GRADE
135

Alley or Normal Hgts?

Our Leather Bound Engineers Note Books are carried in the following rulings:

No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.

No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.

No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.

No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

We also carry the Note Books listed above, bound in extra strong Fabri-Hide (otherwise the same quality of book), which can be furnished at a somewhat lower price.

In ordering Fabri-Hide covered books, add the letter *"F"* to catalog number.

THE FREDERICK POST CO.

ENGINEERING and DRAFTING SUPPLIES

IRVING PARK STATION

CHICAGO, ILL.

MICROFILMED

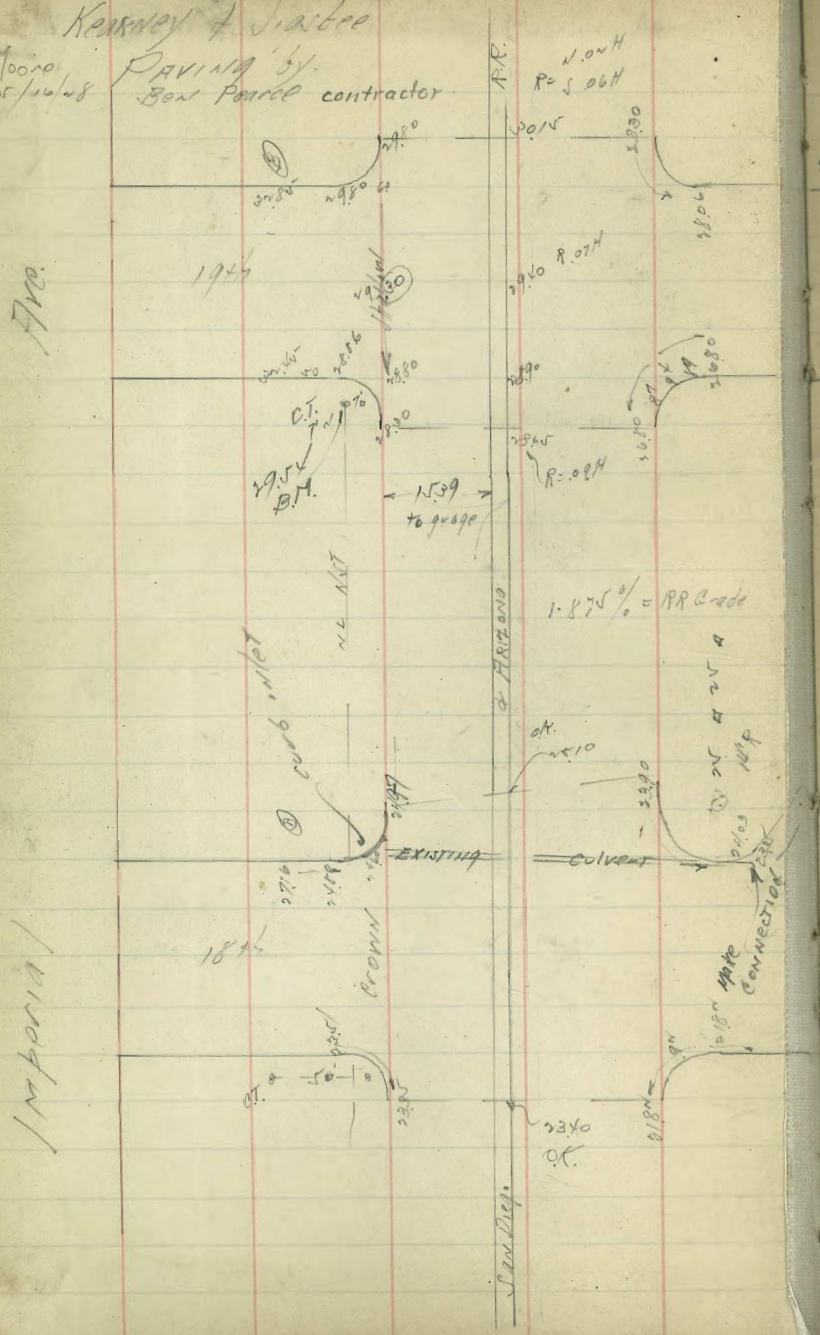
APR 8 1965

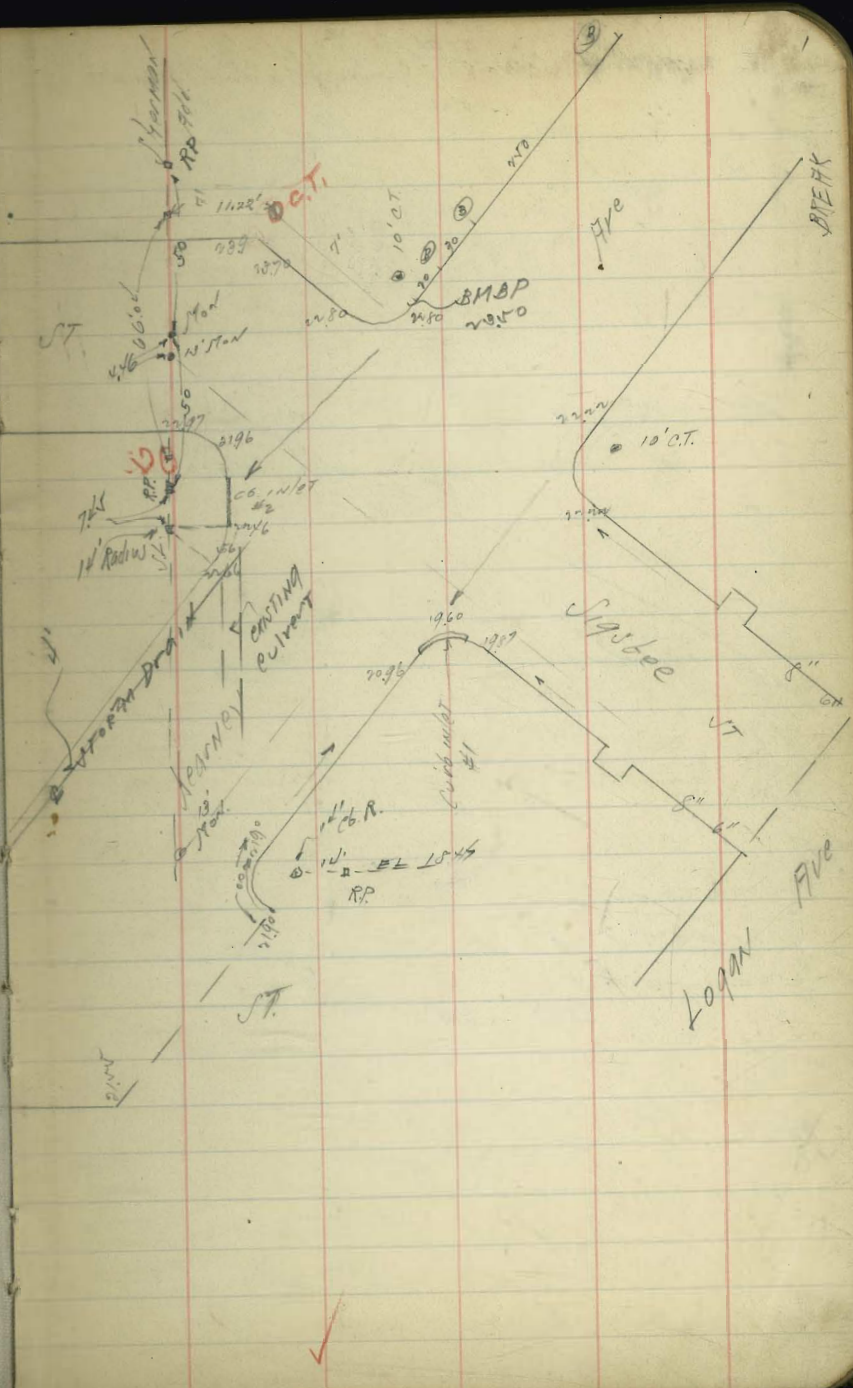
Copeland Ave prmt	P 44
Alley 42 U.H.	P 45
Ebers St Paving	P 46
Newell St Grading	P 48
Oliver & Gresham Water	P 50
Runnymede Lane prmt	P 53
Golden Gate Dr "	P 56
N.Y. St "	P 57
Pt Loma B Ms Willow St	P 58
Madison Ave Prmt	P 60
1st & Nutmeg "	P 67
Westborne & Neptune prmt	P 68
Extas on Sea Wall Neptune Place	P 74
Alley 36 C.H.	P 75
Kalmia prmt India	P 76
Alley 195 U.H.	P 77
Madison & Georgia rprmt	P 79
Imberial & 15th Prmt	P 80

Indexed 1/30/19 AK

Kearney & Sigsbee Pr.	P 1	333 42 1763 576 927 671 99! 1076
Santa Cruz Grading & Pr.	P 4	
1st St. bring old trackage	P 7	
Alley 72 Park Villas	P 9	
" 73 " "	P 10	
" 39 " "	P 11	
" 8 Frary Hgts	P 12	
El Cajon prmt	P. 13	
32nd St " & Bancroft	P 15	
Essex St "	P 17	
31st St "	P 19	
Myrtle Ave "	P 20	
38th St "	P 21	
Aux. Sewer Cape May	P 22	
Nichols St. Prmt	P 23	
Lamont St "	P 24	
Alley 117 U.H.	P 28	
" 1 Fairmont Annex	P 29	
" 7 Wilshire Place	P 30	
" 63 Park Villas	P 31	
" 5 Blairs Highland	P 32	
" 2 St Louis Hgts	P 33	
Beryl & Kendall Waterline	P 34	
19th St Prmt	P 35	
Sampson St prmt	P 38	
Ebers St. Sewer	P 43	

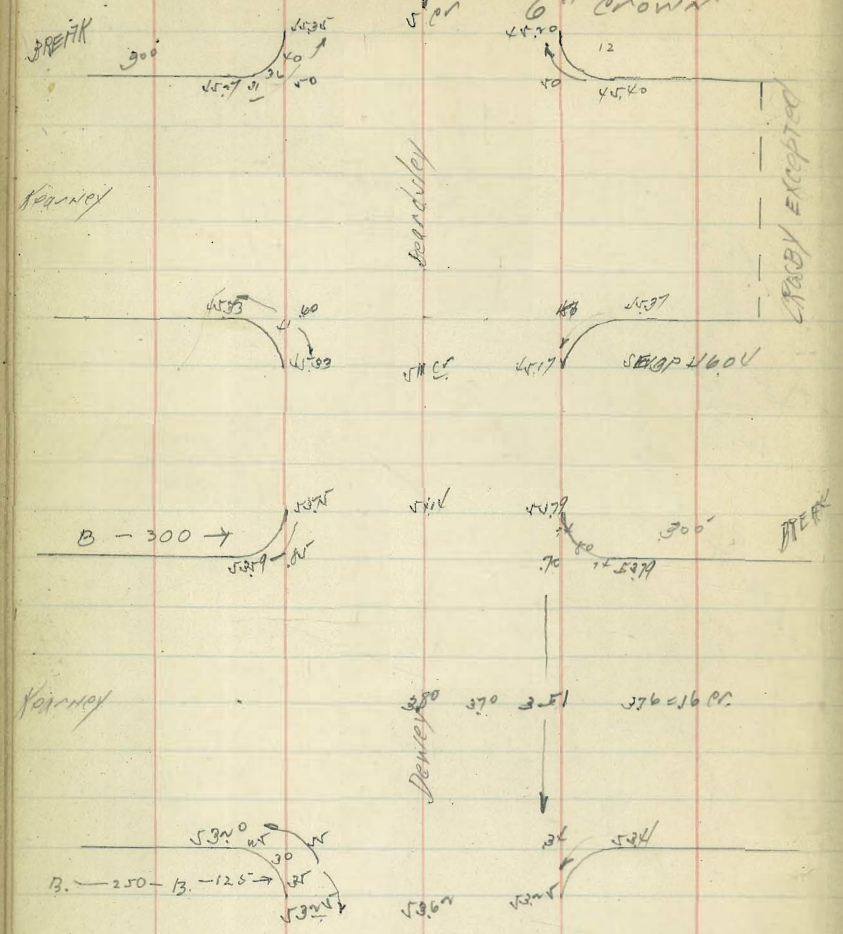
Kearney & Slatbee
Moore
5/16/48
Paving by
Ben Pearce contractor



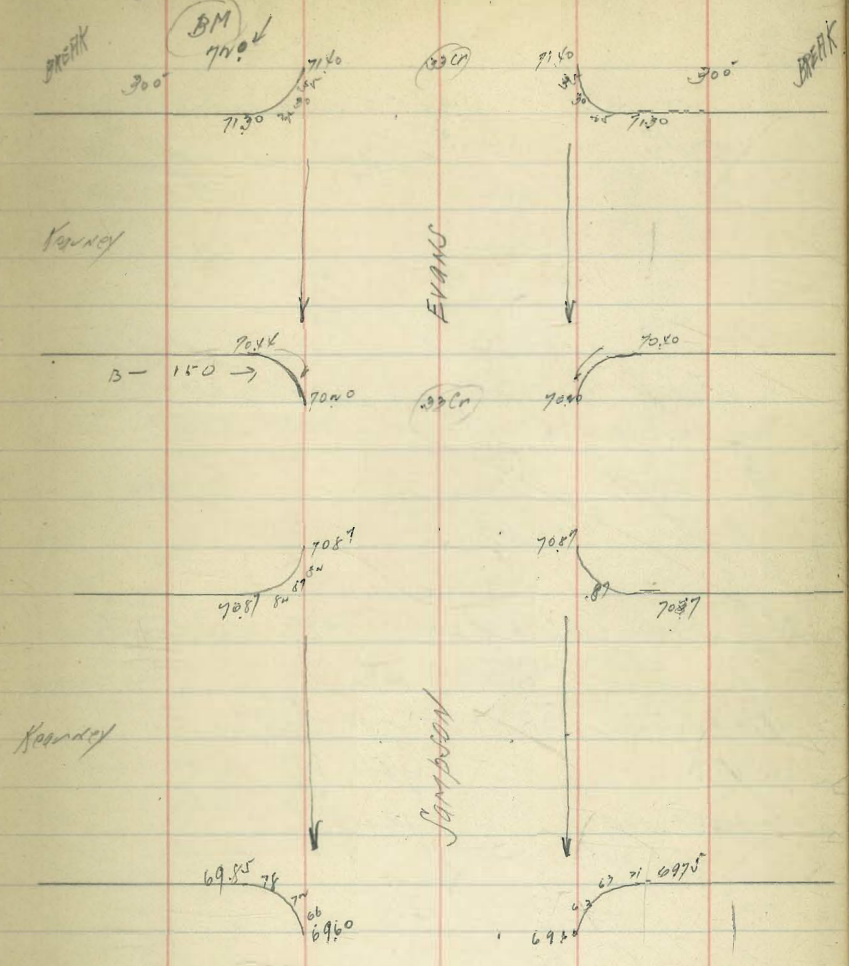


Commercial
17th St
N 00°09'30" E
63.09
40
25.42
13.81
85.60
S 00°05'22" E
69.23
51.92
cross in walk
20'
LOGAN

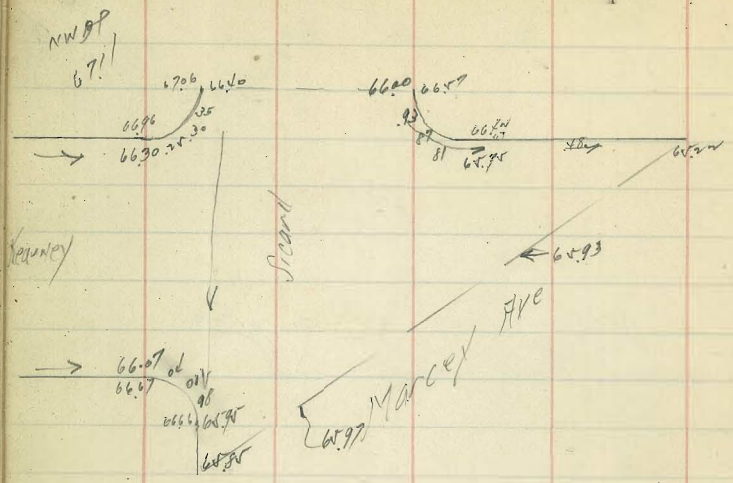
Kearney Fire Paving
8" curb face
6" crown



Cross STS = 5" crown



Kearney Ave paving



6" Sewer Construction 19th N of Kearney

		F.L.	
0+00 = EX Sewer	17.71	17.84	9.39 / 8.45 / +6.14
0+35 = DE		~~18.41~~	8.80 / 7.47 / +6.33
0+70 = ~~DE~~ wrong See plan		~~19.00~~	18.68 = Grade / +6.1

Kearney Culvert Const.

	FL	
00 = EX. Storm Drain at Jigsbee	17.30	
0+45	17.54	9.69 / 6.69 / 9.48 / +3.0
0+90	17.73	7.48 / +2.0
1+35	17.95	9.76 / 5.76 / +2.0
1+80	18.16	9.05 / 6.00 / +3.0
2+05 = P.C.	18.30	8.91 / 5.91 / +3.0
2+30 end = Existing culvert at SE Cor 18th & Nist.	18.44	18.1
0+45 = BREAK	18.17	9.94 / 7.57 / +2.37
+90	18.43	9.88 / 8.38 / +1.50
1+35	18.58	9.83 / 8.12 / +1.71
1+80	18.34	9.77 / 6.93 / +2.84
2+05 = P.C.	18.39	9.74 / 6.79 / +2.95
2+30 = EX culvert	18.44	9.69

Grade raised acct of Sewer Line

Santa Cruz Ave grading

	Sc6	Nc6
E.L. Sunset Cliffs Blvd	54.0	53.0
0+40	58.46	57.46
+80	62.92	61.92
1+00	67.38	66.38
1+60	71.84	70.84
2 = P.V.C.	76.3	75.3
+20	78.3	77.3
+40	80.2	79.2
+60	81.8	80.8
+80	83.3	82.3
3	84.6	83.6
+20	85.6	84.6
+40	86.5	85.5
3+60 = EVC	87.1	86.1
4+18	88.65	87.65
4+76	90.20	89.20
5+34	91.75	90.75
5+92 = P.C. of curb	93.3	92.3
6 = W L EBERS	93.5	92.5

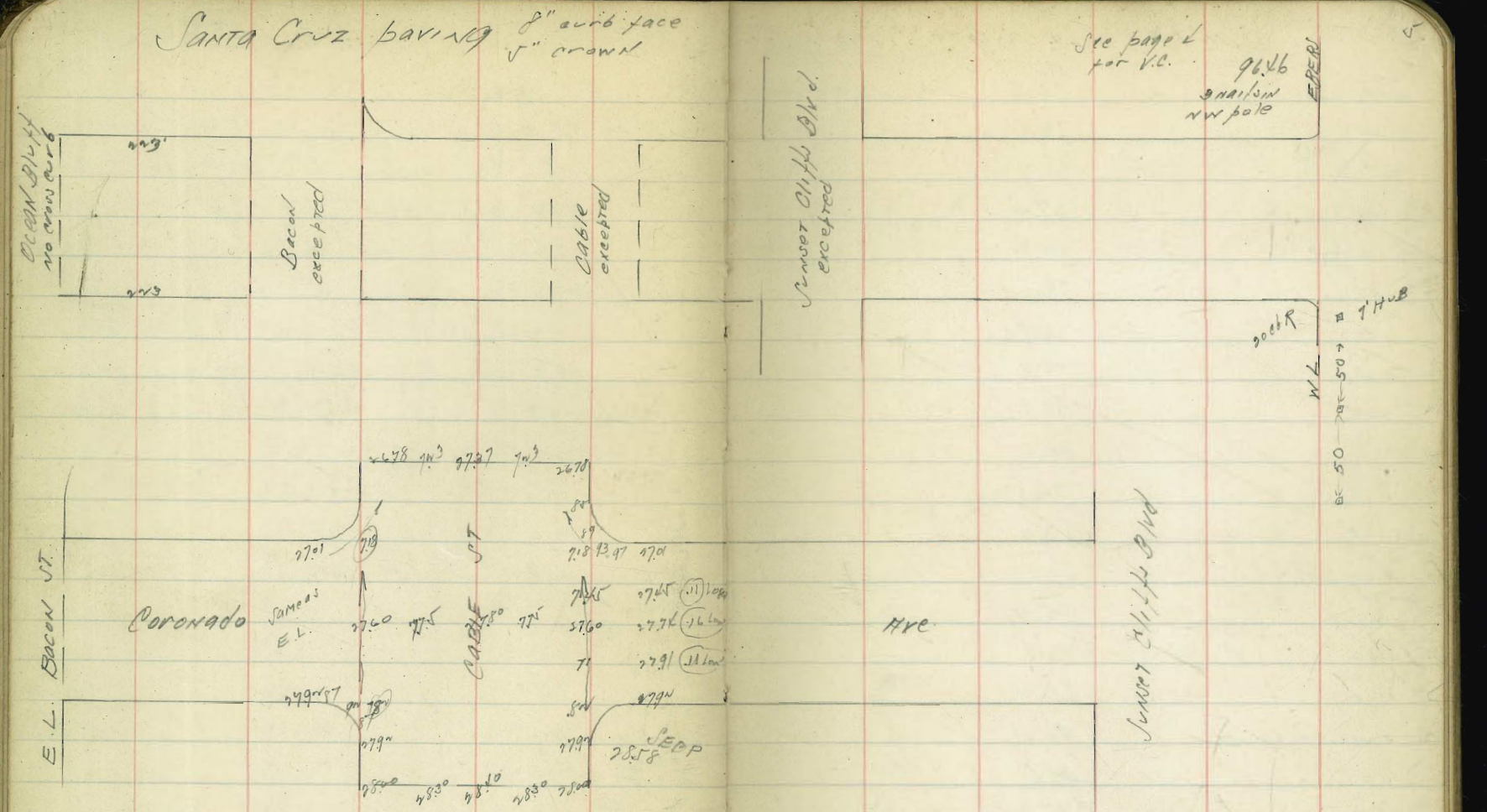
53.12 SW 7' C.T. Santa Cruz + Sunset Cliffs Blvd +

cl. Sunset Cliffs.

						P.V.C	
S.l.	54.0	58.5	62.9	67.4	71.8	76.3	78.3
	12.02	19.7	15.3	10.8	16.5	21.4	19.4
		17.4	5.8	0.6	5.0	9.0	7.5
		+8.3	+9.5	+10.2	+11.5	+12.4	+11.9
N.l.	53.0	57.5	61.9	66.4	70.8	75.3	77.3
	13.6	8.5	4.1	1.4	7.4	2.9	11.0
		5.2	6.5		2.4	2.9	10.5
		+0.3	-2.4	-1.8	-1.0	0.0	+0.5
						EVC.	
S.l.	80.2	81.8	83.3	84.6	85.6	86.5	87.1	88.6
	17.5	15.9	14.4	13.1	12.1	11.2	10.6	9.1
	5.9	4.9	4.3	3.7	3.8	4.5	5.5	2.4
	+11.6	+11.0	+10.1	+9.4	+8.3	+6.7	+5.1	+0.7
N.l.	79.2	80.8	82.3	83.6	84.6	85.5	86.1	87.6
	9.1	7.5	6.0	14.1	13.1	12.2	11.6	10.1
	8.7	6.7	1.9	10.1	9.2	9.1	8.7	8.5
	+0.4	+2.8	+4.1	+4.0	+3.9	+3.1	+2.9	+1.6
			P.C.	W.L.				
S.l.	90.2	91.7	93.3	93.5				
	7.5	6.0	14.5	14.3				
	8.4	2.7	10.9	12.5				
	-0.9	+3.3	+3.6	+1.8				
N.l.	89.2	90.7	92.3	92.5				
	8.5	7.0	5.4	5.2				
	7.8	9.2	6.3	6.2				
	+0.7	-2.2	-0.9	-1.0				

53.12
+12.88
66.00
-0.10
65.90 T.P.
+12.29
78.19
-2.84
75.35 T.P.
+12.95
88.30
-0.41
87.89 T.P.
+9.86
97.75
-1.23
96.52
+11.31
107.83
-2.46
105.37

N.W. spike in pole
96.46 correct.


Santa Cruz paving 8" curb face 5" crown
See page 4 for V.C.
96.46
9 nails in nw pole
EPER
Ocean Bluff No crown curb
Bacon excepted
Cable excepted
Sunset Cliffs Blvd.
Sunset Cliffs Blvd
Coronado Ave
E.L. Bacon St.
Cable St
Same as E.L.
SEEP
2 Sts
BC 50 — PC — 50 = 1 Hub
W.L.
Door R

EXISTING Santa Cruz Water line

	EL	10' S of ℄
00 = EL Sunset Cliff Blvd	50.5	To be lowered
0+50	56.1	
1	61.7	
+50	67.4	
2 = PVC	74.8	
+00	74.8	
+40	76.7	
+60	78.3	
+80	79.8	
3	81.1	
+00	82.1	
+40	83.0	
3+60 EVC	83.6 ✓	15.3 − 2.9 = 12.4
4+00	84.6 on +120	14.3
4+40	85.4	12.9 − 12.4 = +1.3
4+80	86.8	12.1 − 9.5 = +2.6
5+40	88.4	10.5 − 7.1 = 3.4
6 = WL Eders ST	90.0	8.9 − 4.7 = +4.2
00 = EL " "	91.5	7.4 − 3.3 = +4.1
0+60	95.8	15.6 − 10.7 = +4.9
1+00	100.4	11.2 − 6.4 = +4.8
1+80 = BREAK	104.5	6.9 − 0.6 = +6.3
2+40	109.1	14.6 − 8.3 = +6.3
+84	113.7	10.0 − 3.9 = +6.1
3+36	118.3	17.2 − 11.2 = +6.0
+88	122.9	12.6 − 6.3 = +6.3
4+40 = BREAK	127.5	8.0 − 1.7 = +6.3

96.46
+2.42
98.88
−0.28
98.60 T.P.
+12.81
111.41
−0.65
110.76 T.P.
+12.93
123.69
−0.68
123.01 T.P.
+12.48
135.49
−0.16
135.33 T.P.
+13.02
148.35
−0.07
148.28 Sta. 6. W.L. Froude
+6.55
154.83

5+93.3	137.9	15.4 − 9.6 = +5.8
5+46.7	138.3	10.0 − 4.7 = +5.3
6 = WL Froude	143.8	4.5 − 0.1 = +4.4
EL "	145.9	8.9 − 3.2 = +5.7

1st paving of Abandoned RR
B to Laurel

	W	E
00 = NL BST		
0+00	0.0	0.00
0+60	0.0	0.00
1	-0.02	-0.02
+50	-0.07	0.0
2	-0.08	0.0
+50	-0.06	0.0
3 = SL Ash = MH.	0.0	0.0
℄ "	-0.04	-0.04
00 NL "	-0.03	-0.02
0+50	-0.04	-0.02
1	-0.05	-0.04
+50	-0.03	+0.02
2	-0.07	-0.04
+50	-0.01	0.0
3 = SL Ash = MH	0.0	0.0
℄ "	0.0	0.0
00 = NL Ash	-0.02	-0.01
0+50	-0.03	+0.01
1	-0.03	-0.02
+50	-0.06	+0.01
2	-0.05	+0.01
+50	-0.06	-0.02
3 = SL Beech = MH.	0.0	0.0
℄	-0.03	0.0
00 = NL "	-0.02	-0.12

	W	E	
0+50	0.0	0.0	
1	0.0	0.0	
+50	+0.01	0.0	
2	0.0	0.0	
+50	+0.02	0.0	
3 = SL Cedar	-0.04	-0.02	
℄	0.0	0.0	
00 = NL "	0.0	-0.03	
0+15		-0.10	
0+50		-0.05	
+75		+0.01	
1	Meet paving on Laurel	0.0	
+75		0.0	
+50		-0.03	= old switch
+75		+0.02	
2		-0.02	
+25		-0.03	
+50		-0.10	
+25		-0.05	
3 = SL Date = MH.	0.0	0.0	
℄	0.0	0.0	
00 = NL "	0.0	-0.03	
0+15	0.0	-0.04	
0+50	-0.02	-0.05	
1	-0.15	-0.07	
+50	-0.12	-0.10	
2	-0.02	-0.07	
+50	-0.02	-0.06	
+25	0.0	-0.03	
3 = SL Elm = MH	0.0	-0.04	
℄	0.0	-0.06	
00 = NL "	0.0	-0.04	
0+15	0.0	-0.02	
0+50	-0.03	-0.06	
1	-0.03	-0.05	

	W	E
00 1+50	-0.07	-0.14
0+7 2	-0.05	-0.10
0+6 +50	-0.02	-0.02
+85	0.0	-0.05
1 3 = SL FIR = MH.	0.0	-0.06
+ ¢	0.0	-0.05
2 00 = NL "	0.0	-0.03
+ 0+50	-0.04	-0.05
3 = 1	-0.03	-0.05
1+25	0.0	-0.05
¢ 1+50	0.0	-0.06
1+75	0.0	-0.06
00 2	0.0	-0.06
0+ +50	0.0	-0.06
1 3 = SL Grape	0.0	-0.06
+ ¢	0.0	-0.04
2 00 = NL "	0.0	-0.07
+ 0+50	0.0	-0.07
3 = 1	0.0	-0.07
¢ +50	0.0	-0.10
00 = 2	0.0	-0.04
0+ +50	0.0	-0.04
1 3 = SL Hawthorn = MH	0.0	-0.06
+ ¢	0.0	-0.05
2 00 = NL "	0.0	-0.04
+ 0+50	0.0	-0.10
3 = 1	0.0	-0.06
¢ +50	0.0	-0.10
00 = 2	0.0	-0.12

	W	E
7+50	0.0	-0.10
3 = SL 1VV = MH	0.0	-0.05
¢	0.0	-0.05
00 = NL "	0.0	-0.05
0+50	0.0	-0.05
1	0.0	-0.04
+50	0.0	-0.04
2	0.0	0.0
+50	0.0	0.0
3 = SL Juniper	0.0	0.0
¢	0.0	0.0
00 NL "	0.0	0.0
0+50	0.0	-0.03
1	0.0	0.0
+50	0.0	-0.04
2	0.0	-0.02
+50	0.0	-0.02
3 = SL Kalmia	0.0	0.0
¢	0.0	0.0
00 = NL "	0.0	0.0
0+50	0.0	0.0
1	0.0	-0.02
+50	0.0	-0.03
2	0.0	-0.03
+50	0.0	0.0
3 = SL Laurel	0.0	0.0

6/12/28

Alley Paving
Blk 72 Park Villas

J. Carroll Const.

	W .05 L	E .10 L
S.L. Univ. Ave = 00	309.5	310.0
0 + 40	308.77	308.67
0 + 60	307.03	307.33
1 + 20 = Break.	305.80	306.0
1 + 60	305.40	305.50
2 + 00 = Break	305.0	305.0
+ 20 = Break	305.4	305.4
+ 50 = N.L. Wightman	306.8	307.2

Culvert # 2

		F.L.	
Top Catch Basin	304.90		
Bottom " " = 00	9.60 / 9.08 / +0.52	303.10	11.22 / 9.05 / +2.17
0 + 42 = Δ #1		302.35	11.97 / 3.75 / +4.22
0 + 61 = Δ #2		302.0	6.26 / 1.96 / +4.30
1 + 18 = end Conc pipe		301.0	7.26 / 5.62 / +1.64
1 + 33 = " of Box Culvert		300.70	7.56 / 7.56 / +0.00

306.40 / 7.92 = 314.32 / 7.67 = 306.65 = F.P. / 1.61 = 308.26

W	308.27 / 6.05 / 15.05 / +1.10	307.03 / 7.29 / 7.29 / 0.0	305.80 / 8.52 / 8.62 / −0.10	305.40 / 8.92 / 9.38 / −0.46	305.0 / 9.32 / 9.56 / −0.24	305.4 / 8.92 / 8.87 / +0.05
E	308.67 / 7.65 / 7.44 / +0.20	307.33 / 6.99 / 6.78 / +0.21	306.0 / 8.32 / 7.41 / +0.91	305.40 / 8.92 / 9.31 / −0.39	305.0 / 9.32 / 9.16 / +0.16	305.4 / 8.92 / 8.42 / +0.50

W 306.80 / 7.52 = .05 = paving

E 307.20 / 7.1 = O.K.

Carroll CONT'D

Alley Blk 73 Park Villas

	W	E
St Wightman = 00	306.40	306.76
0+55	305.20	305.58
1+10 = BREAK	304.00	304.40
1+50	303.67	304.05
1+90	303.33	303.70
2+30	303.0	303.35
2+70	302.67	303.0
3+10	302.33	302.65
3+50 = BREAK	302.0	302.30
4 "	302.32	302.64
+50 "	302.64	302.98
5 "	302.96	303.32
+50 "	303.28	303.66
6+00.00 = 5 = NL Landis	303.60	304.0

See Walker's Grade Book for alley 1st + 2nd

306.65 TP
0.34
310.01
3.15
306.86
2.37
307.23
3.23
303.30
6.29
309.89

B

W	305.20	304.00	303.67	303.33	303.0	302.67	302.33
	4.81	6.01	6.34	6.68	4.93	4.56	4.90
	5.91	6.25	6.25	6.91	5.23	5.90	5.90
	-1.10	-0.24	-0.18	-0.23	+2.0	+1.26	+2.0
E	305.58	304.40	304.05	303.70	303.35	303.0	302.65
	4.43	5.61	5.96	3.59	6.66	4.43	4.55
	5.96	5.01	4.96	5.87	5.00	5.23	5.52
	+0.47	+0.60	+1.0	+0.66	+1.66	+2.0	+2.96
W	302.10	302.32	302.64	302.96	303.28	303.60	
	5.23	4.91	4.55	6.93	6.61	6.29	
	4.35	3.91	3.55	0.0	0.0	6.09	
	-0.88	+1.0	-0.13	Nil	Nil	+0.20	-B
E	302.30	302.64	302.98	303.32	303.66	304.0	
	4.93	4.59	4.25	6.57	6.23	5.89	
	4.25	3.47	3.79	6.21	7.30		
	+0.18	+1.12	+1.46	+0.36	-1.07		

BREAK

this section as is

W. 303.70
6.09
CUT

Grade changed raised 0.5

E 304.50
5.39

302.16 = Top CURB

Culvert #1 F.L.

