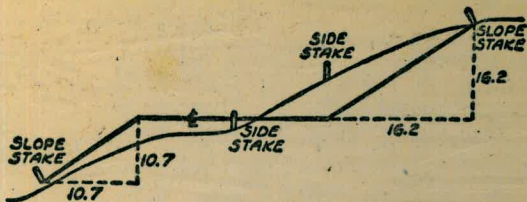




Please Return to  
 City of San Diego Water Dept.  
 Room 903 Civic Center



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING  
 SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 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 estimate the difference in elevation between 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. If it does not make the slight adjustment necessary.

1370  
 13  
 20  
 OY 6 3135  
 - Ex 249

TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

FOR TANGENTS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.49	.58	.67	.75	.83	.90	.99	1.06	1.14
30°	.10	.19	.29	.39	.49	.59	.69	.79	.89	.99	1.09	1.20	1.29	1.39
35°	.11	.22	.34	.47	.58	.69	.79	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	.15	.30	.44	.60	.76	.91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	.17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	.19	.38	.57	.76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	.42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	.23	.46	.69	.93	1.16	1.40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	.25	.51	.76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	.30	.61	.91	1.22	1.53	1.84	2.15	2.46	2.78	3.10	3.44	3.78	4.12	4.46
85°	.33	.66	1.00	1.33	1.68	2.02	2.36	2.70	3.05	3.40	3.77	4.14	4.55	4.89
90°	.36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	.39	.79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	.43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	.51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4.76	5.31	5.86	6.43	7.01	7.60
120°	.62	1.25	1.93	2.52	3.16	3.81	4.45	5.11	5.77	6.44	7.12	7.80	8.50	9.22

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	.036	.046	.056	.065	.074	.083	.093	.106	1.20	1.27	1.35
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.771	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.266	.353	.440	.528	.617	.707	.797	.877	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

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 E of 38th STKS for 6" AC  
 STKS. FOR 6" A.C. MAIN alicia

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 STKS FOR 6" AC MAIN + METERS

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alicia

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 Check depth of existing 4" CI

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Temecula + Rialto 73 ✓

alicia

Alley BIK 15  
E of 46<sup>th</sup>  
N of Wightman  
sticks for meters.

1.72 349.65 347.93

10.77 353.94 6.48 343.17

0+22 E 9.3 344.6 343.8

+27 W 9.0 344.3 343.7

+31 E 9.1 344.8 344.1

+52 W 8.8 345.1 344.4

+73 E 8.2 345.7 345.5

+97 W 7.5 346.4 346.0

1+23 W 6.6 347.3 347.1

+29 E 6.0 347.9 347.7

+56 W 5.4 348.5 348.7

+67 E 4.0 349.9 349.5

2+28 E 2.3 351.6 351.4

+30 W 2.3 351.6 351.1

+81 W 1.9 352.0 351.7

+84 E 1.8 352.1 352.0

3+21 W 1.5 352.4 351.9

+27 E 1.7 352.2 352.2

2.37 353.93 2.38 351.56

West  
Williams  
Vorontskis  
Kellhofer

9/28/54

BM NWBP Wightman Chaussee Ave

CO <sup>8</sup>

CO <sup>6</sup>

CO <sup>7</sup>

CO <sup>7</sup>

CO <sup>2</sup>

CO <sup>4</sup>

CO <sup>2</sup>

CO <sup>2</sup>

FO <sup>2</sup>

CO <sup>4</sup>

CO <sup>2</sup>

CO <sup>5</sup>

CO <sup>3</sup>

CO <sup>1</sup>

CO <sup>5</sup>

CO <sup>0</sup>

ALLEY BLK. 15 CONT.

2

353.93

3+67	E	2.1	351.8	352.0
469	W	2.2	351.7	351.6
4+23	E	3.5	350.4	350.5
+29	E	3.7	350.2	350.3
437	W	4.1	349.8	349.8
453	E	4.4	349.5	349.6
470	W	4.8	349.1	349.2
5+36	W	4.4	349.5	348.6
440	W	4.5	349.4	348.5
497	W	6.3	347.6	346.9
6+00	E	7.3	346.6	346.6

Fo	$\frac{2}{1}$
Co	$\frac{1}{1}$
Fo	$\frac{1}{1}$
Fo	$\frac{0}{0}$
Co	$\frac{0}{0}$
Fo	$\frac{1}{1}$
Fo	$\frac{1}{1}$
Co	$\frac{2}{2}$
Co	$\frac{2}{2}$
Co	$\frac{7}{7}$
Co	$\frac{0}{0}$

540 354.16 5.17 348.76

2.89 351.27 =

351.23 NW BR 46<sup>th</sup> + University

Morigold Juniper to  
Azalia Park

West.  
Williams  
Varonakis  
Kellhofer

9/28/54

3

T.B.M.	6.15	251.31	245.16
3+44		4.8	246.5 240.2
		4.0	247.3 243.8
44A		3.9	247.4 243.8
450		5.0	246.3 240.0
463 <sup>8</sup> Tee		5.0	246.3 239.8
476 EO		5.3	246.0 239.6
4+00		5.1	246.2 239.4
475		5.7	245.6 239.2
450		5.9	245.4 239.0
475		6.3	245.0 238.8
5+00		6.7	244.6 238.8
400 WNE		6.7	244.6 242.6
450		7.3	244.0 236.6
6+00		8.5	242.8 236.4
450		10.0	241.3 235.6
7+00		11.3	240.0 233.8
428 <del>A</del>		12.2	239.1 232.8
CHECK T.B.M.		6.15	245.16 = 245.16

5.84 244.95 239.11

Top east rim sewer MH 10' x 4' x 7'  
3  
C6  
4 C32 FH Tee 6.0  
C3  
3  
C6  
5  
C6  
4  
C6  
8  
C6  
4  
C6  
4  
C6  
8  
C5  
0  
C2  
4  
C7  
4  
C6  
7  
C5  
2  
C6  
3

Marigold

Juniper to Azalia

244.95

9/29/24

7

7+50 6.9 238.1 232.2

C5 <sup>9</sup>

+80 73 237.7 231.6

~~C6~~

End of Work - Juniper St Pl

584

9.30 254.03

244.73

TBM Nail in power pole SW cor. Sayamere L <sup>Marigold</sup>

3+00 59 248.1 241.4

C6 <sup>1</sup>

2+61 E 5.6 248.4 247.2

C1 <sup>2</sup>

2+50 5.2 248.8 243.6

C5 <sup>2</sup>

+25 W 5.1 248.9 248.3

C0 <sup>6</sup>

+05 E 3.4 250.6 249.4

C1 <sup>2</sup>

2+00 3.2 250.8 245.9

C4 <sup>9</sup>

1+83 W 3.5 250.5 250.1

C0 <sup>4</sup>

N Line Alley

+67 ~~W~~ 2.8 251.2 247.4

C3 <sup>8</sup>

+50 1.7 252.3 248.2

C4 <sup>1</sup>

+29 <sup>11.00</sup> ~~W~~ 263.79 1.24 252.79 249.1

C3 <sup>7</sup>

1+00 9.3 254.5 250.5

C4 <sup>0</sup>

0+50 6.4 257.4 253.4

C4 <sup>0</sup>

0+00 3.3 260.5 256.4

C4 <sup>+</sup>

5.91 257.88 = 257.84 TBM Nail in PD



Sand Rock  
Grade (Texas St)  
STKs for 6" AC Main

West  
Williams &  
Varonfakis  
Kellhofer &

5

10/7/54

B.M.	11.81	68.65	56.84		BY on Cone Adwall 17' 2" 2+30		
2+43			10.6	58.1	54.7	C3 <sup>4</sup>	BEGIN WORK
+50			9.6	59.1	55.3	C3 <sup>8</sup>	
+55 E			11.5	57.2	59.1	F1 <sup>9</sup>	
3+00			5.0	63.7	59.5	C4 <sup>2</sup>	
+43 W			1.0	67.7	66.6	C1 <sup>1</sup>	CO <sup>0</sup>
T.P.	12.28	80.59	0.34	68.31			
+50			12.2	68.4	63.7	C4 <sup>7</sup>	
4+00			7.2	73.4	68.4	C5 <sup>0</sup>	
+08 W			6.8	73.8	72.5	C1 <sup>3</sup>	CO <sup>3</sup>
+15 W			5.1	75.5	73.2	C2 <sup>3</sup>	CO <sup>3</sup>
+50			2.7	77.9	73.2	C4 <sup>7</sup>	
+75			0.5	80.1	75.5	C4 <sup>6</sup>	
T.P.	12.27	92.30	0.56	80.03			
5+00			12.3	80.0	76.8	C3 <sup>1</sup>	
+12 E			8.7	83.6	82.7	CO <sup>1</sup>	CO <sup>0</sup>
+14 W			7.5	84.8	82.8	C2 <sup>2</sup>	CO <sup>0</sup>
+25			7.2	85.1	80.3	C4 <sup>8</sup>	
+50			4.7	87.6	82.6	C5 <sup>0</sup>	
+62 W			4.2	88.1	87.4	CO <sup>7</sup>	CO <sup>0</sup>

## SAND ROCK CONT.

WEST  
WILLIAMS  
VARONFAKIS  
KELLHOFER

127.31

6

92.30

10/7/54

6700 0.5 91.8 87.1

C4<sup>1</sup>

T.P. 12.27 104.11 0.46 91.84

+50 8.0 96.1 91.7

C4<sup>4</sup>

+53W 7.4 96.7 96.0

C0<sup>1</sup>

00°

7700 2.6 101.5 96.5

C5<sup>0</sup>

T.P. 12.33 115.93 0.51 103.60

+50 11.1 104.8 100.5

C4<sup>3</sup>

+50E 8.1 107.8 104.1

C3<sup>1</sup>

meter on private property

B.C.  
+69.34 8.6 107.3 102.1C5<sup>2</sup>

8700 6.1 109.8 104.8

C5<sup>0</sup>

+50 1.2 114.7 109.0

C5<sup>1</sup>

T.P. 12.09 127.93 0.09 115.84

9700 9.5 118.4 113.0

C5<sup>4</sup>

+20W 8.1 119.8 118.2

C1<sup>6</sup>

00°

+50 5.5 122.4 117.3

C5<sup>1</sup>

END WORK

CHECK  
B.M. 0.61 127.32 = 127.31

FIELD BOOK # 881 PAGE 24

Momgold St  
 Check Top of installed Pipe

4.85	249.58	244.73
		808
3+44		8.14 241.5
+15		7.54 242.64
+02		7.17 242.41
2+25		6.32 243.26
+50		5.50 244.08
+60		8.26 241.32
+78		8.58 241.0
4+05		8.99 240.59
+25		9.46 240.12
+46		9.54 240.04
3+44		7.09 242.49
2.52	244.93	7.17 242.41
3		10.60 234.25
10" di		10.47 234.46
7.95	249.63	3.25 241.68
		4.91 244.72

94  
 44  
 16  
 60

44  
 39  
 15

44  
 34  
 78

TBM Nail in power pole six cor. Sycamore

405  
 43.8  
 45.5  
 1.3

Top FH CI

Top 10" CI

Oliphant 56  
Capistrano to Clove

0.91	130.12	129.21	
7.41	126.77	10.76	119.36
0+40		11.1	115.7 112.0
+50		10.9	115.9 112.2
+75		5.3	121.5 114.2
1+00		3.8	123.0 117.0
+25		3.1	123.7 118.3
+50		3.0	123.8 118.8
+75		3.5	123.3 118.2
2+00		3.8	123.0 116.6
+38	1.75 M N	117.69	10.88 115.94 116.6
+50		0.5	117.2 110.0
+89	M N	8.9	108.8 108.4
3+00		9.2	108.5 102.7
+125		11.3	106.4 100.9
+175	M 0.45	105.55	125.9 105.10
+39	M N	3.3	102.3 102.3
+50		3.8	101.8 97.7
+56	Tee	4.3	101.3 97.3
			97.6

West  
Williams T  
Varonakis  
Kellhofer 4

8

10/25/54

NW BP Capistrano + Macaulay St

C3	$\frac{1}{1}$	Begin Work
C3	$\frac{1}{1}$	
C7	$\frac{3}{3}$	
C6	$\frac{0}{0}$	
C5	$\frac{4}{0}$	
C5	$\frac{0}{1}$	
C5	$\frac{4}{4}$	
C6	$\frac{1}{1}$	
F0	$\frac{2}{2}$	
C7	$\frac{4}{4}$	
C0	$\frac{8}{8}$	
C5	$\frac{5}{5}$	
C5	$\frac{0}{0}$	
C3	$\frac{6}{7}$	C4 $\frac{1}{10}$
C3	$\frac{7}{7}$	C4 $\frac{0}{0}$

OLIPHANT CONT.

