



# LiDAR Ground Control Survey Report

OH Columbus 2019 B19 LiDAR

Task Order Number: G16PC00022

Columbus, Ohio

April 2019

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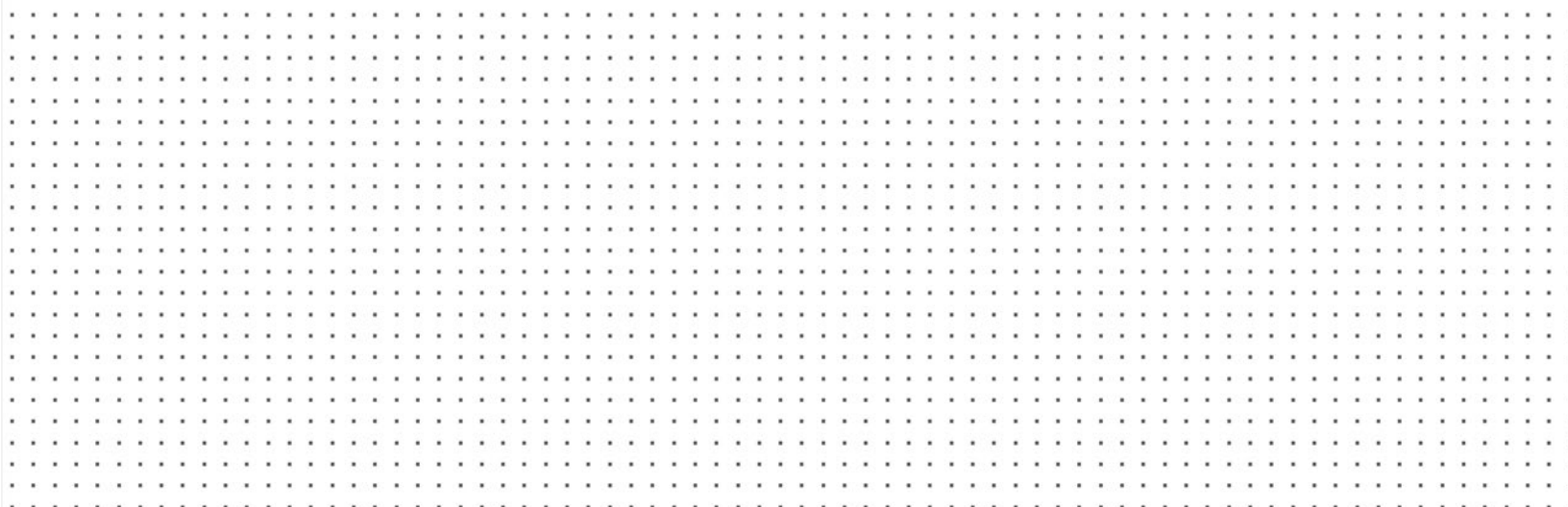
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# Section 1: LiDAR Ground Control Survey Report

## Introduction

This report contains a comprehensive outline of the LiDAR ground control survey that supported the OH Columbus 2019 B19 LiDAR Project in Columbus, Ohio. All surveys were performed in compliance with the NEAA Quality Level 2 American Society for Photogrammetry, Remote Sensing (ASPRS) standards required to support new LiDAR data with 0.7 meter average point density and the U.S. Geological Survey National Geospatial Program LiDAR Base Specification Version 1.3.

## Project Area

The project area consists of the City of Columbus area and including the full county of Franklin and partial counties of Delaware, Fairfield, Licking, Madison, Marion, Pickaway, and Union (+/- 755 square miles).

## Purpose

This survey established three-dimensional coordinates for one hundred thirty-two (132) new LiDAR control and/or quality control stations for data calibration, fifty-five (55) Non-vegetated Vertical Accuracy (NVA) points and thirty-seven (37) Vegetated Vertical Accuracy (VVA) points. Also established LiDAR quality control stations will be used as quality control for eventual LiDAR data with 0.7 meter average point density. Specifications for these point densities are outlined in the ASPRS Positional Accuracy Standards for Digital Geospatial Data (Edition 1, Version 1.0, November 2014).

## Date of Survey

The latest effort of ground control field operations took place between April 1 and April 12, 2019.

## Monumentation

Woolpert field crews performed a field reconnaissance to verify the existence and suitability of preselected existing National Geodetic Survey (NGS) control stations. These existing control stations were utilized to ensure that quality x, y, and z coordinate values were computed for each of the newly established LiDAR and photogrammetric quality control stations.

Recovery information sheets for the newly established LiDAR control and quality control stations can be found in Section 4. A control diagram showing the ground control stations used to support this LiDAR mapping project can be found in Section 5 of this report.



## Methodology

### Real-Time Kinematic (RTK) GPS

For this particular field effort, Woolpert field crews utilized multiple Woolpert-owned, Trimble Navigation R8 Model 3 series and an R8 Model 4 dual frequency GPS receivers.

Using NGS stations CNTRL GAR, Frank 86, Q25, and Woolpert TSM 101\_78459 as base stations, RTK observations were performed on all LiDAR control and quality control points in order to collect data efficiently and accurately. The survey was conducted using a 1-second epoch rate, in a fixed solution RTK mode, with each observation lasting 180 seconds. Each station was occupied twice to ensure the necessary horizontal and vertical accuracies were being met for this project.

RTK surveys were performed where cellular phone coverage was available and where baseline distance accuracy was maintained.

### Post-Processing and Adjustments

All static GPS observations were processed using Trimble Navigation’s Trimble Business Center (TBC) 5.00 baseline processor with precise ephemeris. Both unconstrained and constrained adjustments were computed using trivial and nontrivial baselines. After an acceptable unconstrained least-squares adjustment was obtained, Woolpert performed a fully constrained least-squares adjustment by fixing the GPS network to existing NGS control stations with known coordinate data. Fixed solutions were obtained for all vector baselines.

During this project, the following stations were recovered during the survey:

3D STATIONS	
Description	PID
AE 104	DG7168
CNTRL GAR	AB6084
HOOVER	KZ1746
LEONARD	KZ0860
MERGEL	FCEO
MORLAN	FCEO
101_78459	

2D STATIONS	
Description	PID
FRANK 44 AZ MK	JY1652
FRANK 45 AZ MK	JY1654
FRANK 86	KZ2250
Q 25	KZ1513

1D STATIONS	
Description	ID
BM3_910	DPU MON
E 39	JY0925
F 308	KZ1589
G 192	JY0789
H 295	KZ1453
H 310	KZ1580
S 272	KZ0962
V 188	KZ0871

## Datum Reference and Final Coordinates

All new horizontal GPS control was based on the Ohio State Plane Coordinate System (South Zone 3402), referenced to North American Datum 1983, (1995) HARN adjustment, expressed in U.S. survey feet. All vertical control was based on the North American Vertical Datum of 1988 (NAVD88) with GEOID12B applied to model the elevations, also expressed in U.S. survey feet. The coordinates for the ground control survey can be found in Section 2 of this report.

## Accuracy Statement

The GPS adjustment indicates that the survey control network meets or exceeds the standards set forth by ASPRS in support of LiDAR data with 0.7 meter average point density.



## Section 2: Ground Control Station Coordinate Listings

This section includes a complete listing of the final coordinates, orthometric heights, and ellipsoid heights for the OH Columbus 2019 B19 LiDAR Project in Columbus, Ohio.

### OH COLUMBUS 2019 B19 LIDAR

*Horizontal Datum: NAD 83 (1995) HARN*

*Vertical Datum: NAVD 88*

*Units: U.S. Survey Feet*

*State Plane Zone: Ohio South (3402)*

*Geoid Model: Geoid 12B*

*Coordinate System: Grid*

*Date: April 2019*

<b>LiDAR Control Stations:</b>				
<b>Station Name</b>	<b>Northing (USFT)</b>	<b>Easting (USFT)</b>	<b>Elevation (USFT)</b>	<b>Station Description</b>
1001_2019_OH	872405.15	1753447.72	932.13	ASPHALT
1002_2019_OH	871812.18	1758224.10	926.72	ASPHALT
1003_2019_OH	890566.04	1765791.12	934.13	ASPHALT
1004_2019_OH	864772.32	1766987.96	919.21	ASPHALT
1005_2019_OH	877379.90	1776135.75	913.23	ASPHALT
1006_2019_OH	892458.37	1775850.20	911.87	ASPHALT
1007_2019_OH	877717.49	1781053.50	914.65	ASPHALT
1008_2019_OH	726777.77	1751451.72	935.34	ASPHALT
1009_2019_OH	880470.53	1757013.35	928.07	ASPHALT
1010_2019_OH	868519.05	1760164.81	928.93	ASPHALT
1011_2019_OH	881768.03	1767004.16	921.58	ASPHALT
1012_2019_OH	875129.48	1770928.99	914.66	ASPHALT
1013_2019_OH	869471.86	1777448.40	898.52	ASPHALT
1014_2019_OH	738260.80	1753736.49	931.32	ASPHALT
1015_2019_OH	662238.12	1755861.30	949.66	LIGHT ASPHALT
1016_2019_OH	684459.53	1760309.38	939.46	LIGHT ASPHALT
1017_2019_OH	694959.02	1758363.26	861.45	LIGHT ASPHALT
1018_2019_OH	713284.07	1762463.43	919.47	LIGHT ASPHALT
1019_2019_OH	742799.04	1764844.75	937.04	ASPHALT
1020_2019_OH	770979.66	1766982.61	947.97	ASPHALT
1021_2019_OH	791780.89	1769155.83	998.05	ASPHALT
1022_2019_OH	731210.16	1771339.59	943.44	ASPHALT
1023_2019_OH	689909.61	1773533.68	920.15	LIGHT ASPHALT





LiDAR Control Stations:				
Station Name	Northing (USFT)	Easting (USFT)	Elevation (USFT)	Station Description
1024_2019_OH	672167.82	1775733.63	874.07	LIGHT ASPHALT
1025_2019_OH	722528.16	1777957.50	930.82	LIGHT ASPHALT
1026_2019_OH	770910.41	1780125.52	927.55	ASPHALT
1027_2019_OH	795823.71	1782338.26	931.28	ASPHALT
1028_2019_OH	822836.74	1786820.07	900.05	GRAVEL
1029_2019_OH	815265.68	1791238.17	929.83	ASPHALT
1030_2019_OH	830511.58	1795679.49	943.26	ASPHALT
1031_2019_OH	735524.41	1784565.87	931.68	ASPHALT
1032_2019_OH	658331.18	1788978.25	851.58	LIGHT ASPHALT
1033_2019_OH	699539.75	1793444.16	898.78	LIGHT ASPHALT
1034_2019_OH	775586.88	1797909.49	831.26	ASPHALT
1035_2019_OH	800222.45	1800126.56	938.73	ASPHALT
1036_2019_OH	744614.77	1802358.52	808.19	ASPHALT
1037_2019_OH	681062.43	1804605.99	828.61	LIGHT ASPHALT
1038_2019_OH	654508.77	1806528.16	816.04	LIGHT ASPHALT
1039_2019_OH	704103.44	1809028.62	785.30	LIGHT ASPHALT
1040_2019_OH	734993.07	1811172.05	854.58	ASPHALT
1041_2019_OH	767959.40	1813532.27	865.02	CONCRETE
1042_2019_OH	784394.78	1815758.10	828.18	ASPHALT
1043_2019_OH	699123.88	1818038.45	736.49	ASPHALT
1044_2019_OH	666895.20	1820333.57	713.39	LIGHT ASPHALT
1045_2019_OH	743565.58	1822550.41	771.14	LIGHT ASPHALT
1046_2019_OH	720304.49	1824842.71	728.79	LIGHT ASPHALT
1047_2019_OH	646155.56	1826792.87	675.25	ASPHALT
1048_2019_OH	677517.30	1829205.32	712.10	LIGHT ASPHALT
1049_2019_OH	711984.20	1831389.83	766.62	CONCRETE
1050_2019_OH	741171.53	1833679.10	880.87	LIGHT ASPHALT
1051_2019_OH	772660.47	1835855.17	903.70	ASPHALT
1052_2019_OH	794128.84	1838365.91	870.14	ASPHALT
1053_2019_OH	657735.19	1840319.19	720.97	ASPHALT
1054_2019_OH	642890.18	1842557.11	726.69	LIGHT ASPHALT
1055_2019_OH	693817.26	1844786.76	766.53	ASPHALT
1056_2019_OH	711497.09	1847051.86	778.66	LIGHT ASPHALT
1057_2019_OH	753800.89	1849337.10	787.96	ASPHALT
1058_2019_OH	788213.02	1851477.23	933.16	ASPHALT
1059_2019_OH	817323.52	1853695.15	972.27	GRAVEL
1060_2019_OH	673667.02	1858129.12	731.49	LIGHT ASPHALT
1061_2019_OH	738466.94	1855878.06	839.04	ASPHALT
1062_2019_OH	686816.89	1860335.86	741.34	ASPHALT
1063_2019_OH	706254.78	1862511.56	768.92	LIGHT ASPHALT



<b>LiDAR Control Stations:</b>				
<b>Station Name</b>	<b>Northing (USFT)</b>	<b>Easting (USFT)</b>	<b>Elevation (USFT)</b>	<b>Station Description</b>
1064_2019_OH	750393.09	1864610.87	924.68	ASPHALT
1065_2019_OH	798471.39	1866970.40	948.13	ASPHALT
1066_2019_OH	820672.29	1869128.12	995.13	GRAVEL
1067_2019_OH	792100.64	1871251.35	998.01	ASPHALT
1068_2019_OH	734239.87	1873552.92	893.62	ASPHALT
1069_2019_OH	661332.95	1864770.73	752.87	ASPHALT
1070_2019_OH	695757.90	1875749.00	776.30	CONCRETE
1071_2019_OH	678637.72	1877903.66	762.60	ASPHALT
1072_2019_OH	719485.17	1882302.50	893.28	LIGHT ASPHALT
1073_2019_OH	663875.40	1880088.01	815.22	ASPHALT
1074_2019_OH	763422.79	1884306.84	1050.01	ASPHALT
1075_2019_OH	774161.99	1873505.23	988.56	GRAVEL
1076_2019_OH	752571.61	1886545.54	1054.46	ASPHALT
1077_2019_OH	726454.25	1888702.56	1008.62	LIGHT ASPHALT
1078_2019_OH	699577.75	1890837.25	860.14	LIGHT ASPHALT
1079_2019_OH	715784.27	1893003.36	1021.52	LIGHT ASPHALT
1080_2019_OH	759085.49	1895132.29	1116.58	ASPHALT
1081_2019_OH	729209.99	1897286.18	1081.47	LIGHT ASPHALT
1082_2019_OH	770821.68	1899371.80	1151.69	LIGHT ASPHALT
1083_2019_OH	707960.56	1901414.75	1037.89	LIGHT ASPHALT
1084_2019_OH	757101.77	1903485.17	1155.87	CONCRETE
1085_2019_OH	755611.33	1905655.40	1171.16	ASPHALT
1086_2019_OH	764189.76	1907727.12	1195.11	OLD BROKEN ASPHALT
1087_2019_OH	759784.10	1909791.86	1206.93	LIGHT ASPHALT
1088_2019_OH	716795.44	1796803.62	870.29	SHORT GRASS SAND
1089_2019_OH	718044.02	1801249.42	837.67	GRAVEL
1090_2019_OH	703603.74	1795603.53	852.04	SHORT GRASS
1091_2019_OH	711460.06	1802754.89	835.48	GRAVEL
1092_2019_OH	751117.43	1819140.94	746.81	SAND DIRT
1093_2019_OH	697056.88	1829774.56	729.35	GRAVEL
1094_2019_OH	749445.49	1836411.57	894.23	GRAVEL
1095_2019_OH	733592.11	1838312.50	851.99	GRAVEL
1096_2019_OH	724801.23	1849577.76	810.11	DIRT
1097_2019_OH	732180.82	1824141.62	726.06	SHORT GRASS
1098_2019_OH	747117.62	1833341.19	890.36	SHORT GRASS
1099_2019_OH	707090.01	1838923.43	778.95	SHORT GRASS
1100_2019_OH	715371.56	1865102.14	794.97	SAND RED CLAY
1101_2019_OH	711646.36	1878794.11	885.65	SHORT GRASS
1102_2019_OH	714409.95	1859591.08	786.52	SHORT GRASS
1103_2019_OH	726533.02	1834591.13	837.52	MULCH



LiDAR Control Stations:				
Station Name	Northing (USFT)	Easting (USFT)	Elevation (USFT)	Station Description
1104_2019_OH	712680.37	1821333.53	706.78	SHORT GRASS
1105_2019_OH	748639.43	1826942.03	858.06	MULCH
1106_2019_OH	731506.25	1833665.31	851.99	MULCH
1107_2019_OH	717845.84	1839920.37	788.12	SHORT GRASS
1108_2019_OH	714129.18	1850064.81	784.04	SHORT GRASS
1109_2019_OH	708960.44	1818109.94	727.89	SHORT GRASS
1110_2019_OH	708023.51	1829410.33	755.31	SHORT GRASS
1111_2019_OH	704291.15	1849045.89	760.72	SHORT GRASS
1112_2019_OH	720284.82	1814556.47	728.67	SAND CLAY
1113_2019_OH	713166.00	1814129.52	722.74	DIRT
1114_2019_OH	708890.88	1807100.13	799.98	DIRT
1115_2019_OH	743489.16	1830878.06	874.56	WET SANDY DIRT
1116_2019_OH	737975.94	1826570.03	836.49	SAND DIRT
1117_2019_OH	741098.78	1843002.18	845.93	SHORT GRASS
1118_2019_OH	724168.64	1829504.43	780.90	GRAVEL
1119_2019_OH	723794.55	1842216.21	797.28	SHORT GRASS
1120_2019_OH	719005.91	1831761.33	788.19	SHORT GRASS
1121_2019_OH	708006.70	1801845.57	842.12	SHORT GRASS
1122_2019_OH	726762.72	1823504.87	740.09	SHORT GRASS
1123_2019_OH	738270.26	1830728.71	861.87	SHORT GRASS
1124_2019_OH	748128.65	1839360.37	881.59	SHORT GRASS
1125_2019_OH	755766.75	1825650.48	863.21	WET DIRT
1126_2019_OH	739234.20	1818397.53	764.32	GRAVEL
1127_2019_OH	710167.41	1853752.78	778.95	DIRT
1128_2019_OH	720741.83	1848209.15	802.84	DIRT
1130_2019_OH	707728.31	1866472.48	756.14	SHORT GRASS
1131_2019_OH	709132.05	1858375.95	771.74	SHORT GRASS
1132_2019_OH	708504.57	1857981.40	774.03	GRAVEL
1133_2019_OH	722119.07	1820358.63	725.66	SHORT GRASS
2001_2019_OH	887445.13	1774986.50	918.20	PID ASPHALT
2002_2019_OH	870881.95	1758750.12	928.23	ASPHALT
2003_2019_OH	870188.97	1768180.34	918.42	ASPHALT
2004A_2019_OH	871662.43	1775199.94	908.77	GRAVEL
2004B_2019_OH	871671.73	1775236.88	908.71	GRAVEL
2005_2019_OH	829306.52	1783496.42	916.57	GRAVEL
2006_2019_OH	803368.16	1787440.89	918.43	ASPHALT
2007_2019_OH	818559.61	1788244.65	879.24	PID ASPHALT
2008_2019_OH	809901.78	1787084.48	920.50	ASPHALT
2009_2019_OH	790357.83	1790458.16	884.76	PID ASPHALT
2010_2019_OH	785200.14	1765953.98	1019.89	PID ASPHALT



<b>LiDAR Control Stations:</b>				
<b>Station Name</b>	<b>Northing (USFT)</b>	<b>Easting (USFT)</b>	<b>Elevation (USFT)</b>	<b>Station Description</b>
2011_2019_OH	783633.41	1781342.38	991.35	PID ASPHALT
2012_2019_OH	774332.37	1775854.54	935.77	ASPHALT
2013A_2019_OH	763777.05	1774482.29	942.41	CONCRETE
2013B_2019_OH	763780.09	1774512.17	942.36	CONCRETE
2014_2019_OH	764238.35	1794943.02	855.10	ASPHALT
2015_2019_OH	761759.03	1814192.98	840.97	PID ASPHALT
2016_2019_OH	760871.60	1835520.47	905.55	PID CONCRETE
2017_2019_OH	774639.67	1826780.98	915.91	CONCRETE
2018_2019_OH	784081.09	1839607.03	873.29	ASPHALT
2019_2019_OH	780349.09	1861484.83	905.31	PID ASPHALT
2020_2019_OH	814078.19	1861754.48	938.86	PID ASPHALT
2021_2019_OH	791082.52	1861732.89	904.85	ASPHALT
2022_2019_OH	768229.74	1860337.90	911.07	PID ASPHALT
2023_2019_OH	748343.20	1780086.80	937.31	GRAVEL
2024A_2019_OH	732697.93	1758615.83	904.33	GRAVEL
2024B_2019_OH	732657.10	1758599.36	904.34	GRAVEL
2025_2019_OH	769317.66	1886854.98	1075.73	COR STOP BAR
2026_2019_OH	739071.42	1886968.65	1023.18	LIGHT ASPHALT
2027_2019_OH	733608.76	1846879.42	766.31	COR STOP BAR
2028_2019_OH	725515.32	1810242.05	769.42	PID ASPHALT
2029_2019_OH	712727.42	1782862.82	922.66	ASPHALT
2030_2019_OH	687990.39	1784241.26	888.53	GRAVEL
2031_2019_OH	668600.23	1782460.34	798.21	GRAVEL
2032_2019_OH	646241.23	1831008.67	702.90	LIGHT ASPHALT
2033_2019_OH	668272.11	1811305.20	783.53	DIRT SHORT GRASS
2033_HOR_2019_OH	668150.46	1811379.88	779.34	ASPHALT
2034_2019_OH	666946.52	1849839.36	737.20	ARROW
2035A_2019_OH	679621.09	1851832.38	744.71	CL WALK
2035B_2019_OH	679618.25	1851874.28	744.94	CL WALK
2036_2019_OH	696467.38	1861421.63	737.58	ASPHALT
2037_2019_OH	668098.60	1872712.95	752.83	COR STOP BAR
2038_2019_OH	708994.12	1883490.31	849.21	ASPHALT
2039_2019_OH	720743.20	1866401.40	779.21	ASPHALT
2040_2019_OH	711295.05	1856749.79	775.54	ASPHALT
2041_2019_OH	720729.15	1841383.85	774.81	ARROW
2042_2019_OH	712325.81	1803596.24	827.42	ARROW
2043_2019_OH	697297.38	1801330.17	843.60	LIGHT ASPHALT
2044_2019_OH	687123.27	1819969.92	721.35	LIGHT ASPHALT
2045_2019_OH	701242.15	1829359.20	747.78	ASPHALT
2046_2019_OH	659515.40	1829485.45	690.37	LIGHT ASPHALT



<b>LiDAR Control Stations:</b>				
<b>Station Name</b>	<b>Northing (USFT)</b>	<b>Easting (USFT)</b>	<b>Elevation (USFT)</b>	<b>Station Description</b>
2047_2019_OH	684522.73	1831991.37	737.11	ASPHALT
2047_HOR_2019_OH	684558.96	1832045.05	735.97	ASPHALT
2048_2019_OH	732223.55	1828965.39	839.11	ARROW
2049_2019_OH	653144.58	1851089.67	727.36	LIGHT ASPHALT
3001_2019_OH	887458.48	1774953.31	919.05	TWC
3002_2019_OH	870885.30	1758786.26	927.53	GRASS/CROPS
3003_2019_OH	712743.63	1782803.94	922.69	BRUSH
3004_2019_OH	870195.89	1768155.02	917.07	GRASS
3005_2019_OH	871656.53	1775006.60	908.31	TWC
3006_2019_OH	659479.81	1829393.05	685.43	BRUSH
3007_2019_OH	809897.44	1787029.63	920.84	CROPS
3008_2019_OH	780434.79	1861586.18	901.33	GRASS
3009_2019_OH	767878.44	1860523.94	885.94	TWC
3010_2019_OH	646131.82	1831061.61	699.36	BRUSH FENCE ROW
3011_2019_OH	668729.04	1851631.28	734.36	TALL GRASS
3012_2019_OH	668127.03	1872817.57	752.69	TALL GRASS BRUSH
3013_2019_OH	653184.13	1851070.79	726.32	CROP FIELD
3014_2019_OH	814510.12	1860916.98	928.51	TWC
3015_2019_OH	679825.66	1852552.90	745.97	TALL GRASS
3016_2019_OH	748318.37	1780077.11	936.98	EARTH-SHORT-GRASS
3017_2019_OH	769404.25	1886817.37	1077.15	CROP FIELD
3018_2019_OH	687964.23	1784250.34	890.66	BRUSH
3019_2019_OH	668610.79	1782493.11	795.54	CROP FIELD
3020_2019_OH	697219.57	1801257.73	844.51	BRUSH
3021_2019_OH	668308.64	1811345.88	783.76	TREES
3022_2019_OH	683926.20	1833530.79	741.49	WOODS
3023_2019_OH	764757.88	1775215.83	940.64	WOODS
3024_2019_OH	783614.67	1780967.38	996.94	TREES BRUSH
3025_2019_OH	720739.34	1841363.28	776.84	FOREST
3026_2019_OH	701335.86	1829306.90	749.81	FOREST
3027_2019_OH	829371.39	1783446.17	917.89	FOREST
3028_2019_OH	818422.30	1788347.34	878.16	FOREST
3029_2019_OH	791036.82	1861702.89	903.08	WOODS
3030_2019_OH	784622.04	1838713.85	898.73	WOODS
3031_2019_OH	711251.92	1856676.24	771.00	WOODS
3032_2019_OH	709495.18	1883582.12	845.89	FOREST
3033_2019_OH	720803.20	1866353.70	767.17	BRUSH
3034_2019_OH	762702.04	1814690.10	813.82	BRUSH
3035_2019_OH	739103.34	1887041.25	1023.99	BRUSH
3036_2019_OH	733482.14	1846928.71	761.70	BRUSH



LiDAR Control Stations:				
Station Name	Northing	Easting	Elevation	Station Description
	(USFT)	(USFT)	(USFT)	
3037_2019_OH	803170.78	1787957.30	904.42	BRUSH

Geodetic Control Stations, Geodetic Control Checks and Woolpert Base Stations:				
Station Name	Northing	Easting	Elevation	PID
	(USFT)	(USFT)	(USFT)	
CNTRL GAR	713983.60	1815599.83	713.42	AB6084
Q 25	832188.41	1793200.82	942.06	KZ1513
FRANK 86 Adjusted	776808.48	1835969.62	906.41	KZ2250
101_78459	869559.87	1787213.87	935.70	
AE 104	714501.62	1815916.59	714.65	DG7168
BM3_910	718548.16	1819443.42	725.71	
E39	586430.80	1715874.40	997.85	JY0925
F 308	775333.84	1827345.80	935.57	KZ1589
FRANK 44 AZ MK	703620.14	1853129.93	768.34	JY1652
FRANK45 AZ MK	711009.98	1862758.42	783.53	JY1654
FRANK 86	776808.50	1835969.63	906.44	KZ2250
G 192	703024.06	1852707.45	767.82	JY0789
H 295	947852.46	1752132.38	948.49	KZ1453
H 310	806376.92	1825924.49	940.10	KZ1580
HOOVER	768031.87	1862884.98	920.39	KZ1746
LEONARD	858497.28	1831803.57	986.40	KZ0860
MERGEL	731705.74	1820696.50	744.29	
MORLAN	716487.90	1832612.32	793.23	
Q 25	832188.44	1793200.81	942.14	KZ1513
S 272	844636.54	1882329.38	1092.85	KZ0962
V 188	737630.78	1829188.94	854.48	KZ0871



## OH COLUMBUS 2019 B19 LIDAR

Horizontal Datum: NAD 83 (1995) HARN

Vertical Datum: NAVD 88

Units: U.S. Survey Feet

State Plane Zone: Ohio South (3402)

Geoid Model: Geoid 12B

Coordinate System: Geographic

Date: April 2019

LiDAR Control Stations:				
Station Name	Latitude	Longitude	Height	Station Description
			(USFT)	
1001_2019_OH	N40°23'33.39786"	W83°16'19.11336"	820.02	ASPHALT
1002_2019_OH	N40°23'27.93805"	W83°15'17.32729"	814.64	ASPHALT
1003_2019_OH	N40°26'33.84619"	W83°13'41.49982"	821.58	ASPHALT
1004_2019_OH	N40°22'19.08937"	W83°13'23.35111"	807.34	ASPHALT
1005_2019_OH	N40°24'24.36600"	W83°11'26.42065"	801.08	ASPHALT
1006_2019_OH	N40°26'53.32442"	W83°11'31.60518"	799.37	ASPHALT
1007_2019_OH	N40°24'28.06842"	W83°10'22.89070"	802.52	ASPHALT
1008_2019_OH	N39°59'34.24408"	W83°16'28.76180"	826.35	ASPHALT
1009_2019_OH	N40°24'53.38544"	W83°15'33.91370"	815.74	ASPHALT
1010_2019_OH	N40°22'55.55995"	W83°14'51.89692"	816.95	ASPHALT
1011_2019_OH	N40°25'07.01576"	W83°13'24.90128"	809.26	ASPHALT
1012_2019_OH	N40°24'01.73211"	W83°12'33.48982"	802.52	ASPHALT
1013_2019_OH	N40°23'06.32967"	W83°11'08.67817"	786.57	ASPHALT
1014_2019_OH	N40°01'27.91230"	W83°16'00.66016"	822.09	ASPHALT
1015_2019_OH	N39°48'56.80879"	W83°15'25.15610"	841.89	LIGHT ASPHALT
1016_2019_OH	N39°52'36.77838"	W83°14'30.49205"	831.24	LIGHT ASPHALT
1017_2019_OH	N39°54'20.38020"	W83°14'56.57130"	753.04	LIGHT ASPHALT
1018_2019_OH	N39°57'21.80702"	W83°14'05.87232"	810.53	LIGHT ASPHALT
1019_2019_OH	N40°02'13.66724"	W83°13'38.34614"	827.54	ASPHALT
1020_2019_OH	N40°06'52.31211"	W83°13'13.75218"	838.10	ASPHALT
1021_2019_OH	N40°10'18.03100"	W83°12'47.89656"	887.87	ASPHALT
1022_2019_OH	N40°00'19.65431"	W83°12'13.68572"	833.95	ASPHALT
1023_2019_OH	N39°53'31.67839"	W83°11'41.40683"	811.36	LIGHT ASPHALT
1024_2019_OH	N39°50'36.51037"	W83°11'11.45217"	765.45	LIGHT ASPHALT
1025_2019_OH	N39°58'54.35868"	W83°10'47.80292"	821.29	LIGHT ASPHALT
1026_2019_OH	N40°06'52.63021"	W83°10'24.58829"	817.44	ASPHALT
1027_2019_OH	N40°10'58.97495"	W83°09'58.47474"	820.81	ASPHALT
1028_2019_OH	N40°15'26.22133"	W83°09'03.24261"	789.06	GRAVEL
1029_2019_OH	N40°14'11.72119"	W83°08'05.57488"	818.92	ASPHALT
1030_2019_OH	N40°16'42.67296"	W83°07'09.65958"	832.04	ASPHALT



LiDAR Control Stations:				
Station Name	Latitude	Longitude	Height	Station Description
			(USFT)	
1031_2019_OH	N40°01'03.27274"	W83°09'24.12575"	821.82	ASPHALT
1032_2019_OH	N39°48'20.72750"	W83°08'20.39382"	742.38	LIGHT ASPHALT
1033_2019_OH	N39°55'08.28496"	W83°07'26.81906"	789.00	LIGHT ASPHALT
1034_2019_OH	N40°07'40.09069"	W83°06'36.10274"	720.74	ASPHALT
1035_2019_OH	N40°11'43.67585"	W83°06'09.67889"	827.88	ASPHALT
1036_2019_OH	N40°02'34.32133"	W83°05'36.20951"	697.78	ASPHALT
1037_2019_OH	N39°52'06.41990"	W83°05'02.02906"	718.46	LIGHT ASPHALT
1038_2019_OH	N39°47'44.11858"	W83°04'35.20281"	705.86	LIGHT ASPHALT
1039_2019_OH	N39°55'54.40265"	W83°04'07.16894"	674.85	LIGHT ASPHALT
1040_2019_OH	N40°00'59.79590"	W83°03'42.12059"	743.96	ASPHALT
1041_2019_OH	N40°06'25.71283"	W83°03'14.38533"	754.20	CONCRETE
1042_2019_OH	N40°09'08.25699"	W83°02'47.02011"	717.19	ASPHALT
1043_2019_OH	N39°55'05.73713"	W83°02'11.13090"	625.70	ASPHALT
1044_2019_OH	N39°49'47.36566"	W83°01'39.25763"	602.50	LIGHT ASPHALT
1045_2019_OH	N40°02'25.18477"	W83°01'16.51506"	660.17	LIGHT ASPHALT
1046_2019_OH	N39°58'35.44336"	W83°00'45.34522"	617.76	LIGHT ASPHALT
1047_2019_OH	N39°46'22.76279"	W83°00'14.97719"	564.08	ASPHALT
1048_2019_OH	N39°51'32.83844"	W82°59'46.28643"	600.86	LIGHT ASPHALT
1049_2019_OH	N39°57'13.57803"	W82°59'20.66724"	655.40	CONCRETE
1050_2019_OH	N40°02'02.13709"	W82°58'53.26915"	769.62	LIGHT ASPHALT
1051_2019_OH	N40°07'13.42403"	W82°58'27.42022"	792.35	ASPHALT
1052_2019_OH	N40°10'45.69719"	W82°57'56.52742"	758.67	ASPHALT
1053_2019_OH	N39°48'17.91463"	W82°57'22.48519"	609.34	ASPHALT
1054_2019_OH	N39°45'51.31246"	W82°56'52.86559"	615.05	LIGHT ASPHALT
1055_2019_OH	N39°54'14.72472"	W82°56'27.49745"	654.89	ASPHALT
1056_2019_OH	N39°57'09.55463"	W82°55'59.52032"	667.04	LIGHT ASPHALT
1057_2019_OH	N40°04'07.71888"	W82°55'32.73723"	676.38	ASPHALT
1058_2019_OH	N40°09'47.87375"	W82°55'07.26243"	821.52	ASPHALT
1059_2019_OH	N40°14'35.63024"	W82°54'40.40343"	860.55	GRAVEL
1060_2019_OH	N39°50'56.19454"	W82°53'35.16393"	619.48	LIGHT ASPHALT
1061_2019_OH	N40°01'36.48319"	W82°54'07.72672"	727.34	ASPHALT
1062_2019_OH	N39°53'06.24562"	W82°53'07.58943"	629.34	ASPHALT
1063_2019_OH	N39°56'18.43374"	W82°52'40.72240"	657.00	LIGHT ASPHALT
1064_2019_OH	N40°03'34.70881"	W82°52'16.09999"	812.91	ASPHALT
1065_2019_OH	N40°11'29.90617"	W82°51'48.24331"	836.34	ASPHALT
1066_2019_OH	N40°15'09.36845"	W82°51'21.56838"	883.32	GRAVEL
1067_2019_OH	N40°10'27.11942"	W82°50'52.76594"	886.21	ASPHALT
1068_2019_OH	N40°00'55.42708"	W82°50'20.31918"	781.75	ASPHALT
1069_2019_OH	N39°48'54.57560"	W82°52'09.36017"	640.81	ASPHALT
1070_2019_OH	N39°54'35.21071"	W82°49'50.28306"	664.20	CONCRETE





LiDAR Control Stations:				
Station Name	Latitude	Longitude	Height	Station Description
			(USFT)	
1071_2019_OH	N39°51'46.09370"	W82°49'21.84703"	650.43	ASPHALT
1072_2019_OH	N39°58'29.92532"	W82°48'27.21912"	781.32	LIGHT ASPHALT
1073_2019_OH	N39°49'20.27581"	W82°48'53.17425"	703.07	ASPHALT
1074_2019_OH	N40°05'44.19329"	W82°48'03.35419"	938.21	ASPHALT
1075_2019_OH	N40°07'29.93867"	W82°50'22.86226"	876.77	GRAVEL
1076_2019_OH	N40°03'57.03413"	W82°47'34.09509"	942.64	ASPHALT
1077_2019_OH	N39°59'39.00412"	W82°47'05.29237"	896.71	LIGHT ASPHALT
1078_2019_OH	N39°55'13.46254"	W82°46'36.80561"	748.08	LIGHT ASPHALT
1079_2019_OH	N39°57'53.68915"	W82°46'09.62413"	909.57	LIGHT ASPHALT
1080_2019_OH	N40°05'01.66560"	W82°45'43.89658"	1004.79	ASPHALT
1081_2019_OH	N40°00'06.49050"	W82°45'15.10432"	969.61	LIGHT ASPHALT
1082_2019_OH	N40°06'57.76067"	W82°44'49.76766"	1039.92	LIGHT ASPHALT
1083_2019_OH	N39°56'36.60521"	W82°44'21.32856"	925.94	LIGHT ASPHALT
1084_2019_OH	N40°04'42.28837"	W82°43'56.36922"	1044.11	CONCRETE
1085_2019_OH	N40°04'27.61391"	W82°43'28.40318"	1059.40	ASPHALT
1086_2019_OH	N40°05'52.43658"	W82°43'02.01917"	1083.37	OLD BROKEN ASPHALT
1087_2019_OH	N40°05'08.94792"	W82°42'35.31872"	1095.18	LIGHT ASPHALT
1088_2019_OH	N39°57'59.03946"	W83°06'45.20456"	760.23	SHORT GRASS SAND
1089_2019_OH	N39°58'11.67252"	W83°05'48.21205"	727.44	GRAVEL
1090_2019_OH	N39°55'48.59365"	W83°06'59.46080"	742.13	SHORT GRASS
1091_2019_OH	N39°57'06.70557"	W83°05'28.32224"	725.24	GRAVEL
1092_2019_OH	N40°03'39.61574"	W83°02'00.92439"	635.91	SAND DIRT
1093_2019_OH	N39°54'45.97205"	W82°59'40.35915"	618.15	GRAVEL
1094_2019_OH	N40°03'24.04371"	W82°58'18.69673"	782.91	GRAVEL
1095_2019_OH	N40°00'47.47579"	W82°57'53.20125"	740.63	GRAVEL
1096_2019_OH	N39°59'21.14993"	W82°55'27.88859"	698.48	DIRT
1097_2019_OH	N40°00'32.76906"	W83°00'55.22158"	615.05	SHORT GRASS
1098_2019_OH	N40°03'00.87922"	W82°58'58.02197"	779.11	SHORT GRASS
1099_2019_OH	N39°56'25.60359"	W82°57'43.60647"	667.51	SHORT GRASS
1100_2019_OH	N39°57'48.63612"	W82°52'07.94208"	683.07	SAND RED CLAY
1101_2019_OH	N39°57'12.33805"	W82°49'11.92769"	773.65	SHORT GRASS
1102_2019_OH	N39°57'38.90466"	W82°53'18.66675"	674.69	SHORT GRASS
1103_2019_OH	N39°59'37.52410"	W82°58'40.54814"	726.24	MULCH
1104_2019_OH	N39°57'19.89981"	W83°01'29.85194"	595.86	SHORT GRASS
1105_2019_OH	N40°03'15.57168"	W83°00'20.41728"	746.97	MULCH
1106_2019_OH	N40°00'26.62220"	W82°58'52.78409"	740.74	MULCH
1107_2019_OH	N39°58'11.94761"	W82°57'31.50877"	676.69	SHORT GRASS
1108_2019_OH	N39°57'35.70719"	W82°55'20.98965"	672.37	SHORT GRASS
1109_2019_OH	N39°56'42.95073"	W83°02'10.96327"	617.09	SHORT GRASS
1110_2019_OH	N39°56'34.33003"	W82°59'45.80665"	644.14	SHORT GRASS



