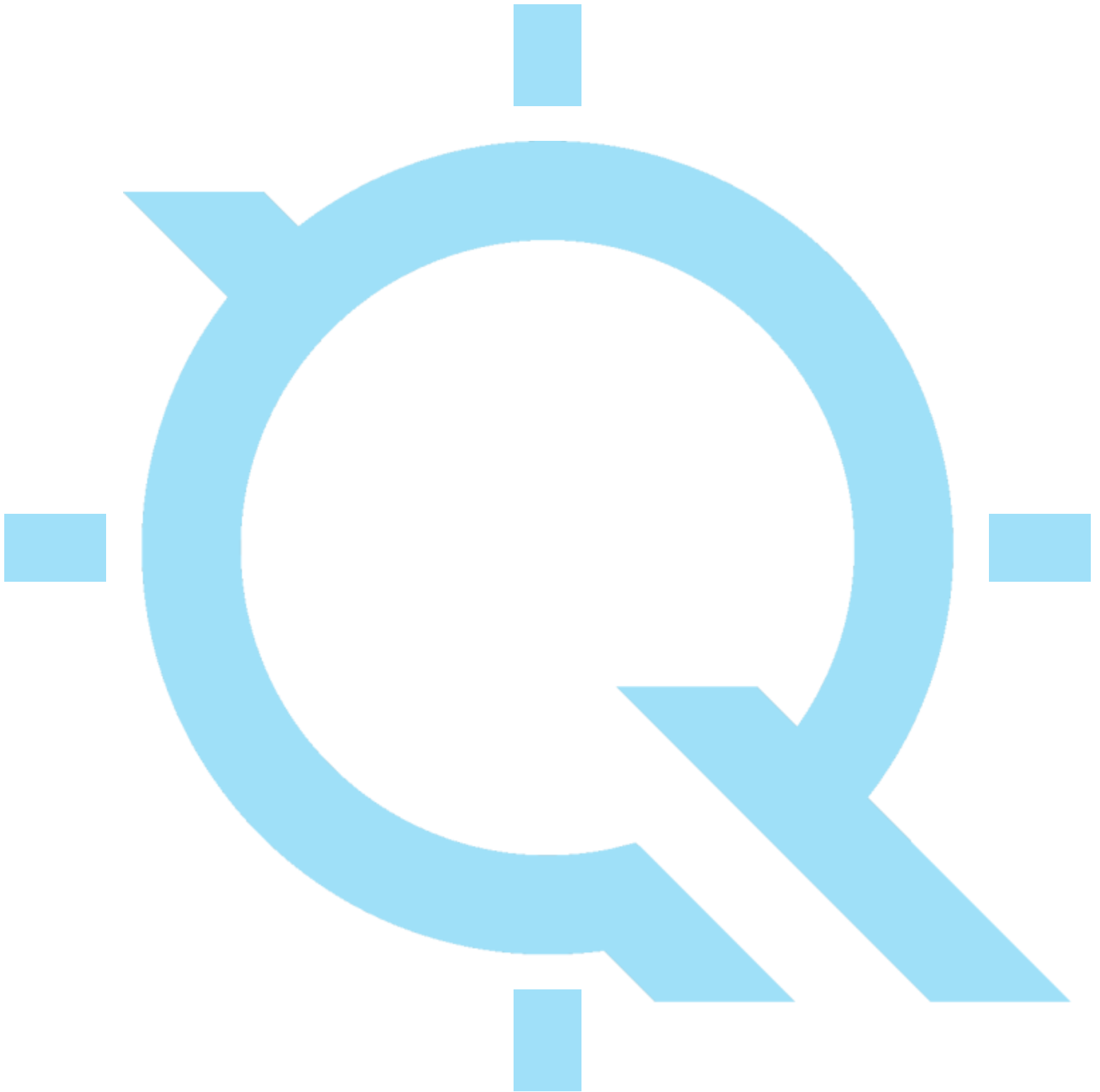


FOCUS on Accuracy



Hamilton County, IN
LiDAR Accuracy Assessment

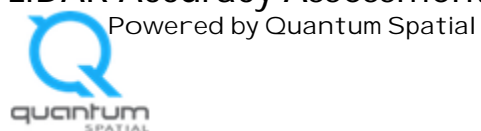
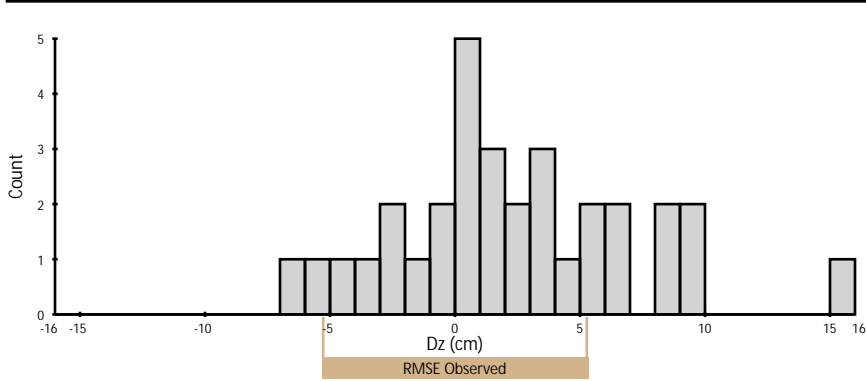


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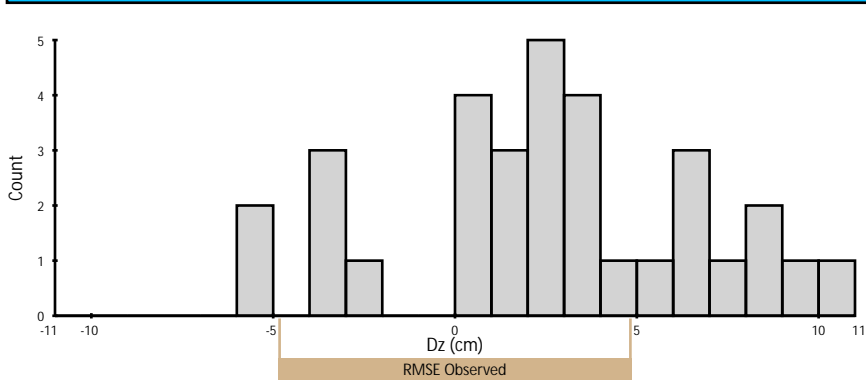
Project Summary

Nonvegetated Vertical Accuracy (Point Cloud)



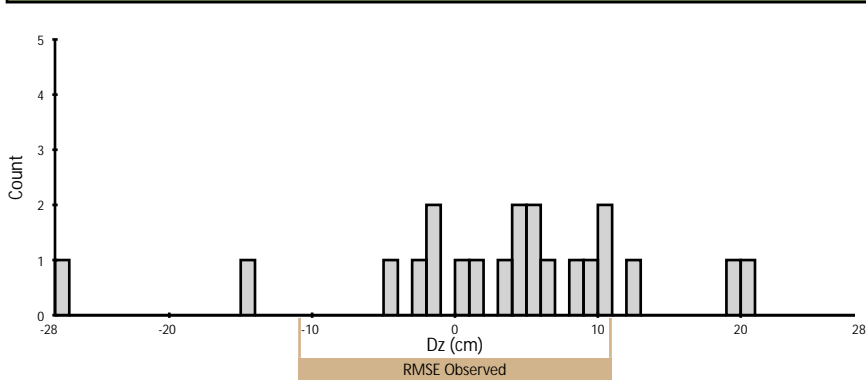
	Observed	Required
RMSE	5.33 cm	10.00 cm
95% Confidence Level	10.44 cm	19.60 cm
Mean	2.38 cm	N/A
Count	32	N/A

Nonvegetated Vertical Accuracy (DEM)



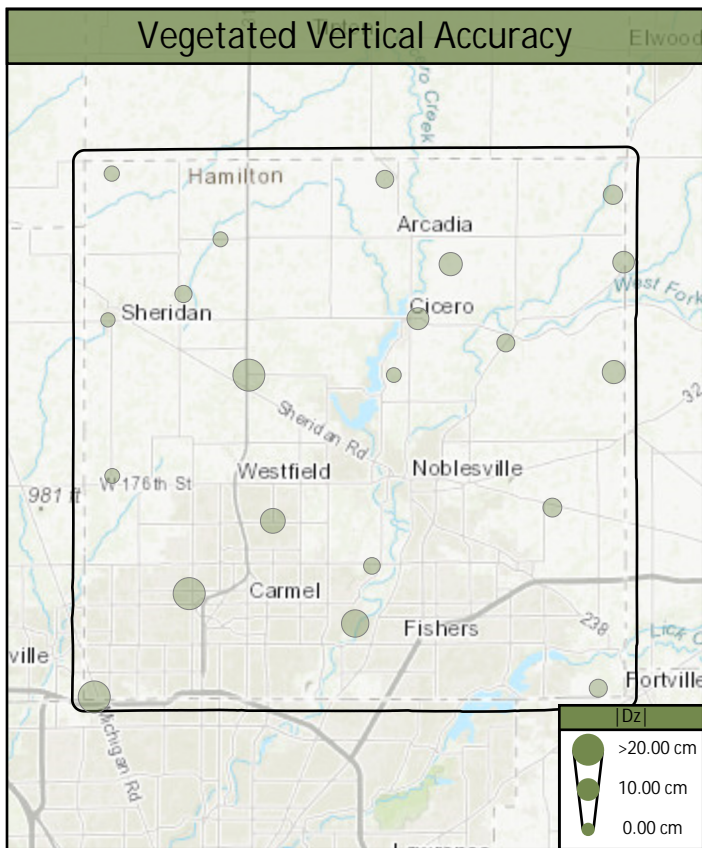
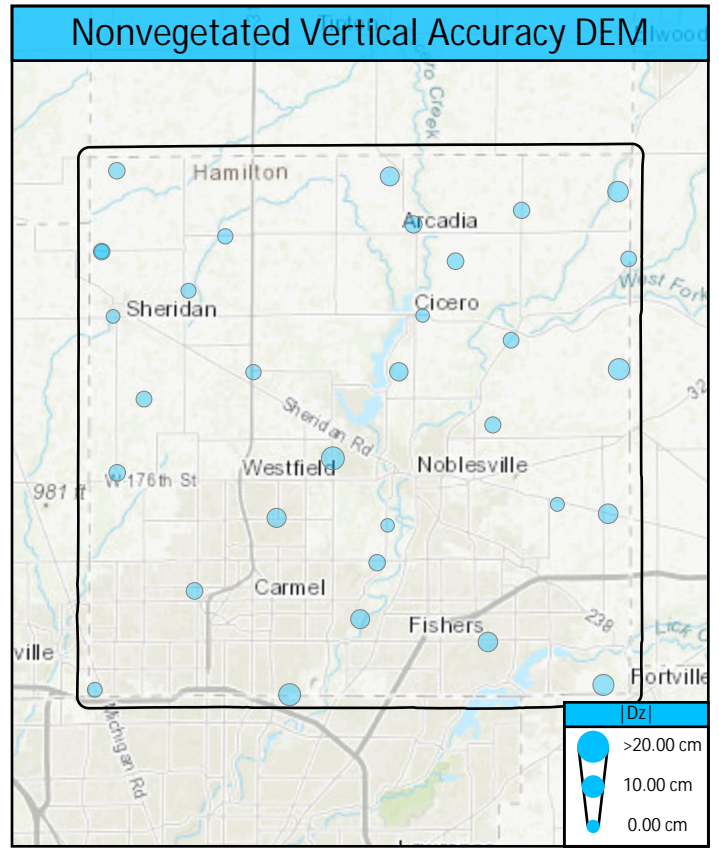
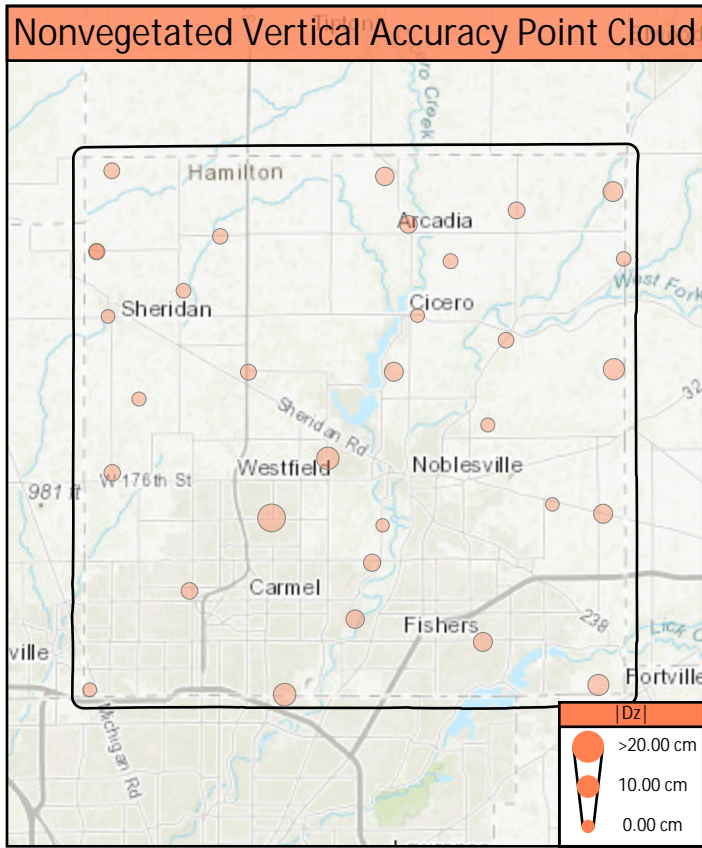
	Observed	Required
RMSE	4.86 cm	N/A
95% Confidence Level	9.53 cm	19.60 cm
Mean	2.55 cm	N/A
Count	32	N/A

Vegetated Vertical Accuracy (DEM)



	Observed	Required
RMSE	10.98 cm	N/A
95th Percentile	20.55 cm	29.40 cm
Mean	3.48 cm	N/A
Count	21	N/A

Control Point Locations



Control Point Breakdown

Point	Type	All Points TIN Dz	DEM Dz	Ground Density	Nearest Ground	Slope
be01	NVA	-2.61 cm	-3.34 cm	2.16 ppsm	0.35 m	2.23°
be02	NVA	5.48 cm	5.96 cm	1.66 ppsm	0.32 m	0.87°
be03	NVA	6.93 cm	7.69 cm	1.77 ppsm	0.55 m	5.93°
be04	NVA	1.68 cm	1.18 cm	2.05 ppsm	0.15 m	0.52°
be04	NVA	1.68 cm	1.18 cm	2.05 ppsm	0.15 m	0.52°
be05	NVA	1.68 cm	3.53 cm	1.70 ppsm	0.66 m	3.18°
be06	NVA	-1.34 cm	2.58 cm	1.52 ppsm	0.70 m	3.27°
be07	NVA	1.53 cm	1.77 cm	1.80 ppsm	0.30 m	0.59°
be08	NVA	-6.06 cm	-5.42 cm	1.77 ppsm	0.55 m	0.31°
be09	NVA	8.39 cm	8.39 cm	1.77 ppsm	0.65 m	1.26°
be10	NVA	3.33 cm	3.48 cm	1.84 ppsm	0.28 m	2.08°
be11	NVA	0.01 cm	0.12 cm	1.84 ppsm	0.48 m	1.73°
be12	NVA	6.08 cm	6.64 cm	2.26 ppsm	0.43 m	0.32°
be13	NVA	-3.82 cm	-3.24 cm	1.77 ppsm	0.48 m	1.96°
be14	NVA	2.31 cm	2.11 cm	1.80 ppsm	0.47 m	3.03°
be15	NVA	8.34 cm	8.22 cm	2.09 ppsm	0.51 m	0.78°
ua01	NVA	4.63 cm	4.22 cm	1.98 ppsm	0.31 m	1.19°
UA02	NVA	-0.46 cm	0.20 cm	1.66 ppsm	0.62 m	2.96°
ua03	NVA	-0.36 cm	0.45 cm	1.77 ppsm	0.30 m	1.19°
ua04	NVA	-2.52 cm	-2.53 cm	2.19 ppsm	0.28 m	0.24°
ua05	NVA	0.77 cm	2.63 cm	1.70 ppsm	0.47 m	0.62°
ua06	NVA	9.68 cm	10.21 cm	2.23 ppsm	0.19 m	1.51°
ua07	NVA	0.77 cm	2.99 cm	1.77 ppsm	0.39 m	3.14°
ua08	NVA	2.87 cm	2.09 cm	1.91 ppsm	0.30 m	0.74°
ua10	NVA	15.31 cm	6.12 cm	1.63 ppsm	0.45 m	1.79°
ua11	NVA	0.24 cm	0.61 cm	1.80 ppsm	0.40 m	1.75°

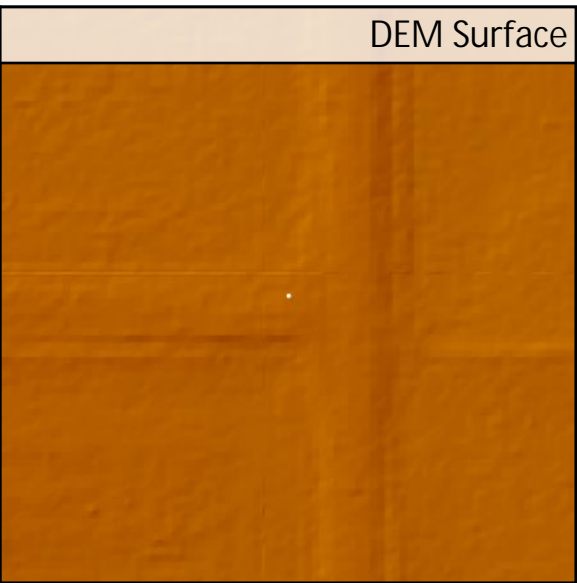
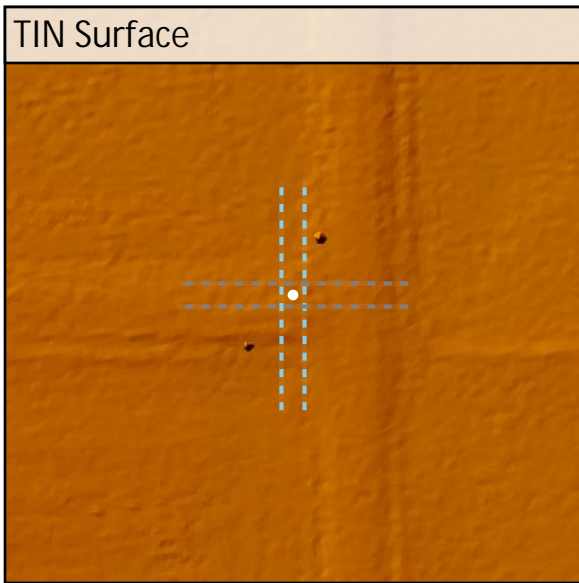
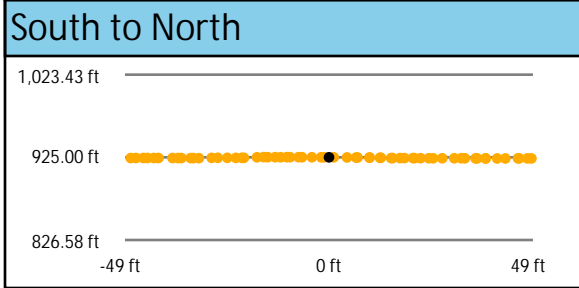
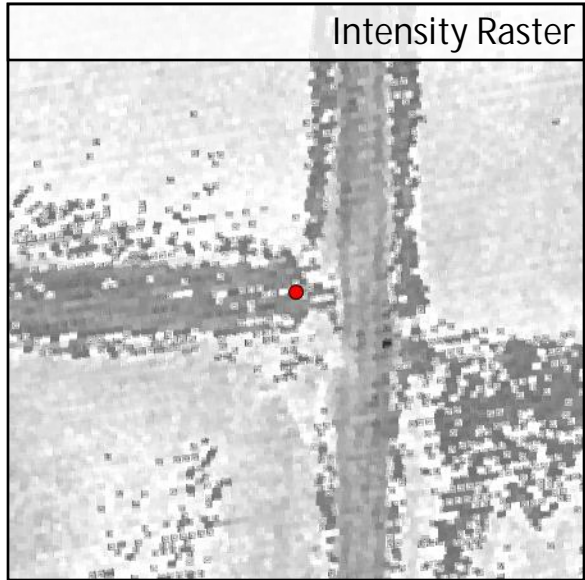
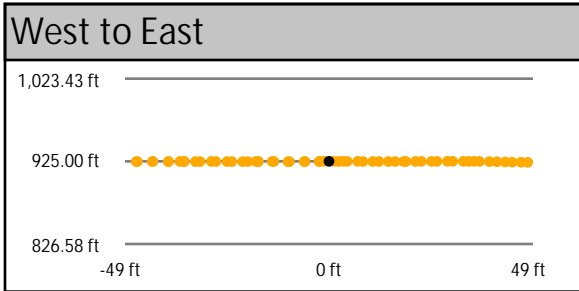
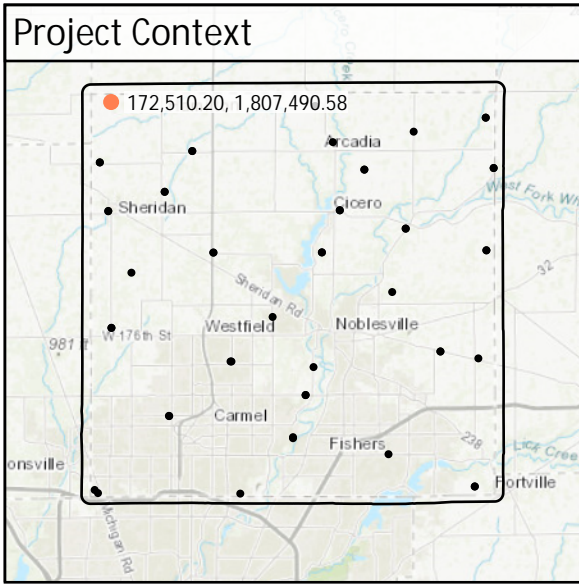
Control Point Breakdown (Continued)

Point	Type	All Points TIN Dz	DEM Dz	Ground Density	Nearest Ground	Slope
ua12	NVA	-5.45 cm	-5.94 cm	2.02 ppsm	0.41 m	0.89°
ua13	NVA	3.51 cm	3.59 cm	1.87 ppsm	0.51 m	0.22°
ua14	NVA	9.86 cm	9.20 cm	2.05 ppsm	0.28 m	0.16°
ua15	NVA	0.42 cm	1.49 cm	3.68 ppsm	0.36 m	1.65°
ua16	NVA	-4.15 cm	-3.33 cm	2.05 ppsm	0.32 m	1.77°
ua17	NVA	5.99 cm	6.56 cm	1.80 ppsm	0.04 m	0.53°
f001	VVA	N/A	-14.98 cm	1.98 ppsm	0.35 m	0.44°
sh01	VVA	N/A	-27.62 cm	2.09 ppsm	1.08 m	9.46°
tw01	VVA	N/A	-2.08 cm	1.98 ppsm	0.21 m	0.30°
tw02	VVA	N/A	4.82 cm	1.80 ppsm	0.34 m	0.48°
tw03	VVA	N/A	6.43 cm	1.73 ppsm	0.51 m	0.18°
tw05	VVA	N/A	10.53 cm	1.70 ppsm	0.09 m	2.05°
tw06	VVA	N/A	8.81 cm	1.70 ppsm	0.53 m	4.84°
tw07	VVA	N/A	1.00 cm	1.87 ppsm	0.40 m	0.80°
TW08	VVA	N/A	9.13 cm	1.80 ppsm	0.06 m	2.49°
tw09	VVA	N/A	4.89 cm	2.26 ppsm	0.52 m	1.39°
tw10	VVA	N/A	-4.13 cm	1.77 ppsm	0.29 m	2.31°
tw11	VVA	N/A	19.91 cm	1.91 ppsm	0.40 m	1.68°
tw12	VVA	N/A	-1.52 cm	1.77 ppsm	0.54 m	3.02°
tw13	VVA	N/A	10.47 cm	1.73 ppsm	0.31 m	2.15°
tw14	VVA	N/A	-1.66 cm	1.98 ppsm	0.37 m	3.40°
tw15	VVA	N/A	5.90 cm	1.98 ppsm	0.30 m	1.88°
tw16	VVA	N/A	12.28 cm	1.98 ppsm	0.11 m	12.78°
tw17	VVA	N/A	3.55 cm	2.09 ppsm	0.11 m	12.64°
tw18	VVA	N/A	1.74 cm	1.95 ppsm	0.54 m	1.91°
tw19	VVA	N/A	5.05 cm	2.09 ppsm	0.18 m	0.67°

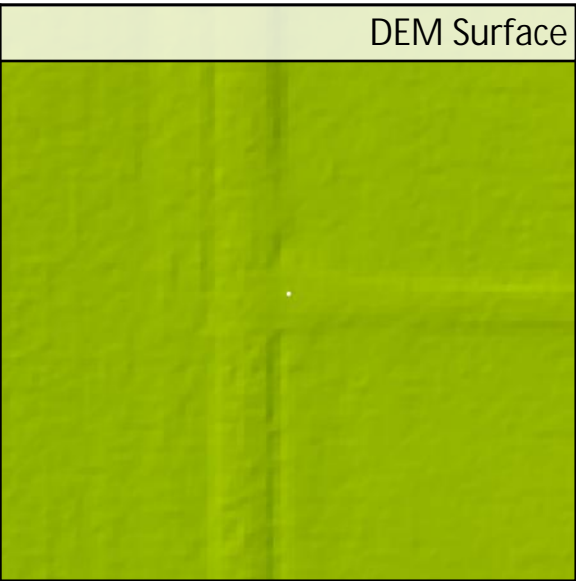
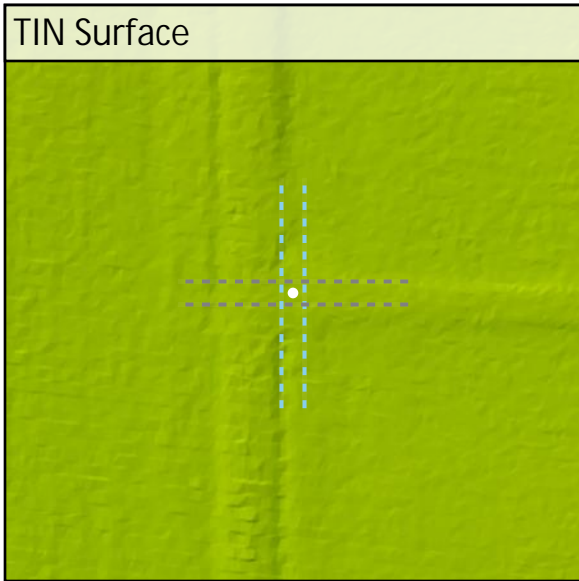
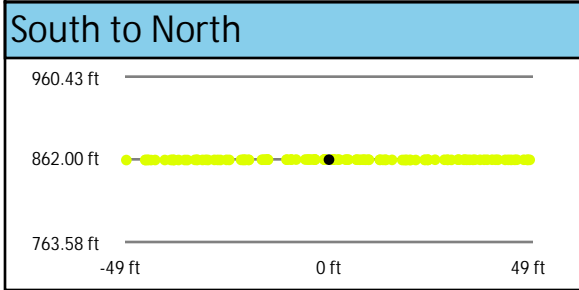
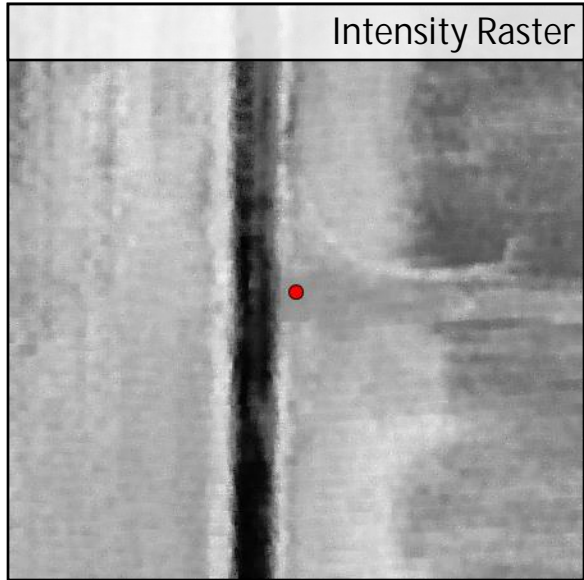
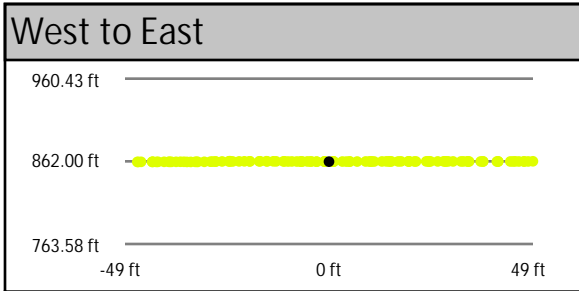
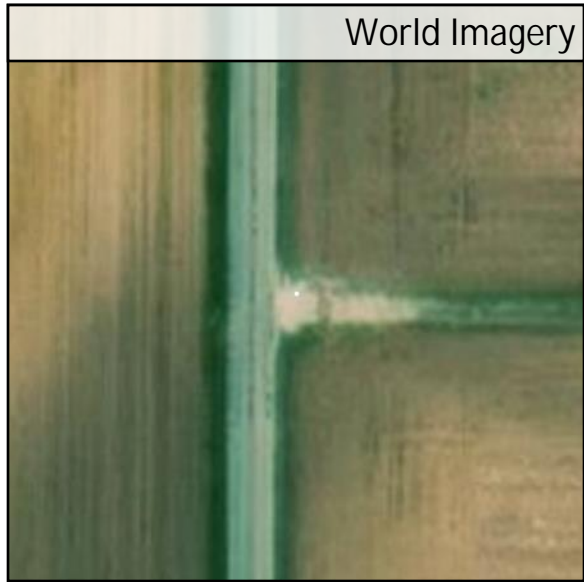
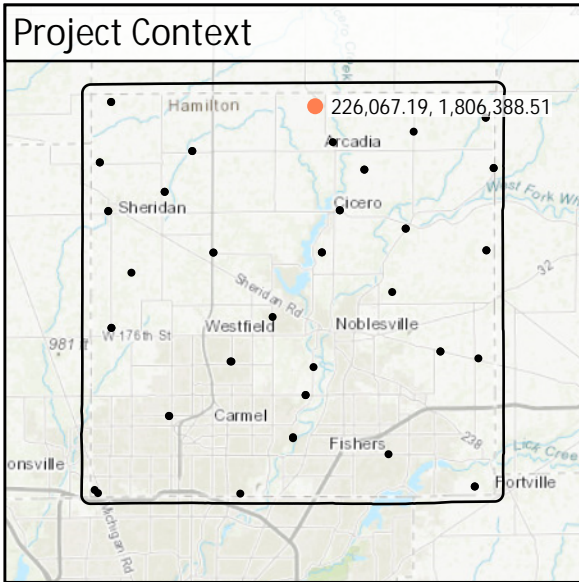
Control Point Breakdown (Continued)

Point	Type	All Points TIN Dz	DEM Dz	Ground Density	Nearest Ground	Slope
tw20	VVA	N/A	20.55 cm	1.80 ppsm	0.36 m	0.05°

be01	Known Z	925.01 ft	Point Density	2.16 ppsm
	DEM Dz	-0.11 ft	Ground Density	2.16 ppsm
	All Points TIN Dz	-0.09 ft	Slope	2.23 °



be02	Known Z	861.61 ft	Point Density	3.86 ppsm
	DEM Dz	0.20 ft	Ground Density	1.66 ppsm
	All Points TIN Dz	0.18 ft	Slope	0.87 °

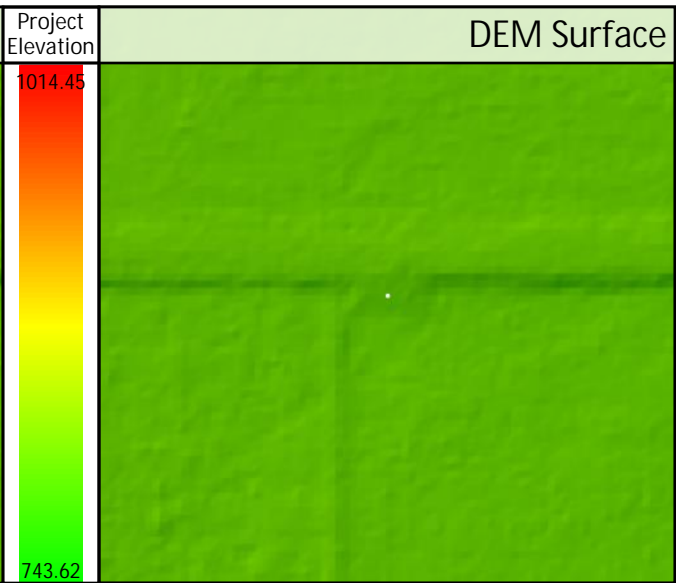
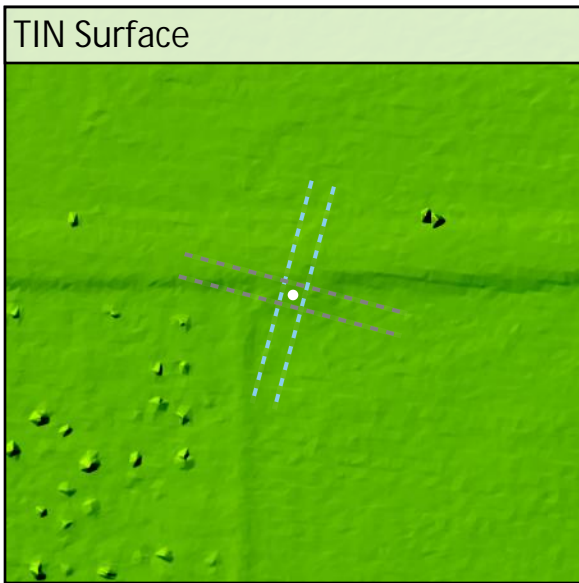
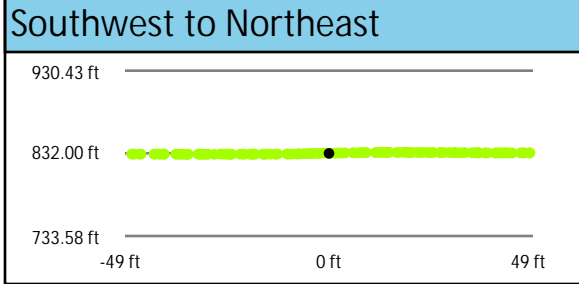
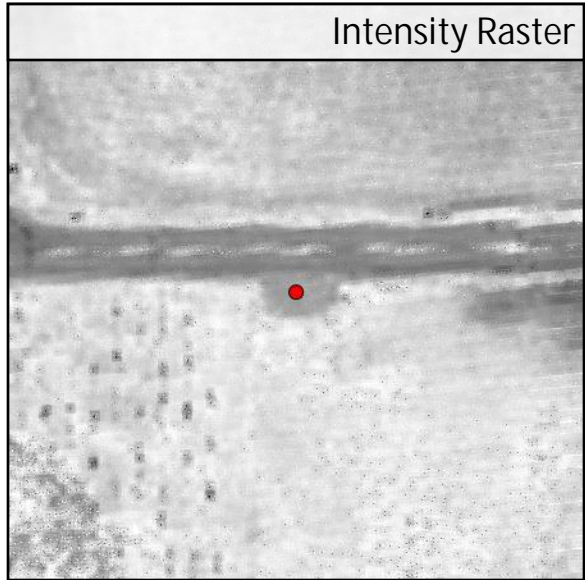
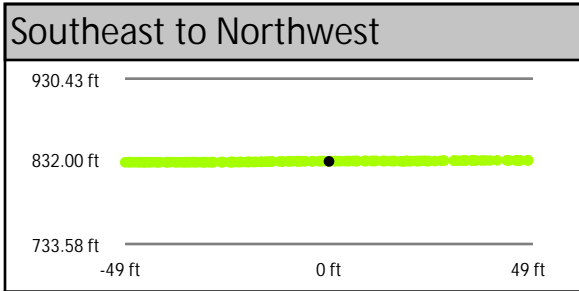
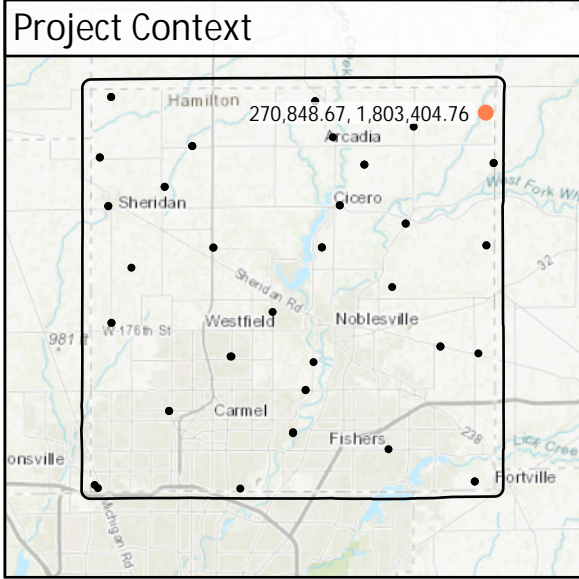


DEM Dz +0.20 ft

NVA - be02

All Points TIN Dz +0.18 ft

be03	Known Z	831.93 ft	Point Density	5.69 ppsm
	DEM Dz	0.25 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	0.23 ft	Slope	5.93 °

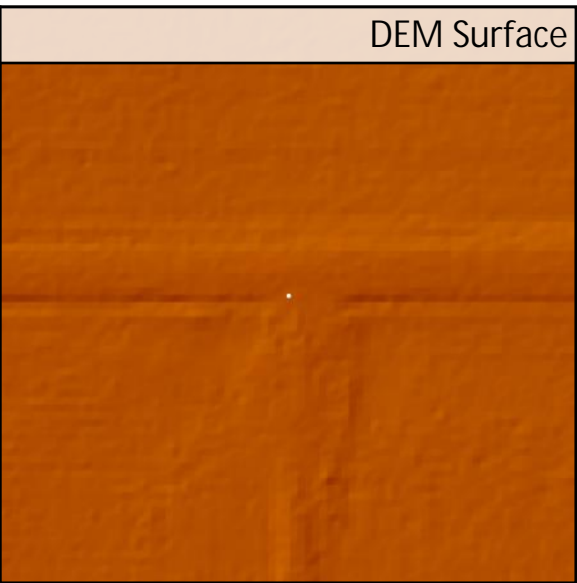
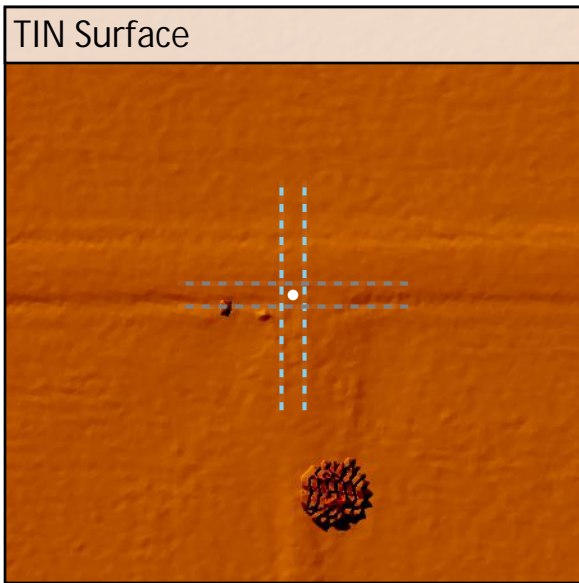
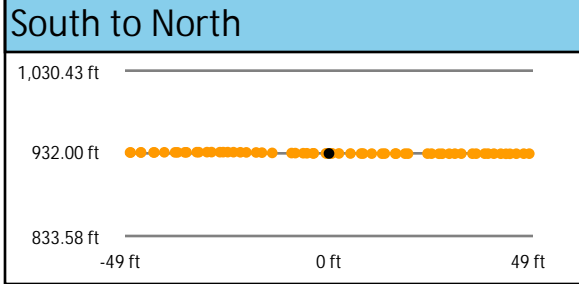
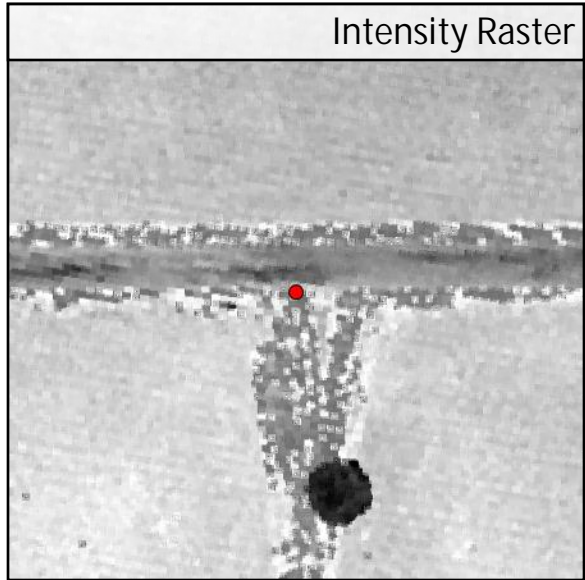
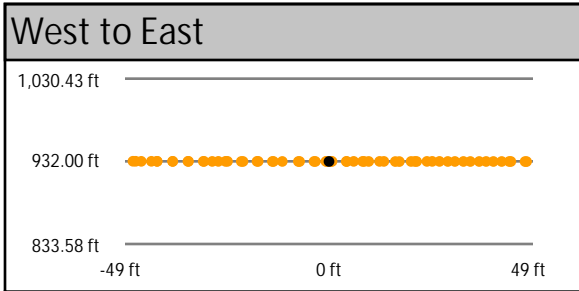
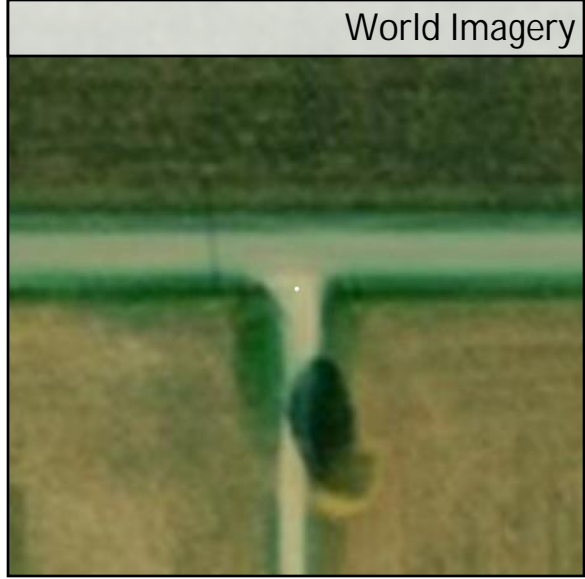
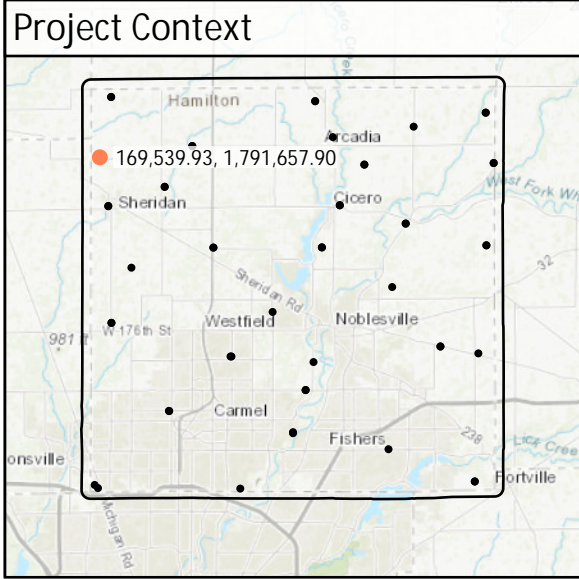


