

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

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

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

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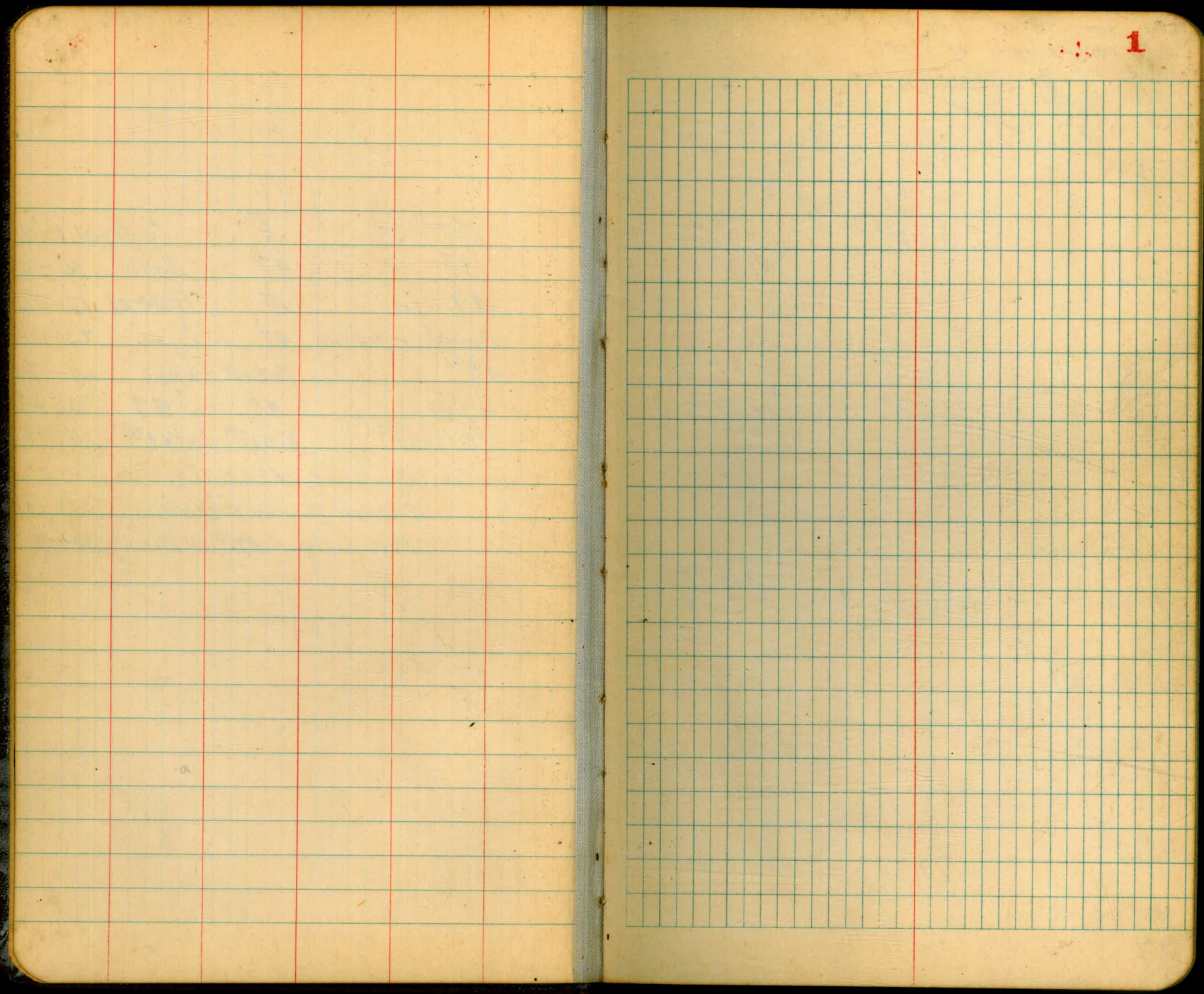
1682

CITY ENGINEER'S OFFICE

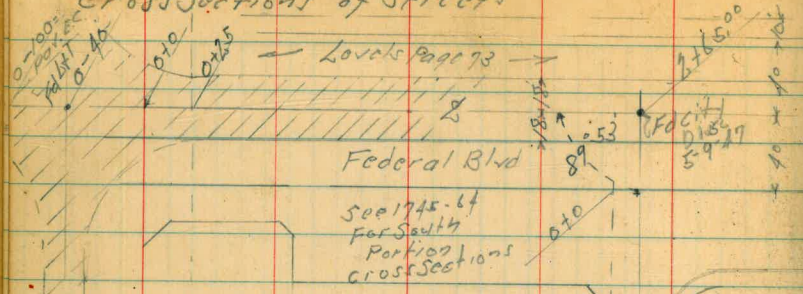
This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

47 th St.	A	- Federal	1-9
A	-	47	- East 10-16
49	-	A	- Federal 17-22
Beech - Duval	47	- Lyon	23-28
48 th	Federal	- Lyon	29-30
Lyon	48	- 49	31-34
Federal	W. of 48 th	- E. of 49 th	35-39
Cross Sec City Yards	20 th & 8 th St		40-48
" "	Wabash Canyon	Freeway	49-72
" "	Federal Blvd	47 th to Euclid	73-99



Federal Blvd. Sub. #1 & #2
 Cross Sections of Streets



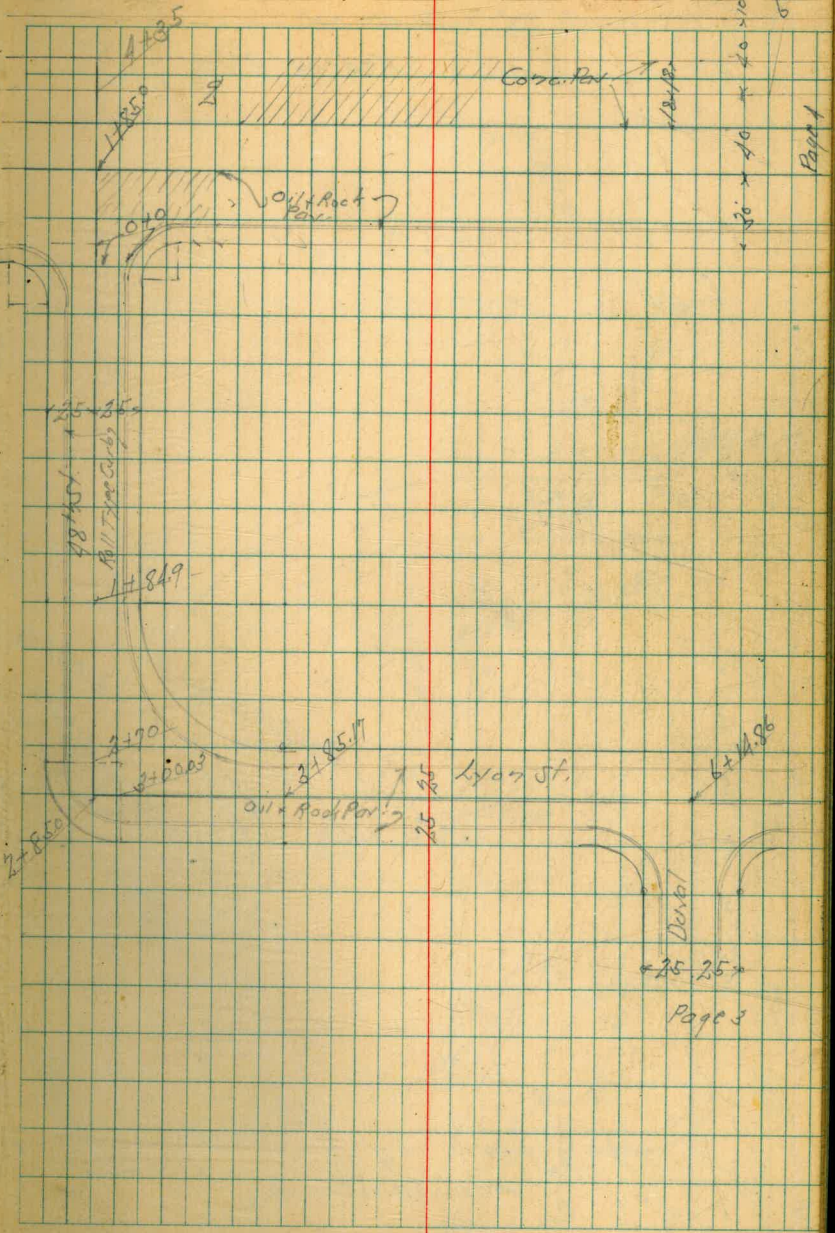
47404

15 x 15

Fd Hdb
 City Dir.
 59.17
 51507

Indexed
 C.S.K.

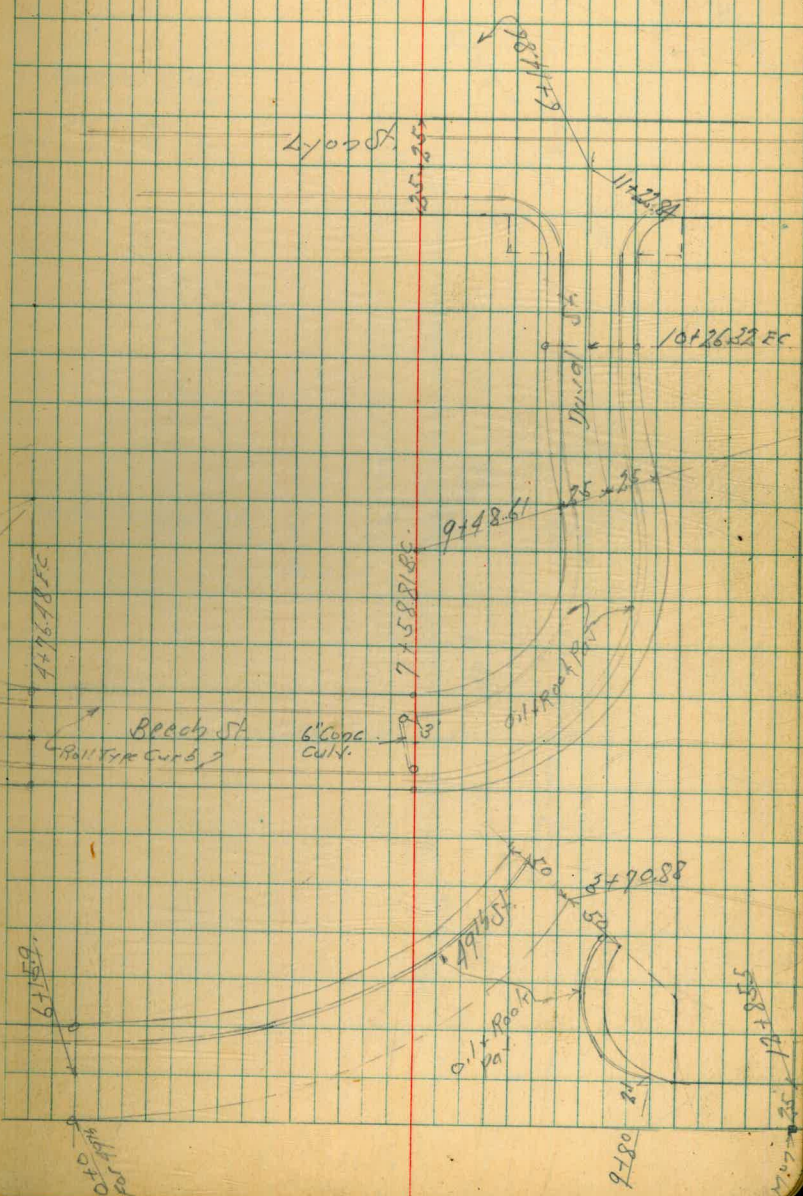
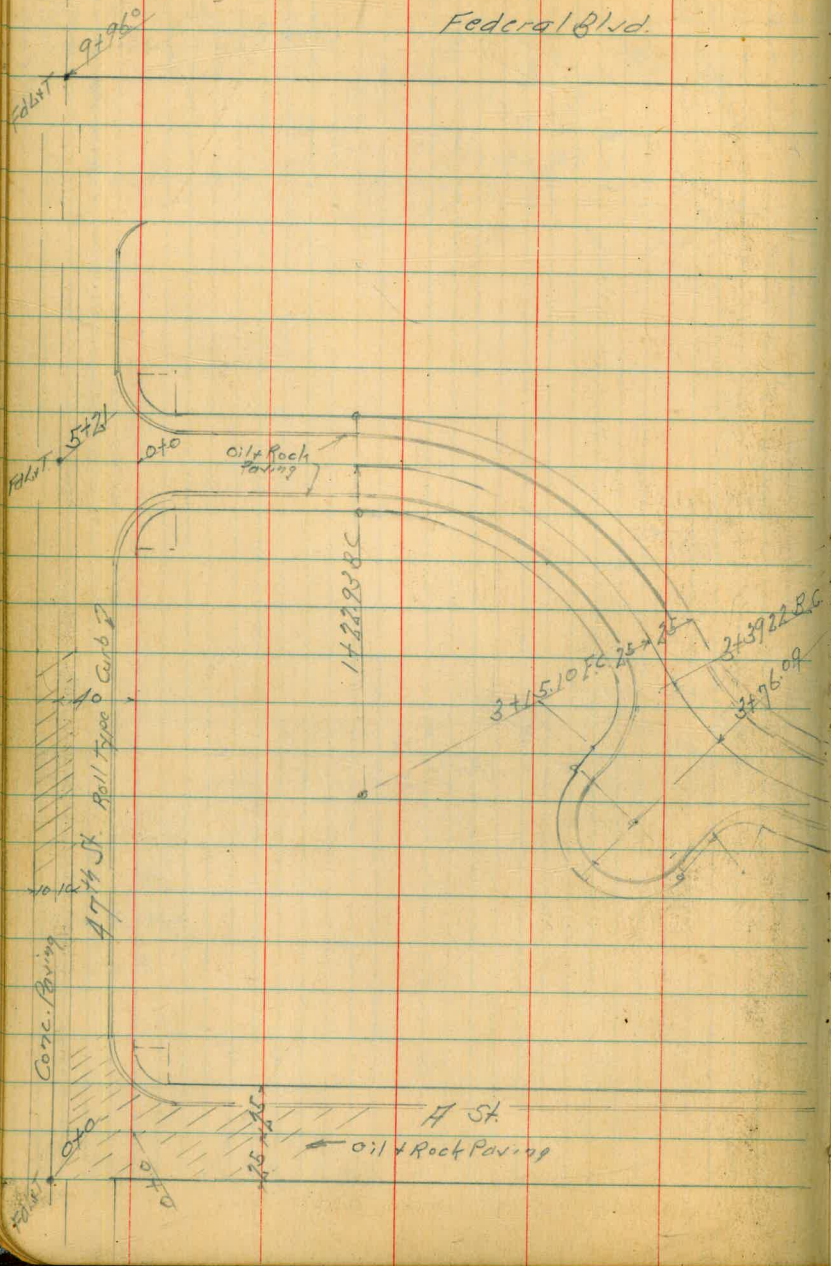
2
 6' x 10'



Feb. 14. 45
S. 5509
81.55
Osborne
81.79

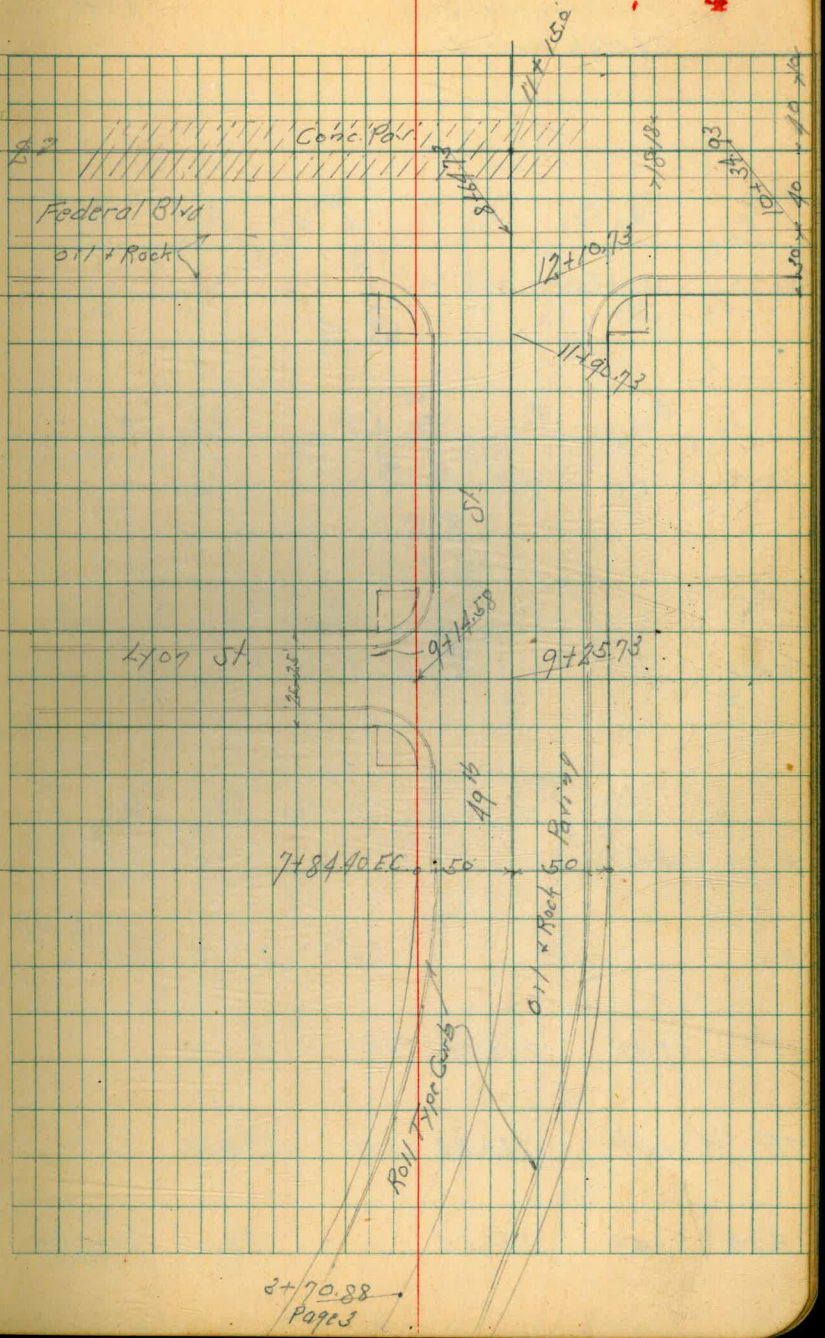
See Tric Point #19 Page 46-49

Federal Blvd.