Top Catch Basin 301.70
5.53
4.85
+0.68

Bottom " " = 00 298.70

8.53
4.85
+3.68

0+55.95 296.40

10.83
7.53
+3.30

1+11.90 = end Conc. pipe 294.10

13.13
10.83
+2.30

1+11.90 end of curb outlet 293.90

13.33
0.0

Alley Paving Blk 39 Park Villas

Moore — 8' wide — 0.3 dip — Brown, Contr.

	W	E
J.L. Dwight = 00	334.40	334.30
0+20 = Break	334.70	334.80
0+40 = "	334.80	335.0
0+90	334.35	334.55
1+24	333.90	334.10
1+96	333.45	333.65
2+48	333.00	333.20
3+00	332.55	332.75
3+42	332.10	332.30
4+04	331.65	331.85
4+56	331.20	331.40
5+08	330.75	330.95
5+60 = Break	330.30	330.50
5+80 = "	329.70	329.90
6+00 = N.L. Myrtle	328.40	328.90

Dwight + Myrtle
3rd and Herman

330.35 = S.W.B.P. 32 + Myrtle

330.35								
+ 7.66								
338.01								
− 3.24								
334.77								
+ 4.62	W	34.40	34.70	34.80	34.35	33.90	33.45	33.00
339.39		4.996	4.69	4.39	5.04	5.32	5.79	6.22
− 4.92		5.13	5.25	4.30	5.02	5.04	5.26	5.77
334.47			+0.44	+0.29	+0.02	+0.28	+0.51	+0.45
+ 4.75								
339.22	E	34.30	34.80	34.40	34.45	34.10	33.65	33.70
− 7.54		5.096	4.59	4.39	4.67	5.12	5.57	6.02
331.68			3.93	4.05	4.15	4.96	5.34	5.02
+ 3.08			+0.66	+0.34	+0.52	+0.16	+0.23	+1.00
334.76								
− 5.61								
329.15 T.P.	W	32.45	32.10	31.65	31.20	30.75	30.30	29.90
+ 5.87		6.67	7.12	7.57	8.02	4.01	4.46	5.06
335.02		6.07	6.75	7.59	7.47	4.19	4.46	4.98
− 4.68		+0.60	+0.37	−0.02	+0.55	−0.18	0.00	+0.08
330.34	E	32.75	32.30	31.85	31.40	30.95	30.50	29.90
		6.48	6.92	2.91	3.36	3.81	4.26	4.86
330.35		5.76	6.49	2.58	3.44	4.14	4.23	4.51
		+0.71	+0.43	+0.33	−0.08	−0.33	+0.03	+0.35

error 0.01

W 32.40 = paving — 6.36 / .42 / .06 L

E 32.90 " — 5.86 / .03 / .19 L.W.

W	32.40	32.70	32.80	32.35				
E	32.80	32.80	32.50	32.55				
W	32.90	32.45	32.0	32.45	32.10	31.65	31.20	30.75
E	32.10	32.65	32.40	32.75	32.30	31.85	31.40	30.95
W	30.30	29.70	28.40					
E	30.50	29.90	28.90					

6/29/28 Alley Paving BLK 8 FRARY HGTS
Moore 14' wide from WL alley Center 2' below lowside

	W	E
NL THORN = 00	320.78 = Top cb.	320.92 = Top cb.
0 + 40 = BREAK	320.40	320.70
0 + 95	319.02	319.30
1 + 50	317.65	317.90
2 + 05	316.28	316.50
2 + 60 = BREAK	314.90	315.10
3 + 80 = "	314.50	314.70
3 + 00 = "	314.30	314.50
3 + 40	314.02	314.25
3 + 80	313.75	314.00
4 + 20	313.48	313.75
4 + 60 = BREAK	313.20	313.50
5 + 10 = "	311.90	312.20
5 + 40 = "	310.70	311.00
5 + 60 = "	309.40	309.70
5 + 80 = "	307.70	308.00
6 + 00 = NL Redwood	305.15 = Top cb	~~305.70~~ = Top cb
	305.38 = paving.	305.60 = paving grade

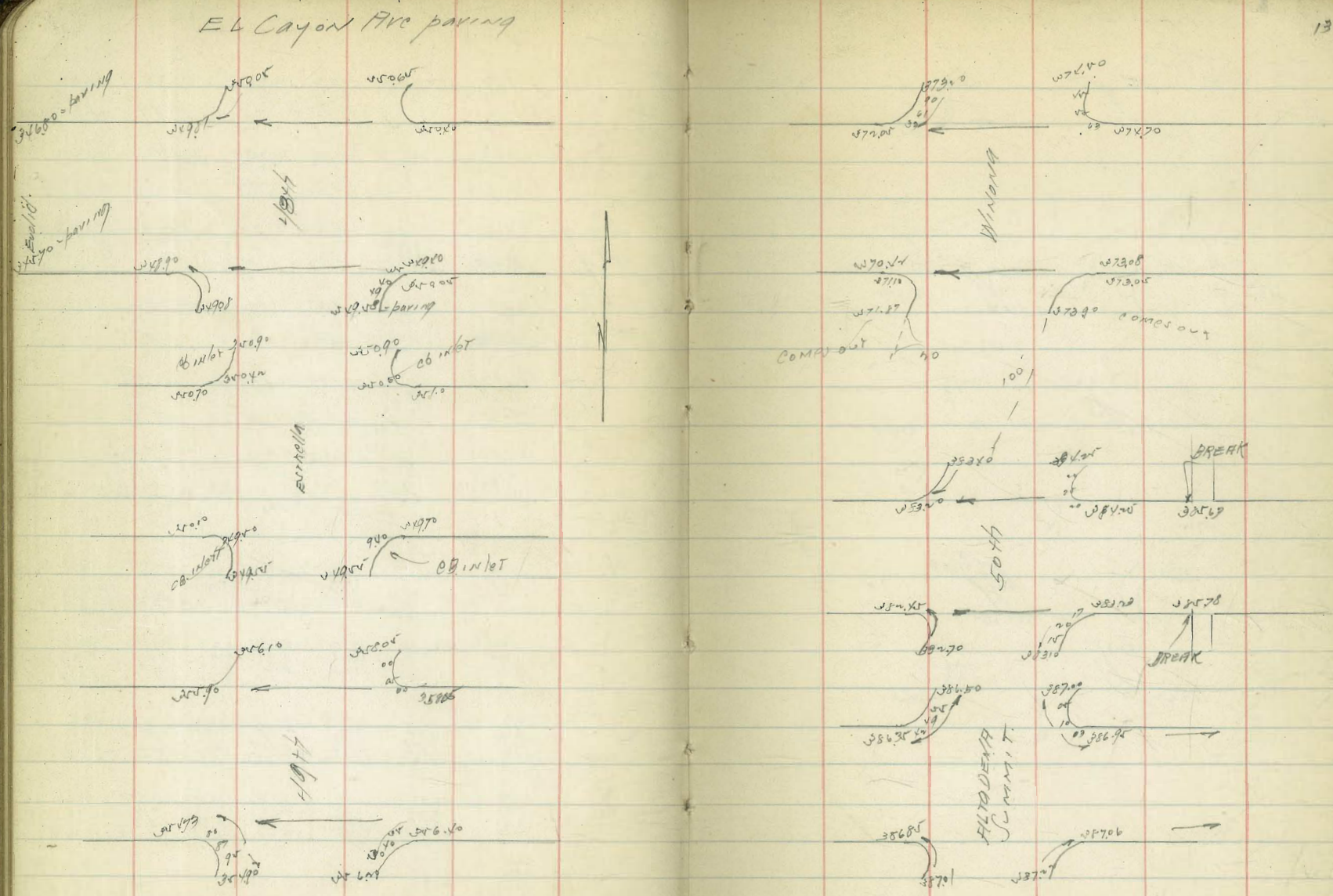
318.98 NWCP THORN + 3.15'

318.98
+ 6.88
325.86
- 5.02
320.84 = T.P.
+ 3.56
324.40
- 9.97
314.43 = T.P.
+ 6.21
320.64
- 6.62
314.02
2.37
316.39
- 13.09
303.30
3.19
306.49
4.57
301.92

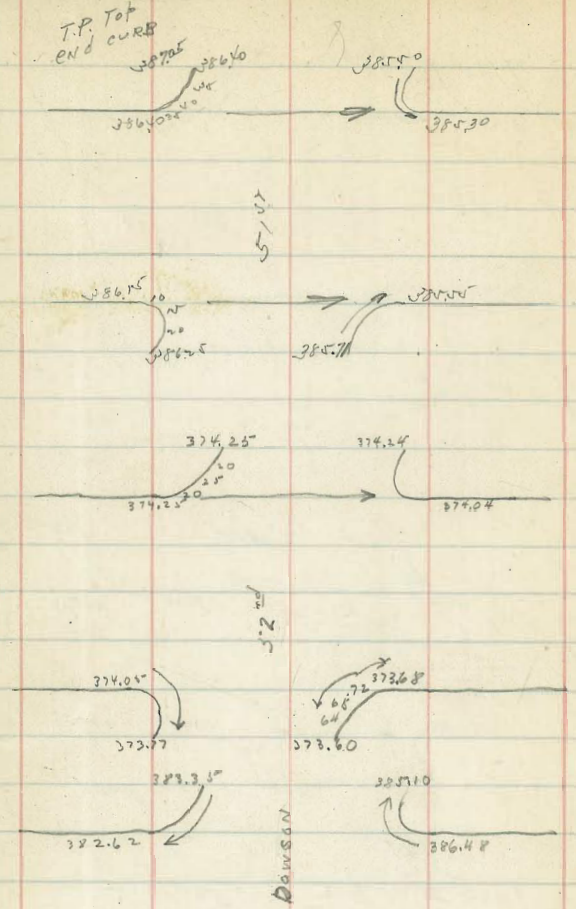
	T.cb.					B.
W	20.78	20.40	19.02	17.65	16.28	14.90
	3.62	4.00	3.38	6.75	8.12	5.74
		3.95	4.79	6.32	8.19	6.22
		+0.05	+0.59	+0.23	-0.07	-0.48
E	20.92	20.70	19.30	17.90	16.50	15.10
	3.48	3.70	5.10	6.50	7.90	5.54
		3.61	4.46	5.50	6.90	4.73
		+.09	+0.64	+1.00	+1.00	+0.81
W.	14.50	14.30	14.02	13.75	13.48	13.20
	6.14	6.34	6.62	2.64	2.91	3.19
	6.69	6.58	5.62	2.97	3.05	3.44
	-0.55	-0.24	+1.00	-0.33	-0.14	-0.25
E.	14.70	14.50	14.25	14.00	13.75	13.50
	5.44	6.14	6.39	2.39	2.64	2.89
	5.42	5.93	6.15	0.39	1.64	1.89
	+0.52	+0.21	+0.24	+2.00	+1.00	+1.00
					T.cb.	
W.	11.90	10.70	09.40	07.70	05.15	
	4.49	5.69	6.99	8.69	11.24	
	5.25	6.26	7.15	9.45	11.06	
	-0.76	-0.57	-0.16	+0.24	+0.18	
E.	12.20	11.00	09.70	08.00	05.50	
	4.19	5.39	6.69	8.39	10.89	
	3.99	4.40	4.73	5.42	8.84	
	+0.20	-0.99	+1.96	+2.97	+2.05	

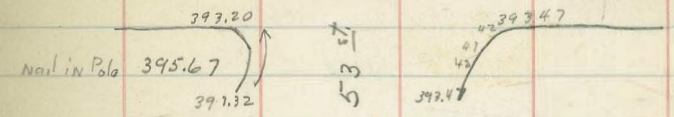
318.98
+ 7.30
326.28
- 5.29
320.99
+ 1.92
322.91
- 9.04
313.87
+ 2.96
316.83

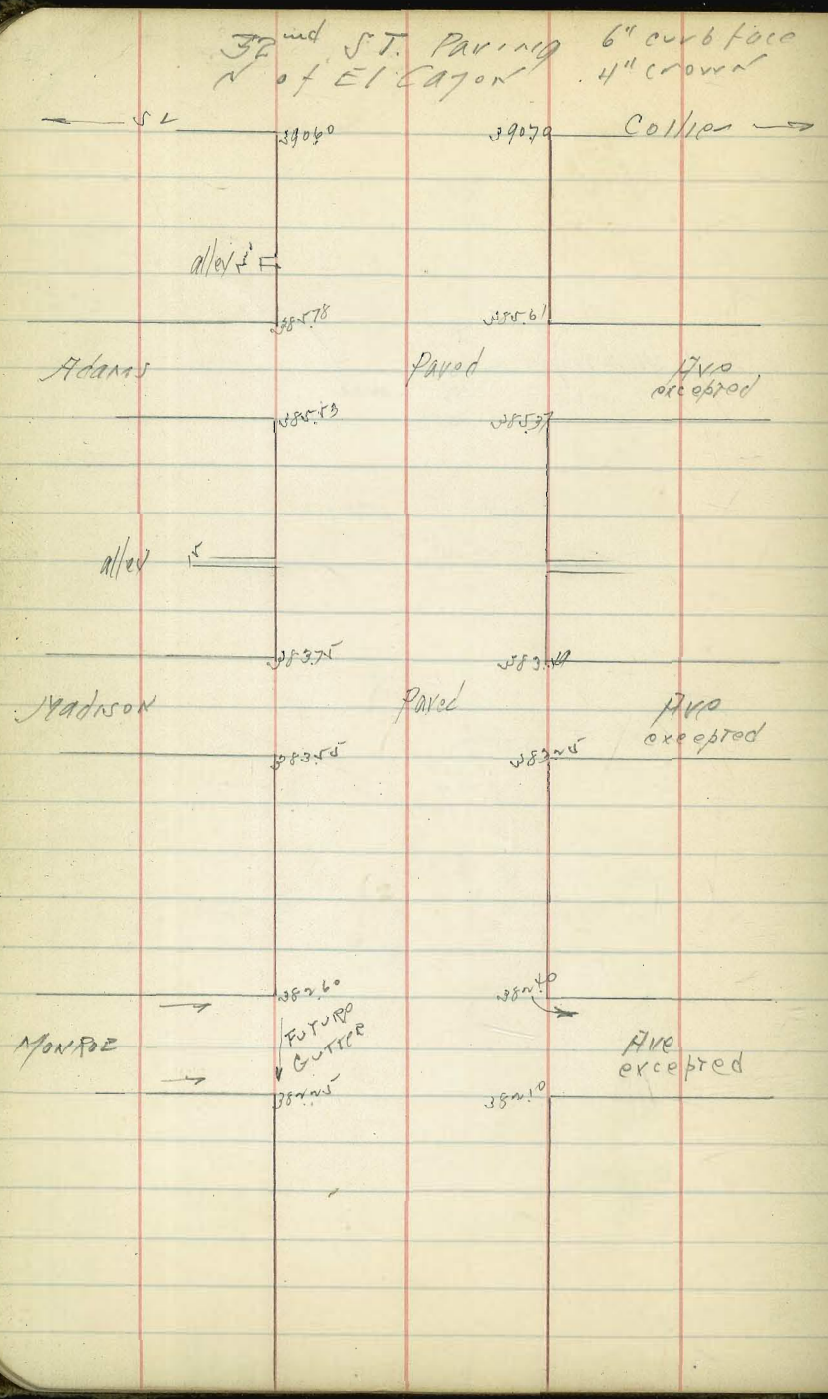
	Top Curb						
W.	20.78	20.40	19.02	13.65	16.28	14.90	14.50
	2.13	2.51	3.89	5.26	6.63	8.01	8.41
	2.17	2.47	3.38	5.19	6.79	8.50	9.08
		+0.04	+0.51	+0.07	-0.16	-0.49	-0.67
E.	20.92	20.70	19.30	17.90	16.50	15.10	14.70
	1.99	2.21	3.61	5.01	6.41	7.81	8.21
	1.98	2.13	3.00	4.01	5.41	7.02	7.71
		+0.08	+0.61	+0.00	+1.00	+0.81	+0.50
W.	14.30	14.02	13.65	13.48	13.20	11.90	10.70
	8.61	8.89	3.08	3.35	3.63	4.93	6.13
	8.87	7.90	3.43	3.51	4.11	5.72	6.72
	-0.26	+1.00	-0.35	-0.16	-0.48	-0.79	-0.59
E.	14.50	14.25	14.00	13.75	13.50	12.20	11.00
	8.41	8.66	2.83	3.08	3.33	4.63	5.83
	7.41	8.48	0.83	2.08	2.33	6.45	4.84
	+1.00	+0.18	+2.00	+1.00	+1.00	+0.18	+0.99
W.	09.40	07.70	05.15				
	7.43	9.13	11.68				
	7.62	8.91					
	-0.19	+0.22					
E	09.70	08.00	05.50	paving.			
	7.13	8.13	11.33				
	5.17	5.86					
	+1.96	+2.97					

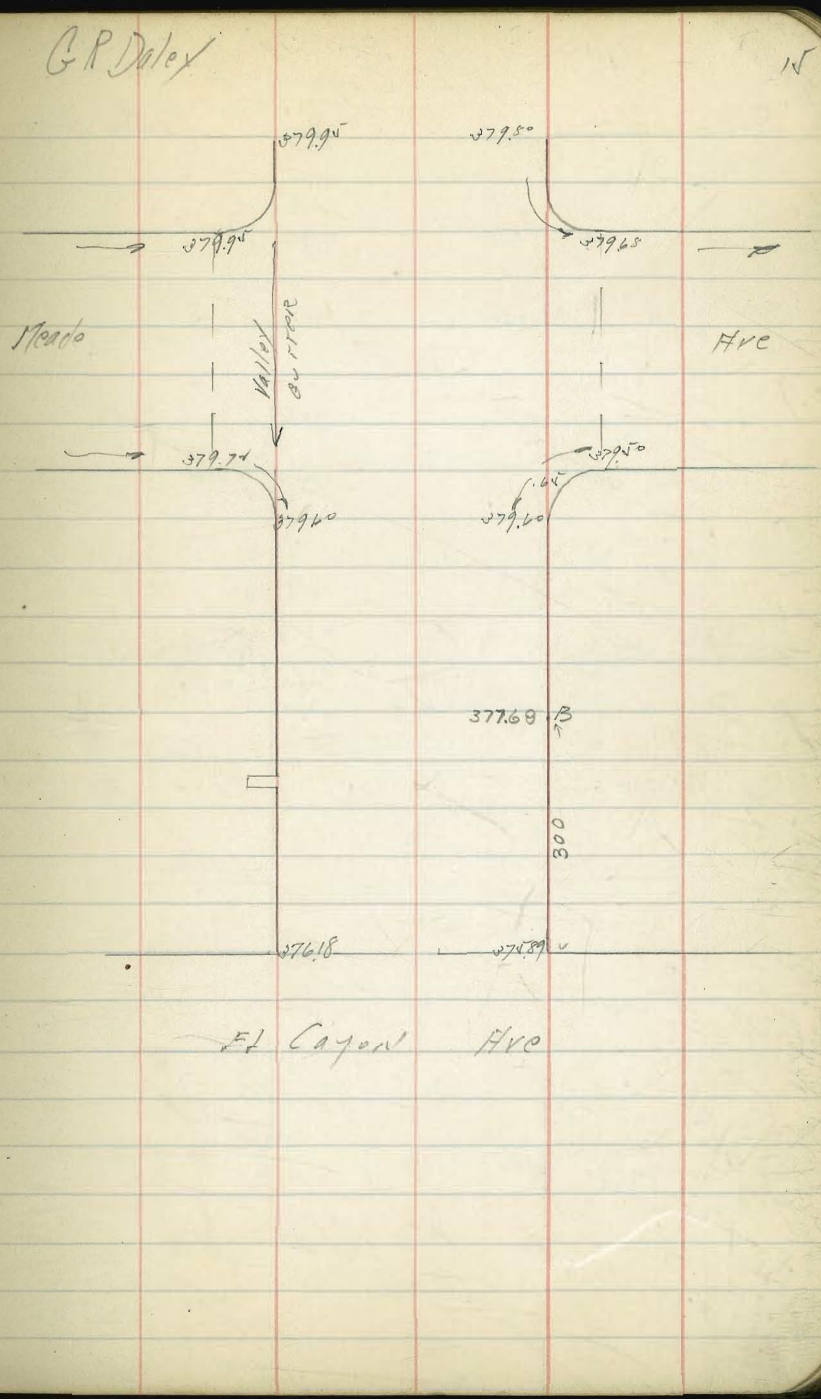

El Cayon Ave paving
Winona
CB inlet
COMES OUT
BREAK
South
FLODENA SUMMIT

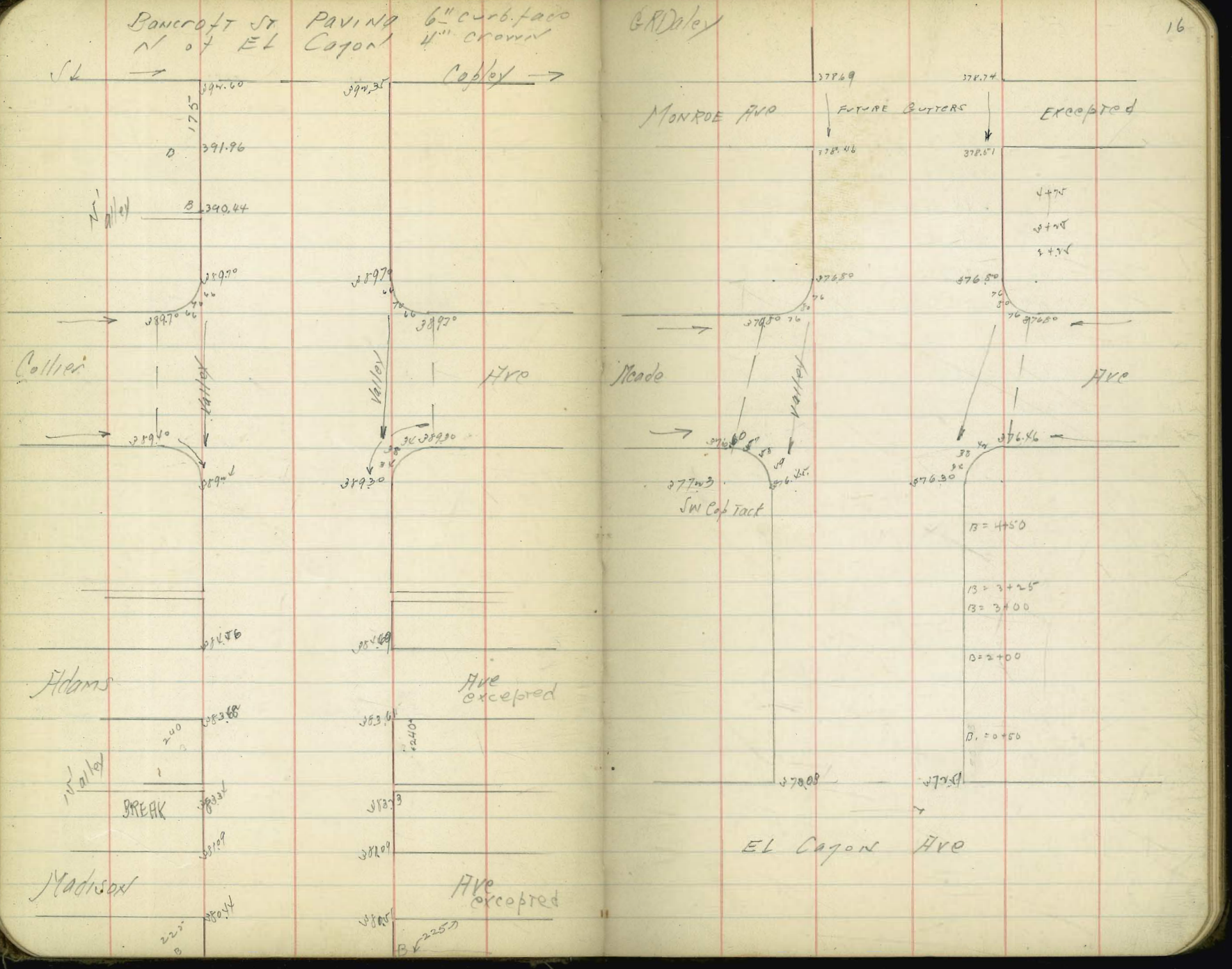
El Cayon Fire Paving 6/1/48 Moore






SE and S.T. Paving 6" curb face
N of El Cajon 4" crown
SL
Collier
alley
Adams
Paved
Ave excepted
alley
Madison
Paved
Ave excepted
Monroe
Future Gutter
Ave excepted


G.P. Daley
Meado
Valley
Ave
El Cajon
Ave
300


Bancroft St.
N of El
Paving 6" curb face
Cajon 4" crown
G R Daley
Copley
Monroe Ave
Future Gutters
Excepted
Valley
Collier
Ave
Meade
Ave
Adams
Ave excepted
Break
Madison
Ave excepted
SW Cap Tack
El Cajon Ave

Bhlind
Moore

ESSEX ST PAVING

		NCb	SCb
W⊥ Park Blvd = 0+0		310.30	309.30
0+40		306.85	306.33
0+80	9.6%	303.40	303.36
1+20		299.95	300.39
1+60 = BREAK		296.50	297.42
2+10		293.0	293.71
2+60 = BREAK		289.50	290.0
3+80 = BREAK		288.0	288.50
3+10 = BREAK		286.80	286.50
3+30 = BREAK		286.30	285.80
3+50 = BREAK		286.30	285.80
3+60.80 =		286.50	286.0

7.428%

Cb Stakes set 3' offset

6" curb face
4" exposure
(Goodbody) = Cont.

see page 18 for sketch

316.82
1.80
318.62
9.32
309.28

NEBP Univ. & Park Blvd

307.2
3.20
0+78.5 = ext cb on S.L. 3.36 ✓

on

N	103	96.8	93.4	99.9	96.5	93.0	89.5
	0.15	3.6	7.0	10.5	13.0	5.4	1.8
	0.26	4.8	6.2	9.7	13.0	6.0	1.9
	cb .11	-0.4	+0.3	+0.8	+1.0	-0.2	-0.1
S	99.3	96.3	93.4	300.4	97.4	93.7	90.0
	1.14	11.1	7.0	10.0	1.0	4.9	8.6
	1.25	4.5	7.1	9.0	1.0	3.7	11.7
	cb = .131	-0.2	-0.1	+1.0	+0.2	+1.2	-3.1
N	88.0	86.8	86.3	86.3	86.5		
	3.3	5.5	5.0	5.0	5.8		
	2.9	4.8	5.1	5.6	3.7		
	+0.2	-0.3	-0.1	+0.2	+1.1		
S	88.5	86.5	85.8	85.8	86.0		
	10.1	12.1	12.8	5.5	5.3		
	12.0	12.7	12.8	6.6	6.2		
	-1.9	-0.6	0.0	-1.1	-0.9		

309.28
2.02
311.30
1.80
298.28
1.39
299.67
1.66
291.01
0.27
291.28

W alley

296.30	296.60	289.50	288.0	286.50	286.30	286.30	286.30
3.37 ✓	3.07	1.98 ✓	2.28 ✓	4.78 ✓	4.98 ✓	4.98 ✓	4.98 ✓
	4.19						
	-1.12						

286.50
4.78
3.60
+7.18

296.30
2.81
299.11

297.42	290.0	288.50	286.50	285.80	285.80	286.00
1.96 ✓	9.11 ✓	10.61 ✓	12.61 ✓	13.31 ✓	13.31 ✓	13.11
						0.20
						+0.80

W alley 297.47
1.64
Reverse

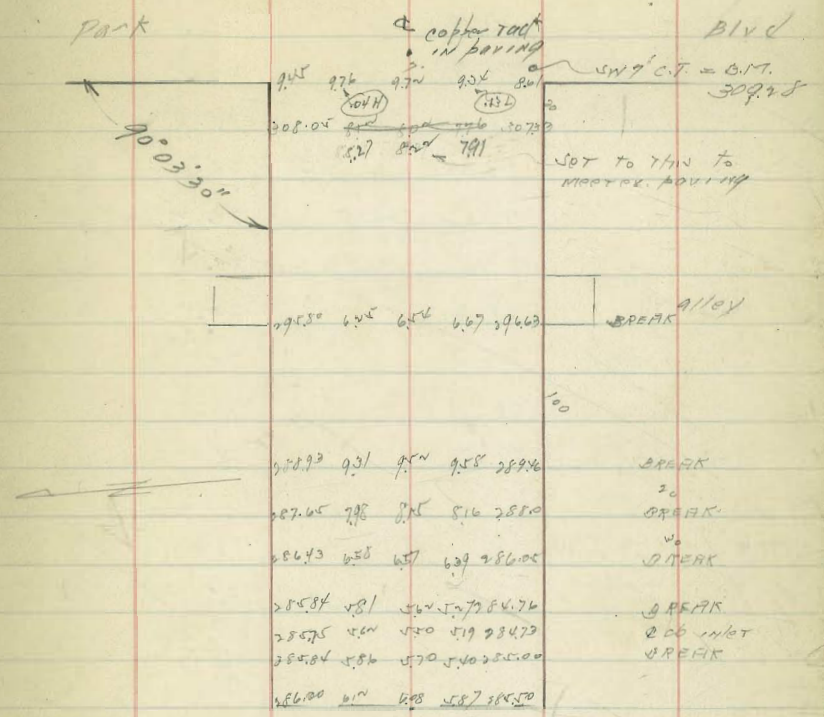
SER alley 283.20
15.91
13.31
+2.6

Essex St Culvert

		T. CURB	F.L.
Curb Inlet #1		285.80	283.20
Clean out #1 = 00 = Bottom Box.			279.0
0 + 50			277.3
1			275.6
+ 50			273.9
2			272.2
+ 50			270.5
3			268.7
+ 50 = Ex. Culv. Clean out #2			267.0

Water Line

W.L.P.B.	306.5	303.5	300.5	297.5	294.3	290.6	286.9
		6.8	9.9	12.9	4.3	8.0	11.7
		4.2	7.3	10.2	1.9	5.9	10.0
		+2.6	+2.6	+2.5	+2.5	+2.1	+1.7
	285.2	283.2	281.8	280.5	280.5		
	12.2	14.2	15.8	15.8	15.8		
	10.9	12.0	12.6	12.3	10.3		
	+1.3	+2.2	+3.2	+2.5	+5.5		



⊙ spike in tele. pole 309.04

⊙ Cop. tack in porch step

8/22/48
Moore

3.1 VT JT PAVING
Logan to Natl. Ave

8" CURB face
5" crown
3'R on alloy
RETURNS

		W c6		E c6	
VL Logan		74.08		73.30	
0 + 75		74.94		74.40	
0 + 90 =	BREAK	75.8		75.5	
1 + 10	"	76.1		75.9	
1 + 30	"	76.2	1+40 = N.L. Alloy	76.1	
1 + 50	"	76.1	76.15	76.2	76.15
			1+60 = SL. Alloy		
1 + 70	"	75.8	75.95	75.9	76.05
1 + 90	"	75.3		75.4	
2 + 10	BREAK	74.7		74.7	
2 + 55		73.1		73.1	
3 = NL NATIONAL		71.5		71.5	

8 + 94 = 71.71
10.13
10.10
.03 H

Cont.

Griffith

73.97
5.76
79.73

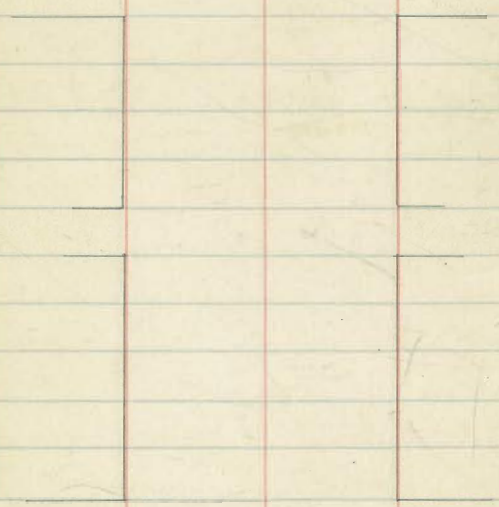
Logan + 31.07 NINBP

06

W	74.0	74.9	75.8	76.1	76.2	76.1	75.8	75.3
	7.96	6.9	6.0	5.7	5.6	5.7	6.0	6.5
	4.76	3.3	3.5	3.5	3.9	4.5	4.3	5.5
	.08 H	+3.6	+2.5	+2.2	+1.9	+1.3	+1.7	+2.1
E	73.0	74.4	75.5	75.9	76.1	76.2	75.9	75.4
	8.84	7.4	6.3	5.9	5.7	5.6	5.9	6.4
	5.7	4.8	4.5	4.7	4.9	4.9	4.9	4.9
	.27 H	+2.6	+1.9	+1.2	+1.0	+0.7	+1.0	+1.5

W	74.7	73.1	71.50	= c6
	7.1	8.7	10.35	
	5.1	4.5	10.35	
	+2.0	+0.3		
E	74.7	73.1	71.50	= c6
	7.1	8.7	10.35	
	5.3	2.7	10.30	
	+1.8	+1.0	.04 H	

National



Logan

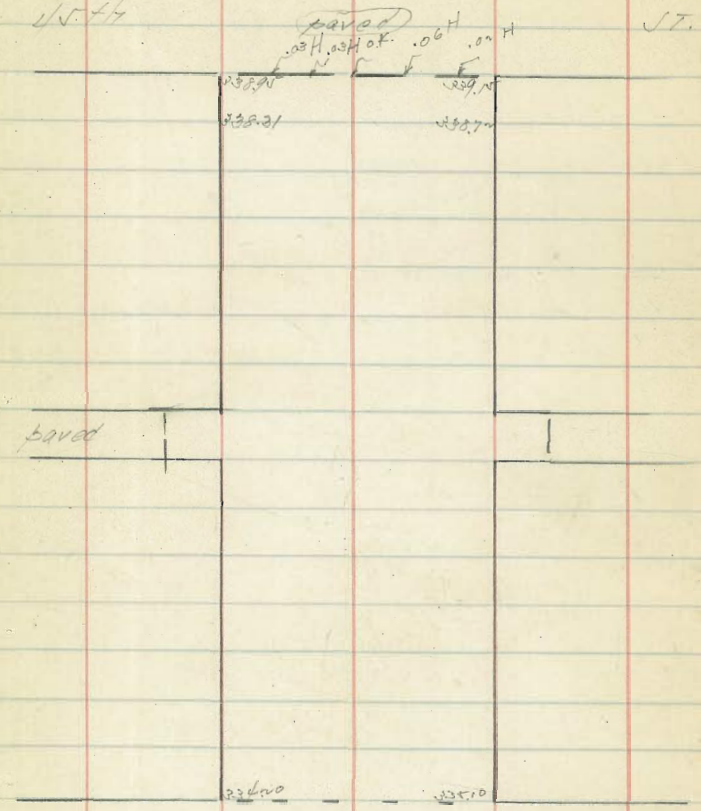
Moore
9/14/18

Myrtle Ave Paving
4th to Chamounie

8" to face
.6" crown
Goodbody = Contr.

