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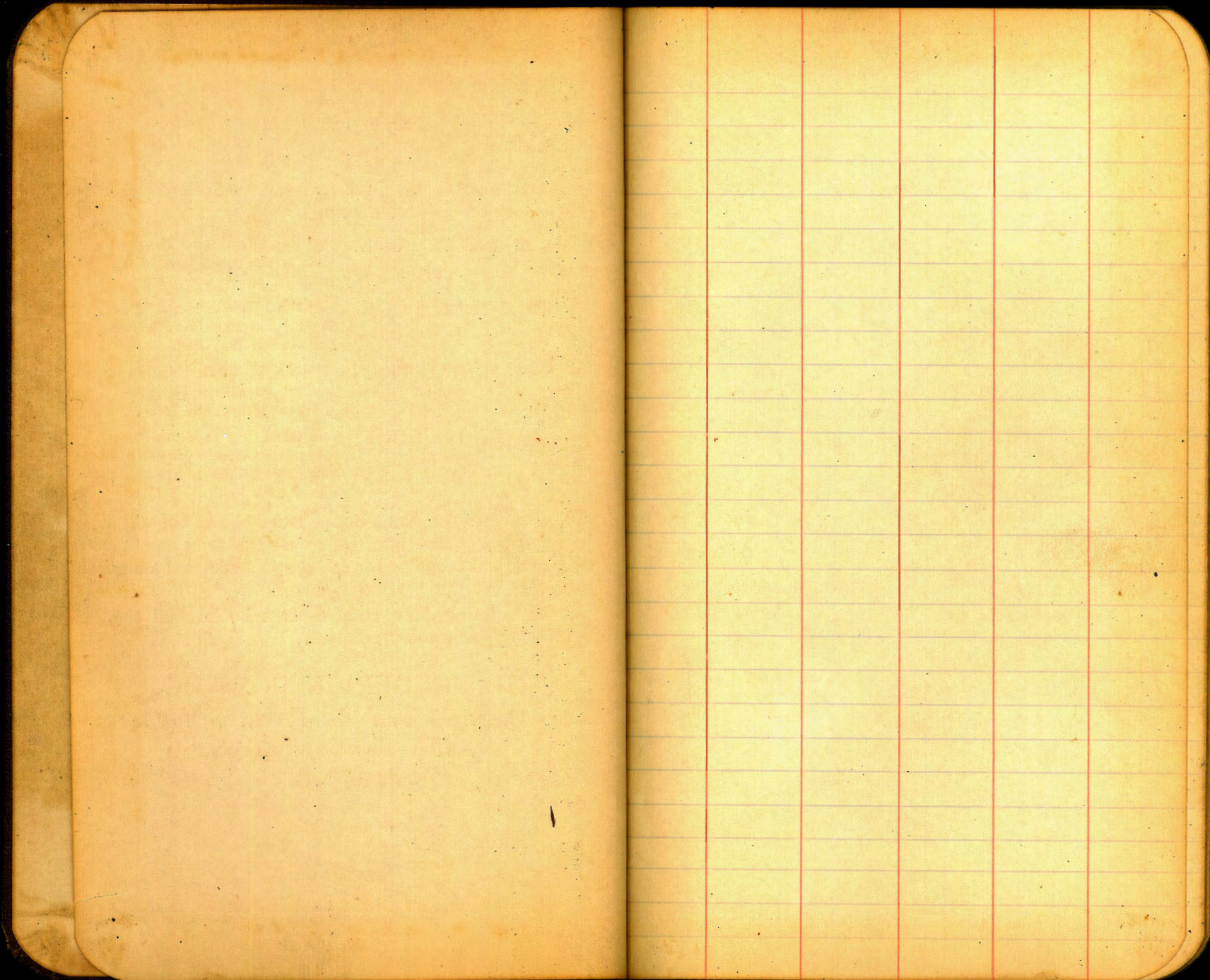
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Index

Pages - X-Section Oak St. Realignment from a
Point 76⁵⁰ N. of the Northely Line of
Lexington Ave S.E. to Pt. of Curve 41 N of
Alley Blk 38 Lexington Park.

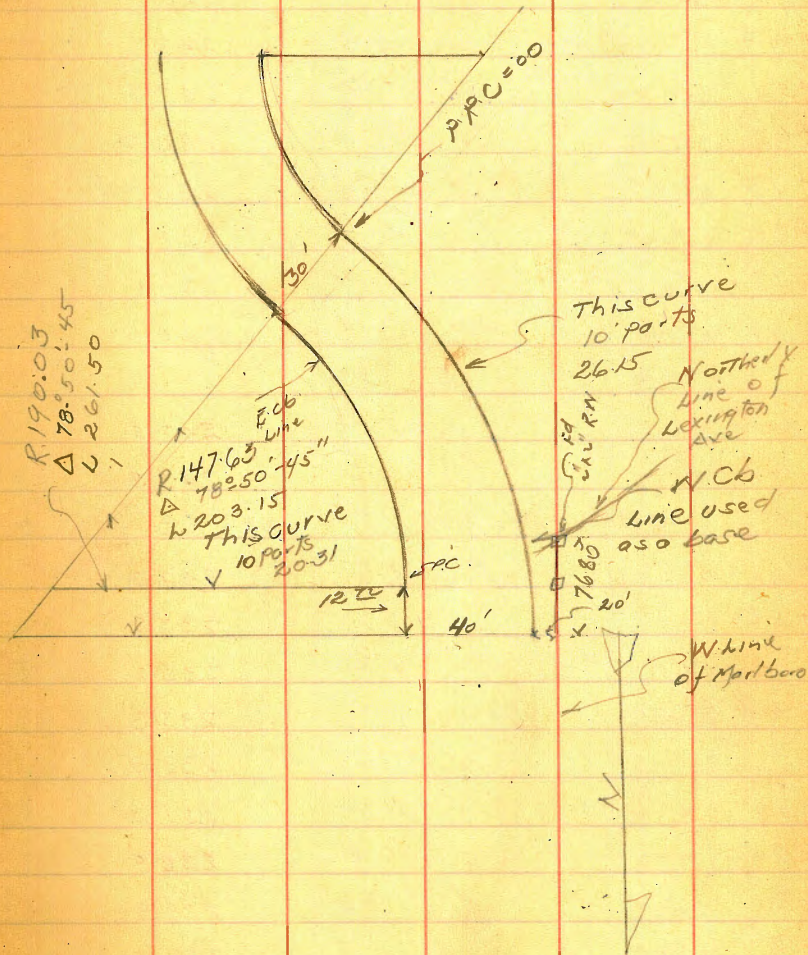
Pages X-Section Marlboro from the North line of
Redwood 120' North

- 9 X Section Washington 8TH to N of 9TH
- 20 X Section Alley Blk 98 U.H. El Cajon to Meade
- 25 Chatsworth & La Cresta Dr.
- 29 " Quincy to Voltaire
- 35 " at Wildwood
- 36 " Wawona
- 39 " Wabaska Drive
- 42 Alley Blk. 3. Surperba Hts.
- 48 32nd Sewer Outfall
- 52 Re. X-Section Washington East of 9th St.
- 55 Soundings 32nd St. Sewer Outfall
- 57 6" water main on 75th St. @ Boston Ave.
- 60 Alley Blk 4 Frary Hts.

Bill Bliss
 J. Dyermit
 J. Jacobsen
 P. Brooks
 Aug 29, 1929

X Section Oak & Marlboro Streets
 Realignment

	HI	Elev	
BM	6.57	230.98	224.41
TP	12.67	243.09	0.56 230.42
TP	11.81	254.50	0.40 242.69
TP	12.55	246.13	0.92 253.58
T.P.	5.60	271.13	0.60 265.53
			West cb line
			RPC = 00 Used as Base see sketch
-10 W line			3.4'
TP	0.60	266.13	5.60 265.53
W.Cb			1.2 265.0
+12			3.9 262.2
+20			7.7 258.4
+30 E.Cb			11.8 254.3
+40 E line			16.1 250.0
+50			19.3 246.8
+60			22.9 243.2
+70			26.3 239.8
+80			32.2 234.0
+90			40.4 225.7
+100			43.2 223.0
+103 Bottom			45.4 220.8
			Sec 1
-10 W line			8.6 257.5
W.Cb			12.2 254.0
T.P.	0.86	254.44	12.55 253.58
+10			3.7 250.7



261.50
 203.15
 46.35
 231.15

	H.I.	-	Elev
	254.44		
+20		5.5	248.9
+30 ²⁰ Ecb		8.9	245.5
+40 ²⁰ Eline		11.8	242.6
+50		14.9	239.5
+65		17.9	236.5
+75		22.1	232.3
+80		26.1	228.3
+95		31.4	223.0
+100 Bottom		33.9	220.5
Sec 2			
-10 Wline		7.2	247.2
Wcb		10.5	243.9
T.P.	0.34	242.92	118.6
			242.58
+10		1.7	241.2
+20		5.1	237.8
+30 ² Ecb		6.2	236.7
+40 ² Eline		7.6	235.3
+50		9.4	233.5
+60		11.5	231.4
+70		16.0	226.9
+80		19.6	223.3
+90 Edge Bank		20.7	222.2
+100 Bottom		22.5	220.4
Sec 3			
-10		6.1	236.8

	H.I.	-	Elev
	242.92		
Wcb		9.5	233.4
+10		11.9	231.0
T.P.	1.83	232.01	12.74
			230.18
+20		2.5	229.5
+31 ³⁰ Ecb		4.0	228.0
+41 ⁴⁰ Eline		4.6	227.4
+50		6.2	225.8
+60		8.0	224.0
+70		9.4	222.6
+78 Edge Bank		10.3	221.7
+80		10.9	221.1
+90 Bottom		11.8	220.2
+100		11.9	220.1
Sec 3 + 1/6 ³⁵ on West = Sec 3 + 1/6 ³⁵ on E			
-100 Bottom		11.8	220.2
-90		11.3	220.7
-80		10.4	221.6
-70		9.7	222.3
-60		9.1	222.9
-50		8.2	223.8
-40		7.5	224.5
-30		7.1	224.9
-20		6.2	225.8
-10		5.3	226.7
Wcb		4.1	227.9

	H.I. 23201	-	Elev
+10		3.5	228.5
+20		2.2	229.8
		Sec 4	
-30		4.6	227.4
-20		6.6	225.4
-10 W. Line		7.2	224.8
W. Cb		7.6	224.4
+10		8.0	224.0
+20		9.1	222.9
+32 ²⁰ Ecb		9.6	222.4
+4 ²⁰ E Line		9.2	222.8
+50		10.0	222.0
+60		10.3	221.7
+66 Bottom		12.4	219.6
+70		12.0	220.0
+80		12.0	220.0
+90		12.1	219.9
		Sec 5	
-100		8.8	223.2
-90		9.7	222.3
-80		10.8	221.2
-70		11.7	220.3
-60		12.5	219.5
-56		13.1	218.9
-54		10.8	221.2

	H.I. 23201	-	Elev	3
				4
-43 ²⁶ E Line		10.8	221.2	
-33 ²⁶ Ecb		10.8	221.2	
-20		11.2	220.8	
-10		11.4	220.6	
W. Cb		11.7	220.3	
+10 W. Line		11.5	220.5	
+20		11.2	220.8	
+30		10.9	221.1	
TP	763.227.40	12.24	219.77	242
		Sec 6		
-30		8.3	219.1	
-20		8.3	219.1	
-10		8.0	219.4	
W. Cb		7.4	220.0	
+10		7.4	220.0	
+20		7.3	220.1	
+30		7.2	220.2	
+34 ⁵ Ecb		7.1	220.3	
+40		7.0	220.4	
+44 ⁵ E Line		8.1	219.3	
+50		8.4	219.0	
+60		6.8	220.6	
+70		6.0	221.4	
+80		4.4	223.0	

+	HI	-	Elev
	227.40		
	Sec 6 +14 on West = Sec 6 + 13 ⁵ on E		
-80	4.3		223.1
-70	5.1		222.3
-60	6.3		221.1
-50	7.9		219.5
-40	8.6		218.8
-30	8.5		218.9
-20	8.2		219.2
-10	8.1		219.3
W.Cb	8.4		219.0
+10	8.9		218.5
+30	9.4		218.0
+40	11.1		216.3 ^{36°}
	Sec 7		
-40	5.6		221.8
-30	7.7		219.7
-20	8.7		218.7
-10	8.5		218.9
W	8.8		218.6
+10	8.7		218.7
+20	8.9		218.5
+36 Ecb	8.2		218.2
+40	8.1		219.3
+46	7.8		219.6
+50	6.5		220.9

+	HI	-	Elev
	227.40		
+60		5.9	221.5
+70		5.0	222.4 ^{37°}
	Sec 8		
-70		3.6	223.8
-60		4.2	223.2
-47 ⁶⁰		4.6	222.8
-37 ⁶⁰ Ecb		4.9	222.5
-30		4.8	222.6
-20		4.9	222.5
-10		4.0	223.4
W.Cb		2.2	225.2
TP	12.52	237.79	2.13
+10		10.1	226.7
+20		7.1	230.7
+30		4.5	233.3 ^{59.15}
	Sec 9		
TP	12.07	249.57	0.29
	Sec 9		
-20		6.3	243.2
-10 Wline		7.5	242.0
W.Cb		8.2	241.3
+10		11.5	238.0
+20		15.2	234.3
+30		18.1	231.4
+39 ¹⁵ Ecb		20.2	229.3
+50		22.4	227.1

H.I.
24957

+60 250 224.5

+70 255 224.0

Sec 10 P.C. on East = Sec 9 + 145' on W ^{39.4}

-90 244 225.1

-80 231 226.5

-70 21.5 228.0

-60 18.3 231.2

-49.4 14.1 235.4

-39.5 10.4 239.1

-30 7.5 242.0

-20 6.2 243.3

-10 5.0 244.5

N.C.B. 4.2 245.3

+10 3.3 246.2

Sec 10 = P.C. on W = P.C. on E + 12.23 ^{Sec 9 + 7.6}

-10 1.7 247.8

N.C.B. 2.3 247.2

+10 3.0 246.5

+20 3.9 245.6

+30 5.3 244.2

+40 7.3 242.2

+50 10.5 239.0

+60 15.1 234.4

+70 18.5 231.0

+80 21.3 228.2

+ H.I. - Elev
24957

TP 1.03 237.47 13.13 236.44

check back to starting B.M. 13.08 224.39

224.39
0.02 ✓

6

Bill Bliss
Aug 30, 1948

X Section Marlboro from the
N line of Redwood 120' N

8057
14' cbs
13' 1/4

BM	6.10	298.58	292.48	W Top cb Redwood
			0400 = 120' N of the N line of Redwood	
W		3.3	295.3	
W Top cb		4.03	294.55	
E		4.7	293.9	
1/4		4.5	294.1	
+ 40 E		4.2	294.4	
1/4		4.5	294.1	
G		5.0	293.6	
E Top cb		4.63	293.95	
E		4.4	294.2	
		0140		
E		5.7	292.9	
cb		5.20	293.38	
E		5.7	292.9	
1/4		5.2	293.4	
1/4		4.8	293.8	
1/4		7.8	293.8	
G		5.4	293.2	
W Top cb		4.61	293.97	
W		4.4	294.2	
		0180		
W		5.2	293.4	
cb		5.37	293.21	

H 2
298.58

Elev

See Field
Book 1314 Page 14

Marlboro	G	5.6	293.0
	1/4	5.3	293.3
	1/4	5.3	293.3
	1/4	5.7	292.9
	E	6.6	292.0
	E Top cb	6.06	292.52
	E	5.9	292.7
		1432	
	E	6.5	292.1
	Top cb	6.80	291.78
	E	7.5	291.1
	1/4	6.3	292.3
	1/4	6.2	292.4
	1/4	6.0	292.6
	1/5	5.8	292.8
	1/8	7.9	290.7
	G	6.5	292.1
	Top cb	6.00	292.58
	W	5.8	292.8
	1/10	9.1	289.5
	1/10	9.3	289.3
	W	6.0	292.6

Not
Northward inclat
Intersection Recently
filled in 1740 N line of Redwood

	HZ	-	Elev
	29858		
cb		6.10	292.48
E		7.1	291.5
+3		8.6	290.0
+12		8.5	290.1
1/4		8.5	290.1
4		7.0	291.6
1/4		6.6	292.0
E		7.7	290.9
cb		6.88	291.70
E		6.8	291.8

Note: Northernly part of
Intersection recently filled in

T.P.	5.3.4	291.56	12.36	286.22
			N Line + 10	
E			5.7	285.8
cb			6.4	284.2
+3			6.5	285.0
1/4			1.8	289.7
+8			1.5	290.0
4			3.5	288.0
+5			6.7	284.8
+11			2.8	288.7
1/4			3.0	288.5
cb			3.6	288.0
+5			1.6	290.0
W			2.6	289.0

	HZ	-	Elev
	29156		
	14.06		
W		4.0	287.5
cb		3.8	288.0
1/4		3.5	288.0
+7		7.4	284.1
4		6.3	285.2
+5		3.7	287.8
1/4		4.2	287.3
+7		5.6	286.0
+9		8.4	283.1
cb		8.2	283.3
E		7.4	284.1

8

N. cb + 9 Limit of Main Fall

E		9.6	282.0	
cb		10.7	280.8	
+4		11.6	280.0	
1/4		11.1	280.4	
4		13.0	278.5	
+9		6.6	285.0	
1/4		6.5	285.0	
cb		3.9	287.6	
W		4.9	286.6	
T.P.	368	293.17	2.07	289.49
checked			0.69	292.48

Yellow
Loose
Mudstone
Knox
11-2-29

Cross Section WASHINGTON ST.
50' wide v. cbs 75' ± 5' from
E. line 8th to E. l. 9th St.