6400
Page 2

4



2470.88
Page 3

Cross Section 4750T
 4th St to Federal Blvd.
 Sketch Page 5

Indexed
 c.s. 101

Lt. W

8

Rt. E

5

0+90 = Cb BC 02 Rt

East cb x 8

0+38

Profile
 SBH 3-17-1945
 30.38

0+25

0+0 = S.L. H. St.

BM

8.29

210.64

Lt. SW. H. St.
 4716 St

TP

2.27

218.93

8.27

216.56

TP

1.47

224.83

8.19

223.36

B.M.

3.50

231.55

228.05

Lt. W
 Federal Blvd
 4716 St

212.5

6.4
 30

212.5

6.4
 18

211.86

7.07
 10 = 11/10

211.95

6.98

211.87

7.06
 10

211.99

6.94

212.28

6.65

6.1
 40

212.8

211.9

7.0
 30

211.8

7.1
 17

211.19

7.74
 10

211.31

7.62

211.8

7.75
 10

211.3

7.6
 30

211.1

7.8
 40

211.7

7.2
 30

211.4

7.5
 17

210.91

8.05
 10

211.62

7.91

210.92

8.01
 10

211.1

7.8
 30

211.0

7.9
 40

211.0

7.9
 30

210.8

8.1
 15

210.45

8.48
 10 = 11/10

210.64

8.22

210.56

8.47
 10

210.6

8.3
 30

210.6

8.3
 40

218.93

10 = 11/10
 10 = 11/10

3+50

TP 12.25 230.04 1.14 217.79

3+0

2+50

22.5 W of 1/2 W/y Pow Pole

2+0

1+50

1+0

218.93

Lt.

2

Rt.

6

217.0 1.80 30	217.1 1.89 30	217.9 1.91 30	218.22 1.80 30	218.49 1.65	218.33 1.91 30	218.33 1.91 30	218.68 1.96 30	218.2 1.18 40
				230.04				
216.5 1.80	216.9 1.9 30	217.10 1.83 30	217.27 1.66	217.19 1.74 30	217.09 1.84 30	217.45 1.78 30	217.0 1.8 30	
215.9 1.80	215.9 1.9 30	215.95 1.88 30	216.05 2.88	215.96 1.97 30	215.98 2.85 30	216.35 2.68 30	216.1 2.8 40	
215.1 1.80	214.6 1.85 30	214.82 1.11 30	214.92 1.01	214.83 1.10 30	214.89 1.04 30	215.30 1.66 30	215.4 1.5 40	
214.0 1.9 30	213.7 1.5 30	213.73 1.5 30	213.83 1.10	213.73 1.5 30	213.85 1.08 30	214.19 1.74 30	214.5 1.1 30	
213.0 1.8 30	213.0 1.5 30	212.57 1.8 30	212.66 1.27	212.58 1.35 30	212.76 1.17 30	212.99 1.59 30	213.8 1.5 40	

218.93

+09

20.5 Lt = Wly Anchor Pole # 433333
21.2 Rt = Fly Tel Pole # 434425

8+0

+55

23.3 Lt = Wly Pole Pole # 197221

7+50

7+12

31 Rt = Fly Tel Pole # 453545

7+02

6+94

6+66

6+56 = C6 BC on Rt

230.04

Lt.

7

Rt.

8

227.4	227.7	227.2	227.0	227.2	227.09	228.2	228.8
3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30
227.3	227.3	227.3	227.3	227.3	227.3	227.3	227.3
3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30
226.4	226.1	226.26	226.37	226.25	226.6	227.9	228.5
3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30
225.9	226.0	226.12	226.25	226.17	226.5	227.5	228.5
3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30
225.4	225.8	225.7	225.55	225.65	225.59	225.7	226.06
3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30
225.2	225.7	225.8	225.32	225.43	225.6	225.7	226.0
3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30	3.6 30

230.04

230.04

BM

2.02 228.02

2 Lt
Federal Blvd
228.05

9+96 = 2 Federal Blvd.

+59 25.5 Lt = Wly Porter Pole #777858

9+56

9+26

9+0

8+50

230.04

227.47
2.57
30

227.62
2.56
30

228.02
2.02
30

228.37
1.67
30

228.61
1.62
30

227.6
2.2
30

227.62
2.42
30
Wly Porter Pole

227.94
2.10
30

228.82
1.97
30
Wly Porter Pole

228.22
1.82
30

228.6
1.4
30

227.9
2.2
30

227.8
2.2
30

227.4
2.6
30

227.59
2.45
30

227.69
2.35
30

227.70
2.34
30

228.4
1.6
30

228.7
1.6
30

227.4
2.6
30

227.8
2.2
30

227.3
2.7
30

227.69
2.55
30

227.58
2.47
30

227.49
2.56
30

228.7
1.9
30

228.7
1.6
30

227.1
2.9
30

228.2
1.8
30

227.72
2.8
30

227.23
2.91
30
Wly Porter Pole

227.33
2.71
30

227.24
2.80
30
Wly Porter Pole

228.0
1.0
30

228.4
1.6
30

230.04

Cross Section A-S
47th St. East
Sketch Page 4

Indexed
C.S.K.

2+0

1+50

1+0

0+50

0+20 = C6 E.C. on Lt

0+0 = E.L. 47th St. to North

B.M. 4.50 215.14

210.64

5 L + T
H x 47th
Page 5

Feb 15 45

Lt = N

RT

10

211.7 5.4 25	210.11 5.03 14=C6	209.82 5.33 13 =Gulf	209.7 5.1	209.6 5.5 23 1.90 1.90	209.9 5.2 50	209.9 5.5 50
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211.6 5.5 25	210.32 4.83 14	210.04 5.10 13	210.0 5.1	209.6 5.5 23	210.2 4.9 55	210.2 4.9 50
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212.0 5.1 25	210.63 4.67 14	210.30 4.84 13	210.3 4.8	210.0 5.5 23	210.2 4.9 55	210.2 4.9 50
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212.5 4.6 25	210.89 4.25 14	210.63 4.51 13	210.6 4.5	210.1 5.0 22	210.6 4.5 50	210.6 4.6 50
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212.2 4.8 25	210.98 4.16 14=C6	210.78 4.36 13=Gulf	210.7 4.7	210.5 4.6 22	210.8 4.5 50	210.9 4.5 50
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211.7 5.4 25	211.50 5.64 16=C6	211.22 5.92 15=Gulf	210.9 4.7	210.5 4.6 23 1.90 1.90	210.8 4.8 150
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215.14

5+0

4+50

4+0

3+50

3+0

2+50

215.14

206.2 89 25	205.09 1025 14.6	204.79 1025 13.5	204.7 10.4	204.4 10.5 25	204.7 10.4 25	204.3 10.8 50
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206.9 88 25	205.81 950 14	205.49 9.65 13	205.6 9.5	205.6 9.5 25	205.9 9.5 25	205.4 9.2 50
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207.6 75 25	206.90 822 14	206.64 8.50 13	206.9 8.2	206.8 8.2 25	207.3 7.8 25	207.1 8.0 50
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208.9 62 25	208.13 7.0 14	207.86 7.28 13	208.1 7.0	208.4 6.7 25	208.8 6.5 50	208.8 6.2 50
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210.4 77 25	209.22 5.92 14	208.92 5.28 13	209.1 6.0	209.1 5.0 25	209.5 5.6 25	209.8 5.2 50
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210.9 72 25	209.79 5.55 14.25	209.46 5.80 13.50	209.7 5.4	209.3 5.8 25	210.1 5.6 25	210.1 5.6 50
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215.14

23.5/10

6+65

204.5 2.7 2.5	204.22 5.39 1.67 6.5	204.02 5.59 1.5 6.4	203.6 6.0	203.3 6.3 1.85 1.1 1.0	204.3 5.6 2.2 6.0	202.3 6.0	196.5 6.1 6.0	193.4 6.4 6.5
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6+40

204.9 2.7 2.5	204.28 5.38 1.8	204.06 5.55 1.8	203.7 5.9	203.3 6.3 1.85 1.1 1.0	204.0 5.6 1.9 6.3	202.4 7.2 6.3	199.7 9.9 7.0	198.4 11.2 5.0	196.0 13.6 6.5
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6+28

204.9 2.7 2.5	204.28 5.38 1.8	204.07 5.54 1.8	203.7 5.9	203.4 6.3 1.7	204.1 5.5 2.1	202.7 6.9 2.5	201.9 7.2 5.0
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6+15.9 = C6 BC on Lt

205.2 4.4 2.5	204.39 5.33 1.4	204.13 5.48 1.5	203.8 5.8	203.4 6.3 1.85 1.1 1.0	203.1 6.5 2.5	202.2 7.4 5.0
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6+0

205.2 4.4 2.5	204.50 5.11 1.4	204.23 5.39 1.3	203.9 5.7	203.4 6.2 2.3	202.2 7.4 5.0
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TP 5.53 209.61 11.06 204.08

205.8 9.3 2.5	204.72 10.43 1.4 9.0	204.42 10.73 1.5 9.0	204.1 11.0	203.9 11.0 2.3 1.1 1.0	204.0 11.1 2.5	203.4 11.7 3.0	203.4 11.7 5.0
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5+50

215.14

215.14

9+0

8+50

8+0

7+50

6+92

6+84

Cross Culvert 18" Cor.

209.61

4.

8

Rx

13

205.0

$\frac{2.6}{2.5}$

204.4

5.2

203.9

$\frac{5.7}{2.5}$

206.1

$\frac{5.5}{2.6}$

206.9

$\frac{7.2}{5.0}$

205.1

$\frac{7.5}{2.5}$

204.8

7.8

204.4

$\frac{5.2}{2.5}$

206.1

$\frac{3.5}{2.6}$

206.1

$\frac{5.15}{5.0}$

204.9

$\frac{7.2}{2.5}$

204.9

7.7

204.5

$\frac{5.1}{2.5}$

205.6

$\frac{4.0}{2.5}$

205.1

$\frac{7.5}{5.0}$

204.53

$\frac{5.02}{33-C6}$

204.29

$\frac{5.32}{32-C6}$

204.3

5.3

204.0

$\frac{5.6}{2.1}$

203.5

$\frac{6.1}{5.0}$

204.6

$\frac{5.0}{2.5}$

204.27

$\frac{5.32}{20-C6}$

203.94

$\frac{5.67}{19-C6}$

203.6

6.0

203.1

$\frac{6.5}{18-C6}$

200.2

$\frac{5.4}{2.6}$

203.2

$\frac{6.4}{2.7}$

202.1

$\frac{7.5}{5.0}$

198.6

$\frac{1.0}{5.0}$

204.7

$\frac{4.9}{2.5}$

204.10

$\frac{5.61}{17.6-C6}$

203.28

$\frac{6.32}{17.6-C6}$

203.6

6.0

202.65

$\frac{6.9}{19.2-C6}$

203.50

$\frac{6.11}{19.2-C6}$

204.1

$\frac{5.5}{2.0}$

203.2

$\frac{6.4}{2.8}$

198.3

$\frac{1.0}{5.0}$

196.11

$\frac{10.50}{4.54}$

195.0

$\frac{14.6}{5.0}$

195.6

$\frac{14.0}{8.5}$

209.61

14

A St.

10750

716.5

10406

1070

9780 = opp. Fly Carb on H.

✓ #17853
165 Fly Carb Port Pole

BM

1.22

NE Top Fire Hyd
20829 H St + 1976

9750

209.61

St

8

pt 14

199.3

10.3

199.3

10.3

15.4
Fly Carb

199.2

10.4

15.5
Fly Carb

199.9

9.7

3.6

201.1

8.5

5.0

✓
201.47

8.4
Fly Carb

✓
202.06

7.5
Fly Carb

201.9

7.7

201.4

8.3

22.5
Fly Carb

203.3

6.2

3.6

203.2

6.1

5.1

205.3

4.2

5.0

204.2

5.4

2.5

203.52

6.9

5.6

203.27

6.34

21.5
Fly Carb

202.5

7.1

202.0

7.6

22.5
Fly Carb

204.0

5.6

2.6

203.8

5.8

3.5

205.1

4.5

5.0

204.3

5.2

2.5

203.6

6.0

202.9

6.7

12.5
Fly Carb

204.9

4.7

2.6

204.6

5.0

5.5

206.0

4.5

5.6

209.61

12+855 $\frac{1}{2}$ = Fly Wire Fence 485 Pt. - Fly Wire Fence

12+50

12+35

12+125 = Cross Culvert 18" Cor. \checkmark

12+0

11+50

11+20 = Fly Rock + Oil Psv 129

TP 2.74 199.49 12.86 196.75

11+09 $\frac{1}{2}$ = Fly Wire Fence + Metal Post

11+0

1929	1927	1917	1877	1854
6.6	$\frac{7.5}{50}$	$\frac{7.8}{25}$	$\frac{11.8}{50}$	$\frac{14.1}{80}$

1919	1911	1897	1864	1863
7.6	$\frac{8.4}{25}$	$\frac{10.8}{25}$	$\frac{12.1}{50}$	$\frac{12.2}{25}$

189.64

$\frac{2.85}{1.15} = 2.47$
 $\frac{1.15}{1.15} = 1$
 Cor. Post
 1.15 Ton

187.06

$\frac{12.43}{46} = 0.27$
 $\frac{12.43}{1.15} = 10.77$

1918	1908	1893	1881	1881
7.7	$\frac{8.7}{25}$	$\frac{10.2}{27}$	$\frac{11.4}{50}$	$\frac{11.4}{25}$

1930	1925	1923	1923
6.5	$\frac{7.0}{23}$	$\frac{7.2}{27}$	$\frac{7.6}{50}$

199.49

1967	1963	1961	1964
12.9	$\frac{13.3}{5} = 2.66$	$\frac{13.5}{2.2} = 6.14$	$\frac{13.7}{50}$

15450

1540

14750

1470

13750

1370

127865

BM

24.6 ft. Nly Parr Pole "178529"

7.18

0.0 1700
25.1 12865

199.49

1981

1.4

1969

2.6
25

1963

5.2
50

1972

2.3

1961

5.2
25

1952

4.3
50

1960

2.5

1954

2.1
25

1938

5.7
50

1953

4.2

1945

5.0
25

1929

6.6
50

1946

7.9

1940

5.5
25

1927

6.8
25

1922

7.3
50

1940

5.5

1932

6.3
25

1910

8.5
50

199.49

Cross Section 49th St.
 H St to Federal Blvd
 Sketch Page 2 + 4

Indexed
 C.S.K.

