104

369

TRANSIT

F.B.104

104

*...owing the difference of latitude and departure in running 80 chains on any course from 1 to 60 minutes.*

MED

Book no. 104

name. date.

| Minu... | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
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| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

*In the ...*

| Angle | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | 0.55 | 13 | 2.63 | 20 | 6.42 | 27 | 12.24 |
| 7 | 0.76 | 14 | 3.06 | 21 | 7.11 | 28 | 13.37 |
| 8 | 0.98 | 15 | 3.53 | 22 | 7.85 | 29 | 14.34 |
| 9 | 1.24 | 16 | 4.02 | 23 | 8.64 | 30 | 15.47 |
| 10 | 1.55 | 17 | 4.56 | 24 | 9.47 | 35 | 22.07 |

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104


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| " | 32d St. "R" St to Logan Ave. | 61-68 |
| " | 32d " Logan Ave. across Cor. Ry | 69-72 |
| " | Through Old Town | 73-94 |
| " | Across P. Lots 190 & 191. Pt. Loma | 95-106 |
| " | Main St. Roseville, to Canyon | 107-114 |

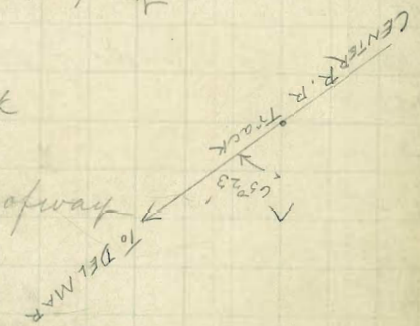

Return to City Engineers Office
City Hall, San Diego, Cal.

95
220
246
109
1545
450
1995
770
2765
320
3085
160
3245
180
3325
288
3613

# Road at Eureka Lemon Tract – for 40' Right of Way

| Sta | Δ L | Δ R. | | Needle Mag | |
|---|---|---|---|---|---|
| 11+50 | 65°24' | from line parallel with RR | | N. 42°30 W to S. 72°05 W | 11+50 = Sta 0+50 Old Survey near N.W. Cor Lot 24 Eureka Tract (see Bk. p. ) 11+50 is 20' E of R.R Right of Way |
| 12+26.8 | | | | | Cent. S.C. Ry track |
| +42 | | | | | W. Edge RR cut |
| +82 | 24°37' | | | S. 47°30' W | W. line RR Right of way |
| 18+80 | | | | | Box 2'x2' |
| 22+61 | | | | | Fence line (W. line Lots 3+4) |
| +82.8 | | 72°00 R | | N 60 25 W | Cent. Road parallel with Motor track |
| 25+24.6 | | | | | Δ Spike Op. B.C. on Motor Track |

Alley between Lots 3 & 4 Eureka Tract
Line 5 ft W. of Center line of alley




2524.6
2282.8
241.8
232
9.8

Levels

3

Road at Eureka

Lemon Tract



| Sta | BS. | ~~O~~ | FS | Rod | Elev. | |
|---|---|---|---|---|---|---|
| | 5.78 | 105.78 | | | 100.0 | Old assumed Elevation on Spike in post of Rifeway fence 100.0 |
| 11+50 | | | | 6.43 | 99.3 | |
| +57 | | | top bank | 7.03 | 98.8 | |
| +65 | | | ditch | 13. | 92.8 | |
| +66 | | | top | 7.4 | 98.4 | |
| 12 | | | | 4.64 | 101.1 | |
| +12 | | | ditch | 6.4 | 99.4 | |
| +26.8 | RR | | | 4.0 | 101.7 | |
| +38 | | | ditch | 6.1 | 99.7 | |
| +42 | | | top | 3.0 | 102.8 | |
| +50 | | | | 2.4 | 103.4 | |
| +82 | fence | | | 2.3 | 103.5 | |
| 13 | | | | 3.55 | 102.2 | |
| | 0.21 | 98.56 | 7.48 | | 98.35 | T.P. |
| +50 | | | | 0.2 | 98.4 | |
| 14 | | | | 5.67 | 92.9 | |
| +50 | | | | 9.5 | 89.1 | |
| 15 | | | | 11.9 | 86.7 | |
| | 0.24 | 87.39 | 11.41 | | 87.15 | T.P. top Stake Sta. 15 |
| +50 | | | | 5.05 | 82.3 | |

| Sta | B.S. | ~~O~~ | F.S. | Rod | El. | |
|---|---|---|---|---|---|---|
| 16 | | 87.39 | | 8.56 | 78.8 | |
| +50 | | | | 11.07 | 76.3 | |
| 17 | | | | 10.85 | 76.5 | |
| | 0.89 | 77.92 | 10.36 | | 77.03 | T.P. Top Stake Sta 17. |
| +50 | | | | 5.04 | 72.9 | |
| 18 | | | | 10.36 | 67.6 | |
| | 2.33 | 68.27 | 11.98 | | 65.94 | T.P. Top. Stake Sta. 18+50 |
| +50 | | | | 2.73 | 65.5 | |
| 19 | | | | 3.5 | 64.8 | 68.27<br>3.66<br>64.61 Bm Spk in post Op. Sta. 19 |
| +50 | | | | 2.56 | 65.7 | |
| 20 | | | | 3.67 | 64.6 | |
| +50 | | | | 5.5 | 62.8 | |
| 21 | | | | 8.96 | 59.3 | |
| +50 | | | | 10.63 | 57.6 | |
| 22 | | | | 12.20 | 56.1 | |
| | 2.80 | 59.42 | 11.65 | | 56.62 | T.P. top Stake Sta 22 — 59.42<br>4.82<br>54.60 BM Spike in Post NW Cor Williams Tract |
| +50 | | | | 5.15 | 54.3 | |
| +61 | | | | 5.56 | 53.9 | lot line - Road |
| +82.8 | | | | 5.93 | 53.5 | Cent. Road |
| 23 | | | | 5.9 | 53.5 | |
| +50 | | | | 5.3 | 54.1 | |

| Sta. | B.S. | H.I. | F.S. | Rod | El. | |
|---|---|---|---|---|---|---|
| 24 | | 59.42 | | 5.4 | 54.0 | |
| +50 | | | | 4.9 | 54.5 | |
| 25 | | | | 4.9 | 54.5 | |
| + | | | | 4.82 | 54.60 | On Spike op. B.C. |

"L" Line

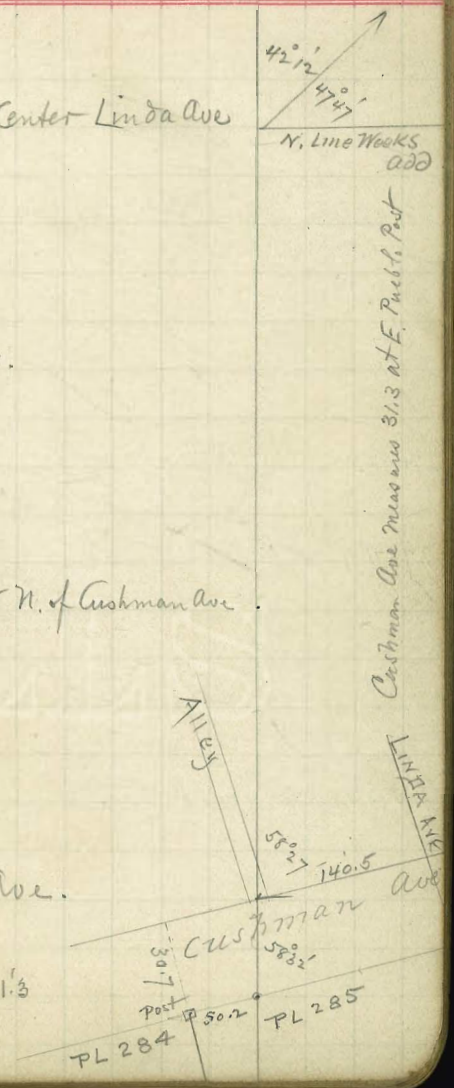
Road Survey – S. line

| Sta | R. | L | | Needle Mag | |
|---|---|---|---|---|---|
| 9+95 | 42°12' | | | N. 26°05 W. | N. Line Weeks Add. & Center Linda Ave |
| 5+95.7 | | | | | N Line Buenos Ave. |
| 3+75 | | 31°.33' | | N 68°20 W | Center Linda Ave. 289.5 N. of Cushman Ave. |
| +35.25 | | | | | N. Line Cushman Ave. |
| | | | | N 36°45 W | |
| 0 = Center line of Tyke (extended) at South line of Weeks Addn. Line Continued to 3+75 | | | | | Cushman Ave measures 31.3 at N.E. Cor PL. 285 |

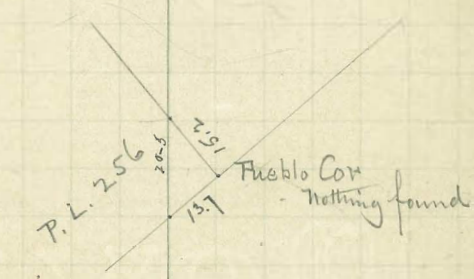


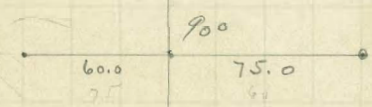
Weeks' Addn to Morena

Dec 8th 99



| Sta. | R | L | | Needle Mag | |
|---|---|---|---|---|---|
| 28+36.6 | | 42° 12' | | N. 68° 20 W. | Point in P.L. 255 _ 36' N. of N. line PL 256 (For accepted line see page 31) |
| 27+92.4 | | | | | P.L. Line |
| 27+71.9 | | | | | P.L. Line |
| 21+83.1 | Top of Hill | | | | Tied out |
| 17+73 | | | | | Small box |



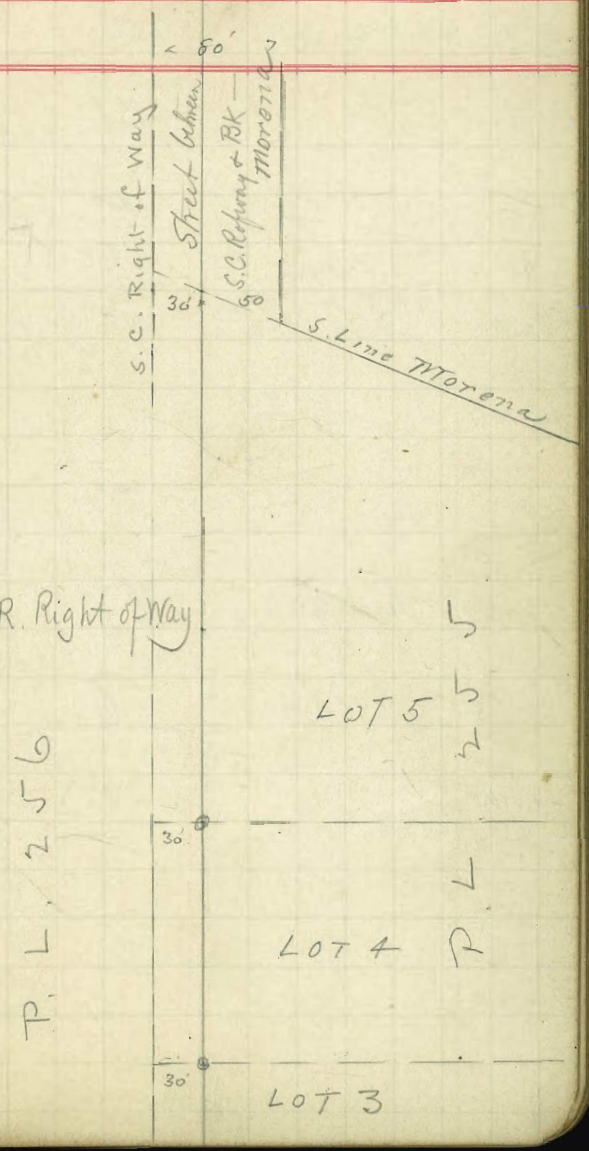
57+33. S. Line Morena

47+55. Thence Curved line, parallel to and 30' dist. from R.R. Right of Way

43+043.

38+45.





X Sections

From S. Line Weeks Addn back to Grade on Dyke

| Sta | | | Center | | |
|---|---|---|---|---|---|
| | | | (0 22.70) | | |
| | | | 13.9 | | |
| -6.0 | | | 8.85 | | |
| | | | 14.9 | | |
| -5+50 | | | 7.83 | 7.83/10 | |
| | | | 15.8 | | |
| -5 | (Lot slope) | | 6.96 | 1.32/10 | |
| | | | 19.4 | | |
| -4+80 | Grade level | 5.74/4 | 3.3 | 0.5/10 | |
| -4+45 | | 4.7/7 | | | |
| | | | 20.0 | | |
| -4. | level | 3.9/4 | 2.75 | 0.0/3. | peg |
| | | | 19.3 | | |
| -3+80 | level | 3.0' | 3.4 | | |
| | | | 19.2 | | |
| -3+65 | | level | 3.55 | 2.3/10 | |
| | | | (0 28.70) | | |
| | | | 23.8 | | |
| -4+45 | | | 4.90 | 5.1/10 | bo |
| -4. | | | | 0.4/10. | |
| -3+80 | | | | 3.7/10 | |



Dec 9th '99

Assumed El. Dyke 14.00
8.70
~~0~~ 22.70
3.70
T.P. on Stone 19.00
9.70
~~0~~ 28.70

This portion of old survey was graded around (E.) of point of hill here shown –

| Sta. | | E. | Center | W | |
|---|---|---|---|---|---|
| | | | ~~0~~ 25.36 | | |
| -3. | | 7.4/10 | 18.4 / 6.95 | level | |
| -2+80 | Edge | 11.5/20 9.2/10 | 18.1 / 7.27 | level | |
| -2. | | 13.5/20 12.8/10 | 13.2 / 12.2 | 11.3/10 8.8/16 | Road |
| -1. | | 7.1/10 | 18.4 / 6.95 | 6.75/10 | |
| 0 = Sta 0 - "A" Line | | | 22.0 / 3.35 | | |



T.P. 19.00
6.36
~~0~~ 25.36

25.36
3.48
21.88 BM alongside of P.L Post

Levels over "A" Line.

| Sta | B.S. | H.I. | F.S. | Rod | El. | |
|---|---|---|---|---|---|---|
| 0 | | 25.36 | | 3.35 | 22.0 | |
| 1 | | | | 5.34 | 20.0 | |
| 2 | | | | 5.3 | 20.1 | |
| 3 | | | | 4.8 | 20.6 | |
| +75 | | | | 4.35 | 21.0 | |
| 4 | | | | 4.45 | 20.9 | |
| 5 | 2.48 | 24.38 | 3.46 | 3.46 | 21.90 | T.P. Spike |
| 6 | | | | 1.77 | 22.6 | |
| +50 | | | | 1.22 | 23.2 | |
| 7 | | | | 2.38 | 22.0 | |
| 8 | | | | 5.86 | 18.5 | |
| 9 | | | | 7.27 | 17.1 | |
| +95 | | | | 7.66 | 16.7 | 24.38 / 7.17 |
| 11 | | | | 7.28 | 17.1 | 17.21 BM on N.E. Cor Linda St ☒ |
| 12 | | | | 6.35 | 18.0 | |
| 13 | | | | 5.98 | 18.4 | |
| 14 | | | | 4.45 | 19.9 | |
| 15 | 6.95 | 28.96 | 2.37 | 2.37 | 22.01 | Sta. 15 T.P. |
| 16 | | | | 7.5 | 21.5 | |
| +50 | | | | 5.9 | 23.1 | |
| 17 | | | | 6.6 | 21.4 | |



Dyke to Morena

Dec 9 "99

| Sta | B.S. | ⊖ | F.S. | Rod | El. |
|---|---|---|---|---|---|
| 17+50 | | 28.96 | | 10.5 | 18.5 |
| 18 | | | | 9.85 | 19.1 |
| +50 | | | | 5.8 | 23.2 |
| 19 | | | | 5.06 | 23.9 |
| 20 | | | | 4.3 | 24.7 |
| 21 | | | | 2.3 | 26.7 |
| +75 | | | | 0.16 | 28.8 |
| 22 | | | | 1.10 | 27.9 |
| +50 | | | | 6.0 | 23.0 |
| 23 | 2.32 | 20.38 | 10.90 | 10.90 | 18.06 |
| 23 x Sec | | | | | |
| 24 | | | | 7.24 | 13.1 |
| 25 | | | | 9.75 | 10.6 |
| 26 | | | | 11.5 | 8.9 |
| 27 | | | | 11.14 | 9.2 |
| +05 | top bank | | | 11.27 | 9.1 |
| +12 | foot " | | | 14.6 | 5.8 |
| +50 | | | | 14.0 | 6.4 |
| +71.9 | | | | 14.0 | 6.4 |
| +92.4 | nr top Bk | | | 12.2 | 8.2 |
| 28. | | | | 11.9 | 8.5 |



| | L | Cent | R |
|---|---|---|---|
| | $\frac{-0.2}{10}$ | 0.16 | $\frac{-0.3}{10}$ |
| | $\frac{0.0}{10}$ | 1.1 | $\frac{1.0}{10}$ |
| | $\frac{4.7}{10}$ $\frac{4.1}{6}$ | 6.0 | $\frac{5.7}{5.0}$ $\frac{3.7}{7.0}$ $\frac{3.5}{10}$ |
| T.P. Spike Sta 23. | | 10.9 (20.38) | |
| | $\frac{0.8}{10}$ $\frac{1.9}{3}$ Bk $\frac{1.1}{3}$ | | $\frac{2.1}{4}$ bk $\frac{1.1}{4}$ $\frac{0.5}{10}$ |
| | lev. | 7.24 | lev. |

Tecolote Creek

| | B.S. | ⊖ | F.S. | Rod | El. |
|---|---|---|---|---|---|
| 28+36.6 △ | | 20.38 | | 11.03 | 9.4 |
| 29 | 2.93 | 11.93 | 11.38 | 11.38 | 9.00 |
| 30 | | | | 3.65 | 8.3 |
| 31 | | | | 4.57 | 7.4 |
| 32 | | | | 4.80 | 7.1 |
| 33 | | | | 5.00 | 6.9 |
| 34 | | | | 2.34 | 9.6 |
| | 9.42 | 21.05 | 0.30 | | 11.63 |
| +50 | | | | 7.1 | 14.0 |
| 35 | | | | 7.8 | 13.2 |
| +50 | | | | 3.85 | 17.2 |
| | 10.28 | 30.96 | 0.32 | | 20.73 |
| 36+20 | | | | 3.6 | 27.4 |
| | 10.27 | 40.69 | 0.54 | | 30.42 |
| 37 | | | | 9.25 | 31.4 |
| 38 | | | | 2.2 | 38.5 |
| | 10.70 | 51.13 | 0.26 | | 40.43 |
| +50 | | | | 7.56 | 43.5 |
| 39 | | | | 5.35 | 45.8 |
| 40 | | | | 4.40 | 46.7 |
| 41 | | | | 4.46 | 46.7 |



(this line produced as "AB" line to meet line from Morena sup. 30/32)

T.P. Spike Sta 29.

