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Index
Keating St Sutter to Tupper 72

ENGINEERING DEPARTMENT,
CITY OF SAN DIEGO.
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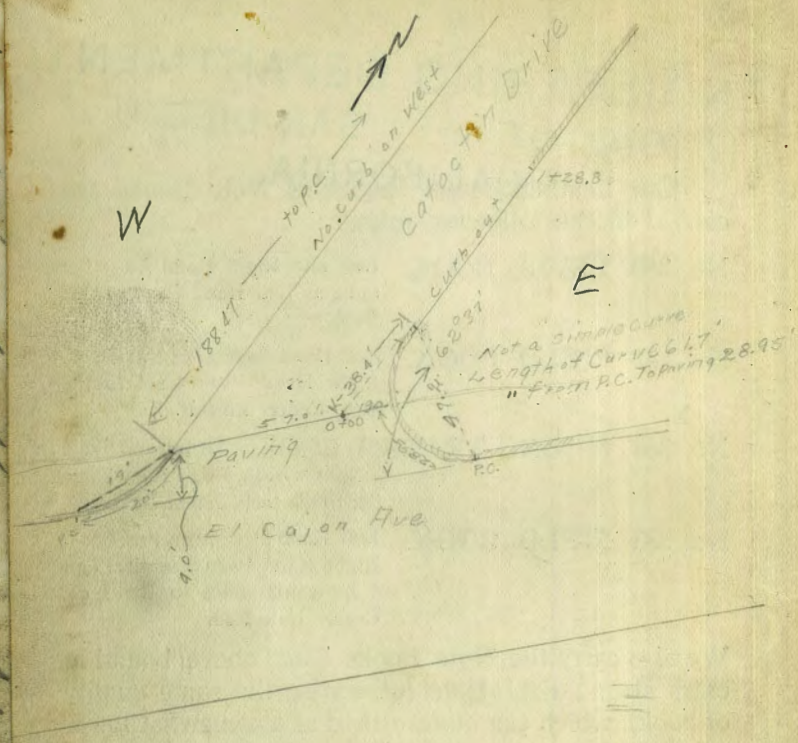


Stations Measured on East Curb Line ?

Distances are ℄ Distances

X Section Catoctin Drive

40' Wide

B.M. Old City Line & El Cajon Mon. 461.72.

T.P.	8.72	470.44		461.72	
T.P.	3.26	470.08	3.62	466.82	
0+00	= Levels on "Hotstuff" base of El Cajon paving				
W. Top cb	= End of Curb on west				
T.P.	4.13	469.33	4.88	465.20	
W. Top cb			3.80		465.53
Gut			4.50		464.83
+10			4.28		465.05
+20			4.13		465.20
+30			4.15		465.18
+40			4.32		465.01
+50			4.62		464.71
+57	= P. Gut		4.91		464.42
+57	E. Top cb		4.06		465.27
0+38.4	= distance from paving to end of return on East				(See Sketch)
E.L.			4.5		464.8
+5	= Top cb		4.13		465.20
Gut			4.9		464.4
¼			5.3		464.0
℄			5.0		464.3
¾			5.5		463.8
W.L.			4.6		464.7

			469.33	
0+88.4				
WL			5.2	464.1
1/4			5.4	463.9
℄			5.5	464.8
1/4			5.4	463.9
EL			5.2	464.1
1+28.8 = Start of curb on East				
EL			5.2	464.1
+5 = Top cb			4.45	464.88
Gut			5.3	464.0
1/4			5.2	464.1
℄			4.7	464.6
1/4			5.3	464.0
WL			4.5	464.8
1+65.8 = P.C. Δ 3°37' ℄ R. 980.' Tan 30.94 L. 61.26				
WL			5.0	464.3
1/4			5.0	464.3
℄			4.7	464.6
1/4			5.1	464.2
+5 = gut			5.7	463.6
Top cb			4.54	464.79
EL			4.8	464.5
2+27.66 = E.C.				
EL			4.3	465.0
+5 Top cb			4.78	464.55
Gut			5.8	463.5

Platted 6-27-28 C.B.H.

			469.33	
1/4			5.0	
℄			4.4	464.9
1/4			4.7	464.6
WL			4.7	464.6
3+15.76 = P.C. Δ 3°50' ℄ R. 1020 Tan 34.13 L. 68.24				
WL			4.5	464.8
1/4			4.6	464.7
℄			4.0	465.3
1/4			4.7	464.6
+5 Gut			5.7	463.6
E cb			5.02	464.31
EL			4.4	464.9
3+84.00 = E.C.				
EL			5.0	464.3
+5 = Top cb			5.24	464.09
Gut			6.0	463.3
1/4			5.4	463.9
℄			4.8	464.5
1/4			5.2	464.1
WL			5.1	464.2
4+44.33 = P.C. Δ 11°24' ℄ R 520 Tan 51.90 L 103.46				
WL			4.8	464.5
1/4			5.5	463.8
℄			5.0	464.3
1/4			5.8	463.5
+5 = Gut			6.2	463.1
Top cb			5.45	463.88

E ℄			5.3	464.0
T.P.	4.89	468.78	5.44	463.89
7+96.06	on curve			
E ℄			5.1	463.7
+5 Top cb			5.0	463.8
Gut			5.7	463.6
¼			5.3	464.0
℄			4.7	464.1
¼			4.8	464.5
W ℄			5.1	463.7
5+06 =	Approximate ℄ of unimproved alley entering W. side of Cotaction Drive			
5+47 ^{29} = E.C.				
W ℄			5.3	463.5
¼			5.0	464.3
℄			5.1	463.7
¼			5.5	463.8
+5 Gut			5.9	463.4
Top cb			5.20	463.58
E ℄			4.5	464.3
6+11 ^{39} = P.C. at Return of Choctaw (18.7 Curve Radius				
E ℄			4.6	464.2
+5 Top cb			5.31	463.47
Gut			6.0	463.3
¼			5.5	463.8
℄			5.3	463.5

			468.78	2
¼	on E.P.L. & Choctaw Dr.		5.3	463.5
W ℄			5.5	463.3
6+57 ^{69} = ℄ Choctaw Rt ⅄ to Cotaction Drive				
W ℄			5.7	463.1
¼			5.4	463.4
℄			5.2	463.6
¼			5.7	463.1
E ℄	on E.P.L.		5.5	463.3
6+86 ^{61} = E ℄ Choctaw Rt ⅄ to Cotaction				
E ℄			5.4	463.4
+5 = Top cb			5.65	463.13
Gut			6.2	462.6
¼			5.7	463.1
℄			5.1	463.7
¼			5.2	463.6
W ℄	on E.P.L.		5.7	463.1
7+17 ^{21} = P.C. Δ 28°22' ℄ R 120' Tan 30.4 L 59.55				
W ℄			5.7	463.1
¼			5.6	463.2
℄			5.2	463.6
¼			5.9	463.9
+5 Gut			6.5	462.4
Top cb			5.77	463.01
E ℄			5.4	463.4
7+41 ^{41} = Δ on W. ℄ Cotaction made by departure of Choctaw				
S ℄			5.0	463.8

			468.78	
+5 Top cb			5.78	463.00
Gut			6.0	462.8
¼			5.5	463.3
℄			5.1	463.7
¼			5.8	463.0
NL			6.2	462.6
7+67.33 = E.C. of south cb				
NL			5.6	463.2
¼			5.4	463.4
℄			5.2	463.6
¼			5.6	463.2
+5 Gut			6.4	462.4
S cb			5.88	462.90
SL			4.7	464.1
8+17.33				
SL			5.5	463.3
+5 Top cb			6.15	462.63
Gut			6.3	462.5
¼			5.9	462.9
℄			5.4	463.4
¼			5.9	462.9
NL			5.9	462.9
8+67.33				
NL			6.2	4626
¼			6.5	462.3
℄			6.1	462.7

			468.78		
¼			6.5		462.3
+5 Gut			6.9		461.9
Top cb			6.55		462.23
SL			6.1		462.7
9+17.37					
SL			6.8		462.0
+5 Top cb			6.88		461.90
Gut			7.5		461.3
¼			7.1		461.7
℄			6.5		4623
¼			6.7		462.1
NL			6.6		462.2
9+93.40 = NL Art St. 10' curb Radius					
T.P.	0.68	463.75	5.71	463.07	Nail in pole Art St & Cotactin
NL			2.2		461.5
¼			2.0		461.7
℄			2.1		461.7
¼			2.7		461.1
+5 Gut			2.9		460.8
Top cb			2.39		461.36
SL			2.2		461.6
10+09.30 = P.C. Δ 11°28' ℄ R 500' Tan. 50.30 L 100.01 (no section on PC)					
10+18.41 = ℄ Art R 15 to Cotactin					
SL			2.7		461.0
¼			2.6		461.2
℄			2.0		461.8

		463.75	
1/4		2.2	461.6
NL		2.1	461.7
10+43.53 = EL Art 10' Radius			
NL		2.1	461.7
1/4		2.3	461.5
℄		2.3	461.5
1/4		3.0	460.8
+5 gut		3.3	460.5
Top cb		2.50	461.25
SL		2.2	461.6
11+13.36 = EC			
SL		3.1	460.7
+5 cb		3.16	460.59
Gut		3.9	459.9
1/4		3.7	460.1
℄		3.0	460.8
1/4		3.6	460.2
NL		3.2	460.6
11+55.04			
NL		3.5	460.3
1/4		4.4	459.4
℄		3.7	460.1
1/4		4.0	459.8
+5 gut		4.4	459.4
cb		3.70	460.05
SL		3.6	460.2

		463.75	
11+96.32 = 0+00 = End of curb on South = intersection of Two Subdivisions causing a jog of 3.2' South in prop. Line			
SL of New PL		4.7	459.0
+13.2 = Top cb		4.23	459.52
Gut		4.9	458.9
1/4		4.5	459.3
℄		4.3	459.5
1/4		4.6	459.2
NL		4.3	459.5
0+50			
NL		5.1	458.7
1/4		5.0	458.8
℄		4.6	459.2
1/4		4.7	459.1
SL		4.7	459.1
1+05.92 △	See Alvarado Map		
SL		5.6	458.2
1/4		5.1	458.7
℄		4.9	458.9
1/4		5.0	458.8
NL		4.9	458.9
1+55			
NL		4.9	458.9
1/4		5.1	458.7
℄		5.0	458.8
1/4		5.2	458.6

			463.75						463.75		
SL			5.0	458.8	4+00						
1+99.36	△ see Alvarado Map				SL				5.2	458.6	
SL			5.5	458.3	1/4				5.8		
1/4			5.1		℄				5.3	458.5	
℄			5.0	458.8	1/4				5.7		
1/4			5.2		NL				4.6	459.2	
NL			4.9	458.9	T.P.	0.77	459.83		4.69	459.06	Nail in Pole #75699
2+50					4+50						
NL			5.0	458.8	NL				1.8	458.0	
1/4			5.3		1/4				2.2		
℄			5.1	458.7	℄				1.8	458.0	
1/4			5.4		1/4				2.4		
SL			5.7	458.1	SL				2.1	457.7	
2+99.31	△ see Map				5+00						
SL			5.0	458.8	SL				2.0	457.8	
1/4			5.7		1/4				2.9		
℄			5.2	458.6	℄				2.5	457.3	
1/4			5.3		1/4				2.7		
NL			4.7	459.1	NL				2.3	457.5	
3+50					5+50						
NL			4.7	459.1	NL				2.8	457.0	
1/4			5.7		+1 Fence						
℄			5.4	458.4	1/4				3.5		
1/4			5.7		℄				3.0	456.8	
SL			5.5	458.3	1/4				2.2		
					+8				3.4		
					SL				2.6	457.2	

			459.83				459.83	
6+00					From this Station on a random Line is used			
S.L.			3.0	456.8	20' from S. Line for a prolongation of the back			
+2			3.8		Tangent.			
¼			3.6		7+65 ½ = Line of Alvarado Heights.			
℄			3.2	456.6	20' LT		5.0	454.8
¼			3.8		19.3 LT = Fence			
+7			3.5		10' LT		5.5	
+8	Fence				R.L.		5.1	454.7
N.L.			2.9	456.9	10' RT		5.3	
6+50					20' RT		5.1	454.7
N.L.			4.0	455.8	8+00			
+1.7	Fence				20' RT		5.3	454.5
+5			4.5		10' RT		5.8	
¼			4.4		R.L.		5.5	454.3
℄			3.8	456.0	10' LT		5.8	
¼			4.1		20' LT		5.7	454.1
S.L.			3.5	456.3	8+50			
7+00					19.6 LT Fence Line		6.4	453.4
S.L.			4.1	455.7	9.6 LT		6.3	
¼			5.1		0.4 RT		6.0	453.8
℄			4.2	454.6	10.4 RT		6.5	
¼			4.6		20.4 RT		6.3	453.5
+5			5.0		20.9 RT = Fence			
+8.3	Fence				9+00			
N.L.			4.2	455.6	21.5 RT = Fence		7.0	452.8
					11.5 RT		6.7	

1			459.83		
8.5 LT			6.7		
18.5 LT			7.1	452.7	
19.5 LT	=Fence				
10+00					
19.3 LT	Fence		7.3	452.5	
9.3 LT			7.2		
0.7 RT			6.5	453.3	
10.7 RT			6.8		
20.7 RT			6.9	452.9	
22.' RT	=Fence				
11+00					
22' RT	=Fence		6.3	453.5	
17' RT			7.3		
12' RT			6.9		
8' LT			7.2		
18' LT			7.1	452.4	
19.2 LT	=Fence				
T.P	2.93	456.51	6.25	453.58	4"x6" Post #22136
12+00					
18' LT	=Fence		4.2	452.3	
8' LT			4.1		
2' RT			3.6	452.9	
12' RT			3.7		
20' RT			4.5	452.0	
22' RT			3.3	453.2	
22.8 RT	=Fence				

		456.51	
13+00			
24.3 RT	=Fence	4.6	451.9
14.3 RT		5.0	
4.3 RT		4.6	
5.7 LT		5.1	
15.7 LT		5.2	451.3
16.' LT	=Fence		
13+50			
16' LT	=Fence	5.4	451.1
6' LT		5.1	
4' RT		4.9	
14' RT		5.4	
20' RT		5.7	
23.3 RT	=Fence		
24' RT		4.7	451.8
14+00			
30' RT	=Fence	4.6	451.9
10' RT		5.5	
5 L		4.8	
10' LT		5.0	
20' LT		5.4	451.1
20.6 LT	=Fence		
11+50	∠ 26°30' Left	(Section taken on Split of ∠)	
29.7 LT	=Fence	4.9	451.6
19.7 LT		4.9	
9.7 LT		4.8	

				456.51				456.51	
8.5	0.3 RT			5.4	451.1	4.3 RT		4.1	452.4
18.5	9.4 RT	=Fence		5.0	451.5	14.3 RT		4.2	
19.5	15+00					24.3 RT		3.6	452.9
10+	21.7 RT	=Fence		4.7	451.8	24.7 RT =Fence			
19.	11.7 RT			5.4		17+00			
9.3	1.7 RT			4.8	451.7	22' RT =Fence		2.8	453.7
0.7	8.3 LT			5.0		12' RT		3.6	
10.7	18.3 LT			5.4	451.1	2' RT		3.5	453.0
20.	21.6 LT	=Fence				8' LT		3.7	
22.	15+50					18' LT		4.0	452.5
17	18' LT	=Fence		5.5	451.0	19.4 LT Fence			
22'	8' LT			5.2		17+50			
17'	2' RT			4.7	451.8	25' LT =Fence		3.3	453.2
12'	12' RT			4.8		15' LT		2.9	
8' L	22' RT			4.9		5' LT		2.5	454.0
18' L	29.2 RT	=Fence		4.4	452.1	5' RT		2.7	
19.2	16+00					15 RT		2.3	454.2
T.P.	28' RT	=Fence		4.3	452.2	15.3 RT =Fence			
12+	18' RT			4.6		T.P. 4.79	459.59	1.71	454.80 opposite Pole # 75694
18'	8' RT			4.3		18+00 = Δ 26°16' Left			(split of L)
8'	2' LT			4.6	451.9	5.5 RT =Fence		4.7	454.9
2'	12' LT			5.1		9.5 LT		5.1	454.5
12'	16' LT	=Fence		5.3	451.2	14.5 LT		5.0	
20	16+50					24.5 LT		5.3	
22'	15.7 LT	=Fence		4.5	452.0	34.5 LT		5.6	454.0
22.	5.7 LT			4.5		35' LT =Fence			

		459.59	
18+50			
23.3 Lt	Fence	5.2	454.4
13.3 Lt		5.1	
3.3 Lt		4.8	454.8
5.7 Rt		4.8	
15.7 Rt		4.5	455.1
16.4 Rt	= Fence		
19+00			
23.2 Rt	= Fence	4.8	454.8
13.2 Rt		5.3	
3.2 Rt		5.1	454.5
6.8 Lt		5.2	
16.8 Lt		5.1	454.5
17.5 Lt	= Fence		
19+50			
18' Lt	Fence	5.1	454.5
8' Lt		5.8	
2' Rt		5.2	254.4
12' Rt		5.2	
21.6 Rt	= Fence	4.9	454.7
20+15.5			
15.6 Rt	Fence	4.9	454.7
5.6 Rt		5.0	
4.4 Lt		5.6	454.0
14.4 Lt		5.6	
24.4 Lt	Fence	5.8	453.8

T.P.	4.15	456.61	7.13	452.46
T.P.	7.34	460.18	3.77	452.84
T.P.	5.88	463.88	2.18	458.0
T.P.	6.82	468.64	2.06	461.82
T.P.	5.38	469.76	4.26	464.38
T.P.	2.74	469.65	2.95	466.81
T.P.			7.79	461.76

BM 461.72 on Mon
0.4

X Sec. Choctaw

N.L. El Cajon to S.L. Catoctin

0+00 = N.L. El Cajon on W. cb line

B.M. Pole Conon Art & Catoctin 463.07

T.P. 6.47 469.54

0+00 on "Hot sluff" base (on diagonal)

W cb	5.45	464.09
Gut	6.31	
1/4	5.96	
℄	5.82	463.72
1/4	6.02	
Gut	6.33	
E cb	5.50	464.04

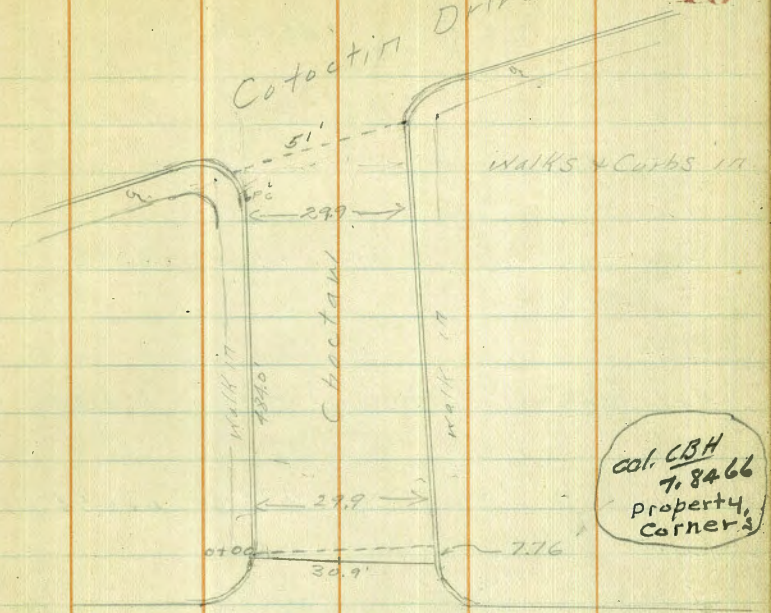
0+00 Rt Ls to Choctaw

E cb	5.52	464.02
Gut	6.0	
1/4	5.7	
℄	5.5	464.0
1/4	5.8	
Gut	6.31	
W cb	5.45	464.09

0+50

W. cb	5.32	464.22
Gut	5.8	
1/4	5.6	
℄	5.1	464.4

Platted 6-9-28 G.B.H.



cal. CBH 7.8466 property corner's

El Cajon 469.54

1/4	5.6	
Gut	6.0	
E cb	5.36	464.18

1+00

E cb	5.23	464.31
Gut	6.0	
1/4	5.5	
℄	5.0	464.5
1/4	5.5	
Gut	5.8	
W cb	5.24	464.34

Choctaw.

