1748

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CITY ENGINEER'S OFFICE

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X-Sec. Dawes - 100' N. & S. Prop. 22
lines of Beryl

Levels. on paving Ingraham 24
from Missouri to Beryl

Levels Federal Bldg. - Balboa Park 30

X-Sec. Alley Carruthers Add from 34
Boundary to 43rd

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42-66 - Tee points & X-Sect. Lexington Park
Sycamore - Tulip - Pepper Dr. - Shamrock

Logan, X-Sec. prop. opening 67
Boundary to 41st St.

Cross Section Wightman St.
35th St. to 36th St.

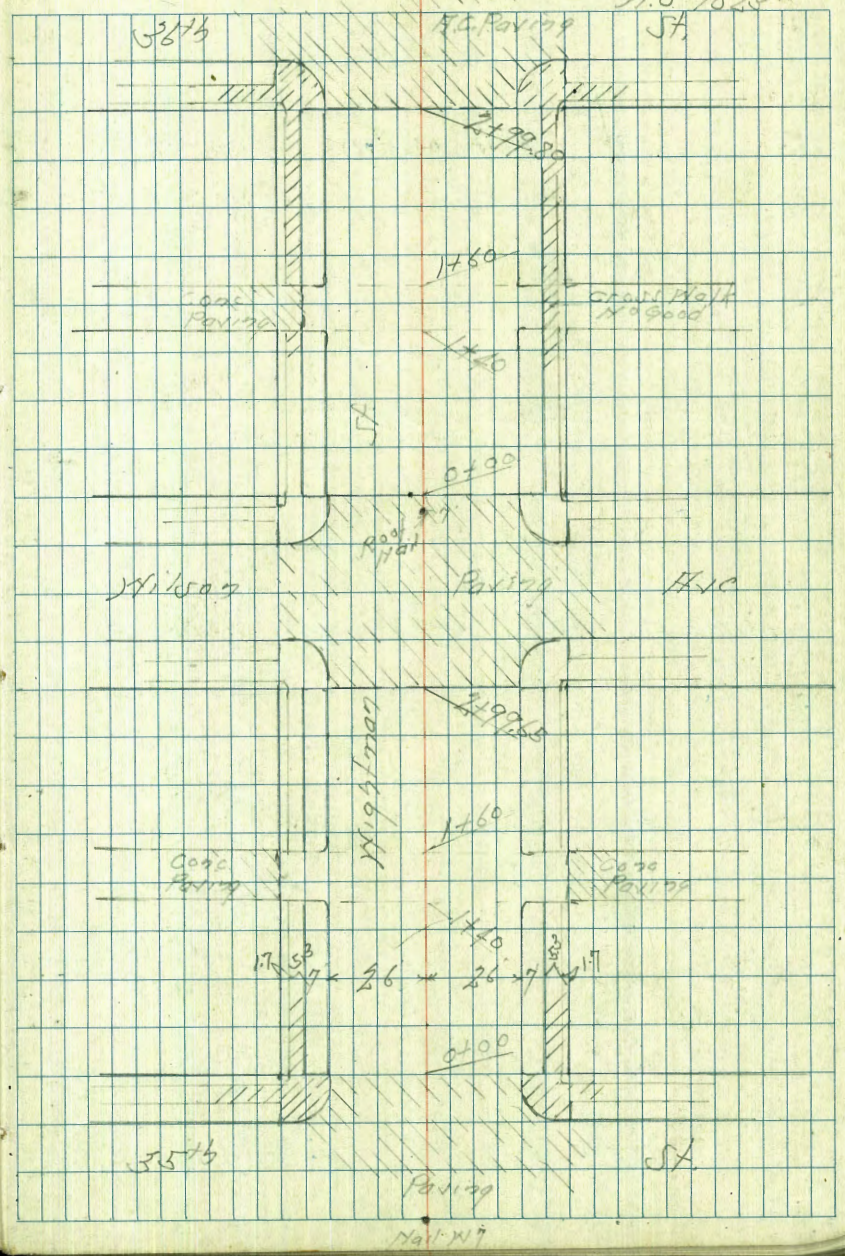
Levels next page

11-20-46 Notes Reduced.
Mhenry.

Indexed
C.S.K.

Nov. 14. 46
Sisson
McCoy
Allen

1



Cross Section Hightman St
35th St. to 36th St

TP	1.88	353.53	5.41	351.65	
1+0					
+50					
0+0.0 = F.L. 35th St = Fi, Paving					
0-14 = East Curb Line of 35th St					
BM			4.49	352.57	N.W. B.P. Hightman + 35th St
	10.34	357.06	0.33	346.72	
BM	9.63	347.05		337.42	N.W. B.P. Hightman + Smith

Lt = N ℄ Rt = S

351.39 5.67 25.8 12' Conc Drive	351.2 5.9 25.8	351.5 5.6 13	351.9 5.2	351.4 5.7 13	351.1 6.0 25.8	351.61 5.45 25.8 = Cb		
352.49 4.57 25.7 = Cb.	351.6 5.5 25.7	351.8 5.3 13	352.1 5.0	351.8 5.3 13	351.5 5.6 25.9	352.01 5.05 25.9 = Cb		
353.11 3.95 25.9 = Cb	352.49 4.57 25.9 = Gutter	352.72 4.34 13	352.82 4.24	352.53 4.53 13	352.11 4.95 25.7 = Gutter	352.57 4.49 25.7 = Cb		
353.20 3.86 40 = Cb.	352.70 4.36 40 = Gutter	352.65 4.41 26	352.96 4.10 13	352.85 4.21	352.63 4.43 13	352.36 4.70 26	352.04 5.02 40 = Gutter	352.65 4.41 40 = Cb

357.06

3+99.65 = W.L. Wilson Ave = W.L. Paving

+50

2+0

+60 = E.L. Alley

+50 = ℄ Alley

1+40 = W.L. Alley

Lt. ℄ Rt.

3

1+40 = W.L. Alley

TP 3.41 351.73 5.21 348.32

1+0

+50

0+00 = E.L. Wilson = E.ly Paving

0-14 = E Cb Line Wilson

3+13.65 = W Cb Line of Wilson

353.53

Lt ℄ Rt

348.35	348.54	348.39	348.1	348.1	348.0	347.8	347.3	347.59	347.90	347.9
3.38	3.19	3.34	3.6	3.6	3.7	3.9	4.4	4.14	3.83	3.8
3.31	3.31-Cb	26-Cb	26	13		13	25.9	25.9-Cb	3.82	40
S H Paving					351.73				3.54 [illegible]	

348.64	348.2	348.2	348.2	348.0	347.5	348.10
4.89	5.3	5.3	5.3	5.5	6.0	5.43
26-Cb	26	13		13	25.9	25.9-Cb

348.74	348.3	348.5	348.4	348.1	347.8	348.43
4.79	5.2	5.0	5.1	5.4	5.7	5.10
25.9-Cb	25.9	13		13	25.9	25.9-Cb

348.87	348.37	348.51	348.58	348.27	347.93	348.38
4.66	5.16	5.02	4.95	5.26	5.60	5.15
25.9-Cb	25.9-Gut.	13		13	25.9-Gutter	25.9-Cb

348.92	348.48	348.17	348.07	348.09	348.02	347.93	347.91	348.52
4.61	5.05	5.36	5.46	5.44	5.51	5.60	5.62	5.01
40-Cb	40-Gutter	26	13		13	26	40-Gutter	40-Cb

349.59	349.05	348.92	348.70	348.63	348.56	348.44	348.50	349.08
3.94	4.48	4.61	4.83	4.90	4.97	5.09	5.03	4.45
40-Cb	40-Gutter	26	13		13	26	40-Gutter	40-Cb

353.53

3+13.80 = N Cb Line 36th St

BM 4.05 347.68 ← N.W.B.P. Highland & 36th St 347.68

2+99.80 = W.L. 36th St = N/ Paving

+50

2+0

+60 = E.L. Alley

1+50 = ℄ Alley

351.73

Lt. ℄ Rt.

347.61 4.12 40-Cb	347.21 4.52 40-Gutter	347.06 4.67 26	346.88 4.85 13	346.79 4.94	346.73 5.00 13	346.71 5.02 26	346.42 5.31 40-Gutter	347.10 4.63 40-Cb		
347.59 4.14 25.8-Cb	347.11 4.62 25.8-Gutter	347.36 4.37 13	347.26 4.47	347.04 4.69 13	346.64 5.09 26-Gutter	347.17 4.56 26-Cb				
347.89 3.84 25.9-Cb	347.4 4.3 25.9	347.5 4.2 13	347.6 4.1	347.2 4.5 13	346.8 4.9 26	347.34 4.39 26-Cb				
348.13 3.60 25.9-Cb	347.7 4.0 25.9	347.8 3.9 13	347.9 3.8	347.5 4.2 13	346.9 4.8 26.1	347.58 4.15 26.1-Cb				
348.30 3.43 33-S/W Paving	348.47 3.26 32-Cb	348.36 3.37 26-Cb	348.0 3.7 26	348.0 3.7 13	348.1 3.6	347.8 3.9 13	347.2 4.5 26	347.62 4.11 25-Cb	347.56 4.17 31.3-S/Walk	347.5 4.2 40
348.12 3.61 33.1-S/W Paving	348.2 3.5 26	348.2 3.5 13	348.0 3.7	347.8 3.9 13	347.2 4.5 26	347.5 4.2 40				

351.73

385 50%

Indexed
E.S.K

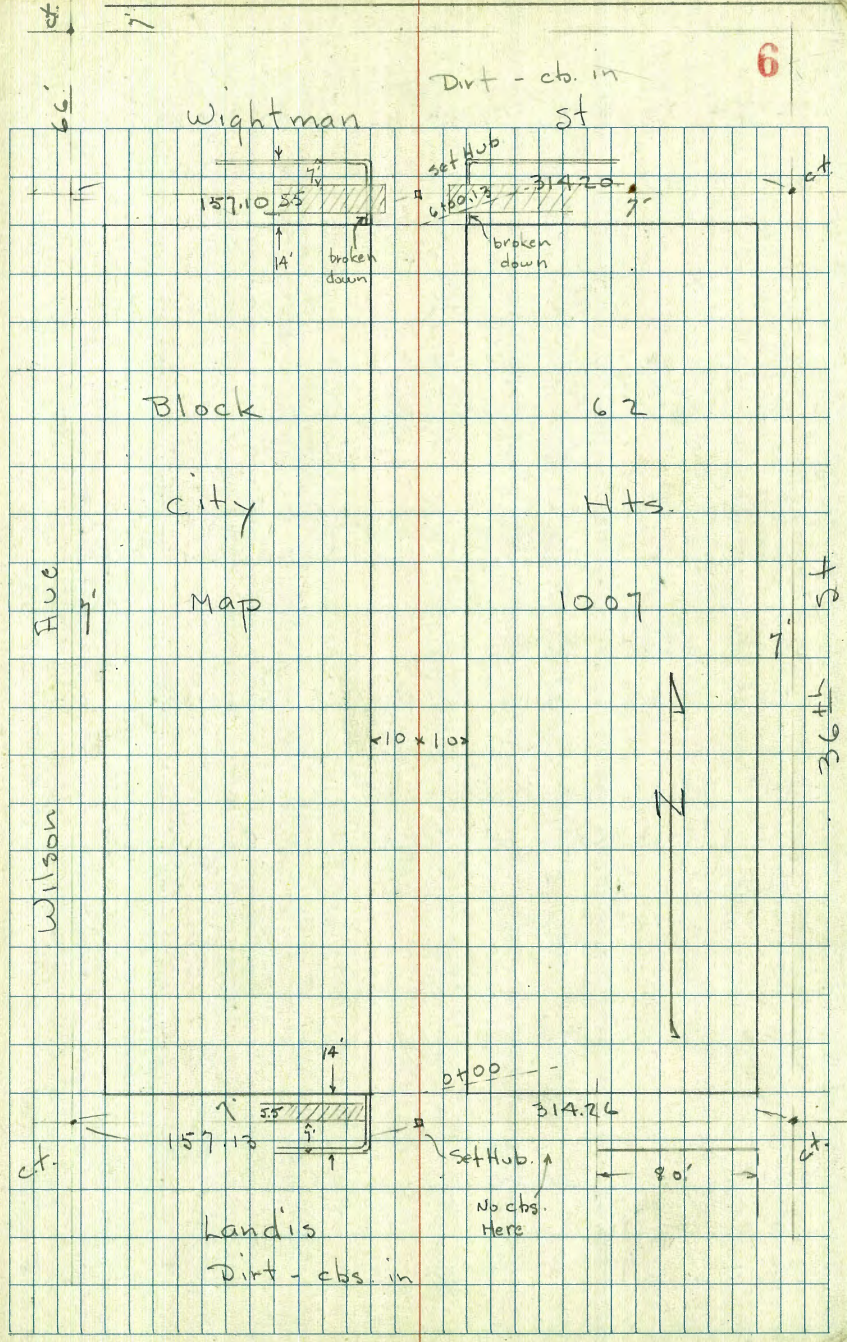
X-Sect. 20' Alley in Block 62 - City Hts

646

W.O. 1023

11-25-46

Osborne
Hardin
Smith



X-Sect 20' Alley - Block 62 - City Hts

Lt = W. ℄ Rt = E.

Station	Notes	Readings (Lt = W. → ℄ → Rt = E.)
1+60		338.3 / 0.9 / 10; 337.8 / 1.4 (℄); 337.4 / 1.8 / 10; 337.2 / 2.0 / 20
1+30		337.40 / 1.82 / 9.6 = slab; 337.1 / 2.1 / 10; 336.8 / 2.4 (℄); 336.5 / 2.7 / 10; 336.1 / 2.6 / 20
1+29	9.6 Lt. = N.E Cor. Conc. Slab	
1+00		336.64 / 2.58 / 9.4 Top slab; 336.84 / 2.38 / 9.4 Top slab; 336.0 / 3.2 / 9.4 ground; 335.6 / 3.6 (℄); 335.6 / 3.6 / 10; 335.8 / 3.4 / 20
0+81	9.4 Lt. = S.E Cor. Conc. slab. (poor shape)	
0+68	7.8 Lt. = ℄ P. pole	
0+50		335.1 / 4.1 / 10; 334.9 / 4.3 (℄); 334.9 / 4.3 / 10; 334.8 / 4.4 / 20
0+49	9.8 Lt. = end fence	
0+26	9.9 Lt. = beg wire fence	
0+10		335.3 / 3.9 / 10; 334.2 / 5.0 / 5; 334.4 / 4.8 (℄); 334.7 / 4.5 / 10
0+00	N.L. Landis	ground same; 333.93 / 5.29 / 9.9 Top cb. end Ret; 334.0 / 5.2 (℄); 334.4 / 4.8 / 10
0-14	N cb Landis	333.58 / 5.64 / 50 Top cb; 332.6 / 6.6 / 50 gut; 333.62 / 5.60 / 10 Top cb 2' Rad.; 332.9 / 6.3 / 10 gut; 332.9 / 6.3 (℄); 333.0 / 6.2 / 10; 333.3 / 5.9 / 70 gut; 332.42 / 6.80 / 70 Top-end of cb.
B.M.	3.97 / 339.22 / 335.25 NW. B.R. Landis + 26th	

339.22

3+51 - 9.6 Lt. = S.E. Cor. 6" Conc. wall around Conc. slab.

3+50

3+42 - 14.4 Lt. = ℄ Sing. Gar. Conc. floor

3+37 - 10.5 Lt = end shed.

3+25 - 10.4 Lt. = end Picket fence + Beg. board shed

3+00

2+99 - 8.6 Rt = ℄ P. pole

2+74 - 9.9 Lt. = end wire fence + beg. High picket fence

2+59.7 = ℄ Sewer MH. on ℄

2+50

2+26 - 9.5 Lt. = Beg. poor wire fence

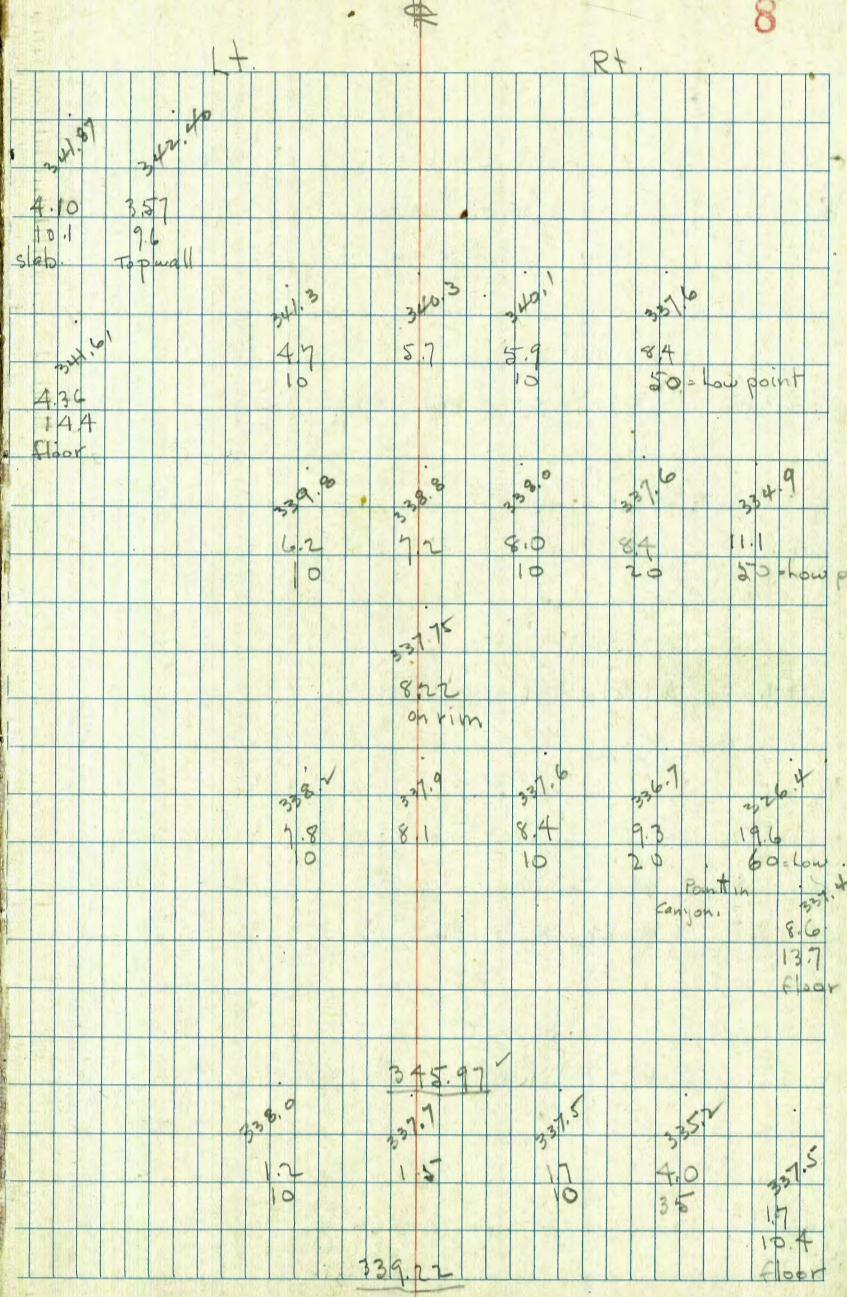
2+17 - 13.7 Rt. = ℄ Sing Gar. Dirt floor

2+05 - 8.8 Lt = ℄ P pole

T.P	8.23	345.97	1.48	337.74

1+00

1+90 = 10.4 Rt. = ℄ Sing. Gar. Dirt floor



5+29 = $. end Doub. Gar. on Lt. Conc. floor + apron

5+29 - 10' - Lt = end board fence

T.P. 7.91 352.53 1.35 344.62

5+02 - 8.8 Lt. = ℄ P. pole

5+00 - 9.8 Lt. = beg. board fence

4+70

4+50 - 9.9 Rt. = end picket fence

4+40

4+13 - 10' Rt. = Beg. Picket fence

4+00 - 8.6 Lt. = ℄ P. pole

3+99 - 10' Lt. = N.E. Cor. Conc. wall + slab.

3+70

℄

Lt. Rt.

346.04 345.84

6.49 6.69

12.5 10.4 = apron

floor

352.53

342.8 343.9 343.8 344.0 341.6

3.2 2.1 2.2 2.0 4.4

20 10 10 30 = low point

342.1 342.1 342.2 342.7 342.0 339.8

3.9 3.9 3.8 3.3 4.0 4.2

20 10 10 20 30 = low point

346.9 341.6 341.3 341.3

5.1 4.4 4.6 4.7 4.7

20 0 10 20

341.4 341.0 341.0 341.0

4.6 5.0 5.0 5.0

10 10 20 - Level out

341.99 342.50

3.98 3.47

10 ⅝ 10

slab. Top wall

342.09 342.49 340.8 340.7 340.3

3.88 3.48 5.2 5.3 5.7

10.3 9.8 5 10

345.97

6+14.13 = S. cb. Line Wightman

6+07.13 = N. side walk

6+01.63 = S. edge of walk

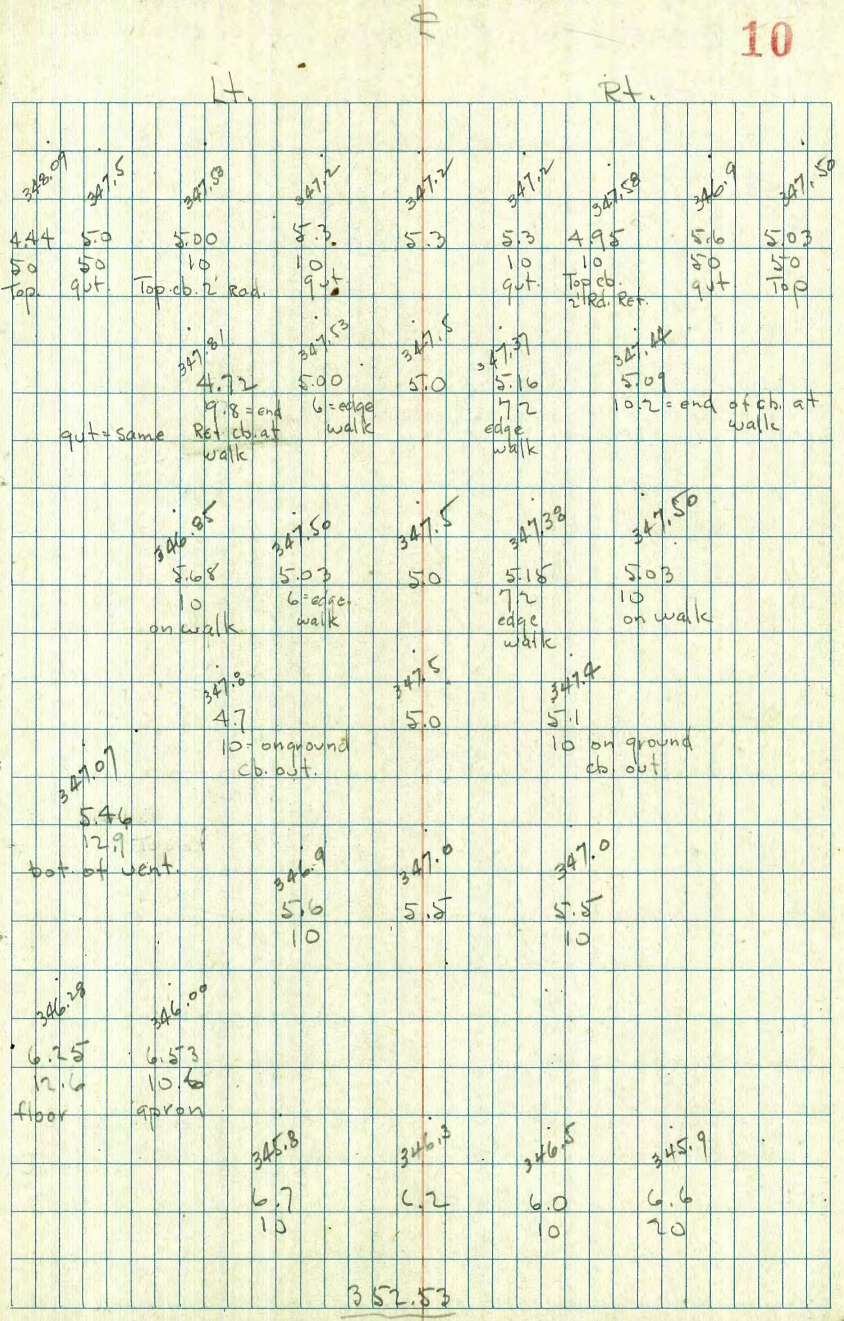
6+00.13 = S.L. Wightman

5+74 = 12.9 Lt = ℄ Vent. in Conc. found. to House

5+70

5+48 = N. end Gar. on Lt.

5+30



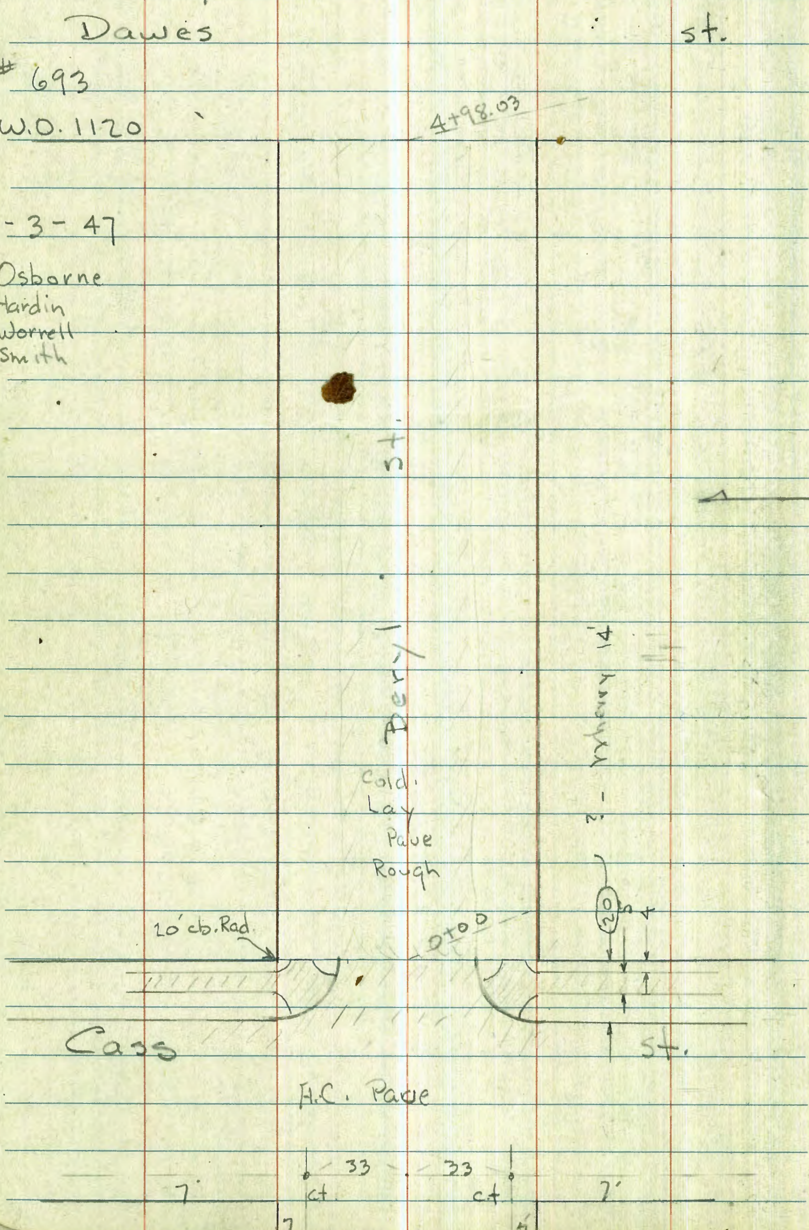
X-Sect. Beryl St - from W.L. Cass to W.L. Everts st. & Dawes - 100' each way from Beryl

\# 693

W.O. 1120

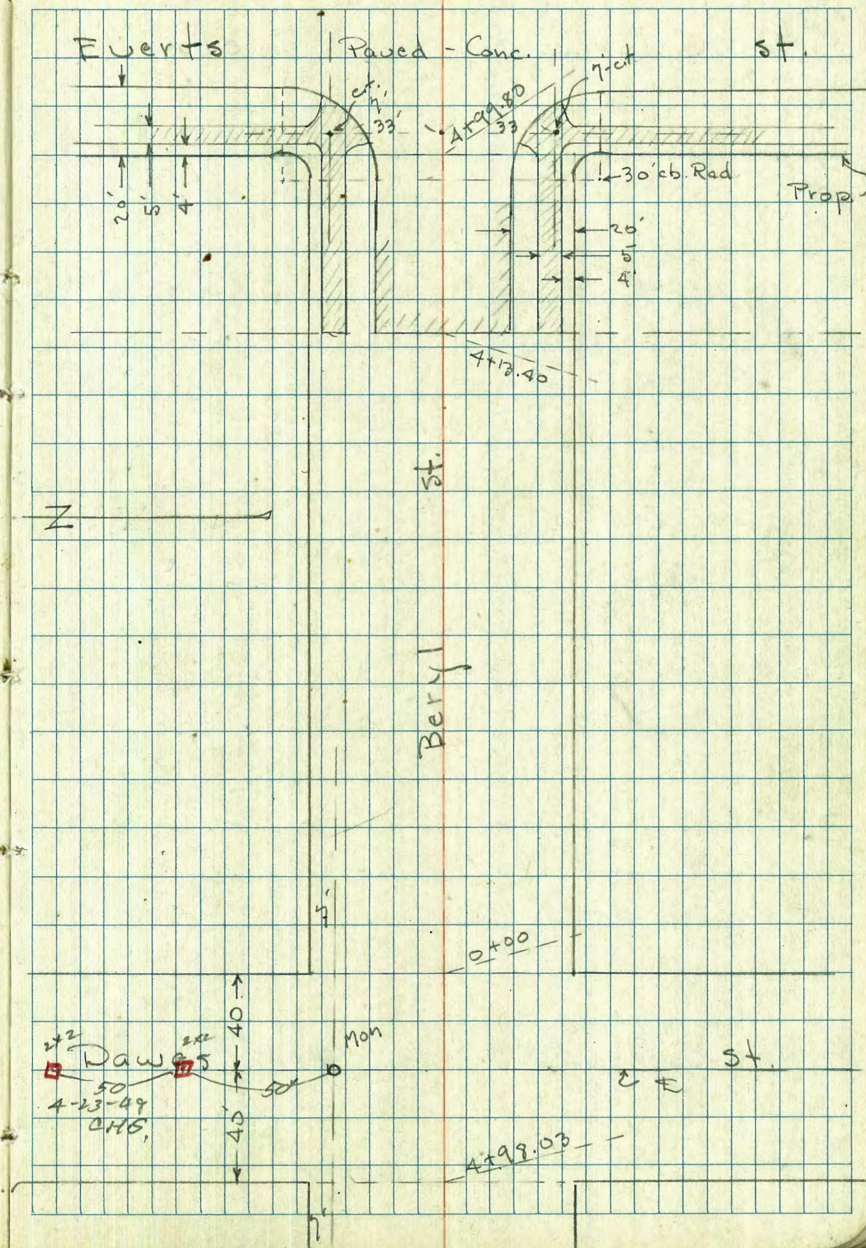
1-3-47

Osborne
Hardin
Worrell
Smith



Indexed
C.S.K

Notes Reduced - 1-8-47 Wherry - 11



X-Sect. Beryl St. - 80' st. & 20' cbs.
from W.L. of Cass to W.L. of Everets

0+10

Poor Cond.