21.50

21.0

17.50

17.0

07.50

07.0 - B.C. Lt.

BM 2.70 210.99

208.29

Top of 1st Hyd.
 H St
 4.17.13 Page 14
 Page 14

Feb. 17-95
 515507
 8115
 056000
 0499
 H.N.H.H

H.S.F. 17

207.0	205.97	204.73	205.5	209.1
50 58	59.5 52	62.6 58	55	59 52
206.6	204.84	204.54	205.2	
54 56	61.5 59	64.5 58	58	
205.8	204.65	204.33	204.6	
55 58	62.4	66	64	
205.0	204.42	204.11	203.6	
60 58	65 58	68.8 58	74	
204.6	204.25	204.03	203.3	204.2
54	62.6 59	63.5 58	67	68
205.2	204.41	204.14	203.2	
58 50	65.5 57.06	68.5 58.5	78	

210.99

5x0

4x50

4x0

3470.88 = CB PRC 07 Rt.

3x35

3x0

210.99

207.9 50 50	205.99 50.00 50.00 = 63	205.72 50.00 50.00 = 94	206.2 50 50	206.3 47	206.2 40 50	206.10 40.9 50.00 50.00 = 54	206.35 40.00 50.00 = 46	205.8 50 50
207.7 50 50	205.79 50.00 50.00 = 89	205.60 50.00 50.00 = 38	205.7 50 50	206.0 50	206.0 50 50	205.99 50.00 50.00 = 71	206.26 47.00 50.00 = 81	205.6 50 50
207.6 50 50	205.50 50.00 50.00 = 91	205.34 50.00 50.00 = 81	205.4 50 50	205.8 52	205.6 50 50	205.88 50.00 50.00 = 71	206.16 40.00 50.00 = 81	205.6 50 50
207.6 50 50	205.45 50.00 50.00 = 88	205.16 50.00 50.00 = 91	205.3 50 50	205.7 50 50	205.4 50 50	205.82 50.00 50.00 = 94	206.05 40.00 50.00 = 8	205.7 50 50
206.9 50 50	205.26 50.00 50.00 = 91	205.00 50.00 50.00 = 81	205.6 50	204.87 40.00 50.00 = 54	205.12 50.00 50.00 = 46	145.55 = 54 97.95 = 46		
207.6 50 50	205.02 50.00 50.00 = 91	204.87 50.00 50.00 = 94	205.5 50	204.7 40 50				

210.99

7+50

207.60 eb.
207.27 g.

7+25

= 4.5 Carb 17 lot 07 R+ 8' Carb H pron 22 Y dia

207.44 eb
207.19 g

TP

9.52 216.35 4.16 206.83

7+0

6+50

6+0

5+50

210.99

208.3	207.00	206.69	206.6	206.9	207.0	206.97	207.26	207.2
8.1 50	9.35 39.23	9.66 38.54	9.6 20	9.5	9.4 20	9.38 37.54	9.09 35.63	9.5 50
			206.5	206.5	206.79	206.40	207.21	
			9.56 34.8	9.95 37.1	9.14 38.63			
208.2	206.76	206.47	206.4	206.6	206.7	206.13	207.43	207.0
7.8 50	7.23 39.1	4.52 38.4	4.6 20	4.4	4.0 20	4.86 37.1	5.56 38.1	1.0 50
208.3	206.58	206.30	206.3	206.4	206.6	206.93	207.23	206.7
7.7 50	4.4 39.2	4.6 38.2	4.7 20	4.6	4.4 20	4.06 37	5.26 38	4.2 50
208.4	206.38	206.21	206.4	206.6	206.6	206.43	206.76	206.3
7.6 50	4.61 39.1	4.78 38.1	4.6 20	4.4	4.4 20	4.51 37	4.32 38	4.7 50
205.0	206.23	205.94	206.4	206.7	206.5	206.22	206.41	205.9
7.5 50	4.9 39.23	5.05 38.54	4.6 20	4.3	4.5 20	4.77 37.1	4.65 38.1	5.1 50

210.99

4914

9+50.73 = H.L. 4y09

9+25.73 = L 4y09

9+00.73 = S.L. 4y09

8+80.73 = C6.B.C. Lt

8+30

7+84.40 = F.C.

216.35

213.48

207.65 483 208.24 cb.
207.91 g.
208.00 cb
207.66 g
5.07 207.4
207.12 207.17 g
207.44 g

L7

8

R

20

209.4 5.7 50	209.23 7.12 47.2 cb	208.92 7.43 46.2 90	208.15 7.20 46	209.0 7.4 46	209.0 7.4 46	208.38 7.87 45.4	208.63 7.72 47.6	209.7 7.7 46
209.0 7.4 50 on top	208.7 7.7 48 on top	208.9 7.5 46	208.8 7.6 46	208.6 7.8 46	207.91 8.24 48	208.19 8.16 49	208.6 7.8 46	
208.77 7.59 48-cb	208.95 7.90 47.2 90	208.2 8.2 48	208.5 7.9 46	208.6 7.8 46	208.4 8.0 46	207.61 8.74 48	207.89 8.46 49	208.1 8.2 46
208.9 7.5 50	207.61 8.74 49	207.42 8.93 48	207.9 8.5 46	208.3 8.1 46	208.2 8.2 46	207.45 8.90 48	207.71 8.64 49	207.9 8.5 46
209.2 7.2 50	207.35 9.00 49	207.13 9.22 48	207.6 8.8 46	207.8 8.6 46	207.7 8.7 46	207.37 8.98 47	207.60 8.25 48	207.7 8.7 46
208.5 7.9 50	207.08 9.27 49	206.87 9.48 48	207.0 9.4 46	207.2 9.2 46	207.2 9.2 46	207.02 9.56 47	207.26 9.09 48	207.4 9.0 46

216.35

R. 2
L. 1
CEN

11+84.5 = CB BC R1+L1 as Built

11+50

11+0

JP 1262 228.52 0.45 21590

10+50

10+0

9+70.73 = CB EC 0267 2.69 208-80

21635

223.9 46 50	223.42 510 59.3	223.13 5.39 58.2	222.9 56 20	222.9 56	222.7 58 20	222.50 602 378	222.52 570 58.1	223.3 55 50
220.9 76 50	220.59 79.3 59	220.35 83.7 58	220.6 78 20	220.5 80	220.3 82 20	219.86 866 58	220.19 830 59	220.9 78 50
216.7 118 50	216.37 121.5 59	216.08 124.4 58	216.8 117 50	217.0 115	216.6 119 20	216.11 121.1 58	216.41 121.1 59	217.2 113 50
213.2 80 50	212.51 82.8 50	212.20 81.5 50	213.4 80 20	213.4 80	213.1 81.5 20	212.50 82.5 58	212.80 82.5 59	214.4 80 50
211.8 76 50	209.61 87.4 59	209.32 88 50	210.5 85 20	210.7 87	210.5 88 20	209.90 84.5 58	210.20 84.5 59	211.1 85 50
210.6 58 50	208.70 76.5 59	208.40 79 58	209.6 80 20	209.6 68	209.4 70 20	208.81 75 58	209.06 73 58	210.3 81 50

21635

copy

Lt.

Z

PL

22

BM

220

225.32

S.F. Top Arch Ho
Federal 18nd
499151

12+10.73 = S.L. Federal 18

228.52

224.60

224.31

228.5

224.6

224.4

224.2

224.1

223.71

224.02

392
52.1

4.21
512.94

10
38

3.9
20

41

4.3
20

4.4
38

4.81
50.5

4.58
51.3

228.52

Cross Section Beech St
 47th St to Lyon St
 Sketch Page 3

Indexed
 C.S.K.

1+50

1+22.93 BC Rt

1+0

Reduced 3-19-75

0+50

0+20 = CB FC RT + A

0+0 = FL 47th St

BM 2.74 225.17

222.43

8 LYT
 Beech 47th
 Page 7

Feb-21-75
 S. 5007
 Bl. 517
 Osborne
 80991
 Lt: H

Rt: 5

23

221.5 5.7 15	220.42 7.75 18.5	220.11 5.6 15.5	219.9 5.5	219.69 5.48 15.5	219.98 5.19 16.0	219.9 5.5 15.5
222.2 5.0 15	220.80 1.5 15.7	220.54 4.5 13	220.9 4.0	219.97 5.30 15	220.27 4.90 16	220.2 4.5 15.0
222.1 5.1 15	221.13 4.0 16.1	220.82 4.5 15.5	220.7 4.5	220.28 4.89 14.9	220.59 4.5 15.0	220.9 4.0 15
223.3 4.0 15	221.80 3.5 16.7	221.51 5.1 15.6	221.2 4.0	220.95 4.22 15.2	221.27 3.90 16	221.0 4.5 15.5
223.4 4.0 15	222.31 1.0 16.1	221.89 5.28 15.5	221.5 5.7	221.96 5.31 14.9	221.66 5.51 15.9	221.2 4.0 15
222.1 2.1 15	222.81 2.26 13.7	222.50 5.67 15.5	221.7 5.3	221.34 5.30 14.5	221.60 5.5 15.5	221.5 5.2 15.5
			225.17			

Beech

3+50

TP 429 221.47 7.99 217.18

3+39.22 BC Lt.

3+15.10 EC

3+0

2+50

2+0

225.17

Lt.

E

Pt.

24

218.6	217.77	217.49	217.2	217.12	217.42	217.7
$\frac{5.9}{25}$	$\frac{6.90}{16.5}$	$\frac{5.98}{16.5}$	4.5	$\frac{4.45}{16.5}$	$\frac{4.05}{16.5}$	$\frac{5.8}{16.5}$

218.7	217.82	217.58	217.3	217.19	217.44
$\frac{6.5}{25}$	$\frac{7.31}{16.5}$	$\frac{7.59}{16.5}$	7.9	$\frac{7.98}{16.5}$	$\frac{7.23}{16.5}$

219.5	218.24	217.93	217.8	217.56	217.87	218.1
$\frac{5.9}{25}$	$\frac{6.99}{16.5}$	$\frac{7.21}{16.5}$	7.4	$\frac{7.61}{16.5}$	$\frac{7.30}{16.5}$	$\frac{7.1}{16.5}$

219.8	118.45	218.17	218.2	217.79	217.98	218.3
$\frac{5.2}{25}$	$\frac{6.72}{16.5}$	$\frac{7.00}{16.5}$	7.0	$\frac{7.38}{16.5}$	$\frac{7.19}{16.5}$	$\frac{6.8}{16.5}$

220.5	219.07	218.92	218.9	218.41	218.65	218.8
$\frac{4.7}{25}$	$\frac{6.10}{16.5}$	$\frac{6.35}{16.5}$	6.6	$\frac{6.76}{16.5}$	$\frac{6.52}{16.5}$	$\frac{6.4}{16.5}$

221.4	219.79	219.47	219.5	219.00	219.29	219.3
$\frac{5.81}{25}$	$\frac{5.88}{16.5}$	$\frac{5.70}{16.5}$	5.7	$\frac{6.12}{16.5}$	$\frac{6.88}{16.5}$	$\frac{6.7}{16.5}$

225.17

4+76.48 = EC

4+56

4+21

4+0

3+90

3+76.09 = $\frac{1}{2}$ Banjo on Rt

221.47

216.3 $\frac{53}{25}$	216.09 $\frac{508}{16.2} = C$	215.84 $\frac{563}{15.2} = G$	215.8 57	215.40 $\frac{607}{15} = G$	215.68 $\frac{539}{16} = C$	215.4 $\frac{61}{25}$	
216.6 $\frac{49}{25}$	216.47 $\frac{500}{8.2}$	216.17 $\frac{550}{15.2}$	215.9 56	215.71 $\frac{576}{15}$	216.01 $\frac{545}{16}$	215.9 $\frac{57}{25}$	
217.1 $\frac{44}{25}$	216.80 $\frac{467}{16.2}$	216.53 $\frac{494}{15.2}$	216.5 50	216.16 $\frac{521}{14.8} = G$	216.41 $\frac{506}{15.8} = C$	216.5 $\frac{50}{25}$	
217.7 $\frac{40}{25}$	217.15 $\frac{408}{16.2}$	216.84 $\frac{466}{15.2}$	216.8 47	216.57 $\frac{490}{23.7} = G$	216.92 $\frac{455}{27.3} = C$	217.2 $\frac{45}{50}$	
217.9 $\frac{36}{25}$	217.27 $\frac{430}{16}$	217.00 $\frac{442}{15}$	216.9 46	216.8 $\frac{47}{40}$	217.32 $\frac{415}{81} = G$	217.61 $\frac{386}{82.4}$	
218.2 $\frac{33}{25}$	217.40 $\frac{407}{16} = C$	217.11 $\frac{436}{15} = G$	217.0 45	217.0 $\frac{45}{50} = G$	217.63 $\frac{384}{96.5} = G$	217.97 $\frac{350}{91.5} = C$	217.5 $\frac{40}{100}$

221.17

7+5881 BC Lt

IP 6.72 219.59 860 212.87

7+0

6+50

6+0

5+50

5+0

221.47

Lt-N

2

Pt-S 26

213.8 213.19 212.90 213.3 212.04 212.69 212.5

5.8
2.5
6.10
1.4
1.3
6.69
1.5
6.4
6.3
7.53
1.5
8.4
1.6
1.6
7.1
1.5

214.1 213.41 213.17 213.4 212.64 212.90 212.8

7.1
1.6
8.0
1.6
8.0
1.5
8.1
8.8
1.5
8.5
1.5
8.2
1.5

214.7 213.90 213.64 213.9 213.17 213.47 213.5

6.8
2.5
7.5
1.6
7.8
1.5
7.6
8.2
1.5
8.0
1.6
8.0
1.5

215.2 214.55 214.29 214.5 213.83 214.09 214.0

6.4
1.5
6.9
1.6
7.1
1.5
7.0
7.6
1.5
7.8
1.8
7.5
1.5

215.8 215.24 214.96 215.1 214.40 214.69 214.5

6.7
1.6
6.8
1.8
6.5
1.5
6.4
7.0
1.5
6.9
1.6
7.0
1.5

216.1 215.87 215.57 215.6 215.03 215.28 215.1

6.4
1.6
6.5
1.6
6.9
1.5
5.9
6.4
1.6
6.1
1.6
6.4
1.5

221.47

Beech St.

10+26.32 = F.C.

9+87.46 = $\frac{1}{2}$ Curve

TP 8.82 226.47 1.94 217.65 0.72" pipe
H.L. #2
H.L. Beech

9+48.61 = P.R.C.