DEM Dz +0.25 ft

NVA - be03

All Points TIN Dz +0.23 ft

be04	Known Z	931.85 ft	Point Density	2.05 ppsm
	DEM Dz	0.04 ft	Ground Density	2.05 ppsm
	All Points TIN Dz	0.06 ft	Slope	0.52 °

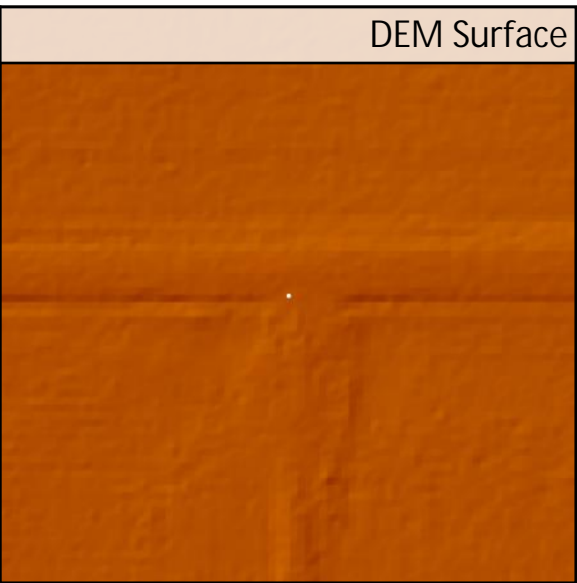
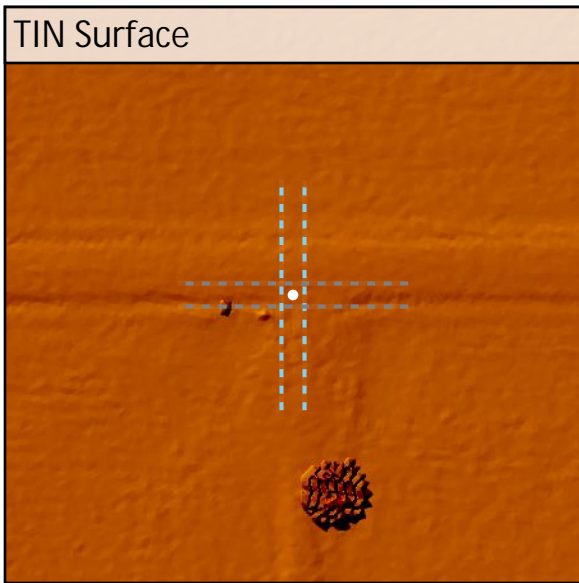
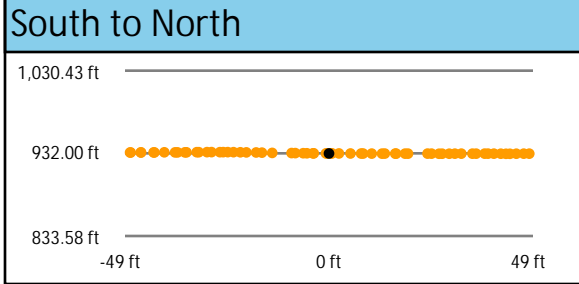
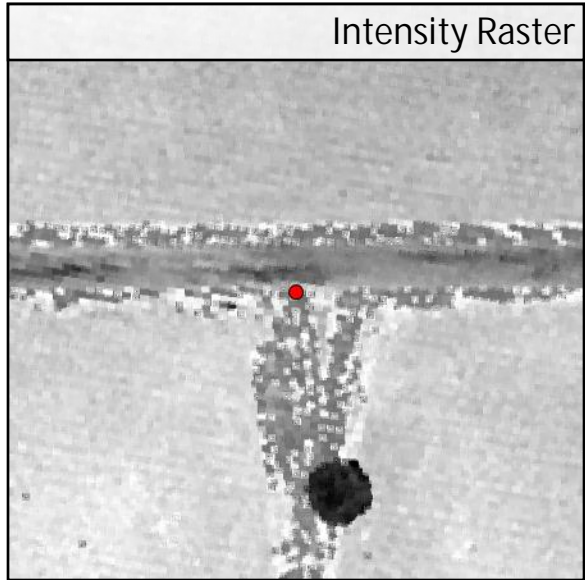
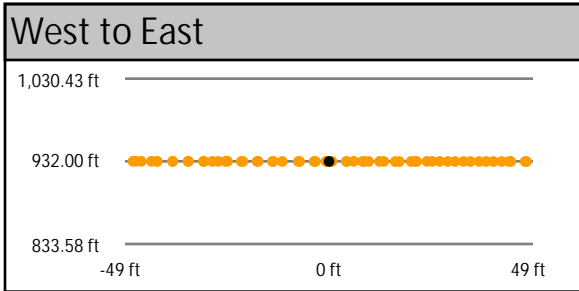
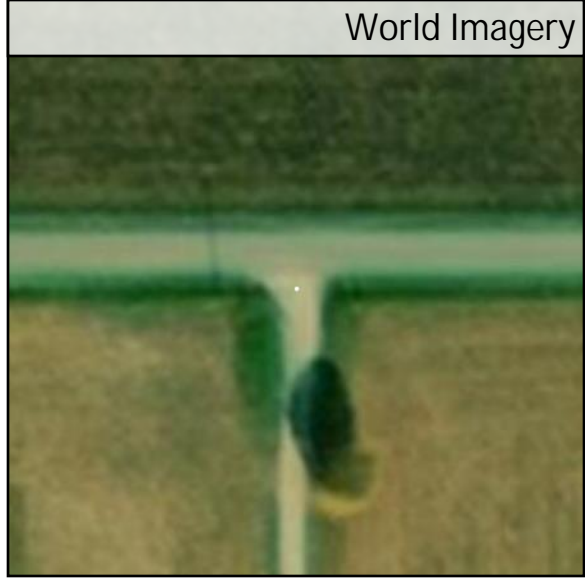
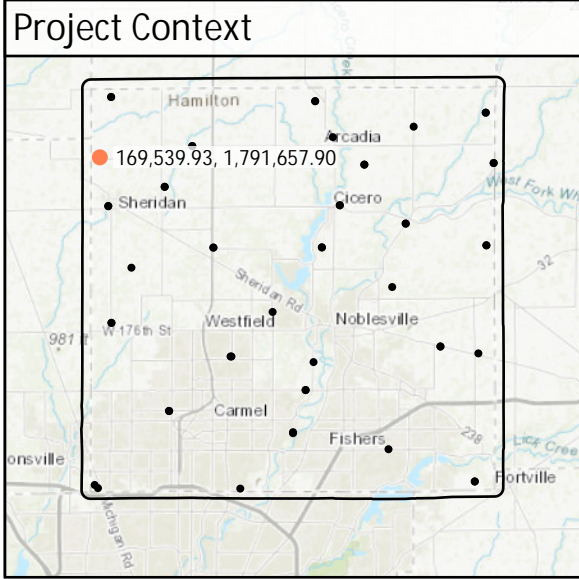


DEM Dz +0.04 ft

NVA - be04

All Points TIN Dz +0.06 ft

be04	Known Z	931.85 ft	Point Density	2.05 ppsm
	DEM Dz	0.04 ft	Ground Density	2.05 ppsm
	All Points TIN Dz	0.06 ft	Slope	0.52 °

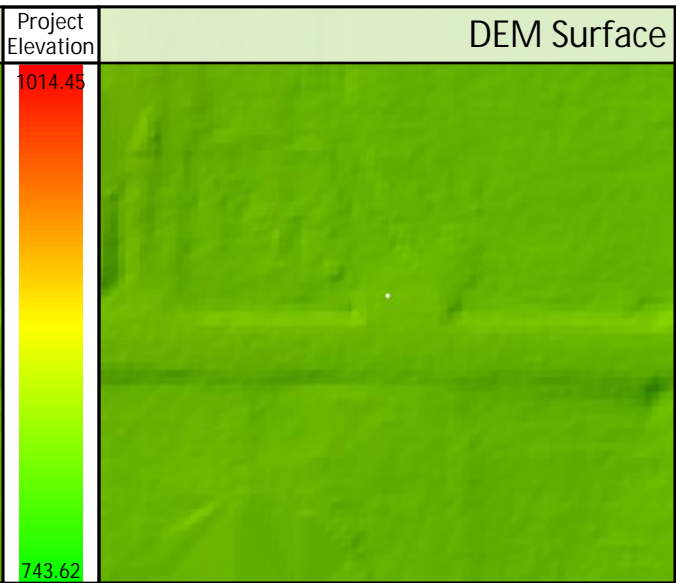
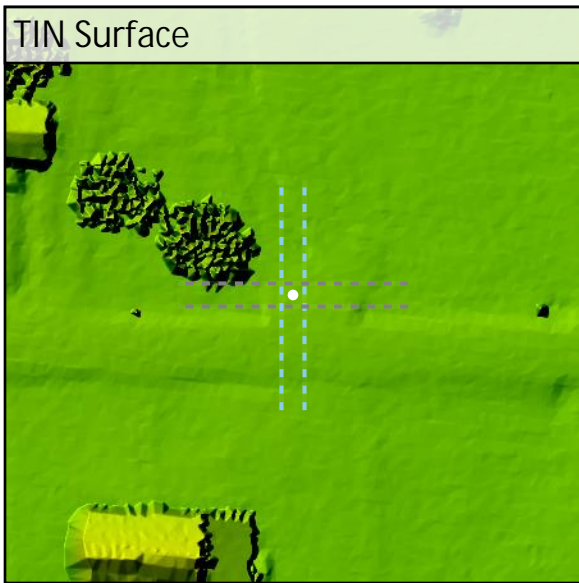
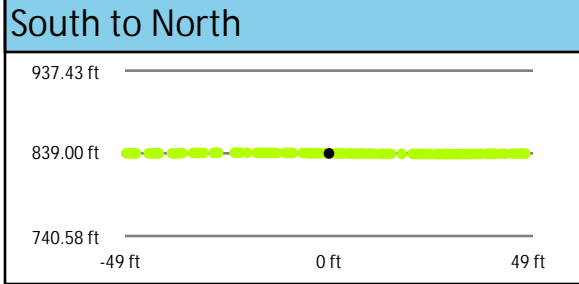
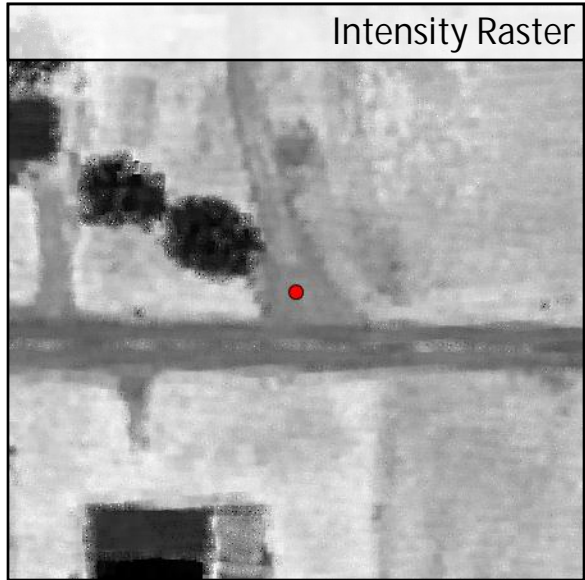
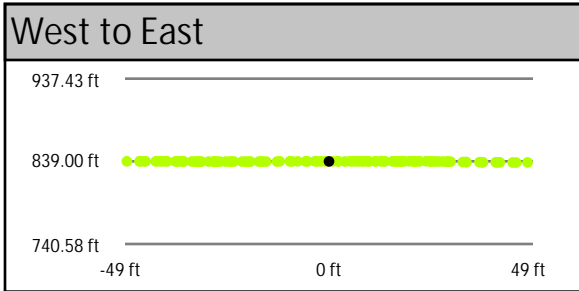
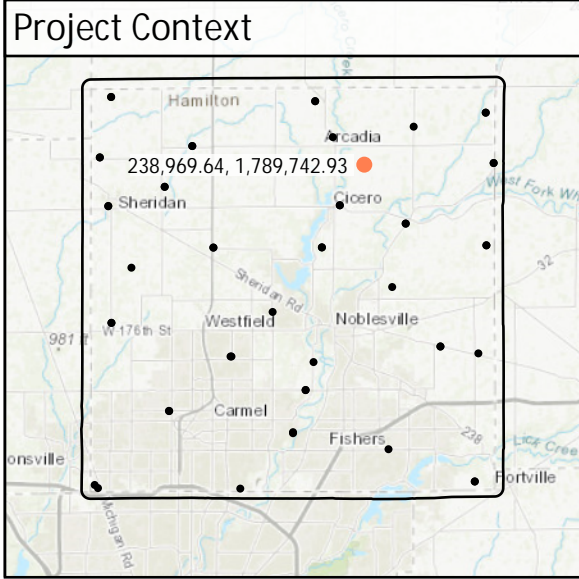


DEM Dz +0.04 ft

NVA - be04

All Points TIN Dz +0.06 ft

be05	Known Z	838.90 ft	Point Density	3.78 ppsm
	DEM Dz	0.12 ft	Ground Density	1.70 ppsm
	All Points TIN Dz	0.06 ft	Slope	3.18 °

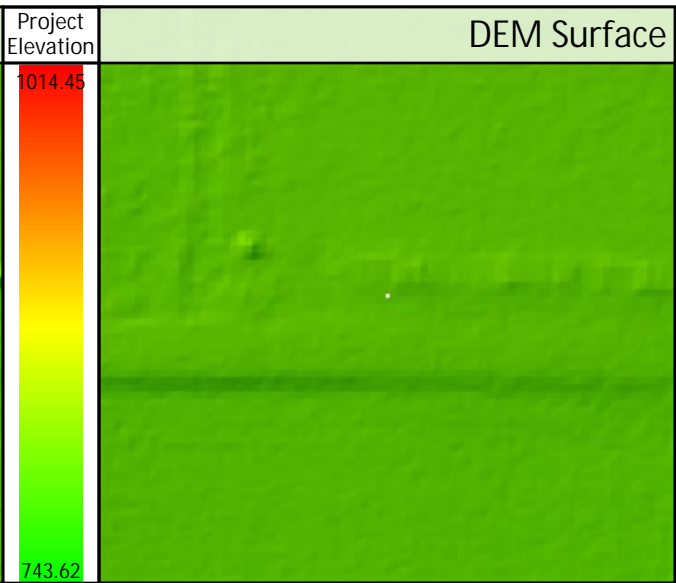
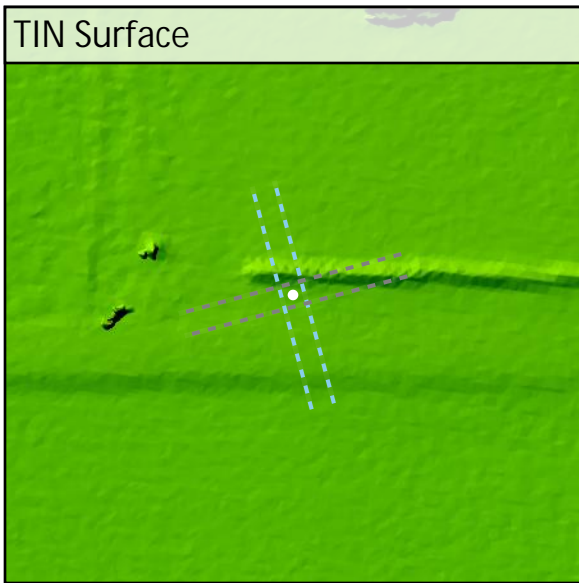
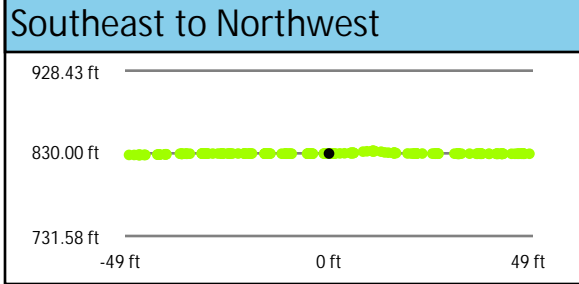
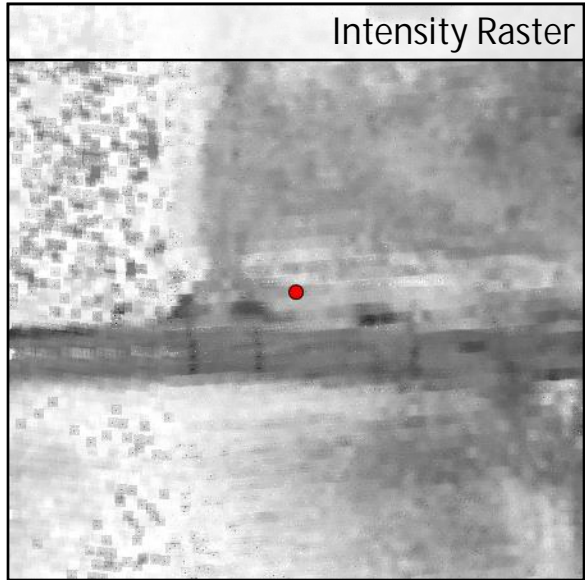
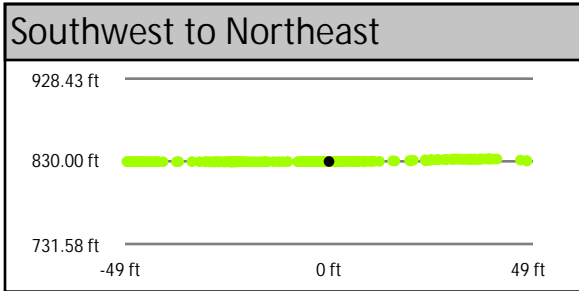
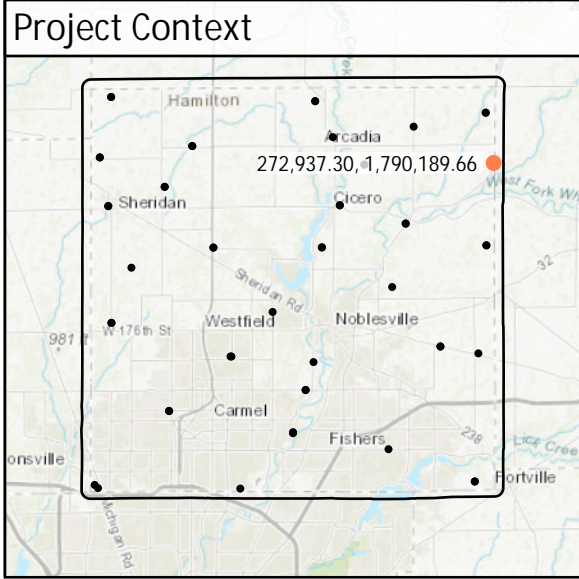


DEM Dz +0.12 ft

NVA - be05

All Points TIN Dz +0.06 ft

be06	Known Z	829.78 ft	Point Density	7.53 ppsm
	DEM Dz	0.08 ft	Ground Density	1.52 ppsm
	All Points TIN Dz	-0.04 ft	Slope	3.27 °

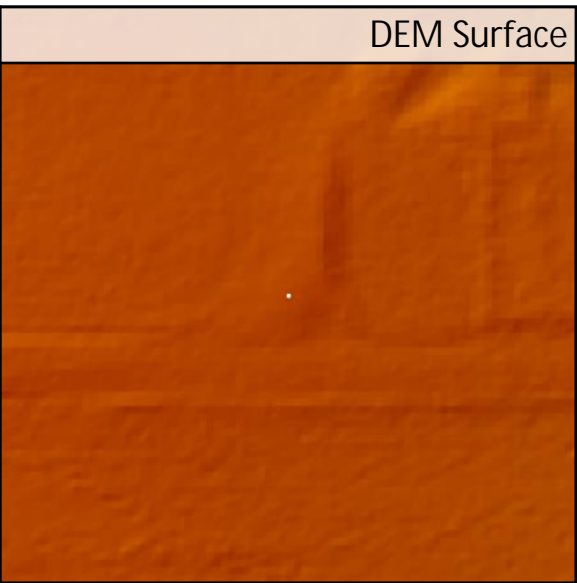
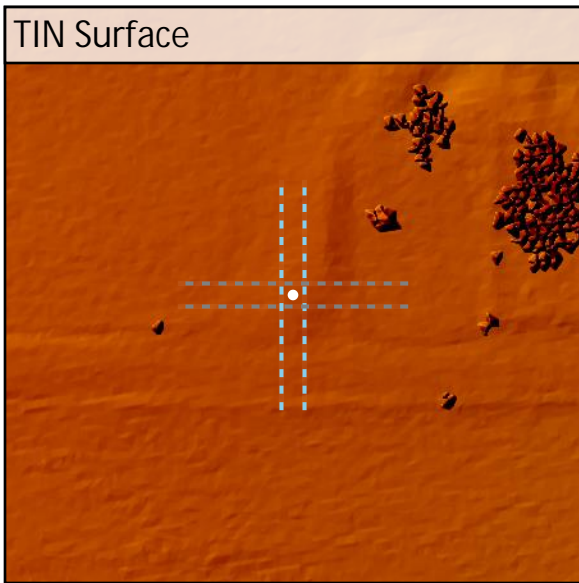
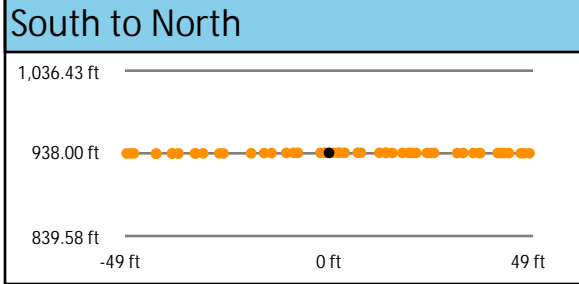
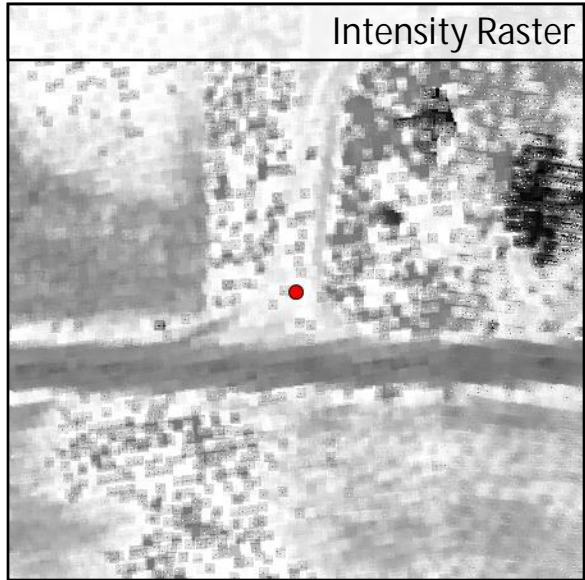
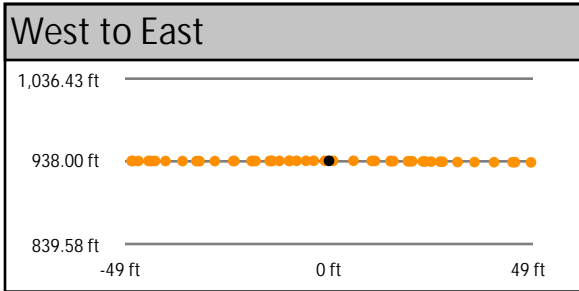
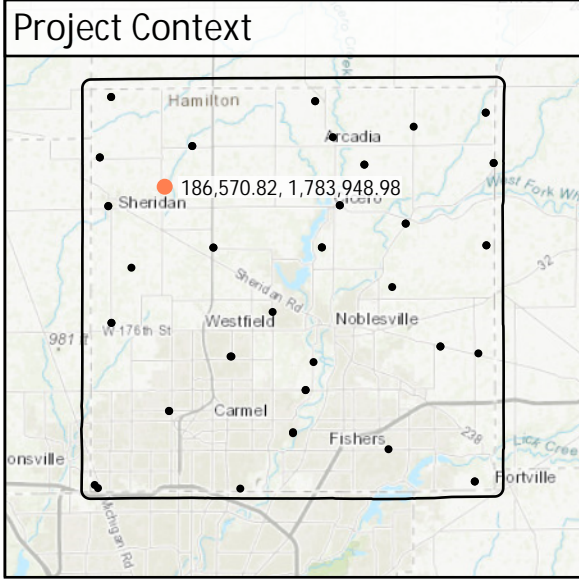


DEM Dz +0.08 ft

NVA - be06

All Points TIN Dz -0.04 ft

be07	Known Z	938.61 ft	Point Density	1.80 ppsm
	DEM Dz	0.06 ft	Ground Density	1.80 ppsm
	All Points TIN Dz	0.05 ft	Slope	0.59 °

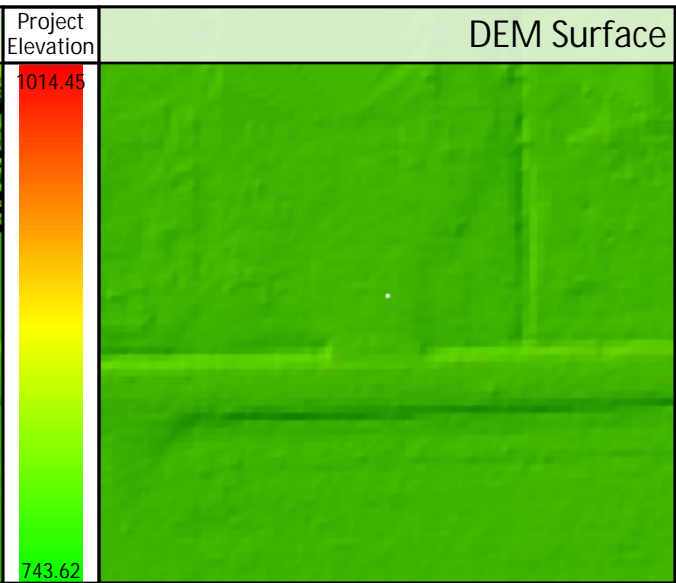
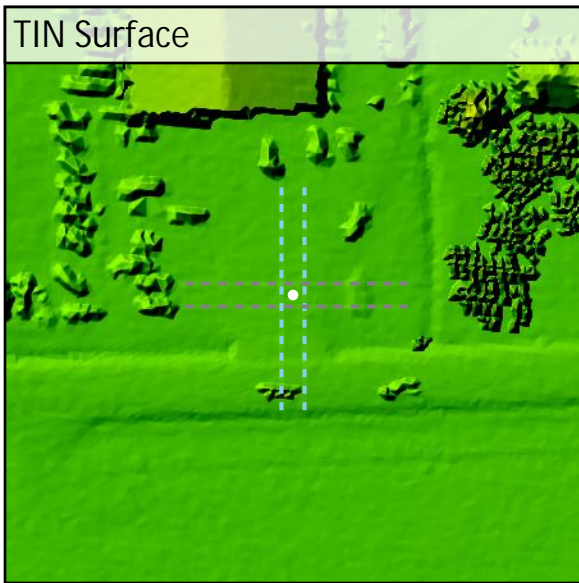
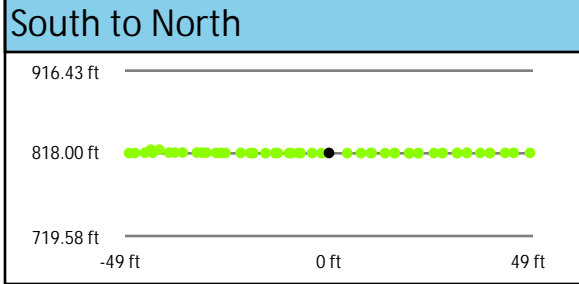
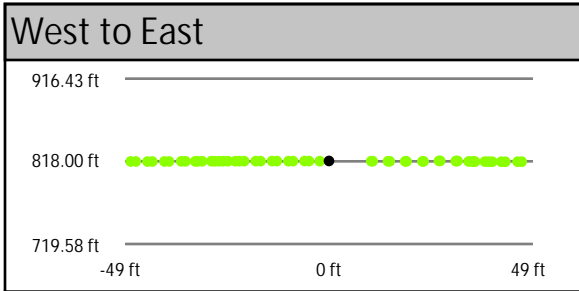
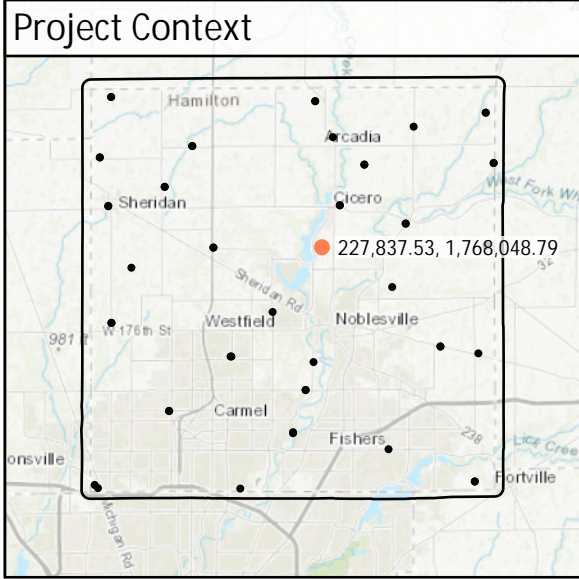


DEM Dz +0.06 ft

NVA - be07

All Points TIN Dz +0.05 ft

be08	Known Z	818.44 ft	Point Density	1.77 ppsm
	DEM Dz	-0.18 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	-0.20 ft	Slope	0.31 °

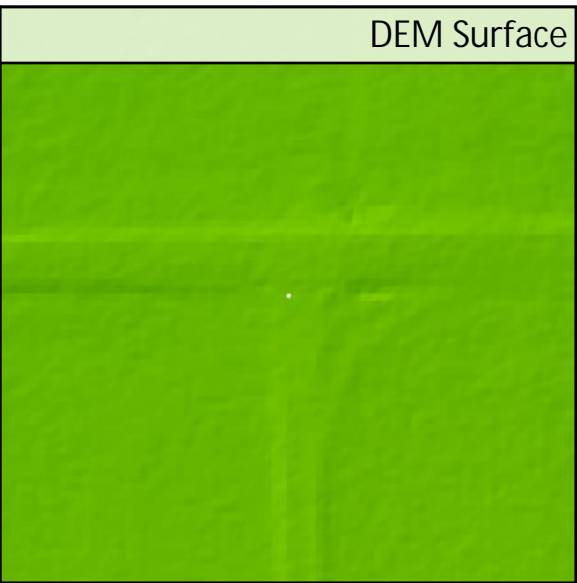
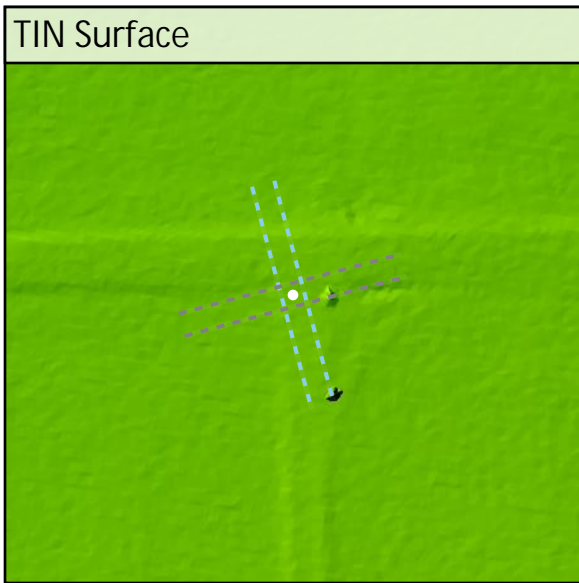
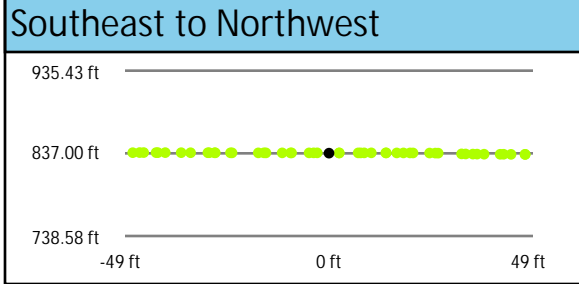
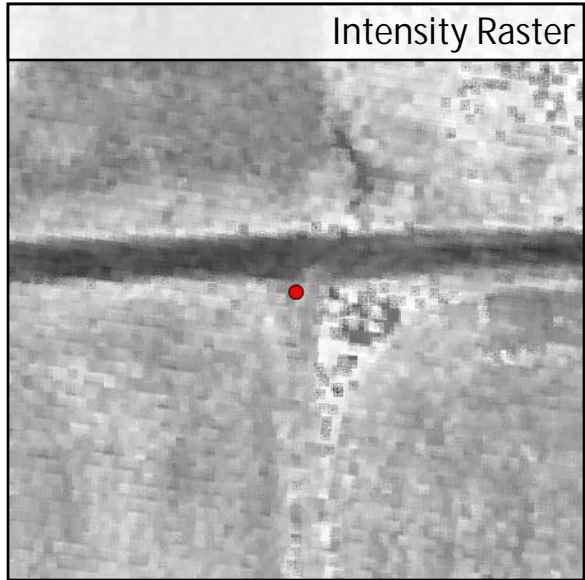
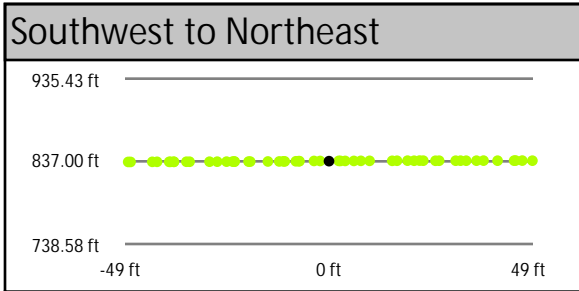
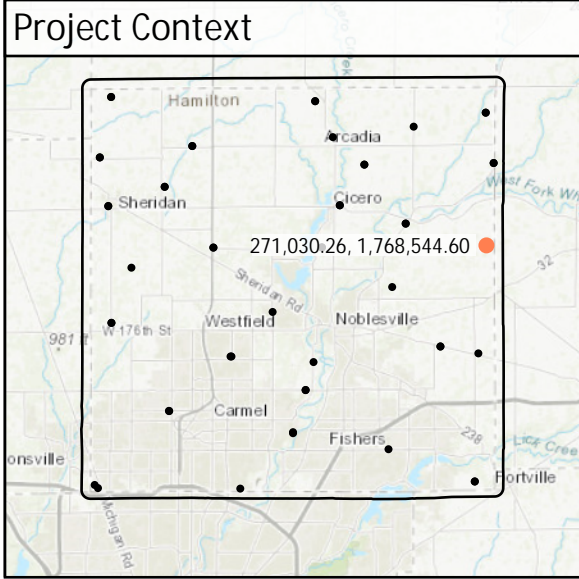


DEM Dz -0.18 ft

NVA - be08

All Points TIN Dz -0.20 ft

be09	Known Z	837.21 ft	Point Density	1.80 ppsm
	DEM Dz	0.28 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	0.28 ft	Slope	1.26 °

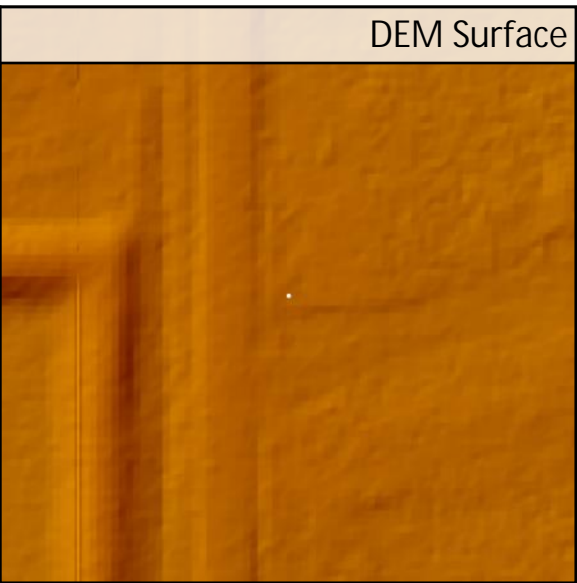
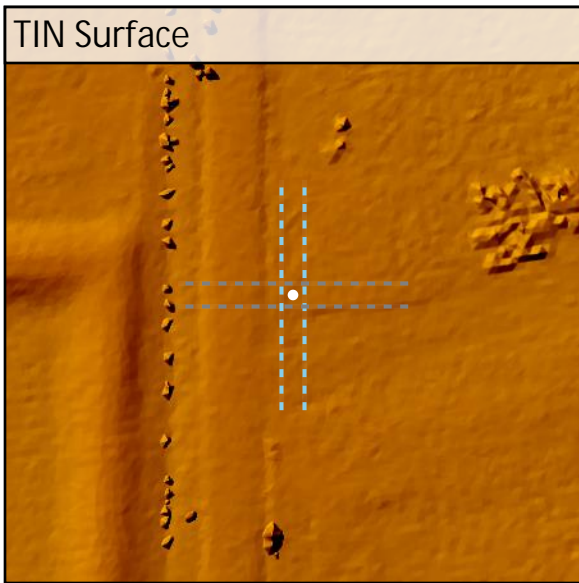
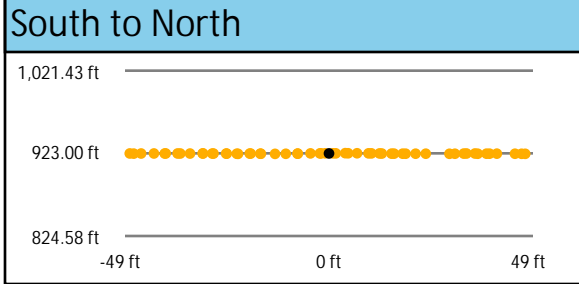
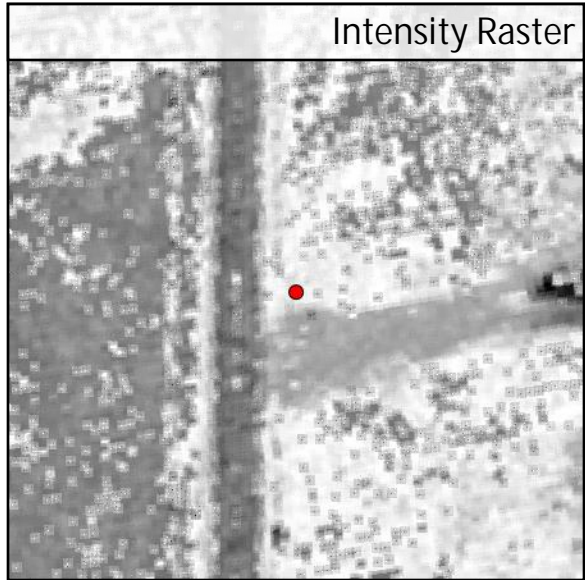
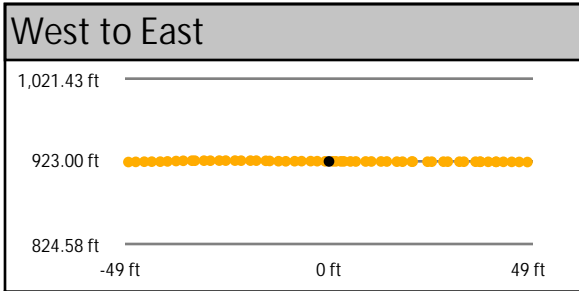
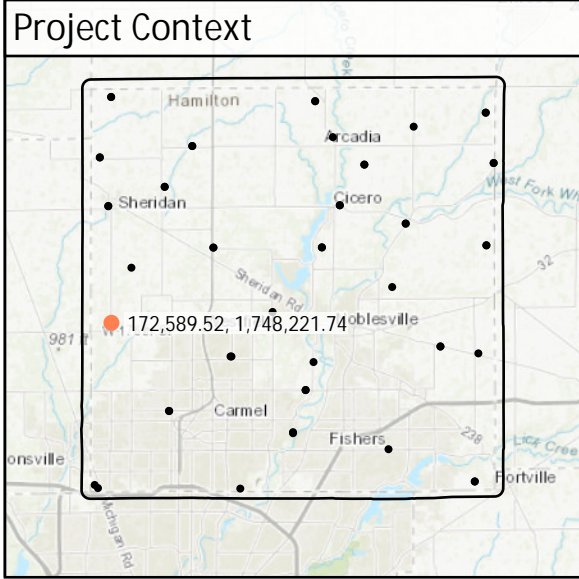