11.93
2.95
8.98

BM Spike in Fence Post op. Sta 30

C

3.5/10 2.34 0.8/10

T.P. Peg at foot of hill

10.5/10 10.0/6 B/K 8.5/6 7.1 5.7/10

8.5/10 8.3 B/K/C 7.2/C 5.2/10

lev lev

lev lev

T.P. Stone

| | B.S. | H | F.S. | Rod | El. | |
|---|---|---|---|---|---|---|
| 42 | | 51.13 | | 4.05 | 47.1 | |
| 43 | | | | 8.9 | 42.2 | |
| T.P. | 0.40 | 43.73 | 7.80 | | 43.33 | TP & BM. P.L. Corner |
| 44 | | | | 4.2 | 39.5 | |
| 45 | | | | 5.2 | 38.5 | |
| 46 | | | | 6.3 | 37.4 | |
| 47 | | | | 11.8 | 31.9 | |
| T.P. | 0.42 | 32.31 | 11.84 | | 31.89 | T.P. Sta 47 |
| +55 | | | | 5.06 | 27.3 | |
| 48 | | | | 7.64 | 24.7 | |
| T.P. | 0.29 | 21.30 | 11.30 | | 21.01 | |
| 49 | | | | 3.25 | 18.0 | |
| 50 | | | | 6.77 | 14.5 | |
| 51 | | | | 7.42 | 13.9 | |
| 52 | | | | 9.1 | 12.2 | |
| 53 | | | | 9.45 | 11.9 | |
| 54 | 2.77 | 15.28 | 8.79 | 8.8 | 12.5 | T.P. Sta 54 |
| 55 | | | | 4.07 | 11.2 | 15.28 |
| 56 | | | | 3.80 | 11.5 | 257 |
| 57 | | | | 2.74 | 12.5 | 12.71 BM Post in Right of way at end of line |
| +33 | | | | 2.30 | 13.0 | |

"B" 27 Line - Levels

From Top of Hill Morena down to Tecolote Valley

| Sta | B.S. | ~~O~~ | | Rod | | |
|---|---|---|---|---|---|---|
| | 1.69 | 61.69 | | BM | 60.00 | Tack S.E. Cor 5th Ave & R.S. assumed El. 60.00 |
| 0 | | | | 2.17 | 59.5 | Sta 0 = Cent R St. on E. Side 5th Ave |
| 1 | | | | 4.4 | 57.3 | Run 4% grade down hill from Sta 1 |
| 2 | | | | 7.56 | 54.1 | Rod per grade 8.4 at Sta 2 |
| +50 | 1.08 | 52.37 | 10.40 | 10.40 | 51.29 | Set stakes to grade El. from this point, 4% |
| 2+50 | | | | 1.08 | | |
| 3 | | | | 3.08 | | |
| +50 | | | | 5.08 | | |
| 4 | | | | 7.08 | | |
| +50 | | | | 9.08 | | |
| 5 | 0.53 | 41.82 | 11.08 | 11.08 | 41.29 | |
| 5 | | | | 0.53 | | |
| +50 | | | | 2.53 | | |
| 6 | | | | 4.53 | | |
| +50 | | | | 6.53 | | |
| 7 | | | | 8.53 | | |
| 7+50 | 0.29 | 31.58 | 10.53 | 10.53 | 31.29 | |
| 7+50 | | | | 0.29 | | |
| 8 | | | | 2.29 | | 8+40 Box 2'x3' |
| +50 | | | | 4.29 | | |
| 9 | | | | 6.29 | | |

| Sta. | | ⊙ | | | |
|---|---|---|---|---|---|
| 9+50 | | 31.58 | | 8.29 | |
| 10 | 1.26 | 22.55 | 10.29 | 10.29 | 21.29 |
| 10 | | | | 1.26 | |
| +50 | | | | 3.26 | |
| 11 | | | | 5.26 | |
| +50 | | | | 7.26 | 15.29 |
| 12 | | | | 9.26 | |
| 12+50 | 1.33 | 12.62 | 11.26 | 11.26 | 11.29 |
| 13 | | | | 3.36 | 9.3 |
| 14 | | | | 4.2 | 8.4 |
| 15 | | | | 4.77 | 7.9 |
| +47 = 30+54.6 "A" Line | | | | 5.00 | 7.6 |
| | | | | 3.98 | 8.64 |

Alignment Changed

"AB" Line = "A" Line produced from Sta "A" 28+36.6

| | | Rod | El "A" Datum | El "B" Datum | Fill |
|---|---|---|---|---|---|
| 28+36.6 | | 5.0 | 9.3 | | |
| 29 | 8.98 | 4.8 | 9.5 | | |
| 30 | 5.37 / ⊙ 14.35 "A" El. | 4.9 | 9.5 | | |
| 31 | | 4.7 | 9.6 | | |
| 32 | 8.64 / 5.37 / ⊙ 14.01 "B" El. | 4.46 | 9.9 | 9.6 | call grade |
| 32+51.4 AB = 12+58.3 "B" | | 4.36 | 10.0 | 9.7 | 1.3 f |
| 12 | | 1.7 | 12.7 | 12.3 | 1.0 f |
| 11+50 | " | | | 15.3 | Grade |

Last Stake Set on 4% grade foot of hill

} Crossing flat

= 7.96 "A" Line datum

= 8.98 " " " BM op. Sta 30 "A" ✓

assumed Elevations (datum planes)

Beginning of work on Engletret Contract Aug 1st 1900
Hence up hill to Sta 5+20 p: 35 – End

# Tecolote Valley to Morena

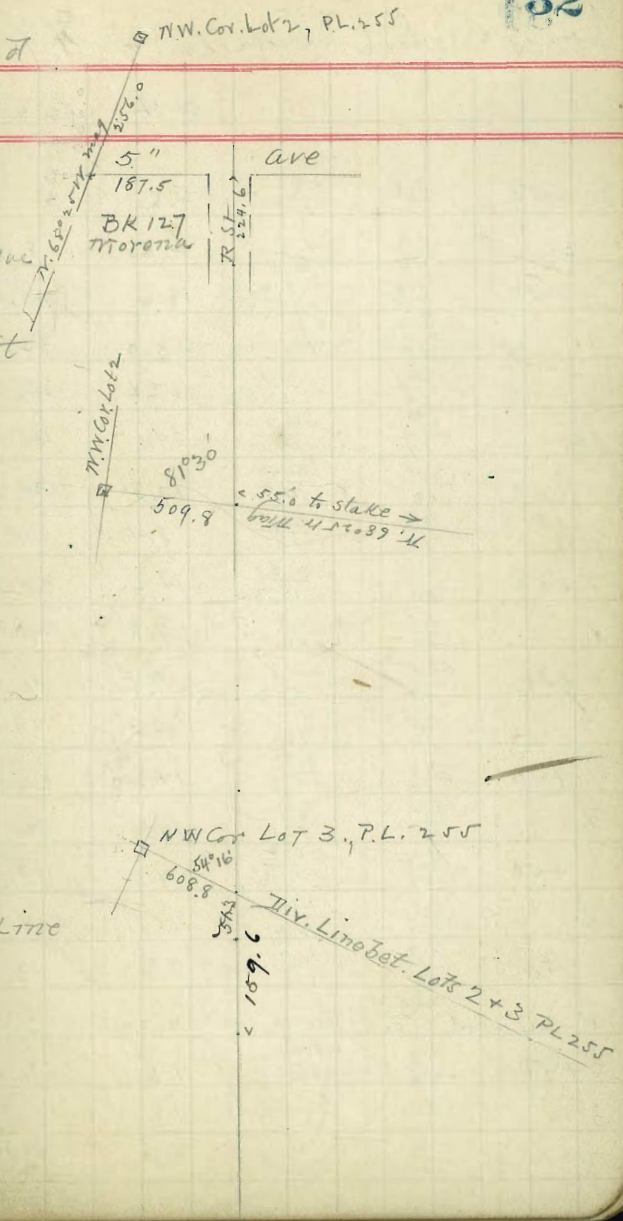
## Center Line for Right of Way to include "B" Line Road

| Sta. | R | L | Dist. | Mag. | |
|---|---|---|---|---|---|
| | | | | Not Corrected | |
| 5 | | 62.08 | 224.6 | S.8350W | to E. Side 5" ave |
| 4 | | 47°.00' | 155.0 | N34°W | to Cent "R" St |
| 3 | | 28°.27'.5 | 220.0 | N.13°.05'W | |
| 2 | 55°39'.5 | | 212.2 | N.41°35'E | |
| 1 | | ~~[illegible]~~ | ~~345~~ | ~~N14°04'W~~ | = 11+50 "B" Line |
| 12+58.3 "B" = 32+51.4 "AB" | 12°.03' | | 453.3 to sta 2 | N1404W | |
| ~~15+47 "B"~~ | ~~67°.23'~~ | | ~~397.0~~ | ~~N0.50W~~ | |
| ~~30+54.6 "A"~~ | | | | | |

32+51.4 "AB" = "A" line extended from 28+36.6

See p. 29





Cross-Section (Lower side) on 4% side hill portion of "B" Line

| | | | Sq ft | Cu yds |
|---|---|---|---|---|
| 12+50 | 0.8/10 | 1.0/11.5 | 4.60 | |
| 12 | 0.8/10 | 1.0/11.5 | 4.60 | 8.5 |
| +50 | 1.8/10 | 2.2/13.3 | 12.0 | 15.4 |
| 11 | 2.9/10 | 3.9/15.9 | 23.0 | 32.4 |
| +50 | 3.1/10 | 5.2/17.8 | 27.6 | 46.8 |
| 10 | 2.9/10 | 4.7/17 | 24.6 | 48.3 |
| +50 | 2.4/10 | 3.2/14.8 | 17.8 | 39.2 |
| 9 | 1.3/10 | 2.0/13 | 8.4 | 24.2 |
| +50 | 2.3/10 | 1.8/12.7 | 14.6 | 21.3 |
| 8 | 1.1/10 | 1.4/12.1 | 7.8 | 20.7 |
| +50 | 1.5/10 | 1.9/12.8 | 9.6 | 16.2 |
| 7 | 1.5/10 | 2.0/13. | 9.8 | 17.9 |
| +50 | 1.8/10 | 3.9/15.8 | 14.2 | 22.6 |
| 6 | 2.2/10 | 2.0/13 | 14.3 | 26.4 |
| +50 | 0.8/10 | 0.9/11.3 | 4.5 | 17.4 |
| 5 | 1.8/10 | 1.6/12.4 | 11.1 | 14.4 |
| +50 | 0.7/10 | 0.7/11 Spike | 3.8 | 13.8 |
| 4 Spike in Road | cut 0.2/10 | lev. on other side | 0.0 | 3.5 |
| +50 | 1.3/10 | 1.4/12.1 | 7.8 | 7.2 |
| 3 | 0.8/10 | 0.7/12 (hemlock) | 4.8 | 11.7 |
| 2+50 | 0.8/10 | 1.3/12 (") | 4.8 | 8.9 |
| | | | | 416.8 |

Stations are at grade
Fill on lower side only figured
20 ft roadbed

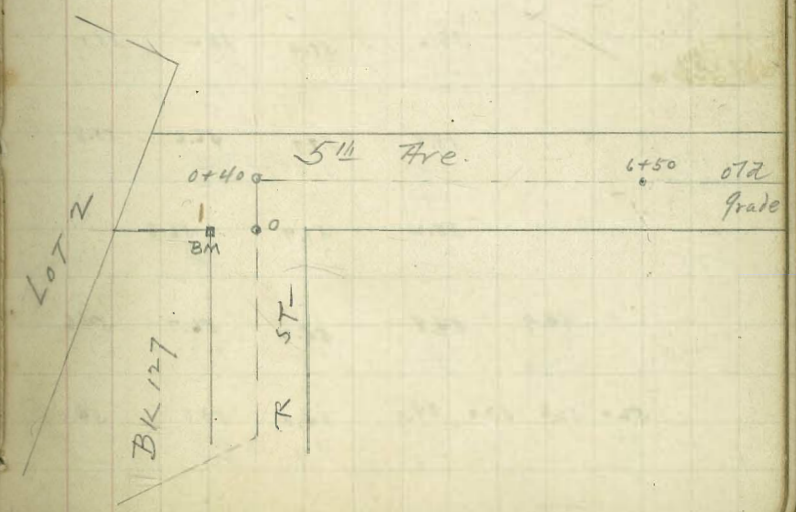
Levels - From Sta 0 - "B" Line to meet old Grade 5th Ave - Morena



Dec 14 '99

| Sta | B.S. | ⊕ | F.S. | | |
|---|---|---|---|---|---|
| | 8.97 | 68.97 | | | 60.00 |
| 0 | | | | | |
| +40 | (90° R) | | | 6.84 | 62.1 |
| 1 | | | | 6.8 | 62.2 |
| +50 | | | | 5.05 | 63.9 |
| 2 | | | | 2.97 | 66.0 |
| +50 | | | | 2.9 | 66.1 |
| 3 | | | | 4.7 | 64.3 |
| +50 | | | | 6.9 | 62.1 |
| 4 | | | | 9.6 | 59.4 |
| +50 | 4.21 | 61.39 | 11.79 | 11.79 | 57.18 |
| 5 | | | | 4.97 | 56.4 |
| +50 | | | | 5.0 | 56.4 |
| 6 | | | | 5.08 | 56.3 |
| +50 | | | | 4.5 | 56.9 |

Assumed El. N. Cor B127 ⊡
= Sta 0 - B line
= Cent 5th Ave



# M Street = Levels & X-Sections for Provisional Road 24 ft. wide

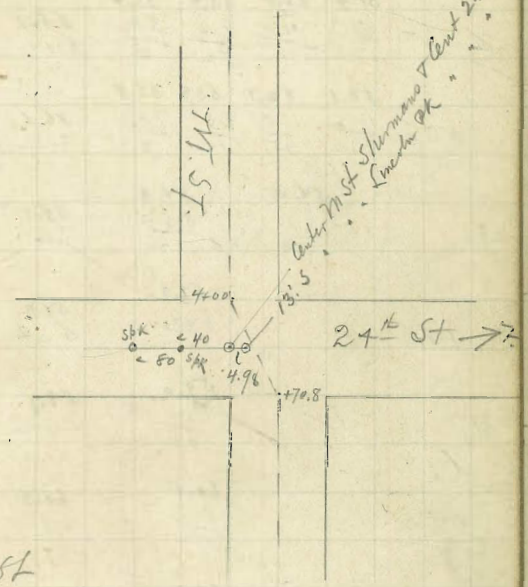
22' to 25h



| Sta | | | | | Center | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | | | 56.7 / 3.9 / 12 | | (60.65) 56.3 / 4.36 | 56.2 / 4.5 / 12 | | |
| + 50 | | 58.4 / 2.3 / 12 | 57.5 / 3.1 / 6 | 56.7 / 4.0 / 5 | 56.4 / 4.25 | 56.6 / 4.1 / 6 | 58.4 / 2.2 / 9 | 58.5 / 2.1 / 12 |
| 1 | | 59.1 / 1.6 / 12 | 58.0 / 2.6 / 7 | 56.7 / 3.94 / 5 | 56.6 / 4.1 | 56.2 / 4.4 / 5 | 59.3 / 1.4 / 9 | 59.0 / 1.6 / 12 |
| 50 | 58.7 / 1.95 / 12 | 58.2 / 2.45 / 8 | 56.6 / 4.1 / 6 | | 56.2 / 4.4 | 56.7 / 4.0 / 5 | 58.3 / 2.36 / 7 | 59.0 / 1.65 / 12 |
| 2 | 59.2 / 1.45 / 12 | 58.5 / 2.15 / 6 | 56.3 / 4.35 / 4 | | 56.2 / 4.43 | 56.0 / 4.65 / 5 | 58.0 / 2.7 / 9 | 58.0 / 2.6 / 12 |
| 50 | 56.0 / 4.6 / 12 | 55.4 / 5.2 / 5 | | | 56.1 / 4.55 | 55.1 / 5.55 / 5 | 56.4 / 4.25 / 9 | 56.4 / 4.25 / 12 |
| 3 | 54.5 / 6.2 / 20 | 54.9 / 5.75 / 12 | 54.4 / 6.25 / 8 | | 55.9 / 4.73 | 54.0 / 6.6 / 9 | 55.5 / 5.55 / 12 | 55.1 |
| 50 | 54.5 / 6.15 / 20 | 54.3 / 6.35 / 12 | 54.2 / 6.5 / 8 | | 54.2 / 6.5 | 53.3 / 7.3 / 12 | 53.6 / 7.1 / 20 | |
| 77 | 55.0 / 5.6 / 20 | 54.3 / 6.3 / 6 | | | 55.9 / 4.72 | 54.2 / 6.4 / 12 | 52.6 / 8.1 / 20 | |
| 4 | | 55.6 / 5.0 / 12 | | | 55.0 / 5.7 | 55.1 / 5.55 / 5 | 55.7 / 4.95 / 12 | |
| +35.4 | | | 58.0 / 2.7 / 12 | | 57.3 / 3.3 | 56.2 / 4.5 / 12 | 55.5 / 5.15 / 20 | |
| +70.8 = 0+00 | | | 58.8 / 1.9 / 12 | | 57.7 / 3.0 | 56.6 / 4.0 / 12 | 55.8 / 4.8 / 20 | |
| +25 | | | 58.2 / 2.4 / 12 | | 57.7 / 3.0 | 56.8 / 3.9 / 12 | | |
| +50 | | 54.9 / 5.8 / 20 | 54.8 / 5.8 / 12 | | 55.2 / 5.5 | 56.7 / 3.9 / 12 | 54.6 / 6.1 / 20 | |
| 1 | 52.0 / 8.6 / 20 | 52.3 / 8.4 / 14 | 53.0 / 7.6 / 12 | 54.0 / 6.6 / 10 | 54.0 / 6.7 | 53.8 / 6.8 / 12 | 54.0 / 6.7 / 20 | |

E. Side 22 St

BM no good 60.53 BM NW Cor M + 25
0.12 Water table House tack gone
~~0~~ 60.65




W. Side 24th St

E. Side 24th St

M St - 22d to 25

| | | | | Center | | |
|---|---|---|---|---|---|---|
| 1+50 | 51.8<br>11.4<br>20 | 51.8<br>11.4<br>12 | 53.9<br>9.3<br>8 | (63.24)<br>54.1<br>9.15 | 54.2<br>9.0<br>12 | 54.6<br>8.6<br>20 |
| 2 | 51.9<br>11.3<br>20 | 52.0<br>11.2<br>15 | 53.6<br>9.6<br>12 | 55.0<br>8.2<br>8 | 55.1<br>8.14 | 54.7<br>8.5<br>12 | 54.9<br>8.3<br>20 |
| +50 | 53.1<br>10.1<br>20 | 52.7<br>10.5<br>15 | 53.8<br>9.4<br>12 | 55.8<br>7.4<br>7 | 56.1<br>7.1 | 55.8<br>7.4<br>12 | 56.1<br>7.1<br>20 |
| 3 | 54.5<br>8.7<br>20 | | 54.9<br>8.36<br>12 | | 55.6<br>7.6<br>12 | 55.8<br>7.4<br>20 |
| +50 | | | 57.9<br>5.34<br>12 | 57.9<br>5.34 | 57.4<br>5.8<br>12 | |
| 4 | | | 59.0<br>4.2<br>12 | 58.7<br>4.55 | 58.2<br>5.0<br>12 | |
| +50 | | | 60.5<br>2.7<br>12 | 60.3<br>2.94 | 59.8<br>3.4<br>12 | |
| 5 | | | 61.0<br>2.2<br>12 | 60.8<br>2.4 | 60.3<br>2.9<br>12 | |
| +50 | | | 61.4<br>1.8<br>12 | 61.0<br>2.2 | 60.5<br>2.7<br>12 | |
| 6 | | | 61.2<br>2.0<br>12 | 60.7<br>2.5 | 59.9<br>3.3<br>12 | |
| +50 | | | 61.5<br>1.7<br>12 | 61.2<br>2.08 | 60.9<br>2.34<br>12 | |



(Cont.)

~~0~~ 60.65
6.13
54.52
8.72
~~0~~ 63.24
0.69
62.55
= 62.45 BM N.W. Cor M + 25th
Spk in plug

Mn St. 22d St West to 16th St



| Sta | | | | Center | | | |
|---|---|---|---|---|---|---|---|
| Cent 22 St | | 54.5<br>7.56<br>12 | | (62.06)<br>56.0<br>6.1 | 56.0<br>6.05<br>12 | | |
| 0+00 | 54.4<br>7.64<br>12 | 55.0<br>7.1<br>7 | 56.1<br>5.95<br>4 | 56.3<br>5.8 | 55.8<br>6.3<br>4 | 56.1<br>6.0<br>12 | |
| +50 | 56.7<br>5.4<br>12 | 56.9<br>5.2<br>8 | 56.0<br>6.1<br>6 | 56.2<br>5.9 | 56.3<br>5.77<br>4 | 57.2<br>4.90<br>6 | 57.3<br>4.77<br>12 |
| 1 | 57.3<br>4.8<br>12 | 57.2<br>4.9<br>7 | 56.1<br>6.0<br>5 | 56.2<br>5.9 | 57.0<br>5.1<br>5 | 58.2<br>3.83<br>7 | 58.4<br>3.7<br>12 |
| +50 | 56.5<br>5.6<br>12 | 56.2<br>5.85<br>7 | 55.8<br>6.27<br>6 | 56.0<br>6.05 | 56.3<br>5.76<br>4 | 57.7<br>4.4<br>6 | 57.7<br>4.4<br>12 |
| 2 | | 55.5<br>6.53<br>12 | | 55.9<br>6.17 | 56.1<br>6.0<br>12 | | |
| 40 | | 55.1<br>6.95<br>12 | | 55.9<br>6.15 | 55.7<br>6.34<br>12 | | |
| 80<br>=0+00 | 53.3<br>8.8<br>20 | 54.2<br>7.9<br>12 | 55.9<br>6.2<br>4 | 56.3<br>5.75 | 55.5<br>6.6<br>3 | 55.7<br>6.4<br>12 | |
| +50 | 53.5<br>8.6<br>20 | 53.6<br>8.45<br>12 | 53.5<br>8.55<br>7 | 55.9<br>6.2<br>3 | 56.1<br>6.0 | 55.9<br>6.2<br>3 | 54.9<br>7.12<br>5 | 55.3<br>6.8<br>12 |
| 1 | 54.4<br>7.64<br>20 | 54.1<br>8.0<br>12 | 54.0<br>8.1<br>6 | 55.9<br>6.2<br>3 | 56.2<br>5.9 | 56.0<br>6.1<br>3 | 54.9<br>7.2<br>7 | 55.4<br>6.65<br>12 |
| +50 | 54.4<br>7.65<br>20 | 53.9<br>8.15<br>12 | 54.0<br>8.1<br>6 | 56.3<br>5.8<br>3 | 56.3<br>5.75 | 56.1<br>6.0<br>3 | 55.8<br>6.3<br>12 | |

56.36 BM NE. Cor. Mt 21 St
5.70
62.06

W. Side 22d St

E. Side 21 St

W Side 21 St.

