

1396

Reynard Hills

EXPENS
FIELD BOOK
1916

REYNARD
HILLS.
FB 1396

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

MICROFILMED

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

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

66.03
59.80
6.73

7.94
1685
2479

105.01
10.57
115.58

60.00
47.00

120.00
1.41
121.41
2.50
123.91
2.50
126.41
2.50
128.91
2.50
131.41
2.50
133.91
3.00
135.91

47.00
3.21
50.21
3.21
53.42
3.21
56.63
3.38
59.01

40:

4" = 33
3" = 25
4" = 33
5" = 42
6" = 4

Tom J. Allen. C.E.

309 G Street

San Diego

INDEX

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Aug. 17, 1929 1.

CUTS FOR 54" SEWER.

Sta.	t	H.I.	-	Elev.	Grade	Cut.
9+06 End	0.73	61.29		60.56	44.00	
9+00			3.12	58.17 ✓	43.90	14.27 ✓
8+50			3.04	58.25 ✓	43.11	15.14 ✓
8+00			3.91	57.38 ✓	42.32	15.06 ✓
7+50			5.67	55.62 ✓	41.53	14.09 ✓
7+00			5.55	55.74 ✓	40.74	15.00 ✓
6+50			4.98	56.31 ✓	39.96	16.35 ✓
6+00			4.30	56.99 ✓	39.17	17.82 ✓
5+50			3.99	57.30 ✓	38.38	18.92 ✓
T.P.	6.78	66.58	1.49	59.80		
5+00			0.13	66.45 ✓	37.59	28.86
4+50			5.54	61.04 ✓	36.80	24.24 ✓
4+00			1.18	65.40 ✓	36.02	29.38 ✓
T.P.	3.59	63.39	6.78	59.80		
			2.82	60.57 ✓		

BM. N^o 1

92
F

Gr. Rate = 1.5765%

Elev. Δ = 29.71

0+00 = Δ

BM. N^o 1

Aug. 17, 1929. 2.

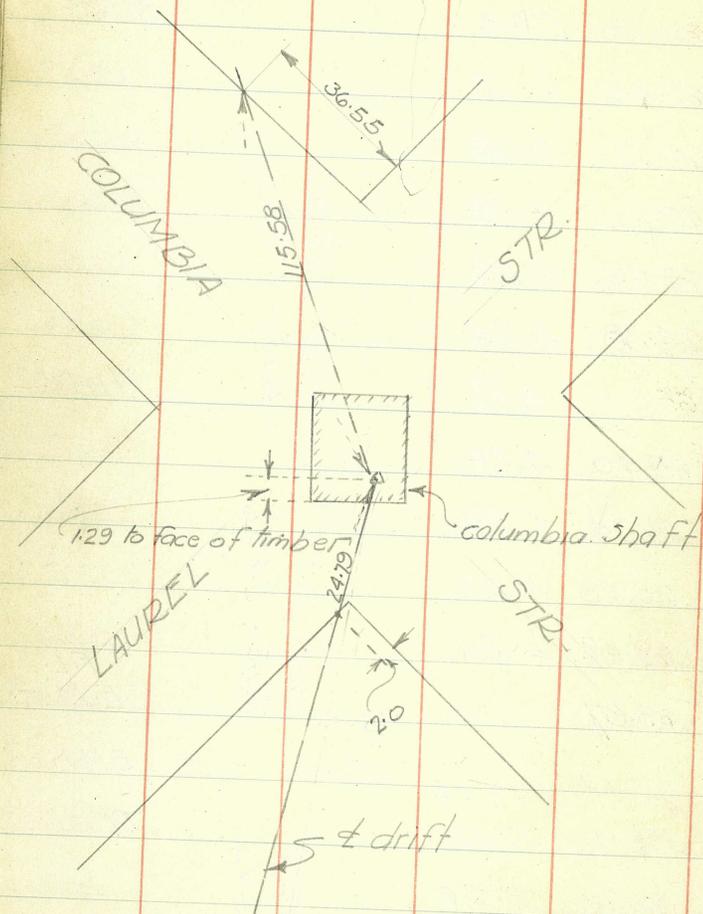
Sta	MAPLE STR.	SEWER.	Elev	Gr.	Cut	
	+	H.I.	-			
	0.97	75.61				
			74.64			
2+02.50			9.77 65.84	60.00	5.84	B.M. #2
2+50			8.64 66.97	60.84	6.13	M.H.M. #1
3+00			8.29 67.32	61.72	5.60	
3+50			8.06 67.55	62.61	4.94	
4+00			7.36 68.25	63.49	4.76	
4+50			6.29 69.32	64.38	4.94	
4+85°			6.04 69.57	65.00	4.57	M.H.M. #2
5+00			5.67 69.94	65.40	4.54	
5+50			4.31 71.30	66.74	4.56	
6+00			3.23 72.38	68.08	4.30	
6+50			1.84 73.77	69.42	4.35	
6+66.75			5.74 69.87	69.87		F.L. E.M.H.
	5.22	65.78	60.56			
0+00			8.64 57.14	47.00	10.14	B.M. #1
0+50			7.27 58.51	35.01	22.13	D.M.H.M. #8
1+00			4.98 60.80	50.21	8.30	
1+50			2.54 63.24	53.42	7.38	
2+02.50			10.05 65.83 (65.84)	56.63	6.61	
				60		M.H.M. #1

dist = 282.50
Rate = 1.77%

dist = 181.75
Rate = 2.68%

dist = 202.5
Rate = 6.42

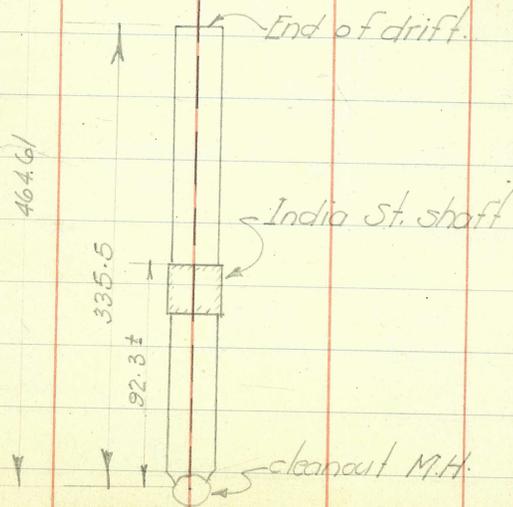
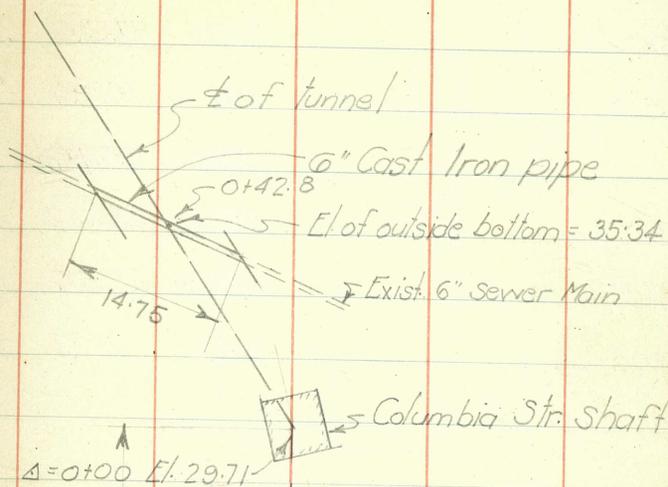
Ties to property Lines



Aug. 19, 1929

54" Storm Sewer

P.R.F. 3.



REYNARD WAY SEWER.

Aug. 20, 1929 4.

	+	M.I.	-	Elev.
	4.39	80.52		76.13
0+00			3.17	77.35
0+50			4.57	75.95
1+00			5.36	75.16
1+50			6.90	73.62
1+75			6.96	73.56
check			4.39	76.13

Grade Cut.

71.00	6.35
69.94	6.01
68.88	6.28
67.83	5.79
67.30	6.26

BM. N°9

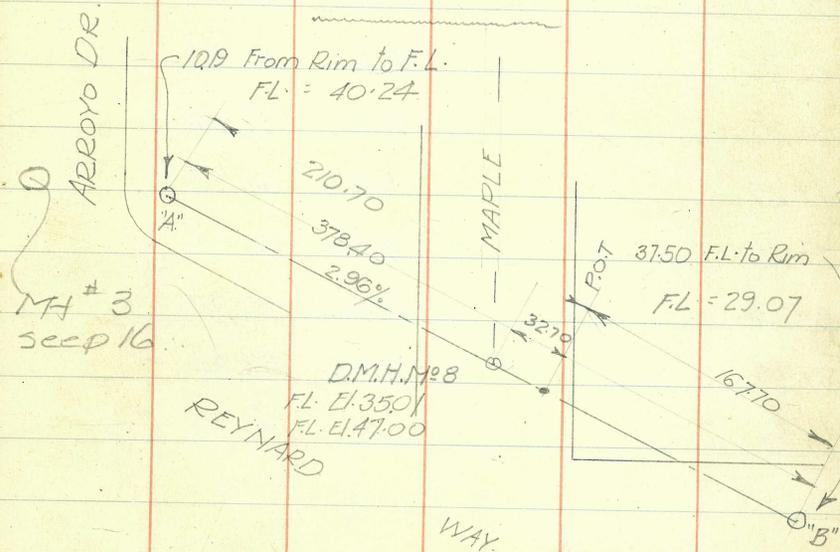
DE. N°9

M.H. N°26

dist = 175'

Rate = 2/15

BM. N°1	740	67.96		60.56
M.H. N°B	Rim		1.39	66.57
BM. N°4	2.60	63.16		60.56
M.H. N°A	Rim		12.73	50.43



50.43	66.57	
10.19	37.00	
40.24	29.07	
29.07		167.70
11.17		32.70
		200.40
	29.07	
	594	
	35.01	

54" Storm Sewer

Aug 22, 1929
5.

	+	H.I.	-	Elev		Grade	Cut
	6.287	66.852		60.565			
BMM ^o 17			0.492	<u>66.360</u>		N.W. Cor. lower step of Balboa Cont. Co's office -	
	6.20	66.76		60.56			BMM ^o 1
4+25			5.36	61.40		36.41	24.99 ✓
4+75			3.71	63.05		37.20	25.85 ✓
BMM ^o 1	0.98	61.54		60.56			
5+25			0.48	61.06		37.99	23.07 ✓
5+75			4.62	56.92		38.78	18.14 ✓
6+25			5.00	56.54		39.57	16.97 ✓
6+75			5.50	56.04		40.35	15.69 ✓
7+25			6.21	55.33		41.14	14.19 ✓
7+75			5.36	56.18		41.93	14.25 ✓
8+25			4.57	56.97		42.72	14.25 ✓
8+75			3.20	58.34		43.51	14.83 ✓
6+0			4.56	56.98 (56.99)		³⁹ 43.90	= 9+00 ✓

Sewer Cuts
Dove and Arroyo

Aug 22, 1929

+ H.I. - Elev

Grade Cut.

M.H. N° 2 = 4+85 B.M. N° 2

	H.I.	-	Elev	Grade	Cut.		
1+78	76.42		74.64				
5+00		7.66	68.76	65.12	3.64		
5+50		6.99	69.43	65.54	3.89		
6+05		6.33	70.09	66.00	4.09	dist = 120'	Rate = .833%
2+39.75		6.19	70.23	62.00	8.23		
2+00		5.26	71.16	62.70	8.46	dist = 110'	Rate = 1.82%
1+50		5.04	71.38	63.61	7.77		
1+29.75		4.52	71.90	64.00	7.90		
1+00		4.25	72.17	64.50	7.67		
0+50		3.41	73.01	65.34	7.67	dist = 129.75'	Rate = 1.67%
0+00 F.L.		10.25	66.17	66.17			Arroyo E.M.H.
2+50		5.48	70.94	63.13	7.81		
3+00	12.85	85.63	3.64	68.66	4.12		T.P.
3+50		7.09	78.54	74.19	4.35		
4+00	12.76	97.40	0.99	79.72	4.92		T.P.
4+50		7.16	90.24	85.25	4.99		
5+00	12.58	108.49	1.49	90.78	5.13	dist = 389'	Rate = 11.06%
							T.P.

Dove St.

Arroyo Dr.

Dove St.

Dove Contd.

	+	H.I.	-	Elev	Gr.	Cut.	
		108.49					
5+50			6.75	101.74	96.31	5.43	
6+00	10.50	117.98	1.01	107.48	101.84	5.64	T.P.
6+28.75	Dove		7.50	110.48	105.00	5.48	M.H. No 6
T.P.	9.59	127.21	0.36	117.62			
B.M. No 13			4.72	122.49	122.49		
B.M. No 13	2.26	124.76		122.50			
6+50			12.69	112.07	106.31	5.76	
7+00			9.27	115.49	109.39	6.10	
7+50			6.19	118.57	112.47	6.10	
8+00	13.08	134.58	3.26	121.50	115.55	5.95	T.P.
8+50			10.36	124.22	118.63	5.59	
8+71.75			9.20	125.38	120.00	5.38	M.H. No 7
9+00			6.96	127.62	121.73	5.89	
9+50			3.92	130.66	124.79	5.87	
10+00	13.03	146.81	0.80	133.78	127.85	5.93	
10+50			10.11	136.70	130.91	5.79	
11+00			7.15	139.66	133.97	5.69	
11+32.75			5.59	141.22	136.00	5.22	DE. No 2

dist. = 243'
Rate 6.17%

dist. = 261'
Rate 4.98%

Eagle Str.

Jewer Cuts.

8.