LiDAR Control Stations:				
Station Name	Latitude	Longitude	Height	Station Description
			(USFT)	
1111_2019_OH	N39°55'58.43569"	W82°55'33.47881"	649.02	SHORT GRASS
1112_2019_OH	N39°58'34.65131"	W83°02'57.47219"	617.97	SAND CLAY
1113_2019_OH	N39°57'24.27498"	W83°03'02.39875"	612.08	DIRT
1114_2019_OH	N39°56'41.59341"	W83°04'32.31652"	689.58	DIRT
1115_2019_OH	N40°02'24.89101"	W82°59'29.44104"	763.38	WET SANDY DIRT
1116_2019_OH	N40°01'30.17339"	W83°00'24.43152"	725.42	SAND DIRT
1117_2019_OH	N40°02'01.89244"	W82°56'53.40816"	734.46	SHORT GRASS
1118_2019_OH	N39°59'13.88749"	W82°59'45.73718"	669.75	GRAVEL
1119_2019_OH	N39°59'10.84911"	W82°57'02.40217"	685.80	SHORT GRASS
1120_2019_OH	N39°58'22.98917"	W82°59'16.38398"	676.97	SHORT GRASS
1121_2019_OH	N39°56'32.51916"	W83°05'39.70662"	731.93	SHORT GRASS
1122_2019_OH	N39°59'39.19013"	W83°01'03.00554"	629.10	SHORT GRASS
1123_2019_OH	N40°01'33.30918"	W82°59'30.99563"	750.70	SHORT GRASS
1124_2019_OH	N40°03'11.18122"	W82°57'40.68844"	770.21	SHORT GRASS
1125_2019_OH	N40°04'25.93219"	W83°00'37.54426"	752.14	WET DIRT
1126_2019_OH	N40°01'42.14135"	W83°02'09.57810"	653.47	GRAVEL
1127_2019_OH	N39°56'56.72302"	W82°54'33.39738"	667.19	DIRT
1128_2019_OH	N39°58'40.96962"	W82°55'45.22407"	691.23	DIRT
1130_2019_OH	N39°56'33.15676"	W82°51'49.94731"	644.18	SHORT GRASS
1131_2019_OH	N39°56'46.69399"	W82°53'33.97706"	659.89	SHORT GRASS
1132_2019_OH	N39°56'40.47591"	W82°53'39.00788"	662.19	GRAVEL
1133_2019_OH	N39°58'53.12011"	W83°01'43.08057"	614.77	SHORT GRASS
2001_2019_OH	N40°26'03.72685"	W83°11'42.27621"	805.80	PID ASPHALT
2002_2019_OH	N40°23'18.79033"	W83°15'10.42974"	816.18	ASPHALT
2003_2019_OH	N40°23'12.70283"	W83°13'08.50457"	806.40	ASPHALT
2004A_2019_OH	N40°23'27.80393"	W83°11'37.94811"	796.75	GRAVEL
2004B_2019_OH	N40°23'27.89864"	W83°11'37.47168"	796.68	GRAVEL
2005_2019_OH	N40°16'29.91090"	W83°09'46.72098"	805.50	GRAVEL
2006_2019_OH	N40°12'13.89164"	W83°08'53.43337"	807.76	ASPHALT
2007_2019_OH	N40°14'44.05941"	W83°08'44.47501"	768.31	PID ASPHALT
2008_2019_OH	N40°13'18.42711"	W83°08'58.63234"	809.73	ASPHALT
2009_2019_OH	N40°10'05.54301"	W83°08'13.36611"	774.21	PID ASPHALT
2010_2019_OH	N40°09'12.75163"	W83°13'28.45994"	909.86	PID ASPHALT
2011_2019_OH	N40°08'58.44367"	W83°10'10.14061"	881.07	PID ASPHALT
2012_2019_OH	N40°07'26.12659"	W83°11'19.89441"	825.71	ASPHALT
2013A_2019_OH	N40°05'41.71817"	W83°11'36.51497"	832.50	CONCRETE
2013B_2019_OH	N40°05'41.75053"	W83°11'36.13070"	832.44	CONCRETE
2014_2019_OH	N40°05'47.74764"	W83°07'13.28682"	744.75	ASPHALT
2015_2019_OH	N40°05'24.48169"	W83°03'05.39498"	730.16	PID ASPHALT
2016_2019_OH	N40°05'16.91046"	W83°58'30.92969"	794.24	PID CONCRETE



LiDAR Control Stations:				
Station Name	Latitude	Longitude	Height	Station Description
			(USFT)	
2017_2019_OH	N40°07'32.49495"	W83°00'24.36483"	804.75	CONCRETE
2018_2019_OH	N40°09'06.47183"	W83°57'39.87726"	761.83	ASPHALT
2019_2019_OH	N40°08'30.60334"	W83°52'57.93603"	793.57	PID ASPHALT
2020_2019_OH	N40°14'03.91185"	W83°52'56.30278"	827.08	PID ASPHALT
2021_2019_OH	N40°10'16.67854"	W83°52'55.32678"	793.09	ASPHALT
2022_2019_OH	N40°06'30.79350"	W83°53'12.03566"	799.34	PID ASPHALT
2023_2019_OH	N40°03'09.62230"	W83°10'22.92157"	827.44	GRAVEL
2024A_2019_OH	N40°00'33.34482"	W83°14'57.34864"	795.09	GRAVEL
2024B_2019_OH	N40°00'32.94003"	W83°14'57.55592"	795.11	GRAVEL
2025_2019_OH	N40°06'42.52883"	W83°47'30.81146"	963.94	COR STOP BAR
2026_2019_OH	N40°01'43.63630"	W83°47'28.09333"	911.32	LIGHT ASPHALT
2027_2019_OH	N40°00'48.06175"	W83°56'03.09985"	654.74	COR STOP BAR
2028_2019_OH	N39°59'26.07750"	W83°03'53.31156"	658.85	PID ASPHALT
2029_2019_OH	N39°57'17.86570"	W83°09'43.86570"	813.13	ASPHALT
2030_2019_OH	N39°53'13.50357"	W83°09'23.85512"	779.31	GRAVEL
2031_2019_OH	N39°50'01.74969"	W83°09'44.87684"	689.29	GRAVEL
2032_2019_OH	N39°46'23.83862"	W83°59'20.98839"	591.58	LIGHT ASPHALT
2033_2019_OH	N39°50'00.43617"	W83°03'35.09350"	673.08	DIRT SHORT GRASS
2033_HOR_2019_OH	N39°49'59.23852"	W83°03'34.12650"	668.88	ASPHALT
2034_2019_OH	N39°49'49.40693"	W83°55'21.04961"	625.34	ARROW
2035A_2019_OH	N39°51'54.75868"	W83°54'56.25039"	632.84	CL WALK
2035B_2019_OH	N39°51'54.73255"	W83°54'55.71279"	633.07	CL WALK
2036_2019_OH	N39°54'41.66371"	W83°52'54.18409"	625.61	ASPHALT
2037_2019_OH	N39°50'01.74867"	W83°50'27.90384"	640.68	COR STOP BAR
2038_2019_OH	N39°56'46.28742"	W83°48'11.50917"	737.18	ASPHALT
2039_2019_OH	N39°58'41.77309"	W83°51'51.53410"	667.32	ASPHALT
2040_2019_OH	N39°57'07.99938"	W83°53'54.97907"	663.74	ASPHALT
2041_2019_OH	N39°58'40.51456"	W83°57'12.89776"	663.35	ARROW
2042_2019_OH	N39°57'15.31549"	W83°05'17.59124"	717.14	ARROW
2043_2019_OH	N39°54'46.65131"	W83°05'45.41625"	733.51	LIGHT ASPHALT
2044_2019_OH	N39°53'07.25289"	W83°01'45.43871"	610.48	LIGHT ASPHALT
2045_2019_OH	N39°55'27.31059"	W83°59'45.98473"	636.60	ASPHALT
2046_2019_OH	N39°48'34.94442"	W83°59'41.42909"	579.09	LIGHT ASPHALT
2047_2019_OH	N39°52'42.22083"	W83°59'11.04333"	625.79	ASPHALT
2047_HOR_2019_OH	N39°52'42.58168"	W83°59'10.35733"	624.65	ASPHALT
2048_2019_OH	N40°00'33.45881"	W83°59'53.23320"	727.98	ARROW
2049_2019_OH	N39°47'33.06108"	W83°55'04.20414"	615.51	LIGHT ASPHALT
3001_2019_OH	N40°26'03.85623"	W83°11'42.70664"	806.65	TWC
3002_2019_OH	N40°23'18.82639"	W83°15'09.96315"	815.48	GRASS/CROPS
3003_2019_OH	N39°57'18.02155"	W83°09'44.62327"	813.16	BRUSH

LiDAR Control Stations:				
Station Name	Latitude	Longitude	Height	Station Description
			(USFT)	
3004_2019_OH	N40°23'12.76914"	W83°13'08.83239"	805.05	GRASS
3005_2019_OH	N40°23'27.73093"	W83°11'40.44596"	796.28	TWC
3006_2019_OH	N39°48'34.58761"	W82°59'42.61066"	574.16	BRUSH
3007_2019_OH	N40°13'18.38031"	W83°08'59.33896"	810.07	CROPS
3008_2019_OH	N40°08'31.45446"	W82°52'56.63577"	789.59	GRASS
3009_2019_OH	N40°06'27.32988"	W82°53'09.62192"	774.21	TWC
3010_2019_OH	N39°46'22.76015"	W82°59'20.30278"	588.03	BRUSH FENCE ROW
3011_2019_OH	N39°50'07.10564"	W82°54'58.18558"	622.47	TALL GRASS
3012_2019_OH	N39°50'02.03351"	W82°50'26.56408"	640.54	TALL GRASS BRUSH
3013_2019_OH	N39°47'33.45104"	W82°55'04.44838"	614.46	CROP FIELD
3014_2019_OH	N40°14'08.14474"	W82°53'07.12454"	816.74	TWC
3015_2019_OH	N39°51'56.81309"	W82°54'47.02186"	634.08	TALL GRASS
3016_2019_OH	N40°03'09.37614"	W83°10'23.04383"	827.10	EARTH-SHORT-GRASS
3017_2019_OH	N40°06'43.38332"	W82°47'31.29902"	965.36	CROP FIELD
3018_2019_OH	N39°53'13.24572"	W83°09'23.73629"	781.44	BRUSH
3019_2019_OH	N39°50'01.85641"	W83°09'44.45771"	686.61	CROP FIELD
3020_2019_OH	N39°54'45.87768"	W83°05'46.33933"	734.42	BRUSH
3021_2019_OH	N39°50'00.79972"	W83°03'34.57488"	673.31	TREES
3022_2019_OH	N39°52'36.40696"	W82°58'51.25633"	630.12	WOODS
3023_2019_OH	N40°05'51.46607"	W83°11'27.17308"	830.70	WOODS
3024_2019_OH	N40°08'58.23100"	W83°10'14.96764"	886.67	TREES BRUSH
3025_2019_OH	N39°58'40.61425"	W82°57'13.16264"	665.38	FOREST
3026_2019_OH	N39°55'28.23382"	W82°59'46.66262"	638.63	FOREST
3027_2019_OH	N40°16'30.54822"	W83°09'47.37533"	806.83	FOREST
3028_2019_OH	N40°14'42.70987"	W83°08'43.13824"	767.23	FOREST
3029_2019_OH	N40°10'16.22564"	W82°52'55.71070"	791.32	WOODS
3030_2019_OH	N40°09'11.77216"	W82°57'51.41527"	787.28	WOODS
3031_2019_OH	N39°57'07.56998"	W82°53'55.92101"	659.19	WOODS
3032_2019_OH	N39°56'51.24215"	W82°48'10.35182"	733.87	FOREST
3033_2019_OH	N39°58'42.36415"	W82°51'52.14999"	655.29	BRUSH
3034_2019_OH	N40°05'33.83041"	W83°02'59.07287"	703.00	BRUSH
3035_2019_OH	N40°01'43.95401"	W82°47'27.16136"	912.13	BRUSH
3036_2019_OH	N40°00'46.81275"	W82°56'02.45856"	650.14	BRUSH
3037_2019_OH	N40°12'11.97779"	W83°08'46.76004"	793.73	BRUSH



<b>Geodetic Control Stations, Geodetic Control Checks and Woolpert Base Stations:</b>				
<b>Station Name</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Height</b>	<b>PID</b>
			<b>(USFT)</b>	
CNTRL GAR	N39°57'32.44297"	W83°02'43.58110"	602.70	AB6084
Q 25	N40°16'59.07257"	W83°07'41.78788"	830.84	KZ1513
FRANK 86 Adjusted	N40°07'54.41975"	W82°58'26.22727"	795.04	KZ2250
101_78459	N40°23'07.91334"	W83°09'02.50615"	823.78	
AE 104	N39°57'37.58115"	W83°02'39.55349"	603.92	DG7168
BM3_910	N39°58'17.77816"	W83°01'54.56719"	614.85	
E39	N39°36'23.99464"	W83°23'47.94609"	891.52	JY0925
F 308	N40°07'39.38586"	W83°00'17.14397"	824.40	KZ1589
FRANK 44 AZ MK	N39°55'51.99156"	W82°54'41.01194"	656.56	JY1652
FRANK45 AZ MK	N39°57'05.43731"	W82°52'37.80817"	671.64	JY1654
FRANK 86	N40°07'54.41991"	W82°58'26.22706"	795.07	KZ2250
G 192	N39°55'46.08176"	W82°54'46.40016"	656.05	JY0789
H 295	N40°35'58.69752"	W83°16'44.52214"	834.70	KZ1453
H 310	N40°12'46.06217"	W83°00'37.69989"	828.77	KZ1580
HOOVER	N40°06'28.94468"	W82°52'39.24471"	808.65	KZ1746
LEONARD	N40°21'21.39136"	W82°59'25.57289"	874.58	KZ0860
MERGEL	N40°00'27.87758"	W83°01'39.45976"	633.38	
MORLAN	N39°57'58.15055"	W82°59'05.27970"	681.98	
Q 25	N40°16'59.07282"	W83°07'41.78806"	830.92	KZ1513
S 272	N40°19'06.64422"	W82°48'32.37483"	981.12	KZ0962
V 188	N40°01'26.90630"	W82°59'50.74305"	743.34	KZ0871



## Section 3: Existing NGS Control Information Sheets

This section contains the published National Geodetic Survey (NGS) Datasheets used in the final control network for the OH Columbus 2019 B19 LiDAR Project in Columbus, Ohio.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = MARCH 25, 2019
AB6084 *****
AB6084 CBN - This is a Cooperative Base Network Control Station.
AB6084 DESIGNATION - CNTRL GAR
AB6084 PID - AB6084
AB6084 STATE/COUNTY- OH/FRANKLIN
AB6084 COUNTRY - US
AB6084 USGS QUAD - SOUTHWEST COLUMBUS (1995)
AB6084
AB6084 *CURRENT SURVEY CONTROL
AB6084
AB6084* NAD 83(2011) POSITION- 39 57 32.44280(N) 083 02 43.58027(W) ADJUSTED
AB6084* NAD 83(2011) ELLIP HT- 183.712 (meters) (06/27/12) ADJUSTED
AB6084* NAD 83(2011) EPOCH - 2010.00
AB6084* NAVD 88 ORTHO HEIGHT - 217.452 (meters) 713.42 (feet) ADJUSTED
AB6084
AB6084 GEOID HEIGHT - -33.748 (meters) GEOID12B
AB6084 NAD 83(2011) X - 592,790.700 (meters) COMP
AB6084 NAD 83(2011) Y - -4,859,751.849 (meters) COMP
AB6084 NAD 83(2011) Z - 4,074,616.181 (meters) COMP
AB6084 LAPLACE CORR - -6.02 (seconds) DEFLEC12B
AB6084 DYNAMIC HEIGHT - 217.333 (meters) 713.03 (feet) COMP
AB6084 MODELED GRAVITY - 980,074.3 (mgal) NAVD 88
AB6084
AB6084 VERT ORDER - FIRST CLASS I
AB6084
AB6084 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AB6084 Standards:
AB6084 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AB6084 Horiz Ellip SD_N SD_E SD_h (unitless)
AB6084 -----
AB6084 NETWORK 0.23 0.29 0.10 0.09 0.15 0.00275992
AB6084 -----
AB6084 Click here for local accuracies and other accuracy information.
AB6084
AB6084
AB6084.This is a reference station for the COLUMBUS
AB6084.National Continuously Operating Reference Station (COLB).
AB6084
AB6084.The horizontal coordinates were established by GPS observations
AB6084.and adjusted by the National Geodetic Survey in June 2012.
AB6084
AB6084.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AB6084.been affixed to the stable North American tectonic plate. See
AB6084.NA2011 for more information.
AB6084

```



AB6084.The horizontal coordinates are valid at the epoch date displayed above  
 AB6084.which is a decimal equivalence of Year/Month/Day.

AB6084

AB6084.The orthometric height was determined by differential leveling and  
 AB6084.adjusted by the NATIONAL GEODETIC SURVEY

AB6084.in March 2010.

AB6084

AB6084.No vertical observational check was made to the station.

AB6084

AB6084.Significant digits in the geoid height do not necessarily reflect accuracy.

AB6084.GEOID12B height accuracy estimate available [here](#).

AB6084

AB6084.[Photographs](#) are available for this station.

AB6084

AB6084.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AB6084

AB6084.The Laplace correction was computed from DEFLEC12B derived deflections.

AB6084

AB6084.The ellipsoidal height was determined by GPS observations

AB6084.and is referenced to NAD 83.

AB6084

AB6084.The dynamic height is computed by dividing the NAVD 88

AB6084.geopotential number by the normal gravity value computed on the

AB6084.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AB6084.degrees latitude (g = 980.6199 gals.).

AB6084

AB6084.The modeled gravity was interpolated from observed gravity values.

AB6084

AB6084. The following values were computed from the NAD 83(2011) position.

AB6084

AB6084;		North	East	Units	Scale	Factor	Converg.
AB6084;SPC OH S	-	217,622.630	553,395.956	MT	0.99998614	-0	20 45.9
AB6084;SPC OH S	-	713,983.58	1,815,599.90	sFT	0.99998614	-0	20 45.9
AB6084;UTM 17	-	4,425,211.261	325,291.020	MT	0.99997577	-1	18 50.4

AB6084

AB6084! - Elev Factor x Scale Factor = Combined Factor

AB6084!SPC OH S - 0.99997118 x 0.99998614 = 0.99995732

AB6084!UTM 17 - 0.99997118 x 0.99997577 = 0.99994695

AB6084

AB6084\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SLE2529125211 (NAD 83)

AB6084

AB6084	-----			
AB6084	PID	Reference Object	Distance	Geod. Az
AB6084				ddmmss.s
AB6084	AJ7184	COLUMBUS CORS ARP	86.870 METERS	34125
AB6084	-----			

AB6084

AB6084 SUPERSEDED SURVEY CONTROL

AB6084

AB6084 NAD 83(2007)- 39 57 32.44291(N) 083 02 43.58100(W) AD(2002.00) 0

AB6084 ELLIP H (02/10/07) 183.722 (m) GP(2002.00)

AB6084 ELLIP H (09/23/04) 183.720 (m) GP( ) 4 1

AB6084 NAD 83(1995)- 39 57 32.44297(N) 083 02 43.58110(W) AD( ) B

AB6084 ELLIP H (08/20/96) 183.724 (m) GP( ) 4 2

AB6084 NAVD 88 (08/20/96) 217.4 (m) GEOID93 model used GPS OBS





AB6084  
 AB6084.Superseded values are not recommended for survey control.  
 AB6084  
 AB6084.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 AB6084.See file [dsdata.pdf](#) to determine how the superseded data were derived.  
 AB6084  
 AB6084\_MARKER: F = FLANGE-ENCASED ROD  
 AB6084\_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)  
 AB6084\_STAMPING: CNTRL GAR 1995  
 AB6084\_MARK LOGO: OHDT  
 AB6084\_PROJECTION: FLUSH  
 AB6084\_MAGNETIC: I = MARKER IS A STEEL ROD  
 AB6084\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 AB6084\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 AB6084+SATELLITE: SATELLITE OBSERVATIONS - August 22, 2008  
 AB6084\_ROD/PIPE-DEPTH: 2.4 meters

AB6084	HISTORY	- Date	Condition	Report By
AB6084	HISTORY	- 1995	MONUMENTED	OHDT
AB6084	HISTORY	- 2003	GOOD	OHDT
AB6084	HISTORY	- 20080512	GOOD	OHDT
AB6084	HISTORY	- 20080822	GOOD	OHDT

AB6084  
 AB6084  
 AB6084

STATION DESCRIPTION

AB6084'DESCRIBED BY OHIO DEPARTMENT OF TRANSPORTATION 1995 (JAA)  
 AB6084'STATION IS LOCATED AT THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT)  
 AB6084'COMPLEX AT 1600-1620 WEST BROAD STREET, NORTHEAST OF THE INTERSECTION  
 AB6084'OF WEST BROAD STREET AND I-71 IN COLUMBUS, OHIO. TO REACH FROM  
 AB6084'DOWNTOWN COLUMBUS AT THE INTERSECTION OF BROAD STREET AND HIGH STREET,  
 AB6084'GO WEST ON BROAD STREET FOR 2.3 MI (3.7 KM) TO A TRAFFIC LIGHT AT THE  
 AB6084'ON RAMP OF I-70 WESTBOUND, TURN RIGHT ONTO ENTRANCE RAMP AND VEER  
 AB6084'RIGHT INTO ODOT COMPLEX, CONTINUE NORTH FOR 0.1 MI, (0.2 KM) TURN LEFT  
 AB6084'AT FIRST DRIVE, GO 121.9 M (399.9 FT) AND STATION IS ON THE RIGHT JUST  
 AB6084'PAST A PAVED WALKWAY TO A HELICOPTER PAD. THE STATION IS 15.4 M (50.5  
 AB6084'FT) NORTH OF THE EDGE OF PAVED DRIVEWAY, 10.1 M (33.1 FT) WEST OF THE  
 AB6084'WEST EDGE OF PAVED WALKWAY TO HELIPAD AND 90.8 FT (27.7 M) SOUTH OF  
 AB6084'THE SOUTH EDGE OF PAVED HELIPAD. STATION IS FLUSH WITH GROUND. THE  
 AB6084'ODOT COMPLEX IS NOT LOCKED, AND THE STATION IS ACCESSIBLE AT ALL  
 AB6084'TIMES.

AB6084  
 AB6084  
 AB6084

STATION RECOVERY (2003)

AB6084'RECOVERY NOTE BY OHIO DEPARTMENT OF TRANSPORTATION 2003 (JAS)  
 AB6084'RECOVERED AS DESCRIBED. NOTE--THIS IS A CORS SITE REFERENCE MARK.

AB6084  
 AB6084

STATION RECOVERY (2008)

AB6084'RECOVERY NOTE BY OHIO DEPARTMENT OF TRANSPORTATION 2008 (DJB)  
 AB6084'RECOVERED IN GOOD CONDITION.

AB6084  
 AB6084  
 AB6084

STATION RECOVERY (2008)

AB6084'RECOVERY NOTE BY OHIO DEPARTMENT OF TRANSPORTATION 2008 (DJB)  
 AB6084'RECOVERED AS DESCRIBED.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = APRIL  5, 2019
KZ1513 *****
KZ1513 DESIGNATION -  Q 25
KZ1513 PID - KZ1513
KZ1513 STATE/COUNTY- OH/DELAWARE
KZ1513 COUNTRY - US
KZ1513 USGS QUAD - OSTRANDER (1988)
KZ1513
KZ1513 *CURRENT SURVEY CONTROL
KZ1513
KZ1513* NAD 83(2011) POSITION- 40 16 59.07240(N) 083 07 41.78791(W) ADJUSTED
KZ1513* NAD 83(2011) ELLIP HT- 253.232 (meters) (06/27/12) ADJUSTED
KZ1513* NAD 83(2011) EPOCH - 2010.00
KZ1513* NAVD 88 ORTHO HEIGHT - 287.140 (meters) 942.06 (feet) ADJUSTED
KZ1513
KZ1513 GEOID HEIGHT - -33.900 (meters) GEOID12B
KZ1513 NAD 83(2011) X - 582,996.029 (meters) COMP
KZ1513 NAD 83(2011) Y - -4,837,634.740 (meters) COMP
KZ1513 NAD 83(2011) Z - 4,102,177.583 (meters) COMP
KZ1513 LAPLACE CORR - -1.69 (seconds) DEFLEC12B
KZ1513 DYNAMIC HEIGHT - 286.993 (meters) 941.58 (feet) COMP
KZ1513 MODELED GRAVITY - 980,106.0 (mgal) NAVD 88
KZ1513
KZ1513 VERT ORDER - SECOND CLASS 0
KZ1513
KZ1513 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
KZ1513 Standards:
KZ1513 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
KZ1513 Horiz Ellip SD_N SD_E SD_h (unitless)
KZ1513 -----
KZ1513 NETWORK 0.62 1.27 0.29 0.20 0.65 0.05343816
KZ1513 -----
KZ1513 Click here for local accuracies and other accuracy information.
KZ1513
KZ1513
KZ1513.The horizontal coordinates were established by GPS observations
KZ1513.and adjusted by the National Geodetic Survey in June 2012.
KZ1513
KZ1513.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
KZ1513.been affixed to the stable North American tectonic plate. See
KZ1513.NA2011 for more information.
KZ1513
KZ1513.The horizontal coordinates are valid at the epoch date displayed above
KZ1513.which is a decimal equivalence of Year/Month/Day.
KZ1513
KZ1513.The orthometric height was determined by differential leveling and
KZ1513.adjusted by the NATIONAL GEODETIC SURVEY
KZ1513.in June 1991.
KZ1513

```



KZ1513.Significant digits in the geoid height do not necessarily reflect accuracy.  
KZ1513.GEOID12B height accuracy estimate available [here](#).

KZ1513

KZ1513.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
KZ1513

KZ1513.The Laplace correction was computed from DEFLEC12B derived deflections.  
KZ1513

KZ1513.The ellipsoidal height was determined by GPS observations  
KZ1513.and is referenced to NAD 83.

KZ1513

KZ1513.The dynamic height is computed by dividing the NAVD 88  
KZ1513.geopotential number by the normal gravity value computed on the  
KZ1513.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
KZ1513.degrees latitude (g = 980.6199 gals.).

KZ1513

KZ1513.The modeled gravity was interpolated from observed gravity values.  
KZ1513

KZ1513. The following values were computed from the NAD 83(2011) position.  
KZ1513

KZ1513;		North	East	Units	Scale	Factor	Converg.
KZ1513;SPC OH N	-	68,643.392	546,570.165	MT	1.00003218	-0 24	45.9
KZ1513;SPC OH N	-	225,207.53	1,793,205.62	sFT	1.00003218	-0 24	45.9
KZ1513;UTM 17	-	4,461,349.772	319,076.622	MT	1.00000295	-1 22	35.2
KZ1513!	-	Elev Factor	x	Scale Factor	=	Combined Factor	
KZ1513!SPC OH N	-	0.99996028	x	1.00003218	=	0.99999246	
KZ1513!UTM 17	-	0.99996028	x	1.00000295	=	0.99996323	

KZ1513

KZ1513\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE1907661349(NAD 83)

KZ1513

KZ1513 SUPERSEDED SURVEY CONTROL

KZ1513

KZ1513	NAD 83(2007)-	40 16 59.07242(N)	083 07 41.78856(W)	AD(2002.00)	0
KZ1513	ELLIP H (02/10/07)	253.261 (m)		GP(2002.00)	
KZ1513	ELLIP H (10/07/05)	253.263 (m)		GP( )	3 1
KZ1513	NAD 83(1995)-	40 16 59.07257(N)	083 07 41.78788(W)	AD( )	1
KZ1513	ELLIP H (10/02/97)	253.324 (m)		GP( )	3 1
KZ1513	NAVD 88	287.14 (m)	942.1	(f) LEVELING	3
KZ1513	NAVD 88	287.13 (m)	942.0	(f) LEVELING	3
KZ1513	NGVD 29 (??/??/92)	287.318 (m)	942.64	(f) ADJ UNCH	2 0

KZ1513

KZ1513.Superseded values are not recommended for survey control.

KZ1513

KZ1513.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

KZ1513.See file [dsdata.pdf](#) to determine how the superseded data were derived.

KZ1513

KZ1513\_MARKER: DB = BENCH MARK DISK

KZ1513\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

KZ1513\_STAMPING: Q 25 1934

KZ1513\_MARK LOGO: CGS

KZ1513\_MAGNETIC: O = OTHER; SEE DESCRIPTION

KZ1513\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

KZ1513+STABILITY: SURFACE MOTION

KZ1513\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

KZ1513+SATELLITE: SATELLITE OBSERVATIONS - July 05, 2000



KZ1513				
KZ1513	HISTORY	- Date	Condition	Report By
KZ1513	HISTORY	- 1934	MONUMENTED	CGS
KZ1513	HISTORY	- 19970730	GOOD	WOOLPT
KZ1513	HISTORY	- 20000705	GOOD	WOOLPT

KZ1513

KZ1513

STATION DESCRIPTION

KZ1513

KZ1513'DESCRIBED BY COAST AND GEODETIC SURVEY 1934

KZ1513'1.6 MI E FROM WHITE SULPHUR.

KZ1513'1.6 MILES EAST ALONG THE CLEVELAND, CINCINNATI, CHICAGO AND  
KZ1513'ST. LOUIS RAILWAY FROM THE STATION AT WHITE SULPHUR, DELAWARE

KZ1513'COUNTY, 45 FEET SOUTHWEST OF THE SOUTH RAIL AT THE CROSSING

KZ1513'OF THE CENTERLINE OF A GRAVEL ROAD, 31 FEET WEST OF THE

KZ1513'CENTERLINE OF THE ROAD, 24 FEET SOUTH OF THE SOUTH RAIL, 3.3

KZ1513'FEET NORTH OF THE FENCE LINE, AND ABOUT 2 FEET HIGHER THAN THE

KZ1513'TRACK. A STANDARD DISK, STAMPED Q 25 1934 AND SET IN THE TOP

KZ1513'OF A CONCRETE POST.

KZ1513

KZ1513

STATION RECOVERY (1997)

KZ1513

KZ1513'RECOVERY NOTE BY WOOLPERT CONSULTANTS 1997 (JWK)

KZ1513'RECOVERED AS DESCRIBED.

KZ1513

KZ1513

STATION RECOVERY (2000)

KZ1513

KZ1513'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2000 (TEM)

KZ1513'RECOVERED AS DESCRIBED.

KZ1513'



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = MARCH 25, 2019
DG7168 *****
DG7168 DESIGNATION -  AE 104
DG7168 PID          -  DG7168
DG7168 STATE/COUNTY-  OH/FRANKLIN
DG7168 COUNTRY       -  US
DG7168 USGS QUAD     -  SOUTHWEST COLUMBUS (1995)
DG7168
DG7168                      *CURRENT SURVEY CONTROL
DG7168
DG7168* NAD 83(2011) POSITION- 39 57 37.58096(N) 083 02 39.55309(W)  ADJUSTED
DG7168* NAD 83(2011) ELLIP HT- 184.082 (meters)                (06/27/12)  ADJUSTED
DG7168* NAD 83(2011) EPOCH   - 2010.00
DG7168* NAVD 88 ORTHO HEIGHT - 217.824 (meters)                714.64 (feet) ADJUSTED
DG7168
DG7168 GEOID HEIGHT   -          -33.752 (meters)                GEOID12B
DG7168 NAD 83(2011) X   -          592,873.292 (meters)          COMP
DG7168 NAD 83(2011) Y   -    -4,859,639.522 (meters)          COMP
DG7168 NAD 83(2011) Z   -    4,074,737.892 (meters)          COMP
DG7168 LAPLACE CORR    -           -5.98 (seconds)              DEFLEC12B
DG7168 DYNAMIC HEIGHT  -          217.705 (meters)                714.25 (feet) COMP
DG7168 MODELED GRAVITY -    980,074.3 (mgal)                    NAVD 88
DG7168
DG7168 VERT ORDER      -  FIRST      CLASS I
DG7168
DG7168 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
DG7168 Standards:
DG7168      FGDC (95% conf, cm)      Standard deviation (cm)      CorrNE
DG7168      Horiz Ellip              SD_N   SD_E   SD_h      (unitless)
DG7168 -----
DG7168 NETWORK      0.34   0.37              0.16   0.10   0.19      -0.18753046
DG7168 -----
DG7168 Click here for local accuracies and other accuracy information.
DG7168
DG7168
DG7168.This is a reference station for the COLUMBUS
DG7168.National Continuously Operating Reference Station (COLB).
DG7168
DG7168.The horizontal coordinates were established by GPS observations
DG7168.and adjusted by the National Geodetic Survey in June 2012.
DG7168
DG7168.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
DG7168.been affixed to the stable North American tectonic plate. See
DG7168.NA2011 for more information.
DG7168
DG7168.The horizontal coordinates are valid at the epoch date displayed above
DG7168.which is a decimal equivalence of Year/Month/Day.
DG7168
DG7168.The orthometric height was determined by differential leveling and

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DG7168.adjusted by the NATIONAL GEODETIC SURVEY  
 DG7168.in March 2010.  
 DG7168  
 DG7168.Significant digits in the geoid height do not necessarily reflect accuracy.  
 DG7168.GEOID12B height accuracy estimate available [here](#).  
 DG7168  
 DG7168.[Photographs](#) are available for this station.  
 DG7168  
 DG7168.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 DG7168  
 DG7168.The Laplace correction was computed from DEFLEC12B derived deflections.  
 DG7168  
 DG7168.The ellipsoidal height was determined by GPS observations  
 DG7168.and is referenced to NAD 83.  
 DG7168  
 DG7168.The dynamic height is computed by dividing the NAVD 88  
 DG7168.geopotential number by the normal gravity value computed on the  
 DG7168.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
 DG7168.degrees latitude (g = 980.6199 gals.).  
 DG7168  
 DG7168.The modeled gravity was interpolated from observed gravity values.  
 DG7168  
 DG7168. The following values were computed from the NAD 83(2011) position.  
 DG7168  

DG7168;		North	East	Units	Scale	Factor	Converg.
DG7168;SPC OH S	-	217,780.523	553,492.492	MT	0.99998639	-0 20	43.4
DG7168;SPC OH S	-	714,501.60	1,815,916.62	sFT	0.99998639	-0 20	43.4
DG7168;UTM 17	-	4,425,367.499	325,390.208	MT	0.99997535	-1 18	47.9

DG7168!		Elev Factor	x	Scale Factor	=	Combined Factor
DG7168!SPC OH S	-	0.99997112	x	0.99998639	=	0.99995751
DG7168!UTM 17	-	0.99997112	x	0.99997535	=	0.99994647

  
 DG7168\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SLE2539025367(NAD 83)  
 DG7168  

DG7168	PID	Reference Object	Distance	Geod. Az
DG7168				ddmmss.s
DG7168	AJ7184	COLUMBUS CORS ARP	144.884 METERS	23818

  
 DG7168  
 DG7168 SUPERSEDED SURVEY CONTROL  
 DG7168  

DG7168	NAD 83(2007)-	39 57 37.58107(N)	083 02 39.55381(W)	AD(2002.00)	0
DG7168	ELLIP H (02/10/07)	184.091 (m)		GP(2002.00)	
DG7168	NAD 83(1995)-	39 57 37.58108(N)	083 02 39.55383(W)	AD( ) A	
DG7168	ELLIP H (09/23/04)	184.091 (m)		GP( ) 4	1
DG7168	NAVD 88 (09/23/04)	217.8 (m)	GEOID03 model used	GPS OBS	

  
 DG7168  
 DG7168.Superseded values are not recommended for survey control.  
 DG7168  
 DG7168.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 DG7168.See file [dsdata.pdf](#) to determine how the superseded data were derived.  
 DG7168  
 DG7168\_MARKER: F = FLANGE-ENCASED ROD



DG7168\_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)  
DG7168\_STAMPING: AE 104  
DG7168\_MARK LOGO: OHDT  
DG7168\_PROJECTION: RECESSED 5 CENTIMETERS  
DG7168\_MAGNETIC: N = NO MAGNETIC MATERIAL  
DG7168\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
DG7168\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
DG7168+SATELLITE: SATELLITE OBSERVATIONS - August 22, 2008  
DG7168\_ROD/PIPE-DEPTH: 3.0 meters  
DG7168\_SLEEVE-DEPTH : 0.9 meters

DG7168

HISTORY	- Date	Condition	Report By
DG7168 HISTORY	- 2003	MONUMENTED	OHDT
DG7168 HISTORY	- 20080513	GOOD	OHDT
DG7168 HISTORY	- 20080822	GOOD	OHDT

DG7168 STATION DESCRIPTION

DG7168'DESCRIBED BY OHIO DEPARTMENT OF TRANSPORTATION 2003 (JAS)  
DG7168'STATION IS LOCATED IN COLUMBUS, AT THE OHIO DEPARTMENT OF  
DG7168'TRANSPORTATION CENTRAL GARAGE.  
DG7168'  
DG7168'TO REACH FROM STATE HOUSE (CORNER OF BROAD ST. AND HIGH ST.) IN  
DG7168'COLUMBUS, GO WEST ON BROAD STREET FOR 2.3 MILES (3.75 KM) TO  
DG7168'INTERCHANGE WITH INTERSTATE HIGHWAY 70. TURN RIGHT AS IF ENTERING  
DG7168'WESTBOUND I-70. MIDWAY UP RAMP, BEAR RIGHT TO THE ENTRANCE TO ODOT  
DG7168'CENTRAL GARAGE. CONTINUE NORTH ON ACCESS ROAD FOR 0.2 MILES (0.3 KM)  
DG7168'TO A PARKING AREA ON RIGHT.  
DG7168'  
DG7168'STATION IS LOCATED IN THE GRASSY AREA BETWEEN MAIN ACCESS DRIVE AND  
DG7168'THE PARKING AREA, 67 FEET NORTH-NORTHEAST OF NORTHWEST CORNER OF  
DG7168'AERIAL ENGINEERING BUILDING, 74.5 FEET EAST OF CENTERLINE OF ACCESS  
DG7168'DRIVE, AND 41.5 FEET EAST OF UTILITY POLE.  
DG7168'  
DG7168'STATION IS A STAINLESS STEEL ROD IN GREASED SLEEVE. ACCESS TO POINT  
DG7168'IS THROUGH A FIVE INCH LOGO CAP STAMPED ---AE 104---. NOTE--THIS IS  
DG7168'A CORS SITE REFERENCE MARK.