M St - 22d West to 16th (Cont)

| Sta. | | | Center | | |
|---|---|---|---|---|---|
| 2+00 | | 56.0 / 6.1 / 12 | (62.06) 56.8 / 5.3 | 56.6 / 5.5 / 12 | |
| 40 | 57.7 / 4.33 / 12 | | 57.4 / 4.67 | 57.6 / 4.5 / 12 | |
| 80 | | 58.1 / 4.0 / 12 | 58.1 / 4.0 | 58.1 / 3.93 / 12 | |
| = 0+00 | | | | | |
| +50 | 60.9 / 1.2 / 12 | 61.0 / 1.1 / 6 | 59.0 / 3.1 / 5 | 59.2 / 2.91 | 60.7 / 1.36 / 7 | 60.8 / 1.26 / 12 |
| 1 | 62.5 / 2.1 / 12 | 62.7 / 1.9 / 8 | 61.2 / 3.34 / 7 | (64.58) 61.4 / 3.17 | 62.2 / 2.4 / 12 | |
| +50 | 63.1 / 1.45 / 12 | 63.3 / 1.25 / 9 | 61.2 / 3.33 / 9 | 62.1 / 2.45 | 62.4 / 2.2 / 12 | |
| 2 | 61.6 / 3.0 / 12 | | 60.7 / 3.86 / 7 | 60.9 / 3.7 | 61.6 / 3.0 / 12 | |
| +17 | 60.8 / 3.8 / 12 | 59.5 / 5.1 / 7 | | 59.6 / 4.96 | 60.4 / 4.2 / 12 | |
| +25 | 60.7 / 3.9 / 12 | 60.1 / 4.5 / 9 | 57.4 / 7.2 / 6 | 57.4 / 7.2 | 59.8 / 4.8 / 12 | |
| +40 | 58.4 / 6.2 / 12 | | 57.2 / 7.4 / 6 | 56.8 / 7.8 | 57.5 / 7.1 / 10 | 58.5 / 6.1 / 12 |
| +80 | 55.9 / 8.73 / 12 | | 54.6 / 10.0 / 6 | 54.6 / 10.0 | 54.7 / 9.9 / 5 | 57.1 / 7.5 / 12 |
| = 0+00 | | | | | | |



E. Side 20th St

62.06 Entd ✓
362
58.44 Nozzle Hydrant
New. BM NE. Cor M + 20

W " " "

~~0~~ 62.06
106
61.00
358
~~0~~ 64.58

Spike placed in Cent. line M St about 40' E of 19th on hill opposite inside line of Dulin's West porch

E Side 19th St

W. Side 19th St

M St - 22nd West to 16th

| | | | Center | | |
|---|---|---|---|---|---|
| 0+50 | 53.9<br>10.67<br>12 | 52.8<br>11.8<br>8 | (64.58)<br>52.6<br>12.0 | 52.9<br>11.7<br>5 | 53.8<br>10.8<br>7 | 54.1<br>10.47<br>12 |
| 1 | 50.7<br>2.34<br>12 | | (53.05)<br>50.4<br>2.62 | | 50.6<br>2.43<br>12 | |
| +50 | | 47.6<br>5.4<br>12 | 48.1<br>5.0 | | 47.8<br>5.2<br>12 | |
| 2 | 44.0<br>9.1<br>20 | 44.4<br>8.6<br>12 | 44.8<br>8.23<br>8 | 46.6<br>6.5<br>3 | 46.6<br>6.47 | 46.4<br>6.4<br>3 | 45.0<br>8.1<br>7 | 44.8<br>8.3<br>12 | 45.0<br>8.0<br>20 |
| +40 | 42.0<br>11.0<br>20 | | 42.2<br>10.8<br>12 | 45.0<br>8.1<br>4 | 45.2<br>7.9 | 44.8<br>8.2<br>3 | 42.2<br>10.9<br>12 | 43.2<br>9.8<br>20 |
| +80<br>= 0+00 | 39.2<br>13.8<br>20 | 39.6<br>13.4<br>12 | 40.0<br>13.0<br>8 | 43.2<br>9.8<br>3 | 43.6<br>9.46 | 43.4<br>9.6<br>3 | 40.2<br>12.8<br>12 | 40.2<br>12.8<br>20 |
| +50 | 37.0<br>5.3<br>20 | | 37.6<br>4.7<br>12 | 41.5<br>0.80<br>3 | (42.35)<br>41.7<br>0.7 | 41.5<br>0.87<br>2 | 37.6<br>4.8<br>12 | 37.6<br>4.8<br>20 |
| 1 | 36.2<br>6.13<br>20 | | 36.4<br>6.0<br>12 | 38.1<br>4.25<br>8 | 38.4<br>3.9 | 37.4<br>5.0<br>12 | | |
| +50 | 37.0<br>5.3<br>12 | | | | 37.4<br>4.9 | 37.4<br>4.9<br>12 | | |
| 2+00 | 35.4<br>7.0<br>12 | | | | 36.2<br>6.2 | 36.0<br>6.3<br>12 | | |
| 40 | | | 34.0<br>8.4<br>12 | | 34.5<br>7.8 | 34.7<br>7.7<br>12 | | |

(Cont.)



E. Side 18th St

~~0~~ 64.58
11.54
53.04
0.01
~~0~~ 53.05
10.87
42.18
0.17
~~0~~ 42.35

W Side 18th St

E Side 17th St

M St. 22d West to 16th

| | | | | | |
|---|---|---|---|---|---|
| | | 33.2 | (42.35) | 33.9 | |
| + 80 | | 9.15 | 33.8 | 8.42 | |
| = 6+00 | | 12 | 8.57 | 12 | |
| | | 32.0 | | 32.1 | |
| + 50 | | 10.35 | 32.1 | 10.25 | |
| | | 12 | 10.25 | 12 | |
| | | 30.0 | 29.8 | 29.4 | |
| 1 | | 12.5 | 12.5 | 13.0 | |
| | | 12 | | 12 | |
| | | 22.6 | (30.75) | 22.3 | |
| + 50 | | 8.17 | 22.6 | 8.45 | |
| | | 12 | 8.11 | 12 | |
| | | 17.5 | (23.82) | 17.9 | |
| 2+00 | | 6.36 | 17.1 | 5.92 | |
| | | 12 | 6.72 | 12 | |



(Cont'd)

W. Side 17th St.

- 42.35
- 11.86
- 30.49
- 0.26
- 30.75
- 10.07
- 20.68
- 3.14
- 23.82
- 5.63
- 18.19
- = 18.14

BM. M & 16th St.

# M St

Provisional Road - 24 ft wide

| Sta | | Rod | El. | Gr | Cut | Fill |
|---|---|---|---|---|---|---|
| 0 | | | 56.3 | 56.8 | | 0.5 |
| +50 | | | 56.4 | 56.7 | | 0.3 |
| 1 | | | 56.6 | 56.7 | | 0.1 |
| +50 | | | 56.2 | 56.6 | 0.125 | 0.4 |
| 2 | | | 56.2 | 56.6 | | 0.4 |
| +50 | | | 56.1 | 56.5 | | 0.4 |
| 3 | | | 55.9 | 56.4 | | 0.5 |
| +50 | | | 55.8 | 56.4 | | 0.6 |
| +77 | | | 55.9 | 56.3 | | 0.4 |
| 4 | | | 55.0 | 56.3 | | 1.3 |
| +35.4 | | | 57.3 | 56.3 | 1.0 | |
| +60.0 (=+70.8) | | | 57.7 | 56.3 | 1.4 | |
| +85 | | | 57.7 | 56.2 | 1.5 | |
| 5+10 | | | 55.2 | 56.1 | | 0.9 |
| +60 | | | 54.0 | 55.8 | 0.50 | 1.8 |
| 6+10 | | | 54.1 | 55.6 | | 1.5 |
| +60 | | | 55.1 | 55.3 | | 0.2 |
| 7+10 | | | 56.1 | 56.1 | | 0.0 |
| +60 | | | 55.6 | 56.9 | | 1.3 |
| 8+10 | | | 57.9 | 57.7 | 1.625 | 0.2 |
| 8+60 | | | 58.7 | 58.5 | | 0.2 |



22 St to 32 St

E. side 22nd St

April 1900

Bm NE M+21 56.36
4.77
61.13
485
56.28
6.45
62.73

W. Side 24th St

E " " "

# M St. Original Grade

| | | Rod | El. | Gr. | Cut | Fill |
|---|---|---|---|---|---|---|
| 9+10 | | | 60.3 | 59.4 | 0.9 | |
| +60 | | | 60.8 | 60.2 | 0.6 | |
| 10+10 | | | 61. | 61. | 0.0 | |
| +60 | | | 60.7 | 61.8 | | 1.1 |
| 11+10 | | | 61.2 | 62.1 | | 0.9 |
| +60 | | (69.06) 6.0 | 63.1 | 62.3 | 0.8 | |
| 12+10 | | 5.6 | 63.5 | 62.8 | 0.7 | |
| +60 | | 5.04 | 64.0 | 63.3 | 0.7 | |
| 13+10 | | 5.1 | 64.0 | 63.7 | 0.3 | |
| +60 | | 4.6 | 64.5 | 64.3 | 0.2 | |
| 14+10 | | 4.5 | 64.6 | 64.2 | 0.4 | |
| +60 | | 4.6 | 64.5 | 64.2 | 0.3 | |
| 15+10 | | 4.73 | 64.3 | 64.1 | 0.2 | |
| +60 | | 4.43 | 64.6 | 64.0 | 0.6 | |
| 16+10 | | 4.6 | 64.5 | 64.0 | 0.5 | |
| +60 | | 4.5 | 63.6 | 63.9 | | 0.3 |
| 17+10 | | 6.03 | 63.0 | 63.8 | | 0.8 |
| +20 | | 6.04 | 63.0 | 63.8 | | 0.8 |
| +50 | | 6.2 | 62.9 | 63.6 | | 0.7 |
| +80 | | 6.3 | 62.8 (68.70) | 63.5 | | 0.7 |
| 18+30 | | 6.0 | 63.7 | 63.2 | 0.5 | |



# 22d St to 32 St

W. Side 25th St — Bm NW. Cor M & 25th 62.45 old Elevation

E " " "

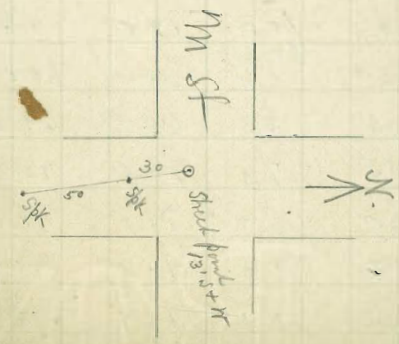
62.73
0.32
62.41
6.65
69.06
5.18
63.88 Bm

old Bm. NW. M & 25th

69.06
5.18
63.88 old Bm NE M & 26

482
68.70

W. Side 26th St




E " " "

M St

| | Rod | El. | Gr | Cut | Fill |
|---|---|---|---|---|---|
| | (68.70) | | | | |
| 18+80 | 4.4 | 64.3 | 62.9 | 1.4 | |
| 19+10 | 5.6 | 63.1 | 62.7 | 0.4 | |
| +30 | 6.3 | 62.4 | 62.6 × | | 0.2 |
| +80 | 7.6 | 61.1 | 62.9 | | 1.8 |
| 20+30 | 7.2 | 61.5 | 63.2 | | 1.7 |
| +80 | 6.9 | 61.8 | 63.5 | | 1.7 |
| 21+30 | 6.2 | 62.5 | 63.8 | | 1.3 |
| +80 | 5.5 | 63.2 | 64.2 | | 1.0 |
| 22+30 | 4.7 | 64.0 | 64.5 | | 0.5 |
| +80 | 4.6 | 64.1 | 64.8 | | 0.7 |
| 23+30 | 4.2 | 64.5 | 65.1 × | | 0.6 |
| +80 | 3.8 | 64.9 | 65.9 | | 1.0 |
| 24+25 | 3.4 | 65.3 | 66.6 | | 1.3 |
| +75 | 1.3 | 67.4 | 67.4 | 00 | |
| 25+25 | 0.5 | 68.2 | 68.2 | 00 | |
| +65 | (77.81) 8.9 | 69.1 | 68.8 | 0.3 | |
| 26+05 | 8.3 | 69.5 | 69.5 | 00 | |
| +55 | 7.0 | 70.8 | 70.3 | 0.5 | |
| 27+05 | 6.7 | 71.1 | 71.1 | 00 | |
| +55 | 6.0 | 71.8 | 71.9 | | 0.1 |
| 28+05 | 5.1 | 72.7 | 72.7 × | 00 | |



22d to 32d St

19+70 2×4 box

~~0~~ 68.70
0.72
67.98
9.83
~~0~~ 77.81

W. Side 27th St

E " " "

W. Side 28th St

W. Side 29th St

# M St.

| | Rod | El | Grade | | |
|---|---|---|---|---|---|
| | (7781) | | | | |
| 28+45 | 4.8 | 73.0 | 72.8 | 0.2 | |
| +85 | 4.6 | 73.24 | 72.96 | 0.3 | |
| 29+35 | 4.0 | 73.8 | 73.1 | 0.6 | |
| +85 | 4.2 | 73.6 | 73.3 | 0.3 | |
| 30+35 | 4.3 | 73.5 | 73.5 | 0.0 | |
| +85 = 2+00 | 4.2 | 73.6 | 73.7 | | 0.1 |
| | (79.40) | | | | |
| 2+00 | 7.4 | 72.0 | 73.68 | 0.36 | 1.7 |
| +50 | 5.86 | 73.54 | 73.86 | | 0.3 |
| 3 | 4.4 | 75.0 | 74.0 | 1.0 | |
| +50 | 4.9 | 74.4 | 74.2 | 0.2 | |
| 4 | 5.1 | 74.3 | 74.4 | | 0.1 |
| +50 | 5.05 | 74.4 | 74.6 | | 0.2 |
| 5 | 5.2 | 74.2 | 74.3 | | 0.1 |
| +50 | 5.8 | 73.6 | 74.1 | | 0.5 |
| | (76.77) | | | | |
| 6 | 2.4 | 74.4 | 73.8 | 0.6 | |
| +50 | 2.6 | 74.2 | 73.6 | 0.6 | |
| 7 | 2.8 | 74.0 | 73.4 | 0.6 | |
| +50 | 3.5 | 73.3 | 73.1 | 0.2 | |
| 8 | 4.5 | 72.3 | 72.9 | | 0.6 |
| +73.5 = 0+00 | 5.5 | 71.3 | 72.5 | | 1.2 |



# 22d to 32d St.

77.81
2.37
75.44

E. Side 29d St.
(New BM Spk in Hitching post
(N. Side M St — ft E. of W. Line Fenn Tract

W. Side Fenn Tract

75.44
3.96
79.40
4.57
74.83
1.94
76.77
1.91
74.86

Note.
Road through Fenn Tract
Graded by City.
22d St to Fenn Tract and Fenn
Tract to 32d St by Engebret Contr.

Old BM S. M + 30th

E. Side Fenn Tract

M St

22d St to 32d St

| Sta | Rod | El. | Gr | Cut | Fill |
|---|---|---|---|---|---|
| 8+73.5 | (7881) | | | | |
| 1 = 0+00 | 6.55 | 72.2 | 72.5 | | 0.3 |
| +50 | 7.7 | 71.1 | 72.3 | | 1.2 |
| 1 | 7.5 | 71.3 | 72.1 | | 0.8 |
| +50 | 8.3 | 70.5 | 71.8 | | 1.3 |
| 1 2 | 7.3 | 71.5 | 72.1 | | 0.6 |
| +50 | 6.8 | 72.0 | 72.5 | | 0.5 |
| 3 | 6.1 | 72.7 | 72.9 | | 0.2 |
| +50 | 5.8 | 73.0 | 73.2 | | 0.2 |
| 4 | 5.7 | 73.1 | 73.6 | | 0.5 |
| 1 +50 | 5.1 | 73.7 | 73.9 | | 0.2 |
| 5 | 5.2 | 73.6 | 74.3 | | 0.7 |
| +50 | 4.6 | 74.2 | 74.6 | +0.7 | 0.4 |
| 2 6 | 3.6 | 75.2 | 75.0 | 0.2 | |
| +30 | 3.4 | 75.4 | 75.2 | 0.2 | |
| +60 | 3.1 | 75.7 | 75.4 | 0.3 | |
| 7+10 | 2.6 | 76.2 | 75.8 | 0.4 | |
| +60 | 2.3 | 76.5 | 76.1 | 0.4 | |
| 2 8+10 | 1.8 | 77.0 | 76.5 | 0.5 | |
| +60 | 2.6 | 76.2 | 76.8 | | 0.6 |
| 9+10 | 2.8 | 76.0 | 77.2 | | 1.2 |
| +60 | 1.5 | 77.3 | 77.1 | 0.2 | |

E. Side Fenn Tract

⊙ Spike

Bm 30th & M

74.86
3.95
78.81

N. Side 30th St

E " " "

# M St

| Sta | | Rod | El. | Gr | Cut | Fill |
|---|---|---|---|---|---|---|
| | | (78.81) | | | | |
| 10+10 | | 1.7 | 77.1 | 76.9 | 0.2 | |
| | | (82.08) | | | | |
| +60 | | 5.3 | 76.8 | 76.8 | 00 | |
| 11+10 | | 5.7 | 76.4 | 76.7 | | 0.3 |
| +60 | | 6.5 | 75.6 | 76.6 | | 1.0 |
| 12+10 | | 6.7 | 75.4 | 76.4 | | 1.0 |
| +60 | | 6.4 | 75.7 | 76.3 | +0.25 | 0.6 |
| +90 | | 6.2 | 75.9 | 76.2 | | 0.3 |
| 13+20 | | 5.9 | 76.2 | 76.2 | 00 | |
| +70 | | 5.3 | 76.8 | 76.1 | 0.7 | |
| 14+20 | | 6.1 | 76.0 | 75.9 | 0.1 | |
| +70 | | 7.0 | 75.1 | 75.8 × | | 0.7 |
| 15+20 | | 7.0 | 75.1 | 76.1 | | 1.0 |
| +70 | | 6.7 | 75.4 | 76.4 | +0.6 | 1.0 |
| 16+20 | | 5.8 | 76.3 | 76.7 | | 0.4 |
| +70 | | 5.7 | 76.4 | 77.0 | | 0.6 |
| 17+20 | | 4.5 | 77.6 | 77.3 × | 0.3 | |
| +70 | | 4.7 | 77.4 | 76.6 | 0.8 | |
| +95 | | 5.3 | 76.8 | 76.3 | 0.5 | |
| 18+10 | | | | | 00 | |
| 19+20 | | | | | | |



# 22d St to 32d St

~~0~~ 78.81
1.03
77.78
4.30
~~0~~ 82.08
4.97
77.11

W. Side 31 St
E " " "

New BM Spike in Corner fence post N. Side M about 225 ft. W. of 32 St

82.08
4.12
77.96 New BM Spk in Elec Light Pole S. Side M St about 175' W of 32d

82.08
6.91
75.17 Old BM Spk in Tel Pole near S. E. Cor. M + 32 St

$498.00 ?