289.65

	3.72	288.10	284.38	NW. BR UNIV. HALL Prod 8th St SE top of Mt. St. Washington 8th
T.P	5.26	289.65	284.39	
	E.L. 8th = 0+00			
S		7.45	282.20	
" top cb.		7.70	281.95 ✓	
" Gut. on Par.		8.25	281.40 ✓	
" 7/8 "		8.09	281.56	
1 "		7.96	281.69 ✓	
1 1/2 "		8.05	281.60	
" Gut. "		8.15	281.50 ✓	
" top cb.		7.67	281.98 ✓	
N		7.25	282.40	
				0+52
N		4.4	285.2	
+4		4.3	285.3	
cb.		6.0	283.6	
+4		7.2	282.4	
7/8		7.4	282.2	
2		7.4	282.2	
+4		7.0	282.6	
7/8		5.5	284.1	
cb.		5.0	284.6	
S		4.0	285.6	

Plotted 11/7/29

0+05

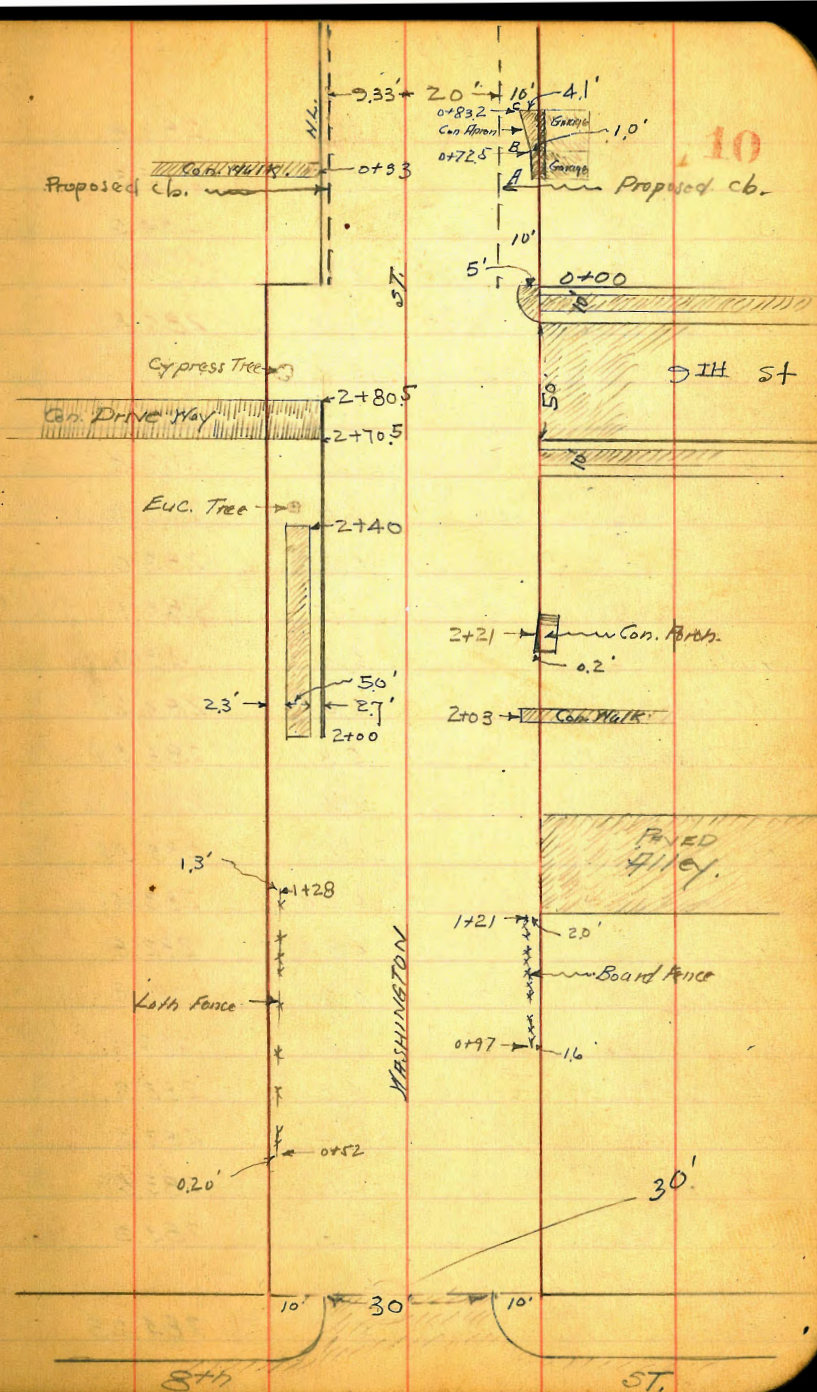
0+23

S	3.8	285.8
cb	4.3	285.3
+5	4.2	285.4
1/2	4.7	284.9
2	5.1	284.5
1/4	5.1	284.5
+3	5.1	284.5
cb.	4.6	285.0
N	4.1	285.5
		0+52
N	4.0	285.6
cb.	4.3	285.3
1/4	4.3	285.3
2	4.2	285.4
1/2	4.1	285.5
cb.	4.0	285.6
S	3.7	285.9
		1+00
S	4.2	285.4
cb.	4.3	285.3
1/4	4.8	284.8
2	4.8	284.8
1/2	5.1	284.5
cb.	5.3	284.3
1+20 on Par. N.W. Hall on South	5.10	284.55 ✓

1+30 = 2 Hall on South

9

N	5.2	284.4
cb.	5.3	284.3
$\frac{1}{2}$	5.3	284.3
$\frac{1}{2}$	5.3	284.3
$\frac{1}{2}$	5.2	284.4
cb.	5.2	284.4
S on Apr.	5.25	284.40
1+40 = E.L. on Alley.	5.10	284.55
1+81 = N.L. Double Garage on S. Con Floor. With Con Apron		
S-1.6 = Garage Floor.	4.56	285.09
S on Apron.	5.08	284.57
S+2.2 = toe Con. Apron.	5.40	284.25
cb.	5.4	284.2
$\frac{1}{2}$	5.3	284.3
$\frac{1}{2}$	5.5	284.1
$\frac{1}{2}$	5.8	283.8
cb.	5.9	283.7
N	5.8	283.8
	5.19	284.46
1+95.5 = E.L. Above Garage + toe Apron.		
2+00 = top cb. + 1/2 ft on N.		
N	5.7	283.9
+2.3 on top Walk	5.54	284.11
cb.	5.75	283.90
Gut.	6.4	283.2
$\frac{1}{2}$	6.4	283.2
$\frac{1}{2}$	6.1	283.5



289.65

z	5.8	283.8
cb.	5.8	283.8
S	5.0	284.6
Z+03 = on Con Walk 2' wide	5.16	284.49 on South
Z+21 = on Con. Arch	3.82	285.83
Z+40 = End Exst. Walk on N		
S	5.6	284.0
cb.	6.3	283.3
z	6.3	283.3
z	6.6	283.0
z	6.5	283.1
Gut.	6.6	283.0
N top cb.	6.05	283.60
+7.7 on top Walk.	5.81	283.84
Z+60 = Walk 9th 10' cb. 12.5' z/s.		
N on Drive Way	6.10	283.55
cb. on top	6.20	283.45
N Gut.	4.8	282.8
z	6.8	282.8
z	6.8	282.8
z	6.3	283.3
cb.	6.4	283.2
+6	6.0	283.6
S	5.3	284.3
N cb. 9th st.		
S top cb.	5.37	284.28

289.65

S. on Pav.	6.05	283.60
cb.	6.4	283.2
z	6.3	283.3
z	6.6	283.0
z	6.8	282.8
cb on Gut.	6.8	282.8
N cb.	6.32	283.33
N	6.4	283.2
Z+80.5 = End Exst. cb. on N	6.40	283.25
N z 9th		
N	6.9	282.7
cb.	7.0	282.6
z	7.0	282.6
z	6.8	282.8
z	6.1	283.5
cb.	6.2	283.4
S on Pav.	6.05	283.60
z 9th		
S. " "	6.20	283.45
cb.	6.4	283.2
z	6.3	283.3
z	6.9	282.7
z	7.2	282.4
cb.	7.2	282.4
N	7.1	282.5
z z		

289.65

N	7.2	282.4
cb.	7.4	282.2
$\frac{1}{4}$	7.3	282.3
$\frac{1}{2}$	7.1	282.5
$\frac{3}{4}$	6.7	282.9
cb.	6.5	283.1
S on Pav.	6.58	283.07

E cb. 9th

S on cb.	6.69	282.96
" " Pav.	7.19	282.46
cb.	6.9	282.7
$\frac{1}{4}$	7.3	282.3
$\frac{1}{2}$	7.4	282.2
$\frac{3}{4}$	7.6	282.0
cb.	7.5	282.1
N	7.5	282.1

E.L. 9th = 0+00

N-10'	7.5	282.1
N. Line = 40' N of SL	7.6	282.0
$\frac{1}{2}$	7.1	282.5
cb.	7.3	282.3
+5 = top exist cb.	6.72	282.93
S	6.45	283.20

0+33 = $\frac{1}{2}$ Con. M.H. on N. 2' side

S	7.2	282.4
+10' = cb.	7.6	282.0

289.65

S+20'

= $\frac{1}{2}$

N

+0.4' on top Walk

T.P. 3.99 286.39

0+67 = $\frac{1}{2}$ Garage on South. Con Floor. With Con. Apron. 8.5' wide

South cb + 9' = toe Con. Apron.

" Line + 4.6' = Garage Floor.

A. on Con Apron. on toe

B " " " "

C " " " "

0+83

N

 $\frac{1}{2}$

cb.

S on Con Apron.

+2.3' on Garage Floor.

0+85 = $\frac{1}{2}$ M.H. ^{Sever.}

S-20'

S

cb.

 $\frac{1}{2}$ on M.H. Cover

N

1+06

N-20'

N

+15

7.6 282.0

7.6 282.0

7.32 282.33

7.25 282.40

4.55 281.84

3.74 282.65

4.49 281.90

4.53 281.86

4.94 281.45

4.9 281.5

5.0 281.4

4.8 281.6

4.65 281.74

4.46 281.93

14.3 272.1

9.4 277.0

4.7 281.7

5.12 281.27

5.1 281.3

6.2 280.2

5.8 280.6

11.5 274.9

12

286.39

+17		13.1	273.3
2		13.8	272.6
S.C.B.			
T.P.	2.35	276.27	13.07 273.32
S		9.6	266.7
+30		17.9	258.4
+40		20.0	256.3

Started - This Section on N 1+26

N-30'		+4.0	280.3
N-15'		-0.5	275.8
N		5.1	271.2
N+15'		10.9	265.4
2		11.8	264.5
cb.		15.2	161.1
T.P.	1.96	265.30	12.93 263.34
S		8.2	157.1
+8		11.2	154.1
+60		18.6	146.7

1+44 on S.C.B.		11.9	153.4
1+55 " "		15.7	149.6

T.P.	12.82	276.16	1.96 263.34
T.P.	13.98	284.79	2.85 273.31
T.P.	4.36	288.99	2.16 284.63

chk. on N.Y. S.P. 8th + Univ.		Gone	
T.P.	5.52	289.27	5.24 283.75
chk. on N.Y. S.P. 8th + Univ.		4.93	284.34

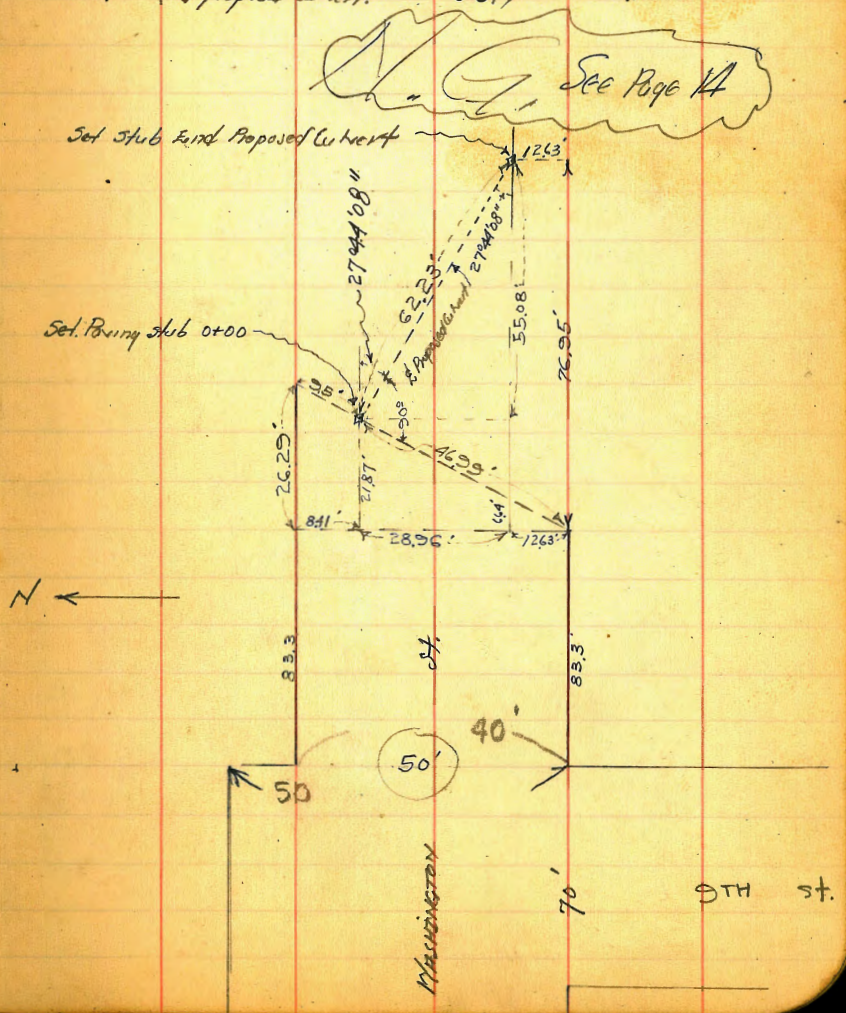
284.98 = BM
0.04 - error

Milky
leaky
blatney
Kenny
12-16-79

Levels For Culvert
017 WASHINGTON ST.
East of 5th St.

141	285.69	284.28
0+00 on stub.	4.85	280.84
+15	12.6	273.1
+30	21.4	264.3
+45	28.6	257.1
+62.23 = End proposed Culvert.	36.7	249.0

11-6-83
on South
page 11



Walker
No. 100.

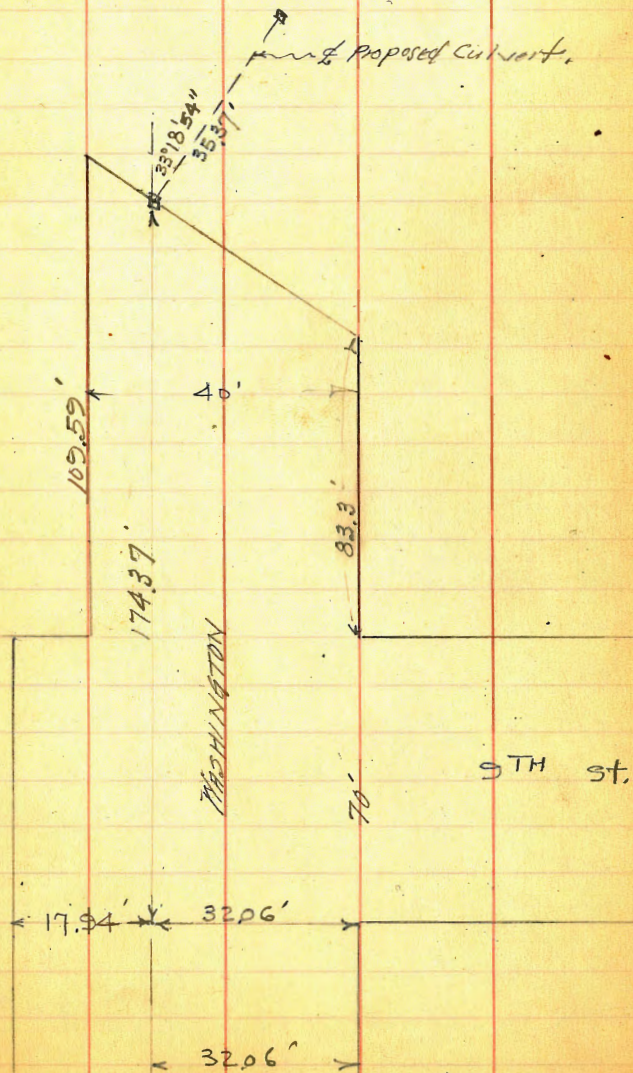
12-29

Location And Levels
for Culvert as shown Next Page

on old location
0+00
P-13

= 0+00	1.87	282.71	280.84
+15		4.52	278.19
+35.37 = Fix		12.2	270.51
		24.2	258.51

14



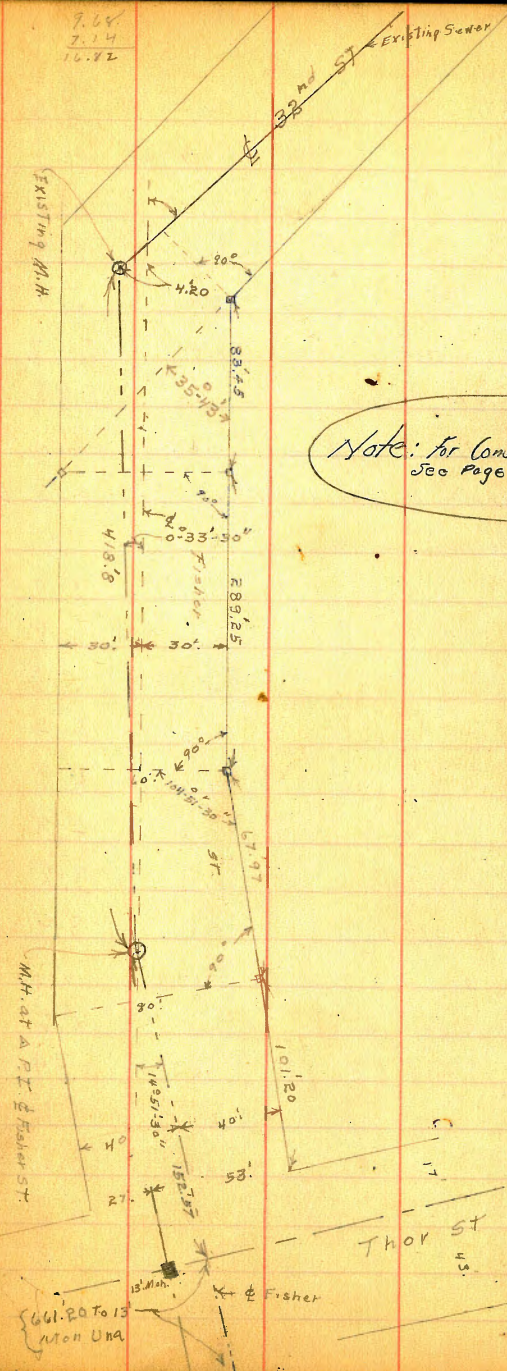
Walker
Leaker
McMahon
Barney
12-26-79

Preliminary Sewer Levels
From Kettner Blvd.
to Exist Sewer M.H. Approx. 79' N.E. RR Track
at Calif. St.
W.M. BP
Oliver

West edge Pav at Kettner Blvd = 0+00	3.62	57.33		53.71
+30			5.16	52.17
+70			8.3	49.0
T.P.	1.01	45.33	13.01	44.32
1+00			3.7	41.4
+30			6.6	38.7
+50			7.8	37.5
+75			9.5	35.8
2+00			12.5	32.8
T.P.	1.30	34.44	12.19	33.14
+10			3.5	30.9
+15			2.5	31.9
B.M. Chk. on con. Mon @ Calif. St.	25' line		3.79	30.65 ✓
2+23.5 ± = Calif. St.	25' line		3.8	30.6
+26			3.6	30.8
+31			8.5	25.9
+37			11.1	23.3
+44.4 = E top Rail Santa Fe			9.22	25.22
+49.12 = " " " "			2.40	25.04
+58			12.1	22.3
+62			10.3	24.1
+75			12.7	21.7
3+00			14.1	20.3
+26 = Approx. dist. to East M.H. Note: M.H. 15 covered up with Tons of C.E. Water Pipe			14.6	19.8

New Outfall 32nd St Sewer 1-13-30
mills

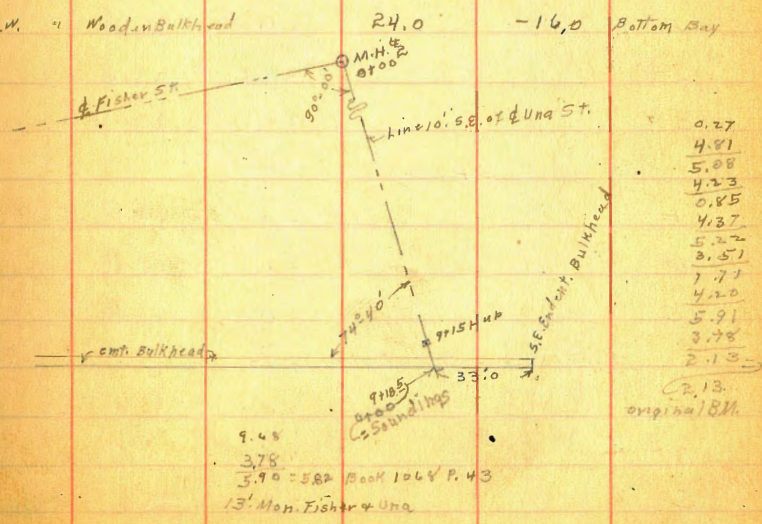
B.M. B.P.	6.75	8.88	2.13	S.N. Fisher + 32 nd Sts.
0+00 = Existing M.H. at 32 nd & Fisher		16.82	-7.94	F.L.
" " " " " " "		7.03	1.85	Topparmt.
0+51.3 = E. Line + 32 nd		7.19	1.69	E. Edge Pavmt.
0+65		6.7	2.2	
1+00		6.8	2.1	
1+50		6.3	2.6	
2+00		6.5	2.4	
2+50		6.6	2.3	
3+00		6.0	2.9	
3+50		6.0	2.9	
4+00		6.0	2.9	
4+18 = M.H. Δ P.I. E. Fisher St. = 0+00		5.98	2.90	on Hub
0+50		5.3	3.6	
1+00		5.0	3.9	
1+50		4.8	4.1	
1+65 = E. of Thor & Fisher		4.7	4.2	
2+00		4.7	4.2	
2+50		4.8	4.1	
3+00		4.3	4.6	
3+50		3.9	5.0	
4+00		3.5	5.4	
4+50		3.4	5.5	
T.P.	4.16	9.68	3.36	5.52
5+00		4.2	5.5	
5+50		4.4	5.3	



7.64
7.14
16.72

9.68			
6+00	4.7	5.0	
6+50	4.9	4.8	
7+00	4.5	5.2	
7+50	4.3	5.4	
8+00	3.8	5.9	
8+26 ²⁶ ϕ Una + Fisher Sts	3.71	5.97	on Hub
8+36 ²⁶ M.H. A 90°-00' RT. = 0+00	3.70	5.98	on Hub
Line on Una 10'. S.E. of ϕ on account of Mooring Dolphin in bay beyond Bulkhead. - ϕ Una St. Hit S. side Dolphin Levels on ϕ approximately same as 10'. S.E.			
0+10	3.9	5.8	
0+30	2.9	6.8	ϕ 0.8 Lower
0+55	4.1	5.6	ϕ same
1+00	4.3	5.4	" "
1+50	4.8	4.9	" "
2+00	5.4	4.3	" "
2+50	5.9	3.8	" "
2+92 ³⁰ Fence of Destroyer Base	5.8	3.9	" "
T.P.	3.97	8.02	5.63 4.05
3+12 ²⁷ ϕ Spur Track to N. ϕ Sewer 0.7 sep S. end Rails	3.8	4.2	
" " " " " " "	5.43	2.59	Top Rail 7.74 Whc
3+50	3.4	4.6	
4+00	4.8	3.2	
4+50	4.7	3.3	
4+90	4.2	3.8	
5+00	5.5	2.5	

8.02		Fisher + Una Sts Sewer Outfall	
5+04 ⁵⁰ ϕ Spur Track	5.12	2.90	17 Top Rail
5+20	4.7	3.3	
5+65	4.1	3.9	
6+00	4.9	3.1	
6+50	5.8	2.2	
7+00	6.3	1.8	
7+50	6.4	1.6	
8+00	6.5	1.5	
8+26 ⁵⁰ ϕ Spur Track	7.00	1.02	Top Rail
8+50	7.0	1.0	
9+00	7.3	0.7	
9+15 P.O.T.	7.75	0.27	Hub
9+17 N.E. Face cnt Bulkhead	7.40	0.62	Top Bulkhead
9+18 ⁵ S.W. " " "	7.40	0.62	
9+19 ⁵ S.W. " " " Wooden Bulkhead	24.0	-16.0	Bottom Bay



0.27
4.81
5.08
4.23
0.85
4.37
5.22
3.51
7.71
4.20
5.91
3.78
2.13
2.13
original 18.1

9.48
3.78
5.90 = 5.82 Book 1064 P. 43
13' Man. Fisher + Una

Soundings for 32nd St

1-15-30
Mills.

