

# Upark Turf Field Survey

(Report Updated for August - December, 2015)

## Objective:

Monitor apparent field depression to record variations in elevation in order to determine if there is a noticeable or substantial rate of change.

## Summary:

Data Collector Margin of Error: Between 0.02 and 0.04 feet.

After reviewing the initial field measurements, there does seem to be a noticeable depression in the field. This variation should be considered slight as the difference between the highest recorded point in Aug. (1,375.96) and the lowest recorded point (1,375.28) is only 0.68 ft. or roughly 8 inches (keep in mind that this number includes the engineered slope of the field away from the center line). Perhaps a better sample of the direct depression variation can be seen in the variation horizontally across the surveyed area center – which includes the approximate location of the low spot – this number is less of a difference at only about 0.25 (1375.57 – 1375.32) or approximately 3 inches. *This number (3 inches) should be considered the estimation of the depression depth.*

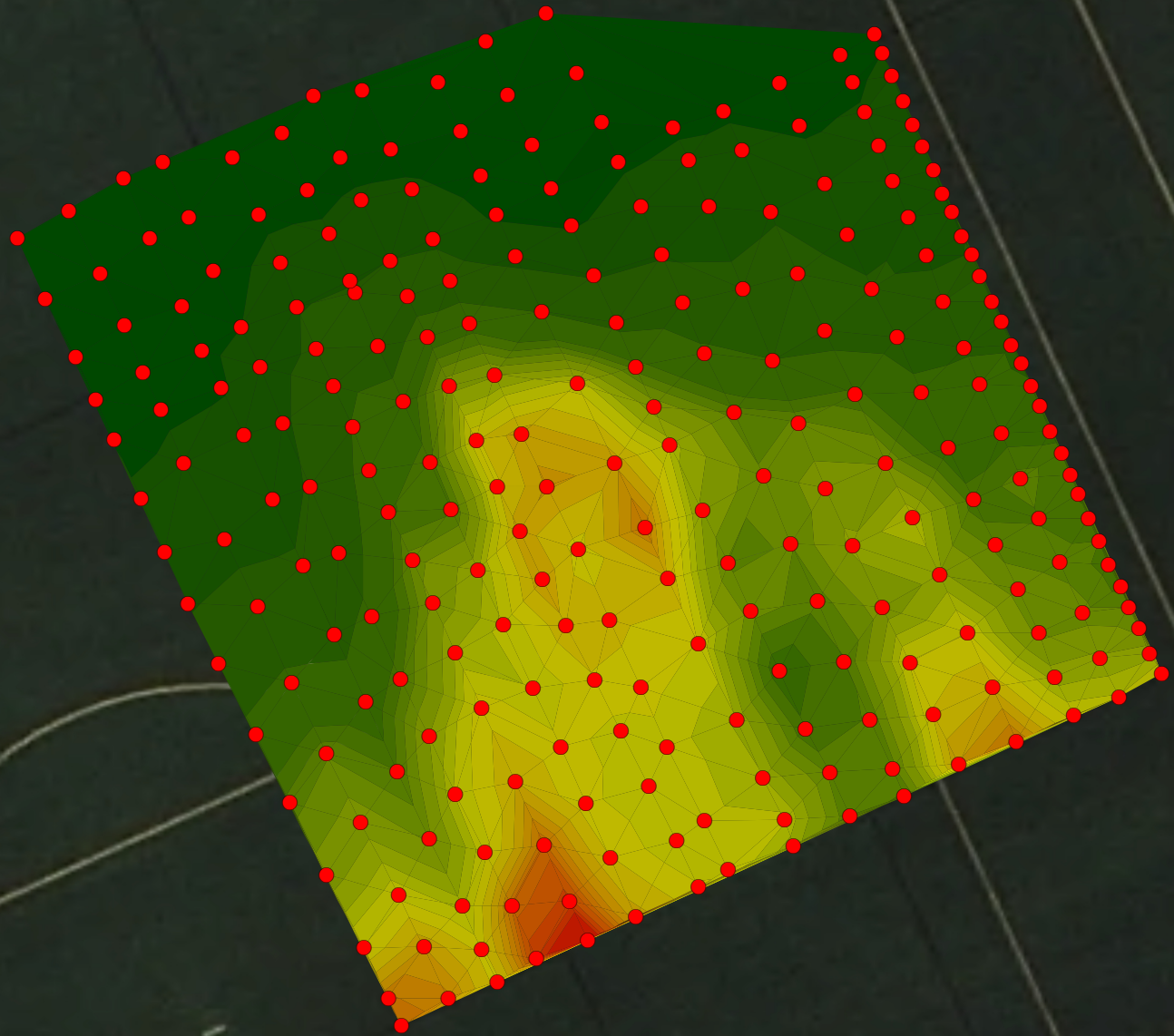
Additionally, when the area was surveyed again in September and in December, the variation in elevation was recorded with a similar trend and difference between the horizontal center's survey line high and low spots:

Variations in Elevations for Focused Area of Depression			
	Aug. 13 <sup>th</sup>	Sept. 24 <sup>th</sup>	Dec. 11 <sup>th</sup>
Max Elevation	1375.56894	1375.57486	1375.55621
Min Elevation	1375.32214	1375.32211	1375.31478
Difference (ft)	0.2468	0.25275	0.24143
Difference (inches)	2.9616	3.033	2.89716

***\*\*Based on this analysis, there was not significant variation between the 5 months. A depression can be confirmed (approx. 3 inches) but does not appear to be changing in any substantial rate between the recorded survey dates (Aug. 13<sup>th</sup>, Sept. 24<sup>th</sup> and Dec. 11<sup>th</sup>).***

