1722

# EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS.

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

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

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

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1722

C 2552 A

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Made in U. S. A.

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to b
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30.6

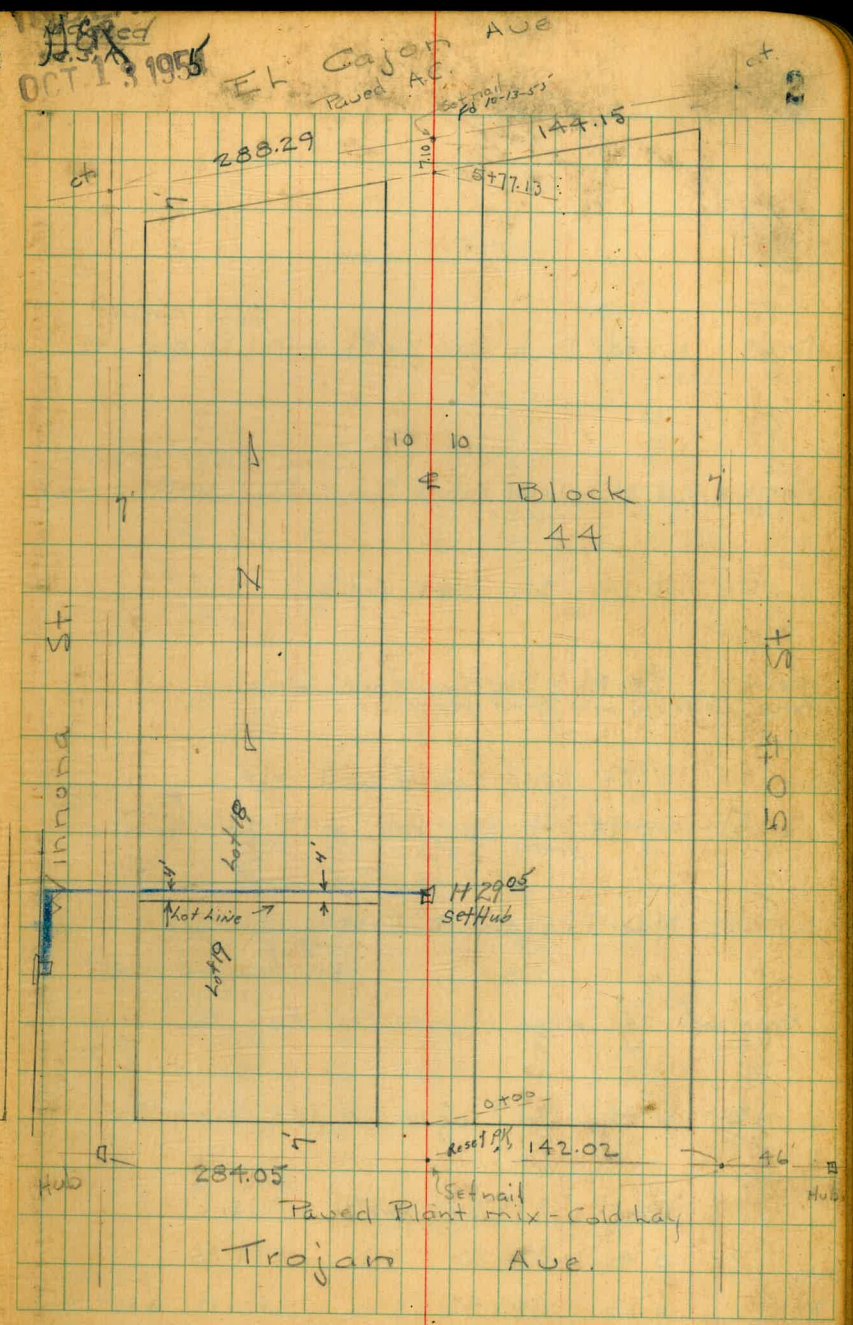
X-Sect. 20' Alley in Blk. 44 Map 1368.

TRACT 1368 - FAIRMOUNT

Osborne
McCoy
Hardin

6-28-46

Re X-Sec 10-13-55 Dalmich
wot 31222



X-Sect. 20' Alley

0+69 - N. end Doub. Gar on Rt + 10.1 Rt. beg. 6" Conc. wall Joins Apron

0+53 = 12.8 Rt. = N. end slab. + S. end Double Gar on Rt Conc. floor & Apron

0+50 - 10' Lt = Sly shed. dirt floor

0+47 - 12.8' Rt = S.W. Cor. Conc. Slab.
0+42 10.3 Rt end wood plank retainer

0+19 = 10' Rt = end Cobble wall

0+02 - ~~9.2 Lt. = ℄ Guy Pole~~ gone + 9.2 Rt. = ℄ Tel. pole 8" 492593H

0+00 = N.L. Trojan ~~8" Cobble wall~~ gone joins cb. on Rt. (Now wood planks)

Please Note AC. & Cbs in poor condition Cb line to Property line Trojan

0-12 = N. cb. Line Trojan Ave - Plant Mix Cold Lay Pave

| | | | | |
|---|---|---|---|---|
| | 6.60 | 377.87 | 3.53 | 371.27 |
| | 0.46 | 374.80 | 9.11 | 374.34 |
| B.M. | 0.33 | 383.45 | | 383.12 |

S.W. Eh. Cajon + 80th Brass plug gone - used 01 Lower



Lt. ℄ Rt.

70.09
7.78
10 = Apron

70.82
7.05
14.9
Floor

70.57
7.30
10 = edge Apron

70.76
7.11
12.8
edge slab.

70.52
7.05
14.9
Floor Gar.

70.0
7.9
20

70.3
7.6
10

70.5
7.4

70.9
7.1
10

70.98
6.89
12.8
on Conc.

72.3
5.6
10

72.4
5.5

73.0
4.9
10

73.92
3.95
10
Top face wall

73.02
4.85
10.25
Top cb.
end Ret.

72.78
5.09
10.25
gut

72.65
5.02

72.99
4.88
9.8
gut.

73.53
4.34
9.8
Top cb.
end Ret.

7040
7.47
40
gut

72.81
5.06
10
Top cb.
square Ret.

72.01
5.86
10
gut.

72.36
5.49

72.74
5.13
10
gut.

73.38
4.49
10
Top cb.
sq. Alley Ret.

73.57
4.30
40

377.87

2+04 - 11.5 Lt. = ℄ 4x3 Conc. porch

2+00

11.2 Rt = Begin water 6" con wall

1+99 - 11.2 Rt. = end 6" Wall + 8.7 Lt. = ℄ 8" P. pole #A4337

1+79 = 14.7 Lt. = S.E. Cor. Good siding house

1+76 = 11.2 Rt. = beg. 6" Conc wall + 9.2 Lt. = beg. pickett fence

1+76 = 9.2 Lt end con apron to apts (3) garages

1+58 = ℄ Double Gar. on Rt. Conc floor + apron

1+50

1+48 - 9.2 Rt. = ℄ 10" Tel. pole #JPA4330

1+25 - 8.5 Lt = end pickett fence

1+25 - 8.2 Lt Begin con apron to 3 car apt garages con floors

1+00 - 10 Rt = end 6" Conc. wall

| T.P. | 6.00 | 373.34 | 10.53 | 367.34 |
|---|---|---|---|---|

0+75 - 10 Lt. = N'ly shed. + 8.7 Lt. beg. pickett fence

0+74 - 8.7 Lt. ℄ = 12" P. pole #PA4311



Lt. ℄ Rt.

68.78 — 4.56 — 11.5 = Top porch

66.01 — 5.33 — 11.5 on edge of N. + S. 3' walk

67.6 — 5.7 — 14.7 at house

67.6 — 5.7 — 10

67.4 — 5.9 — 9 — ℄ Small drain Ditch

68.1 — 5.2 — 8

68.2 — 5.1

69.0 — 4.3 — 10

69.06 — 4.28 — 14.7 — Floor Elev.

67.4 — 5.9 — 14.7 — Ground at Cor.

69.5 — 11.2 — 9.2 — 11.2 Footing

70.38 — 2.96 — 11.2 — Top wall

70.73 — 2.91 — 11.2 — Top wall

68.5 — 11.2 — 9.2 — 11.2 Footing

69.55 — 15.2 — Floor

68.54 — 10 — grade

68.91 — 9.2

68.38 — 4.76 — 11.5 — Apron

69.65 — 3.69 — 25 — Floor Gar.

66.5 — 6.8 — 20

69.00 — 8.2 — apron

67.8 — 6.3 — 10

68.5 — 8.5

67.4 — 5.9

68.1 — 5.2 — 10

68.5 — 8.2 — 20

69.47 — 15.2 — Floor

69.08 — 10 — grade

69.04 — 8.2 — apron

67.0 — 6.3 — 20

68.5 — 6.0 — 10

67.2

67.6 — 5.7

68.1 — 5.2 — 10

68.7

70.08 — 3.26 — 10 — Topwall

68.7 — 4.6 — 20

70.06 — 3.28 — 20

68.4 — 9.5 — 20

68.6 — 9.3 — 10

373.34

68.7 — 9.2

69.2 — 8.7 — 10 — ground

70.15 — 7.72 — 10 — Topwall

Top wall E. + W. 70.1 — 7.8 — 20

377.87

3+21 - 11.2 Rt = N.W. Cor. Good shingle house

3+00

2+98 - 9' Rt. = ℄ 8" Tel. pole #610282 H

2+97 = 10.4 Rt = ℄ 2' Conc. walk

2+95 - 10' Rt N. end Doub. gar.

2+87 - 9' Rt. = ℄ 8" Apple Tree (with apples yet.)

T.P 8.80 380.97 1.17 372.17

2+77 - 10.1 Rt = S. end Doub. gar. Conc. floor

10° Rt = End 8" con block wall 6" high

2+77 - ~~9.6 Rt. = End Board fence~~ (replaced)

2+75 98 Lt end 4 garage con floor + apron 70.29 71.00 149 98 floor apron 2 high Nly

2+72 → High

2+54 98 Lt to con apron & 4 garages con floor 2 Low Sly

2+52 → Low

2+51 - ~~9.6 Rt. = Beg. Board fence~~

2+50 — 10° Rt Beg 8" con block wall 6" high)

2+43 - 1' Lt = ℄ Sewer M.H.

2+30 { 11° Rt end 6" con wall
98 Lt Sly of con apron to 2 of 4 garages con floor.

2+27 98 Lt & 3' con walk

2+26.7 - 1.1 Lt = ℄ Sewer M.H.

2+19 = ℄ Single Gar. on Lt. - Conc. floor + apron



℄

Lt. Rt.

71.6 9.4 20 | 72.7 8.3 10 | 73.1 7.9 | 73.7 7.3 10 | 76.68 4.29 11.2 Floor Elev.

73.79 7.18 10 on floor Gar. | 73.79 7.19 10.4 on walk

380.97

73.25

Note: plus rod. → + 0.41

10.1

69.8 3.5 30 | 71.3 71.6 10 | 2.0 71.8 10 9 | 72.3 1.0 | 72.8 0.5 10

72.3 10° 10° footing 86 | 73° 10° 10° footing 86

70.96 149 floor high | 69.35 149 floor low | 70.33 98 apron high | 69.69 98 apron low

69.56 3.78 on Rim

71° 10° 10° footing 86 | 71.5 10° 10° footing 86

67.3 6.0 30 | 68.5 69.30 149 floor 4.8 10 | 68.73 98 apron | 69.2 44 | 70.2 69.3 7 | 69.9 8 | 3.1 10 | 70 70 11° top | 69.6 11° footing

68.67 98 walk

68.92

66.50 6.84 38 = Floor Gar. | 68.09 5.28 9.6 = edge Apron | 4.42 11 on Rim.

373.34

4+30

4+28 - 9.7 Rt. = ℄ 10" Tel. pole # JPA 4374

4+27 = ℄ Sewer M.H.

4+25 10.5 Rt Begin 8 conblock wall 6' high

4+17 = ℄ Sing. Gar. on Rt. Conc. floor + apron

4+03 9.5 Lt Begin A.C. parking area

4+00

3+76 = 24' Lt. = ℄ Small siding House

3+75 = ~~10.2 Rt. = end wall~~
10.5 Rt end 8" conblock wall 6' high

3+58 - 10.2 Rt. = ~~Beg 6" single Cobble wall~~ replaced

3+54 = ℄ Sing. Gar. on Lt. - Wood floor

3+52 10.0 Rt Begin 8" conblock wall 6' high

3+50

3+41 = ℄ Double Gar. on Rt. Conc. floor + Apron

3+38 - 8.7 Lt. = ℄ 10" P. pole 104369

Lt. ℄ Rt.

~~75.3~~ 76.46 5.7 30 20 AC.

~~76.7~~ 76.9 4.8 10 10 AC.

76.99 9.5 AC.

76.9 4.1

77.8 3.2 10

76.77 4.20 on Rim

77.3 10.5 Footing

77.7 10.5 9.5

77.49 3.48 10.3 Apron

77.83 3.14 15.3 Floor

76.90 20 AC.

76.26 9.5 AC.

74.6 6.4 30

75.9 5.1 10

76.0 5.0

76.5 4.5 10

74.68 6.29 24 Floor Elev.

74.4 6.6 24 Ground

75.5 10.3 Footing

76.0 10.5 9.5

~~76.44~~ 4.56 ~~10.2~~ Top wall

~~75.87~~ ~~5.08 top~~ ~~10.2 wall~~

74.2 6.8 126 = floor

74.5 10.0 Footing

75.5 10.0 9.5

72.8 8.2 14

74.1 6.9 13

74.0 7.0 10

Top rough Cobble wall

74.5 6.5

75.2 5.8 10

75.62 5.35 18 edge apron

76.47 4.50 24.5 Floor gar.

380.97

5+19 = S. end Double Gar. on Rt. Conc. floor + apron

5+14 = S. end Conc. apron on Double gar. on Rt.

5+14 - 10 Σ Rt. = ~~End board fence~~ Con 8" block wall

T.P. 3.42 383.43 0.96 380.01

5+07 - 10' Lt. = N. end Oil pave + S.E. Cor. stucco Bld.

5+00

4+80 = Break in edge of oil pave on Lt.

4+79 - 9.5 Lt. = E 14" P. pole # A4381

~~4+76 - 10.3 Rt. = Beg. board fence~~ Now all 8" con block wall

4+66 - 9.8 Lt Σ deadman

4+61 - 13.1 Lt. = E 8' Conc. base for brick incinerator

4+61 9.5 Lt Σ deadman

4+50

4+44 - 9.7 Lt. = S.E. Cor. of Oiled parkway to back of Market

78.25
2.72
33.5 = Elev. of floor at Back Door of market

Lt. Σ Rt.

80.37
3.06
10.8
Apron

80.87
2.56
13.9
Floor

2.93
10.8 = on edge Conc. apron

79.2
10.5
footing

80.1
10.5
3d.

383.43
1.92
0.50

78.99
1.98
10 on oil Pave

78.37
2.70
20
on pave

78.77
2.20
9.9 = edge pave

79.2
1.8

79.5
8

80.0
1.0
10

80.5
20

78.56
2.41
9.8 on edge oil

78.04
2.93
13.1 = Top conc.

76.53
4.44
30
on oil

79.55
3.42
10 = edge oil

79.6
3.4

79.9
8

79.2
2.8
10

79.45
3.52
9.7 on cor.

380.97

Check B.M. 0.29 383.14 383.12 ✓

5+93.35 = S. cb. Line El Cajon on line of.

At int. of 7' Line El Cajon + ℄ Alley - face of cb. on Lt. = 10' + on Rt. = 9.8 at 90° to ℄

5+77.13 = S.L. El Cajon - Sect. along S.L. on angle end cbs & A.C. pad.

5+74 - 10' Lt. = N.E. Cor Bld.

5+73 10' Rt ℄ deadman

5+60

~~5+60 - 9.6 Rt = ℄ 10" Tel. pole #~~

5+56 10' Rt ℄ 10" Tel Pole # 547953 H

5+36 = N. end Doub. gar. + apron



76.78 ✓ 6.68 40 gut.

78.34 ✓ 5.09 10.15 Top 1 Rad. Ret. cb.

77.81 5.62 10.15 gut.

78.16 ✓ 5.27

78.49 ✓ 4.96 10.15 gut.

79.15 ✓ 4.28 10.15 Top cb. 1 Rad Ret.

79.35 ✓ 4.08 gut.

78.47 ✓ 4.96 10.2 Top cb.

78.39 ✓ 5.04 10.2 gut.

78.70 ✓ 5.23

78.63 ✓ 4.80 9.9 gut.

79.18 ✓ 4.25 9.9 Top cb. end Ret.

79.7 ✓ 3.7 10

~~80.0~~ 79.4 3.4

80.2 ✓ 79.7 9 3.2 10

79.6 ✓ 3.8 10

~~80.0~~ 79.6 3.4

80.45 80' 10 2.98 10.4 Apron

80.85 2.58 13.9 Floor gar.

383.43

Survey Storm drain
Betw. A & B Sts. and
27th & 28th
BLK. 59, H.M. Higgins

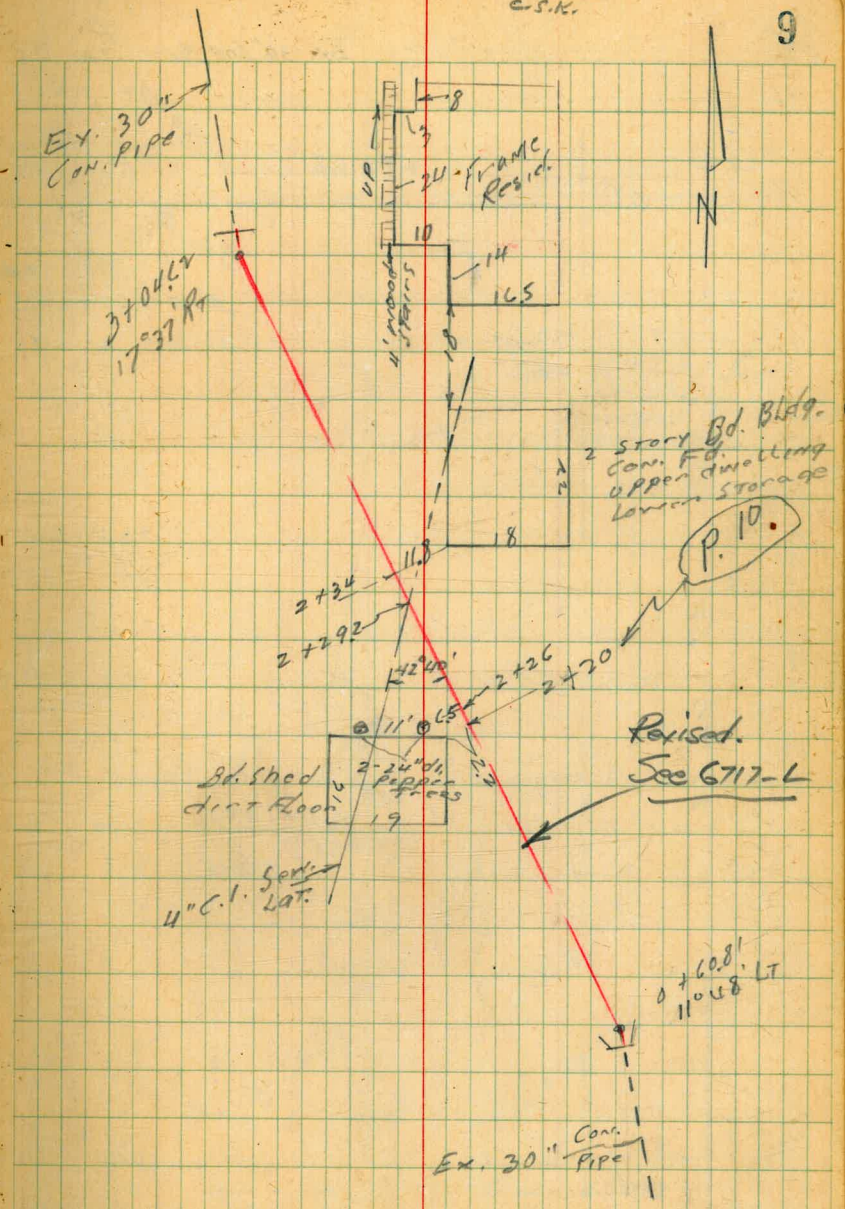
Carlano
Sorce-Mayer
Begg
ALLEN
7-12-46

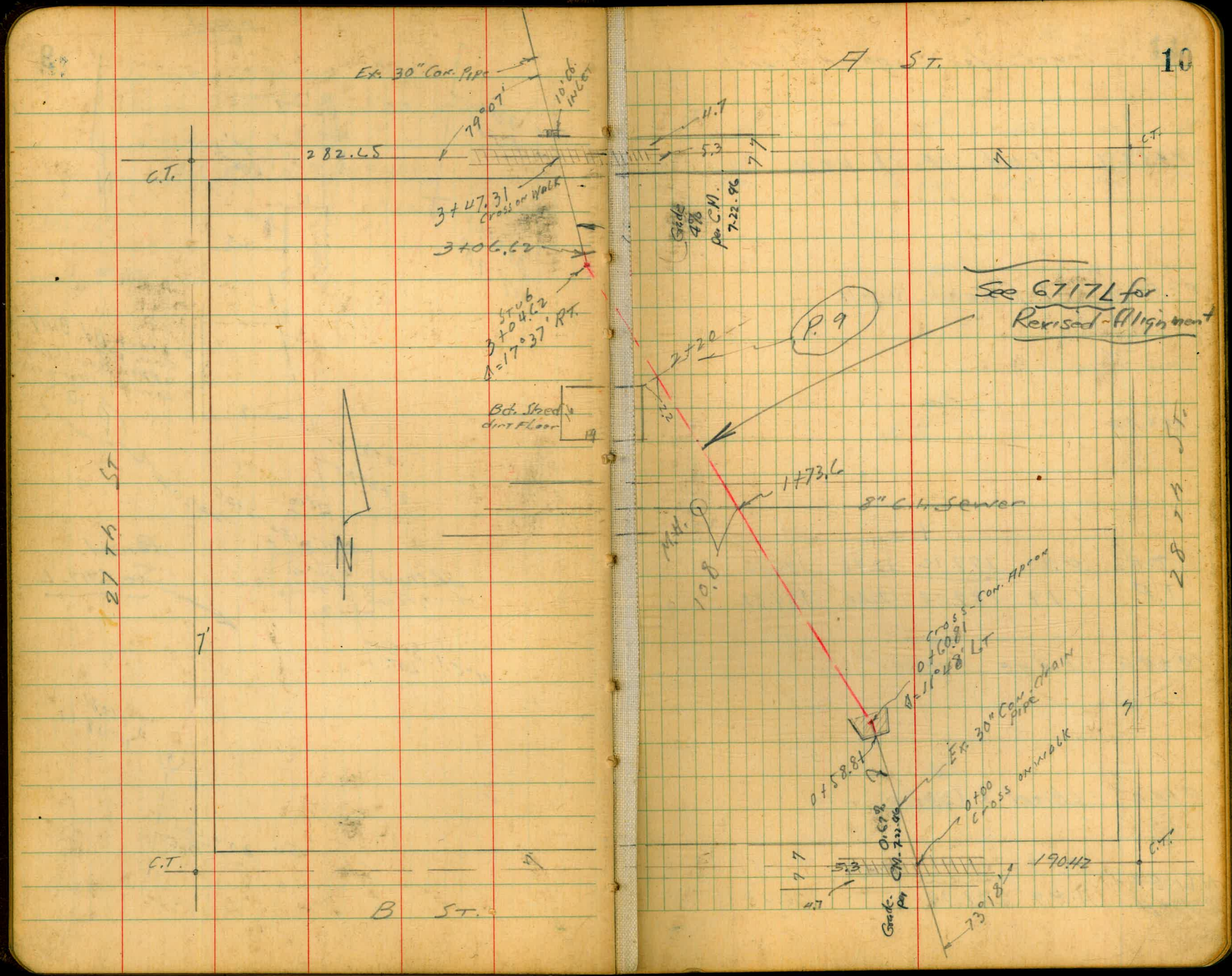
W.O. #37

— — — Proposed drain

indexed
C.S.K.






Ex. 30" Con. Pipe
10.06 INLET
79.07'
282.65
C.T.
3+47.31 Cross on Walk
3+06.62
Stub 3+04.62 RT. Δ=17°37'
Bd. Shed dirt Floor
27 Ft. St.
7'
N
C.T.
B St.
A St.
4.7
5.3
Grade 4% per C.M. 7-22-96
See 6717L for Revised Alignment
P. 9
2+20
2.2
173.6
8" C.I. Sewer
M.H.
10.8
Cross-Con. Apron
0+60.91
0+11.48' LT
Ex. 30" Con. Pipe
0+58.84
0+00 Cross on Walk
0.62% C.M. 7-22-96
190.42
73.18'
28 Ft. St.
C.T.

Levels for proposed drain

| | | | | |
|---|---|---|---|---|
| 0+58.81 | End of pipe | | | |
| 0+58.81 | Top head wall | | | |
| 0+44 | | | | |
| T.P. | 0.80 | 177.12 | 12.72 | 176.32 |
| T.P. | 1.19 | 189.04 | 12.44 | 187.85 |
| 0+06 | Edge bank | | | |
| 0+00 | = chisel X (See page 10) | | | |
| | 0.78 | 200.29 | 9.46 | 199.51 |
| N.W.B.P. 28th+A | 1.99 | 208.77 | — | 206.78 |

LT. = W ℄ RT. = East

| | | | | | | |
|---|---|---|---|---|---|---|
| 165.4 | 166.1 | 162.7 | 162.04 | 162.7 | 166.0 | 166.1 |
| 11.7 | 11.0 | 14.9 | 15.08 | 14.9 | 11.1 | 11.0 |
| 10 | 1.7 | 1.6 | F.L. pipe | 1.6 | 1.7 | 10 |

166.0
11.09

171.3
5.8

195.1
5.2

195.3
5.0

| | | | | |
|---|---|---|---|---|
| T. P. | 8.51 | 174.17 | 11.46 | 165.66 |
| 1+70 | | | | |
| 1+60 | | | | |
| 1+40 | | | | |
| 1+00 | | | | |
| 0+75 | | | | |
| 0+60.81 | L = 11° 48' Lt. | | | |
| | | 177.12 | | |



| Lt. West | | ℄ | | Rt. | |
|---|---|---|---|---|---|
| 167.1 / 10.0 / 10 | 166.5 / 10.6 / 5 | 164.8 / 12.3 / 3 | 164.6 / 12.5 | 166.0 / 11.1 / 3 | 166.6 / 10.5 / 10 |
| 166.5 / 10.6 / 10 | 166.4 / 10.7 / 6 | 165.3 / 11.8 / 3 | 163.0 / 14.1 | 165.7 / 11.9 / 2 | 166.3 / 10.8 / 5 | 166.1 / 11.0 / 10 |
| 165.6 / 11.5 / 10 | 165.8 / 11.3 / 7 | 163.8 / 13.3 / 4 | 163.7 / 13.4 | 163.8 / 13.3 / 2 | 165.7 / 11.4 / 5 | 165.4 / 11.7 / 10 |
| 164.5 / 12.6 / 10 | 164.7 / 12.4 / 4 | 162.7 / 14.4 / v. Ditch | 164.6 / 12.5 / 3 | 164.5 / 12.4 / 10 |
| 164.1 / 13.0 / 10 | 164.1 / 13.0 / 4 | 162.5 / 14.6 / v. Ditch | 164.8 / 12.3 / 5 | 165.6 / 11.5 / 10 |
| 162.0 / 15.1 | | | | |

177.12

2+34 see page 9

2+29.2 4" Lat. see page 9

2+20

2+10

1+88

1+73.6 Top of pipe ℄ 8" Sewer C.I. pipe

174.17



Lt. West ℄ Rt. East

| | | | | | | |
|---|---|---|---|---|---|---|
| 168.3 | 168.2 | 168.0 | 166.6 | 167.2 | | |
| 5.9 / 10 | 6.0 | 6.2 / 6 | 7.6 / 9 | 7.0 / 11.8 | | |
| | | | 167.93 | 169.08 | | |
| | | | 6.24 / 8' N. Int. top of pipe | 5.09 / 16' N. Int. | | |
| 169.2 | 168.8 | 167.9 | 165.4 | 165.8 | 169.1 | |
| 5.0 / 2.3 | 5.4 | 6.3 / 10 | 8.8 / 11 | 8.4 / 14 | 5.1 / 15 | |
| 169.2 | 169.2 | 169.2 | 166.0 | 166.0 | 168.8 | |
| 5.0 / 7 | 5.0 | 5.0 / 12 | 8.2 / 16 | 8.2 / 19 | 5.4 / 23 | |
| 169.7 | 169.4 | 168.4 | 167.6 | 165.6 | 167.3 | 167.3 |
| 4.5 / 10 | 4.8 / 4 | 5.8 | 6.6 / 3 | 8.6 / 5 | 6.9 / 7 | 6.9 / 10 |

165.84

8.33

174.17 ✓

| | | | | |
|---|---|---|---|---|
| Orig B.M. (206.98) | | | 4.17 | 206.94 ✓ |
| T.P. | 6.95 | 211.11 ✓ | 1.35 | 204.16 |
| T.P. | 12.15 | 205.51 ✓ | 0.81 | 193.36 |
| T.P. | 11.13 | 194.17 ✓ | 1.84 | 183.04 |
| T.P. | 11.49 | 184.88 | 0.78 | 173.39 |

3+06.62 Top head wall.

3+06.62 = F. Line End of pipe

3+04.62 = L 17°-37' Rt.

2+70

2+50

174.17



Lt. ℄ Rt.

3.44 170.73

7.23 166.94

| | | | | |
|---|---|---|---|---|
| 170.0 | 170.1 | 167.5 | 170.2 ✓ | 170.2 ✓ |
| 4.2 / 10 | 4.1 / 3 | 6.7 | 4.0 / 4 | 4.0 / 10 |

| | | | | | |
|---|---|---|---|---|---|
| 168.6 | 168.8 | 167.4 | 167.4 | 168.7 | 168.7 |
| 5.6 / 10 | 5.4 | 6.8 / 3 | 6.8 / 6 | 5.5 / 8 | 5.5 / 10 |

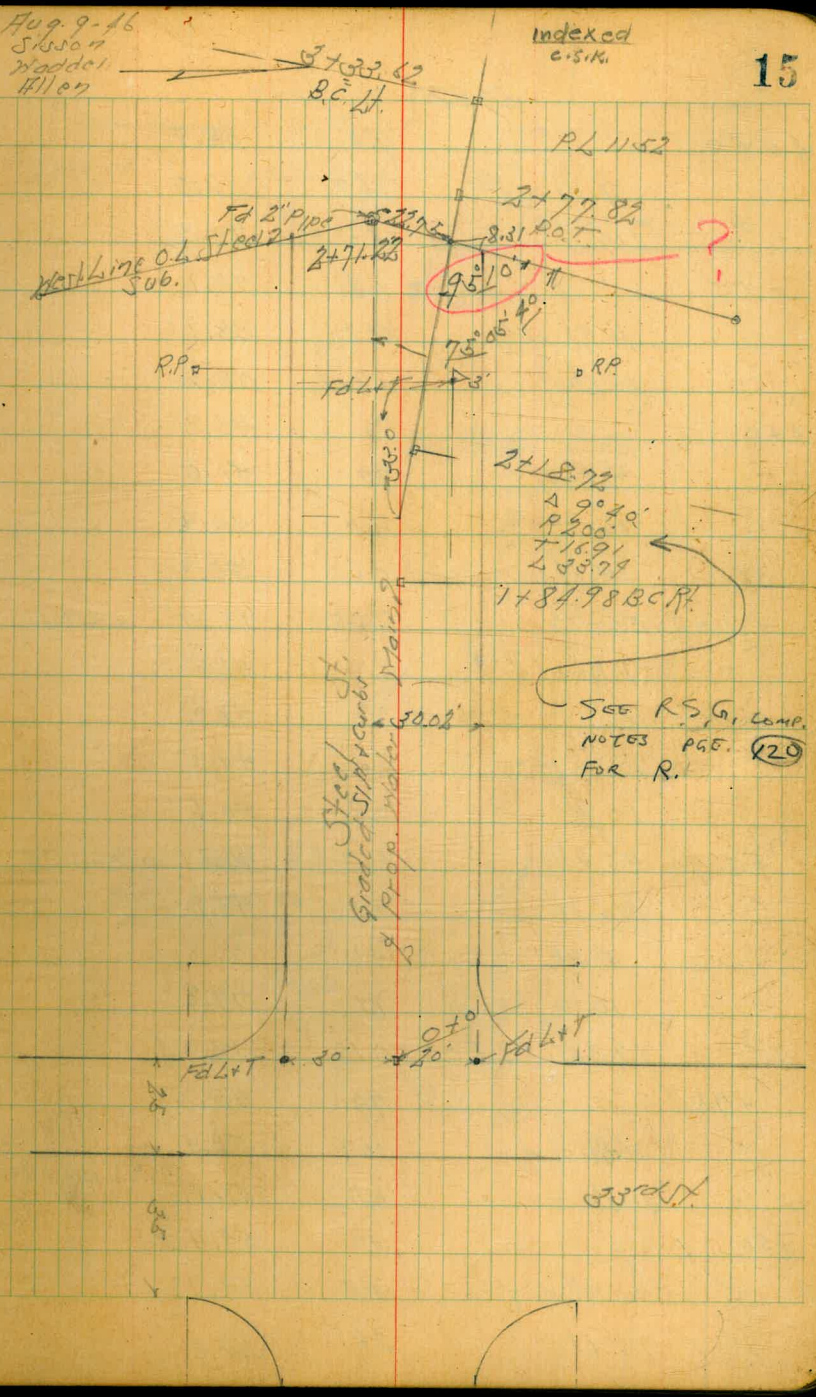
| | | | | | |
|---|---|---|---|---|---|
| 168.6 | 168.2 ✓ | 168.2 ✓ | 167.2 ✓ | 167.2 ✓ | 168.7 |
| 5.6 / 10 | 6.0 | 6.0 / 4 | 7.0 / 9 | 7.0 / 13 | 5.5 / 16 |

174.17 ✓

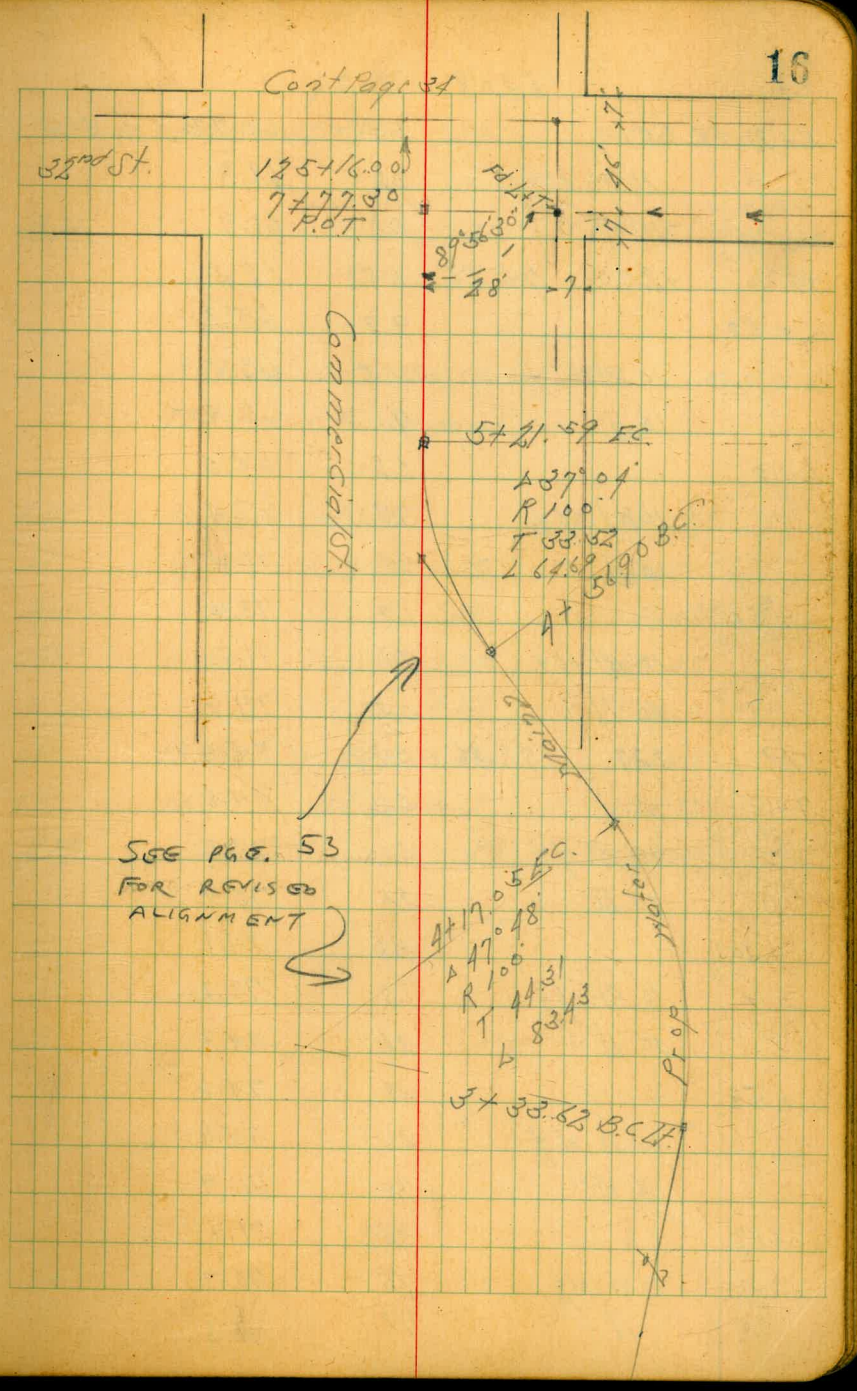
Alignment + Levels Proposed Water Main
Steel St + Commercial St. 33rd St to 32nd St.

