1138

DIETZGEN

ENGINEER'S

FIELD BOOK

No. 404

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.

60' wide
10 cbs
10' 11+5

Herbert St X Sec. 9/14/25
From S Line Robinson to N Line

B.M.	134	295.39	294.05	NE Robinson & Herbert
		00 ± S Line Robinson		
E		0.0		
+5		2.5		
cb		2.2		
1/4		2.2		
C		2.0		
1/4		2.3		
cl		3.35		on center No yardage
cb		2.4		
W		2.7		
	15' S			
W		2.6		
cb		2.6		
1/4		2.0		
C		2.0		
1/4		2.0		
cl		1.4		
+5		1.4		
E		0.0		
	20' S			
E		0.9		
+5		1.5		
cl		1.7		

42' S = N end of Double Garage, dirt floor 16'X20'.
That is in the street

295.39

65' S

E	2.1
cb	3.5
1/4	3.7
C	4.0
1/4	4.0
cl	3.9
W	4.2
75' S	
W	9.7
cb	8.8
1/4	7.0
C	8.3
1/4	8.0
cb	3.5
E	2.8
90' S.	
E	3.9
cl	5.3
1/4	11.5
E	14.6
1/4	15.0
cl	15.9
T.P.	5.94 289.45

Use former notes from here South. RMB.

UNIV. AVE. X SECTION

SHILOH rd. BM SET Iron Pipe	13.19	326.22		313.03
		425' E EL LEMONA		
S	30+57	33	13.1	13.1
cb			12.9	13.3
1/4			13.7	12.5
C	30+57	33	15.8	10.4
1/4			16.6	09.6
cb			17.6	08.6
N	30+57	43	18.1	08.1
+10			17.4	088
		450E		
-10			16.1	10.1
N	30+77	43	15.5	10.7
cb			14.4	11.8
1/4			13.6	12.6
C	30+77	33	12.6	13.6
+2			12.6	13.6
+5			13.4	12.6
1/4			11.7	14.5
cb			11.0	15.2
S	30+77	22	11.2	15.0
		475' E		
S	31+07	22	10.0	16.2
cb			10.2	16.0
1/4			10.6	15.6
+4			12.6	13.6

See book 1131.

			386.7	
+7			11.4	3148
C	31+07	33	11.6	146
1/4			12.2	140
cb			12.6	136
N	31+07	43	12.9	133
+10			13.1	131
		500' E		
+10			12.0	142
N	31+27	43	11.5	147
cb			11.2	150
1/4			11.0	152
C	31+27	33	10.6	156
+3			11.1	151
+6			10.4	158
1/4			10.1	161
cb			9.6	166
S	31+27	22	9.5	167
		525' E		
S	31+57	22	9.2	170
cb			9.3	169
1/4			10.0	162
C	31+57	33	10.3	159
1/4			10.9	153
cb			11.2	150
N	31+57	43	11.8	144
+10			12.3	139

		550 E		
-10		3x6.xx	11.1	15.1
N	31+77	43	10.8	15.4
cb			10.5	15.7
1/4			10.1	16.1
C	31+77	33	9.5	16.7
1/4			9.3	16.9
cb			8.8	17.4
S	31+77	23	8.6	17.6
		575' E		
S	32+07	22	7.7	18.5
cb			7.8	18.4
1/4			8.2	18.0
C	32+07	33	8.5	17.7
1/4			8.8	17.4
cb			9.4	16.8
N	32+07	43	9.7	16.5
+10			10.0	16.2
	590' E WL Shiloh rd.			
-10			8.8	17.4
N	32+17	43	8.7	17.5
cb			8.4	17.8
1/4			8.0	18.2
C	32+17	33	7.4	18.8
1/4			7.2	19.0
cb			7.1	19.1
S	32+17	23 WL Shiloh	7.0	19.2

3x6.xx

W cbs Shiloh rd.

S	32+27	22	6.4	19.8
cb			6.5	19.7
1/4			6.7	19.5
C	32+27	33	6.9	19.3
1/4			7.4	18.8
cb			7.7	18.5
N	32+27	43	8.0	18.2
+10			8.0	18.2
		W 1/4		
-10			7.5	18.7
N	32+34	93	7.4	18.8
cb			7.2	19.0
1/4			7.1	19.1
C	32+34	83	6.5	19.7
1/4			6.4	19.8
cb			6.0	20.2
S	32+34	72	5.9	20.3
		℄		
S	32+42	22	5.4	20.8
cb			5.5	20.7
1/4			6.0	20.2
C	32+42	33	6.1	20.1
1/4			6.6	19.6
cb			6.7	19.5
N	32+42	43	6.9	19.3
+10			7.0	19.2

		32+62		
		E ¼		
-10			6.6	19.6
N	32+49	43	6.5	19.7
cb			6.3	19.9
¼			6.1	20.1
C	32+49	83	5.8	20.4
¼			5.5	20.7
+3			4.9	21.3
cb			5.0	21.2
S	32+49	72	4.9	21.3
	E cbs			
S	32+57	22	4.3	21.9
cb			4.3	21.9
+8			4.2	22.0
¼			4.8	21.4
C	32+57	33	5.1	21.1
¼			5.5	20.7
cb			5.8	20.4
N	32+57	43	6.2	20.0
+10			6.3	19.9
0+00 = EL Shilohrd on South				
-10			5.7	20.5
N	32+67	43	5.6	20.6
cb			5.2	21.0
¼			4.8	21.4
C	32+67	83 ✓	4.4	21.8
				✓

¼	32+62		3.8	22.4
+2			3.3	22.9
cb			3.4	22.8
S	32+67	22 EL Shiloh	3.6	22.6
	25' E			
S	32+92	22	1.4	24.8
cb			1.2	25.0
+8			1.0	25.2
¼			1.7	24.5
C	32+92	33	2.5	23.7
¼			3.2	23.0
cb			3.7	22.5
N	32+92	43	4.3	21.9
+10			4.6	21.6
	50' E			
-10			3.4	22.8
N	33+17	43	3.0	23.2
cb			2.3	23.9
¼			1.5	24.7
C	33+17	33	0.7	25.5
T.P.	1.76	337.87=HI	0.11	326.11
¼			11.1	26.8
+3			10.7	27.7
cb			10.4	27.5
S	33+17	22	10.6	27.3
	75' E			
				✓

		337.87		
S	33+42 22		8.4	29.5
cb			8.1	29.8
+8			8.3	29.6
¼			9.0	28.9
C	33+42 33		9.9	28.0
¼			11.0	26.9
cb			11.5	26.4
N	33+42 43		12.1	25.8
+15			14.1	23.8
		100' E		
-15			12.1	25.8
N	33+67 43		10.7	27.2
cb			10.0	27.9
¼			9.3	28.6
C	33+67 33		8.1	29.8
+5			7.7	30.2
¼			6.2	31.7
cb			6.0	31.9
+7			6.2	31.7
S	33+67 22		4.6	333
		125' E		
S	33+92 22		1.6	36.3
+5			4.1	33.8
cb			3.9	34.0
¼			4.2	33.7
+2			4.3	33.6 ✓

+5		337.87	5.7	32.2
C	33+92 33		6.3	31.6
¼			7.2	30.7
cb			8.0	29.9
N	33+92 43		8.7	29.2
+15			10.0	27.9
		150' E		
-15			7.7	30.2
N	34+17 43		7.1	30.8
cb			6.4	31.5
¼			5.5	32.4
C	34+17 33		4.4	33.5
¼			2.5	35.4
cb			2.5	35.4
+5			2.5	35.4
S	34+17 22		0.2	37.7
		175' E		
T.P.	4.50		1.48	336.39 ✓
S	34+42 22	342.89 ✓	4.8	38.1
+6			6.5	36.4
cb			6.3	36.6
¼			6.4	36.5
C	34+42 33		7.8	35.1
¼			8.7	34.2
cb			9.6	33.3
N	34+42 43		10.1	32.8
+10			10.5	32.4 ✓

		200' E		
-10?		34+89	8.3	34.6
N	34+67 43		7.8	35.1
cb			7.3	35.6
1/4			6.8	36.1
C	34+67 33		6.0	36.9
1/4			5.2	37.7
cb			5.2	37.7
+3			5.3	37.6
S	34+67 22		4.0	38.9
		225 E	-	
S	34+92 22		3.2	39.7
+6			4.1	38.8
cb			4.1	38.8
1/4			4.0	38.9
C	34+92 33		4.5	38.4
1/4			5.1	37.8
cb			5.9	37.0
N	34+92 43		6.8	36.1
+15			7.8	35.1
		250 E		
-15			9.1	33.8
N	35+17 43		7.4	35.5
cb			6.3	36.6
1/4			5.2	37.7
C	35+17 33		3.6	39.3
+6			2.6	40.3
1/4			2.9	40.0

cb		342.89=HI	3.2	39.7
+3			3.1	39.8
S	35+17 22		1.8	41.1
T.P.	8.30	341.29	9.90	332.99
		275' E		
S	35+42 22		0.5	40.8
+8			3.1	38.2
cb			3.1	38.2
1/4			3.0	38.3
C	35+42 33		3.6	37.7
1/4			5.4	35.9
cb			6.6	34.7
N	35+42 43		7.8	33.5
+15			9.7	31.6
		300' E		
-15			11.9	29.3
N	35+67 43		10.3	31.0
cb			9.0	32.3
1/4			8.2	33.1
C	35+67 33		6.8	34.5
+5			5.9	35.4
1/4			6.0	35.3
cb			6.1	35.2
+3			5.9	35.4
S	35+67 22		4.0	37.3
		325' E		

		341.29		
S	35+92 22	77	33.6	
+7		9.5	31.8	
CB		9.5	31.8	
¼		9.3	320	
C	35+97 33	10.2	31.1	
¼		11.5	29.8	
CB		12.3	29.0	
N	35+97 43	13.0	28.3	
+15		14.2	27.1	
Sec taken at 3+55.75=P.C.		3+47 41 = New P.C.		
-10		16.6	24.7	
36+14 84 N	(36+23 18 PC 430R)	16.1	25.2	
CB		15.4	25.9	
¼		14.6	26.7	
New 36+14 74 C	(36+23 08 PC 400R)	14.1	27.2	
+4		14.1	27.2	
+8		12.6	28.7	
¼		12.6	28.7	
CB		12.9	28.4	
36+N 63 S	(36+22 97 PC 370 R)	12.4	28.9	
T.P.	1.49 330.12	12.46	328.63	
	Part 1			
36+43 04 S	(36+51 25)	3.6	26.5	
+3		4.3	25.8	
CB		4.0	26.1	
¼		3.4	26.7	
+2		3.3	26.8	

+6		330.12	4.7	25.4
36+45 46 C	(36+53 66)		4.9	25.2
¼			5.5	24.6
CB			6.2	23.9
36+47 86 N	(36+56 05)		6.5	23.6
+10			6.6	23.5
	PART 2			
-10			8.5	21.6
36+80 89 N	(36+88 92)		8.3	21.8
CB			8.3	21.8
36+76 18 C	(36+88 24)		7.8	22.3
¼			7.5	22.6
+4			7.2	22.9
+8			5.8	24.3
¼			5.8	24.3
CB			6.2	23.9
+7			6.8	23.3
36+71 46 S	(36+79 54)		6.0	24.1
	PART 3			
36+99 87 S	(37+07 82)		7.4	22.7
+2			8.2	21.9
CB			7.9	22.2
¼			7.9	22.2
+3			8.5	21.6
37+06 90 C	(37+14 81)		8.7	21.4
¼			9.1	21.0
CB			9.4	20.7

37+13 91 N	(37+21 80) 330 1/4 W	9.7	20.4
+10		9.7	20.4
	Part 4		
-10		11.0	19.1
37+46 94 N	(37+54 67)	11.5	18.6
C6		10.8	19.3
1/4		11.0	19.1
37+37 64 C	(37+45 39)	10.7	19.4
+8		10.3	19.8
1/4		10.0	20.1
+4		9.3	20.8
C6		9.5	20.6
37+28 29 S	(37+36 11)	9.6	20.5
PART 5 = E.C.			
37+56 20 S	(37+64 39 EC 370'R)	11.6	18.5
C6		11.7	18.4
+3		11.3	18.8
+4		12.1	18.0
1/4		12.5	17.6
37+68 33 C	(37+75 97 EC 400'R)	13.1	17.0
1/4		13.4	16.7
C6		13.2	16.9
+8		13.3	16.8
37+79 95 N	(37+87 54 EC 430'R)	12.5	17.6
25' E MST of E.C.			
38+04 95 N	(38+12 54)	14.4	15.7

+8	330 1/4 W	16.2	13.9
C6		15.7	14.4
1/4		15.9	14.2
+5		16.2	13.9
37+93 33 C	(38+00 97)	15.3	14.8
1/4		14.0	16.1
+6		13.5	16.6
C6		13.7	16.4
37+81 70 S	(37+89 39)	13.4	16.7
T.P	0.95 319.28 W	11.79	318.33
	50' E of E.C.		
38+06 70 S	(38+14 39)	50	143
+3		49	144
C6		49	144
1/4		55	138
38+18 43 C	(38+25 97)	58	135
1/4		7.2	121
+3		7.3	120
C6		6.0	133
38+29 95 N	(38+37 54)	5.1	142
79.44 E of E.C. = W.L. Radio rd. on North			
38+67 84 N	(38+66 98)	6.5	12.8
C6		7.5	11.8
1/4		8.9	10.4
+3		9.2	10.1
38+56 22 C	(38+55 41)	9.1	10.2

