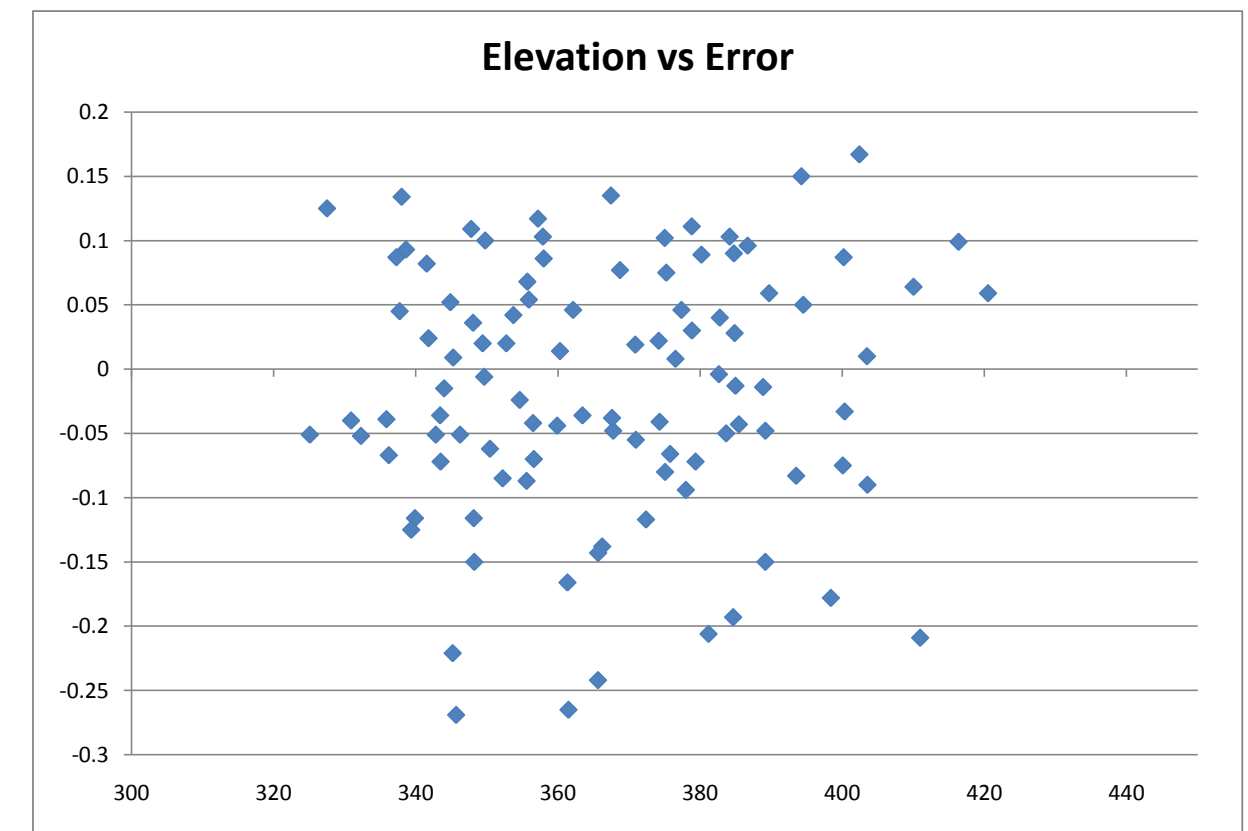
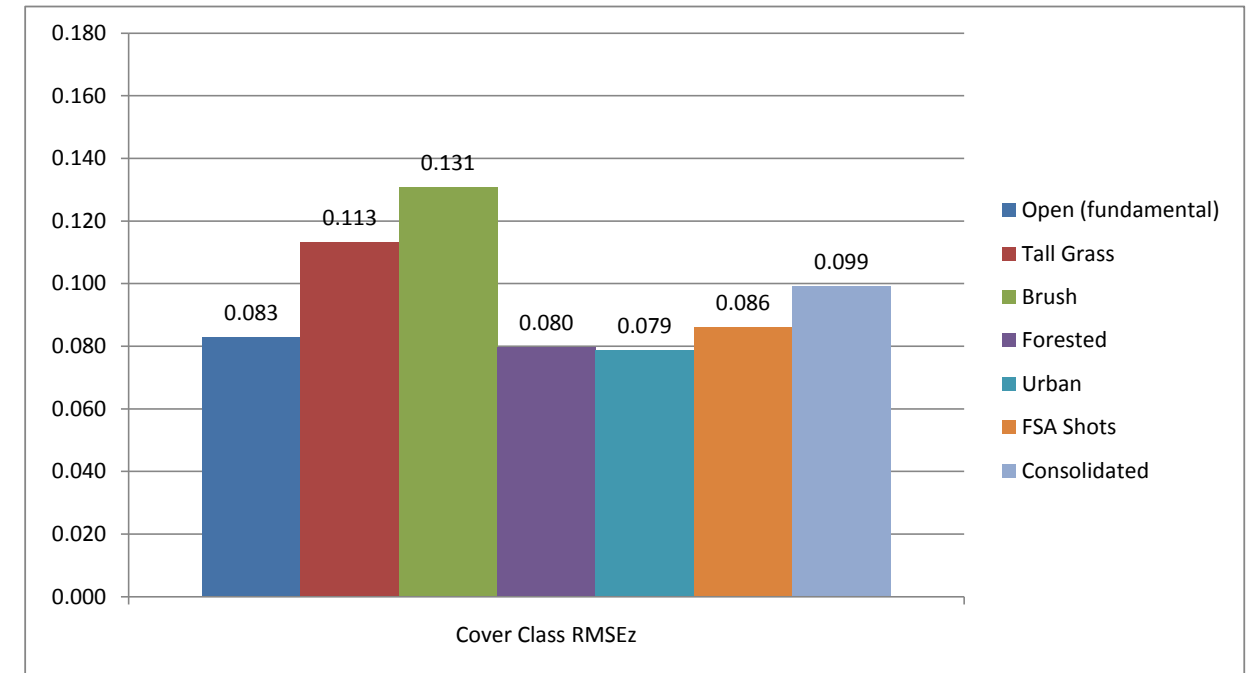


Martin County, MN Vertical Validation Report

Point Code	X	Y	Z	Surface Z	Z-Error	Z-Error Squared	Absolute Z-Error
FSA Target Fairmont-2501	383661.65	4835720.388	357.997	357.911	0.086	0.007396	0.086
L1O-2401	384871.356	4834208.75	355.697	355.629	0.068	0.004624	0.068
L1O-2405	391208.217	4826903.261	354.619	354.643	-0.024	0.000576	0.024
L1O-2410	399148.546	4820324.759	349.765	349.665	0.1	0.01	0.1
L1O-2411	377793.539	4820737.678	380.19	380.101	0.089	0.007921	0.089
L1O-2416	372579.419	4835306.823	378.828	378.717	0.111	0.012321	0.111
L1O-2417	363285.203	4829893.173	389.187	389.337	-0.15	0.0225	0.15
L1O-2418	369504.785	4818097.37	378.851	378.821	0.03	0.0009	0.03
L1O-2419	351819.304	4824503.759	416.373	416.274	0.099	0.009801	0.099
L1O-2420	353693.131	4834173.76	402.415	402.248	0.167	0.027889	0.167
L1O-2421	352263.594	4842224.457	403.482	403.472	0.01	0.0001	0.01
L1O-2422	353761.35	4856621.509	389.189	389.237	-0.048	0.002304	0.048
L1O-2423	363575.24	4846818.242	368.731	368.654	0.077	0.005929	0.077
L1O-2424	373598.836	4856208.135	346.229	346.28	-0.051	0.002601	0.051
L1O-2425	369864.467	4838576.692	370.887	370.868	0.019	0.000361	0.019
L1O-2426	379711.995	4838312.492	362.132	362.086	0.046	0.002116	0.046
L1O-2427	381924.332	4852725.39	343.985	344	-0.015	0.000225	0.015
L1O-2428	398109.933	4854100.198	327.51	327.385	0.125	0.015625	0.125
L1O-2429	393157.275	4847726.952	345.26	345.251	0.009	0.000081	0.009
L1O-2430	391360.596	4838046.906	344.866	344.814	0.052	0.002704	0.052
L1O-2431	398568.371	4834002.751	338.625	338.532	0.093	0.008649	0.093
L2T-2402	385765.225	4830143.818	355.583	355.67	-0.087	0.007569	0.087
L2T-2406	394323.315	4823181.799	350.432	350.494	-0.062	0.003844	0.062
L2T-2409	394563.927	4832602.783	341.538	341.456	0.082	0.006724	0.082
L2T-2412	380120.746	4825534.139	375.783	375.849	-0.066	0.004356	0.066
L2T-2414	378510.853	4835394.234	367.461	367.326	0.135	0.018225	0.135
L2T-2439	373670.685	4824095.626	375.076	375.156	-0.08	0.0064	0.08
L2T-2441	355591.362	4818027.842	410.97	411.179	-0.209	0.043681	0.209