| | | | | | |
|---|---|---|---|---|---|
| B.M. | 2.00 | 31.57 | | 29.57 | B.P.H. Rail Bridge Imperial Hwy E of 33rd St. |
| TP | 3.52 | 25.88 | 9.21 | 22.36 | |
| 0+0 | = W.L. 33rd St. | | 5.89 | 19.99 | on Stub |
| +50 | | | 5.5 | 20.4 | |
| 1+0 | | | 5.2 | 20.7 | |
| +50 | | | 4.8 | 21.1 | |
| +84.98 | BC Rt | | 4.12 | 21.76 | on Stub |
| 2+0 | | | 3.8 | 22.1 | |
| +18.72 | EC | | 3.04 | 22.84 | on Stub |
| +38 | | | 2.1 | 23.8 | |
| TP | 12.68 | 38.50 | 0.06 | 25.82 | |
| +65 | | | 5.2 | 33.3 | |
| " | 10' Lt of ℄ | | 0.8 | 37.7 | |
| " | 16' Rt " " | | 8.4 | 30.1 | |
| +80 | | | 3.5 | 35.0 | |
| " | 10' Rt of ℄ | | 7.7 | 30.8 | |
| " | 8' Lt " " | | 0.0 | 38.5 | |
| 3+0 | | | 3.1 | 35.4 | |
| " | 8' Rt of ℄ | | 6.7 | 31.8 | = Bottom Curb |
| " | 10' Lt " " | | +1.8 | ~~37.2~~ ← 39.8? | |
| +33.62 | = B.C. Lt | | 2.32 | 36.18 | on Stub |
| " | 2' Rt of ℄ | | 3.6 | 34.9 | |
| " | 10 " " " | | 4.4 | 34.1 | |
| " | H of ℄ | | +3.1 | 35.4 ← 41.6? | |
| TP | 12.57 | 50.92 | 0.15 | 38.35 | |





| | | | | | |
|---|---|---|---|---|---|
| | | 50.92 | | | |
| 3+50 | | | 12.0 | 38.9 | |
| " " | 7' Rt of ℄ | | 14.9 | 36.0 | |
| " " | 10' Lt " " | | 6.6 | 44.3 | |
| +75 | | | 6.8 | 44.1 | |
| " | 10' Rt of ℄ | | 12.2 | 38.7 | |
| " | 10' Lt " " | | 2.3 | 48.6 | |
| 4+0 | | | 7.6 | 43.3 | |
| " | 5' Rt of ℄ | | 9.9 | 41.0 | |
| " | 10' " " " | | 10.0 | 40.9 | |
| " | 10' Lt " " | | 0.6 | 50.3 | |
| +17.05 = EC | | | 7.55 | 43.37 | 0.05 Rt |
| " | 1' Rt of ℄ | | 8.1 | 42.8 | |
| " | 6' " " " | | 7.7 | 43.2 | |
| " | 10' " " " | | 6.4 | 44.5 | |
| " | 10' Lt " " | | 0.3 | 50.6 | |
| +56.90 | B.C. Rt. | | 4.18 | 46.74 | 0.05 Rt |
| " | 10' Lt of ℄ | | 1.7 | 49.2 | |
| " | 5' Rt " " | | 4.1 | 46.8 | |
| " | 10' " " " | | 1.1 | 49.8 | |
| TP | 12.34 | 63.08 | 0.18 | 50.74 | |
| +75 | | | 7.9 | 55.2 | |
| " | 10' Rt of ℄ | | 10.7 | 52.4 | |
| " | 10' Lt " " | | 6.7 | 56.4 | |
| 5+0 | | | 3.7 | 59.4 | |
| " | 10' Rt of ℄ | | 3.4 | 59.7 | |
| " | 10' Lt " " | | 2.6 | 60.5 | |



| | | | | | |
|---|---|---|---|---|---|
| | | 63.08 | | | |
| 5+21.59 | EC | | 1.36 | 61.72 | on Stub |
| " " | 10 Rt of ℄ | | 1.8 | 61.3 | |
| " " | 10 Lt " " | | 1.2 | 61.9 | |
| TP | 12.70 | 75.26 | 0.52 | 62.56 | |
| +50 | | | 9.7 | 65.6 | |
| " | 10 Rt of ℄ | | 11.5 | 63.8 | |
| " | 10 Lt " " | | 9.1 | 66.2 | |
| 6+0 | | | 6.8 | 68.5 | |
| " | 10 Rt of ℄ | | 7.9 | 67.4 | |
| " | 10 Lt " " | | 4.9 | 70.4 | |
| +50 | | | 1.9 | 73.4 | |
| " | 10 Rt of ℄ | | 4.1 | 71.2 | |
| " | 10 Lt " " | | 0.5 | 74.8 | |
| TP | 3.27 | 78.36 | 0.17 | 75.09 | |
| 7+0 | | | 3.6 | 74.8 | |
| " | 10 Rt of ℄ | | 5.1 | 73.3 | |
| " | 10 Lt " " | | 2.5 | 75.9 | |
| +30 | | | 4.3 | 74.1 | |
| " | 10 Rt of ℄ | | 6.2 | 72.2 | |
| " | 10 Lt " " | | 3.6 | 74.8 | |
| +55 | | | 3.8 | 74.6 | |
| " | 10 Lt of ℄ | | 2.6 | 75.8 | |
| | 5 Rt " " | | 7.0 | 71.4 | |
| +67 | | | 7.3 | 71.1 | |
| " | 10 Rt of ℄ | | 7.7 | 70.7 | |
| " | Lt " " | | 7.1 | 71.3 | |

| | | | | | |
|---|---|---|---|---|---|
| | | 78.36 | | | |
| 7+77.30 = E 7 Line 32nd St. | | | 7.63 | 70.73 | on Stub |
| BM | | | 11.31 | 67.05 | N.W. BP Imperial + 32nd St. 67.03 |

Check Levels Imperial Ave 48th St to Churchyard Aug 16-47

| | | | | | |
|---|---|---|---|---|---|
| BM | 10.02 | 147.91 | | 137.89 | LHTZ Imperial + 48th St |
| TP | 8.36 | 152.17 | 4.10 | 143.81 | on Stub 13+81.88 |
| BM | | | 4.69 | 147.48 | LHTZ Imperial W 49th St |
| TP | 11.57 | 163.54 | 0.20 | 151.97 | |
| BM | | | 4.54 | 159.00 | LHTZ Imperial W 49th St |
| TP | 11.81 | 174.89 | 0.46 | 163.08 | |
| TP | 10.91 | 185.68 | 0.12 | 174.77 | |
| BM | | | 0.59 | 185.09 | BP W Faddo Churchyard SE Imperial 185.06 |

Alignment & Levels Proposed Water Main
Imperial Ave. West of 50th St.

| | | | | | |
|---|---|---|---|---|---|
| BM | 10.22 | 148.11 | | 137.89 | L+T ℄ Imperial + 48th |
| TP | 12.54 | 160.01 | 0.64 | 147.47 | L+T ℄ Imperial W.L. 49th to Sa. |
| TP | 12.86 | 171.83 | 1.04 | 158.97 | L+T ℄ Imperial W.L. Ozark |
| TP | 12.93 | 184.52 | 0.24 | 171.59 | |
| TP | 6.54 | 189.32 | 1.74 | 182.78 | |
| BM | | | 4.26 | 185.06 | BPM Fnd cl Churchward + S.L. Imperial |
| 0+0 | = ℄ Conc. Vale Box. | | 5.50 | 183.82 | Top Box |
| " | Top Exist. Pipe | | 9.20 | 180.12 | |
| +50 | = N by Cold Lay Pav. | | 6.1 | 183.2 | |
| 1+0 | on " " " | | 7.3 | 182.0 | |
| +50 | " " " " | | 8.5 | 180.8 | |
| +56.33 | = E.C. | | 8.74 | 180.58 | on Stub |
| 2+0 | | | 9.8 | 179.5 | |
| +50 | | | 11.0 | 178.3 | |
| +91.45 | = W.L. 50th St | | 11.98 | 177.34 | on Stub |
| TP | 0.63 | 177.97 | 11.98 | 177.34 | |
| 3+0 | on C.L.P. | | 0.9 | 177.1 | |
| +50 | " " " | | 2.6 | 175.4 | |
| 4+0 | " " " | | 4.3 | 173.7 | |
| +50 | " " " | | 6.3 | 171.7 | |
| 5+0 | " " " | | 8.6 | 169.4 | |
| +50 | " " " | | 11.0 | 167.0 | |
| TP | 0.12 | 165.12 | 12.97 | 165.00 | |
| 6+0 | | | 0.4 | 164.7 | |
| +50 | | | 2.7 | 162.4 | |

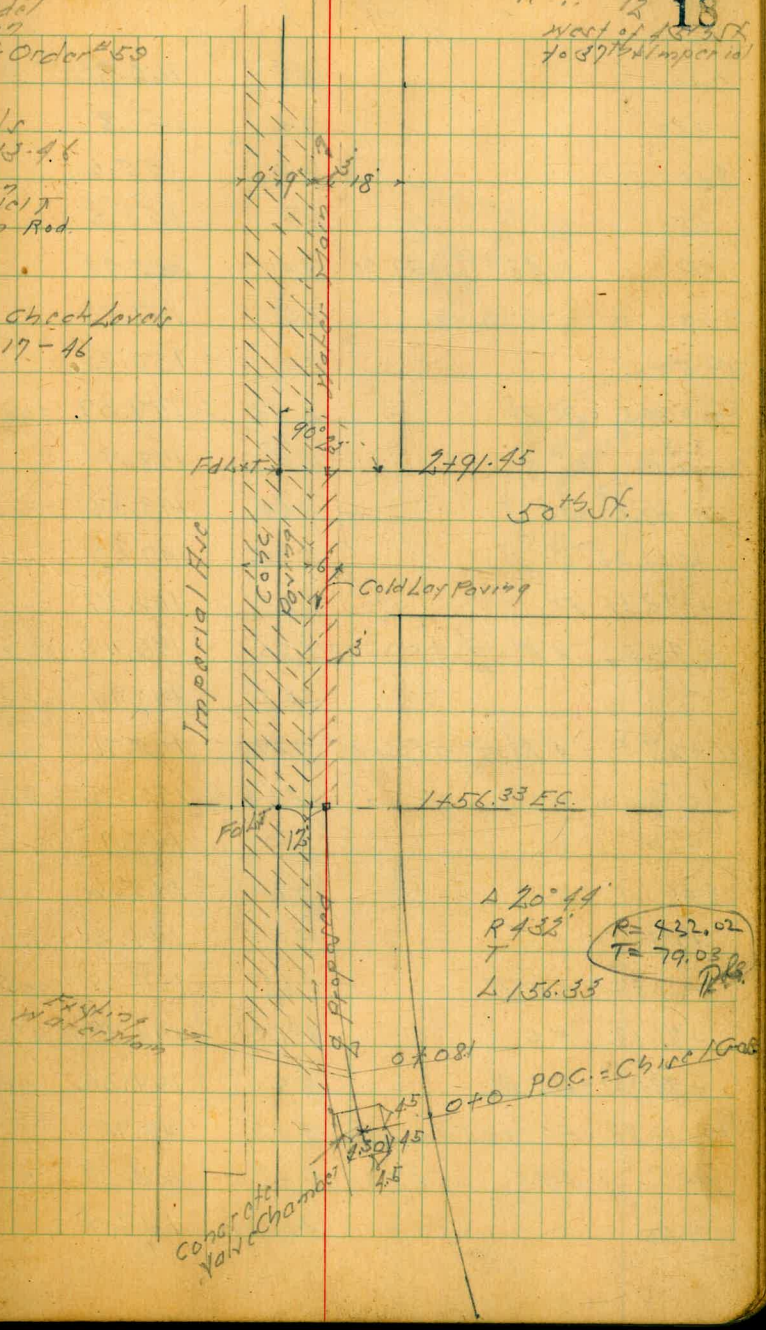
Aug. 8-46
Sisson
Waddell
Allen
Work Order #659

Levels
Aug. 13-46
Sisson
Waddell
Allen Rod.

See Check Levels
Page 17-46

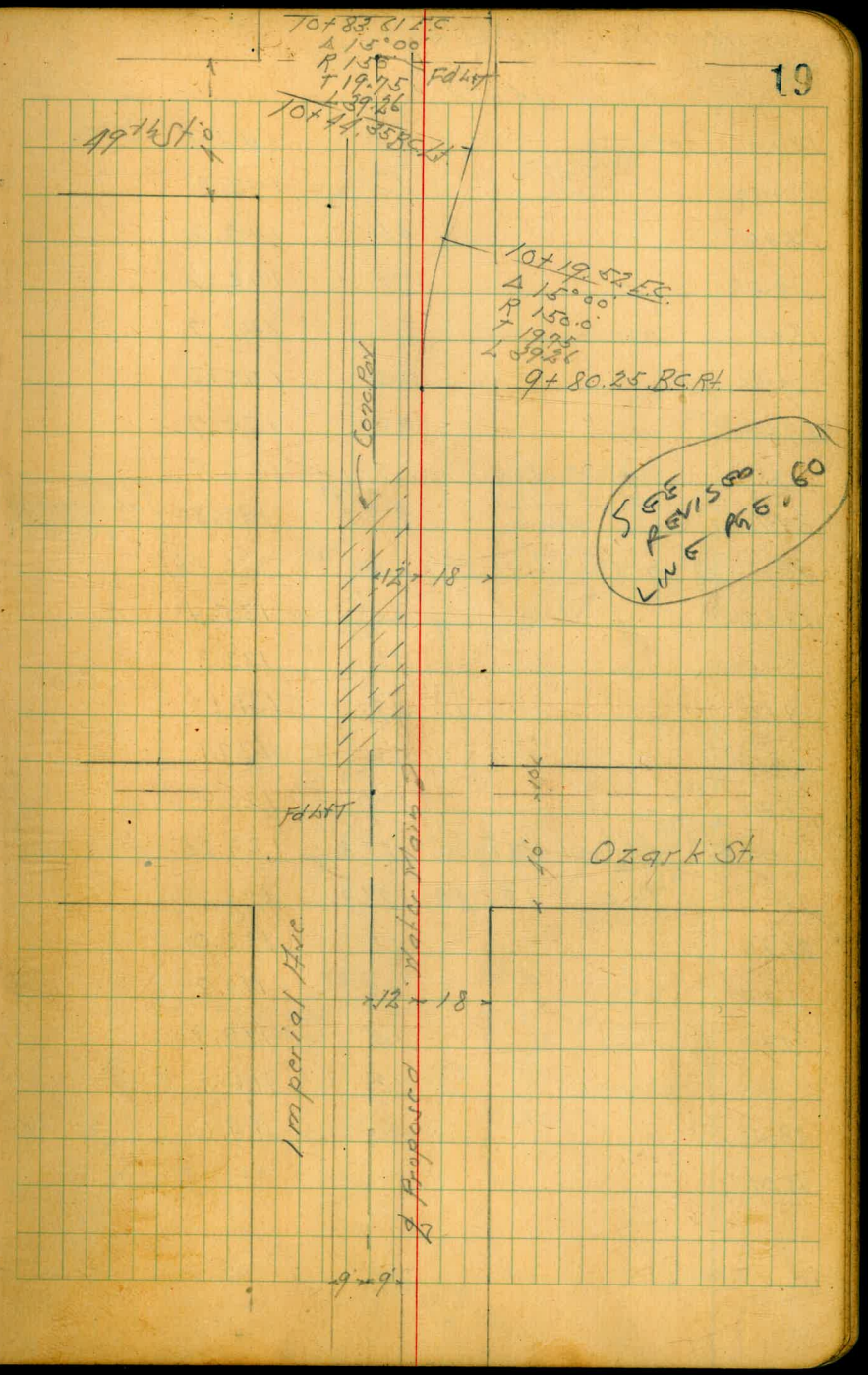
Indexed
C.S.K.

Tie Point #19 to 48th
" " #12
West of 50th St.
to 87th & Imperial



| | | | | | |
|---|---|---|---|---|---|
| | | 165.12 | | | |
| 7+0 | | | 4.8 | 160.3 | |
| +50 | | | 7.8 | 157.8 | |
| 8+0 | | | 9.5 | 155.6 | |
| +50 | | | 11.6 | 153.5 | |
| TP | 0.48 | 153.20 | 12.40 | 152.72 | |
| 9+0 | | | 1.5 | 151.7 | |
| +50 | | | 3.0 | 150.2 | |
| +80.25 = BC Rt | | | 3.83 | 149.37 | on Stab |
| 10+0 | | | 4.3 | 148.9 | |
| +19.52 = EC | | | 4.64 | 148.56 | on Stab |
| +44.35 = BC Lt | | | 5.60 | 147.60 | " " |
| +83.61 = EC | | | 6.23 | 146.97 | " " |
| +98.5 | 4' R/O/Z = SE Cor VB | | 6.80 | 146.40 | Top |
| | | | 12.26 | 140.94 | = FL 24" C.I. Water Main |
| 11+27.4 | 4' R/O/Z = SE Cor VB | | 7.49 | 145.71 | Top |
| | | | 12.65 | 140.55 | = FL 24" WM |
| +50 | | | 7.3 | 145.9 | Ground |
| 12+0 | | | 7.6 | 145.6 | |
| +15 | | | 9.0 | 144.2 | |
| +31.87 = BC Lt | | | 8.62 | 144.58 | on Stab |
| +71.13 = EC | | | 8.37 | 144.83 | " " |
| +92.02 = BC Rt | | | 8.90 | 144.30 | " " |
| 13+21.88 = EC on Cold Lay Pav | | | 9.42 | 143.78 | " " |
| TP | 3.95 | 147.23 | 9.42 | 143.78 | ✓ |
| +50 | | | 4.0 | 143.7 | |





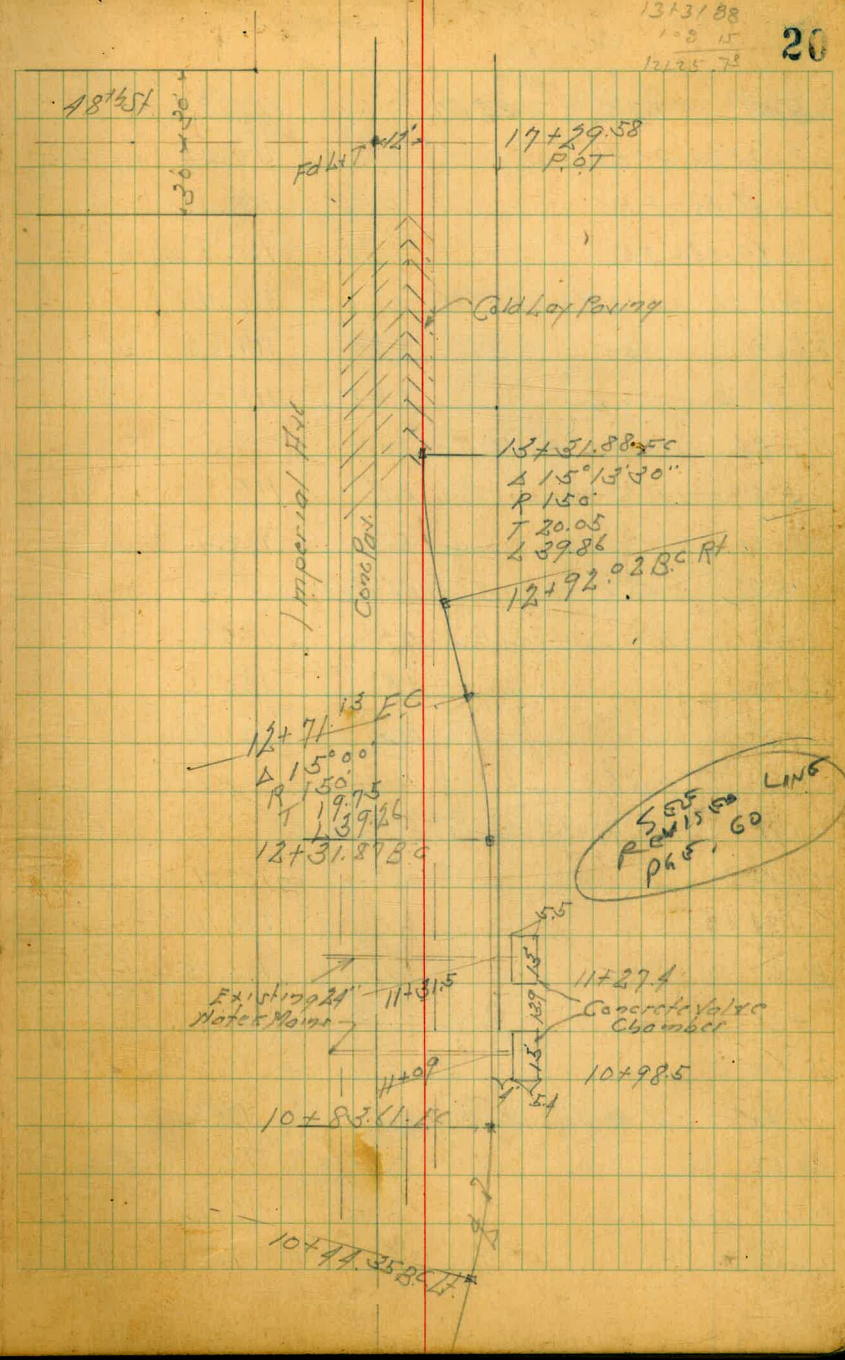
Imperial Ave West of 50th St

147.73

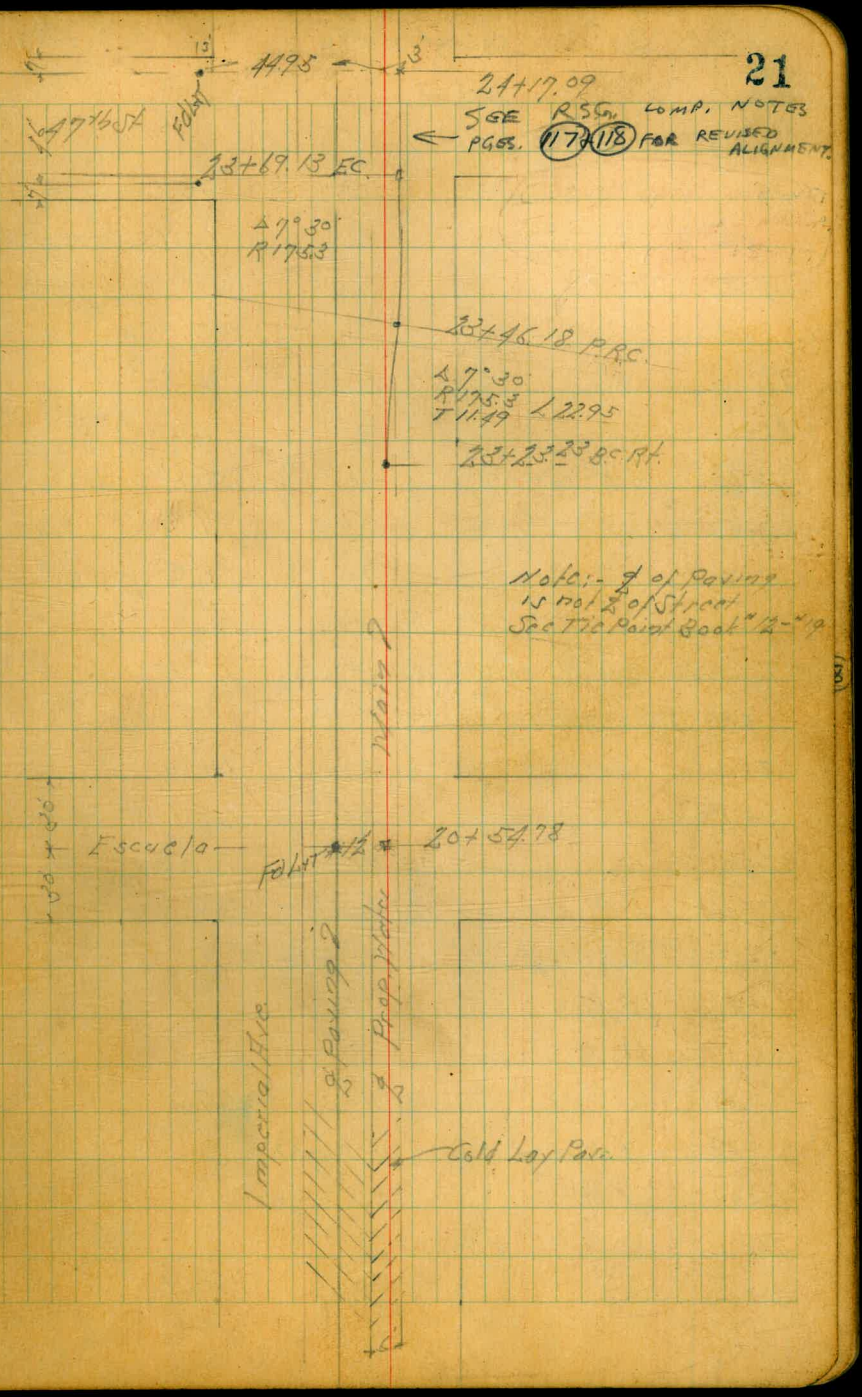
| | | | | | |
|---|---|---|---|---|---|
| 14+0 | on Cold Lay | | 4.3 | 143.4 | |
| +50 | | | 4.4 | 143.3 | |
| 15+0 | | | 4.5 | 143.2 | |
| +50 | | | 5.1 | 142.6 | |
| 16+0 | | | 6.0 | 141.7 | |
| +50 | | | 7.5 | 140.2 | |
| 17+0 | | | 9.0 | 138.7 | |
| +50 | | | 10.8 | 136.9 | |
| BM | | | 9.87 / 9.93 | 137.80 | L+T Z Imperial + 48th 137.89 |
| TP | 0.40 | 136.88 | 11.31 / 11.25 | 136.48 | |
| 18+0 | | | 1.5 | 135.4 | |
| +50 | | | 3.6 | 133.3 | |
| 19+0 | | | 5.8 | 131.1 | |
| +50 | | | 7.8 | 129.1 | |
| 20+0 | | | 10.0 | 126.9 | |
| +54.78 = ℄ Escuela to So. | | | 12.63 | 124.25 | on stub |
| TP | 1.03 | 125.28 | 12.63 | 124.25 | |
| 21+0 | | | 3.3 | 122.0 | |
| +50 | | | 5.5 | 119.8 | |
| 22+0 | | | 7.5 | 117.8 | |
| +50 | | | 9.2 | 116.1 | |
| 23+0 | | | 10.7 | 114.6 | |
| BM | | | 13.13 | 112.15 | SEBP Imperial + 47th 112.17 |



13+31.88
1°8' 15"
12,125.72



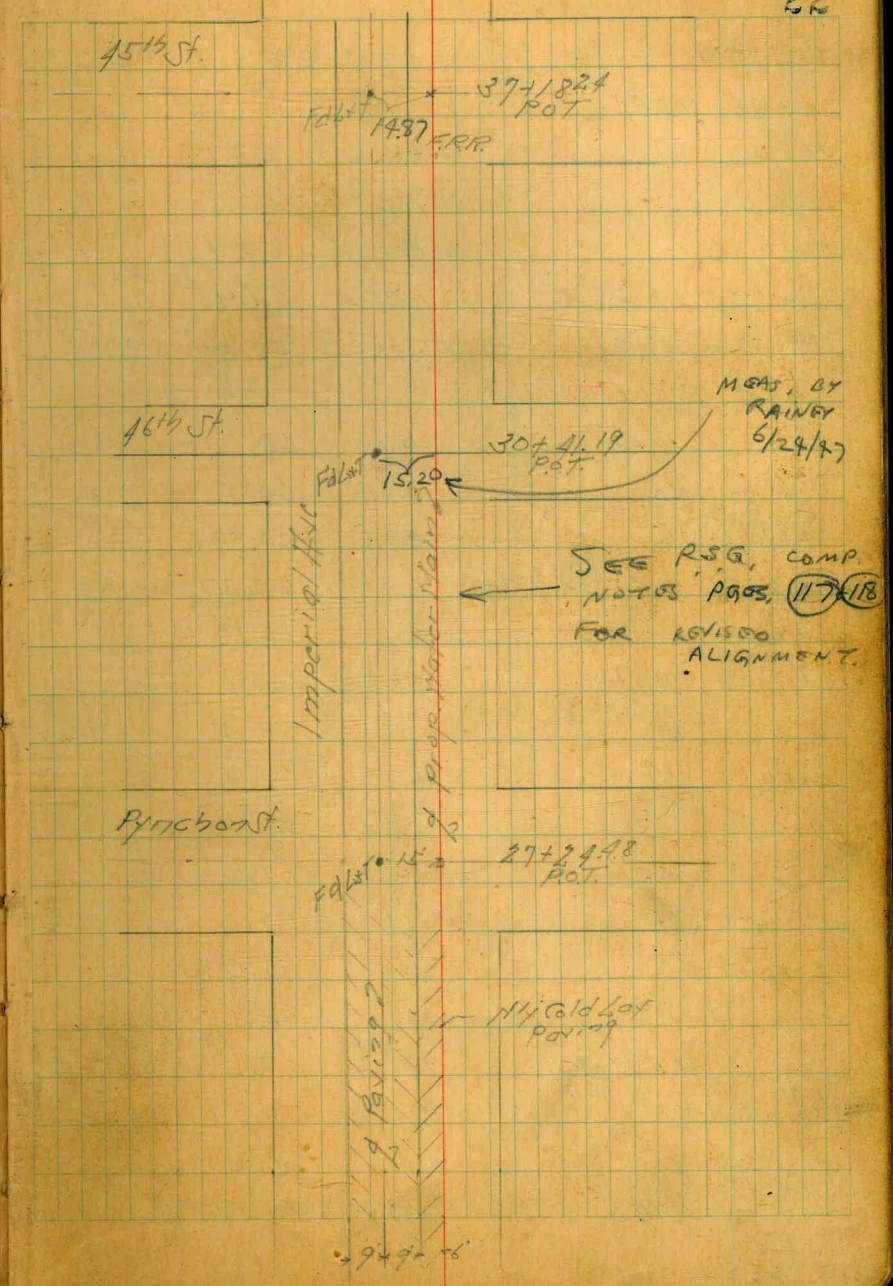
| | | | | | |
|---|---|---|---|---|---|
| BM | 1.90 | 114.07 | | 112.17 | SE BP. Imperial + 4993 |
| 23+23.23 | BC Rt. | | 0.02 | 114.05 | 0.5 Stab |
| +46.18 | = P.R.C. | | 0.76 | 113.31 | " " |
| +69.13 | = E.C. | | 1.25 | 112.82 | " " |
| +78.6 | = E'ly Paving 47'6" St. | | 1.63 | 112.44 | |
| 24+0 | 0.7 " " | | 2.20 | 111.87 | |
| +18.5 | = N'ly Pav | | 2.83 | 111.24 | |
| +24 | 5.5 Rt of ℄ = S'ly Tel. Pole | | | | |
| +50 | = N'ly Cold Lay Pav. | | 4.1 | 110.0 | |
| 25+0 | = " " " " | | 5.7 | 108.4 | |
| +42 | 4.8 Rt of ℄ = S'ly Tel. Pole. | | | | |
| +50 | = N'ly Cold Lay Pav. | | 7.2 | 106.9 | |
| 26+0 | | | 8.8 | 105.3 | |
| +50 | | | 10.4 | 103.7 | |
| TP | 0.36 | 103.02 | 11.41 | 102.66 | |
| +91 | 6 Rt of ℄ = S'ly Tel Pole. | | | | |
| 27+0 | | | 0.6 | 102.4 | |
| +24.48 | | | 1.56 | 101.46 | 0.5 Stab 0.5 Lx T |
| BM | | | 1.17 | 101.85 | 8 Imperial + Pyrobar |
| +50 | | | 2.1 | 100.9 | |
| 28+0 | | | 3.4 | 99.6 | |
| +43 | 6 Rt of ℄ = S'ly Tel Pole | | | ~~98.3~~ | |
| +50 | | | 4.7 | 98.3 | |
| 29+0 | | | 6.3 | 96.7 | |
| +50 | | | 8.1 | 94.9 | |



Imperial Ave West of 50th St.

| | | | | | |
|---|---|---|---|---|---|
| | | 102.02 | | | |
| 29+92 | 5' Rt of ℄ = Sly Tel Pole | | | | |
| 30+0 | | | 10.0 | 93.0 | |
| +41.19 | | | 12.09 | 90.93 | on Stub on Lt of Imperial & 46th St |
| BM | | | 11.86 | 91.16 | |
| +50 | | | 12.7 | 90.3 | |
| TP | 0.12 | 90.57 | 12.57 | 90.45 | |
| 31+0 | | | 3.0 | 87.6 | |
| +41 | 6' Rt of ℄ = Sly Tel Pole | | | ~~87.9~~ | |
| +50 | | | 5.7 | 84.9 | |
| 32+0 | | | 9.1 | 81.5 | |
| +50 | | | 12.1 | 78.5 | |
| TP | 1.12 | 79.04 | 12.65 | 77.92 | |
| +88 | 6' Rt of ℄ = Sly Tel Pole | | | | |
| 33+0 | | | 3.8 | 75.2 | |
| +50 | | | 6.3 | 72.7 | |
| 34+0 | | | 9.0 | 70.0 | |
| +04 | 6' Rt of ℄ = Sly ~~[illegible]~~ Guy Pole | | | | |
| +21 | 25' Rt of ℄ = Sly 12" Acacia Tree | | | | |
| +33 | 45' Rt " " = Sly Tel Pole | | | | |
| +40 | 65' Rt " " " " 12" Acacia Tree | | | | |
| +50 | | | 11.2 | 67.8 | |
| +56 | 7' Rt of ℄ = Sly 9" Acacia Tree | | | | |
| +85 | 6' Rt " " = " 12" " | | | | " |
| TP | 0.66 | 67.33 | 12.87 | 66.67 | |
| 35+0 | | | 1.9 | 65.4 | |



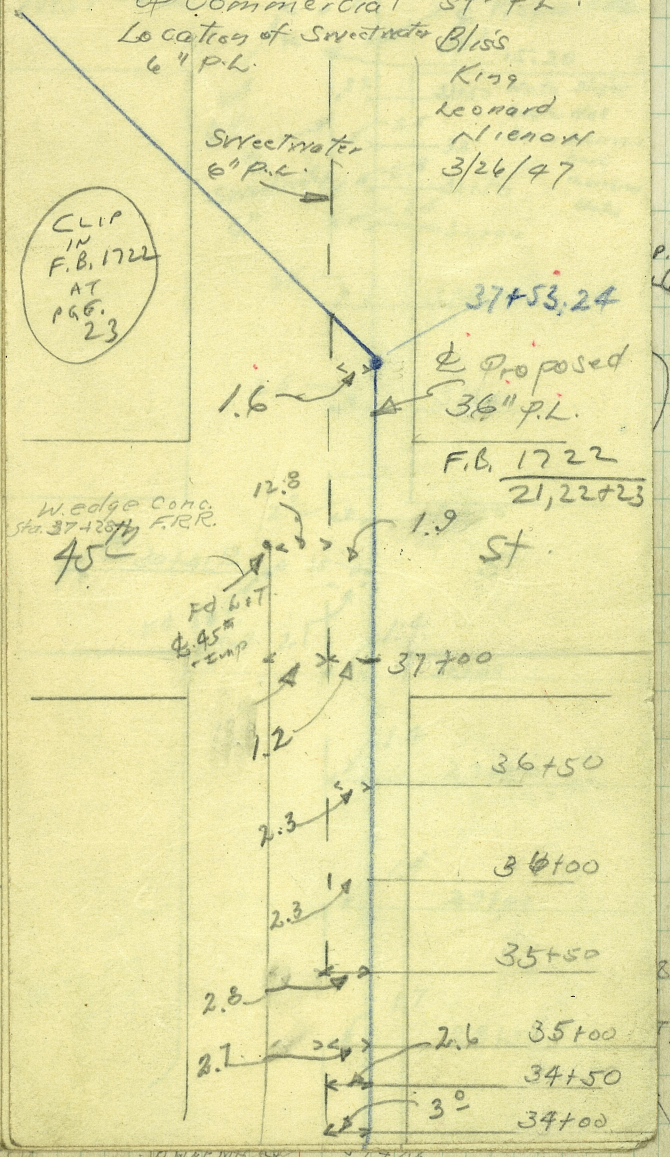


| | | | | | |
|---|---|---|---|---|---|
| | | 67.33 | | | |
| 35+50 | | | 8.9 | 63.4 | |
| +88 | 65 Rt of ℄ - Sly Tel Pole | | | | |
| 36+0 | | | 5.3 | 62.0 | |
| +50 | | | 6.5 | 60.8 | |
| 37+0 | | | 7.9 | 59.4 | |
| +18.24 | = ℄ 45th St | | 7.88 | 59.45 | X on Conc on Lt ℄ Imperial ℄ 45th St |
| TP | 9.34 | 69.21 | 7.46 | 59.87 | |
| +35 | 75 Rt of ℄ - Sly Tel Pole | | | | |
| +53.24 | Δ 45°00' Lt | | 9.00 | 60.21 | on Stks |
| +61.6 | = Nly Conc Strip Bk | | 9.21 | 60.00 | |
| +87.1 | = Sly " " " | | 8.82 | 60.39 | |
| 37+90.93 | = Δ 45°00'30" Rt | | 8.84 | 60.37 | on Stks |
| 38+0 | | | 8.7 | 60.5 | |
| " | 7' Lt of ℄ | | 8.5 | 60.7 | = Top Fill |
| " | 17 " " | | 15.0 | 54.2 | = Toe Slope |
| +50 | | | 7.3 | 61.9 | |
| 39+0 | | | 5.5 | 63.7 | |
| " | 35' Lt of ℄ | | 5.0 | 64.2 | = Top Fill |
| " | 20 " " | | 14.2 | 55.0 | = Toe Slope |
| +50 | | | 4.2 | 65.0 | |
| 40+0 | | | 3.1 | 66.1 | |
| " | 45' Lt of ℄ | | 2.1 | 67.1 | = Top Fill |
| " | 24 " " | | 14.3 | 54.9 | = Toe Slope |
| +50 | | | 1.0 | 68.2 | |
| TP | 5.77 | 73.21 | 1.77 | 67.44 | |



Imperial Ave. Sec.
of Commercial St. PL.
Location of Sweetwater Bliss
6" P.L.