DG7168 STATION RECOVERY (2008)

DG7168'RECOVERY NOTE BY OHIO DEPARTMENT OF TRANSPORTATION 2008 (DJB)  
DG7168'RECOVERED IN GOOD CONDITION.

DG7168 STATION RECOVERY (2008)

DG7168'RECOVERY NOTE BY OHIO DEPARTMENT OF TRANSPORTATION 2008 (DJB)  
DG7168'RECOVERED AS DESCRIBED.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.2

1 National Geodetic Survey, Retrieval Date = APRIL 6, 2019

KZ1589 \*\*\*\*\*

KZ1589 DESIGNATION - **F 308**

KZ1589 PID - KZ1589

KZ1589 STATE/COUNTY- OH/FRANKLIN

KZ1589 COUNTRY - US

KZ1589 USGS QUAD - POWELL (1988)

KZ1589

KZ1589 \*CURRENT SURVEY CONTROL

KZ1589

KZ1589\* NAD 83(1986) POSITION- 40 07 39.4 (N) 083 00 17.2 (W) HD\_HELD2

KZ1589\* [NAVD 88](#) ORTHO HEIGHT - 285.154 (meters) 935.54 (feet) ADJUSTED

KZ1589

KZ1589 GEOID HEIGHT - -33.885 (meters) GEOID12B

KZ1589 DYNAMIC HEIGHT - 285.004 (meters) 935.05 (feet) COMP

KZ1589 MODELED GRAVITY - 980,089.3 (mgal) NAVD 88

KZ1589

KZ1589 VERT ORDER - FIRST CLASS I

KZ1589

KZ1589.The horizontal coordinates were established by autonomous hand held GPS observations and have an estimated accuracy of +/- 10 meters.

KZ1589.

KZ1589.The orthometric height was determined by differential leveling and adjusted by the NATIONAL GEODETIC SURVEY

KZ1589.in June 1991.

KZ1589

KZ1589.Significant digits in the geoid height do not necessarily reflect accuracy. GEOID12B height accuracy estimate available [here](#).

KZ1589

KZ1589.[Photographs](#) are available for this station.

KZ1589

KZ1589.The dynamic height is computed by dividing the NAVD 88 geopotential number by the normal gravity value computed on the Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45 degrees latitude (g = 980.6199 gals.).

KZ1589

KZ1589.The modeled gravity was interpolated from observed gravity values.

KZ1589

KZ1589;	North	East	Units	Estimated Accuracy
KZ1589;SPC OH S -	236,323.	556,975.	MT	(+/- 10 meters HH2 GPS)

KZ1589

KZ1589\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE2918543847(NAD 83)

KZ1589

KZ1589 SUPERSEDED SURVEY CONTROL

KZ1589

KZ1589 NGVD 29 (??/??/92) 285.313 (m) 936.06 (f) ADJ UNCH 1 1

KZ1589

KZ1589.Superseded values are not recommended for survey control.

KZ1589





KZ1589.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
KZ1589.See file [dsdata.pdf](#) to determine how the superseded data were derived.

KZ1589

KZ1589\_MARKER: DB = BENCH MARK DISK

KZ1589\_SETTING: 36 = SET IN A MASSIVE STRUCTURE

KZ1589\_SP\_SET: TOWER BASE

KZ1589\_STAMPING: F 308 1967

KZ1589\_MARK LOGO: CGS

KZ1589\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

KZ1589\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

KZ1589+SATELLITE: SATELLITE OBSERVATIONS - May 10, 2018

KZ1589

KZ1589	HISTORY	- Date	Condition	Report By
KZ1589	HISTORY	- 1967	MONUMENTED	CGS
KZ1589	HISTORY	- 1990	GOOD	USPSQD
KZ1589	HISTORY	- 20030801	GOOD	USPSQD
KZ1589	HISTORY	- 20030802	GOOD	USPSQD
KZ1589	HISTORY	- 20070513	GOOD	GEOCAC
KZ1589	HISTORY	- 20160122	GOOD	USPSQD
KZ1589	HISTORY	- 20180510	GOOD	USPSQD

KZ1589

KZ1589

STATION DESCRIPTION

KZ1589

KZ1589'DESCRIBED BY COAST AND GEODETIC SURVEY 1967

KZ1589'2.6 MI N FROM WORTHINGTON.

KZ1589'ABOUT 2.65 MILES NORTH ALONG THE NEW YORK CENTRAL RAILROAD

KZ1589'FROM THE CROSSING OF STATE HIGHWAY 161 AT WORTHINGTON, ABOUT 0.1

KZ1589'MILE SOUTH OF MILEPOST 127, AT THE CROSSING OF PARK ROAD, ALONG

KZ1589'THE RIGHT-OF-WAY OF THE PENNSYLVANIA RAILROAD, SET ON THE TOP

KZ1589'OF THE SOUTHEAST CORNER OF THE 4-FOOT SQUARE CONCRETE BASE

KZ1589'FOR SIGNAL TOWER NO. 115, 118 FEET NORTH OF THE CENTER LINE OF

KZ1589'PARK ROAD, 50 FEET WEST OF THE WEST RAIL OF THE NYCRR, 11.2

KZ1589'FEET EAST OF THE EAST RAIL OF THE EAST ONE OF TWO PRR TRACKS,

KZ1589'ABOUT LEVEL WITH THE PRR TRACK AND 2 FEET ABOVE THE LEVEL OF

KZ1589'THE NYCRR.

KZ1589

KZ1589

STATION RECOVERY (1990)

KZ1589

KZ1589'RECOVERY NOTE BY US POWER SQUADRON 1990 (MM)

KZ1589'RECOVERED IN GOOD CONDITION.

KZ1589

KZ1589

STATION RECOVERY (2003)

KZ1589

KZ1589'RECOVERY NOTE BY US POWER SQUADRON 2003 (KEN)

KZ1589'RECOVERED IN GOOD CONDITION.

KZ1589

KZ1589

STATION RECOVERY (2003)

KZ1589

KZ1589'RECOVERY NOTE BY US POWER SQUADRON 2003 (KEN)

KZ1589'RECOVERED IN GOOD CONDITION.

KZ1589

KZ1589

STATION RECOVERY (2007)

KZ1589

KZ1589'RECOVERY NOTE BY GEOCACHING 2007 (RLM)

KZ1589'THE SIGNAL TOWER IS GONE, BUT THE CONCRETE BASE IS INTACT.



WOOLPERT

KZ1589

KZ1589

STATION RECOVERY (2016)

KZ1589

KZ1589'RECOVERY NOTE BY US POWER SQUADRON 2016 (MLG)

KZ1589'RECOVERED IN GOOD CONDITION.

KZ1589

KZ1589

STATION RECOVERY (2018)

KZ1589

KZ1589'RECOVERY NOTE BY US POWER SQUADRON 2018 (TJH)

KZ1589'RECOVERED IN GOOD CONDITION.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = MARCH 25, 2019
JY1652 *****
JY1652 DESIGNATION -  FRANK 44 AZ MK
JY1652 PID           -  JY1652
JY1652 STATE/COUNTY-  OH/FRANKLIN
JY1652 COUNTRY       -  US
JY1652 USGS QUAD     -  SOUTHEAST COLUMBUS (1994)
JY1652
JY1652                      *CURRENT SURVEY CONTROL
JY1652
JY1652* NAD 83(2011) POSITION- 39 55 51.99165(N) 082 54 41.01023(W)  ADJUSTED
JY1652* NAD 83(2011) ELLIP HT- 200.122 (meters) (06/27/12)  ADJUSTED
JY1652* NAD 83(2011) EPOCH   - 2010.00
JY1652* NAVD 88 ORTHO HEIGHT - 234.2 (meters) 768. (feet) VERTCON
JY1652
JY1652 GEOID HEIGHT - -34.071 (meters) GEOID12B
JY1652 NAD 83(2011) X - 604,405.811 (meters) COMP
JY1652 NAD 83(2011) Y - -4,860,338.213 (meters) COMP
JY1652 NAD 83(2011) Z - 4,072,251.393 (meters) COMP
JY1652 LAPLACE CORR - -3.30 (seconds) DEFLEC12B
JY1652
JY1652 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
JY1652 Standards:
JY1652          FGDC (95% conf, cm)          Standard deviation (cm)          CorrNE
JY1652          Horiz Ellip                SD_N   SD_E   SD_h          (unitless)
JY1652 -----
JY1652 NETWORK      2.36   2.31                1.16   0.57   1.18          0.08690749
JY1652 -----
JY1652 Click here for local accuracies and other accuracy information.
JY1652
JY1652
JY1652.The horizontal coordinates were established by GPS observations
JY1652.and adjusted by the National Geodetic Survey in June 2012.
JY1652
JY1652.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
JY1652.been affixed to the stable North American tectonic plate. See
JY1652.NA2011 for more information.
JY1652
JY1652.The horizontal coordinates are valid at the epoch date displayed above
JY1652.which is a decimal equivalence of Year/Month/Day.
JY1652
JY1652.The NAVD 88 height was computed by applying the VERTCON shift value to
JY1652.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
JY1652
JY1652.Significant digits in the geoid height do not necessarily reflect accuracy.
JY1652.GEOID12B height accuracy estimate available here.
JY1652
JY1652.Photographs are available for this station.
JY1652

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JY1652.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 JY1652  
 JY1652.The Laplace correction was computed from DEFLEC12B derived deflections.  
 JY1652  
 JY1652.The ellipsoidal height was determined by GPS observations  
 JY1652.and is referenced to NAD 83.  
 JY1652

JY1652. The following values were computed from the NAD 83(2011) position.  
 JY1652

JY1652;		North	East	Units	Scale Factor	Converg.
JY1652;SPC OH S	-	214,463.849	564,835.172	MT	0.99998138	-0 15 39.7
JY1652;SPC OH S	-	703,620.14	1,853,130.06	sFT	0.99998138	-0 15 39.7
JY1652;UTM 17	-	4,421,859.985	336,674.935	MT	0.99992840	-1 13 37.7
JY1652!	-	Elev Factor x Scale Factor = Combined Factor				
JY1652!SPC OH S	-	0.99996861	x 0.99998138	=	0.99994999	
JY1652!UTM 17	-	0.99996861	x 0.99992840	=	0.99989701	

JY1652:		Primary Azimuth Mark	Grid Az
JY1652:SPC OH S	-	FRANK 44	081 15 25.7
JY1652:UTM 17	-	FRANK 44	082 13 23.7

JY1652  
 JY1652\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SLE3667421859(NAD 83)  
 JY1652

JY1652	PID	Reference Object	Distance	Geod. Az
JY1652			dddmss.s	
JY1652	JY1651	FRANK 44	411.094 METERS	0805946.0

JY1652  
 JY1652  
 JY1652 SUPERSEDED SURVEY CONTROL

JY1652	NAD 83(2007)-	39 55 51.99184(N)	082 54 41.01094(W)	AD(2002.00)	0
JY1652	ELLIP H (02/10/07)	200.174 (m)		GP(2002.00)	
JY1652	ELLIP H (10/07/05)	200.179 (m)		GP( )	4 1
JY1652	NAD 83(1995)-	39 55 51.99194(N)	082 54 41.01063(W)	AD( )	1
JY1652	ELLIP H (04/01/98)	200.192 (m)		GP( )	4 1
JY1652	NAD 83(1986)-	39 55 51.99877(N)	082 54 41.01461(W)	AD( )	1
JY1652	NGVD 29 (09/26/89)	234.4 (m)	RAPSU86 model used	GPS OBS	

JY1652  
 JY1652.Superseded values are not recommended for survey control.  
 JY1652  
 JY1652.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 JY1652.See file [dsdata.pdf](#) to determine how the superseded data were derived.  
 JY1652

JY1652\_MARKER: DD = SURVEY DISK  
 JY1652\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT  
 JY1652\_STAMPING: FRANK 44 AZ MK 1987  
 JY1652\_MARK LOGO: OH-049  
 JY1652\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
 JY1652\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
 JY1652+STABILITY: SURFACE MOTION  
 JY1652\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR  
 JY1652+SATELLITE: SATELLITE OBSERVATIONS - July 28, 2007  
 JY1652



JY1652	HISTORY	- Date	Condition	Report By
JY1652	HISTORY	- 1987	MONUMENTED	OH-049
JY1652	HISTORY	- 20070728	GOOD	GEOCAC

JY1652

JY1652

JY1652

STATION DESCRIPTION

JY1652'DESCRIBED BY FRANKLIN COUNTY OHIO 1987 (TJA)

JY1652'THE STATION IS LOCATED ABOUT 0.48 KM (0.3 MI)

JY1652'EAST OF THE JUNCTION OF INTERSTATE 70 AND JAMES ROAD AT INTERCHANGE

JY1652'105B,

JY1652'1.69 KM (1.05 MI) NORTH-NORTHEAST OF THE JUNCTION OF U.S. ROUTE 33

JY1652'AND REFUGEE ROAD,

JY1652'2.85 KM (1.77 MI) WEST-SOUTHWEST OF THE JUNCTION OF INTERSTATE 70

JY1652'AND STATE ROUTE 317 (HAMILTON ROAD), AND WITHIN THE CITY OF

JY1652'COLUMBUS.

JY1652'OWNERSHIP--U.S. FEDERAL GOVERNMENT.

JY1652'

JY1652'TO REACH THE STATION FROM THE JUNCTION OF INTERSTATE 70 AND JAMES

JY1652'ROAD AT INTERCHANGE 105B IN COLUMBUS, GO EAST FOR

JY1652'0.48 KM (0.3 MI) ON INTERSTATE 70 TO THE STATION ON THE RIGHT ABOUT

JY1652'15 METERS (50 FT) WEST FROM THE POINT OF CONCRETE MARKING THE END

JY1652'OF THE ENTRANCE RAMP TO THE INTERSTATE.

JY1652'

JY1652'THE STATION IS A FRANKLIN CO. SURVEY DISK STAMPED---FRANK 44 AZ MK

JY1652'1987---, SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 33 CM IN

JY1652'DIAMETER RECESSED 3 CM BELOW GROUND. LOCATED 19.0 METERS (62.2 FT)

JY1652'SOUTH-SOUTHEAST FROM THE SOUTHEAST CORNER OF THE CONCRETE BASE OF A

JY1652'STEEL LIGHT POLE, 37.8 METERS (124.0 FT) WEST-SOUTHWEST FROM THE

JY1652'SOUTHWEST CORNER OF THE CONCRETE BASE OF A STEEL LIGHT POLE, 1.2

JY1652'METERS (3.9 FT) NORTH-NORTHWEST FROM THE EDGE OF A FENCE POST AT AN

JY1652'ANGLE POINT IN A WIRE FENCE.

JY1652

JY1652

JY1652

STATION RECOVERY (2007)

JY1652'RECOVERY NOTE BY GEOCACHING 2007 (RLM)

JY1652'RECOVERED IN GOOD CONDITION.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = APRIL 10, 2019
JY1654 *****
JY1654 DESIGNATION -  FRANK 45 AZ MK
JY1654 PID           -  JY1654
JY1654 STATE/COUNTY-  OH/FRANKLIN
JY1654 COUNTRY       -  US
JY1654 USGS QUAD     -  SOUTHEAST COLUMBUS (1994)
JY1654
JY1654                      *CURRENT SURVEY CONTROL
JY1654
JY1654* NAD 83(2011) POSITION- 39 57 05.43719(N) 082 52 37.80627(W)  ADJUSTED
JY1654* NAD 83(2011) ELLIP HT- 204.682 (meters) (06/27/12)  ADJUSTED
JY1654* NAD 83(2011) EPOCH   - 2010.00
JY1654* NAVD 88 ORTHO HEIGHT - 238.7 (meters) 783. (feet) VERTCON
JY1654
JY1654 GEOID HEIGHT - -34.106 (meters) GEOID12B
JY1654 NAD 83(2011) X - 607,128.929 (meters) COMP
JY1654 NAD 83(2011) Y - -4,858,536.676 (meters) COMP
JY1654 NAD 83(2011) Z - 4,073,991.151 (meters) COMP
JY1654 LAPLACE CORR - -2.25 (seconds) DEFLEC12B
JY1654
JY1654 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
JY1654 Standards:
JY1654          FGDC (95% conf, cm)          Standard deviation (cm)          CorrNE
JY1654          Horiz Ellip                  SD_N   SD_E   SD_h          (unitless)
JY1654 -----
JY1654 NETWORK      3.92   2.53                1.67   1.41   1.29          0.46694735
JY1654 -----
JY1654 Click here for local accuracies and other accuracy information.
JY1654
JY1654
JY1654.The horizontal coordinates were established by GPS observations
JY1654.and adjusted by the National Geodetic Survey in June 2012.
JY1654
JY1654.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
JY1654.been affixed to the stable North American tectonic plate. See
JY1654.NA2011 for more information.
JY1654
JY1654.The horizontal coordinates are valid at the epoch date displayed above
JY1654.which is a decimal equivalence of Year/Month/Day.
JY1654
JY1654.The NAVD 88 height was computed by applying the VERTCON shift value to
JY1654.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
JY1654
JY1654.Significant digits in the geoid height do not necessarily reflect accuracy.
JY1654.GEOID12B height accuracy estimate available here.
JY1654
JY1654.Photographs are available for this station.
JY1654

```



JY1654.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 JY1654

JY1654.The Laplace correction was computed from DEFLEC12B derived deflections.  
 JY1654

JY1654.The ellipsoidal height was determined by GPS observations  
 JY1654.and is referenced to NAD 83.

JY1654

JY1654. The following values were computed from the NAD 83(2011) position.

JY1654

JY1654;		North	East	Units	Scale Factor	Converg.
JY1654;SPC OH S	-	216,716.272	567,769.947	MT	0.99998484	-0 14 21.6
JY1654;SPC OH S	-	711,009.97	1,862,758.57	sFT	0.99998484	-0 14 21.6
JY1654;UTM 17	-	4,424,062.466	339,647.095	MT	0.99991655	-1 12 20.4
JY1654!	-	Elev Factor x Scale Factor = Combined Factor				
JY1654!SPC OH S	-	0.99996789	x 0.99998484	=	0.99995273	
JY1654!UTM 17	-	0.99996789	x 0.99991655	=	0.99988444	

JY1654

JY1654:		Primary Azimuth Mark	Grid Az
JY1654:SPC OH S	-	FRANK 45	000 42 53.2
JY1654:UTM 17	-	FRANK 45	001 40 52.0

JY1654

JY1654\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SLE3964724062 (NAD 83)

JY1654

JY1654	PID	Reference Object	Distance	Geod. Az
JY1654				ddmmss.s
JY1654	JY1653	FRANK 45	428.751 METERS	0002831.6

JY1654

JY1654

SUPERSEDED SURVEY CONTROL

JY1654

JY1654	NAD 83(2007)-	39 57 05.43735(N)	082 52 37.80695(W)	AD(2002.00)	0
JY1654	ELLIP H (02/10/07)	204.733 (m)		GP(2002.00)	
JY1654	ELLIP H (10/07/05)	204.736 (m)		GP( )	4 1
JY1654	NAD 83(1995)-	39 57 05.43740(N)	082 52 37.80682(W)	AD( )	1
JY1654	ELLIP H (04/01/98)	204.754 (m)		GP( )	4 1
JY1654	NAD 83(1986)-	39 57 05.44457(N)	082 52 37.81052(W)	AD( )	1
JY1654	NGVD 29 (09/26/89)	238.9 (m)	RAPSU86 model used	GPS OBS	

JY1654

JY1654.Superseded values are not recommended for survey control.

JY1654

JY1654.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JY1654.See file [dsdata.pdf](#) to determine how the superseded data were derived.

JY1654

JY1654\_MARKER: DD = SURVEY DISK

JY1654\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JY1654\_STAMPING: FRANK 45 AZ MK 1987

JY1654\_MARK LOGO: OH-049

JY1654\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

JY1654\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JY1654+STABILITY: SURFACE MOTION

JY1654\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JY1654+SATELLITE: SATELLITE OBSERVATIONS - April 13, 2008

JY1654



JY1654	HISTORY	- Date	Condition	Report By
JY1654	HISTORY	- 1987	MONUMENTED	OH-049
JY1654	HISTORY	- 20080413	GOOD	GEOCAC

JY1654

JY1654

JY1654

STATION DESCRIPTION

JY1654'DESCRIBED BY FRANKLIN COUNTY OHIO 1987 (TJA)  
JY1654'THE STATION IS LOCATED ABOUT 0.4 KM (0.25 MI)  
JY1654'SOUTH OF THE JUNCTION OF U.S. ROUTE 40 (MAIN STREET) AND STATE  
JY1654'ROUTE 317 (HAMILTON ROAD),  
JY1654'1.93 KM (1.2 MI) NORTH OF THE JUNCTION OF INTERSTATE 70 AND STATE  
JY1654'ROUTE 317 (HAMILTON ROAD),  
JY1654'2.69 KM (1.67 MI) WEST-SOUTHWEST OF THE JUNCTION OF INTERSTATE 270  
JY1654'AND U.S. ROUTE 40 (MAIN STREET), AND WITHIN THE TOWN OF WHITEHALL.  
JY1654'OWNERSHIP--STATE OF OHIO.

JY1654'

JY1654'TO REACH THE STATION FROM THE JUNCTION OF INTERSTATE 70 AND STATE  
JY1654'ROUTE 317 (HAMILTON ROAD) AT INTERCHANGE 107 IN COLUMBUS, GO  
JY1654'NORTH FOR 1.7 KM (1.05 MI) ON STATE ROUTE 317 TO SIMPSON STREET ON  
JY1654'THE RIGHT AND THE STATION ON THE RIGHT AT THE SOUTHEAST CORNER OF  
JY1654'THE INTERSECTION AND BETWEEN A SIDEWALK AND A CURB ON SIMPSON  
JY1654'STREET.

JY1654'

JY1654'THE STATION IS A FRANKLIN CO. SURVEY DISK STAMPED---FRANK 45 AZ MK  
JY1654'1987---, SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 33 CM IN  
JY1654'DIAMETER RECESSED 3 CM BELOW GROUND. LOCATED 3.5 METERS (11.5 FT)  
JY1654'EAST FROM THE INTERSECTION OF THE NORTH EDGE OF A WALK WITH THE  
JY1654'BACK OF A CURB, 5.6 METERS (18.4 FT) NORTHEAST FROM THE CENTER OF  
JY1654'AN ALUMINUM SUPPORT POLE, 5.3 METERS (17.4 FT) NORTHWEST FROM A  
JY1654'FENCE POST AT THE NORTH END OF A NORTH-SOUTH WOOD FENCE, 1.0 METERS  
JY1654'3.3 FT) SOUTH-SOUTHEAST FROM THE SOUTH EDGE OF THE PAVING ON  
JY1654'SIMPSON STREET.

JY1654

JY1654

JY1654

STATION RECOVERY (2008)

JY1654'RECOVERY NOTE BY GEOCACHING 2008 (RLM)  
JY1654'RECOVERED IN GOOD CONDITION.





# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = APRIL 10, 2019
KZ2250 *****
KZ2250 DESIGNATION -  FRANK 86
KZ2250 PID           -  KZ2250
KZ2250 STATE/COUNTY-  OH/FRANKLIN
KZ2250 COUNTRY       -  US
KZ2250 USGS QUAD     -  GALENA (1983)
KZ2250
KZ2250                                *CURRENT SURVEY CONTROL
KZ2250
KZ2250* NAD 83(2011) POSITION- 40 07 54.42100(N) 082 58 26.22792(W)  ADJUSTED
KZ2250* NAD 83(2011) ELLIP HT- 242.248 (meters) (06/27/12)  ADJUSTED
KZ2250* NAD 83(2011) EPOCH   - 2010.00
KZ2250* NAVD 88 ORTHO HEIGHT - 276.3 (meters) 906. (feet) VERTCON
KZ2250
KZ2250 GEOID HEIGHT - -33.945 (meters) GEOID12B
KZ2250 NAD 83(2011) X - 597,349.309 (meters) COMP
KZ2250 NAD 83(2011) Y - -4,846,802.463 (meters) COMP
KZ2250 NAD 83(2011) Z - 4,089,340.193 (meters) COMP
KZ2250 LAPLACE CORR - -3.70 (seconds) DEFLEC12B
KZ2250
KZ2250 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
KZ2250 Standards:
KZ2250          FGDC (95% conf, cm)          Standard deviation (cm)          CorrNE
KZ2250          Horiz Ellip                SD_N   SD_E   SD_h          (unitless)
KZ2250 -----
KZ2250 NETWORK      2.20   2.25                1.07   0.58   1.15          0.15650034
KZ2250 -----
KZ2250 Click here for local accuracies and other accuracy information.
KZ2250
KZ2250
KZ2250.The horizontal coordinates were established by GPS observations
KZ2250.and adjusted by the National Geodetic Survey in June 2012.
KZ2250
KZ2250.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
KZ2250.been affixed to the stable North American tectonic plate. See
KZ2250.NA2011 for more information.
KZ2250
KZ2250.The horizontal coordinates are valid at the epoch date displayed above
KZ2250.which is a decimal equivalence of Year/Month/Day.
KZ2250
KZ2250.The NAVD 88 height was computed by applying the VERTCON shift value to
KZ2250.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
KZ2250
KZ2250.Significant digits in the geoid height do not necessarily reflect accuracy.
KZ2250.GEOID12B height accuracy estimate available here.
KZ2250
KZ2250.The X, Y, and Z were computed from the position and the ellipsoidal ht.
KZ2250

```



KZ2250.The Laplace correction was computed from DEFLEC12B derived deflections.  
KZ2250

KZ2250.The ellipsoidal height was determined by GPS observations  
KZ2250.and is referenced to NAD 83.

KZ2250  
KZ2250. The following values were computed from the NAD 83(2011) position.  
KZ2250

KZ2250;		North	East	Units	Scale Factor	Converg.
KZ2250;SPC OH N	-	51,760.587	559,602.619	MT	1.00007142	-0 18 40.9
KZ2250;SPC OH N	-	169,817.86	1,835,962.93	sFT	1.00007142	-0 18 40.9
KZ2250;SPC OH S	-	236,771.737	559,604.643	MT	1.00002096	-0 18 02.6
KZ2250;SPC OH S	-	776,808.61	1,835,969.57	sFT	1.00002096	-0 18 02.6
KZ2250;UTM 17	-	4,444,251.749	331,822.696	MT	0.99994819	-1 16 21.4
KZ2250!	-	Elev Factor x Scale Factor = Combined Factor				
KZ2250!SPC OH N	-	0.99996200	x	1.00007142	=	1.00003342
KZ2250!SPC OH S	-	0.99996200	x	1.00002096	=	0.99998296
KZ2250!UTM 17	-	0.99996200	x	0.99994819	=	0.99991019

KZ2250\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE3182244251 (NAD 83)  
KZ2250

KZ2250	PID	Reference Object	Distance	Geod. Az
KZ2250				ddmmss.s
KZ2250	KZ2251	FRANK 86 AZ MK	338.482 METERS	35851

KZ2250  
KZ2250  
KZ2250 SUPERSEDED SURVEY CONTROL

KZ2250	NAD 83(2007)-	40 07 54.42071(N)	082 58 26.22912(W)	AD(2002.00)	0
KZ2250	ELLIP H (02/10/07)	242.342 (m)		GP(2002.00)	
KZ2250	ELLIP H (10/07/05)	242.334 (m)		GP( )	4 1
KZ2250	NAD 83(1995)-	40 07 54.42075(N)	082 58 26.22762(W)	AD( )	1
KZ2250	ELLIP H (04/01/98)	242.258 (m)		GP( )	4 1
KZ2250	NAD 83(1986)-	40 07 54.42820(N)	082 58 26.23425(W)	AD( )	1
KZ2250	NGVD 29 (09/26/89)	276.4 (m)	RAPSU86 model used	GPS OBS	

KZ2250.Superseded values are not recommended for survey control.

KZ2250  
KZ2250.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
KZ2250.See file [dsdata.pdf](#) to determine how the superseded data were derived.  
KZ2250

KZ2250\_MARKER: F = FLANGE-ENCASED ROD  
KZ2250\_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)  
KZ2250\_SP\_SET: OBJECT DRIVEN INTO GROUND  
KZ2250\_STAMPING: FRANK 86 1987  
KZ2250\_MARK LOGO: NGS  
KZ2250\_MAGNETIC: N = NO MAGNETIC MATERIAL  
KZ2250\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
KZ2250\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
KZ2250+SATELLITE: SATELLITE OBSERVATIONS - July 04, 2016

KZ2250	HISTORY	- Date	Condition	Report By
KZ2250	HISTORY	- 1987	MONUMENTED	OH-049
KZ2250	HISTORY	- 20030801	GOOD	USPSQD



KZ2250 HISTORY - 20030802 GOOD USPSQD  
KZ2250 HISTORY - 20121210 GOOD GEOCAC  
KZ2250 HISTORY - 20160704 GOOD USPSQD

KZ2250

KZ2250

KZ2250

STATION DESCRIPTION

KZ2250'DESCRIBED BY FRANKLIN COUNTY OHIO 1987 (TJA)  
KZ2250'THE STATION IS LOCATED ABOUT 5.3 KM (3.3 MI)  
KZ2250'WEST-NORTHWEST OF WESTERVILLE,  
KZ2250'2.6 KM (1.6 MI) NORTH OF THE INTERSECTION OF INTERSTATES 270 AND 71,  
KZ2250'0.5 KM (0.3 MI) SOUTHWEST OF THE INTERSECTION OF THE  
KZ2250'WORTHINGTON-GALENA ROAD AND THE FRANKLIN COUNTY-DELAWARE COUNTY  
KZ2250'LINE.

KZ2250'OWNERSHIP--FRANKLIN COUNTY.

KZ2250'

KZ2250'TO REACH THE STATION FROM THE INTERSECTION OF ROUTE 3 (STATE  
KZ2250'STREET) AND MAIN STREET IN WESTERVILLE, GO WEST FOR  
KZ2250'1.4 KM (0.9 MI) ON MAIN STREET TO CLEVELAND AVENUE.  
KZ2250'TURN LEFT AND GO SOUTH FOR 0.08 KM (0.05 MI) ON CLEVELAND AVENUE TO  
KZ2250'WEST MAIN STREET ON THE RIGHT.

KZ2250'TURN RIGHT AND GO WEST FOR 2.1 KM (1.3 MI) ON WEST MAIN STREET TO  
KZ2250'THE INTERSTATE 71 OVERPASS.

KZ2250'CONTINUE STRAIGHT AHEAD AND GO WEST FOR 0.6 KM (0.4 MI) ON WEST  
KZ2250'MAIN STREET (PARK ROAD) TO THE WORTHINGTON-GALENA ROAD.

KZ2250'TURN RIGHT AND GO NORTHEAST FOR 0.9 KM (0.55 MI) ON THE  
KZ2250'WORTHINGTON-GALENA ROAD TO THE STATION ON THE LEFT ON THE SOUTH  
KZ2250'SIDE OF THE DRIVEWAY ENTRANCE TO THE GRACE BROTHERS CHURCH AND NEAR  
KZ2250'THE CHURCH MAILBOX.

KZ2250'

KZ2250'THE STATION IS A STANDARD NGS THREE DIMENSIONAL MARK. THE LOGO  
KZ2250'FLANGE WITH ACCESS COVER IS STAMPED---FRANK 86 1987---, AND IS  
KZ2250'RECESSED 3 CM BELOW GROUND. THE STATION IS A 9/16 INCH DIAMETER  
KZ2250'STAINLESS STEEL ROD DRIVEN TO THE DEPTH OF 4.9 METERS (16 FT) AND IS  
KZ2250'RECESSED 13 CM BELOW GROUND. LOCATED 6.2 METERS (20.3 FT)  
KZ2250'SOUTH-SOUTHEAST FROM THE SOUTHEAST CORNER OF A CONCRETE HEADWALL ON  
KZ2250'THE SOUTH SIDE OF THE CHURCH DRIVEWAY, 21.2 METERS (69.7 FT)  
KZ2250'SOUTH-SOUTHWEST FROM THE SOUTHEAST CORNER OF A CONCRETE HEADWALL ON  
KZ2250'THE NORTH SIDE OF THE CHURCH DRIVEWAY, 3.6 METERS (11.9 FT)  
KZ2250'WEST-NORTHWEST FROM THE CENTER OF THE TOP OF THE SOUTH END OF THE  
KZ2250'CONCRETE PIPE UNDER THE DRIVEWAY, 12.5 METERS (41.0 FT)  
KZ2250'SOUTH-SOUTHWEST FROM THE CENTERLINE OF THE CHURCH DRIVEWAY, 0.6  
KZ2250'METERS (2 FT) SOUTH FROM A FRANKLIN COUNTY ENGINEER WITNESS POST.

KZ2250

KZ2250

STATION RECOVERY (2003)

KZ2250

KZ2250'RECOVERY NOTE BY US POWER SQUADRON 2003 (KEN)  
KZ2250'RECOVERED IN GOOD CONDITION.

KZ2250

KZ2250

STATION RECOVERY (2003)

KZ2250

KZ2250'RECOVERY NOTE BY US POWER SQUADRON 2003 (KEN)  
KZ2250'RECOVERED IN GOOD CONDITION.

KZ2250

KZ2250

STATION RECOVERY (2012)

KZ2250



KZ2250'RECOVERY NOTE BY GEOCACHING 2012 (DEB)  
KZ2250'RECOVERED IN GOOD CONDITION.  
KZ2250  
KZ2250 STATION RECOVERY (2016)  
KZ2250  
KZ2250'RECOVERY NOTE BY US POWER SQUADRON 2016 (JTH)  
KZ2250'RECOVERED IN GOOD CONDITION.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.2

1 National Geodetic Survey, Retrieval Date = MARCH 25, 2019

JY0789 \*\*\*\*\*

JY0789 DESIGNATION - **G 192**

JY0789 PID - JY0789

JY0789 STATE/COUNTY- OH/FRANKLIN

JY0789 COUNTRY - US

JY0789 USGS QUAD - SOUTHEAST COLUMBUS (1994)

JY0789

JY0789 \*CURRENT SURVEY CONTROL

JY0789

JY0789\* NAD 83(1986) POSITION- 39 55 46.1 (N) 082 54 46.4 (W) HD\_HELD2

JY0789\* [NAVD 88](#) ORTHO HEIGHT - 234.045 (meters) 767.86 (feet) ADJUSTED

JY0789

JY0789 GEOID HEIGHT - -34.070 (meters) GEOID12B

JY0789 DYNAMIC HEIGHT - 233.913 (meters) 767.43 (feet) COMP

JY0789 MODELED GRAVITY - 980,055.6 (mgal) NAVD 88

JY0789

JY0789 VERT ORDER - FIRST CLASS II

JY0789

JY0789.The horizontal coordinates were established by autonomous hand held GPS

JY0789.observations and have an estimated accuracy of +/- 10 meters.

JY0789.

JY0789.The orthometric height was determined by differential leveling and

JY0789.adjusted by the NATIONAL GEODETIC SURVEY

JY0789.in June 1991.

JY0789

JY0789.Significant digits in the geoid height do not necessarily reflect accuracy.

JY0789.GEOID12B height accuracy estimate available [here](#).

JY0789

JY0789.[Photographs](#) are available for this station.

JY0789

JY0789.The dynamic height is computed by dividing the NAVD 88

JY0789.geopotential number by the normal gravity value computed on the

JY0789.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

JY0789.degrees latitude (g = 980.6199 gals.).

JY0789

JY0789.The modeled gravity was interpolated from observed gravity values.

JY0789

JY0789; North East Units Estimated Accuracy

JY0789;SPC OH S - 214,283. 564,706. MT (+/- 10 meters HH2 GPS)

JY0789

JY0789\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SLE3654321681(NAD 83)

JY0789

JY0789 SUPERSEDED SURVEY CONTROL

JY0789

JY0789 NGVD 29 (??/??/92) 234.229 (m) 768.47 (f) ADJ UNCH 1 2

JY0789

JY0789.Superseded values are not recommended for survey control.

JY0789



JY0789.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
JY0789.See file [dsdata.pdf](#) to determine how the superseded data were derived.