L2T-2445	367324.659	4832944.204	384.864	384.836	0.028	0.000784	0.028
L2T-2446	359908.155	4826611.654	384.656	384.849	-0.193	0.037249	0.193
L2T-2448	351164.94	4835786.754	403.551	403.641	-0.09	0.0081	0.09
L2T-2454	361879.779	4840335.774	374.303	374.344	-0.041	0.001681	0.041
L2T-2455	352301.6	4846498.763	388.862	388.876	-0.014	0.000196	0.014
L2T-2458	365243.208	4847355.769	363.454	363.49	-0.036	0.001296	0.036
L2T-2460	371096.125	4856154.783	348.231	348.381	-0.15	0.0225	0.15
L2T-2462	354671.277	4853399.643	381.191	381.397	-0.206	0.042436	0.206
L2T-2469	388754.633	4847636.863	339.886	340.002	-0.116	0.013456	0.116
L2T-2471	381803.257	4843929.396	348.062	348.026	0.036	0.001296	0.036
L2T-2472	376456.337	4852810.458	348.154	348.27	-0.116	0.013456	0.116
L2T-2475	394504.832	4845324.035	337.27	337.183	0.087	0.007569	0.087
L2T-2476	393726.037	4839630.67	339.349	339.474	-0.125	0.015625	0.125
L3B-2403	387907.221	4828682.028	345.677	345.946	-0.269	0.072361	0.269
L3B-2407	394254.048	4818633.348	356.5	356.542	-0.042	0.001764	0.042
L3B-2413	376631.269	4832032.764	377.378	377.332	0.046	0.002116	0.046
L3B-2433	382911.16	4817656.128	366.225	366.363	-0.138	0.019044	0.138
L3B-2435	394406.974	4830491.29	345.191	345.412	-0.221	0.048841	0.221
L3B-2438	369464.91	4824079.444	377.997	378.091	-0.094	0.008836	0.094
L3B-2442	360769.349	4824256.462	383.671	383.721	-0.05	0.0025	0.05



L3B-2444	369924.071	4832921.659	386.689	386.593	0.096	0.009216	0.096
L3B-2447	353572.361	4830889.065	400.346	400.379	-0.033	0.001089	0.033
L3B-2449	359094.528	4834087.051	389.715	389.656	0.059	0.003481	0.059
L3B-2453	370814.628	4838502.002	361.482	361.747	-0.265	0.070225	0.265
L3B-2456	351041.449	4837387.583	410.033	409.969	0.064	0.004096	0.064
L3B-2457	361964.552	4848103.305	365.636	365.878	-0.242	0.058564	0.242
L3B-2459	357930.15	4856492.548	365.656	365.799	-0.143	0.020449	0.143
L3B-2461	370149.88	4853921.164	359.888	359.932	-0.044	0.001936	0.044
L3B-2468	385563.172	4851015.581	343.423	343.459	-0.036	0.001296	0.036
L3B-2470	377385.129	4838421.845	356.609	356.679	-0.07	0.0049	0.07
L3B-2473	378226.714	4849036.831	352.217	352.302	-0.085	0.007225	0.085
