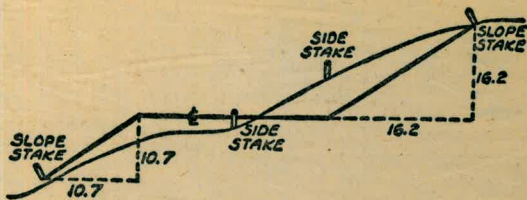


W 923





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
1	1.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	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 from 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.

F.B 923 W.O.  
15387  
DULZURA  
CONDUIT

- 14287 -  
- 98113 Conduit Sewer



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	.89	.99	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	1.92	2.30	2.68	3.06	3.44	3.84	4.24	4.64	5.05	5.46
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	.032	.035	.039	.043	.047	.051	.055
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	.120	.127	.135
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	.971	1.07	1.18	1.29
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

INDEX

Dulzura Conduit Cross Sections

From the west Portal of Tunnel

#6 to the pier 14+00 SW <sup>com</sup> 9-20-55

16

Dulzura Conduit extend Cross Sections

to North

17-19 ✓

Tie to County Survey R.S. 593 <sup>20</sup> ✓

alice

Dulzura Conduit stks

for construction

25 ✓

Prop Pipes on Cholla Station Road & 55th St. 31 ✓

Dulzura Conduit stks in 33 ✓

both of trench for invert grade 39 ✓

Dulzura Conduit Traverse 40 ✓

along Thread of Stream below pier <sup>45</sup> ✓

alice



Dulzura Conduit  
Cross Sections

		W0 15387	
+5.90	1455.39		1449.49
8.02	1457.56	5.85	1449.54
5.48	1461.93	1.11	1456.45
8.45	1469.73	0.65	1461.28
11.00	1480.50	0.23	1469.50
10.58	1490.49	0.59	1479.91
0.34	1488.05	2.78	1487.71
0.52	1476.00	12.57	1475.48
2.13	1466.21	11.92	1464.08
6.23	1461.75	10.69	1455.52
4.48	1455.52	10.71	1451.04
		5.99	1449.53 =
1.98	1462.02		1460.04
		1.62	1460.40
		1.98	1460.04 =

West  
Williams  
Varonakis  
Alexander

Hot. 13

9-3-55  
See FB 671 p 47

BM x on Coers Wall by Gaging House  
US210 BM 1' North of BM

TBM painted on Large Boulder 0-50

1449.54 ✓ No 9-27-55

#6  
TBM chis 17 Top of sly Wall End Tunnel

1460.04



Dutzura Conduit  
Cross Sections

11+90 POT

10+00 POT

8+75 POT @ Transit Line on old Conduit

6+09<sup>60</sup> POT @ Transit Line on old Conduit

NOTE: sta 0+00, this book,  
= sta 4+00, contract  
dwgs No. 7049-W  
3-23-56  
Cooper

0+34 = West Portal Tunnel #6  
557+33 Conduit Sta

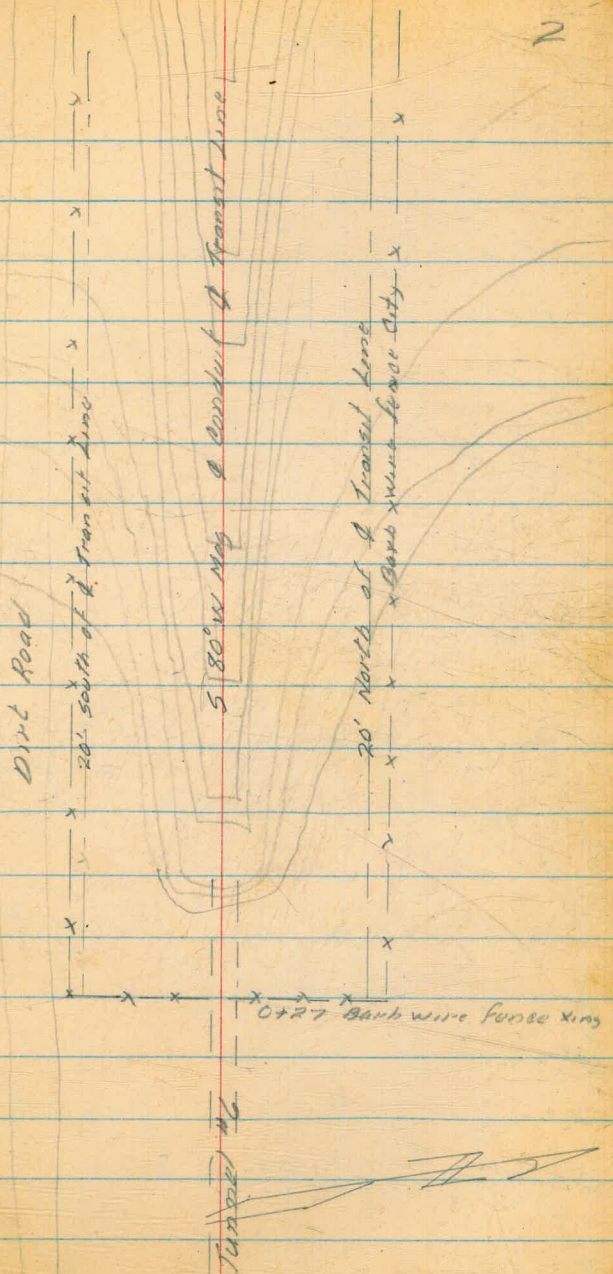
0+27 POT

0+00

34' East of West Portal of Tunnel #6

West  
Williams  
Varonfakis  
Alexander

2

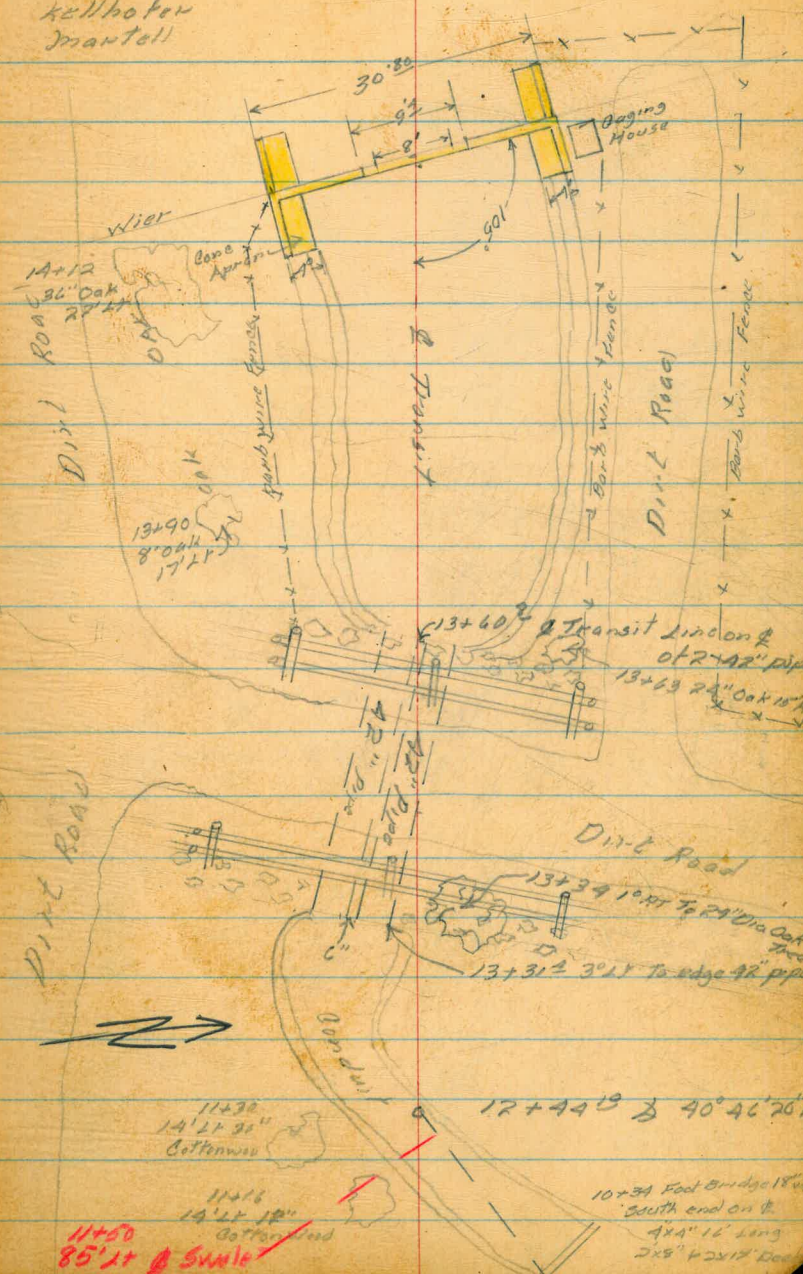




14+12<sup>63</sup> abis x in center of Wier

- 13+60 end of Rock Rip Rap  
10R to 8" post
- 13+57<sup>20</sup> 4" Pipe Rail Fence 30' long
- 13+39<sup>37</sup> POT  
45' to post
- 13+36<sup>E</sup> 4" pipe Rail Fence 8" pipe posts
- 13+31± Begin Rock Rip Rap road Fill

12+44<sup>10</sup>  $\Delta$  40° 46' 20" R



11+50  
85' ±  $\Delta$  SW 1/4

10+31 Foot Bridge 18' long  
South end on 4"  
4x4" 12' long  
2x8" 4x2x12' 20'



Dutzura Conduit  
Cross Section

4

1.51 1489.22 1487.21  
0+00

1483<sup>6</sup>  
5.6

L+ R+  
TBM See page 1

1485<sup>3</sup>

3.9  
20

1484<sup>5</sup>

3.7  
13

1483<sup>6</sup>

5.6  
11.5

1484<sup>6</sup>

4.6  
13.5

1484<sup>5</sup>

4.7  
15.8

1485<sup>5</sup>

3.9  
20'

+19<sup>5</sup>

1482<sup>1</sup>  
7.1

1486<sup>1</sup>  
Fence Line

3.1  
1.9

1481<sup>0</sup>

8.2  
10

1482<sup>6</sup>

6.6  
22

1483<sup>8</sup>

5.4  
22

1483<sup>9</sup>

5.3  
24

+34

1477<sup>3</sup>  
11.7

Top Tunnel Portal

1483<sup>9</sup>  
Fence Line

5.9  
23

1484<sup>2</sup>

4.9  
17

1477<sup>2</sup>

12.0  
10.1

1477<sup>4</sup>

11.8  
3

1476<sup>2</sup>

12.3  
5

1479<sup>2</sup>

10.3  
10

1483<sup>4</sup>

6.2  
16

1482<sup>5</sup>

6.7  
29.30

+39

Side Wash

1483<sup>4</sup>

5.8  
22

1482<sup>5</sup>

6.6  
20

1479<sup>6</sup>

9.6  
14.10

1476<sup>5</sup>

14.9  
11

1474<sup>3</sup>

10.0  
20

1479<sup>2</sup>

6.9  
23

1482<sup>3</sup>

6.0  
36

1483<sup>2</sup>

6.0  
?

