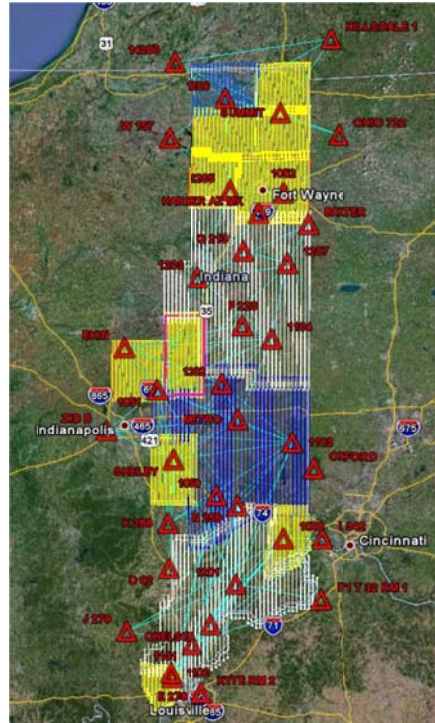


GROUND CONTROL SURVEY REPORT



2012 INDIANA STATEWIDE IMAGERY PROGRAM EASTERN THIRD OF INDIANA INDIANA OFFICE OF TECHNOLOGY—INDIANAPOLIS, IN April 2012



QUALITY

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Section 3: Ground/ LiDAR Control Logs and Photos

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Section 3: Ground/ LiDAR Control Logs and Photos

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Section 1: Ground/LiDAR Control Diagram.....

Section 2: Ground/LiDAR Control Coordinates List

Section 3: Ground/ LiDAR Control Logs and Photos

VOLUME 5 (Block 8):

Section 1: Ground/LiDAR Control Diagram.....

Section 2: Ground/LiDAR Control Coordinates List

Section 3: Ground/ LiDAR Control Logs and Photos

VOLUME 1 - SECTION 1: SURVEY REPORT

INTRODUCTION

Report Date: April 2012

Project Name: 2012 Indiana Statewide Imagery Program
Client Information: Indiana Office of Technology
Order Number: 001156731
Requisition/Reference Number: 0000006851
Date of Contract: 03/03/2011
Delivery Date: April, 2012

Prepared By: Woolpert, Inc.
Woolpert Project Number: 072134

This report contains a comprehensive outline of the Geodetic Control Survey that supported the 2012 Indiana Statewide Imagery Program. All surveys were performed in such a way as to achieve ground control accuracies that meet or exceed the National Mapping Accuracy.

PROJECT AREA

The project area consist of the following counties with 12-inch Pixel Resolution: Adams, Blackford, Clark, Decatur, Delaware, Fayette, Franklin, Grant, Hancock, Henry, Huntington, Jay, Jefferson, Jennings, LaGrange, Ohio, Randolph, Ripley, Rush, Scott, Switzerland, Union, Wayne, and Wells for a total of 7,970 sq. miles; as well as the following counties with an Optional 6-inch Pixel Resolution: Hamilton, Noble, Dearborn, Madison, Whitley, Shelby, Steuben, Allen, DeKalb and Floyd, for a total area of 3,826 sq. miles.

PURPOSE

The purpose of this survey was to establish three-dimensional coordinates for 184 new photogrammetric control stations and 221 new LiDAR Quality Control Check Stations on flat, hard, level surfaces not less than 5 meters away from a break line.

The photogrammetric control stations, in conjunction with aerial triangulation, will be used as the basis for subsequent photogrammetric mapping. Both the new control stations and control quality check points were picked on clear, well-defined locations that were photo identifiable (PIDs).

DATE OF SURVEY

Ground control field operations took place between March 8, 2012 and March 28, 2012.

MONUMENTATION

Prior to aerial imagery acquisition, Woolpert field crews performed a field reconnaissance to verify the existence and suitability of pre-selected 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 photogrammetric control stations. Recovery information sheets for the existing NGS control stations can be found in Volume 1, Section 2 of this report. A control diagram showing the ground control stations used to support this Digital Ortho mapping project can be found in Volume 1, Section 3 of this report.

ACCURACY

The standard deviation of the ground control survey is 0.039 ft. horizontally and 0.030 ft. vertically at the 95% confidence level.

GPS EQUIPMENT

Woolpert utilized as base stations, three Trimble Navigation dual-frequency GNSS GPS receivers with Air Link Communications Raven CDMA cellular modems with service plans provided by Verizon. For this project, Woolpert also utilized as rovers, three Trimble Navigation dual-frequency GNSS GPS receivers with Air Link Communications Raven CDMA cellular modems and three TSC2 data collectors.

METHODOLOGY

REAL-TIME KINEMATIC (RTK) GPS

The field crew utilized Real-Time Kinematic (RTK) GPS surveying throughout most of the ground control data collection process. Using RTK GPS techniques, observations were performed on photogrammetric control points and LiDAR Quality Control Check stations. The survey was conducted using a 1-second epoch rate, in a fixed solution RTK mode, with each observation lasting between 60 to 180 seconds. Each station was occupied a minimum of two times to insure the necessary horizontal and vertical accuracies were being met for this project.

RAPID-STATIC GPS

In addition to the RTK GPS techniques, the project field crews utilized rapid-static (RS) GPS surveying techniques on control within areas lacking sufficient cellular coverage or observations with baselines too long for RTK measurements, as well as geodetic verification

observations. The RS survey was conducted at a 15-second sync rate with each observation lasting between 20-40 minutes.

GPS DATA ANALYSIS AND PROCESSING

The survey phase manager processed all session baselines each day using *Trimble Navigation's* Trimble Business Center (TBC) Version 2.60 baseline processor with the accompanying broadcast ephemeris. Daily processing ensured the integrity of the network as it was constructed, and allowed the field crews to immediately reschedule observations of poor baselines. Once the field work was complete, the processed baselines were then run through a rigorous loop closure analysis. As a result of this analysis, unacceptable GPS vectors were removed and field blunders, if any, were detected and eliminated. Once this process was completed, both unconstrained and constrained adjustments were conducted in order to effectively incorporate the static observation data.

The GPS base stations and constrained geodetic control consisted of the following:

Dimension	New and Existing Control Stations
3-D	14200, BAXTER, CHELSEA, D 92, E 278, EKIN, HARGER AZ MK, HILLSDALE 1, I71 T 32 RM 1, J 279, K 268, KYTE RM 2, L 342, METRO, N 259, OHIO 722, OXFORD, P 134, P 220, Q 213, SHELBY, SUMMIT, W 157, ZID B, 1000, 1050, 1051, 1052, 1101, 1102, 1103, 1104, 1201, 1202, 1203, 1205 and 1207

SUMMIT, OXFORD and all 1000 series stations were used as temporary control base stations. These points were established by using an average location based on multiple days of results from the Online Positioning User Service (OPUS).

DATUM REFERENCE AND FINAL COORDINATES

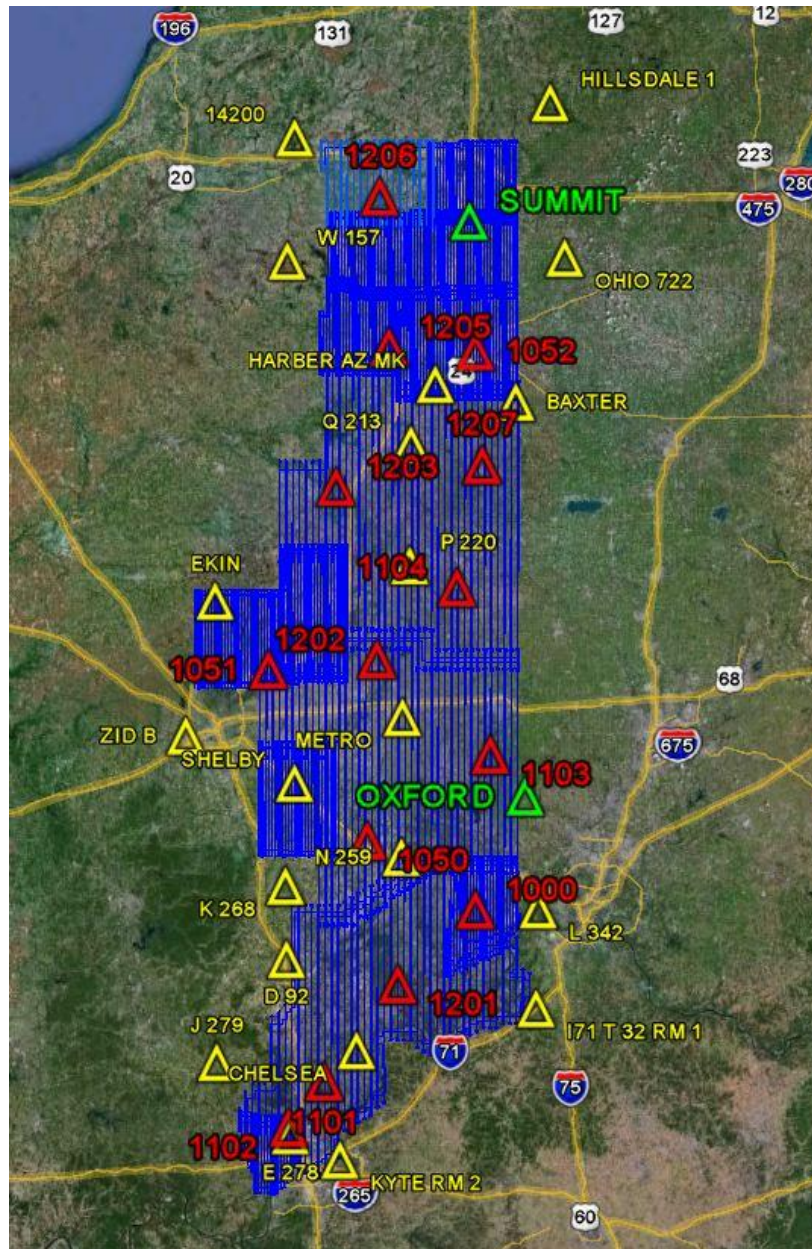
New horizontal GPS control was based on the Indiana East State Plane Coordinates System, referenced to North American Datum 1983, national re-adjustment of 2007 (NAD83/2007), expressed in U.S. Survey Feet. All vertical control was based on the North American Vertical Datum of 1988 (NAVD88), also expressed in U.S. Survey Feet. These coordinates for the control survey can be found in Volume 1 Section 2 of this report.

QUALITY ASSURANCE

Existing NGS published control stations were surveyed to assure that there were no discrepancies in the field observation data. Close examinations of the residuals showed no distortions in orientation or scale. As an extra quality control measure, Woolpert crews re-observed several of the photogrammetric control stations throughout the eastern tier at different times, from different base stations, to ensure quality and error free data.

VOLUME 1 - SECTION 2: BASE STATION/GEODETIC CONTROL DIAGRAM

This section contains a graphical representation of the Base stations and Geodetic Control used for the project.



Not to Scale

VOLUME 1 - SECTION 3: BASE STATION/GEODETIC CONTROL COORDINATE LISTINGS

COORDINATE SYSTEM: GRID

HORIZONTAL DATUM: NAD83 (2007)

VERTICAL DATUM: NAVD88

ZONE: Indiana East

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

WOOLPERT ESTABLISHED BASE STATION COORDINATES

Station Name	Northing US Ft	Easting US Ft	Elevation US Ft	Description
1000	1418849.31	517813.75	905.77	TSM
1050	1505188.71	381527.53	954.18	TSM
1051	1718925.21	257184.30	831.35	TSM
1052	2118800.34	515899.33	768.64	TSM
1101	1201845.42	327838.59	668.60	TSM
1102	1143448.31	282800.34	981.60	TSM
1103	1613231.76	536113.51	1007.67	TSM
1104	1822531.57	493640.46	988.97	TSM
1201	1324808.56	420287.78	905.58	TSM
1202	1732236.64	393302.81	1067.73	TSM
1203	1948123.17	341556.27	890.87	TSM
1205	2123840.72	407496.45	862.84	TSM
1206	2313232.28	395215.10	944.03	TSM
1207	1976186.37	524997.38	842.27	TSM
SUMMIT_OPUS	2282744.45	508130.62	997.39	TSM_MD1483
OXFORD	1560753.11	579637.21	1037.97	JZ1237

NGS GEODETIC BASE STATIONS COORDINATES

Station Name	Northing US Ft	Easting US Ft	Elevation US Ft	Description
SUMMIT_OPUS	2282744.45	508130.62	997.39	TSM_MD1483
OXFORD	1560753.11	579637.21	1037.97	JZ1237

NGS GEODETIC VALIDATION POINTS

Station Name	Northing US Ft	Easting US Ft	Elevation US Ft	Description
14200	2388044.73	287677.93	851.88	AB3088
BAXTER	2055267.35	566997.33	814.08	LA0691
CHELSEA	1241578.41	368441.37	793.38	HZ1709

Station Name	Northing US Ft	Easting US Ft	Elevation US Ft	Description
D 92	1355906.82	280333.08	586.99	HZ1880
E 278	1133876.45	284998.91	544.02	HZ1322
EKIN	1805061.95	189871.73	911.48	LB2522
HARBER AZ MK	2077388.93	465834.72	799.98	LA0789
HILLSDALE 1	2432952.68	609662.21	1098.92	MD0583
I71 T 32 RM 1	1295003.85	594173.93	797.33	HZ0762
J 279	1225918.35	192337.74	815.01	JA0200
K 268	1448094.01	278908.80	637.63	JZ2225
KYTE RM 2	1103350.03	347649.55	600.15	DL8657
L 342	1419407.59	596551.14	506.82	JZ2873
METRO	1659851.35	425547.55	1088.57	JZ1518
N 259	1484577.50	424531.89	984.42	JZ1981
OHIO 722	2236600.43	628186.30	720.82	MD0420
OXFORD	1560753.11	579637.21	1037.97	JZ1237
P 134	1552779.61	577466.98	1035.98	JZ1473
P 220	1849804.98	434276.13	936.06	LA1200
Q 213	2001210.59	435409.61	832.75	LA0984
SHELBY	1577205.88	290264.91	803.85	JZ2850
SUMMIT	2282744.55	508130.61	994.09	MD1483
W 157	2232218.43	279173.98	843.55	MD1058
ZID B	1635999.76	153347.83	789.72	AA6381

COORDINATE SYSTEM: GEODETIC

HORIZONTAL DATUM: WGS84

VERTICAL DATUM: NAVD88

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

WOOLPERT ESTABLISHED BASE STATION COORDINATES

Station Name	Latitude	Longitude	Ellip. Height US Ft	Description
1000	N39°08'30.96890"	W84°59'51.82888"	793.95	TSM
1050	N39°22'50.69902"	W85°28'39.34595"	842.32	TSM
1051	N39°58'02.66505"	W85°55'10.62569"	719.64	TSM
1052	N41°03'47.89328"	W84°59'08.10265"	659.89	TSM
1101	N38°32'52.87467"	W85°40'03.08068"	558.21	TSM
1102	N38°23'15.21971"	W85°49'28.74076"	871.98	TSM
1103	N39°40'30.62673"	W84°55'39.37126"	897.05	TSM
1104	N40°15'02.07486"	W85°04'24.75695"	878.50	TSM
1201	N38°53'06.73039"	W85°20'33.90605"	794.22	TSM
1202	N40°00'14.36955"	W85°26'01.87545"	956.83	TSM
1203	N40°35'48.59913"	W85°37'05.34147"	778.36	TSM
1205	N41°04'43.64608"	W85°22'43.03282"	754.52	TSM
1206	N41°35'55.25803"	W85°25'16.40225"	835.01	TSM
1207	N40°40'18.08853"	W84°57'24.43086"	732.09	TSM
SUMMIT_OPUS	N41°30'48.21732"	W85°00'33.31112"	888.40	TSM_MD1483
OXFORD	N39°31'48.11215"	W84°46'29.43676"	928.64	JZ1237

