

APPENDIX D



Approximate location of fill material

- Legend**
- Road Centerlines**
- Paved
 - - - Gravel
- Section Lines**
- - - Section Lines
 - - - Partials
- FEMA Floodplain**
- 500-Year
 - A
 - AE
 - AE, FLOODWAY
 - X1
 - AD

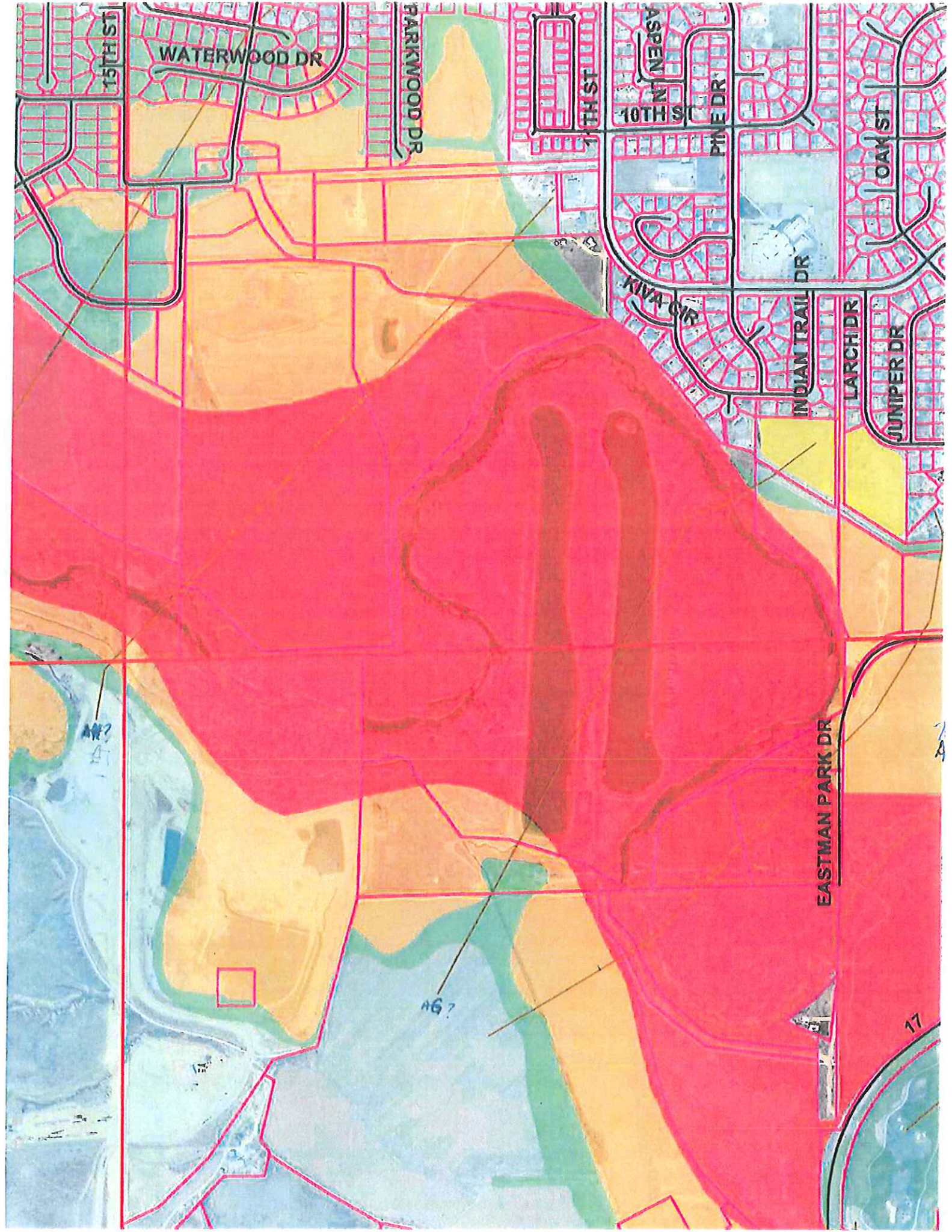


Floodplain & Vicinity Map for Proposed Great West Tank Battery

0 100 200 400
Feet



DISCLAIMER:
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15TH ST

WATERWOOD DR

PARKWOOD DR

11TH ST

ASPEN LN

10TH ST

PINE DR

OAK ST

KIVA CIR

INDIAN TRAIL DR

LARCH DR

JUNIPER DR

EASTMAN PARK DR

AW?

AG?