0+50

1483<sup>9</sup>

5.3  
28

1478<sup>5</sup>

10.6  
20

1473<sup>2</sup>

15.3  
8'

1475<sup>3</sup>

13.9  
13

1478<sup>2</sup>

10.3  
20

1483<sup>3</sup>

5.9  
27

+54

1483<sup>1</sup>

5.5  
30

1482<sup>2</sup>

2.0  
20

1481<sup>2</sup>

7.4  
17

1481<sup>4</sup>

7.6  
27

1481<sup>2</sup>

7.3  
20

1481<sup>2</sup>

7.3  
24

1484<sup>2</sup>

5.8  
28

Red. No 9-27-55



148922

0+75

1+00

1+03

1+17

1+18

+21

+25

+28

Side Wash

Side Wash

Red #6 9-27-55

Fence Line  
148395.3  
30

14826

6.6  
29

14823

6.9  
20

14815

7.7  
20

14813

7.9  
16

14804

8.8  
15

14811

8.1  
16

14803

8.9  
16

14851

7.1  
24

14813

7.9  
21

14843

5.0  
27

14843

5.0  
2514843  
Fence Line5.0  
44

14825

6.7  
30

14761

12.5  
20

14711

18.1  
10

14734

10.8  
10

14809

8.9  
20

14845

1.7  
28' 21'

14822

7.0  
30

14763

13.0  
20

14724

16.8  
10

14715

12.8  
10

14761

12.5?  
20

14831

5.5  
31

14801

9.0  
16

14821

7.1  
30

14808

8.4  
20

14803

9.0  
16

14796

9.6  
16

14805

8.2  
20

14810

8.2  
27

14831

5.5  
31Fence Line  
148127.4  
29

14801

8.5  
20

14803

8.9  
15

14792

9.4  
16

14819

7.3  
27

14838

5.4  
3.2Fence Line  
148018.0  
30

14793

10.0  
20

14786

10.6  
15

14793

9.5  
16

14791

9.3  
20

14814

7.8  
28

14836

5.6  
35



Darzura Condinst Cont

6

1489.22

7.35 1485.11 11.46 1477.76

1+52

+65

+68

1+75

+90

+94

+96

2+00

2+06

+12

2 Wash

2 Wash

Hand Vine 11

1460<sup>5</sup> 1476<sup>5</sup> 1467<sup>3</sup>

1480<sup>4</sup> 1474<sup>2</sup> 1467<sup>2</sup>

1480<sup>3</sup> 1478<sup>3</sup> 1478<sup>2</sup>

1480<sup>3</sup> 1479<sup>1</sup> 1478<sup>3</sup>

1478<sup>3</sup>

1480<sup>4</sup> 1476<sup>3</sup> 1471<sup>4</sup>

1480<sup>5</sup> 1478<sup>3</sup> 1477<sup>5</sup>

50

1467<sup>5</sup> 1474<sup>5</sup> 1483<sup>4</sup>

1867<sup>2</sup> 1472<sup>9</sup> 1482<sup>3</sup>

1479<sup>2</sup> 1480<sup>4</sup> 1483<sup>4</sup>

1479<sup>2</sup> 1480<sup>5</sup> 1482<sup>5</sup>

1478<sup>3</sup> 1479<sup>5</sup>

1472<sup>6</sup> 1476<sup>5</sup> 1479<sup>4</sup>

1477<sup>3</sup> 1481<sup>3</sup>

1479<sup>4</sup>  
1479<sup>4</sup>  
1482<sup>3</sup>  
Fence 200

Red. H6 9-28-55



Dutzura Conduit Cont.

1485.11

2+25

+45

+46

+50

+61

+64

+75

3+00

4.07 1481.38 7.80 1477.31 ✓

+03

+13

Ref. No 9-28-55

7

9-6-55

Fence Line  
1479<sup>2</sup>

1477<sup>2</sup> 1476<sup>2</sup> 1473<sup>2</sup> 1476<sup>2</sup> 1477<sup>2</sup> 1481<sup>2</sup>

$\frac{5.7}{27}$   $\frac{7.5}{20}$   $\frac{8.2}{19.1}$   $\frac{7.7}{15}$   $\frac{3.8}{21}$

1478<sup>2</sup> 1476<sup>2</sup> 1473<sup>2</sup> 1476<sup>2</sup> 1477<sup>2</sup> 1480<sup>2</sup>

$\frac{6.7}{27}$   $\frac{8.4}{20}$   $\frac{11.2}{19}$   $\frac{8.8}{15}$   $\frac{8.0}{20}$   $\frac{7.6}{31}$

1478<sup>2</sup> 1474<sup>2</sup> 1469<sup>2</sup>

$\frac{6.9}{25}$   $\frac{10.6}{20}$   $\frac{15.4}{10}$

1467<sup>2</sup> 1471<sup>2</sup> 1480<sup>2</sup>

$\frac{12.4}{10.4}$   $\frac{13.7}{20}$   $\frac{5.9}{30}$

1477<sup>2</sup> 1474<sup>2</sup> 1468<sup>2</sup>

$\frac{2.4}{25}$   $\frac{11.1}{20}$   $\frac{17.0}{10}$   $\frac{6.6}{10}$   $\frac{13.4}{20}$   $\frac{5.8}{30}$

1477<sup>2</sup> 1476<sup>2</sup> 1474<sup>2</sup>

$\frac{7.2}{25}$   $\frac{8.5}{20}$   $\frac{10.5}{13}$   $\frac{9.9}{13}$   $\frac{6.0}{30}$

1477<sup>2</sup> 1477<sup>2</sup> 1475<sup>2</sup>

$\frac{7.9}{26}$   $\frac{7.6}{20}$   $\frac{9.5}{13}$   $\frac{10.7}{12}$   $\frac{6.1}{22}$

1476<sup>2</sup> 1476<sup>2</sup> 1474<sup>2</sup>

$\frac{8.9}{27}$   $\frac{8.6}{20}$   $\frac{10.9}{12}$   $\frac{10.7}{19}$   $\frac{9.3}{20}$   $\frac{7.5}{25}$   $\frac{6.9}{14}$

1476<sup>2</sup> 1474<sup>2</sup> 1467<sup>2</sup>

$\frac{5.3}{26.5}$   $\frac{7.1}{20}$   $\frac{14.0}{8}$   $\frac{11.1}{8}$   $\frac{9.2}{20}$   $\frac{3.8}{29}$

1475<sup>2</sup> 1473<sup>2</sup> 1467<sup>2</sup>

$\frac{5.5}{26}$   $\frac{8.0}{20}$   $\frac{13.7}{8}$   $\frac{14.7}{8}$   $\frac{9.1}{28}$

Fence Line  
1478<sup>2</sup>



1481.38

3+20

3+50

+52

+59

3.49

1476.48

8.99

1472.99 ✓

+70

4+07

+16

+25

+51

+52

1475<sup>9</sup>

27 1475<sup>6</sup>

1472<sup>6</sup>

22-55<sup>3</sup>

1474<sup>3</sup>

1477<sup>2</sup>

1477<sup>6</sup>

$\frac{5.5}{25.5}$

$\frac{5.8}{20}$

$\frac{8.8}{10}$

$\frac{7.2}{13}$

$\frac{7.4}{20}$

$\frac{3.8}{23}$  Fence line

1473<sup>2</sup>

1476<sup>3</sup>

$\frac{8.4}{16}$

$\frac{1.5}{77}$

1474<sup>1</sup>

1474<sup>1</sup>

1468<sup>4</sup>

$\frac{6.7}{20}$

$\frac{6.7}{20}$

$\frac{13.0}{9}$

Fence line 1474<sup>3</sup>

1471<sup>8</sup>

1462<sup>4</sup>

1463<sup>4</sup>

1467<sup>4</sup>

1476<sup>1</sup>

$\frac{7.1}{24}$

$\frac{9.6}{20}$

$\frac{12.0}{7}$  ?

$\frac{18.0}{8}$

$\frac{14.0}{20}$

$\frac{5.3}{74}$

1473<sup>9</sup>

1473<sup>3</sup>

1470<sup>8</sup>

1472<sup>9</sup>

1475<sup>8</sup>

1475<sup>5</sup>

$\frac{2.6}{23.5}$

$\frac{3.2}{20}$

$\frac{5.7}{10}$

$\frac{3.6}{15}$

$\frac{0.7}{23}$

$\frac{1.0}{43}$

1472<sup>4</sup>

1472<sup>3</sup>

1471<sup>4</sup>

1471<sup>3</sup>

1472<sup>2</sup>

1474<sup>2</sup>

1474<sup>4</sup>

$\frac{3.1}{22.5}$

$\frac{2.3}{20}$

$\frac{3.1}{11}$

$\frac{5.3}{13.4}$

$\frac{4.5}{20}$

$\frac{2.5}{32}$

$\frac{1.9}{15}$  Fence

Fence 1472<sup>3</sup>

1471<sup>1</sup>

1463<sup>8</sup>

1466<sup>1</sup>

1465<sup>9</sup>

1466<sup>1</sup>

1468<sup>3</sup>

1473<sup>2</sup>

$\frac{4.3}{22}$

$\frac{5.4}{20}$

$\frac{12.7}{7}$  ?

