84

369

# TRANSIT.

F.B.84

84

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

| Minutes. | Links. | Minutes. | Links. | Minutes. | Links. |
|---|---|---|---|---|---|
| 1 | $2\frac{1}{3}$ | 21 | 49 | 41 | $95\frac{2}{3}$ |
| 2 | $4\frac{2}{3}$ | 22 | $51\frac{1}{3}$ | 42 | 98 |
| 3 | [illegible] | 23 | $53\frac{2}{3}$ | 43 | $100\frac{1}{3}$ |
| 4 | [illegible] | 24 | 56 | 44 | $102\frac{2}{3}$ |
| 5 | $11\frac{2}{3}$ | 25 | $58\frac{1}{3}$ | 45 | 105 |
| 6 | 14 | 26 | $60\frac{2}{3}$ | 46 | $107\frac{1}{3}$ |
| 7 | $16\frac{1}{3}$ | 27 | 63 | 47 | $109\frac{2}{3}$ |
| 8 | $18\frac{2}{3}$ | 28 | $65\frac{1}{3}$ | 48 | 112 |
| 9 | 21 | 29 | $67\frac{2}{3}$ | 49 | $114\frac{1}{3}$ |
| 10 | $23\frac{1}{3}$ | 30 | 70 | 50 | $116\frac{2}{3}$ |
| 11 | $25\frac{2}{3}$ | 31 | $72\frac{1}{3}$ | 51 | 119 |
| 12 | 28 | 32 | $74\frac{2}{3}$ | 52 | $121\frac{1}{3}$ |
| 13 | $30\frac{1}{3}$ | 33 | 77 | 53 | $123\frac{2}{3}$ |
| 14 | $32\frac{2}{3}$ | 34 | $79\frac{1}{3}$ | 54 | 126 |
| 15 | 35 | 35 | $81\frac{2}{3}$ | 55 | $128\frac{1}{3}$ |
| 16 | $37\frac{1}{3}$ | 36 | 84 | 56 | $130\frac{1}{3}$ |
| 17 | $39\frac{2}{3}$ | 37 | $86\frac{1}{3}$ | 57 | 133 |
| 18 | 42 | 38 | $88\frac{2}{3}$ | 58 | $135\frac{1}{3}$ |
| 19 | $44\frac{1}{3}$ | 39 | 91 | 59 | $137\frac{2}{3}$ |
| 20 | $46\frac{2}{3}$ | 40 | $93\frac{1}{3}$ | 60 | 140 |

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## TABLE FOR RUNNING ON SLOPES.

*In the following table the first column shows the angle; the second, the number of links to be added to a chain on the slopes, to make one chain—horizontal measurement.*

| Angle. | Cor. in Links. | Angle. | Cor. in Links. | Angle. | Cor. in Links. | Angle. | Cor. in Links. |
|---|---|---|---|---|---|---|---|
| ° | | ° | | ° | | ° | |
| 4 | 0·24 | 11 | 1·88 | 18 | 5·14 | 25 | 10·54 |
| 5 | 0·38 | 12 | 2·24 | 19 | 5·76 | 26 | 11·26 |
| 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 |

84

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Book No. 84.

name. date.

see book H5 also

Found old 1x2" plug with tack at San Antonia ave and Gila St probably center, measured South 0° 45' E Mag, 350 found similar plug with searf stake along side marked × S.A. Ave Colorado St on East side

Thence 375 to similar plug which appears to be the intersection of the middle lines of San antonia ave and Custom House ave, set witness along side 1½ x ½ x 16" pine stake

thence 385 to similar plug center of San antonia and First.

From this point took following bearings

Flag staff top of old Light house S10° 15' E mag

" " " of coronado hotel S79° 3' E

Flag staff new Quantine Station N 72° 30' E

thence 350' to similar plug at San Antonia & Second St

350 to similar plug on 3rd & San Antonia ave.

From center of First & San antonia ave ran east 448' 2. 4" North of 3x3" white stake marked Lot 54 on North, Beach on west. U.S. M.H.S on East First St on South

See

458' to west side of building on Quarantine Sts 7.5 North to Cor.