105.55

3+81 MN

8.1 97.5 98.2

F0 <sup>7</sup>

+87

7.2 98.4 95.4

~~C3~~ C3 <sup>8</sup> FH Tee

+87 FH

6.3 99.3 98.5

C0 <sup>8</sup> (5) FH

4+00

8.4 97.2 94.5

~~C2~~ C3 <sup>7</sup> <sup>7</sup>

+50 146 94.40 12.61 92.94 88.4

C4 <sup>5</sup>

+500 4.3 90.1 84.4

C5 <sup>7</sup>

+50 3.9 90.5 82.4

C8 <sup>1</sup>

6+00 3.0 91.4 82.0

C9 <sup>4</sup>

+37 Wye 6.0 88.4 81.7

C6 <sup>7</sup>

+50 6.0 88.4 81.6

C6 <sup>8</sup>

+69 90° Bend 7.2 87.2 81.4

C5 <sup>8</sup>

+92 <sup>work</sup> End at 7.1 87.3 81.2

C6 <sup>1</sup>

Stub line

6+70 <sup>12</sup> Wawona  
~~5~~ 0+75 Stub line

0+50 6.8 87.6 81.8

C5 <sup>8</sup>

+75 6.8 87.6 82.3

C5 <sup>3</sup>

End of Stub Wawona

230 92.10 = 92.23 TBM Nail in Power pole Wawona

Newell. Plum to Clove  
 Skis for 6" AC

8.16	98.91	90.75	
0+50	11.3	87.6	80.0
1+00	6.9	92.0	85.0
+19 W N	8.0	90.9	90.5
+50	1.7	97.2	91.0
13.06	111.70	0.27	98.64
+88 W N	11.9	99.8	99.2
2+00	10.1	101.6	97.6
+03			101.3
+30 W S	9.6	102.1	104.4
+50	5.4	106.3	102.2
+59 W S	4.3	107.4	106.7
+79 W N	3.1	108.6	107.5
3+00	2.2	109.5	104.6
+48	0.7	111.0	104.8
1.01	99.62	12.09	98.61
		8.86	90.76 =

West  
 Williams &  
 Varon Foster  
 Kellhofer

10

10/26/54

BM SW Mon Newell + Plum  
 C7  $\frac{6}{0}$  Begin work  
 C7  $\frac{0}{0}$   
 C0  $\frac{4}{1}$   
 C6  $\frac{2}{2}$   
 C0  $\frac{6}{0}$   
 C4  $\frac{0}{3}$  008  
 F2  $\frac{1}{1}$   
 C4  $\frac{1}{1}$   
 C0  $\frac{1}{1}$   
 C1  $\frac{1}{1}$   
 C4  $\frac{1}{1}$   
 C6  $\frac{2}{2}$  End of work

90.75  
 12.43  
 103.18  
 1.0  
 102.2

Plum St Masculay  
to Nowell  
Stks for 6" AC

West  
Williams  
Varontakis  
Kellhofer

10/27/54

11

7.20	97.95	90.75	
4.02	101.83	0.14	97.81
Stub Lim Masculay			
0+00	5.5	96.3	90.4
+25	6.4	95.4	91.6
+50	6.0	95.8	92.6
+85	5.4	96.4	93.8
0+30	4.6	97.2	90.4
0+80 Meter E		100.2	99.7
+50	3.8	98.0	90.9
+75	1.7	100.1	91.6
+100	2.9	98.9	90.8
+100 WE	3.6	98.2	94.6
+150	170	95.68	7.85 93.98 87.7
+85 WF	6.9	88.8	89.8
+88 WW	2.6	93.1	90.4
2+00	7.7	88.0	84.7
+33 WF	10.4	85.3	87.6
2+50	9.8	85.9	82.0
2+70	10.3	85.4	81.1
+70	10.7	85.0	86.8
+71 15' Smb	10.3	85.4	81.0
3+00	8.1	87.6	80.0
	4.93	90.75	

C5  $\frac{9}{8}$   
C3  $\frac{2}{6}$   
C3  $\frac{2}{6}$   
C2  $\frac{8}{8}$   
C6  $\frac{1}{1}$   
C7  $\frac{5}{5}$   
C8  $\frac{1}{1}$   
C8  $\frac{1}{1}$   
C3  $\frac{3}{3}$   
C6  $\frac{0}{0}$   
F1  $\frac{1}{1}$   
C2  $\frac{3}{3}$   
C3  $\frac{3}{3}$   
F2  $\frac{9}{9}$   
C3  $\frac{3}{3}$   
C4  $\frac{3}{3}$   
F1  $\frac{8}{8}$   
C4  $\frac{4}{4}$   
C7  $\frac{6}{6}$   
= 90.75

End of Stub

Begin Work Plum

0+30 95.8  
7.8  
103.6  
3.4  
100.2

88.8  
8.9  
97.7  
92.9  
90.4  
25

changed to back of 05

PH 100

67 @ 54

ERIC ST

Jellett to Lister  
Stks For Meters

STA	+ HI	- EL		
B.M.	8.09	50.12		42.03
T.P.	8.52	57.99	0.65	49.47
1+16 M.E.			2.0	56.0 53.8
+62 M.E.			1.2	56.8 55.1
2+12 M.E.			1.0	57.0 56.2
T.P.	6.20	63.78	0.41	57.58
2+69 M.E.			5.3	58.5 56.5
2+92 M.E.			5.8	58.0 56.7
3+50 M.E.			5.6	58.2 57.2
4+07 M.E.			5.6	58.2 57.7
4+20 M.E.			5.1	58.7 57.8
5+36 M.E.			3.7	60.1 59.3
+81 M.E.			3.4	60.4 60.3
T.P.				
6+31 M.E.	11.32	72.78	2.32	61.46 61.5
7+13 M.E.			8.4	64.4 63.2
+61 M.E.			7.8	64.0 64.4
8+05 M.E.			5.5	67.3 65.0
+59 M.E.			4.8	68.0 65.6
+71 M.E.			4.7	68.1 65.9

Williams  
Varonakis x  
Kullhofer †

10/28/54

12

BM BD SW Eric + Milton

0+00 so. line Lister

C 2<sup>2</sup>C 1<sup>7</sup>C 0<sup>8</sup>C 2<sup>0</sup>C 1<sup>3</sup>C 1<sup>0</sup>C 0<sup>5</sup>C 0<sup>9</sup>

F.H. (5)

C 0<sup>8</sup>C 0<sup>1</sup>C 0<sup>0</sup>C 1<sup>2</sup>C 0<sup>6</sup>C 2<sup>3</sup>C 2<sup>4</sup>C 2<sup>2</sup>

F.H. (5)



ERIE ST. CONT.

STA.	+ HI	- EL	
	72.78		
T.P.	0.25	60.54	12.49 60.29
T.P.	0.43	53.00	7.97 52.57
T.P.	4.97	48.65	9.32 43.68
CHECK			
B.M.		6.59	42.06 = 42.03
			6
	1.24	80.55	68.10
	8.14	88.48	0.21 80.34
1+06 M 5		23	86.2 87.8
	1.61	77.19	12.90 75.58
		9.11	68.08 = 68.10

WILLIAMS  
VARONFAKIS  
KELLHOFER

13

S.W.B.P. ERIE + MILTON

(5) FH on ERIE ST

E 1/2

Elephant St Wawona  
check on Depth of pipe

37  
10

14

	1.43	92.66	92.23	
4+58 NN		3.7	90.00	91.3
5+20		9.46		
+50		10.67		
6+00		11.00		
6+21 <sup>2</sup>		3.94		
+21 <sup>3</sup>		11.10		
6+92		6.68		
+92		11.57	82.09	
			60	
			81.49	
6+37		11.15	82.51	
			82.0	4.6 made
				Bott of pipe
Top stab line				
0+75		10.36	83.30	
			6	
			82.7	
Stab line plain				
0+5		10.65	83.00	84.9
+10		2.48	91.18	85.9

Top pipe  
Top pipe  
Top pipe  
Top pipe (stump drain) in view  
Top City engr's @ 9th elev  
11.10  
3.94  
9.16  
11.27  
6.68  
Top pipe 4.89 to  
3.30  
1.59  
Top of pipe  
85.0  
82.5  
2.5

84.8  
82.5  
2.3  
03.26 Grate  
02.53 Ob  
Top pipe  
92.66  
6.67  
89.00  
84.5  
2.5  
Top pipe  
05.3

3.54 90.54 87.00

3.62 86.92 80.2 CC

0.54 92.77 92.23

4+90 8.8 84.0

0.61 12.2 80.5 84.8 FA<sup>3</sup>

0.1 part  
2+13

90.54 87.00  
8.21 10.31  
81.33 76.69

80.2  
76.7  
3.5

102.3  
6.4  
108.7  
3.2  
105.5 119.6  
105.5  
A1

110.9  
6.4  
122.3  
3.2  
119.1 av=119.6  
1.05

Mentone Camulos  
to W of Lima Blvd

STKS. FOR METERS

B.M.	0.07	33.75		33.68
T.P.	12.60	45.25	1.10	32.65
T.P.	12.76	57.43	0.58	44.67
T.P.	11.26	68.66	0.03	57.40
T.B.M.	3.14	66.30	5.50	63.16
T.P.	0.13	53.78	12.65	53.65
T.P.	9.12	50.38	12.52	41.24
0+24 M.E.			9.4	41.0 38.8
+24 M.W.			12.6	37.8 38.2
+76 M.E.			6.7	43.7 41.8
1+23 M.E.			4.6	45.8 44.3
+73 M.W.			3.3	47.1 46.6
+86 M.E.			2.4	48.0 47.8
T.P.				
2+08 M.E.	12.77	61.76	1.39	48.99 48.0
+26 M.W.			12.6	49.2 49.5
+79 M.E.			8.1	53.7 53.0
+96 M.W.			7.6	54.2 53.4
3+19 M.E.			5.2	56.6 55.8
+41 M.E.			3.7	58.1 56.4

West  
Williams  
Varonakis X  
Kellhofer †

16

11/9/54

BM BP West Ch. Castellon + Edwards

0+00 SW Prop. Camulos

+ MONTALVO

YELLOW KEEL E. RIM M.H. CLOVIS

C 22

F 04

C 13

C 15

C 05

C 02

C 10

C 1

F 03

C 01

C 02

C 13

C 13

MENTONE CONT.

61.76

3+72 M.W. 3.9 57.9 57.6

+94 M.E. 1.4 60.4 59.4

T.P. 6.92 66.84 1.84 59.92

4+10 M.W. 7.0 59.8 59.8

+30 M.E. 5.0 61.8 61.2

+56 M.W. 5.1 61.7 61.6

+76 M.E. 4.1 62.7 62.6

5+80 M.W. 4.7 62.1 60.8

+88 M.W. 4.9 61.9 60.6

5+90

T.P. 0.40 64.41 2.83 64.01

5+90 2.4 62.0 60.5

6+63 M.E. 3.8 60.6 60.0

+65 M.W. 4.2 60.2 59.4

+86 M.E. 4.5 59.9 59.3

7+13 M.E. 6.7 57.7 58.3

+39 M.W. 6.9 57.5 57.4

+76 M.E. 8.5 55.9 56.3

+87 M.W. 8.2 56.2 56.0

8+36 M.E. 9.9 54.5 54.4

8+40 M.W. 9.8 54.6 54.6

+69 M.E. 10.8 53.6 53.4

WEST  
WILLIAMS  
VARONFAKIS  
KELLHOFER

17

11/19/54

CO<sup>3</sup>

CO<sup>2</sup>

CO<sup>0</sup>

CO<sup>6</sup>

CO<sup>1</sup>

CO<sup>2</sup>

CO<sup>3</sup>

CO<sup>3</sup>

TOP. FH CLOYIS + MENTONE

CO<sup>5</sup>

(5) FH

2 1/2 FH 2 1/2 FH 1 1/2 FH

CO<sup>6</sup>

CO<sup>8</sup>

CO<sup>9</sup>

FO<sup>6</sup>

CO<sup>1</sup>

FO<sup>4</sup>

CO<sup>2</sup>

CO<sup>1</sup>

CO<sup>2</sup>

CO<sup>2</sup>

MENTONE CONT.