DEM Dz +0.28 ft

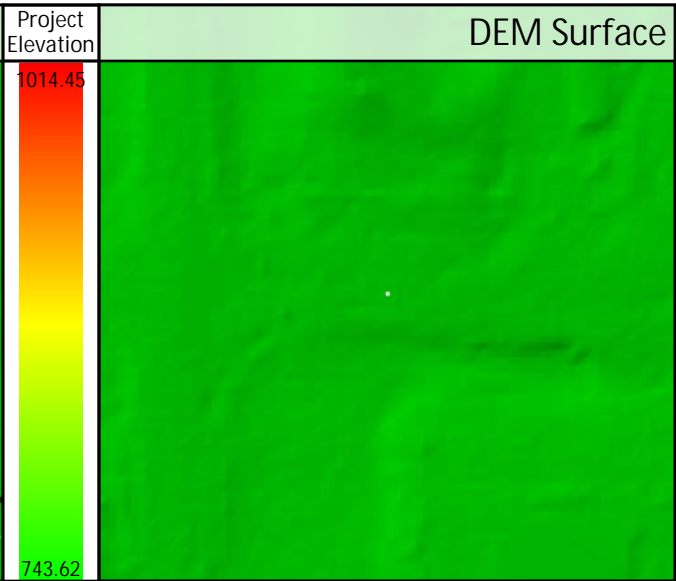
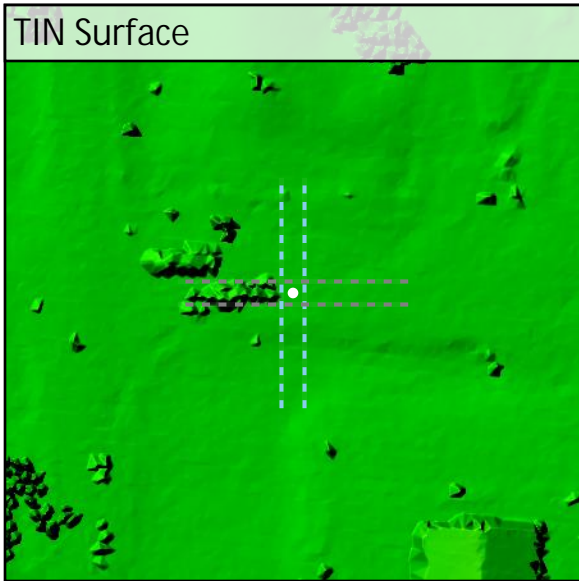
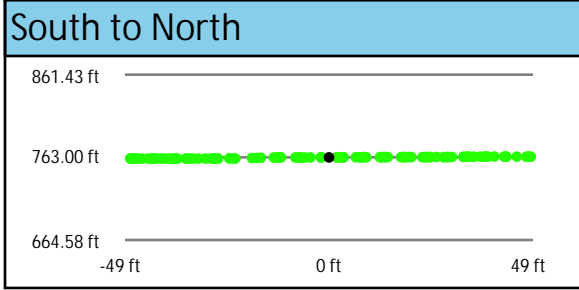
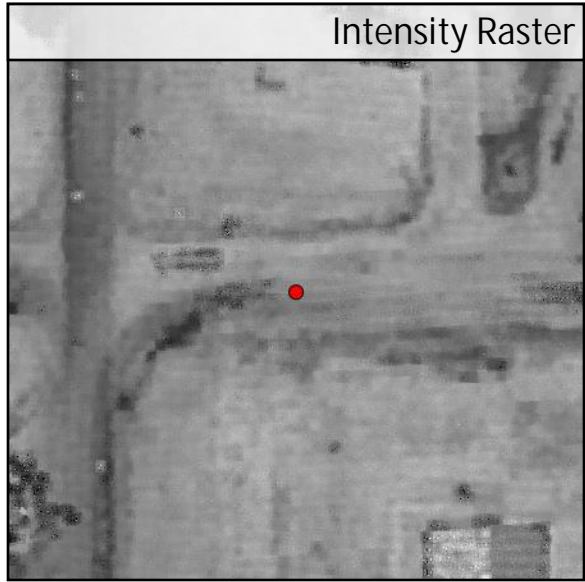
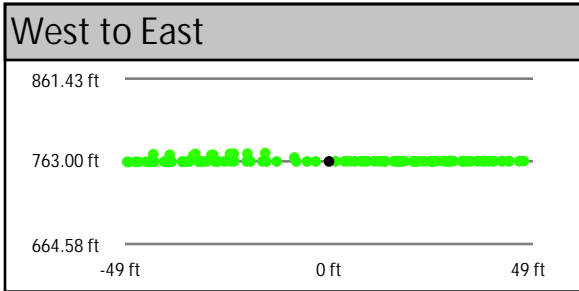
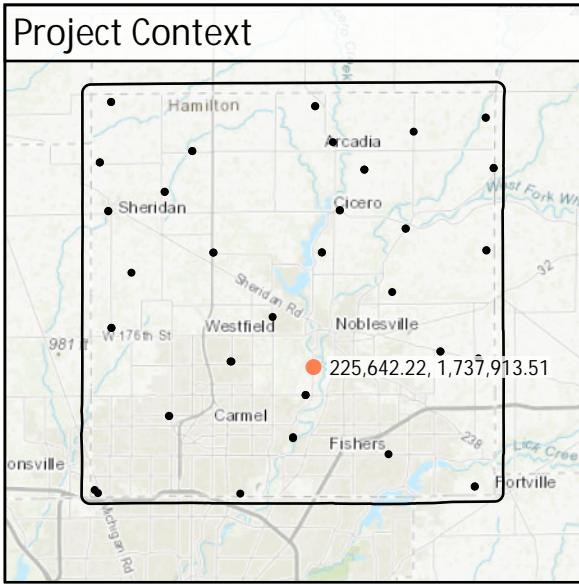
NVA - be09

All Points TIN Dz +0.28 ft

be10	Known Z	922.87 ft	Point Density	1.91 ppsm
	DEM Dz	0.11 ft	Ground Density	1.84 ppsm
	All Points TIN Dz	0.11 ft	Slope	2.08 °



be11	Known Z	762.91 ft	Point Density	4.10 ppsm
	DEM Dz	0.00 ft	Ground Density	1.84 ppsm
	All Points TIN Dz	0.00 ft	Slope	1.73 °

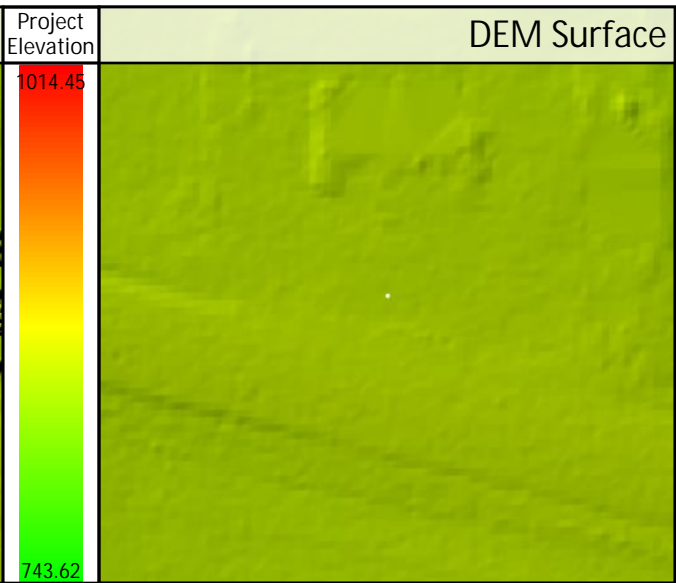
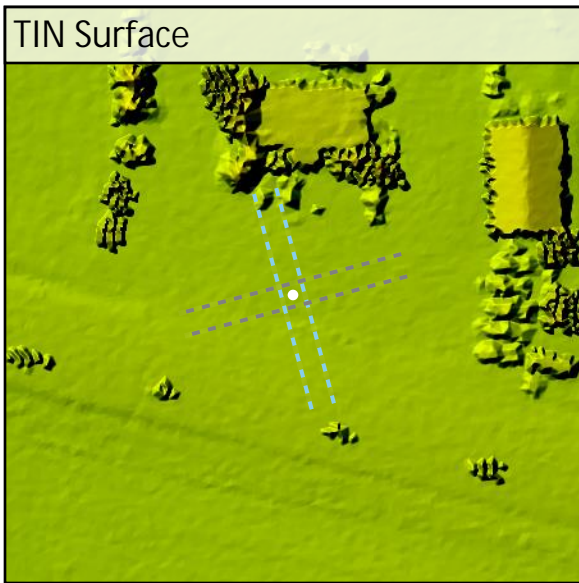
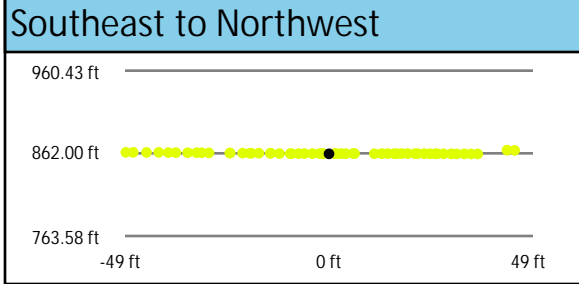
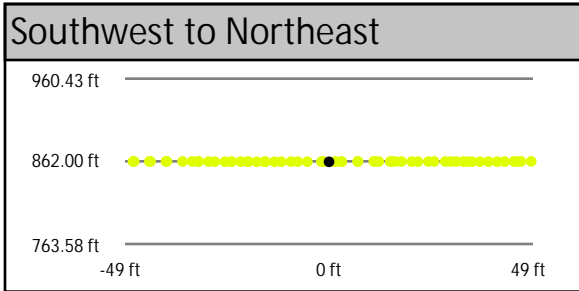
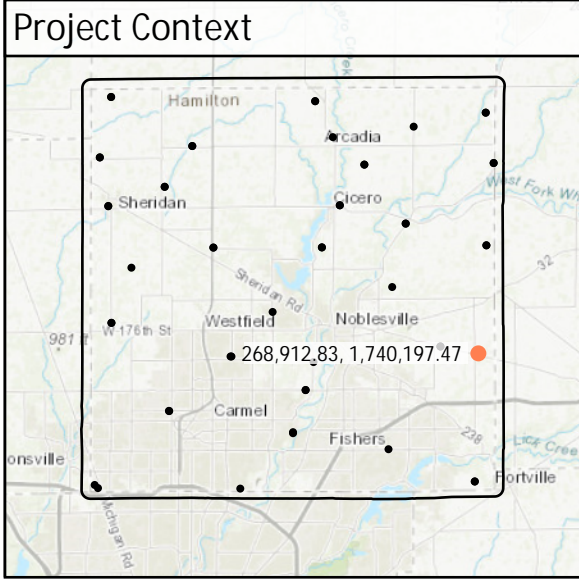


DEM Dz +0.00 ft

NVA - be11

All Points TIN Dz +0.00 ft

be12	Known Z	861.41 ft	Point Density	2.26 ppsm
	DEM Dz	0.22 ft	Ground Density	2.26 ppsm
	All Points TIN Dz	0.20 ft	Slope	0.32 °

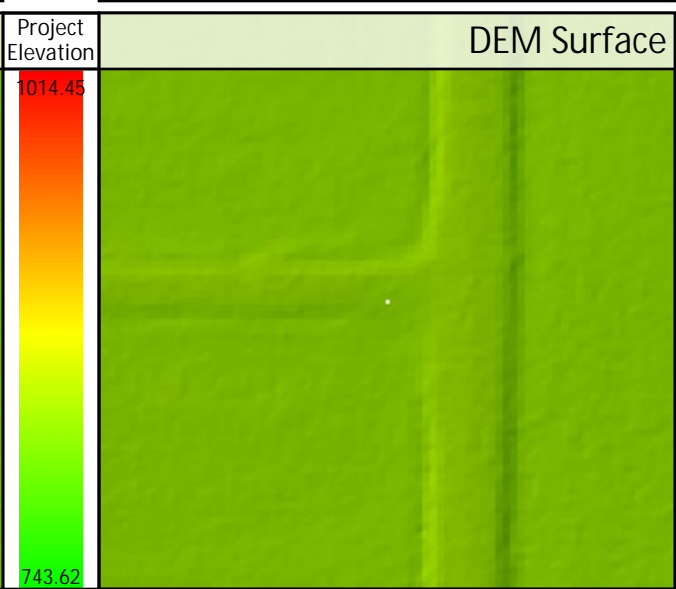
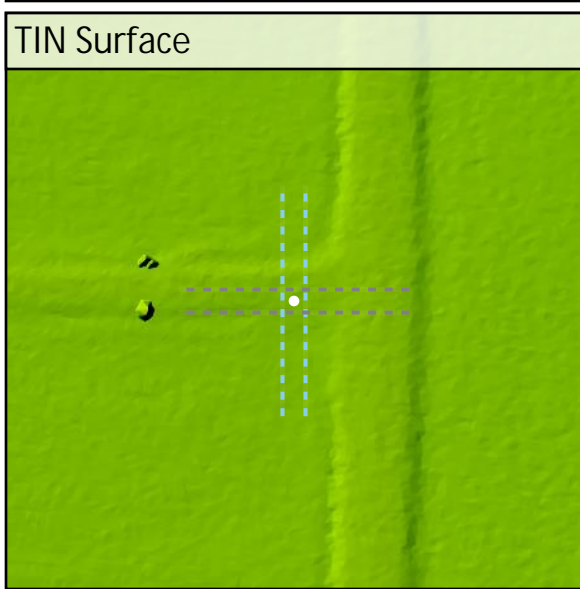
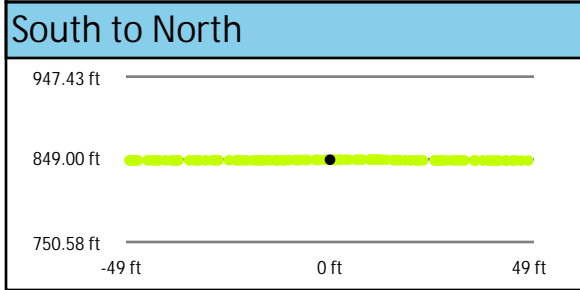
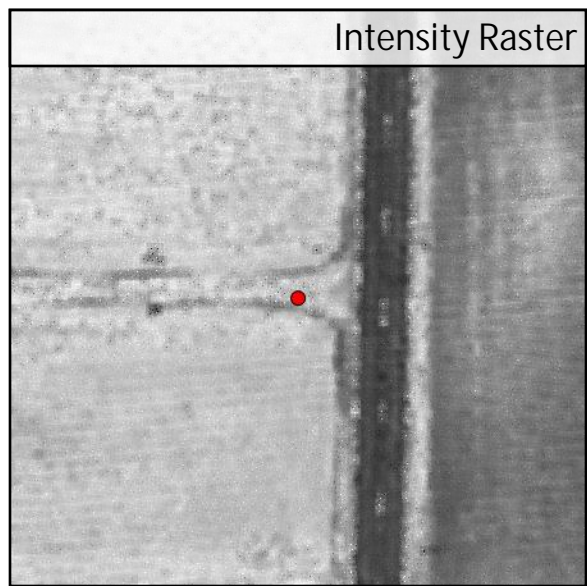
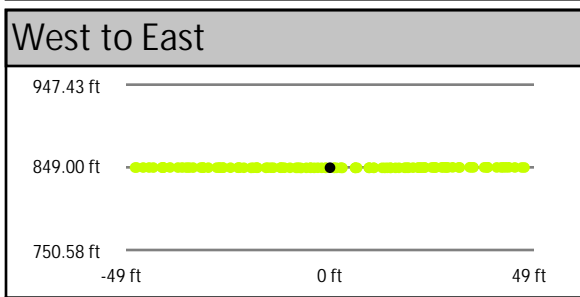
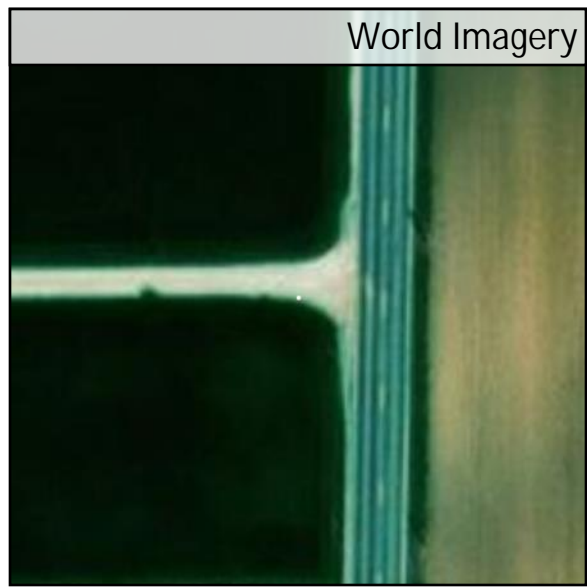
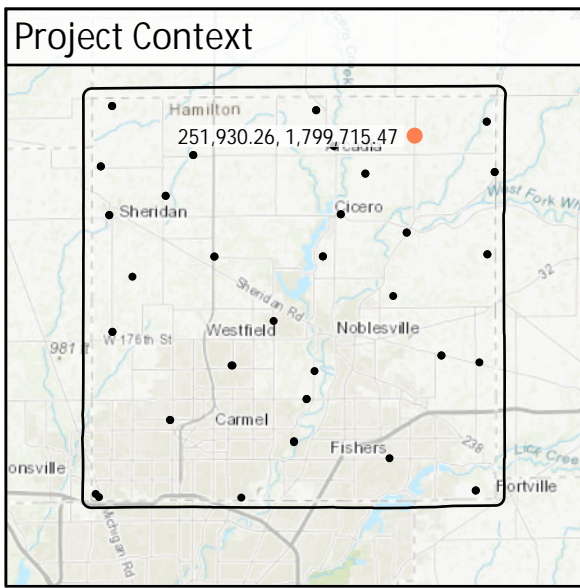


DEM Dz +0.22 ft

NVA - be12

All Points TIN Dz +0.20 ft

be13	Known Z	848.56 ft	Point Density	4.28 ppsm
	DEM Dz	-0.11 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	-0.13 ft	Slope	1.96 °

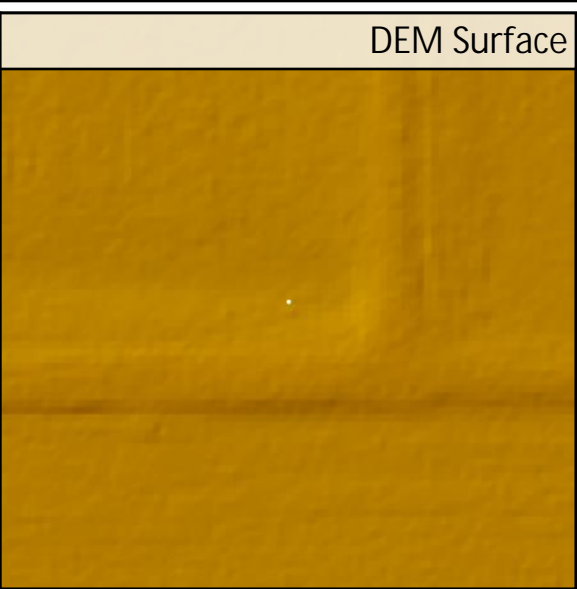
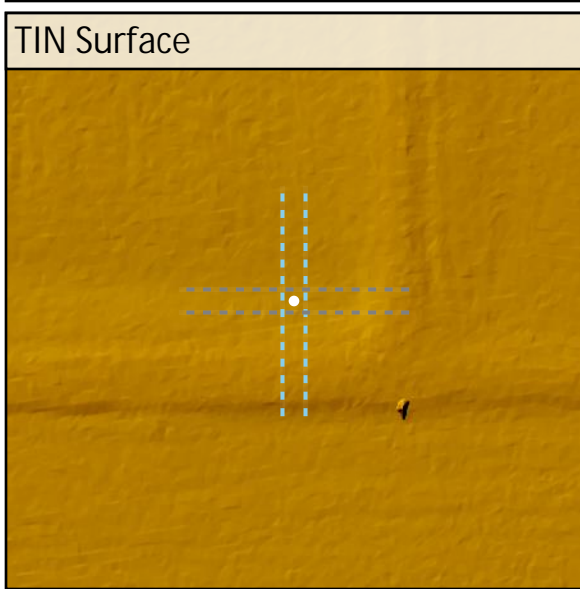
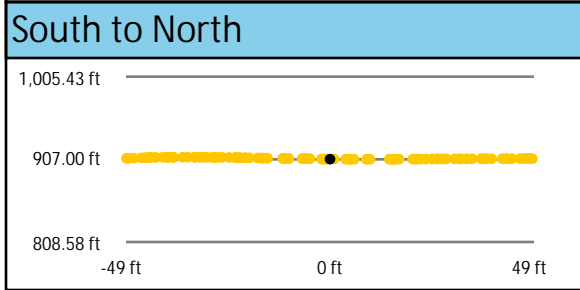
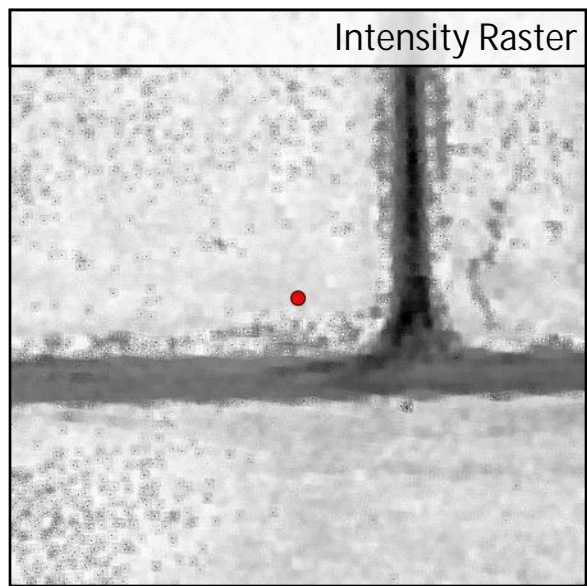
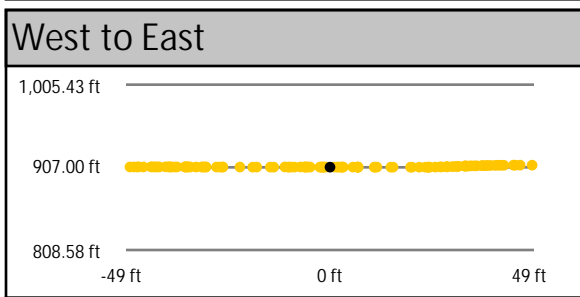
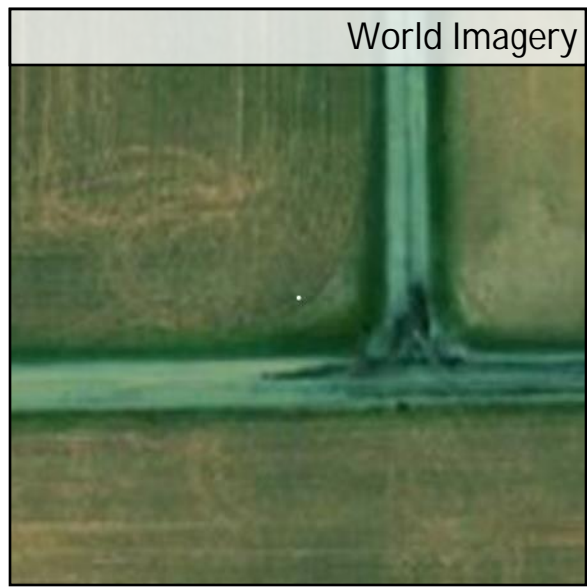
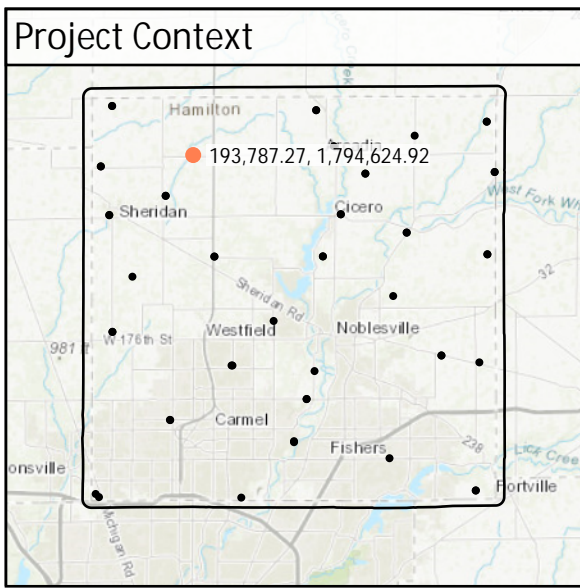


DEM Dz -0.11 ft

NVA - be13

All Points TIN Dz -0.13 ft

be14	Known Z	907.22 ft	Point Density	3.75 ppsm
	DEM Dz	0.07 ft	Ground Density	1.80 ppsm
	All Points TIN Dz	0.08 ft	Slope	3.03 °

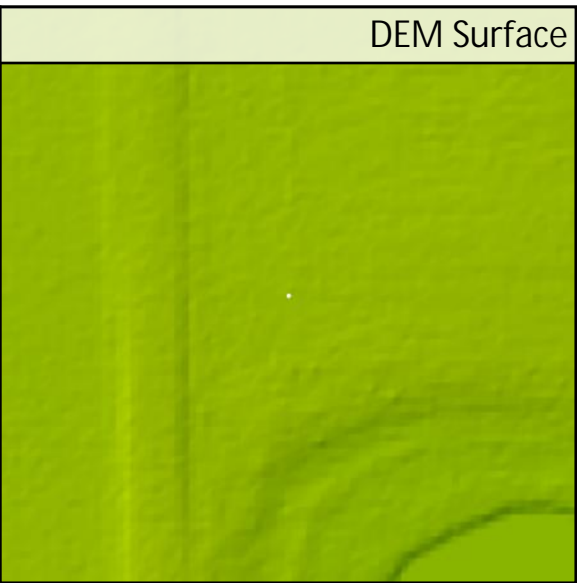
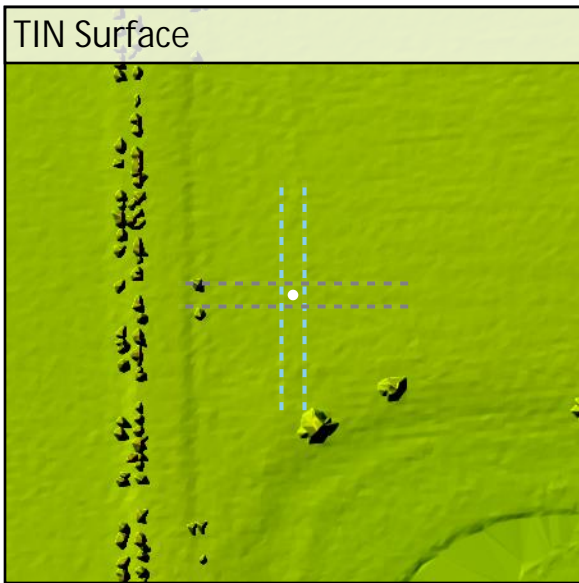
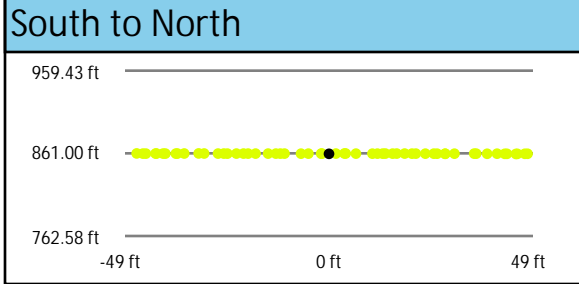
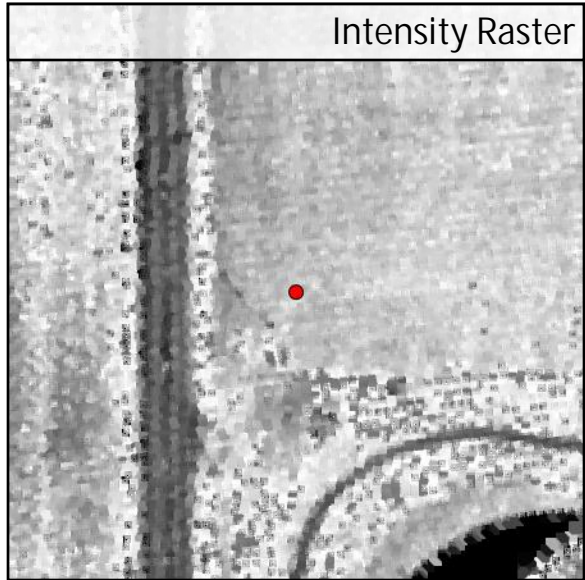
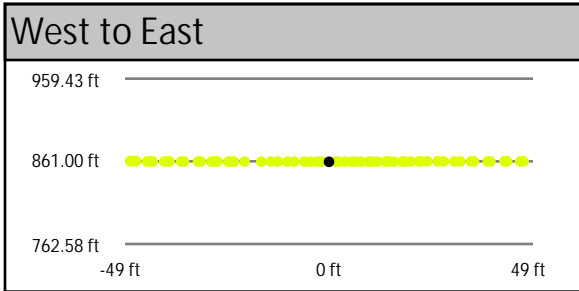
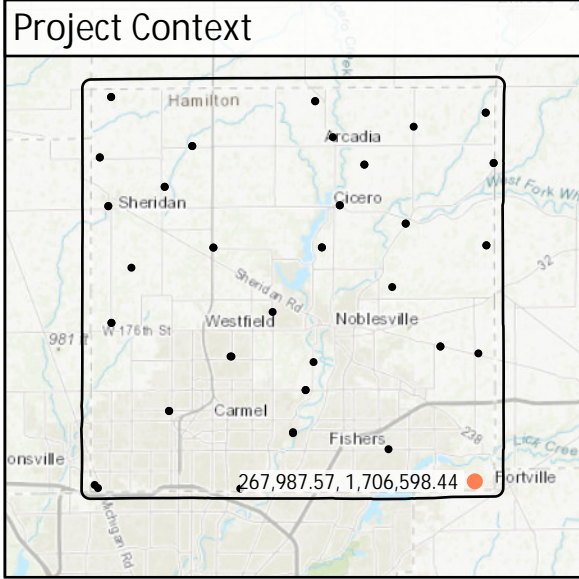


DEM Dz +0.07 ft

NVA - be14

All Points TIN Dz +0.08 ft

be15	Known Z	860.41 ft	Point Density	2.09 ppsm
	DEM Dz	0.27 ft	Ground Density	2.09 ppsm
	All Points TIN Dz	0.27 ft	Slope	0.78 °

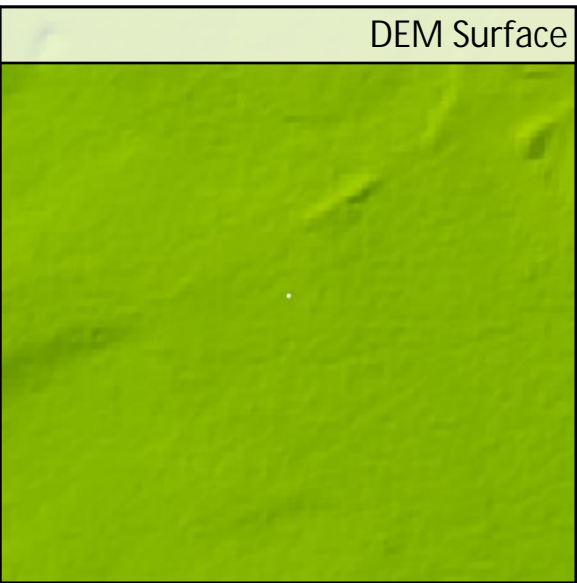
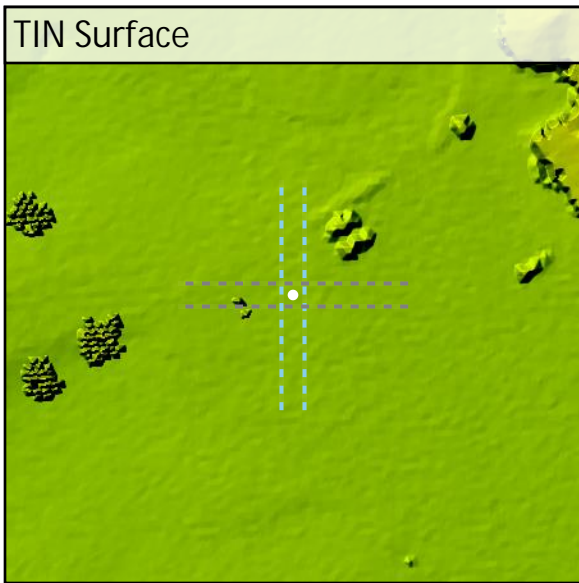
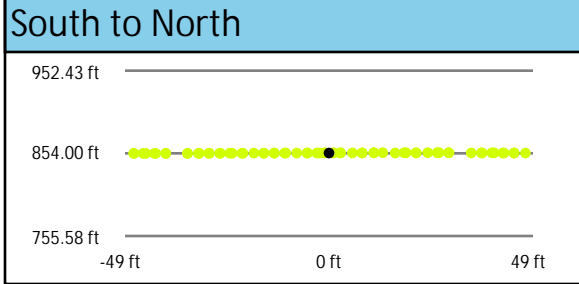
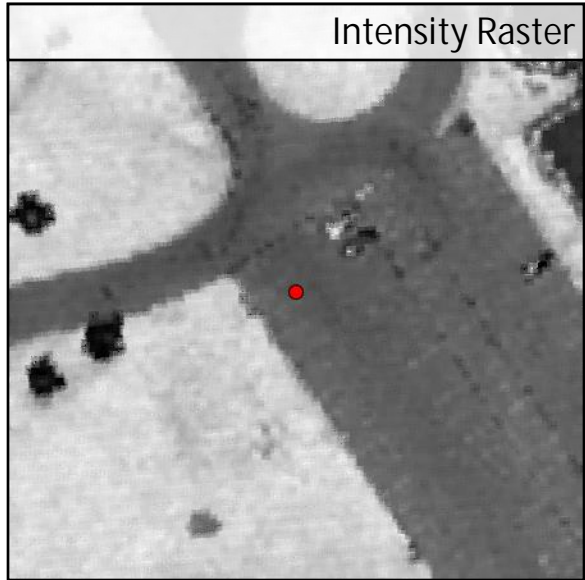
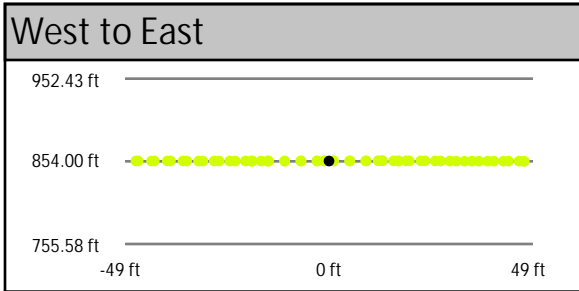
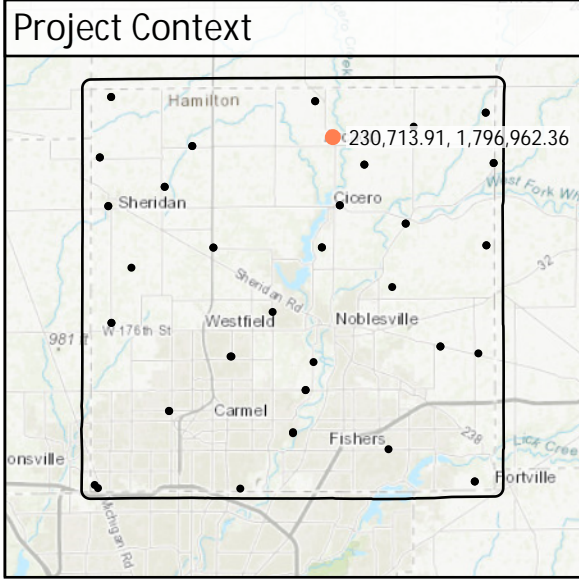


DEM Dz +0.27 ft

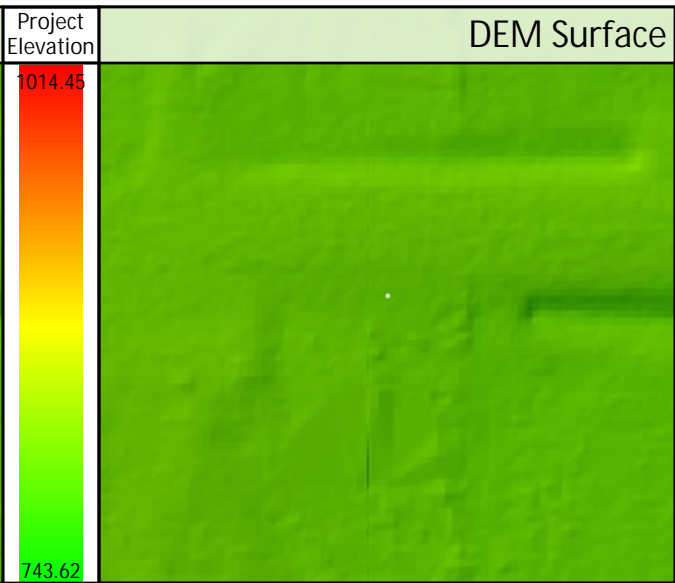
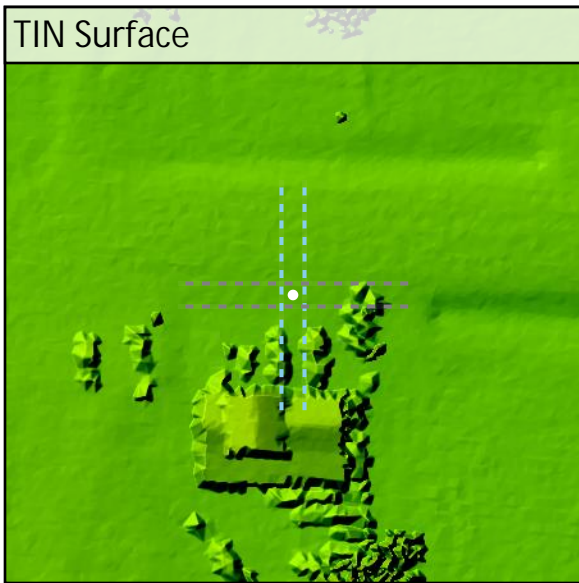
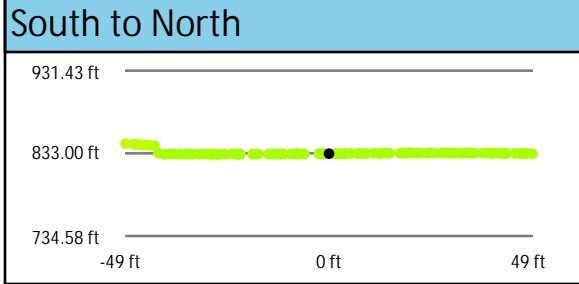
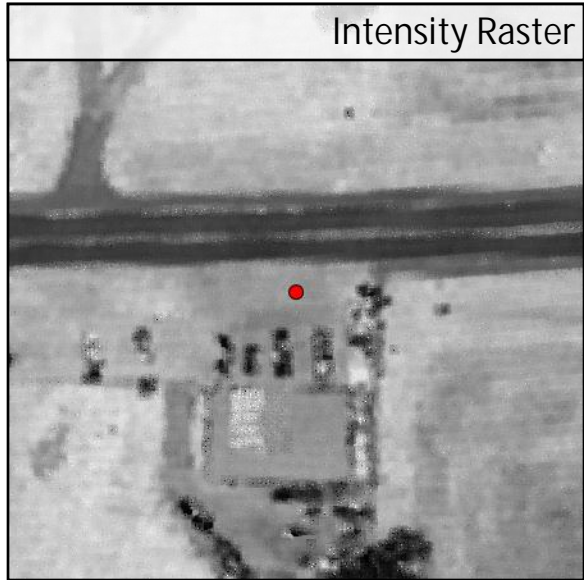
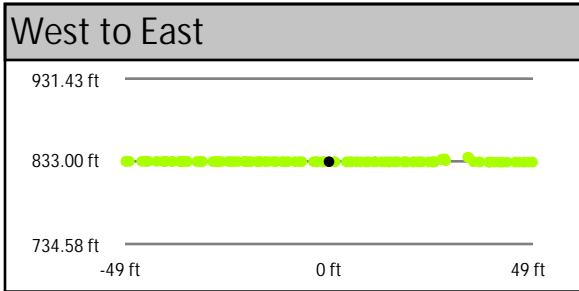
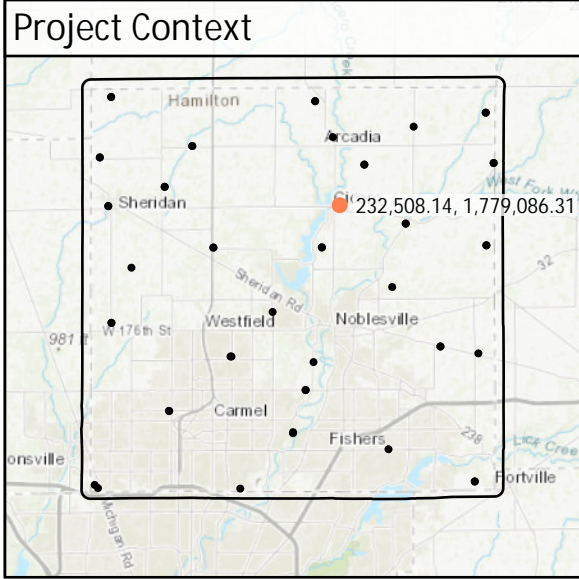
NVA - be15

All Points TIN Dz +0.27 ft

ua01	Known Z	854.36 ft	Point Density	2.05 ppsm
	DEM Dz	0.14 ft	Ground Density	1.98 ppsm
	All Points TIN Dz	0.15 ft	Slope	1.19 °



UA02	Known Z	832.57 ft	Point Density	4.21 ppsm
	DEM Dz	0.01 ft	Ground Density	1.66 ppsm
	All Points TIN Dz	-0.02 ft	Slope	2.96 °