NGS GEODETIC BASE STATION COORDINATES

Station Name	Latitude	Longitude	Ellip. Height US Ft	Description
SUMMIT_OPUS	N41°30'48.21732"	W85°00'33.31112"	888.40	TSM_MD1483
OXFORD	N39°31'48.11215"	W84°46'29.43676"	928.64	JZ1237

NGS GEODETIC CHECK POINTS

Station Name	Latitude	Longitude	Ellip. Height US Ft	Description
14200	N41°48'14.98526"	W85°48'53.51753"	742.75	AB3088
BAXTER	N40°53'15.71709"	W84°48'09.29596"	704.48	LA0691
CHELSEA	N38°39'25.32994"	W85°31'31.22157"	682.58	HZ1709
D 92	N38°58'15.30327"	W85°50'04.61702"	475.86	HZ1880
E 278	N38°21'40.63434"	W85°49'00.93185"	434.52	HZ1322
EKIN	N40°12'11.09989"	W86°09'41.31620"	799.09	LB2522
HARBER AZ MK	N40°57'02.07302"	W85°10'04.74466"	690.53	LA0789

Station Name	Latitude	Longitude	Ellip. Height US Ft	Description
HILLSDALE 1	N41°55'22.21280"	W84°37'55.14102"	987.76	MD0583
I71 T 32 RM 1	N38°48'00.30985"	W84°43'58.83266"	686.15	HZ0762
J 279	N38°36'47.36601"	W86°08'30.24623"	705.45	JA0200
K 268	N39°13'26.47033"	W85°50'24.88145"	526.25	JZ2225
KYTE RM 2	N38°16'39.13985"	W85°35'54.62546"	490.60	DL8657
L 342	N39°08'29.56096"	W84°43'12.48195"	395.14	JZ2873
METRO	N39°48'17.97268"	W85°19'11.12275"	977.29	JZ1518
N 259	N39°19'25.73811"	W85°19'32.64896"	872.45	JZ1981
OHIO 722	N41°23'00.36221"	W84°34'23.08528"	609.21	MD0420
OXFORD	N39°31'48.11215"	W84°46'29.43676"	928.64	JZ1237
P 134	N39°30'29.52707"	W84°46'58.13099"	926.63	JZ1473
P 220	N40°19'34.81006"	W85°17'08.86526"	824.85	LA1200
Q 213	N40°44'30.88086"	W85°16'45.64174"	721.46	LA0984
SHELBY	N39°34'42.75923"	W85°48'03.01368"	692.59	JZ2850
SUMMIT	N41°30'48.21824"	W85°00'33.31129"	885.10	MD1483
W 157	N41°22'35.27820"	W85°50'41.55608"	733.81	MD1058
ZID B	N39°44'18.12656"	W86°17'16.84533"	680.79	AA6381

VOLUME 1 - SECTION 4: BASE STATION/GEODETIC CONTROL LOGS AND PHOTOS

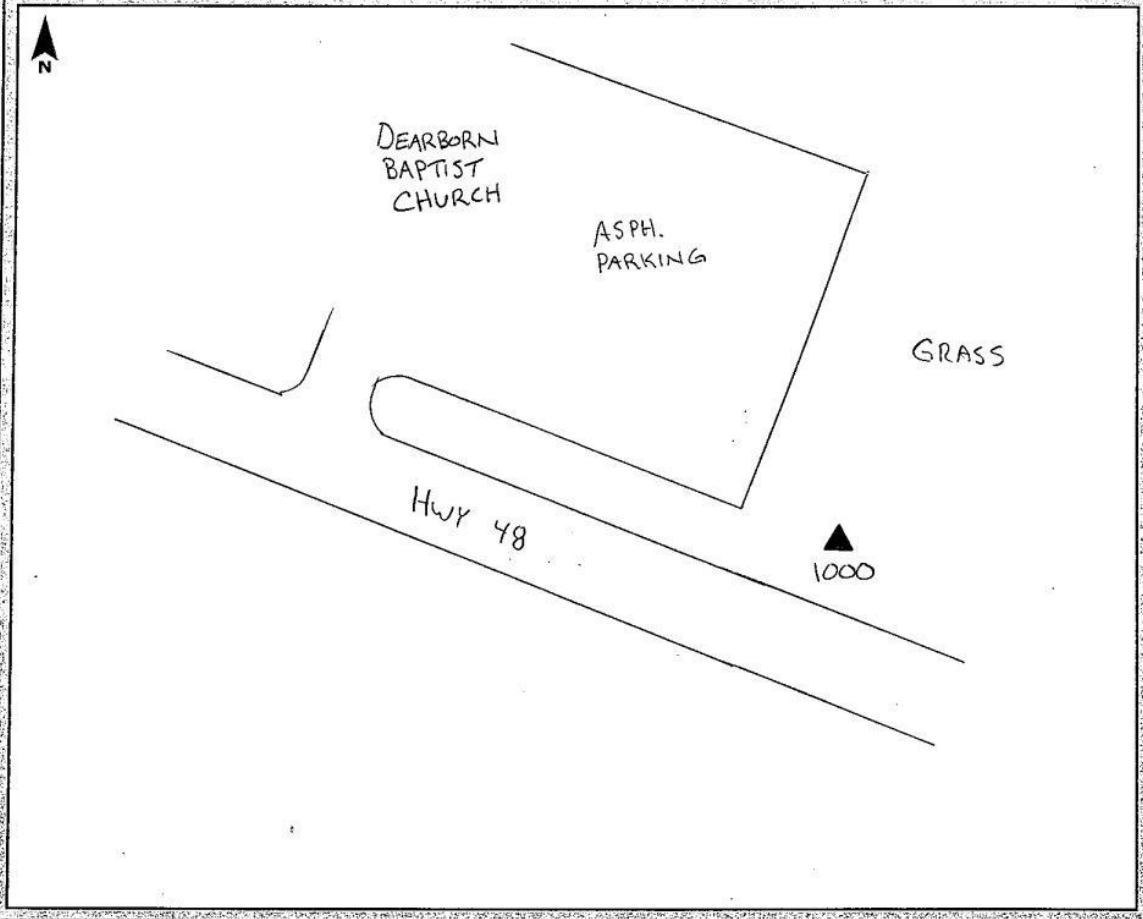
This section contains the station recovery information sheets and photographs for the ground control, geodetic control and checkpoint stations established for the project. The stations appear in order with the final coordinate listing of Volume 1 Section 2.

The data is assembled on the following pages.

GPS Observation Log Sheet



Project Name: _____ Project Number: _____ Survey Date: 03/08/2017
Station Name: 1000 Operator Name: BEN CHRISTIE
Latitude: 39° 08' 31.0" N Julian Day: 068 Session No. 0
Longitude: 84° 59' 51.8" W Start Time: 0844 End Time: 1247
Ellip. Height: 790.21 sft Data File Name: 10000680
Type of Mark: CAPPED REBAR Type of Receiver: 5700
Stamping on Mark: WOOLPERT INC. CONTROL STA. Type of Antenna: ZEPHYR GEOD.
Weather Condition: 45° RAIN Antenna Height: 2m to bottom of antenna mount





1000-1-03MAR2012



1000-2-03MAR2012



1000-3NW-03MAR2012



1000-3SE-03MAR2012



1000-3SW-03MAR2012

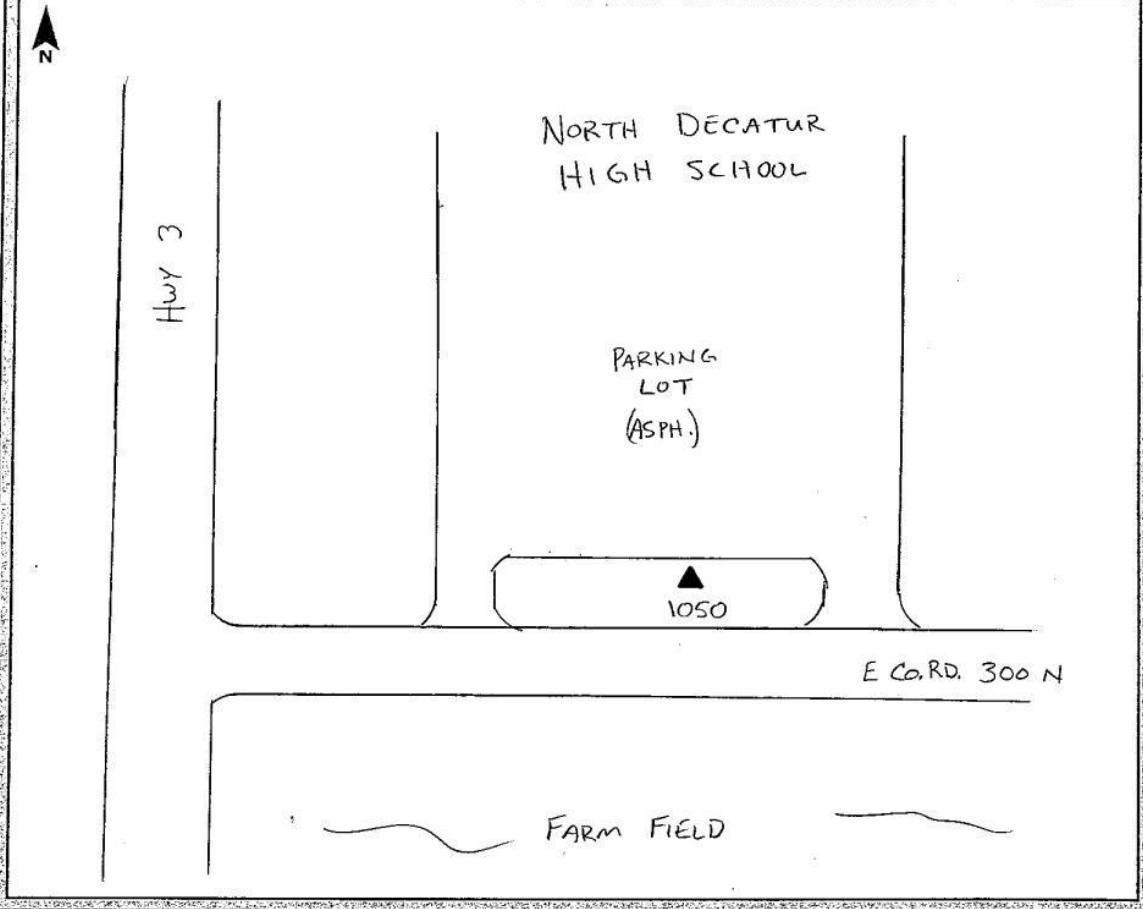


1000-3NE-03MAR2012

GPS Observation Log Sheet



Project Name: _____ Project Number: _____ Survey Date: 03/11/2012
Station Name: 1050 Operator Name: BEN CHRISTIE
Latitude: 39° 22' 50.71" N Julian Day: 071 Session No. 0
Longitude: 85° 28' 39.36" W Start Time: 0940 End Time: 1343
Ellip. Height: 837.32 sft Data File Name: 10500710
Type of Mark: CAPPED REBAR Type of Receiver: S700
Stamping on Mark: WOOLPERT CONTROL POINT Type of Antenna: ZEPHYR GEOD.
Weather Condition: 40° CLEAR Antenna Height: 2 m to bottom of antenna mount





1050-1-11MAR2012



1050-2-11MAR2012



1050-3W-11MAR2012



1050-3S-11MAR2012



1050-3E-11MAR2012

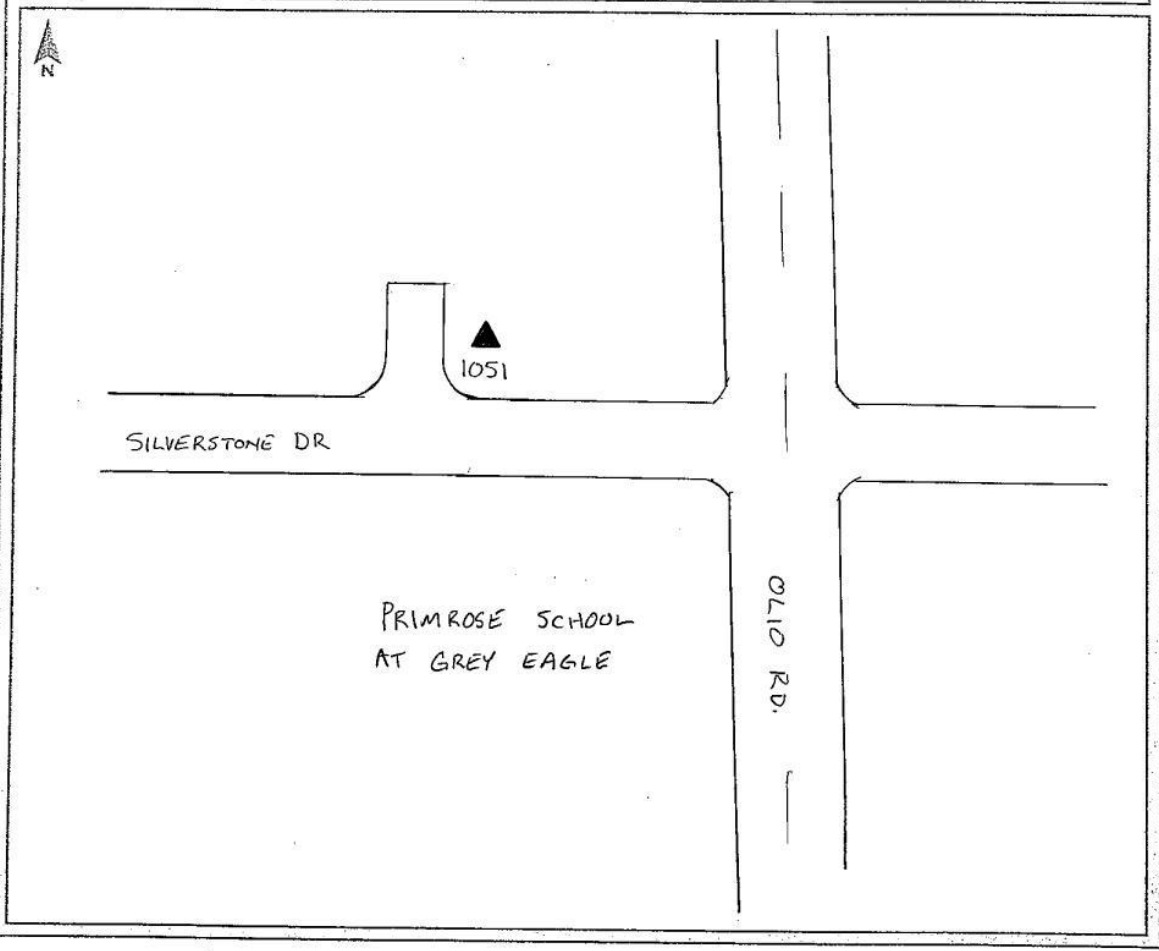


1050-3N-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>1051</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 58' 02.66" N</u>	Julian Day: <u>073</u>	Session No. <u>0</u>
Longitude: <u>85° 55' 10.62" W</u>	Start Time: <u>0936</u>	End Time: <u>1349</u>
Ellip. Height: <u>219.347 (m)</u>	Data File Name: <u>10510730</u>	
Type of Mark: <u>CAPPED REBAR</u>	Type of Receiver: <u>5700</u>	
Stamping on Mark: <u>WOOLPERT CONTROL POINT</u>	Type of Antenna: <u>ZEPHYR GEOD.</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





