

# 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  $30.6 + (20 - 16) \div 2$  or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

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1692

CITY ENGINEER'S OFFICE

26563 - Man.  
17296 - Box City No

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

Levels proposed buildings East Side San Diego Athletic Stadium	60
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Walker Notes  
 4099 rch  
 Harding Rd  
 2-9-45

PARADISE HILLS  
 CROSS SECTION ALLEGHENY ST  
 60' Wide 10' chs 10' 1/4 s  
 from Rachel St. to Sea Breeze

USGS Datum = 149.34 B.M.  
 - 6.12.

	5.21	148.93		143.22	city Datum	= Above B.M.
TP #1	0.60	136.21	12.82	135.61		
TP #2	1.39	125.01	12.59	123.62		
TP #3	1.16	115.16	11.01	114.00		
TP #4	4.26	112.74	7.38	107.78		
TP #5	11.49	123.19	1.04	111.70		
TP #6	12.37	135.21	0.35	122.84		
TP #7	12.30	146.87	0.64	134.57		
TP #8	11.57	157.75	0.69	146.18		
TP #9	6.57	161.64	2.68	155.07		
TP #10	13.06	174.18	0.52	161.12		
TP #11	9.95	183.57	0.52	173.62	Allegheny	
TP #12	SE Top Fire Hydr.		0.94	182.63	Rachel	

check levels from starting B.M.

To TP #12

	5.17	148.39		143.22	Starting B.M.
TP #1	0.69	136.30	12.78	135.61	
TP #2	0.99	124.62	12.67	123.63	01
TP #3	1.02	115.02	10.62	114.00	
TP #4	5.00	112.80	7.22	107.80	

35' East and 35' South of S 8th & Harbison - North City,  
 USGS Brass Tablet in Conc. Mason Post

Check Levels Corat from Left Page

				112.80	44
TP #5	11.61	123.32	1.09	111.71	01
TP #6	12.13	134.98	0.47	122.85	01
TP #7	12.15	146.74	0.39	134.59	02
TP #8	11.59	157.79	0.54	146.20	02
TP #9	6.53	161.62	2.70	155.09	02
TP #10	12.93	174.07	0.48	161.14	02
TP #11	9.83	183.47	0.43	173.64	02
TP #12 on Fire Hydr.			0.82	182.65	02
Mean Elev "				182.64	B.M.
	0.87	183.46		182.64	Above Fire Hydr.

Set Brass Pky SE Rachel Allegheny	3.27	180.19			
TP	3.25	192.41	0.30	183.16	
TP	8.32	200.37	0.36	192.05	
Set SE Brass Pky Allegheny & Harbison	3.91	196.46			
TP	10.73	210.55	0.55	199.82	
Set SW Brass Pky Allegheny & Rec of	3.56	206.89			
TP	12.48	222.27	0.76	209.79	
TP	6.97	228.87	0.37	221.90	

Cont. P 2

x B.M.s on Allegheny St  
Cont. from p. 1

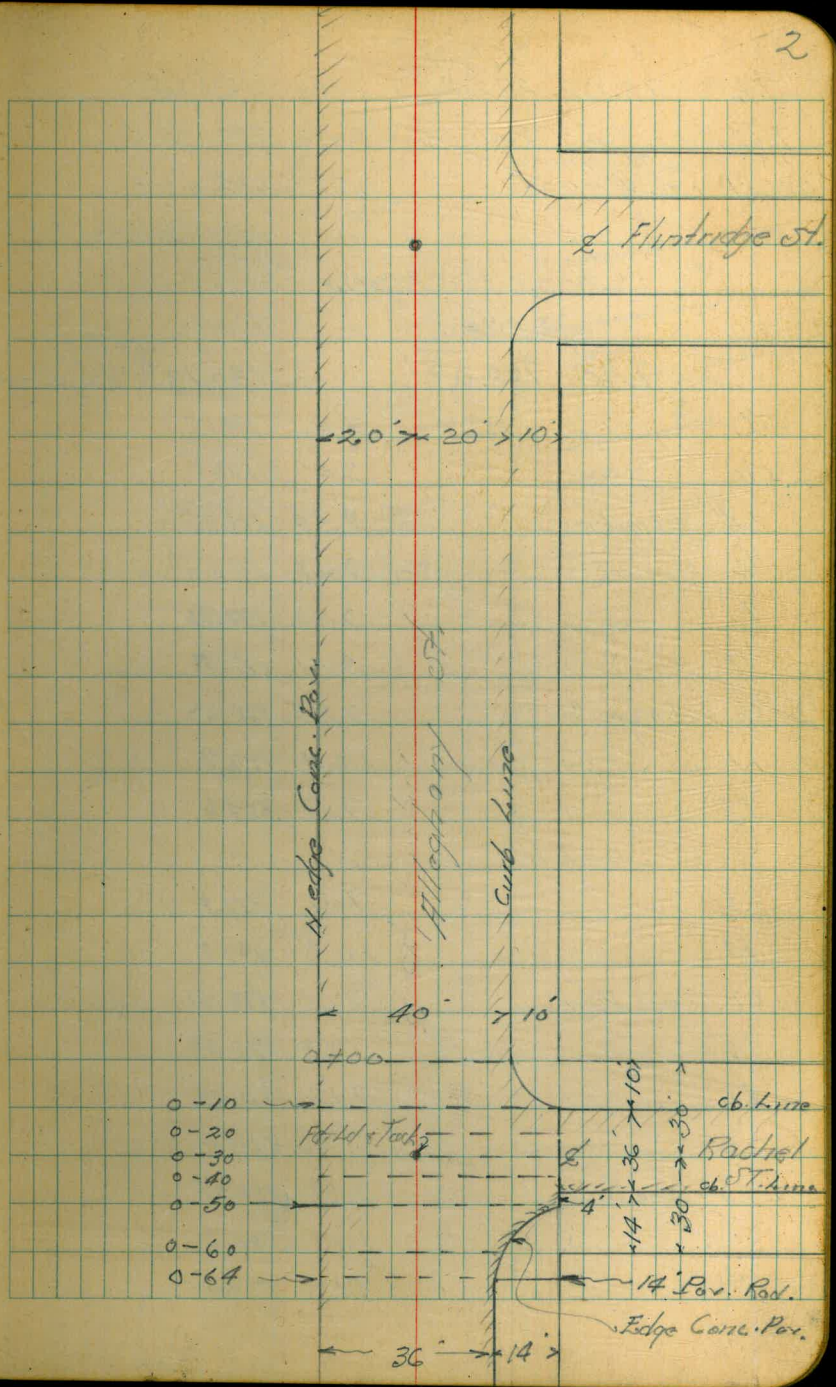
228.87

Set Brass Plg.				
SE. Allegheny & Rancho St	5.84	223.03	-	
TP	5.50	224.55	- 2.82	219.05
TP	12.61	236.53	- 0.63	223.92
Set Brass Plg.				
S.W. - Westport & Allegheny	9.54	226.99	-	
TP	11.49	247.66	- 0.36	236.17
TP	12.83	260.21	- 0.78	247.38
TP	12.34	271.80	- 0.75	252.46
TP	9.44	279.91	- 1.33	270.47
Set Brass Plg. Allegheny				
SE BREEZE	5.50	274.41	-	

~ Check Levels on New Branch Marks ~

Rachel's Allegheny from Rachel to Sea Breeze

SE. BP	11.28	191.47		180.19	B.M.
TP	9.21	200.27	0.41	191.06	
chk. SE. BP Allegheny & Flittridge	3.80	196.47			oi
TP	10.54	210.52	0.29	199.98	
chk. S.W. BP Allegheny & Reco	3.63	206.89			
TP	11.79	221.58	0.73	209.79	
TP	6.74	228.12	0.20	221.38	
chk. SE. BP Allegheny & Rancho	5.08	223.04			oi
TP	6.35	225.41	9.06	219.06	
TP	12.91	236.83	1.49	223.92	
chk. S.W. BP Allegheny & Westport	9.84	226.99			
TP	13.05	249.22	0.66	236.17	
TP	12.43	261.44	0.21	249.01	



T.P. 12.02 261.44 0.60 260.84  
 T.P. 7.53 280.09 0.30 272.56  
 JHK Allegheny 8  
 SW BR Joe Breeze 5.68 274.41 ✓

Cross Sections  
 0-6A

7.88 188.07'

10' cbs  
10' 1/4"

SE BR  
Radial  
+ Allegheny

180.19

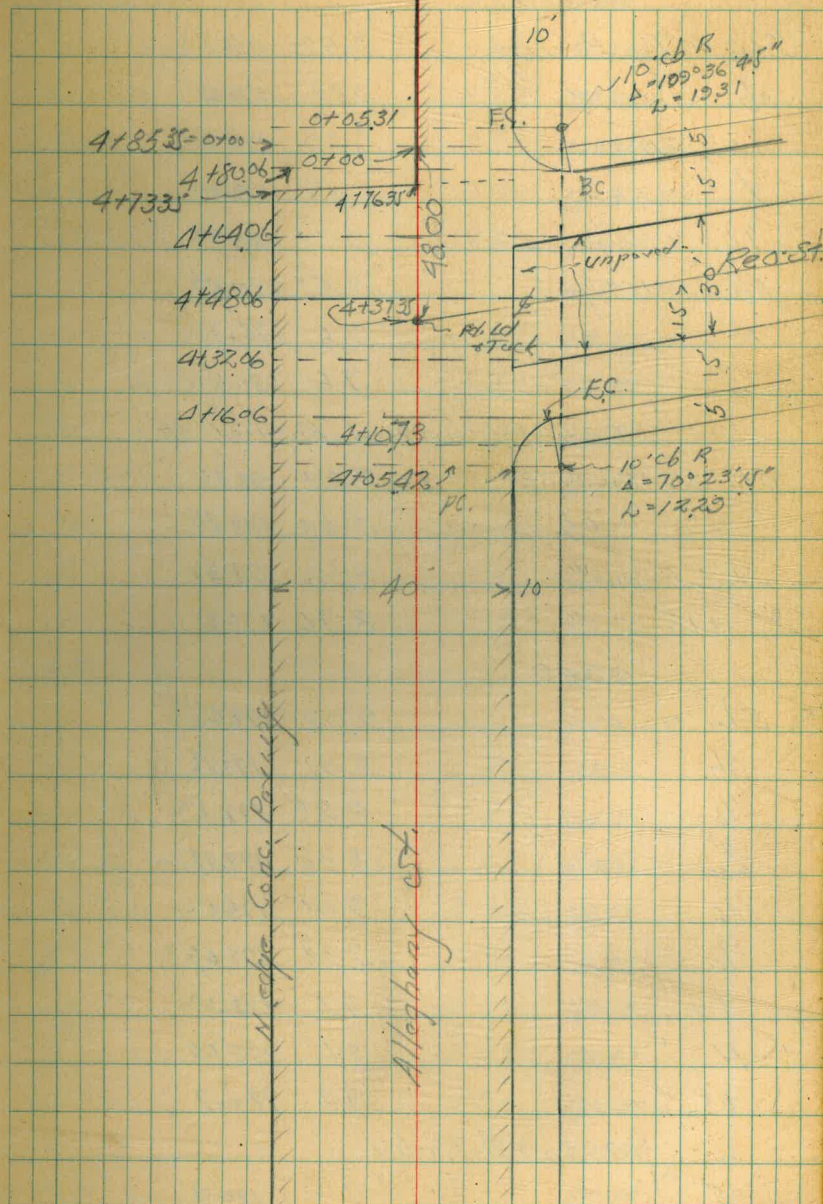
SL	9.2	178.9
cb	9.6	178.5
+4' edge Pav.	9.58	178.49
1/4	9.43	178.64
2/4	9.32	178.75
1/4	9.51	178.55
cb = 1/4 edge "	9.85	178.22
N	10.4	177.7
+3	7.5	180.6

0-60

3	7.2	181.9
N	10.3	177.8
cb. on Pav.	9.66	178.41
1/4	9.38	178.69
2/4	9.18	178.79
1/4	9.36	178.71
+6.4' edge Pav.	9.53	178.54
cb.	9.5	178.6
SL	9.1	179.0

Cont.  
p. 15

3



188.07  
0-50

S.L. on Top Pav. 179	2.52	178.55
cb. on "	2.32	178.65
1/4 on "	2.10	178.97
L " "	2.03	179.04
1/4 " "	2.21	178.86
cb. " N edge "	2.52	178.55
N	2.6	178.5
+3	7.6	181.5

0-46 = W cb. Luma Ractol S

S.L. on Conc. Gult.	2.21	178.86
" " " cb.	2.09	178.98
S.L. + 3' on "	8.58	179.49
+13 " "	8.76	179.31

0-40

S.L. on Pav.	2.02	179.05
cb.	8.91	179.16
1/4	8.85	179.22
L	8.88	179.19
1/4	2.05	179.02
cb.	2.38	178.69
+9	2.5	178.02
N	2.1	178.06
+5	7.4	180.7

0-30 = L Ractol

-5	7.7	180.4
N	2.1	179.0

188.07

4

cb. = N edge Pav	2.19	178.88
1/4 " "	8.86	179.21
L on "	8.72	179.35
1/4 " "	8.68	179.39
cb. " "	8.70	179.37
S.L. " "	8.82	179.25
0-2.0		
S.L. " Pav.	8.82	179.25
cb. " "	8.58	179.49
1/4 " "	8.50	179.57
L " "	8.55	179.52
1/4 " "	8.73	179.34
cb. " "	2.03	179.04
N	2.0	179.1
+5	6.9	181.2
0-1.0		
-5	6.5	181.4
N	8.4	179.7
cb. on Pav.	8.81	179.26
1/4 " "	8.51	179.56
L " "	8.36	179.71
1/4 " "	8.39	179.68
cb. " "	8.60	179.82
S.L. Gult.	8.87	179.20
" cb.	8.37	179.70
+10' on cb.	8.62	179.45

188.07

S.L. Ret. 3 Parts L = 15.71

S.L. Alleghany	8.37	179.20
① on cb	8.24	179.83
① on Gut.	8.77	179.30
② on cb	8.09	179.98
② " " Gut.	8.65	179.42
F.L. on F.L. Rachel cb	7.92	180.15
" " " " Gut	8.60	179.47

0+00 = F.L. Rachel St

S.L.	7.6	181.5
cb.	7.92	180.15
Gut.	8.60	179.47
1/4	8.27	179.80
2/4	8.18	179.89
1/4	8.33	179.74
cb.	8.64	179.43
N	8.5	179.6
+5	6.4	181.7

0+50

-5	5.2	182.9
N	6.6	181.5
+1	7.7	180.4
cb.	7.52	180.58
1/4	7.23	180.84
2/4	7.10	180.97
1/4	7.24	180.83

188.07

5

S.Gut.	7.55	180.52
S cb.	6.69	181.38
S.L.	6.1	182.0
	1400	
S.L.	4.9	183.2
cb.	5.47	182.60
Gut.	6.26	181.81
1/4	6.01	182.06
2/4	5.87	182.20
1/4	5.98	182.19
cb.	6.29	181.78
N	6.0	182.1
+5	3.8	184.3
	1750	
-5	2.1	186.0
N	4.0	184.0
+2	5.2	182.9
cb. on Ret.	5.10	182.97
1/4	4.77	183.30
2/4	4.63	183.44
1/4	4.77	183.30
Gut.	5.03	183.04
cb.	4.28	183.79
S.L.	3.6	184.5
	2400	
S.L.	2.9	185.8



2100 188.07

S-cb.	3.15	184.92
Gut.	3.23	184.14
1/4	3.62	184.48
L.	3.46	184.61
1/4	3.58	184.49
cb.	3.89	184.18
+8	4.1	184.0
N	3.1	185.0
+5	1.3	186.8

2+50

-5	0.4	187.7
N	1.6	186.5
+2	2.8	185.3
cb.	2.65	185.42
1/4	2.41	185.66
L.	2.32	185.75
1/4	2.45	185.62
Gut.	2.73	185.34
cb.	2.07	186.00
S.L.	1.6	186.5

3100

S.L.	0.8	187.09
cb.	0.84	187.23
Gut.	1.47	186.60
1/4	1.15	186.92
L.	0.98	187.09

188.07

6

11/11	11.3	186.94
cb.	1.45	186.62
N	1.5	186.6
+5	0.5	187.6
TD	11.37	199.38
	0.06	188.01
	3+50	

-5	11.0	188.4
N	11.7	187.7
cb.	11.50	187.88
1/4	11.19	188.19
L.	11.04	188.34
1/4	11.22	188.16
Gut.	11.53	187.85
cb.	10.97	188.41
S.L.	10.9	188.5

4+00

S.L.	9.5	189.9
cb.	9.71	189.67
Gut.	10.34	189.04
1/4	10.05	189.33
L.	9.88	189.50
1/4	9.26	189.42
cb.	10.25	189.13
N	10.4	189.0
+5	9.5	189.9

#9 199.38

4+50

-5	8.2	191.2
N	9.1	190.3
cb.	9.11	190.27
1/4	8.81	190.57
2.	8.70	190.68
1/4	8.86	190.52
cut.	9.15	190.23
cb.	8.48	190.90
St.	8.3	191.1

5+00

St.	7.1	192.3
cb	7.26	192.12
cut.	7.21	191.47
1/4	7.64	191.74
2.	7.50	191.88
1/4	7.63	191.75
cb.	7.94	191.44
N	7.8	191.6
+5	5.8	193.6

5+50

-5	5.2	194.2
N	6.4	193.0
+2	6.9	192.5
cb.	6.70	192.68
1/4	6.37	193.01

199.38

7

2	6.18	193.20
1/4	6.37	193.01
cut.	6.73	192.65
cb.	6.10	193.28
St.	5.7	193.7

6+00

St.	4.5	194.8
cb	4.22	194.46
cut.	5.50	193.88
1/4	5.24	194.14
2.	5.14	194.24
1/4	5.21	194.17
cb.	5.46	193.92
cut 8'	5.9	193.5
N	5.2	194.2
+5	3.6	195.8

6+45.07 - 1/4 L. Floodridge St. 50' wide at 100 lbs 75' lbs.

-5	2.4	197.0
N	4.3	195.1
cb.	4.45	194.93
1/4	4.18	195.20
2.	4.85	195.33
1/4	4.13	195.25
cut.	4.37	195.01
cb	3.87	195.51
St.	3.8	195.6

199.38

SW Ref. 15.71 = Length		3 Parts	
PC. on W.L. Flintridge	cb	3.87	195.51
"	Gut	4.37	195.01
①	on cb.	3.76	195.66
"	" Gut	4.13	195.25
②	" cb.	3.63	195.75
"	" Gut	3.93	195.45
E.C. = S.L. Allegheny	Gut	3.97	195.41
"	cb.	3.54	195.84
10' South on "		3.61	195.77
" " " Gut		4.24	195.14

## W cb. Flintridge

5 cb. on Perry.		3.97	195.41
+10' = 5 1/4 on "		3.85	195.53
5		3.83	195.55
1/4		3.96	195.42
cb.		4.23	195.15
N		4.2	195.2
+5		1.8	197.6
	W 1/4		
-5		1.2	198.2
N		3.9	195.5
cb.		4.12	195.26
1/4		3.83	195.55
5		3.68	195.20
5 1/4		3.65	195.75

199.38

8

5 cb.		3.75	195.63
5 1/4		3.74	195.64
	W Flintridge		
5 L.		3.51	195.87
cb.		3.57	195.81
1/4		3.52	195.86
5		3.51	195.87
1/4		3.71	195.67
cb.		3.99	195.39
N		3.8	195.6
+5		0.9	198.5

## E 1/4

-5		1.5	197.9
N		3.1	196.3
+2		4.0	195.4
cb.		3.79	195.59
1/4		3.55	195.83
5		3.41	195.92
1/4		3.43	195.95
cb.		3.54	195.84
5 L.		3.52	195.86

## E cb

-10	on cb.	3.03	196.35
-10	" Gut.	3.67	195.71
5 L.	cb.	3.89	195.48
"	Gut.	3.51	195.82

19938

5cb.	3.56	195.82
"	3.33	196.05
b	3.25	196.13
"	3.42	195.96
cb.	3.70	195.68
+8	3.7	195.7
"	3.0	196.4
+5	1.8	197.6

0+00 = E.L. Flintridge St.

-5	1.1	198.2
"	2.8	196.6
+2	3.7	195.7
cb.	3.55	195.83
"	3.24	196.14
L	3.05	196.33
"	3.23	196.15
cb. on Gut.	3.53	195.85
" " cb	2.91	196.47
J.L.	2.6	196.8

S.F. Ret.