King
Leonard
Nienow
3/26/47




F.L. 46.23

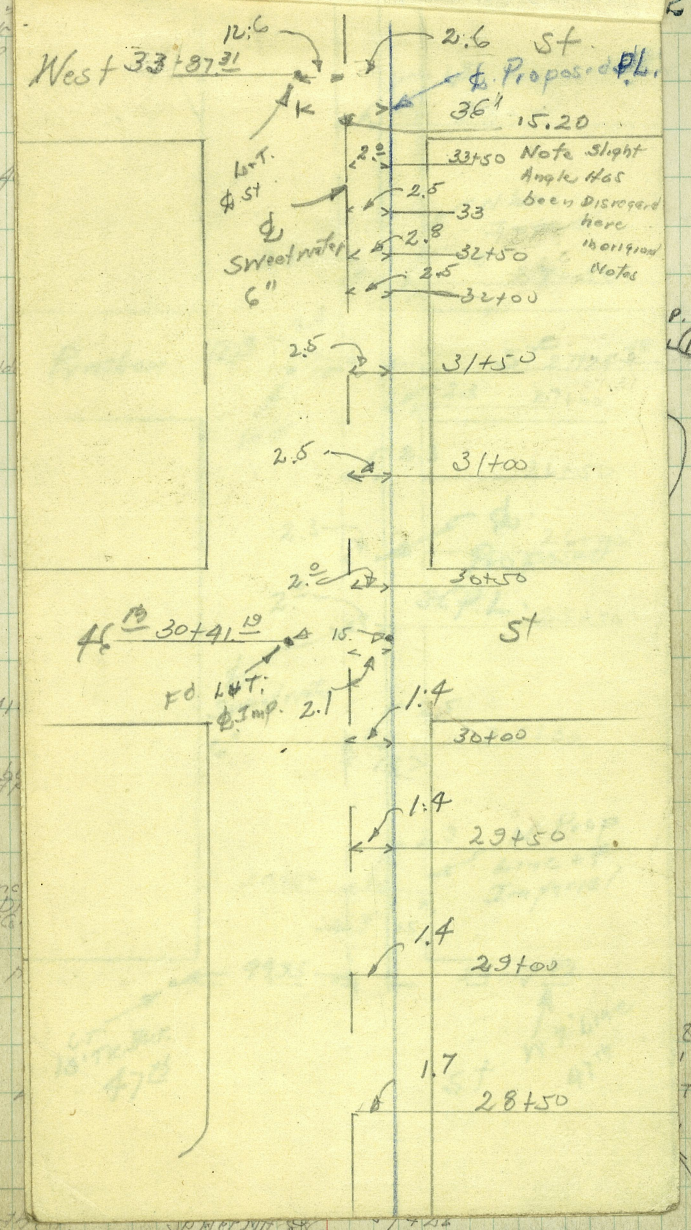
37+18.24 POT

SEE REVERSE SIDE
YELLOW PAPER P. 57

ELEVS. CHECKED BY KING 4/3/47

P. NO. 103 (118)

| | | | | | |
|---|---|---|---|---|---|
| | | 67.33 | | | |
| 35+50 | | | 3.9 | 63.4 | |
| +88 | 6.5 Rt of ℄ = Sly Tel Pole | | | | |
| 36+0 | | | 5.3 | 62.0 | |
| +50 | | | 6.5 | 60.8 | |
| 37+0 | | | 7.9 | 59.4 | |
| +18.24 | = ℄ 45° 14' St | | 7.88 | 59.45 | X on Conc on Lt of ℄ Imperial Pt St |
| TP | 9.34 | 69.21 | 7.46 | 59.87 | |
| +35 | 7.5 Rt of ℄ = Sly Tel Pole | | | | |
| +53.24 | Δ 45° 00' Lt | | 9.00 | 60.21 | on Stks |
| +61.6 | = Nly Conc Strip Bar | | 9.21 | 60.00 | |
| +87.1 | = Sly " " " | | 8.82 | 60.39 | |
| 37+90.93 | = Δ 45° 00' 30" Rt | | 8.84 | 60.37 | on Stks |
| 38+0 | | | 8.7 | 60.5 | |
| " | 7' Lt of ℄ | | 8.5 | 60.7 | = Top Fill |
| " | 17 " " " | | 15.0 | 54.2 | = Toe Slope |
| +50 | | | 7.3 | 61.9 | |
| 39+0 | | | 5.5 | 63.7 | |
| " | 35' Lt of ℄ | | 5.0 | 64.2 | = Top Fill |
| " | 20 " " " | | 14.2 | 55.0 | = Toe Slope |
| +50 | | | 4.2 | 65.0 | |
| 40+0 | | | 3.1 | 66.1 | |
| " | 4.5' Lt of ℄ | | 2.1 | 67.1 | = Top Fill |
| " | 24 " " " | | 14.3 | 54.9 | = Toe Slope |
| +50 | | | 1.0 | 68.2 | |
| TP | 5.77 | 73.21 | 1.77 | 67.44 | |




P. Notes 118

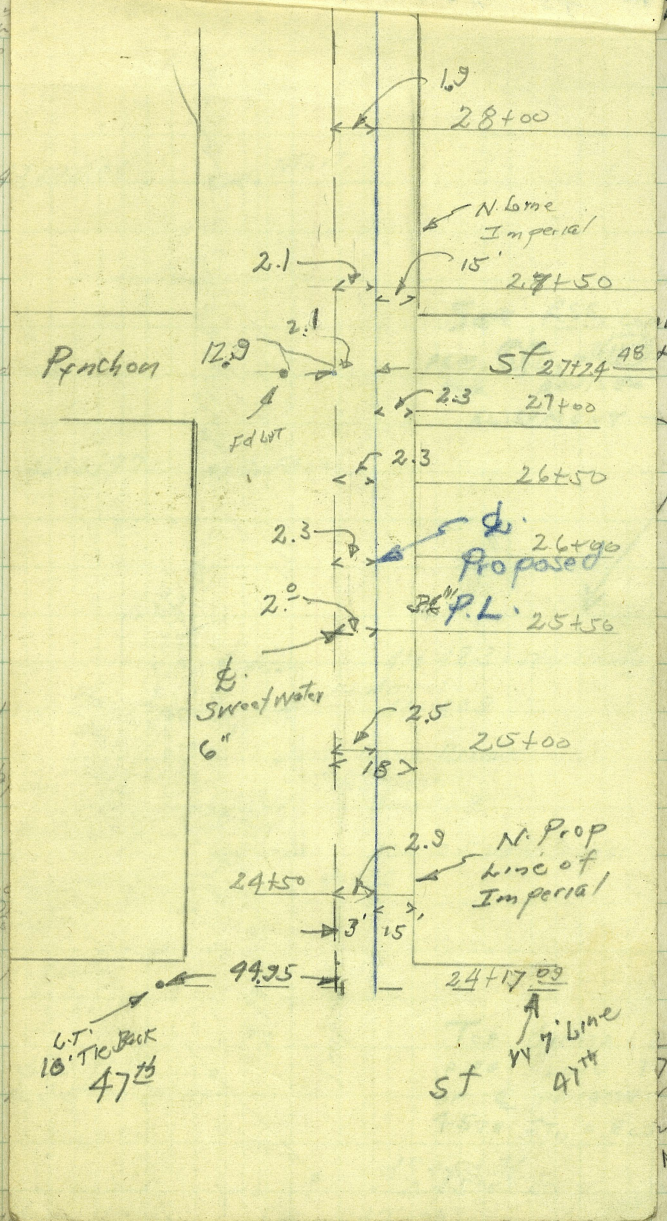
F.L. 46.23

37+18.24 POT

SEE REVERSE SIDE
YELLOW PAPER P. 57

ELEVS. CHECKED BY KING 4/3/47

| | | | | | |
|---|---|---|---|---|---|
| | | 67.33 | | | |
| 35+50 | | | 3.9 | 63.4 | |
| +88 | 6.5 Rt of ℄ - Sly Tel Pole | | | | |
| 36+0 | | | 5.3 | 62.0 | |
| +50 | | | 6.5 | 60.8 | |
| 37+0 | | | 7.9 | 59.4 | |
| +18.24 | = ∠ 45th St | | 7.88 | 59.45 | X on Conc on Lt ℄ Imperial 45th St |
| TP | 9.34 | 69.21 | 7.46 | 59.87 | |
| +35 | 7.5 Rt of ℄ - Sly Tel Pole | | | | |
| +53.24 | Δ 45° 00' Lt | | 9.00 | 60.21 | on Stub |
| +61.6 | = Nly Conc Strip Bar | | 9.21 | 60.00 | |
| +87.1 | = Sly " " " | | 8.82 | 60.39 | |
| 37+90.93 | = Δ 45° 00' 30" Rt | | 8.84 | 60.37 | on Stub |
| 38+0 | | | 8.7 | 60.5 | |
| " | 7' Lt of ℄ | | 8.5 | 60.7 | = Top Fill |
| " | 17 " " " | | 15.0 | 54.2 | = Toe Slope |
| +50 | | | 7.3 | 61.9 | |
| 39+0 | | | 5.5 | 63.7 | |
| " | 35' Lt of ℄ | | 5.0 | 64.2 | = Top Fill |
| " | 20 " " " | | 14.2 | 55.0 | = Toe Slope |
| +50 | | | 4.2 | 65.0 | |
| 40+0 | | | 3.1 | 66.1 | |
| " | 4.5' Lt of ℄ | | 2.1 | 67.1 | = Top Fill |
| " | 21 " " " | | 14.3 | 54.9 | = Toe Slope |
| +50 | | | 1.0 | 68.2 | |
| TP | 5.77 | 73.21 | 1.77 | 67.44 | |




SEE REVERSE SIDE
YELLOW PAPER P. 57

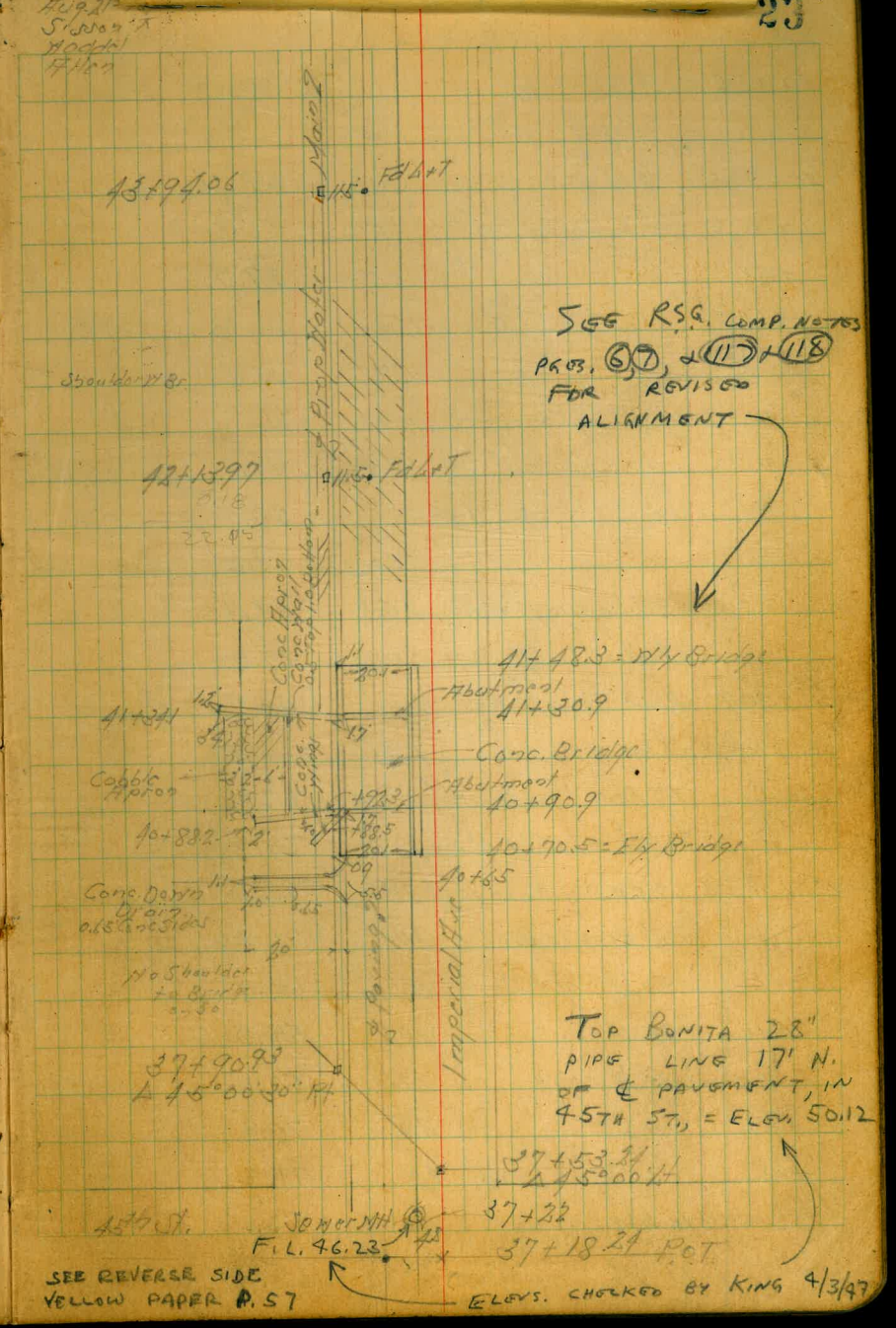
F.L. 4.6.23

37+18.24 POT

ELEVS. CHECKED BY KING 4/3/47

| | | | | | |
|---|---|---|---|---|---|
| | | 67.33 | | | |
| 35+50 | | | 3.9 | 63.4 | |
| +88 | 65 Rt of ℄ = Sly Tel Pole | | | | |
| 36+0 | | | 5.3 | 62.0 | |
| +50 | | | 6.5 | 60.8 | |
| 37+0 | | | 7.9 | 59.4 | |
| +18.24 | = ℄ 45TH St | | 7.88 | 59.45 | X on Conc on Lt of Imperial St |
| TP | 9.34 | 69.21 | 7.46 | 59.87 | |
| +85 | 75 Rt of ℄ = Sly Tel Pole | | | | |
| +53.24 | Δ 45°00' Lt | | 9.00 | 60.21 | on Stub |
| +61.6 | = Nly Conc Strip Bw | | 9.21 | 60.00 | |
| +87.1 | = Sly " " " | | 8.82 | 60.39 | |
| 37+90.93 | Δ 45°00' 30" Rt | | 8.84 | 60.37 | on Stub |
| 38+0 | | | 8.7 | 60.5 | |
| " | 7' Lt of ℄ | | 8.5 | 60.7 | = Top Fill |
| " | 17 " " | | 15.0 | 54.2 | = Toe Slope |
| +50 | | | 7.3 | 61.9 | |
| 39+0 | | | 5.5 | 63.7 | |
| " | 35 Lt of ℄ | | 5.0 | 64.2 | = Top Fill |
| " | 20 " " | | 14.2 | 55.0 | = Toe Slope |
| +50 | | | 4.2 | 65.0 | |
| 40+0 | | | 3.1 | 66.1 | |
| " | 45 Lt of ℄ | | 2.1 | 67.1 | = Top Fill |
| " | 21 " " | | 11.3 | 54.9 | = Toe Slope |
| +50 | | | 1.0 | 68.2 | |
| TP | 5.77 | 73.21 | 1.77 | 69.44 | |






SEE R.S.G. COMP. NOTES PGS. 6, 7, & 11 & 118 FOR REVISED ALIGNMENT

TOP BONITA 28" PIPE LINE 17' N. OF ℄ PAVEMENT, IN 45TH ST., = ELEV. 50.12

SEE REVERSE SIDE YELLOW PAPER P. 57

ELEVS. CHECKED BY KING 4/3/47

Imperial Ave

| | | | | |
|---|---|---|---|---|
| | 73.21 | | | |
| 40+65.4 | = ℄ Conc Down Drain | 6.18 | 67.03 | Flow line |
| " | 19' Lt of ℄ Orb. = Sly Down | 17.6 | 55.6 | " " |
| 40+70.5 | 2' Rt of ℄ = S.E. Cor Br. | 5.56 | 67.65 | on Deck |
| +71 | 10.5' Lt of ℄ = Pow Pole | 6.9 | 66.3 | |
| +88 | | 15.5 | 57.7 | |
| +88.5 | = Top Conc Wing | 12.48 | 60.73 | To S.E. |
| +92.3 | = Top " " | 12.72 | 60.49 | |
| " | 1.7 Rt on Conc Pier | 11.70 | 61.51 | |
| " | ℄ Ground | 23.3 | 49.9 | Base of Wing |
| " | 18' Lt of ℄ = Sly Wing | 19.7 | 53.5 | on Top |
| 41+11 | | 26.0 | 47.2 | Bottom Wing |
| " | 12' Lt of ℄ Wall = Top Conc | 24.8 | 48.4 | |
| " | 18' Lt of ℄ = Sly Conc Apron | 26.2 | 47.0 | |
| +30.9 | = Base Conc. Wing | 24.1 | 49.1 | Ground |
| " | Top " " | 11.41 | 61.80 | |
| " | 1.7' Rt. of ℄ on Conc Pier | 11.05 | 62.16 | |
| " | 23.4' Lt of ℄ = Sly. Wing | 18.5 | 54.7 | on Top |
| +48.3 | = Opp Sly Bridge | 4.9 | 68.3 | Ground |
| " | 2' Rt of ℄ = S.W. Br. | 2.95 | 70.36 | on Deck |
| " | 5' Lt of ℄ | 5.1 | 68.1 | |
| " | 19' Lt " " | 14.2 | 59.0 | |
| " | 31' Lt " " | 23.1 | 50.1 | |
| +51 | | 2.9 | 70.3 | |
| +68 | | 2.0 | 71.2 | |
| " | 16' Lt of ℄ | 0.7 | 72.5 | |
| " | 17' " " | 7.3 | 65.9 | |

63.59



58 31
50 24
1 05

57+98.83
40°44'35" Rt

58+31 = C.L.

57+26.30
P.O.T.

45.03 — Fd Mon

Main St

58+63.75

50+59.12 — Fd L+T

Proposed Water St

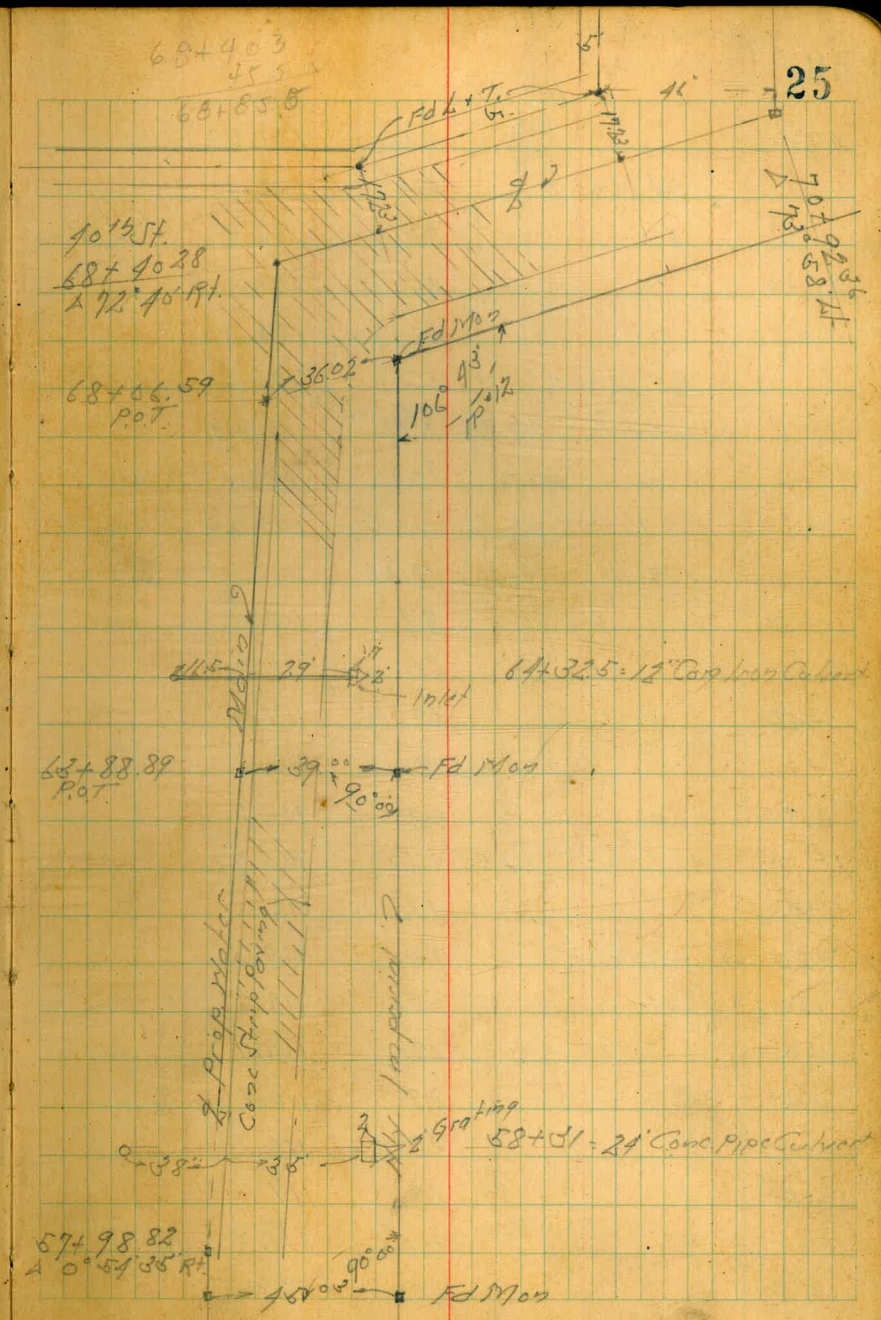
49+83.5 — 12" Corg Iron Pipe Culvert

47+26.26 — 11.5' Fd L+T

Imperial Ave

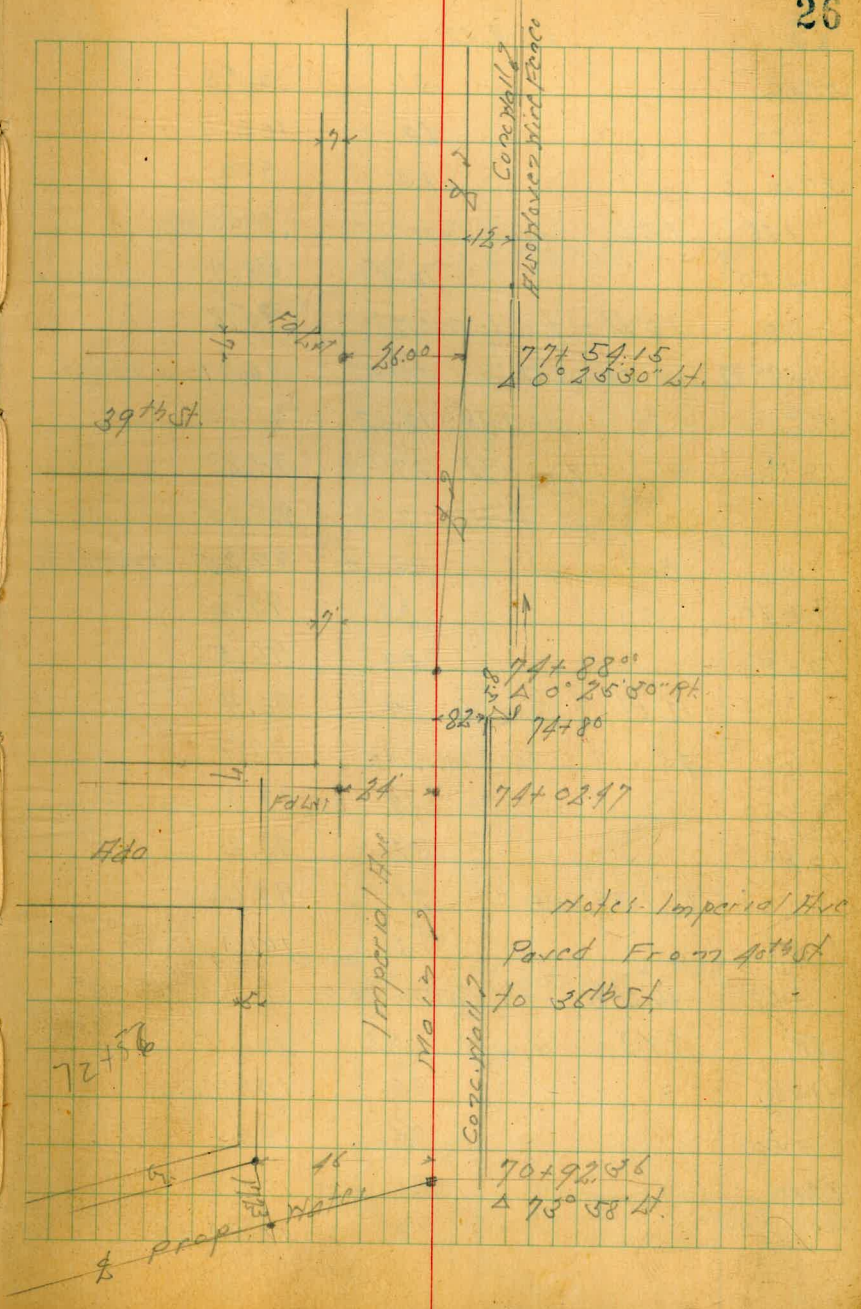
℄ Paving

| | | | | | |
|---|---|---|---|---|---|
| | | 73.21 | | | |
| 41+68 | 21 Lt of ℄ | | +2.0 | 70.2 | |
| TP | 11.99 | 84.68 | 0.52 | 72.69 | |
| +86 | | | 12.7 | 72.0 | |
| " | 10 Lt of ℄ | | 13.4 | 71.3 | |
| " | 14 " " " | | 12.4 | 72.3 | |
| " | 20 " " " | | 7.5 | 77.2 | |
| 42+0 | | | 12.0 | 72.7 | |
| " | 4 Lt of ℄ | | 12.2 | 72.5 | |
| +13.97 | | | 11.22 | 73.46 | on Stub |
| +50 | | | 9.3 | 75.4 | |
| 43+0 | | | 6.4 | 78.3 | |
| +50 | | | 3.6 | 81.1 | |
| +73 | 7' Lt of ℄ = Pl. Power Pole | | | | |
| +94.06 | | | 1.18 | 83.50 | on Stub |
| 44+0 | | | 0.9 | 83.8 | |
| TP | 12.61 | 96.69 | 0.60 | 84.08 | |
| +50 | | | 10.1 | 86.6 | |
| 45+0 | | | 7.2 | 89.5 | |
| +08 | 98 Lt of ℄ = Pl. Power Pole | | | ~~92.4~~ | |
| +50 | | | 4.3 | 92.4 | |
| 46+0 | | | 1.5 | 95.2 | |
| TP. | 11.28 | 107.44 | 0.53 | 96.16 | |
| +50 | | | 9.7 | 97.7 | |
| " | 14 Lt of ℄ | | 8.6 | 98.8 | = Pl. Top Fill |
| 47+0 | | | 7.8 | 99.6 | |

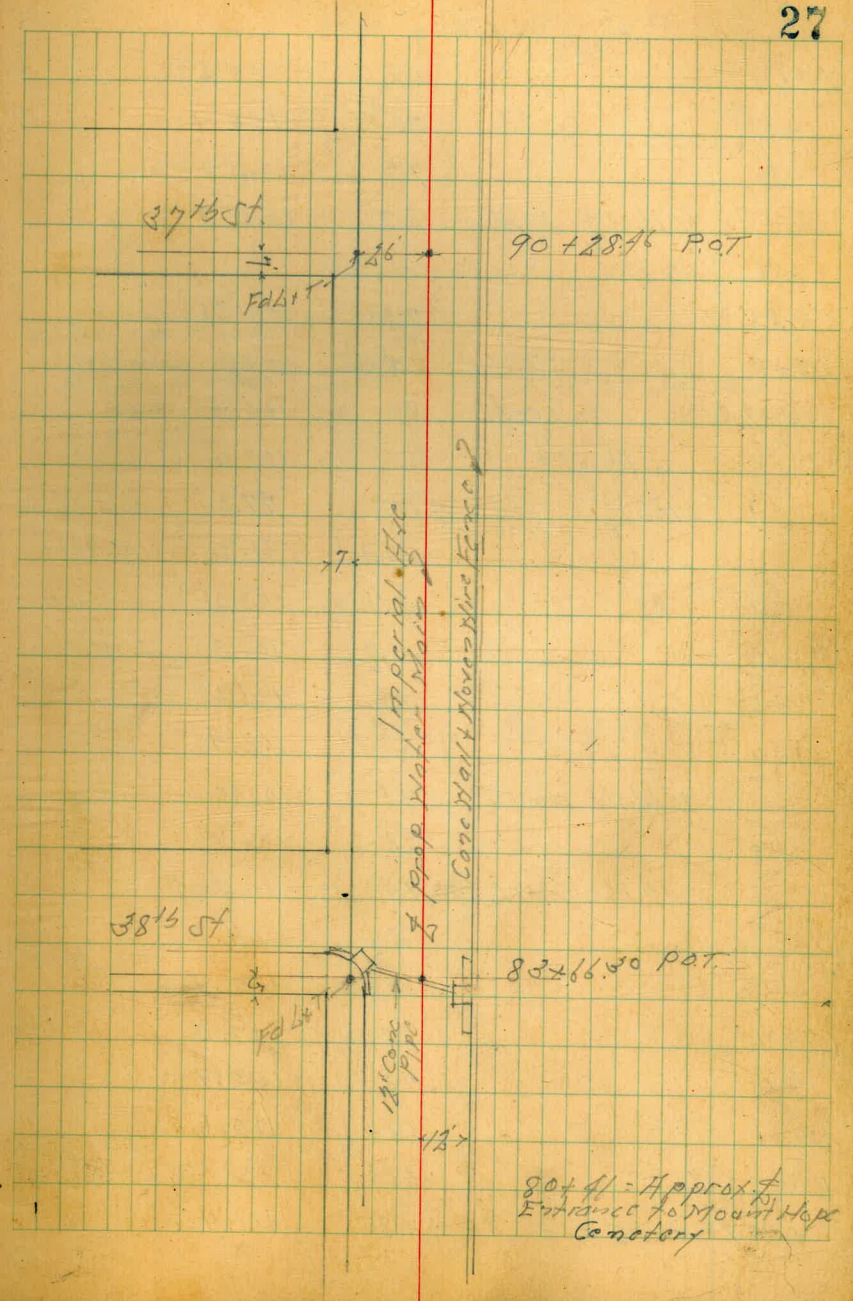


Imperial Hte

| | | | | | |
|---|---|---|---|---|---|
| | | 107.44 | | | |
| 47+50 | | | 6.0 | 101.4 | |
| " | 14 Lt of ℄ | | 5.3 | 102.1 | = Top Fill |
| " | 40 " " | | 23.6 | 83.8 | = Toe Slope |
| 48+0 | | | 3.6 | 103.8 | |
| +50 | | | 1.3 | 106.1 | |
| " | 30 Lt of ℄ | | 0.8 | 106.6 | = Hly Fill |
| TP | 11.13 | 118.33 | 0.24 | 107.20 | |
| 49+0 | | | 10.1 | 108.2 | |
| +32.5 | 8.4' Lt of ℄ = Sly 12" Corg. Pipe | | 11.05 | 107.28 | Flow Line |
| " | 29' Rt = Hly 12" Corg. Iron Culvert | | 12.35 | 105.98 | " " |
| +50 | | | 8.5 | 110 ± | |
| 50+0 | | | 6.1 | 112.2 | |
| +50 | | | 3.9 | 114.4 | |
| 51+0 | | | 1.9 | 116.4 | |
| +50 | | | 0.2 | 118.1 | |
| TP | 3.02 | 121.25 | 0.10 | 118.23 | |
| 52+0 | | | 3.1 | 119.2 | |
| +50 | | | 1.7 | 119.6 | |
| +63.75 | | | 1.58 | 119.67 | 00 Stob |
| 53+0 | | | 1.9 | 119.4 | |
| +50 | | | 2.9 | 118.4 | |
| 54+0 | | | 4.5 | 116.8 | |
| +50 | | | 6.9 | 114.4 | |
| 55+0 | | | 10.0 | 111.3 | |
| +50 | | | 12.8 | 108.5 | |
| TP | 0.04 | 108.42 | 12.87 | 108.38 | |