Sta.	+	H.I.	-	Elev	Gr	Cut.		
		146.81						
T.P.	1.59	137.69	10.71	136.10				
T.P.	1.05	126.08	12.66	125.03				
T.P.	3.52	116.98	12.62	113.46				
0+00			6.01	110.97	106.50	4.47		D.E.N°4
0+50			4.94	112.04	106.14	5.90		
1+00			3.62	113.36	105.77	7.59		
1+50			2.54	114.44	105.40	9.04		
2+00			2.54	114.44	105.03	9.41		
2+50			3.20	113.78	104.66	9.12		
3+00			4.42	112.56	104.29	8.27		
3+40			5.26	111.72	104.00	7.72		
4+00			7.71	109.27	96.50	15.22		DDM.H.#11
4+50			9.15	107.83	96.88	12.39		
5+00			10.67	106.31	97.20	10.63		
5+50	8.71	113.78	11.91	105.07	97.52	8.79		
6+00			10.28	103.50	97.84	7.23		T.P.
6+50			10.97	102.81	98.16	5.34		
7+00			10.84	102.94	98.48	4.33		
					98.80	4.14		

dist = 340'

Rate = .735%

dist = 390'

Rate = .64%

Eagle Str. Cont'd.

Aug. 22, 1929

9.

sta	+	H.I.	-	Elev	Gr.	Cut.		
		113.78						
7+30			9.67	104.11	99.00	5.11		MHM ^o 12
7+50			8.59	105.19	99.48	5.71		
8+00			5.68	108.10	100.69	7.41		
8+54			2.41	111.37	102.00	9.37		DE M ^o 3
T.P.	11.23	124.76	0.25	113.53				
			2.24	122.52				
BM. M ^o 11	2.24	124.74		122.50				
T.P.	6.75	125.32	6.17	118.57				
T.P.	12.99	134.48	3.83	121.49				8+00
T.P.	12.88	146.65	0.71	133.77				10+00
T.P.	1.88	137.97	10.56	136.09				
T.P.	0.84	125.85	12.96	125.01				
T.P.	1.47	114.90	12.42	113.43				
T.P.	8.74	113.80	9.84	105.06				5+50
T.P.	11.20	124.71	0.29	113.51				
BM. M ^o			2.21	122.50				

dist = 124'

Rate = 2.42%

Aug. 23, 1929

10.

REYNARD WAY SEWER CUTS

Sta.	+ H.I.	-	Elev.
	9.26	76.29	67.03
2+00		2.57	73.72
2+50		3.05	73.24
3+00		5.66	70.63
3+50		4.34	71.95
4+00		3.40	72.89
4+25°		6.44	69.85
4+85.44		10.28	66.01
5+30.74			59.26

Eagle Str. Sewer Cuts

BM. M ^o 9	9.75	85.88		76.13	
T.P.	11.06	96.59	0.35	85.53	
0+50			5.04	91.55	
T.P.	11.66	107.91	0.34	96.25	
1+00			9.34	98.57	
1+50			2.54	105.37	
2+00	6.34	113.25	1.00	106.91	
2+50			4.98	108.27	
0+00			2.26	110.99	110.97

Gr. Cut.

M.H. M ^o 26 = Sta. 1+75	F.L. = 67.30	BM. M ^o 10
66.79	6.93	
65.77	7.47	
64.70	5.93	
63.68	8.27	
62.66	10.23	
62.20	7.65	
61.00	5.01	

dist. 250'
Rate: 2.04%

see next page

M.H. M^o 10
M.H. M^o 9
E.M.H.

Aug. 23, 1929

M.H. M^o 17 = 0+00 F.L. = 78.00

83.40	8.15
88.80	9.77
94.20	11.17
99.60	7.31
105.00	3.27

dist = 250'
Rate 10.80%

T.P.
(DE N^o 7?)
D.E. N^o 4

Aug. 23, 1929
11.

Sta.	Palm Str.		Sewer Cuts	
	+ H.I.	- Elev		
5+91.5 T.P.	12.95	147.72		134.77
6+50			10.03	137.69
7+00			6.04	141.68
7+50			2.79	144.93
T.P.	12.91	160.04	0.59	147.13
8+00			11.67	148.37
8+63.50			7.83	152.21
BMN ^o 4			0.08	159.96 159.96

Gr.	Cut.	
130.00		M.H.N ^o 13
133.22	4.47	
135.98	5.70	
138.74	6.19	
141.50	6.87	
145.00	7.21	M.H.N ^o 14
✓	✓	

dist = 272'
Rate = 5.51%

X

Reynard Way Sewer

BM ^o 40	Elev	72.06	5.03	67.03
MH ^o 9	66.02	6.04		
FLEPH	59.26	12.80		
MH ^o 10	67.19	4.87		
4+13 Curb	67.65	4.41		

X

@ M.H.s #9 & #10 (Relocation)

61.00	5.02	Ex. Cut on Curb
62.20	4.99	
62.45	5.20	

Dove Str.				Sewer Cuts		12.	
sta.	t	Ht.	-	Elev	Gr.	Cut.	
	1.76	149.27		147.51			B.M. N° 16
0+00			5.11	144.16	139.00	5.16	DE N° 5
0+50			4.42	144.85	138.24	6.61	dist. 291.5 Rate 1.52%
1+00			4.32	144.95	137.48	7.47	
1+50			4.69	144.58	136.72	7.86	
2+00			6.32	142.95	135.96	6.99	
2+50	2.29	144.38	7.18	142.09	135.20	6.89	
2+91.5			2.73	141.65	134.56	7.09	MHN° 25
3+50			4.18	140.20	133.67	6.53	dist = 300' Rate = 1.52%
4+00			5.25	139.13	132.91	6.22	
4+50			6.43	137.95	132.15	5.80	
5+00			7.24	137.14	131.39	5.75	
5+50			8.66	135.72	130.63	5.09	
5+91.50			9.61	134.77	130.00	4.77	MHN° 13 T.P.

Note:

see Palm St. for check.

Curlew St.

sta.	+	H.I.	-	Elev
	2.98	162.94		159.96
9+00			9.14	153.80
9+50			5.80	157.14
10+00	12.88	174.05	1.77	161.17
10+50			8.92	165.13
11+00			4.94	169.11
11+50	13.05	185.70	1.40	172.65
12+00			8.84	176.86
12+54.25			4.13	181.57
13+00	13.05	197.50	1.25	184.45
13+50			9.37	188.13
14+00			5.56	191.94
14+50	12.88	208.73	1.65	195.85
15+00			9.19	199.54
15+50			4.87	203.86
16+00			1.74	206.99
16+25	5.26	213.31	0.68	208.05
16+50			4.54	208.77
16+85			3.98	209.33 ✓
check			4.12	209.19 ✓ 209.19

Sewer Cuts.

Aug. 24, 1929

13.

Gr.	Cut.		
MHM ^o 14 = sta 8+63.5 F.L. = 145.00 BM. M ^o 4			
147.80	6.00		
151.64	5.50		
155.48	5.69	dist = 390.75 Rate = 7.67%	T.P.
159.32	5.81		
163.16	5.95		
167.00	5.65		T.P.
170.84	6.02		
175.00	6.57		M.H.M ^o 15
178.46	5.99		
182.24	5.89	dist = 370.75 Rate = 7.55%	T.P.
186.02	5.92		
189.80	6.05		
193.58	5.96		T.P.
197.36	6.50		
201.14	5.85		
203.00	5.05	dist = 60' Rate = 12.5%	M.H. 16
203.31	5.46		
203.75	5.58		
400.90	W Side	cut stake	D.F. M ^o 6

	Curlew	St.		
	+	H.I.	-	Elev
	5.31	213.36		208.05
	11.17	223.76	0.77	212.59
			3.81	219.95 219.96
B.M. 147	0.54	66.90		66.36
	5.61	63.64	8.87	58.03
	0.52	45.52	18.64	45.00
4+50			6.21	39.31
4+75			5.69	39.83
5+00			6.64	38.88
5+25			5.01	40.51

Gr. Cut.

Cuts open ditch 54" drain ^{Aug. 25, 1929}

	36.80	2.51
	37.20	2.63
	37.59	1.29
	37.99	2.52

B.M. boat spike driven in west side bank just north of Tunnel Portal Elev. 42.241

Left. ARROYO DRIVE
sta + H.I. - Elev

B.M. M^o 17 0.54 66.90 66.36
T.P. 11.00 66.61 1129 55.61

8+00 0.3 + 0.1 +
20 0
66.9 66.7

8+50 2.7 2.2
20 0
63.9 64.4

8+65 3.6 4.2
20 0
63.0 62.4

8+90 4.3 8.5 9.8 11.7
20 18 16 0
62.3 58.1 56.8 54.9

9+00 4.8 9.4 11.0 12.5
20 18 13 0
61.8 57.2 55.6 54.1

T.P. 3.33 57.17 12.77 53.84

9+50 +0.5 4.7 4.9
22 18 0
57.7 ~~61.9~~ 52.3
52.5

10+00 1.3 13.3 11.8
20 18 0
55.9 43.9 45.4

Cross. Sections Aug. 25, 1929
Right. 15.

+0.7
20
67.3

2.5 1.3
20 21
64.1 65.3

3.7 2.1
20 21
62.9 64.5

11.5 12.4 11.1 6.6
7 8 15 20
55.1 54.2 55.5 60.0

12.6 12.6 10.8 8.2
8 16 18 20
54.0 54.0 55.8 58.4

5.5 1.7
18 20
51.7 55.5

11.2 10.4 9.2 4.9 3.6 1.7
6 7 16 17 20 20
46.0 46.8 48.0 52.3 53.6 55.5

sta.	t	left. Ht.	-	± Elev
		57.17 ✓		
10+32		7.2	13.5	13.0
		20	17	0
		50.0	43.7	44.2
10+50		10.7	9.7	8.8
		20	8	0
		46.5	47.5	48.4
10+65	20	55.69	6.5	5.9
	20	20	19	13
	55.2	51.7	50.3	50.7
10+82		18	4.0	3.8
		23	21	0
		55.4	53.2	53.4
T.P.	11.35	66.97	1.55	55.62
BMM ^o 17			0.59	66.38 (66.36)

Right

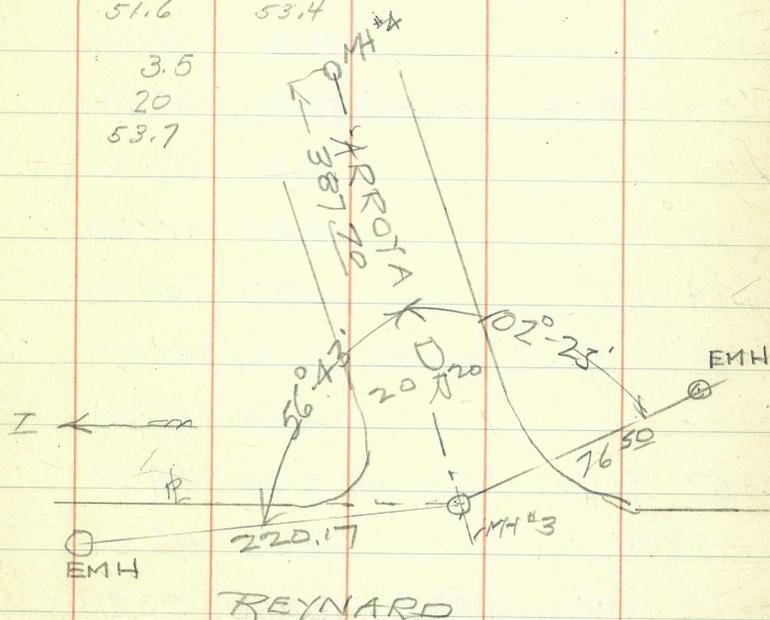
16.

9.6	8.5	1.3
3	17	20
47.6	48.7	55.9

7.2	1.6
18	22
50.0	55.6

5.6	3.8
22	28
51.6	53.4

3.5
20
53.7



Stairway # 3

RW & Dove	+	X	-	E1
BM #16	2.772	150.284		147.512
P	0.095	139.411	10.968	139.316
P	1.068	128.067	12.412	126.999
0+0 N			1.67	126.40
0+5 "			2.54	125.53
0+0 S			1.38	126.69
0+5 S			2.31	125.76
0+29 SP	0.361	116.017	12.411	115.656
0+34 S			2.12	113.90
0+29 N			3.33	112.69
0+34			6.79	109.23
P	0.612	104.491	12.138	103.879
0+58 S			6.88	97.61
0+63 S			9.56	94.93
0+58 N			8.58	95.91
0+63 N	0.044	93.555	10.980	93.511
0+83 N			5.51	88.04
0+83 S			6.43	87.12
1+0140 S			7.89	85.66
1+0140 N			8.68	84.87

@ Redwood to Reynard 17.

Gr	Cuts	Full	
			83
			18.40
			101.40
	120.6	5.8	
	120.5	5.0	
	125.7	1.0	
	125.6	0.16	
	108.00	7.66	
	107.75	6.15	
	108.00	4.7	
	107.75	1.48	
	95.25	2.36	
	95.60	0.07	
	95.25	0.66	
	95.00	1.49	
	84.50	3.54	
	84.50	2.62	
	84.00	1.66	
	84.00	0.87	

+

κ

-

EJ

93555

Reynard }
EWrb }
BM #

2.570 83985

2.40 91.16 (91.136)

North

South 8/30/29

Reynard Way Water Service Ties.

For that portion of West side where curb is to be constructed.

0+00 = Fire Hyd. at Torrence

0+83.0

0+75.5

1+34.0

1+75.7

1+86.5

2+27.4

2+81.5

2+78.0

3+31.0

3+28.8

3+81.0

3+79.0

8/30/29
not in yet

4+38.0

← ditch

4+03.4

F.H.