From Gila & San antonia
Ran N 0° 45' N mag. 350' to
St.
thence 350 to
175 to South line of old Lush
lot 50' west to cor fence which
shows that the line of Plugs are
in the middle line of San
Antonio Ave 350' to center of.

See page

Street Center or San Antonio Ave in La Playa

Feb 1 13 1893 Hamlin Williams Shaw.



Began at the S.E. cor of the lot 3 Blk 124) and measured the south side of the fence.

Set up over this point and old redwood plug 1"x2" 6" the center of San Antonio Ave

Thence S 0° 45' E mag. 350 along center of James St.

Thence S 0° 45' E mag ~~350' to~~
" " 350' to
" " 350 "
" " 350 "
" " 375' "
" " 375 "
" " 350 "
" " 350 "

From the center of San Antonio & Second St took the following Bearings (Spire of old Light house S 10° 15' E mag.
Spire of Coronado Hotel S 72° 0' E "
New flag staff in Dual intire Block N 72° 30' E "

For Lush lot (which is S 1/2 of 50' into the street; (lined along measured N 0° 45' W. (mag) 175' found below the surface, which is & John St.

the center line of S.A. Ave to the

~~Center of James St~~
" " Pearl St
" " Gila St
" " Colorado
" " Custom House Ave
" " First St.
" " Second St.
" " Third St.

at the S.E. cor of Blk 124
there is an iron bolt; also
at the N.W. & N.E. cors of 121
probably set by Thompson
from Lush lots.

The old line of Plugs appear
to be in the center line
of San Antonio ave and
each of the cross Streets.
Probably set by Wheeler
or Pasteve

Hamlin

Retracing North line of U.S. Military Reservation on Pt Loma.

Feb 21 1893 Hamlin transit
Shaw
Williams
Cummings



| Sta | Course | M.C. | Vert Angle | Rod | Hor Dist. | |
|---|---|---|---|---|---|---|
| See p. 8 for sketch. | | | | | | |
| 0 | West | S 76° 15' W | +3° 45' | 14.04 | 1398.0 | Set up over stone: marked U.S.M.R. on top; The N. line of Military Res. Assumed Var. to be N 13° 45' E and ran west by this Var. |
| 13+98 | | S 76° 10' W. | +16° 10' | 4.53 | 418 | Sta 13+98 foot of steep hill M.C. is S 76° 10' W. |
| 18+16 | | | +11° 50' | 5.31 | 509 | Bench in hill side |
| 23+25 | | | +10° 20' | 2.31 | 224' | |
| 25+49 | | | 0° 0' | 11.82 | 1182 | From Sta 25+49 S 34° 30' E mag 7.7 to a stone set on end; also N 84° 30' W mag 221' to a stake marked S.E.W. 105' From Sta 25+49 tower on Fairbanks House Bears N mag, and Old Light House S. 20° W Mag |

probably on line

Retracing North line of U.S. Military Res. on Pt Loma

| Sta | course | Mag. | Vert angle | Rod | Hor Dist |
|---|---|---|---|---|---|
| 37+31 | West | | 0.0 | 0.77 | 77.0 |
| 38+08 | | | -5° 0' | 4.35 | 432. |
| 42+46 | | | -5° 50' | 1.79 | 177. |
| 44+17 | | | -9° 40' | 2.04 | 198.0 |
| 46+15 | | | -13° 40' | 9.77 | 923 |
| 55+38 | | | | | |