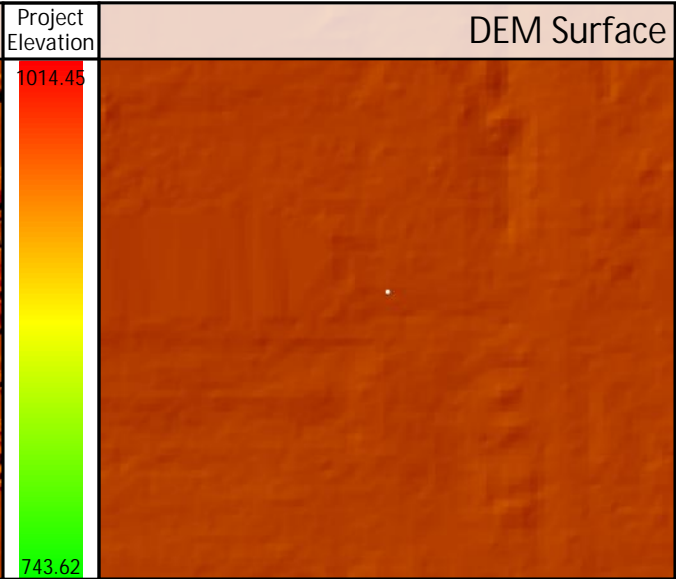
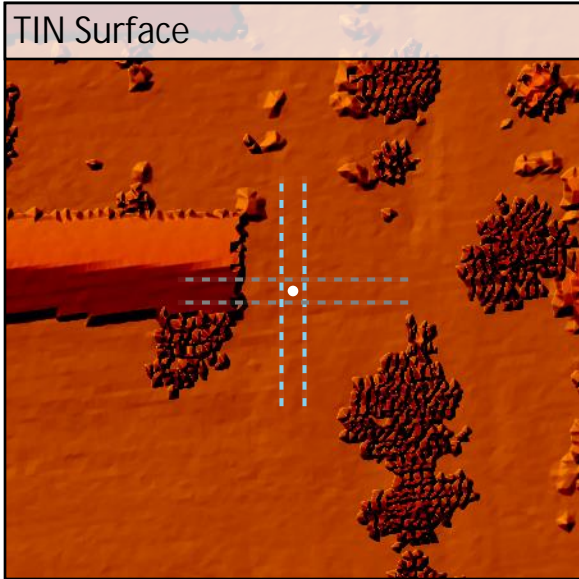
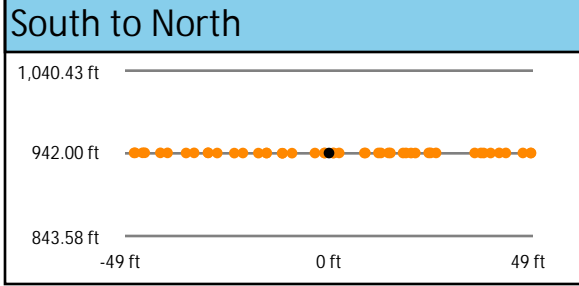
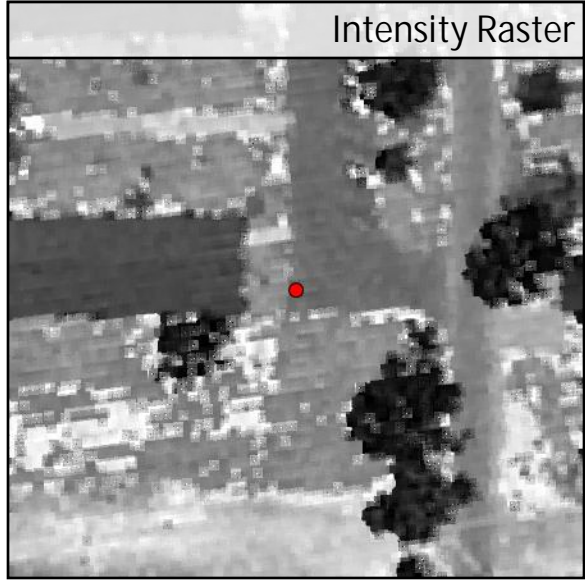
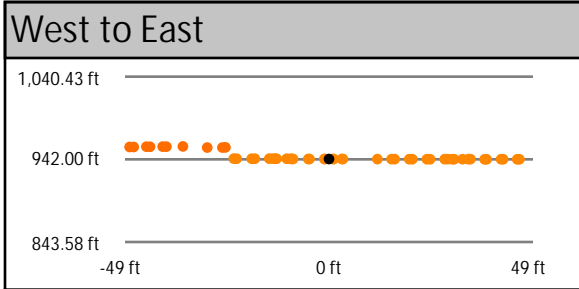
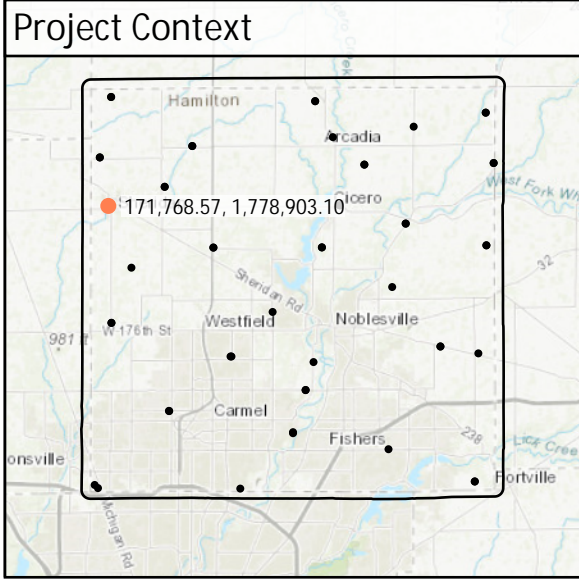


DEM Dz +0.01 ft

NVA - UA02

All Points TIN Dz -0.02 ft

ua03	Known Z	942.35 ft	Point Density	1.80 ppsm
	DEM Dz	0.01 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	-0.01 ft	Slope	1.19°

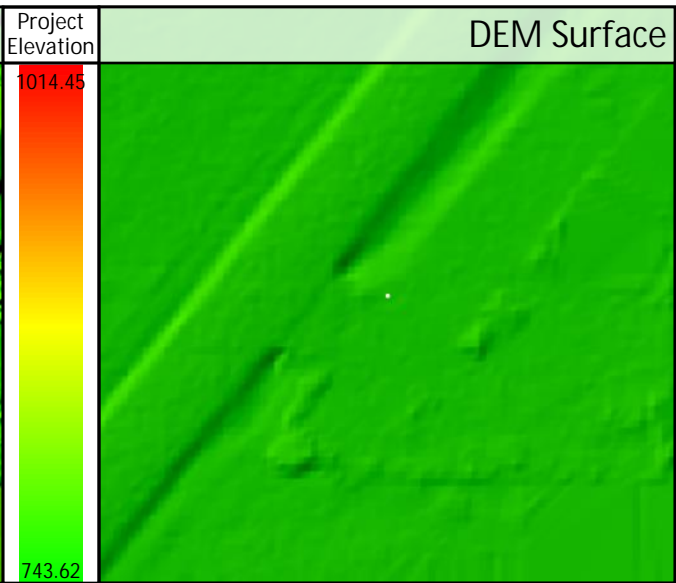
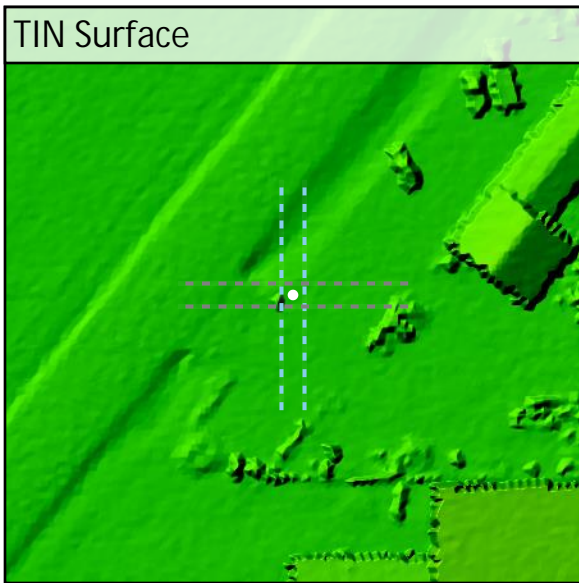
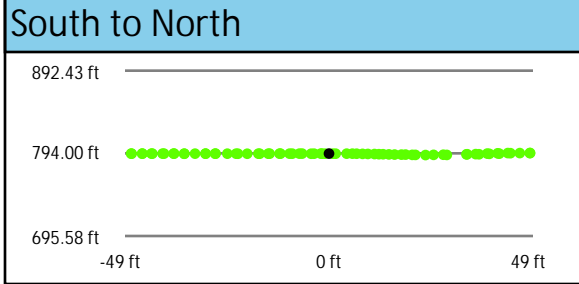
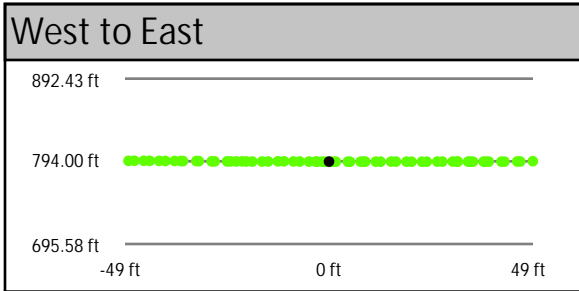
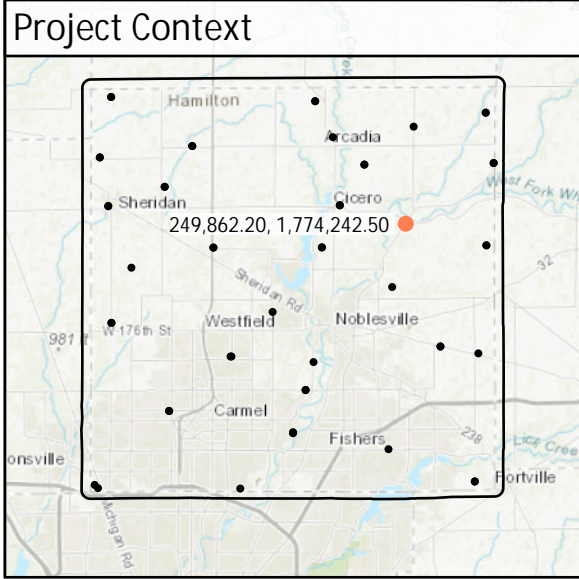


DEM Dz +0.01 ft

NVA - ua03

All Points TIN Dz -0.01 ft

ua04	Known Z	793.70 ft	Point Density	2.26 ppsm
	DEM Dz	-0.08 ft	Ground Density	2.19 ppsm
	All Points TIN Dz	-0.08 ft	Slope	0.24 °

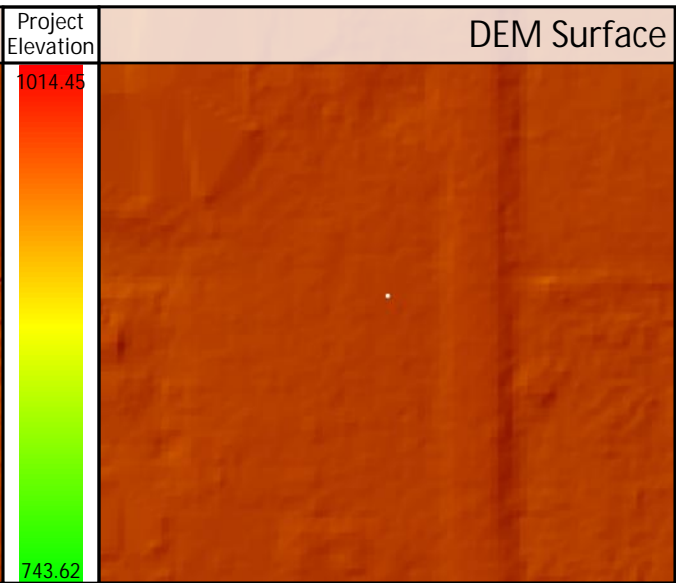
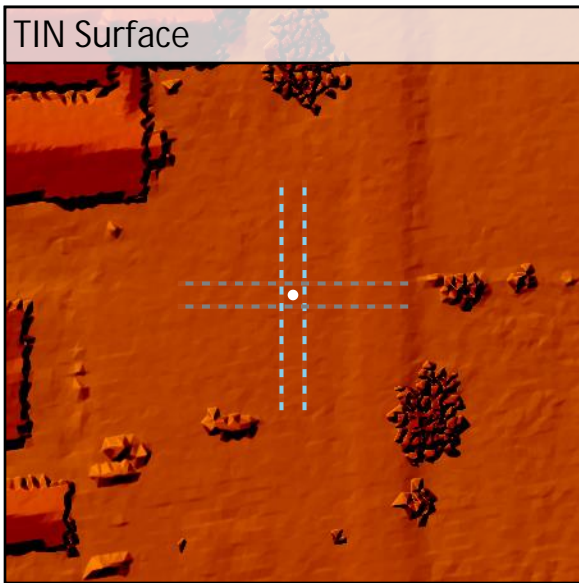
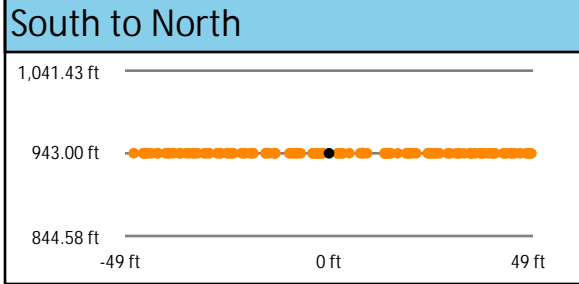
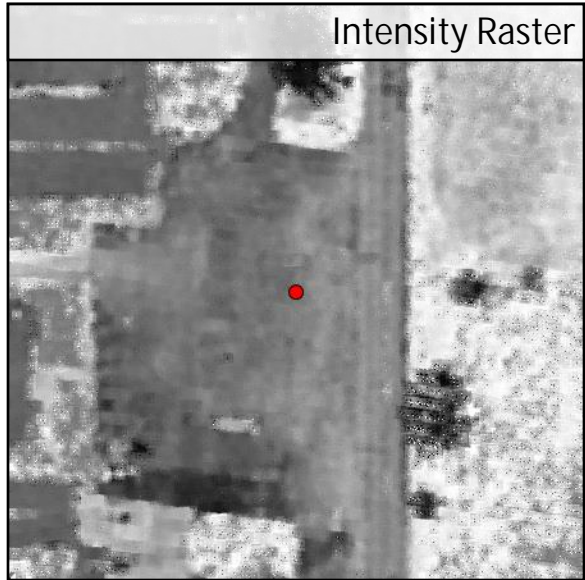
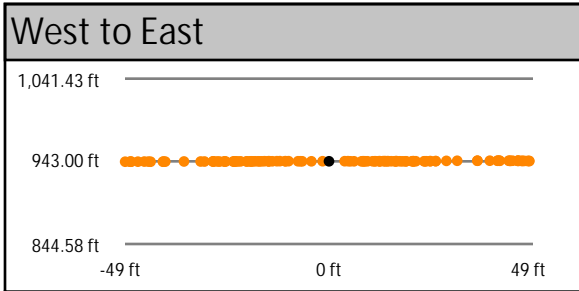
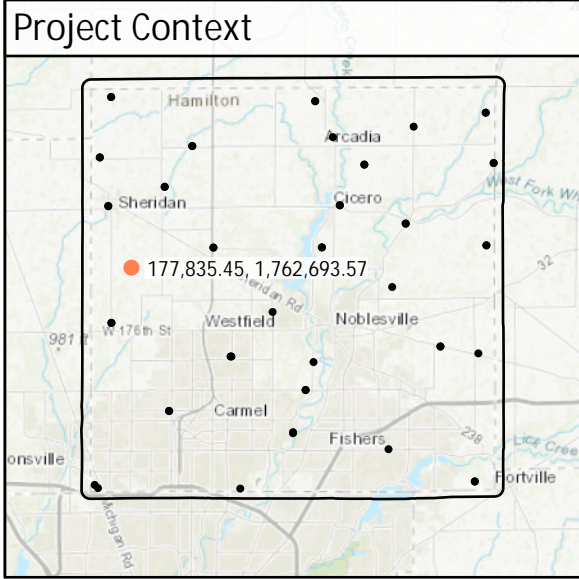


DEM Dz -0.08 ft

NVA - ua04

All Points TIN Dz -0.08 ft

ua05	Known Z	943.05 ft	Point Density	4.63 ppsm
	DEM Dz	0.09 ft	Ground Density	1.70 ppsm
	All Points TIN Dz	0.03 ft	Slope	0.62 °

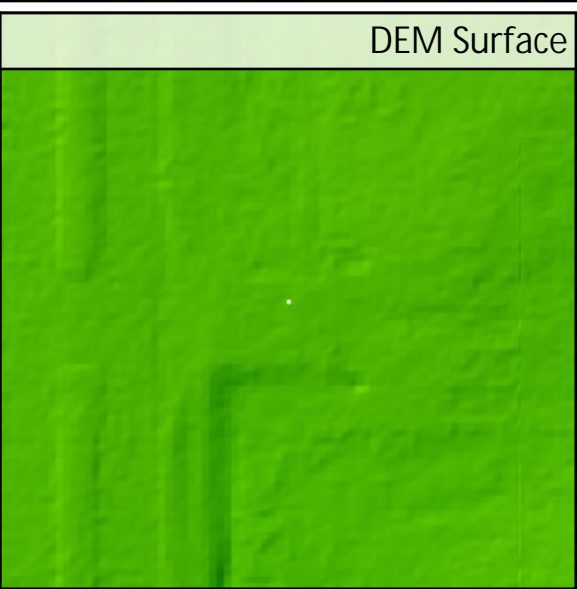
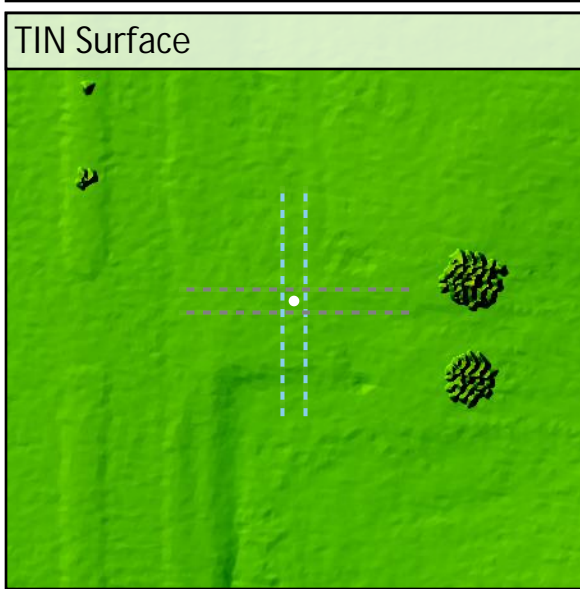
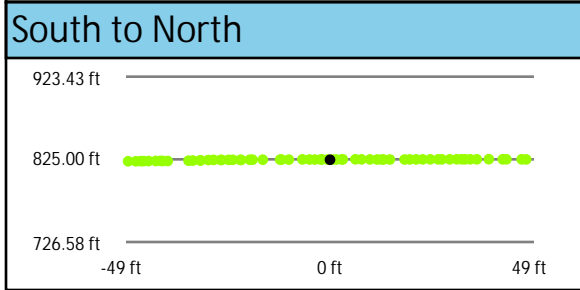
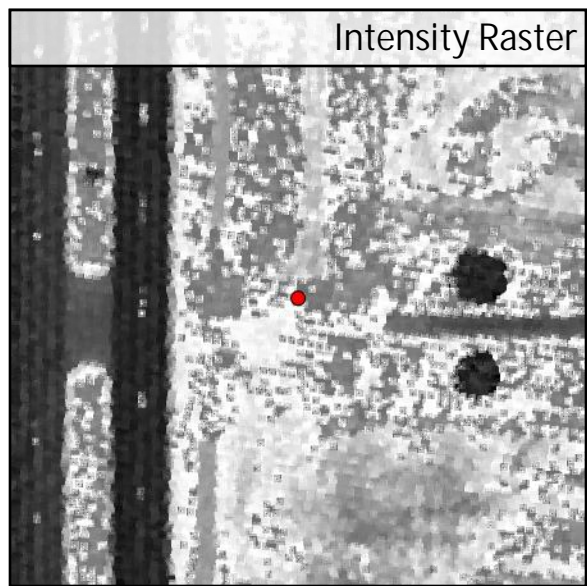
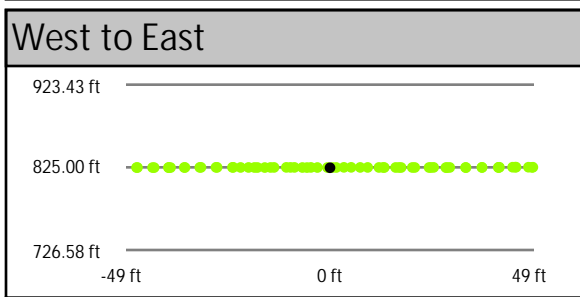
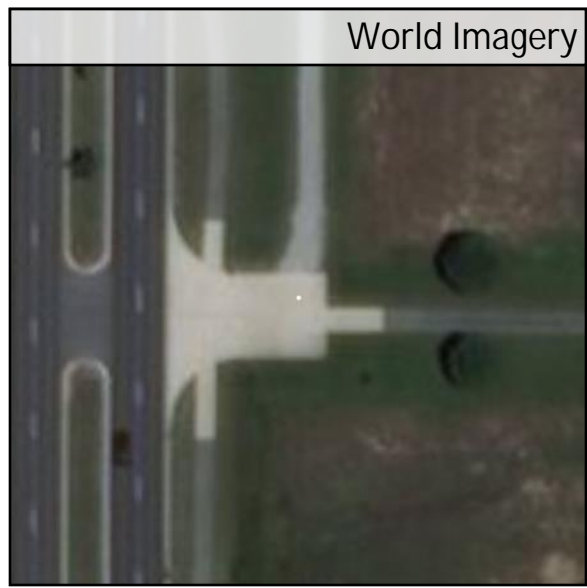
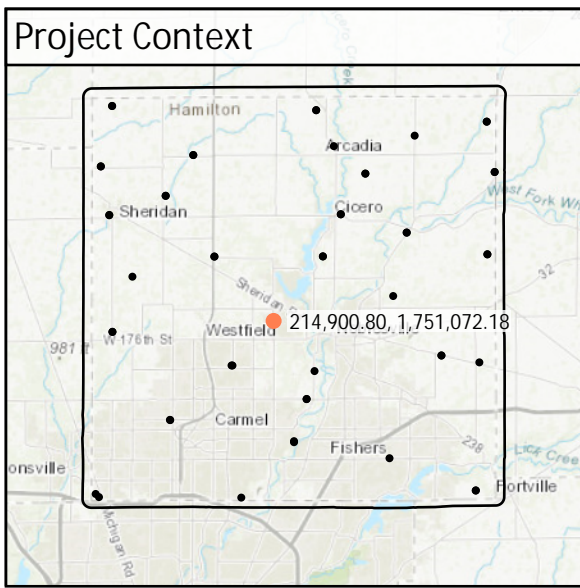


DEM Dz +0.09 ft

NVA - ua05

All Points TIN Dz +0.03 ft

ua06	Known Z	824.50 ft	Point Density	2.23 ppsm
	DEM Dz	0.33 ft	Ground Density	2.23 ppsm
	All Points TIN Dz	0.32 ft	Slope	1.51 °

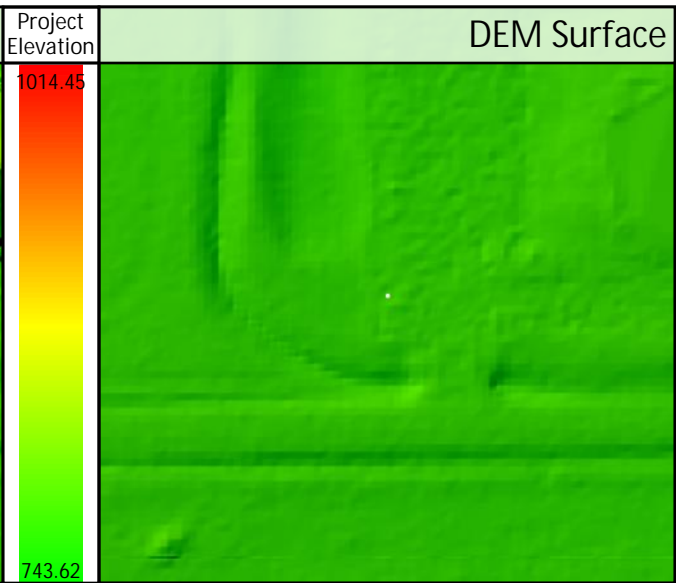
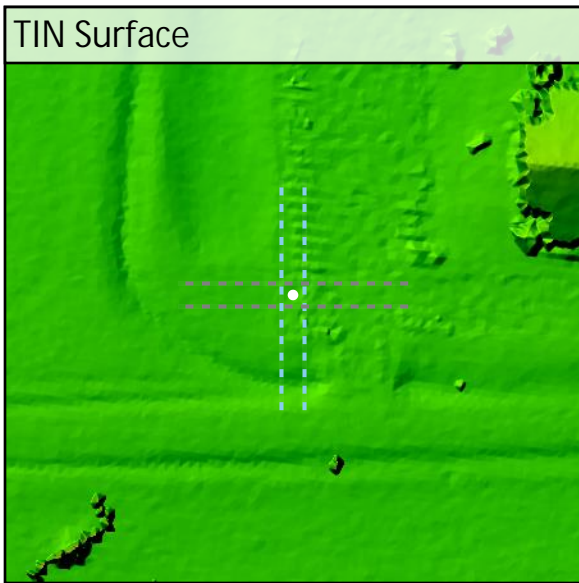
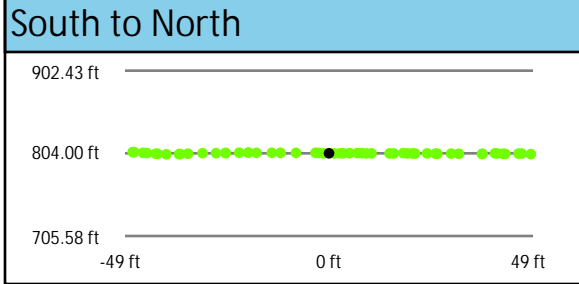
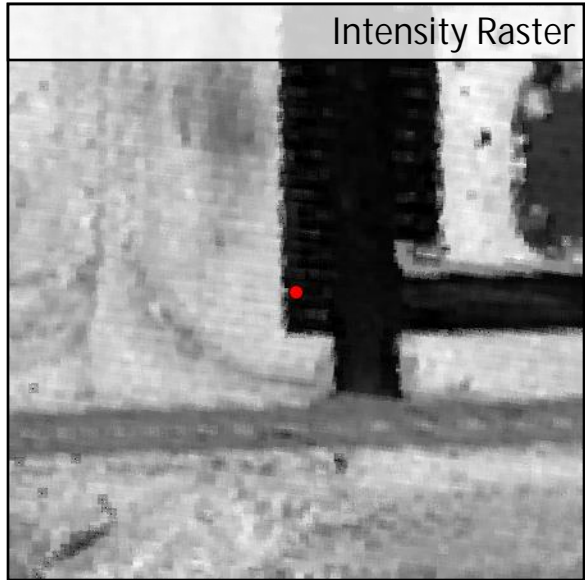
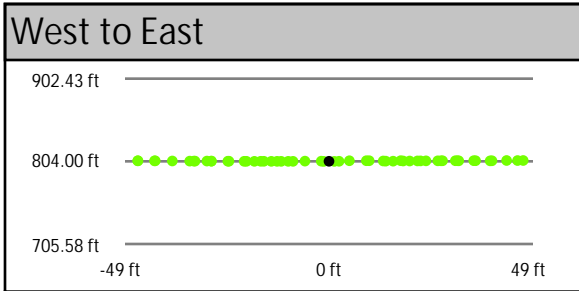
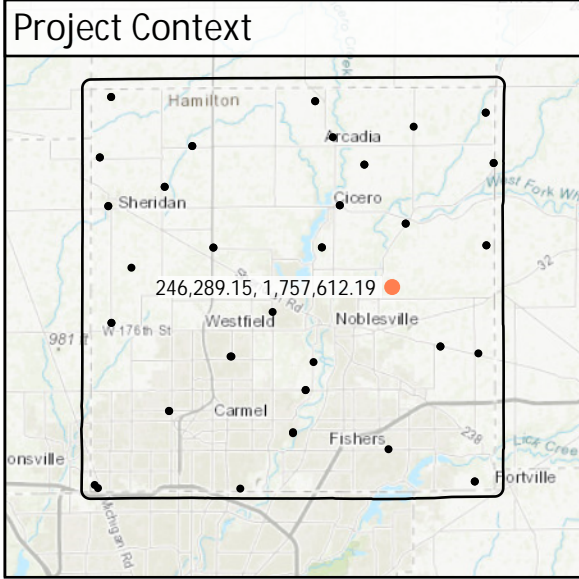


DEM Dz +0.33 ft

NVA - ua06

All Points TIN Dz +0.32 ft

ua07	Known Z	804.05 ft	Point Density	1.84 ppsm
	DEM Dz	0.10 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	0.03 ft	Slope	3.14 °

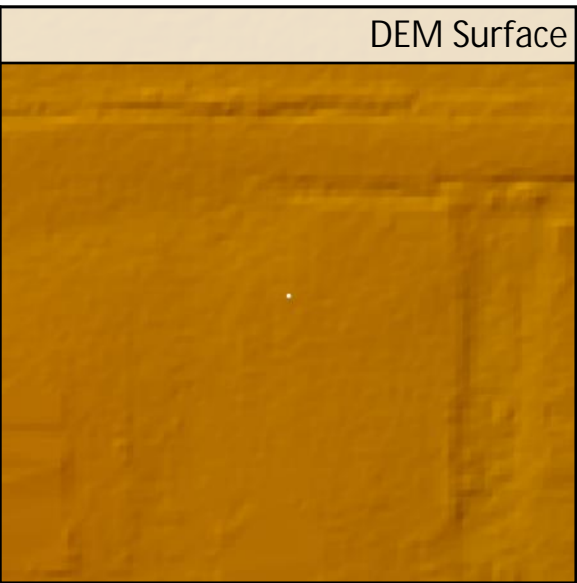
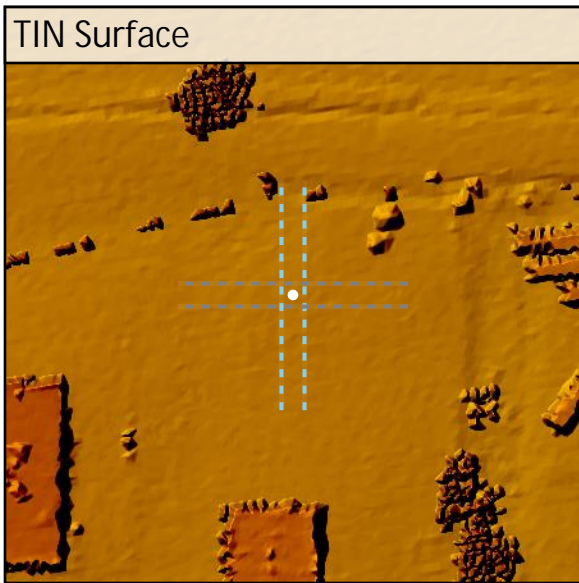
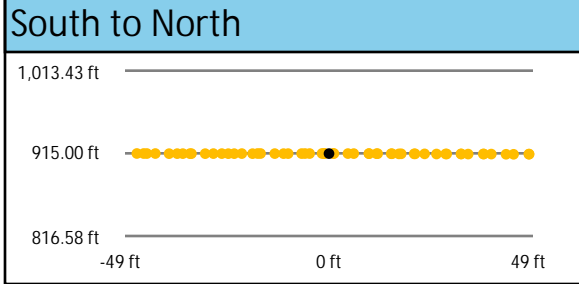
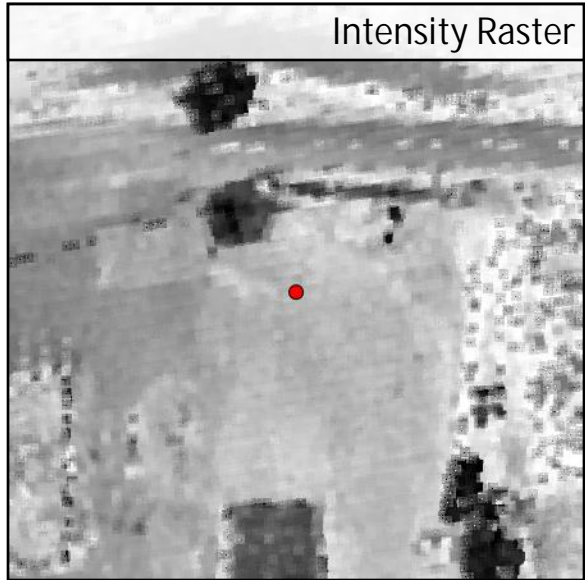
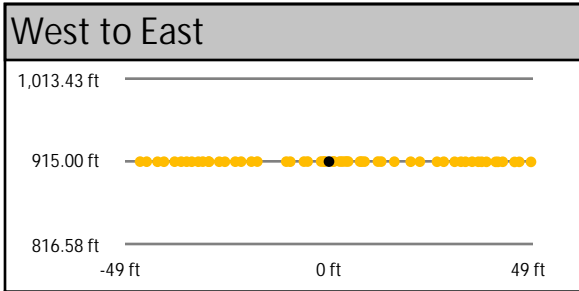
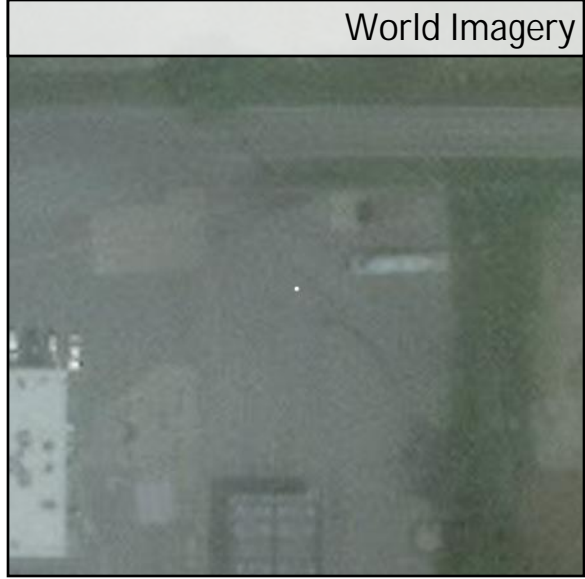
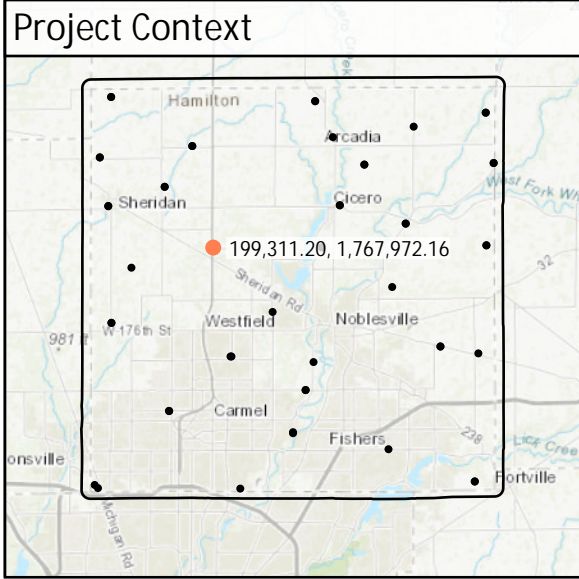


DEM Dz +0.10 ft

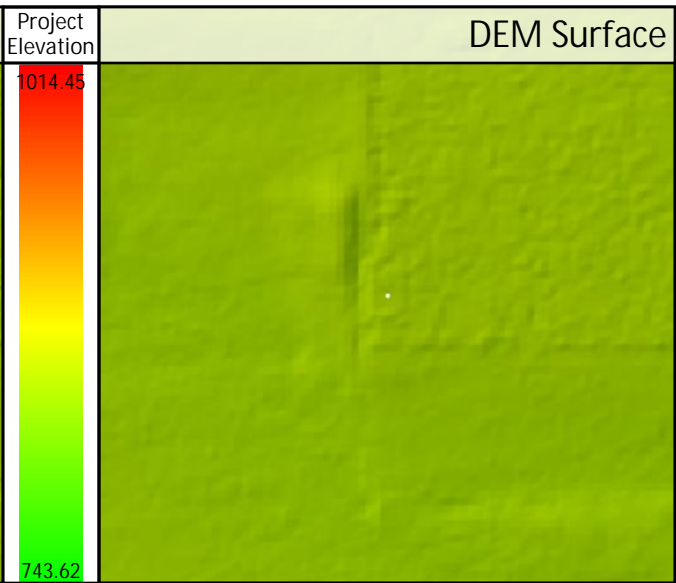
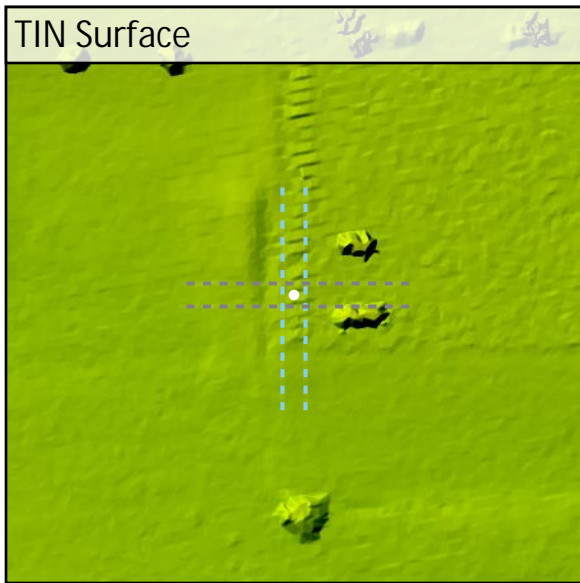
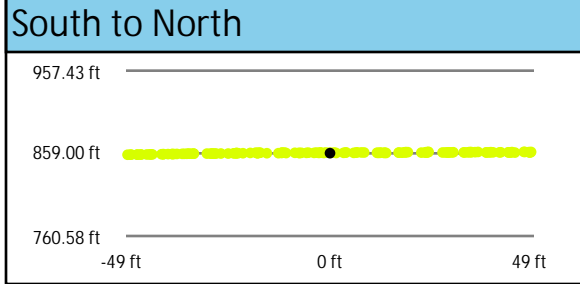
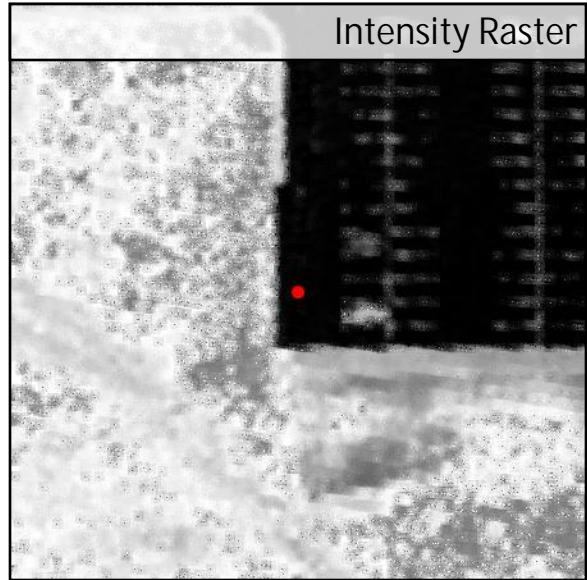
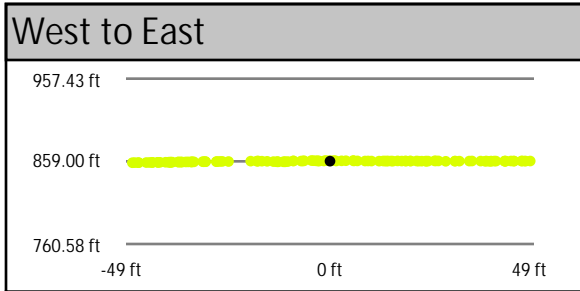
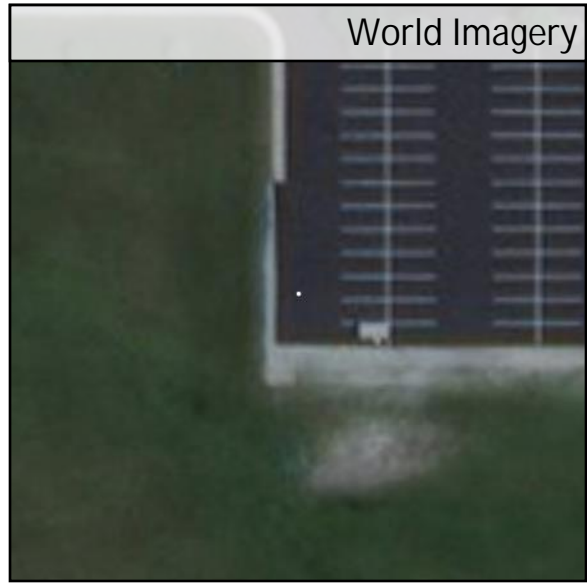
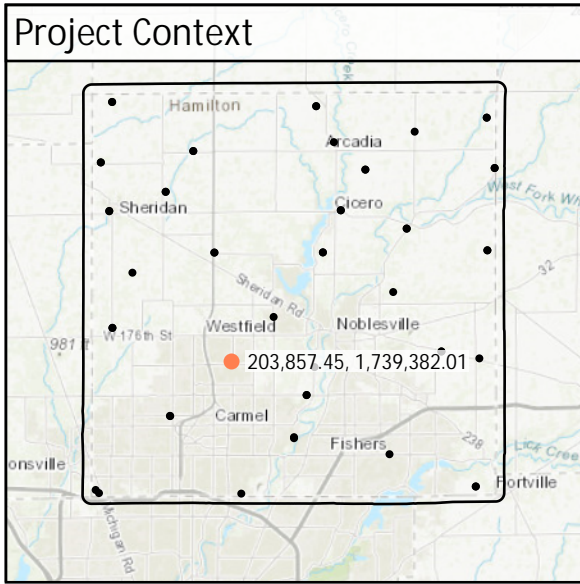
NVA - ua07

All Points TIN Dz +0.03 ft

ua08	Known Z	914.69 ft	Point Density	1.95 ppsm
	DEM Dz	0.07 ft	Ground Density	1.91 ppsm
	All Points TIN Dz	0.09 ft	Slope	0.74 °



ua10	Known Z	859.21 ft	Point Density	4.35 ppsm
	DEM Dz	0.20 ft	Ground Density	1.63 ppsm
	All Points TIN Dz	0.50 ft	Slope	1.79 °