"
F.H.

4+47.5

"

4+31.5

4+81.1

5+07.7

5+59.9

6+18.7

6+82.7

7+44.8

8+81.5

F.H.

	ARROYA	ST	Reynard	to DORE	SEWER	CUTS
	+	-	EI	Grade	Cut	Fill

Balboa Const Co

BM #7 0.583 66.943 66.360

TP. 4.233 60.402 10.774 56.169

O+50 }
MH #3 to }
" 50 76E }
4.12 56.28

MH #3 }
End Curb }
Wly Reynard }
5.668 57.782 8.288 52.114

BM #15 1.384 56.398 (56.387)

MH #3 Arroya to EMH Reynard

O+50 57.782 3.95 53.83

1+0 2.91 54.87

1+50 3.90 53.88

2 3.94 53.84

2+20.17 12.58 45.20

FL EMH Reynard 8.58 49.20

Wly Side Reynard }
End Curb }
3.204 55.318 52.114

9+06 11.32

40.85 15.43

42.00 11.84

42.73 11.10

43.45 11.42

44.18 9.70

44.90 8.94

Top 54" Conc Pipe

49.20
4.96
44.24

44.00

RATE 1/453
2/220/7

MH # 3 Arroyo to MH # 24

+ Dove st.

BM TO	+	π	-	E1	Grade	Cut
Reynard	5.74	57.854		52.114	42.00	
Wly End Curb			5.12	52.73	44.58	8.15
0+50			4.90	52.95	47.16	5.79
1			2.89	54.96	49.74	5.22
1+50						
TP	12.422	67.394	2.882	54.972		
1+95			10.18	57.21	52.06	5.15
MH # 24			9.66	57.73	52.32	5.41
2			3.74	63.65	54.90	8.75
2+50						
3	TP 8.565	75.297	0.662	66.732	57.48	9.25
3+50			5.37	69.93	60.06	9.87
Dove			5.04	70.26 (70.23)	62.00	8.23
MH # 4 Arroya						
= 387.70						

Rate = 5.16%
 L = 387.70

Slairway No 2

Dove Eagle

BM #13 } + 1.544 124.044 - 122.50

P 3.266 115.313 11.997 112.047

T.P. 5.408 110.314 10.407 104.906

T.P. 5.369 113.755 1.928 108.386

0+00 N 1.83 111.92

0+06⁵⁵ N 3.60 110.15

do S 2.79 110.96

0+26⁵⁵ N 6.33 107.42

do S 6.08 107.67

0+37⁵⁵ N 8.78 104.97

do S 7.74 106.01

TP 0.896 105.870 8.781 104.974

0+61⁵⁵ N 5.80 100.07

do S 5.45 100.42

0+66⁵⁵ N 6.79 99.08

do S 6.51 99.36

0+90⁵⁵ 4.5'S, \$ alley 10.98 94.89

TP 0.708 95.115 11.463 94.407

0+90⁵⁵ Mid 10.98 84.13

T.P. 12.740 82.375

Grade

Cut

Fill

TP on 16' RP, MH #12

18+00 Eagle, 5' offset W. ^{Marked} FO.76 | sec B52
E1.108.41

112.0 0.08

112.75 1.60

do. 0.79

101.25 6.17

do. 6.42

100.75 4.22

do. 5.26

88.25 11.82

do. 12.17

88.0 11.08

88.0 11.36

71.05 23.84

75.5 8.63

Point	+ T.P.	H.I.	-	Elev.	Grade	Cut	Fill
	0.150	82.525		82.375			
0+90 ⁵⁵ N			6.52	76.00	75.6	0.40	
TP	3.378	73.091	12.812	69.713			
0+96 ⁰⁵ N			5.76	67.33	75.55		8.22
1+06 ³⁰ S			7.67	65.42	66.0	4.2	0.58
1+04 ¹⁵			7.00	66.09	66.5		0.41
BM#10			6.074	67.017			67.029

Gold Finch

ST Fill

9/1 24.

6.13 168.99 162.86

FHA 6.29 162.70

SW Cor Fill 12.11 156.88

1+32 Not SW Cor

M on Drain 1.26 167.73

SE Cor 543 163.56

Blk Cor

Grade Cut Fill

Top Flange F Hyd A

160.50 3.62

172.66 4.93

163.40 0.16

163.08
162.70
Too Low 0.38

Curb Grades Reynard

W. side Penn Soly

+ π - E1

Grade

6.403 230.463 224.06

11+93/4 + on walk Series M Penn

Old Loc
FH EC
Location
"

6.09 224.37
6.29 224.17 224.16 ✓
3.22 227.24

F

139.40

150.92

153.73

TP
So of Penn
Nly EC

0.770 218.193 13.040 217.423
7.19

211.00

TP
Top FH B

0.74 206.56 12.37 205.82

TP Torrence

3.53 199.55 10.54 196.02

FH B Gr Sitk

6.54 193.01 (19303)

654
193 01

EC @ Torrence

3.58 195.97

195.97

SKY BK Cor Torrence

5.55 194.00

194.00

TP
wly Int Gold Finck
& Nly Reynard

1.33 188.51 12.37 187.18
3.91 184.60

184.60

0700 on }
Curb Drain }
Curb NW Cor }
CB Inlet

12.85 145.840 132.99
6.92 138.92

138.93

Ret @
Walnut

6.44 139.40

139.40

TP 10.562 155.677 0.725 145.115

BC @ 4 19:35'

4.76 150.92

150.92

EC

1.95 153.73

153.73

Grades Inlet # 2

Upper End 54"

Station	+	-	EI	Grade
BM # 15	1.305	57.692	56.387	

Reynard

2.17 N of
 30' outside
 N face Inlet

5.66

Curb Gr
52.03

Soly
 outside
 Fall
 617 Soly of 30"

5.60

52.09

MH 763514

~~ARROYO + REYNARD~~

from MH #3 Rim

57.692 7.27 50.42

Pairing opposite
 Reynard

3.05 54.64

4-2 5/8

4.22

Sta	Eagle		Str.	Elev
	+	M.L.		
B.M. M ^o 8	11.88	103.02		91.14
1+34.13			4.44	98.58
1+50			3.30	99.72

(West Side)	Rough Grades		27
	Gr.	Cut	
	98.00	0.58	Ret.
	99.91		0.19

Sta	Starway		M ^o 1	Elev
	+	M.L.		
B.M. M ^o 13	12.25	134.75		122.50
T.P.	4.88	138.43	1.20	133.55 ✓
0+00 N			2.02	136.41
0+00 S			2.35	136.08
0+09.76 N			3.80	134.63
0+09.76 S			3.27	135.16
0+21.76 S			6.99	131.44
0+21.76 N			7.29	131.14
0+41.76 S			12.55	125.88
0+41.76 N	0.56	126.44	12.55	125.88 -
0+55.76 N			2.87	123.57
0+55.76 S			3.61	122.83
0+75.76 S			6.94	119.50
0+75.76 N			5.96	120.48

(West Side)	Rough Grades		9/19/29	Quarry Franklin Harvey
	Gr.	Cut		
	135.50	0.91		
	135.50	0.58		
	135.00		0.37	
	135.00	0.16		
	128.50	2.94		
	128.50	2.64		
	127.50		1.62	✓
	127.50		1.62	✓
	120.00	3.57		
	120.00	2.83		
	119.00	0.50		
	119.00	1.48		

Stairway No 1 Contd.

sta	t	H.I.	-	Elev	Gr.	Cut	Fill
		126.44					
	1.42	121.90	596	120.48			
0+89.76 N			892	112.98	112.30	0.68	
0+89.76 S			992	111.98	112.30		0.32
check }			934	112.56 (112.56)	3+00 - cut	8.27	Eagle Sewer Stake
			1131	110.59 110.64	17+2839	5' stake	W side Eagle

sta.	Eagle St.	H.I.	Redwood Str.	Elev	Grade	Cuts.	
	0.15	147.66		147.51			BM N°16
T.P.	0.27	137.10	10.83	136.83			
0+00			4.69	132.41	127.61	4.80	D.E. N°11
0+50			7.53	129.57	124.73	4.84	
1+00			10.22	126.88	121.85	5.03	
1+31.98			11.26	125.84	120.00	5.84	M.H.M. N°20
1+50	1.20	126.60	11.70	125.40	119.49	5.91	T.P.
2+00			2.89	123.71	118.07	5.64	
2+50			4.22	122.38	116.64	5.74	
3+00			5.58	121.02	115.22	5.80	
3+50			6.79	119.81	113.79	6.02	
4+12.74	7.22	124.29	9.53	117.07	112.00	5.07	T.P. M.H.M. N°19
B.M. N°7			0.25	124.04	124.14		Old Circuit

29. 9/19/29
 Quarry
 Franklin
 Harvey.

Eagle Str

sta	+	H.I.	-	Elev	
BMM ^o 8	9.49	100.63		91.14	
6+45.4			9.10	91.53	(91.70) <small>field</small> <small>plan.</small>
6+00			3.42	97.21	
T.P.	10.92	111.16	0.39	100.24	
5+52.74			8.82	102.34	
5+00	10.24	118.90	2.50	108.66	
4+50			3.80	115.10	
4+12.74			1.86	117.04	(117.07)

Sewer Cuts

Gr.	Cut		
93.49	3.72		
95.50	6.84		
101.73	6.93		
107.64	7.46		
112.00			

30. 9/21/29

Q.
F.
H.F.L. M.H.M.^o22M.H.M.^o18

T.P.

M.H.^o19

Rough Grades:

Reynard Way

West side

31 9/25/29

Quarry
Franklin
Harvey

Sta.	+ H.I.	- Elev.	Gr.	Cut	Fill	
BM N ^o 17	0.51	66.87				
4+68.83		7.76	59.11			(59.00) Ext. Curb
3+85.73		8.80	58.07	58.00	0.07	
3+68.41		7.62	59.25	57.69	1.56	E.C.
T.P.	4.69	61.16	10.40	56.47		
3+30.60		4.15	57.01	57.00	0.01	B.G. 1/2 Δ
2+92.80		4.32	56.84	56.44	0.40	P.C.
2+50		4.70	56.46	55.81	0.65	
2+00		4.87	56.29	55.07	1.22	Rate = 1.473
1+50		5.54	55.62	54.34	1.28	
1+00		6.02	55.14	53.60	1.54	
0+50		6.72	54.44	52.87	1.57	
0+00		9.03	52.13	52.13	0	Top Inlet
T.P.	7.95	67.09	2.02	59.14		
BM N ^o 17		0.71	66.38	(66.36)		

^{Sply End}
0+00 = Outside face of South Wall
of Inlet Box for 54" Storm Drain

Cut off Wall - Maple Str.

9/26/29
32.

sta.	+.	H.I.	-	Elev	Gr.	Cut.
BMN ^o 2	4.80	79.44		74.64		
0+00			3.73	75.71	74.00	1.71
0+10			4.79	74.65	73.50	1.15
0+16			4.87	74.57	72.50	2.07
0+22			5.01	74.43	68.00	6.43
0+24			4.93	74.51	68.00	6.51
0+30			4.53	74.91	72.50	2.41
0+36			3.87	75.57	74.00	1.57

✓

Sewer Cuts - Bet. MHⁿ & 13

sta.	+	H.I.	-	Elev		Gr.	Cut.	
BM N ^o 13	11.86	134.36		122.50				
T.P.	4.20	137.74	0.82	133.54				
0+00			7.91	129.83	(130.0)	129.83	0	E.M.H. N ^o 13
0+25			2.45	135.29		124.86	10.43	
0+50			7.75	129.99		119.89	10.10	
T.P.	0.55	126.44	11.85	125.89	(125.88)			
0+75			6.27	120.17		114.92	5.25	
1+00			9.71	116.73		109.95	6.78	
T.P.	2.11	116.40	12.15	114.29				
1+30.6			12.55	103.85		103.85	0	E.D.M.H. N ^o 11

9/30/29
 Quarterly
 33. Franklin
 Reeler

sta	Cross Sections		Lots -	Elev		
	+	H.I.		-		
BM. N ^o 2	12.8	87.4		74.6		
2201 ^o	15.7	89	83	13.0	17.0	
Ref 26	0	1	34	36	44	
	71.7	78.5	79.1	74.4	70.4	
315'	6.9	+2.5	+3.0	+6.0	+2.6	6.8
26-27	0	1	21	24	32	90
	80.5	89.9	90.4	93.4	84.8	80.6
T.P.	12.5	99.7	0.2	87.2		
480 ^o	13.4	5.3	3.7	07	44	12.0
27-29	0	1	16	17	27	85
	86.3	94.4	96.0	99.0	95.3	87.7
T.P.	12.6	112.1 ✓	0.2	99.5		
537 ^o	20.0	11.2	10.6	6.0	19.6	
29-31	0	1	7	10	85	
	92.1	100.9	101.5	106.1	92.5	
351 ^o	13.7	5.5	1.0	13.7		
31-33	0	1	10	60		
	98.4	106.6	111.1	98.4		
T.P.	12.2	123.9 ✓	0.4	111.7		
1006 ^o	20.7	12.7	9.0	12.7		
33-35	0	1	10	60		
	103.2	111.2	114.9	111.2		
35-37	14.6	8.6	6.3	14.6		
1586 ^o	0	1	10	40		
	109.3	115.3	117.6	109.3		

Nov. 6, 1929				34.		
	Cross Sections		Lots -	Elev		
	+	H.I.		-		
				123.9		
118 ^o	12.0	5.0	12.0			
37-39	0	1	4.5			
	111.9	118.9	111.9			
107 ^o	13.4	5.5	13.4			
39-41	0	1	3.5			
	110.5	118.4	110.5			
			1.4	122.5 ✓	check	
				123.9		
151 ^o	6.2	2.8	1.5	5.6		
130-131	0	1	60	70		
	117.7	121.1	122.4	118.3		
315 ^o	10.0	4.0	3.8	10.0		
131-132	0	1	65	75		
	113.9	119.9	120.1	113.9		
977 ^o	16.6	6.6	6.6	16.6		
132-133	0	1	75	90		
	107.3	117.3	117.3	107.3		
T.P.	1.4	114.6 ✓	10.7	113.2		
537 ^o	12.5	1.4	5.3	10.6		
133-134	0	1	60	75		
	102.1	113.2	109.3	104.0		
458 ^o	18.5	6.5	10.3	18.0		
134-135	0	1	45	60		
	96.1	108.1	104.3	96.6		
	24.6	13.5	25.0			
135-136	0	1	32			
	90.0	101.0	89.6			
Ref - Gr.						