# Upark Turf Field Survey

Full Survey Area - Aug. 2015



Low ----- Elevation Range ----- High

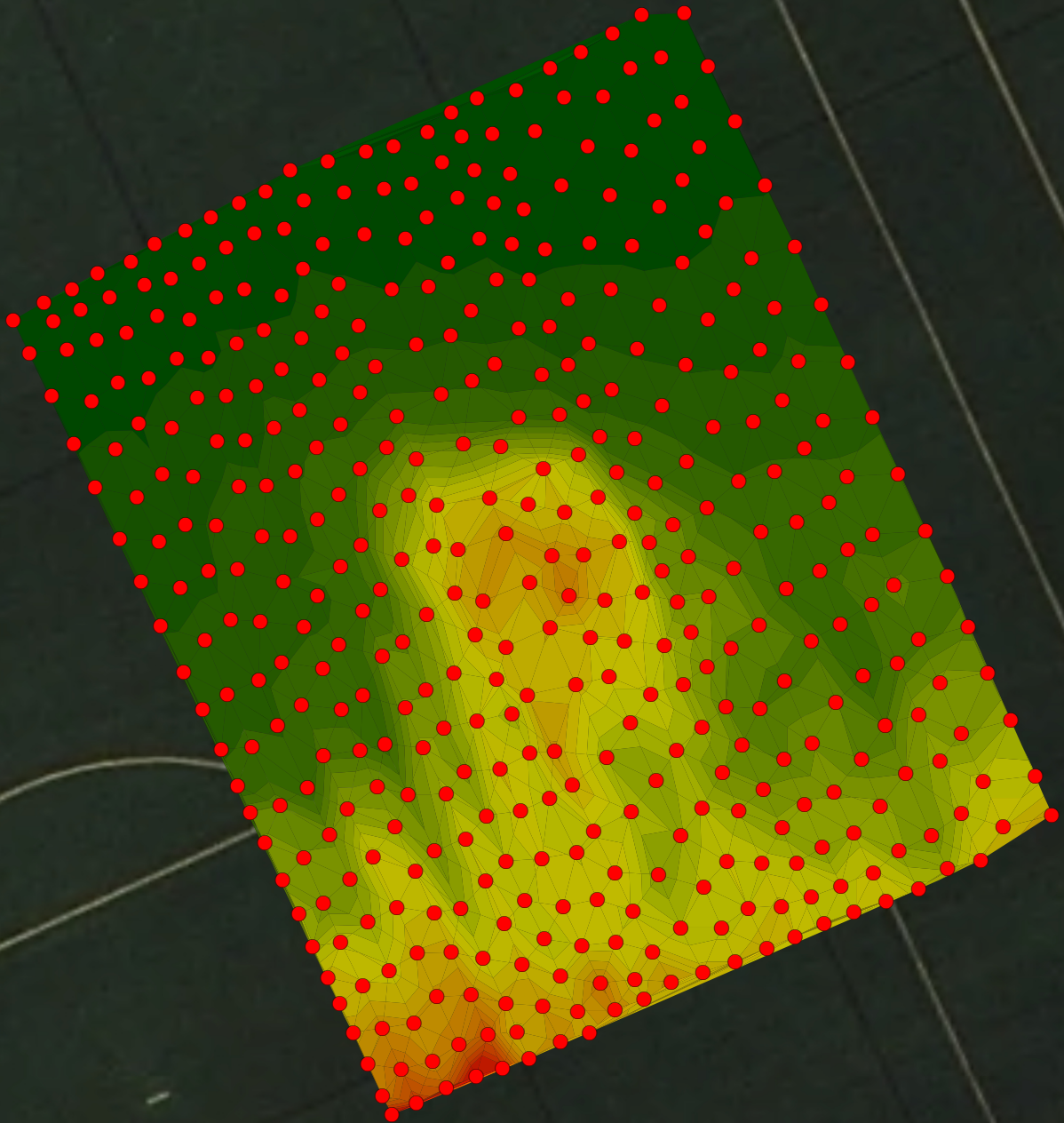
● Survey Points (257)



0 5 10 20  
Feet

# Upark Turf Field Survey

Full Survey Area - Sept. 2015



Low ----- Elevation Range ----- High

● Survey Points (438)

