62 5.22	3.75 5.09
6+50					2.68 6.16	2.64 6.18
5+86					1.99 6.85	1.92 6.92
5+36					3.09 5.75	2.25 6.59
T.P.	6.50	8.84 ℄	7.90	2.34		8.84 ℄
5+00	At Rt. Ls to Cb Pl National Ave. N. Side				2.16 8.08	2.98 7.26
4+46	So. Curb Line Imperial				2.68 7.56	3.08 7.16
		10.24 ℄				10.24 ℄

Contd From Page 65

		Lt Gutter	Rt Gutter
check	5.84 3.00 = 3.00		
	No Curbs Nat'l. to Newton		
10 + 38	S. L. Newton	2.56 6.28	3.30 5.54
10+07		2.20 5.64	3.43 5.41
9+83	R.R. Tracks at Newton	3.01 5.83	3.33 5.51
9+29		2.17 6.67	3.07 5.77
8+00	about ℄ of Double Tracks	3.76 5.08	3.86 4.98
	8.84 ℔	8.84 ℔	

Roberts
Cota
Moore
Moralez
2-18-54
W.O. #20008

Survey to Determine Yardage In Hill in Golden Hill Park (East of City Yards)

See Page 41 this F.B.

All From ℄ on Page 41

All Elevations shown are to the right of Center Line.

13+70										
	111.7	139.4								
	550	610								
13+50										
	83.2	81.2	82.4	104.7	104.5	108.3	106.8	109.9	124.9	
	265	350	413	432	450	500	540	550	582	
								127.4	132.1	
								600	650	
13+25										
	97.7	96.5	99.9	102.5						
	430	450	500	550						
13+10 ✓										
	99.0	108.9	116.1							
	500	600	650							
13+00 ✓										
	82.4	80.4	81.8	95.0	95.4	100.7	107			
	268	355	421	438	450	500	550			

BM — 89.88 — B.P. in Bridge Pershing at Ala.

BM — 79.88 — NWBP "B" ℄ 24th

Cont'd From Page 67

All right of Center Line

15+00	84.5	83.3	84.3	128.4	130.3	141.2	150.5	161.2	166.5
	245	328	399	432	450	500	550	600	650
14+50	84.0	82.6	83.6	124.9	126.6	136.4	140.9	143.7	150.6	159.2
	252	335	406	432	450	500	520	550	600	650
14+35	141.1	144.0	149.1							
	550	575	600							
14+25	133.8	137.5	138.1	150.1						
	500	525	550	625						
14+00	83.7	81.9	83.0	120.4	122.7	126.6	130.1	130.8	125.3
	258	342	410	431	450	475	500	510	550
						129.2	132.6	147.6	154.9
						580	600	628	650
13+90	127.7								
	500								
13+80	117.3	117.4	122.4						
	431	450	495						

All right of Center line

16+75

156.2 164.5 166.1 | 132.1 136.4 144.9 149.2
550 600 650 | 431 450 475 500

16+50 ✓

86.6 85.3 87.0 136.0 | 141.0 147.5 151.7 155.6
232 306 398 431 | 450 475 500 525

162.6 172.0 174.0
550 600 650

16+35

165.2 171.5 174.4 | 176.0
550 575 600 | 650

16+00 ✓

86.1 84.8 86.4 136.1 139.1 | 150.5 164.1 167.4 169.6
240 313 394 432 450 | 500 550 560 575

173.1 175.8
600 650

15+75

174.4
650

15+50 ✓

85.3 84.2 85.4 132.7 134.9 | 146.1 158.7 163.8 168.7 171.8
242 320 395 432 450 | 500 550 570 600 650