① on cb.	2.95	196.43
" " Gut	3.54	195.84
2 " cb	2.91	196.47
" " Gut.	3.55	195.83
E.C. = S.L. Alleghany cb.	2.91	196.47
" " " Gut.	3.53	195.85

19938

9

T.H. S.E. B.P. Alleghany	2.88	196.50
--------------------------	------	--------

12.70	2.02	16	0.04 Error	196.46
π corrected				
0 + 50				

J.L.	11.1	198.1
cb	11.53	197.63
Gut.	12.16	197.00
"	11.85	197.31
b	11.70	197.46
"	11.84	197.32
cb	12.15	197.01
"	12.0	197.2
+5	10.2	199.0

1400

-5	8.3	200.9
"	10.7	198.5
cb	10.20	198.26
"	10.59	198.47
L	10.94	198.22
"	10.67	198.47
Gut.	11.03	198.13
cb	10.34	198.82
J.L.	9.8	199.4

1750

S.L.	8.7	200.5
------	-----	-------

209.16

1+50 Cont. from P-9

S.cb.	8.99	200.17
Gut.	9.65	199.51
1/4	9.33	199.83
L.	9.18	199.98
1/4	9.35	199.81
cb	9.63	199.53
H	9.3	199.9
+5	5.8	203.4

2+00

-5	5.6	203.6
H	8.1	201.1
cb.	8.43	200.73
1/4	8.08	201.08
L.	7.93	201.23
1/4	8.10	201.06
Gut.	8.43	200.73
cb.	7.75	201.41
S.L.	7.6	201.6

2+50

S.L.	6.21	202.95
cb.	6.51	202.65
Gut.	7.13	202.03
1/4	6.81	202.35
L.	6.69	202.47
1/4	6.84	202.32

209.16

10

N.cb. - N edge Porphy.	7.15	202.01
H	6.7	202.5
+5	4.4	204.8

3+00

-5	3.7	205.5
H	5.2	204.2
cb.	5.40	203.76
1/4	5.20	203.96
L.	5.15	204.01
1/4	5.40	203.76
Gut.	5.80	203.36
cb.	5.25	203.91
S.L.	5.0	204.2

3+50

S.L.	3.9	205.3
cb.	3.95	205.21
Gut.	4.55	204.61
1/4	4.01	205.15
L.	3.67	205.49
1/4	3.52	205.64
N.cb.	3.54	205.62
H	3.5	205.66
+5	1.9	207.3

4+02.85

-5	1.02	209.4
H	1.5	202.7

410285 20916			
Ncb. - N edge Pav.	1.62	207.54	
1/4	1.80	207.36	
1/2	1.99	207.17	
3/4	2.53	206.63	
Ent.	3.03	206.13	
cb	2.31	206.85	
SL	2.8	206.4	
chk. SW 1/4 BP Allegheny & Poc	2.29	206.87	
on B.M. 2.67 216.56'		206.89	002 Error
SW Ret. Poc st.			
PC on cb.	2.71	206.85	
" " Ent	10.34	206.22	
E.C. on cb.	9.85	206.71	
" " Ent	10.30	206.26	
10' South on cb.	10.17	206.39	
" " " Ent	10.71	205.85	
4+10.73 = Pt. A to SW Cor.			
SL	10.0	206.6	
183' cb.	9.75	206.81	
Ent.	10.21	206.35	
cb. on Pav.	10.19	206.37	
1/2	9.63	206.93	
1/4	9.11	207.45	
1/4	8.82	207.77	
cb.	8.76	207.84	
N	8.5	208.1	
+5	6.7	209.9	

216.56			
4+32.06			
-5	6.1	210.5	
N	7.9	208.7	
cb.	8.01	208.55	
1/4	8.24	208.32	
1/2	8.62	207.94	
1/4	8.74	207.82	
cb. - S edge Pav.	9.00	207.56	
St. - E " "	9.32	207.74	
4+48.06			
St. Ground	8.6	208.0	
5cb. - S edge Pav. 1/4	8.49	208.07	
1/4	8.30	208.26	
1/4	8.25	208.31	
1/4	7.77	207.79	
Ncb.	7.41	209.15	
N	7.0	209.6	
+5	6.7	209.9	
4+69.06			
-5'	6.0	210.6	
N	6.5	210.1	
Ncb.	6.85	209.71	
1/4	7.30	209.26	
1/2	7.93	208.63	
1/4	7.94	208.62	
cb.	8.04	208.52	
St. - N edge Pav. 1/4	8.13	208.43	

216.56

477635 = drag. Section = Break in Paving

SL		
17' = at cb Ret. on cb	6.80	209.76
" " " Gut	7.60	208.96
cb. on Paving	7.66	208.90
"	7.64	208.92
6 = N edge Paving to East	7.67	208.89
N 1/4 on East edge Pav.	7.12	209.44
N cb. on N edge Pav. to West	6.68	209.88
N	6.3	210.3
+5	5.6	211.0

478535 = 0+00 = Rts to S.E. Road

-5	4.1	212.5
N	4.7	211.9
cb.	5.6	211.0
1/4	5.8	210.8
2 = N edge Paving	6.85	209.71
1/4	7.19	209.37
cb.	7.46	209.10
+2 Gut at Ret.	7.49	209.07
" on cb. "	6.65	209.91
SL	6.8	209.8

S.E. Ret 12.31 - length 3 Parts

E.C. on cb.	6.27	210.29
" " Gut	6.93	209.63
① " cb	6.70	209.86
" " Gut.	7.55	209.01

216.56 -

12

② on cb.	6.93	209.63
" " Gut.	7.62	209.94
B.C. on cb.	7.00	209.54
" " Gut.	7.70	209.66
10' South on cb	7.39	209.17
" " " Gut	8.03	208.53
0+50	X	
SL	1.4	215.2
+4	2.3	214.3
cb.	2.01	214.55
Gut.	2.64	213.92
1/4	2.2.3	214.33
2 = N edge Pav	1.86	214.70
1/4	1.1	215.5
cb.	0.4	216.2
N	+0.8	217.4
+5	+1.3	217.9
T.P. 13.06	227.91	1.71
	0+7975 = Bit	214.85
-5	7.6	220.3
N	8.1	219.8
cb.	9.2	218.7
1/4	10.1	217.8
2 = N edge Pav	10.6	217.30
1/4	10.85	217.06
Gut.	11.10	216.81
cb.	10.47	217.44
16.5	10.6	217.5
SL	9.8	218.1

227.91

1+04.75=Brk.

SL	8.2	219.7
+5	8.6	219.3
cb.	8.43	219.48
cut.	9.05	218.81
1/4	8.87	219.04
L = N edge Pav.	8.72	219.19
1/4	8.0	219.9
cb.	7.3	220.6
N	6.3	221.6
+5	6.0	221.9

1+29.75=Brk.

-5	4.7	223.2
N	4.8	223.1
cb.	6.0	221.9
1/4	6.2	221.7
L = N edge Pav.	7.12	220.79
1/4	7.37	220.54
cut.	7.49	220.42
cb.	6.87	221.04
+5	7.0	220.9
SL	6.6	221.3

1+54.75

SL	6.1	221.8
cb.	5.80	222.11
cut.	6.43	221.48

Note: 1+26 = S. Proposed 12' Conc. Drive on North  
 Grades - Grade Book 215 - P 38

227.91

13

1/4	6.18	221.73
L = N edge Pav.	5.89	222.02
1/4	5.1	222.8
cb.	4.5	222.4
N	3.4	224.5
+5	2.8	225.1

1+79.75

-5	1.9	226.0
N	2.4	225.5
cb.	3.3	224.6
1/4	4.3	223.6
L = N edge Pav.	5.02	222.89
1/4	5.37	222.54
cut.	5.65	222.26
cb.	5.07	222.84
SL	5.0	222.91

2+04.75

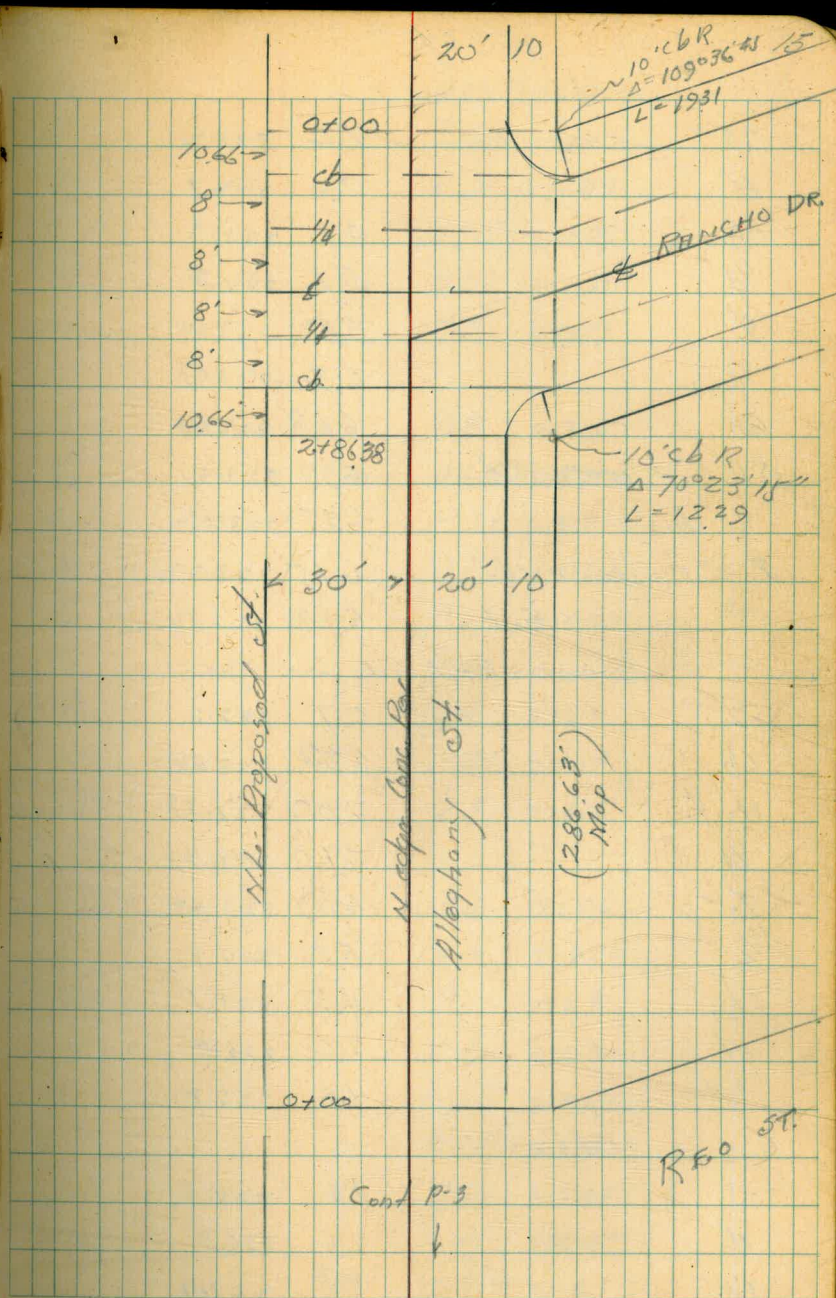
SL	4.6	223.3
cb.	4.47	223.44
cut.	5.10	222.81
1/4	4.74	223.19
1/4	4.35	223.56
1/4	3.7	224.2
cb.	2.9	225.0
N	1.5	226.4
+5	1.1	226.8



	227.91			
chk BM	6.34	229.37	4.88	223.03
	2+29.75			
-5			2.0	222.4
N			2.6	226.8
cb.			4.0	225.4
1/4			4.6	224.8
L = N edge Park			5.34	224.03
1/4			5.82	223.55
Gut.			6.76	223.11
cb.			5.65	223.72
SL.			5.7	223.7
	2+59.75			
SL.			5.1	224.3
cb.			5.59	223.78
Gut.			6.12	223.18
1/4			5.69	223.68
L = N edge Park			5.16	224.21
1/4			4.3	225.1
cb.			3.8	225.6
N			2.3	227.1
+5			1.7	229.7
	2+79.75			
-5			1.5	227.9
N			2.2	227.2
cb.			3.9	225.5
1/4			4.3	229.1

	229.37			
L.			5.28	224.8
1/4			5.77	223.60
Gut.			6.17	223.20
cb.			5.55	223.82
SL.			5.5	223.9
	2+86.38 - Rt. & 6 SW Cor Rancho St			
SL.			5.7	223.7
cb.			5.56	223.81
Gut.			6.18	223.19
1/4			5.78	223.59
L.			5.32	224.05
1/4			4.3	225.1
cb.			3.9	225.4
N			2.7	226.7
+5			1.8	227.6
	W cb Rancho Dr. sketch P-15			
-5			1.8	222.6
N			2.2	227.2
cb.			3.9	225.5
1/4			4.47	224.90
L.			5.41	223.96
1/4			5.80	223.57
cb.			6.18	223.19
SL. Gut.			6.89	222.48
cb. = E.C. Rd.			6.20	223.17
L (Rt. L=1229)			cb. 5.65	223.72
	SW Cor Rancho Gut 6.31			

SL.	W 1/4	229.37	6.64	222.93
cb.			6.14	223.23
1/4			5.83	223.54
1/2			5.46	223.91
1/4			4.7	224.7
cb.			4.0	225.4
N			4.7	224.9
+5			1.4	228.0
	2			
-5			1.3	228.1
N			2.3	227.1
cb.			4.1	225.3
1/4			4.7	224.7
1/2			5.57	223.80
1/4			5.94	223.43
cb.			6.25	223.12
SL.			6.41	222.96
	E 1/4			
SL.			6.63	222.77
cb.			6.39	222.88
1/4			6.07	223.30
1/2			5.67	223.90
1/4			4.9	224.5
cb.			4.2	225.1
N			2.6	226.8
+5			1.4	228.0



22937

E. cb. Rancho Dr.

-5	1.2	222.2
N	2.0	222.4
cb.	4.1	223.3
1/4	5.1	224.3
1/2	5.82	223.55
3/4	6.30	223.07
cb.	6.68	222.69
S.L. Gut. of <del>EE</del> Ret	6.97	222.40
" cb.	6.35	223.02
L. 55 Ret on cb	6.15	223.22
" " Gut	6.83	222.54

0+00 = R+Δ JK Gr Rancho

S.L.	6.7	222.7
cb.	6.33	223.04
Gut.	7.00	222.37
1/4	6.60	222.77
1/2	6.09	223.27
3/4	5.3	224.1
cb.	4.3	225.1
N	2.6	226.8
+5	1.6	222.8

0+50

-5	1.8	222.6
N	2.5	226.9
cb.	5.5	223.9

0+60 = L 10' steps on N

22937

16

1/4	6.9	222.4
1/2	7.55	221.82
3/4	8.14	221.23
Gut	8.63	220.74
cb.	8.01	221.36
S.L.	7.7	221.7
1+00		
S.L.	9.8	219.6
cb.	9.63	219.71
Gut.	10.28	219.09
1/4	9.73	219.64
L.	9.17	220.20
1/2	8.1	221.3
cb.	6.4	223.0
N	5.4	224.0
+5	2.8	226.6
1+50		
-5	3.8	225.6
N	5.9	223.5
cb.	7.5	221.9
1/4	9.2	220.2
1/2	10.68	218.69
3/4	11.21	218.16
Gut.	11.69	217.65
cb.	11.09	218.25
S.L.	11.3	218.1

22937

1769.81 = PVC

SL.	11.5	217.7
cb.	11.4	218.0
Gut.	12.05	217.32
1/4	11.58	217.79
1/2	11.08	218.29
1/4	9.5	219.9
cb.	7.6	221.8
N	6.1	223.3
+5	4.0	225.7

1789.81

-5	4.6	224.8
N	6.5	222.9
cb.	8.0	221.4
1/4	10.0	219.4
1/2	11.56	217.81
1/4	12.09	217.28
Gut.	12.61	216.76
cb.	11.92	217.45
+5	11.8	217.6

SL. 11.0 218.4

T.P. 10.42 227.89 11.97 217.40

2714.81 = West end 10' cb. Inlet on South

SL.	10.6	217.3
cb.	10.69	217.20
Gut. = Flow Grotting	11.64	216.25

22789

17

5'E = 9 Inlet Gut.	11.69	216.25	Grotting = 3.5 x 2'
10'E = Edge Inlet Gut	11.59	216.30	
" " " cb.	10.61	217.28	
S 1/4	10.89	217.00	
1/2	10.27	217.62	?
N 1/4	8.5	219.4	
cb.	6.8	221.1	
N	5.4	222.5	
+5	3.5	224.4	

2739.81

-5	3.9	224.0
N	5.7	222.2
cb.	7.1	220.8
1/4	8.6	219.3
1/2	10.26	217.63
1/4	10.71	217.17
Gut.	11.28	216.71
cb.	10.55	217.34
SL.	10.6	217.3

2764.81 PVC

SL.	10.7	217.2
cb.	10.23	217.66
Gut.	10.85	217.04
1/4	10.39	217.50
1/2	10.00	217.89
1/4	8.6	219.3

227.89

Ncb	69	221.0
N	61	221.8
+5	40	223.9

3+00

-5	4.6	223.3
N	6.4	221.5
cb.	6.8	221.1
1/4	8.2	219.7
L.	9.41	218.48
1/4	9.78	218.4
Gut.	10.16	217.73
cb.	9.54	218.35
SL.	9.7	218.2

3+50

SL.	8.4	219.5
cb.	8.58	219.31
Gut.	9.19	218.70
1/4	8.81	219.08
L.	8.38	219.51
1/4	7.4	220.5
cb.	6.2	221.2
N	5.5	222.4
+5	4.9	223.0

4+00

-5	5.1	222.8
N	5.9	222.6

227.89

18

cb.	5.8	222.1
1/4	6.5	221.4
L.	7.29	220.60
1/4	7.77	220.12
Gut.	8.18	219.71
cb.	7.60	220.29
SL.	7.3	220.6

4+14.81 - PVC

SL.	7.3	220.6
cb.	7.22	220.60
Gut.	7.84	220.05
1/4	7.38	220.51
L.	6.94	220.95
1/4	6.1	221.8
cb.	5.5	222.4
N	5.0	222.9
+5	5.0	222.9

4+39.81

-5	4.5	223.4
N	4.6	223.3
cb.	4.8	223.1
1/4	5.5	222.4
L.	6.23	221.66
1/4	6.65	221.24
Gut.	7.16	220.73
cb.	6.54	221.35
SL.	6.9	221.0

22789

4+64.81

SL.	6.0	221.9
cb.	5.57	222.32
Gut.	6.17	221.22
1/4	5.61	222.28
1/2	5.21	222.68
1/4	4.6	223.29
cb.	4.1	223.8
N	3.8	224.1
+5	3.6	224.3

4+89.81

-5	2.5	225.3
N	2.7	225.2
cb.	3.1	224.8
1/4	3.6	224.3
1/2	3.90	223.99
1/4	4.37	223.52
Gut.	4.90	222.99
cb.	4.29	223.70
SL.	4.5	223.4

5+1281 = E.V.C.

SL.	3.0	224.9
cb.	2.79	225.10
Gut.	3.45	224.44
1/4	2.99	224.90
d	2.53	225.36

22789

19  
3308

N 1/4	2.4	225.5		
cb.	2.0	225.9		
N	1.8	226.1		
+5	1.6	226.3		
5+25.67 = Nap = W.L. Westport 37 1/2 145				
-5	+1.6	229.5		
N	+1.6	229.5		
cb.	+0.4	228.3		
1/4	0.4	227.5		
1/2	0.78	227.11		
1/4	1.13	226.76		
Gut.	1.52	226.37		
cb.	0.91	226.98		
SL.	0.81	227.08		
T.P. 11.34	2.38, 3.3	0.90	226.29	SW.B.P. Westport + Allegheny
1/2 SW. Ret. Westport	on cb.	10.71	227.62	
" " " " " " " "	Gut.	11.40	226.93	
W cb. Westport st.				
SL. on cb.		10.41	227.92	
" " Gut.		11.06	227.29	endo
cb. on Pav.		11.14	227.19	
1/4 " "		10.26	227.57	
1/2 " "		10.71	227.62	
1/4 " "		10.3	228.03	
cb.		9.0	229.33	
N		8.4	229.93	
+5		8.5	229.83	

238.33

W 1/4 Westport St.

-5	7.8	230.53
N	8.0	230.33
cb	8.7	229.63
1/4	10.0	228.33
L - N edge Porcupine	10.33	228.00
1/4 on "	10.51	227.82
cb	10.61	227.72
SL	10.55	227.78

L Westport

SL	10.04	228.29
Grat.	10.21	228.12
1/4	10.06	228.27
L	9.90	228.43
1/4	9.4	228.93
N cb.	8.0	230.33
N	7.8	230.53
+5	7.5	230.83

E 1/4 Westport

-5	6.5	231.83
N	6.9	231.43
cb	7.4	230.93
1/4	9.0	229.33
L	9.55	228.78
1/4	9.73	228.60
cb	9.92	228.41

238.33

20

SL

10.00

E. cb.		
SL on cb.	9.37	228.96
" " Grat.	9.95	228.38
cb. on Por.	9.68	228.65
1/4	9.39	228.94
L	9.11	229.22
N 1/4	8.3	230.03
cb.	6.7	231.63
N	5.7	232.63
+5	5.7	232.63

0+00 = E.L. Westport St.