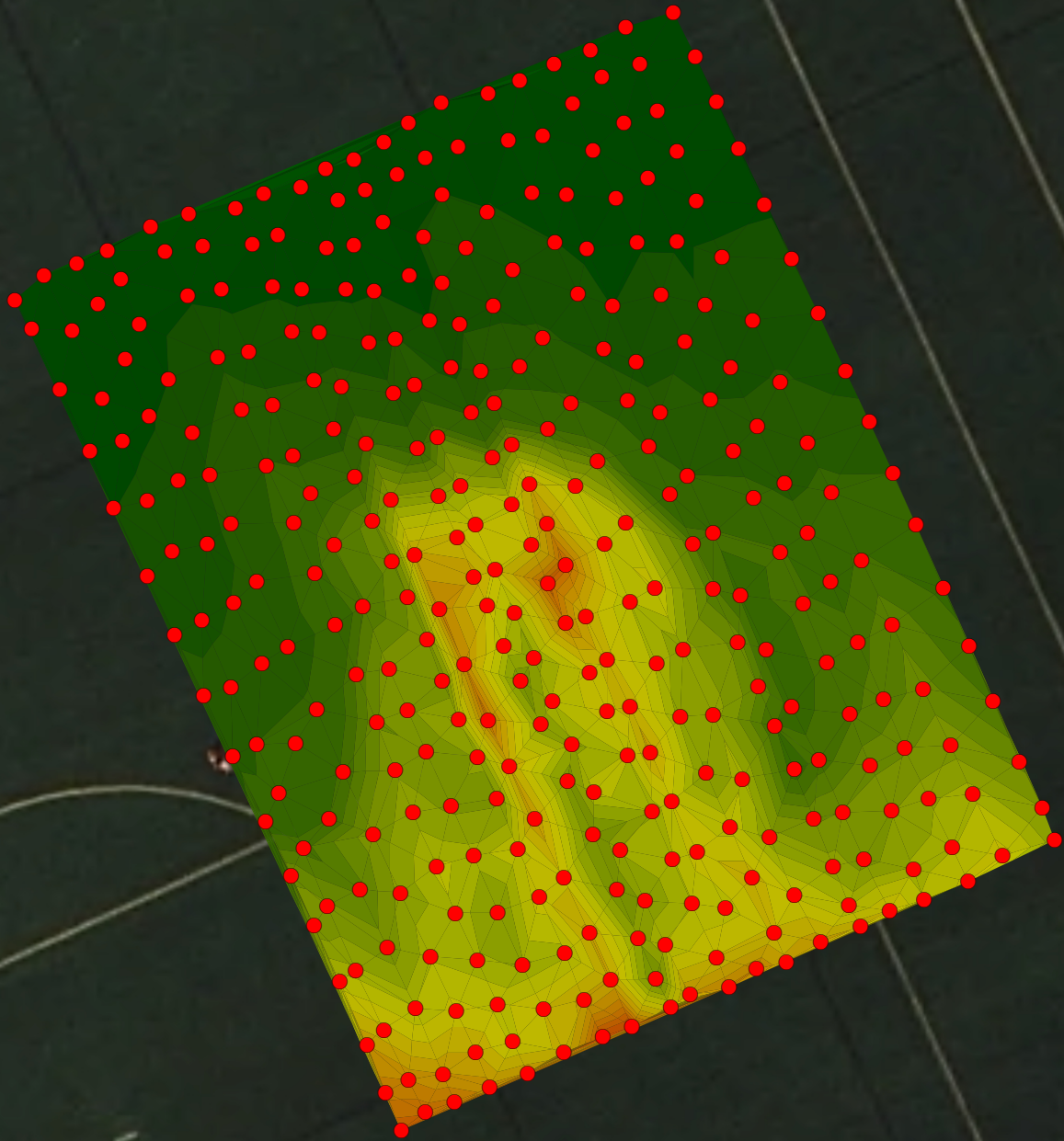


0 5 10 20  
Feet



# Upark Turf Field Survey

Full Survey Area - Dec. 2015



**Low** ----- Elevation Range ----- **High**

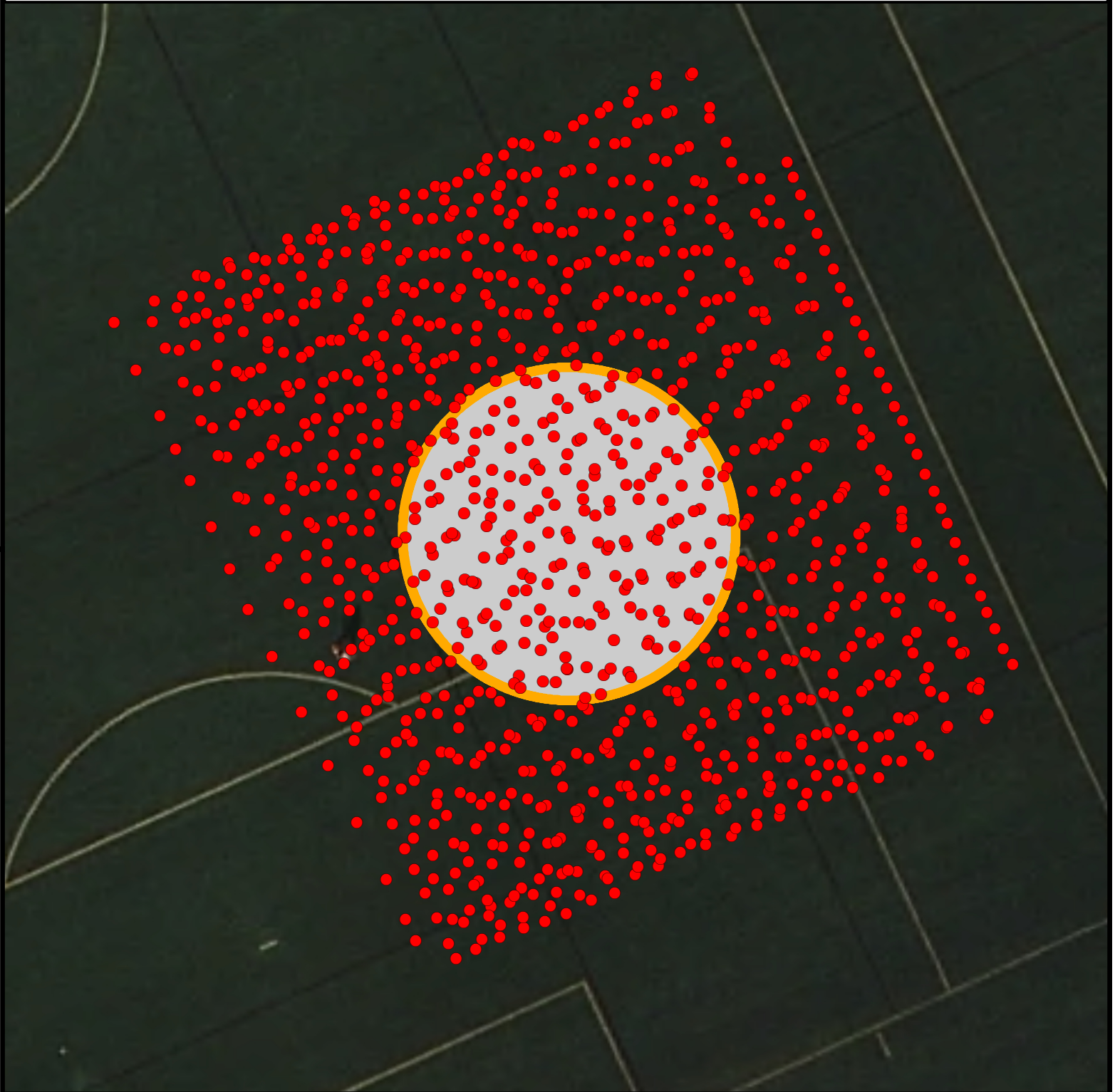
● Survey Points (350)



0 5 10 20  
Feet

# Upark Turf Field Survey

Full Survey - Focused Analysis Area of Interest



**Focused Area**



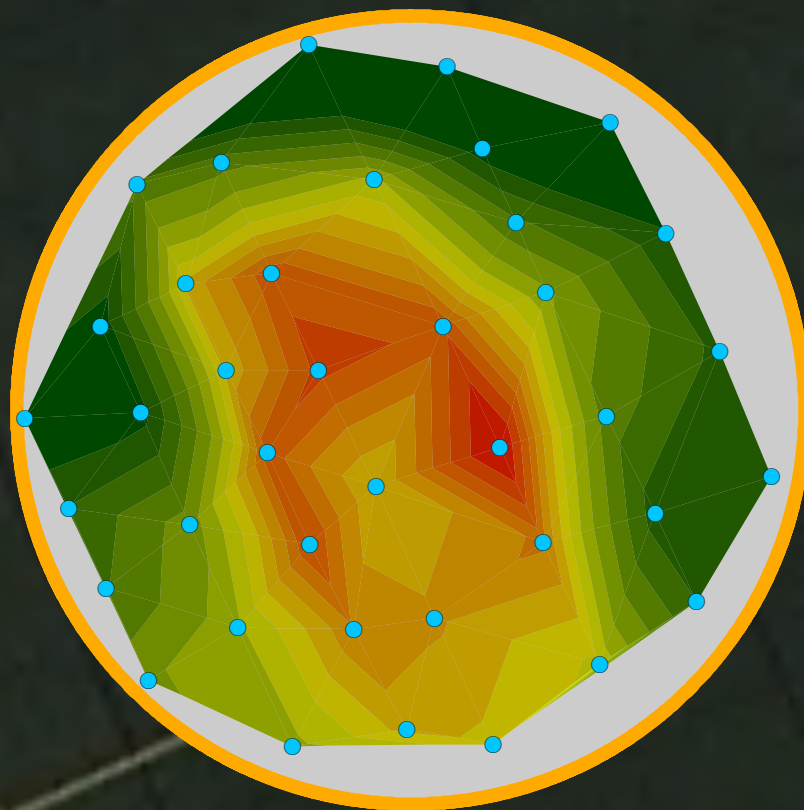
**Combined Survey Points**



0 5 10 20  
Feet

# Upark Turf Field Survey

Focused Area Analysis - Aug. 2015



Low ----- Elevation Range ----- High

● Survey Points (39)



