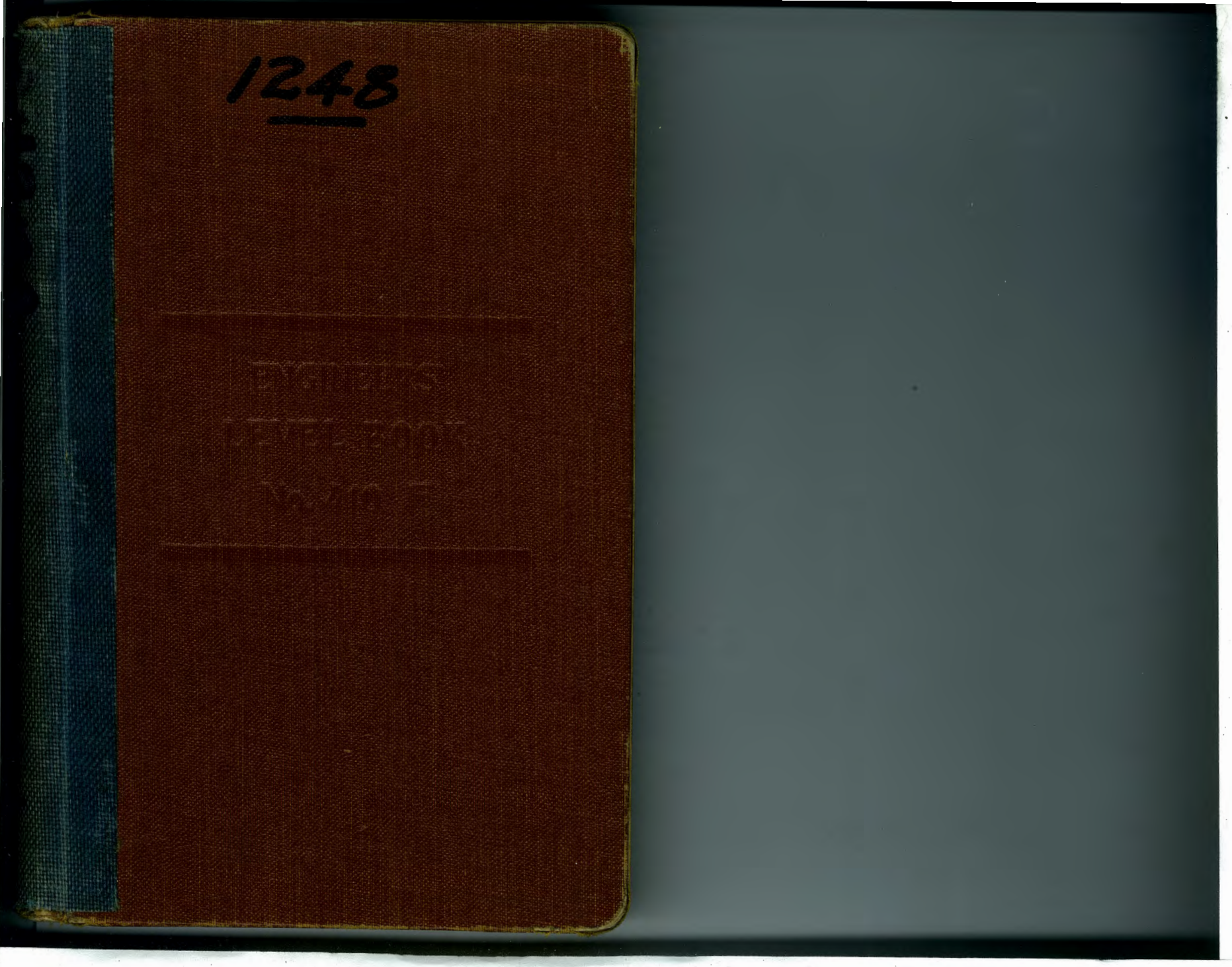

1248

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

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

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

1248

Tom J. Allen.
309 "G" street
San Diego
California

ENGINEERING DEPARTMENT,
CITY OF SAN DIEGO,
CALIFORNIA.

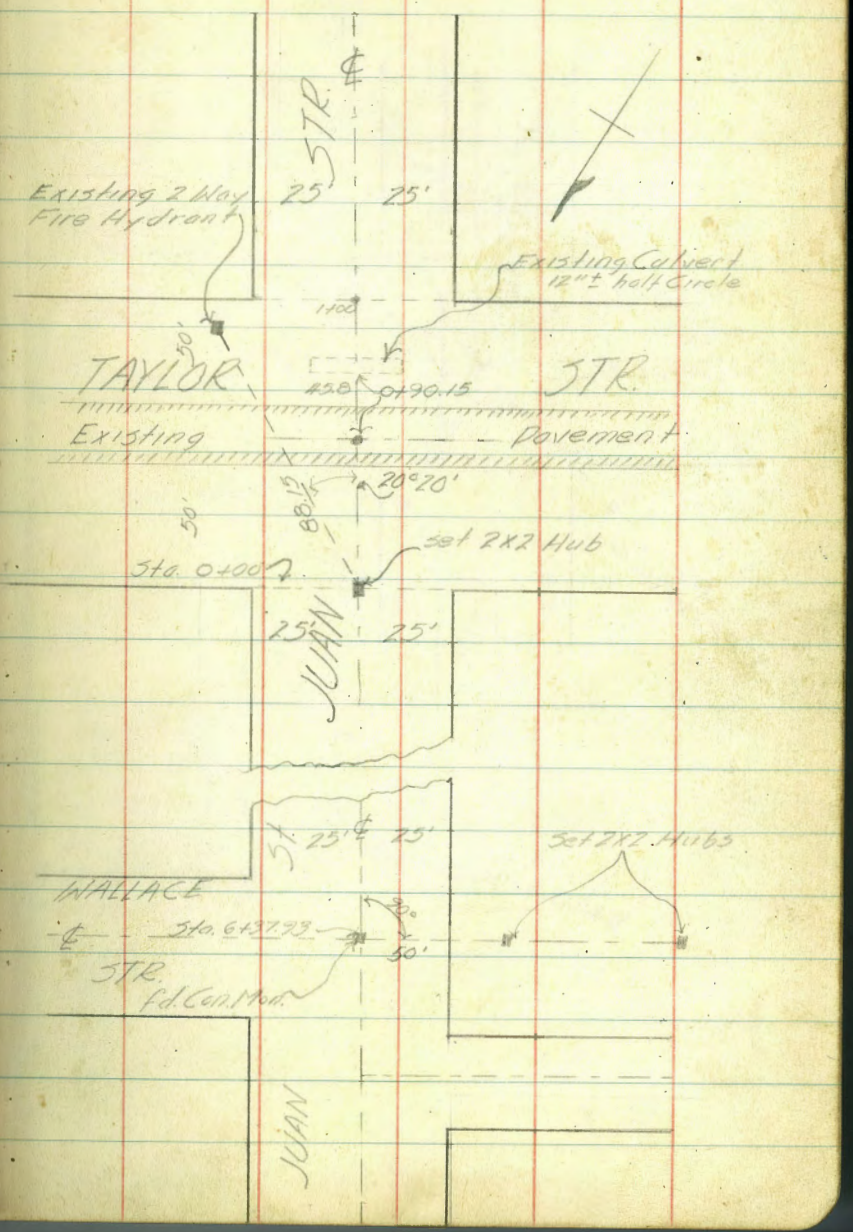
INDEX

Juan Street Alignment

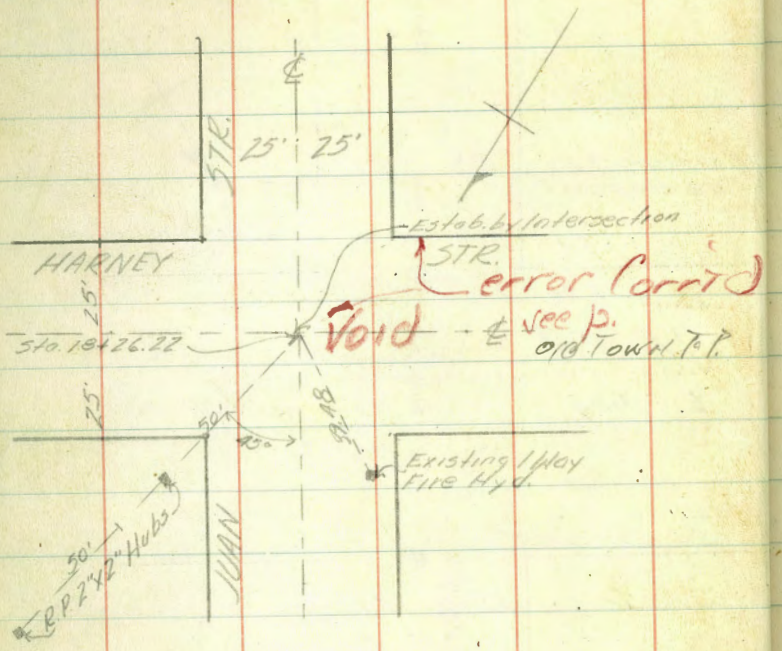
E. Quartly
E. Rodier
A.E. Franklin
H. Holbrook

March 28, 1928

R. Curren Notes

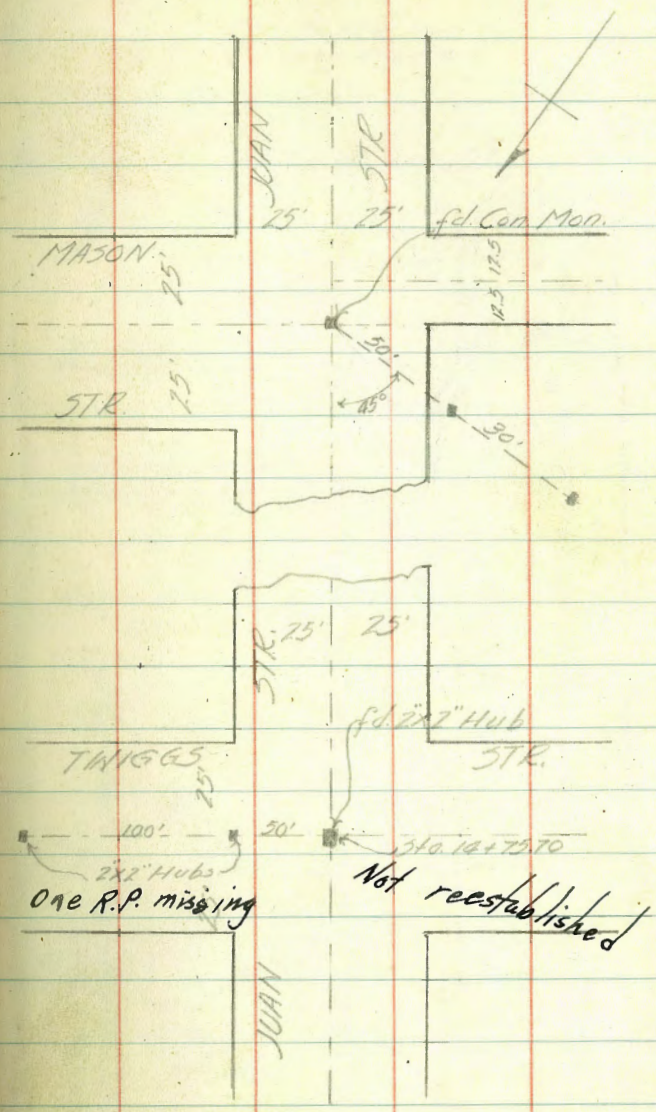


JUAN STR.
Alignement

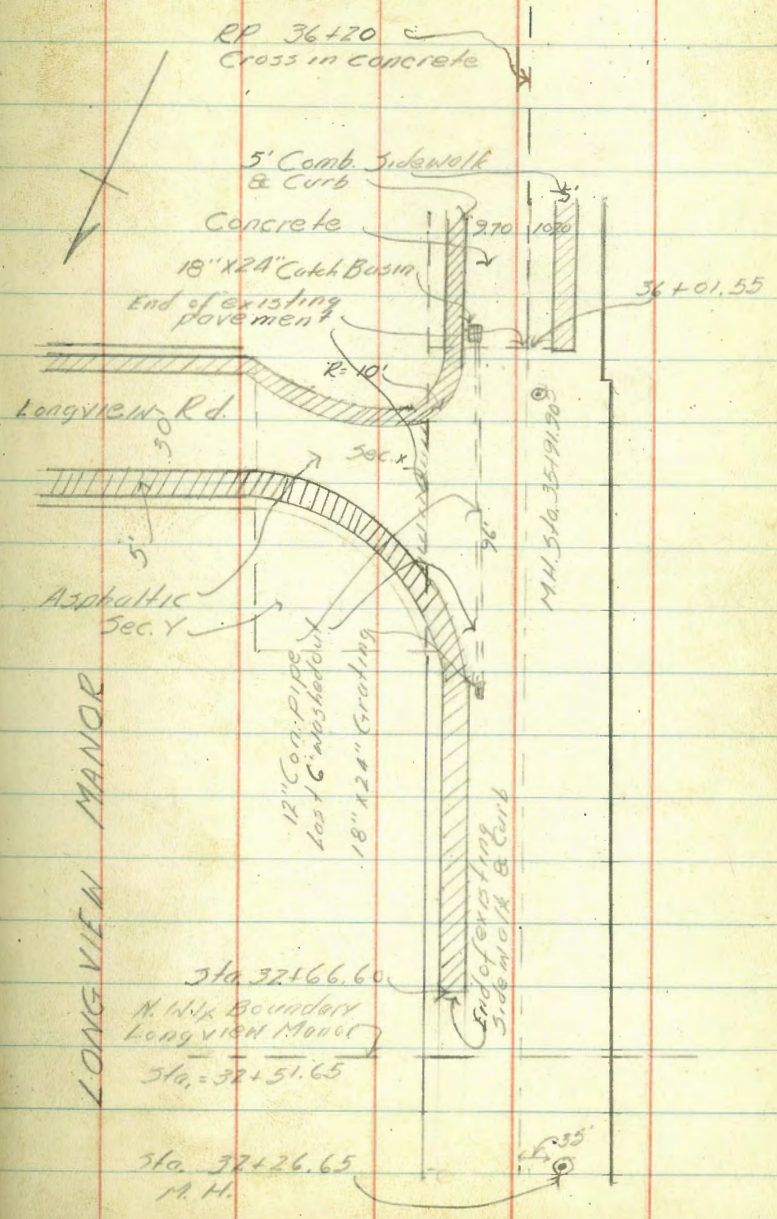


JUAN STREET
Alignment

2



Juan St. Alignment



E. Quartly ℄
E. Rocher
R E Franklin ⊥
H. Holbrook
R. Curren Notes

Sta	+	℄	−	Elev.
	2.50	16.91		14.41
	2.83	10.68	9.06	7.85
0+50			6.09 / 35 4.59	6.05 / 25 4.63
0+90		7.3 / 35 3.40	7.2 / 25 3.50	7.0 / 21 3.70 ; 8.7 / 24 2.50
1+00		7.0 / 25 3.7	7.2 / 20 3.5	6.9 / 18 2.8
1+50			6.2 / 25 4.5	7.2 / 20 3.5
2+00			6.3 / 25 4.4	6.3 / 20 4.4
2+50			6.3 / 25 4.4	6.5 / 20 4.2
3+00			4.7 / 25 6.0	5.5 / 20 5.2
P	9.12	17.00	2.80	7.88
3+50				8.8 / 25 8.2
4+00			7.5 / 25 9.5	7.7 / 20 9.3
4+50			6.5 / 35 10.5	6.4 / 25 10.6
5+00	4.8 / 35 12.2	4.8 / 25 12.2	5.8 / 24 11.2	6.1 / 20 10.9
5+50		5.8 / 35 11.2	5.2 / 25 11.8	5.3 / 20 11.7
N.R. 6+004	3.2 / 35 13.8	3.8 / 25 13.2	4.3 / 20 12.7	4.4 / 7 12.6
P	7.75	21.66	2.59	14.41
Wallace ℄			7.2 / 35 14.5	7.9 / 25 13.8

℄					
6.01 / 20 4.60	6.07 / 0 4.61	6.03 / 20 4.65	6.0 / 25 4.68	5.98 / 35 4.70	
6.0 / 18 4.70	6.1 / 0 4.60	6.4 / 20 4.30	6.4 / 25 4.3 ; 7.20 / 26 3.5	6.7 / 35 4.0	
5.7 / 16 5.0	6.0 / 0 5.4	6.3 / 20 4.4	6.4 / 25 4.2		
5.4 / 16 5.3	5.3 / 0 5.4	5.8 / 20 4.9	6.0 / 25 4.7		
5.1 / 16 5.6	5.0 / 0 5.7	5.0 / 20 5.7	5.4 / 25 5.3		
4.6 / 14 6.1	4.5 / 0 6.2	4.8 / 20 5.9	4.6 / 25 6.1		
3.8 / 16 6.9	3.7 / 0 7.0	3.8 / 20 6.9	3.7 / 25 7.0		
9.6 / 20 7.4	9.0 / 0 8.0	9.0 / 20 8.0	8.9 / 25 8.1		
8.4 / 17.5 8.6	8.4 / 0 8.6	8.4 / 20 8.6	8.3 / 25 8.7		
6.8 / 20 10.2	7.4 / 0 9.6	7.2 / 20 9.8	7.2 / 25 9.8		
6.5 / 30 10.5	5.4 / 0 10.6	5.8 / 20 10.2	5.8 / 25 10.2		
5.5 / 60 11.3	4.6 / 0 12.4	4.3 / 20 12.7	4.3 / 25 12.7		
3.9 / 60 13.1	4.4 / 0 12.6	5.2 / 20 11.8	5.0 / 25 12.0	5.3 / 35 11.7	
check					
8.1 / 20 13.6	8.2 / 0 13.5	8.6 / 20 13.1	9.0 / 25 12.7	8.1 / 35 13.6	