-5	5.2	233.13
N	4.6	233.73
cb	5.8	232.53
+5	7.3	231.03
1/4	7.5	230.83
L	8.33	230.00
1/4	8.79	229.54
Grat.	9.17	229.16
cb.	8.52	229.81
SL	7.9	230.43

L S.E. Rot. Westport St.

on cb.	8.91	229.42
" Grat.	9.61	228.72

238.33

0+25

S.L.	6.0	232.33
cb.	5.80	232.53
Gut.	6.44	231.89
"H	5.87	232.46
Σ	5.36	232.97
"H	4.6	233.73
cb.	3.3	233.03
N	3.4	234.93
+5	3.4	234.93

0+50

-5	0.0	238.33
N	0.2	238.13
cb.	0.8	237.53
"H	1.5	236.83
Σ	2.07	236.26
"H	2.68	235.65
Gut.	3.32	235.01
cb.	2.71	235.62
S.L.	2.8	235.53
T.P.	12.82	251.02
	0.13	238.20

0+75

S.L.	12.4	238.62
cb.	12.17	238.85
Gut.	12.77	238.25
"H	12.08	238.94

251.02

2.1

Σ	11.96	239.56
"H	10.8	240.22
cb.	9.8	241.22
N	9.2	241.82
+5	9.4	241.62

1+00

-5	5.7	245.32
N	5.7	245.32
cb.	7.0	244.02
"H	7.7	243.32
Σ	8.18	242.84
"H	8.85	242.17
cb. Gut.	9.46	241.56
on cb.	8.86	242.16
S.L.	8.8	242.22

1+25

S.L.	5.1	245.92
cb.	5.52	245.50
Gut.	5.12	245.90
"H	5.53	245.49
Σ	4.92	246.10
"H	4.5	246.52
cb.	3.8	247.22
N	3.6	247.42
+5	3.2	247.82



	1+50	251.02		
-5			0.3	250.72
N			0.5	250.52
cb			0.7	250.32
1/4			1.4	249.62
2			1.68	249.34
1/4			2.24	248.78
Gut.			2.82	248.20
cb.			2.21	248.81
SL			2.2	248.82
T.P.	12.57	262.96	0.63	250.39

	1+75			
SL			10.9	252.06
cb			10.95	252.01
Gut.			11.51	251.45
1/4			10.98	251.98
2			10.39	252.57
1/4			9.9	253.06
cb.			9.3	253.66
N			9.0	253.96
+5			8.0	254.96

	1+94.25 = P.V.C			
-5			6.3	256.66
N			6.7	256.26
cb.			6.8	256.16
1/4			7.5	255.46
2			7.99	254.97

	262.96			22
5 1/4		8.63		254.33
Gut.		9.15		253.81
cb.		8.54		254.42
SL		8.8		254.16
	2+19.25			
SL		5.4		257.56
+3		6.0		256.96
cb.		5.60		257.36
Gut.		6.22		256.74
1/4		5.59		257.57
2		4.91		258.05
1/4		4.4		258.56
cb.		3.7		259.26
N		2.2		260.76
+5		1.6		261.36
	2+44.25			
-5		+0.8		263.76
N		+0.5		263.46
cb.		0.5		262.46
1/4		1.5		261.46
2		2.06		260.90
1/4		2.82		260.14
Gut.		3.52		259.44
cb.		2.92		260.04
SL		3.0		259.96
T.P.	14.6	273.33	10.2	261.87

273.33

2+6925

SL.	10.9	262.43
cb.	10.83	262.50
Gut.	11.45	261.88
1/4	10.75	262.58
2	10.02	262.31
1/4	9.6	263.73
cb.	8.3	265.03
N	7.5	265.83
+5	7.2	266.13

2+9425

-5	5.4	267.93
N	5.5	267.83
cb.	6.3	267.03
1/4	7.5	265.83
2	7.90	265.43
1/4	8.60	264.73
Gut.	9.26	264.07
cb.	8.63	264.70
SL.	8.7	264.63

3+1975

SL.	6.8	266.53
cb.	6.55	266.78
Gut.	7.18	266.15
1/2	6.60	266.73
2	5.92	267.41

27333

23

1/4	5.7	267.63
cb.	4.3	269.03
N	3.3	270.03
+5	2.9	270.43

3+4425

-5	2.0	271.33
N	2.3	271.03
cb.	2.9	270.43
1/4	4.1	269.23
2	4.19	269.14
1/4	4.76	268.57
Gut.	5.28	268.05
cb.	4.65	268.68
SL.	4.7	268.63

3+6925

SL.	3.1	270.23
cb.	3.12	270.21
Gut.	3.73	269.60
1/4	3.23	270.10
<del>1/4</del>	2.67	270.66
1/4	2.4	270.93
cb.	1.2	272.13
N	0.3	273.03
+5	0.0	273.33

TP	7.20	279.13	140	271.93
----	------	--------	-----	--------

27913

3+2425

-5	4.4	274.73
N	4.7	274.43
cb	5.7	273.43
1/4	6.9	272.22
L	7.20	271.92
1/4	7.78	271.35
Grut.	8.25	270.88
cb	7.62	271.51
SL	7.7	271.43

4+1925

SL	6.8	272.33
cb	6.72	272.41
Grut.	7.34	271.79
1/4	6.83	272.70
L	6.30	272.83
1/4	5.9	273.23
cb	4.7	274.43
N	3.8	275.33
T5	3.2	275.93

4+50

-5	2.3	276.83
N	3.4	275.73
cb	4.0	275.13
1/4	5.0	274.13
q. on Pav.	5.32	273.81

27913

24

1/4	5.83	273.30
Grut.	6.36	272.77
cb	5.75	273.38
SL	5.9	273.23
(4+80.72) (4+79.75) =	W.L. SEA BREEZE ST.	
SL	5.0	274.13
cb	4.86	274.27 ✓
Grut.	5.46	273.67
1/4	4.90	274.23
L	4.35	274.75
1/4	4.2	274.93
cb	3.5	275.63
N	2.5	276.63
T5	1.6	277.53
SEA BREEZE		
CH. SW BR Allegheny	4.70	274.43
		274.41
		002

Walker &  
Hardin  
9-19-45

PARADISE HILLS

Recheck Bench Marks.

Harbison - 8<sup>th</sup> to Alleghany & Rachel

U.S.G.S. BM

8<sup>th</sup> & Harbison

5.26 148.48

143.22 P. 1

B.M. city datum

TP #1 0.853 136.443 12.89 135.59

TP #2 0.566 123.998 19.011 123.432

TR #3 2.570 113.912 12.656 111.342

TP #4 11.210 118.030 7.092 106.820

TR #5 12.008 129.796 0.242 117.788

TP #6 12.848 142.166 0.478 129.318

TP #7 12.310 153.746 0.730 141.436

TP #8 12.306 165.740 0.312 153.434

TP #9 10.176 175.086 0.830 164.910

TP #10 2.264 182.870 1.480 173.606

S.E. B.P. 18.095 190.345

Chk. B.M. Alleghany & Rachel 2.620 180.250 TP #12

TP #13 7.810 197.775 0.380 189.965

TP #14 12.184 208.717 1.242 196.533

TP #15 12.808 219.765 1.760 206.957

TP #16 2.878 229.403 0.240 219.525

TR #17 5.450 228.553 6.300 223.103

TP #18 13.007 240.070 1.490 227.063

TP #19 12.902 252.502 0.470 239.600

TP #20 12.735 264.815 0.422 252.080

TP #21 12.525 276.960 0.450 264.365

TR #22 1.760 276.250 2.470 274.420

TP #23 2.407 270.382 8.275 267.975

Cont. p-26

v

S.E. B. P. Alleghany & Rachel St.

S.E. B.P. " " Flatridge

S.W. B.P. " " P&O St.

S.E. B.P. " " Rancho St.

S.W. B.P. " " WESTPORT ST.

S.W. B.P. " " SEA BREEZE.

S.W. B.P. SEA BREEZE - ROTONAC

BENCH MARKS - PARADISE -  
Cont. from p. 25 - HILLS

270.382

TR#14	2,030	259,430	12,982	257,400
TR#25	3,761	255,444	7,747	251,683
TR#26	2,687	250,254	7,877	247,567
TR#27	1,748	229,094	12,908	237,346
TR#28	11,650	243,687	7,057	232,037
TR#29	13,023	254,975	1,735	241,952
TR#30	3,425	248,605	9,795	245,180
TR#31	10,848	254,970	4,483	244,122
TR#32	1,220	253,510	2,680	252,290
TR#33	0,432	244,555	9,387	244,123
TR#34	0,440	232,357	12,638	231,917
TR#35	1,662	226,537	7,482	224,875
TR#37	2,700	217,702	11,535	215,002
TR#38	0,985	211,395	7,292	210,410
TR#39	10,925	216,890	5,430	205,965
TR#40	9,680	225,140	1,430	215,460
TR#41	5,335	224,945	5,530	219,610
TR#42	0,140	218,345	6,740	218,205
TR#43	1,125	208,175	11,295	207,050
TR#44	9,520	212,967	4,728	203,447
TR#45	2,422	209,284	6,105	206,862
TR#46	9,482	211,131	7,635	201,649
TR#47	chk TR#15-P-25	4,161	206,970	

206957

0.013 Error.

11

26

SW BP	SEA BREEZE	And	SCHUYLER ST.
SW BP	"	"	ALBEMERLE ST.
SW BP	"	"	LAUDER ST.
SW BP	"	"	CUMBERLAND ST.
SW BP	"	"	EDGEWATER ST.
NW. Local Pky	Water Service	SEA BREEZE - Winchester	St.
in curb	city King.	"	"
on Aluminum Disk	"	"	Roanoke
Id. on	TR#31		
NW	SW BP	RANCHO	And WINGHESTER
SW BP	"	"	CUMBERLAND ST.
SW BP	"	"	ALBEMERLE ST.
NW BP	SCHUYLER	"	WestPORT ST.
SW BP	POTOMAC	"	"
SW BP	RANCHO	"	POTOMAC ST.
SW BP	REG DRIVE	"	POTOMAC ST.
SW BP	"	"	BOLIVAR ST.
SW BP	REG	"	ALLEGHANY

BENCH MARKS - REG-DRIVE.

Cont. from p. 26

	12.688	219.550		206.862	BM
TP # 47	4.977	222.534	1.993	217.557	
TP # 48	1.462	211.294	12.702	209.832	
TP # 49	0.205	199.749	12.450	198.844	
TP # 50	12.190	207.076	4.863	194.886	
TP # 51	12.822	219.540	0.358	206.718	
TP # 52	8.888	227.775	0.653	218.987	
TP # 53	4.718	222.681	2.812	217.263	
TP # 54	7.344	229.541	0.484	222.197	
CHK TP # 35		4660	224.881		
			224.875		
			0.006 Error.		

BENCH MARKS - MORNINGSIDE ST

	5.630	224.517		217.963	
TP # 55	1.204	215.814	9.907	214.610	
TP # 56	0.732	203.834	12.712	203.102	
TP # 57	2.222	193.966	12.990	190.844	
TP # 58	1.707	188.625	6.208	186.858	
TP # 59	12.690	193.410	7.905	180.720	
TP # 60	11.380	204.497	0.293	193.117	
TP # 61	5.365	208.195	1.667	202.830	
TP # 62	11.543	213.830	5.908	202.287	
TP # 63	3.080	215.594	7.316	212.514	
TP # 64	2.634	205.518	12.710	202.884	
TP # 65	0.556	198.238	7.836	197.682	

Cont. p. 28

(TP # 45 p. 26)

SW BP	Reg Drive	And	Potomac St
SW BP	"	"	Albemarle St
SW BP	"	"	"
SW BP	"	"	" Cumberland "
NW BP	"	"	"
NW BP	"	"	Winchester St
NW BP	RANCHO	"	" "
Above TP # 53			
NW BP	Reg	Winchester	
NW BP	Winchester	And	Morningside St
SW BP	Cumberland	"	"
SW BP	Midwick	"	"
SW BP	Albemarle	"	"
SW BP	Albemarle	"	"
SW BP	Potomac	And	Morningside

Void  
Sec  
p. 29  
New  
Lords

Bench Marks.

Cont. from p. 27

198.238

TP #66 0.698 186.394 12.542 185.696

TP #67 10.568 185.632 11.330 175.064

TP #68 12.102 196.860 0.874 184.758

TP #69 8.128 200.486 4.502 192.358

cht. 2.966 197.520

diff. in starting = 0.924

196.596

196.533

0.063 High.

This diff. prorated among Turns from

TP #55 to TP #69 See New Notes  
as adjusted p. 29

void

SW BR Flintridge <sup>and</sup> Potomac St.

SW BR " " Bolivar St.

Walker  
Hurdin  
7-45

BENCH MARKS - Morningside St.

PARADISE HILLS

	5.630	223.593		217.263
TP #55	1.204	214.888	2.909	213.684
TP #56	0.732	202.905	12.715	202.173
TP #57	2.222	192.135	12.992	189.913
TP #58	1.767	187.631	6.211	185.924
TP #59	12.690	192.474	7.907	179.784
TP #60	11.380	203.558	0.296	192.178
TP #61	5.365	207.254	1.669	201.889
TP #62	11.543	212.886	5.911	201.343
TP #63	3.080	214.648	1.318	211.568
TP #64	2.634	204.569	12.713	201.935
TP #65	0.556	197.287	7.838	196.731
TP #66	0.698	185.434	12.551	184.736
TP #67	10.568	184.663	11.339	174.095
TP #68	12.102	195.882	0.883	183.780
TP #69	8.128	199.499	4.511	191.371
chk. SE. BR. Allegheny + Flintbridge	2.966	196.533		✓✓

29  
BM NWBR R50<sup>th</sup> WINCHESTER  
BM NWBR WINCHESTER<sup>th</sup> MORNINGSIDE

BM SWBR CUMBERLAND "

BM SWBR MIDWICK "

BM SWBR Albemarle "

BM SWBR Potomac "

BM SWBR Potomac<sup>th</sup> Flintbridge

BM SWBR Bolivar " Flintbridge

= TP #14 P-25



Walker  
Hurd  
Hazard

~ BENCH MARKS ~

PARADISE HILLS ~

9-45 on RACHEL ST. <sup>And</sup> WINCHESTER ST.

	0.745	180.995		180.25
TP# 70	0.822	169.537	12.280	168.715
TP# 71	9.017	170.654	7.900	161.637
TP# 72	1.32.8	162.578	2.404	168.250
TP# 73	1.160	159.948	10.790	158.788
TP# 74	0.853	151.331	2.470	150.478
TP# 75	11.506	153.312	2.525	141.806
TP# 76	0.250	152.559	1.003	152.309
TP# 77	0.910	148.929	4.540	148.019
TP# 78	11.815	158.859	1.885	147.044
TP# 79	12.823	170.952	0.730	158.129
TP# 80	12.668	182.920	0.700	170.252
TP# 81	12.380	194.458	0.842	182.078
TP# 82	7.570	196.623	5.405	189.053
TP# 83	12.200	208.999	0.524	196.099
TP# 84	5.700	213.796	0.903	208.096
chk. NW. B.P. Winchester <sup>And</sup> Morning	0.110	213.686		

213.684 TP# 55  
0.002 P-29

111

BM. SE. B.P. Allegheny <sup>And</sup> Rachel St.

BM. SE. B.P. Potomac <sup>And</sup> Rachel St.

BM. SE. B.P. Gables " Rachel St.

BM. SE. B.P. Albemarle " Rachel St.

BM. SE. B.P. Cumberland " Rachel St.

BM. SE. B.P. Shaw " " "

BM. NE. B.P. Winchester " Rachel St.

BM. NE. B.P. Winchester " HOPKINS ST.

Walker  
Hurdin  
Huntley  
11-14-45

~ BENCH MARKS ~  
ON FLINTRIDGE  
And on HOPKINS ST.

	11.340	185.935	174.095	B.M.
TP #85	6.464	191.369	0.530	184.905
TP #86	0.775	187.204	4.940	186.429
TP #87	2.943	187.204	2.943	184.261
TP #88	12.545	194.914	4.835	182.369
TP #89	2.00	194.962	1.952	192.962
TP #90	3.678	195.320	3.320	191.642
TP #91	8.532	192.182	11.720	183.600
chk B.M.			3.070	189.062
			189.053	
			.009	

SW.B.P. Flintridge And Potomac St. <sup>TP #67</sup> P. 29

NE.B.P. " " Albemarle St

SW.B.P. Albemarle " Hopkins.

SW.B.P. Cumberland " "

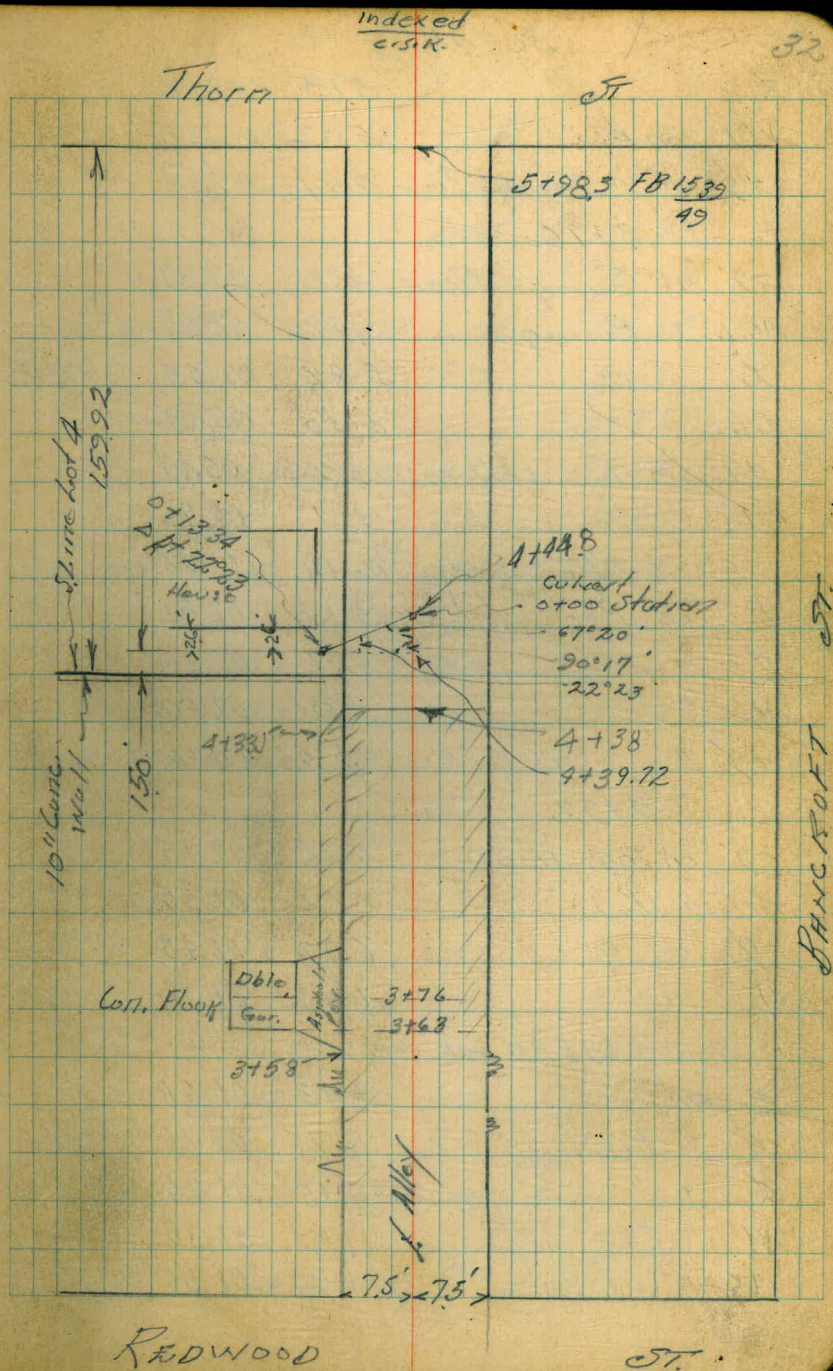
SW.B.P. Shaw " "

NE.B.P. Winchester " "

Walker.  
Hardin  
Huntley  
1-4-46  
1-7-46

Cross Section Alley Bk. L  
Altadena Subd.  
between 327th and Bancroft Sts.  
from a point 300' N. N.W. Redwood  
to St. Thoma St.

				S.M. Filey W. Top L. 51983 FB 1539 49
	337	307.08		303.71
TP	591	308.41	4.58	302.50
		3100		
N.W. on Par.		2.66		05.75
L. " "		2.75		05.66
E. " "		2.36		06.05
0+15 on Rim MH		3.15		05.26
		3+25		
F. on Par.		2.99		05.42
L. " "		2.43		04.98
W. " "		3.36		05.05
		3+48.5 = Pk. 6.7' Lt of L		
		3+50		
W		4.32		04.09
L		4.45		03.96
F		4.14		04.27
3+58 N.W. Par		4.74		03.67
		3+69		
F. - 5'		2.8		06.6
F. - 1' on Cobble wall		2.85		05.56
F. on Paving		4.67		03.74



E	513	03.28
W.L. on Pav.	502	03.39
+9 " " = Garage Floor	4.47	03.94
3+76		
-9' on Garage Floor	452	03.89
W.L. " Pavng.	578	02.63
E " "	586	02.55
E.L. " "	540	03.01
+1' on Top cobb wall	3.22	05.19
+5	3.1	04.7
3+79 = S edge of North dbb Garage		
E on Pav.	560	02.81
E " "	607	02.34
W " "	601	02.40
+9' " " = Gar. Floor	5.45	02.96
3+92		
-9' on Gar. Floor	546	02.95
W " Pav	686	01.55
E " "	693	01.48
E " "	649	01.92
3+95 = N end cobb Wall on E		
E on Wall	413	04.28
" " Pav.	6.75	01.66
E " "	715	01.26
W " "	709	01.38
+5 " Conc. Pav	6.60	01.81

4+00

-5' on Conc. Pav.	7.28	01.13
W " Pav.	7.39	01.02
E " "	7.44	00.97
E " "	7.06	01.35
+1.7 on Board Ret. Wall	6.04	02.37
+5	5.7	02.71
4+30		
-5	8.0	00.41
-1.7 on Board Ret. Wall	8.46	99.95
E " Pav.	2.36	99.05
E " "	2.73	98.68
W " "	2.68	98.73
+5 " Conc. Pav.	2.30	99.11
(4+33.5) 5' W.W.L.	2.31	99.10 <sup>P.</sup> or Conc.
4+38 = N end Asphalt Pav.		
-5	12.6	95.8
W on Conc. <sup>Pav.</sup> Ridge	9.87	98.54
+2' A.C. Pav.	10.30	98.11
E " " "	10.46	97.95
E	9.92	98.49
+1.7	2.7	98.71
" on Board Wall	2.10	99.31
+5	8.7	99.71
4+39 = <sup>two</sup> 2 1/2" x 12" Boards <sup>Three 7 1/2 x 7 1/2" posts.</sup> Barricades		
1' N. end Pav.		
	10.95	97.46
4+44.8 on 0+00 of Proposed Drain.		