R.M.	4.31	π 4.58	0.27	
10:45 A.M.	Water level	7.0	-2.4	city Datum
0200 = 9+18 ^E	Page 17 = Face	ent. Bulk Head		
0+50		20.0	-22.4 ✓	
1+00		20.0	-22.4 ✓	
1+50		21.0	-23.4 ✓	
	2+00 Δ	At Dolphin #1		
A at Dolphin S. side		21.0	-23.4 ✓	
B = 15' S		20.0	-22.4 ✓	
C = 30' S = 35' N. of Division		20.0	-22.4 ✓	
	2+50			
A		20.0	-22.5	
B		22.0	-24.5	
C		21.0	-23.5	
	3+00			
A		21.0	23.5	
B		20.0	22.5	
C		20.0	22.5	
	3+50			
A		22.0	24.6	
B		21.0	23.6	
C		21.0	23.6	
	Approx 4+50	Dolphin #3		
A		24.0	26.6	
B		23.0	25.6	
C		23.0	25.6	4+70

18

π 4.58

	Dolphin #4	Below Water Level			
		23.0	25.7		
		23.0	25.7		
		22.0	24.7	6+20	
	Dolphin #5				
		23.0	25.7		
		22.0	24.7		
		22.0	24.7	7+70	
	Dolphin #6				
		23.0	25.8		
		23.0	25.8		
		23.0	25.8	9+10	
	Dolphin #7				
		24.0	26.8		
		23.0	25.8		
		23.0	25.8	10+50	
	Dolphin #8				
		22.0	24.9		
		22.0	24.9		
		22.0	24.9	11+90	
	Dolphin #9				
		23.0	25.9		
		23.0	25.9		
		23.0	25.9	13+90	
		7.5	-2.9	city Datum	

11:10 A.M. Water level

10' wide. X See Alleys BIK. 98 U.H. 1-22-30

El Cajon Ave To Meads Bet Park Blvd & Georgia

B.M.	H. 20	347.78		343.58	+ Normal	S-5
T.P.	0.18	336.90	11.06	336.72		S
E. & W. Alley						
00 = W. line Georgia						
0.55 of S. line	= S. ent. of Alley Return	6.21		330.69		N.
0.5 " " "	= Alley parmt.	6.64		330.26		N.
S. line Alley on	" "	6.60		330.30		N.
±	" "	6.14		330.76		±
± + 4.5 N. side Alley Parmt.		5.73		331.17		S
± + 4.5 = N. ent. of Alley Ret.		5.24		331.66		S
N. line Alley on ent. of		5.23		331.67		S

These Alley Returns 0.5 out.

10' W.

N. line at Base cobble wall	6.0	330.9	Base of wall on top of ground.
±	7.2	329.7	
S	7.7	329.2	
+5	8.4	328.5	
40' W			
-5	7.4	329.5	
S	6.9	330.0	
±	6.4	330.5	Wall set on ground.
N. at Base of cobble wall	5.5	331.4	

76' W = W. End cobble wall

N. at Base of cobble wall	4.8	332.1	Wall set on ground.
±	5.3	331.6	
S	5.8	331.1	
+5	6.9	330.5	

Plotted 1/25/30 C.B.H.

336.90

102. W = E. line garage on N. dirt floor on N. line	7.4	329.5
	6.7	330.2
	5.7	331.2
	5.1	331.8 floor

120. W { 8. line N + S. Alley
W. " garage on N. line

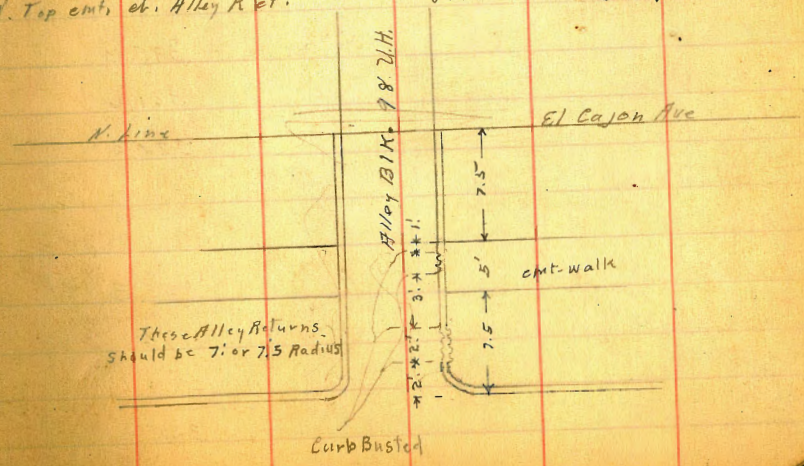
	4.9	332.0 floor
	5.7	331.2
	6.1	330.8

N. + S. Alley

336.90

00 = N. line El Cajon Ave

E. Top ent. of Alley Ret	8.83	328.07
E. Alley Parmt.	9.01	327.89
± " "	9.07	327.83
W " "	8.89	328.01
N. Top ent. of Alley Ret.	8.61	328.29



336.90
5' N. of N. line El Cajon

W-5	10.5	3264
W	9.7	3272
♀	9.7	3272
E	9.7	3272
+5	11.4	3255
30' N		
E-10	12.5	3244
E	11.8	3251
♀	11.4	3255
W	11.3	3256
+5	11.3	3256
+10	12.0	3249
50' N		
W-10	12.2	3247
W-5	12.1	3248
W	11.3	3256
♀	11.4	3255
E	11.6	3253
+3	12.3	3246
+10	12.5	3244
75' N		
E-10	11.8	3251
E	11.1	3258
♀	10.8	3261
W	10.8	3261
+10	11.4	3255

336.90
100' N

W-10	10.6	3263
W	10.2	3267
♀	10.3	3266
E	10.6	3263
+10	10.8	3261
135' N		
E-10	7.3	3296
E	7.5	3294
♀	7.7	3292
W	7.8	3291
+10	9.0	3279
140' N. = S. line E+W Alley		
W-10	8.1	3288
W	7.2	3297
♀	7.0	3299
E	6.1	3308
145' N. = ♀ E+W Alley		
E	5.7	3312
♀	6.5	3304
W	6.6	3303
+10	7.4	3295
150' N. = N line E+W Alley S. line garage on E. South Entrance 0.3 in Alley		
W-10	6.6	3303
W	5.9	3310
♀	5.8	3311
+4.7 = N line garage	5.0	3319
E	4.9	3320

N+S Alley BIK 98 2.H.

336.90

165.8' N = N. End garage on E	0.4 in Alley		✓
E + 0.4 = W. side garage	4.4	332.5	
♀	3.8	333.1	
W.	3.8	333.1	
+ 5'	4.0	332.9	
170' N.			
N-5	3.5	333.4	
W	3.2	333.7	
♀	3.2	333.7	
E.	2.7	334.2	
T.P.	11.02	345.81	2.11 334.79
178.5' N = S. side dwelling on E.	0.15 in Alley		✓
194' N N. "	" " " 0.4 in Alley		✓
E	8.0	337.8	
♀	8.4	337.4	
W	8.7	337.1	
+ 1	8.7	337.1	
204' N = S. End 3 garages on E	dirt floors 4.6 Back		✓
W	7.8	338.3	
♀	7.6	338.2	
E	7.0	338.8	
E + 4.6 floor	6.7	339.1	
210' N. = S. End 3 garages on W	ent. floors 13.5 Back		✓
W + 13.5 floor	7.4	338.4	

345.81

220' N

W-13.5 garage floor	6.9	338.9	✓
W	6.9	338.9	
♀	6.8	339.0	
E	6.6	339.2	
E + 4.6 garage floor	6.4	339.4	
234.5' N = N. End 3 garages on E.	4.6 Back		✓
E-4.6 floor	5.9	339.9	
E	6.1	339.7	
♀	6.4	339.4	
W	6.4	339.4	
241' N = N. End 3 garages on W.	13.5 Back		✓
W-13.5 garage floor	6.9	338.9	
250' N.			
W	5.7	340.1	
E.	5.7	340.1	
E	5.5	340.3	
275' N.			
E	5.1	340.7.	
♀	5.3	340.5	
W	5.3	340.5	
300' N.			
W	4.4	341.4	
♀	4.2	341.6	
E	4.3	341.5	

22

N.S. Hwy BIK 9S U.H. (Con)

345.81

340' N.

E		3.7	342 1
☿		3.8	342 0
W		3.8	342 0
	373' N. garage on W. wood floor	8.8	Back ✓
N-8.8	floor	3.1	342 7
W		3.3	342 5
☿		3.3	342 5
E		3.1	342 7
	400' N		
E		2.9	342 9
☿		2.8	343 0
W		2.9	342 9
T.P.	5.32 348.25	2.88	342 93
	438' N garage on W. ent. floor	13.8	Back
W-13.8	floor	5.02	343 23 ✓
	447' N s. end 4 garages on W. ent. floors	14.0	Back
W-14'	floor	4.80	343 45 ✓
W-11'	E. end ent. Apron	5.09	342 16 ✓
W		5.0	343 2
☿		5.0	343 2
E		4.8	343 4
	472' N. garage on E. ent. floor	5.2	Back
E-5.2	floor	4.38	343 87 ✓
E-0.6	W. end ent. Apron	4.77	343 48 ✓
E.		4.7	343 5
☿		4.7	343 5
W.		4.8	343 4

348.25

473' N garage on E. ent. floor 0.2 Back

23

E+0.2	floor	4.39	343 86 ✓
	495' N N. end 4 garages on N		
W-14'	floor	4.67	343 58 ✓
W-11	ent. apron	4.77	343.48 ✓
W		4.6	343 6
☿		4.5	343 7
E		4.4	343 8
	531' N. garage on W. ent. floor	3.8	Back
E		4.1	344 1
☿		4.2	344 0
44.8	E. end. ent. apron	4.04	344 21 ✓
W		4.03	344 22
W+3.8	floor	3.8	344 4 ✓
	555' N. garage on E. ent. floor	8.0	Back
W		4.0	344 2
☿		3.9	344 3
E		4.0	344 2
40.5	W. edge ent. Apron	4.02	344 23 ✓
E+2.	on "	4.67	343 58
E+8'	floor	3.5	344 7 ✓
	557' N. S. end ent. walk 1.0 W. of W. line		
1.0	W. of W. line on walk	3.95	344 30

348.25
 563.2 N = S. End. emt walk on E. o.4 in Alley
 E 3.70 344.55
 E + 0.4 = W. edge walk 3.70 344.55
 " 590.1 N
 E. on emt. walk 3.75 344.50
 + 0.5 W. edge walk 3.75 344.50
 + 0.7 4.3 344.0
 ♀ 4.1 344.1
 W 4.3 343.9
 + 0.7 4.3 343.9
 + 0.8 E. edge walk 3.92 344.33
 599.5 N = S. Line Meade Ave
 W - 0.8 E. edge walk 4.78 343.47
 W 5.0 343.2
 ♀ 4.8 343.4
 + 4.0 4.6 343.6
 + 4.5 W. edge walk 4.31 343.94
 E on walk 4.30 343.95
 No emt. cl. Alley Returns on W. or E.
 4. N. of S. Line Meade = S. Edge emt walk on Meade
 E. + 0.5 W. End emt. walk + dirt 5.11 343.14
 ♀ 5.1 343.1
 W. on E. End emt. walk + dirt 5.25 343.00
 9.33 N. of S. Line Meade = N. edge walk on Meade
 W. on E. End emt. walk + dirt 5.33 342.92
 ♀ 5.5 342.7
 + 4.7 = W. end emt walk + dirt 5.19 343.06

348.25
 14. N. of S. Line = S. emt. cl. of Meade
 E. on W. end emt. cl. 5.34 342.91
 E. dirt 5.6 342.6
 ♀ " 5.7 342.5
 W " 5.8 342.4
 W. E. End emt. cl. 5.45 342.80
 T.P. 3.28 347.17 4.36 343.89
 chK B.M. 5.14 342.03 = 342.01
 N.W. Meade + PARK BLVD

24

X Sec Paired Intersection of Chatsworth
& La Cresta Drive

3/24/30
miles

124.77
10' N. of W. 1/4 = 2

25

RM. B.P.	6.78	124.77	117.99	S. W. Chatsworth & La Cresta	W. Line Chatsworth	8.08	116.69	
Set RM. B.P.			9.02	115.75	N.W. Chatsworth & La Cresta	+10	8.28	116.49
		S. Line La Cresta				+14	8.14	116.61
W. Line Chatsworth			4.53	118.24	inside ear Ret	+19.5	7.82	116.95
+10 = W. dr. Line			6.73	118.04	on present Ret	+25	7.56	117.21
+14 = Present W. dr. Line			6.82	117.95	" " curb			
+19 gutter Pavmt.			7.37	117.40	gutter Pav	W. Line Chatsworth	8.74	116.03
+19.5			6.85	117.92		+10	8.83	115.94
+25 = Wedge 20' Strip Pavmt			6.22	118.55		+14	8.65	116.12
		10' N. of S. Line La Cresta = S. dr. Line				+19.5	8.31	116.46
50' W. of W. Line Chatsworth			4.78	119.99	Top cnt. dr	+25	8.04	116.73
" " " " "			5.44	119.33	gutter Pavmt			
25' " " " "			4.37	118.40	" "	W. Line Chatsworth	8.83	115.94
" " " " "			5.70	119.07	Top cnt. dr.	" "	9.35	115.42
W. Line Chatsworth			6.28	117.99	" " "	+10	9.35	115.42
" " " "			7.35	117.42	gutter pavmt	+14	9.09	115.68
+10			7.53	117.24		+19.5	8.74	116.03
+14			7.48	117.29		+25	8.74	116.33
+19.5			7.11	117.66				
+25			6.67	118.10		W. Line Chatsworth	8.47	116.30
		10' N. S. dr La Cresta = S. 1/4				+10	8.98	115.77
W. Line Chatsworth			7.72	117.05		+10	9.70	115.07
+10			7.94	116.83		+14	9.45	115.32
+14			7.82	116.95		+19.5	9.15	115.62
+19.5			7.47	117.30		+25	8.87	115.90
+25			7.12	117.65				

10' N. of 2 = N. 1/4

10' N. of N. 1/4 = N. dr. line La Cresta

10' N. of N. dr = N. Line La

Top cnt. dr.

gutter Pavmt.

Inside of Return

cnt. dr.

gutter Pavmt.

"

"

"

25 Sec. Paved Intersection W. of 20'
Strip Pavmt. Chatsworth + Poe

3/24/30
Miller

82.71
S. d. Line

26

B.M. B.P.	5.57	82.71	77.14
20' S. of S. Line Poe = S. End Existing Pavmt			
W. cmt. cl		3.27	79.44
gutter Pavmt.		4.20	78.51
+5		3.91	78.80
+10		3.87	78.84
+15 = 20' Strip Pavmt.		3.82	78.89
+25 = ♀ " "		3.73	78.98
+35 E " "		3.87	78.84
4' S. of S. Line Poe			
W. cl + 35		4.19	78.52
W " + 25		4.05	78.66
W " + 15		4.14	78.57
W " + 10		4.13	78.58
W " + 5		4.26	78.45
gutter		4.56	78.15
W. cmt. cl		3.56	79.15
5' Line Poe			
W. cmt. cl		3.44	79.07
gutter		4.26	78.45
+5		4.23	78.48
+10		4.18	78.53
+15		4.22	78.49
+25		4.14	78.57
+35		4.27	78.44

N.E. Chatsworth
+ Napas Ka

W. cl + 35		4.45	78.26
" " + 25		4.30	78.41
" " + 15		4.40	78.31
" " + 10		4.35	78.36
" " + 5		4.32	78.39
" "		4.32	78.39
" Line gutter Pavmt		4.23	78.48
" " cmt. cl.		3.65	79.06
5' 14			
W. Line		4.24	78.47
W. cl. Line		4.47	78.24
+5		4.50	78.21
+10		4.56	78.16
+15		4.60	78.11
+25		4.45	78.26
+35		4.59	78.12
♀			
W. cl + 35		4.81	77.90
" " + 25		4.65	78.06
" " + 15		4.73	77.98
" " + 10		4.69	78.02
" " + 5		4.68	78.03
" "		4.60	78.11
" Line		4.38	78.33

82.71
N. by of Poe St.

W. line	4.80	77.91
W. el	4.91	77.80
" " + 5	4.91	77.80
+ 10	4.87	77.84
+ 15	4.90	77.81
+ 25	4.81	77.90
+ 35	4.94	77.73

N. el. line

W. el. + 35	5.14	77.57
" " + 25	4.97	77.74
" " + 15	5.06	77.65
" " + 10	4.94	77.73
" " + 5	5.14	77.57
" "	5.25	77.46
W. line gutter parmt.	5.24	77.43
" " cnt. el.	4.64	78.07

N. line Poe - N End parmt W. of Strip

W. cnt. el	4.66	78.05
gutter parmt	5.51	77.20
+ 5	5.38	77.33
+ 10	5.31	77.40
+ 15	5.19	77.52
+ 25	5.08	77.63
+ 35	5.25	77.46

X Sec W. 1/2 Chatsworth
Wabaska North.

B.M. B.P.	9.62	86.76	77.14	N.E. Wabaska & Chatsworth	W. pavmt.	5.77	80.99
		0100 = N. Line Por Book 1367 P. 64			+ 7.5	6.1	80.7
		2+40 N. End PC. 13 Rad. Ret. N.W. Cor Wabaska + Chatsworth			gutter	6.6	80.2
Wedge strain pavmt.		8.03	78.73		W. cnt. el.	5.68	81.04
+ 7.5		8.5	78.3				
+ 13 = S.E. Catch Basin Top Headwall		8.61	78.15		W. cnt. el	5.20	81.56
+ 14 Flowline ^{inlet} 12" cnt. pipe Culvert		9.94	76.82	outer Catch Basin SW Cor Wabaska & Chatsworth	gutter	6.0	80.8
W. cnt. el.		8.61	78.15		+ 7.5	5.7	81.1
		2+33.5 E. End catch Basin			W. pavmt	5.44	81.32
W. cnt. el		8.42	78.34				
gutter cnt. apron		9.03	77.73		W. pavmt.	5.11	81.6 ⁵
+ 2. " "		9.01	77.75		+ 7.5	5.2	81.6
+ 2.3 N. End Wing wall		8.77	77.99		gutter	5.6	81.2
+ 7.5		8.3	78.5		W. cnt. el	4.69	82.07
+ 15 = pavmt.		7.93	78.83				
		2+75.5 S. Line Quimby			W. cnt. el	4.21	82.55
W. edge pavmt.		6.53	80.23		gutter	5.0	81.8
+ 7.5		6.9	79.9		+ 7.5	4.8	81.0
gutter		7.5	79.3		W. pavmt	4.72	82.04
W. cnt. el		6.69	80.07				
		S. el.			W. pavmt	4.38	82.38
W. cnt. el		6.16	80.60		+ 7.5	4.2	82.6
gutter		7.0	79.8		gutter	4.6	82.2
+ 7.5		6.5	80.3		W. cnt. el.	3.72	83.04
W. pavmt.		6.10	80.60				

86.76
5.14

28

N. 1/4

N. el. line

0100 = N Line Quimby

86.76
 +10 N. of N line Quimby

W. emt. el	3.19	83.57
gutter	4.3	84.5
+7.5	3.8	83.0
W. pavmt	3.91	82.85

③ 0+50 N.