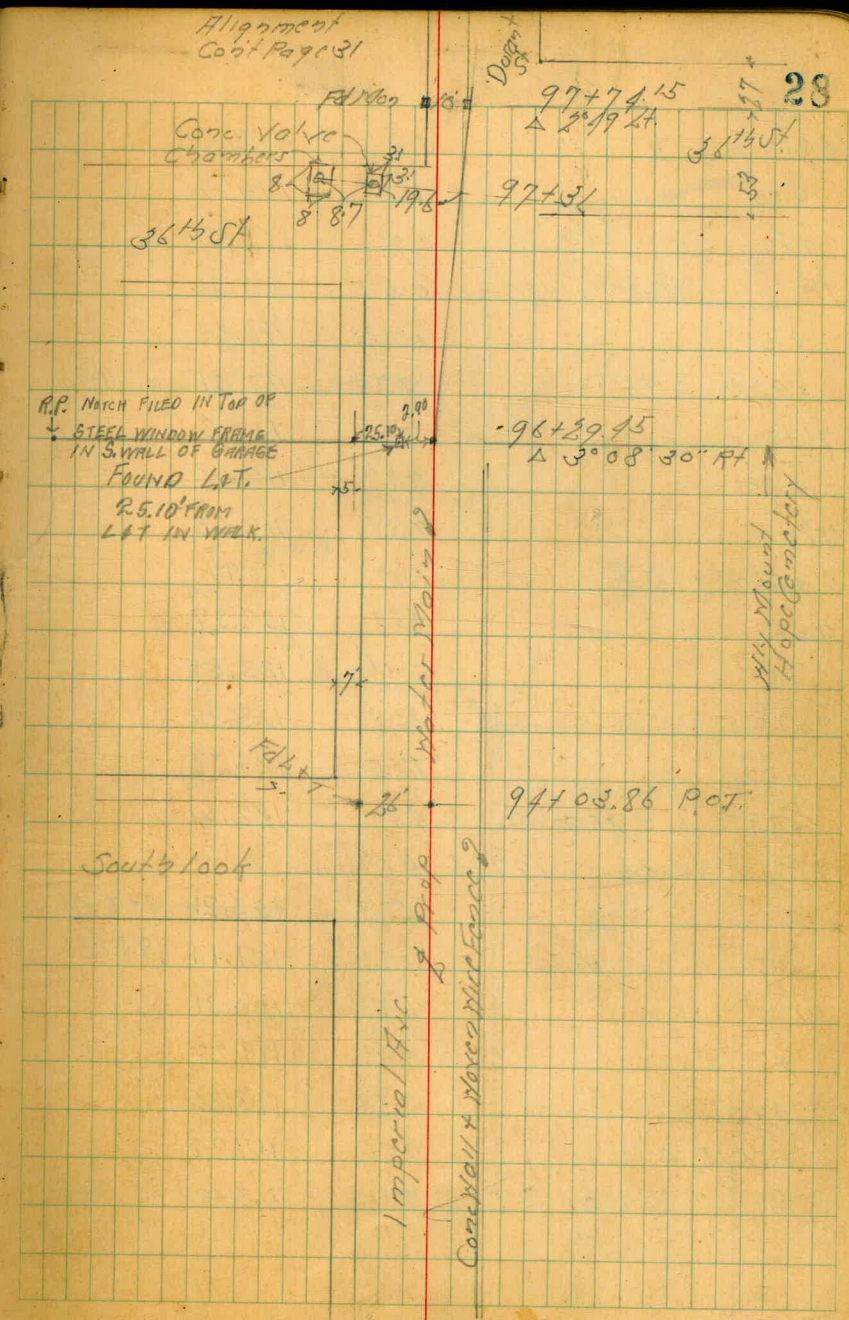
| | | | | | |
|---|---|---|---|---|---|
| | | 108.42 | | | |
| 56+0 | | | 3.1 | 105.3 | |
| +50 | | | 6.0 | 102.4 | |
| 57+0 | | | 8.5 | 99.9 | |
| +38 | 6.5 Lt of ℄ = rly Power Pole | | | | |
| +50 | | | 10.4 | 98.4 | |
| " | 18 Lt of ℄ = Ely Fill | | 12.6 | 95.8 | |
| +98.82 | Δ 0° 54' 35" Rt | | 11.65 | 96.77 | on Stub |
| TP | 6.28 | 102.38 | 12.32 | 96.10 | |
| 58+31 | 38 Lt of ℄ = Sly 24" Conc Pipe Culv | | 27.55 | 74.83 | Flow Line |
| " | 35 Rt of ℄ = Inlet | | 7.23 | 95.15 | Top Grating |
| " | Bottom Inlet | | 15.13 | 87.25 | Flow Line |
| +50 | | | 6.8 | 95.6 | |
| 59+0 | | | 5.9 | 96.5 | |
| " | 12 Lt of ℄ Top Fill | | 6.0 | 96.4 | |
| " | 43 " " = Toe Slope | | 25.7 | 76.7 | |
| +50 | | | 4.9 | 97.5 | |
| 60+0 | | | 3.2 | 99.2 | |
| " | 30 Lt of ℄ = rly Fill | | 2.8 | 99.6 | |
| +50 | | | 1.3 | 101.1 | |
| +62 | 9.6 Lt of ℄ = Sly Power Pole | | | | |
| TP | 9.93 | 111.49 | 0.82 | 101.56 | |
| 61+0 | | | 8.6 | 102.9 | |
| +50 | | | 7.4 | 104.1 | |
| 62+0 | | | 6.6 | 104.9 | |
| +50 | | | 6.4 | 105.1 | |



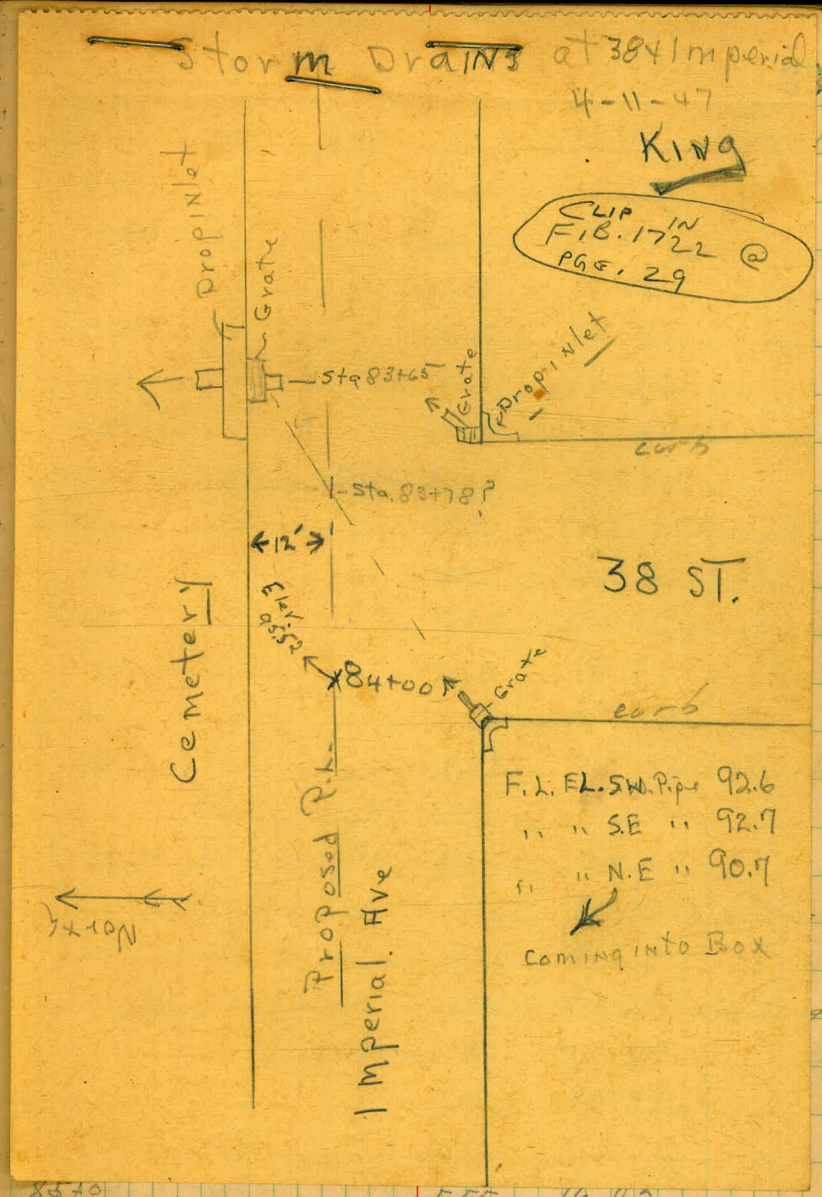
Imperial Ave

| | | | | | |
|---|---|---|---|---|---|
| BM | | 111.49 | | | |
| 63+0 | | | 6.9 | 104.6 | |
| +50 | | | 7.1 | 104.4 | |
| +80 | | | 7.2 | 104.3 | |
| " | 20' Lt of ℄ | Fly Fill | 8.2 | 103.3 | |
| +86 | 11.7 Lt " | = Nly Power Pole | | | |
| +88.89 | | | 7.28 | 104.21 | on Rock |
| 64+0 | | | 7.4 | 104.1 | |
| +32.5 | = Culvert | | 8.1 | 103.4 | |
| " | 6' Lt. of ℄ | | 8.1 | 103.4 | |
| " | 16.5 Lt " " | = Sly Pipe Corg. Iron Culv. | 14.2 | 97.3 | Flow Line |
| " | 25 Lt of ℄ | | 20.2 | 91.3 | Ground |
| " | 29' Rt of ℄ | = Inlet | 8.18 | 103.31 | on Grating |
| " | " | | 10.2 | 101.3 | Flow Line |
| +50 | | | 8.2 | 103.3 | |
| 65+0 | | | 8.1 | 103.4 | |
| " | 20' Lt of ℄ | Nly Fill | 9.5 | 102.0 | |
| +50 | | | 7.8 | 103.7 | |
| TP | 12.16 | 116.23 | 7.42 | 104.09 | |
| 66+0 | | | 12.0 | 104.2 | |
| +50 | | | 10.8 | 105.4 | |
| 67+0 | | | 9.2 | 107.0 | |
| +50 | | | 7.5 | 108.7 | |
| 68+0 | | | 6.1 | 110.1 | |
| BM | | | 3.65 | 112.58 | S Top Flange Hyd. Imperial Ave |
| +40.28 | Δ 72° 40' Rt | | 4.81 | 111.42 | |





| | | | | | |
|---|---|---|---|---|---|
| 68 | | 116.23 | | | |
| 69+0 | | | 3.35 | 112.88 | |
| +50 | | | 1.82 | 114.41 | |
| 70+0 | | | 0.71 | 115.52 | |
| TP | 11.31 | 127.01 | 0.53 | 115.70 | |
| +50 | | | 10.33 | 116.68 | |
| +92.86 | Δ 73°58'Lt. | | 9.70 | 117.31 | on stub |
| 71+0 | | | 9.7 | 117.3 | |
| +50 | | | 8.97 | 118.04 | |
| 72+0 | | | 7.38 | 119.63 | |
| +50 | | | 6.07 | 120.94 | |
| 73+0 | | | 4.64 | 122.37 | |
| +50 | | | 3.36 | 123.65 | |
| 74+0 | | | 3.03 | 123.98 | |
| +50 | | | 3.65 | 123.36 | |
| +88.0° | Δ 0°25'30" Rt. | | 4.40 | 122.61 | |
| TP | 4.33 | 127.24 | 4.10 | 122.91 | |
| 75+0 | | | 4.83 | ~~122.21~~ | 122.41. |
| +50 | | | 5.93 | ~~121.11~~ | 121.31. |
| 76+0 | | | 6.93 | 120.31 | |
| +50 | | | 7.96 | 119.28 | |
| 77+0 | | | 8.88 | 118.36 | |
| +54.15 | Δ | | 9.26 | 117.98 | |
| BM | | | 8.75 | 118.49 | S.E. B.P. Imperial & 39th St. 118.40 |




| | | | |
|---|---|---|---|
| 83+0 | | 5.55 | 96.00 |
| +50 | | 5.26 | 96.34 |
| 84+0 | | 4.92 | 96.68 |

| | | | | | |
|---|---|---|---|---|---|
| | | 116.23 | | | |
| 69+0 | | | 3.35 | 112.88 | |
| +50 | | | 1.82 | 114.41 | |
| 70+0 | | | 0.71 | 115.52 | |
| TP | 11.31 | 127.01 | 0.53 | 115.70 | |
| +50 | | | 10.33 | 116.68 | |
| +92.86 | Δ 73°58' Lt | | 9.70 | 117.31 | on stub |
| 71+0 | | | 9.7 | 117.3 | |
| +50 | | | 8.97 | 118.04 | |
| 72+0 | | | 7.38 | 119.63 | |
| +50 | | | 6.07 | 120.94 | |
| 73+0 | | | 4.64 | 122.37 | |
| +50 | | | 3.36 | 123.65 | |
| 74+0 | | | 3.03 | 123.98 | |
| +50 | | | 3.65 | 123.36 | |
| +88.0° | Δ 0°25'30" Rt | | 4.40 | 122.61 | |
| TP | 4.33 | 127.24 | 4.10 | 122.91 | |
| 75+0 | | | 4.83 | ~~123.21~~ | 122.41 |
| +50 | | | 5.93 | ~~121.11~~ | 121.31 |
| 76+0 | | | 6.93 | 120.31 | |
| +50 | | | 7.96 | 119.28 | |
| 77+0 | | | 8.88 | 118.36 | |
| +54.15 | Δ | | 9.26 | 117.98 | |
| BM | | | 8.75 | 118.49 | S.E.B.P. Impression 4.39 St 118.40 |

| | | | | | |
|---|---|---|---|---|---|
| BM | 2.10 | 120.50 | | 118.40 | S.E.B.P. Impression 4.39 |
| 78+0 | | | 3.48 | 117.02 | |
| +50 | | | 4.63 | 115.87 | |
| 79+0 | | | 5.84 | 114.66 | |
| +50 | | | 7.08 | 113.42 | |
| 80+0 | | | 9.28 | 111.22 | |
| +50 | | | 12.10 | 108.40 | |
| TP | 0.40 | 108.83 | 12.07 | 108.43 | |
| 81+0 | | | 3.21 | 105.62 | |
| +50 | | | 5.88 | 102.95 | |
| 82+0 | | | 7.93 | 100.90 | |
| +50 | | | 9.62 | 99.21 | |
| 83+0 | | | 11.25 | 97.58 | |
| +50 | | | 12.87 | 95.96 | |
| TP | 5.53 | 101.60 | 12.76 | 96.07 | |
| +66.30 = E 5 Lines 38 Rt | | | 5.93 | 95.67 | |
| " 10.5 Rt of ℄ = Inlet | | | 6.43 | 95.17 | on grating |
| " " " Bottom Inlet | | | 10.73 | 90.87 | |
| " 24.5 Lt of ℄ = Inlet | | | 6.95 | 94.65 | on grating |
| " " " Bottom Inlet | | | 8.91 | 92.69 | |
| 84+0 | | | 6.08 | 95.52 | |
| +50 | | | 5.82 | 95.78 | |
| 85+0 | | | 5.55 | 96.05 | |
| +50 | | | 5.26 | 96.34 | |
| 86+0 | | | 4.92 | 96.68 | |

Imperial Ave.

| | | | | | |
|---|---|---|---|---|---|
| | | 101.60 | | | |
| 86+50 | | | 4.71 | 96.89 | |
| 87+0 | | | 4.45 | 97.15 | |
| +50 | | | 4.15 | 97.45 | |
| 88+0 | | | 3.86 | 97.74 | |
| +50 | | | 3.53 | 98.07 | |
| 89+0 | | | 3.20 | 98.40 | |
| TP | 5.58 | 103.77 | 3.41 | 98.19 | |
| +50 | | | 5.11 | 98.66 | |
| 90+0 | | | 4.87 | 98.90 | |
| +28.46 = E 7' Line 37th St. | | | 4.74 | 99.03 | |
| +50 | | | 4.72 | 99.05 | |
| 91+0 | | | 4.79 | 98.98 | |
| +50 | | | 4.97 | 98.80 | |
| 92+0 | | | 5.11 | 98.66 | |
| +50 | | | 5.27 | 98.50 | |
| 93+0 | | | 5.47 | 98.30 | |
| +50 | | | 5.72 | 98.05 | |
| 94+0 | | | 6.06 | 97.71 | |
| +03.86 = W 7' Line South Look | | | 6.08 | 97.69 | |
| BM | 4.30 | 102.24 | 5.83 | 97.94 | S.E. BP Imperial + South Look 97.91 |
| +50 | | | 4.68 | 97.56 | |
| 95+0 | | | 4.75 | 97.49 | |
| +50 | | | 5.11 | 97.13 | |
| 96+0 | | | 6.49 | 95.75 | |
| +29.45 Δ 3° 08' 30" Rt | | | 7.53 | 94.71 | |

Proj. 28-46



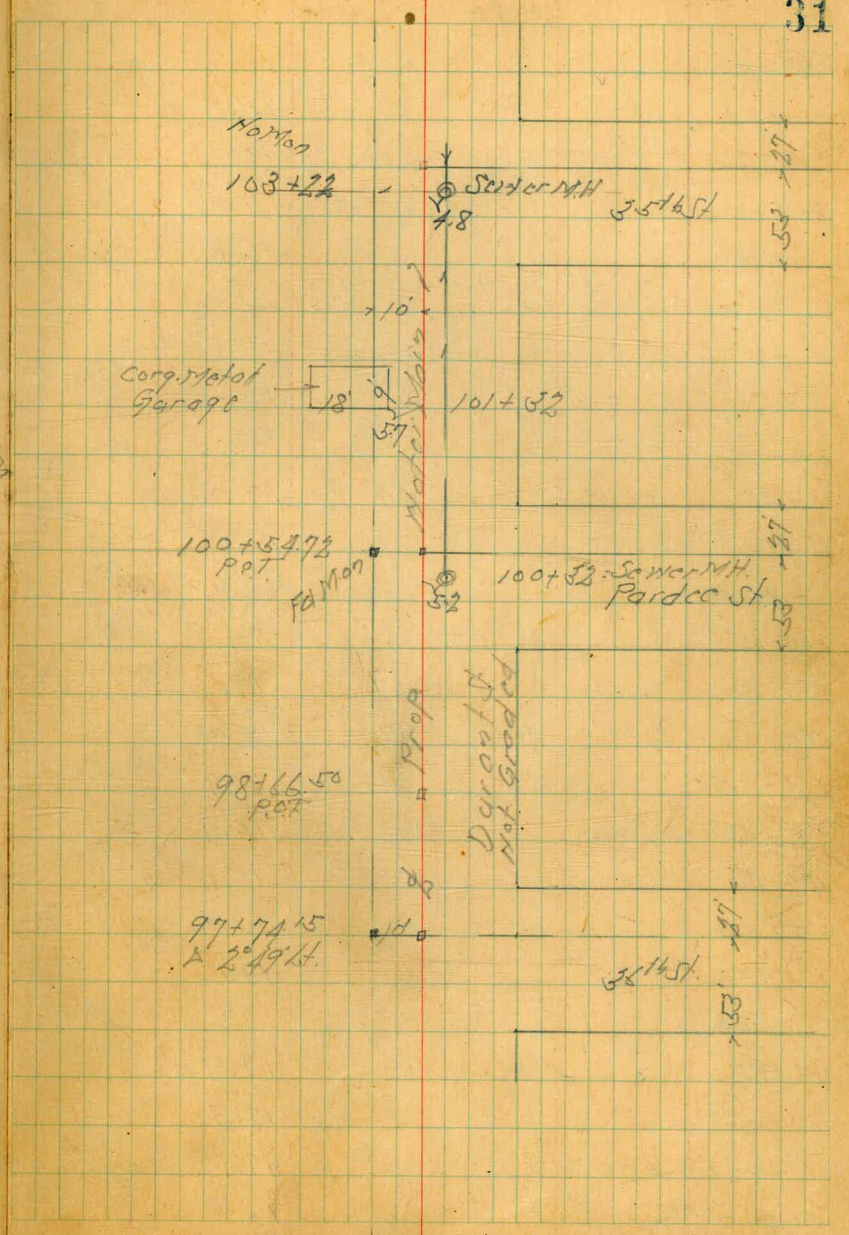
| | | | | | |
|---|---|---|---|---|---|
| | | 102.24 | | | |
| 96+50 | | | 8.45 | 93.79 | |
| 97+0 | | | 10.80 | 91.44 | |
| +34 = W'ly Parking | | | 12.13 | 90.11 | |
| +50 | | | 11.4 | 90.84 | |
| +74.16 Δ 2° 49' 27" | | | 9.31 | 92.93 on Stub | |
| +98 7' Lt of ℄ = W'ly Light Pole | | | | | |
| 98+0 | | | 6.9 | 95.3 | |
| +25 | | | 4.5 | 97.7 | |
| +50 | | | 3.5 | 98.7 | |
| TP | 0.91 | 99.60 | 3.55 | 98.69 | |
| 99+0 | | | 2.6 | 97.0 | |
| +50 | | | 6.9 | 92.7 | |
| 100+0 | | | 11.0 | 88.6 | |
| TP | 1.41 | 88.02 | 12.99 | 86.61 | |
| +32 5' Rt of ℄ = W'ly | | | 1.79 | 86.23 | 30 Left of ℄ on R.O.W. |
| +50 | | | 2.6 | 85.4 | |
| B.M. | | | 3.38 | 84.64 | on W'ly 10 Lt 100 Ft N |
| 101+0 | | | 5.9 | 82.1 | |
| +50 | | | 8.5 | 79.5 | |
| 102+0 | | | 10.5 | 77.5 | |
| +50 | | | 12.4 | 75.6 | |
| TP | 0.07 | 75.24 | 12.85 | 75.17 | |
| +74 | | | 0.9 | 74.3 | |
| 103+0 | | | 4.0 | 71.2 | |
| +23 48 Rt of ℄ = W'ly | | | 4.61 | 70.63 | on R.O.W. |
| | | | 12.86 | 62.38 | Flow Line |

Durant St.

| | | | | | |
|---|---|---|---|---|---|
| | | 7524 | | | |
| 103+50 | | | 5.6 | 69.6 | |
| 104+0 | | | 6.0 | 69.2 | |
| +50 | | | 6.5 | 68.7 | |
| 105+0 | | | 7.4 | 67.8 | |
| +50 | | | 8.2 | 67.0 | |
| +70 | | | 8.6 | 66.6 | |
| 106+0 | | | 10.1 | 65.1 | |
| +14.79 = | 13' Lt. | Frances | 11.29 | 63.95 | on Stub |
| BM | | | 8.23 | 67.01 | on Mon 106+14.79 |
| TP | 0.17 | 63.19 | 12.22 | 63.02 | |
| +50 | | | 2.6 | 60.6 | |
| 107+0 | | | 9.8 | 53.4 | |
| +08 | 7' Lt of ℄ = N'ly | | 28" Cypress Tree | | |
| +18 | | | 12.4 | 50.8 | |
| TP | 0.47 | 50.66 | 13.00 | 50.19 | |
| +47 | = Top of | Conc. Wall | 1.87 | 48.79 | + Ground |
| +80 | | | 5.8 | 44.9 | |
| TP | 0.89 | 38.74 | 12.81 | 37.85 | |
| 108+0 | | | 1.7 | 37.0 | |
| +25 | | | 11.4 | 27.3 | |
| TP | 1.13 | 26.90 | 12.97 | 25.77 | |
| +56 | | | 2.3 | 24.6 | |
| +47 | 7.4' Lt of ℄ = Sewer Man Hole | | 6.02 | 20.88 | on Pipe |
| +49 | | | 7.5 | 19.4 | |
| +58 | | | 10.6 | 16.3 | |

Indexed
G.S.K.



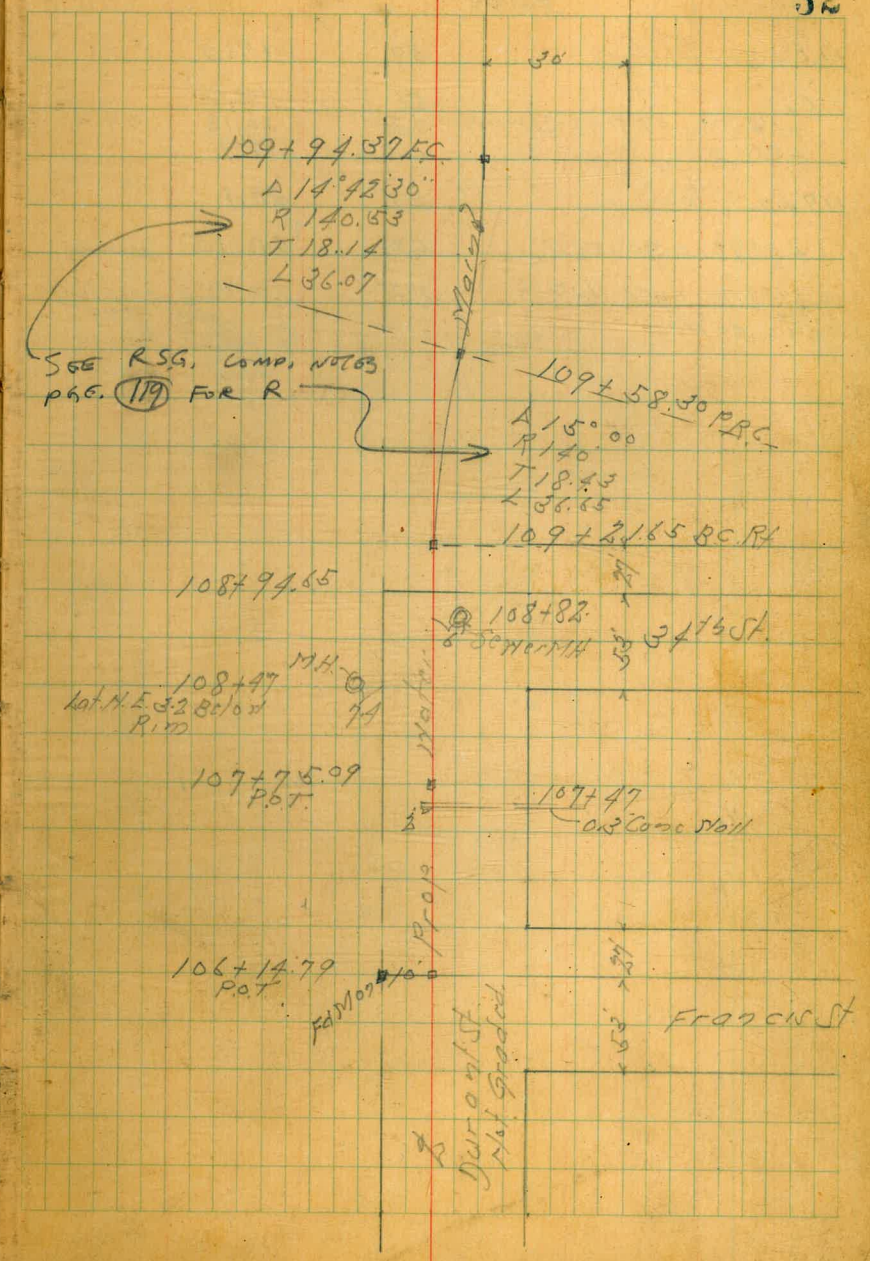



St. Ford
Page 28

Durant St

| | | | | | |
|---|---|---|---|---|---|
| | | 26.90 | | | |
| 108+67 | | | 11.3 | 15.6 | |
| +75 | | | 12.6 | 14.3 | |
| +82 | 6' Rt of ℄ Mon Hole | Sewer Scaled | 9.69 | 17.21 | Scaled on Rim |
| 109+0 | | | 11.1 | 15.8 | |
| +10 | | | 10.8 | 16.1 | |
| +20 | | | 9.1 | 17.8 | |
| +21.65 | BC Rt | | 9.34 | 17.56 | |
| +28 | | | 11.0 | 15.9 | |
| +40 | | | 11.1 | 15.8 | |
| +50 | | | 9.9 | 17.0 | |
| +65 | | | 7.9 | 19.0 | |
| +94.37 | EC | | 7.98 | 18.92 | on Stub |
| 110+0 | | | 8.0 | 18.9 | |
| +50 | | | 8.2 | 18.7 | |
| TP | 6.87 | 25.36 | 7.91 | 18.99 | |
| 111+0 | | | 6.5 | 18.9 | |
| +50 | | | 7.0 | 18.4 | |
| 112+0 | | | 7.3 | 18.1 | |
| +50 | | | 6.9 | 18.5 | |
| 113+0 | | | 6.0 | 19.4 | |
| +50 | | | 5.8 | 19.6 | |
| 114+0 | | | 5.7 | 19.7 | |
| +50 | | | 6.1 | 19.3 | |
| +94.89 | Δ 90°53'30" Rt | | 6.24 | 19.12 | on Stub |
| 115+0 | | | 6.2 | 19.2 | |

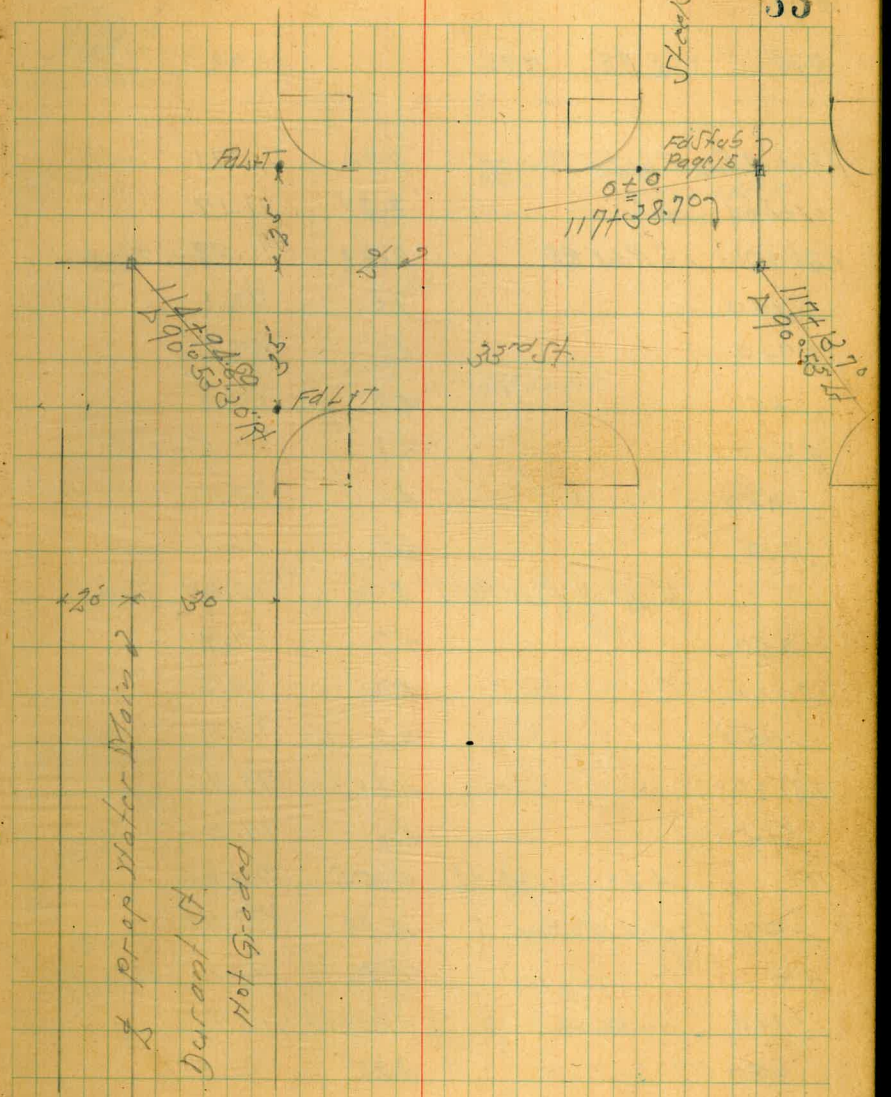




33rd St

| | | | | | |
|---|---|---|---|---|---|
| | | 25.36 | | | |
| 115+50 | | | 5.9 | 19.5 | |
| 116+0 | | | 5.6 | 19.8 | |
| +09 | 4.9 Rt of ℄ | = Service MH | 5.23 | 20.13 | on Rim |
| +50 | | | 5.5 | 19.9 | |
| 117+0 | | | 5.3 | 20.1 | |
| +13.70 | Δ 90° 53' Lt | | 5.21 | 20.15 | |
| +38.70 | = WL 33rd St | | 5.36 | 20.00 | on Stub 19.99 Page 15 |
| 0+0 to West | | | | | |





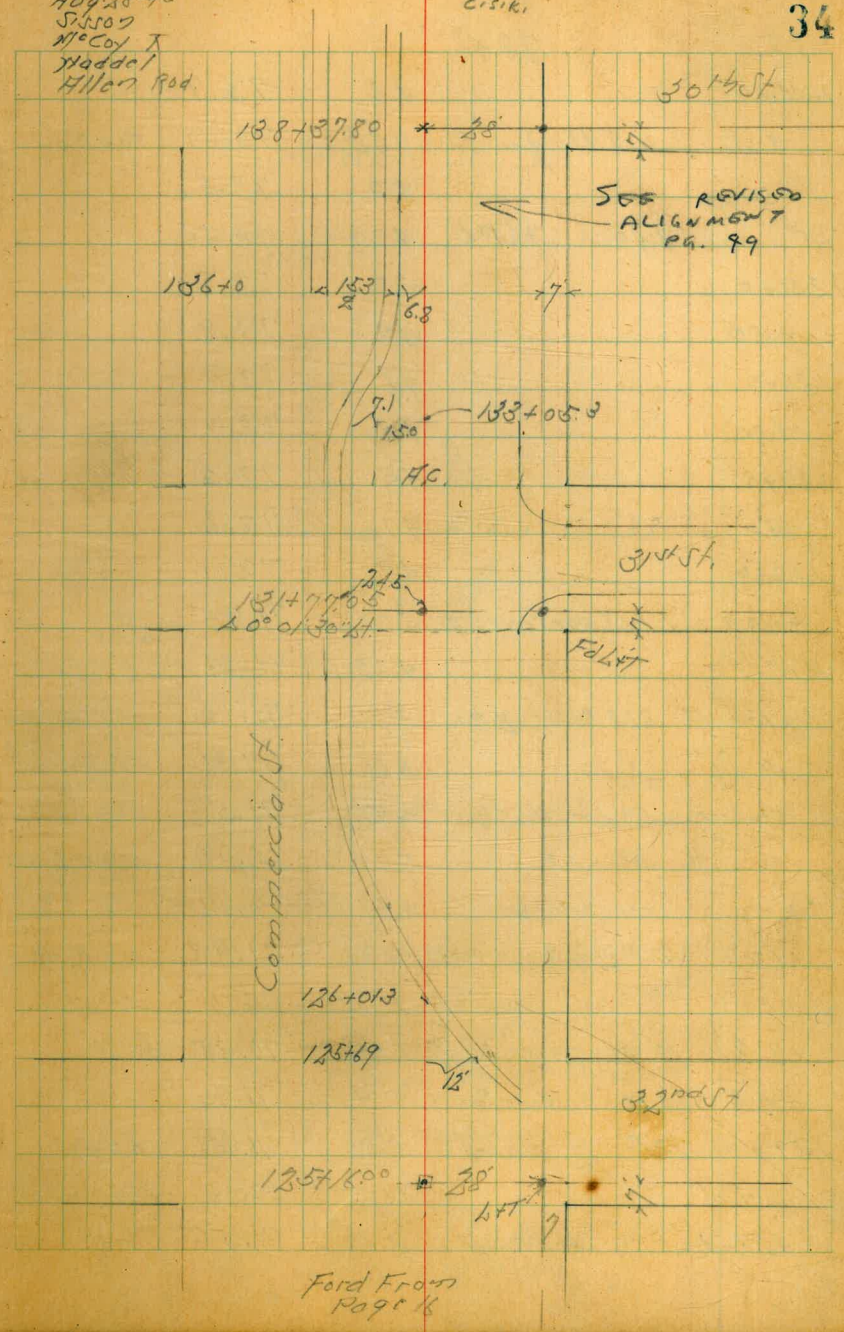
Commercial St. Proposed Water Main

| | | | | | |
|---|---|---|---|---|---|
| BM | 8.88 | 79.61 | | 70.73 | on Stub 7+77.30 125+16 Page 17 |
| 125+19.5 = | E Ly H.C Paving | | 8.90 | 70.71 | |
| +58.2 = | W Ly " " | " | 8.44 | 71.17 | |
| 126+01.3 = | S. Rail RR | | 8.03 | 71.58 | Top Rail |
| +50 | | | 7.5 | 72.1 | |
| 127+0 | | | 6.6 | 73.0 | |
| +50 | | | 5.8 | 73.8 | |
| 128+0 | | | 5.1 | 74.5 | |
| +50 | | | 4.6 | 75.0 | |
| 129+0 | | | 4.5 | 75.1 | |
| " | 26' Lt of ℄ = N Rail | | 4.54 | 75.07 | Top |
| +50 | | | 4.7 | 74.9 | |
| 130+0 | | | 5.0 | 74.6 | |
| +50 | | | 5.2 | 74.4 | |
| 131+0 | | | 5.2 | 74.4 | |
| +50 | | | 5.4 | 74.2 | |
| TP | 44° | 78.46 | 5.55 | 74.06 | |
| +70.1 = | E Ly H.C Pav. | | 4.48 | 73.98 | |
| BM | | | 4.40 | 74.06 | NWBP Commercial + 8 off 74.10 |
| 132+0 | on H.C. Pav | | 4.63 | 73.83 | |
| +50 | " " " " | | 4.89 | 73.57 | |
| 133+0 | " " " | | 4.93 | 73.53 | |
| +05.3 = | W Ly " " " | | 5.00 | 73.46 | |
| +50 | | | 4.7 | 73.8 | |

Levels
Aug 28-46
Sisson
McCoy
Haddel
Allen Rod

Indexed
C.S.K.