JY0789

JY0789\_MARKER: DB = BENCH MARK DISK

JY0789\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JY0789\_STAMPING: G 192 1954

JY0789\_MARK LOGO: CGS

JY0789\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JY0789+STABILITY: SURFACE MOTION

JY0789\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JY0789+SATELLITE: SATELLITE OBSERVATIONS - July 28, 2007

JY0789

JY0789	HISTORY	- Date	Condition	Report By
JY0789	HISTORY	- 1954	MONUMENTED	CGS
JY0789	HISTORY	- 20070728	GOOD	GEOCAC

JY0789

JY0789 STATION DESCRIPTION

JY0789

JY0789'DESCRIBED BY COAST AND GEODETIC SURVEY 1954

JY0789'4 MI NE FROM VALLEY CROSSING.

JY0789'2.2 MILES NORTH ALONG THE NOROFLK AND WESTERN RAILWAY FROM THE

JY0789'CROSSING OF WILLIAMS ROAD AT VALLEY CROSSING, THENCE ABOUT 1.85

JY0789'MILES EAST ALONG THE NEW YORK CENTRAL RAILROAD, AT THE CROSSING

JY0789'OF PETZINGER ROAD (EAST-WEST), PETZINGER ROAD AT CENTER OF CROSSING

JY0789'OF NEAR TRACK, 27 FEET SOUTHEAST OF A TELEPHONE POLE, 39 FEET

JY0789'EAST OF TELEPHONE POLE NO. 139/24, 1 1/2 FEET NORTHWEST OF A

JY0789'FENCE LINE, 2 FEET NORTHEAST OF A WHITE WOODEN WITNESS POST, ABOUT

JY0789'2 1/2 FEET BELOW LEVEL OF TRACK AND SET IN THE TOP OF A CONCRETE

JY0789'POST PROJECTING 4 INCHES.

JY0789

JY0789 STATION RECOVERY (2007)

JY0789

JY0789'RECOVERY NOTE BY GEOCACHING 2007 (RLM)

JY0789'ADD TO DESCRIPTION, THE MARK IS 48.0 FEET SOUTH OF THE SOUTH RAIL OF

JY0789'THE RAILROAD, 48.0 FEET SOUTH OF THE CENTERLINE OF PETZINGER ROAD, AND

JY0789'13.3 FEET WEST OF THE CENTERLINE OF A DRIVEWAY LEADING SOUTH. THE

JY0789'CONCRETE POST IS NOW FLUSH WITH THE GROUND.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.2

1 National Geodetic Survey, Retrieval Date = APRIL 6, 2019

KZ1453 \*\*\*\*\*

KZ1453 DESIGNATION - **H 295**

KZ1453 PID - KZ1453

KZ1453 STATE/COUNTY- OH/MARION

KZ1453 COUNTRY - US

KZ1453 USGS QUAD - NEW BLOOMINGTON (1984)

KZ1453

KZ1453 \*CURRENT SURVEY CONTROL

KZ1453

KZ1453*	NAD 83(1986) POSITION-	40 35 59.	(N)	083 16 44.	(W)	SCALED
KZ1453*	<a href="#">NAVD 88</a> ORTHO HEIGHT -	289.105 (meters)		948.51 (feet)		ADJUSTED

KZ1453

KZ1453 GEOID HEIGHT - -34.684 (meters) GEOID12B

KZ1453 DYNAMIC HEIGHT - 288.957 (meters) 948.02 (feet) COMP

KZ1453 MODELED GRAVITY - 980,105.9 (mgal) NAVD 88

KZ1453

KZ1453 VERT ORDER - SECOND CLASS 0

KZ1453

KZ1453.The horizontal coordinates were scaled from a topographic map and have KZ1453.an estimated accuracy of +/- 6 seconds.

KZ1453.

KZ1453.The orthometric height was determined by differential leveling and KZ1453.adjusted by the NATIONAL GEODETIC SURVEY

KZ1453.in June 1991.

KZ1453

KZ1453.Significant digits in the geoid height do not necessarily reflect accuracy. KZ1453.GEOID12B height accuracy estimate available [here](#).

KZ1453

KZ1453.The dynamic height is computed by dividing the NAVD 88 KZ1453.geopotential number by the normal gravity value computed on the KZ1453.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45 KZ1453.degrees latitude (g = 980.6199 gals.).

KZ1453

KZ1453.The modeled gravity was interpolated from observed gravity values.

KZ1453

KZ1453;	North	East	Units	Estimated Accuracy
KZ1453;SPC OH N -	103,910.	534,080.	MT	(+/- 180 meters Scaled)

KZ1453

KZ1453\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE071968(NAD 83)

KZ1453

KZ1453 SUPERSEDED SURVEY CONTROL

KZ1453

KZ1453 NGVD 29 (??/??/92) 289.247 (m) 948.97 (f) ADJ UNCH 2 0

KZ1453

KZ1453.Superseded values are not recommended for survey control.

KZ1453

KZ1453.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

KZ1453.See file [dsdata.pdf](#) to determine how the superseded data were derived.



KZ1453

KZ1453\_MARKER: DB = BENCH MARK DISK

KZ1453\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

KZ1453\_STAMPING: H 295 1960

KZ1453\_MARK LOGO: CGS

KZ1453\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

KZ1453+STABILITY: SURFACE MOTION

KZ1453

KZ1453	HISTORY	- Date	Condition	Report By
--------	---------	--------	-----------	-----------

KZ1453	HISTORY	- 1960	MONUMENTED	CGS
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KZ1453

KZ1453 STATION DESCRIPTION

KZ1453

KZ1453'DESCRIBED BY COAST AND GEODETIC SURVEY 1960

KZ1453'1.2 MI W FROM ESPYVILLE.

KZ1453'ABOUT 1.25 MILES WEST ALONG THE ERIE RAILROAD FROM THE CROSSING

KZ1453'OF ROAD 84 AT ESPYVILLE, 0.25 MILE WEST OF MILEPOST M 7, ACROSS

KZ1453'THE TRACK FROM AND BETWEEN MILEAGE POLES 7+10 AND 7+11, AT THE

KZ1453'CROSSING OF ROAD 60 (SCHABER ROAD) LEADING NORTH-SOUTH, 36 FEET

KZ1453'EAST OF THE CENTER LINE OF THE ROAD, 47 FEET SOUTH OF THE SOUTH

KZ1453'RAIL OF THE SOUTH TRACK, 1 FOOT NORTH OF A WIRE FENCE, 16

KZ1453'FEET EAST OF A FENCE CORNER, 33 1/2 FEET NORTH-NORTHEAST OF

KZ1453'POWER LINE POLE NO. 1038-49, ABOUT 4 1/2 FEET BELOW THE LEVEL

KZ1453'OF THE TRACK, AND SET IN TOP OF A CONCRETE POST PROJECTING

KZ1453'3 INCHES.





# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.2

1 National Geodetic Survey, Retrieval Date = MAY 1, 2019

KZ1580 \*\*\*\*\*

KZ1580 DESIGNATION - **H 310**

KZ1580 PID - KZ1580

KZ1580 STATE/COUNTY- OH/DELAWARE

KZ1580 COUNTRY - US

KZ1580 USGS QUAD - POWELL (1988)

KZ1580

KZ1580 \*CURRENT SURVEY CONTROL

KZ1580

KZ1580\* NAD 83(1986) POSITION- 40 12 46. (N) 083 00 39. (W) SCALED

KZ1580\* [NAVD 88](#) ORTHO HEIGHT - 286.546 (meters) 940.11 (feet) ADJUSTED

KZ1580

KZ1580 GEOID HEIGHT - -33.933 (meters) GEOID12B

KZ1580 DYNAMIC HEIGHT - 286.395 (meters) 939.61 (feet) COMP

KZ1580 MODELED GRAVITY - 980,092.1 (mgal) NAVD 88

KZ1580

KZ1580 VERT ORDER - FIRST CLASS I

KZ1580

KZ1580.The horizontal coordinates were scaled from a topographic map and have

KZ1580.an estimated accuracy of +/- 6 seconds.

KZ1580.

KZ1580.The orthometric height was determined by differential leveling and

KZ1580.adjusted by the NATIONAL GEODETIC SURVEY

KZ1580.in June 1991.

KZ1580

KZ1580.Significant digits in the geoid height do not necessarily reflect accuracy.

KZ1580.GEOID12B height accuracy estimate available [here](#).

KZ1580

KZ1580.[Photographs](#) are available for this station.

KZ1580

KZ1580.The dynamic height is computed by dividing the NAVD 88

KZ1580.geopotential number by the normal gravity value computed on the

KZ1580.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

KZ1580.degrees latitude (g = 980.6199 gals.).

KZ1580

KZ1580.The modeled gravity was interpolated from observed gravity values.

KZ1580

KZ1580; North East Units Estimated Accuracy

KZ1580;SPC OH N - 60,770. 556,510. MT (+/- 180 meters Scaled)

KZ1580

KZ1580\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE288533(NAD 83)

KZ1580

KZ1580 SUPERSEDED SURVEY CONTROL

KZ1580

KZ1580 NGVD 29 (??/??/92) 286.701 (m) 940.62 (f) ADJ UNCH 1 1

KZ1580

KZ1580.Superseded values are not recommended for survey control.

KZ1580



KZ1580.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
KZ1580.See file [dsdata.pdf](#) to determine how the superseded data were derived.

KZ1580

KZ1580\_MARKER: DB = BENCH MARK DISK

KZ1580\_SETTING: 46 = COPPER-CLAD STEEL ROD W/O SLEEVE (10 FT.+)

KZ1580\_STAMPING: H 310 1967

KZ1580\_MARK LOGO: CGS

KZ1580\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

KZ1580\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

KZ1580+SATELLITE: SATELLITE OBSERVATIONS - October 26, 2010

KZ1580

KZ1580	HISTORY	- Date	Condition	Report By
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KZ1580	HISTORY	- 1967	MONUMENTED	CGS
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KZ1580	HISTORY	- 20101026	GOOD	INDIV
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KZ1580

KZ1580 STATION DESCRIPTION

KZ1580

KZ1580'DESCRIBED BY COAST AND GEODETIC SURVEY 1967

KZ1580'7.7 MI SE FROM DELAWARE.

KZ1580'ABOUT 2.6 MILES EAST ALONG U.S. HIGHWAY 36 FROM THE CITY HALL

KZ1580'AT DELAWARE, THENCE 5.1 MILES SOUTH ALONG THE NEW YORK CENTRAL

KZ1580'RAILROAD, ABOUT 0.3 MILE SOUTH OF MILEPOST 121, 65 FEET SOUTHEAST

KZ1580'OF THE CROSSING OF TOWNSHIP ROAD NO. 100, 46 FEET EAST OF THE EAST

KZ1580'RAIL, 39 FEET SOUTH OF THE CENTER LINE OF THE ROAD, 24 1/2 FEET

KZ1580'SOUTHWEST OF A MARKER POST FOR A PIPE LINE, 1 FOOT WEST OF A FENCE

KZ1580'LINE, 1.4 FEET NORTH OF A METAL WITNESS POST, 10 FEET BELOW

KZ1580'THE LEVEL OF THE TRACK AND IS A DISK ON THE TOP OF A COPPER COATED

KZ1580'STEEL ROD PROJECTING 2 INCHES ABOVE THE LEVEL OF THE GROUND AND

KZ1580'PROTECTED BY A 6 INCH METAL PIPE WHICH PROJECTS 6 INCHES ABOVE

KZ1580'THE LEVEL OF THE GROUND. THE ROD WAS DRIVEN TO A DEPTH OF 24 FEET.

KZ1580'NOTE-- MARK MAY BE REACHED BY GOING 8.6 MILES NORTH ALONG THE

KZ1580'NEW YORK CENTRAL RAILROAD FROM THE CROSSING OF STATE HIGHWAY 161

KZ1580'AT WORTHINGTON.

KZ1580

KZ1580 STATION RECOVERY (2010)

KZ1580

KZ1580'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2010 (TJ)

KZ1580'PREVIOUS DESCRIPTION WAS ADEQUATE FOR FINDING MONUMENT



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.5.3
1      National Geodetic Survey,  Retrieval Date = JULY 18, 2019
KZ1746 *****
KZ1746 DESIGNATION -  HOOVER
KZ1746 PID           -  KZ1746
KZ1746 STATE/COUNTY-  OH/FRANKLIN
KZ1746 COUNTRY       -  US
KZ1746 USGS QUAD     -  NORTHEAST COLUMBUS (1982)
KZ1746
KZ1746                      *CURRENT SURVEY CONTROL
KZ1746
KZ1746* NAD 83(2011) POSITION- 40 06 28.94576(N) 082 52 39.24393(W) ADJUSTED
KZ1746* NAD 83(2011) ELLIP HT- 246.405 (meters) (06/27/12) ADJUSTED
KZ1746* NAD 83(2011) EPOCH   - 2010.00
KZ1746* NAVD 88 ORTHO HEIGHT - 280.8 (meters) 921. (feet) VERTCON
KZ1746
KZ1746 GEOID HEIGHT   - -34.058 (meters) GEOID12B
KZ1746 NAD 83(2011) X   - 605,712.919 (meters) COMP
KZ1746 NAD 83(2011) Y   - -4,847,479.684 (meters) COMP
KZ1746 NAD 83(2011) Z   - 4,087,326.774 (meters) COMP
KZ1746 LAPLACE CORR    - -0.97 (seconds) DEFLEC12B
KZ1746
KZ1746 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
KZ1746 Standards:
KZ1746          FGDC (95% conf, cm)          Standard deviation (cm)          CorrNE
KZ1746          Horiz Ellip                   SD_N   SD_E   SD_h          (unitless)
KZ1746 -----
KZ1746 NETWORK      4.20   6.61                   2.08   0.90   3.37          0.16471589
KZ1746 -----
KZ1746 Click here for local accuracies and other accuracy information.
KZ1746
KZ1746
KZ1746.The horizontal coordinates were established by GPS observations
KZ1746.and adjusted by the National Geodetic Survey in June 2012.
KZ1746
KZ1746.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
KZ1746.been affixed to the stable North American tectonic plate. See
KZ1746.NA2011 for more information.
KZ1746
KZ1746.The horizontal coordinates are valid at the epoch date displayed above
KZ1746.which is a decimal equivalence of Year/Month/Day.
KZ1746
KZ1746.The NAVD 88 height was computed by applying the VERTCON shift value to
KZ1746.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
KZ1746
KZ1746.Significant digits in the geoid height do not necessarily reflect accuracy.
KZ1746.GEOID12B height accuracy estimate available here.
KZ1746
KZ1746.The X, Y, and Z were computed from the position and the ellipsoidal ht.
KZ1746

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KZ1746.The Laplace correction was computed from DEFLEC12B derived deflections.  
KZ1746

KZ1746.The ellipsoidal height was determined by GPS observations  
KZ1746.and is referenced to NAD 83.

KZ1746  
KZ1746. The following values were computed from the NAD 83(2011) position.  
KZ1746

KZ1746;		North	East	Units	Scale	Factor	Converg.
KZ1746;SPC OH S	-	234,096.614	567,808.495	MT	1.00001564	-0 14	22.5
KZ1746;SPC OH S	-	768,031.97	1,862,885.04	sFT	1.00001564	-0 14	22.5
KZ1746;UTM 17	-	4,441,438.219	339,979.325	MT	0.99991523	-1 12	35.4
KZ1746!	-	Elev Factor	x	Scale Factor	=	Combined Factor	
KZ1746!SPC OH S	-	0.99996135	x	1.00001564	=	0.99997699	
KZ1746!UTM 17	-	0.99996135	x	0.99991523	=	0.99987658	

KZ1746\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE3997941438 (NAD 83)

SUPERSEDED SURVEY CONTROL

KZ1746	NAD 83(2007)-	40 06 28.94515(N)	082 52 39.24491(W)	AD(2002.00)	0
KZ1746	ELLIP H (02/10/07)	246.484 (m)		GP(2002.00)	
KZ1746	ELLIP H (10/07/05)	246.467 (m)		GP( )	4 1
KZ1746	NAD 83(1995)-	40 06 28.94571(N)	082 52 39.24381(W)	AD( )	1
KZ1746	ELLIP H (04/01/98)	246.413 (m)		GP( )	4 1
KZ1746	NAD 83(1986)-	40 06 28.95317(N)	082 52 39.24969(W)	AD( )	1
KZ1746	NAD 83(1986)-	40 06 28.95314(N)	082 52 39.24985(W)	AD( )	1
KZ1746	NGVD 29 (09/26/89)	281.0 (m)	RAPSU86 model used	GPS OBS	
KZ1746	NGVD 29 (07/20/87)	280.6 (m)	RAPOU78 model used	GPS OBS	

KZ1746.Superseded values are not recommended for survey control.

KZ1746.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
KZ1746.See file [dsdata.pdf](#) to determine how the superseded data were derived.

KZ1746\_MARKER: DD = SURVEY DISK  
KZ1746\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT  
KZ1746\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
KZ1746\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
KZ1746+STABILITY: SURFACE MOTION  
KZ1746\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
KZ1746+SATELLITE: SATELLITE OBSERVATIONS - February 23, 2007

KZ1746	HISTORY	-	Date	Condition	Report By
KZ1746	HISTORY	-	1983	MONUMENTED	OH-049
KZ1746	HISTORY	-	1987	GOOD	AEROS
KZ1746	HISTORY	-	20070223	GOOD	WOOLPT

STATION DESCRIPTION

KZ1746'DESCRIBED BY AERO SERVICE CORPORATION 1987 (TJA)  
KZ1746'THE STATION IS LOCATED ABOUT 2.7 KM (1.7 MI)  
KZ1746'EAST OF WESTERVILLE, IN HOOVER DAM PARK NEAR THE EAST END OF THE DAM,  
KZ1746'3.78 KM (2.35 MI) NORTHEAST OF THE JUNCTION OF INTERSTATE 270 AND  
KZ1746'STATE ROUTE 161 AT INTERCHANGE 30,



KZ1746'4.05 KM (2.52 MI) EAST-NORTHEAST OF THE JUNCTION OF INTERSTATE 270  
KZ1746'AND STATE ROUTE 3 AT INTERCHANGE 29.  
KZ1746'OWNERSHIP--CITY OF COLUMBUS.  
KZ1746'  
KZ1746'TO REACH THE STATION FROM THE INTERSECTION OF CENTRAL COLLEGE ROAD  
KZ1746'AND SUNBURY ROAD LOCATED JUST SOUTH OF HOOVER DAM PARK, GO  
KZ1746'EASTERLY FOR 0.6 KM (0.4 MI) ON CENTRAL COLLEGE ROAD TO THE PAVED  
KZ1746'ENTRANCE ROAD LEFT OF HOOVER DAM PARK.  
KZ1746'TURN LEFT AND GO NORTHERLY FOR 0.2 KM (0.12 MI) ON THE PAVED ROAD TO  
KZ1746'A (Y) INTERSECTION.  
KZ1746'TURN RIGHT AND GO NORTHERLY FOR 0.5 KM (0.3 MI) ON A PAVED ROAD TO  
KZ1746'THE DAM AND THE STATION ON THE LEFT ON TOP OF A GRASSY KNOLL JUST  
KZ1746'SOUTH OF A PAVED PARKING AREA AT THE EAST END OF THE DAM.  
KZ1746'  
KZ1746'THE STATION IS A FRANKLIN CO. SURVEY DISK STAMPED---HOOVER 1983---,  
KZ1746'SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 30 CM IN DIAMETER  
KZ1746'FLUSH WITH GROUND. LOCATED 30.4 METERS (99.6 FT) EAST-NORTHEAST  
KZ1746'FROM THE NORTHEAST CORNER OF THE BASE OF A HOOVER DAM PLAQUE, 10.9  
KZ1746'METERS (35.9 FT) SOUTHWEST FROM THE SOUTHWEST CORNER OF A BLACKTOP  
KZ1746'PARKING LOT, 17.3 METERS (56.9 FT) NORTHWEST FROM THE NORTHWEST EDGE  
KZ1746'OF A SIX INCH DIAMETER PINE TREE.  
KZ1746'THE UNDERGROUND MARK IS A FRANKLIN CO. SURVEY DISK STAMPED---HOOVER  
KZ1746'1983---, SET IN AN IRREGULAR MASS OF CONCRETE 0.91 METERS BELOW  
KZ1746'THE SURFACE.  
KZ1746'  
KZ1746'  
KZ1746' STATION RECOVERY (2007)  
KZ1746'  
KZ1746'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2007 (DMH)  
KZ1746'RECOVERED IN GOOD CONDITION.

\*\*\* retrieval complete.  
Elapsed Time = 00:00:05



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = APRIL  4, 2019
KZ0860 *****
KZ0860 CBN          - This is a Cooperative Base Network Control Station.
KZ0860 DESIGNATION - LEONARD
KZ0860 PID          - KZ0860
KZ0860 STATE/COUNTY- OH/DELAWARE
KZ0860 COUNTRY      - US
KZ0860 USGS QUAD    - KILBOURNE (1983)
KZ0860
KZ0860                                *CURRENT SURVEY CONTROL
KZ0860
KZ0860* NAD 83(2011) POSITION- 40 21 21.39215(N) 082 59 25.57359(W) ADJUSTED
KZ0860* NAD 83(2011) ELLIP HT- 266.611 (meters) (06/27/12) ADJUSTED
KZ0860* NAD 83(2011) EPOCH   - 2010.00
KZ0860* NAVD 88 ORTHO HEIGHT - 300.671 (meters) 986.45 (feet) ADJUSTED
KZ0860
KZ0860 GEOID HEIGHT - -34.081 (meters) GEOID12B
KZ0860 NAD 83(2011) X - 593,994.619 (meters) COMP
KZ0860 NAD 83(2011) Y - -4,831,031.880 (meters) COMP
KZ0860 NAD 83(2011) Z - 4,108,355.583 (meters) COMP
KZ0860 LAPLACE CORR - -0.53 (seconds) DEFLEC12B
KZ0860 DYNAMIC HEIGHT - 300.515 (meters) 985.94 (feet) COMP
KZ0860 MODELED GRAVITY - 980,097.4 (mgal) NAVD 88
KZ0860
KZ0860 VERT ORDER - FIRST CLASS I
KZ0860
KZ0860 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
KZ0860 Standards:
KZ0860      FGDC (95% conf, cm)      Standard deviation (cm)      CorrNE
KZ0860      Horiz Ellip              SD_N   SD_E   SD_h      (unitless)
KZ0860 -----
KZ0860 NETWORK      1.18   2.29              0.55   0.39   1.17      -0.02008075
KZ0860 -----
KZ0860 Click here for local accuracies and other accuracy information.
KZ0860
KZ0860
KZ0860.The horizontal coordinates were established by GPS observations
KZ0860.and adjusted by the National Geodetic Survey in June 2012.
KZ0860
KZ0860.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
KZ0860.been affixed to the stable North American tectonic plate. See
KZ0860.NA2011 for more information.
KZ0860
KZ0860.The horizontal coordinates are valid at the epoch date displayed above
KZ0860.which is a decimal equivalence of Year/Month/Day.
KZ0860
KZ0860.The orthometric height was determined by differential leveling and
KZ0860.adjusted by the NATIONAL GEODETIC SURVEY
KZ0860.in June 1991.

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KZ0860  
 KZ0860.Significant digits in the geoid height do not necessarily reflect accuracy.  
 KZ0860.GEOID12B height accuracy estimate available [here](#).  
 KZ0860  
 KZ0860.[Photographs](#) are available for this station.  
 KZ0860  
 KZ0860.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 KZ0860  
 KZ0860.The Laplace correction was computed from DEFLEC12B derived deflections.  
 KZ0860  
 KZ0860.The ellipsoidal height was determined by GPS observations  
 KZ0860.and is referenced to NAD 83.  
 KZ0860  
 KZ0860.The dynamic height is computed by dividing the NAVD 88  
 KZ0860.geopotential number by the normal gravity value computed on the  
 KZ0860.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
 KZ0860.degrees latitude (g = 980.6199 gals.).  
 KZ0860  
 KZ0860.The modeled gravity was interpolated from observed gravity values.  
 KZ0860  
 KZ0860. The following values were computed from the NAD 83(2011) position.  
 KZ0860  
 KZ0860;  

	North	East	Units	Scale	Factor	Converg.
KZ0860;SPC OH N	- 76,659.440	558,337.512	MT	1.00001573	-0 19 19.9	
KZ0860;SPC OH N	- 251,506.85	1,831,812.32	sFT	1.00001573	-0 19 19.9	
KZ0860;UTM 17	- 4,469,166.062	330,976.796	MT	0.99995168	-1 17 21.1	

	Elev Factor	x	Scale Factor	=	Combined Factor
KZ0860!SPC OH N	- 0.99995818	x	1.00001573	=	0.99997391
KZ0860!UTM 17	- 0.99995818	x	0.99995168	=	0.99990986

	Primary Azimuth Mark	Grid Az
KZ0860:SPC OH N	- LEONARD AZ MK	202 15 37.9
KZ0860:UTM 17	- LEONARD AZ MK	203 13 39.1

  
 KZ0860\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE3097669166(NAD 83)  
 KZ0860

PID	Reference Object	Distance	Geod. Az
			dddmss.s
KZ0859	LEONARD RM 1	44.608 METERS	08529
KZ0861	LEONARD RM 2	295.288 METERS	19854
KZ0862	LEONARD AZ MK		2015618.0
KZ2024	DELAWARE CLAY PRODUCTS STACK	APPROX. 8.8 KM	2160452.7
KZ2023	DELAWARE DEPT HIGHWAYS STACK	APPROX. 8.3 KM	2165502.8
KZ2025	DELAWARE S OHIO ELEC CO STACK	APPROX. 9.4 KM	2232934.9
KZ2022	DELAWARE WESLEYAN U CHAPEL	APPROX. 9.2 KM	2244224.4
KZ2026	DELAWARE ST MARYS CATH CHURCH	APPROX. 9.0 KM	2244358.5
KZ2021	DELAWARE ST PAULS ME CHURCH	APPROX. 9.5 KM	2253830.2
KZ2020	DELAWARE WESLEYAN U STACK	APPROX. 9.6 KM	2304357.5

KZ0860  
 KZ0860  
 KZ0860  
 KZ0860  
 KZ0860 SUPERSEDED SURVEY CONTROL  
 KZ0860  
 KZ0860 NAD 83(2007)- 40 21 21.39179(N) 082 59 25.57433(W) AD(2002.00) 0



KZ0860 ELLIP H (02/10/07) 266.641 (m) GP(2002.00)  
 KZ0860 ELLIP H (03/08/05) 266.623 (m) GP( ) 4 2  
 KZ0860 NAD 83(1995)- 40 21 21.39239(N) 082 59 25.57405(W) AD( ) B  
 KZ0860 ELLIP H (08/20/96) 266.641 (m) GP( ) 4 2  
 KZ0860 NAD 83(1986)- 40 21 21.39948(N) 082 59 25.58261(W) AD( ) 1  
 KZ0860 NAD 27 - 40 21 21.17800(N) 082 59 25.91900(W) AD( ) 1  
 KZ0860 NAVD 88 300.67 (m) 986.4 (f) LEVELING 3  
 KZ0860 NGVD 29 (??/??/92) 300.833 (m) 986.98 (f) ADJ UNCH 1 1  
 KZ0860 NGVD 29 300.83 (m) 987.0 (f) LEVELING 3

KZ0860.Superseded values are not recommended for survey control.

KZ0860

KZ0860.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

KZ0860.See file [dsdata.pdf](#) to determine how the superseded data were derived.

KZ0860

KZ0860\_MARKER: DS = TRIANGULATION STATION DISK

KZ0860\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

KZ0860\_STAMPING: LEONARD 1928

KZ0860\_MARK LOGO: CGS

KZ0860\_MAGNETIC: N = NO MAGNETIC MATERIAL

KZ0860\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

KZ0860+STABILITY: SURFACE MOTION

KZ0860\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR

KZ0860+SATELLITE: SATELLITE OBSERVATIONS - January 01, 2010

KZ0860

HISTORY	- Date	Condition	Report By
KZ0860 HISTORY	- 1928	MONUMENTED	CGS
KZ0860 HISTORY	- 1933	GOOD	CGS
KZ0860 HISTORY	- 1933	GOOD	CGS
KZ0860 HISTORY	- 1934	GOOD	CGS
KZ0860 HISTORY	- 1967	GOOD	CGS
KZ0860 HISTORY	- 1967	GOOD	CGS
KZ0860 HISTORY	- 19901108	GOOD	WOOLPT
KZ0860 HISTORY	- 19910213	GOOD	
KZ0860 HISTORY	- 19951112	GOOD	NGS
KZ0860 HISTORY	- 20050212	GOOD	USPSQD
KZ0860 HISTORY	- 20100101	GOOD	GEOCAC

KZ0860

STATION DESCRIPTION

KZ0860

KZ0860'DESCRIBED BY COAST AND GEODETIC SURVEY 1928 (WM)

KZ0860'ON TOWNSHIP PROPERTY

KZ0860'ON THE HIGHEST

KZ0860'POINT OF LAND IN THE SOUTHERN PART OF

KZ0860'LEONARDSBURG. THE STATION IS

KZ0860'ABOUT 100 YARDS SOUTH OF HIGHWAY

KZ0860'ON STREET IMMEDIATELY WEST OF THE LOCAL STORE.

KZ0860'

KZ0860'A 105-FOOT STEEL TOWER USED.

KZ0860'

KZ0860'REFERENCE MARKS IN FENCE CORNERS ALONG RAILROAD RIGHT-OF-WAY

KZ0860'FENCE.

KZ0860'

KZ0860'SURFACE, UNDERGROUND AND REFERENCE MARKS ARE STANDARD BRONZE

KZ0860'DISKS SET IN CONCRETE.





KZ0860  
KZ0860 STATION RECOVERY (1933)  
KZ0860  
KZ0860'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1933 (JSB)  
KZ0860'ABOUT 6.8 MILES NORTHEAST OF DELAWARE, IN THE SOUTH PART OF THE  
KZ0860'VILLAGE OF  
KZ0860'LEONARDSBURG, 32 PACES WEST OF CENTERLINE OF U. S. HIGHWAY  
KZ0860'42. STATION MARK IS  
KZ0860'A STANDARD TABLET SET IN A 12-INCH  
KZ0860'BLOCK OF CONCRETE PROJECTING 4 INCHES  
KZ0860'ABOVE THE SURFACE.  
KZ0860'  
KZ0860'REFERENCE MARK NO. 1 IS ACROSS THE HIGHWAY TO THE EAST IN  
KZ0860'THE RIGHT-OF-WAY  
KZ0860'FENCE LINE. IT BEARS 37 DEG MAGNETIC AND IS 40  
KZ0860'METERS FROM THE STATION.  
KZ0860'  
KZ0860'REFERENCE MARK NO. 2 IS ON THE EAST SIDE OF HIGHWAY IN  
KZ0860'RIGHT-OF-WAY FENCE  
KZ0860'LINE. IT BEARS 150 DEG MAGNETIC AND IS 295  
KZ0860'METERS DISTANT. BOTH REFERENCE MARKS  
KZ0860'ARE STANDARD TABLETS SET  
KZ0860'IN 12-INCH CONCRETE BLOCKS PROJECTING 8 INCHES ABOVE THE  
KZ0860'SURFACE. TO  
KZ0860'REACH FOLLOW U. S. HIGHWAY 42 TO LEONARDSBURG, 6.8 MILES  
KZ0860'NORTHWEST OF  
KZ0860'DELAWARE. TURN WEST ON THE STREET ABOUT 75 YARDS  
KZ0860'SOUTH OF THE SHELL SERVICE,  
KZ0860'WHICH IS ON THE WEST SIDE  
KZ0860'OF THE HIGHWAY. GO WEST ABOUT 50 YARDS TO THE  
KZ0860'FIRST STREET WEST  
KZ0860'OF THE HIGHWAY. THENCE SOUTH 100 YARDS TO THE STATION IN THE  
KZ0860'FENCE LINE  
KZ0860'ALONG WEST SIDE OF STREET AND 33 PACES SOUTH OF THE  
KZ0860'FENCE CORNER.  
KZ0860'  
KZ0860'MARKS IN GOOD CONDITION.

KZ0860  
KZ0860 STATION RECOVERY (1933)  
KZ0860  
KZ0860'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1933 (GLA)  
KZ0860'THE STATION WAS RECOVERED AS DESCRIBED BY W. M. IT IS LOCATED ON  
KZ0860'THE HIGHEST LAND  
KZ0860'IN THE SOUTHERN PART OF LEONARDSBURG. THE  
KZ0860'STATION IS ON TOWNSHIP LAND AND IS  
KZ0860'ABOUT 6 MILES NORTHEAST OF  
KZ0860'DELAWARE.  
KZ0860'  
KZ0860'TO REACH THE STATION GO 6.3 MILES NORTHEAST FROM DELAWARE  
KZ0860'ON HIGHWAY 42 TO  
KZ0860'THE SOUTHERN PART OF LEONARDSBURG. THE STATION  
KZ0860'IS 2 FEET EAST OF A RIGHT-OF-WAY  
KZ0860'FENCE ON THE WEST SIDE OF  
KZ0860'HIGHWAY 42, 170 YARDS SOUTH OF A GRADE CROSSING  
KZ0860'WHICH IS SOUTH



KZ0860'OF LEONARDSBURG STATION, 114 YARDS SOUTH OF THE SOUTH CORNER OF  
KZ0860'A BRICK HOME  
KZ0860'WHICH IS ON THE SOUTH SIDE OF THE MOST SOUTHERLY  
KZ0860'STREET IN LEONARDSBURG, 86 FEET  
KZ0860'NORTHWEST OF THE CENTERLINE OF  
KZ0860'HIGHWAY 42 AND 172 FEET NORTHWEST OF THE WEST RAIL  
KZ0860'OF THE  
KZ0860'NEW YORK CENTRAL RAILROAD TRACK. THE STATION MARK IS A STANDARD  
KZ0860'BRONZE DISK SET IN  
KZ0860'A BLOCK OF CONCRETE 12 INCHES SQUARE. THE  
KZ0860'MARK PROJECTS 4 INCHES AND IS IN  
KZ0860'EXCELLENT CONDITION.  
KZ0860'  
KZ0860'REFERENCE MARK NO. 1 IS IN THE RIGHT-OF-WAY FENCE ON THE  
KZ0860'EAST SIDE OF  
KZ0860'HIGHWAY 42 AND IS A STANDARD DISK SET IN A BLOCK OF  
KZ0860'CONCRETE 12 INCHES SQUARE. IT  
KZ0860'PROJECTS 4 INCHES AND IS IN EXCELLENT  
KZ0860'CONDITION. IT IS 34 FEET NORTHEAST OF THE  
KZ0860'CENTERLINE OF  
KZ0860'HIGHWAY 42 AND 146.35 FEET EAST-NORTHEAST OF THE STATION.  
KZ0860'  
KZ0860'REFERENCE MARK NO. 2 IS IN THE RIGHT-OF-WAY FENCE ON THE  
KZ0860'EAST SIDE OF  
KZ0860'HIGHWAY 42 AND IS A STANDARD BRONZE DISK SET IN A  
KZ0860'BLOCK OF CONCRETE 12 INCHES  
KZ0860'SQUARE. IT PROJECTS 8 INCHES AND  
KZ0860'IS IN EXCELLENT CONDITION. IT IS 36 FEET EAST  
KZ0860'OF THE CENTERLINE  
KZ0860'OF HIGHWAY 42, 968.79 FEET SOUTH-SOUTHEAST OF THE STATION AND  
KZ0860'IS OPPOSITE A  
KZ0860'POINT IN THE HIGHWAY WHICH IS 280 YARDS SOUTH OF  
KZ0860'A POINT IN THE HIGHWAY WHICH IS  
KZ0860'OPPOSITE THE STATION.  
KZ0860'  
KZ0860'AZ AZIMUTH MARK WAS SET FOR THIS STATION AT THE TIME IT  
KZ0860'WAS REOCCUPIED.  
KZ0860'THE AZIMUTH MARK IS A STANDARD BRONZE DISK SET  
KZ0860'IN A 12-INCH CYLINDER OF CONCRETE.  
KZ0860'IT PROJECTS 8 INCHES AND IS  
KZ0860'IN THE RIGHT-OF-WAY FENCE ON THE EAST SIDE OF HIGHWAY  
KZ0860'42. IT IS  
KZ0860'6 FEET NORTH OF THE CENTERLINE OF AN OPENING IN THE RIGHT-OF-WAY  
KZ0860'FENCE, 40 FEET EAST  
KZ0860'OF THE CENTERLINE OF HIGHWAY 42 AND 0.25  
KZ0860'MILE SOUTH OF THE STATION.  
KZ0860'  
KZ0860'A 103-FOOT TOWER WILL CLEAR ALL LINES FROM THIS STATION.  
KZ0860'  
KZ0860'THE DISTANCE TO REFERENCE MARK NO. 1 WAS GIVEN IN THE RECONNAISSANCE  
KZ0860'DESCRIPTION AS  
KZ0860'50.0 METER OF 164.04 FEET. THE  
KZ0860'DISTANCE FROM REFERENCE MARK NO.  
KZ0860'1 TO THE STATION WAS MEASURED  
KZ0860'AND FOUND TO BE 146.35 FEET INSTEAD OF 164.04 FEET



KZ0860'AS GIVEN BY  
KZ0860'THE RECONNAISSANCE DESCRIPTION.  
KZ0860  
KZ0860 STATION RECOVERY (1934)  
KZ0860  
KZ0860'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1934 (WMG)  
KZ0860'AZIMUTH MARK IS ABOUT 4.4  
KZ0860'MILES SOUTH ALONG  
KZ0860'THE CLEVELAND, CINCINNATI, CHICAGO AND ST.  
KZ0860'LOUIS RAILWAY FROM THE STATION AT  
KZ0860'ASHLEY, 39.0 FEET EAST OF THE  
KZ0860'CENTER LINE OF U. S. HIGHWAY 42, 48.0 FEET WEST OF  
KZ0860'THE WEST RAIL,  
KZ0860'1.0 FOOT WEST OF A FENCE LINE, AND ABOUT 2.0 FEET LOWER THAN THE  
KZ0860'TOP OF THE RAIL.  
KZ0860'A STANDARD REFERENCE MARK DISK, STAMPED  
KZ0860'LEONARD 1933 AND SET IN THE TOP OF A  
KZ0860'CONCRETE POST.  
KZ0860'  
KZ0860'ELEVATION AZIMUTH MARK, 297.771 METERS, 976.937 FEET.  
KZ0860  
KZ0860 STATION RECOVERY (1967)  
KZ0860  
KZ0860'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1967 (RRG)  
KZ0860'THE STATION, REFERENCE MARKS NO. 1 AND 2 AND THE AZIMUTH MARK WERE  
KZ0860'ALL RECOVERED AND IN GOOD CONDITION.  
KZ0860'  
KZ0860'THE STATION MAY BE REACHED BY GOING 3.95 MILES SOUTHWEST ALONG THE  
KZ0860'NEW YORK CENTRAL RAILROAD FROM THE CROSSING OF STATE HIGHWAY 229 AT  
KZ0860'ASHLEY, AT THE SMALL VILLAGE OF LEANORDSBURG, ABOUT 0.1 MILE  
KZ0860'SOUTHWEST ALONG U. S. HIGHWAY 42 FROM THE JUNCTION OF COUNTY ROADS 80  
KZ0860'AND 221, 172-1/2 FEET NORTHWEST OF AND ACROSS THE HIGHWAY FROM THE  
KZ0860'NORTHWEST RAIL OF THE TRACK, 87 FEET NORTHWEST OF THE CENTER LINE  
KZ0860'OF THE HIGHWAY, 116 FEET SOUTH OF THE CENTER LINE OF A  
KZ0860'PRIVATE ROAD, 1.4 FEET NORTH OF A METAL WITNESS POST, SET IN THE TOP  
KZ0860'OF A CONCRETE POST PROJECTING 2 INCHES ABOVE THE LEVEL OF THE  
KZ0860'GROUND.  
KZ0860'  
KZ0860'RM NO. 1 IS 146.2 FEET EAST OF AND ACROSS THE HIGHWAY FROM THE  
KZ0860'STATION, 47 FEET NORTHWEST OF THE NORTHWEST RAIL, 37-1/2 FEET  
KZ0860'SOUTHEAST OF THE CENTER LINE OF THE HIGHWAY, NEAR THE NORTHEAST END  
KZ0860'OF A SHORT 5-FOOT CUT, ABOUT LEVEL WITH THE HIGHWAY AND SET IN THE  
KZ0860'TOP OF A CONCRETE POST PROJECTING 3 INCHES ABOVE THE LEVEL OF THE  
KZ0860'GROUND.  
KZ0860'  
KZ0860'RM NO. 2 IS 320 YARDS SOUTHWEST OF THE STATION MARK, 48 FEET  
KZ0860'NORTHWEST OF THE NORTHWEST RAIL, 39 FEET SOUTHEAST OF THE CENTER LINE  
KZ0860'OF U. S. HIGHWAY 42, 1.4 FEET NORTHEAST OF A METAL WITNESS  
KZ0860'POST, ABOUT LEVEL WITH THE HIGHWAY AND SET IN THE TOP OF A  
KZ0860'CONCRETE POST PROJECTING 4 INCHES ABOVE THE LEVEL OF THE  
KZ0860'GROUND.  
KZ0860'  
KZ0860'THE AZIMUTH MARK IS ABOUT 0.3 MILE SOUTHWEST OF THE STATION, ABOUT  
KZ0860'0.2 MILE NORTHEAST OF MILEPOST 109, NEAR A FARM ROAD CROSSING,  
KZ0860'47.8 FEET NORTHWEST OF THE NORTHWEST RAIL, 39-1/2 FEET SOUTHEAST OF



KZ0860'THE CENTER LINE OF U. S. HIGHWAY 42, 9 FEET NORTHEAST OF THE  
KZ0860'CENTER LINE OF A FARM ROAD, 1.2 FEET NORTHWEST OF A METAL WITNESS  
KZ0860'POST, SET IN THE TOP OF A CONCRETE POST PROJECTING 4 INCHES  
KZ0860'ABOVE THE LEVEL OF THE GROUND.