W. pavmt.	1.59	85.17
+7.5	1.6	85.2
gutter	2.1	84.7
W. emt. el	1.05	85.71
T.P.	12.18	98.86
	0.08	86.68

④ 1+00

W. emt. el	10.70	88.16
gutter	11.7	87.2
+7.5	11.0	87.9
W. pavmt.	10.75	88.11

⑤ 1+53

W. pavmt.	7.74	91.12
+7.5	8.1	90.8
gutter	8.4	90.1
W. emt. el.	8.04	90.82

⑥ 1+73 { 52.30 Rad. Return into Centraloma
 5 End Intersection Pavmt on West.

W. emt. el	6.97	91.89
gutter pavmt.	7.58	91.29
+7.5	7.00	91.86
+15 W. edge strip pavmt.	6.55	92.31

98.86
 1+95 Z Chatsworth

Wedge strip pavmt	5.70	93.16
+7.5	5.92	94.94
W. ob. line	6.15	94.71
+10 = W. prop line P.I. curb return	6.37	94.49
+10 " " " " " "	5.71	93.15

3+03

W. line - 20 emt. el. on return	5.07	93.79
" " - 20 gutter	5.69	93.17
" " - 10	5.88	94.98
" "	5.83	93.03
+10 = el	5.69	93.17
+17.5	5.58	93.28
+25 W. of strip pavmt.	5.46	93.40

2+15

Wedge strip	5.06	93.80
+7.5	5.11	93.75
+15 = el line	5.16	93.70
+25 = W. line	5.15	93.71
+10	5.18	93.68
+20	5.11	93.75

2+27

W. - 20	4.63	94.23
W. - 10	4.63	94.23
W	4.66	94.20
+10	4.60	94.26
+17.5	4.66	94.20
+25	4.64	94.22

98.86

2+39

W. edge strip parmt	4.20	94.66
+ 7.5	4.23	94.63
+ 15	4.21	94.65
+ 25 = N.	4.14	94.68
+ 10	4.18	94.68
+ 20	4.24	94.62

2+51

W-20	3.93	94.93
W-10	3.92	94.94
W	3.87	94.99
+ 10	3.85	95.01
+ 17.5	3.89	94.98
+ 25	3.78	95.08

2+63

W. edge strip	3.41	95.45
+ 7.5	3.54	95.32
+ 15	3.56	95.30
+ 25 = W. Line	3.59	95.27
+ 10	3.65	95.21
+ 20	3.72	95.14

2+75 = S line Tenn y son

60' wide
10' deep
10' deep

W-20	3.55	95.31
W-10	3.40	95.46
W.	3.31	95.55
+ 10	3.30	95.56
+ 17.5	3.26	95.60
+ 25	3.07	95.79

98.86

S. cl line

Wedge strip parmt.	2.90	95.96
+ 7.5	3.03	95.83
+ 15	3.12	95.74
+ 25 = W	3.23	95.63
+ 10	3.32	95.54
+ 20	3.41	95.45

S. 14

W-20	3.38	95.48
W-10	3.29	95.57
W	3.19	95.67
+ 10	3.04	95.82
+ 17.5	2.88	95.98
+ 25	2.74	96.12

Wedge strip parmt.

+ 7.5	2.76	96.10
+ 15	2.77	96.09
+ 25 = W line	2.95	95.91
+ 10	3.16	95.70
+ 20	3.30	95.56
+ 20	3.44	95.42

N. 14

W-20	3.56	95.30
W-10	3.36	95.50
W	3.19	95.67
+ 10	2.98	95.88
+ 17.5	2.82	96.04
+ 25	2.47	96.19

Chatsworth

30

98.86

N. cl. Tennyson

Wedge strip		2.57	96.29
+ 7.5		2.80	96.06
+ 15		3.10	95.76
+ 25 = W gutter		3.34	95.52
W. cnt. cl.		2.63	96.23
+ 10 " "		2.83	96.03
+ 10 gutter		3.52	95.34
+ 20 "		3.74	95.14
+ 20 cnt. cl.		3.04	95.82

T.P.B.M. 7.79 104.45 2.20 96.66

① 00 = N. line Tennyson P.C. A 28°-47'-30" W. d. Rad. Hor. 10

W. cnt. cl.		8.23	96.22
gutter parmt. wedge parmt.		8.84	95.61
+ 7.5		8.37	96.08
+ 15		8.06	96.39

Sec A A 3-26 chd on N. cl. 25.76

0.5 S. of W. cl. line = W. cnt. cl.		7.96	96.49
gutter dirt		8.5	96.0
" cnt.		8.96	95.49
2.2 E. of W. cl. line = E. edge cnt. gutter		8.85	95.60
7.5 " " " " on dirt		8.10	96.35
15. " " " " W. of strip parmt		7.82	96.63

S.E. chat's worth

+ Tennyson

96.65

W. d. Rad. Hor. 10

cl. 0.5 out of line

+ dirt

104.45

chat's worth

②

Sec B

Δ 7-12-22

0.9 E. of W. cl. line = cnt. cl.		7.74	96.71
dirt gutter for yardage		8.3	96.2
cnt. "		8.69	95.76
2.7 E. of W. cl. line = E. edge cnt. gutter		8.56	95.89
7.5 " " " " " dirt for yardage		8.0	96.5
15. " " " " " = wedge strip parmt.		7.65	96.80

③

Sec C

Δ 14-24-45

0.6 E. of W. cl. ^{line} = W. cnt. cl.		7.25	97.20
dirt gutter for yardage		8.0	96.5
cnt. "		8.22	96.23
2.4 E. of W. cl. line = E. cnt. gutter		8.08	96.37
7.5 " " " " " dirt for yardage		7.6	96.95
15. " " " " " + edge parmt.		7.37	97.11

Sec D. N. End cnt. gutter Δ 17°-01'-45"

0.4 E. of W. cl. line = cnt. cl.		6.84	97.57
dirt gutter for yardage		7.7	96.8
cnt. "		7.84	96.61
2.3 E. of W. cl. line = E. edge gutter		7.75	96.70
7.5 " " " " " dirt for yardage		7.3	97.2
15. " " " " " + parmt		7.00	97.45

④

Sec D

Δ 21-37-07

0.2 E. of W. cl. line = cnt. cl.		6.69	97.76
dirt gutter		7.6	96.9
7.5 E. of W. cl. line = dirt		7.3	97.2
15. " " " " " + parmt		6.91	97.54

cl. is 0.9 out of line

cl. is 0.6 out of line

cl. is 0.4 out of line

cl. is 0.2 out of line

⑤

104.45

0+00 = E.C. Chatsworth = P.R.E. into Villa Drive
= 5. End full width Pavmt on W.

W. emt. cl	6.14	98.31	cl line ok
gutter pavmt & dirt	6.84	97.61	
+7.5 " " "	6.49	97.96	
+1.5 " " "	6.24	98.21	

0+16.5 E.

W. line + 8 = W. emt. cl	6.00	98.45
gutter, pavmt	6.64	97.81
+10 = cl line	6.60	97.85
+17.5	6.29	98.16
+25 = W. of strip pavmt	6.04	98.41

0+30 P.I. W. edge pavmt & W. emt. cl.

W. line + 1.0 = W. emt. cl	5.70	98.75
" " + 1.1 = gutter pavmt.	6.34	98.11
" " + 10 = cl line	6.40	98.05
" " + 17.5	6.12	98.33
+25	5.87	98.58

0+32 P.I. W. line + W. emt. cl.

W. line on emt. cl	5.68	98.77
dirt & gutter	6.3	98.2
+1 = W. edge pavmt	6.30	98.15
+10	6.39	98.06
+17.5	6.12	98.33
+25	5.85	98.60

Chatsworth.

104.45

0+55 ²⁵ = 5.14

W. line dirt	6.0	98.5
+1.5 = W. edge pavmt	6.00	98.45
+10	6.20	98.25
+17.5	5.89	98.56
+25	5.61	98.84

0+79 ⁵⁰

W. line Dirt	5.7	98.8
+1.5 = W. edge pavmt	5.70	98.75
+10 = cl line	5.92	98.53
+17.5	5.59	98.86
+25	5.34	99.09

1+03 ²⁵

W. line Dirt	5.5	99.0
+1.7 = W. edge pavmt.	5.50	98.95
+10	5.70	98.8
+17.5	5.39	99.06
+25	5.13	99.32

1+07

± for chk	4.95	99.50
	4.94	99.51

1+15 ¹²

W. line	5.5	99.0
+2.7 = W. edge pavmt.	5.54	98.91
+10	5.57	98.88
+17.5	5.23	99.22
+25	4.94	99.47

32

104.45

1+27 = P.I. W. line + cnt. el. into Villa Drive

W. line cnt. el.	4.88	99.57
" " dirt gutter	5.0	99.45
+ 1.5 = W. edge pavmt.	5.26	99.19
+ 10	5.37	99.08
+ 17.5	5.07	99.38
+ 25	4.79	99.66

1+29 = P.I. W. line pavmt + cnt. el.

W. + 1.5 cnt. el.	4.82	99.63
W + 1.5 gutter pavmt	5.21	99.24
W + 10	5.35	99.10
+ 17.5	5.04	99.41
+ 25	4.76	99.69

1+42

W + 7.4 = W. cnt. d. on curve	4.43	100.02
W + 7.4 gutter pavmt	4.05	99.40
+ 10	5.15	99.30
+ 17.5	4.82	99.63
+ 25	4.60	99.85

1+57 = P.C. into Villa Drive

W. cnt. el.	4.02	100.43
gutter pavmt	4.71	99.74
+ 7.5	4.47	99.98
+ 15	4.24	99.21 100.31

104.45

Chatsworth

1+78.20 P.C. Lt Δ 24-30' W. el. Radius 679.77

W. cnt. el.	3.06	101.39
gutter pavmt.	3.75	100.70
+ 7.5	3.37	101.08
+ 15	3.16	101.29
+ 25 = ϵ	3.03	101.42

See A Δ 2-56-45"

W. cnt. el.	0.87	103.58
gutter pavmt.	1.70	102.75
+ 7.5	1.22	103.23
+ 15	1.00	103.45
+ 25	0.87	103.58
T.P.	13.26	117.49
	0.22	104.23

See B Δ 5-53-30"

W. cnt. el.	11.57	105.92
gutter pavmt.	12.43	105.06
+ 7.5	12.00	105.49
+ 15	11.75	105.74
+ 25 = ϵ	11.64	105.85

See C Δ 8-50-15"

W. cnt. el.	9.34	108.15
gutter pavmt.	10.15	107.34
+ 7.5	9.77	107.72
+ 15	9.54	107.95
+ 25 = ϵ	9.42	108.07

33

117.49

Sec. D. Δ 11°-47'

w. cont. el	7.17	110.32
gutter parvt.	7.95	109.54
+7.5	7.59	109.90
+15	7.32	110.17
+25	7.21	110.24

Sec E Δ 14°-43'-45'

w. cont. el	4.86	112.63
gutter parvt.	5.64	111.85
+7.5	5.42	112.07
+15	5.11	112.38
+25 = ϕ	4.94	112.55

Sec F Δ 17°-46'-30"

w. cont. el	2.52	114.97
gutter parvt.	3.34	114.15
+7.5	3.06	114.43
+15	2.85	114.64
+25 = ϕ	2.72	114.77

Sec G Δ 20°-37'-15" Apparent P.C. Curve Returns
1h to Voltaire

w. cont. el	0.90	116.59
gutter parvt.	1.63	115.86
+7.5	1.14	116.31
+15	0.77	116.72
+25 = ϕ	0.62	116.87
T.P.	4.82	122.04
	0.27	117.22

122.04

Chatsworth

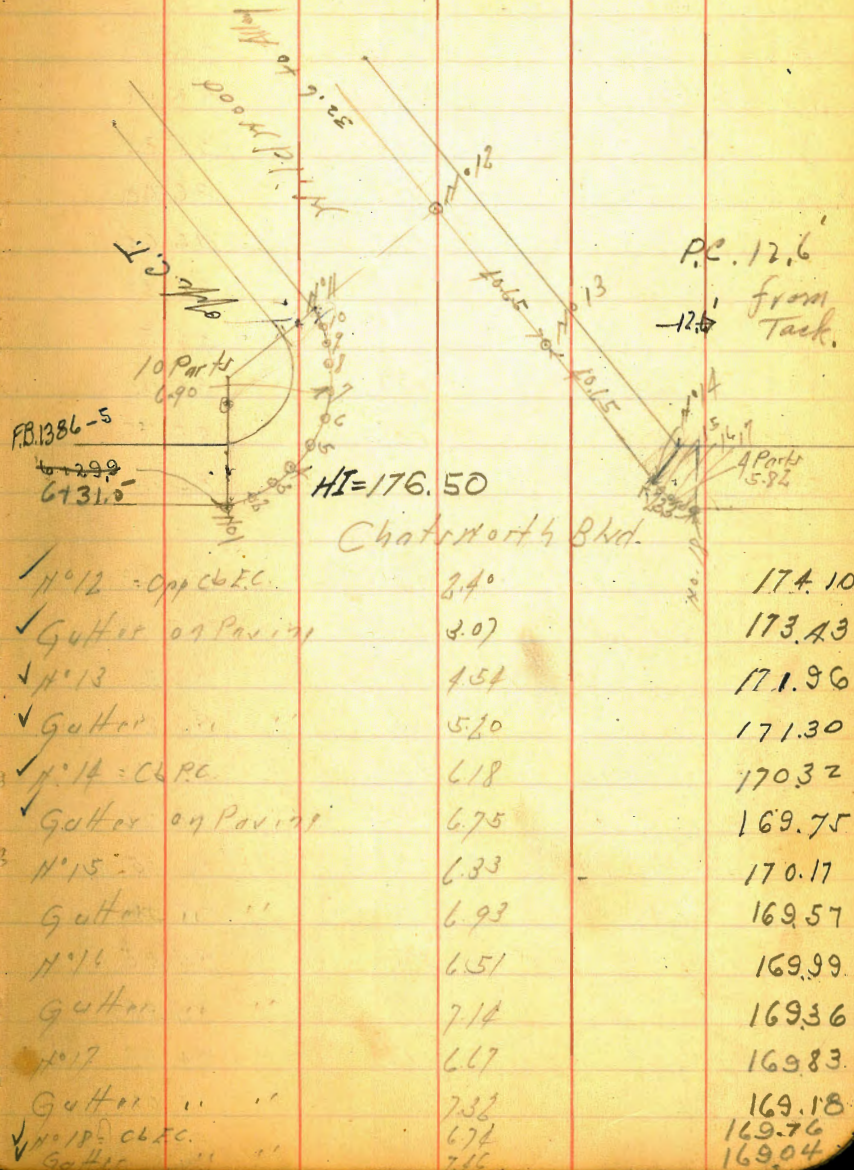
See H Δ 23-34-00 on S. el s. line Voltairr Produced from W.
This Sec. Not on Radial Line - on S. line Voltairr

R.W. of Whine = cont. el	4.55	117.49	34
R. " " " " gutter parvt.	4.88	117.16	
W. line	4.82	117.22	
+10 = el. line	4.40	117.64	
+17.5	4.04	118.00	
+25	3.72	118.32	
+35 = ϕ	3.46	118.58	on New Patch.
	3.51	118.53	Book 1367.
chk on B.M. S.W. Voltaire + Chatsworth	5.22	116.82 = 116.83	

Chatsworth Blvd Cross Section
At Wildwood

BM	0.28	197.95	197.67	Chatsworth & Dixon
TP	0.31	185.49	12.77	185.18
TP	2.78	176.50	11.77	173.72
N°1 - Cb.P.C. Top		2.72		173.78 ✓
Gutter on Pavings		2.52		172.98 ✓
N°2		2.90		173.60 ✓
Gutter " "		3.61		172.89 ✓
N°3		2.98		173.52 ✓
Gutter " "		3.73		172.77 ✓
N°4		3.15		373.35 ✓
Gutter " "		3.90		372.60 ✓
N°5		3.31		373.19 ✓
Gutter " "		4.02		372.48 ✓
N°6		3.22		373.28 ✓
Gutter " "		4.00		172.50 ✓
N°7		3.12		173.36 ✓
Gutter " "		3.90		172.60 ✓
N°8		2.97		173.53 ✓
Gutter " "		3.72		172.78 ✓
N°9		2.76		173.74 ✓
Gutter " "		3.48		173.02 ✓
N°10		2.50		174.00 ✓
Gutter " "		3.14		173.36 ✓
N°11 - Cb.P.C.		2.15		174.35 ✓
Gutter " "		2.80		173.70 ✓

Cb Plotted 5-5-1980 C.H.



✓ N°12 - Opp Cb.P.C.	2.40	174.10
✓ Gutter on Pavings	2.07	173.43
✓ N°13	4.54	171.96
✓ Gutter " "	5.20	171.30
✓ N°14 - Cb.P.C.	6.18	170.32
✓ Gutter on Pavings	6.75	169.75
N°15	6.33	170.17
Gutter " "	6.93	169.57
N°16	6.51	169.99
Gutter " "	7.14	169.36
N°17	6.67	169.83
Gutter " "	7.32	169.18
✓ N°18 - Cb.P.C.	6.74	169.76
Gutter " "	7.16	169.04

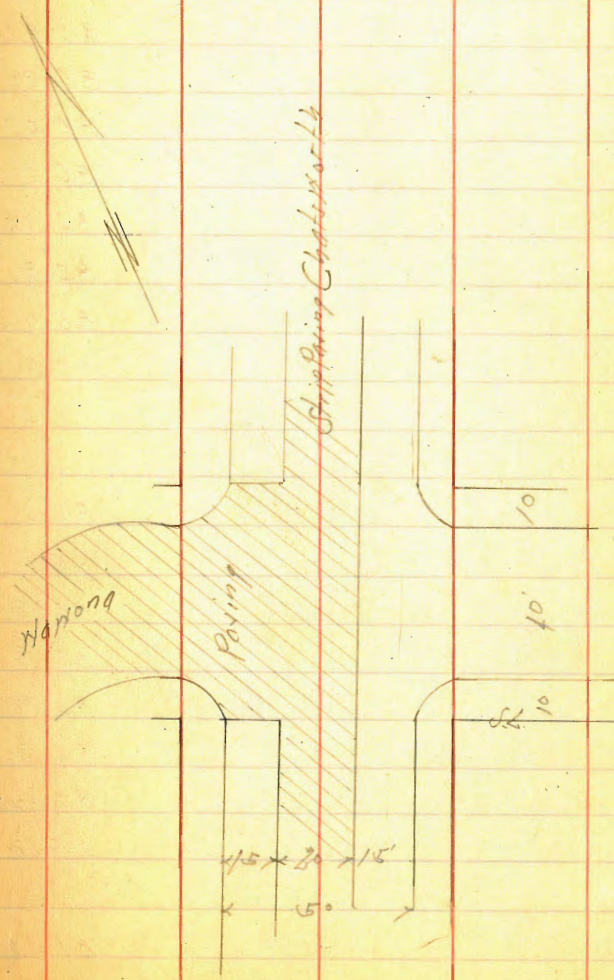
Chatsworth Blvd Cross Section
At Harmon

50' Roadway
18.5' Gt

4-30-30
Survey
36

BM	3.69	90.13	86.44	NKBP Chatsworth Harmon
		S.L. Harmon		
HCb		3.70	86.43	
Gutter on Pavmg		4.63	85.50	
1/4		3.87	86.29	
+2.5 Edge Strip		3.65	86.48	
1/2 07		3.52	86.60	
+1.0 Edge "		3.11	86.47	
1/4		3.6	86.5	
+9.5 Edge Gutter		4.07	86.06	
Gutter on Conc "		4.38	85.75	
HCb		3.72	86.41	
		S Cb		
F on Cb		3.70	86.43	
Gutter on Conc Gutter		4.64	85.49	
Cb		3.9	86.2	
1/4		3.9	86.2	
+2.5 Edge Pavmg		4.00	86.13	
1/2 07		3.85	86.26	
+1.0 Edge of Strip		3.98	86.15	
1/4 07 Pavmg		4.15	85.98	
Cb		4.78	85.35	
Gutter		4.25	85.88	
1/2 07 1/2 Cb		3.67	86.49	
+1.35 "		3.12	87.01	
Gutter on Pavmg		3.15	86.48	

Tol. X Sec Plotted 5-5-1930
 C.P.H.