0+00 = E.L. Cass & edge of A.C. pave - Beg. Cold Lay pave

0-14 = E. cb.

0-40 = ℄ Cass

0-66 = W. cb.

0-80 = W.L. Cass = on A.C. pave

B.M. 12.88 79.28 66.40

Lt = N. ℄ Rt = S.

76.0 75.4 75.5 75.5 75.7 75.6 75.2 75.1 75.1 75.1
3.3 3.9 5.8 5.8 5.6 5.7 6.1 6.6 6.2 6.2
40 22 20 19 10 on CL (Cold Lay) 10 20 24 40
edge CL edge CL.

74.7 74.12 73.94 73.72 73.13 73.08 72.90 72.91 72.41 72.08 73.96 73.96 72.9
4.6 5.16 5.34 5.56 6.15 6.20 6.30 6.57 6.87 6.24 6.32 6.32 6.4
40 36 31 20.9 20.9 10 10 20.9 20.9 31 36 40
edge walk Top end Ret. gut gut Top end Ret. edge walk

74.60 74.06 73.38 72.97 72.58 72.14 71.86 71.56 71.13
4.88 5.22 5.90 6.36 6.70 7.14 7.42 6.72 8.15
80 40 40 20 20 40 40 80
gut. Top PC gut gut Top PC. gut
20' Rad Ret.

74.87 73.76 73.38 73.01 72.60 72.24 71.63
4.46 5.52 5.90 6.27 6.68 7.04 7.65
80 40 20 20 40 80

74.06 73.42 73.19 72.66 72.42 71.87 71.57 71.89 71.85
5.22 5.86 6.15 6.62 6.86 7.41 7.77 7.39 8.43
80 40 40 20 20 40 40 80
gut. Topcb gut gut Topcb gut
20' Rad. PC. Ret. PC. 20 Rad. Ret.

73.33 71.95 71.91 70.91 71.18
6.95 7.33 7.37 8.37 8.10
21.2 21.2 21 21
Topcb gut gut Topcb
on Ret.

79.28

1+64 - 39.9 Lt. = ℄ 6.6' Conc. Dr.

T.P. 10.39 87.29 2.38 76.90

1+52 - 3.5.2 Rt. = ℄ 4' Hedge (N+S) 6' High

1+50

1+49 - 39.8 Rt. = ℄ 6" Palm.

1+34 - 40.2 Lt. = ℄ 4' Conc. walk

1+21 - 37.6 Rt. = ℄ 3' Conc. walk

1+12 - 39.8 Rt. = ℄ 8" Palm

1+17 - 42.8 Lt. = ℄ 7' Dr. - 2 - 1.7' Conc. strips

1+02 - 39.4 Rt. = ℄ 9' Conc. Dr.

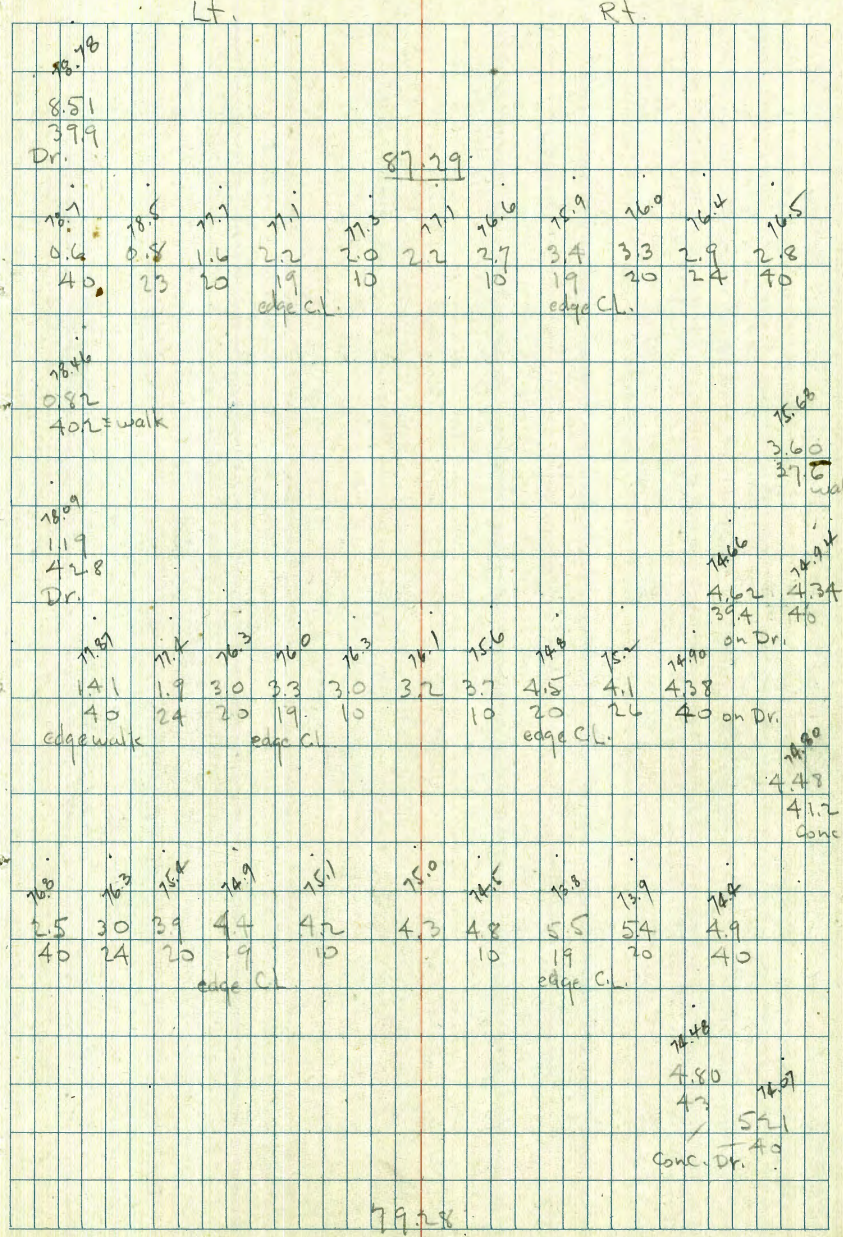
1+00 - 40' Lt. = ℄ 5' Conc. walk

0+95 - 41.2 Rt. = N. side end Conc. Dr. along House

0+50

0+47 - 43' Rt. = N. side of 9' Conc. Dr. along house

0+34 - 40' Rt. = ℄ 11' Conc. Dr. ← Joins



2+66 - 38.3' Lt. = ℄ 6' Dr. 2- 2' Conc. strips

2+63 - 38.3 Lt. = end Conc. wall

2+50 - 39.9 Rt. = Beg. Pickett fence

1+47 - 38.4 Lt. = ± 3' Conc. walk

2+25 - 38.7 Lt. = Beg. 6" Conc. wall

2+17 - 38.7 Lt. = ℄ 7' Conc. Dr.

2+00

1+93 - 18.8 Rt. = ℄ 9' Conc Dr.

1+91 - 39' Lt. = ± 3' Conc. walk

1+74 - 27.5 Lt. = ℄ 6" Palm.

1+73 - 38.7 Rt. = ℄ 2.5' Conc. walk

1+

℄

Lt. Rt.

80.48
6.81
38.3
Dr.

80.45
6.84
38.3

80.4 79.6 79.2 78.9 79.3 79.2 78.9 78.4 79.1 78.9
6.9 4.7 8.1 8.4 8.0 8.1 8.4 8.9 8.2 8.4
40 24 20 19 10 10 18 20 40
edge C.L. edge C.L.

80.30
6.99
38.4 - walk

80.03
7.26
38.7 = Top wall

79.74
7.55
38.7
Dr.

79.5 79.0 78.3 78.0 78.3 78.2 78.0 77.3 77.5 77.9 77.9
7.8 8.3 9.0 9.3 9.0 9.1 9.5 10.0 9.8 9.4 9.4
40 24 20 19 10 10 19 20 24 40
edge C.L. edge C.L.

77.19 77.56 77.82
10.10 9.73 9.67
18.8 25 40
edge on Dr.
Dr.

79.33
7.96
38.9
walk

77.19
10.10
38.7
walk

87.29

3+77 - 30.9 Lt. = ℄ 2" Acacia

3+71 - 37.1 Lt. = ℄ 27 Conc. walk

3+62 - 28' Lt. = ℄ 3" Acacia

3+50

3+38 - 30.5 Rt. = ℄ 4" Cypress

3+18 - 19.9 Rt. = ℄ 3' Conc. walk

3+06 - 29' Rt. = ℄ 6" Cypress tree

3+04 - 38.4 Lt. = ℄ 6.8' Dr. 2-2' Conc. strips

3+01 - 38.4 Lt. = end Conc. wall

3+00

2+98 - 39.8 Rt. = end fence

2+75 - 38.3 Lt. = beg. 6" Conc. wall

2+72 - 21.2 Rt. = ℄ 8' Conc. walk

℄

Lt. Rt.

83.13
4.16
37.1 = walk

82.8	82.2	81.6	81.0	81.2	81.1	80.8	80.4	80.8	80.3
4.5	5.1	5.7	6.3	6.1	6.2	6.5	6.9	6.5	7.0
40	22	20	18	10		10	18	20	40
		edge C.L.					edge C.L.		

80.30 — 79.81
6.99 — 7.42
19.9 — 40
edge — on walk

81.61
5.68
38.4
Dr.

81.61
5.68
38.4 = Top wall

81.6	80.9	80.4	80.1	80.3	80.2	79.9	79.5	80.1	79.6
5.7	6.4	6.9	7.2	7.0	7.1	7.4	7.8	7.2	7.7
40	24	20	19	10		10	19	20	40
			edge C.L.				edge C.L.		

81.18
6.11
38.3 = Top wall

79.62 — 79.25
7.67 — 8.04
21.2 — 40
edge — on walk

87.29

T.P.	7.65	92.12	2.82	84.47	Nail in Pole S.W. Dawes + Beg'n

4+98.03 = W.L. Dawes

4+73 - 33.7 Lt. = ℄ 3' Conc. walk

4+67 - 38.8 Rt. = Beg. N'ly. 3' Hedge 5' High

4+67 - 39.8 Rt. = end picket fence

4+50

4+47 - 39.8 Rt. = Beg. picket fence

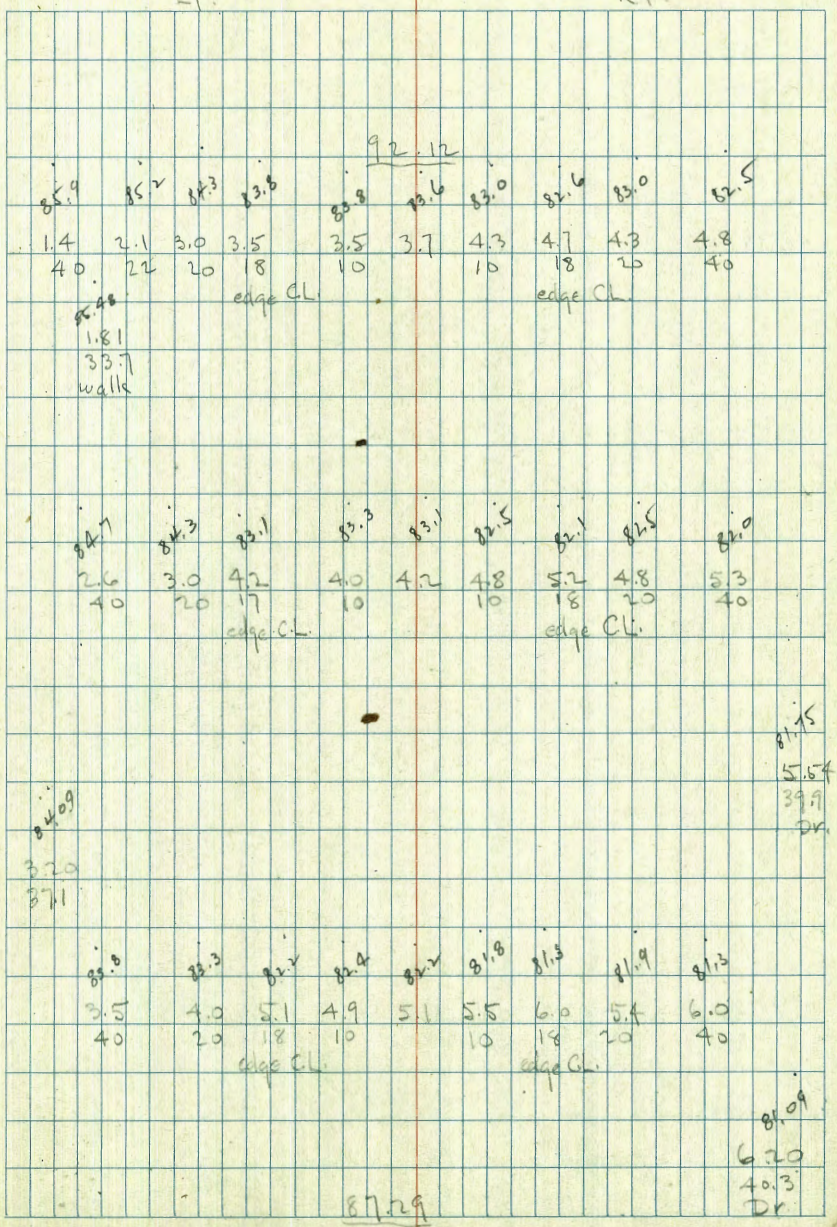
4+39 - 39.9 Rt. = ℄ 8' Conc. Dr.

4+17 - 37.1 Lt. = ℄ 3' Conc. walk

4+00

3+93 - 30.3 Lt. = ℄ 3" Acacia

3+87 - 40.3 Rt. = ℄ 8" Conc. Dr.



7.0.
1946-47

0+50

5+78.03 = 0+00 ahead = E.L. Dawes

5+58.03 = E. cb.

5+54.03

5+38.03 = ℄ Dawes

5+23.03 = end of Cold Lay

5+18.03 = W. cb.

℄

Lt. . . . . Rt.

88.0	87.0	86.4	85.8	86.0	85.8	85.30	85.1	84.4	83.6
4.1	5.1	5.7	6.3	6.1	6.3	7.1	7.0	7.7	8.5
40	22	20	17	10		15	20	40	60

87.1	86.0	84.9	84.6	83.6	83.9	83.4	
5.0	6.1	7.2	7.5	8.5	8.2	8.7	
40	20	18		15	20	40	

87.2	86.0	85.2	84.8	83.9	83.7	83.4	83.4
4.9	6.1	6.9	7.3	8.2	8.9	8.7	8.7
40	22	20	18		15	20	40

85.5	84.6	83.7	83.0	82.4	
6.6	7.5	8.4	9.1	9.7	
40	20		20	40	

86.1	85.1	84.1	83.4	82.8	
6.0	7.0	8.0	8.7	9.3	
40	20		20	40	

85.6	84.3	84.1	83.7	83.3	82.8	82.4		81.7
6.5	7.4	8.0	8.4	8.8	9.3	9.7		10.4
40	20	19	10		10	20		40
		end C.L.				edge C.L. = end		

86.1	85.1	84.1	83.8	83.3	82.9	82.7	83.3	82.7
6.0	7.0	8.0	8.3	8.8	9.2	9.4	8.8	9.4
40	20	18	10		10	19	20	40
	Edge C.L.			92.17		edge C.L.		

385 50%

2+02 - 24.6 Rt. = ℄ 2" shrub

2+00

1+98 - 39.4 Lt. = ℄ 3 Conc. Walk

T.P. 9.84 99.72 2.24 89.88

1+50

1+49 - 21.4 Lt. = end Conc wall

1+45 - 26.6 Rt. = ℄ 1" Pine

1+19 - 26.8 Rt. = ℄ 1" Pine Tree

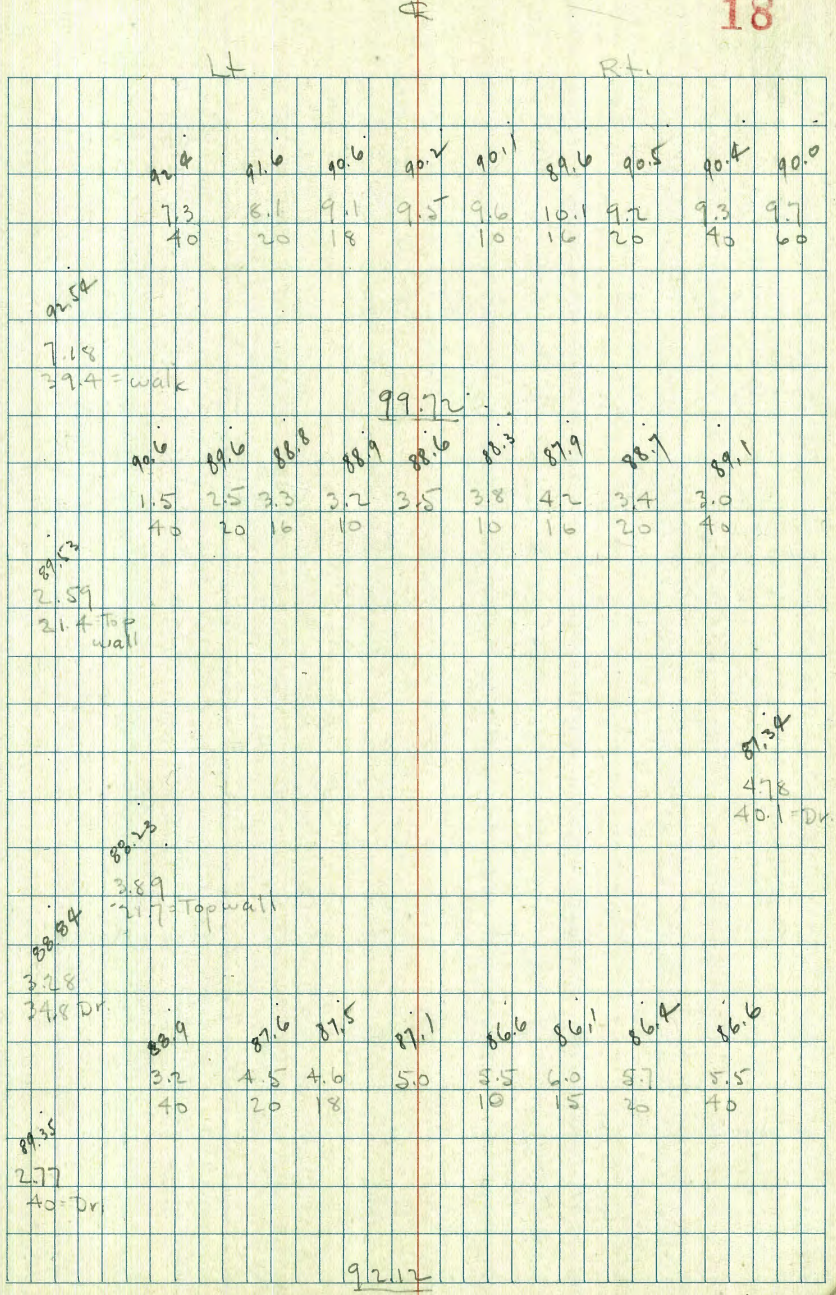
1+10 - 40.1 Rt. = ℄ 7' Dr. - 2-2' Conc. strips

1+09 - 21.7 Lt. = beg. 2" Conc. wall for Lawn

1+04 - 34.8 Lt. = ℄ 7' Conc. Dr.

1+00

0+90 - 40 Lt. = ℄ 8' Conc. Dr.



3+00 – 36 Rt. = end N. side Hedge + Beg. picket fence (36.7 Rt. ?)

2+92 – 39.2 Lt. = ℄ 3' Conc. walk

2+87 – 26.2 Rt. = ℄ 8" Euc.

2+74 – 39.3 Rt. = ℄ 3' Conc. walk – Thru Hedge

2+61 – 26.4 Rt. = ℄ 6" Euc. Tree

2+50

2+46 – 39.6 Lt. = ℄ 3' Conc. walk

2+46 – 24.7 Rt. = ℄ 3" Shrub

2+35 – 24.9 Rt. = ℄ 3" Shrub.

2+29 – 39.7 Rt. = ℄ 3' Conc. walk – Thru Hedge

2+22 – 25. Rt. = ℄ 3" Shrub.

2+15 – 37.4 Rt. = Beg. N. side 2.5 Hedge 6 High

2+10 – 40 Rt. = ℄ 7. Conc. Dr.

Lt. ℄ Rt.

94.64
5.08
39.2

94.7	93.9	93.2	93.3	93.2	92.9	92.2	93.2	93.0
5.0	5.8	6.5	6.4	6.5	6.8	7.5	6.5	6.7
40	20	18	10		10	17	20	40

92.34
7.38
39.3
walk

93.5	92.6	91.9	91.9	91.8	91.6	91.1	91.8	91.8
6.2	7.1	7.8	7.8	7.9	8.1	8.6	7.9	7.9
40	20	18	10		10	17	20	40

93.36
6.36
39.6 = walk

91.23
8.49
39.7

90.97
8.75
40 = Dr.

99.72

4+13.40 = Beg. Conc. pave + cbs. + walk

3+90

3+89 - 40.3 Lt. = ℄ 3' Conc. walk

3+60 - 25.3 Lt. = E. end ℄ flower beds

3+50 - 36.2 Rt. = end fence

3+41 - 39.2 Rt. = ℄ 6.8' Dr. - 2 - 2' Conc. strips

3+41 - 39.6 Lt. = ℄ 3' Conc. walk

3+22 - 39.3 Rt. = ℄ 2.5' Conc. walk

3+22 - 25.3 Lt. = ℄ + W. end of Row of Small Rock + Conc. lined flower beds

3+09 - 26.1 Rt. = ℄ 3" Acacia tree

Lt. ℄ Rt.

96.8 96.18 96.11 96.06 95.37 95.52 95.45 94.95 94.47 95.03 95.12 95.14 95.5

2.9 3.54 3.61 3.66 4.35 4.20 4.27 4.17 5.25 4.69 4.60 4.58 4.2

40 36 21 20 20 10 10 20 20 32 36 40

walk edge Top-end gut cb. gut Top-end walk cb.

96.3 95.9 95.5 95.0 95.1 94.9 94.6 94.0 94.3 94.8 95.1 95.1

3.4 3.8 4.2 4.7 4.6 4.8 5.1 5.7 5.4 4.9 4.6 4.6

40 26 30 16 10 10 18 20 22 40 60

96.57

3.15

40.3 = walk

95.7 94.8 94.3 94.4 94.4 94.1 93.4 94.1 94.0 93.8

4.0 4.9 5.4 5.3 5.3 5.6 6.3 5.6 5.7 5.9

40 20 18 10 10 18 20 40 60

94.15

5.57

39.2

Dr.

95.55

4.17

39.6 = walk

93.54

6.18

39.3

walk

99.72

T.P.	0.76	92.13	9.74	91.37	
5+19.80 =	w. cb				
4+99.80 =	W.L. Everts St.				
A+89.80 =	P.C. 30' Rad Returns				
T.P.	3.55	101.11	2.16	97.56	7" ct. on S.W. Cor. Beryl + Everets
4+50					

385 50%

Lt. Rt.

92.13

99.80 99.29 99.04 98.75 98.32 97.80 96.76 96.27 96.86
1.23 1.82 2.07 2.36 2.79 3.53 4.35 4.84 4.25
50 50 40 20 20 40 50 50
Top. PC. Ret. gut gut Top PC Ret.

98.53 97.84 97.88 97.83 97.43 96.85 97.45
2.58 3.27 3.23 3.24 3.68 4.26 3.66
21.7 21.7 10 10 21.7 21.7
Top cb. gut gut Top cb on Ret.

98.19 97.52 97.66 97.53 97.16 96.63 97.17
2.92 3.59 3.45 3.58 3.95 4.48 3.94
20 20 10 10 20 20
Top PC. gut. gut. Top PC.

101.11

97.00 96.31 96.48 96.43 96.10 95.64 96.00
2.72 3.41 3.24 3.29 3.62 4.28 3.72
20 20 10 10 20 20
Top gut 99.72 gut Top cb.

X-Sect. Dawes - 100' N. + S. of Prop. lines of Beryl from N.L. Beryl to 100' N.

1+00 - end

0+84 - 39' Lt. = end fence

0+67 - 29' Rt. = ℄ Tel. pole

0+50

0+27 - 38.9 Lt. = Beg. wire fence

0+01.5 - 10' Lt. = ℄ 3.4x3.4' Gas. Co. M.H.

0+00 = N.L. Beryl

1-7-47
70.

Indexed
C.S.K.

22

Lt. = W. Rt. = E

88.6	88.6	88.1	88.4	88.9	88.8	88.6	90.4	90.2
3.5	3.5	4.0	3.7	3.2	3.3	3.5	1.7	1.9
40	20	16	10		10	18	20	40

87.1	87.6	86.7	87.0	87.6	87.6	87.3	88.5	88.7
5.0	4.5	5.4	5.1	4.5	4.5	4.8	3.6	3.4
40	20	16	10		10	18	20	40

86.03
6.10
10' Top
M.H.