KZ0860

KZ0860

STATION RECOVERY (1967)

KZ0860

KZ0860'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1967

KZ0860'4 MI SW FROM ASHLEY.

KZ0860'ABOUT 3.95 MILES SOUTHWEST ALONG THE NEW YORK CENTRAL RAILROAD

KZ0860'FROM THE CROSSING OF STATE HIGHWAY 229 AT ASHLEY, AT THE SMALL

KZ0860'VILLAGE OF LEONARDSBURG, ABOUT 0.1 MILE SOUTHWEST ALONG U.S. HIGHWAY

KZ0860'42 FROM THE JUNCTION OF COUNTY ROADS 80 AND 221, 172 1/2 FEET

KZ0860'NORTHWEST OF AND ACROSS THE HIGHWAY FROM THE NORTHWEST RAIL,

KZ0860'87 FEET NORTHWEST OF THE CENTER LINE OF THE HIGHWAY, 116 FEET SOUTH

KZ0860'OF THE CENTER LINE OF A PRIVATE ROAD, 1.4 FEET NORTH OF A METAL

KZ0860'WITNESS POST, ABOUT LEVEL WITH THE HIGHWAY AND SET IN THE TOP OF A

KZ0860'CONCRETE POST PROJECTING 2 INCHES ABOVE THE LEVEL OF THE GROUND.

KZ0860

KZ0860

STATION RECOVERY (1990)

KZ0860

KZ0860'RECOVERY NOTE BY WOOLPERT CONSULTANTS 1990

KZ0860'RECOVERED IN GOOD CONDITION.

KZ0860

KZ0860

STATION RECOVERY (1991)

KZ0860

KZ0860'RECOVERED 1991

KZ0860'RECOVERED IN GOOD CONDITION.

KZ0860

KZ0860

STATION RECOVERY (1995)

KZ0860

KZ0860'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (DAC)

KZ0860'STATION FOUND IN GOOD CONDITION. REFERENCE MARK 1 FOUND DISTURBED BY

KZ0860'GRADING, LEANING TO NORTH AND RECESSED ABOUT 0.5 FT (15.2 CM) .

KZ0860'REFERENCE MARK 2 FOUND IN GOOD CONDITION, 2 FT (0.6 M) NORTHEAST OF

KZ0860'METAL WITNESS POST. AZIMUTH MARK FOUND IN GOOD CONDITION, 0.5 FT

KZ0860'(15.2 CM) NORTHWEST OF FIBERGLASS WITNESS POST. LINE OF SIGHT FROM

KZ0860'STATION TO RM 2 AND AZ MK IS BLOCKED BY A NORTH-SOUTH ROW OF PINE

KZ0860'TREES JUST WEST OF THE STATION. THE STATION IS LOCATED AT

KZ0860'LEONARDSBURG, 6 MI (9.7 KM) NORTHWEST OF DELAWARE, 4 MI (6.4 KM)

KZ0860'SOUTHWEST OF ASHLEY, ABOUT 0.1 MI (0.2 KM) SOUTHWEST OF THE JUNCTION

KZ0860'OF US 42 AND LEONARDSBURG ROAD (COUNTY ROAD 211) . TO REACH FROM THE

KZ0860'INTERSECTION OF US 23 AND US 42 AT DELAWARE, GO EAST ON US 42 FOR 0.2

KZ0860'MI (0.3 KM) , TURN LEFT AND CONTINUE FOLLOWING US 42 NORTH THEN

KZ0860'NORTHEAST FOR 5.8 MI (9.3 KM) TO LEONARDSBURG ROAD, TURN LEFT AND GO

KZ0860'WEST ABOUT 250 FT (76.2 M) TO A GRAVEL DRIVEWAY ON THE LEFT, TURN LEFT

KZ0860'AND GO SOUTH ABOUT 350 FT (106.7 M) TO THE STATION JUST SOUTH OF WHERE

KZ0860'THE DRIVEWAY TURNS RIGHT TO A TWO-STORY HOUSE. THE STATION IS A CGS

KZ0860'TRIANGULATION STATION DISK STAMPED --LEONARD 1928-- SET IN A 38 CM

KZ0860'SQUARE CONCRETE MONUMENT PROJECTING 8 CM. IT IS LOCATED 87 FT (26.5

KZ0860'M) NORTHWEST OF THE CENTERLINE OF US 42, 143 FT (43.6 M) NORTHWEST OF

KZ0860'A SIGN READING -LEONARDSBURG- ON EAST SIDE OF US 42, 89 FT (27.1 M)

KZ0860'EAST OF THE EAST CORNER OF A TWO-STORY HOUSE, 36 FT (11.0 M) SOUTH OF

KZ0860'THE CENTERLINE OF GRAVEL DRIVEWAY TO THE HOUSE, 35 FT (10.7 M)

KZ0860'WEST-NORTHWEST OF UTILITY POLE NUMBER 212-25 WITH ONE TRANSFORMER, 18



KZ0860'FT (5.5 M) EAST OF THE TOP OF A NORTH-SOUTH EARTH MOUND PLANTED WITH  
KZ0860'PINE TREES AND SHRUBS, AND 7.5 FT (2.3 M) EAST OF A 4.6 M (15.1 FT)  
KZ0860'TALL PINE TREE.

KZ0860

KZ0860

STATION RECOVERY (2005)

KZ0860

KZ0860'RECOVERY NOTE BY US POWER SQUADRON 2005

KZ0860'RECOVERED IN GOOD CONDITION.

KZ0860

KZ0860

STATION RECOVERY (2010)

KZ0860

KZ0860'RECOVERY NOTE BY GEOCACHING 2010 (RLM)

KZ0860'THE STATION MARK, REFERENCE MARK 2 AND THE AZIMUTH MARK WERE ALL

KZ0860'RECOVERED IN GOOD CONDITION. REFERENCE MARK 1 WAS SEARCHED FOR AND NOT

KZ0860'

KZ0860'FOUND.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.2  
 1 National Geodetic Survey, Retrieval Date = APRIL 6, 2019  
 KZ0962 \*\*\*\*\*  
 KZ0962 DESIGNATION - **S 272**  
 KZ0962 PID - KZ0962  
 KZ0962 STATE/COUNTY- OH/DELAWARE  
 KZ0962 COUNTRY - US  
 KZ0962 USGS QUAD - OLIVE GREEN (1973)

KZ0962 \*CURRENT SURVEY CONTROL  
 KZ0962  
 KZ0962\* NAD 83(1986) POSITION- 40 19 06.6 (N) 082 48 32.4 (W) HD\_HELD2  
 KZ0962\* [NAVD 88](#) ORTHO HEIGHT - 333.095 (meters) 1092.83 (feet) ADJUSTED  
 KZ0962  
 KZ0962 GEOID HEIGHT - -34.057 (meters) GEOID12B  
 KZ0962 DYNAMIC HEIGHT - 332.917 (meters) 1092.25 (feet) COMP  
 KZ0962 MODELED GRAVITY - 980,081.9 (mgal) NAVD 88  
 KZ0962  
 KZ0962 VERT ORDER - SECOND CLASS 0  
 KZ0962

KZ0962.The horizontal coordinates were established by autonomous hand held GPS observations and have an estimated accuracy of +/- 10 meters.

KZ0962.The orthometric height was determined by differential leveling and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.

KZ0962.Significant digits in the geoid height do not necessarily reflect accuracy. GEOID12B height accuracy estimate available [here](#).

KZ0962.[Photographs](#) are available for this station.

KZ0962.The dynamic height is computed by dividing the NAVD 88 geopotential number by the normal gravity value computed on the Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45 degrees latitude (g = 980.6199 gals.).

KZ0962.The modeled gravity was interpolated from observed gravity values.

KZ0962;	North	East	Units	Estimated Accuracy
KZ0962;SPC OH N -	72,431.	573,736.	MT	(+/- 10 meters HH2 GPS)

KZ0962\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE4629964678(NAD 83)

KZ0962 SUPERSEDED SURVEY CONTROL

KZ0962 NGVD 29 (??/??/92) 333.242 (m) 1093.31 (f) ADJ UNCH 2 0

KZ0962.Superseded values are not recommended for survey control.

KZ0962



KZ0962.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
KZ0962.See file [dsdata.pdf](#) to determine how the superseded data were derived.

KZ0962

KZ0962\_MARKER: DB = BENCH MARK DISK

KZ0962\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

KZ0962\_STAMPING: S 272 1959

KZ0962\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

KZ0962+STABILITY: SURFACE MOTION

KZ0962\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

KZ0962+SATELLITE: SATELLITE OBSERVATIONS - June 05, 2010

KZ0962

KZ0962	HISTORY	- Date	Condition	Report By
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KZ0962	HISTORY	- 1959	MONUMENTED	CGS
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KZ0962	HISTORY	- 20100605	GOOD	GEOCAC
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KZ0962

KZ0962 STATION DESCRIPTION

KZ0962

KZ0962'DESCRIBED BY COAST AND GEODETIC SURVEY 1959

KZ0962'1 MI E FROM OLIVE GREEN.

KZ0962'ABOUT 1.0 MILE EAST ALONG DELAWARE COUNTY ROAD 52 FROM THE

KZ0962'JUNCTION OF STATE HIGHWAY 656 AT OLIVE GREEN, 153 FEET EAST OF

KZ0962'THE CENTER OF INTERSECTION OF ROAD 49, 0.4 MILE EAST OF A STEEL

KZ0962'BRIDGE OVER BIG WALNUT CREEK, 16 FEET NORTH OF THE CENTER

KZ0962'LINE OF ROAD 52, 1 FOOT SOUTH OF A WIRE FENCE, 27 1/2 FEET

KZ0962'EAST OF A FENCE CORNER, 86 FEET WEST OF A CULVERT UNDER ROAD 52,

KZ0962'7 FEET WEST OF THE PROLONGED CENTER LINE OF A DRIVE LEADING

KZ0962'SOUTH TO A FARMHOUSE, 2 1/2 FEET EAST-SOUTHEAST OF A STEEL

KZ0962'WITNESS POST, ABOUT LEVEL WITH ROAD 52, AND SET IN TOP OF A

KZ0962'CONCRETE POST PROJECTING 2 INCHES.

KZ0962

KZ0962 STATION RECOVERY (2010)

KZ0962

KZ0962'RECOVERY NOTE BY GEOCACHING 2010 (RLM)

KZ0962'RECOVERED IN GOOD CONDITION. THE WIRE FENCE HAS BEEN REMOVED, AND THE

KZ0962'MARK IS NOW FLUSH WITH THE GROUND SURFACE.



# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.5.2
1      National Geodetic Survey,  Retrieval Date = MARCH 25, 2019
KZ0871 *****
KZ0871 DESIGNATION -  V 188
KZ0871 PID           -  KZ0871
KZ0871 STATE/COUNTY-  OH/FRANKLIN
KZ0871 COUNTRY       -  US
KZ0871 USGS QUAD     -  NORTHEAST COLUMBUS (1982)
KZ0871
KZ0871                *CURRENT SURVEY CONTROL
KZ0871
KZ0871* NAD 83(1986) POSITION- 40 01 26.90 (N) 082 59 50.74 (W) HD_HELD1
KZ0871* NAVD 88 ORTHO HEIGHT - 260.444 (meters) 854.47 (feet) ADJUSTED
KZ0871
KZ0871 GEOID HEIGHT - -33.875 (meters) GEOID12B
KZ0871 DYNAMIC HEIGHT - 260.303 (meters) 854.01 (feet) COMP
KZ0871 MODELED GRAVITY - 980,080.2 (mgal) NAVD 88
KZ0871
KZ0871 VERT ORDER - FIRST CLASS I
KZ0871
KZ0871.The horizontal coordinates were determined by differentially corrected
KZ0871.hand held GPS observations or other comparable positioning techniques
KZ0871.and have an estimated accuracy of +/- 3 meters.
KZ0871.
KZ0871.The orthometric height was determined by differential leveling and
KZ0871.adjusted by the NATIONAL GEODETIC SURVEY
KZ0871.in June 1991.
KZ0871
KZ0871.WARNING-Repeat measurements at this control monument indicate possible
KZ0871.vertical movement.
KZ0871
KZ0871.Significant digits in the geoid height do not necessarily reflect accuracy.
KZ0871.GEOID12B height accuracy estimate available here.
KZ0871
KZ0871.Photographs are available for this station.
KZ0871
KZ0871.The dynamic height is computed by dividing the NAVD 88
KZ0871.geopotential number by the normal gravity value computed on the
KZ0871.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
KZ0871.degrees latitude (g = 980.6199 gals.).
KZ0871
KZ0871.The modeled gravity was interpolated from observed gravity values.
KZ0871
KZ0871;
KZ0871;SPC OH S - North East Units Estimated Accuracy
KZ0871; 224,830.1 557,538.0 MT (+/- 3 meters HH1 GPS)
KZ0871
KZ0871_U.S. NATIONAL GRID SPATIAL ADDRESS: 17TLE2955432347(NAD 83)
KZ0871
KZ0871                SUPERSEDED SURVEY CONTROL
KZ0871

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KZ0871 NGVD 29 (??/??/92) 260.618 (m) 855.04 (f) ADJ UNCH 1 1

KZ0871

KZ0871.Superseded values are not recommended for survey control.

KZ0871

KZ0871.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

KZ0871.See file [dsdata.pdf](#) to determine how the superseded data were derived.

KZ0871

KZ0871\_MARKER: DB = BENCH MARK DISK

KZ0871\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

KZ0871\_STAMPING: V 188 1954

KZ0871\_MARK LOGO: CGS

KZ0871\_PROJECTION: PROJECTING 3 CENTIMETERS

KZ0871\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

KZ0871+STABILITY: SURFACE MOTION

KZ0871\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

KZ0871+SATELLITE: SATELLITE OBSERVATIONS - January 23, 2016

KZ0871

KZ0871	HISTORY	- Date	Condition	Report By
KZ0871	HISTORY	- 1954	MONUMENTED	CGS
KZ0871	HISTORY	- 1967	GOOD	CGS
KZ0871	HISTORY	- 1990	GOOD	USPSQD
KZ0871	HISTORY	- 20030801	GOOD	USPSQD
KZ0871	HISTORY	- 20030802	GOOD	USPSQD
KZ0871	HISTORY	- 20070513	GOOD	GEOCAC
KZ0871	HISTORY	- 20160123	GOOD	USPSQD

KZ0871

KZ0871

STATION DESCRIPTION

KZ0871

KZ0871'DESCRIBED BY COAST AND GEODETIC SURVEY 1967

KZ0871'AT COLUMBUS.

KZ0871'AT COLUMBUS, ABOUT 3.8 MILES NORTH ALONG THE NEW YORK CENTRAL  
KZ0871'RAILROAD FROM THE UNION STATION, ABOUT 0.2 MILE SOUTH OF MILEPOST  
KZ0871'134, AT THE CROSSING OF WEBER ROAD, 79.2 FEET WEST OF THE WEST RAIL,  
KZ0871'11 FEET SOUTH OF THE SOUTH CURB OF WEBER ROAD, 15 1/2 FEET EAST OF  
KZ0871'THE CENTER LINE OF A NARROW BLACK TOPPED STREET, 15.7 FEET  
KZ0871'NORTHEAST OF THE NORTHWEST CORNER OF A CHAIN LINK FENCE AROUND  
KZ0871'A WHITE FRAME HOUSE AT NUMBER 595, ABOUT LEVEL WITH THE ROAD,  
KZ0871'3 FEET BELOW THE LEVEL OF THE TRACK AND SET IN THE TOP OF A  
KZ0871'CONCRETE POST PROJECTING 1 INCH ABOVE THE LEVEL OF THE GROUND.

KZ0871

KZ0871

STATION RECOVERY (1990)

KZ0871

KZ0871'RECOVERY NOTE BY US POWER SQUADRON 1990 (MM)

KZ0871'RECOVERED IN GOOD CONDITION.

KZ0871

KZ0871

STATION RECOVERY (2003)

KZ0871

KZ0871'RECOVERY NOTE BY US POWER SQUADRON 2003 (KEN)

KZ0871'RECOVERED IN GOOD CONDITION.

KZ0871

KZ0871

STATION RECOVERY (2003)

KZ0871

KZ0871'RECOVERY NOTE BY US POWER SQUADRON 2003 (KEN)

KZ0871'RECOVERED IN GOOD CONDITION.

KZ0871



KZ0871 STATION RECOVERY (2007)  
KZ0871  
KZ0871'RECOVERY NOTE BY GEOCACHING 2007 (RLM)  
KZ0871'RECOVERED IN GOOD CONDITION.  
KZ0871  
KZ0871 STATION RECOVERY (2016)  
KZ0871  
KZ0871'RECOVERY NOTE BY US POWER SQUADRON 2016 (MLG)  
KZ0871'PETRO ANNIE'S NOW OCCUPIES WHITE FRAME HOUSE. THE YEAR STAMP IS  
KZ0871'PARTIALLY OBLITERATED.







## Section 4: Station Observation Sheets and Photos

This section contains the station observation sheets and photos for all the LiDAR control stations and recovered geodetic control stations for the OH Columbus 2019 B19 LiDAR Project in Columbus, Ohio. The stations appear as they are ordered in the final coordinate listing of Section 2.







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1001_2019_OH	<b>Northing (USFT)</b> 872405.152	<b>Easting (USFT)</b> 1753447.725	<b>Elevation (USFT)</b> 932.132
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°23'33.39786"	<b>Longitude (Global)</b> W83°16'19.11336"	<b>Ellipsoid Height (USFT)</b> 820.022
<b>Location Photo</b>    NORTH			
 <p>1001_2019_OH, 3S, 20190408</p>		 <p>1001_2019_OH, 3E, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1002_2019_OH	<b>Northing (USFT)</b> 871812.182	<b>Easting (USFT)</b> 1758224.099	<b>Elevation (USFT)</b> 926.723
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°23'27.93805"	<b>Longitude (Global)</b> W83°15'17.32729"	<b>Ellipsoid Height (USFT)</b> 814.637
<b>Location Photo</b>   NORTH			
 <p>1002_2019_OH, 3W, 20190408</p>		 <p>1002_2019_OH, 3N, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1003_2019_OH	<b>Northing (USFT)</b> 890566.043	<b>Easting (USFT)</b> 1765791.118	<b>Elevation (USFT)</b> 934.128
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°26'33.84619"	<b>Longitude (Global)</b> W83°13'41.49982"	<b>Ellipsoid Height (USFT)</b> 821.584
<b>Location Photo</b>   NORTH			
 <p>1003_2019_OH, 3N, 20190408</p>		 <p>1003_2019_OH, 3E, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1004_2019_OH	<b>Northing (USFT)</b> 864772.316	<b>Easting (USFT)</b> 1766987.963	<b>Elevation (USFT)</b> 919.206
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°22'19.08937"	<b>Longitude (Global)</b> W83°13'23.35111"	<b>Ellipsoid Height (USFT)</b> 807.339
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1005_2019_OH	<b>Northing (USFT)</b> 877379.900	<b>Easting (USFT)</b> 1776135.746	<b>Elevation (USFT)</b> 913.233
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°24'24.36600"	<b>Longitude (Global)</b> W83°11'26.42065"	<b>Ellipsoid Height (USFT)</b> 801.077
<b>Location Photo</b>    NORTH			
 <p>1005_2019_OH, 3S, 20190408</p>	 <p>1005_2019_OH, 3E, 20190408</p>		









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1006_2019_OH	<b>Northing (USFT)</b> 892458.371	<b>Easting (USFT)</b> 1775850.200	<b>Elevation (USFT)</b> 911.869
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°26'53.32442"	<b>Longitude (Global)</b> W83°11'31.60518"	<b>Ellipsoid Height (USFT)</b> 799.370
<b>Location Photo</b>    NORTH			
			
1006_2019_OH, 3S, 20190408		1006_2019_OH, 3E, 20190408	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1007_2019_OH	<b>Northing (USFT)</b> 877717.488	<b>Easting (USFT)</b> 1781053.501	<b>Elevation (USFT)</b> 914.648
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°24'28.06842"	<b>Longitude (Global)</b> W83°10'22.89070"	<b>Ellipsoid Height (USFT)</b> 802.517
<b>Location Photo</b>    NORTH			
 <p>1007_2019_OH, 3S, 20190408</p>	 <p>1007_2019_OH, 3E, 20190408</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1008_2019_OH	<b>Northing (USFT)</b> 726777.766	<b>Easting (USFT)</b> 1751451.724	<b>Elevation (USFT)</b> 935.341
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N39°59'34.24408"	<b>Longitude (Global)</b> W83°16'28.76180"	<b>Ellipsoid Height (USFT)</b> 826.350
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1009_2019_OH	<b>Northing (USFT)</b> 880470.528	<b>Easting (USFT)</b> 1757013.346	<b>Elevation (USFT)</b> 928.073
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°24'53.38544"	<b>Longitude (Global)</b> W83°15'33.91370"	<b>Ellipsoid Height (USFT)</b> 815.735
<b>Location Photo</b>    NORTH			
 <p>1009_2019_OH, 3W, 20190408</p>		 <p>1009_2019_OH, 3N, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1010_2019_OH	<b>Northing (USFT)</b> 868519.051	<b>Easting (USFT)</b> 1760164.806	<b>Elevation (USFT)</b> 928.932
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°22'55.55995"	<b>Longitude (Global)</b> W83°14'51.89692"	<b>Ellipsoid Height (USFT)</b> 816.947
<b>Location Photo</b>   NORTH			
			
1010_2019_OH, 3W, 20190408		1010_2019_OH, 3S, 20190408	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1011_2019_OH	<b>Northing (USFT)</b> 881768.026	<b>Easting (USFT)</b> 1767004.162	<b>Elevation (USFT)</b> 921.584
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°25'07.01576"	<b>Longitude (Global)</b> W83°13'24.90128"	<b>Ellipsoid Height (USFT)</b> 809.258
<b>Location Photo</b>    NORTH			
 <p>1011_2019_OH, 3N, 20190408</p>	 <p>1011_2019_OH, 3E, 20190408</p>		





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1012_2019_OH	<b>Northing (USFT)</b> 875129.481	<b>Easting (USFT)</b> 1770928.989	<b>Elevation (USFT)</b> 914.657
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°24'01.73211"	<b>Longitude (Global)</b> W83°12'33.48982"	<b>Ellipsoid Height (USFT)</b> 802.524
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1013_2019_OH	<b>Northing (USFT)</b> 869471.855	<b>Easting (USFT)</b> 1777448.405	<b>Elevation (USFT)</b> 898.524
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°23'06.32967"	<b>Longitude (Global)</b> W83°11'08.67817"	<b>Ellipsoid Height (USFT)</b> 786.566
<b>Location Photo</b>   NORTH			
 <p>1013_2019_OH, 3S, 20190408</p>	 <p>1013_2019_OH, 3E, 20190408</p>		









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1014_2019_OH	<b>Northing (USFT)</b> 738260.799	<b>Easting (USFT)</b> 1753736.491	<b>Elevation (USFT)</b> 931.316
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°01'27.91230"	<b>Longitude (Global)</b> W83°16'00.66016"	<b>Ellipsoid Height (USFT)</b> 822.086
<b>Location Photo</b>   NORTH			
 <p>1014_2019_OH, 3W, 20190410</p>		 <p>1014_2019_OH, 3S, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1015_2019_OH	<b>Northing (USFT)</b> 662238.119	<b>Easting (USFT)</b> 1755861.303	<b>Elevation (USFT)</b> 949.661
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°48'56.80879"	<b>Longitude (Global)</b> W83°15'25.15610"	<b>Ellipsoid Height (USFT)</b> 841.887
<b>Location Photo</b>   NORTH			
 <p>1015_2019_OH, 3S, 20190408</p>		 <p>1015_2019_OH, 3E, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1016_2019_OH	<b>Northing (USFT)</b> 684459.527	<b>Easting (USFT)</b> 1760309.382	<b>Elevation (USFT)</b> 939.462
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°52'36.77838"	<b>Longitude (Global)</b> W83°14'30.49205"	<b>Ellipsoid Height (USFT)</b> 831.239
<b>Location Photo</b>   NORTH			
			
1016_2019_OH, 3W, 20190408	1016_2019_OH, 3N, 20190408		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1017_2019_OH	<b>Northing (USFT)</b> 694959.020	<b>Easting (USFT)</b> 1758363.258	<b>Elevation (USFT)</b> 861.445
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°54'20.38020"	<b>Longitude (Global)</b> W83°14'56.57130"	<b>Ellipsoid Height (USFT)</b> 753.041
<b>Location Photo</b>    NORTH			
			
1017_2019_OH, 3N, 20190408		1017_2019_OH, 3E, 20190408	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1018_2019_OH	<b>Northing (USFT)</b> 713284.071	<b>Easting (USFT)</b> 1762463.430	<b>Elevation (USFT)</b> 919.472
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°57'21.80702"	<b>Longitude (Global)</b> W83°14'05.87232"	<b>Ellipsoid Height (USFT)</b> 810.528
<b>Location Photo</b>   NORTH			
			
1018_2019_OH, 3W, 20190408		1018_2019_OH, 3S, 20190408	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1019_2019_OH	<b>Northing (USFT)</b> 742799.042	<b>Easting (USFT)</b> 1764844.751	<b>Elevation (USFT)</b> 937.036
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°02'13.66724"	<b>Longitude (Global)</b> W83°13'38.34614"	<b>Ellipsoid Height (USFT)</b> 827.536
<b>Location Photo</b>   NORTH			
 <p>1019_2019_OH, 3W, 20190410</p>		 <p>1019_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1020_2019_OH	<b>Northing (USFT)</b> 770979.665	<b>Easting (USFT)</b> 1766982.611	<b>Elevation (USFT)</b> 947.970
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°06'52.31211"	<b>Longitude (Global)</b> W83°13'13.75218"	<b>Ellipsoid Height (USFT)</b> 838.101
<b>Location Photo</b>   NORTH			
 <p>1020_2019_OH, 3W, 20190410</p>	 <p>1020_2019_OH, 3S, 20190410</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1021_2019_OH	<b>Northing (USFT)</b> 791780.890	<b>Easting (USFT)</b> 1769155.828	<b>Elevation (USFT)</b> 998.050
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°10'18.03100"	<b>Longitude (Global)</b> W83°12'47.89656"	<b>Ellipsoid Height (USFT)</b> 887.874
<b>Location Photo</b>   NORTH			
 <p>1021_2019_OH, 3W, 20190409</p>	 <p>1021_2019_OH, 3S, 20190409</p>		









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1022_2019_OH	<b>Northing (USFT)</b> 731210.160	<b>Easting (USFT)</b> 1771339.591	<b>Elevation (USFT)</b> 943.435
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°00'19.65431"	<b>Longitude (Global)</b> W83°12'13.68572"	<b>Ellipsoid Height (USFT)</b> 833.953
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1023_2019_OH	<b>Northing (USFT)</b> 689909.610	<b>Easting (USFT)</b> 1773533.683	<b>Elevation (USFT)</b> 920.150
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°53'31.67839"	<b>Longitude (Global)</b> W83°11'41.40683"	<b>Ellipsoid Height (USFT)</b> 811.361
<b>Location Photo</b>   NORTH			
			
1023_2019_OH, 3N, 20190408		1023_2019_OH, 3E, 20190408	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1024_2019_OH	<b>Northing (USFT)</b> 672167.819	<b>Easting (USFT)</b> 1775733.630	<b>Elevation (USFT)</b> 874.074
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°50'36.51037"	<b>Longitude (Global)</b> W83°11'11.45217"	<b>Ellipsoid Height (USFT)</b> 765.445
<b>Location Photo</b>   NORTH			
			
1024_2019_OH, 3N, 20190408		1024_2019_OH, 3E, 20190408	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1025_2019_OH	<b>Northing (USFT)</b> 722528.159	<b>Easting (USFT)</b> 1777957.498	<b>Elevation (USFT)</b> 930.815
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°58'54.35868"	<b>Longitude (Global)</b> W83°10'47.80292"	<b>Ellipsoid Height (USFT)</b> 821.285
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1026_2019_OH	<b>Northing (USFT)</b> 770910.406	<b>Easting (USFT)</b> 1780125.515	<b>Elevation (USFT)</b> 927.546
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°06'52.63021"	<b>Longitude (Global)</b> W83°10'24.58829"	<b>Ellipsoid Height (USFT)</b> 817.444
<b>Location Photo</b>   NORTH			
			
1026_2019_OH, 3N, 20190410		1026_2019_OH, 3E, 20190410	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1027_2019_OH	<b>Northing (USFT)</b> 795823.711	<b>Easting (USFT)</b> 1782338.260	<b>Elevation (USFT)</b> 931.278
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°10'58.97495"	<b>Longitude (Global)</b> W83°09'58.47474"	<b>Ellipsoid Height (USFT)</b> 820.807
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1028_2019_OH	<b>Northing (USFT)</b> 822836.739	<b>Easting (USFT)</b> 1786820.070	<b>Elevation (USFT)</b> 900.045
<b>Point Type</b> CALIBRATION GRAVEL	<b>Latitude (Global)</b> N40°15'26.22133"	<b>Longitude (Global)</b> W83°09'03.24261"	<b>Ellipsoid Height (USFT)</b> 789.059
<b>Location Photo</b>   NORTH			
 <p>1028_2019_OH, 3S, 20190409</p>	 <p>1028_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1029_2019_OH	<b>Northing (USFT)</b> 815265.684	<b>Easting (USFT)</b> 1791238.171	<b>Elevation (USFT)</b> 929.831
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°14'11.72119"	<b>Longitude (Global)</b> W83°08'05.57488"	<b>Ellipsoid Height (USFT)</b> 818.915
<b>Location Photo</b>   NORTH			
 <p>1029_2019_OH, 3N, 20190409</p>		 <p>1029_2019_OH, 3E, 20190409</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1030_2019_OH	<b>Northing (USFT)</b> 830511.583	<b>Easting (USFT)</b> 1795679.492	<b>Elevation (USFT)</b> 943.258
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°16'42.67296"	<b>Longitude (Global)</b> W83°07'09.65958"	<b>Ellipsoid Height (USFT)</b> 832.043
<b>Location Photo</b>    NORTH			
 <p>1030_2019_OH, 3W, 20190409</p>	 <p>1030_2019_OH, 3N, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1031_2019_OH	<b>Northing (USFT)</b> 735524.409	<b>Easting (USFT)</b> 1784565.869	<b>Elevation (USFT)</b> 931.678
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°01'03.27274"	<b>Longitude (Global)</b> W83°09'24.12575"	<b>Ellipsoid Height (USFT)</b> 821.819
<b>Location Photo</b>   NORTH			
 <p>1031_2019_OH, 3W, 20190410</p>	 <p>1031_2019_OH, 3S, 20190410</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1032_2019_OH	<b>Northing (USFT)</b> 658331.181	<b>Easting (USFT)</b> 1788978.249	<b>Elevation (USFT)</b> 851.579
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°48'20.72750"	<b>Longitude (Global)</b> W83°08'20.39382"	<b>Ellipsoid Height (USFT)</b> 742.383
<b>Location Photo</b>   NORTH			
 <p>1032_2019_OH, 3N, 20190408</p>		 <p>1032_2019_OH, 3E, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1033_2019_OH	<b>Northing (USFT)</b> 699539.747	<b>Easting (USFT)</b> 1793444.163	<b>Elevation (USFT)</b> 898.778
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°55'08.28496"	<b>Longitude (Global)</b> W83°07'26.81906"	<b>Ellipsoid Height (USFT)</b> 789.004
<b>Location Photo</b>   NORTH			
 <p>1033_2019_OH, 3N, 20190404</p>		 <p>1033_2019_OH, 3E, 20190404</p>	



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1034_2019_OH	<b>Northing (USFT)</b> 775586.875	<b>Easting (USFT)</b> 1797909.493	<b>Elevation (USFT)</b> 831.257
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°07'40.09069"	<b>Longitude (Global)</b> W83°06'36.10274"	<b>Ellipsoid Height (USFT)</b> 720.739
<b>Location Photo</b>    NORTH			
 <p>1034_2019_OH, 3W, 20190409</p>	 <p>1034_2019_OH, 3N, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1035_2019_OH	<b>Northing (USFT)</b> 800222.448	<b>Easting (USFT)</b> 1800126.558	<b>Elevation (USFT)</b> 938.726
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°11'43.67585"	<b>Longitude (Global)</b> W83°06'09.67889"	<b>Ellipsoid Height (USFT)</b> 827.884
<b>Location Photo</b>    NORTH			
 <p>1035_2019_OH, 3W, 20190409</p>	 <p>1035_2019_OH, 3S, 20190409</p>		



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1036_2019_OH	<b>Northing (USFT)</b> 744614.768	<b>Easting (USFT)</b> 1802358.524	<b>Elevation (USFT)</b> 808.191
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°02'34.32133"	<b>Longitude (Global)</b> W83°05'36.20951"	<b>Ellipsoid Height (USFT)</b> 697.783
<b>Location Photo</b>   NORTH			
 <p>1036_2019_OH, 3W, 20190410</p>		 <p>1036_2019_OH, 3S, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1037_2019_OH	<b>Northing (USFT)</b> 681062.432	<b>Easting (USFT)</b> 1804605.992	<b>Elevation (USFT)</b> 828.610
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°52'06.41990"	<b>Longitude (Global)</b> W83°05'02.02906"	<b>Ellipsoid Height (USFT)</b> 718.460
<b>Location Photo</b>   NORTH			
 <p>1037_2019_OH, 3N, 20190409</p>		 <p>1037_2019_OH, 3E, 20190409</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1038_2019_OH	<b>Northing (USFT)</b> 654508.771	<b>Easting (USFT)</b> 1806528.160	<b>Elevation (USFT)</b> 816.037
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°47'44.11858"	<b>Longitude (Global)</b> W83°04'35.20281"	<b>Ellipsoid Height (USFT)</b> 705.864
<b>Location Photo</b>   NORTH			
 <p>1038_2019_OH, 3S, 20190408</p>		 <p>1038_2019_OH, 3E, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1039_2019_OH	<b>Northing (USFT)</b> 704103.442	<b>Easting (USFT)</b> 1809028.623	<b>Elevation (USFT)</b> 785.296
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°55'54.40265"	<b>Longitude (Global)</b> W83°04'07.16894"	<b>Ellipsoid Height (USFT)</b> 674.845
<b>Location Photo</b>   NORTH			
 <p>1039_2019_OH, 3W, 20190404</p>		 <p>1039_2019_OH, 3N, 20190404</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1040_2019_OH	<b>Northing (USFT)</b> 734993.074	<b>Easting (USFT)</b> 1811172.054	<b>Elevation (USFT)</b> 854.577
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°00'59.79590"	<b>Longitude (Global)</b> W83°03'42.12059"	<b>Ellipsoid Height (USFT)</b> 743.957
<b>Location Photo</b>   NORTH			
 <p>1040_2019_OH, 3N, 20190410</p>		 <p>1040_2019_OH, 3E, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1041_2019_OH	<b>Northing (USFT)</b> 767959.396	<b>Easting (USFT)</b> 1813532.266	<b>Elevation (USFT)</b> 865.021
<b>Point Type</b> CALIBRATION CONCRETE	<b>Latitude (Global)</b> N40°06'25.71283"	<b>Longitude (Global)</b> W83°03'14.38533"	<b>Ellipsoid Height (USFT)</b> 754.204
<b>Location Photo</b>    NORTH			
 <p>1041_2019_OH, 3W, 20190410</p>		 <p>1041_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1042_2019_OH	<b>Northing (USFT)</b> 784394.785	<b>Easting (USFT)</b> 1815758.102	<b>Elevation (USFT)</b> 828.176
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°09'08.25699"	<b>Longitude (Global)</b> W83°02'47.02011"	<b>Ellipsoid Height (USFT)</b> 717.190
<b>Location Photo</b>   NORTH			
 <p>1042_2019_OH, 3N, 20190409</p>	 <p>1042_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1043_2019_OH	<b>Northing (USFT)</b> 699123.885	<b>Easting (USFT)</b> 1818038.448	<b>Elevation (USFT)</b> 736.488
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°55'05.73713"	<b>Longitude (Global)</b> W83°02'11.13090"	<b>Ellipsoid Height (USFT)</b> 625.695
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1044_2019_OH	<b>Northing (USFT)</b> 666895.196	<b>Easting (USFT)</b> 1820333.570	<b>Elevation (USFT)</b> 713.393
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°49'47.36566"	<b>Longitude (Global)</b> W83°01'39.25763"	<b>Ellipsoid Height (USFT)</b> 602.496
<b>Location Photo</b>   NORTH			
			