Sta	+	West ℄	−	Elev			East ℄				
Wallace S.H.			6.7/35 15.5	7.0/25 14.7		7.3/20 14.4	7.5/0 14.2	8.7/20 13.0	7.8/25 13.9	7.7/35 14.0	
7+00			6.4/35 15.3	6.7/25 15.0		6.9/20 14.8	6.9/0 14.8	7.4/20 14.3	7.2/25 14.5	7.4/37 14.3	
7+50			5.4/35 16.3	5.4/25 16.3		5.5/20 16.2	5.2/0 16.5	5.7/20 16.0	5.8/25 15.9	5.8/35 15.90	
8+00		2.8/35 18.9	2.7/25 19.0	3.2/20 18.5	3.8/18 17.9	3.9/13 17.8	3.5/15 18.2	3.5/0 18.2	3.1/20 18.6	3.0/25 18.7	4.0/35 17.70
8+50		1.1/35 2.06	1.2/25 20.5	1.3/20 20.4	1.8/16 19.9	1.8/16 19.9	1.4/17 20.3	1.6/0 20.1	1.3/20 20.4	1.2/25 20.5	1.2/35 20.5
P	11.64	33.00	0.28	21.36							
9+00		10.9/35 22.1	11.0/25 22.0	11.0/20 22.0			11.2/15 21.8	11.1/0 21.9	11.8/20 21.2	11.8/25 21.2	12.9/35 20.1
9+50			9.6/35 23.4	9.4/25 23.6	9.2/20 23.8	9.17/17 23.3	10.2/18 22.8	9.3/0 23.7	10.4/20 22.6	10.3/25 22.7	10.8/35 22.2
N.H.			8.9/35 24.1	8.3/25 24.7		9.7/35 23.3	8.2/20 24.8	8.2/0 24.8	8.5/18 24.5	9.1/20 23.9	9.1/25 23.9
℄ Mason			7.2/35 25.8	7.4/25 25.6			7.4/20 25.6	7.1/0 25.9	7.8/20 25.2	8.0/25 25.0	8.2/35 24.8
S.H.			6.2/35 26.8	6.2/25 26.8			6.1/20 26.9	6.0/0 27.0	7.0/20 26.0	7.4/25 25.6	8.0/35 25.0
10+50	3.6/35 29.4	3.5/25 29.5	4.8/20 28.2	4.8/15 28.2		5.0/14 28.0	4.9/20 28.1	5.2/0 27.8	5.7/22 27.3	5.7/25 27.3	6.1/35 26.9
11+00	3.1/35 29.9	3.4/25 29.6	3.8/20 29.2	2.8/16 30.2			3.0/12 30.0	3.1/0 29.9	3.2/20 29.8	4.4/25 28.6	4.3/35 28.7
11+50	2.1/35 30.9	1.7/25 31.3	4.7/20 31.3	.08/14 32.2		1.0/12 32.0	1.2/20 31.8	0.8/0 32.2	1.9/22 31.1	2.0/25 31.0	2.0/35 31.0
P	12.62	45.32	0.30	32.70							
12+00		13.2/35 32.1	12.5/25 32.8	12.2/20 33.1		11.1/14 34.2	11.4/18 33.9	11.0/0 34.3	11.7/20 33.6	11.9/25 33.4	12.0/35 33.3
12+50	10.7/35 34.6	10.6/25 34.7	11.6/20 33.7	8.9/15 36.4			9.2/13 36.1	8.8/0 36.5	9.7/20 36.1	9.0/25 36.3	9.4/35 35.9
13+00	8.1/35 37.2	7.5/25 37.8	7.6/20 37.7	6.2/13 39.1		6.6/12 38.7	6.4/0 38.9	6.6/17 38.7	7.7/20 37.4	7.9/25 37.4	8.0/35 37.3
13+50	4.7/35 40.6	4.8/25 40.5	4.5/20 40.8	3.8/13 41.5	4.3/13 41.0	4.2/15 41.1	4.0/17 41.3	3.9/0 41.4	5.0/20 40.3	5.9/25 39.4	6.3/35 39.0

Sta	+	WEST ↑	−	Elev		℄		EAST			
14+00	+0.9/35 46.2	0.2/25 45.1	0.3/20 45.0	0.9/16 44.4	1.5/13 43.8	1.2/0 44.1	1.2/12 44.1	0.8/13 44.5	1.4/20 43.9	1.7/25 43.6	2.5/35 42.8
P	13.01	57.90	0.43	44.89							
NR	6.2/35 51.7	6.7/25 51.2	7.7/20 50.2	10.0/18 47.9	12.5/12 45.4	11.2/0 46.7	11.3/12 46.6	10.3/14 47.0	10.6/20 47.3	10.3/25 47.6	11.1/35 46.8
℄		4.1/35 53.2	5.0/25 52.9	6.2/20 51.7	10.3/13 47.2	10.2/0 47.7	10.1/14 47.8	9.3/20 48.6	7.0/25 48.9	8.9/35 47.0	
SR		2.6/35 55.3	7.3/25 55.6	6.4/20 51.5	9.1/12 48.8	8.7/0 49.2	8.8/13 47.1	4.7/20 53.1	4.6/25 53.3	5.2/35 52.7	
15+50		+0.5/35 58.4	0.1/25 57.8	2.7/20 55.2	6.3/12 51.6	6.1/0 51.8	6.0/12 51.9	4.5/17 53.4	2.1/20 55.8	1.6/25 56.3	1.5/35 56.4
P	11.08	66.29	2.69	55.21							
16+00		6.5/35 57.8	5.6/25 60.1	10.6/20 55.7	12.1/13 54.2	12.2/0 54.1	12.1/12 54.2	7.5/20 58.8	6.7/25 59.6	6.6/35 59.7	
16+50		6.7/35 59.6	6.1/25 60.2	9.4/20 57.9	9.1/17 54.6	9.8/0 56.5	9.8/12 56.5	5.3/20 60.6	1.7/25 64.4	1.5/35 64.8	
17+00		6.2/35 60.1	6.0/25 60.3	6.3/20 60.0	7.4/17 58.9	7.5/0 58.8	7.3/11 59.0	0.5/20 65.8	0/25 66.3	+0.5/35 66.8	
17+50		4.6/35 61.7	5.1/25 61.2	4.7/20 61.6	5.0/16 61.3	4.6/0 61.7	4.2/13 62.1	+0.2/20 66.5	+1.0/25 67.3	+2.1/35 68.4	
P	12.12	78.22	0.19	66.10							
NR			17.0/35 61.2	14.3/25 63.9	14.3/20 63.9	12.3/0 65.3	12.0/16 66.2	11.1/20 67.1	9.4/21 68.8	8.4/25 69.8	7.1/35 71.1
℄			15.3/35 62.9	13.6/25 64.6	12.8/20 65.4	10.4/0 67.8	9.8/16 68.4	7.7/20 70.3	5.6/25 72.6	3.6/35 74.6	1330 = 64.22 ✓
SR 11.0/35 67.2	9.6/25 68.6	8.0/20 70.2	7.7/17 70.5	8.9/15 69.3	7.7/12 70.5	7.2/0 71.0	6.3/17 71.9	5.6/20 72.6	1.2/25 77.0	0/35 78.2	
P	9.86	86.56	1.52	76.70							
18+15	18.5/45 68.1	17.3/35 69.3	14.2/25 72.4	11.1/20 74.9	11.6/13 75.0	11.4/0 75.2	11.3/15 75.3	10.5/17 76.1	8.8/20 77.8	4.5/25 82.1	2.5/35 84.1
18+00 14.5/45 71.8	12.2/35 73.1	9.3/25 77.3	7.4/20 79.2	9.2/16 77.4	8.0/14 78.6	7.5/0 77.1	7.7/15 78.9	5.5/18 81.1	4.0/20 82.6	1.0/25 85.6	+1.4/35 88.0
17+25 10.8/45 75.8	8.8/35 77.8	4.3/25 82.3	4.7/20 82.4	5.2/14 82.4	4.5/13 82.1	4.0/0 82.6	4.4/15 82.2	+4.7/20 90.8	+5.1/25 91.7	+6.6/35 93.2	

TWIGG

	West +	West ℄	West −	Elev		East ℄					
	-	86.56									
19+50	4.4/45 82.2	2.8/35 83.8	0/25 86.6	+1.5/21 88.1	0.4/20 86.7	1.1/16 85.5	0.4/0 86.7	0.4/16 86.7	+4.7/20 90.8	+6.6/25 97.7	+11.1/35 97.7	
P		12.90	99.34	0.12	86.44							
19+75	12.8 8.5/45 3.0	5.6/21 93.7	9.2/20 90.1	10.0/16 89.3	11.0/13 88.3	10.5/17 88.8	7.7/0 87.4	10.1/16 87.7	0.5/20 98.8	0/25	+13/35 100.5	
20+00	7.3/45 92.9	4.3/35 95.0	1.3/25 98.0	1.4/23 97.9	6.3/20 93.0	7.1/15 91.6	6.7/0 92.6	6.5/15 92.8	+11.4/20 100.7	+12.2/25 102.2	3.1/35 96.2	
20+25	+1.0/45 100.3	+1.1/35 100.7	+1.4/25 100.7	4.2/20 95.1	5.7/16 94.1		3.9/0 95.4	3.9/13 95.4	+4.8/20 104.1	+6.1/25 104.5	5.6/35 93.7	6.2/45 93.1
P		12.85	111.25	0.74	98.40							
20+50	6.4/45 104.8	6.1/35 105.1	6.4/25 104.8	12.5/20 98.7	14.2/16 97.0		13.1/0 98.1	13.0/12 98.2	4.3/17 106.4	4.4/20 106.8	4.1/25 107.1	4.6/35 106.6
P		5.44	113.26	3.43	107.82							
20+75	4.3/45 109.0	4.8/35 108.5	4.8/25 108.5	12.6/20 100.7	12.9/16 100.4		12.4/0 100.9	12.5/12 100.8	4.0/20 108.3	3.9/25 109.4	4.0/35 108.3	4.1/35 109.2
21+00	2.8/45 110.5	2.6/35 110.7	2.8/25 110.5	2.6/20 103.7	10.3/16 100.4		9.8/0 103.5	9.8/10 103.5	2.1/15 111.2	1.5/20 111.8	1.1/25 112.2	0.8/35 112.5
21+25	0.8/45 112.5	0.4/35 112.9	0.5/25 112.8	1.0/20 106.3	7.8/17 105.5		7.2/0 106.1	6.2/9 106.4	+1.3/13 110.5	+1.7/20 115.0	+2.1/25 115.4	+2.3/35 115.6	+2.5/45 115.8
P		12.54	122.68	3.17	110.14							
21+50		8.7/45 114.5	8.1/35 114.6	8.2/25 114.5	14.0/20 108.7	14.3/19 107.8	14.7/0 108.0	14.6/6 108.1	7.2/12 115.5	6.2/20 116.5	5.3/25 116.8	3.1/35 117.6	4.2/45 117.8
21+75		6.3/45 116.4	6.2/35 116.5	6.3/25 116.4	11.4/20 111.3	12.1/19 110.6	12.0/0 110.7	12.1/6 110.6	4.6/11 118.1	3.7/20 119.0	3.3/25 119.4	2.6/35 120.1	2.5/45 120.2
22+00		4.8/45 117.9	4.7/35 118.0	4.6/25 118.1	8.8/23 113.9	9.5/20 113.2	9.7/0 113.0	10.0/7 112.7	3.2/10 119.5	2.2/20 120.5	1.7/25 121.0	1.1/35 121.6	1.3/45 121.4
22+25		3.1/45 119.0	3.3/35 119.4	2.8/25 119.3	7.7/20 115.0		7.3/0 115.4	7.4/5 115.3	1.3/10 121.4	+0.3/20 123.0	+0.4/25 123.3	+0.5/35 123.2	+0.6/45 123.1
22+50		2.5/45 120.0	1.8/35 120.1	1.2/25 121.5	5.0/20 117.7		4.5/0 118.2	4.8/5 117.9	1.3/10 121.4	1.9/20 120.8	1.3/25 120.8	+1.0/35 123.7	+0.7/45 123.4
22+75		0.9/45 121.6	+0.7/35 122.2	0/25 122.7	2.6/20 120.1		1.8/0 120.9	1.9/4 120.8	+3.1/10 126.4	+3.1/20 126.4	*3.1/25 125.8	4.3/35 118.4	3.4/45 119.3

	West +	West ↑	West −	Elev		East ℄		East +				
P	13.18	135.77	0.09	122.59								
23+00	12.7 / 15 123.1	11.6 / 35 124.2	10.8 / 25 125.0	13.0 / 20 122.8		12.2 / 0 123.6	12.2 / 4 123.6	7.6 / 10 128.8	7.8 / 20 128.0	8.2 / 25 127.4	10.2 / 35 125.6	10.0 / 45 125.8
23+25	10.6 / 15 125.2	8.6 / 35 127.2	6.4 / 25 129.4	9.8 / 20 126.6		9.7 / 0 126.1	7.6 / 3 126.2	4.1 / 9 131.4	5.0 / 20 130.8	6.4 / 25 129.1	8.4 / 35 127.1	9.1 / 45 126.1
23+50	7.1 / 15 128.7	6.1 / 35 129.7	5.2 / 25 130.6	6.5 / 20 129.3	7.3 / 19 128.5	7.2 / 0 128.6	7.3 / 2 128.5	2.3 / 7 133.5	3.4 / 20 132.4	4.4 / 25 131.4	6.6 / 35 129.2	5.8 / 45 130.0
23+75	6.4 / 15 129.4	5.2 / 35 130.6	4.0 / 25 131.8	5.4 / 20 130.4		5.0 / 0 130.8	4.9 / 2 130.9	3.6 / 7 132.2	2.6 / 20 133.2	3.2 / 25 132.6	2.3 / 35 133.5	4.1 / 45 131.7
24+00	4.8 / 15 131.0	2.4 / 35 133.4	3.6 / 22 132.2	3.0 / 20 132.8		2.8 / 0 133.0	2.9 / 2 132.9	0 / 5 135.8	+0.7 / 20 136.5	+0.5 / 25 136.1	0.5 / 35 135.3	1.7 / 45 134.1
24+25	2.7 / 15 133.1	1.5 / 35 134.3	0 / 25 135.8	0.8 / 20 135.0		0.6 / 0 135.2	0.5 / 1 135.3	+2.6 / 5 138.4	+2.9 / 20 138.7	+2.3 / 25 138.1	+1.8 / 35 137.1	+1.2 / 45 137.0
P	13.35	148.91	0.21	135.56								
24+50	4.0 / 15 134.9	12.4 / 35 136.5	11.0 / 25 137.9	11.7 / 24 137.2	11.2 / 20 137.7	11.2 / 0 137.7	11.1 / 1 137.8	8.2 / 4 140.7	8.3 / 20 140.6	8.8 / 25 140.0	9.3 / 35 139.6	9.4 / 45 139.5
24+75	10.4 / 15 138.5	9.3 / 35 139.6	8.6 / 26 140.3	9.3 / 25 138.6	9.0 / 20 138.9	9.0 / 0 138.9	8.8 / 2 140.1	6.6 / 4 142.3	6.4 / 20 142.5	6.6 / 25 142.3	6.7 / 35 142.2	6.7 / 45 142.2
25+00	6.5 / 15 142.4	6.2 / 35 142.7	5.8 / 26 143.1	6.6 / 25 142.7		6.1 / 0 142.8	6.0 / 1 142.9	4.8 / 2 144.1	4.4 / 20 144.5	4.5 / 25 144.4	4.4 / 35 144.5	4.1 / 45 144.8
25+25	3.0 / 15 145.9	1.9 / 35 147.6	1.1 / 30 147.8	3.3 / 25 145.6	2.7 / 20 146.2	2.8 / 0 146.1	0.7 / 3 148.2	6.6 / 20 148.3	0.8 / 25 148.1	0.6 / 35 148.3	0.8 / 45 148.1	
P	12.91	161.69	0.13	148.78						7.54 ✓ check	154.15 .03	
25+50	2.4 / 15 152.3	8.9 / 35 152.8	8.9 / 27 152.8	11.1 / 25 150.6	12.0 / 20 149.7	12.5 / 0 149.2	12.6 / 2 149.1	8.6 / 5 153.1	8.5 / 20 153.2	9.0 / 25 152.7	9.5 / 35 152.2	11.0 / 45 150.7
25+75	4.5 / 15 157.2	6.0 / 35 155.7	8.2 / 25 153.5	8.8 / 20 152.9		9.1 / 0 152.6	8.8 / 15 152.9	4.8 / 20 156.9	5.5 / 25 156.2	6.1 / 35 155.6	6.9 / 45 154.8	
25+85	4.4 / 15 157.6	6.0 / 35 155.7	5.7 / 27 156.0	6.2 / 25 154.8	7.2 / 20 153.8	8.0 / 0 153.7	8.1 / 10 153.6	3.2 / 25 156.5	3.3 / 30 158.4	4.4 / 35 157.3	5.7 / 45 156.0	
26+00	2.0 / 15 159.7	2.7 / 35 159.5	2.1 / 27 159.6	4.4 / 25 157.3	5.2 / 20 155.8	6.3 / 0 155.4	6.3 / 20 155.4	4.3 / 25 157.4	+0.6 / 30 162.3	+0.5 / 35 162.2	0.1 / 45 161.3	
P	11.16	171.02	1.83	157.86								
26+25	7.7 / 15 163.3	7.4 / 35 163.6	5.9 / 30 165.1	10.1 / 25 160.9	12.1 / 20 158.3	12.6 / 0 158.4	12.2 / 18 158.8	7.7 / 20 163.1	2.8 / 22 168.2	3.0 / 35 168.0	3.8 / 35 167.2	4.5 / 45 166.5

	West					East					
	+	℄	−	Elev.		℄					
26+50	4.2 / 15 166.8	4.3 / 35 166.7	4.1 / 27 166.9	9.7 / 25 161.8	9.7 / 22 161.8	12.6 / 0 158.14	12.2 / 18 158.8	7.3 / 20 163.1	2.8 / 22 168.2	3.0 / 25 168.0	3.8 / 35 167.2 — 4.5 / 15 166.5
26+75	1.4 / 45 169.6	1.6 / 35 169.4 — 0.7 / 27 170.3	4.9 / 25 166.1	6.1 / 22 165.9	5.7 / 20 165.3	6.3 / 0 164.7	5.7 / 20 165.3	2.9 / 25 168.1	+5.5 / 30 176.5	+5.5 / 35 176.5	+5.8 / 45 176.8
P	11.37	181.72	1.27	169.75							
27+00	8.5 / 15 173.2	1.7 / 35 173.8	8.0 / 26 173.1	3.2 / 35 168.5 — 14.0 / 22 167.7	14.0 / 20 161.7	14.6 / 0 67.1	14.0 / 20 167.7	11.4 / 25 170.3	2.1 / 30 172.6	1.8 / 35 172.9	1.8 / 45 179.9
27+25	6.6 / 15 175.1	7.7 / 35 174.0	10.0 / 25 171.7	11.2 / 22 169.8	11.7 / 20 170.0	12.2 / 0 169.5	11.1 / 20 170.6	8.5 / 25 173.2	+1.5 / 30 173.2	+1.3 / 35 183.0	+1.7 / 45 183.4
27+50	3.2 / 15 177.8	2.7 / 35 179.0	1.8 / 36 179.2 — 7.6 / 25 174.1	12.2 / 22 171.5	9.7 / 20 171.8	10.2 / 0 171.5	9.2 / 20 172.5	6.0 / 25 175.7	14.1 / 30 185.8	14.5 / 35 186.2	+5.3 / 45 187.6
27+75	1.5 / 45 180.7	0.5 / 35 181.7	10.1 / 26 182.4	6.0 / 25 174.1 — 8.5 / 22 173.5	8.0 / 20 173.7	8.1 / 0 173.6	7.8 / 26 173.9	4.0 / 25 177.1	+7.0 / 30 188.1	+7.5 / 35 187.2	+8.8 / 45 190.5
P	6.75	188.01	0.40	181.32							
28+00	6.7 / 15 181.4	5.6 / 35 183.5	4.4 / 27 184.5	12.7 / 25 175.4	12.6 / 20 175.5	12.5 / 0 175.6	11.3 / 20 176.8	7.1 / 25 181.0	+1.3 / 27 182.4	+2.1 / 35 190.2	+2.1 / 45 190.2
28+35	5.2 / 15 181.9	4.4 / 35 183.7	4.4 / 27 183.7	10.6 / 25 177.5	10.5 / 20 175.5	10.7 / 0 177.4	10.6 / 5 177.5 — 11.4 / 10 176.7	6.1 / 20 181.9 — +1.0 / 25 182.0	+1.0 / 30 180.07	+1.2 / 35 189.3	+1.1 / 45 189.2
28+37	5.1 / 15 182.9	4.4 / 35 183.7	4.0 / 27 184.1	10.4 / 25 177.7	10.2 / 20 177.9	10.3 / 0 177.8	1.3 / 9 186.8	0.5 / 20 187.6	0.1 / 25 188.0	+0.8 / 35 188.9	-1.0 4 / 45 188.3
28+50	7.0 / 15 181.1	8.0 / 35 180.1	2.5 / 25 178.6	2.6 / 20 178.5		2.2 / 0 178.9	1.7 / 5 186.4	0.3 / 20 187.2	0 / 25 188.1	+0.8 / 35 188.9	+0.4 / 45 188.5
29+00	3.1 / 15 185.0	5.2 / 35 184.2 — 5.1 / 27 184.4	7.8 / 25 180.3	7.6 / 20 180.5	7.1 / 1 180.4	7.1 / 0 181.0	1.6 / 5 186.15	1.3 / 20 186.8	1.1 / 25 187.0	1.0 / 35 187.1	1.0 / 45 187.1
29+50	0.9 / 15 187.2	1.5 / 9 186.6 — 4.2 / 27 183.7	5.9 / 20 182.2	5.2 / 25 182.7	5.7 / 1 182.4	2.6 / 0 185.5	+1.1 / 5 183.2	+0.7 / 20 188.8	0 / 25 188.1	0.5 / 35 187.6	1.3 / 45 186.8
P	5.40	190.60	2.87	185.20							
30+00	1.8 / 15 188.8	2.1 / 35 188.5	4.3 / 25 186.3	6.6 / 20 184.0		6.3 / 0 184.3	1.7 / 3 188.9	1.7 / 20 188.9	1.8 / 25 188.8	2.7 / 35 187.9	2.7 / 45 185.9
30+75	4.0 / 15 186.6	4.2 / 35 186.4	4.5 / 25 186.5	4.6 / 20 186.0		4.7 / 0 185.1	3.7 / 1 186.9	4.6 / 6 186.0	5.5 / 20 185.1	6.0 / 35 184.6 — 6.5 / 30 184.1	8.1 / 45 182.5 — 2.4 / 55 181.6
31+00	2.3 / 45 185.3	5.3 / 35 183.3 — 5.4 / 30 183.2	3.8 / 25 186.8	4.0 / 22 186.6	4.0 / 20 186.6	3.9 / 0 186.7	4.0 / 2 186.6	7.1 / 10 182.9	8.7 / 20 181.2 — 9.4 / 25 181.2	11.2 / 30 179.4 — 12.6 / 45 178.0	14.5 / 55 176.1
P	5.22	193.44	2.38	188.22							