86.1	85.6	86.1	85.5	85.4	87.1		87.1
6.0	6.5	6.0	6.6	6.7	4.9		5.0
20	15		14	18	20		40

92.13 - P. 21

Dawe's - from S.L. Beryl to 100' S.

				SW Cass + haul
check Starting B.M.		12.95	66.41	66.40
T.P.	0.32	79.36	13.09	79.04

Encl.

1+00 - 20' Rt. = ℄ Hedge (cont. on)

0+89 - 39.1 Rt. = ℄ 3' Conc. Walk

0+70 - 39.2 Rt = ℄ 7.5' Conc. Dr.

0+50

0+43 - 39.2 Rt. = ℄ 7' Conc. Dr.

0+26 - 39.3 Rt. = ℄ 3' Conc walk

0+03 - 20' Rt = ℄ 2' Low Hedge

0+02 - 29' Lt. = ℄ Tel. pole

0+01 - 21' Rt = ℄ P. pole

0+00 = S.L. Beryl

℄

Lt = E. Rt. = W.

81.6	81.5	80.3	80.6	80.8	80.4	79.9	80.4	80.6
10.5	10.6	11.8	11.5	11.3	11.7	12.2	11.7	11.5
40	20	15	10		10	15	20	40

80.92
11.21
39.1 - walk

81.16
10.97
39.2 = Dr

82.4	82.5	81.0	81.4	81.6	80.8	81.5	81.5	
9.7	9.6	11.1	10.7	10.5	11.3	10.6	10.6	
40	20	15	10		15	20	40	

81.56
10.57
39.2
Dr.

82.08
10.05
39.3 - walk

83.4	83.4	82.4	82.8	81.7	82.7	82.4	
8.7	8.7	9.7	9.3	10.4	9.4	9.7	
40	20	15		15	20	40	

92.13 - TP 2

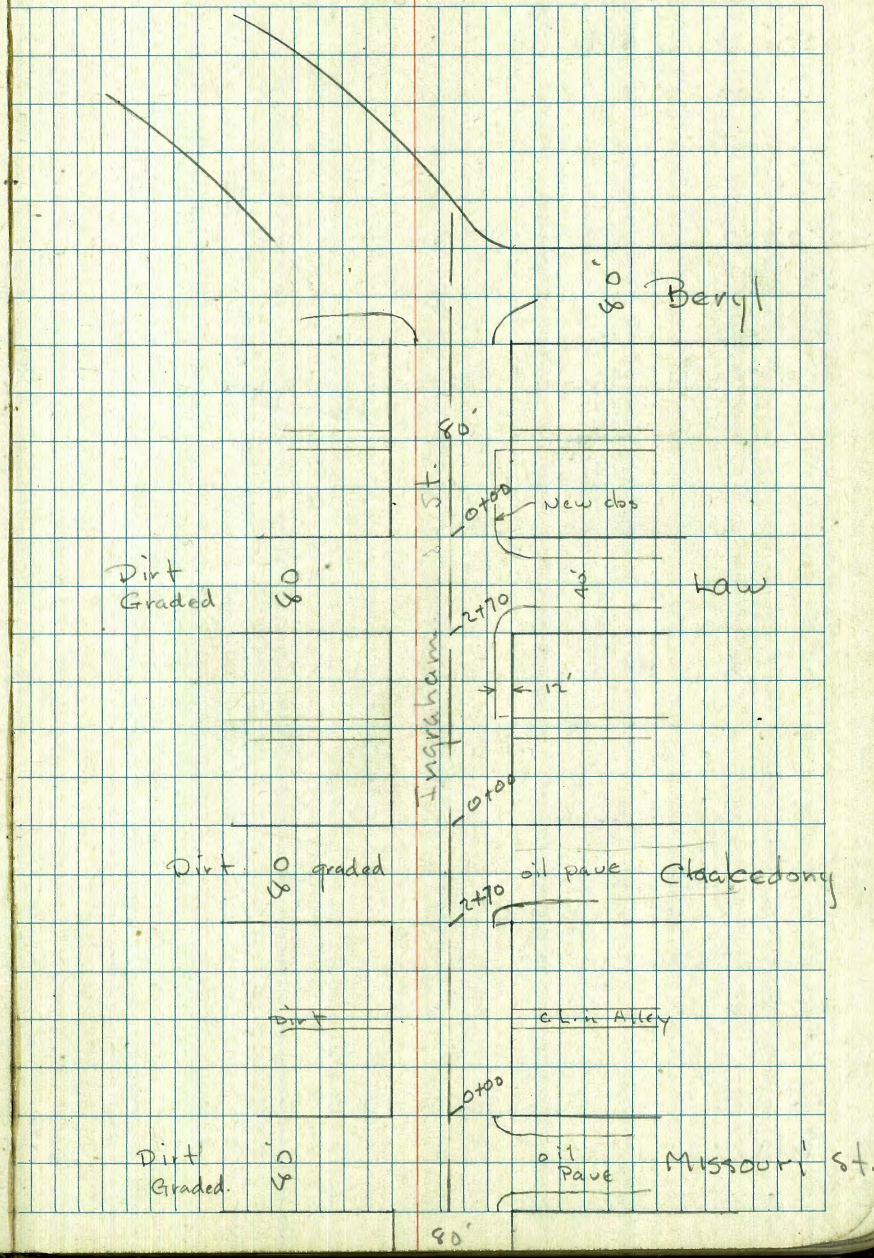
Indexed
C.S.K.

Levels on Paving on Ingraham from Missouri to Beryl.
80' st. - ℄ + 20' each side only.

#776
W.O. 83

2-7-47

Osborne
Hardin
Smith
Worrell



Levels on Ingraham St ℄ + 20' each side.

Lt = W ℄ Rt. = E.

Station	Lt.	℄	Rt. 1	Rt. 2	Rt. 3
1+00	92.95 / 2.66 / 20	94.05 / 1.56	94.19 / 1.42 / 19 = edge		
0+50	91.28 / 4.33 / 19 = edge	92.21 / 3.40	92.29 / 3.32 / 19 = edge		
80' N = N.L. Missouri = 0+00 ahead.	89.50 / 6.11 / 19 = edge CL	90.46 / 5.15		90.53 / 5.08 / 20 gut	90.99 / 4.62 / 40 Top end cb.
60' N. = N. cb.	88.85 / 6.76 / 20	89.88 / 5.73	89.79 / 5.82 / 20	90.28 / 5.33 / 40 gut.	91.04 / 4.57 / 40 Top cb.
40' N. = ℄	88.36 / 7.25 / 20	89.37 / 6.24	89.39 / 6.22 / 20 gut.	90.21 / 5.40 / 40	91.71 / 3.90 / 58 ℄ pave for prof
20' N = S cb.	87.99 / 7.62 / 20	88.88 / 6.73	88.88 / 6.73 / 20 in gutter.		
S.L. Missouri	87.45 / 8.16 / 20	88.42 / 7.19	88.61 / 7.00 / 20 gut.	89.85 / 5.76 / 20 Top end cb.	

check N.E. Mon. B.P. See B 1465-35 10.38 85.23 85.28 at ℄ Diamond + E.L. Ingra[illegible]

BM. 12.02 95.61 83.59

95.61

40' N. = ℄

20' N. = S ch.

2+70 = S.L. Chalcedony

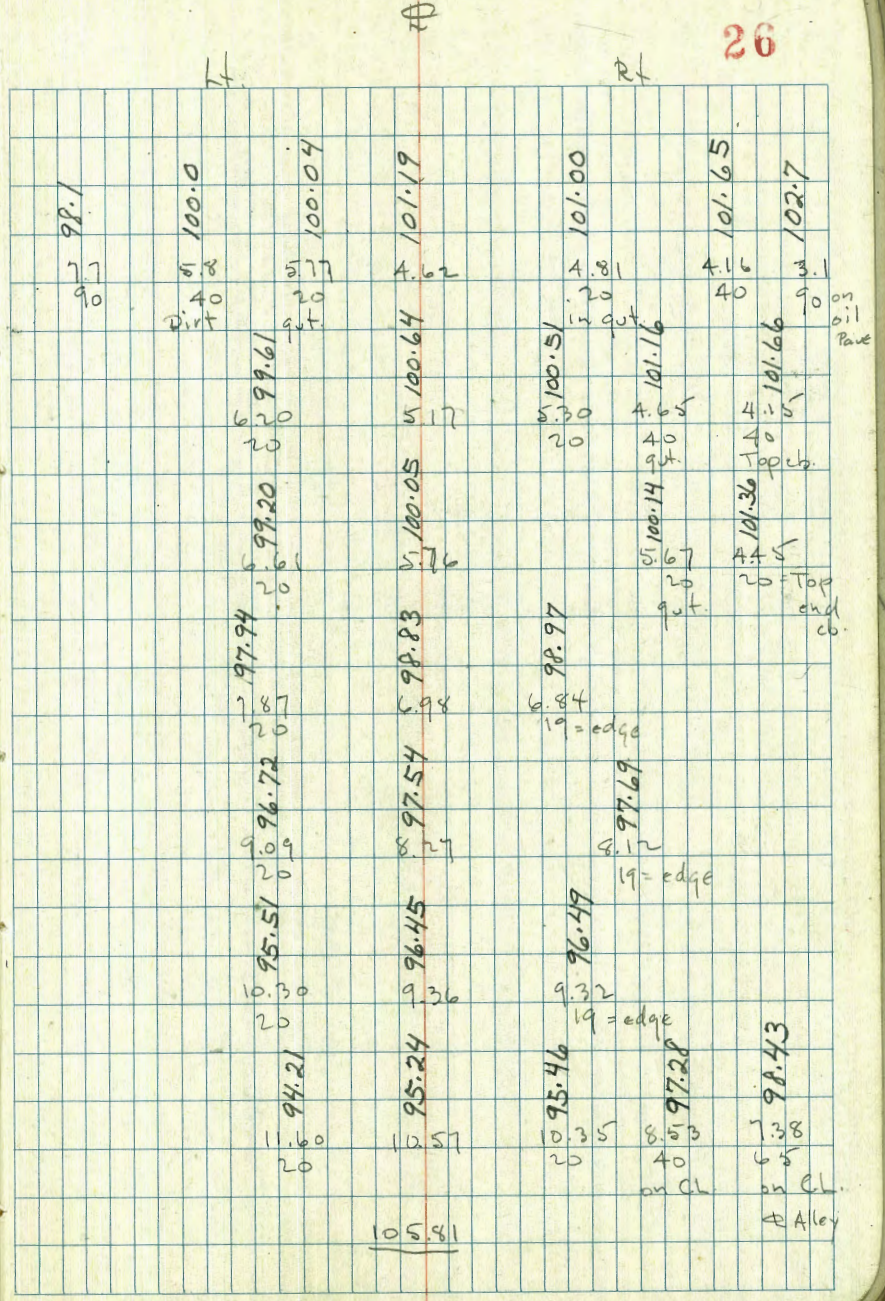
2+35

2+00

1+70

1+35 = ℄ Alley - Cold lay pave in Alley to Rt.

T.P. 12.54 105.81 2.34 93.27



Station	Notes	Lt. (outer)	Lt.	℄	Rt.	Rt. (outer)
2+00			10.04 / 19 = edge / 105.30	9.21 / 106.13	9.03 / 20 / 106.31	
1+70			10.58 / 19 = edge / 104.76	9.78 / 105.56	9.82 / 20 / 105.52	8.97 / 28 Top new curb / 106.37
T.P.	10.63 115.34 1.10 104.71			115.34		
1+35 = ℄ Alley - Dirt Both sides		1.4 / 40 / 104.4 / Dirt in Alley	1.87 / 20 / 103.94	0.87 / 104.94	1.00 / 20 / 104.81	+0.9 / 40 / 106.7 / on dirt in Alley
1+00			2.41 / 18 = edge / 103.40	1.61 / 104.20	1.55 / 19 = edge / 104.26	
0+50			3.44 / 19 = edge / 102.37	2.68 / 103.13	2.65 / 19 edge / 103.16	
80' N. - N.L. Chalcedony = 0+00 ahead.			4.60 / 19 = edge / 101.21	3.74 / 102.07	3.72 / 19 = edge / 102.09	
60' N. = N. cb.			5.16 / 20 / 100.65	4.18 / 101.63	4.30 / 20 / 101.51	
				105.81		

T.P.	12.64	127.35	0.63	114.71

0+50

0+40 = P.C. 30' Rad. on New cb.

80' N. = N.L. Law = 0+00 ahead.

60' N. = N. cb.

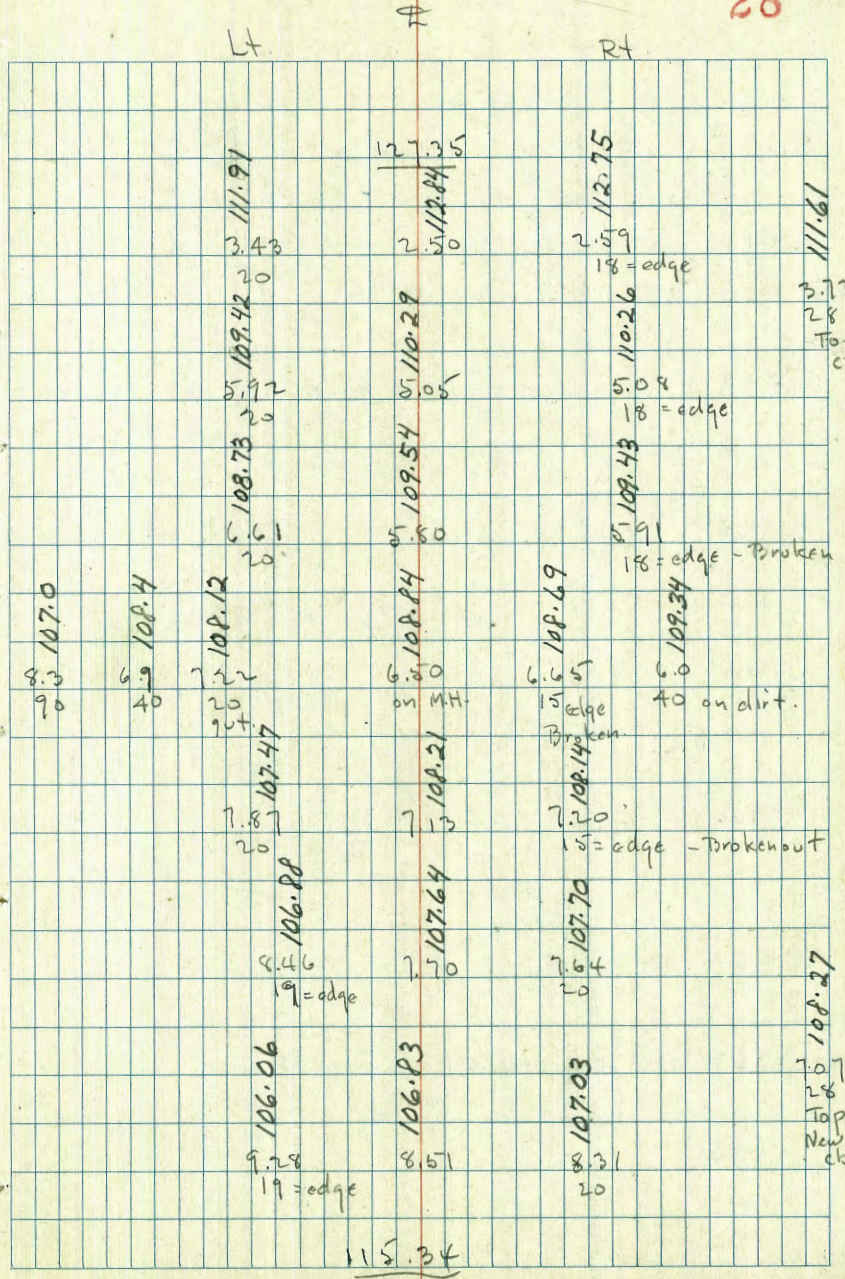
40' N. = ℄ New curbs on Law to E.
Paving proposed.

20' N. = S cb.

2+70 = S.L. Law

2+60 = opp P.C. 30' Rad. cb.

2+35



Ingraham

Station / Note				Lt.			℄		Rt.		
check B.M. S.W. 7' ct. Beryl &	2.35	125.10	125.08								
P.C. on S. cb. Beryl to W.											
Middle of Ret.											
around Ret. on S.W. Cor. -35' around 18.5' to ℄											
2+70 = S.L. Beryl = edge Conc. Paving.				125.29 / 2.06 / 21.3 Top end cb.	124.85 / 2.50 / 21.3 gut	125.22 / 2.13 / 10	125.61 / 1.74	125.64 / 1.71 / 10	125.55 / 1.80 / 21.9 gut	126.13 / 1.22 / 21.9 Top end cb.	
2+64 = Beg. curve out of edges of pave to cbs.					124.64 / 2.71 / 19 = edge		125.26 / 2.09		125.30 / 2.05 / 19 = edge		
2+35					122.80 / 4.55 / 19 = edge		123.55 / 3.80		123.57 / 3.78 / 19 = edge		
2+00					120.95 / 6.40 / 19 = edge		121.54 / 5.81		121.58 / 5.77 / 19 = edge		
1+70					119.21 / 8.14 / 19 = edge		119.81 / 7.54		119.79 / 7.56 / 19 = edge		
1+35 = ℄ Alley				116.4 / 11.0 / 40	117.09 / 10.26 / 20		117.83 / 9.52	117.78 / 9.57 / 19 = edge			
1+25 = end of New cb. on Rt.											117.96 / 9.39 / 28
1+00					114.97 / 12.38 / 20		115.81 / 11.54		115.78 / 11.57 / 19 = edge		

Top of grid: 125.03 / 2.32 Top; 124.48 / 2.87 gut; Lt. 124.71 / 2.64 Top; 124.15 / 3.20 gut; Rt.

127.35

Levels at Fed. Bldg.
Balboa Park

Moore B-99 . WO 4270

Indexed C.S.R.

30

Levels	Laurel & Pk Blvd	283.28	
.7	41	–	
		283.28	
3.27	386.55		
T.P.		13.78	273.77
1.40	375.17		
T.P.		9.33	365.94
3.85	268.79		
T.P.		9.51	259.28
0.13	259.41		
T.P.		10.81	248.60
0.78	249.38		
T.P.		12.24	237.14
1.18	238.32		
T.P.		4.64	233.68
0.52	234.20		
T.P.		9.12	225.08
2.67	227.75		
T.P.		6.66	221.09
1.97	223.06		
T.P.		12.43	210.58
2.34	212.92		
check to Top F.H. S. of Fed Bldg.		6.10	206.82 — 206.83 (0.01)

to Federal Bldg. Balboa Park

NW BP Laurel & Park Blvd.

approx. 100' West
Top of Hydrant 1 from of Federal Bldg N. entrance

Levels around & vicinity of Federal Bldg. Balboa Park

B.M. Top F.H. on Fed. Bldg.	2.49	230.17		233.68 ✓	
#1	Floor		5.12	~~228.56~~	231.58
#2	"		5.10	~~228.58~~	231.60
#3	Top yellow mark		4.91	~~228.77~~	231.79
#4	"	"	5.68	~~228.00~~	231.02
#5	Roof nail A.C. Edge		6.62	~~227.06~~	230.08
T.P. #5	2.24	231.79	L.C.	229.55	
#6	Roof nail A.C. Pav		3.41	228.38	
#7	Top yel. mk.		1.54	230.25	
#8	" "	" "L" Bldg.	1.08	230.71	
#9	Roof nail on A.C. Pav.		6.28	225.51	
#10	" "	"	5.85	225.94	
#11	yel. Paint mk		0.81	~~229.68~~ 230.98	Floor W. door
T.P.	4.62	230.01	C.H.O	225.39	
#12	yel. Pt. Top	Conc. Roof wall	8.01	222.00	
#13	Roof nail Pav.		7.74	222.27	
#14	Top yel. mk		2.88	227.13	Con. Bldg.
#15	Roof nail Pav.		4.58	225.43	
#16	" "	"	3.72	226.29	

23001

#17	Roof nail Pav.	4.45	225.56	
#18	Top yel. mk	2.11	227.90	
#42	" 1½"x1½" stake	8.64	221.37	
#41	Roof nail Pav.	8.18	221.83	
#40	" " "	7.63	222.38	
#39	" " "	6.09	223.92	
T.P.	9.02	232.96 ✓	6.09	223.9-✓ #39
#38	Roof nail Pav	8.90	224.04	
#37	1½"x1½" stake	11.90	221.04	
#19	Top yel. mk.	4.15	228.79 on Bldg	
#21	1½"x1½" stake	4.80	228.14	
#20	yel. mk. Conc. Floor	2.05	230.89 Rear of Bldg.	
#22	Roof nail Pav.	5.81	227.13	
#23	" " "	4.71	228.23	
#24	1½"x1½" stake	7.09	225.85	
#25	Top yel. mk.	3.1✓	229.80 Con. Bldg	
T.P.	4.98	233.87 ✓	4.05	228.89 ✓
#26	1½"x1½" stake	4.36	229.51	
#27	Roof nail Pav.	3.05	230'87 ✓ E door Bldg.	
#28	Top yel. mk.	0.95	232.97 ✓ Bldg "L"	
#29	Top yel mk	3.5✓	230.33 Con. Bldg.	
#30	" " "	3.5-✓	230.35 " "	

Fed. Bldg.

233.87 ✓

T.P.	3.16	22447	12.56	221.31 ✓
#35	1½" x 1½"	Stake	10.90	213.57
#36	" "	"	10.50	213.97
#34	" "	"	8.04	215.83
#33	" "	"	5.95	218.52
#32	" "	"	4.19	220.28
T.P. #32	11.36	231.64	4.19	220.28
T.P.	5.18	236.12	0.68	230.96
#31	T.P. yel. mk.		4.58	231.56 Cor. Bldg. near N. door
check to F.H. BM.			2.48	233.44 233.68 0.02

Note: yellow marks on Bldg are 0.7 to 1.0 above ground

X-Sect. 20' Alley

Carruthers Add.
Block 58 - Map 27

10 10

Conc. walk

N

Lot 19

Lot 20

Lot 21

old wire fence

Huto Courts

385 50%

Fd. Mon

48.01

Hub.

181.05

10°30'40"

0+00

10.43

Fd. ¾" pipe

X-Sections p-67

10+77.86

Fd. cut.

Drain

10+29.1

Conc. Steps

3'

43rd St.

9+58.00

9+48.00

5'

Fd. pipe

9.05

25'

Market

8+29

Cold Lay

8+00

7+37.52 Fd. chiseled Cross in outer Rim of Sewer MH - Grid Book 212/15 C.B.M. 6-10-17

20

13.7'

7+34.3 - Approx. ℄ - No points found.

℄

℄ Creek

Drilled

10 10

Indexed
C.S.M.

X-Sect 20' Alley Bet Lots 20 & 21 in Carruthers Add. From Boundary to 43rd.

757 — 3-4-47

W.O. 230

Osborne
Hardin
Smith
Worrell

1+00

0+61 - 19.3 Rt. = Beg. Back of Row of Courts (solid)

0+50

T.P 5.08 33.42 8.21 28.34

0+22 - 12.7 Rt. = Beg. ℄ of Row of Olive Trees

0+00 = Boundary line - Sect. on angle

0-30

B.M. / 1.30 36.58 35.28 N.W. B.P. 41st + National

Lt. = N. Rt. = S.

29.4 — 4.0 / 10
29.1 — 4.3 / 20
28.9 — 4.5 / 10
28.7 — 4.7
28.8 — 4.6 / 10
24.4 — 4.8 / 20
28.8 — 4.62 / 19.3 floor.

28.2 — 4.5 / 20
28.8 — 4.5 / 10
28.4 — 5.0
28.6 — 4.8 / 10
28.6 — 4.8 / 20

33.42

29.5 — 7.3 / 30
29.1 — 7.5 / 10.43
28.34 — 8.21 on pipe
28.7 — 7.9 / 10.43 = S.L. Alley
24.4 — 8.2 / 30

24.6 — 8.0 / 10
24.6 — 8.0
24.4 — 8.2 / 10

36.58

3+85

3+50

3+00

2+50

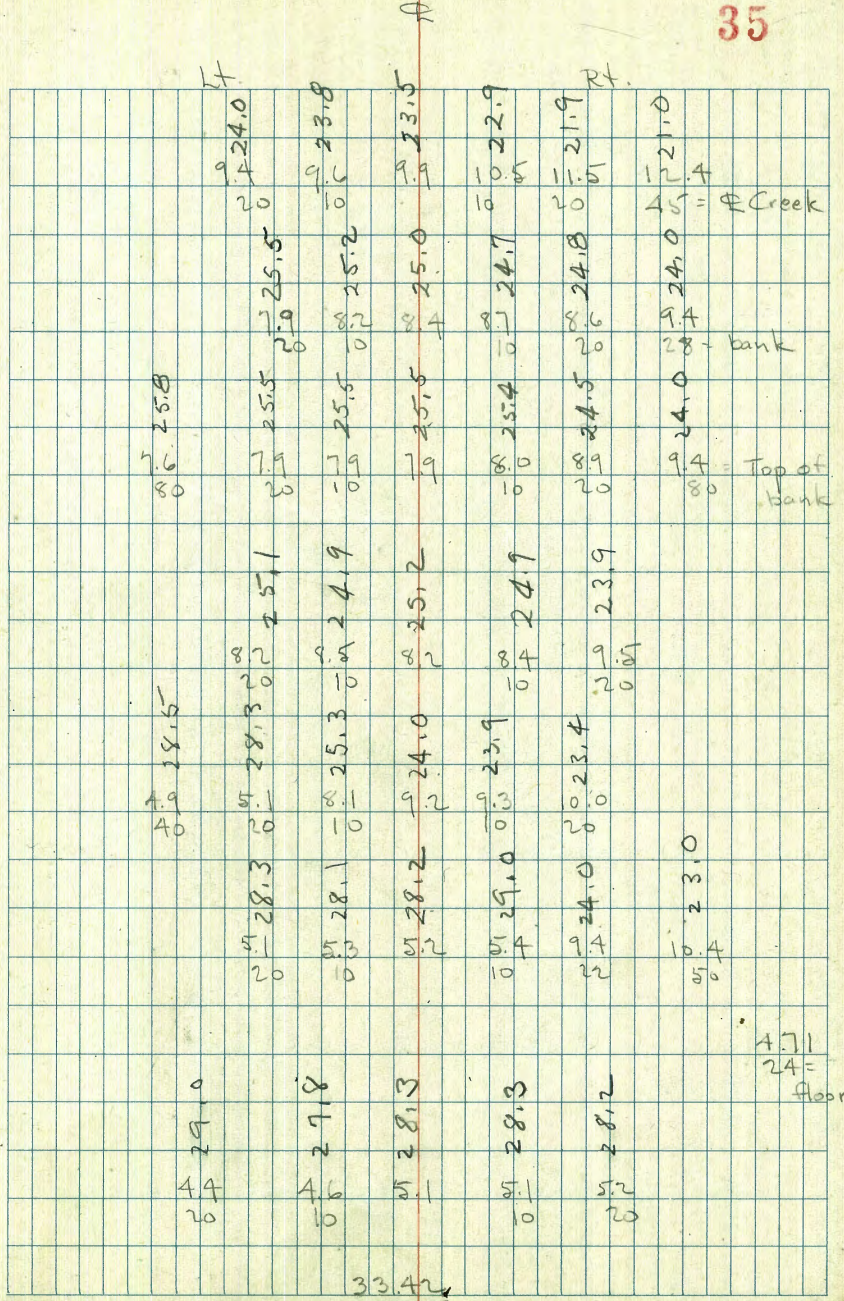
2+15

2+00

1+81 - 24' Rt. = end Row. Courts

1+64 - 14.4 Rt. = end Olive trees

1+50



5+69 - 18.1 Rt. = ℄ P. pole

5+50

5+14 - 43' Lt. = ℄ Small House

5+00

4+68.7 = ℄ Sewer M.H. 8.26 on Rim

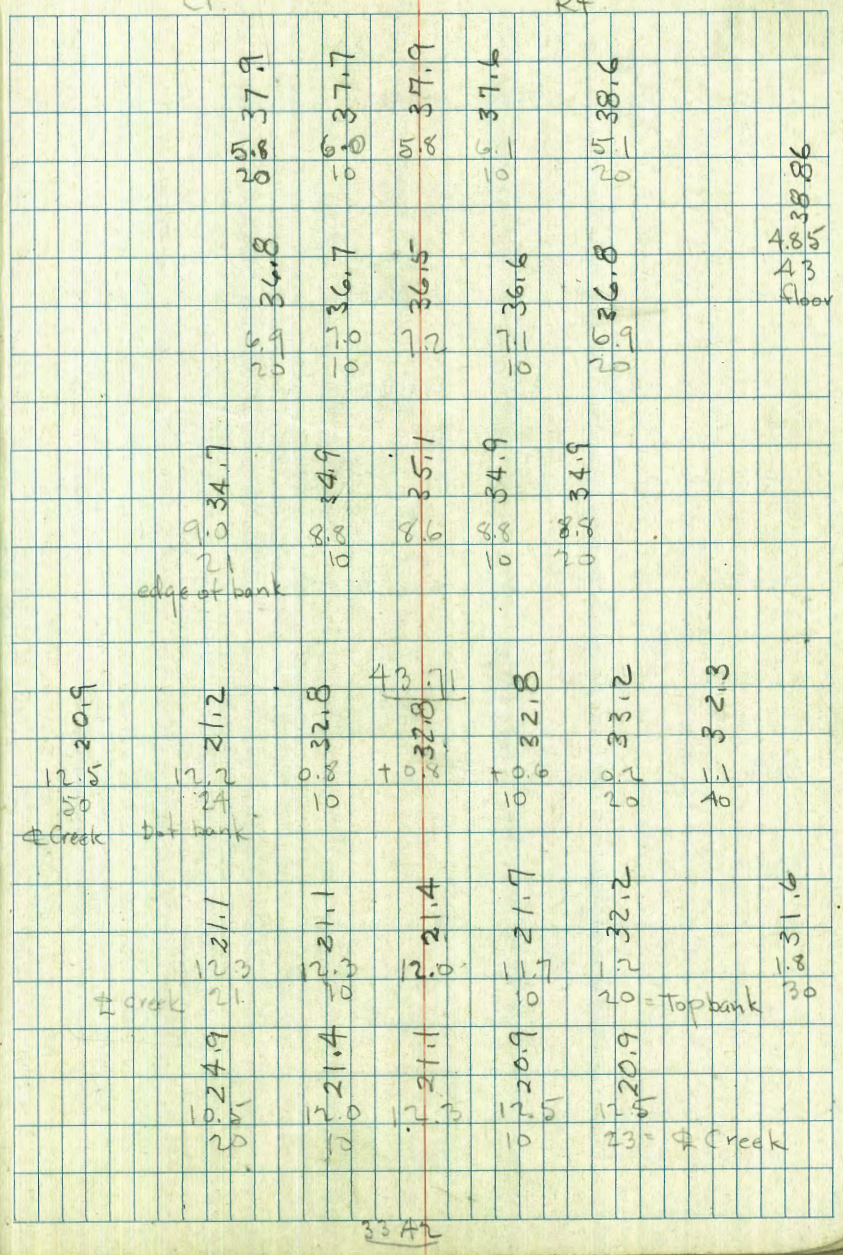
4+60

T.P. 10.60 43.71 0.31 33.11

4+42 = Top of bank

4+30 = Creek - bot. of E. bank

4+05 = in Creek - See P. 40 for Detail



8+10 = Approx. ℄ Coldlay Drive on Rt. - for

T.P. 5.56 58.86 2.70 53.30

8+00 = S. side of C.L. paved Drive to Market.