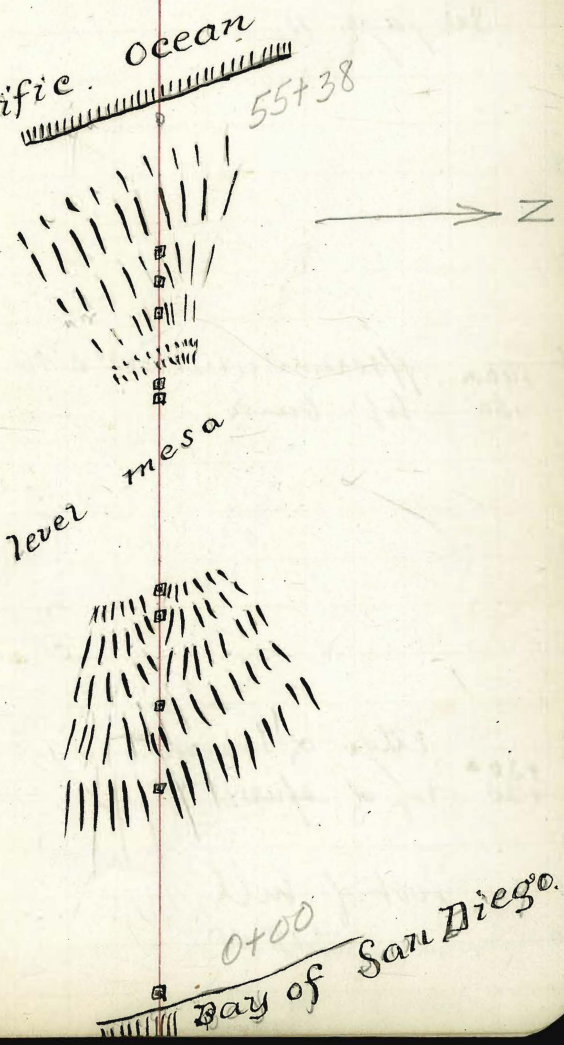
From this point S 15° W mag 19' to 2x2" stake marked 66 on N.W.

Top of steep bank. M.C. S 76° 10' W.

cr at Sta 54+78 and 22.2' South

From this point S 83° 30' E mag 64' to a sand stone set on edge 1'9" x 3" 6" above ground, and marked W.S.MR on top

Retracing North Line of
U.S. Military Reservation




1358

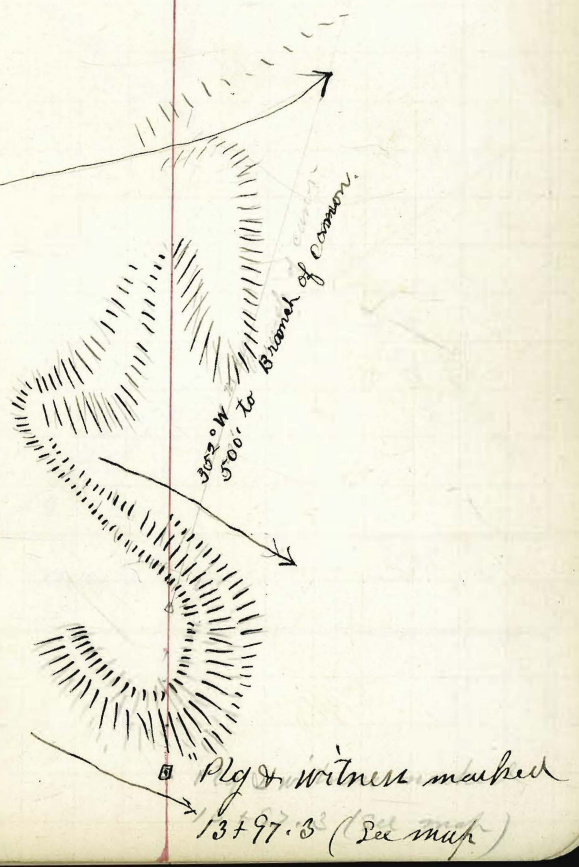
0

line between Pueblo Lots 208 & 209

Feb. 23 1893 Hamlin
Shaw
Williams
Cummings



| Sta | | Course | M.C. |
|---|---|---|---|
| | | See page 11 | |
| 9 | | | |
| 8 | | | |
| 7 | | | |
| 6 | +90 △ | approximate dist S 87° W to bank of | |
| | +50 | top bank | |
| 5 | | | |
| 4 | | | |
| 3 | | | |
| 2 | +30 △ | Edge of ravine | |
| | +20 | top of spur | |
| 1 | | | |
| | +40 | foot of hill | |
| 0 | | S 22° W | |