$\frac{8.7}{12}$

$\frac{10.6}{20}$

$\frac{10.3}{27}$

$\frac{9.3}{26}$

$\frac{8.2}{28}$

$\frac{2.2}{72}$

Fence 1472<sup>4</sup>

1472<sup>4</sup>

1470<sup>8</sup>

1471<sup>1</sup>

1472<sup>5</sup>

1474<sup>2</sup>

1473<sup>9</sup>

$\frac{4.1}{21.5}$

$\frac{4.1}{20}$

$\frac{6.5}{10}$

$\frac{5.4}{15}$

$\frac{4.0}{25}$

$\frac{2.5}{27}$

$\frac{2.6}{74}$

1469<sup>2</sup>

1473<sup>3</sup>

1473<sup>3</sup>

$\frac{2.5}{10}$

$\frac{3.3}{27}$

$\frac{3.2}{43}$  Fence line

1464<sup>9</sup>

1469<sup>4</sup>

1470<sup>8</sup>

$\frac{1.6}{8}$

$\frac{7.1}{20}$

$\frac{5.6}{28}$

Red. No 4-28-55



1476.48

4+56

+63

+66

+70

5+00

+50

6+00

3.05 1466.38 13.15 1469.331

✓ 6+50

1455<sup>4</sup>  
11.0 R

7+00

1455<sup>3</sup>  
11.1 R

+50

1455<sup>1</sup>  
11.3

10.53 1466.60 10.31 1456.07 ✓

R = Rock

Granite to Gneiss

1471<sup>2</sup> 1471<sup>5</sup> 1469<sup>2</sup> 1469<sup>5</sup>  
Fence  $\frac{4.8}{20.5}$   $\frac{5.0}{20}$   $\frac{6.8}{16}$   $\frac{7.0}{10}$

1471<sup>3</sup> 1463<sup>2</sup>  
Fence  $\frac{5.2}{20}$   $\frac{13.3}{7}$

1465<sup>6</sup> 1468<sup>5</sup> 1470<sup>2</sup>  
 $\frac{10.9}{13}$   $\frac{8.0}{22}$   $\frac{6.3}{28}$

1471<sup>1</sup> 1469<sup>2</sup>  
Fence  $\frac{5.7}{19.5}$   $\frac{7.5}{10}$

1470<sup>2</sup> 1470<sup>6</sup>  
 $\frac{6.5}{12}$   $\frac{5.9}{28}$

1470<sup>6</sup> 1467<sup>3</sup>  
Fence  $\frac{5.9}{19}$   $\frac{8.6}{11}$

1467<sup>4</sup> 1470<sup>4</sup> 1470<sup>4</sup>  
 $\frac{9.1}{9}$   $\frac{6.1}{17}$   $\frac{6.1}{20}$  Fence line point

1467<sup>8</sup> 1465<sup>2</sup>  
Fence  $\frac{8.2}{17.5}$   $\frac{1.9}{9.5}$

1466<sup>2</sup> 1467<sup>4</sup>  
 $\frac{9.8}{8}$   $\frac{9.1}{20}$  Fence line

1466<sup>5</sup> 1465<sup>3</sup>  
Fence  $\frac{10.0}{17.5}$   $\frac{11.2}{7.5}$

1465<sup>3</sup> 1465<sup>9</sup>  
 $\frac{11.3}{9.2}$   $\frac{10.6}{22 R}$

1465<sup>1</sup> 1464<sup>5</sup> 1458<sup>3</sup> 1455<sup>6</sup>  
Fence  $\frac{1.5}{12.5}$   $\frac{1.9}{8.5}$   $\frac{8.1}{3 R}$   $\frac{10.8}{25 R}$

1455<sup>8</sup> 1458<sup>2</sup> 1464<sup>1</sup> 1464<sup>6</sup>  
 $\frac{10.6}{15 R}$   $\frac{7.5}{3 R}$   $\frac{8.3}{8}$   $\frac{1.8}{27}$  Fence

1464<sup>6</sup> 1462<sup>9</sup> 1455<sup>6</sup>  
Fence  $\frac{1.8}{19}$   $\frac{3.5}{7}$   $\frac{10.8}{22 R}$

1455<sup>4</sup> 1462<sup>6</sup> 1462<sup>9</sup>  
 $\frac{11.0}{12 R}$   $\frac{3.8}{6}$   $\frac{3.5}{25}$

1463<sup>6</sup> 1462<sup>6</sup> 1458<sup>4</sup> 1456<sup>1</sup>  
Fence  $\frac{2.8}{18}$   $\frac{3.8}{8}$   $\frac{8.0}{3.5}$   $\frac{10.3}{30 R}$

1455<sup>9</sup> 1458<sup>2</sup> 1463<sup>5</sup> 1462<sup>3</sup>  
 $\frac{10.5}{25 R}$   $\frac{8.1}{3.5}$   $\frac{2.9}{13}$   $\frac{4.2}{26}$  Fence

Red. No 9-28-55



1466.60  
8+00 1454.2 R  
11.7

+25 1453 E R  
13.1

+50 1454.7 R  
11.9

9+00 1455 E R  
11.1

Q on North edge Condit  
+25 1457 E  
8.8

Q on North edge Condit  
+50 1452 E R  
13.8

+53 1452.9 R  
13.7

336 1461.62 8.34 1458.26  
+82 1451.0  
10.6

+86 E 1456.4  
5.0

10+00 1456.2  
5.5

+50 1456.0  
5.6

Fence 1463 L  
3.5  
7.8  
1460.3  
6.3  
5  
8.9  
2.2  
1457.2  
11.5  
7  
1455.2

Fence 1462 E  
4.2  
17  
1461 E  
5.7  
8  
10.5  
2.5  
1456 L  
11.1  
9.3 R  
1455 E

Fence 1461  
4.7  
17  
1460.2  
5.7  
7  
11.7  
3.5  
1454.9

Fence 1461.5  
5.0  
16  
1461.5  
5.6  
9.0  
10.7  
7.6  
1455.9  
11.8  
2.8  
13.0  
2.7 R  
19.3 R  
15

Fence 602  
5.7  
7.7  
602  
6.6  
5.0  
14.2  
3.0 R  
14.3  
0.7 R

Bankside out  
52 E  
60.2  
51.9  
53.2  
59.2  
53.2  
5.9  
7.7  
13.6  
7.9 R

1455 E 1457.2  
11.3 R 8.8  
8.3 18 2.7  
28 Fence  
1461.8  
1460.9

1453 E 1461.4  
12.8? 5.8  
0.5 11 6.2?  
2.8 Fence  
1460.4

1455 E 1461.5  
11.1  
2.0  
5.1  
2.0  
2.6  
3.0 Fence  
59.5  
59.2  
51.8  
59.4  
58.9

7.1  
2.0  
7.5  
2.0  
8.8  
10  
7.8  
2.0  
8.0  
3.0 Fence

5.7  
3.0  
4.2  
2.0  
9.1  
2.0  
8.3  
3.1

53.3  
55.2  
59.4  
60.1  
56.3  
57.3  
13.3 R  
5.0  
11.6  
6.0  
10.9  
11.0

52.8  
57.1  
58.0  
8.8  
13.0  
3.9  
2.0  
3.6  
2.6 Fence

54.2  
30  
52.1  
30  
52.3  
13.0  
4.0  
2.4?  
2.3 Fence  
57.6  
59.2  
58.3

53.9  
3.1  
58  
57.3  
7.7  
3.9  
9.3 Condit  
4.0  
18.0  
9.8  
7.9  
2.0  
3.9 Fence  
54.2  
57.5  
57.1

Red. 46 7-28-55



10+80  
 ✓ +90  
 +08  
 +10  
 +20  
 +22  
 +25  
 +50  
 ✓ +75  
 12 +00  
 9.53  
 +25  
 +44<sup>10</sup>

1461.62  
 1455<sup>±</sup>  
 6.8  
 1455<sup>±</sup>  
 6.4  
 1  
 1452<sup>±</sup>  
 8.8  
 1450<sup>±</sup>  
 11.3  
 1450<sup>±</sup>  
 11.4  
 1454<sup>±</sup>  
 6.8  
 1454<sup>±</sup>  
 6.8  
 1455<sup>±</sup>  
 6.1  
 1455<sup>±</sup>  
 6.5  
 1453<sup>±</sup>  
 8.9  
 1457<sup>90</sup>  
 13.191448A3V  
 1448<sup>±</sup>  
 9.6  
 1445<sup>±</sup>  
 12.2<sup>R</sup>

57<sup>±</sup>  
 55<sup>±</sup>  
 4.5  
 26  
 6.3  
 12  
 58<sup>±</sup>  
 54<sup>±</sup>  
 52<sup>±</sup>  
 50<sup>±</sup>  
 51<sup>±</sup>  
 51.8  
 31  
 6.9  
 16  
 9.1  
 12  
 11.6  
 11.0  
 10.1  
 20  
 55<sup>±</sup>  
 52<sup>±</sup>  
 49<sup>±</sup>  
 51<sup>±</sup>  
 51<sup>±</sup>  
 55<sup>±</sup>  
 6.3  
 30.5  
 9.1  
 30  
 12.0  
 25  
 10.3  
 16  
 9.9  
 13  
 6.1  
 3.0  
 54<sup>±</sup>  
 46<sup>±</sup>  
 49<sup>±</sup>  
 48<sup>±</sup>  
 45<sup>±</sup>  
 47<sup>±</sup>  
 44<sup>±</sup>  
 6.3  
 38.5  
 13.1  
 26  
 15.1  
 18  
 13.8  
 12  
 12.3  
 10  
 56<sup>±</sup>  
 53<sup>±</sup>  
 46<sup>±</sup>  
 45<sup>±</sup>  
 46<sup>±</sup>  
 48<sup>±</sup>  
 1.5  
 26  
 1.8  
 17  
 11.7  
 16  
 12.1  
 14  
 11.2  
 9.1  
 10.0  
 9.0  
 56<sup>±</sup>  
 54<sup>±</sup>  
 53<sup>±</sup>  
 48<sup>±</sup>  
 1.8  
 21  
 3.8  
 15  
 7.6  
 8  
 10.0  
 2<sup>R</sup>