7+88 - 13.3 Lt. = ℄ 12" Olive

7+60

7+37.1 = 0.6 Lt. = M.H. ℄ Sewer 805 on Rim

7+34.3 = ℄ 20' Alley to N.

7+20

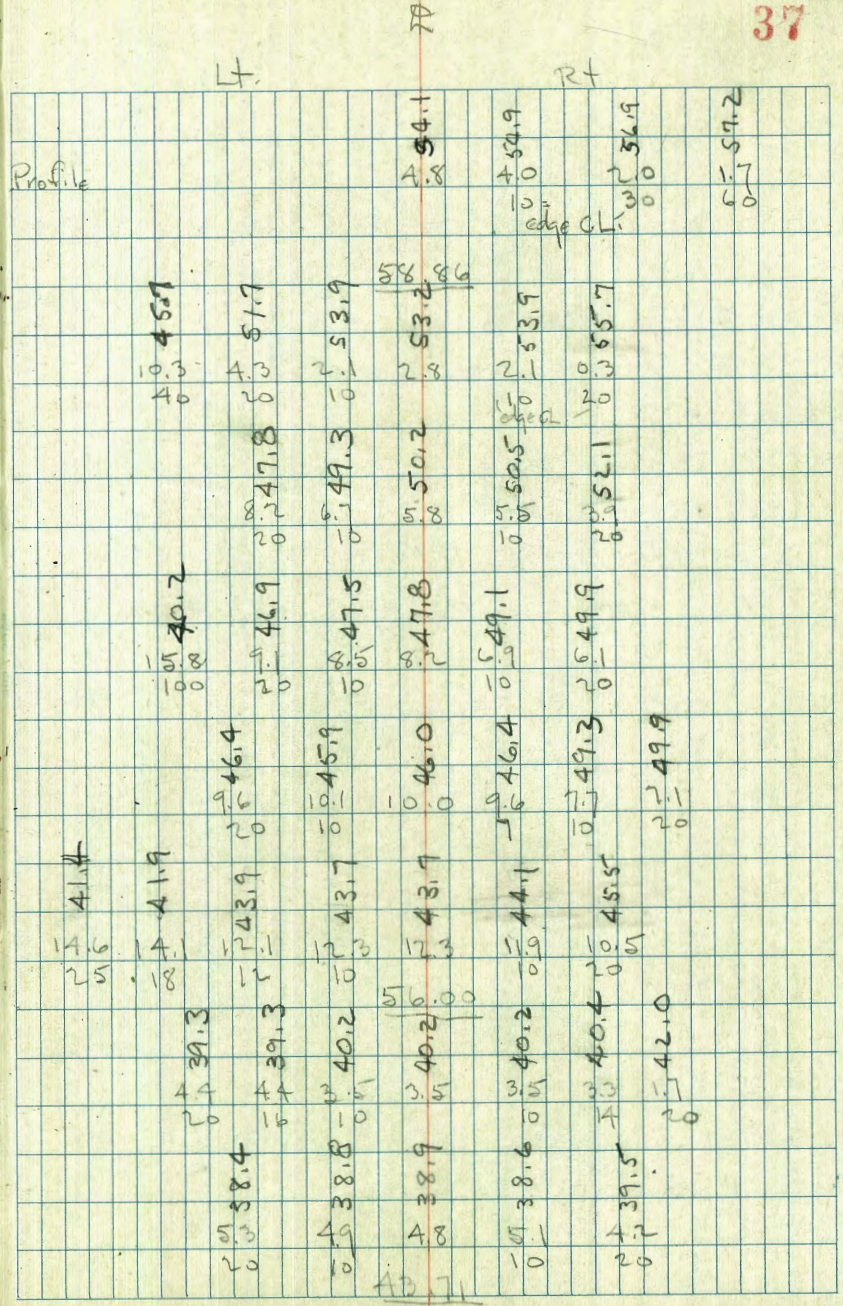
7+19 - 9.3 Rt. = ℄ P. pole

7+00

T.P. 12.61 56.00 0.32 43.39

6+50

6+00



U.S. Housing Project.

9+58.06 = 3' Lt. = ℄ S. edge of 5' Conc. steps to

Gas Co.:

9+46 - 5.7 Rt. = ℄ 15" Valve cap. 4.75 on Top.

9+49.06 = W. edge of pave on 43rd

9+48 - 7.2 Lt. = ℄ P. pole

9+39 - 13.5 Lt. = ℄ 6" Olive

9+28.06 = W.L. 43rd

9+11 - 13.6' Lt. = ℄ 10" Olive

T.P. 6.42 65.21 0.07 58.79

9+03 - 28' - Rt = NE Cor. Market

8+90

8+87 - 14' Lt. = ℄ 10" Olive

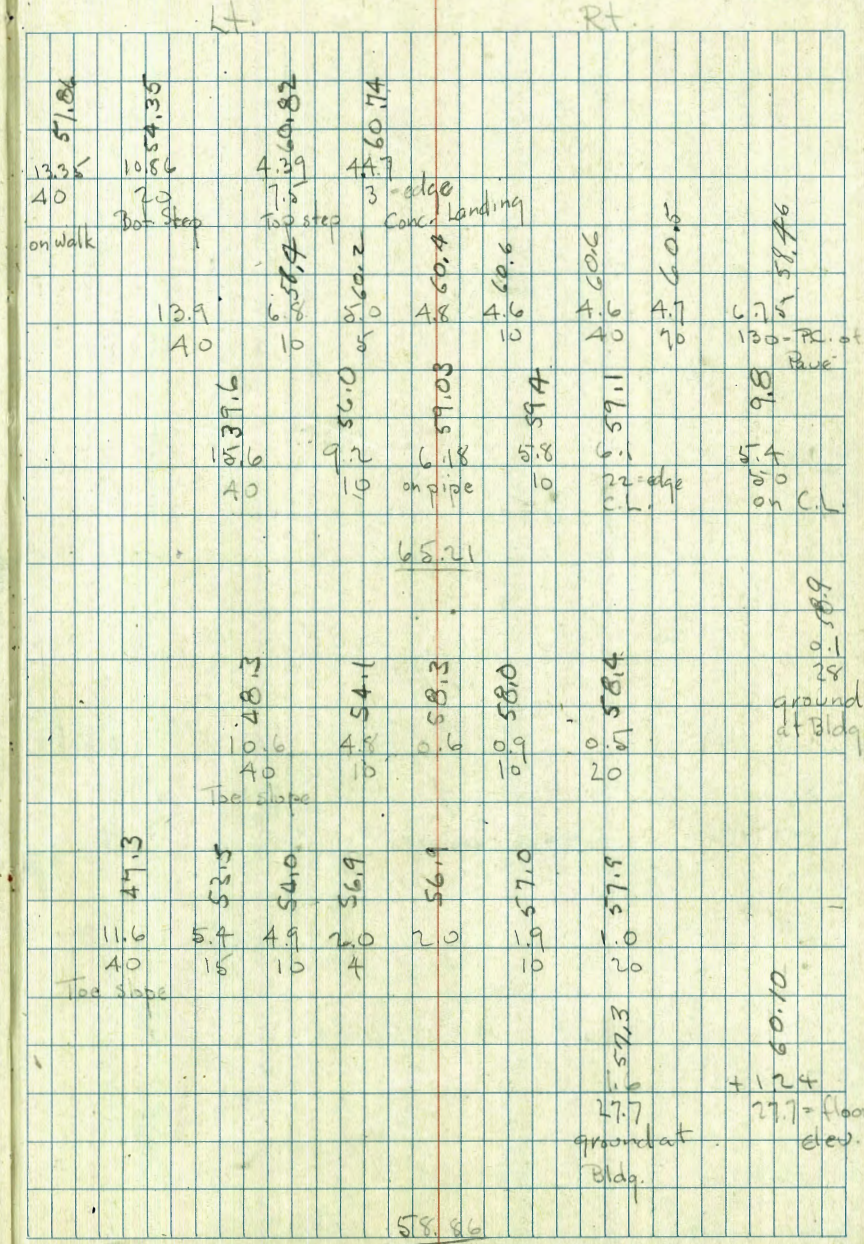
8+62 - 13.4 Lt. = ℄ 10" Olive

8+50

8+37 - 13' Lt. = ℄ 10" Olive

8+24 - 27.2 Rt = N.W. Cor. Market

8+12 - 13.3' Lt = ℄ 12" Olive



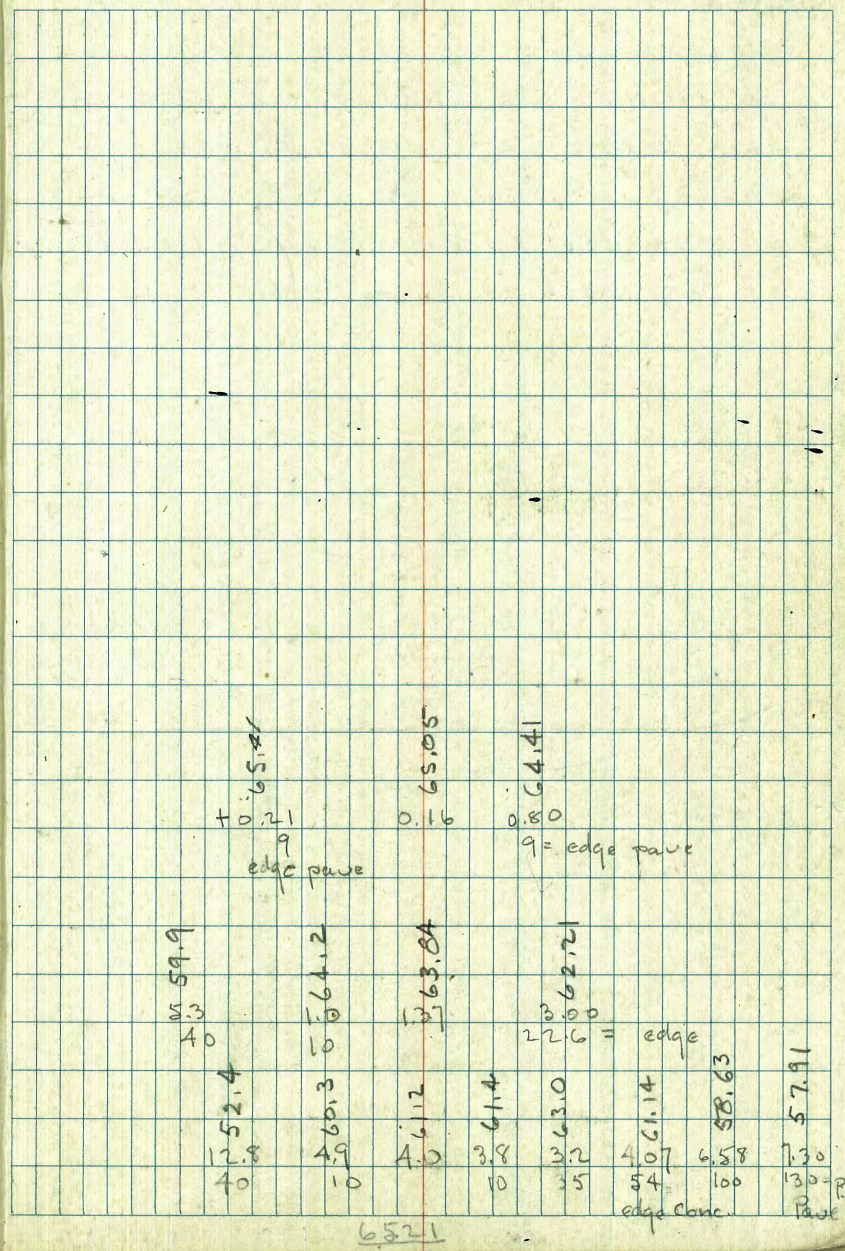
℄

check B.M = ct. 0.16 65.05 65.03

10+77.86 = Ct. in pave - about P.C.

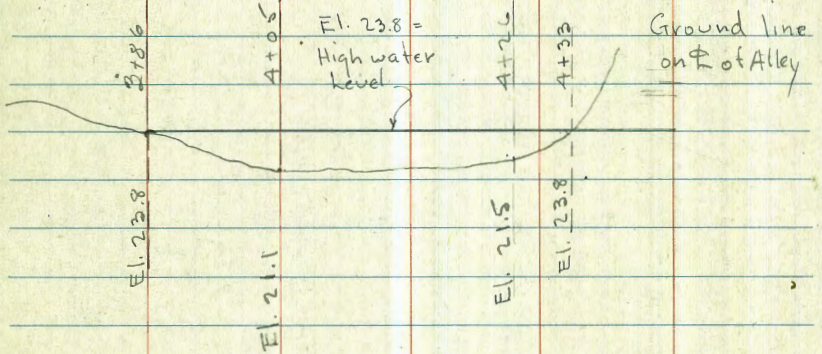
10+29.1 = edge of pave on Curve

9+67.06 = E. side pave on 43rd

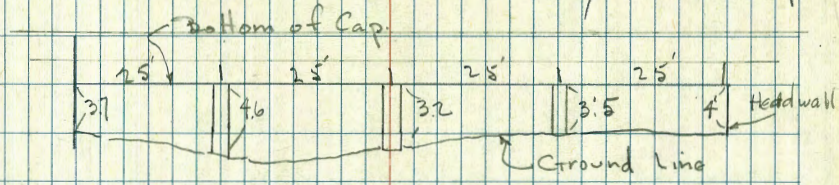


Note on Creek Crossing -

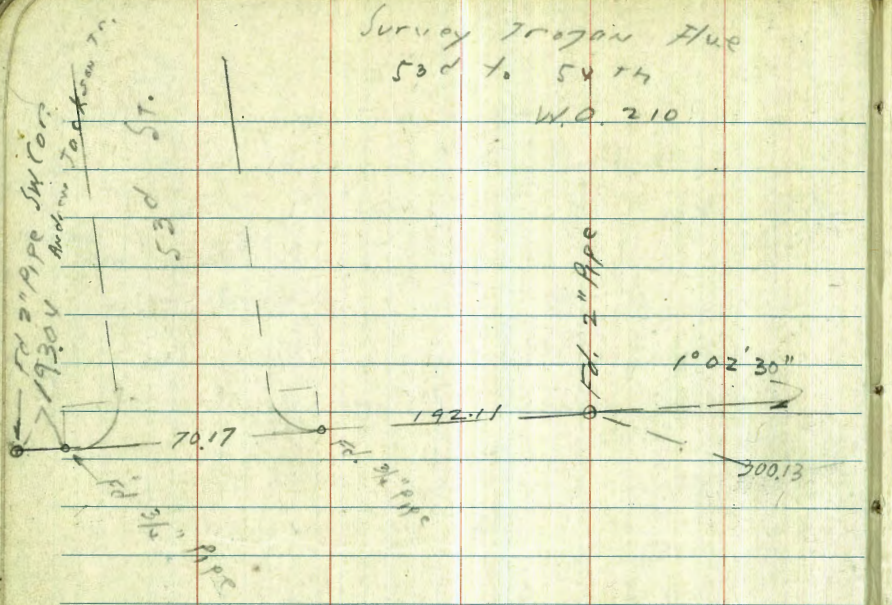
Owners say they would like to put in a Conc. Dip Section for a crossing. Have shown waterway of Bridge over creek at National - See sketch below for observed apparent highest water elev. at creek on ℄ of Alley



Detail of Effective waterway for Bridge on Creek at National



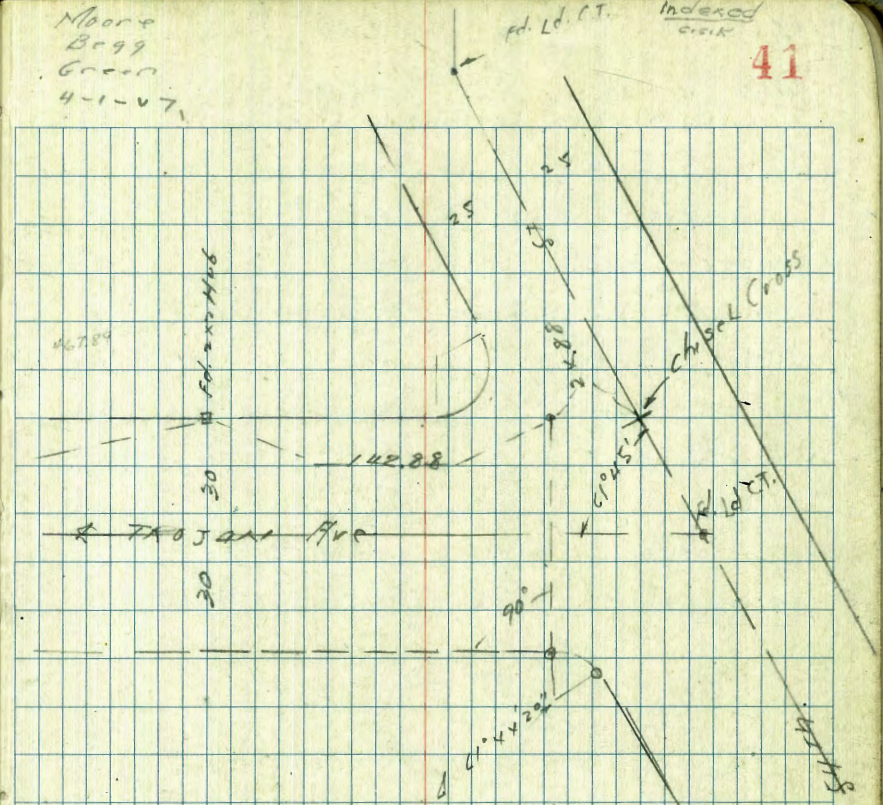
Survey Trojan Ave
53rd to 54th
W.O. 210



Moore
Bragg
Green
4-1-47.

fd. Ld. C.T. Indexed

41



Tie Points in Lexington Park -

Tulip - Juniper to Pepper

Sycamore - Tulip to Violet

Pepper - Azalea Park to Violet

Shamrock - Sycamore to Juniper

Violet - Sycamore - South

Marigold - Azalea Park to Sycamore

W.O. 60104 4-4-47 - to 4-22-47

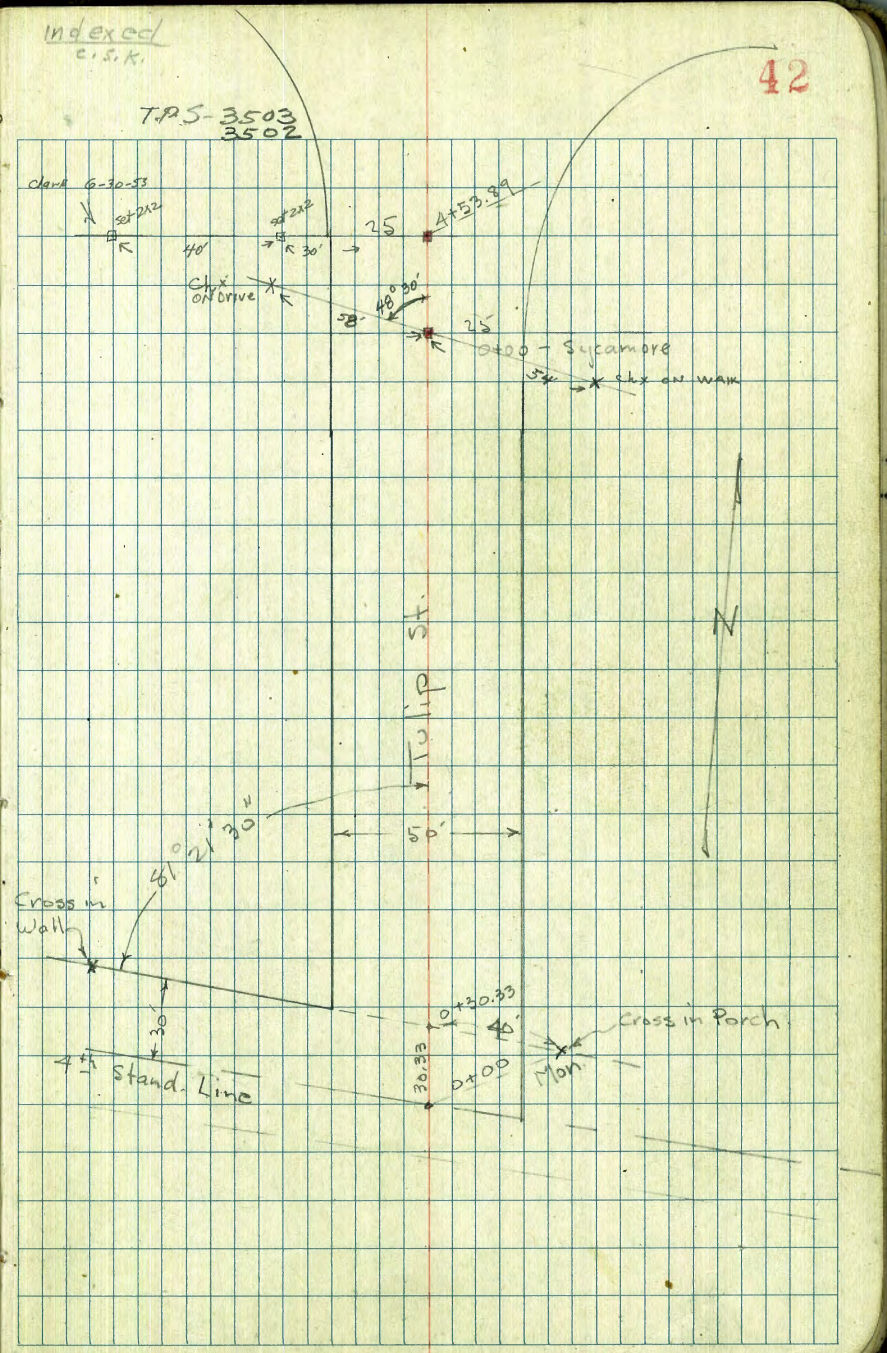
#971

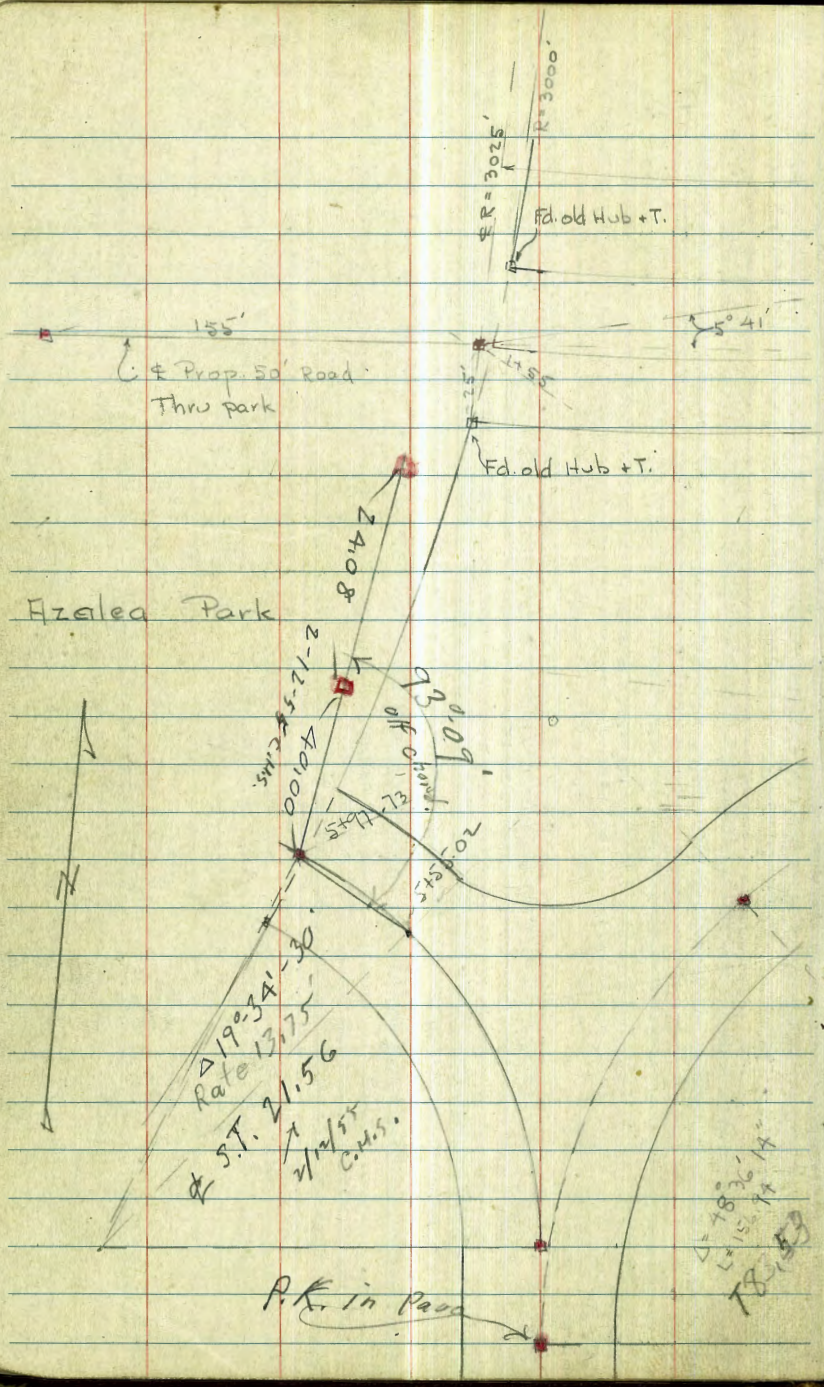
Set Hubs below Surface about 8"

Shown thus — ● - Marked in Red.