	+	West ℄	−	Elev	
		193.44			
31+50	7.1/15 186.2 ; 7.4/35 186.0	7.5/33 185.9	5.5/29 187.9	5.5/25 187.9	5.2/20 187.5
31+60	7.1/15 186.3	7.1/35 186.3	7.0/28 186.4	5.5/25 187.2	5.8/20 187.6
31+26.65	M.H. Cover = 3.90			F.L. = 33.4	
32+00	5.2/15 187.7	5.1/35 187.7	5.0/25 188.4	4.7/20 188.7	
32+66.60	3.7/15	3.7/35	2.8/25	2.5/20	
B.M.			2.29	191.15	
P	12.85	205.87	.042	193.02	
33+00	14.0/35 191.9	14.0/30 191.9	13.2/25 192.7	13.3/13 192.6 ; 13.6/16 192.3	14.7/13 191.7
33+50	11.8/35 194.1	10.1/30 195.8	10.1/25 195.8	10.1/20 195.8 ; 10.4/15 195.5	11.3/12 196.6
34+00	8.0/35 197.7	5.8/28 200.1	3.4/25 200.5 ; 3.4/20 200.5	5.6/15 200.3	6.3/13 199.6
P	13.04	218.87	0.04	205.83	
34+50	17.0/35 201.9	12.3/25 206.6	12.0/20 206.9	13.9/19 205.0	
35+00	10.2/35 208.7	5.1/25 213.8	5.1/20 213.8	7.4/13 211.5	
35+50	3.1/35 215.8	0.6/25 218.3	0.3/20 218.6	0.5/12 218.4	1.4/10 217.5
P	12.29	231.12	0.04 ; -8.52	218.83	
M.H. 35+91.90	Cover = 222.60				

℄		East			
5.6/0 187.8	13.3/13 180.1	14.7/20 177.2	15.5/25 177.2 ; 17.3/34 175.9	20.0/35 173.4	22.5/39 170.9
18.5/15 174.9	20.5/35 172.9	24.0/65 169.4	27.5/70 165.9		
13/22 180.4	15.0/25 178.4	20.0/35 180.4 ; 23.0/45 170.4	25.0/55 168.4	26.0/65 167.4	32.5/70 160.9
6" Main		11.9/20 181.5	5.8/0 187.6		
4.7/0 187.7	5.4/20 188.0	11.0/17 182.4	11.0/20 187.4 ; 11.4/25 182.1	12.6/35 181.8 ; 13.0/45 180.4	15.1/60 178.3
3.5/0	2.93/15 190.51	3.1/25	2.7/35	2.2/45	2.3/55
13.7/0 191.2	13.46/15 192.4	13.33/25 192.6	12.6/35 193.3		
10.6/0 195.3	10.8/15 195.1	10.28/15 195.59	9.9/25 196.0	9.0/35 196.9	
6.0/0 199.6	6.4/15 199.5	5.40/15 200.38	5.2/25 200.7	3.9/35 202.1	
13.0/0 205.9	13.4/15 205.5	12.3/15 206.51	11.7/25 207.7	8.1/35 210.8	
6.4/0 212.5	7.0/15 211.9	5.62/15 213.25	5.6/22 213.3	3.9/25 215.0	1.4/27 217.5 ; 0.5/33 218.9
0.4/0 218.5	0.2/15 218.7	Point 2.8/25 219.15	10.12/25 213.59		
F.L.	13.96 217.16				

West

	+	℄	−	Elev
36+01.55	7.95 / 10 228.17	7.45 / 10 223.6		
			4.62 / 10 226.50	509 / 10 226.6
36+20		N		
		Curb	Gutter	½
		11.55	12.09	10.72
		219.57	219.03	220.40
X		4.62	5.23	4.76
Y		226.50	225.89	226.36
P	1.01	219.17	12.96	218.16
P	-0.02	206.07	13.08	206.09
P	3.24	198.24	11.07	195.00
B.M.			7.05	191.19

East

℄	½	Gutter	Curb
183 / 0 223.29	7.96 / 10 223.16	7.54 / 10 223.58	
190 / 0 226.22	5.12 / 10 226.0	4.67 / 10 226.50	
7.70	7.22	8.86	7.85
221.22	221.90	222.16	223.27
4.50	4.34	4.52	3.74
226.62	226.78	226.60	227.38

= Check

JUAN STR.

	+	↑	−	Elev
				14.415
	5.58	19.99	0.12	19.87
	12.34	32.21	0.04	32.17
	11.89	44.06		
B.M.N°1			7.17	36.89
	12.76	56.57	0.25	43.81
	11.67	68.06	0.13	56.44
B.M.N°2			3.14	64.22
	12.06	80.03	0.09	67.97
	11.12	91.05	0.10	79.93
	12.10	103.06	0.09	90.96
	12.85	115.91	0.0	103.06
	13.05	128.81	0.15	115.76
	13.08	141.79	0.10	128.71
	12.38	154.56	0.21	141.58
B.M.N°3			0.38	154.18
	13.08	167.44	0.20	154.36
	13.20	180.55	0.09	167.35
	10.82	191.37	0.0	180.55
B.M.N°4			0.18	191.19

LEVELS

March 27, 1928
E. Guiatty ↑
E. Rochet Rd. 12

(Con. Mon) El. 14.115
B.M. fd. at S.E. Cor. Juan & Wallace St.

(N°1) Elev. 36.89
B.M. Top of first step at house N° 2630

Elev. 64.22 (out.)
B.M.N°2 Spike in pole N.W. Cor. Juan & Horney

Elev. 154.18
B.M.N°3 Spike in pole East Side Juan St.

B.M.N°4 2"x2" Hub East Side Juan St
El. 191.19

JUAN STR. Check Level

Mar. 27-28
Quartly & Rodier Rd.

	+	↑	−	Elev.	
	5.58	19.99		14.41	
	12.92	32.76	0.15	19.84	
	13.05	45.45	0.36	32.40	
B.M.N°1			8.57	36.93	
	13.10	56.25	1.60	43.85	
	11.79	68.29	0.45	56.50	
B.M.N°2			3.28	65.01	
	17.32	80.38	0.23	68.06	
	13.06	93.81	0.23	80.75	
	12.77	106.38	0.20	93.61	
	13.08	119.36	0.10	106.28	
	13.22	132.31	0.27	119.09	
	13.05	145.17	0.19	132.12	
	12.82	157.79	0.20	144.97	
B.M.N°3			3.51	154.28	
	13.09	170.72	0.16	157.63	
	13.25	183.89	0.08	170.64	
	8.77	192.29	0.37	183.52	
B.M.N°4			1.06	191.23	✓

El. 36.89
B.M. Top of first step house N° 2630

Elev. 64.37
B.M. Spike in pole N.W. Cor. Juan & Harney

Elev. 154.16
B.M. Spike in pole East side Juan St.

Elev. 191.19
B.M. 2"×2" Hub East side Juan St.

Rough Grades - Second Line - Cont. from Page 52

		H		El.	Grade
		147.95			
25+00			4.88 E	143.07	143.65
			4.48 W	143.47	
24+50			9.78 E	138.17	137.65
			11.20 W	136.75	
TP	1.90	137.26	12.59	135.36	
24+00			5.49	131.77	131.65
			5.75	131.51	
23+50			10.86	126.40	125.65
			11.49	125.77	
TP	0.81	125.02	13.05	124.21	
23+00			4.03	120.99	119.65
			5.04	119.98	
22+50			10.73	114.29	113.65
			11.77	113.25	
TP	0.93	112.97	12.98	112.04	
22+00			5.04	107.93	107.65
			6.64	106.33	
21+50			11.76	101.21	101.65
			12.09	100.88	
TP	0.29	100.55	12.71	100.26	
21+00			4.76	95.81	95.65
			4.55	96.02	
20+50			10.33	90.24	89.65
			10.56	90.01	
TP	0.81	88.78	12.58	87.99	
20+00			4.04	84.74	83.65
			4.35	84.53	
19+50			10.40	78.38	77.65
			11.48	77.30	
TP	1.08	77.59	12.27	76.51	
19+00			4.46	73.19	71.65
			5.79	71.80	
18+50			10.52	67.07	66.54
			10.50	67.09	

From P 52

West C	West F	East C	East F
.10			
	.18		.58
	.90	.52	
.11			
	.14	.12	
	.12	.75	
.13			
	.33	1.34	
	.40	.64	
.14			
	1.32	.28	
	.77		.44
.16			
	.37	.16	
	.36	.59	
.17			
Nail 0.4 from R.		1.09	
	.78	.67	
	.35	.73	
.19			
	.15	1.54	
	.55	.53	

14

147.95
3:12

147.83 } ck.
147.73

Rowe, Notes
Leach
Curren
11/8/28

	+	HI 77.59	−	El.	Grade
TP	2.21	69.50	10.30	67.29	
			0.33	69.17	
18+00			5.06	64.44	64.00
			6.57	62.93	
17+50					61.54
5' plug @ 18+00 ~~BM gone~~			7.54	61.96	61.73
5' plug 17+50			8.60	60.90	60.70

5' plugs checked. Sta 14+00 to 17+50

	West		East		
	Cut	Fill	C	F	
	.24 ~~.44~~		4.97 ~~5.17~~		
Cut −20 F +20			1.19 ~~1.37~~		

BM. Cross, 36+20 ℄. See page 45.

check on end of existing Curb El. 190.51.

SEWER LATERALS.

Mo	+	HI	−	Elev.	Grade	Cut
	0.222	226.495		226.273		
52			11.09	215.30	210.10	5.10
51			10.14	216.35	210.10	6.25
	0.591	214.291	12.795	213.700		
49			5.08	209.21	204.60	4.61
50			5.20	209.09	204.60	4.49
48			11.50	202.79	199.60	3.19
47			12.00	202.29	199.60	2.69
	0.686	202.528	12.449	201.842		
44			9.00	193.53	189.60	3.93
45			9.00	193.53	189.60	3.93
43			11.80	190.73	184.90	5.83
			11.943	190.585		
	351	205.35		201.84		
46			7.25	198.10	194.60	3.50

SEWER LATERALS

Station	No. W.	No. E.	Grade
1+72.5	1 (C.I.)		2.7
2+10		2 (C.I.)	3.1
2+22.5	3 (C.I.)		2.8
2+60		4	3.6
2+72.5	5		3.8
3+10		6	4.1
3+22.5	7		4.3
3+60		8	4.6
3+77.5	9		4.9
4+00		10	5.0
4+32.5	11		5.3
4+40		12	5.4
4+87.5	13		6.0
5+02		14	6.0
RLC+25.33 & to M.H.	15 (6")		8.5
6+67.33	16 (6")		9.5
7+35.43		17	11.7
7+42.33	18 (6")		11.7
7+80.43		19	13.2
8+20.43		20	14.6

Lateral Number

Station	No. W.	No. E.	Grade
8+24.33	21 (6")		14.6
8+70.43		22	16.2
9+08.33	23 (6")		17.4
9+20.43		24 (6")	17.8
9+50.67	25 (6")		18.8
10+35.67	28	27 ✓	22.1
10+85.67	30 ✓	29 ✓	24.4
11+35.67	32 ✓	31 ✓	26.8
11+85.67	34 ✓	33 ✓	29.0
12+43.17	36 ✓		31.7
12+88.17		37 ✓ (6")	33.8
12+98.17	38 ✓		34.3
13+48.17	40 ✓	39 ✓	36.6
13+98.17	42 ✓	41 ✓	39.1

24 omitted?

Set 11x25 on 5' line 11/24/28
Rowe, Franklin Rodier

Set lateral

64.33

14+53 plug

Note: 26+35 omitted.
All 4" except as noted (6")
All Concrete " " " (C.I.)

to JR 54.83 next plug

typing.

Sta.	+	H.I.	−	Elev.		Grade	Bot. Pipe	Cut.
	11.960	48.850		36.890	BM. 17º1 (First step)			E.Q. E.R. A.E.F. Dec 4, 28
	12.332	61.030	0.152	48.698				
	12.542	73.475	0.097	60.933				
			5.668	67.807	BM. Nail pole at Horney St. (S.W. Cor.)			
18+0			9.88	63.60			60.80	2.80
18+26.22			9.18	64.30			62.12	2.18
18+36.22			8.46	65.02	6x6 Cross	65.84	62.64	2.38
18+51.22			7.39	66.09	Gate	66.60	63.40	2.69
18+56.22					Hydrant			
18+61.22			6.33	67.15			64.15	3.00
18+81.22			4.24	69.24			66.20	3.04
19+00			2.27	71.21			68.45	2.76
T.P.	12.702	86.149	0.028	73.447				
19+50			9.02	77.13			74.45	2.68
20+00			2.82	83.33			80.45	2.88
T.P.	12.795	98.704	0.240	85.909				
20+50			9.59	89.11			86.45	2.66
21+0			3.86	94.84			92.45	2.39
T.P.	12.504	110.742	0.466	98.238				
21+50			10.20	100.54			98.45	2.09

Sta	+	H.I.	−	Elev
22+0		110.792	4.11	106.63
T.P.	12.442	122.692	0.492	110.250
22+50			9.79	112.90
23+00			3.70	118.99
T.P.	12.762	135.126	0.328	122.364
23+50			9.96	125.17
24+0			4.07	131.06
T.P.	12.725	147.503	0.348	134.778
24+50			10.66	136.84
25+00			4.99	142.51
T.P.	12.538	159.517	0.524	146.979
B.M.#3			5.326	154.191
25+50			10.61	148.91
26+00			4.91	154.61
26+40 T.P.	12.788	171.804	0.501	159.016
26+80			8.46	163.34
27+20			4.53	167.27
27+60 T.P.	12.661	183.544	0.921	170.883
28+00			9.68	173.86

Grade	Bot. Pipe	Cut
	104.45	2.18
	110.45	2.45
	116.45	2.54
	17	
	122.45	2.72
	128.45	2.61
	134.45	2.39
	140.45	2.06
check (154.180)	11	
	146.45	2.46
	152.45	2.16
	157.05	1.97
	161.26	2.08
	165.06	2.21
	168.47	2.41
	171.47	2.39

Sta	+	H.I.	−	Elev		Grade	Bot Pipe	Cut
28+40		183.544	7.08	176.46			174.08	2.38
28+80			4.76	178.78			176.28	2.50
29+20			3.18	180.36			178.09	2.27
29+60			1.72	181.82			179.50	2.32
30+00			0.63	182.91			180.51	2.40
T.P.	10.507	193.818	0.233	183.311				
30+50			9.74	184.08			181.53	2.55.
31+00			8.82	185.00			182.54	2.46
31+50			7.97	185.85			183.56	2.29
32+00			6.85	186.97			184.57	2.40 ✓
32+40			5.52	188.30			185.77	2.53
32+80			3.55	190.27			187.84	2.43
Top Curb (end)			3.312	190.506		(190.51)		
33+20 T.P.	12.562	205.654	0.726	193.092			190.57	2.52
33+60			8.71	196.94			194.01	2.93
34+00			4.93	200.72			198.28	2.44
T.P.	12.830	217.641	0.843	204.811				
34+50			10.60	207.04			204.33	2.71
35+00			4.26	213.38			210.47	2.91

Sta	+	H.I.	−	Elev
		217.641		
T.P.	13.079	230.327	0.393	217.248
35+51.67			11.10	219.23
B.M.			4.090	226.237
	2.146	39.036		36.890
T.P.	1.182	27.818	12.400	26.636
T.P.	0.780	16.330	12.268	15.550
B.M.			1.670	14.660
TP BM.	11.715	16.370	11.675	4.655
1+00			11.92	4.45
1+50			12.07	4.35
2+00			11.68	4.69
2+50			10.62	5.75
3+00			9.92	6.45
3+50			9.28	7.09
4+00			8.11	8.26
4+50			7.25	9.12

7" = 3.20 = Diff bet Mean Grade & Bot Pipe
.6" = .58 / 2.62 = Diff bet F.G. & Bot Pipe
.50 / 2.12 = Diff bet F.G. & Bot Pipe
2.50 = Mean Cut