53<sup>±</sup>  
 51<sup>±</sup>  
 52<sup>±</sup>  
 56<sup>±</sup>  
 56<sup>±</sup>  
 82?  
 80  
 92  
 90  
 90  
 17  
 0.3  
 20  
 48  
 22  
 FENCE  
 55<sup>±</sup>  
 52<sup>±</sup>  
 52<sup>±</sup>  
 56<sup>±</sup>  
 56<sup>±</sup>  
 6.1  
 40  
 9.2  
 10.0  
 9.2  
 17  
 5.0  
 21  
 4.8  
 22  
 FENCE  
 52<sup>±</sup>  
 49<sup>±</sup>  
 49<sup>±</sup>  
 52<sup>±</sup>  
 56<sup>±</sup>  
 90  
 120  
 120  
 93  
 53  
 10  
 20  
 20  
 10  
 13  
 56<sup>±</sup>  
 56<sup>±</sup>  
 51<sup>±</sup>  
 51<sup>±</sup>  
 FENCE  
 5.9  
 10  
 5.1  
 20.5  
 FENCE  
 56<sup>±</sup>  
 5.4  
 19.5  
 FENCE  
 51<sup>±</sup>  
 5.2  
 19.0  
 FENCE  
 55<sup>±</sup>  
 6.3  
 25.2  
 FENCE  
 50<sup>±</sup>  
 52<sup>±</sup>  
 54<sup>±</sup>  
 8.0  
 5  
 5.2  
 8  
 3.3  
 36  
 FENCE  
 46<sup>±</sup>  
 48<sup>±</sup>  
 52<sup>±</sup>  
 54<sup>±</sup>  
 11.9  
 6  
 9.9  
 8  
 0.3  
 14  
 3.6  
 42  
 FENCE

Red No 9-28-55



Dutzura Conduit Cont

9-20-55

12

145796

12+61 1445<sup>2</sup> R  
12.8  
1446<sup>2</sup>  
+62 11.1 R  
1448<sup>2</sup>  
+63 9.2  
1451<sup>2</sup>  
+75 6.3

54<sup>2</sup> L 45<sup>4</sup> 49<sup>3</sup> R 52<sup>2</sup>  
4.0 126? 87 5.2  
12 70 35 9

13+00 1452<sup>2</sup>  
5.9

55<sup>4</sup> 53<sup>5</sup> 46<sup>0</sup> 45<sup>2</sup> 46<sup>4</sup> 48<sup>2</sup> 54<sup>2</sup> 54<sup>2</sup>  
26 45 120 123 11.6 R 9.7  
30 20 12 R 13 R 9 8  
4.8 5.0 13.1 11.5 8.6?  
26 23 16 R 13 4  
52<sup>4</sup> 51<sup>6</sup> 44<sup>5</sup> 44<sup>4</sup> 49<sup>4</sup> 53<sup>3</sup>  
4.9 5.7 12.23 12.83 9.0  
21 16 9 3 3

0.99 145728 v 1.67 1456.29 v

+31 1450<sup>2</sup>  
7.2

52<sup>4</sup> 51<sup>6</sup> 44<sup>5</sup> 44<sup>4</sup> 48<sup>2</sup>  
4.9 5.7 12.23 12.83 9.0  
21 16 9 3 3  
Flow Line 40' Pipe

+33 1452<sup>2</sup> Rock Rip Rap  
5.3  
1452<sup>2</sup>

52<sup>4</sup> 52<sup>3</sup> 51<sup>2</sup>  
4.9 South edge 5.0  
21 Rock 7.7  
5.6 North edge  
7 Rock Rip Rap

+36 1451<sup>2</sup>  
5.4

City edge road

+57 1451<sup>2</sup>  
6.1

Why edge road  
Fence 5.5 51<sup>2</sup> 4.8 51<sup>2</sup>  
7.4 11 edge Rip Rap  
52<sup>2</sup>  
5.3 edge  
7.6 of Rip Rap + Fence Line

+61 1444<sup>2</sup>  
13.1

51<sup>2</sup> 45<sup>2</sup> 44<sup>85</sup> 44<sup>26</sup> 44<sup>4</sup> 50<sup>2</sup> 51<sup>3</sup>  
6.3 11.4 12.92 40' Pipe 12.92 45' Pipe 12.9 7.1 6.0 Fence  
7.2 8 2' Flow Line 2' Flow Line 4 14 15

6.90 145745 v 11.73 1445.55 v

+75 1443<sup>2</sup>  
9.4

Fence 51<sup>2</sup> 51<sup>4</sup> 43<sup>2</sup> 43<sup>9</sup> 49<sup>3</sup>  
0.9 1.1 8.6 8.6 3.2  
1.6 1.4 8 6 17 Fence Line

Ditch in front of wire

+12 8.4 1444<sup>2</sup>

43<sup>2</sup> 43<sup>2</sup> 8.8 43<sup>2</sup> 8.8  
10 10



17+12<sup>2</sup>

1452.45  
Top of 3/8" steel wiper  
6.01 1446.44

17+12<sup>3</sup>

2 Core Wiper  
6.37 1446.08

Wiper



17+13

Dirt downstream side of wiper

10.7 1441.7

2.92 1449.53 =

6.01 =

0.86 1488.57 14.87.71

1.63 1471.30 12.80 1475.77

8.44 1472.59 13.15 1469.15

12.55 1460.01 v

49 <sup>48</sup> Lt	46 <sup>44</sup>	46 <sup>44</sup> R1	49 <sup>47</sup>
2.97	6.01	6.01	2.98 side
9.7	9.0	2.0 North edge of bell	4.7 Top North

Top of wiper at wing wall	49 <sup>48</sup>	49 <sup>48</sup>	46 <sup>08</sup>	46 <sup>08</sup>	49 <sup>48</sup>	49 <sup>50</sup>
2.96	2.97	6.37	6.37	2.97	2.95	Top of Wiper
1.91	5.2	4.35	4.25	5.15	14.15	Top of Wiper

3x2 Gate	43 <sup>0</sup>	43 <sup>0</sup>
Flow line	9.5	9.5
	7.7	7.5 Flow line 2'x2' Gate

42<sup>3</sup>

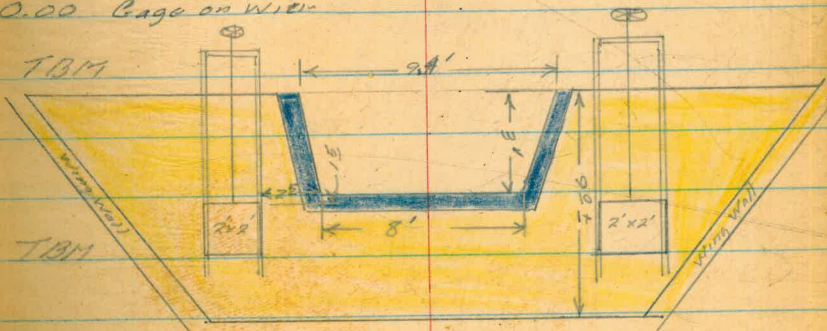
41<sup>9</sup>

10.2  
9.6

10.6  
9

1449.54 v

0.00 Gate on wiper



Red. No 9-28-55



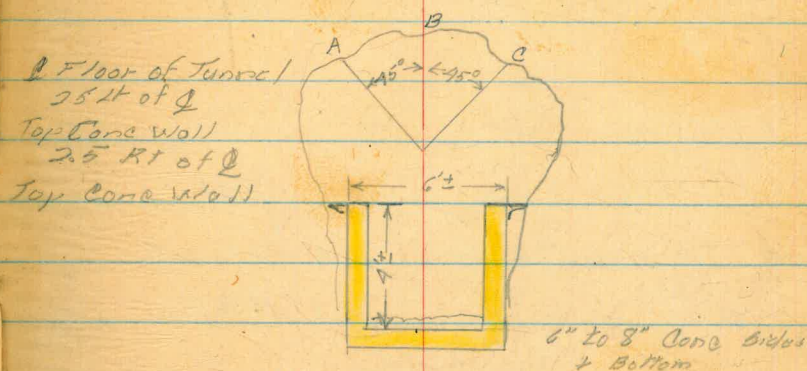
West  
Williams  
Vavonfuku

9-23-65

14

2.15 in Tunnel 0+00.	1462.19	1460.01
	5.73	1456.46
	1.7	1460 <sup>5</sup>
	1.7	1460 <sup>5</sup>
A	+ 0.5	1462 <sup>1</sup>
B	+ 1.0	1463 <sup>2</sup>
C	+ 0.7	1462 <sup>9</sup>
15 <sup>00</sup> ± Lt in Tunnel 0+26 <sup>5</sup> *	5.79	1456.40
	5.2	1457 <sup>0</sup>
	1.78	1460.41
	1.78	1460.41
A	+ 1.5	1463 <sup>1</sup>
B	+ 2.0	1464 <sup>2</sup>
C	+ 1.8	1464 <sup>0</sup>
0+34	5.7	1456 <sup>5</sup>
	1.8	1460 <sup>4</sup>
	1.9	1460 <sup>3</sup>
A	+ 1.2	1463 <sup>4</sup>
B	+ 2.4	1464 <sup>6</sup>
C	+ 1.9	1464 <sup>1</sup>

Tipica) Cross Section of Tunnel



2 Floor of Tunnel

2 dirt in Tunnel

2.5 Lt Top of Cone wall

2.5 Rt " " " "

See Equation, pg. 2

on cone Floor end of Tunnel) 2.5 6 end of cone walls

2.5 Lt Top Cone wall

2.5 Rt " " " "

Red # 9-28-55



0+50 1462.19 5.1 1457<sup>1</sup>

1+00 5.9 1456<sup>8</sup>  
3.96 1461.85 ✓ 3.80 1458.39 ✓

+50 5.3 1456<sup>6</sup>

+75 5.1 1456<sup>8</sup>

2+00 5.1<sup>R</sup> 1456<sup>8</sup>

+50 5.6 1456<sup>3</sup>

+75 5.8 1456<sup>1</sup>

5.33 1461.27 ✓ 5.91 1455.91 ✓

3+00 5.3 1456<sup>0</sup>

+50 5.3<sup>R</sup> 1456<sup>0</sup>

57<sup>1</sup> R 61<sup>9</sup>  
1.5 / 3.8 R 4.9 / 3.6  
5.1 / 2.0 R 0.3 / 3.8 R

61<sup>3</sup> 56<sup>8</sup> 57<sup>0</sup> 59<sup>8</sup>  
0.9 / 4.6 5.9 / 3.0 R 5.2 / 1.5 R 2.9 / 3.0 R