1051-1-13MAR2012



1051-2-13MAR2012



1051-3W-13MAR2012



1051-3E-13MAR2012



1051-3S-13MAR2012

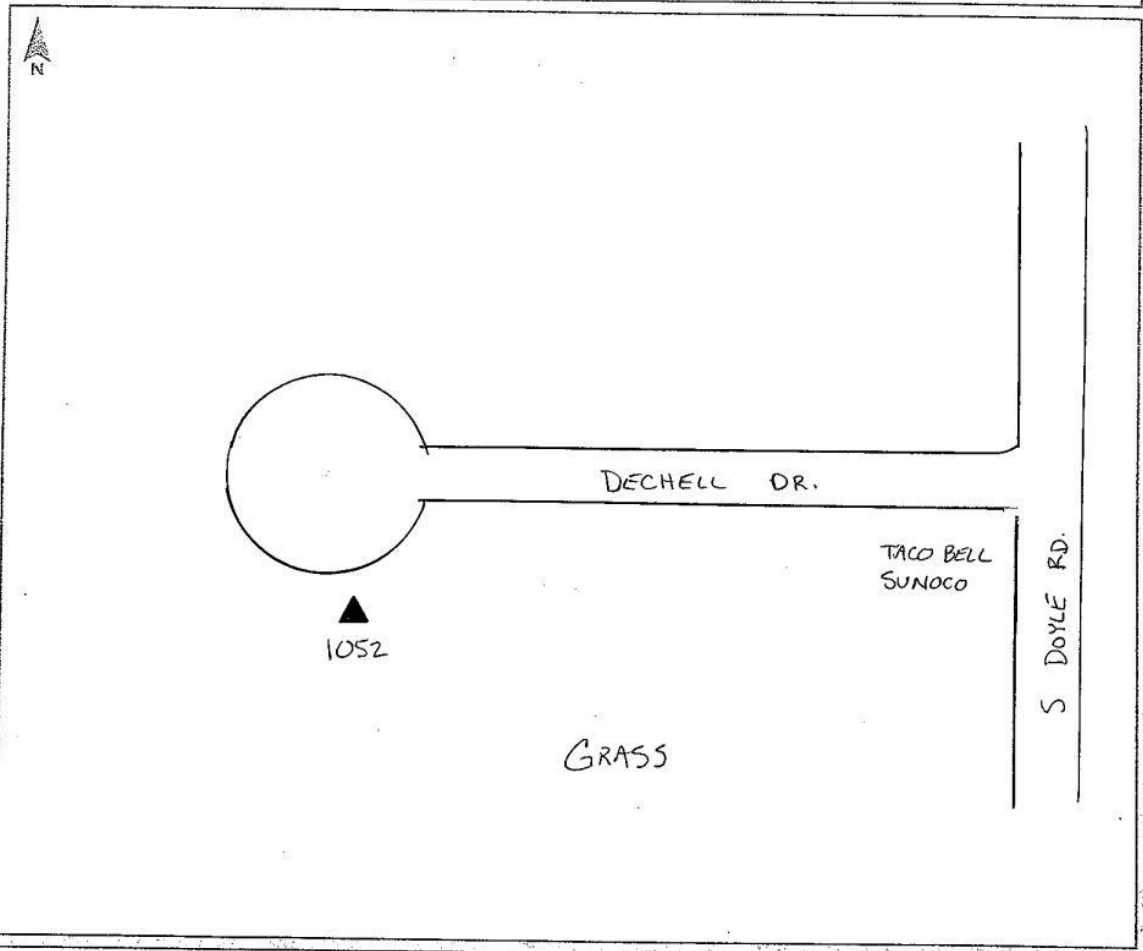


1051-3N-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/21/2012</u>
Station Name: <u>1052</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: _____	Julian Day: <u>081</u>	Session No. <u>0</u>
Longitude: _____	Start Time: <u>1136</u>	End Time: <u>1713</u>
Ellip. Height: _____	Data File Name: <u>10520810</u>	
Type of Mark: <u>CAPPED REBAR</u>	Type of Receiver: <u>S700</u>	
Stamping on Mark: <u>WOOLPERT CONTROL POINT</u>	Type of Antenna: <u>ZEPHYR GEOD.</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





1052-1-21MAR2012



1052-2-21MAR2012



1052-3S-21MAR2012



1052-3W-21MAR2012



1052-3E-21MAR2012

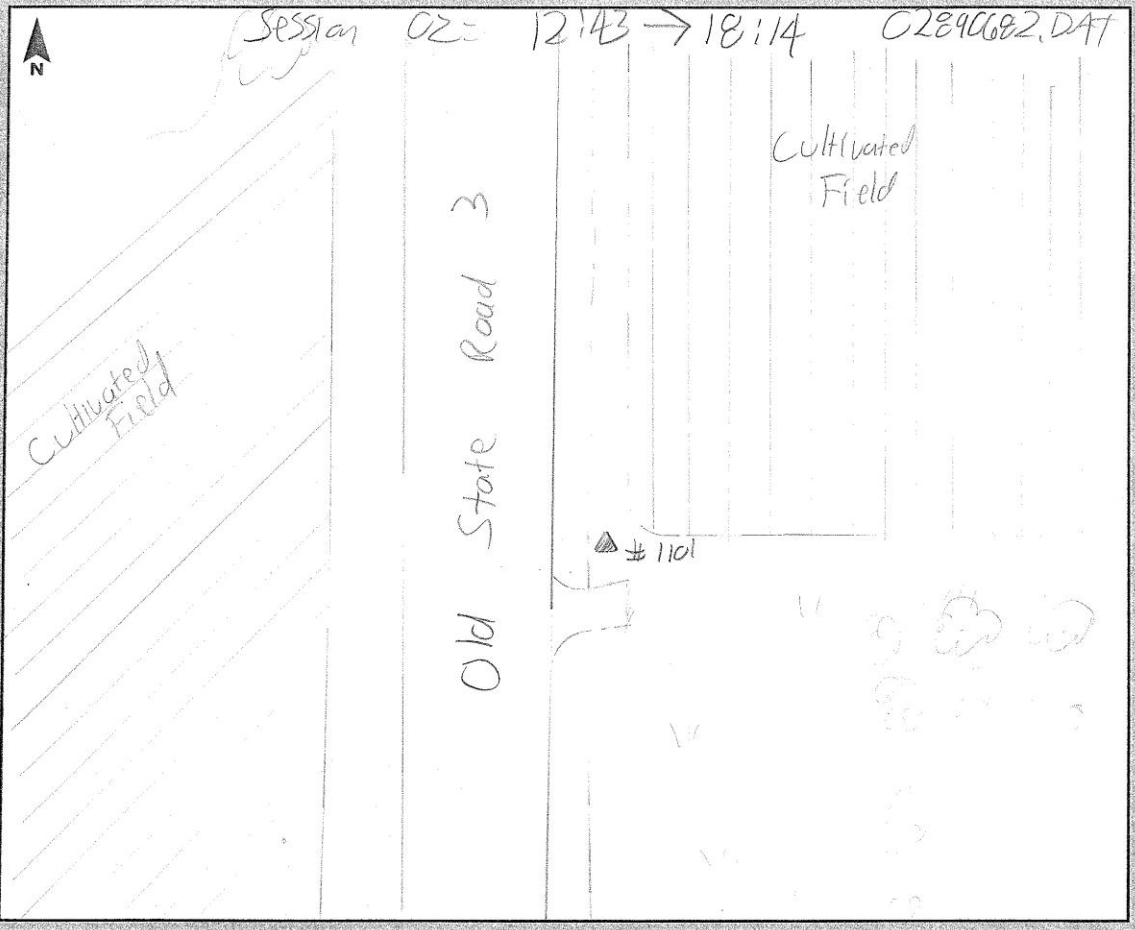


1052-3N-21MAR2012

GPS Observation Log Sheet



Project Name: Indiana Statewide 2012 Project Number: 72134 Survey Date: 2012-03-08
Station Name: 1101 Operator Name: David Hall
Latitude: 38° 32' 52.8" Julian Day: 008 Session No. 1
Longitude: 85° 40' 02.9" Start Time: 08:20 End Time: 12:44
Ellip. Height: 549" Data File Name: 02890682.DAT
Type of Mark: Rebar w/cap Type of Receiver: R7
Stamping on Mark: Woolpert Control Sta Type of Antenna: Zephyr Geodetic
Weather Condition: 70° Rain Antenna Height: 2.000 to bottom of antenna mount





1101-TSM-1-08MAR2012



1101-TSM-2-08MAR2012



1101-TSM-3S-08MAR2012



1101-TSM-3W-08MAR2012



1101-TSM-3N-08MAR2012

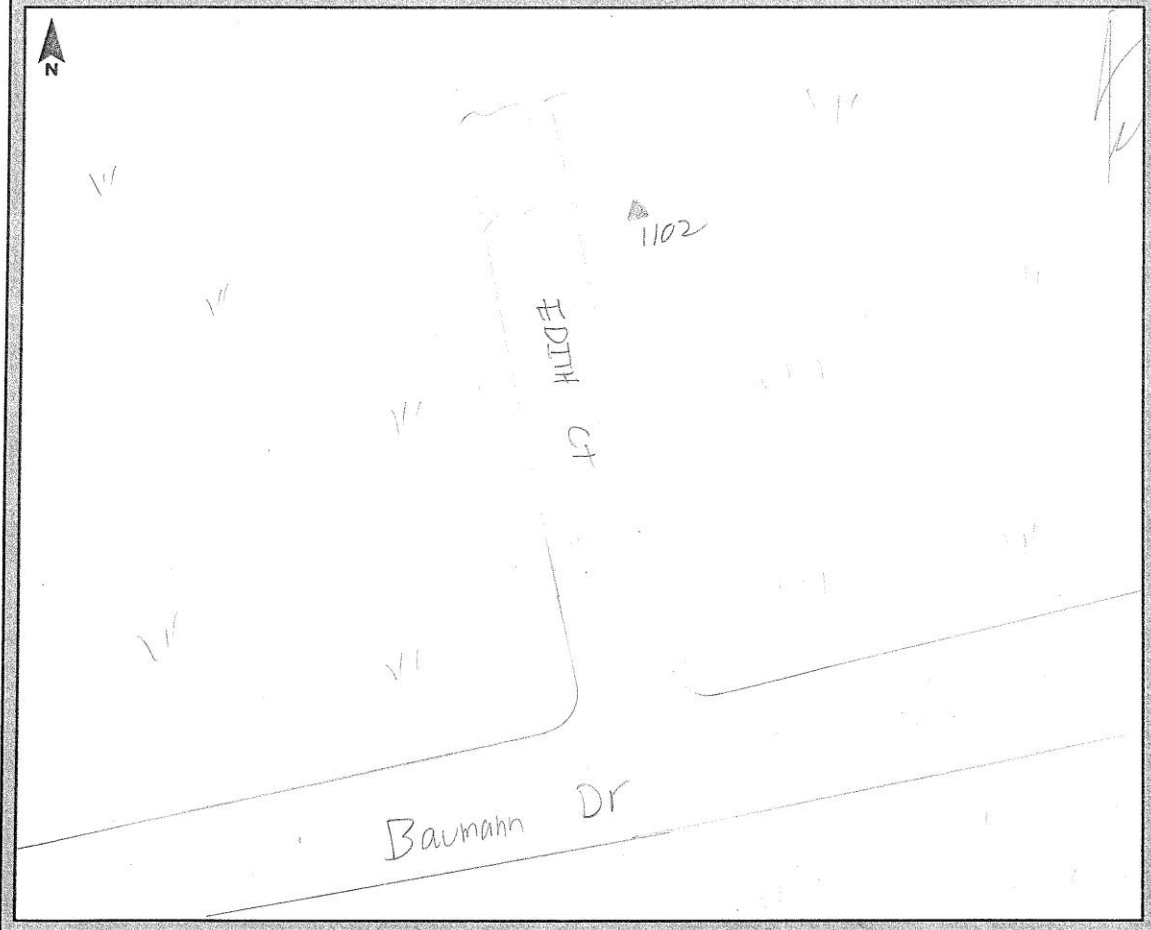


1101-TSM-3E-08MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>7234</u>	Survey Date:	<u>2012-03-10</u>
Station Name:	<u>1102</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>38° 23' 15.2"</u>	Julian Day:	<u>070</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 49' 28.7"</u>	Start Time:	<u>11:22</u>	End Time:	<u>11:32</u>
Ellip. Height:	<u>872'</u>	Data File Name:	<u>INDY_070-DH1</u>		
Type of Mark:	<u>Rear w/ cap</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:	<u>Woolpert Control Sta</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>50% clear</u>	Antenna Height:	<u>2000M</u>	to bottom of antenna mount	





1102-1-10MAR2012



1102-2-10MAR2012



1102-3W-10MAR2012



1102-3N-10MAR2012



1102-3E-10MAR2012

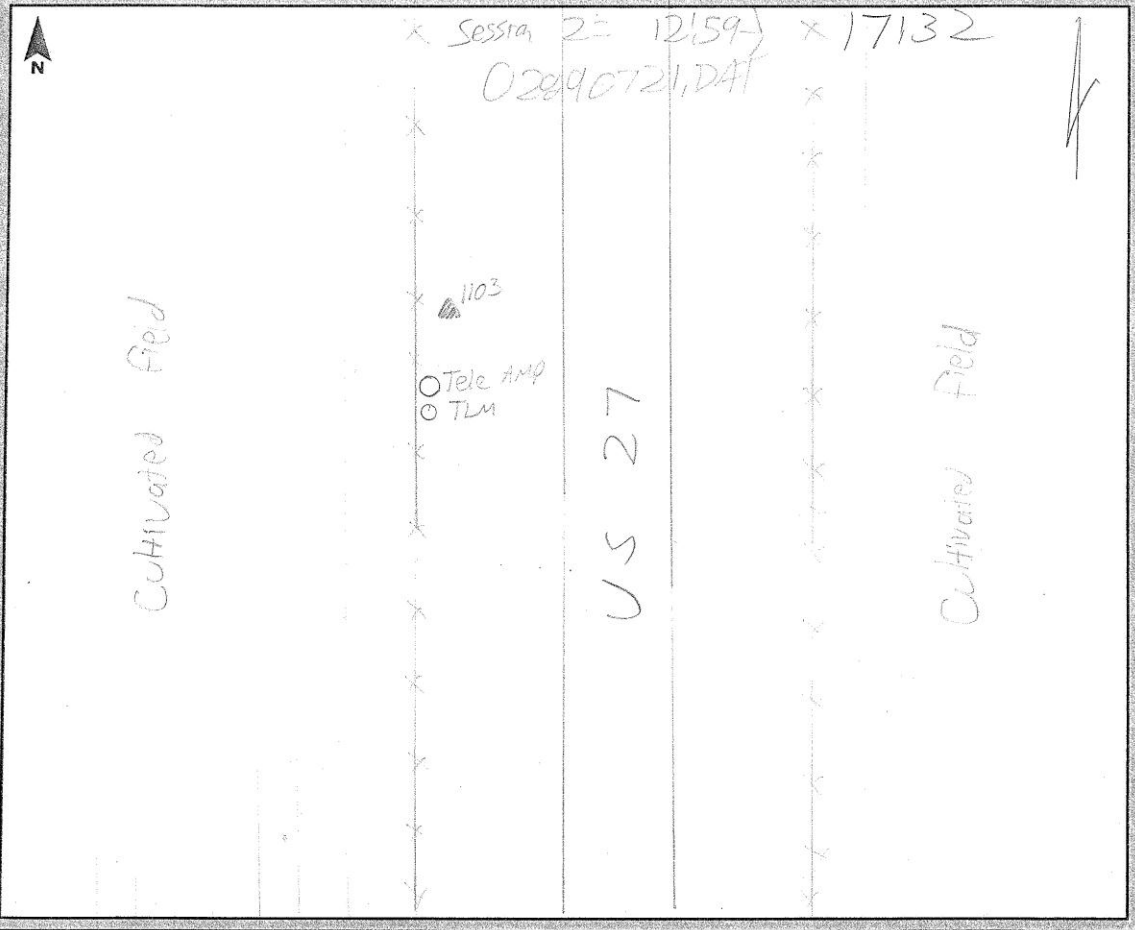


1102-3S-10MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>2134</u>	Survey Date: <u>2012-03-12</u>
Station Name: <u>1103</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 40' 30.7"</u>	Julian Day: <u>072</u>	Session No. <u>1</u>
Longitude: <u>84° 55' 39.4"</u>	Start Time: <u>08:46</u>	End Time: <u>12:57</u>
Ellip. Height: <u>901</u>	Data File Name: <u>02890720.DAT</u>	
Type of Mark: <u>Rebar w/ cap</u>	Type of Receiver: <u>R7</u>	
Stamping on Mark: <u>Woolpert Control Sta</u>	Type of Antenna: <u>Zephyr Geodetic</u>	
Weather Condition: <u>50% rain</u>	Antenna Height: <u>2.000m</u> to bottom of antenna mount	





