

San Diego Sewer

Transit No. 2

9

TRANSIT

F.B. 704

704

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

Minutes.	Lks.	Minutes.	Lks.	Minutes.	Lks.
1	2½	21	49	41	95½
2	4½	22	51½	42	98
3	7	23	53½	43	100½
4	9½	24	56	44	102½
5	11½	25	58½	45	105
6	14	26	60½	46	107½
7	16½	27	63	47	109½
8	18½	28	65½	48	112
9	21	29	67½	49	114½
10	23½	30	70	50	116½
11	25½	31	72½	51	119
12	28	32	74½	52	121½
13	30½	33	77	53	123½
14	32½	34	79½	54	126
15	35	35	81½	55	128½
16	37½	36	84	56	130½
17	39½	37	86½	57	133
18	42	38	88½	58	135½
19	44½	39	91	59	137½
20	46½	40	93½	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

40 55
 35
 22

Dunnaraw's Book

20th St. South of C

0+

Y

+ 10

+ 20

+ 30

+ 40

+42 S.L.C st

+ 50

+ 56

PT.

+ 68

+ 93

25' S of S.L.C st

1+18

+43

+68

+93

2+18

+43

+68

+93

3+18

+43

+63

+83

70' L. D. st

4+3

20th st line south of C

+93 S L. D. st

+48

+73

+98

5 + 23

+48

+73

+98

6 + 23

+48

+73

+98

7 + 23

N L of E st

+43

+63

+83

8 + 3

S L of E st

The image shows an open notebook with two pages. The left page is a ledger page with a grid of red lines. It has two horizontal lines near the top, creating a header section. Below these lines, there are six vertical lines that divide the page into seven columns of varying widths. The right page is a standard grid page with a uniform grid of light blue lines. The notebook is placed on a white surface with some speckles.

19th st south of C

0+0

y

+10

+20

+30

+40

+50

+56

+68

+93

1 +18

+43

+68

+93

2 +18

+43

+68

+93

3 +18

+44

0+42 S.L. of C st

25' S of S.L. C. st

N.L. D. st

17th st north of S

sta

0+0

+9.6

+19.2

+28.8

+38.4

+65

+85

1+10

+35

+60

+85

2+10

+30

+60

+85

3+10

+35

+60

+85

4+10

+30

Y. 0+4 S.L.C

N.L. of C st

S.L.B. st

17th st north of 6 st

sta

+50

+70

+90

5+15

+40

+65

+90

6+15

+40

+65

+90

7+15

+40

+65

+90

N. Leaf B. st

S. L. A. st

Albatross Line North of

Date about

Sta

11+14

+54.1

+34

+74

+94

12+19.4

+44.8

+70.2

+95.6

13+21

+46.4

+60.1

+71

+96

14+21

+46

+71

+96

15+16

+36

+56

S.S. Hote

N.S. Hote @ 9° 51' Left

Δ Angle 9° 27' 50" Right

South Line Elm

Elm Sh

19+73 X. for Union St

8

Date Street

Albatross Line North of

19+69.4

1526

+76

16+01

+26

+51

+72.4

+76

17+01

+26

+51

+75

18+01

+26

+51

+82

19+02

+22

+42

+62

+87

20+12

+57

N to Alms
S for Union street line

X for Union

South Line Pier

True St

N to Pier

Albatross Line

North of date

+62

+87

214/12

-37

62

-87

22+12

+62

See H another

2nd street North

of B

12

sta

1 + 0

+ 20

+ 40

+ 60

+ 80

10 5

+ 30

+ 55

+ 80

20 5

+ 30

+ 55

+ 80

30 5

+ 30

+ 55

+ 80

40 0

+ 20

+ 40

+ 60

South line B

North line B

South line A

North line A

2nd Street Line North of B

+85
 510
 +35
 +60
 +85
 610
 +35
 +60
 +85
 710
 +35
 +60
 +80
 800
 +20
 +40
 +65
 +90
 915
 +40
 +65

South Line Ash

North Line Ash

2nd at North of

B

790
 1015
 +40
 +65
 +90
 1115
 +41
 61
 +81
 1201
 +21
 +46
 +71
 +96
 1321
 +46
 +71
 +96
 1421
 +46
 +71