Focused Area

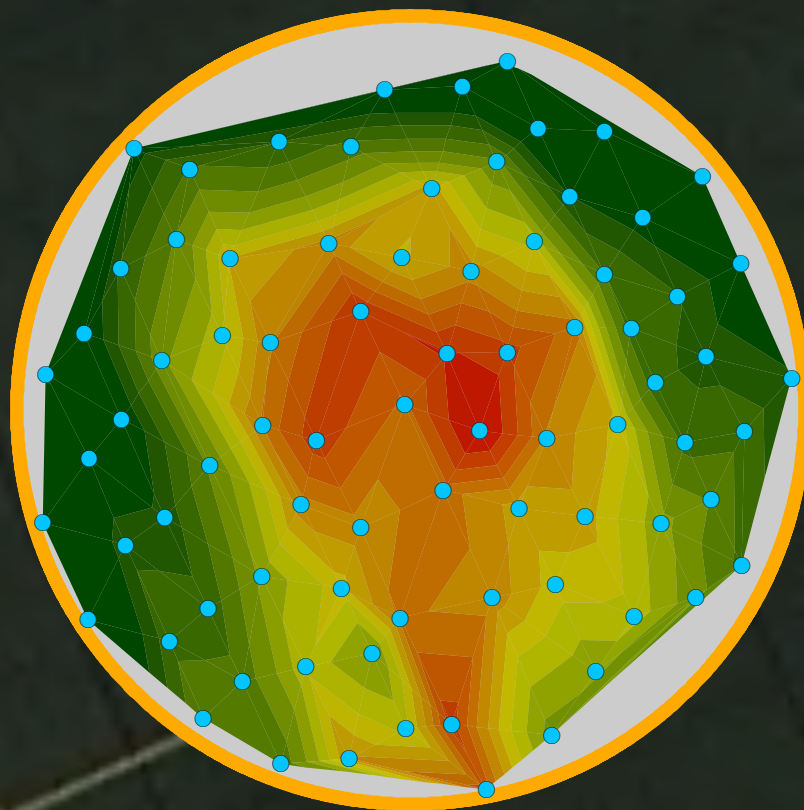


0 5 10  
Feet



# Upark Turf Field Survey

Focused Area Analysis - Sept. 2015



Low ----- Elevation Range ----- High

● Survey Points (80)

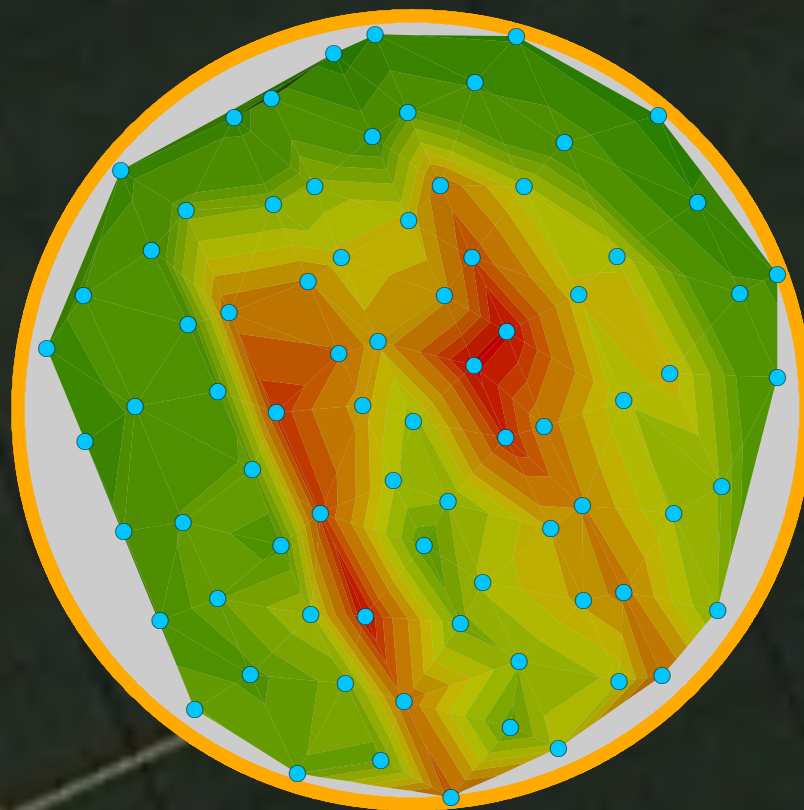
▭ Focused Area



0 5 10  
Feet

# Upark Turf Field Survey

Focused Area Analysis - Dec. 2015



Low ----- Elevation Range ----- High

● Survey Points (79)