17

WVLOMR_RC.PRJ PLAN: 1 ft Floodway

Reach	River Sta	Profile	Enc WD (ft)	Flow Area (sq ft)	Vel Total (ft/s)	W.S. Elev (ft)	Prof Delta WS (ft)
Habitat Lake DFP	129930	100-Year		5052	0.0	4759.5	
Habitat Lake DFP	129930	1-ft Floodway	100	514	0.0	4759.7	0.2
Habitat Lake DFP	129925	100-Year		5049	0.4	4759.5	
Habitat Lake DFP	129925	1-ft Floodway	540	3000	0.7	4759.7	0.2
Habitat Lake DFP	129450	100-Year		4158	0.5	4759.5	
Habitat Lake DFP	129450	1-ft Floodway	305	1740	1.2	4759.7	0.2
Habitat Lake DFP	129050	100-Year		327	6.6	4758.8	
Habitat Lake DFP	129050	1-ft Floodway	190	303	7.1	4758.8	0.1
CLPR:WCR13-HUDFP	143765	100-Year		8782	1.2	4787.3	
CLPR:WCR13-HUDFP	143765	1-ft Floodway	2404	8169	1.3	4787.2	-0.2
CLPR:WCR13-HUDFP	143715	100-Year		8744	1.2	4787.3	
CLPR:WCR13-HUDFP	143715	1-ft Floodway	2404	8127	1.3	4787.2	-0.2
CLPR:WCR13-HUDFP	143695	Bridge					
CLPR:WCR13-HUDFP	143675	100-Year		4752	2.2	4785.7	
CLPR:WCR13-HUDFP	143675	1-ft Floodway	2404	4233	2.5	4785.5	-0.2
CLPR:WCR13-HUDFP	143625	100-Year		4502	2.3	4785.6	
CLPR:WCR13-HUDFP	143625	1-ft Floodway	2404	3935	2.7	4785.4	-0.2
CLPR:WCR13-HUDFP	142475	100-Year		2957	3.6	4782.9	
CLPR:WCR13-HUDFP	142475	1-ft Floodway	1838	4645	2.3	4783.8	0.9
CLPR:WCR13-HUDFP	140955	100-Year		9303	1.6	4781.4	
CLPR:WCR13-HUDFP	140955	1-ft Floodway	1650	6542	2.3	4782.3	0.9
CLPR:WCR13-HUDFP	140335	100-Year		6509	2.3	4780.6	
CLPR:WCR13-HUDFP	140335	1-ft Floodway	1448	4387	3.4	4781.3	0.7
CLPR:WCR13-HUDFP	140325	100-Year		6346	2.3	4780.3	
CLPR:WCR13-HUDFP	140325	1-ft Floodway	1448	4857	3.1	4781.1	0.8
CLPR:WCR13-HUDFP	138575	100-Year		5532	2.7	4777.5	
CLPR:WCR13-HUDFP	138575	1-ft Floodway	1300	3599	4.1	4778.1	0.6
CLPR:WCR13-HUDFP	137135	100-Year		9167	1.6	4774.9	
CLPR:WCR13-HUDFP	137135	1-ft Floodway	1900	6812	2.2	4775.7	0.9
CLPR:WCR13-HUDFP	134610	100-Year		5653	2.6	4770.0	
CLPR:WCR13-HUDFP	134610	1-ft Floodway	2200	5419	2.7	4770.1	0.0
CLPR:WCR13-HUDFP	133460	100-Year		7690	1.9	4767.8	
CLPR:WCR13-HUDFP	133460	1-ft Floodway	1419	6360	2.3	4767.8	0.1
CLPR:WCR13-HUDFP	132025	100-Year		1224	10.5	4763.0	
CLPR:WCR13-HUDFP	132025	1-ft Floodway	170	1258	10.3	4763.2	0.2
CLPR:WCR13-HUDFP	131995	Bridge					
CLPR:WCR13-HUDFP	131960	100-Year		1225	10.5	4762.9	
CLPR:WCR13-HUDFP	131960	1-ft Floodway	160	1213	10.6	4763.1	0.2