Grade Cemetery Road

Engebret, Contr

Grade Checked and Accepted Apl 25 1900
22d to 32 St

W. Side 32d St

# Survey for Provisional Road on 32° St – R to Logan "A" line

See p. 70

| | | W. | Center | E. | |
|---|---|---|---|---|---|
| 15+60 | | 55.0<br>0.3<br>12 | (55+35)<br>54.9<br>0.44 | 54.9<br>0.5<br>12 | |
| 15+20 | | 52.0<br>3.3<br>12 | 52.8<br>2.6 | 52.9<br>2.5<br>12 | |
| 14+80 | | 51.3<br>4.1<br>12 | 51.3<br>4.0 | 51.6<br>3.7<br>12 | |
| +70 | | | 51.0<br>4.3 | | Among trees on lot |
| 14+20 | | | 48.8<br>6.5 | | |
| 13+70 | | | (49.33)<br>4.1 45.2 | | |
| 13+20 | | 40.6<br>0.6 lower | 41.2<br>8.1 | 41.3<br>0.1 higher | |
| +80 | | 36.2<br>2.6<br>12 | (38.80)<br>38.0<br>0.8 | 38.9<br>-0.1<br>12 | |
| +50 | | 30.0<br>8.8<br>12 | 28.8<br>10.0 | 26.8<br>12.0<br>12 | |
| +32 | | 23.0<br>4.3<br>12 | (27.27)<br>22.4<br>4.9 | 21.6<br>5.7<br>12 | Edge bank |
| 12+22 | | 17.0<br>10.3<br>30 16.0<br>11.3<br>12 | 16.5<br>10.8 | 16.0<br>11.3<br>12 | 15.1<br>12.2<br>30 |

BM 31+ Nat l 71.97
5.75
0 77.72 ✓
11.96
65.76 TP
0.37
0 66.13
11.26
54.87
0.48
0 55.35
6.55
48.80 TP
0.53
0 49.33
11.86
36' W 12+70 — 37.47 TP
1.33
0 38.80
11.91
T.P. Nail Near 13+50 26.89
0.38
0 27.27

{Cent. 32° St. produced from Central Homestead and S. Side Logan ave}

Cent Logan

fence line New BM Spk Fence Post SE Logan × 32°

# 32° R to Logan

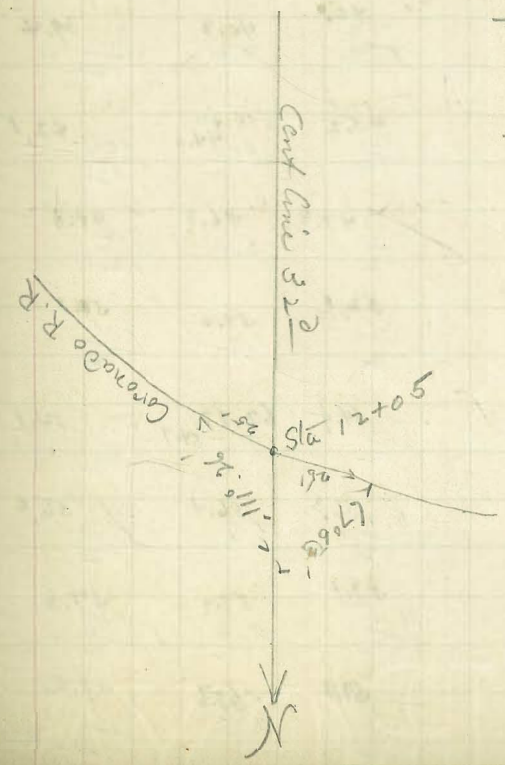
| | | W | C | E | |
|---|---|---|---|---|---|
| 12+05 | | 17.7<br>9.6<br>30 | 17.4<br>9.9<br>12 | (27.27)<br>17.2<br>10.1 | 17.0<br>10.3<br>12 | 16.6<br>10.7<br>30 |
| 11+99 | | | | 16.2<br>11.1 | | |
| +85 | | 12.4<br>9.3<br>30. | 10.9<br>10.8<br>12 | (21.70)<br>11.1 10.6 | 10.5<br>11.2<br>12 | 10.3<br>11.4<br>35 |
| +50 | | 11.1<br>10.6<br>30 | 12.0<br>9.7<br>12 | 12.2<br>9.5 | 12.1<br>9.6<br>12 | 12.6<br>9.1<br>30 |
| 11 | | 16.8<br>4.9<br>25 | 18.1<br>3.6<br>12 | 19.4<br>2.3 | 20.8<br>0.9<br>12 | |
| +50 | | 46<br>12 | 28.1 | (32.67)<br>3.6 29.1<br>(43.20) | 3.44<br>12 | 29.2 |
| 10 | | | 32.9<br>10.3<br>12 | 33.2<br>10.0 | 9.7<br>12 | 33.5 |
| +50 | | | 35.8<br>7.4<br>12 | 35.6<br>7.6 | 7.8<br>12 | 35.4 |
| 9 | | | 38.0<br>5.2<br>12 | 38.2<br>5.0 | 38.5<br>4.7<br>12 | |
| +50 | | | 38.8<br>4.4<br>12 | 39.2<br>4.0 | 39.6<br>3.6<br>12 | |
| 8 | | | 40.6<br>2.6<br>12 | 40.7<br>2.5 | 41.0<br>2.2<br>12 | |



"A" Line

Cent Cno. B.R.R.

| | |
|---|---|
| | ~~0~~ 27.27 |
| | 10.48 |
| Spt in Tie Cent line outside N. end | 16.79 |
| | 491 |
| | ~~0~~ 21.70 |
| | 052 |
| | 21.18 |
| | 11.49 |
| | ~~0~~ 32.67 |
| | 0.62 |
| | 32.05 |
| | 11.15 |
| | ~~0~~ 43.20 |



32° R to Logan

| | | | | |
|---|---|---|---|---|
| 7+50 | | 41.3 / 1.9 / 12 | (43.20) 41.1 / 2.1 | 40.9 / 2.3 / 12 |
| 7 | | 39.4 / 3.8 / 12 | 39.0 / 4.2 | 38.7 / 4.5 / 12 |
| +50 | | 38.9 / 4.3 / 12 | 38.0 / 5.2 | 37.2 / 6.0 / 12 |
| 6 | | 42.0 / 1.2 / 12 | 40.8 / 2.4 | 39.4 / 3.8 / 12 |
| +50 | | 45.2 / 7.0 / 12 | (52.20) 44.0 / 8.2 | 42.1 / 10.1 / 12 |
| 5 | | 47.8 / 4.4 / 12 | 46.8 / 5.4 | 44.8 / 7.4 / 12 |
| +50 | | 52.1 / 0.1 / 12 | 51.0 / 1.2 | 50.1 / 2.1 / 12 |
| 4 | | 54.9 / 7.3 / 12 | (62.17) 54.7 / 7.5 | 54.1 / 8.1 / 12 |
| +50 | | 56.3 / 5.9 / 12 | 56.4 / 5.8 | 56.6 / 5.6 / 12 |
| 3 | | 57.7 / 4.5 / 12 | 57.7 / 4.5 | 57.8 / 4.4 / 12 |
| 2+50 | | 59.4 / 2.8 / 12 | 58.7 / 3.5 | 58.5 / 3.7 / 12 |



43.20
1.92
41.28 Near Bm. Spk in fence Cor

opposite Gate near N. line "Villa Marguerite"

~~0~~ 43.20
1.98
41.22
10.98
~~0~~ 52.20 ✓
0.80
51.40
10.77
~~0~~ 62.17 ✓

32° — R to Logan

| | | W | Cent | E | |
|---|---|---|---|---|---|
| 2 | | 61.1 / 1.1 / 12 | (62.17) 60.6 / 1.6 | 60.0 / 2.2 / 12 | |
| +50 | | 60.9 / 1.3 / 12 | 60.0 / 2.2 | 59.6 / 2.6 / 12 | Spike Cent 32 ft + N. line R — 62.17 + 0.84 = 61.23 BM |
| 1 | | 56.7 / 5.5 / 12 | 56.4 / 6.8 | 55.8 / 6.4 / 12 | |
| 50 | 54.3 / 7.9 / 20 | 54.3 / 7.9 / 12 | 54.2 / 8.0 | 54.5 / 7.7 / 12 | 54.4 / 7.8 / 20 |
| 0+00 | | 58.7 / 3.5 / 12 | 58.5 / 3.7 | 59.1 / 3.1 / 12 | Cent 32° + R 86 |

# Provisional Road on 32d St = "B" Line

| Sta. | | Rod | Et. | | |
|---|---|---|---|---|---|
| | (N. side Logan and 32d St | (55.75) | | BM 32+Logan | 54.87 |
| | | | | | 0.88 |
| 0+00 (Cent) | | 5.4 | 50.4 | -0 | 55.75 |
| | | | | | 11.38 |
| +50 | | 8.75 | 47.0 | | 44.37 |
| | | (44.63) | | | 0.26 |
| 1 | | 2.7 | 41.9 | -0 | 44.63 |
| | | | | | 10.88 |
| +50 | | 5.0 | 39.6 | | 33.75 |
| | | | | | 1.54 |
| +62.3 | 60°38' R. | 5.7 | 38.9 | -0 | 35.29 |
| 2 | | 5.4 | 39.2 | | 12.00 |
| | | | | | 23.29 |
| +20 | | 7.5 | 37.1 | | 0.76 |
| | | (35.29) | | | |
| +50 | | 6.9 | 28.4 | -0 | 24.05 |
| | | (24.05) | | | 7.74 |
| +64 = 12+29.6 "A" | | 2.64 | 21.4 | | 16.81 |
| on highest rail | | 6.65 | 17.4 | | BM on Tie ✓ |



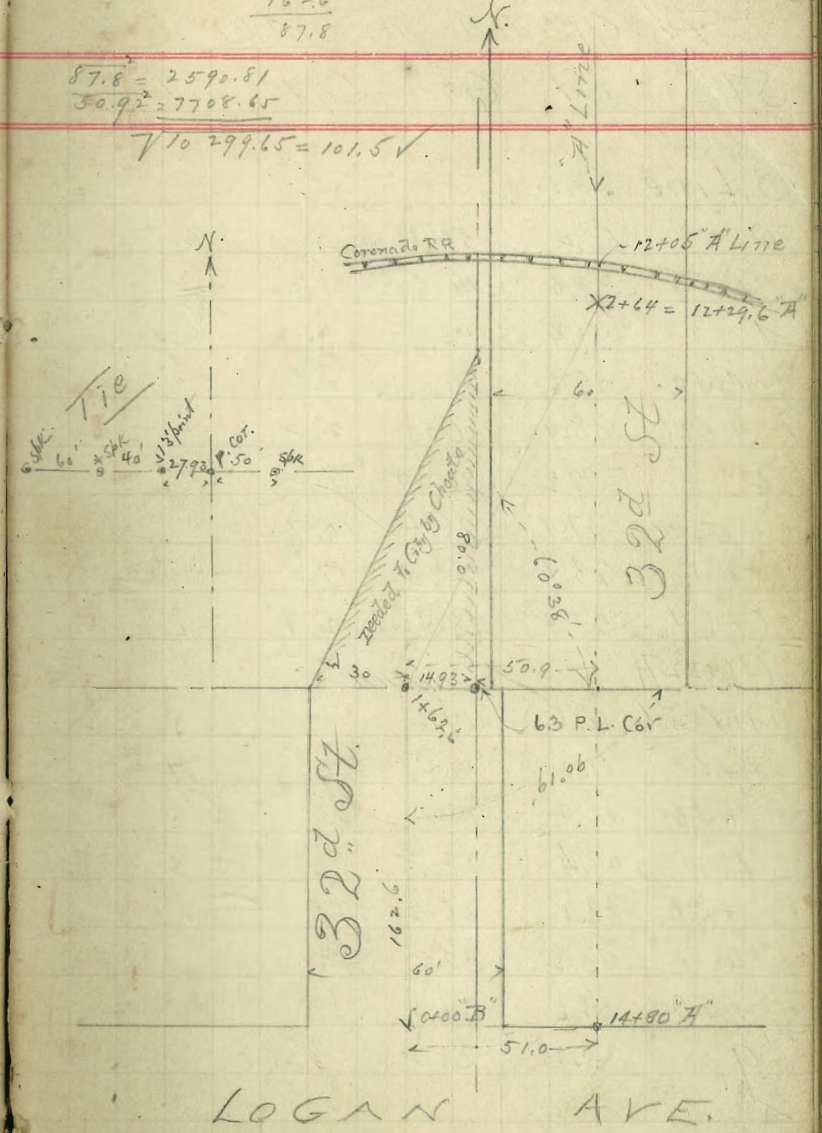
Apl 16 1900

Ramsey & Williams

264.
162.5
101.5

14.80
12+29.6
2.504
162.6
87.8

$87.8^2 = 2590.81$
$50.9^2 = 2708.65$
$\sqrt{10\ 299.65} = 101.5$ ✓



Provisional Grade 32d St.

As graded per Order City Council - by City Force

| Sta | El | Grade | Cut | Fill |
|---|---|---|---|---|
| "B" Line | | | | |
| 0 | 50.4 | 50.5 | | 0.1 |
| +50 | 47.0 | 46.67 | 0.3 | |
| 1 | 41.9 | 42.8 | | 0.9 |
| +50 | 39.6 | 39.00 × | 0.6 | |
| +62.6 | 38.9 | 36.73 | 2.2 | |
| 2 | 39.2 | 30.00 | 9.2 | |
| +20 | 37.1 | 36 | 10.7 | |
| +50 | 28.4 | 21.0 | 7.4 | |
| (+64 | 21.4 | 18.48 | 2.9 | |
| = (12+22 "A" | | | | |
| 11+85 | 10.6 | 17.4 | | 6.8 |
| +60 | 11.7 | 17.4 | | 5.7 |
| +50 | 12.2 | 18.2 | | 6.0 |
| 11 | 19.4 | 22.2 | | 2.8 |
| +50 | 29.1 | 26.2 | 29 | |
| 10 | 33.2 | 30.2 | 3.0 | |
| +50 | 35.6 | 34.2 | 1.4 | |
| 9 | 38.2 | 38.2 | 00 | |



Logan Ave across Coronado RR

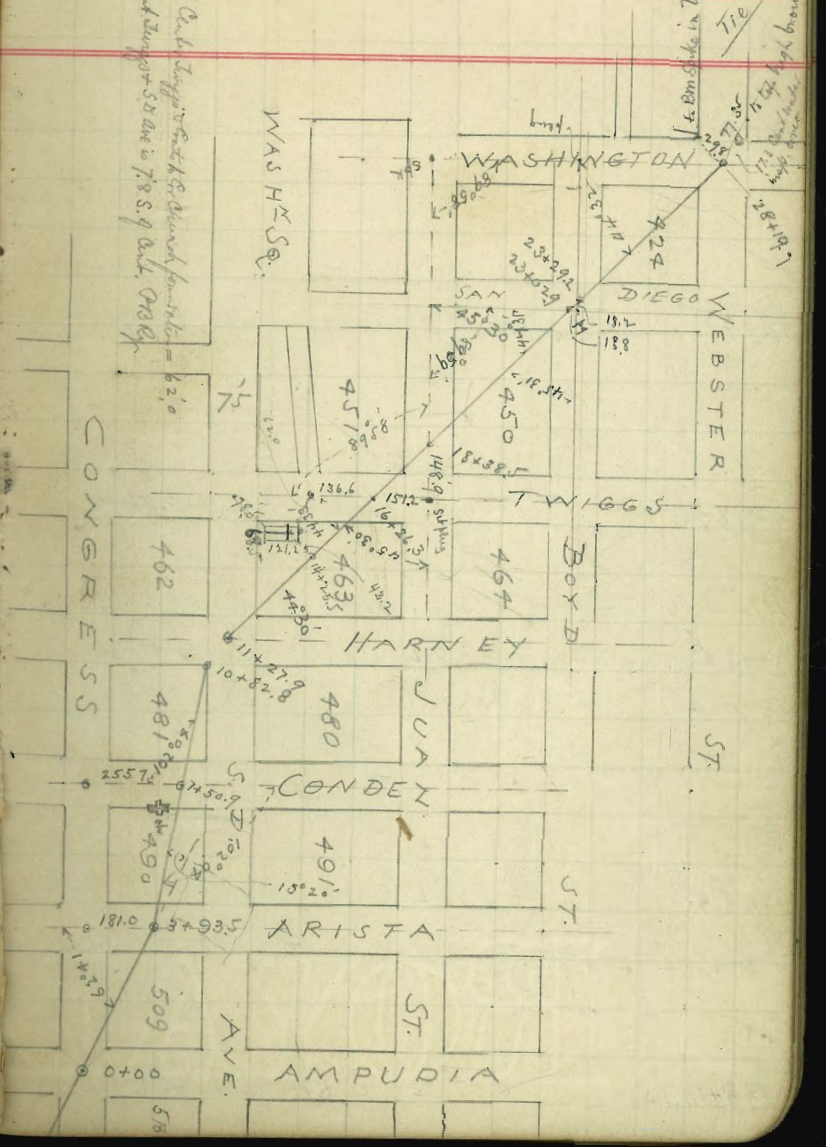
Make Shift

"A" Culvert about 11+80

# Location for Road through Old Town

| Sta | | Mag |
|---|---|---|
| 28+19.7 | Cent Washington & Webster (intersection) | |
| 23+29.2 | Center Boyd St | |
| 23+02.9 | Center S.D. Street | |
| 18+38.5 | Center Juan St | |
| 18+07.6 | fence | |
| 17+26.8 | △ | |
| 15+89 | fence | |
| 14+89 | fence | |
| 16+56.5 | fence | |
| 16+26.3 | Center Twiggs St (151.2 South of Center Juan) | |
| 11+30.6 | Cent. line PB Ry | |
| 11+27.9 | △ spk in tie Cent. S.D. Ave & Harney St | 44°30' L. from Cent line Harney to North |
| 10+82.8 | △ spk SE Cor. San Diego Ave & Harney St. | |
| 7+50.9 | △ spk Center Condé, 255.7 N. of Center Congress St. | |
| 4+13 | Edge Bank | |
| 4+03 | Center Pacific B Ry | |
| 3+93.5 | △ 15°20' L Center Arista St. 181.0 N Center Congress | N. 56° W M. |
| | | N 40°40' W Mag. |
| 0+00 | △ spk Center Congress & Ampudia. | Old Line produced |

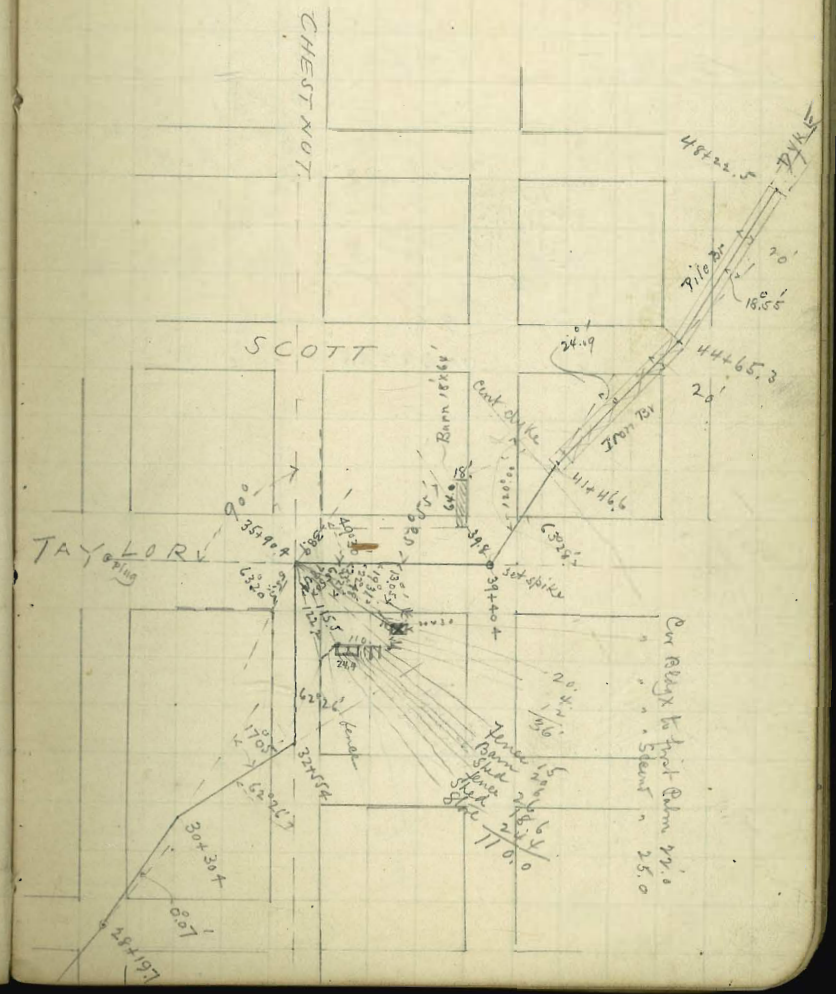




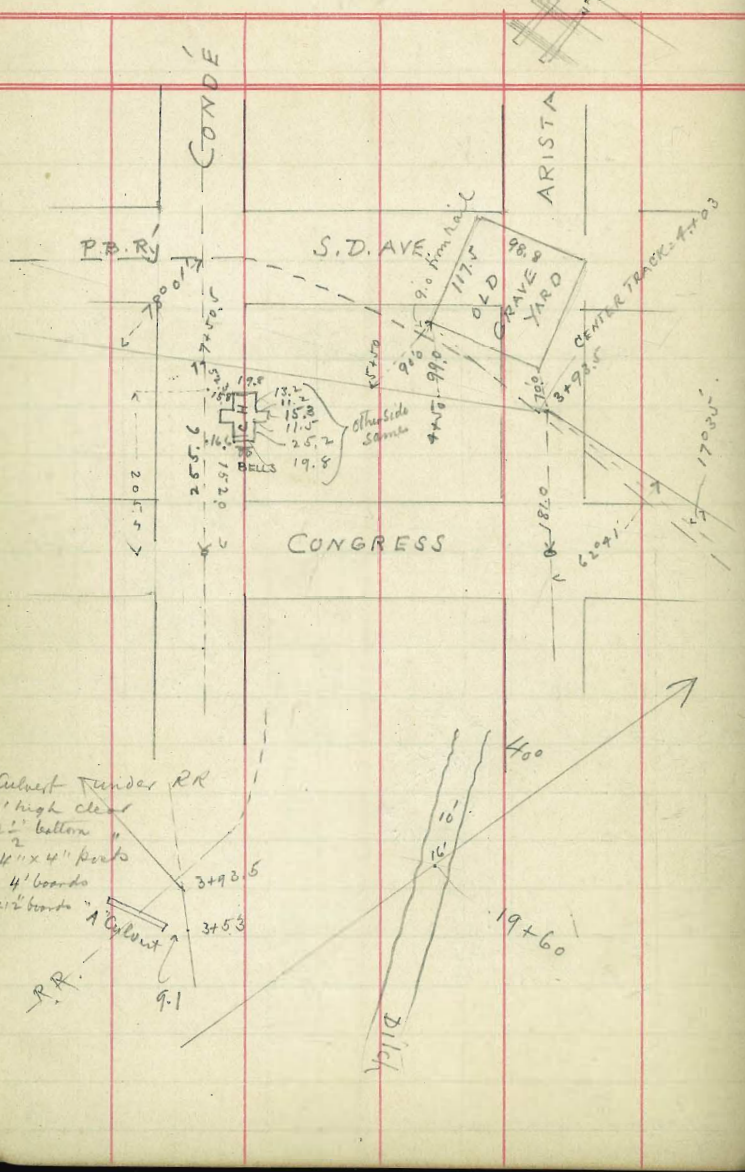
# Road through Old Town

| Sta | | | |
|---|---|---|---|
| | | | N. 33° W mag |
| 48+22.5 | | | End Pile Bridge & beginning of Dyke |
| 44+65.3 | | 18°55' L | Junction Iron & Pile Bridges |
| 41+46.6 | 24°09' R | | Beg. Iron Bridge N. 16°20' W mag |
| 39+40.4 | N. 40°25' W mag | 63°28' L | Center Taylor & Hicory |
| 35+90.4 | | 90° R | Center Chestnut St & Taylor |
| 32+55.4 | | 62°26' L | Center Chestnut 35' E (SE) of set Center Short St |
| 30+30.4 | 17°05' R | | |
| 28+19.7 △ | | 0°07' L | cent Washington & Webster N 23°05' W mag. |