30841

	4+52 = 263	Cone Porch on 2' Bark	14'
-10'	10.6	97.8	
E	10.6	97.8	
Q	10.9	97.5	
+6	10.9	97.5	
W	12.7	95.7	
+2	12.7	95.7	
+2' on Porch	10.99	97.42	
+6 " " at House	10.99	97.42	

4+76

-10	13.6	94.8
W	13.6	94.8
+4	13.7	94.7
+6	11.0	97.4
Q	11.0	97.4
E	10.8	97.6
+10	10.7	97.7

4+78 = 2 Obl. Garage on W Entrance <sup>32nd St.</sup>

-10	10.7	97.7
E	10.8	97.6
Q	11.0	97.4
+4	11.0	97.4
W/L	13.6	94.8
+11 at Garage	13.6	94.8

30841

34

4+78 = South end 4' Wood Porch on W  
 W-3' on Porch 10.92 97.49 E edge  
 5+13 = N end Above Porch 10.96 97.45  
 5+00

-7 under Porch	15.0	93.4
-3 " "	13.0	95.4
W	13.0	95.4
+2'	11.1	97.3
Q	10.5	97.9
E	10.7	97.7
+10'	10.4	98.0

5+18

-10	8.9	99.5
E	9.0	99.4
Q	9.3	99.1
+5	10.0	98.4
W	12.3	96.1
+10	13.2	95.2

5+23

-10	8.3	99.1
W	9.0	99.4
Q	8.7	99.7
E	8.2	99.2
+10	8.4	99.0

5+33

-10	7.0	
-----	-----	--

308.41

E <sub>0</sub>	6.9	01.5
L <sub>0</sub>	7.2	01.2
W	7.6	00.8
+10	8.6	00.8
5+39	S. end Succo Store Bld on W 3.0 Back.	
-10	11.2	97.2
W-3' at Bld	8.4	00.0
W	7.3	01.1
L <sub>0</sub>	6.6	01.8
E <sub>0</sub>	6.2	02.2
+10	6.3	02.1
5+44 to 5+51		
L <sub>0</sub> on Platform	4.50	03.9
W+3' " <sup>lightly wiggly</sup>	4.50	03.9
" Floor Store Bld.	4.35	04.06
5+50		
-10	5.7	02.7
E	5.8	02.6
L <sub>0</sub>	6.2	02.2
W	6.0	02.4
+3 at Store Bld	6.0	02.4
5+75		
-3	5.6	02.8
W	5.6	02.8
L <sub>0</sub>	5.5	02.9
E	5.4	03.0
+10	5.4	03.0

308.91

35

5+98.3 = 54. Therrn st

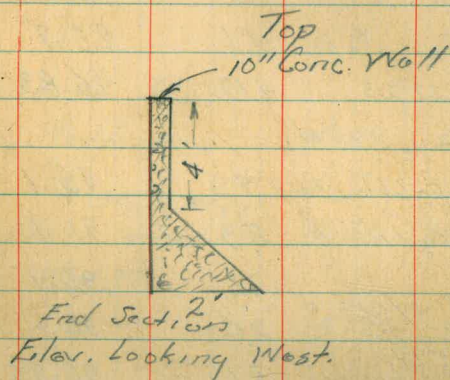
E Top cb	4.56	03.85
" Guts on Pav.	4.78	03.63
L " "	5.02	03.39
W " " "	4.92	03.49
W Top cb	4.70	03.71
TP 2.56	300.02	10.25
	297.46	
Ground Profile		Proposed Drain
0+100	2.56	97.46
+08	2.0	98.0
+10	4.1	95.9
0+133.4 Δ Rt. 22°23'	4.19	95.83 on stake
0+14 = E end House	2.6 Rt.	
0+23 Loose Cobble Wall	4.9	95.1
+25 Toe in wall	8.9	91.1
0+35	2.1	90.9
10' Rt. <sup>Basement</sup> under House	2.6	90.4
0+37 = E end wall	1.5 Lt	90.83 10" Conc. Wall
2'	2.6	90.4
0+55 = W end House	2.3	90.7
1.5' W on 12" Conc. Wall	2.6 Rt. of L	90.92
2.5' Lt	2.10	
1+01 = Appro. & Exist.	14.4	85.6
2' Lt. on Wall	3/4" Pipe	88
2.5' Ft. Footing	88	91.2
	8.90	91.12
	13.74	86.28

300.02

Proposed  
Culvert Profile  
Cont. from P. 35

0+86

E	8.9	91.1
2' Lt. on 10" Conc. Wall	8.9	91.15
2.5' Lt. on Top Footing	14.07	85.95
4.5 Lt.	15.4	84.6
T.P.	7.73	305.19
chk. starting B.M. Web Alley (S.L. Thorn)	1.48	303.71

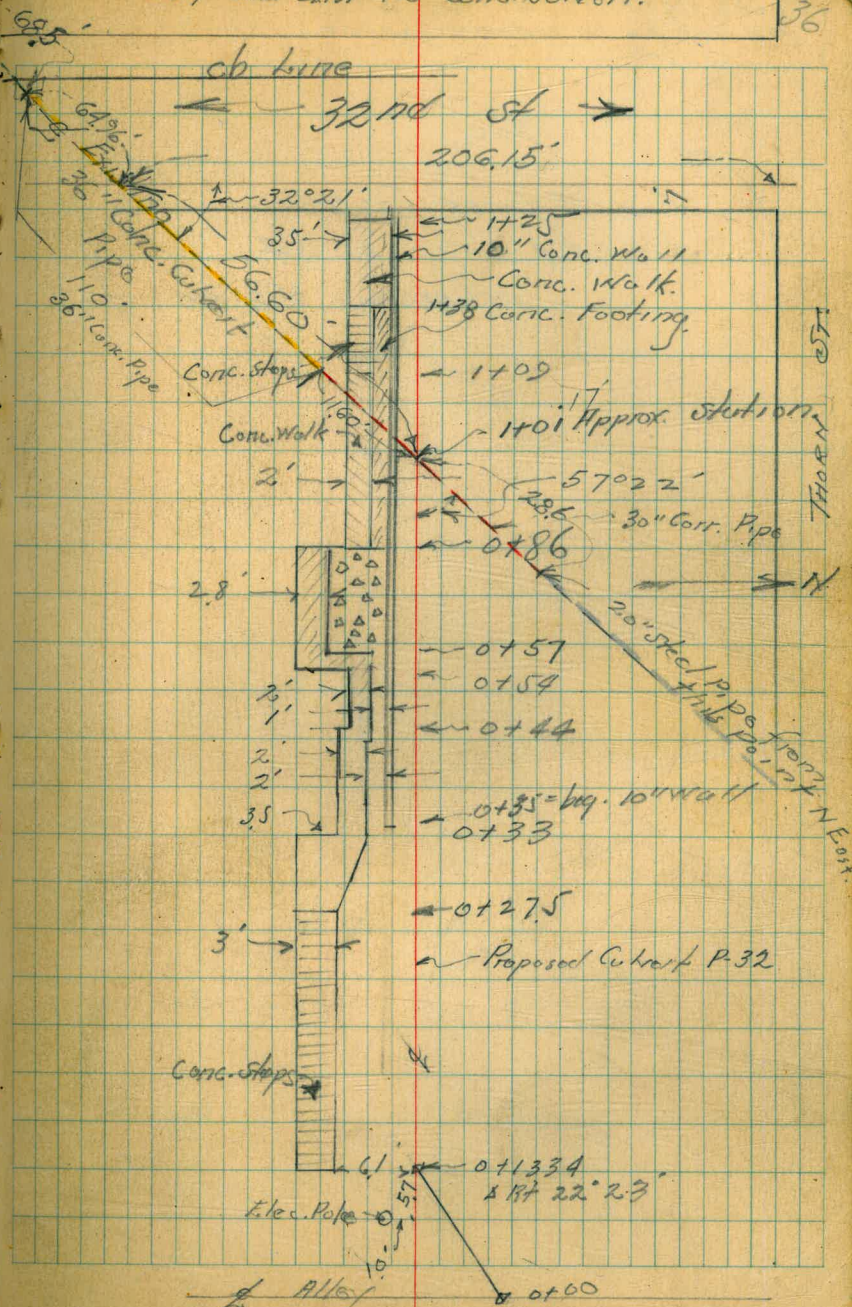


Legend:

Length 68.5' =	---	= Existing 42" Conc. Pipe
" 110' =	- - - -	" 36 "
" 40' =	- - - -	" 30" Corrg. Iron Pipe
" Indefinite =	- - - -	" 20" Iron Pipe - Collapsed

SLY End Exist 42" Conc. Culvert.

36



Cross Section Oliver St.  
Haines to Ingraham St.

For Re Cross Sections

See FB 2074-50-54

C.B. Walker 9/18-50

Indexed  
c. s. k.

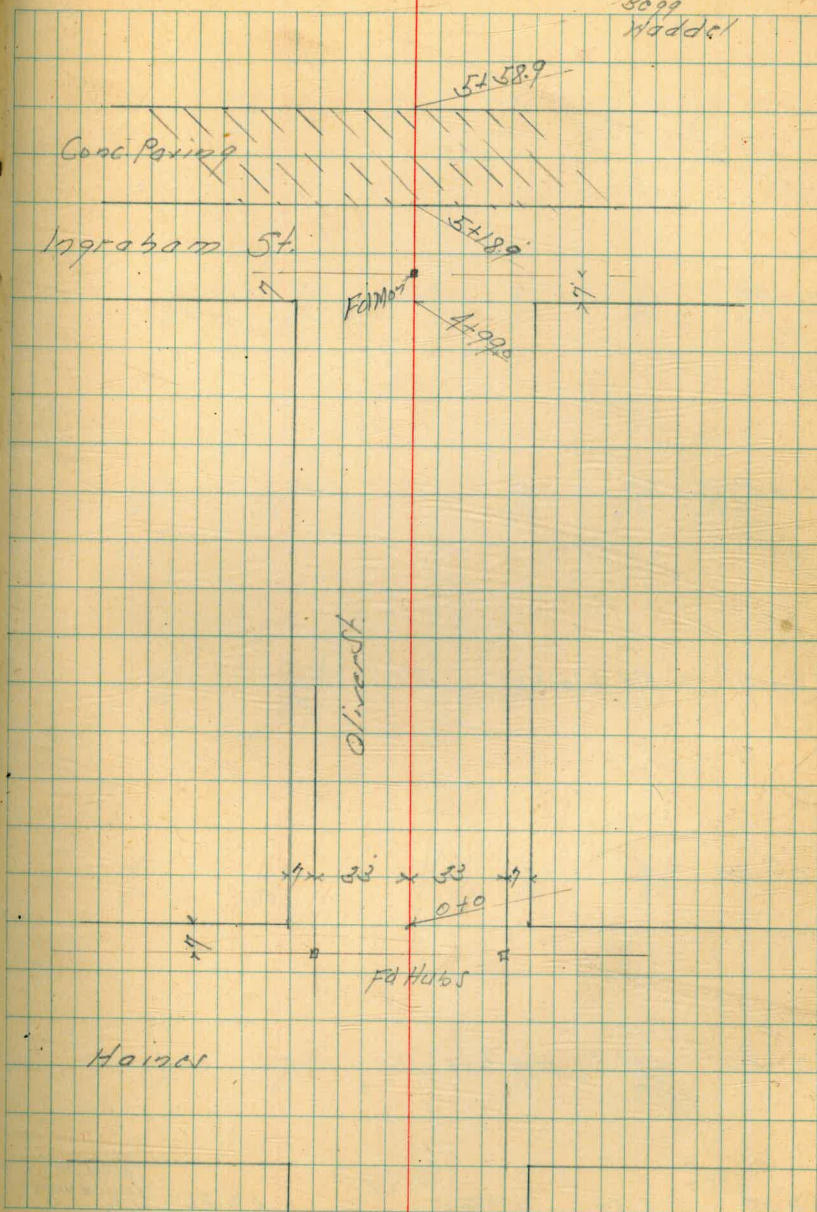
Feb. 25. 46. 37

Sirgoy

Osborn

Boyer

Waddel





Oliver St.

1+50

0+98

0+47

0+0 = E.L. Haines

0-40 =  $\frac{1}{2}$

0-80 = H.L. Haines

BM 6.59 5295

47.36

Non 27 line  
logro hatt  
#61nce

Lt = N

2

Rt 5

38

90  
20

92  
20

86

85  
20

78  
20

725  
10.3 = H.L. Haines  
3' Conchalt

95  
20

98  
20

94

95  
20

85  
20

823  
131 = H.L. Haines  
Conchalt

95  
20

99  
20

97

101  
20

93  
20

865  
12.5 = H.L. Haines  
10' Conchalt

99  
20

102  
20

97

102  
20

93  
20

105  
20

109  
20

109

109  
20

108  
20

102  
20

105  
26

111

110  
26

111  
20

52.95

Oliver St

4 + 0

3 + 72

IP 10.08 57.44 6.59 47.36

on May  
of Oliver with  
Ingraham

3750

370

2 + 50

1 + 98

5395

Lt. = H

2

Rt. = S

39

$\frac{65}{50}$   $\frac{60}{40}$   $\frac{56}{20}$  49  $\frac{42}{20}$   $\frac{39}{20}$

57.44

4.24  
41 = 44 22  
Bucknell

$\frac{56}{56}$   $\frac{50}{40}$   $\frac{48}{20}$  18  $\frac{15}{20}$   $\frac{40}{40}$

$\frac{51}{50}$   $\frac{47}{40}$   $\frac{41}{20}$  32  $\frac{27}{20}$   $\frac{21}{40}$

$\frac{67}{50}$   $\frac{66}{40}$   $\frac{60}{20}$  52  $\frac{47}{20}$   $\frac{56}{40}$

$\frac{85}{50}$   $\frac{83}{40}$   $\frac{78}{20}$  71  $\frac{68}{20}$   $\frac{59}{20}$   $\frac{50}{40}$   
59 = 54 24  
Bucknell

5395

Oliver St.

BM			1.96	55.83
TP	7.98	57.77	0.85	49.79
TP	5.34	50.64	12.14	45.30

N.E.P.  
Grand Hill  
Ingraham  
55.85

5+589 - East Edge Conc Paving

10.23	9.60	9.59	9.59	9.63	9.63	9.87
90	40	20		20	20	90

5+389 -  $\frac{1}{2}$  Paving

10.17	9.54	9.58	9.55	9.56	9.66	9.89
90	40	20		20	40	90

5+189 - West Edge Conc Paving

10.72	10.15	10.14	10.12	10.15	10.22	10.42
90	40	20		20	40	90

4+990 - N.E. Ingraham

10.0	9.9	9.7	9.4	9.8	9.4
50	40	20		20	40

4+97 215 Lt of  $\frac{1}{2}$  - Anchor Pole

4+95

6.3	5.8	5.5	5.6	9.0	8.9	5.2	4.8
50	40	25	16		18	27	40

4+50

6.5	5.9	5.3	5.8	5.3	4.8
50	40	20		20	40

57.44

57.44

Lt

$\frac{1}{2}$

Rt

40

Cross Section Alley Block 52 Ocean Beach  
 From Cable St to Sunset Cliff Blvd  
 Between Newport & Niagara

Levels Next Page

3-1-46 Notes reduced - Wherry. May 23. 46  
 S. L. 102

Grades For L. C. Henderson Contractor

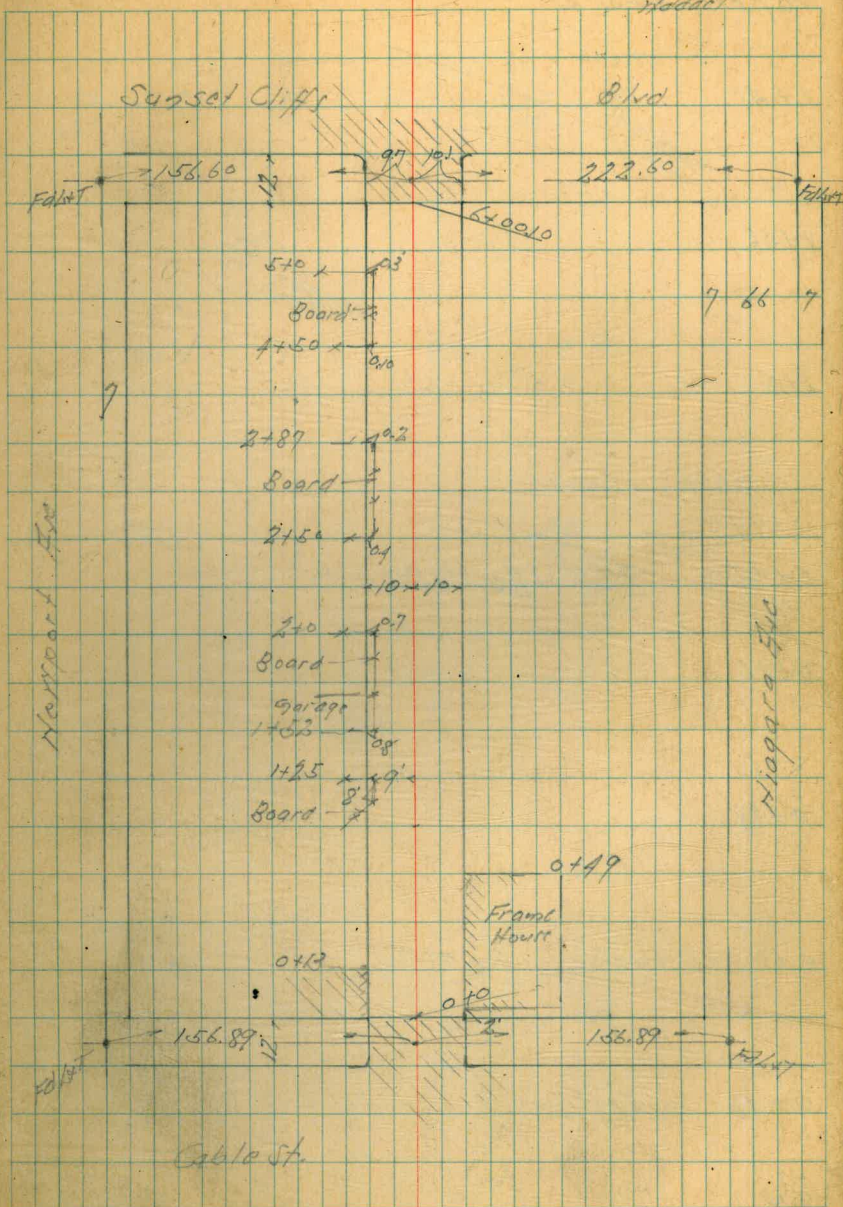
BM	4.35	30.39	26.04	N.Y. Bk. Niagara Subtract Cliff
TP	45.8	28.55	6.42	23.97

H.L. Hiller

4+0	22.73	5.82 on studs
4+20	23.04	5.51 on studs
4+40	23.42	5.13 on
4+50	23.62	4.93

Indexed  
 c.s.k.

Feb. 25-46  
 S. L. 102  
 O. B. 102  
 S. L. 102  
 Model



Cross Section Alley Block 52 Ocean Beach

Sketch Page 41

1+41

1+06

1+0

0+93

0+51 = 8.7 ft of  $\frac{1}{2}$  - Sky Power Pole

0+46

0+13

0+0 = East Line Cable St

0-12 = East Curb Line Cable St

BM 7.11 23.12

16.01 N.E. BP  
New Port +  
Cable

Lt-N

L

Rt

42

21.1	21.1	20.4	20.5	21.1	21.3
$\frac{2.0}{2.5}$	$\frac{2.0}{1.0}$	$\frac{2.7}{.5}$	2.6	$\frac{2.0}{1.0}$	$\frac{1.8}{1.6}$
					1.6 - 1.6 Dist Floor
		20.3			
		$\frac{2.8}{1.8}$			
		1.6 - 1.6 Dist Floor			
20.1	20.3	19.8	20.4		
$\frac{3.0}{2.5}$	$\frac{2.8}{1.0}$	2.3	$\frac{2.7}{1.0}$		
				19.92	20.02
				$\frac{3.20}{1.27}$	$\frac{3.10}{1.12}$
				1.1 - 1.1 Dist Floor	1.6 - 1.6 Dist Floor
		19.18	19.1	19.7	
		$\frac{3.01}{3.10}$	4.0	$\frac{3.4}{1.0}$	
		1.0 - 1.0 Dist Floor			
		18.35			
		$\frac{1.77}{1.10}$			
		1.1 - 1.1 Dist Floor			
18.34	18.16	17.85	18.24	18.65	
$\frac{4.78}{48.55}$	$\frac{4.96}{4.8}$	5.27	$\frac{4.88}{9.9}$	$\frac{1.47}{9.9}$	
	1.1 - 1.1 Dist Floor		1.1 - 1.1 Dist Floor	1.1 - 1.1 Dist Floor	
	17.49	17.54	17.68		
	$\frac{5.63}{1.0}$	5.58	$\frac{5.44}{1.0}$		
				23.12	

2+95

2+85

2+33

2+02

TP 7.13 28.08 2.17 20.95

2+01 8.6 ft of  $\frac{1}{2}$  - Sly Power Pole

1+93

1+86

1+58

1+53

23/12

Lt

$\frac{1}{2}$

Rt

43

22.1

6.0  
11.9 = 4' 6" of  
Dist. Prod.

22.0

6.1  
10

21.8

6.3

22.1

6.0  
8

22.7

5.6

22.8

5.3  
12.1 = 4' 6" of  
Dist. Prod.

21.8

6.0  
20

21.7

6.4  
10

21.3

6.8

21.6

6.5  
10

21.85

6.23  
13.8 = 4' 6" of  
Dist. Prod.