	469.54	
1+50		
W cb	5.09	464.45
Gut	5.7	
¼	5.3	
℄	4.9	464.6
¼	5.2	
Gut	5.8	
E cb	5.11	464.43
2+00		
E cb	4.98	464.56
Gut	5.6	
¼	5.1	
℄	4.8	464.7
¼	5.2	
Gut	5.5	
W cb	5.02	464.52
2+50		
W cb	4.89	464.65
Gut	5.4	
¼	5.0	
℄	4.5	465.0
¼	5.1	
Gut	5.6	
E cb	4.91	464.63
3+00		
E cb	4.80	464.74

Drive

	469.54	
Gut	5.5	
¼	5.3	
℄	4.8	464.7
¼	5.2	
Gut	5.5	
W cb	4.78	464.76
3+50		
W cb	4.90	464.64
Gut	5.7	
¼	5.2	
℄	4.8	464.7
¼	5.5	
Gut	5.8	
E cb	4.92	464.62
4+00		
E cb	5.14	464.40
Gut	5.7	
¼	5.4	
℄	5.0	464.5
¼	5.4	
Gut	6.0	
W cb	5.19	464.35
4+50		
W cb	5.54	464.00
Gut	6.3	
¼	5.8	

			469.54	
℄			5.4	464.1
1/4			5.8	
Gut			6.0	
E cb			5.61	463.93
4+84 = cb P.C. on West				
E cb			5.84	463.70
Gut			6.3	
1/4			6.0	
℄			5.4	464.1
1/4			5.8	
Gut			6.5	
W cb			5.83	463.71
				51' between curbs
Sec on diagonal between W Prop + E Prop Corners				
-12.8 = W Prop. cor				
W cb on return			6.03	463.51
Gut			6.8	
1/4			6.5	
℄			6.5	463.0
1/4			6.2	
Gut			6.8	
E cb			6.23	463.31
+ 11.4 = E Prop Corner				
T.P.	5.15	466.89	7.80	461.74

4+84 = 463.31 + 5.60 = 469.31

+10.5 - 5.68

+21 - 5.70

+35 - 5.95

+42 = 5.95

W Ref

Ref SW

Art Street

Continued from preceding page

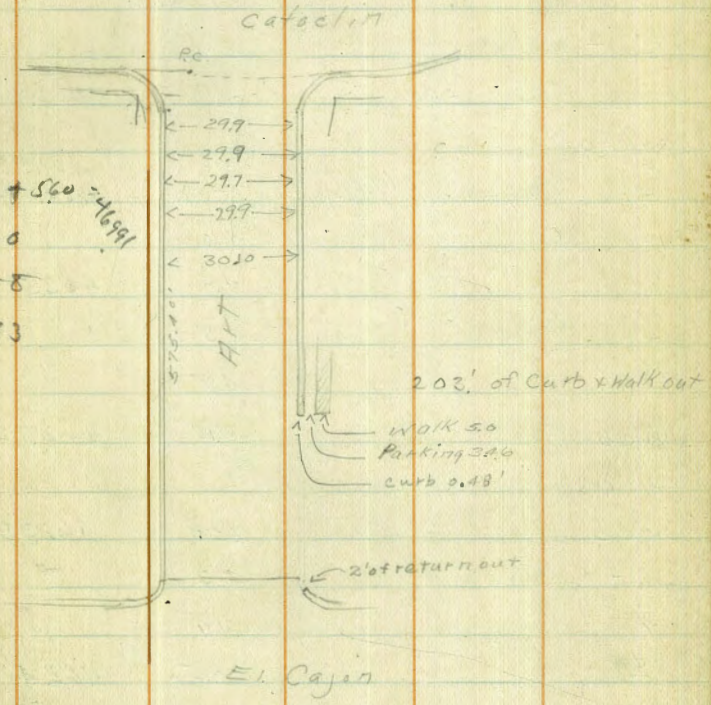
SE Ref

463.31 + 5.60 = 469.91

+5.6 = 5.70

+15 = 5.88

+22 = 5.93

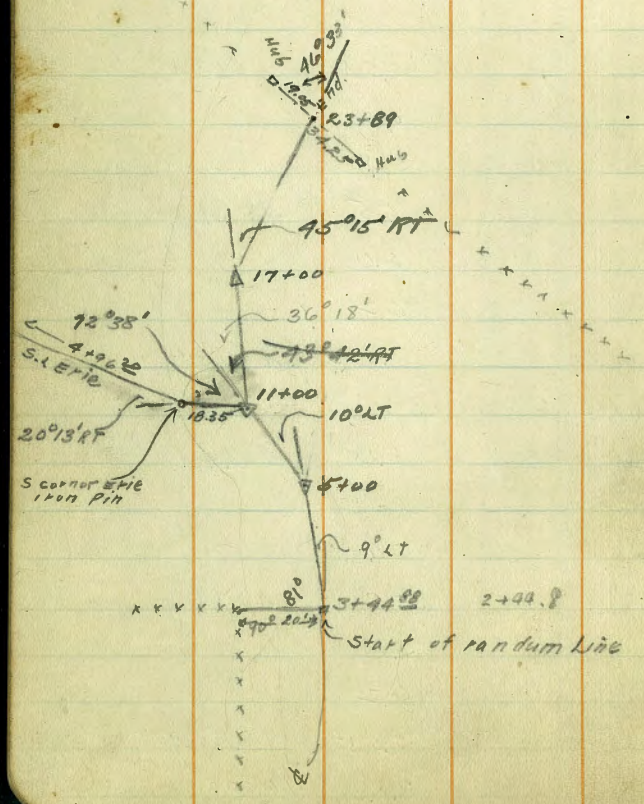


		466.89		
0+00 = NL El Cajon		stations on West Curb Line		
W cb	01	3.71	463.18	
Gut	on paving Hot Stuff base	4.50		
1/4		4.36		
℄		4.38	462.51	
1/4		4.60		
Gut		5.03		
E cb	2' Back of P.C.	4.18	462.71	
0+50				
EL		5.30	461.59	
E cb on ground	(cb. out)	5.10	461.79	
1/4		4.6		
℄		4.4	462.5	
1/4		4.5		
Gut		4.9		
W cb		4.17	462.72	
1+00				
W cb		4.50	462.39	
Gut		5.3		
1/4		4.9		
℄		4.5	462.4	
1/4		4.9		
cb	(cb. out)	5.5		
EL		5.9	461.0	
1+50				
EL		5.8	461.1	
cb	(cb. out)	5.5		

		466.89		
1/4		5.2		
℄		4.9	462.0	
1/4		5.2		
Gut		5.4		
W cb		4.84	462.05	
2+03 = Begining of Cb + Walk on East				
W cb		4.95	461.94	
Gut		5.6		
1/4		5.4		
℄		5.1	461.8	
1/4		5.3		
Gut		5.4		
E cb	(cb in)	5.00	461.89	
2+55				
E cb		5.05	461.84	
Gut		5.8		
1/4		5.5		
℄		5.4	461.5	
1/4		5.5		
Gut		5.7		
W cb		5.08	461.81	
3+05				
W cb		5.12	461.77	
Gut		5.7		
1/4		5.4		
℄		5.3	461.6	

			466.89						466.89		
¼			5.6			W cb			5.38	461.51	
Gut			5.8			5+05					
E cb			5.10	461.79		W cb			5.49	461.40	
3+55						Gut			5.9		
E cb			5.18	461.71		¼			5.8		
Gut			5.7			℄			5.5	461.4	
¼			5.7			¼			5.6		
℄			5.5	461.4		Gut			6.0		
¼			5.6			E cb			5.50	461.39	
Gut			5.7			5+55					
W cb			5.17	461.72		E cb			5.58	461.31	
4+05						Gut			6.2		
W cb			5.29	461.60		¼			5.8		
Gut			5.9			℄			5.5	461.4	
¼			5.4			¼			6.0		
℄			5.3	461.6		Gut			6.7		
¼			5.4			W cb			5.50	461.39	
Gut			5.7			5+75.10 = cb P.C. on W cb Line					
E cb			5.28	461.61		W cb			5.38	461.41	
4+55						Gut			6.1		
E cb			5.36	461.53		¼			5.9		
Gut			5.8			℄			5.8	461.1	
¼			5.6			¼			5.8		
℄			5.4	461.5		Gut			6.2		
¼			5.6			E cb			5.53	461.34	
Gut			6.0			T.P.			3.83	463.06	
									P.M=	463.07	

Randum Line on Choctaw



B.M Pole corner Aat & Catoctin			463.07
4.60	467.67		463.07
0+00 = North of N.L Steward			
Road 63.20' wide at this point			
WL		5.1	462.6
1/4		5.1	
℄		4.7	463.0
1/4		5.0	
= Prolongation of East Line		5.6	462.1
+ 23.20 = intersection of EL		4.4	463.3
Choctaw and N.L Catoctin			
0+12.69 taken Rt Ls to Choctaw			
EL		4.4	463.3
1/4		5.2	
℄		4.7	463.0
1/4		5.1	
WL		5.2	462.5
0+50			
WL = Fence		5.3	462.4
1/4		5.3	
℄		5.1	462.6
1/4		5.3	
EL		4.7	463.0
1+00			
EL		5.5	462.2

	467.67		
¼	5.8		
℄	5.2	462.5	
¼	5.5		
WL = Fence	5.6	462.1	
1+50			
WL = Fence	5.6	462.1	
¼	5.6		
℄	5.3	462.4	
¼	5.6		
EL	5.7	462.0	
2+00			
EL	5.5	462.2	
¼	5.8		
℄	5.4	462.3	
¼	5.6		
WL = Fence	5.5	462.2	
2+44.88 = End of Fence & SL Hobart St			
= Start of Random Line (9°00' LT)			
20' LT	5.5	462.2	
10' LT	5.9		
RL	5.4	462.3	
10' RT	5.9		
20' RT	5.8	461.9	
3+00			
25' RT	5.1	462.6	
15' RT	5.9		

				467.67	
5' RT				5.3	462.4
5 LT				5.9	461.8
15' LT				5.7	462.0
T.P.		4.71	466.97	5.41	462.26
3+50					
10' LT				4.7	462.3
5' LT = Edge Road				5.3	461.7
5' RT				4.6	
15' RT = E. Edge of Road					
25' RT				4.6	462.4
4+00					
25' RT				4.2	462.8
15' RT = Edge of Road				4.6	462.4
5' RT				4.5	
5' LT				5.2	
8' LT = Edge of road				5.3	461.5
15' LT				4.8	461.2
4+50					
15' LT				5.5	461.5
10' LT Edge of road				5.4	461.6
5' LT				5.1	
5' RT				4.9	
10' RT Edge of road				5.1	461.9
15' RT				5.5	461.5
5+00 = Δ 10° LT.					
15' RT				5.0	462.0

		467.00		
5' Rt	Road	5.6	461.4	
5' Lt		4.9		
15' Lt	Road	5.6	461.4	
25' Lt		5.3	461.7	
6+00				
20' Lt		4.2	462.8	
15' Lt	Road	5.4	461.6	
10' Lt		5.2		
R.L.		5.2		
5' Rt	= Road	5.6	461.4	
10' Rt		5.4	461.6	
7+00				
20' Rt	= Remains of fence on east	4.9	462.1	
10' Rt		5.7		
5' Rt	Road	5.7	461.3	
R.L.		5.4		
10' Lt		5.3		
15' Lt	= Road			
20' Lt		5.9	461.1	
8+00				
20' Lt		6.1	460.9	
15' Lt	= Road	6.0	461.0	
10' Lt		5.5		
R.L.		5.4		
5' Rt	= Road	5.6	461.4	
10' Rt		5.2		

		466.97		
20' Rt	= Fence		5.7	461.3
T.P.	4.33	465.95	5.35	461.62
9+00				
20' Rt	= Fence		4.6	461.3
10' Rt			5.2	
5' Rt	road		4.9	461.0
R.L.			4.8	
10' Lt	5.2			
15 Lt	Road		5.4	460.5
20' Lt			5.3	460.7
10+00				
20' Lt			5.4	460.5
10' Lt	Road		5.6	460.3
R.L.			4.8	
5' Rt			4.8	
10' Rt			5.3	
21' Rt	= Fence		4.7	461.2
11+00	= Δ 43°42' Rt ? (see sketch ?)			
22.3 Rt	= Fence		4.9	461.0
13' Rt	road		5.0	461.0
R.L.			4.9	
5' Lt	road		5.4	461.6
10' Lt			5.4	
20' Lt			5.2	460.7
12+00				
20' Lt			5.4	460.6

			465.95	
15' Lt	Road		5.7	460.3
10' Lt			5.2	
R.L.			5.0	
5' Rt	= Road		5.2	460.8
10' Rt			5.0	
19.5 Rt	Fence		4.7	461.3
13+00				
19.5 Rt	Fence		5.1	460.9
10' Rt			5.2	
RL			5.1	
10' Lt	= Road		5.4	460.6
20' Lt			5.4	460.6
14+00				
20' Lt			5.2	460.8
10' Lt	Road		5.2	460.8
RL			4.8	
6' Rt	Road		5.0	461.0
10' Rt			4.9	
20' Rt			4.6	461.3
T.P.	217	463.38 ✓	4.74	461.21
15+00				
19.7 Rt	= Fence		2.5	460.9
10' Rt			2.5	
7' Rt	= Road		2.4	461.0
R.L.			2.0	
12' Lt	= Road		2.5	460.9

			463.38	
20' Lt			2.5	462.9
16+00				
20' Lt			3.1	460.3
10' Lt	Road		3.5	459.9
RL			3.3	
10' Rt	Road		3.7	459.7
21' Rt	= Fence		3.3	460.1
17+00	Δ 45°15' Rt		section Rt Ls to back tangent	
21' Rt	= Fence		4.7	458.7
15' Rt	= Road		5.3	458.1
10' Rt			5.0	
RL			4.5	
5' Lt	= Road		4.4	459.0
10' Lt			4.3	
20' Lt			4.2	459.2
18+00				
30' Lt			5.7	457.7
20' Lt			6.3	
10' Lt	= Road		6.0	457.4
RL			6.3	
5' Rt	= Road		6.4	457.0
10' Rt	= Fence			
19+00				
13' Rt	Fence		6.1	457.3
4' Rt	= Road		7.5	455.9
9' Lt	= Road		8.0	455.4

			463.38	
20' Lt			8.4	
30' Lt			8.6	454.8
20+00				
30' Lt			6.6	456.8
20' Lt			6.6	
9' Lt	road		6.2	457.2
RL			6.3	
4' Rt			6.4	
10' Rt			6.3	457.1
15.5 Rt	Fence		6.2	457.2
T.P.	455	461.58	6.35	457.03
21+00				
23.2 Rt	= Fence		4.9	456.7
10' Rt			5.8	
2' Rt	Road		5.4	456.2
10' Lt	Road		5.1	455.9
20' Lt			6.1	
30' Lt			5.3	456.3
22+00				
30' Lt			5.0	456.6
20' Lt			4.1	
10 Lt			4.2	
RL	Road		4.9	456.7
10' Rt	Road		5.0	456.6
21.2 Rt	= Fence		4.2	457.4

			461.58	
23+00				
23.5 Rt	= Fence		5.2	456.4
10' Rt			5.9	
RL			5.7	455.9
10' Lt			4.9	
20' Lt			4.3	
30' Lt			4.4	457.2
23+89	= End section taken on Diagonal between Hubs			
19.05 Lt			6.7	454.9
RL			6.4	455.2
17' Rt			6.1	
34.25 Rt			6.2	455.4
T.P.	484	461.58 ✓	484	456.74 on Top Stump on nail
T.P.	7.29	464.56 ✓	481	456.77
T.P.	7.20	468.49 ✓	3.27	461.29

T continued 468.49

ERIE ST

0+00 = SW Corner Erie & Choctaw			
SL		7.8	460.7
¼		7.8	
℄		7.8	460.7
¼		7.8	
NL		7.9	460.6
1+00			
NL		7.6	460.9
¼		7.6	
℄		7.6	460.9
¼		7.7	
SL		7.6	460.9
2+00			
SL		6.4	462.1
¼		6.7	
℄		6.5	462.0
¼		6.6	
NL		6.7	461.8
3+00			
NL		6.5	462.0
¼		6.4	
℄		6.2	462.3
¼		6.2	
SL		6.5	462.0

Plotted 6-25-28 GB.H.