¼		319.78	8.1	11.2
+4			7.7	11.6
+7			7.2	12.1
cb			7.2	12.1
38+44 59 S	(38+43 83)		7.5	11.8
	Sections taken diagonaly			
	103.52' E of EC = WL Radio rd on South			
38+68 69 S	38+68 69		9.2	10.1
cb			8.6	10.7
+3			8.5	10.8
+6			9.3	10.0
¼			9.4	09.9
C	38+68 27		10.0	09.3
+6			10.3	09.0
¼			9.0	10.3
cb.			7.6	11.7
N	38+67 84		6.4	12.9
(+10 78)	cbs.			
N	38+78 62		7.3	12.0
cb			8.1	11.2
+9			8.9	10.4
¼			9.5	09.8
C	38+79 05		9.9	09.4
+7			10.5	08.8
¼			10.0	09.3
+6			9.4	09.9
cb			9.0	10.3
+3			8.8	10.5

S	38+79 47	319.78	9.2	10.1
	¼ S			
S	38+87 55		9.5	09.8
+6			9.2	10.1
cb			9.3	10.0
¼			9.6	09.7
C	38+87 13		9.5	09.8
¼			9.1	10.2
cb			8.7	10.6
N	38+86 70		8.0	11.3
	Centerline radio rd.			
N	38+94 78		7.5	11.8
cb			8.3	11.0
¼			8.9	10.4
C	38+95 21		9.3	10.0
¼			9.6	09.7
cb			9.9	09.4
S	38+95 63		9.8	09.5
	East ¼			
S	39+03 71		10.6	08.7
cb			10.5	08.8
¼			10.2	09.1
C	39+03 29		9.8	09.5
¼			9.3	10.0
cb			8.7	10.6
N	39+02 86		8.1	11.2

East cb

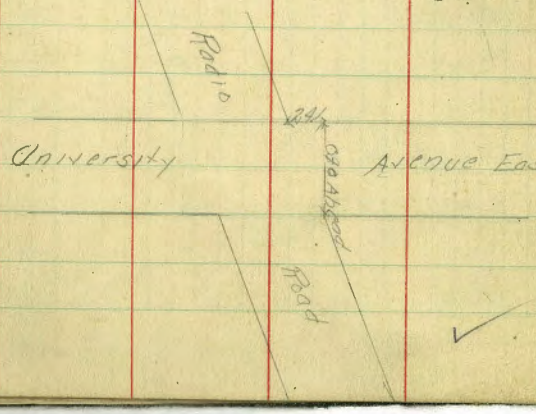
N	39+10 94	319.78	8.7	10.6
cb			10.0	09.3
¼			11.0	08.3
C	39+11 37		11.8	07.5
¼			12.5	06.8
cb			12.6	06.7
+6			11.7	07.6
S	39+11 79		11,8	07.5

E Line Radio Road

S	39+22 58 ✓		13.3	060
+4			13.8	055
cb			13.4	059
¼			13.4	059
C	39+22 16 ✓		13.0	063
+7			12,3	070
¼			11.8	075
cb			10.6	093
N	39+21 73 ✓		9.0	10.3

313.79 ✓

BM NW Radio rd 313.82 — 0.10 — 313.92 — 5.49 = check on BM NW radio rd 313.92



Cross Section University Avenue
East Radio Road

60' wide
10' Cbs
10' Qts

313.92

040 = E. ... Radio Road on South to ... Mile

N	39+45 83 =00		4.7	09.2
cb			5.5	08.4
¼			7.1	06.8
E	39+34 21 = 0+00		8.1	05.8
¼			8.2	05.7
cb			8.4	05.5
S	39+22 58 =00		9.8	04.1
		25' E		
S	39+47 58		9.4	045
cb			9.9	040
¼			10.0	039
E	39+59 21		9.3	046
¼			8.4	055
cb			7.6	063
N	39+70 83		6.9	070
		56' E		
N	39+95 83		8.5	054
cb			8.9	050
¼			9.6	043
E	39+84 21		10.6	033
¼			10.6	033
cb			10.5	034
S	39+72 58		10.8	031

765

✓

University Ave

3.13.92

S	39+97 58	13.5	300.4
CB		11.3	02.6
¼		11.1	02.8
℄	40+09 21	11.7	02.2
¼		11.9	02.0
CB		12.0	01.9
N	40+20 83	11.4	02.5
	100'E		
N	40+45 83	11.6	02.3
CB		12.0	01.9
¼		12.2	01.7
+6	NEnd 2-12" Corg Iron Pipe Flow Line	12.39	301.53
CB ℄	40+34 21	11.4	02.5
+2		11.1	02.8
¼		11.3	02.6
+4		11.3	02.6
+6	SEnd 2-12" Corg Iron Pipe Flow Line	13.11	300.81
CB		13.3	300.6
S	40+22 58	13.6	300.3
	125'E		
S	40+47 58	14.0	299.9
CB		13.3	300.6
¼		11.9	302.0
℄	40+59 21	11.4	302.5
+9		11.8	302.1

✓

109'E ODS reference B.O.N Sq Line

3.13.92

¼		11.8	302.1
CB		10.7	303.2
N	40+70 83	9.5	304.4
	150'E		
N	40+95 83	8.6	305.3
CB		9.6	304.3
¼		10.2	303.7
℄	40+84 21	11.0	302.9
¼		11.5	302.1
CB		11.2	301.5
S	40+72 58	13.0	300.9
	175'E		
S	40+97 58	12.6	301.3
+5		12.3	301.6
CB		11.7	302.2
¼		11.4	302.5
℄	41+09 21	10.5	303.4
¼		9.8	304.1
CB		8.6	305.3
N	41+20 83	7.8	306.1
	200'E		
N	41+45 83	7.8	306.7
CB		8.6	305.3
¼		12.0	303.9
℄	41+34 21	10.6	303.3

✓

University Ave.

313.92

¼		11.2	302.7	
CB		11.8	302.1	
S	41+22 58	12.1	301.8	
	225'E			
S	41+47 58	12.4	301.5	
CB		12.0	301.9	
¼		11.3	302.6	
℄	41+59 21	10.8	303.1	
¼		10.9	303.0	
CB		10.5	303.4	
+5		9.0	304.9	
N	41+70 83	8.1	305.8	
	250'E			
N	41+95 83	9.8	304.1	
CB		10.8	303.1	
¼		11.5	302.4	
℄	41+84 21	11.5	302.4	
¼		12.1	301.8	
CB		12.8	301.1	
S	41+72 58	13.3	300.6	
	275'E			
S	41+97 58	14.0	299.9	
CB		13.3	300.6	
¼		13.0	300.9	
℄	42+09 21	12.8	301.1	

313.92

¼			12.7	301.2
CB			12.1	301.8
+5			11.6	302.3
+7			10.5	303.4
N	42+20 83		10.3	303.6
TP	-1.35	302.33	12.94	300.98
		300'E		
N	42+45 83		0.0	302.3
+3			0.2	302.1
CB			1.8	300.5
¼			2.0	300.3
℄	42+34 21		2.4	299.9
¼			2.8	299.5
CB			3.0	299.3
S	42+22 58		3.9	298.4
		325'E		
S	42+47 58		4.5	297.8
CB			4.0	298.3
¼			3.9	298.4
℄	42+59 21		3.6	298.7
¼			3.1	299.2
CB			2.1	300.2
N	42+70 83		1.7	300.6
		340'E		
N	42+85 83		1.9	300.4

University Ave.

	30233		
CB		2.5	299.8
¼		3.5	298.8
℄	42+74 21	4.0	298.3
¼		4.5	297.8
CB		4.6	297.7
S	42+62 58	5.0	297.3
	350'E		
S	42+72 58	5.5	296.8
CB		4.9	297.4
¼		4.9	297.4
℄	42+86 21	4.3	298.0
¼		4.0	298.3
CB		3.0	299.3
¼		3.7	298.6
N	42+95 83	4.0	298.3
	375N		
N	43+20 83	4.3	298.0
CB		4.8	297.5
¼		5.0	297.3
¼		4.5	297.8
℄	43+09 21	5.0	297.3
¼		5.0	297.3
CB		5.3	297.0
S	42+97 58	6.0	296.3
	400'E		

	30233		
S	43+22 58	6.3	296.0
CB		6.3	296.0
¼		5.7	296.6
℄	43+34 21	5.4	296.9
¼		5.2	297.1
CB		5.3	297.0
N	43+45 83	4.8	297.5
	426'E		
N	43+65 83	4.3	298.0
CB		5.0	297.3
¼		5.6	296.7
℄	43+54 21	5.7	296.6
¼		6.2	296.1
CB		6.3	296.0
S	43+42 58	6.9	295.4
	450'E		
S	43+72 58	7.3	295.0
CB		6.8	295.5
¼		6.5	295.8
℄	43+84 21	6.1	296.2
¼		5.8	296.5
CB		4.7	297.6
N	43+95 83	4.6	297.7
	500'E		
N	44+45 83	4.8	297.5

Universal Ave

302.33

CB		5.3	297.0
¼		5.9	296.4
E	44+34 21	6.3	296.0
¼		6.7	295.6
CB		7.3	295.0
S	44+22 58	7.7	294.6
	550'E		
S	44+72 58	7.5	294.8
CB		6.8	295.5
¼		6.8	295.5
E	44+84 21	6.8	295.5
¼		6.4	295.9
CB		5.6	296.7
N	44+95 83	5.0	297.3
	600'E		
N	45+45 83	6.4	295.9
CB		6.8	295.5
+7		7.4	294.9
¼		7.8	294.5
E	45+34 21	8.0	294.3
¼		7.8	294.5
CB		7.9	294.3
S	45+22 58	8.5	293.8
	625'E		
S	45+47 58	9.1	293.2

302.33

CB		8.4	293.9
¼		8.4	293.9
E	45+59 21	8.7	293.6
¼		8.5	293.8
+3		8.0	294.3
CB		8.2	294.1
N	45+70 83 mark from North	8.2	294.1
	650'E		
N	45+95 83	8.4	293.9
CB		8.0	293.3
+8		9.2	293.1
¼		9.7	292.6
+3		9.1	293.2
E	45+84 21	9.2	293.1
¼		8.0	293.3
CB		9.3	293.0
S	45+72 58	9.8	292.5
	675'E		
S	45+97 58	10.6	291.7
CB		10.2	292.1
¼		10.4	291.9
E	46+09 21	10.0	292.3
+5		10.0	292.3
¼		10.7	291.6
CB		9.6	292.7

University Ave

	30233		
N	46+70 83	8.3	294.0
	700'E		
N	46+45 83	8.4	293.9
CB		9.7	292.6
+7		10.0	292.3
¼		11.3	291.0
E	46+34 21	11.1	291.2
+3		11.3	291.0
¼		12.1	290.2
CB		11.5	290.8
S	46+22 58	11.7	290.6
	725'E		
S	46+47 58	12.9	289.4
CB		12.8	289.5
¼		12.1	290.2
E	46+59 21	11.8	290.5
+2		11.9	290.4
+4		12.8	289.5
+7		11.9	290.4
¼		12.0	290.3
+2		11.7	290.6
+3		10.6	291.7
CB		9.9	292.4
N	46+70 83	8.7	293.6
	760'E		

	30233		
N	47+05 83	10.2	292.1
CB		11.4	290.9 764'E of N
+7		11.7	290.5 E Fence Wire Fence 1½' N Sedia
+9		13.3	289.0
¼		13.3	289.0
+2		13.3	289.0
+5		14.4	287.9
E	46+94 71	13.3	289.0
+3		13.1	289.2
+6		14.2	288.1
¼		14.2	288.1
CB		13.3	289.0
S	46+82 58	13.6	288.7
TP	225	292.07	12.27 289.51
BM			3.44 290.63 RR Spike in Fence Post 0.2 W
		770'E	
S	46+92 58	2.6	87.5
CB		6.5	856
¼		4.9	872
+5		4.4	877
E	47+04 71	3.3	888
+2		3.3	888
+4		4.6	875
+6		3.3	888
¼		3.4	887

University Ave

292.07

+2			3.1	89.0
+3			1.8	90.3
¼? curb			1.5	90.6
N	47+15 83		0.5	91.6
		799.5' E = Sec A = PC.		
N ✓	47+45 33	PC 370'R	2.1	90.0
CB			3.0	89.1
+4			3.3	88.8
+6			4.7	87.4
¼			5.0	87.1
+3			4.9	87.2
+5			6.0	86.1
E	47+33 21	PC 400R	5.1	87.0
+7			5.3	86.8
¼			6.5	85.6
+9			8.1	84.0
+8			7.3	84.8
CB			7.1	85.0
S ✓	47+77 38	PC 430R	6.3	85.8
	22.985 ~~21.55~~ E on N 26.7 ~ 5 = Sec B			
S	47+48 80		7.8	84.3
CB			9.0	83.1
+4			9.3	82.8
¼			7.1	85.0
+2			6.5	85.6
				✓

292.07

+5		5.9	86.2
E	47+58 56	5.6	86.5
+2		5.8	86.3
+4		6.8	85.3
+6		5.8	86.3
¼		5.6	86.5
+2		4.3	87.8
CB		3.8	88.3
N	47+68 37	2.8	89.2
	22.985 ~~21.55~~ E on N 26.7 ~ 3 = Sec C		
N	47+91 30	3.4	88.7
CB		4.6	87.5
¼		5.2	86.9
+2		5.4	86.7
+4		6.7	85.4
+7		6.7	85.4
+5		7.2	84.9
E	47+83 41	6.7	85.4
¼		6.5	85.6
CB		8.7	83.4
+5		9.4	82.7
S	47+75 51	11.0	81.1
	22.985 ~~21.55~~ E on N 26.7 ~ 1.3 = Sec D		
S	48+02 23	9.2	82.9
CB		8.0	84.1
			✓