HEC-RAS
Version 3.1.1

HEC-RAS Plan: 1-ft FW River: Cache La Poudre Reach: CLPR.WCR13-HLDFP

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.B. Elev (ft)	Crt W.B. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
CLPR.WCR13-HLDFP	143785	100-Year	10510.00	4773.00	4787.38	4782.72	4787.45	0.000253	3.29	8868.18	2804.39	0.18
CLPR.WCR13-HLDFP	143785	1-ft Floodway	10510.00	4773.00	4787.40	4782.72	4787.46	0.000261	3.11	8717.66	2404.00	0.17
CLPR.WCR13-HLDFP	143716	100-Year	10510.00	4773.00	4787.38	4782.72	4787.45	0.000258	3.31	8928.04	2802.85	0.18
CLPR.WCR13-HLDFP	143716	1-ft Floodway	10510.00	4773.00	4787.38	4782.72	4787.46	0.000264	3.12	8862.44	2404.00	0.17
CLPR.WCR13-HLDFP	143895	Bridge										
CLPR.WCR13-HLDFP	143876	100-Year	10510.00	4773.00	4785.77	4782.72	4786.10	0.000981	5.61	4823.75	2372.15	0.34
CLPR.WCR13-HLDFP	143876	1-ft Floodway	10510.00	4773.00	4785.78	4782.72	4786.09	0.001049	5.64	4833.65	2341.82	0.33
CLPR.WCR13-HLDFP	143825	100-Year	10510.00	4773.00	4785.67	4782.72	4786.04	0.001081	6.08	4565.85	2358.31	0.35
CLPR.WCR13-HLDFP	143825	1-ft Floodway	10510.00	4773.00	4785.36	4782.72	4785.93	0.001530	7.04	3568.74	1983.38	0.42
CLPR.WCR13-HLDFP	142476	100-Year	10510.00	4775.90	4782.89	4782.46	4783.61	0.004554	8.63	2958.04	2345.56	0.66
CLPR.WCR13-HLDFP	142476	1-ft Floodway	10510.00	4775.90	4783.82	4782.60	4784.04	0.001480	5.49	4645.42	1818.02	0.38
CLPR.WCR13-HLDFP	140955	100-Year	14980.00	4773.70	4781.40	4779.81	4781.45	0.000735	2.97	9304.27	3474.34	0.25
CLPR.WCR13-HLDFP	140955	1-ft Floodway	14980.00	4773.70	4782.31	4780.06	4782.41	0.000885	3.63	6544.47	1850.00	0.28
CLPR.WCR13-HLDFP	140335	100-Year	14882.00	4775.90	4780.61	4779.68	4780.74	0.002136	5.24	6514.30	3321.29	0.43
CLPR.WCR13-HLDFP	140335	1-ft Floodway	14882.00	4775.90	4781.29	4780.20	4781.54	0.002611	6.34	4393.12	1448.00	0.48
CLPR.WCR13-HLDFP	140325	100-Year	14882.00	4769.00	4780.35	4779.69	4780.70	0.001192	6.52	8344.48	3271.65	0.34
CLPR.WCR13-HLDFP	140325	1-ft Floodway	14882.00	4769.00	4781.12	4779.84	4781.51	0.001101	6.54	4863.27	1448.00	0.33
CLPR.WCR13-HLDFP	138676	100-Year	14882.00	4765.90	4777.50	4777.50	4778.07	0.002558	8.36	5532.21	3875.27	0.52
CLPR.WCR13-HLDFP	138676	1-ft Floodway	14882.00	4765.90	4778.12	4777.80	4778.90	0.002695	9.02	3583.76	1300.00	0.65
CLPR.WCR13-HLDFP	137188	100-Year	14791.00	4764.20	4774.88	4772.31	4774.92	0.001130	1.62	9120.65	3187.91	0.17
CLPR.WCR13-HLDFP	137188	1-ft Floodway	14791.00	4764.20	4775.76	4773.08	4775.85	0.001463	2.15	8875.44	1900.00	0.20
CLPR.WCR13-HLDFP	134810	100-Year	14478.00	4760.70	4770.10	4768.60	4770.20	0.003822	2.49	5808.17	2945.24	0.30
CLPR.WCR13-HLDFP	134810	1-ft Floodway	14478.00	4760.70	4770.08	4768.58	4770.19	0.003781	2.67	5412.78	2200.00	0.30
CLPR.WCR13-HLDFP	133480	100-Year	14312.00	4756.40	4767.76	4764.54	4767.81	0.001196	1.68	7869.98	2787.69	0.18
CLPR.WCR13-HLDFP	133480	1-ft Floodway	14312.00	4756.40	4767.85	4764.62	4767.92	0.001206	2.25	8359.32	1419.00	0.19
CLPR.WCR13-HLDFP	132025	100-Year	12909.00	4752.80	4763.04	4761.37	4764.77	0.004465	10.55	1224.14	2787.10	0.69
CLPR.WCR13-HLDFP	132025	1-ft Floodway	12909.00	4752.80	4763.24	4761.37	4764.87	0.004314	10.26	1258.25	170.00	0.68
CLPR.WCR13-HLDFP	131995	Bridge										
CLPR.WCR13-HLDFP	131980	100-Year	12909.00	4752.80	4762.90	4761.36	4764.63	0.004473	10.54	1225.08	2407.06	0.69
CLPR.WCR13-HLDFP	131980	1-ft Floodway	12909.00	4752.80	4763.11	4761.41	4764.86	0.004565	10.64	1213.45	160.00	0.68
CLPR.WCR13-HLDFP	131710	100-Year	12815.00	4750.40	4762.50	4761.12	4763.34	0.001930	8.48	2014.89	2116.50	0.47
CLPR.WCR13-HLDFP	131710	1-ft Floodway	12815.00	4750.40	4762.72	4761.19	4763.58	0.001889	8.51	1984.43	370.00	0.47
CLPR.WCR13-HLDFP	130815	100-Year	8084.67	4750.30	4760.91	4758.84	4761.40	0.001314	5.71	1480.31	287.72	0.37
CLPR.WCR13-HLDFP	130815	1-ft Floodway	8084.67	4750.30	4761.34	4758.84	4761.77	0.001062	5.33	1595.99	288.00	0.34
CLPR.WCR13-HLDFP	129645	100-Year	7449.74	4748.10	4758.93	4756.47	4758.75	0.006141	11.11	749.93	205.65	0.78
CLPR.WCR13-HLDFP	129645	1-ft Floodway	7449.74	4748.21	4757.43	4757.43	4759.38	0.006987	11.69	726.24	178.00	0.79

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Version 4.1.0

Station-Elevation Table

Great Western H-Y Well Pad
FHDPProposed Cross-Section - Station No. 135595
Cross-Section Survey Data