1044_2019_OH, 3N, 20190409		1044_2019_OH, 3E, 20190409	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1045_2019_OH	<b>Northing (USFT)</b> 743565.582	<b>Easting (USFT)</b> 1822550.414	<b>Elevation (USFT)</b> 771.141
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N40°02'25.18477"	<b>Longitude (Global)</b> W83°01'16.51506"	<b>Ellipsoid Height (USFT)</b> 660.167
<b>Location Photo</b>    NORTH			
			
1045_2019_OH, 3N, 20190402		1045_2019_OH, 3E, 20190402	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1046_2019_OH	<b>Northing (USFT)</b> 720304.486	<b>Easting (USFT)</b> 1824842.713	<b>Elevation (USFT)</b> 728.790
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°58'35.44336"	<b>Longitude (Global)</b> W83°00'45.34522"	<b>Ellipsoid Height (USFT)</b> 617.764
<b>Location Photo</b>   NORTH			
			
1046_2019_OH, 3W, 20190403		1046_2019_OH, 3S, 20190403	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1047_2019_OH	<b>Northing (USFT)</b> 646155.562	<b>Easting (USFT)</b> 1826792.867	<b>Elevation (USFT)</b> 675.248
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°46'22.76279"	<b>Longitude (Global)</b> W83°00'14.97719"	<b>Ellipsoid Height (USFT)</b> 564.080
<b>Location Photo</b>    NORTH			
			
1047_2019_OH, 3N, 20190408		1047_2019_OH, 3E, 20190408	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1048_2019_OH	<b>Northing (USFT)</b> 677517.300	<b>Easting (USFT)</b> 1829205.323	<b>Elevation (USFT)</b> 712.101
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°51'32.83844"	<b>Longitude (Global)</b> W82°59'46.28643"	<b>Ellipsoid Height (USFT)</b> 600.862
<b>Location Photo</b>   NORTH			
 1048_2019_OH, 3W, 20190409	 1048_2019_OH, 3S, 20190409		



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1049_2019_OH	<b>Northing (USFT)</b> 711984.200	<b>Easting (USFT)</b> 1831389.830	<b>Elevation (USFT)</b> 766.616
<b>Point Type</b> CONCRETE	<b>Latitude (Global)</b> N39°57'13.57803"	<b>Longitude (Global)</b> W82°59'20.66724"	<b>Ellipsoid Height (USFT)</b> 655.396
<b>Location Photo</b>    NORTH			
 <p>1049_2019_OH, 3W, 20190411</p>	 <p>1049_2019_OH, 3N, 20190411</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1050_2019_OH	<b>Northing (USFT)</b> 741171.530	<b>Easting (USFT)</b> 1833679.096	<b>Elevation (USFT)</b> 880.872
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N40°02'02.13709"	<b>Longitude (Global)</b> W82°58'53.26915"	<b>Ellipsoid Height (USFT)</b> 769.622
<b>Location Photo</b>   NORTH			
 <p>1050_2019_OH, 3N, 20190401</p>	 <p>1050_2019_OH, 3E, 20190401</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1051_2019_OH	<b>Northing (USFT)</b> 772660.471	<b>Easting (USFT)</b> 1835855.166	<b>Elevation (USFT)</b> 903.699
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°07'13.42403"	<b>Longitude (Global)</b> W82°58'27.42022"	<b>Ellipsoid Height (USFT)</b> 792.350
<b>Location Photo</b>    NORTH			
			
1051_2019_OH, 3N, 20190409		1051_2019_OH, 3E, 20190409	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1052_2019_OH	<b>Northing (USFT)</b> 794128.839	<b>Easting (USFT)</b> 1838365.909	<b>Elevation (USFT)</b> 870.139
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°10'45.69719"	<b>Longitude (Global)</b> W82°57'56.52742"	<b>Ellipsoid Height (USFT)</b> 758.666
<b>Location Photo</b>    NORTH			
 <p>1052_2019_OH, 3N, 20190409</p>	 <p>1052_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1053_2019_OH	<b>Northing (USFT)</b> 657735.193	<b>Easting (USFT)</b> 1840319.194	<b>Elevation (USFT)</b> 720.968
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°48'17.91463"	<b>Longitude (Global)</b> W82°57'22.48519"	<b>Ellipsoid Height (USFT)</b> 609.342
<b>Location Photo</b>    NORTH			
 <p>1053_2019_OH, 3N, 20190409</p>		 <p>1053_2019_OH, 3E, 20190409</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1054_2019_OH	<b>Northing (USFT)</b> 642890.183	<b>Easting (USFT)</b> 1842557.114	<b>Elevation (USFT)</b> 726.687
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°45'51.31246"	<b>Longitude (Global)</b> W82°56'52.86559"	<b>Ellipsoid Height (USFT)</b> 615.045
<b>Location Photo</b>   NORTH			
 <p>1054_2019_OH, 3N, 20190409</p>		 <p>1054_2019_OH, 3E, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1055_2019_OH	<b>Northing (USFT)</b> 693817.262	<b>Easting (USFT)</b> 1844786.758	<b>Elevation (USFT)</b> 766.533
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°54'14.72472"	<b>Longitude (Global)</b> W82°56'27.49745"	<b>Ellipsoid Height (USFT)</b> 654.888
<b>Location Photo</b>    NORTH			
			






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1056_2019_OH	<b>Northing (USFT)</b> 711497.090	<b>Easting (USFT)</b> 1847051.861	<b>Elevation (USFT)</b> 778.663
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°57'09.55463"	<b>Longitude (Global)</b> W82°55'59.52032"	<b>Ellipsoid Height (USFT)</b> 667.043
<b>Location Photo</b>   NORTH			
 1056_2019_OH, 3W, 20190403	 1056_2019_OH, 3N, 20190403		






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1057_2019_OH	<b>Northing (USFT)</b> 753800.886	<b>Easting (USFT)</b> 1849337.100	<b>Elevation (USFT)</b> 787.964
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°04'07.71888"	<b>Longitude (Global)</b> W82°55'32.73723"	<b>Ellipsoid Height (USFT)</b> 676.375
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1058_2019_OH	<b>Northing (USFT)</b> 788213.023	<b>Easting (USFT)</b> 1851477.231	<b>Elevation (USFT)</b> 933.163
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°09'47.87375"	<b>Longitude (Global)</b> W82°55'07.26243"	<b>Ellipsoid Height (USFT)</b> 821.517
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1059_2019_OH	<b>Northing (USFT)</b> 817323.522	<b>Easting (USFT)</b> 1853695.146	<b>Elevation (USFT)</b> 972.266
<b>Point Type</b> CALIBRATION GRAVEL	<b>Latitude (Global)</b> N40°14'35.63024"	<b>Longitude (Global)</b> W82°54'40.40343"	<b>Ellipsoid Height (USFT)</b> 860.546
<b>Location Photo</b>   NORTH			
 <p>1059_2019_OH, 3W, 20190411</p>		 <p>1059_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1060_2019_OH	<b>Northing (USFT)</b> 673667.016	<b>Easting (USFT)</b> 1858129.120	<b>Elevation (USFT)</b> 731.489
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°50'56.19454"	<b>Longitude (Global)</b> W82°53'35.16393"	<b>Ellipsoid Height (USFT)</b> 619.483
<b>Location Photo</b>   NORTH			
 <p>1060_2019_OH, 3W, 20190410</p>		 <p>1060_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1061_2019_OH	<b>Northing (USFT)</b> 738466.940	<b>Easting (USFT)</b> 1855878.055	<b>Elevation (USFT)</b> 839.039
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N40°01'36.48319"	<b>Longitude (Global)</b> W82°54'07.72672"	<b>Ellipsoid Height (USFT)</b> 727.338
<b>Location Photo</b>   NORTH			
 <p>1061_2019_OH, 3N, 20190411</p>		 <p>1061_2019_OH, 3E, 20190411</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1062_2019_OH	<b>Northing (USFT)</b> 686816.891	<b>Easting (USFT)</b> 1860335.857	<b>Elevation (USFT)</b> 741.342
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°53'06.24562"	<b>Longitude (Global)</b> W82°53'07.58943"	<b>Ellipsoid Height (USFT)</b> 629.343
<b>Location Photo</b>   NORTH			
 <p>1062_2019_OH, 3W, 20190410</p>		 <p>1062_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1063_2019_OH	<b>Northing (USFT)</b> 706254.777	<b>Easting (USFT)</b> 1862511.562	<b>Elevation (USFT)</b> 768.917
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°56'18.43374"	<b>Longitude (Global)</b> W82°52'40.72240"	<b>Ellipsoid Height (USFT)</b> 656.998
<b>Location Photo</b>   NORTH			
 <p>1063_2019_OH, 3N, 20190404</p>		 <p>1063_2019_OH, 3E, 20190404</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1064_2019_OH	<b>Northing (USFT)</b> 750393.090	<b>Easting (USFT)</b> 1864610.872	<b>Elevation (USFT)</b> 924.677
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N40°03'34.70881"	<b>Longitude (Global)</b> W82°52'16.09999"	<b>Ellipsoid Height (USFT)</b> 812.914
<b>Location Photo</b>   NORTH			
 <p>1064_2019_OH, 3W, 20190411</p>		 <p>1064_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1065_2019_OH	<b>Northing (USFT)</b> 798471.390	<b>Easting (USFT)</b> 1866970.397	<b>Elevation (USFT)</b> 948.130
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°11'29.90617"	<b>Longitude (Global)</b> W82°51'48.24331"	<b>Ellipsoid Height (USFT)</b> 836.336
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1066_2019_OH	<b>Northing (USFT)</b> 820672.294	<b>Easting (USFT)</b> 1869128.121	<b>Elevation (USFT)</b> 995.127
<b>Point Type</b> CALIBRATION GRAVEL	<b>Latitude (Global)</b> N40°15'09.36845"	<b>Longitude (Global)</b> W82°51'21.56838"	<b>Ellipsoid Height (USFT)</b> 883.324
<b>Location Photo</b>   NORTH			
 <p>1066_2019_OH, 3N, 20190411</p>		 <p>1066_2019_OH, 3E, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1067_2019_OH	<b>Northing (USFT)</b> 792100.637	<b>Easting (USFT)</b> 1871251.353	<b>Elevation (USFT)</b> 998.011
<b>Point Type</b> CALIBRATION ASPHALT	<b>Latitude (Global)</b> N40°10'27.11942"	<b>Longitude (Global)</b> W82°50'52.76594"	<b>Ellipsoid Height (USFT)</b> 886.212
<b>Location Photo</b>   NORTH			
			
1067_2019_OH, 3W, 20190411		1067_2019_OH, 3N, 20190411	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1068_2019_OH	<b>Northing (USFT)</b> 734239.874	<b>Easting (USFT)</b> 1873552.917	<b>Elevation (USFT)</b> 893.618
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N40°00'55.42708"	<b>Longitude (Global)</b> W82°50'20.31918"	<b>Ellipsoid Height (USFT)</b> 781.752
<b>Location Photo</b>   NORTH			
 <p>1068_2019_OH, 3N, 20190411</p>		 <p>1068_2019_OH, 3E, 20190411</p>	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1069_2019_OH	<b>Northing (USFT)</b> 661332.948	<b>Easting (USFT)</b> 1864770.729	<b>Elevation (USFT)</b> 752.872
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°48'54.57560"	<b>Longitude (Global)</b> W82°52'09.36017"	<b>Ellipsoid Height (USFT)</b> 640.806
<b>Location Photo</b>   NORTH			
 <p>1069_2019_OH, 3W, 20190410</p>		 <p>1069_2019_OH, 3N, 20190410</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1070_2019_OH	<b>Northing (USFT)</b> 695757.901	<b>Easting (USFT)</b> 1875748.995	<b>Elevation (USFT)</b> 776.304
<b>Point Type</b> CONCRETE	<b>Latitude (Global)</b> N39°54'35.21071"	<b>Longitude (Global)</b> W82°49'50.28306"	<b>Ellipsoid Height (USFT)</b> 664.203
<b>Location Photo</b>    NORTH			
			
1070_2019_OH, 3S, 20190410		1070_2019_OH, 3E, 20190410	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1071_2019_OH	<b>Northing (USFT)</b> 678637.721	<b>Easting (USFT)</b> 1877903.660	<b>Elevation (USFT)</b> 762.599
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°51'46.09370"	<b>Longitude (Global)</b> W82°49'21.84703"	<b>Ellipsoid Height (USFT)</b> 650.429
<b>Location Photo</b>    NORTH			
 <p>1071_2019_OH, 3W, 20190410</p>		 <p>1071_2019_OH, 3N, 20190410</p>	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1072_2019_OH	<b>Northing (USFT)</b> 719485.166	<b>Easting (USFT)</b> 1882302.497	<b>Elevation (USFT)</b> 893.276
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°58'29.92532"	<b>Longitude (Global)</b> W82°48'27.21912"	<b>Ellipsoid Height (USFT)</b> 781.320
<b>Location Photo</b>   NORTH			
 <p>1072_2019_OH, 3W, 20190411</p>		 <p>1072_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1073_2019_OH	<b>Northing (USFT)</b> 663875.396	<b>Easting (USFT)</b> 1880088.010	<b>Elevation (USFT)</b> 815.220
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°49'20.27581"	<b>Longitude (Global)</b> W82°48'53.17425"	<b>Ellipsoid Height (USFT)</b> 703.071
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1074_2019_OH	<b>Northing (USFT)</b> 763422.789	<b>Easting (USFT)</b> 1884306.835	<b>Elevation (USFT)</b> 1050.009
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N40°05'44.19329"	<b>Longitude (Global)</b> W82°48'03.35419"	<b>Ellipsoid Height (USFT)</b> 938.208
<b>Location Photo</b>   NORTH			
 <p>1074_2019_OH, 3W, 20190411</p>		 <p>1074_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1075_2019_OH	<b>Northing (USFT)</b> 774161.986	<b>Easting (USFT)</b> 1873505.231	<b>Elevation (USFT)</b> 988.561
<b>Point Type</b> CALIBRATION GRAVEL	<b>Latitude (Global)</b> N40°07'29.93867"	<b>Longitude (Global)</b> W82°50'22.86226"	<b>Ellipsoid Height (USFT)</b> 876.769
<b>Location Photo</b>    NORTH			
 <p>1075_2019_OH, 3N, 20190411</p>	 <p>1075_2019_OH, 3E, 20190411</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1076_2019_OH	<b>Northing (USFT)</b> 752571.614	<b>Easting (USFT)</b> 1886545.544	<b>Elevation (USFT)</b> 1054.458
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N40°03'57.03413"	<b>Longitude (Global)</b> W82°47'34.09509"	<b>Ellipsoid Height (USFT)</b> 942.640
<b>Location Photo</b>    NORTH			
			
1076_2019_OH, 3W, 20190411		1076_2019_OH, 3N, 20190411	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1077_2019_OH	<b>Northing (USFT)</b> 726454.253	<b>Easting (USFT)</b> 1888702.555	<b>Elevation (USFT)</b> 1008.617
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°59'39.00412"	<b>Longitude (Global)</b> W82°47'05.29237"	<b>Ellipsoid Height (USFT)</b> 896.713
<b>Location Photo</b>   NORTH			
			
1077_2019_OH, 3W, 20190411		1077_2019_OH, 3S, 20190411	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1078_2019_OH	<b>Northing (USFT)</b> 699577.751	<b>Easting (USFT)</b> 1890837.250	<b>Elevation (USFT)</b> 860.144
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°55'13.46254"	<b>Longitude (Global)</b> W82°46'36.80561"	<b>Ellipsoid Height (USFT)</b> 748.076
<b>Location Photo</b>   NORTH			
 <p>1078_2019_OH, 3N, 20190411</p>		 <p>1078_2019_OH, 3E, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1079_2019_OH	<b>Northing (USFT)</b> 715784.268	<b>Easting (USFT)</b> 1893003.357	<b>Elevation (USFT)</b> 1021.516
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°57'53.68915"	<b>Longitude (Global)</b> W82°46'09.62413"	<b>Ellipsoid Height (USFT)</b> 909.572
<b>Location Photo</b>   NORTH			
			
1079_2019_OH, 3W, 20190411		1079_2019_OH, 3S, 20190411	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1080_2019_OH	<b>Northing (USFT)</b> 759085.493	<b>Easting (USFT)</b> 1895132.293	<b>Elevation (USFT)</b> 1116.582
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N40°05'01.66560"	<b>Longitude (Global)</b> W82°45'43.89658"	<b>Ellipsoid Height (USFT)</b> 1004.793
<b>Location Photo</b>   NORTH			
 <p>1080_2019_OH, 3W, 20190412</p>		 <p>1080_2019_OH, 3S, 20190412</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1081_2019_OH	<b>Northing (USFT)</b> 729209.990	<b>Easting (USFT)</b> 1897286.183	<b>Elevation (USFT)</b> 1081.473
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N40°00'06.49050"	<b>Longitude (Global)</b> W82°45'15.10432"	<b>Ellipsoid Height (USFT)</b> 969.611
<b>Location Photo</b>   NORTH			
			
1081_2019_OH, 3N, 20190411		1081_2019_OH, 3E, 20190411	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1082_2019_OH	<b>Northing (USFT)</b> 770821.678	<b>Easting (USFT)</b> 1899371.800	<b>Elevation (USFT)</b> 1151.688
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N40°06'57.76067"	<b>Longitude (Global)</b> W82°44'49.76766"	<b>Ellipsoid Height (USFT)</b> 1039.921
<b>Location Photo</b>   NORTH			
			
<b>1082_2019_OH, 3E, 20190731</b>	<b>1082_2019_OH, 3N, 20190731</b>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1083_2019_OH	<b>Northing (USFT)</b> 707960.556	<b>Easting (USFT)</b> 1901414.752	<b>Elevation (USFT)</b> 1037.892
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°56'36.60521"	<b>Longitude (Global)</b> W82°44'21.32856"	<b>Ellipsoid Height (USFT)</b> 925.935
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1084_2019_OH	<b>Northing (USFT)</b> 757101.773	<b>Easting (USFT)</b> 1903485.173	<b>Elevation (USFT)</b> 1155.874
<b>Point Type</b> CONCRETE	<b>Latitude (Global)</b> N40°04'42.28837"	<b>Longitude (Global)</b> W82°43'56.36922"	<b>Ellipsoid Height (USFT)</b> 1044.106
<b>Location Photo</b>   NORTH			
 <p>1084_2019_OH, 3W, 20190412</p>		 <p>1084_2019_OH, 3N, 20190412</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1085_2019_OH	<b>Northing (USFT)</b> 755611.328	<b>Easting (USFT)</b> 1905655.405	<b>Elevation (USFT)</b> 1171.164
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N40°04'27.61391"	<b>Longitude (Global)</b> W82°43'28.40318"	<b>Ellipsoid Height (USFT)</b> 1059.398
<b>Location Photo</b>    NORTH			
 <p>1085_2019_OH, 3W, 20190412</p>		 <p>1085_2019_OH, 3S, 20190412</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1086_2019_OH	<b>Northing (USFT)</b> 764189.764	<b>Easting (USFT)</b> 1907727.121	<b>Elevation (USFT)</b> 1195.114
<b>Point Type</b> OLD BROKEN ASPHALT	<b>Latitude (Global)</b> N40°05'52.43658"	<b>Longitude (Global)</b> W82°43'02.01917"	<b>Ellipsoid Height (USFT)</b> 1083.365
<b>Location Photo</b>    NORTH			
 <p>1086_2019_OH, 3N, 20190412</p>		 <p>1086_2019_OH, 3E, 20190412</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1087_2019_OH	<b>Northing (USFT)</b> 759784.102	<b>Easting (USFT)</b> 1909791.857	<b>Elevation (USFT)</b> 1206.926
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N40°05'08.94792"	<b>Longitude (Global)</b> W82°42'35.31872"	<b>Ellipsoid Height (USFT)</b> 1095.177
<b>Location Photo</b>   NORTH			
			
1087_2019_OH, 3W, 20190412		1087_2019_OH, 3N, 20190412	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1088_2019_OH	<b>Northing (USFT)</b> 716795.437	<b>Easting (USFT)</b> 1796803.622	<b>Elevation (USFT)</b> 870.291
<b>Point Type</b> SHORT GRASS SAND	<b>Latitude (Global)</b> N39°57'59.03946"	<b>Longitude (Global)</b> W83°06'45.20456"	<b>Ellipsoid Height (USFT)</b> 760.225
<b>Location Photo</b>    NORTH			
 <p>1088_2019_OH, 3N, 20190404</p>		 <p>1088_2019_OH, 3E, 20190404</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1089_2019_OH	<b>Northing (USFT)</b> 718044.019	<b>Easting (USFT)</b> 1801249.419	<b>Elevation (USFT)</b> 837.670
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N39°58'11.67252"	<b>Longitude (Global)</b> W83°05'48.21205"	<b>Ellipsoid Height (USFT)</b> 727.435
<b>Location Photo</b>   NORTH			
			
1089_2019_OH, 3W, 20190408	1089_2019_OH, 3S, 20190408		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1090_2019_OH	<b>Northing (USFT)</b> 703603.736	<b>Easting (USFT)</b> 1795603.534	<b>Elevation (USFT)</b> 852.037
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°55'48.59365"	<b>Longitude (Global)</b> W83°06'59.46080"	<b>Ellipsoid Height (USFT)</b> 742.130
<b>Location Photo</b>   NORTH			
			
1090_2019_OH, 3S, 20190404		1090_2019_OH, 3E, 20190404	



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1091_2019_OH	<b>Northing (USFT)</b> 711460.064	<b>Easting (USFT)</b> 1802754.892	<b>Elevation (USFT)</b> 835.484
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N39°57'06.70557"	<b>Longitude (Global)</b> W83°05'28.32224"	<b>Ellipsoid Height (USFT)</b> 725.239
<b>Location Photo</b>   NORTH			
			
1091_2019_OH, 3N, 20190404		1091_2019_OH, 3E, 20190404	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1092_2019_OH	<b>Northing (USFT)</b> 751117.431	<b>Easting (USFT)</b> 1819140.939	<b>Elevation (USFT)</b> 746.806
<b>Point Type</b> SAND DIRT	<b>Latitude (Global)</b> N40°03'39.61574"	<b>Longitude (Global)</b> W83°02'00.92439"	<b>Ellipsoid Height (USFT)</b> 635.905
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1093_2019_OH	<b>Northing (USFT)</b> 697056.885	<b>Easting (USFT)</b> 1829774.558	<b>Elevation (USFT)</b> 729.350
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N39°54'45.97205"	<b>Longitude (Global)</b> W82°59'40.35915"	<b>Ellipsoid Height (USFT)</b> 618.145
<b>Location Photo</b>   NORTH			
			
1093_2019_OH, 3N, 20190404		1093_2019_OH, 3E, 20190404	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1094_2019_OH	<b>Northing (USFT)</b> 749445.486	<b>Easting (USFT)</b> 1836411.570	<b>Elevation (USFT)</b> 894.225
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N40°03'24.04371"	<b>Longitude (Global)</b> W82°58'18.69673"	<b>Ellipsoid Height (USFT)</b> 782.907
<b>Location Photo</b>    NORTH			
			
1094_2019_OH, 3N, 20190401	1094_2019_OH, 3E, 20190401		



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1095_2019_OH	<b>Northing (USFT)</b> 733592.113	<b>Easting (USFT)</b> 1838312.499	<b>Elevation (USFT)</b> 851.994
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N40°00'47.47579"	<b>Longitude (Global)</b> W82°57'53.20125"	<b>Ellipsoid Height (USFT)</b> 740.628
<b>Location Photo</b>    NORTH			
 <p>1095_2019_OH, 3W, 20190402</p>		 <p>1095_2019_OH, 3N, 20190402</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1096_2019_OH	<b>Northing (USFT)</b> 724801.228	<b>Easting (USFT)</b> 1849577.760	<b>Elevation (USFT)</b> 810.114
<b>Point Type</b> DIRT	<b>Latitude (Global)</b> N39°59'21.14993"	<b>Longitude (Global)</b> W82°55'27.88859"	<b>Ellipsoid Height (USFT)</b> 698.484
<b>Location Photo</b>   NORTH			
			
1096_2019_OH, 3N, 20190402		1096_2019_OH, 3E, 20190402	



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1097_2019_OH	<b>Northing (USFT)</b> 732180.819	<b>Easting (USFT)</b> 1824141.617	<b>Elevation (USFT)</b> 726.058
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N40°00'32.76906"	<b>Longitude (Global)</b> W83°00'55.22158"	<b>Ellipsoid Height (USFT)</b> 615.049
<b>Location Photo</b>   NORTH			
 <p>1097_2019_OH, 3N, 20190403</p>		 <p>1097_2019_OH, 3E, 20190403</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1098_2019_OH	<b>Northing (USFT)</b> 747117.624	<b>Easting (USFT)</b> 1833341.187	<b>Elevation (USFT)</b> 890.355
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N40°03'00.87922"	<b>Longitude (Global)</b> W82°58'58.02197"	<b>Ellipsoid Height (USFT)</b> 779.112
<b>Location Photo</b>    NORTH			
			
1098_2019_OH, 3N, 20190401		1098_2019_OH, 3E, 20190401	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1099_2019_OH	<b>Northing (USFT)</b> 707090.014	<b>Easting (USFT)</b> 1838923.428	<b>Elevation (USFT)</b> 778.945
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°56'25.60359"	<b>Longitude (Global)</b> W82°57'43.60647"	<b>Ellipsoid Height (USFT)</b> 667.509
<b>Location Photo</b>   NORTH			
			
1099_2019_OH, 3N, 20190405		1099_2019_OH, 3E, 20190405	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1100_2019_OH	<b>Northing (USFT)</b> 715371.557	<b>Easting (USFT)</b> 1865102.135	<b>Elevation (USFT)</b> 794.966
<b>Point Type</b> SAND RED CLAY	<b>Latitude (Global)</b> N39°57'48.63612"	<b>Longitude (Global)</b> W82°52'07.94208"	<b>Ellipsoid Height (USFT)</b> 683.068
<b>Location Photo</b>   NORTH			
			
1100_2019_OH, 3S, 20190405		1100_2019_OH, 3E, 20190405	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1101_2019_OH	<b>Northing (USFT)</b> 711646.359	<b>Easting (USFT)</b> 1878794.108	<b>Elevation (USFT)</b> 885.649
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°57'12.33805"	<b>Longitude (Global)</b> W82°49'11.92769"	<b>Ellipsoid Height (USFT)</b> 773.647
<b>Location Photo</b>   NORTH			
 <p>1101_2019_OH, 3S,05APR2018</p>		 <p>1101_2019_OH, 3E,05APR2018</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1102_2019_OH	<b>Northing (USFT)</b> 714409.948	<b>Easting (USFT)</b> 1859591.081	<b>Elevation (USFT)</b> 786.518
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°57'38.90466"	<b>Longitude (Global)</b> W82°53'18.66675"	<b>Ellipsoid Height (USFT)</b> 674.686
<b>Location Photo</b>   NORTH			
 <p>1102_2019_OH, 3S, 20190403</p>		 <p>1102_2019_OH, 3E, 20190403</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1103_2019_OH	<b>Northing (USFT)</b> 726533.025	<b>Easting (USFT)</b> 1834591.129	<b>Elevation (USFT)</b> 837.519
<b>Point Type</b> MULCH	<b>Latitude (Global)</b> N39°59'37.52410"	<b>Longitude (Global)</b> W82°58'40.54814"	<b>Ellipsoid Height (USFT)</b> 726.238
<b>Location Photo</b>   NORTH			
			
1103_2019_OH, 3N, 20190405		1103_2019_OH, 3E, 20190405	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1104_2019_OH	<b>Northing (USFT)</b> 712680.367	<b>Easting (USFT)</b> 1821333.532	<b>Elevation (USFT)</b> 706.780
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°57'19.89981"	<b>Longitude (Global)</b> W83°01'29.85194"	<b>Ellipsoid Height (USFT)</b> 595.863
<b>Location Photo</b>   NORTH			
			
1104_2019_OH, 3N, 20190405		1104_2019_OH, 3E, 20190405	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1105_2019_OH	<b>Northing (USFT)</b> 748639.429	<b>Easting (USFT)</b> 1826942.034	<b>Elevation (USFT)</b> 858.056
<b>Point Type</b> MULCH	<b>Latitude (Global)</b> N40°03'15.57168"	<b>Longitude (Global)</b> W83°00'20.41728"	<b>Ellipsoid Height (USFT)</b> 746.966
<b>Location Photo</b>   NORTH			
			
1105_2019_OH, 3W, 20190402		1105_2019_OH, 3N, 20190402	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1106_2019_OH	<b>Northing (USFT)</b> 731506.249	<b>Easting (USFT)</b> 1833665.306	<b>Elevation (USFT)</b> 851.991
<b>Point Type</b> MULCH	<b>Latitude (Global)</b> N40°00'26.62220"	<b>Longitude (Global)</b> W82°58'52.78409"	<b>Ellipsoid Height (USFT)</b> 740.738
<b>Location Photo</b>    NORTH			
 <p>1106_2019_OH, 3W, 20190405</p>		 <p>1106_2019_OH, 3N, 20190405</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1107_2019_OH	<b>Northing (USFT)</b> 717845.844	<b>Easting (USFT)</b> 1839920.366	<b>Elevation (USFT)</b> 788.117
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°58'11.94761"	<b>Longitude (Global)</b> W82°57'31.50877"	<b>Ellipsoid Height (USFT)</b> 676.685
<b>Location Photo</b>   NORTH			
 <p>1107_2019_OH, 3S, 20190402</p>		 <p>1107_2019_OH, 3E, 20190402</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1108_2019_OH	<b>Northing (USFT)</b> 714129.178	<b>Easting (USFT)</b> 1850064.809	<b>Elevation (USFT)</b> 784.043
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°57'35.70719"	<b>Longitude (Global)</b> W82°55'20.98965"	<b>Ellipsoid Height (USFT)</b> 672.373
<b>Location Photo</b>   NORTH			
 <p>1108_2019_OH, 3N, 20190405</p>		 <p>1108_2019_OH, 3E, 20190405</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1109_2019_OH	<b>Northing (USFT)</b> 708960.437	<b>Easting (USFT)</b> 1818109.941	<b>Elevation (USFT)</b> 727.890
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°56'42.95073"	<b>Longitude (Global)</b> W83°02'10.96327"	<b>Ellipsoid Height (USFT)</b> 617.086
<b>Location Photo</b>   NORTH			
			
1109_2019_OH, 3W, 20190404		1109_2019_OH, 3N, 20190404	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1110_2019_OH	<b>Northing (USFT)</b> 708023.509	<b>Easting (USFT)</b> 1829410.327	<b>Elevation (USFT)</b> 755.308
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°56'34.33003"	<b>Longitude (Global)</b> W82°59'45.80665"	<b>Ellipsoid Height (USFT)</b> 644.138
<b>Location Photo</b>   NORTH			
 <p>1110_2019_OH, 3W, 20190405</p>		 <p>1110_2019_OH, 3N, 20190405</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1111_2019_OH	<b>Northing (USFT)</b> 704291.146	<b>Easting (USFT)</b> 1849045.889	<b>Elevation (USFT)</b> 760.715
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°55'58.43569"	<b>Longitude (Global)</b> W82°55'33.47881"	<b>Ellipsoid Height (USFT)</b> 649.019
<b>Location Photo</b>   NORTH			
 <p>1111_2019_OH, 3W, 20190404</p>	 <p>1111_2019_OH, 3N, 20190404</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1112_2019_OH	<b>Northing (USFT)</b> 720284.822	<b>Easting (USFT)</b> 1814556.467	<b>Elevation (USFT)</b> 728.666
<b>Point Type</b> SAND CLAY	<b>Latitude (Global)</b> N39°58'34.65131"	<b>Longitude (Global)</b> W83°02'57.47219"	<b>Ellipsoid Height (USFT)</b> 617.969
<b>Location Photo</b>   NORTH			
			
1112_2019_OH, 3N, 20190405		1112_2019_OH, 3E, 20190405	



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1113_2019_OH	<b>Northing (USFT)</b> 713165.999	<b>Easting (USFT)</b> 1814129.517	<b>Elevation (USFT)</b> 722.743
<b>Point Type</b> DIRT	<b>Latitude (Global)</b> N39°57'24.27498"	<b>Longitude (Global)</b> W83°03'02.39875"	<b>Ellipsoid Height (USFT)</b> 612.075
<b>Location Photo</b>   NORTH			
			
1113_2019_OH, 3N, 20190408		1113_2019_OH, 3E, 20190408	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1114_2019_OH	<b>Northing (USFT)</b> 708890.884	<b>Easting (USFT)</b> 1807100.132	<b>Elevation (USFT)</b> 799.979
<b>Point Type</b> DIRT	<b>Latitude (Global)</b> N39°56'41.59341"	<b>Longitude (Global)</b> W83°04'32.31652"	<b>Ellipsoid Height (USFT)</b> 689.584
<b>Location Photo</b>   NORTH			
			
1114_2019_OH, 3N, 20190404		1114_2019_OH, 3E, 20190404	



# GCP OBSERVATION LOG





<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1115_2019_OH	<b>Northing (USFT)</b> 743489.155	<b>Easting (USFT)</b> 1830878.056	<b>Elevation (USFT)</b> 874.560
<b>Point Type</b> WET SANDY DIRT	<b>Latitude (Global)</b> N40°02'24.89101"	<b>Longitude (Global)</b> W82°59'29.44104"	<b>Ellipsoid Height (USFT)</b> 763.379
<b>Location Photo</b>   NORTH			
			

1115\_2019\_OH, 3N, 20190401

1115\_2019\_OH, 3E, 20190401







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1116_2019_OH	<b>Northing (USFT)</b> 737975.945	<b>Easting (USFT)</b> 1826570.026	<b>Elevation (USFT)</b> 836.488
<b>Point Type</b> SAND DIRT	<b>Latitude (Global)</b> N40°01'30.17339"	<b>Longitude (Global)</b> W83°00'24.43152"	<b>Ellipsoid Height (USFT)</b> 725.416
<b>Location Photo</b>   NORTH			
 <p>1116_2019_OH, 3N, 20190402</p>		 <p>1116_2019_OH, 3E, 20190402</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1117_2019_OH	<b>Northing (USFT)</b> 741098.782	<b>Easting (USFT)</b> 1843002.181	<b>Elevation (USFT)</b> 845.932
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N40°02'01.89244"	<b>Longitude (Global)</b> W82°56'53.40816"	<b>Ellipsoid Height (USFT)</b> 734.462
<b>Location Photo</b>   NORTH			
 <p>1117_2019_OH, 3W, 20190402</p>	 <p>1117_2019_OH, 3S, 20190402</p>		









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1118_2019_OH	<b>Northing (USFT)</b> 724168.645	<b>Easting (USFT)</b> 1829504.429	<b>Elevation (USFT)</b> 780.904
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N39°59'13.88749"	<b>Longitude (Global)</b> W82°59'45.73718"	<b>Ellipsoid Height (USFT)</b> 669.752
<b>Location Photo</b>   NORTH			
 <p>1118_2019_OH, 3S, 20190403</p>		 <p>1118_2019_OH, 3E, 20190403</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1119_2019_OH	<b>Northing (USFT)</b> 723794.552	<b>Easting (USFT)</b> 1842216.213	<b>Elevation (USFT)</b> 797.279
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°59'10.84911"	<b>Longitude (Global)</b> W82°57'02.40217"	<b>Ellipsoid Height (USFT)</b> 685.804
<b>Location Photo</b>   NORTH			
			
1119_2019_OH, 3S, 20190405		1119_2019_OH, 3E, 20190405	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1120_2019_OH	<b>Northing (USFT)</b> 719005.912	<b>Easting (USFT)</b> 1831761.331	<b>Elevation (USFT)</b> 788.189
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°58'22.98917"	<b>Longitude (Global)</b> W82°59'16.38398"	<b>Ellipsoid Height (USFT)</b> 676.971
<b>Location Photo</b>   NORTH			
 <p>1120_2019_OH, 3N, 20190405</p>		 <p>1120_2019_OH, 3E, 20190405</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1121_2019_OH	<b>Northing (USFT)</b> 708006.703	<b>Easting (USFT)</b> 1801845.566	<b>Elevation (USFT)</b> 842.121
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°56'32.51916"	<b>Longitude (Global)</b> W83°05'39.70662"	<b>Ellipsoid Height (USFT)</b> 731.933
<b>Location Photo</b>   NORTH			
			