		299.07		
¼			7.1	85.0
+7			7.4	84.7
℄	48+08 26		7.6	84.5
+3			6.5	85.6
¼			6.1	86.0
CB			5.2	86.9
N	48+14 29		4.1	88.0
	22.995 ~~21.55~~ E on N 26.7 E of S = SEC E			
N	48+37 27		4.5	87.6
CB			5.7	86.4
¼			6.4	85.7
+8			7.0	85.1
℄	48+33 11		7.7	84.4
¼			8.1	83.0
CB			8.6	83.5
S	48+28 94		9.2	82.9
	22.995 ~~21.55~~ E on N 26.7 E of S = SEC F			
S	48+55 66		10.0	82.1
CB			9.6	82.5
¼			8.5	83.6
℄	48+57 96		8.5	83.6
+2			8.5	83.6
¼			7.2	84.9
CB			6.0	86.1
N	48+60 26		4.8	87.3
				✓

		299.07		
	22.995 ~~21.55~~ E on N 26.7 E of S = SEC G			
N	48+83 25		5.7	86.4
CB			6.9	85.2
¼			7.6	84.5
+2			7.7	84.4
+5			8.7	83.4
℄	48+87 81		9.0	83.1
¼			8.9	83.2
CB			10.3	81.8
℄	48+82 37		11.0	81.1
	22.99 ~~21.55~~ E on N 26.7 E of S = SEC H	= E.C. 0+00 Ahead		
S	✓ 49+09 08 EC 430 R		11.4	80.7
CB			10.8	81.5
¼			9.8	82.3
℄	✓ 49+07 66 EC 400 R		9.5	82.6
+8			9.3	82.8
¼			8.7	83.4
CB			8.0	84.1
N	✓ 49+06 33 EC 370 R		6.7	85.4
	25' E			
N	49+31 23		7.9	84.7
CB			8.3	83.8
+8			9.6	83.1
¼			9.5	82.6
℄	49+32 66		9.4	82.5
				✓

University Ave

		292.07		
¼			10.3	81.8
CB			10.9	81.2
S	49+34	08	11.3	80.8
		50'E		
S	49+59	08	11.5	80.6
CB			11.0	81.1
¼			10.4	81.7
E	49+57	66	9.6	82.5
+8			9.8	82.3
¼			9.1	83.0
CB			8.4	83.7
N	49+56	23	7.3	84.8
		75'E		
N	49+81	23	7.6	84.5
CB			8.5	83.6
¼			9.1	83.0
+3			9.7	82.4
E	49+82	66	9.4	82.7
¼			10.0	82.1
CB			11.0	81.1
S	49+84	08	11.3	80.3
		100'E		
S	50+09	08	10.5	81.6
CB			10.1	82.0
¼			9.5	82.6

292.07

E	50+07	66	9.2	82.9
¼			8.7	83.4
CB			8.0	84.1
N	50+06	23	7.3	84.8
		125'E		
N	50+31	23	6.5	85.6
CB			7.5	84.6
¼			8.5	83.6
E	50+32	66	8.8	83.3
¼			9.2	82.9
CB			9.2	82.9
S	50+34	08	9.3	82.8
		150'E		
S	50+59	08	9.3	82.8
CB			8.7	83.4
¼			8.3	83.8
E	50+57	66	8.0	84.1
+8			8.0	84.1
¼			7.5	84.6
CB			7.0	85.1
N	50+56	23	6.4	85.7
		175'E		
N	50+81	23	5.8	86.3
CB			6.5	85.6
¼			6.8	85.3

University

		292.07		
+2			7.5	84.6
℄	50+82.66		7.3	84.8
¼			7.5	84.6
CB			8.0	84.1
S	50+84.08		8.4	83.7
		200'E		
S	51+09.08		7.9	84.2
CB			7.2	84.9
¼			6.8	85.3
℄	51+07.66		6.9	85.2
+8			6.9	85.2
¼			6.3	85.8
CB			6.1	86.0
N	51+06.23		5.6	86.5
TP	4.37	291.75	4.69	28.738
		225E		
N	51+31.23		4.4	87.4
CB			5.1	86.4
¼			5.6	86.2
+2			6.3	85.5
℄	51+32.66		6.3	85.5
+5			6.0	85.8
+7			5.6	86.2
¼			5.7	86.1
C.B.			5.9	85.9

		291.75		
S	51+34.08		6.9	84.9
		150'E		
S	51+59.08		6.9	84.9
CB			6.5	85.3
¼			5.7	86.1
+3			5.5	86.3
¼			6.0	85.8
℄	51+57.66		6.0	85.8
¼			5.8	86.0
+3			4.6	87.2
CB			4.3	87.5
N	51+56.23		4.4	87.4
		275'E		
N	51+81.23		4.9	86.9
CB			5.0	86.8
+6			5.2	86.6
¼			6.1	85.7
℄	51+82.66		5.9	85.9
+5			5.6	86.2
¼			5.9	85.9
CB			6.3	85.5
S	51+84.08		7.0	84.8
		300'E		
S	52+09.08		6.7	85.1
CB			6.3	85.6

University Ave

		291.75			
¼			6.5	85.3	
℄	52+07	66	7.1	84.7	
¼			7.X	84.0	
CB			7.5	84.3	
N	52+06	23	7.8	84.0	
		318'E			
N	52+24	23	8.7	83.1	
CB			9.7	82.1	
¼			9.7	82.1	
+3			8.9	82.9	
℄	54+25	66	8.8	83.0	
¼			7.2	84.6	
CB			6.5	85.3	
S	52+27	08	6.6	85.2	
		325'E			
S	52+34	08	7.7	84.1	
C			7.9	83.9	
¼			8.3	83.5	
℄	52+32	66	10.4	81.4	
+5			12.4	79.4	
+8			10.4	81.4	
¼			10.4	81.4	
CB			10.1	81.7	
+5			11.0	80.8	
N	52+31	23	9.9	81.9	
				✓	

291.75

		328'E			
N	52+34	23	10.6	81.2	
+5			11.6	80.2	
CB			10.1	81.7	
¼			10.4	81.4	
+4			10.8	81.0	
℄	52+35	66	12.7	79.1	
+5			15.0	76.8	
¼			13.3	78.5	
+5			9.7	82.1	
CB			8.6	83.2	
S	52+37	08	8.0	83.8	
B.M.	301		7879 ✓	6.20	284.95
		340'E			
S	52+49	08	6.9	81.1	
CB			12.1	75.9	
¼			12.1	75.9	
℄	52+47	66	9.4	78.6	
+7			7.0	81.0	
¼			7.0	81.0	
CB			6.8	81.2	
+5	N. End 24" Conc. Pipe 21 Long		10.60	27736	
N	52+46	23	10.3	77.8	
		353'E			
N	52+59	23	5.8	82.8	
				✓	

Nail Pk in 15" Anchor on 50

Flow Line 16.58 7638

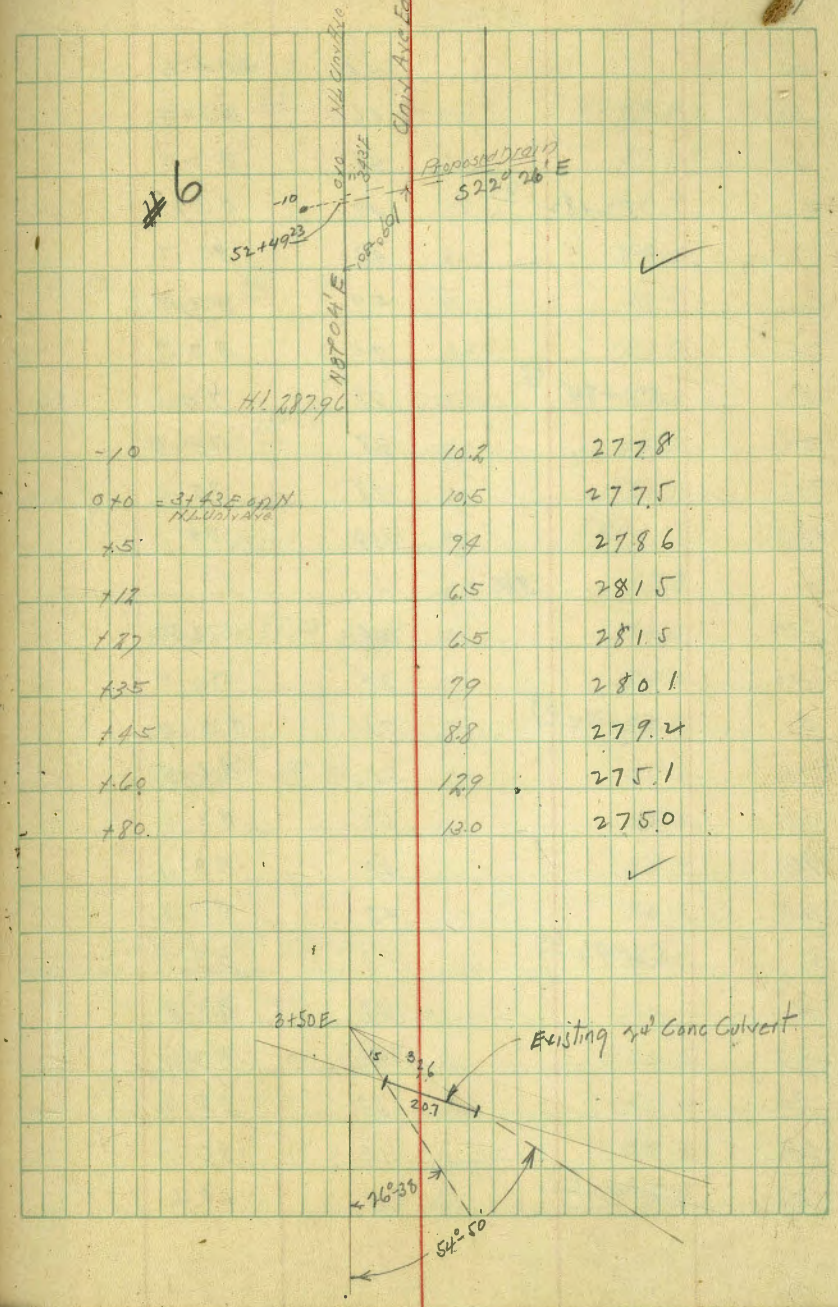
South Front Line

		28796		
CB			5.8	81.1
¼			6.4	81.6
+9			6.4	81.6
&	52+60	66	7.1	80.9
¼			8.8	79.2
+2			9.2	78.8
CB			12.1	75.9
+5			12.9	75.1
S	52+62	08	12.6	75.4
+5			12.3	75.7
+15			9.9	78.1
		363E		
-15			13.0	75.0
S	52+72	08	12.9	75.1
CB			8.3	79.7
¼			7.2	80.8
+7			6.6	81.4
&	52+70	66	6.1	81.9
¼			5.6	82.4
+7			5.2	82.8
CB			4.4	83.6
N	52+69	73	3.8	84.2
		375 E		
N	52+81	23	3.0	85.0
CB			3.7	84.8
				✓

Location & Levels Proposed Drain

10-725

#6



H.I. 28796

-10		10.2	2778
0+0 = 3+43E on N		10.5	2775
+5		9.4	2786
+12		6.5	2815
+17		6.5	2815
+35		7.9	2801
+45		8.8	2792
+60		12.9	2751
+80		13.0	2750
			✓

		287.96			
+2			8.4	284.6	
+6			4.6	83.4	
℄			4.8	83.2	
℄	52+82 66		4.7	83.3	
+1			4.3	83.7	
℄			5.7	82.3	
CB			7.3	80.7	
S	52+84 08		8.9	79.1	
+4			9.8	78.2	
+10			12.8	75.2	
+20			13.8	74.2	
		386'E			
-20			11.4	76.6	
-10			8.5	79.5	
S	52+94 08		7.1	80.9	
+5			6.2	81.8	
CB			5.7	82.3	
℄			4.9	83.1	
+5			4.2	83.8	
℄	52+92 66		4.3	83.7	
℄			4.2	83.8	
+2			4.1	83.9	
+6			2.4	85.6	
CB			1.9	86.1	
N	52+91 23		1.4	86.6	

22

		395'E		
N	53+01 23		0.2	87.8
CB			0.8	87.2
+5			1.3	86.7
℄			3.7	84.3
℄	53+07 66		4.0	84.0
℄			4.3	83.7
CB			5.0	83.0
S	53+04 08		5.7	82.3
+15			6.7	81.3
		435'E = Sec A	PC 1	
-15			4.7	83.3
S	53+34 07 PC 430R		3.4	84.6
CB			3.1	84.9
℄			2.8	85.2
℄	53+37 65 PC 400R		2.9	85.1
+7			3.0	85.0
℄			2.1	85.9
CB			1.7	86.3
N	53+31 27 PC 370R		1.2	86.8
	24.97'			
	25'E on N			
	29'E on S = Sec B			
N	29.02' 53+56 19		1.5	86.5
CB			1.1	86.9
℄			1.4	86.6
+2			1.7	86.3

University Ave

28796

+5		3.1	84.9
℄	53+59 64	3.1	84.9
¼		2.8	85.2
CB		3.5	84.5
S	53+63 09	4.0	84.0
	25'E on N 29'E " S = Sec C		
S	53+92 11	4.4	83.6
CB		3.9	84.1
¼		3.5	84.5
℄	53+86 64	3.6	84.4
+3		3.0	85.0
¼		2.7	85.3
CB		2.1	85.9
N	53+81 16	2.2	85.8
	25'E on N 29'E " S = Sec D		
N	54+06 13	1.8	86.2
CB		2.2	85.8
¼		2.3	85.7
℄	54+13 63	3.4	84.6
¼		3.2	84.8
+3		2.8	85.2
+6		3.6	84.4
CB		3.9	84.1
S	54+21 13	9.4	~~78.6~~ 83.6 ? ok
+10		6.2	81.8

✓

28796

25'E on N
29'E " S = Sec E

+5		5.6	87.4
+2		5.4	87.6
S	54+50 15	3.2	84.8
CB		3.4	84.6
+7		3.0	85.0
+9		2.4	85.6
¼		2.4	85.6
℄	54+40 63	2.8	85.2
+5		3.0	85.0
+1		2.2	85.8
¼		1.9	86.1
CB		1.5	86.5
N	54+31 10	2.2	85.8
	25'E on N 29'E on S = Sec F		
N	54+56 07	1.3	86.7
CB		2.2	85.8
¼		2.5	85.5
℄	54+67 62	2.9	85.1
¼		2.8	85.2
CB		2.9	85.1
+6		2.8	85.2
+8		4.3	83.7
S	54+79 17	4.6	83.4
+10		5.2	82.8

✓

287.96

25' E on N
20" = 1.5 Sec G

-10			5.6	87.8
S	55+08 18		4.9	83.1
+3			4.4	83.6
+6			3.2	84.8
CB			2.8	85.2
+8			2.6	85.4
TP	8.83	294.03	2.76	285.20
¼			8.3	85.7
E	54+94 61		8.5	85.5
¼			8.6	85.4
+8			8.3	85.7
CB			7.8	86.2
N	54+81 04		7.2	86.8

10' E on N
11.6" = 1.5 = Sec H

N	54+91 04		6.0	88.0
CB			6.4	87.6
¼			7.2	86.8
+4			8.4	85.6
E	55+05 42		8.3	85.7
+8			8.3	85.7
¼			8.0	86.0
CB			9.0	85.0
+8			9.7	84.3
S	55+19 80		10.7	83.3
+10			11.5	82.5

294.03

15' E on N
17.4" = 1.5 = Sec G = EC 010 Ahead

-10		11.5	82.5
S	55+37 20 EC 430R	11.1	82.9
+2		10.5	83.5
+7		8.8	85.2
CB		8.5	85.5
¼		7.5	86.5
S	55+21 61 EC 400R	7.8	86.2
+7		8.0	86.0
¼		7.4	86.6
CB		6.6	87.4
N	55+06 01 EC 370R	6.6	87.4

25' E

N	55+31 01	5.8	88.2
CB		6.2	87.8
¼		6.7	87.3
+2		6.9	87.1
+5		7.4	86.6
E	55+46 61	7.4	86.6
¼		7.6	86.4
CB		8.2	85.8
+5		8.5	85.5
S	55+62 20	10.1	83.9
+10		11.0	83.0

35' E

University Ave.