60<sup>0</sup> 56<sup>1</sup> 57<sup>3</sup>  
1.9 / 7.5 2.2 / 2.5 R 4.7 / 2.0 R

57<sup>2</sup> 57<sup>0</sup>  
4.7 / 2.5 R 4.9 / 2.5 R

58<sup>4</sup> 56<sup>5</sup> 56<sup>8</sup> 59<sup>5</sup>  
3.5 / 4.0 R 5.9 / 2.0 R 5.1 / 1.5 R 2.9 / 3.0 R

60<sup>4</sup> 56<sup>5</sup> 56<sup>8</sup> 61<sup>0</sup>  
1.5 / 3.0 R 5.4 / 1.8 R 5.1 / 1.5 0.9 / 3.5 Top Hook Hiptap side wash

60<sup>4</sup> 57<sup>1</sup> 56<sup>1</sup>  
1.5 / 5.4 R 4.8 / 2.5 R 5.2 / 2.2 R

59<sup>4</sup> 56<sup>5</sup> 56<sup>0</sup> 58<sup>3</sup>  
1.9 / 3.5 R 4.8 / 2.5 R 5.3 / 1.5 3.1 / 2.8 R

58<sup>1</sup> 56<sup>1</sup> 56<sup>0</sup> 59<sup>3</sup>  
3.2 / 7.0 R 5.2 / 1.5 R 5.3 / 2.0 R 2.0 / 3.0 R

Red. No 9-28-55



Dulzura Condunt cont

1461.27  
4+00 5.7 R 1455<sup>6</sup>

9-23-55  
60<sup>2</sup> 55<sup>2</sup> 55<sup>2</sup> 57<sup>6</sup>  
 $\frac{1.1}{2.0} R$   $\frac{5.5}{2.0} R$   $\frac{5.5}{1.5} R$   $\frac{3.7}{2.5}$

+50 5.7 R 1455<sup>6</sup>

59<sup>4</sup> 55<sup>6</sup> 55<sup>6</sup> 60<sup>2</sup>  
 $\frac{1.9}{3.0}$   $\frac{2.7}{2.0} R$   $\frac{5.7}{1.5} R$   $\frac{1.1}{3.5} R$

5.27 1461.06V 548 1455.79V

5+00 5.3 R 1455<sup>2</sup>

58<sup>8</sup> 55<sup>1</sup> 55<sup>1</sup> 59<sup>3</sup>  
 $\frac{2.3}{3.0} R$   $\frac{5.2}{1.5} R$   $\frac{5.2}{1.5} R$   $\frac{1.9}{3.5} R$

+50 5.3 R 1455<sup>8</sup>

59<sup>1</sup> 56<sup>1</sup> 56<sup>6</sup> 58<sup>8</sup>  
 $\frac{2.0}{1.0}$   $\frac{5.0}{2.0} R$   $\frac{4.5}{3.0}$   $\frac{2.3}{1.5}$

+75 5.4 R 1455<sup>1</sup>

57<sup>1</sup> 55<sup>6</sup> 55<sup>1</sup> 58<sup>1</sup>  
 $\frac{3.4}{1.5} R$   $\frac{5.5}{1.5} R$   $\frac{5.1}{1.5} R$   $\frac{2.4}{3.0} R$

6+00 5.7 R 1455<sup>4</sup>

58<sup>9</sup> 55<sup>1</sup> 55<sup>4</sup> 59<sup>8</sup>  
 $\frac{2.2}{2.5}$   $\frac{5.4}{1.5} R$   $\frac{5.7}{1.5} R$   $\frac{1.3}{3.5} R$

+10 5.4 1455<sup>1</sup>

58<sup>9</sup> 56<sup>3</sup> 55<sup>6</sup> 57<sup>4</sup>  
 $\frac{2.3}{3.0}$   $\frac{4.8}{1.5}$   $\frac{5.5}{1.5} R$   $\frac{3.7}{3.0} R$

12.25 1469.71V 360 1457.96V

9.16 1478.63V 0.29 1469.47V

1.36 1477.27V - 1477.21 TRM







## DULZURA CONDUIT CONT.

18

1478.71

11/23/55

5+50		11.3	1467.4
	2.27	1467.93	13.05 1465.66
6+00		2.3	1465.6
+50		4.0	1463.9
7+00		4.5	1463.4
+50		6.1	1461.8
8+00		7.7	1460.2
+19		6.6	1461.3
+50		8.8	1459.1
(9+00		9.4	1458.5
8+90		9.1	1458.8
9+07		8.4	1459.5
9+50		9.2	1458.7
10+00		9.5	1458.4
	2.58	1461.15	9.36 1458.57
+50		2.9	1458.3
11+00		4.1	1457.1
+50		4.4	1456.8
12+00		4.3	1456.9

70 RT

29 RT

42 RT

60 RT

76 RT

50 RT

51.5 RT

42 RT

FENCE  
49 RT

49 RT FENCE BEGINS Private FENCE

51 RT S.E. COR. WELL PLATFORM 3"

47 RT Private Fence Line

43 RT " " "

Private

41 RT " " "

37 RT " " "

39 RT " " "

46 RT " " "

1466.4  
1.5  
31 RT1466.1  
1.8  
70 RT3.3 1464.6  
70 RT  
4.8 1463.1  
82 RT6.7 1461.2  
76 RT7.9 1460.9  
80 RT



1461.15

12+44<sup>10</sup>      5.7    1455.5

13+00      6.2    1455.0

11.63    1449.52    =

Book Tang

67' BM Private Area Line

52' BM " " "

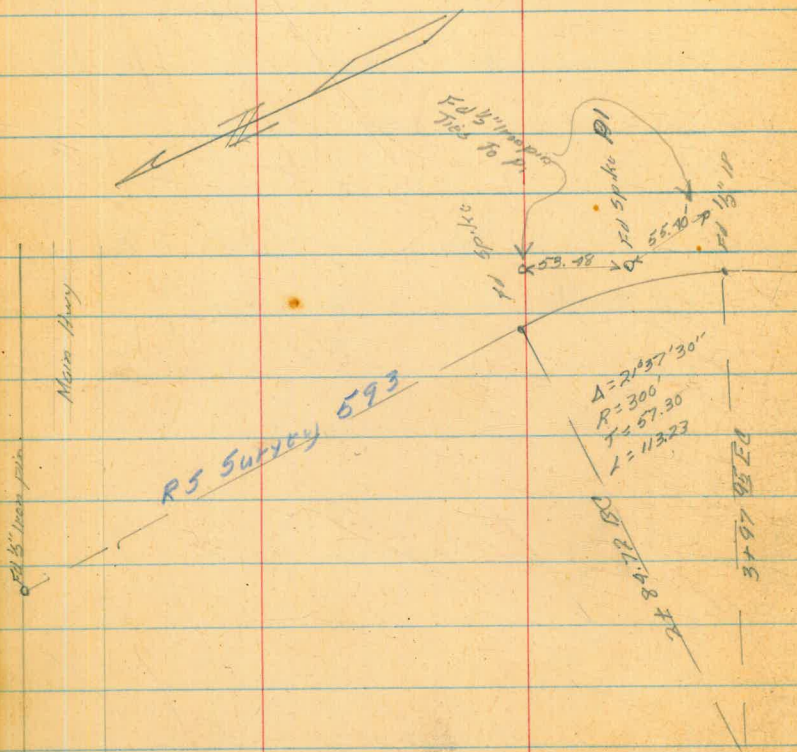
1449.54    1565 BM 1' North of BM See page 2

E Swale 85' Lt. 11450 C.A.W.

(Copied from Infor. Request)



Ties Datzura Conduit  
and County Road Survey 593



13+39.87  
6.10  
13+59.77

5+57.00  
+ 10.57

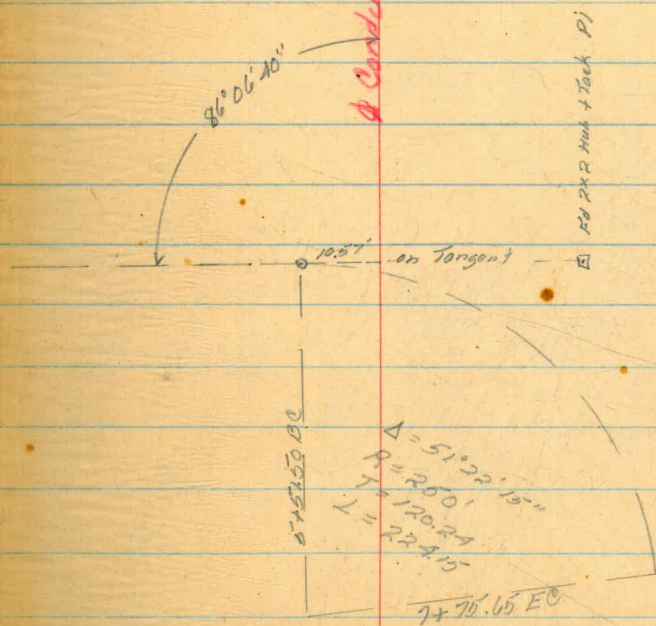
5+62.07 Road Survey = 13+95.97

West  
Williams  
Varonakis  
Kemp

20'

11/23-55

A Conduit Survey



See Equation, pg. 2

Conduit Survey







DULZURA CONDUIT  
Cont'd

12/20/55  
21

22

3+70

1493.66

3+90

4+16

4+40

5+00

5+30

5+50

1476.28  
Fence Cor 50' LT 5+25

Po Pole # 177569 49' LT 5+62

Dug Well 62' LT 6+10  
(Conc Casing 9' dia)

Begin 10 wire fence 80' LT 6+30

1475.9 1476.5 1476.5 1476.1 1473.7 1473.5  
12.8 92 17.2 176 26.0 20.2  
100 75 50 40 39 30  
Erd

1473.2 1476.3 1476.3 1472.1 1472.7  
17.6 20.5 15.4 17.4 21.6 21.0  
100 75 55 40 38 29  
Erd