468.49

3+50				
SL			6.3	462.2
¼			6.3	
℄			5.7	462.8
¼			5.5	
NL			5.8	462.7
4+00				
NL			6.1	462.4
¼			5.9	
℄			5.1	463.4
¼			5.1	
SL			6.1	462.4
4+96 ±0				
SL	Hub		6.2	462.3
¼			6.1	
℄			6.1	462.4
¼			6.0	
NL	Post		5.9	462.6
T.P.	6.19	466.63	8.05	460.44
T.P.	4.96	467.31	4.28	462.35
T.P.			4.30	463.01
			BM =	463.01 .06 Error

(New Sections FB 2018-48)

STEWARD ST

0+00 = WL Choctaw

B.M.	Art + Cotoctin			463.07
T.P.	4.30	467.37		463.07
SL			4.4	463.0
1/4			4.6	
℄			4.0	463.4
1/4			4.5	
NL			4.4	463.0
1+00				
NL			5.0	462.4
1/4			5.2	
℄			4.4	463.0
1/4			4.7	
SL			4.5	462.9
2+00				
SL			5.1	462.3
1/4			5.1	
℄			4.7	462.7
1/4			5.0	
NL			4.2	463.2
3+00				
NL			5.0	462.4
1/4			4.8	
℄			4.4	463.0
1/4			4.8	

Plotted 6-25-28 CBH

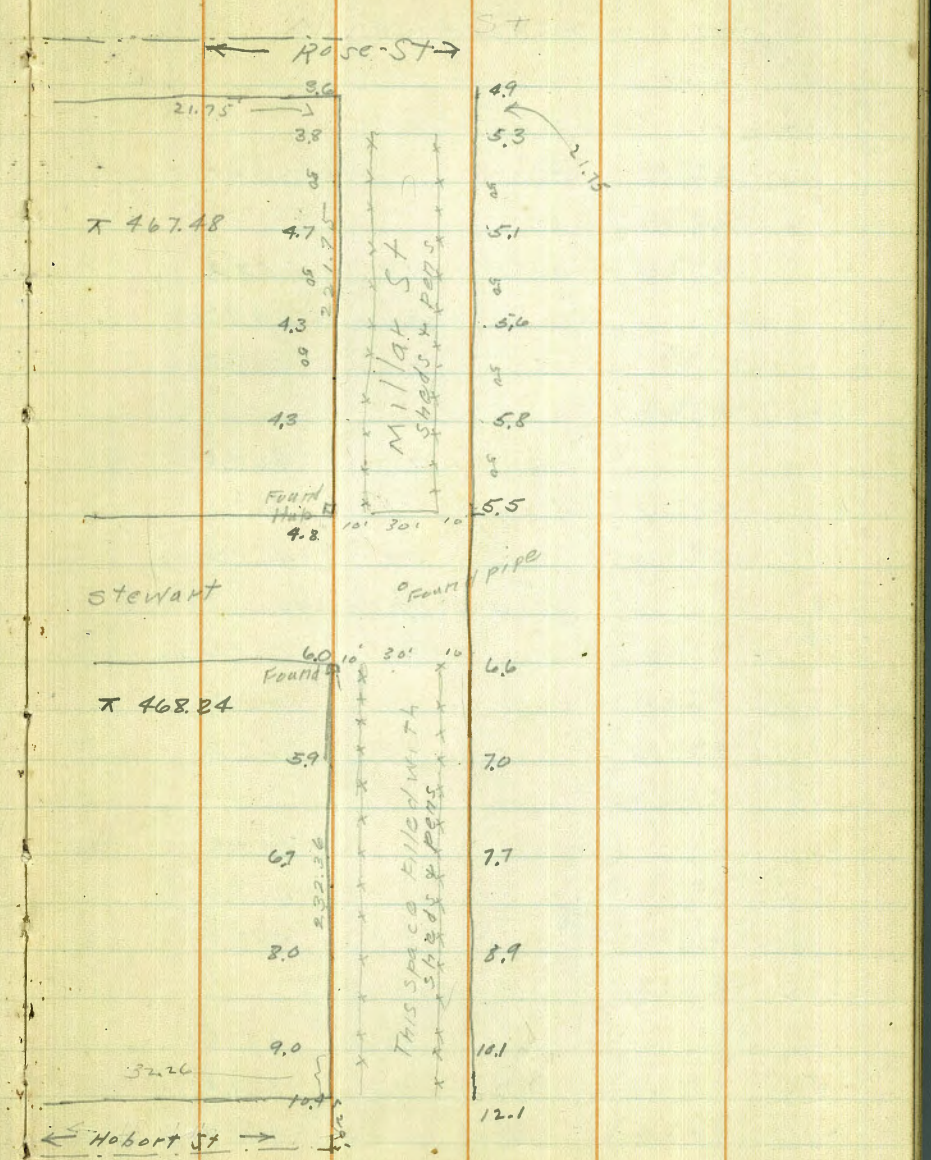
467.37

SL			4.6	462.8
T.P.	5.24	468.24	4.37	463.00
4+00				
SL			5.6	462.6
+5			5.3	
1/4			6.1	
℄			4.8	463.4
+5			5.5	
1/4			6.4	
+1			5.5	
NL			6.0	462.2
5+00				
NL			6.0	462.2
1/4			6.2	
+3			5.5	
℄			4.9	463.3
1/4			6.0	
+2			5.5	
SL			5.4	462.8
6+00				
SL			4.6	463.6
1/4			5.8	
℄			5.0	463.2
1/4			5.7	
NL			5.1	463.1

468.24

6+51.36 = E L Millar

NL			6.0	462.2
¼			6.1	462.1
℄			5.3	462.9
¼			5.9	462.3
SL			5.6	462.6
T.P.	4.72	467.48	5.48	462.76
	4.90	467.90	4.48	463.00
			4.83	463.07
			BM =	463.07



Hebert St.

Stations on N.L. of St.

0+00 = W.L Choctaw Drive

B.M. Bolt in Pole	4.43	467.50		463.07
0+00 on diagonal (21.11)				
N.L.			4.7	462.8
℄			5.0	462.5
S.L.			5.3	462.2
0+24				
S.L.			4.7	462.8
℄			4.4	463.1
N.L.			3.9	463.6
T.P.	6.85	469.48	4.87	464.63
0+72 N.L.			7.1	462.4
℄			6.9	462.6
S.L.			6.7	462.8
1+72				
S.L.			6.2	463.3
℄			6.5	463.0
N.L.			6.8	462.7
2+72				
N.L.			7.9	461.6
℄			7.7	461.8
S.L.			8.3	461.2
3+22				
S.L.			8.2	461.3

Plotted 6-25-28 CBH

		469.48	
℄		8.7	460.8
N.L.		8.2	461.3
3+72			
N.L.		9.8	459.6
℄		11.0	458.5
S.L.		11.6	457.9
4+22 = Opposite South end of (1.2 in Diam.) iron drain			
S.L. on ground		17.8	451.7
S.L. on F.L. of pipe		16.6	452.9
+5		16.0	
℄		15.4	454.1
N.L.		15.9	453.6
4+34 = End of pipe on North			
N.L. on ground		18.0	451.5
N.L. Flow Line		16.6	452.9
℄		15.6	453.9
S.L.		16.2	453.3
4+72			
S.L.		11.9	457.6
℄		13.2	456.3
N.L.		13.3	456.2
5+22			
N.L.		11.8	458.2
℄		10.6	458.9
S.L.		9.6	459.9
5+72 = E.L. Millrat			

469.48

SL			11.8	457.7
℄			12.0	457.5
NL			13.1	456.4
		Rose St.		
T.P.	8.35	471.69	6.14	463.34
0+00 WL Colectin				
5+66.5 = EL Millar				
NL			7.8	463.9
℄			8.1	463.6
SL			7.7	464.0
5+00				
SL			6.1	465.6
℄			6.5	465.2
NL			6.7	465.0
4+00				
NL			6.5	465.2
℄			6.5	465.2
SL			5.9	465.8
3+00				
SL			6.4	465.3
℄			6.6	465.1
NL			6.0	465.7
2+00				
NL			7.6	464.1
℄			7.5	464.2
SL			7.2	464.5

Plotted - 6-26-28. GB.M.

471.69

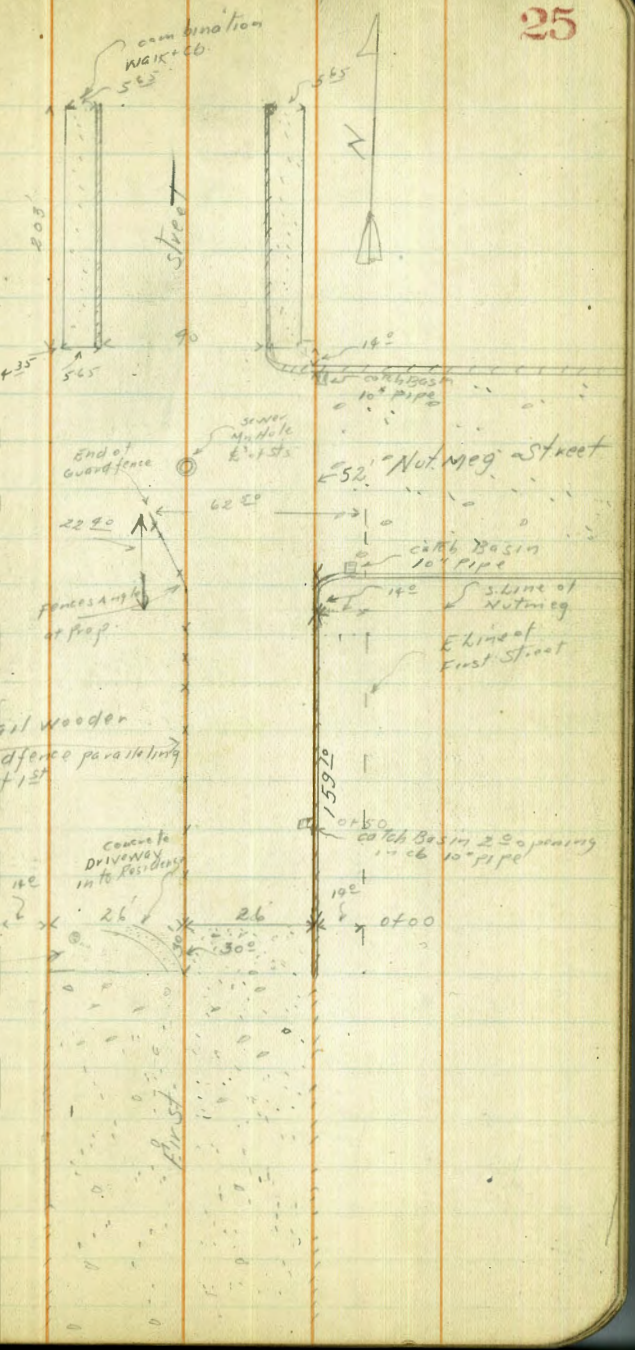
1+00				
SL			7.5	464.2
℄			7.9	463.8
NL			7.5	464.2
0+00 = WL Colectin				
NL			8.1	463.6
℄			8.0	463.7
SL			8.0	463.7
T.P.	3.97	467.64	8.02	463.67
T.R			4.55	463.09
			BM =	463.07
				.02 Error

Bliss
Jacobsen
Kiernan
Brooks
7/25-8

X Sections of First Street from the Paving N. of Maple to the Canyon N of Nutmeg

	+	T	−	Elev
BM NW BP Maple & First	6.12	230.11		223.99
			0+00 = Paving N of Maple	
E Top cb			5.99	224.17
G			6.60	223.51
+4			6.9	223.69
℄			6.79	223.32
+13			10.05	220.06
+18 ℄ Walk			10.96	219.65
			0+25	
cb			13.7	216.4
+8			13.0	217.1
+9			12.0	218.1
+9			7.7	222.4
℄			6.8	223.3
+9			6.2	223.9
+10			6.8	223.3
G			6.8	223.3
E Top cb			6.7	223.4
			0+50	
E Top cb			6.59	223.5
G Top catch Basin			7.42	222.7
+2 Flow line of 10"			9.37	220.7
+3			7.4	222.7
+10			6.6	223.5
+4			6.5	223.6
℄			6.9	223.2

Sketch of First Street North of Maple.



120 14.7		HI 230.11					HI 230.11		547 14.7
					+1.5			5.0	225.1
1/0			14.7	215.4	1/4			13.3	216.8
cb			21.0	209.1	cb			21.3	208.8
+5			23.7	206.4	+10			27.2	202.9
					W			29.0	201.1
					+10			29.9	200.2
							1+12		
			0+72		E Top cb			4.27	225.8
W			28.5	201.6			1+32		
cb			23.2	206.9	W -10			22.8	207.3
1/4			13.7	216.4	W			18.6	211.5
+11			6.8	223.3	cb			12.0	218.1
℄			6.6	223.5	1/4			6.1	224.0
1/4			6.3	223.8	+8			2.8	227.3
+3			6.3	223.8	℄			3.1	227.0
+8			6.9	223.2	1/4			2.9	227.2
G			6.8	223.3	+9			3.4	226.7
E Top cb			6.51	223.6	G			3.4	226.7
			0+92		E Top cb			2.83	227.3
E Top cb			5.61	224.5			1+51 S. Line of Nutmeg		80' St 10' cbs 13' 1/4 s
			1+00		E Top cb			1.25	228.8
E Top cb			5.12	225.0	G			2.1	228.0
G			6.0	224.1	+7			2.3	227.8
+10			5.1	225.0	1/4			1.9	228.2
1/4			4.9	225.2	+6			1.9	228.2
℄			5.0	225.1	℄			2.3	227.8

		HI 230.11		
℄			2.3	227.8
T.P	563	234.07	1.67	228.44
+9			6.4	227.7
cb			7.4	226.7
+6			9.6	227.5
W			15.1	219.0
		Sob		
W			9.7	224.4
+4			7.0	227.1
+10			5.9	228.2
cb			5.7	228.4
℄			6.0	228.1
℄			5.8	228.3
℄			5.5	228.6
cb			5.8	228.3
+9 Wedge of catch Basin flow line of 10" pipe			5.65 7.48	228.4 227.59
E on Paving			5.97	228.60
E on Topcb			5.02	229.05
		S ℄		
E on Paving			4.89	229.18
cb			5.1	229.0
℄			5.2	228.9
℄			5.4	228.7
℄			5.9	228.2
+7			6.5	227.6
cb			6.5	227.6

		HI 239.07		
+9			6.9	227.2
W			8.3	225.8
		℄		
W			7.5	226.6
+3			7.8	226.3
+6			7.6	226.5
cb			6.3	227.8
+7			6.2	227.9
℄			5.9	228.2
℄			5.0	229.1
℄ on Rim of Mn Hole			4.85	229.2
Flow Line of Mn Hole			13.48	220.6
℄			5.0	229.1
+5			5.0	229.1
cb			4.7	229.4
E on Paving			4.37	229.7
		N ℄		
E on Paving			4.33	229.8
cb			4.6	229.5
℄			4.7	229.4
℄			4.9	229.2
℄			5.6	228.5
+5			5.9	228.2
cb			5.9	228.2
+4			6.9	227.2
W			7.6	226.5

23+07

N. Cb

W	6+4	227.7
+11	6.0	228.1
Cb	5.6	228.5
+1	5.2	228.9
+7	5.7	228.4
1/4	5.4	228.7
℄	4.7	229.4
1/4	4.5	229.6
+11	4.5	229.6
Cb	4.8	229.3
19.5 Wedge of catch Basin	4.73	229.4
E on paving	4.78	229.3
E on Topcb	4.03	230.1
N. Line of Nutmeg		
E Topcb	4.09	230.0
G	4.7	229.4
1/4	4.4	229.7
℄	4.5	229.6
1/4	4.9	229.2
G	5.4	228.7
W Topcb	5.02	229.6
+5	4.83	229.2
+10	5.3	228.8
W on 8"Sew	6.1	228.0
0+75		
W Topcb	4.49	229.6

23+07

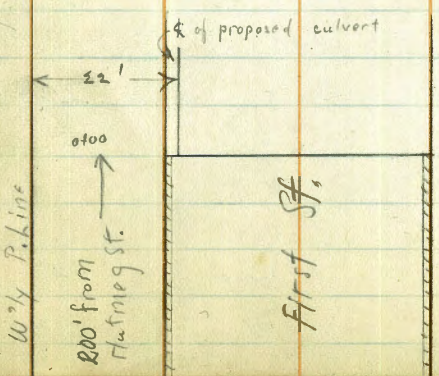
G	5.0	229.1
1/4	4.4	229.7
℄	4.1	230.0
1/4	4.1	230.0
G	4.2	229.9
E Top Cb	3.59	230.5
0+50		
E Topcb	3.11	231.0
G	3.7	230.4
+6	3.7	230.4
1/4	3.6	230.5
℄	3.8	230.3
1/4	4.0	230.1
G	4.5	229.6
W Topcb	3.85	230.2
0+75		
W Topcb Auto Drive way	4.20	229.9
G	4.3	229.8
1/4	3.7	230.4
℄	3.4	230.7
1/4	3.3	230.8
G	3.4	230.7
E Topcb	2.85	231.2
1+00		
E Topcb	2.51	231.6
G	3.1	231.0

	234.07		
1/4		3.1	231.0
℄		3.3	230.8
1/4		3.7	230.4
G		4.2	229.9
W Top cb		3.63	230.5
	1+25		
W Top cb		3.86	230.2
G		4.3	229.8
1/4		3.9	230.2
℄		3.5	230.6
1/4		3.4	230.7
G		3.4	230.7
E Top cb		2.83	231.3
	1+50		
E Top cb		3.11	231.0
G		3.7	230.4
1/4		3.7	230.4
℄		3.8	230.3
1/4		4.2	229.9
G		4.8	229.3
W Top cb		4.15	229.9
	1+75		
W Top cb		5.09	229.0
G		5.3	228.9
℄		5.2	228.9
1/4		5.0	229.1

	234.07		
℄		4.5	229.6
1/4		4.2	229.9
G		4.1	230.0
E Top cb		3.61	230.5
	2+03	End of cb	
E. Top cb		4.05	230.0
G		4.1	230.0
1/4		4.7	229.4
℄		5.3	228.8
1/4		5.7	228.4
G		6.2	227.9
W Top cb		6.11	228.0

Levels for culvert on W.