	299.03		
-10		10.8	83.2
S	55+72 20	10.1	83.9
+5		8.6	85.4
CB		8.2	85.8
+8		7.9	86.1
¼		7.4	86.6
+6		7.2	86.8
℄	55+56 61	7.2	86.8
+5		7.2	86.8
¼		5.8	88.2
CB		5.3	88.7
N	55+41 01	4.7	89.3
	50'E		
N	55+56 01	4.9	89.3
CB		5.4	88.6
¼		6.5	87.5
+4		7.0	87.0
℄	55+71 61	6.9	87.1
¼		6.5	87.5
CB		8.0	86.0
+5		8.5	85.5
S	55+87 20	10.1	83.9
+10		10.7	83.3
	75'E		
-10		10.3	83.7

	299.03		
S	56+12 20	10.0	84.0
+6		7.9	86.1
CB		7.5	86.5
+8		7.2	86.8
¼		6.7	87.3
℄	55+96 61	6.7	87.6
+5		6.9	87.6
+7		5.7	88.3
¼		5.8	88.2
CB		5.0	89.0
N	55+81 01	4.3	89.7
	100'E		
N	56+06 01	3.5	90.5
CB		4.0	90.0
¼		5.1	88.9
+4		6.0	88.0
℄	56+21 61	6.2	87.8
¼		6.3	87.7
CB		6.7	87.3
+2		6.8	87.2
+7		9.0	85.0
S	56+37 20	9.4	84.6
+10		10.1	83.9
	125'E		
-10		9.9	84.1

		294.03		
S	56+62 20		9.4	846
+3			9.0	85.0
CB			6.7	87.3
¼			5.8	88.2
E	56+46 61		5.1	88.4
+7			5.6	88.4
¼			5.0	89.0
CB			4.0	90.0
N	56+31 01		3.2	90.8
		150'E		
N	56+56 01		3.5	90.8
CB			4.2	89.8
¼			4.9	89.1
E	56+71 61		5.2	88.8
+5			5.3	88.7
¼			5.4	88.6
+7			5.8	88.2
CB			7.3	86.7
+5			9.0	85.0
S	56+87 20		9.1	84.9
+10			8.8	85.2
		175'E		
-6			8.6	85.4
S	57+12 20		8.6	85.4
CB			8.3	85.7

		294.03		
+5			5.7	88.3
¼			5.4	88.6
E	56+96 61		4.9	89.1
¼			4.7	89.3
+2			3.8	90.2
CB			3.4	90.6
N	56+81 01		2.5	91.5
		200'E		
N	57+06 01		2.6	91.4
CB			3.3	90.7
+5			3.9	90.1
+8			4.4	89.6
¼			4.4	89.6
E	57+21 61		4.8	89.2
¼			5.4	88.6
+7			5.5	88.5
+8			7.9	86.1
CB			7.9	86.1
S	57+37 20		8.3	85.7
+3			8.4	85.8
+8			6.5	87.5
		225'E		
-5			5.9	88.1
S	57+62 20		7.5	86.5
CB			7.7	86.3

		294.03		
+5		7.4	86.6	
1/4		5.6	88.4	
+4		4.6	89.4	
E	57+46 61	4.6	89.4	
1/4		4.4	89.6	
+5		4.4	89.6	
+7		3.9	90.1	
CB		3.7	90.3	
N	57+31 01	2.6	91.4	
	250'E			
N	57+56 01	2.6	91.4	
+8		2.9	91.1	
CB		3.6	90.4	
1/4		4.1	89.9	
+5		4.3	89.7	
+8		3.7	90.3	
E	57+71 61	3.7	90.3	
+6		3.9	90.1	
1/4		7.1	86.9	
CB		7.2	86.8	
+7		7.0	87.0	
S	57+87 20	5.1	88.9	
	267'E			
S	58+04 20	4.9	89.1	
+4		5.4	88.6	

		294.03		
+8		7.0	87.0	
CB		7.0	87.0	
1/4		6.9	87.1	
+7		3.6	90.4	
E	57+88 61	3.5	90.5	
+7		3.5	90.5	
1/4		4.1	89.9	
CB		4.0	90.0	
+2		3.9	90.1	
+5		3.1	90.9	
N	57+73 01	3.0	91.0	
	285'E			
N	57+91 01	5.7	88.3	
CB		5.4	88.6	
+4		5.3	88.7	
1/4		4.7	89.3	
E	58+06 61	5.0	89.0	
+2		5.1	88.9	
+7		6.9	87.1	
1/4		7.0	87.0	
CB		6.5	87.5	
+3		5.9	88.1	
S	58+22 20	6.6	87.4	
	300'E			
S	58+37 20	7.8	86.2	

University Ave

		294.03	
+5		7.7	86.3
CB		7.2	86.8
¼		7.1	86.9
℄	58+21 61	7.3	86.7
¼		7.5	86.5
+7		7.5	86.5
CB		7.9	86.1
N	58+06 01	8.0	86.0
	304'E		
N	58+10 01	8.1	85.4
CB		8.4	85.6
¼		8.2	85.8
+2		8.3	85.7
+3		10.5	83.5
℄	58+25 61	12.1	81.9
+7		11.5	82.5
¼		10.3	83.7
+4		7.4	86.6
CB		7.8	86.2
S	58+41 20	8.1	85.9
	309'E		
S	58+46 20	8.5	85.5
+8		8.8	85.2
CB		9.3	84.7
+7		11.7	82.3

✓

		294.03	
¼		12.8	81.2
℄	58+30 61	12.3	81.7
+7		12.0	82.0
¼		10.9	83.1
+2		9.2	84.8
CB		9.6	85.0
N	58+15 01	9.0	85.0
	314'E		
N	58+20 01	9.3	84.7
CB		9.6	84.4
+2		10.0	84.0
+7		11.9	82.1
¼		12.2	81.8
℄	58+35 61	11.9	82.1
¼		12.9	81.3
+9		13.0	81.0
CB		12.8	81.2
+3		11.1	82.9
S	58+51 20	10.2	83.8
+15		10.2	83.8
	316'E		
+20		12.6	81.4
S	58+53 20	11.0	83.0
+5		11.9	82.1
+7		12.9	81.1

Note 58+55 29 on South line = Intersection with N line Challas Rd ✓
58+39 70 = Sta opposite on ℄
58+24 10 = " " on North line

294.03

CB		13.1	80.9	
+8		12.3	81.7	
℄		9.2	84.8	
+3		7.3	86.7	
℄	58+37 61	7.8	86.2	
+3		9.0	85.0	
+8		12.1	81.9	
℄		12.2	81.8	
+3		11.9	82.1	
+8		10.0	84.0	
CB		9.7	84.3	
N	58+22 01	9.4	84.6	
+10		8.7	85.3	
	325' E			
-10		8.6	85.4	
N	58+31 01	9.6	84.4	
+7		10.0	84.0	
CB		11.2	82.8	
+5		12.0	82.0	
+7		10.8	83.2	
℄		10.6	83.4	
℄	58+46 61	7.3	86.7	
+5		7.0	87.0	
℄		7.4	86.6	
+5		9.4	84.6	
			✓	

294.03

CB		11.8	82.2	
+5		13.3	80.7	
S	58+62 20	13.4	80.6	
+15		12.6	81.4	
	350' E			
-		12.2	81.8	
S	58+87 20	11.5	82.5	
CB		11.1	82.9	
+7		10.5	83.5	
℄		9.1	84.9	
+5		6.9	87.1	
℄	58+71 61	6.6	87.4	
+5		6.9	87.1	
℄		8.8	85.2	
+5		9.6	84.4	
CB		9.6	84.4	
N	58+56 01	9.4	84.6	
+5		9.6	84.4	
+10		10.8	83.2	
+15		9.8	84.2	
	375' E			
-15		9.2	84.8	
N	58+81 01	8.4	85.6	
CB		8.7	85.3	
44		8.4	85.4	
			✓	

University Ave 6.0 mde 10°C 4s 10°9 4s

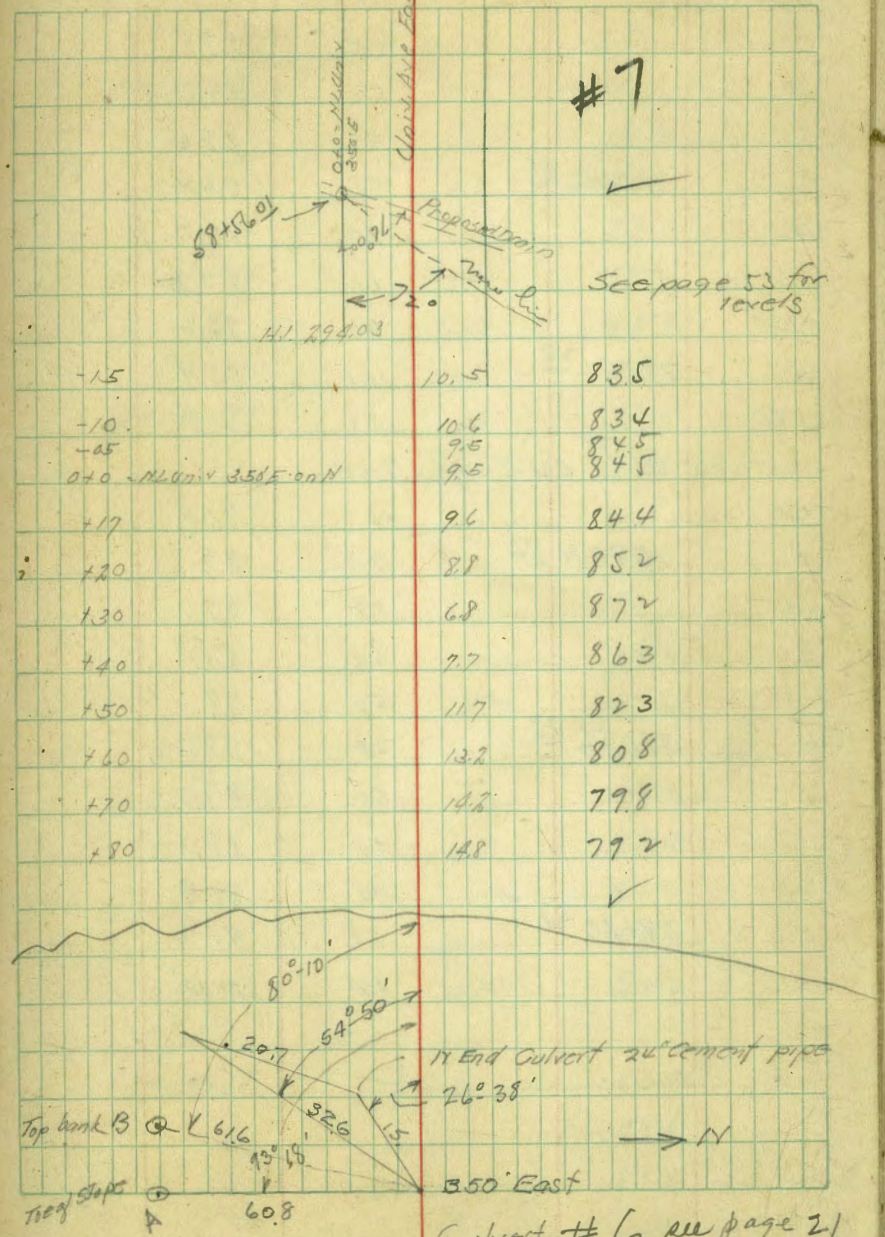
294.03

¼		7.3	86.7
+5		6.5	87.5
℄	58+96 61	6.4	87.6
+4		7.0	87.0
¼		9.5	84.5
CB		10.5	83.5
S	59+12 20	10.6	83.4
+15		11.3	82.7
	400'E		
-15		11.5	82.5
S	59+37 20	8.9	85.1
+5		8.2	85.8
CB		8.7	85.3
+7		8.4	85.6
¼		7.4	86.5
+6		6.3	87.7
℄	59+21 61	6.5	87.5
¼		6.3	87.7
CB		6.1	87.9
+5		6.0	88.0
N	59+06 01	4.6	89.4
	425'E		
N	59+31 01	3.0	91.0
+3		3.3	90.7
+7		5.3	88.7 ✓