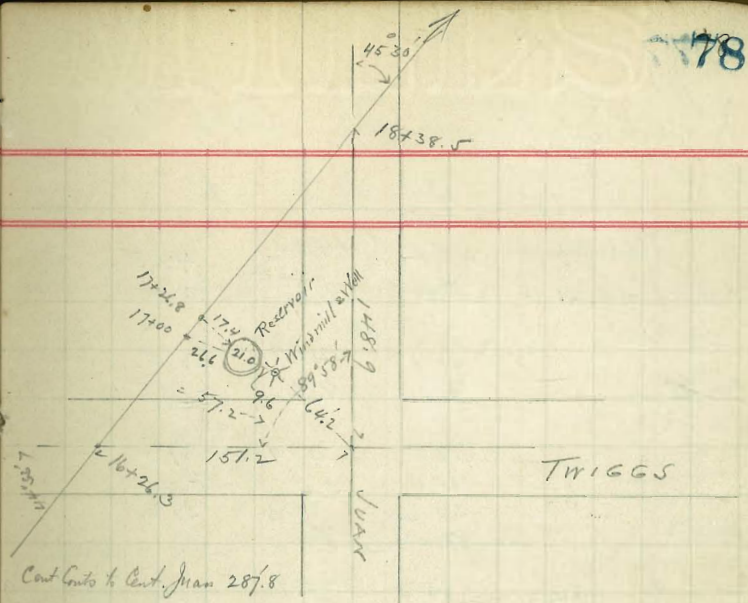




Stn 3+93.5 tied to tacks on RR ties





# Road through Old Town — Cross-Sec

| | 22' out | L 12' out | Cent | R 12' out | 22' out |
|---|---|---|---|---|---|
| 0+00 | Center Ampudia + Congress St | 42.8<br>1.4 | (44.25)<br>43.4<br>0.85 | 43.8<br>0.4 | |
| +50 | | 41.1<br>3.1 | 41.7<br>2.6 | 41.5<br>2.7 | |
| 1 | | 39.8<br>4.4 | 40.9<br>3.4 | 39.5<br>4.7 | |
| +50 | | 37.2<br>7.0 | 37.3<br>70 | 37.6<br>6.6 | |
| 2 | 34.3<br>9.9 | 34.9<br>9.3 | 35.1<br>9.2 | 35.3<br>8.9 | 35.2<br>9.0 |
| +50 | 33.5<br>10.7 | 33.4<br>10.8 | 33.5<br>10.8 | 33.6<br>10.6 | 33.7<br>10.5 |
| 3 | 30.8<br>6.6 | 31.5<br>5.9 | (37.42)<br>31.8<br>5.6 | 32.3<br>5.1 | 31.6<br>5.8 |
| +50 | 33.7<br>3.7 | 32.2<br>5.2 | 28.3<br>9.1 | 30.0<br>7.4 | 30.4<br>7.0 |
| +93.5 △ | 32.7<br>4.7<br>12 out | 33.5 bet rails<br>3.9<br>6 out | 33.1<br>4.3 | 29.8 29.7<br>7.6 7.7<br>6 12 | 30.6<br>6.8<br>22 |
| 4+13 | 27.4<br>10.0<br>22 | 27.8 28.5<br>9.6 8.9<br>12 8 | 32.8<br>4.6 | 33.4<br>4.0<br>6 | Cent track no fill |
| +25 | 27.4<br>10.0<br>22 | 28.0<br>9.4<br>12 | 29.0<br>8.4 footslope | 32.7<br>4.7<br>7 | 33.4<br>4.0<br>13 Cent track |
| +50 | 27.6<br>9.8<br>22 | 28.1<br>9.3<br>12 | 29.4<br>8.0 | 30.1<br>7.3<br>12 | 30.8<br>6.6<br>19 |



Bm Nail in S.W. Cor Culvert
300' S. of 0+00 - Old grade

53.21
2.89
-0 56.10 ✓
11.85
44.25 ✓
000
-0 44.25 ✓
11.84
32.41 ✓
5.01
-0 37.42 ✓

-0 44.25
3.06
41.19 Bm
Spike in Ground 50' W. of 0+00
Tie point

-0 37.42
3.57
33.85 Bm. Spk. in Tel. pole
at South gate of Grave Yard

Road through Old Town

| Sta. | 22' out | 12' out | Cent | 12' | 22 |
|---|---|---|---|---|---|
| | 28.0 | 29.1 | (37.42) | 30.3 | 30.3 |
| 5 | 9.4 | 8.3 | 29.9 7.5 | 7.1 | 7.1 |
| | 28.4 | 29.1 | 28.7 | 29.0 | 29.6 |
| +50 | 9.0 | 8.3 | 8.7 | 8.4 | 7.8 |
| | 28.2 | 28.0 | 28.0 | 28.4 | 28.8 |
| 6 | 9.2 | 9.4 | 9.4 | 9.0 | 8.1 |
| | 27.8 | 27.4 | 27.3 | 27.7 | 28.0 |
| +50 | 9.6 | 10.0 | 10.1 | 9.7 | 9.4 |
| | 26.9 | 26.9 | 26.9 | 27.2 | 27.7 |
| 7 | 10.5 | 10.5 | 10.5 | 10.2 | 9.7 |
| | 26.3 | 26.8 | 26.6 | 27.0 | 27.4 |
| +50 | 11.1 | 10.6 | 10.8 | 10.4 | 10. |
| | 27.2 | 27.1 | 26.8 | 27.6 | 27.7 |
| 8 | 10.2 | 10.3 | 10.6 | 9.8 | 9.7 |
| | | | (36.41) | | |
| | 27.4 | 27.5 | 27.3 | 28.3 | 28.2 |
| +50 | 9.0 | 8.9 | 9.1 | 8.1 | 8.2 |
| | 22 | | | | |
| | 28.1 | 28.1 | 28.2 | 29.0 | 29.1 |
| 9 | 8.3 | 8.3 | 8.2 | 7.4 | 7.3 |
| | 28.8 | 29.0 | 29.5 | 29.9 | 29.9 |
| +50 | 7.6 | 7.4 | 6.9 | 6.5 | 6.5 |
| | 29.3 | 29.3 | 30.2 | 30.9 | |
| 10 | 7.1 | 7.1 | 6.2 | 5.5 | |
| | | | | 12 | |



~~0~~ 37.42
9.93
27.49 Top State 8
892
~~0~~ 36.41

Road through Old Town

| Sta. | 22 | 12 | Cent | 12 | 22 |
|---|---|---|---|---|---|
| 10+50 | 29.2<br>7.2 | 29.4<br>7.0 | 36.41<br>30.3<br>6.1 | 30.9<br>5.5 | |
| +82.4 | 29.7<br>Spk. 6.7 | 29.6<br>6.8 | 30.4<br>6.0 | 31.0<br>5.4 | |
| 11+27.9 | Spk | 32.3<br>4.1 | 32.1<br>4.3 | 32.4 32.1<br>4.0 raw 4.3<br>12 | |
| +50 | | 31.7<br>4.7 | 41/7<br>32.5<br>3.9 | 32.4<br>4.0 | |
| 12 | | 33.9<br>2.5 | 38.6<br>2.8 | 34.3<br>2.1 | |
| +50 | | 34.7<br>1.7 | 35.1<br>1.3 | 35.6<br>0.8 | |
| 13 | | 35.9<br>0.5 | 36.3<br>0.1 | 36.8<br>−0.4 | |
| +50 | | 37.6<br>10.0 | (47.59)<br>38.1<br>9.5 | 38.9<br>8.7 | |
| 14 | | 39.3<br>8.3 | 40.7<br>6.9 | 41.4<br>6.2 | |
| +50 | | 41.5<br>6.1 | 42.2<br>5.4 | 42.5<br>5.0 | |
| 15 | | 42.9<br>4.7 | 43.4<br>4.2 | 44.1<br>3.5 | |



~~0~~ 36.41
0.12
Spike Sta 13 = 36.29
11.30
~~0~~ 47.59
3.07
44.52 T.P.

~~0~~ 36.41
1.99
34.42 Spk in Cor Post N.E. San Diego Ave. & Harney Sts
34.28 = Old Elevation

~~0~~ 47.59
0.48
47.11
10.18
~~0~~ 57.29
− 0.12
57.41 { BM. Spike (6" wire) in fence S.E. Cor Juan & Twiggs
See Bk 93-1 p. 44

# Road through Old Farm

| Sta | | 12' | Cent | 12' |
|---|---|---|---|---|
| | | 44.1 | (47.59) | 45.9 |
| | | | 44.8 | |
| 15+50 | | 3.5 | 2.8 | 1.7 |
| | | 44.9 | 46.0 | 46.9 |
| 16 | | 2.7 | 1.6 | 0.7 |
| | | 45.3 | 46.6 | 47.6 |
| +50 | | 2.3 | 1.0 | 0.0 |
| | | | (57.29) | 47.5 |
| | | 46.3 | 46.7 | |
| 17 | | 11.0 | 10.6 | 9.8 |
| | | | (49.54) | 46.1 |
| | | 45.7 | 46.0 | |
| +50 | | 3.8 | 3.5 | 3.4 |
| | | 41.0 | 40.5 | 40.5 |
| 18 | | 8.5 | 9.0 | 9.0 |
| | | 36.5 | 37.4 | 37.6 |
| +50 | | 13.0 | 12.1 | 11.9 |
| | | 36.2 | (39.96) | 37.0 |
| | | | 36.7 | |
| 19 | | 3.8 | 3.3 | 3.0 |
| | | 34.4 | 34.9 | 35.1 |
| +50 | | 5.6 | 5.1 | 4.9 |
| | | | 31.5 | |
| +60 | Ditch (center) | | 8.5 | big culvert |
| | | 34.2 | 35.7 | 36.6 |
| 20 | | 5.8 | 4.3 | 3.4 |



47.59
3.07
44.52
5.02
49.54
11.57
37.97 top stk 18+50
1.99
39.96

Road through Old Town

| | 22' | 12' | | 12' | 22' |
|---|---|---|---|---|---|
| | | 35.9 | (39.96) | 38.8 | |
| 20+25 | | 4.1 | 37.4 / 2.6 | 1.2 | |
| | | 35.1 | 35.9 | 36.8 | |
| +50 | | 4.9 | 4.1 | 3.2 | |
| | 30.0 | 30.0 | 29.8 | 29.9 | 30.7 |
| +75 | 10.0 | 10.0 | 10.2 | 10.1 | 9.3 |
| | 27.2 | 27.6 | 28.0 | 28.6 | 29.0 |
| 21 | 12.8 | 12.4 | 12.0 | 11.4 | 11.0 |
| | 23.7 | 23.8 | 24.4 | 27.0 | 29.9 |
| +50 | 16.3 | 16.2 | 15.6 | 13.0 | 10.1 |
| | 22.0 | 22.5 | 26.1 | 28.5 | |
| 22 | 18.0 | 17.5 | 13.9 | 11.5 | |
| | | 27.5 | 29.1 | 30.5 | |
| +50 | | 12.5 | 10.9 | 9.5 | |
| | | | (29.82) | | |
| | 22.9 | 24.8 | 27.3 | 29.5 | |
| 23 | 6.9 | 5.0 | 2.5 | 0.3 | |
| | 16.2 | 16.8 | 20.3 | 24.0 | |
| +50 | 13.6 | 13.0 | 9.5 | 5.8 | |
| | 14.3 | 15.1 | 17.4 | 21.8 | |
| +90 | 15.5 | 14.7 | 12.4 | 8.0 | |
| | 13.3 | 15.1 | 18.8 | 21.7 | |
| 24 | 16.5 | 14.7 | 11.0 | 8.1 | |



39.96
11.49
28.47
1.35
29.82

# Road through Old Town

| Sta. | 22' | 12' | Cent | 12' | 22' |
|---|---|---|---|---|---|
| | 11.4 | 11.5 | (0 29.82) | 13.6 | 14.3 |
| | | | 12.7 | | |
| 24+50 | 18.4 | 18.3 | 17.1 | 16.2 | 15.5 |
| | 10.1 | 11.1 | 13.5 | 15.7 | 20.6 |
| 25 | 19.7 | 18.7 | 16.3 | 14.1 | 9.2 |
| | 13.0 | 16.8 | 20.5 | 24.6 | |
| +50 | 16.8 | 13.0 | 9.3 | 5.2 | |
| | | 20.5 | 22.2 | 23.7 | |
| 26 | | 9.3 | 7.6 | 6.1 | |
| | | 21.3 | 22.4 | 23.7 | |
| +50 | | 8.5 | 7.4 | 5.9 | |
| | | | (0 23.52) | | |
| | | 19.9 | 21.1 | 22.2 | |
| 27 | | 3.6 | 2.4 | 1.3 | |
| | | 18.7 | 20.2 | 21.8 | |
| +50 | | 4.8 | 3.3 | 1.7 | |
| | | 17.3 | 19.2 | 20.1 | |
| 28 | | 6.2 | 4.3 | 3.4 | |
| | | 17.7 | 18.35 | 19.7 | |
| +19.7 | | 5.8 | 5.17 Spike | 3.8 | |



0 29.82
9.69
20.13
3.39
0 23.52

0 23.52
673
16.79 BM. Spike in Tel Pole
S.W. Cor Webster & Washington

# Old Town Road

| | | | Rod | El. |
|---|---|---|---|---|
| | | | (⊖22.30) | |
| 28+19.4 | | | | |
| +50 | | | 3.5 | 18.8 |
| 29 | | | 4.0 | 18.3 |
| +50 | | | 4.7 | 17.6 |
| 30 +30.4 △ | | | 4.8 | 17.5 |
| +50 | | | 5.6 | 16.7 |
| 31 | | | 5.7 | 16.6 |
| +50 | | | 6.8 | 15.5 |
| 32 | | | 9.1 | 13.2 |
| +55.4 △ | Spk | | 9.57 | 12.73 |
| | | | (⊖13.47) | |
| 33 | | | 2.2 | 11.3 |
| +50 | | | 3.5 | 10.0 |
| 34 | | | 4.5 | 9.0 |
| +50 | | | 5.5 | 8.0 |
| 35 | | | 6.1 | 7.4 |
| +50 | | | 6.4 | 7.1 |
| +90.4 | plug | | 7.03 | 6.44 |
| 36+50 | | | 6.2 | 7.3 |
| 37 | | | 5.2 | 8.3 |



# Levels from S. End Short St. to Iron Bridge

BM SW Cor Webster & Wash$^{2}$ = 16.79
5.51
⊖ 22.30
9.57
12.73
0.74
⊖ 13.47

⊖ 13.47
5.77
7.70 Bm. Spike Cor Fence
N.W. Cor Chestnut & Taylor

Bm 7.70
Cent Chestnut St. 7.92
⊖ 15.62

Cent. Chestnut & Taylor

Old Town Road

| Sta | | | Rod | El |
|---|---|---|---|---|
| | | | (15.62) | |
| 37+50 | | | 6.4 | 9.2 |
| 38 | | | 5.7 | 9.9 |
| +50 | | | 3.6 | 12.0 |
| | | | (19.48) | |
| 39 | | | 5.0 | 14.5 |
| +40.4 | | | 2.6 | 16.9 |
| — | Road ap. 39+40.4 | | 6.7 | 12.8 |
| 40 | | | 6.3 | 13.2 |
| +50 | | | 7.5 | 12.0 |
| 41 | | | 6.7 | 12.8 |
| +46.6 | △ End bridge | | 4.43 | 15.05 |



Levels Short Street to Iron Bridge

Edge Knoll about 0.8 high

15.62
1.50
14.12
5.36
19.48
7.50

BM 11.98 Cup. tack in E. Edge of top of S.E Pier of Iron Bridge — being Pier nearest to Pumping Plant of S.D. Water Co

Floor of Bridge

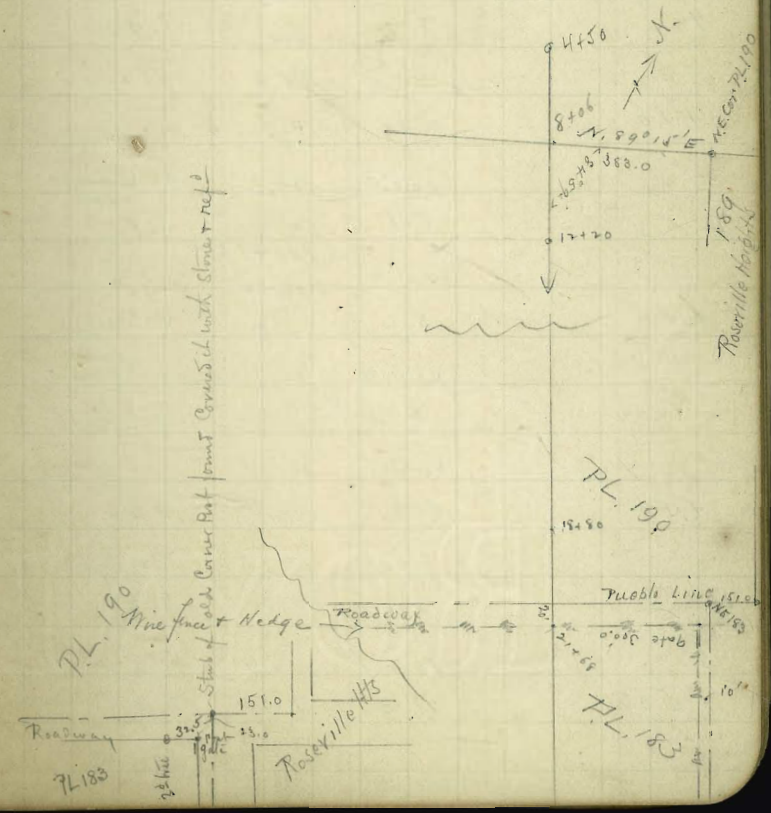
# Road across Pueblo

| Sta | ΔR | ΔL | | | |
|---|---|---|---|---|---|
| O. is on S. bdy of Lloyds Subdn of P.L. 197 and at Cent. of Short 40' Street as Shown South Easterly from S.W. Corner | | | | | |
| O | Δ | 92° L from SW Cor 197 | | | |
| 4+50 | Δ | 26°10' L | | S. 5°55' E Mag | |
| 8+06 | Δ | | Intersects Pueblo Line bet 191 & 190 | | |
| 12+20 | Δ | 8°12' R | | S 2°20' W | |
| 15+40 | | 21°10' R. | | S 23°30' W | |
| 17+00 | | 13°30' L | | S. 10° W | |
| 18+80 | | 12°30' L | | S 2°30' E | |
| 21+68 | Hedge + Wire fence | | | | |