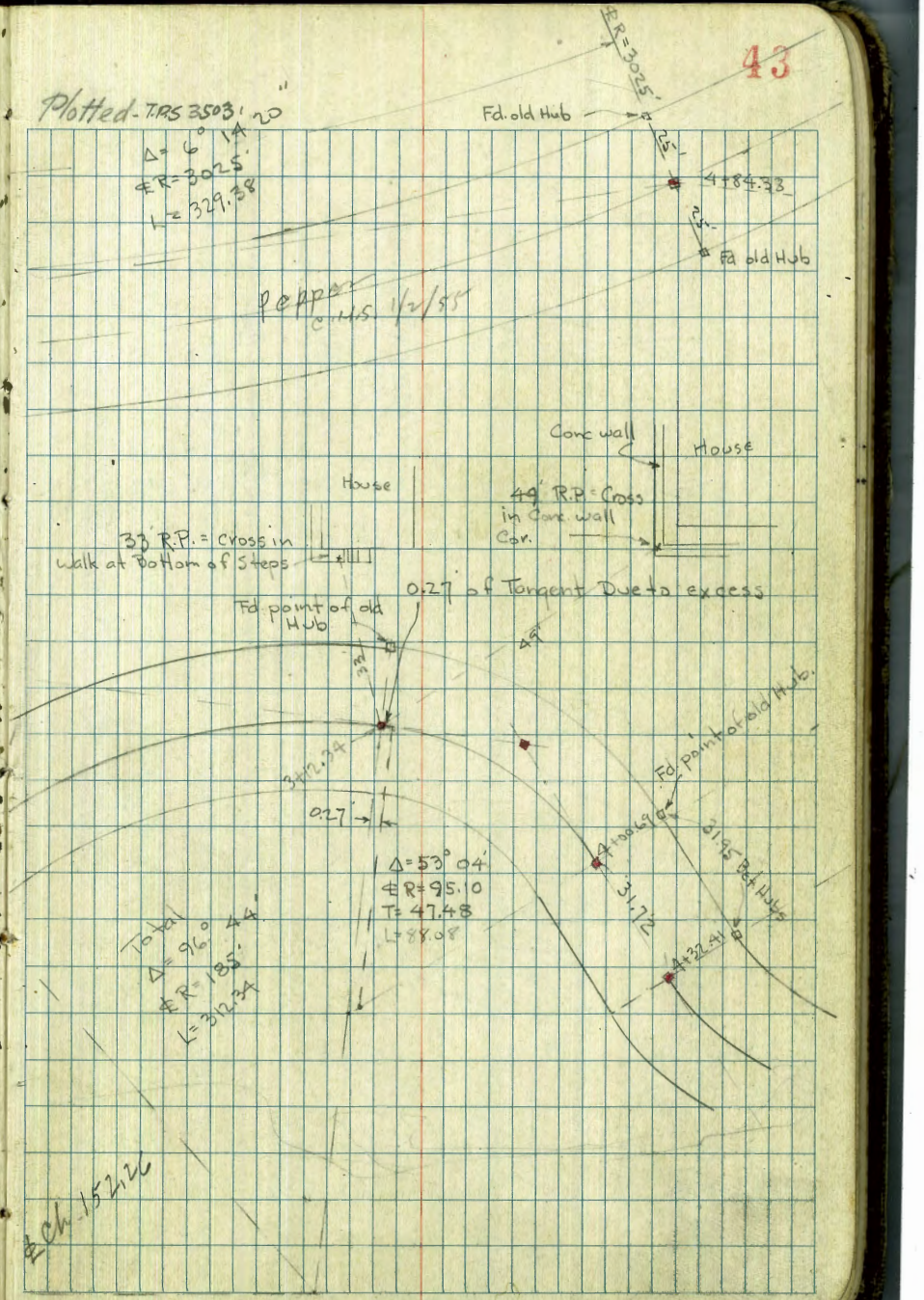
Indexed C.S.K.

T.P.S. 3503 3502

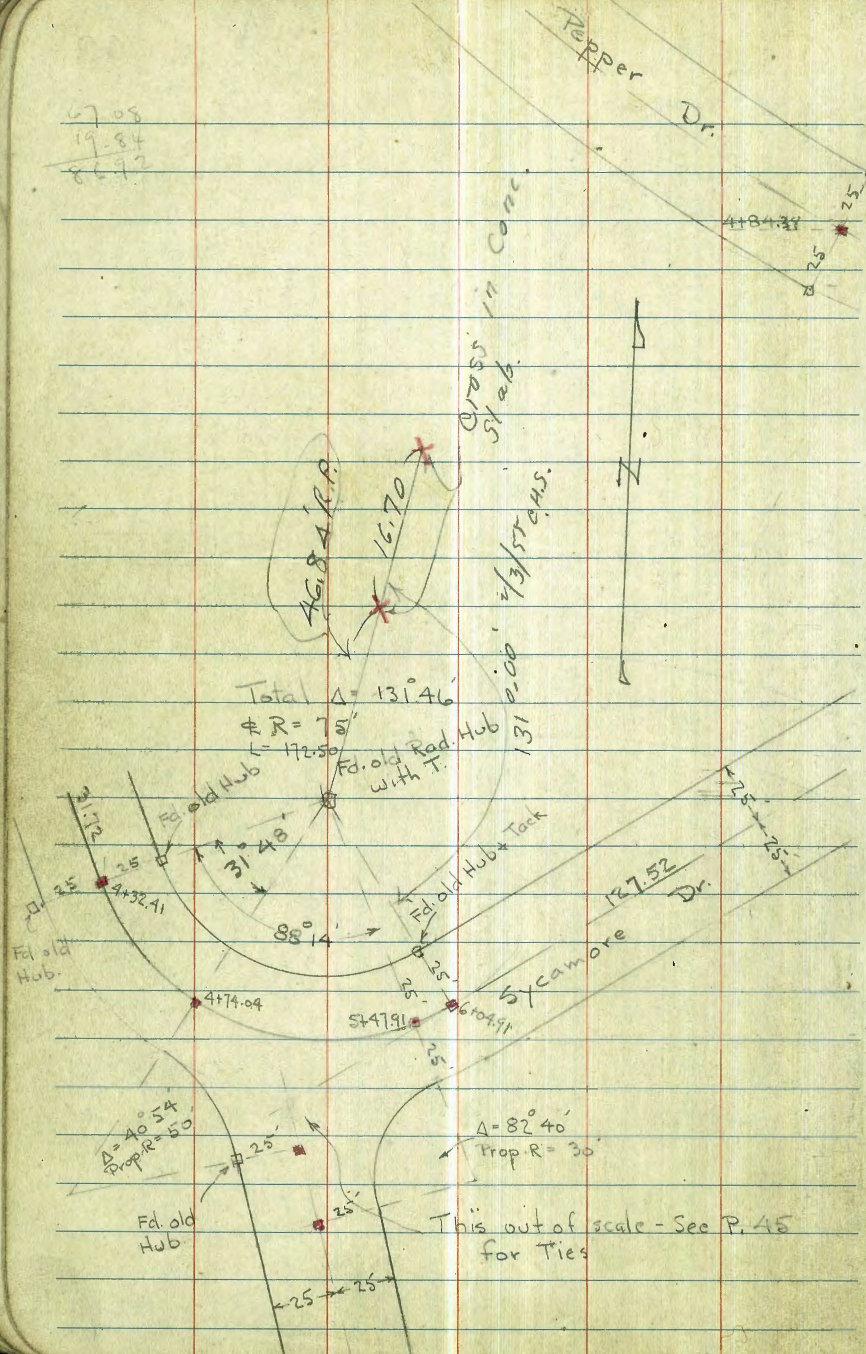


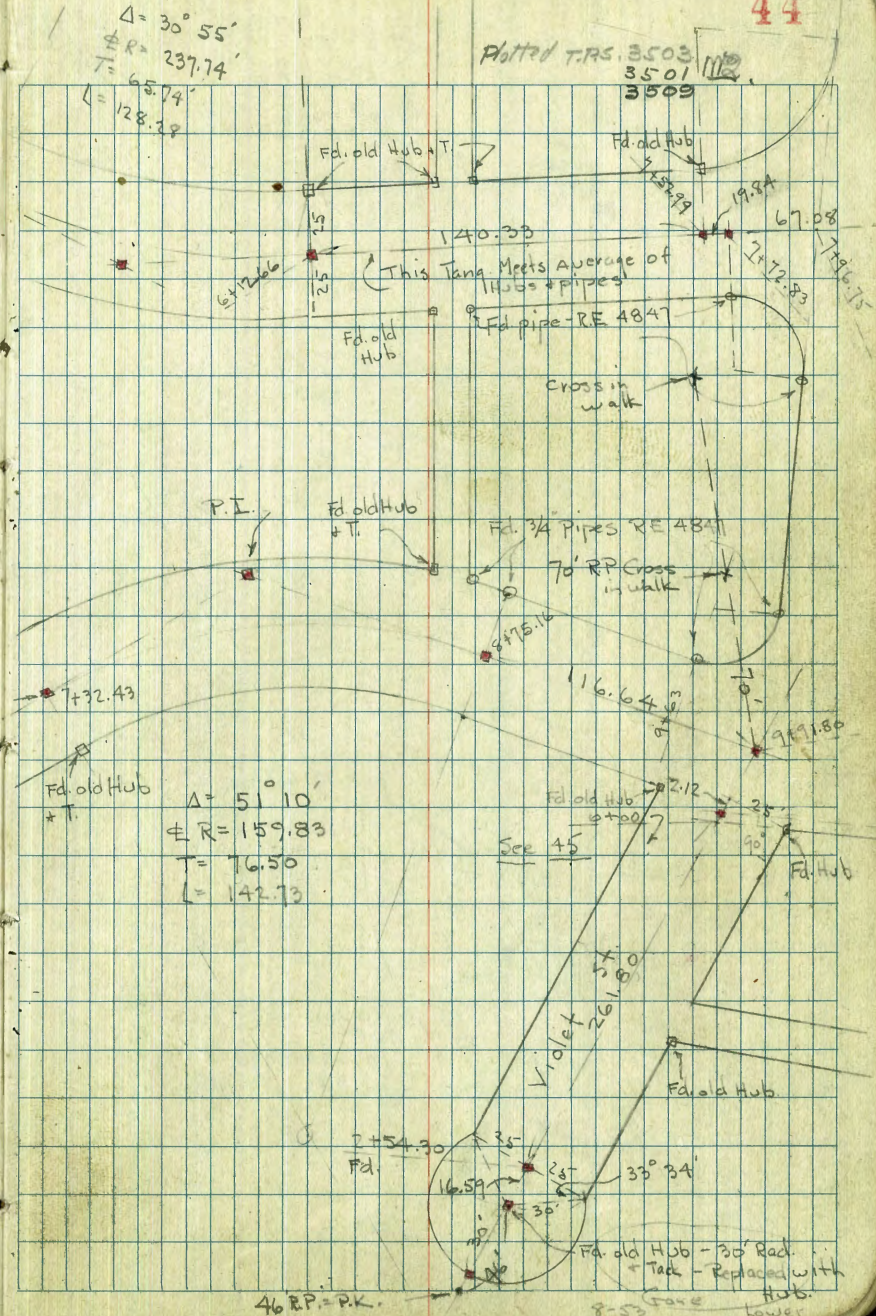


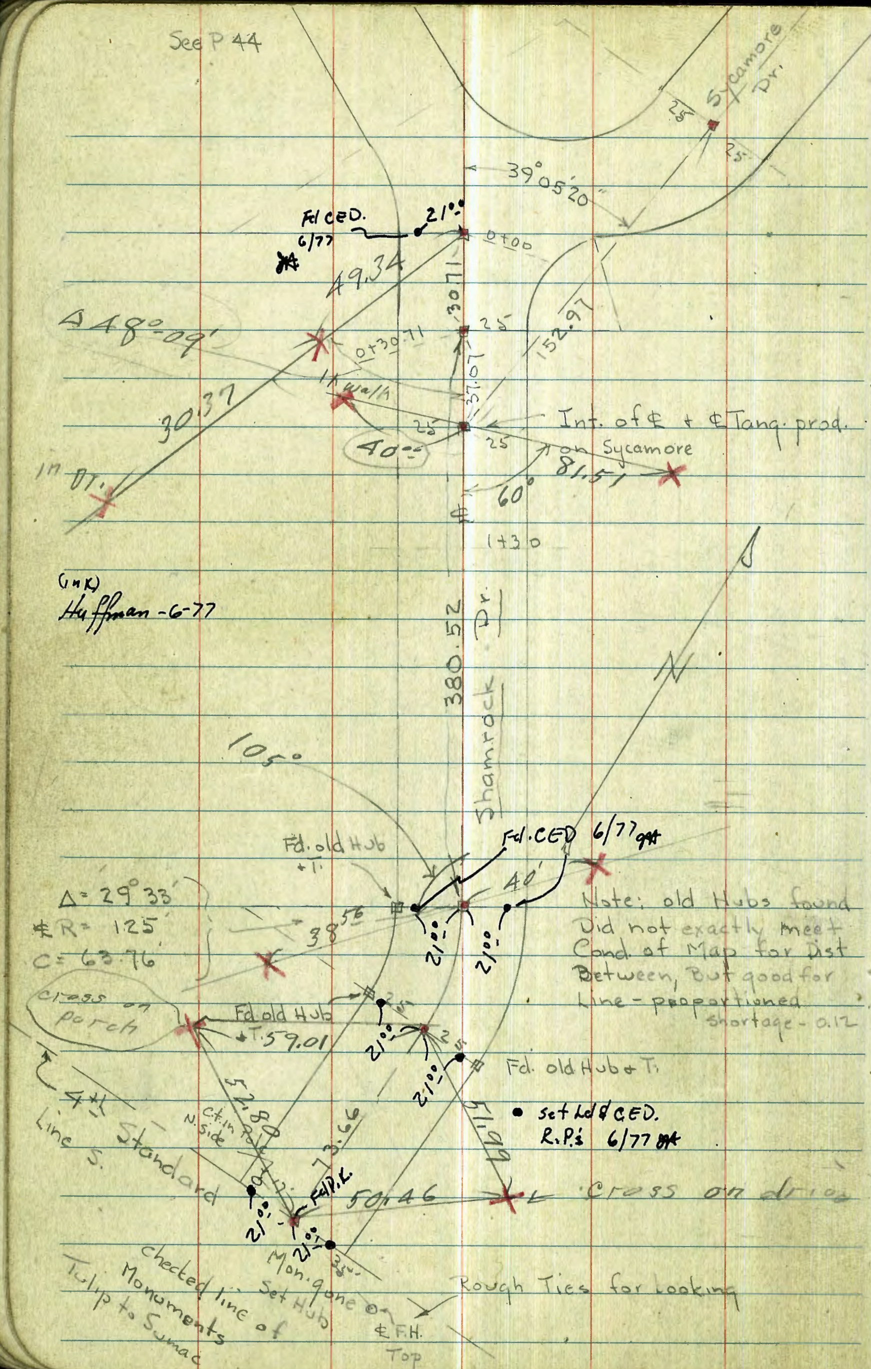
Plotted - T.R.S 3503' 20"

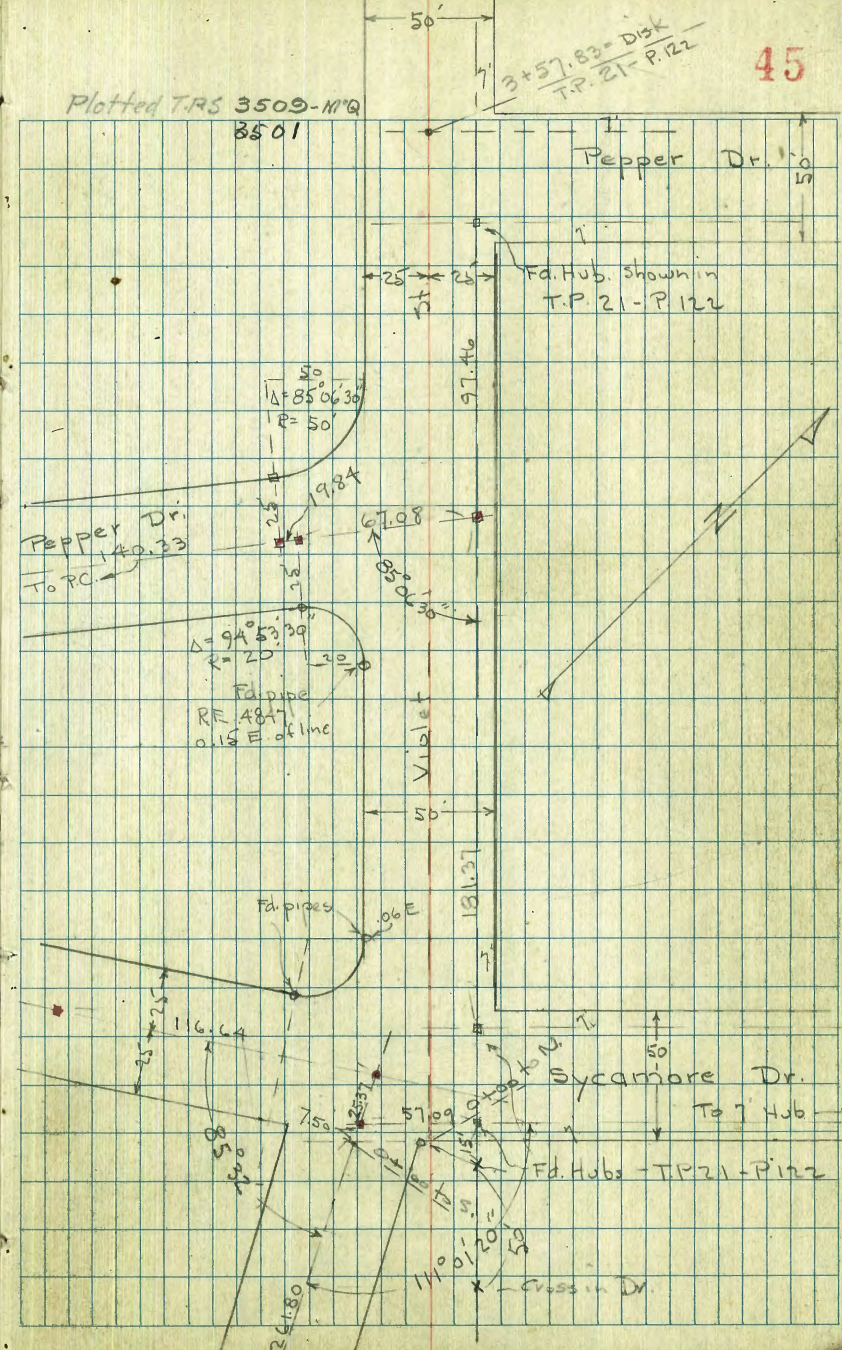


℄ Ch. 15216


67.08
19.84
86.92
Pepper Dr.
4+84.38
25
25
Cross in Conc. Slab.
N
46.8' R.P.
16.70
131.00' w/131.57 c.H.S.
Total Δ = 131°46'
℄ R = 75'
L = 172.50
Fd. old Rad. Hub with T.
Fd. old Hub
31.72
25
4+32.41
31°48'
88°14'
Fd. old Hub + Tack
127.52
Sycamore Dr.
25
Fd. old Hub.
4+74.04
5+47.91
6+04.91
Δ = 40°54'
Prop. R = 50
Δ = 82°40'
Prop. R = 30'
Fd. old Hub
This out of scale - See P. 45 for Ties
25

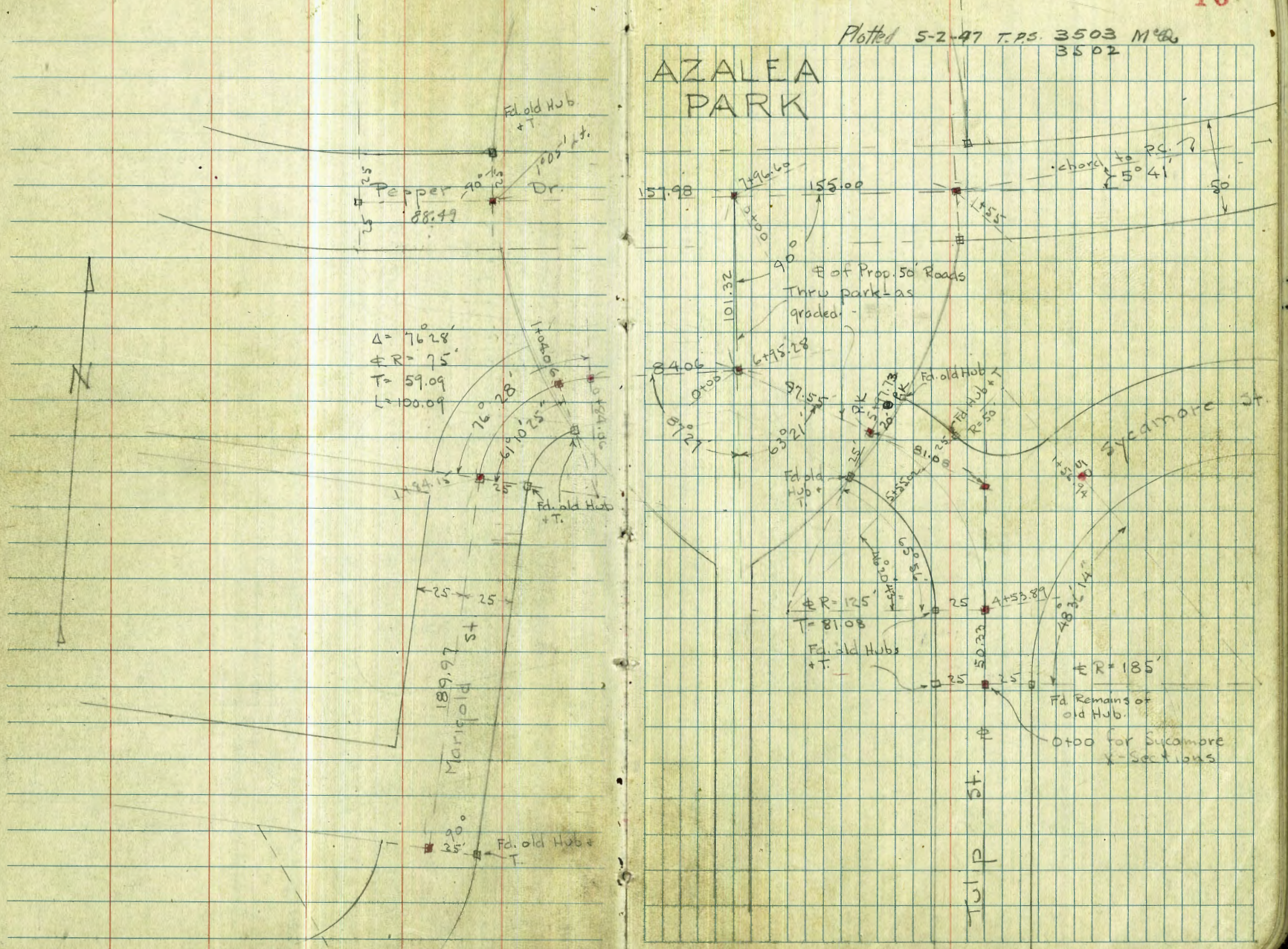

Δ = 30°55'
℄ R = 237.74'
T = 65.74'
L = 128.38
Plotted T.RS. 3503
3501
3509
Fd. old Hub + T.
Fd. old Hub
152.99
19.84
67.08
140.33
6+12.66
This Tang. Meets Average of Hubs + pipes
7+72.83
7+96.75
Fd. pipe - RE 4847
Fd. old Hub
Cross in walk
P.I.
Fd. old Hub + T.
Fd. 3/4 Pipes RE 4847
70' RP Cross in walk
8+75.16
116.64
7+32.43
9+63
9+91.86
Fd. old Hub + T.
Δ = 51°10'
℄ R = 159.83
T = 76.50
L = 142.73
Fd. old Hub
6+00
See 45
Fd. Hub
Violet 261.80
Fd. old Hub
7+54.30
Fd.
16.59
33°34'
30'
Fd. old Hub - 30' Rad. + Tack - Replaced with Hub.
46 R.P. = P.K.
8-53 Gone
Lower


See P 44
Sycamore Dr.
39°05'20"
Fd CED. 6/77
21°°
0+00
49.34
30.71
Δ 48°-09'
0+30.71
walk
37.07
152.97
Int. of ℄ + ℄ Tang. prod. on Sycamore
40°
30.37
81.51
60°
in Dr.
1+30
(INK) Huffman-6-77
380.52
Shamrock Dr.
105°
Fd. old Hub + T.
Fd. CED 6/77
40'
38.56
Δ = 29°33'
℄ R = 125
C = 63.76
Note: old Hubs found Did not exactly meet Cond. of Map for Dist Between, But good for Line - proportioned shortage - 0.12
Cross on porch
Fd. old Hub + T. 59.01
Fd. old Hub & T.
Set Ld & CED. R.P.'s 6/77
Line S. Standard
Ck. in Pole N. Side
52.80
73.66
61.79
Fd. P.K.
50.46
Cross on drive
Checked line of Monuments Tulip to Sumac
Mon. gone
Set Hub
℄ F.H. Top
Rough Ties for Looking


Plotted T.R.S 3509-M.Q
3501
50'
3+57.83 = Disk T.P. 21 - P. 122
Pepper Dr.
Fd. Hub shown in T.P. 21 - P. 122
25
97.46
Δ = 85°06'30"
R = 50'
19.84
67.08
Pepper Dr.
140.33 To P.C.
85°06'30"
Δ = 94°53'30"
R = 20
Fd. pipe RE 484 0.15 E. of line
Violet
50'
131.37
Fd. pipes
.06 E
116.64
Sycamore Dr.
To ℄ Hub
57.09
7.50
0+00 to N.
Fd. Hubs - TP 21 - P 122
111°01'20"
Cross in Dr.
261.80

Plotted 5-2-47 T.P.S. 3503 M°Q 3502

AZALEA PARK



Indexed
C.S.K.

X-Sect - Tulip St. from Juniper to Pepper Dr. - 50' St. 10' cbs. - Rough graded Road.

4-23-47

7.0

N. side House - same floor

0+35 - 21 Rt. = ℄ 8' Conc. Dr. to Sing. Gar. (Comb with

0+30.33 = N.L. Juniper to W. Sect. along Line of Juniper.

~~0+20.5 - 20.3 Rt. - ℄ P. pole # J.P. 2313~~

0+15

~~0+07 - 16.1 Lt. - ℄ P. pole~~

of Juniper

0+00 = N.L. Juniper = S.L. Sub. - Sect. on Line To E.

0-02 - 21.1 Rt. = Beg. Picket fence

0-10

0-30

Sections checked are O.K. - 3-5-52 - 7.0.