Location + Levels Proposed Drain

30

#7



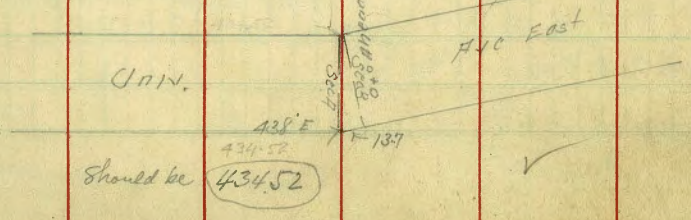
See page 53 for levels

-15	10.5	83.5
-10	10.6	83.4
-05	9.5	84.5
040 - N Line 358'E on N	9.5	84.5
+10	9.6	84.4
+20	8.8	85.2
+30	6.8	87.2
+40	7.7	86.3
+50	11.7	82.3
+60	13.2	80.8
+70	14.2	79.8
+80	14.8	79.2 ✓

Culvert #6 see page 21

		29+03		
CB		5.5	88.5	
¼		5.7	88.3	
+6		5.4	88.6	
℄	59+46 61	5.8	88.2	
¼		7.0	87.0	
+6		6.1	87.9	
CB		7.6	86.4	
S	59+62 20	10.1	83.9	
+20		12.6	81.4	
(Should be 434 52)		438'E △ = Sec A		
-20		13.6	80.4	
S	59+71 72 ✓	11.3	82.7	
CB		8.9	85.1	
¼		6.5	87.5	
+3		5.9	88.1	
℄	59+56 53 ✓	5.8	88.2	
¼		6.0	88.0	
CB		5.8	88.2	
+5		5.1	88.9	
N	59+40 53 ✓	2.8	91.2	
B.M.	5.23	294.68	4.64	289.39 ✓

37 Volts Pole 1035 Δ Point on N



294.68

5.23 on N
13.7 E on 3 = Sec B = 0 to Ahead

N	59+41 18 ✓	3.5	91.1
+6		6.0	88.6
CB		6.3	88.3
¼		6.5	88.1
℄	59+63 52 ✓	6.7	88.2
¼		6.5	88.1
CB		9.4	85.2
S	59+86 19 ✓	11.9	82.7
+15		14.9	80.6
	435'E		
-25		15.0	79.6
S	60+11 19	11.9	82.7
CB		7.4	87.2
+3		6.8	87.8
¼		6.6	88.0
℄	59+88 52	6.6	88.0
¼		6.6	88.0
CB		6.6	88.0
+5		6.3	88.3
N	59+66 18	3.4	91.2
	50'E		
N	59+91 18	3.7	90.9
+7		6.0	88.6
CB		6.3	88.3

✓

		294.62		
E	60+13 52	6.5	88.1	
¼		6.2	88.4	
CB		6.4	88.2	
S	60+36 19	11.0	83.6	
+25		15.9	78.7	
	75'E			
-25		16.0	78.6	
-10		13.1	81.5	
S	60+61 19	9.3	85.3	
CB		5.9	88.7	
¼		6.1	88.5	
E	60+38 52	6.4	88.2	
¼		6.2	88.3	
CB		6.0	88.6	
+5		5.2	89.4	
+7		4.0	90.6	
N	60+16 18	3.7	90.9	
	100'E			
N	60+41 18	3.4	91.2	
+5		3.5	91.1	
+7		5.5	89.1	
CB		5.5	89.1	
¼		6.1	88.5	
E	60+63 52	6.1	88.5	
¼		5.9	88.7	
			✓	

		294.62		
CB		5.9	88.7	
+7		6.4	88.2	
S	60+86 19	7.0	87.6	
+20		15.0	79.6	
+30		16.5	78.1	
	125'E			
+30		15.5	79.1	
+20		14.0	80.6	
S	61+11 19	6.6	88.0	
CB		5.9	88.7	
¼		5.8	88.8	
E	60+88 52	6.0	88.6	
¼		6.1	88.5	
CB		5.8	88.8	
+5		3.8	90.8	
N	60+66 18	3.3	91.3	
	150'E			
N	60+91 18	7.9	91.7	
+7		8.0	91.6	
CB		5.4	89.2	
¼		5.7	88.9	
E	61+13 52	5.7	88.9	
¼		5.5	89.1	
CB		5.1	89.2	
+5		6.0	88.6	
			✓	

University Ave

		294.62		
S	61+36 19		7.9	86.7
+25			14.7	79.9
+35			15.5	79.1
		175'E		
-35			15.0	79.6
S	61+61 19		9.2	85.4
CB			5.3	89.3
¼			5.0	89.6
℄	61+38 52		5.2	89.4
¼			5.2	89.4
+7			5.1	89.5
CB			4.1	90.5
+3			2.6	92.0
N	61+16 18		2.1	92.5
		200'E		
N	61+41 18		2.0	92.6
+8			2.4	92.2
CB			4.4	90.2
¼			5.0	89.6
℄	61+63 52		4.7	89.9
¼			4.5	90.1
CB			7.8	86.8
S	61+86 19		11.2	83.4
+25			14.4	80.2
		225'E		
				✓

		294.62		
-20			13.6	81.0
S	62+11 19		11.3	83.3
CB			7.5	87.1
+5			5.1	89.5
¼			4.5	90.1
℄	61+88 52		4.4	90.2
¼			4.6	90.0
+5			4.5	90.1
CB			2.0	92.6
N	61+66 18		1.4	93.2
		250'E		
N	61+91 18		1.7	92.9
CB			2.3	92.3
+4			4.7	90.2
¼			4.6	90.0
℄	62+13 52		4.6	90.0
¼			4.5	90.1
S	62+36 19		11.6	83.0
+20			12.9	81.7
		275'E		
-25			16.3	78.3 Bob Creek
-10			15.9	78.7
S	62+61 19		10.7	83.9
CB			8.5	86.1
¼			5.5	89.1
				✓

		294.62			
℄	62+38 52		5.0	89.6	
¼			4.7	89.9	
+7			4.4	90.2	
CB			3.0	91.6	
N	62+16 18		1.9	92.7	
		300'E			
N	62+41 18		2.3	923	
+5			2.5	921	
CB			3.9	90.7	
¼			4.8	89.8	
℄	62+63 52		5.0	89.6	
¼			5.9	88.7	
+5			6.6	88.0	
CB			8.5	86.1	
+5			10.3	843	
S	62+86 19		13.3	813	
+10			16.0	78.6	Bot. Creek
+25			16.1	785	
		325 E			
-25			15.4	79.2	Bot. Creek
-5			15.1	79.5	
S	63+11 19		9.7	849	
CB			7.5	87.1	
¼			5.9	88.7	
℄	62+88 52		5.1	895	
				✓	

		294.62			
¼			4.8	89.8	
+6			4.6	900	
CB			3.5	91.1	
+6			2.6	926	
N	62+66 18		1.3	933	
		350'E			
N	62+91 18		2.1	925	
+7			3.2	914	
CB			4.2	904	
+5			4.7	899	
¼			4.8	89.8	
℄	63+13 52		4.9	89.7	
¼			5.1	895	
CB			5.7	889	
+8			6.5	881	
S	63+36 19		8.9	857	
+15			15.5	791	Bot. Creek
+25			14.8	798	
		375'E			
-20			13.8	808	
-8			12.9	817	
S	63+61 19		10.2	844	
+8			5.2	894	
CB			4.7	899	
				✓	

		294.62			
+7			3.9	90.7	
¼			4.6	90.0	
℄	63+38 52		4.5	90.1	
¼			4.4	90.2	
CB			3.6	91.0	
+7			1.6	93.0	
N	63+16 18		1.2	93.4	
	400'E				
N	63+41 18		0.5	94.1	
+5			1.7	92.9	
CB			3.0	91.6	
+5			3.9	90.7	
¼			4.0	90.6	
℄	63+63 52		4.1	90.5	
¼			4.0	90.6	
+5			3.5	91.1	
CB			6.0	88.6	
S	63+86 19		11.4	83.2	
+5			12.8	81.8	
+15		✓	12.9	81.7	
TP	12.48	303.28	3.82	290.80	✓
	475'E				
-15			21.5	81.8	
S	64+11 19		21.0	82.3	
CB			16.9	86.4	
				✓	

		303.28		
¼		12.4	90.9	
℄	63+88 52	12.3	91.0	
¼		12.4	90.9	
+5		12.1	91.2	
CB		11.4	91.9	
N	63+66 18	8.6	94.7	
	450'E			
N	63+91 18	7.6	95.7	
CB		9.4	93.9	
+7		11.8	91.5	
¼		11.8	91.5	
℄	64+13 52	11.9	91.4	
¼		12.0	91.3	
+3		12.0	91.3	
CB		17.0	86.3	
+6		20.2	83.1	
S	64+36 19	20.7	82.6	
-20		21.0	82.3	
	475'E			
-25		20.0	83.3	
-10		20.8	82.5	
S	64+61 19	20.2	83.1	
CB		13.3	90.0	
+5		11.6	91.7	
¼		11.5	91.8	
℄	64+38 52	11.3	92.0	
			✓	

University Ave.

		303.28		
¼			11.2	92.1
+2			11.2	92.1
CB			9.3	94.0
+3			7.5	95.7
N	64+16 18		6.3	97.0
		500'E		
N	64+41 18		5.1	98.2
CB			6.9	96.9
+8			10.4	92.9
¼			10.4	92.9
E	64+63 52		10.6	92.7
¼			11.1	92.2
CB			11.3	92.0
S	64+86 19		16.8	86.5
+10			21.2	82.1
+25			20.0	83.3
		575'E		
-25			19.8	83.5
-10			20.4	82.9
S	65+11 19		13.4	89.9
+5			11.5	91.8
CB			11.5	91.8
¼			10.8	92.5
+4			10.3	93.0
+7			9.3	94.0

		303.28		
E	64+88 52		9.8	94.0
¼			9.3	94.0
CB			5.5	97.8
N	64+66 18		3.8	99.5
		550'E		
N	64+91 18		2.8	300.5
CB			4.1	99.2
¼			8.0	95.3
E	65+13 52		8.0	95.3
+3			8.0	95.3
¼			10.4	92.9
CB			11.3	92.0
S	65+36 19		12.0	91.3
+15			19.0	84.3
		575'E		
-7			12.0	91.3
S	65+61 19		11.1	92.2
CB			11.0	92.3
+5			10.4	92.9
¼			8.8	94.5
+5			7.1	96.2
E	65+38 52		7.0	96.3
¼			6.5	96.8
+5			6.2	97.1
CB			3.2	300.1

		303.28			
N	65+16 18		1.7	301.6	
		600'E			
N	65+41 18		0.9	302.4	
CB			2.8	300.5	
+5			5.3	298.0	
¼			5.7	297.6	
℄	65+63 52		5.8	297.5	
+5			6.0	297.3	
¼			7.7	295.6	
CB			10.0	293	
S	65+86 19		11.1	291.2	
+10			12.0	291.3	
		625E			
+5			12.0	291.3	
S	66+11 19		10.8	292.5	
+7			10.2	293.1	
CB			9.1	294.2	
¼			6.7	296.6	
+5			5.1	298.2	
℄	65+88 52		4.8	298.5	
¼			4.8	298.5	
+5			4.2	299.1	
CB			2.2	301.1	
N	65+66 18		0.0	303.3	
B.M.	4.58	306.78	1.08	302.20	R.R. Spike in Pole At ⊿ Point

		306.78			
		650'E			
N	65+91 18		3.1	303.7	
CB			5.4	301.4	
+5			7.3	299.5	
¼			7.8	299.0	
℄	66+13 52		8.0	298.8	
+3			8.0	298.8	
¼			9.4	297.4	
CB			11.9	294.9	
+8			12.4	294.4	
S	66+36 19		12.4	294.4	
+15			15.3	291.5	
		675'E			
+15			14.7	292.1	
S	66+61 19		13.9	292.9	
CB			11.4	295.4	
¼			9.7	298.0	
+8			7.2	299.6	
℄	66+38 52		7.2	299.6	
¼			6.8	299.9	
+4			6.5	300.3	
CB			4.9	301.9	
N	66+16 18		2.7	304.1	
	705.28	706'E =	Sec A A		
N	66+46 46		2.1	304.7	

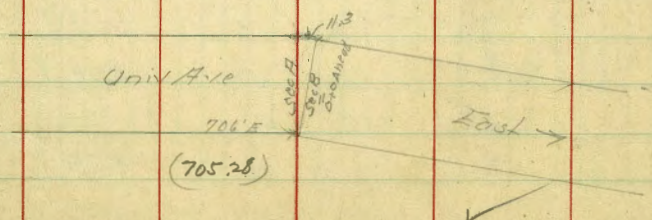
University Ave.