L3B-2474	398075.275	4850513.971	325.089	325.14	-0.051	0.002601	0.051
L3B-2477	397792.427	4839001.833	335.87	335.909	-0.039	0.001521	0.039
L4F-2408	397568.393	4818787.638	349.622	349.628	-0.006	0.000036	0.006
L4F-2432	382243.592	4818109.784	372.39	372.507	-0.117	0.013689	0.117
L4F-2434	390219.082	4825707.441	352.741	352.721	0.02	0.0004	0.02
L4F-2436	398843.873	4830747.48	342.819	342.87	-0.051	0.002601	0.051
L4F-2437	377318.148	4827210.606	379.367	379.439	-0.072	0.005184	0.072
L4F-2440	351728.5	4818300.006	420.525	420.466	0.059	0.003481	0.059
L4F-2443	364695.665	4821374.857	382.651	382.655	-0.004	0.000016	0.004
L4F-2450	357189.504	4834065.481	400.208	400.121	0.087	0.007569	0.087
L4F-2451	373768.562	4832837.591	384.158	384.055	0.103	0.010609	0.103
L4F-2452	361700.942	4830174.949	393.52	393.603	-0.083	0.006889	0.083
L4F-2463	355852.468	4851846.165	382.778	382.738	0.04	0.0016	0.04
L4F-2464	357107.965	4844164.713	385.461	385.504	-0.043	0.001849	0.043
L4F-2465	373742.369	4849753.498	361.341	361.507	-0.166	0.027556	0.166
L4F-2466	374980.061	4844839.375	357.189	357.072	0.117	0.013689	0.117
L4F-2467	365930.832	4851538.427	370.961	371.016	-0.055	0.003025	0.055
L4F-2478	380629.737	4842979.005	353.731	353.689	0.042	0.001764	0.042
L4F-2479	380996.799	4856028.159	330.893	330.933	-0.04	0.0016	0.04
L4F-2480	390917.834	4854216.704	332.283	332.335	-0.052	0.002704	0.052
L4F-2481	396919.426	4842818.554	338.006	337.872	0.134	0.017956	0.134
L4F-2482	386613.639	4845887.519	343.487	343.559	-0.072	0.005184	0.072
L5U-2404	382718.156	4833597.004	355.912	355.858	0.054	0.002916	0.054
L5U-2415	382009.258	4835691.602	360.291	360.277	0.014	0.000196	0.014
L5U-2483	382628.094	4831675.01	357.879	357.776	0.103	0.010609	0.103
L5U-2484	361877.958	4847312.455	374.185	374.163	0.022	0.000484	0.022
L5U-2485	361984.93	4846843.735	376.536	376.528	0.008	0.000064	0.008
L5U-2486	363628.932	4856391.981	367.776	367.824	-0.048	0.002304	0.048
L5U-2487	363626.692	4856423.552	367.615	367.653	-0.038	0.001444	0.038
L5U-2488	356855.721	4824490.143	400.082	400.157	-0.075	0.005625	0.075