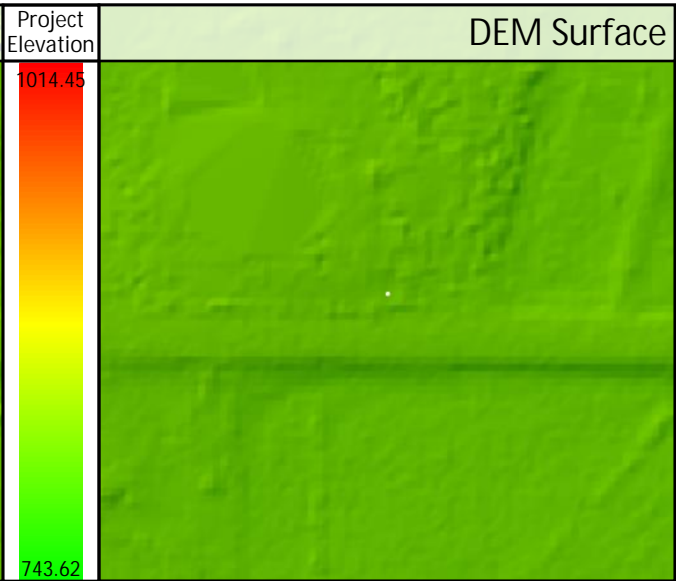
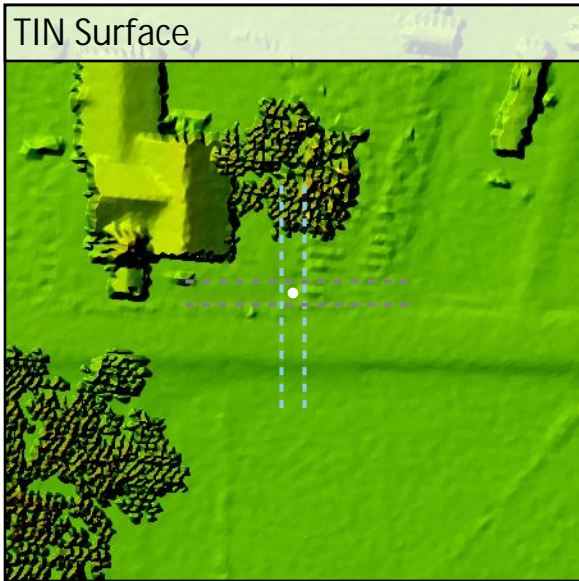
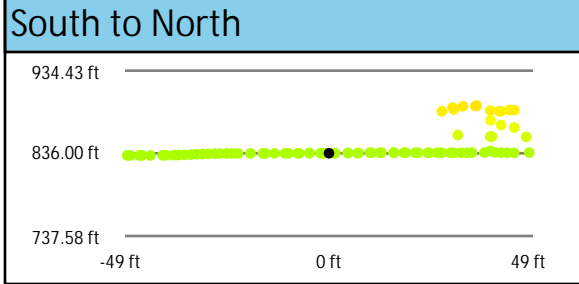
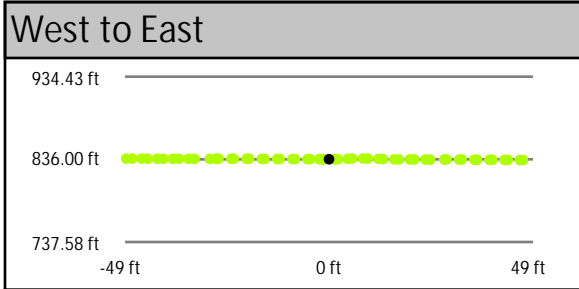
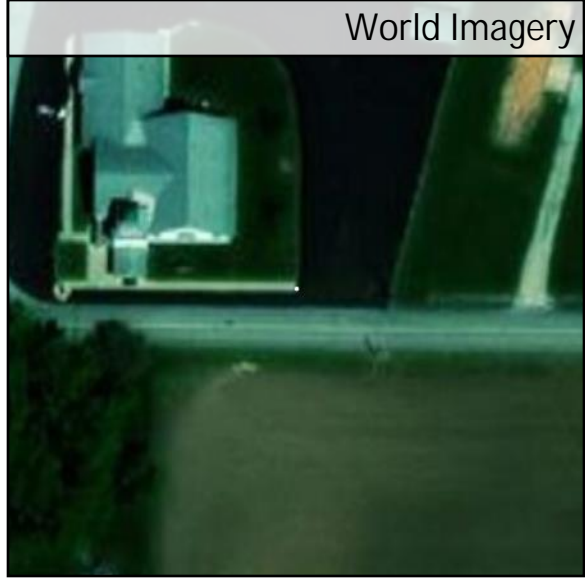
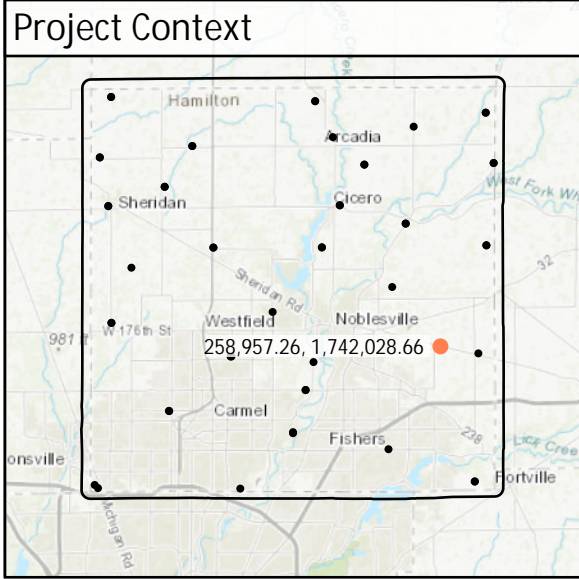


DEM Dz +0.20 ft

NVA - ua10

All Points TIN Dz +0.50 ft

ua11	Known Z	836.11 ft	Point Density	1.95 ppsm
	DEM Dz	0.02 ft	Ground Density	1.80 ppsm
	All Points TIN Dz	0.01 ft	Slope	1.75 °

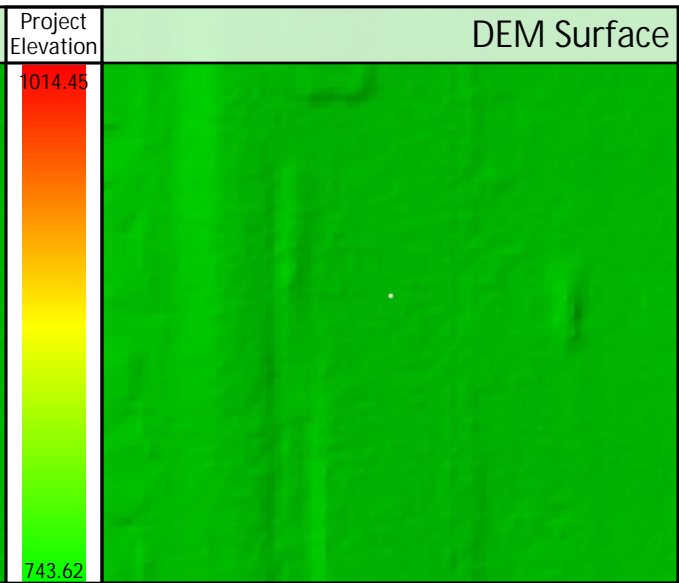
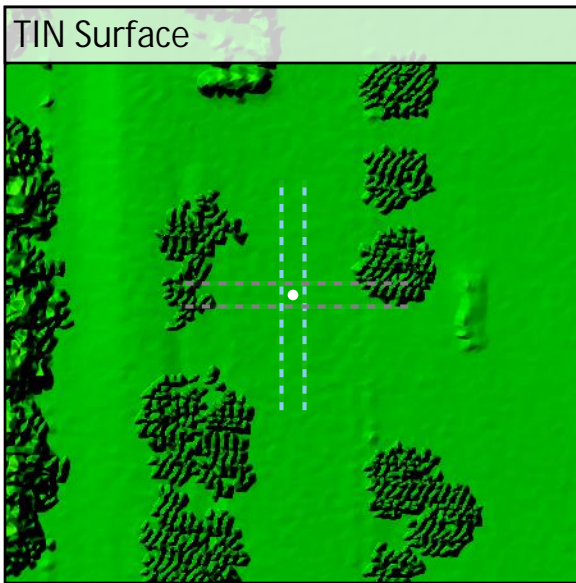
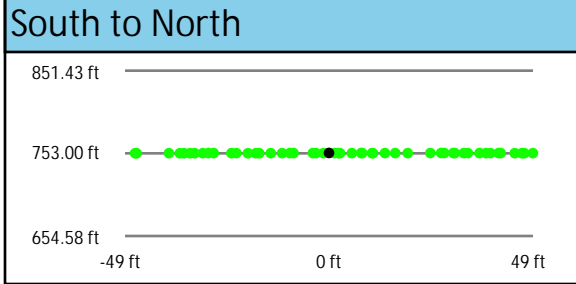
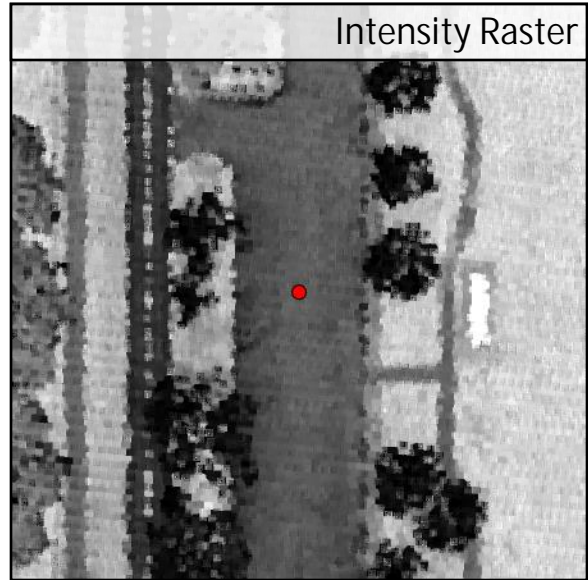
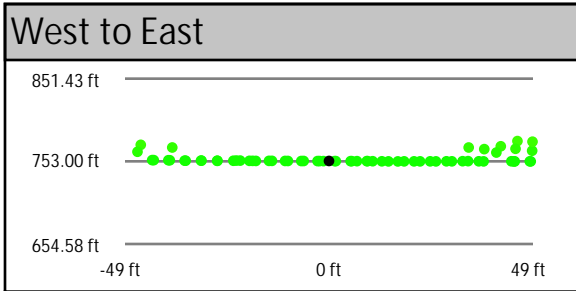
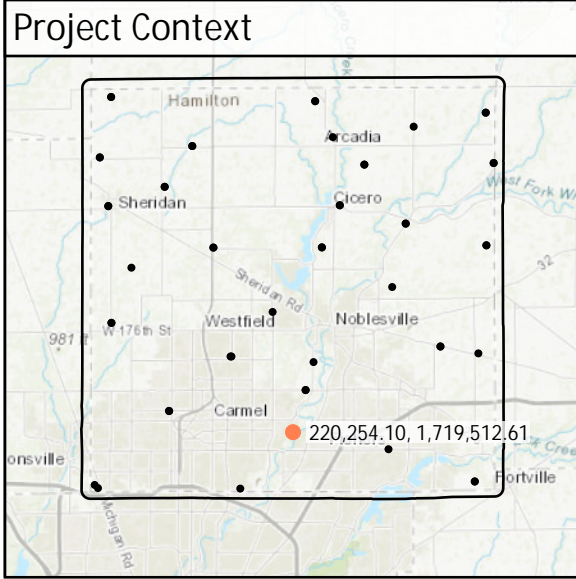


DEM Dz +0.02 ft

NVA - ua11

All Points TIN Dz +0.01 ft

ua12	Known Z	753.44 ft	Point Density	2.02 ppsm
	DEM Dz	-0.19 ft	Ground Density	2.02 ppsm
	All Points TIN Dz	-0.18 ft	Slope	0.89°

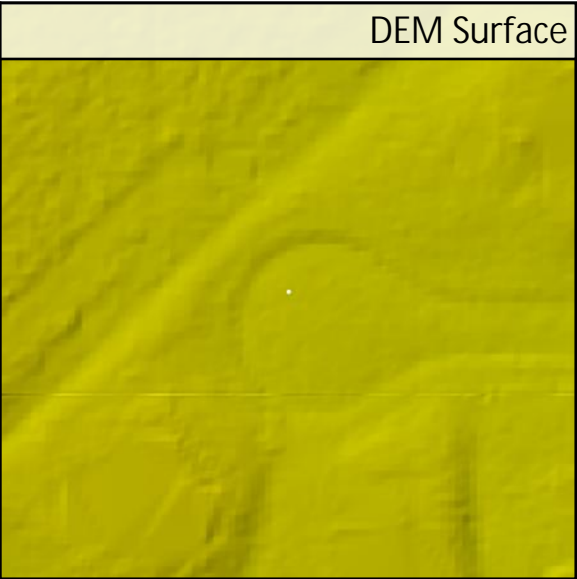
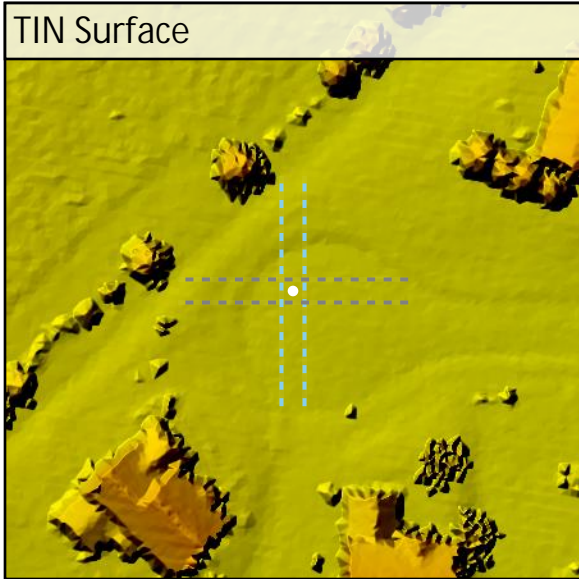
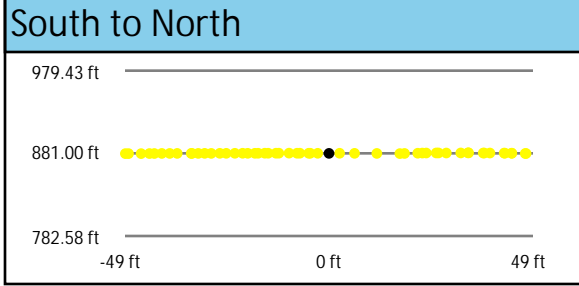
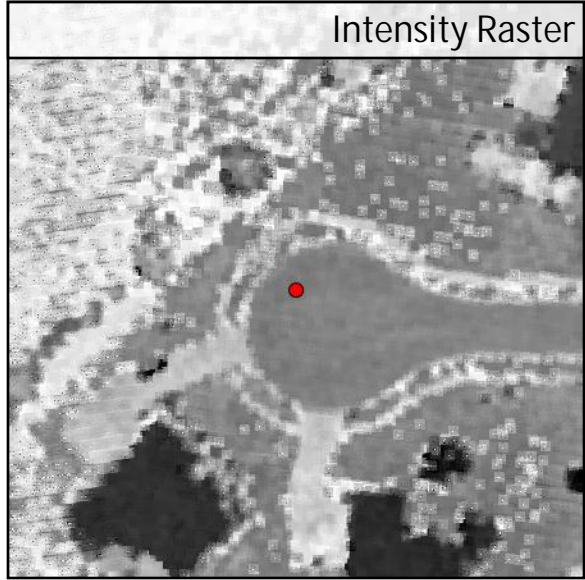
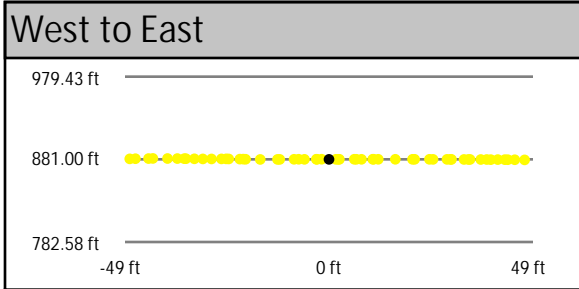
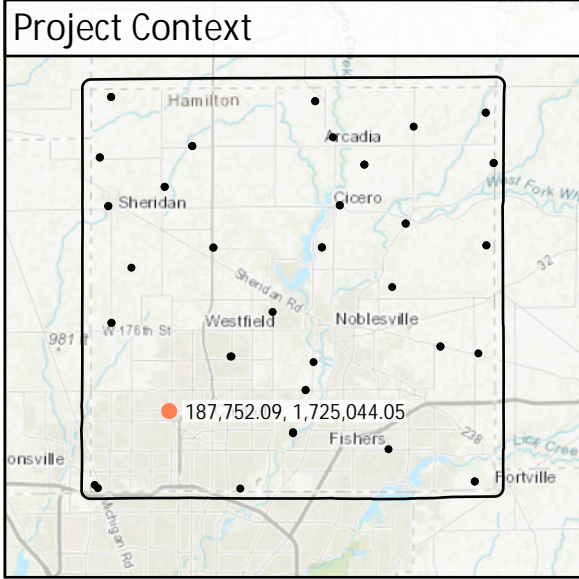


DEM Dz -0.19 ft

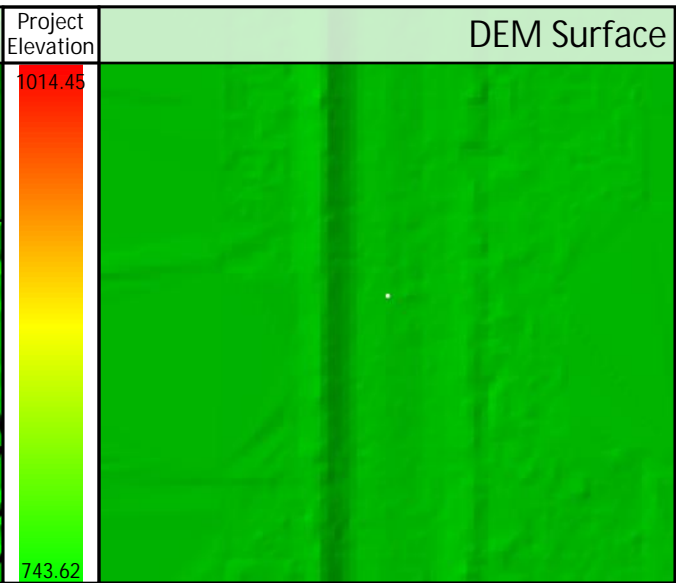
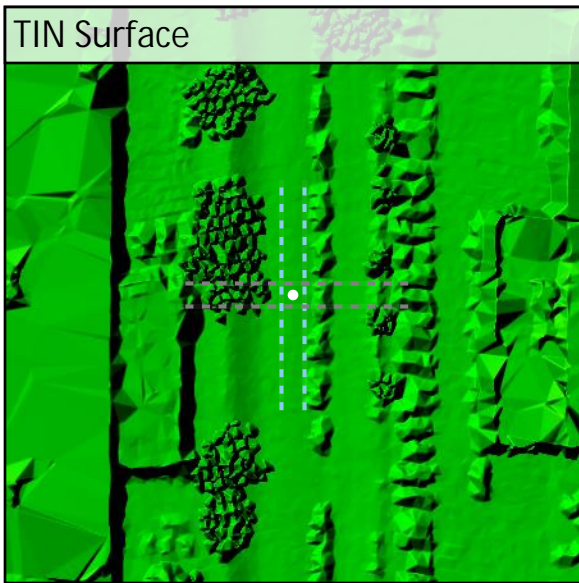
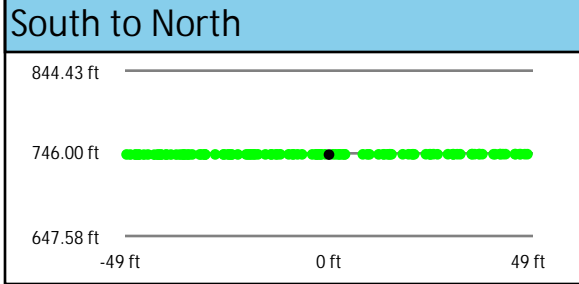
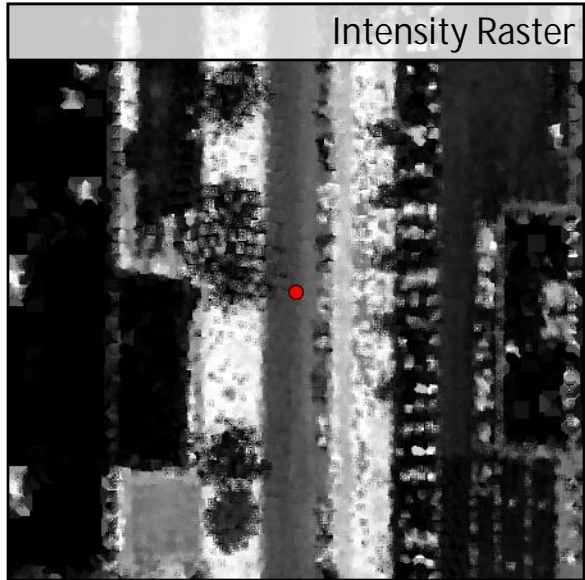
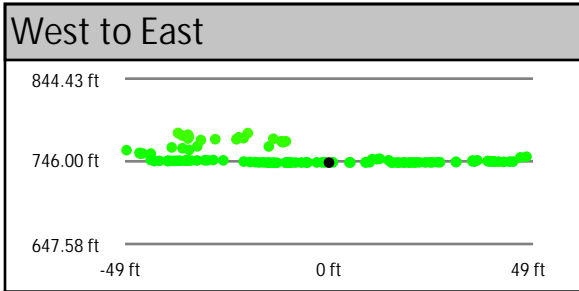
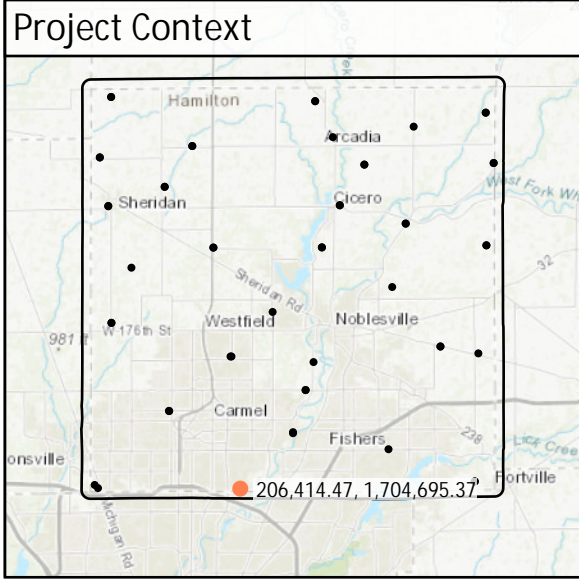
NVA - ua12

All Points TIN Dz -0.18 ft

ua13	Known Z	880.96 ft	Point Density	1.91 ppsm
	DEM Dz	0.12 ft	Ground Density	1.87 ppsm
	All Points TIN Dz	0.12 ft	Slope	0.22 °



ua14	Known Z	744.48 ft	Point Density	3.89 ppsm
	DEM Dz	0.30 ft	Ground Density	2.05 ppsm
	All Points TIN Dz	0.32 ft	Slope	0.16 °

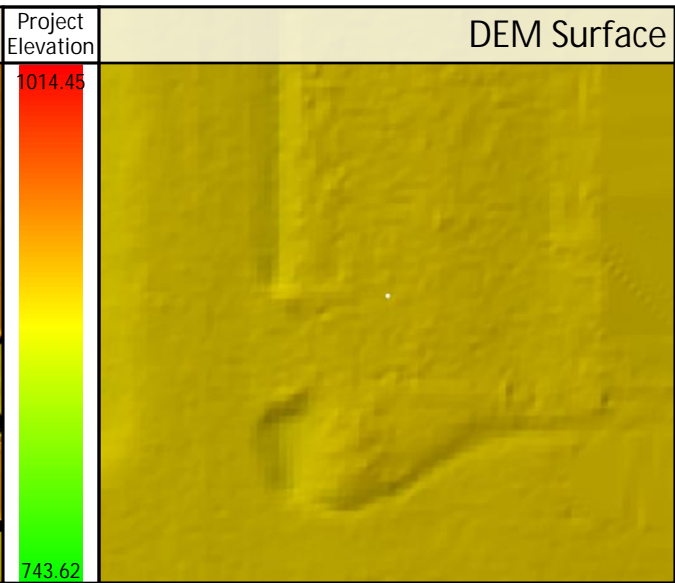
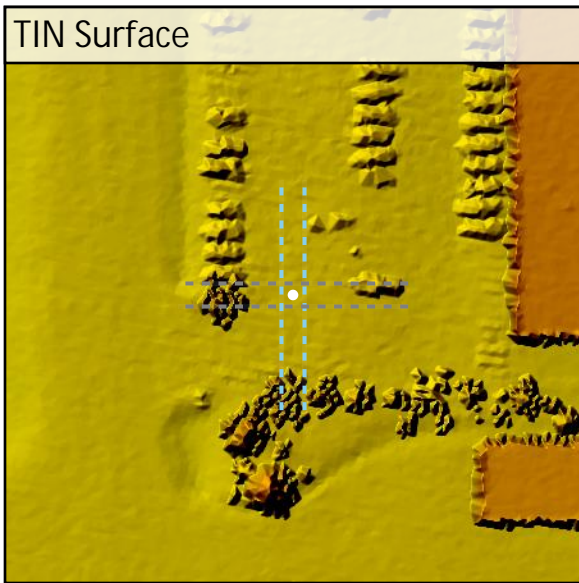
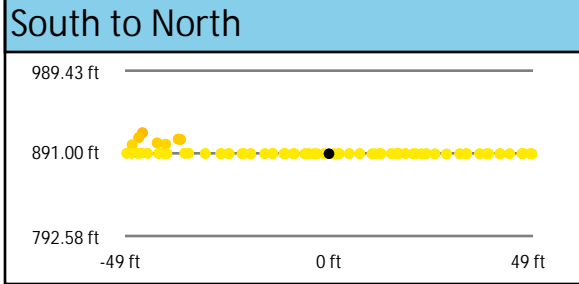
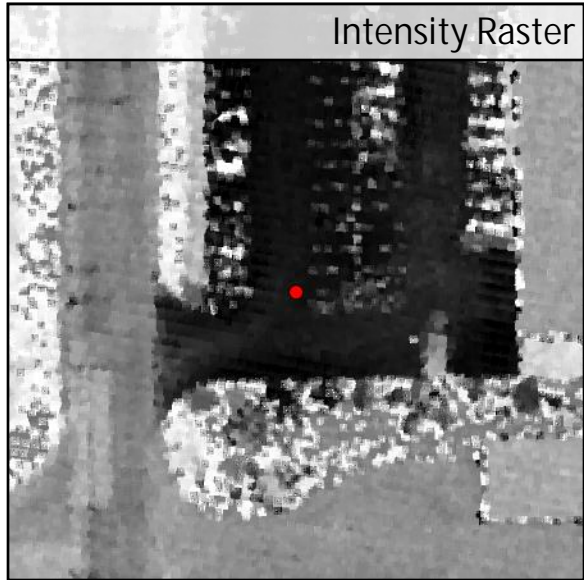
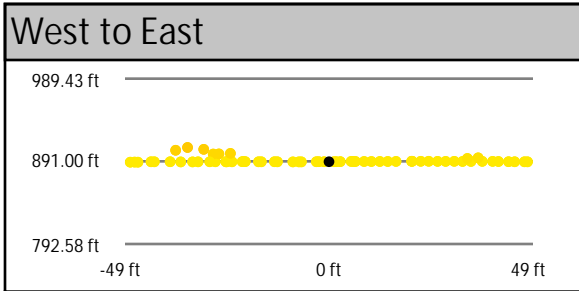
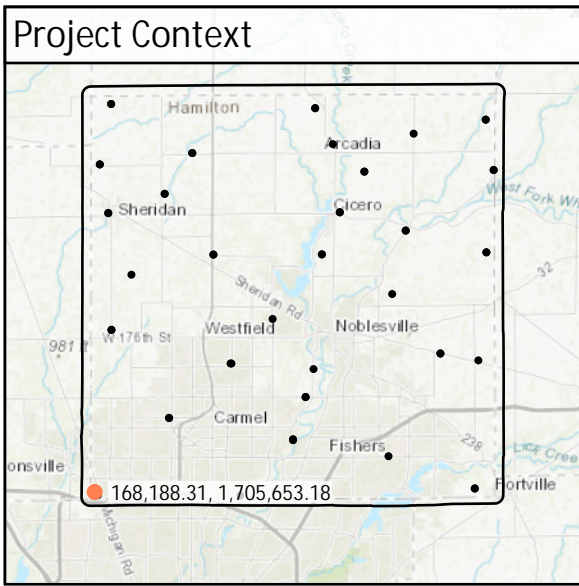


DEM Dz +0.30 ft

NVA - ua14

All Points TIN Dz +0.32 ft

ua15	Known Z	890.53 ft	Point Density	3.82 ppsm
	DEM Dz	0.05 ft	Ground Density	3.68 ppsm
	All Points TIN Dz	0.01 ft	Slope	1.65 °

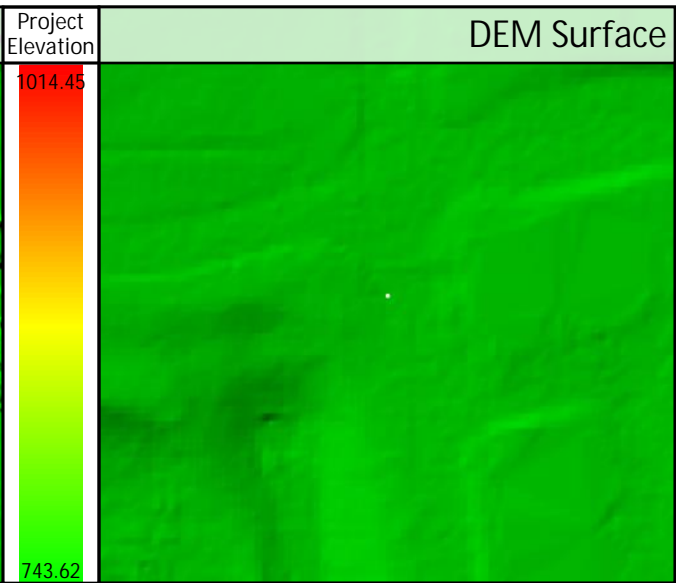
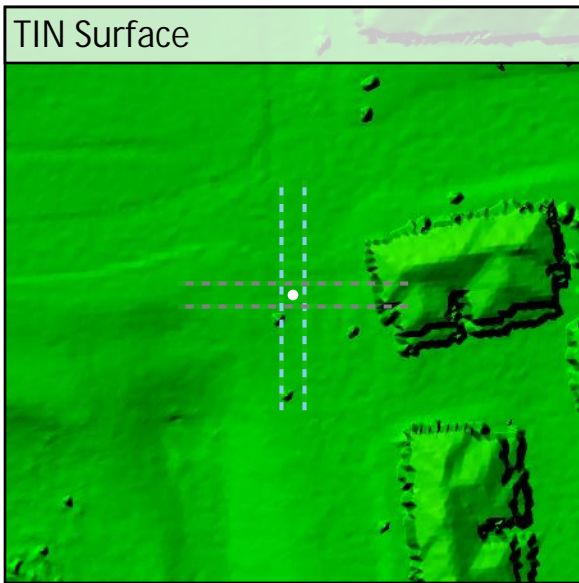
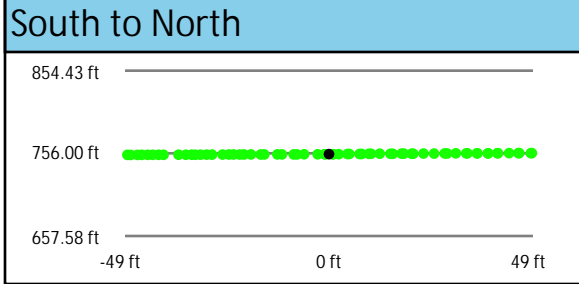
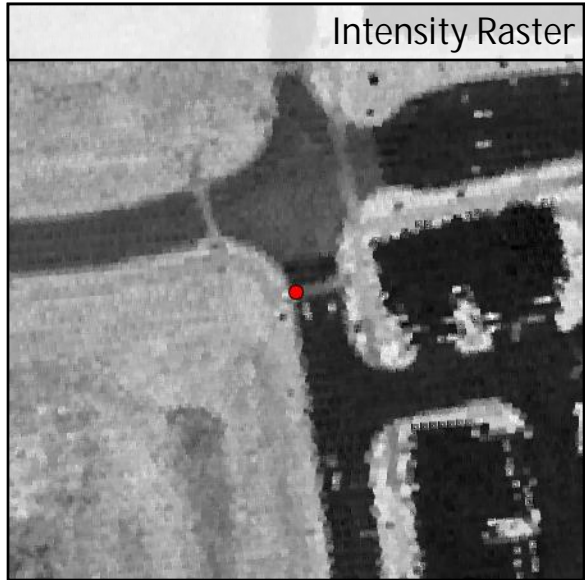
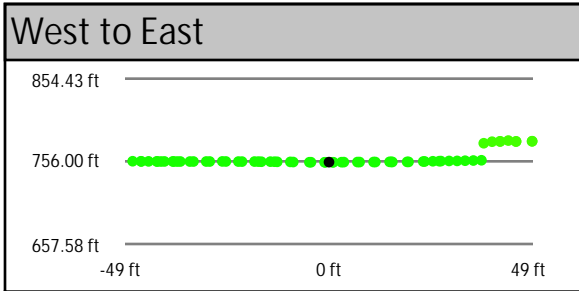
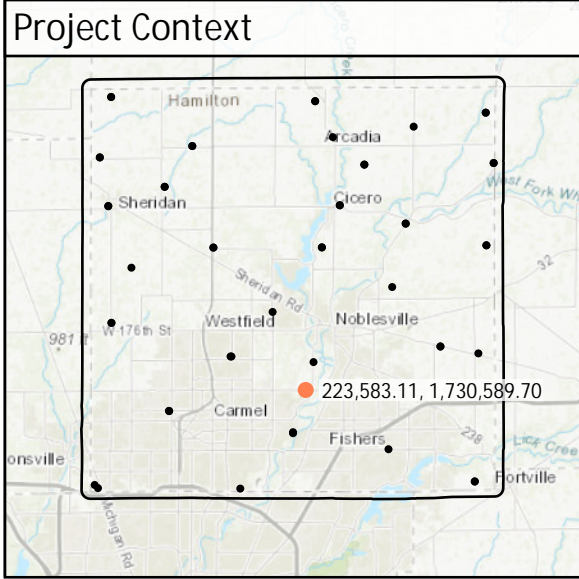


DEM Dz +0.05 ft

NVA - ua15

All Points TIN Dz +0.01 ft

ua16	Known Z	755.04 ft	Point Density	2.12 ppsm
	DEM Dz	-0.11 ft	Ground Density	2.05 ppsm
	All Points TIN Dz	-0.14 ft	Slope	1.77 °

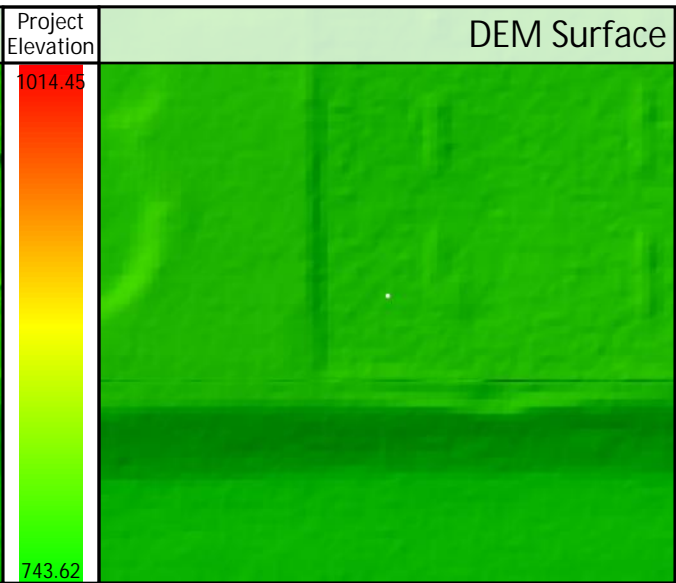
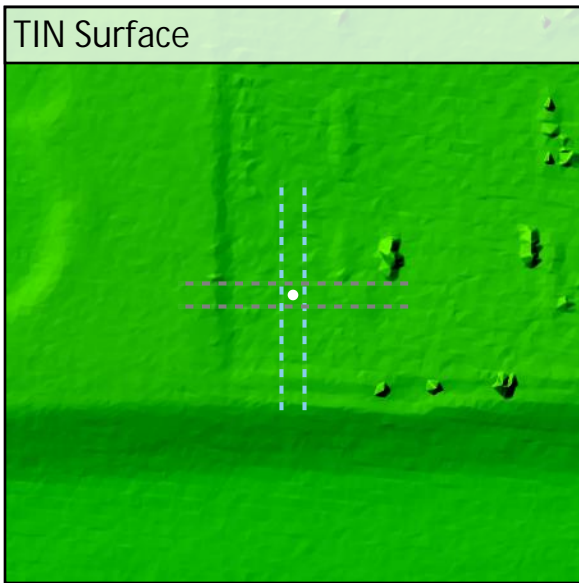
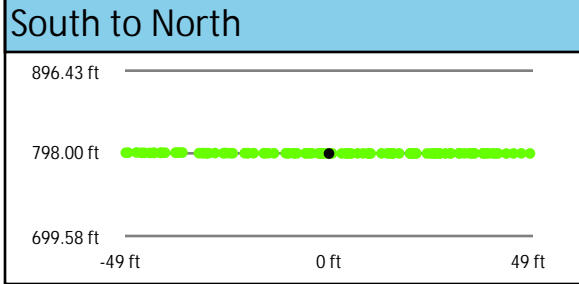
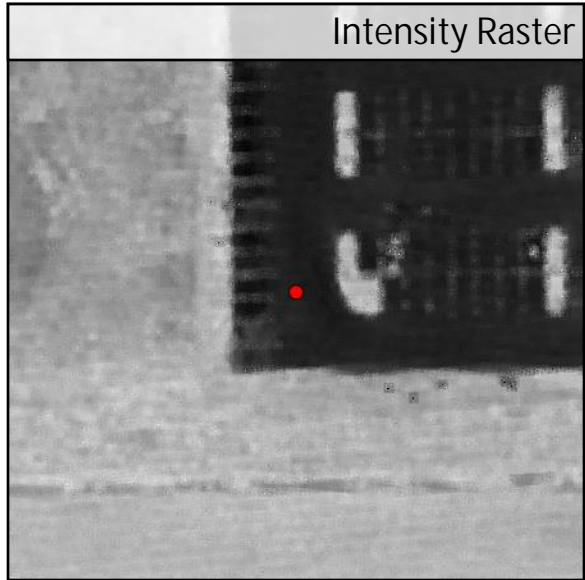
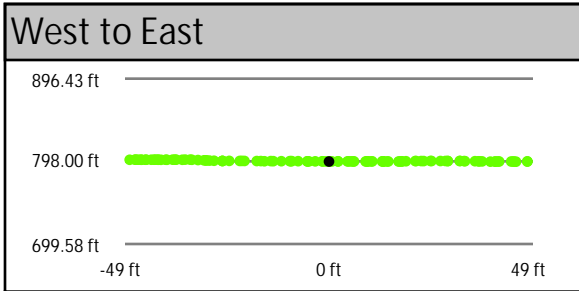
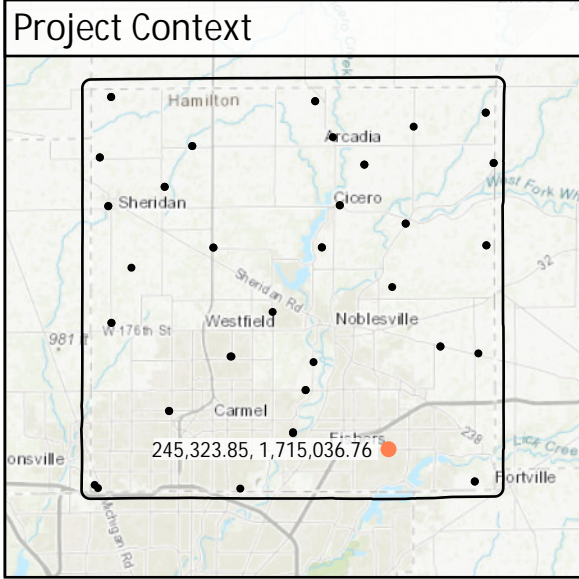


DEM Dz -0.11 ft

NVA - ua16

All Points TIN Dz -0.14 ft

ua17	Known Z	797.77 ft	Point Density	4.03 ppsm
	DEM Dz	0.22 ft	Ground Density	1.80 ppsm
	All Points TIN Dz	0.20 ft	Slope	0.53 °

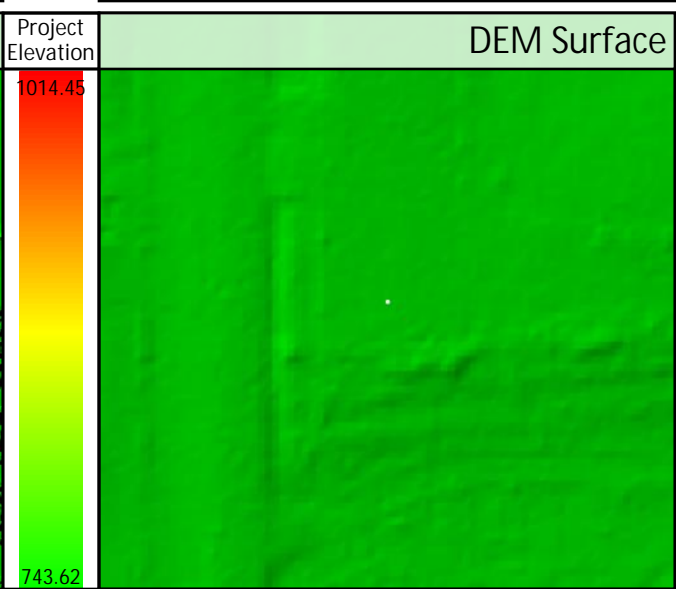
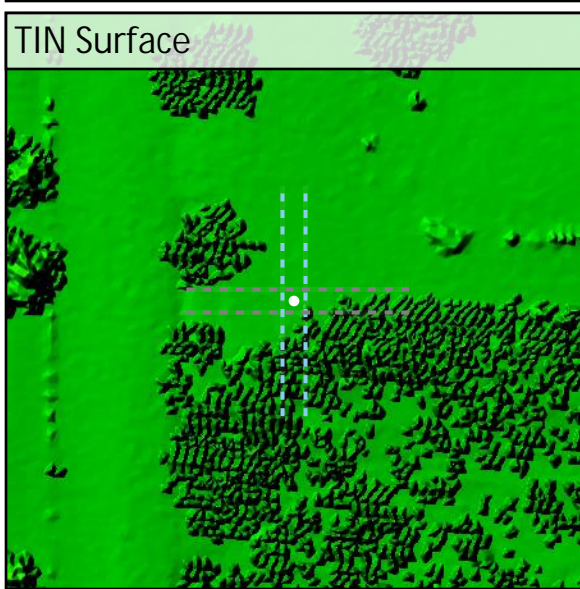
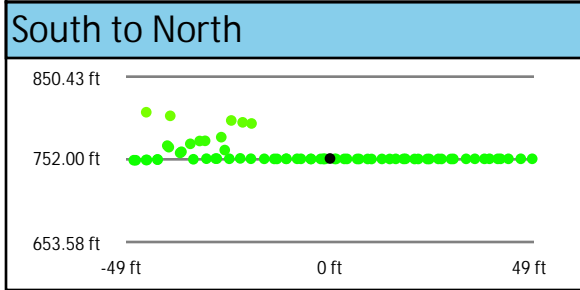
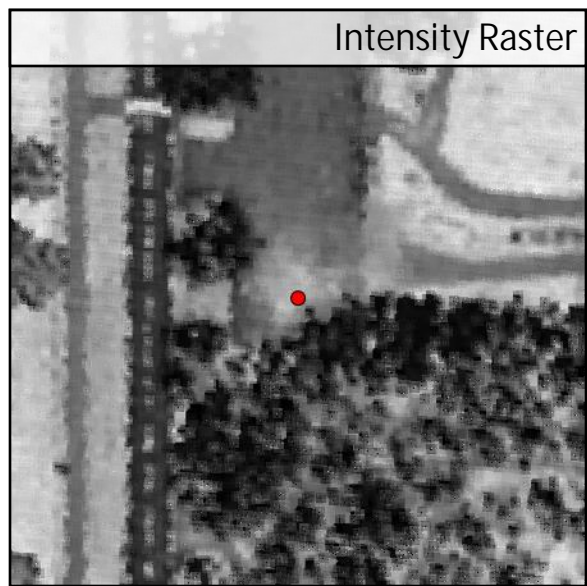
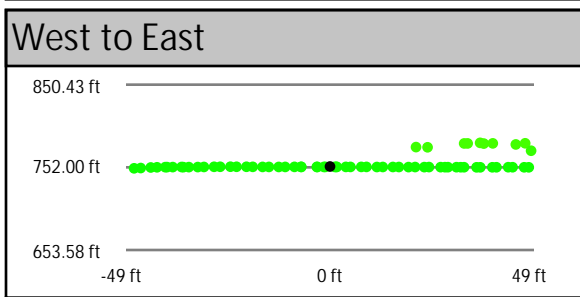
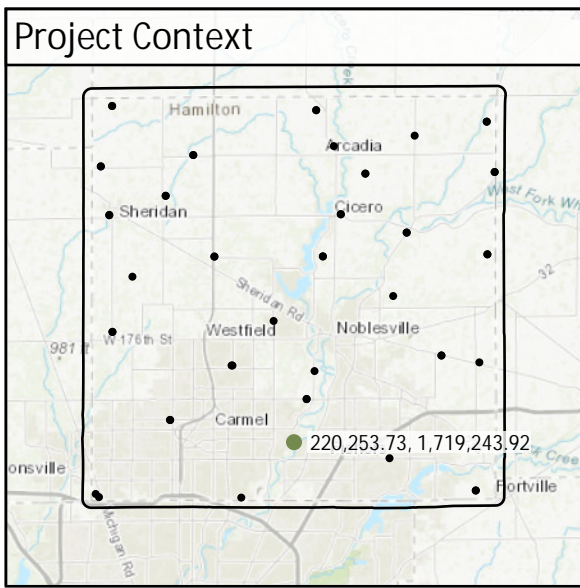