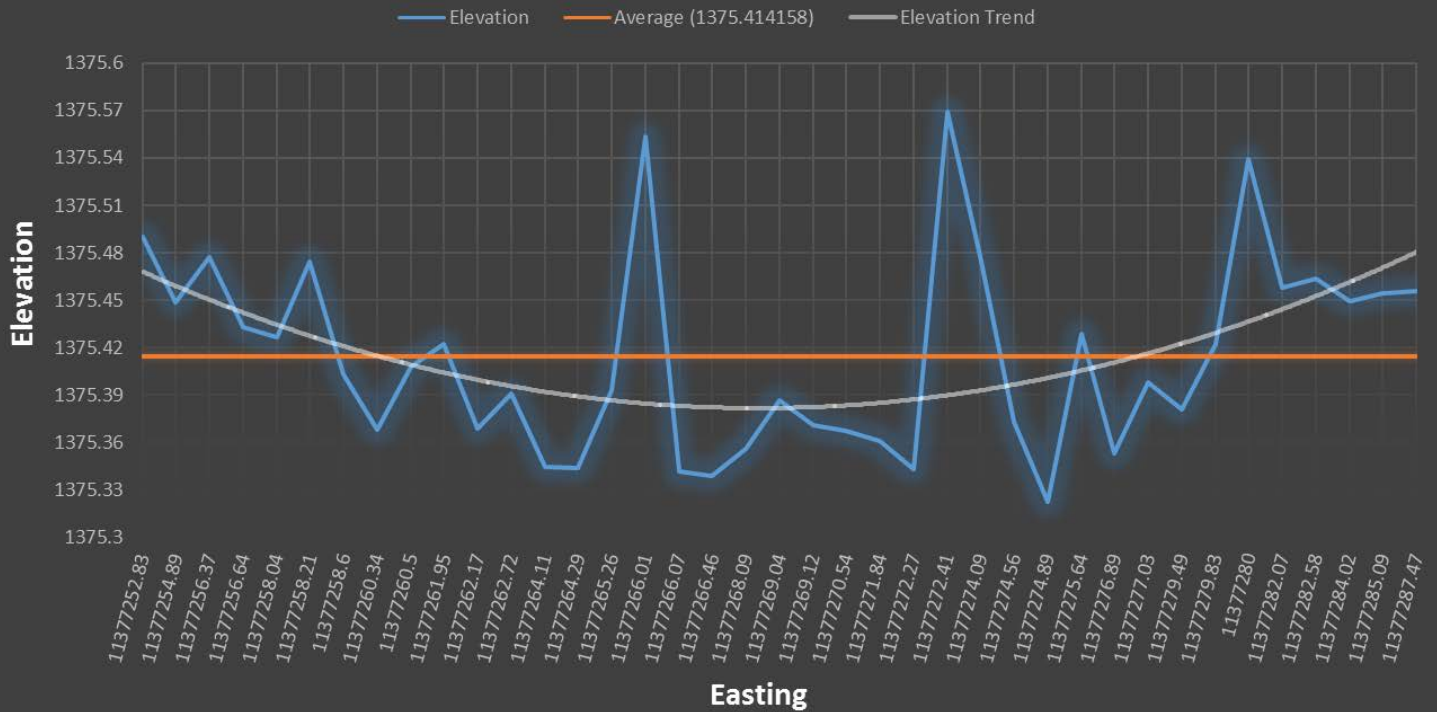
Focused Area



0 5 10  
Feet

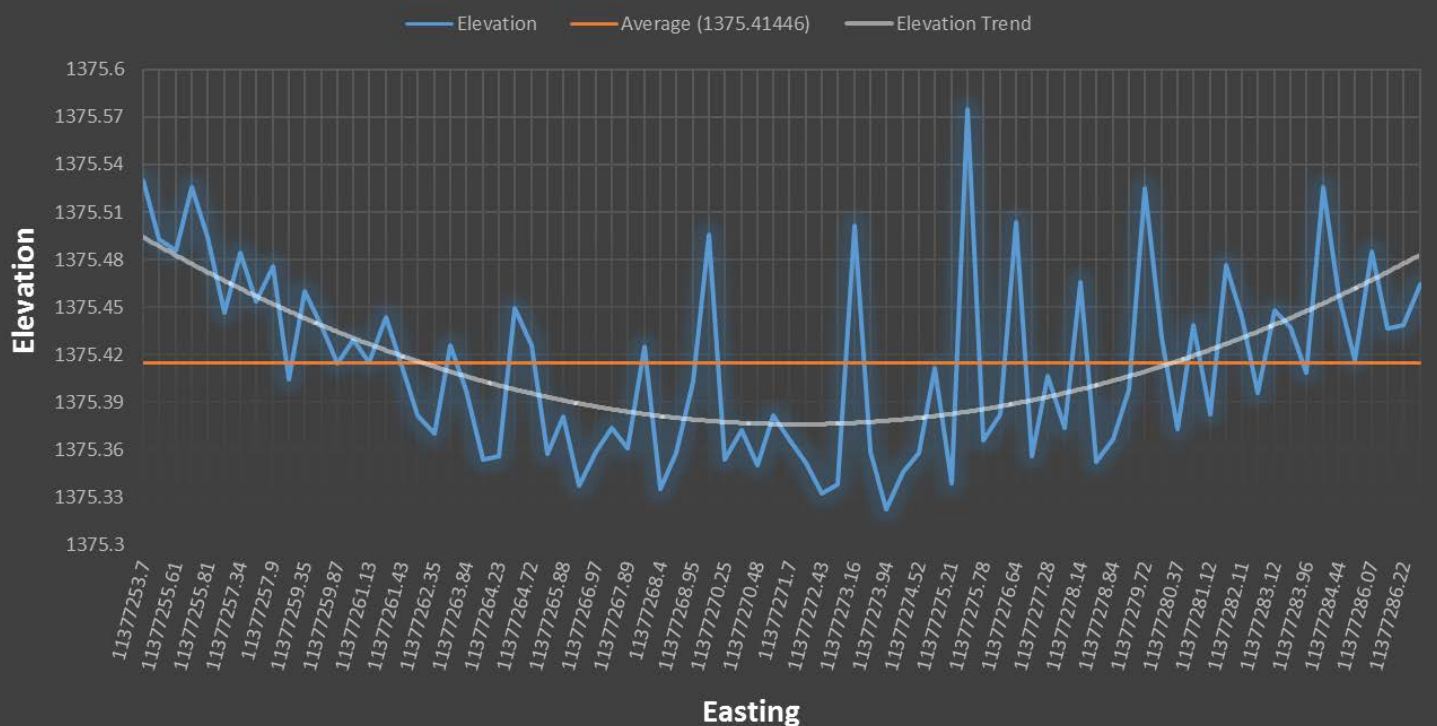


## Elevation Variation in Sample Circle Area (Oct. 2015)



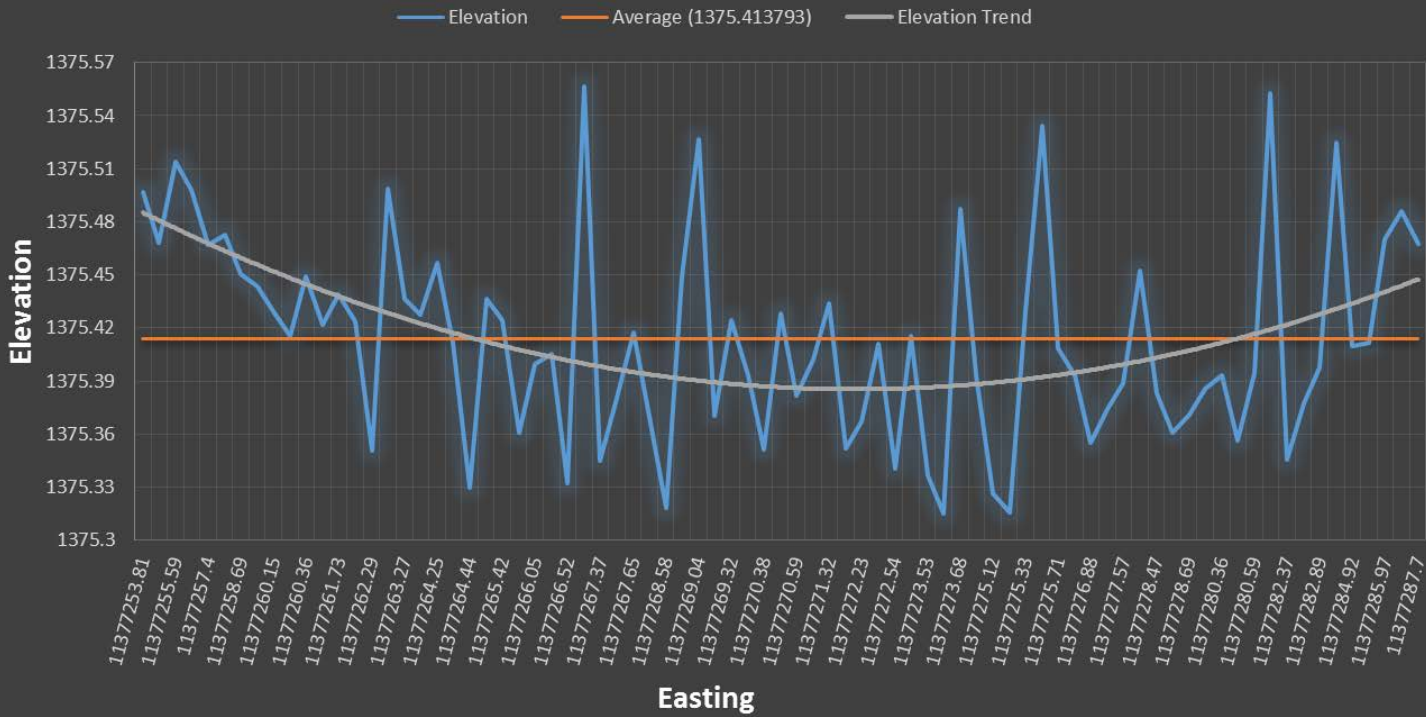
Source: See 8.13.14 Focused Area Data

## Elevation Variation in Sample Circle Area (Sept. 2015)



Source: See 9.24.14 Focused Area Data

# Elevation Variation in Sample Circle Area (Dec. 2015)



Source: See 12.11.14 Focused Area Data

## 8.13.15 Focused Area Data

FID	Shape *	Name	Code	Northing	Easting	Elevation	Average
189	Point ZM	261	pt	6836920.983	11377252.83	1375.49027	1375.41416
190	Point ZM	262	pt	6836916.799	11377254.89	1375.44832	1375.41416
173	Point ZM	245	pt	6836925.266	11377256.37	1375.4772	1375.41416
191	Point ZM	263	pt	6836913.116	11377256.64	1375.43288	1375.41416
154	Point ZM	226	pt	6836931.817	11377258.04	1375.4263	1375.41416
172	Point ZM	244	pt	6836921.247	11377258.21	1375.47422	1375.41416
192	Point ZM	264	pt	6836908.837	11377258.6	1375.40314	1375.41416
155	Point ZM	227	pt	6836927.189	11377260.34	1375.36783	1375.41416
171	Point ZM	243	pt	6836916.03	11377260.5	1375.40768	1375.41416
141	Point ZM	213	pt	6836932.828	11377261.95	1375.42231	1375.41416
156	Point ZM	228	pt	6836923.187	11377262.17	1375.36837	1375.41416
170	Point ZM	242	pt	6836911.281	11377262.72	1375.39103	1375.41416
157	Point ZM	229	pt	6836919.357	11377264.11	1375.34439	1375.41416
140	Point ZM	212	pt	6836927.695	11377264.29	1375.34356	1375.41416
169	Point ZM	241	pt	6836905.772	11377265.26	1375.39268	1375.41416