Line along the west side of 201

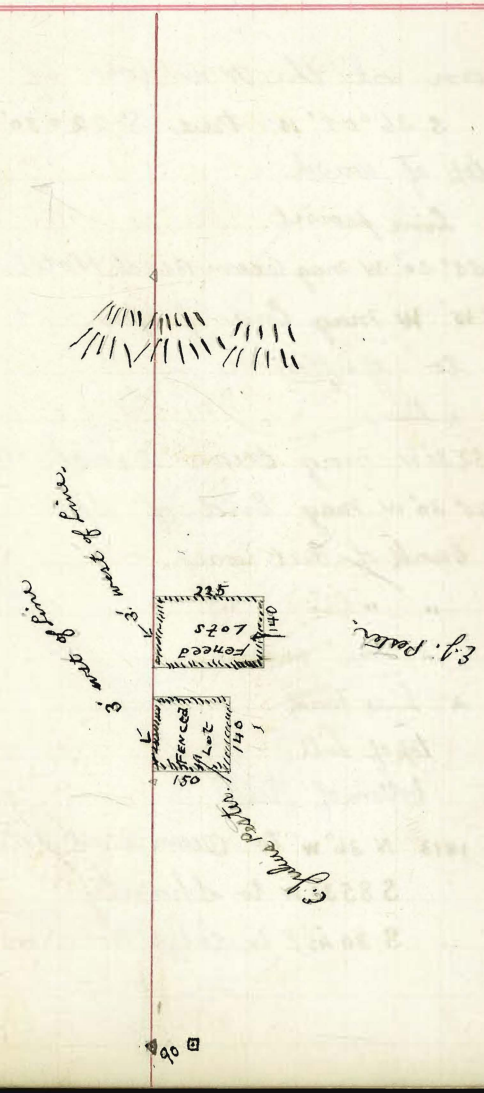
Feb 28 1893

Hamlin
Shaw.
Cummings
Williams



Set a point on the North line of 201
90' East of N.W. cor of 201. from
this ran S 36° 05' W (S 22° 20' W mag.
(with carfule measurment)

| | |
|---|---|
| 568 | to N line of fence 3' to west |
| 550 △ | Line |
| 709 | South line of fence 3' to west |
| 789 | North line of fence 3 to west |
| 929 | South line of fence 3' to west |
| 1600' | Line |
| 2640' | 90° to R 100.4 to cor. Struck 1.5 North |