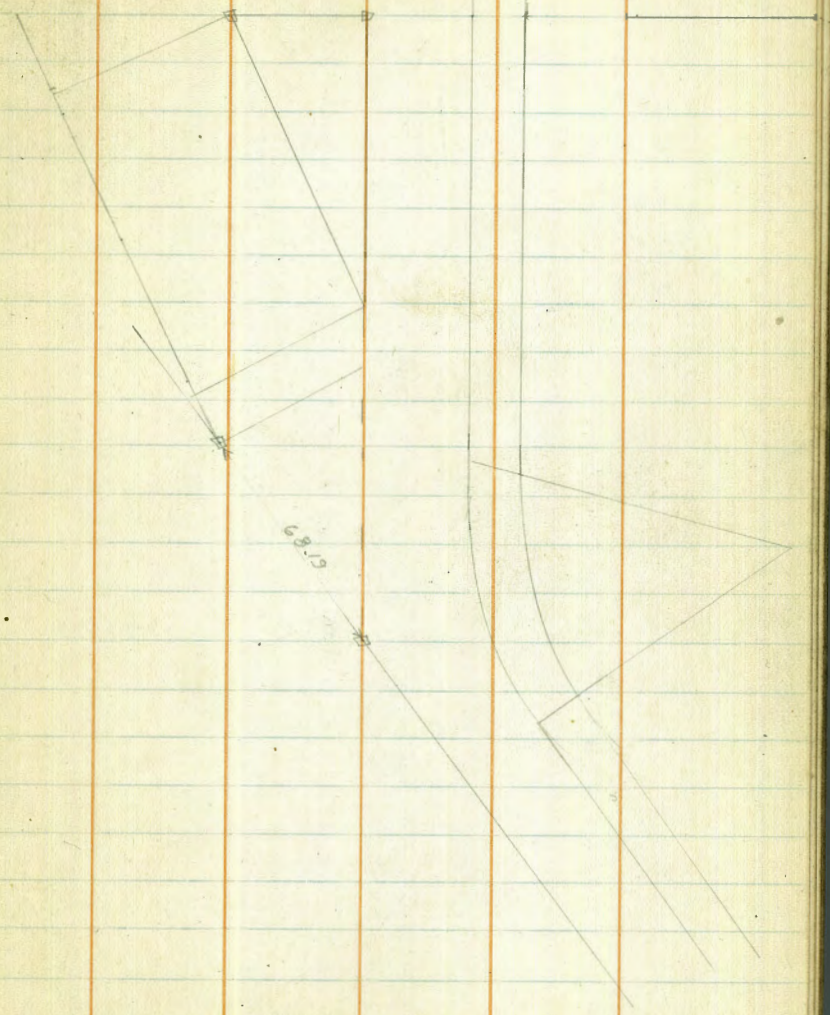
	+	H.I.	−	
	0.2	228.2		(on end of cb) B.M. 228.0
0+19			2.8	225.4
0+30			9.8	218.4



Bliss
Jacobson
Kiernan
Brooks
7/27/28

X Sections of Garnet Street Pacific Beach from the E Line of Pendleton to the W Line of Quincy

	+	↑	−	Elev	80'st 20'cbs
BM SW top Walk Pendleton & Garnet	3.33	39.38		36.05	
S			5.3	34.1	
+6			5.2		
+7			5.4		
cb			4.8		
+2			4.8		
+3			5.4		
+9			5.0		
1/4 S edge of paving			4.76	34.62	
℄			4.59	34.79	
1/4			4.63		
+6			5.5		
+9			5.0		
cb			4.6		
+7			3.8		
+9			2.7		
+16			2.5		
N			1.3	38.1	
		0+40			
N			0.1	39.3	
+7			3.7		
cb			5.8		
+2			6.2		
1/4 edge of paving			5.64	33.74	
℄			5.61	33.77	



		3938			
1/4			5.71		
+7			6.5		
+8			5.7		
cb			5.4		
			5.5	33.9	
S			0+60		
			10.7		
-20 S			11.0	28.4	
+3			10.8		
+8			9.7		
+10			7.2		
+12			6.6		
+13			5.1		
cb			5.4		
+12			7.1		
1/4	S edge paving		6.29	33.09	
℄			6.20	33.18	
1/4			6.33		
+6			6.4		
cb			6.4		
+10			5.1		
T.P.		8.10	4n. 41	5.07	34.31
+17				2.1	
N				2.2	40.2
			0+73		
N				1.8	40.6
T.P.		507	3938	8.10	

		41 3938			
+11			5.8		
+19			6.6		
cb			6.6		
+3			6.3		
1/4	N Edge of paving		6.63	32.75	
℄			6.56	32.82	
1/4			6.65		
+8			7.4		
cb			6.0		
+3			6.5		
+7			6.3		
+9			10.0		
+15			11.6		
S			11.5	27.9	
+20			11.0		
			0+81		
-20 S			11.5		
			11.2	28.2	
+6			11.1		
+10			10.5		
+11			8.3		
cb			7.0		
+1			7.4		
+7			6.9		
1/4			6.88	32.50	
℄			6.75	32.63	
1/4			6.80		
+7			6.5		

			⊼ 3938					HI. 3938		
+8			7.3			S			11.0	28.4
cb			8.1			S+20			12.0	
+1			8.0					1+08		
+3			6.7			S-20			11.8	
+11			6.0			S			11.0	28.4
TP	810	42.41	5.07	34.31		+5			9.7	
+15			6.0			+11			8.5	
+17			2.6			+14			6.4	
N			1.0	41.4		+19			6.5	
			1+00			cb			7.4	
N			5.4	37.0		+2			8.3	
TP	507	39.38	8.10	34.31		1/4 S edge			7.68	31.70
+5			5.8			℄			7.58	31.80
+12			7.3			1/4 N.			7.58	
+18			7.5			+6			7.7	
+19			8.6			+7			8.8	
cb			8.7			+cb			8.8	
+1			8.5			+3			8.1	
+4			7.4			+14			6.4	
1/4 N. edge of paving			7.41	31.97		+18			2.9	
℄			7.34	32.04		N			1.0	38.4
1/4 S. edge of paving			7.46	31.92				1+16		
+8			8.0			N			1.9	37.5
cb			7.8			+2			2.5	
+3			6.8			+6			7.0	
+6			9.3			+12			8.2	

	↑ 39.38		
+18		8.~	
C6		88	
+1		9.0	
+3		8.1	
1/4 N. edge of paving		7.79	31.59
℄		7.80	31.58
1/4		7.9~	31.46
+18		8.6	
C6		8.4	
+~		8.4	
+5		7.0	
+16		8.1	
S		9.8	29.6
S-20		11.6	
	1+91		
S		9.5	29.9
+7		8.5	
+17		8.1	
+18		5.7	
C6		9.~	
1/4 S. edge		8.67	30.71
℄		8.56	30.82
1/4		8.58	30.50
+1		8.6	
+7		9.3	
C6		9.6	

	↑ 39.38		
+1		9.4	
+5		9.5	
+13		8.3	
+16		7.3	
+18		3.1	
N		1.9	37.5
	1+58		
N		2.5	36.9
+3		3.8	
+7		8.3	
+11		9.8	
C6		9.9	
+3		9.7	
1/4 N.		9.13	30.25
℄		9.01	30.37
1/4 S		9.15	30.23
+3		9.3	
+7		9.9	
C6		9.8	
+3		9.7	
+5		9.1	
S		9.0	30.4
	1+73 C.L. Proposed		
S		11.0	28.4
+7		10.2	
+11		9.0	

HI
39.38

+13	8.9		
+18	8.6		
CL Top	9.2	30.2	
CL Bottom	10.5	28.9	
+7	9.7		
1/4 S.dg.	9.61	29.77	
℄	9.97	29.91	
1/4	9.51	~~30~~ 29.87	
CL	10.7	28.1	
+1	10.4		
+13	9.3		
+16	7.2		
+18	3.3		
N	2.5	36.9	
	17.88		
N	9.7	35.7	
+9	5.5		
+6	9.3		
CL	10.9		
+3	10.3		
+8	10.0		
1/4 N.	9.97	29.41	
℄	9.88	29.50	
1/4	10.00	29.48	

HI
39.38

+3		10.2		
+8		10.7		
CL		10.7		
S		11.1	28.3	
	2.00			
S		12.2	27.2	
T.P.	9.92	33.56	10.44	28.99
+18			5.6	
+19			6.5	
CL			6.3	
+2			5.5	
+4			5.4	
1/4			9.81	29.05
℄			1.71	32.15
1/4			4.74	29.12
+2			9.9	
CL			5.9	
+1			5.8	
+2			5.7	
+14			9.4	
+17			3.1	
+19			0.3	
N			0.3	33.5
	2.06			
N			0.6	33.2
+1			0.6	

	↑ 33.86		
+2	2.5		
+5	5.1		
CB	5.7		
+2	5.8		
+8	5.1		
1/4	4.97	28.89	
℄	9.88	28.98	
1/4	5.02	28.84	
+2	5.1		
+8	6.0		
CB	6.0		
+14	6.2		
S	7.2	26.7	
	2+13		
S	7.2	26.6	
+9	7.2		
+5	7.4		
+17	7.0		
+18	6.0		
CB	6.0		
+3	5.9		
+7	5.3		
1/4	5.22	28.64	
℄	5.11	28.75	
1/4	5.18	28.68	
+3	5.4		

	↑ 33.86		
+7	6.1		
.CB	6.1		
+10	5.8		
N	4.8	29.0	
	2+20		
N	5.0	28.8	
+10	6.0		
CB	6.1		
+3	6.3		
+7	5.3		
1/4	5.42	28.44	
℄	5.33	28.53	
1/4	5.47	28.39	
+3	5.6		
CB	6.1		
S	7.1	26.7	
	2+50		
S	7.6	26.2	
+9	7.0		
+13	6.7		
+17	7.1		
CB	7.0		
+6	6.5		
1/4	6.33	27.53	
℄	6.22	27.64	
1/4	6.21	27.65	

		HI 3386						33.86			
+2			6.2			1/4			7.74	26.12	
+5			6.4			E			7.58	26.28	
cb			6.5			1/4			7.66	26.20	
+8			6.8			+3			7.9		
N			6.0	27.8		+6			8.7		
		2775				+8			8.7		
N			6.7	27.1		cb			8.3		
+9			7.9			+9			8.3		
+19			6.9			+17			7.1		
cb			7.8			N			5.8	28.0	
+2			8.0			Set BM S.E spire Pole Pendleton Grand			5.11	28.75	
+4			7.0			TP	8.71	37.46	5.11	28.75	
1/4			7.01	26.85		check on station BM SW Top Walk Pendleton			1.42	36.09 36.05 0.01	
E			6.94	26.92							
1/4			7.07	26.79							
+3			7.1								
+8			7.2								
cb			6.6								
+10			8.0								
S			8.9	25.5							
	199.45										
S			9.2	24.7							
+12			8.7								
cb			8.0								
+1			8.3								
+7			7.9								

Bliss
Jacobson
Kiernan
Brooks
7/27/28
B.M.S. E Spike
Pole Grand
Pendleton

X Sections of Grand Street Pacific
Beach from the E Line of Pendleton to the
W Line of Lee

	8.71	37.46		28.75				37.96		
		Sec	A	134 20	20 cbs 23.85 1/4	℄			9.0	28.5
N			7.4	30.1		+9			9.6	
+16			8.1			+10			10.6	
cb			8.8			+12			10.6	
1/4			8.7			+13			9.5	
+8			9.0			1/4			9.0	
+11			10.0			+18			9.1	
+12			10.0			+19			9.8	
+16			8.9			cb			9.6	
℄			8.5	29.0		+3			8.3	
1/4			9.1			N			7.4	30.1
+10			9.6			TP	3.14	31.89	8.71	28.75
cb			9.2					0+15		
+6			9.1			N			1.9	30.0
+12			12.8	24.7		+5			3.6	
+16 Bottom			13.8	23.7		cb			4.7	
+16 Top			12.0	25.5		+5			4.5	
S			12.8	24.7		+6			3.7	
		0+00		125 22		1/4			3.7	
S - 10			14.6			+7			4.0	
S			13.7	23.8		+9			5.2	
+6			10.2			+10			4.2	
cb			9.6			℄			3.7	28.2
+7			9.9			+12			3.7	
1/4			9.9			1/4			4.3	
+6			9.2			cb			4.2	

		3/89							HZ 3/89		
+ 15			4.5		+ 20					4.2	
S			7.5	24.4	1/4					5.4	
S + 15			9.3		+ 3					5.0	
		0+50			+ 10					6.1	
S - 15			9.9		+ 12					4.5	
S - 9			8.7		℄					4.4	27.5
S			6.6	25.3	+ 15					4.9	
+ 5			9.8		1/4					4.9	
cb			9.6		cb					4.8	
1/4			4.7		+ 19					5.0	
+ ℄			9.3		S					6.8	25.1
℄			9.2	27.7	S + 5					8.4	
+ 5			4.6		S + 15					9.6	
+ 6			5.9						1+00		
+ 13			5.3		S - 15					10.6	
+ 14			4.7		S - 3					9.1	
1/4			9.2		S					7.3	24.6
+ 4			4.3		+ 5					5.3	
+ 5			5.7		cb					5.2	
+ 19			5.5		+ 14					5.5	
+ 20			4.2		1/4					5.2	
cb			4.0		℄					4.8	27.1
N			3.1	28.8	+ 9					9.7	
		0+65			+ 11					6.1	
N			3.3	28.6	1/4					6.2	
cb			3.8		+ 2					6.1	

		H.I. 31.89					H.I. 31.89		
+3		1	4.5		S			6.9	25.0
Cb			4.5		+7			5.5	
N			3.9	28.0	+13			5.5	
		1+15			+14			5.9	
N			4.4	27.5	Cb			6.0	
Cb			4.4		+6			6.1	
+16			4.6		+7			7.2	
+17			6.2		+13			7.8	
1/4			6.7		+19			5.6	
+9			6.3		1/4			5.6	
+10			4.9		E			5.2	26.7
E			4.8	27.1	+12 Top			4.8	
1/4			5.3		+12 Bottom			6.3	
+5			5.9		1/4			6.9	
+8			6.1		+4.5			6.4	
+10			5.7		+5			5.0	
+13			5.9		Cb			4.6	
Cb			5.9		N			4.2	27.7
+14			5.3				1+5.0		
+17			7.0		N			3.6	28.3
S			7.3	24.6	+5			4.3	
St 5			9.1		+10			4.9	
+15			10.0		+15			4.8	
		1+30			Cb			4.7	
S-15			10.3		+10			5.1	
S-9			9.2		+16			5.4	

HI 31.89

+17	6.3	
1/4	7.0	
+6	6.7	
+7	5.1	
℄	5.3	26.6
+16	5.7	
1/4	6.1	
+11	8.1	
+16	7.7	
+17	6.4	
cb	6.0	
+16	6.1	
S	7.6	24.3
S+6	9.6	
+15	10.7	
	1+65	
S-15	10.9	
S-2	9.0	
S	8.1	23.8
+5	6.4	
+15	5.8	
cb	6.0	
+3	6.4	
+4	8.1	
+12	8.3	
+16	7.5	

HI 31.89

1/4	6.8	
+6	5.8	
℄	5.6	26.3
+14 Top	5.4	
+14 Bottom	6.7	
1/4	7.3	
+9	6.6	
+5	5.0	
cb	4.6	
N	3.9	28.0
	1+75	
N	3.1	28.8
+10	4.2	
+15	4.5	
cb	4.4	
+15	5.4	
+16	5.8	
+17	7.0	
1/4	7.4	
+7	6.7	
+8	5.3	
℄	5.7	26.2
+12	5.9	
+14	7.6	
1/4	7.9	
+5	8.3	

		H.I. 31.89						H.I. 31.89			
+18			8.4			+4			6.2		
+19			7.7			+8			5.2		
cb			6.2			cb			4.9		
+2			5.6			+5			4.3		
+10			6.0			+10			3.7		
+15			6.6			N			3.3	28.6	
S			8.2	23.7		T.P.			6.73	25.16	Top valve
+3			9.6								
+15			11.7								
		1+88	05								
S-15			11.8								
S-5			9.9								
S			7.6	24.3							
+8			6.0								
+10			6.9								
+19			6.6								
cb			8.7								
+15			8.7								
1/4			8.8								
+6			8.1								
+9			6.8								
℄			6.2	25.7							
+16			5.4								
+17			7.3								
1/4			7.4								
+2			7.4								

8-17-28
J.C. Bliss
Drebert
Rauner

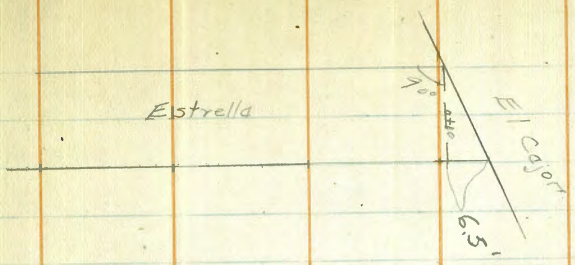
X section Estrella Street
El Cajon to City Limits
60' wide 12' cbs 9' 1/4s

B.M. S.W.B.P. 47th & El Cajon					347.20
	+4.63	351.83			
T.P.				-1.25	350.58
	+5.80				
			⊼ 356.38		

Section along North Line El Cajon on Pavement

W			5.0		351.4
Tpcb			4.86		351.52
G			5.60		350.78
1/4			5.20		351.18
℄			5.14		351.24
1/4			5.34		351.04
G			5.57		350.81
Tp cb			4.87		351.51
E			4.6		351.8
	0+00 - See sketch				
E			4.6		351.8
Tpcb			4.87		351.51
G			5.57		350.81
1/4			5.1		351.3
℄			5.1		351.3
1/4			5.1		351.3
G			5.4		351.0
Tpcb			4.83		351.55
W			4.9		351.5

Plotted 9-21-28 - C.B.H.