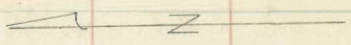
235.99
6 in
344.41

NW cor Myrtle & Chamounie

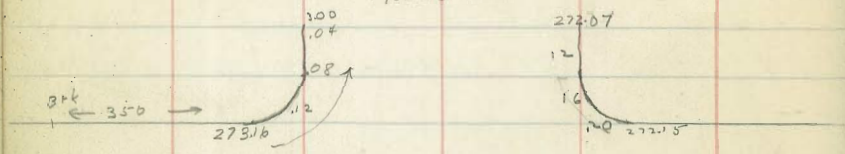


38th ST. Paving 8" curb Face
5" Crown

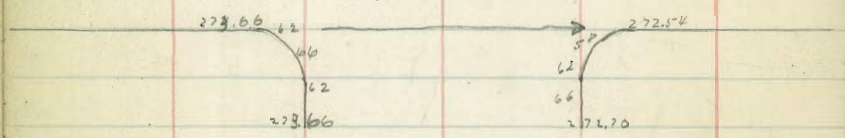
G.R. Daley - cont. el cajon To. Monroe



Meade Ave



38th



Hyd. Sewer on Cape May Bacon to ABBOTT

	FL
EX MH =	0.66
MH #1	0.83
	1.03
	1.24
	1.44
	1.65
	1.86
= MH #2	2.08
	2.30
	2.52
	2.74
	2.96
	3.18
= DE	3.40

6.76
5.11
11.87 x

N.E. R.R. Bacon & Cape May

M.H. 1.

0.83	1.03	1.24	1.44	1.65	1.86
11.04	10.84	10.63	10.43	10.22	10.01
5.23	4.96	4.83	4.58	4.49	4.32
+ 5.81	+ 5.88	+ 5.80	+ 5.85	+ 5.73	+ 5.69

M.H. 2

2.08	2.30	2.52	2.74	2.96	3.18	3.40 = D.E.
9.79	9.57	9.35	9.13	8.91	8.69	8.47
4.12	4.01	3.83	3.63	3.51	3.36	3.17
+ 5.67	+ 5.56	+ 5.52	+ 5.50	+ 5.40	+ 5.33	+ 5.30

.00 19

Nichols St paving

3" dip in paving

Rosecrans to San Antonio

= Back edge CURB		3.06		2.06	
0+0 = EL Rosecrans		41.0		41.5	
0+12.5 = EC Return from face of curb		40.0		40.5	
0+50		37.15		37.5	
1		33.30		33.50	
1+50	1.692%	29.46		29.5	8.00%
2		25.61		25.5	
2+50 = Back edge of / cross CURB		21.77	℄ = 21.63 CROSS CURB	21.50	

Culvert #1

F.L. 81' of 12" pipe.

Top CURB INLET 10' wide	21.63 − 1.17 = 11.60 + 0.57	
BOTTOM " " = 80		16.0 (17.77 − 1.60 = 16.17)
0+45 = Δ BREAK		12.0 (10.5 − 3.9 = 7.2)
0+75		~~0.0~~ − 1.0 = 3.6 / 3.4 = 0.9°

Water Line

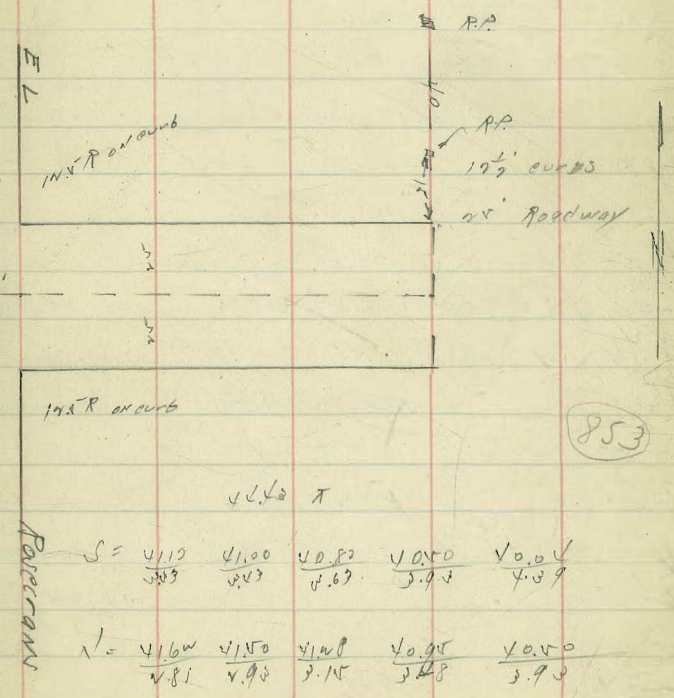
	F.L.
00 = EL Rosecrans	37.2 (39 − 3.3 = 35.7 + 4.0)
0+50	33.4 (35.7 − 1.3 = 34.4 + 4.0)
1	29.5 (31.5 − 1.0 = 30.5 + 4.0)
1+50	25.6 (27.6 − 2.0 = 25.6)
2	21.7 (23.7 − 2.0 = 21.7)
2+50	18.0 (19.8 − 1.8 = 18.0)

21.63 REEP
+ 3.9
25.53
− 1.60
23.93
− 3.11
20.82
− 1.88
18.94
− 1.58
17.36
− 13.00
4.36
− 2.26
2.10

Rosecrans & Nichols — Curb to curb grade — 23

S	41.0	40.0	37.1	33.3	29.4	25.6	21.7
	3.25	2.25	7.4	11.25	4.4	8.25	12.1
0.12 H		3.1	3.5	10.3	0.0	7.5	11.8
		+3.6	+3.9	+0.9		+0.6	+0.9
N	41.5	40.5	37.5	33.5	29.5	25.5	21.5
		2.0	7.0	11.0	4.3	8.3	12.3
0.12 H		3.25	6.3	10.9	4.1	7.8	11.7
		+0.8	+0.4	+0.1	+0.2	+0.5	+0.6

Back edge curb = S, N



853

S =	41.13 / 3.03	41.00 / 2.93	40.80 / 3.63	40.50 / 3.92	40.05 / 4.39
N =	41.68 / 2.81	41.50 / 2.95	41.28 / 3.15	40.95 / 3.48	40.50 / 3.95

6/25/08 LAMONT ST Sewers

Moore

	F.L.			CONTR.
00 = MH #1	201.53	10.79 / 2.46 / +8.27	212.46 / 12.47 / 199.75 / 0.59 / 200.34	162.20 T.P.
0 + 39.75	198.64	13.67 / 6.21 / +7.41	12.80 / 187.54 / 0.08	162.84 / 2.64 / 2.77
0 + 87.5	195.75	16.51 / 9.37 / +7.14	187.92 / 13.61 / 174.31	160.07 = osn Error check / 160.09
1 + 31.25	192.87	19.39 / 12.57 / +6.82	174.30 / 0.09 / 174.39 / 13.10 / 161.20 T.P.	
1 + 75 = MH #2 = alley	189.98	10.38 / 4.24 / +6.14	190.26 = plugend E.L.	
2 + 18.75	187.50	17.56 / 7.75 / +9.71	10.10 / 0.39 / +9.71	
2 + 62.50	185.0	15.86 / 10.14 / +5.72		
3 + 06.25	182.50	17.86 / 13.24 / +4.62		
3 + 50 = D.M.H. #3	180.0	7.94 / 1.44 / +6.50		
" " " = Drop	176.05	11.87 / 1.37 / +10.50	176.33 = plugend E.L.	
3 + 99.75	174.04	10.88 / 2.80 / +11.08	11.59 / 1.23 / +10.36	
4 + 37.50	172.02	15.90 / 6.62 / +9.28		
4 + 81.25	170.01	17.91 / 10.64 / +7.26		
5 + 25 = D.M.H. #4 alley	168.00	7.30 / 2.06 / +5.24		
" " " = Drop	161.25	13.35 / 2.66 / +11.69	161.83 = plugend E.L.	
5 + 68.75	159.67	15.63 / 5.96 / +9.67	13.47 / 1.15 / +12.32	
6 + 12.5	157.78	17.52 / 9.68 / +7.84		
6 + 56.25	155.90	19.40 / 13.10 / +6.30		11.10 / 3.53 / +7.57
7 + 00 = MH #5 & Beryl	154.02	10.82 / 3.80 / +7.02	153.74 = plugend E.L. / 11.10	
			154.30 = " " W.L. / 10.25 / 3.12 / +7.41	
MH #10	65.56 / 13.06 / 2.22 / +9.84		65.28 = " " E.L. / 13.22 / 1.66 / +11.68	

Sewers

24

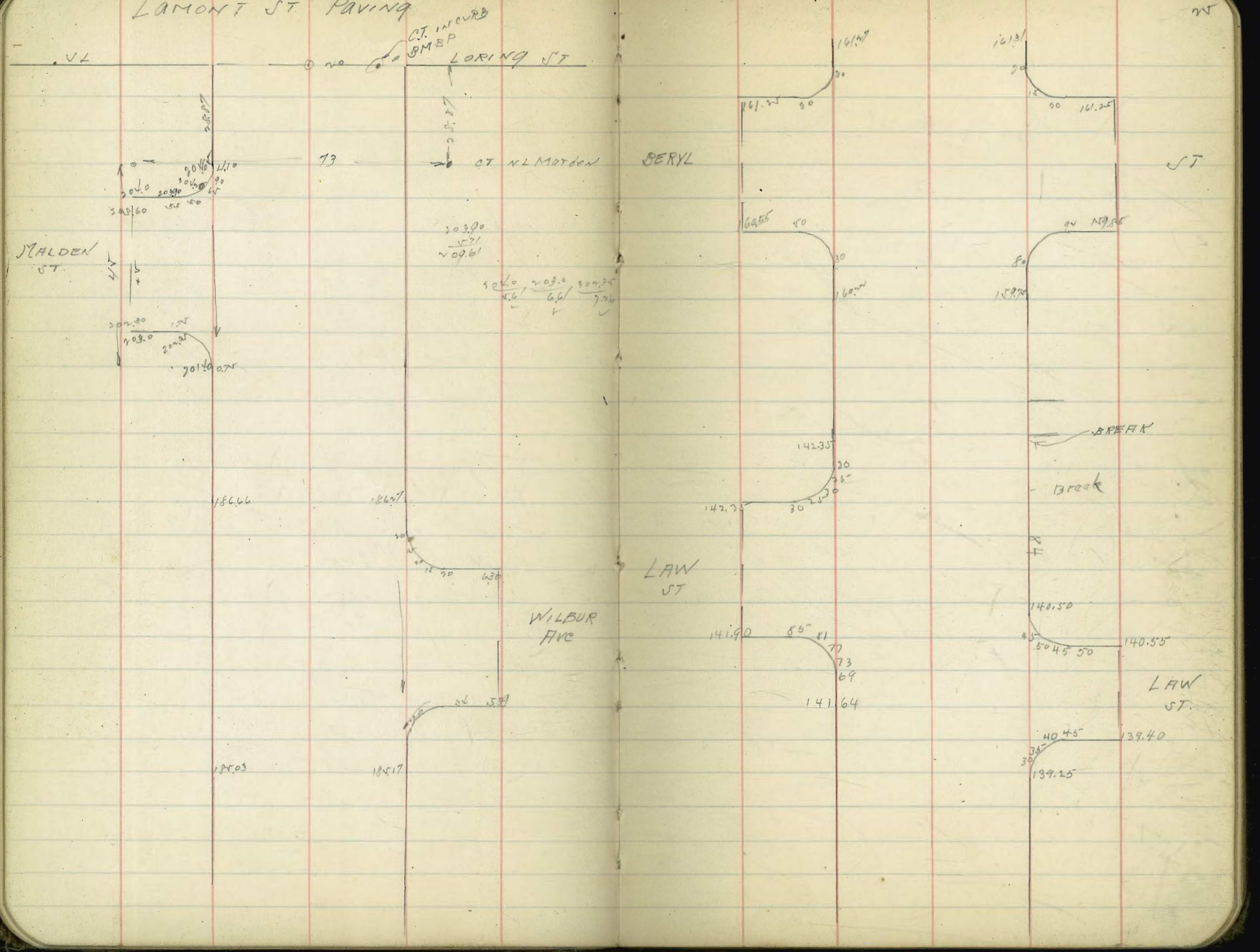
MH #6 = 00 of Diamond & alley North	F.L. 101.16	14.87 / 5.37 / +9.50	101.22 = plugend W.L.
0+40	100.88	15.15 / 6.75 / +8.40	14.59 / 3.02 / +11.57
0+80	100.60	15.43 / 7.97 / +7.46	
1+20	100.32	15.71 / 9.21 / +6.5	
1+60 = M.H. #7	100.02	15.99 / 9.76 / +6.23	99.60 = plugend E.L. / 16.83 / 10.23 / +6.00
MH #8	95.92 / 13.77 / 7.22 / +6.52		95.46 = plugend E.L. / 14.25 / 6.92 / +7.31
MH #9	85.98 / 16.82 / 9.82 / +7.00		85.86 = plugend E.L. / 17.97 / 8.98 / +7.99

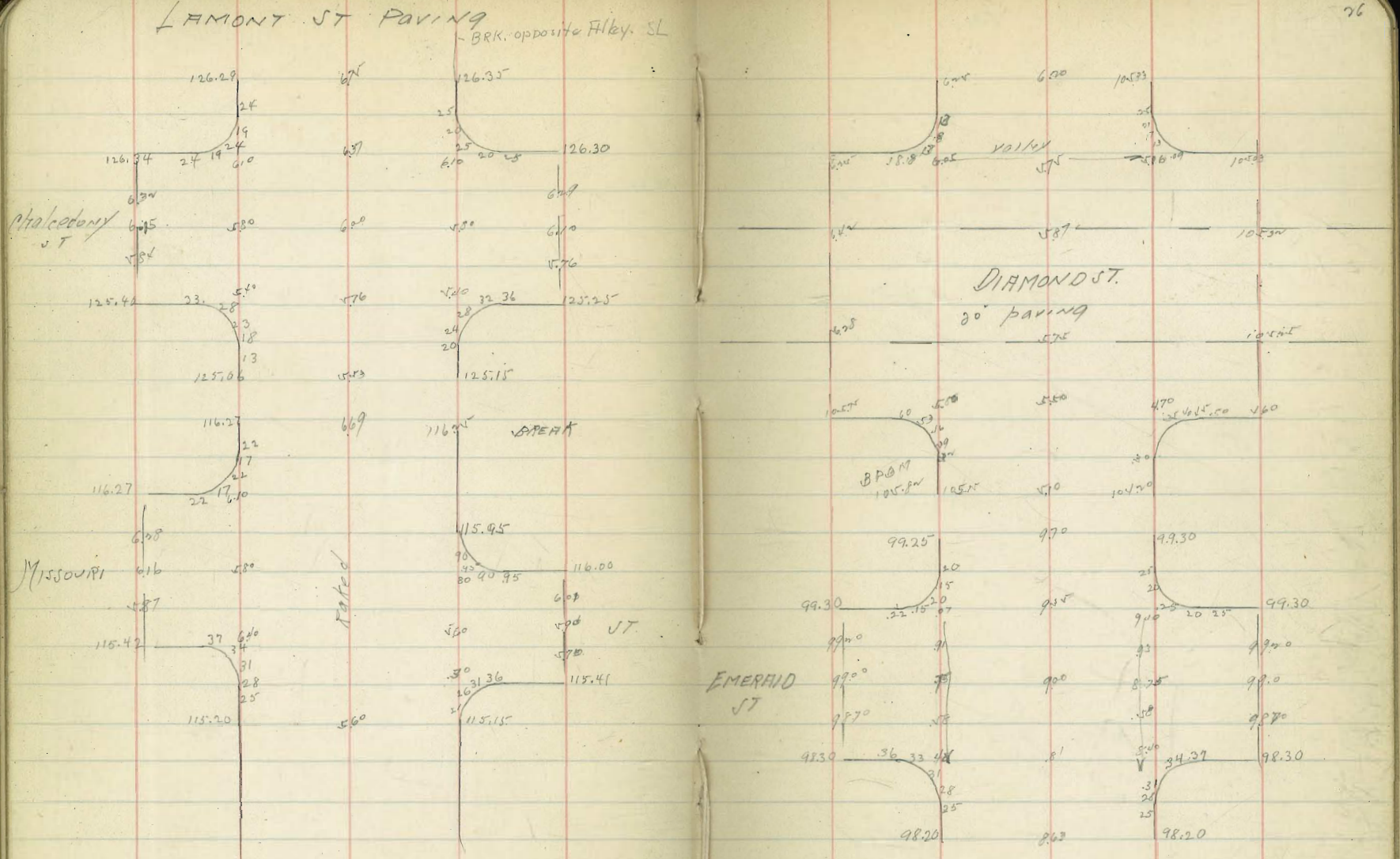
Bench Marks

SWBP Garnet & LaMont	65.83	65.83 / 12.79 / 78.62 / 0.52 / 78.27 / 12.26 / 96.01 / 0.28 / 96.73 / 12.10 / 108.83 / 0.98 / 101.85 / 7.36 / 109.71
NE Cob.T. Feldspar "	88.11	90.01
SE Cob.T. Emerald "	99.02	99.02
SWBP Diamond "	105.82	105.82 / 10.71 / 116.03 / 0.03 / 116.00
SE 10' Cob.T. Missouri "	116.00	
SE 7' Cob. Tack Blakeley "	176.03	180.22 / 0.12 / 180.10 / 17.66 / 197.76 / 0.10 / 197.66 / 12.89 / 205.55 / 0.51 / 205.04 / 7.22 / 212.26
SW 10' " " LAW "	192.36	192.01 / 11.60 / 185.61 / 0.12 / 185.49 / 12.92 / 198.41 / 0.09 / 198.32 / 13.12 / 211.44 / 0.09 / 211.35 / 13.12 / 224.47
NE 7' " " Beryl "	162.09	
SE 7' " " Wilbur "	186.96	
SE Cob.T. in curb Loring "	206.90	9.22 / 196.03 / 210 / 162.09

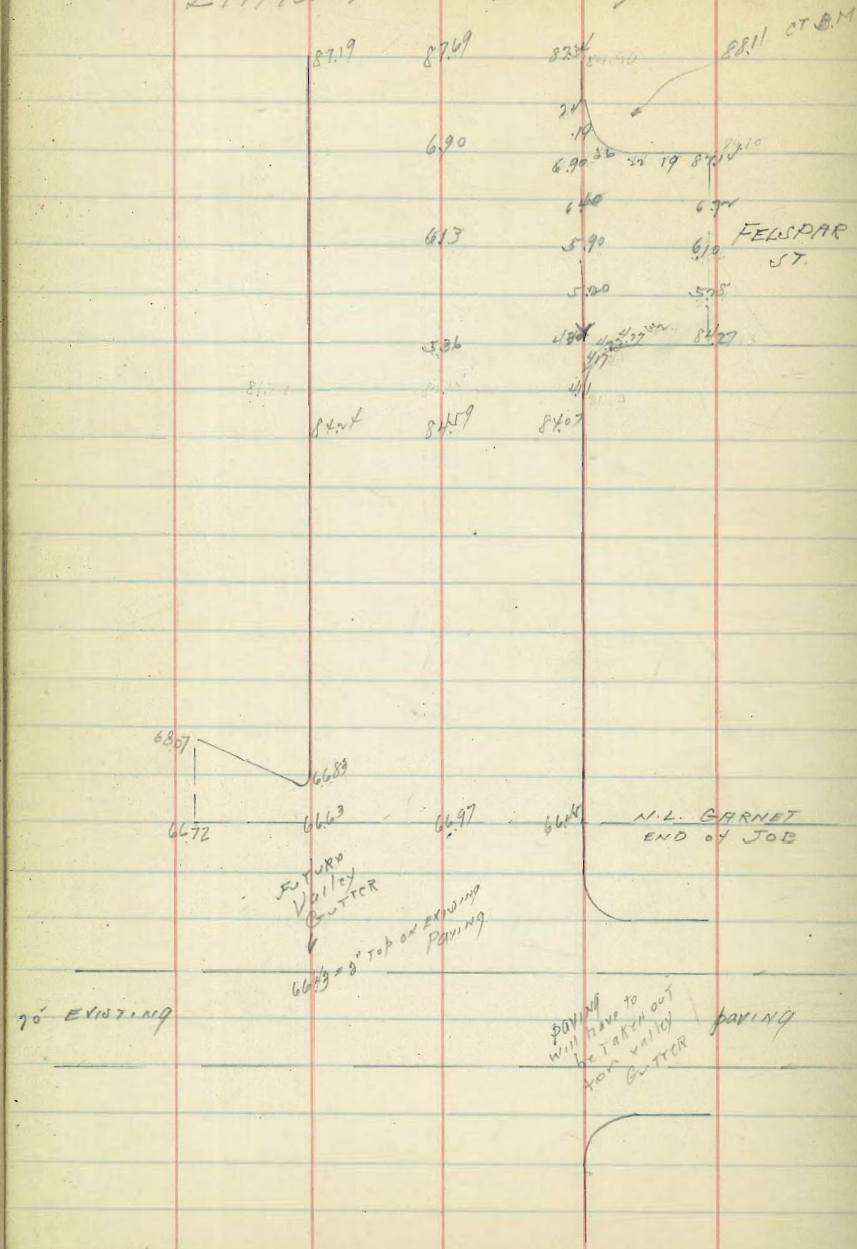
OUT & GONE

LAMONT ST PAVING




LAMONT ST Paving
BRK. opposite Alley. SL
126.29
126.35
126.30
126.34
Chalcedony ST
125.41
125.06
125.25
125.15
116.27
116.27
116.95
116.00
Missouri
115.42
115.20
115.41
115.15
Park
ST
Valley
DIAMOND ST.
20' paving
BPOM
99.25
99.30
99.30
99.30
EMERALD ST
98.30
98.20
98.30
98.20

LAMONT ST PAVING



6/29/08
Moore

alley BLK 117 U.H. 20' wide .3 dip
Pickes - Contr

	S		N	
00 = EL OHIO	363.74		363.80	= basement
0+40 = BREAK	364.20		364.40	
0+90	363.99		364.15	
1+40 = WL alley South	363.78		363.91	
1+60 = EL " "	363.70	= BREAK on South	363.84	
2+15	363.95		363.56	
2+70 = BREAK	363.00		363.30	
3 = WL Illinois	361.70		361.60	= basement

363.60 = elev of SL alley
and ℄ alley South

363.10
5.45
368.55
4.43
364.12
2.63
366.75

S.E.B.P. El Cajon & Ohio

78

		Ⓑ				Ⓑ on ℄
S	363.74 4.83 4.97	64.20 4.35 4.47 -0.12	63.99 4.56 4.90 -0.34	63.78 4.77 4.86 -0.19	63.70 4.85 4.94 -0.09	63.35 3.45 2.73 +0.72
N	363.80 4.75 4.93	64.40 4.15 3.78 +0.37	64.15 4.40 4.00 +0.10	63.91 4.64 4.32 +0.32	63.84 4.73 3.73 +1.00	63.56 3.19 2.73 +0.46
S	363.00 3.75 3.22 +0.53	361.70 5.05				
N	363.30 3.45 2.87 +0.58	361.60 5.15 5.17			363.60 4.90 4.67 +0.23	

℄ alley South

6/30/28
Moore.

ALLEY BLK 1. Fairmount Annex 15' wide / 20' Wide } as Dip

McBean - Contr.

		W		E.
0+0 = N.l. Orange		358.5		358.5
0+45		358.32		358.32
0+90		358.15		358.15
1+35		357.98		357.98
1+80 (+26.66)	= Break	357.8	357.50	357.8
2+26.66		357.3		357.3
2+73.32		356.8		356.8
3+20.98	= Break	356.3	356.0	356.3
3+63.33		356.2		356.17
4+06.66		356.1		356.04
4+50	= sl. Alley East	356.0	355.65	355.90
4+65	= N.l. Alley = "	355.9		355.90
Alley East		N.		S.
00 = East line North Alley		355.80	355.75	355.80
0+41.66		355.74		355.79
0+83.32		355.68		355.67
1+25 = W.l. 44th st.		355.[illegible]	355.[illegible]	355.[illegible]

355.21 = ℄

paving on cb. line

355.74
355.25
360.47
6.91
354.16
355.46
360.04
3.65
356.87
355.74
361.69
4.49
357.20
4.60
362.80
4.54
358.26

355.49 = BM
Orange + 44 ft

SW cor El Capon + 44 ft

W	355.50	355.34	355.25	357.98	357.80	357.30
	4.30	4.28	4.65	4.54	3.89	4.59
	4.50	3.75	4.55	4.65	3.84	4.48
	-0.20	+1.0	+0.10	+0.14	+0.05	-0.09
E	355.50	358.34	358.15	357.98	357.80	357.30
	4.30	4.48	4.65	4.54	3.89	4.39
	4.15	4.53		4.54	3.79	4.39
	+0.15	-0.05		+0.54	+0.10	0.0

W	356.50	356.30	356.20	356.10	356.00	355.90
	3.20	3.70	3.80	3.97	4.0	4.57
	3.20	3.70	3.15	3.59	3.84	6.31
	0.0	0.0	-1.33	-1.67	-1.84	-1.74
E	356.50	356.30	356.17	356.04	355.90	355.85
	2.87	3.74	3.85	3.93	4.1	
	2.99	3.70	3.85	3.98	3.01	
	-0.50	0.0	0.0	0.0	-1.09	

W 60.47
4.64
355.83
3.97
359.80

For ent alley on South

N	355.85	355.70	355.64	355.55
	4.67	4.74	4.80	4.94
	4.96	3.45	3.90	3.73
	-1.33	-0.71	+0.14	+0.15
S	355.90	355.79	355.67	355.55
		4.03	4.14	4.94
		4.49	3.95	3.56
		-0.46	+0.19	+0.38

Alley Blk 7 Wilshire Place 15' wide 3" d.p

		W	℄ = 368.84	E
SL Monroe		368.95	on paving	368.83
0+40 =	BREAK	369.80		369.80
		369.75		
(1 - 17.5)		368.70		
		368.15		
2+50 =	BREAK	367.60		367.60
		367.43		
		367.26		
(6 - 143.4 rd)		367.10		
		366.93		
		366.77		
6 = 5+71.4 =	NL Meade	366.60		366.60

F.B. 1405

Restaked 8/14/08 Moore
grade changed

373.63 T
- 7.51
365.12
3.62
371.94
3.50
368.44
3.86
371.10
6.10
366.00

366.00
NWBP
Meade + Marlbourgh

W 365.95
E 368.83

		(B)						(B)		Floor
		69.80	69.75	68.70	68.15	67.60		67.43		
		3.83	4.38	4.93	5.48	4.14		4.31		
		3.97	4.00	4.76	6.67	3.77		4.20		
		+0.91	+0.38	+0.17	-1.18	+0.42		+0.11		
		3.83	4.38	4.93	6.15	4.14		4.31		
		3.07	3.75	4.78	3.59	5.18		4.81		
		+0.76	+0.63	+0.15	4.07	-1.04		-0.50		
					-0.48					
W	67.26	67.10	66.93	66.77	66.60					
	4.28	4.64	4.81	4.97	5.50					
	4.06	4.88	3.81	3.96	4.01					
	+0.42	+1.76	+1.0	+1.13	+1.49					
E	4.48	4.64	4.81	4.97	5.50					
	3.72	4.13	4.27	3.96	4.02					
	-0.76	+0.51	+0.54	+1.63	+1.48					

Alley BLK 63 Park Villas 15' wide

	W	E	
SL Whitman = 00	343.17	343.18	= paving
0+20 = BREAK	344.0	344.20	
	344.15	344.30	
(1 - 45)	344.30	344.40	
	344.45	344.50	
2+00 = BREAK	344.60	344.60	
	344.43		
	344.25		
(8 - 47.5)	344.07		
	343.90		
	343.72		
	343.55		
	343.371		
5+40 = BREAK	343.20	343.20	
5+60	342.60	342.70	
5+80	341.50	341.70	
6+00 = NL Lands	340.09	340.09	= paving

Newton - Cont.