Cross Sections Lots

Sta.	+	H.I.	-	Elev.	0'		Cu. Yds.
B.M.	4.9	79.5		74.6			
12-14	Grade				0	$\frac{8.1 \times 50}{27}$	14.8
12-10	12.0 0 67.5	8.2 1 71.3	13.7 27 65.8		16.25	$\frac{76.87 \times 50}{27}$	142.5
10-8	12.8 0 66.7	3.6 1 75.9	14.4 4.5 65.1		137.5	$\frac{118.1 \times 50}{27}$	219.0
8-6	14.3 0 65.2	8.0 1 71.5	13.3 37 66.2		98.7	$\frac{49.35 \times 50}{27}$	91.2
6-4	Gr.				0		<u>467.5</u>
T.P.	3.1	78.2	4.4	75.1			
17-15	Grade						
17-19	8.5 0 69.7	3.7 1 74.5	6.7 70 71.5	8.8 71 69.4			
Ret. 19	8.0 0 70.2	1.5 1 76.7	3.0 25 75.2	8.6 44 69.6			

Redwood-

Nov. 8, 1929

36.

sta.	+	H.I.	-	Elev.
B.M.	12.0	138.0		126.0
81-80	Grade.			
81-82	10.1 0 127.9	5.6 1 132.4	6.0 20 132.0	10.1 49 127.9
82-83	7.2 0 130.8	3.5 1 134.5	4.8 20 133.2	7.1 28 130.9
83-84	4.3 0 133.7	1.1 1 136.9	2.3 10 135.7	4.2 13 133.8
84-85	Grade-			
B.M.	5.4	152.9		147.5
86-88	8.8 0 144.1	6.0 1 146.9	9.5 20 143.4	9.2 40 143.7
88-90	7.1 0	4.9 1	3.8 5	7.0 30
	145.8	148.0	149.1	145.9
90-92	Grade.			

	+	H.I.	-	Elev.
B.M.	0.4	160.4		160.0
	Average 3' Cut on Palm St-			
T.P.	2.4	150.3	12.5	147.9
121-122	6.4 0 143.9	2.4 0 147.9	2.4 50 147.9	+3.0 90 153.3
122-123	9.0 0 141.3	4.4 0 145.9	7.2 50 143.1	8.1 70 142.2
123-124	11.9 0 138.4	8.4 0 141.9	11.2 30 139.1	
124-125	15.1 0 135.2	11.1 0 139.2	15.1 70 135.2	

DOVE STR. ROUGH GRADES

12/23/29

37. Quarterly
Radier
Franklin

	+	H.I.	-	Elev	Grade	Cut
B.M. No 16	7.89	155.40		147.51		
0+50 E			7.80	153.60	151.00	2.60 ✓
0+50 W			2.30	153.10	150.00	3.10 ✓
T.P.	7.59	161.19	1.80	153.60		
1+00 W			1.60	159.59	159.00	0.59 ✓
1+00 E			1.90	159.29	159.00	0.29 ✓
T.P.	1.89	153.92	9.16	152.03		
B.M. No 16			6.42	147.50		

Profile of Sewer line at Dove-Maple

1/10/30

R.R. Notes
E.V. Notes
A.E.F.

	+	H.I.	-	Elev
BM.	0.62	75.26		74.64
Fl. M.H. at Dove			10.39	64.87
Ex. Sewer. (top 6" pipe)			8.52	66.74
Int Red-966		74.53		
0+0 M.H. at Dove				Elev.
0+15 top curb			4.52	15' 70.01
0+20 edge slope			4.30	20 70.23
0+27 bot slope			7.9	27 66.63
			5.77	63 68.76
			7.77	63 on pipe 66.76
0+47 top M.H.			9.9	3' Right 64.63

Weather - rainy and Windy

REFERENCE POINTS - REYNARD HILLS

Note: all pts. set are 1/2 dia. Carriage bolts 8" long with punch mark in top unless otherwise shown.

• Indicates pts. set.

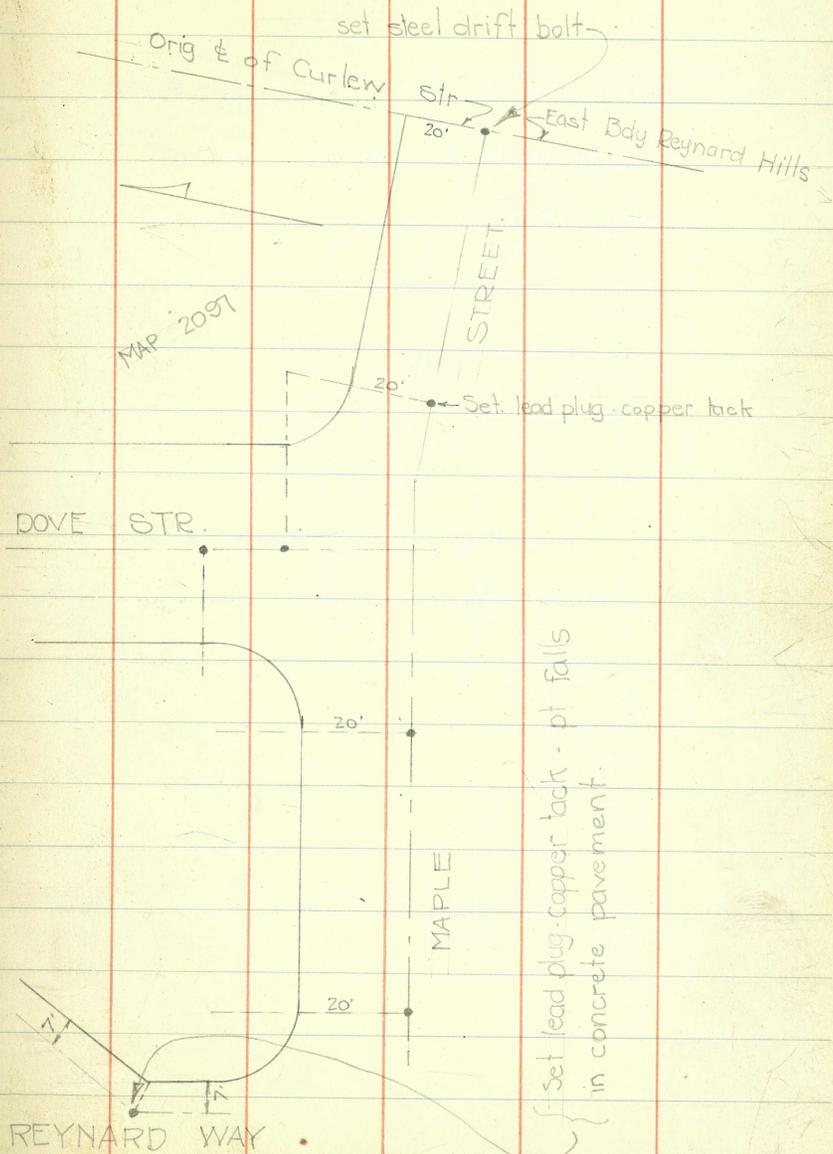
Note: For additional Reference Points and ties see pages 14 to 36 incl. Book 1328

R

Jan. 1930 39,

E.O.
E.P.R.
A.F.F.

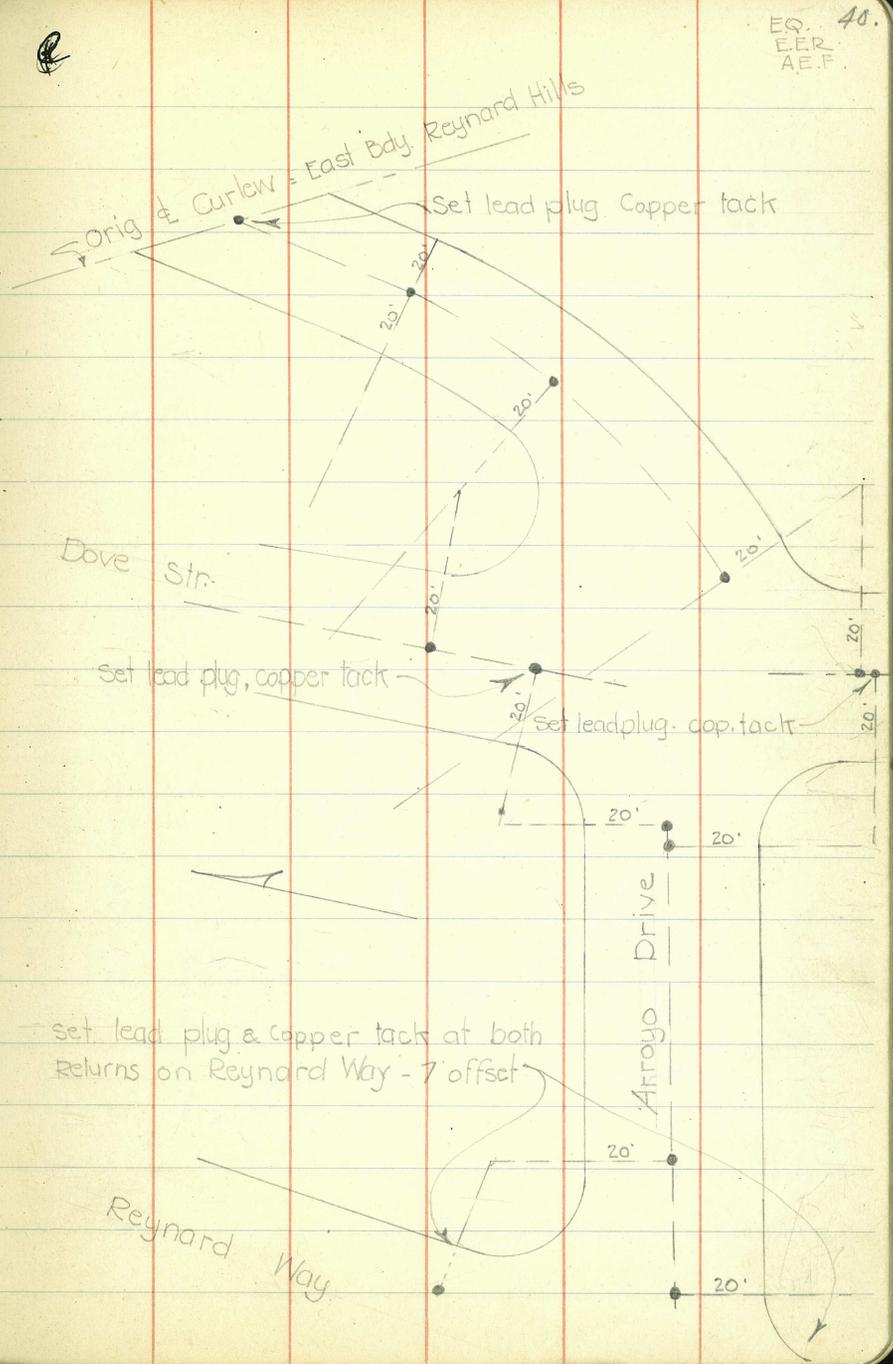
MAPLE STR.



ARROYO DRIVE - REFERENCE POINTS

Note: All points are 1/2 dia. Carriage Bolts
8" long unless otherwise shown.

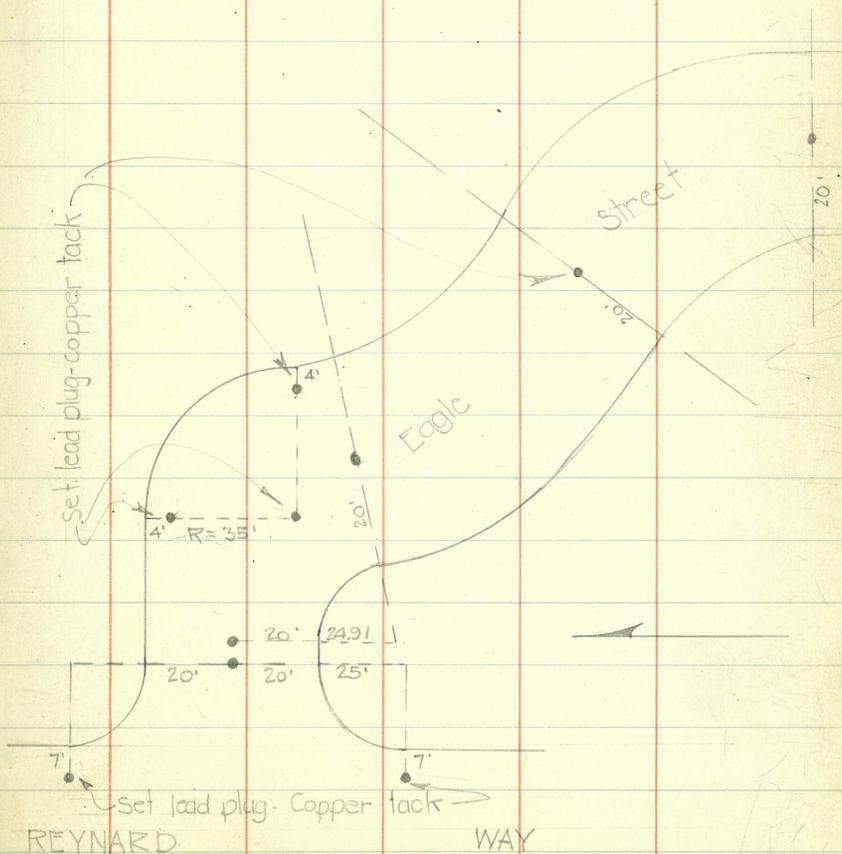
January, 1930



4.