1103-1-13MAR2012



1103-2-13MAR2012



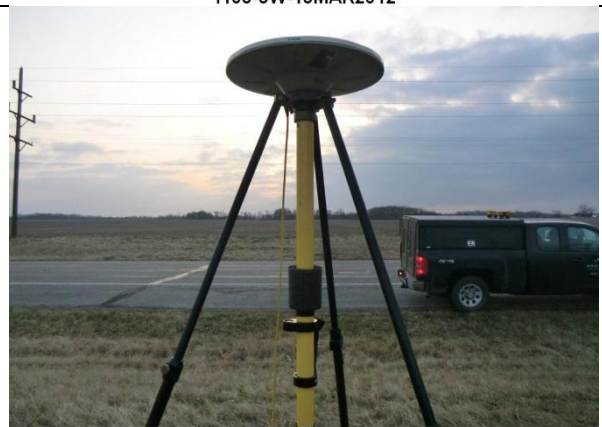
1103-3N-13MAR2012



1103-3W-13MAR2012



1103-3S-13MAR2012

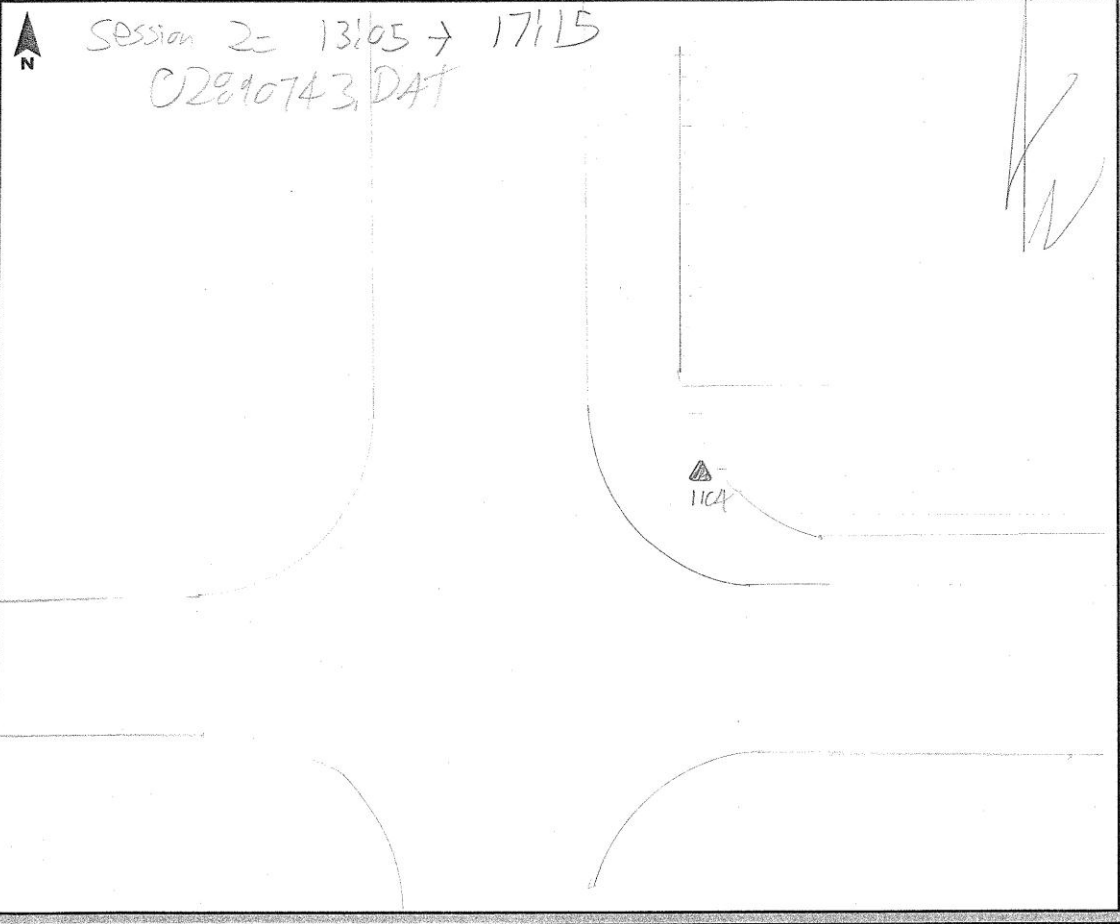


1103-3E-13MAR2012

GPS Observation Log Sheet



Project Name: <u>JN Statewide 2012</u>	Project Number: <u>12134</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>1104</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 15' 02.1"</u>	Julian Day: <u>074</u>	Session No. <u>1</u>
Longitude: <u>85° 04' 24.8"</u>	Start Time: <u>08:24</u>	End Time: <u>13:04</u>
Ellip. Height: <u>882'</u>	Data File Name: <u>02890741.DAT</u>	
Type of Mark: <u>Keopac & Cap</u>	Type of Receiver: <u>R7</u>	
Stamping on Mark: <u>Woolpert Control Sta</u>	Type of Antenna: <u>Zephyr Geodetic</u>	
Weather Condition: <u>50% & Clear</u>	Antenna Height: <u>2.00m</u>	to bottom of antenna mount





1104-1-14MAR2012



1104-2-14MAR2012



1104-3N-14MAR2012



1104-3E-14MAR2012



1104-3S-14MAR2012

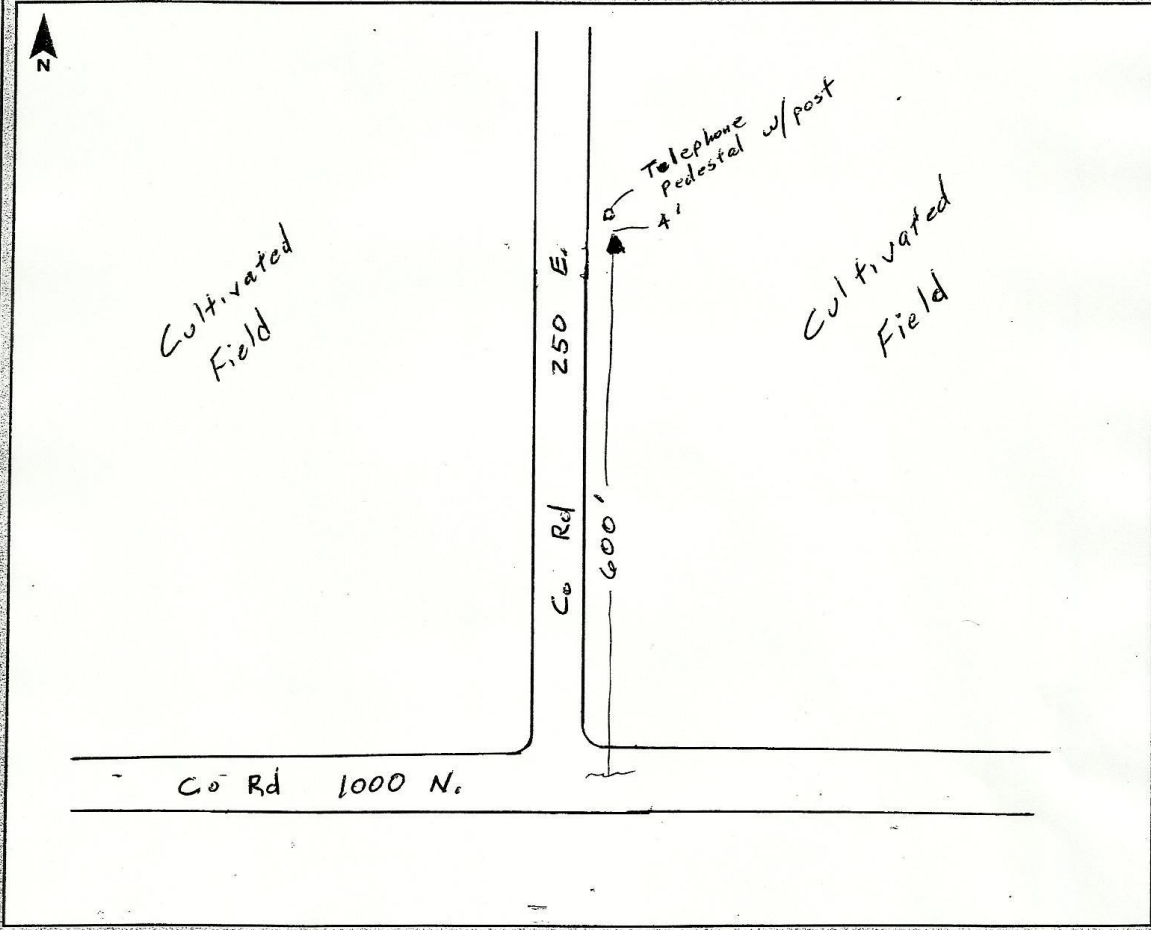


1104-3W-14MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: MAR 12
Station Name: FSM 1201 Operator Name: Stephen Schonegg
Latitude: 38-53-06.72 Julian Day: 068 Session No. 1
Longitude: 085-20-33.87 Start Time: 7:40 End Time: 12:45
Ellip. Height: 784.948 Data File Name: 93570680
Type of Mark: Capped Rebar Type of Receiver: RB-2 # 9357
Stamping on Mark: Woolpert Control PT Type of Antenna: _____
Weather Condition: RAIN, 55° Antenna Height: 6.562 FT to bottom of antenna mount





1201-1-08MAR2012



1201-2-08MAR2012



1201-3N-08MAR2012



1201-3S-08MAR2012



1201-3E-08MAR2012

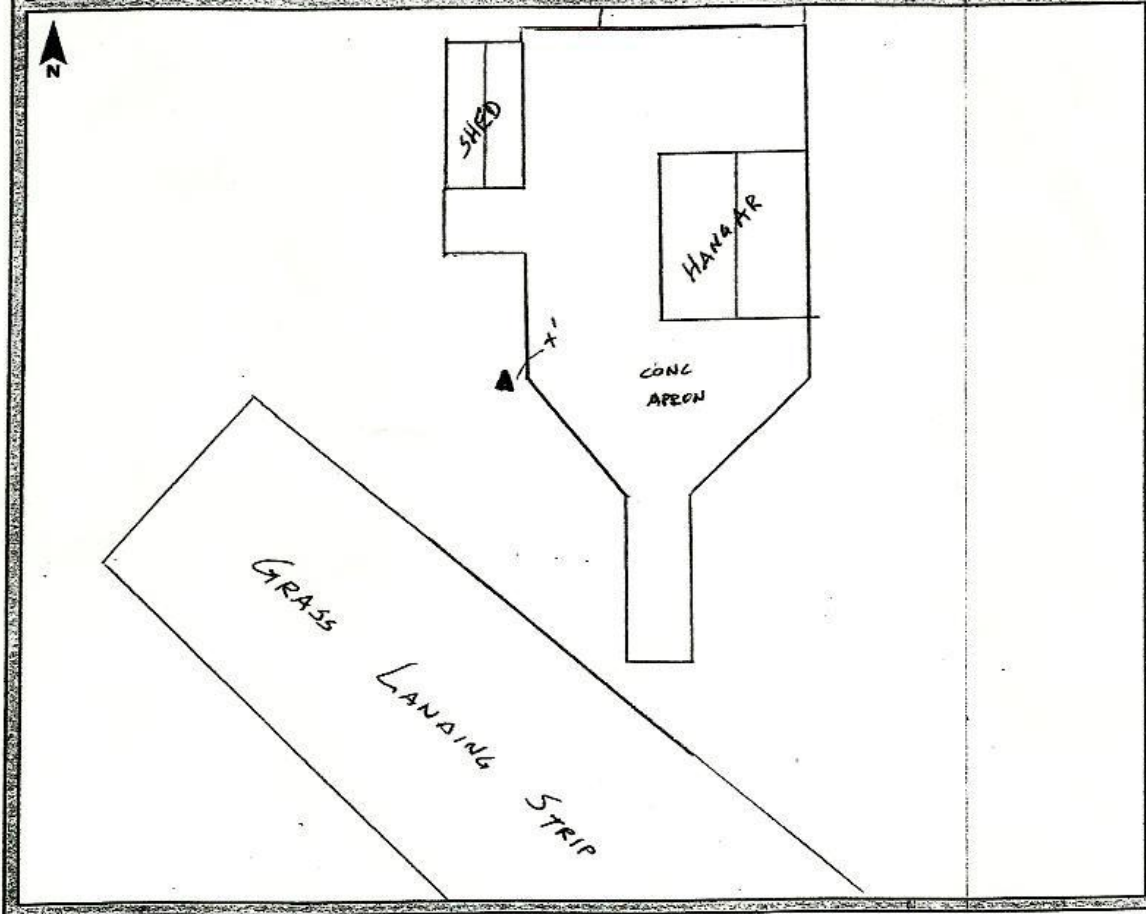


1201-3W-08MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: 1202 Operator Name: Stephen Schonegg
Latitude: 40-00-14.42 Julian Day: 074 Session No. 1
Longitude: 085-26-01.89 Start Time: 8:30 End Time: 12:36
Ellip. Height: 955.29 Data File Name: 06880740
Type of Mark: Capped Rebar Type of Receiver: R8 # 0688
Stamping on Mark: Woolpert Control PT Type of Antenna: _____
Weather Condition: Sunny, 53° Antenna Height: 6.562 FT to bottom of antenna mount