⊼ 356.38

0+50

W			4.3		352.1
Tpcb			4.12		352.26
G			5.0		351.4
1/4			4.8		351.6
℄			4.4		352.0
1/4			4.7		351.7
G			4.9		351.5
Tpcb			4.15		352.23
E			4.0		352.4
	1+00				
E			3.7		352.7
Tpcb			3.39		352.99
G			4.3		352.1
1/4			4.0		352.4
℄			3.5		352.9
1/4			3.9		352.5
G			4.2		352.2
Tpcb			3.32		353.06
W			3.6		352.8

π 356.38

	1+50		
W		2.6	358.8
Tpcb		2.56	353.82
G		3.4	353.0
1/4		3.0	353.4
℄		2.6	353.8
1/4		2.8	353.6
G		3.4	353.0
Tpcb		2.61	353.77
E		2.7	353.7
	2+00		
E		1.6	354.8
Tpcb		1.80	354.58
G		2.4	354.0
1/4		1.9	354.5
℄		1.8	354.6
1/4		2.3	354.1
G		2.7	353.7
Tpcb		1.81	354.57
W		1.7	354.7
	2+50		
W		1.2	355.2
Tpcb		0.93	355.45
G		1.8	354.6
1/4		1.2	355.2
℄		0.7	355.7

π 356.38

1/4		1.0	355.4
G		1.2	355.2
Tpcb		0.76	355.62
E		0.2	356.2
TP.			-0.30 356.08
	+110+		
	π 367.12		
	3+00		
E		10.6	356.5
Tpcb		10.37	356.75
G		11.2	355.9
1/4		10.8	356.3
℄		10.6	356.5
1/4		11.0	356.1
G		11.7	355.4
Tpcb		10.68	356.44
W		10.8	356.3
	3+50		
W		10.0	357.1
Tpcb		9.73	357.39
G		10.6	356.5
1/4		10.0	357.1
℄		9.6	357.5
1/4		9.9	357.2
G		9.9	357.2

T 367.12

Tpcb		9.25	357.87
E		9.3	357.8
	4+00		
E		8.2	358.9
Tpcb		8.22	358.90
G		9.0	358.1
1/4		9.0	358.1
℄		8.6	358.5
1/4		9.0	358.1
G		9.4	357.7
Tpcb		8.76	358.36
W		8.9	358.2
	4+50		
W		7.7	359.4
Tpcb		7.84	359.28
G		8.5	358.6
1/4		8.0	359.1
℄		7.5	359.6
1/4		8.0	359.1
G		8.1	359.0
Tpcb		7.22	359.90
E		7.1	360.0
	5+00		
E		5.8	361.3
Tpcb		6.17	360.95

T 367.12

G		7.1	360.0
1/4		7.0	360.1
℄		6.4	360.7
1/4		6.9	360.2
G		7.4	359.7
Tpcb		6.96	360.16
W		6.9	360.2
	5+50		
W		5.8	361.3
Tpcb		5.96	361.16
G		6.7	360.4
1/4		5.9	361.2
℄		5.4	361.7
1/4		5.6	361.5
G		6.2	360.9
Tpcb		5.24	361.88
E		4.6	362.5
	6+00		
E		3.6	363.5
Tpcb		4.32	362.80
G		5.2	361.9
1/4		4.3	362.8
℄		4.3	362.8
1/4		4.9	362.2
G		5.7	361.4

T 36+.12

Tpcb		Hg6	362.16	
W		Hg	362.2	
	6+50			
W		3.5	363.6	
Tpcb		3.93	363.19	
G		4.5	362.6	
1/4		3.9	363.2	
℄		3.5	363.6	
1/4		3.7	363.4	
G		4.1	363.0	
Tpcb		3.42	363.70	
E		3.0	364.1	
	6+95			
E		2.2	364.9	
Tpcb		2.73	364.39	
G		3.6	363.5	
1/4		3.2	363.9	
℄		3.0	364.1	
1/4		3.5	363.6	
G		3.4	363.7	
Tpcb		3.07	364.05	
W		3.0	364.1	
	7+50			
W		2.5	364.6	
Tpcb		2.73	364.39	

T 36+.12

45

G		3.7	363.4	
1/4		2.8	364.3	
℄		2.6	364.5	
1/4		3.1	364.0	
G		3.4	363.7	
Tpcb		2.48	364.64	
E		2.7	364.4	
	7+93.5	City Limits and Ends Curb		
E		0.6	366.5	
Tpcb		2.05	365.07	
G		2.4	364.7	
1/4		2.4	364.7	
℄		2.6	364.5	
1/4		2.9	364.2	
G		3.1	364.0	
Tpcb		2.37	364.75	
W		2.5	364.6	
T.P.			-11.45	355.67
	+3.04	358.71		
T.P.			10.90	347.81
	+4.47	352.28		
S.W. B.P.	47th + El Cajon		-5.13	347.15
				347.20

8-21-28
J.C. Bliss
Drebert
Rouner

X section of 33rd St. from Market to End North of A St.
60' Wide 10' cbs. 10' ½s

B.M. N.E. Mon. 33rd & F — 89.58
+0.50 90.08
T

3+10 = South Line F Street.

E		5.4	84.7
Top cb		4.99	85.09
℄ Pavement		5.48	84.60
1/4 Pavement		5.52	84.46
℄ Pavement		5.54	84.54
1/4 Pavement		5.68	84.40
℄ Pavement		5.82	84.16
Top cb		5.18	84.90
W		5.1	85.0
	3+05		
W		5.5	84.6
cb		5.7	84.4
1/4		5.9	84.2
℄		5.7	84.4
1/4		5.9	84.2
cb		5.7	84.4
E		5.8	84.3
	2+95		
E		6.6	83.5
cb		6.2	83.9
1/4		6.3	83.8

Plotted 9-12-28 C.B.H.

T 90.08

℄		6.2	83.9
1/4		6.4	83.7
cb		6.0	84.1
+2		5.9	84.2
W		9.3	80.8
Out 10		11.0	79.1
2+80 Lower Step of concrete steps on East side		6.76	83.22
	2+75		
10 out		11.4	78.7
W		10.7	79.4
+5		10.8	79.3
cb		9.5	80.6
+4		8.0	82.1
1/4		8.2	81.9
℄		8.0	82.1
1/4		7.8	82.3
cb		7.6	82.5
E		7.5	82.6
	2+50		
E		9.0	81.1
cb		9.2	80.9
1/4		9.5	80.6
℄		9.8	80.3
1/4		10.2	79.9
cb		11.6	78.5

			T 90.08				T 90.08		
W			11.3	78.8	E		13.3	76.8	
		2+25			TP			-13.13	76.95
W			12.0	78.1		+1.95			
cb			11.7	78.4			T 78.90		
1/4			11.0	79.1			1+50		
℄			10.6	79.5	E		2.5	76.4	
1/4			10.7	79.4	cb		2.9	76.0	
cb			10.5	79.6	1/4		2.7	76.2	
E			10.2	79.9	℄		2.7	76.2	
		2+00			1/4		1.4	77.5	
E			11.6	78.5	cb		1.2	77.7	
cb			11.7	78.4	W		0.9	78.0	
1/4			11.4	78.7			1+25		
℄			11.1	79.0	W		1.6	77.3	
1/4			10.9	79.2	cb		1.8	77.1	
cb			11.7	78.4	1/4		2.6	76.3	
W			12.3	77.8	℄		3.9	75.0	
		1+75			1/4		4.0	74.9	
W			11.9	78.2	cb		4.0	74.9	
cb			11.6	78.5	E		3.6	75.3	
1/4			11.2	78.9			1+00		
℄			11.5	78.6	E		4.8	74.1	
℄			12.3	77.8	cb		5.5	73.4	
1/4			12.8	77.3	1/4		5.5	73.4	
cb			12.9	77.2	℄		5.3	73.6	

T 78.90

11+		32	75.7
45		34	76.5
cb		35	76.4
W		23	76.6
	0+75		
W		33	75.6
cb		34	75.5
11+		36	75.3
45		46	74.3
℄		65	72.4
11+		71	71.8
cb		73	71.6
E		71	71.8
	0+50		
E		91	69.8
cb		89	70.0
11+		88	70.1
℄		86	70.3
11+		47	74.2
cb		40	74.9
W		42	74.7
	0+25		
W		44	74.5
47		44	74.5
cb		57	73.2

T 78.90

11+		94	69.5
℄		102	68.7
11+		101	68.8
cb		104	68.5
E		104	68.5
	0+02		
E		116	67.3
cb		117	67.2
11+		116	67.3
℄		109	68.0
11+		90	69.9
cb		73	71.6
47		44	74.5
W		44	74.5
	0+00 = North Line G St.		60' Wide 11' CDs 10' I/Js
W		95	69.4
cb		97	69.2
11+		103	68.6
℄		111	67.8
11+		117	67.2
cb		117	67.2
E		118	67.1
	North cb G St		
E		123	66.6
cb		126	66.3

	T 78.90		
1/4	12.5	66.4	
℄	11.8	67.1	
1/4	11.7	67.2	
cb	11.6	67.3	
W- Existing concrete Gutter	11.72	67.18	
W- Typ cb	10.91	67.99	
North 1/4 G St			
W	11.5	67.4	
cb	12.0	66.9	
1/4	12.1	66.8	
℄	12.4	66.5	
1/4	12.9	66.0	
cb	13.2	65.7	
E	13.0	65.9	
TP		-13.00 65.90	
7+74			
	T 68.64		
	℄ G St		
E	3.7	65.4	
cb	3.5	65.1	
1/4	3.1	65.5	
℄	2.3	66.3	
1/4	2.1	66.5	
cb	1.7	66.9	
W	1.5	67.1	

	T 68.64		
	South 1/4 G St		
W	1.9	66.7	
cb	2.2	66.4	
1/4	2.5	66.1	
℄	2.8	65.8	
1/4	3.5	65.1	
cb	4.0	64.6	
E	3.6	65.0	
	South cb G St		
E	3.9	64.7	
cb	4.1	64.5	
1/4	4.2	64.4	
℄	3.9	64.7	
↑5	2.8	65.8	
1/4	2.7	65.9	
cb	2.6	66.0	
W- Existing concrete Gutter	2.48	66.16	
Typ cb	1.65	66.99	
	2+85.3 = South Line G St.		
W	1.5	67.1	
cb	1.7	66.9	
1/4	2.7	65.9	
℄	3.7	64.9	
1/4	4.3	64.3	
cb	4.8	63.8	
E	4.4	64.2	

T 68.64

2+83			
E	4.4	64.2	
cb	4.7	63.9	
1/4	4.3	64.3	
℄	3.3	65.3	
1/4	2.4	66.2	
cb	1.3	67.3	
W	0.0	68.6	
2+50			
W	1.6	67.0	
cb	2.9	65.7	
1/4	4.0	64.6	
℄	4.9	63.7	
1/4	5.4	63.2	
cb	5.6	63.0	
E	5.7	62.9	
2+26			
E	6.2	62.4	
cb	6.3	62.3	
1/4	5.8	62.8	
℄	5.2	63	
1/4	5.0	63.6	
cb	3.9	64.7	
W	2.6	66.0	

T 68.64

2+00			
W	3.1	65.5	
+5	3.4	65.2	
cb	5.3	63.3	
1/4	5.6	63.0	
℄	6.1	62.5	
1/4	6.4	62.2	
cb	6.8	61.8	
E	6.8	618	
1+75			
E	7.9	60.7	
cb	7.6	61.0	
1/4	7.1	61.5	
℄	6.8	61.8	
1/4	6.9	61.7	
cb	6.3	62.3	
+5	3.8	64.8	
W	3.3	65.3	
1+50			
W	4.2	64.4	
+6	5.0	63.6	
cb	6.1	62.5	
1/4	6.6	62.0	
℄	7.2	61.4	
1/4	8.2	60.4	
cb	8.5	60.1	

T 6864

+5		10.0	58.6
E		10.3	58.3
	1+25		
E		12.9	55.7
+5		13.2	55.4
cb		11.5	57.1
11+		9.9	58.7
℄		8.3	60.3
11+		7.7	60.9
cb		6.6	62.0
W		4.8	63.8
	1+00		
W		5.7	62.9
cb		6.9	61.7
11+		8.3	60.3
℄		10.5	58.1
11+		12.0	56.6
cb		16.0	52.6
E		16.3	52.3
	0+75		
Out 10		20.2	48.4
E		19.2	49.4
cb		19.1	49.5
11+		18.1	50.5
℄		16.1	52.5

T 6864

11+		13.5	55.1
cb		11.0	57.6
W		7.7	60.9
T.P.			-1116 57.48
	+ 0.96		
	T 58.44		
	0+50		
W		2.0	56.4
cb		4.4	54.0
11+		6.5	51.9
+5		8.0	50.4
℄		8.9	49.5
11+		9.4	49.0
cb		9.4	49.0
E		9.9	48.5
Out 10		11.1	47.3
	0+25		
Out 15		12.3	46.1
E		9.6	48.8
cb		8.9	49.5
11+		8.7	49.7
℄		8.3	50.1
11+		7.9	50.5
cb		8.1	50.3
W		6.6	51.8

⊼ 58.44

0+00 = North Line Market St

W			5.8	52.6	
Tp cb			6.22	52.22	
G. Paved			6.86	51.58	
1/4 "			7.16	51.28	
℄ "			7.57	50.87	
1/4 "			8.16	50.28	
G "			8.76	49.68	
Tp cb			8.18	50.26	
E			8.3	50.1	
T.P.				-0.21	58.23
	+13.03	71.26			
				-0.16	71.10
	+13.12	84.22			
				-1.34	82.88
	+7.39	90.27			
B. M. N.E. Mon. 33rd + F				-0.62	89.65
					89.58
B. M. N.E. Mon. 33rd + F					89.58
	+6.25				
			⊼ 95.83		

0+00 = North Line F St. on Pavement

E			7.7	88.1	
+3			9.3	86.5	
Tp cb			9.17	86.66	
G			9.66	86.17	

⊼ 95.83

1/4			9.53	86.3	
℄			9.49	86.3	
1/4			9.60	86.2	
G			9.76	86.1	
Tp cb			9.28	85.55	
W			9.6	86.2	
		0+25			
W			8.7	87.1	
cb			8.9	86.9	
1/4			8.4	87.4	
℄			7.9	87.9	
1/4			7.8	88.0	
cb			8.2	87.6	
+3			6.7	89.1	
E			6.7	89.1	
		0+50			
E			5.5	90.3	
+8			5.6	90.2	
cb			7.0	88.8	
1/4			6.9	88.9	
℄			6.8	89.0	
1/4			7.3	88.5	
cb			7.5	88.3	
+7			7.3	88.5	
W			4.9	90.9	

π 9583

1+00

W	5.0	90.8
cb	5.9	89.9
1/4	6.8	89.0
℄	6.1	89.7
1/4	6.2	89.6
cb	6.3	89.5
+3	4.3	91.5
E	4.3	91.5

1+50

E	3.8	92.0
+8	4.1	91.7
cb	5.5	90.3
1/4	5.3	90.5
℄	5.2	90.6
1/4	5.5	90.3
cb	6.3	89.5
W	6.1	89.7

1+65.75 = South Line Lemon Grove Blvd 70' Wide, 70' cbs, 12½' 1/4s

W	5.9	89.9
cb	5.5	90.3
+5	6.2	89.6
1/4	5.2	90.6
℄	4.8	91.0
1/4	4.9	90.9
cb	5.3	90.5

9583

+3	3.9	91.9
E	3.7	92.1

South cb L. G. Blvd

E	3.6	92.2
+3	4.9	90.9
cb	4.8	91.0
1/4	4.5	91.3
℄	4.6	91.2
1/4	4.8	91.0
+5	5.8	90.0
cb	5.4	90.4
W	5.7	90.1

South cb +3

W	5.7	90.1
cb	5.2	90.6
+5	5.7	90.1
1/4	4.8	91.0
℄	4.4	91.4
1/4	4.3	91.5
cb	4.6	91.2
W	4.9	90.9