64.41

8+98 M.W. 11.2 53.2 52.8

T.P. 0.15 51.80 12.76 51.65

9+32 M.E. 0.2 51.6 51.6

+67 M.W. 0.8 51.0 50.8

+74 M.E. 1.3 50.5 50.5

10+33 M.W. 3.6 48.2 47.9

+69 M.E. 5.3 46.5 46.0

11+01 M.E. 6.9 44.9 44.2

+08 M.W. 9.5 42.3 42.5

T.P. 0.39 39.69 12.50 39.30

+68 M.W. 2.4 37.3 37.7

12+13 M.E. 4.5 35.2 34.8

+18 M.W. 7.4 32.3 33.4

+78 M.E. 10.4 29.3 28.1

T.P. 1.20 28.03 12.86 26.83

T.P. 2.24 27.32 2.95 25.08

T.P. 12.90 32.03 8.19 19.13

T.P. 5.85 37.46 0.42 31.61

CHECK B.M. 3.74 33.72=33.68

WEST  
WILLIAMS  
VARONFAKIS  
KELLHOFER

18

11/9/54

CO<sup>1</sup>

CO<sup>2</sup>

CO<sup>3</sup>

CO<sup>4</sup>

CO<sup>5</sup>

CO<sup>5</sup>

CO<sup>3</sup>

FO<sup>3</sup>

FO<sup>4</sup>

CO<sup>4</sup>

FI<sup>1</sup>

CI<sup>2</sup>

MONTALVO CLOVIS To  
FAMOSA STKS FOR METERS

WEST  
WILLIAMS  
VARONFAKIS†  
KELLHOFER X

19

11/10/54 Cloudy

8+	T.B.M.	12.04	75.20	63.16	F. RIM M.H. CLOVIS + MONTALVO PAGE 16
	T. 0-5 N.		10.6	64.6 64.0	C 0 <sup>6</sup>
	9. 0+13 S		9.2	66.0 65.4	C 0 <sup>6</sup>
	+ 35 S		7.7	67.5 66.8	C 0 <sup>7</sup>
	+ 40 N.		6.2	69.0 66.9	C 2 <sup>1</sup>
10	1+18 N.		3.5	71.7 70.8	C 0 <sup>9</sup>
	+22 S		3.1	72.1 71.3	C 0 <sup>8</sup>
11+	+42 N.		2.8	72.4 71.4	C 1 <sup>0</sup>
	+59 N.		3.0	72.2 71.7	C 0 <sup>5</sup>
	T. +84 S.		3.3	71.9 72.0	F 0 <sup>1</sup>
	2+13 S.		3.9	71.3 71.4	F 0 <sup>1</sup>
	+2+14 N.		4.1	71.1 70.9	C 0 <sup>2</sup>
12	+74 S.		5.8	69.4 69.4	C 0 <sup>0</sup>
	+85 N.		6.7	68.5 68.0	C 0 <sup>5</sup>
	3+28 N.		9.2	66.0 66.4	F 0 <sup>4</sup>
	T. +77 S.		9.4	65.8 66.3	F 0 <sup>5</sup>
	T. +86 N.		10.5	64.7 64.9	F 0 <sup>2</sup>
	4+24 S.		10.2	65.0 65.0	C 0 <sup>9</sup>
	T. 4+29 N.		11.3	63.9 63.8	C 0 <sup>1</sup>
	T. T.P.	0.10	63.85	11.45 63.75	
CHE B.A.	+54 S.		+1.0	64.9 64.3	C 0 <sup>6</sup>

MONTALVO

CONT.

63.85

4+76 N. 0.2 63.7 62.6

5+05 N. 0.9 63.0 61.8

+39 S. +0.5 64.4 62.0

+89 S. 0.2 63.7 60.7

6+00 S. 0.9 63.0 60.5

+58 S. 3.5 60.4 59.8

+69 N. 6.6 57.3 57.5

7+27 N. 10.5 53.4 53.0

+60 S. 9.3 54.6 51.4

T.P. 0.58 51.39 13.04 50.81 49.2

8+45 N. 6.5 44.9 43.7

+85 N. 11.4 40.0 40.5

+92 S. 4.8 46.6 41.1

9+20 S. 6.8 44.6 38.9

T.P. 1.55 40.58 12.36 39.03

+29 N. 4.0 36.6 37.1

+87 S. 3.6 37.0 33.6

+94 N. 9.4 31.2 32.0

T.P. 11.88 52.21 0.25 40.33

WEST  
WILLIAMS  
VARONFAKIS  
KELLHOFER

20

11/10/54

C1 1C1 2C2 4C3 0C2 5C1 6F0 2

F.H. (5')

C0 4C3 2C1 6C1 2F0 5C5 5C5 7F0 5C3 4F0 8



## MONTALVO CONT.

52.21

T.P. 12.40 64.12 0.49 51.72

T.P. 10.52 74.24 0.40 63.72

CHECK

T.B.M. 11.08 63.16 = 63.16

WEST  
WILLIAMS  
VARONFAKIS  
KELLHOFER

11/10/54

21

PAGE 19

TEMECULA CAMULOS To.  
W. POINT LOMA STRS. FOR METERS

T.B.M.	0.75	64.76		64.01
T.P.	0.12	52.23	12.65	52.11
T.P.	0.19	39.75	12.67	39.56
T.P.	0.52	27.91	12.36	27.39
T.P.	0.18	15.36	12.73	15.18
T.P.	12.47	22.38	5.45	9.91
T.P.				
+37 N.	13.02	34.87	0.53	21.85 22.6
+28 S.			11.7	23.2 22.6
+60 S.			8.1	26.8 25.2
+80 N.			10.4	24.5 25.6
+45 S.			4.0	30.9 30.3
+87 S.			1.1	33.8 32.4
T.P.	9.88	44.54	0.21	34.66
+24 S.			8.3	36.2 34.2
+51 N.			10.2	34.3 34.4
+69 S.			7.0	37.5 36.3
+89 N.			8.2	36.3 36.0
+94 S.			5.5	39.0 37.3
+27 N.			7.0	37.5 37.4

WEST  
WILLIAMS  
VARONFAKIS X  
KELLHOFER †

22

11/12/54 CLOUDY

TOP F.H. CLOYIST + MENTONE PAGE 17

TOP F.H. TEMECULA + CAMULOS

F0 <sup>1</sup>  
C0 <sup>6</sup>  
C1 <sup>6</sup>  
F1 <sup>1</sup>  
C0 <sup>6</sup>  
C1 <sup>4</sup>  
  
C2 <sup>0</sup>  
F0 <sup>1</sup>  
C1 <sup>2</sup>  
C0 <sup>3</sup>  
C1 <sup>1</sup>  
C0 <sup>1</sup>

TEMECULA CONT.

44.54

4+64 N. 6.0 38.5 38.3

+82 S. 1.7 42.8 39.6

5+01 N. 5.7 38.8 39.0

+34 S. 2.5 42.0 40.6

+67 S. 1.8 42.7 41.1

6+02 S. 1.3 43.2 41.7

T.P. 0.30 44.15 0.69 43.85

+96 S. 2.4 41.8 40.5

7+02 N. 4.6 39.6 39.4

+29 S. 3.2 41.0 39.8

8+33 S. 6.1 38.1 35.2

T.P. 2.46 34.00 12.61 31.54

9+16 S. 5.0 29.0 23.8

+42 S. 11.0 23.0 22.8

+35 N. 9.6 24.4 22.2

T.P. +35 N. 12.99 38.06 8.93 25.07

T.P. 11.15 49.11 0.10 37.96

T.P. 12.82 61.48 0.45 48.66

T.P. 4.61 65.58 0.51 60.97

CHECK T.B.M. 1.58 64.00 = 64.01

WEST  
WILLIAMS  
VARONFAKIS  
KELLHOFER

11/12/54

C0 <sup>2</sup>

C3 <sup>2</sup>

F0 <sup>2</sup>

C1 <sup>4</sup>

C1 <sup>6</sup>

C1 <sup>5</sup>

C1 <sup>3</sup>

C0 <sup>2</sup>

C1 <sup>2</sup>

C2 <sup>1</sup>

C5 <sup>2</sup>

C0 <sup>2</sup>

C2 <sup>2</sup>

(5) F.H. (E.F.H. 22' RT & ST)

TOP F.H. TEMECULA + W. POINT LOMA

23

930

660.5

274.6

## Cotton Hill Top to A St

Stks For GAC Main + Notes

B.M.	3.69	214.33		210.64
T.P.	0.02	201.56	12.79	201.54
T.P.	1.03	189.72	12.87	188.69
T.P.	12.16	201.42	0.46	189.26
0+30			8.2	193.2 188.7
+35 FH Tr			8.0	193.4 188.9
+35 (S)			7.5	193.9 192.9
+50			7.7	193.7 189.3
1+00			6.6	194.8 190.2
+17 MW			6.5	194.9 194.4
+32 ME			5.2	196.2 195.3
+50			5.2	196.2 191.8
+72 MW			4.8	196.6 195.7
2+00			4.1	197.3 193.0
+20 ME			4.0	197.4 197.3
+30 MW			3.2	198.2 197.0
+31 ME			4.0	197.4 197.5
+50			3.9	197.5 193.4
+85 MW			3.5	197.9 196.7

West  
Williams T  
Varnofakis  
Kellhofer +

24

11/15/54

BM 217 47th + A St

0+30 North prop

Cotton Hill Top

$\frac{5}{C4}$   
 $\frac{5}{C4}$   
 $\frac{0}{C1}$   
 $\frac{4}{C4}$   
 $\frac{6}{C4}$   
 $\frac{5}{C0}$   
 $\frac{9}{C0}$   
 $\frac{4}{C4}$   
 $\frac{9}{C0}$   
 $\frac{3}{C4}$   
 $\frac{1}{C0}$   
 $\frac{2}{C1}$   
 $\frac{1}{F0}$   
 $\frac{1}{C4}$   
 $\frac{2}{C1}$

## COTTON CONT.

25

201.42

11/15/54

3+00	4.1	197.3	192.6
+23 ME	5.2	196.2	196.3
+28 MW	4.3	197.1	195.5
+50	5.6	195.8	190.3
+90 ME	8.2	193.2	192.3
4+00	8.2	193.2	187.1
+05 MW	7.4	194.0	191.0
+11 MW	7.7	193.7	190.6
+50	11.7	189.7	183.9

C4	$\frac{7}{1}$
F0	$\frac{1}{6}$
C1	$\frac{5}{5}$
C5	$\frac{2}{1}$
C0	$\frac{1}{0}$
C6	$\frac{1}{0}$
C3	$\frac{1}{8}$
C3	$\frac{1}{8}$
C5	$\frac{8}{8}$

0.58 189.50 1250 188.92

+88 ME	2.8	186.7	186.0
5+00	3.0	186.5	180.7
+50	5.9	183.6	178.4
+96 MW	6.9	182.6	181.5
+96 FH TCO	6.3	183.2	177.9
+96 (C) FH	6.1	183.4	182.0
6+00	6.6	182.9	177.8
+50	6.5	183.0	178.2
+71 ME	5.5	184.0	182.5

C0	$\frac{7}{8}$
C5	$\frac{0}{0}$
C5	$\frac{0}{1}$
C1	$\frac{3}{4}$
C5	$\frac{1}{8}$
C1	$\frac{5}{5}$

Sta	St	Hj	←	Elev	Cor
				6+00	
	536	189.35		1890	
					C18
			4.7	183.7	181.9
					006
			6.4	182.0	181.4
					C11
			3.8	184.6	183.2
			3.85	181.51	181.5

## Cotton St Cont

26

18950

11/15/54

7+00	5.0	184.5	179.8	C4	<sup>7</sup>		
+50	3.4	186.1	181.6	C4	<sup>5</sup>		
8+00	1.9	187.6	183.4	C4	<sup>2</sup>		
+50	11.46	200.22	0.74	188.76	185.2	C3	<sup>6</sup>
+47 ME	10.9	189.3	188.8	C0	<sup>5</sup>		
9+00	9.7	190.5	187.1	C3	<sup>4</sup>		
+41 ME	7.8	192.4	192.3	C0	<sup>1</sup>		
+50	7.9	192.3	188.9	C3	<sup>4</sup>		
+85 ME	5.9	194.3	193.8	C0	<sup>5</sup>		
10+00	5.8	194.4	190.7	C3	<sup>7</sup>		
+38 ME	4.2	196.0	195.8	C0	<sup>2</sup>		
+50	3.8	196.4	192.5	C3	<sup>9</sup>		
+96 ME	1.4	198.8	198.0	C0	<sup>8</sup>		
11+00	1.3	198.9	194.4	C4	<sup>5</sup>		
+77	10.90	210.67	0.45	199.77			
+27 FH Tel	10.4	200.3	195.3	C5	<sup>0</sup>	end of work state Hwy	
+27 (7) R	9.5	201.2	199.1	C2	<sup>1</sup>		
	7.45	212.86	0.26	210.41			
		7.28	210.58			210.69	