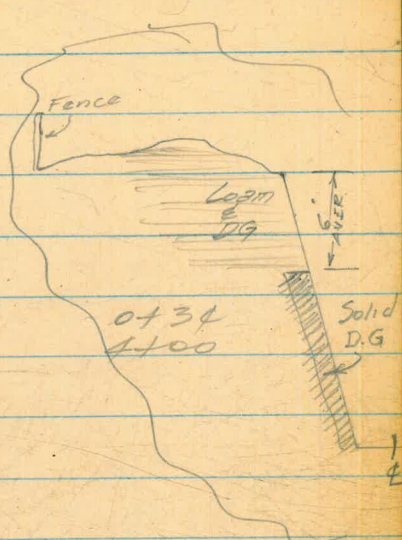
1475.7 1471.7 1471.5 1472.0  
18.0 19.0 22.2 21.7  
100 50 36 29  
Erd

1473.7 1476.3 1473.9 1470.9 1471.3 1471.6  
20.4 18.4 19.9 22.9 22.4 22.1  
80 50 39 36 28 20.5  
Erd

1469.7 1469.7 1471.2 1469.7 1470.2  
24.0 24.0 22.5 26.0 23.5  
100 50 37 34 26  
Erd

1467.3 1470.0 1471.7 1471.0 1468.5 1466.3 1469.0  
1472.2 1471.7 1471.0 1468.5 1466.3 1469.0  
9.2 6.5 6.8 5.5 8.0 7.7 7.5  
7.5 5.0 4.4 3.5 3.4 2.5 1.8  
100 50 33 24 24  
Erd

1467.3 1467.9 1467.7 1468.0  
1471.5 1471.5 1471.5 1468.0  
9.2 8.6 8.8 8.5  
100 50 33 24  
Erd



Note  $\frac{1}{2}$  of  
15' road continues  
at 7'-8' LT of  
Fence line noted  
in Cross-sections  
pg. 9-12.

✓ 12-22-55

MB



DULZURA CONDUIT.  
Cont'd

12/21/55

23

0+00

1489.2

1+00

1485.11

2+00

3+00

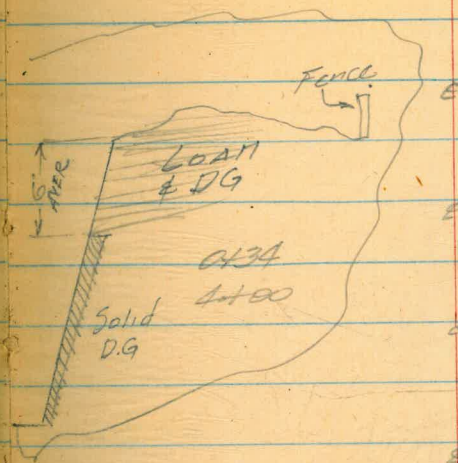
4+00

1476.28

5+00

5+75 125' RT dug well

6+00



	RT		
1485.0	1485.3	1490.3	
42	29	41.1	
80	100	200	
Swale			
1484.4	1485.0	1487.7	
48	42	45	
50	100	200	
1482.1	1481.1	1480.0	2-5' 5'
3.0	4.2	2.1	Shed at
50	100	200	160 E
1478.6	1478.2	1478.8	
6.3	6.9	6.3	
50	100	200	
	2' fence		
1474.9	1473.2	1474.2	fence at RT
15	33	23	3+15
50	115	200	

4+50 - 4+95 80'-125' Chicken coops rabbit hutches etc

4+75 - 5+00 - 20'-75' RT GRANITE Boulders

1471.0	1470.1	1470.2	1471.4
55	64	62	51
50	60	100	200

1465.9	1466.8	1469.0
10.6	9.7	7.5
50	100	200

✓ No 12-22-55



DULZURA CONDUIT  
Cont'd

12/21/55

24

7:00 1466.38

1463.4. 1463.7. 1466.6.  
3.0 2.7 ~~1463.9~~  
50 100 200

8:00 1466.60

1460.3. 1462.6. 1464.1.  
6.3 4.0 2.5  
50 100 200

8+24 55' RT dug well

8+85 Begin 18' Lane Nor side  
36'-48' RT

9:00

1458.4. 1461.6. 1463.4.  
8.2 5.0 3.2  
48 100 200  
fenc

9+10 55' RT Dug Well

1461.62

1458.5. 1458.7. 1459.9. 1460.9.  
3.1 2.9 1.7 0.7  
44 50 100 200  
fenc

10:00

1456.6. 1456.8. 1457.3. 1458.3. 1459.1.  
5.0 4.8 4.3 3.3 2.5  
22 37 50 100 200  
fenc fenc

11:00

1455.3. 1456.9. 1457.1. 1458.8. 1458.1.  
6.3 4.7 4.5 4.8 3.5  
255 43 50 100 200  
fenc fenc

12:00

✓ No 12-22-55



Dutzura Conduert

West  
Williams  
Kellho for  
Poulson

25

8/7/56

10.00	1459.54	1AA9.54	43.05 BM
5.67	1462.67	2.54 1457.00	
6.23	1464.35	2.55 1460.12	
(4.12)			
12 + 20		9.64 1456.69 1453.69	⊖ 3 <sup>00</sup>
(4.32)			
+50		10.10 1456.79 1453.25	⊖ 3 <sup>00</sup>
(7.43)			
+75		10.47 1455.88 1452.88	⊖ 3 <sup>00</sup>
2.88	1465.97	3.26 1463.09	TBM Nail in PP
(5.25)			
+75		5.09 1460.88 1452.88	⊖ 8 <sup>00</sup>
(6.32)			
13 + 00		7.46 1458.51 1452.51	⊖ 6 <sup>00</sup>
(6.00)			
+14 <sup>10</sup> 80		7.67 1458.30 1452.30	⊖ 6 <sup>00</sup>
(5.00)			
+25		5.83 1460.14 1452.14	⊖ 8 <sup>00</sup>
(4.79)			
+54 <sup>21</sup> POC		10.26 1455.71 1451.72	⊖ 4 <sup>00</sup>
720			
+75		12.57 1453.40 1451.40	⊖ 2 <sup>00</sup>
TP	8.00 1461.40	12.57 1453.40	Turn on (7.10) spike
(5.90)			
14 + 00		4.37 1457.03 1451.03	⊖ 6 <sup>00</sup>
(5.30)			
+14 <sup>03</sup> 80		5.58 1455.82 1450.82	⊖ 5 <sup>00</sup>
(6.00)			
+25		4.74 1456.66 1450.66	⊖ 6 <sup>00</sup>
(6.80)			
+50		5.11 1456.29 1450.29	⊖ 6 <sup>00</sup>
(4.22)			
+75 <sup>10</sup> 80		5.48 1455.92 1449.92	⊖ 6 <sup>00</sup>



Nest  
Williams  
Kellhafer

24

1461.40

818/56

14+90	(566)	6.70	1454.70	1449.70
15+00	(628)	6.89	1454.51	1449.51
+10	(626)	7.04	1454.36	1449.36
+20	(721)	7.19	1454.21	1449.21
+28 <sup>38</sup> EC	(760)	6.31	1455.09	1449.09
+36 <sup>05</sup> BC	(592)	6.12	1454.98	1448.98
+50	(987)	6.63	1454.77	1448.77

C 5<sup>00</sup>

C 5<sup>00</sup>

C 5<sup>00</sup>

C 5<sup>00</sup>

C 6<sup>00</sup>

C 6<sup>00</sup>

C 6<sup>00</sup>

8.77 1458.95 11.22 1450.18

+60	(108)	7.33	1451.62	1448.62
+70	(604)	7.48	1451.47	1448.47
+80	(776)	7.62	1451.33	1448.33
+91	(532)	5.80	1453.15	1448.15

C 3<sup>00</sup>

C 3<sup>00</sup>

C 3<sup>00</sup>

C 5<sup>00</sup>

16+03<sup>69</sup> 7.45 1451.50 1451.50

C 0<sup>00</sup> Top of Hd wall South bank of Creek

(23) Same point 7.45 1454.50 1451.50

C 3<sup>00</sup> " " " " " " " " " " " "

16+03<sup>69</sup> (1250) 7.45 1454.50 1448.04

C 6<sup>46</sup> To invert of pipe

16+03<sup>69</sup> 7.45 1451.50 1451.50

C 0<sup>00</sup> To Top of Hd Wall North bank

16+03<sup>69</sup> (63) 7.45

C 3<sup>00</sup> " " " " " "

16+16 8.95 1450.00 1450.00

C 0<sup>00</sup> To Top Apron North bank

16+16 8.95 1450.00 1450.00

C 0<sup>00</sup> " " " " South "

9.38 1449.57 = 1449.54

BM



## Dulzura Conduit Cont.

27

	5.53	1468.62	1463.09	
12+00	(353)		9.63	1458.99 1453.99
11+75	(803) North		8.69	1459.93 1454.93
+75	(6.65) South		8.69	1459.93 1454.93
+50	(584)		8.64	1459.98 1454.98
+50	(604) South		8.64	1459.98 1454.98
			5.52	1463.10 = 1463.09

	6.48	1469.57	1463.09	
11+25	(7.20) South		9.54	1460.03 1455.03
	(6.12) North		9.54	1460.03 1455.03
11+00	(486) South		9.50	1460.07 1455.07
	(482) North		9.50	1460.07 1455.07
10+75	(492) South		9.45	1460.12 1455.12
	(477) North		9.45	1460.12 1455.12
10+50	(479) South		9.40	1460.17 1455.17
	(429) North		9.40	1460.17 1455.17
10+25	(490) South		9.35	1460.22 1455.22
	(375) North		9.35	1460.22 1455.22
10+00	(515) South		9.31	1460.26 1455.26
	(328)		9.31	1460.26 1455.26

TB's Nail in power pole see page 25

C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>



	1469.57		
(629)			
9+75 South	9.26	1460.31	1455.31
(395)			
North	9.26	1460.31	1455.31
(548)			
9+50 South	9.21	1460.36	1455.36
(598)			
North	9.21	1460.36	1455.36
(463)			
9+25 South	9.16	1460.41	1455.41
(440)			
North	9.16	1460.41	1455.41
8.33	1465.67	12.23	1457.34
(435)			
9+00 South	5.22	1460.45	1455.45
(445)			
North	5.22	1460.45	1455.45
(436)			
8+75 South	5.17	1460.50	1455.50
(376)			
	5.17	1460.50	1455.50
(437)			
8+50 South	5.12	1460.55	1455.55
(360)			
North	5.12	1460.55	1455.55
(400)			
8+25	5.07	1460.60	1455.60
(380)			
	5.07	1460.60	1455.60
8.35	1466.11	7.91	1457.76
(402)			
8+00 South	5.47	1460.64	1455.64
(380)			
	5.47	1460.64	1455.64
(412)			
7+75 South	5.42	1460.69	1455.69
(412)			
	5.42	1460.69	1455.69