1121_2019_OH, 3N, 20190404		1121_2019_OH, 3E, 20190404	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1122_2019_OH	<b>Northing (USFT)</b> 726762.721	<b>Easting (USFT)</b> 1823504.867	<b>Elevation (USFT)</b> 740.089
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°59'39.19013"	<b>Longitude (Global)</b> W83°01'03.00554"	<b>Ellipsoid Height (USFT)</b> 629.103
<b>Location Photo</b>   NORTH			
 <p>1122_2019_OH, 3N, 20190403</p>	 <p>1122_2019_OH, 3E, 20190403</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1123_2019_OH	<b>Northing (USFT)</b> 738270.265	<b>Easting (USFT)</b> 1830728.710	<b>Elevation (USFT)</b> 861.874
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N40°01'33.30918"	<b>Longitude (Global)</b> W82°59'30.99563"	<b>Ellipsoid Height (USFT)</b> 750.698
<b>Location Photo</b>    NORTH			
			
1123_2019_OH, 3N, 20190402		1123_2019_OH, 3E, 20190402	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1124_2019_OH	<b>Northing (USFT)</b> 748128.651	<b>Easting (USFT)</b> 1839360.369	<b>Elevation (USFT)</b> 881.593
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N40°03'11.18122"	<b>Longitude (Global)</b> W82°57'40.68844"	<b>Ellipsoid Height (USFT)</b> 770.207
<b>Location Photo</b>   NORTH			
			
1124_2019_OH, 3W, 20190401		1124_2019_OH, 3S, 20190401	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1125_2019_OH	<b>Northing (USFT)</b> 755766.754	<b>Easting (USFT)</b> 1825650.479	<b>Elevation (USFT)</b> 863.209
<b>Point Type</b> WET DIRT	<b>Latitude (Global)</b> N40°04'25.93219"	<b>Longitude (Global)</b> W83°00'37.54426"	<b>Ellipsoid Height (USFT)</b> 752.136
<b>Location Photo</b>   NORTH			
			
1125_2019_OH, 3N, 20190401		1125_2019_OH, 3E, 20190401	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1126_2019_OH	<b>Northing (USFT)</b> 739234.204	<b>Easting (USFT)</b> 1818397.527	<b>Elevation (USFT)</b> 764.317
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N40°01'42.14135"	<b>Longitude (Global)</b> W83°02'09.57810"	<b>Ellipsoid Height (USFT)</b> 653.465
<b>Location Photo</b>   NORTH			
			
1126_2019_OH, 3N, 20190402		1126_2019_OH, 3E, 20190402	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1127_2019_OH	<b>Northing (USFT)</b> 710167.409	<b>Easting (USFT)</b> 1853752.780	<b>Elevation (USFT)</b> 778.950
<b>Point Type</b> DIRT	<b>Latitude (Global)</b> N39°56'56.72302"	<b>Longitude (Global)</b> W82°54'33.39738"	<b>Ellipsoid Height (USFT)</b> 667.190
<b>Location Photo</b>   NORTH			
			
1127_2019_OH, 3N, 20190403		1127_2019_OH, 3E, 20190403	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1128_2019_OH	<b>Northing (USFT)</b> 720741.833	<b>Easting (USFT)</b> 1848209.148	<b>Elevation (USFT)</b> 802.842
<b>Point Type</b> DIRT	<b>Latitude (Global)</b> N39°58'40.96962"	<b>Longitude (Global)</b> W82°55'45.22407"	<b>Ellipsoid Height (USFT)</b> 691.229
<b>Location Photo</b>   NORTH			
			
1128_2019_OH, 3N, 20190402		1128_2019_OH, 3E, 20190402	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1130_2019_OH	<b>Northing (USFT)</b> 707728.309	<b>Easting (USFT)</b> 1866472.481	<b>Elevation (USFT)</b> 756.144
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°56'33.15676"	<b>Longitude (Global)</b> W82°51'49.94731"	<b>Ellipsoid Height (USFT)</b> 644.183
<b>Location Photo</b>   NORTH			
 <p>1130_2019_OH, 3W, 20190405</p>		 <p>1130_2019_OH, 3N, 20190405</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1131_2019_OH	<b>Northing (USFT)</b> 709132.048	<b>Easting (USFT)</b> 1858375.952	<b>Elevation (USFT)</b> 771.737
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°56'46.69399"	<b>Longitude (Global)</b> W82°53'33.97706"	<b>Ellipsoid Height (USFT)</b> 659.893
<b>Location Photo</b>   NORTH			
			
1131_2019_OH, 3W, 20190403		1131_2019_OH, 3N, 20190403	


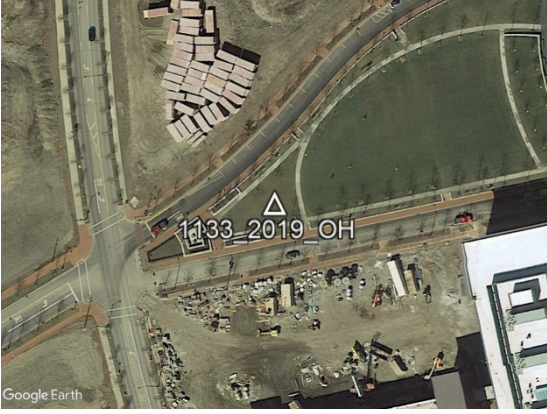




# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1132_2019_OH	<b>Northing (USFT)</b> 708504.566	<b>Easting (USFT)</b> 1857981.395	<b>Elevation (USFT)</b> 774.029
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N39°56'40.47591"	<b>Longitude (Global)</b> W82°53'39.00788"	<b>Ellipsoid Height (USFT)</b> 662.188
<b>Location Photo</b>   NORTH			
 <p>1132_2019_OH, 3N, 20190403</p>		 <p>1132_2019_OH, 3E, 20190403</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 1133_2019_OH	<b>Northing (USFT)</b> 722119.066	<b>Easting (USFT)</b> 1820358.627	<b>Elevation (USFT)</b> 725.656
<b>Point Type</b> SHORT GRASS	<b>Latitude (Global)</b> N39°58'53.12011"	<b>Longitude (Global)</b> W83°01'43.08057"	<b>Ellipsoid Height (USFT)</b> 614.768
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2001_2019_OH	<b>Northing (USFT)</b> 887445.132	<b>Easting (USFT)</b> 1774986.497	<b>Elevation (USFT)</b> 918.200
<b>Point Type</b> NVA PID ASPHALT	<b>Latitude (Global)</b> N40°26'03.72685"	<b>Longitude (Global)</b> W83°11'42.27621"	<b>Ellipsoid Height (USFT)</b> 805.801
<b>Location Photo</b>    NORTH			
 <p>2001_2019_OH, 3W, 20190408</p>		 <p>2001_2019_OH, 3S, 20190408</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2002_2019_OH	<b>Northing (USFT)</b> 870881.949	<b>Easting (USFT)</b> 1758750.123	<b>Elevation (USFT)</b> 928.233
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°23'18.79033"	<b>Longitude (Global)</b> W83°15'10.42974"	<b>Ellipsoid Height (USFT)</b> 816.176
<b>Location Photo</b>   NORTH			
 <p>2002_2019_OH, 3W, 20190408</p>		 <p>2002_2019_OH, 3N, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2003_2019_OH	<b>Northing (USFT)</b> 870188.972	<b>Easting (USFT)</b> 1768180.340	<b>Elevation (USFT)</b> 918.417
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°23'12.70283"	<b>Longitude (Global)</b> W83°13'08.50457"	<b>Ellipsoid Height (USFT)</b> 806.403
<b>Location Photo</b>   NORTH			
			
2003_2019_OH, 3S, 20190408		2003_2019_OH, 3E, 20190408	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2004A_2019_OH	<b>Northing (USFT)</b> 871662.429	<b>Easting (USFT)</b> 1775199.943	<b>Elevation (USFT)</b> 908.772
<b>Point Type</b> NVA GRAVEL	<b>Latitude (Global)</b> N40°23'27.80393"	<b>Longitude (Global)</b> W83°11'37.94811"	<b>Ellipsoid Height (USFT)</b> 796.750
<b>Location Photo</b>   NORTH			
 <p>2004A_2019_OH, 3W, 20190408</p>		 <p>2004A_2019_OH, 3N, 20190408</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2004B_2019_OH	<b>Northing (USFT)</b> 871671.731	<b>Easting (USFT)</b> 1775236.884	<b>Elevation (USFT)</b> 908.706
<b>Point Type</b> NVA GRAVEL	<b>Latitude (Global)</b> N40°23'27.89864"	<b>Longitude (Global)</b> W83°11'37.47168"	<b>Ellipsoid Height (USFT)</b> 796.684
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2005_2019_OH	<b>Northing (USFT)</b> 829306.523	<b>Easting (USFT)</b> 1783496.420	<b>Elevation (USFT)</b> 916.565
<b>Point Type</b> NVA GRAVEL	<b>Latitude (Global)</b> N40°16'29.91090"	<b>Longitude (Global)</b> W83°09'46.72098"	<b>Ellipsoid Height (USFT)</b> 805.502
<b>Location Photo</b>    NORTH			
 <p>2005_2019_OH, 3W, 20190409</p>	 <p>2005_2019_OH, 3S, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2006_2019_OH	<b>Northing (USFT)</b> 803368.161	<b>Easting (USFT)</b> 1787440.890	<b>Elevation (USFT)</b> 918.430
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°12'13.89164"	<b>Longitude (Global)</b> W83°08'53.43337"	<b>Ellipsoid Height (USFT)</b> 807.755
<b>Location Photo</b>   NORTH			
 <p>2006_2019_OH, 3N, 20190409</p>		 <p>2006_2019_OH, 3E, 20190409</p>	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2007_2019_OH	<b>Northing (USFT)</b> 818559.610	<b>Easting (USFT)</b> 1788244.654	<b>Elevation (USFT)</b> 879.235
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°14'44.05941"	<b>Longitude (Global)</b> W83°08'44.47501"	<b>Ellipsoid Height (USFT)</b> 768.305
<b>Location Photo</b>   NORTH			
 <p>2007_2019_OH, 3S, 20190409</p>	 <p>2007_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2008_2019_OH	<b>Northing (USFT)</b> 809901.778	<b>Easting (USFT)</b> 1787084.475	<b>Elevation (USFT)</b> 920.495
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°13'18.42711"	<b>Longitude (Global)</b> W83°08'58.63234"	<b>Ellipsoid Height (USFT)</b> 809.725
<b>Location Photo</b>   NORTH			
 <p>2008_2019_OH, 3W, 20190409</p>		 <p>2008_2019_OH, 3N, 20190409</p>	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2009_2019_OH	<b>Northing (USFT)</b> 790357.828	<b>Easting (USFT)</b> 1790458.162	<b>Elevation (USFT)</b> 884.762
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°10'05.54301"	<b>Longitude (Global)</b> W83°08'13.36611"	<b>Ellipsoid Height (USFT)</b> 774.213
<b>Location Photo</b>    NORTH			
 <p>2009_2019_OH, 3W, 20190409</p>		 <p>2009_2019_OH, 3N, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2010_2019_OH	<b>Northing (USFT)</b> 785200.144	<b>Easting (USFT)</b> 1765953.978	<b>Elevation (USFT)</b> 1019.890
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°09'12.75163"	<b>Longitude (Global)</b> W83°13'28.45994"	<b>Ellipsoid Height (USFT)</b> 909.860
<b>Location Photo</b>    NORTH			
 <p>2010_2019_OH, 3W, 20190409</p>	 <p>2010_2019_OH, 3S, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2011_2019_OH	<b>Northing (USFT)</b> 783633.407	<b>Easting (USFT)</b> 1781342.378	<b>Elevation (USFT)</b> 991.347
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°08'58.44367"	<b>Longitude (Global)</b> W83°10'10.14061"	<b>Ellipsoid Height (USFT)</b> 881.071
<b>Location Photo</b>   NORTH			
 <p>2011_2019_OH, 3W, 20190409</p>	 <p>2011_2019_OH, 3N, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2012_2019_OH	<b>Northing (USFT)</b> 774332.372	<b>Easting (USFT)</b> 1775854.536	<b>Elevation (USFT)</b> 935.773
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°07'26.12659"	<b>Longitude (Global)</b> W83°11'19.89441"	<b>Ellipsoid Height (USFT)</b> 825.708
<b>Location Photo</b>    NORTH			
			
2012_2019_OH, 3W, 20190410		2012_2019_OH, 3S, 20190410	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2013A_2019_OH	<b>Northing (USFT)</b> 763777.048	<b>Easting (USFT)</b> 1774482.286	<b>Elevation (USFT)</b> 942.414
<b>Point Type</b> NVA CONCRETE	<b>Latitude (Global)</b> N40°05'41.71817"	<b>Longitude (Global)</b> W83°11'36.51497"	<b>Ellipsoid Height (USFT)</b> 832.498
<b>Location Photo</b>   NORTH			
 <p>2013A_2019_OH, 3N, 20190410</p>		 <p>2013A_2019_OH, 3E, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2013B_2019_OH	<b>Northing (USFT)</b> 763780.093	<b>Easting (USFT)</b> 1774512.174	<b>Elevation (USFT)</b> 942.360
<b>Point Type</b> NVA CONCRETE	<b>Latitude (Global)</b> N40°05'41.75053"	<b>Longitude (Global)</b> W83°11'36.13070"	<b>Ellipsoid Height (USFT)</b> 832.444
<b>Location Photo</b>   NORTH			
 <p>2013B_2019_OH, 3W, 20190410</p>		 <p>2013B_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2014_2019_OH	<b>Northing (USFT)</b> 764238.354	<b>Easting (USFT)</b> 1794943.024	<b>Elevation (USFT)</b> 855.103
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°05'47.74764"	<b>Longitude (Global)</b> W83°07'13.28682"	<b>Ellipsoid Height (USFT)</b> 744.754
<b>Location Photo</b>   NORTH			
			
2014_2019_OH, 3W, 20190410		2014_2019_OH, 3S, 20190410	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2015_2019_OH	<b>Northing (USFT)</b> 761759.030	<b>Easting (USFT)</b> 1814192.981	<b>Elevation (USFT)</b> 840.967
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°05'24.48169"	<b>Longitude (Global)</b> W83°03'05.39498"	<b>Ellipsoid Height (USFT)</b> 730.164
<b>Location Photo</b>   NORTH			
 <p>2015_2019_OH, 3W, 20190410</p>		 <p>2015_2019_OH, 3N, 20190410</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2016_2019_OH	<b>Northing (USFT)</b> 760871.603	<b>Easting (USFT)</b> 1835520.472	<b>Elevation (USFT)</b> 905.548
<b>Point Type</b> PID NVA CONCRETE	<b>Latitude (Global)</b> N40°05'16.91046"	<b>Longitude (Global)</b> W82°58'30.92969"	<b>Ellipsoid Height (USFT)</b> 794.237
<b>Location Photo</b>   NORTH			
 <p>2016_2019_OH, 3W, 20190411</p>		 <p>2016_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2017_2019_OH	<b>Northing (USFT)</b> 774639.669	<b>Easting (USFT)</b> 1826780.980	<b>Elevation (USFT)</b> 915.906
<b>Point Type</b> NVA CONCRETE	<b>Latitude (Global)</b> N40°07'32.49495"	<b>Longitude (Global)</b> W83°00'24.36483"	<b>Ellipsoid Height (USFT)</b> 804.750
<b>Location Photo</b>   NORTH			
 <p>2017_2019_OH, 3N, 20190409</p>		 <p>2017_2019_OH, 3E, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2018_2019_OH	<b>Northing (USFT)</b> 784081.087	<b>Easting (USFT)</b> 1839607.031	<b>Elevation (USFT)</b> 873.294
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°09'06.47183"	<b>Longitude (Global)</b> W82°57'39.87726"	<b>Ellipsoid Height (USFT)</b> 761.832
<b>Location Photo</b>   NORTH			
			
2018_2019_OH, 3N, 20190409		2018_2019_OH, 3E, 20190409	



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2019_2019_OH	<b>Northing (USFT)</b> 780349.088	<b>Easting (USFT)</b> 1861484.831	<b>Elevation (USFT)</b> 905.313
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°08'30.60334"	<b>Longitude (Global)</b> W82°52'57.93603"	<b>Ellipsoid Height (USFT)</b> 793.571
<b>Location Photo</b>   NORTH			
 <p>2019_2019_OH, 3S, 20190411</p>		 <p>2019_2019_OH, 3E, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2020_2019_OH	<b>Northing (USFT)</b> 814078.192	<b>Easting (USFT)</b> 1861754.481	<b>Elevation (USFT)</b> 938.858
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°14'03.91185"	<b>Longitude (Global)</b> W82°52'56.30278"	<b>Ellipsoid Height (USFT)</b> 827.079
<b>Location Photo</b>   NORTH			
 <p>2020_2019_OH, 3W, 20190411</p>		 <p>2020_2019_OH, 3S, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2021_2019_OH	<b>Northing (USFT)</b> 791082.523	<b>Easting (USFT)</b> 1861732.888	<b>Elevation (USFT)</b> 904.848
<b>Point Type</b> NVA ASPHALT	<b>Latitude (Global)</b> N40°10'16.67854"	<b>Longitude (Global)</b> W82°52'55.32678"	<b>Ellipsoid Height (USFT)</b> 793.093
<b>Location Photo</b>   NORTH			
			
2021_2019_OH, 3W, 20190411		2021_2019_OH, 3N, 20190411	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2022_2019_OH	<b>Northing (USFT)</b> 768229.737	<b>Easting (USFT)</b> 1860337.895	<b>Elevation (USFT)</b> 911.065
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N40°06'30.79350"	<b>Longitude (Global)</b> W82°53'12.03566"	<b>Ellipsoid Height (USFT)</b> 799.344
<b>Location Photo</b>   NORTH			
			
2022_2019_OH, 3N, 20190411		2022_2019_OH, 3E, 20190411	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2023_2019_OH	<b>Northing (USFT)</b> 748343.205	<b>Easting (USFT)</b> 1780086.805	<b>Elevation (USFT)</b> 937.314
<b>Point Type</b> NVA GRAVEL	<b>Latitude (Global)</b> N40°03'09.62230"	<b>Longitude (Global)</b> W83°10'22.92157"	<b>Ellipsoid Height (USFT)</b> 827.442
<b>Location Photo</b>   NORTH			
 <p>2023_2019_OH, 3N, 20190410</p>	 <p>2023_2019_OH, 3E, 20190410</p>		









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2024A_2019_OH	<b>Northing (USFT)</b> 732697.927	<b>Easting (USFT)</b> 1758615.833	<b>Elevation (USFT)</b> 904.325
<b>Point Type</b> NVA GRAVEL	<b>Latitude (Global)</b> N40°00'33.34482"	<b>Longitude (Global)</b> W83°14'57.34864"	<b>Ellipsoid Height (USFT)</b> 795.089
<b>Location Photo</b>    NORTH			
 <p>2024A_2019_OH, 3S, 20190410</p>		 <p>2024A_2019_OH, 3E, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2024B_2019_OH	<b>Northing (USFT)</b> 732657.102	<b>Easting (USFT)</b> 1758599.365	<b>Elevation (USFT)</b> 904.342
<b>Point Type</b> NVA GRAVEL	<b>Latitude (Global)</b> N40°00'32.94003"	<b>Longitude (Global)</b> W83°14'57.55592"	<b>Ellipsoid Height (USFT)</b> 795.108
<b>Location Photo</b>    NORTH			
 <p>2024B_2019_OH, 3S, 20190410</p>		 <p>2024B_2019_OH, 3E, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2025_2019_OH	<b>Northing (USFT)</b> 769317.656	<b>Easting (USFT)</b> 1886854.976	<b>Elevation (USFT)</b> 1075.734
<b>Point Type</b> COR STOP BAR	<b>Latitude (Global)</b> N40°06'42.52883"	<b>Longitude (Global)</b> W82°47'30.81146"	<b>Ellipsoid Height (USFT)</b> 963.941
<b>Location Photo</b>   NORTH			
 <p>2025_2019_OH, 3S, 20190412</p>		 <p>2025_2019_OH, 3E, 20190412</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2026_2019_OH	<b>Northing (USFT)</b> 739071.422	<b>Easting (USFT)</b> 1886968.648	<b>Elevation (USFT)</b> 1023.181
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N40°01'43.63630"	<b>Longitude (Global)</b> W82°47'28.09333"	<b>Ellipsoid Height (USFT)</b> 911.323
<b>Location Photo</b>   NORTH			
 <p>2026_2019_OH, 3W, 20190411</p>		 <p>2026_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2027_2019_OH	<b>Northing (USFT)</b> 733608.762	<b>Easting (USFT)</b> 1846879.424	<b>Elevation (USFT)</b> 766.305
<b>Point Type</b> COR STOP BAR	<b>Latitude (Global)</b> N40°00'48.06175"	<b>Longitude (Global)</b> W82°56'03.09985"	<b>Ellipsoid Height (USFT)</b> 654.744
<b>Location Photo</b>   NORTH			
 2027_2019_OH, 3W, 20190412	 2027_2019_OH, 3N, 20190412		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2028_2019_OH	<b>Northing (USFT)</b> 725515.319	<b>Easting (USFT)</b> 1810242.052	<b>Elevation (USFT)</b> 769.422
<b>Point Type</b> PID NVA ASPHALT	<b>Latitude (Global)</b> N39°59'26.07750"	<b>Longitude (Global)</b> W83°03'53.31156"	<b>Ellipsoid Height (USFT)</b> 658.852
<b>Location Photo</b>   NORTH			
			
2028_2019_OH, 3W, 20190410		2028_2019_OH, 3S, 20190410	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2029_2019_OH	<b>Northing (USFT)</b> 712727.424	<b>Easting (USFT)</b> 1782862.823	<b>Elevation (USFT)</b> 922.664
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°57'17.86570"	<b>Longitude (Global)</b> W83°09'43.86570"	<b>Ellipsoid Height (USFT)</b> 813.127
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2030_2019_OH	<b>Northing (USFT)</b> 687990.389	<b>Easting (USFT)</b> 1784241.262	<b>Elevation (USFT)</b> 888.530
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N39°53'13.50357"	<b>Longitude (Global)</b> W83°09'23.85512"	<b>Ellipsoid Height (USFT)</b> 779.310
<b>Location Photo</b>   NORTH			
 <p>2030_2019_OH, 3N, 20190408</p>	 <p>2030_2019_OH, 3E, 20190408</p>		









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2031_2019_OH	<b>Northing (USFT)</b> 668600.234	<b>Easting (USFT)</b> 1782460.337	<b>Elevation (USFT)</b> 798.205
<b>Point Type</b> GRAVEL	<b>Latitude (Global)</b> N39°50'01.74969"	<b>Longitude (Global)</b> W83°09'44.87684"	<b>Ellipsoid Height (USFT)</b> 689.285
<b>Location Photo</b>   NORTH			
 <p>2031_2019_OH, 3N, 20190409</p>	 <p>2031_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2032_2019_OH	<b>Northing (USFT)</b> 646241.229	<b>Easting (USFT)</b> 1831008.673	<b>Elevation (USFT)</b> 702.901
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°46'23.83862"	<b>Longitude (Global)</b> W82°59'20.98839"	<b>Ellipsoid Height (USFT)</b> 591.579
<b>Location Photo</b>   NORTH			
 <p>2032_2019_OH, 3N, 20190409</p>		 <p>2032_2019_OH, 3E, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2033_2019_OH	<b>Northing (USFT)</b> 668272.108	<b>Easting (USFT)</b> 1811305.198	<b>Elevation (USFT)</b> 783.533
<b>Point Type</b> DIRT SHORT GRASS	<b>Latitude (Global)</b> N39°50'00.43617"	<b>Longitude (Global)</b> W83°03'35.09350"	<b>Ellipsoid Height (USFT)</b> 673.079
<b>Location Photo</b>   NORTH			
 <p>2033_2019_OH, 3W, 20190409</p>		 <p>2033_2019_OH, 3N, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2033_HOR_2019_OH	<b>Northing (USFT)</b> 668150.460	<b>Easting (USFT)</b> 1811379.881	<b>Elevation (USFT)</b> 779.337
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°49'59.23852"	<b>Longitude (Global)</b> W83°03'34.12650"	<b>Ellipsoid Height (USFT)</b> 668.879
<b>Location Photo</b>    NORTH			
 <p>2033_HOR_2019_OH, 3N, 20190409</p>	 <p>2033_HOR_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2034_2019_OH	<b>Northing (USFT)</b> 666946.516	<b>Easting (USFT)</b> 1849839.365	<b>Elevation (USFT)</b> 737.199
<b>Point Type</b> ARROW	<b>Latitude (Global)</b> N39°49'49.40693"	<b>Longitude (Global)</b> W82°55'21.04961"	<b>Ellipsoid Height (USFT)</b> 625.341
<b>Location Photo</b>   NORTH			
 <p>2034_2019_OH, 3W, 20190410</p>		 <p>2034_2019_OH, 3S, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2035A_2019_OH	<b>Northing (USFT)</b> 679621.088	<b>Easting (USFT)</b> 1851832.377	<b>Elevation (USFT)</b> 744.714
<b>Point Type</b> CL WALK	<b>Latitude (Global)</b> N39°51'54.75868"	<b>Longitude (Global)</b> W82°54'56.25039"	<b>Ellipsoid Height (USFT)</b> 632.838
<b>Location Photo</b>    NORTH			
 <p>2035A_2019_OH, 3W, 20190410</p>		 <p>2035A_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2035B_2019_OH	<b>Northing (USFT)</b> 679618.251	<b>Easting (USFT)</b> 1851874.283	<b>Elevation (USFT)</b> 744.944
<b>Point Type</b> CL WALK	<b>Latitude (Global)</b> N39°51'54.73255"	<b>Longitude (Global)</b> W82°54'55.71279"	<b>Ellipsoid Height (USFT)</b> 633.067
<b>Location Photo</b>   NORTH			
 <p>2035B_2019_OH, 3W, 20190410</p>	 <p>2035B_2019_OH, 3N, 20190410</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2036_2019_OH	<b>Northing (USFT)</b> 696467.378	<b>Easting (USFT)</b> 1861421.627	<b>Elevation (USFT)</b> 737.577
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°54'41.66371"	<b>Longitude (Global)</b> W82°52'54.18409"	<b>Ellipsoid Height (USFT)</b> 625.612
<b>Location Photo</b>   NORTH			
 <p>2036_2019_OH, 3N, 20190410</p>		 <p>2036_2019_OH, 3E, 20190410</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2037_2019_OH	<b>Northing (USFT)</b> 668098.602	<b>Easting (USFT)</b> 1872712.947	<b>Elevation (USFT)</b> 752.830
<b>Point Type</b> COR STOP BAR	<b>Latitude (Global)</b> N39°50'01.74867"	<b>Longitude (Global)</b> W82°50'27.90384"	<b>Ellipsoid Height (USFT)</b> 640.682
<b>Location Photo</b>   NORTH			
 <p>2037_2019_OH, 3W, 20190410</p>		 <p>2037_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2038_2019_OH	<b>Northing (USFT)</b> 708994.123	<b>Easting (USFT)</b> 1883490.306	<b>Elevation (USFT)</b> 849.206
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°56'46.28742"	<b>Longitude (Global)</b> W82°48'11.50917"	<b>Ellipsoid Height (USFT)</b> 737.184
<b>Location Photo</b>   NORTH			
 <p>2038_2019_OH, 3W, 20190411</p>		 <p>2038_2019_OH, 3S, 20190411</p>	





# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2039_2019_OH	<b>Northing (USFT)</b> 720743.197	<b>Easting (USFT)</b> 1866401.401	<b>Elevation (USFT)</b> 779.209
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°58'41.77309"	<b>Longitude (Global)</b> W82°51'51.53410"	<b>Ellipsoid Height (USFT)</b> 667.323
<b>Location Photo</b>   NORTH			
 <p>2039_2019_OH, 3W, 20190412</p>	 <p>2039_2019_OH, 3N, 20190412</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2040_2019_OH	<b>Northing (USFT)</b> 711295.047	<b>Easting (USFT)</b> 1856749.790	<b>Elevation (USFT)</b> 775.541
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°57'07.99938"	<b>Longitude (Global)</b> W82°53'54.97907"	<b>Ellipsoid Height (USFT)</b> 663.735
<b>Location Photo</b>   NORTH			
 <p>2040_2019_OH, 3S, 20190412</p>		 <p>2040_2019_OH, 3E, 20190412</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2041_2019_OH	<b>Northing (USFT)</b> 720729.149	<b>Easting (USFT)</b> 1841383.850	<b>Elevation (USFT)</b> 774.814
<b>Point Type</b> ARROW	<b>Latitude (Global)</b> N39°58'40.51456"	<b>Longitude (Global)</b> W82°57'12.89776"	<b>Ellipsoid Height (USFT)</b> 663.351
<b>Location Photo</b>   NORTH			
 <p>2041_2019_OH, 3W, 20190412</p>	 <p>2041_2019_OH, 3S, 20190412</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2042_2019_OH	<b>Northing (USFT)</b> 712325.811	<b>Easting (USFT)</b> 1803596.243	<b>Elevation (USFT)</b> 827.417
<b>Point Type</b> ARROW	<b>Latitude (Global)</b> N39°57'15.31549"	<b>Longitude (Global)</b> W83°05'17.59124"	<b>Ellipsoid Height (USFT)</b> 717.135
<b>Location Photo</b>   NORTH			
 <p>2042_2019_OH, 3W, 20190410</p>		 <p>2042_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2043_2019_OH	<b>Northing (USFT)</b> 697297.377	<b>Easting (USFT)</b> 1801330.169	<b>Elevation (USFT)</b> 843.604
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°54'46.65131"	<b>Longitude (Global)</b> W83°05'45.41625"	<b>Ellipsoid Height (USFT)</b> 733.509
<b>Location Photo</b>    NORTH			
 <p>2043_2019_OH, 3W, 20190409</p>		 <p>2043_2019_OH, 3N, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2044_2019_OH	<b>Northing (USFT)</b> 687123.272	<b>Easting (USFT)</b> 1819969.925	<b>Elevation (USFT)</b> 721.349
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°53'07.25289"	<b>Longitude (Global)</b> W83°01'45.43871"	<b>Ellipsoid Height (USFT)</b> 610.482
<b>Location Photo</b>   NORTH			
 <p>2044_2019_OH, 3W, 20190409</p>	 <p>2044_2019_OH, 3N, 20190409</p>		









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2045_2019_OH	<b>Northing (USFT)</b> 701242.152	<b>Easting (USFT)</b> 1829359.198	<b>Elevation (USFT)</b> 747.783
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°55'27.31059"	<b>Longitude (Global)</b> W82°59'45.98473"	<b>Ellipsoid Height (USFT)</b> 636.600
<b>Location Photo</b>   NORTH			
 <p>2045_2019_OH, 3W, 20190411</p>	 <p>2045_2019_OH, 3N, 20190411</p>		



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2046_2019_OH	<b>Northing (USFT)</b> 659515.405	<b>Easting (USFT)</b> 1829485.453	<b>Elevation (USFT)</b> 690.368
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°48'34.94442"	<b>Longitude (Global)</b> W82°59'41.42909"	<b>Ellipsoid Height (USFT)</b> 579.089
<b>Location Photo</b>   NORTH			
 <p>2046_2019_OH, 3N, 20190409</p>		 <p>2046_2019_OH, 3E, 20190409</p>	



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2047_2019_OH	<b>Northing (USFT)</b> 684522.731	<b>Easting (USFT)</b> 1831991.371	<b>Elevation (USFT)</b> 737.106
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°52'42.22083"	<b>Longitude (Global)</b> W82°59'11.04333"	<b>Ellipsoid Height (USFT)</b> 625.791
<b>Location Photo</b>   NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2047_HOR_2019_OH	<b>Northing (USFT)</b> 684558.956	<b>Easting (USFT)</b> 1832045.046	<b>Elevation (USFT)</b> 735.969
<b>Point Type</b> ASPHALT	<b>Latitude (Global)</b> N39°52'42.58168"	<b>Longitude (Global)</b> W82°59'10.35733"	<b>Ellipsoid Height (USFT)</b> 624.653
<b>Location Photo</b>   NORTH			
 <p>2047_HOR_2019_OH, 3N, 20190409</p>	 <p>2047_HOR_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2048_2019_OH	<b>Northing (USFT)</b> 732223.546	<b>Easting (USFT)</b> 1828965.388	<b>Elevation (USFT)</b> 839.114
<b>Point Type</b> ARROW	<b>Latitude (Global)</b> N40°00'33.45881"	<b>Longitude (Global)</b> W82°59'53.23320"	<b>Ellipsoid Height (USFT)</b> 727.981
<b>Location Photo</b>   NORTH			
 <p>2048_2019_OH, 3W, 20190411</p>	 <p>2048_2019_OH, 3S, 20190411</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 2049_2019_OH	<b>Northing (USFT)</b> 653144.583	<b>Easting (USFT)</b> 1851089.673	<b>Elevation (USFT)</b> 727.362
<b>Point Type</b> LIGHT ASPHALT	<b>Latitude (Global)</b> N39°47'33.06108"	<b>Longitude (Global)</b> W82°55'04.20414"	<b>Ellipsoid Height (USFT)</b> 615.508
<b>Location Photo</b>   NORTH			
 <p>2049_2019_OH, 3N, 20190409</p>	 <p>2049_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3001_2019_OH	<b>Northing (USFT)</b> 887458.482	<b>Easting (USFT)</b> 1774953.311	<b>Elevation (USFT)</b> 919.048
<b>Point Type</b> VVA TWC	<b>Latitude (Global)</b> N40°26'03.85623"	<b>Longitude (Global)</b> W83°11'42.70664"	<b>Ellipsoid Height (USFT)</b> 806.648
<b>Location Photo</b>   NORTH			
 <p>3001_2019_OH, 3W, 20190408</p>	 <p>3001_2019_OH, 3S, 20190408</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3002_2019_OH	<b>Northing (USFT)</b> 870885.298	<b>Easting (USFT)</b> 1758786.260	<b>Elevation (USFT)</b> 927.533
<b>Point Type</b> VVA GRASS/CROPS	<b>Latitude (Global)</b> N40°23'18.82639"	<b>Longitude (Global)</b> W83°15'09.96315"	<b>Ellipsoid Height (USFT)</b> 815.476
<b>Location Photo</b>   NORTH			
 <p>3002_2019_OH, 3N, 20190408</p>		 <p>3002_2019_OH, 3E, 20190408</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3003_2019_OH	<b>Northing (USFT)</b> 712743.626	<b>Easting (USFT)</b> 1782803.945	<b>Elevation (USFT)</b> 922.690
<b>Point Type</b> BRUSH	<b>Latitude (Global)</b> N39°57'18.02155"	<b>Longitude (Global)</b> W83°09'44.62327"	<b>Ellipsoid Height (USFT)</b> 813.155
<b>Location Photo</b>   NORTH			
 <p>3003_2019_OH, 3W, 20190408</p>	 <p>3003_2019_OH, 3N, 20190408</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3004_2019_OH	<b>Northing (USFT)</b> 870195.886	<b>Easting (USFT)</b> 1768155.025	<b>Elevation (USFT)</b> 917.065
<b>Point Type</b> VVA GRASS	<b>Latitude (Global)</b> N40°23'12.76914"	<b>Longitude (Global)</b> W83°13'08.83239"	<b>Ellipsoid Height (USFT)</b> 805.051
<b>Location Photo</b>   NORTH			
 <p>3004_2019_OH, 3W, 20190408</p>	 <p>3004_2019_OH, 3S, 20190408</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3005_2019_OH	<b>Northing (USFT)</b> 871656.528	<b>Easting (USFT)</b> 1775006.597	<b>Elevation (USFT)</b> 908.305
<b>Point Type</b> VVA TWC	<b>Latitude (Global)</b> N40°23'27.73093"	<b>Longitude (Global)</b> W83°11'40.44596"	<b>Ellipsoid Height (USFT)</b> 796.282
<b>Location Photo</b>    NORTH			
			
3005_2019_OH, 3W, 20190408		3005_2019_OH, 3S, 20190408	



# GCP OBSERVATION LOG





<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3006_2019_OH	<b>Northing (USFT)</b> 659479.808	<b>Easting (USFT)</b> 1829393.052	<b>Elevation (USFT)</b> 685.434
<b>Point Type</b> BRUSH	<b>Latitude (Global)</b> N39°48'34.58761"	<b>Longitude (Global)</b> W82°59'42.61066"	<b>Ellipsoid Height (USFT)</b> 574.158
<b>Location Photo</b>   NORTH			
			

3006\_2019\_OH, 3N, 20190409

3006\_2019\_OH, 3E, 20190409







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3007_2019_OH	<b>Northing (USFT)</b> 809897.436	<b>Easting (USFT)</b> 1787029.627	<b>Elevation (USFT)</b> 920.839
<b>Point Type</b> VVA CROPS	<b>Latitude (Global)</b> N40°13'18.38031"	<b>Longitude (Global)</b> W83°08'59.33896"	<b>Ellipsoid Height (USFT)</b> 810.070
<b>Location Photo</b>   NORTH			
 <p>3007_2019_OH, 3W, 20190409</p>	 <p>3007_2019_OH, 3N, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3008_2019_OH	<b>Northing (USFT)</b> 780434.788	<b>Easting (USFT)</b> 1861586.178	<b>Elevation (USFT)</b> 901.328
<b>Point Type</b> VVA GRASS	<b>Latitude (Global)</b> N40°08'31.45446"	<b>Longitude (Global)</b> W82°52'56.63577"	<b>Ellipsoid Height (USFT)</b> 789.585
<b>Location Photo</b>   NORTH			
 <p>3008_2019_OH, 3N, 20190411</p>		 <p>3008_2019_OH, 3E, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3009_2019_OH	<b>Northing (USFT)</b> 767878.439	<b>Easting (USFT)</b> 1860523.945	<b>Elevation (USFT)</b> 885.937
<b>Point Type</b> VVA TWC	<b>Latitude (Global)</b> N40°06'27.32988"	<b>Longitude (Global)</b> W82°53'09.62192"	<b>Ellipsoid Height (USFT)</b> 774.212
<b>Location Photo</b>   NORTH			
 <p>3009_2019_OH, 3N, 20190411</p>		 <p>3009_2019_OH, 3E, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3010_2019_OH	<b>Northing (USFT)</b> 646131.819	<b>Easting (USFT)</b> 1831061.611	<b>Elevation (USFT)</b> 699.356
<b>Point Type</b> BRUSH FENCE ROW	<b>Latitude (Global)</b> N39°46'22.76015"	<b>Longitude (Global)</b> W82°59'20.30278"	<b>Ellipsoid Height (USFT)</b> 588.032
<b>Location Photo</b>   NORTH			
 <p>3010_2019_OH, 3N, 20190409</p>		 <p>3010_2019_OH, 3E, 20190409</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3011_2019_OH	<b>Northing (USFT)</b> 668729.045	<b>Easting (USFT)</b> 1851631.283	<b>Elevation (USFT)</b> 734.364
<b>Point Type</b> TALL GRASS	<b>Latitude (Global)</b> N39°50'07.10564"	<b>Longitude (Global)</b> W82°54'58.18558"	<b>Ellipsoid Height (USFT)</b> 622.470
<b>Location Photo</b>    NORTH			
 <p>3011_2019_OH, 3N, 20190410</p>		 <p>3011_2019_OH, 3E, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3012_2019_OH	<b>Northing (USFT)</b> 668127.029	<b>Easting (USFT)</b> 1872817.568	<b>Elevation (USFT)</b> 752.690
<b>Point Type</b> TALL GRASS BRUSH	<b>Latitude (Global)</b> N39°50'02.03351"	<b>Longitude (Global)</b> W82°50'26.56408"	<b>Ellipsoid Height (USFT)</b> 640.542
<b>Location Photo</b>   NORTH			
			