F-50

Quail to Boundary  
Stks for meters

0.42 166.95 166.53

1.55 166.57 11.93 155.02

3.39 149.72 10.24 146.33

2+98 9.52 163.93 5.26 144.46

12.24 166.59 0.63 163.35

3.76 169.17 0.18 166.41

2.64 166.53 = 166.53

West  
Williams  
Voronfakis  
Kellhofer

27

12/15/89

BM SW BP Hilltop +39"

193.1 @ 17 3 meters

Alleys BIKs 91 + 114  
E of Cherokee S of Dwight

5.43	332.98	327.55
4.40	329.36	8.02 324.96
0+50	5.7	323.7 319.6
1+00	3.4	326.0 320.3
+16 ME	3.4	326.0 324.5
+25	3.5	325.9 320.6
+34 MW	3.5	325.9 324.5
+43 ME	4.0	325.4 324.5
+50	4.2	325.2 320.6
2+00	4.7	324.7 320.4
+06 MW	4.8	324.6 324.0
+07 ME	4.7	324.7 324.0
+30 MW	4.9	324.5 323.6
+50	5.1	324.0 319.5
+71 ME	6.1	323.3 322.9
+98 MW	6.4	323.0 322.4
3+00	6.5	322.9 318.6
+07 MW	6.4	323.0 322.1
+25	6.4	323.0 318.2

West  
Williams X  
Varonakis  
Kellhofer +

28

11/24/54

BP NW cor 36<sup>th</sup> + Dwight

C4 <sup>1</sup>  
C5 <sup>1</sup>  
C1 <sup>5</sup>  
C5 <sup>3</sup>  
C1 <sup>4</sup>  
C0 <sup>2</sup>  
C4 <sup>6</sup>  
C4 <sup>3</sup>  
C0 <sup>6</sup>  
C0 <sup>1</sup>  
C0 <sup>2</sup>  
C4 <sup>5</sup>  
C0 <sup>4</sup>  
C0 <sup>6</sup>  
C4 <sup>3</sup>  
C0 <sup>2</sup>  
C4 <sup>2</sup>

Begin work



329.36

11/24/54

3+31 ME	6.8 322.6 321.6	C1 <sup>0</sup>
+48 MW	7.7 321.7 321.2	C0 <sup>5</sup>
+50	7.8 321.6 317.6	C4 <sup>0</sup>
+66 ME	8.3 321.1 320.8	C0 <sup>3</sup>
+81 MW	8.9 320.5 320.4	C0 <sup>1</sup>
+98 ME	9.2 320.2 319.9	C0 <sup>3</sup>
4+00	9.2 320.2 316.2	C4 <sup>0</sup>
+36 ME	11.5 318.9 318.7	C0 <sup>2</sup>
1.22 319.78	10.80 318.56	
+46 MW	0.5 319.3 318.4	C0 <sup>9</sup>
+50	1.2 318.6 313.8	C4 <sup>8</sup>
+60 ME	2.1 317.7 317.8	F0 <sup>1</sup>
+85 MW	2.8 317.0 316.8	C0 <sup>2</sup>
+90 ME	3.3 316.5 316.5	C0 <sup>0</sup>
5+00	3.3 316.5 311.4	C5 <sup>1</sup>
+08 MW	3.8 316.0 315.3	C0 <sup>2</sup>
+25	4.9 314.9 310.0	C4 <sup>9</sup>
+50	6.1 313.7 309.6	C4 <sup>1</sup>
+52 ME	6.5 313.3 313.3	C0 <sup>0</sup>

ALLEYS BLK 91 + 114 CONT.

319.28

11/24/54

6+00	7.6	312.2	308.6
+04 FH TCC	7.3	312.5	308.5
+04 (5) LFH	7.6	312.2	312.6
+10 MW	6.9	312.9	312.4
+14 MW	7.0	312.8	312.3
049 312.22 8.05 311.73			
6+50	0.6	311.6	307.0
+52 ME	0.7	311.5	310.9
+54 MW	0.2	312.0	310.8
7+00	2.1	310.1	305.2
+00 MW	1.3	310.9	309.0
+33 MW	2.6	309.6	307.4
+50	3.3	308.9	302.5
+67 ME	4.3	307.9	305.5
+67 MW	4.4	307.8	305.5
+75	4.3	307.9	301.2
8+00	5.7	306.5	298.8
+44 MW	8.0	304.2	298.6
+50	8.4	303.8	294.2

C3	<sup>6</sup> / <sub>0</sub>
C4	<sup>0</sup> / <sub>0</sub>
F0	<sup>4</sup> / <sub>4</sub>
C0	<sup>5</sup> / <sub>5</sub>
C0	<sup>5</sup> / <sub>5</sub>
C4	<sup>6</sup> / <sub>6</sub>
C0	<sup>6</sup> / <sub>6</sub>
C1	<sup>2</sup> / <sub>2</sub>
C4	<sup>9</sup> / <sub>9</sub>
C1	<sup>9</sup> / <sub>9</sub>
C2	<sup>2</sup> / <sub>2</sub>
C6	<sup>4</sup> / <sub>4</sub>
C2	<sup>4</sup> / <sub>4</sub>
C2	<sup>3</sup> / <sub>3</sub>
C6	<sup>7</sup> / <sub>7</sub>
C7	<sup>7</sup> / <sub>7</sub>
C5	<sup>6</sup> / <sub>6</sub>
C9	<sup>6</sup> / <sub>6</sub>

ALLEYS BLK. 91 + 114 CONT.

31.

31222

11/24/54

8+72 MW 10A 301.8 295.0

C6 <sup>8</sup>

+80 ME 11.8 300.4 293.6

C6 <sup>8</sup>

0.26 299.79 12.69 299.53

9+00 0.8 299.0 285.3

C13 <sup>7</sup>

+10 1.8 298.0 283.8

C14 <sup>2</sup>

End of work

+75 MW 3.4 296.4 287.4

C9 <sup>0</sup>

6.79 293.00

292.98

Set FB 820 9+57  
Top Post rim sewer M11 5" RT

Costana

47<sup>th</sup> to Escuela

Stks for 6" AC Main

4.46	79.83	75.37
0+40	4.9	74.9 71.0
+50	5.4	74.4 70.2
+62.5	4.8	75.0 69.2
+65 FH Tee	4.9	74.9 69.3
+65 (5") FH	4.5	75.3 74.6
1+00	6.5	73.3 70.0
+50	6.5	73.3 69.7
2+00	6.3	73.5 69.5
+50	6.7	73.1 69.4
3+00	6.3	73.5 69.8
	4.47	75.36 =
2+65 (5") FH	6.9	73.0 75.5

West  
Williams  
Varonakis  
Kellhofer

32

11/29/54

L+T P. Nagel + 47<sup>th</sup>

C32 begin work

C42

C52

C56

C05

C33

C34

C40

C32

C32

75.37

F22

5.15  
5.25  
1.20

5.5  
5.4  
1.1

GARDENIA FRANKFORT To  
GALVESTON STKS. FOR METERS

WEST  
WILLIAMS  
VARONFAKIS X  
KELLHOFER †

33

11/29/54 PARTLY CLOUDY

B.M. 1.25 65.37 64.12

N.W.B.P. GARDENIA + FRANKFORT

0+08 S 5.0 60.4 61.9

F15 # 4503

+11 S 5.3 60.1 61.6

F15 F.H. (5) S.E. CORN.

1+70 S 10.2 55.2 54.7

005 # 4525

T.P. 5.42 58.86 11.93 53.44

2+87 N 7.9 51.0 51.0

002 # 4544

3+10 N 8.0 50.9 50.3

006 4 METERS No #

4+26 S 9.6 49.3

# 4619

+91 N 8.4 50.5

CHURCH

T.P. 7.17 65.99 0.04 58.82

CHECK  
B.M.

1.8864.11 = 64.12

Littlefield  
 Morena to Frankfort St  
 Stks. for meters

Meters East of Lieta St

9.91	56.59	46.68	
0+30 Fire Hyd	27	48.9	47.6
10.47	46.62	0.39	54.20
2+36 S	9.1	57.6	56.5
4+04 S	2.6	64.1	64.0
+85 S	2.0	64.7	64.8
5+38 S	2.2	64.5	64.8
0.31	54.44	12.54	54.13

Meters West of Lieta

0+97 S	9.4	45.0	44.2
1+55 S	11.8	42.6	42.0
0.24	42.07	12.61	41.83
3+27 S	6.4	35.7	35.1
4+22 N	10.2	31.9	32.0
0.65	30.02	12.70	29.37
5+97 Fire Hyd	2.1	27.9	26.7
+90 S	2.0	28.0	26.6
6+20 S	4.9	25.1	24.6

West  
 Williams +  
 Varonfakis +  
 Kallhofer

29. 37

34

11/31/54

21

52

0+00 @ Lieta St

BM NEBP Denver + Littlefield  
 CI <sup>3</sup>      E Hyd 118 ft at Littlefield  
 CI <sup>1</sup>      4337  
 CO <sup>1</sup>      4421  
 FO <sup>1</sup>      4431  
 FO <sup>3</sup>      4441

CO <sup>8</sup>      42.81  
 CO <sup>6</sup>      42.71

CO <sup>6</sup>  
 FO <sup>1</sup>      4230

CI <sup>2</sup>      actual FH at sta 5+52 17.1 South of  
 CI <sup>4</sup>      4201  
 CO <sup>5</sup>      4127

Littlefield Cont

Meters West

30.02

11/30/54

456 22.20 1238 17.64

8+81 S 4.6 17.6 17.6

CO <sup>0</sup>

1867

8+84 @ CFH 6.3 15.9 15.7

CO <sup>2</sup>

existing FH 12' south of it  
Meters Moved 24' East to avoid obstruction

9+06 S 7.0 15.2 14.6

(CHANGE) 1865

8+77 S 19.8 16.0

POB <sup>3</sup>

8+77 N 5.5 16.7 16.4

CO

1907

116 33.20 0.16 22.04

18.90 45.97 0.13 33.07

6.18 51.43 0.72 45.25

4.80 46.63

46.68

15.9  
5.0  
20.9  
5.1  
15.8

SYCAMORE. VIOLET TO TUBEROSE  
STKS. FOR METERS

WEST  
WILLIAMS  
VARONFAKIS †  
KELLHOFER X

34

12/2/54

B.M.	9.01	284.68	275.67
0-25 S		8.4	276.3 275.4
-15 S		8.1	276.6 275.7
0+14 S		7.5	277.2 276.4
+43 S		6.9	277.8 277.0
+55 N.		5.5	279.2 277.8
+85 S.		6.0	278.7 277.9
1+23 S.		4.8	279.9 279.7
+51 N.		4.2	280.5 279.9
+64 S.		4.8	279.9 279.5
+72 N.		3.4	281.3 280.1
T.P.	3.20	283.99	3.89 280.79
2+20 N.		2.3	281.7 280.4
3+04 N		2.3	281.7 279.1
T.P.	5.40	287.91	1.48 282.51
CHECK B.M.		3.92	283.99 = 284.02

SPIKE IN S.W. POLE VIOLET + SYCAMORE

CO<sup>9</sup> F.H. (5) (F.H. 23.9 FROM 6)

CO<sup>9</sup>

CO<sup>8</sup>

CO<sup>8</sup>

CI<sup>4</sup>

CO<sup>8</sup>

CI<sup>2</sup>

CO<sup>6</sup>

CO<sup>4</sup>

CI<sup>2</sup>

CI<sup>3</sup>

CO<sup>6</sup>

SPIKE S.W. POLE PEPPER + TUBEROSE



Toyne St Market to J<sup>st</sup>

West  
Williams T  
Varenfakis  
Kullhofer &

37

Stks for 6" AC Main

12/13/54

	7.25	136.01	128.76
0+80	5.8	130.2	126.5
1+00	5.1	130.9	126.4
+50	5.2	130.8	125.8
2+00	6.2	129.8	125.2
+02 ME	6.4	129.6	128.9
+45 ME 0.19	7.40	128.61	127.8
+50	0.2	128.6	124.4
3+00	2.0	126.8	121.7
+50	5.8	123.0	119.0
4+00	10.1	118.7	115.4
+02 MW	10.4	118.4	120.2
	6.67	123.19	122.9
+50	9.8	113.4	110.0
5+00	10.0	113.2	109.2
+50	10.1	113.1	108.4
+75	10.0	113.2	108.0
6+00	6.4	116.8	111.4
+14 MW	4.3	118.9	119.8

AM SWBP 42<sup>nd</sup> + Market

C3 <sup>1</sup> Begin work

C4 <sup>5</sup>

C5 <sup>0</sup>

C4 <sup>6</sup>

C0 <sup>7</sup>

C0 <sup>8</sup>

C4 <sup>2</sup>

C5 <sup>1</sup>

C4 <sup>0</sup>

C3 <sup>3</sup>

F1 <sup>8</sup>

C3 <sup>4</sup>

C4 <sup>0</sup>

C4 <sup>7</sup>

C5 <sup>2</sup>

C5 <sup>4</sup>

F0 <sup>9</sup>

Toy NE ST. CONT.