Eagle Street- Reference Points

All points set are 1/2 dia. Carriage Bolts
8" long, unless otherwise shown.

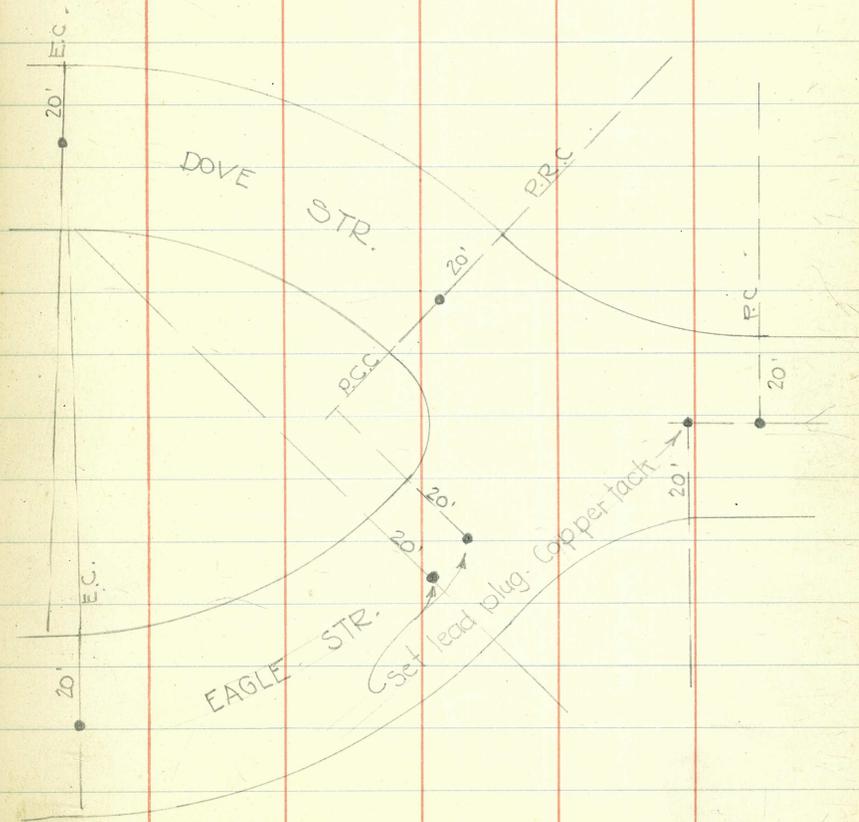


2

January 1930

EVO. 42.
EES.
AEF.

REFERENCE POINTS - DOVE & EAGLE



Ⓜ
Jan. 1930

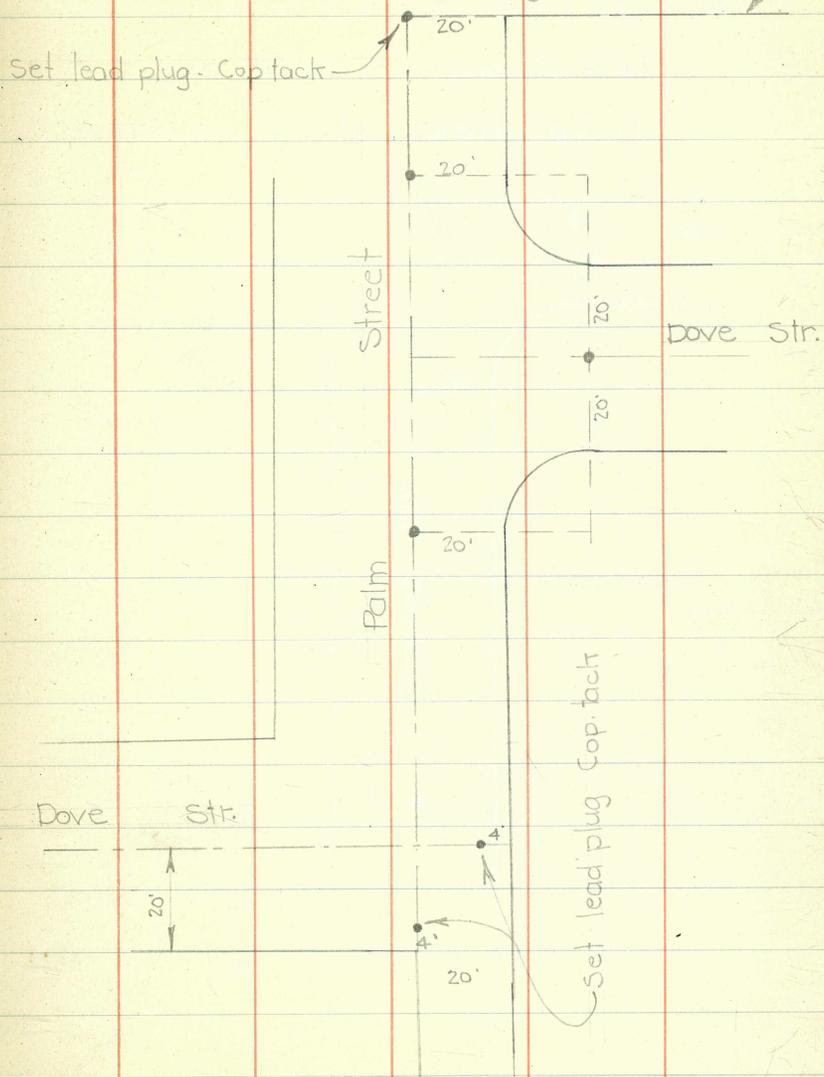
43.

REFERENCE PTS - PALM STR.

East Bay - Reynard Hills →

Note all points set are 1/2" dia Carriage bolts 8" long with punch mark in top unless otherwise shown.

Set lead plug Cop tack

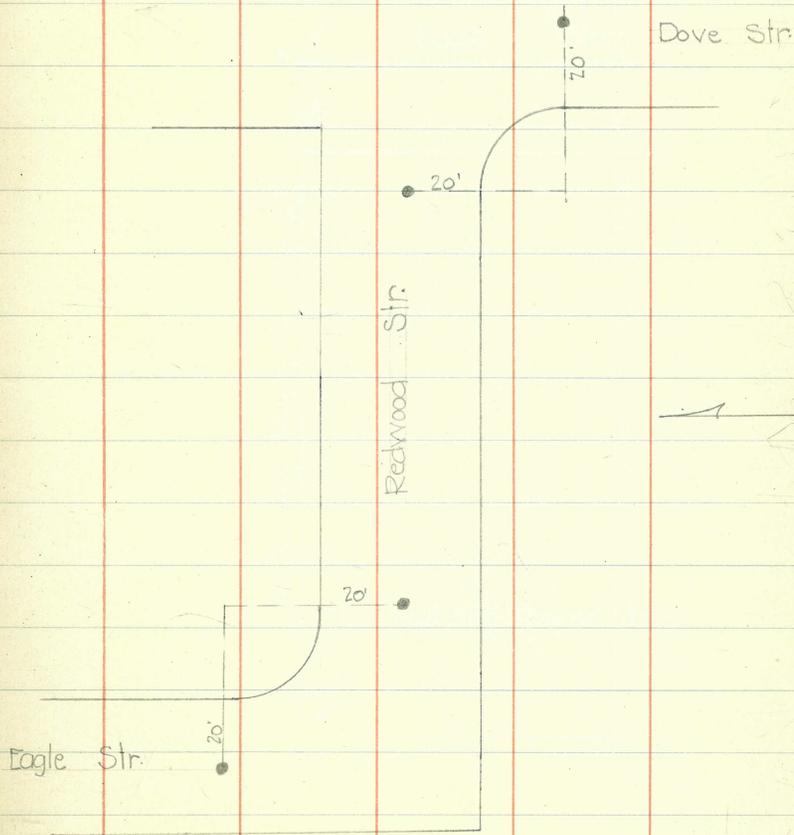


Jan. 1930

44.

REFERENCE POINTS - REDWOOD STREET.

Note: All points set are $\frac{1}{2}$ " dia carriage bolts 8" long with punch mark in top unless otherwise shown.



R

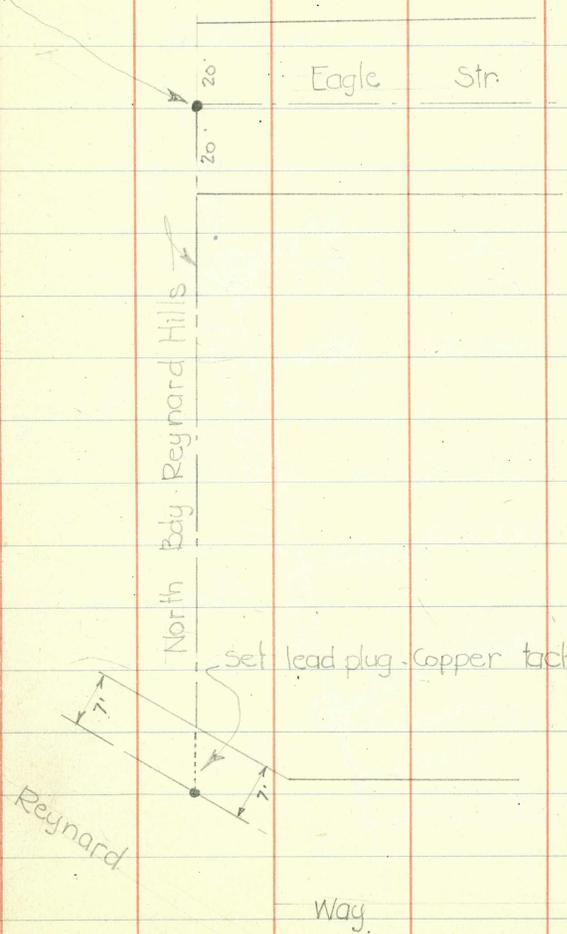
Jan. 1930

EVQ
EER
AET.

45.

Reference Pts. North Bdy. Reynard Hills

set 1/2" dia Carriage bolt



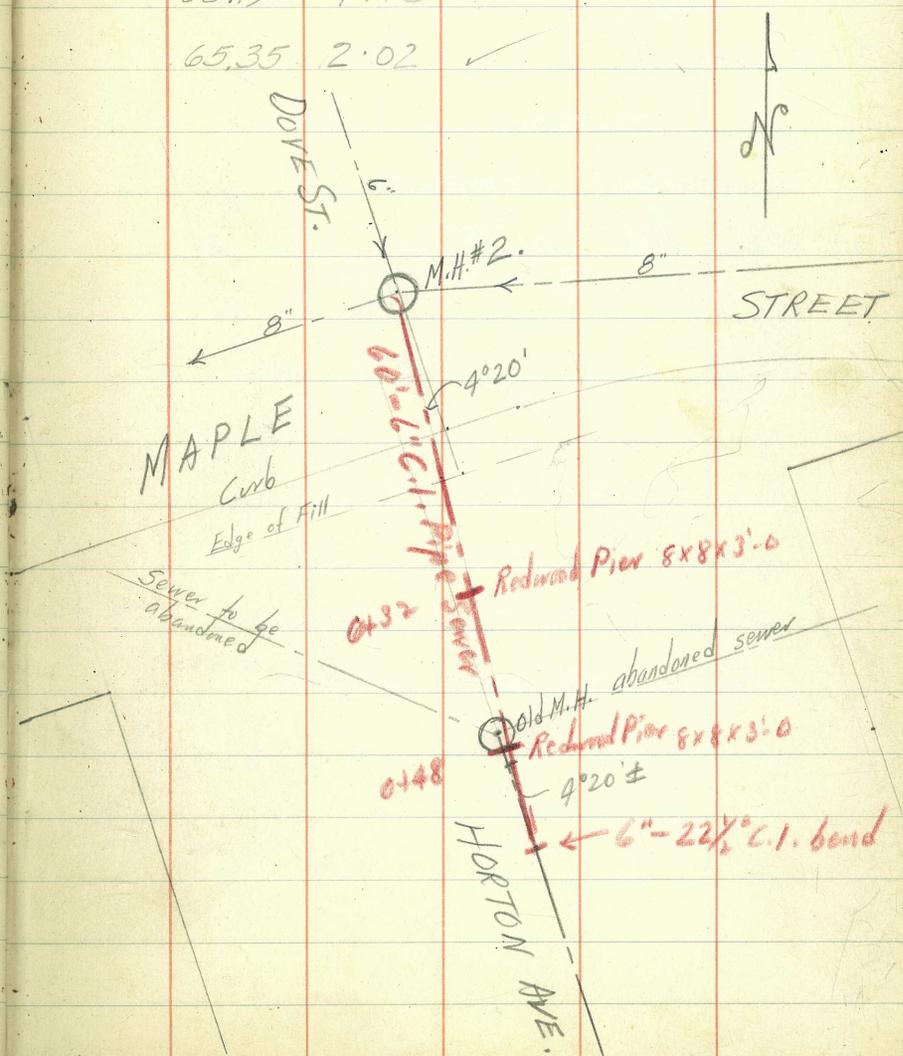
Jewer at South End of Dove

1/14/30 46.
EXD
REF.

sta	t	H.I.	-	Elev	Gr.	Cut
BM.	0.01	74.65		74.64		
0+16			4.40	70.25 ✓	65.03	5.22 ✓
0+32			7.98	66.67 ✓	65.19	1.48 ✓
0+48			7.28	67.37 ✓	65.35	2.02 ✓

Gr. at 0+00 = 64.87
Grade = 1%

Connection at 0+60 ±



Add Sewer line at Eagle & Reynard Way.