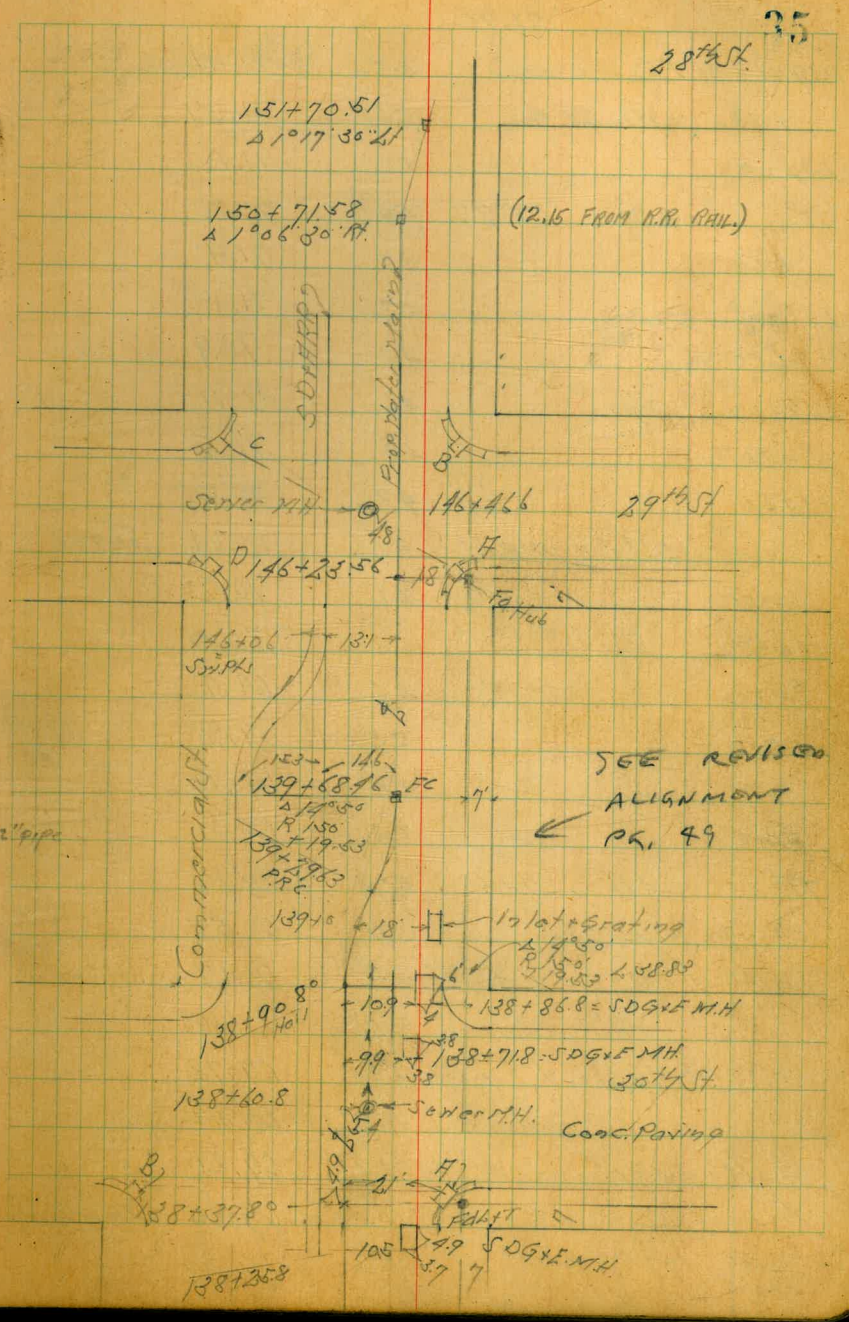



Ford From Page 16

| | | | | | |
|---|---|---|---|---|---|
| | | 78.46 | | | |
| 134+0 | | | 4.8 | 73.7 | |
| " | 11.8 Lt of ℄ = N Rail | | 4.82 | 73.64 | Top Rail |
| +50 | | | 5.0 | 73.5 | |
| TP | 3.40 | 76.96 | 4.90 | 73.56 | |
| 135+0 | | | 3.7 | 73.3 | |
| +50 | | | 3.8 | 73.2 | |
| 136+0 | | | 4.1 | 72.9 | |
| +50 | | | 4.3 | 72.7 | |
| 137+0 | | | 4.5 | 72.5 | |
| +50 | | | 4.7 | 72.3 | |
| 138+0 | | | 4.9 | 72.1 | |
| +30.9 = | F.L. Conc Paving | | 5.01 | 71.95 | |
| BM | | | 4.82 | 72.14 | N.E. 7th St. Commercial +30.9 |
| Inlet A | 21.2 Rt of ℄ = ℄ Box | | 5.77 | 71.19 | on Grating |
| " " | " | | 8.66 | 68.30 | Flow Line 12" pipe |
| " B | 52 Lt of ℄ = ℄ Box | | 5.46 | 71.50 | on Grating |
| " " | " " | | 7.94 | 69.02 | Flow Line 12" pipe |
| +50 | on Conc Pav. | | 4.97 | ~~68.99~~ | 71.99 |
| +60.8 | 5.4 Rt of ℄ = Sewer MH | | 5.04 | 71.92 | on Rim |
| " | " " " | | 11.34 | 65.62 | Flow Line |
| +71.8 | 12 Rt of ℄ = N.W. Gas Line | | 6.67 | 70.29 | top of Gas Line |
| +90.8 = | B.C. Rt = N.W. Conc Pav. | | 5.01 | 71.95 | |
| 139+0 | 18 Rt of ℄ = Inlet | | 5.59 | 71.37 | on Grating |
| " | " " | | 15.97 | 60.99 | Bottom Box |
| +29.63 = | P.R.C. on P.C. Pav. | | 5.40 | 71.56 | |

SEE LINE CHANGE PAGE 49

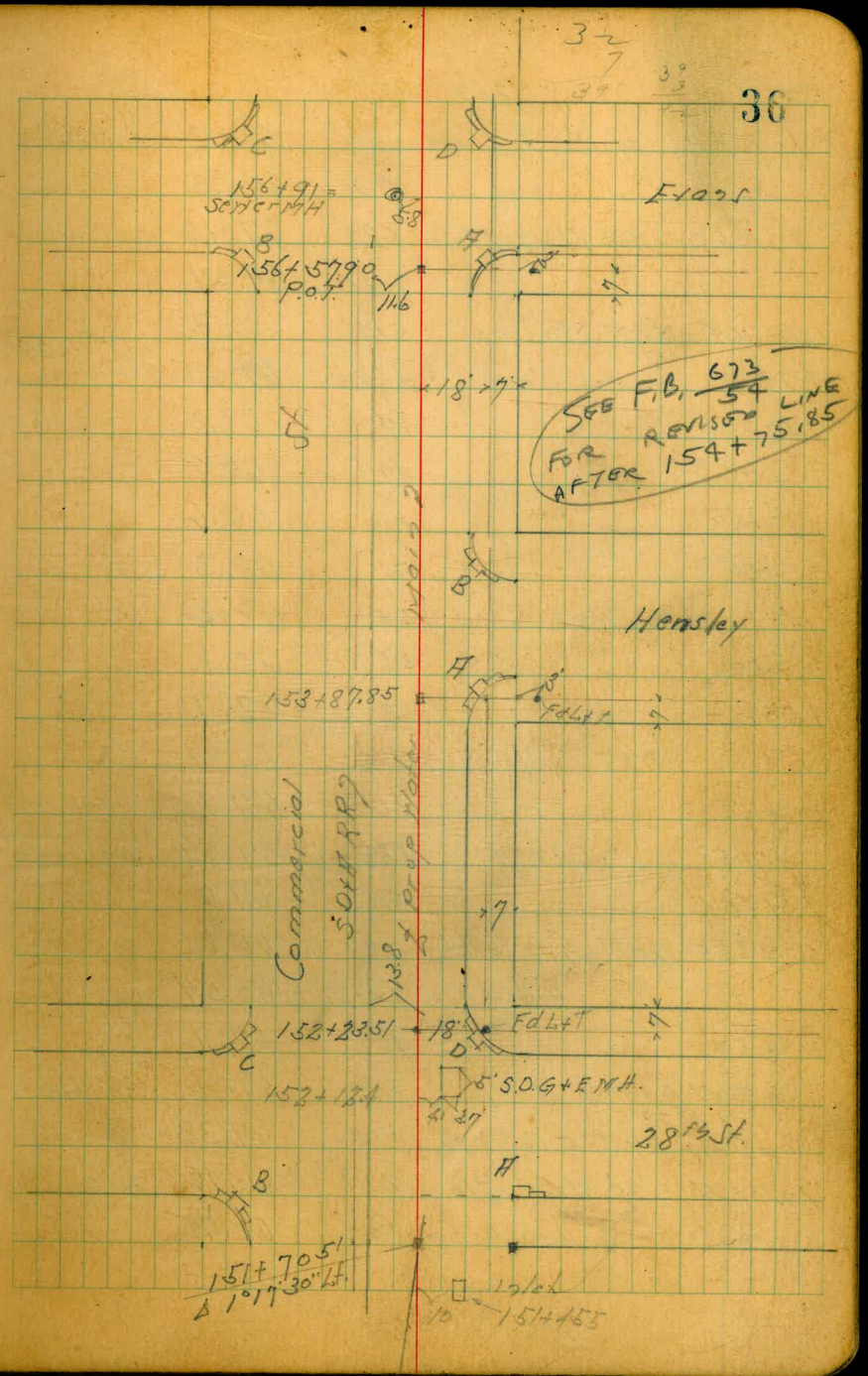




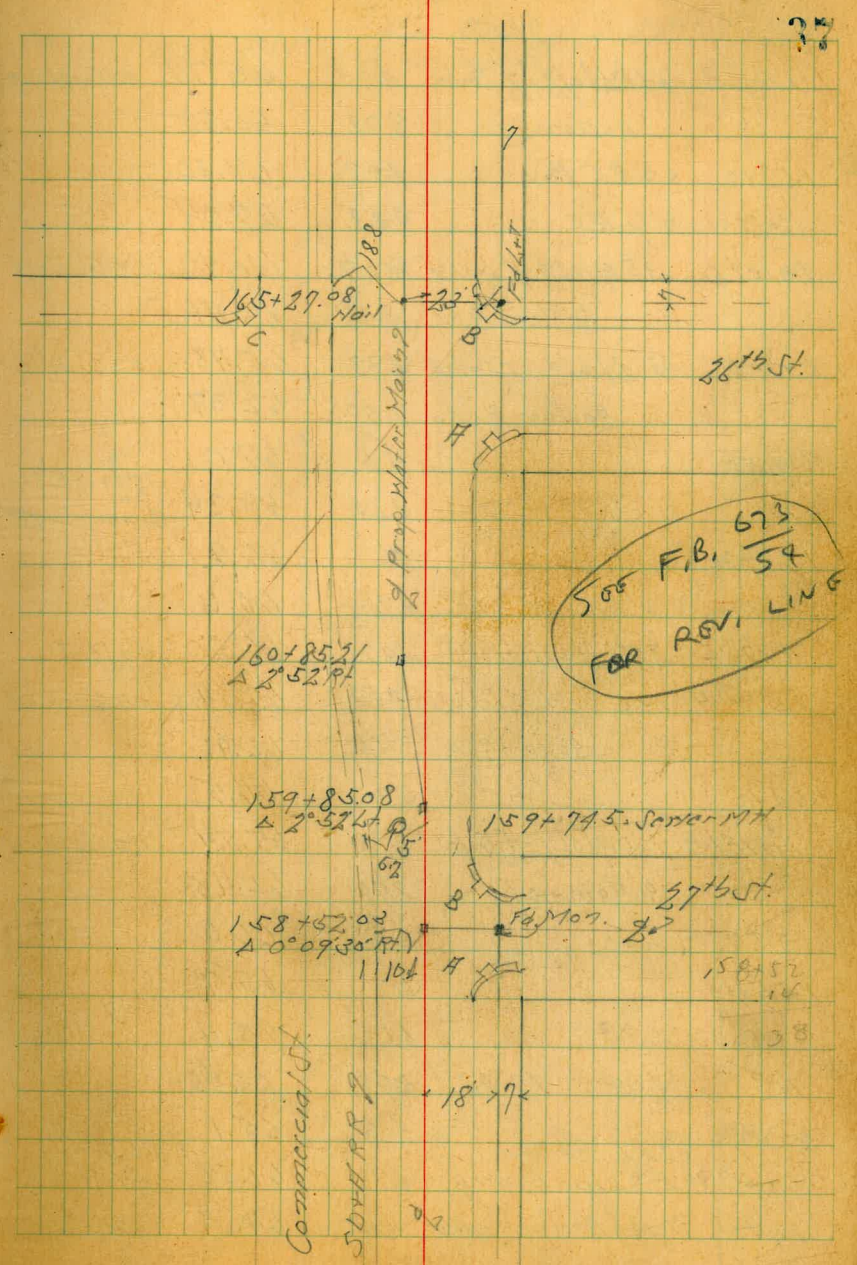
Commercial St

| | | | | | |
|---|---|---|---|---|---|
| | | 76.96 | | | |
| 139+68.46 | F.C. | | 5.55 | 71.41 | on Slab |
| +83 | = Fly F.C. Pav. | | 5.62 | 71.34 | |
| 140+0 | | | 5.6 | 71.4 | |
| TP | 3.71 | 75.27 | 5.40 | 71.56 | |
| +50 | | | 3.9 | 71.4 | |
| 141+0 | | | 4.2 | 71.1 | |
| +50 | | | 4.4 | 70.9 | |
| 142+0 | | | 4.6 | 70.7 | |
| +50 | | | 4.8 | 70.5 | |
| 143+0 | | | 4.9 | ~~70.6~~ ← 70.4 | |
| " | 14' Lt of ℄ - 4" Rail | | 4.66 | 70.61 | on Top |
| +50 | | | 5.1 | 70.2 | |
| 144+0 | | | 5.3 | 70.0 | |
| +50 | | | 5.4 | 69.9 | |
| 145+0 | | | 5.5 | 69.8 | |
| +50 | | | 5.8 | 69.5 | |
| 146+0 | | | 6.3 | 69.0 | |
| TP | 4.16 | 73.69 | 5.94 | 69.53 | |
| +198 = Fly F.C. Pav | | | 5.11 | 68.58 | |
| Inlet ℄ | 13.2' Rt of ℄ - Inlet | | 5.52 | 68.17 | on Grating |
| " " | Bottom Box | | 9.51 | 64.18 | |
| " D | 46' Lt of ℄ - Inlet | | 5.97 | 67.72 | on Grating |
| " " | Bottom Box | | 9.27 | 64.42 | |
| +466 | 4.8' Lt of ℄ | Sewer MH | 4.48 | 69.21 | on Ring |
| " | " | " | 10.49 | 63.20 | Flow Line |
| +50 | on F.C. Pav. | | 4.76 | 68.93 | |





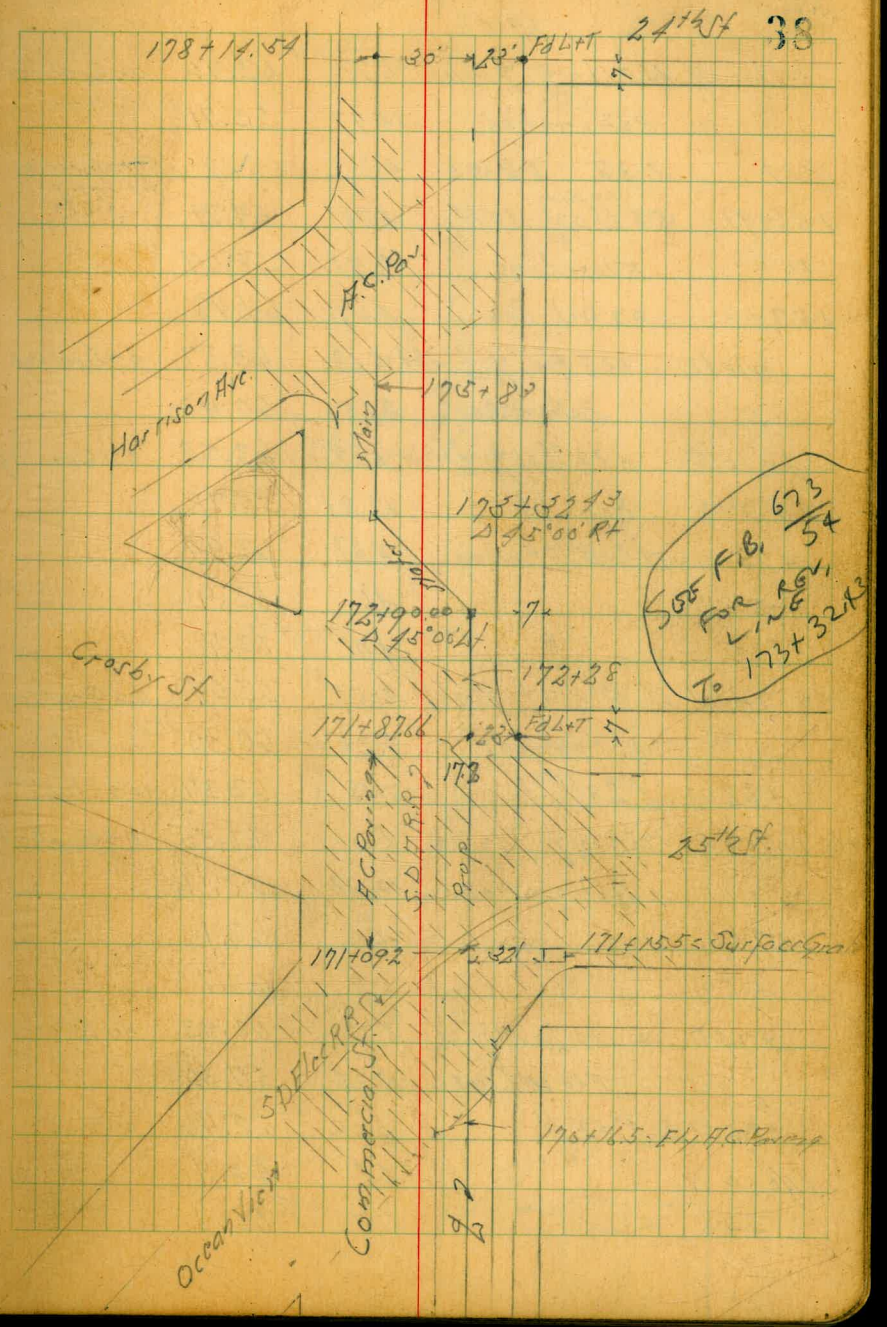
| STA? | | | | | |
|---|---|---|---|---|---|
| | | 73.69 | | | |
| Inlet B | 14' Rt of ℄ = ℄ Inlet | | 5.66 | 68.03 | on Grating |
| " " | " | | 9.46 | 64.23 | Bottom Box |
| Inlet C | 4.35 Lt of ℄ = ℄ Inlet | | 6.29 | 67.40 | on Grating |
| " " | | | 9.35 | 64.34 | B |
| 146+76.4 = | ℄ L.F.C. Paving | | 5.11 | 68.58 | |
| BM | | | 4.64 | 69.05 | Lt of ℄ L.29th St. H.C. & Commercial |
| 147+0 | | | 4.9 | 68.8 | |
| +50 | | | 4.9 | 68.8 | |
| 148+0 | | | 5.1 | 68.6 | |
| +50 | | | 5.4 | 68.3 | |
| 149+0 | 12.6 Lt of ℄ = H Rail | | 5.5 | 68.2 | |
| +50 | | | 5.6 | 68.1 | |
| 150+0 | | | 5.8 | 67.9 | |
| TP | 3.77 | 71.47 | 5.99 | 67.70 | |
| +50 | | | 3.6 | 67.9 | |
| +71.58 | Δ 1°06'30" Rt | | 3.68 | 67.79 | on Stub |
| 151+0 | | | 3.9 | 67.6 | |
| +45.5 | 10' Rt of ℄ = ℄ Inlet | | 4.87 | 66.60 | on Grating |
| " | " Bottom Box | | 7.93 | 63.54 | |
| +50 | | | 4.1 | 67.4 | |
| +70.51 | Δ 1°17'30" Lt | | 4.17 | 67.30 | on Stub |
| FL | 28th St | | | | |
| +80.5 = | F.L. ℄ L.F.C. Paving | | 4.14 | 67.33 | |
| Inlet A | 25' Rt of ℄ = ℄ Inlet | | 4.71 | 66.76 | on Grating |
| " " | Bottom Box | | 8.02 | 63.45 | |



Commercial St.

| | | | | | |
|---|---|---|---|---|---|
| | | 71.47 | | | |
| Inlet B | 44.5 Lt of ℄ = ⅞ Inlet | | 5.73 | 65.74 | on Grating |
| " " | Bottom Box | | 8.79 | 62.68 | |
| 152+0 | on H.C. Pav | | 4.07 | 67.40 | |
| +21 | = W'ly H.C. " | | 4.43 | 67.04 | |
| Inlet D | 13.5 Rt of ℄ = ⅞ Inlet | | 5.07 | 66.40 | on Grating |
| " " | Bottom Box | | 8.06 | 63.41 | |
| Inlet C | 43' Lt of ℄ = ⅞ Inlet | | 5.99 | 65.48 | on Grating |
| " " | Bottom Box | | 9.10 | 62.37 | |
| +50 | | | 4.5 | 67.0 | |
| BM | | | 3.13 | 68.34 | Mag N.E. Prop Cor. Commercial 1886 |
| 153+0 | | | 4.6 | 66.9 | |
| +50 | | | 4.9 | 66.6 | |
| +87.85 | = E'ly Hensley | | 4.97 | 66.50 | on Stab |
| Inlet H | 13.5' Rt of ℄ = ⅞ Inlet | | 5.43 | 66.04 | on Grating |
| " " | Bottom Box | | 8.56 | 62.91 | |
| 154+0 | | | 5.0 | 66.5 | |
| Inlet 8" | 13.5 Rt of ℄ = ⅞ Inlet | | 5.93 | 65.54 | on Grating |
| " | Bottom Box | | 8.99 | 62.48 | |
| +50 | | | 5.5 | 66.0 | |
| 155+0 | | | 5.8 | 65.7 | |
| +50 | | | 6.1 | 65.4 | |
| TP | 4.00 | 69.48 | 5.99 | 65.48 | |
| 156+0 | | | 4.4 | 65.1 | |
| +57.90 | = E'ly Line Evans | | 4.90 | 64.58 | on Stab |
| Inlet | H 13.5 Rt of ℄ = ⅞ Inlet | | 5.47 | 64.01 | on Grating |
| " " | Bottom Box | | 8.52 | 60.96 | |





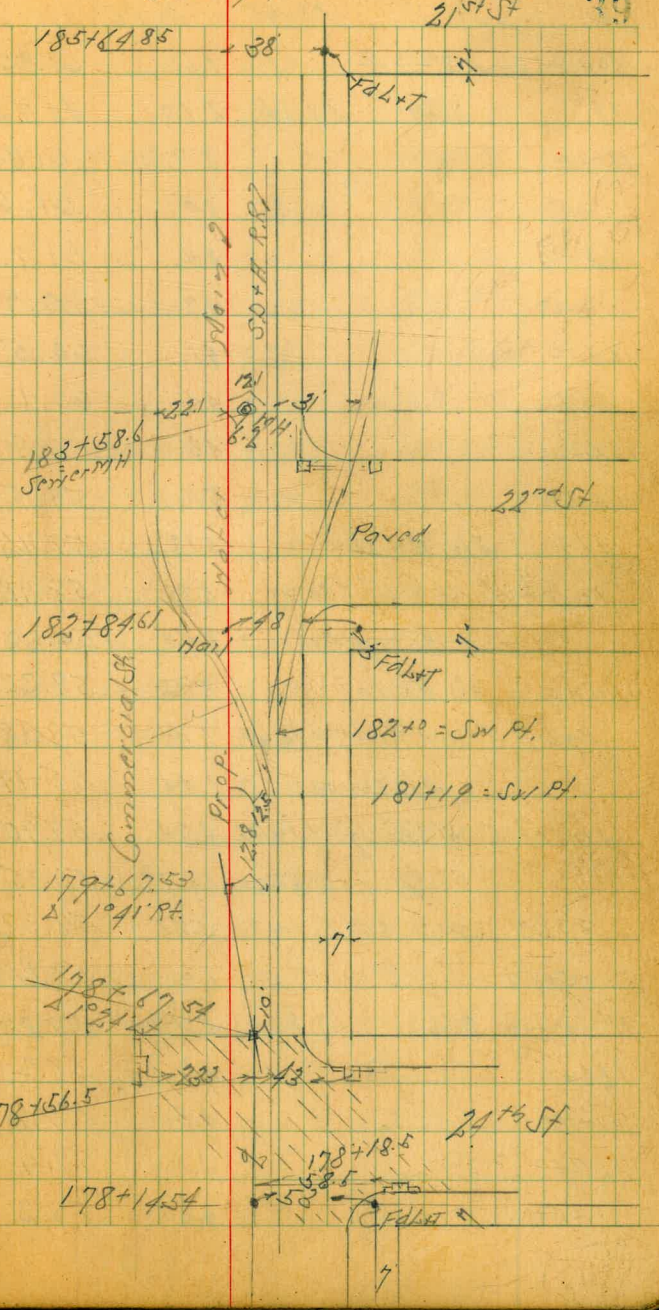
| | | | | | |
|---|---|---|---|---|---|
| | | 69.48 | | | |
| Inlet B | 44.5 Lt of ℄ - ℄ Inlet | | 5.72 | 63.76 | on Grating |
| " " | Bottom Box | | 13.77 | 55.71 | |
| BM | 3.38 | 68.55 | 4.31 | 65.17 | H.E. L+T 3'Th. Commercial + Fugas 65.20 |
| 156+91 | 5.8 on Rim Lt of ℄ - MH | | 3.76 | 64.79 | |
| " | Flow Line | | 9.91 | 58.64 | |
| 157+0 | on Oil Pav. | | 4.07 | 64.48 | |
| Inlet D | 13.8 Rt of ℄ - ℄ Inlet | | 5.18 | 63.37 | on Grating |
| " " | Bottom Box | | 8.15 | 60.40 | |
| Inlet C | 43.2 Lt of ℄ - ℄ Inlet | | 5.02 | 63.53 | on Grating |
| " | Bot | | 12.83 | 55.72 | |
| +23 | = Mk Oil Paving | | 4.61 | 63.94 | |
| +50 | | | 4.6 | 63.9 | |
| 158+0 | | | 4.9 | 63.7 | |
| +38 | Inlet A 13.8 Rt of ℄ - ℄ Inlet | | 5.51 | 63.04 | on Grating |
| " | Bottom Box | | 8.25 | 60.30 | |
| +52.03 | = ℄ 27th St | | 5.18 | 63.37 | on Stub |
| +66 | Inlet B 12.5 Rt of ℄ - ℄ Inlet | | 6.00 | 62.55 | on Grating |
| " | Bottom Box | | 10.39 | 58.16 | |
| 159+0 | | | 5.5 | 63.1 | |
| +50 | | | 5.9 | 62.7 | |
| +74.5 | 5' Lt of ℄ - MH | | 5.72 | 62.83 | on Rim |
| " | Flow Line | | 11.25 | 57.30 | |
| +85.08 | Δ 2°52' Lt | | 6.09 | 62.46 | on Stub |
| 160+0 | | | 6.2 | 62.4 | |
| +50 | | | 6.5 | 62.1 | |



Alignment
Sisson
McCoy &
Waddel
Filed

Cont Page 41

Eng. 29.46



Commercial St

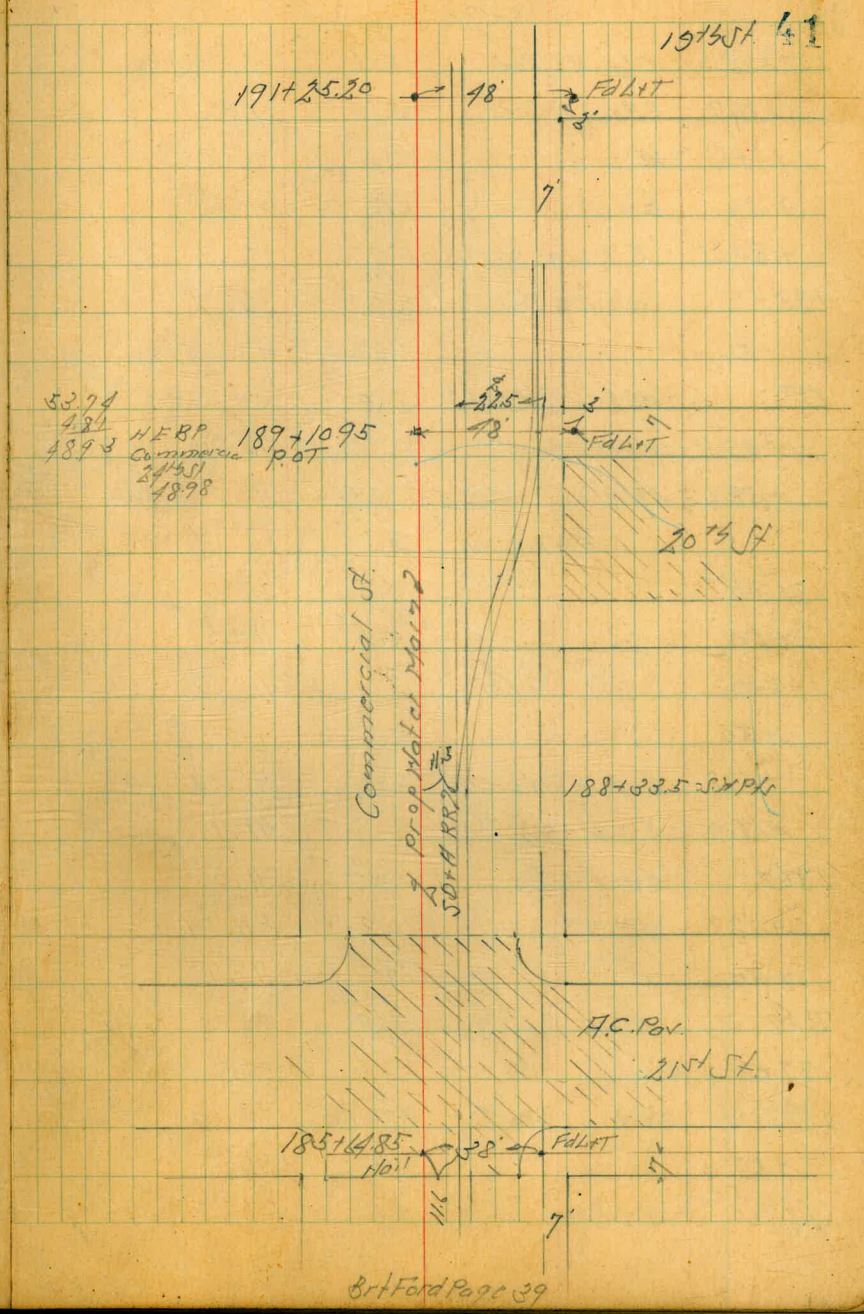
| | | | | | |
|---|---|---|---|---|---|
| | | 68.55 | | | |
| 160+85.21 | Δ 2°52' Rt | | 6.60 | 61.95 | on Stub |
| TP | 2.69 | 64.64 | 6.60 | 61.95 | |
| 161+0 | | | 2.7 | 61.9 | |
| +50 | | | 3.0 | 61.6 | |
| 162+0 | | | 3.4 | 61.2 | |
| +50 | | | 3.7 | 60.9 | |
| 163+0 | | | 4.1 | 60.5 | |
| +50 | | | 4.5 | 60.1 | |
| 164+0 | | | 4.8 | 59.8 | |
| +50 | | | 5.1 | 59.5 | |
| +64 | = Fly A.C. Paving | | 5.18 | 59.46 | |
| Inlet A | 16.8 Rt of ℄ Inlet | | 5.72 | 58.92 | on Grating |
| " " | Bottom Box | | 8.44 | 56.20 | |
| 165+0 | on A.C. Pav. | | 5.32 | 59.32 | |
| Inlet B | 16.5 Rt of ℄ Inlet | | 6.46 | 58.18 | on Grating |
| " " | Bottom Box | | 9.45 | 55.19 | |
| Inlet C | 56.3 Lt of ℄ Inlet | | 6.74 | 57.90 | on Grating |
| " " | Bottom Box | | 13.79 | 50.85 | |
| +34.2 | = N'ly A.C. Paving | | 5.82 | 58.82 | |
| +50 | | | 6.0 | 58.6 | |
| TP | 2.66 | 61.86 | 5.44 | 59.20 | N.W. 9.2 ± Commercial + 26.5 St. |
| 166+0 | | | 3.7 | 58.2 | |
| +50 | | | 4.1 | 57.8 | |
| 167+0 | | | 4.5 | 57.4 | |
| +50 | | | 4.6 | 57.3 | |

Aug. 30-46
Levels
Sisson
McCoy
Waddel
Allen

40

| | | | | |
|---|---|---|---|---|
| | 61.86 | | | |
| 168+0 | | 5.3 | 56.6 | |
| +50 | | 5.6 | 56.3 | |
| 169+0 | 17.9 Lt of ℄ = N Rail | 6.3 | 55.7 6 | |
| +50 | | 6.5 | 55.4 | |
| 170+0 | | 7.0 | 54.9 | |
| +16.5 = Fly A.C. Paving | | 7.03 | 54.83 | |
| +50 on " " | " | 7.22 | 54.64 | |
| 171+0 " " | " | 7.50 | 54.36 | |
| +09.2 = E Rail S.D.E. & R.R. | | 7.58 | 54.28 | Top Rail |
| +15.5 32 Rt of ℄ ℄ Inlet | | 8.30 | 53.56 | on Grating |
| " Bottom Box | | 9.24 | 52.62 | |
| TP | 2.02 | 56.40 | 7.48 | 54.38 | on N.W. 9.2 ± Commercial + 25.5 St. |
| +50 on A.C. Pav | | 2.21 | 54.19 | |
| +87.66 = W ℄ Line 25.5 Rt | | 2.50 | 53.90 | |
| 172+0 on A.C. Pav | | 2.68 | 53.72 | |
| +28 = W'ly " " | | 2.95 | 53.45 | |
| +50 | | 3.2 | 53.2 | |
| +90.00 = Δ 45°00' Lt | | 3.35 | 53.05 | on Stub |
| 173+0 | | 3.3 | 53.1 | |
| +13.6 = N Rail S.D.E. | | 3.61 | 52.79 | Top Rail |
| + 32.43 Δ 45°00' Rt | | 3.80 | 52.60 | on Stub |
| +50 | | 3.9 | 52.5 | |
| 174+0 8.6' Rt of ℄ = S Rail | | 4.1 | 52.0 | |
| +50 | | 4.8 | 51.6 | |
| 175+0 | | 5.3 | 51.1 | |

| | | | | |
|---|---|---|---|---|
| | 56.40 | | | |
| 175+50 | | 5.9 | 50.5 | |
| + 83 | = F.L. A.C. Pav | 6.16 | 50.24 | |
| 176+0 | on " " | 6.52 | 50.18 | |
| +50 | " " " | 6.66 | 49.74 | |
| 177+0 | " " " | 7.20 | 49.20 | |
| +50 | " " " | 7.71 | 48.69 | |
| 178+0 | 9.8' Rt of ℄ = S Rail | 7.98 | 48.42 | |
| +14.54 | = E 7' Line 24th St | 8.08 | 48.32 | |
| TP | 4.75 53.74 | 7.41 | 48.99 | HE 7' Lt Commercial + 24th |
| +18.5 | 58.5 Rt of ℄ = ℄ Inlet | 5.47 | 48.27 | on Grating |
| " | Bottom Box | 7.41 | 46.33 | |
| +50 | on A.C. Pav | 5.60 | 48.14 | |
| +56.5 | 43' Rt of ℄ = ℄ Inlet | 5.55 | 48.19 | on Grating |
| " | Bottom Box | 8.83 | 44.91 | |
| " | 23.3 Lt of ℄ = ℄ Inlet | 6.89 | 46.85 | on Grating |
| " | Bottom Box | 11.22 | 42.52 | |
| +67 | = W.L. A.C. Pav | 5.65 | 48.09 | |
| 179+0 | | 5.5 | 48.2 | |
| +50 | | 5.2 | 48.5 | |
| +67.53 | Δ 1°41' Rt. | 5.07 | 48.67 | on Stub |
| 180+0 | | 4.8 | 48.9 | |
| +50 | | 4.6 | 49.1 | |
| 181+0 | | 4.7 | 49.0 | |
| +50 | | 5.1 | 48.6 | |
| 182+0 | | 5.4 | 48.3 | |

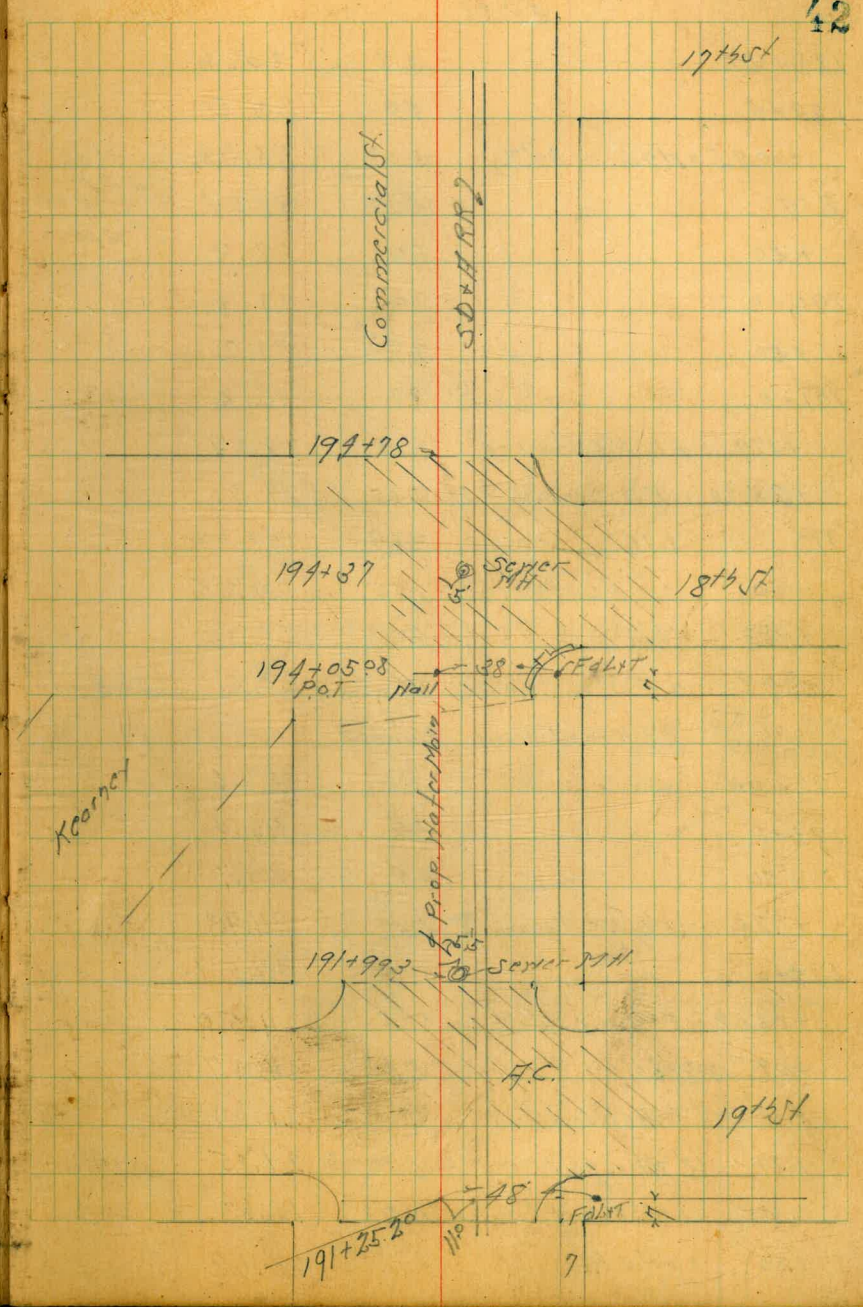



Brt Ford Page 39

Commercial St.