					River Left	Station	Surveyed Elevation
					Distance from station left	0	4783.8
1	100145	104028.8	56437.99	4783.783 TOPO			
2	100144	103968.4	56389.39	4781.975 TOPO	77.51	78	4782.0
3	100143	103926.2	56352.65	4780.877 TOPO	55.94	133	4780.9
4	100142	103885.3	56317.39	4779.277 TOPO	54.02	187	4779.3
5	100141	103846.7	56283.72	4778.714 TOPO	51.25	239	4778.7
6	100140	103801.3	56244.08	4777.798 TOPO	60.20	299	4777.8
7	100139	103767.6	56214.04	4777.333 TOPO	45.21	344	4777.3
8	100138	103719.4	56172.37	4776.969 TOPO	63.72	408	4777.0
9	100137	103664.8	56124.73	4776.783 TOPO	72.41	480	4776.8
10	100136	103608.7	56076.1	4776.265 TOPO	74.25	555	4776.3
11	100135	103603.3	56076.89	4773.452 WATER-SURFACE	5.43	560	4773.5
12	100146	103579.4	56056.46	4773.742 WATER-SURFACE	31.48	591	4773.7
13	100147	103576.2	56048.3	4777.676 TOPO	8.76	600	4777.7
14	100148	103522.5	56000.53	4776.47 TOPO	71.84	672	4776.5
15	100149	103416.7	55908.99	4776.031 TOPO	139.93	812	4776.0
16	100150	103383.6	55879.79	4775.909 TOPO	44.10	856	4775.9
17	100151	103343.4	55844.64	4776.583 TOPO	53.46	910	4776.6
18	100152	103298.8	55806.31	4775.606 TOPO	58.75	968	4775.6
19	100153	103257.7	55770.77	4775.325 TOPO	54.34	1023	4775.3
20	100154	103220	55737.98	4775.152 TOPO	49.95	1073	4775.2
21	100155	103176.3	55699.99	4774.705 TOPO	57.90	1130	4774.7
22	100156	103123.5	55654.36	4774.415 TOPO	69.83	1200	4774.4
23	100157	103084.3	55619.41	4774.187 TOPO	52.48	1253	4774.2
24	100158	103046.3	55586.41	4773.634 TOPO	50.39	1303	4773.6
25	100159	103008	55552.98	4772.968 TOPO	50.81	1354	4773.0
26	100160	102972	55521.73	4772.388 TOPO	47.69	1402	4772.4
27	100161	102908.5	55556.63	4772.809 TOPO	72.43	1474	4772.8
28	100162	102869.1	55578.19	4773.16 TOPO	44.89	1519	4773.2
29	100163	102817.7	55606.07	4773.095 TOPO	58.50	1577	4773.1
30	100164	102772.7	55630.59	4773.019 TOPO	51.22	1629	4773.0
31	100165	102755.4	55641.05	4772.939 TOPO	20.23	1649	4772.9
32	100166	102754.6	55666.01	4765.978 WATER-SURFACE	24.98	1674	4766.0
33	100222	102662.8	55693.34	4766.246 WATER-SURFACE	95.81	1770	4766.2
34	100223	102652.7	55696.24	4770.405 TOPO	10.50	1780	4770.4
35	100224	102620.5	55713.98	4772.945 TOPO	36.75	1817	4772.9
36	100225	102585.7	55732.85	4772.974 TOPO	39.56	1857	4773.0
37	100226	102542.3	55756.8	4772.459 TOPO	49.63	1906	4772.5
38	100227	102498.7	55780.79	4772.253 TOPO	49.78	1956	4772.3
39	100228	102449.5	55770.54	4772.645 TOPO	50.23	2006	4772.6
40	100229	102397	55760.28	4772.56 TOPO	53.51	2060	4772.6
41	100230	102351.6	55751.07	4772.94 TOPO	46.31	2106	4772.9
42	100231	102301.7	55740.72	4773.051 TOPO	50.94	2157	4773.1
43	100232	102257.2	55722.79	4773.352 TOPO	47.94	2205	4773.4
44	100233	102193.4	55717.56	4773.417 TOPO	64.08	2269	4773.4
45	100234	102131	55690.22	4773.718 TOPO	68.08	2337	4773.7
46	100235	102047.6	55690.51	4772.311 TOPO	83.41	2420	4772.3
47	100236	102015.9	55683.7	4773.075 TOPO	32.48	2453	4773.1
48	100237	102004.4	55682.95	4766.84 WATER-SURFACE	11.51	2464	4766.8
49	100238	101918.6	55667.98	4766.66 WATER-SURFACE	87.05	2551	4766.7
50	100239	101890.6	55658.37	4770.285 TOPO	29.61	2581	4770.3
51	100240	101861.5	55652.58	4774.312 TOPO	29.69	2611	4774.3
52	100241	101812.8	55640.91	4774.054 TOPO	50.04	2661	4774.1
53	100242	101740.8	55628.26	4773.388 TOPO	73.14	2734	4773.4
54	100243	101690.9	55617.9	4773.699 TOPO	51.00	2785	4773.7
55	100244	101654.9	55610.9	4773.954 TOPO	36.61	2822	4774.0
56	100245	101616.3	55602.91	4774.11 TOPO	39.41	2861	4774.1
57	100246	101560.1	55591.46	4774.427 TOPO	57.40	2918	4774.4
58	100247	101509.6	55579.39	4774.395 TOPO	51.88	2970	4774.4
59	100248	101458.5	55570.93	4774.458 TOPO	51.85	3022	4774.5