EVO
EER. 47

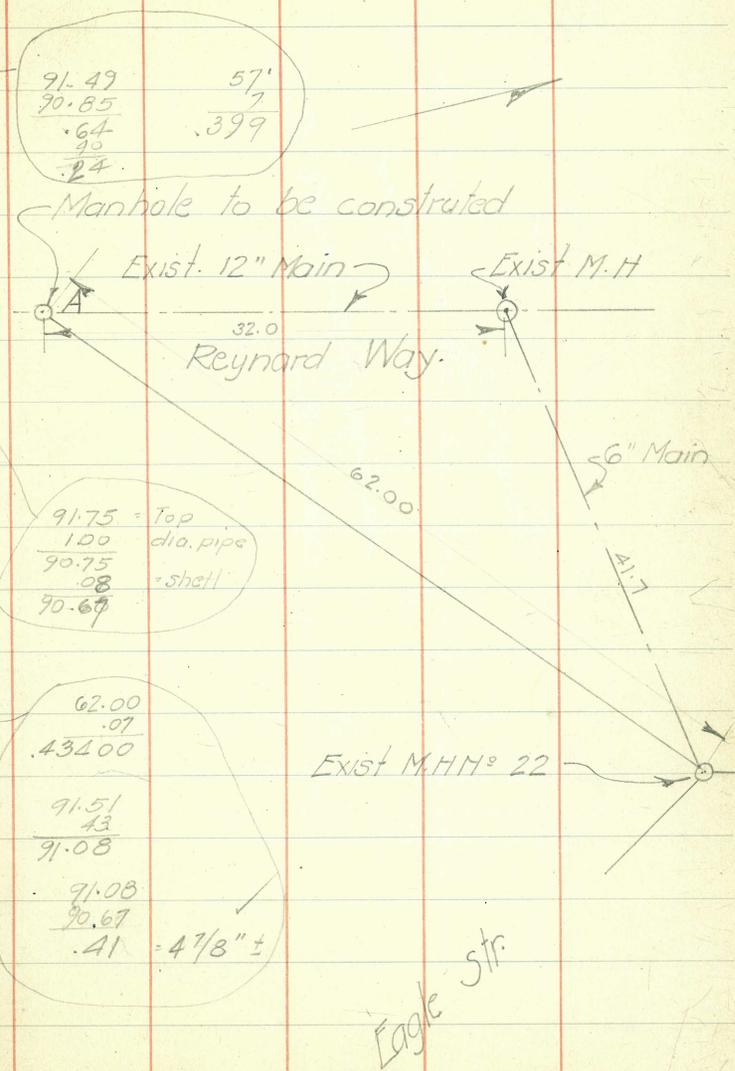
Feb. 24, 1930

	+	M.I.	-	Elev.
BM N ^o 8	9.10	100.24		91.14
Top 12" pipe			8.32	91.92
F.L.				<u>1.07</u> 90.85
M.H. at Int.			8.75	91.49 ✓

	Final Elevations		
BM N ^o 8	9.94	101.08	91.14
		9.33	91.75 ✓
M.H. N ^o 22		9.57	91.51 ✓

$62' @ .7\% = 43'$

Elev. of F.L. of Line A-22 at A
should be 91.08 or .41' above
F.L. of 12" pipe or $4\frac{7}{8}" \pm$



91.49
90.85
+ .64
90.85
- .24

91.49

57'
7'

.399

Manhole to be constructed

91.75 = Top
1.00 dia. pipe

90.75
+ .08 = shell

90.67

62.00
+ .07

43.400

91.51
+ .43

91.08

91.08
+ 90.67

.41 = $4\frac{7}{8}" \pm$

Levels West Curb of 29th St.
Hartborn to Snipper

Indexed
C.S.R.

For Additional Levels See page 58

1+0

0+75

0+50

0+25

0+10.2 = Sly Broken Crosswalk 1.8' x 5'

0+0 = N.E. Hartborn

TP 4.64 268.32 1299 268.68

BM 0.63 276.67 276.04

High Cor
Wall
H.F. Hartborn
4-29

SE 80
Hartborn
4-29

Reduced & Plotted 7-4-1944.
See page 58 for more levels
sum & elevs

LT

Hobbs Lane?

RT

May 2-44 48
Sisson
Bliss
Osborn

262.16

261.96

261.42

262.19

6.16
7.5
7.5 = 14.0
Wall

6.36
7.00
7.00 = 14.0
Gutter

6.00
7.00
7.00 = 14.0
Gutter

6.16
7.00
7.00 = 14.0
Gutter

262.04

261.89

261.26

262.16

6.28
7.5
7.5 = 14.0
Wall

6.45
7.00
7.00 = 14.0
Gutter

7.06
7.00
7.00 = 14.0
Gutter

7.16
7.00
7.00 = 14.0
Gutter

261.88

261.73

261.10

261.98

6.44
7.5
7.5 = 14.0
Wall

6.89
7.00
7.00 = 14.0
Gutter

7.28
7.00
7.00 = 14.0
Gutter

6.34
7.00
7.00 = 14.0
Gutter

261.78

261.61

261.07

261.84

6.54
7.5
7.5 = 14.0
Wall

6.91
7.00
7.00 = 14.0
Gutter

7.25
7.00
7.00 = 14.0
Gutter

6.48
7.00
7.00 = 14.0
Gutter

261.63

261.49

260.91

261.69

6.69
7.5
7.5 = 14.0
Wall

6.83
7.00
7.00 = 14.0
Gutter

7.11
7.00
7.00 = 14.0
Gutter

6.64
7.00
7.00 = 14.0
Gutter

268.32

240

1475

1450

1441

1435

1416

43

288.22

BT

262.39

5.93

7.5

Wilson

262.13

6.19

7.5

261.78

6.54

7.5

261.84

6.48

7.5

261.56

6.26

7.5

262.11

6.21

7.5

Wilson

288.32

PT

262.29

6.05

5.67

262.13

6.19

261.89

6.45

261.74

6.58

261.65

6.67

261.92

6.40

7.5

CS

288.32

261.76

6.56

6.77

261.61

6.71

261.97

6.95

261.31

7.01

261.27

7.05

261.35

6.97

7.5

Goffe

262.62

5.70

7.0

262.52

5.80

7.0

262.32

6.00

7.0

262.30

6.02

7.0

262.28

6.04

7.0

262.18

6.74

7.0

49

29th St.

3+335 = N. Cb Line try to west

3+02 = S. Cb Line try to west

2+92 = Cb B.C. try

2+75

2+50

2+25

268.32

30

263.11	262.75	262.60
--------	--------	--------

5.57 10.66	5.57 10.66	5.57
---------------	---------------	------

262.84	262.57	262.95
--------	--------	--------

5.48 10.76	5.78 10.60	5.87 10.60
---------------	---------------	---------------

263.09	262.86	262.32	263.08
--------	--------	--------	--------

5.55 7.5	5.46	6.00	5.74 10
-------------	------	------	------------

263.01	262.77	262.17	263.00
--------	--------	--------	--------

5.57 7.5	5.55	6.15	5.53 10
-------------	------	------	------------

262.86	262.65	262.07	262.89
--------	--------	--------	--------

5.48 7.5	5.67	5.85	5.73 10
-------------	------	------	------------

262.68	262.06	261.98	262.79
--------	--------	--------	--------

5.54 7.5	6.26	6.26	5.53 10
-------------	------	------	------------

268.32
 is it in 4th Drive

4+40

4+25

4+10

4+0

+89.6

TR

3+75

3+42.5 = 680

268.32

706 to 4+74

7.05

270.55

4.82

263.50

262.29
263.36
262.80
263.75

8.28
7.5
7.10
7.25
6.80
7.0

262.73
263.37
262.73
263.61

7.82
7.5
7.15
7.25
6.9
7.0

263.46
262.91
262.91
263.67

7.09
7.3
7.64
7.64
6.88
7.0

263.65
263.47
262.83
263.73

6.90
7.0
7.08
7.22
6.82
7.0

270.55

263.61
263.35
262.77
263.48

7.7
7.5
7.97
5.55
7.84
7.0

263.32
263.11
262.70
263.49

5.00
7.5
5.21
5.06
5.65
5.06
4.83
7.0

NYHolk

268.32

29+6.5f.

5175

5152

5125

510

4175

4160

270.55

ft.

Calvin?

ft.

52

264.23

6.23

7.5

7.5

264.38

6.12

7.5

264.29

6.3

7.5

263.89

6.66

7.5

263.51

7.02

7.5

263.12

7.43

7.5

7.5

7.5

264.29

6.36

264.25

6.30

264.10

6.45

263.87

6.68

263.57

6.98

263.50

7.25

270.55

263.74

6.81

263.68

6.87

263.52

7.03

263.30

7.25

263.06

7.49

262.93

7.63

7.63

264.67

6.88

264.58

6.97

264.49

6.06

264.30

6.25

264.03

6.52

263.85

6.70

7.5 = 1/2 Conc
7.5 = 1/2 Conc
7.5 = 1/2 Conc

6.81
6.81
6.81

6.87
6.87
6.87

7.03
7.03
7.03

7.25
7.25
7.25

7.49
7.49
7.49

7.63
7.63
7.63

7.63
7.63
7.63

see Page 58

BM 3.03 287.92

IP 10.43 290.95 0.31 280.52

BM 10.78 280.83 0.50 270.05

7+04 = S.C. of Juniper

6+90 = S.L. Juniper

6+75

6+50

6+25

6+0

270.55

S.E. BP
Juniper
D. 1/2 88.01

N.E. 7/24
Juniper
2915.07
at 270.13

41

66 line 2

PI

53

264.73

264.15

264.72

265.51

5.82
10.16

6.46
10.50
504m

5.83

5.04
10.4

265.01

264.92

264.37

265.32

5.54
7.5

5.63
8.6

6.18
9.0
504m

5.23
10

264.93

264.76

264.28

265.14

5.62
7.5

5.77

6.27

5.11
10

264.56

264.61

264.07

265.00

5.99
7.5

5.94

6.48

5.55
10

264.19

264.35

263.81

264.69

6.06
7.5

6.20

6.74

5.86
10

264.31

264.55

263.85

264.75

6.24
7.5

6.20
7.5
504m

6.70
9.0

5.80
10

270.55

34773

+ 4	46	343.1	
N	48	342.9	
+ 10	52	342.5	✓

0+49

N +0.6 = Nly Wire Fence

0+50

-10	48	342.9	✓
N	48	342.9	
2	46	343.1	
F	45	343.1	
+10	47	343.0	✓

0+81

E -3.5 = Nly 2 Conc Walk 3.55 344.18 ✓

0+94

F -8.4 = 2 Garage Conc Floor 3.25 344.48 ✓

1+0

-10	3.4	344.3	
F	30	344.7	
+5	51	344.6	

34773

2	3.6	344.1	
N	3.6	344.1	
+10	3.9	343.8	

1+11

E -0.7 = 2 Do Garage Conc Floor 2.42 345.31 ✓

1+25

-2.4 = Sky Conc Floor 2.26 345.47 ✓

N 2.6 345.1

2 3.0 344.7

F 2.8 344.9

+10 = Fence

1+44

N -2.4 = Fly Conc Apron 2.11 345.62 ✓

N -5.4 = Sky 3 Car Garage Conc Floor 1.97 345.76 ✓

1+51

-1.8 = Nly Shed

F 2.2 345.5

2 2.4 345.1

N 2.3 345.4

-2.4 = Fly Conc Apron 2.12 345.61 ✓

55

Beq. Gar

34777

TP 790 25354 2.09 345.64

1+69

N - 2.4 = N Fly Conc Apron 7.95 345.59 ✓

N - 5.4 = N Fly 3' Garage Conc Floor 7.81 345.23 ✓

1+74

N - 3.0 = N Fly 3.5' Conc Walk 7.91 345.63 ✓

1+75

-10 8.1 345.4 ✓

N 7.8 345.2

L 7.5 346.0

F 7.1 346.4

+10 6.8 346.2 ✓

2+0

-10 5.3 348.2 ✓

-2.2 = Sky Picket Fence

F 5.6 347.9

L 6.4 347.1

+9.3 = N Fly Porter Pole

N 6.8 346.7

+10 7.3 346.2 ✓

35354

2+06

F -1.7 = 2 x N Fly 3' Conc Walk 4.81 348.73 ✓

2+09

N +0.4 = 1/2 Garage Conc Floor 6.31 342.21 ✓

2+42

-5 5.1 348.4

N 5.0 348.5

L 5.0 348.5

+7 5.0 348.5

F 4.5 349.0

+2 = N Fly Picket Fence

2+44

N -0.2 = 5/8 L of House ✓

2+50

F +0.65 = Sky Top Conc Footing & Underment 5.10 348.44 ✓

2+54

N -0.4 = N Fly L of House

N = Sky Picket Fence

2+64

N +0.2 = N Fly Picket Fence

35354

2+15

F	Top Conc Footing	5.11	348.43	*
+1		4.5	349.0	
$\frac{1}{2}$		4.3	349.2	
H		4.4	349.1	
+5		4.6	348.9	✓