L5U-2489	356681.759	4824355.386	398.409	398.587	-0.178	0.031684	0.178
L5U-2490	368342.362	4821217.032	384.76	384.67	0.09	0.0081	0.09
L5U-2491	368318.358	4821409.765	384.974	384.987	-0.013	0.000169	0.013
L5U-2492	360318.09	4835787.197	394.523	394.473	0.05	0.0025	0.05
L5U-2493	360654.322	4835320.649	394.257	394.107	0.15	0.0225	0.15
L5U-2494	369568.08	4835511.637	375.245	375.17	0.075	0.005625	0.075
L5U-2495	369769.801	4836295.272	375.026	374.924	0.102	0.010404	0.102
L5U-2496	384713.425	4853483.481	336.199	336.266	-0.067	0.004489	0.067
L5U-2497	385230.951	4854005.49	337.731	337.686	0.045	0.002025	0.045
L5U-2498	384177.192	4843539.855	349.404	349.384	0.02	0.0004	0.02
L5U-2499	384250.694	4843225.779	347.795	347.686	0.109	0.011881	0.109

LSU-2500

391552.977	4839485.709	341.789	341.765	0.024	0.000576	0.024
				Mean Squared Error	0.010	
				Z-RMSE	0.099	
				NSSDA	0.194	
				Min Z-Error	0.004	
				Max Z-Error	0.269	

Point Code	X	Y	Z	Surface Z	Z-Error	Z-Error Squared	Absolute Z-Error
L10-2401	384871.4	4834209	355.697	355.629	0.068	0.004624	0.068
L10-2405	391208.2	4826903	354.619	354.643	-0.024	0.000576	0.024
L10-2410	399148.5	4820325	349.765	349.665	0.1	0.01	0.1
L10-2411	377793.5	4820738	380.19	380.101	0.089	0.007921	0.089
L10-2416	372579.4	4835307	378.828	378.717	0.111	0.012321	0.111
L10-2417	363285.2	4829893	389.187	389.337	-0.15	0.0225	0.15
L10-2418	369504.8	4818097	378.851	378.821	0.03	0.0009	0.03
L10-2419	351819.3	4824504	416.373	416.274	0.099	0.009801	0.099
L10-2420	353693.1	4834174	402.415	402.248	0.167	0.027889	0.167
L10-2421	352263.6	4842224	403.482	403.472	0.01	0.0001	0.01
L10-2422	353761.4	4856622	389.189	389.237	-0.048	0.002304	0.048
L10-2423	363575.2	4846818	368.731	368.654	0.077	0.005929	0.077
L10-2424	373598.8	4856208	346.229	346.28	-0.051	0.002601	0.051
L10-2425	369864.5	4838577	370.887	370.868	0.019	0.000361	0.019
L10-2426	379712	4838312	362.132	362.086	0.046	0.002116	0.046
L10-2427	381924.3	4852725	343.985	344	-0.015	0.000225	0.015
L10-2428	398109.9	4854100	327.51	327.385	0.125	0.015625	0.125
L10-2429	393157.3	4847727	345.26	345.251	0.009	0.000081	0.009