# Lots 191 and 190 – Point Loma

being Pueblo Line as Located by Homer Hamlin: on map of said Subdivision – being 1134.9 ft of P.L. 197 – Pueblo Line bears N 67°45' W. Mag = S 20°15' W. Mag



Levels - Line Page 96

| Sta | | L | C | R. | |
|---|---|---|---|---|---|
| | | 10' | | 10' | |
| | | | ~~0~~ (101.61) | | |
| | | 91.2 | 92.3 | 93.6 | |
| 0 | | 10.4 | 9.3 | 8.0 | |
| | | 92.5 | 92.6 | 93.9 | |
| +50 | | 9.1 | 9.0 | 7.7 | |
| | | 93.9 | 93.6 | 93.7 | |
| 1 | | 7.7 | 8.0 | 7.9 | |
| | | 97.3 | 96.9 | 96.0 | |
| +50 | | 4.3 | 4.7 | 5.6 | |
| | | 100.5 | 99.4 | 98.5 | |
| 2 | | 1.1 | 2.2 | 3.1 | |
| | | | ~~0~~ (104.1) | | |
| | | 102.3 | 101.4 | 100.3 | |
| +50 | | 8.1 | 9.0 | 10.1 | |
| | | 102.3 | 101.1 | 100.3 | |
| 3 | | 8.1 | 9.3 | 10.1 | |
| | | 102.1 | 101.5 | 101.2 | |
| +50 | | 8.3 | 8.9 | 9.2 | |
| | | 102.6 | 102.5 | 102.6 | |
| 4 | | 7.8 | 7.9 | 7.8 | |
| | | 103.1 | 103.1 | 103.1 | |
| +50 | | 7.3 | 7.3 | 7.3 | |



Point Loma Road

BM. about 65' Right of Sta. 0
about on Pueblo Line - Assumed El. 100.00
1.61
~~0~~ 101.61
1.65
Top Stake Sta 2 99.96
10.45
~~0~~ (110.41)

| Sta | | L | C | R |
|---|---|---|---|---|
| | | ⊖ | (110.41) | |
| 5 | | 105.2<br>5.7 | 104.1<br>6.3 | 104.2<br>6.2 |
| +50 | | 106.6<br>3.8 | 105.9<br>4.5 | 105.6<br>4.8 |
| 6 | | 106.9<br>3.5 | 106.8<br>3.6 | 106.7<br>3.7 |
| +50 | | 108.6<br>1.8 | 108.1<br>2.3 | 107.7<br>2.7 |
| | | ⊖ | (120.37) | |
| 7 | | 110.1<br>10.3 | 109.3<br>11.1 | 108.8<br>11.6 |
| +50 | | 110.1<br>10.25 | 109.4<br>10.96 | 109.3<br>11.1 |
| 8 | | 110.9<br>9.46 | 110.3<br>10.1 | 110.2<br>10.2 |
| +50 | | 111.6<br>8.8 | 111.3<br>9.1 | 111.1<br>9.3 |
| 9 | | 113.0<br>7.4 | 112.3<br>8.1 | 112.4<br>8.0 |
| +50 | | 113.6<br>6.75 | 113.3<br>7.1 | 113.7<br>6.7 |
| 10 | | 114.7<br>5.7 | 114.4<br>6.0 | 114.4<br>6.0 |



Point Loma Road

110.41
1.90
Top State 6+50 108.51
11.86
⊖ 120.37

⊖ 120.37
6.93
113.44 BM on 350' point from NE Cor PL 190.
33' L. of Line Sta 8+06

Sta 9. S D Water Co's pipe at surface

| Sta | | L | C | R |
|---|---|---|---|---|
| | | ~~0~~ | (120.37) | 116.0 |
| 10+50 | | 117.6<br>3.77 | 116.1<br>4.8 | 4.4 |
| 11 | | 119.1<br>1.3 | 117.5<br>2.9 | 117.8<br>2.6 |
| +50 | | 119.3<br>1.1 | (131.40)<br>119.0<br>12.4 | 119.0<br>12.4 |
| 12 | | 121.7<br>9.7 | 123.0<br>8.4 | 125.3<br>6.1 |
| +20 | | 122.9<br>8.55 | 125.3<br>6.1 | 128.5<br>2.9 |
| +50 | | 125.2<br>6.2 | 127.0<br>4.4 | 130.5<br>0.9 |
| 13 | | 126.6<br>5.4 | 130.0<br>1.4 | 138.0<br>4.6 |
| +50 | | ~~0~~<br>130.6<br>12.0 | (142.63)<br>133.3<br>9.3 | 137.6<br>5.0 |
| 14 | | 132.5<br>10.1 | 134.2<br>8.4 | 135.9<br>6.7 |
| +50 | | 135.0<br>7.6 | 136.8<br>5.8 | 140.2<br>2.4 |
| 15 | | 137.4<br>5.2 | 142.5<br>0.1 | (154.43)<br>146.4<br>8.1 |
| | | ~~0~~ | (154.43) | |



Point Loma Road

| | |
|---|---|
| | 120.37 |
| | 0.76 |
| Top Stake 11+50 | 119.61 |
| | 11.79 |
| ~~0~~ | 131.40 |
| | 0.62 |
| " " 13 | 130.78 |
| | 11.85 |
| ~~0~~ | 142.63 |
| | 0.00 |
| Peg by Sta 15 | 142.63 |
| | 11.80 |
| ~~0~~ | 154.43 |

| Sta | | L. 10' | C | R. 10' |
|---|---|---|---|---|
| | | 138.4 | (154.43) | 148.0 |
| 15+40 | | 16.0 | 14.3 | 6.4 |
| | | | 10.1 | |
| | | 139.6 | 143.6 | 147.4 |
| +60 | ditch | 14.8 | 10.8 | 7.0 |
| | | 146.3 | 148.7 | 152.5 |
| 16 | | 8.1 | 5.7 | 1.9 |
| | | 146.8 | 149.3 | 151.8 |
| +50 | | 7.6 | 5.1 | 2.6 |
| | | 146.4 | 148.0 | 151.0 |
| +75 | | 8.0 | 6.4 | 3.4 |
| | | 150.0 | 154.6 | 157.8 |
| 17 | | 4.4 | -0.2 | 8.4 |
| | | | ~~0~~ (166.21) | |
| | | 152.4 | 157.4 | 162.6 |
| +50 | | 13.8 | 8.8 | 3.6 |
| | | 158.9 | 162.9 | 164.4 |
| 18 | | 7.3 | 3.3 | 1.8 |
| | | 156.8 | 160.5 | 163.0 |
| +50 | | 9.4 | 5.7 | 3.2 |
| | | 159.4 | 162.5 | 165.4 |
| +80 | | 6.8 | 3.7 | 0.8 |
| | | | | (177.25) |
| | | 161.4 | 164.9 | 167.1 |
| 19 | | 3.5 | 1.3 | 10.1 |



Point Loma Road

~~0~~ 154.43
0.07

Stake near 17 T.P. 154.36
11.85

~~0~~ 166.21
0.70

Top Stake Sta 19 165.51
11.74

~~0~~ 177.25

| | | L 10' | C | R 10' |
|---|---|---|---|---|
| | | ~~0~~ | (177.25) | |
| | | 168.5 | 169.7 | 171.2 |
| 19+50 | | 8.7 | 7.6 | 6.0 |
| | | 170.7 | 172.4 | 174.1 |
| 20 | | 6.5 | 4.85 | 3.1 |
| | | 174.2 | 176.9 | 178.8 |
| +50 | | 3.0 | 0.35 | 5.6 |
| | | ~~0~~ | (184.36) | |
| 21 | | 177.5 | 178.7 | 179.5 |
| | | 6.9 | 6.0 | 4.9 |
| | | 177.8 | 179.0 | 179.7 |
| +50 | in Road | 6.6 | 5.4 | 4.65 |
| | | 179.1 | 180.1 | 180.6 |
| +68 | | 5.3 | 4.28 | 3.75 |



Point Loma Road

~~0~~ 177.25
1.02
Top Stake 20+50 176.23
8.13
184.36
4.28
180.08 BM

Stake driven low (21+68) under wire

Roseville

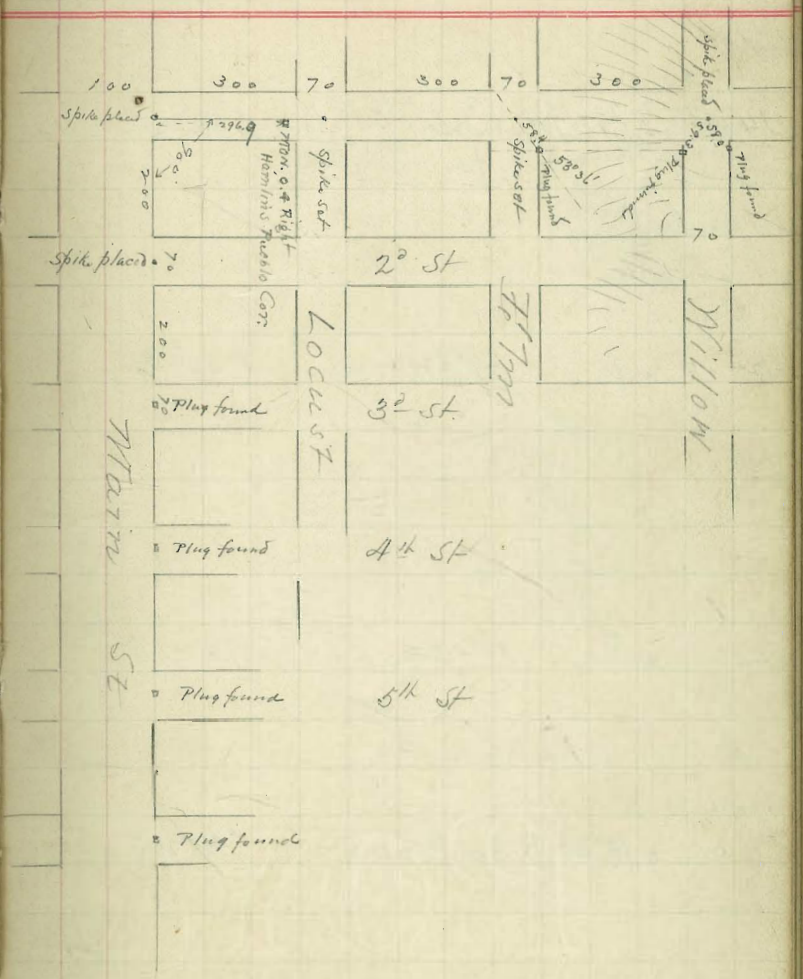
Road Survey to Connect Street of Roseville with Canyon Road

Found Cent. 3d St on West side of Main St also plugs at 4th, 5th 6th re "Wheeler's Base Line"

Produced line & put in spikes on center lines (?) of 2nd & 1st Streets

From Cent line 1st St on West line of Main turned 90° & put in spikes for Centers of Locust, Elm & Willow Streets - Points so placed do not agree with old plugs found on Elm & Willow Sts.





| Sta | | | | Mag |
|---|---|---|---|---|
| 14+86 | Spk | 29°47' R | Cent 1st + Elm from Wheeler base | S68°25' E |
| 12+20 | Spk | 29°52' L | | N82°+ E |
| 4+20 | Spike | 19°45' L | | S68°05' E |
| 0 | | 19°30 R from P. L. | | S.48°20 E |

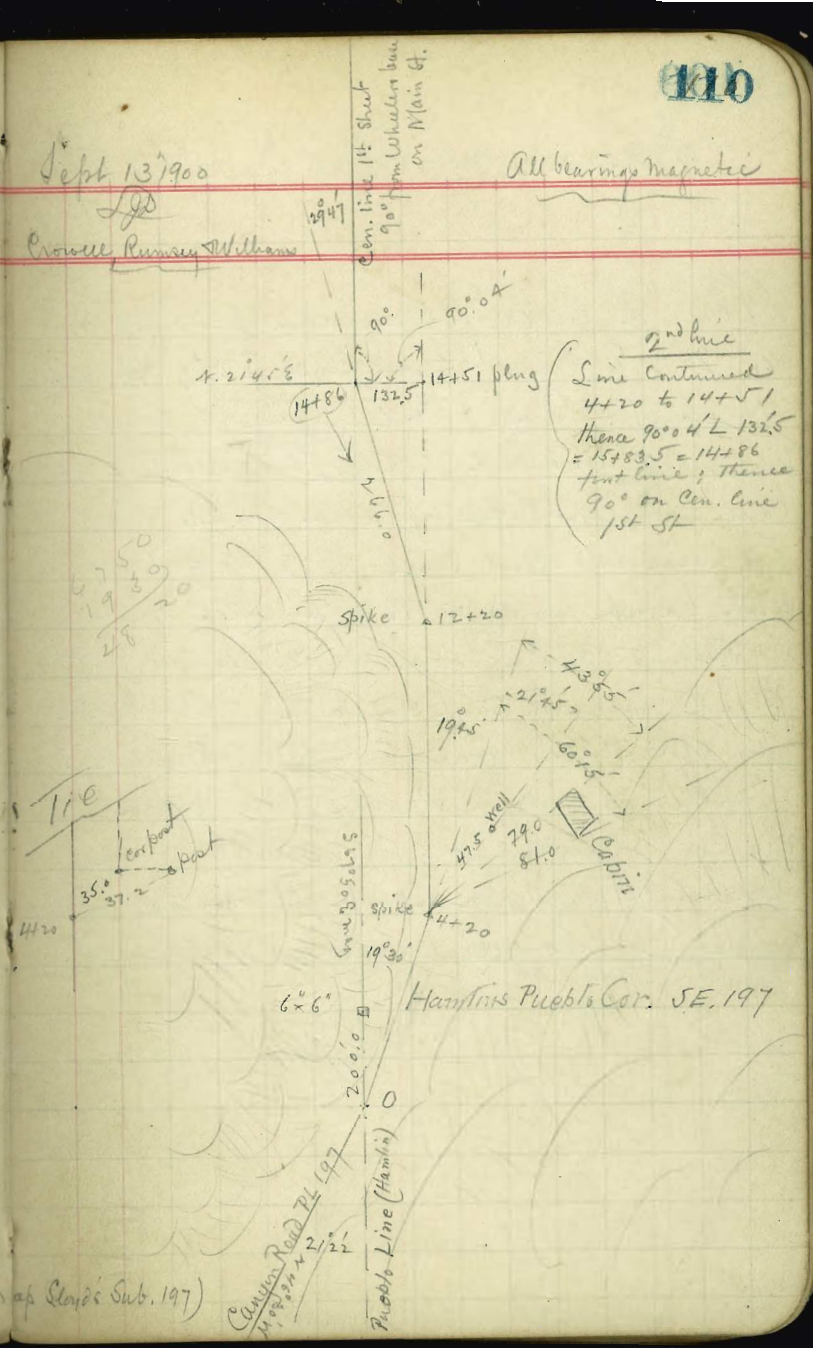
From SE Cor P.L 197 (Hamlin) measured 200' northwesterly on Pueblo line + put in plug for Cen. Canyon Road = Sta 0 (see Map Sloyd's Sub. 197)



Sept 13 1900

All bearings magnetic

Crowell, Rumsey & Williams




2nd line
Line Continued 4+20 to 14+51 thence 90°04' L 132.5 = 15+83.5 = 14+86 first line; thence 90° on Cen. line 1st St

Intersec. of Road line (p. 110) with Block 1 - Roseville Heights.

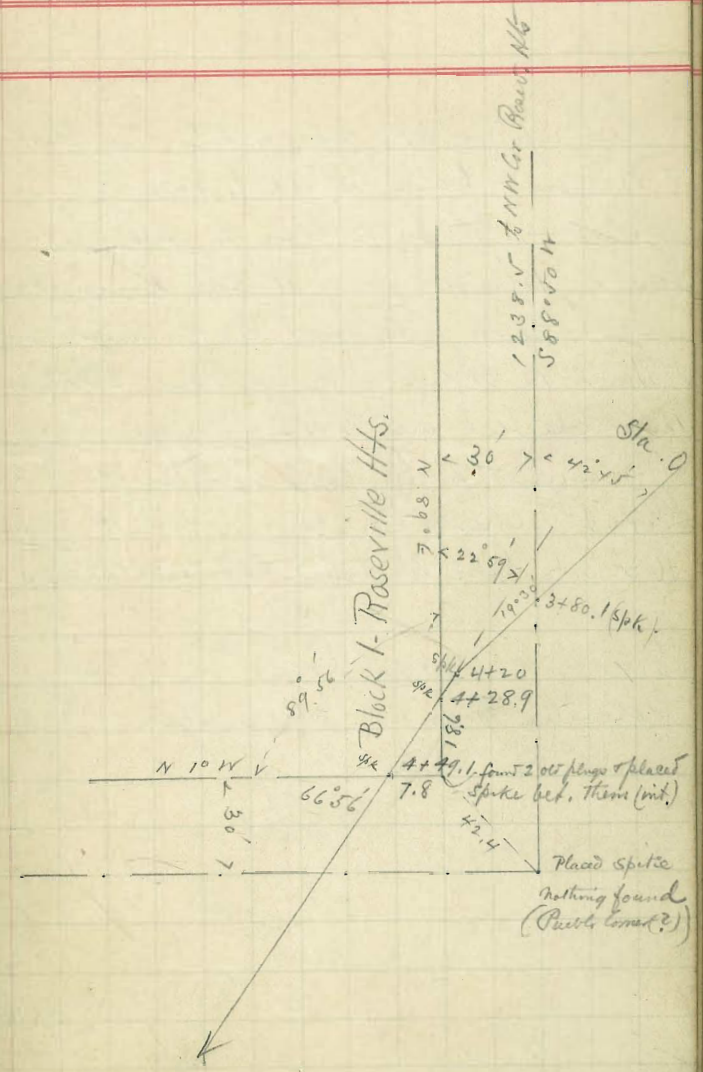
Found well preserved points in N. & E lines (Block lines) of Roseville Heights. Ran to intersection and uncovered two old stakes close together. Intersection came between stakes - placed spike.

Intersected cent. line Road location with block lines & took angles. to

Turned angle from block corner and placed spike (in sand stone hill) 42.4 dist. for old Pueblo Corner - Nothing found.