1202-1-13MAR2012



1202-2-13MAR2012



1202-3E-13MAR2012



1202-3N-13MAR2012



1202-3S-13MAR2012

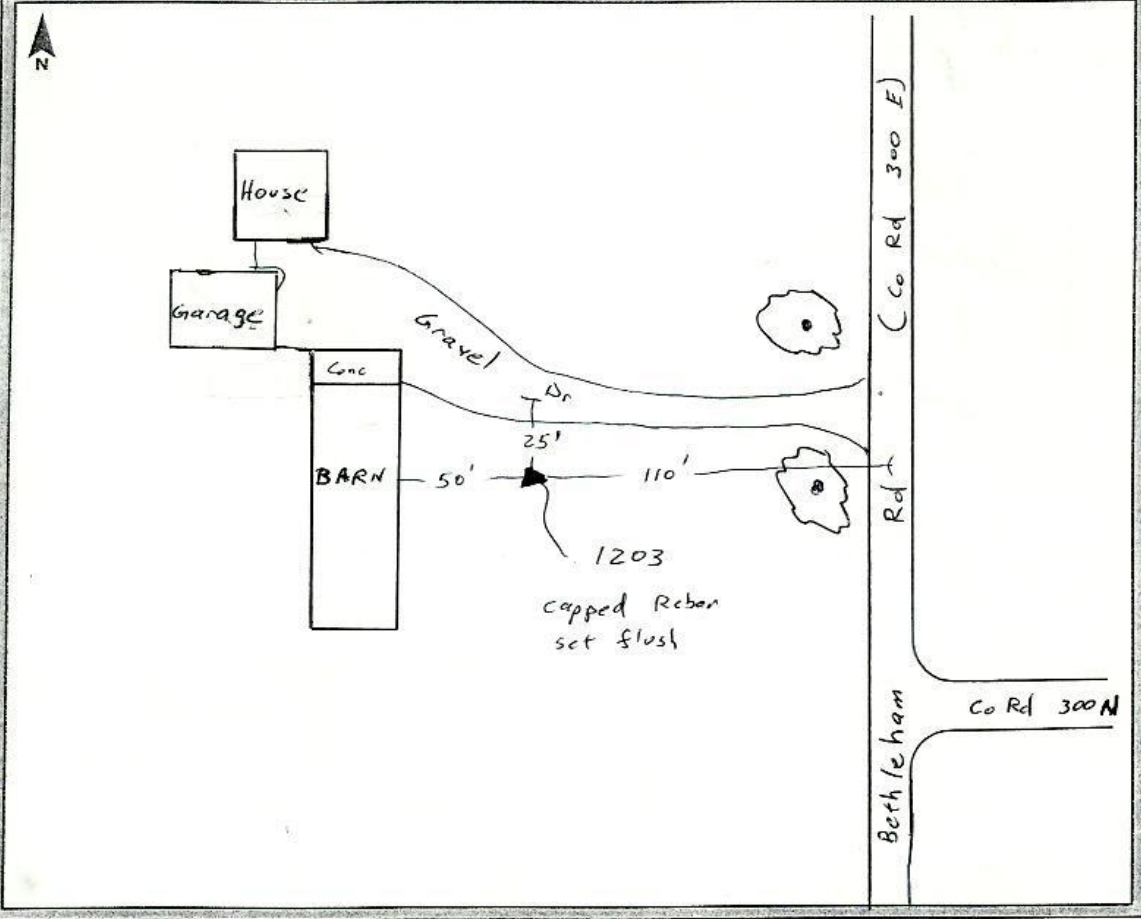


1202-3W-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 16 MAR 12
 Station Name: 1203 Operator Name: Stephen Schonegg
 Latitude: 40-35-48.66 Julian Day: 076 Session No. 1
 Longitude: 085-37-05.39 Start Time: 7:58 End Time: _____
 Ellip. Height: .774.00 Data File Name: 06880760
 Type of Mark: Capped Rebar Type of Receiver: R8 #0688
 Stamping on Mark: Woolpert Control Pt Type of Antenna: _____
 Weather Condition: Sunny, 60° Antenna Height: 6.562 Ft to bottom of antenna mount





1203-1-16MAR2012



1203-2-16MAR2012



1203-3E-16MAR2012



1203-3N-16MAR2012



1203-3S-16MAR2012

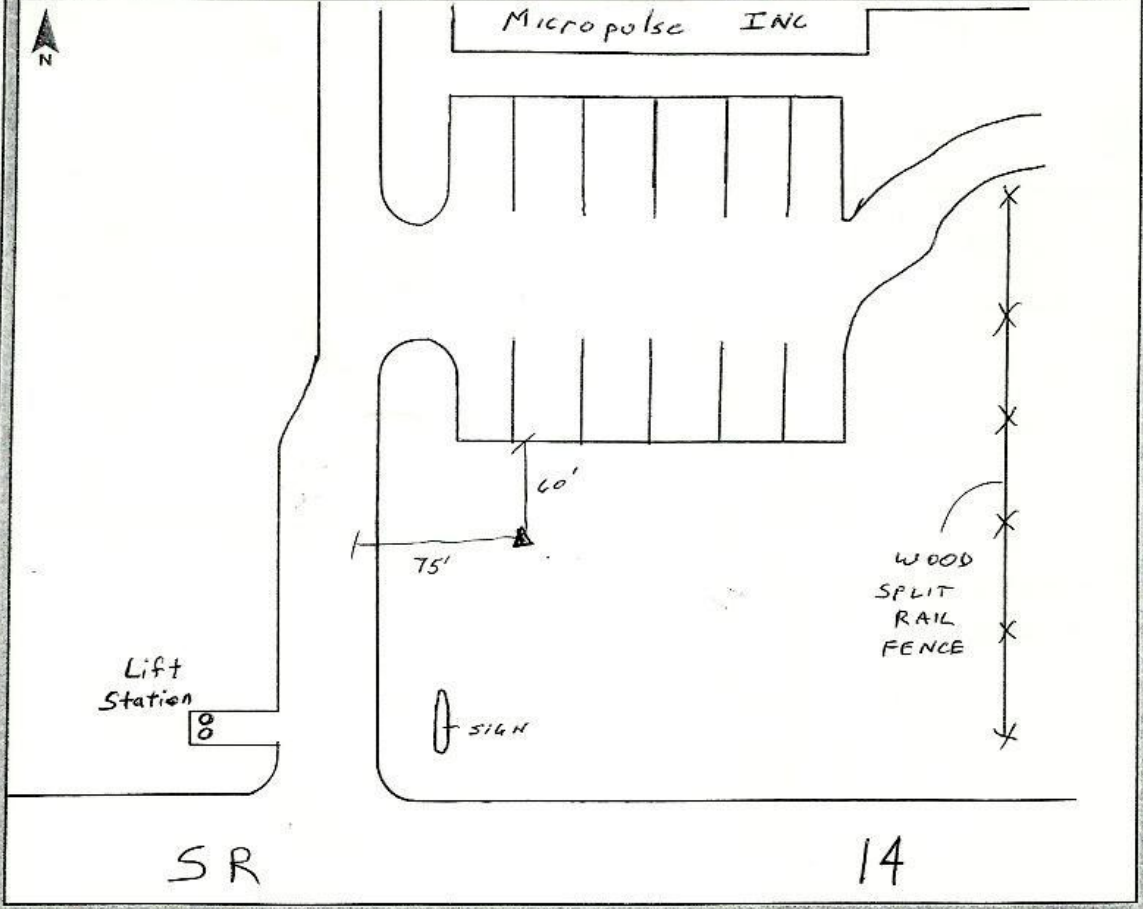


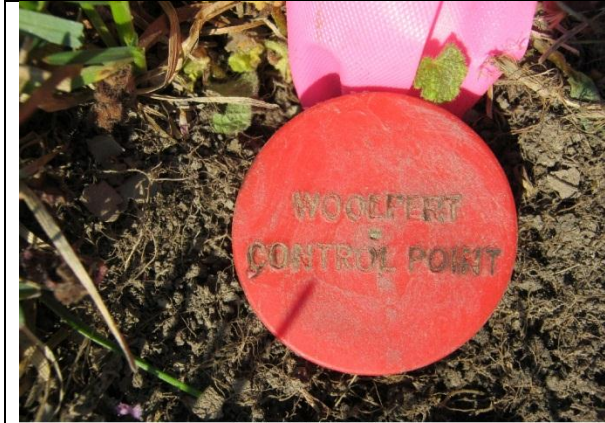
1203-3W-16MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>22 MAR12</u>
Station Name: <u>1205</u>	Operator Name: <u>Stephen Schonegg</u>
Latitude: <u>41-04-43.64</u>	Julian Day: <u>082</u> Session No. <u>2</u>
Longitude: <u>085-22-43.03</u>	Start Time: <u>2:13</u> End Time: <u>6:17</u>
Ellip. Height: <u>758.27 FT</u>	Data File Name: <u>06880821</u>
Type of Mark: <u>Rebar set flush</u>	Type of Receiver: <u>R8 # 0688</u>
Stamping on Mark: <u>Woolpert Control Pt</u>	Type of Antenna: _____
Weather Condition: <u>Sunny, 80°, Light Wind</u>	Antenna Height: <u>6.562 Ft</u> to bottom of antenna mount





1205-1-22MAR2012



1205-2-22MAR2012



1205-3E-22MAR2012



1205-3N-22MAR2012



1205-3S-22MAR2012

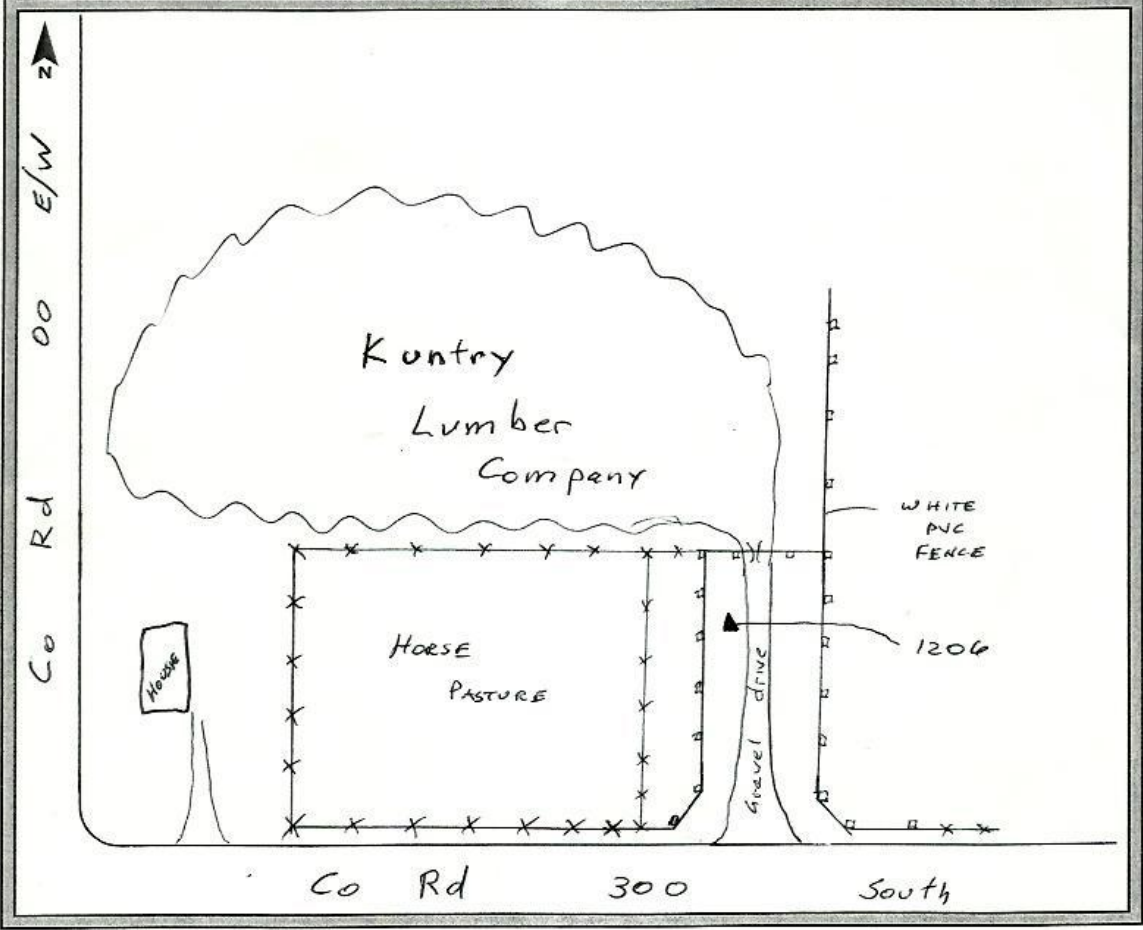


1205-3W-22MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24 MAR 12
 Station Name: 1206 Operator Name: STEPHEN SCHONEGG
 Latitude: 41-35-55.26 Julian Day: 084 Session No. 2
 Longitude: 085-25-16.41 Start Time: 2:36 End Time: 6:40
 Ellip. Height: .835.49 FT Data File Name: 06880841
 Type of Mark: Capped rebar set flush Type of Receiver: RB # 0688
 Stamping on Mark: Woolpert Control PT Type of Antenna: _____
 Weather Condition: Cloudy, 65° Antenna Height: 6.562 FT to bottom of antenna mount





1206-1-24MAR2012



1206-2-24MAR2012



1206-3E-24MAR2012



1206-3N-24MAR2012



1206-3S-24MAR2012

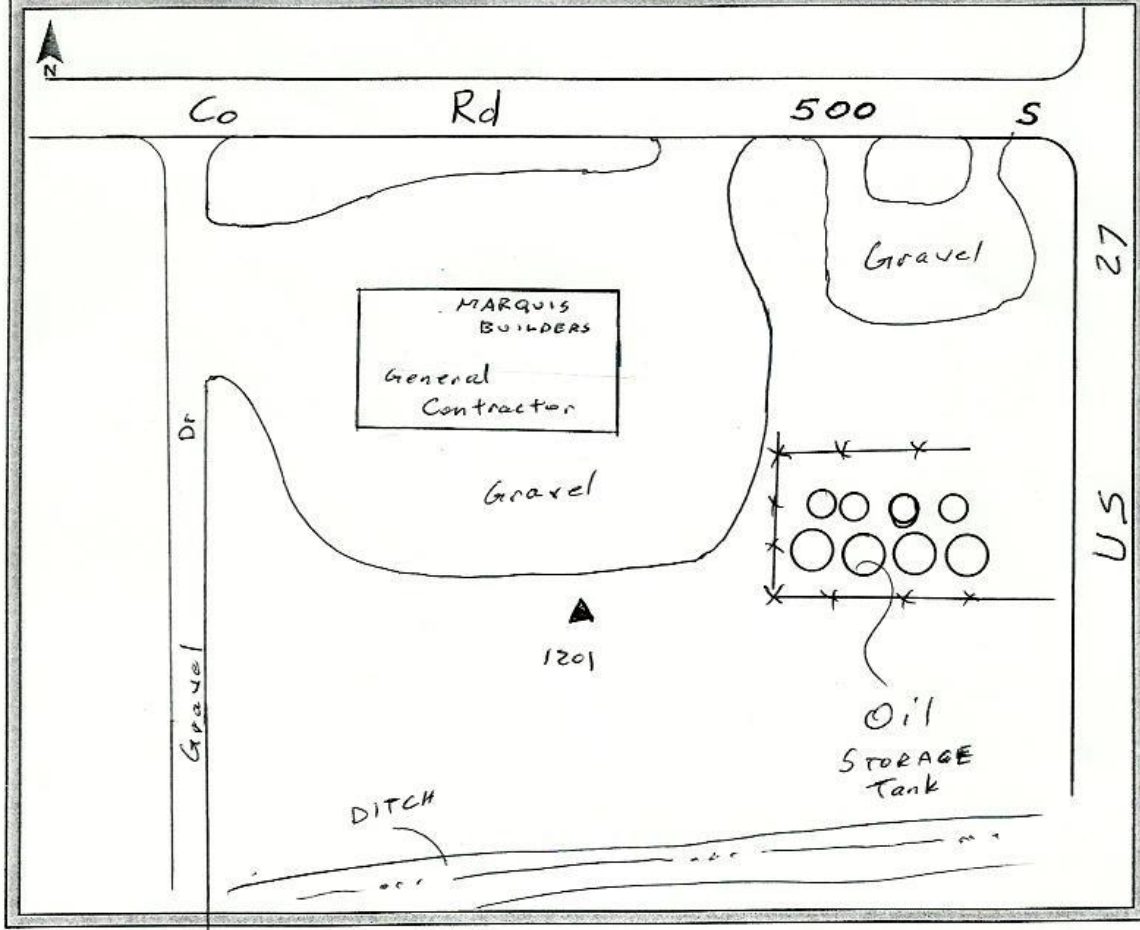


1206-3W-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 28 MAR 12
 Station Name: 1207 Operator Name: STEPHEN SCHONEGG
 Latitude: 40-40-18.13 Julian Day: 088 Session No. 2
 Longitude: 084-57-24.49 Start Time: 2:42 End Time: 7:30
 Ellip. Height: .712.25 FT Data File Name: 06880881
 Type of Mark: Capped Rebar Type of Receiver: RB # 0688
 Stamping on Mark: WOOLPERT CONTROL PT Type of Antenna: _____
 Weather Condition: Sunny, 65°, WIND Antenna Height: 6.562 FT to bottom of antenna mount