Line along the west side of 196

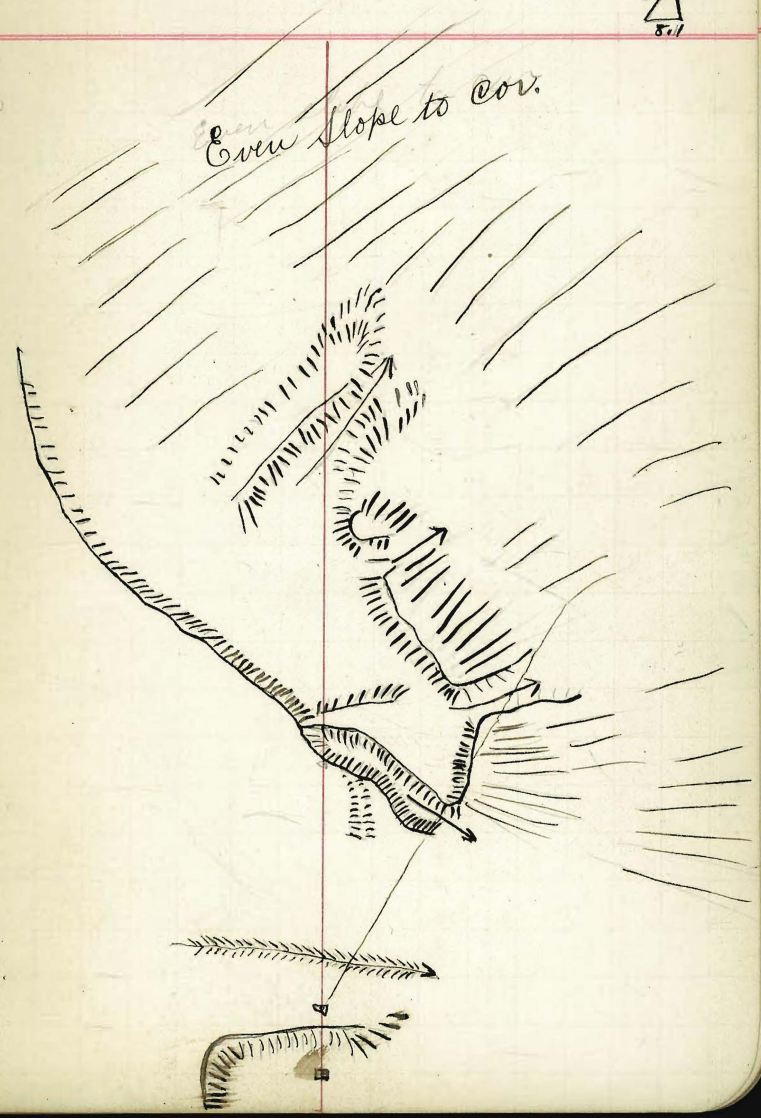
Began at the N W cor of 196
Ran S 36°05' W true S 22°30' W mag.)
100' top of wash
114' Line point.
① N 55°30' W mag Ocean Beach Hotel
② S 53°45' W mag. End of spur
235 to gulley.
6+50 △ Line
① N 52°30' W mag. Ocean Beach Hotel
② N 70°30' W mag. End of Spur
655 bank of deet wash
725 " " " "
1400 " " ravine
1413 A Line point
1450 top of hill
1500 bottom of Hill.
From 1413 N 36° W to Ocean Beach Hotel.
S 85 30' W to Shanty
S 30 45' E to Cliffs House on Hill in 191
2645

Feb 28 1893

Hamlin
Shaw.
Cummings
Williams

23

6 △ 8.1



meander line along the west side of 195

| Chest | Azimuth | M.C. | | | |
|---|---|---|---|---|---|

West line of Publo Lot 202



Began at the S.W. cor of 202 ran
N 36° 05' W True (N 22° 45' E mag)

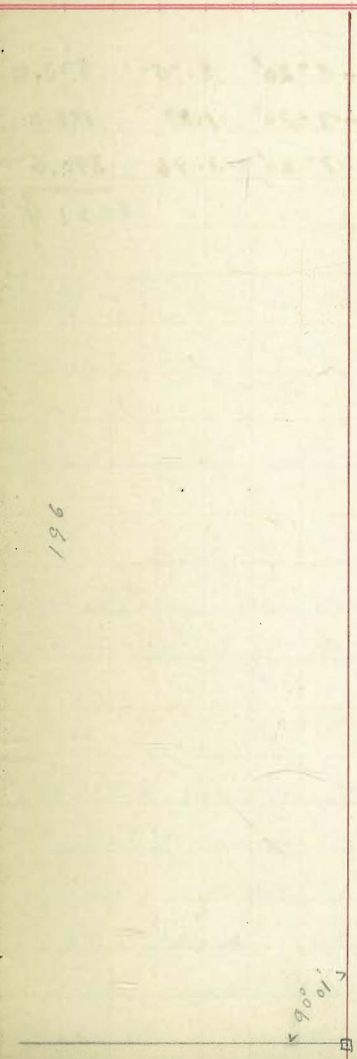
From cor N. 37 3/4° mag. W to Ocean Beach Hotel

2642.5 to cor 11.5 west of Line

Line bet 196 and 201



| Sta | Def | Course | Vert | Rod | Dist. |
|---|---|---|---|---|---|
| 0 | | | -0° 25' | 7.24 | 724.9 |
| 724.9 | | | +3° 50' | 1.92 | 192.0 |
| 916.9 | | | +3° 40' | 5.18 | 516.9 |
| 1433.8 | | | +0° 30' | 1.85 | 186.0 |
| 1619.8 | | | -2° 0' | 4.06 | 406.5 |
| 2026.3 | | | -1° 0' | 3.90 | 390.9 |
| 2417.2 | | | | | |