9+0

8+50

8+0

219.59

4+

2

P1

27

219.8
219.59
219.27
219.7
219.21
219.43
220.9

$\frac{6.7}{25}$ $\frac{4.88}{16.26}$ $\frac{7.20}{15.94}$ 48 $\frac{7.26}{15.54}$ $\frac{7.01}{16.06}$ $\frac{5.76}{15}$

218.3
218.37
218.02
218.6
218.05
218.31
219.4

$\frac{8.8}{25}$ $\frac{8.10}{16}$ $\frac{8.45}{15}$ 79 $\frac{8.22}{15.2}$ $\frac{8.11}{16}$ $\frac{7.1}{25}$

216.9
217.23
216.92
217.4
217.01
217.30
218.3

$\frac{2.7}{25}$ $\frac{2.36}{16}$ $\frac{2.7}{18}$ 22 $\frac{2.58}{19.9}$ $\frac{2.20}{18.9}$ $\frac{1.5}{25}$

216.0
216.09
215.7
216.2
215.63
215.93
216.7

$\frac{5.6}{25}$ $\frac{5.50}{18.9}$ $\frac{5.88}{19.9}$ 84 $\frac{5.96}{18}$ $\frac{5.66}{16}$ $\frac{2.8}{25}$

215.0
214.78
214.52
214.8
214.24
214.44
214.8

$\frac{7.6}{25}$ $\frac{7.80}{18.9}$ $\frac{5.02}{19.9}$ 78 $\frac{5.25}{18.2}$ $\frac{5.15}{18.2}$ $\frac{4.8}{25}$

214.2
213.60
213.31
213.6
213.11
213.27
212.9

$\frac{5.7}{25}$ $\frac{5.99}{16.26}$ $\frac{6.38}{15.94}$ 60 $\frac{6.48}{14.9}$ $\frac{6.02}{15.9}$ $\frac{6.7}{25}$

219.59

BM

3.47

223.00

SF Top Fire Hyd
Lyons & Deval

10 + 97.84 = S.L. Ly 07

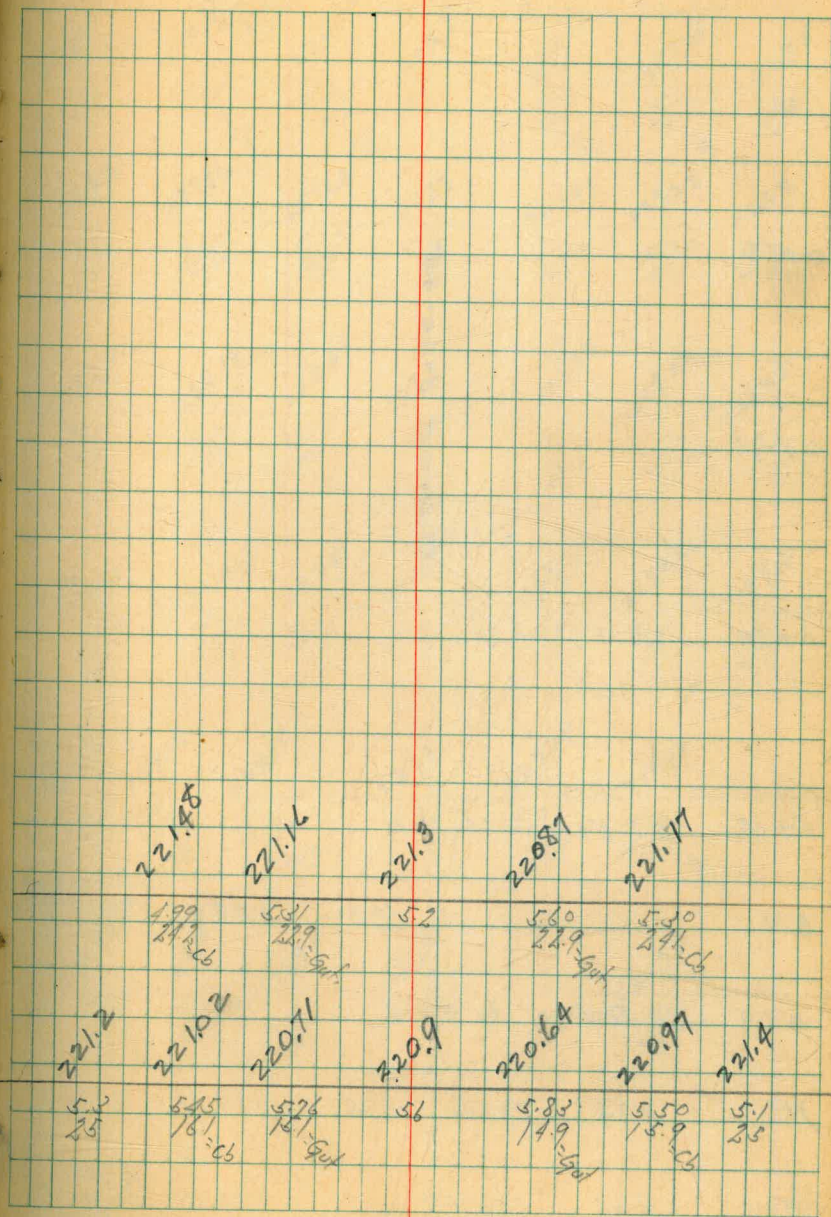
10 + 77.84 = C6 B.C. RT + LT

226.47

LT

R

PT 28



226.47

Cross Section 48th + Lyon St. (48TH-Federal to Lyon)

Federal Blvd. to 49th St.

Sketch Page 2

Indexed
C.S.K.

1+0

0+65

0+35

0+20 = Cb F.C. on Lt

0+15 = S.L. Federal to West

B.M.

2.21

230.80

SE Top of Fire Hydrant
Federal Blvd
48th St

0+0 = S.L. Federal to East

TP

3.35

233.01

5.93

229.66

B.M.

7.54

235.59

228.05

SE Top
Federal +
49th St

Reduced 3-20-45

Feb 26.45

Lt. E

2

RTN

29

227.1 5.8 25	226.87 6.14 17.9 Cb	224.65 6.08 14.9 604	226.9 6.1	226.87 6.14 15.1 604	227.21 5.80 16.1 Cb	227.5 5.55 25
228.2 4.8 25	227.86 5.65 15.9	227.64 5.57 14.9	227.5 5.2	227.97 5.09 15.1	228.28 4.20 16.1	228.3 4.3 25
228.3 4.5 25	228.74 4.27 15.9	228.45 4.58 14.9	228.7 4.3	228.95 4.06 15.1	229.23 3.78 16.1	229.2 4.2 25
229.1 4.9 25	229.03 4.98 17.1	228.81 4.20 16.1	229.1 4.9	229.11 4.90 18.8 604	229.42 4.50 16.1 Cb	229.4 4.1 25
229.2 3.8 25	229.07 3.94 17.1 Cb	228.85 4.16 16.1 604	229.3 3.7	229.20 3.81 22.8 604	229.48 3.53 24.5 Cb	
229.29 4.77 28.3 Cb	228.97 4.04 26.5 604	229.4 4.6 15	229.6 3.4		229.8 3.7 25	
			230.01			

2785.0 - 1/2 Lyon to East RA to 48th St

2770 - C6 BC on Rt.

2735

270

17849 - C6 BC on Lt.

1750

23201

2234

96
10.9

2234

96

22339

96
10.9

22378

96
10.9

2239

96
10.9

2235

96
10.9

2286

96

22355

96
10.9

22387

96
10.9

2240

96
10.9

22365

96
10.9

22338

96
10.9

2236

96
10.9

2240

96

22384

96
10.9

22414

96
10.9

2247

96
10.9

2245

85
10.9

22427

87
10.9

223.92

90
10.9

2243

87

22431

87
10.9

22454

87
10.9

2252

87
10.9

2248

85
10.9

22456

85
10.9

22426

85
10.9

2246

84

22448

85
10.9

22479

85
10.9

2253

85
10.9

2256

84
10.9

22548

85
10.9

22521

80
10.9

2255

85

22536

85
10.9

22564

85
10.9

2260

85
10.9

23201

06/10/51

4+0

3+85.17 = CB EC of Lt.

3+60

TP A11 22703 10.09 22292

3+35

3+0 = CB EC of Rt

3+85 Rt. A to Lyon

22201

Lt. N

2

Rt. S

31

2230	222.67	222.37	222.5	222.43	222.71	222.3
4.0 15	4.36 15.5 CB	4.66 15.5 Gul.	4.5	4.60 15.5 Gul.	4.32 15.5 = CB	4.7 15.5
2230	222.74	222.43	222.5	222.50	222.80	222.4
4.0 15	4.27 15.1	4.63 15.1	4.4	4.63 15.1	4.63 15	4.6 15.5
2229	222.83	222.51	222.8	222.66	222.96	222.6
4.1 15	4.20 15.8	4.53 15.8	4.2	4.27 15	4.07 15	4.4 15.5
			222.05			
22316	222.85	223.0	223.1	222.78	223.11	222.7
9.85 15.5 CB	10.16 15.1 Gul.	10.0 15.20	9.9	10.2 15.5	9.90 15	10.2 15.5
		222.7	223.4	223.08	223.41	223.2
		9.9 15.5	9.6	9.92 15	9.60 15	9.8 15.5
	222.8	223.4	223.11	223.54	223.2	
	9.8 15.5	9.6	9.8 10.8 15.5 Gul.	9.47 15.5 = CB	9.8	

22201

Lyon St

BM

403

223.00

ST TOP 1118
Lyon St
Duval
223.00 P 28

6714.86 = 1/2 Duval to South

5790

5769.9 = CB RC on Rt.

5730

570

4750

22703

N
Lx

2

Rt.

32

222.9 41 25	221.58 5.45 18-6	221.28 57.5 13 904	221.5 5.5	221.3 5.7 25		
222.8 41 25	221.72 5.32 18	221.43 50.6 15	221.7 5.3	221.6 5.4 16	221.21 5.88 20-9 904	221.49 5.54 21-6
222.9 41 25	221.84 5.19 16	221.56 5.47 15	221.7 5.3	221.64 5.39 15	221.95 5.08 16	221.7 5.51 15
222.7 41 25	222.03 5.00 16	221.74 5.29 15	221.8 5.2	221.78 5.25 15	222.08 4.95 16	222.0 5.0 15
222.7 41 25	222.13 4.90 16	221.84 5.19 15	221.9 5.1	221.85 5.8 16	222.15 4.88 16	222.0 5.9 23
222.8 41 25	222.39 4.4 16-10 105-904	222.08 4.95 15-904	222.2 4.8	222.10 4.93 15-904	222.42 4.61 16-25	222.2 4.8 25

22703

7+75

7+50

7+25

7+0

6+59.9 = Cb E.C. at Pt.

6+40

227.03

N Lt.

S

Pt.

33

219.1 20 25	219.75 828 8.8	218.96 857 13.94	218.6 84	218.51 855 13.94	218.80 820 13.1-6	219.3 79 25
220.3 67 25	219.96 797 18	219.60 745 15	219.7 73	219.67 786 15	219.96 707 15.1	220.4 66 25
221.1 55 25	220.66 687 6	220.38 665 15	220.5 66	220.41 682 15.1	220.73 630 16.1	221.0 60 25
221.5 57 25	221.06 577 16	220.76 627 18	221.0 60	220.83 630 13.1	221.13 590 16.1	221.1 59 25
222.3 47 25	221.95 550 18	221.16 527 13	221.3 57	221.10 593 15.1-404	221.37 566 15.1-6	221.7 57 25
222.5 45 25	221.47 556 16.1-6	221.17 586 13.94	221.4 57	221.3 57	220.90 615 22.7-64	221.20 582 21-05

227.03

BM 1.30 225.33
 TP 11.20 226.63 0.52 215.43

9+14.58 - HL 4975 St

8+946 - Cb B.C Rt + Lt

8+75

8+50

TP 1.81 215.95 12.89 214.14

8+25

8+0

227.03

Top Fire Hyd
 S.F. Federal
 4975 St
 225-32922

N Lt.

Rt.

34

209.6 64 25	209.35 660 230-Cb	209.11 684 218-Gad	209.0 70 70	209.0 70 70	208.8 72 70	208.62 723 219-Gad	208.80 715 229-Cb	208.9 730 730
210.9 57 25	210.29 566 159-Cb	210.08 587 149-Gad	210.4 57 57	209.90 605 151-Gad	210.11 584 181-Cb	210.2 58 25		
212.4 60 25	211.77 473 159	211.47 448 149	211.7 43 43	211.37 458 151	211.65 430 181	211.5 45 25		
213.8 62 25	213.71 424 159	213.42 453 149	213.5 25 25	213.37 458 151	213.68 427 181	213.8 42 25		
215.6 64 25	215.51 452 159	215.16 487 149	215.95 215.95	215.33 470 151	215.63 440 181	216.0 40 25		
217.4 96 25	217.32 971 159-Cb	217.00 1003 149-Gad	217.2 98 98	217.16 987 151-Gad	217.41 962 181-Cb	217.9 91 25		

227.05

2+0

2+65 = 3.1 Lt of L - Sky Port Pole #128214

2+30 = CB EC on Pt

2+10

1+85 = 1/2 18" St.

1+55

235.74

Lt.	A	Rt.
230.92 1.80 /0	230.57 1.65 /0	228.9 1.80 /0
231.21 1.65 /0	230.91 1.80 /0	228.62 1.70 /0
231.28 1.70 /0	230.9 1.80 /0	228.94 1.80 /0
231.40 1.85 /0	230.3 1.60 /0	229.11 1.80 /0
231.47 1.70 /0	229.9 1.80 /0	229.3 1.80 /0
231.45 1.80 /0	231.05 1.80 /0	229.04 1.70 /0
231.14 1.60 /0	231.0 1.70 /0	229.24 1.60 /0
231.2 1.45 /0	230.5 1.50 /0	229.2 1.60 /0
231.3 1.40 /0	230.8 1.40 /0	229.04 1.60 /0
230.9 1.48 /0	230.0 1.50 /0	228.97 1.60 /0
230.1 1.50 /0	229.8 1.45 /0	229.28 1.60 /0
229.26 1.45 /0	229.52 1.45 /0	229.3 1.45 /0

235.74

6+0

5+50

+40

3.6 Lt of $\frac{1}{2}$ = Sly Pav. Pole

5+0

4+50

4+0

TP

531 232.59 7.46 228.28

3+77

3.6 Lt of $\frac{1}{2}$ = Sly Pav Pole

2+50

235.74

227.38	229.06	228.7	228.2	227.7	226.9	227.0	226.66	227.00	227.1
$\frac{5.1}{10}$	$\frac{1.53}{21.5}$	$\frac{4.8}{10}$	$\frac{5}{10}$	$\frac{5.9}{10}$	$\frac{1.7}{11.1}$	$\frac{1.6}{10}$	$\frac{1.9}{21.5}$	$\frac{1.53}{10}$	$\frac{1.53}{10}$
229.64	229.39	228.5	228.5	227.9	227.3	227.4	227.86	227.31	227.5
$\frac{5.95}{10}$	$\frac{1.53}{10}$	$\frac{4.8}{10}$	$\frac{5}{10}$	$\frac{5.7}{10}$	$\frac{5.6}{10}$	$\frac{1.6}{10}$	$\frac{1.55}{10}$	$\frac{1.53}{10}$	$\frac{1.5}{10}$
229.85	229.49	229.1	228.6	227.5	227.7	227.29	227.57	227.6	
$\frac{6.74}{10}$	$\frac{1}{10}$	$\frac{4.5}{10}$	$\frac{5.0}{10}$	$\frac{6}{10}$	$\frac{5.9}{10}$	$\frac{1.53}{10}$	$\frac{1.53}{10}$	$\frac{1.5}{10}$	
230.06	229.67	229.3	228.9	227.7	227.9	227.64	227.89	227.9	
$\frac{5.53}{10}$	$\frac{5.99}{10}$	$\frac{4.3}{10}$	$\frac{4.7}{10}$	$\frac{5.9}{10}$	$\frac{5.7}{10}$	$\frac{5.21}{10}$	$\frac{5.20}{10}$	$\frac{5}{10}$	
230.36	229.96	229.6	229.2	228.1	228.3	227.99	228.24	228.2	
$\frac{5.23}{10}$	$\frac{5.63}{10}$	$\frac{4}{10}$	$\frac{4.4}{10}$	$\frac{5.5}{10}$	$\frac{5.3}{10}$	$\frac{5.1}{10}$	$\frac{5.65}{10}$	$\frac{5}{10}$	
230.62	229.33	228.9	229.3	228.5	228.1	228.27	228.60	228.5	
$\frac{5.1}{10}$	$\frac{5.4}{10}$	$\frac{4.8}{10}$	$\frac{6.4}{10}$	$\frac{7.4}{10}$	$\frac{7.1}{10}$	$\frac{7.47}{10}$	$\frac{7.1}{10}$	$\frac{7.5}{10}$	

235.74

814

528

225.33

SE Top Fire Hy
Federal Blvd
4 1976 St
225.32
Page 22

10+3493 = Fly Sub

3.7' lot of 2 Fly Sub #178217

9+85

9+3473 - Cb. EC 02Rk

9+1473

230.61

223.55	223.23	223.5	226.7	227.5	226.6	225.73	225.78	226.1
7.06 1/10 = 1/10	7.38 1/10 = 1/10	7.1 1/10	8.9 1/10	8.1 1/10	1.0 1/10	1.88 1/10 = 1/10	1.63 1/10 = 1/10	1.5 1/10
224.21	223.97	223.6	224.7	225.9	226.3	225.3	225.1	225.08
1.4 1/10	1.64 1/10	7.0 1/10	5.9 1/10	4.7 1/10	7.3 1/10	5.3 1/10 = 1/10	5.5 1/10	5.53 1/10
224.83	224.53	224.3	225.9	225.6	225.0	224.7	224.35	224.66
5.78 1/10	6.08 1/10	6.8 1/10	4.7 1/10	5.0 1/10	5.1 1/10	5.0 1/10	6.46 1/10 = 1/10	5.94 1/10 = 1/10
225.07	224.78	224.7	225.9	225.3	225.0	224.5	223.73	224.09
5.5 1/10	5.88 1/10 = 1/10	5.9 1/10	4.7 1/10	5.5 1/10	5.6 1/10	6.1 1/10	6.88 1/10 = 1/10	6.54 1/10 = 1/10

230.61

Walker
Hazard
Hudlin

CROSS SECTIONS - CITY YARDS

30th & B-St.