22.14

5.94  
15.8 = 4' 6" of  
Dist. Prod.

21.85

6.43  
13.6 = 4' 6" of  
Dist. Prod.

22.15

5.93  
15.6 = 4' 6" of  
Dist. Prod.

28.08

21.42

1.70  
13.5 = 4' 6" of  
Dist. Prod.

21.3

1.8  
10

21.0

2.1

21.4

1.7  
10

21.54

1.58  
13.5 = 4' 6" of  
Dist. Prod.

21.69

1.42  
15.5 = 4' 6" of  
Dist. Prod.

21.0

1.0 = 4' 6" of  
Dist. Prod.

21.52

1.60  
13.9 = 4' 6" of  
Dist. Prod.

21.65

1.47  
15.7 = 4' 6" of  
Dist. Prod.

4+0

3+85

3+65

3+50

3+17

3+27

3+27

3+25 8.5 ft of  $\frac{1}{2}$  = Sl/ Porcr Polc

3+0

28.08

Lt.

z

Rt.

44

23.4

23.2

23.2

23.5

23.6

$\frac{47}{25}$

$\frac{49}{16}$

49

$\frac{46}{10}$

$\frac{45}{25}$

23.39

23.71 ✓

$\frac{489}{14}$  = 34.93  
H.P. 35

$\frac{487}{16}$  = 30.44  
H.P. 30

23.70

$\frac{438}{16.5}$  = 26.55  
D. Gar. 26  
Con. Floor

22.6

22.6

23.0

23.4

$\frac{55}{10}$

55

$\frac{51}{10}$

$\frac{47}{17}$

23.18

$\frac{490}{16}$  = 30.63  
H.P. 30  
Black Wall

22.3

$\frac{58}{8}$  = 7.25  
Sl/ Bl. 7.25  
Con. Floor

23.06

$\frac{502}{10.5}$  = 47.81  
H.P. 48  
Black Wall

22.2

22.2

22.7

$\frac{59}{16}$

59 = 3.69  
Con. Floor

$\frac{54}{16}$

28.08

TP 5.08 30.63 25.3 25.55

5150

5180

401 94 Rt of ~~h~~ = Sly Porter-Pole

510

4187

4164

4150

4143

4108

28.08

41

2

RT

45

25.6 25.7 25.5 25.7

~~25~~ ~~24~~ 26 24  
~~25~~ 10 10

26.1

20

146 = 146  
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25.2 25.3 24.9 24.5 24.8 25.6 25.7

~~29~~ ~~28~~ ~~27~~ 36 23 25 24  
~~25~~ 10 8 10 8 10

24.72

24.88

336

320

146 = 146  
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24.37

24.84

371

324

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24.1 24.2 24.0 24.3

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~~Self-planned~~

24.2

39

147 = 147  
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23.8

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28.08



877

4.60

26.03

H.M.B.P.  
Hoggaro x  
Sun Set Cliff  
26.04

6712.10 = West Carb Line

6700.10 = H.L. Sunset Cliffs Blvd

5780

5759

80.63

41.

4

42

46

25.16

25.16

25.23

4.53  
10

5.17

5.40  
10

25.71

25.56

25.38

25.65

25.88

4.92  
9.75  
25.23

5.07

5.25

4.98  
10.1  
0.9  
25.23

4.75  
10.1  
26

26.1

25.7

26.1

4.5  
10

4.9

4.5  
10

26.10

26.29

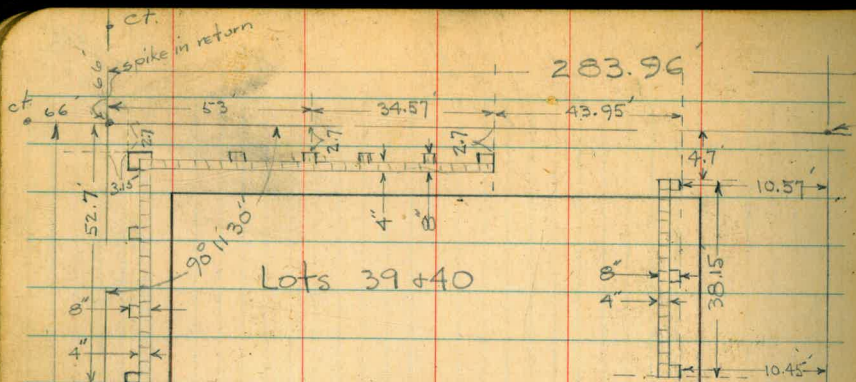
4.53

4.84

12.1  
H.M.B.P.

17.1  
H.M.B.P.

30.63



Lots 39+40

Thomas st.  
514.08'

BLOCK

Pacific

Alley

Location of 5' Brick wall - Lots 39+40.

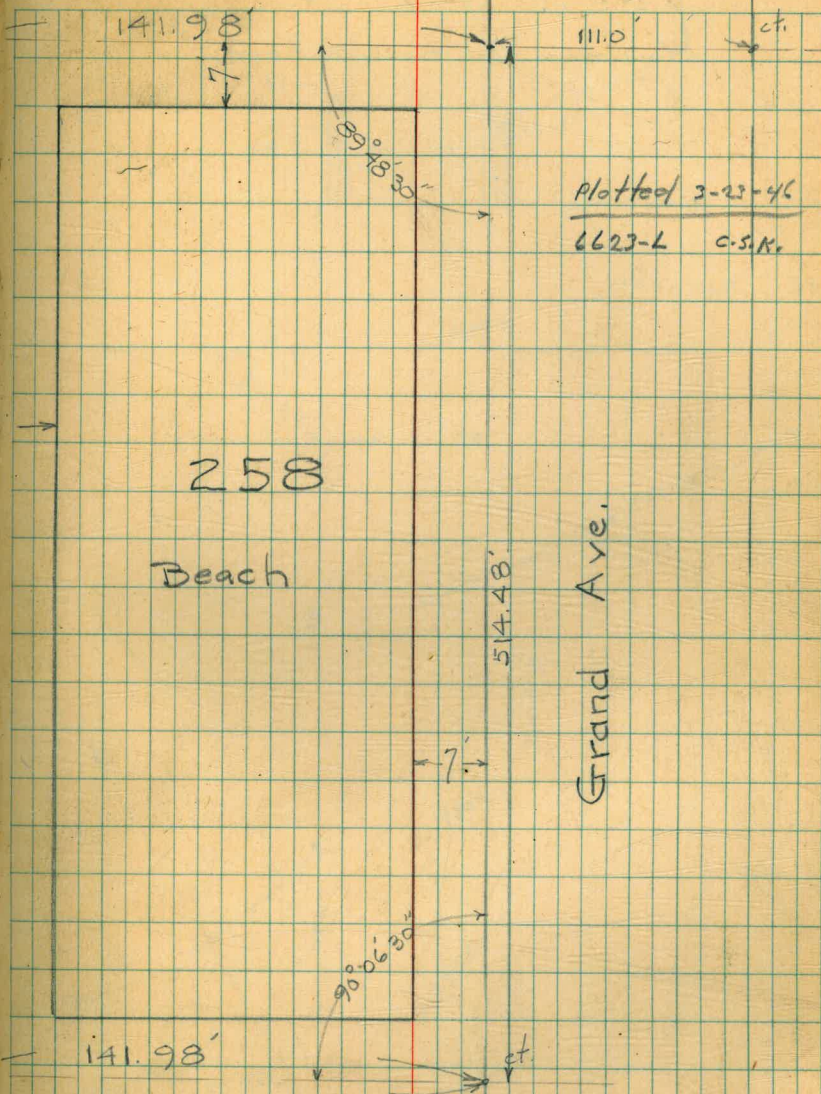
Blk. 258 - Pac. Beach

Osborne  
Grauencamp  
Harden  
3-18-46

Bayard st.

indexed  
c.s.k.

47



258

Beach

Grand Ave.

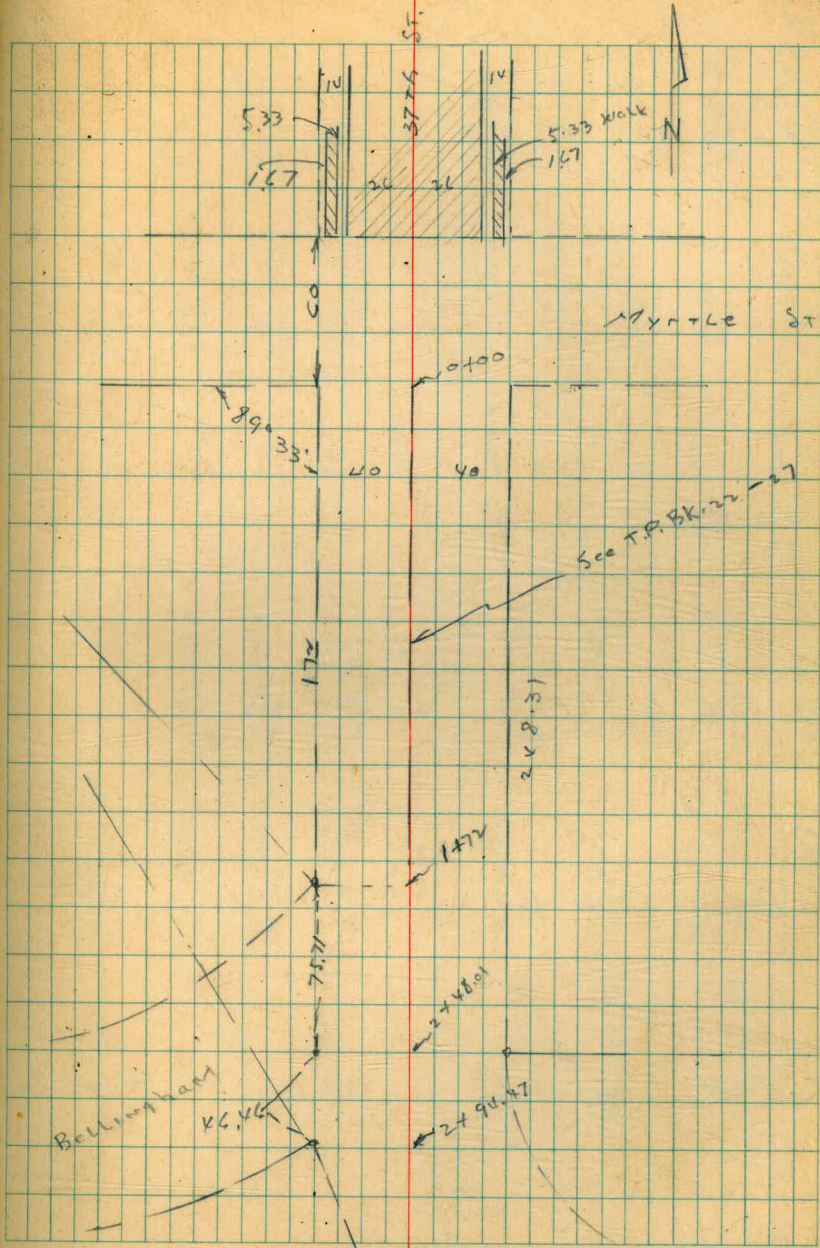
Cass st.

Plotted 3-23-46  
6623-L c.s.k.

indexed  
c.s.k.

X sec of 37th St  
Myrtle to Bellingham

48



Xsec 37th Myrtle Sly

HJ - F

0 + 59

0 + 37

0 + 18

0 + 05

0 + 00 S.L. Myrtle

N.L. Myrtle

NW 1310 2139 313.13

37th Myrtle

310.74

LT = 7.5

PT = 10W 45

	10.6	11.4	20.7	22.1	24.2	25.6	25.8	29.5	10.5
	40	30	7		10	10	25	40	60
	302.5	301.7	292.4	291.0	288.6	288.5	287.3	285.1	302.6
	305.1	305.1	301.4	298.8	299.5	298.8	293.9	305.2	305.3
	7.4	8.0	11.7	10.8	12.6	12.3	19.2	2.9	7.8
	60	20	15	10	11	70	17	30	60
	308.5	307.6	306.4	307.7	307.8	304.8	301.9	306.2	307.2
	4.6	5.5	6.7	5.4	5.3	8.3	11.7	6.9	4.9
	40	23	22	20		27	25	33	60
	308.8	308.9	308.1	308.8	308.9	308.1	309.1	308.3	308.8
	3.3	4.2	5.0	4.2	4.2	3.0	4.0	4.8	6.0
	40	29	24	18		20	27	23	60
	308.9	308.0	308.3	308.9	308.0	308.6	307.1	306.4	308.5
	4.2	5.1	4.8	5.7	4.1	4.4	6.0	6.7	4.6
	40	29	24	18		25	27	28	60
	310.18	308.56	310.25	310.53	310.46	309.88	310.54	308.2	308.2
	2.9	3.7	2.8	2.0	2.7	2.2	1.9	1.9	2.6
	20	20	20		20	20	20	20	20
	310.18	308.56	310.25	310.53	310.46	309.88	310.54	308.2	308.2

313.13

H H J H

1747

1741

T.P. 0.16 287.78 12.70 287.62

1730

1713

079V

0776

T.P. 0.18 300.32 12.99 300.14  
313.13

LT = TO E

37th

Rt = Tow. 50.

57.2	288.6	50	290.8	9.4	290.3	5.0	295.0	5.3	300.0	5.3	300.0
25	280.3	20	290.8	2.5	285.9	15.5	295.0	8.8	291.5	11.3	282.0
24	272.3	20	286.8	5.5	281.3	15.2	291.5	8.8	291.5	11.3	282.0
23.9	273.7	13	278.5	2.8	275.7	15.8	288.5	11.8	283.7	12.6	282.1
2.90	258.8	12	278.5	5.5	273.0	21.5	282.0	18.3	282.0	13.3	282.0
2.84	259.2	5	287.78	2.2	285.6	25.2	276.7	23.6	281.2	19.1	281.2
2.14	266.4	21	279.4	2.5	276.9	21.5	276.7	23.6	268.1	19.1	276.2
12.5	273.3	13	268.1	3.2	264.9	25.2	271.1	31.6	268.1	25.2	277.8
9.7	278.1	20	260.7	2.9	257.8	39.2	261.1	32.1	268.2	25.2	277.8
1.0	286.8	5.0	261.1	2.7	258.4	39.2	269.6	26.7	273.6	17.8	282.4
2.33	291.1	5.0	261.1	17.7	277.7	45.8	271.7	19.2	281.1	5.0	286.1
2.27	290.5	5.0	261.1	10.7	271.2	51.1	289.2	11.4	286.7	5.0	288.0

300.32

L.T. = E

3774

P.T. = W

51

nail in P.P. at alley  
 T.P. on Bollingham 12.05 287.18  
 T.P. 10.49 299.27 0.27 288.74  
 T.P. 12.27 289.01 0.00 276.74

2 + 94.47

2 + X8

2 + 30

T.P. 1.55 276.74 1.259 275.19

1697

1 + 72

287.78

254.5  
 250.7  
 246.5  
 242.3  
 238.1  
 233.9  
 229.7  
 225.5  
 221.3  
 217.1  
 212.9  
 208.7  
 204.5  
 200.3  
 196.1  
 191.9  
 187.7  
 183.5  
 179.3  
 175.1  
 170.9  
 166.7  
 162.5  
 158.3  
 154.1  
 149.9  
 145.7  
 141.5  
 137.3  
 133.1  
 128.9  
 124.7  
 120.5  
 116.3  
 112.1  
 107.9  
 103.7  
 99.5  
 95.3  
 91.1  
 86.9  
 82.7  
 78.5  
 74.3  
 70.1  
 65.9  
 61.7  
 57.5  
 53.3  
 49.1  
 44.9  
 40.7  
 36.5  
 32.3  
 28.1  
 23.9  
 19.7  
 15.5  
 11.3  
 7.1  
 2.9  
 creek here

244.2  
 240.0  
 235.8  
 231.6  
 227.4  
 223.2  
 219.0  
 214.8  
 210.6  
 206.4  
 202.2  
 198.0  
 193.8  
 189.6  
 185.4  
 181.2  
 177.0  
 172.8  
 168.6  
 164.4  
 160.2  
 156.0  
 151.8  
 147.6  
 143.4  
 139.2  
 135.0  
 130.8  
 126.6  
 122.4  
 118.2  
 114.0  
 109.8  
 105.6  
 101.4  
 97.2  
 93.0  
 88.8  
 84.6  
 80.4  
 76.2  
 72.0  
 67.8  
 63.6  
 59.4  
 55.2  
 51.0  
 46.8  
 42.6  
 38.4  
 34.2  
 30.0  
 25.8  
 21.6  
 17.4  
 13.2  
 9.0  
 4.8  
 0.6  
 276.74  
 270.8  
 264.9  
 259.0  
 253.1  
 247.2  
 241.3  
 235.4  
 229.5  
 223.6  
 217.7  
 211.8  
 205.9  
 200.0  
 194.1  
 188.2  
 182.3  
 176.4  
 170.5  
 164.6  
 158.7  
 152.8  
 146.9  
 141.0  
 135.1  
 129.2  
 123.3  
 117.4  
 111.5  
 105.6  
 99.7  
 93.8  
 87.9  
 82.0  
 76.1  
 70.2  
 64.3  
 58.4  
 52.5  
 46.6  
 40.7  
 34.8  
 28.9  
 23.0  
 17.1  
 11.2  
 5.3  
 287.78

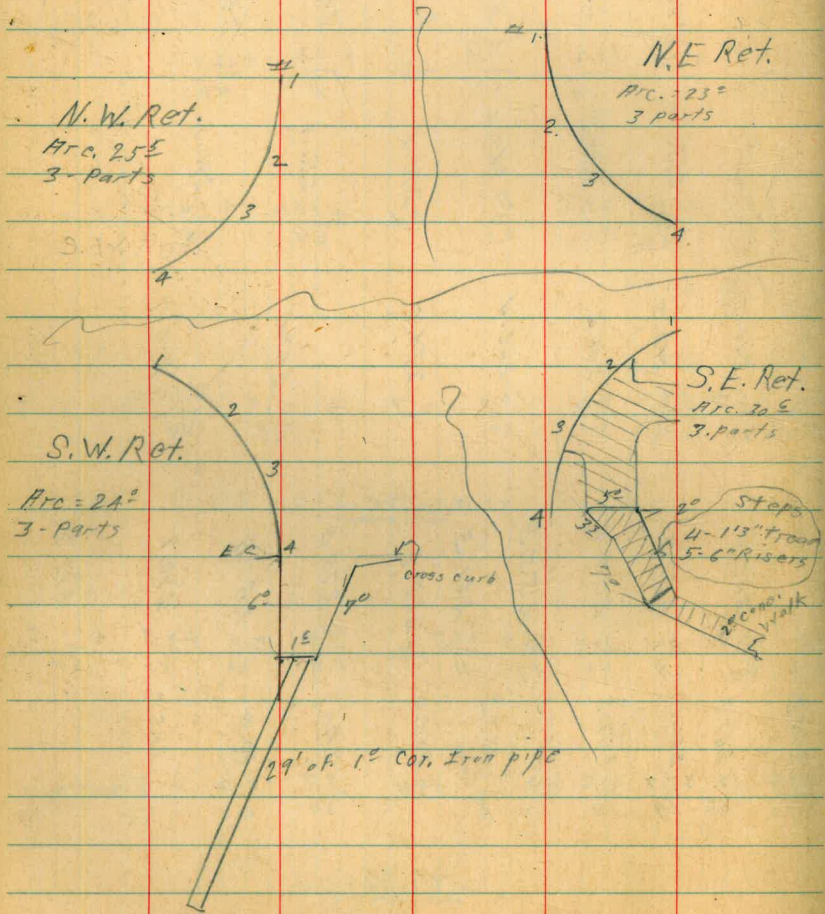
Sommermeier

Boggy

# Levels on Cherokee at Bellingham

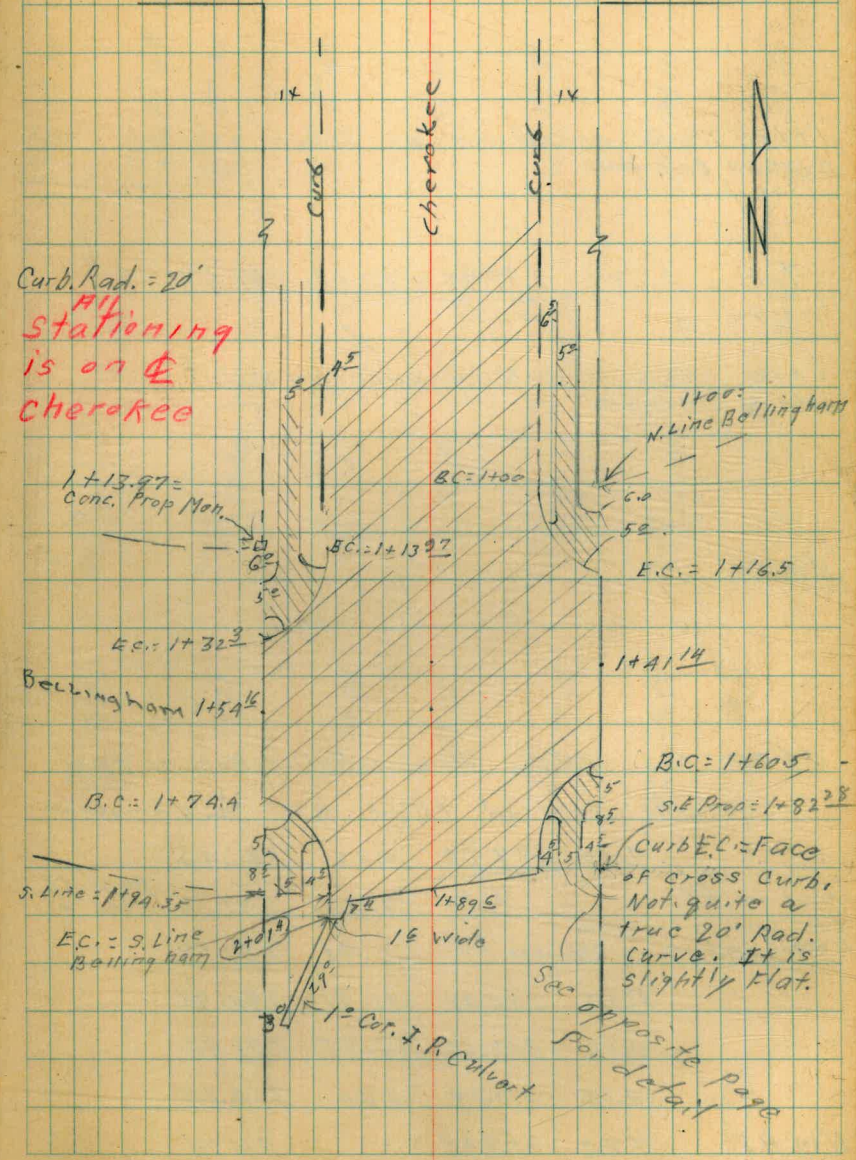
indexed  
c.s.k.