DEM Dz +0.22 ft

NVA - ua17

All Points TIN Dz +0.20 ft

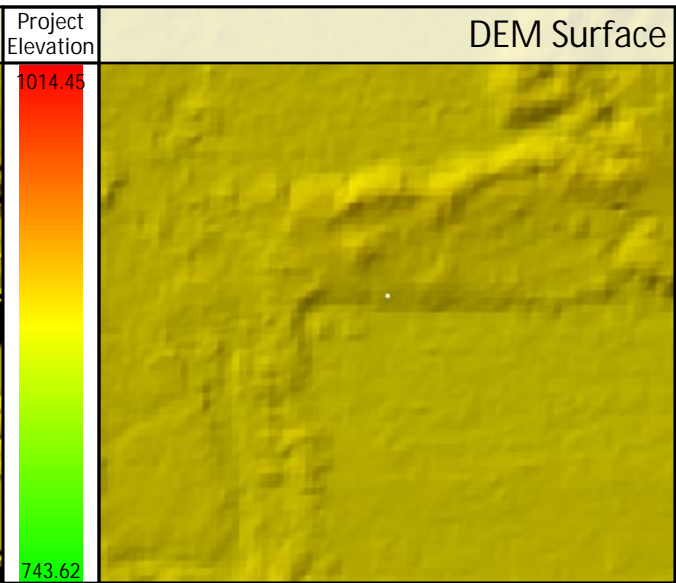
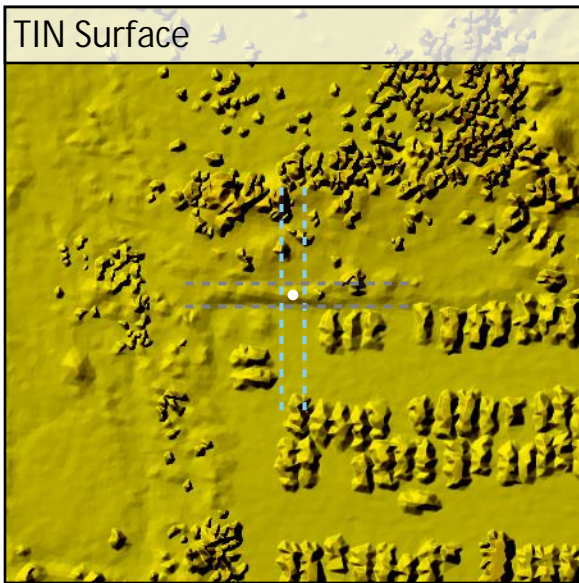
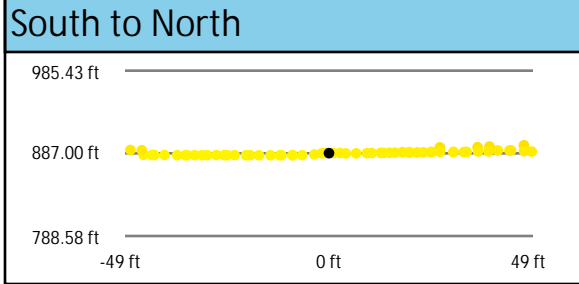
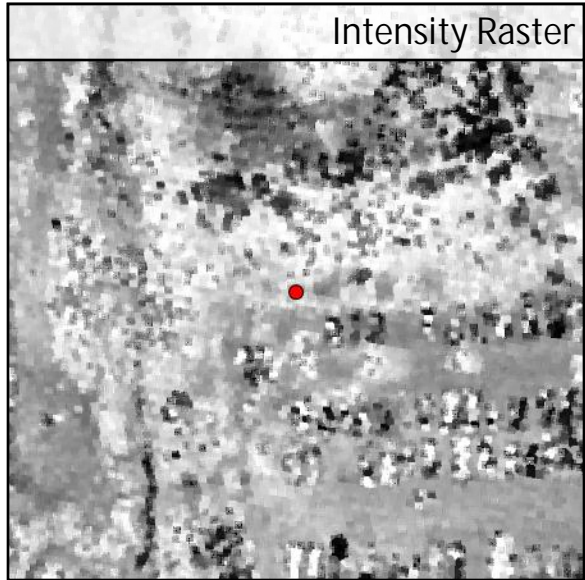
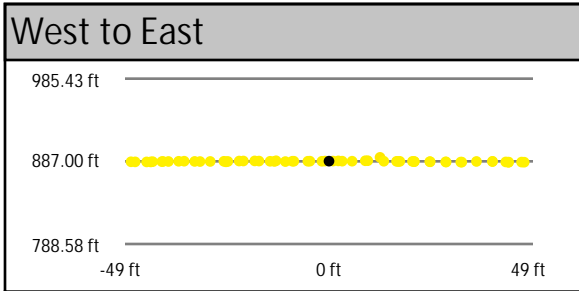
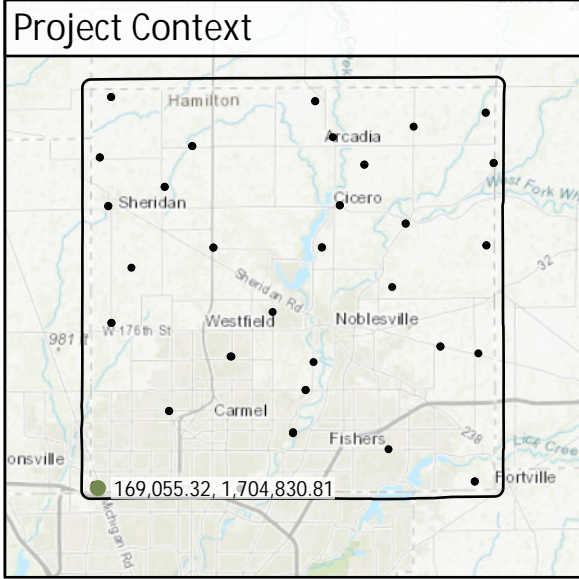
f001	Known Z	752.99 ft	Point Density	1.95 ppsm
	DEM Dz	-0.49 ft	Ground Density	1.98 ppsm
	All Points TIN Dz	N/A	Slope	0.44 °



DEM Dz -0.49 ft

VVA - f001

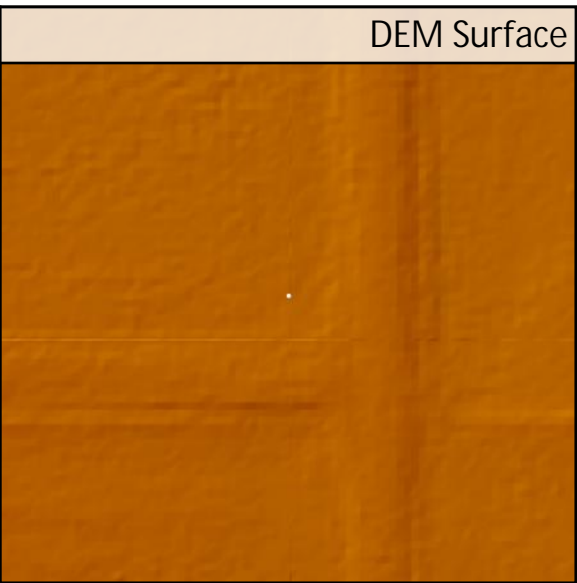
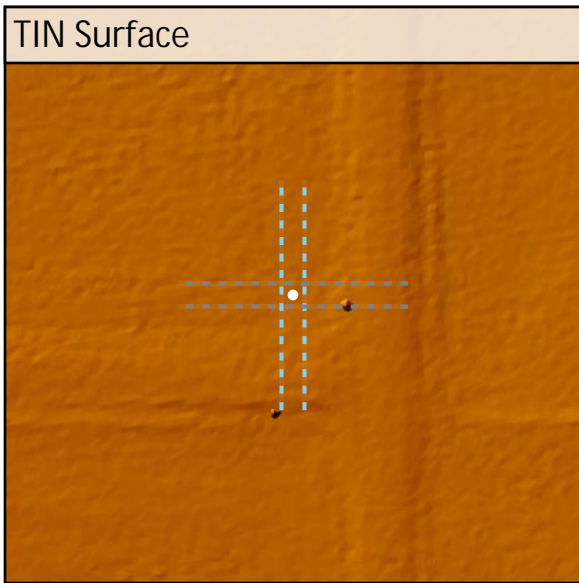
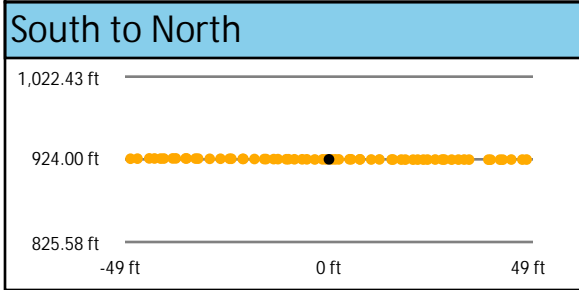
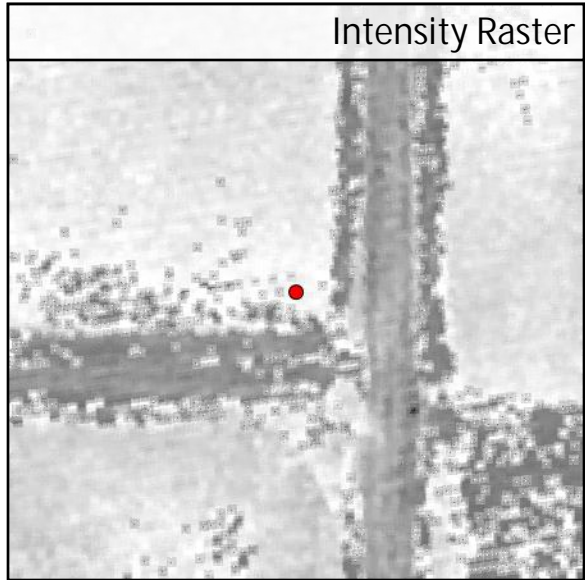
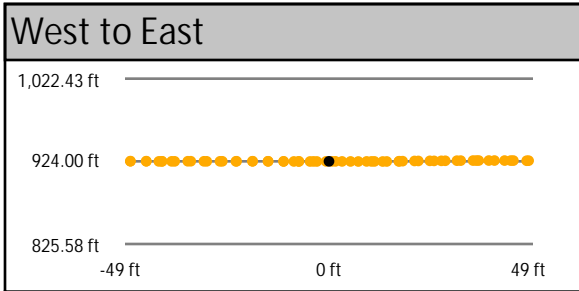
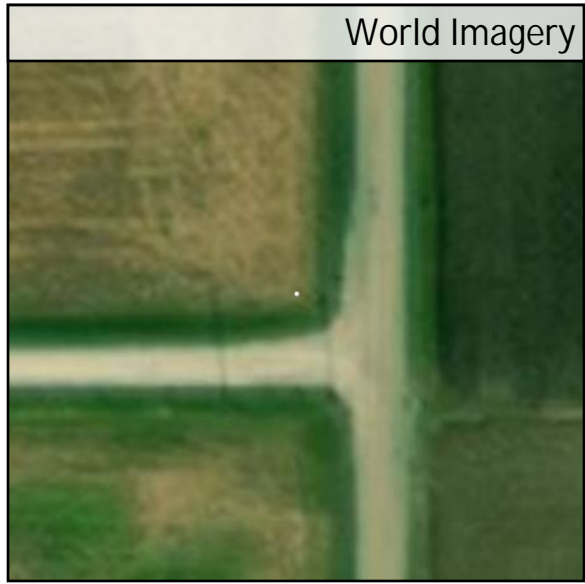
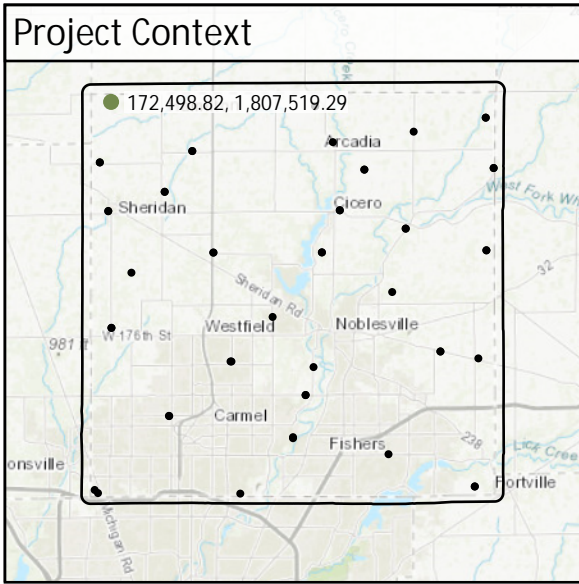
sh01	Known Z	887.20 ft	Point Density	2.16 ppsm
	DEM Dz	-0.91 ft	Ground Density	2.09 ppsm
	All Points TIN Dz	N/A	Slope	9.46 °



DEM Dz -0.91 ft

VWA - sh01

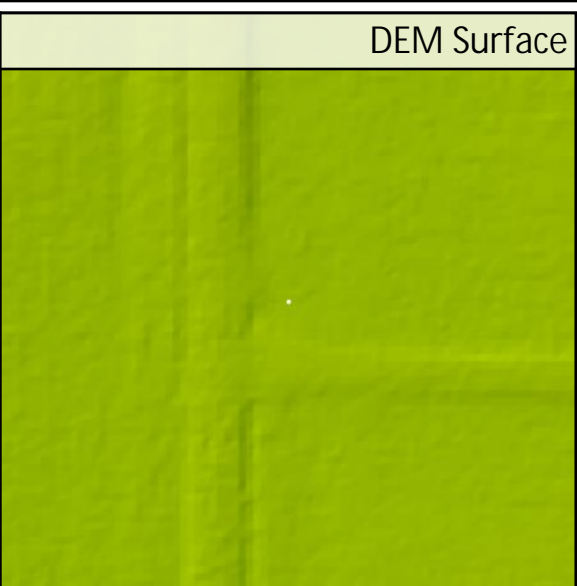
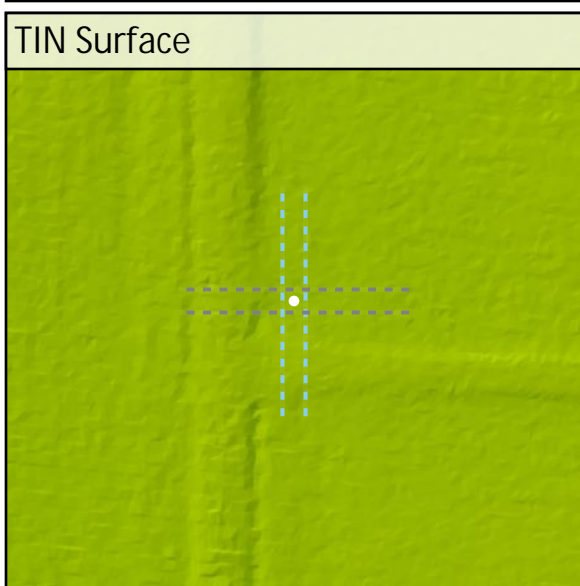
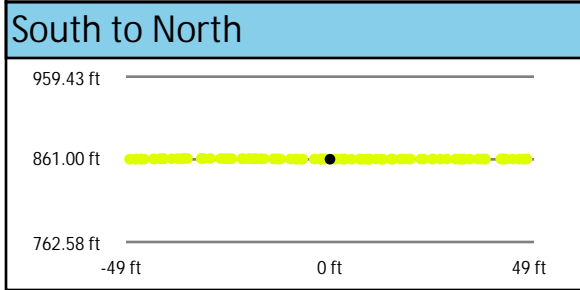
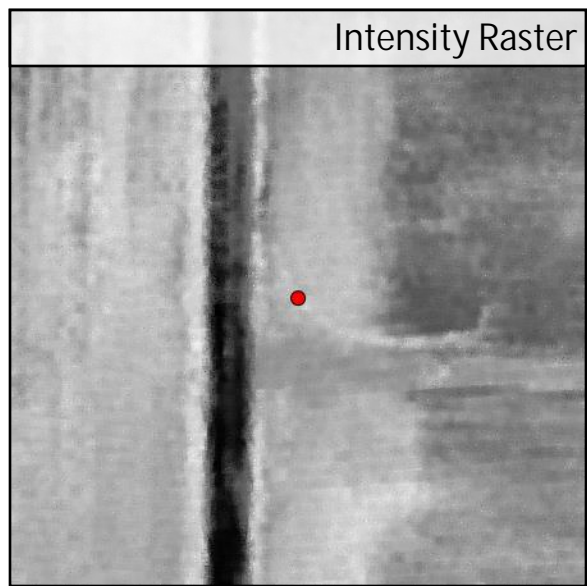
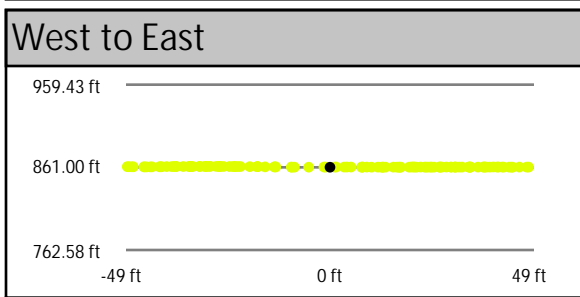
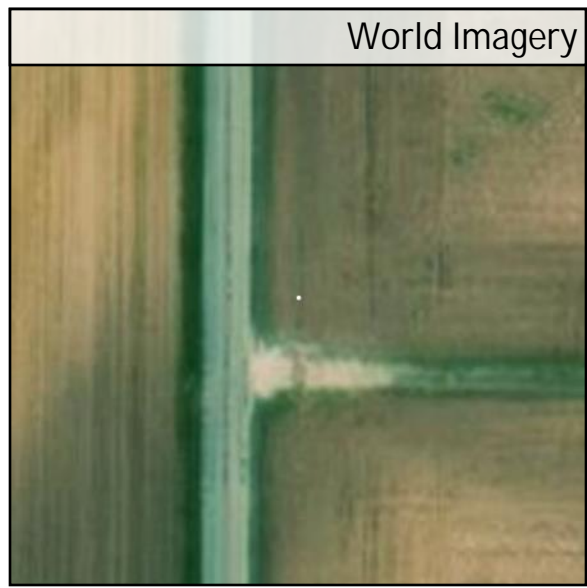
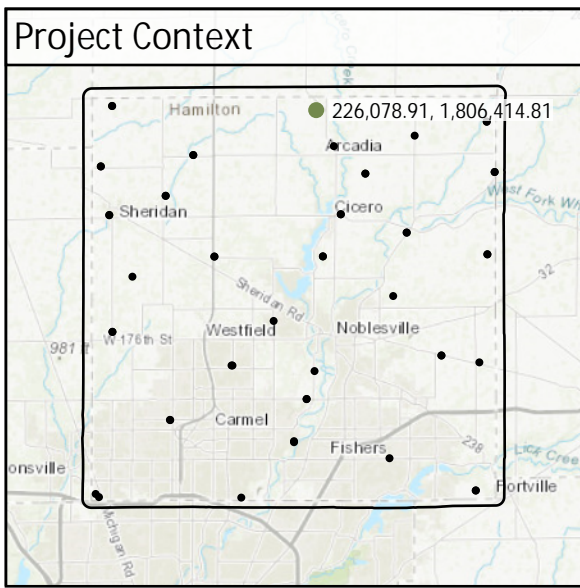
tw01	Known Z	923.98 ft	Point Density	1.98 ppsm
	DEM Dz	-0.07 ft	Ground Density	1.98 ppsm
	All Points TIN Dz	N/A	Slope	0.30 °



DEM Dz -0.07 ft

VVA - tw01

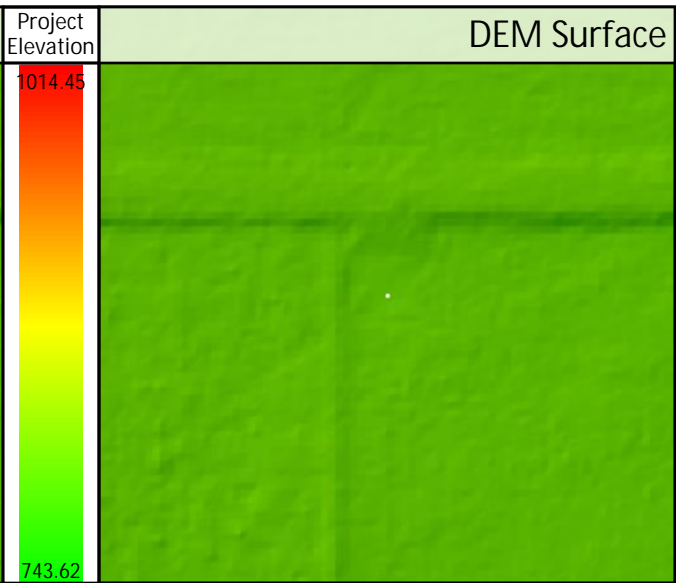
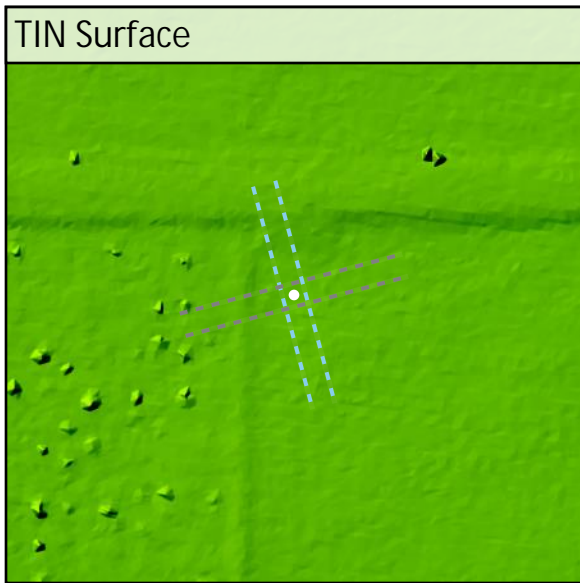
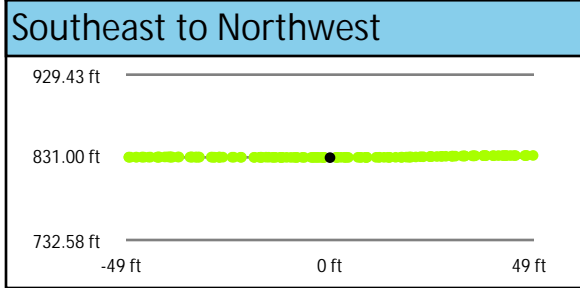
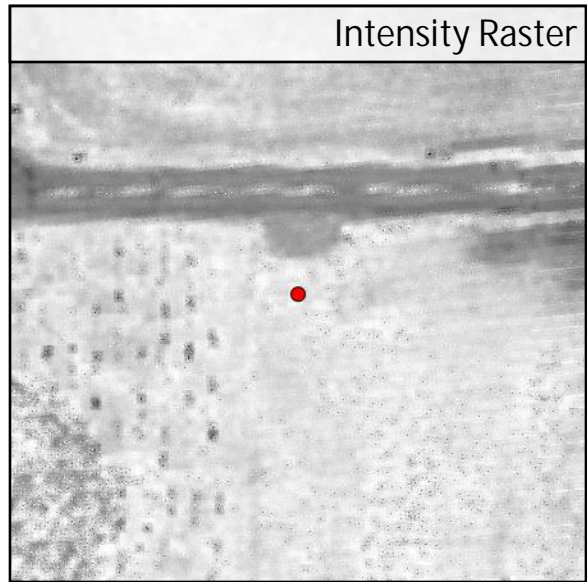
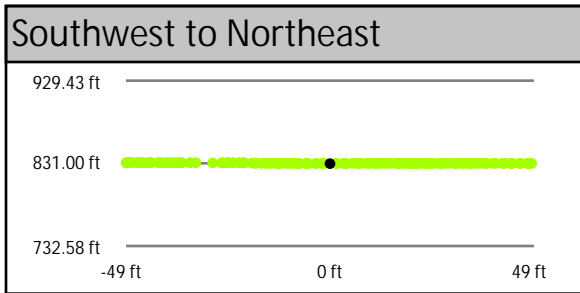
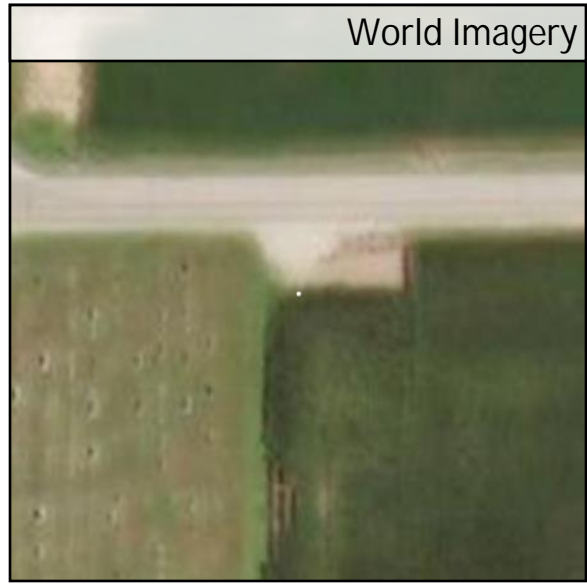
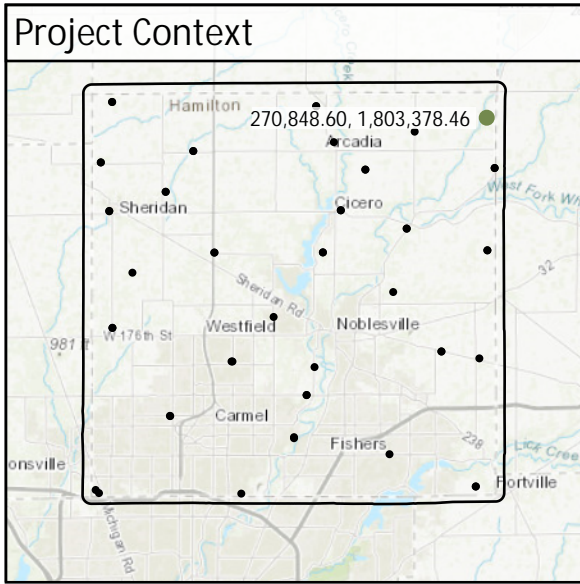
tw02	Known Z	861.12 ft	Point Density	4.10 ppsm
	DEM Dz	0.16 ft	Ground Density	1.80 ppsm
	All Points TIN Dz	N/A	Slope	0.48 °



DEM Dz +0.16 ft

VVA - tw02

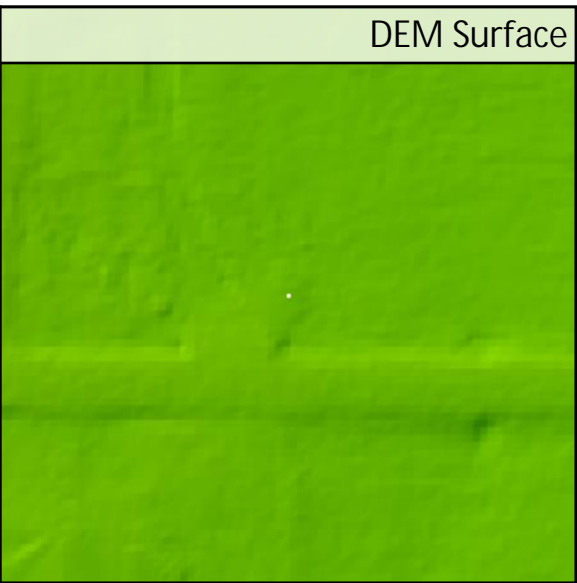
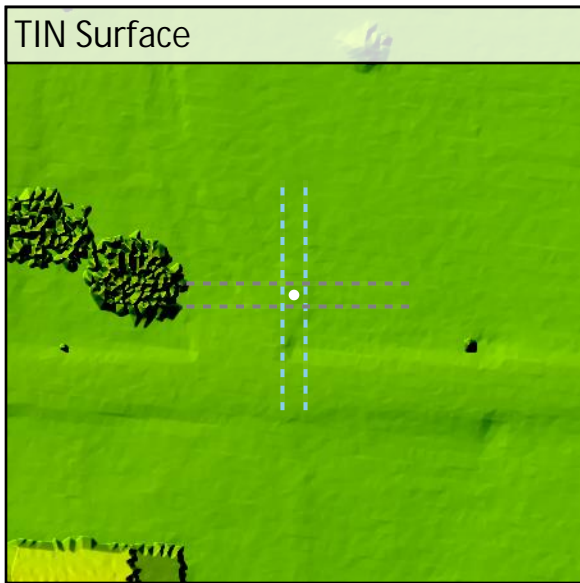
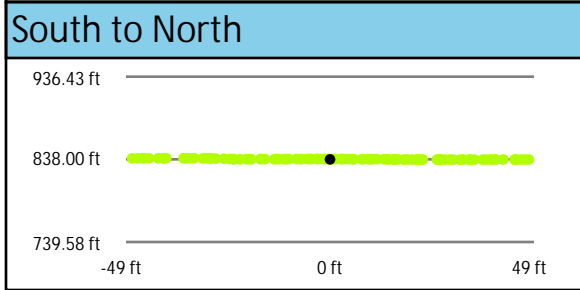
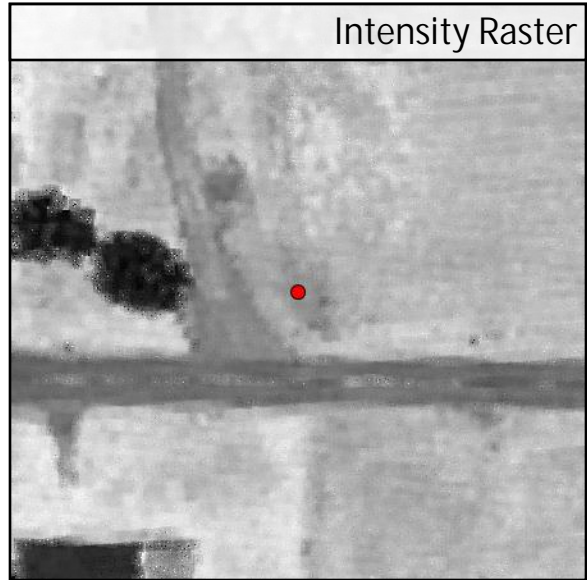
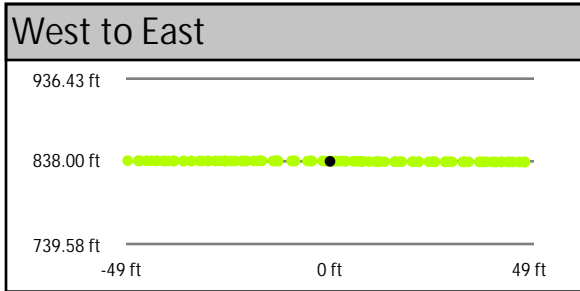
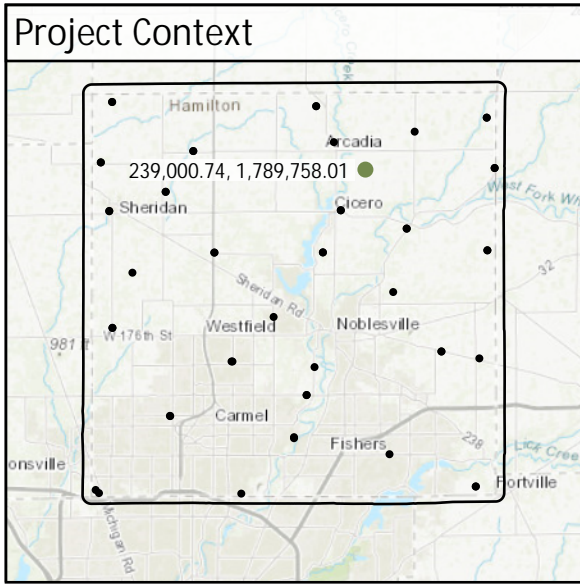
tw03	Known Z	830.64 ft	Point Density	5.55 ppsm
	DEM Dz	0.21 ft	Ground Density	1.73 ppsm
	All Points TIN Dz	N/A	Slope	0.18 °



DEM Dz +0.21 ft

VVA - tw03

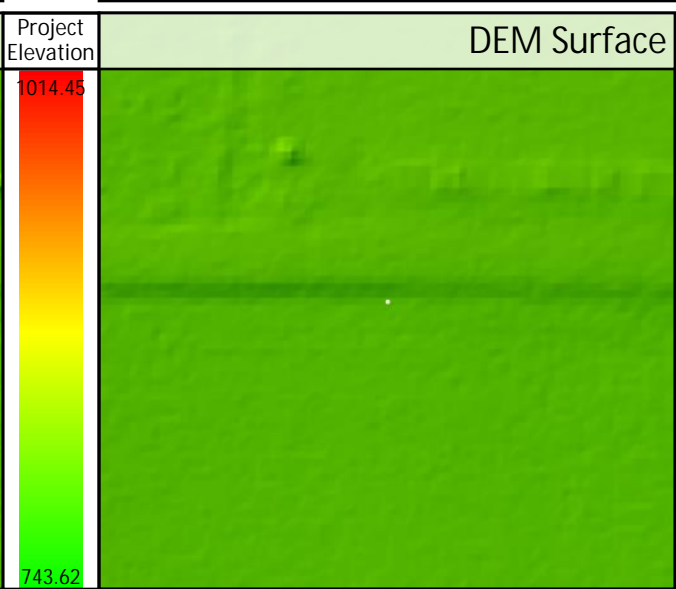
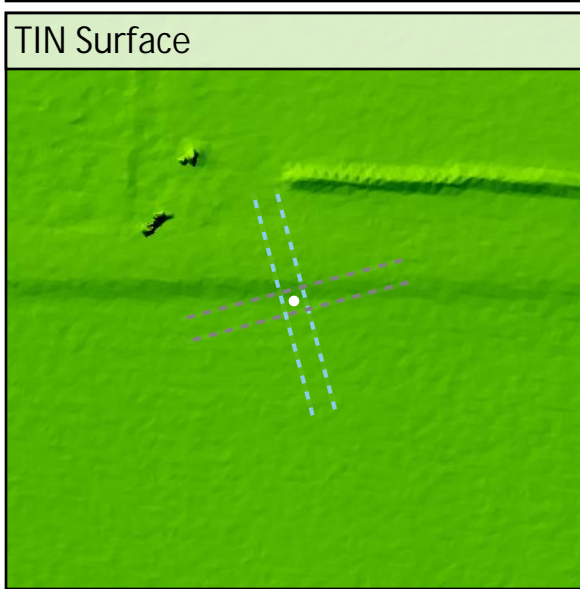
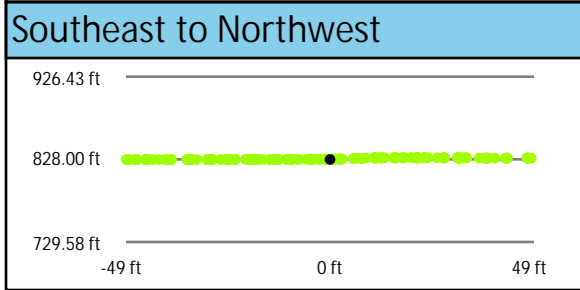
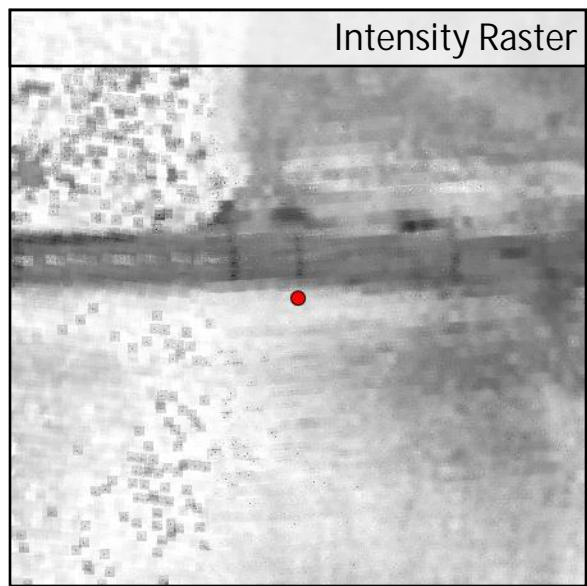
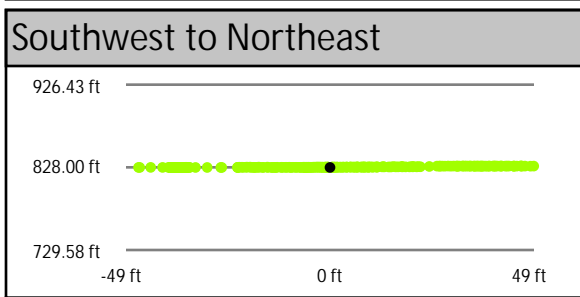
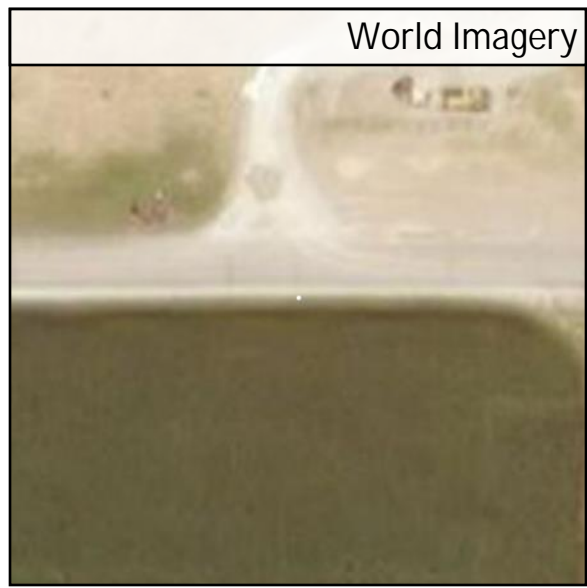
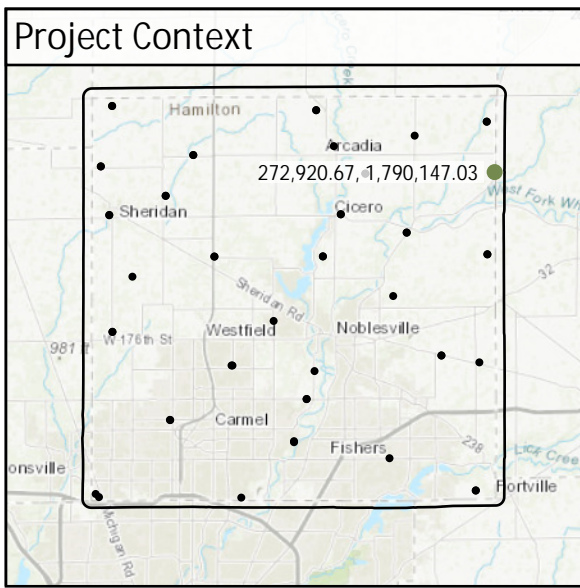
tw05	Known Z	837.95 ft	Point Density	3.86 ppsm
	DEM Dz	0.35 ft	Ground Density	1.70 ppsm
	All Points TIN Dz	N/A	Slope	2.05 °