21

	Grade	Bot. Pipe	Cut
		216.14	3.09
Cross in concrete		(226.273)	
		(226.213)	
		Dec. 5, 1928	
B.M. Mo X			RF
Conn. to Ex. 6" Gate Valve (May not exist)		1.98	2.47
		1.92	2.43
		1.92	2.77
		2.75	3.60
		3.69	2.76
		4.64	2.45
		5.58	2.68
		6.53	2.59

spike in tree N.E. Cor. Wallace St. int. & S Taylor. St. nail in pavement

Sta.	+	H.I.	−	Elev		Grade	Bot. Pipe	Cut
5+00		16.370	6.28	10.09			7.47	2.62
5+50			5.31	11.06			8.42	2.64
5+60 33			5.05	11.32	6" Tee		8.62	2.70
5+80 33					Hy Hrant	12.20		
6+00			3.94	12.43			9.37	3.06
6+37 93			3.35	13.02			10.09	2.93
6+47 23					6" Tee		10.28	
6+75 43			2.30	14.07			10.80	3.27
6+95 43			2.30	14.07			11.26	2.81
7+15 43			2.01	14.36			11.89	2.47
7+50	T.P. 12.266	27.816	0.820	15.550			13.12	2.43
8+00			10.28	17.54			14.89	2.65
8+50			8.56	19.26			16.67	2.59
9+00			6.78	21.04			18.43	2.61
9+50			5.01	22.81			20.22	2.59
10+00 67			2.98	24.84			22.00	2.84
10+10 67			2.40	25.42			22.36	3.06
10+18 12					6" Tee		22.62	
10+25 67			2.28	25.54	6" Tee		22.89	2.65
10+39 67					Gate	~~27.65~~		
10+45 67	T.P. 12.666	39.304	1.78	26.638	Hydrant	26.62	23.67	2.97
11+00			10.17	29.13			26.28	2.85
11+50			7.87	31.43			28.75	2.68

Sta	+	H.I.	−	Elev
12+00		39.304	5.55	33.75
12+50			2.94	36.36
13+00 T.P.	12.664	51.101	0.867	38.437
13+50			10.11	40.99
14+00			7.49	43.61
14+50 20			5.24	45.86
14+85 20			3.51	47.59
15+05 20				
15+50 T.P.	12.642	63.409	0.334	50.767
16+00			10.05	53.36
16+50			7.41	55.97
17+00			5.01	58.40
17+50			2.70	60.71
T.P.	10.424	72.802	1.031	62.378
check.			4.998	67.804 ✓

	Grade	Bot. Pipe	Cut.
		31.20	2.55
		33.68	2.68
		36.14	2.30
		38.60	2.39
		41.06	2.55
		43.58	2.28
6 x 6 Cross Fire Hydrant	49.49	45.30	2.29
		48.47	2.30
		50.94	2.42
		53.40	2.57
		55.89	2.51
		58.36	2.35

Nail in pole at Harney (67.807)

Ivan Street
Stationing - Water Services

Sta	R	L
1+95		✓ +
2+45		✓ +
3+95		✓ +
4+55		✓ +
5+10		✓ +
6+45 33	✓	
6+95 33	✓	
7+45 33	✓	✓
7+95 33	✓	✓
8+45 33	✓	
8+95 33	✓	✓
10+95 67	✓	✓
11+45 67	✓	✓
11+95 67	✓	✓
12+53 17	✓	✓
13+08 17	✓	✓
13+58 17	✓	✓
15+70 20	✓	✓
16+20 20	✓	✓

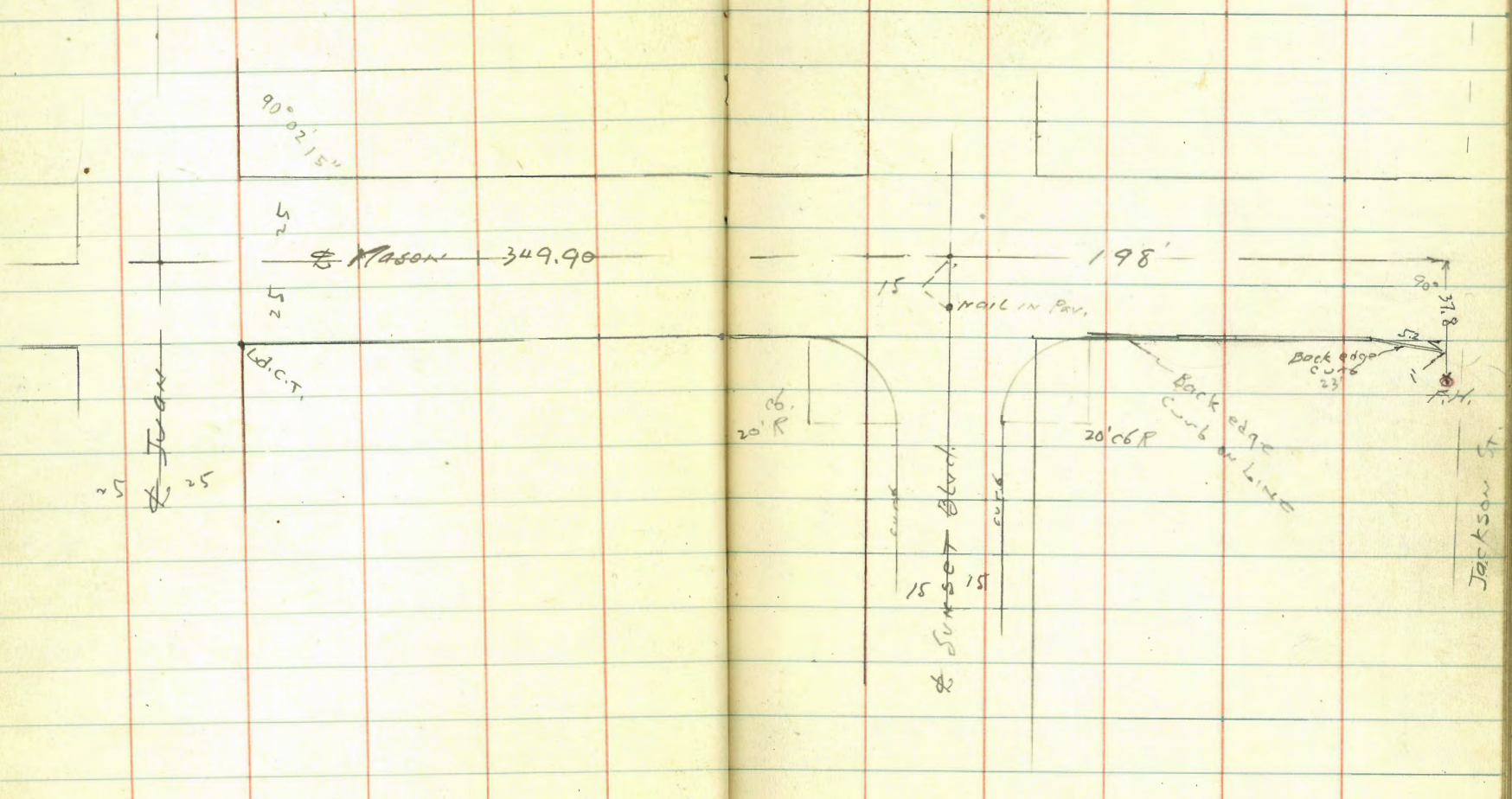
Sta.	R	L	18+5
16+70 20		✓	
17+20 20	✓	✓	
19+46 32	✓	✓ ✓ X	
19+96 32	✓	✓ X	
20+46 32	✓	✓ ✓ X	
20+96 32	✓	✓ ✓ X	
21+46 32	✓	✓ ✓ X	
21+96 32	✓	✓ ✓ X	
22+46 32	✓	✓ ✓ X	
22+96 32	✓	✓ ✓ X	
23+46 32	✓	✓ ✓ X	
23+96 32	✓	✓ ✓ X	
24+46 32	✓	✓ ✓ +	
24+96 32	✓	✓ ✓ +	
25+46 43	✓	✓ ✓ X	
25+96 43	✓	✓ ✓ +	
26+46 43	✓	✓ ✓ X	
26+96 43	✓	✓ ✓ X	
27+46 43	✓	✓ ✓ X	
27+96 43		✓ ✓ X	

Sta.	R	L	
28+46 43	✓ ✓	✓	+
28+96 54	✓ ✓	✓	+
29+46 54	✓ ✓	✓	+
29+96 54	✓ ✓	✓	+
30+46 54	✓ ✓	✓	+
30+96 54	✓ ✓	✓	+
31+46 54	✓ ✓	✓	+
31+96 54	✓ ✓	✓	+
32+71 65	✓ ✓	✓	+
33+21 65	✓ ✓	✓	+
33+71 65	✓ ✓		
34+21 65	✓ ✓	✓	+
34+71 65	✓ ✓	✓	+
35+21 65	✓ ✓	✓	+
		96	

C.M.
C. S.
E. B.
5-15-46.

Indexed
C.S.K

Location of Fire Hyd. at
Mason & Jackson



X-Section Juan St.

Sta. 30+00 To Sta. 32+66.60

12-16-52
Pope
Huffman
Presley

W.O. 20008

+85.7					
+65.8					
+50					
+25					
30+00					
TP #3	3.91	191.54	8.75	187.63	Set Spike in Power Pole #2305 0.2 above walk
TP #2	0.71	196.38	12.43	195.67	
TP #1	0.29	208.10	12.69	207.81	
B.M.	0.41	220.50		220.09	S.W.B.P.

Hortensia & Juan

Lt.			℄		Rt.		
6.44	6.43	6.45	6.50	6.59	6.45	6.38	6.09
24 BW	19 TC	18 EP	9		9	18 EP	19 TC
		.53					
6.44	6.46	6.81	6.92	7.00	6.89	6.86	6.47
24 BW	19 TC	18 EP	9		9	18 EP	19 TC
		.34					
6.78	6.80	7.16	7.26	7.36	7.24	7.14	6.77
24 BW	19 TC	18 EP	9		9	18 EP	19 TC
		.38					
7.30	7.28	7.65	7.76	7.92	7.76	7.66	7.30
24 BW	19 TC	18 EP	9		9	18 EP	19 TC
		.51					
7.80	7.79	8.12	8.25	8.41	8.27	8.20	7.82
24 BW	19 TC	18 EP	9		9	18 EP	19 TC
				19.54			

EP = Edge Paving
TC = Top Curb
BW = Back Walk

X - sect. Juan St.

		Lt.		℄		Rt.	
32+17.05 B.C. N.W. Return Trias & Juan							
	3.50	3.78	3.66	3.75	3.73	3.70	
	24 BW	18 T.C.	18 Gutter		9	9	18 EP
							.41
32+00	4.04	4.39	4.34	4.49	4.18	4.14	
	24 BW	19 T.C.	18 EP		9	9	18 EP
							.43
	5.15						
31+75	5.40	5.30	5.00	4.78	4.72	4.67	4.36
	24 BW	19 T.C.	18 EP		9	9	18 EP
							19 T.C.
							.48
	5.50						
31+50	5.99	6.14	5.71	5.39	5.23	5.19	4.88
	24 BW	19 T.C.	18 EP		9	9	18 EP
							19 T.C.
							.56
	5.76						
31+25	6.20	6.33	6.05	5.93	5.74	5.71	5.34
	24 BW	19 T.C.	18 EP		9	9	18 EP
							19 TC
		.03					.46
	6.00						
31+00	6.17	6.34	6.33	6.33	6.24	6.17	5.82
	24 BW	19 TC	18 EP		9	9	18 EP
							19 T.C.
		.04					

1954

X section Juan St.

℄

					0.01				
					190.51				
Chk. Existing Curb 32+66.60			1.02		190.52				
32+66.60				0.88	1.02	1.34	1.86		1.70
				20	15 TC	15 Gutter			18
32+60.65	B.C. S.W. Return Trias & Juan			1.36	1.39	1.66	1.82	2.15	2.05	1.97
				20	15 T.C	15 Gutter	9		9	18
32+51.65	Sly. curb Line Trias			1.240	2.15	2.25	2.38	2.62	2.49	2.44
				25 Gutter	25 TC	15.7	9		9	18
32+40 ℄ Trias				2.67		2.44	2.76	3.04	2.98	2.94
				23		18	9		9	18
32+26.65	Nly. curb Line Trias			3.50	3.21	3.33	3.33	3.56	3.46	3.40
				25 Gutter	25 T.C. End Return	18	9		9	18 EP
								1.54		

W.O. 20008 Curb Grades For Portion of Curb To Be Replaced on Juan St.
12-17-52 North Easterly Curb. Sta. 30+85.7 To 32+06
Pope Huffman Prestay

offset 1' Rt. Edge of Paving

		Curb Grade	Elev. offset pts.	Fill
32+06	Exist. Crb. Good cond.	187.80		
32+00		187.70	187.16	0.54
31+75		187.20	186.22	0.98
31+50		186.70	185.45	1.25
31+25		186.20	185.31	0.89
31+00		185.70	185.21	0.49
30+85.7	Exist. Crb. Good cond.	185.41		
BM			187.63	

2.0% Grade

SPIKE in Power Pole P.27

Direct Elevation Rod used

JUAN ST
WATER PIPE LOCATION

Taylor

ST INPL
0+00

Pave

16" + 04.50

ment

ST

1+00 JUAN

1+00 SPL

5+25.33 NPL

℄ 5+ WALLACE 5+60.33

5+75.33

NPL

+ 38.50
6+37.33 ST ℄

SPL

31 Aug 17-28
A Franklin
E.E. Rodier
R Cutter

MASON

16' 10+00.67 ℄

10+10.67

10+18.17

10+25.67

ST

Juan St

Aug. 17, 28
AE Franklin
EE Rodrick
R Curren. Mech.

Sta	+	−	Elev.
B.M.	0 744	15 159	14 415
0+50		10 54	4 67
1+00		10 33	4 83 ✓
1+50		9 74	5 42 ✓
2+00		9 71	5 45 ✓
2+50		9 59	5 57 ✓
3+00		8 19	6 97 ✓
3+50		7 50	7 66 ✓
4+00		6 61	8 55 ✓
4+50		5 19	9 97 ✓
5+00		4 47	10 69 ✓
5+50		3 53	11 63 ✓
5+60.33		3 28	11 88 ✓
6+00		2 56	~~13 15~~ 12 60 ✓
6+37.93		1 85	13 31 ✓
6+47.93		1 52	13 64 ✓
P 6+75.43	12 525 (bal. 24.818)	26 814 61	0 87 14 289 ✓
6+95.43		12 04	14 77 ✓
7+15.43		11 64	15 17 ✓

6" Water Pipe Plugs

3 4

Comp. by King
Ck. by Rowe

	G' Grade E	G' Grade W	Rt Mean Grade	Bot. Pipe	Cut
Concrete BM Mon SE Cor Wallace & Juan					
Center line paving			16' off	℄ Juan Street	
	4.75	4.62	4.68 ✓	1.98 (-2.7 Crown Section)	2.85 ✓
	4.87	4.81	4.84 ✓	1.92 (-2.92)	3.50 ✓
	5.08	5.07	5.07	1.92 (-3.15)	3.53 ✓
			5.95	2.75 ✓ (-3.2 Dip Section)	2.82 ✓
			6.89	3.69 ✓	3.28 ✓
			7.84	4.64 ✓	3.02 ✓
			8.78	5.58 ✓	2.97 ✓
			9.73	6.53 ✓	3.44 ✓
			10.67	7.47 ✓	3.22 ✓
			11.62	8.42 ✓	~~2.21~~ 3.21 ✓
6" Tee			11.82	8.62 ✓	3.76 ✓
			12.57	9.37 ✓	~~4.23~~ 3.23 ✓
℄ Wallace St.			13.29	10.09 ✓	3.22 ✓
6" Tee			13.48	10.28 ✓	3.36 ✓
			14.00	10.80 ✓	3.489 ✓
			14.46	11.26 ✓	3.51 ✓
			15.09	11.89 ✓	3.28 ✓

Sta.	+	T	−			
7+50		26 81	10 62	16	19	✓
8+00			8 91	17	90	✓
8+50			6 67	20	14	✓
9+00			4 95	21	86	✓
9+50			3 11	23	70	✓
10+00.67			1 02	25	79	✓
P		(bal. 39.267)				
10+10.67	12 87	39 259 ✓	0 425	26	389	✓
		26				
10+18.17			12 17	27	09	✓
10+25.67			11 42	27	84	✓
10+45.67			10 73	28	53	✓
11+00			9 32	29	94	✓
11+50			7 12	32	14	✓
12+00			5 06	34	20	✓
12+50			3 04	36	22	✓
P		(bal. 50.992)				
13+00	12 43	50 979 ✓	0 71	38	549	✓
		98				
13+50			9 60	41	38	✓
14+00			6 55	44	43	✓
14+50.70			3 53	47	45	✓
14+85.70			2 07	48	91	✓

Comp by King
Ck. by Rowe

Grade	Bot. Pipe -3.2	Cut 35
16.32	13.12 ✓	3.07 ✓
18.09	14.89 ✓	3.01 ✓
19.87	16.67 ✓	3.47 ✓
21.63	18.43 ✓	3.43 ✓
23.42	20.22 ✓	3.48 ✓
℄ Mason St. 25.20	22.00 ✓	3.79 ✓
6" Tee 25.56	22.36 ✓	4.029 ✓
6" Tee 25.82	22.62 ✓	4.47 ~~4.37~~
26.09	22.89 ✓	4.95 ✓
26.87	23.67 ✓	4.86 ✓
29.48	26.28 ✓	3.66 ✓
31.95	28.75 ✓	3.39 ✓
34.40	31.20 ✓	3.00 ✓
36.88	33.68 ✓	2.54 ✓
37.34	36.14 ✓	2.409 ✓
41.80	38.60 ✓	2.78 ✓
44.26	41.06 ✓	3.37 ✓
46.78	43.58 ✓	3.87 ✓
48.50	45.30 ✓	3.61 ✓

Comp by King
Ck. by Rowe

Sta.	+	−	Grade	Bot. Pipe	Cut
	bal. 63.894		~~57.67~~		
P	13 06 63 ~~937~~ 877 ✓ 0 02	50 877 ✓	51.67	48.47 ✓	4.~~32~~ 27 ✓
15+50	11 15	52 ~~78~~ 4 ✓	54.14	50.~~84~~ 94	3.~~72~~ 57
16+00	9 38	54 ~~56~~ 1 ✓	56.60	53.40 ✓	3.~~03~~ 04
16+50	7 45	56 ~~49~~ 4 ✓	59.09	~~56.89~~ ✓	~~3.00~~ 2.95
17+00	5 05	58 ~~84~~ 4 ✓	61.56	58.36 ✓	~~3.04~~ 2.99
17+50	bal. 75.710 2 54	61 ~~70~~ 35 ✓			
P	12 162 75 ~~779~~ 689 75 0 35	63 ~~587~~ 527	6400	60.~~80~~ ✓	3.~~28~~ 24
18+00	11 67	64 ~~09~~ 04 ✓	65.32	62.12 ✓	~~4.01~~ 3.97
18+26.22	9 67	66 ~~13~~ 09 ✓	65.84	62.64 ✓	4.~~75~~ 11
18+36.22	8 96	66 ~~79~~ 75 ✓	66.60	63.40 ✓	6.~~76~~ 42
18+51.22	5 89	69 ~~86~~ 82	67.35	64.15 ✓	~~7.21~~ 8.17
18+61.22	3 39	~~71 36~~ 72 32			
B.M. No 2	10 75	64.939 64.999			

E/or, 64.965
Nail in pole N.W. Cor. Juan & Harney Sts.

64.965
64.939
.026
.004

JAUN ST

Aug. 18, 1928
At Franklin St
Ft. Rodier Sch.
& Curren Pl. ch.