	123.19		
6+15 ME		25	120.7 119.6
140	8.70	131.98	0.41 122.78
+50		7.7	123.8 117.0
+65 ME		7.3	124.2 122.4
+70 FH Top		7.2	124.3 118.3
+70 (3) 0 FH		7.1	124.4 122.8
	5.74	136.96	0.26 131.22
		8.17	128.79 = 128.76

WEST  
WILLIAMS  
VARRONFAKIS  
KELLHOFER

38

12/3/54

C1 <sup>I</sup>

C6 <sup>8</sup>

C1 <sup>8</sup>

C6 <sup>9</sup>

C1 <sup>6</sup>

SYCAMORE. SNOWDROP To HOLLYWOOD  
PARK. STKS. FOR METERS.

WEST  
WILLIAMS  
VARONFAKIS X  
KELLHOFER †

39

12/8/54 CLEAR

U.B.M.	5.14	284.87	279.73	E.C. NAV & ST SNOWDROP + SYCAMORE F.B. 44-15
				ON SNOWDROP W SIDE ST
W.M.			6.9 278.0 278.0	C0 25.57 S. & SNOWDROP + SYCAMORE
0+13 S			5.1 279.8 278.9	C0 2
+29 N			2.4 282.5 279.5	C3 0
+57 S			4.9 280.0 279.0	C1 0
+91 S			6.0 278.9 279.1	F0 2
1+04 N			2.9 282.0 279.7	C2 3
+48 N			4.2 280.7 279.9	C0 8
+77 N			4.9 280.0 280.1	F0 1
+87 S			6.5 278.4 279.7	F1 3
2+17 N			4.5 280.4 280.5	F0 1
T.P.	7.79	282.23	4.43 280.44	
+42 S			7.2 281.0 280.3	C0 2
+55 N			6.9 281.3 280.9	C0 4
+98 N			4.8 283.4 281.5	C1 9
3+44 N			3.8 284.4 282.0	C1 4
+85 N			3.6 284.6 282.5	C2 4
4+28 N			3.7 284.5 283.1	C1 4
+50 N			4.6 283.6 283.4	C0 2

SYCAMORE CONT.

288.23

4+33 S.

7.9 28 0.3 282.6

T.P.

3.94 283.34

8.83 279.40

CHECK  
B.M.

3.64 279.70 = 279.73

WEST  
WILLIAMS  
VARONFAKIS  
KELLHOFER

40

12/8/54

F2 <sup>3</sup> (5) FH

Banks St  
Alley E of Sherman  
Stks for Stub Line

1.53 12.44 10.91

5.21 11.16 6.49 5.95

4.91 11.96 4.21 6.95

0+00 4.2 7.7 7.0

+25 5.1 6.8 3.6

+50 4.6 7.3 3.6

4.90 12.41 4.35 7.51

5.71 12.44 5.18 7.23

1.58 10.96 =

10.91

West  
Williams  
Varonfakis  
Kullbaker

41

10/9/64

Tom Power Pole

C3<sup>2</sup>

NEly prop line Banks at Alley

C3<sup>2</sup>

of Banks St

C3<sup>7</sup>

SWly prop line Banks at Alley

Beta St 38<sup>th</sup> to 39<sup>th</sup>Stks for 8<sup>th</sup> MainWest  
Williams  
Varonfakis  
Kellhofer

A2

12/10/54

BM SE BP 38<sup>th</sup> + Alpha

	3.35	14.41	11.06	
First 0+60 40° Bend			4.7	9.7 5.9
Second 0+96 23.40° Bend			4.0	10.4 6.2
1+03 MS			3.9	10.5 10.4
+35 MN			3.2	11.2 10.7
+50			3.4	11.0 6.5
+76 MS			3.4	11.0 10.8
2+00			3.3	11.1 6.8
+20 MN			2.3	12.1 11.2
+50 6.76	18.09	3.08	11.33	
2+50			6.3	11.8 7.2
+71 MS			6.5	11.6 11.4
3+00			6.2	11.9 7.6
+06 MN			6.1	12.0 11.6
+50			6.0	12.1 7.9
+53 MS			5.7	12.4 11.9
+89 MN			5.4	12.7 12.4
4+07 MS			4.2	13.9 12.3
4+00			5.5	12.6 8.3

C3<sup>2</sup>C4<sup>2</sup>C0<sup>1</sup>C0<sup>5</sup>C4<sup>5</sup>C0<sup>2</sup>C4<sup>3</sup>C0<sup>2</sup>C4<sup>6</sup>C0<sup>2</sup>C4<sup>3</sup>C0<sup>2</sup>C4<sup>2</sup>C0<sup>5</sup>C0<sup>2</sup>C1<sup>6</sup>C4<sup>3</sup>

6.7

18.09

<sup>35</sup> A+45 MN	5.0	13.1	12.6	C0 <sup>5</sup>	
+50	5.0	13.1	8.6	C4 <sup>5</sup>	
5+00	4.0	14.1	9.0	C5 <sup>1</sup>	
<sup>40</sup> +08 MN	4.0	14.1	13.0	C1 <sup>1</sup>	
<sup>47</sup> +47 MN	3.7	14.4	13.2	C1 <sup>3</sup>	50
5+50	3.7	14.4	9.3	C5 <sup>1</sup>	
6+00	3.7	14.4	9.7	C4 <sup>3</sup>	
<sup>50</sup> +08 MN	3.6	14.5	13.6	C0 <sup>2</sup>	
<sup>53</sup> +37 MN	3.5	14.6	13.8	C0 <sup>8</sup>	
+50	3.5	14.6	10.0	C4 <sup>6</sup>	
+6.3 FH Tco	3.4	14.7	10.1	C4 <sup>6</sup>	end of work
<sup>53</sup> ③ FH	3.2	14.9	14.0	C0 <sup>2</sup>	
11.67	26.42	33.4	14.75		
8.97	34.42	0.97	25.45		
5+95 MS	7.52	26.90	13.5	13 <sup>1</sup>	
<sup>75</sup> 5+85 MS	6.55	27.87	13.4	14 <sup>5</sup>	
<sup>87</sup> A+97 MS	2.87	31.55	12.8	18 <sup>8</sup>	
0.54	23.15	11.81	22.61		
2.14	14.44	10.85	12.30		
		3.42	11.02 = 11.00		

Alpha St  
38<sup>th</sup> to 50<sup>th</sup>  
Stks for 6" + 8" AC Main

West  
Williams  
Varonakis &  
Kellhofer - K

44

12/13/59

B.M.	5.39	16.45		11.06	BM SE CO 38 <sup>th</sup> + Alpha St	
0+40			5.3	11.2	6.6	CA <sup>6</sup>
+50			5.7	10.8	6.4	CA <sup>3</sup>
1+00			5.4	11.1	7.0	CA <sup>L</sup>
+49 S.			5.1	11.4	11.6	Fo <sup>2</sup>
+50			5.2	11.3	7.4	C3 <sup>2</sup>
+66 N.			4.3	12.2	12.1	Co <sup>L</sup>
+87 S.			5.0	11.5	11.8	Fo <sup>3</sup>
2+00			5.2	11.3	7.7	C3 <sup>6</sup>
+50			5.0	11.5	8.0	C3 <sup>5</sup>
+70 S.			4.6	11.9	12.4	Fo <sup>5</sup>
+73 N.			3.9	12.6	12.7	Fo <sup>L</sup>
3+00			4.6	11.9	8.2	C3 <sup>2</sup>
+25			4.2	12.3	8.9	C3 <sup>9</sup>
+21 N.			3.7	12.8	13.0	Fo <sup>2</sup>
+50			4.0	12.5	8.6	C3 <sup>2</sup>
+83 N.			2.9	13.6	13.4	Co <sup>2</sup>
4+00			3.6	12.9	8.8	CA <sup>L</sup>
+23 S.			3.3	13.2	13.4	Fo <sup>2</sup>



## ALPHA ST. CONT.

45

16.45

4+25N			2.7	13.8	13.6	Co	<sup>2</sup>	
T.P.								
+50	6.60	19.71	3.34	13.11	9.4	C3	<sup>7</sup>	
+83N			5.2	14.5	14.0	Co	<sup>5</sup>	
5+00			6.3	13.4	9.5	C3	<sup>9</sup>	
+35S			5.9	13.8	14.2	F0	<sup>4</sup>	
+50			6.3	13.4	9.8	C3	<sup>6</sup>	
+75			6.1	13.6	10.0	C3	<sup>5</sup>	
+76S			5.6	14.1	14.5	F0	<sup>4</sup>	
+95N			4.7	15.0	14.6	Co	<sup>4</sup>	
6+00			5.9	13.8	10.3	C3	<sup>5</sup>	
+50			5.4	14.3	10.8	C3	<sup>5</sup>	
+52N			4.4	15.3	15.0	Co	<sup>3</sup>	
7+00			4.9	14.8	11.4	C3	<sup>4</sup>	
+25S (F.H.)			4.1	15.6	11.3	C4	<sup>3</sup>	F.H. TEE
+25			4.2	15.5	15.3	Co	<sup>2</sup>	F.H. (5)
+45N			5.0	14.7	15.4	F0	<sup>7</sup>	
+50			4.7	15.0	11.2	C3	<sup>8</sup>	
+84N			5.4	14.3	15.5	F1	<sup>2</sup>	
+95S			5.1	14.6	15.5	F0	<sup>9</sup>	

## ALPHA ST. CONT.

46.

19.71

8+00 5.1 14.6 11.1

C3<sup>5</sup>

+50 4.98 14.7 11.0

C3<sup>7</sup>

9+00 4.9 14.8 10.8

C4<sup>0</sup>

T.P. 10.69 25.50 4.90 14.81

+40S. 10.6 14.9 16.1

F1<sup>2</sup>

+50 10.5 15.0 11.2

C3<sup>8</sup>

+74S. 10.1 15.4 16.3

F0<sup>9</sup>

10+00 10.0 15.5 11.5

C4<sup>0</sup>

+29N. 10.4 15.1 16.5

F1<sup>4</sup>

+43S. 10.0 15.5 16.6

F1<sup>1</sup>

+50 9.9 15.6 12.0

C3<sup>6</sup>

11+00 9.6 15.9 12.9

C3<sup>0</sup>

+50 7.8 17.7 13.8

C3<sup>9</sup>

T.P. 12.71 35.91 2.30 23.20

12+00 10.2 25.7 17.7

C8<sup>0</sup>

+25S. 7.4 28.5 24.6

C3<sup>9</sup>

+50 6.5 29.4 21.6

C7<sup>8</sup>

13+00 4.3 31.6 25.6

C6<sup>0</sup>

+50 4.2 31.7 27.0

C4<sup>7</sup>

+62 4.1 31.8 27.5

C4<sup>3</sup>

CHECK B.M. 4.92 30.99 = 30.93

S.W. MON. ALPHA + 40 TH.