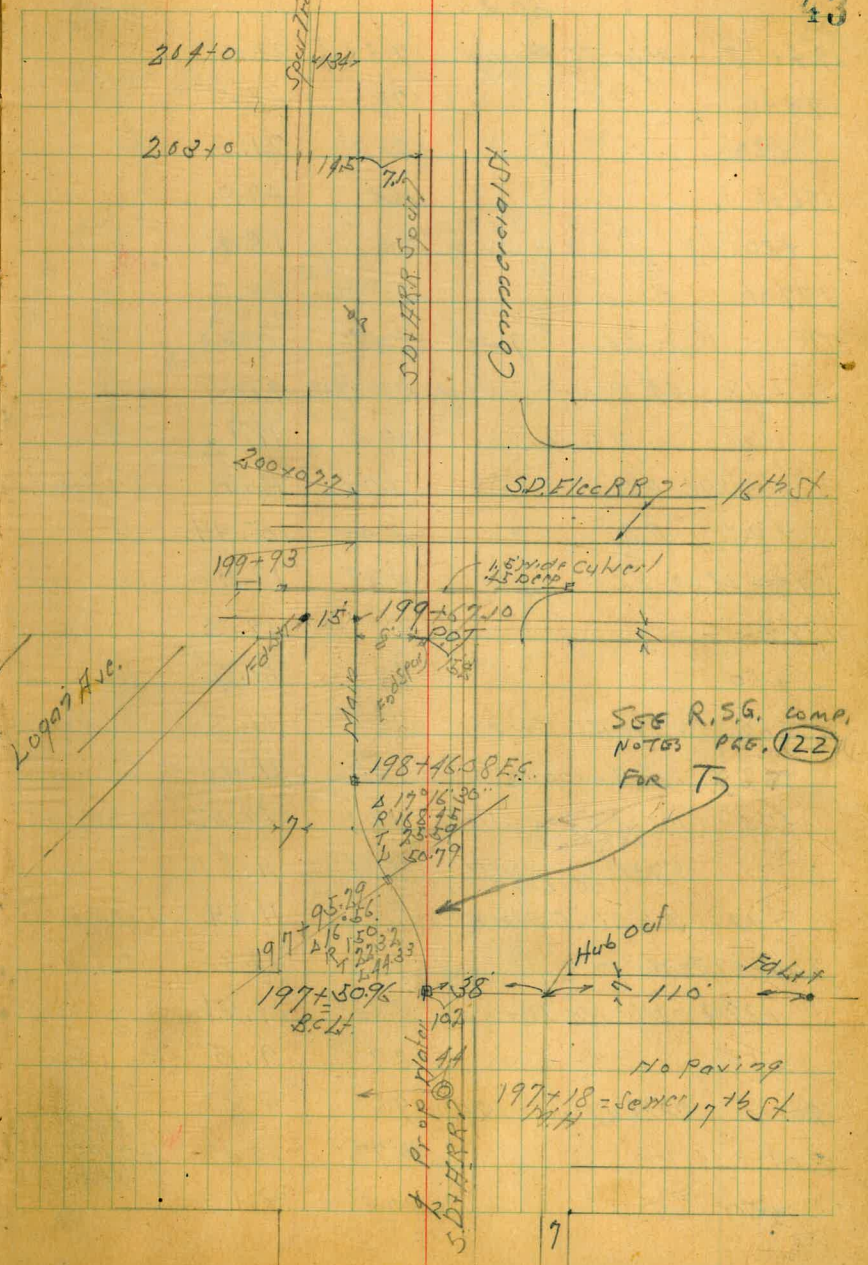
| | | | | | |
|---|---|---|---|---|---|
| | | 53.74 | | | |
| 182+16.3 | = E ly A.C. Pav | | 5.66 | 48.08 | |
| +24.7 | = E Roll of Spd | | 5.65 | 48.09 | |
| +44.61 | = W " " " | | 5.68 | 48.06 | |
| +50 | on A.C. Pav | | 5.70 | 48.04 | |
| +84.61 | = E ly Line 22nd St | | 5.97 | 47.77 | |
| 183+0 | on A.C. Pav. | | 6.07 | 47.67 | |
| +50 | | | 6.67 | 47.07 | |
| TP | 0.12 | 50.67 | 3.19 | 50.55 | SE Top F H to Commercial + 22nd St 49.52 |
| +57.6 | = W ly A.C. Pav | | 3.81 | 46.86 | |
| +58.6 | 6.2 R top of Sewer MH | | 3.82 | 46.85 | on Grate |
| " | Flow Line | | 8.34 | 42.33 | |
| 184+0 | | | 4.7 | 46.0 | |
| +50 | | | 5.9 | 44.8 | |
| 185+0 | | | 7.1 | 43.6 | |
| +50 | | | 8.3 | 42.4 | |
| +57.8 | = E ly A.C. Paving | | 8.54 | 42.13 | |
| +64.85 | = E ly Line 21st St | | 8.68 | 41.99 | |
| 186+0 | on A.C. Pav | | 9.37 | 41.30 | |
| +37.8 | = W ly A.C. " | | 10.33 | 40.34 | |
| +50 | | | 10.7 | 40.0 | |
| BM | | | 9.69 | 40.98 | H.W. BP Commercial + 21st St 41.02 |
| 187+0 | | | 12.0 | 38.7 | |
| TP | 0.34 | 38.86 | 12.15 | 38.52 | |
| +50 | | | 1.4 | 37.5 | |
| 188+0 | | | 2.4 | 36.5 | |





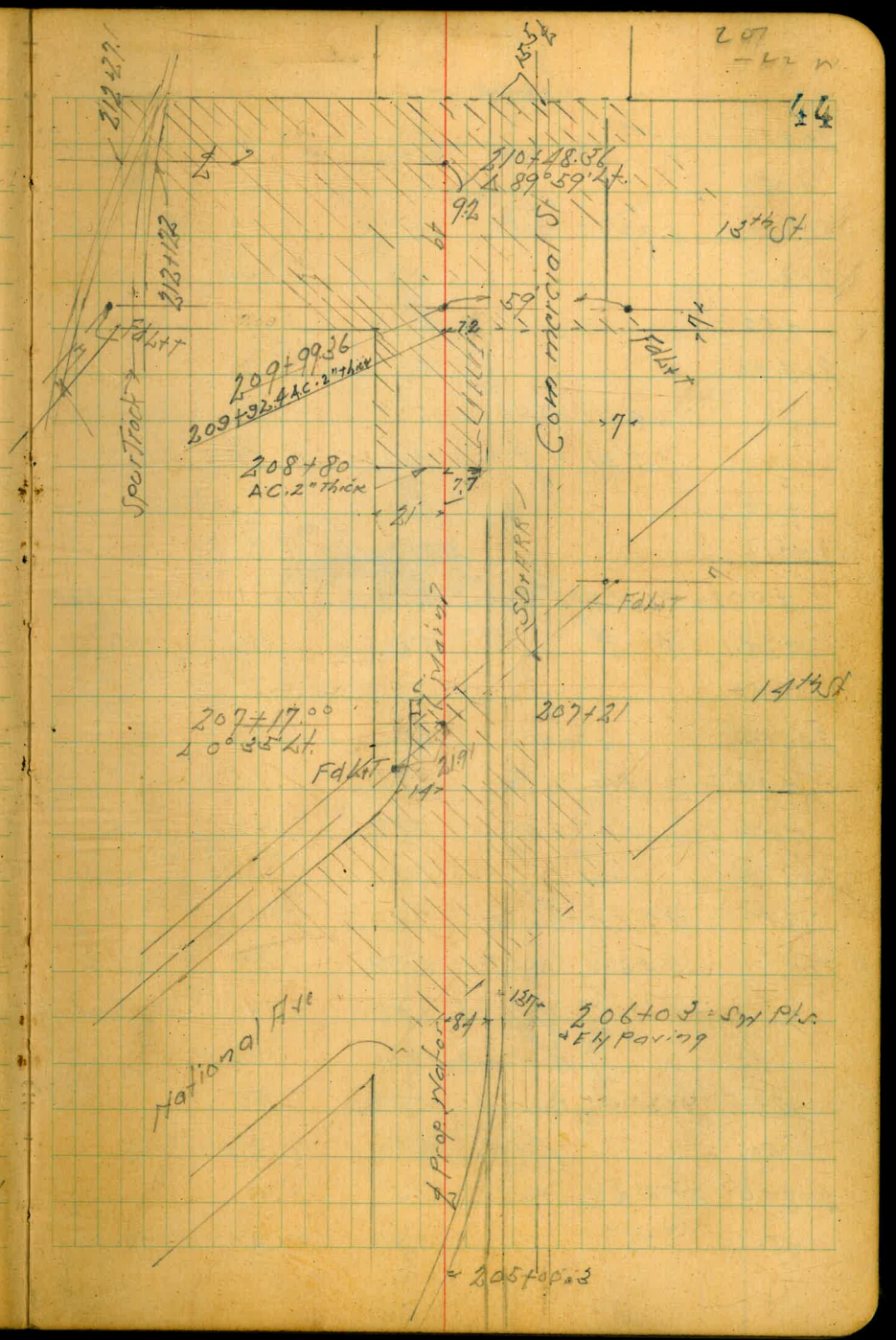
| | | | | | |
|---|---|---|---|---|---|
| | | 38.86 | | | |
| 188+50 | | | 3.8 | 35.1 | |
| 189+0 | | | 4.9 | 34.0 | |
| +10.95 | = W7' Line 20th | | 5.08 | 33.78 | on Stab |
| BM | | | 4.32 | 34.54 | HERP Commercial +20.25 34.96 |
| +50 | | | 6.0 | 32.9 | |
| 190+0 | | | 7.0 | 31.9 | |
| +50 | | | 7.7 | 31.2 | |
| 191+0 | | | 8.7 | 30.2 | |
| +17.9 | = E4 A.C. Paving | | 9.19 | 29.67 | |
| +25.20 | = E7' Line 19th St | | 9.15 | 29.71 | |
| TP | 1.16 | 30.35 | 9.67 | 29.19 | |
| +50 | on A.C. Paving | | 1.10 | 29.25 | |
| +98.2 | = W4 ... .. | | 2.02 | 28.33 | |
| 1+99.8 | 55' Rt of ℄ Sewer MH | | 1.84 | 28.51 | on Rim |
| " | Flow Line Plugged | | | | |
| 192+50 | | | 2.8 | 27.6 | |
| 193+0 | | | 3.6 | 26.8 | |
| +50 | | | 4.7 | 25.7 | |
| +82.5 | = E4 A.C. Paving | | 5.42 | 24.93 | |
| 194+0 | on ... " | | 5.78 | 24.57 | |
| +05.08 | = E7' Line 18th St | | 5.85 | 24.50 | |
| +09 | 38' Rt of ℄ = ℄ Inlet | | 5.88 | 24.47 | |
| " | Bottom Box | | 9.05 | 21.30 | |
| +37 | 5' Rt of ℄ Sewer MH | | 6.30 | 24.15 | on Rim |
| " | Flow Line | | 11.72 | 18.63 | |
| +50 | on A.C. Pav. | | 6.72 | 23.63 | |





Commercial St

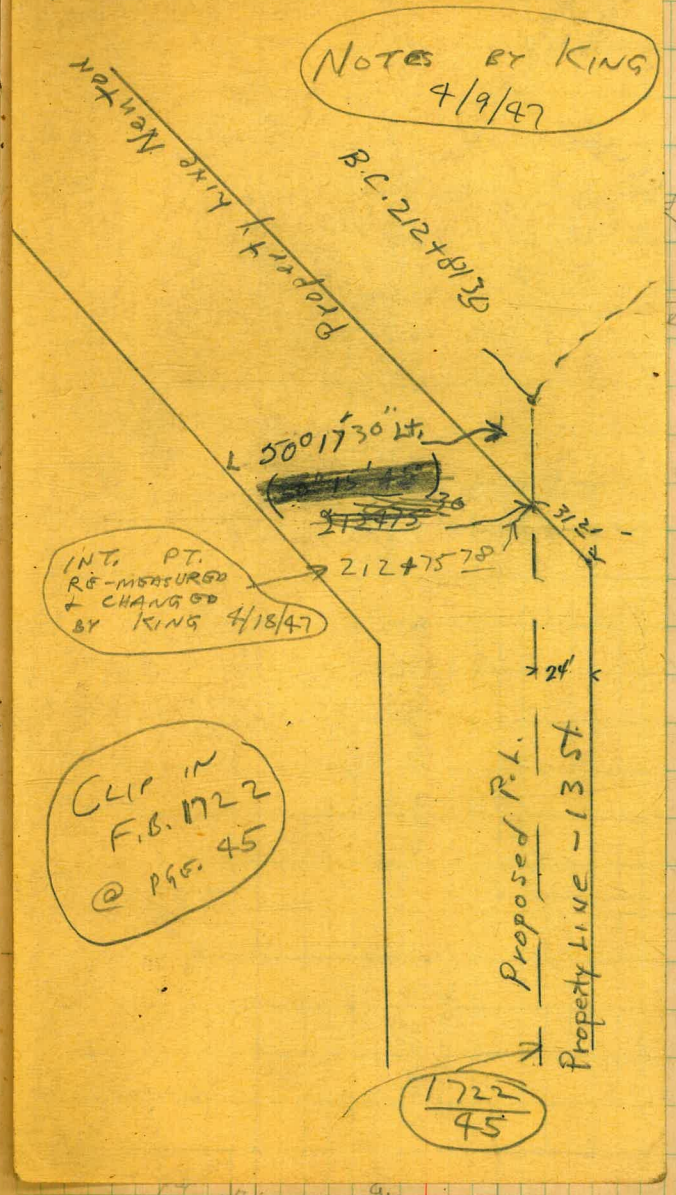
| | | | | | |
|---|---|---|---|---|---|
| | | 30.35 | | | |
| 194+78 | = W ly AC Paving | | 7.33 | 23.02 | |
| 195+0 | | | 7.9 | 22.5 | |
| +50 | | | 9.1 | 21.3 | |
| 196+0 | | | 10.4 | 20.0 | |
| +50 | | | 11.5 | 18.9 | |
| 197+0 | | | 12.4 | 18.0 | |
| TP | 0.51 | 18.44 | 12.42 | 17.93 | |
| +18 | 44' Rt of ℄ = Sewer | | 10.75 | 17.69 | on Rim |
| " | Flow Line | | 7.31 | 11.13 | |
| +50.96 | BC ℄ | | 1.73 | 16.71 | on Stub |
| +95.29 | PRC | | 3.00 | 15.44 | " " |
| 198+46.08 | EC | | 4.98 | 13.46 | " " |
| 199+0 | | | 6.2 | 12.2 | |
| +50 | | | 6.9 | 11.5 | |
| +60 | = E ly AC Paving | | 7.1 | 11.3 | |
| +67.10 | = E ℄ Line 16th St | | 7.01 | 11.43 | |
| +74 | 17.7 Lt of ℄ = Outlet 1.5 x 1.5 Cuh | | 8.22 | 10.22 | Flow Line |
| " | 5.73 Rt " " = Inlet 1.5 x 0.75 Cuh | | 7.14 | 11.30 | " " |
| +93 | = E Rail SO Elec RR | | 7.40 | 11.04 | Top Rail |
| 200+07.7 | = W " " " " | | 7.59 | 10.85 | " " |
| +39.3 | = W ly AC Paving | | 8.83 | 9.61 | |
| +50 | | | 8.9 | 9.5 | |
| 201+0 | 7.3 Rt of ℄ = S Rail Siding | | 9.6 | 8.8 | |
| BM | | | 5.97 | 12.47 | H.E.B.P. Commercial & 16th St 12.52 |
| +50 | | | 10.3 | 8.1 | |



| | | | | | |
|---|---|---|---|---|---|
| | | 18.44 | | | |
| 202+0 | | | 11.0 | 7.4 | |
| +50 | | | 11.4 | 7.0 | |
| TP | 1.99 | 9.56 | 10.87 | 7.57 | |
| 203+0 | | | 8.3 | 6.3 | |
| +50 | | | 4.1 | 5.5 | |
| 204+0 | | | 4.6 | 5.0 | |
| " | 13.4' L to ℄ N R Siding | | 5.12 | 4.44 | Top Rail |
| " | 7.2 Pl. " S R | | 4.01 | 5.55 | " " |
| +50 | | | 4.9 | 4.7 | |
| 205+0 | | | 5.3 | 4.3 | |
| +0.03 | = Pl N Rail Siding | | 5.25 | 4.31 | Top N Rail |
| +26.1 | = Pl S " " | | 5.60 | 3.96 | " S " |
| +50 | | | 5.9 | 3.7 | |
| 206+0 | | | 6.7 | 2.9 | |
| +03 | = Fl. F.C. Pav. | | 6.83 | 2.73 | |
| +50 | on " " | | 7.10 | 2.46 | |
| 207+0 | " " " | | 7.11 | 2.45 | |
| +17 | = W 7' L National | | 7.13 | 2.43 | |
| TP | 5.45 | 8.42 | 6.59 | 2.97 | |
| +21 | 6' L to ℄ = ℄ Toilet | | 6.28 | 2.14 | on Grating |
| | " " Bottom Bar | | 8.00 | .42 | |
| +28.5 | = W 1' F.C. Paving | | 5.87 | 2.55 | |
| +50 | | | 5.5 | 2.9 | |
| 208+0 | 8.7' Rt to ℄ = S Rail RR | | 5.4 | 3.0 | |
| +56 | | | 5.3 | 3.1 | |

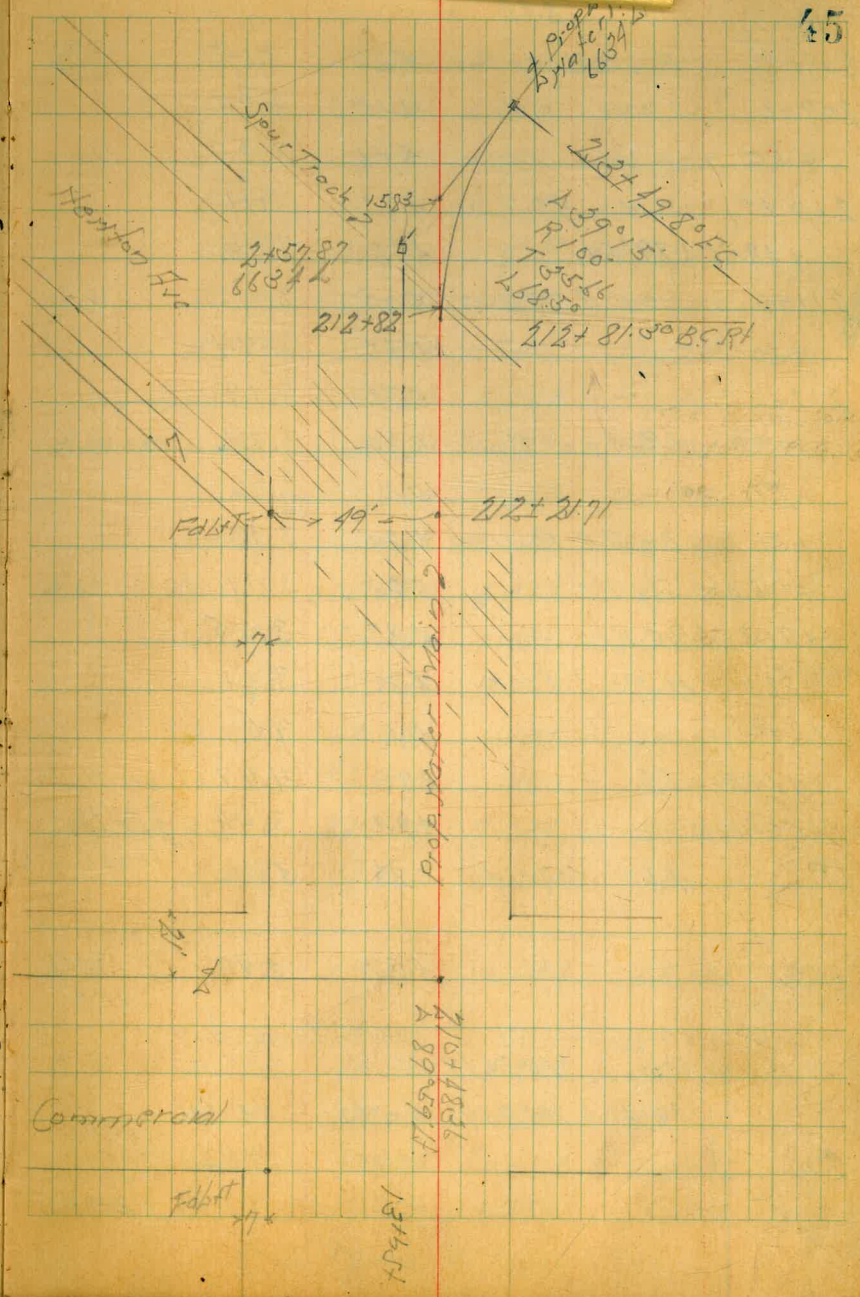
## Commercial St. P.L.





| | | | | | |
|---|---|---|---|---|---|
| | | 18.44 | | | |
| 202+0 | | | 11.0 | 7.4 | |
| +50 | | | 11.4 | 7.0 | |
| TP | 1.99 | 9.56 | 10.87 | 7.57 | |
| 203+0 | | | 8.3 | 6.3 | |
| +50 | | | 4.1 | 5.5 | |
| 204+0 | | | 4.6 | 5.0 | |
| " | 13.4 Lto℄ N R Siding | | 5.12 | 4.44 | Top Rail |
| " | 7.2 Pl. " S R | | 4.01 | 5.55 | " " |
| +50 | | | 4.9 | 4.7 | |
| 205+0 | | | 5.3 | 4.3 | |
| +0.03 = | Pl. N Rail Siding | | 5.25 | 4.31 | Top N Rail |
| +26.1 = | Pl. S " " | | 5.60 | 3.96 | " S " |
| +50 | | | 5.9 | 3.7 | |
| 206+0 | | | 6.7 | 2.9 | |
| +03 | = Pl. F.C. Pav. | | 6.83 | 2.73 | |
| +50 | on | " " | 7.10 | 2.46 | |
| 207+0 | " | " " | 7.11 | 2.45 | |
| +17 = | W 7' L National | | 7.13 | 2.43 | |
| TP | 5.45 | 8.42 | 6.59 | 2.97 | |
| +25 | 6' L to ℄ = ℄ Toilet | | 6.28 | 2.14 | on Grating |
| | " " | Bottom Bar | 8.00 | .42 | |
| +28.5 = | W 1' F.C. Paving | | 5.87 | 2.55 | |
| +50 | | | 5.5 | 2.9 | |
| 208+0 | 8.7' Pl. of ℄ = S Rail RR | | 5.4 | 3.0 | |
| +56 | | | 5.3 | 3.1 | |





| | | | | | |
|---|---|---|---|---|---|
| | | 8.42 | | | |
| 208+80 | = Ely Cold Lay Pav. | | 5.27 | 3.15 | |
| 209+0 | on " " " | | 5.13 | 3.29 | |
| +50 | " " " " | | 5.15 | 3.27 | |
| 210+0 | " AC " | | 4.71 | 3.71 | |
| +48.36 | Δ 89°59' Lt | | 4.68 | 3.74 | |
| 211+0 | on AC Paving | | 5.00 | 3.42 | |
| +50 | " " " " | | 5.48 | 2.94 | |
| 212+0 | | | 5.23 | 3.19 | |
| +12.2 | = N Rail Spur Track | | 5.20 | 3.22 | Top Rail |
| +27.1 | = S " " " | | 5.16 | 3.26 | " " |
| +50 | on AC Paving | | 5.29 | 3.13 | |
| +75.4 | = S ly AC " | | 5.23 | 3.19 | |
| +81.3 | = B.C.R.I | | 4.87 | 3.55 | |
| +82.0 | = N Rail Spur | | 4.81 | 3.61 | |
| 213+0 | | | 4.4 | 4.0 | |
| +29.80 | = EC | | 3.75 | 4.67 | on Stub |
| For Check | | | 4.93 | 3.49 | on Hub 2+57.87 66.34 L |
| TP | 4.60 | 7.74 | 5.28 | 3.14 | |
| BM | | | 4.82 | 2.92 | NEBP Imperial + 13th St. 3.00 |
| | | 103.679 | | | |
| | 10.403 | 113.739 | 0.343 | 103.336 | |
| BM | | | 1.735 | 112.004 | SEBP Imperial + 47th St. 112.17 P21 |

Check Levels Imperial + Southlook to Imperial + 47th St.

Sept. 3-46
Sivson
McCoy &
Wadell
File 1 Rod 46

| | | | | | |
|---|---|---|---|---|---|
| BM | 6.363 | 104.273 | | 97.91 | S.E.B.P. Imperial Southlook |
| | 4.048 | 102.321 | 6.000 | 98.273 | |
| | 7.020 | 103.949 | 5.392 | 96.929 | |
| | 12.810 | 116.519 | 0.240 | 103.709 | |
| | 9.637 | 124.278 | 1.878 | 114.641 | |
| BM | 8.715 | 127.064 | 5.929 | 118.349 | S.E.B.P. Imperial + 39 118.40 |
| | 2.089 | 125.213 | 3.940 | 123.124 | |
| | 2.411 | 118.873 | 8.751 | 116.462 | |
| BM | 1.081 | 113.514 | 6.440 | 112.433 | S.E. Top F Hyd Imperial + 40 112.58 P28 |
| | 7.610 | 111.134 | 9.990 | 103.524 | |
| | 1.915 | 106.029 | 7.020 | 104.114 | |
| BM | 12.737 | 113.298 | 5.468 | 100.561 | Mon 45 03 P 57+28.30 |
| | 11.850 | 123.655 | 1.493 | 111.805 | |
| | 0.388 | 115.032 | 9.011 | 114.644 | on Stub |
| | 0.582 | 104.482 | 11.132 | 103.900 | |
| | 0.071 | 92.593 | 11.960 | 92.522 | |
| | 0.290 | 83.858 | 9.025 | 83.568 | on L + 11.5 Lt 43+91.06 |
| | 0.488 | 73.806 | 10.540 | 73.318 | on Stub Rt 42+18.97 73.16 P25 |
| BM | 0.407 | 68.560 | 5.653 | 68.153 | Chael 1155 Car Bridge Imperial + 41st N of 42st |
| BM | 11.225 | 70.953 | 8.832 | 59.728 | S.L.T. Imperial + 46th St. 59.87 P23 |
| | 12.607 | 83.080 | 0.480 | 70.473 | |
| | 8.875 | 91.901 | 0.054 | 83.026 | |
| BM | 12.668 | 103.579 | 0.890 | 91.011 | S.L.T. Imperial + 46th St. 91.16 P22 |

Cont opposite Page

Cross sections from & Left of proposed water main @ bridge site west of 45th st on Imperial ave.

| | | | | | |
|---|---|---|---|---|---|
| | 9.07 | 68.80 | | | 59.73 |
| 39+70 | | | | | |
| 40+00 | | | | | |
| +65 | | | | | |
| T.P. | 0.78 | 58.09 | 11.49 | 57.31 | |
| +91 | | | | | |
| 41+11 | | | | | |
| +30 | | | | | |
| +31 | | | | | |
| +55 | | | | | |
| | 12.69 | 80.84 | | | 8.M 68.15 ∅ on bridge |
| +70 | | | | | |
| +86 | | | | | |
| +90 | | | | | |
| 42+23 | | | | | |

1-29-47
cloudy-cool

Nelson
Leonard
Bartagan



BM LET & Imperial & 45th ST see page 46

| | | | | | |
|---|---|---|---|---|---|
| | | | | | ℄ |
| | | 53.7 | 55.2 | 65.7 | 65.7 |
| Flat | | 15.1 | 13.6 | 3.1 | 3.6 |
| on out | | 50 | 22 | 5 | |
| | | 53.3 | 54.5 | 67.0 | 66.0 |
| Flat on | | 15.5 | 14.3 | 1.8 | 2.8 |
| out | | 50 | 24 | 4 | |
| | | | 53.2 | 55.3 | 66.9 |
| Flat on | | | 15.6 | 13.5 | 1.9 |
| out | | | 50 | 25 | |
| | 48.2 | 48.6 | 48.3 | 47.4 | 49.4 |
| | 9.9 | 9.5 | 9.8 | 10.7 | 8.7 |
| | 60 | 50 | 44 | 17 | |
| | | 46.7 | 45.9 | 45.0 | 46.5 46.9 |
| | | 11.4 | 12.2 | 13.1 | 11.6 11.2 |
| | | 50 | 35 | 22 | 18 ℄ |
| | | 47.1 | 46.6 | 45.7 | 46.5 49.0 ✓ |
| | | 11.0 | 11.5 | 12.4 | 11.6 9.1 |
| | | 50 | 33 | 20 | 17 |
| | | 47.6 | 47.1 | 55.1 | 61.0 ✓ |
| | | 10.5 | 11.0 | 3.0 | +2.9 |
| | | 50 | 25 | 29 | |
| | 53.4 | 56.2 | 57.2 | 71.1 | 71.1 ✓ |
| | 4.7 | 1.9 | 0.90 | +13.0 | +13.0 |
| | 50 | 33 | 23 | 3 | |
| 70.3 | 74.1 | 76.1 | 69.1 | 68.5 | 72.3 71.0 ✓ |
| 10.5 | 6.7 | 4.7 | 11.7 | 12.3 | 8.5 9.8 |
| 50 | 33 | 21 | 20 | 16 | 12 |
| | | 75.8 | 77.2 | 71.0 | 71.7 ✓ |
| | | 5.0 | 3.6 | 9.8 | 9.1 |
| | | 50 | 22 | 13 | |
| | | | 73.6 | 72.6 | 72.0 ✓ |
| | | | 7.2 | 8.2 | 8.8 |
| | | | 50 | 18 | |
| | | 73.9 | 73.9 | 71.9 | 73.8 |
| | | 6.9 | 6.9 | 8.9 | 7.0 |
| | | 50 | 25 | 11 | |

42+27

+50



| | | | | |
|---|---|---|---|---|
| 77.8 | 77.6 | 76.4 | 73.2 | 73.9 |
| 3.0 | 3.2 | 4.4 | 7.6 | 6.9 |
| 50 | 30 | 16 | 10 | |

| | | | | |
|---|---|---|---|---|
| 79.5 | 80.3 | 79.7 | 74.8 | 75.2 |
| 1.3 | 0.5 | 1.1 | 6.1 | 5.6 |
| 50 | 25 | 12 | 7 | |

31 JAN 47 GRS

Line Change proposed P, Pe
Line 30th & Commercial sts

P.I.
139+~~83~~ 82 53 Δ = 21° 30' RT

P.I. 33 73
139+~~34~~ Δ = 21° 25' LT  1' ERROR NOTED: 3-30-48 Leonard,

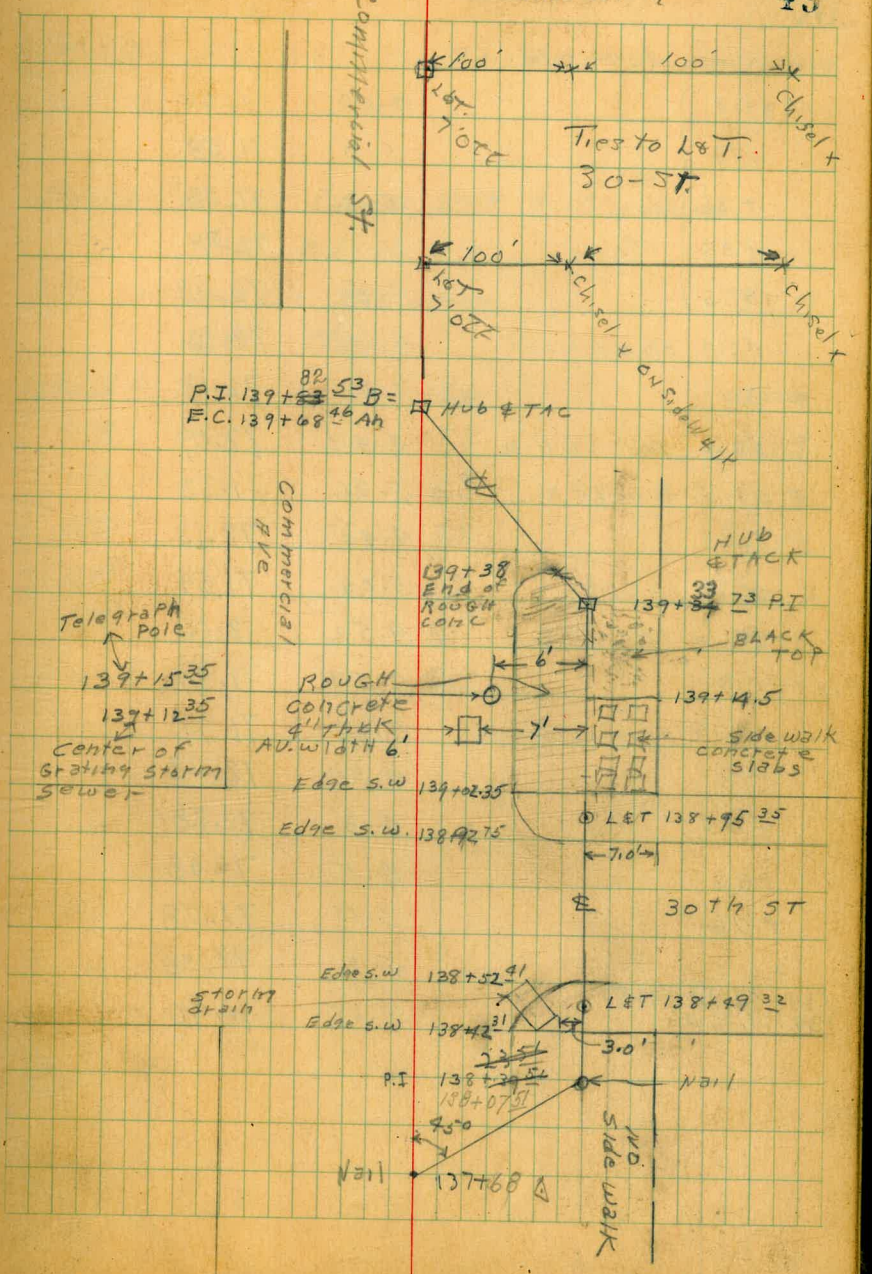
P.I.
~~138+39 51~~
~~138+35 51~~
138+07 51  Δ = 45° 01' LT  New Loc.

~~P.I.~~
~~138+00~~
~~137+84~~
137+68  Δ = 45° 00' RT  New Loc.