B.M. 6.29 259.50 253.21 Mon. ℄ Tulip & N.L. Juniper B.1702-5

Lt. 35	Lt. 25	Lt. 15	℄	Rt. 15	Rt. 25	Rt. 35	
252.6 / 6.9 / 35	253.2 / 6.3 / 25	252.3 / 7.2 / 15	253.5 / 6.0	253.5 / 6.0 / 15	253.7 / 5.8 / 25	253.9 / 5.6 / 35	253.67 / 5.83 / 21 edge Dr.; 254.24 / 5.26 / 40 floor Gar.
251.3 / 8.2 / 35	252.0 / 7.5 / 25	252.6 / 6.9 / 15	253.3 / 6.2	253.5 / 6.0 / 15	253.6 / 5.9 / 25	253.7 / 5.8 / 35	
251.4 / 8.1 / 35	252.5 / 7.0 / 25	252.9 / 6.6 / 15	253.3 / 6.2	253.2 / 6.3 / 15	253.1 / 6.4 / 25	252.0 / 7.5 / 35	
251.4 / 8.1 / 35	251.4 / 8.1 / 25	252.1 / 7.4 / 15	252.7 / 6.8	252.1 / 7.4 / 15	251.7 / 7.8 / 25	250.7 / 8.8 / 35	
250.9 / 8.6 / 35	251.5 / 8.0 / 25	252.1 / 7.4 / 15	252.6 / 6.9	252.3 / 7.2 / 15	252.3 / 7.2 / 25	251.3 / 8.2 / 35	

259.50

1+75.8 - 0.5 Rt. = ℄ Sewer MH 498 on Rim

see New Sect.

1+50 - Have exc. a ledge for Row of Prop Houses on Rt. and cast dirt along edge of Road. - showing Typ. sect. of exc. - 36' Rt. = will be about edge of Conc. wall of Houses

1+23 - 21.3 Rt. = ℄ + W. end 6" Conc. Ret. wall also end N+S. wall

1+09 - 21.3 Rt. = ℄ 4' Conc Walk - Curve to S. Thru wall

1+00 - 21.7 = Wall

side of House - Same elev.

0+92 - 21.3 Rt. = ℄ Conc. Dr. to Sing. Gar on S

0+83 - 21.3 Rt. = W. end 6" Conc. wall

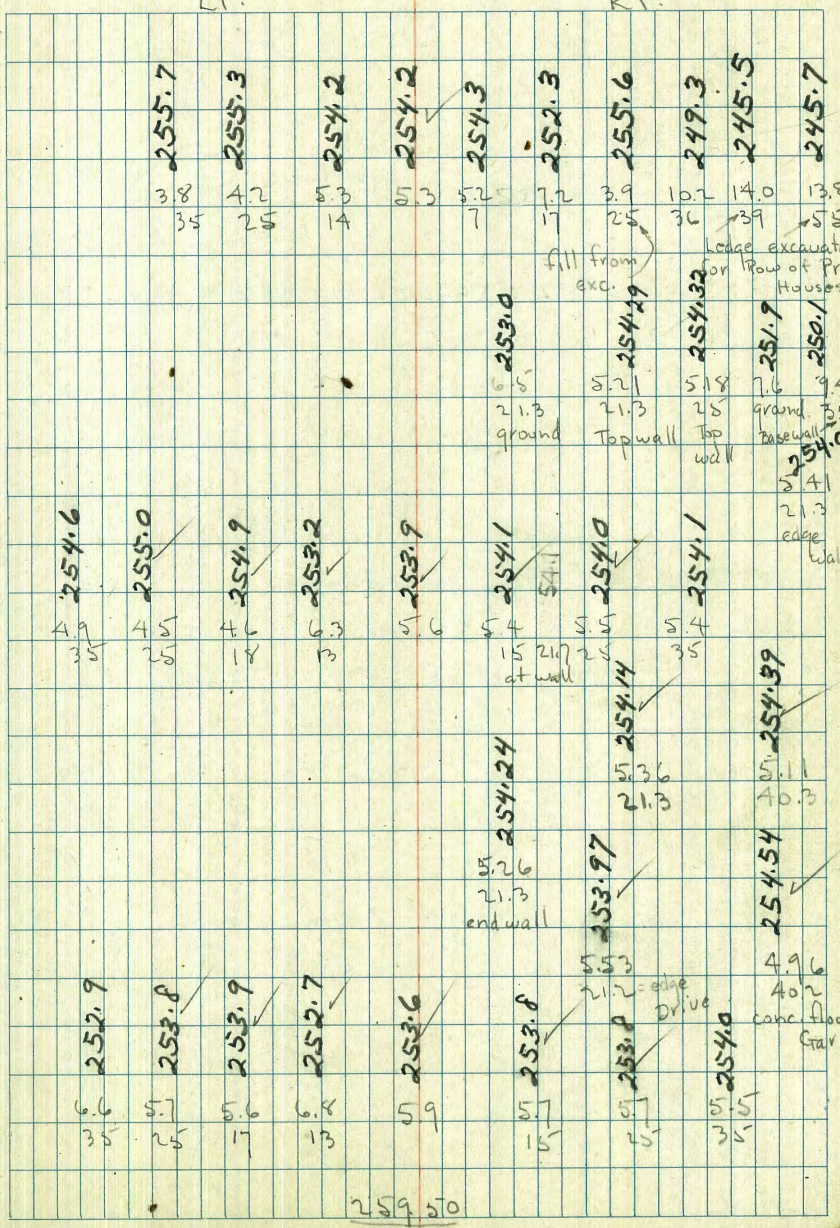
side of House - Same elev.

0+76 - 21.2 Rt. = ℄ 8' Conc. Dr. to Sing Gar on N.

0+71 - 21.2 Rt. = end fence.

See P. 71 - for New Drive

0+50



4+00

3+90 = ~~end of exc. and fill on Rt~~ Ret. wall + foundation

~~3+82 42.5 Rt. = ℄ New House under Const. Top~~ Conc.

~~3+63 19' Lt. = end picket fence~~

3+56 20' Lt. = ℄ 8" Cypress

3+50

3+42 - 18.3 - ℄ Bottom of Wooden Steps 3' wide Now Conc. See P. 72

~~3+34 18.9 Lt. Beg. picket fence~~ out.

3+28 - 19.3 Lt. = ℄ 6" Cypress

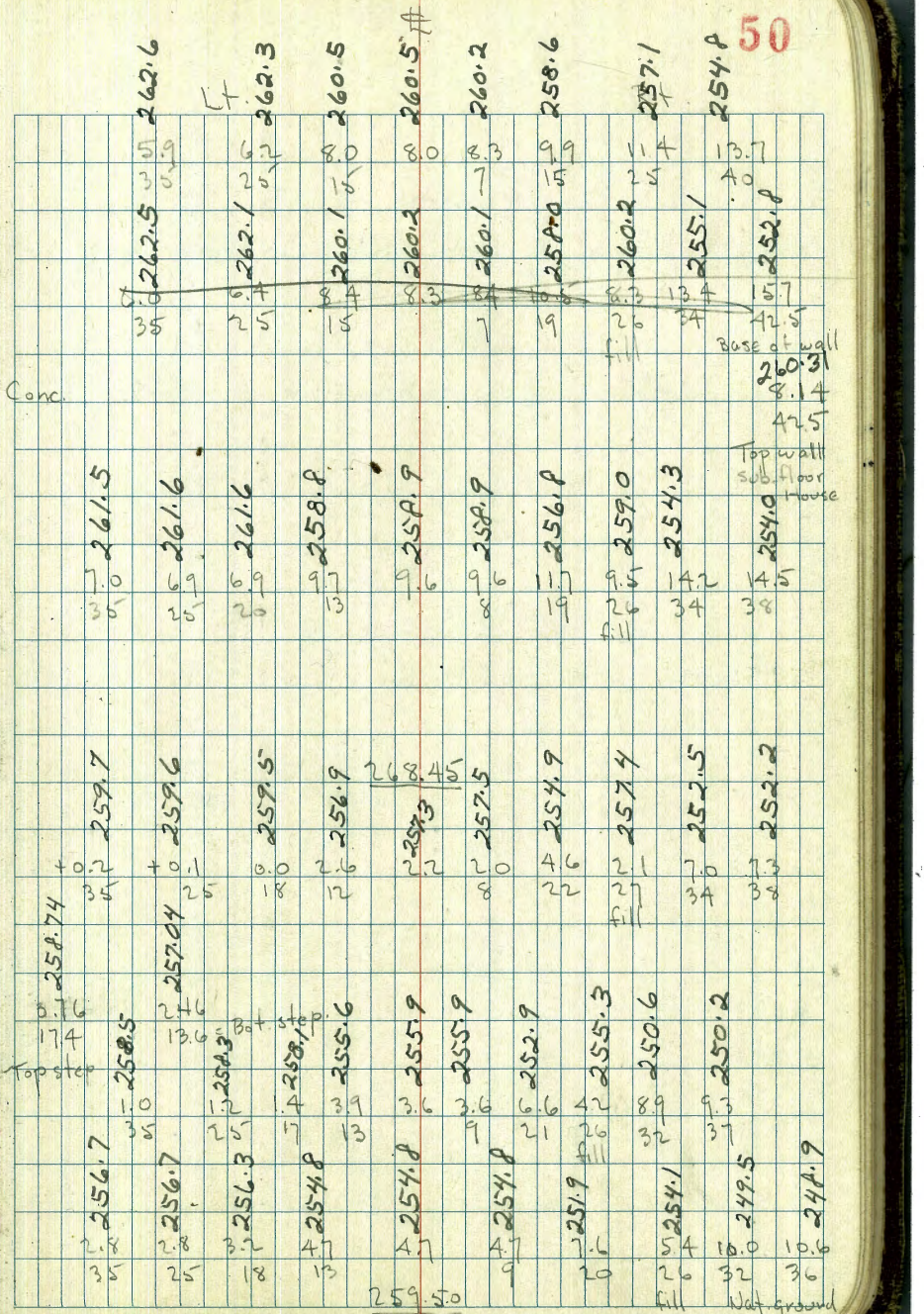
T.P. 9.87 . 268.45 0 92 . 258.58

3+00

2+83 - 13.6 Lt. - Bottom ℄ 4' Conc. steps

2+50

2+00



Ext road graded

6+25 - Tang. ℄ Prop. 50. Road Thru Park

T.P. 6.94 268.88 6.51 261.94

No Improvements from here on - Sects O.K.

5+97.73 = E.C. = Int. of S.L. Tulip & E.L. Azalea Park

5+55.02 = opp. Prop. P.C. on Rt. - 18.2' Rt. = wire fence

5+25

5+00 - Sect. taken Radially on Curve

See P. 72

Sect. are O.K. - 8-11-53 7.0'

from end of Pave. Thru. Park.

4+53.89 = P.C. of Prop. line on Lt.

for Sect of P.C. Prop on Rt. - See Sycamore Sections

℄

Lt. Rt.

261.6	262.2	262.3	262.0	262.6	262.3	262.9	263.4	263.7	264.0	
7.3	6.7	6.6	6.9	6.3	6.6	6.0	5.5	5.2	4.9	
35	25	15	12		7	9	18	25	35	
			edge of Road.		edge					
			268.88							
262.6	263.1	263.7	263.0	263.5	263.3	263.7	264.3	264.8	265.4	
5.9	5.4	4.8	5.8	5.0	5.2	4.8	4.2	3.7	3.1	
35	25	15	11		7	9	18	25	35	
264.2	264.6	264.8	263.9	264.4	264.1	265.0	265.4	265.4		
4.3	3.9	3.7	4.6	4.1	4.4	3.5	3.1	3.1		
35	25	14	13		9	13	25	35		
264.3	264.0	264.8	263.4	264.0	263.5	263.0				
4.0	3.7	3.6	5.1	4.5	4.0	5.7				
35	25	17	12		15	25				
264.3	264.5	264.7	262.5	263.2	262.6	262.0				
4.2	4.0	3.8	6.0	5.3	4.9	6.5				
35	25	17	12		14	25				
263.8	263.4	263.2	261.5	261.6	261.1	260.6	259.3	256.7		
4.7	5.1	5.3	7.0	6.9	7.4	7.9	9.2	11.8		
35	25	18	15		8	15	25	40		
			268.45							

7+45

7+34 - 14' Rt. = ℄ Tel. pole

7+19 = Int of N. & W lines opp.

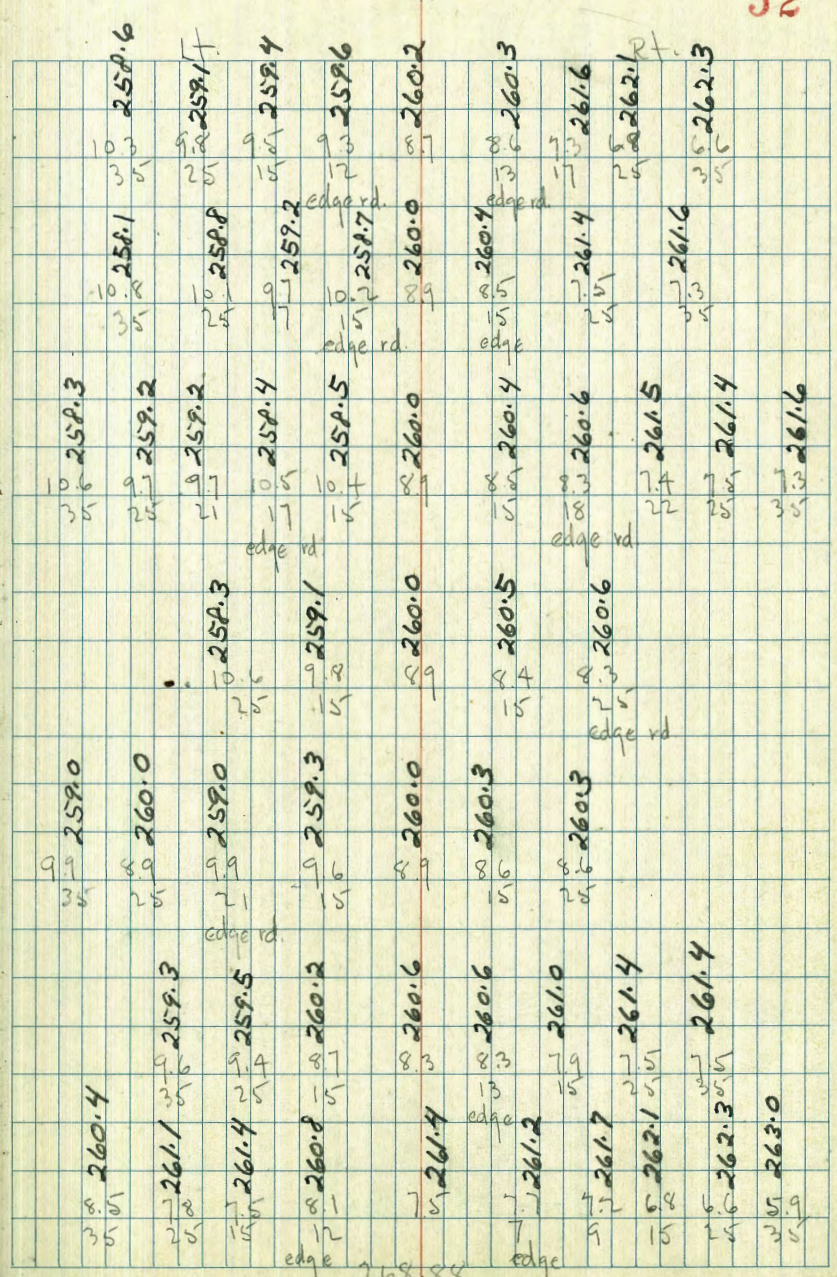
7+10

6+95.28 - Sect. 90° to forward Tangent

6+95.28 = Int of ℄ Tulip & ℄ Marigold prod.
also ℄ of Tulip - N. to Pepper Dr. - Sect. 90° to Back Tangent.

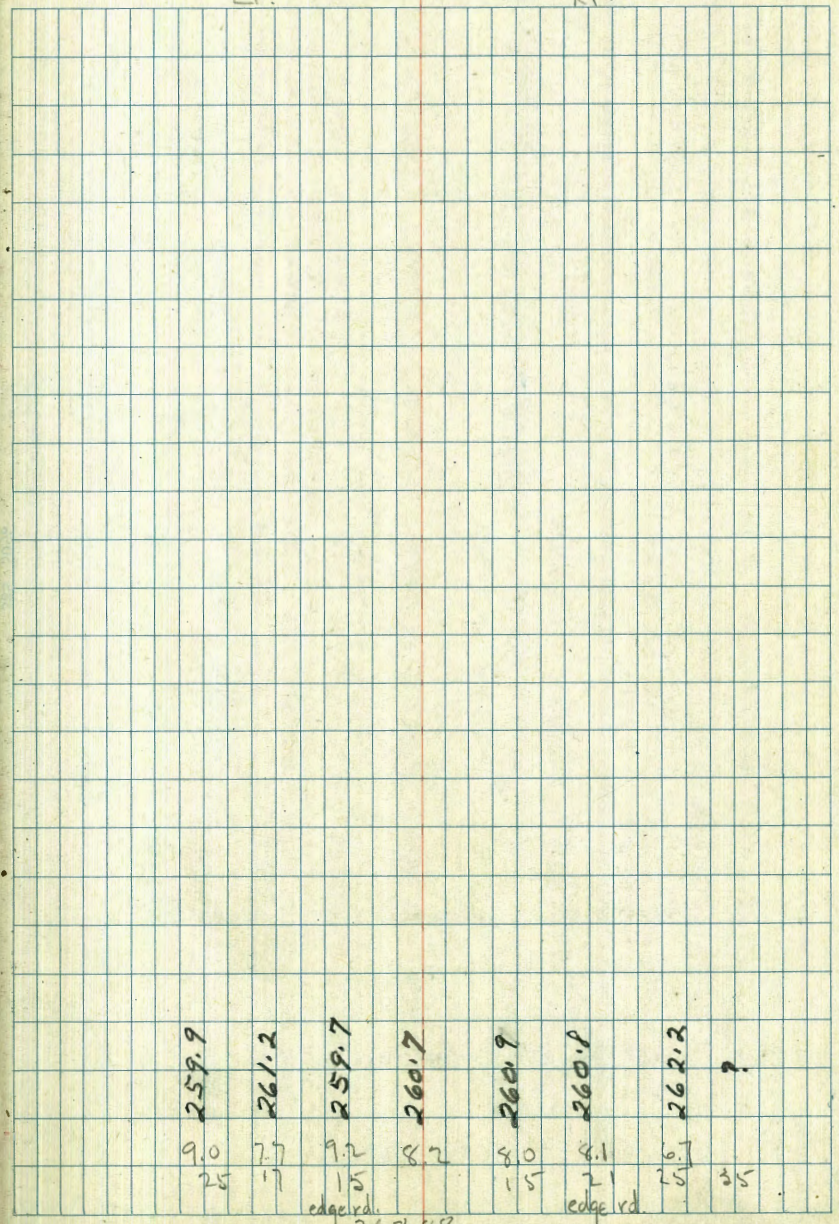
6+75

6+50



℄

Lt. Rt.



S.E Cor. Pepper Dr. + Tulip

Set B.M. - spike in Pole #JP3899 4.95 263.92

See X-Sect. of Pepper Dr.

7+71.60 + S.L. Prop. 50' Pepper Dr. Thru Park

385 50%

Indexed
c.s.k.

X-Sect. Sycamore - Tulip to Violet.
50' st 10' cbs - Rough graded Road.

1+56.94 = P.C. of Prop. curve on Lt.

1+50 25° 08' 30"

1+20 29° 47' 15"

0+90 34° 26'

0+60 39° 04' 30"

43° 43' 15"
0+30 - Sections on Curve taken Radially

0+00 = P.C. of Prop Curve on E. Side

T.P. P 51
B.M. 4.53 266.47 261.94

4-24-47
7.0.

℄

Lt. Rt.

Station										
1+56.94		262.8 / 3.7 / 35	262.3 / 4.2 / 25	261.4 / 5.1 / 20	260.2 / 6.3 / 19 edge rd.	260.2 / 6.3 / 10	259.9 / 6.6 edge rd.	257.7 / 8.8 / 6	256.1 / 10.4 / 15	254.9 / 11.6 / 25 · 252.6 / 13.9 / 40
1+50		262.8 / 3.7 / 35	262.3 / 4.2 / 25	262.2 / 4.3 / 23	260.4 / 6.1 / 20 edge rd.	260.4 / 6.1 / 15	260.2 / 6.3 edge rd.	257.8 / 8.7 / 7	256.5 / 10.0 / 15	255.1 / 11.4 / 25 · 253.4 / 13.1 / 40
1+20	264.4 / 2.1 / 50	262.3 / 4.2 / 35	262.0 / 4.5 / 25	261.6 / 4.9 / 15	261.1 / 5.4 / 7	260.9 / 5.6 / 2	259.7 / 6.8	257.5 / 9.0 / 15	255.9 / 10.6 / 25	253.8 / 12.7 / 40
0+90		edge rd.		262.9 / 3.6 / 25 edge rd.	262.1 / 4.4 / 12		260.4 / 6.1	258.2 / 8.3 / 15	257.2 / 9.3 / 25	253.8 / 12.7 / 40
0+60				261.7 / 4.8 / 25	262.0 / 4.5 / 15	261.3 / 5.2 / 4 edge rd.	261.2 / 5.3	259.5 / 7.0 / 15	257.8 / 8.7 / 25	255.4 / 11.1 / 40
0+30		263.4 / 3.1 / 35	262.9 / 3.6 / 25 edge rd.	262.5 / 4.0 / 20	261.0 / 5.5 / 17 edge rd.		260.9 / 5.6	260.8 / 5.7 / 4 edge rd.	259.2 / 7.3 / 15	257.3 / 9.2 / 25 · 255.3 / 11.2 / 40
0+00		262.6 / 3.9 / 35	262.3 / 4.2 / 25	262.1 / 4.4 / 19	260.6 / 5.9 / 15 edge rd.		260.5 / 6.0	260.2 / 6.3 / 7 edge rd.	258.6 / 7.9 / 15	257.0 / 9.5 / 25 · 255.0 / 11.5 / 40

266.47

def. Back from E.C.

3+00 - 1° 55'

2+98 - 25.6 = Cor Porch - Conc. walk line extends to Make House foundation

2+86.5 - 23' Lt = W. end Conc. Walk from steps to House

2+86 - 21.3 Lt = Cor. of Add

2+76 - 20.3 Lt = Cor. off addition to House - wood floor

2+70 6° 33' 45"

2+40 11° 12' 30"

2+10 15° 51'

1+80 20° 29' 45"

Station	Lt.				℄	Rt.				
3+00	264.1 / 2.4 / 30.6 along House	263.8 / 2.7 / 25	262.6 / 3.9 / 15	262.0 / 4.5 / 10 edge rd.	261.6 / 4.9	261.3 / 5.2 / 7 edge rd	262.0 / 4.5 / 12	261.2 / 5.3 / 15	257.2 / 9.3 / 25	251.9 / 14.6 / 40
2+70	265.1 / 1.4 / 35	264.9 / 1.6 / 25	264.1 / 2.4 / 15	261.3 / 5.2 / 9 edge rd	261.3 / 5.2	261.0 / 5.5 / 8 edge rd	261.5 / 5.0 / 11	261.2 / 5.3 / 15	259.6 / 6.9 / 25	256.7 / 9.8 / 40
2+40	264.6 / 1.9 / 35	264.0 / 2.5 / 25	262.9 / 3.6 / 15	260.4 / 6.1 / 10 edge rd.	260.7 / 5.8	260.2 / 6.3 / 8 edge rd.	261.0 / 5.5 / 11	260.7 / 5.8 / 15	259.3 / 7.2 / 25	257.2 / 9.3 / 40
2+10	263.2 / 3.3 / 35	263.0 / 3.5 / 25	259.9 / 6.6 / 14 edge rd.	260.0 / 6.5 / 5	260.0 / 6.5	259.8 / 6.7 / 4 edge rd.	260.0 / 6.5 / 15	258.9 / 7.6 / 25	256.5 / 10.0 / 40	
1+80	262.5 / 4.0 / 35	262.4 / 4.1 / 25	259.9 / 6.6 / 17 edge rd	259.8 / 6.7 / 8	259.7 / 6.8	259.6 / 6.9 / 2 edge rd.	259.8 / 6.7 / 6	254.2 / 12.3 / 15	251.8 / 14.7 / 25	248.4 / 18.1 / 40

264.76 / 1.71 / 25.6 Top Conc. found.

264.80 / 1.67 / 23 = on conc.

266.74 / + 0.27 floor House

265.35 / 1.12 floor House

266.47

5+00 - 3.9 Rt. = ℄ Sewer M.H. 7.02 on Rim

4+98.66

3 parts

4+74.04 = P.C. on Rt.

4+53.23 = Sect. on Curve taken Radially

4+32.41 = P.C. 75' Rad Curve on Lt.

T.P 9.74 273.71 2.50 263.97

4+00.69 = E.C.

3+56.65 - Sect. Radial

3+12.61 = P.C. (Same Sect.)

3+12.34 = E.C.

℄ Lt. Rt.

edge rd.

273.71

266.47

6+70

6+30

6+04.91 = E.C

5+76.41

Set B.M on Pole below Spike 4.57 269.14

5+76 - 19.3 Lt = ℄ P. pole # T.P. 3952

5+69.4 - 16.5 Rt = Cor. Picket fence (from below)

5+63.5 - 0.7 Lt = ℄ Sewer M.H. 6.36 Rim

5+53 - 40' Rt = Cor Picket fence (N+S)

5+47.91 = P.C on Rt

5+23.28

Lt. ℄ Rt.

Station										
6+70	270.2	271.0	270.5	268.8	269.5	269.6	269.5	269.7	269.0	268.0
	3.5	2.7	3.2	4.9	4.2	4.1	4.2	4.0	4.7	5.7
	35	25	16	14 edge rd.	7		4 edge rd	15	25	35
6+30	268.9	268.7	268.6	267.5	268.1	268.3	268.2	267.9	267.5	266.9
	4.8	5.0	5.1	6.2	5.6	5.4	5.5	5.8	6.2	6.8
	35	25	22	16 edge rd.	8		3 edge rd.	15	25	35
6+04.91	268.9	268.7	267.9	267.1	267.4	267.7	267.6	267.0	266.8	266.3
	4.8	5.0	5.8	6.6	6.3	6.0	6.1	6.7	6.9	7.4
	35	25	18	17 edge rd.	10		2 edge rd.	15	25	35
5+76.41		268.2		268.2	266.6	267.4	267.4	267.5	267.3	267.2
		5.5		5.5	7.1	6.3	6.3	6.2	6.4	6.5
		35		25	16 edge rd.		4 edge rd.	15	25	29.5 = along E+W fence
5+47.91	267.5	267.4	267.0	266.3	267.1	267.2	267.0	267.0	266.7	
	6.2	6.3	6.7	7.4	6.6	6.5	6.7	6.7	7.0	
	35	25	17	15 edge rd.		8 edge rd.	15	25	35	
5+23.28	267.5	267.3	267.3	266.0	266.9	266.8	266.7	267.0		
	6.2	6.4	6.4	7.7	6.8	6.9	7.0	6.7		
	35	25	17	13 edge rd.		15	25 edge rd.	35		

273.71

8+75.16 = E.C.

8+50 – 16.5 Lt. = ℄ P. pole

8+46.61

8+18.07

7+89.52

5 - Parts

7+60.97 - Sect. on Curve taken Radially

7+44 - 24' Lt. = Cor. Conc wall (from Cor. below)

T.P.	6.78	278.72	1.77	271.94

7+32.43 = P.C.

7+31 - 23' Lt. = Cor. 6" Conc wall

7+21 - 17' Lt. = ℄ P. pole

7+00

Lt. ℄ Rt.