Sta	+	*	−	Elev.
BM No 2	12 95	77 915		64 965
18+81.22			2 63	75 28 ✓
P	13 012	90 384 379 38	0 543	77 372 367
19+00			12 81	77 58 57 ✓
19+50			4 35	86 04 03 ✓
P	12 764	102 966	0 182	90 202 197
20+00			10 60	92 39 36 ✓
20+50			5 04	97 95 92 ✓
P	12 782	115 581 551 546 SS	0 197	102 769
21+00			12 22	103 36 33 ✓
21+50			7 50	108 08 05 ✓
22+00			2 46	113 12 09 ✓
P	12 782	128 050 045	0 183	115 368 363
22+50			9 91	118 18 13
23+00			4 64	123 45 40
P	12 74	140 388	0 402	127 648 643
23+50			11 62	128 82 76
24+00			7 25	133 19 13
24+50			5 44	138 00 134 94

Bal. 90.394
Bal. 102.986
Bal. 115.581
Bal. 128.090
Bal. 140.438

WATER

	Curb Grade	Bot. Pipe	Cut
Spike in pole N.W. Cor.	Jaun & Harney		
	69.40	66.20 ✓	9.08 ✓ −
		−	
	71.65	68.45 ✓	9.13 −
	77.65	74.45 ✓	11.59 −
		−	
	83.65	80.45 ✓	11.94 −
	89.65	86.45 ✓	11.50 −
		−	
	95.65	92.45 ✓	10.91 −
	101.65	98.45 ✓	9.63 −
	107.65	104.45 ✓	8.67 −
		−	
	113.65	110.45 ✓	7.73 −
	119.65	116.45	7.00 −
	125.65	122.45	6.37 −
	131.65	128.45	4.74 −
	137.65	134.45	3.55 −

Sta	+	−	Elev.	Grade	Bot. Pipe −3.2	Cut
T.P	12 778 152 ~~775~~ 900	0 366 140	122 ~~117~~	/		
25+00		9 88 143	08 ~~67~~	143.65	140.45	2.63
25+50		3 31 149	65 58	149.65	146.45	3.20
P.	Bal. 165.730 12 952 165 ~~655~~ 660	0 192 152	708 ~~703~~			
BMNo3		11 50 154	160 ~~155~~	Elev. 154.23 Nail in pole East side Jaun St.		
26+00		9 76 155	97 ~~87~~	155.65	152.45	3.52
26+40		4 56 161 ~~160~~	17 ~~07~~	160.25	157.05	4.12
P	13 03 178 ~~537~~ 614 54	0 146 165	584 ~~567~~			
26+80		12 71 165	90 ~~83~~	164.46	161.26	4.64
27+20		8 85 169	76 ~~69~~	168.26	165.06	4.70
27+60		5 71 172	90 ~~83~~	171.67	168.47	4.43
28+00		2 95 175	46 ~~39~~	174.67	171.47	4.19
28+40		0 44 178	17 ~~10~~	177.28	174.08	4.09
P	12 755 190 ~~867~~ 937	0 432 178	182 ~~107~~			
28+80		10 93 ~~175~~ 180	01 ~~93~~	179.48	176.28	3.73
29+20		9 53 181	41 ~~33~~	181.29	178.09	3.32
29+60		8 06 182	88 ~~80~~	182.70	179.50	3.38
30+00		6 52 184	42 ~~34~~	183.71	180.51	3.91
30+50		5 27 185	67 ~~59~~	184.73	181.53	4.14

Sta	+	X	−	Elev
31+00		180 937/86	4 23	186 71/63
31+50			3 41	187 53/45
32+00			2 13	188 81/73
32+40			1 14	189 80/72
P	12 488 203	300/225	0 125	190 812/737
32+80			12 36	.190 94/86
33+20			9 54	193 76/68
33+60			6 90	196 40/32
34+00			2 74	200 56/48
P	12 942 215	465/390	0 777	202 523/445
34+50			9 63	205 83/76
35+00			2 41	213/212 05/98
P	12 122 227	453/378	0 134	215 331/256
35+51.67		38	8 80	218 65/58
Chk 36+20			1 175	226 278/203 ✓

Grade E	Grade W	Mean Grade	Bot. Pipe	Cut
		185.74	-3.2 182.54	4.17
		186.76	183.56	3.97
		187.77	184.57	4.24
	=	188.97	-3.2 185.77	4.03
.29 191.27	190.98	191.12	-3.28 187.84	3.10
193.68	.11 193.79	193.74	-3.17 190.57	3.19
196.55	.84 197.39	196.97	-2.96 194.01	2.39
200.38	1.42 201.80	201.09	-2.81 198.28	2.28
206.57	1.23 207.80	207.18	-2.85 204.33	1.50
213.25	.55 213.80	213.52	-3.05 210.47	2.58
	.08		-3.45	
.91 219.79	.97 219.80 218.88	219.34	-3.20 216.14	2.51
℄ Juan St. Check				

X
+165,997
− 4754
+161,243
6496
226,203

ROUGH GRADES

Aug. 21. 1928
A.E. Frankhauser
Roland Curren, Nat'l
E.E. Rodriguez, Ch. Rd

Sta	EAST SIDE +	↑	−	Elev.
B.M	1 28	15 695		14 415
1+00			11 56	4 13
1+50			10 81	4 88
2+00			10 46	5 23
2+50			9 96	5 73
3+00			8 13	7 56
3+50			7 49	8 20
4+00			6 62	9 07
4+50			5 95	9 74
5+00			4 06	11 63
5+50			3 72	11 97
6+00			3 34	12 35
P	10 30	24 715	1 28	14 415
7+00			10 28	14 43
7+50			8 69	16 02
8+00			6 17	18 54
8+50			5 07	19 64
9+00			4 33	20 38
P	12 24	36 958	00	24 715

JUAN STR.

10

Grade E	Grade W	Cut	Fill
			El. 14.415
Concrete monument Juan & Wallace Sts.			
4.75	4.62		0.62
4.87	4.81	.01	
5.08	5.07	.15	
5.95			.22
6.89		.67	
7.84		.36	
8.78		.29	
9.73		.01	
10.67		.96	
11.62		.35	
12.57			.22
14.60			.17
16.32			.20
18.09		.45	
19.87			.23
21.63			1.25

+90.89 Base E+W.

649 +3 VPI

Sta	+	=	Elev.	Grade E	Grade W	Cut	Fill
9+50	36 95	14 73	22 22		23 42		1.20
10+00.67		11 85	25 10		25 20		.10
10+50		9 54	27 41		27 08	.33	
11+00		8 20	28 75		29 48		.73
11+50		5 38	31 57		31 95		.38
12+00		3 39	33 56		34 40		.84
P	12 70 49 615	0 04	36 915				
12+50		13 76	35 85		36 88		1.03
13+00		12 28	37 33		39 34		2.01
13+50		10 30	39 31		41 80		2.49
14+00		6 76	42 85		44 26		1.41
14+50		1 83	47 78		46 75	1.03	
P	12 74 61 985	0 37	49 245				
15+00		9 01	52 97		49 20	3.77	
15+50		5 54	56 44		51 67	4.77	
16+00		2 38	59 60		54 14	5.46	
P	12 91 74 385	0 51	61 475				
16+50		9 66	64 77		56 60	8.12	
17+00		7 28	67 10		59 09	8.01	

+0.0335

10+45.67 VPI

+0.0493

74.19
Error 0.19
74.385

Sta.				Elev. (Calc Back from Chk)
17+50		6 62		67 76
18+00		3 56		70 82
B.M. No 2		9 42		64.965
	86.57			73.71
T.P	1286 86765	0 48		73 905
18+50		8 48		78 27
	98.792			85.322
T.P	1287 98987	0.648		86 117
19+00		11 91		87 06
19+50		2 99		95 98
	111.256			98.528
T.P	12728 111451	0 264		98 723
20+00		10 65		101 37
20+50		3 98		107 44
	123.508			110.706
T.P	12802 123703	0 55		110 901
21+00		11 69		111 97
21+50		6 10		117 56
22+00		2 35		121 31
	135.907			123.099
T.P	M 907 136402	0508		123 125
22+50		11 50		124 25
23+00		9 19		126 86
23+50		5 81		130 24

Grade Et	Grade W	Cut	Fill
61	56	6.20	
64	00	6.82	

Elev. 64.965
Nail in pole N.W. Cor. Juan & Harney Sts.

+0.0493

	66	54	11.73

VPI 18+61.22

+12%

	71	65	15.41
	77	65	18.33
	83	65	17.72
	89	65	17.79
	95	65	16.32
	101	65	15.89
	107	65	13.66
	113	65	10.60
	119	65	7.21
	125	65	4.59

Sta.	+		−	
		135.907 ✓		
		148 171		135.261
T.P. 24+00	12.86	148 316	0.646	135 456
24+50			8 45	139 81 ✓
25+00			3 53	144 73
		160 441		147 698
T.P.	12.746	160 587	0.473	147 843
B.M. N° 3			6 294	154 23
25+50			6 54	153 98
		172 054		160.040
T.P.	12.914	173 099	0.404	160 185
26+00			10 90	162 12
		184 592		171 974
26+50	12.818	189 737	1.18	171 919
27+00			4 94	179 71
		193 209		184 434
T.P.	8 775	193 354	0 158	184 579
27+50			7 52	185 73
28+00			3 45	189 77
28+50			4 50	188 75
29+00			6 21	187 04
29+50			5 42	187 83
30+00			4 71	188 54
30+50			5 60	187 65
		192 143		180 714
T.P.	11.435	192 294	12 495	180 859

Grade E	Grade W	Cut	Fill
✓ 131	65	3.76 ✓	
✓ 137	65	2.16 ✓	
✓ 143	65	1.08 ✓	
✓			
−0.65			
Nail in pole E side Main St. El. 154.23			
✓ 149	65	4.33 ✓	
✓			
155	65	6.47 ✓	
✓ 161	30	10.62 ✓	
✓ 166	36	13.35 ✓	
✓			
✓ 170	81	14.92 ✓	
✓ 174	67	15.10 ✓	
✓ 177	83	10.92 ✓	
✓ 180	32	6.65 ✓	
✓ 182	32	4.49 ✓	
✓ 183	71	4.83 ✓	
✓ 184	73	2.92 ✓	
✓			

912

192.149

31+00		192.54		181.06	
		192.94	1.12		
31+50			1.02	181.76	
32+00			2.14	190.04	
		204.95		191.847	
TP	12.648	204.640	0.302	191.992	
32+50			1.50	193.07	
33+00			1.73	196.79	
33+50		215.870	2.67	201.85	
		215.885		203.121	32
P	12.749	216.015	1.374	203.266	
34+00		227.680	6.77	209.11	
		227.825	0.640	215.375	
P	12.45				
34+50			4.13	218.55	
35+51.67 Chk.			9.03	218.65	
35+00					
35+51.67					
				215.230	
34+50			2.22		

(to 17+50) Level Notes backed up after check cut

Level All

+ 37.847

0.925

Grade	Grade	Cut	Fill
	185.74		4.68
	186.76		5.00
	187.77		2.27
189.54	189.47		3.48
32+66.60 Rd 190.51			
192.48	192.32		4.31
195.82	196.43		6.01

from Water Line

Curb Existing

TBM - 5/8" Cor. Side Wall of front Steps.

200.38	201.80		8.73
206.67	207.80		11.98
217.79	218.88		

-1.15 Chk on Water Stake Elev 218.65

0.14 Error

213.80

220.00

took up stas 31+00 forward Ahead

*

+	173.562
−	29.102
+	144.460
	218.65
	74.19

			Grade	Cut	Fill
	0 925 204.1 50	203 225			
34+00		2 22 201.93	200 38	1.55	
33+50		7 26 196.89	195.84	1.05	
33+00		11 02 193.13	192.48	0.65	
P	2 35 193.645	12 855 191.295			
32+50		3 52 190.125	189 54	0.58	
32+00		11 77 181.87	187 77		5.90
31+50		18 19 175.45	186.76		11.31
31+00		12 42 181.225	185.74		4.52
	12 710 215.835	203 225			
34+50		6 77 209.16	206.57	2.59	
P	11 72 222.69	0 965 214.970			
35+00		8 10 218.59	213.80	4.79	
		0 40 222.29	BM Cross on Pavement 36+20 ℄ 226.273		

West Side JUAN STR. | Aug. 22, 1928 | Re Franklin St. Ex. Road Ch. Rd. & Current Ch. Nos.

Sta	+	⊼	−	Elev.
B.M. #	1005	15420		14415
0+50			1079	463 ✓
0+50			1082	460 ✓
1+00			1162	380 ✓
1+50			1152	390 ✓
2+00				
2+50			1142	400 ✓
3+00			1080	462 ✓
3+50			734	808 ✓
4+00			566	976 ✓
4+50			455	1087 ✓
5+00			323	1219 ✓
5+50			369	1173 ✓
6+00			194	1348 ✓
6+50			116	1426 ✓
7+00			067	1480 ✓
T.P.	1281	27515 (597)	0655	14765 ✓
7+50			1130	1627 (30) ✓
8+00			854	1903 (06) ✓

ROUGH GRADES

4.6

Grade E	Grade W	Cut	Fill
Elev. 14415			
B.M. Concrete Mon SE cor. Juan & Wallace			
& Paving & Juan St Elev. 4.63			
& Paving 30' West & Juan St. Elev 4.60			
(475)	4.62 ✓		.87 ✓
(4.87)	4.81 ✓		.91 ✓
(508)	507 ✓		
595 ✓			1.95 ✓
689 ✓			2.27 ✓
7.84 ✓		.24 ✓	
8.78 ✓		.98 ✓	
9.73 ✓		1.14 ✓	
10.67 ✓		1.52 ✓	
11.62 ✓		.11 ✓	
12.57 ✓		.91 ✓	
13.52 ✓		.74 ✓	
14.60 ✓		.20 ✓	
✓			
16.32 ✓			.07 ✓
18.09 ✓		.97 ✓	

Sta	+	π	−	Elev	Grade E	Grade W	Cut	Fill
8+50		27 597 575	7 18	20 44 55 ✓		19 87 ✓	.55 ✓	
9+00			5 54	22 06 03 ✓		21 63 ✓	.43 ✓	
9+50			4 07	23 53 50 ✓		23 43 ✓	.11 ✓	
10+00			2 37	25 23 70 ✓		25 18 ✓	.05 ✓	
T.P	11 726	39 3251 781	0 02	27 555 ✓				
10+45 67			9 77	29 55 51 ✓		27 08 ✓	2.47 ✓	
11+00			9 11	30 21 17 ✓		29 48 ✓	.73 ✓	
11+50			8 42	30 90 86 ✓		31 95 ✓		1.05 ✓
12+00			7 03	32 29 25 ✓		34 40 ✓		2.11 ✓
12+50			4 70	34 62 58 ✓		36 88 ✓		2.26 ✓
13+00			2 34	36 99 94 ✓		39 34 ✓		2.36 ✓
T.P	13 077	51 256 190	1 68	38 113		✓		
13+50			10 74	40 57 45		41 80 ✓		1.28 ✓
14+00			5 46	45 80 73		44 26 ✓	1.54 ✓	
T.P	13072	64 150 062	0 70	50 99		✓		
14+50			12 80	51 35 26		46 75 ✓	4.60 ✓	
15+00			8 70	55 45 36		49 20 ✓	6.25 ✓	
15+50			5 80	58 35 26		51 67 ✓	6.68 ✓	
16+00			3 81	60 34 25		54 14 ✓	6.20 ✓	

Sta.	+	↑	−	Elev.	Grade E	Grade W	Cut	Fill
16+50		64.067	4.50	59.56		56 60 ✓	3.05 ✓	
17+00			3 93	60.73		59 07 ✓	1.15 ✓	
17+50			3 45	60.61		61 54 ✓		.84 ✓
18+00			2 42	61.64		64 00 ✓		2.27 ✓
T.P.	12 77	76.824	0 208	63.854		✓		
B.M. #2			1 197	64.854	Nail in pole N.W. Cor. Juan & Harney			Elev. 64.965
18+50			9 78	67.54		66 54 ✓	1.11 ✓	
B.M.	11.97	76.935		64.965	BM	✓		
19+00			1 65	75.28 ✓		71 65 ✓	3.63 ✓	
T.P.	12 87	89.219	0 586	76.349		✓		
19+50			3 33	85.89		77 65 ✓	8.25 ✓	
T.P.	13 083	101.375	0 427	88.792		✓		
20+00			4 06	97.81		83 65 ✓	14.19 ✓	
T.P.	12 943	114.375	0 443	101.432		✓		
20+50			9 18	105.73		89 65 ✓	15.58 ✓	
21+00			3 53	110.84		95 65 ✓	15.23 ✓	
T.P.	13 046	126.837	0 584	113.791		✓		
21+50			12 19	114.70		101 65 ✓	13.05 ✓	
22+00			8 79	118.05		107 65 ✓	10.45 ✓	

Sta	+	X	−	Elev.
22+50		126 889 857	5 53	121 36 31
23+00			2 16	123 73 68
T.P	12 718 139 165 100		0 455	126 382
23+50			9 07	130 09 05
24+00			6 11	132 3 97
24+50			1 47	137 69 63
T.P	12 922 151 933 854		0 168	138 932
25+00			8 85	143 08 00
T.P	12 938 164 715 692		0 10	151 754
25+50			11 82	153 96 87
B.M. #3			10 555	154 23 137
B.M.	10 555 164 785			154 23
26+00			4 75	160 03
T.P	12 574 176 935 923		0 384	164 401
26+50			9 88	167 05 04
27+00			7 64	174 29 78
T.P	12 456 188 458 438		0 943	175 987
27+50			8 29	180 17 15
28+00			5 14	183 37 30

Grade E	Grade W	Cut	Fill
113	65 ✓	7.71 ✗	
119	65 ✓	4.08 ✗	
	✓		
125	65 ✓	4.44 ✗	
131	65 ✓	1.40 ✗	
137	65 ✓	.04 ✓	
	✓		
143	65 ✓		.57 ✓
	✗		
149	65 ✓	4.31 ✓	

Nail in pole East Side Juan St. Elev. 154.23

B.M. — — — — — — — —

155	65 ✓	4.38 ✓	
	✓		
161	33 ✓	5.77 ✓	
166	41 ✓	7.88 ✓	
	✓		
170	81 ✓	9.36 ✓	
174	67 ✓	8.65 ✓	

Sta.	+	−	Elev.	Grade E	Grade N	Cut	Fill
28+50		8.80	179.64	177.84 ✓	1.87 ✓		
29+00		4.61	183.83	180.44 ✓	3.41 ✓		
29+50		2.91	185.55	182.38 ✓	3.17 ✓		
T.P. 30+00	11.44	0.321	188.17	183.71 ✓	4.41 ✓		
30+50		1.13	188.43	184.73 ✓	3.73 ✓		
31+00		1.384	185.72	185.74 ✓	.01 ✓		
31+50		1.240	187.76	186.76 ✓	.43 ✓		
32+00		1.119	188.37	187.77 ✓	.63 ✓		
32+50		2.781	189.75	189.54	189.47 ✓	.31 ✓	
33+00		2.712	192.44	192.48	192.29 ✓	.18 ✓	
33+50		4.270	194.86	195.84	196.49 ✓		1.60 ✓
T.P. 34+00	12.738	0.278	198.79	200.38	201.80 ✓		3.07 ✓
34+50		2.766	203.26	206.57	207.80 ✓		3.90 ✓
T.P. 35+00	12.668	0.254	210.77		213.80 ✓		2.87 ✓
35+50		1.601	217.28		219.80 ✓		2.12 ✓
T.P.	4.90	0.496	223.49				
B.M.		1.836	226.13	B.M. X in paving 36+20 ℄ Elev. 226.273			
	4.94		226.27				
36+01.67		6.89	224.32		223.67	0.65	
End							

3.87
.13

223.54

Nov. 7, 1928
Rowe
Leach
Curren

Rough Grades on East Ft.