40<sup>th</sup> 56  
 Alpha to Z<sup>56</sup>  
 stks for 8" AC Man

West  
 Williams T  
 Varonakis  
 Kellhofer &

47

12/14/54

1.42	32.41	30.99		
0+31		12	31.2	27.5
+50		3.7	28.7	25.3
+75		5.6	26.8	22.4
+78 FH T&C		6.0	26.4	22.0
+78 (3) Q. FH		5.6	26.8	28.4
1+00		7.4	25.0	20.0
+25		9.3	23.1	18.4
+50		10.9	21.5	17.7
2+00	3.80	24.07	12.4	20.27
			4.2	19.9
121 WMW			3.9	20.2
+39			4.1	20.0
+50			4.4	19.7
+75			4.3	19.8
3+00			4.5	19.6
+25			4.0	20.1
+50			3.7	20.4
+76 WMW			5.0	19.1
4+00			4.4	19.7
4+11			4.4	19.7
	10.54	33.80	0.81	23.26
			2.85	30.95
				30.99

Sw. Man 40<sup>th</sup> + Alpha  
 I  
 C3 Begin work  
 4  
 C3  
 4  
 C4  
 4  
 C4  
 6  
 F1  
 0  
 C5  
 7  
 C4  
 8  
 C3  
 0  
 C4  
 1 F 2 3  
 F 2  
 1 F 2 0  
 C4  
 4  
 C4  
 3  
 C4  
 9  
 C4  
 1  
 C5  
 3  
 F 2  
 3  
 C4  
 3  
 C4 2 end of work

NEWTON. 40<sup>TH</sup> TO 41<sup>ST</sup>  
STKS FOR 6" A.C. MAIN.

WEST T  
WILLIAMS  
KELLHOFER †

48

12/21/54

T.B.M.	0.38	65.78	65.40
T.P.	0.48	53.87	12.39 53.39
0+50		9.7	44.2 41.6
1+00		11.2	42.7 39.2
T.P.	1.36	42.47	12.76 41.11
+50		1.9	40.6 37.2
+74 N.		0.5	42.0 41.5
2+00		3.1	39.4 35.5
+29 S.		4.3	38.2 38.5
+31 N.		2.1	40.4 39.5
+50		4.25	38.2 34.0
3+00		6.1	36.4 32.4
+50		8.9	33.6 29.5
+88 S.		11.3	31.2 33.2
4+00		12.1	30.4 26.8
+45 N.		9.8	32.7 31.8
T.P.	2.89	33.17	12.19 30.28
+50		4.7	28.5 24.8
5+00		5.5	27.7 23.8

TOP F.H. S.W. COR. 40<sup>TH</sup> + NATIONAL

C2<sup>6</sup> BEGIN WORK

C3<sup>5</sup>

C3<sup>4</sup>

C0<sup>5</sup>

C3<sup>9</sup>

F0<sup>3</sup>

C0<sup>9</sup>

C4<sup>2</sup>

C4<sup>0</sup>

C4<sup>1</sup>

F2<sup>0</sup>

C3<sup>6</sup>

C0<sup>9</sup>

C3<sup>1</sup>

C3<sup>9</sup>

NEWTON CONT.

33.17

12/21/54

T. 5+50		7.0	26.2	22.8
T. 6+00		7.8	25.4	22.50
0+ +45		7.95	25.2	21.9
1+ +45 S.		8.0	25.2	27.3
T. +50		7.7	25.5	21.9
+7+00		7.4	25.8	21.8
+ +10		7.3	25.9	21.8
2+ +10 S.		7.3	25.9	27.0
+ T.P.	11.31	43.88	0.60	32.57
+ T.P.	11.77	55.52	0.13	43.75
+ T.P.	10.46	65.60	0.38	55.14
CHECK				
3+ B.M.		0.20	65.40	=65.40
+				
+				
4+				
+				
T.				
+				
5+				

C3 4  
 C3 4  
 C3 3 F.H. TEE  
 F2 1 F.H. (5')  
 C3 6  
 C4 0  
 C4 1  
 C4 1 END WORK  
 F1 1

Logan Ave

40<sup>th</sup> to 41<sup>st</sup>

Stks for 6" AC Main + Meters

6.02 71.42 65.40

0+55 2.8 68.6 64.6

0.27 71.34 0.95 71.07

1+00 +0.2 71.5 64.2

+50 2.3 69.0 64.0

+79 MS 5.0 66.3 67.2

2+00 6.3 65.0 61.0

+26 MN 6.6 64.7 65.8

+30 MS 7.7 63.6 65.1

+40 MS 8.7 62.6 64.5

+50 9.9 61.4 57.4

+82 MS 9.0 62.3 60.1

+91 MN 15.8 55.5 58.2

3+00 8.6 62.7 52.9

+45 MS 5.5 65.8 52.6

+50 6.6 64.7 48.6

+75 8.8 62.5 46.7

0.23 59.09 12.48 58.96

4+00 4.1 55.0 45.0

West  
Williams T  
Kellhofer †

50

Clear + V. Larm

12/22/54

BM Top FH SW Cor 40<sup>th</sup> + National

C4

C7 <sup>3</sup><sub>0</sub>

C5 <sup>0</sup><sub>9</sub>

F0 <sup>0</sup><sub>1</sub>

C4 <sup>0</sup><sub>1</sub>

F1 <sup>5</sup><sub>2</sub>

F1 <sup>9</sup><sub>0</sub>

C4 <sup>2</sup><sub>1</sub>

C2 <sup>7</sup><sub>8</sub>

F2 <sup>1</sup><sub>1</sub>

C9 <sup>8</sup><sub>1</sub>

C13 <sup>1</sup><sub>8</sub>

16 <sup>8</sup><sub>1</sub>

15 <sup>8</sup><sub>1</sub>

C10 <sup>0</sup><sub>1</sub>

LOGAN AVE. CONT.

51

59.09

12/22/54

4+125 83 50.8 43.1

C7 <sup>7</sup>

50.8  
37  
17.1

63  
26  
37

0.77 46.54 1302 46.07

4+25 + 0.6 471 40.2

C6 <sup>9</sup>

5.0

4+62.5 110 35.5 29.1

C6 <sup>4</sup>

5+00 14.3 32.2 29.6

C2 <sup>6</sup>

+25 13.5 33.0 30.0

C3 <sup>0</sup>

+30 ms 13.6 32.9 46.0

C4 <sup>4</sup> F13 ↓

+50 9.5 37.0 32.6

C4

+75 6.40 51.28 1.66 44.88 37.2

C7 <sup>7</sup>

+75 m.d. 15 49.8 45.6

C4 <sup>2</sup>

5+87.5 3.9 47.4 38.6

C8 <sup>8</sup>

6+00 3.5 47.8 38.8

C9 <sup>0</sup>

1+9 F13 10.5 40.8 37.4

C3 <sup>4</sup>

1+9 6+54 10.7 40.6 42.7

F2 <sup>1</sup>

+50 11.1 40.2 37.2

C3 <sup>0</sup>

+89 6.9 44.4 36.1

C8 <sup>3</sup>

End of Work

2.91 43.87

43.79 TBM Cons Wall

Alley BIK III  
Not Thorn  
E at 38<sup>th</sup>  
5<sup>th</sup> for 6<sup>th</sup> AL

12.37	302.94	290.57	
8.21	310.64	051	302.43
0+30		3.9	306.7 301.2
+50		4.0	306.6 300.5
1+00		4.6	306.0 299.3
+50		6.5	304.1 298.0
+93 ME		8.2	302.4 301.5
2+00		8.3	302.3 296.4
+50		10.7	299.9 295.0
+72 MW		11.5	299.1 298.5
+75	0.45	298.93	1216 298.48 292.3
3+00		4.3	294.6 289.5
+25		8.1	290.8 285.0
	0.73	287.60	1206 286.87
+50		4.6	283.0 275.4
	1.09	275.75	1294 274.66
3+75		4.3	271.5 263.0
	0.31	263.31	1275 263.00
4+00		5.3	258.0 249.0

West  
Williams X  
Kellhofer +

52

12/23/54

See FB 823 Page 65

IBM Nail in Power pole 15' W 3+25

C5	<u>5</u>	Begin Work
C6	<u>1</u>	
C6	<u>2</u>	
C6	<u>1</u>	
C6	<u>9</u>	
C0	<u>9</u>	
C5	<u>9</u>	
C4	<u>9</u>	
C0	<u>6</u>	
C6	<u>2</u>	
C5	<u>1</u>	
C5	<u>8</u>	
C5	<u>6</u>	
C7	<u>6</u>	
C8	<u>5</u>	
C9	<u>2</u>	



263.31

12/23/54

A+25

130 250.3 246.1

C4  $\frac{2}{8}$

+52

125 250.8 243.0

C7  $\frac{8}{8}$

End of work

2.89 253.70 1250 250.81

5.51 248.19 =

248.22

Turn on 2" 2" Hub 5" 11 5450

500 FD 823

HEMLOCK ST 37<sup>TH</sup> TO 38<sup>TH</sup>  
STKS. FOR 6" A.C. MAIN

WEST ↑  
WILLIAMS  
KELLHOFER X

54.

12/23/54 CLEAR + WARM

B.M.	9.01	96.83		82.82	
0+61			8.9	82.9	78.0 C4 <sup>9</sup>
1+00			7.9	83.9	79.7 C4 <sup>2</sup>
+50			6.4	85.4	82.0 C3 <sup>4</sup>
2+00			5.4	86.4	82.7 C3 <sup>1</sup>
+50			4.9	86.9	83.4 C3 <sup>5</sup>
3+00			4.4	87.4	83.7 C3 <sup>7</sup>
+50			4.1	87.7	83.8 C3 <sup>9</sup>
4+00			3.6	88.2	84.0 C4 <sup>2</sup>
+50			3.1	88.7	85.0 C3 <sup>7</sup>
5+00			2.6	89.2	85.3 C3 <sup>9</sup>
+50			2.2	89.6	85.6 C4 <sup>0</sup>
T.P.	5.20	94.85	2.18	89.65	
6+00			5.0	89.9	85.7 C4 <sup>2</sup>
+50			4.7	90.2	86.2 C4 <sup>0</sup>
+60			4.5	90.4	86.2 C4 <sup>2</sup>
CHECK B.M.			4.92	89.93 = 89.90	

S.E.B.P. 37<sup>TH</sup> + HEMLOCK

BEGIN WORK

END WORK

N.W.B.P. 38<sup>TH</sup> HEMLOCK

Newton Ave  
 35<sup>th</sup> St to School Grounds  
 Stks for 6" AC

West  
 Williams &  
 Kellhofer  
 Kemp<sup>+</sup>

55

1/3/55 Cloudy

SE Top of Fire Hyd 35<sup>th</sup> + National

022	44.41		44.19
8.18	43.14	9.95	34.96
0+60		9.0	34.1 31.0
1+00		7.6	35.5 32.0
+28 m N		5.5	37.6 37.3
+50		5.5	37.6 33.7
+50 ms		5.1	38.0 37.3
+83 ms		4.3	38.8 38.3
2+00		4.0	39.1 35.6
+30 ms		2.1	41.0 39.8
+50		2.6	40.5 37.0
+85 ms		0.7	42.4 41.5
3+00		1.1	42.0 38.3
	3.80	46.48	0.46
+19 ms		3.6	42.9 42.5
+36 ms		3.4	43.1 42.9
+50		3.1	43.4 39.6
+74 ms		2.5	44.0 43.8
4+00		1.6	44.9 41.2
+05		1.6	44.9 41.3
	6.94	44.44	8.88
			37.60
			0.25
			44.19 = 44.19

C3 <sup>1</sup> Begin Work

C3 <sup>5</sup>

C0 <sup>3</sup>

C3 <sup>2</sup>

C0 <sup>2</sup>

C0 <sup>5</sup>

C3 <sup>5</sup>

C1 <sup>2</sup>

C3 <sup>5</sup>

C0 <sup>2</sup>

C3 <sup>2</sup>

C0 <sup>4</sup>

C0 <sup>2</sup>

C3 <sup>8</sup>

C0 <sup>2</sup>

C3 <sup>2</sup>

C3 <sup>6</sup>

33<sup>rd</sup> St Oceanview  
to Webster

Stks for 6" AC Main + meters

	-0.26	16.96	17.22	
			14.7	
0+80	2.3	16.9	10.2	
			13.6	
1+00	3.4	15.8	9.8	
			12.1	
+50	4.9	14.3	8.0	
			11.0	
2+00	6.0	13.2	5.0	
			9.4	
+25	7.6	11.6	3.5	
			9.4	
+50	7.6	11.6	3.5	
			11.4	
3+00	5.6	13.6	6.3	
+25	4.5	12.8	7.6	
+50	5.0	12.2	7.9	
			12.5	
+55 MF	4.5	14.7	13.1	
			12.4	
4+00	4.6	14.6	8.3	
			13.1	
+33 MF	3.9	15.3	13.4	
			13.1	
+33 MW	3.9	15.3	13.3	
			12.9	
+50	4.1	15.1	8.8	
5+00	7.13	20.89	3.50	13.16
				9.7
			13.8	
+24 MW	6.8	16.0	13.6	
			14.0	
+50	6.6	16.2	10.4	
			14.4	
+75 MW	6.2	16.6	13.6	
			14.7	
6+00	5.9	16.4	10.7	