5-12-45 for Surfacing

5.57 75.30

SE.B.P.
70.23 "B" = 20.44

0-46'

5' Lt. on Pav 5.98 69.82

0 " E edge Pav 5.48 70.32

10' R 5.3 70.5

12.5' R on Hd Wall 5.18 70.62

16.75 on Flow Outlet 6.68 62.12

21' Rt on Hd Wall 4.01 71.79

0-45

30' R 5.8 70.0

22 R = L Ditch 6.3 69.5

16' R 5.4 70.4

4' R = E edge Pav 5.34 70.46

0 " " 5.44 70.38

5' Lt. " " 5.86 69.94

0-25

5' on Pav 5.89 69.91

0 " " 5.42 70.38

4' E edge Pav 5.25 70.55

25' 5.5 70.3

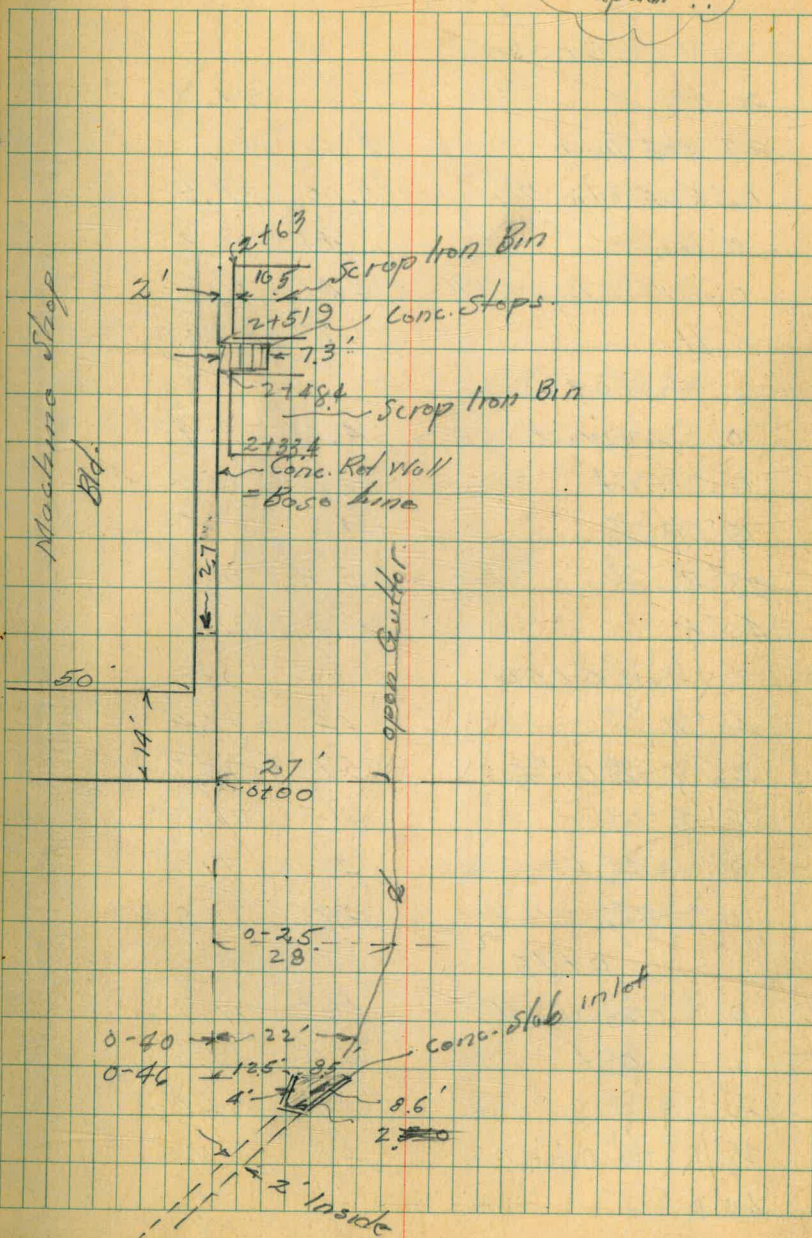
28' = L Ditch

40' R 5.1 70.7

Indexed
c.s.K.

See G-203/96
Top Wall ??

40



City Yards
20th + 8'

7580

0100		
40' R	4.8	71.0
27' R = 1/2 Ditch	5.6	70.2
16' R E edge Pav	5.00	70.8
0 on "	5.44	70.36
0 " Top Wall	4.46	71.34
5' Lt.	6.27	69.53
0125		
0 on Wall	4.37	71.43
0 Gut	5.1	70.7
19' R	4.8	71.0
28' R	5.3	70.5
40' R	4.7	71.1
0150		
40' R	4.4	71.4
26' R = 1/2 Ditch	5.1	70.7
18' R	4.5	71.3
0 Gut	4.8	71.0
0 Top Wall	4.26	71.54
0175		
0 Top Wall	4.02	71.78
0 Gut	4.5	71.3
20' R	4.3	71.5
28' R = 1/2 Ditch	4.8	71.0
40' R	4.1	71.7

7580

1100

10' R	3.8	72.0	
28' R = 1/2 Ditch	4.5	71.3	
20' R	4.2	71.6	
0 Gut	4.4	71.4	
0 Top Wall	3.71	72.09	
TP 5.85	77.71	3.24	71.86
1125			
0 Wall	5.47	72.24	
Gut	6.2	71.51	
24' R	5.9	71.81	
30' R = Ditch	6.1	71.6	
40' R	5.4	72.3	
1150			
40' R	5.1	72.6	
30' R = 1/2 Ditch	5.8	71.9	
20' R	5.6	72.1	
0 Gut	5.8	71.9	
Top Wall	5.25	72.46	
TP 7.22	80.26	4.67	73.04
1175			
Wall	7.54	72.72	
Gut	8.3	72.0	
20' R	7.9	72.4	
30' R = 1/2 Ditch	8.0	72.3	
40' R	7.5	72.8	

41

City yards
with B

8026

2+00		
40'	7.3	73.0
30'R = L Ditch	7.9	72.4
20'R	7.8	72.5
0-Gut	8.0	72.3
0 = Wall	7.27	72.99

2+25

0 Wall	6.90	73.36
Gut	7.8	72.5
20'R	7.6	72.7
30'R = Ditch	7.7	72.6
40'R	7.3	73.0

2+50' 5' of Conc. Slurry

7.3 Rt. on Top step	6.82	73.44
---------------------	------	-------

2+55'

40' Rt.	7.1	73.2
30'R = L Ditch	7.4	72.9
20'R	7.3	73.0
0 Gut	7.30	72.96
0 Wall	6.80	73.46

2+75

0 Wall	6.52	73.74
0 Gut	7.1	73.2
20'R	6.9	73.4
10'R Ditch	7.2	73.1

8026

42

40'R	6.9	73.4
3+00		
40'R	6.6	73.7
30'R Ditch	7.0	73.3
20'R	6.8	73.5
0-Gut	7.1	73.2
0 Wall	6.36	73.90

3+25

0 Wall	6.18	74.08
0 = Gut	6.9	73.4
20'R	6.7	73.6
30'R Ditch	6.9	73.4
40' Rt.	6.3	74.0

3+50

40'R	6.1	74.2
30'R Ditch	6.6	73.7
20'R	6.4	73.9
0 Gut	6.6	73.7
0 Wall	5.94	74.32

3+75'

0 Wall	5.65	74.61
0 Gut	6.4	73.9
20'R	6.2	74.1
30'R	6.3	74.0
40' Rt.	5.9	74.4

city yards
20th & B

80.26

3+90

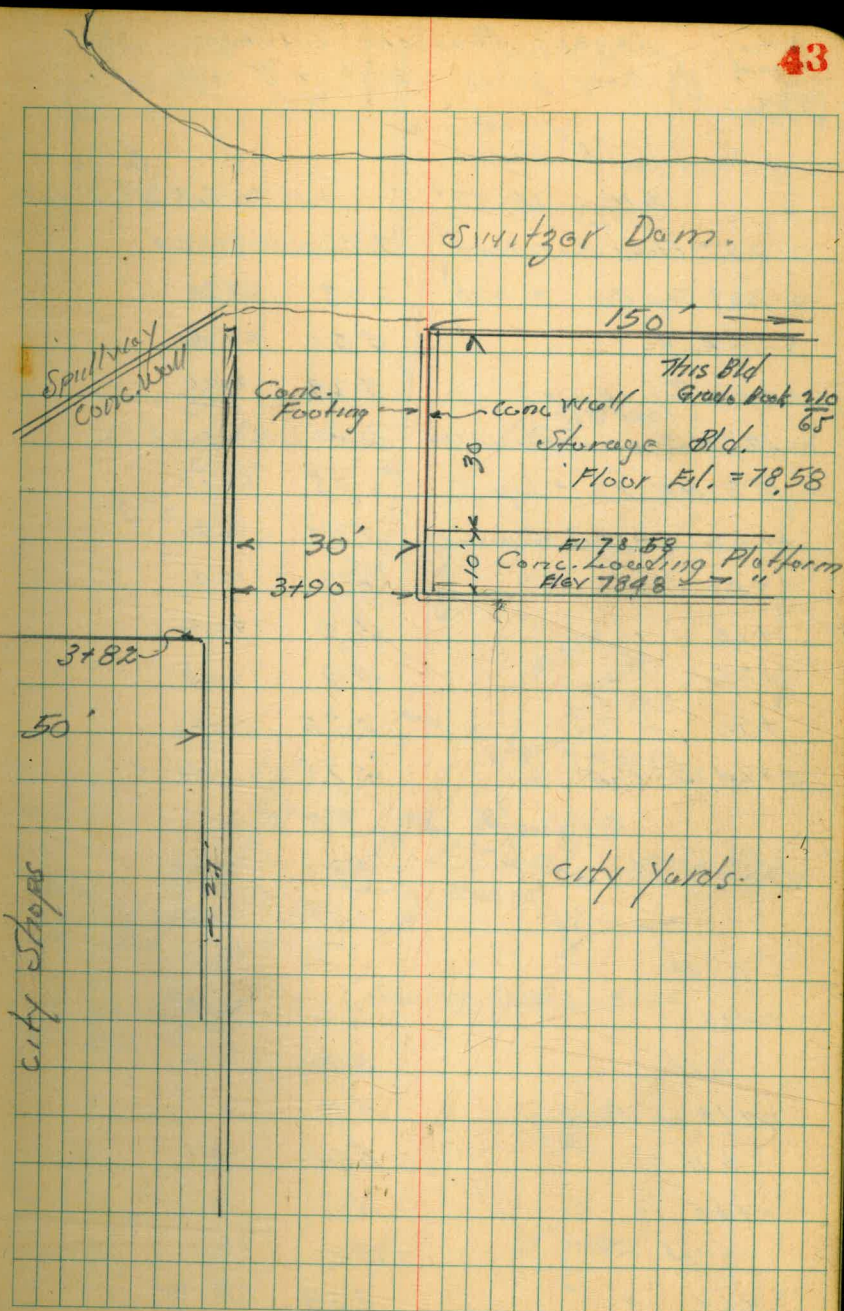
0 Wall	5.52	74.74
0 Gut.	6.2	74.1
20' R	6.0	74.3
27' R Gut	6.2	74.1
30' Rt on Conc Footing	5.67	74.59
40' Rt. " " "	5.52	74.74

4+30 - End Wall

0 Wall	5.10	75.16
0 Gut	6.2	74.1
30' Rt at Storage Bld	5.7	74.6
TR 3.25	76.99	72.2
ch Footing B.M.	6.76	70.23

III

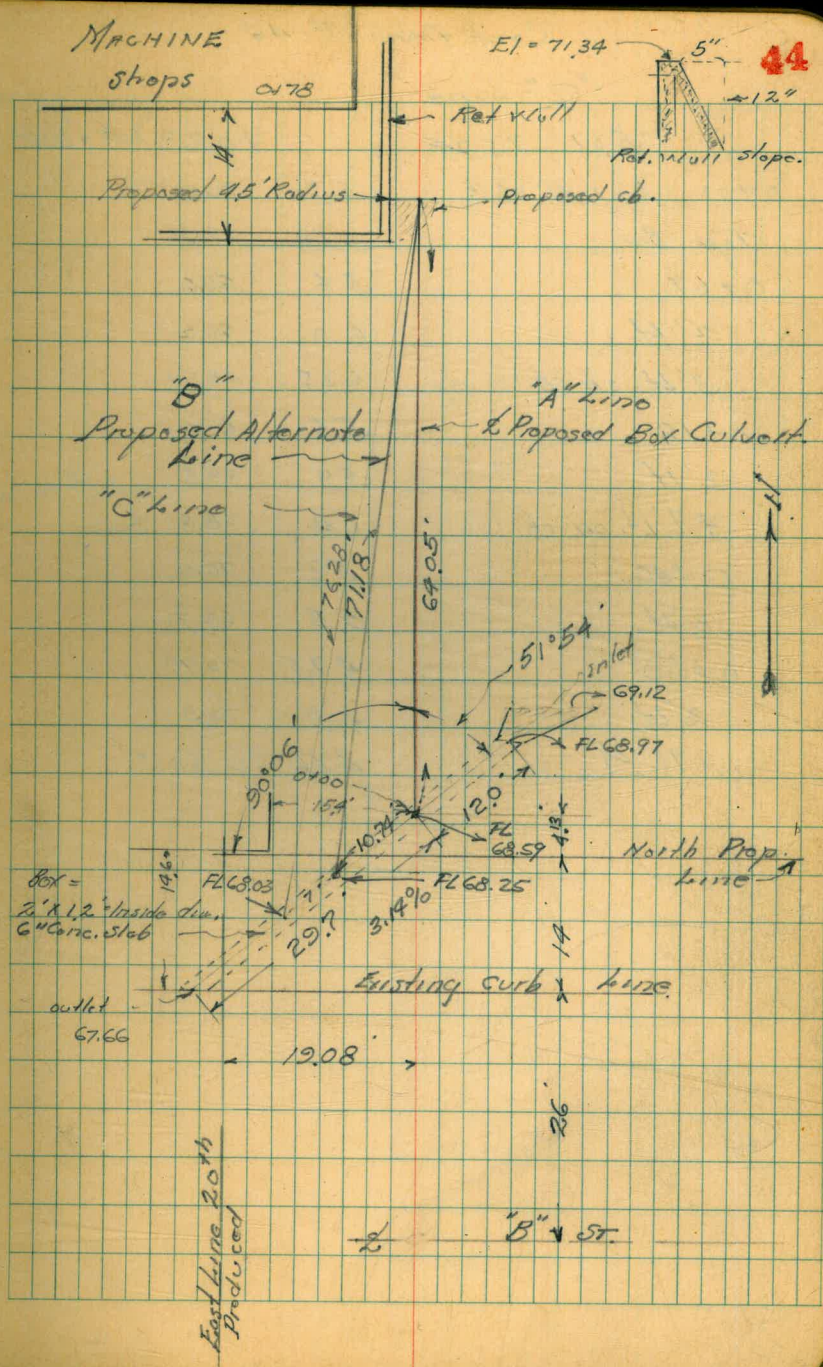
43



Walker
Kegard
Herdin
5-15-45

SEVERAL PROPOSED CULVERT
City Yards - 20th + "B" - Sts

"A" Line		"B" St - 20th	
3.14	75.37 ✓	70.23	81M SE BP
Outlet			
0-29.7 = Flow Box Culvert	7.71	67.66 ✓	
0-29.7 Top Box " = cb.	6.03	69.32	
0-10.74 " "	5.51	69.86	
0+00 Top " at Box	5.16	70.21	
12' NE on Flow inlet	6.40	68.97 ✓	
18.6 NE " " Lip "	6.25	69.12	
0+00 on stub = Ground	3.97	71.90	
+07	4.2	71.2	
+15	5.0	70.9	
+25	4.9	70.5	
+50	4.75	70.62	
0+64.05 = End	4.79	70.58 ✓	
Alternate Line = "B" Line			
0+00 Ground	4.8	70.6	
" Top slab	5.51	69.86	
2' H.	5.1	70.3	
0+13	5.0	70.9	
2' H.	5.2	70.2	
0+18 on Paving.	5.3	70.1	
2' H. "	5.6	69.8	
0+40 " "	5.1	70.3	
2' H. "	5.3	70.1	
+66 " "	4.85	70.54	
2' H.	5.0	70.9	
0+71.18	4.79	70.58	



Cont. from P-44

"C" - Line

5.01 75.24 ✓

70.23 B.M. SE BR
20th & B. ST

0+00 = Asphalt Walk 5.2 70.0

Top Box 5.58 69.66

0+07 5.6 69.6

2' Lt. 6.0 69.2

3' Lt. on cb. = W edge 6.25 68.99

0+18 5.6 69.6

2' Lt. 5.9 69.3

4.7' Lt. on cb. 6.4 68.8 Enter Ch. Parking here

0+40 5.2 70.0

2' Lt. 5.5 69.7

0+60 4.75 70.99

2' Lt. 4.9 70.3

0+76.28 4.66 70.58 ✓

Walker
Hazard
5-29-46

Additional Levels - City Yards
20th and "B" St.