L10-2430	391360.6	4838047	344.866	344.814	0.052	0.002704	0.052
L10-2431	398568.4	4834003	338.625	338.532	0.093	0.008649	0.093
					Mean Squared Error	0.007	
					Z-RMSE	0.083	
					NSSDA	0.162	
					Min Z-Error	0.009	
					Max Z-Error	0.167	

Point Code	X	Y	Z	Surface Z	Z-Error	Z-Error Squared	Absolute Z-Error
L2T-2402	385765.2	4830144	355.583	355.67	-0.087	0.007569	0.087
L2T-2406	394323.3	4823182	350.432	350.494	-0.062	0.003844	0.062
L2T-2409	394563.9	4832603	341.538	341.456	0.082	0.006724	0.082
L2T-2412	380120.7	4825534	375.783	375.849	-0.066	0.004356	0.066
L2T-2414	378510.9	4835394	367.461	367.326	0.135	0.018225	0.135
L2T-2439	373670.7	4824096	375.076	375.156	-0.08	0.0064	0.08
L2T-2441	355591.4	4818028	410.97	411.179	-0.209	0.043681	0.209
L2T-2445	367324.7	4832944	384.864	384.836	0.028	0.000784	0.028
L2T-2446	359908.2	4826612	384.656	384.849	-0.193	0.037249	0.193
L2T-2448	351164.9	4835787	403.551	403.641	-0.09	0.0081	0.09
L2T-2454	361879.8	4840336	374.303	374.344	-0.041	0.001681	0.041
L2T-2455	352301.6	4846499	388.862	388.876	-0.014	0.000196	0.014
L2T-2458	365243.2	4847356	363.454	363.49	-0.036	0.001296	0.036
L2T-2460	371096.1	4856155	348.231	348.381	-0.15	0.0225	0.15
L2T-2462	354671.3	4853400	381.191	381.397	-0.206	0.042436	0.206
L2T-2469	388754.6	4847637	339.886	340.002	-0.116	0.013456	0.116
L2T-2471	381803.3	4843929	348.062	348.026	0.036	0.001296	0.036
L2T-2472	376456.3	4852810	348.154	348.27	-0.116	0.013456	0.116
L2T-2475	394504.8	4845324	337.27	337.183	0.087	0.007569	0.087
L2T-2476	393726	4839631	339.349	339.474	-0.125	0.015625	0.125
					Mean Squared Error	0.013	
					Z-RMSE	0.113	
					NSSDA	0.222	
					Min Z-Error	0.014	
					Max Z-Error	0.209	

Point Code	X	Y	Z	Surface Z	Z-Error	Z-Error Squared	Absolute Z-Error
L3B-2403	387907.221	4828682.028	345.677	345.946	-0.269	0.072361	0.269
L3B-2407	394254.048	4818633.348	356.5	356.542	-0.042	0.001764	0.042
L3B-2413	376631.269	4832032.764	377.378	377.332	0.046	0.002116	0.046
L3B-2433	382911.16	4817656.128	366.225	366.363	-0.138	0.019044	0.138
L3B-2435	394406.974	4830491.29	345.191	345.412	-0.221	0.048841	0.221
L3B-2438	369464.91	4824079.444	377.997	378.091	-0.094	0.008836	0.094