3012_2019_OH, 3W, 20190410		3012_2019_OH, 3S, 20190410	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3013_2019_OH	<b>Northing (USFT)</b> 653184.129	<b>Easting (USFT)</b> 1851070.791	<b>Elevation (USFT)</b> 726.318
<b>Point Type</b> CROP FIELD	<b>Latitude (Global)</b> N39°47'33.45104"	<b>Longitude (Global)</b> W82°55'04.44838"	<b>Ellipsoid Height (USFT)</b> 614.464
<b>Location Photo</b>   NORTH			
 <p>3013_2019_OH, 3W, 20190409</p>		 <p>3013_2019_OH, 3N, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3014_2019_OH	<b>Northing (USFT)</b> 814510.121	<b>Easting (USFT)</b> 1860916.982	<b>Elevation (USFT)</b> 928.510
<b>Point Type</b> VVA TWC	<b>Latitude (Global)</b> N40°14'08.14474"	<b>Longitude (Global)</b> W82°53'07.12454"	<b>Ellipsoid Height (USFT)</b> 816.737
<b>Location Photo</b>    NORTH			
 <p>3014_2019_OH, 3W, 20190411</p>		 <p>3014_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3015_2019_OH	<b>Northing (USFT)</b> 679825.661	<b>Easting (USFT)</b> 1852552.902	<b>Elevation (USFT)</b> 745.973
<b>Point Type</b> TALL GRASS	<b>Latitude (Global)</b> N39°51'56.81309"	<b>Longitude (Global)</b> W82°54'47.02186"	<b>Ellipsoid Height (USFT)</b> 634.083
<b>Location Photo</b>    NORTH			
 <p>3015_2019_OH, 3W, 20190410</p>		 <p>3015_2019_OH, 3N, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3016_2019_OH	<b>Northing (USFT)</b> 748318.367	<b>Easting (USFT)</b> 1780077.113	<b>Elevation (USFT)</b> 936.975
<b>Point Type</b> VVA EARTH-SHORT-GRASS	<b>Latitude (Global)</b> N40°03'09.37614"	<b>Longitude (Global)</b> W83°10'23.04383"	<b>Ellipsoid Height (USFT)</b> 827.103
<b>Location Photo</b>   NORTH			
			
3016_2019_OH, 3W, 20190410	3016_2019_OH, 3S, 20190410		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3017_2019_OH	<b>Northing (USFT)</b> 769404.247	<b>Easting (USFT)</b> 1886817.373	<b>Elevation (USFT)</b> 1077.148
<b>Point Type</b> CROP FIELD	<b>Latitude (Global)</b> N40°06'43.38332"	<b>Longitude (Global)</b> W82°47'31.29902"	<b>Ellipsoid Height (USFT)</b> 965.355
<b>Location Photo</b>   NORTH			
			
3017_2019_OH, 3W, 20190412		3017_2019_OH, 3S, 20190412	






# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3018_2019_OH	<b>Northing (USFT)</b> 687964.231	<b>Easting (USFT)</b> 1784250.335	<b>Elevation (USFT)</b> 890.659
<b>Point Type</b> BRUSH	<b>Latitude (Global)</b> N39°53'13.24572"	<b>Longitude (Global)</b> W83°09'23.73629"	<b>Ellipsoid Height (USFT)</b> 781.439
<b>Location Photo</b>   NORTH			
			





# GCP OBSERVATION LOG





<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3019_2019_OH	<b>Northing (USFT)</b> 668610.792	<b>Easting (USFT)</b> 1782493.111	<b>Elevation (USFT)</b> 795.536
<b>Point Type</b> CROP FIELD	<b>Latitude (Global)</b> N39°50'01.85641"	<b>Longitude (Global)</b> W83°09'44.45771"	<b>Ellipsoid Height (USFT)</b> 686.614
<b>Location Photo</b>   NORTH			
			

3019\_2019\_OH, 3N, 20190409

3019\_2019\_OH, 3E, 20190409







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3020_2019_OH	<b>Northing (USFT)</b> 697219.572	<b>Easting (USFT)</b> 1801257.727	<b>Elevation (USFT)</b> 844.512
<b>Point Type</b> BRUSH	<b>Latitude (Global)</b> N39°54'45.87768"	<b>Longitude (Global)</b> W83°05'46.33933"	<b>Ellipsoid Height (USFT)</b> 734.421
<b>Location Photo</b>    NORTH			
 <p>3020_2019_OH, 3W, 20190409</p>	 <p>3020_2019_OH, 3N, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3021_2019_OH	<b>Northing (USFT)</b> 668308.642	<b>Easting (USFT)</b> 1811345.883	<b>Elevation (USFT)</b> 783.764
<b>Point Type</b> TREES	<b>Latitude (Global)</b> N39°50'00.79972"	<b>Longitude (Global)</b> W83°03'34.57488"	<b>Ellipsoid Height (USFT)</b> 673.308
<b>Location Photo</b>   NORTH			
 <p>3021_2019_OH, 3N, 20190409</p>	 <p>3021_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3022_2019_OH	<b>Northing (USFT)</b> 683926.196	<b>Easting (USFT)</b> 1833530.787	<b>Elevation (USFT)</b> 741.488
<b>Point Type</b> WOODS	<b>Latitude (Global)</b> N39°52'36.40696"	<b>Longitude (Global)</b> W82°58'51.25633"	<b>Ellipsoid Height (USFT)</b> 630.121
<b>Location Photo</b>   NORTH			
 <p>3022_2019_OH, 3N, 20190409</p>		 <p>3022_2019_OH, 3E, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3023_2019_OH	<b>Northing (USFT)</b> 764757.880	<b>Easting (USFT)</b> 1775215.828	<b>Elevation (USFT)</b> 940.639
<b>Point Type</b> VVA TWC	<b>Latitude (Global)</b> N40°05'51.46607"	<b>Longitude (Global)</b> W83°11'27.17308"	<b>Ellipsoid Height (USFT)</b> 830.699
<b>Location Photo</b>   NORTH			
 <p>3023_2019_OH, 3W, 20190410</p>		 <p>3023_2019_OH, 3S, 20190410</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3024_2019_OH	<b>Northing (USFT)</b> 783614.668	<b>Easting (USFT)</b> 1780967.385	<b>Elevation (USFT)</b> 996.940
<b>Point Type</b> VVA SAPLINGS-TWC	<b>Latitude (Global)</b> N40°08'58.23100"	<b>Longitude (Global)</b> W83°10'14.96764"	<b>Ellipsoid Height (USFT)</b> 886.671
<b>Location Photo</b>   NORTH			
 <p>3024_2019_OH, 3N, 20190409</p>		 <p>3024_2019_OH, 3E, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3025_2019_OH	<b>Northing (USFT)</b> 720739.340	<b>Easting (USFT)</b> 1841363.281	<b>Elevation (USFT)</b> 776.839
<b>Point Type</b> WOODS	<b>Latitude (Global)</b> N39°58'40.61425"	<b>Longitude (Global)</b> W82°57'13.16264"	<b>Ellipsoid Height (USFT)</b> 665.376
<b>Location Photo</b>    NORTH			
 <p>3025_2019_OH, 3W, 20190412</p>		 <p>3025_2019_OH, 3N, 20190412</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3026_2019_OH	<b>Northing (USFT)</b> 701335.860	<b>Easting (USFT)</b> 1829306.900	<b>Elevation (USFT)</b> 749.808
<b>Point Type</b> TREES BRUSH	<b>Latitude (Global)</b> N39°55'28.23382"	<b>Longitude (Global)</b> W82°59'46.66262"	<b>Ellipsoid Height (USFT)</b> 638.627
<b>Location Photo</b>    NORTH			
 <p>3026_2019_OH, 3W, 20190411</p>		 <p>3026_2019_OH, 3N, 20190411</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3027_2019_OH	<b>Northing (USFT)</b> 829371.391	<b>Easting (USFT)</b> 1783446.174	<b>Elevation (USFT)</b> 917.894
<b>Point Type</b> VVA FOREST	<b>Latitude (Global)</b> N40°16'30.54822"	<b>Longitude (Global)</b> W83°09'47.37533"	<b>Ellipsoid Height (USFT)</b> 806.832
<b>Location Photo</b>   NORTH			
 <p>3027_2019_OH, 3N, 20190409</p>	 <p>3027_2019_OH, 3E, 20190409</p>		







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3028_2019_OH	<b>Northing (USFT)</b> 818422.300	<b>Easting (USFT)</b> 1788347.338	<b>Elevation (USFT)</b> 878.163
<b>Point Type</b> VVA FOREST	<b>Latitude (Global)</b> N40°14'42.70987"	<b>Longitude (Global)</b> W83°08'43.13824"	<b>Ellipsoid Height (USFT)</b> 767.233
<b>Location Photo</b>    NORTH			
 <p>3028_2019_OH, 3N, 20190409</p>		 <p>3028_2019_OH, 3E, 20190409</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3029_2019_OH	<b>Northing (USFT)</b> 791036.818	<b>Easting (USFT)</b> 1861702.891	<b>Elevation (USFT)</b> 903.077
<b>Point Type</b> VVA FOREST	<b>Latitude (Global)</b> N40°10'16.22564"	<b>Longitude (Global)</b> W82°52'55.71070"	<b>Ellipsoid Height (USFT)</b> 791.322
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3030_2019_OH	<b>Northing (USFT)</b> 784622.041	<b>Easting (USFT)</b> 1838713.846	<b>Elevation (USFT)</b> 898.732
<b>Point Type</b> VVA FOREST	<b>Latitude (Global)</b> N40°09'11.77216"	<b>Longitude (Global)</b> W82°57'51.41527"	<b>Ellipsoid Height (USFT)</b> 787.284
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3031_2019_OH	<b>Northing (USFT)</b> 711251.921	<b>Easting (USFT)</b> 1856676.244	<b>Elevation (USFT)</b> 771.000
<b>Point Type</b> WOODS	<b>Latitude (Global)</b> N39°57'07.56998"	<b>Longitude (Global)</b> W82°53'55.92101"	<b>Ellipsoid Height (USFT)</b> 659.194
<b>Location Photo</b>    NORTH			
			







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3032_2019_OH	<b>Northing (USFT)</b> 709495.178	<b>Easting (USFT)</b> 1883582.125	<b>Elevation (USFT)</b> 845.888
<b>Point Type</b> WOODS	<b>Latitude (Global)</b> N39°56'51.24215"	<b>Longitude (Global)</b> W82°48'10.35182"	<b>Ellipsoid Height (USFT)</b> 733.870
<b>Location Photo</b>   NORTH			
 <p>3032_2019_OH, 3W, 20190411</p>		 <p>3032_2019_OH, 3N, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3033_2019_OH	<b>Northing (USFT)</b> 720803.199	<b>Easting (USFT)</b> 1866353.697	<b>Elevation (USFT)</b> 767.171
<b>Point Type</b> WOODS	<b>Latitude (Global)</b> N39°58'42.36415"	<b>Longitude (Global)</b> W82°51'52.14999"	<b>Ellipsoid Height (USFT)</b> 655.286
<b>Location Photo</b>    NORTH			
 <p>3033_2019_OH, 3W, 20190412</p>		 <p>3033_2019_OH, 3N, 20190412</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3034_2019_OH	<b>Northing (USFT)</b> 762702.045	<b>Easting (USFT)</b> 1814690.096	<b>Elevation (USFT)</b> 813.817
<b>Point Type</b> VVA FOREST	<b>Latitude (Global)</b> N40°05'33.83041"	<b>Longitude (Global)</b> W83°02'59.07287"	<b>Ellipsoid Height (USFT)</b> 702.997
<b>Location Photo</b>   NORTH			
 <p>3034_2019_OH, 3W, 20190410</p>		 <p>3034_2019_OH, 3N, 20190410</p>	









# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3035_2019_OH	<b>Northing (USFT)</b> 739103.338	<b>Easting (USFT)</b> 1887041.249	<b>Elevation (USFT)</b> 1023.986
<b>Point Type</b> BRUSH	<b>Latitude (Global)</b> N40°01'43.95401"	<b>Longitude (Global)</b> W82°47'27.16136"	<b>Ellipsoid Height (USFT)</b> 912.128
<b>Location Photo</b>    NORTH			
 <p>3035_2019_OH, 3N, 20190411</p>		 <p>3035_2019_OH, 3E, 20190411</p>	







# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3036_2019_OH	<b>Northing (USFT)</b> 733482.137	<b>Easting (USFT)</b> 1846928.713	<b>Elevation (USFT)</b> 761.703
<b>Point Type</b> BRUSH	<b>Latitude (Global)</b> N40°00'46.81275"	<b>Longitude (Global)</b> W82°56'02.45856"	<b>Ellipsoid Height (USFT)</b> 650.142
<b>Location Photo</b>   NORTH			
 <p>3036_2019_OH, 3S, 20190412</p>		 <p>3036_2019_OH, 3E, 20190412</p>	



# GCP OBSERVATION LOG

<b>Project Number</b> 79674	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 3037_2019_OH	<b>Northing (USFT)</b> 803170.777	<b>Easting (USFT)</b> 1787957.301	<b>Elevation (USFT)</b> 904.415
<b>Point Type</b> VVA BRUSH	<b>Latitude (Global)</b> N40°12'11.97779"	<b>Longitude (Global)</b> W83°08'46.76004"	<b>Ellipsoid Height (USFT)</b> 793.734
<b>Location Photo</b>   NORTH			
 <p>3037_2019_OH, 3N, 20190409</p>	 <p>3037_2019_OH, 3E, 20190409</p>		

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> 101_78459	<b>Northing (USFT)</b> 869559.870	<b>Easting (USFT)</b> 1787213.870	<b>Elevation (USFT)</b> 935.695
<b>PID</b> TSM	<b>Latitude (Global)</b> N40°23'07.91334"	<b>Longitude (Global)</b> W83°09'02.50615"	<b>Ellipsoid Height (USFT)</b> 823.782



101\_78459\_2019\_OH, 1, 20190408



101\_78459\_2019\_OH, 2, 20190408



101\_78459\_2019\_OH, 3W, 20190408



101\_78459\_2019\_OH, 3S, 20190408



101\_78459\_2019\_OH, 3N, 20190408



101\_78459\_2019\_OH, 3E, 20190408

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR		<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402	<b>Geoid</b> GEOID12B (Conus)
<b>Station ID</b> <b>AE 104</b>	<b>Northing (USFT)</b> 714501.618	<b>Easting (USFT)</b> 1815916.586	<b>Elevation (USFT)</b> 714.652	
<b>PID</b> DG7168	<b>Latitude (Global)</b> N39°57'37.58115"	<b>Longitude (Global)</b> W83°02'39.55349"	<b>Ellipsoid Height (USFT)</b> 603.917	



AE 104, DG7168, 1, 20190326



AE 104, DG7168, 2, 20190326



AE 104, DG7168, 3W, 20190326



AE 104, DG7168, 3S, 20190326



AE 104, DG7168, 3N, 20190326



AE 104, DG7168, 3E, 20190326

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> BM3_910	<b>Northing (USFT)</b> 718548.159	<b>Easting (USFT)</b> 1819443.423	<b>Elevation (USFT)</b> 725.712
<b>PID</b> DPU MON	<b>Latitude (Global)</b> N39°58'17.77816"	<b>Longitude (Global)</b> W83°01'54.56719"	<b>Ellipsoid Height (USFT)</b> 614.854



BM3 910, 1, 20190403



BM3 910, 2, 20190403



BM3 910, 3W, 20190403



BM3 910, 3S, 20190403



BM3 910, 3N, 20190403



BM3 910, 3E, 20190403

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b>
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> CNTRL GAR	<b>Northing (USFT)</b> 713983.595	<b>Easting (USFT)</b> 1815599.833	<b>Elevation (USFT)</b> 713.424
<b>PID</b> AB6084	<b>Latitude (Global)</b> N39°57'32.44297"	<b>Longitude (Global)</b> W83°02'43.58110"	<b>Ellipsoid Height (USFT)</b> 602.700



CNTRL GAR, AB6084, 1, 20190326



CNTRL GAR, AB6084, 2, 20190326



CNTRL GAR, AB6084, 3W, 20190326



CNTRL GAR, AB6084, 3S, 20190326




CNTRL GAR, AB6084, 3N, 20190326



CNTRL GAR, AB6084, 3E, 20190326

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> E 39	<b>Northing (USFT)</b> 586430.801	<b>Easting (USFT)</b> 1715874.402	<b>Elevation (USFT)</b> 997.853
<b>PID</b> 101	<b>Latitude (Global)</b> N39°36'23.99464"	<b>Longitude (Global)</b> W83°23'47.94609"	<b>Ellipsoid Height (USFT)</b> 891.524
 <p>E 39, JY0925, 1, 20190410</p>		Photo Not Available	
Photo Not Available		Photo Not Available	
Photo Not Available		Photo Not Available	



# CONTROL RECOVERY LOG

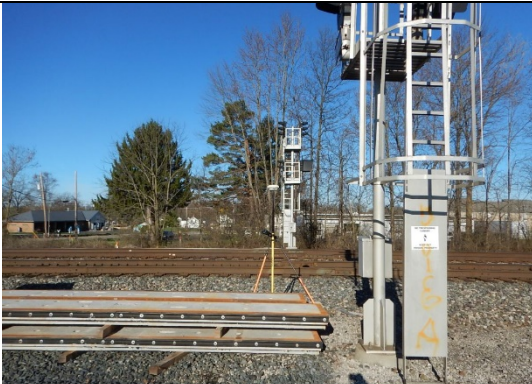
<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR		<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402	<b>Geoid</b> GEOID12B (Conus)
<b>Station ID</b> F 308	<b>Northing (USFT)</b> 775333.841	<b>Easting (USFT)</b> 1827345.799	<b>Elevation (USFT)</b> 935.574	
<b>PID</b> KZ1589	<b>Latitude (Global)</b> N40°07'39.38586"	<b>Longitude (Global)</b> W83°00'17.14397"	<b>Ellipsoid Height (USFT)</b> 824.403	



F 308, KZ1589, 1, 20180409



F 308, KZ1589, 3E, 20180409



F 308, KZ1589, 3W, 20180409



F 308, KZ1589, 3S, 20180409



F 308, KZ1589, 3N, 20180409



F 308, KZ1589, 3E, 20180409

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> FRANK 44 AZ MK	<b>Northing (USFT)</b> 703620.137	<b>Easting (USFT)</b> 1853129.926	<b>Elevation (USFT)</b> 768.338
<b>PID</b> JY1652	<b>Latitude (Global)</b> N39°55'51.99156"	<b>Longitude (Global)</b> W82°54'41.01194"	<b>Ellipsoid Height (USFT)</b> 656.555



FRANK 44 AZ MK, JY1652, 1, 20190327



FRANK 44 AZ MK, JY1652, 2, 20190327



FRANK 44 AZ MK, JY1652, 3W, 20190327



FRANK 44 AZ MK, JY1652, 3S, 20190327



FRANK 44 AZ MK, JY1652, 3E, 20190327

**Photo Not Available**

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560		<b>Project Name</b> OH Columbus 2019 B19 LiDAR		<b>Company</b> Woolpert, Inc.		<b>Field Operator</b> William Welbaum	
<b>Coordinate System</b> United States/State Plane 1983		<b>Hor. Datum</b> NAD 1983 (HARN)		<b>Ver. Datum</b> NAVD88		<b>Zone</b> Ohio South 3402	
<b>Station ID</b> FRANK 45 AZ MK		<b>Northing (USFT)</b> 711009.983		<b>Easting (USFT)</b> 1862758.420		<b>Elevation (USFT)</b> 783.530	
<b>PID</b> JY1654		<b>Latitude (Global)</b> N39°57'05.43731"		<b>Longitude (Global)</b> W82°52'37.80817"		<b>Ellipsoid Height (USFT)</b> 671.635	



FRANK 45 AZ MK, JY1654, 1, 20190405



FRANK 45 AZ MK, JY1654, 2, 20190405



FRANK 45 AZ MK, JY1654, 3W, 20190405



FRANK 45 AZ MK, JY1654, 3S, 20190405



FRANK 45 AZ MK, JY1654, 3N, 20190405



FRANK 45 AZ MK, JY1654, 3E, 20190405

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR		<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402	<b>Geoid</b> GEOID12B (Conus)
<b>Station ID</b> FRANK 86	<b>Northing (USFT)</b> 776808.480	<b>Easting (USFT)</b> 1835969.617	<b>Elevation (USFT)</b> 906.411	
<b>PID</b> KZ2250	<b>Latitude (Global)</b> N40°07'54.41975"	<b>Longitude (Global)</b> W82°58'26.22727"	<b>Ellipsoid Height (USFT)</b> 795.044	



FRANK 86, KZ2250, 1, 20180409



FRANK 86, KZ2250, 2, 20180409



FRANK 86, KZ2250, 3W, 20180409



FRANK 86, KZ2250, 3S, 20180409



FRANK 86, KZ2250, 3N, 20180409



FRANK 86, KZ2250, 3E, 20180409

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> G 192	<b>Northing (USFT)</b> 703024.061	<b>Easting (USFT)</b> 1852707.454	<b>Elevation (USFT)</b> 767.824
<b>PID</b> JY0789	<b>Latitude (Global)</b> N39°55'46.08176"	<b>Longitude (Global)</b> W82°54'46.40016"	<b>Ellipsoid Height (USFT)</b> 656.047



G192, JY0789, 1, 20190327



G192, JY0789, 2, 20190327



G192, JY0789, 3W, 20190327



G192, JY0789, 3S, 20190327



G192, JY0789, 3N, 20190327



G192, JY0789, 3E, 20190327

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> H 295	<b>Northing (USFT)</b> 947852.457	<b>Easting (USFT)</b> 1752132.384	<b>Elevation (USFT)</b> 948.494
<b>PID</b> KZ1453	<b>Latitude (Global)</b> N40°35'58.69752"	<b>Longitude (Global)</b> W83°16'44.52214"	<b>Ellipsoid Height (USFT)</b> 834.702



H 295, KZ1453, 1, 20190408



H 295, KZ1453, 2, 20190408



H 295, KZ1453, 3W, 20190408



H 295, KZ1453, 3S, 20190408



H 295, KZ1453, 3N, 20190408



H 295, KZ1453, 3E, 20190408

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR		<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402	<b>Geoid</b> GEOID12B (Conus)
<b>Station ID</b> H 310	<b>Northing (USFT)</b> 806376.925	<b>Easting (USFT)</b> 1825924.493	<b>Elevation (USFT)</b> 940.099	
<b>PID</b> KZ1580	<b>Latitude (Global)</b> N40°12'46.06217"	<b>Longitude (Global)</b> W83°00'37.69989"	<b>Ellipsoid Height (USFT)</b> 828.771	



H 310, KZ1580, 1, 20190409



H 310, KZ1580, 2, 20190409



H 310, KZ1580, 3W, 20190409



H 310, KZ1580, 3S, 20190409



H 310, KZ1580, 3N, 20190409



H 310, KZ1580, 3E, 20190409

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> <b>HOOVER</b>	<b>Northing (USFT)</b> 768031.867	<b>Easting (USFT)</b> 1862884.976	<b>Elevation (USFT)</b> 920.392
<b>PID</b> FCE CONTROL	<b>Latitude (Global)</b> N40°06'28.94468"	<b>Longitude (Global)</b> W82°52'39.24471"	<b>Ellipsoid Height (USFT)</b> 808.652



HOOVER, 1, 20190411



HOOVER, 2, 20190411



HOOVER, 3W, 20190411



HOOVER, 3S, 20190411



HOOVER, 3N, 20190411



HOOVER, 3E, 20190411



# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR		<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402	<b>Geoid</b> GEOID12B (Conus)
<b>Station ID</b> LEONARD	<b>Northing (USFT)</b> 858497.283	<b>Easting (USFT)</b> 1831803.568	<b>Elevation (USFT)</b> 986.399	
<b>PID</b> KZ0860	<b>Latitude (Global)</b> N40°21'21.39136"	<b>Longitude (Global)</b> W82°59'25.57289"	<b>Ellipsoid Height (USFT)</b> 874.584	



LEONARD, KZ0860, 1, 20190409



LEONARD, KZ0860, 2, 20190409



LEONARD, KZ0860, 3W, 20190409



LEONARD, KZ0860, 3S, 20190409



LEONARD, KZ0860, 3N, 20190409



LEONARD, KZ0860, 3E, 20190409

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560		<b>Project Name</b> OH Columbus 2019 B19 LiDAR		<b>Company</b> Woolpert, Inc.		<b>Field Operator</b> William Welbaum	
<b>Coordinate System</b> United States/State Plane 1983		<b>Hor. Datum</b> NAD 1983 (HARN)		<b>Ver. Datum</b> NAVD88		<b>Zone</b> Ohio South 3402	
<b>Station ID</b> <b>MERGEL</b>		<b>Northing (USFT)</b> 731705.737		<b>Easting (USFT)</b> 1820696.505		<b>Elevation (USFT)</b> 744.287	
<b>PID</b> FCE CONTROL		<b>Latitude (Global)</b> N40°00'27.87758"		<b>Longitude (Global)</b> W83°01'39.45976"		<b>Ellipsoid Height (USFT)</b> 633.379	



MERGEL, 1, 20190402



MERGEL, 2, 20190402



MERGEL, 3W, 20190402



MERGEL, 3S, 20190402



MERGEL, 3N, 20190402



MERGEL, 3E, 20190402

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> <b>MORLAN</b>	<b>Northing (USFT)</b> 716487.900	<b>Easting (USFT)</b> 1832612.323	<b>Elevation (USFT)</b> 793.228
<b>PID</b> FCE CONTROL	<b>Latitude (Global)</b> N39°57'58.15055"	<b>Longitude (Global)</b> W82°59'05.27970"	<b>Ellipsoid Height (USFT)</b> 681.982



MORLAN, 1, 20190403



MORLAN, 2, 20190403



MORLAN, 3W, 20190403



MORLAN, 3S, 20190403



MORLAN, 3N, 20190403



MORLAN, 3E, 20190403

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> Q 25	<b>Northing (USFT)</b> 832188.411	<b>Easting (USFT)</b> 1793200.820	<b>Elevation (USFT)</b> 942.058
<b>PID</b> KZ1513	<b>Latitude (Global)</b> N40°16'59.07257"	<b>Longitude (Global)</b> W83°07'41.78788"	<b>Ellipsoid Height (USFT)</b> 830.838



Q 25, KZ1513, 1, 20190408



Q 25, KZ1513, 2, 20190408



Q 25, KZ1513, 3W, 20190408



Q 25, KZ1513, 3S, 20190408



Q 25, KZ1513, 3N, 20190408



Q 25, KZ1513, 3E, 20190408

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> Brandon Murphy
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> S 272	<b>Northing (USFT)</b> 844636.544	<b>Easting (USFT)</b> 1882329.380	<b>Elevation (USFT)</b> 1092.854
<b>PID</b> KZ0962	<b>Latitude (Global)</b> N40°19'06.64422"	<b>Longitude (Global)</b> W82°48'32.37483"	<b>Ellipsoid Height (USFT)</b> 981.119



S 272, KZ0962, 1, 20190411



S 272, KZ0962, 2, 20190411



S 272, KZ0962, 3W, 20190411



S 272, KZ0962, 3S, 20190411



S 272, KZ0962, 3N, 20190411



S 272, KZ0962, 3E, 20190411

# CONTROL RECOVERY LOG

<b>Project Number</b> 79560	<b>Project Name</b> OH Columbus 2019 B19 LiDAR	<b>Company</b> Woolpert, Inc.	<b>Field Operator</b> William Welbaum
<b>Coordinate System</b> United States/State Plane 1983	<b>Hor. Datum</b> NAD 1983 (HARN)	<b>Ver. Datum</b> NAVD88	<b>Zone</b> Ohio South 3402
<b>Station ID</b> V 188	<b>Northing (USFT)</b> 737630.778	<b>Easting (USFT)</b> 1829188.942	<b>Elevation (USFT)</b> 854.475
<b>PID</b> KZ0871	<b>Latitude (Global)</b> N40°01'26.90630"	<b>Longitude (Global)</b> W82°59'50.74305"	<b>Ellipsoid Height (USFT)</b> 743.337



V 188, KZ0871, 1, 20190326



V 188, KZ0871, 2, 20190326



V 188, KZ0871, 3W, 20190326



V 188, KZ0871, 3S, 20190326



V 188, KZ0871, 3N, 20190326

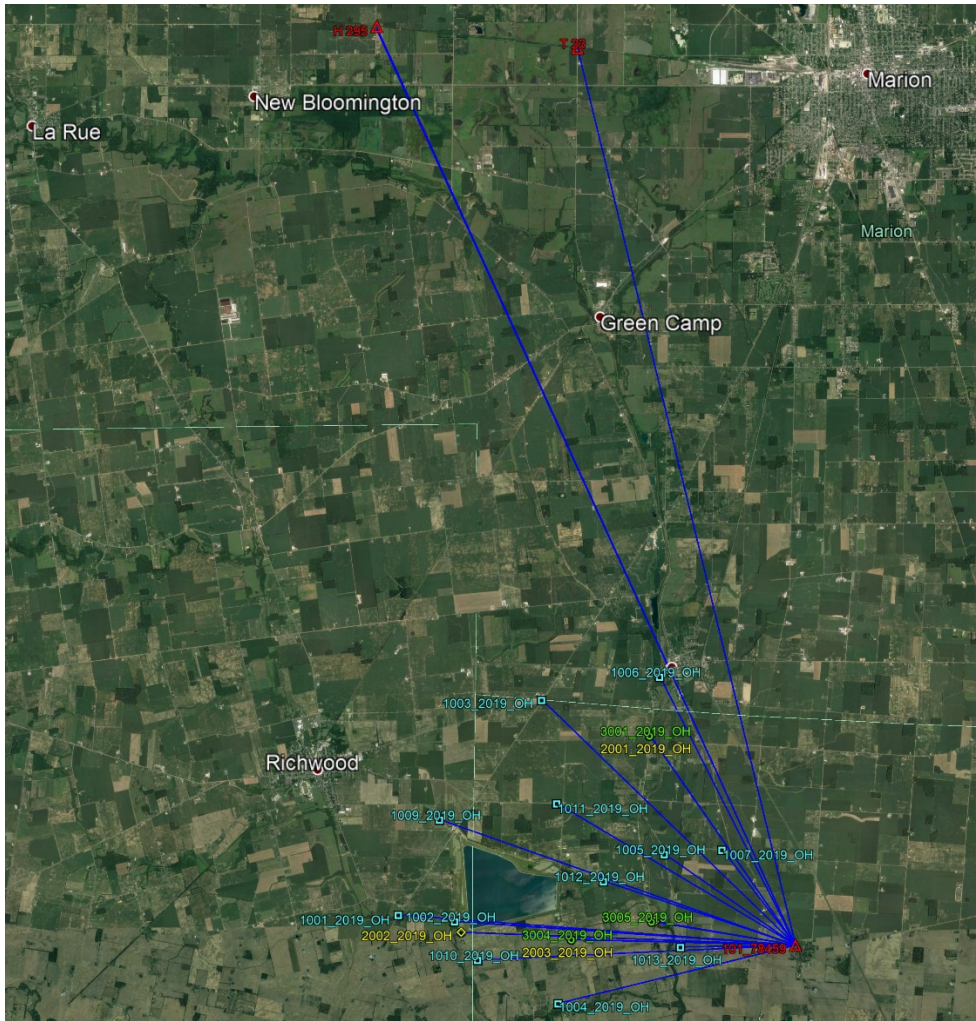


V 188, KZ0871, 3E, 20190326



## Section 5: GPS Control Diagram

This section contains a graphical representation of the the LiDAR control stations and recovered geodetic control stations for the OH Columbus 2019 B19 LiDAR Project in Columbus, Ohio. See the following page for the diagram.



**OH COLUMBUS 2019 B19 LiDAR PROJECT  
COLUMBUS, OHIO  
101\_78459**

*Horizontal Datum: NAD 83 (1995 HARN)  
Vertical Datum: NAVD 88  
Units: U.S. Survey Feet  
State Plane: Ohio South (3402)  
Geoid Model: Geoid 12B  
Coordinate System: Grid  
Date: April 2019*



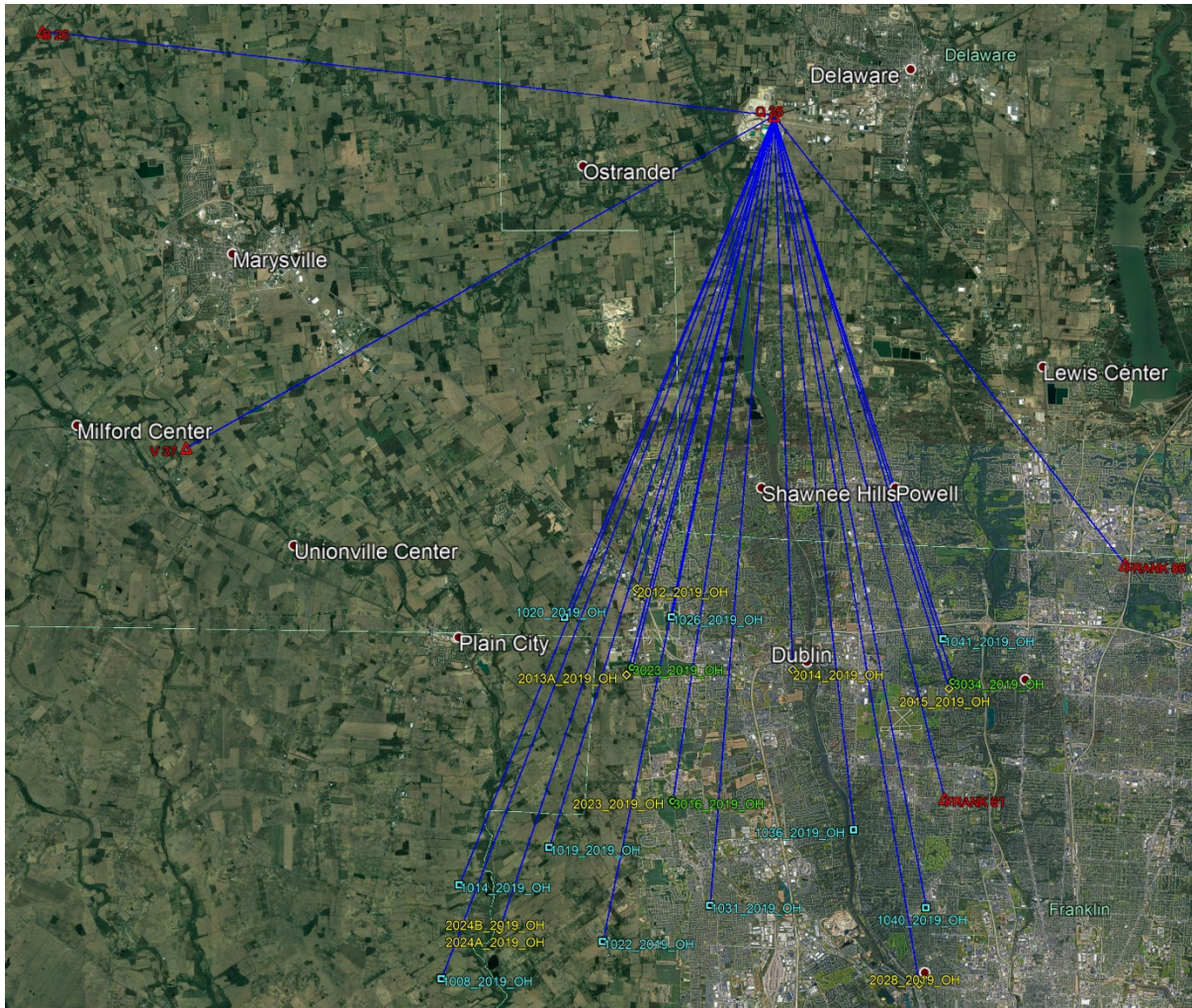
- Non-Vegetated Vertical Accuracy Point
- LiDAR Calibration Point
- Vegetated Vertical Accuracy Point
- Geodetic Control Station and/or Geodetic Control Check

**NOT TO SCALE**









**OH COLUMBUS 2019 B19 LiDAR PROJECT  
COLUMBUS, OHIO  
Q 25**

*Horizontal Datum: NAD 83 (1995 HARN)  
Vertical Datum: NAVD 88  
Units: U.S. Survey Feet  
State Plane: Ohio South (3402)  
Geoid Model: Geoid 12B  
Coordinate System: Grid  
Date: April 2019*



- Non-Vegetated Vertical Accuracy Point
- LiDAR Calibration Point
- Vegetated Vertical Accuracy Point
- Geodetic Control Station and/or Geodetic Control Check

**NOT TO SCALE**