30678

CB			4.2	02.6
+5			5.7	01.1
¼			6.3	00.5
℄	66+68 80		6.8	300.0
¼			8.9	297.9
+5			10.5	296.3
CB			11.0	295.8
¼			11.8	295.0
+8			13.0	293.8
S	66+91 47		13.0	293.8
+15			14.1	292.7

300 ons
11.3'E 11.N = Sec B = 010 Ahead

S	66+91 47	Δ 10°40'L	13.0	293.8
CB			11.4	295.4
¼			8.9	297.9
℄	66+74 40		7.0	299.8
+3			6.5	300.3
¼			6.5	300.3
+5			6.0	300.8
CB			4.6	302.2
N	66+57 66		2.9	303.9



30678

85'E

N	66+82 66		4.4	302.4
CB			6.1	300.7
¼			7.0	299.8
+6			7.0	299.8
℄	66+99 40		8.4	298.4
¼			8.6	298.2
+3			10.1	296.7
CB			11.2	295.6
S	67+16 47		13.4	293.4
+15			13.9	292.9

50'E

+20			13.9	292.9
S	67+41 47		13.5	294.3
+5			11.2	295.6
CB			10.5	296.3
¼			8.5	298.3
℄	67+24 40		7.3	299.5
+5			6.6	300.2
¼			6.7	300.1
+8			6.4	300.4
CB			5.8	301.0
N	67+07 66		3.7	303.1

100'E

N	67+57 66		4.0	302.8

	306.78			
+6		4.5	302.3	
CB		6.2	300.6	
¼		6.2	300.6	
℄	67+74 40	6.4	300.4	
¼		7.2	299.6	
CB		9.8	297.0	
S	67+91 47	11.6	295.2	
+15		12.5	294.3	
	125'E			
-15		12.4	2944	
S	68+16 47	11.5	2953	
CB		10.0	2968	
¼		7.5	299.3	
℄	67+99 40	7.1	299.7	
+4		6.4	300.4	
¼		6.6	300.2	
CB		6.4	300.4	
+5		4.8	302.0	
N	67+82 66	4.3	302.5	
	150'E			
N	68+07 66	4.1	302.7	
+6		4.7	302.1	
CB		6.4	300.4	
¼		6.5	300.3	
+5		6.4	300.4	
	✓			

	306.78			
℄	68+24 40	7.5	2993	
¼		8.0	2988	
+5		8.9	2979	
CB		10.6	2962	
S	68+41 47	11.6	2952	
+15		12.3	2945	
	175'E			
-15		12.1	2947	
S	68+66 47	11.8	2950	
CB		10.6	2962	
+8		8.4	2984	
¼		8.4	2984	
℄	68+49 40	6.7	3001	
+5		6.1	3007	
¼		6.6	3002	
CB		6.3	3005	
+3		4.9	3019	
N	68+32 66	4.0	3028	approximation plotted to here C.O.K.
	205'E = Sec A			
N	68+62 66	4.3	3025	
+7		5.5	3013	
CB		6.8	3000	
¼		6.8	3000	
+4		6.5	3003	
℄	68+79 40	7.8	2990	
		✓		

University Ave. 60' wide 10 Cbs 18 Pkts

306.78

1/4	9.0	297.8	
CB	11.0	295.8	
S	12.1	294.7	
+15	12.2	294.6	
	Diag 70.9 11.8 Cbs 11.8 Pkts		
	Sec B 12.1	294.7	
S	10.9	295.9	
CB	8.8	298.0	
1/4	7.4	299.4	
Z	6.7	300.1	
+5	7.0	299.8	
1/4	6.8	300.0	
CB	5.8	301.0	
+12	4.4	302.4	

68+96.47

N Univ Ave. 377

Univ Ave East 205.4

Sec A 70.9

Sec B 11.8 Cbs 11.8 Pkts

306.78

TP	3.84	298.92	11.70	295.08	
BM			9.50	289.42	No. 1 Post 1st A Point 289.39
TP	4.24	294.67	1.49	287.43	
TP	2.63	289.33	5.97	285.70	
BM	14.33	301.00	0.66	288.67	RR Spk in Fence Post E 969 E Post W Pin
TP	10.26	311.02	0.84	300.76	
TP	8.77	318.04	1.75	309.27	NW Cor Base of Rock 4 Univ Ave Brass Pin 309.27
BM			4.46	313.58	

Cross Section Chollas Road

60 PRS
10 CBs
10 9Fs

PRS Pt Pete
94

BM	937	311.57		302.20	
		750'E			
-15			16.7	294.9	
S	69+41 47		16.4	295.2	
CB			15.2	296.4	
¼			13.6	298.0	
℄	69+24 40		12.7	298.9	
+6			11.5	300.1	
¼			11.6	300.0	
CB			11.3	300.3	
+5			9.6	302.0	
N	69+07 66		9.0	302.6	
		300'E			
N	69+57 66		7.2	304.4	
CB			9.0	302.6	
+4			10.7	300.9	
¼			10.6	301.0	
℄	69+74 40		10.8	300.8	
¼			11.7	299.9	
CB			13.7	297.9	
S	69+91 47		15.0	296.6	
+15			15.6	296.0	
		330'E			
-15			14.7	296.9	
S	70+21 47		14.2	297.4	
CB			12.7	298.9	

311.57

¼		10.7	300.9
℄	70+04 40	9.6	302.0
¼		9.4	302.2
+5		9.2	302.4
CB		7.8	304.3
+3		6.3	305.3
N	69+87 66	5.2	306.4
	860'E		
N	70+17 66	3.3	308.3
+8		4.4	307.2
CB		5.5	306.1
+6		7.7	303.9
¼		7.8	303.8
℄	70+34 40	7.8	303.8
¼		9.5	302.1
CB		11.0	300.6
S	70+51 47	12.7	298.9
+15		14.0	297.6
	400'E		
+15		13.2	298.4
S	70+91 47	11.9	299.7
CB		10.4	301.2
¼		8.6	303.0
℄	70+74 40	7.1	304.5
¼		6.4	305.2

11-6-35
S 55°07
3154
Hartberg

		311.57			
¼			6.3	305.3	
+6			5.8	305.8	
CB			4.5	307.1	
+5			2.8	305.8	
N	70+57	66	1.8	309.8	
		450 E			
N	71+07	66	0.6	311.0	
+8			1.3	309.3	
CB			3.4	308.2	
+5			5.0	306.6	
¼			5.6	306.0	
E	71+24	40	5.7	305.9	
¼			7.1	304.5	
CB			8.4	303.2	
S	71+41	47	9.8	301.8	
+10			10.4	301.2	
+15			13.0	298.6	
TP	10.39	317.58	4.36	307.21	
		500 E			
-10			14.5	303.1	
S	71+91	47	13.9	303.7	
CB			12.6	305.0	
¼			11.1	306.5	
E	71+74	40	10.7	307.4	
¼			10.4	307.2	

317.58

42

+8		8.1	309.7	
CB		7.0	310.6	
N	71+57 66	5.3	312.3	
	545 E			
N	71+82 66	4.0	313.6	
+8		5.4	312.2	
CB		6.4	311.2	
+5		8.4	309.2	
¼		8.8	308.8	
+7		9.5	308.1	
E	71+99 40	9.4	308.2	
+8		10.0	307.6	
¼		10.8	306.8	
CB		12.0	305.6	
S	72+16 47	13.6	304.0	
+7		12.5	305.1	
+15		13.6	304.0	
	550 E			
-10		15.9	301.7	
-7		14.1	303.5	
S	72+41 47	13.1	304.5	
CB		11.6	306.0	
¼		10.3	307.3	
+4		9.8	308.3	
E	72+24 40	8.9	308.7	

		317.58			
¼			8.3	309.3	
+5			7.6	310.0	
CB			5.4	312.2	
N	72+07	66	3.9	313.7	
		575'E			
N	72+32	66	2.9	314.7	
CB			4.5	313.1	
+5			6.8	310.8	
¼			7.6	310.0	
℄	72+49	40	8.2	309.4	
+7			8.7	308.9	
¼			9.9	307.7	
CB			11.2	306.4	
S	72+	66 47	12.8	304.8	
+7			14.2	303.4	
+10			16.1	301.5	
		600'E			
-10			15.7	301.9	
-7			13.7	303.9	
S	72+91	47	12.8	304.8	
CB			10.8	306.8	
¼			9.6	308.0	
+8			7.5	310.1	
℄	72+74	40	7.7	309.9	
¼			7.2	310.4	

		317.58			
+5			6.5	311.1	
CB			4.5	313.1	
N	72+57	66	3.8	314.8	
		640'E			
N	72+97	66	7.1	315.5	
CB			4.4	313.2	
+5			6.2	310.8	
¼			6.8	310.8	
℄	73+14	40	7.2	310.4	
¼			9.3	308.3	
CB			10.5	307.1	
S	73+31	47	11.9	305.7	
+7			12.7	304.9	
+10			15.0	302.6	
		665'			
-10			13.9	303.7	
-7			12.3	305.3	
S	73+56	47	11.4	306.2	
CB			10.0	307.6	
¼			8.7	308.9	
℄	73+39	40	7.7	310.4	
¼			7.1	310.5	
+5			7.1	310.5	
CB			5.0	312.6	
N	73+22	66	3.1	314.0	

317.58

700E

N	73+57 66	8.3	314.3
CB		4.5	313.1
+5		6.7	310.9
¼		7.0	310.6
Ø	73+74 40	6.9	310.7
¼		8.6	309.0
CB		10.1	307.5
S	73+91 47	11.9	305.7
+10		14.8	302.8
+15		15.8	301.8
	745		
-20		15.2	302.4
-10		18.3	299.3
S	74+36 47	14.4	303.2
CB		11.1	306.5
¼		9.0	308.6
Ø	74+19 40	7.3	310.3
¼		7.2	310.4
+5		6.9	310.7
CB		5.2	312.4
N	74+02 66	3.3	314.3
	765'E		
N	74+22 66	4.0	313.6
+8		5.1	312.5

317.58

CB		6.7	310.9
¼		7.2	310.9
Ø	74+39 40	8.7	308.9
½		11.4	306.2
CB		13.5	304.1
S	74+56 47	15.7	301.9
+10		17.7	299.9
+20		14.5	303.1
	785E		
-20		14.2	303.4
-10		17.9	299.7
S	74+76 47	14.3	303.3
CB		11.3	306.3
¼		9.3	308.3
Ø	74+59 40	7.5	310.1
¼		6.7	310.9
CB		6.6	311.0
+2		6.4	311.2
+5		4.8	312.8
N	74+42 66	4.1	313.5
	805E		
N	74+62 66	4.4	313.2
+2		5.5	312.1
CB		6.5	311.1
¼		6.6	311.0

		317.58		
℄	74+79	40	7.4	310.2
¼			9.6	308.0
CB			11.6	306.0
S	74+96	47	14.4	303.2
+10			16.8	300.8
+20			13.8	303.8
	84'E			
-20			18.7	303.9
-10			16.0	301.6
S	75+05	47	14.7	302.9
CB			12.0	305.6
+5			12.4	305.2
¼			12.0	305.6
℄	74+88	40	11.3	306.3
¼			9.7	307.9
CB			6.8	310.8
+8			5.7	311.9
N	74+71	66	4.5	313.1
TP	11.98	325.16	4.40	313.18
	82'E			
N	74+77	66	12.2	313.0
+2			14.3	310.9
CB			14.6	310.6
¼			14.3	310.9
℄	74+94	40	16.0	309.2

		325.16		
¼			17.6	307.6
CB			19.7	305.5
S	75+11	47	22.8	302.4
+10			24.3	300.9
+20			21.2	304.0
	85'E			
+20			20.8	304.4
+10			23.8	301.4
S	75+41	47	20.5	304.7
CB			19.0	306.2
¼			17.1	308.1
℄	75+24	40	15.3	309.9
¼			13.7	311.5
CB			14.0	311.2
+5			13.4	311.8
N	75+07	66	12.0	313.2
	87'E			
N	75+32	66	10.5	314.7
+5			12.2	313.0
CB			13.7	311.5
¼			13.8	311.4
℄	75+49	40	14.6	310.6
¼			15.9	309.3
CB			19.4	307.8
S	75+66	47	19.4	305.8

3251L

+10			21.0	304.2
+20			19.8	305.4
		900'E		
-20			20.1	305.1
-12			20.4	304.8
S	75+91 47		18.1	307.1
CB			16.2	309.0
1/4			14.8	310.4
E	75+74 40		13.5	311.7
1/4			13.2	312.0
CB			12.9	312.3
+5			12.0	313.2
+6			11.2	314.0
N	75+57 66		10.1	315.1
		950'E		
N	76+07 66		9.2	316.0
+6			9.8	315.4
CB			11.0	314.2
+3			11.8	313.4
1/4			11.6	313.6
E	76+24 40		11.5	313.7
1/4			12.7	312.3
CB			13.9	311.3
S	76+41 47		15.1	310.1
+10			15.8	309.4
+20			19.2	306.0

3251G

		1000'E		
-20			18.1	307.1
+15			17.3	307.9
-9			12.8	312.4
S	76+91 47		11.5	313.7
CB			10.7	314.5
1/4			9.8	315.4
E	76+74 40		9.7	315.5
1/4			9.6	315.6
+6			9.0	316.2
CB			7.3	317.9
+7			6.5	318.7
N	76+57 66		5.7	319.5
		1040'E		
N	76+97 66		3.1	322.1
CB			4.3	320.9
+5			6.5	318.7
1/4			7.0	318.2
E	77+14 40		7.4	317.8
1/4			7.7	317.5
CB			9.3	316.0
S	77+31 47		10.1	315.1
+10			11.1	314.1
+15			17.0	308.2
+20			17.0	308.2

	325.16			
	1070'E			
-20		16.0	309.2	
-15		16.0	309.2	
-7		9.9	315.3	
S	77+61 47	8.9	316.3	
CB		7.6	317.6	
1/4		6.2	319.0	
E	77+44 40	5.9	319.3	
1/4		5.2	320.0	
+5		4.5	320.7	
CB		2.8	322.4	
N	77+27 66	1.7	323.5	
	1100'E			
N	77+57 66	1.2	324.2	
CB		2.6	322.6	
+5		3.9	321.3	
1/4		4.6	320.6	
E	77+74 40	5.0	320.2	
1/4		5.7	319.5	
CB		7.3	317.9	
S	77+91 47	8.6	316.6	
+7		9.4	315.8	
+20		15.5	309.7	
	(Rec shows 1132 32)			
	A 1129'E on Δ 3°50'L set taken split angle			
-20		14.7	310.5	