	274.7	274.4	274.3	273.0	272.8	272.8	272.9	267.8	264.8	258.9	
	4.0	4.3	4.4	5.7	5.9	5.9	5.8	10.9	13.9	19.8	
	35	25	22	17 edge rd.	10		3 edge rd.	15	25	45	
	275.3	274.6	273.9	272.9	272.7	272.6	272.9	270.6	267.9	263.5	
	3.4	4.1	4.8	5.8	6.0	6.1	5.8	8.1	10.8	15.2	
	35	25	18	15 edge rd.		6 edge rd.	8	15	25	40	
273.7	274.0	274.0	272.7	272.9	272.6	272.4	272.6	272.1	271.1	269.3	
5.0	4.7	4.7	6.0	5.8	6.1	6.3	6.1	6.6	7.6	9.4	
35	25	21	15 edge rd.	5		7 edge rd.	8	15	15	35	
273.2	272.8	272.6	272.0	272.1	272.1	271.8	272.7	272.4	271.9	270.5	
5.5	5.9	6.1	6.7	6.6	6.6	6.9	6.0	6.3	6.8	8.2	
35	25	20	13 edge rd.	5		6 edge rd.	8	15	25	35	
272.26	272.1	272.1	271.2	271.4	271.4	271.2	271.4	271.2	270.0	270.0	
6.46	6.6	6.6	7.5	7.3	7.3	7.5	7.3	7.5	7.9	8.7	
24 Top wall	35	25	12 edge rd.	7		6 edge rd.	8	15	25	35	

278.72

272.05	271.6	271.9	271.3	270.6	270.9	271.0	270.8	271.5	271.5	270.5	269.8
6.6	2.1	1.8	2.4	3.1	2.8	2.7	2.9	2.2	2.2	3.2	3.9
23 Top wall	35	25	20	13 edge rd.	7		5 edge rd.	7	15	25	35
271.0	270.8	270.7	269.8	270.1	270.1	270.0	270.4	270.1	269.4		
2.7	2.9	3.0	3.9	3.6	3.6	3.7	3.3	3.6	4.3	4.9	
35	25	20	14 edge rd.	6		4 edge rd.	6	15	25	35	

273.71

B.M. = Pipe on E.C. 50.4 Lt. 9+82 — 2.26 — 276.46

See Recent Sections on Violet # 2585

9+91.80 = ℄ Sycamore + ℄ Violet to South

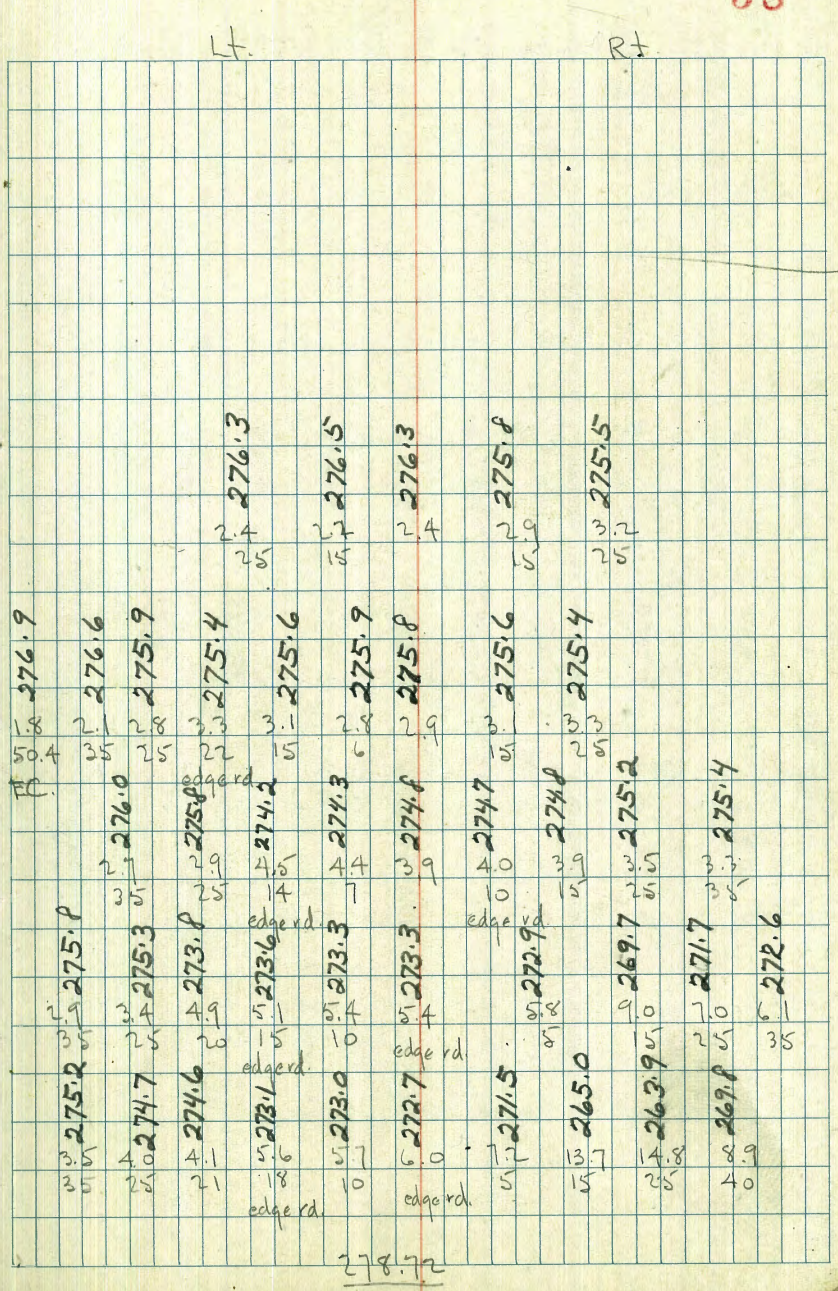
9+82 = opp. E.C. - N. end 20' Rad. Prop. Curve

9+63 = Prop P.C. on Lt. - 1.97 W. of Prop. Cor. on Rt.

9+42 - 16.1 Lt. = ℄ P. pole

9+30

9+00



Indexed
C.S.K.

X-Sect. Shamrock - S. from Sycamore
for Profile - 130'   50' st. 10' cbs.

1+30 = end.

1+22 - 11.4 Lt. = end fence + W. end 4" Conc. wall
1+14 - 10' Lt. = ℄ 8' Conc. Drive - Gar. way back
0+96 - 25.1 Rt. = ℄ 3' Conc walk
0+82 - 10.8 Lt. = Beg. Picket fence + 4" Conc. wall
0+80
0+41 - 17' Rt. = ℄ P. pole

0+30.71 = opp. P.C. 30' Prop. Rad. on Lt.

0+16 - 24.8 Rt. = ℄ 3.6 Conc. walk

0+00 = opp. P.C. of 50' Prop. Rad. on Rt.

0-20 - Sect. at 90° to ℄ tang. produced

B.M. - spike 2.77 271.91 269.14
in Pole - P. 57

4-24-47
7.0

Other		Lt.			℄	Rt.				Other
265.66 / 6.25 / 10 Drive; 266.23 / 5.68 / 11.4 on wall	265.6 / 6.3 / 35	265.5 / 6.4 / 25	265.1 / 6.8 / 15	265.1 / 6.8 / 7 edge rd.	264.9 / 7.0	264.7 / 7.2 / 10	264.7 / 7.2 / 20	264.9 / 7.0 / 25 edge rd.	264.9 / 7.0 / 35	
266.2 / 5.7 / 35	266.3 / 5.6 / 25	266.2 / 5.7 / 10	265.7 / 6.2 / 6 edge rd.		265.9 / 6.0	265.7 / 6.2 / 10	265.6 / 6.3 / 15	265.9 / 6.0 / 25 edge rd.	265.9 / 6.0 / 35	265.83 / 6.08 / 25.1 walk
266.9 / 5.0 / 35	267.1 / 4.8 / 25	267.0 / 4.9 / 15	266.5 / 5.4 / 7 edge rd.		266.6 / 5.3	266.7 / 5.2 / 10	266.9 / 5.0 / 15	266.8 / 5.1 / 25 edge rd.	266.3 / 5.6 / 35	267.17 / 4.74 / 24.8 on walk
	267.0 / 4.9 / 25	266.7 / 5.2 / 15	267.0 / 4.9 / 6		266.9 / 5.0	(?) / 10 / 10 edge rd.	267.0 / 4.9 / 15	266.7 / 5.2 / 25	266.5 / 5.4 / 35	
	266.9 / 5.0 / 25	266.9 / 5.0 / 15			266.6 / 5.3	266.1 / 5.8 / 13 edge rd.	266.5 / 5.4 / 20	266.6 / 5.3 / 25		

271.91

Indexed
C.S.K.

X-Sect. Pepper Drive - from Azalea Park to Violet St - 50' st + 10' cbs

0+50

0+32 - 16' Rt = ℄ P.pole # J.P. 3899 = B.M.

0+25 = E.L. Tulip

0+00 = ℄ Tulip - to South

0-25 = W.L. Rd. to S. (Tulip)

0-50

0-100 = ℄ Prop. Road Thru park - as now graded

B.M.	5.65	269.57	263.92	spike in Pole P. 53

4-25-41
7.0.

60

Sta.	Lt.				℄				Rt.
0+50	261.3 / 8.3 / 35	262.0 / 7.6 / 25	262.7 / 6.9 / 15	263.0 / 6.6 / 13 edge rd.	262.8 / 6.8	262.8 / 6.8 / 10 edge rd.	264.7 / 4.9 / 13	264.1 / 5.5 / 25	263.1 / 6.5 / 35
0+25	260.3 / 9.3 / 35	261.1 / 8.5 / 25	261.5 / 8.1 / 15	261.7 / 7.9 / 12 edge rd.	261.8 / 7.8	261.6 / 8.0 / 8 edge rd.	261.2 / 8.4 / 15	262.0 / 7.6 / 23	261.9 / 7.7 / 25
0+00	259.8 / 9.8 / 35	260.5 / 9.1 / 25	260.9 / 8.7 / 15	260.4 / 9.2 / 11 edge rd.	260.7 / 8.9	261.0 / 8.6 / 15	260.8 / 8.8 / 25		
0-25	259.2 / 10.4 / 35	259.5 / 10.1 / 25	259.7 / 9.9 / 15	259.7 / 9.9 / 11 edge rd.	259.9 / 9.7	259.7 / 9.9 / 10	259.6 / 10.0 / 13 edge rd.	260.3 / 9.3 / 15	260.0 / 9.6 / 25
0-50	259.1 / 10.5 / 35	259.1 / 10.5 / 25	259.0 / 10.6 / 15	259.1 / 10.5 / 9 edge rd.	259.1 / 10.5	258.7 / 10.9 / 10 edge rd.	259.1 / 10.5 / 13	258.7 / 10.9 / 25	258.7 / 10.9 / 35
0-100	258.5 / 11.1 / 35	258.4 / 11.2 / 25	258.3 / 11.3 / 12	258.1 / 11.5 / 9 edge rd.	258.0 / 11.6	257.8 / 11.8 / 9 edge rd.	258.2 / 11.4 / 12	258.1 / 11.5 / 25	258.1 / 11.5 / 35

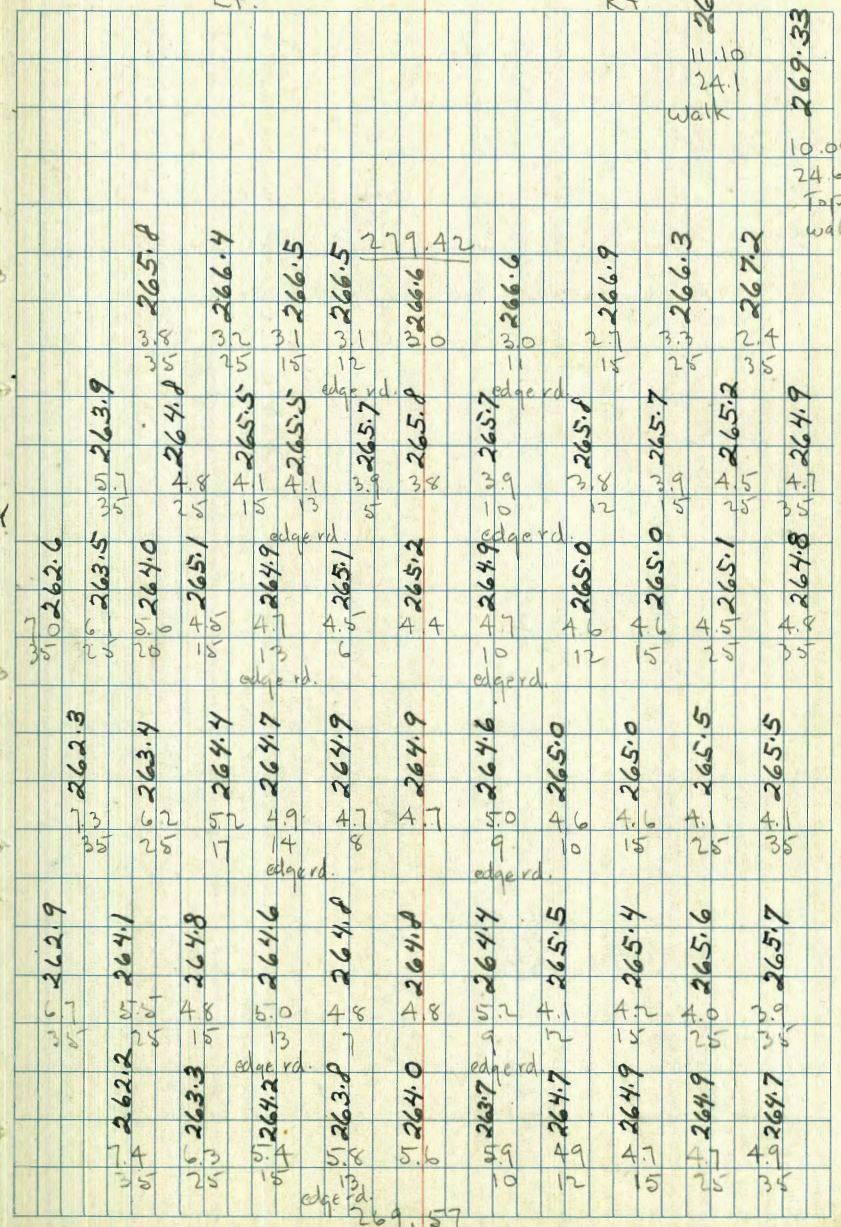
269.57

3+49 - 24.1 Rt. = ℄ 3' Conc. walk

3+40 - 13.3 Rt. = ℄ 3" Pepper

3+32 - 24.6 Rt. = Beg. 6" Cobblestone wall

T.P	12.81	279.42	2.96	266.61
3+00				
2+50				
2+00	Sections Radial on Curve			
1+92 - 14 Rt = ℄ P. pole # J.P. 3923				
1+55 = P.C. = E.L. Park and S.L. Pepper Dr.				
1+15				
0+85				



5+35.69
C° 11' "

5+19 - 13.5 Rt. = ℄ P. pole # D 22461

5+10.04 - Sections Radial on Curve
3° 05' 30"

5- parts - ch = 25.64

4+84.38 = P.C.C.

4+50

4+00

3+69 - 24.4 Rt. = end Rock wall

3+69 - 13.7 Rt. = ℄ P. Pole # I P 8943

3+58 - 13.3' Rt. = ℄ 4" Pepper

3+50

7+30

7+00

T.P. 8.19 283.92 3.69 275.73

6+54 - 13.6 Rt. = ℄ P. pole # J.P. 3975

6+50

6+35 - 23.2 Rt. = Cor. Conc. Drive

6+12.66 = E.C. - 20.8' Rt. = Cor. 22' Conc. Drive
15° 27' 30"

5+87
12° 22'

5+61.35
9° 16' 30"

+Popular-
Check B.M. - Pipe - N.E Violet 4.86 284.07 ✓ 284.08

T.P. 7.16 288.93 2.15 281.77

+Sycamore
Check B.M. - Pipe N.W. Violet 7.47 276.45 276.46
P. 58

8+21.84 - ℄ Violet - Sect along ℄

7+96.75 = W.L. Violet + ℄ Pepper
Sect. along W.L. Violet

7+72.83 = P.C. 20' Rad. Prop. Curve on Rt.

7+54 - 15.1 Rt. = ℄ P. pole # 422151-H

7+52.99 = P.C. 50' Rad. Prop. Curve on Lt.

385 50%

Lt. ℄ Rt.

280.1	280.0	279.9	279.8	279.7	279.6	279.3
3.8	3.9	4.0	4.1	4.2	4.3	4.6
50	25	15		15	25	50

279.5	279.4	278.4	278.6	279.0	279.2	279.1	278.9	278.7	279.6	279.2	278.6
4.4	4.5	5.5	5.3	4.9	4.7	4.8	5.0	5.2	4.3	4.7	5.3
70.8	35	32	25	15	9		10	20	25	35	47.1
E.C. 50' Rad.		edge rd						edge rd.			E.C. 20' Rad

278.6	278.6	278.6	277.6	278.0	278.3	278.4	278.5	278.4	278.2
5.3	5.3	5.3	6.3	5.9	5.6	5.5	5.4	5.5	5.7
35	25	16	14	6		11	15	25	35
			edge rd.			edge rd.			

277.6	277.8	277.9	277.4	277.9	277.9	278.8	278.7	277.8	277.9
6.3	6.1	6.0	6.5	6.0	6.0	5.1	5.2	6.1	6.0
35	25	13	10		11	12	15	25	35
			edge rd.		edge rd.				

283.92

Index of C.S.K.

X-Sect. Marigold - from Park S. - for Profile - 50' st. 10' cbs.

1+30.75 - 17' Rt. = fence

Sect. on Curve taken Radial

1+13 - 25' Rt. = Beg. Lath fence. 5' High - on 6" Conc. foundation

1+04.06 = S.L. + W.L. Park

0+84.06 = P.C.

0+55

0+24 = opp. Int. of N.L. + W.L. Tulip

Sect. 90° to forward tangent.

0+00 = Int. of ℄'s of Prop. Roads Thru park

B.M. 1.63 265.55 263.92

A-25-47
7.0

65

℄

Lt. Rt.

253.1 253.3 253.6 252.2 252.6 252.7 252.7 253.3 253.8 254.50 254.8 254.9
12.5 12.3 12.0 13.4 13.0 12.9 12.9 12.3 11.8 11.0 10.8 10.7
3 5 25 13 11 5 edge rd. 5 edge rd. 8 15 17 on conc. 25 5
254.1 254.1 254.3 253.2 253.6 253.8 253.7 254.3 253.3 255.3 256.1 255.55 10.0 2.5 0.5 Conc.
11.0 11.5 11.3 12.4 12.0 11.8 11.9 11.3 10.3 9.5
3 5 25 15 12 edge rd. 7 8 edge rd. 15 25 35
255.0 254.8 257.9 254.3 254.7 254.8 257.7 255.5 255.7 256.3 257.0
10.6 10.8 10.7 11.3 10.9 10.8 10.9 10.1 9.9 9.3 8.6
3 5 25 15 12 edge rd. 4 7 edge rd. 10 15 25 35
256.4 256.4 256.6 255.9 256.5 256.5 256.0 257.1 257.3 257.5 258.2
9.2 9.2 9.0 9.3 9.1 9.1 9.6 8.5 8.3 8.1 7.4
3 5 25 15 3 edge rd. 4 8 edge rd. 11 15 25 35
258.1 258.7 258.6 257.6 258.5 258.4 257.9 259.2 258.7
7.5 6.9 7.0 8.0 7.5 7.2 7.7 6.4 6.9
35 25 18 15 3 edge rd. 2 11 edge rd. 5 5
259.2 259.9 260.2 259.1 259.6 259.9 260.0 257.9 259.9
6.4 5.7 5.4 6.5 6.0 5.7 5.6 5.7 5.9
35 25 23 20 15 9 edge rd. 10 25
265.55

2+20 - end.

1+91.5 = ℄ Sewer M.H. 3.91

1+84.15 = E.C. - 25 Rt. - end fence

T.P.	2.45	254.74	13.26	252.29

1+57.44 -14.6Rt. = fence - Shrubs + lattice work behind fence

Lt. ℄ Rt.

251.1	250.9	250.3	248.8	249.1	248.5	248.8	248.7	248.9
3.6	3.8	4.4	5.9	5.6	6.2	5.9	6.0	5.8
35	25	12	10		11	15	25	35
			edge rd.		edge rd.			

251.9	251.6	251.5	250.1	251.0	251.0	250.3	250.2	250.4	351.04	250.5
2.8	3.1	3.2	4.6	3.7	3.7	4.4	4.5	4.3	3.70	4.2
35	25	15	12	3		7	15	25	25	35
			edge rd.			edge rd.			on Conc.	

254.74

252.6	252.3	252.0	251.2	251.9	251.9	252.66	252.2	252.5	253.3
13.0	13.3	13.6	14.4	13.7	13.7	12.89	13.4	13.1	12.3
35	25	15	11		5	14.6	15	25	35
			edge rd.		edge rd.	on conc.			

245.55

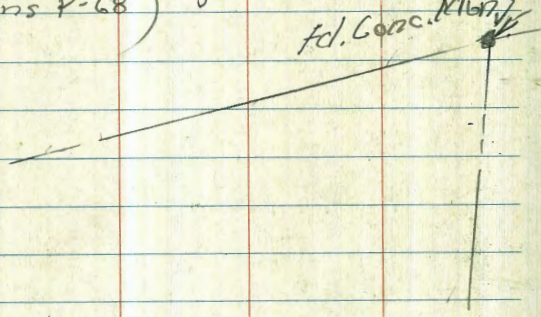
Walker
Hendricks
Becker
Johnson
6-10-47

X-Sections Proposed Opening

Logan Ave

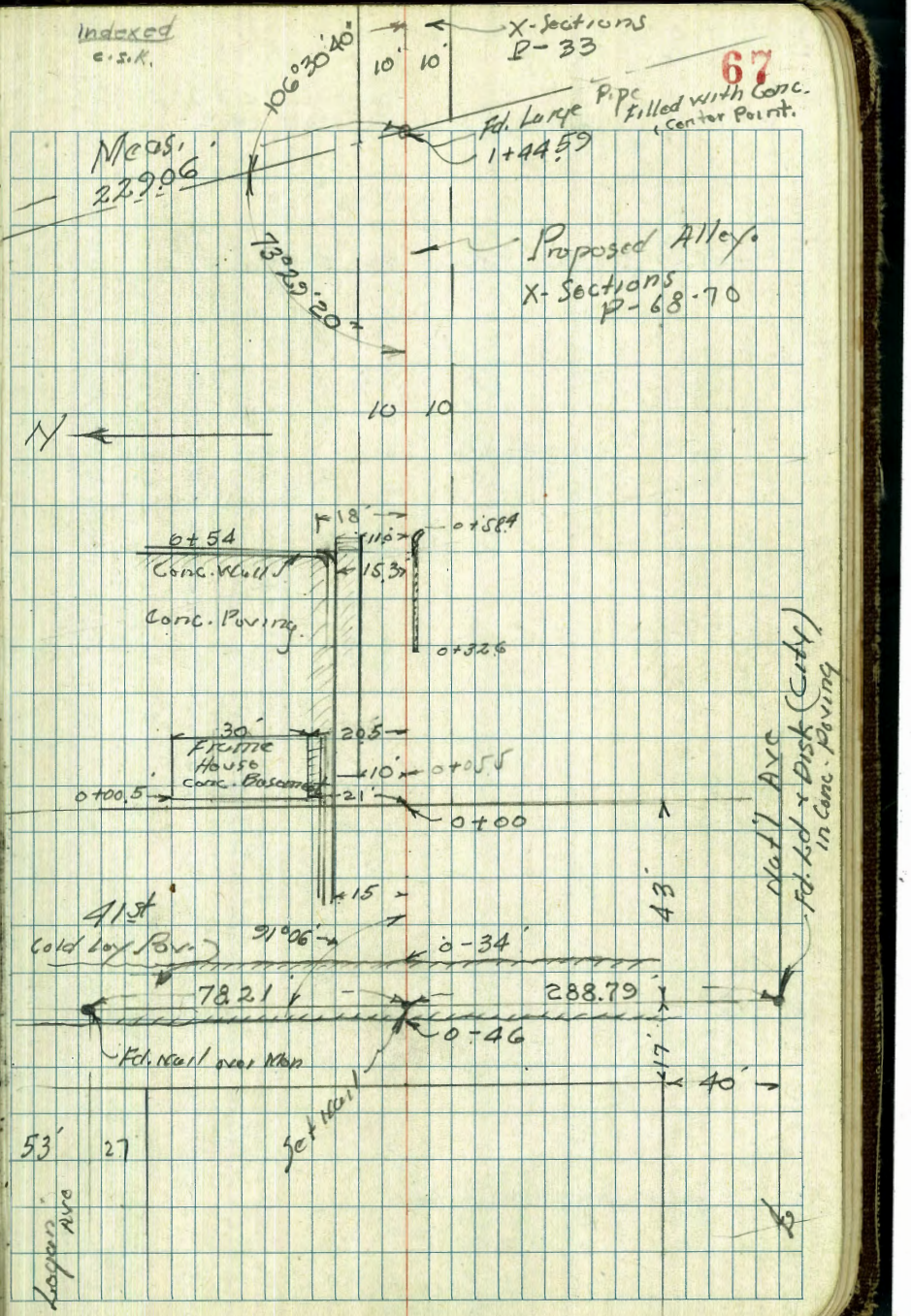
from Boundary to 41st St

(X-Sections P-68)



Indexed
C.S.K.

67



0+04 = Step down in Conc wall on Lt

0+05.5 = Beg. Conc. Walk see sketch

0+00 = E line 4151

0-19.2

0-25

0-34 = East edge Existing Pav

0-46 = W edge oil & Rock

6.06 41.31 35.25 NVBP 4151 & Nat'l Ave

385 50%

℄

Elev.	Rod	Dist.	Note
37.79	2.52	16.6	Wall
38.63	2.68	16.6	Top Conc wall

Elev.	Rod	Dist.	Note
36.78	4.53	16.6	Conc Walk
36.27	5.04	15	Conc Walk
36.14	5.17	10	Conc Walk

Elev.	Rod	Dist.	Note
39.14	2.17	21	on Conc Walk
38.76	2.55	16.6	on wall
37.01	4.30	15	on wall
36.2	5.1	15	
35.9	5.4	10	
36.5	4.8	8	
36.1	5.2		
35.7	5.6	10	
35.0	6.3	40	
33.6	7.7	42	
33.1	8.2	50	
31.5	9.8	51	
28.4	12.9	68	
28.8	12.5	90	

Elev.	Rod	Dist.	Note
39.06	2.25	16.6	on wall
37.52	3.79	15	on wall
37.3	4.0	15	Ground

Elev.	Rod	Dist.	Note
39.7	1.6	50	
37.3	4.0	10	
36.6	4.7		
36.2	5.1	10	
35.1	6.2	21	
31.7	9.6	50	
30.4	10.9	93	
30.8	10.5	100	

Elev.	Rod	Dist.	Note
41.28	0.03	78	Pav.
38.20	3.11	50	Pav
34.62	6.69	10	Pav.
34.04	7.27		Pav
33.57	7.74	10	Pav
32.04	9.27	50	Pav.
31.16	10.15	100	Pav

Elev.	Rod	Dist.	Note
41.27	0.04	83	Pav
38.01	3.30	50	Pav
34.66	6.65	10	Pav.
34.13	7.18		on Pav
33.60	7.71	10	on Pav
32.00	9.31	50	Pav.
31.25	10.06	100	Pav

41.31

Cont. from P- 68

0+60

0+58.4 = 1

0+54 = Conc. Wall on Lt See sketch

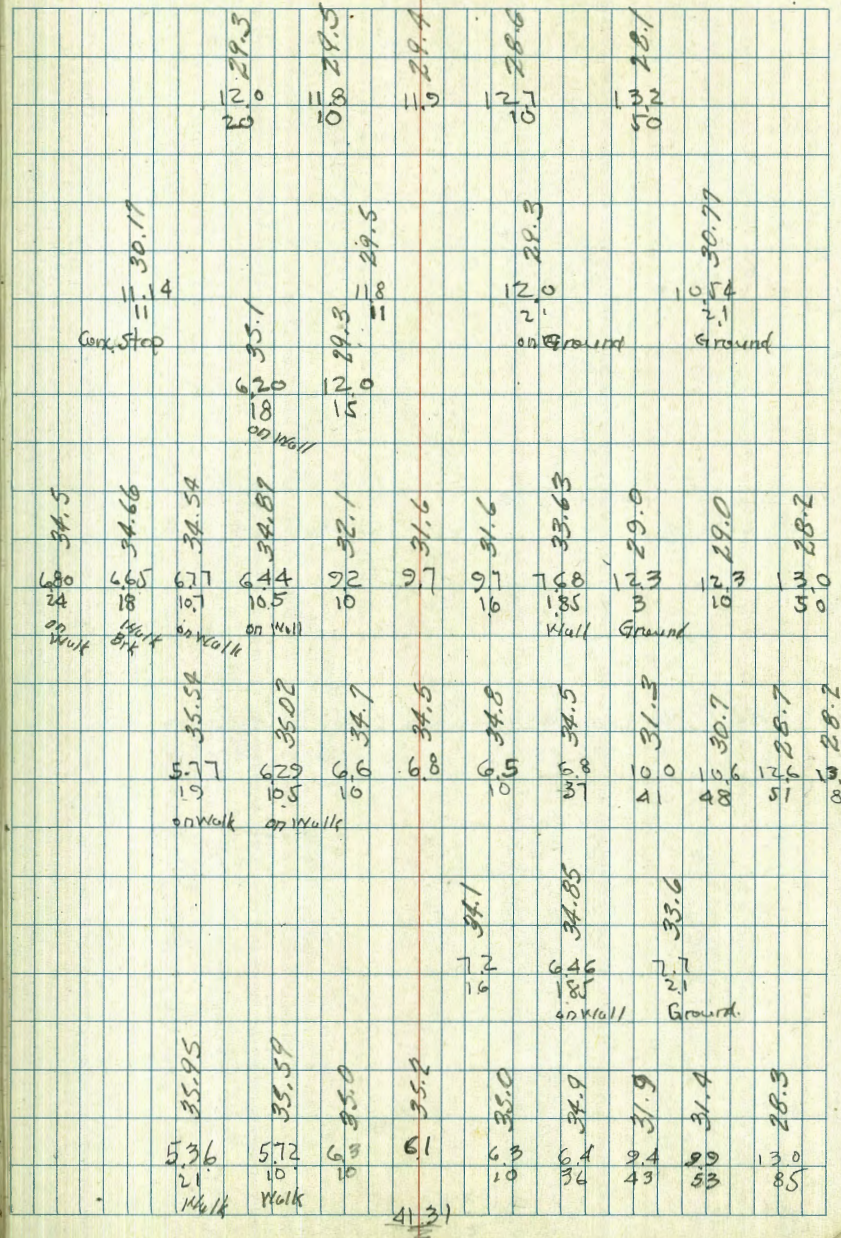
0+44

0+30

0+32.6 = Beg. 6" Conc 185' Rt = ℄

0+24.2 = Brk. in Grd Conc. Walk on Lt.