Station-Elevation Table

Great Western H-Y Well Pad

FHDP

60	100249	101455.2	55572.35	4769.695	WATER-SURFACE	3.53	3026	4769.7
61	100100	101403.8	55571.18	4771.489	TOPO	51.45	3077	4771.5
62	100099	101365.8	55552.31	4770.818	TOPO	42.44	3120	4770.8
63	100098	101362	55552.15	4767.953	WATER-SURFACE	3.79	3123	4768.0
64	100097	101313.6	55541.56	4768.075	WATER-SURFACE	49.56	3173	4768.1
65	100096	101310.4	55541.68	4770.504	TOPO	3.15	3176	4770.5
66	100095	101276.7	55532.04	4775.616	TOPO	35.09	3211	4775.6
67	100094	101276.7	55532.04	4775.609	TOPO	0.02	3211	4775.6
68	100093	101226.6	55524.36	4775.808	TOPO	50.62	3262	4775.8
69	100092	101159.5	55511.35	4774.744	TOPO	68.43	3330	4774.7
70	100091	101094.8	55498.43	4774.496	TOPO	65.96	3396	4774.5
71	100090	101053.4	55489.55	4777.566	TOPO	42.37	3439	4777.6
72	100030	101016.2	55486.22	4771.704	TOP-EDGE-WATER	37.26	3476	4771.7
73	100029	101013.3	55481.84	4775.302	TOPO	5.26	3481	4775.3
74	100028	100993.8	55477.99	4776.769	TOPO	19.89	3501	4776.8
75	100027	100948.5	55470.71	4778.068	HIGH	45.92	3547	4778.1
76	100026	100941	55467.11	4774.943	LOW	8.33	3555	4774.9
77	100025	100879.7	55454.9	4775.047	LOW	62.52	3618	4775.0
78	100024	100870.8	55453	4777.963	HIGH	9.01	3627	4778.0
79	100023	100834.5	55445.93	4778.663	TOPO	37.04	3664	4778.7
80	100022	100785.5	55436.08	4778.802	TOPO	49.93	3714	4778.8
81	100021	100736.2	55426.05	4778.096	TOPO	50.31	3764	4778.1
82	100020	100687.3	55416.27	4777.768	TOPO	49.88	3814	4777.8
83	100019	100640.3	55406.94	4778.271	TOPO	47.94	3862	4778.3
84	100018	100604.5	55399.37	4777.622	TOPO	36.61	3898	4777.6
85	100017	100540.3	55386.44	4778.363	TOPO	65.49	3964	4778.4
86	100016	100472.5	55372.99	4778.357	TOPO	69.08	4033	4778.4
87	100015	100414.5	55361.52	4774.984	TOPO	59.10	4092	4775.0
88	100014	100383	55355.14	4775.383	CONC-EDGE	32.14	4124	4775.4
89	100013	100372.9	55352.93	4775.453	CONC-EDGE	10.36	4135	4775.5
90	100012	100345.5	55347.46	4775.004	TOPO	28.00	4163	4775.0
91	100011	100296.8	55337.71	4775.339	TOPO	49.64	4212	4775.3
92	100010	100218.4	55321.76	4775.866	TOPO	80.03	4292	4775.9
93	100009	100157.2	55309.62	4776.324	TOPO	62.36	4355	4776.3
94	100008	100099.2	55298.01	4776.753	TOPO	59.12	4414	4776.8
95	100007	100050.8	55288.13	4777.249	TOPO	49.38	4463	4777.2
96	100006	100000.6	55278.23	4777.823	TOPO	51.18	4514	4777.8
97	100005	99951.96	55268.33	4778.447	TOPO	49.67	4564	4778.4
98	100004	99901.68	55258.08	4779.053	TOPO	51.31	4615	4779.1
99	100003	99855.56	55248.68	4779.621	TOPO	47.07	4662	4779.6
100	100002	99804.06	55238.67	4780.273	TOPO	52.46	4715	4780.3
101	100001	99755.94	55229.04	4780.812	TOPO	49.07	4764	4780.8
102	100000	99755.94	55229.01	4780.815	TOPO	0.03	4764	4780.8

River Right

Station-Elevation Table

Great Western H-Y Well Pad
FHDPProposed Cross-Section - Station No. 135325
Cross-Section Survey Data and Elevation Modifications