Staked 8/14/42

JMoore

33801
9.67
337.68
3.85
334.83
.30
349.13
5.34
343.79
4.86
348.65
4.61
344.04
4.19
348.23

SWBD Whitman - Pensting Dr. - 31

		(6)				(B)
W	343.12	344.0	344.15	344.30	344.45	344.60
	3.76	3.68	3.53	4.83	4.68	4.53
	2	2.15	3.58	3.83	3.85	3.53
		+1.53	+1.0	+1.0	+1.0	+1.0
E	343.18	344.20	344.30	344.40	344.50	344.60
	3.70	3.38	3.38	4.73	4.65	4.53
	2	3.42	3.03	4.81	5.08	3.53
		+0.06	+0.35	-0.08	-0.45	+1.0
W	344.43	344.25	344.07	343.90	343.72	343.55
	4.70	4.88	5.06	5.23	5.41	5.10
	3.70	5.30	5.00	4.23	4.41	5.50
	+1.0	-0.52	+0.06	+1.0	+1.0	-0.40
E	344.43	344.25	344.07	343.90	343.72	343.55
	4.70	4.88	5.06	5.23	5.41	5.58
	3.70	4.09	4.83	4.32	4.41	4.90
	+1.0	+0.81	+0.23	+0.91	+1.0	+0.68
		(B)	(B)	(B)		
W	343.37	343.10	342.60	341.50	340.09	= paving
	5.28	5.45	5.63	6.73	8.14	
	4.38	5.34	4.93	4.96	8.08	
	+1.0	+0.11	+0.70	+1.77	.06 ✓	
E	343.37	343.20	342.70	341.70	340.29	= "
	4.86	5.45	5.53	6.53	7.94	
	4.16	3.45	4.25	2.78	7.92	
	+0.70	2.0	+0.98	+4.25	.02 ✓	

Alley Blk 5 Blair's Highland 16' wide
2 ch p
Lots = 147'

		W	E
SL Palm = 00		304.4	303.0 = paving
0+20	BREAK	304.0	304.30
0+40	"	304.60	304.90
0+60		305.0	305.30
1+20 =	"	305.40	305.70
+40 =	"	305.60	305.80
+60 =	"	305.50	305.70
+80 =	"	305.30	305.50
2+00 =	"	305.0	305.20
		304.15	304.33
		303.30	303.45
		302.45	302.57
		301.60	301.70
		300.75	300.85
		299.90	299.95
		299.05	299.07
8 = 5+40 =	BREAK	298.20	298.20
5+60	"	297.60	297.60
5+80	"	296.80	296.80
5+97.85	SL Nutmeg	295.78	295.66 = paving

(8" - 4" .5)

Newton - Cont.
3/15/28
Moore

294.95
11.89
306.84
0.79
306.05
5.79
310.78
5.72
304.56
3.60
308.16
5.51
302.65
2.37
305.02
5.91
299.11
3.25
302.86

N.E. 28th + Grandville

3"

W.	302.41	304.00	304.60	305.00	305.40	305.60	305.50	305.30
	4.48	2.84	2.24	1.84	1.88	1.68	1.78	1.98
	4.45	5.53	3.06	0.84	1.87	2.27	2.68	2.98
		-0.31	-0.82	+1.0	+0.01	-0.59	+0.10	+0.20
E.	303.02	304.30	304.90	305.30	305.70	305.80	305.70	305.50
	3.82	2.54	1.94	1.54	1.58	1.48	1.58	1.78
	3.85	3.53	1.59	0.54	1.11	2.28	3.95	3.28
		+1.01	+0.45	+1.0	+0.47	+1.0	+0.63	+1.0
W	305.0	304.15	303.30	302.45	301.60	300.75	299.90	
	5.28	4.01	3.86	3.71	6.56	7.41	5.12	
	4.28	3.64	3.86	3.71	5.56	6.41	5.00	
	+1.0	+0.39	+1.0	+1.0	+1.0	+1.0	+0.12	
E	305.20	304.33	303.45	302.57	301.70	300.85	299.95	
	5.08	3.95	3.71	3.59	6.46	7.20	5.07	
	4.08	3.42	3.71	6.00	6.73	3.59	5.05	
	+1.0	+0.53	0.0	-0.45	-0.27	+0.61	+0.02	
W	99.05	98.20	97.60	96.80	95.78	= paving		
	5.97	4.66	5.26	6.06	7.08			
	6.01	4.41	4.91	5.06	7.12			
	-0.04	+0.25	+0.35	+1.0	-.04			
E	99.07	98.20	97.60	96.80	95.66	= "		
	5.95	4.66	5.26	6.06	7.20			
	6.26	4.55	4.26	5.06	7.17			
	-0.31	+0.11	+1.00	+1.0	+0.03			

8 Nov 08
MOORE

ALLEY BIK 2 ST. LOUIS HGTS

16 wide
Riches Cont.
30 p

	W	E	
SL Lpbs = 00	328.80	328.60	
0+20 = BREAK	330.10	329.90	
0+40 = "	330.90	330.80	
0+60 = "	331.20	331.20	
0+70 = "	331.30	331.30	= EXTRA (B)
0+80 = BREAK	331.20	331.20	
	330.60		
	330.0		
	329.40		
	328.80		
	328.20		
	327.60		
	327.0		
	326.40		
	325.80		
10 = 5+20 = BREAK	325.20	325.20	
+40	324.90	324.90	
+60	324.40	324.40	
+80	323.80	323.80	
6+00 = NL Thorn	323.0	323.0	

10

329.50 NWBP Lpbs
6.98 + Granada
336.48
7.58
328.90
4.39
332.29
7.59
324.70
4.07
329.77
3.70
326.07

326.17
.07 obb

W	28.50	30.10	30.90	31.20	31.30	31.20 (B)	30.60
	7.98	6.38	5.58	5.28	5.18	5.28	5.88
	2.05	3.88	2.91	4.59	4.80	4.99	5.48
	+0.92	+3.0	+2.67	+0.69	+0.38	+0.19	+0.40
E	28.60	29.90	30.80	31.20	31.30	31.20	28.80
	7.88	6.58	5.68	5.28	5.18	5.28	4.88
	7.92	4.58	4.68	5.11	4.97	5.07	+1.0
	−0.04	+2.0	+1.0	+0.17	+0.21	+0.20	
W	30.0	29.40	28.80	28.20	27.60	27.00	26.40
	6.48	7.08	7.68	8.28	5.69	6.29	6.89
	6.53	6.89	7.50	7.38	4.69	5.79	6.51
	−0.05	+0.19	+0.18	+1.0	+1.0	+1.0	+0.38
E	6.48	7.08	7.68	28.20	5.69	6.29	6.89
	5.88	7.01	7.60	5.09	4.69	5.29	5.89
	+1.0	+0.07	+0.08	4.61	+1.0	+1.0	+1.0
				+0.48			
W	25.50	25.20 (B)	24.90	24.40	23.80	23.0	= barely
	7.49	4.57	4.87	5.37	5.97	6.97	
	6.49	4.51	4.51	4.35	4.39	6.86	
	+1.0	+0.06	+0.36	+1.02	+1.58	.01 Low	
E	7.49	8.09	4.87	5.37	5.97	6.77	"
	7.33	7.72	4.56	4.37	3.97	6.89	
	+0.16	+0.37	+0.31	+1.0	+2.0	.006 Low	

8/2/08 Moore

WATER LINE

Beryl & Kendall

WL LAMONT = 0.0		FL 158.3			162.04 / 101.4 / 172.23 / 2.88
0+50		158.7		13.5 / 7.9 / +5.6	169.83 / 13.10 / 184.45 / 1.10
1		159.1	13.1 / 8.2 / +4.9		181.35 / 12.68 / 192.17
+50		159.5		12.7 / 1.05 / +11.2	0.67
2 = BREAK		160.0	12.2 / 12.2 / 0.0		193.50 / 12.75 / 206.25
+50 = EMPLINE LINE	161.5 NL Beryl / 10.7 / 7.4 / +3.3	160.9		11.3 / 11.2 / +0.1	0.60 / 207.65 / 17.96 / 18.61 / 0.81
3		161.7	10.5 / 8.5 / +2.0		217.80 / 3.28 / 216.52 / 9.34 / 117.24
+50		162.1		10.1 / 6.7 / +3.4	
4		163.5	8.7 / 11.9 / +3.8		
+50		164.3		7.9 / 3.1 / +4.8	117.20 NOW BRT SW/Dok Maldon + Kendall
5		165.2	7.0 / 7.9 / +1.1		
+44.73 = Kendall LINE	166.0 = NL Kendall / 16.4 / 10.4 / +6.0	166.0		16.4 / 10.3 / 6.1	
Beryl LINE = 0.0		166.0			
0+50 = Brook		169.9	13.4 / 7.6 / +5.8		
0+90		173.5		5.9 / 2.3 / +4.6	
1+30		177.1	2.3 / 2.1 / +0.2		
1+70		180.7		12.5 / 8.5 / +4.0	
2+10 = BREAK		184.4	9.8 / 3.2 / +6.6		
2+30 "		185.0		9.2 / 3.5 / +5.7	
2+50 "		186.6	7.6 / 1.8 / +5.8		
2+70 "		187.6		6.6 / 0.6 / +6.0	
2+90 "		188.8	12.4 / 1.2 / +11.2		
3+29.7		190.6		15.6 / 11.1 / +4.5	
3+69.4 = Tee Colhingwood	190.4 / 3.8 / 7.9 / +5.9	192.5	13.7 / 9.5 / +4.2		
3+90 = BREAK		193.5		12.7 / 8.5 / +4.2	
4+10 "		194.7	11.5 / 6.8 / +4.7		

4+30 BREAK		196.1		10.1 / 5.3 / +4.8	
4+70 "		199.3	6.9 / 2.4 / 4.5		
4+90 "		201.2		5.0 / 0.6 / +4.4	
5+10 "		202.6		2.0 / 10.4 / +4.6	
5+74.4 = Tee West Maldon		211.4		7.2 / 1.7 / +5.5	210.8 = W Maldon / 7.8 / +6.2 / 217.5 / 11.1 / 6.1 / +5.0
6+08.1 = 90° RT East "		215.5		11.1 / 6.8 / +6.3	

177.23
3.82
168.41 = FIN of STUB SE Beryl & Kendall = F.H.
170.67
− 2.26

218.6
0.8
217.80
216.67
+1.13 = " " " " Kendal + Maldon = F.H.

BW of L

Location ?

Moore
8/31/28

4974 ST GRADES

		W. cb		E cb
ST Orange		332.20		332.40
0+48.5		337.55		336.80
0+97 = PVC		341.70		341.2
		343.3		342.8
		344.7		344.2
		345.85		345.5
		346.7		346.5
20' BREAKS		347.5		347.3
		348.0		347.9
		348.2		348.2
		348.2		348.3
		348.0		348.1
		347.6		347.7
		346.9		347.1
1+37 = EVC		346.1		346.3
		343.32		343.65
		340.55		341.01
		337.77		338.35
1+63.5 = PC RETURN		335.0 (334.65 / 335.022)	349 - Rod 0.19	335.7
1+77 = NL Pgt end curb		333.9		335.5 (335.66)
" "		333.3 − 0.18 (333.35 − 0.15)		335.0 = " "
00 = ST Polk		332.5 (332.5 + 0.08)		332.7
0+13.5 = PC RETURN		332.3		332.2
		332.22	5.92	333.15
		331.15	6.99	332.10

(ℓ − 56.62)

(ℓ − 56.62)

340.77
0.77
340.00 = BM. on SW Cor. of Lower Cmt. step } NE Cor Polk + 49th
6.92
346.92
0.09
346.86
6.20
339.20
12.94
326.32
3.48
322.84
0.32
322.36
Snake in pole
SW Cor Orange + 49th St
335.36

PVC

W	33.2	37.2	41.7	43.3	44.7	45.8	46.7	47.5	48.0
	11.1	15.9	11.6	10.0	8.6	7.2	6.6	5.8	5.3
	10.9	4.6	3.5	3.1	3.0	2.9	2.8	2.8	2.3
	+0.8	+11.3	+8.1	+6.9	+6.6	+4.6	+3.7	+3.0	+2.0
E	32.5	36.8	41.2	42.8	44.2	45.5	46.5	47.3	47.9
	11.9	16.5	12.1	10.5	9.1	7.8	6.8	6.0	5.4
	12.5	7.4	3.2	2.5	2.2	2.0	1.9	1.1	1.3
	+0.1	+9.1	+8.9	+8.0	+6.9	+5.8	+4.9	+3.9	+3.1

EVC

W	48.2	48.2	48.0	47.6	46.9	46.1	43.3	40.5	
	5.1	5.1	5.3	5.7	6.4	7.2	8.6	6.4	
	3.7	4.4	4.8	5.2	6.0	6.3	2.6	4.9	
	+1.4	+0.7	+0.4	+0.2	+0.8	+0.9	+1.0	+1.5	
E	48.2	48.3	48.1	47.7	47.1	46.3	43.6	41.0	
	5.1	5.0	5.2	5.6	6.2	7.0	8.3	5.9	
	3.7	3.8	3.8	4.3	4.5	5.6	0.8	2.5	
	+1.4	+1.2	+1.4	+1.3	+1.7	+1.4	+7.5	+3.4	

PC

W	37.8	35.0	34.3	33.9	33.3	33.4	33.3	32.2	31.1
	9.1	11.9	6.5	6.9	7.5	7.4	7.5	8.6	9.7
	8.8	12.0	6.4	7.1	8.4	8.0	8.5	9.5	10.4
	+0.3	−0.1	+0.1	−0.2	−0.9	−0.6	−1.0	−0.9	−0.7
E	38.9	35.7	35.5	35.8	35.0	34.7	34.2	33.1	32.1
	8.6	11.2	7.3	5.0	5.8	6.1	6.6	7.7	8.7
	5.3	7.8	2.9	5.7	3.3	3.3	3.6	4.7	5.1
	+3.3	+4.4	+4.0	+2.3	+2.5	+2.8	+3.0	+3.0	+3.6

33536 = Above BM.
2001
344.36 ft
106
342.30 = TP.
7.83
351.13 − ft
1203
339.10 = TP.
1.42
340.52 = ft

FINISH STAKES - by Walker 10-8-28

	= End cb.	= PC.		= PVC					
E	332.55	332.85	336.80	341.20	342.80	344.20	345.50	346.50	347.30
	11.81	11.57	7.56	3.16	1.56	6.93	5.63	4.63	3.83
		11.32	7.10	2.91		6.49	5.04	3.84	3.27
	+0.21 Rest	+0.28	+0.46	+0.27		+0.44	+0.59	+0.79	+0.56
		+0.36 Rest							

	= End cb.	= PC		PVC					
W	333.40	333.64	337.45	341.70	343.30	344.70	345.82	346.70	347.50
	10.96	10.72	6.91	2.66	1.06	6.43	5.31	4.43	3.63
	10.46	10.02	5.31						
	+0.50	+0.70	+0.54						
	Rest +0.55	+0.67 Rest							

							= EVC		
E	347.90	348.20	348.30	348.10	347.70	347.10	346.30	343.65	341.00
	3.23	2.93	2.83	3.03	3.43	4.03	4.83	7.48	10.13
	2.70	2.34	2.09						9.45
	+0.53	+0.59	+0.34						+0.68

							= EVC		
W	348.00	348.20	348.20	348.00	347.60	346.90	346.10	343.32	340.55
	3.13	2.93	2.93	3.13	3.53	4.23	5.03	7.81	10.58
								6.72	10.06
								+1.09	+0.52

		= PC			NE. = End cb.	SE. = End cb.			= EC.
E	333.35	335.70	335.45	335.50	335.80	335.00	334.70	334.40	334.20
	2.17	4.82	5.07	5.02	4.72	5.52	5.82	6.12	6.32
	0.82				4.24	3.98			
	+0.35				+0.66	+1.54			
					NW.	SW.			

		= PC			= End cb	= End cb			= EC.
W	337.77	335.00 ←	Straight Grade →	334.30	333.90	333.30	333.40	333.40	333.30
	2.75	5.52		6.22	6.62				7.22
				5.92	5.78				
				+0.30	+0.84				

E	333.15	332.10	W	332.22	331.15
	7.37	8.40		8.30	9.37

49th St Grades

	WCB		ECB	
3 (V − 36.60)	330.07	8.07 ✓	331.05 ✓	7.09
V = 2 + 40 = PVC		9.14		8.14 ✓
	329.0		330.0	
	328.6	9.54 ✓	329.6	8.54 ✓
	328.0	10.14 ✓	329.0	9.14 ✓
20' BREAKS	327.3	10.84 ✓	328.3	9.84 ✓
	326.5	11.64 / 11.33 / −.07	327.5	10.64 ✓
	325.6	12.54 / 11.87 / +.67	326.6	11.54 ✓
6 = 3460 = EVC	324.6	2.67 / 2.00 / +.67	325.7	1.57 ✓
	323.95	5.79 / 4.95 / +.84	323.02 ✓	4.20 ✓
(V − 48)	319.26	7.96 ✓	320.32	6.88 ✓
	316.60	10.62 ✓	317.66	9.60
	313.92	13.28 / 13.97 / −.69	314.98	12.22 / 12.91 / −.69
5 = 6760 N LUNIV	311.28 ✓		312.30 ✓	

32668 / 0.67 / 327.95 / 12.42 / 312.93 / 8.10 / 323.03 / 0.17 / 322.86 / 11.94 / 334.80 / 2.03 / 332.77 / 8.00 / 340.77

Swop Univ. 4

	PVC							EVC
W	30.1	29.0	28.6	28.0	27.3	26.5	25.6	24.6
	4.7	5.8	6.2	6.8	7.5	8.3	9.2	10.2
	5.5	6.8	7.5	7.8	7.8	7.8	8.0	10.0
	−0.8	−1.0	−1.3	−1.0	−0.3	+0.5	+0.2	+0.2
E	31.0	30.0	29.6	29.0	28.3	27.5	26.6	25.7
	3.8	4.8	5.2	5.8	6.5	7.3	8.2	9.1
	2.6	1.8	2.1	1.6	1.8	1.8	2.5	3.6
	+4.2	+3.0	+3.1	+4.2	+4.7	+6.0	+5.7	+5.5
W	21.9	19.2	16.6	13.9				
	12.9	3.8	6.4	9.1				
	16.6	5.2	9.8	13.9				
	+0.3	−1.4	−2.9	−4.8				
E	23.0	20.3	17.6	15.0				
	11.8	14.5	5.4	8.0				
	2.6	1.0	2.9	4.7				
	+4.2	+3.6	+2.5	−0.7				

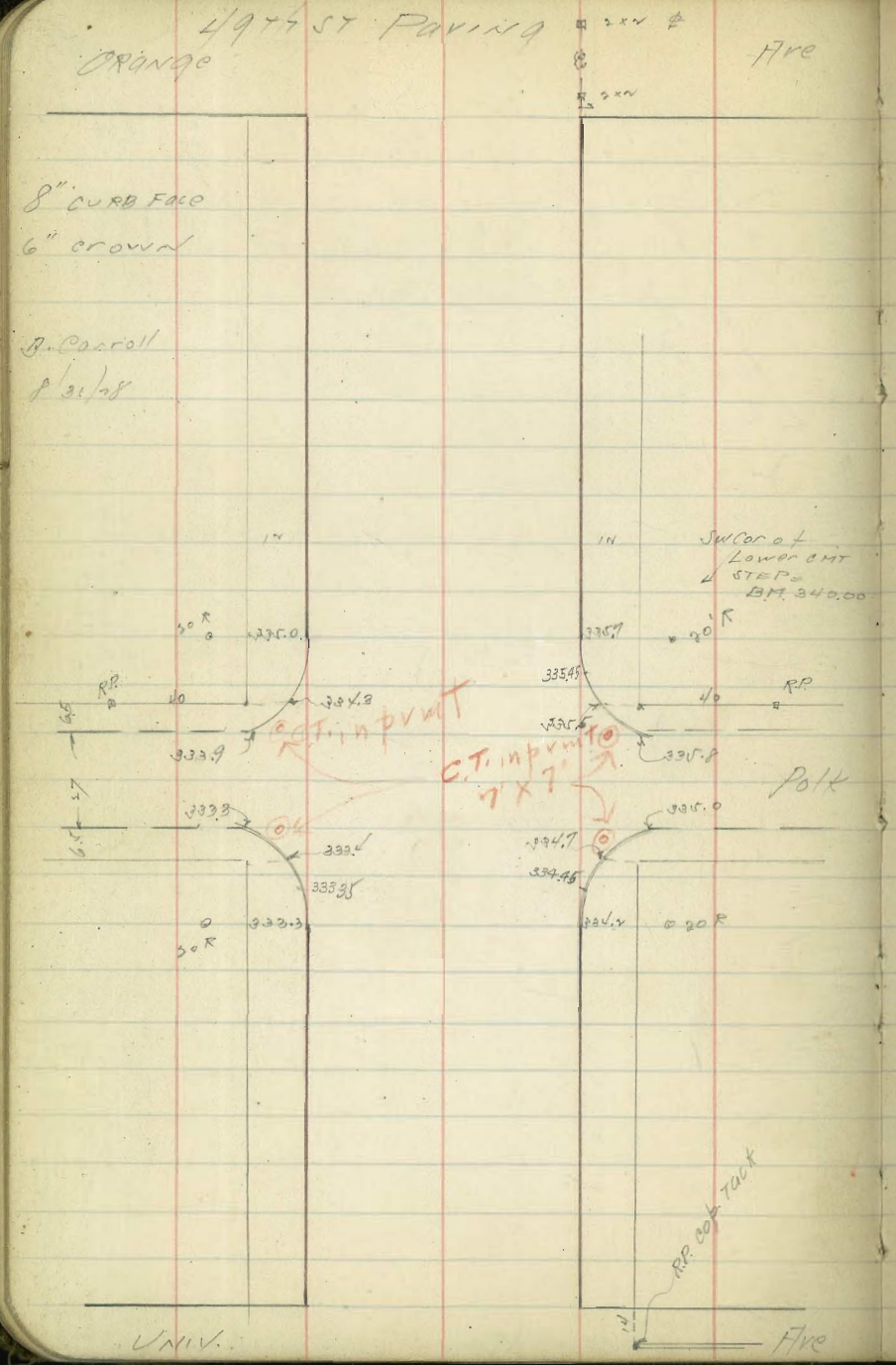
340.57 = T / 11.52 / 329.00 = TP on Sub PVC on W / 1.67 − 1 / 330.67 − T / 1.30 − / 317.66 = TP / 1.06 / 318.72 = T

Finish Stakes

			= PVC					= EVC
W	330.07	329.00	328.60	328.00	327.30	326.50	325.60	324.60
	10.47 ✓	11.52 ✓	2.07 ✓	2.67 ✓	3.37 ✓	4.17	5.07	6.07
						2.90	4.41	5.45
						+0.27	+0.66	+0.62
			PVC					= EVC
E	331.05	330.00	329.60	329.00	328.30	327.50	326.60	325.70
	9.47 ✓	10.52 ✓	1.07 ✓	1.67	2.37 ✓	3.17 ✓	4.07 ✓	4.97 ✓

W	321.93	319.26	316.60	313.94	311.28
	8.74	11.41	2.12 ✓	4.78	7.44
	7.90			5.41	7.50
	+0.84			−0.63	0.06 LOW
E	323.07 ✓	320.34	317.66	314.98	312.30
	7.65 ✓	10.38 ✓	13.01 ✓	3.74	6.47
				4.51	6.47
				−0.77	0.05 LOW

49th St Paving



Sampson St Paving

	W CL	E CL	
SL Main 0+00	28.85	28.85	
0+50	26.87	26.87	
1	24.88	24.88	
1+50 = BREAK	22.90	22.90	= NL RR R.O.W.
1+90	22.72	22.77	
2+30 = "	22.55	22.64	
2+65	21.97	22.07	
3 = NL COTTON	21.40	21.40	
00 = SL "	20.0	20.0	
0+50	18.67	18.67	
1	17.33	17.33	
1+50	16.0	16.0	
2	14.67	14.67	
2+50	13.33	13.33	
3 = NL RR Ave	12.0	12.0	
00 = SL " "	11.0	11.0	
0+48	10.25		
0+96	9.50		
1+44 = 65 N. of RR.	8.75	8.75	

Elev. Type D Catch Basin at Cotton 15 → 20.35 / 19.71 / +0.64 — 23.58 = B.M. / 165+ / 24.73 = π / 4.52 / 19.71 = Elev. Stub

Note this was figured for 2 crowns in center

Elev. Type D Catch Basin + RR. Ave → 11.87 / 12.06 / −0.19 — 12.94 = B.M. / 5.57 / 18.51 = π / 6.45 / 12.06 = Stub

.15 Crown in Center

89.97
0.96
89.01
8.37
97.38 = HYD
0.90
96.48
1.48
97.96 = HUB = RP
2.24
95.72

W 28.85 26.9 24.9 22.9 22.5 22.0 21.5
1.0 6.0 8.0 8.4 8.9 9.5
9.0 11.0 9.7 8.9 9.4 9.1
+1.0 +1.8 +3.3 −0.5 −0.6 +0.4

E 1.0 6.0 8.0 22.6 22.0 9.5
3.2 1.0 8.5 8.8 8.9 8.6
+0.8 +2.0 = NW −0.5 8.5 9.4 +0.9
−0.5 −0.5

W 20.0 18.7 17.3 16.0 14.7 13.3 12.0 11.0
10.9 4.8 6.2 7.5 8.8 10.2 11.5 12.5
10.4 4.9 4.9 6.5 7.5 9.3 9.6 11.3
+0.5 +0.5 +1.3 +0.8 +1.3 +0.9 1.9 +1.2

E 10.9 4.8 6.2 7.5 8.8 10.2 11.5 12.5
10.6 3.7 5.1 6.1 7.6 8.1 9.2 11.0
+0.3 +1.1 +1.1 +1.4 +1.2 +2.1 +2.3 +1.5

Rough Grade Stakes Reset - Walker 10-28-28

= 0+50 — BK

N 26.87 24.88 22.90 22.77 22.60 22.02
4.52 6.51 8.49 8.62 8.75 9.37
3.27 4.63 6.13 7.31 7.29 8.89
+1.05 +1.88 +3.36 +3.27 −1.45 −0.55

E 26.87 24.88 22.90 22.77 22.60 22.02
4.52 6.51 8.49 8.62 8.75 9.37
3.67 4.83 5.07 7.32 7.28 8.89
+0.85 +2.1 −0.53 +1.3 −0.4 −0.5

3999 = NW
140+
4139 = π
1221 −
19.18 = TP
0.35 +
19.53 = π

W 10.2 9.5 8.7
5.2 5.9 6.7
4.3 3.6 2.0
+0.9 +0.9 −0.7

E 5.2 5.9 6.7
4.3 3.7 2.9
+0.9 +2.2 −1.0 = TP 0.06

E 2140 2000 1867 1733 1600 1467 1333 1200 1100 1025 950 875
1000 1139 1277 2.70 353 4.86 6.20 7.53 8.53 9.28 1003
91 1.20 1.60 1.18 2.71 3.61 4.20 5.22 7.11 8.47 8.87
+0.9 0.4 +1.17 1.07 1.84 1.75 2.00 +2.31 −1.42 +0.86 +1.16

W 2140 2000 1867 1733 1600 1467 1333 1200 1100 1025 950 875
999 1.14 1277 2.70 353 4.86 6.20 7.53 8.53 9.28 1003
951 1.09 1.31 1.62 2.75 3.52 5.35 5.31 7.37 8.46 9.21
+1.48 +0.5 +0.58 +0.78 +1.34 +0.85 +1.92 +1.16 +0.87 +0.82

Sampson St Storm Drain #1

9-14-28
W. Hoff
Flood

	Top curb S. end opening	Top curb N. end opening	F.L.			
C.B. Inlet #1	22.90	23.53	17.50	9.44 / 7.42 / 16.82		= Bottom Box
Culvert #1					9.71 / 4.42 / 13.43	
" " #2 = 00	22.90	23.53	17.00			" "
	8.71 / 4.76 / -0.42	8.71 / 4.82 / +1.72				
0+50			15.64	11.63 / 7.27		
					8.22 / 4.74 / 12.96	St Trap in Sampson Coll.
1			14.48		8.22 / 4.87 / +13.09	26.70
						14.90 / 4.04 / 18.94
+50 = N.L. Coll.			12.98	13.83 / 5.61 / +19.41		15.54 / 19.54
					14.71 / 4.86 / +19.57	8.60 / 10.74 / 19.34
+83			12.03			
		Top		15.64 / 4.13 / +19.77		
2 +16 = C.B. #2		19.60	11.13			
		7.14 / 4.59 / +0.30			15.52 / 3.75 / +19.27	
+50	2.7%		10.17			
3			8.81	12.93 / 6.60 / +19.93		
					19.77 / 9.80 / +29.57	
+50			7.45			
+85 = BREAK			6.50	20.24 / 10.43 / +29.81		
					20.24 / 10.26 / +29.75	
4			6.4			
+50	5.4%		6.15	4.44 / 1.47 / +7.91		
					13.42 / 6.23 / +19.44	
5			5.87			
+46		Top		13.91 / 5.53 / +19.38		
+46 = C.B. #2		11.70	5.64			
		7.14 / 4.53 / +11.81			14.71 / 4.88 / +19.59	
6			5.33			
+50			5.06	14.48 / 9.69 / +5.79		
					14.74 / 9.53 / +5.39	
7	Top curb N. end opening	Top cb S. end opening	4.80			
+54 = C.B. Inlet #4	8.91 / 3.76 / +2.12	8.75 / 3.76 / 6.64 / -1.18	4.50	8.04 / 4.96 / 13.07		

Culvert #2

	Top curb S. end	Top curb N. end	F.L.	
C.B. Inlet #3	8.75 / 3.76 / -0.97	8.91 / 3.60 / 6.45 / -2.55	5.00	7.53 / 4.94 / +2.59
Junc. with Storm Drain			4.50	

Note: 1483 + 2416 Reset by Walter 12-6-28.

= 1483 = Flow = 2416 = top = 2416 = Flow

22.58 = BM.	1803	1960	1113
3.77	1432	675	1572
26.35 =	628	662	662
	+8.03	+0.13	+8.60

8.75 = Elev. Grade S end cb Inlet #4
-1.18 = Sissons Fill
7.57 = Elev. Stub
5.55 + Rod by Walter
13.12 = π

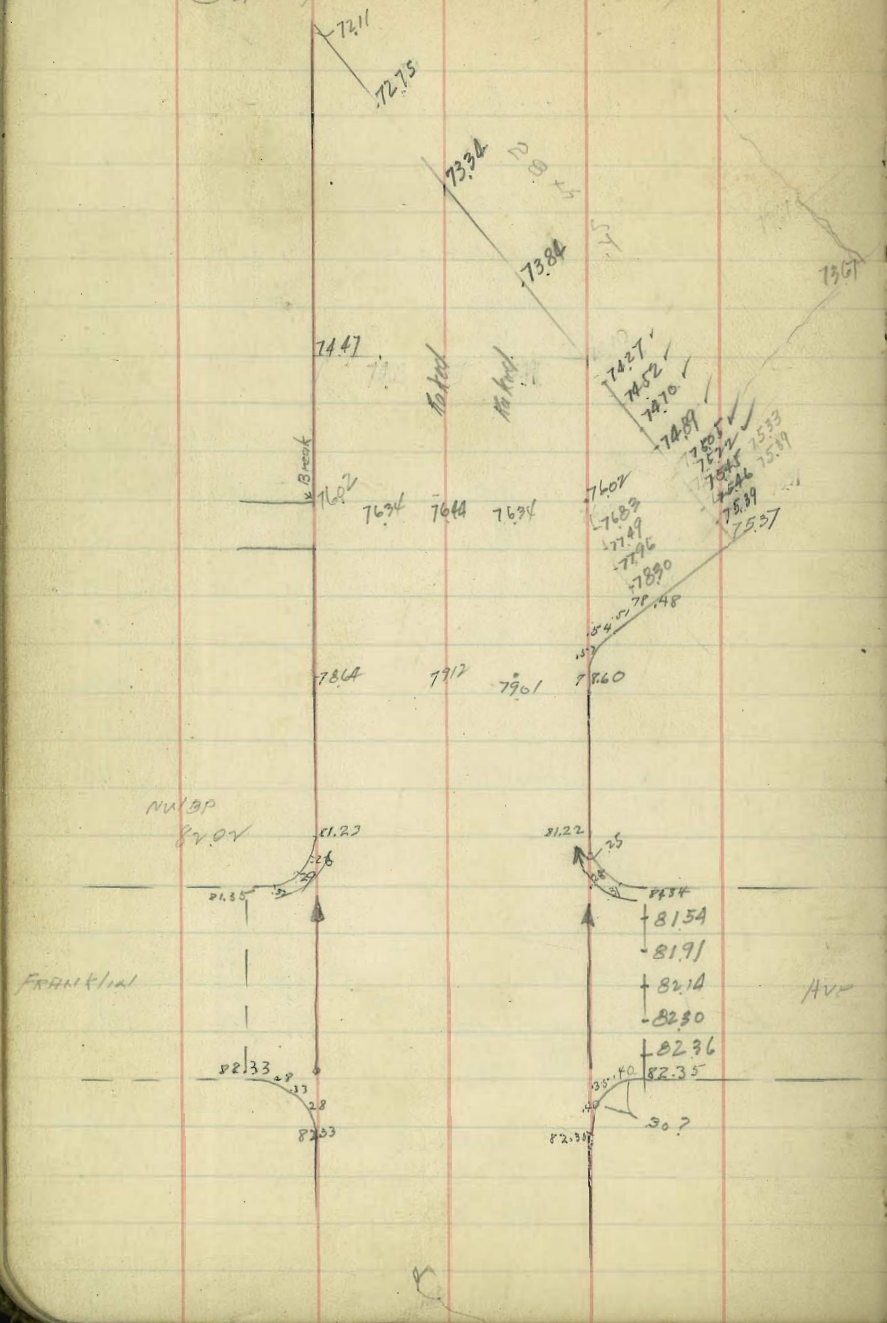
Culvert #2 Reset. →

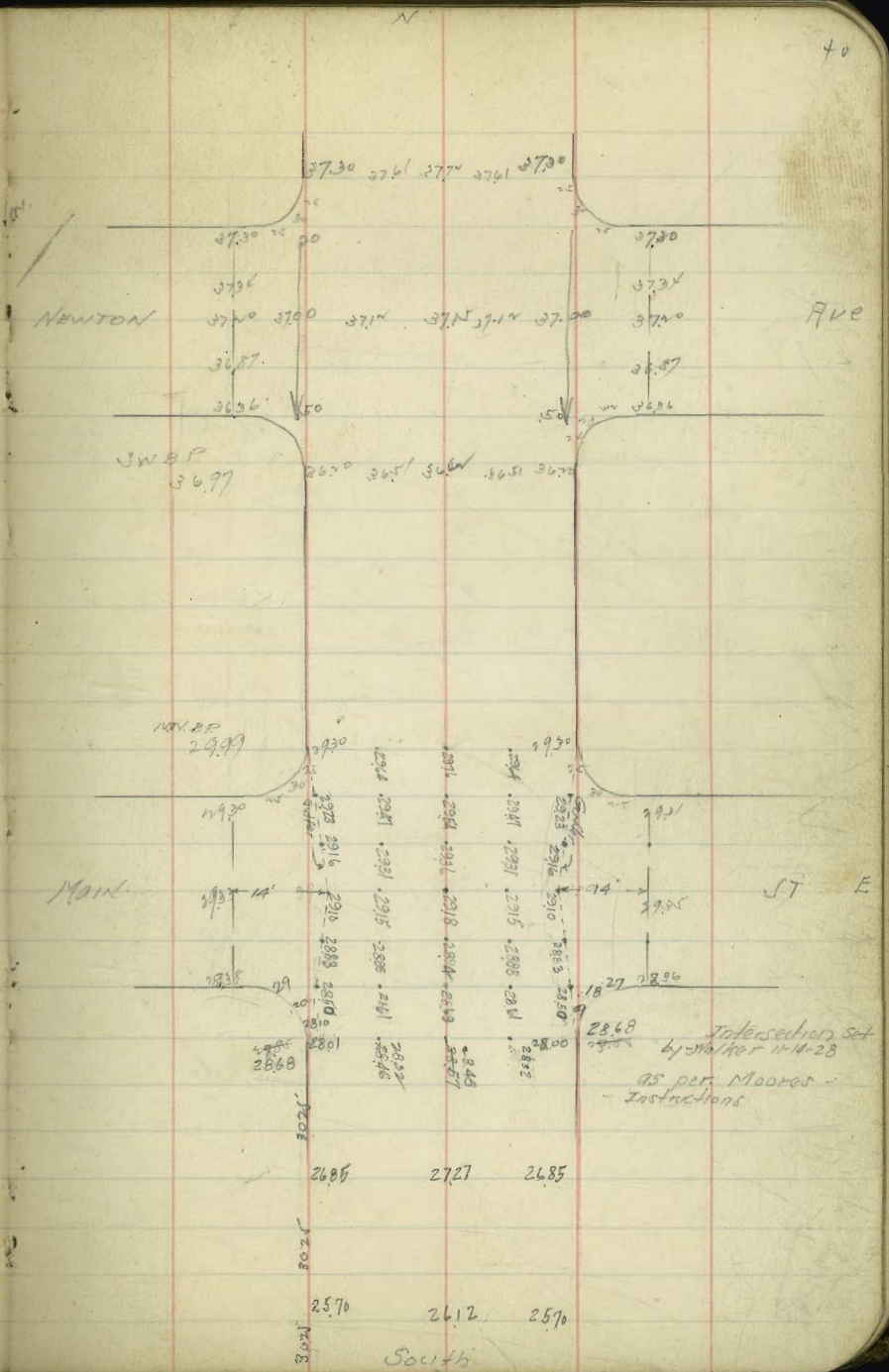
	= S end top cb	= N end top cb.
S end cb Inlet #3	8.75	8.91
	4.37	4.21
	5.37	6.20
	-1.00	-1.99

= N Flow Line catch basin	= Flow line out cb	= E Flow Flowline out
6.00	5.00	4.50	6.00
7.12	8.12	out.	7.12
5.20	4.85		5.64
+1.92	+3.17		+1.48

	= S end top cb	= North end top cb
S end cb Inlet #4	8.75	8.91
	4.37	4.21
	5.56	6.11
	-1.19	+2.10

Sampson St paving





Sampson St paving

Brk.