L3B-2442	360769.349	4824256.462	383.671	383.721	-0.05	0.0025	0.05
L3B-2444	369924.071	4832921.659	386.689	386.593	0.096	0.009216	0.096
L3B-2447	353572.361	4830889.065	400.346	400.379	-0.033	0.001089	0.033
L3B-2449	359094.528	4834087.051	389.715	389.656	0.059	0.003481	0.059
L3B-2453	370814.628	4838502.002	361.482	361.747	-0.265	0.070225	0.265
L3B-2456	351041.449	4837387.583	410.033	409.969	0.064	0.004096	0.064
L3B-2457	361964.552	4848103.305	365.636	365.878	-0.242	0.058564	0.242
L3B-2459	357930.15	4856492.548	365.656	365.799	-0.143	0.020449	0.143
L3B-2461	370149.88	4853921.164	359.888	359.932	-0.044	0.001936	0.044
L3B-2468	385563.172	4851015.581	343.423	343.459	-0.036	0.001296	0.036
L3B-2470	377385.129	4838421.845	356.609	356.679	-0.07	0.0049	0.07
L3B-2473	378226.714	4849036.831	352.217	352.302	-0.085	0.007225	0.085
L3B-2474	398075.275	4850513.971	325.089	325.14	-0.051	0.002601	0.051
L3B-2477	397792.427	4839001.833	335.87	335.909	-0.039	0.001521	0.039
					Mean Squared Error	0.017	
					Z-RMSE	0.131	
					NSSDA	0.256	
					Min Z-Error	0.033	
					Max Z-Error	0.269	

Point Code	X	Y	Z	Surface Z	Z-Error	Z-Error Squared	Absolute Z-Error
L4F-2408	397568.4	4818788	349.622	349.628	-0.006	0.000036	0.006
L4F-2432	382243.6	4818110	372.39	372.507	-0.117	0.013689	0.117
L4F-2434	390219.1	4825707	352.741	352.721	0.02	0.0004	0.02
L4F-2436	398843.9	4830747	342.819	342.87	-0.051	0.002601	0.051
L4F-2437	377318.1	4827211	379.367	379.439	-0.072	0.005184	0.072
L4F-2440	351728.5	4818300	420.525	420.466	0.059	0.003481	0.059
L4F-2443	364695.7	4821375	382.651	382.655	-0.004	0.000016	0.004
L4F-2450	357189.5	4834065	400.208	400.121	0.087	0.007569	0.087
L4F-2451	373768.6	4832838	384.158	384.055	0.103	0.010609	0.103
L4F-2452	361700.9	4830175	393.52	393.603	-0.083	0.006889	0.083
L4F-2463	355852.5	4851846	382.778	382.738	0.04	0.0016	0.04
L4F-2464	357108	4844165	385.461	385.504	-0.043	0.001849	0.043
L4F-2465	373742.4	4849753	361.341	361.507	-0.166	0.027556	0.166
L4F-2466	374980.1	4844839	357.189	357.072	0.117	0.013689	0.117
L4F-2467	365930.8	4851538	370.961	371.016	-0.055	0.003025	0.055