S 1/4 L. G. Blvd

E	4.4	91.4
cb	4.2	91.6
1/4	4.1	91.7

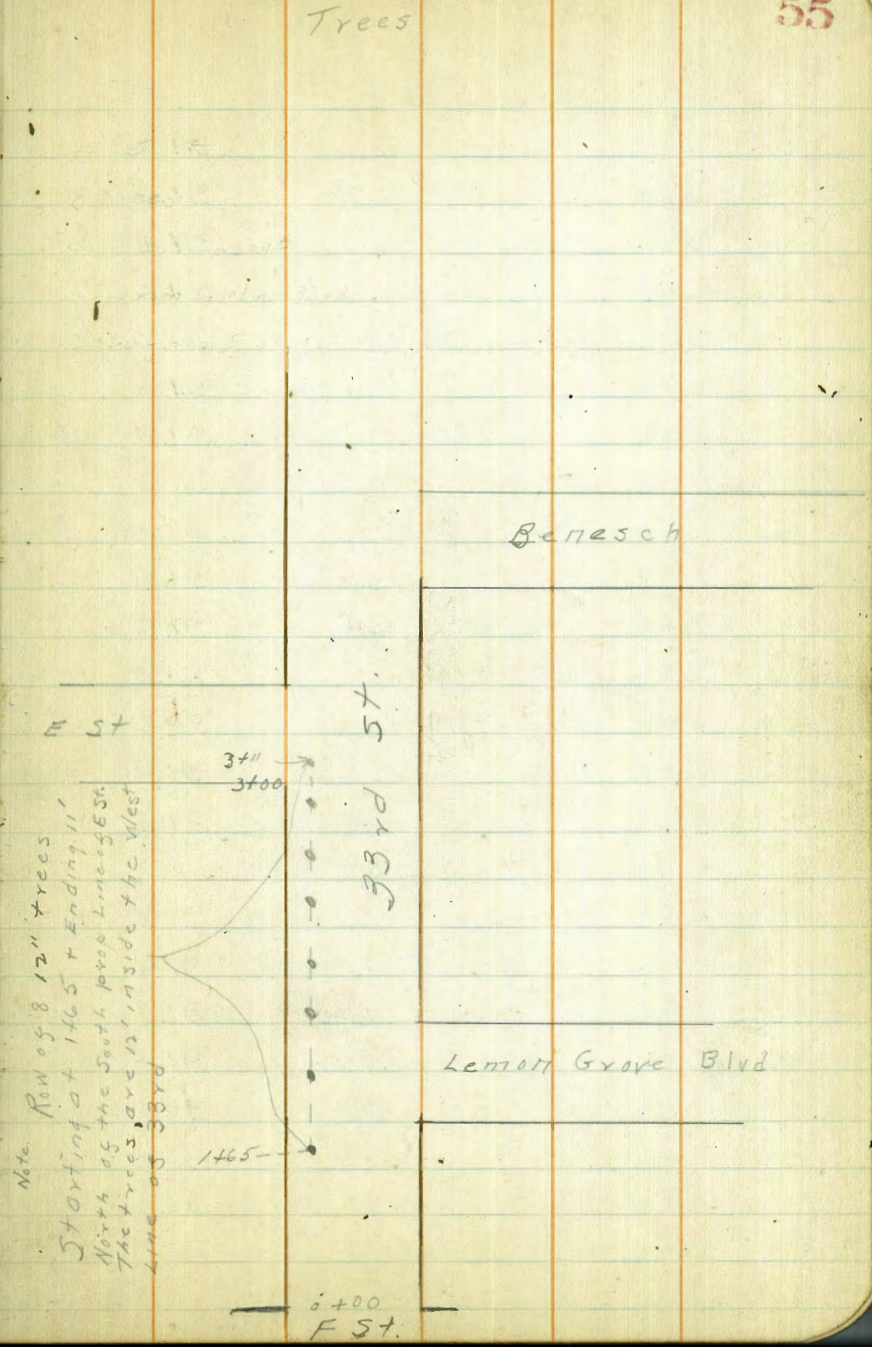
T 95.83

℄			4.3	91.5	
11+			4.6	91.2	
+5			5.6	90.2	
cb			5.3	90.5	
W			5.3	90.5	
		℄ L.G. Blvd			
W			5.2	90.6	
cb			5.5	90.3	
11+			4.5	91.3	
℄			4.4	91.4	
11+			4.2	91.6	
cb			3.8	92.0	
E			3.6	92.2	
		N 11+ L.G. Blvd			
E			3.8	92.0	
cb			4.1	91.7	
11+			4.4	91.4	
℄			4.6	91.2	
11+			4.8	91.0	
cb			5.2	90.6	
W			5.2	90.6	
		N cb L.G. Blvd			
W			5.3	90.5	
cb			5.0	90.8	
11+			4.9	90.9	

T 95.83

℄			4.8	91.0	
11+			4.7	91.1	
cb			4.5	91.3	
E			3.3	92.5	
)		2+35.75	North Line Lemon Grove Blvd		
E			3.4	92.4	
cb			4.4	91.4	
11+			4.9	90.9	
℄			4.9	90.9	
11+			4.9	90.9	
cb			5.0	90.8	
W			5.0	90.8	
		2+50			
W			5.2	90.6	
cb			4.8	91.0	
+5			5.0	90.8	
11+			5.0	90.8	
℄			4.8	91.0	
11+			4.9	90.9	
cb			4.6	91.2	
+7			3.9	91.9	
E			2.9	92.9	
T.P.				-4.47	91.36
	42.97				
		T10433			

	T	104.33	
	3+00 c South Line E St.		80' wide 14' cbs 13' 1/4s
E		12.8	91.5
cb		13.4	90.9
1/4		13.1	91.2
℄		12.9	91.4
1/4		13.2	91.1
45		13.7	90.6
cb		12.5	91.8
W		13.3	91.0
	South cb E St.		
W		13.4	90.9
cb		13.3	91.0
1/4		13.1	91.2
℄		12.7	91.6
1/4		13.0	91.3
cb		13.0	91.3
E		12.8	91.5
	S 1/4 E St.		
E		13.0	91.3
cb		12.7	91.6
1/4		12.9	91.4
℄		12.6	91.7
1/4		12.8	91.5
cb		13.1	91.2
W		13.2	91.1



T 104 33

℄ E 5t

W	13.2	91.1
cb	12.8	91.5
1/4	12.8	91.5
℄	12.6	91.7
1/4	12.7	91.6
cb	13.0	91.3
E	12.9	91.4

N 1/4 E 5t

E	12.5	91.8
cb	12.7	91.6
1/4	12.4	91.9
℄	12.6	91.7
1/4	12.3	92.0
cb	12.9	91.4
W	13.0	91.3

N cb E 5t

W	12.9	91.4
cb	12.9	91.4
1/4	12.2	92.1
℄	12.5	91.8
1/4	12.2	92.1
cb	12.8	91.5
E	12.1	92.2

T 104 33

56

North Line E 5t = 0+00

E	11.3	93.0
+5	12.5	91.8
℄ cb	12.6	91.7
1/4	12.1	92.2
℄	12.3	92.0
1/4	12.0	92.3
cb	12.6	91.7
W	12.7	91.6

0+25

W	12.0	92.3
cb	11.8	92.5
1/4	11.4	92.9
℄	11.7	92.6
1/4	12.1	92.2
cb	12.3	92.0
+5	12.0	92.3
E	10.4	93.9

0+55 = South Line Benesch 5t 47' wide 8.5' cbs 7.5 +5

E	10.1	94.2
+5	11.3	93.0
cb	11.6	92.7
1/4	11.6	92.7
℄	11.3	93.0
1/4	10.8	93.5
cb	10.5	93.8

T 104.33

W		11.0	93.3
	South cb Benesch		
W		10.7	93.6
cb		10.4	93.9
1/4		10.5	93.8
℄		11.0	93.3
1/4		10.8	93.5
cb		10.9	93.4
E		11.0	93.3
	℄ Benesch		
E		9.5	94.8
cb		9.8	94.5
1/4		9.9	94.4
℄		10.1	94.2
1/4		10.1	94.2
cb		9.8	94.5
W		10.1	94.2
	N cb Benesch		
W		9.2	95.1
cb		9.2	95.1
1/4		9.5	94.8
℄		9.4	94.9
1/4		9.3	95.0
cb		9.1	95.3
E		8.7	94.6

North Line Benesch = 1+02

E		8.1	96.2
cb		8.8	95.5
1/4		9.1	95.2
℄		9.1	95.2
1/4		9.2	95.1
cb		8.8	95.5
W		8.8	95.5
	1+25		
W		7.5	96.8
cb		7.6	96.7
1/4		7.8	96.5
℄		7.8	96.5
1/4		8.0	96.3
cb		7.6	96.7
E		6.8	97.5
	1+50		
E		5.0	99.3
cb		5.3	99.0
1/4		5.7	98.6
℄		5.5	98.8
1/4		6.0	98.3
cb		5.7	98.6
W		5.6	98.7

℄ 104.33

1+75

W	4.5	99.8
Cb	4.4	99.9
1/4	4.2	100.1
℄	3.4	100.9
1/4	2.9	101.4
Cb	3.3	101.0
E	3.5	100.8
1+95 = Garage with dirt floor on East side	3.3	101.0
2+00		
E	3.1	101.2
Cb	2.4	101.9
1/4	1.9	102.4
℄	1.8	102.5
1/4	2.5	101.8
Cb	2.8	101.5
W	3.0	101.3
2+25		
W	1.6	102.7
Cb	1.1	103.2
1/4	1.0	103.3
℄	1.0	103.3
1/4	1.3	103.0
Cb	2.1	102.2
E	2.5	101.8

℄ 104.33

T.P			-0.24 104.09
	+6.33		
		℄ 110.42	
2+50			
E		8.1	102.3
Cb		7.8	102.6
1/4		6.6	103.8
℄		6.4	104.0
1/4		6.0	104.4
Cb		5.6	104.8
W		6.0	104.4
2+75			
W		5.0	105.4
Cb		4.7	105.7
1/4		5.1	105.3
℄		5.4	105.0
1/4		5.4	105.0
Cb		5.8	104.6
E		6.4	104.0
3+02 = South Line Broadway			80' Wide 14' Cbs 13' 1/4's
E		4.9	105.5
Cb		5.0	105.4
1/4		5.0	105.4
℄		5.0	105.4
1/4		4.9	105.5

℄ 110.42

cb		4.5	105.9
W		4.2	106.2
B.M N.W Mon. 33rd + Broadway		-3.90	106.52
			106.55

+12.36

℄ 118.91

S cb Broadway

W		12.6	106.3
cb		13.1	105.8
1/4		13.2	105.7
℄		13.4	105.5
1/4		13.3	105.6
cb		13.3	105.6
E		13.1	105.8

S 1/4 Broadway

E		12.9	106.0
cb		13.2	105.7
1/4		13.1	105.8
℄		13.1	105.8
1/4		13.2	105.7
cb		13.1	105.8
W		12.9	106.0

℄ Broadway

W		12.7	106.2
cb		12.8	106.1

℄ 118.91

1/4		12.7	106.2
℄		12.9	106.0
1/4		12.8	106.1
cb		12.8	106.1
E		12.5	106.4

N 1/4 Broadway

E		12.5	106.4
cb		12.5	106.4
1/4		12.6	106.3
℄		12.7	106.2
1/4		12.6	106.3
cb		12.7	106.2
W		12.5	106.4

N cb Broadway

W		12.2	106.7
cb		12.5	106.5
1/4		12.0	106.9
℄		12.6	106.3
1/4		12.5	106.4
cb		11.9	107.0
E		11.0	107.9

N Line Broadway = 0+00

E		11.1	107.8
cb		11.3	107.6
1/4		12.1	106.8

		$\bar{\pi}$ 118.91	
℄		12.2	106.7
1/4		11.7	106.2
cb		12.0	106.9
W		12.2	106.7
	0+25		
W		12.0	106.9
cb		11.3	107.6
1/4		11.0	107.9
℄		11.1	107.8
1/4		11.2	107.7
cb		11.4	107.5
E		10.3	108.6
	0+50		
E		9.7	109.2
cb		9.8	109.1
1/4		10.3	108.6
℄		10.4	108.5
1/4		10.5	108.4
cb		10.5	108.4
W		10.9	108.0
	0+75		
W		9.5	109.4
cb		9.7	109.2
1/4		9.7	109.2
℄		9.5	109.4

		$\bar{\pi}$ 118.91	
1/4		9.4	109.5
cb		9.1	109.8
E		9.1	109.8
	1+00		
E		9.9	109.0
cb		9.4	109.5
1/4		9.1	109.8
℄		9.1	109.8
1/4		8.8	110.1
cb		8.8	110.1
W		9.1	109.8
	1+25		
W		8.6	110.3
cb		8.4	110.5
1/4		8.6	110.3
℄		8.7	110.2
1/4		8.7	110.2
cb		9.4	109.5
E		9.6	109.3
	1+50		
E		8.9	110.0
cb		8.9	110.0
1/4		8.4	110.5
℄		8.2	110.7
1/4		8.3	110.6

		⊼ 118.91	
cb		8.2	110.7
W		7.6	111.3
	1+75		
W		7.8	111.1
cb		7.5	111.4
1/4		7.8	111.1
℄		7.7	111.2
1/4		7.9	111.0
cb		7.7	111.2
E		7.8	111.1
	2+00		
E		6.3	112.6
cb		6.3	112.6
1/4		6.7	112.2
℄		6.8	112.1
1/4		6.9	112.0
cb		7.0	111.9
W		7.0	111.9
	2+25		
W		5.7	113.2
cb		5.9	113.0
1/4		6.0	112.9
℄		4.9	114.0
1/4		4.3	114.6
cb		3.9	115.0

		⊼ 118.91		
E			3.5	115.4
		2+50		
E			1.0	117.9
cb			1.9	117.0
1/4			2.3	116.6
℄			2.7	116.2
1/4			3.9	115.0
cb			4.5	114.4
W			4.9	114.0
		2+75		
W			3.1	115.8
cb			2.9	116.0
1/4			2.4	116.5
℄			1.2	117.7
1/4			0.4	118.5
T.P.				-0.21 118.70
	+120.4			
		⊼	130.74	
Cb			11.7	119.0
E			10.8	119.9
	3+00 =	South Line C St.		80' Wide 14' cbs 13' 1/4s
E			9.1	121.6
cb			10.4	120.3
1/4			10.8	119.9
℄			11.6	119.1

T 130.74

1/4	12.5	118.2	
Cb	13.1	117.6	
W	13.5	117.2	
S Cb C St			
W	12.9	117.8	
Cb	12.5	118.2	
1/4	11.5	119.2	
℄	10.6	120.1	
1/4	9.9	120.8	
Cb	9.3	121.4	
E	8.3	122.4	
S 1/4 C St			
E	6.9	123.8	
Cb	8.3	122.4	
1/4	8.9	121.8	
℄	9.9	120.8	
1/4	10.9	119.8	
Cb	12.1	118.6	
W	12.4	118.3	
℄ C St			
W	11.6	119.1	
Cb	11.5	119.2	
1/4	10.1	120.6	
℄	8.9	121.8	
1/4	8.1	122.6	

T 130.74

Cb	7.8	122.9	
E	6.0	124.7	
N 1/4 C St			
E	5.3	125.4	
Cb	6.8	123.9	
1/4	7.1	123.6	
℄	7.9	122.8	
1/4	8.9	121.8	
Cb	10.5	120.2	
W	10.7	120.0	
N Cb C St			
W	10.5	120.2	
Cb	7.1	121.6	
1/4	8.1	122.6	
℄	7.0	123.7	
1/4	6.5	124.2	
Cb	6.5	124.2	
E	5.3	125.4	
N Line C St. = 0+00			
E	4.9	126.8	
Cb	5.7	125.0	
1/4	5.9	124.8	
℄	6.5	124.2	
1/4	7.3	123.4	
Cb	8.0	122.7	

		℄ 130.74		
W		9.5	121.2	
	0+25			
W		7.4	123.3	
cb		6.6	124.1	
1/4		5.8	124.9	
℄		5.4	125.3	
1/4		4.6	126.1	
cb		4.1	126.6	
E		3.4	127.3	
	0+50			
E		1.7	129.0	
cb		2.1	128.6	
1/4		3.0	127.7	
℄		3.9	126.8	
1/4		4.1	126.6	
cb		4.6	126.1	
W		5.0	125.7	
	0+75			
W		1.4	129.3	
cb		1.4	129.3	
1/4		1.2	129.5	
T.P.			-0.35	130.39
	+12.27			
		℄ 142.66		

		℄ 142.66		
℄		13.4	129.3	
1/4		13.1	129.6	
cb		12.3	130.4	
E		11.5	131.2	
	1+00			
E		8.8	133.9	
cb		9.2	133.5	
1/4		9.8	132.9	
℄		10.0	132.7	
1/4		9.8	132.9	
cb		9.1	133.0	
W		10.4	132.3	
	1+25			
W		9.0	133.7	
cb		8.5	134.2	
1/4		8.0	134.7	
℄		7.4	135.3	
1/4		7.3	135.4	
cb		7.0	134.7	
E		6.2	136.5	
	1+50			
E		4.7	138.0	
cb		4.8	137.9	
1/4		5.7	137.0	
℄		6.2	136.5	

T 142.66

1/4	6.3	136.4
cb	6.8	135.9
W	8.2	134.5
Out 15	10.6	132.1
1+75		
Out 15	10.5	132.2
W	8.5	134.2
cb	7.2	135.5
1/4	5.9	136.8
℄	5.0	137.7
1/4	4.5	138.2
+5	3.1	139.0
cb	3.7	139.5
E	2.6	140.1
2+00		
E	1.6	141.1
cb	2.9	139.8
1/4	3.9	138.8
℄	4.5	138.2
1/4	6.2	136.5
cb	7.6	135.1
W	8.7	134.0
Out 15	10.9	131.8

T 142.66

2+25		
Out 15	11.3	131.4
W	8.6	134.1
cb	7.1	135.6
1/4	5.7	137.0
℄	4.7	138.0
+5	3.3	139.4
1/4	3.5	139.2
cb	2.5	140.2
E	1.2	141.5
2+50		
E	0.3	142.4
cb	1.8	140.9
1/4	2.3	140.4
℄	3.8	138.9
1/4	5.0	137.7
cb	6.2	136.5
W	8.3	134.4
Out 15	10.6	132.1
2+75		
Out 15	9.4	133.3
W	7.7	135.0
cb	5.9	136.8
1/4	4.4	137.3
℄	3.0	139.7
1/4	1.7	141.0