Rod reading numbered 1-2-3-4



4/8/11 52.

Myrtle St.



X-Sec. Cherokee

100' N. North Line Bellingham. sly.

1+13.97 = B.C. ob. return on west  
3+03.10 Bellingham

T.P. 2.35 289.93 12.32 287.58  
Cor. Mon. See below.  
297.90

1+00 = N. Line Bellingham - on East  
3+84.46 Bellingham

0+50

0+00 100' No.-No. Line Bellingham on East  
Stations carried thru on Cherokee.

7.48 297.90 4.07 292.42

Nail in .R.P. S.S. 9.31 287.18 Page 51  
over tack 17' con. Mon. Line 4  
N.W. cor. Bellingham & Cherokee S.S. 8.91 287.58

5.54 296.49 11.71 290.95

0.32 302.66 12.85 302.34

0.35 315.19 3.64 314.84

N.W.B.P. 7.74 318.48 310.74

37<sup>th</sup> + Myrtle

53

87.70	87.34	87.35	87.40	87.50	87.27	86.91	87.51
2.70	2.67	2.58	2.53	2.43	2.66	3.02	2.92
33.9	33.9	26.	13		13	Out	104.41
700	Out					26	26
86.							
	89.26	88.68	86.72	88.77	88.53	88.13	88.78
	10.64	11.22	11.18	11.13	11.37	11.77	11.12
	ob.	Out.	13		13	26	26
						Out.	ob.
	94.10	93.38	93.48	93.49	93.20	92.83	92.97
5.80	6.52	6.77	6.41		6.70	7.07	6.73
740	26	26	13		13	26	26
ob.	Out					Out	in drive
	98.95	98.23	98.38	98.35	98.05	97.54	98.16
	0.95	1.67	1.52	1.53	1.95	2.36	1.74
	26	26	13		13	26	26
740	ob.	201.				Out.	ob.

297.90



1+79<sup>E</sup> Start Cb. Return on West

1+60<sup>E</sup> Start Cb. Return on East

1+5A<sup>16</sup> Bellingham on West

1+4A<sup>16</sup> Bellingham on East

1+32.3 End Cb. Ret. on West

1+16<sup>E</sup> End Curb Ret. on east

289.93

81.44	81.85	81.84	82.01	81.95	81.62	81.64	81.95	81.48
7.49 26.7 Top Cl.	8.09 26.7 Put	7.99 26	7.92 13	7.98	8.31 15	8.29 26	7.98 40 Out	7.45 40 Top Cl.
84.21	83.61	83.27	83.34	83.08	82.43	82.90	82.36	83.4
5.72 40 Out	6.92 40 Put	6.66 26	6.59 13	6.85	7.00 13	7.04 26	6.57 40	6.5 Ground
84.12	84.23	83.97	83.90	83.59	83.55	83.44	82.91	83.9
5.7 40 Ground	5.74 40	5.85 13	6.03 13	6.34	6.38 13	6.07 26	6.02 40	6.0 40 Ground
85.3	85.28	85.16	84.95	84.81	84.80	84.61	84.82	84.23
4.6 40 Ground	4.65 40	4.77 26	4.99 13	5.12	5.13 13	5.22 26	5.11 40	5.0 40 Ground
85.9	85.87	85.83	85.69	85.73	85.59	85.30	85.34	85.94
4.6 40 Ground	4.06 40 E. Pav.	4.10 26	4.24 13	4.20	4.34 13	4.63 26	4.59 40 Pav.	3.99 40 Top Cl.
87.5	87.26	86.59	87.02	87.07	87.19	86.99	86.59	86.58
2.4 40	2.67 40 Top Cl.	3.24 40 Put	2.91 26	2.86 13	2.76	2.94 13	3.24 26	3.35 40 Put
	39.7 End Ret.	39.7 Edge Pav.						2.73 26.3 7.2 26

289.93

+995 Continued

1+995

1+90 start at 9' odd lay drive

1+896 = Cross Curb. East curb end = Sta. 1+8A<sup>c</sup>  
West curb = Sta. 1+9A<sup>c</sup> see sketch Page 52  
Taken on Diag.

1+7653 on E This Sec. taken on Diagonal.  
S.E. Prop. Cor. - Sta. 1+82.78 + S.W. Prop.  
Cor. Sta 1+9A.35

289.93

	77.7	87.9	79.2	79.8	80.1	80.2	79.3	79.2	88.54
	12.2 50	12.0 40	10.7 25	10.1 9	7.8	9.7 20	10.6 23	10.05 24	11.39
				& Drive				Top Head Wall	Pipe L.L. + Bottom Spillway (See sketch of S.W. Return)
	79.0	88.6	80.1	81.2	81.0				
	10.9 40	11.3 37	9.2 26	8.7 14	8.9				
		& Walk							
	81.35	81.53	81.44	81.18	80.98			80.52	80.31
	Top	8.58	8.40	8.49	8.95	9.15	9.41	9.62	
	Cross	34.5	0L	1/4		1/4	20	0L	
	Curb	& walk popop steps							
	80.7	81.58	80.42	80.92	80.76	80.33	79.83	79.66	
	9.2 40	8.35 35	8.33 40	9.01 0H.	9.24 1/4	9.17	9.60 1/4	10.10 20.5	10.29 0H. 20
	80.1	81.10	80.89	80.92	80.76	80.33	79.83	79.66	
	80.7	81.58	80.42	80.92	80.76	80.33	79.83	79.66	
	80.7	81.58	80.42	80.92	80.76	80.33	79.83	79.66	
	9.2 40	8.35 35	8.33 40	9.01 0H.	9.24 1/4	9.17	9.60 1/4	10.10 20.5	10.29 0H. 20
	80.7	81.10	80.89	80.92	80.76	80.33	79.83	79.66	
	80.7	81.10	80.89	80.92	80.76	80.33	79.83	79.66	
	9.2 40	8.35 35	8.33 40	9.01 0H.	9.24 1/4	9.17	9.60 1/4	10.10 20.5	10.29 0H. 20
	80.1	80.2	80.1	80.1	80.1	80.1	80.1	80.1	80.1
	77.7	87.9	79.2	79.8	80.1	80.2	79.3	79.2	88.54
	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
	26	26	26	26	26	26	26	26	26
	Top Head Wall	Top Head Wall	Top Head Wall	Top Head Wall	Top Head Wall	Top Head Wall	Top Head Wall	Top Head Wall	Top Head Wall

289.93 X

2+15

72.4	73.0	74.7	74.2	69.0	64.7	52.3
$\frac{1.3}{60}$	$\frac{6.7}{40}$	$\frac{5.0}{15}$	5.5	$\frac{10.7}{20}$	$\frac{15.0}{32}$	$\frac{27.4}{40}$ <small>1.11 wash</small>
						<small>City Wash</small>

56.0  
 $\frac{23.7}{45}$   
 24.0  
 $\frac{55.7}{60}$

2+35

73.0	73.5	74.5	76.6	77.4	74.0	71.4	69.2
$\frac{6.7}{40}$ <small>6.9 Dist Drive</small>	$\frac{6.0}{40}$ <small>6.2 Encoil Drive</small>	$\frac{5.2}{26}$ <small>5.4 Drive on Curve 2-90</small>	3.1	$\frac{2.3}{12}$	$\frac{5.7}{17}$	$\frac{8.3}{29}$	$\frac{10.5}{35}$ <small>1.11 wash</small>

69.2  
 $\frac{14.5}{40}$  1.11 wash  
 17.8  
 $\frac{61.9}{15}$   
 $\frac{21.9}{60}$

2+24 End Culvert. Pipe Hangs in air from Sta. 2+17 to 2+24

78.2  
 $\frac{11.5}{37}$  Flow/100 End Culvert

2+17 =

75.8	75.8	75.5	77.4	77.7	78.9	72.8	75.3	75.0	78.6
$\frac{3.9}{50}$	$\frac{2.9}{40}$	$\frac{4.2}{30}$	$\frac{2.3}{11}$ <small>4 Drive</small>	2.0	$\frac{0.8}{24}$	$\frac{6.9}{32}$	$\frac{4.4}{35}$	$\frac{4.7}{40}$	$\frac{11.1}{60}$

2.AH  $\frac{279.71}{289.93}$  12.66 277.27

279.71

For Returns Bellingham &  
N. Cherokee see page 58

			<u>Err - 0.01</u>	
			297.19	8.51
Nail in pole	2.38	287.17		2170 A
	12.29	289.55	2.45	277.26

2+80

279.71

66.5	650	63.2	59.5	57.7	49.2	44.7
$\frac{13.2}{80}$	$\frac{14.7}{40}$	$\frac{16.5}{27}$	20.2	$\frac{26.0}{10}$	$\frac{30.5}{30}$	$\frac{35.0}{40}$

^ 279.71

S.W. Return

See sketch page 52

S.E. Return

N.E. Return

N.W. Return

$$\begin{array}{r} 282.45 \\ \underline{7.45} \\ \#1 \end{array}$$

$$\begin{array}{r} 281.93 \\ \underline{8.00} \\ \#2 \end{array}$$

$$\begin{array}{r} 281.70 \\ \underline{8.70} \\ \#3 \end{array}$$

$$\begin{array}{r} 280.54 \\ \underline{9.39} \\ \#4 \end{array}$$

$$\begin{array}{r} 284.26 \\ \underline{5.73} \\ \#1 \end{array}$$

$$\begin{array}{r} 283.37 \\ \underline{6.56} \\ \#2 \end{array}$$

$$\begin{array}{r} 282.42 \\ \underline{7.51} \\ \#3 \end{array}$$

$$\begin{array}{r} 281.60 \\ \underline{8.33} \\ \#4 \end{array}$$

$$\begin{array}{r} 282.26 \\ \underline{0.27} \\ \#1 \end{array}$$

$$\begin{array}{r} 281.42 \\ \underline{1.51} \\ \#2 \end{array}$$

$$\begin{array}{r} 282.26 \\ \underline{2.17} \\ \#3 \end{array}$$

$$\begin{array}{r} 281.36 \\ \underline{2.67} \\ \#4 \end{array}$$

$$\begin{array}{r} 287.51 \\ \underline{2.92} \\ \#1 \end{array}$$

$$\begin{array}{r} 286.75 \\ \underline{3.18} \\ \#2 \end{array}$$

$$\begin{array}{r} 286.18 \\ \underline{3.75} \\ \#3 \end{array}$$

$$\begin{array}{r} 285.84 \\ \underline{3.99} \\ \#4 \end{array}$$

Spike. P. Pole  
P. 51 Line A

2.75

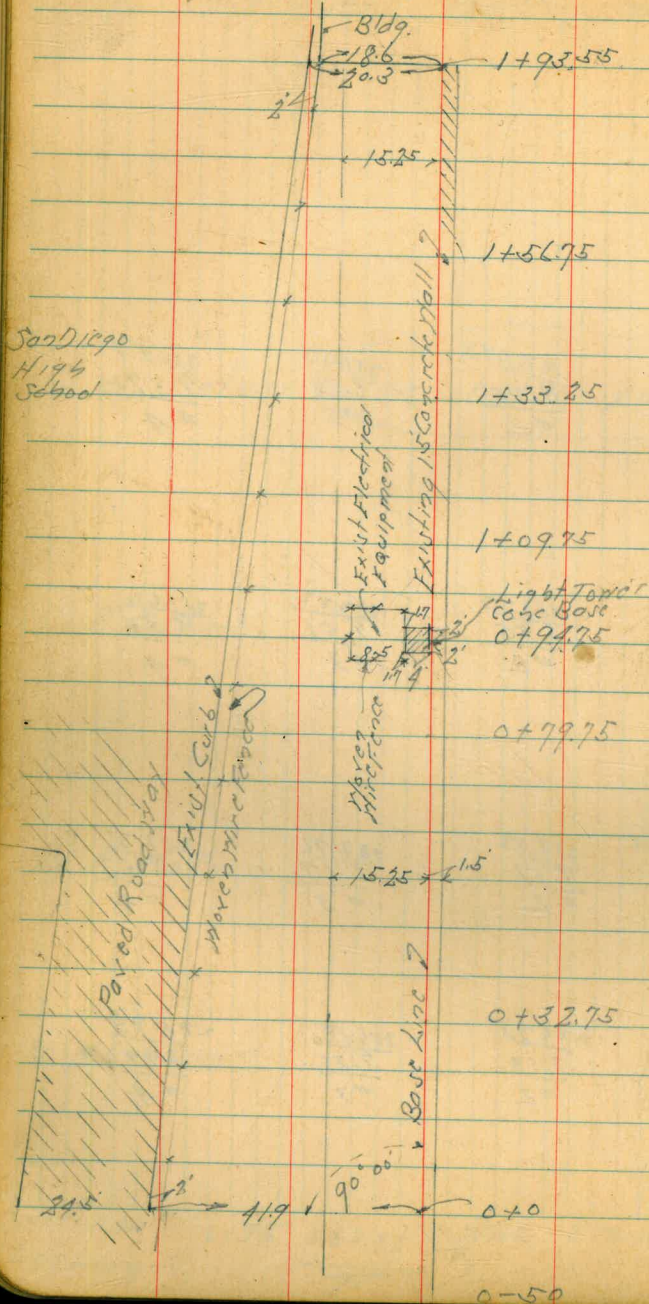
289.93

— 289.18

289.93

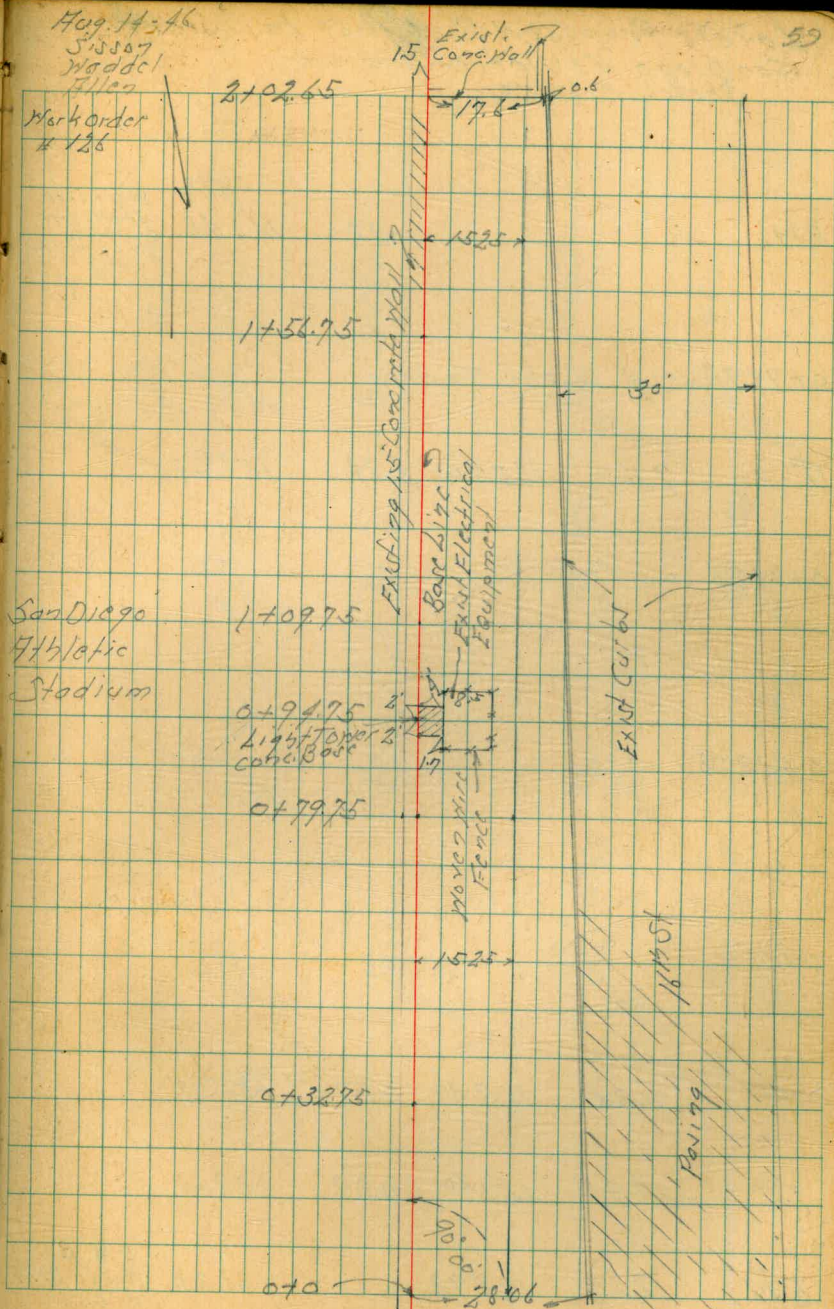
Proposed Buildings  
San Diego Athletic Stadium

Indexed  
C.R.K.



0-50

Aug. 14, 46  
Sisson  
Waddel  
Allen  
Mark order  
# 128



59

Levels Proposed Buildings East Side  
San Diego Athletic Stadium  
Sketch, Page 59

BM 122 162.48

East Side  
Stadium  
Center B  
Top of Steps  
1402

0+94.75 - Light Tower

TP 7.16 163.70 6.83 156.54

0+79.75

0+32.75

0+0

TP 11.84 163.37 0.07 151.53

TP 12.97 151.60 0.29 138.63

BM 12.69 138.92 126.23

S.W. BP  
Ruess Blvd.  
4729581

Aug 14-46  
S. J. Sloan  
Waddell  
Hiller

Base of Light Tower

East

60

162.23	162.85	162.91	158.25	158.51	158.51
0.98 10-14-46 100 steps	0.85 7-15-46 Floor	0.51 9-10-46 Wall	1.5 15.25	7.18 23.0 = Cb Top	8.14 25.0 = Gutter
		163.70	158.91	158.51	158.51
		162.91	15.23	7.47 24.0 = Gutter	8.24 24.0 = Gutter
		163.37	158.91	158.51	158.51
		162.91	6.6 15.25	9.58 26.25 = Gutter	10.63 26.25 = Gutter
		163.37	158.91	158.51	158.51
		163.37	6.8 15.25 = Ground	11.09 28.0 = Top of Gutter	12.11 28.0 = Gutter
		163.37			

2702.15 = East + West Wall

1756.75

TP      615      165.22      463      159.07

1709.75

163.70

Back Line

East

61

169.553

169 Top Cont  
Wall

163.079

165 Top Cont  
Wall

165.22

163.26

047 Top Cont  
Wall

163.70

141.57

57  
162.5

159.82

54  
162.25

159.14

53  
162.5 Ground

169.09

184  
176 Top Cont  
Wall

157.37

585  
198-Cb

157.18

65  
22 Top Cont

150.17

290  
182-Cb

159.29

693  
198-Gutter

151.14

756  
22 Top Cont

150.13

491  
182-Gutter

159.29

693  
198-Gutter

151.14

756  
22 Top Cont



Levels Proposed Buildings West Side  
 San Diego Athletic Stadium  
 Sketch Page 59

0+94.75	Light Tower			
0+79.75				
TP	8.32	16396	746	155.64
0+32.75				
0+0				
0-50				
TP	7.38	16310	758	155.72
BM	0.82	163.50		162.48

Page 60

West

Foot 62

150.51	13.40 290-Gutter	1499	14.00 30.3-Gutter	1484	1498	1620	144.76	18.40 41.9-Gutter 0.72	150.51	13.40 290-Gutter	1499	14.00 30.3-Gutter	1484	1498	1620	144.76	18.40 41.9-Gutter 0.72	150.51	13.40 290-Gutter	1499	14.00 30.3-Gutter	1484	1498	1620	144.76	18.40 41.9-Gutter 0.72	150.51	13.40 290-Gutter	1499	14.00 30.3-Gutter	1484	1498	1620	144.76	18.40 41.9-Gutter 0.72
151.51	12.77 290-Cb	1503	13.27 30.3-Cb	1483	1435	1568	145.32	17.77 41.9-Top Gurb	151.51	12.77 290-Cb	1503	13.27 30.3-Cb	1483	1435	1568	145.32	17.77 41.9-Top Gurb	151.51	12.77 290-Cb	1503	13.27 30.3-Cb	1483	1435	1568	145.32	17.77 41.9-Top Gurb	151.51	12.77 290-Cb	1503	13.27 30.3-Cb	1483	1435	1568	145.32	17.77 41.9-Top Gurb
152.51	11.4 2.3	1516	13.16 2.3-Top Slope	1482	1436	1569	146.60	16.5 37-Top Slope	152.51	11.4 2.3	1516	13.16 2.3-Top Slope	1482	1436	1569	146.60	16.5 37-Top Slope	152.51	11.4 2.3	1516	13.16 2.3-Top Slope	1482	1436	1569	146.60	16.5 37-Top Slope	152.51	11.4 2.3	1516	13.16 2.3-Top Slope	1482	1436	1569	146.60	16.5 37-Top Slope
153.51	7.1 15.25	1529	8.9 15.25	1529	1437	1570	147.9	15.25 18.25	153.51	7.1 15.25	1529	8.9 15.25	1529	1437	1570	147.9	15.25 18.25	153.51	7.1 15.25	1529	8.9 15.25	1529	1437	1570	147.9	15.25 18.25	153.51	7.1 15.25	1529	8.9 15.25	1529	1437	1570	147.9	15.25 18.25
154.51	0.88	1542	1.00 16.96 16.96	1542	1438	1571	148.21	0.8 18.25 18.25	154.51	0.88	1542	1.00 16.96 16.96	1542	1438	1571	148.21	0.8 18.25 18.25	154.51	0.88	1542	1.00 16.96 16.96	1542	1438	1571	148.21	0.8 18.25 18.25	154.51	0.88	1542	1.00 16.96 16.96	1542	1438	1571	148.21	0.8 18.25 18.25
155.51	1.47 1.47 1.47	1555	1.00 16.96 16.96	1555	1439	1572	148.51	0.8 18.25 18.25	155.51	1.47 1.47 1.47	1555	1.00 16.96 16.96	1555	1439	1572	148.51	0.8 18.25 18.25	155.51	1.47 1.47 1.47	1555	1.00 16.96 16.96	1555	1439	1572	148.51	0.8 18.25 18.25	155.51	1.47 1.47 1.47	1555	1.00 16.96 16.96	1555	1439	1572	148.51	0.8 18.25 18.25

Checked Back to Starting BM ok

BM 1.52 176.06 8 P NE Cor  
 Gym S.D.  
 1195 (2nd floor)  
 176.00

TP 9.00 177.58 0.70 168.58 }  
 TP 12.07 169.28 6.15 157.21 } out.