9.13

+246 on top cb	2.33	87 80
Gutter on Pav. ins	3.05	87 08
	5 1/4	
H on Pav. ins	4.66	85 47
Cb	5.06	85 07
1/4	4.50	85 63
+16.5 - Edge of Strip	4.38	85 75
L	4.22	85 91
7/10 = Edge "	4.38	85 75
1/4	4.3	85 8
Cb	4.2	85 9
F	4.1	85 7
	L Harmon	
F	4.8	85 3
Cb	4.5	85 6
1/4	4.1	85 5
+16.5 = Edge Strip	4.75	85 38
L	4.10	85 53
+1.0	4.18	85 48
1/4 on Pav. ins	4.81	85 32
Cb on Pav. ins	5.32	84 81
H	5.01	85 12
	1 1/4	
H on	5.51	84 59
Cb	5.69	84 44
1/4	5.09	85 04

9.13

+16.5	4.98	85 15
L	4.91	85 19
7/10 = Edge	5.07	85 06
1/4	4.9	85 2
Cb	5.6	84 9
F	5.6	84 5
	H. Cb	
F on Cb	5.70	84 43
Gutter on Conc. Gutter	6.65	83 48
Cb	6.9	84 1
1/4	5.4	84 7
+16.5 = Edge Strip	5.40	84 73
L	5.20	84 93
7/10 = " "	5.21	84 82
1/4 on Pav. ins	5.39	84 74
Cb	6.18	83 95
H " "	6.18	83 95
H Cb	5.66	84 47
+15 on Cb	4.68	85 51
Gutter on Pav. ins	5.25	84 88
+30 on Cb	3.59	86 54
Gutter on Pav. ins	4.17	85 94
	H. L Harmon	
H Cb	5.22	84 51
Gutter on Pav. ins	6.52	83 61
1/4	5.71	84 39

37

9013

+2.5 = Edge Strip

5.61

84 52

2

5.52

84 61

+10 = " " "

5.18

84 45

1/4

5.7

84 4

+9.5 = Edge Conc Gutter

6.32

83 81

Gutter

6.65

83 47

F.C.B.

5.69

84 44

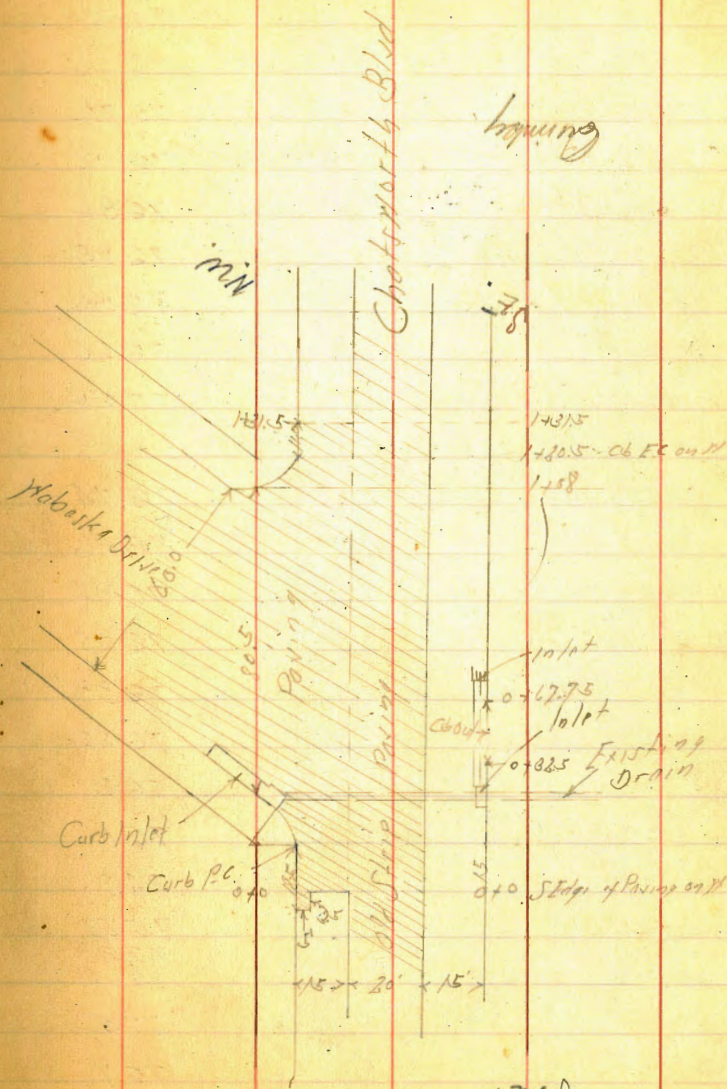
38

Chatsworth Blvd. Cross Section
At Habaska Drive

58' Roadway
12.5' Gr

430.30
Siron
39

BM	5.72	8286	77.14	N.L. Habaska E.L. Chatsworth
	S Edge Paving 0.97' 20.4			
FCB			70.7	75.79
Gutter			8.04	74.82
+3.5 = Edge Conc. Gutter			7.76	75.10
4			6.1	76.8
+2.5 = Edge Paving			5.92	76.94
1/2 on			5.77	77.09
+10 = Edge Strip			5.80	77.06
1/4 on Paving			5.79	77.07
Gutter			5.84	77.02
N.C.B.			5.71	77.65
	15' H of Edge Paving = C.B.P.C.			
N.C.B.			5.28	77.58
Gutter on Paving			5.94	76.92
1/4			5.87	76.99
+2.5 = Edge Strip			5.88	76.98
1/2			5.87	76.99
+10 =			6.00	76.86
1/4			6.3	76.5
+6			6.8	76.0
+9.5 = Edge Conc. Gutter			7.87	74.99
Gutter			8.15	74.71
FCB			7.18	75.68
	Strip Et. 5-5-1930-C.B.H.			
			27.511	
FCB			7.89	75.57



8286

Gutter	79	749
+5	8.1	747
1/4	6.3	765
+2.5 = Edge Strip	6.15	7671
1/2	5.94	7692
+10 = Edge Strip	5.92	7694
1/4 on Paving	5.91	7695
Cb	6.00	7686
H	6.20	7666
on Top Cb	5.80	7766
	32.511	
H on Paving	6.12	7674
Cb	6.00	7686
1/4	5.92	7694
+2.5 = Edge Strip	5.91	7695
1/2 on Paving	5.98	7688
+10 = Edge Strip	6.24	7662
1/4	6.6	762
1/2	6.7	761
1/4	7.9	749
F Cb - End	7.33	7553
F Prop.	5.5	77.3
	47.4211	
F	5.3	775
Cb	6.1	767
1/4	6.4	764
+2.5 = Edge Strip	6.40	7646

82.86

1/2 on Paving	6.10	7676
+10 = Edge Strip	5.92	7694
1/4 on Paving	5.90	7696
Cb	5.89	7697
H	5.86	7700
	67.7511	
H on Paving	5.93	7713
Cb	5.81	7705
1/4	5.88	7698
+2.5 = Edge Strip	5.94	7692
1/2 on	6.27	7659
+10 = Edge	6.17	7669
1/4	5.9	769
Cb top + dirt	5.77	77.07
	87.8711	
IC	4.89	7797
Gutter	5.85	7701
1.2 = Edge Guc Gutter	5.74	7712
1/4	5.5	773
+2.5 = Edge Strip	5.38	7748
1/2	5.30	7756
+10 = Edge	5.40	7746
1/4 on Paving	5.43	7743
Cb	5.58	7728
H	5.60	7726
	108.11	

40

8286

W Top Cb	481	78 05
W Gutter on Parap	537	77 49
Cb " "	588	77 58
" " "	418	78 18
+2.5 = Edge Strip	460	78 26
£	443	78 43
+10 = Edge "	458	78 28
"	46	78 3
+10.5 = Edge Conc Gutter	475	78 11
Gutter	492	77 94
ECb	395	78 91

1205 N

ECb	336	79 50
Gutter	431	78 55
+2 = Edge	418	78 68
"	42	78 6
+2.5 =	405	78 78
£	392	78 88
+10 = Edge Strip	414	78 72
" on Parap	434	78 52
Gutter " "	518	77 68
ECb " "	470	78 16

131.5 N - Edge of Parap

ECb	417	78 59
Gutter on Parap	423	78 03
" " "	393	78 93

8286

+2.5 = Edge Strip	370	79 16	41
£	352	79 94	
+10 = Edge Strip	362	79 24	
"	35	79 3	
+10.5 = Edge Conc Gutter	368	79 18	
Gutter	388	79 04	
ECb	296	80 00	

Row 10

X Sec Alley BIK3. Superpa Hts.

38th to 39th bet Superior & Franklin9-23-30
Miller
Sohn or Myer
Oshorke

106.08

church B.M. B.P. Steps	4.77	106.08	101.31	M.W. 39 th + Franklin	5	6.4	99.7	42
		oo = W. line 39 th St			+5	5.6	100.5	
S. on cont. el.		3.48	102.40			7.5' W.		
S. ground		4.1	102.0		S - 10	8.5	97.6	
⊕		4.1	102.0		S	8.4	97.7	
N. ground		3.9	102.2		⊕	8.3	97.8	
N. on cont. el.		3.34	102.70		+4	8.3	97.8	
		15' W			N	9.8	96.3	
N		3.9	102.2		+6	10.8	95.3	
⊕		4.0	102.1		+25	10.9	95.25	
S		4.1	102.0		+55	6.7	99.4	
		38' W			+75	3.8	92.3	
S		5.0	101.1			100' W		
⊕		4.9	101.2		N-75	2.1	104.0	
N		4.8	101.3		N-55	4.7	101.4	
+25		4.7	101.4		N-25	8.1	98.0	
+5.5		4.4	101.7		N	9.6	96.5	
+7.5		3.7	102.4		+5	7.9	98.2	
		55' W			⊕	7.9	98.2	
N-75		4.6	101.5		+5	8.0	98.1	
N-55		9.6	96.5		S	9.9	96.2	
N-25		9.0	97.1		+26 N.E. cor. garage	11.1	95.0 S. Entrance	
N-2		8.8	97.3		+20	13.3	92.8	
N		8.0	98.1					
+2		7.1	99.0					
⊕		6.6	99.5					

Plotted 9-25-30 - C.B.H.

106.08

117' W. of 39th St.

S-20	12.3	93.8
S-23 = N.W. Cor. garage	9.7	96.4 ✓
S	9.2	96.9
+5'	6.9	99.2
⊕	6.7	99.4
+8'	6.8	99.3
N.	8.1	98.0
N.+15	8.0	98.1
135' W.		
N-10	5.8	100.9
N	5.6	100.5
+2	4.0	102.1
⊕	4.0	102.1
+9	4.0	102.1
S	5.7	100.4
+2	7.2	98.9
+10	7.5	98.6
145' W.		
S-10	7.5	98.6
-3	7.0	99.1
S	2.3	103.8
+0.5	1.0	105.1
+5'	2.2	103.9
⊕	2.4	103.7
+9	2.0	104.1
N.	3.1	103.0

Alley Bk 3. Superba Hts.

106.08

N+1	4.0	102.1	4.3
N+10	4.0	102.1	
150' W.			
N-10	1.7	104.4	
N	0.5	105.6	
+3	0.4	105.7	
+6	1.9	104.2	
⊕	1.7	104.4	
+6	1.1	105.0	
S	0.2	105.9	
+10	1.6	104.5	
T.P.	2.16	112.13	111
165' W.			
S.	4.9	107.2	
+5	6.1	106.0	
⊕	6.3	105.8	
+6	5.6	106.5	
N.	4.6	107.5	
190' W.			
N	3.6	108.5	
+2	3.6	108.5	
+5	5.2	106.9	
⊕	5.3	106.8	
+7	5.2	106.9	
S	4.3	107.8	

112.13
 207' W. garage on N. cmt. floor 5.7 Back.
 S 5.0 107.1
 ♀ 4.7 107.4
 +5 4.5 107.6
 N. 3.6 108.5
 +5.7 floor 2.7 109.4 ✓

225' W
 N 4.1 108.0
 ♀ 4.7 107.4
 S 5.3 106.8

240' W
 S 5.3 106.8
 ♀ 4.7 107.7
 N. 3.8 108.3

270' W
 N 3.3 108.8
 +5 3.9 108.2
 ♀ 3.7 108.4
 S 3.8 108.3

291' W. garage on N. cmt. floor Back
 S 3.8 108.3
 ♀ 3.8 108.3
 +5 3.8 108.3
 N 3.1 109.0
 + 0.8 cmt. apron 2.98 109.15 ✓
 +3.5 floor 2.67 109.46 ✓

310' W. 44
 N 3.7 108.4
 +5 4.6 107.5
 ♀ 4.7 107.4
 S 4.6 107.5

338' W.
 S 8.1 104.0
 ♀ 8.2 103.9
 +5 8.0 104.1
 +9.7 s. end. cmt. wall 7.6 104.5
 N. on sloping s. end. of wall 7.1 105.0

343' W. garage on N. under House dirt floor 10.6 Back
 N. - 10.6 floor 9.3 102.8 ✓
 N. 8.4 103.7
 ♀ 8.8 103.3
 S 8.6 103.5

350' W.
 S 9.7 102.4
 ♀ 10.0 102.1
 +8 9.0 103.0
 N. 7.5 104.6

T.P. 4.79 104.09 12.83 99.30
 378' W.
 N on N side board Fence 3.2 100.9 ✓
 +0.4 4.4 99.7
 +5 5.7 98.4
 ♀ 6.0 98.1

104.09

378' W (con)

♀ + 4	6.0	98.1
S	8.0	96.1
+15	9.5	94.6
400' W		
S-15	11.0	93.1
S	9.2	94.9
+6	6.3	97.8
♀	6.2	97.9
+6	6.0	98.1
+9.8 S. side Fence	7.4	96.7
N N " "	5.8	98.3
+7	5.8	98.3
405' W		
N-10	7.2	96.9
N = N. edge Fence	7.5	96.6
+0.2 S " "	7.5	96.6
+4	6.4	97.7
♀	6.4	97.7
+3	6.6	97.5
S	9.2	94.9
+5	10.5	93.6
+15	11.5	92.6
430' W		
S-15	12.5	91.6
S	9.8	94.3
+5	6.8	97.3

104.09

AHey BIK, B. Superba HTs

♀	6.4	97.7	45
+5	6.3	97.8	
N. S. side Fence	7.7	96.4	
+1.	7.5	96.6	
+10!	7.0	97.1	
450' W			
N-10	4.6	99.5	
N-1	5.6	98.5	
N. S. side Fence	5.7	98.4	
♀	5.8	98.3	
+6	6.0	98.1	
S	8.0	96.1	
+2	9.0	95.1	
+10	9.8	94.3	
460' W			
S-10	8.3	95.8	
S	6.8	97.3	
+3	4.9	99.2	
♀	5.0	99.1	
+7	4.5	99.6	
N	3.5	100.6	
+5	1.8	102.3	
475' W			
N	1.6	102.5	
+6	2.9	101.2	
♀	3.0	101.1	
S	2.4	101.7	

		104.09	
493' W garage on S. dirt floor	6' 2" Back		
5-6.2		2.3	101.8 ✓
S		2.2	101.9
⊕		2.5	101.6
+7		2.2	101.9
+9		6.2	103.9
N		0.2	103.9
510' W.			
N.		0.7	103.4
+3		2.6	101.5
⊕		3.0	101.1
+6		2.5	101.6
S		1.6	102.5
546' W. - E. Side House on S. 0.25 in Alley.			
S		2.8	101.3 ✓
+3		5.2	98.9
⊕		5.5	98.6
+7		5.2	98.9
N.		2.9	101.2
565' W.			
N.		5.8	98.3
+3		7.6	96.5
⊕		7.6	96.5
+7		7.5	96.6
+9.75 N.S. de ent. foundation		5.5	98.6 ✓

		104.09	Alley BIK 3. Superba Hts.
582' W. = W. end House = E. End. ent. wall on S.			
S. Top wall		8.6	95.5
5+0.25 N. side House + wall		9.5	94.6 ✓
+4		10.7	93.4
⊕		10.7	93.4
+7		10.5	93.6
N.		8.8	95.3
T.P.	7.20	98.32	12.97
595' W.			91.12
N		5.7	92.6
+3		7.5	90.8
⊕		7.6	90.7
+9.9 = N. edge wall		7.3	91.0
S. Top of wall		4.3	94.0
400' W. = E. Line 38 th St			
S. ent. dr		9.41	88.91
S. dirt		8.8	89.5
⊕		8.5	89.8
N. dirt + ent. dr.		7.73	90.59
W. = E. edge ent. gutter			
N. on E. edge ent. gutter		8.59	89.73
⊕ " " " "		9.61	88.71
S gutter sunk S. of ⊕ on int 10.2			88.1
10' W. = E. dr. Line of 38 th			
S. on ent. dr		9.74	88.54
S " " gutter	Gutter sunk Bet S. + ⊕	10.6	87.7
⊕ " " "		9.69	88.63

		98.32				
		E. ch. line	38 th St. (down)			
N.	on	emt.	gutter	8.80	89.52	
N	"	"	eli.	7.84	90.48	
		13' W. of	E. Line, 38 th St. = wedge emt. gutter			
N.	on	w	edge emt. gutter	8.59	89.73	
E	"	"	"	9.49	88.83	
S	"	"	"	10.42	87.90	gutter sunk bet. S. + E
T.P.	11.96	109.98	0.30	98.02		
T.P.	6.51	106.15	10.34	99.64		
chk original	RM.		4.83	101.32	101.31	

Moore
Walker, Recording
Bliss
11-15-30

SOUNDINGS

32ND ST. OUT FALL SEWER
From Most SELY. Dolphin
to A Point 600' South

48

Most SELY. Dolphin		Starting	9.25 AM	11-15-30	Depth	
-0+00	on E. Proposed outfall				20.0	-25.4
1+00	" " " "				20.0	-25.4
2+00	" " " "				20.0	-25.4
+50	" " " "				21.0	-26.4
3+00	" " " "				21.0	-26.4
+50	" " " "				23.0	-28.4
4+00	" " " "				25.0	-30.4
+50	" " " "				29.0	-34.4
5+00	" " " "				33.0	-38.4
+50	" " " "				35.0	-40.4
6+00	" " " "				37.0	-42.4

FINISHED 9.50 AM 11-15-30

Walter
Bliss
Robert
Sommermayr
12-23-30
Exist. M.H.