1207-1-28MAR2012



1207-2-28MAR2012



1207-3E-28MAR2012



1207-3N-28MAR2012



1207-3S-28MAR2012

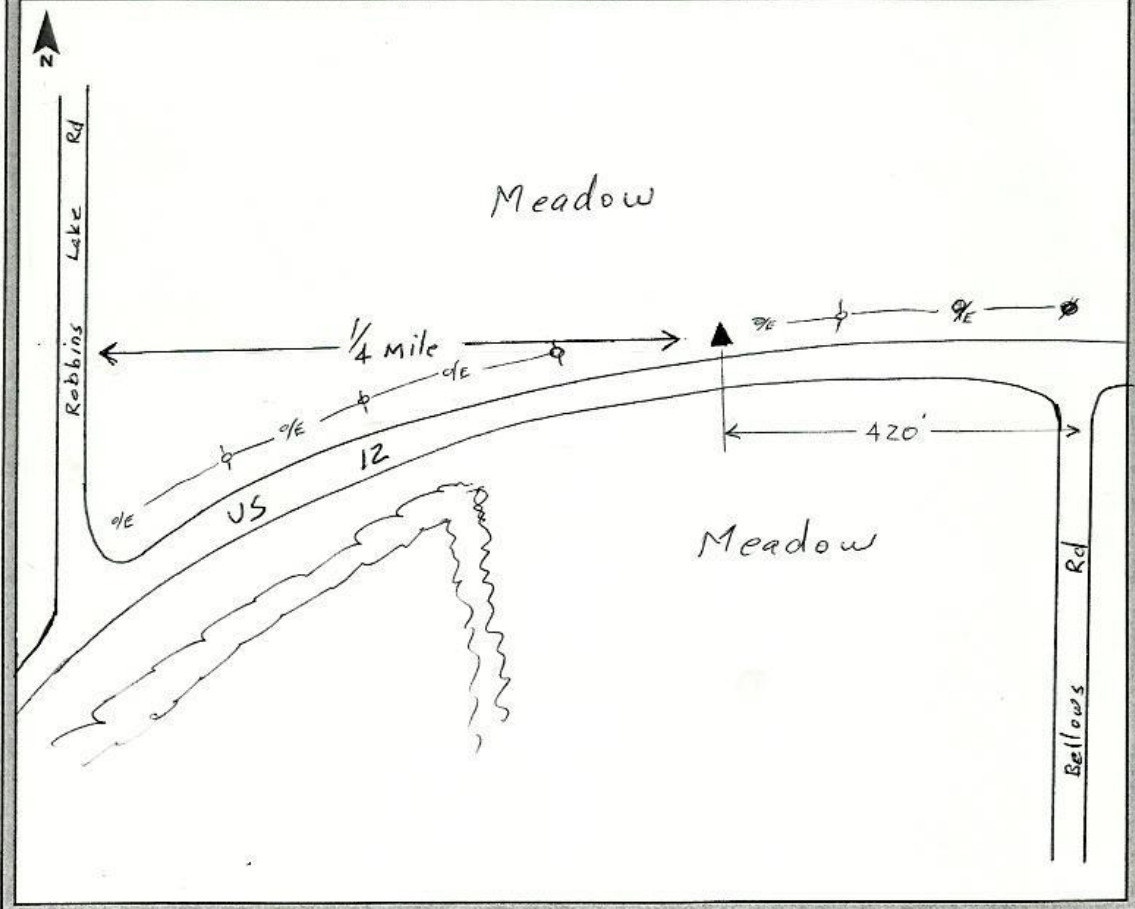


1207-3W-28MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 25 MAR 12
 Station Name: 14200 (AB3088) Operator Name: STEPHEN SCHONEGG
 Latitude: 41-48-14.98526 Julian Day: 085 Session No. 1
 Longitude: 085-48-53.51753 Start Time: 3:34 End Time: 5:10
 Ellip. Height: . Data File Name: 93570850
 Type of Mark: Mich D.O.T. Alum Disk Type of Receiver: R8-2 #9357
 Stamping on Mark: 14200 Δ 1994 Type of Antenna: _____
 Weather Condition: Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount





14200-1-25MAR2012



14200-2-25MAR2012



14200-3E-25MAR2012



14200-3N-25MAR2012



14200-3S-25MAR2012

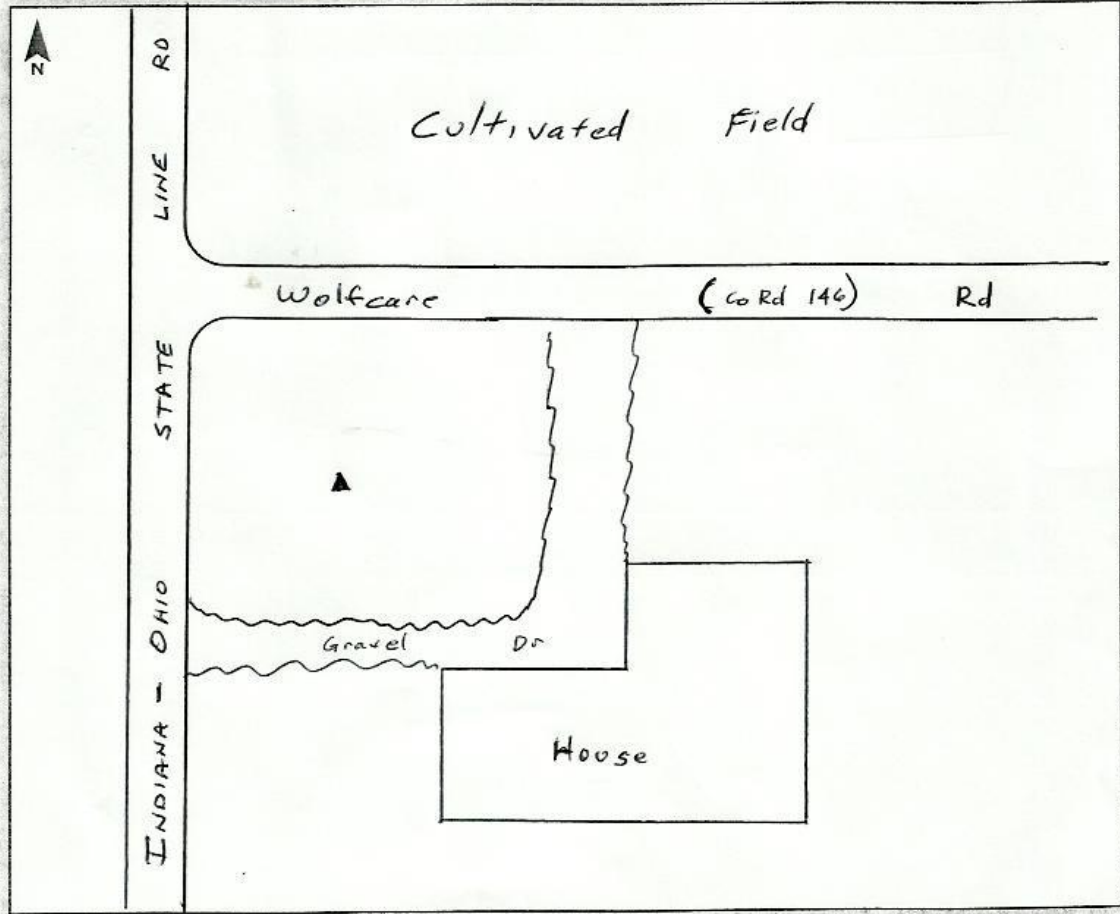


14200-3W-25MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>28 MAR 12</u>
Station Name: <u>BAXTER (LA0691)</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>40-53-15.71709</u>	Julian Day: <u>088</u>	Session No. <u>1</u>
Longitude: <u>084-48-09.29596</u>	Start Time: <u>4:54</u>	End Time: <u>5:18</u>
Ellip. Height: <u>. 704.480 FT</u>	Data File Name: <u>93570880</u>	
Type of Mark: <u>USCGS Δ DISK</u>	Type of Receiver: <u>RB-2 # 9357</u>	
Stamping on Mark: <u>BAXTER 1932</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 65°, WIND</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





BAXTER-LA0691-CBN-1-21MAR2012



BAXTER-LA0691-CBN-2-21MAR2012



BAXTER-LA0691-CBN-3E-21MAR2012



BAXTER-LA0691-CBN-3N-21MAR2012



BAXTER-LA0691-CBN-3S-21MAR2012

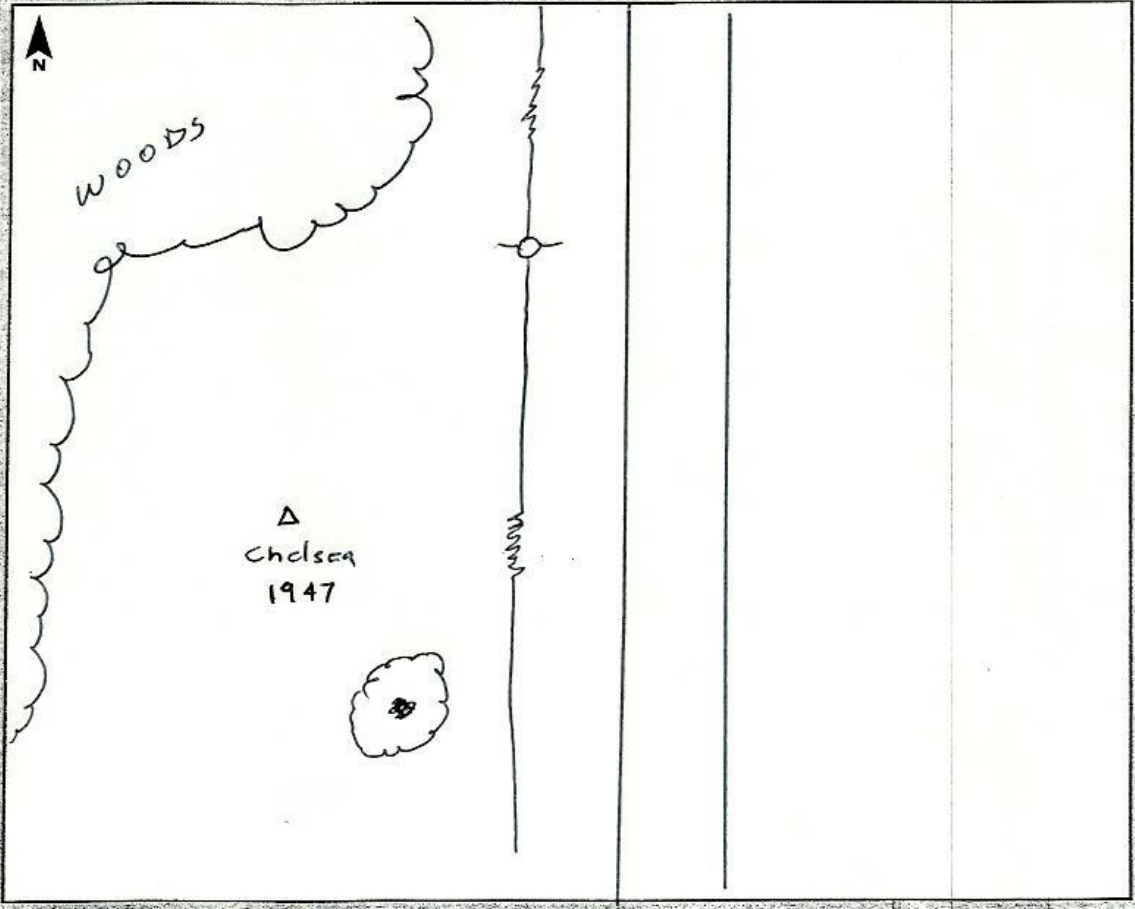


BAXTER-LA0691-CBN-3W-21MAR2012

GPS Observation Log Sheet



	Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>12 MAR 12</u>
	Station Name: <u>CHELSEA - STATIC</u>	Operator Name: <u>Stephen Schonegg</u>	
<u>HZ1709</u>	Latitude: <u>38-39-25.33</u>	Julian Day: <u>072</u>	Session No. <u>1</u>
	Longitude: <u>085-31-31.22</u>	Start Time: <u>9:58</u>	End Time: <u>10:40</u>
	Ellip. Height: <u>682.40</u>	Data File Name: <u>93570720</u>	
	Type of Mark: <u>USCGS DISK</u>	Type of Receiver: <u>RB-2 #9357</u>	
	Stamping on Mark: <u>CHELSEA 1947</u>	Type of Antenna: _____	
	Weather Condition: <u>Cloudy, 55°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