8'

5.6' - dist. from Inlet to Rail

22.76 = top Rail

22.53 = top Rail

Cement Curb

64' S. Send C. Basin

Side Track

this Rail 64' S. Send C. Basin

22.01 = top Rail

21.41

COLTON AVE.

To pin

13' pin

C. basin

SE Top Hyd. BM 22.58

RAILROAD AVE

13' MUG

80'

To pin

B.M. 12.94

0+48

0+96

1+11

1+28

1+39

SANTA FE RR

SAMPSON WATER MAIN

	EL
SL MAIN = 00	26.0
0+50	23.8
1	21.6
+50 = BREAK	19.4
2+30 = BREAK	19.0
+65	18.7
3 = NL COLTON	18.4
+40 ℄ "	17.7
+80 = SL " = 00	17.00
0+50	15.6
1	14.33
+50	13.00
2	11.6
+50	10.3
3 = NL RailRoad Ave	9.00
℄ " "	8.5
00 = SL " "	8.00
0+48	6.5
0+96	5.1
1+44	3.7

Sewer on EBERS ST.
Betw. Narragansett & Niagara

Yoxx & Ebers
Strike SW pole

				6.86
00 = Ex. MH	71.00	71.0		71.00
			8.48	8.78
0+40.67		71.26	1.41	79.74
			8.77 +4.07	
0+81.33		71.77	7.90	
			+2.77	
			7.90	
1+77 = D.E.	71.57	71.87	7.90	
			+7.00	Straight & Ebers NW SP
				78.49
			10.00	1.67
Sewer La7 (#1)		79.7	3.77	79.16
			+6.77 = 6.00	

12/19/06 Moore

COPELAND AVE PAVING
Meade to MONROE

8" 06 Face
4" crown

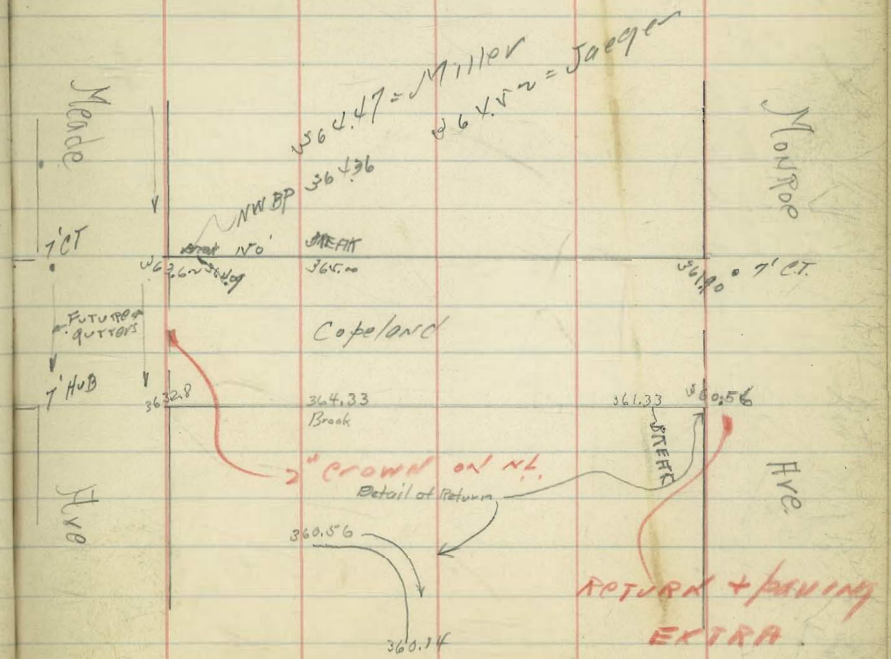
	EC6
NL Meade = 00	363.90
+50	364.56
	364.62
+50 BRK.	364.00
	364.62
8-50.62	364.55
	363.88
	363.50
	363.12
	362.75
	362.37
8 5+55 = BRK	362.0
+70.68 = SL MONROE	361.50

364.36 = NW COR
4.06
369.42
5.36

363.96	E 63.90	64.3	64.6	65.0	64.62	64.05	63.9
0.70	5.3	4.9	4.6	4.2	4.6	5.0	5.3
367.56	4.6	4.2	4.0	3.6	3.9	4.0	5.9
	+0.7	+0.7	-0.4	-1.4	-1.3	-1.0	-0.6
364.36	63.5	63.1	62.7	62.4	62.0	61.50	
3.98	5.7	6.1	6.4	6.8	7.2	7.72	
368.34	6.0	6.8	7.0	7.2	8.1	8.50	
	-0.3	-0.7	-1.3	-1.2	-0.9	-0.8	

363.90 / 4.46
362.0 / 6.34
361.50 / 6.82
361.50 / 6.94 SET TO THIS
360.00 / 5.34

363.75 = paving NE Meade + 4" crown



12/mo/08 Moore

Alley Block 42 Univ. Heights 20' wide

0.30 Dip

Hawkins = Centre

		W.	E.	
N.L. Monroe = 00		345.35	345.30	
0+20		345.80	346.00	
0+40		346.00	346.20	
0+95		346.25	346.51	
1+50	= (B.) on Westerly	346.50	346.85	Brk
2+00	(B) " " "	346.70	346.66	Brk
2+50		346.85	346.83	
3+00		347.0	347.02	
3+50		347.25	347.21	
4+00	= (B)	347.30	347.40	
4+50		347.66	347.80	
5+00		348.02	348.20	
5+50		348.38	348.60	
6+00	= S.L. Madison	348.75	349.00	

	347.05						
	0.71						
	346.96						
	0.88						
	346.08						
	4.77						
W	347.50	346.10	346.25	346.70	346.70	346.85	347.00
	4.96	4.76	4.51	4.26	4.94	4.80	4.64
	4.16	4.02	4.48	4.95	4.02	4.96	4.61
	+0.80	+0.74	+0.03	+0.28		-.16	+0.05
	347.65						
	4.20						
	347.03						
	5.40						
	343.63						
	4.77						
	348.86						
	4.48						
	343.34						
	4.48						
	348.96						
	4.56						
	343.44						
E	346.00	346.20	346.51	346.80	346.65	346.83	347.02
	4.76	4.56	4.25	4.94	4.12	4.20	4.63
	2.20	2.33	4.19	3.17	3.35	4.25	4.09
	+0.56	+0.23	+0.66	+0.37	+0.77	+0.02	+0.54
					+0.60	+0.03	
W	347.15	347.30	347.66	348.02	348.38	348.74	SL Mad
	4.20	4.34	3.99	4.61	4.02	4.38	
	3.90	3.95	4.25	4.31	4.08	4.34	
	-0.10	+0.40	+0.47	+0.30	+0.42		
E	347.21	347.40	347.80	348.20	348.60	349.0	
	4.44	4.25	4.03	3.85	4.84	4.63	= SL
	4.35	3.85	4.60	3.12	4.41	4.20	Mad
	-0.11	+0.90	+0.23	+0.33	+0.43		
W	348.80			347.65			
	4.64			4.66			
347.25	4.20	348.85					
	+0.14	4.74	348.40	4.01			
E	348.26	4.04					
	4.88	-0.09					
	4.16						
	+0.72						

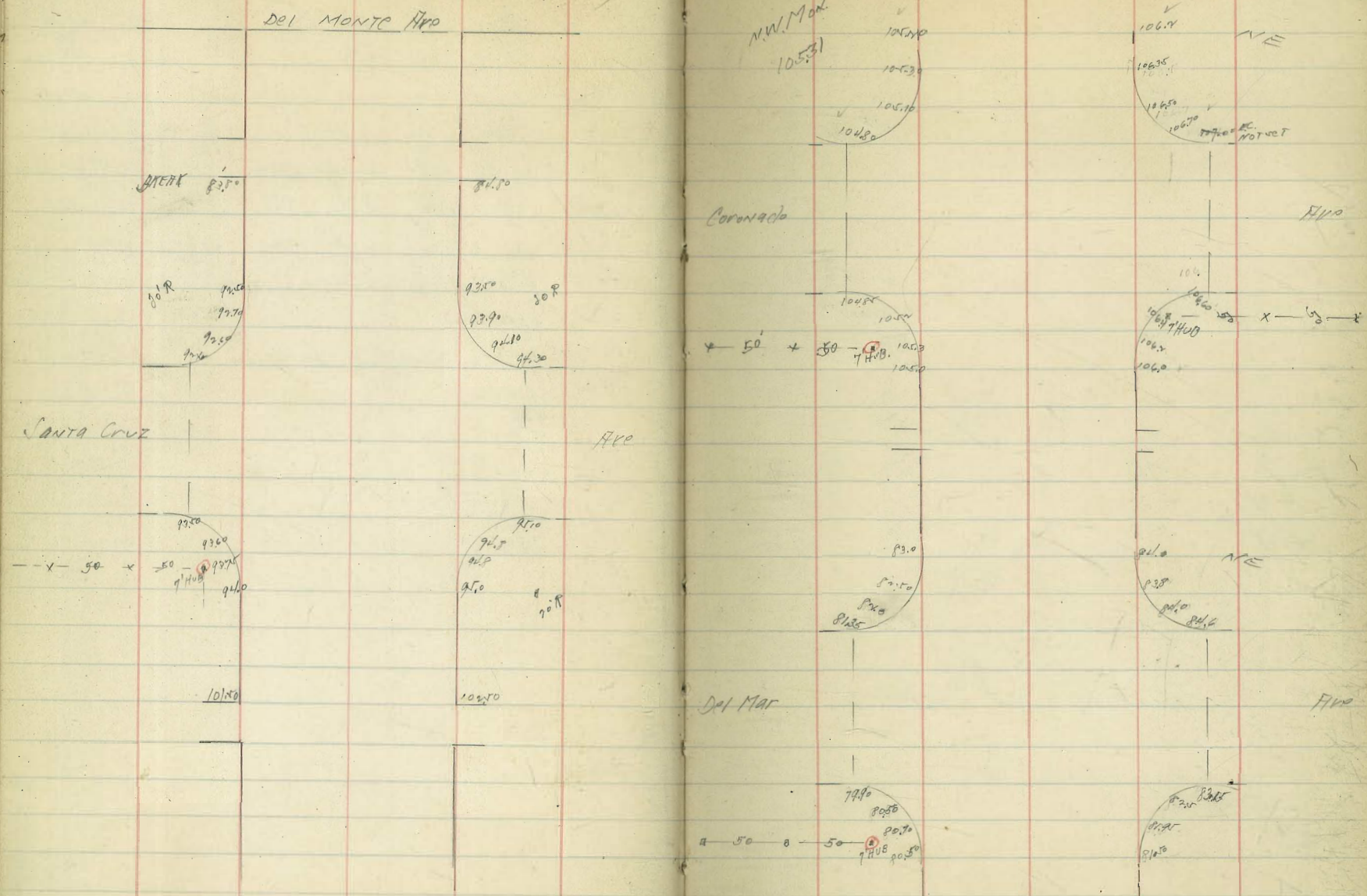
Moore

EBERS ST PAVING

C.R. Daley

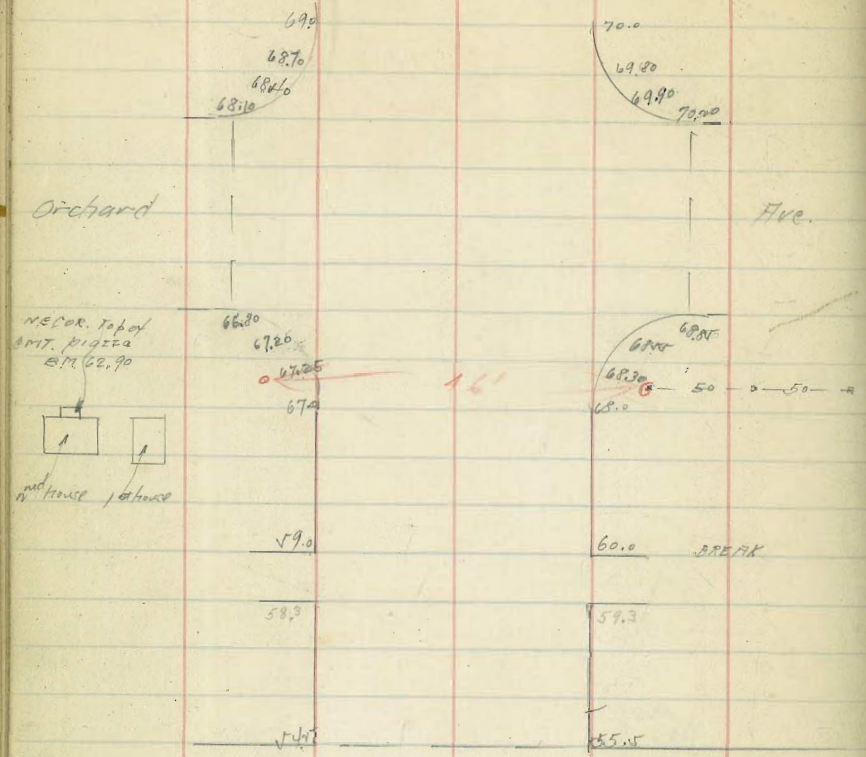
7' Tacks replaced @ 3/10/29

46



E. BERS St Paving. G.R. Daley

7' Tacks set 3/10/29



Pescadero Ave paved.

105.31
√.59
110.90
12.93
97.97
0.49
98.46
12.67
85.79
1.11
86.90
12.83
74.07
0.09
74.16
11.26
62.90 = B.M. see sketch
10.40
72.30
12.87
60.43
3.27
64.18

4.80
.67
.26
5.33

√9.19 / √.01 — 60.19 / 1.01 — √4.50 / 9.68 — 8.68

63.90
8.56
71.46

62.90 B.M.
8.17
71.07 H.I.

Alley on East side Between Orchard & Pescadero

	N. Front	N. Back	S. Back	S. Front
	71.07	71.07	71.07	71.07
Top. Cb.	10.81	10.79	11.57	11.83
	60.26	60.28	59.50	59.24
	60.00			59.30
	.26			.06

71.07	71.07
12.70	11.95
58.37	59.12

12/27/08
Moore

Newell ST. Grading

Goodbody

	S 06.		N 06.	
W.L. Rosecrans	9.20		8.30	
0+27 = PC. of CURB = BREAK	9.30	9.25	8.50	
0+68.5	9.25	9.50	9.05	10.00
1+10 = BREAK	9.80	9.25	9.60	9.25
1+50 "	10.20	8.85	10.10	8.85
1+90 "	11.0		11.0	8.05
2+27.5	12.0		12.0	7.05
2+75 = PC of CURB	13.0		13.0	6.05
3700 = EL Locust ST	13.60		13.60	
end of CURB East side Locust.	13.90		13.85	
" " " West " "	15.00		14.90	
W.L. Locust = 0+00	15.30		15.30	
0+25 = PC of CURB	16.50		16.50	
1/2 WAY	18.20	10.87	18.25	10.75
0+90 = P.V.C.	19.90	9.17	20.20	8.87
1+10	21.10	7.97	21.40	7.67
1+30	22.40	6.67	22.90	6.17
1+50	24.10	4.97	24.50	4.57
1+70	26.00	3.07	26.60	2.47
1+90	28.10	0.97	28.80	0.27 = T.P.
2+10 P.V.C.	30.50	1.09	31.30	1.13
1/2 WAY	34.50	5.93	35.40	5.03
2+75 = PC of CURB	38.50	1.93	39.50	1.93
4+88 on South = BRK	39.80			
3+00 = EL Evergreen	40.60		43.00	
end of ct on east side Evergreen	40.80		44.9	
W.L. Evergreen	45.60	5.16	48.10	5.26

146
+1.0 = ch. grade wall at pole

6.06 S.W. BP Rosecrans + Lowell
7.59
15.65
7.53
8.12 = C.T. in paving = BM.

11.25									
19.55	S	9.2	9.3	9.5	9.8	10.2	11.0	12.0	13.0	13.6
0.30		10.3	10.2	10.0	9.7	9.3	8.5	7.5	6.5	5.9
19.25		9.6	10.1	9.9	9.7	9.1	8.0	7.2	5.8	4.9
12.85		+0.7	+0.1	+0.1	0.0	+0.2	+0.5	+0.3	+0.9	+1.0
31.69										
0.14										
31.55	N	8.3	8.5	9.0	9.6	10.1	11.0	12.0	13.0	13.6
12.59		11.2	11.0	10.4	9.9	9.4	8.5	7.5	6.5	5.9
43.14		10.9	10.5	10.2	9.3	8.3	7.3	6.5	5.6	4.5
0.20		+0.5	+0.7	+0.8	+0.6	+1.1	+1.2	+1.0	+0.9	+1.4
43.05										
12.60	S	13.9	15.0	15.3	16.5	19.9	21.1	22.5	24.1
56.65		5.6	4.5	4.2	3.0	11.8	10.6	9.3	7.6
11.05		2.6	2.6	2.0	0.8	8.9	8.7	7.2	7.5
45.60 = spike		+1.0	+1.9	+2.2	+2.2	+1.9	+1.9	+1.1	+0.2
0.15									
45.75									
12.89	N	12.5	15.9	15.3	16.5	20.2	21.4	22.9	24.5
32.86		5.7	4.6	4.2	3.0	11.5	10.3	8.8	7.2
-0.16		4.1	5.2	5.5	0.9	1.0	9.5	8.9	8.0
32.02		+1.6	+2.5	+2.0	+2.1	+1.3	+0.8	+0.1	-0.8
12.69									
20.33									
0.06	S	26.0	28.1	30.5	33.5	39.8	40.6	40.8	45.6
20.39		5.7	3.6	1.2	6.8	4.3	3.5	3.3	1.5
12.23		6.3	5.3	4.8	+0.9	14.3	10.8	9.9	+1.6
8.11		-0.6	-1.7	-3.6	-7.9	-8.0	-7.3	-6.6	-3.1
8.12 = as of error									
	N	36.6	38.8	41.3	39.5	None opposite	43.0	44.9	47.1
		5.1	2.9	0.4	4.6		1.1	0.8	8.5
		8.7	5.4	4.5	9.3		4.7	2.9	3.3
		-1.6	-2.5	-3.8	-4.7		-3.6	-3.1	+11.8

8.12
10.93
19.05 T

16.50
12.57
29.07 T
6.27 T.P.
28.80
12.63
+1.43
0.26
40.67
1.09
39.76

41.05
45.60 = spike in Elec. pole S.W. Cor. Newell + Evergreen

Next page for return Grades

Newell St Grading
Water Main

P.C.							P.C.
6.0	6.5	6.7	7.0	7.5	8.5	9.5	
13.5	13.5	14.7	14.7	14.9	15.0	9.9	
10.3	10.0	9.6	9.1	8.5	9.6	6.0	
+3.1	+3.5	+4.9	+5.9	+5.9	+5.4	+3.9	

13.06 F.H.
6.31
5.91
+0.40

P.C.		PVC					PVC
13.5		16.8	18.0	19.5	21.0	23.0	25.5
6.5		14.5	13.5	11.7	10.5	9.5	6.0
7.1		9.5	4.6	8.1	7.5	6.5	5.5
+5.1		+5.0	+4.6	+3.6	+3.0	+3.7	+0.5

							PVC
							27.5
							3.7
							11.1
							-0.5

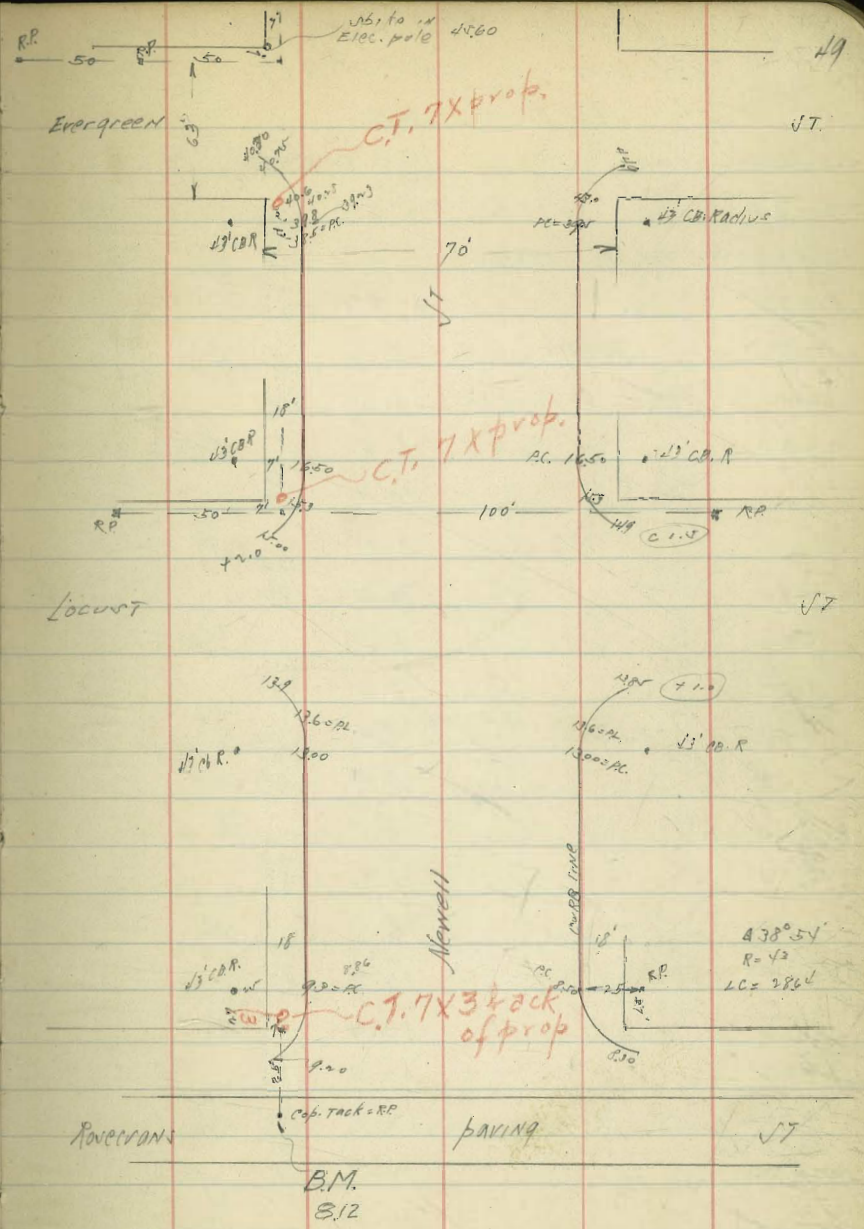
11.5 = ℄ Lotus

8.1							
11.5							
19.37							
0.20							
18.97							
12.21							
31.18							
0.33							
30.85							
12.70							
43.55							
0.48							
43.07							
7.96							
51.03							
5.25							
45.78							

P.C.				
38.5	38.0	43.0 = WL	38.56 = F.H.	
8.1	4.5	8.0	4.9	
10.8	7.5	1.9	12.70	
2.7	-1.7	+6.1	-7.71 = top inside edge S/W	

EL Evergreen

8.1	
6.25	
14.35	
1.90	
12.65	
8.9	
20.93	
1.12	
19.81	
4.37	
34.18	
1.22	
30.96	
18.65	
12.61	
3.02	
41.59	
5.12	
46.71	



Moore 6" Water Main
Oliver & Gresham

Paterson

	F.H. S.E. Cor.	F.L.		
WL Dawes = 0+00	3.63 / 12.01 / 11.25 / +0.76	-0.5	NL 12.0 / +2.9	28.54 / 0.09 / 28.63 / 10.29 / 18.34 / 4.67 / 22.81 — I need Garnet Cors
0+40		-0.3	10.9 / 11.1 / +3.8	12.12 / 10.68 / 1.53
0+80 = EL Dawes	BREAK	-0.1	10.7 / 10.4 / +4.3	12.22 / 9.12
1+30		+0.2	10.4 / 10.9 / 3.7	3.10 / 11.25 / 14.65 π
1+80 =	BREAK	0.6		14.0 / 10.3 / 3.7 — 14.65 / 0.33 / 14.91 / 10.55 / 4.35 π
2+20	"	1.0	13.6 / 10.1 / 3.5	
+60	"	1.6		13.0 / 9.4 / 3.6
3	"	2.3	12.3 / 8.7 / 3.6	
+40	"	3.1		11.5 / 7.8 / 3.7
4+00		4.6	10.0 / 6.3 / 3.7	
+60		6.1		8.5 / 4.8 / 3.9
5+20		7.6	7.0 / 3.5 / 3.6	
+80 = WL Everett	F.H. S.E. Cor. 13.45 / 10.90 / 10.33 / +0.70	9.2		5.4 / 1.7 / 3.7
6+20 = "		9.9	4.7 / 0.7 / 4.0 = T.P.	
6+60 = EL "		10.7		13.6 / 9.2 / 3.9
7+10		11.3	12.0 / 8.2 / 4.3	
+60		12.0		12.3 / 7.8 / 4.5
8+10		12.6	11.7 / 7.0 / 4.7	
+60		13.2		11.1 / 6.5 / 4.6
9+10		13.9	10.4 / 6.1 / 4.3	
+60		14.5		9.8 / 5.6 / 4.2
10+10		15.2	9.1 / 4.8 / 4.3	
+60		15.8		8.5 / 4.5 / 4.0
11+10		16.4	7.9 / 4.1 / 3.8	
+60 = WL Fanuel		17.1		7.2 / 3.4 / 3.8

	F.H. S.E. Cor.	F.L.		Oliver
12+10 = 6"x8" C.I. Cross	31.10 / 9.25 / 2.0 / +0.55	17.8	6.5 / 2.9 / +3.6	NL. 18.1 / 6.2 / 2.0 / +4.2
+40 = EL Fanuel		18.3	6.0 / 2.0 / 4.0	Oliver SL. 17.7 / 6.6 / 2.5 / +3.1
		19.3	5.0 / 1.5 / +3.5	
		20.4	3.9 / 0.9 / +3.0	34.35 / 0.16 / 34.19 / 7.69 / 31.88 π
		21.4	10.5 / 7.0 / 3.5	
		22.4	9.5 / 5.8 / 3.7	
15+00 = P.V.C.		23.5	8.5 / 5.0 / 3.5	
+40	BREAK	24.0		7.9 / 4.5 / 3.5
+80	"	24.3	7.6 / 4.5 / 3.1	
16+20	"	24.3		7.6 / 4.5 / 3.1
+60 = EVC		24.1	7.8 / 4.6 / 3.2	
17		23.1		6.8 / 3.5 / 3.3
+40 = WL Gresham	F.H. S.E. Cor.	22.1	6.8 / 3.5 / 3.3	
+90 = 6" C.I. Cross	24.55 / 7.63 / 6.60 / +1.03	22.0		6.9 / 3.5 / 3.5
18+20 = EL Gresham		21.8	10.1 / 6.0 / 4.1	

22.70 = π

18.1 / 7.6 / 4.5 / 22 Low — 17.8 — 17.7 / 8.0 / 8.1 / 0.1 Low — 21.1° ck grade — 21.10 / 4.60 / 4.02 / +0.58

Should be 16.63

next page for Gresham to south

6" Water Main on Gresham St.

10'S ℄ Oliver = 00

1

2 (64)

3 5

4

5 3+20 = 6" C.I. Cross Pacific

3+40 = SL Pac. ST.

+90

4+40

+90 6 (50)

5+40

+90

6+40 = NL La Palma ST.

+80 ℄

7+20 SL " "

1

2 (46.67)

3 8+60 = BREAK

9+20

9+80 = "

1

2

3 7 (60)

4

5

F.L.		
22.0		
21.3	10.6 / 7.1 / 3.5	
20.6	11.3 / 7.6 / 3.7	
19.9	12.0 / 8.4 / 3.6	
19.2	12.7 / 9.1 / 3.6	
18.5	13.4 / 10.0 / 3.4	(F.H.) SE Cor.
18.2	13.7 / 9.9 / 3.8	T.P.
18.0	7.9 / 4.4 / 3.5	
17.7	8.2 / 4.5 / 3.7	
17.5	8.4 / 4.8 / 3.6	
17.2	8.7 / 4.9 / 4.0	
17.0	8.9 / 4.3 / 4.6	
16.8	9.1 / 4.2 / 4.9	(F.H.) SW Cor
16.4	9.5 / 4.4 / 5.1	
16.1	9.8 / 4.1 / 5.7	
15.7	10.2 / 4.5 / 5.7	
15.4	10.5 / 4.6 / 5.9	
15.0	10.9 / 6.1 / 4.8	
14.0	11.9 / 6.8 / 5.1	
13.0	12.9 / 9.1 / 3.8	
11.6	14.3 / 10.6 / 3.7	
10.3	15.6 / 12.2 / 3.4	= T.P.
9.0	16.9 / 14.8 / 1.7 / 3.1	
7.6	18.3 / 6.4 / 3.2 / 3.0	
6.3	19.6 / 7.2 / 4.9 / +2.6	

31.83 T			
9.20			
22.18			
3.36			
25.94			
12.25			
13.69			
0.1			
13.80			
9.22			
9.89			
19.11			
0.92			
18.17			
8.15			
26.32			
25.16			
21.16			
4.36			
26.52			
4.83			
27.68			
7.22			
20.81			
6.49			
23.52			
2.18			
25.70			

WL Gresham	EL Gresham	BT Pacific
18.0	18.8	
13.9	13.1	
11.0	9.2	
+2.9 = 3.1	+3.7	
		26.52
		4.32
		22.20
21.00	18.8	18.0
1.18	7.72	8.52
22.18	7.07	9.52
	+.65	.9 Low
	Gate High	

Water Main Gresham ST Cont.

1880 A

		EL	
6	7 (60)	5.0	8.5 / 6.4 / 2.4
7	14+00 = N.L. Estrella Pl.	3.7	10.1 / 7.4 / +2.4
	+20 = BREAK ℄ " "	2.0	12.8 / 8.0 / 4.8
	+30 = 6" C.I. Tee @ 90° LT.	2.0	12.8 / 7.7 / +5.1
14	+60 = E.L. Gresham ST.	3.0	10.8 / 7.7 / 3.1
2		3.8	10.0 / 7.8 / +2.2
"	4 (55.15)	4.7	9.1 / 7.0 / 2.1
3		5.5	8.3 / 5.6 / 2.7
4	= 16+80.6 = NL Frontera ST	6.4	9.4 / 3.9 / +5.5
	Ex. 4" Gate Valve.		