Also ran down Pueblo line from No Cor. Roseville Hts to intersect road location - as shown on opposite page -

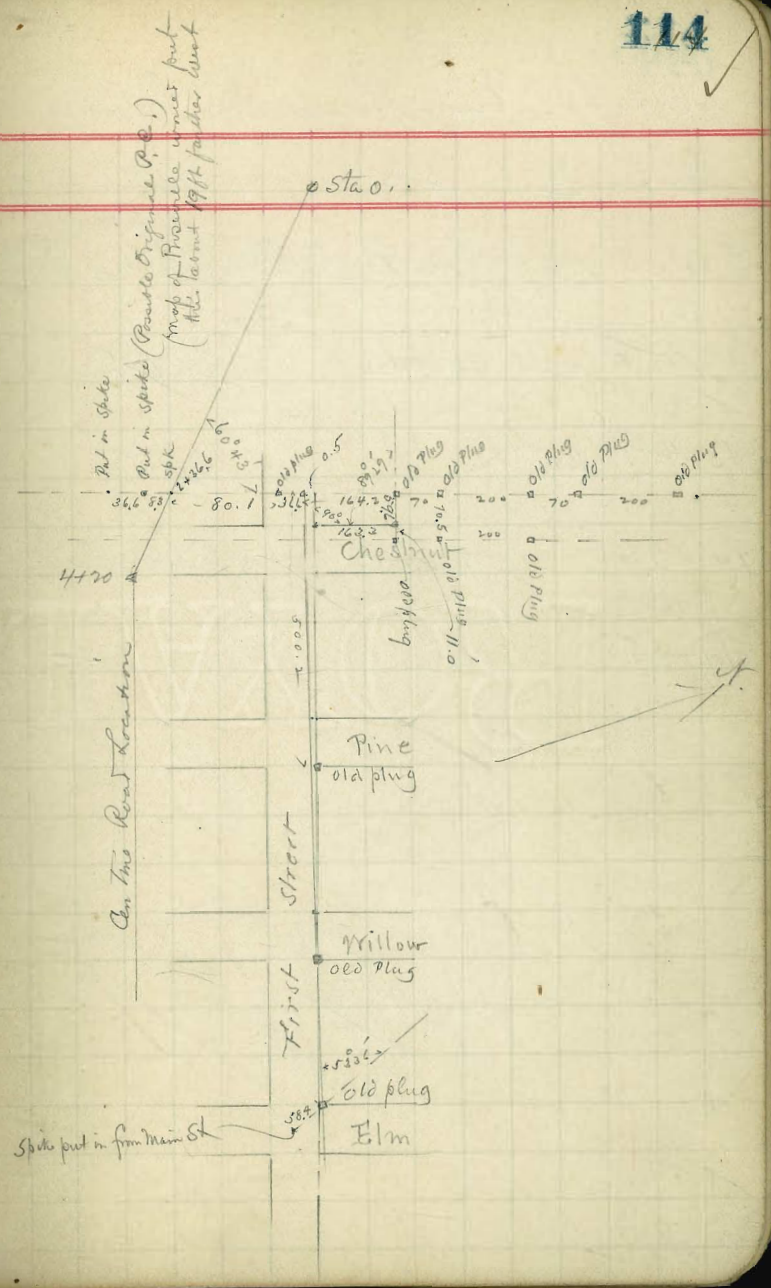
Stakes not so reliable as on block lines



# Roseville

Set up on old plug N.E. Cor First & Willow - back sight to N.W. " "
& Elm - produced line to intersect old line of plugs near N. bdy Roseville
Set up on hill just E. of Chestnut & Lined in old plugs on Pine & Willow this line full 0.5 N. of 1st line
Measured in on latter line for NW. Cor 1st & Chestnut - turned 90° & ran 163'.3 to tape sketched bet. old plugs - See sketch
Line of old plugs found near on W. line of Roseville does not agree with other lines of plugs -





New Location Roseville Road

| Sta | R | L | | Needle | |
|---|---|---|---|---|---|
| | | | | S 67 50 E | |
| 0 | 17°28' | from Pueblo Line | | S 50 20 E | |
| 4+42.4 | | 15°34' | | S 66° E | |
| 899.5 | | | | | |
| 13+41.9 | 20° | | | S 46° E | |
| 147.7 | | | | | |
| 14+89.6 | | 22°30' | | S 68°30' E | |
| 465.4 | | | | | |
| 19+55 | | | | | |

Oct 25th 1900
Crowell & Sheriff Jennings



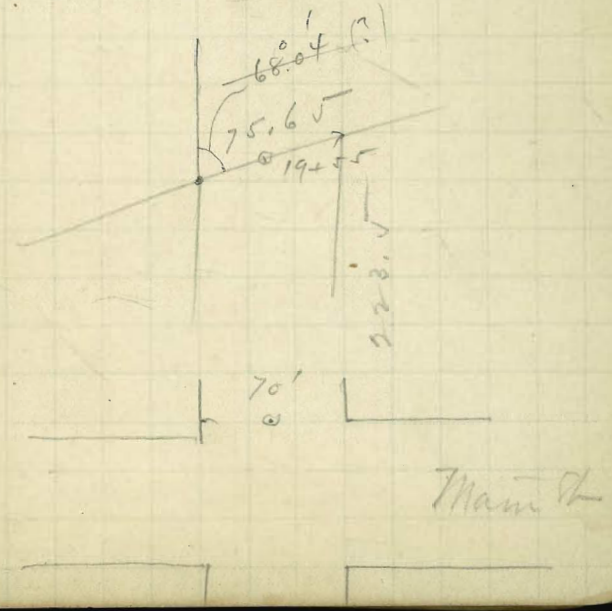
to suit property owners

Sta 0 = Sta 0 - page 110

= NE Cor Block 1 Roseville Heights

Center line New Main St produced

West line New Roseville & Kent N.M. St



| Sta. | B. S. | F. S. | I. H. | Elev. | |
|---|---|---|---|---|---|
| January | 10th | 1901 - | | | |
| | d'Heucourt | | | | |
| | Cowell | | | | |
| | Williams | | | | |



Tie points Road from New Main st. in Roseville to top of Hill —

| | | |
|---|---|---|
| 50' | S. 1+47.7 40' | |
| 55' | S. 10+49 15' | |
| 70' | S. 14+92 25' | |
| 70 | S. 24+43 50' | |

Tie points, Road from New Main street in Roseville to top of Hill —

January 10/1901 —



S. 47+40.5

100'

25'

S. 46+80.5

100'

25

45.80.5
42.62.5
3.18.0

S. 42+62.5

60'

30'

S. 34+89.5

30'

40'

S. 30+39

40'

40'

S. 29+29.1

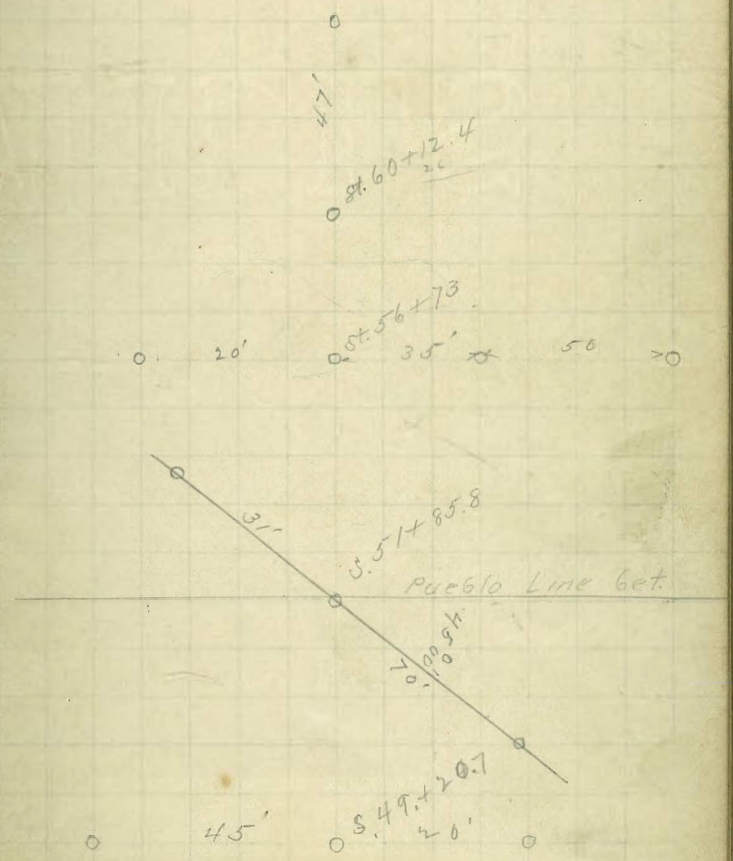
70'

90'

Tie points - Road from
New Main street, in Roseville
to top of Hill

January 10/1901 -





Level notes - Road from New Main street in Riseville to top of Hill — January 11 - 1901

| Sta. | B. S. | F. S. | H. I. | Elev. | Grade Elev. |
|---|---|---|---|---|---|
| | 7.55 | | 107.55 | 100.00 | |
| 16 | | 11.80 | | 95.75 | ⊙ 96.00 |
| 15 | | 8.30 | | 99.25 | 101.14 |
| 14+89.6=0 | <110 4/10 | 8.00 | | 99.55 | 101.65 |
| +82 | | 3.00 | | 104.55 | 105.85 |
| T. P. | 10.72 | 0.0 | 118.27 | 107.55 | |
| 1 | | 9.0 | | 109.27 | 106.78 |
| +20 | | 4.9 | | 113.37 | 107.80 |
| +47.7 | | 5.1 | | 113.17 | 109.23 |
| 2 | | 4.1 | | 114.17 | 111.92 |
| +60 | | | | | ⊙ 115.00 |
| 3 | | 3.3 | | 114.97 | 115.94 |
| +20 | | 4.9 | | 113.37 | 116.41 |
| 4 | | 1.3 | | 116.97 | 118.29 |
| T. P. | 11.16 | 0.52 | 128.91 | 117.75 | |
| 5 | | 7.6 | | 121.31 | 120.65 |
| +30 | | 6.4 | | 122.51 | 121.35 |
| 6 | | 6.5 | | 122.41 | ⊙ 123.0 |
| 7 | | 3.95 | | 124.96 | 126.8 |
| T. P. | 11.65 | 1.12 | 139.45 | 127.80 | |
| 8 | | 8.4 | | 131.05 | 130.6 |
| 9 | | 4.5 | | 134.95 | 134.4 |

+5.135

+2.353

+3.8

Crowell
d'Heme comp
Williams —



B. M. #1 near fence post opp. 14+89.6 Elev. 100.00

Level notes, Road from New Main st. in Roseville to Top of Hill

1/11/1901



| Sta. | B. S. | F. S. | H. O. | Elev | Grade Elev. | Corrected Elevations |
|---|---|---|---|---|---|---|
| 10 | | 1.6 | 139.45 | 137.85 | 138.2 | |
| + 49 | | 0.0 | | 139.45 | 140.06 | |
| T. P. | 11.72 | 1.07 | × 150.10 | 138.38 | | |
| 11 | | 8.35 | | ~~141.75~~ | ⊙ 142.00 × | 142.60 |
| 12 | | 10.3 | | ~~139.80~~ | 143.00 | 140.65 |
| 13 | | 8.45 | | ~~141.65~~ | 144.00 | 142.50 |
| 14 | | 4.5 | | ~~145.60~~ | 145.0 | 146.45 |
| + 92 | | 4.2 | | ~~145.90~~ | | 146.75 |
| 15 | | 4.1 | | ~~146.00~~ | ⊙ 146.00 × | 146.85 |
| 16 | | 2.9 | | ~~147.20~~ | 148.9 | 148.05 |
| T. P. | 8.55 | 0.42 | 158.23 | 149.68 | | B. M. No 2 opp. Sta 14+92 El. ~~149.68~~ .85 150.53 |
| 17 | | 6.8 | | ~~151.43~~ | 151.8 | 152.28 |
| 18 | | 4.6 | | ~~153.63~~ | 154.7 | 154.48 |
| + 15 | | 5.4 | | ~~152.83~~ | | 153.68 |
| + 50 | | 3.5 | | ~~154.73~~ | | 155.58 |
| 19 | | 1.65 | | ~~156.58~~ | 157.6 | 157.43 |
| T. P. | 11.90 | 0.2 | 169.93 | 158.03 | | |
| 20 | | 11.1 | | ~~158.83~~ | 160.5 | 159.68 |
| 21 | | 7.1 | | ~~162.83~~ | 163.4 | 163.68 |
| 22 | | 3.55 | | ~~166.38~~ | 166.3 | 167.23 |
| + 20 | | 3.0 | | ~~166.93~~ | | 167.73 |

+3.8

+1.00

+2.9

Level notes, Road from New Main street, Roseville, to Top of Hill.

1/11/1901.

| Sta. | B. S. | F. S | H. I. | Elev | Grade Elev. | Corrected Elevations |
|---|---|---|---|---|---|---|
| 23 | | 3.9 | 169.93 | ~~166.03~~ | 169.2 | 166.88 |
| T. P. | 9.08 | 0.2 | 178.81 | 169.73 | | |
| + 65 | | 9.0 | | ~~169.81~~ | | 170 66 |
| 24 | | 7.3 | | ~~171.51~~ | 172.10 + 2.9 | 172 36 |
| + 43 | | 4.0 | | ~~174.81~~ | | 175 66 |
| 25 | | 4.6 | | ~~174.21~~ | ⊙ 175.00 X | 175.06 |
| + 63 | | 5.1 | | ~~173.71~~ | | 174 56 |
| + 90 | | 2.9 | | ~~175.91~~ | | 176 76 |
| 26 | | 2.85 | | ~~175.96~~ | 177.25 | 176 81 |
| + 50 | | 3.5 | | ~~175.31~~ | | 176 16 |
| 27 | | 1.9 | | ~~176.91~~ | 179.50 | 177 76 |
| T. P. | 8.53 | 0.27 | 187.07 | 178.54 | | |
| 28 | | 6.0 | | ~~181.07~~ | 181.75 | 181 92 |
| 29 | | 4.0 | | ~~183.07~~ 86 | ⊙ 184.00 X | 183 92 |
| + 29.1 | | 3.6 | | ~~183.47~~ | | 184 32 |
| 30 | | 2.6 | | ~~184.47~~ | 185.94 | 185 32 |
| + 39 | | 1.0 | | 186.07 | | 187 05 O.K. to this Point |
| 31 | | 0.5 | | 186.57 | 187.89 | |
| T. P. | 9.8 | 0.02 | 196.85 | 187.05 | | B. M. #3 about 50' R. Sta 31 El. ~~191.43~~ 192.39 |
| 32 | | 5.7 | | 191.15 | 189.83 + 1.9444 | |
| + 90 | | 1.7 | | 195.15 | | |

Level notes Road from New Main St. in Prentiss to top of Hill

1/11/1901

| Sta. | B. S. | F. S. | H. I. | Elev | Graded Elev. | |
|---|---|---|---|---|---|---|
| 33 | | 1.5 | 196.85 | 195.35 | 191.78 | |
| T. P. | 9.42 | 3.02 | 203.25 | 193.83 | | |
| 34 | | 10.6 | | 192.65 | 193.72 | |
| +89.5 | | 9.1 | | 194.15 | | +1.9444 |
| 35 | | 8.8 | | 194.45 | 195.67 | |
| 36 | | 6.3 | | 196.95 | 197.61 | |
| 37 | | 3.7 | | 199.55 | 199.55 | |
| 38 | | 2.6 | | 200.65 | 201.50 | |
| 39 | | 0.8 | | 202.45 | 203.83 | |
| T. P. | 11.71 | 0.35 | 214.61 | 202.90 | | +2.3333 |
| 40 | | 10.00 | | 204.61 | 206.17 | |
| 41 | | 7.3 | | 207.31 | 208.50 | |
| 42 | | 4.2 | | 210.41 | 214.18 | |
| T. P. | 10.62 | 0.43 | 224.80 | 214.18 | | |
| +67.5 | | 8.4 | | 216.40 | | |
| 43 | | 6.8 | | 218.00 | 219.86 | |
| +50 | | 2.3 | | 222.50 | | |
| +75 | | 0.2 | | 224.60 | | +5.6818 |
| 44 | | 1.2 | | 223.60 | 225.54 | |
| T. P. | 11.95 | 0.21 | 236.54 | 224.59 | | |
| 45 | | 7.7 | | 228.84 | 231.23 | |

Level Notes - Road from New Main St. in Roseville, to Top of Hill

1/14/1901 -

| Sta | B. S. | F. S. | H. I. | Elev | Grade Elev. |
|---|---|---|---|---|---|
| +25 | | 6.6 | 236.54 | 229.94 | |
| +50 | | 1.8 | | 234.74 | |
| +70 | | 0.5 | | 236.04 | |
| +80.5 | | 1.2 | | 235.34 | |
| 46 | | 1.8 | | 234.74 | 236.91 |
| T. P. | 10.08 | 0.37 | 246.25 | 236.17 | |
| +22 | | 7.2 | | 239.05 | |
| +50 | | 7.2 | | 239.05 | |
| +65 | | 5.1 | | 241.15 | |
| 47 | | 6.3 | | 239.95 | 242.59 |
| +16 | | 7.2 | | 239.05 | |
| +40.5 | | 0.8 | | 245.45 | |
| T. P. | 9.04 | 0.68 | 254.61 | 245.57 | |
| 48 | | 4.4 | | 250.21 | 248.27 |
| +41 | | 0.7 | | 253.91 | |
| +80 | | 1.5 | | 253.11 | |
| 49 | | 4.4 | | 250.21 | 253.95 |
| T. P. | 11.39 | 0.52 | 265.48 | 254.09 | |
| +40.7 | | 12.0 | | 253.48 | |
| +66 | | 7.2 | | 258.28 | |
| 50 | | 3.8 | | 261.68 | 259.64 |

+5.6818

Level Notes – Road from new Main st. in Roselle to top of Hill – 1/11/1901 –

| Sta. | B. S. | F. S. | H. I. | Elev. | |
|---|---|---|---|---|---|
| T. P. | 11.98 | 0.42 | 277.04 | 265.06 | |
| + 73 | | 10.0 | | 267.04 | |
| 51 | | 9.6 | | 267.44 | 265.32 |
| + 50 | | 7.2 | | 269.84 | |
| + 85.8 | | 7.2 | | 269.84 | |
| 52 | | 6.4 | | 270.64 | 271.00 |
| T. P. | 12.00 | 0.45 | 288.59 | 276.59 | |
| 53 | | 9.9 | | 278.69 | 278.5 |
| 54 | | 2.8 | | 285.79 | 286.00 |
| T. P. | 11.76 | 0.22 | 300.13 | 288.37 | |
| 55 | | 7.4 | | 292.73 | 292.5 |
| 56 | | 0.8 | | 299.33 | 299.00 |
| T. P. | 11.82 | 0.38 | 311.57 | 299.75 | |
| + 73 | | 7.7 | | 303.87 | |
| 57 | | 6.2 | | 305.37 | 305.5 |
| 58 | | 1.6 | | 309.97 | 310.0 |
| T. P. | 8.88 | 1.22 | 319.18 | 310.35 | |
| 59 | | 6.0 | | 313.78 | 313.00 |
| 60 | | 3.3 | | 315.88 | 315.00 |
| + 12.4 | | 3.3 | | 315.88 | 315.00 |
| Ref. point | | 2.79 | | 316.39 | |

+5.6818



271.09
191.43
79.66

191.43
84.04
107.39

B.M. No 4 20' S. of Sta 51+85.8 5.95 Rod ~~271.09~~ 274.76

✓ B.M. on Reference point Elev. ~~316.39~~ 320.03

| B. S. | F. S. | H. I. | Elev. | Grade | |
|---|---|---|---|---|---|
| 8.02 | 0.47 | 108.02 | 100.00 | | B.M. #1, El. 100. |
| 10.29 | 0.76 | 117.84 | 107.55 | | |
| 11.41 | 1.89 | 128.55 | 117.14 | | |
| 11.51 | 1.41 | 138.17 | 126.66 | | |
| 7.39 | 1.50 | 144.15 | 136.76 | | |
| 10.15 | | 152.8 | 142.65 | | |

| Sta | B. S. | F. S. | H. I. | Elev. |
|---|---|---|---|---|
| | 9.4 | 1.83 | 109.4 | 100.00 |
| | 11.15 | 0.79 | 118.72 | 107.57 |
| | 11.07 | 0.68 | 129.00 | 117.93 |
| | 11.56 | | 139.82 | 128.32 |
| 9 | | 4.8 | | 135.02 |
| 10 | | 2.0 | | 137.82 |
| T. P. | 11.64 | 0.39 | 151.07 | 139.43 |
| 11 | | 8.4 | | 142.67 |
| 12 | | 10.3 | | 140.77 |
| 13 | | 8.6 | | 142.47 |
| T. P. | 7.64 | 0.51 | 158.20 | 150.56 |
| T. P. | 11.18 | 0.30 | 169.08 | 157.90 |
| | 9.18 | 1.68 | 176.58 | 167.40 |
| | 8.62 | 1.32 | 183.88 | 175.26 |
| | 10.20 | 0.01 | 194.07 | 183.87 |
| | 9.47 | 0.31 | 203.23 | 193.76 |
| | 10.30 | 0.61 | 212.92 | 202.62 |
| | 12.16 | 0.51 | 224.51 | 212.41 |
| | 10.43 | 0.37 | 234.57 | 224.14 |
| | 10.72 | 0.51 | 244.98 | 234.02 |
| | 10.63 | 0.75 | 255.16 | 244.53 |

| Sta | B.S | F.S | H.I. | Elev. |
|---|---|---|---|---|
| | 10.83 | 0.17 | 265.82 | 254.99 |
| | 11.30 | 0.17 | 276.95 | 265.65 |