West  
Williams T  
Varenfakis  
Kellhofer P

220  
194  
26

56

1/19/55

CLEAR

BM SEBP Oceanview + 33<sup>rd</sup> St

	C6 <sup>7</sup>	C4 <sup>3</sup>		
			Beginning of work	
	C6 <sup>0</sup>	C3 <sup>2</sup>		
	C6 <sup>3</sup>	C4 <sup>1</sup>	8.8	C3 <sup>3</sup>
	C8 <sup>2</sup>	C6 <sup>2</sup>	7.5	C3 <sup>2</sup>
	C8 <sup>1</sup>	C5 <sup>2</sup>	7.0	C2 <sup>4</sup>
	C8 <sup>1</sup>	C5 <sup>2</sup>	7.0	C2 <sup>4</sup>
	C7 <sup>3</sup>	C5 <sup>1</sup>	7.5	C3 <sup>2</sup>
	C6 <sup>3</sup>	C4 <sup>1</sup>	8.0	C4 <sup>2</sup>
	C7 <sup>6</sup>	FOG	8.5	C3 <sup>2</sup>
	C6 <sup>3</sup>	C4 <sup>1</sup>	9.1	C3 <sup>2</sup>
	C7 <sup>9</sup>	C0 <sup>3</sup>		
	C2 <sup>0</sup>	FOG		
	C6 <sup>3</sup>	C4 <sup>1</sup>	9.6	C3 <sup>3</sup>
	C6 <sup>0</sup>	C3 <sup>2</sup>	9.8	C3 <sup>2</sup>
	C2 <sup>4</sup>	C0 <sup>2</sup>		
	C5 <sup>8</sup>	C2 <sup>6</sup>	10.0	C4 <sup>2</sup>
	C2 <sup>8</sup>	C0 <sup>2</sup>		
	C6 <sup>2</sup>	C4 <sup>1</sup>	10.1	C4 <sup>2</sup>

20.59

1/14/55

6+50	5.0	<del>15.6</del> 17.4	11.3	<del>C6<sup>5</sup></del>	<del>C4<sup>3</sup></del>	10 <sup>3</sup>	C5 <sup>3</sup>
+76 FH Tee	4.8	<del>15.8</del> 18.0	11.7	<del>C6<sup>3</sup></del>	<del>C4<sup>1</sup></del>	10 <sup>3</sup>	C5 <sup>3</sup>
+76 (5) Q	4.5	<del>16.1</del> 18.3	14.1	<del>C4<sup>2</sup></del>	C2 <sup>2</sup>		
+75 MW	4.9	<del>15.7</del> 17.9	14.0	<del>C3<sup>2</sup></del>	C1 <sup>2</sup>		
7+00	4.7	<del>15.9</del> 18.1	12.0	<del>C6<sup>1</sup></del>	<del>C3<sup>2</sup></del>	10.5	C5 <sup>1</sup>
+75	4.4	<del>16.2</del> 18.4	12.4	<del>C6<sup>0</sup></del>	<del>C3<sup>2</sup></del>	10.7	C5 <sup>2</sup>
+50	4.0	<del>14.6</del> 18.8	12.4	<del>C6<sup>4</sup></del>	<del>C4<sup>2</sup></del>	10.8	C5 <sup>8</sup>
+51 ME	3.6	<del>17.0</del> 19.2	14.4	<del>C4<sup>8</sup></del>	C2 <sup>1</sup>		
+71 MW	3.8	<del>16.8</del> 19.0	14.6	<del>C4<sup>2</sup></del>	<del>C2<sup>2</sup></del>	C2 <sup>2</sup>	
+80	3.9	<del>16.7</del> 18.9	12.4	<del>C6<sup>5</sup></del>	C4 <sup>2</sup>	End of Work 10 <sup>2</sup>	C5 <sup>8</sup>

4.33 17.20 2.72 12.87

0.00 17.20 = 17.20

Banaroff

Oceanview to Martin

West  
Williams  
Varonakis  
Kellhofer

58

1/17/55 CLEAR

	0.65	36.88	36.23
0+85 X	5.1	31.8	28.4
1+00	4.2	32.7	28.2
723 <sup>12</sup>	1.7	35.2	28.0
+50	3.3	33.6	27.6
2+00	5.3	31.6	27.1
+50	7.5	29.9	26.5
3+00	6.5	30.4	25.6
743 m.w.	5.1	31.8	30.3
+50	5.1	31.8	24.8
4+00	6.5	30.7	23.2
733 m.w.	7.3	29.6	29.2
+50	7.6	29.3	21.8
5+00	8.7	28.2	20.3
+14 m.w.	9.2	27.7	26.7
+46 m.w.	10.2	26.7	24.4
+50	10.5	26.9	17.2
+75 m.w.	12.5	24.4	12.0
6+00	13.6	23.8	12.3
+15	13.9	23.5	9.8
	0.65	36.29	

BM SW FH Oceanview + Banaroff

C3 <sup>4</sup>			
	Begin work		
C4 <sup>5</sup>	4.3		
C7 <sup>2</sup>	3.9		
C6 <sup>0</sup>	4.0		
C4 <sup>5</sup>	5.5		
C2 <sup>9</sup>	7.3		
C4 <sup>8</sup>	6.7	26.3	C4 <sup>1</sup>
C1 <sup>5</sup>			
C7 <sup>0</sup>	5.3	26.3	C5 <sup>5</sup>
C7 <sup>2</sup>	6.8	26.0	C4 <sup>4</sup>
C0 <sup>4</sup>			
C7 <sup>5</sup>	7.8	24.6	C4 <sup>7</sup>
C7 <sup>9</sup>	9.0	23.0	C5 <sup>2</sup>
C1 <sup>0</sup>			
C2 <sup>3</sup>			
C8 <sup>2</sup>	10.8	21.0	C5 <sup>4</sup>
C2 <sup>4</sup>	8.3	17.0	C6 <sup>3</sup>
11 <sup>0</sup>			
13 <sup>1</sup>	14.3	16.3	C7 <sup>2</sup>

Jefferson St  
Riley to Barnes

Stks for 6" AC Main & Meters

	5.19	4.83	3.64
0 0+36			5.1 3.7 -0.4
1 +50			5.2 3.6 -0.5
+67 mE			4.4 4.4 1.1
+81 mW			4.9 3.9 1.2
2 1+00			4.8 4.0 -0.8
+04 mW			4.8 4.0 1.2
3 +20 mE			4.9 3.9 4.0
1 +50			5.0 3.8 -1.0
+75 mW			4.5 3.98 4.0
4 2+00			5.1 3.7 -1.2
+15 mE			5.1 3.7 3.6
+25 mE			5.1 3.7 -1.5
5 +31 mW			5.0 3.8 3.7
+50			5.1 3.7 -1.2
+67 mE			5.4 3.4 3.5
+96 mW			5.1 3.7 3.5
6 3+00 1.10	7.73	5.20	3.63 -1.0
+01 mW			4.1 3.6 3.5

West  
Williams  
Varonakis  
Kellhofer

59

1/18/05

see page 6 897

0+25

TBM Top East from sewer MW 10' 21"

C 4<sup>1</sup> Begin Work

C 4<sup>1</sup>

CO<sup>3</sup>

FO<sup>3</sup>

C 4<sup>8</sup>

FO<sup>2</sup>

FO<sup>1</sup>

C 4<sup>8</sup>

CO<sup>2</sup>

C 4<sup>2</sup>

CO<sup>1</sup>

CA<sup>2</sup>

CO<sup>1</sup>

C 4<sup>9</sup>

FO<sup>1</sup>

CO<sup>3</sup>

CO<sup>3</sup>

C 4<sup>6</sup>

CO<sup>1</sup>

778

3+50 FH Top	4.1	3.6	-1.0
+50 (6) ↓	4.0	3.7	3.1
3+97	3.9	3.9	
ME	4.1	3.6	3.3
+100	4.8	2.9	-0.9
+100 MW	4.3	3.4	3.3
+105	4.5	3.2	-0.9
	4.04	3.69	F
3+50 ME	4.2	3.5	3.2

C4 <sup>6</sup>	3.69
	4.69
	8.38
CO <sup>2</sup>	4.9
CO <sup>2</sup>	3.5
CO <sup>3</sup>	
C3 <sup>8</sup>	
CO <sup>2</sup>	
C4 <sup>1</sup>	
369	Top East Am Sewer MH
CO <sup>3</sup>	



Congress St  
Riley to Reservoirs

STKS for 6" AC Main + Meters

	510	9.79	1.39
0+29		5.3	4.2 +0.4
+50 X For 75 ft		5.6	3.9 +0.4
+52 ME		5.1	4.1 4.3
+60 FH WNE		5.2	4.3 +0.4
+60 (3) R FH		4.9	4.6 4.4
+78 <sup>25</sup> X		5.7	4.3 +0.3
1+00		5.3	4.2 +0.3
+31 MW		5.0	4.5 4.2
+50		5.5	4.0 +0.1
+71 MW		5.6	3.9 4.0
2+00		5.7	3.8 -0.1
+33 ME		6.4	3.1 3.6
+50		5.9	3.6 -0.2
+54 MW		6.0	3.5 3.6
3+00		6.0	3.5 -0.4
+06 MW		5.8	3.7 3.5
+34 MW		6.1	3.7 3.4
+50		6.2	3.3 -0.5

West  
Williams X  
Varonakis &  
Kallhofer

61

1/19/55 CLEAR

DM of Nail Congress + Riley

C3 <sup>8</sup>	Begin work
C3 <sup>5</sup>	
C0 <sup>1</sup>	
C3 <sup>9</sup>	
C0 <sup>2</sup>	
C4 <sup>0</sup>	
C3 <sup>9</sup>	
C0 <sup>3</sup>	
C3 <sup>9</sup>	
F0 <sup>1</sup>	
C3 <sup>9</sup>	
F0 <sup>5</sup>	
C3 <sup>8</sup>	
F0 <sup>1</sup>	
C3 <sup>9</sup>	
C0 <sup>2</sup>	
C0 <sup>0</sup>	
C3 <sup>8</sup>	

9.49

3+56 ME 4.8 2.7 3.2

480 8.04 6.25 3.24

4+00 5.1 2.9 -0.6

+93 ME 4.3 3.7 3.3

+50 4.8 3.2 -0.4

+82 ME 4.4 3.6 3.4

+85 ME 4.3 3.7 3.4

5+00 4.7 3.3 -0.2

+15 MW 4.1 3.9 3.6

+25 MW 4.2 3.9 3.6

+13 ME 4.9 3.1 3.6

+37 MW 3.9 4.2 3.7

+50 4.6 3.4 -0.1

+93 MW 4.3 3.7 3.7

6+00 4.5 3.5 +0.1

+50 4.3 3.7 +0.3

+85 MW 3.9 4.1 4.4

7+00 4.1 3.9 +0.4

+07 4.1 3.9 +0.4

4.79 3.25 = 3.75

Fo <sup>5</sup>C3 <sup>5</sup>C0 <sup>4</sup>C3 <sup>6</sup>C0 <sup>2</sup>C0 <sup>3</sup>C3 <sup>5</sup>C0 <sup>3</sup>C0 <sup>2</sup>Fo <sup>5</sup>C0 <sup>5</sup>C3 <sup>5</sup>C0 <sup>0</sup>C3 <sup>4</sup>C3 <sup>4</sup>Fo <sup>3</sup>C3 <sup>5</sup>C3 <sup>5</sup>

End of Work

Top east 11m tower MH of Cairns

Udall Evergreen  
to Rosocranse

West  
Williams X  
Varonfaks +  
Kallhofer

63

Stks For 6" AO Main + Meters

11/21/55

CLEAR

2.32 189.48 187.16

SWAP Udall + Williams

0.47 177.55 1240 177.08

0.29 165.02 1282 164.73

0.32 152.48 1286 152.16

Q.P.P.