Line along south side of 196
by Stadier.

| Sta | Course | | vest | Rod | dist | measure | |
|---|---|---|---|---|---|---|---|
| | | | -3°26' | 8.75 | 873.0 | 872.5 | 86+77.3 |
| | | | -3°30' | 1.88 | 188.4 | 189.0 | 82+66.3 |
| | | | -7°20' | 3.96 | 390.5 | 390.8 | 86+57.1 (cor) |
| | | | | | 1451.9 | 1452.3 | |
| | | | | | | 1189.2 | |
| | | | | | | 2641.5 ← to cor 195 – 196 | |

95+17.4 to check line

Set up on S.W. cor 196 – 90° – Struck
4.5 West of N.E. Cor of 196

At N.W. Cor 196 found line out .06'
conected and turned 89°59' measured
offset at Sta 114 on West line of
196 found it to be .14' from
this calculated offset at
SW cor and made it 4.8' which
agrees with above offset.

Check of measurement from Sta 96+19.8
East from N line of Ocean Beach.

Sta

809.0 to Sta 88+10.7 check line
1837.0 to Sta 77+85
389.6 to cor 200+201
2226.6
415
2641.6

389.35

Apr. 8. 1893 Hamlin
Williams Shaw.

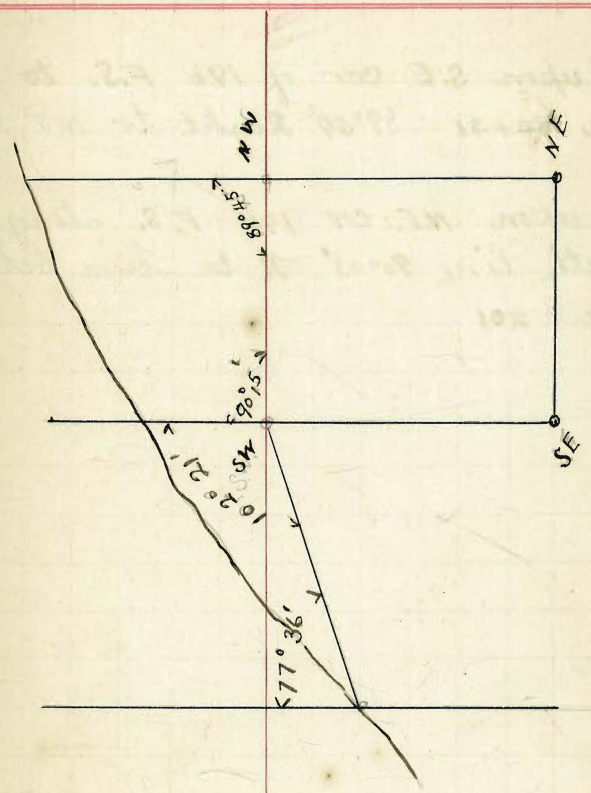
Check of meas along North of 201

| | | | |
|---|---|---|---|
| 0 | = Sta | = | 69+79.8 |
| 415.0 | to Sta | — | 73+94.8 |
| 389.4 | " " | — | 77+84.2 |
| 915.1 | " " | — | 8699.3 |
| 919.8 | " " | — | 96+19.1 |
| 2639.3 | | | |