123	Point ZM	195	pt	6836938.284	11377266.01	1375.55382	1375.41416
158	Point ZM	230	pt	6836915.137	11377266.07	1375.34166	1375.41416
139	Point ZM	211	pt	6836923.222	11377266.46	1375.33903	1375.41416
159	Point ZM	231	pt	6836911.189	11377268.09	1375.35581	1375.41416
124	Point ZM	196	pt	6836932.041	11377269.04	1375.38615	1375.41416
138	Point ZM	210	pt	6836917.835	11377269.12	1375.3708	1375.41416
160	Point ZM	232	pt	6836906.573	11377270.54	1375.36708	1375.41416
137	Point ZM	209	pt	6836911.7	11377271.84	1375.36112	1375.41416
125	Point ZM	197	pt	6836925.258	11377272.27	1375.34314	1375.41416
108	Point ZM	180	pt	6836937.271	11377272.41	1375.56894	1375.41416
107	Point ZM	179	pt	6836933.487	11377274.09	1375.47769	1375.41416
136	Point ZM	208	pt	6836905.862	11377274.56	1375.37259	1375.41416
126	Point ZM	198	pt	6836919.64	11377274.89	1375.32214	1375.41416
106	Point ZM	178	pt	6836930.06	11377275.64	1375.42842	1375.41416
127	Point ZM	199	pt	6836915.214	11377276.89	1375.35317	1375.41416
105	Point ZM	177	pt	6836926.816	11377277.03	1375.39805	1375.41416
128	Point ZM	200	pt	6836909.6	11377279.49	1375.38089	1375.41416
104	Point ZM	176	pt	6836921.083	11377279.83	1375.42197	1375.41416
89	Point ZM	161	pt	6836934.685	11377280	1375.53915	1375.41416
103	Point ZM	175	pt	6836916.592	11377282.07	1375.45793	1375.41416
90	Point ZM	162	pt	6836929.574	11377282.58	1375.46349	1375.41416
102	Point ZM	174	pt	6836912.473	11377284.02	1375.44909	1375.41416
91	Point ZM	163	pt	6836924.098	11377285.09	1375.45447	1375.41416
92	Point ZM	164	pt	6836918.241	11377287.47	1375.45539	1375.41416