				River Left	Station	Surveyed Elevation
				Distance from station left	0	4784.0
0	100124	103955	56562.09	4784.038 TOPO		
1	100125	103916.7	56530.89	4783.66 TOPO	49	4783.7
2	100126	103866.7	56489.85	4780.948 TOPO	114	4780.9
3	100127	103799.4	56434.84	4779.172 TOPO	201	4779.2
4	100128	103760.2	56402.86	4778.564 TOPO	252	4778.6
5	100129	103720.6	56370.21	4777.929 TOPO	303	4777.9
6	100130	103683.2	56339.93	4777.355 TOPO	351	4777.4
7	100131	103643.7	56307.5	4777.081 TOPO	402	4777.1
8	100132	103605	56276.04	4776.709 TOPO	451	4776.7
9	100133	103590	56263.42	4776.417 TOPO	471	4776.4
10	100134	103581.6	56257.4	4773.23 WATER-SURFACE	481	4773.2
11	100174	103561.4	56237.93	4773.09 WATER-SURFACE	509	4773.1
12	100173	103554.9	56234.86	4777.598 TOPO	517	4777.6
13	100172	103514.4	56201.89	4776.427 TOPO	569	4776.4
14	100171	103473.4	56168.63	4776.461 TOPO	622	4776.5
15	100170	103428.5	56131.39	4776.211 TOPO	680	4776.2
16	100169	103387.8	56098.31	4777.215 TOPO	732	4777.2
17	100168	103359.8	56106.3	4776.51 TOPO	762	4776.5
18	100167	103335.5	56114.46	4772.354 TOPO	787	4772.4
19	100221	103239.2	56142.32	4766.549 WATER-SURFACE	887	4766.5
20	100220	103236.8	56143.63	4770.236 TOPO	890	4770.2
21	100219	103181.7	56157.45	4772.418 TOPO	947	4772.4
22	100218	103130.4	56163.38	4771.695 TOPO	999	4771.7
23	100217	103067.8	56154.82	4768.071 WATER-SURFACE	1062	4768.1
24	100216	102865.6	56115.85	4768.042 WATER-SURFACE	1268	4768.0
25	100215	102833.2	56110.43	4770.647 TOPO	1301	4770.6
26	100214	102778.2	56099.79	4772.327 TOPO	1357	4772.3
27	100213	102724.8	56100.97	4773.337 TOPO	1410	4773.3
28	100212	102663	56107.19	4773.509 TOPO	1472	4773.5
29	100211	102580.5	56066.75	4773.948 TOPO	1564	4773.9
30	100210	102483.8	56054.57	4775.174 TOPO	1662	4775.2
31	100209	102424.7	56058.67	4775.606 TOPO	1721	4775.6
32	100208	102334.5	56016.53	4774.504 TOPO	1820	4774.5
33	100207	102287	56004.67	4773.99 TOPO	1869	4774.0
34	100206	102242.7	55997.49	4773.624 TOPO	1914	4773.6
35	100205	102187.8	55992.38	4777.951 TOPO	1969	4778.0
36	100204	102139.6	55979.68	4778.435 TOPO	2019	4778.4
37	100203	102087.3	55968.84	4773.407 TOPO	2072	4773.4
38	100202	102041.6	55959.82	4772.991 TOPO	2119	4773.0
39	100201	101989.3	55950.06	4773.089 TOPO	2172	4773.1
40	100200	101939	55940.57	4773.215 TOPO	2224	4773.2
41	100199	101891.6	55931.29	4773.446 TOPO	2272	4773.4
42	100198	101833.2	55920.37	4774.827 TOPO	2331	4774.8
43	100197	101829.5	55904.53	4766.995 WATER-SURFACE	2347	4767.0
44	100101	101593.4	55865.04	4767.263 WATER-SURFACE	2398	4767.3
45	100102	101496.3	55856.07	4771.701 TOPO	2684	4771.7
46	100103	101444.4	55846.45	4775.405 TOPO	2737	4775.4
47	100104	101396.7	55837.21	4772.37 TOPO	2786	4772.4
48	100105	101347.5	55828.25	4771.22 TOPO	2836	4771.2
49	100106	101322	55823.05	4772.356 TOPO	2862	4772.4
50	100107	101315.7	55821.79	4768.662 TOPO	2868	4768.7
51	100108	101281.6	55813.17	4769.032 TOPO	2903	4769.0
52	100109	101270.1	55812.59	4772.724 TOPO	2915	4772.7
53	100110	101232.4	55806.28	4769.355 TOPO	2953	4769.4
54	100111	101200.1	55799.49	4774.495 TOPO	2986	4774.5
55	100112	101178.6	55802.58	4776.398 TOPO	3008	4776.4
56	100113	101159.4	55804.5	4781.434 TOPO	3027	4781.4
57	100196	101159	55804.55	4781.446 TOPO-EDGE-PAD	3028	4781.4
58	100195	101128.5	55807.92	4781.547 TOPO	3058	4781.5
59	100194	101078.3	55813.29	4781.358 TOPO	3109	4781.4
60	100193	100882.1	55834.72	4781.653 TOPO	3306	4781.7
61	100192	100830.1	55840.64	4781.52 TOPO	3358	4781.5
62	100191	100781.7	55846.04	4781.424 TOPO	3407	4781.4
63	100190	100744.1	55850.03	4781.53 TOPO-EDGE-PAD	3445	4781.5
64	100186	100731	55851.89	4775.094 TOPO	3458	4775.1
65	100187	100683.9	55830.92	4771.183 TOPO	3510	4771.2
66	100188	100624.6	55805.15	4774.536 TOPO	3574	4774.5
67	100189	100619.2	55799.43	4771.443 WATER-SURFACE	3582	4771.4
68	100031	100598.8	55802.47	4771.664 TOP-EDGE-WATER	3603	4771.7
69	100032	100594.8	55792.19	4774.577 TOPO	3614	4774.6
70	100033	100547.5	55771.49	4776.725 TOPO	3665	4776.7
71	100034	100501	55751.14	4776.694 TOPO	3716	4776.7
72	100035	100455.9	55731.46	4776.06 TOPO	3765	4776.1

Elevation Modifications

	Original Existing Grade
Intermediate	4774.0
Fill Material	4774.0
	4780.2
	4780.3
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	4808.2
	480

Station-Elevation Table

Great Western H-Y Well Pad
FHDP

73	100036	100409	55710.96	4774.038 TOPO	51.17	3817	4774.0
74	100037	100395.3	55705.1	4774.086 CONC-EDGE	14.92	3832	4774.1
75	100038	100385.5	55700.69	4774.143 CONC-EDGE	10.77	3842	4774.1
76	100039	100316.2	55670.46	4773.707 TOPO	75.64	3918	4773.7
77	100040	100272.5	55651.56	4773.885 TOPO	47.53	3965	4773.9
78	100041	100226.9	55631.36	4774.043 TOPO	49.93	4015	4774.0
79	100042	100180.9	55611.19	4774.491 TOPO	50.20	4066	4774.5
80	100043	100135	55591.28	4774.772 TOPO	50.07	4116	4774.8
81	100044	100087.5	55570.72	4775.221 TOPO	51.76	4167	4775.2
82	100045	100042.6	55550.79	4775.691 TOPO	49.10	4217	4775.7
83	100046	99997.71	55531.39	4776.03 TOPO	48.90	4265	4776.0
84	100047	99951.44	55511.51	4776.625 TOPO	50.34	4316	4776.6
85	100048	99906.15	55491.22	4777.015 TOPO	49.63	4365	4777.0
86	100049	99860.22	55471.3	4777.478 TOPO	50.06	4415	4777.5
87	100050	99819.14	55453.52	4778.087 TOPO	44.77	4460	4778.1
88	100051	99773.32	55433.28	4778.846 TOPO	50.09	4510	4778.8
89	100052	99727.58	55413.35	4779.578 TOPO	49.89	4560	4779.6