6979.8
2639.3
9619.1

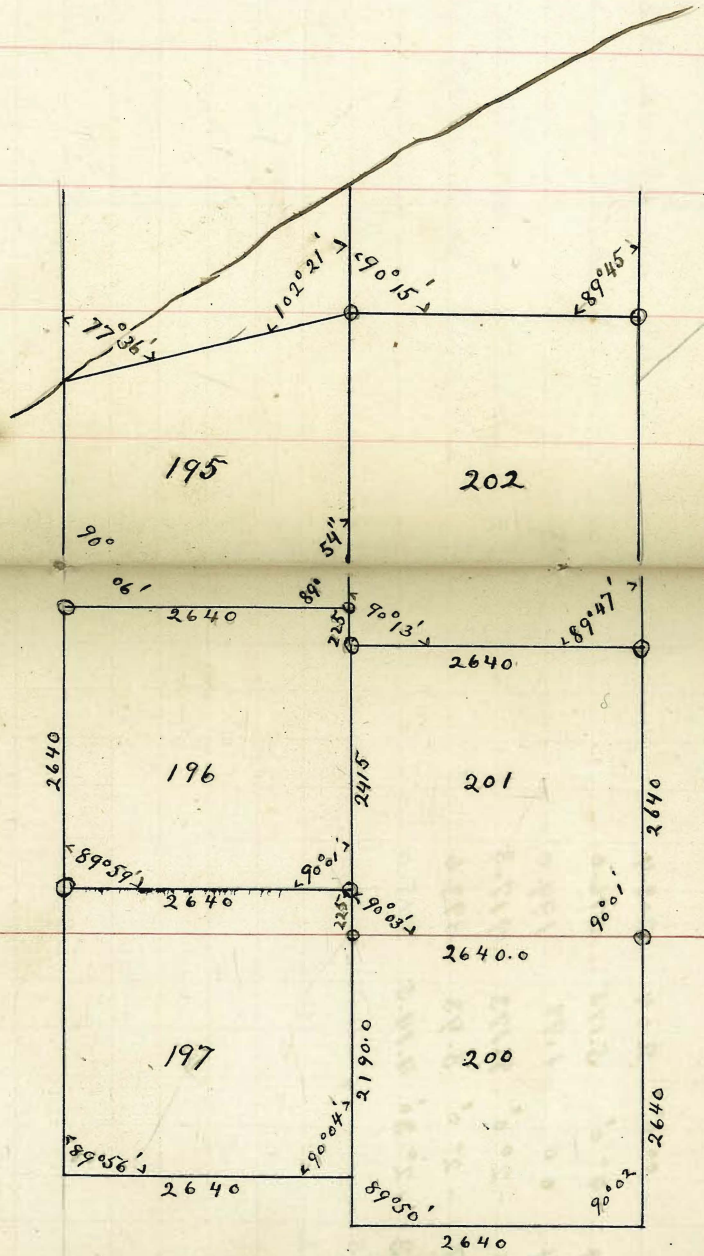
Set up at N.W. Cor 206 B.S. to N.E. Reversed L to SW Cor 89° 45' ½

Set up at SW Cor 206 B.S. to SE Reversed 90° 15' to NW cor.



Set upon S.E. cor of 196 F.S. to
Sta 80+31 89°59' Right to N.E. 196

Set upon N.E. cor 196 F.S. along
north line 90°03' R. to line bet
200 & 201


195
202
196
201
197
200
2640
2640
2640
2640
2640
2640
2640
2640
2640.0
2190.0
2415
2225
2225
90°
54"
89°45'
90°15'
102021'
77°36'
89°47'
90°13'
89°59'
90°01'
90°03'
90°01'
89°56'
90°04'
89°50'
90°02

| Dist | Vert | Rod | Dist | | |
|---|---|---|---|---|---|
| 0 | - 5° 0′ | 2 04 | 203.4 | | |
| 203.4 | +4° 0′ | 5.175 | 516.0 | | |
| 719.4 | 0 0 | 1.98 | 199.0 | | |
| 918.4 | -2° 0′ | 9.173 | 917.3 | | |
| 1835.7 | - 2° 0′ | 3.93 | 393.6 | | |
| 2229.3 | - 2° 30′ | 4.14.5 | 415.0 | | |
| 2644.3 | | | | | |

From N.E. cor of 196 S 41°15' W
Mag. to Cliff House in P.L. 191

82+70

N 30° W

$\frac{3}{5}x$

$3/5 = x$

7.92
5
5) 23.76 4.75
20
37
35
25

4.75

4.75

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# 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 | 65.93 | 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. | | |

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