15+20

160.3
580

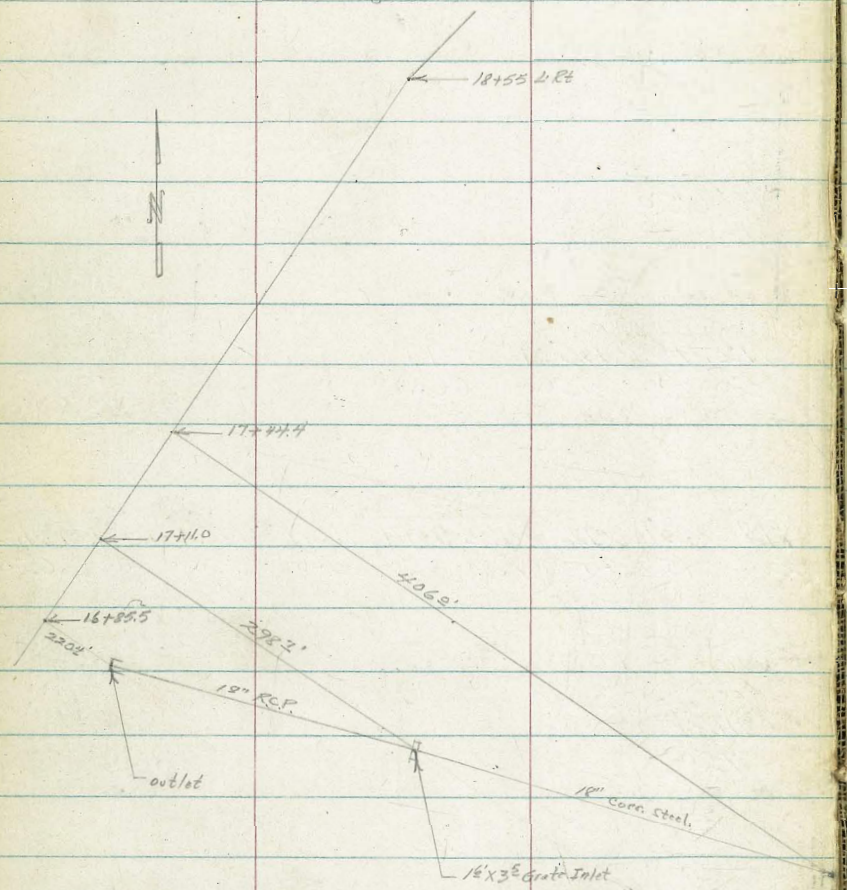
All right of Center Line

17+70		126.3 650
17+60		112.4 115.9 121.1 500 550 600
17+50	✓	87.8 85.7 87.6 108.2 109.7 116.4 120.7 126.4 134.2 220 295 411 428 450 500 550 600 650
17+35		111.2 450
17+00	✓	86.8 85.5 87.7 125.7 128.9 141.1 145.5 152.3 154.4 225 300 402 431 450 500 550 600 650
16+85		147.9 154.9 500 550

Roberts
Cota
Moore
Moralez
March 30, 1954
W.D.H.

Survey of "Burma Road" and Hill in Golden Hill Park For Yardage.

See Page 41 This F.B.



Location of Drain in "Burma Road" at City Yards.

You will note that fill dirt has been added since survey Page thirty-nine, on "Burma Road."

17+44.4 ← 406.0' Rt to center of west Edge of 1'8"x3'4" Inlet also begin 18" Corr. Pipe. Grate Elevation = 87.63 Invert Elevation = 83.51

17+11.0 ← 298.7' Rt to center of 1'6"x3'6" Inlet also begin of 18" RCP and end of 18" Corr. Pipe. Grate Elevation = 85.30 Invert Elev. = 80.59

16+25.5 ← 220.4' Rt to the end of 18" R.C.P. Drain, Invert Elevation equals 75.29

1'8"x3'4" Grate Inlet

Contd From Page 71

All Rt of ℄

21+50 436.0' Rt to west edge of A.C. Road

21+50
90.8 90.6 89.9 89.3 88.8 88.6 88.9 89.0 183.1 186.2 188.2 189.5 193.3 192.3 196.4 197.9
25 50 100 125 163 177 200 237 377 386 405 406 436 455 500 550

21+00 456.0' Rt to west Edge of A.C. Road

21+00
90.8 90.7 88.9 88.2 88.3 88.1 178.0 182.0 182.9 185.2 191.4 194.0 195.5
36 50 150 200 250 290 389 394 414 417 450 500 550

20+50
90.8 88.7 88.3 87.6 88.1 88.2 166.6 171.4 172.5 175.4 183.4 188.9 190.9
48 150 190 210 235 322 395 404 423 425 450 500 550

20+00
89.4 88.4 87.2 87.6 88.0 160.4 161.2 159.6 165.9 169.4 178.4 179.9 174.4
70 180 235 250 335 405 421 427 435 450 500 517 550

19+50
88.0 87.9 87.0 87.3 87.8
139 200 250 295 360

18+55.00 (See page 54)
87.6 86.9 86.5 87.0 87.2 146.3 147.2 147.1 150.0 159.0 157.0 160.4
203 265 277 300 376 428 434 451 454 520 562 600

18+00
87.5 86.5 86.0 86.5 87.6 124.4 124.7 130.3 127.4 133.4
215 270 285 300 393 430 470 520 560 600

B.M. B.P. in Bridge 89.88 Pershing at F/a.