CONSTRUCTION Notes
322nd ST SEWER outfall 24" LINE
Location on Page 51

8+32.85 = 0+00
(+1.88)²⁰
+41.88
+83.76
1+25.64
+67.52
2+09.40
+51.28
+93.16
3+35.04
+76.92
4+18.80 = 4+00
(+1.84)²⁰
4+60.64
5+02.47
+44.3
+86.14
6+27.98
+69.82
7+11.66
+53.5
+95.35
8+37.20
8+79
9+20.86
+62.7
10+04.55

Station	Grade	Flow Line	Cuts	Offsets
8.36	16.31	-7.95	-7.94	
	6.77	1.59	-8.00	+9.59 15' South
	6.24	2.12	-8.06	+10.18 " "
	5.62	2.74	-8.13	+10.87 " "
	5.47	2.89	-8.19	+11.08 " "
	5.58	2.78	-8.25	+11.03 " "
	5.40	2.96	-8.32	+11.28 " "
	5.32	3.04	-8.38	+11.42 " "
	5.00	3.36	-8.44	+11.80 " "
	6.62	1.74	-8.51	+10.25 " "
	5.11	3.25	-8.57	+11.82 " "
	4.89	3.47	-8.63	+12.10 " "
	4.27	4.09	-8.69	+12.78 " "
	3.93	4.43	-8.75	+13.18 " "
	3.35	5.01	-8.82	+13.83 " "
	4.30	4.06	-8.88	+12.94 " "
	4.75	3.61	-8.94	+12.55 " "
	4.57	3.79	-9.00	+12.79 " "
10.08	5.22	4.86	-9.07	+13.93 " "
	5.17	4.91	-9.13	+14.04 " "
	4.44	5.64	-9.19	+14.83 " "
	4.71	5.37	-9.25	+14.62 " "
	4.64	5.44	-9.32	+14.76 " "
	4.68	5.40	-9.38	+14.78 " "
	5.02	5.06	-9.44	+14.50 " "

B.M. S.W. B.P. Fisher 1922

213.49
623.7
836.7
457.7
379.7
629.7
1008.7

these stakes reset 25' North E
3-15-31

Station	Elev. Stake	Flow Line	Cuts
0+00	8.30	-7.94	
+41.88	1.47	6.83	-8.90 +14.83
+83.76	1.82	6.48	-8.06 +14.54
1+25.64	2.98	6.22	-8.13 +14.35
+67.52	2.21	6.09	-8.19 +14.25
2+09.40	3.05	5.75	-8.25 +13.50

Elev. Sub. St. 2+09.40 on p. 50 = 2.78
5.52 +
8.30

Cont. on P. 50

3220 St. JEWEL Outfall

Cont from p-49

Station	10.08		Elev. Flow line	Cuts	Effects	Page 1	54' 8" Fisher	Final sand st. =
10+46.4		5.57	4.51	-9.50	+14.01	15' South		2.13
+88.2		5.52	4.56	-9.57	+14.13	" "		2.23 +
11+30.10		5.04	5.04	-9.63	+14.67	" "		8.36 - π
+71.9		4.83	5.25	-9.69	+14.94	" "		10.08 - π
12+13.7		4.45	5.63	-9.75	+15.38	" "		6.37 -
12+55.6 = 141H #2 Δ R 190° (40.02) 23		3.62	6.46	-9.82	+16.28	" North.		3.71 - T.P.
12+95.6		4.14	5.94	-9.88	+15.82	" West.		4.60 +
13+35.64		4.63	5.45	-9.94	+15.39	" "		8.31 - π
+75.68		4.99	5.09	-10.00	+15.09	" "		6.46 -
14+15.72		5.23	4.85	-10.06	+14.91	" "		1.85 - T.P.
+55.76		5.87	4.21	-10.12	+14.33	" "		3.93
+95.8		6.37	3.71	-10.18	+13.89	" "		5.78 - π
15+35.84	8.31	4.53	3.78	-10.24	+14.02	" "		
+75.88		3.41	4.90	-10.30	+15.20	" "		
16+15.93		4.04	4.27	-10.36	+14.63	" "		
+55.97		4.74	3.57	-10.42	+13.99	" "		
+96.02		4.91	3.40	-10.48	+13.88	" "		
17+36.06		3.99	4.32	-10.54	+14.86	" "	25' W	
+76.10		4.97	3.34	-10.60	+13.94	" "	+14.56	
18+16.14		4.50	3.81	-10.66	+14.47	" "	25' W	
+56.18		5.17	3.14	-10.72	+13.86	" "	+13.54	
+96.22		5.81	2.50	-10.78	+13.28	" "		
19+36.26		6.38	1.93	-10.84	+12.77	" "		
+76.30	5.78	4.08	1.70	-10.90	+12.60	" "		
20+16.34		4.42	1.36	-10.96	+12.32	" "		

Cont p-51

20+16.3
4.50
1.36
19+76.3
4.17
1.69
19+36.3
3.93
1.43
18+76.2
3.76
2.50
17+56.2
3.72
3.74
16+16.1
4.08
3.82
17+76.1
4.56
2.35
17+36.1
3.40
4.31
16+96
4.51
3.40
16+55.97
4.34
3.57
16+15.9
3.65
4.26
15+75.9
3.01
4.90

50
2.13
2.23 +
8.36 - π
10.08 - π
6.37 -
3.71 - T.P.
4.60 +
8.31 - π
6.46 -
1.85 - T.P.
3.93
5.78 - π
π 5.86
2.72
3.14
4.27
7.91

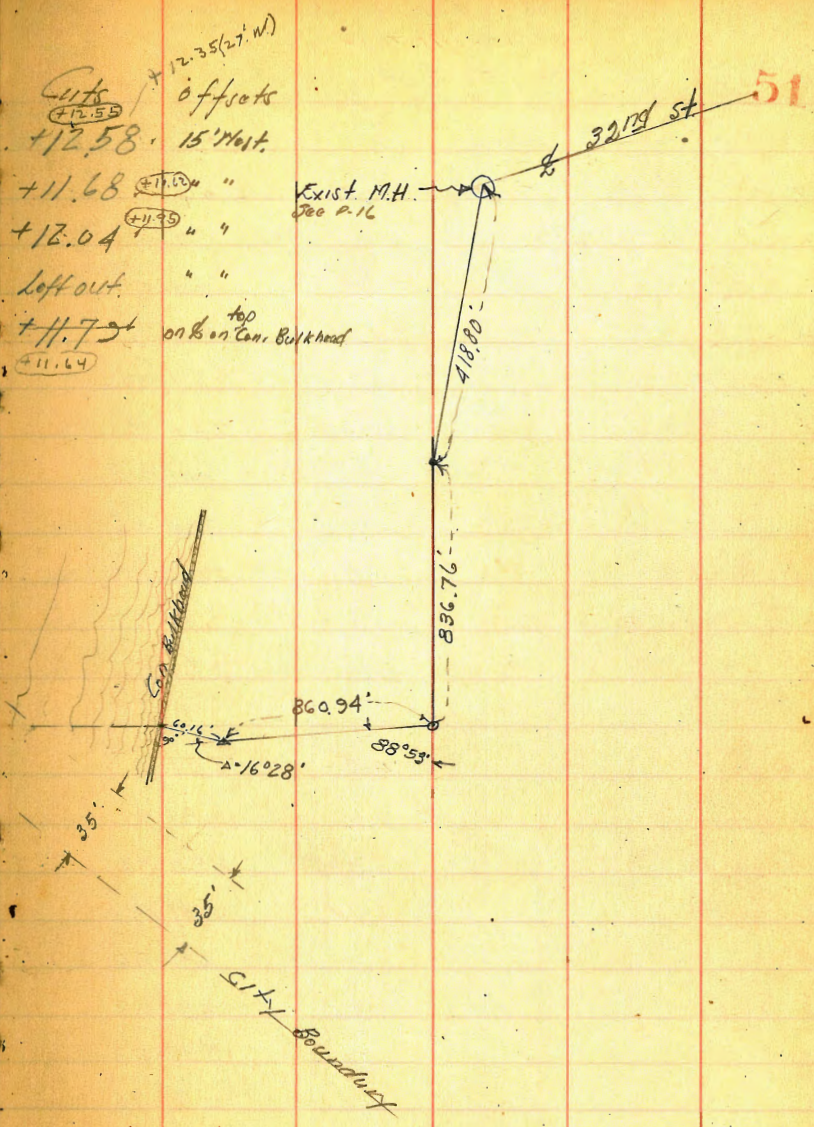
3209 St. outfall sewer
Cont. from P. 50

Station	5.78				
20 +56.98 (30.06)		4.22	1.56	-11.02	+12.58
+86.44		5.16	0.62	-11.06	+11.68
21 +16.50 Δ Rt. 16°28'		4.85	0.33	-11.11	+12.04
(30.08)				-11.15	Left out
21 +46.58				-11.15	" "
21 +76.66 = Con. Bulkhead North edge	5.19	0.59		-11.20	+11.73
				-11.05	on top of Con. Bulkhead

0.59 BM Bulkhead.

5.27	21 +145.0 Δ	20 +86.5	20 +56.4
5.86	4.94	5.23	4.32
	8.72	0.63	7.54

BM = 2 Top Quay wall



Walker
Bliss
Kamary
3-5-31

PK-Cross Section of Fill
on WASHINGTON St. East of 9th St
40' wide 5' cbs
7 1/2' '45.

(See p. 13)
old notes

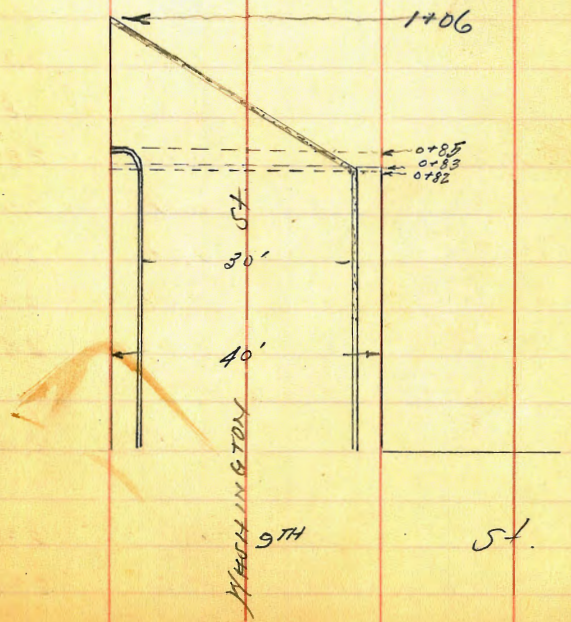
281.76

52

B.M. 5 B top right
Page 9 this book

	3.73	288.12		284.39
T.P.	5.36	281.76	11.72	276.40
		0+82		
S		+0.3		282.0
cb.		+0.01		281.76
Gut. on Pav.		0.50		281.26
1/2 " "		0.50		281.26
1/2 " "		0.48		281.28
1/2 " "		0.71		281.05
N Gut. on Pav.		0.91		280.85
N top cb at P.C. Return		0.95		281.41
N		0.2		281.5
		0+83		
N		0.4		281.4
cb.		0.37		281.39
Gut. on Pav.		0.93		280.83
1/2 " "		0.79		281.02
1/2 " "		0.50		281.26
1/2 " "		0.55		281.21
S Gut. " "		0.53		281.23
cb.		0.00		281.76
S		0.1		281.7
		0+84		
S +5		5.5		276.2
S		3.5		278.2

cb.	0.02	281.74
Gut. on Pav.	0.60	281.16
1/2 " "	0.61	281.15
1/2 on Rim M.H.	0.54	281.22
1/2 " Pav.	0.77	280.99
Gut.	0.94	280.82
N cb.	0.37	281.39
N	0.3	281.4
		0+85
N on top cb.	0.95	281.41
N " " Pav.	0.87	280.89
cb. " " "	0.96	280.80
N 1/2 " " "	0.82	280.94



281.76

2 on Rim 1971	0.58	281.18
2 " Pav.	0.66	281.10
+45' = Gut on Pav. at cb. Line	0.66	281.10
+45' on cb.	0.11	281.75
cb.	0.3	281.4
5	3.5	278.2
+5	6.0	275.7
+20	10.1	271.6
0+90		
-20	11.5	270.2
-2	7.5	273.2
5	5.9	275.8
cb.	2.2	279.5
+5	0.2	281.5
2	0.3	281.5
+2 on cb.	0.32	281.44
+2 " Pav.	0.36	280.80
6 " "	0.34	280.82
2 " "	1.04	280.72
cb. " "	1.07	280.69
11 " "	0.29	280.77
0+95		
N on Pav.	1.15	280.61
cb. " "	1.28	280.48
2 " "	1.31	280.45
+5 = Gut. at cb. on Pav.	1.24	280.52
+5 on top cb.	0.18	281.28

281.76

2	0.4	281.4
2	0.5	281.3
cb.	4.5	277.3
5	8.0	273.7
+2	8.8	273.0
+20	13.3	268.5
1+06		
-20	13.5	262.2
-15' = toe New Fill	18.3	263.5
-2'	14.7	267.1
5	13.2	268.6
cb.	10.1	271.7
2	7.8	274.0
2	3.7	278.1
2	0.4	281.4
cb.	0.7	281.1
N on cb.	0.72	281.04
" " Pav.	1.23	280.53
+5	1.3	280.5
1+11		
-5 = toe New Fill	1.2	280.6
N	1.3	280.5
cb.	1.1	280.7
2	4.5	277.3
2	6.6	275.2
2	10.0	271.8

53

281.76

S. cb.	19.3	268.5
S.	15.1	266.7
+5'	17.3	264.5
+20' = toe New Fill	20.8	261.0
1+18		
-26' = toe New Fill	28.3	253.5
-5'	21.6	260.2
S	19.3	262.5
cb.	17.6	264.2
$\frac{1}{4}$	13.3	268.4
$\frac{1}{2}$	11.0	270.7
$\frac{1}{4}$	8.9	272.9
cb.	7.2	274.6
N	6.2	275.6
+8' = toe New Fill	3.7	278.1
1+26		
N	10.2	271.5
cb.	11.9	270.9
$\frac{1}{4}$	13.7	268.1
$\frac{1}{2}$	15.6	266.2
$\frac{1}{4}$	18.3	263.5
cb.	21.6	260.2
S	23.3	258.5
+8'	27.0	254.8
+20' = toe New Fill	30.3	251.5
+30'	33.0	248.8

281.76

1+36		
-50	35.0	246.8
-7' = toe New Fill	30.2	251.5
South	27.8	254.0
cb.	26.1	255.7
$\frac{1}{4}$	23.2	258.6
$\frac{1}{2}$	21.2	260.6
$\frac{1}{4}$ = toe New Fill	18.3	263.5
cb.	14.8	267.0
N	13.6	268.2

54

Moore
Walker
Bliss
Dredge
3-11-31

Soundings 32nd St. outfall
From Quay Wall to End of line

	Depth	Elev.	Time
Face Quay Wall = 0+00		-27.00	10.55 AM
1+00	17.5	-26.1	
2+00 = A	17.5	-26.1	
+20 = No 1 Pile	17.4	-26.0	
+46 = No 2 "	17.1	-25.7	
+75 = No 3 "	17.7	-26.3	
3+02 = No 4 "	17.6	-26.2	
3+23 = No 5 "	17.5	-26.1	
+65 = No 6 "	17.4	-26.0	
+85 = No 7 "	17.5	-26.1	
4+12 = No 8 "	17.9	-26.5	
+41 = No 9 "	18.7	-27.3	
+68 = No 10 "	17.9	-26.5	
+95 = No 11 "	17.7	-26.3	
5+24 No 12 "	18.3	-26.9	
+52 No 13 "	18.5	-27.1	
+81 = No 14 "	18.3	-26.9	
6+36 = No 15 "	18.6	-27.2	
+63 No 16 "	18.7	-27.3	
+92 = No 17 "	19.0	-27.6	
7+19 = No 18 "	19.0	-27.6	
+44 = No 19	19.2	-27.8	
+73 = No 20	19.0	-27.6	
8+01 = No 21	19.5	-28.1	
+28 = No 22	19.1	-27.7	

S.M. on Cross over & on Quay Wall = ⁰⁵
+0.59
509 = + 194
568 - K

Soundings
Depth

8+54=N ^o 23	Die	19.2	-27.8
+83-N ^o 24	"	19.2	-27.8
9+11=N ^o 25	"	19.2	-27.8
+36-N ^o 26	"	19.4	-28.0
+65-N ^o 27	"	19.4	-28.0
9+92-N ^o 28	"	19.5	-28.1
10+18-N ^o 29	"	19.6	-28.2
+47-N ^o 30	"	19.2	-27.8
+74-N ^o 31	"	19.3	-27.9
11+02-N ^o 32	"	19.4	-28.0
+38-N ^o 33	"	19.5	-28.1
+56-N ^o 34	"	19.8	-28.4
+84-N ^o 35	"	20.0	-28.6
12+12-N ^o 36	"	20.0	-28.6
+40-N ^o 37	"	20.0	-28.6
+68-N ^o 38	"	20.0	-28.6
+95-N ^o 39	"	19.5	-28.1
13+23-N ^o 40	"	19.6	-28.2

Finish
11.30 am

Walker
Bliss
Drum
3-21-31

PRELIMINARY LEVELS

For 6" WATER MAIN ON 45TH ST
From Pueblo line at South line Boston Ave.
to J.C. LOGAN AVE. 84th St. Boston
1203 89.86 77.83

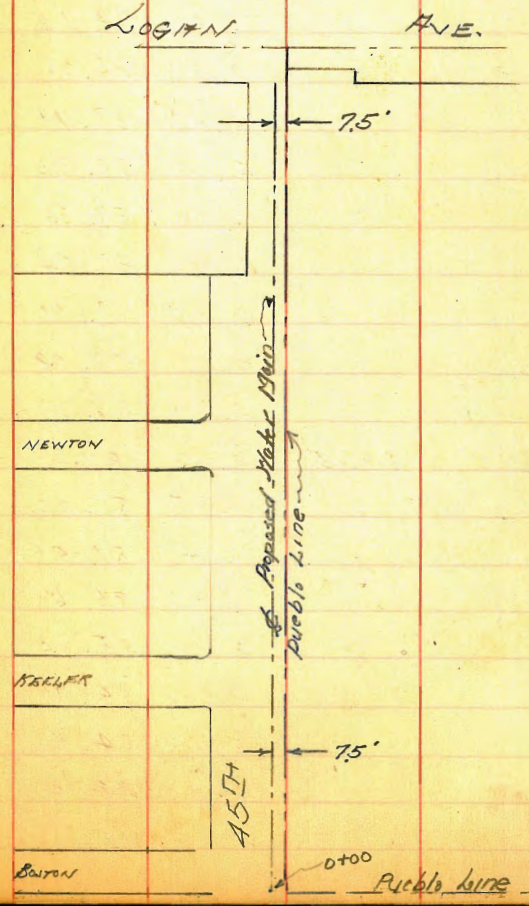
J.C. Boston 0+00		12.3	77.56
0+10 on P.V. 7.5'		12.03	77.83
+50 " "		12.08	77.78
1+00 " "		10.88	79.0
+50 " "		9.85	80.5
2+00 " "		7.89	82.0
+50 " "		6.61	83.25
3+00 " "		5.55	84.31
+50 " "		3.21	85.25
4+00 " "		2.11	87.75
+50 " "		2.31	87.55
5+00 " "		2.57	87.29
+50 " "		2.74	87.12
6+00 " "		2.96	86.90
+50 " "		3.24	86.62
7+00 " "		3.34	86.62
T.P.	1.38 88.65	2.59	87.27
8+00 " "		0.7	87.9
+50 " "		1.2	87.4
9+00 " "		2.1	86.5
+50 " "		2.9	85.7
10+00 " "		3.7	84.9
+50 " "		4.6	84.0
11+00 " "		4.8	83.8
+50 " "		5.0	83.6

Note: Catch basins P. 581-59

Q

88.65

11+00		4.8	83.8
+50		4.4	84.2
12+00		4.2	84.4
+50		3.9	84.7
13+01.3 = S.C. Logan		3.7	84.9
T.P.	5.57 91.11	3.11	85.54
T.P.	8.70 94.36	5.45	85.66
T.P. C.T. Locust View + 45th		8.92	85.44



57

Walker
 8155
 Dubois
 3-24-31

GRADES For 6" Water Main
 on 45th St.
 from Picket Line to Jk. Boston
 to Jk. Logan.

Station	+	π	-	Elev.	Elev. Bottom of Pipe	
0+00 =		89.86	12.28	77.58	74.80	+2.8
+50 = Bk.			11.56	78.30	75.00	+3.3
1+00			10.36	79.50	76.3	+3.2
+50			8.87	80.99	77.6	+3.4
2+00			7.54	82.32	78.9	+3.4
+50			6.52	83.34	80.2	+3.1
3+00 = Bk.			5.11	84.75	81.50	+3.3
+50			3.57	86.29	83.18	+3.2
4+00			2.15	87.71	84.80	+2.9
+50			2.04	87.82	84.62	+3.2
5+00			2.20	87.66	84.43	+3.3
+50			2.32	87.54	84.25	+3.3
6+00			2.75	87.11	84.06	+3.0
+50			2.82	87.04	83.88	+3.2
+71 = Bk.			2.59	87.27	83.80	+3.5
T.P.	1.28	88.65	2.59	87.27		
7+00			0.65	88.00	83.55	+4.5
+50			1.14	87.51	83.12	+4.4
8+00			1.96	86.69	82.70	+4.0
+50			2.81	85.84	82.27	+3.6
9+00			3.66	84.99	81.84	+3.1
+50			4.43	84.22	81.42	+2.8
10+00			4.60	84.05	81.00	+3.1
+50			4.82	83.83	81.16	+2.7

Elev. S.E. Cor. Pav. Boston 12524 = 77.82
 12.63
 89.86 = π

45TH ST. WATER MAIN

8865

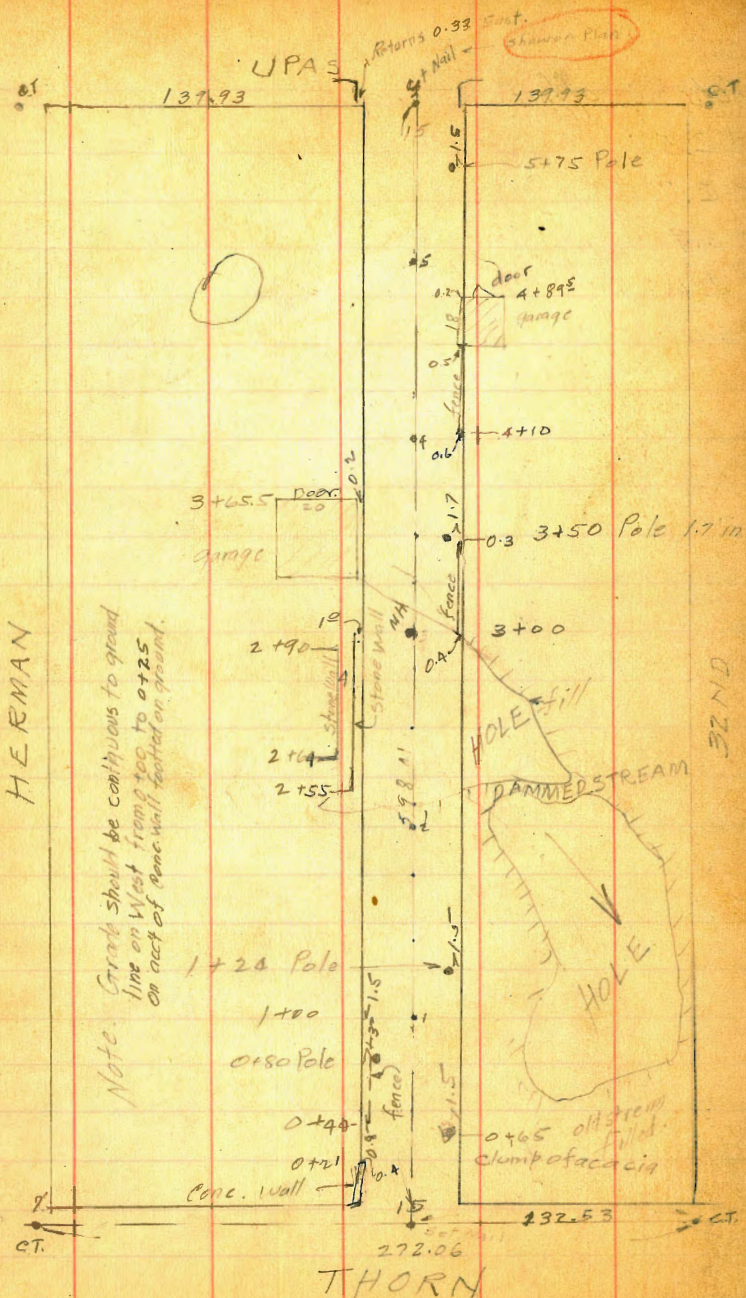
						Cuts	offsets
11+00			4.77	83.88	81.33	+2.5	
+50			4.40	84.25	81.50	+2.7	
12+00			4.12	84.53	81.66	+2.9	
+50			3.70	84.95	81.83	+3.1	
13+01.3	St. Leger Ave PAVING		3.63	85.02	82.00	+3.0	
T.P.	5.57	91.11	3.11	85.54			
T.P.	8.70	94.36	5.45	85.66			
T.P.			8.92	85.44			

B.M. C.T.
Ocean View
45th St.