1793.55 = Sly Bldg.

1756.75

TP 3.99 164.36 3.59 160.37 160.37

1733.25

1709.75

163.96

Start.

East 63

Barclays?

1555.05	1555.68	1572.05	1557.73	1553.73
9.31 203 = Gutter	8.68 203 = cb	8.33 18.6 = Sly Cor 8.68 = 2nd floor	8.6 16.25 = Tard Step	1.08 = W/TOP Cond Wall
1555.02	1555.04	1555.06	1555.08	1555.09
11.34 23.5 = Gutter	10.70 23.5 = cb	10.3 17 = Tard Step	9.6 15.25	1.08 = W/TOP Cond Wall
1552.07	1552.72	1555.1	1555.13	1555.14
11.89 25 = Gutter	11.24 25.6 = cb	10.9 19 = Tard Step	9.7 13.25	0.71 = W/TOP Cond Wall
1511.6	1511.76	1522.1	1525.3	1529.7
12.80 27.6 = Gutter	12.90 27.6 = cb	11.6 22 = Tard Step	8.7 15.25	0.88 = W/TOP Cond Wall
				163.96



CITY OF SAN DIEGO  
OFFICE OF CITY ENGINEER  
INFORMATION REQUEST

3155  
N<sup>o</sup> 3015

W.O.NO. 21001

TO Gabrielson FROM Eckenrode DATE 12-22-48

Book-1692/69. Complete these notes. & continue to Noell St.

Get details of covers & grades and additional openings - Wright &

Estudillo Sts. Check opening #2.

REFERENCES: DRAWING NO. 2427-2429-2430 L

FIELD BOOK NO. 1692

1805 (for notes)

REPORT BY Hampton TO Eckhardt DATE \_\_\_\_\_

Osborne Found openings covered by  
Paving - can get no information unless  
uncovered.

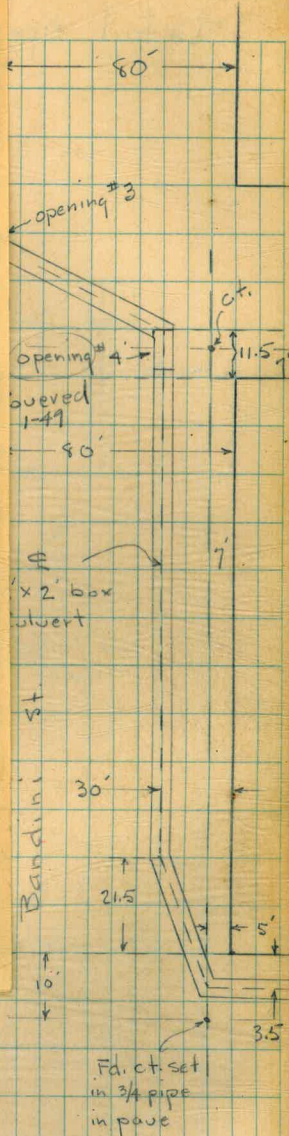
INFORMATION ON DRAWING NO. \_\_\_\_\_

DATA IN BOOK 1692-69

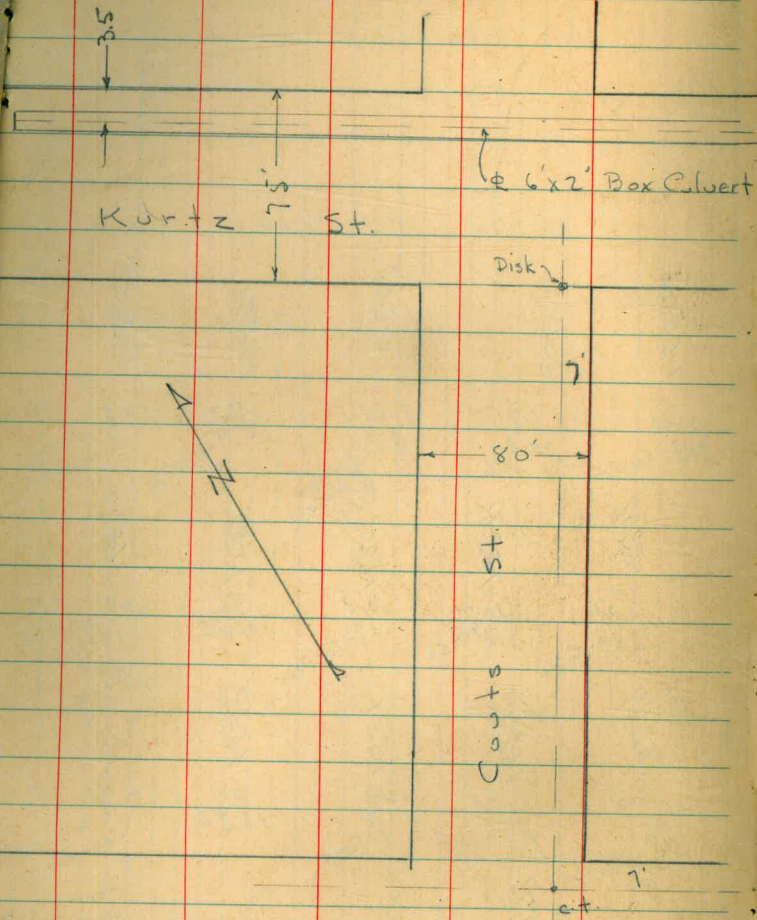
FORM 211

for Levels See Page 67

Pacific Hwy



Location of New Boxes on Old Box  
 WERT on Kurtz + Bandini

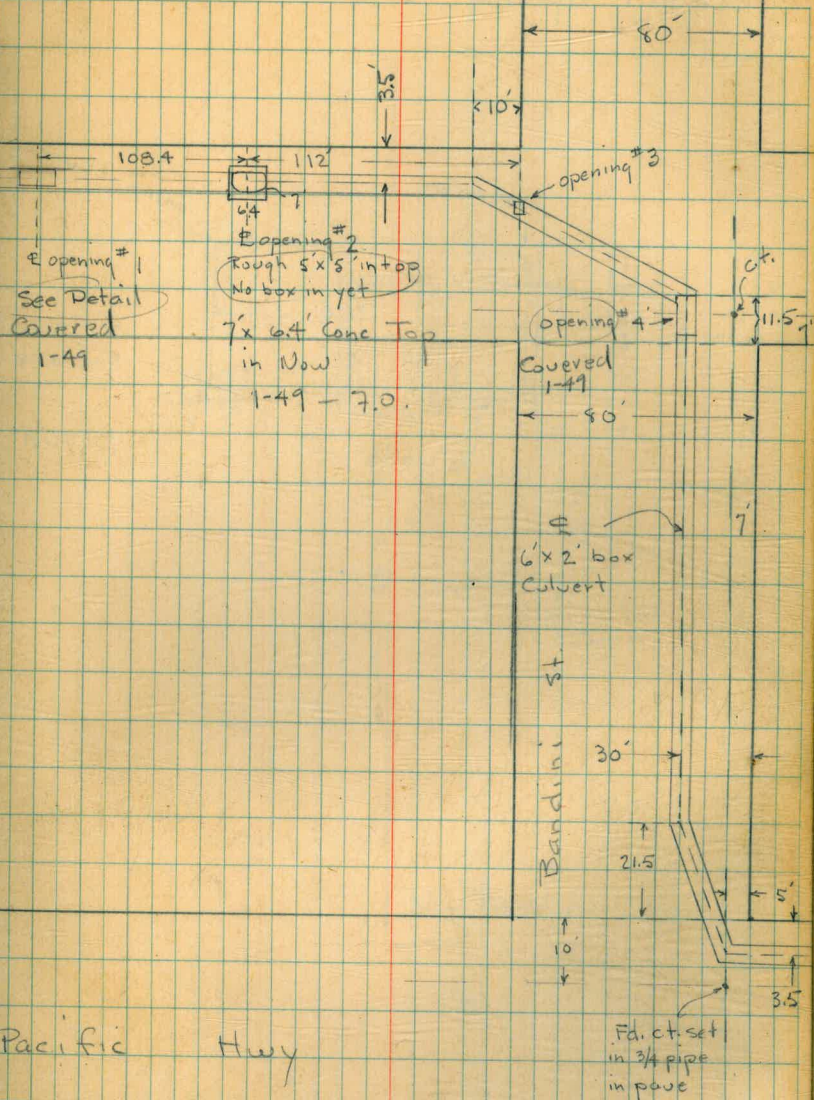


for levels See Page 67

10-11-46 # 496  
 Osborne  
 Hardin  
 Worrell

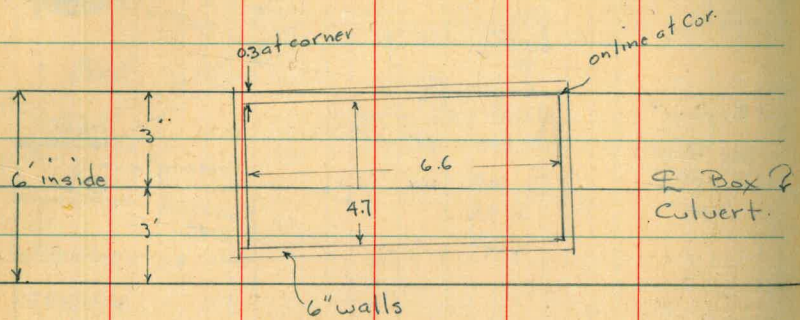
INDEXED  
 C.S.K.

64

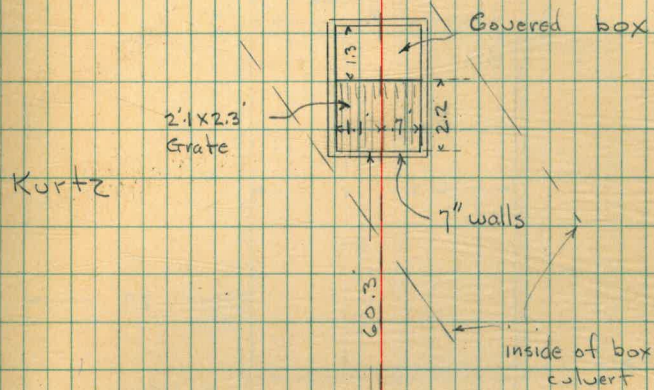


Pacific Hwy

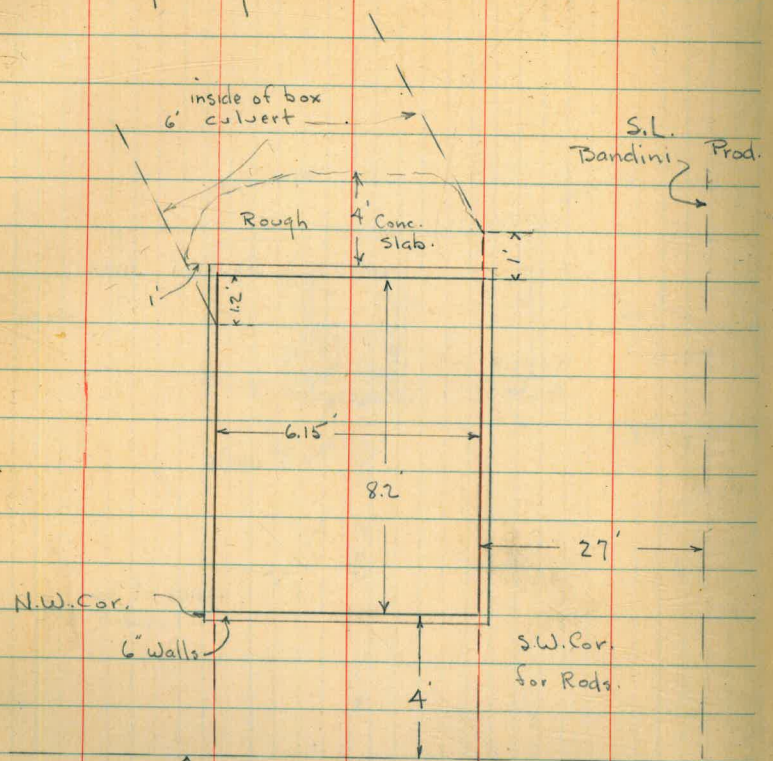
Detail Opening # 1



Detail Opening # 3

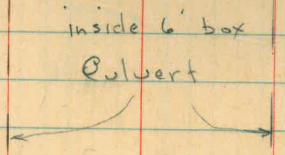


# Detail opening # 4



S.L. Bandini Prod.

S.L. Kurtz



Levels on Openings in 6' Box Culvert  
on Kurtz + Bandini - See Sketch

B.M. 5.03 6.56 ✓ 1.53 s.w. 1' tack  
Kurtz + Bandini

Opening # 1 - Elev. taken on  $\Phi$  opening unless  
otherwise noted.

Flow line of box Culv. 8.63 - 2.07

Top inside of box Culv. 6.63 - 0.07

Top of walls of opening 8.16 - 1.60

Const. of opening not Completed

Opening # 2

F.L. Culvert 8.91 - 2.35

Top inside Culvert 6.91 - 0.35

No box built on opening

Opening # 3 6.56 ✓

F.L. Culvert 9.10 - 2.58

Top inside Culvert 7.10 - 0.58

Top of Grate 5.43 1.13

Top of Covered box 4.49 2.07

Opening # 4

F.L. Culvert - W. side opening 9.17 - 2.61

F.L. " - E. " " 9.17 - 2.61

Culvert 2' High inside here

Top of wall of box opening

S.W. Cor. 6.29 0.27

N.W. Cor 6.19 0.37

N.E. Cor 6.12 0.00

S.E. Cor 6.08 0.98

$\Phi$  Slab. at E. edge 6.17 0.39

C Moore  
S Myr  
W. W.

Pac. Grades on  
Grape St.

EB. Pacific to Harbor Dr.

1 + 60.00 2 Co. Drive W.O. # 58

1 + 430.8

BMBP SE = 5.96  
Belt + Grape 3.67  
9.63 = T

1 + 32.9

1 + 00

0 + 55

0 + 12 06. E.C.  
0 + 00 W.L. Pacific

LT Indexed  
C.S.K.

RT = N 68

$\frac{6.21}{3.47}$  ✓

$\frac{6.44}{3.19}$  ✓

$\frac{6.32}{3.31}$   
 $\frac{3.33}{F 0.02}$

$\frac{5.68}{6.07}$

$\frac{6.47}{3.16}$  ✓

$\frac{5.93}{3.70}$   
 $\frac{4.96}{F 1.26}$

$\frac{5.44}{4.19}$  ✓

$\frac{6.45}{3.18}$  ✓

$\frac{5.88}{3.75}$   
 $\frac{4.01}{F 0.26}$

$\frac{5.37}{4.26}$  ✓

$\frac{6.31}{3.32}$  ✓

$\frac{5.79}{3.84}$   
 $\frac{3.86}{F 0.02}$

$\frac{5.28}{4.35}$  ✓

$\frac{6.16}{3.47}$  ✓

$\frac{5.65}{3.98}$   
 $\frac{3.86}{C 0.12}$

$\frac{5.19}{4.44}$  ✓

5.52

$\frac{5.54}{4.09}$  ✓



376413 Fly Row Harbor dr.

375598 4 11 "

3

750

H.I.

9.63

2000

116939 = w/4 Co. drive. Meet Ex Pav.

LT

E

RT

69

4.34  
.  
5.29  
5.37  
F 0.08

3.91  
5.72  
5.13  
C 0.59

4.41  
5.22  
5.32  
F 0.10

3.89  
5.74  
5.57  
C 0.17

4.40  
5.23  
4.81  
C 0.42

4.91  
4.72  
5.13  
F 0.41

4.39  
5.24  
5.06  
C 0.18

4.84  
4.79  
4.98  
F 0.19

5.36  
4.27  
5.19  
F 0.83

4.84  
4.79  
4.60  
C 0.19

5.28  
4.35  
4.23  
C 0.17

5.80  
3.83  
4.15  
F 0.37

5.28  
4.35  
3.86  
C 0.50

6.06  
3.57 ✓

6.31  
3.32 ✓

6.33  
3.30  
3.54  
F 0.04

Lt.

E

Rt

70

25' E of Ely Pay. edge Valley cut.

3.37  
6.26  
6.51  
Fo. 25

3.30  
6.33  
6.51  
Fo. 18

3.23  
6.40  
6.74  
Fo. 34

3 + 84.13

3.92  
5.71  
5.57  
Fo. 14

3 + 74.13

4.19  
5.44  
5.45  
Fo. 01

3 + 73.32 Ely Row.

4.1  
9.63

3.74  
5.89  
5.46  
Co. 43

Proposed Opening Pacific Highway  
to Consolidated Over Pass Near Control.