## 9.24.15 Focused Area Data

FID	Shape *	Name	Code	Northing	Easting	Elevation	Average
110	Point ZM	113	pt	6836916.13	11377253.7	1375.52962	1375.41446
128	Point ZM	131	pt	6836923.04	11377253.83	1375.49271	1375.41446
148	Point ZM	151	pt	6836924.911	11377255.61	1375.48547	1375.41446
111	Point ZM	114	pt	6836911.646	11377255.76	1375.52588	1375.41446
129	Point ZM	132	pt	6836919.088	11377255.81	1375.4944	1375.41446
168	Point ZM	171	pt	6836927.922	11377257.31	1375.4462	1375.41446
149	Point ZM	152	pt	6836920.949	11377257.34	1375.48446	1375.41446
130	Point ZM	133	pt	6836915.093	11377257.53	1375.45325	1375.41446
186	Point ZM	189	pt	6836933.47	11377257.9	1375.47558	1375.41446
169	Point ZM	172	pt	6836923.65	11377259.21	1375.40401	1375.41446
150	Point ZM	153	pt	6836916.381	11377259.35	1375.46032	1375.41446
131	Point ZM	134	pt	6836910.631	11377259.55	1375.43779	1375.41446
187	Point ZM	190	pt	6836929.239	11377259.87	1375.41422	1375.41446
207	Point ZM	210	pt	6836932.527	11377260.52	1375.42952	1375.41446
132	Point ZM	135	pt	6836907.056	11377261.13	1375.41472	1375.41446
151	Point ZM	154	pt	6836912.166	11377261.33	1375.44352	1375.41446
170	Point ZM	173	pt	6836918.78	11377261.43	1375.4131	1375.41446
188	Point ZM	191	pt	6836924.786	11377262	1375.38168	1375.41446
208	Point ZM	211	pt	6836928.381	11377262.35	1375.36981	1375.41446
152	Point ZM	155	pt	6836908.794	11377262.94	1375.42553	1375.41446
171	Point ZM	174	pt	6836913.648	11377263.84	1375.39689	1375.41446
189	Point ZM	192	pt	6836920.65	11377263.89	1375.35371	1375.41446
209	Point ZM	212	pt	6836924.476	11377264.23	1375.35596	1375.41446
230	Point ZM	233	pt	6836933.778	11377264.62	1375.44953	1375.41446
153	Point ZM	156	pt	6836904.946	11377264.72	1375.42594	1375.41446
190	Point ZM	193	pt	6836916.962	11377265.66	1375.35759	1375.41446
172	Point ZM	175	pt	6836909.426	11377265.88	1375.3808	1375.41446
210	Point ZM	213	pt	6836919.964	11377266.36	1375.33699	1375.41446
229	Point ZM	232	pt	6836929.06	11377266.97	1375.35885	1375.41446
191	Point ZM	194	pt	6836913.102	11377267.53	1375.37358	1375.41446
173	Point ZM	176	pt	6836905.2	11377267.89	1375.36108	1375.41446
248	Point ZM	251	pt	6836933.557	11377267.96	1375.4247	1375.41446
228	Point ZM	231	pt	6836925.928	11377268.4	1375.33487	1375.41446
211	Point ZM	214	pt	6836915.889	11377268.41	1375.35815	1375.41446
192	Point ZM	195	pt	6836910.074	11377268.95	1375.40283	1375.41446
266	Point ZM	269	pt	6836936.201	11377269.52	1375.4959	1375.41446
212	Point ZM	215	pt	6836911.74	11377270.25	1375.35359	1375.41446
247	Point ZM	250	pt	6836928.438	11377270.32	1375.37216	1375.41446
227	Point ZM	230	pt	6836921.597	11377270.48	1375.35012	1375.41446
193	Point ZM	196	pt	6836906.615	11377270.53	1375.38153	1375.41446
265	Point ZM	268	pt	6836931.598	11377271.7	1375.36657	1375.41446
226	Point ZM	229	pt	6836917.651	11377272.26	1375.35144	1375.41446
246	Point ZM	249	pt	6836923.97	11377272.43	1375.3324	1375.41446
213	Point ZM	216	pt	6836906.79	11377272.65	1375.33797	1375.41446
285	Point ZM	288	pt	6836936.384	11377273.16	1375.50122	1375.41446
264	Point ZM	267	pt	6836927.794	11377273.54	1375.35853	1375.41446

## 9.24.15 Focused Area Data Continued

245	Point ZM	248	pt	6836920.39	11377273.94	1375.32211	1375.41446
214	Point ZM	217	pt	6836903.761	11377274.25	1375.34603	1375.41446
225	Point ZM	228	pt	6836912.654	11377274.52	1375.35791	1375.41446
284	Point ZM	287	pt	6836932.841	11377274.75	1375.41128	1375.41446
263	Point ZM	266	pt	6836924.047	11377275.21	1375.3385	1375.41446
308	Point ZM	311	pt	6836937.557	11377275.25	1375.57486	1375.41446
244	Point ZM	247	pt	6836916.778	11377275.78	1375.36593	1375.41446
283	Point ZM	286	pt	6836929.155	11377276.46	1375.38198	1375.41446
307	Point ZM	310	pt	6836934.42	11377276.64	1375.50342	1375.41446
262	Point ZM	265	pt	6836920.034	11377277.06	1375.35583	1375.41446
224	Point ZM	227	pt	6836906.276	11377277.28	1375.40626	1375.41446
243	Point ZM	246	pt	6836913.276	11377277.45	1375.37397	1375.41446
306	Point ZM	309	pt	6836931.266	11377278.14	1375.46599	1375.41446
282	Point ZM	285	pt	6836925.214	11377278.33	1375.35259	1375.41446
261	Point ZM	264	pt	6836916.434	11377278.84	1375.36635	1375.41446
242	Point ZM	245	pt	6836909.216	11377279.32	1375.39793	1375.41446
328	Point ZM	331	pt	6836934.268	11377279.72	1375.52461	1375.41446
305	Point ZM	308	pt	6836927.674	11377279.73	1375.43101	1375.41446
281	Point ZM	284	pt	6836920.703	11377280.37	1375.37297	1375.41446
304	Point ZM	307	pt	6836925.143	11377280.97	1375.43862	1375.41446
260	Point ZM	263	pt	6836911.789	11377281.12	1375.38243	1375.41446
327	Point ZM	330	pt	6836930.303	11377281.49	1375.47653	1375.41446
303	Point ZM	306	pt	6836922.622	11377282.11	1375.44336	1375.41446
280	Point ZM	283	pt	6836916.084	11377282.34	1375.39544	1375.41446
326	Point ZM	329	pt	6836926.64	11377283.12	1375.44794	1375.41446
302	Point ZM	305	pt	6836919.867	11377283.48	1375.43744	1375.41446
279	Point ZM	282	pt	6836912.649	11377283.96	1375.40862	1375.41446
346	Point ZM	350	pt	6836932.192	11377284.27	1375.52597	1375.41446
325	Point ZM	328	pt	6836923.848	11377284.44	1375.45632	1375.41446
301	Point ZM	304	pt	6836917.178	11377284.65	1375.4164	1375.41446
345	Point ZM	349	pt	6836928.153	11377286.07	1375.48491	1375.41446
300	Point ZM	303	pt	6836914.163	11377286.09	1375.43632	1375.41446
324	Point ZM	327	pt	6836920.349	11377286.22	1375.43833	1375.41446
344	Point ZM	348	pt	6836922.85	11377288.39	1375.46427	1375.41446