(FH) N.E. Cor.
6.15
7.6.4
7.15
+0.5.0 = cb grade

9.00
4.97
14.19

6.4
7.99
6.96
+1.53 Top of stem of 4" Gate Valve

Moore 1/8/79

Runnymead Lane. Floyd-Grimes

Sewer Main

		159.0 Sewer Lat #4	191.19
		10.82	0.25
		1.1	191.34
		+8.72	13.09
	F.L. +7.72		178.29
			0.66
Ex. Sewer NL of Harbor View Dr = 00	153.0 ✓		178.95
			12.80
+ 25	153.31	165.1	166.11
		6.60	3.71
		+8.91	169.82
+ 90	153.63	16.19	12.38
		6.79	157.44
		+9.40	0.67
1 + 35	153.94	15.88	158.11
		8.08	6.55
		+7.80	157.56 old NWL
1 + 80 = DE	154.76	15.56	1.91
		9.89	153.47
		+5.67	

Storm Drain #1

CB. Inlet Bot. = 00 Fl. of Pipe	148.0	14.00	S 51.50	N 5.150
		5.47	1.97	1.97
		1.03	1.06	1.65
		+4.44	+0.91	+0.32
0 + 04.5± angle	147.64	42.62	44.00	
		5.85	9.50	
		1.91	5.4	
0 + 47 = BREAK	144.0	+3.94	+4.1	
0 + 92 = " 51.50 = ch.	137.4	37.4		
		3.7	14.3	
		1.6	14.2	
1 + 33.5	115.3	+2.1	2.5	
			+5.7	
1 + 75 = "	91.3	91.3		
		12.2		
		9.0		
1 + 88.7 = outlet	90.0	+4.2	90.0	
			13.5	
			13.5	
			0.0	

1 + 88 = 90.9
2.6
2.5±

153.47
-12.88
140.59
-0.53
141.12
-12.85
128.27
+0.28
128.55
-12.93
115.62
+0.01
115.63
-12.92
102.71
+0.83
103.54

169.47

53

5.09
.32
4.77

DE = 00
+ 25
+ 90
1 + 35
1 80 = Ex Sewer

155.40	1.38	
	9.32	
	+6.55	
155.17	14.10	
	7.50	
	6.60	
154.95	14.32	
	6.25	
154.70	14.55	+8.10
	6.03	
	+2.52	
154.50	14.77	

④	②	①	③
155.60	155.3	155.1	155.6
13.70	14.0	14.2	13.7
3.0	7.1	10.3	9.0
+10.7	+6.9	+3.9	+4.7

Runnymead Lane — Floyd-Grimes

		W ch	E ch
N1 Harbor Vick = PC		163.25	158.90
0 + 10	BREAK	162.60	160.30
0 + 20	BREAK	162.30	161.20
0 + 30	BREAK	162.09	161.50
0 + 40	BREAK	161.88	161.40
0 + 80		161.04	160.60
1 + 20	BREAK	160.20	159.80
1 + 30	BREAK	160.10	159.40
1 + 40	BREAK	160.30	158.80
1 + 45 = PC	0 + 8' Radius RETURN	160.60	158.40

169.27 π
10.71
158.56 = LOW T.P.
2.26
160.82

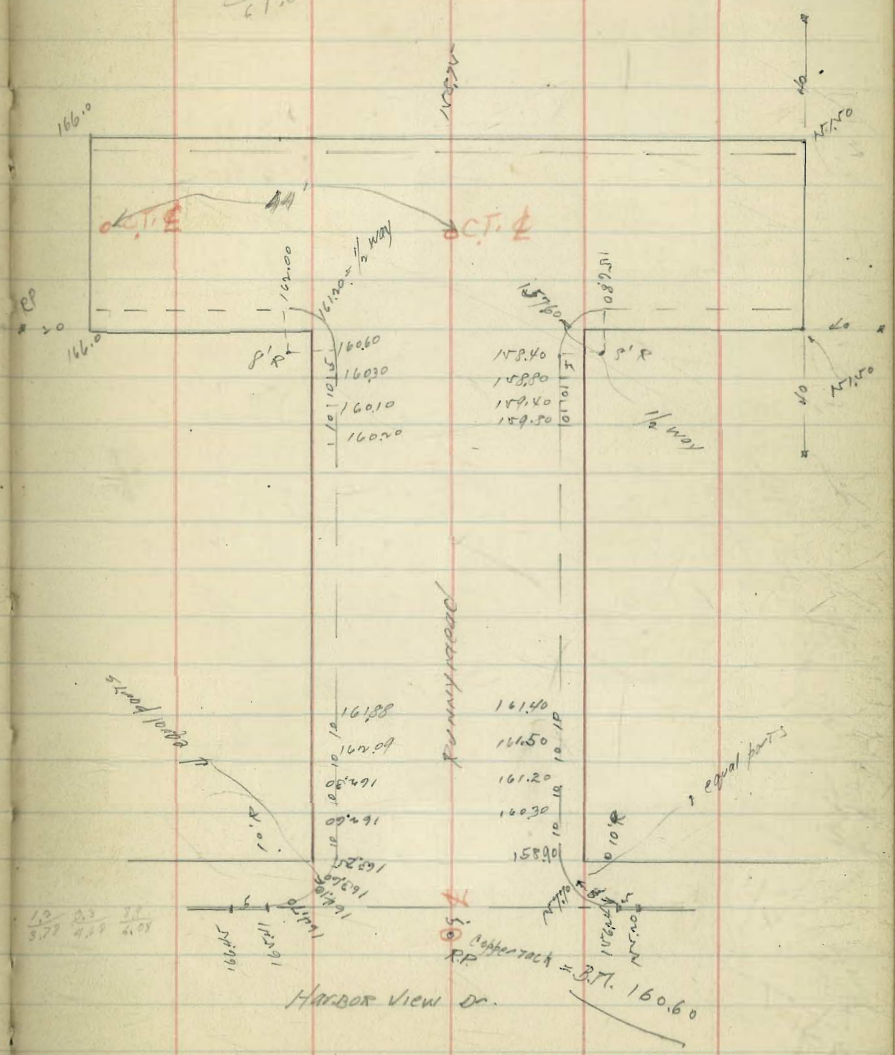
W	63.2	62.6	62.3	62.1	61.9	61.0	60.2	60.1	60.3	60.6
	6.1	6.7	7.0	7.2	7.4	8.3	9.1	9.2	9.0	8.7
	5.1	4.9	4.8	5.1	5.3	6.5	3.7	4.3	5.1	5.1
	+1.0	+0.4	+0.6	+2.1	+2.1	+1.8	+5.4	+4.9	+3.9	+3.6
E	58.9	60.3	61.2	61.5	61.4	60.6	59.8	59.4	58.5	58.4
	10.4	9.0	8.1	7.8	7.9	8.7	9.5	9.9	10.5	10.9
	12.2	10.6	9.2	7.6	6.8	8.2	9.6	10.1	10.3	10.2
	-2.0	-1.6	-1.1	+0.2	+1.1	0.0	-0.1	+0.2	+0.2	+0.7

169.27
5.11 High TP
164.16
9.24
173.40

	W PC	W L	E PC	E L
S	162.0	166.0	156.8	151.5
	7.3	7.4	12.5	9.3
	5.1	3.1	10.2	4.8
	+2.2	+4.3	+0.3	+4.5

160.60
4.39
164.99
3.98
162.
6.92
165.92

	W	E	E
N	166.0	158.7	151.5
	7.4	10.6	9.5
	7.6	10.7	9.7
	-0.2	-0.1	-0.2



Bunnymead Lake

1/27/39
Moore

Golden Gate Drive — Carroll

347.97 = SE Cor Golden Gate + Cleveland
4.76
352.83

PRC — MPK = Midcourse — PRC

N 345.03 (CB = PC) — 47.99 — 47.95 — 47.92 — 47.88 — 47.85 — 47.81 — 47.77 — 47.74 — 47.81 — 47.90

N 47.98 — 48.06 — 48.14 — 48.22 — 48.30 — 48.38 — 48.46 — 48.55 — 48.65

PRC

N 48.75 — 48.80 — 48.85 — 48.90 = CB end

= El Cleveland

S 348.00 — 48.24 — 48.32 — 48.39 — 48.45 — 48.66 — 48.77 — 48.88 — 49.0 — 49.10 (end)

Not Culvert
343.0
1.89
1.03
+ 1.0

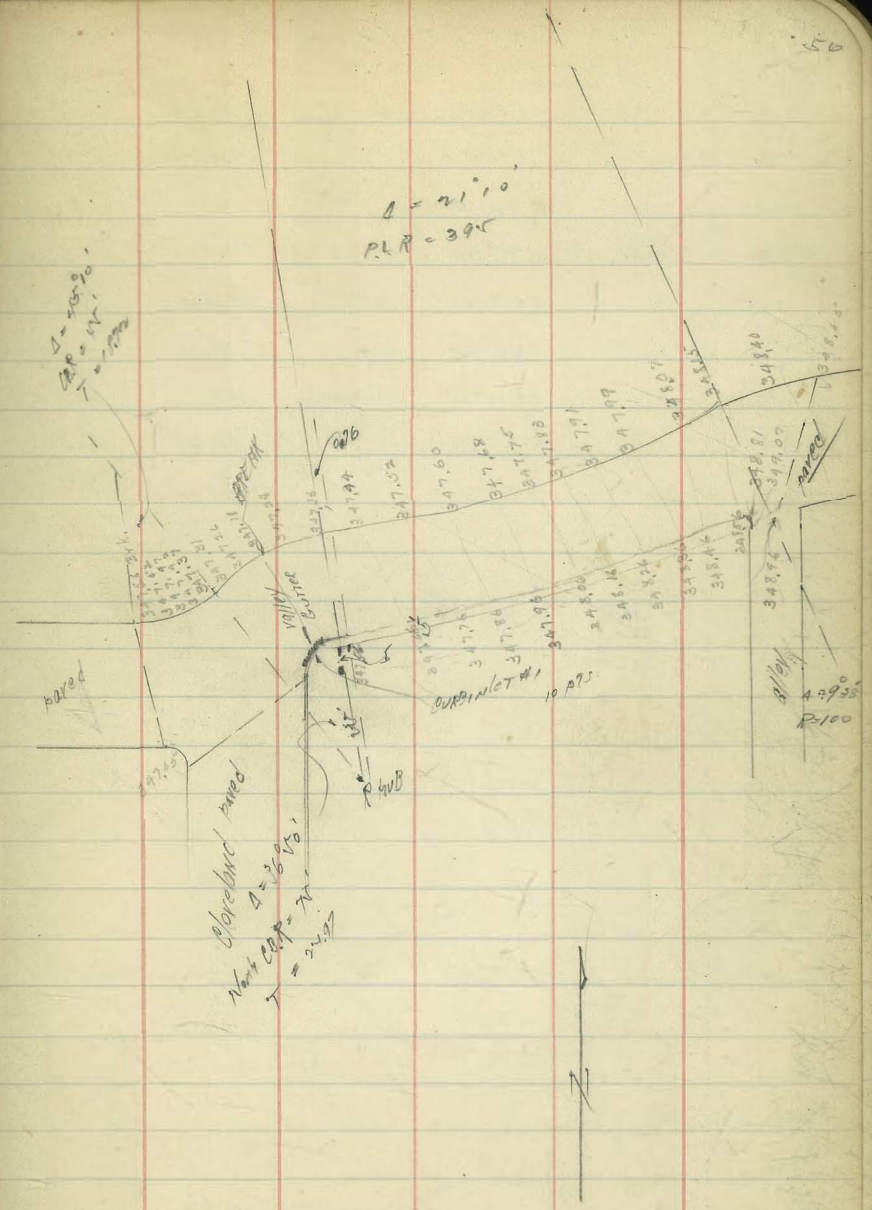
342.0 + outlet
10.83
7.03
+ 3.8

49.15 Ret.
3.68
3.68
47.0

curb cuts

347.97 B.M.
5.24
353.21 π
5.85
357.36 N.M. P.C.
5.77

347.97
5.47
353.44



29-5
3
29
54

1/7/19 Moore

New York St Paving

8" Curb Face 10' Curves
5" Crown

Carroll Const.

		W.C.B.	W. Gut.	E.C.B.	E. Gut.
S.L. Madison 0+00		340.50		341.10	
		340.28		340.85	
0+65		340.05		340.60	
1+30	BREAK	339.60	38.83	340.10	39.43
+50	"	339.20	38.53	339.60	38.13
+70	"	338.80	37.53	338.80	38.13
+90	"	336.80	36.83	337.40	36.73
		335.0	38.33		
2+10	"	~~334.60~~		335.40	39.73
		330.5			330.88
2+50 and +00		~~330.0~~		331.0	

Culvert #1 = Tab Curb 330.89 | What adjo opening | ⊥ Pipe 344.45 | 347.57 | 349.9 | 1.9 | 84 | +1.5

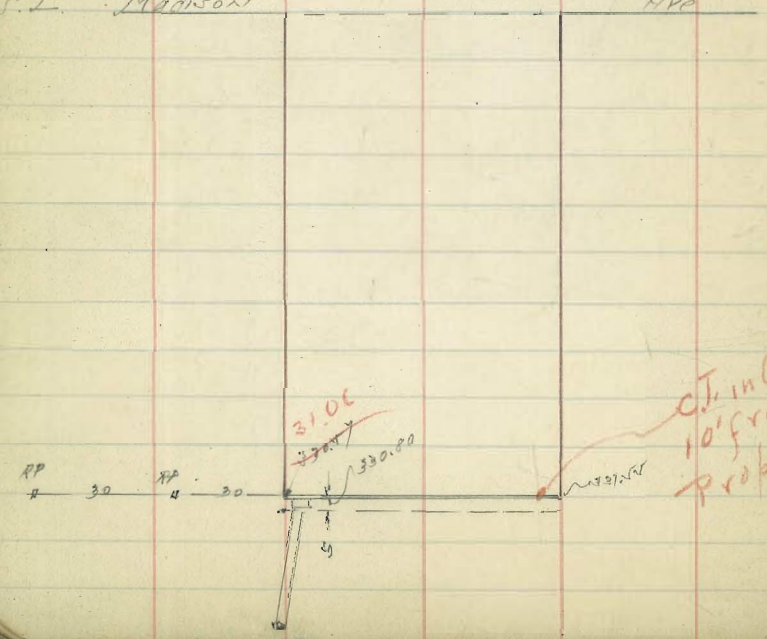
End opening 330.80 | 5.26 | 2.98 | +2.22

5.43 | 3.29 | +2.14

7.15 | 3.3 | +8.2

+1.5

S.L. Madison



W	40.50	40.0	39.6	39.4	38.4	36.8	34.6	30.0
	5.23	5.7	6.1	6.5	7.5	8.9	11.1	6.0
		4.4	5.6	6.0	6.9	7.8	8.3	7.0
		+1.3	+0.5	+0.5	+0.6	+1.1	+1.8	-1.0
E	41.10	40.6	40.10	39.60	38.80	37.40	35.40	31.0
	4.63	5.1	5.6	6.1	6.9	8.3	10.3	5.0
		4.2	5.0	5.7	6.6	7.4	11.6	5.5
		+0.9	+0.6	+0.4	+0.3	+0.4	-1.3	-0.5

340.51 B.M. S.W.
9.01
44.52
9.13
35.40
1.80
37.20

W. 40.50 | 40.05 | 39.6 | 39.2 | 38.2 | 36.8 | 34.6 | 30.0
4.52 | 4.77 | 4.92 | 5.32 | 6.32 | 7.72 | 9.92 | E 5.0

E. 41.1 | 40.6 | 40.1 | 39.6 | 38.8 | 37.4 | 35.4 | 31.00
3.92 | 3.92 | 4.42 | 4.92 | 5.72 | 7.12 | 9.12 | 5.65

340.51
5.22
345.73
12.69
333.04
2.98
336.02 T
12.64
323.38
1.44
324.82

Top end opening.

349.51
5.11
344.62
9.62
335
3.09
338.09

W. cb changed Grades
38.09
35.0
3.09

38.09
31.06
7.03

37.20 T W. End Cb inlet 6.61

E End Cb inlet 6.77

	PT. LOMA B.M.			2/5/29	Moore Flood Colquhoun
Chatsworth Elliott	4.845	133.065		128.22	NEBP
T.P.	7.765	136.490	4.34	128.725	
Curtis + Clove			1.975	134.515	Arguen SEBP
Curtis & Plum			5.205	131.285	SWBP
T.P.	0.51	132.17	4.83	131.66	
Curtis Willow	0.585	119.730	13.02	119.145	SWBP
T.P.	0.22	107.01	12.94	106.79	
Curtis Evergreen	0.46	95.845	11.62	95.385	SWBP
T.P.	0.37	83.205	13.01	82.835	
T.P.	0.295	70.77	12.73	70.475	
Curtis Locust			1.46	69.31	SWBP
T.P.	0.18	58.17	12.78	57.99	
T.P.	4.10	51.295	10.975	47.195	
Curtis + Rosecrans			6.945	44.35	SWBP
South on Willow 1T from Curtis					
Curtis Willow	12.235	131.38		119.145	SWBP
Browning Willow			1.51	129.87	SWBP
T.P.	2.895	121.29	12.945	118.435	
Hicott Willow			8.54	112.75	SWBP
T.P.	12.375	133.51	0.155	121.135	
T.P.	7.965	141.24	0.235	133.275	
Willow Zola			3.095	138.145	SWBP
T.P.	12.28	153.155	0.365	140.875	
T.P.	12.47	165.615	0.01	153.145	
Willow Zenophon			11.49	154.125	SWBP
T.P.	8.23	173.505	0.34	165.275	

	PT. ∠	O M.P.	B.M.	Elev.	
		173.505			
Willow & Whittier			7.415	166.09	✓ W.B.P.
T.P.	12.69	186.02	0.175	178.33	
T.P.	11.535	197.49	0.165	185.855	
Willow & Udal			10.33	187.16	S.W.B.P.
Willow & Tennyson			3.60	183.89	S.W.B.P.
T.P.	0.26	185.65	12.12	185.27	
T.P.	0.31	172.895	13.045	172.585	
Willow & Russell			11.54	161.355	S.W.B.P.
T.P.	9.305	181.355	0.845	172.05	
Willow & Quimby			8.145	173.21	S.W.B.P.
Willow & Tee			3.545	177.81	S.W.B.P.
T.P.	0.335	169.325	12.365	168.99	
T.P.	0.75	157.42	12.655	156.67	
Willow & Olive			4.765	152.655	N.W.B.P.
T.P.	0.475	144.975	12.92	144.50	
T.P.	1.115	133.485	12.605	132.37	
T.P.	0.38	120.96	12.905	120.58	
T.P.	0.28	108.855	12.385	108.575	
T.P.	0.415	96.695	12.575	96.28	
T.P.	0.33	84.165	12.86	83.835	
T.P.	0.81	72.195	12.78	71.385	
T.P.	1.415	60.88	12.73	59.465	
Willow & Lowell	1.88	54.215	8.545	52.335	S.W.B.P.
T.P.	0.00	41.255	12.960	41.255	
T.P.	0.185	28.39	13.95	28.205	
T.P.	1.74	17.235	12.895	15.495	

2064 Ros & Canyon S.W.B.P.
6120 Willow & Canyon N.W.B.P.

Rosencrans & Lowell S.W.B.P.		17.235	9.17	8.065	Average = 8.06 Bl/55 = 8.05
T.P.	12.66	29.745	0.15	17.085	
T.P.	12.37	41.865	0.35	29.495	
T.P.	12.545	54.49	0.02	41.845	
Willow & Lowell	1.42	53.76	2.15	52.34	
T.P.	0.395	42.28	11.875	41.885	
Willow & Harris			4.925	37.355	S.W.B.P.
T.P.	5.87	46.60	1.55	40.73	
T.P.	9.79	54.525	1.865	44.735	
Willow & Hugo			10.10	44.425	S.W.B.P.
" & Goethe			2.995	51.53	S.W.B.P.
" & Fenelon	8.885	60.57	2.84	51.685	S.W.B.P.
" & Emerson			2.85	57.72	S.W.B.P.
T.P.	12.35	72.36	0.46	60.11	
T.P.	9.73	81.715	0.375	71.985	
Willow & Dickens?			5.185	76.53	Set B.P. S.W. end Pat.
T.P.	10.37	91.405	0.68	81.035	
Willow & Carleton?			4.93	86.475	S.W.B.P.
T.P.	6.32	96.99	0.735	90.67	
Cut out —	Not recorded —	New Plug Set within years	4.53	92.46	S.W.B.P. W. End Pat.
Willow & Byron			2.41	94.58	S.W.B.P. E. Pat.
T.P.	0.37	84.545	12.815	84.175	
T.P.	0.28	72.69	12.135	72.41	
Willow & Addison			1.095	71.595	S.W.B.P.
" " Canyon Ro.	0.96	62.25	11.40	61.29	N.W.B.P.
Canyon & Evergreen	0.37	49.97	12.65	49.60	S.W.B.P.
T.P.	0.87	37.895	10.945	39.025	
Canyon & Locust	0.85	31.83	8.915	30.98	N.W.B.P.
" & Rosencrans			11.10	30.73	S.W.B.P.

.7 cb face
.5 Crown

Madison Ave. Grades

N.L. STA.	N cb	S.L. STA.	S cb
W.L. Mass. North of Madison	331.0		329.0
①	328.82		
②	326.65		Curb 24
③ 4 (67.45)	324.47		
④ 2+05.8 = New Hampsh. (E.L. = Break)	322.30		321.50
4 +55.8 = W.L. "	320.80		320.0
①	319.34		318.5
②	317.88		317.0
③	316.42	2.55	315.50
④ (50.84)	314.96	.5 (57)	314.0
⑤ = 5+10	313.50	P.C. of Curb	312.50
E.L. Golden Gate Dr = 8.13 Fwc			312.10 on Curb

324.75
.50
326.50

Sewer Construction

Ex MH	311.50	15.00 .59 +9.19
0+50	312.0	14.50 .00 +10.24
1+00 = DF	312.50	14.00 .4 +11.6

321.50
320
324.75
1.00
321.75
12.97
334.75

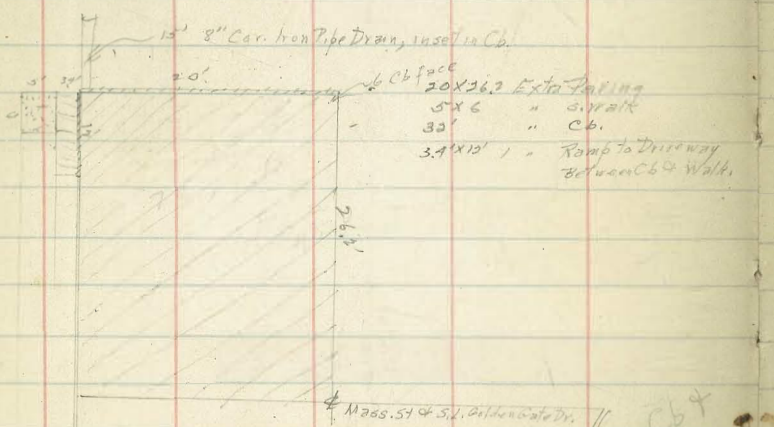
S	321.50	320.0	15.5	17.0	15.5	14.0	12.5	12.1
	8.24	8.7	6.2	7.7	9.2	10.7	12.9	12.6
	2.19	5.4	6.6	6.6	8.3	11.1	12.8	13.2
	+ .06 cb	-0.7	-0.4	+1.1	-0.1	-0.4	-0.6	-0.6
N	22.3	20.8	19.3	17.9	16.4	15.0	13.5	
	12.2	3.9	6.4	6.8	7.3	9.7	11.2	
	9.1	0.9	2.2	3.5	5.2	7.4	9.4	
	+2.7	+5.0	+3.2	+3.3	+2.6	+2.3	+1.8	
N	331.0	326.8	326.6	324.5				
	9.52	5.9	7.1	10.0				
		3.0	5.4	7.9				
		+2.9	+2.2	+2.1				

7-cb Face
4-crown

Mass. St. North of Madison

W.L. STA.	W Cb	EL. STA.	E Cb
			332.76
N.L. Mad. Ave. = 0+00	331.70		332.85
		0+10	332.85
		0+20	333.0
		0+50	334.0
1+00 = P.V.C.	335.60	1+00	335.60
+20	335.0		336.0
+40	335.40		336.40
+60	335.60		336.60
+80	335.70		336.70
2+00 = E.V.C.	335.60		336.60
			336.84
+37.5			336.0
			335.78
2+75 = S.L. Golden Gate	334.60		335.40

Curve 1%



Set 6/10/29

Mass. Floor Panel Calculation

Extra Paving, Cb & Walk for Nolan & Paley Corp.

S.W. Mass. St. & Golden Gate Dr.

333.03
7.4
340.44

PP NE Cor Mad + Mass

61

E	32.7	32.3	33.0	34.0	35.6	36.0	36.4	36.6	34.7
	7.4	7.4	7.4	6.4	4.6	4.4	3.8	3.6	3.5
	6.1	5.0	4.6	4.0	3.9	3.6	3.0	3.0	3.4
	+1.4	+2.4	+2.6	+2.4	+0.7	+0.6	+0.8	+0.6	+0.3
W					34.6				
					5.6				
E	36.60	36.0	34.4						
	5.6	4.4	4.8						
	3.4	4.0	4.4						
	0.1	+0.4	+0.4						
W	35.6								
	4.6								

T=CL Face
H=Crown

Mass. St South of Mad.

	W CL		E CL	
℄ Mad = 0+00	322.0		333.0	
0+50	329.20		330.20	
1	326.40		327.40	
+50	323.60		324.60	
2	320.80		321.80	
2 +40 = opposite Curb P.C. on E.L.	OUT		319.56	P.C. RETURN
2 +50 = P.C. of Curb W.L.	318.0	N.L. Hoffman	319.0	

333.03
1.96
334.99
12.05
322.94
0.7
323.21
12.89
310.32
0.46
310.78
12.93
297.85
0.53
298.38 = π
12.73
285.65
1.77
287.42
319.00
4.7
323.70

W 322.0 — 29.2 — 26.4 — 23.6 — 20.8 — 18.0 = N.L. Hoffman
4.99 — 5.8 — 6.1 — 9.3 — 11.2 — 7.1
6.1 — 0.3 — 0.7 — 10.2 — 2.0 — 1.9
0.46 — +0.2 — +0.4
π

E 333.0 — 30.2 — 27.4 — 24.6 — 21.8 — 19.5 P.C. — 19.0 = N.L.
1.99 — 4.8 — 7.6 — 10.4 — 1.4 — 3.7 — 4.2
2.8 — 7.0 — 10.1 — 2.2 — 0.7 — 0.0
+2.0 — +0.6 — +0.3 — +1.2 N.L. — +3.0 N.L.

SE Cor Hoffman + Mass = 317.5
6.7
3.7
-14.4

318.0 — 317.5 — 317.0 — 316.7 — 317.0 — 317.2 — 317.3
5.9 — 6.4 — 6.9 — 7.0 — 6.9 — 6.4 — 6.4

333.03
2.80
335.83
11.35
324.48
8.35
316.13
5.03
311.00
4.73
316.13

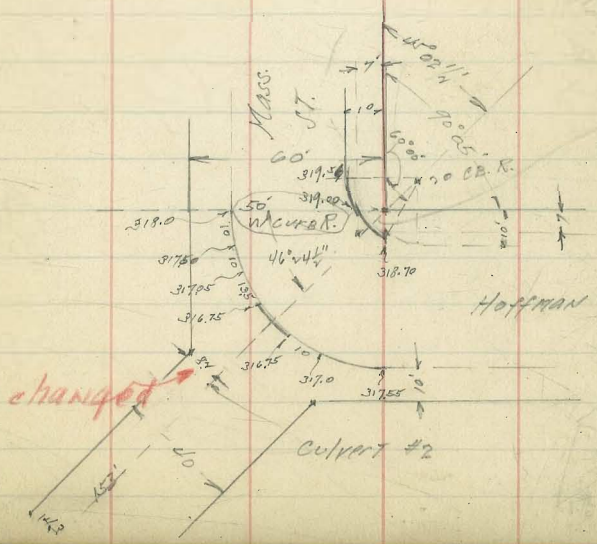
8

Culvert #2

	0+00	0+00	0+23	0+66.33	1+09.7	1+53
	Ft. Box		Brk			Outlet
	316.75 = ℄ Tobet	299.0	289.0	283.0	277.0	271.0
	5.97	11.8	9.4	15.4	21.4	16.4
	6.03	6.0	2.2	2.6	13.1	
	-14.00	+5.8	4.7	+8.8	+9.3	

295.85
0.09
297.94
2.20
285.74
2.20
288.94

299.0 — 288.0 — 284.0 — 280.0 — 276.0
2.80
9.9 — 13.9 — 17.9 — 17.9
1.8 — 6.0 — 1.2 — 1.2
+8.0 — 7.8 — +5.2 — +5.3



Alley Paving

Between Mass. & New Hamp - Madison South

0.3 DIP on ℄ alley

	WL	EL
S.L. Mad = 0+00	326.40	326.70
0+50	323.72	323.96
1	321.04	321.22
+50	318.36	318.48
2	315.68	315.74
+50 = South end alley	313.0	313.0

Sewer Construction on Mad. Ave at New Hampshire

	FL.
Upper Fl. at Ex. MH = 0+00	311.50
0+50	312.0
1+00 = D.E.	312.50

333.03 H.M. NE Madison & Mass.

1.79
334.82 π
12.85
321.97
2.01
323.98 π
7.86
316.12
7.29
323.41
1.85
321.56
321.3556 5' Pole
.01

W	326.40	323.72	321.04	318.36	315.68	313.0
	8.22	11.18	2.94	5.62	8.30	+0.78
	8.11	10.88	3.71	5.73	8.42	11.38
	+.38	+.22	+.23	+.19	-.12	-.40
E	326.70	323.96	321.22	318.48	315.74	313.0
	8.12	10.86	13.60	5.50	8.24	10.98
	7.72	9.33	12.44	4.82	7.64	10.79
	+.40	+1.53	+1.16	+0.68	+0.60	

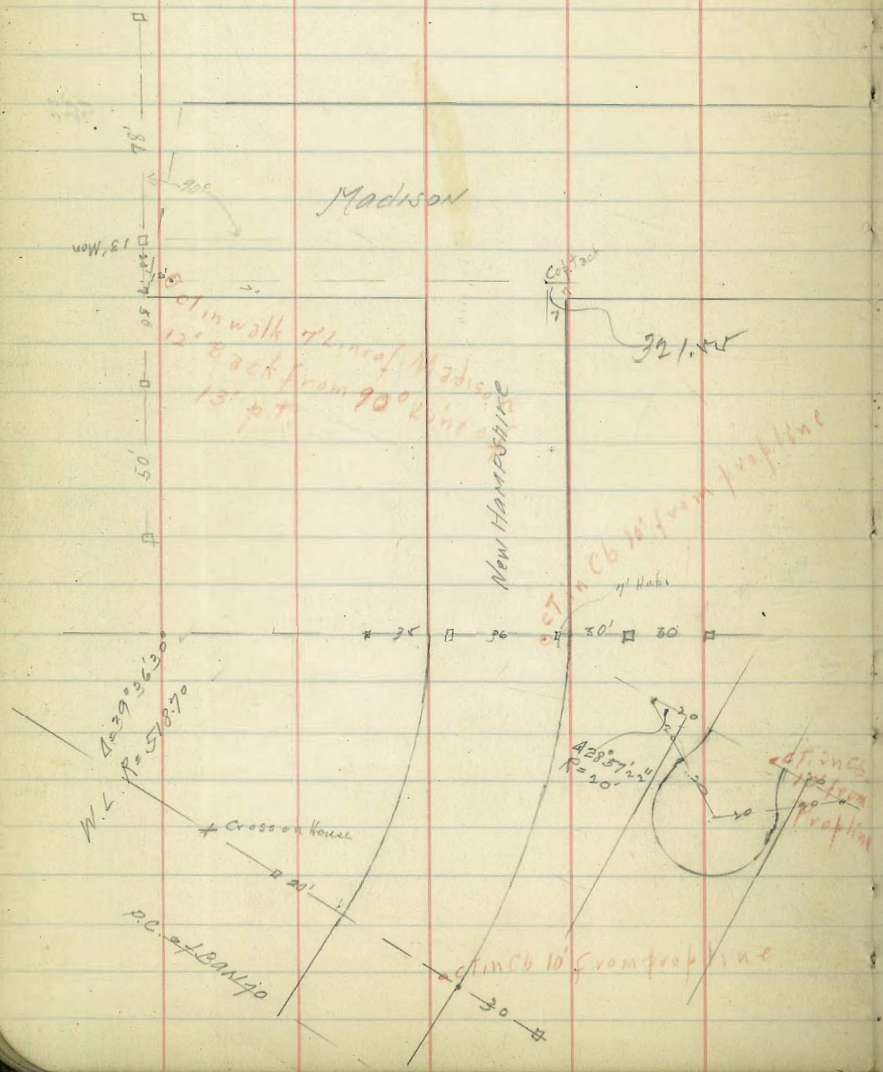
Northeastern

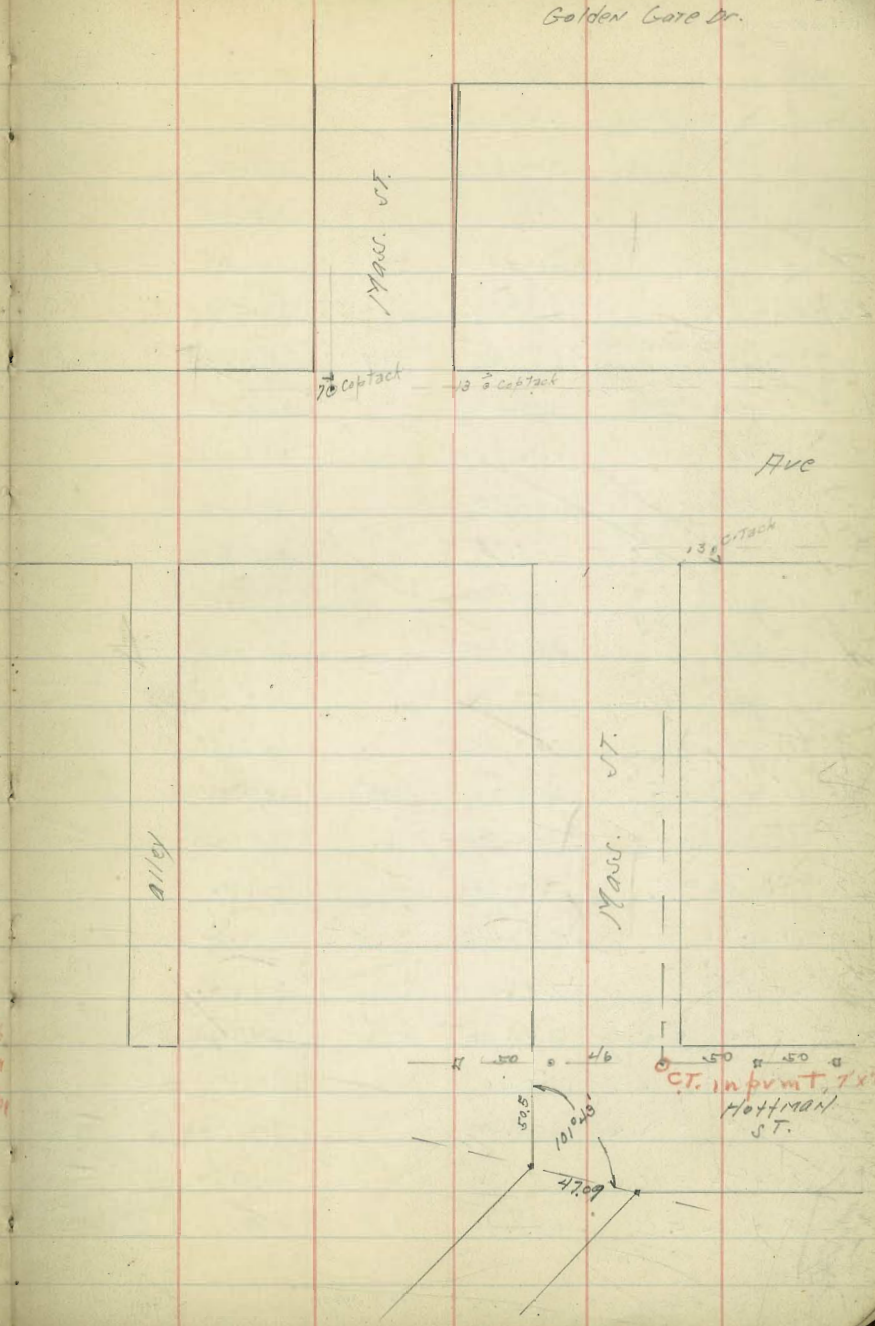
3.61
0.60
3.01
15.74
18.75
1.20
19.95
1.94
7.50
12.48

1.37
.12
4.25
13.69
19.95

19.95
13
6.95
6.96

Reference Points Madison Ave
New Hampshire + Mass. Ave.