Sketch of Proposed cb - P-47

5.17 75.40

0 - 72.7

70.23 20th & B St
(shots West or East
are from Ref. Wall - Beckline)

55' W on Paving.	8.33	67.07
30' W = Gut - P.C. 20' R	7.84	67.56
" on cb.	7.13	68.27
10' W - Radius Point	5.23	70.17
0 Asphalt Walk	3.65	71.75
Section A - on Proposed cb line		
P.C. 20' R cb	7.13	68.27
Gut. Repeat	7.84	67.56
+9.8 on cb. (East)	7.00	68.90
Gut.	7.48	67.92
E.C. on Conc. Pav.	7.30	68.10
+5.2 - Int East cb cut	6.83	68.57
" on cb	6.63	68.77
+15'	5.37	70.03
+25'	5.0	70.9
+31.6 = 5' N of Hd Wall	5.03	70.37 on Stud

0 - 42.7

55' W on Pav	8.29	67.11
30' W " "	7.79	67.61
20' W " "	7.33	68.07
11.6 W	6.91	69.09
3' W	5.44	70.18

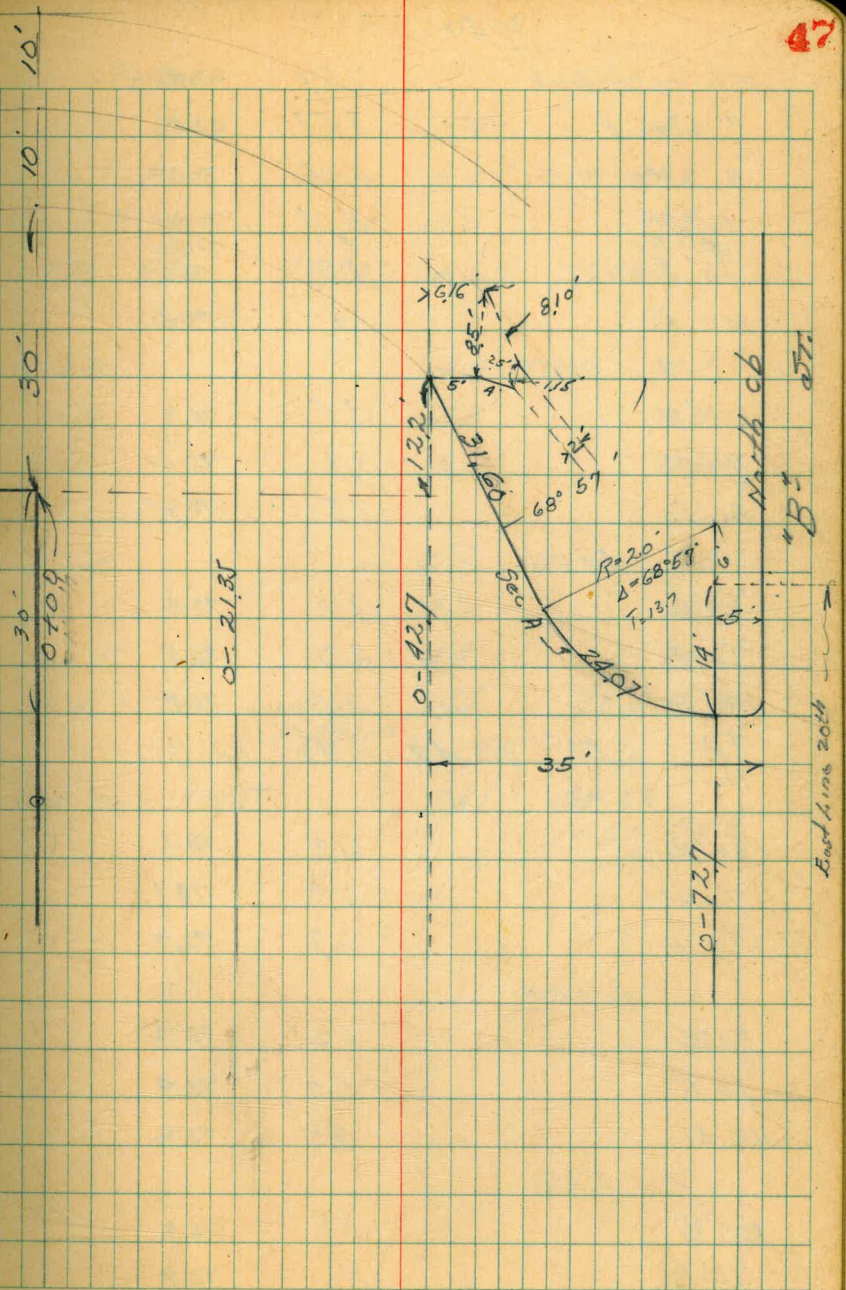
75.40

46

0 - 42.7 Cont.

0	5.20	70.20
12.2' E	5.03	70.37
16' E	5.4	70.0
20' E - Valley Gut.	6.0	69.9
26' E " "	6.0	69.9
27' E	5.5	69.9
50' E = Int Top Slope	4.4	71.0
0 - 21.35		
55' W on Pav.	8.89	66.51
30' W " "	8.28	67.12
23' W " "	7.87	67.53
11.6' W " "	6.41	68.99
0 " "	5.00	70.90
6' E " " Edge	4.88	70.52
25' E	5.1	70.3
29' E = Valley Gut	5.3	70.1
36' E	4.8	70.6
50' E	4.3	71.1
70' E	4.0	71.9
100' E	3.8	71.6
0 + 00		
55' W Gut.	9.11	66.29
" " on cb.	8.41	66.99
30' W " "	7.96	67.29
" " Gut.	8.69	66.77

A Proposed 20' Strip Cont. Part



0700 cont. 75.40

11.6 on 16 = Break.	7.57	67.83
" " Cut	7.57	67.83
0 on Wall	4.06	71.39
Cut	5.01	70.39
50' E	4.1	71.30
70' E	3.8	71.6
100' E	3.6	71.8

0+50

100' E	3.1	72.3
70' E	3.3	72.1
50' E	3.5	71.9

1+00

50' E	3.0	72.9
70' E	2.9	72.5
100' E	2.6	72.8

TR	6.51	79.42	2.49	72.91
----	------	-------	------	-------

1+50

100' E	6.3	73.1
70' E	6.3	73.1
50' E	6.7	72.7

2+00

50' E	6.2	73.2
70' E	6.0	73.4
100' E	5.8	73.6

2+50

100' E	5.5	73.9
70' E	5.7	73.7
50' E	5.8	73.6

79.42

48

3+00

50' E	5.4	74.0		
70' E	5.2	74.2		
100' E	5.0	74.0		
TR	4.80	79.99	4.23	75.19

3+50

100' E	4.9	75.1
70' E	5.3	74.7
50' E	5.5	74.5

3+90

50' E	5.2	74.8	
70' E	4.9	75.1	
100' E	4.4	75.6	
30' E = S.W. Cor Loading Platform	1.59	78.40	✓

chk Wall	3+75	5.41	74.58	✓
			74.61	P. 42
			0.03	

Cross Section Hobash Canyon Freeway L Line
 Main St to Imperial Ave
 Alignment L' Line 1684 P' Line 1658

TP 7.00 13.53 4.43 6.53

6+50

6+04.64 = North Line Main Taken on Line Main 49
 300

5+92.05 = North Curb Line Main St Taken on Line of Main

5+62.55 = S Main Taken on Line of Main St

5+32.85 = South Curb of Main Taken on Line of Main St

TP 5.58 10.96 5.84 5.38

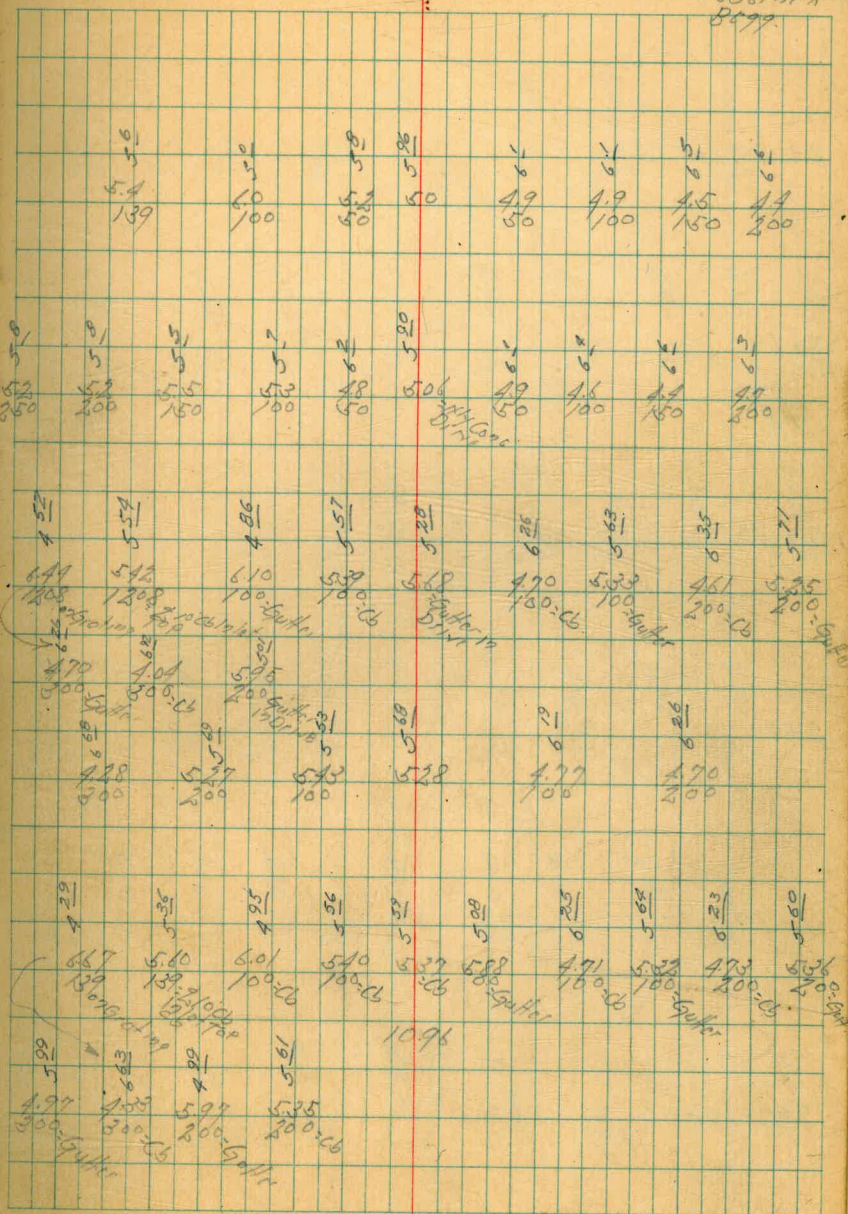
BM 0.98 11.22 10.24

Sp @ curb line
 to p.curb
 Main St
 Collar Bridge
 1658.50

Lt.

Rt.

July 5-45
 S. S. 107
 81.57
 Osborn T
 8499



8780

8765

8740

870

750

70

76
76
866

10.50

47

47

47

50

70 06.5
150

80 05.0
100

11 01.4
50

17 -3.5
15

173
170
3
Bottom
0.0001

190 -5.5
50

19 -5.5
100

18.6
150

72 06.3
150

72 05.3
100

74 06.1
50

74
5

188
180
8
Bottom
0.0001

190 05.4
50

19 08.3
100

15 -2.3
150

187
180
7
Bottom
0.0001

18.6
150

70 09.9
50

70 09.7
100

74 08.7
50

70 00
5

70 05.3
100

70 06.7
100

70 06.5
100

70 05.5
100

74 07.0
100

78 06.7
150

70 08.3
100

75 06.0
100

76 05.9
50

76 06.3
100

76 06.9
50

77 06.2
100

70 06.2
50

77 06.3
100

70 05.5
100

70 07.5
150

70 08.2
100

70 04.8
100

70 05.1
50

80 05.5
80

80 05.2
50

71 07.4
50

70 06.0
100

70 06.1
150

70 06.1
100

71
100

76 05.9
150

75
100

80 05.5
50

76 05.9
76

77 05.8
100

76 05.9
100

80 05.5
150

77 05.9
100

10.50

10+50

TP 3.50 8.61 8.42 5.11

10+0

9+50

9+29

9+08

8+93

10.53

47

8

RT.

51

13.05
100

8.05
100

6.04
100

6.05
100

1.04
100

8.04
100

1.09
100

9.04
100

1.09
100

9.03
100

13.00
100

9.04
100

7.05
100

9.04
100

9.04
100

8.04
100

9.04
100

8.05
100

7.06
100

19.05
100

19.05
100

13.05
100

7.06
100

9.04
100

9.04
100

8.05
100

7.06
100

19.05
100

19.05
100

19.05
100

19.05
100

12.01
100

7.06
100

6.06
100

8.05
100

8.05
100

17.03
100

19.05
100

19.05
100

19.05
100

19.05
100

19.05
100

16.03
100

7.06
100

100 = 1/4 Bottom Channel

100 = 1/4 Bottom Channel

100 = 1/4 Bottom Channel

10.53

750

13+0

750

12+0

750

11+0

198

0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00

198

+7944 BC Lt.

1670

+50

1570

TP 6.60 10.87 4.34 4.27

+50

1470

861

Lt.

Lt.

Pt.

53

63 045
100

54 051
100

52 050
100
228/26

55 051
100

56 061
100

57 101
100

7 032
100

59 048
100

8 048
100

56 046
100

4 063
100

47 062
100

7 031
100

59 041
100

6 041
100

57 038
100

49 061
100

48 061
100

8 023
100

7 023
100

6 041
100

56 040
100

6 048
100

8 012
100

59 024
100

10.87

5 035
100

4 038
100

45 041
100

6 020
100

56 020
100

5 032
100

55 035
100

47 032
100

861

+50

+41

24 Lt of L - 2 Parker Pale

19+0

+50

+16

0.5 Rt of L - 2 Parker Pale

18+0

+50

17+0

64 00	60 00	60 00	60 00	60 00	60 00
045	049	047	042	050	131
66 00	60 00	60 00	60 00	60 00	60 00
046	045	051	052	053	112
66 00	60 00	60 00	60 00	60 00	60 00
043	052	060	061	056	123
66 00	60 00	60 00	60 00	60 00	60 00
046	052	057		057	058
66 00	60 00	60 00		60 00	60 00
047	052	055	063	062	063
66 00	60 00	60 00	60 00	60 00	60 00
047	052	055	060	059	063
66 00	60 00	60 00	60 00	60 00	60 00
047	052	055	060	059	063
66 00	60 00	60 00	60 00	60 00	60 00

Hoback Canyon Freeway 6" Line

+13.5 South Carb Line Newton on Rt

+30 32' ht of $\frac{1}{2}$ = $\frac{1}{2}$ Parner Pole

22+0

+50

21+0

+66.32 EC 31' ht of $\frac{1}{2}$ = $\frac{1}{2}$ Parner Pole

TP 544 10.09 6.22 4.65

20+0

10.87

55

St.	St.	Rt.
76 100	76 100	76 100
77 100	77 100	77 100
78 100	78 100	78 100
79 100	79 100	79 100
80 100	80 100	80 100
81 100	81 100	81 100
82 100	82 100	82 100
83 100	83 100	83 100
84 100	84 100	84 100
85 100	85 100	85 100
86 100	86 100	86 100
87 100	87 100	87 100
88 100	88 100	88 100
89 100	89 100	89 100
90 100	90 100	90 100
91 100	91 100	91 100
92 100	92 100	92 100
93 100	93 100	93 100
94 100	94 100	94 100
95 100	95 100	95 100
96 100	96 100	96 100
97 100	97 100	97 100
98 100	98 100	98 100
99 100	99 100	99 100
100 100	100 100	100 100

10.87

+ 80
 + 71 Profile 7.8 04.4
 + 70 41 Lt of $\frac{1}{2}$ = $\frac{1}{2}$ Tel. Pole

+ 50
 + 47 30.8 Lt of $\frac{1}{2}$ = $\frac{1}{2}$ Power Pole
 + 32 24.9 Lt of $\frac{1}{2}$ = $\frac{1}{2}$ 35' Pole

24+0

28+50

TP 5.78 12.16 3.71 6.38 on M.H. Km North of Horton

22+95.5 = N.C. Line Horton on pt

Note: See Paving Plans for this intersection
 Paving Covered with Dirt

22+69.5 = $\frac{1}{2}$ Horton

10.09

99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100
99 02 3	99 01 8	99 02 1	100 00 0	99 07 2	99 05 2	99 11 2	99 16 2	99 23 6
100	50.4	50.5	100	50.0	47.5	70	77	100

10.09

+50

31704.77 EC.

+50

+10

3070

29750

30 Lit of 2 = 2 Anchor Polo

18.66

4.