	+	+/-	−	Elev	Grade
BM. Page A5 33+00	1.96	195.09		193.13	
32+50	4.96	195.085		190.125	
32+51.65			5.04	190.05	189.59
32+00			7.01	188.08	187.77
31+50			8.74	186.35	186.76
31+00			10.60	184.49	185.74
30+50					184.73
30+00			10.75	184.34	183.71
29+50 TP	0.33	182.92	12.50	182.59	182.38
29+00			0.54	182.38	180.44
28+50			3.39	179.56	177.84
28+00			6.67	176.25	174.67
+in Pvt.	2.09	228.37		226.28	
36+00			4.13	224.24	223.54
35+50			8.53	219.84	219.80
TP	1.65	217.36	12.66	215.71	215.
35+00			3.10	214.26	213.80
34+50			10.03	207.33	207.80
TP	0.85	205.36	12.85	204.51	
34+00			4.05	201.31	201.80
33+50			8.69	196.67	196.49

Grade	Cut	Fill
	.46	
	.31	
		.41
		1.25
	.63	
	.21	
	1.94	
	1.69	
	1.58	

Continuing, West Side 11/8/28,
Rowe notes ch.
Leach
Curren

	.70
	.04
	.46
	.47
	.49
	.18

	+	205.36 HI	−	Elev.	Grade
33+00 TP	2.11	194.83 ~~205.36~~	12.64	192.72	192.29
32+50			4.63.	190.20	189.47
32+00			6.34	188.49	187.77
31+50			7.34	187.49	186.76
31+00			8.35	186.48	185.74
30+50 E			8.47	186.36	
W			9.00	185.83	184.73
30+00	0.95	184.23	11.55	183.28	183.71
29+50			2.60	181.63	182.38
29+00			4.26	179.97	180.44
28+50			6.41	177.82	177.84
+00			9.96	174.27	174.67
27+50 E			12.46	171.73	
W			0.95	170.66	170.81
TP	0.40	171.61	13.02	171.21	
27+00			4.75 E	166.86	
			5.96 W	165.65	166.41
26+50			10.36 E	161.25	
			11.82 W	159.79	161.33
TP	0.40	159.08	12.93	158.68	
26+00			3.89 E	155.19	
			4.68 W	154.40	155.65
25+50			9.11 W	149.97	
			8.50 W	150.58	149.65
TP	1.43	147.95	12.56	146.52	

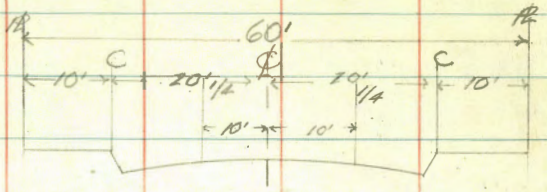
52

West Cut	West Fill	East Cut	East Fill
.43			194.83 − 2.25 = 192.58
.73			
.72			
.73			
.74			
1.63			
1.10			
	.43		
	.75		
	.47		
	.02		
	.40		
	.15	.92	
	.76	.45	
	1.54		.08
	1.25		.46
.93		.32	

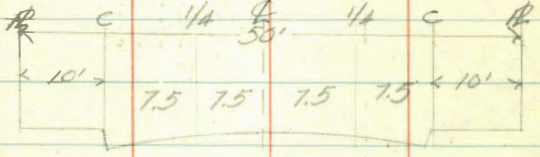
to A14

VAN DYKE AVE.

Mar. 31. 1928



Typical Cross Section of Van Dyke Ave.

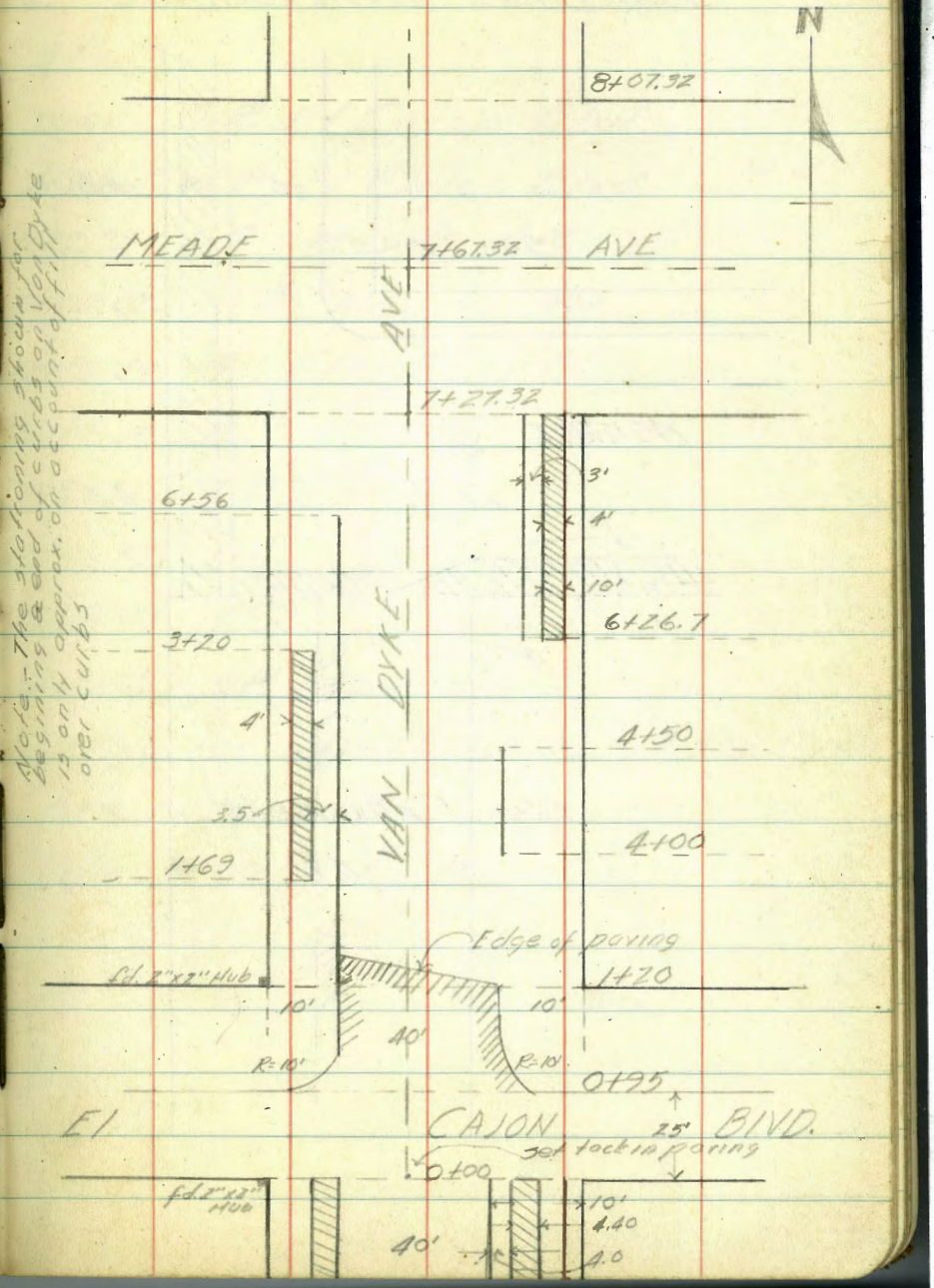


Typical Cross Section of Ethelda Place

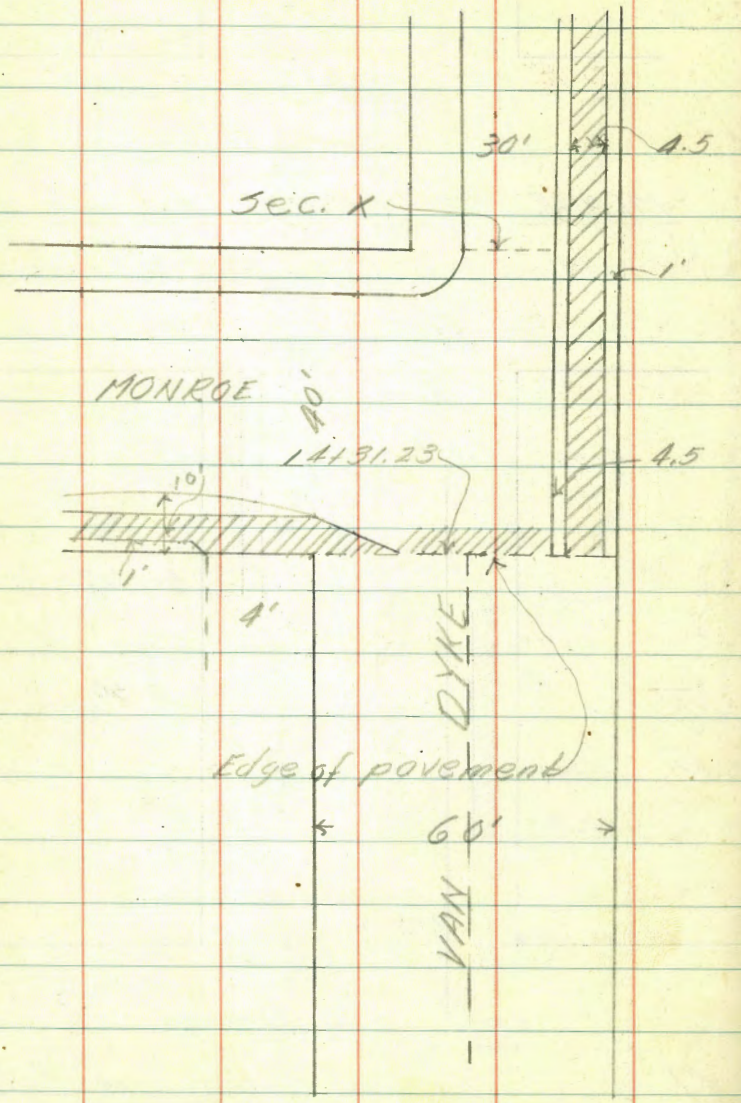
Note:- The stationing shown for beginning & end of curbs on Van Dyke is only approx. on account of curbs over curbs

VAN DYKE AVE STATIONING

33



VAN DYKE STATIONIONG



VAN DYKE AVE. STATIONING

14 31 23

Sta.	
0+00	S/L El Cajon Blvd
1420	N/L El Cajon Blvd.
1417.32	S/L Meade Ave.
8+07.32	N/L Meade Ave.
10+32.45	℄ Ethelda Pl.
11+08.20	B.C
11+63.36	E.C.
13+06.10	BC
13+61.08	EC
14+31.23	S/L Monroe

Sta. 0+00 on Ethelda Pl. = ℄ Van Dyke

Sta. 1+93.50 = BC.

Sta. 3+00 = End

VAN DYKE

East

	+ 5'	℄	− C	Elev Gutter	1/4
B.M.	4.80	368.36		363.56	
13+36.23	5.16	5.04	1.49	5.08	4.99
0+95	363.20	363.32	363.87	363.28	363.37
13+11.23	4.1	4.2	4.5	4.3	4.58
1+20	364.0	364.1	363.86	363.46	363.78
12+81.23	3.7	4.6	5.1	5.4	5.1
1+50	364.7	363.8	363.3	363.0	363.3
12+31.23	4.0	5.1	5.4	5.7	5.5
2+00	364.0	363.3	363.0	362.5	362.9
11+81.23	3.7	5.4	5.9	6.4	6.0
2+50	364.5	363.0	362.5	362.0	362.4
11+31.23	4.6	5.9	6.3	6.8	6.4
3+00	363.8	362.5	362.1	361.6	362.0
10+81.23	6.1	6.5	6.9	7.4	6.9
3+50	362.3	361.9	361.5	361.0	361.5
P	3.60	365.27	6.69	361.67	
10+31.23	4.3	3.8	4.09	4.6	4.1
4+00	361.0	361.5	361.18	360.7	361.2
9+81.23	5.2	4.3	4.3	5.0	4.4
4+50	360.1	361.0	361.0	360.3	360.9
9+31.23	6.2	5.5	5.2	5.5	5.1
5+00	359.1	359.8	360.1	359.8	360.2
8+81.23	9.1	5.5	5.4	5.9	5.5
5+50	356.2	359.8	359.9	359.4	359.8
8+31.23	7.2	5.9	5.6	6.2	5.8
6+00	358.1	359.4	359.7	359.1	359.5
7+81.23	6.0	5.8	5.90	6.8	6.3
6+50	359.3	359.5	359.37	358.5	359.0
7+31.23	6.6	6.3	6.42	6.7	6.5
7+00	358.7	359.0	358.85	358.6	358.8
7+0 3.91	6.3	6.6	6.54	6.8	6.7
7+27 32.5 ft. Meade	359.0	358.7	358.73	358.5	358.6
B.M.			6.10	359.17	

West

℄	1/4	Gutter	C	℄	5'
			El. 363.56		
B.M. S.W. Cor. Van Dyke & El Colon					
4.86	4.73	4.58	3.97	4.54	4.59
363.50	363.63	363.78	364.44	363.87	363.77
4.25	4.28	4.32	3.88	3.6	3.2
364.11	364.08	364.04	364.48	364.8	365.2
4.7	4.6	4.7	4.00	3.6	3.5
363.7	363.8	363.7	364.4	364.8	364.9
5.2	5.1	5.0	4.14	3.8	3.5
363.7	363.3	363.4	364.22	364.6	364.5
5.4	5.5	5.6	4.4	3.9	4.0
363.0	362.9	362.8	363.76	364.5	364.4
5.7	6.0	6.2	5.1	4.6	44
362.7	362.4	362.2	363.26	363.8	364.0
6.3	6.4	6.7	5.95	5.8	50
362.1	362.0	361.7	362.41	362.6	363.4
3.6	3.9	4.1	3.7	3.1	3.2
361.7	361.4	361.2	361.57	362.2	362.2
4.1	4.3	4.6	4.0	3.6	3.7
361.2	361.0	360.7	361.3	361.7	361.6
4.6	4.7	4.9	4.1	3.9	4.0
360.7	360.6	360.4	361.2	361.4	361.3
4.7	5.2	5.3	4.7	4.6	4.5
360.4	360.1	360.0	360.6	360.7	360.8
5.3	5.4	5.6	4.9	4.5	4.2
360.0	359.9	359.7	360.4	360.8	361.1
5.7	5.8	6.0	5.52	5.0	5.0
359.6	359.5	359.3	359.75	360.3	360.3
6.2	6.2	6.3	5.8	5.3	4.6
359.1	359.1	359.0	359.5	360.0	360.7
6.2	6.2	6.7	5.8	5.2	4.5
359.1	359.1	359.1	359.5	360.1	360.8
B.M. Cross in porch at S.E. Cor. Meade & Van Dyke					
			El. 359.17		

Sta.	+	℄	-	Elev.	
	5'	℄	C	Gutter	¼
6+69.31	7.2	6.8	6.2	6.2	6.0
7+67.32	358.1	358.5	359.1	359.1	359.3
6+23.31 NB	6.5	6.4	6.1	6.1	5.7
E+107.32	358.8	358.9	359.2	359.2	359.6
P	3.26	363.50	5.03	360.24	
5+81.23	4.2	4.3	3.9	3.7	3.8
E+50	359.3	359.2	359.6	359.6	359.7
5+31.23	5.8	5.7		5.2	4.6
9+00	357.7	357.8		358.3	358.9
4+81.23	6.9	7.1		6.8	6.5
9+50	356.6	356.4		356.7	357.0
4+31.23	10.4	10.7		7.8	7.1
10+00	353.1	352.8		353.7	354.4
4+23.78 SB	11.4	10.8		10.3	9.6
10+07.45	352.1	352.7		353.2	353.9
3+73.78 NB	13.9	13.6		13.1	12.3
10+57.45	349.6	349.9		350.4	351.2
P	2.82	353.31	13.01	350.49	
3+23.03	6.0	5.1	4.4		3.2
11+08.20	347.3	348.2	348.9		350.1
2+67.87	6.0	7.1	6.7		6.0
11+63.36	345.3	346.2	346.6		347.3
2+21.23	14.3	13.0	11.9		11.4
12+10 306 ft	339.0	340.3	341.4		341.4
1+81.23	28.3 28.0	27.0	26.2		26.1
12+50	324.0 323.5	326.8	327.1		327.2
1+25.13	10.9	10.6	9.9		8.8
13+06.10	342.4	342.7	343.4		344.5
0+70.15	4.5	4.1	3.9		3.8
13+61.08	347.0	349.2	349.4		347.5
P					
B.M	5.43	358.43	0.31	353.00	

℄	¼	Gutter	C	℞	5'
5.8	5.4	5.2	5.2	5.1	5.1
359.5	359.9	360.1	360.1	360.2	360.2
5.3	4.8	4.6	4.6	4.2	4.2
360.0	360.5	360.7	360.7	361.1	361.1
3.3	2.8	2.6		2.4	2.4
360.2	360.7	360.9		361.1	361.1
4.4	4.0	3.6		3.3	3.1
359.1	359.5	359.9		360.2	360.4
6.2	5.6	5.2		4.7	4.7
357.3	358.3	358.3		358.8	358.8
8.3	8.1	7.3		7.0	6.8
355.2	355.4	356.2		356.5	356.7
8.8	8.5	7.7		7.2	6.7
354.7	355.0	355.8		356.3	356.8
11.2	10.3	9.6		8.9	8.4
352.3	353.2	353.9		354.6	355.1
2.1	1.3	0.7		+0.9	+1.5
351.2	352.0	353.1		354.2	354.8
5.8	5.4	4.3		3.6	3.2
347.5	347.9	349.0		349.7	350.1
10.3	10.9	11.2		11.7	11.6 cut
343.0	342.4	342.1		341.6	341.7 40'
26.0	25.0	23.0		21.5	20.0 19.1
327.3	328.3	330.3		331.8	333.3 334.1
7.9	7.4	6.8		6.0	5.8
345.4	345.9	346.5		347.3	347.5
3.8	3.6	3.1		3.1	2.9
349.5	347.7	349.3		350.2	350.1

Cross in top curb at S.E. Cor of Kimberly & Monroe St. El. 353.00

Sta	+ 5'	℄	− C	Elev Gutter	1/4
		358.43			
0+31.23	6.3	6.8	6.6		5.8
1+00	351.5	351.6	351.8		352.6
0+00	5.7	5.6	5.45	5.98	5.56
1+31.23	352.7	352.8	352.98	352.45	352.87
Sec. X			5.72	6.31	5.95
			352.71	352.22	352.48

℄	1/4	Gutter	C	℄	5'
5.7	5.8	6.2		6.9	7.0
352.7	352.6	352.2		351.5	351.4
5.38	5.34	5.23	4.46	4.6	4.6
353.05	353.09	353.20	353.77	353.8	353.8
5.65	5.58	5.64	5.06		
352.78	352.85	352.79	353.37		

ETHELDA

Sta.	℄ 5'	℄	C	Elev Gutter	1/4
	2.18	355.18		353.00	
0+00	0.2 355.0	0.6 354.6		1.1 354.1	1.5 353.7
0+50	2.4 352.8	2.8 352.4		3.4 351.8	3.9 351.3
1+00	3.7 351.5	4.0 351.2		4.5 350.7	5.0 350.2
1+50	4.7 350.5	4.8 350.4		4.4 350.8	5.5 349.7
1+93.50	4.6 350.6	4.7 350.5		4.8 350.4	4.6 350.6
2+50	4.2 351.0	4.1 351.1		4.1 351.1	4.0 351.2
3+00	5.0 350.2	4.8 350.4		4.9 353.3	4.7 350.5

Bo 115 sta 0+00 to 1+93.50

PLACE

℄	1/4	Gutter	C	℄	5'
2.1 353.1	2.6 352.5	2.7 352.5		2.9 352.3	2.9 352.3
4.2 351.0	4.5 350.7	4.9 350.3		5.1 349.5	6.1 349.1
5.2 350.0	5.3 349.9	5.3 349.9		5.9 349.3	6.4 348.8
5.4 349.8	5.7 349.5	5.9 349.3		6.2 349.0	6.6 348.6
4.5 350.7	4.9 350.3	5.6 349.6		6.2 349.6	6.6 348.6
4.3 350.9	4.5 350.7	4.7 350.5		5.4 349.8	5.7 349.5
4.9 350.3	5.2 350.0	6.1 349.1		6.7 348.5	7.2 348.0

VAN DYKE 3T
CHECK LEVELS

	+	℄	−	Elev
		355.18		
P	8.81	363.84	0.15	355.03
P	7.59	368.21	3.22	360.62
			4.69	363.52

Check on B.M. at S. W. Cor. of El Cajon & Van Dyke El. 363.56

Van Dyke 3T.
Culvert x Sec.