276.96
2.22
~~275.47~~
~~274.74~~
.7

Corrected Elevations on Point Loma Road
Twin Station #31. to Sta. 60+12.4

| Sta | B.S. | F.S. | H.I. | Elev. |
|---|---|---|---|---|
| | 6.37 | | 198.76 | 192.39 |
| 31 | | 11.30 | | 187.46 |
| 32 | | 6.70 | | 192.06 |
| 33 | | 2.50 | | 196.26 |
| 34 | | 2.40 | | 196.36 |
| T.P. | 10.00 | 0.80 | 207.96 | 197.96 |
| +89.5 | | 10.10 | | 197.86 |
| 35 | | 9.9 | | 198.06 |
| 36 | | 7.4 | | 200.56 |
| 37 | | 4.8 | | 203.16 |
| 38 | | 3.7 | | 204.26 |
| 39 | | 1.9 | | 206.06 |
| T.P. | 11.56 | 0.79 | 218.73 | 207.17 |
| 40 | | 10.50 | | 208.23 |
| 41 | | 7.80 | | 210.93 |
| 42 | | 4.60 | | 214.13 |
| T.P. | 10.08 | 0.89 | 227.93 | 217.85 |
| +60.5 | | 7.9 | | 220.03 |
| 43 | | 6.3 | | 221.63 |
| +50 | | 1.8 | | 226.13 |
| T.P. | 9.72 | 1.15 | 236.50 | 226.78 |



B.M. #3. Elev. 192.39

| Sta | B. S. | H. S. | H. I. | Elev. | |
|---|---|---|---|---|---|
| | 1 | | 236.5 | | |
| 44 | | 9.20 | | 227.30 | |
| 45 | | 4.00 | | 232.50 | |
| +25 | | 2.90 | | 233.60 | |
| T. P. | 11.09 | 0.61 | 246.98 | 235.89 | |
| +50 | | 8.40 | | 238.58 | |
| +80.5 | | 8.00 | | 238.98 | |
| 46 | | 8.70 | | 238.28 | |
| +22 | | 4.30 | | 242.68 | |
| +50 | | 4.30 | | 242.68 | |
| +65 | | 2.20 | | 244.78 | |
| 47 | | 3.40 | | 243.58 | |
| +16 | | 4.30 | | 242.68 | |
| T. P. | 9.88 | 0.98 | 255.88 | 246.00 | |
| +40.5 | | 6.60 | | 249.28 | |
| 48 | | 2.10 | | 253.78 | |
| T. P. | 11.16 | 0.77 | 266.27 | 255.11 | |
| +41 | | 8.70 | | 257.57 | |
| 49 | | 12.40 | | 253.87 | |
| +20.7 | | 9.20 | | 257.07 | |
| +60 | | 4.30 | | 261.97 | |

| Sta | B.S. | F.S. | H.I. | Elev | |
|---|---|---|---|---|---|
| 50 | | 0.90 | 266.27 | 265.37 | |
| T.P. | 11.84 | 0.77 | 277.34 | 265.50 | |
| +73 | | 6.60 | | 270.74 | |
| 51 | | 6.20 | | 271.14 | |
| +50 | | 3.90 | | 273.44 | |
| +85.5 | | 3.90 | | 273.44 | |
| | | 2.58 | | 274.76 | |
| 52 | | 3.00 | | 274.34 | |
| T.P. | 11.85 | 0.78 | 288.41 | 276.56 | |
| 53 | | 6.05 | | 282.36 | |
| T.P. | 11.84 | 0.96 | 299.29 | 287.45 | |
| 54 | | 10.00 | | 289.29 | |
| 55 | | 2.90 | | 296.39 | |
| T.P. | 11.65 | 0.94 | 310.00 | 298.35 | |
| 56 | | 7.00 | | 303.00 | |
| +73 | | 2.30 | | 307.70 | |
| T.P. 57 | 11.15 | 1.00 | 320.15 | 309.00 | |
| 58 | | 6.50 | | 313.65 | |
| 59 | | 3.20 | | 316.95 | |
| 60 | | 0.80 | | 319.35 | |
| +12.4 | | 0.60 | | 319.55 | |



B.M. # 4 Elev. 274.76

| Sta | B.S. | F.S. | H.I. | Elev | |
|---|---|---|---|---|---|
| T.P. | 3.18 | 0.62 | 322.71 | 319.53 | |
| | | 2.68 | | | |



B.M. #5. Elev 320.03

March 26/1901 -

Provisional Grade on 31st. Street, from National avenue to Main Street.

| | B.S. | F.S. | I.H. | Elev. | Grade | |
|---|---|---|---|---|---|---|
| | 2.10 | | 74.07 | 71.97 | | B.M. Hydrant at S.W. Cor. 31st. + Nat'l Avenue. |
| 0 + 09 | | 3.05 | | 71.02 | 71.00 | 0.0 on top of Rail (Street Ry.) Nat'l av. |
| + 14 | | 1.95 | | 72.12 | 70.60 | + 1.52 |
| + 50 | | 2.10 | | 71.97 | 69.60 | + 2.37 ✓ |
| 1 | | 4.00 | | 70.07 | 68.10 | + 1.97 ✓ |
| + 50 | | 6.65 | | 67.42 | 66.70 | + 0.72 ✓ |
| 2 | | 8.60 | | 65.47 | 65.30 | + 0.17 ✓ |
| + 50 | | 10.80 | | 63.27 | 63.80 | − 0.53 ✓ |
| T.P. | 0.27 | 11.59 | 62.75 | 62.48 | | |
| 3 | | 2.00 | | 60.75 | 62.40 | − 1.65 |
| + 50 | | 3.25 | | 59.50 | 61.00 | − 1.5 |
| + 80 | | 2.60 | | 60.15 | 60.15 | 0.9 on top Rail N.C. + O. Ry |
| 4 | | 4.20 | | 58.55 | 59.70 | − 1.15 |
| + 50 | | 5.30 | | 57.45 | 58.60 | − 1.15 |
| 5 | | 6.30 | | 56.45 | 57.50 | − 1.0 |
| + 50 | | 6.90 | | 55.85 | 56.40 | − 0.5 |
| 6 | | 8.00 | | 54.75 | 55.30 | − 0.5 |
| + 50 | | 8.50 | | 54.25 | 54.30 | − 0.1 |

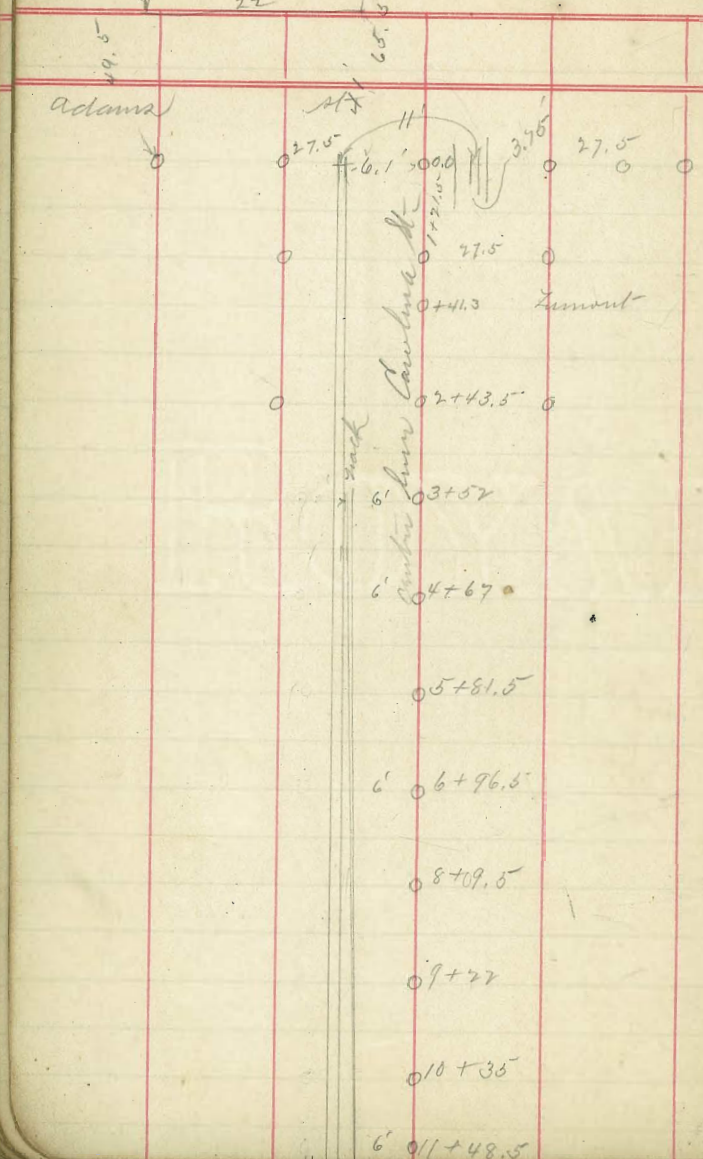
% 2.8552

% 2.1785

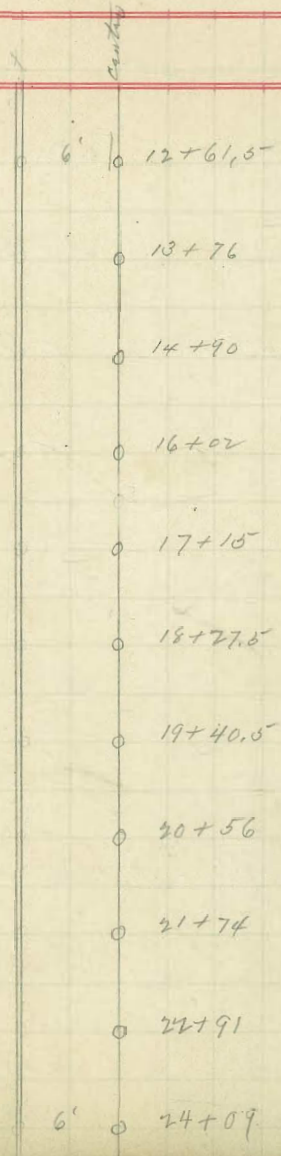
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | 62.75 | | | | 71.02 / 45.13 / 24.89 |
| 7 | | 9.70 | | 53.05 | 53.20 | − 0.1 | |
| +50 | | 10.60 | | 52.15 | 52.10 | 0.0 | |
| T.P. | 3.35 | 11.42 | 54.68 | 51.33 | | | |
| 8 | | 4.10 | | 50.58 | 51.00 | − 0.4 | |
| +50 | | 4.50 | | 50.18 | 50.25 | − 0.1 | |
| 9 | | 5.50 | | 49.18 | 49.50 | − 0.3 | |
| +50 | | 6.10 | | 48.58 | 48.75 | − 0.2 | |
| 10 | | 7.20 | | 47.48 | 48.00 | − 0.5 | |
| +50 | | 8.70 | | 45.98 | 46.50 | − 0.5 | |
| 11 | | 9.55 | | 45.13 | 45.60 | +0.1 | North line of Main Street. |

3.00 × % 1.50 × % 2.1785

Measurements of Cable Road from Adams Ave. to head of 5th St. showing location of road bed and poles — Mar. 26th 1901



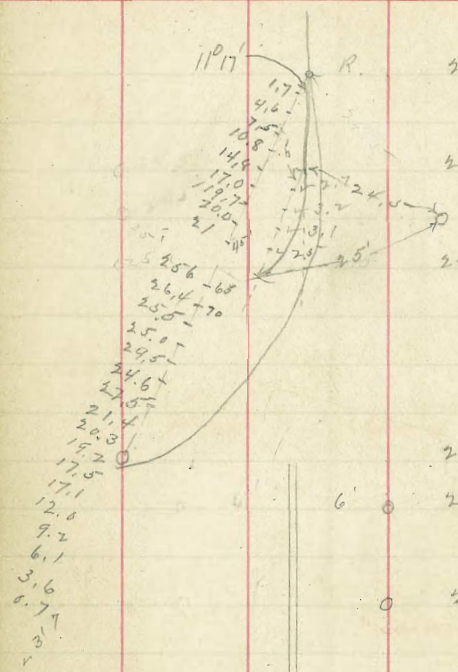


400.
65.5
34.5

2.4.5

| Sta | B.S. | F.S. | Int. | I.H. | Elev. |
|---|---|---|---|---|---|




24 + 80 Turnout

25 + 43.2 B.C

25 + 65.5 E.C

26 + 29.5 Turnout

6' 26 + 96

28 + 12

29 + 30

30, 46.5

31 + 63.5

32 + 80

6' 33 + 97

39
4.2
43.2
22.3
65.5

2.7
3.2
3.1
2.5

43.2
22.5
65.7



35 + 14.5

36, 31

81'

37 + 46

38, + 59

39 + 71.5

40 + 85

41 + 98

43 + 11

44 + 23.5

45 + 36.5

East Lins Boulevard

6' 46+49.5

47+62

48.75

49+88.5

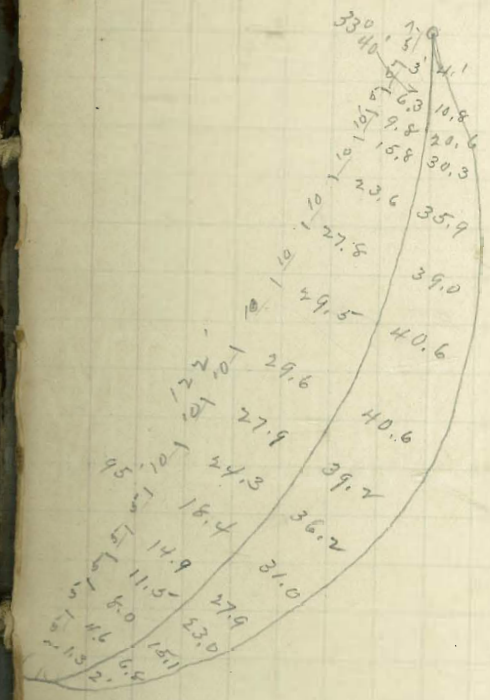
51+04

6' 52+27.5

53+12.8 Turnout

53+47 = B.C.






= 53+12.8

104
Return to City Engineers Office
City Hall, San Diego, Cal.

Return to City Engineers Office
City Hall, San Diego, Cal.

# TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

| Degrees. | DEGREES. | | ¼ DEGREE | | ½ DEGREE. | | ¾ DEGREE. | | Degrees. |
|---|---|---|---|---|---|---|---|---|---|
| | Lat. | Dep. | Lat. | Dep. | Lat. | Dep. | Lat | Dep. | |
| 0 | | | 100.00 | 0.44 | 100.00 | 0.87 | 99.99 | 1.31 | 89 |
| 1 | 99.98 | 1.75 | 99.98 | 2.18 | 99.97 | 2.62 | 99.95 | 3.05 | 88 |
| 2 | 99.94 | 3.49 | 99.92 | 3.93 | 99.91 | 4.36 | 99.88 | 4.80 | 87 |
| 3 | 99.86 | 5.23 | 99.84 | 5.67 | 99.81 | 6.10 | 99.79 | 6.54 | 86 |
| 4 | 99.76 | 6.98 | 99.73 | 7.41 | 99.69 | 7.85 | 99.66 | 8.28 | 85 |
| 5 | 99.62 | 8.72 | 99.58 | 9.15 | 99.54 | 9.58 | 99.50 | 10.02 | 84 |
| 6 | 99.45 | 10 45 | 99.41 | 10.89 | 99.36 | 11.32 | 99.31 | 11.75 | 83 |
| 7 | 99.25 | 12.19 | 99.20 | 12.62 | 99.14 | 13.05 | 99.09 | 13.49 | 82 |
| 8 | 99.03 | 13.92 | 98.97 | 14.35 | 98.90 | 14.78 | 98.84 | 15.21 | 81 |
| 9 | 98.77 | 15.64 | 98.70 | 16.07 | 98.63 | 16.50 | 98.56 | 16.93 | 80 |
| 10 | 98.48 | 17.36 | 98.40 | 17.79 | 98.33 | 18.22 | 98.25 | 18.65 | 79 |
| 11 | 98.16 | 19.08 | 98.08 | 19.51 | 97.99 | 19.94 | 97.90 | 20.36 | 78 |
| 12 | 97.81 | 20.79 | 97.72 | 21.22 | 97.63 | 21.64 | 97.53 | 22.07 | 77 |
| 13 | 97.44 | 22.50 | 97.34 | 22.92 | 97.24 | 23.34 | 97.13 | 23.77 | 76 |
| 14 | 97.03 | 24.19 | 96.92 | 24.62 | 96.81 | 25.04 | 96.70 | 25.46 | 75 |
| 15 | 96.59 | 25.88 | 96.48 | 26.30 | 96.36 | 26.72 | 96.25 | 27.14 | 74 |
| 16 | 96.13 | 27.56 | 96.00 | 27.98 | 95.88 | 28.40 | 95.76 | 28.82 | 73 |
| 17 | 95.63 | 29.24 | 95.50 | 29.65 | 95.37 | 30.07 | 95.24 | 30.49 | 72 |
| 18 | 95.11 | 30.90 | 94.97 | 31.32 | 94.83 | 31.73 | 94.69 | 32.14 | 71 |
| 19 | 94.55 | 32.56 | 94.41 | 32.97 | 94.26 | 33.38 | 94.12 | 33.79 | 70 |
| 20 | 93.97 | 34.20 | 93.82 | 34.61 | 93.67 | 35.02 | 93.51 | 35.43 | 69 |
| 21 | 93.36 | 35.84 | 93.20 | 36.24 | 93.04 | 36.65 | 92.88 | 37.06 | 68 |
| 22 | 92.72 | 37.46 | 92.55 | 37.86 | 92.39 | 38.27 | 92.22 | 38.67 | 67 |
| 23 | 92.05 | 39.07 | 91.88 | 39.47 | 91.71 | 39.87 | 91.53 | 40.27 | 66 |
| 24 | 91.35 | 40.67 | 91.18 | 41.07 | 91.00 | 41.47 | 90.81 | 41.87 | 65 |
| 25 | 90.63 | 42.26 | 90.45 | 42.66 | 90.26 | 43.05 | 90.07 | 43.44 | 64 |
| 26 | 89.88 | 43.84 | 89.69 | 44.23 | 89.49 | 44.62 | 89.30 | 45.01 | 63 |
| 27 | 89.10 | 45.40 | 88.90 | 45.79 | 88.70 | 46.17 | 88.50 | 46.56 | 62 |
| 28 | 88.29 | 46.95 | 88.09 | 47.33 | 87.88 | 47.72 | 87.67 | 48.10 | 61 |
| 29 | 87.46 | 48.48 | 87.25 | 48.86 | 87.04 | 49.24 | 86.82 | 49.62 | 60 |
| 30 | 86.60 | 50.00 | 86.38 | 50.38 | 86.16 | 50.75 | 85.94 | 51.13 | 59 |
| 31 | 85.72 | 51.50 | 85.49 | 51.88 | 85.26 | 52.25 | 85.04 | 52.62 | 58 |
| 32 | 84.80 | 52.99 | 84.57 | 53.36 | 84.34 | 53.73 | 84.10 | 54.10 | 57 |
| 33 | 83.87 | 54.46 | 83.63 | 54.83 | 83.39 | 55.19 | 83.15 | 55.56 | 56 |
| 34 | 82.90 | 55.92 | 82.66 | 56.28 | 82.41 | 56.64 | 82.16 | 57.00 | 55 |
| 35 | 81.92 | 57.36 | 81.66 | 57.71 | 81.41 | 58.07 | 81.16 | 58.42 | 54 |
| 36 | 80.90 | 58.78 | 80.64 | 59.13 | 80.39 | 59.48 | 80.13 | 59.83 | 53 |
| 37 | 79.86 | 60.18 | 79.60 | 60.53 | 79.34 | 60.88 | 79.07 | 61.22 | 52 |
| 38 | 78.80 | 61.57 | 78.53 | 61.91 | 78.26 | 62.25 | 77.99 | 62.59 | 51 |
| 39 | 77.71 | 62.93 | 77.44 | 63.27 | 77.16 | 63.61 | 76.88 | 63.94 | 50 |
| 40 | 76.60 | 64.28 | 76.32 | 64.61 | 76.04 | 64.94 | 75.76 | 65.28 | 49 |
| 41 | 75.47 | 65.61 | 75.18 | 65.94 | 74.90 | 66.26 | 74.61 | 66.59 | 48 |
| 42 | 74.31 | 66.91 | 74.02 | 67.24 | 73.73 | 67.56 | 73.43 | 67.88 | 47 |
| 43 | 73.14 | 68.20 | 72.84 | 68.52 | 72.54 | 68.84 | 72.24 | 69.15 | 46 |
| 44 | 71.93 | 69.47 | 71.63 | 69.78 | 71.33 | 70.09 | 71.02 | 70.40 | 45 |
| 45 | 70.71 | 70.71 | | | | | | | |
| Degrees. | Dep. | Lat. | Dep. | Lat. | Dep. | Lat. | Dep. | Lat. | Degrees. |
| | DEGREES. | | ¾ DEGREE. | | ½ DEGREE. | | ¼ DEGREE. | | |

Published by H. S. CROCKER COMPANY, Stationers, Drawing Materials
Mathematical Instruments, etc., San Francisco.