3+0

-10		5.7	349.8	✓
H		3.8	349.7	
$\frac{1}{2}$		3.5	350.0	
+8		3.7	349.8	
+9.4	Top Form Conc Footing	5.10	348.44	✓

3+01

H 4.10 = 114 Power Pole

3+35

F	on Ground	5.7	347.8
+2		3.5	350.0
$\frac{1}{2}$		3.6	349.9
H		3.5	350.0

59

35354

3+47.18 = S.L. El Cajon Taken on Diagonal

H	Top Cb	5.55	342.89	(
H	Gutter on Pav	5.70	342.84	
$\frac{1}{2}$	" "	5.92	347.62)
F	Gutter " "	5.47	348.07	
F	Top Cb	5.27	348.27	

3+63.4 = S.Cb of El Cajon

F	on Paving	6.15	347.39	
$\frac{1}{2}$	" "	6.24	347.30	
H	" "	6.42	347.12	
TP	2.65	351.03	5.16	348.38
B.M			3.77	347.26

S.W. B.P.
El Cajon 447 1/2
347.26

Additional Levels 29+65t.
Hawthorn to Juniper
Original Page 48-53

4t-11

2

Rt-F

May 19-1958
SUNCO
81W
Osbome

1+35

261.9

262.0

261.56

261.52

261.66

261.39

261.29

262.27

262.92

263.29

263.33

263.93

6.5
33

6.1
30

6.50
27.5
Fly Walk

6.54
22.5
Fly Walk

6.40
20-cb

6.67
20

6.77
19

5.79
10

5.14

4.77
10

4.70
20-Gut

4.13
20-cb

1+16

= Brk in Walk on West

262.2

262.1

262.11

262.06

261.92

261.39

261.36

262.18

262.80

263.20

263.18

5.9
33

6.0
30

5.98
27.5

6.00
22.5

6.14
20-cb

6.67
20

6.70
19.5

5.88
10

5.26

4.86
10

4.88
20-Gut
Fly Walk

4.13
20-cb

1+0

262.2

262.17

262.14

261.96

261.43

262.21

262.80

263.13

263.08

5.9
30

5.89
27.5
Fly Walk

5.92
22.5
Fly Walk

6.10
20-cb

6.63
20-Gut

5.85
10

5.26

4.93
10

4.98
20-Gut
Fly Walk

4.13
20-cb

0+92

= Fly Hen Walk

262.19

262.23

262.04

261.46

5.87
22.5
Fly Walk

5.83
22.5
Fly Walk

6.02
20-cb

6.60
20-Gut

0+80

= Fly Hen Walk

262.17

262.08

262.22

262.04

261.91

261.30

5.89
27.5
Fly Walk

5.88
27.5
Fly Walk

5.84
22.5
Fly Walk

6.02
22.5
Fly Walk

6.15
20-cb

6.76
20-Gut

0+75

262.1

262.05

261.86

261.27

262.19

262.74

262.98

262.03

263.69

6.0
30

6.0
27.5
Fly Walk

6.20
20-cb

6.79
20-Gut

5.87
10

5.32

5.08
10

5.08
20-Gut

4.37
20-cb

TP

4.38

268.06

263.68

Page 48
NE Hawthorn
429

268.06

See Page 48 for first set of levels

29th St

1475

261.8

261.9

63
30

67.5
27.5
Ground

+591 - Fly Broken Walk on West = Fly Comb Walk + Cb on W

+50

261.5

261.7

261.82

262.01

64
35

64
30

62.4
27.5

6.05
23.8

Fly
Comb
Walk

+48.8

+442 - Fly Broken Walk on W

1491

261.8

261.9

261.83

63
35

67
30

62.3
27.5

268.06

Lt

S

Rt

59

262.2

262.20

263.15

261.63

262.61 ✓

263.21

263.47

263.58

264.23

59.4
27.5

5.86
22.5

5.91
20=Cb

6.43
20=Cutler

5.45
10

4.85

4.59
10

4.48
20=Cutler

5.23
20=Cb

261.7

261.89

261.96

261.94

261.99

64
30

61.7
27.5

61.0
23.8

61.9
22.5

6.07
20=Cb

262.02

261.89

261.44

261.37

262.34

263.07

263.41

263.40

264.06

6.04
22.5

6.17
20=Cb

6.62
20

6.69
19.3

5.22
10

4.99

4.65
10

4.68
20

4.00
20

261.81

262.03

262.02

261.88

6.25
27.5

6.03
23.8

6.04
22.5

6.18
20

Fly
Comb
Walk

261.90

261.85

261.81

6.16
27.5

6.18
22.5

6.25
20=Cb

Fly
Comb
Walk

261.79

261.75

261.44

261.29

262.32

263.00

263.34

263.38

264.00

6.27
23.5

6.31
20=Cb

6.65
20

6.77
19.3

5.74
10

5.06

4.72
10

4.68
20=Cutler

4.06
20=Cb

268.06

29+65

269.89

60

4+25

263.1
68
30
263.7
72
30
263.72
77
27.5
20-cb

262.81
70.8
22.5
Fly Walk
263.9
65.0
20-cb
262.73
71.6
20-gutter
263.64
62.5
10
264.21
5.68
264.59
5.30
10
264.53
5.06
20-gutter
265.54
1.025
20-cb

4+10

263.2
67
30
263.3
66
27.5

263.48
6.41
27.5
Fly Walk
263.47
6.42
22.5
262.93
6.96
20-gutter
263.70
6.19
10
264.34
5.55
264.64
5.25
10
264.74
5.15
20
265.9
4.50
20

4+0

263.3
66
30
263.4
65
27.5

263.67
6.22
27.5
263.55
6.32
22.5
263.49
6.40
20
262.84
7.05
20
263.76
6.15
10
264.40
5.49
264.67
5.22
10
264.71
5.18
20
265.35
4.54
20

3+89.6

= Fly Walk to Fort

263.5
66
30
263.5
64
27.5

263.65
6.24
27.5
263.53
6.36
22.5
263.47
6.42
20-cb
262.84
7.05
20
263.74
6.15
10
264.30
5.39
264.58
5.01
10
264.65
5.21
20-gutter
265.31
4.58
20-cb

3+93.6

= Fly Walk Valley Gutter

263.3
66
30
263.4
65
27.5

263.64
6.25
27.5
263.45
6.44
20-cb
263.36
6.53
20-cb
262.78
7.11
20-gutter
263.56
6.33
10
264.00
5.39
264.23
5.66
10
264.45
5.44
20
264.82
5.07
30-gutter

TP

4.84 269.89 3.01

265.05
SEBP
141+29.4

269.89

2+0

262.3
5.8
30
262.3
5.8
27.5
262.40
5.66
27.5
Fly Walk

262.33
5.23
27.5
Fly Walk
262.30
5.76
20-cb
261.77
6.29
20-cb
262.67
5.39
10
263.30
4.76
263.66
4.40
263.70
4.36
20-gutter
268.06

268.06

2976 St.

269.89

5775

264.3

264.26

264.27

264.31

263.75

264.70

265.32

265.57

265.64

266.36

61

5752

264.4

264.4

264.38

264.29

264.26

263.69

264.57

265.22

265.48

265.52

266.20

5740.2 to 5744.0 Replaced walk 1.7' west of East Edge

257.8

261.0

264.3

264.30

264.17

264.11

263.55

264.51

265.12

265.41

265.41

266.13

5725

12.1
50

89
37

5.6
30

5.39
27.5

5.72
22.5

5.78
20

6.34
20

5.38
10

4.77

4.48
10

4.48
20

3.76
30

570

234.3

239.1

243.4

234

263.90

263.89

263.88

263.33

264.32

264.96

265.25

265.31

265.99

55.6
85

30.8
70

26.5
60

6.5
30

5.99
27.5

6.01
22.5

6.01
20

6.56
20

5.57
10

4.93

4.64
10

4.58
20

3.90
20

4775

231.1

237.0

262.1

263.0

263.51

263.61

263.59

263.06

264.02

264.69

265.11

265.16

265.85

58.8
85

52.9
70

7.8
33

6.9
30

6.38
27.5

6.28
22.5

6.30
20

6.83
20

5.89
10

5.20

4.78
10

4.73
20

4.04
20

4760

260.8

263.5

263.12

263.26

263.53

262.95

263.87

264.40

264.93

265.00

91
55

64
30

6.77
37.5

6.63
22.5

6.36
20

6.94
20

6.05
10

5.49

4.96
10

4.89
20

4.89
20

4.89
20

4740

262.1

262.1

262.33

262.65

263.38

262.81

263.77

264.32

264.77

264.91

265.64

78
35

7.8
30

7.51
27.5

7.24
22.5

6.51
20

7.08
20

6.12
10

5.57

5.1
10

4.98
20

4.98
20

4.25
20

269.89

Re Cross Section Alley Block 48 Tract #1368
 From Trojan to El Cajon - Bol Euclid + 48th St
 Sketch Page 5A

B.M. 317 347.45 344.28 ✓ H.R.P. Trojan 48th

0 + 30 = Opp New Garage on East

E-31 = Sky Header For 4.04 343.41

E-6 = Sky Do Garage 3.93 343.52
 Conc Floor

0 + 45

E-3.2 = Nly Conc Apron 4.01 343.44

E-6 = Nly Do Garage 3.92 343.53
 Conc Floor

TP 7.44 353.00 1.89 345.56

2 + 0

F 5.0 348.0

2 5.9 347.1

W 5.4 347.6

2 + 45

W 5.0 348.0

2 5.0 348.0

+9 4.8 348.0

F 3.9 349.1

352.00

2 + 65

E 4.56 348.44

2 4.8 348.0

+4 4.5 348.5

W 5.0 348.0

+29 = Fly Conc Walk 4.67 348.33

3 + 0

-8.5 = Fly Conc Walk 4.65 348.35

W 4.9 348.1

2 5.0 348.0

+9.4 = Nly Conc Footing 4.55 348.44

3 + 0.9

W-9.6 = Nly Conc Walk 4.66 348.34

3 + 3.5

F = Nly Bldg 4.9 348.1 on Ground

2 5.3 347.7

+5 5.2 347.8

W 5.0 348.0

3 + 47.18 = S. Fl Capoz

W Top Curb

5.03

347.97

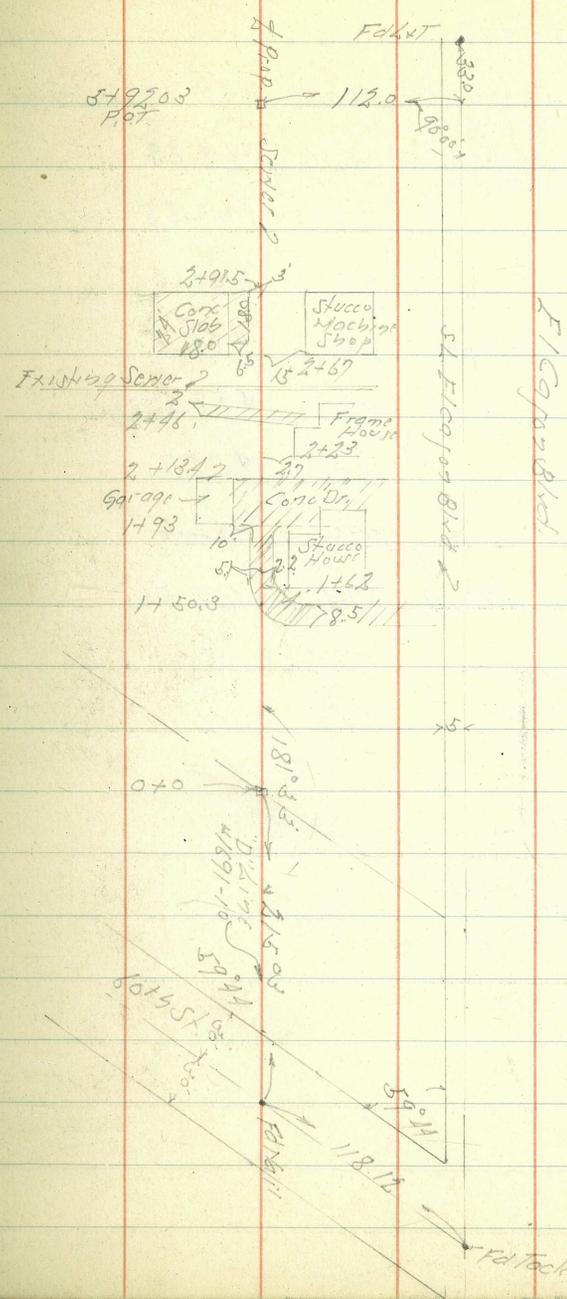
Nov 13-46 62
 S. Wood
 Model
 4/100

Proposed Section East Redlands Per 26
South of E. I. Cajon Blvd. West of 60th St.