1-30-47
Clear-warm

Nelson
Leonard
Barragan





Profile line change 30th & commercial

| | | | | | |
|---|---|---|---|---|---|
| | 4.44 | 76.58 | | | 72.14 |
| 138+00 | | | 4.50 | 72.08 | |
| +19 | SEE | | 5.0 | 71.58 | |
| +26 | | | 5.2 | 71.38 | |
| +30 | | | 3.7 | 72.88 | |
| +39.5 | | | 4.5 | 72.08 | |
| +42.3 | on sidewalk | | 4.42 | 72.16 | |
| +50 | | | 4.45 | 72.13 | |
| +52.4 | Top curb | | 4.49 | 72.09 | |
| +52.5 | Gutter | | 5.26 | 71.32 | |
| +72.5 | | | 4.45 | 72.13 | |
| +92.5 | Gutter | | 5.04 | 71.54 | |
| +92.6 | top curb | | 4.52 | 72.06 | |
| 139+00 | | | 4.59 | 71.99 | |
| +02.4 | Edge sidewalk | | 4.61 | 71.97 | |
| +18 | | | 4.30 | 72.28 | |
| +35 | | | 4.3 | 72.28 | |
| +40 | | | 4.5 | 72.08 | |
| +46 | | | 5.0 | 71.58 | |
| +63 | | | 5.2 | 71.38 | |
| 139+83.53 BOCK: 139+68.46 HH | | | 5.18 | 71.40 | on stub |

2-7-47
Clear-cool

Nelson
Leonard
Barr 8987



B.M. L&T. N.E. L&T 7' line 30th & commercial

PROFILE 2ND LINE CHANGE, 30TH & COMMERCIAL.

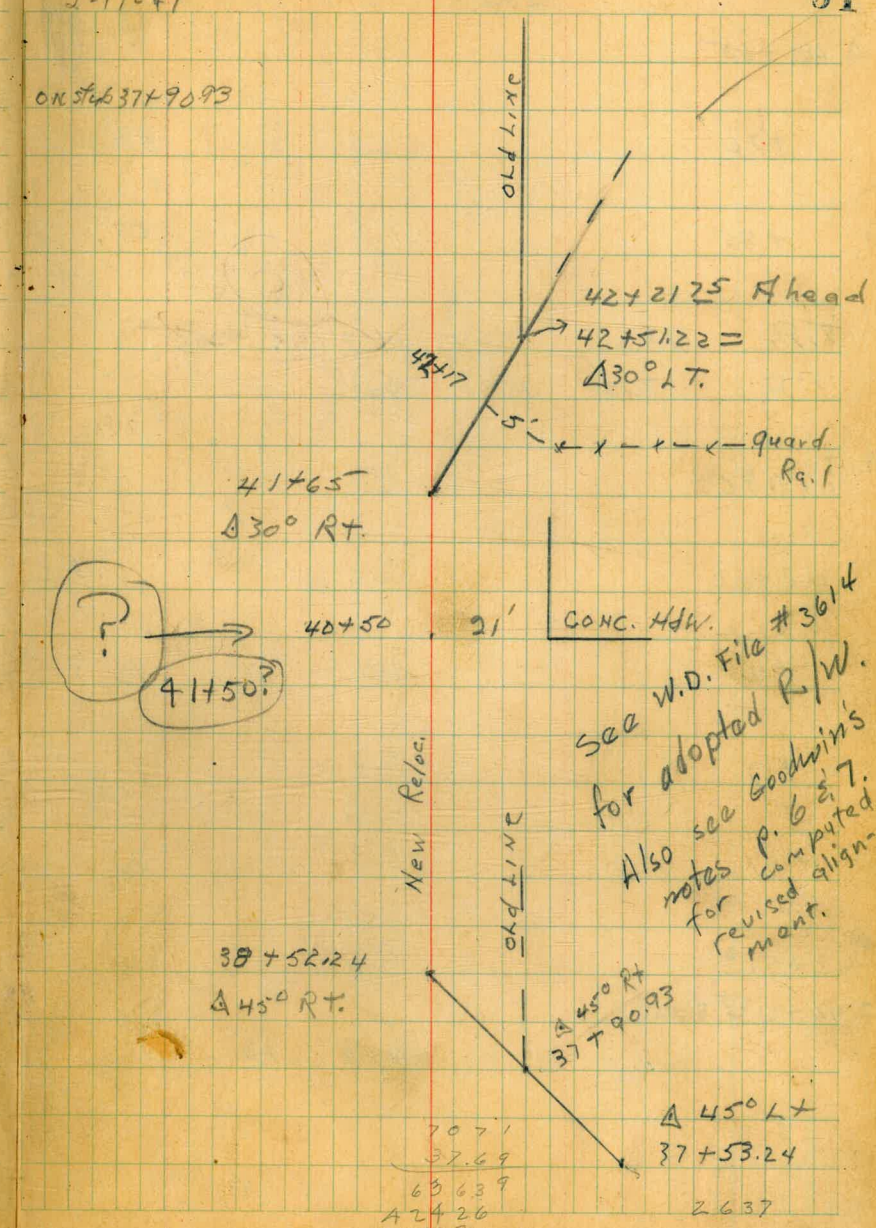
| | + | H.d. | − | ELEV. | B.M. |
|---|---|---|---|---|---|
| B.M. L&T, N.E. COR. 30TH. & COMM. | | | | | 72.14 |
| | +5.47 | 77.61 | | | |
| 137+68 | | | -5.6 | | 72.0 |
| +78 | | | -5.7 | | 71.9 |
| +93 | | | -6.3 | | 71.3 |
| +96 | | | -5.3 | | 72.3 |
| 138+07.51 | | | -5.3 | | 72.3 |
| +39.51 | | | -5.5 | | 72.1 |
| CHECK B.M. | | | -5.47 | | 72.14 ✓ |

Levels on Reloc. P.L. 45 ft. West
Around Conc. Bridge

| | | | | | |
|---|---|---|---|---|---|
| S | 5.82 | 66.19 | | | 60.37 |
| 38+00 | | | 6.0 | | 60.2 |
| +12 | | | 12.1 | | 54.1 |
| 38+52.24 | | | 13.1 | | 53.1 |
| 39 | | | 12.8 | | 53.4 |
| +50 | | | 12.5 | | 53.7 |
| 40 | | | 12.4 | | 53.8 |
| T.P. | 3.68 | 58.53 | 11.34 | 54.85 | |
| 40+50 | | | 5.2 | | 53.3 |
| 40+84 | | | 4.9 | | 53.6 |
| 41 | | | 8.6 | | 49.9 |
| +26 | | | 11.4 | | 46.9 |
| +50 | | | 11.3 | | 47.2 |

King - Phillips - Nickerson.
2-17-47





| | | | | | | |
|---|---|---|---|---|---|---|
| | | 58.53 | | | | |
| △ 41+65 | | | 9.5 | | 49.0 ~~.90~~ | |
| +76 | | | 6.1 | | 52.4 | Toe of Bank |
| +85 | | | 1.3 | | 57.2 | |
| T.P. | 13.61 | 71.47 | 0.07 | 58.46 | | |
| T.P. | 7.15 | 78.30 | 0.32 | 71.15 | | |
| P.O.T. 41+96.42 | | | 3.1 | | 75.2 | |
| 42+00 | | | 2.0 | | 76.3 | |
| +10 | | | 1.4 | | 76.9 | |
| +17 | | | 5.8 | | 72.5 | |
| +41 | | | 5.3 | | 73.0 | Edge of oil |
| △ 42+51.22 = 42+21.25 Ahead | | | 4.4 | | 73.9 | |
| | | | 4.82 | 73.48 | 73.46 | ON Stub 42+13.97 - Page 25 |

Bliss Notes
King &
Leonard
Nienow 2/25/47
Equation

# Line Change Imperial Ave P.L.

122+73.24 EC. Back
= 122+77.05 ahead

121+76.29 B.C. Rt

Δ 37°-04
R 150
T 50.28
L 97.05

121+75.31 E.C.

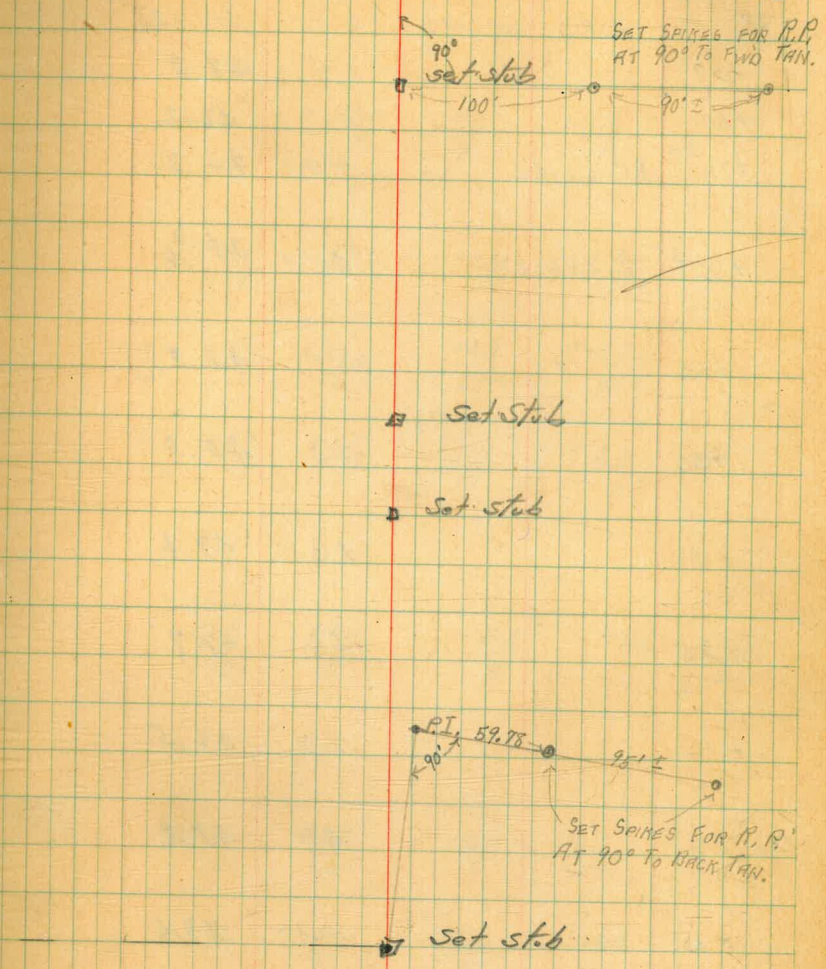
See R.S.G. Comp. No 763
Pages (120) & (121) for
R+T

Δ 47°-48'-00
R 150
T. 66.46
L 125.14

120+50.17 B.C. Lt



Between 32nd + 33rd on Commercial



| | | | | |
|---|---|---|---|---|
| T.P. | 12.93 | 60.95 | 0.71 | 48.02 |
| +87 | | | 1.4 | 47.3 |
| +88 | | | 2.5 | 46.2 |
| +76 29 | BC on slab | | 4.47 | 44.26 |
| +75 3' | on slab EC | | 4.51 | 44.2 ~~76~~ |
| +60 | | | 5.4 | 43.3 |
| +50 | | | 3.4 | 45.3 |
| +42 | | | 1.3 | 47.4 |
| +25 | | | 1.0 | 47.7 |
| +12 | | | 2.2 | 46.5 |
| 121 | | | 4.9 | 43.8 |
| +75 | | | 11.1 | 37.6 |
| +63 | | | 13.2 | 35.5 |
| 120+50 17 | | | 13.4 | 35.3 ~~8~~ |
| BM | 1255 | 48.73 | | 36.18 |



| Lt | ℄ | Rt | | |
|---|---|---|---|---|
| +7.0 / 19' | +0.3 / 7' | 0.0 / 6' | +3.9 / 15 | |
| +8.0 / 19' | +0.4 / 7' | +0.2 / 7' | +4.2 / 15' | |
| +10.2 / 19' | +5.2 / 7' | +1.0 / 2' | +0.3 / 6' | +3.9 / 15 |
| +8.0 / 19' | +8.0 / 15 | +3.0 / 3' | -2.5 / 4' | -2.6 / 7' | 0.0 / 15' |
| +6.9 / 19' | +4.9 / 11' | -2.2 / 4' | -7.5 / 10' | -7.5 / 20 |
| 55.7' | +6.9 / 14' | -2.0 / 5' | -6.3 / 13' | -6.5 / 20 |
| 55.5' | +6.9 / 18' | -2.3 / 5' | -3.3 / 15' | |
| 55.15 | +8.9 / 19' | +1.5 / 2' | -1.0 / 3' | -1.5 / 14' |
| | +8.4 / 19' | +1.9 / 6 | -2.4 / 5 | -3.0 / 14' |

See page 15 old BC slab

| | | | | | |
|---|---|---|---|---|---|
| Check | | | 1.55 | 61.79 | old EC |
| 122+73.24 | | | 0.1 | 63.2 | |
| +50 | | | 2.2 | 61.1 | |
| TP | 4.16 | 63.34 | 1.77 | 59.18 | |
| +25 | | | 2.8 | 58.2 | |
| 122 | | | 12.0 | 49.0 | |
| | | 60.95 | | | |

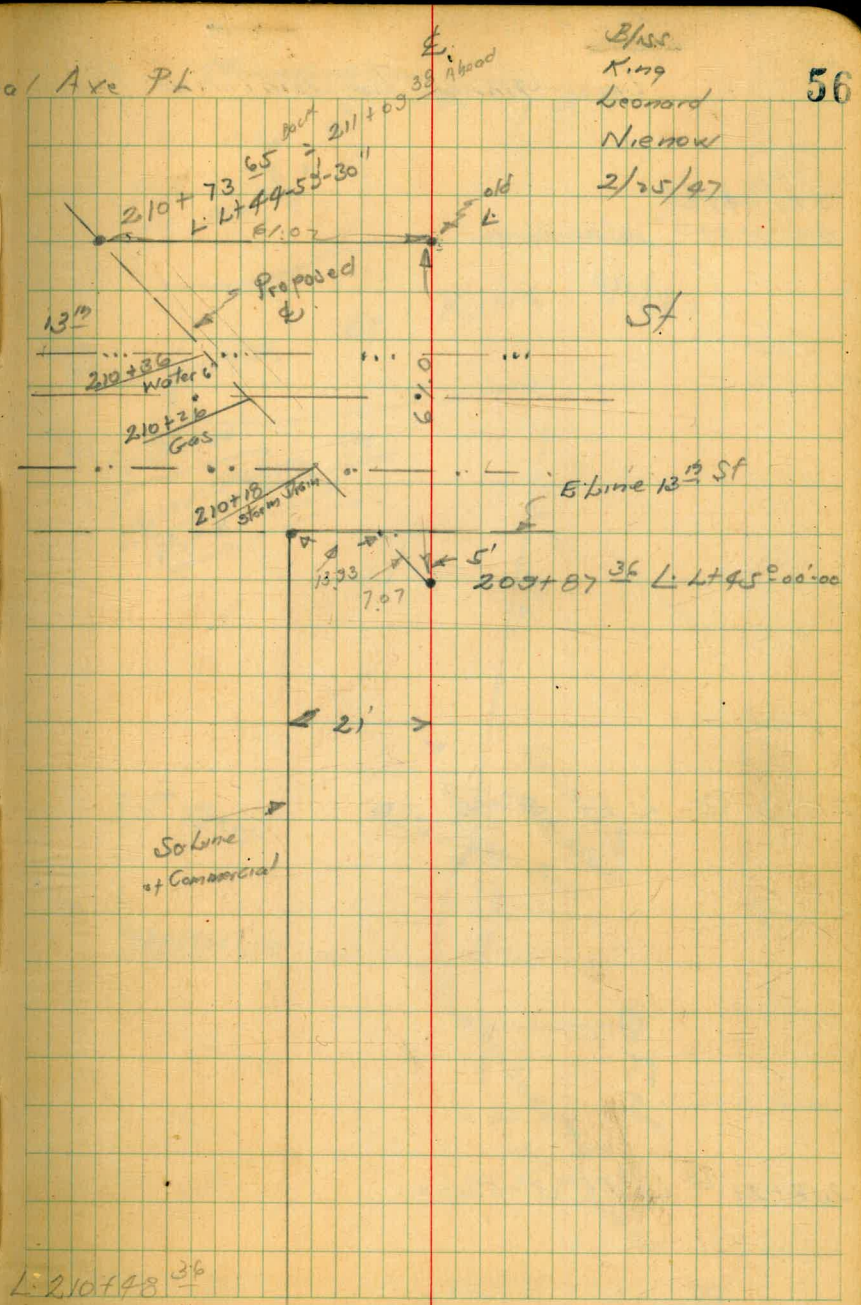
Aug 5+21 59 p.17.

| | | | | | |
|---|---|---|---|---|---|
| +2.6 / 20 | +2.6 / 10 | −0.7 / 15' | | | |
| +2.4 / 20' | +0.2 / 10' | −0.7 / 10' | 00 / 15 | | |
| +0.2 / 20' | 00 / 7' | 00 / 3' | −3.0 / 15 | | |
| +7.7 / 19' | +1.5 / 2' | −1.1 / 2' | −1.1 / 5' | +2.0 / 10 | +3.0 / 15 |

Prop. Line Change 13th + Commercial. Imperial Ave P.L.

B/ss
King
Leonard
Nienow
2/25/47

| | | | | |
|---|---|---|---|---|
| +73 65 | L.Lt | | 4.9 | 3.3 |
| +50 | | | 4.8 | 3.4 |
| +36 | 6" water 4.5 Down +- | | 4.6 | 3.6 |
| +26. | Gas. 4.5 Down +- | | 4.6 | 3.6 |
| +18 | 1st Storm Drain | | 4.6 | 3.6 |
| 210 | | | 4.6 | 3.6 |
| 209+87.36 | L.Lt. | | 4.5 | 3.7 |
| BM | 4.45 | 8.19 | | 3.74 |



Line Change Imperial Ave P.L.

221+97 50
~~222+97~~ 50. int ex P.L. 16"

219+95 82. L. Lt 5°-06'-00

218+21 43 L. Rt 3°-56'-00

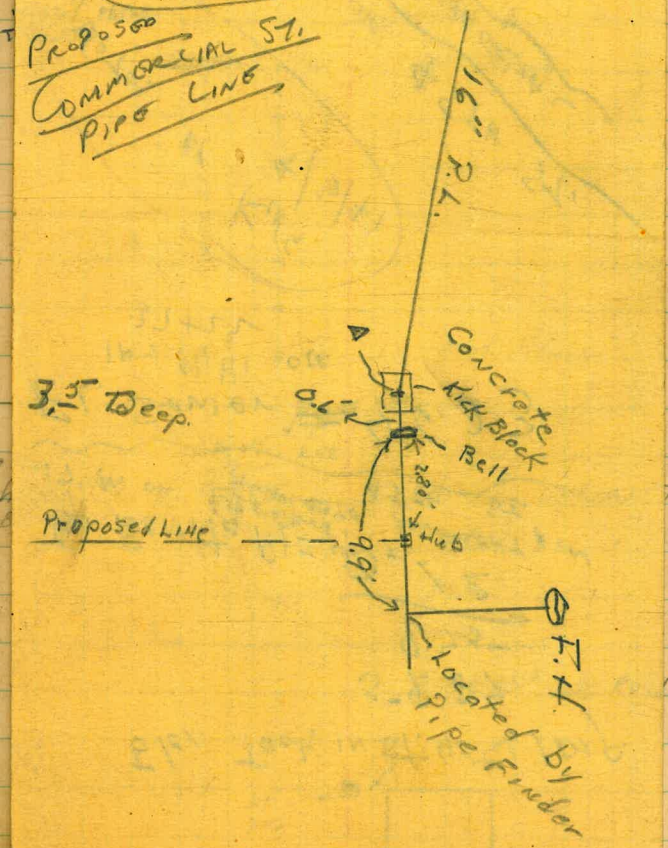


~~3.5'~~ to top of Pipe

CLIP IN
F.B. 1722
AT PGS. 57

NOTES BY KING 4/3/47

Proposed Commercial St. Pipe Line




29.
218+01 57
57
old Angle pt 7+60.93 (1691/50) BECOMES NEW P.O.T. STA. 218+06.37

Elev. Tack in st. 45th & Imp.

5-9.87
9.75-
12

Top Bonita P.L. = 50.12
17' N. of E. Imp. & Concrete pavement in 45th St.

F.L. Sewer = 46.23
in M.H. opp.
37+22

Notes by King 4/3/47

Corner 45th St. & Imperial

Line Change Imperial Ave PL

Vicinity of S.P.R.R. and Harbor Drive

57

ex. 16" Line

Bell 16" Pipe

R.P. No. 1 in fence post

P.K. Located Finder

old 2x2 set on original

Line Change Imperial Ave P.L.

221+97.50

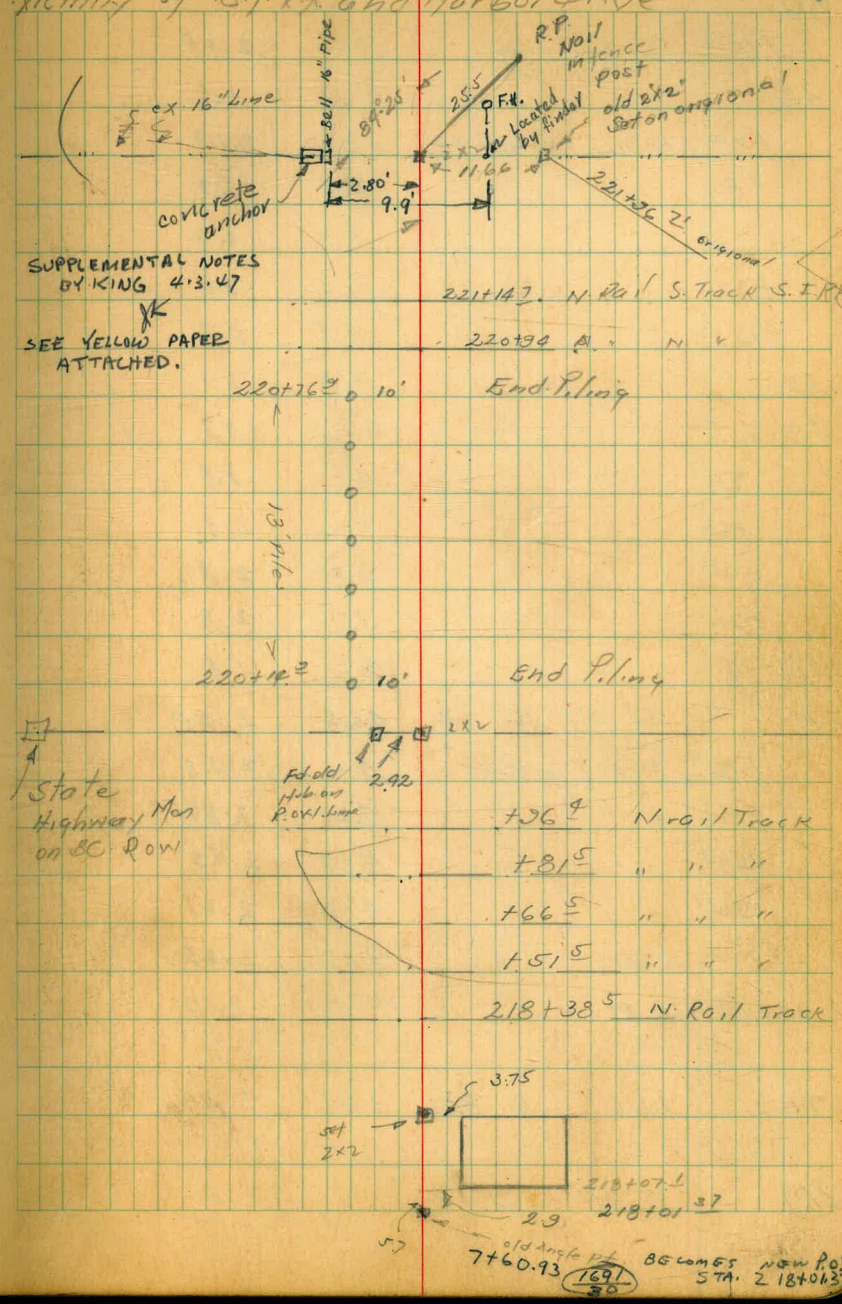
~~222+97.50~~ int cx P.L. 16"

219+95.82 . L. Lt 5°-06'-00

218+21.13 L. Rt 3°-56'-00



Vicinity of S.P.R.R. and Harbor Drive



| | | | | |
|---|---|---|---|---|
| +14 2 | Top Rail | N. Rail & Track | 3.66 | 2.38 |
| 221 | | | 4.9 | 1.6 |
| +94 | N. Rail. Santa Fe PR | | 385 | 2.19 |
| +80 | | | 43 | 1.7 |
| +77 | | | 5.3 | 0.7 |
| +50 | | | 6.0 | 0.0 |
| +15 | | | 5.8 | 0.2 |
| 220 | | | 4.9 | 1.1 |
| 219+95 82 | | | 4.71 | 1.33 |
| +71 | | | 4.2 | 1.8 |
| +63 | | | 5.2 | 0.8 |
| +50 | | | 3.2 | 2.8 |
| +20 | | | 3.2 | 2.8 |
| 219+14 | | | 4.2 | 1.8 |
| TP | 350 | 6.04 | 4.26 | 2.54 |
| +96 9 | N rail | See sketch | 4.25 | 2.55 |
| +81 5 | " " | | 4.00 | 2.80 |
| +66 5 | " " | | 4.27 | 2.53 |
| +51 5 | " " | | 4.19 | 2.61 |
| +38 5 | N rail | | 4.15 | 2.65 |
| 218+21 13 | L. Pt | | 470 | 2.10 |
| T.P. | 126 | 6.80 | 3.64 | 5.54 |
| BM | 5.44 | 9.18 | | 3.74 |

| | | | | |
|---|---|---|---|---|
| Check | Walkons Hub Orig. Grad Location | | 4.69 | 1.35 |
| +97 50 | End | | 4.60 | 1.4 |
| +81 | Top Bank | | 4.9 | 1.6 |
| +76 | | | 8.2 | -2.2 |
| +70 | Low Point | | 11.1 | -5.1 |
| +62 | | | 10.3 | -4.3 |
| +50 | | | 7.4 | -1.4 |
| +46 | | | 9.7 | -3.7 |
| +39 | | | 9.7 | -3.7 |
| 221+29 ~~221+29~~ | | | 4.3 | 1.7 |
| | | 6.04 | | |

Levelout $\frac{-2.9}{6'}$ $\frac{-0.4}{8'}$

$\frac{-0.5}{8'}$ $\frac{-0.4}{8'}$

$\frac{+1.4}{8'}$ · Levelout on Rt

Level out $\frac{0.3}{8}$ $\frac{-0.2}{4}$ $\frac{+1.6}{8}$

Level out $\frac{-2.5}{4'}$ $\frac{-1.7}{2'}$ $\frac{+1.7}{8'}$

$\frac{-0.2}{8}$ $\frac{0.6}{5}$ + $\frac{2.1}{8}$

$\frac{+0.4}{8}$ $\frac{+0.6}{4}$ $\frac{+2.8}{8'}$

$\frac{-0.3}{8'}$ $\frac{8}{-0.3}$

# Line Change Imperial Ave Pl.

Equation
12+21.21 EC. Back
= 12+13.23 ahead

11+94.55 BC. Rt
Δ 6°-13'-30
R 250
T 13.59
L 27.16

11+80.44 EC.

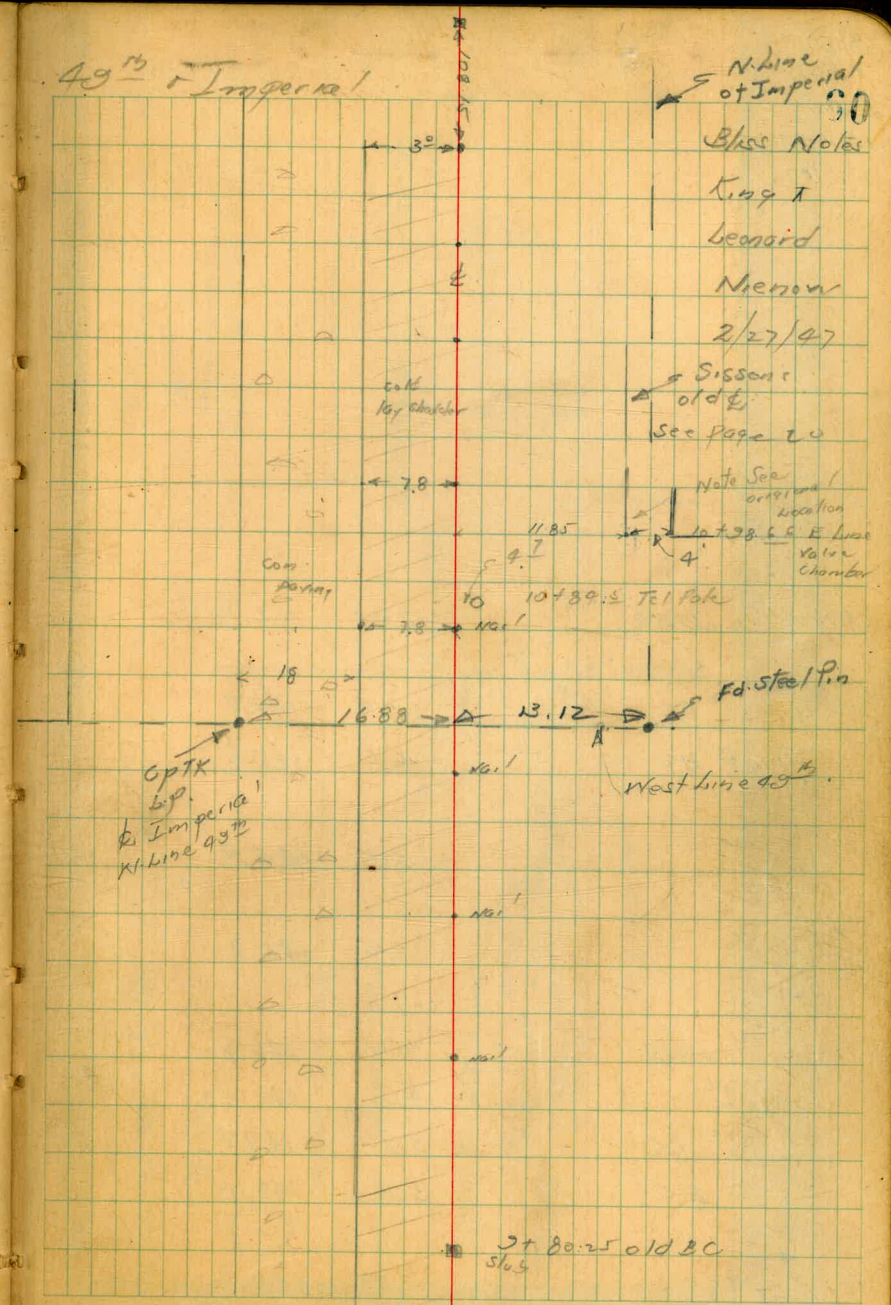
11+54.26 BC. Lt
Δ 6°-00'-00
R 250
T 13.10
L 26.18

10+83.46 EC.

10+57.28 BC. Lt
Δ 6°-00'-00
R 250
T 13.10
L 26.18

10+37.02 EC.

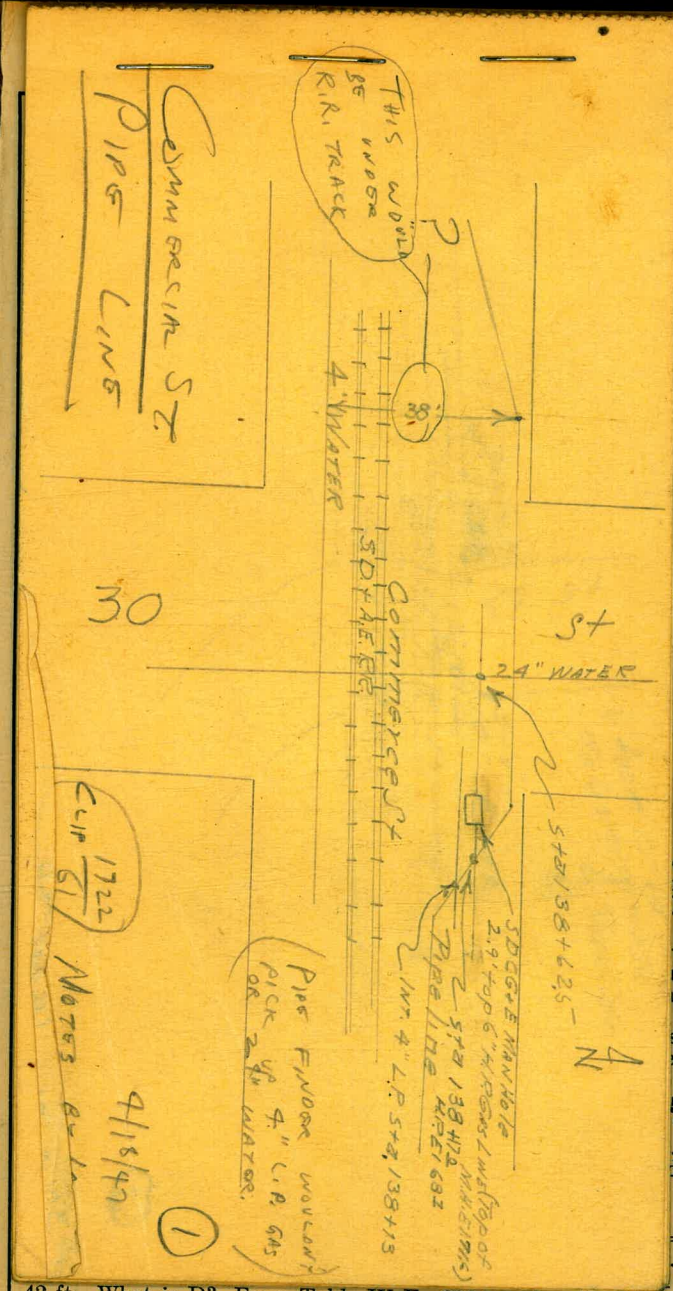
10+10.84 BC. Rt
Δ 6°-00-00
R 250
T 13.10
L 26.18



Bliss
King
Leonard
Nienow
2/27/47

Levels for Line Change 49 #1 Imp.

| | | | |
|---|---|---|---|
| Check out on old EC: | | 7.49 | 143.82 |
| 12+29.31 EC | | 6.9 | 144.9 |
| +94.55 BC | | 6.1 | 145.2 |
| +80.44 | | 5.9 | 145.4 |
| +54.26 | | 5.6 | 145.7 |
| 11+0 | | 4.7 | 146.6 |
| +83.46 | | 4.5 | 146.8 |
| +57.28 BC | | 3.9 | 147.4 |
| +37.00 EC | | 3.3 | 148.0 |
| 10+10.84 BC | | 2.7 | 148.6 |
| BM | 1.94 | 151.31 | 149.37 = 9+98.25 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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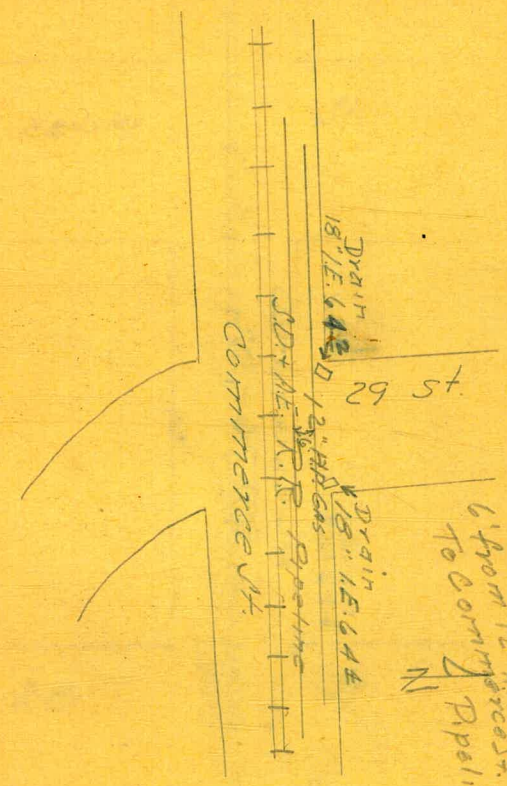
Levels for Line Change 99 #1 Temp

| | | | |
|---|---|---|---|
| Check out on old EC: | | 7.49 | 143.82 |
| 12+24 21 EC | | 6.9 | 144.9 |
| +94 55 BC | | 6.1 | 145.2 |
| +80 44 | | 5.9 | 145.4 |
| +54 26 | | 5.6 | 145.7 |
| 11+0 | | 4.7 | 146.6 |
| +83 46 | | 4.5 | 146.8 |
| +57 28 BC | | 3.8 | 147.4 |
| +37 20 EC | | 3.3 | 148.0 |
| 10+10 84 BC | | 2.7 | 148.6 |
| B.M. | 1.94 | 151.31 | 149.37 = 9+83.25 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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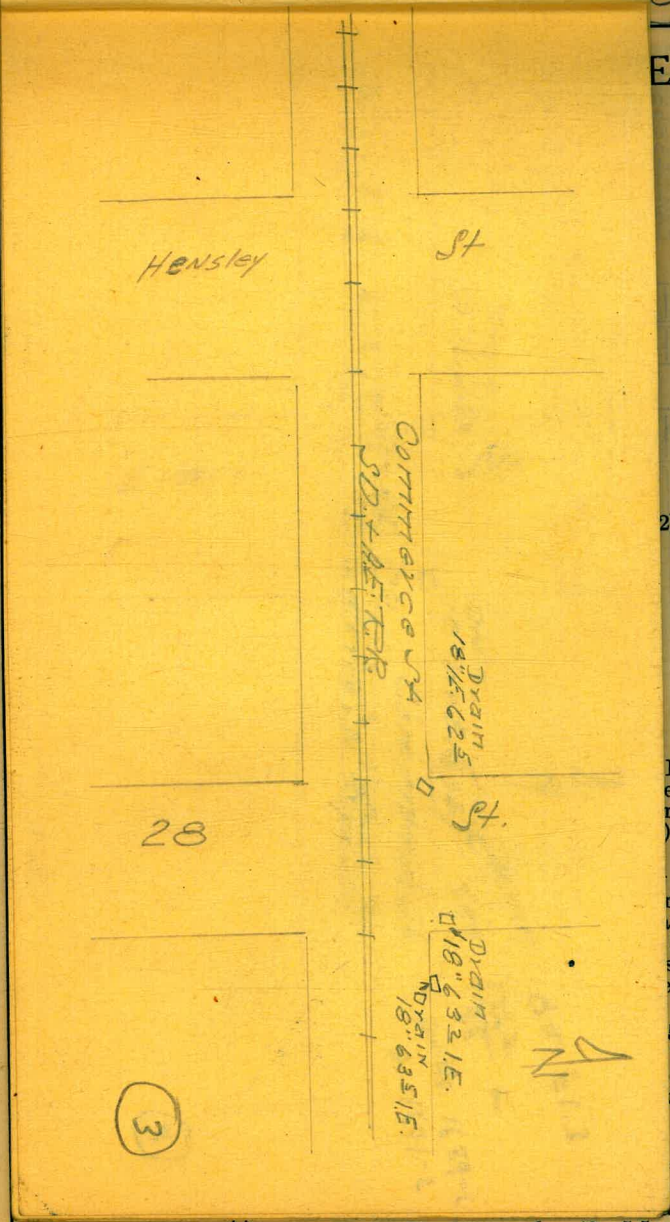
Levels for Line Change 99 — Tony

| | | | | |
|---|---|---|---|---|
| Check out on old EC: | | | 7.99 | 143.82 |
| 12+29 EC | | | 6.9 | 144.9 |
| +94 55 BC | | | 6.1 | 145.2 |
| +80 44 | | | 5.9 | 145.4 |
| +54 26 | | | 5.6 | 145.7 |
| 11+0 | | | 4.7 | 146.6 |
| +83 46 | | | 4.5 | 146.8 |
| +57 28 BC | | | 3.9 | 147.4 |
| +37 20 EC | | | 3.3 | 148.0 |
| 10+10 84 BC | | | 2.7 | 148.6 |
| BM | 1.94 | 151.31 | | 149.37 = 9+80.55 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