4131



Cont. from P. 69

		0.01
1+4459=0+00 B-34		28.34
chk Pipe	12.96	28.35

1+4459 = diag. Sec on old city Bdry. line

1+00

0+75

41.31

Lt ℄ Rt.

70

28.2	28.9	28.5	28.4	28.1
12.1	12.4	12.8	12.9	13.2
50	50		10	
28.7	28.6	28.6	28.4	28.4
12.6	12.7	12.7	12.9	13.1
45	10		10	50
28.5	28.6	28.2	28.6	28.3
12.8	12.7	12.4	12.7	13.0
35	10		10	50

41.31

Re-Cross Sect. Tulip - from Juniper to Park - Orig. Notes - P. 48

#5917

W.O. - 32033 - 3-5-52 7.0

Add. Notes Here - old Sections that are the Same are checked. - P. 48 to 51

2+87 - 26.8 = ℄ 2.5' Conc. walk

2+84 - 25.8' Rt. = ℄ P. pole # J.P. 2397

2+75 - 26.8 Rt. = ℄ 8' Conc. Dr.

2+50

2+00

1+65 - 23.6' Rt = ℄ P. pole # J.P. 2353

1+61 - 26' Rt. = ℄ 3' Conc. walk

1+50

1+36 - 25.8 Rt. = ℄ 14' Conc Dr.

0+74 - 15.8' Lt. = ℄ 3' Conc. walk

0+55 - 17.8' Lt. = ℄ 8" Conc. Dr.

Set B.M. on 40 RP Cross 2541.8 - P. 42

Lt ℄ Rt. 71

58.73 26.8 walk 59.13 42

58.07 26.8 Dr. 58.16 37

58.6 36 | 58.4 25 | 58.3 18 | 58.8 12 | 559 | 56.3 15 | 56.4 25 | 57.6 35

54.8 35 | 56.7 25 | 55.1 15 | 54.8 | 55.3 15 | 55.7 25 | 56.0 35

54.66 26 = walk 54.90 41 = at porch

55.7 35 | 55.4 25 | 54.3 15 | 54.2 | 54.2 15 | 54.6 25

54.44 25.8 Dr. 54.51 41 = floor Gar.

54.28 35' at porch | 54.28 19 | 53.76 150 = walk

52.82 40 | 53.90 21.3 Dr. | 53.75 17.8

Actual Elev. shown

P: 3910

Sycamore + Tulip

Set. BM - Spike in NE Pole 262.07

o.k. 8-11-53 7.0.

Radial — Normal to Tulip To S.

5+38 - 18.5 Rt = ℄ 3' Conc. walk - Then goes North

4+41 - 29.2' Lt. = ℄ 15.5' Conc. Dr.

4+15

4+04 - 27.4' Rt. = ℄ P. pole # J.P. 2417

4+00

3+95 - 27.6' Rt. = ℄ 8' Conc. Dr.

3+67 - 27.2' Rt. = ℄ 2' Conc. Walk

3+55 - 27.2' Rt = ℄ 8' Conc. Dr

3+50

3+42 - 14.7' Lt. = ℄ 3' Conc. Steps

3+26 - 27.1' Rt = ℄ 2.5' Conc. walk

3+15 - 27.1' Rt = ℄ 8' Conc. Dr.

3+11 - 16' Lt. = ℄ Bot. of 3' Conc. Steps

3+00

Lt. ℄ Rt.

64.56 — 18.5 = walk (Rad.) — 65.65 — 30' N. to porch

63.68 — 46 — Dr. — 63.36 — 29.2

63.2	62.9	62.4	60.8	60.7	60.8	58.4	57.5	55.9
35	25	20	13		15	20	25	35

62.9	62.5	62.1	60.7	60.4	60.3	60.3	60.2
35	25	18	13		15	25	35

60.28 — 27.6 — Dr. — 60.07 — 41.5

59.99 — 27.2 — walk — 60.19 — 42.3

59.52 — 27.2 = Dr. — 59.52 — 38

61.6	61.8	61.7	58.8	58.9	59.4	59.6	59.5
35	25	21	13		15	25	35

61.67 — 30.7 at porch — 61.57 — 20 = Top + walk — 59.28 — 14.7 = Bot step

59.16 — 27.1 walk — 59.26 — 42

60.06 — 36.8 at porch — 59.74 — 19.1 = Top + walk — 58.36 — 16 = Bot. step

59.09 — 27.1 Dr. — 59.07 — 38 = Dr.

60.0	59.8	59.5	57.1	57.3	58.4	58.6	59.0
35	25	18	11		15	25	35

385 50%

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1½ 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 No. 9.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent lenth divided by twice the radius.

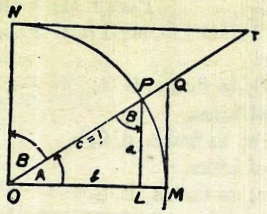


TABLE II

TRIGONOMETRIC FORMULÆ.

$\angle A = \angle MOP \qquad \angle B = \angle PON = \angle OPL$

$R = OB = c = 1$

$$\sin A = \frac{a}{c} = \frac{a}{1} = a = \cos B = LP$$

$$\cos A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$$

$$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ$$

$$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT$$

$$\sec A = \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ$$

$$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT$$

$$\text{vers } A = \frac{LM}{OP} = LM = \text{covers } B \#$$

$$\text{covers } A = \frac{OP - LP}{OP} = OP - LP = \text{vers } B$$

$$\text{exsec } A = PQ = \text{coexsec } B$$

$$\text{coexsec } A = PT = \text{exsec } B$$

$$\sin \tfrac{1}{2} A = \sqrt{\frac{1 - \text{Cos } A}{2}} \qquad \cos \tfrac{1}{2} A = \sqrt{\frac{1 + \text{Cos } A}{2}}$$

$$\sin 2A = 2 \sin A \cos A \qquad \cos 2A = \cos^2 A - \sin^2 A$$

$$\text{Law of Lines} \quad \frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C}{C}$$

$$\text{Law of Cosines} \quad c^2 = a^2 + b^2 - 2ab \cos C$$

$$\text{Law of Tangents} \quad \frac{a+b}{a-b} = \frac{\tan \tfrac{1}{2}(A+B)}{\tan \tfrac{1}{2}(A-B)}$$

Table II—Continued
TRIGONOMETRIC FORMULAE (continued)

In any triangle:

Given a, b, C; to find c, B, A.

Use Law of Lines.

Given A, B, c; to find a, b, C.

Use Law of Lines.

Given a, b, c; to find A, B, C.

$$\text{Let } \frac{a+b+c}{2} = s, \sqrt{\frac{(s-a)\ (s-b)\ (s-c)}{s}} = r$$

$$\cos \tfrac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$$

$$\tan \tfrac{1}{2} A = \frac{r}{s-a}$$

$$\tan \tfrac{1}{2} B = \frac{r}{s-b}$$

$$\tan \tfrac{1}{2} C = \frac{r}{s-c}$$

Area of a triangle:

$$\text{Area} = \tfrac{1}{2} ab \sin C$$

$$\text{Area} = \sqrt{s\,(s-a)\,(s-b)\,(s-c)}$$

PRISMOIDAL FORMULA.

$$\text{Vol.} = \frac{h}{6}(B+b+4M)$$

h = altitude; b, B = bases; M = midsection

Table III
INCHES AND FRACTIONS OF AN INCH IN DECIMALS OF A FOOT

	0	1	2	3	4	5	6	7	8	9	10	11	
1/16	.0052	.0885	.1719	.2552	.3385	.4219	.5052	.5885	.6719	.7552	.8385	.9219	1/16
1/8	.0104	.0938	.1771	.2604	.3438	.4271	.5104	.5938	.6771	.7604	.8438	.9271	1/8
3/16	.0156	.0990	.1823	.2656	.3490	.4323	.5156	.5990	.6823	.7656	.8490	.9323	3/16
1/4	.0208	.1042	.1875	.2708	.3542	.4375	.5208	.6042	.6875	7708	.8542	.9375	1/4
5/16	.0260	.1094	.1927	.2760	.3594	.4427	.5260	.6094	.6927	.7760	.8594	.9427	5/16
3/8	.0313	.1146	.1979	.2813	.3646	.4479	.5313	.6146	.6979	.7813	.8646	.9479	3/8
7/16	.0365	.1198	.2031	.2865	.3698	.4531	.5365	.6198	.7031	.7865	.8698	.9531	7/16
1/2	.0417	.1250	.2083	.2917	.3750	.4583	.5417	.6250	.7083	.7917	.8750	.9583	1/2
9/16	.0469	.1302	.2135	.2969	.3803	.4635	.5469	.6302	.7135	.7969	.8802	.9635	9/16
5/8	.0521	.1354	.2188	.3021	.3854	.4688	.5521	.6354	.7188	.8021	.8854	.9688	5/8
11/16	.0573	.1406	.2240	.3073	.3906	.4740	.5573	.6406	.7240	.8073	.8906	.9740	11/16
3/4	.0625	.1458	.2292	.3125	.3958	.4792	.5625	.6458	.7292	.8125	.8958	.9792	3/4
13/16	.0677	.1510	.2344	.3177	.4010	.4844	.5677	.6510	.7344	.8177	.9010	.9844	13/16
7/8	.0729	.1563	.2396	.3229	.4063	.4896	.5729	.6563	.7396	.8229	.9063	.9896	7/8
15/16	.0781	.1615	.2448	.3281	.4115	.4948	.5781	.6615	.7448	.8281	.9115	.9948	15/16
1	.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167	1.000	1
	0	1	2	3	4	5	6	7	8	9	10	11	

Table IV
USEFUL RELATIONS.

Lineal feet	×.00019	= miles
Lineal yards	×.0006	= miles
Square inches	×.007	= square feet
Square feet	×.111	= square yards
Square yards	×.0002067	= acres
Acres	×4840	= square yards
Cubic inches	×.00058	= cubic feet
Cubic feet	×.03704	= cubic yards
Links	×.22	= yards
Links	×.66	= feet
Feet	×1.5	= links

360° = 21600′ = 1296000″

Radius = arc of 57.2957790°

Arc of 1° (radius = 1) = .017453292

Arc of 1′ (radius = 1) = .000290888

Arc of 1″ (radius = 1) = .000004848

$\pi = 3.141592654$	$\sqrt{\frac{1}{\pi}} = 0.564190$
$\frac{\pi}{4} = 0.785398163$	$\sqrt[3]{\frac{6}{\pi}} = 1.240700982$
$\frac{\pi}{6} = 0.523598776$	$\pi^2 = 9.869604401$
$\sqrt{\frac{4}{\pi}} = 1.128379167$	$\frac{1}{\pi^2} = 0.101321184$
$\frac{\pi}{6} = 0.523598776$	$\sqrt{\pi} = 1.772453851$
$\frac{4.\pi}{3} = 4.188790205$	$\frac{1}{\pi} = 0.3183099$

Curvature of Earth's surface = about 0.7 feet in 1 mile

Curvature in feet = 0.667 (Dist. in miles)²

Difference between arc and chord length, 0.05 feet in 11½ miles

Probable error of a single observation = $0.6754\sqrt{\frac{Mv^2}{n-1}}$

Error in chaining of 0.01 feet in 100 feet:

Due to—

1. Length of tape error of 0.01 feet
2. Alignment. One end 1.4 feet out of line
3. Sag of tape at centre of 0.61 feet.
4. Temperature difference of 15°
5. Difference of pull of 15 lbs.

STADIA REDUCTION FORMULÆ.

Horizontal Distance = R − R sin² a + C cos a

Vertical Distance = R ½ sin 2 a + C sin a

$$R = \text{Reading} \times \frac{\text{distance from Object glass to cross hairs}}{\text{distance between cross hairs}}$$

C = distance from Object glass to cross hairs + distance from Object glass to center of instrument.

a = angle of elevation for mid Reading

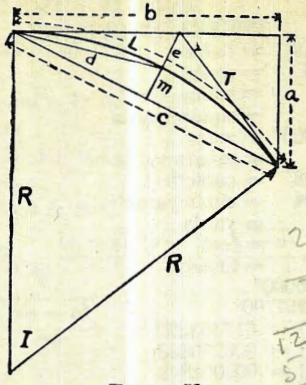


Table V

CURVE FORMULAE FOR SIMPLE CURVES

Compiled by J. Calvin Locke, C.E.

(1) $c = \sqrt{2Ra}$ (2) $c = \sqrt{a^2+b^2}$

(3) $c = \sqrt{2R\,(R-\sqrt{(R+b)\,(R-b)}} = \sqrt{2R(R-\sqrt{R^2-b^2})}$

(4) $c = 2\sqrt{m\,(2R-m)}$

(5) $c = 2R \sin \frac{1}{2} I$ (6) $c = 2T \cos \frac{1}{2} I$

(7) $e = R \operatorname{exsec} \frac{1}{2} I$

(8) $e = R \tan \frac{1}{2} I \tan \frac{1}{4} I$ (9) $e = T \tan \frac{1}{4} I$

(10) $b = \sqrt{a\,(2R-a)}$

(11) $b = \sqrt{\left(c+\frac{c^2}{2R}\right)\left(c-\frac{c^2}{2R}\right)} = \sqrt{c^2-\frac{c^4}{4R^2}}$

(12) $b = R \sin I$ (13) $b = a \cot \frac{1}{2} I$

(14) $R = \frac{a^2+b^2}{2a} = \frac{c^2}{2a}$ (15) $R = \frac{d^2}{2m} = \frac{c^2+4m^2}{8m}$

(16) $d = \sqrt{R\,(2R-\sqrt{(2R+c)\,(2R-c)}} = \sqrt{R(2R-\sqrt{4R^2-c^2})}$

(17) $d = \sqrt{2Rm}$ (18) $d = 2R \sin \frac{1}{4} I$ (19) $m = \frac{d^2}{2R}$

(20) $m = R \mp \sqrt{\left(R+\frac{c}{2}\right)\left(R-\frac{c}{2}\right)} = R \mp \sqrt{R^2-\frac{c^2}{4}}$

(21) $m = R \operatorname{vers} \frac{1}{2} I$ (22) $m = R \sin \frac{1}{2} I \tan \frac{1}{4} I$ (23) $m = \frac{1}{2} c \tan \frac{1}{4} I$

(24) $a = \frac{c^2}{2R}$ (25) $a = R - \sqrt{(R+b)\,(R-b)} = R - \sqrt{R^2-b^2}$

(26) $a = 2R\,(\sin^2 \frac{1}{2} I)^2$ (27) $a = R \operatorname{vers} I$ (28) $a = R \sin I \tan \frac{1}{2}$

(29) $a = b \tan \frac{1}{2} I$ (30) $a = T \sin I$ (31) $T = R \tan \frac{1}{2} I$

(32) $I = \frac{L}{R} \times 57.295780$ (33) $R = \frac{L}{I} \times 57.295780$

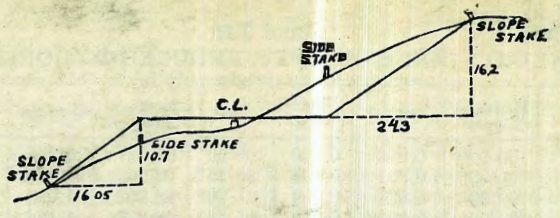
(34) $L = IR \times 0.01745329$ (35) $L = \frac{8d-c}{3}$

(36) Area Seg. $= \frac{I.R - R^2 \operatorname{Sin} I}{2} = \frac{LR - Rb}{2}$

Table VI

SINES, COSINES, TANGENTS, COTANGENTS

deg.	sin 0′	tan 0′	sin 10′	tan 10′	sin 20′	tan 20′	sin 30′	tan 30′	sin 40′	tan 40′	sin 50′	tan 50′	deg.
0	0000	0000	0029	0029	0058	0058	0087	0087	0116	0116	0145	0145	89
1	175	0175	0204	0204	0233	0233	0262	262	291	291	320	320	88
2	349	349	378	378	407	407	436	437	465	466	494	495	87
3	523	524	552	553	581	582	610	612	640	641	669	670	86
4	698	699	727	729	756	758	785	787	814	816	843	864	85
5	872	875	901	904	929	934	958	963	987	992	1016	1022	84
6	1045	1051	1074	1080	1103	1110	1132	1139	1161	1169	190	198	83
7	219	228	248	257	279	287	305	317	334	346	363	376	82
8	392	405	421	435	449	465	478	495	507	524	536	554	81
9	564	584	593	614	622	644	650	673	679	703	708	733	80
10	736	763	765	793	794	823	822	853	851	883	880	914	79
11	908	944	937	974	965	2004	994	2035	2022	2065	2051	2095	78
12	2079	2126	2108	2156	2136	186	2164	217	193	247	221	278	77
13	250	309	278	339	306	370	334	401	363	432	391	462	76
14	419	493	447	524	476	555	504	586	532	617	560	648	75
15	588	679	616	711	644	742	672	773	700	805	728	836	74
16	756	867	784	899	812	931	840	962	868	994	896	3026	73
17	924	3057	952	3089	939	3121	3007	3153	3035	3185	3062	217	72
18	3090	249	3118	281	3145	314	173	346	201	378	228	411	71
19	256	443	283	476	311	508	338	541	365	574	393	607	70
20	420	640	448	673	475	706	502	739	529	772	557	805	69
21	584	839	611	872	638	906	665	939	692	973	719	4006	68
22	746	4040	773	4074	800	4108	827	4142	854	4176	881	210	67
23	907	245	934	279	961	314	987	348	4014	383	4041	417	66
24	4067	452	4094	487	4120	522	4147	557	173	592	200	628	65
25	226	663	253	699	279	734	305	770	331	806	358	841	64
26	384	877	410	913	436	950	4462	986	488	5022	514	5059	63
27	540	5095	566	5132	592	5169	617	5206	643	243	669	280	62
28	695	317	720	354	746	392	772	430	797	467	823	505	61
29	848	543	874	581	899	619	924	658	950	696	975	735	60
30	5000	774	5025	5812	5050	851	5075	890	5100	930	5125	969	59
31	150	6009	175	6048	200	6088	225	6128	250	6168	275	6208	58
32	299	249	324	289	348	330	5373	371	398	412	422	453	57
33	446	494	471	536	495	577	519	619	544	661	568	703	56
34	592	745	616	787	640	830	664	873	688	916	712	959	55
35	736	7002	760	7046	783	7089	807	7133	831	7177	854	7221	54
36	878	265	901	310	925	355	948	400	972	445	995	490	53
37	6018	536	6041	581	6065	627	6088	673	6111	720	6134	766	52
38	157	813	180	860	202	907	225	954	248	8002	271	8050	51
39	293	8098	316	8146	338	8195	361	8243	383	292	406	342	50
40	428	391	450	441	472	491	494	541	517	591	539	642	49
41	561	693	583	744	604	796	626	847	648	899	670	952	48
42	691	9004	713	9057	734	9110	756	9163	777	9217	799	9271	47
43	820	325	841	380	862	435	884	490	905	545	926	601	46
44	947	657	967	713	988	770	7009	827	7030	884	7050	942	45
45	7071	1.0000	7092	1.0058	7112	1.0117	133	1.0176	153	1.0235	173	1.0295	44
deg.	60′ cos	60′ cot	50′ cos	50′ cot	40′ cos	40′ cot	30′ cos	30′ cot	20′ cos	20 cot	10′ cos	10′ cot	deg.



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 93	62 10	62 25	62.40	62 55	62 70	62.85	41
42	63 00	63.15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64.35	42
43	64.50	64 65	64 80	64.95	65.10	65 25	65 40	65.55	65.70	65.85	43
44	66 00	66 15	66.30	66.45	66.60	66 75	66.90	67.05	67.20	67.35	44
45	67 50	67 65	67 80	67.95	68.10	68.25	68 40	68.55	68.70	68.85	45
46	69 00	69 15	69 30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70 50	70 65	70 80	70 95	71.10	71.25	71.40	71.55	71.70	71.85	47
48	72.00	72 15	72.30	72.45	72.60	72.75	72.90	73 05	73.20	73 35	48
49	73 50	73 65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

Computed by L. Leland Locke.

93.46
1 81.37
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14459

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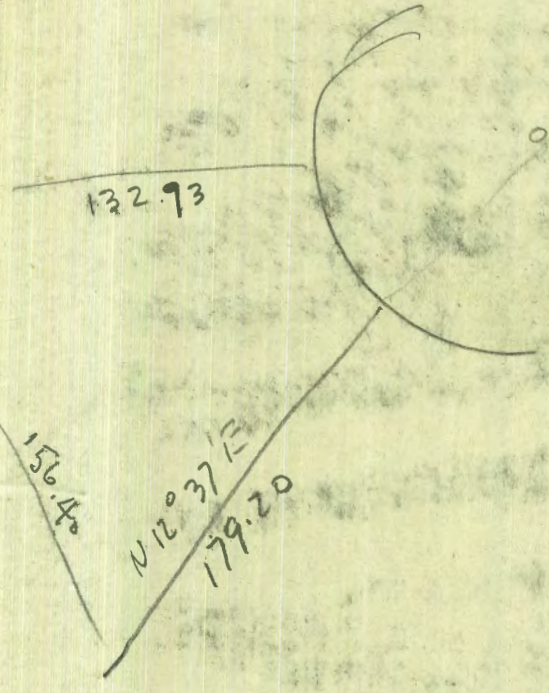
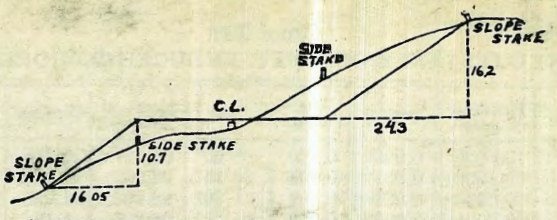
46.84
1670





DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1 65	1 80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3 45	3.60	3 75	3.90	4.05	4.20	4 35	2
3	4.50	4 65	4.80	4.95	5.10	5 25	5 40	5.55	5.70	5.85	3
4	6.00	6 15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7 50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9 00	9 15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10 65	10.80	10.95	11.10	11.25	11.40	11.55	11 70	11.85	7
8	12.00	12 15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13 50	13.65	13 80	13 95	14.10	14.25	14.40	14 55	14.70	14.85	9
10	15.00	15 15	15 30	15 45	15.60	15.75	15.90	16.05	16.20	16 35	10
11	16 50	16 65	16 80	16.95	17 10	17.25	17.40	17.55	17.70	17.85	11
12	18 00	18.15	18.30	18 45	18.60	18 75	18.90	19.05	19.20	19 35	12
13	19 50	19 65	19.80	19.95	20.10	20.25	20 40	20.55	20.70	20.85	13
14	21.00	21 15	21.30	21.45	21 60	21.75	21.90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24 15	24 30	24 45	24.60	24.75	24 90	25 05	25.20	25.35	16
17	25.50	25 65	25.80	25 95	26.10	26 25	26 40	26.55	26.70	26.85	17
18	27.00	27 15	27.30	27 45	27.60	27.75	27.90	28.05	28 20	28.35	18
19	28 50	28 65	28 80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30 00	30 15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31 50	31 65	31.80	31.95	32 10	32 25	32.40	32.55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33.60	33 75	33.90	34.05	34.20	34.35	22
23	34 50	34 65	34.80	34.95	35.10	35 25	35 40	35.55	35.70	35 85	23
24	36.00	36 15	36.30	36 45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37 80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39 00	39 15	39.30	39 45	39 60	39.75	39.90	40.05	40.20	40.35	26
27	40 50	40 65	40 80	40.95	41.10	41.25	41 40	41.55	41.70	41.85	27
28	42 00	42 15	42.30	42.45	42.60	42 75	42.90	43.05	43.20	43.35	28
29	43 50	43 65	43.80	43 95	44.10	44 25	44 40	44.55	44.70	44 85	29
30	45 00	45 15	45.30	45 45	45.60	45.75	45.90	46.05	46 20	46.35	30
31	46.50	46.65	46.80	46 95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48 00	48.15	48.30	48 45	48.60	48 75	48.90	49.05	49 20	49.35	32
33	49.50	49 65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51 00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52 50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54 00	54.15	54.30	54 45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55 50	55 65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57 45	57.60	57.75	57.90	58.05	58.20	58 35	38
39	58 50	58.65	58 80	58.95	59.10	59 25	59.40	59 55	59.70	59.85	39
40	60 00	60.15	60 30	60 45	60 60	60.75	60 90	61.05	61 20	61.35	40
41	61.50	61 65	61 80	61 95	62 10	62 25	62.40	62 55	62 70	62.85	41
42	63 00	63.15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64.35	42
43	64.50	64 65	64 80	64.95	65.10	65 25	65 40	65.55	65.70	65.85	43
44	66 00	66 15	66 30	66.45	66.60	66 75	66.90	67.05	67.20	67.35	44
45	67 50	67 65	67 80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69 00	69 15	69 30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70 65	70 80	70 95	71.10	71.25	71.40	71.55	71.70	71.85	47
48	72.00	72 15	72.30	72.45	72.60	72.75	72.90	73 05	73.20	73 35	48
49	73 50	73 65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

Computed by L. Leland Locke.

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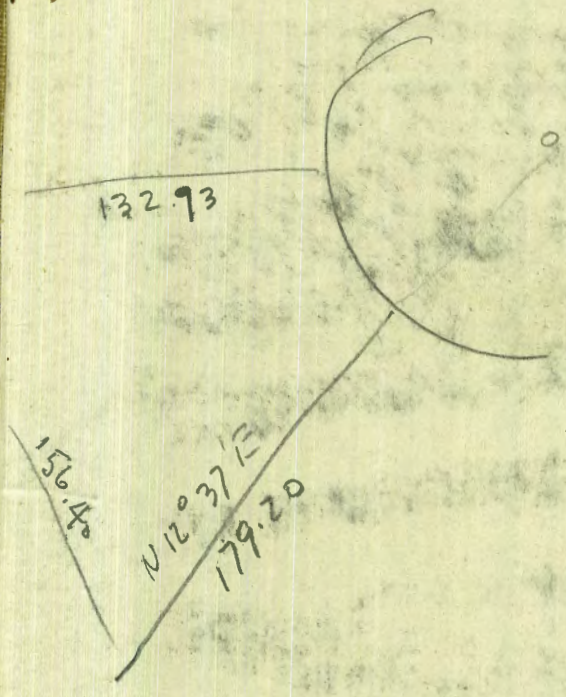

157.98

10+52.95
1 57 98
12+10.93
.95 = Meas

142.73

30.71
37.07
0+67.78

380.52
30.71
4+11.23

5+18.65
37.07