C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>C 5<sup>00</sup>



		1466.11		
7+50	South	(505)	5.37 1460.74 1455.74	0 5 <sup>00</sup>
	North	(413)	5.37 1460.74 1455.74	0 5 <sup>00</sup>
7+25	South	(392)	5.32 1460.79 1455.79	0 5 <sup>00</sup>
	North	(446)	5.32 1460.79 1455.79	0 5 <sup>00</sup>
7+00	South	(463)	5.28 1460.83 1455.83	0 5 <sup>00</sup>
	North	(325)	5.28 1460.83 1455.83	0 5 <sup>00</sup>
6+75	South	(422)	5.23 1460.88 1455.88	0 5 <sup>00</sup>
	North	(395)	5.23 1460.88 1455.88	0 5 <sup>00</sup>
6+50	South	(380)	5.18 1460.93 1455.93	0 5 <sup>00</sup>
	North	(350)	5.18 1460.93 1455.93	0 5 <sup>00</sup>
+25	South	(348)	5.13 1460.98 1455.98	0 5 <sup>00</sup>
+25	South	(422)	5.13 1460.90 1455.90	0 5 <sup>00</sup>
6+00	South	(474)	5.09 1461.02 1456.02	0 5 <sup>00</sup>
	South	(433)	5.09 1461.02 1456.02	0 5 <sup>00</sup>
5+75	South	(440)	5.04 1461.07 1456.07	0 5 <sup>00</sup>
	South	(507)	5.04 1461.07 1456.07	0 5 <sup>00</sup>
	Mark on Rock			
250	9.50	1468.66	6.95 1459.16	
5+50	South	(433)	7.54 1461.12 1456.12	0 5 <sup>00</sup>
			7.54	



1468.66  
 5+25 South (452) 7.99 1461.17 1456.17  
 725 (412) 7.99 1456.17  
 5+00 South 7.45 1461.21 1456.21  
 700 1456.21  
 4+75 South (582) 7.40 1461.26 1456.26  
 4+75 North (326) 7.40 1461.26 1456.26  
 4+50 South (547) 7.35 1461.31 1456.31  
 750 North (394) 7.35 1461.31 1456.31  
 8.25 1460.41 = 1460.40

Hot  
819156

05<sup>00</sup>

05<sup>00</sup>

05<sup>00</sup>

05<sup>00</sup>

05<sup>00</sup>

05<sup>00</sup>

BM on end of Tunnel







STAKES for Grading around  
Wier basin

West  
Williams  
Kellhofer

32

8/9/56

6.46 1456.00 1449.54

4565 BM

Next side Wier basin 4.68 1451.32

Top of Curbrite wall on West Side of Road

0+00 1449.54

+20 6.3 1449.7 1450.13

E 0<sup>2</sup>

+40 6.4 1449.6 1450.72

F 1<sup>2</sup>

0+60 5.4 1450.6 1451.31

F 0<sup>2</sup>

on Fence line 30' North of Wier Basin

0+00 3.5 1452.5 1449.54

C 3<sup>0</sup>

+20 3.2 1452.8 1450.1

C 2<sup>2</sup>

+40 3.4 1452.6 1450.7

C 1<sup>2</sup>

+60 3.2 1452.8 1451.3

C 1<sup>2</sup>

South side of Wier Basin 6.46

6.78 1456.32 1449.54

4.8 1451.5 1449.8

C 1<sup>2</sup>

4.5 1451.8 1450.1

C 1<sup>2</sup>

4.4 1451.9 1450.7

C 1<sup>2</sup>

3.8 1452.5 1451.3

C 1<sup>2</sup>



DULTURA CONDUIT  
 STRS for INVERT Grade

West  
 Williams  
 Kellhofer

Hot

9/7/58

TBM nail in power pole

	4.56	1467.65	1463.09				
	2.44	1459.40	1469/1456.96				
10+00			4.64	54.76	55.26	FO <sup>50</sup>	59.40 5.31
9+75			4.59	54.81	55.31	FO <sup>50</sup>	4.09 59.40 55.36
9+50			4.54	54.86	55.36	FO <sup>50</sup>	59.40 55.41
9+25			4.49	54.91	55.41	FO <sup>50</sup>	3.99 59.40 55.41
9+00			4.45	54.95	55.45	FO <sup>50</sup>	59.40 55.45
10+25			4.68	54.72	55.22	FO <sup>50</sup>	59.40 55.22
+60			4.73	54.67	55.17	FO <sup>50</sup>	59.40 55.12
+75			4.78	54.62	55.12	FO <sup>50</sup>	28 59.40 55.07
11+00			4.83	54.57	55.07	FO <sup>50</sup>	59.40 55.07
+25			4.87	54.53	55.03	FO <sup>50</sup>	4.37 59.40 55.03
+50			4.92	54.48	54.98	FO <sup>50</sup>	59.40 54.98
+75			4.97	54.43	54.93	FO <sup>50</sup>	59.40 54.93
+94			5.21	54.19	54.89	FO <sup>50</sup>	47 59.40 54.89
12+00			5.91	53.39	53.99	FO <sup>50</sup>	59.40 53.99
+20			6.21	53.19	53.69	FO <sup>50</sup>	59.40 53.69
	3.74	1458.18	4.96	1454.44			58.18 53.25 4.93
+50			5.43	52.75	53.25	FO <sup>50</sup>	59.40 53.25
+75			5.80	52.38	52.88	FO <sup>50</sup>	4.93 59.40 52.88



1440  
12120.30  
9440

1458.18

13+00 6.17 52.01 52.51 FO<sup>50</sup>

58.18 58.18  
52.30 52.01  
5.88 5.67  
5

+14<sup>10</sup> 6.38 51.80 52.30 FO<sup>50</sup>

TP 12+25 4.51 1456.90 5.79 1452.39

+25 5.26 51.69 52.14 FO<sup>50</sup>

6.90 6.90  
2.14 1.71  
4.76 5.18  
5

+54<sup>24</sup> PRO 5.69 51.21 51.71 FO<sup>50</sup>

+75 5.50 51.40 51.40 CO<sup>00</sup>

56.90 56.90 56.90  
51.03 51.40  
5.87 5.50 50.82  
6.08

14+00 6.37 50.53 51.03 FO<sup>50</sup>

+14<sup>03</sup> 6.58 50.32 50.82 FO<sup>50</sup>

4.89 1457.31 4.48 1452.42

+25<sup>10.97</sup> 7.15 50.66

57.31 57.31 57.31  
49.92 50.79 50.66  
7.39 7.02 6.65

+50 7.52 49.79 50.29 FO<sup>50</sup>

75.10  
14.03  
61.07

+75<sup>10</sup> BC 7.89 49.72 49.92 FO<sup>20</sup>

10.70 1463.26 4.75 1452.56

0.19 1463.07 = 1463.09



DULZURA CONDUIT Cost

West  
Williams  
Kellhofer.

Hot.  
96° in SD  
9/11/56

35

0.09	1463.18	1463.69					56.89
5.47	1456.89	11.76	1451.42				51.40
13+75		5.74	51.15	51.40	FO <sup>25</sup>		<del>51.49</del> 74
14+00		6.11	50.78	51.03	FO <sup>25</sup>	56.89	56.89
J14 <sup>03</sup> BC		6.32	50.57	50.82	FO <sup>25</sup>	50.82 50.66 6.23 25	57.03 5.86 56.89 6.11
+25		6.48	50.41	50.64	FO <sup>25</sup>	50.79 56.89 49.92	60
+50		6.85	50.04	50.29	FO <sup>25</sup>	6.96 25	56.89 49.70
+75 <sup>0</sup> BC		7.22	49.67	49.92	FO <sup>25</sup>	7.22	7.13 25 7.44
+90		7.44	49.45	49.70	FO <sup>25</sup>		56.89
15+00		7.63	49.26	49.51	FO <sup>25</sup>		49.51
3.88							7.38 25
Turn on Gurney	1453.15	7.62	1449.27			53.15 49.36	
+10		4.04	49.11	49.36	FO <sup>25</sup>	3.79 25	53.15 49.21
+20		4.19	48.96	49.21	FO <sup>25</sup>	4.04	3.94 25 36.05
EC +28 <sup>38</sup>		4.31	48.84	49.09	FO <sup>25</sup>	53.15 48.98 4.17 25	49.09 4.19 13.95
BC +36 <sup>05</sup>		4.42	48.73	48.98	FO <sup>25</sup>	4.42	53.15 48.77
+50		4.63	48.52	48.77	FO <sup>25</sup>	4.63	4.38 25 63
+60		4.78	48.37	48.62	FO <sup>25</sup>	53.15 48.62	
+70		4.93	48.22	48.47	FO <sup>25</sup>	53.15 48.47 4.68 25	4.78 53.15 48.23
+80		5.07	48.08	48.33	FO <sup>25</sup>	5.07	4.82 25
+91.71		5.25	47.90	48.15	FO <sup>25</sup>	5.25	5.07



1453.15  
 15+98 5.17 1447.98 = 144806  
 16+06 5.23 1447.92 = 144802  
 1.70 1451.95 = 1451.50  
 1.71 1451.44 = 1451.50

pipe as laid  
 East End of First length of  
 West End of " " "  
 Top North Side of Wall as for  
 Top Sky " " " " "

11.58 1462.46 2.27 1450.88  
 5.38 1463.21 4.63 1457.83  
 0.13 1463.08 = 1463.09