CHELSEA-HZ1709-1-09MAR2012



CHELSEA-HZ1709-2-09MAR2012



CHELSEA-HZ1709-3E-09MAR2012



CHELSEA-HZ1709-3N-09MAR2012



CHELSEA-HZ1709-3S-09MAR2012

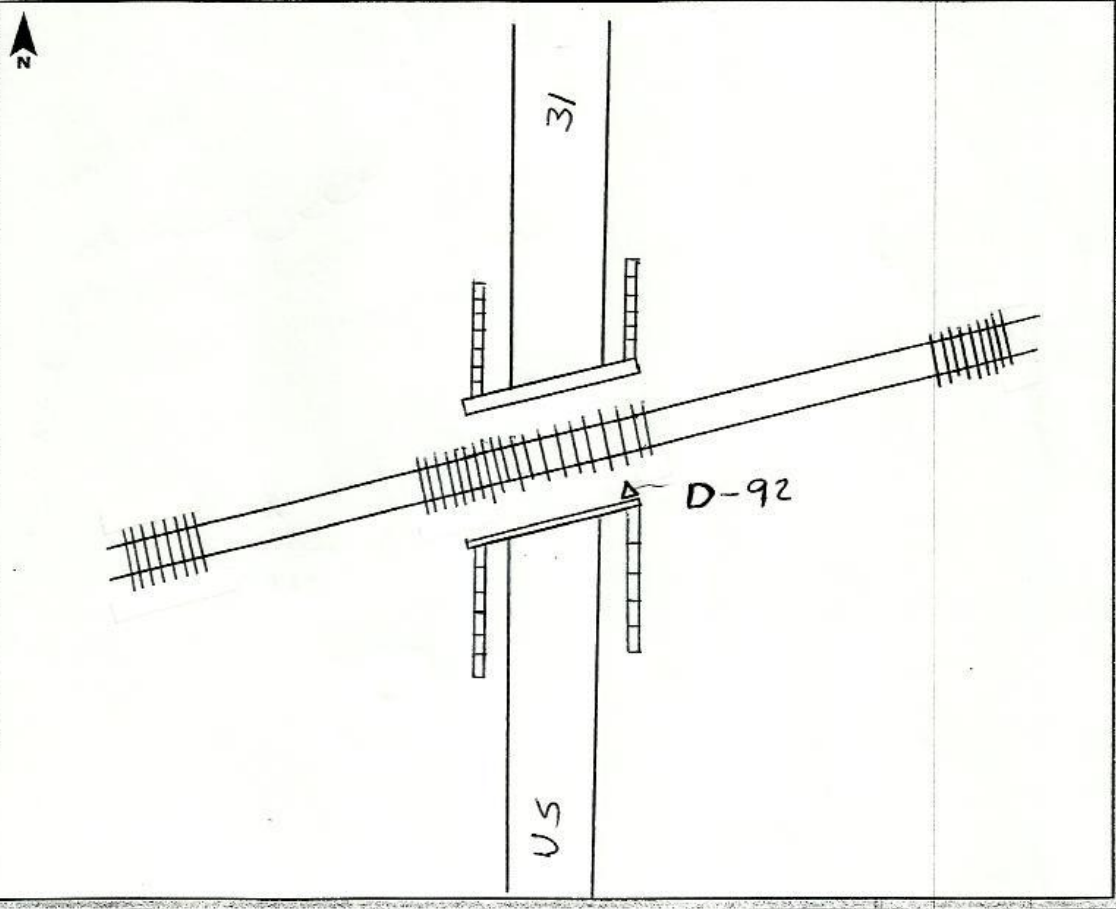


CHELSEA-HZ1709-3W-09MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 12 MAR 12
Station Name: D-92 - STATIC Operator Name: Stephen Schonegg
Latitude: 38-58-15.30 Julian Day: 072 Session No. 2
Longitude: 085-50-04.62 Start Time: 11:35 End Time: 12:30
Ellip. Height: 475.86 FT Data File Name: 93570721
Type of Mark: USC & GS DISK Type of Receiver: R8-Z #9357
Stamping on Mark: D 92 1938 Type of Antenna: _____
Weather Condition: RAINY, 60° Antenna Height: 6.562 Ft to bottom of antenna mount





D 92-1-12MAR2012



D 92-2-12MAR2012



D 92-3E-12MAR2012



D 92-3N-12MAR2012



D 92-3S-12MAR2012

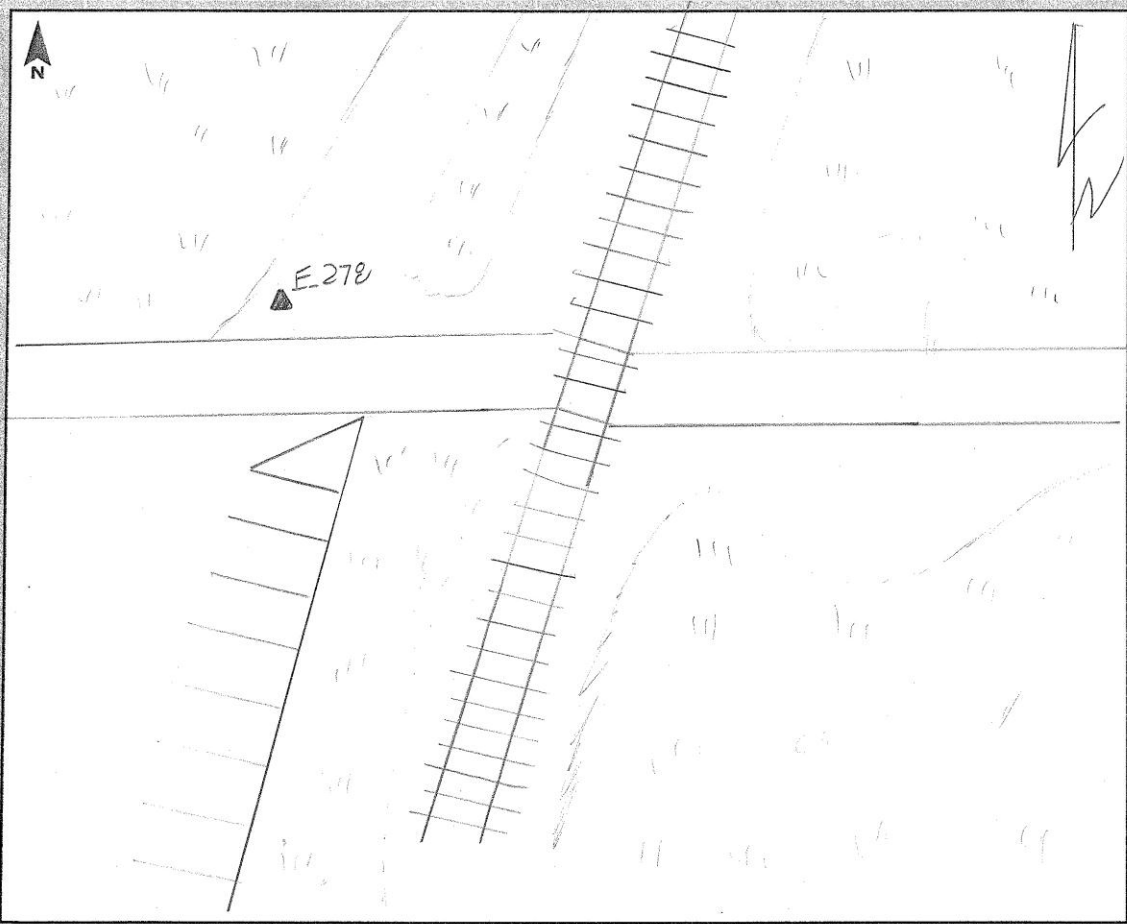


D 92-3W-12MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012/03/10
Station Name: E-278 Operator Name: David Hall
Latitude: 38° 21' 40.6" Julian Day: 070 Session No. 1
Longitude: 85° 49' 00.9" Start Time: 09:57 End Time: 10:37
Ellip. Height: 420' Data File Name: 09500700.DAT
Type of Mark: BM Disk Type of Receiver: R8-3
Stamping on Mark: E 278 1949 Type of Antenna: R8-3
Weather Condition: 50% Clear Antenna Height: 2000m to bottom of antenna mount





E 278-HZ1322-1-10MAR2012



E 278-HZ1322-2-10MAR2012



E 278-HZ1322-3N-10MAR2012



E 278-HZ1322-3S-10MAR2012



E 278-HZ1322-3W-10MAR2012

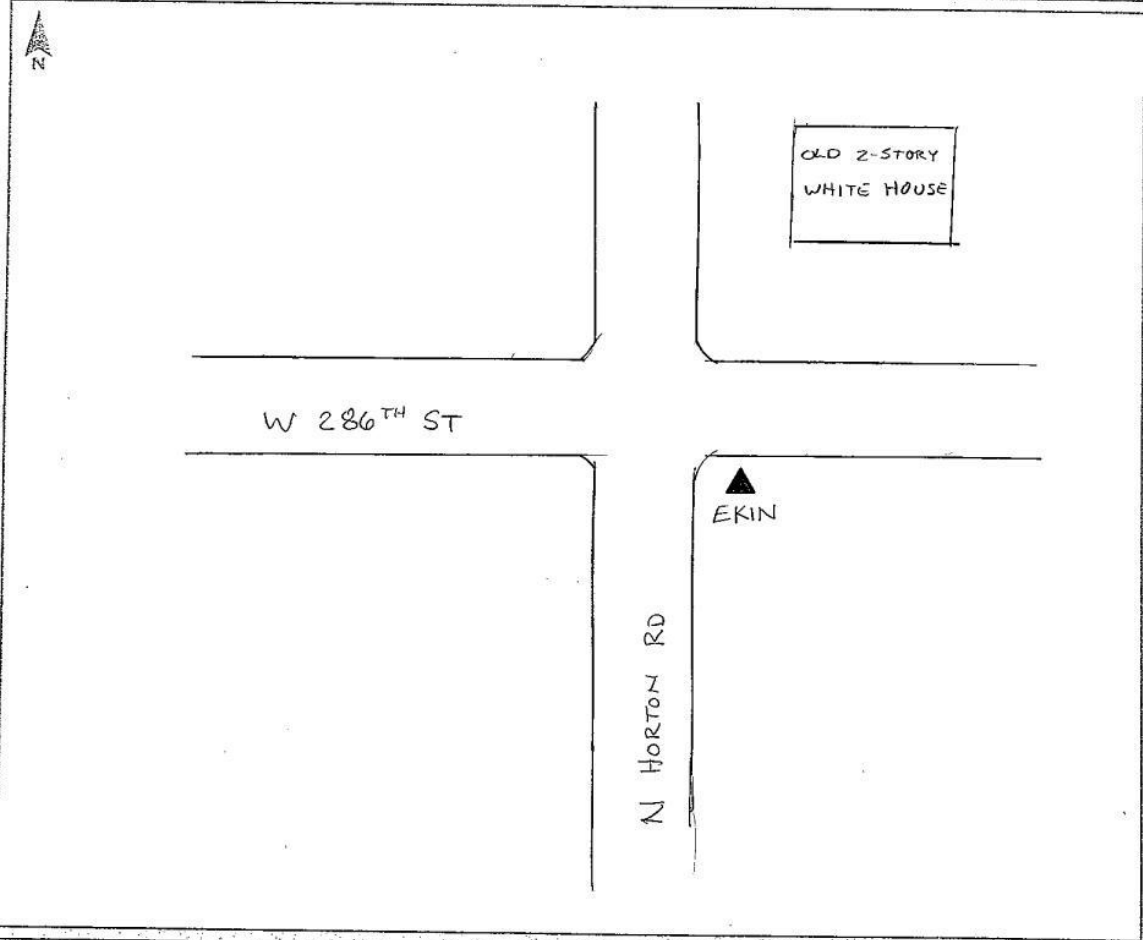


E 278-HZ1322-3E-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/15/2012</u>
Station Name: <u>EKIN</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 12' 11.10" N</u>	Julian Day: <u>075</u>	Session No. <u>0</u>
Longitude: <u>86° 09' 41.31" W</u>	Start Time: <u>1304</u>	End Time: <u>1443</u>
Ellip. Height: <u>799.01 fft</u>	Data File Name: <u>EKIN0750</u>	
Type of Mark: <u>DISK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>EKIN 1934</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





EKIN-LB2522-BM-1-15MAR2012



EKIN-LB2522-BM-2-15MAR2012



EKIN-LB2522-BM-3E-15MAR2012



EKIN-LB2522-BM-3N-15MAR2012



EKIN-LB2522-BM-3S-15MAR2012

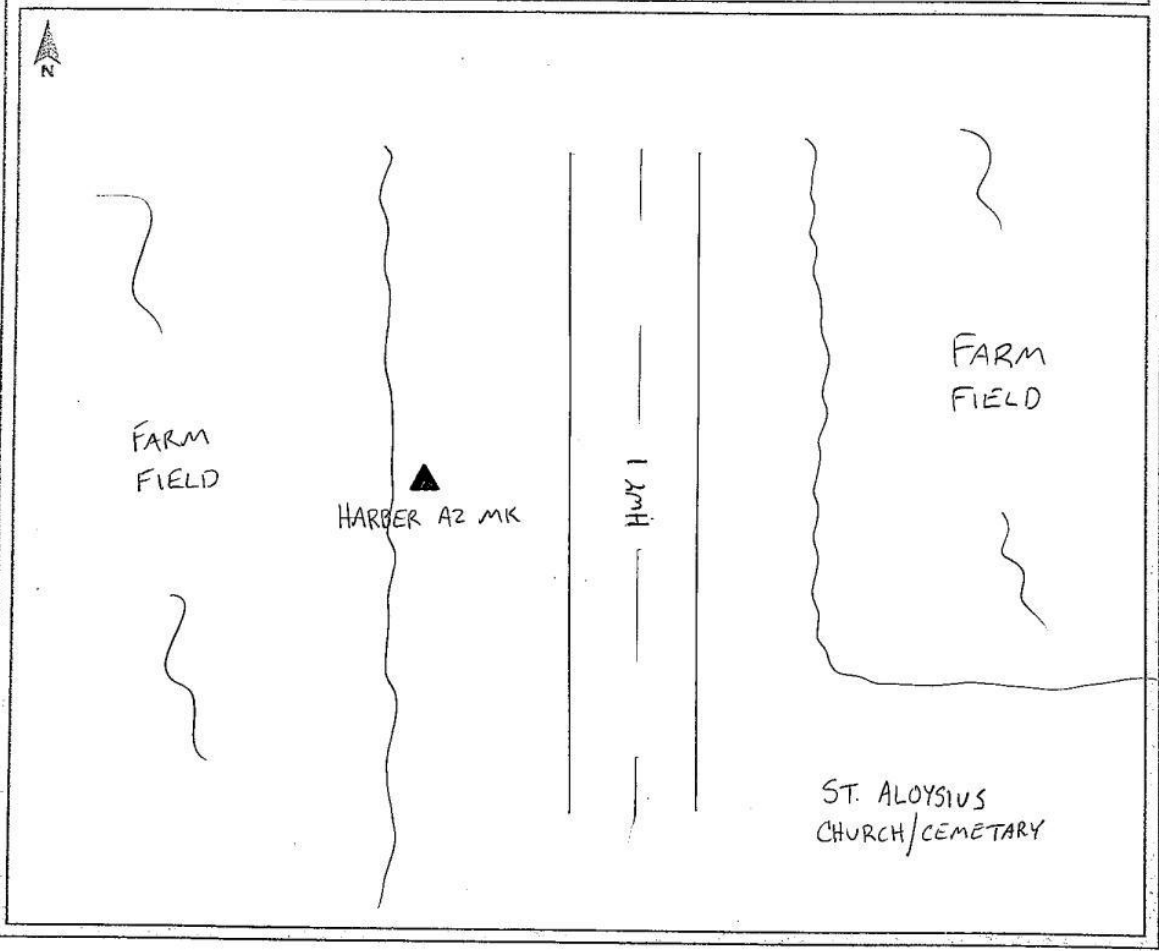


EKIN-LB2522-BM-3W-15MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATE-WIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/23/2012</u>
Station Name: <u>HARBER A2 MK</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 57' 02.07" N</u>	Julian Day: <u>083</u>	Session No. <u> </u>
Longitude: <u>85° 10' 04.74" W</u>	Start Time: <u>1114</u>	End Time: <u>1150</u>
Ellip. Height: <u>690.42 kft</u>	Data File Name: <u>HARBORAZMK</u>	
Type of Mark: <u>DISK</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>HARBER 1946</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>70° RAIN</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