B.M. NWBP 179.88 "B" ℄ 24 ℄

Cont'd From Page 72 All Rt of ℄

Station	Remarks	Elevation / Distance
24+50		91.7 / 29; 92.0 / 50; 91.9 / 72 Fence; 90.3 / 80; 91.0 / 115; 96.0 / 180
24+00		89.3 / 19; 90.0 / 50; 90.8 / 75; 90.8 / 93 Fence; 89.8 / 100; 92.1 / 150; 96.0 / 200
23+50		87.8 / 15; 88.9 / 50; 89.5 / 70; 90.4 / 100; 90.5 / 114 Fence; 90.7 / 150; 92.8 / 188; 142.5 / 500; 149.5 / 550
23+00		90.3 / 15; 90.2 / 100; 90.3 / 136 Fence; 90.6 / 146; 93.4 / 170; 98.4 / 196; 154.6 / 350; 162.0 / 400; 165.0 / 450; 165.4 / 500; 164.1 / 550
22+55	155.0' Rt to ℄ in fence. Beautiful oak grove to East of Fence.	
22+50		90.6 / 20; 90.3 / 50; 90.0 / 126; 91.9 / 161; 93.6 / 171; 168.2 / 307; 175.8 / 350; 185.9 / 400; 187.3 / 450; 190.4 / 500; 189.1 / 550
22+00		90.8 / 20; 90.4 / 50; 90.0 / 100; 89.5 / 150; ~~88.6~~ 89.6 / 195; 167.9 / 300; 180.5 / 350; 189.7 / 400; 193.4 / 450; 194.1 / 500; 195.7 / 550

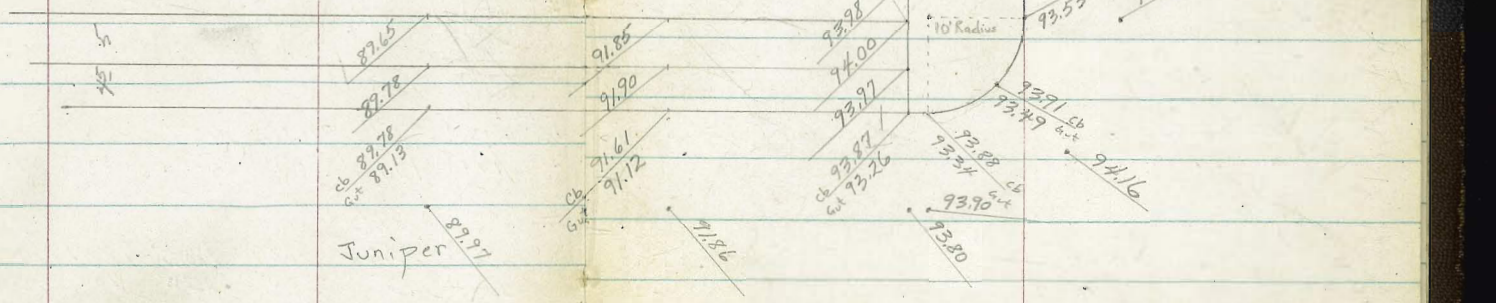
Roberts
Rorer
Moore
Moralez
5-17-55
W.O.# 20006

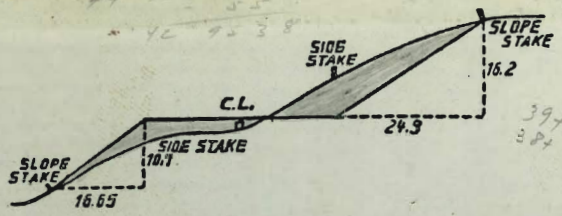
Elevations on N.W. Corner of Juniper and Union

Scale:- 1" = 20'

8" Std. Curbs

BM. S.E.B.P. State & Kalmia 87.92





DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

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

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