River Right

Station-Elevation Table

Great Western H-Y Well Pad
FHDP

Proposed Cross-Section - Station No. 135049

Cross-Section Survey Data and Elevation Modifications

				River Left	Station	Surveyed Elevation	
0	100123	103801.2	56699.3	4785.12 TOPO-FENCE	Distance from station left	0	4785.1
1	100122	103744	56653.98	4785.068 TOPO-FENCE	72.96	73	4785.1
3	100121	103604.1	56543.28	4780.923 TOPO-FENCE	178.40	251	4780.9
4	100120	103586.5	56529.58	4779.577 TOPO	22.35	274	4779.6
5	100119	103546.9	56498.11	4779.056 TOPO	50.56	324	4779.1
6	100118	103504.1	56464.46	4777.329 TOPO	54.49	379	4777.3
7	100117	103452.1	56423.03	4776.579 TOPO	66.44	445	4776.6
8	100116	103406.1	56428.23	4771.478 TOPO	46.36	492	4771.5
9	100115	103402.8	56430.01	4765.382 WATER-SURFACE	3.73	495	4765.4
10	100114	103363.1	56432.97	4765.345 WATER-SURFACE	39.80	535	4765.3
11	100175	103276.7	56442.65	4774.012 TOPO	86.90	622	4774.0
12	100176	103223.5	56448.28	4771.099 TOPO	53.50	675	4771.1
13	100177	103184.5	56452.95	4770.942 TOPO	39.33	715	4770.9
14	100178	103031.2	56424.43	4778.136 TOPO	155.92	871	4778.1
15	100179	102942.2	56407.82	4772.652 TOPO	90.48	961	4772.7
16	100180	102830.8	56374.42	4771.839 TOPO	116.33	1078	4771.8
17	100181	102760.8	56373.99	4772.481 TOPO	69.99	1148	4772.5
18	100182	102714.6	56364.46	4772.016 TOPO	47.23	1195	4772.0
19	100183	102671.7	56356.74	4770.692 TOPO	43.56	1238	4770.7
20	100184	102622.4	56347.36	4769.7 TOPO	50.19	1289	4769.7
21	100185	102573.9	56338	4768.178 WATER-SURFACE	49.37	1338	4768.2
22	100089	101205.7	56082.42	4768.052 WATER-SURFACE	1391.84	2730	4768.1
23	100088	101183.4	56077.52	4768.618 TOPO	22.89	2753	4768.6
24	100087	101130.5	56067.45	4770.49 TOPO	53.77	2806	4770.5
25	100086	101080.1	56057.55	4771.045 TOPO	51.43	2858	4771.0
26	100085	101028.2	56048.16	4772.006 TOPO	52.74	2911	4772.0
27	100084	100982.1	56039.57	4772.556 TOPO	46.89	2957	4772.6
28	100083	100948	56033.27	4772.685 TOPO	34.69	2992	4772.7
29	100082	100902.2	56024.73	4772.642 TOPO	46.61	3039	4772.6
30	100081	100833.7	56011.88	4773.371 TOPO	69.66	3108	4773.4
31	100080	100786.4	56002.81	4773.573 TOPO	48.12	3157	4773.6
32	100079	100735.6	55993.62	4775.728 TOPO	51.63	3208	4775.7
33	100078	100686	55984.67	4773.215 TOPO	50.39	3259	4773.2
34	100077	100648.5	55976.95	4770.389 TOPO	38.30	3297	4770.4
35	100076	100638.6	55975.01	4768.072 WATER-SURFACE	10.09	3307	4768.1
36	100075	100633.3	55974.83	4768.281 WATER-SURFACE	5.31	3312	4768.3
37	100074	100626.9	55972.84	4772.285 TOPO	6.66	3319	4772.3
38	100073	100591.2	55966.52	4774.68 TOPO	36.33	3355	4774.7
39	100072	100541	55957.11	4774.963 TOPO	51.04	3406	4775.0
40	100071	100487.8	55947.05	4775.431 TOPO	54.13	3460	4775.4
41	100070	100433.9	55936.87	4772.87 TOPO	54.89	3515	4772.9
42	100069	100384.7	55927.67	4774.977 CONC-EDGE	50.07	3565	4775.0
43	100068	100373.1	55925.3	4775.06 CONC-EDGE	11.79	3577	4775.1
44	100067	100339.9	55919.12	4773.533 TOPO	33.81	3611	4773.5
45	100066	100280.5	55888.39	4772.911 TOPO	66.86	3678	4772.9
46	100065	100235	55864.19	4772.893 TOPO	51.51	3729	4772.9
47	100064	100190.9	55841.26	4773.245 TOPO	49.72	3779	4773.2
48	100063	100145.7	55817.26	4773.539 TOPO	51.21	3830	4773.5
49	100062	100103.2	55795.51	4773.804 TOPO	47.70	3878	4773.8
50	100061	100059.9	55772.56	4774.068 TOPO	49.06	3927	4774.1
51	100060	100014	55748.29	4774.487 TOPO	51.86	3979	4774.5
52	100059	99971.94	55726.5	4774.774 TOPO	47.40	4026	4774.8
53	100058	99925.38	55702.36	4775.216 TOPO	52.44	4079	4775.2
54	100057	99881.86	55679.1	4775.669 TOPO	49.35	4128	4775.7
55	100056	99836.1	55655.65	4776.318 TOPO	51.42	4180	4776.3
56	100055	99792.82	55632.55	4776.831 TOPO	49.06	4229	4776.8
57	100054	99748.17	55609.18	4777.474 TOPO	50.40	4279	4777.5
58	100053	99659.17	55562.65	4778.732 TOPO	100.43	4379	4778.7

Elevation Modifications

Original Existing Grade
4772.0
4771.9
4771.7
4771.5
4771.3
4771.2
4771.0

Intermediate
Fill Material4774.0
4774.2

River Right

APPENDIX E

(CD)

CS-12 (Rev. 10-1-77)

COLORADO LAND SURVEY MONUMENT RECORD
 REPORT ONE MONUMENT ONLY ON THIS FORM

039308

All items to be filled in by the Land Surveyor using black ink or typewriter. (Exception)