South Line Buck

North Line Buck

2nd street North

of 13

+96

1521

+41

+61

+81

1601

+26

+51

+76

1701

+26

+51

+76

1801

+26

+51

+76

1901

+21

+41

+61

South Line Cedar

North Line Cedar

South Line Date

2nd Street Line

+81
 2006
 +31
 +56
 +81
 2106
 +31
 +56
 +81
 2206
 +31
 +56
 +81
 2301
 +21
 +41
 +61
 +86
 2411
 +36
 +61

North of B

North Line Date

South Line Elm

North Line Elm

2nd street north of

B

+86

2511

+36

+61

+86

2611

+36

+63

+83

2703

+23

+43

+68

+93

2818

+43

+68

+93

2918

+43

+68

+93

South Line Fir

North Line Fir

2nd street line

north of B

3018

+43

South Line Grape

Union Street

Sta

16+72.4

+4.9

17+1.4

+3.9

+6.4

+8.9

18+1.4

+3.9

+6.4

+8.9

19+0.3

-2.3

4.3 ~

6.3

8.3

20+0.3

+2.3

+4.8

+7.3

+9.8

21+2.8

North of Albatross

y

South Line Sir

North Line Sir

Union street north

of East of Albatross

+48

+53

+98

2223

+48

73

2303

23

43

63

83

2403

+28

53

78

2503

+28

+53

+78

2603

28

South line of Grape

North line Grape

J

Union Street North

21
of Foot of Albatross

+53

+78

+94

South Line Hawthorn

Arctic st con with

main line

Sta

0

+10

+20

+30

+40

+50

+55

India street con

Sta

0+

+10

+20

+30

+40

+50

+56

+80

y

North L H
with main line

y

+55 N L H
PT
end of pipe

Columbia street

cor with main line

sta

0+

+10

+20

+30

+40

+50

+56

+80

1405

+30

J

+55-NL H

end of pipe

Front Street Line

54165

+90

5515

+40

+65

+90

5615

+40

+65

+90

5715

+90

+60

+80

5800

+20

+45

+70

+95

5920

+45

North of Fir

25 N. N. L. Fir

South Line Grape

North Line Grape

Front Street North of

Fin

+70
+95
6020
+45
+70
+95
6120
+40
+60
+80
6200
+25
+50
+75
6300
+25
+50
+75
6400
+25
+50

South Line Hawthorn

North Line Hawthorn

Front street north

of fire

+75

65 00

+20

+40

+60

+80

66 05

+30

+55

+80

67 05

+30

+55

+80

68 05

+30

+55

+81

South Line Log

North Line Log

South Line juniper

Brant street north

2578 y

+88.8

+99.6

2600.4

+15-

+40

65

90

2715

+35

+55

+75

+95

2820

+45

+70

+95

2920

+45

+70

+95

of East of Union

South Line Hawthorn

North Line Hawthorn

Brant street North

3020

+45

+65

+85

3105

+30

+55

+80

3205

+30

+55

+80

3305

+30

+55

+80

3405

+30

of East of Union

South Line Ivy

North Line Ivy

South Line juniper

Street line from

Star

0 + 0
+ 15.5
+ 25
+ 50
+ 75

1

+ 25
+ 50
+ 75

2

+ 25
+ 50
+ 75
+ 95

+ 97

3 19

+ 41

+ 63

+ 88

4 13

+ 38

Union to First

W L Union
y

E L Union

W L Front
y south
y north

E L Front

14th street line north

of L

Sta

0

+10

+20

+30

+40

+50

+56

+61

+86

1 11

+36

+61

+86

2 11

36

61

86

3 11

+36

+56

+76

Y con with L st

+33 N. L. L. st

p p

S. L. K

NOTE

21306

A

14th Street Line

sta

+96
 4.1.6
 +41
 +66
 +91
 5-1.6
 +41
 +66
 +91
 6.1.6
 +41
 +66
 +91
 7.1.7
 +37
 +57
 +77
 +97
 8.2.2
 +47
 +72

North of L

N.L.K.

2°26' right

S.L.G.

N.L.G.