DEM Dz +0.35 ft

VVA - tw05

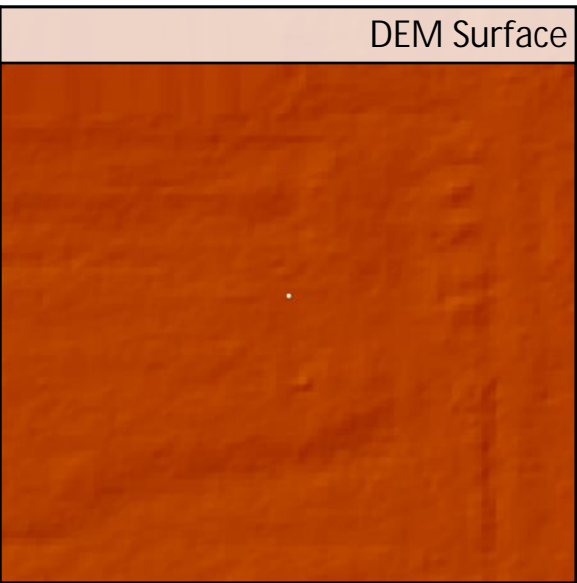
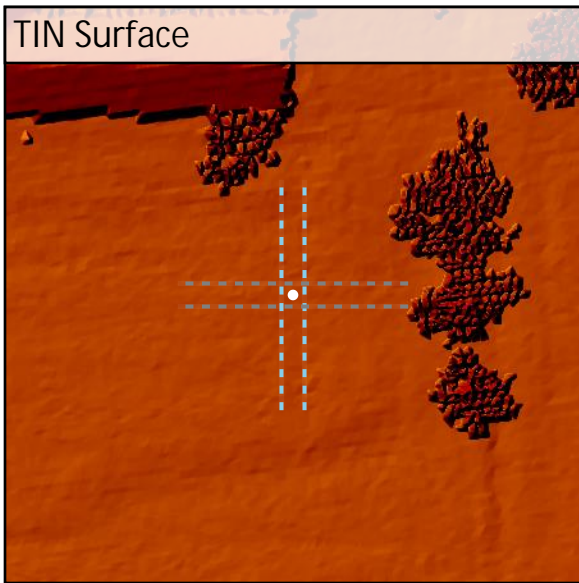
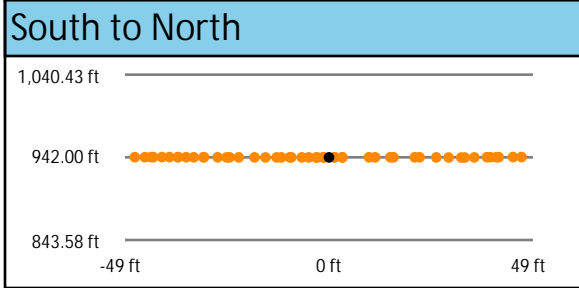
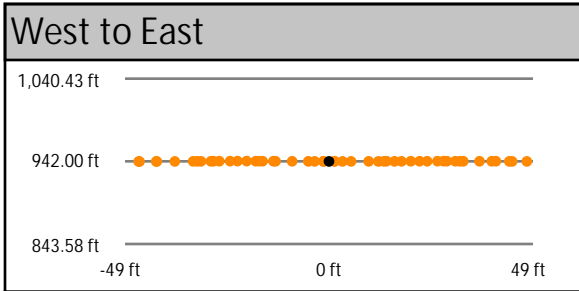
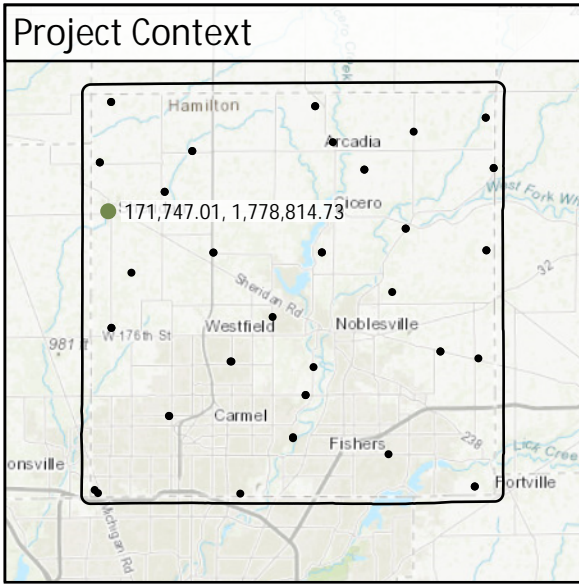
tw06	Known Z	827.86 ft	Point Density	12.84 ppsm
	DEM Dz	0.29 ft	Ground Density	1.70 ppsm
	All Points TIN Dz	N/A	Slope	4.84 °



DEM Dz +0.29 ft

VVA - tw06

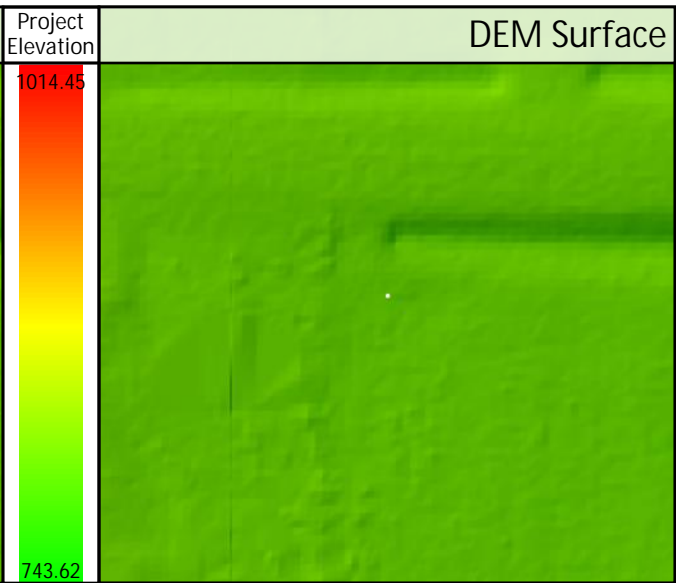
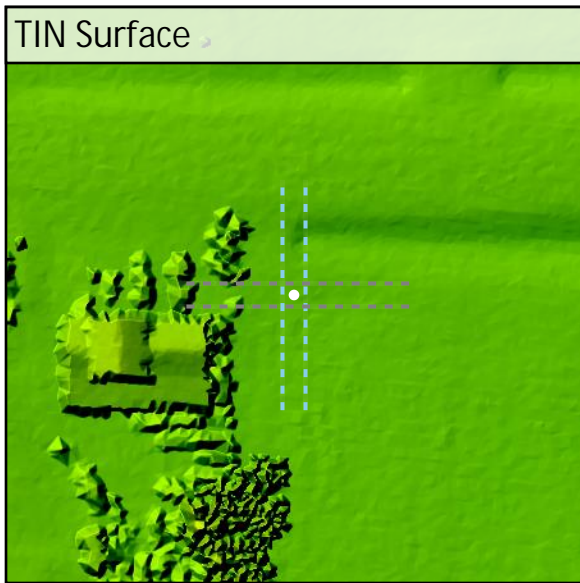
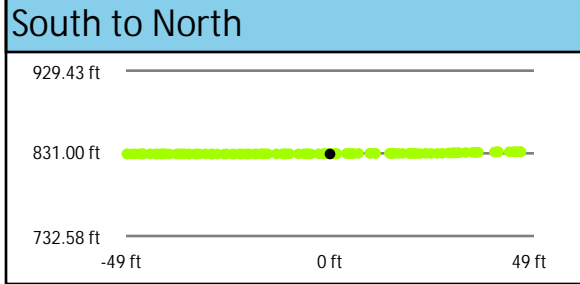
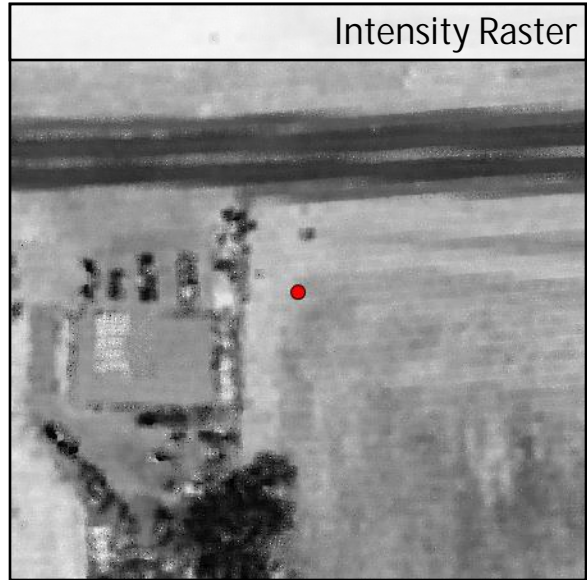
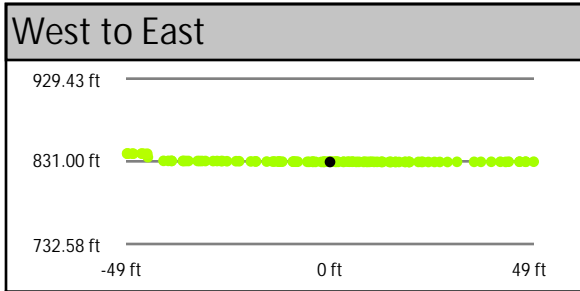
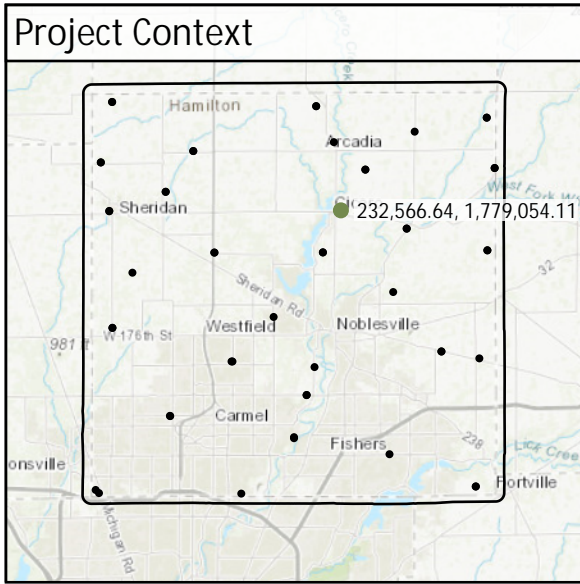
tw07	Known Z	941.90 ft	Point Density	1.87 ppsm
	DEM Dz	0.03 ft	Ground Density	1.87 ppsm
	All Points TIN Dz	N/A	Slope	0.80 °



DEM Dz +0.03 ft

VVA - tw07

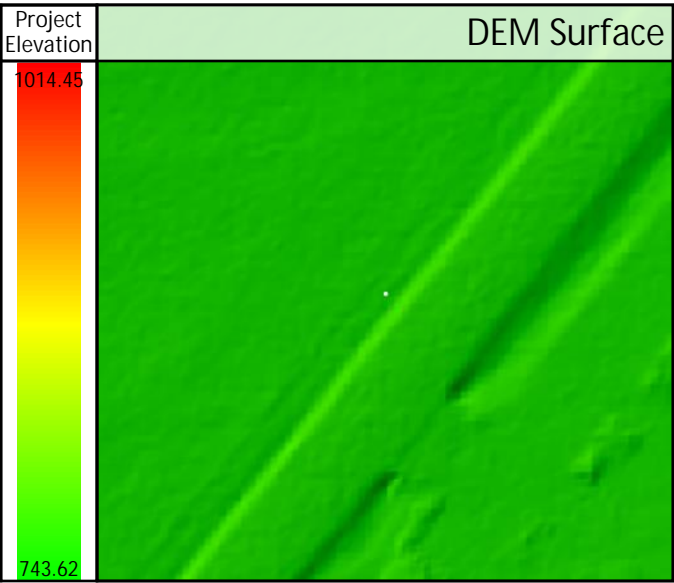
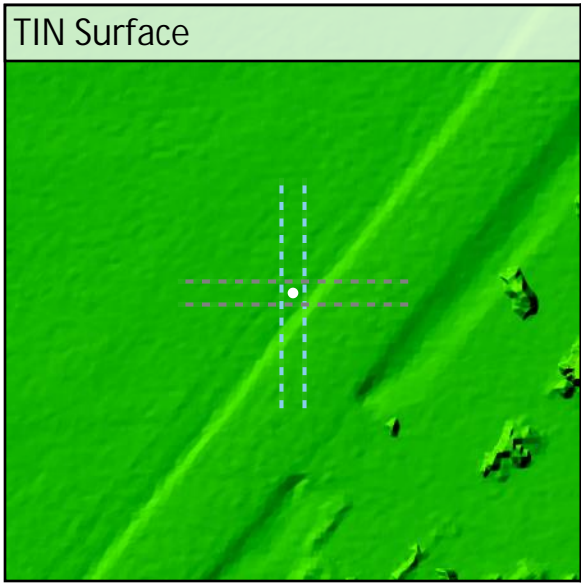
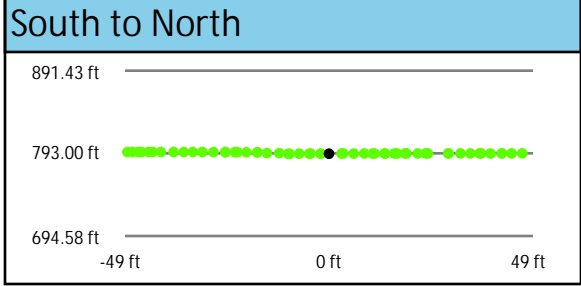
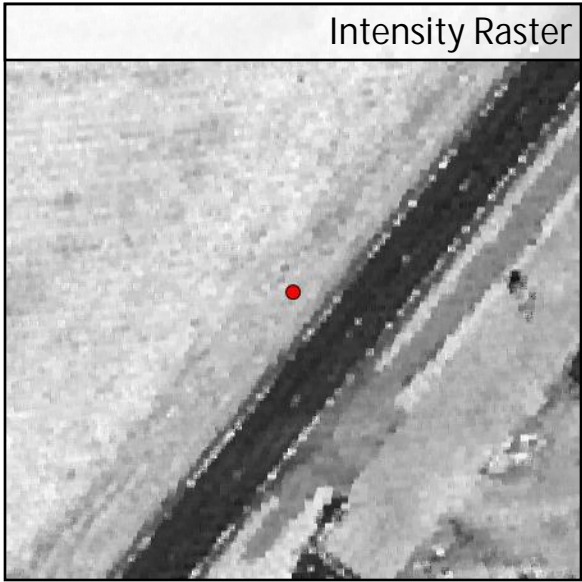
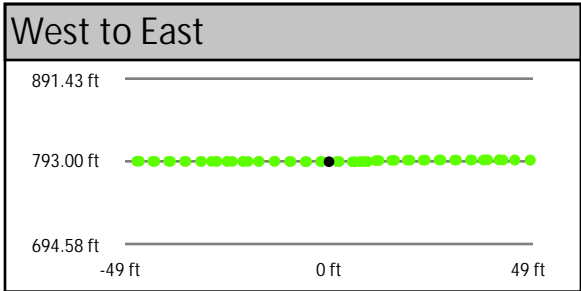
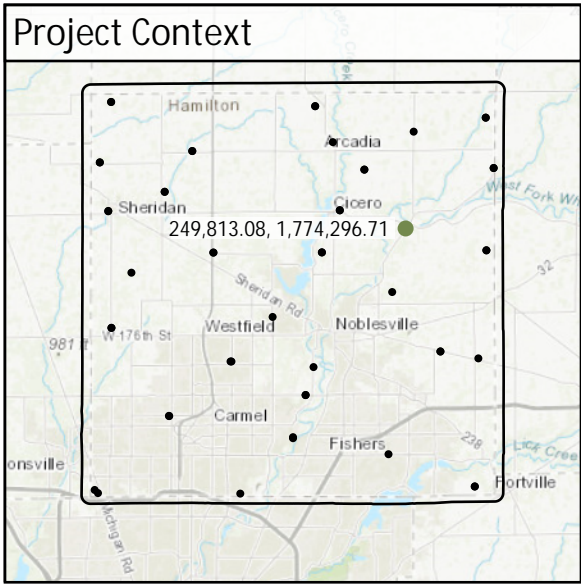
TW08	Known Z	830.22 ft	Point Density	4.31 ppsm
	DEM Dz	0.30 ft	Ground Density	1.80 ppsm
	All Points TIN Dz	N/A	Slope	2.49°



DEM Dz +0.30 ft

VVA - TW08

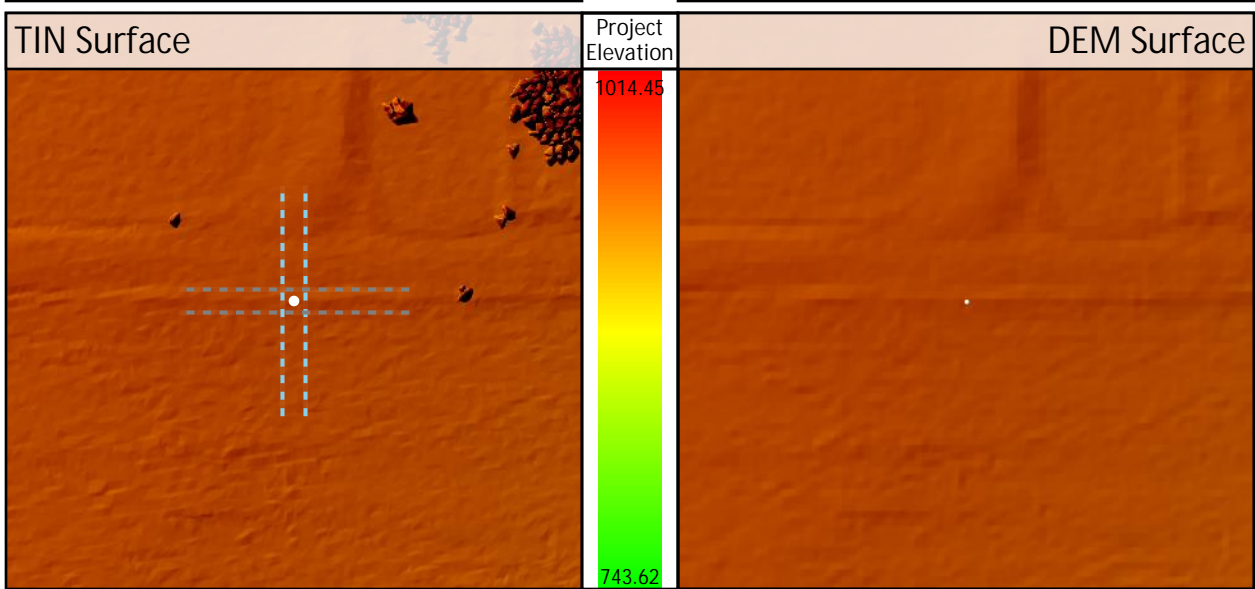
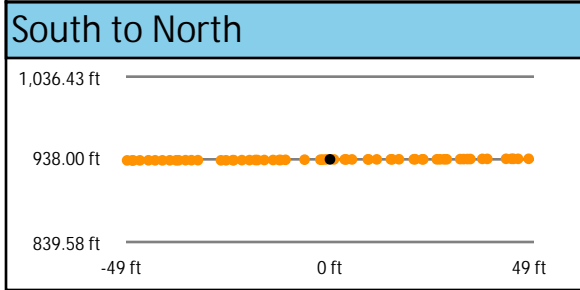
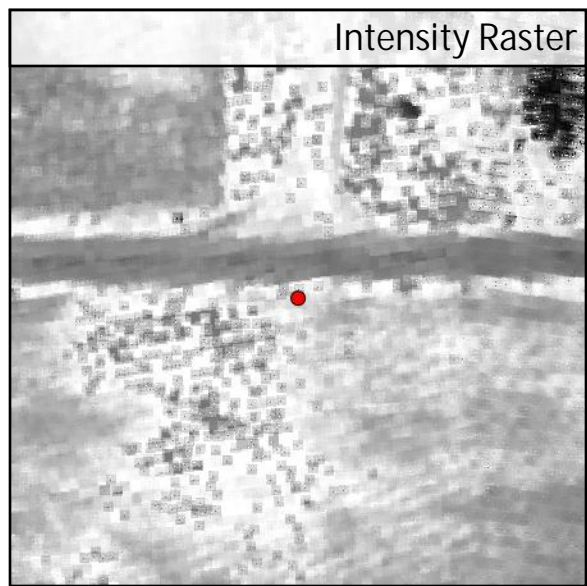
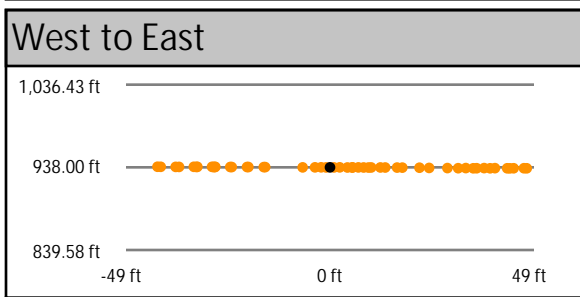
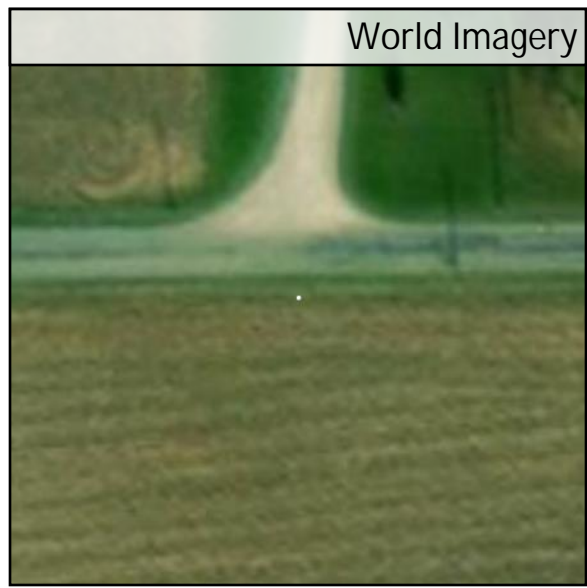
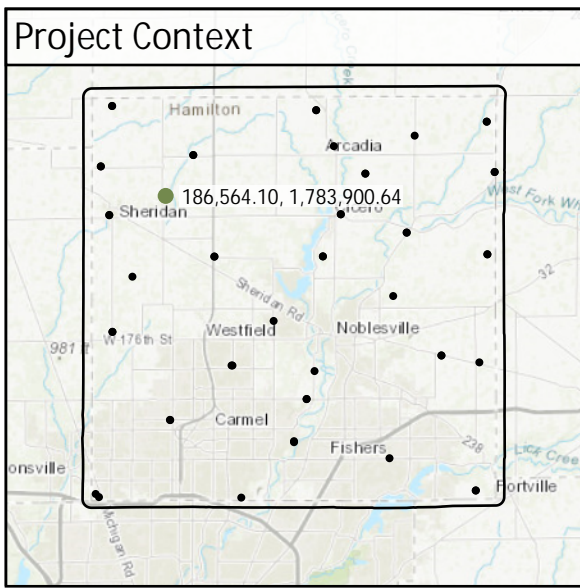
tw09	Known Z	792.54 ft	Point Density	2.33 ppsm
	DEM Dz	0.16 ft	Ground Density	2.26 ppsm
	All Points TIN Dz	N/A	Slope	1.39 °



DEM Dz +0.16 ft

VVA - tw09

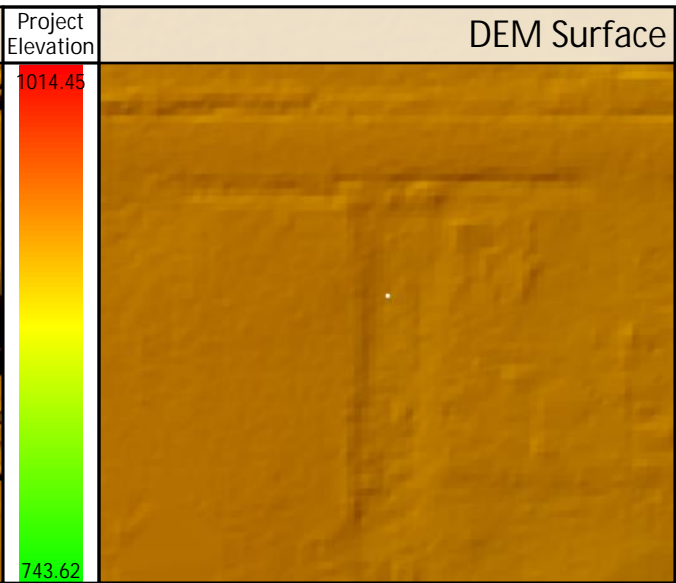
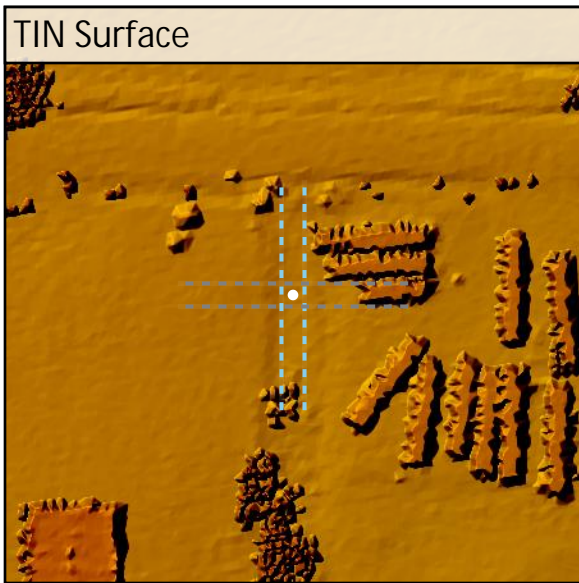
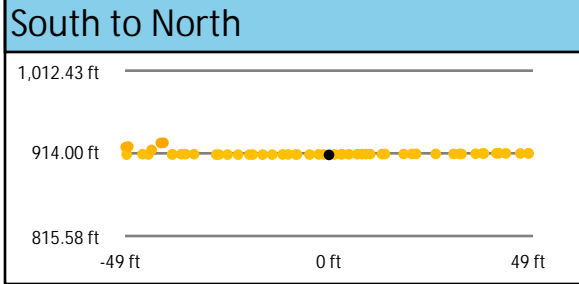
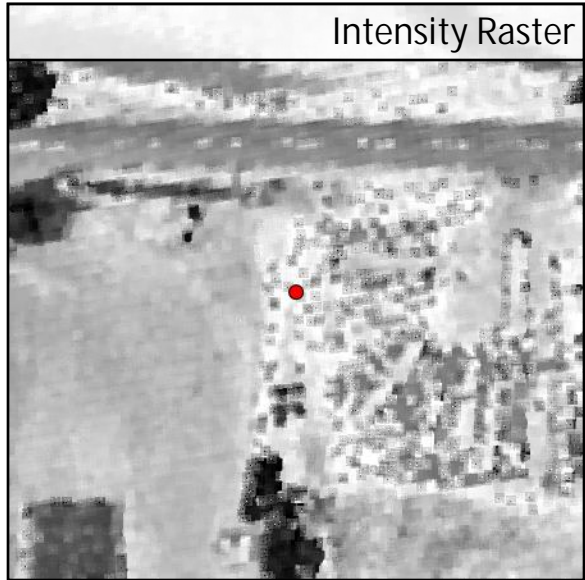
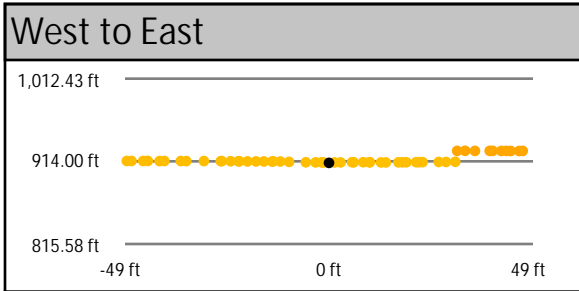
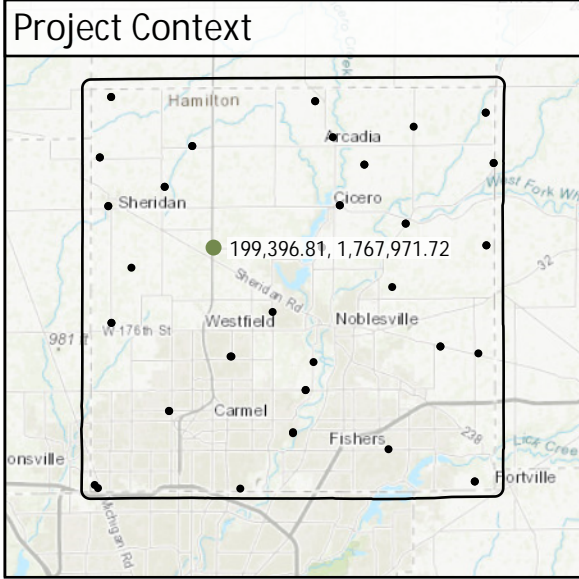
tw10	Known Z	937.97 ft	Point Density	1.77 ppsm
	DEM Dz	-0.14 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	N/A	Slope	2.31 °



DEM Dz -0.14 ft

VVA - tw10

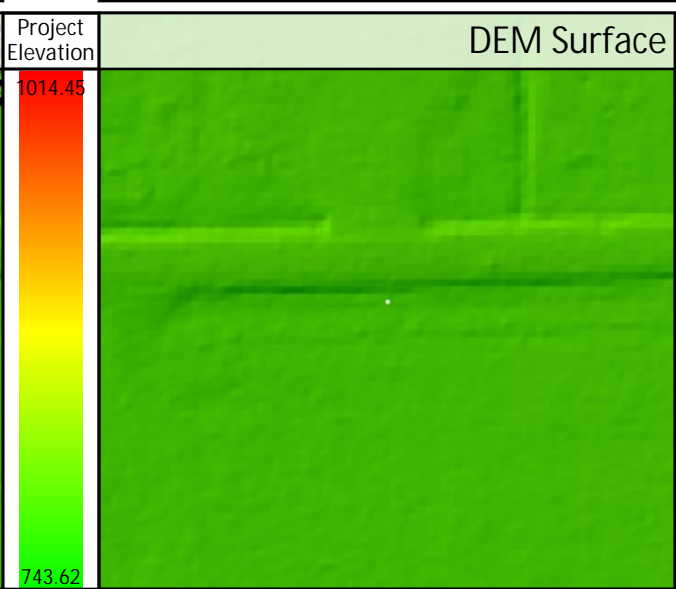
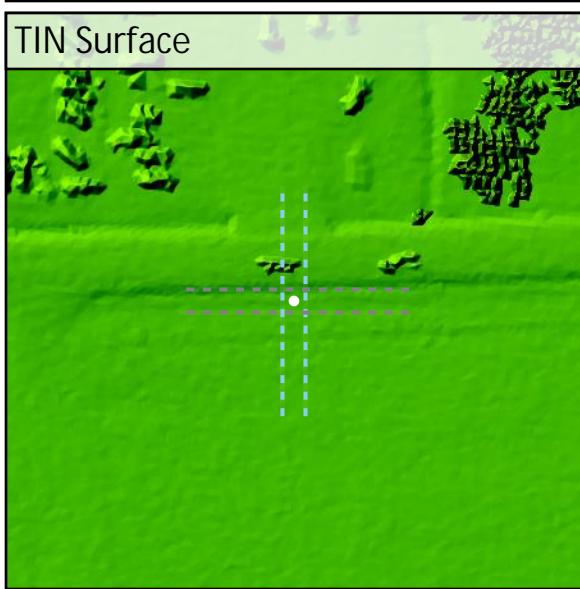
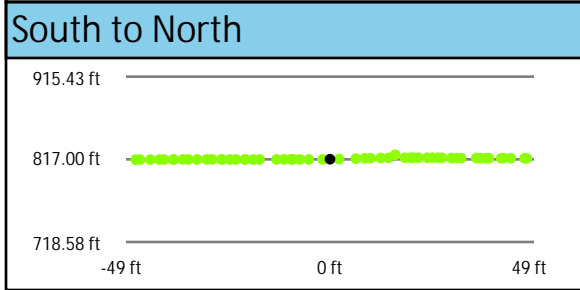
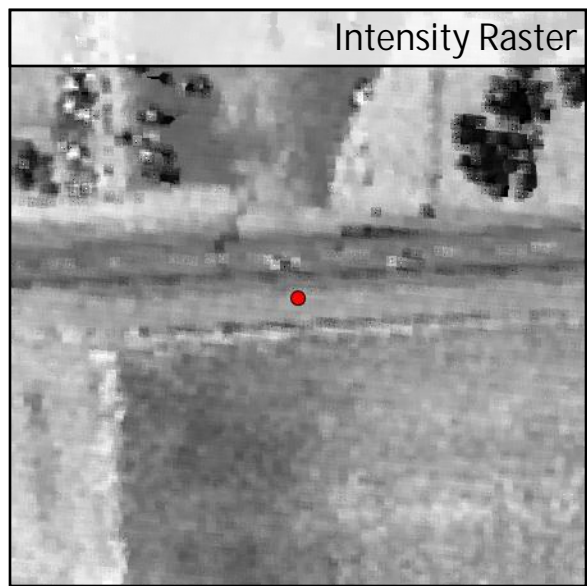
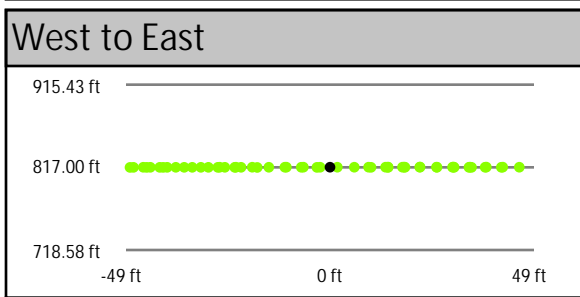
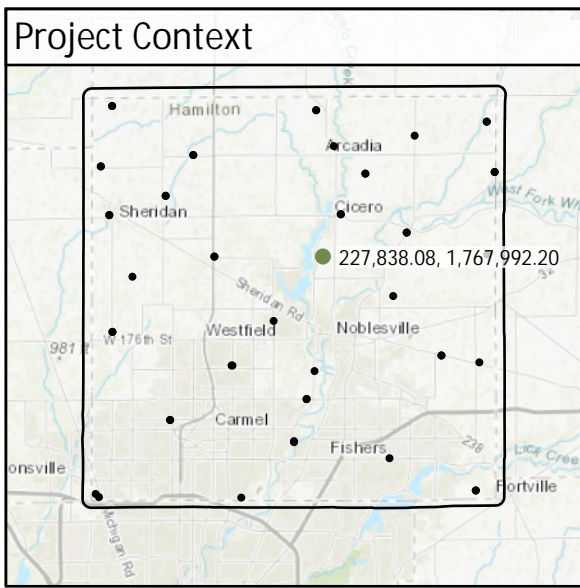
tw11	Known Z	912.15 ft	Point Density	1.98 ppsm
	DEM Dz	0.65 ft	Ground Density	1.91 ppsm
	All Points TIN Dz	N/A	Slope	1.68 °



DEM Dz +0.65 ft

VVA - tw11

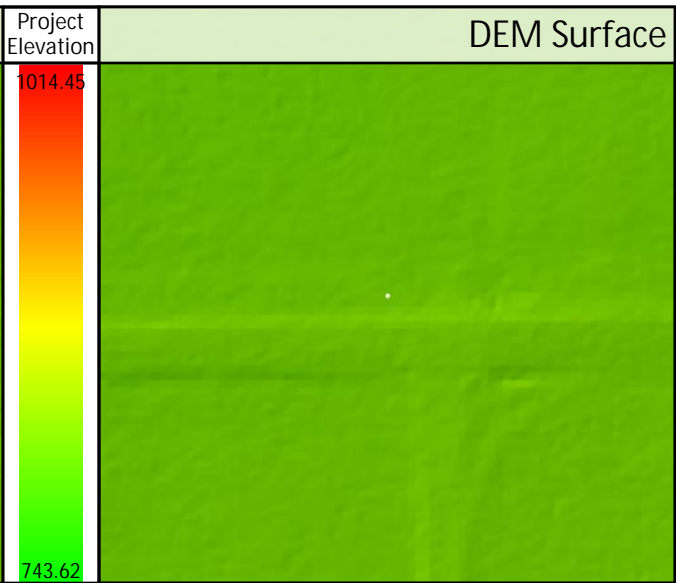
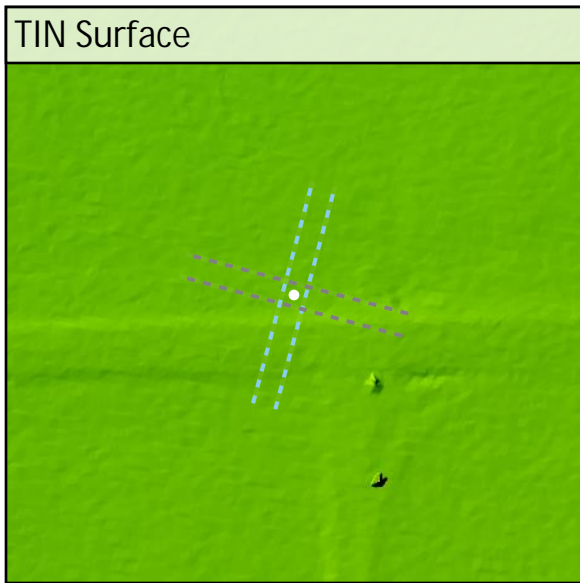
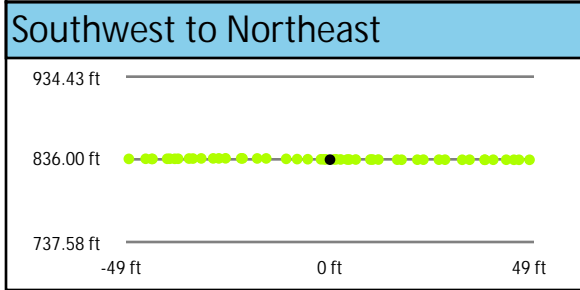
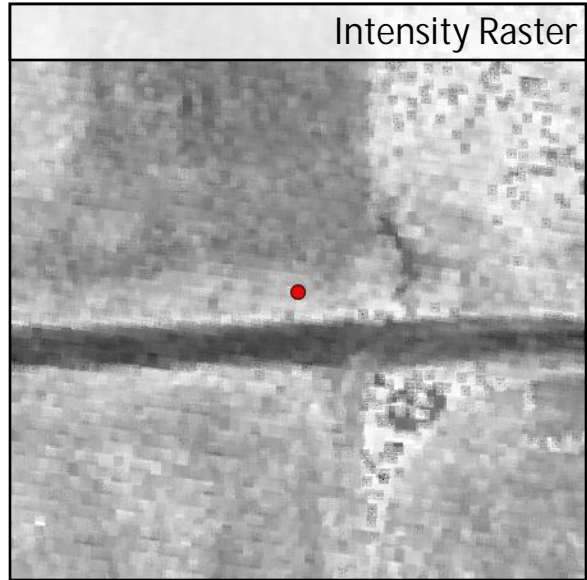
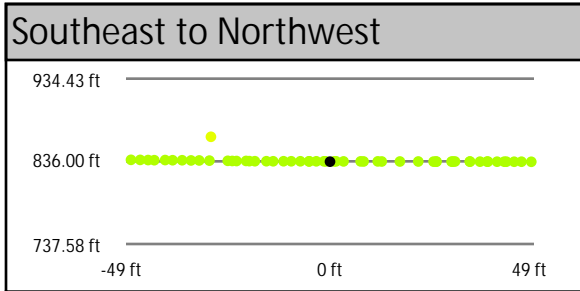
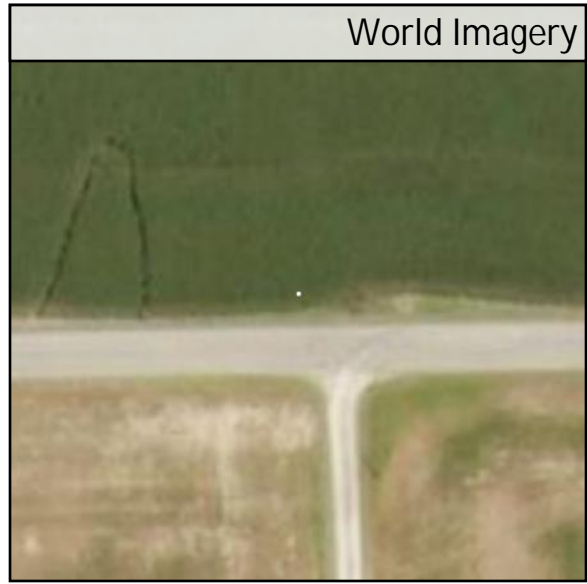
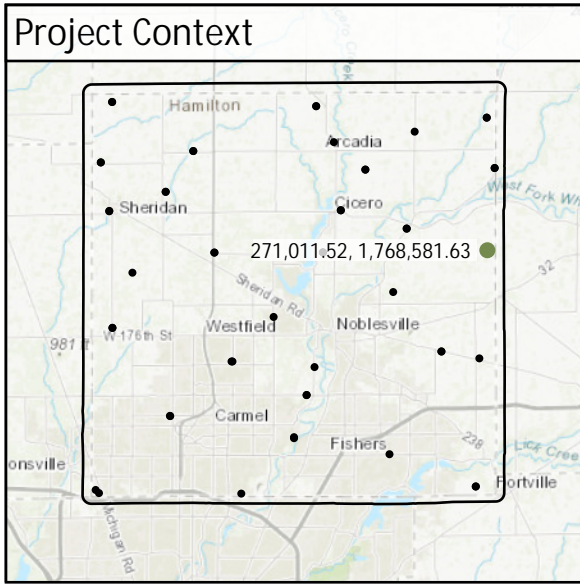
tw12	Known Z	817.15 ft	Point Density	1.87 ppsm
	DEM Dz	-0.05 ft	Ground Density	1.77 ppsm
	All Points TIN Dz	N/A	Slope	3.02 °