Above B.M. Checked back to Highland Keelev

	11.89	89.97		77.58			
T.P.	3.37	91.01	1.83	87.64			
T.P.	0.03	80.87	10.17	80.84			
N.Y. B.P. Highland Keelev.			8.37	72.50			
				72.46 - B.M.			
				0.04 = Error.			

Elev. 560 ft
0700 P.M.



5/21/30 ~~R~~ X sec Alley Blk 4 Frary Hts
Louden

60

				NW BP. 31 st & Upas
B.M.	1.47	330.46	328.99	
T.P.	5.01	326.72	8.75	321.71
6+01 = Sub line Upas				
W.L.	to bcb	4.31	322.41	
W.L.	gut	4.68	322.04	✓
+		4.62	322.10	✓
EL.	gut	4.52	322.20	✓
EL.	to bcb	4.16	322.58	
5+98 4L = S.L. Upas				
EL.	rb	4.04	322.68	✓
EL.	bar	4.24	322.48	✓
+	Par	4.55	322.17	✓
W.L.	Par	4.28	322.44	
W.L.	eb	4.12	322.60	
5+94				
W.L.		4.2	322.5	
+		4.5	322.2	
+		4.0	322.7	
+		4.0	322.7	
EL.		3.7	323.0	
5+90				
EL.		3.4	323.3	
+		4.1	322.6	
+		4.0	322.7	
+		4.2	322.5	
W.L.		4.1	322.6	

Plotted 5-23-1931.

326.72

5775		
W.L.	4.8	321.9
+4	4.8	321.9
±	4.5	322.2
+5 [±]	3.7	323.0
E.L.	4.1	322.6

5750		
E.L.	5.0	321.7
+2	4.9	321.8
±	5.4	321.3
+1	5.2	321.5
+3 [±]	5.5	321.2
W.L.	5.6	321.1

5729 = ± sing garage conc floor 10' West

5.83 320.89 ✓

5725		
W.L.	6.1	320.6
±	5.8	320.9
E.L.	5.8	320.9

5700		
E.L.	6.8	319.9
+2	7.0	319.7
+4	6.9	319.8
±	7.0	319.7
+3	7.4	319.3
W.L.	7.2	319.5

326.72

4+98 [±]	= N end double garage 10' West	conc floor
+		7.07 319.65
4+89 [±]	= S end same garage 9' West	✓
		7.03 319.69
		(earth + floor) ✓
4+89 [±]	= N end of garage facing North	0.2 in on East
		7.5 319.2 ✓

475		
W.L.	7.1	319.6
+5	8.0	318.7
±	7.6	319.1
+3	7.9	318.8
E.L.	7.4	319.3

4750		
E.L.	8.6	318.1
+3	8.4	318.3
±	8.6	318.1
W.L.	8.7	318.0

4725		
W.L.	9.5	317.2
+4	9.8	316.9
±	9.6	317.1
E.L.	9.4	317.3

32672

E.L. 4+00

EL	10.9	315.8
+2	11.2	315.5
±	10.8	315.9
W.L.	11.0	315.7

3+93 = ± Sing. gage 4 East. ^(10' wide) earth floor ✓

11.30 315.42 ✓

3+75

W.L.	11.8	314.9
±	12.5	314.2
E.L.	13.4	313.3

3+65 = Head Double gage facing North ^{one floor} 02 West ✓

11.43 315.29 ✓

T.P. 102 315.84 11.90 314.82

3+60

EL	3.8	312.0
+3	2.9	312.9
±	2.7	313.1
W.L.	2.7	313.1

3+45

W.L.	3.3	312.5
+3	2.6	313.2
±	2.5	313.3
+4	2.7	313.1
EL	3.5	312.3

3+30

315.84

62

E.L.	4.4	311.4
±	4.1	311.7
+3	4.2	311.6
W.L.	4.7	311.1

3+15

W.L.	4.0	311.8
+3 ^S	4.8	311.0
±	4.3	311.5

EL	4.7	311.1
----	-----	-------

3+05

EL	5.7	310.1
±	4.9	310.9
+4	5.4	310.4
W.L.	4.8	311.0

M.H. at 3+00 1' West ✓

top	4.11	311.73 ✓
FL	15.41	300.43 ✓

3+00

W.L.	8.9	306.9
±	8.7	307.1
+3	7.6	308.2
E.L.	5.1	310.7

315.84

2+90

9'E	5.4	310.4
EL	7.7	308.1
±	10.8	305.0
+4	10.8	305.0
W.L.	10.0	305.8
1'W	9.4	306.4
2'W	5.0	310.8
7'W	4.7	311.1

2+77

5'W foot of stone wall	5.8	310.0 ✓
1'W top st. wall	6.7	309.1 ✓
1'W foot st. wall	10.0	305.8 ✓
W.L.	10.2	305.6
+2	11.4	304.7
±	11.4	304.4
+3	11.5	304.3
E.L.	10.2	305.6
4'E	11.5	304.3
6'E	11.1	304.7
13'E	9.2	306.6
20'E	5.1	310.7

7.6

2+66

315.84

29'E	5.2	310.6
11'E	13.0	302.8
1'E	12.4	303.4
EL	11.1	304.7
+4	11.6	304.2
±	11.0	304.8
+4	10.6	305.2
W.L.	9.0	306.8
1'W foot st. wall	8.9	306.9 ✓
1'W top st. wall	5.7	310.1 ✓
5'W foot st. wall	5.0	310.8 ✓
2+55		
6'W	2.3	313.5 ✓
1'W top st. wall	5.0	310.8 ✓
1'W foot st. wall	W.L.	
±	7.6	308.2
+5	8.5	307.3
EL	10.5	305.3
7'E	12.2	303.6
20'E	12.1	303.7
32'E	6.1	309.7

2+41

10'E	3.1	312.7
EL	2.3	313.5
±	1.2	314.6
W.L.	0.6	315.2

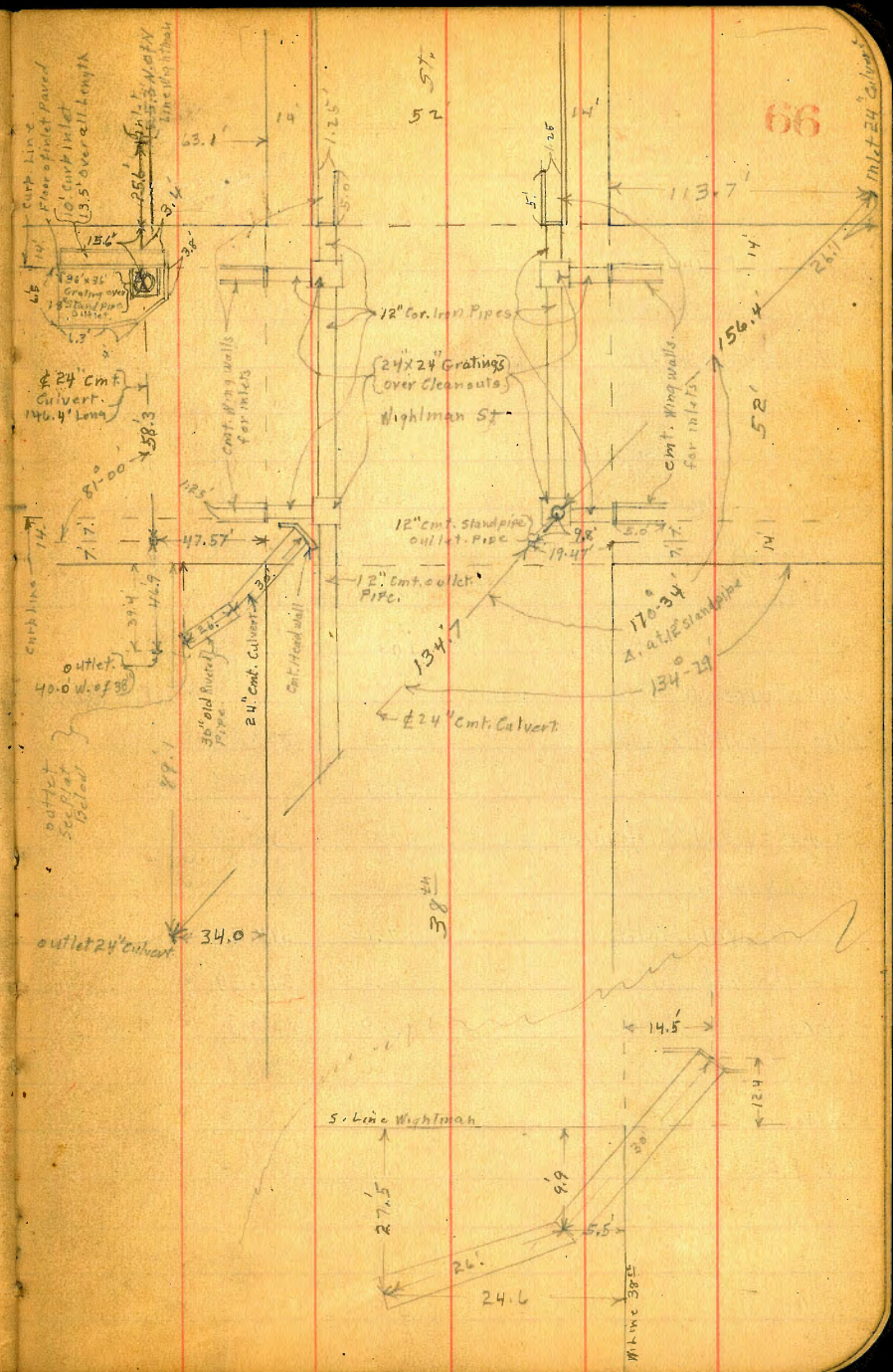
63

	315.84		
T.P. 625	321.12	0.97	314.87
2+20			
W.L.	5.4		315.7
+3	5.3		315.8
±	5.8		315.3
+5	5.6		315.5
E.L.	6.3		314.8
2+00			
E.L.	6.0		315.1
±	5.7		315.4
W.L.	5.5		315.6
1+75			
W.L.	5.5		315.6
±	5.6		315.5
E.L.	5.8		315.3
1+61 = ± Sing garage on West line	(12' wide) earth floor		
	5.1		316.0
1+50			
E.L.	5.9		315.2
±	5.6		315.5
W.L.	5.0		316.1
1+75			
W.L.	4.8		316.3
±	5.3		315.8
+4.5	5.5		315.6
E.L.	5.4		315.7

1+08 = ± Sing garage 5' West conc floor ✓	(12' wide)		
	4.15		316.97 ✓
1+00			
E.L.	5.5		315.6
±	5.0		316.1
W.L.	4.3		316.8
0+89 = ± Sing garage 9' East 10' wide conc floor ✓			
	5.42		315.70 ✓
0+75			
W.L.	4.6		316.5
±	4.9		316.2
E.L.	5.3		315.8
0+50			
E.L.	5.7		315.4
+5.5	5.7		315.4
±	5.3		315.8
+3.5	5.4		315.7
W.L.	4.6		316.5
0+25			
W.L.	4.9		316.2
+0.5	5.7		315.4
±	5.8		315.3
E.L.	6.1		315.0

	0+12	321.12		
E.L.			6.7	314.4
±			6.5	314.6
W.L.			6.8	314.3
	0+00			
W.L.	eb		8.24	312.88 ✓
W.L.	pa		8.64	312.48 ✓
±	pa		8.98	312.14 ✓
E.L.	v		8.98	312.14 ✓
E.L.	eb		8.86	312.26 ✓
	0-10 = N eb Thorne			
E.L.	eb		9.22	311.90
E.L.	pa		9.86	311.26 ✓
±	v		9.53	311.59 ✓
W.L.	v		9.23	311.89 ✓
W.L.	eb		8.50	312.62
TP.	11.47	323.20	9.39	311.73
TP.	6.05	326.17	3.08	320.12
TP	7.01	331.89	1.29	324.88
BM	Beginning.		2.92	327.97

4-20-34	2.566	38 th St	Wightman to Tax	Indexed
Miller Walker B1135	6.02	325.72	325.72	2.5.6.
B.M. 8P	6.02	325.72	319.70	N.W. 38 th Wightman
26.1 N. of N. Line Wightman				
113.7 E. of e. line 38 th = Inlet 24" Cat. Culvert	15.22	370.5	✓	F.L.
25.3 N. of N. Line Wightman				
63.1 W. of W. Line 38 th = Inlet 24" Cat. Culvert	17.90	307.84	✓	F.L.
5' N. of N. line Wightman				
W-10.0	5.5	320.2	✓	
W.	5.6	320.1	✓	
cmt. ch	5.82	319.90	✓	
gutter	6.64	319.08	✓	
+1.25 N. End Wing Wall.	6.55	319.17	✓	
"	5.69	320.03	✓	
"	5.36	320.36	✓	
"	5.39	320.35	✓	
+11.75 N. End. Wing wall	5.85	319.97	✓	
gutter	6.02	319.70	✓	
cmt. ch	5.19	320.53	✓	
+12 E.	4.91	320.81	✓	
"	4.1	321.62	✓	
E-25	3.5	322.22	✓	
E.	5.1	320.62	✓	
+1.67 E. Edge walk S. End. 15.1.6 N. of line	5.21	320.81	✓	
+7.0 W " " " " " 11.6 N. of " "	5.28	320.44	✓	
cmt. ch.	5.51	320.21	✓	
gutter = F.L. inlet	6.62	319.10	✓	
+1.25 " " " "	6.67	319.05	✓	
+1.13 Top. Headwall	5.51	320.21	✓	
+1.75 pavmt.	5.85	319.87	✓	



325.72

525.72

1/4 Pavmt.	5.73	319.99 ✓
1/4 "	5.76	319.96 ✓
1/4 "	6.06	319.66 ✓
+ 11.25 Pavmt	6.54	319.18 ✓
+ 11.7. Top Headwall	6.19	319.53 ✓
+ 11.75 F.L. Inlet.	7.30	318.42 ✓
gutter " "	7.30	318.42 ✓
ent. cl.	6.16	319.56 ✓
+ 7.0' = E. edge Walk - S. End. 1/2 N. of Lin.	6.26	319.46 ✓
+ 12.33 - W " " " " " 1/2 N. of " "	6.31	319.41 ✓
W	5.6	320.1 ✓
+ 25'	4.7	321.0 ✓
14' S = N. cl. line		
67.0' W. = W. End. Curb Inlet. on Top cl.	2.29	323.43 ✓
67.0' W gutter pavmt	3.21	322.51 ✓
53.4' W. " "	3.07	322.65 ✓
53.4' W. = S. End. Curb Inlet.	4.10	321.62 ✓
W-25.	4.6	321.1 ✓
W. on ground.	5.6	320.1 ✓
W. on Top Wall of Inlet.	7.15	318.57 ✓
W. gutter F.L. Inlet	8.33	317.39 ✓
+ 13'	6.0	319.7 ✓
cl.	6.4	319.1 ✓
+ 0.8 Top. of cleanout grating	6.66	319.06 ✓
+ 0.8 F.L. " "	7.98	317.74 ✓
1/4	6.0	319.7 ✓
1/4	5.8	319.9 ✓
1/4	5.8	319.9 ✓

325.72

325.72

3824.51

+ 12.2 Top of cleanout grating	5.79	319.95 ✓	67
+ 12.2 F.L. " "	7.24	318.48 ✓	
cl.	5.8	319.9 ✓	
E. ground.	5.4	320.3 ✓	
E. Top Wing Wall W. End.	5.66	320.06 ✓	
E. gutter F.L. Inlet.	6.88	318.84 ✓	
+ 5' Top Wing Wall E. End	5.05	320.67 ✓	
+ 5' gutter	6.09	319.63 ✓	
+ 25'	4.1	321.62 ✓	
3.8' S. of N. cl.			
(Top Wing Wall)			
53.4' W. of W. Line + 2'	2.90	322.82 ✓	SE. Cor. Catch Basin
53.4' " " " "	3.93	321.79 ✓	ent. pavmt.
6.5' S. of N. cl.			
(Top Wing Wall)			
67' W. of W. Line	2.01	323.71 ✓	SE. Cor. Catch Basin
67' " " " "	2.97	322.75 ✓	ent. pavmt.
N. 1/4			
E-25	4.8	320.92 ✓	
E	5.7	320.0 ✓	
cl.	6.1	319.6 ✓	
1/4	6.0	319.7 ✓	
1/4	6.1	319.6 ✓	
1/4	6.3	319.4 ✓	
cl.	6.5	319.2 ✓	
W.	6.3	319.2 ✓	
+ 25	5.0	320.7 ✓	

325.75

E Wightman

325.72

W-25	4.7	320.0	✓
W	6.2	319.5	✓
cl	6.7	319.0	✓
1/4	6.6	319.1	✓
4	6.2	319.5	✓
1/4	6.4	319.5	✓
cl	6.3	319.4	✓
E	5.8	319.9	✓
+25	4.8	320.9	✓

S. 1/4

-25	5.7	320.05	✓
E	6.6	319.1	✓
cl	6.8	318.9	✓
1/4	6.9	318.8	✓
4	6.8	318.9	✓
1/4	7.1	318.6	✓
cl	7.4	318.3	✓
W	6.5	319.2	✓
+25	5.0	320.7	✓

S. cl. Lane

W-25	5.8	319.9	✓
W-4.5 = W. End. Wing Wall	6.74	318.98	✓
W-4.5 gutter	7.80	317.92	✓
W	6.9	318.8	✓
W#0.5 " F.L. Inlet.	8.12	317.60	✓
W#0.5 Top. Headwall.	6.92	318.80	✓
+13	7.5	318.2	✓
cl	8.0	317.7	✓

325.72

38th St

325.72

+1.7 Top cleanout, grating	8.02	317.70	✓
+1.7 F.L. "	2.97	315.75	✓
1/4	7.3	318.4	✓
4	7.2	318.5	✓
1/4	7.0	318.7	✓
cl	7.3	318.4	✓
+1.0 Top cleanout, grating	7.34	318.58	✓
+1.0 F.L. "	8.80	316.92	✓
+1.0 F.L. culvert.	20.77	304.95	✓
E	6.9	318.8	✓
+2.6 = W. End wing wall	7.29	318.23	✓
+2.0 = F.L. inlet.	8.56	317.16	✓
+7.0 E. End. Wing wall.	8.09	317.63	✓
+2.0 gutter.	7.24	319.48	✓
+25	6.2	319.5	✓

1.6 S. of S. cl

E-25	5.4	320.3	✓
E	6.8	318.9	✓
cl	7.1	318.6	✓
1/4	7.0	318.7	✓
4	7.0	318.7	✓
1/4	7.2	318.5	✓
+12.5 F.L. 24" corr Pipe Culvert	8.78	316.94	✓ inlet
+12.5 Top pipe + Headwall	6.38	319.24	✓
cl	6.4	319.3	✓
W	5.9	319.8	✓
+25	4.6	321.1	✓