4

4.

59

$\frac{11.06}{100}$

$\frac{12.05}{100}$

$\frac{13.07}{100}$

$\frac{14.11}{100}$

$\frac{15.11}{100}$

$\frac{16.12}{100}$

$\frac{17.22}{100}$

$\frac{18.05}{100}$

$\frac{19.05}{100}$

$\frac{20.09}{100}$

$\frac{21.13}{100}$

$\frac{22.20}{100}$

$\frac{23.05}{100}$

$\frac{24.06}{100}$

$\frac{25.08}{100}$

$\frac{26.10}{100}$

$\frac{27.14}{100}$

$\frac{28.04}{100}$

$\frac{29.06}{100}$

$\frac{30.08}{100}$

$\frac{31.10}{100}$

$\frac{32.13}{100}$

$\frac{33.08}{100}$

$\frac{34.07}{100}$

$\frac{35.08}{100}$

$\frac{36.10}{100}$

$\frac{37.19}{100}$

$\frac{38.07}{100}$

$\frac{39.07}{100}$

$\frac{40.08}{100}$

$\frac{41.08}{100}$

$\frac{42.10}{100}$

$\frac{43.15}{100}$

18.66

34+26 = North Curb Line Florence St on Rt

+88 = South Curb Line Florence St on Rt

TP 7.15 20.34 7.20 12.89

+82 24' Rt of 2' of Power + Tel. Pole

+50

33+0

+50 v

TP 11.13 20.09 9.70 8.96

32+0

18.66

Lt.

S

Rt.

60

	140 100	145 100	148 100	109 100	112 100	114 100	114 100	114 100	114 100	115 100
	06 2	06 4	07 2	12 2	14 4	13 8	14 5	14 5	14 9	15 2
	141 100	139 100	136	85 100	89 100	87 100	85 100	87 100	87 100	87 100
			20.34							
	06 1	06 3	07 5	09 4	11 9		11 9		11 9	
	140 100	138 100	135	107 100	82 100		82 100		82 100	
	06 2	06 1	07 1	08 5	11 8		12 1		11 8	
	139 100	137 100	130	116 100	83 100		80 100		83 100	
	06 1	06 2	07 3	12 5	16 6		22 1		21 6	
	140 100	137 100	138	76 100	85 100		82 100		82 100	
			20.09							
	05 8	06 2	07 2	14 6	15 0		24 2		24 2	
	139 100	135 100	115	111 100	87 100		87 100		87 100	
			18.66							

37+0

IP 4.26 15.59 ✓ 9.11 11.23

+ 50

36+0

+ 50

35+0

34+50 ✓

20.34

	1.80 100	5.80 100	6.40 100	3.47 100	4.80 100	1.40 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100
	1.80 100	5.80 100	11.20 100	9.30 100	9.10 100	5.15 100

20.34

Top point
No. 1

Top point
No. 1

3970

+50

3870

+39

+34

37+29

Taken on Line of Ditch

86°35' Ditch? Taken on Line of Ditch

15.59

Lt.

2

Rt.

62

57 100	61 95	57 102	42 95	27 85	
69 100	69 50	59	50 20	49 42	49 100 = 11.2
69 100	69 50	61 95	57 25	50 45	46 100
69 100	56 50	57 98	46 29	50 48	52 100
76 100	67 50	70 98.6	56 29	52 52	50 100
70 100	67 50	57 104	48 29	42 52	42 100

15.59

42+0

+50

41+0

+50

TP 6.18 18.16 3.61 11.98

40+0

39+50

15.59

St.

S

Pt.

63

10.8	11.1	11.3	11.4	11.5	11.8
2.7 100	2.8 50	2.9 50	3.0 100	3.1 50	3.2 100
10.2	10.6	10.7	10.8	10.9	11.0
2.8 100	2.9 50	3.0 100	3.1 50	3.2 100	3.3 50
10.1	10.4	10.5	10.6	10.7	10.8
2.9 100	3.0 50	3.1 100	3.2 50	3.3 100	3.4 50
10.5	10.9	11.0	11.1	11.2	11.3
3.0 100	3.1 50	3.2 100	3.3 50	3.4 100	3.5 50
10.0	10.3	10.4	10.5	10.6	10.7
3.0 100	3.1 50	3.2 100	3.3 50	3.4 100	3.5 50
10.0	10.3	10.4	10.5	10.6	10.7
3.0 100	3.1 50	3.2 100	3.3 50	3.4 100	3.5 50
10.0	10.3	10.4	10.5	10.6	10.7
3.0 100	3.1 50	3.2 100	3.3 50	3.4 100	3.5 50

15.59

TP 9.65 29.71 1.86 20.06

45+0

+50

44+0

+50

43+0

TP 6.10 21.92 2.24 15.82

42+50

18.16

SE 91411
Ocean View
7371504
19.98
1558.58

on Rock
42+90

9.9 100	7.8 170	7.4 172	6.9 180	5.6 183	5.4 185	5.1 188	4.8 190	4.5 192
------------	------------	------------	------------	------------	------------	------------	------------	------------

9.0 100	8.1 15	7.5 153	6.8 162	6.2 167	5.7 170	5.2 173	4.8 176	4.4 179
------------	-----------	------------	------------	------------	------------	------------	------------	------------

9.1 100	8.1 75	7.5 155	6.8 158	6.1 163	5.7 167	5.2 170	4.8 173	4.4 176
------------	-----------	------------	------------	------------	------------	------------	------------	------------

9.1 100	8.1 100	7.5 150	6.8 150	6.1 158	5.7 159	5.2 162	4.8 165	4.4 168
------------	------------	------------	------------	------------	------------	------------	------------	------------

10.1 100	10.0 70	9.6 143	9.1 152	8.5 153	8.1 158	7.7 160	7.3 162	6.9 165
-------------	------------	------------	------------	------------	------------	------------	------------	------------

9.2 100	7.9 156	7.8 156	7.3 161	6.8 162	6.3 165	5.8 168	5.3 171	4.8 174
------------	------------	------------	------------	------------	------------	------------	------------	------------

18.16

56 = El House

4640

+96 = Nly Paving Occas View Taken on Line of Occas View

+82 = Narty Curb Line

+558 = S

+298 = South Curb Line

45+158 = Sly Paving Occas View Taken on Line of Occas View

29.71

18.31	17.83	18.92	18.14	18.93	19.74	19.47	19.91	22.42	23.16	26.98	27.54
11.10	11.88	10.78	11.57	10.98	10.55	10.41	9.80	7.99	6.55	8.30	8.80
100-16	65-16	46-16	46-16	20	14-16	106-16	11-16	50-16	50-16	100-16	100-16

11.4	10.8	10.99	11.41	10.21	10.48	10.57	9.91	9.7	6.6	17	11.4
100	50	32-16	30-16	16	102	30-16	30-16	14	50	100	100
18.3	18.9	18.3	18.3	19.5	19.2	19.1	19.8	20.5	23.1	28.2	28.2
11.40	11.88	10.78	11.57	10.98	10.55	10.41	9.80	7.99	6.55	8.30	8.80
65-16	65-16	46-16	46-16	20	14-16	106-16	11-16	50-16	50-16	100-16	100-16
18.21	17.86	18.20	18.26	18.51	18.23	19.34	19.61	22.18	23.03	26.50	27.19
11.50	12.05	11.01	11.65	11.20	10.72	10.37	9.95	7.53	6.88	8.11	8.66
100-16	100	45-16	45-16	25	15-16	105-16	11-16	50-16	50-16	100-16	100-16
18.6	18.8	18.7	18.3	19.1	19.2	19.2	19.8	20.3	22.8	25.9	25.9
11	10.9	10.99	11.40	10.56	10.50	10.47	9.85	9.5	6.9	10	10
100	16	32-16	30-16	16	1050	6-16	8-16	16	50	100	100

29.71

49+0

7P 779 2471 1279 1692

+50

18.0
100

48+0

+50

47+0

46+50

2971

4.

5.

pt.

66

12.4
100

10.5
78

15.3
85 = 11/100

16.2
50 = 1/200

10.2
30

8.2
165

15.0
20

14.7
80

11.5
92

11.8
100

09.5
20

08.7
20 = 1/100

15.0
55

15.4
40

17.1
26

15.7
50

10.6
100

07.2
20

14.0
110 = 1/100

14.9
100 = 1/100

15.3
40

16.8
29

18.1
12

18.9
55

15.4
100

15.0
100

15.0
40

16.5
13

18.8
20

24.6
10

15.3
100

15.0
100

15.1
50

16.8
29

21.8
60

30.7
100

14.9
100

15.1
10

17.8
119

20.8
60

27.8
100

2971

+50

19.7
100
19.7

51+0

TP 2.96 34.07 0.42 25.11

TP 11.13 25.53 10.31 14.40

0.7 M.H.
R170
40.11 52.105

+50

50+0

49+50

9.6
100
9.6 15.1

24.71

Lt.

Rt.

Rt.

67

19.7 70	14.3	19.7 80	12.8	21.8 70	12.8	23.4 70	10.2	23.6 70	10.5	20.3 70	13.8	20.3 70	16.9	17.7 70	24.5 70	24.5	44.4 70	29.2	49.0 70	34.1
19.2 100	14.8	19.2 70	14.1	20.0 70	14.1	20.4 70	10.2	20.4 70	10.2	20.4 70	13.2	20.4 70	16.9	15.7 70	25.3 70	25.3	28.8 70	25.3	33.7 70	30.4
14.2 100	14.2	14.2 70	16.2	11.6 70	15.1	14.7 70	10.2	15.5 70	10.2	13.4 70	17.1	13.4 70	17.1	14.1 70	28.8 70	28.8	28.8 70	33.5	33.5	33.5
14.5 100	14.5	14.5 70	13.2	15.6 70	10.2	15.7 70	10.2	12.2 70	10.2	11.3 70	15.9	15.9	15.9	15.9	27.4 70	27.4	27.4 70	36.2	36.2	36.2
9.3 65	15.4	11.9 50	12.8	15.6 70	10.2	15.0 70	10.2	12.3 70	10.2	8.8 70	15.9	15.9	15.9	15.9	21.1 70	21.1	21.1 70	29.5	29.5	29.5

24.71

5470

+75

+50

TP 1179 33.78 12.08 21.99

5370

+50

123
218
100

5270

3407

4.

8

R.

68

188 100	188 70	181 70	181 90	145 70	122	11326 12	11321 10	+18 50	+28 70	+11 100
19145 100	19145 60	179152 60	161177 20	130208		10235 50		11321 70	10343 10	
	1033 205 100	133 609 27	155 180 22	170 160	130208	11228 40	10242 70	70 100		
					30.78					
159 100	180 50	200 100	212 60	176 15	15104 17	10215 60	10238 60	10305 80	10532 100	
112 229 80	15 75	150 60	125 50	143 10	112 164	10204 60	10241 50	10241 60	10349 100	
131 100	121 85	115 50	125 50	153 188		10165 70	10172 20	10234 60	10341 100	

3407

pt

2

lt

16-	142	15-	13-	12-	14-	12-	12-	16-
238 100	252 100	248 100	218 95	217 100	247 75	217 95	217 95	238 100
145	152	148	148	152	152	153	153	145
254 85	247 80	236 55	236 55	247 75	247 75	236 55	236 55	254 85
158	142	161	161	173	173	173	173	158
241 75	257 40	225 70	225 70	226 40	226 40	225 70	225 70	241 75
141	199	248	248	248	248	248	248	141
258 85	208 76	150 47	150 47	151 20	151 20	150 47	150 47	258 85
192	305	301	301	300	300	301	301	192
200 13	938 25	95	95	99	99	95	95	200 13
276	350	348	348	345	345	348	348	276
113	15	15	15	25	25	15	15	113
89 8	49 15	48 10	48 10	51 25	51 25	48 10	48 10	89 8
310	372	383	383	397	397	383	383	310
90 5	615 60	615 60	615 60	607 60	607 60	615 60	615 60	90 5
351	381	381	381	416	416	381	381	351
42 60	80 80	80 80	80 80	117 100	117 100	80 80	80 80	42 60
370	370	387	387	387	387	387	387	370
119 100	110 100	110 100	110 100	110 100	110 100	110 100	110 100	119 100

33.78

12 5
212
100

39.94

+75

+50

56+0

+50

TP

9.93 39.94 277 30.01

55+0

54+50

33.78

+90

+50

61+0

+50

TP 1.74 29.13 12.55 27.39

60+0

59+50

39.94

57

28

71

71

27 100	21.4	106 90	18.5	132 70	15.9	122 55	16.6	112	17.2	111 80	18.0	118 40	17.3	116 90	17.6	88 95	20.3	85 100	20.5
84 100	20.1	85 75	21.1	107 40	18.4	138 35	15.3	126	16.5	115 65	17.6	110 40	18.1	106 80	18.5	123 95	16.8	104 100	18.7
86 100	20.5	89 80	20.2	95 25	20.4	119 25	18.1	128	14.3	124 35	16.7	106 80	18.5	94 100	19.2				
89 100	20.2	90 75	20.1	88 65	20.3	105 40	18.8	113	12.3	107 55	15.4	110 65	18.1	98 100	19.3				
								29.13											
208 100	19.7	198 55	20.1	218 45	18.1	235	16.4	245 50	15.4	244 45	15.5	278 80	17.1	212 87	18.6	158 100	24.1		
206 100	19.3	196 55	20.3	216 48	18.3	238	16.1	241 45	14.8	230 60	16.9	227 85	17.2	206 80	19.3	99 100	30.9		

39.94

64+15 Sec # 1685 Page 2

BM 1.20 29.75
 B.P. H. Roll A
 81 dpt F of 84 1/2
 + Imperial
 29.57
 #1688-29

64+0

+50

TP 11.05 20.95 9.23 19.90

63+0 9/100 20.0

+50

62+10 10.9/100 18.2

29/13

Lt.

2

Rt.

72

Cont #1685 Page 2

20-	20-	19-	21-	23-	24-	26-	27-
109 100	106 50	114 25	109 100	71 6	61 10	49 48	48 100
18.3	20.9	20.1	19.3	19.9	23.8	27.8	27.0
104 100	111 80	109 50	104 100	129 42	137 80	54 75	55 100
16.5	19.8	20.3	18.5	18.9	18.9	23.5	24.2
126 75	98 80	88 50	77 25	106 50	102 45	9.8 80	5.5 70
18.2	17.9	16.9	18.2	16.4	16.4	23.2	23.6
104 100	111 82	102 55	102 25	104 100	129 42	137 80	54 75
16.1	15.6	17.3	16.9	17.2	17.2	17.2	21.1
120 77	125 80	112 60	109 80	111 50	114 70	119 50	77 80
17.2	17.2	17.2	17.2	18.0	17.2	17.2	22.0
104 100	111 82	102 55	102 25	104 100	129 42	137 80	54 75
16.1	15.6	17.3	16.9	17.2	17.2	17.2	21.1
120 77	125 80	112 60	109 80	111 50	114 70	119 50	77 80
17.2	17.2	17.2	17.2	18.0	17.2	17.2	22.0

29/13

Cross Section Federal Blvd. 100' wide
 47th St to West of Euclid Fre.
 Sketch Page 2

0+50

0+25: Paving E.C.

0+0 = East Line 47th St to South

0-40 = 47th to South

0-70 = W. of 47th to South

0+100 = Paving E.C. West of 47th St.

B.M. 7.05 235.10

228.05

2 L.T.
 Federal Blvd
 + 47th St

Indexed
 C.S.K.

L.H.