	+	℄	−	Elev	
B.M.	3.66	362.83		359.17	
P	3.12	353.19	12.76	350.07	
S.E. Cor 72			4.94	348.25	
+17			10.04	343.15	
+58	1.64	341.99	12.84	340.35	
+68			4.28	337.71	
+78			8.84	333.15	
N. E Cor 23	0.72	330.17	12.54	329.45	
1+00			6.76	323.41	
1+25			16.52	313.65	
	Intersection Lot line & bottom of draw				
	5.69	355.76		350.07	
	3.90	347.51	10.15	345.61	
	3.75	343.21	10.05	339.46	
3-5&6			7.10	336.11	draw
+30			9.85	333.36	draw
5&6			9.53	333.68	8'5
℄			13.05	330.16	8'5
18&19			12.75	330.46	10'5

	+	↑	-	Elev.	
+30'			13.20	330.01	20'S
18-19-21			8.70	334.51	35'S
	5.19	364.36		359.17	
			17.96	346.40	

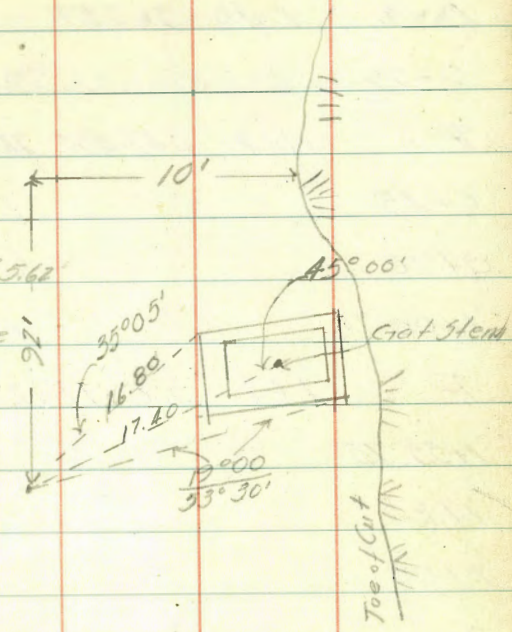
Flow line M.H. opp. S.W Cor.
Lot No 14, Sewer 16' in ground
flows East

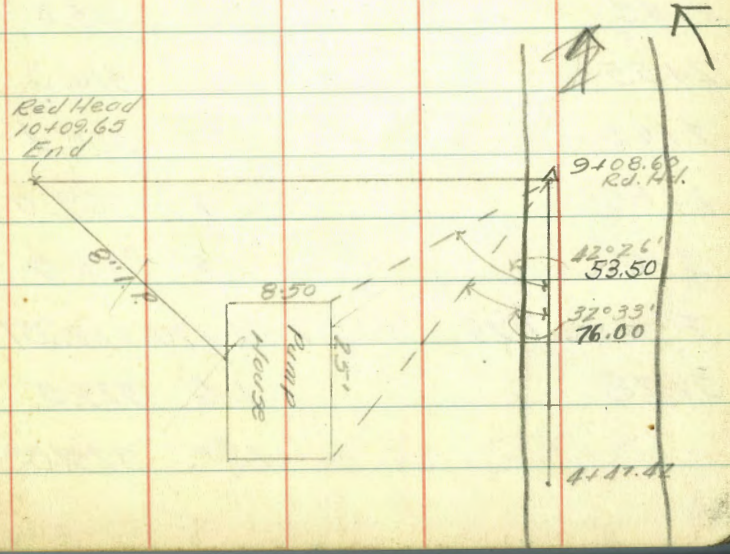
C. H. TINGEY

-Deflections- 6

Sta.	Dist.	left	Right
0+00		59-34½ 135 Wly. Ethelda Pl.	
△ 1+33.75			64°58'
△ 3+23.00		90°39'	
△ 4+47.42			22°17'
⊙ 5+87.74			
△ 9+8.60		102°03'	
End 10+09.65			

SUB SEWER





July 2, 1928 67
A E Franklin
E Rodier Rd.

Sta	+	⊼	−	Elev.
B.M.	1.40	360.57		359.17
0+00			9.5	351.1
P	1.127	349.457	12.24	348.33
0+15			1.2	348.2
0+90			6.1	343.3
1+00			7.1	342.3
P	1.63	338.777	12.31	337.147
1+33.75			6.3	332.4
1+85			5.2	333.6
2+00			9.6	329.2
P	0.595	326.747	12.625	326.152
2+40			11.7	315.0
2+55			16.4	310.3
2+65			18.3	308.4
2+80			17.7	309.0
3+00			9.8	316.9
P	7.96	330.917	3.790	322.957
3+28			1.6	329.3
			1.91	329.0

Porch S.E. Cor. Meade & Van Dyke El. 359.17

0+00 on ℄ Etheldo Pl. 25.60 N. of ℄ of Circle.

Hub. 22-23

N.W. Cor. Lot 23

N.E. Cor. Lot 23

Top M.H. El Cajon Valve Chamber

Sta	+	℄	−	Elev.
1+00.		330.917	5.3	325.6
4+47			6.9	324.0
5+00			9.6	321.3
5+20			10.9	320.0
P	1.583	319.515	12.985	317.932
5+87.70			11.7	307.8
6+00			11.7	307.8
P	1.368	308.753	12.630	306.885
7+00			11.5	296.1
P	1282	296.887	12.648	225.603
8+00			9.8	287.0
8+90			12.1	284.8
9+00			6.1	290.8
9+8.60			0.9	296.0
10+00			2.6	294.6
End 10+09.65			2.3	294.6
Profile of C.I.P Line to End.				
			7.22	289.17
			7.50	289.39

Top 8" C.I.P. @ Exit from Pump House

Top 8" C.I.P. 17' out from Pump House

	+	℄	−	Elev
		796.887		
			7.317	789.57
			2.8	
=1040.65			2.3	294.6
Check				
	12.560		2.120	292.767
	12.714	305.327	0.313	305.014
	12.595	317.728	0.255	317.473
	12.434	330.068	0.441	329.627
	11.624	352.928	0.757	341.304
B.M.			1.947	352.981
	61.927 ✓		5.833	353.00

Top Bell in Con. base 12.3 out
Surface 30' from House
Surface 57.40 from House

ALTENATE LINE TO MONROE AVE.

Sta	+	↑	-	Elev.
B.M.	7.69	355.69		353.00
P	1.42	344.34	12.77	342.92
0+00			11.2	332.4
1+00			12.3	332.0
1+42.0			9.8	334.5
2+00			14.1	330.2
3+00			10.0	331.3
3+25.10			8.1	336.2
P	12.88	355.36	1.86	342.48
3+75			6.1	349.2
4+00			3.6	351.7
3+39.45			0.7	351.6
5+00			3.1	352.2
4+39.45			1.9	353.4
℄ St.			1.9	353.4
B.M.			2.31	353.05
M.H. 5+69.35			6.05	349.31

B.M. M.H. 5+69.35 El. 353.00

N.W. Cor. Lot 23

N.W. Cor. Lot 21

S.E. Cor. Lot 3

S.E. Cor. Lot 1

℄ Monroe Ave

Invert at Sewer Monroe Ave

1/23/29 E.O. C.M.

L. VAN DYKE AVENUE R.

sta.	−	Elev.	Grade	C-F			+	H.I.	−	Elev.	Grade	C-F
B.M. top Curb at Monroe							1.24	354.24✓		353.00		
0+20.38									2.06	352.18✓	352.79	0.61 F
0+40.38									3.22	351.02✓	352.15	1.13 F
0+70.21 PC	4.58	349.66✓	350.88	1.22	F	5			4.95	349.29✓	350.40	1.11 F
0+20	2.04	352.20✓	352.79	0.59	F							
0+40	2.92	351.32✓	352.15	0.83	F							
1+25.19 EC	11.79	342.45✓	348.54	6.09	F	5			6.57	347.67✓	348.54	0.87 F
1+45.19 TP							0.20	344.10✓	10.34	343.90	347.82	3.92 F
1+65.19 (Hand. Level)	17.0	327.10✓	347.32	20.22	F				7.80	336.30✓	347.32	11.02 F
1+45.19	8.12	335.98✓	347.82	11.84	F							
1+85.19	15.57	328.53✓	347.06	18.53	F	5			11.20	332.90✓	347.06	14.16 F
2+05.19	7.76	336.34✓	347.04	10.70	F				5.50	338.60✓	347.04	8.44 F
2+25.19 TP	3.46	340.64✓	347.25	6.61	F	5	10.32	354.42✓	0.00	344.10	347.25	3.15 F
2+45.19	10.93	343.49✓	347.69	4.20	F				6.93	347.49✓	347.69	0.20 F
2+67.92 PC	8.71	345.71✓	348.33	2.62	F	5			4.22	350.20✓	348.33	1.87 C
T.P.							5.57	359.94✓	0.05	354.37		
3+23.08 EC	12.57	347.37✓	349.40	2.03	F	5			5.00	354.94✓	349.90	5.04 C
3+338.5	12.27	347.67✓	349.70	2.03	F				4.68	355.26✓	350.20	5.06 C
353.85 PC	10.81	349.13✓	350.30	1.17	F	5			4.98	354.96✓	350.57	4.39 C

VAN DYKE AVE (Contd) R

Sta	-	L Elev	Grade	C-F		+	HI	-	Elev	Grade	C-F
							359.94 ✓				
4+43.85 EC	5.60	354.34 ✓	352.10	2.24	C						
4+63.85	4.62	355.32 ✓	352.75	2.57	C						
3+73.85								4.53	355.41 ✓	351.10	4.31 C.
4+00								4.36	355.58 ✓	351.88	3.70 C.
4+50 T.P.						6.48	364.42 ✓	2.00	357.94 ✓	353.38	4.56 C.
5+00	7.34	357.08 ✓	354.10	2.98	C			4.73	359.69 ✓	354.88	4.81 C.
5+50	6.86	357.56 ✓	355.97	1.59	C			3.56	360.86 ✓	356.38	4.48 C.
5+83.85	6.45	357.97 ✓	357.25	0.72	C			3.18	361.24 ✓	357.40	3.84 C
6+03.85	6.39	358.03 ✓	357.87	0.16	C			2.81	361.61 ✓	357.90	3.71 C
B.M. top Porch- Van Dyke & Meade								5.24	359.18 ✓	359.17 ✓	

ETHELDA PLACE

T.P.						2.51	356.88 ✓		354.37		
0+50.01	7.52	349.36 ✓	350.83	1.47	F						
0+49.98								4.08	352.80 ✓	351.41	1.39 C
0+93.50	7.70	349.18 ✓	350.20	1.02	F			5.28	351.60 ✓	350.90	0.70 C
1+43.50	8.36	348.52 ✓	349.45	1.93	F			6.29	350.59 ✓	350.30	0.29 C
1+93.50 PC	8.17	348.71 ✓	348.70	0.01	C			6.17	350.71 ✓	349.70	1.01 C
PRC	8.58	348.30 ✓	348.30	0.0	Grade			6.28	350.60 ✓	349.30	1.30 C

L. ETHELDA PLACE (Cont'd)

Sta	−	Elev	Grade	C.F.	
Lot 22-23	9.29	347.59	348.00	0.41	F
& Prod.	5.66	351.22	348.30	2.92	C
Lot 24-25					

VAN DYKE

Sta	−	Elev	Grade	C.F.	
B.M.					
7+0385			359.00		
7+50			359.40		
8+00	7.03	359.19	359.84	0.65	F.
8+50	8.54	357.68	360.28	2.60	F.
9+00	6.66	359.56	360.72	1.16	F.
9+50	6.69	359.53	361.16	1.63	F.
10+0	5.82	360.40	361.60	1.20	F.
10+50	4.63	361.59	362.04	0.45	F.
11+00	3.48	362.74	362.48	0.26	C.
11+50	2.21	364.01	362.92	1.09	C
5' From ℄ 11+5942	2.28	363.94	363.00	0.94	C
5' From Plate 11+59.42	4.27	361.95	362.53	0.58	F.
12+00	3.82	362.40	362.76	0.36	F.
12+50	3.59	362.63	363.04	0.41	F.

PLACE (Cont'd)

+	H.I.	−	Elev	Grade	C.F.	
3	356.88					
		5.66	351.22	348.60	2.62	C

AVE. (Bet Meade & El Cajon)

+	H.I.	−	Elev	Grade	C.F.	
7.05	366.22		359.17			
		5.29	360.93	359.00	1.93	C.
366.22		5.50	360.72	359.42	1.30	C.
		5.48	360.74	359.87	0.87	C.
		5.35	360.87	360.32	0.55	C.
		5.16	361.06	360.77	0.29	C.
		4.82	361.40	361.22	0.18	C.
		4.24	361.98	361.67	0.31	C.
		3.84	362.38	362.12	0.26	C
		2.42	363.80	362.57	1.23	C
			(Poor Sight)			
		2.69	363.53	(363.56)		

B.M. Br. Plug top Curb El Cajon & Van Dyke

ETHELDA PLACE
Cuts for Storm Drain

	Grade	Cut	—	Elev.
BM	0.36	354.73 ✓		354.37
0+00	345.50	C 3.54	5.79	348.94
0+25	341.77	C 4.72	8.24	346.49
0+50	338.04	C 6.43	10.26	344.47
T.P.	1+11	344.10 ✓	11.74	342.99 ✓
0+75	334.31	C 5.46	4.33	339.77
1+04	330.00	1.05 F	15.15	328.95

VAN DYKE
Storm Sewer

B.M.	1.50	354.50 ✓		353.00 ✓
T.P.	1.78	344.00 ✓	12.28	342.22 ✓
0+00 Ground			11.62	332.38
0+00 Cut to 334.00 Stake		0.55 C.	9.45	334.55
T.P.	2.54	334.43 ✓	12.11	331.89 ✓
0+35	330.60	0.11 F	3.94	330.49
0+72 Inlet	326.50	1.47 C	6.46	327.97
1+29 End.	322.00	1.41 C	11.02	323.41
1+29 Ground at ℄			12.00	322.43

VAN DYKE AVE.
Sanitary Sewer

1/26/29.

	Grade	Cut		
		334.43 ✓		
T.P.	8.86	341.66 ✓	7.63	332.80 ✓
DMH No 9 1+29	330.00	7.89 C	3.77	337.89
1+75	329.00	6.90 C	5.76	335.90
DM. #9 2+19.27	328.00	6.43 C	7.23	334.43
2+65	327.00	4.66 C	10.00	331.66
MH #4 3+10.79	326.00	10.73 C	4.93	336.73

1/30/29 — VAN DYKE SEWER

Sta	Grade +	Cut HI	–	Elev.
B.M.	0.84	353.84		353.00
0+00	346.00	C 6.70 ✓	1.14	352.70 ✓
0+30	344.60	C 5.54 ✓	3.70	350.14 ✓
MH #8 0+64.30	343.00	C 4.96 ✓	5.88	347.96 ✓
1+0	339.20	C 6.56 ✓	8.08	345.76 ✓
1+25	336.50	C 3.14 ✓	14.20	339.64 ✓
1+50	333.80	F 3.46 ✓	23.50	330.34 ✓
1+75	330.22	C 9.02 ✓	14.60	339.24 ✓
2+00	333.22	C 11.11 ✓	9.51	344.33 ✓
MH #5	341.00	C 11.41 ✓	1.43	352.41 ✓

1/31/29 — EASEMENTS — Quarth Manvaught Rader

Sta	Grade +	Cut HI	–	Elev.
B.M.	0.18	353.18		353.00
T.P.	1.67	342.56	12.29	340.89
3+50	325.45	C 8.97	8.14	334.42
4+00	324.74	C 10.06	7.76	334.80
MH #3 4+52.81	324.00	C 11.08	7.48	335.08
5+00	321.33	C 15.03	6.20	336.36
T.P.	2.38	332.77	12.17	330.39
5+50	318.50	C 0.37	13.90	318.87

Sta	Grade +	Cut HI	–	Elev.	
		332.77			
6+00	315.67	F 7.60	24.70	308.07	
MH #2 646.81	313.00	C 16.98	2.79	329.98	Top Blown off 150x - Fairmat
T.P. BM	423	333.21	3.79	328.98	
T.P.	12.09	344.80	0.50	332.71	
T.P.	11.16	353.28	2.68	342.12	
B.M.			0.30	352.98	

Sta	Grade +	Cut HI	–	Elev.
B.M.	6.35	359.35		353.00
DE #4 0+00	349.00	C 7.39	3.16	356.39
0+50	341.90	C 10.85	6.60	352.75
1+00	334.80	C 12.41	12.14	347.21

	+	H.I.	-	Elev
	←1.60	333.48		335.08
1+33.75 0+00			2.3	331.2
1+58 0+24			1.4	332.1
T.P.	1.90	322.60	12.78	320.70
TP	1.09	310.70	12.99	309.61
2+61 1+27.67			5.2	305.5
3+67 2+33			8.8	301.9
3+84 2+50			10.3	300.4
4+39 3+05 TP	1.77	299.91	12.56	298.14
4+59 3+25			4.6	295.3
5+14 3+80.17			5.9	294.0
6+41 5+07			8.9	291.0
7+02 5+68			3.2	296.7
7+51 6+17 Gr. at pump			13.2	286.7
Top of intake			10.6	289.3

0+00 = MH #3

Slope = 107' 103.67

0+24 = Δ L 30°05' vert ∠ 14°20'