68

325.72
0+00 = S. Line Wightman

Station	325.72	325.72	✓
W-25	4.4	321.3	✓
W	5.2	320.5	✓
cb	6.0	319.7	✓
+10	7.1	318.6	✓
1/4	7.2	318.5	✓
±	6.8	318.9	✓
1/4	7.0	318.7	✓
cb	7.1	318.6	✓
E.	6.9	318.8	✓
0+27.5			
E.	6.7	319.0	✓
cb	6.9	318.8	✓
+1	7.4	318.3	✓
1/4	4.9	318.8	✓
±	7.1	318.6	✓
1/4	7.3	318.4	✓
cb	7.0	318.7	✓
+3	6.0	319.7	✓
+11.	5.9	319.8	✓
N	6.4	319.3	✓
+18	18.4	307.3	✓
+24.6 F.L. 30" Riveted Pipe (old)	20.4	305.3	✓
+25	21.6	304.1	✓
+40	21.1	304.6	✓

325.72
0+39.4

Station	325.72	325.72	38 th ST
W-50.	23.7	302.0	✓
W-40 = F.L. outlet 24" ext. Pipe	27.2	298.5	✓ x. End. Main Wash. to 50'
W-33	27.0	298.7	✓
W-30	22.7	3030	✓
W-21	20.5	305.2	✓
W.	4.4	319.3	✓
+11	6.4	319.3	✓
cb	7.2	318.5	✓
1/4	7.4	318.3	✓
±	7.2	318.5	✓
1/4	6.9	318.8	✓
+11	7.3	318.4	✓
cb	6.8	318.9	✓
E	6.5	319.2	✓
0+49.4			
E	6.8	318.9	✓
cb	7.2	318.5	✓
+2	7.8	317.9	✓
1/4	7.4	318.3	✓
±	7.3	318.4	✓
1/4	7.8	317.9	✓
+11	8.4	317.3	✓
cb	7.1	318.6	✓
W	4.8	318.9	✓
+32.	26.3	299.4	✓
+34 F.L. Outlet 24" ext. Culvert	30.0	295.7	✓

325.72

04891 con

315.72

+ 37	♀ Main Wash		29.6	✓	✓	316.1	✓
+ 46			26.2	✓	✓	319.5	✓
		1+40					
W-65			28.7	✓	✓	317.0	✓
-50			28.7	✓	✓	317.0	✓
-44	♀ Main Wash		31.2	✓	✓	314.5	✓
-34			27.3	✓	✓	318.4	✓
-24			25.0	✓	✓	300.7	✓
W.			7.9	✓	✓	317.8	✓
cl			7.7	✓	✓	318.0	✓
+2			8.6	✓	✓	317.1	✓
14			8.2	✓	✓	317.5	✓
♀			7.6	✓	✓	318.1	✓
14			7.8	✓	✓	317.9	✓
+12			8.2	✓	✓	317.5	✓
cl			7.6	✓	✓	318.1	✓
E			7.4	✓	✓	318.3	✓
T.P.	2.93	320.95	7.70			318.02	
		1+70					
E.			1.4	✓	✓	319.5	✓
+2			2.9	✓	✓	318.0	✓
cl			3.1	✓	✓	317.8	✓
+1			3.7	✓	✓	317.2	✓
44			3.3	✓	✓	317.6	✓
♀			3.1	✓	✓	317.8	✓
14			3.4	✓	✓	317.5	✓

320.95

38th 51

70

310.95

+12			4.0	✓	✓	316.9	✓
cl			3.4	✓	✓	317.5	✓
W.			3.7	✓	✓	317.2	✓
+40			23.9	✓	✓	317.0	✓
+44			24.6	✓	✓	316.3	✓
+46	♀ Marsh Wash		26.5	✓	✓	314.4	✓
+57			24.5	✓	✓	316.4	✓
+65			24.2	✓	✓	316.7	✓
		2+00					
W-80			25.7	✓	✓	315.4	✓
-72	♀ Main Wash		27.3	✓	✓	313.6	✓
-65			25.4	✓	✓	315.5	✓
-58			25.2	✓	✓	315.7	✓
-8			4.1	✓	✓	316.8	✓
-1			2.9	✓	✓	318.0	✓
W			3.7	✓	✓	317.2	✓
+12			3.5	✓	✓	317.4	✓
cl			4.4	✓	✓	316.5	✓
14			3.8	✓	✓	317.1	✓
♀			3.5	✓	✓	317.4	✓
14			3.7	✓	✓	317.2	✓
+12			4.0	✓	✓	316.9	✓
cl			3.5	✓	✓	317.4	✓
+12			3.1	✓	✓	317.8	✓
E.			2.1	✓	✓	318.8	✓

320.95

2+13.5

4.9' W of W. Line = N. E. Cor House

19.0' " " " " = N.W. " "

2+41.8

5.0 W of W. Line = S. E. Cor. House

2+50

320.95

E 3.2 317.7 ✓

+2' = E. Edge cmt. walk 3.70 317.7 ✓ N. End.

+7' = W " " " 3.80 317.1 ✓ " "

E. cmt. cl. N. End. 3.95 317.0 ✓

+1 4.5 316.4 ✓

+4 4.3 316.6 ✓

+ 4.2 316.7 ✓

+4 4.8 316.1 ✓

+9. 5.4 315.5 ✓

cl 4.2 316.7 ✓

W 4.3 316.6 ✓

+3 5.8 315.1 ✓

+33 9.7 311.7 ✓

+65' 27.0 293.9 ✓

+98' 27.4 293.1 ✓

+102 29.0 291.9 ✓

+106' 27.4 293.5 ✓

2+59

5.2' W of W. Line = N. E. Cor. House

19.5' " " " " = N.W. " "

2+87

5.5' W of W. Line = S. E. Cor. House

14' W of W. " " = S.W. " "

320.95

2+90

320.95

W-120

W-111.

W-104. = ♀ Main Wash

W-103

W-100

W-28.

W

cl

+2

+4

+ 4

+4

+12

E. cmt. cl.

+7' = W. Edge cmt. walk.

+12' = E. " " "

E.

2+97

0.5' E. of W. Line = N. E. Cor Garage

16' W. of W. " " = N.W. " "

3+00

E. 5.2 315.7 ✓

+2' = W. Edge S. End. cmt. walk 5.31 315.64 ✓

+7' = E " S. " " " 5.39 315.56 ✓

S. End. cmt. cl 5.55 315.40 ✓

+1. 6.1 314.8 ✓

T.P. 1.16 316.59 5.52 315.43

382 ST

71

316.59

3+25

316.59

2.	2.0	314.5	✓
ch	2.9	313.6	✓
+2	3.3	313.7	✓
1/4	3.1	313.4	✓
♀	2.9	313.6	✓
1/4	3.3	313.7	✓
+9	3.2	313.5	✓
ch	2.6	313.9	✓
+3	3.0	313.5	✓
W. at 9 E. Cor Garage.	2.8	313.7	✓
+76.5 = S. W. " "	7.6	308.9	✓
+54	25.4	291.1	✓
+107.	26.1	290.4	✓
+112. = ♀ Main	28.3	288.2	✓
+115.	26.1	290.4	✓
+120.	24.4	292.1	✓

3+37

6. W. of W. Line = N. E. Cor House
20.4 " " " " = N. W. " "

3+65

316.59

W-115.	26.2	290.3	✓
W-109.	27.6	288.9	✓
W-106' = ♀ Wash	29.4	287.1	✓
W-103.	28.6	287.9	✓
W-60.	26.9	289.6	✓
W-28' S.W. Cor House	12.1	304.4	✓

316.59

38th St

316.59

W-11	5.3	311.2	✓
W-66 = S. E. Cor House	4.9	311.6	✓
W.	6.1	310.4	✓
+11.	6.1	310.4	✓
ch	5.3	311.2	✓
+4	6.3	310.2	✓
1/4	6.5	310.0	✓
♀	6.0	310.5	✓
1/4	6.1	310.4	✓
+9	6.7	309.8	✓
ch	6.0	310.5	✓
E	5.3	311.2	✓
		3+71	
2.8 W. of W. Line = N. E. Cor Garage	6.7	309.8	✓
18.0 " " " " = N. W. " "			
		3+79	
2.8 W. of W. Line = S. E. Cor Garage	6.9	309.6	✓
18.0 " " " " = S. W. " "			
		4+00	
E	7.3	309.2	✓
+4	9.2	307.3	✓
ch	9.3	307.2	✓
1/4	9.0	307.5	✓
♀	9.1	307.4	✓
1/4	9.5	307.0	✓
+12	9.5	307.0	✓

72

316.59

316.59

ch	9.1	307.4	✓
W.	9.3	307.2	✓
+2'	4.7	311.8	✓
+23'	7.7	308.8	✓
+30'	9.9	306.6	✓
+50'	17.6	298.9	✓
+71'	28.4	288.1	✓
+85'	28.7	287.8	✓
+92' ♀ Main Wash	30.4	286.1	✓
+97'	29.2	287.3	✓
+107'	26.1	290.4	✓
	4+17.		
W-99'	28.4	288.1	✓
W-88'	30.1	286.4	✓
W-84' = ♀ Main Wash	30.9	285.6	✓
W-70'	30.0	286.5	✓
W-48'	18.7	297.8	✓
W-15'	6.5	310.0	✓
W-3'	4.8	311.7	✓
W	11.1	305.4	✓
ch	10.1	306.4	✓
+3	11.5	305.0	✓
+6	10.8	305.7	✓
14	11.0	305.5	✓
♀	10.7	305.8	✓
14	10.7	305.8	✓

316.59

316.59

38th St

+11	11.2	305.3	✓	73
ch	10.7	305.8	✓	
+9	10.9	305.6	✓	
E.	8.6	307.9	✓	
	4+50			
E.	10.5	306.0	✓	
+6	13.5	305.0	✓	
T.P.	0.19	303.90	12.88	303.71
ch.			303.9	302.9
14			1.0	302.9
♀			1.0	302.9
14			1.4	302.5
+12			1.7	302.2
ch.			1.1	302.8
W.			1.2	302.7
+2'			1.2	302.7
+50'			17.0	286.9
+58'			17.6	286.3
+63' = ♀ Main Wash			19.2	284.7
+71'			12.4	286.5
+90'			17.1	286.8
			4+75	
80' W. of W. Line			17.6	286.3
60' " " " "			18.1	285.4
53' " " " " ♀ Wash.			20.0	283.9
45' " " " " "			17.6	286.3
25' " " " " "			16.6	287.3

303.90

303.9

5700

W-70'	19.5	284.4	✓
W-58'	19.9	284.0	✓
W-53' ♀ Main Wash	20.8	283.1	✓
W-47'	18.8	285.1	✓
W-18'	17.1	286.9	✓
W.	6.2	297.7	✓
cl	6.0	297.9	✓
ly	5.4	298.5	✓
♀	5.4	298.5	✓
ly	5.1	298.8	✓
cl	5.6	298.3	✓
+7	5.5	298.4	✓
E.	3.4	300.5	✓

5+35

303.9

E	5.4	298.5	✓
+7	8.3	295.6	✓
cl	8.1	295.8	✓
ly	7.8	296.1	✓
♀	8.3	295.6	✓
+6	6.8	297.1	✓
ly	8.1	295.8	✓
cl	12.9	291.0	✓
+6	13.0	290.9	✓
+9	9.5	294.4	✓
W.	9.3	294.6	✓
+16'	17.7	286.2	✓

303.90

387.57

303.9

19.8

+28'
+43'
+53'
+60'
+65'

= ♀ Wash

5+50

-65'
-55'
-47'
-38'
-27'
W.
cl
ly
+7
♀
ly
cl
+8'
E.

♀ Wash

5+21

E
+5
cl
+3.
+11.

19.8

284.1

74

20.2

283.7

21.8

282.1

19.0

284.9

16.3

287.6

15.6

288.3

19.6

284.3

22.4

281.5

21.6

284.3

19.2

284.7

16.3

287.6

14.2

289.7

14.2

289.7

10.1

293.8

9.8

294.1

9.8

294.1

9.8

294.1

9.6

294.3

7.8

296.1

10.1

293.8

12.9

291.0

13.6

290.3

11.7

292.2

11.8

292.1

303.90

303.9

1/4	14.5	289.4	✓
+5	14.5	289.4	✓
±	10.9	293.0	✓
+8	11.1	292.8	✓
1/4	18.9	290.0	✓
ch.	18.2	285.7	✓
+12	17.1	286.8	✓
W.	15.9	288.0	✓
+2'	14.4	289.5	✓
+15'	21.9	282.0	✓
+26'	22.0	281.9	✓
+34' = ± Wash	23.1	280.8	✓
+43'	22.1	281.8	✓
+15	17.8	286.1	✓
6+00 = N. line - handis			
W-18	22.8	281.1	✓
W-2 = ± Wash	24.6	279.3	✓
W.	24.5	279.4	✓
+3	23.2	280.7	✓
ch.	21.8	282.1	✓
1/4	21.3	282.6	✓
±	19.4	284.5	✓
1/4	19.0	284.9	✓
ch.	16.7	287.2	✓
+8	15.6	288.3	✓
E	16.2	287.7	✓

303.90

303.9

24' S. of N. Line

E.-27	24.2	279.7	✓
E.-5	23.9	280.0	✓
E	22.4	281.5	✓
+8	19.7	284.2	✓
ch.	19.2	284.7	✓
1/4	17.8	286.1	✓
+5	18.1	285.8	✓
±	22.5	281.4	✓
1/4	23.8	280.1	✓
ch = ± Wash	25.3	278.6	✓
+9	23.9	280.0	✓
W.	21.1	282.8	✓
40' S. of N. line = ± Landis			
W.	17.1	286.8	✓
ch.	22.9	281.0	✓
1/4 = ± Wash	26.0	277.9	✓
±	24.8	279.1	✓
+5	24.8	279.1	✓
1/4	21.9	282.0	✓
+7	20.3	283.6	✓
ch.	19.8	284.1	✓
+12	21.2	282.7	✓
E	22.6	281.3	✓
+8	25.6	278.3	✓
+25'	26.0	277.9	✓

38th St

75

303.90 ~~303.9~~
 66' S. of N. ~~S. cl. Line~~

E-25	27.0	276.9	✓
E-5	28.5	275.4	✓
E	26.3	277.6	✓
+5	27.4	276.1	✓
cl = ϕ Wash	27.2	276.7	✓
E 1/4	26.7	277.2	✓
ϕ	25.3	278.6	✓

72' S. of N. Line

ϕ	23.0	280.9	✓
E 1/4	26.0	277.9	✓
cl	26.6	277.3	✓
E = ϕ Wash	28.2	275.9	✓
E+20.	27.3	276.6	✓
E+40.	27.0	276.9	✓

S. Line Land 5

E-60.	27.5	276.4	✓
E-33 = ϕ Wash.	28.5	275.4	✓
E.	27.1	276.8	✓
E, cl	27.1	276.8	✓

T.P.	12.36	316.07	0.19	303.71
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T.P.	8.68	323.68	1.07	315.00
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T.P. Original P.M.			3.97	319.71 = 319.70
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Proposed Drain Ditch
28th + Grape St.

Moore
12-30-37

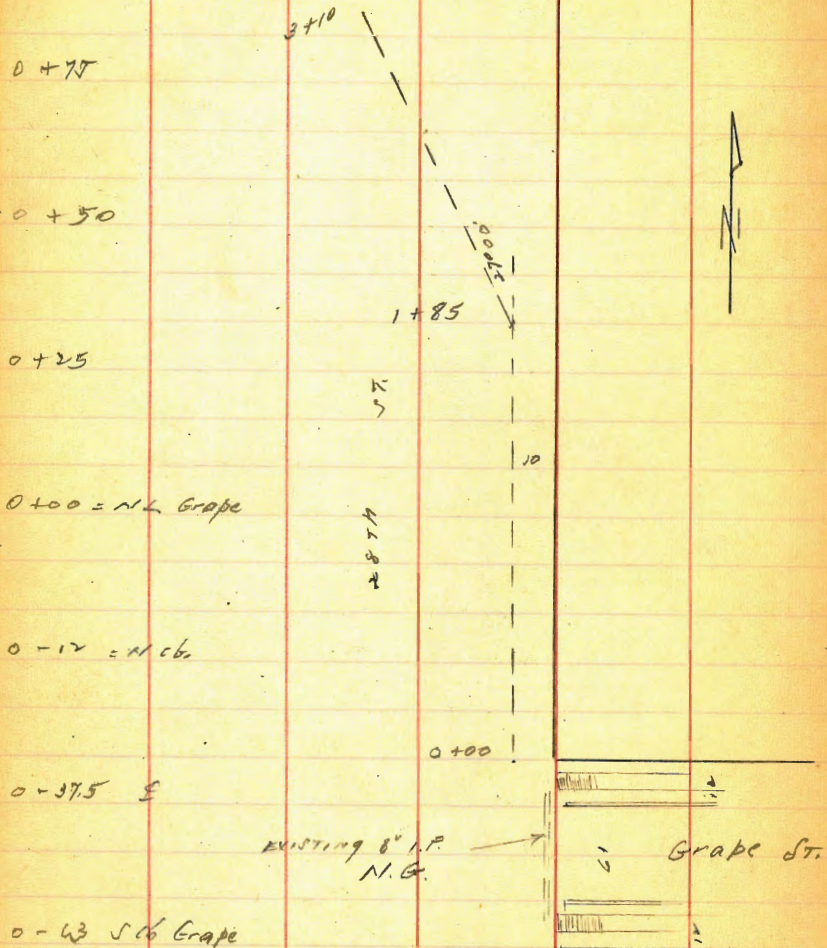
Indexed
C.S.K.

L.T.

±

±

77



0 + 10

0 + 50

0 + 25

0 + 00 = N.E. Grape

0 - 12 = N.C.

0 - 37.5 ±

0 - 63 S.C. Grape

0.66 233.61

232.95

$\frac{6.7}{10}$	6.9	$\frac{7.2}{4}$	$\frac{8.7}{5}$	$\frac{6.8}{10-11}$
$\frac{5.7}{10}$	6.3	$\frac{5.2}{4}$	$\frac{7.6}{8}$	$\frac{5.6}{10}$
$\frac{5.5}{10}$	5.2	$\frac{4.5}{5}$	$\frac{7.2}{7-9}$	$\frac{4.2}{10}$ $\frac{4.2}{13}$
$\frac{4.7}{10}$	4.5	$\frac{4.7}{8}$	$\frac{7.3}{9-10}$	$\frac{4.7}{13}$
$\frac{4.4}{10}$	5.0	$\frac{4.73}{11}$	North curb	
$\frac{4.9}{10}$	5.5	$\frac{5.7}{10}$		
$\frac{5.5}{10}$	6.0	$\frac{4.65}{11}$	South curb	

233.61

+50

+25

2

1+85 Δ 27°00' LT

1+65

T.P. 0.55 221.54 12.62 220.99

1+30

1+00

LT

R

RT

78

$\frac{7.1}{10}$

9.2

$\frac{10.7}{10}$

$\frac{12.7}{2.5}$

$\frac{6.0}{10}$

7.7

$\frac{9.2}{9}$

$\frac{14.4}{12}$

$\frac{15.1}{17}$

$\frac{12.8}{2.0}$

$\frac{4.1}{10}$

6.1

$\frac{7.7}{5}$

$\frac{10.5}{11}$

$\frac{9.6}{1.5}$

$\frac{10.0}{2.0}$

$\frac{3.3}{10}$

$\frac{6.5}{3}$

7.5

$\frac{8.7}{2}$

$\frac{8.6}{10}$

$\frac{7.2}{1.5}$

$\frac{0.7}{10}$

2.2

$\frac{3.0}{4}$

$\frac{2.5}{10}$

$\frac{1.3}{1.5}$

221.54

$\frac{10.2}{10}$

$\frac{10.8}{2}$

11.6

$\frac{10.7}{2}$

$\frac{11.1}{10}$

$\frac{7.5}{10}$

7.1

$\frac{7.6}{4}$

$\frac{9.2}{6-8}$

$\frac{7.9}{10}$

233.61

LT

E

PT.

79

3 + 10

2 + 75

221.54

$\frac{13.8}{10}$

14.8

$\frac{14.7}{10}$

$\frac{9.8}{10}$

11.4

$\frac{12.8}{10}$

$\frac{221.54}{1}$

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1/2 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body

of table in same row and column gives distance from side stake to slope stake. If ground is not

level, the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount

to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target.

Target. Treatment necessarily.

TABLE No. 2.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given L may be found by dividing tangent, (or external), opposite L by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

ENGINEERING DEPARTMENT,
CITY OF SAN DIEGO,
CALIFORNIA.

239 2
867
32.42
72.38

866
312
3462
1330
2598
306562

13.4
53.4
67.0

12.4
17.8

315.72
0.84
316.58

12.34
284
16122

1276
1.75
10.83
7.07
17.90

286.39
406
782.33
7.32

12.70
70
1508
11.90
8.87
20.77

5.2
12.4
17.6
2.6
15.0

2279.83
139.91