0.5=ob. Face
0.3=crown

New Hampshire 57

		W c6		E c6	
SL Madison = 0+00		320.50		321.50	
0+50		317.55		318.55	
1 = BREAK,		314.60		315.60	
1+50		311.95		312.85	
2+00 = P.C.		309.30	✓	310.10	✓
① 0° 54' 13"	def=0°54'13" WL=16.35 EL=17.95	308.45	✓ 16.67	309.10	✓ 17.67
② 1° 48' 26" = P.V.C.		307.60	✓	308.10	✓
③ 2° 51' 40"	def=1°03'14" WL=19.10 EL=20.90	306.70	✓	307.20	✓
④ 3° 54' 54"		305.80	✓	306.30	✓
⑤ 4° 58' 08"		305.10	✓ 19.41	305.60	✓ 20.57
⑥ 6° 01' 22"		304.50		305.0	✓
⑦ 7° 04' 36"		304.10	✓	304.60	✓
⑧ 8° 07' 50" = E.V.C.		303.70	✓	304.20	✓
⑨ 9° 10' 25"	def=1°07'35" WL=18.02 EL=20.75	303.45	✓	303.87	✓
⑩ 10° 13' 00		303.20	✓ 18.75	303.55	✓ 20.34
⑪ 11° 15' 35"		302.95	✓	303.22	✓
⑫ 12° 18' 10" = P.V.C.		302.70	✓	302.90	✓
⑬ 13° 21' 24"	def=1°03'14" WL=19.10 EL=20.90	302.40	✓	302.60	✓
⑭ 14° 24' 38"		302.0	✓	302.20	✓
⑮ 15° 27' 52"		301.60	✓ *19.41	301.60	✓ 20.34
⑯ 16° 31' 06"		301.0	✓	301.0	✓
⑰ 17° 34' 20"		300.40	✓	300.40	✓
⑱ 18° 37' 34" = E.V.C.		299.70	✓	299.70	✓
19° 48' 15" = E.C.	def=1°10'41" WL=21.33 EL=23.38	298.90	21.74	298.90	22.99
5+58.57					

CON'T. NEXT PAGE

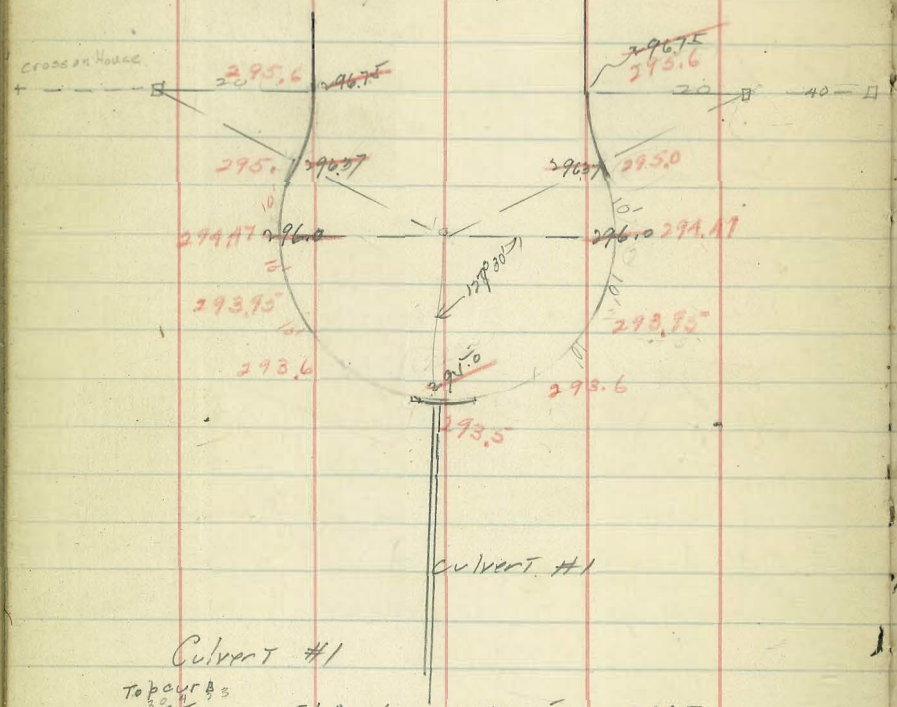
321.55 B.E.M. Feet Nov. 60 + 4 N.H.
1.84
323.47
12.99
310.47
2.07
312.54 W.
12.87
299.67 5' stake E.P.C.
299.67

W.	320.50	317.55	314.60	311.95	309.30
	3.7	3.86	8.81	11.96	3.2
	4.9	5.70	8.3	10.80	3.2
	-1.1	+.90	+.5	+.7	
	308.45	307.6	306.7	305.8	306.1
	4.1	4.9	5.8	6.7	7.4
	4.0	4.7	5.7	7.1	7.3
	+0.1	+0.2	+0.1	-0.4	-0.4
	304.5	4.1	3.7	3.95	3.2
	8.0	8.4	8.8	9.1	8.3
	7.5	8.3	8.4	8.9	8.5
	+0.5	+0.1	+0.4	-0.2	+0.3
	302.95	3.7	2.4	2.0	1.6
	9.6	9.8	10.1	10.5	10.7
	9.2	9.2	8.9	9.0	9.3
	+0.4	+0.6	+1.2	+1.5	+1.4
	301.0	300.4	299.7	298.9	
	11.9	12.1	12.8	13.6	
	9.8	10.6	11.3	12.1	
	+1.2	+1.5	+1.5	+1.5	

E.	321.50	318.55	315.60	312.55	310.10	309.10
			7.21	10.56	2.44	3.44
			7.78	6.5	0.8	2.0
				+2.0	+2.1	+1.4
	308.1	7.2	6.3	5.6	5.0	4.6
	7.44	8.34	8.99	6.9	7.5	7.7
	3.7	5.1	3.8	14.1	13.0	12.3
	+.7	+.2	-2.6	-7.2	-7.5	-6.7
	304.2	3.87	3.55	3.52	2.9	2.6
	8.34	8.67	9.0	9.32	9.6	9.7
	14.1	12.7	13.5	11.8	11.5	10.5
	-5.8	-4.1	-3.5	-2.5	-1.9	-0.6
	302.2	1.6	1.0	300.40	299.71	298.9
	10.3	10.9	11.2	12.1	12.8	13.6
	10.2	10.5	10.8	11.2	11.8	12.89
	+0.1	+0.4	+0.7	+0.9	+0.9	+0.7

New Hampshire

	W cb	E cb
6+14.57 = P.C. of Banjo	296.75	296.75
P.R.C.	296.37	296.37
opposite Cr. of Banjo	296.0	296.0
Top cb. E inlet		295.0



Culvert #1

Top cur.	FL Box.	0+32.5	0+65
295.0	304.28	291.3	291.3
9.23	289.5	289.7	288.0 = outlet
14.77	14.73	7.6	13.3
−1.77	10.27	5.0	13.1
	+3.46	+2.1	+1.2

304.08 N.E. Cor. Porch Pillar
15
304.23
12.92
291.31
0.03
291.34 W.
0.04
291.30
12.90
304.20
4.57
294.63
299.60 8.65
E

304.2
296.75
7.5
8.4
−0.7

304.2
296.37
8.2
8.6
−1.4

291.3
295.0
3.7
3.5
−6.7

304.2
296.23
7.5
4.3
+1.2

304.2
296.37
296.0

304.2
295.0
3.2
5.2
−1.0

304.08
0.20
304.28

W. 04.28
95.6
8.68
8.27
+0.4

04.28
4.28
3.0
11.3
15.45
−4.2

304.08
0.24
304.32

E 04.28
5.6
8.68
6.37
+2.3

04.28
3.0
11.3
8.30
+3.0

304.32
293.8
11.02

304.32
293.6
11.02

1st & Nutmeg

		W. Side Paving Grade	East Side
0+00 = 150' S. of St. Nutmeg		223.3	223.51
0+25	Brk	223.1	223.0
0+50	"	223.0	222.7 on grating
0+70		223.4	222.9
0+90		224.1	223.8
1+10		225.3	225.0
1+30		226.9	226.0
1+40		227.8	227.4
1+50 = St. Nutmeg.		228.4	228.2
1+50	Cb. grade West of ℄	228.9	
1+70 = 4 in. cb. on vies Tom		228.9	
1+90 = ℄ Nutmeg		228.96	
2+30 = N.L. Nutmeg		228.4	229.5 raised 17
2+80	Brk	229.5	230.3
3+30	"	229.8	230.8
3+80	"	229.2	230.3
4+30	End Job	227.0 = on grating	229.3

Culvert #1.

Tob grating = Pavt grade	227.0
Flow line Box	225.0
Flow Line outlet	218.5.

Culvert #2

Cb Grade	228.9
Grating	227.9

Flow Line to be determined by existing pipe

N.W. & Y Maple = W. Side

223.97
9.68
233.62

33.62	33.62	33.62	33.62	33.62	33.62	33.62	33.62
23.8	23.1	23.	23.4	24.1	25.3	26.4	27.8
10.82	10.52	10.62	10.22	9.52	8.32	6.72	5.72

33.62	33.62	33.62	33.62	33.62	33.62	33.62	33.62
25.9	25.9	28.94	28.90	29.5	29.8	29.2	27.0
4.72	4.72	4.66	5.22	4.12	3.82	4.42	6.62

E. Side

23.0	22.7	22.8	23.8	25.0	26.5	27.4	28.2	29.5
10.62	10.92	10.72	9.82	8.62	7.12	6.22	5.42	4.12

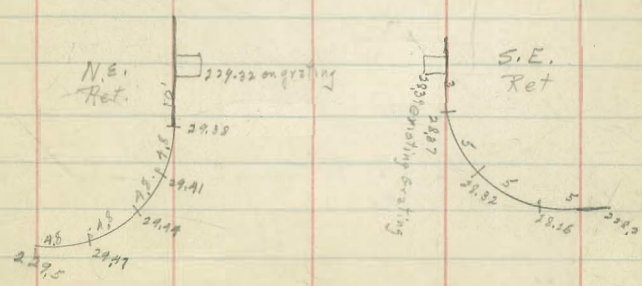
30.3	30.8	30.3	29.3
3.32	2.82	3.32	4.32

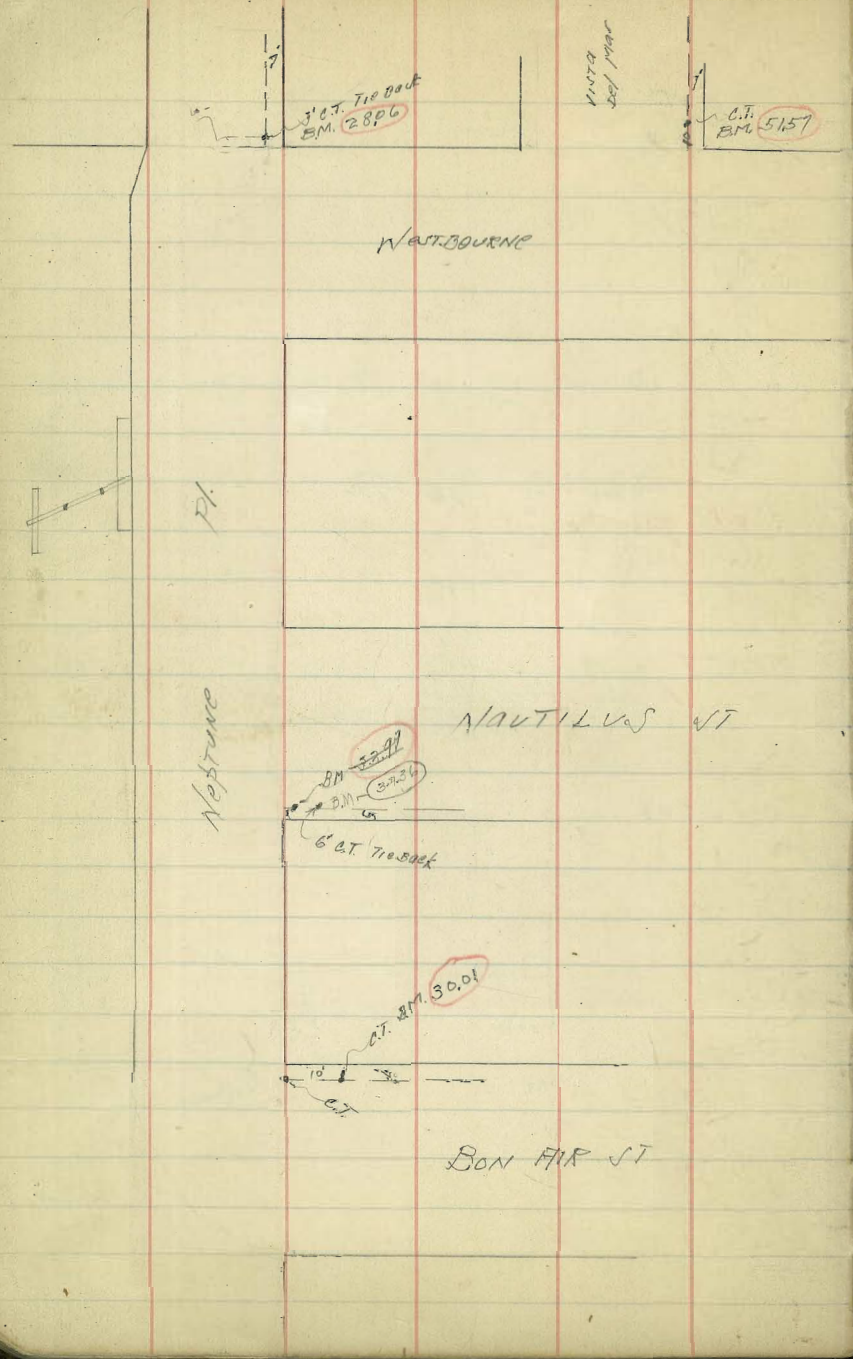
Culvert #1

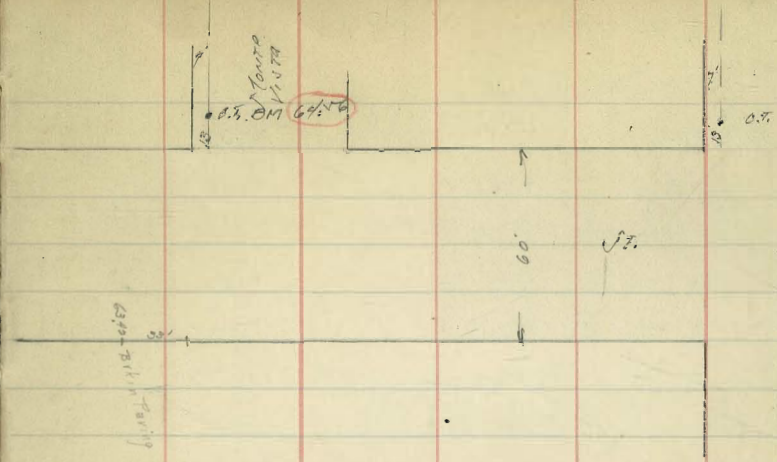
33.62	33.62	33.62
27.	25.	18.5
6.62	8.62	15.12
		13.96
		71.2

Culvert #2

33.62
27.9
5.72
5.22
4.50







WESTBOURNE & NEPTUNE R.P.s
Moore
3/14/29

Westbourne St Grades

		S'06	N'06
	W.L La Jolla Blvd=00	78.80	78.30
0		77.47	76.99
0		76.14	75.69
0		74.81	74.38
0		73.48	73.08
0	10 (J6)	72.15	71.77
0		70.82	70.47
0		69.49	69.16
0		68.16	67.86
0		66.83	66.55
10	4+60=E.L. Monte Vista	65.50	65.25
	5+10=W.L " "	64.0	64.50
1		63.75	63.35
2		62.50	62.00
3		61.25	60.75
4	10 (J6)	60.0	59.50
5		58.75	58.25
6		57.50	57.
7		56.25	55.75
8		55.	54.50
9		53.75	53.25
10	9+70=EL Vista Del Mar	52.50	52.0

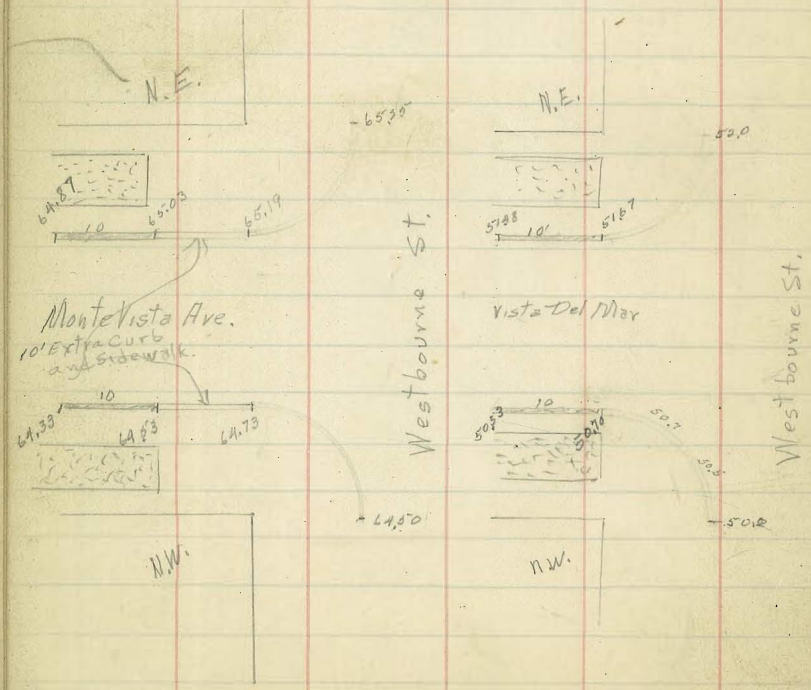
583.5 Westbourne & La Jolla Blvd

79.01
0.36
79.37
63.79
62.53
1.48
68.01
13.09
54.97
1.64
56.61

S.	78.8	77.5	76.1	74.8	73.5	73.2	70.9	69.5	68.2
	.5	1.8	3.2	4.5	5.8	7.1	9.5	9.8	11.1
	.3	1.7	3.3	5.0	5.9	6.9	8.2	9.3	10.5
	+.2	-.1	-.1	-.5	-.1	+.2	+.3	+.5	+.6
N.	78.3	77.0	75.7	74.4	73.1	71.8	70.5	69.2	67.9
	1.0	2.3	3.6	4.9	6.2	7.5	8.8	10.1	11.4
	0.9	2.0	3.6	5.0	6.3	7.8	9.3	10.9	11.7
	+.1	+.3	+.1	-.1	-.1	-0.3	-.5	-.3	-0.3
S.	66.8	65.5	65.0	63.8	62.5	61.3	60.0	58.8	57.5
	12.5	13.8	3.	7.2	5.5	6.7	8.0	9.2	10.5
	11.8	12.7	3.2	3.6	5.1	5.9	6.7	7.6	8.8
	+.7	+1.1	+0.8	+.6	+.4	+.8	+1.3	+1.6	+1.7
N.	66.6	65.3	64.5	63.3	62.0	60.8	59.5	58.3	57.0
	12.2	2.7	3.5	4.7	6.0	7.2	8.5	9.7	11.0
	12.7	2.4	3.0	3.9	5.9	6.1	7.5	8.2	9.2
	grade	+.3	+.5	+.8	+.6	+1.1	+1.0	+1.5	+1.8
S.	56.3	55.0	53.8	52.5					
	11.7	13.	14.2	15.5					
	9.7	10.3	11.8	13.0					
	+2.0	+2.7	+2.4	+2.5					
N.	55.8	54.6	53.3	52.0					
	12.2	13.5	14.7	4.6					
	11.0	12.6	13.1	14.0					
	+1.2	+1.9	+1.6	+.6					

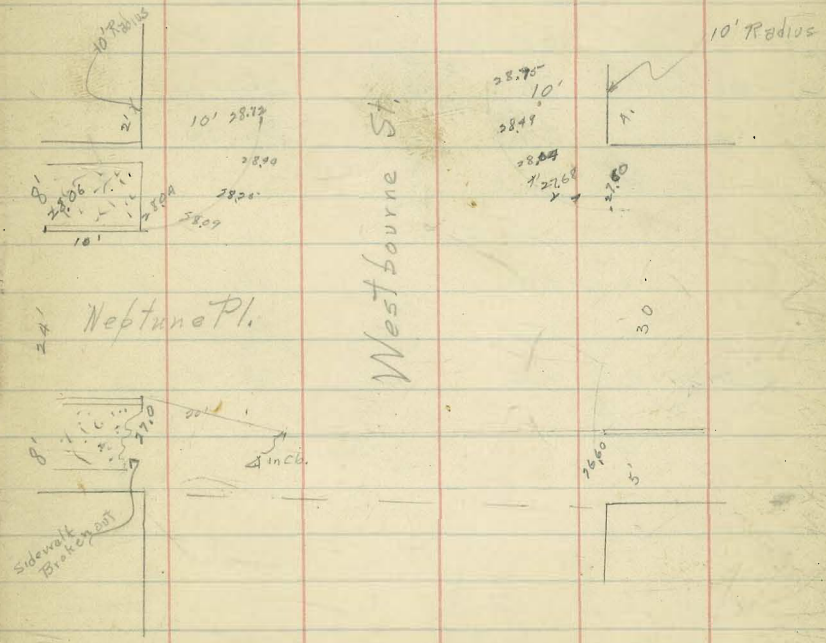
Westbourne St Grades

	Sob		Nob
W.L. Vista Del Mar	50.50		50.2
0+20	49.60		49.10
0+40	48.20		47.70
0+60	46.50		46.0
0+80 = EVC	45.38 = K × 2 / 44.40	Alley / W.L. Alley	44.0
	39.35		38.9
" 3 (44.33)	34.10	3 (46)	33.81
③ +16 PCSL. 2+18 = PCNL.	28.97		28.72



56.61 π
13.07
43.54
0.51
44.05 π
12.72
31.33
3.01
34.34 π

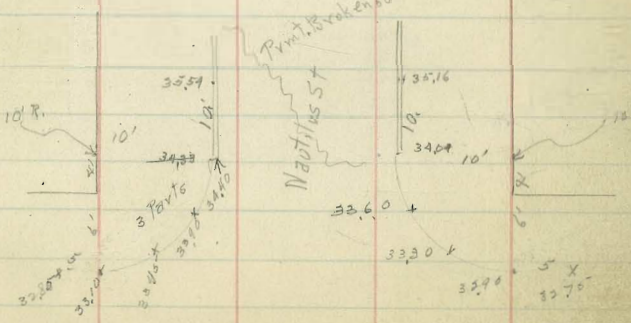
S.	50.5	49.6	48.7	46.5	44.4	39.3	34.1	28.95
	6.1	7.0	8.4	10.1	12.2	4.7	9.9	15.1
	3.9	4.4	5.7	7.4	9.8	3.0	9.0	11.8
	+2.7	+2.6	+2.7	+2.5	+2.4	+1.7	+.9	+3.3
N.	50.0	49.1	47.7	44.0	44.0	38.9	33.8	28.72
	6.6	7.6	8.9	10.6	12.6	5.1	10.2	5.6
	5.8	4.9	3.0	9.8	11.8	4.8	10.2	3.6
	+.8	+3.7	+6.9	+.8	+.8	+.3	grade	+2.0



Neptune Pl.

	WC6	EC6
NL Westbourne	27.0	28.04
SL " =00=E.C.	26.60	27.60
0+60 = PVC	26.40	27.10
0+80	26.40	27.0
1+00	26.50	27.10
1+20	26.70	27.30
1+40	27.0	27.60
1+60	27.60	28.10
1+80 = EVC	28.30	28.80
2+00	29.65	30.15
2+80 = NL Nautilus	37.0	37.50
	37.20 = WL	
00 = SL "	37.0	37.50
1	31.2	31.7
N	30.4	30.9
3	29.6	30.1
4	28.8	29.3
⊕ = NL Bon Air	28.0	28.50

Grades changed See next Page



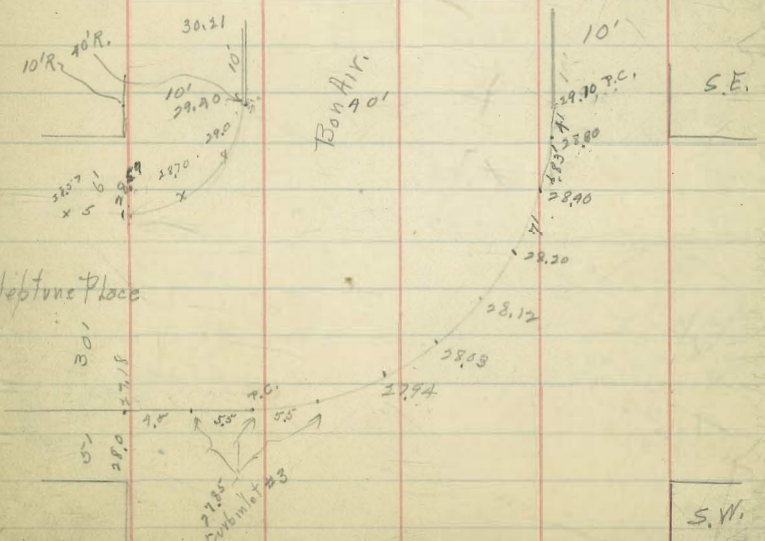
Neptune Place

34.34 T
0.25
33.89
7.63
41.52 T
7.53
33.99 B.M. S.E. in outlet of Neptune
4.13
38.12 T
12.41
25.71
2.48
33.19
3.28
30.01 B.M. 10' R. Bon Air

W.	27.0	27.6	27.4	27.4	26.5	26.7	27.0	27.6	28.5	29.7
	7.3	7.7	7.9	7.7	7.8	7.6	7.3	6.7	6.0	7.6
	2.5	7.8	5.7	12.0	15.4	12.5	5.1	4.7	4.5	7.2
	+1.7	-1.1	+2.2	-4.1	-7.6	-4.9	+2.2	+2.0	+1.5	-2.6
E.	28.04	27.6	27.1	27.0	27.1	27.3	27.6	28.1	28.8	30.2
		6.8	7.2	7.3	7.7	7.0	6.7	7.4	12.7	11.3
		2.0	1.7	1.5	1.1	0.4	0.5	7.3	7.2	7.2
		+4.6	+5.3	+5.8	+6.1	+6.6	+6.2	+6.1	+5.5	+4.1

C.Basin

W.	32.0	32.0	31.2	30.4	29.6	28.8	28.0	27.9	28.0	28.1
	7.3	6.1	6.9	7.7	8.5	9.3	10.1	10.2	10.1	5.1
	10.1	7.9	7.7	6.9	7.2	10.0	10.7	11.3	11.7	11.1
	-2.8	-1.8	-0.8	+0.8	+1.3	-.7	-.6	+1.0	-1.6	-6.0
E.	32.5	32.5	31.7	30.9	30.1	29.3	28.5			
	9.0	5.6	2.4	7.2	8.0	8.8	9.6			
	6.7	3.6	2.8	1.5	0.9	7.4	8.2			
	+2.3	+2.0	+3.6	+5.7	+7.1	+1.4	+1.4			
W.	28.2	28.4	28.8							
	5.0	4.8	4.4							
	11.4	10.7	10.5							
	-6.4	-5.9	-6.1							



Neptune Pl Westbourne to Bon Air

	W. cb.		E Cb.
N.L. + 20	26.87	5.42	
S.L.	26.70	5.59	27.90
0+60 = P.V.C.	26.30	6.39	27.05
0+80	26.28	6.41	26.90
1+00	26.41	6.28	27.01
1+20	26.69	6.00	27.35
1+40	27.13	5.56	27.69
1+60	27.72	4.97	28.22
1+80 = E.V.C.	28.46	4.23	28.96
2+40 = P.V.C.	30.90	1.79 2+30	30.90
2+60	31.70	0.95 2+75	32.85
2+80 N.L. Nautilus	32.20	0.49 2+80	33.10 = P.C. N.L. Naut
+20	32.40		
+40	32.40		
+60 = E.V.C. S.L. Nautilus	32.30		
East S.L. Nautilus			32.90
0+05			32.75
0+55	31.44		31.97
1+10	30.58		31.10
1+65	29.72		30.23
2+20	28.86		29.36
2+75 = N.L. Bon Air	28.00		28.50

33.91 C.T. Nautilus
6.56 ↓ Nautilus
10.47
33.41
2.58
34.09

7a

	40.07	27.90	26.90	27.01	27.35	27.69	28.22	28.96	30.90	32.85	33.10
E.	27.60	13.4	18.6	18.5	13.3	12.8	12.2	11.5	9.6	7.6	7.4
	13.9	8.1	8.2	7.8	6.9	5.8	6.8	6.7	6.6	5.8	5.7
	9.2	+5.3	+5.1	+5.9	+6.3	+6.2	+5.8	+5.3	+3.4	+1.8	+1.7
	5.7										

W.	36.3	26.28	26.41	26.69	27.13	27.72	28.46	30.90	31.70	32.20	32.40	32.40
	9.8	9.81	9.68	9.4	9.0	8.4	7.6	5.2	4.4	3.9	3.7	3.7
	7.6	9.67	10.20	10.5	7.3	6.8	6.3	7.7	5.3	6.7	5.6	5.0
	+2.2	+1.14	-0.5	-1.1	+1.7	+1.6	+1.3	-2.0	-0.9	-2.8	-1.9	-1.3

E	32.8	32.20	1.97	1.1	30.23	29.36	28.5
	7.6	7.7	8.5	9.4	10.2	11.1	
	6.0	5.6	5.2	3.9	3.3	2.3	
	+1.6	+2.1	+3.3	+5.5	+6.9	+1.3	

W.	32.30	31.44	30.58	29.72	28.86	28.00
	3.8	4.7	5.5	6.9	7.2	8.1
	6.0	5.8	5.0	5.3	8.0	8.7
	-2.2	-1.1	+0.5	+1.1	-.8	-.6

32.85
28.96
3.89
1.97
1.90
30.95

35.91
1.7
5.8
30.1
1.7
28.4

SL 1.6

Culvert #1 39.91 π

Curb Inlet #1 Top cb = 27.0
12.91
7.46
+5.45

FL pipe " " 21.5
18.41
7.46
+10.94

32.01 π

Curb Inlet #2 cb = 26.50
6.17
10.08
-3.97

F.L. Box. 14.50
18.17
10.08
+8.09

27.61
10.08
+2.56 = T.P.
2.42 π
25.50
11.62
13.88
13.97
15.35

Sea Wall.