6.88 1469.97 1463.09

40'± S.W. of Sta 10+20  
 Top of Cone at Top of Well

2.54 1467.43

6.88 1463.09

6.88 1474.31 1467.43

Well 100' S.W. of Sta 8+44  
 Top of Cone at Top of

8+44 3.71 1470.60

6.88 43

1470.60  
 23.4  
 47.2

54.6  
 7.2  
 7.4



DUIZURA CONDUIT CONT

STKS on 2 pipe for final Grading

5.19 1468.28 1463.09

4.12 1459.44 12.96 1455.32

8+75 4.44 55.00 55.50

+50 4.39 55.05 55.55

+25 4.34 55.60

8+00 4.30 55.14 55.64

7+75 4.25 55.69

+50 4.70 54.74 55.74

+25 4.15 55.79

7+00 4.61 54.83 55.83

TP 5.27 1460.00 4.71 1454.73

6+75 4.62 55.88

+50 4.07 55.93 55.93

+22 4.52 55.48 55.98

6+00 4.28 55.72 56.02

5+75 4.43 55.57 56.07

+15 4.37 55.63 56.13

+14 4.31 55.69 56.19

5+00 4.09 55.91 56.21

West  
Williams  
Kellhofer

5

9/14/66

37

TBM

59.44  
55.50  
3.94

FO<sup>50</sup>

59.44  
55.50  
3.94

FO<sup>50</sup>

59.44  
55.20  
3.89

Blast Area

FO<sup>50</sup>

59.44  
56.1  
3.90

Blast Area

59.44  
55.69  
3.75

F1<sup>00</sup>

59.44  
55.74  
3.70

Blast Area

59.44  
55.79  
3.65

F1<sup>00</sup>

59.44  
55.83  
3.61

40.00  
35.93  
4.07

CO<sup>00</sup>

FO<sup>50</sup>

4.92  
4.52

FO<sup>30</sup>

3.98

FO<sup>50</sup>

3.95

FO<sup>50</sup>

3.88

FO<sup>50</sup>

3.89

FO<sup>30</sup>

3.79

1460.00  
56.21  
3.79  
33



West  
Williams  
Pou 1600

38

1460.00

4+75 4.54 4.25 55.46 56.26

+50 4.19 55.81 56.31

10.44 = 1460.44 =

1460.40 TBM @ mouth of Tunnel

9/25/51

374

4  
469

Replace Stakes  
Dulzura Conduit

5.73 1468.82 1463.09

TP 3.01 1459.58 12.25 1456.57

8+00 4.44 1455.14 55.69

7+75 4.39 55.69

+50 4.84 54.74 55.74

+25 4.79 54.79 55.79

7+00 4.75 54.83 55.83

4.25 1459.66 4.17 1455.41

6+75 4.78 54.88 55.88

+50 4.73 54.93 55.93

+25 4.68 54.98 55.98

6+00 5.04 54.62 56.02

5+75 5.09 54.57 56.07

+50 4.64 55.02 56.12

FO<sup>80</sup>

FO<sup>50</sup>

398

374

44

Blast area

F 1.00

F 1.00

F 1.00

F 1.00

F 1.00

F 1.00

F 1.40

F 1.50

F 1.15



1459.66

9/25/56

5+25

4.99 55.17 56.17

F1<sup>00</sup>

5+00

4.95 55.21 56.21

F1<sup>00</sup>

4+75

4.90 55.26 56.26

F1<sup>00</sup>

4+50

4.95 55.21 56.31

F1<sup>10</sup>+0.75 1460.91 ~~\*~~ = 1460.40 BM



DULZURA CONDUIT

Traverse along Thread of Creek below

Sta <sup>Wier</sup> Def Angle Mag Bearing  
(TRUE)

4+96 <sup>40</sup> 43° 08' 20" L N 58° W

4+00 <sup>82</sup> 34° 58' 40" L N 14° 30' W

3+51 <sup>24</sup> ↘ 75° 39' 50" R N 19° E

3+19 <sup>32</sup> ↘ 52° 05' 20" L N 55° 45' W

2+87 <sup>66</sup> ↘ 43° 14' 30" R N 4° 15' W

1+21 <sup>01</sup> ↘ 15° 50' 30" L N 46° 30' W

0+52 <sup>09</sup> ↘ 46° 35' 20" R N 30° 50' W

0+00 ↘ 18° 38' L N 78° W  
from POI

0+00 Thread of Creek Survey =

West  
Williams  
Kullhofer

40.

9/14/56

Set Binney

52	09
68	92
121	01
166	65
287	66
21	72
319	38
31	86
351	24
49	58
400	82
85	58
486	40

with nail

Set RN Nail

in Granite 20 FT Creek

Set Binney + nail 4 ft of creek bott

Set 1" x 1" Hub & Jack 3° R of Creek Bott

Set Binney + nail 1° L of Creek bott

Set Binney with nail

Set spike

County road

14+12 <sup>62</sup> ↘ Wier Dulzura Conduit Survey

See page #3



9/25/56

STA	Def Angle	Mag Bearing		
13+41 <sup>72</sup>	POJ	set Spike	20±	South of Tol xing
12+45	∅	of Side Creek	Cornering in from S-W	
12+00	55'	RT to ∅ Creek	7127	607.13
11+00 X	26° 40' 20" RT	N 10° 15' W	31	48.72
10+00	89'	RT to ∅ Creek	57	655.55
9+00	51'	RT to ∅ Creek		18.11
8+23 <sup>69</sup> X	25° 33' 20" RT	N 36° 30' W		723.09
				1+00.00
				6+73.69
7+57	Cross creek on ∅			
7+23 <sup>69</sup>	SW cor. School Property	Fd 2" IP RE 4191 on	Transit Line	∅ Creek 40' Lt
6+55 <sup>53</sup> X	15° 43' 20" Lt	N 61° 30' W		∅ Creek 15' Lt
6+07	on ∅ Creek			
5+80 <sup>50</sup> X	42° 40' 00" RT	N 46° 50' W		Set RH Nail in DO on ∅ Creek
5+42 <sup>26</sup> X	31° 02' 50" Lt	N 88° 30' W		Set RH Nail in DO on ∅ Creek



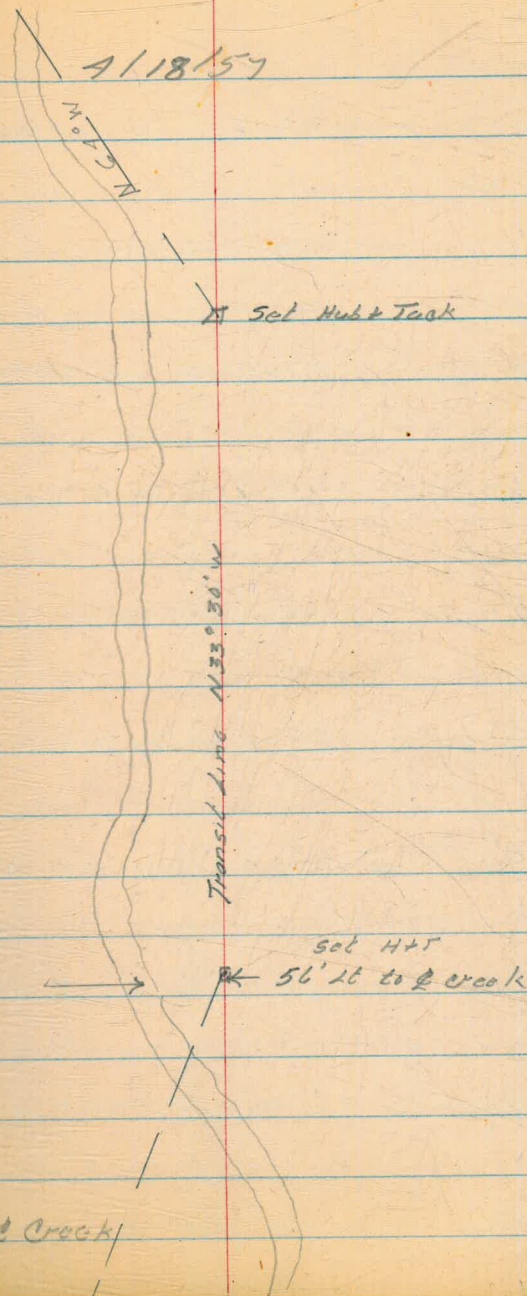
DULZURA CONDUIT  
Thread of Stream Survey Cont

21+00 31' LE to Creek  
 20+41 17' LE to Creek  
 19+90<sup>12</sup> X 30° 09' 50" LE N 69° W  
 19+00 44' LE to Creek  
 18+00 48' LE to Creek  
 17+00 34' LE to Creek  
 15+59<sup>04</sup> X 23° 50' 20" LE N 33° 30' W  
 13+41<sup>76</sup> P.O.T. set Spike

West  
Williams  
Kellhofel  
Ball

42

4/18/57



Set Hub & Tack

Transit Line N 33° 30' W

set H+T

56' LE to Creek

56

90' LE to Creek



27+00	28' RT. TO $\&$ CREEK
26+66	$\&$ CREEK
H+T. 26+15 $\times$	39° 54' 30" RT. N 2° E
25+50	15' LT. TO $\&$ CREEK
24+84	$\&$ OF CREEK
24+50	20' RT. $\&$ CREEK
H+T. 23+91 <sup>56</sup> $\times$	62° 01' 20" RT. N 2° 30' W
23+00	32' RT TO $\&$ CREEK
22+01	$\&$ OF CREEK
21+50	21' LT $\&$ CREEK



35+00

POT.

34+18

18' RT. TO  $\phi$  CREEK

33+68

20' RT. TO  $\phi$  CREEK

R.H. SPIKE

33+17  $\frac{38}{4}$

23' 09" 00 RT. N 44° 30' ~~W~~ <sup>E</sup>

33+00

57' RT. TO  $\phi$  CREEK

32+00

79' RT. TO  $\phi$  CREEK

31+00

101' RT. TO  $\phi$  CREEK

H.T.

30+00  $\frac{38}{4}$

19° 36' 10" RT N 21° 30' E

29+00

65' RT. TO  $\phi$  CREEK

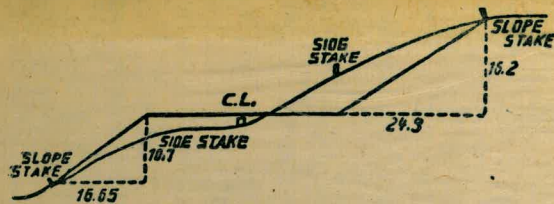
28+00

32' RT. TO  $\phi$  CREEK









**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	71.25	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

5 26-58-45 W

14 + 12 = 3  
39 87  
72.76

900

50  
50  
50  
50  
50

07