	325.16			
-7			8.9	316.3
S	78+21 95 Δ 2°50'Lt		8.2	317.0
CB			6.8	318.4
1/4			5.3	319.9
E	78+04 14 Δ 2°50'Lt		4.1	321.1
1/4			3.9	321.3
+7			3.0	322.2
CB			1.5	323.7
N	77+86 66 Δ 2°50'Lt		0.15	324.7
3.47	3.09	325.82	1.43	323.93
	50'E			
N	78+36 66		2.0	323.8
CB			3.1	322.7
+2			3.2	322.6
+4			4.5	321.3
1/4			4.8	321.0
E	78+54 88		4.8	321.0
1/4			6.1	319.7
CB			7.5	318.3
S	78+73 43		8.1	317.2
+10			9.4	316.4
	100'E			
+5			9.5	316.3
S	79+23 43		8.3	317.5
CB			7.4	318.4

325.82

¼		6.0	319.8
℄	79+04 88	5.2	320.6
¼		5.1	320.7
+5		4.7	321.1
+8		3.3	322.5
CB		3.1	322.7
N	78+86 66	1.9	323.9
	150' E		
N	79+36 66	1.2	324.6
CB		2.4	323.4
+4		2.8	323.0
+7		4.3	321.5
¼		4.5	321.3
℄	79+54 88	4.7	321.1
¼		5.9	319.9
CB		6.9	318.9
S	79+73 43	8.2	317.6
+15		9.9	315.9
	200' E		
-15		8.9	316.9
S	80+23 43	7.0	318.8
CB		5.9	319.9
¼		5.2	320.6
℄	80+04 88	5.1	320.7
+7		4.7	321.1

32.582

¼		3.0	322.8
CB		1.6	324.2
N	79+86 66	0.4	325.4
	ΔR 13°32' 4786 E on N 713' E on S		
N	80+05 78 ΔR 13°-32'	0.1	325.7 ✓
CB		1.2	324.6
¼		2.7	323.1
+3		3.0	322.8
+6		4.7	321.1
℄	80+19 94 ΔRt 13°-32'	4.9	320.9
¼		5.0	320.8
CB		6.2	319.6
S	80+34 93 ΔRt 13°-32'	7.5	318.3
+15		8.9	316.7
TP	7.88 322.82' 7.34 on N 0.54 on S = 0.00	5.545	322.37 Computed 7.12 on N.
-15		11.1	317.2
S	80+34 93	9.9	318.4
CB		8.4	319.7
¼		7.4	320.9
℄	80+23 50	7.4	320.9
+3		7.0	321.3
+7		5.5	322.8
¼		5.0	323.3
CB		3.9	324.4
N	80+12 40	2.7	325.6

		328.35		
		43'E		
N	80+55 40	26	325.7	
CB		3.5	324.8	
¼		5.0	323.3	
+5		7.2	321.1	
Σ	80+66 50	7.1	320.7	
¼		7.8	320.5	
CB		9.1	319.2	
S	80+77 93	10.3	318.0	
+15		11.8	316.5	
	95'E			
-15		13.1	315.2	
S	81+29 93	10.9	317.4	
CB		9.3	319.0	
+7		8.0	320.3	
¼		8.0	320.3	
Σ	81+18 50	7.5	320.8	
+8		6.2	322.1	
¼		5.0	323.3	
CB		3.7	324.6	
N	81+07 40	2.4	325.9	
	113'E			
N	81+25 40	1.3	326.0	
CB		3.9	324.4	
¼		5.0	323.3	

		328.35		
+1			5.3	323.0
+8			7.1	321.2
Σ	81+36 50		7.2	321.1
¼			7.9	320.4
+4			8.0	320.3
CB			9.3	319.0
S	81+47 93		11.2	317.1
+15			13.1	315.2
	175'E			
-15			12.9	315.4
S	81+59 93		10.9	317.4
CB			9.0	319.3
¼			7.8	320.5
Σ	81+48 50		7.3	321.0
+2			7.1	321.2
¼			4.9	323.4
CB			3.1	325.2
N	81+37 40		1.0	327.3
	150'E			
N	81+62 40		1.9	326.9
CB			3.7	325.1
½			5.0	323.3
+5			6.9	321.4
Σ	81+73 50		7.5	320.8
¼			7.8	320.5

	328.25		
+5		8.0	320.3
CB		9.0	319.3
S	81+84 93	10.5	317.8
+15		12.8	315.5
	170'E		
-13		11.9	316.4
S	82+04 93	9.9	318.4
CB		8.4	319.9
+3		8.0	320.3
½		7.8	320.5
E	81+93 50	7.5	320.8
+4		7.0	321.3
¼		5.3	323.0
CB		3.3	325.0
N	81+82 40	1.6	326.7
	195'E		
N	82+07 40	0.8	327.5
CB		2.8	325.5
¼		5.4	322.9
+2		5.1	322.7
+7		8.4	319.9
E	82+18 50	8.6	319.7
¼		8.3	320.0
CB		8.5	319.8
S	82+29 93	10.0	318.3
+13		11.9	316.4

328.25

228'E

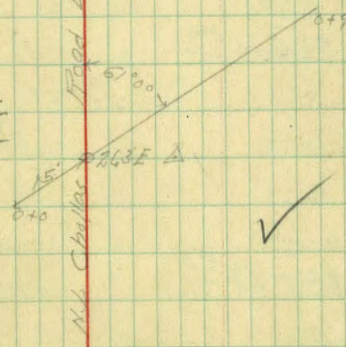
-13		11.2	317.1
S	82+62 93	10.7	317.6
+5		10.5	317.8
CB		9.8	318.5
¼		9.8	318.5
E	82+51 50	10.2	318.1
+6		10.0	318.3
½		8.9	319.4
+2		8.2	320.1
CB		7.4	320.9
N	82+40 40	6.8	321.5
	244'E		
-10		14.8	313.5
N	82+56 40	15.0	313.3
+5		14.4	313.9
CB		12.6	315.7
+8		11.5	316.8
½		11.5	316.8
E	82+67 50	11.6	316.7
¼		11.0	317.3
CB		11.0	317.3
S	82+78 93	11.2	317.1
+10		11.6	316.7
	155'E		
-10		13.3	316.0

	328.25			
S	82+89 93	12.2	316.1	
CB		12.5	315.8	
¼		12.9	315.4	
+5		12.0	316.3	
Σ	82+78 50	12.0	316.3	
¼		11.8	316.5	
+7		14.6	313.7	
CB		14.9	313.4	
N	82+67 40	14.9	313.4	
+		14.3	314.0	
TP	7.55 323.75	12.05	316.20	
	270° E			
-10		9.3	314.5	
N	82+82 40	9.8	314.0	
CB		10.3	313.5	
+7		10.6	313.2	
¼		7.9	315.9	
+8		8.0	315.8	
Σ	82+93 50	9.4	314.4	
+5		12.3	311.6	
¼		12.1	311.4	
CB		12.2	311.6	
S	83+04 93	10.5	313.3	
+15		11.1	312.7	
	280° E			
-15		12.0	311.8	
S	83+14 93	12.2	311.1	

Location & Levels Proposed Drain

323.75

0+0 N End Prop Drain		9.8	314.0
+15 N.L. Challas Rd		10.2	313.6
+27		10.6	313.2
+32	N. End 12'x8' Wood Culvert 5'W Prop Culvert	11.6	312.2 Flow Line
+36		7.6	316.2
+47		8.1	315.7
+53	S. End 12'x8' Wood Culvert 7'W Prop Culvert	12.9	310.9 Flow Line
+61		12.9	310.9
+90		13.5	310.3



℄ Sta 82+96 18

✓

		323.75			
CB			132	310.6	
¼			129	310.9	
℄	83+03	50	94	314.4	
+3			79	315.9	
¼			78	316.0	
+5			74	316.4	
CB			88	315.0	
N	82+92	40	90	314.8	
+10			89	314.9	
		293'E			
-15			77	316.1	
N	83+05	40	63	317.5	
CB			68	317.0	
¼			73	316.5	
℄	83+16	50	73	316.5	
+1			74	316.4	
¼			106	313.2	
+7			133	310.5	
CB			133	310.5	
S	83+27	93	134	310.4	
+10			138	310.0	
+15			115	312.3	
		308'E			
-15			107	313.1	
-10			105	313.3	

		323.75			
S	83+42	93	95	314.3	
CB			79	315.9	
¼			70	317.0	
℄	83+31	50	60	317.8	
¼			64	317.4	
CB			61	317.7	
N	83+20	40	55	318.3	
+10			43	319.5	
		323'N			
N	83+35	40	57	320.1	
CB			44	319.4	
+2			45	319.3	
¼			59	317.9	
℄	83+46	50	54	318.4	
¼			52	318.6	
CB			65	317.3	
S	83+57	93	72	316.6	
+15			91	314.2	
TP	502	324.17	46	319.15	00 Control Net 9th Line
		337'E			
-15			10.4	313.8	
S	83+71	93	71	317.1	
CB			63	317.9	
¼			54	318.8	
℄	83+60	50	54	318.8	

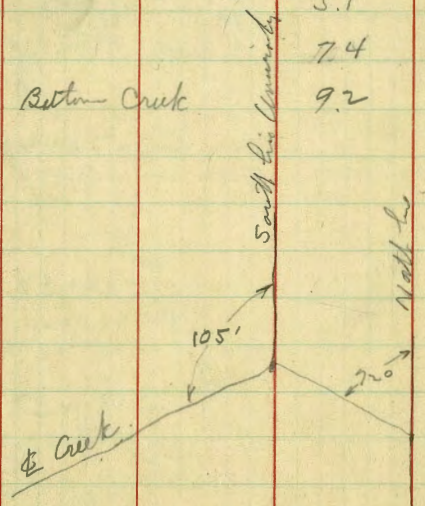
	324.17			
¼		5.7	318.5	
CB		4.8	319.4	
N	83+49 40	4.0	320.2	
	355'E			
N	83+67 40	2.2	322.0	
CB		3.1	321.1	
¼		5.1	319.1	
℄	83+78 50	5.0	319.2	
¼		5.2	319.0	
CB		5.9	318.3	
S	83+89 93	6.5	317.7	
+15		10.7	313.5	
	(369 24) Rec. 369'E			
-15		10.9	313.3	
S	84+04 17 = City Limits	6.2	318.0	
CB		5.9	318.3	
¼		5.4	318.8	
℄	83+92 74	4.8	319.4	
¼		4.5	319.7	
CB		2.4	321.8	
N	83+81 64	1.4	322.8	
	Rec = (39 7 8 W) 392'E 00N 0.0E 00S	diag 6.5 Obs 7.975 Obs to 73		
N	84+05 23 City Limits	0.6	323.7	
CB		1.9	322.3	
¼		4.7	319.5	

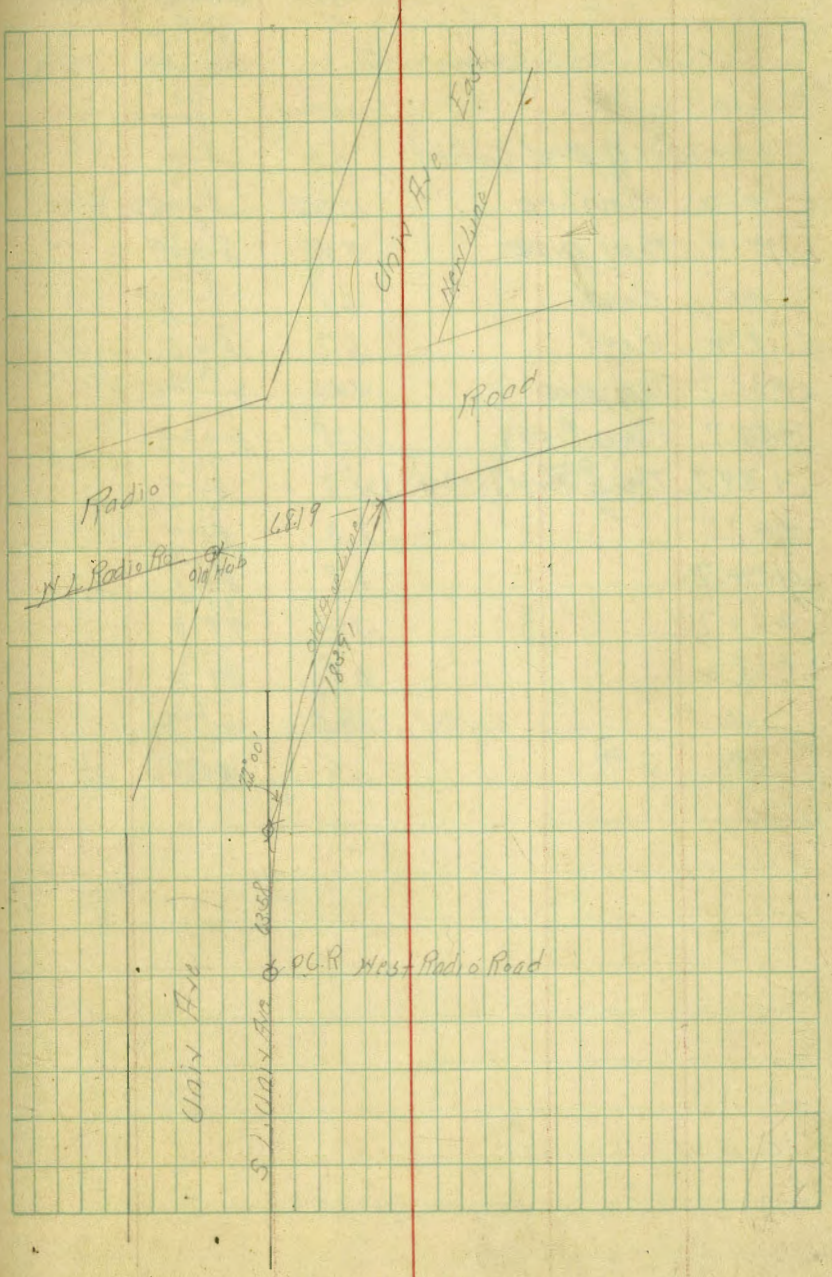
℄	84+04 54 City Limits		5.0	319.2	
¼			5.5	318.7	
CB			5.9	318.3	
S	84+04 17 City Limits		6.2	318.0	
					on Center Hub at Line
BM		1.20	322.35	319.15	
TP		0.30	321.35	321.15	
TP		2.21	313.31	311.10	
TP		4.22	305.04	300.82	
BM			284	302.20	RR Spk Pole N 44
			Rec 369 24	2359 Comp	San Diego
			369'E	236	3" Iron Pipe 2"x2" Post Mon. 4 ml 35 ahE
	℄ Chollas Road East				½ Hub
					68°
					33'
					3½" Iron Pipe 2"x2" Post Marked 3L or E
					Easterly Line of Property

Intersection of 1st Curve West Radio Road with New Line East Radio Road

Lewis Culvert #7

B.M.	020	289.59		289.39	3 Nails in Pole
-20			4.8	284.8	
-10			6.2	283.4	
-6			5.3	284.3	
N Line ~~Chiles~~ University Ave			4.8	284.8	
+15			5.2	284.4	
+25			3.8	285.8	
+36			2.3	287.3	
+45			5.1	284.6	
+50			7.4	282.2	
+61	Bottom Creek		9.2	280.4	





Culvert Level fr #7 East.