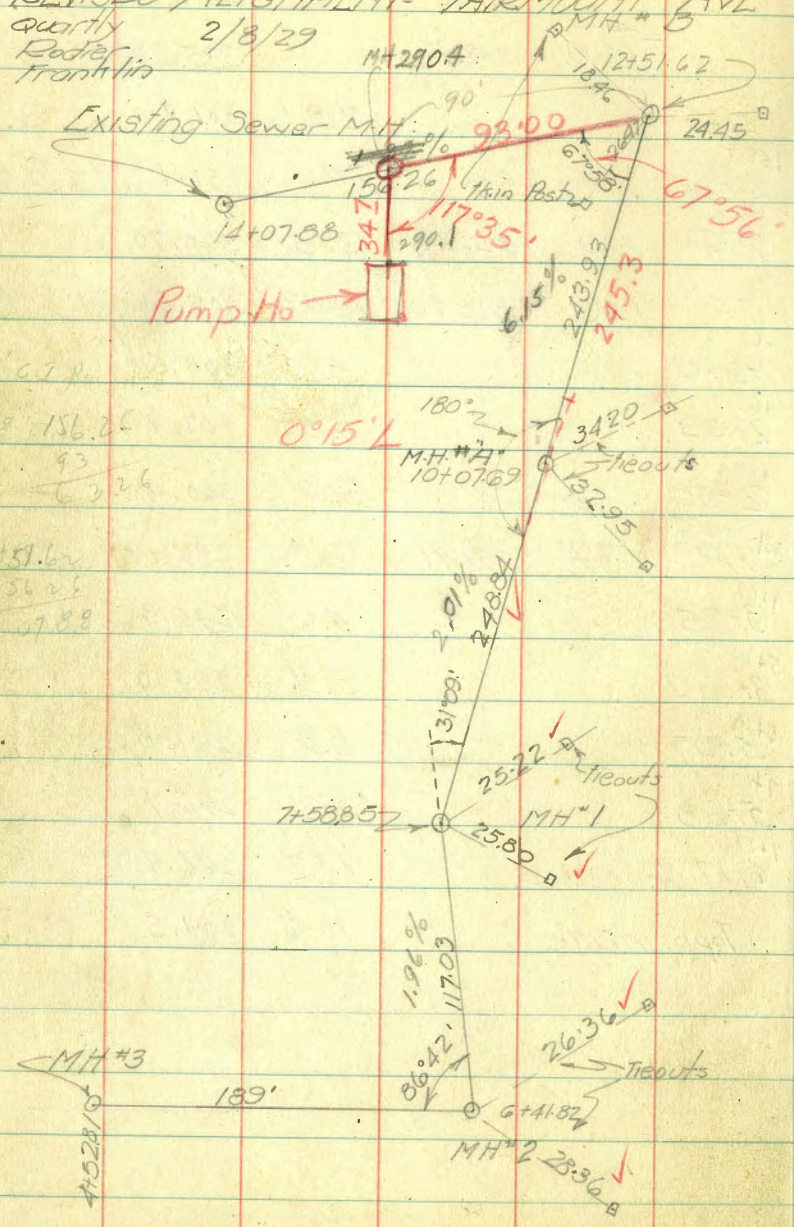
1+27.67 Δ L 38°28' 252.50

3+80.17 Δ R 11° to ℄ Pumphouse

6+17 Pump hs.

REVISED ALIGNMENT - FAIRMOUNT AVE

Quartly Radle Franklin 2/8/29



Sta	Grade +	Cut HI	−	Elev.	12
B.M.	1.25	330.23		329.98	Cut
6+41.82	313.3		0.15	330.08	16.78
7+00	312.2		3.98	326.25	14.05
7+58.85	311.0		5.56	324.67	13.67
8+00	310.2		8.31	321.92	11.72
8+50	309.2		10.96	319.27	10.07
T.P.	1.22	318.69	12.76	317.47	
9+00	308.2		2.16	316.53	8.33
9+50	307.2		4.43	314.26	7.06
10+07.69	306.0		6.33	312.36	6.36
10+50	303.3		8.57	310.12	6.82
11+00	300.2		11.16	307.53	7.33
T.P.	0.75	306.35	13.09	305.60	
11+50	297.1		1.32	305.03	7.93
12+00	294.1		3.68	302.67	8.57
12+51.62	291.0		5.82	300.53	9.53
13+00	290.4		9.61	296.74	6.33
T.P.	289.8				
13+50	4.17	298.50	12.02	294.33	4.53

Sta.	+	HI	−	Elev.	
		298.50			
14+07.88 F.L. Ext. MH			8.56	289.94	
B.M. top of bellat first joint N. of Pump house			8.93	289.57	
289.6 10 299.6 296.8	see page 64 for check.				

ETHELDA PLACE 2/11/29

	Grade	Cut			
B.M.	2.13	355.13		353.00	
0+00	342.00	C 9.91 ✓	4.22	351.91	Quarthy & Morgan & Stillman.
0+50	341.55	C 9.07	4.51	350.62	
MH #6 1+10	341.00	C 8.51	5.62	349.51	
1+50	335.78	C 11.65 ✓	7.70	347.43	
2+00	329.27	C 13.31 ✓	12.55	342.58	
Lateral					
0+50	345.04	6.15 ✓	3.94	351.19	
Plg. 0+86.5	348.00	4.33 ✓	2.80	352.33 ✓	
check on cut stake MH 5			2.68	352.45	(352.41)

2/15/2973

Additional Cuts bet. M.H. #3 & #2

	Grade +	Cut HI	−	Elev.	
B.M.	0.77	353.77		353.00	Quarthy & Ladies from Franklin ✓
T.P.	3.59	345.03	12.33	341.44	
T.P.	2.63	335.27	12.39	332.64	
T.P.	0.65	323.13	12.79	322.48	
6+25	314.28	C 5.59	3.26	319.87	
5+75	317.09	F 6.00	12.04	311.09	
5+44.81	318.79	C 1.75	2.59	320.54	
5+50	318.50 ✓		4.20	318.93	

318.50 1.41 317.09 2.81 314.28

318.50 4.24 314.26

VAN DYKE AVENUE
Stationing - Water Services

Sta.	R.	L.
0+30		✓
0+70		✓
1+05		✓
1+50 59		✓
2+10 59		✓
2+67 92	✓	
2+87		✓
3+03	✓	
3+43 85		✓
4+53 85		✓
4+93 85		✓
5+43 85		✓
5+83 85		✓
5+93 85		✓

ETHELDA PLACE

Sta.	R.	L.
1+50	✓	
1+60		✓
2+00	✓	✓
2+15		✓
For Lot 23		✓
For Lot 24	✓	
For Lot 25	✓	

VAN DYKE AVE

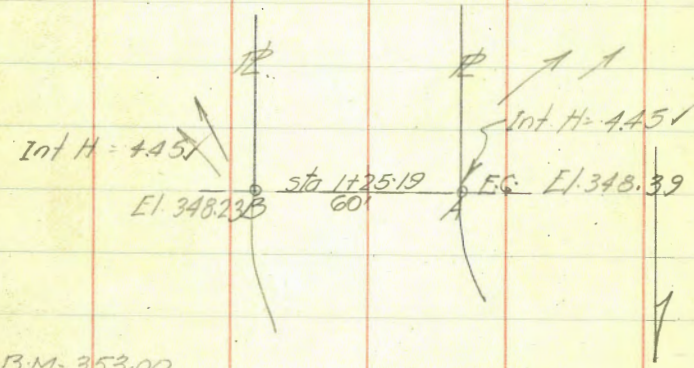
location of toe of slopes at Culvert

3/19/29

Q. (F.S. on front ten. both setups)

R.

F.

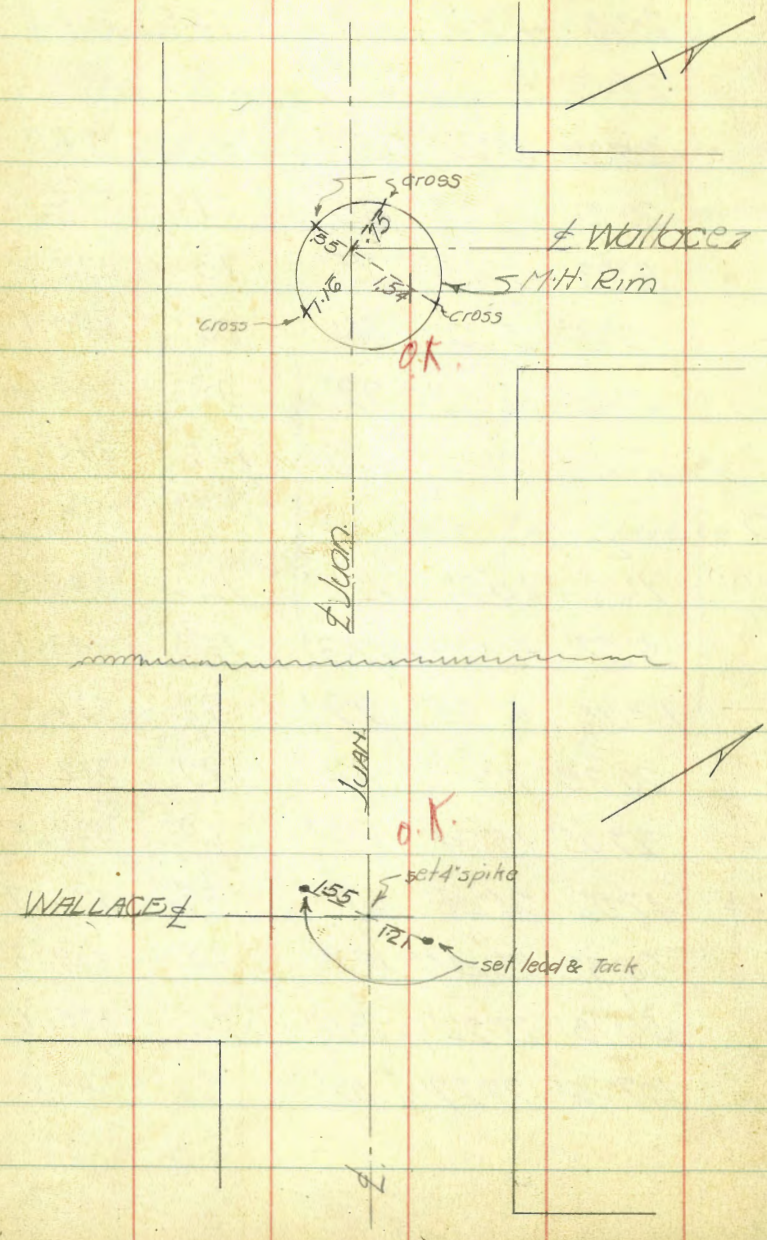


BM-353.00
3.24
6.24
8.01
348.23

356.24
7.85
348.39

	A	Hor. ∠ R	Vert ∠ -	Rod.	dist	Elev
	348.4	20°18'	9°40'	17	16.5	345.6
		29°43'	9°58'	35'	34	342.4
		25°33'	13°29'	50'	47	337.0
	℄ Headwall	20°10'	13°25'	65'	61	333.7
		16°23'	9°45'	75'	73	335.9
		10°13'	5°32'	86'	85	340.1
		5°03'	2°12'	99'	99	344.6
		2°01'	0°40'	106'	106	345.3
	B					
	348.4	L 1°56	+0°9'	122'	122	348.5
		5°57'	-2°22'	123'	123	343.1
		12°01'	6°54'	99'	98	336.4
		20°28'	11°11'	82'	79	332.6
		29°05'	15°24'	73'	68	329.5
	℄ Pipe	47°02'	24°46'	67'	55	322.7
		56°32'	25°45'	49'	40	329.0
		56°18'	27°22'	31'	24	335.6
		107°26'	27°27'	10'	8	344.0

Tieouts for ℄ Intersections



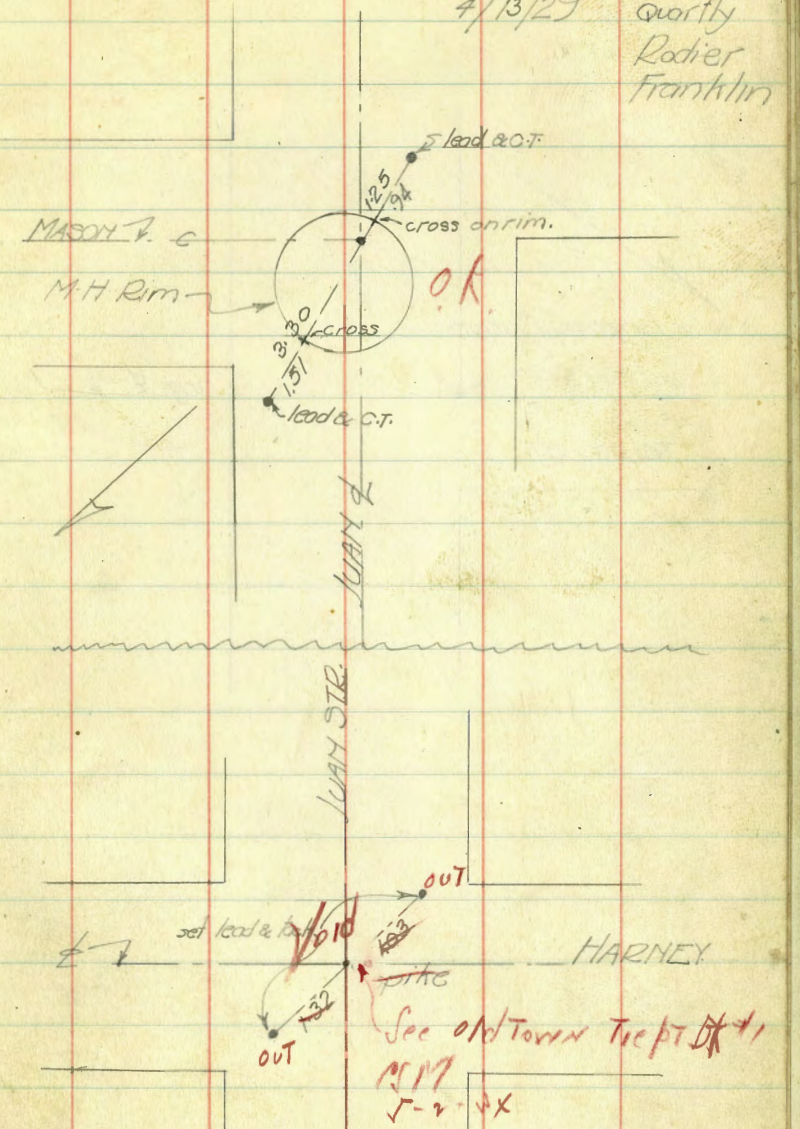
4/13/29

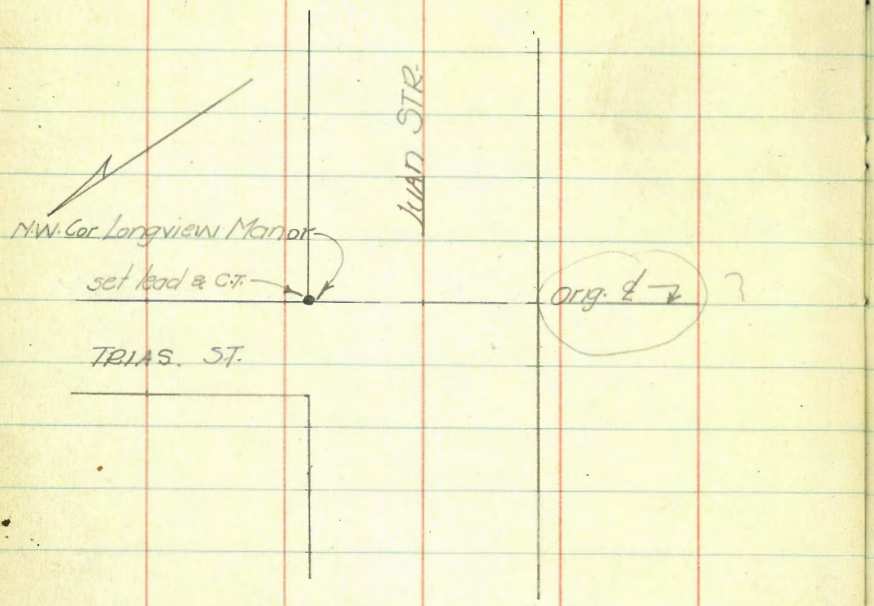
76

Quarterly

Rodier

Franklin




Juan Str.
N.W. Cor Longview Manor
set lead & C.T.
orig. ℄
?
TRIAS. ST.

14.66
3.52
18.18
13.86
4.32

18.18
13.10
5.08

18.18
12.65
5.53

18.18
11.99
6.19

36.89
1.02
37.91
25.75
12.16

37.91
25.00
12.91

37.91
26.07
11.84

37.91
25.50
12.41

4.84

49.74
46.90
2.84
2.52
.32

36.89
12.85
49.74
48.10
1.64
.35
1.29

2.67
67.81
70.48

70.48
64.40
6.08

70.48
65.40
5.08
3.00
2.08

70.48
66.40
4.08
2.93
1.15

27.08
26.64
.44

36.89
13.20
50.09
45.30
4.79

4.90
.38
4.52
1.68
2.84

67.81 B.M.
.26
68.07
64.05
4.02

67.81
7.78
75.59
65.40
10.19
6.75
3.94

67.81
3.10
70.91
66.60
4.31

67.81
4.81
72.62
65.40
7.22

2.92

336.73
.43
339.16
326.
13.16

18

354.24
10.34
343.90

Van Dyke Plans - Changes

Water Services: Omit to Lots 4, 5, 5, 6, 9, 10, 11, 12, 13, 14

Sewer Laterals: Omit Nos 2, 3, 4, 6, 7, 5, 8, 13, 14, 19

Man Holes: Omit No 5; Add two in Fairmount

Dead Ends: Omit Nos 3, 4, 5; Add one at NE Cor. Lot 9.

8" Sewer Main: Add 422'± in Fairmount

6" Sewer Main: Omit, MH 7 to DE 4
MH 5 to DE 3
MH 6 to DE 5
Add, MH 6 to pt 6' W of NE Cor Lot 29
Add, MH 5 (omitted) proctive sewer to DE at NE Cor Lot 9

4.61
8.60
13.21
8.16
5.05

15+05.70
10+00.67
505.03

5.05

5.00
.21
5.21

.763
6 3/4" = .53
8.16

.21
3 ∫ 63

Elev
OD = 5.00
20 = 5.21 ✓
40 = 5.42
60 = 5.63

13.21
4.92
9.19 ✓
5.21
3.98 C

13.21
3.20 ✓
10.01
5.42
4.59 C

13.21 H.I.
2.54
10.67
5.63 ✓
5.04 C

14.66
1.59
16.25 ✓
12.20
4.05

36.89
13.22
50.11
49.49
0.62

36.89
48
37.37
26.62
10.75

159.00 (4930 Bdy St. Kuebelbeck)

7" = .58

2.43
.58
3.01

4.61

4.57
.58
5.15

4.90
4.86
.04

4.88
.58
0.46

.7
156 ∫ 1.06
1092
290.10
289.85
.25

2.42
1.64

1.62
.58
2.20

289.57
.28
289.85
290.10
.25

22' CI 8"
17' Conc 8"
39'

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	.19	.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	1.85	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 ½ 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 1½.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	25.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

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

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