			π 142.66		
cb			0.7	142.7	
+5			0.5	142.2	
T.P.				-0.27	142.39
	+5.23				
			π 147.62		
+6			4.3	143.3	
E			3.8	143.8	
		3+00 = South Line B. St.			80' wide 14' cbs 13' 1/4s
E			3.0	144.6	
+5			4.2	143.4	
cb			4.2	143.4	
1/4			6.1	141.5	
℄			7.8	139.8	
1/4			9.2	138.4	
cb			10.8	136.8	
W			12.0	135.6	
Out 15			13.2	134.4	
		S cb B St.			
Out 15			13.6	134.0	
W			11.8	135.8	
cb			10.5	137.1	
1/4			9.3	138.3	
℄			7.8	139.8	
1/4			5.9	141.7	
cb			3.7	143.9	

			π 147.62		
E			3.8	143.8	
		S 1/4 B St			
E			3.2	144.4	
cb			4.0	143.6	
1/4			5.7	141.9	
℄			7.7	139.9	
1/4			8.7	138.9	
cb			10.2	137.4	
W			11.4	136.2	
Out 15			13.1	134.5	
		℄ B St			
Out 15			13.0	134.6	
W			11.6	136.0	
cb			10.5	137.1	
1/4			8.8	138.8	
℄			7.2	140.4	
1/4			5.5	142.1	
cb			4.3	143.3	
E			2.9	144.7	
		N 1/4 B St			
E			4.1	143.5	
cb			5.0	142.6	
1/4			6.3	141.3	
℄			7.2	140.4	
1/4			8.8	138.8	

			T 147.62	
Cb			10.5	137.1
W			11.9	135.7
Out 15			13.5	134.1
		N Cb B St.		
Out 15			14.4	133.2
W			12.4	135.2
Cb			10.6	137.0
1/4			8.2	139.4
℄			7.5	140.1
1/4			6.3	141.3
Cb			5.3	142.3
E			4.0	143.6
	North Line B St = 0+00			
E			4.4	143.2
Cb			5.7	141.9
1/4			6.3	141.3
℄			7.5	140.1
1/4			8.8	138.8
Cb			10.9	136.7
W			12.5	135.1
Out 15			15.2	132.4
	0+25			
Out 15			16.1	131.5
W			13.1	134.5
Cb			11.0	136.6

			T 147.62	
1/4			9.4	138.2
℄			8.0	139.6
1/4			7.3	140.3
Cb			6.2	141.4
E			4.5	143.1
	0+50			
E			5.0	142.6
Cb			6.8	140.8
1/4			8.8	138.8
℄			10.5	137.1
1/4			12.2	135.4
Cb			13.8	133.8
W			15.5	132.1
Out 15			17.8	129.8
	0+75			
Out 15			17.5	130.1
W			15.2	132.4
Cb			12.8	135.8
1/4			11.0	136.6
℄			9.6	138.0
1/4			8.2	139.4
Cb			6.2	141.4
E			5.0	142.6

T 147.62

	1+00		
E		3.8	143.8
cb		6.0	141.6
1/4		7.1	140.5
℄		8.1	139.5
1/4		9.3	138.3
cb		11.5	136.1
W		14.4	133.2
Out 15		16.9	130.7
	1+25		
Out 15		16.5	131.1
Out 7		19.6	128.0
W		14.4	133.2
cb		12.3	135.3
1/4		10.7	136.9
℄		8.8	138.8
1/4		6.6	141.0
cb		5.2	142.4
E		2.0	145.6
	1+38		
E		2.0	145.6
cb		4.8	142.8
1/4		6.7	140.9
℄		8.7	138.9
1/4		10.1	137.5
cb		13.0	134.6

T 147.62

W		15.1	132.5
Out 5		19.0	128.6
Out 5		15.3	132.3
Out 10		14.9	132.7
	1+40		
Out 10		14.6	133.0
Out 4		14.9	132.7
W		18.8	128.8
↑ 2		14.6	133.0
cb		12.8	134.8
1/4		9.8	137.8
℄		8.5	139.1
1/4		6.8	141.1
cb		4.6	143.0
E		1.8	145.8

Sta. 1+52 Man Hole 2' West of West Line of 33rd

Shot onto Flowline 22.70 124.92

	1+50		
E		2.2	145.4
cb		4.6	143.0
1/4		7.5	140.1
℄		8.4	139.2
1/4		10.4	136.2
T.S.		12.7	134.9

T 147.62

+8		17.2	130.4	
cb		17.3	130.3	
+7		18.0	129.6	
W		13.3	134.3	
Out+15		13.8	133.8	
	1+75			
Out+10		9.2	138.4	
W		8.6	139.0	
cb		8.6	139.0	
1/4		9.3	138.3	
℄		13.7	133.9	
+7		7.1	139.9	
1/4		7.0	140.6	
cb		5.0	142.6	
E		1.6	146.0	
	2+00			
E		1.3	146.3	
cb		3.5	144.1	
+7		5.4	142.2	
1/4		9.8	137.8	
+5		6.2	141.4	
℄		5.8	141.8	
1/4		4.5	143.1	
cb		4.8	142.8	
W		3.5	144.1	

T 147.62

Out+10		4.7	142.9	
	2+17			
Out+10		2.6	145.0	
W		1.6	146.0	
cb		1.1	146.5	
1/4		1.3	146.3	
℄		2.6	145.0	
1/4		3.1	144.5	
+6		3.1	144.5	
+8		7.4	140.2	
cb		2.8	145.8	
E		0.0	147.6	
	2+20			
E		3.7	143.9	
cb		5.7	141.9	
+2		5.9	141.7	
+5		1.6	146.0	
1/4		1.8	145.8	
℄		1.5	146.1	
1/4		0.6	147.0	
cb		0.5	147.1	
W		1.1	146.5	
Out+10		2.1	145.5	
T. P.			-0.36	147.26
	+13.51	T 159.77		

T 159.77

2+25

Out +10		13.5	146.3
W		12.7	147.1
Cb		12.2	147.6
1/4		11.9	147.9
℄		12.8	147.0
1/4		13.0	146.8
+6		12.9	146.9
Cb		14.4	145.4
E		12.3	147.5

2+50

E		6.4	153.4
Cb		6.6	153.2
1/4		6.6	153.2
℄		6.6	153.2
1/4		7.7	152.1
Cb		9.2	150.6
W		10.0	149.8
Out 10		10.5	149.3

2+75

Out +10		7.4	152.4
W		6.8	153.0
Cb		5.4	154.4
1/4		4.0	155.8
℄		3.0	156.8
1/4		2.1	157.7

T 159.77

Cb		1.9	157.9
E		1.6	158.2
T P			-0.52 159.25
	+12.86		

5+72.11

3+00 = South Line A St

80' Wide
14' Cbs
13' 7.45

E		7.9	164.2
Cb		8.8	163.3
1/4		9.9	162.2
℄		11.4	160.7
1/4		12.7	159.4
Cb		14.4	157.7
W		16.0	156.1
Out 10		18.0	154.1

5 Cb A St.

Out +10		15.1	157.0
W		14.0	158.1
Cb		12.3	159.8
1/4		10.6	161.5
℄		8.8	163.3
1/4		7.3	164.8
Cb		6.3	165.8
E		5.5	166.6

			℄ 172.14				℄ 180.85	
		S 1/4	A St					
E			2.7	169.4	1/4		13.2	167.7
cb			3.8	168.3	cb		14.9	166.0
1/4			5.2	166.9	W		16.8	164.0
℄			6.2	165.9	Out 15		18.8	162.0
1/4			8.3	163.8			N cb A St.	
cb			10.0	162.1	Out 15		18.0	162.9
W			11.7	160.4	W		15.2	165.6
Out 15			14.3	157.8	cb		13.3	167.5
		℄	A St		1/4		11.5	169.3
Out 15			12.0	160.1	℄		10.0	170.9
W			9.8	162.3	1/4		8.1	172.8
cb			8.1	164.0	cb		7.1	173.8
1/4			6.2	165.9	E		4.9	176.0
℄			4.7	167.4			North Line A St = 0+00	
1/4			3.3	168.8	E		3.6	177.3
cb			2.2	169.9	cb		5.1	175.8
E			0.4	171.7	1/4		6.5	174.4
T.P.		T.P.		-0.50 171.6.1	℄		8.4	172.5
	1924				1/4		10.2	170.6
			180.85		cb		12.1	168.8
		N 1/4	A St		W		14.0	166.9
E			6.1	174.1	Out 15		16.2	164.6
cb			8.1	172.7			0+28.5	
1/4			9.9	171.0	Out 15		13.2	167.6
℄			11.5	169.3	W		11.2	169.6

T 180.85

Cb.		9.7	171.2	
3/4		7.4	173.5	
℄		5.7	175.2	
1/4		4.3	176.6	
Cb		3.0	177.9	
E		1.7	179.2	
	0+51 = End of 33rd St. North of A.			
E		0.5	180.4	
Cb		1.0	179.9	
1/4		3.0	177.9	
℄		4.6	176.3	
1/4		6.0	174.9	
Cb		7.6	173.3	
W		8.7	172.2	
Out 15		10.1	170.8	
T.P.			-0.27	180.58
	+12.51			
	T 193.09			
B.M. N.E. Mon. 33rd & Ash			-0.34	192.75
				192.85

106.55
+1 1,89.
118.44
- 0.18
118.26
+12.27
130.53
- 1.30
129.23
+ 8.92
138.15
- 2.80
135.35
+0.70
136.05
- 1.07
134.96
12.39
+147.35
- 0.34
147.01
+13.15
160.16
0.12
160.04
12.9
172.33
12.74
185.07
- 0.35
184.72
9.54
194.26

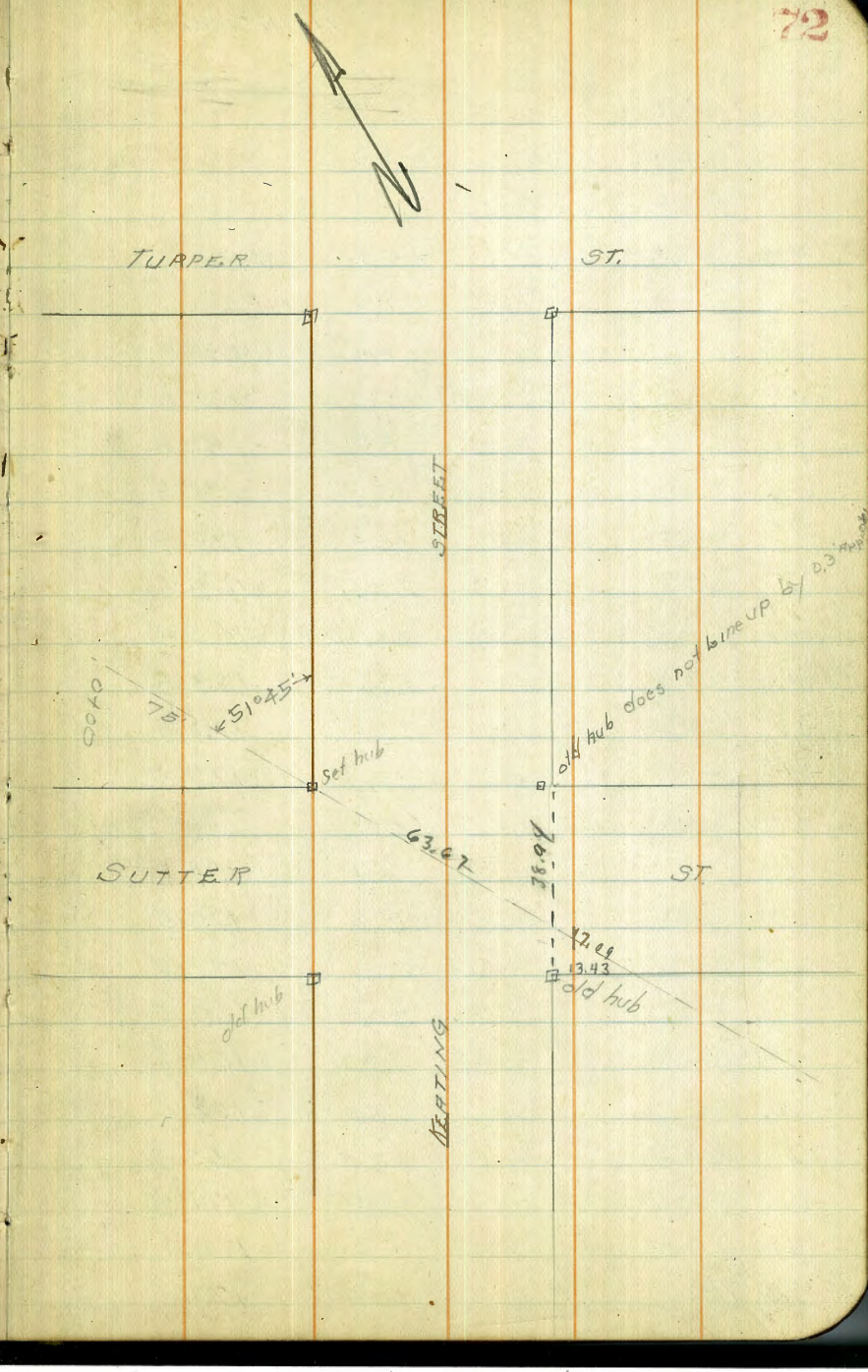
Walker Replinger Shaw 9-5-28

Cross Section KEATING St 50' Wide

From W.L. Sutter to W.L. Tupper St. 10' c.b.s. 7.5 4.5

Note: X Section Keating Bet. Neale + Sutter in Book 1233-37

17/	19928		188.97	B.M. N.W. hub. Keating & Sutter Book 1233-35
	N line Sutter			
-25		+10.5	200.8	
-12		+8.2	198.5	
N		1.8	189.0	
c.b.		5.7	184.6	
1/4		9.0	181.3	
L		11.4	178.9	
1/4		14.3	176.0	
c.b.		18.2	172.1	
S		23.2	167.1	
+13		29.4	160.9	
+45		26.5	163.8	
+75		25.8	164.4	
	W c.b. Line Sutter			
-75		15.1	175.2	
-45		17.0	173.3	
-5		27.7	162.6	
S		26.0	164.3	
c.b.		21.8	168.4	
1/4		18.3	172.0	
L		15.2	175.1	
1/4		12.3	178.0	
c.b.		8.6	181.7	
N		3.7	187.1	



1902.8

KEATING ST.

Cross Section

N+12		+3.6	193.9
+25		+5.8	196.1
	W ½ Sutter		
-30		+4.5	194.8
-25		+1.0	191.3
-10		2.5	187.8
N		5.3	185.0
cb.		8.7	181.6
¼		12.4	177.9
℄		16.4	173.9
¼		20.7	169.6
cb.		24.5	165.8
S		26.5	163.8
+35		16.4	173.9
+60		10.8	179.5
	℄		
-60		6.7	184.1
-30		14.8	175.5
-15		20.1	170.2
-10		20.8	169.5
S		23.7	167.1
cb.		25.8	164.5
¼		22.8	167.5
℄		18.4	171.9
¼		14.2	176.1
+3		12.8	177.5

1902.8

cb.		12.7	178.1
N		11.3	179.0
+10		6.6	183.7
+23		2.5	187.8
+30		+3.0	193.3
	E ½ Sutter		
-35		+3.5	193.8
-30		+0.8	191.1
N		14.0	176.3
cb.		16.4	173.9
¼		19.7	170.6
℄		22.0	168.3
¼		23.3	167.0
cb.		23.0	167.3
S		19.5	170.8
+50		8.8	181.5
	E cb.		
-50		2.6	188.7
-35		8.4	181.9
-10		13.4	176.9
S		14.7	175.6
cb.		18.3	172.0
¼		20.4	169.9
℄		20.8	169.5
¼		20.4	169.9
cb.		20.0	170.3
N		17.0	173.3

	190.28			
+13		10.6	179.7	
+25		4.0	186.3	
+40		+5.7	196.0	
	E.L. Sutter St. = 0+00			
-40		+0.3	190.6	
-10		15.4	174.9	
N		17.9	172.4	
Cb.		16.0	174.3	
¼		15.2	175.1	
℄		16.1	174.2	
¼		16.2	174.1	
Cb.		13.1	177.2	
+5		10.3	180.0	
S		9.5	180.8	
+35		5.0	185.3	
+42		0.3	190.0	
+50		+1.0	191.3	
	Levels ℄ Proposed Drain			
0+00	190.28	1.7	188.6	
+52		14.1	176.2	
+75 on Hub N.E. Prop. Cor.		17.92	172.4	
1+01		21.2	169.1	
+12		21.9	168.4	
+38		26.4	163.9	
+53		29.0	161.3	
+78		31.4	158.9	

	190.28	Kenting St. Cross Section		
2+10		36.4	153.9	
+37 = End		38.4	151.9	
T.P. on Rock 8.07	195.92	7.43	187.85	
	0+12			
-50		2.2	193.7	
-40		2.7	193.2	
-28		6.1	189.8	
-10		7.9	188.0	
S		10.4	185.5	
Cb.		14.1	181.8	
¼		15.6	180.3	
℄		15.2	180.7	
¼		14.2	181.7	
Cb.		14.6	181.3	
N		17.2	178.7	
+10		20.7	175.2	
+20		19.9	176.0	
+45		9.1	186.8	
+60		+1.6	197.5	
	0+24			
-60		-4.6	191.3	
-40		13.3	182.6	
-25		15.7	180.7	
-19		13.1	182.8	
-8		13.1	182.8	
N		10.8	185.1	

cb.		8.2	187.7
+4		7.5	188.4
¼		8.4	187.5
℄		10.7	185.2
¼		10.8	185.1
cb.		9.1	186.8
S		5.1	190.8
+10		2.8	193.1
+35		0.5	195.4
+55		+1.0	196.9
+70		.05	195.4
	0+37		
-50		+3.2	199.1
-35		+3.2	199.1
-22		+2.0	197.9
-8		+1.8	197.7
S		+0.7	196.6
cb		2.7	193.2
¼		4.3	191.6
℄		4.0	191.9
¼		2.0	193.9
+5		0.8	195.1
cb		2.0	193.9
M		3.3	192.6
+8		6.2	189.7
+20		4.4	191.8

-143			10.4	185.5
+62			7.0	188.9
+65			5.0	190.9
	0+50			
-65			5.0	190.9
-50			6.7	189.2
-43			4.6	191.3
T.P.	12.20	206.96	1.16	194.76
-30			10.0	196.9
-18			8.4	198.5
-8			9.2	197.7
M			7.0	199.9
+5			6.2	200.7
cb.			6.4	200.5
¼			7.7	199.2
℄			8.6	198.3
¼			8.0	198.9
cb			7.6	199.3
S			6.4	200.5
+15			4.5	202.4
+23			4.3	202.6
+40			4.7	202.2
+50			5.1	201.8
	0+62			
-50			2.8	204.1
-15			1.1	205.9

KEATING ST.
Cross Section.