BM	494	469.39	464.45	07 Mail 24 of 105' C' 1691-11
0+0	= 24' 15.03" D"	9.32	460.07	07 Stub
"	50' Lt of 2	12.5	456.9	
+50		8.3	461.1	
+80	21' Rt of 2 = 2x S/L Realtor's office	3.33	466.06	07 Floor
+10		7.0	462.4	
"	32' Lt of 2	10.3	459.1	07 Conc. Slab
+50.3	S/Ly Conc Drive	6.82	462.57	
+62	4' Rt of 2 = S.F. Cor Stucco House	2.94	466.45	07 Floor
+20	07 Conc Drive	6.90	462.49	
"	Lt of 2	9.2	460.2	
TP	6.14	468.25	462.21	
+13.4	Wly Conc Drive	5.92	462.43	
+21	= 1745 Wire Fence			
+23	27' Rt of 2 - S.F. Cor Frame House	2.84	465.51	07 Floor
+46	2' Conc Walk	4.97	463.38	
+67	15' Rt of 2 - S.F. Cor Machin Shop	3.80	464.55	07 Floor
+40		5.0	463.4	
+50		5.1	463.3	

Indexed
c.s. 115

May 21-46
Sisson
of
Maddal
Allen 63



468.35

3+50	73 ft of d = N.E. Cor Frank House	9.05	459.30	0.25 Floor
" "	67' Rt of d = S.E. Cor Gas Station	3.46	464.89	
+92.03	POT	5.80	462.55	0.25 Floor
4+0		7.8	460.6	
+05	= Fly Gravel Road	9.6	458.8	
+17	= Fly " "	9.9	458.5	
7+8		12.7	455.7	
+50		15.8	452.6	
TP	4.63 469.19	3.79	464.56	
BM		3.06	466.13	N.W. 8P E. Cañon 459.465 466.12

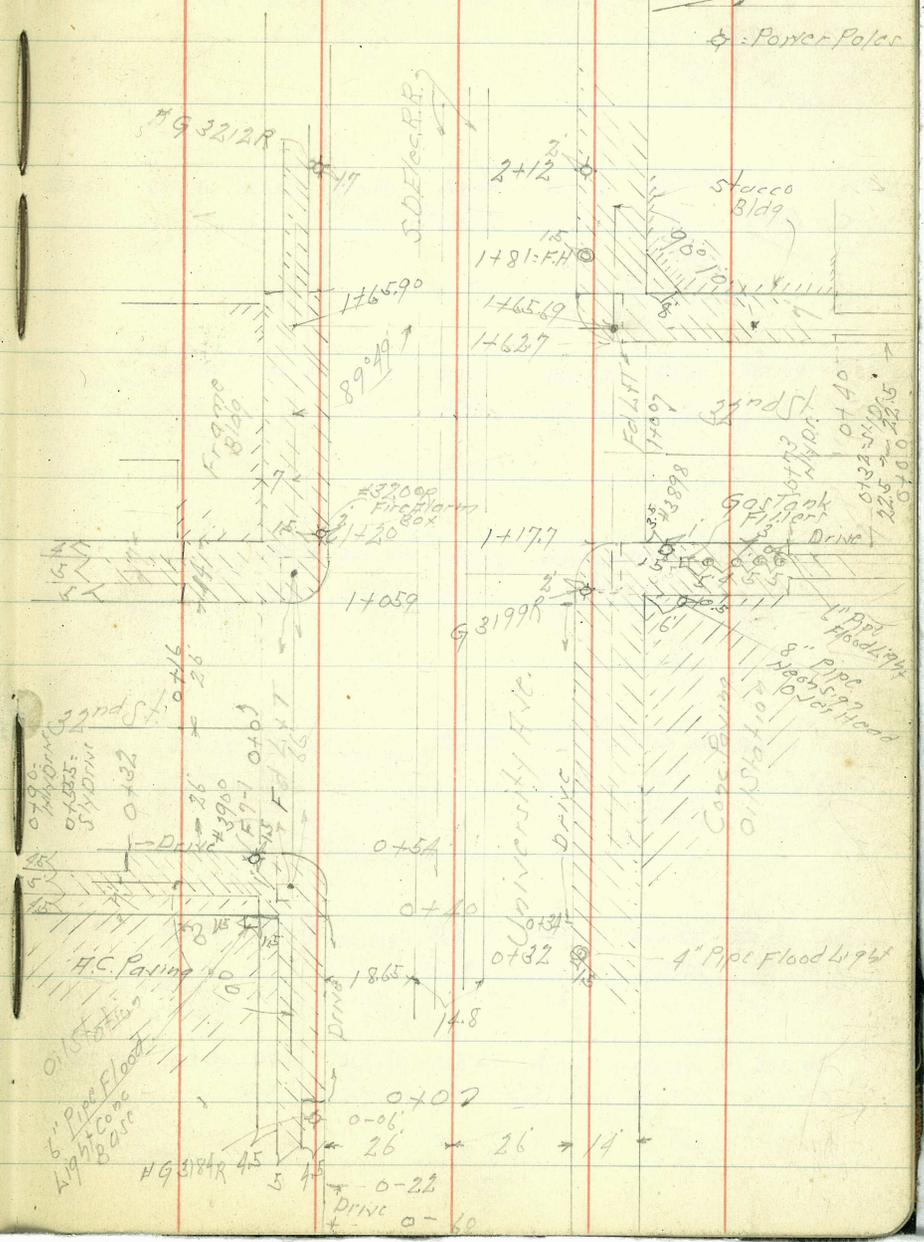
University Ave + 32nd St.
 Re design of Intersection
 Levels next Page

indexed
 C.S.R.

N.O. 237

Dec. 5-46 65
 S. J. 07
 M. Col
 Haddel
 Allen

⊙ - Power Pole



Levels University Ave and 32nd St

Lt=N

L

Rt=S

0+97.7

352.10	351.96	351.83	352.36	352.35	352.23	351.57	352.18	352.11
5.47	5.61	5.71	5.21	5.22	5.34	6.00	5.43	5.46
60	40	26	13		13	26 in Drive	32 on Walk	40 on Conc Pav

0+80 = 2 32nd to North

352.57	352.25	352.02	352.45	352.49	352.37	351.69	352.21	352.36
5.00	5.32	5.55	5.12	5.08	5.20	5.93	5.56	5.36
60	40	26	13		13	26 in Drive	30.5 in Walk	40 on Conc Pav

0+54 = N CB Line to North

352.22	352.97	352.39	352.15	352.67	352.67	352.57	351.99	352.39	352.39
5.35	4.65	5.78	5.42	4.90	4.90	5.00	5.58	5.18	5.18
60 on Conc Pav	40 on CB	40 on Gutter	26	13		13	26 in Drive	30.5 in Walk	40 on Conc Pav

0+40 = N L 32nd to North

353.29	353.20	352.99	352.17	352.77	352.80	352.66	352.09	352.93
4.78	4.37	4.58	5.40	4.80	4.77	4.91	5.48	5.14
40 on Conc Pav	30.5	26 on CB	26 on Gutter	13		13	26 on Gutter in Drive	40 on Conc Pav

0+34

353.35	353.18	352.25	352.82	352.87	352.71	352.09	352.93	352.59
4.74	4.39	5.37	4.75	4.70	4.86	5.48	5.14	4.98
40 on Conc Pav	30.5	26 on Gutter	13		13	26 on Gutter	26 on CB	40 on Conc Pav

0+0 = N Y Drive on N CB

353.58	353.95	352.19	352.57	353.17	353.02	352.33	352.87	352.02
3.99	4.18	4.38	5.00	4.40	4.55	5.24	4.70	4.55
40 on Conc Pav	30.5	26 on CB	26 on Gutter		13	26 in Drive	32 on Walk	40 on Conc Pav

0-60 = 100 ft of N L 32nd to North

353.94	353.89	352.09	353.61	353.66	353.67	352.95	353.41
3.63	3.68	4.48	3.96	3.91	3.95	4.62	4.16
35.5 on Walk	26 on CB	26 on Gutter	13		13	26 in Drive	40 on Conc Pav

BM 5.66 357.57 ✓ 351.91

S.W. 156
University
32nd St

357.57

1+62.7 = FCB Line 32nd South

352.22	351.88	351.26	351.72	351.75	351.59	351.18	350.90	351.29
5.35 100 on Walk	5.69 26-cb	6.31 26-Gut	5.85 13	5.82	5.98 13	6.43 26	6.67 40-Gut	6.13 60-cb
							350.57 7.00 80-Gut	351.15 6.43 60-cb

1+40.6 = 32nd to South

352.40	352.10	351.44	351.96	352.00	351.85	351.66	351.71	351.97
5.17 40-Walk	5.47 26-cb	6.13 26-Gut	5.61 13	5.57	5.72 13	5.91 26	5.86 40	6.10 60

TP 5.66 357.57 5.66 351.91

357.57

1+20 = F.L. 32nd to North

352.62	352.37	351.64	352.20	352.22
4.95 100 on Walk	5.20 26-cb	5.93 26-Gut	5.37 13	5.35

1+17.7 = XCB Line 32nd St to South

352.39	351.65	352.21	352.29	352.07	351.60	351.35	351.87	351.05
5.18 26-cb	5.97 26-Gut	5.36 13	5.33	5.50 13	5.77 26	6.22 40-Gut	5.70 40-cb	6.62 60-Gut
								351.97 6.10 80-cb

1+0.7 = W.L. 32nd to South

352.29	352.33	352.15	351.57	352.08	352.07
5.28 13	5.24	5.42 13	6.05 26-Gut	5.49 26-cb	5.50 40 on Par

1+0.5.9 = FCB 32nd to North

352.16	351.58	352.23	351.83	351.77	352.30	352.29
5.41 60-cb	5.99 60-Gut	5.14 40-cb	5.74 40-Gut	5.80 26	5.27 13	5.28

357.57

357.57 /

Lt Lt Rt

2 + 60 = N.L. Alley on North

349.57	348.93	349.36	349.48	349.29	348.69	349.00
8.00	8.64	8.21	8.09	8.33	8.93	8.57
26=Cb	26=Gut	13		13	26=Gut	26=Cb

2 + 40

350.15	349.53	350.02	350.10	349.88	349.18	349.66
7.46	8.01	7.55	7.47	7.69	8.39	7.91
26=Cb	26=Gut	13		13	26=Gut	26=Cb

2 + 0

351.18	350.61	351.12	351.21	351.02	350.35	350.78	351.18
6.39	6.96	6.45	6.36	6.55	7.22	6.79	6.39
26=Cb	26=Gut	13		13	26=Gut	26=Cb	10 on Walk

1 + 82.7

351.57	350.99	351.42	351.46	351.28	350.69	351.16	351.45
6.00	6.58	6.13	6.11	6.29	6.88	6.41	6.12
26=Cb	26=Gut	13		13	26=Gut	26=Cb	10 on Walk

1 + 72.7 = E.L. 32nd to South

352.14	351.81	351.19	351.56	351.61	351.44	350.93	351.90	351.59
5.43	5.76	6.38	6.01	5.96	6.13	6.61	6.19	6.03
10 on Walk	26=Cb	26=Gut	13		13	26=Gut	26=Cb	10 on Walk

357.57

357.57 ✓

Levels 32nd St. North & South of University Ave.

Lt. N

L

Rt. E

Notes Reduced. 12-19-46

1+0

352.96	352.24	351.58	352.13	352.15	351.76	350.95	351.57	351.72
5.11	5.53	5.99	5.44	5.42	5.81	6.62	6.00	5.85
36-11/2 Walk	26-Cb	26-Gutter	13		13	26-Gut	26-Cb	36-11/2 Walk

0+50

352.89	352.60	352.01	352.52	352.51	352.17	351.27	351.95	352.13
4.68	4.97	5.56	5.05	5.06	5.40	6.30	5.62	5.44
36-11/2 Walk	26-Cb	26-Gutter	13		13	26-Gutter	26-Cb	36-11/2 Walk

0+0 = N. L. University Ave

Sec University Ave

1+0 = S. L. University

Sec University Ave

+50

351.28	350.55	351.01	351.02	350.72	350.15	350.65	350.79
6.29	7.02	6.56	6.55	6.85	7.42	6.92	6.98
36-11/2 Walk	26-10/12	11		11	26-Gut	26-Cb	36-11/2 Walk

0+0 = 100' South of S. L. University

350.69	350.37	349.81	350.27	350.27	349.96	349.32	349.85	349.90
6.92	7.20	7.76	7.30	7.30	7.61	8.25	7.77	7.67
36-11/2 Walk	26-Cb	26-Gutter	11		11	26-Gutter	26-Cb	36-11/2 Walk

B.M.

5.66

357.57

351.91

S.M. B.P.
University
+32nd St

357.57 ✓

The image shows an open notebook with two facing pages. Both pages are cream-colored and feature horizontal ruling lines. The right page is numbered '70' in the top right corner. The notebook is lying flat on a white surface, and the pages are otherwise blank.

49° 25'

98° 50'

49 25

$$\begin{array}{r}
 3 \overline{) 148^{\circ} 15'} \\
 \underline{15} \\
 28 \\
 \underline{28} \\
 0
 \end{array}$$

FR

2.75

757

Area = 23.8 m²

67.87

65.03

1.6

65.19

1.6

65.35

115° 35'

231-10

115 34 45

$$\begin{array}{r}
 3 \overline{) 346^{\circ} 44' 30''} \\
 \underline{60} \\
 1.4
 \end{array}$$

115° 34' 45"

49° 25' 00"

164-59-45

179-59-00

15.00.15

03"

Kootenay

TABLE IX.—CALCULATION OF EARTHWORK.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.83	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if $w = 16.2$ and $h = 5.3$, cu. yds. $= 1.48 + .028 + .089 = 1.597$ cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half of each and multiply result by 4. Any cross-section may be divided into triangles by the following rule. To the triangle of the sum of the outside cuts (or fills) $=h$, and $\frac{1}{2}$ the roadbed $=w$, add the triangles formed by taking the distance out to each break in turn ($=w$'s) by the difference between the cuts (or fills) on each side of it ($=h$'s) always subtracting the outer from the inner.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on $1\frac{1}{2}$. For Single Track Embankment.

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

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