		+	H.I.	−	Elc.
			28758		28495
	263	29202			28939
					27.4
−10				10.2	818
					270
00 = 10' N of End Culvert				10.6	814
					76.83
+10	Flowline.			10.75	8127
					79.13
+10	Top pipe			8.45	8357
					81.1
+13	Road			6.5	855
					10
+26	Road			6.7	853
					78.13
+30.7	Top pipe			9.45	8257
					75.80
+30.7	Flow Pipe			11.78	8024
					7608
+39.7	Toe of slope			11.5	805
					81.3
+47.7				6.3	857
					83.7
+52.7				3.9	881
					84.4
+62.7				3.2	888
					84.8
+68.2				2.8	897
					74.8
a				12.6	732
					81.1
B	^ = 14' v			6.5	855

BM 10d Nail in Tele pole. (384.95)

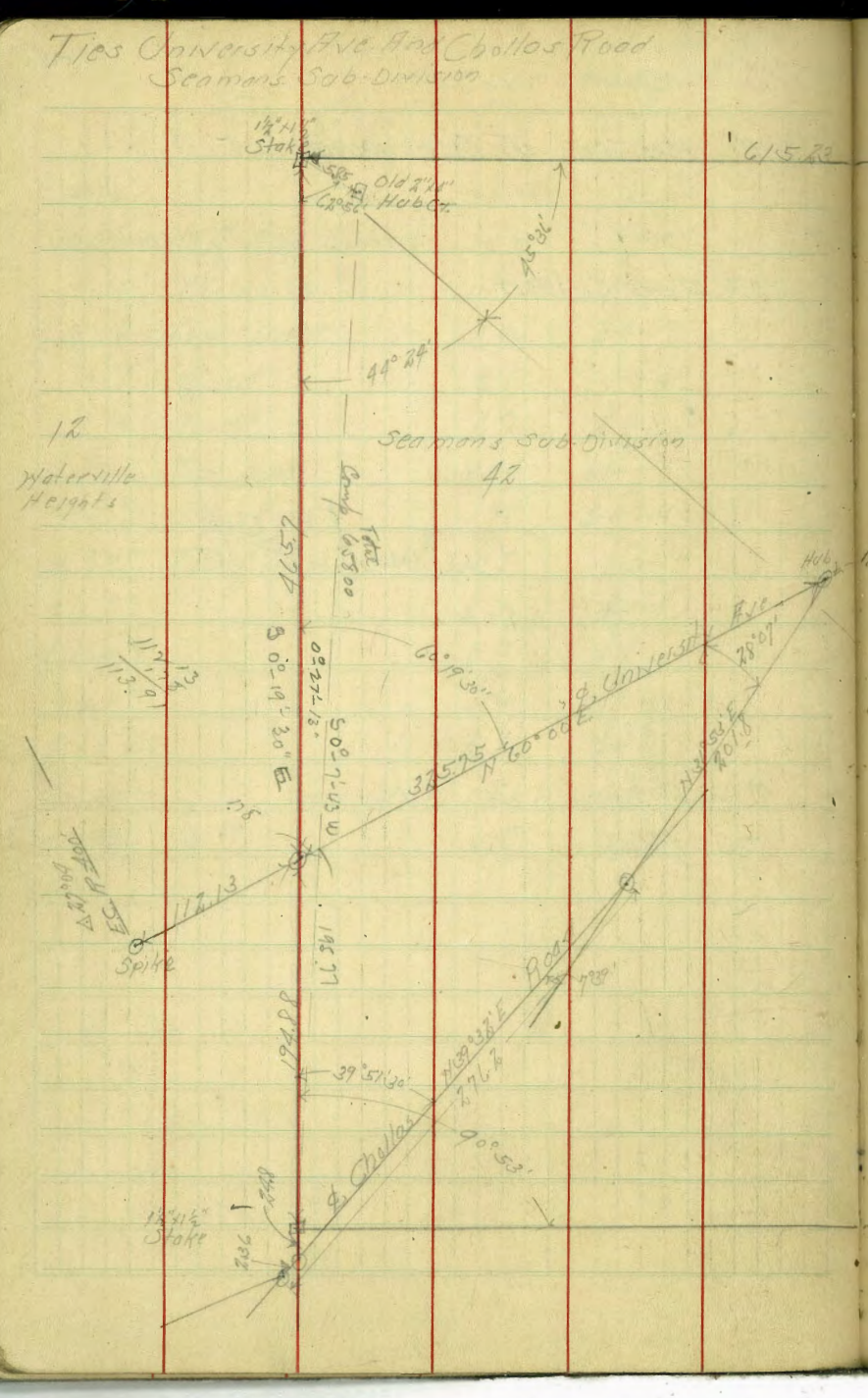
North End Culvert

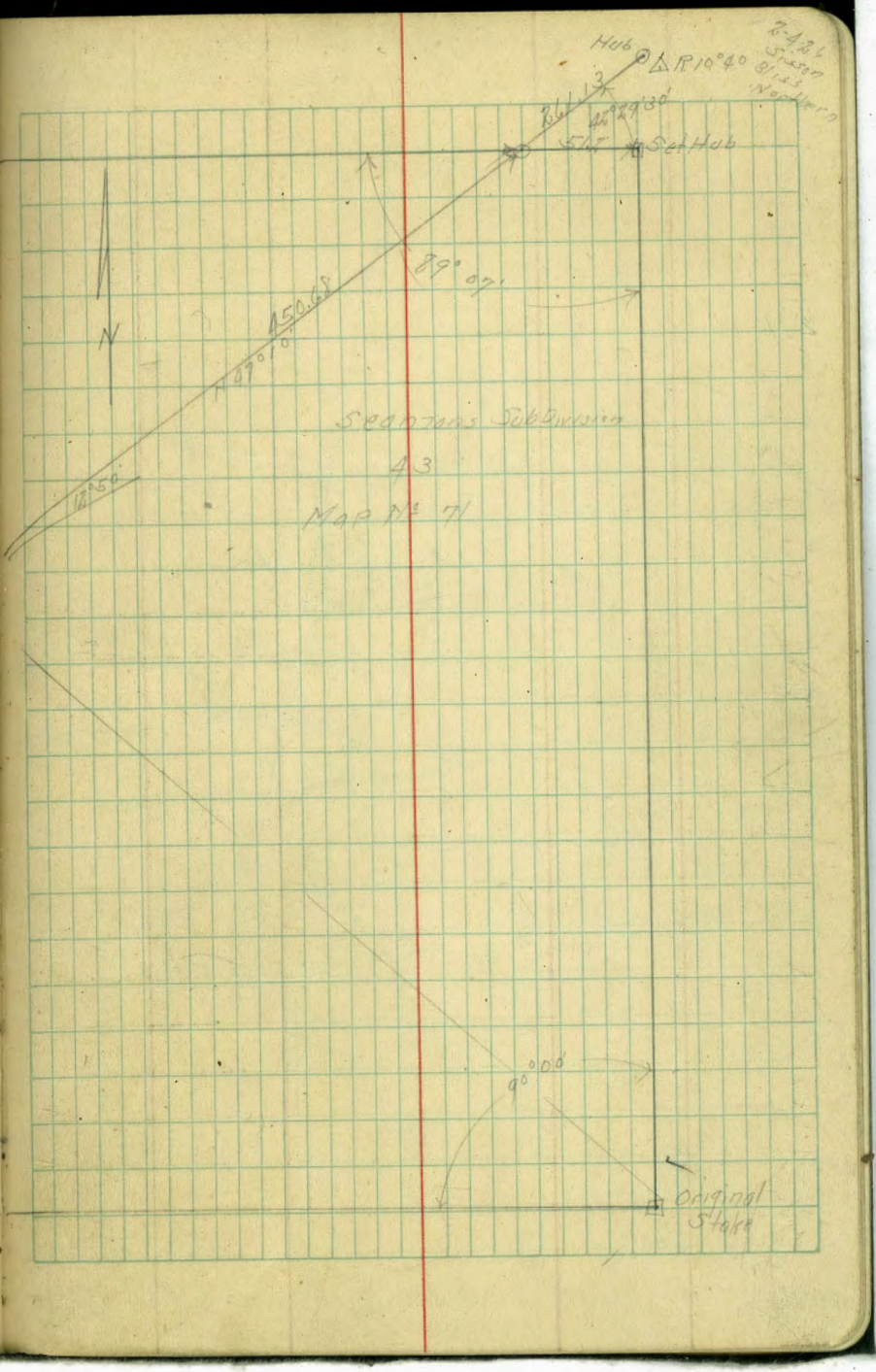
Culvert #6

Creek bottom on ℄ Prop. line.

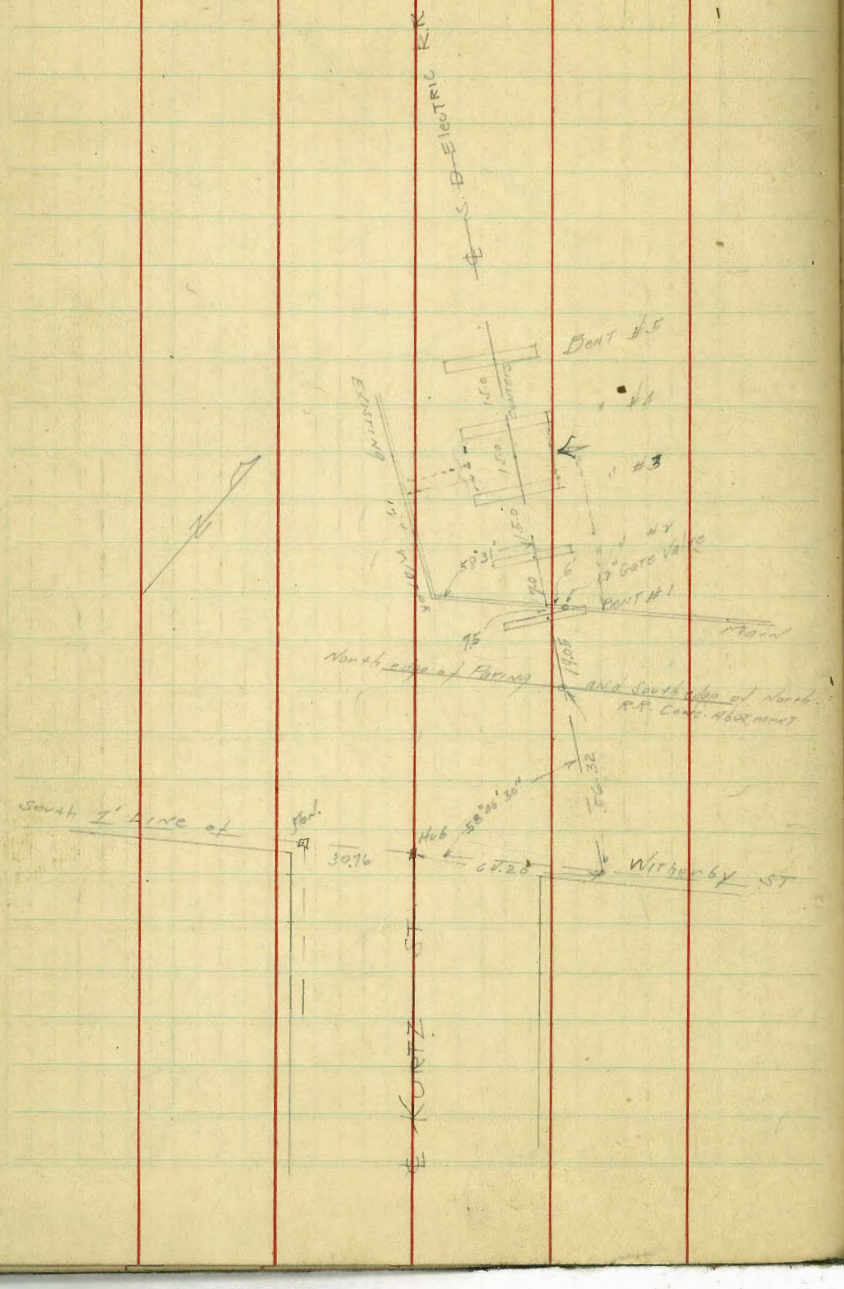
Top Bank

Ties University Ave and Chollas Road
Seamans Sub-Division





6/21/07 Location of Booster Pump under S.P. Electric RR. North of Viaduct at Kuntz & Withersby Floor washer flood drain



Rodeo rd BMNW 3 13.82
Shiloh rd. BMNW 813.03

4303
Hwy
4 rd
909
$6.37

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

19.5
13.5

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.

Made in Germany.