Dec. 11-46  
Sisson  
McCoy  
Haddel  
Hilch

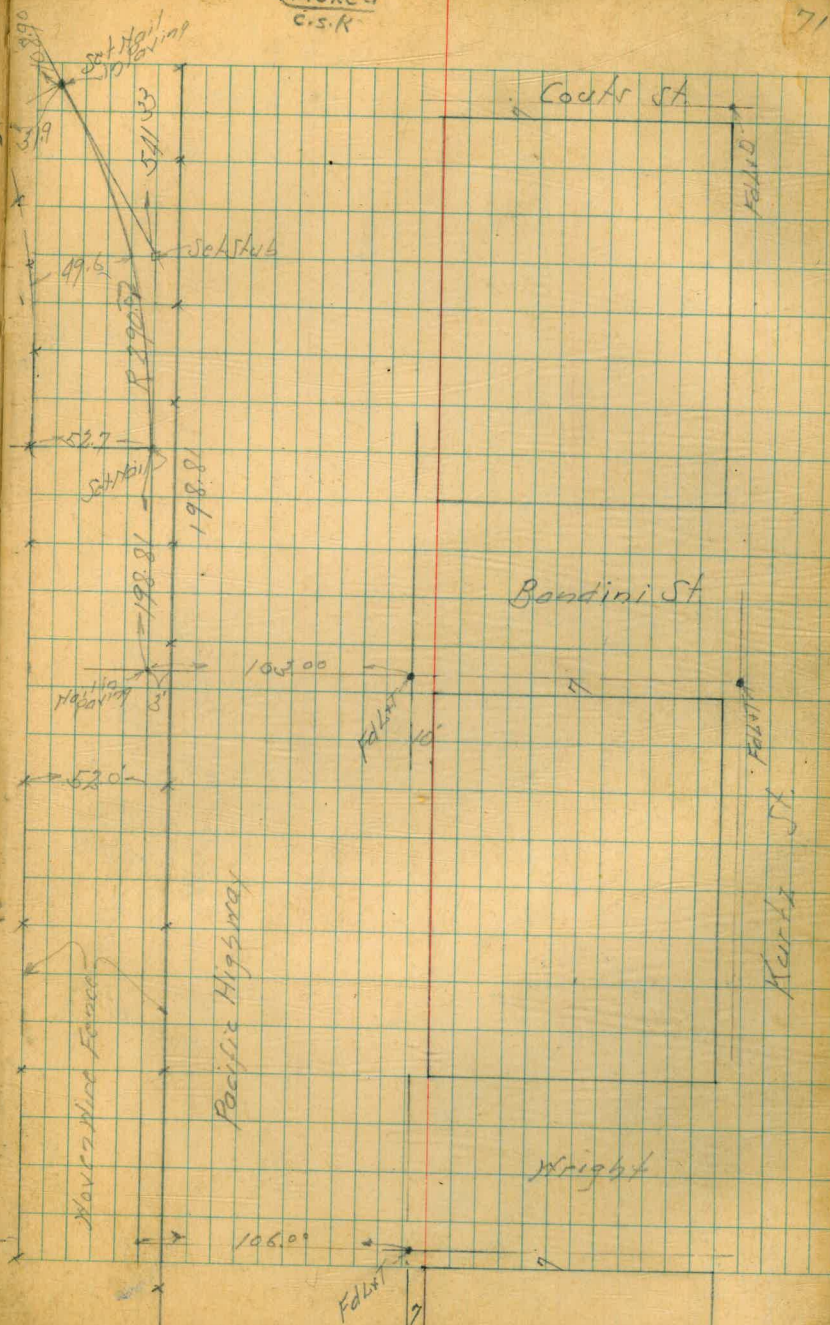
Work Order #189

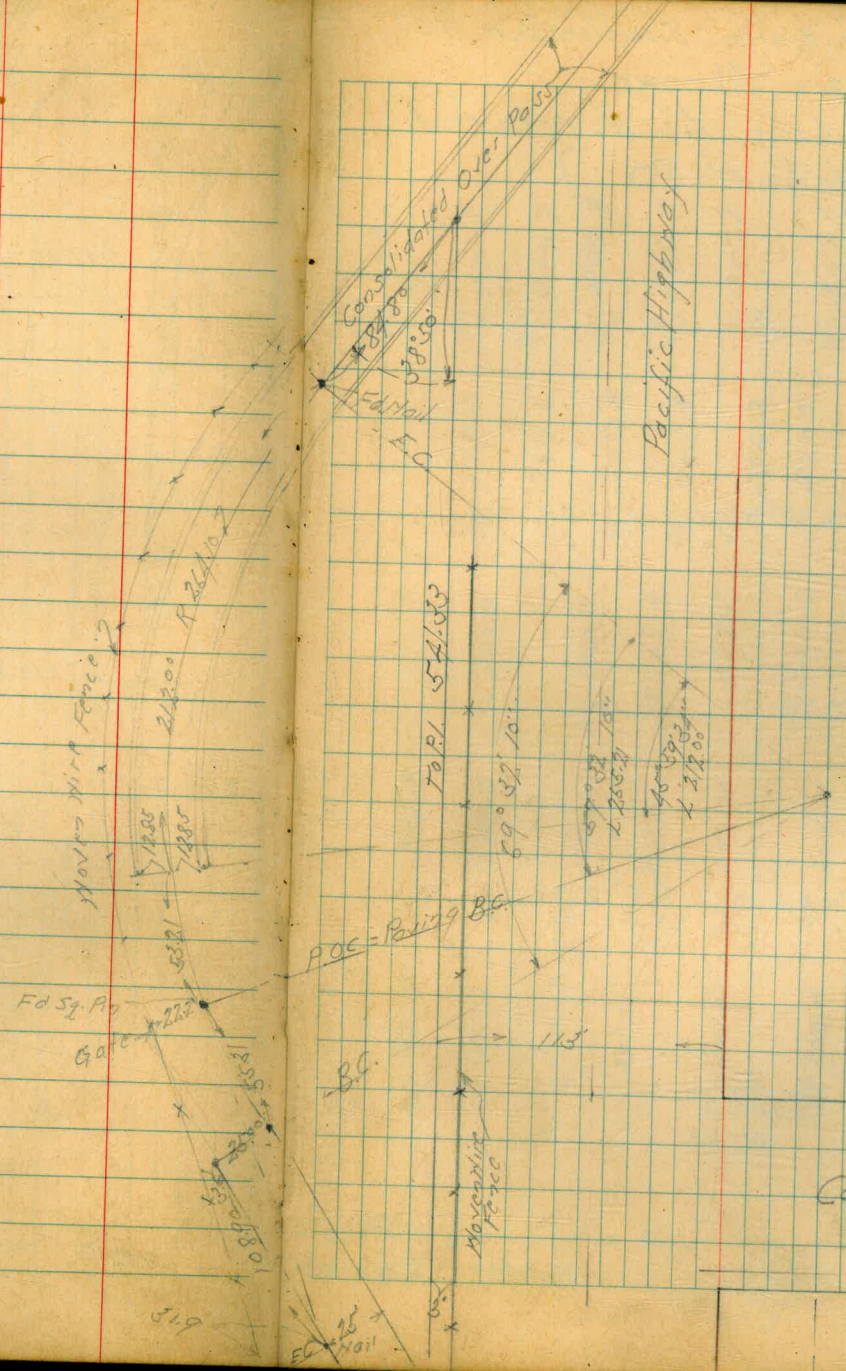
$\Delta 30^{\circ}40'20''$   
R 290  
T 99.54  
L 155.26

B.C.

Indexed  
C.S.R.

71





Mark J.

Walker  
Hendricks  
Jacker  
Johnson  
6-16-47

Cross Sections - Winchester St  
from Sea Breeze  
To East Line La Huerta Sub  
(Sketch P. 80)

0+50

0+25 = E Line Sea Breeze

0+00 = L Sea Breeze

0-25 = W Line Sea Breeze

West of  
0-50 = 250' W Line Sea Breeze

8.77 252.89  
m

BM-N.Y. 1.  
S.F.A. -

Lt.

Indexed  
c.s.k.

L

FT

73

28 45	243.1									
90 30	243.9									
82 20	244.7									
75 12	245.4									
67 30	246.0									
68	246.1									
57 30	247.2									
53 30	247.6									
44 45	248.5									
		243.5								
		244.6								
		245.3								
		245.9								
		246.2								
		247.0								
		247.4								
		247.2								
		247.6								
		247.3								
			243.0							
			243.9							
			244.4							
			245.8							
			246.2							
			247.1							
			247.6							
			248.0							
		242.9								
		243.9								
		244.1								
		243.51								
		244.30								
		246.0								
		246.6								
		247.0								
		247.3								
	240.0									
	241.4									
	243.1									
	243.32									
	242.75									
	243.12									
	244.4									
	245.2									
	245.7									
	246.1									
129 45										
115 30										
88 28										
957 20										
1014 20										
977 20										
833 20										
252.85										

Ltd. Plg. (Water Service Plg.)  
BRIDGE AND WINCHESTER.

Winchester St.

x Sections

2+50

2+25

2+00

T.P. 12.99 260.20 5.68 247.21

1+50

1+11

1+00

252.89

Lt.

R.

Rt.

74

8.7 15	244.2	7.1 15	245.8	11.7 15	248.5	19.7 15	250.5	8.8 15	251.4
8.5 30	244.4	7.3 30	245.6	12.0 30	248.2	10.2 30	250.0	9.1 30	250.8
8.0 20	244.9	7.5 20	245.4	12.5 27	247.7	10.9 28	249.3	9.1 20	250.8
7.7 20	245.2	7.0 20	245.9	12.5 20	247.7	10.8 20	249.4	9.8	250.4
7.4	245.5	7.0	245.9	12.7	247.5	11.0	249.2	10.0 5	250.2
7.6 8	245.3	6.8 20	246.1	12.7 6	247.5	11.1	249.1	9.4 8	250.8
6.4 10	246.8	6.5 30	246.4	12.3 9	247.9	10.0 20	250.2	9.1 20	250.8
5.8 20	247.4	6.0 15	246.9	12.9 20	247.3	9.6 30	250.6	9.8 30	250.4
5.6 30	247.3	4.9 15	248.0	12.8 30	247.4	10.8 15	249.4	9.0 15	250.3
4.3 15	248.6			12.6 15	247.6				
252.89									

Winchester Street  
X-Sections

St.

20

Rt.

75

4+00

T.P. 2.98 262.92 0.26 259.94

3+50

3+30

3+00

2+88

2+67

260.20

260.1	252.2	256.4	254.4	253.3	251.8	260.1
9.8 45	2.0 45	3.8 15	5.8 45	4.9 45	8.4 15	9.8 45
261.3	257.1	256.4	254.7	253.7	251.9	261.3
8.6 30	1.1 24	3.8 30	5.5 25	6.5 30	8.3 30	8.6 30
261.6	259.5	257.1	255.2	253.7	251.8	261.6
8.9 20	0.7 20	3.7 20	5.0 20	6.6 20	8.4 20	8.9 20
261.8	259.3	257.9	255.9	254.3	252.0	261.8
8.0	0.9	3.3	4.3	5.9	8.2	8.0
261.8	259.3	257.9	255.9	254.2	251.7	261.8
8.1 0	0.9 0	3.3 7	4.3 6	5.9 10	8.5 20	8.1 0
262.5	259.7	258.2	257.4	255.2	251.2	262.5
7.4 9	0.4 10	3.0 6	3.8 10	5.0 10	8.5 20	7.4 9
263.1	259.8	258.0	257.0	255.3	251.3	263.1
6.8 20	0.4 20	2.2 20	3.2 20	4.9 20	8.3 15	6.8 20
263.3	259.8	257.6	255.7	254.5	251.3	263.3
6.6 30	0.4 30	2.6 30	3.5 30	5.7 30	8.3 15	6.6 30
263.8	259.2	257.4	254.3	253.2	251.3	263.8
6.1 45	1.0 15	2.6 15	3.9 15	7.0 45	8.3 15	6.1 45

Winchester Street  
N. Section 1076

5+30 - Reg. Wire Fence 21' 6"

6+64 - End Wire Fence  
25' 2"

5+25.84

5+15.84

4+95.84

4+75.84

4+65.84

4+40.84

267.92

76

7.9 45	262.0	1.3 30	265.6	2.1 30	267.5
7.5 30	262.4	1.2 20	265.7	3.2 20	267.3
7.7 20	262.2	4.0 13	265.9	3.3 13	266.8
6.8 30	263.1	4.1 30	265.5	4.0 30	266.2
6.9	263.0	4.7	265.2	4.3	265.9
6.6	263.3	4.1 30	265.5	4.3 30	265.9
6.2 12	263.7	1.6 20	265.3	3.9 20	266.1
5.9 20	264.0	1.7 30	265.0	4.1 30	266.3
5.8 30	264.1	1.9 30	265.1	4.6 30	265.6
4.4 45	265.5	5.4 30	264.5	4.8 30	265.1
		5.6 30	264.4	4.4 30	
		5.3 30	264.6	4.1 30	
		5.8	264.1	4.1 30	
		5.2 10	264.1	4.1 30	
		5.2 20	264.7	4.1 30	
		5.2 30	264.7	4.1 30	
		4.9 30	265.0	4.1 30	
		5.4 30	264.5	4.1 30	
		5.2 20	264.7	4.1 30	
		5.2 30	264.7	4.1 30	
		4.4 45	265.5	4.1 30	



Winchester St.  
X-Sections

lit

x

Rt. 77

Cont. p. 78

TR 3.74 262.43 11.23 258.69

6+60.86 Sub. line

6+30.84

6+00

5+75

5+50.84

269.92

10 45	266.9	10 45	269.8	10 45	270.0	10 45	269.6	10 45	269.6
13 30	268.6	06 30	269.3	02 30	269.3	14 30	268.5	19 30	268.0
14 20	268.5	07 20	269.2	13 20	268.6	24 20	267.5	27 20	267.2
11 20	267.8	13 13	268.6	20 12	267.9	21 13	266.8	28 13	266.6
28 8	267.1	24 8	267.5	33 8	266.6	41 9	265.8	44 9	265.5
32 3	266.7	32 3	266.7	38 7	266.1	45 7	265.4	47 7	265.2
33 1	266.6	37 5	266.7	37 7	266.2	46 7	265.3	45 7	265.4
31 13	266.8	30 5	266.9	56 20	264.3	53 11	264.6	57 13	264.2
36 13	266.3	34 10	266.5	54 30	263.5	60 20	263.9	61 20	263.5
45 20	265.4	46 20	265.3	78 15	262.1	68 30	263.1	73 30	262.6
53 30	264.6	50 30	264.0	80 15	261.9	80 15	261.9	83 15	261.6
62 15	263.7	60 15	263.0						

269.92

Walker  
Handricks  
Becker

CROSS SECTIONS  
ALLE FAVIOTO ST.

Johnson from CALLE ADELFA to North end  
6-17-47 (Sketch P. 80)

1+75

T.P. 11.34 262.47 4.30 258.13

1+50

1+00 all on Natural Ground

0+50.17

0+25.15 - N line Calle Adelfa St

0+00 = Subdivision Line  
from P-77  
262.43

L R 78

260.8	259.4	258.7	258.2	257.5	256.7	256.2	255.1	253.1	253.0	252.1	251.2	249.6	246.1
16/45	30/30	37/20	42/15	49/13	57/8	62/6	63/3	64/5	78/20	86/30	101/30	128/50	163/60
	258.8	257.3	256.0	255.0	253.1	253.1	253.0	252.1	251.2	249.6	246.1		
	36/45	35/30	34/20	34/13	33/8	33/6	33/5	33/5	33/30	33/30	33/30	33/50	33/60
255.8	254.2	253.6	252.6	251.9	251.2	251.2	251.5	251.5	252.1	251.0	246.6	246.1	
66/45	82/30	88/20	98/16	105/8	112/6	112/2	109/16	109/16	103/20	114/30	158/45	163/60	
	255.3	252.8	251.6	250.4	250.5	250.5	251.0	251.3	250.8	250.2	245.5	246.1	
	71/45	96/30	108/19	120/14	119/11	119/11	114/20	111/20	111/20	127/45	169/45	163/60	
255.1	252.6	251.0	250.4	250.5	250.5	250.5	249.8	249.9	249.8	249.8	243.7	246.1	
73/45	98/30	114/20	120/12	119/11	119/11	119/11	126/20	126/20	126/20	126/20	187/45	163/60	
							on 3' Rub	on 3' Rub	on 3' Rub	on 3' Rub	on Rubbish Dump	on Rubbish Dump	

CALLE GAVIOTA

X Sections

Additional Sections FB 1762-55

Uniform Grade from 4+50 to 5+33.4

SEA BREEZE

Chk. S.V.L.B.R. Edge of Water 12.39 24518 Page 26

T.P. 0.90 25757 12.80 256.67

5+08

4+50

4+00

3+94

3+76.02

3+50

3+00

26947

266.2	265.8	265.4	265.1	264.2	264.4	263.4	263.4	263.3
33 45	37 30	41 20	44 14	53 12	51 20	51 30	61 45	62 15
265.8	265.3	264.3	263.7	262.8	262.8	263.4	262.6	262.5
47 45	48 30	52 20	58 14	57 11	67 20	61 30	65 41	70 46
263.4	262.8	262.6	262.2	261.3	260.3	259.4	257.7	257.0
45 40	47 30	49 20	73 13	82 11	92 20	101 20	118 30	125 30
260.7	261.4	262.3	264.5	265.8	265.0	264.6	264.5	264.5
88 30	81 30	72 20	57 20	37 20	15 11	11 11	13 20	15 30
260.7	261.4	262.3	264.5	265.8	265.0	264.6	264.5	264.5
88 30	81 30	72 20	57 20	37 20	15 11	11 11	13 20	15 30

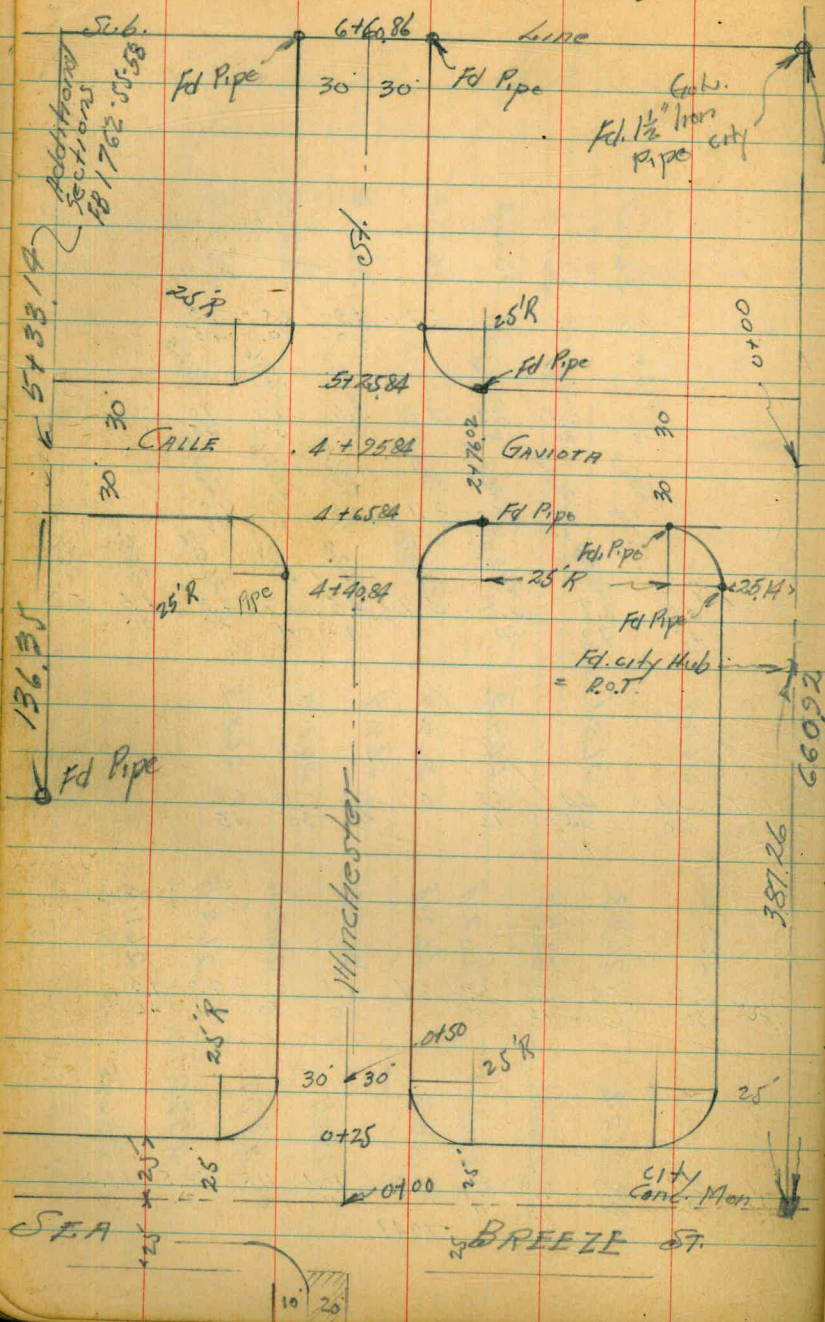
17

18

17

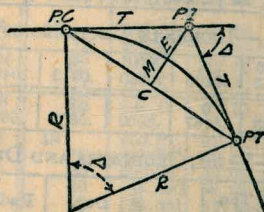
79

X-Sections P. 73 to 79



# DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



### CURVE FORMULAS

- Radius =  $R = \frac{50}{\sin \frac{D}{2}}$  (1) Degree of Curve =  $D$  and  $\sin \frac{D}{2} = \frac{50}{R}$  (2)
- Tangent =  $T = R \tan \frac{\Delta}{2}$  (3) Length of Curve =  $L = 100 \frac{\Delta}{D}$  (4)
- Middle ordinate =  $M = R(1 - \cos \frac{\Delta}{2})$  (5) =  $R \text{vers} \frac{\Delta}{2}$  (6)
- External =  $E = T \tan \frac{\Delta}{4}$  (7) =  $R \div \cos \frac{\Delta}{2} - R$  (8) =  $R \text{exsec} \frac{\Delta}{2}$  (9)
- Long Chord =  $C = 2 R \sin \frac{\Delta}{2}$  (10)  $\Delta$  = Central Angle

### EXPLANATION AND USE OF TABLES

**Stations.**—Given P. I. = Sta. 161 + 60.35 to find Sta. of P. C. and P. T.  $\Delta = 62^\circ 10'$   $D = 8^\circ 20'$ . From Table IV for  $1^\circ$  curve  $T = 3454.1$  and  $\div 8\frac{1}{2} = 414.49$  ft. From Table V correction = .36 or  $T = 414.85$  ft. P. C. = Sta. P. I. -  $T = 157 + 45.50$ . Also from (4)  $L = 746.00$  and P. T. = Sta. P. C. +  $L = 164 + 91.50$ .

**Offsets.**—Tangent offsets vary (approximately) directly with  $D$  and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance =  $158 - \text{Sta. P. C.} = 54.50$ , hence offset =  $7.27 (54.50 \div 100)^2 = 2.16$  ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus  $(54.50)^2 \div (2 \times 688.26) = 2.16$  ft.

**Deflections.**—Deflection angle =  $\frac{1}{2} D$  for 100 ft.,  $\frac{1}{4} D$  for 50 ft., etc. For  $c$  ft. = (in minutes)  $.3 \times C \times D$  or = defl. for 1 ft. from Table III x  $C$ . For Sta. 158 of above curve =  $.3 \times 54.5 \times 8\frac{1}{2} = 136.2'$  or  $2^\circ 16.2'$ , or =  $2.50 \times 54.5 = 136.2'$  from Table III. For Sta. 159 deflection angle =  $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$ , etc.

**Externals.**—May be found in similar manner to tangents. Thus  $E$  for curve above is 115.37. For from Table IV for  $1^\circ$  curve  $E = 960.6$  for  $8^\circ 20' = 960.6 \div 8\frac{1}{2} = 115.27$  and from Table V correction = .10 or  $E = 115.37$  ft. Or suppose  $\Delta = 32^\circ$  and  $E$  is measured and found to be 42 ft. What is  $D$ ? From Table IV  $E = 230.9$  and  $\div 42 = 5.5$  or  $D = 5^\circ 30'$ .

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DISTANCES FROM CENTER OF ROADWAY FOR  
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2  
For Single Track Embankment.

26.3

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.

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