## 12.11.15 Focused Area Data

FID	Shape *	Name	Code	Northing	Easting	Elevation	Average
78	Point ZM	279	pt	6836924.245	11377253.81	1375.49664	1375.41379
68	Point ZM	257	pt	6836926.667	11377255.52	1375.46797	1375.41379
77	Point ZM	278	pt	6836919.894	11377255.59	1375.51377	1375.41379
67	Point ZM	243	pt	6836932.47	11377257.23	1375.49817	1375.41379
76	Point ZM	277	pt	6836915.725	11377257.4	1375.46721	1375.41379
69	Point ZM	258	pt	6836921.499	11377257.9	1375.47256	1375.41379
66	Point ZM	242	pt	6836928.782	11377258.69	1375.45038	1375.41379
75	Point ZM	276	pt	6836911.599	11377259.06	1375.4435	1375.41379
70	Point ZM	259	pt	6836916.151	11377260.15	1375.4292	1375.41379
52	Point ZM	219	pt	6836930.571	11377260.27	1375.41567	1375.41379
65	Point ZM	241	pt	6836925.327	11377260.36	1375.44891	1375.41379
74	Point ZM	275	pt	6836907.508	11377260.69	1375.42207	1375.41379
64	Point ZM	240	pt	6836922.227	11377261.73	1375.43905	1375.41379
71	Point ZM	260	pt	6836912.626	11377261.74	1375.42365	1375.41379
53	Point ZM	220	pt	6836925.854	11377262.29	1375.35072	1375.41379
51	Point ZM	207	pt	6836934.931	11377262.51	1375.49886	1375.41379
72	Point ZM	261	pt	6836909.097	11377263.27	1375.43627	1375.41379
63	Point ZM	239	pt	6836918.638	11377263.34	1375.42753	1375.41379
34	Point ZM	181	pt	6836935.814	11377264.25	1375.45648	1375.41379
50	Point ZM	206	pt	6836930.884	11377264.32	1375.4115	1375.41379
54	Point ZM	221	pt	6836921.24	11377264.44	1375.32971	1375.41379
62	Point ZM	238	pt	6836915.117	11377264.67	1375.43614	1375.41379
73	Point ZM	262	pt	6836904.508	11377265.42	1375.42407	1375.41379
49	Point ZM	205	pt	6836927.322	11377265.94	1375.36077	1375.41379
61	Point ZM	237	pt	6836911.876	11377266.05	1375.39927	1375.41379
35	Point ZM	182	pt	6836931.711	11377266.23	1375.40503	1375.41379
55	Point ZM	222	pt	6836916.56	11377266.52	1375.33237	1375.41379
33	Point ZM	168	pt	6836937.873	11377267.14	1375.55621	1375.41379
48	Point ZM	204	pt	6836923.94	11377267.37	1375.34494	1375.41379
36	Point ZM	183	pt	6836928.401	11377267.47	1375.38045	1375.41379
60	Point ZM	236	pt	6836908.676	11377267.65	1375.41746	1375.41379
47	Point ZM	203	pt	6836921.55	11377268.49	1375.36953	1375.41379
56	Point ZM	223	pt	6836911.821	11377268.58	1375.31852	1375.41379
32	Point ZM	167	pt	6836934.066	11377268.93	1375.449	1375.41379
16	Point ZM	142	pt	6836938.761	11377269.04	1375.52633	1375.41379
37	Point ZM	184	pt	6836924.527	11377269.16	1375.37039	1375.41379
59	Point ZM	235	pt	6836905.133	11377269.32	1375.42428	1375.41379
46	Point ZM	202	pt	6836918.069	11377269.89	1375.39354	1375.41379
57	Point ZM	224	pt	6836907.826	11377270.38	1375.35099	1375.41379
17	Point ZM	143	pt	6836935.163	11377270.57	1375.42793	1375.41379



## 12.11.15 Focused Area Data Continued

31	Point ZM	166	pt	6836930.136	11377270.59	1375.38198	1375.41379
38	Point ZM	185	pt	6836920.853	11377270.83	1375.40187	1375.41379
45	Point ZM	201	pt	6836915.091	11377271.32	1375.43373	1375.41379
18	Point ZM	144	pt	6836931.807	11377272.07	1375.35183	1375.41379
30	Point ZM	165	pt	6836926.671	11377272.23	1375.36688	1375.41379
39	Point ZM	186	pt	6836917.085	11377272.41	1375.41099	1375.41379
58	Point ZM	225	pt	6836903.414	11377272.54	1375.3405	1375.41379
44	Point ZM	200	pt	6836911.461	11377273.03	1375.41547	1375.41379
19	Point ZM	145	pt	6836928.454	11377273.53	1375.33646	1375.41379
29	Point ZM	164	pt	6836923.439	11377273.62	1375.31478	1375.41379
15	Point ZM	129	pt	6836936.54	11377273.68	1375.48748	1375.41379
40	Point ZM	187	pt	6836913.348	11377274.05	1375.39294	1375.41379
28	Point ZM	163	pt	6836920.074	11377275.12	1375.32666	1375.41379
20	Point ZM	146	pt	6836924.988	11377275.13	1375.31589	1375.41379
43	Point ZM	199	pt	6836906.661	11377275.33	1375.42967	1375.41379
5	Point ZM	109	pt	6836938.704	11377275.6	1375.53427	1375.41379
41	Point ZM	188	pt	6836909.716	11377275.71	1375.40868	1375.41379
14	Point ZM	128	pt	6836931.692	11377275.93	1375.39329	1375.41379
21	Point ZM	147	pt	6836920.601	11377276.88	1375.35505	1375.41379
27	Point ZM	162	pt	6836915.847	11377277.18	1375.37392	1375.41379
42	Point ZM	189	pt	6836905.683	11377277.57	1375.38907	1375.41379
6	Point ZM	110	pt	6836933.762	11377277.83	1375.4524	1375.41379
13	Point ZM	127	pt	6836926.733	11377278.47	1375.38305	1375.41379
22	Point ZM	148	pt	6836916.91	11377278.66	1375.36077	1375.41379
26	Point ZM	161	pt	6836912.516	11377278.69	1375.3711	1375.41379
7	Point ZM	111	pt	6836928.497	11377280.26	1375.38582	1375.41379
25	Point ZM	160	pt	6836908.767	11377280.36	1375.39348	1375.41379
23	Point ZM	149	pt	6836912.932	11377280.58	1375.35667	1375.41379
12	Point ZM	126	pt	6836921.832	11377280.59	1375.39441	1375.41379
4	Point ZM	96	pt	6836935.016	11377282.19	1375.5528	1375.41379
24	Point ZM	150	pt	6836909.057	11377282.37	1375.34587	1375.41379
8	Point ZM	112	pt	6836923.062	11377282.72	1375.37727	1375.41379
11	Point ZM	125	pt	6836916.574	11377282.89	1375.39751	1375.41379
3	Point ZM	95	pt	6836930.98	11377284	1375.52457	1375.41379
10	Point ZM	124	pt	6836912.076	11377284.92	1375.41001	1375.41379
9	Point ZM	113	pt	6836917.819	11377285.11	1375.41171	1375.41379
2	Point ZM	94	pt	6836926.779	11377285.97	1375.47036	1375.41379
0	Point ZM	77	pt	6836927.673	11377287.69	1375.48612	1375.41379
1	Point ZM	93	pt	6836922.877	11377287.7	1375.46729	1375.41379