Bliss
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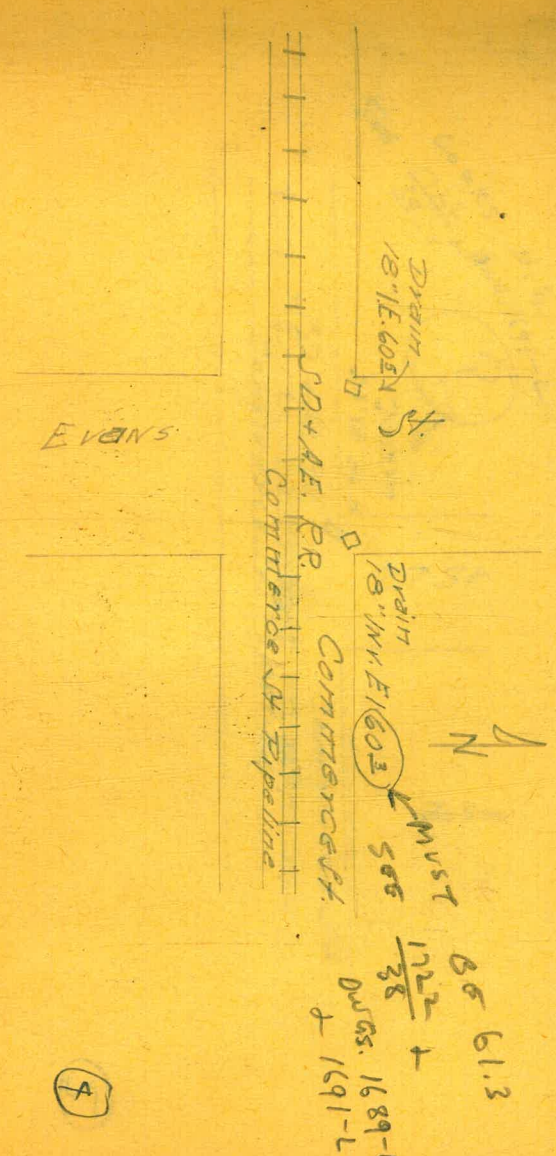
Levels for Line Change 49 to Temp

| | | | | |
|---|---|---|---|---|
| Check out on old EC | | | 7.49 | 143.82 |
| 12+29 N. EC | | | 6.9 | 144.9 |
| +94 55 BC | | | 6.1 | 145.2 |
| +80 44 | | | 5.9 | 145.4 |
| +54 26 | | | 5.6 | 145.7 |
| 11+0 | | | 4.7 | 146.6 |
| +83 46 | | | 4.5 | 146.8 |
| +57 28 BC | | | 3.9 | 147.4 |
| +37 0 EC | | | 3.3 | 148.0 |
| 10+10 84 BC | | | 2.7 | 148.6 |
| B.M. | 1.94 | 157.31 | | 149.37 = 9+8.55 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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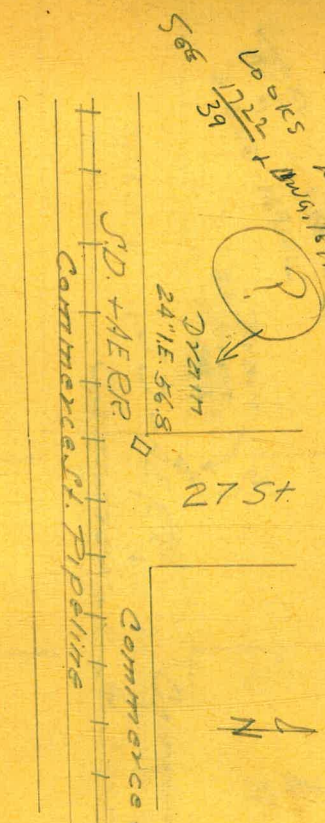
Levels for Line Change 99 Temp

| | | | | |
|---|---|---|---|---|
| Check out on old EC: | | 7.99 | 143.82 | |
| 12+29.21 EC | | 6.9 | 144.9 | |
| +94.55 BC | | 6.1 | 145.2 | |
| +80.44 | | 5.9 | 145.4 | |
| +54.26 | | 5.6 | 145.7 | |
| 11+0 | | 4.7 | 146.6 | |
| +83.46 | | 4.5 | 146.8 | |
| +57.28 BC | | 3.9 | 147.4 | |
| +37.00 EC | | 3.3 | 148.0 | |
| 10+10.84 BC | | 2.7 | 148.6 | |
| BM | 1.94 | 151.31 | 149.37 | = 9+89.25 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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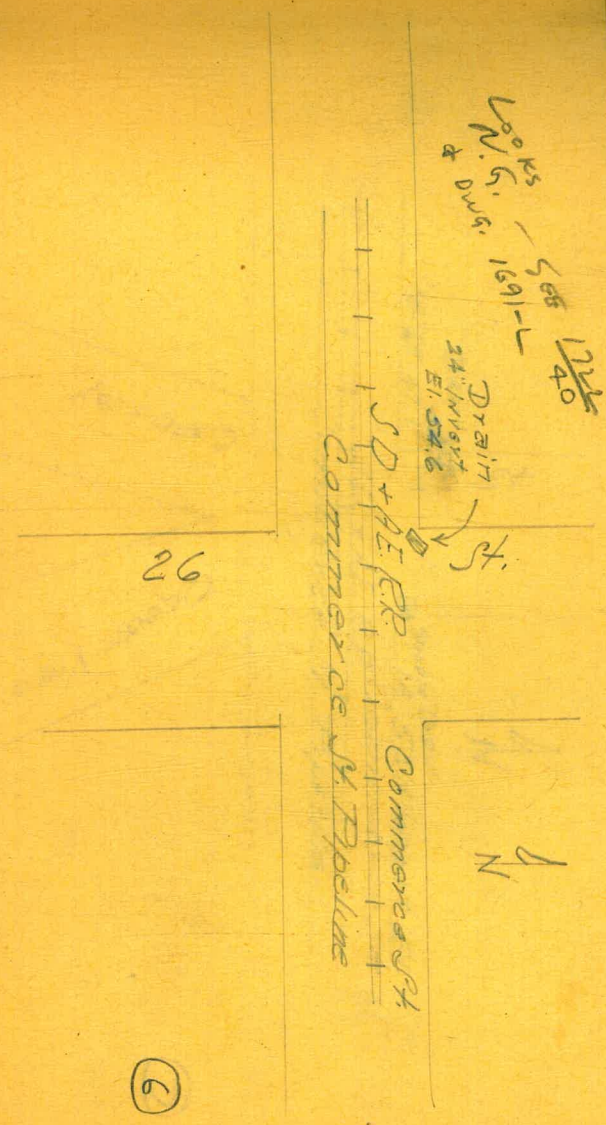
Levels for Line Change 99 #7 Temp

| | | | | | |
|---|---|---|---|---|---|
| Check out on old EC: | | | 7.9 | 143.82 | |
| 12+20 31 EC | | | 6.9 | 144.9 | |
| +94 55 BC | | | 6.1 | 145.2 | |
| +80 44 | | | 5.9 | 145.4 | |
| +54 25 | | | 5.6 | 145.7 | |
| 11+0 | | | 4.7 | 146.6 | |
| +83 46 | | | 4.5 | 146.8 | |
| +57 28 BC | | | 3.9 | 147.4 | |
| +37 0 EC | | | 3.3 | 148.0 | |
| 10+10 84 BC | | | 2.7 | 148.6 | |
| BM | 1.94 | 151.31 | | 149.37 | = 91+90.65 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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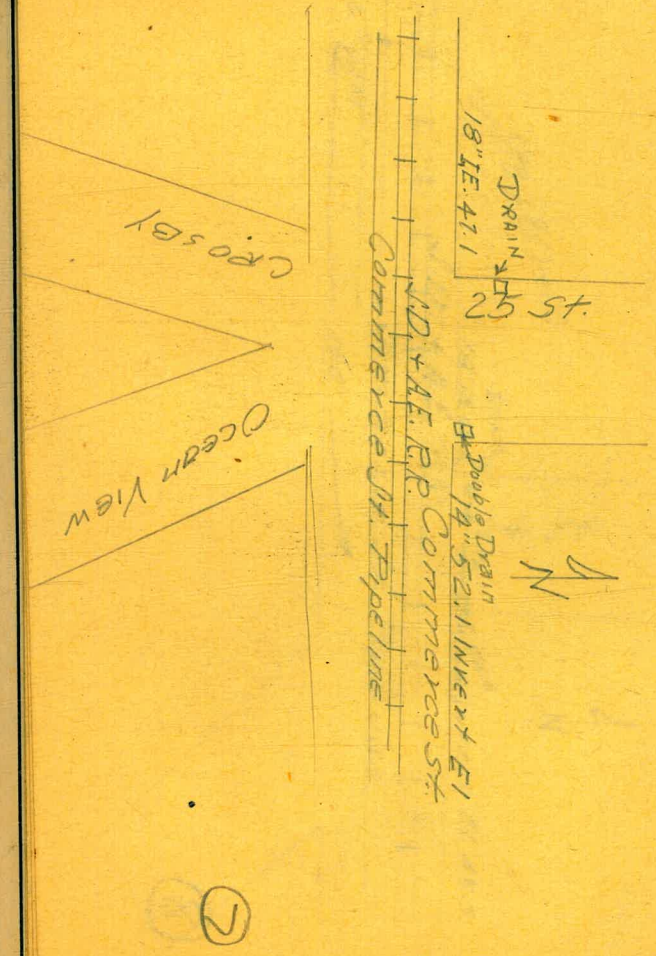
Nienow
2/27/97

Levels for Line Change 99 #1 Imp

| | | | | | |
|---|---|---|---|---|---|
| Check out on old EC: | | | 7.49 | 143.82 | |
| 12+29 31 EC | | | 6.9 | 144.9 | |
| +94 55 BC | | | 6.1 | 145.2 | |
| +80 44 | | | 5.9 | 145.4 | |
| +54 26 | | | 5.6 | 145.7 | |
| 11+0 | | | 4.7 | 146.6 | |
| +83 46 | | | 4.5 | 146.8 | |
| +57 28 BC | | | 3.9 | 147.4 | |
| +37 20 EC | | | 3.3 | 148.0 | |
| 10+10 84 BC | | | 2.7 | 148.6 | |
| BM | 1.94 | 151.31 | | 149.37 | = 9+8.25 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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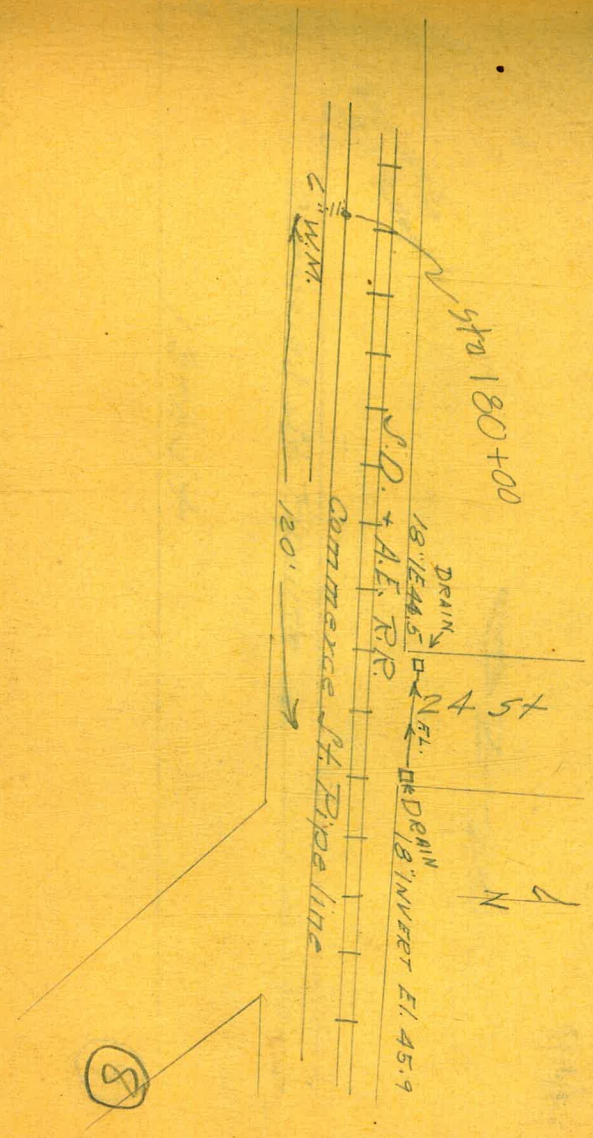
Levels for Line Change 99 #1 Temp

| | | | |
|---|---|---|---|
| Check out on old EC: | | 7.9 | 143.82 |
| 12+29 31 EC | | 6.9 | 144.9 |
| +94 55 BC | | 6.1 | 145.2 |
| +80 44 | | 5.9 | 145.4 |
| +54 26 | | 5.6 | 145.7 |
| 11+0 | | 4.7 | 146.6 |
| +83 46 | | 4.5 | 146.8 |
| +57 28 BC | | 3.9 | 147.4 |
| +37 20 EC | | 3.3 | 148.0 |
| 10+10 84 BC | | 2.7 | 148.6 |
| BM | 1.94 | 151.31 | 149.37 = 9+98.25 old BC |




61

E

2)

P. C.
e T=
r T=
) L=

with
r Sta.
ngent
hence
stance
from

50 ft.,
Table
.2′ or
deflec-

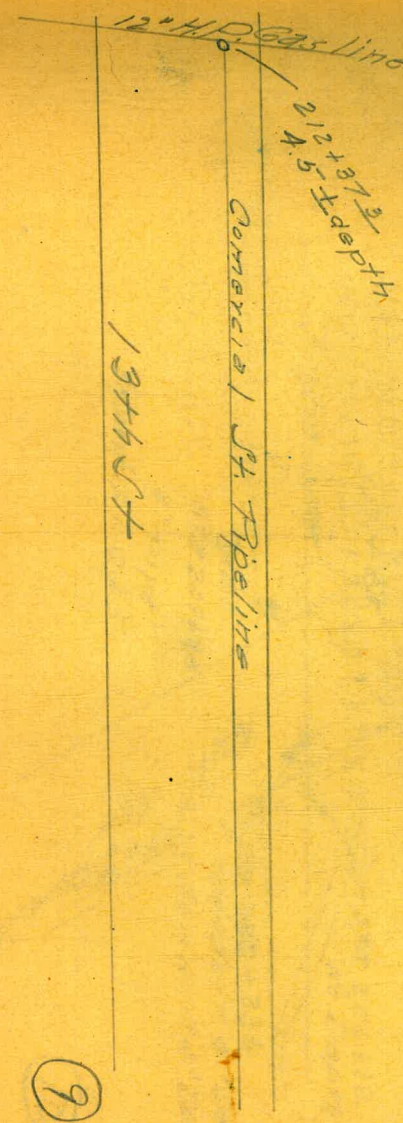
Thus
=960.6
.10 or
d to be

42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=
5° 30′.

Bliss
King
Leonard
Nenow
2/27/47

Levels for Line Change 99 #1 Jap

| | | | |
|---|---|---|---|
| Check out on old EC: | | 7.9 | 143.82 |
| 12+29 31 EC | | 6.9 | 144.9 |
| +94 55 BC | | 6.1 | 145.2 |
| +80 44 | | 5.9 | 145.4 |
| +54 26 | | 5.6 | 145.7 |
| 11+0 | | 4.7 | 146.6 |
| +83 46 | | 4.5 | 146.8 |
| +57 28 BC | | 3.9 | 147.4 |
| +37 20 EC | | 3.3 | 148.0 |
| 10+10 84 BC | | 2.7 | 148.6 |
| BM | 1.94 | 151.31 | 149.37 = 9+80.25 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

Bliss
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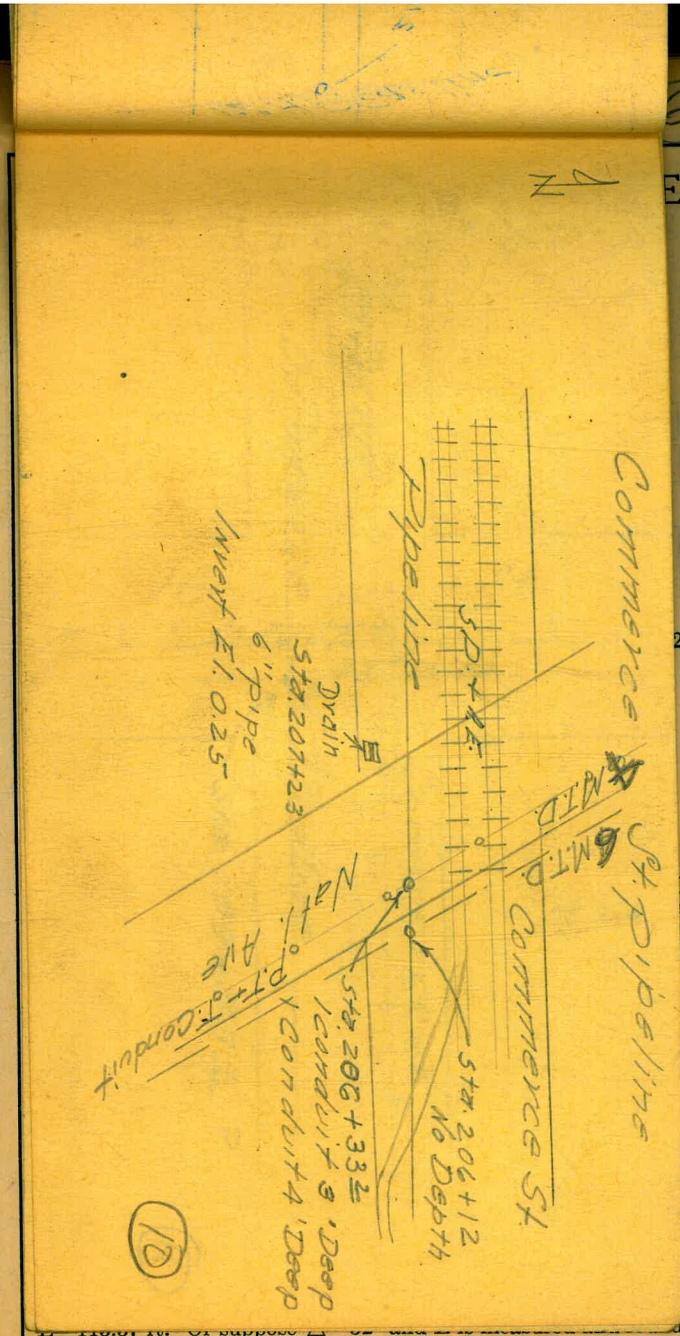
Leonard
Nienoxl
2/27/47

Levels for Line Change 99 #1 Imp

| | | | | | |
|---|---|---|---|---|---|
| Check out on old EC: | | | 7.99 | 143.82 | |
| 12+20 31 EC | | | 6.4 | 144.9 | |
| +94 55 BC | | | 6.1 | 145.2 | |
| +80 44 | | | 5.9 | 145.4 | |
| +54 26 | | | 5.6 | 145.7 | |
| 11+0 | | | 4.7 | 146.6 | |
| +83 46 | | | 4.5 | 146.8 | |
| +57 28 BC | | | 3.9 | 147.4 | |
| +37 20 EC | | | 3.3 | 148.0 | |
| 10+10 84 BC | | | 2.7 | 148.6 | |
| B.M. | 1.94 | 151.31 | | 149.37 | = 9+98.15 old BC |




42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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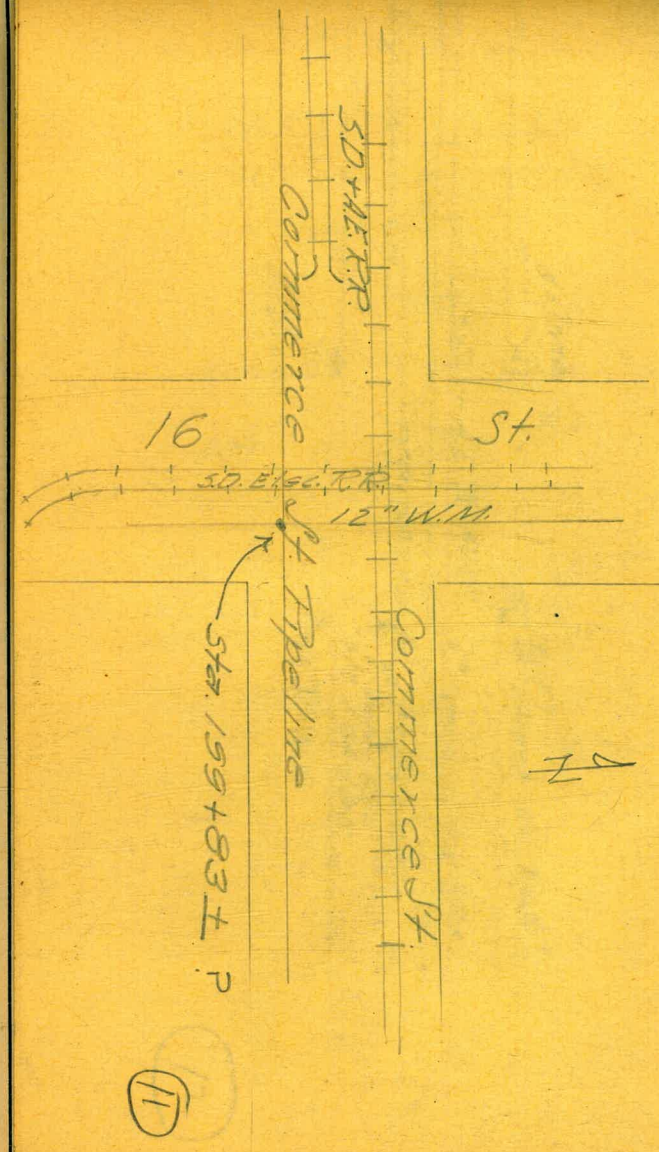
Leonard
Nienow
2/27/47

Levels for Line Change 99 #1 Jay

| | | | | |
|---|---|---|---|---|
| Check out on old EC | | 7.99 | 143.82 | |
| 12+29 21 EC | | 6.9 | 144.9 | |
| +94 55 BC | | 6.1 | 145.2 | |
| +80 44 | | 5.9 | 145.4 | |
| +54 26 | | 5.6 | 145.7 | |
| 11+0 | | 4.7 | 146.6 | |
| +83 46 | | 4.5 | 146.8 | |
| +57 28 BC | | 3.9 | 147.4 | |
| +37 0 EC | | 3.3 | 148.0 | |
| 10+10 84 BC | | 2.7 | 148.6 | |
| BM | 1.94 | 151.31 | 149.37 | = 9+89.45 old BC |




E

P. C.
T=
T=
L=

with
Sta.
ngent
hence
stance
from

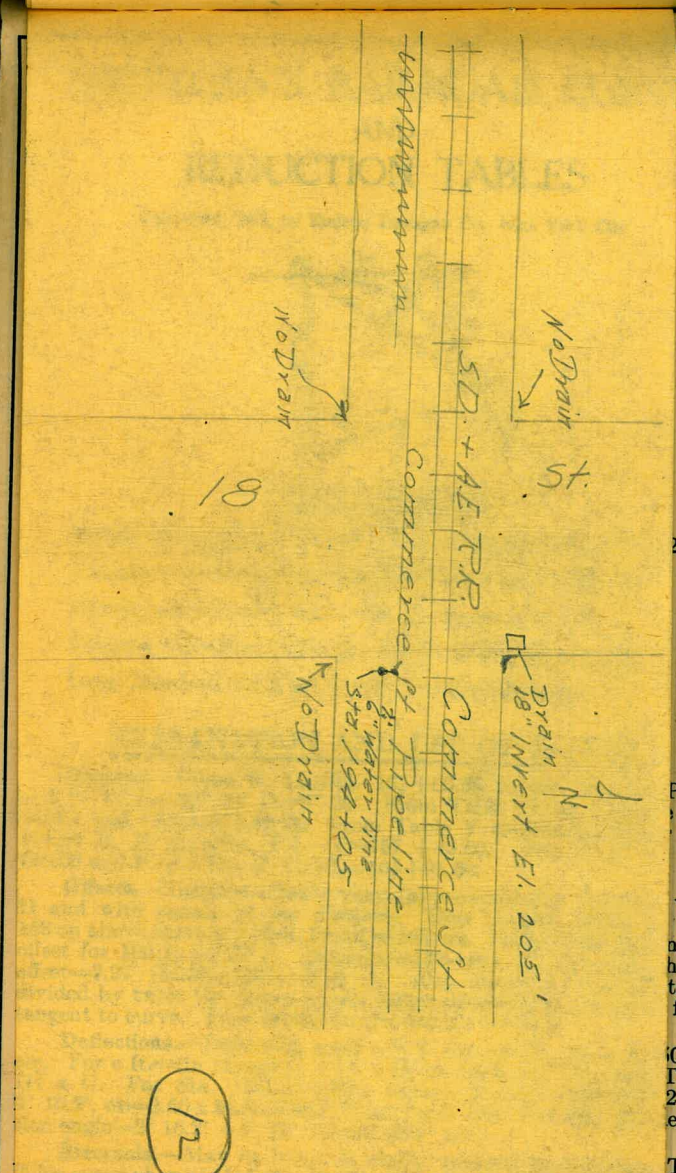
50 ft.,
Table
.2′ or
leflec-

Thus
=960.6
.10 or
to be
42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=
5° 30′.

Bliss
King
Leonard
Menown
2/27/47

Levels for Line Change 49 - Temp

| | | | | |
|---|---|---|---|---|
| Check out on old EC: | | 7.49 | 143.82 | |
| 12+29 N. EC | | 6.4 | 144.9 | |
| +94 55 BC | | 6.1 | 145.2 | |
| +80 44 | | 5.9 | 145.4 | |
| +54 26 | | 5.6 | 145.7 | |
| 11+0 | | 4.7 | 146.6 | |
| +83 46 | | 4.5 | 146.8 | |
| +57 28 BC | | 3.9 | 147.4 | |
| +37 20 EC | | 3.3 | 148.0 | |
| 10+10 84 BC | | 2.7 | 148.6 | |
| BM | 1.94 | 157.31 | 149.37 | = 948.25 old BC |




E—118.37 ft. Or suppose Δ=52° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

Bliss
King
Leonard
Nenow
2/27/07

Levels for line change 99 #1 Jay

Check out on old EC:

| | | |
|---|---|---|
| | 7.9 | 143.82 |
| 12+29 21 EC | | |
| | 6.9 | 144.9 |
| +94 55 BC | | |
| | 6.1 | 145.2 |
| +80 44 | | |
| | 5.9 | 145.4 |
| +54 26 | | |
| | 5.6 | 145.7 |
| 11+0 | | |
| | 4.7 | 146.6 |
| +83 46 | | |
| | 4.5 | 146.8 |
| +57 28 BC | | |
| | 3.9 | 147.4 |
| +37 0 EC | | |
| | 3.3 | 148.0 |
| 10+10 84 BC | | |
| | 2.7 | 148.6 |
| BM 1.94 | 157.31 | 149.37 = 9+80.55 old BC |



# DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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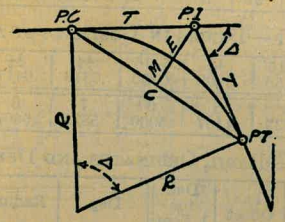


## CURVE FORMULAS

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

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

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

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

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

## EXPLANATION AND USE OF TABLES

**Stations.**—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta=62°\ 10'$ $D=8°\ 20'$. From Table IV for 1° curve T=3454.1 and $\div 8\frac{1}{3}$=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=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x $8\frac{1}{3}$=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 26.2′, etc.

**Externals.**—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6 $\div 8\frac{1}{3}$=115.27 and from Table V correction=.10 or E=115.37 ft. Or suppose $\Delta$=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

# DIAGRAM FOR OBTAINING HORIZONTAL AND VERTICAL DISTANCES FROM STADIA READINGS

Enter on the horizontal scale with the value of the stadia reading or interval times the stadia constant (usually taken as 100) and run vertically upward to intersection with line representing the vertical angle. The location of this point with reference to the dotted line marked "ONE," etc., gives the correction to be subtracted from the entering value and to which "f + c" (usually about 1 ft.) must be added to obtain the Horizontal Distance The reading on vertical scale plus about 0.1 ft. for each 5° of vertical angle [-(f+c Sino)] is the Vertical Distance.

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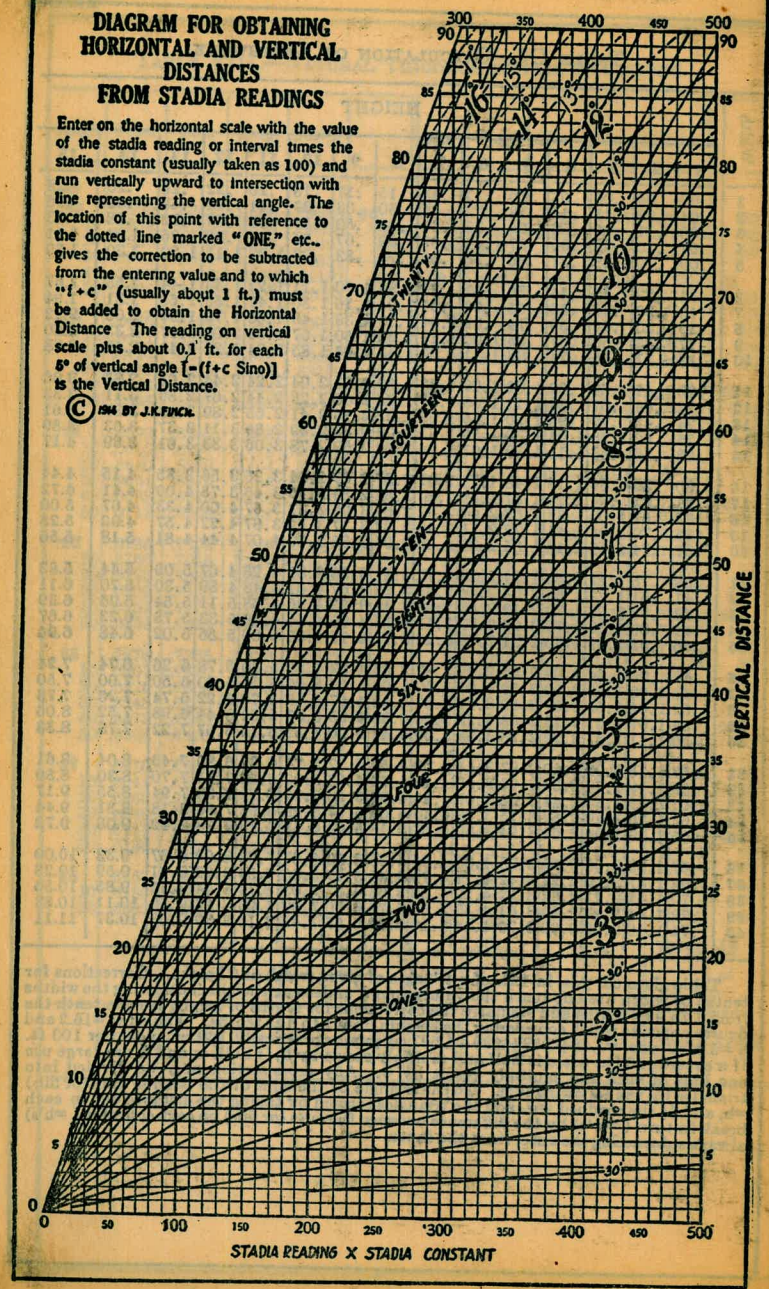


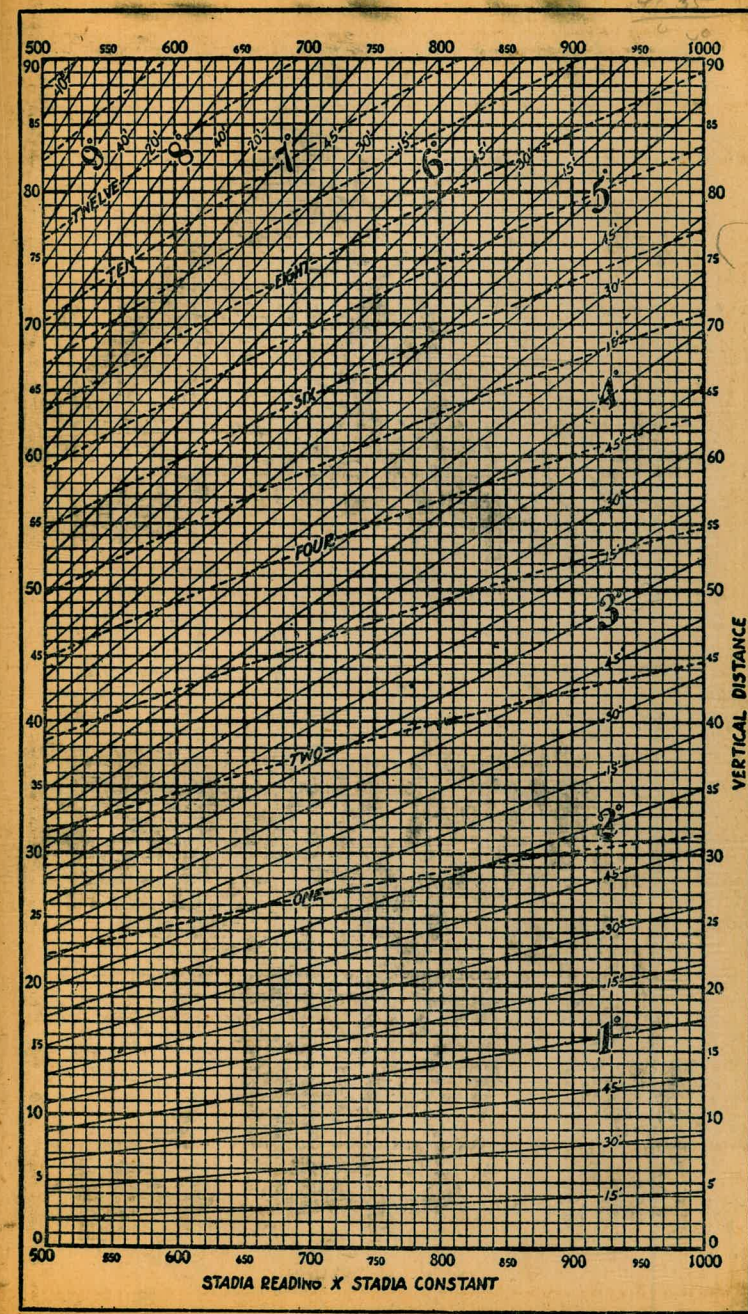

## DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

**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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