DEM Dz -0.05 ft

VVA - tw12

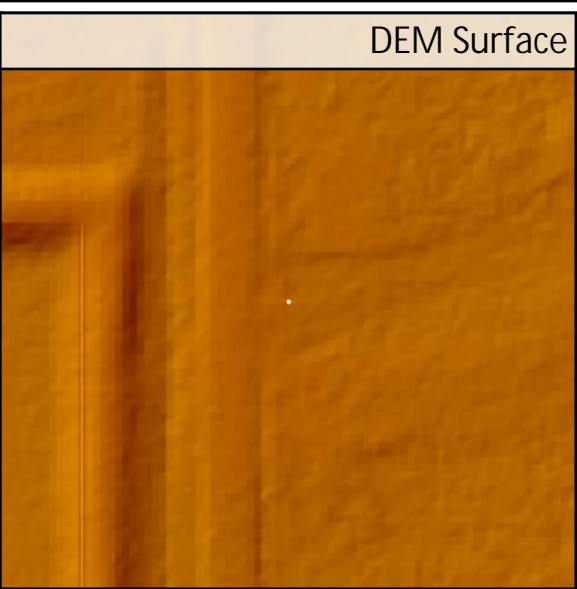
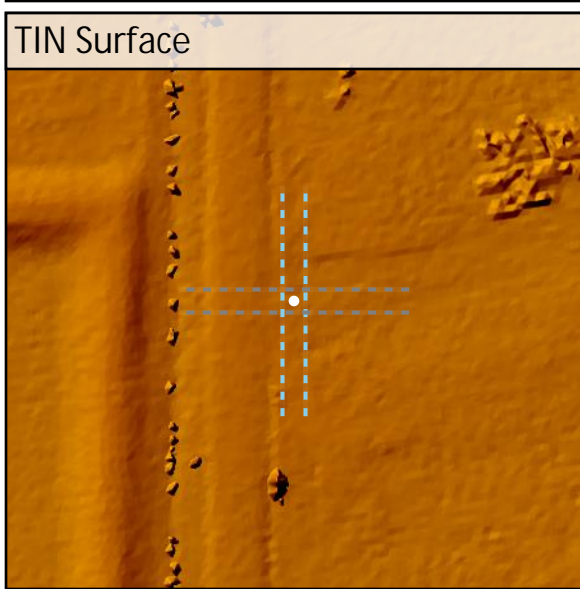
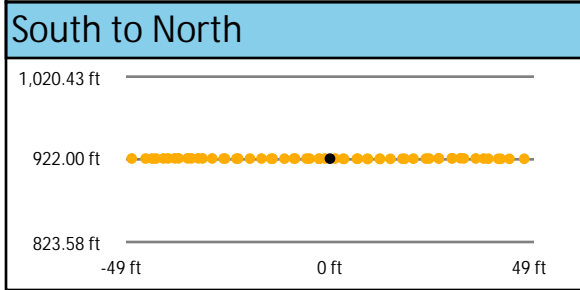
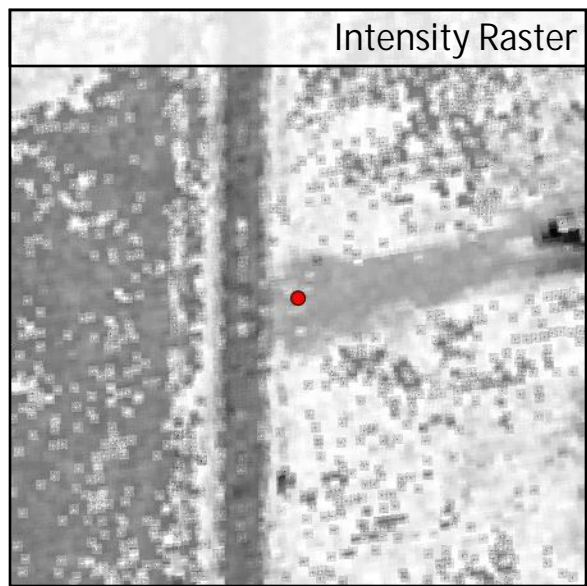
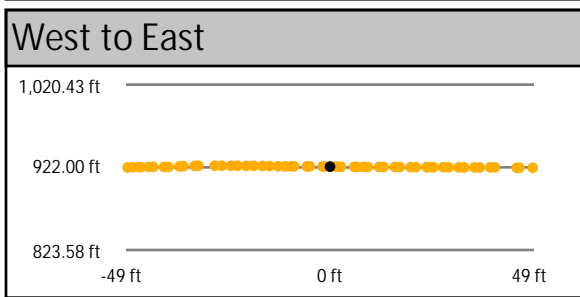
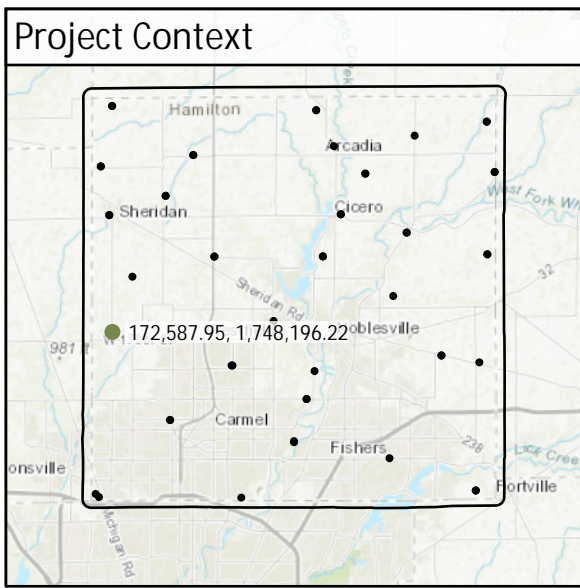
tw13	Known Z	835.61 ft	Point Density	1.80 ppsm
	DEM Dz	0.34 ft	Ground Density	1.73 ppsm
	All Points TIN Dz	N/A	Slope	2.15 °



DEM Dz +0.34 ft

VVA - tw13

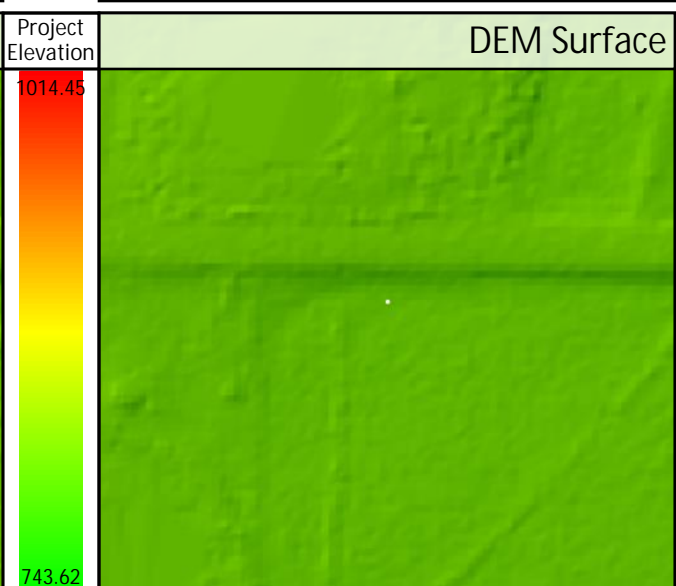
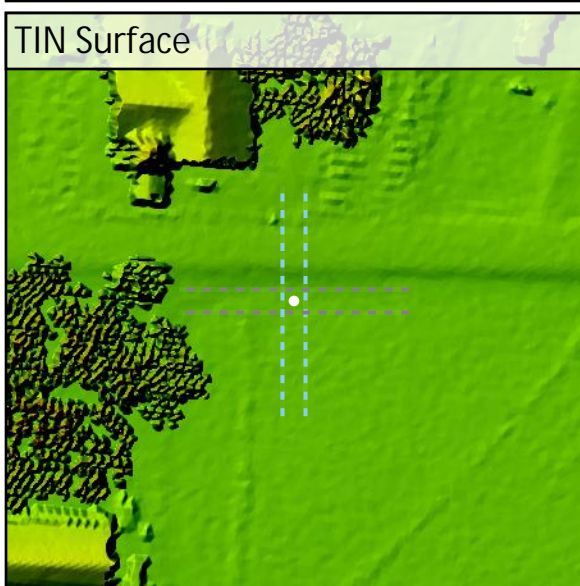
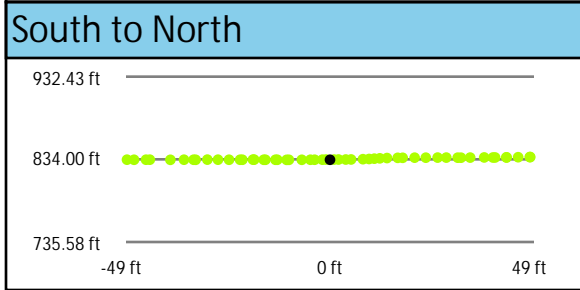
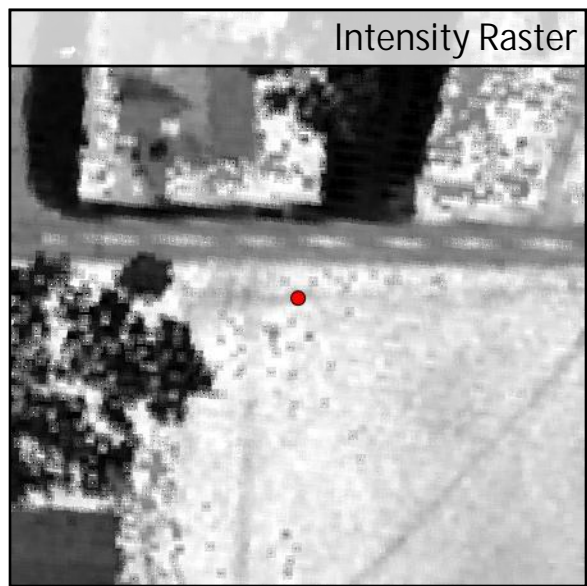
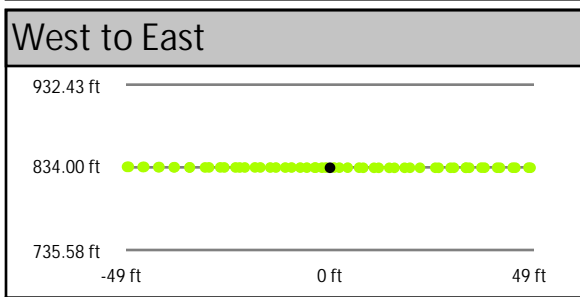
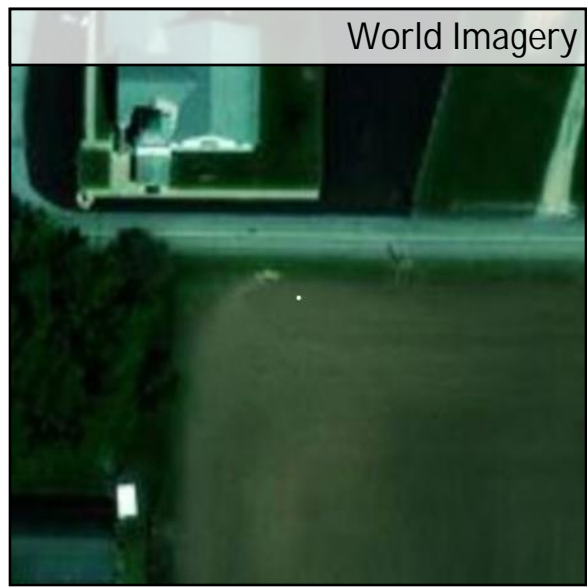
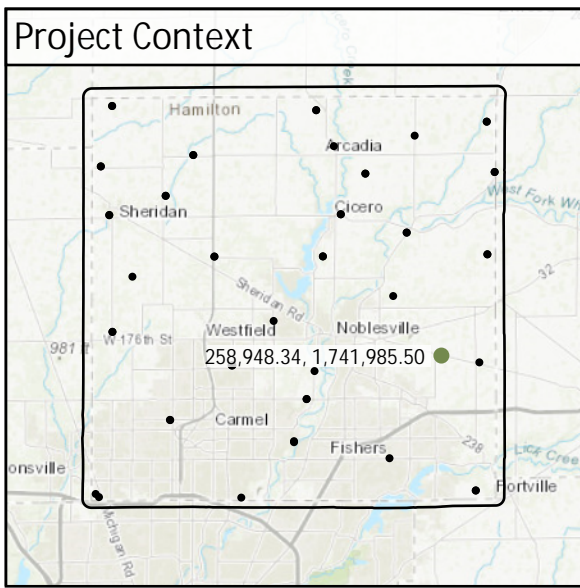
tw14	Known Z	922.85 ft	Point Density	2.02 ppsm
	DEM Dz	-0.05 ft	Ground Density	1.98 ppsm
	All Points TIN Dz	N/A	Slope	3.40 °



DEM Dz -0.05 ft

VVA - tw14

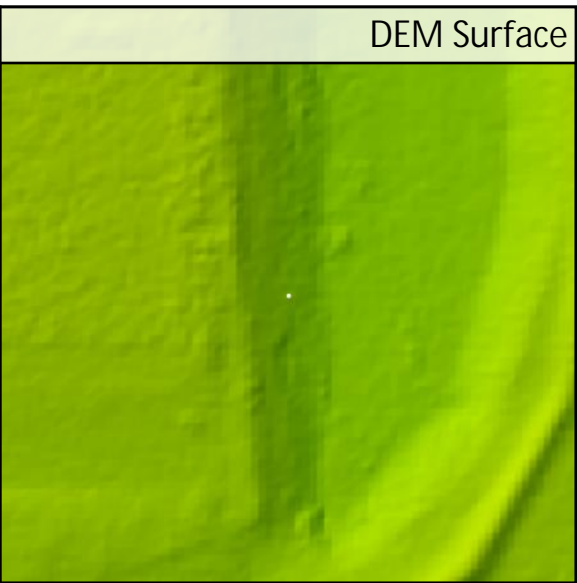
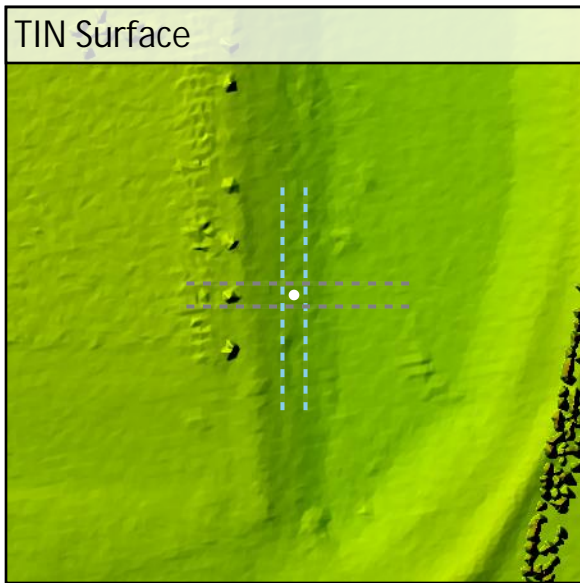
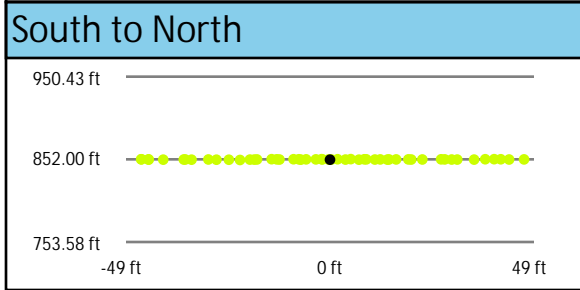
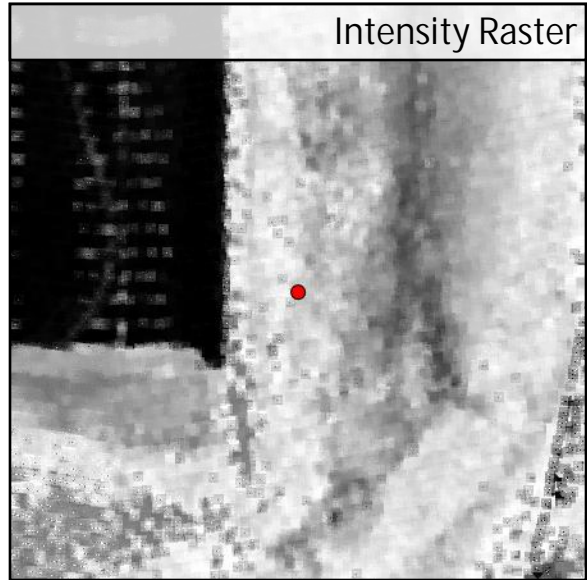
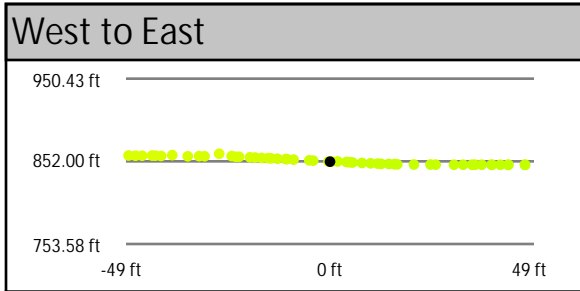
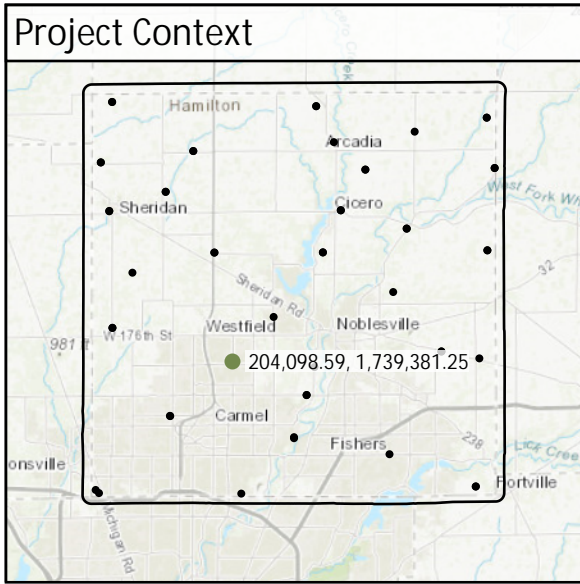
tw15	Known Z	833.49 ft	Point Density	2.05 ppsm
	DEM Dz	0.19 ft	Ground Density	1.98 ppsm
	All Points TIN Dz	N/A	Slope	1.88 °



DEM Dz +0.19 ft

VVA - tw15

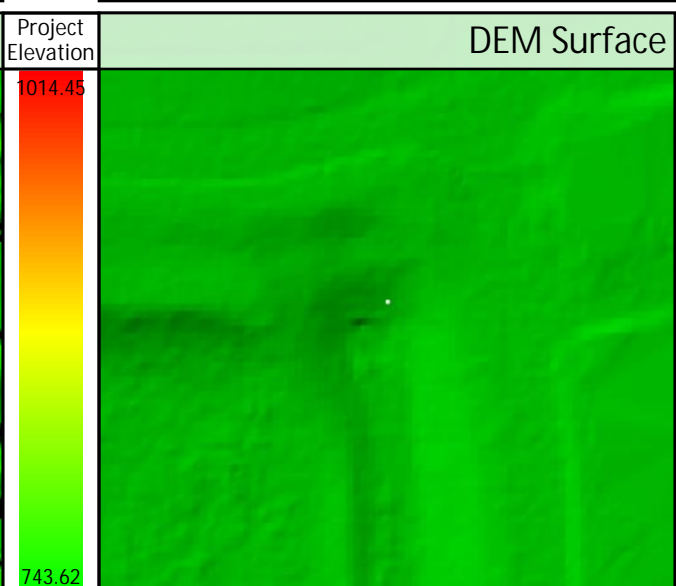
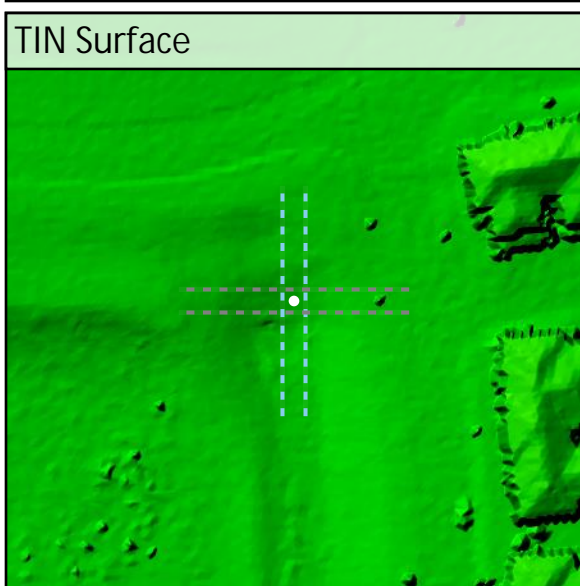
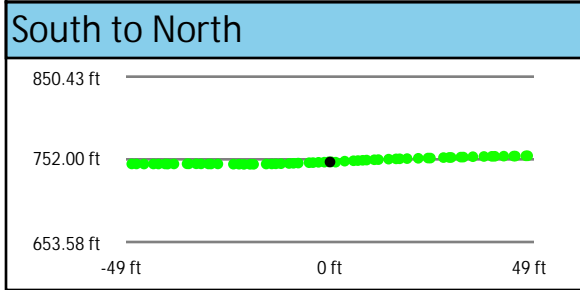
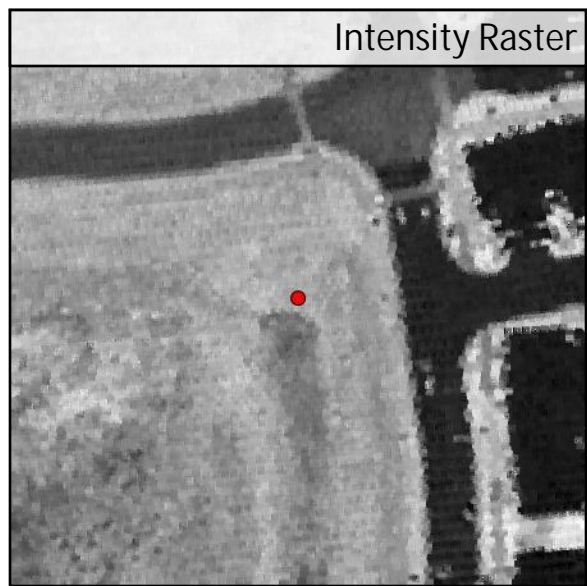
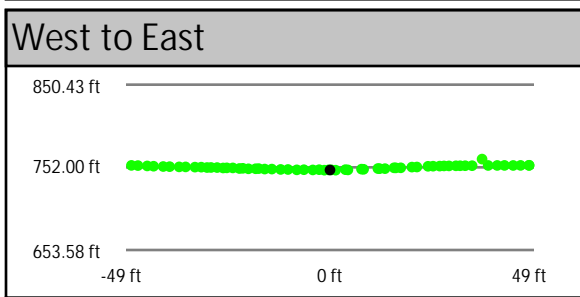
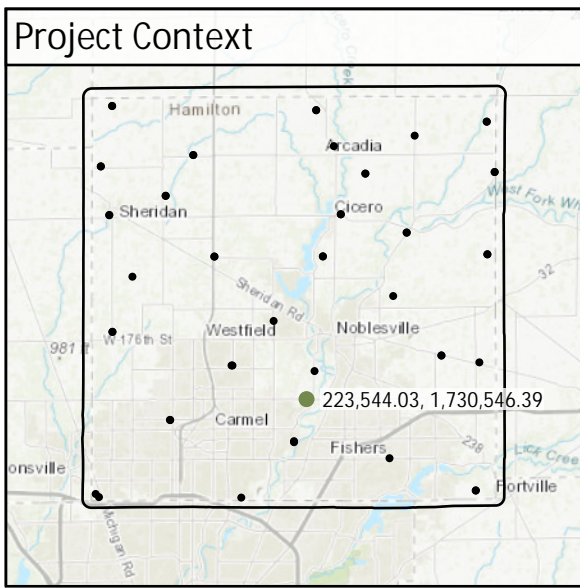
tw16	Known Z	851.60 ft	Point Density	2.05 ppsm
	DEM Dz	0.40 ft	Ground Density	1.98 ppsm
	All Points TIN Dz	N/A	Slope	12.78 °



DEM Dz +0.40 ft

VVA - tw16

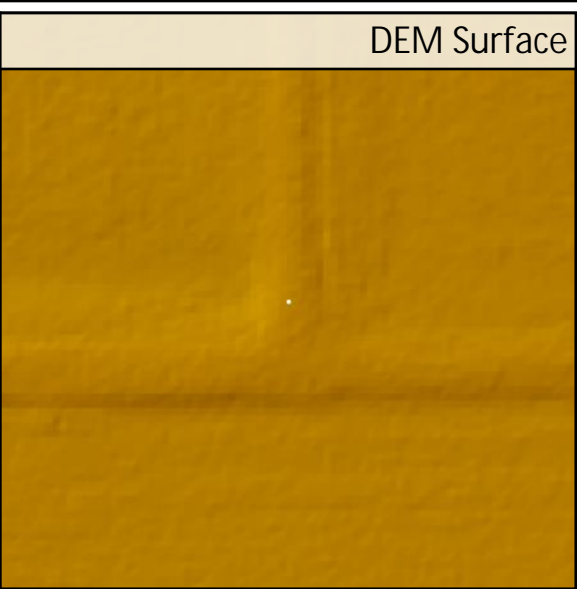
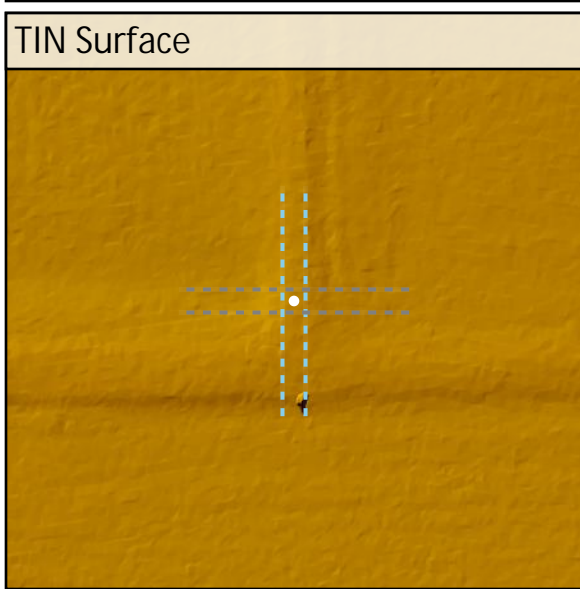
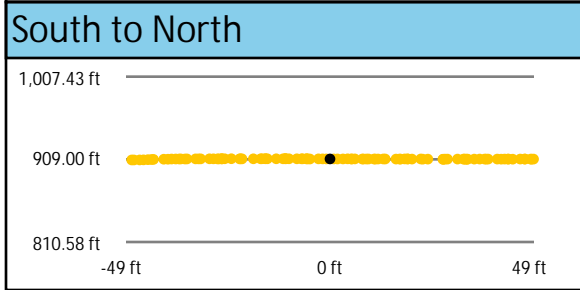
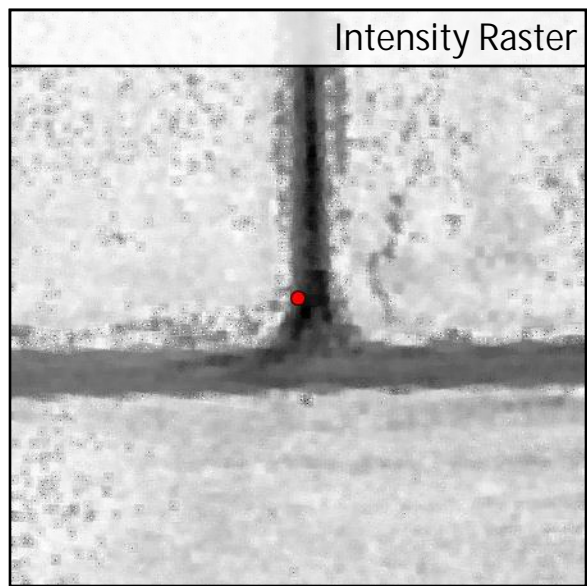
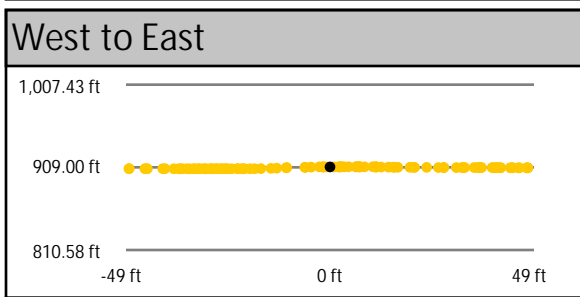
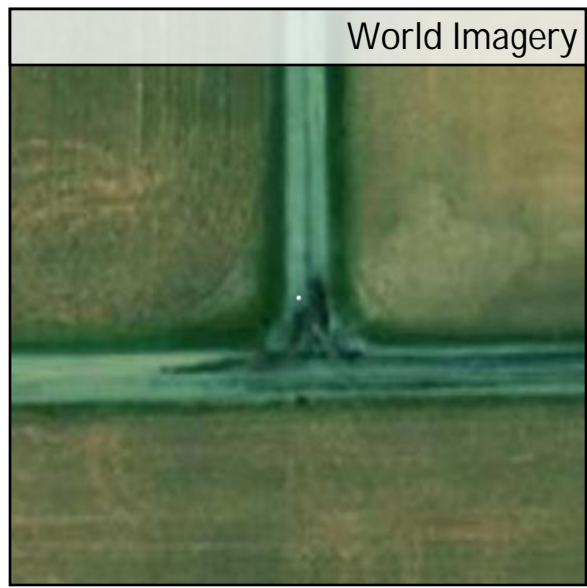
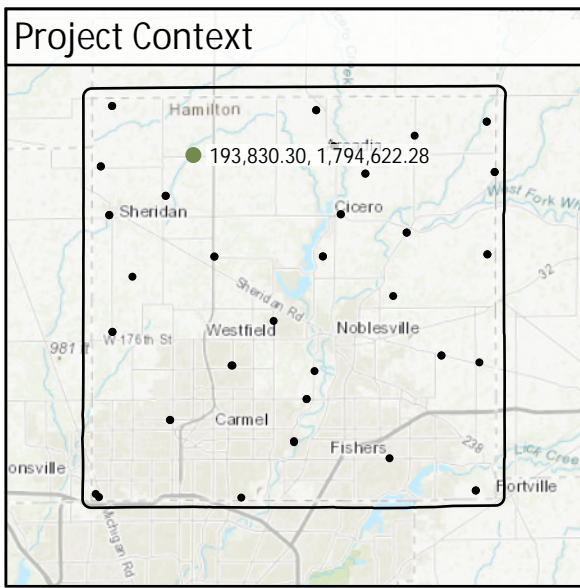
tw17	Known Z	748.84 ft	Point Density	2.19 ppsm
	DEM Dz	0.12 ft	Ground Density	2.09 ppsm
	All Points TIN Dz	N/A	Slope	12.64 °



DEM Dz +0.12 ft

VVA - tw17

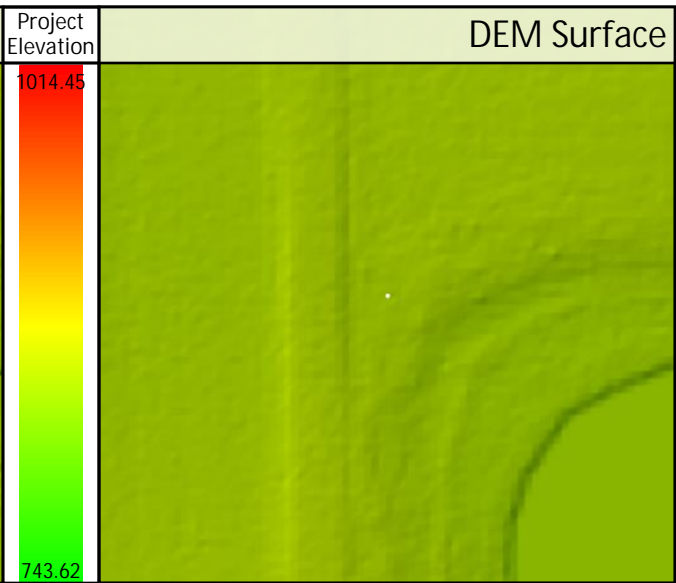
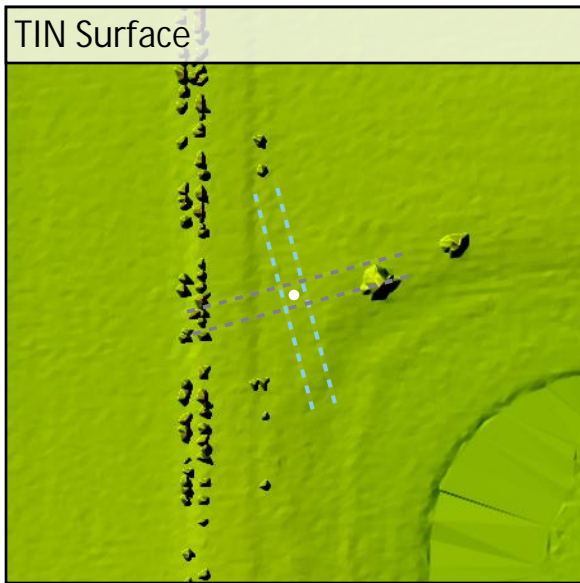
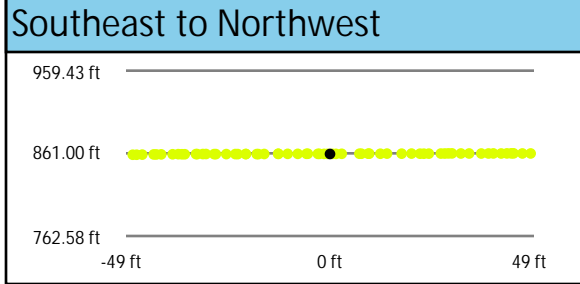
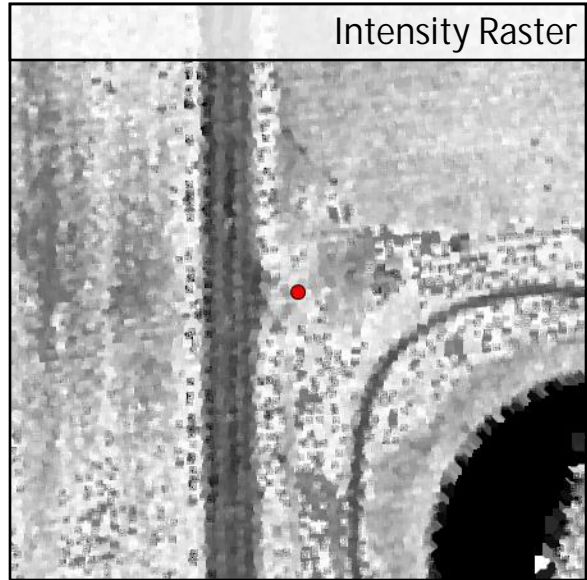
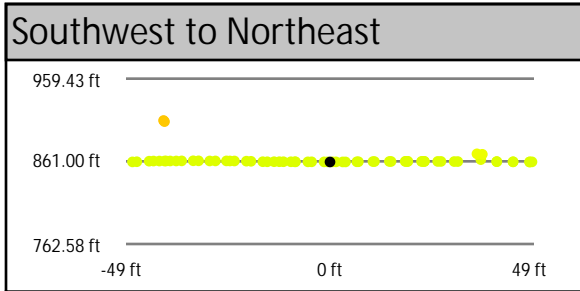
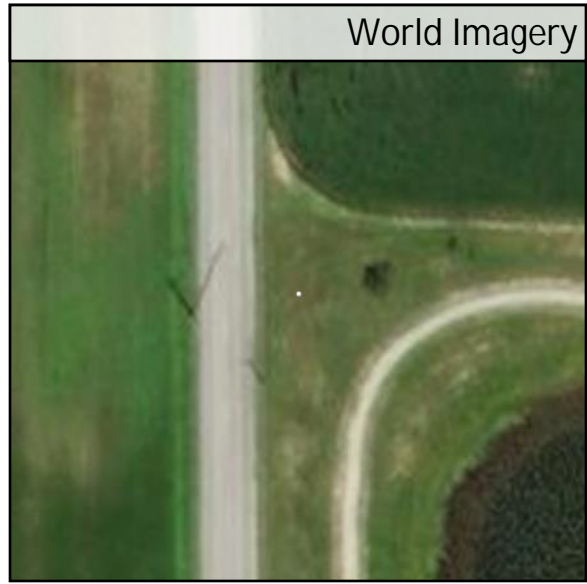
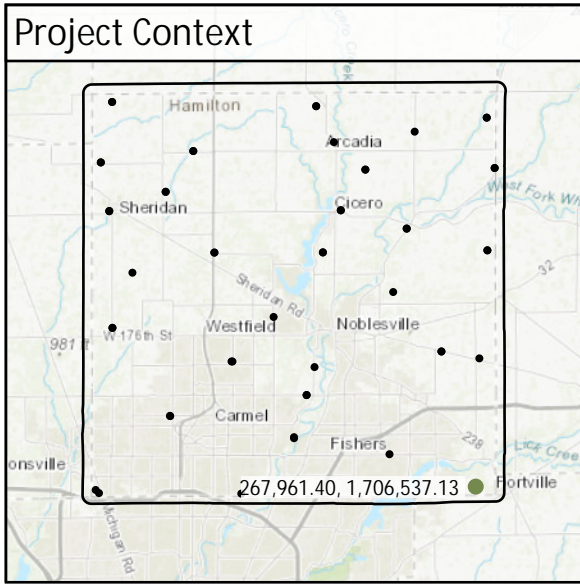
tw18	Known Z	909.47 ft	Point Density	3.68 ppsm
	DEM Dz	0.06 ft	Ground Density	1.95 ppsm
	All Points TIN Dz	N/A	Slope	1.91 °



DEM Dz +0.06 ft

VVA - tw18

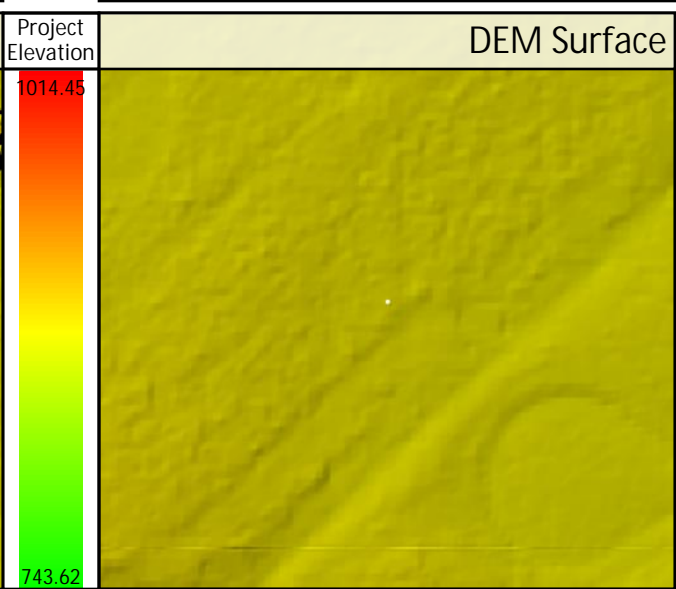
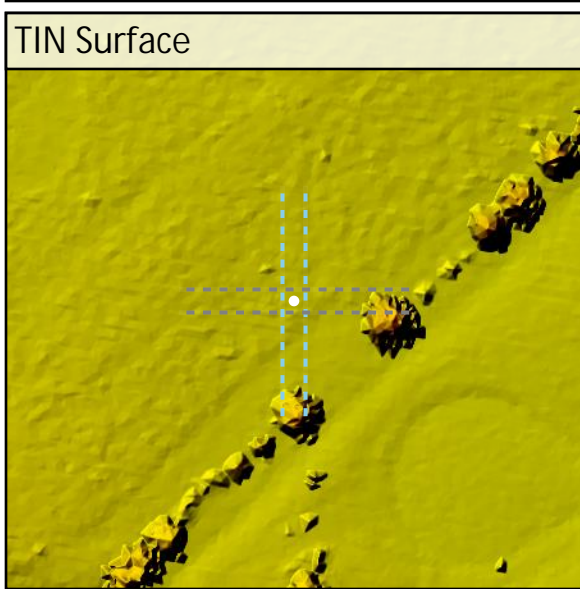
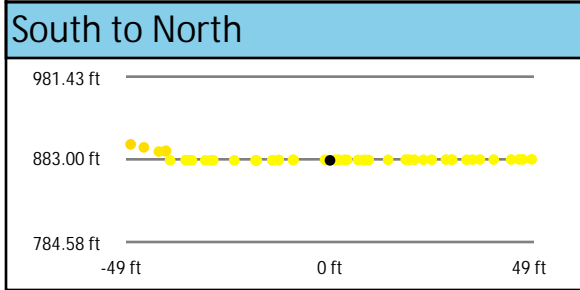
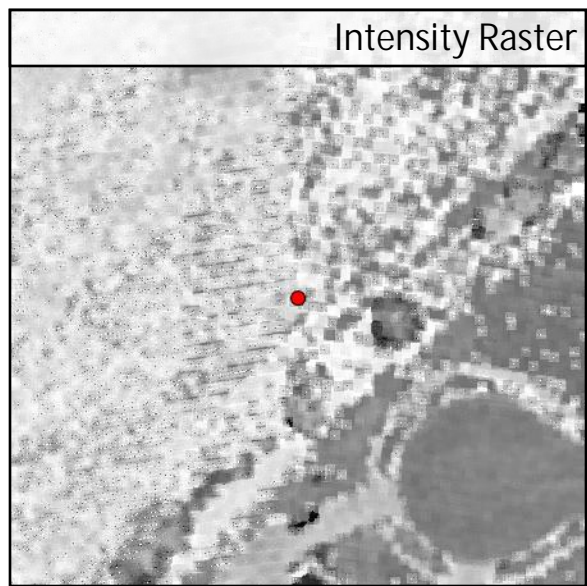
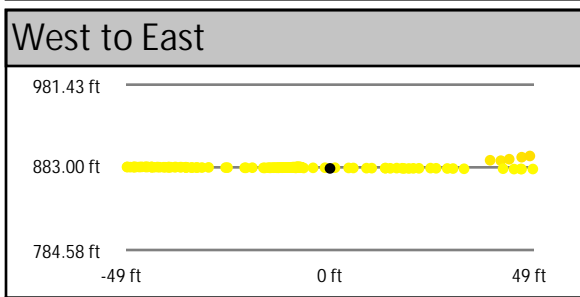
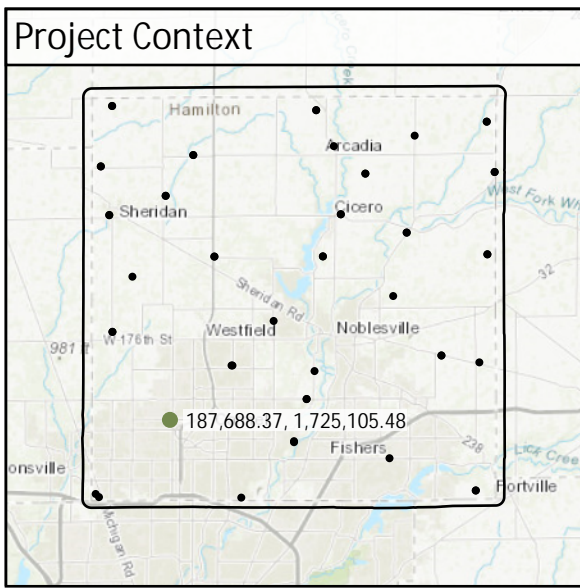
tw19	Known Z	860.23 ft	Point Density	2.16 ppsm
	DEM Dz	0.17 ft	Ground Density	2.09 ppsm
	All Points TIN Dz	N/A	Slope	0.67 °



DEM Dz +0.17 ft

VVA - tw19

tw20	Known Z	881.74 ft	Point Density	5.34 ppsm
	DEM Dz	0.67 ft	Ground Density	1.80 ppsm
	All Points TIN Dz	N/A	Slope	0.05 °



DEM Dz +0.67 ft

VVA - tw20