0.33 138.79 14.02 138.46

2+60 1.9 136.9 132.0

Begin work C<sup>4</sup> 9 1.3 137.5

3+00 10.4 129.4 125.0

C<sup>3</sup> 4 9.8 129.0

0.40 126.37 1282 125.97

+50 8.9 117.5 113.4

C<sup>4</sup> 1 7.9 118.5

0.28 113.89 1276 113.61

+75 1.25 112.6 107.4

C<sup>5</sup> 2 1.3 112.6

+92 m N 3.1 110.8 109.7

C<sup>1</sup> 1 10.16 102

+95 5.5 108.4 102.8

C<sup>5</sup> 6 END WORK FIRST SECTION 5.6 108.3

A+25 6.2 107.7

6.4 107.5

0.49 101.57 1281 101.08

+50 9.4 92.2

7.9 93.7

0.21 88.97 1281 88.76

+62.5 4.3 84.7

3.6 85.4 end of fill

+75 9.4 79.6

10.7 78.3

88.97

11/21/55

0.26 76.68 12.55 76.42 ✓

5+00 mN

3.7 73.0' 73.0

C0 <sup>0</sup>

5+00

6.6 70.1' 63.4

C6 <sup>1</sup>

81 68.1

+12.5

11.5 65.2' 58.0

C7 <sup>2</sup>

13.9 62.8

0.09 69.25 12.52 69.16

+25

5.9 58.9 52.0

C6 <sup>1</sup>

7.0 57.3

+37.5

10.7 53.6 47.0

C6 <sup>6</sup>

12.2 52.1

0.40 51.89 12.76 51.99

5+50

5.9 46.0 42.0

C4 <sup>0</sup>

5.6 46.3

+12.5

10.1 41.8 38.6

C3 <sup>2</sup>

10.1 41.8

1. 0.49 39.77 12.61 39.28

5+20 mS

3.1 36.7 36.7

C0 <sup>0</sup>

6+00

7.7 32.1 28.6

C3 <sup>5</sup>

+25

11.6 28.2 23.2

C5 <sup>0</sup>

0.43 27.47 12.73 27.04

+50

2.9 24.6 20.1

C4 <sup>5</sup>

7+00

8.9 18.6 14.8

C3 <sup>8</sup>

+08

10.1 17.4 13.8

C3 <sup>6</sup>

5.45 21.25 11.67 15.80

2.38 19.87 = 18.71

EW FH Udall + Raccorini

20.03  
+ 0.24  
20.27  
- 10.25  
10.02  
+ 2.00  
12.02  
5.23  
6.85 = 5.54  
5.69

CJT  
sheet  
made  
2-11-55

31<sup>st</sup> 58 Redwood to Quince  
STKS for 6" AC main (5)

West  
Williams &  
Varonakis†  
Kellhofer

65

1/26/55

FB 857 P 50

TBM NW (5) 1+T 31<sup>st</sup> + Quince

9.66 301.81	292.15		
0+60	2.5 299.3 294.5	C4 <sup>8</sup>	Begin work
1+00	3.1 298.7 292.0	C6 <sup>7</sup>	
+50	4.0 297.8 291.6	C6 <sup>2</sup>	
2+00	5.3 296.5 291.4	C5 <sup>1</sup>	
+50	6.8 295.0 291.2	C3 <sup>8</sup>	
3+00	8.6 293.2 289.1	C4 <sup>1</sup>	
+50	10.6 291.2 286.8	C4 <sup>4</sup>	
+69	12.6 289.2 286.0	C3 <sup>2</sup>	end of work
	9.66 292.15 =	292.15	

Bancroft

Check on Depth of  
installed Pipe

		36.23	
1.8	28.5	26.7	of P.P.
		5.1	23.4 top
5+00		5.2	23.3
+50		6.6	21.9
+75		8.4	20.1
6+00		10.1	18.4
+10		11.0	17.5

West  
Leonard

66

1/27/55

B11 Top SW FH Oceanview Bancroft

Grade of  
Bottom  
of P.P.

23.6
21.6
29.6
17.6
17.1

Rosecrans St  
WHITMAN to Cal Hour  
STKS for 6" As Main + Meters

West P  
Williams X  
Varonfakis  
Kellhofer

67

1/28/55

P 41

T.B.M.	5.46	10.83	5.37
1+27 M.E.			3.9 6.9 5.8
+70			4.5 6.3 1.8
+76 M.W.			4.6 6.2 5.6
2+00			4.7 6.1 1.7
+29 M.W.			5.0 5.8 5.5
+50			5.0 5.8 1.6
3+00			5.4 5.4 1.5
+50			5.4 5.4 2.0 +4
+80			8.3 2.5
+82.5			5.2 5.6 2.1 -0.6
+95			5.5 5.3 1.9 -3.6
4+00			5.0 5.8 1.6 -0.6
+12.5			5.0 5.8 1.6 -0.6
+30 M.W.			5.3 5.5 4.8
+50			4.9 5.9 0.8
+75 M.W.			5.3 5.5 4.7
5+00			5.1 5.7 0.8
+13 M.W.			5.8 5.0 4.6

Sewer M.H. 10' RT 7+25 Sec FB 980

C1 <sup>1</sup>

C4 <sup>5</sup>

BEGIN WORK

C0 <sup>6</sup>

C4 <sup>4</sup>

C0 <sup>3</sup>

C4 <sup>2</sup>

C3 <sup>9</sup>

C4 <sup>0</sup> C3 <sup>4</sup>

TOP PIPE

C6 <sup>2</sup> C3 <sup>5</sup>

C8 <sup>9</sup>

TOP STORM DRAIN

C6 <sup>4</sup> C3 <sup>9</sup>

C6 <sup>4</sup> C4 <sup>2</sup>

C0 <sup>7</sup>

C5 <sup>1</sup>

C0 <sup>8</sup>

C4 <sup>9</sup>

C0 <sup>4</sup>

## ROSECRANS ST. CONT.

68

10.83

5+50 5.5 5.3 0.8 C4 <sup>5</sup>+74 M.W. 5.8 5.0 4.5 C0 <sup>5</sup>6+00 5.5 5.3 0.8 C4 <sup>5</sup>+50 5.5 5.3 0.8 C4 <sup>5</sup>+93 MW 5.9 4.9 4.2 C0 <sup>7</sup>7+00 5.8 5.0 1.2 C3 <sup>8</sup>

4.63 10.02 5.49 5.39

+25 4.7 5.3 1.4 C3 <sup>9</sup>

+30 2.86 2.16

Top of existing Pipe

+50 4.4 5.6 1.3 C4 <sup>3</sup>+99 MW 4.7 5.3 3.8 C1 <sup>5</sup>8+00 4.5 5.5 0.6 C4 <sup>2</sup>+50 4.7 5.3 0.4 C4 <sup>9</sup>+50 MW 5.5 4.5 3.7 C0 <sup>8</sup>+65 MW 5.7 4.3 3.7 C0 <sup>8</sup>9+00 4.7 5.3 0.2 C5 <sup>1</sup>+22 MW 5.6 4.4 3.6 C0 <sup>8</sup>+42 MW 5.5 4.5 3.5 C1 <sup>9</sup>9+12 4.7 5.3 0.2 C5 <sup>5</sup>

end of work

4.60 9.38 5.24 4.78  
4.68 4.70 - 4.72

SE BP Taylor &amp; Union St



Cut  
sheet  
Made  
2/11

J St Bonaroff to  
100' East of 33<sup>rd</sup>

5	3.00	70.30	67.30
0+20		0.8	69.5 58.7
6	+35 FH sec	2.8	67.5 57.1
	+35 (5) FH	2.7	67.6 61.8
	+50	5.8	64.5 55.2
7	+64 ms	9.3	61.0 55.6
	+75	12.0	58.3 50.6
	0.38	57.83	1285 57.15
	+100	6.9	50.9 45.9
	0.69	46.57	11.95 45.88
	+25	2.4	44.2 41.2
	+24 ms	3.6	43.0 44.4
	+33 mN	3.5	43.1 43.2
	+50 m	6.5	40.1 36.4
	+52 mN	7.0	39.6 40.8
	+75 ms	9.0	37.6 37.9
	2+00	9.2	37.4 33.4
	2+07 mN	9.1	37.5 37.3
	+42 ms	9.7	36.9 36.4

West  
Williams +  
Varonfakt +

69

2/17/54

RAIN  
see FD 892

TBM on Cane Man 3' Rt 0+28 <sup>1/2</sup>
C10 <sup>8</sup>
4
Begin work
C10
8
C5
3
C9
4
C5
7
C7
0
C5
0
C3
4
F1
1
F0
7
C3
2
F1
3
F0
0
C4
2
C0
5
C0

J. ST CONT.

46.57

2+50	10.0	36.6	32.5
3+00	10.4	36.2	31.8
+01 m.s	10.4	36.2	35.5
+02 mN	9.9	36.7	36.1
+50-296	38.28	10.75	35.82
+58 mN	2.3	36.0	35.3
+80 m.s	2.9	35.4	34.6
A+00	3.2	35.1	30.3
+10 mN	2.8	35.5	34.6
+38 m.s	3.6	34.7	33.8
+50	4.4	33.9	29.6
+53 mN	4.3	34.0	34.0
5+00	5.7	32.6	28.8
+29	6.6	31.7	28.2
+89	6.7	31.6	
6+00	6.3	32.0	27.8
+08 mN	5.1	33.2	32.2
+24 m.s	5.9	32.1	32.2
+50	6.1	32.2	28.5
+89 mN	7.5	30.8	33.0
+90	6.1	32.2	29.0
	3.64	34.62	= 31.7

70

SW BRIDGE COR. CB EDGE

2/17/55

34.70

C4 <sup>1</sup>  
 C4 <sup>4</sup>  
 C0 <sup>7</sup>  
 C0 <sup>6</sup>  
 C4 <sup>8</sup>  
 C0 <sup>7</sup>  
 C0 <sup>8</sup>  
 C4 <sup>8</sup>  
 C0 <sup>9</sup>  
 C0 <sup>9</sup>  
 C4 <sup>3</sup>  
 C0 <sup>0</sup>  
 C3 <sup>8</sup>  
 C3 <sup>5</sup>  
 C4 <sup>2</sup>  
 C1 <sup>0</sup>  
 C0 <sup>2</sup>  
 C3 <sup>1</sup>  
 F2 <sup>1</sup>  
 C3 <sup>2</sup>

end of work

Begin work

end of work

Check top 4" CI inside  
367' N of N prop line Ocean  
View

1.20	117.69		116.49
0.82	105.81	1270	104.99
+1.88	100.21	7.98	98.33
		8.86	91.35
10.96	100.13	1.04	99.17
8.54	118.47	0.20	109.93
		204	116.43
			116.49

West  
Williams  
Varonfakis

71

2/17/56

BM SW AP Ocean View + 47<sup>th</sup>

Top 4" CI water mark

Akron St

Trumbull to Ullman  
stks for meters

1.90 158.01

156.11

0+76 M.N.

4.75 153.26 152.5

1+23 M.N.

5.7 152.3 152.0

CHECK

B.M.

1.90 156.11 = 156.11

West  
Williams T  
Varonfakis +

72

3/1/55 SUNNY + WARM

BM SE BP Trumbull + Akron

Co 3

Co 3

Ternoula + Rialto Sta  
 Check Fire Hydr elevation  
 and depth of Main

Ternoula	0.52	25.59	25.07
0+00 NW Prop Line Cloyis			
2+73	5.98	19.61	
2+75	4.35	21.24	
2+78	4.60	20.99	
2+79	5.56	20.03	
3+16	8.52	17.07	
	2.09	17.13	10.55 15.04
	3.65	10.29	10.99 6.64
Rialto st			
	5.58	4.77	
	4.43	5.86	
	4.40	5.89	
	5.48	4.81	
Ø of FH 3 <sup>rd</sup> Back of Face of			new curb
1245	22.07	0.67	9.62
7.03	25.75	3.35	18.72
		0.68	25.07 = 25.07

West  
 Williams  
 Varon Fakis

275'  
 41'  
 316'

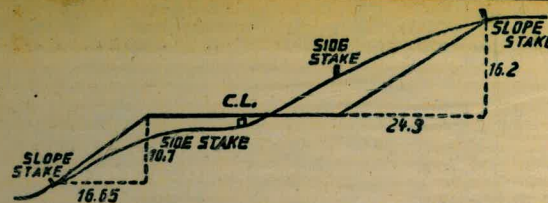
73

3/17/55  
 Ø FH 4<sup>th</sup> Back of New curb see page 23  
 Top FH Ternoula + W Point Loma Blvd

Top FH Tee (not on Bell)  
 Top stem of Gate valve  
 Top of New Curb gutter  
 Top of pipe at FH ell  
 Top of existing 6" CI

Top FH Tee (not on bell)  
 Top Gate valve (no stem)  
 Top 6" Curb gutter (New)  
 Top of pipe at FH ell

Please Return to  
 City of San Diego Water Dept.  
 Room 903 Civic Center



**DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.**  
 SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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