L4F-2478	380629.7	4842979	353.731	353.689	0.042	0.001764	0.042
L4F-2479	380996.8	4856028	330.893	330.933	-0.04	0.0016	0.04
L4F-2480	390917.8	4854217	332.283	332.335	-0.052	0.002704	0.052
L4F-2481	396919.4	4842819	338.006	337.872	0.134	0.017956	0.134
L4F-2482	386613.6	4845888	343.487	343.559	-0.072	0.005184	0.072
					Mean Squared Error	0.006	
					Z-RMSE	0.080	
					NSSDA	0.156	
					Min Z-Error	0.004	
					Max Z-Error	0.166	

Point Code	X	Y	Z	Surface Z	Z-Error	Z-Error Squared	Absolute Z-Error
L5U-2404	382718.2	4833597	355.912	355.858	0.054	0.002916	0.054
L5U-2415	382009.3	4835692	360.291	360.277	0.014	0.000196	0.014
L5U-2483	382628.1	4831675	357.879	357.776	0.103	0.010609	0.103
L5U-2484	361878	4847312	374.185	374.163	0.022	0.000484	0.022
L5U-2485	361984.9	4846844	376.536	376.528	0.008	0.000064	0.008
L5U-2486	363628.9	4856392	367.776	367.824	-0.048	0.002304	0.048
L5U-2487	363626.7	4856424	367.615	367.653	-0.038	0.001444	0.038
L5U-2488	356855.7	4824490	400.082	400.157	-0.075	0.005625	0.075
L5U-2489	356681.8	4824355	398.409	398.587	-0.178	0.031684	0.178
L5U-2490	368342.4	4821217	384.76	384.67	0.09	0.0081	0.09
L5U-2491	368318.4	4821410	384.974	384.987	-0.013	0.000169	0.013
L5U-2492	360318.1	4835787	394.523	394.473	0.05	0.0025	0.05
L5U-2493	360654.3	4835321	394.257	394.107	0.15	0.0225	0.15
L5U-2494	369568.1	4835512	375.245	375.17	0.075	0.005625	0.075
L5U-2495	369769.8	4836295	375.026	374.924	0.102	0.010404	0.102
L5U-2496	384713.4	4853483	336.199	336.266	-0.067	0.004489	0.067
L5U-2497	385231	4854005	337.731	337.686	0.045	0.002025	0.045
L5U-2498	384177.2	4843540	349.404	349.384	0.02	0.0004	0.02
L5U-2499	384250.7	4843226	347.795	347.686	0.109	0.011881	0.109
L5U-2500	391553	4839486	341.789	341.765	0.024	0.000576	0.024
					Mean Squa	0.006	
					Z-RMSE	0.079	
					NSSDA	0.154	
					Min Z-Error	0.008	
					Max Z-Error	0.178	

Point Code	X	Y	Z	Surface Z	Z-Error	Z-Error Squ	Absolute Z-Error
FSA Target Fairmont-2501	383661.7	4835720	357.997	357.911	0.086	0.007396	0.086
					Mean Squa	0.007	
					Z-RMSE	0.086	
					NSSDA	0.169	
					Min Z-Error	0.086	
					Max Z-Error	0.086	