		206.96					219.56	
S			1.5	205.4	+35		12.3	207.3
cb.			3.4	203.5	+50		13.4	206.2
¼			4.2	202.7	0+90			
℄			4.1	202.9	-50		10.4	209.2
¼			3.1	203.9	-35		9.2	210.4
cb.			2.1	204.9	-20		7.1	212.5
N			1.4	205.5	S		5.5	214.1
+10			1.1	205.9	cb.		5.1	214.5
+20			0.7	206.2	¼		4.6	215.0
+25			1.5	205.4	℄		4.8	214.8
+35			6.2	200.7	¼		5.2	214.4
+60			14.3	192.6	cb.		5.2	214.4
	0+77				N		3.9	215.7
-60			6.0	200.9	+10		3.2	216.4
-54			6.8	200.2	+20		3.4	216.2
-48			4.5	201.5	+28		7.4	212.2
-35			1.0	206.0	+43		9.3	210.3
T.P.	12.74	219.56	0.14	206.82	+53		12.5	207.1
-20			6.7	212.8	+66		12.7	206.9
N			7.7	211.8	T.P.	12.58	231.94	219.36
cb.			9.1	210.5		1+17		
¼			10.0	209.6	-60		15.0	216.9
℄			10.4	209.2	-38		8.7	223.2
¼			10.0	209.6	-35		6.7	225.2
cb.			9.4	210.2	N		6.6	225.3
S			8.8	210.8	cb.		7.6	224.3

23194

℄		8.4	223.5
℄		9.2	222.7
℄		9.6	222.3
cb.		10.6	221.3
S		11.8	220.1
+20		13.7	218.2
+40		16.2	215.7
	1+37		
-40		12.8	219.1
-14		8.1	223.8
S		6.0	225.9
cb.		4.8	227.1
℄		3.9	228.0
℄		3.0	228.9
℄		2.0	229.9
cb.		1.2	230.7
N		0.2	231.7
T.P.	13.03	244.70	0.27 231.67
N+12		12.5	232.2
+40		12.0	232.7
	1+50		
-40		6.9	237.8
N		9.7	235.0
cb.		10.6	234.1
℄		11.2	233.5
℄		11.8	232.9

24470

KEATING ST
Cross Section

℄		12.6	232.1
cb.		13.0	231.7
S		14.5	230.2
+30		20.8	223.9
+40		23.0	221.7
	1+75		
-40		19.0	225.7
-18		12.5	232.2
-10		10.8	234.9
S		9.6	235.1
cb.		8.0	236.7
℄		6.4	238.3
℄		5.0	239.7
℄		3.7	241.0
cb.		2.7	242.0
N		1.6	243.1
+30		10.6	245.3
TP	12.34	255.93	1.11 243.59
	2+00	W.L. Tupper	
-15		1.6	254.3
N		5.2	250.7
cb.		6.8	249.1
℄		8.5	247.4
℄		10.1	245.8
℄		12.2	243.7
cb.		14.0	241.9

25593

S			16.5	239.4
+20			21.3	234.6
+40			27.0	228.9
T.P.	5.66	N61.15	0.44	255.49
Ch. on N.E. B.P. Pringle + Portola			1.02	260.13 260.18 = B.M. 0.05 = Error.

B.M. N.W. B.P. 33rd & Brdway 106.55

+1.89	H.I. 118.44		
	H.I. Brdway = 0+00		
	0+25		
Out +25	14.4		
	0+50		
Out +10	10.9		
" 25	13.5		
	0+75		
Out +15	9.9		
Out 25	13.3		
	1+00		
Out 11	9.3		
" 25	12.9		
	1+25		
Out 20	8.8		
" 25	10.2		
	1+50		
Out 25	7.4		
	1+75		
Out 25	7.3	111.1	
	2+00		
Out 25	6.3	112.1	
	2+25		
Out 25	5.1	113.3	
	2+50		
Out 25	4.1	13.7	

Additional Slope shots - 33rd Brdway to 45th ~ Original X-section Pgs. 46-71- This Book.

	H.I. 118.44		
	2+75		
Out 25	3.4	115.0	
T.P.	-0.18	118.26	
+12.27	H.I. 130.53		
	H.I. C = 0+00		
	0+25		
Out 25	6.9	123.6	
	0+50		
Out 25	4.9	125.6	
	0+75		
Out 25	2.2	128.3	
	1+00		
Out 25	0.7	129.8	
	1+25		
Out 25	0.2	130.3	
T.P.	-1.30	129.23	
+8.92	H.I. 138.15		
	1+50		
Out 30	9.1	129.1 ~~+04.3~~	
	1+75		
Out 30	9.5	128.7	
	2+00		
Out 30	9.1	129.1	
	2+25		
Out 30	8.8	129.4	

H.I. 138.15

	2+50	
Out +30	8.0	130.2
	2+75	
Out +30	7.4	130.4
T.P. N.W. Hub 33rd + 8	-2.80	135.35
+ 0.70	H.I. 136.05	
North Line B = 0+00		
	0+25	
Out +30	8.1	128.0
	0+50	
Out +30	8.2	127.9
	0+75	
Out +22	9.7	126.4
Out +28	10.6	125.5
Out +30	9.8	126.3
	1+00	
Out +18	9.1	127.0
Out +20	9.5	126.6
Out +30	6.5	129.6
	1+25	
Out +18	5.7	130.4
Out +25	8.1	128.0
Out +30	6.5	129.6
T.P. - Top M.H.	-1.09	134.96
+ 12.39	H.I. 147.35	

H.I. 147.35

	1+40	
Out +20	14.2	133.15
Out +29	16.0	131.35
Out +32	18.2	129.15
	1+50	
Out +25	14.9	132.45
Out +29	16.1	131.25
Out +32	17.6	129.75
	1+75	
Out +20	10.9	136.5
Out +25	13.3	134.1
Out +30	15.6	131.8
Out +32	17.2	130.2
	2+00	
Out +15	4.9	142.5
Out +30	10.3	137.1
	2+25	
Out +30	2.6	144.8
T.P.	-0.34	147.01
+13.15	H.I. 160.16	
	2+50	
Out +30	13.1	147.1
	2+75	
Out +30	8.9	151.3

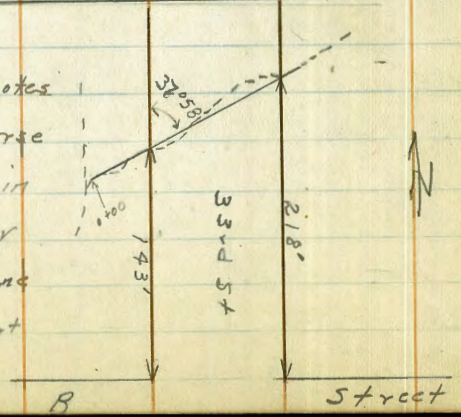
H.I. 160.16

T.P.	-0.12	160.04
+12.29 H.I.	H.I. 172.33	
North Line A = 0+00		
	0+28.5	
Out +26	6.6	165.7
Out +30	10.4	161.9
	0+57 = North End A.	
Out +30		
T.P.	-0.00	172.33
+12.74	185.07	
T.P.	-0.35	184.72
+ 9.54	H.I. 194.26	
B.M. N.E. Mon	-1.53	192.73
33rd & Ash	Correct	192.85
	Error	0.12

1-15-29
J.C.B.

Levels & Location for Culvert on 33rd Street between A and B Streets.

B.M.-Top M.H. Near Sta 1+40 from N.E. B	+12.13	(147.09)	134.96
0+00		19.4	127.7
0+15		15.3	131.8
0+23		14.8	132.3
0+24		18.2	128.9
0+30 = W.L. 33rd		17.7	129.4
0+47		16.4	130.7
0+45		12.2	134.9
0+56		10.4	136.7
0+58		16.4	130.7
0+78		12.9	134.2
0+85		7.1	140.0
1+00		3.8	143.3
1+24		0.0	147.1
1+26 E.L. 33rd		3.8	143.3
1+41		0.5	146.6



Dotted Line denotes approximate course of existing drain across Thirty Third. Solid Line Location of Culvert Line.

1-15-29

IMPROVED TABLES AND INFORMATION

Table X.

MIDDLE ORDINATES OF RAILS

Length of Rail (feet)

C ° ′	R Feet	30 Inch	28 Inch	26 Inch	24 Inch	22 Inch	20 Inch	C °	R Feet	30 Inch	28 Inch	26 Inch	24 Inch	22 Inch	20 Inch
0–20	17189	.08	.07	.06	.05	.04	.03	8	716.8	1.88	1.64	1.42	1.20	1.01	.84
0–40	8594	.16	.14	.12	.10	.08	.07	9	637.3	2.12	1.84	1.60	1.35	1.14	.94
1–0	5730	.24	.20	.18	.15	.13	.10	10	573.7	2.36	2.05	1.78	1.50	1.27	1.04
1–20	4297	.31	.27	.23	.20	.17	.13	11	521.7	2.59	2.26	1.95	1.65	1.39	1.15
1–40	3438	.39	.34	.29	.25	.21	.17	12	478.3	3.83	2.47	2.15	1.81	1.54	1.26
2–0	2865	.47	.41	.35	.30	.25	.20	13	441.7	3.05	2.66	2.30	1.96	1.66	1.36
2–20	2456	.55	.48	.41	.35	.29	.23	14	410.3	3.30	2.87	2.48	2.10	1.78	1.46
2–40	2149	.63	.55	.47	.40	.33	.27	15	383.1	3.54	3.08	2.68	2.26	1.91	1.57
3–0	1910	.71	.62	.53	.45	.38	.31	16	359.3	3.76	3.28	2.83	2.40	2.04	1.67
3–20	1719	.78	.68	.59	.50	.42	.35	17	338.3	4.00	3.48	3.02	2.57	2.16	1.78
3–40	1563	.86	.75	.65	.55	.46	.38	18	319.6	4.21	3.67	3.18	2.70	2.28	1.87
4–0	1433	.94	.82	.71	.60	.50	.42	19	302.9	4.45	3.89	3.36	2.86	2.41	1.98
4–20	1323	1.02	.89	.77	.65	.55	.45	20	287.9	4.70	4.09	3.55	3.00	2.54	2.09
4–40	1228	1.10	.96	.83	.70	.59	.48	22	262.0	5.16	4.44	3.84	3.30	2.80	2.29
5	1146	1.18	1.03	.89	.75	.63	.52	24	240.5	5.64	4.92	4.20	3.59	3.04	2.50
6	955.3	1.41	1.23	1.06	.90	.76	.62	26	222.3	6.07	5.29	4.58	3.88	3.29	2.70
7	819.0	1.65	1.44	1.24	1.05	.89	.73								

Table XI.

SHORT RADIUS CURVES

Radius Feet	Chord Feet	Central Angle	Deflection Angle	Deflection for 1 Foot
35	10	16-26	8-13	49.3
45	10	12-46	6-23	38.3
50	15	17-16	8-38	34.5
60	15	14-22	7-11	28.8
75	15	11-30	5-45	23.0
100	20	11-30	5-45	17.3
120	20	9-34	4-47	14.3
150	20	7-39	3-49	11.5
190	25	7-32	3-46	9.15
200	25	7-10	3-35	8.6
225	25	6-25	3-12	7.7
240	25	5-58	2-59	7.2
250	25	5-44	2-52	6.9
275	25	5-12	2-36	6.2
288	50	9-58	4-59	6.0
300	50	9-32	4-46	5.7
350	50	8-12	4-06	4.9
376	50	7-40	3-50	4.6
400	50	7-10	3-35	4.3
410	50	7-00	3-30	4.2

To find length of curve divide angle from P. C. to P. T. by central angle of chord, and multiply by length of chord.

26018

Table XII.

INCLINED DISTANCE OF 100 FT. REDUCED TO HORIZONTAL

Slope	Horizontal Distance	Correction	Rise Per Foot	Slope	Horizontal Distance	Correction	Rise Per Foot
0°00′	100.000	0.000	0.000	8°00′	99.027	0.973	0.139
15′	99.999	0.001	0.004	15′	98.965	1.035	0.143
30′	99.996	0.004	0.009	30′	98.902	1.098	0.148
45′	99.991	0.009	0.013	45′	98.836	1.164	0.152
1 00	99.985	0.015	0.017	9 00	98.769	1.231	0.156
15	99.976	0.024	0.022	15	98.700	1.300	0.161
30	99.966	0.034	0.026	30	98.629	1.371	0.165
45	99.953	0.047	0.031	45	98.556	1.444	0.169
2 00	99.939	0.061	0.035	10 00	98.481	1.519	0.174
15	99.923	0.077	0.039	15	98.404	1.596	0.178
30	99.905	0.095	0.044	30	98.325	1.675	0.182
45	99.885	0.115	0.048	45	98.245	1.755	0.187
3 00	99.863	0.137	0.052	11 00	98.163	1.837	0.191
15	99.839	0.161	0.057	15	98.079	1.921	0.195
30	99.813	0.187	0.061	30	97.992	2.008	0.199
45	99.786	0.214	0.065	45	97.905	2.095	0.204
4 00	99.756	0.244	0.070	12 00	97.815	2.185	0.208
15	99.725	0.275	0.074	15	97.723	2.277	0.212
30	99.692	0.308	0.078	30	97.630	2.370	0.216
45	99.657	0.343	0.083	45	97.534	2.466	0.221
5 00	99.619	0.381	0.087	13 00	97.437	2.563	0.225
15	99.580	0.420	0.092	15	97.338	2.662	0.229
30	99.540	0.460	0.096	30	97.237	2.763	0.233
45	99.497	0.503	0.100	45	97.134	2.866	0.238
6 00	99.452	0.548	0.105	14 00	97.030	2.970	0.242
15	99.406	0.594	0.109	15	96.923	3.077	0.246
30	99.357	0.643	0.113	30	96.815	3.185	0.250
45	99.307	0.693	0.118	45	96.705	3.295	0.255
7 00	99.255	0.745	0.122	15 00	96.593	3.407	0.259
15	99.200	0.800	0.126	15	96.479	3.521	0.263
30	99.144	0.856	0.131	30	96.363	3.637	0.267
45	99.087	0.913	0.135	45	96.246	3.754	0.271

Table XIII.

MINUTES IN DECIMALS OF A DEGREE.

0 30″	.00833	10′ 30″	.17500	20′ 30″	.34167	30′ 10″	.50833	40′ 30″	.67500	50′ 10″	.84167
1 00	.01667	11 00	.18333	21 00	.35000	31 00	.51667	41 00	.68333	51 00	.85000
30	.02500	30	.19167	30	.35833	30	.52500	30	.69167	30	.85833
2 00	.03333	12 00	.20000	22 00	.36667	32 00	.53333	42 00	.70000	52 00	.86667
30	.04167	30	.20833	30	.37500	30	.54167	30	.70833	30	.87500
3 00	.05000	13 00	.21667	23 00	.38333	33 00	.55000	43 00	.71667	53 00	.88333
30	.05833	30	.22500	30	.39167	30	.55833	30	.72500	30	.89167
4 00	.06667	14 00	.23333	24 00	.40000	34 00	.56667	44 00	.73333	54 00	.90000
30	.07500	30	.24167	30	.40833	30	.57500	30	.74167	30	.90833
5 00	.08333	15 00	.25000	25 00	.41667	35 00	.58333	45 00	.75000	55 00	.91667
30	.09167	30	.25833	30	.42500	30	.59167	30	.75833	30	.92500
6 00	.10000	16 00	.26667	26 00	.43333	36 00	.60000	46 00	.76667	56 00	.93333
30	.10833	30	.27500	30	.44167	30	.60833	30	.77500	30	.94167
7 00	.11667	17 00	.28333	27 00	.45000	37 00	.61667	47 00	.78333	57 00	.95000
30	.12500	30	.29167	30	.45833	30	.62500	30	.79167	30	.95833
8 00	.13333	18 00	.30000	28 00	.46667	38 00	.63333	48 00	.80000	58 00	.96667
30	.14167	30	.30833	30	.47500	30	.64167	30	.80833	30	.97500
9 00	.15000	19 00	.31667	29 00	.48333	39 00	.65000	49 00	.81667	59 00	.98333
30	.15833	30	.32500	30	.49167	30	.65833	30	.82500	30	.99167
10 00	.16667	20 00	.33333	30 00	.50000	40 00	.66667	50 00	.83333	60 00	1.00000

33rd & A. N.E. Cor. 16243

ENGINEERING DEPARTMENT.
CITY OF SAN DIEGO.
CALIFORNIA.

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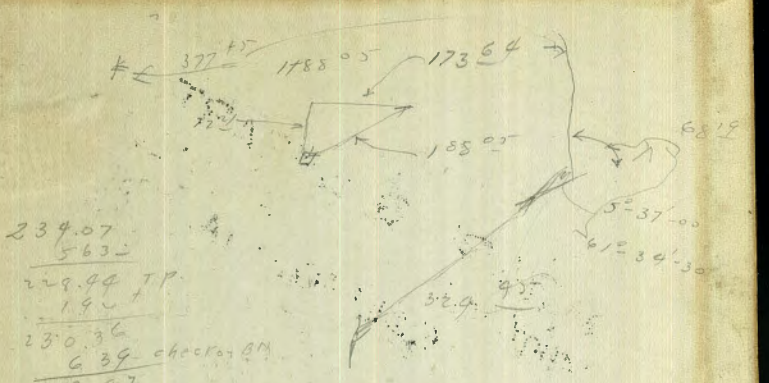
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