1. TYPE OF MONUMENT (Check one) ☐ Section Corner ☐ Bench mark ☐ Quarter Corner ☒ Other CENTER

2. DESCRIPTION OF EVIDENCE FOUND, AND ORIGINAL RECORD CALL, IF KNOWN

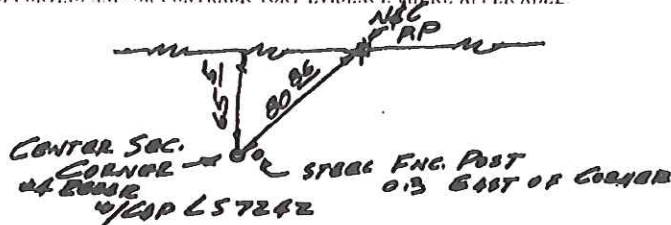
CORNER ESTABLISHED BY INTERSECTING A LINE BETWEEN NORTH & SOUTH $\frac{1}{4}$ CORNERS BY EXTENDING A LINE EAST FROM THE WEST $\frac{1}{4}$ CORNER THEN A BEARS CAP 829.6' EAST OF WEST $\frac{1}{4}$ CORNER.

3. DESCRIPTION OF MONUMENT AND OR ACCESSORIES ESTABLISHED BY YOU TO PERPETUATE THE LOCATION OF THIS POINT. GIVE YOUR ESTIMATE OF POSITIONAL TOLERANCE IF NOT ORIGINAL UNDEVELOPED MONUMENT

Date of Field Work 9-18-80

SET #4 BEAR W/CAP LS NO. 7242

4. SKETCH SHOWING RELATIVE LOCATION OF MONUMENT AND REFERENCE POINTS. SHOW SUPPORTING AND OR CONTRADICTORY EVIDENCE WHERE APPLICABLE.



5. CERTIFICATION

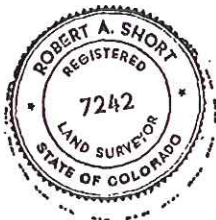
This is to certify that I was in responsible charge of the surveying work described in this record and that to the best of my knowledge the information presented herein is true and correct.

Surveyor's Seal

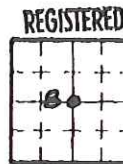
Signature

Reg. No.

Date



6. LOCATION DIAGRAM



(Do not fill in)

Accepted for Filing

State Board of Registration for Professional Engineers and Land Surveyors

By

Date

RECEIVED AT OFFICE OF THE COUNTY CLERK

COUNTY

By

Date

Record to be filed by Index Reference Number, numerically, then alphabetically, under appropriate Township, Range, and Meridian.

SCALE 1" = 1 Mile

• Location of Monument

1. SEC. B, T. 6N, R. 69N, 64 P.M.2. COUNTY LaBonne INDEX REF NO 7-1

COUNTY INDEX REF NO

Department of Examiners, Architects

PROFESSIONAL ENGINEERS AND LAND SURVEYORS BOARD 102 State Service Building, 1545 Sherman Street, Denver, Colorado 80202

78003

CS-12 (Rev. 1-1-77)

COLORADO LAND SURVEY MONUMENT RECORD

REPORT ONE MONUMENT ONLY ON THIS FORM

039305

All items to be filled in by the Land Surveyor using black ink or typewriter. (Except)*

1. TYPE OF MONUMENT (Check one) ☒ Section Corner ☐ Bench mark
☐ Quarter Corner ☐ Other _____

2. DESCRIPTION OF EVIDENCE FOUND, AND ORIGINAL RECORD CALL, IF KNOWN

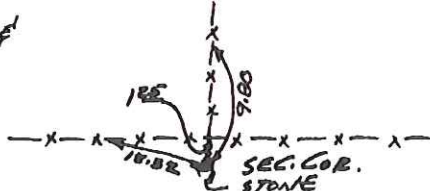
FOUND STONE AT INTERSECTION OF FENCES. HAD
 & MARKINGS ON SOUTH & S ON EAST SIDE,

3. DESCRIPTION OF MONUMENT AND OR ACCESSORIES ESTABLISHED BY YOU TO PERPETUATE THE LOCATION OF THIS POINT. GIVE YOUR ESTIMATE OF POSITIONAL TOLERANCE IF NOT ORIGINAL, UNDISTURBED MONUMENT

Date of Field Work 5-17-78

4. SKETCH SHOWING RELATIVE LOCATION OF MONUMENT AND REFERENCE POINTS. SHOW SUPPORTING AND OR CONTRADICTORY EVIDENCE WHERE APPLICABLE.

ALL TIES ARE NAIL &
 BOTTLE CAPS IN
 FENCE POSTS.



5. CERTIFICATION

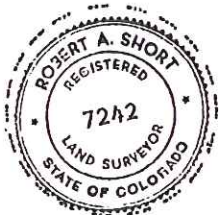
This is to certify that I was in responsible charge of the surveying work described in this record and that to the best of my knowledge the information presented herein is true and correct.

Surveyor's Seal

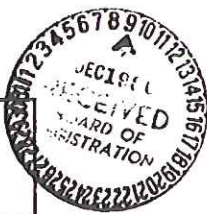
Signature

Reg. No. 7242

Date 5-17-78



6. LOCATION DIAGRAM



SCALE 1" = 1 Mile

• Location of Monument

1. SEC. 18, T. 6N, R. 6W, 6th P.M.

2. COUNTY LARIMER INDEX REF. NO. 5-2
 COUNTY _____ INDEX REF. NO. _____

Department of Registration and Professional Engineering and Land Surveyors Board

PROFESSIONAL ENGINEER AND LAND SURVEYORS BOARD, 1-2 State Service Building, 1725 Sherman Street, Denver, Colorado 80202

78003