Rt. 5 Sept. 17-45
 811.55
 8099

73

229.9 229.1 228.8 228.4 229.1 228.92 229.2 229.3
 5.2 5.6 6.3 6.21 5.89 6.18 5.9 5.8
 50 26 22 18-H/100 18.5-H/100 50 100

229.5 228.7 228.5 228.65 228.8 228.20 228.9 228.9
 5.6 5.9 6.6 6.45 6.12 6.40 6.2 6.3
 50 26 22 18-H/100 18.5-H/100 50 100

228.4 228.6 228.6 228.20 228.4 228.64 228.39 228.35 228.7 228.6
 6.7 6.5 6.5 6.90 6.66 6.46 6.71 6.75 6.4 6.5
 100 50 35 24.5-H/100 18 18 24.3-H/100 50 100

228.05 228.23 228.28 228.05 228.57 228.85
 8.02 7.57 7.81 7.05 7.23 7.15
 100 40 18 18 40 40

227.3 226.92 227.24 227.51 227.24 227.36 227.8
 7.0 8.18 7.86 7.89 7.86 7.74 7.8
 40 30.5-H/100 13 18 18 30.5-H/100 40

226.8 226.52 226.92 226.52 226.2
 8.3 8.58 8.18 8.52 8.9
 40 18-H/100 20.5.10 18.5-H/100 40

4+0

$\frac{232.7}{2.1}$ 50	$\frac{232.3}{2.8}$ 50	$\frac{231.1}{4.0}$ 24	$\frac{231.27}{3.88}$ 18	$\frac{231.64}{3.46}$ 18	$\frac{231.17}{3.93}$ 18	$\frac{231.40}{4.1}$ 40	$\frac{230.1}{5.0}$ 45	$\frac{230.1}{5.0}$ 50
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	----------------------------	---------------------------	---------------------------

18=5/1/10u

+50

$\frac{232.5}{2.3}$ 50	$\frac{232.2}{2.9}$ 50	$\frac{231.1}{4.0}$ 24	$\frac{231.26}{3.84}$ 18	$\frac{231.61}{3.49}$ 18	$\frac{231.23}{3.88}$ 18	$\frac{231.3}{3.9}$ 30	$\frac{230.3}{4.8}$ 45	$\frac{230.4}{4.7}$ 50
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	---------------------------	---------------------------

3+0

$\frac{232.8}{2.3}$ 50	$\frac{232.3}{2.8}$ 30	$\frac{231.2}{3.9}$ 24	$\frac{231.10}{3.90}$ 18	$\frac{231.50}{3.60}$ 18	$\frac{231.15}{3.95}$ 18	$\frac{231.4}{3.7}$ 35	$\frac{230.6}{4.5}$ 50	$\frac{230.3}{4.8}$ 80
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	---------------------------	---------------------------

18=5/1/10u

+50

$\frac{232.4}{2.5}$ 50	$\frac{232.0}{3.1}$ 30	$\frac{230.9}{4.2}$ 24	$\frac{230.94}{4.18}$ 18	$\frac{231.24}{3.86}$ 18	$\frac{230.88}{4.22}$ 18	$\frac{231.4}{3.7}$ 38	$\frac{230.9}{4.2}$ 50	$\frac{230.5}{4.6}$ 100
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	---------------------------	----------------------------

2+0

$\frac{232.2}{2.9}$ 50	$\frac{231.6}{3.5}$ 30	$\frac{230.5}{4.6}$ 24	$\frac{230.4}{4.70}$ 18	$\frac{230.26}{4.54}$ 18	$\frac{230.42}{4.68}$ 18	$\frac{230.8}{4.3}$ 50	$\frac{231.0}{4.1}$ 100
---------------------------	---------------------------	---------------------------	----------------------------	-----------------------------	-----------------------------	---------------------------	----------------------------

+50

$\frac{231.4}{3.7}$ 50	$\frac{231.4}{4.1}$ 28	$\frac{230.10}{5.0}$ 22	$\frac{230.01}{5.09}$ 18	$\frac{230.34}{4.76}$ 18	$\frac{230.05}{5.05}$ 18	$\frac{230.2}{4.9}$ 50	$\frac{230.8}{4.8}$ 100
---------------------------	---------------------------	----------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	----------------------------

1+0

$\frac{230.5}{4.6}$ 50	$\frac{230.3}{4.8}$ 38	$\frac{229.4}{5.7}$ 22	$\frac{229.50}{5.41}$ 18	$\frac{229.54}{5.26}$ 18	$\frac{229.48}{5.63}$ 18	$\frac{229.7}{5.4}$ 50	$\frac{230.3}{4.8}$ 100
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18=5/1/10u

235.10

235.10

770

229.5	230.7	229.4	229.65	229.03	229.65	228.8	229.7	229.8
46	47	40	5.99	5.41	5.99	6.8	7.7	7.1
50	32	36	18	18	18	39	41	50

+50

234.1	229.2	229.8	229.94	230.35	229.93	229.0	228.9	228.1
43	47	56	5.50	5.09	5.51	6.4	7.5	7.5
50	31	26	18	18	18	40	42	50

670

231.3	231.2	230.1	230.22	230.57	230.27	229.5	228.3	228.6
41	42	58	5.22	4.85	5.17	5.9	7.1	6.8
50	33	38	18	18	18	40	42	50

+50

231.7	231.3	230.3	230.51	230.88	230.60	229.6	228.5	228.9
47	41	51	4.95	4.55	4.84	5.8	6.6	6.5
50	33	34	18	18	18	40	42	50

570

232.1	231.6	230.4	229.26	231.23	230.84	230.3	229.4	228.4
43	48	50	4.68	4.21	4.50	5.1	6.0	6.0
50	30	34	18	18	18	40	42	50

4750

232.5	232.1	231.0	231.08	231.51	231.11	230.6	229.8	229.2
49	43	44	4.26	3.93	4.32	4.8	5.6	5.7
50	30	34	18	18	18	40	42	50

TP

2.65 235.44 2.31 232.79
 235.10

235.44

4.

8

PL

750

1070

TP 3.88 231.42 790 227.54

750

970

750

870

7750

23544

$\frac{228.2}{2.1}$ 50	$\frac{228.4}{3.0}$ 90	$\frac{227.2}{4.2}$ 97	$\frac{225.8}{5.6}$ 25	$\frac{226.25}{5.7}$ 18	$\frac{226.63}{4.79}$ 18	$\frac{226.31}{5.11}$ 18	$\frac{228.8}{5.5}$ 38	$\frac{228.1}{5.9}$ 48	$\frac{225.3}{6.1}$ 50
$\frac{229.6}{1.8}$ 50	$\frac{228.6}{2.8}$ 32	$\frac{226.8}{2.6}$ 24	$\frac{226.89}{4.2}$ 18	$\frac{227.31}{4.07}$ 18	$\frac{227.07}{4.40}$ 18	$\frac{226.9}{3.8}$ 38	$\frac{225.8}{5.6}$ 41	$\frac{225.9}{5.5}$ 50	
					231.42				
$\frac{229.0}{5.4}$ 50	$\frac{229.3}{6.1}$ 30	$\frac{227.6}{7.8}$ 24	$\frac{227.65}{7.79}$ 18	$\frac{229.06}{7.44}$ 18	$\frac{227.66}{7.78}$ 18	$\frac{226.9}{8.5}$ 38	$\frac{226.1}{9.2}$ 41	$\frac{226.3}{9.1}$ 50	
$\frac{229.2}{5.2}$ 50	$\frac{228.3}{6.1}$ 30	$\frac{228.1}{7.3}$ 24	$\frac{228.84}{7.10}$ 18	$\frac{228.70}{6.94}$ 18	$\frac{228.38}{7.06}$ 18	$\frac{227.8}{7.6}$ 38	$\frac{226.6}{8.8}$ 42	$\frac{226.7}{8.7}$ 50	
$\frac{229.1}{5.3}$ 50	$\frac{229.2}{5.7}$ 29	$\frac{228.2}{6.7}$ 24	$\frac{228.93}{6.51}$ 18	$\frac{229.36}{6.08}$ 18	$\frac{229.02}{6.42}$ 18	$\frac{228.1}{7.2}$ 39	$\frac{226.9}{8.5}$ 41	$\frac{222.0}{8.4}$ 50	
$\frac{229.1}{5.3}$ 50	$\frac{228.8}{5.6}$ 30	$\frac{228.8}{6.6}$ 25	$\frac{229.20}{6.24}$ 18	$\frac{229.66}{5.98}$ 18	$\frac{229.24}{6.20}$ 18	$\frac{228.3}{7.1}$ 39	$\frac{227.2}{8.2}$ 41	$\frac{222.4}{8.0}$ 50	
$\frac{229.7}{7.7}$ 50	$\frac{229.2}{5.2}$ 32	$\frac{228.0}{6.4}$ 26	$\frac{228.41}{6.03}$ 18	$\frac{229.81}{5.63}$ 18	$\frac{229.46}{5.98}$ 18	$\frac{228.6}{6.8}$ 39	$\frac{227.4}{8.0}$ 41	$\frac{227.6}{7.8}$ 50	

23544

13+0

+50

12+0

BM

6.11

225.31

SE Top of Hyd
Federal 4494
225.33

+50

+15 = 49th St to South

11+0

231.42

4.

8

9.

77

22266	2248	22288	22301	22335	22362	22389	2241	2229
18	46	81	84	8.07	8.40	8.5	8.13	5.5
50	35	25	18		18	36	41	50

18-HHP

2224	2251	2235	22364	22400	22372	2237	2243	226	2257
14	13	79	778	742	770	79	71	54	63
50	35	26	18		18	24	30	39	50

2274	2256	2247	22434	2242	22436	2246	2247	2248
10	5.8	79	7.08	6.80	7.06	7.1	6.7	6.5
50	35	26	18		18	24	26	50

2281	2261	2245	22591	22522	22492	2257	2248
8.3	5.3	6.9	8.41	6.15	6.45	6.2	6.6
50	35	26	18		18	26	50

2287	2269	2249	22142	22572	22545	22510
26	4.8	6.5	5.99	5.65	5.77	6.4
50	35	26	18		18	50

2259	2262	2254	22565	22595	22566	2255	2251
7.5	7.5	6.4	5.97	5.44	5.76	5.8	6.3
50	35	26	18		18	34	50

231.42

15+0

$\frac{228.1}{1.3}$ 50	$\frac{228.5}{3.6}$ 35	$\frac{220.7}{6.3}$ 25	$\frac{220.15}{8.21}$ 18	$\frac{220.57}{5.97}$ 18	$\frac{220.26}{8.10}$ 18	$\frac{220.7}{8.3}$ 26	$\frac{224.7}{7.9}$ 38	$\frac{224.8}{1.6}$ 50
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	---------------------------	---------------------------

+50

$\frac{225.6}{0.8}$ 50	$\frac{223.3}{3.1}$ 35	$\frac{224.5}{5.1}$ 25	$\frac{220.82}{5.51}$ 18	$\frac{221.83}{5.13}$ 18	$\frac{220.80}{5.46}$ 18	$\frac{220.7}{5.7}$ 26	$\frac{224.9}{1.5}$ 34	$\frac{225.3}{1.2}$ 50
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	---------------------------	---------------------------

+35

$\frac{225.2}{0.7}$ 50	$\frac{223.5}{2.9}$ 35	$\frac{224.0}{5.1}$ 25	$\frac{221.05}{5.51}$ 18	$\frac{221.41}{4.95}$ 18	$\frac{221.13}{5.23}$ 18	$\frac{220.8}{5.6}$ 25	$\frac{224.7}{7.7}$ 32	$\frac{225.8}{0.6}$ 50
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	---------------------------	---------------------------

+25

$\frac{225.5}{0.6}$ 50	$\frac{223.6}{2.8}$ 35	$\frac{221.1}{5.3}$ 24	$\frac{221.32}{5.14}$ 18	$\frac{221.58}{4.78}$ 18	$\frac{226.22}{5.09}$ 18	$\frac{226.9}{4.5}$ 37	$\frac{226.36}{0.0}$ 43	$\frac{226.36}{0.0}$ 50
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	---------------------------	----------------------------	----------------------------

TP 5.38 226.36 10.44 220.98

226.36

14+0

$\frac{221.7}{5.9}$ 50	$\frac{222.9}{7.6}$ 35	$\frac{221.2}{9.0}$ 25	$\frac{221.54}{9.88}$ 18	$\frac{221.91}{9.51}$ 18	$\frac{221.63}{8.79}$ 18	$\frac{226.2}{10.2}$ 38	$\frac{227.1}{1.5}$ 43	$\frac{222.3}{1.1}$ 50
---------------------------	---------------------------	---------------------------	-----------------------------	-----------------------------	-----------------------------	----------------------------	---------------------------	---------------------------

13+50

$\frac{226.4}{5.4}$ 50	$\frac{224.2}{7.3}$ 35	$\frac{222.1}{9.8}$ 25	$\frac{222.30}{9.19}$ 18	$\frac{221.68}{8.74}$ 18	$\frac{222.82}{9.05}$ 18	$\frac{222.1}{9.3}$ 38	$\frac{222.9}{5.5}$ 41	$\frac{222.9}{3.5}$ 50
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231.42

231.42

Cost # 1570-69

+50

1740

+90

+50

1640

+85.5 365R/0/2 = 1/4 Power Pole

15+50

226.86

Lt.

B

Pt.

79

$\frac{220.7}{5.7}$	$\frac{218.6}{7.8}$	$\frac{216.5}{9.9}$	$\frac{216.71}{9.65}$	$\frac{222.5}{9.0}$	$\frac{216.23}{9.63}$	$\frac{216.3}{10.1}$	$\frac{212.8}{8.6}$	$\frac{223.5}{10.0}$	$\frac{223.3}{5.1}$
50	35	24	18	18	18	25	35	39	50

$\frac{221.4}{5.0}$	$\frac{218.2}{7.9}$	$\frac{212.4}{9.0}$	$\frac{212.41}{8.95}$	$\frac{212.76}{8.60}$	$\frac{219.3}{8.93}$	$\frac{212.3}{9.1}$	$\frac{221.2}{5.9}$	$\frac{221.0}{5.1}$
50	35	24	18	18	18	31	38	50

$\frac{221.5}{7.9}$	$\frac{218.5}{6.9}$	$\frac{212.6}{8.8}$	$\frac{212.56}{8.80}$	$\frac{212.87}{8.49}$	$\frac{212.57}{8.79}$	$\frac{212.5}{8.9}$	$\frac{220.6}{5.2}$	$\frac{220.1}{6.3}$
50	35	25	18	18	18	24	21	50

$\frac{222.1}{7.8}$	$\frac{220.3}{8.1}$	$\frac{218.2}{8.1}$	$\frac{212.9}{8.27}$	$\frac{212.49}{7.87}$	$\frac{218.19}{8.17}$	$\frac{212.0}{8.4}$	$\frac{220.5}{5.9}$	$\frac{220.3}{6.1}$
50	35	25	18	18	18	25	38	50

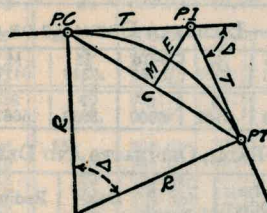
$\frac{223.0}{3.4}$	$\frac{221.9}{4.5}$	$\frac{218.5}{2.6}$	$\frac{218.26}{2.80}$	$\frac{219.24}{2.15}$	$\frac{218.86}{2.50}$	$\frac{218.9}{2.5}$	$\frac{221.1}{5.3}$	$\frac{221.5}{4.6}$
50	40	24	18	18	18	35	36	50

$\frac{222.7}{3.3}$	$\frac{222.9}{3.5}$	$\frac{219.3}{2.1}$	$\frac{219.43}{3.3}$	$\frac{219.89}{6.47}$	$\frac{219.58}{6.78}$	$\frac{218.4}{7.0}$	$\frac{222.9}{3.5}$	$\frac{222.8}{3.6}$
50	35	25	18	18	18	24	30	50

226.86

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



CURVE FORMULAS

$$\text{Radius} = R = \frac{50}{\sin \frac{D}{2}} \quad (1) \quad \text{Degree of Curve} = D \text{ and } \sin \frac{D}{2} = \frac{50}{R} \quad (2)$$

$$\text{Tangent} = T = R \tan \frac{\Delta}{2} \quad (3) \quad \text{Length of Curve} = L = 100 \frac{\Delta}{D} \quad (4)$$

$$\text{Middle ordinate} = M = R \left(1 - \cos \frac{\Delta}{2}\right) \quad (5) = R \text{vers } \frac{\Delta}{2} \quad (6)$$

$$\text{External} = E = T \tan \frac{\Delta}{4} \quad (7) = R \div \cos \frac{\Delta}{2} - R \quad (8) = R \text{exsec } \frac{\Delta}{2} \quad (9)$$

$$\text{Long Chord} = C = 2 R \sin \frac{\Delta}{2} \quad (10) \quad \Delta = \text{Central Angle}$$

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{2} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C. = Sta. P. I. — $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T. = Sta. P. C. + $L = 164 + 91.50$.

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

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

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{2} = 115.27$ and from Table V correction = .10 or $E = 115.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9 + (20 - 16) ÷ 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

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