5°49' left

14th Street North

of L

97
 922
 +47
 +72
 +97
 10225
 +47
 +72
 +97
 1117
 +37
 +57
 +77
 1202
 +27
 +52
 +77
 1302
 27
 52
 77

3'2" right

S. L. I. st

N. L. I. st

14th street north

of L

34

140.2

+27

+52

+77

S L H

Atlantic street North of D

sta

0

+25-

+50

+75

1

+25

+50

+75

2

+25

+50

+75

3 1 >

+3 >

+5 >

+7 >

4 0 2

+2 >

+5 2

+7 >

north Line ^{4°35' right} D

S.L.C.

4°35' left

N.L.C.

Atlantic strut

north of D

502

+27

+52

+77

602

+27

+52

+77

+97

717

+37

+57

+82

807

+32

+57

+82

907

+32

+57

+82

S L B

N L B

Atlantic street

North of D

37

10 0 7

+3 2

+5 7

+7 7

+9 7

11 1 7

+3 7

+6 2

+8 7

12 1 2

+3 7

+6 2

+8 7

13 1 2

+3 7

+6 2

+8 7

14 1 2

+3 4

+5 4

+7 0

S L A

N L A

S L Ash

F T

Kist Line East

of 14th

38

sta

0

+10

+20

+30

+40

+50

+56

+66

+91

116

+41

+66

+91

216

+39

+62

+87

312

+37

+62

+87

J

+41 E L 14th

70 71

▲ road 70 221 R

Rest Line East

of 14th

sta

412

M 4 257 W W L 15th

8 st West of 15-

ster

0

+10

+20

+30

+40

+50

+56

+67

+92

117

+42

+67

+92

217

+42

+67

+92

317

+42

+67

+92

40

Y on 13th st

+42 8th 15th

PT

Dist west of 15th

sta

408

+1.9

+30

+41

+52

+63

+74

+85

+96

507

-1.8

+29

+32

P.C.

+44 E L 14^m

N L St

P.T.

14th st north of G

sta

0+

+15-

+40

+65-

+90

1+15

+40

+65

+90

2+15

+40

+65

+85

3+05

+25

+45

+70

+95

4+20

+45

+70

PT

S L E st

North L E st

14th st North of D

sta

+95

5+20

+45

+70

+95

6+20

+45

+65

85

7+05

+25

+50

+75

8+00

25

50

75

9+00

+25

+50

+75

S. L. Dist

North Line D

Connect 2nd St with main

line at J St

45

0

+09

+18

+27

+36

+44

P.C.

= N. line of J. St P.T.

Connect 3rd st with main line at J. St

0

+15

+22.9

+30.8

+38.7

+46.6

+54.5

+61.1 = 100 = N line at J. St

14th street South of G

sta

0+
 ++6.5-
 +16.26
 +26.02
 +35.78
 +45.54
 +55.30
 +65.06
 +73.84
 +87
 1+12
 +37
 +62
 +87
 2+12
 +37
 +62
 +87
 3+12
 +37
 +62

Y
 P.C

+ 61.30 S L G

P T
 25 ft S L G

N L H

East of 14th

th

0

+10

+20

+30

+40

+50

+56

+67

+92

1+17

+42

+67

+92

2+17

42

Y

+42 EL 14th

P 77

Front it can with

I st line

sta

00

+13

+23

+33

+43

1+

2

TRAVERSE TABLE FOR TRANSIT BOOK,
From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		¼ DEGREE.		¼ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	84
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	83
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	82
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	81
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	80
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	79
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	78
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	77
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	76
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	75
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	74
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	73
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	72
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	71
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	70
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	69
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	68
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	67
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	66
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	65
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	64
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	63
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	62
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	61
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	60
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	59
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	58
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	57
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	56
29	87.46	48.48	87.23	48.86	87.04	49.24	86.82	49.62	55
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	54
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	53
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	52
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	51
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	50
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	49
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	48
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	47
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	46
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	45
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	44
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	43
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	42
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	41
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	40
45	70.71	70.71							39
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¼ DEGREE.		¼ DEGREE.		¼ DEGREE.		

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Handwritten calculations and notes on the left page of the notebook. Includes numbers like 25, 14, 11, 175, 69.4, 3.0, 37.5, 22.0, 9.6, 5.5, 13, 4=25, 48, 21.4, 19.2, 9.6, 3.50, 69.4, 38.4, 26.6, 65.0, 16260, 2700, 25.0, 810, 15.5, 9.5, 73.8, 14, 8788, 300, 8, 2400, 640, 1626, 65, 3040, 9.76.