		S. End	N. End	
Top of Wall Elev.	9.0	25.0 9.0 16.0 11.63 +4.37	25.0 9.0 16.0 11.25 +4.75	25.0 3.5 21.5 11.25 +9.25
Flow Line of Pipe Through Wall	3.5			

End Wall

Top of Wall Elev.	5.0	10.38 5.00 10.38 8.92 +1.46	15.38 3.0 12.38 9.92 +2.46
Flow Line of Pipe	3.0		

30.01 10' Tie Rod Air
5.37
30.68

Culvert #3

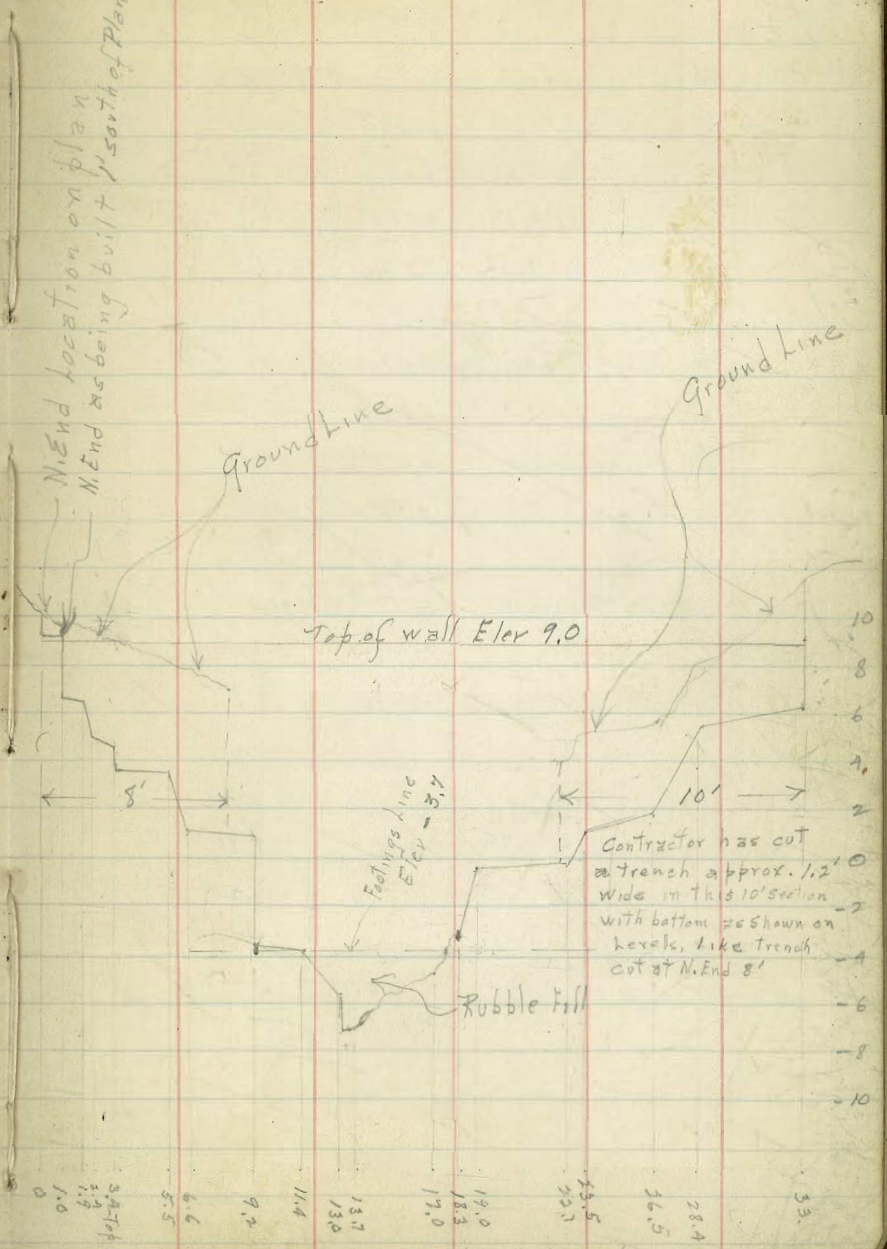
curb inlet #3 Top CB	27.85	grade	
" " " Flowline pipe	23.85	+4.0	30.68 17. 13.68 11.37 +2.3
Culvert #3 " " pipe outlet	17.0		

Notes for Extras on Sea Wall
Neptune Pl. S. of Westbourne

13.90
9
4.9

9.
1.95
13.75 N. End Cut stake.
1.75
13.90 7. 5.27
12.28
6.37

N. End Bottom of Cut.	4.42	9.48
	4.66	9.24
+ 1.0	7.60	6.30
	7.79	
+ 1.9		6.11
+ 2.4	8.99	4.91
+ 3.4	9.08	4.82
+ 3.6	10.21	3.69
+ 5.5	10.27	3.63
+ 6.6	12.54	1.36
+ 9.2	12.83	1.07
	8.77	-3.55
+ 11.4	8.87	-3.65
+ 13.0	10.65	-5.43
13.1	12.20	-6.98
13.7	11.86	-6.64
17.0	9.80	-4.58
18.3	8.39	-3.17
19.0	5.93	-0.71
22.7		-0.33
23.5	B. 5.55 / T. 12.80	1.10
26.5	12.13	1.77
28.4	8.4	5.50
33 = SE Bottom	7.72	6.18
Bottom end wall	13.45	-8.23

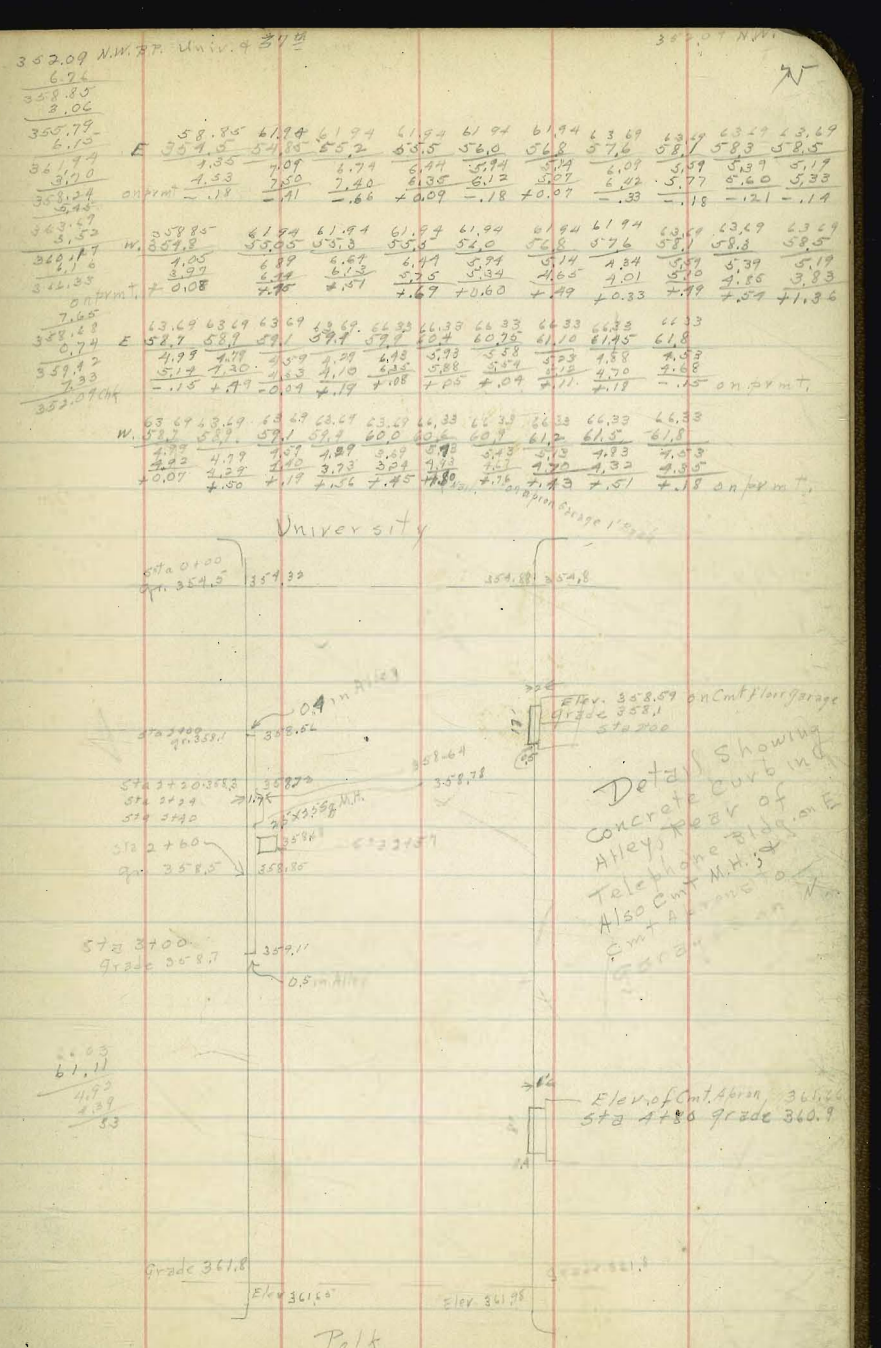


Paving Alley 36 City Blks. 20' Wide
Univ. to Polk Between 37th & Cherokee

Flood Pierce & Calgahoun 5/10/39

		E. line	Waterline	W. line
0+00	= N.L. Univ.	354.5	351.5	354.8
+10		354.85	351.85	355.05
+80	= Brk R.V.C.	355.2	352.2	355.3
1+00		355.5	352.5	355.5
+20	= Brk E.V.C.	356.0	353.	356.0
+50		356.8	353.8	356.8
+80	= Brk R.V.C.	357.6	354.6	357.6
2+00		358.1	355.1	358.1
2+20	= Brk E.V.C.	358.3	355.3	358.3
+60		358.5	355.5	358.5
3+00		358.7	355.7	358.7
+40	= Brk R.V.C.	358.9 set 5' in Alley Bldg. in Alley	355.9	358.9
+60		359.1	356.1	359.1
+80	= Brk E.V.C.	359.4	356.4	359.4
4+10		359.9	356.9	360.0
4+40	= Brk	360.4 X out		360.64 out
+60	= Brk	360.8	357.8	361.0
+80		360.94	357.9	361.11
5+20		361.23	358.4	361.34
+60		361.55	358.5	361.57
6+00	= S.L. Polk R.V.C.	361.8	358.8	361.8

S.L. #2 10' No. of Univ. on W. 4"
S.L. #3 1' So. N.L. Univ. on W. 6"
W.S. 15' S. of N.L. Univ. on W.



Detail Showing Concrete Curb in Alley Rear of Telephone Bldg. on E. Also Cmt. M.H. & Cmt. Apron to Cmt. Floor Garage

Kalmia St. India to Kettner

Wolson, Contractor

Moore & Fred Pierce Contractors 3/1/19

		N. Gut.	S. Gut.
W.L. India = 0+00		41.7 41.4	42.02
0+25	Brk	39.9	40.0
1+50	Brk	38.1	
1+75	Brk	31.9	
2+00 = F.L. Kettner		30.5 30.40	30.8 30.76

B.M. SW. B.P. Juniper & India

Kettner 29.02

16.87
2.30
19.17
7.04
12.13
1.34
13.47
.8.46
35.32
2.01
37.33

40.0
3.37

3.37
1.9
1.97

3.37
9.4
3.97

43.37
2.75
40.62

2.37
8.4
4.97

43.37
11.68
11.69

3.37
39.42

43.37
2.75
9.11

7.33
6.93
34.40

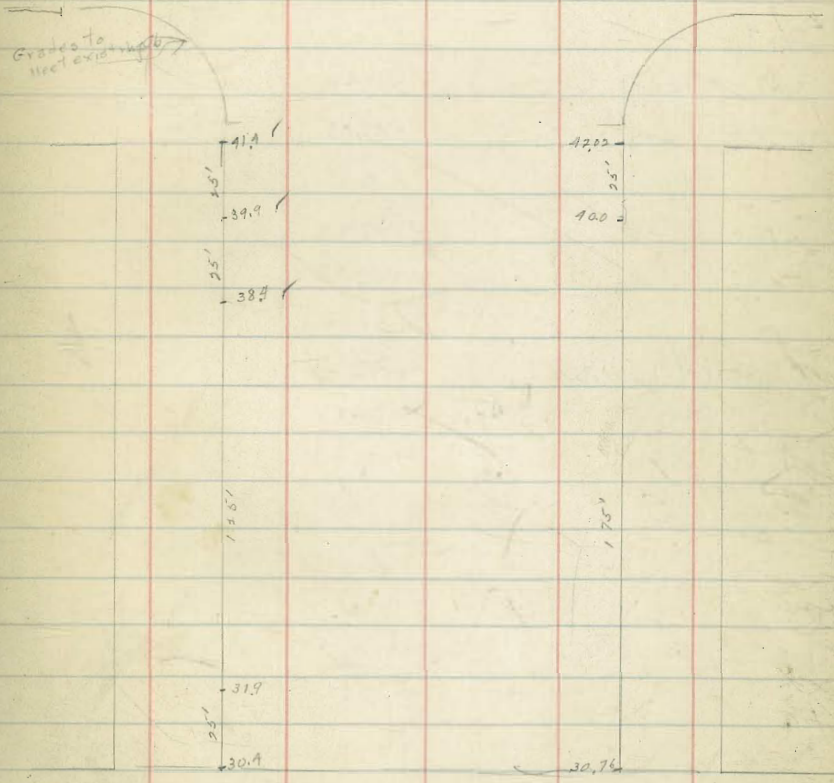
7.38
1.9
5.48

7.33
1.5
5.83

7.33
0.5
4.83

7.33
0.8
6.53

Grade to street exist



2/1/29 Alley 19 N.H.
Sewer Construction

Moore Billie Harper

PE = 00	310.00	313.08
		3.08
		316.16
		12.13
0 + 47	308.00	304.03
		0.75
		304.78
		12.05
0 + 97	306.00	292.73
		0.62
1 + 47	304.0	293.15
		8.97
1 + 97	302.00	284.18
		0.28
2 + 47	300.0	284.56
2 + 97 = MH 00	298.0	
0 + 50	294.33	
1	290.67	
+ 50	287.0	
2	283.33	
+ 50	279.67	
3 = MH & Lincoln	276.00	

310.00	308.0	306.0	304.0	302.0	300.0
6.16	8.16	10.16	12.16	14.16	16.16
3.30	2.0	4.76	7.36	8.16	10.12
2.86	+ 4.1	5.40	+ 4.80	+ 6.00	+ 6.04
298.0	298.00	294.33	290.67	287.0	283.33
1.16	6.78	10.45	14.88	16.15	9.82
1.29	4.38	3.95	9.41	1.65	5.8
+ 4.9	+ 2.40	2.50	+ 4.7	+ 4.5	+ 4.02

279.67	276.0
13.48	17.15
7.65	8.40
+ 5.8	+ 8.75

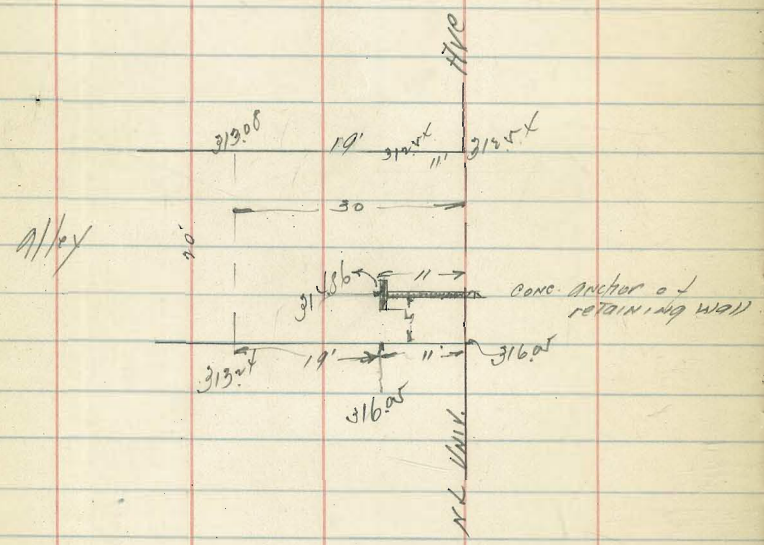
Alley 1st U.H.

Change of grade on acct. of anchor on Univ. Ave retaining wall.

30' N of NL Univ Ave

W — 313.24 / 5.70 — West side 2" higher

E — 313.08 / 5.86 — nail in house 0.00



53 6.41 / 5.05

341.46
12.73
328.73
0.71
329.44
13.10
316.34
2.00
318.94

SW Univ & Georgia St

W

314.00
4.94
4.89
+ 5.05

E

313.80 = NL Univ
6.14
6.40
−0.26 staked marked − 0.45

313.00
5.94
0.04
+ 5.9

314.80
6.14 = 40' N of NL Univ
9.10
−3.96 marked − 3.0

Staked marked + 6.0

4.05 / 314.86 = elev Top of anchor

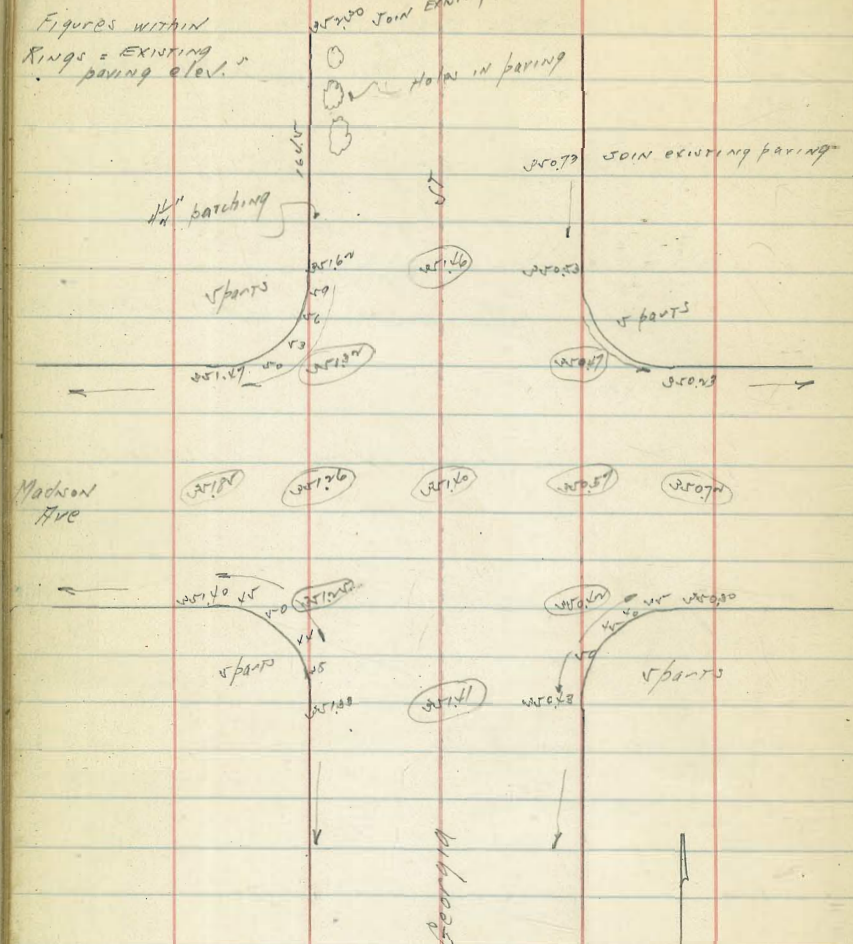
4.89 / 316.05 = elev sidework on West on NL Univ. Ave

6.40 / 314.54 = elev. sidewalk on East on NL Univ.

Repaving of intersection of Madison + Georgia

NOTE.

Figures within Rings = Existing paving elev.

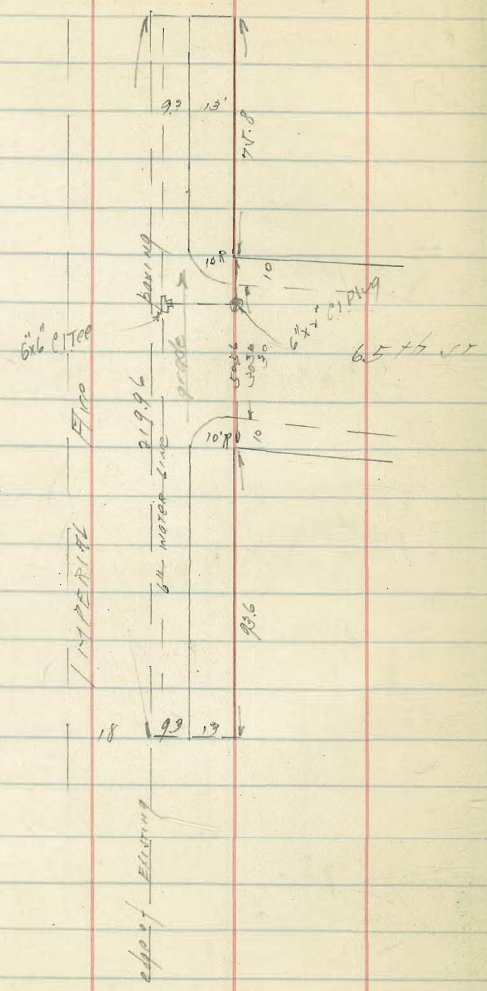


Oliver Moore

80

IMPERIAL AVE at 65th ST
Private Cont. Paving

6/14/08 B.E. Hazzard



IMPROVED TABLES

AND

INFORMATION

Table II—Continued

TRIGONOMETRIC FORMULAE (continued)

In any triangle:

Given a, b, C; to find c, B, A.

Use Law of Tangents.

Given A. B. c; to find a, b, C.

Use Law of Sines.

Given a, b, c; to find A, B, C.

$$\text{Let } \frac{a+b+c}{2} = s, \sqrt{\frac{(s-a)\ (s-b)\ (s-c)}{s}} = r$$

$$\cos \tfrac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$$

$$\tan \tfrac{1}{2} A = \frac{r}{s-a}$$

$$\tan \tfrac{1}{2} B = \frac{r}{s-b}$$

$$\tan \tfrac{1}{2} C = \frac{r}{s-c}$$

Area of a triangle:

Area $= \frac{1}{2}$ ab Sin C

$$\text{Area} = \sqrt{s\,(s-a)\ (s-b)\ (s-c)}$$

PRISMOIDAL FORMULA.

$$\text{Vol.} = \frac{h}{6}\,(B+b+4M)$$

h = altitude; b, B = bases; M = midsection

Table III

INCHES AND FRACTIONS OF AN INCH IN DECIMALS OF A FOOT

	0	1	2	3	4	5	6	7	8	9	10	11	
1/16	.0052	.0885	.1719	.2552	.3385	.4219	.5052	.5885	.6719	.7552	.8385	.9219	1/16
1/8	.0104	.0938	.1771	.2604	.3438	.4271	.5104	.5938	.6771	.7604	.8438	.9271	1/8
3/16	.0156	.0990	.1823	.2656	.3490	.4323	.5156	.5990	.6823	.7656	.8490	.9323	3/16
1/4	.0208	.1042	.1875	.2708	.3542	.4375	.5208	.6042	.6875	.7708	.8542	.9375	1/4
5/16	.0260	.1094	.1927	.2760	.3594	.4427	.5260	.6094	.6927	.7760	.8594	.9427	5/16
3/8	.0313	.1146	.1979	.2813	.3646	.4479	.5313	.6146	.6979	.7813	.8646	.9479	3/8
7/16	.0365	.1198	.2031	.2865	.3698	.4531	.5365	.6198	.7031	.7865	.8698	.9531	7/16
1/2	.0417	.1250	.2083	.2917	.3750	.4583	.5417	.6250	.7083	.7917	.8750	.9583	1/2
9/16	.0469	.1302	.2135	.2969	.3803	.4635	.5469	.6302	.7135	.7969	.8802	.9635	9/16
5/8	.0521	.1354	.2188	.3021	.3854	.4688	.5521	.6354	.7188	.8021	.8854	9688	5/8
11/16	.0573	.1406	.2240	.3073	.3906	.4740	.5573	.6406	.7240	.8073	.8906	.9740	11/16
3/4	.0625	.1458	.2292	.3125	.3958	.4792	.5625	.6458	.7292	.8125	.8958	.9792	3/4
13/16	.0677	.1510	.2344	.3177	.4010	.4844	.5677	.6510	.7344	.8177	.9010	.9844	13/16
7/8	.0729	.1563	.2396	.3229	4063	.4896	.5729	.6563	.7396	.8229	.9063	.9896	7/8
15/16	.0781	.1615	.2448	.3281	.4115	4948	.5781	.6615	.7448	.8281	.9115	.9948	15/16
1	.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167	1.000	1
	0	1	2	3	4	5	6	7	8	9	10	11	

Table IV

USEFUL RELATIONS.

Lineal feet	×.00019	= miles
Lineal yards	×.0006	= miles
Square inches	×.007	= square feet
Square feet	×.111	= square yards
Square yards	×.0002067	= acres
Acres	×4840	= square yards
Cubic inches	×.00058	= cubic feet
Cubic feet	×.03704	= cubic yards
Links	×.22	= yards
Links	×.66	= feet
Feet	×1.5	= links

$360° = 21600' = 1296000''$

Radius = arc of 57.2957790°

Arc of 1° (radius = 1) = .017453292

Arc of 1′ (radius = 1) = .000290888

Arc of 1″ (radius = 1) = .000004848

$\pi = 3.141592654$ $\qquad \sqrt{\frac{1}{4}} = 0.564190$

$\frac{\pi}{4} = 0.785398163$ $\qquad \sqrt[3]{\frac{6}{\pi}} = 1.240700982$

$\frac{\pi}{6} = 0.523598776$ $\qquad \pi^2 = 9.869604401$

$\sqrt{\frac{4}{\pi}} = 1.128379167$ $\qquad \frac{1}{\pi^2} = 0.101321184$

$\frac{\pi}{6} = 0.523598776$ $\qquad \sqrt{\pi} = 1.772453851$

$\frac{4.\pi}{3} = 4.188790205$ $\qquad \frac{1}{\pi} = 0.3183099$

Curvature of Earth's surface = about 0.7 feet in 1 mile

Curvature in feet = 0.667 (Dist. in miles)²

Difference between arc and chord length, 0.05 feet in 11½ miles

$$\text{Probable error of a single observation} = 0.6754\sqrt{\frac{\Sigma v^2}{n-1}}$$

Error in chaining of 0.01 feet in 100 feet:

Due to—

1. Length of tape error of 0.01 feet
2. Alignment. One end 1.4 feet out of line
3. Sag of tape at centre of 0.61 feet.
4. Temperature difference of 15°
5. Difference of pull of 15 lbs.

STADIA REDUCTION FORMULÆ.

Horizontal Distance = R — R sin² a+C cos a

Vertical Distance = R ½ sin 2 a+C sin a

$$R = \text{Reading} \times \frac{\text{distance from Object glass to cross hairs}}{\text{distance between cross hairs}}$$

C = distance from Object glass to cross hairs + distance from Object glass to center of instrument.

a = angle of elevation for mid Reading

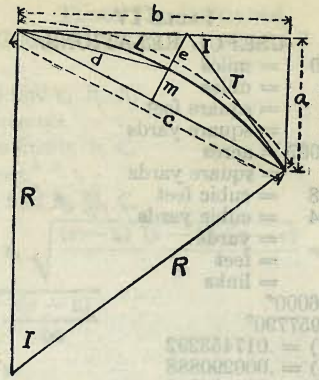


Table V

CURVE FORMULAE FOR SIMPLE CURVES

Compiled by J. Calvin Locke, C.E.

(1) $c = \sqrt{2Ra}$ (2) $c = \sqrt{a^2+b^2}$

(3) $c = \sqrt{2R\,(R - \sqrt{(R+b)\,(R-b)}} = \sqrt{2R(R - \sqrt{R^2-b^2})}$

(4) $c = 2\sqrt{m\,(2R-m)}$

(5) $c = 2R \sin \frac{1}{2} I$ (6) $c = 2T \cos \frac{1}{2} I$

(7) $e = R \operatorname{exsec} \frac{1}{2} I$

(8) $e = R \tan \frac{1}{2} I \tan \frac{1}{4} I$ (9) $e = T \tan \frac{1}{4} I$

(10) $b = \sqrt{a\,(2R-a)}$

(11) $b = \sqrt{\left(c+\frac{c^2}{2R}\right)\left(c-\frac{c^2}{2R}\right)} = \sqrt{c^2-\frac{c^4}{4R^2}}$

(12) $b = R \sin I$ (13) $b = a \cot \frac{1}{2} I$

(14) $R = \frac{a^2+b^2}{2a} = \frac{c^2}{2a}$ (15) $R = \frac{d^2}{2m} = \frac{c^2+4m^2}{8m}$

(16) $d = \sqrt{R\,(2R - \sqrt{(2R+c)\,(2R-c)}} = \sqrt{R(2R - \sqrt{4R^2-c^2})}$

(17) $d = \sqrt{2Rm}$ (18) $d = 2R \sin \frac{1}{4} I$ (19) $m = \frac{d^2}{2R}$

(20) $m = R \mp \sqrt{\left(R+\frac{c}{2}\right)\left(R-\frac{c}{2}\right)} = R \mp \sqrt{R^2-\frac{c^2}{4}}$

(21) $m = R \operatorname{vers} \frac{1}{2} I$ (22) $m = R \sin \frac{1}{2} I \tan \frac{1}{4} I$ (23) $m = \frac{1}{2} c \tan \frac{1}{4} I$

(24) $a = \frac{c^2}{2R}$ (25) $a = R - \sqrt{(R+b)\,(R-b)} = R - \sqrt{R^2-b^2}$

(26) $a = 2\,R\,(\sin^2 \frac{1}{2} I)^2$ (27) $a = R \operatorname{vers} I$ (28) $a = R \sin I \tan \frac{1}{2}$

(29) $a = b \tan \frac{1}{2} I$ (30) $a = T \sin I$ (31) $T = R \tan \frac{1}{2} I$

(32) $I = \frac{L}{R} \times 57.295780$ (33) $R = \frac{L}{I} \times 57.295780$

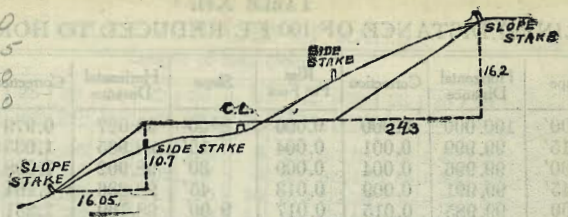
(34) $L = IR \times 0.01745329$ (35) $L = \frac{8d-c}{3}$

(36) Area Seg. $= \frac{LR - R^2 \operatorname{Sin} I}{2} = \frac{LR - Rb}{2}$

Table VI

SINES, COSINES, TANGENTS. COTANGENTS

deg.	sin 0′	tan 0′	sin 10′	tan 10′	sin 20′	tan 20′	sin 30′	tan 30′	sin 40′	tan 40′	sin 50′	tan 50′	deg.
0	0000	0000	0029	0029	0058	0058	0087	0087	0116	0116	0145	0145	89
1	175	0375	0204	0204	0233	0233	0262	262	291	291	320	320	88
2	349	349	378	378	407	407	436	437	465	466	494	495	87
3	523	524	552	553	581	582	610	612	640	641	669	706	86
4	698	699	727	729	756	758	785	787	814	816	843	864	85
5	872	875	901	904	929	934	958	963	987	992	1016	1022	84
6	1045	1051	1074	1080	1103	1110	1132	1139	1161	1169	190	198	83
7	219	228	248	257	279	287	305	317	334	346	363	376	82
8	392	405	421	435	449	465	478	495	507	524	536	554	81
9	564	584	593	614	622	644	650	673	679	703	708	733	80
10	736	763	765	793	794	823	822	853	851	883	880	914	79
11	908	944	937	974	965	2004	994	2035	2022	2065	2051	2095	78
12	2079	2126	2108	2156	2136	186	2164	217	193	247	221	278	77
13	250	309	278	339	306	370	334	401	363	432	391	462	76
14	419	493	447	524	476	555	504	586	532	617	560	648	75
15	588	679	616	711	644	742	672	773	700	805	728	836	74
16	756	867	784	899	812	931	840	962	868	994	896	3026	73
17	924	3057	952	3089	939	3121	3007	3153	3035	3185	3062	217	72
18	3090	249	3118	281	3145	314	173	346	201	378	228	411	71
19	256	443	283	476	311	508	338	541	365	574	393	607	70
20	420	640	448	673	475	706	502	739	529	772	557	805	69
21	584	839	611	872	638	906	665	939	692	973	719	4006	68
22	746	4040	773	4074	800	4108	827	4142	854	4176	881	210	67
23	907	245	934	279	961	314	987	348	4014	383	4041	417	66
24	4067	452	4094	487	4120	522	4147	557	173	592	200	628	65
25	226	663	253	699	279	734	305	770	331	806	358	841	64
26	384	877	410	913	436	950	4462	986	488	5022	514	5059	63
27	540	5095	566	5132	592	5169	617	5206	643	243	669	280	62
28	695	317	720	354	746	392	772	430	797	467	823	505	61
29	848	543	874	581	899	619	924	658	950	696	975	735	60
30	5000	774	5025	5812	5050	851	5075	890	5100	930	5125	969	59
31	150	6009	175	6048	200	6088	225	6128	250	6168	275	6208	58
32	299	249	324	289	348	330	5373	371	398	412	422	453	57
33	446	494	471	536	495	577	519	619	544	661	568	703	56
34	592	745	616	787	640	830	664	873	688	916	712	959	55
35	736	7002	760	7046	783	7089	807	7133	831	7177	854	7221	54
36	878	265	901	310	925	355	948	400	972	445	995	490	53
37	6018	536	6041	581	6065	627	6088	673	6111	720	6134	766	52
38	157	813	180	860	202	907	225	954	248	8002	271	8050	51
39	293	8098	316	8146	338	8195	361	8243	383	292	406	342	50
40	428	391	450	441	472	491	494	541	517	591	539	642	49
41	561	693	583	744	604	796	626	847	648	899	670	952	48
42	691	9004	713	9057	734	9110	756	9163	777	9217	799	9271	47
43	820	325	841	380	862	435	884	490	905	545	926	601	46
44	947	657	967	713	988	770	7009	827	7030	884	7050	942	45
45	7071	1.0000	7092	1.0058	7112	1.0117	133	1.0176	153	1.0235	173	1.0295	44
deg.	60′ cos	60′ cot	50′ cos	50′ cot	40′ cos	40′ cot	30′ cos	30′ cot	20′ cos	20′ cot	10′ cos	10′ cot	deg.

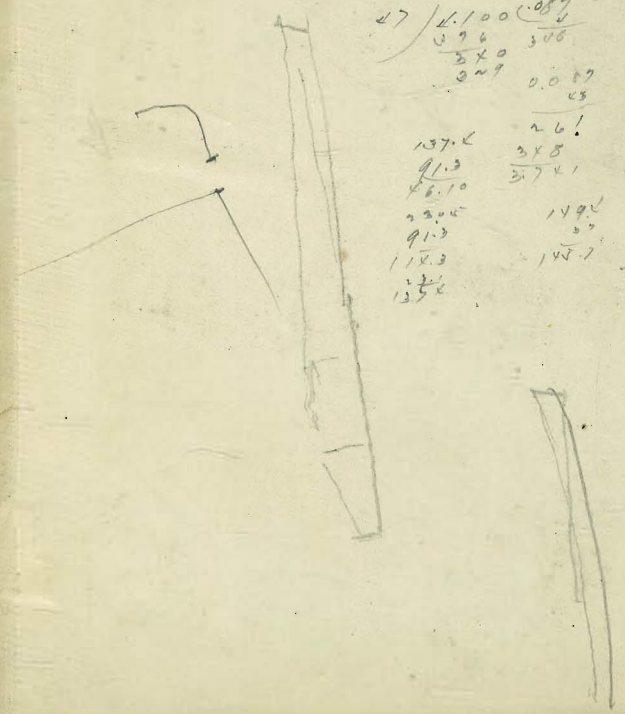


DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.25	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

Computed by L. Leland Locke.

365

Balboa Const. Co.
have destroyed
All Loring + Lamont
" Cass + Grand
R.P. in Cure Loring + Lamont