HARBER_AZ_MK-LA0789-BM-1-23MAR2012



HARBER_AZ_MK-LA0789-BM-2-23MAR2012



HARBER_AZ_MK-LA0789-BM-3E-23MAR2012



HARBER_AZ_MK-LA0789-BM-3N-23MAR2012



HARBER_AZ_MK-LA0789-BM-3S-23MAR2012

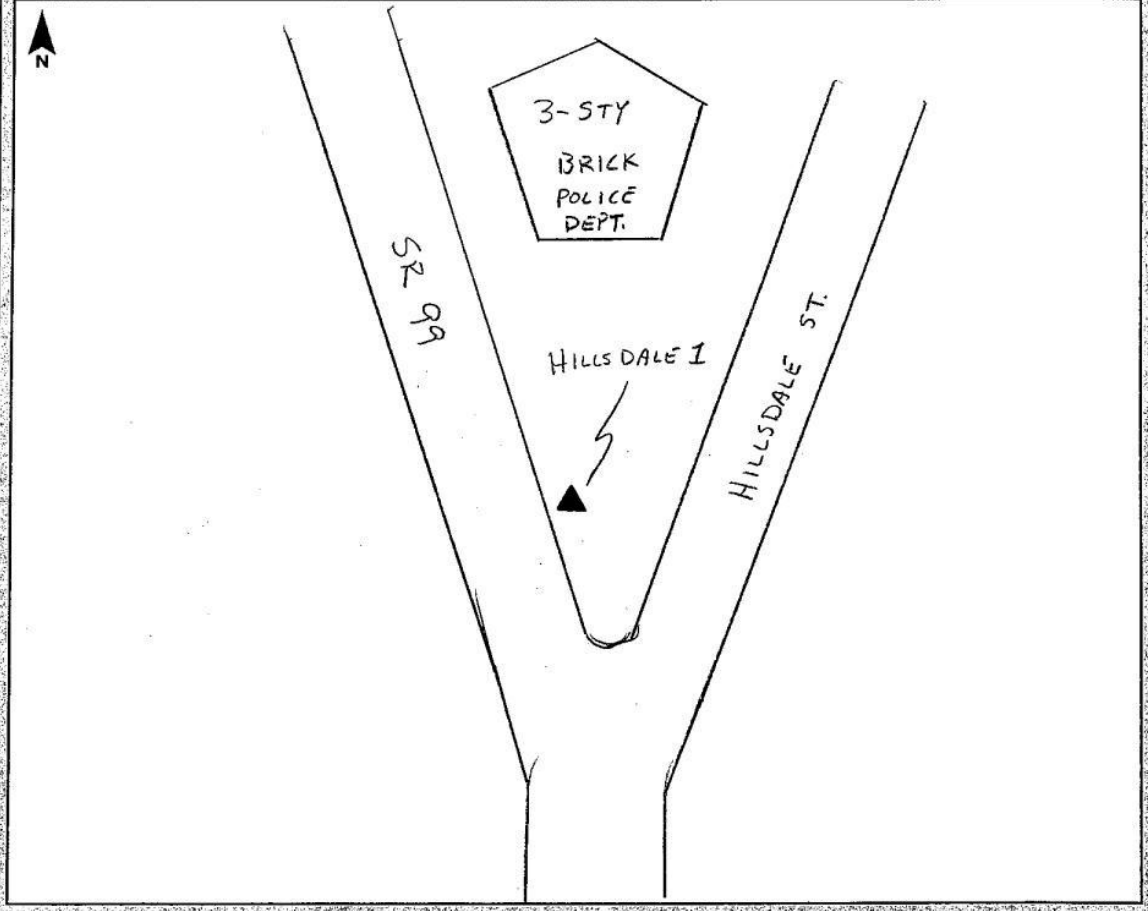


HARBER_AZ_MK-LA0789-BM-3W-23MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>03/25/2012</u>
Station Name:	<u>HILLSDALE 1</u>	Operator Name:	<u>BEN CHRISTIE</u>		
Latitude:	<u>41° 55' 22.21" N</u>	Julian Day:	<u>085</u>	Session No.:	<u>0</u>
Longitude:	<u>84° 37' 55.14" W</u>	Start Time:	<u>1527</u>	End Time:	<u>1716</u>
Ellip. Height:	<u>301.07 (m)</u>	Data File Name:	<u>HILLSDALE1.085</u>		
Type of Mark:	<u>DISK</u>	Type of Receiver:	<u>R8-2</u>		
Stamping on Mark:	<u>HILLSDALE NO 1 1934</u>	Type of Antenna:	<u>R8-2</u>		
Weather Condition:	<u>70° SUNNY</u>	Antenna Height:	<u>2m</u>	to bottom of antenna mount	





HILLSDALE 1-MD0583-BM-1-25MAR2012



HILLSDALE 1-MD0583-BM-2-25MAR2012



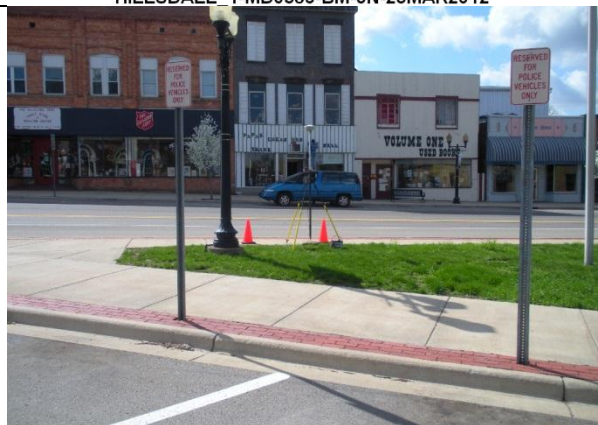
HILLSDALE 1-MD0583-BM-3E-25MAR2012



HILLSDALE 1-MD0583-BM-3N-25MAR2012



HILLSDALE 1-MD0583-BM-3S-25MAR2012

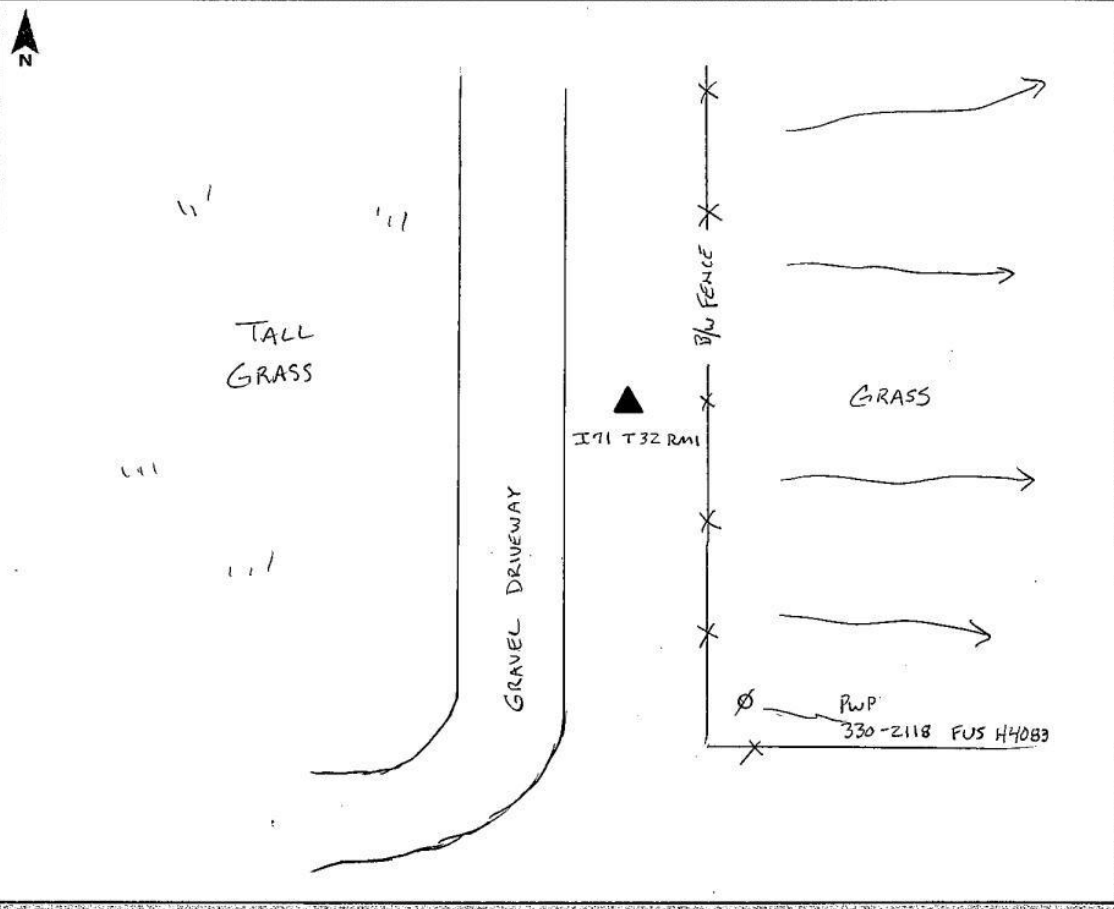


HILLSDALE 1-MD0583-BM-3W-25MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/09/2012</u>
Station Name: <u>I 71 T 32 RM 1</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 48' 00.35" N</u>	Julian Day: <u>069</u>	Session No. <u>0</u>
Longitude: <u>84° 43' 58.86" W</u>	Start Time: <u>1215</u>	End Time: <u>1334</u>
Ellip. Height: <u>681.84 sft</u>	Data File Name: <u>I71-T32-RM10690</u>	
Type of Mark: <u>DISK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>I-71 T-32 NO 1 1964</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2m</u> to bottom of antenna mount	





I71_T_32_RM1-1-09MAR2012



I71_T_32_RM1-2-09MAR2012



I71_T_32_RM1-3E-09MAR2012



I71_T_32_RM1-3N-09MAR2012



I71_T_32_RM1-3S-09MAR2012

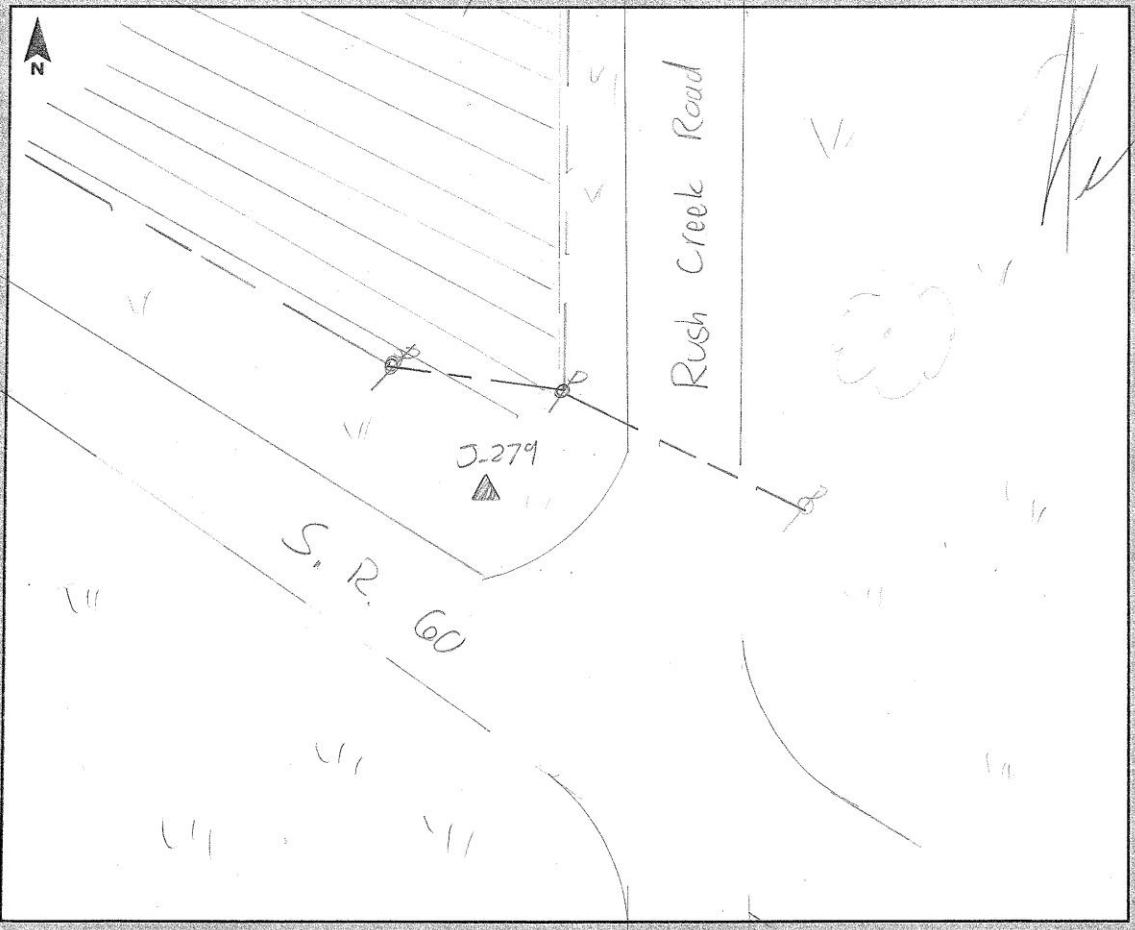


I71_T_32_RM1-3W-09MAR2012

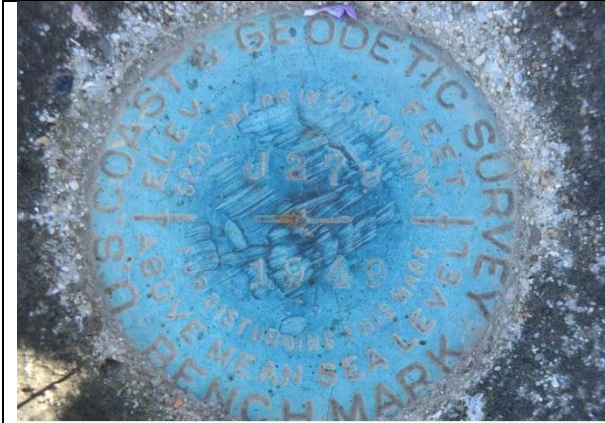
GPS Observation Log Sheet



Project Name: TN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-09
 Station Name: J-279 Operator Name: David Hall
 Latitude: 38° 36' 47.4" Julian Day: 069 Session No. 2
 Longitude: 86° 08' 30.2" Start Time: 14:51 End Time: 15:44
 Ellip. Height: 705 Data File Name: 09500691.DAT
 Type of Mark: BM Disk Type of Receiver: R8-3
 Stamping on Mark: J 279 1949 Type of Antenna: R8-3
 Weather Condition: 60° Sunny Antenna Height: 2.000M to bottom of antenna mount



J-279 → RTK = -8.920v 11,198 H
 Chelsea → RTK = -9.242v 11,121 H



J_279-JA0200-1-09MAR2012



J_279-JA0200-2-09MAR2012



J_279-JA0200-3E-09MAR2012



J_279-JA0200-3N-09MAR2012



J_279-JA0200-3S-09MAR2012

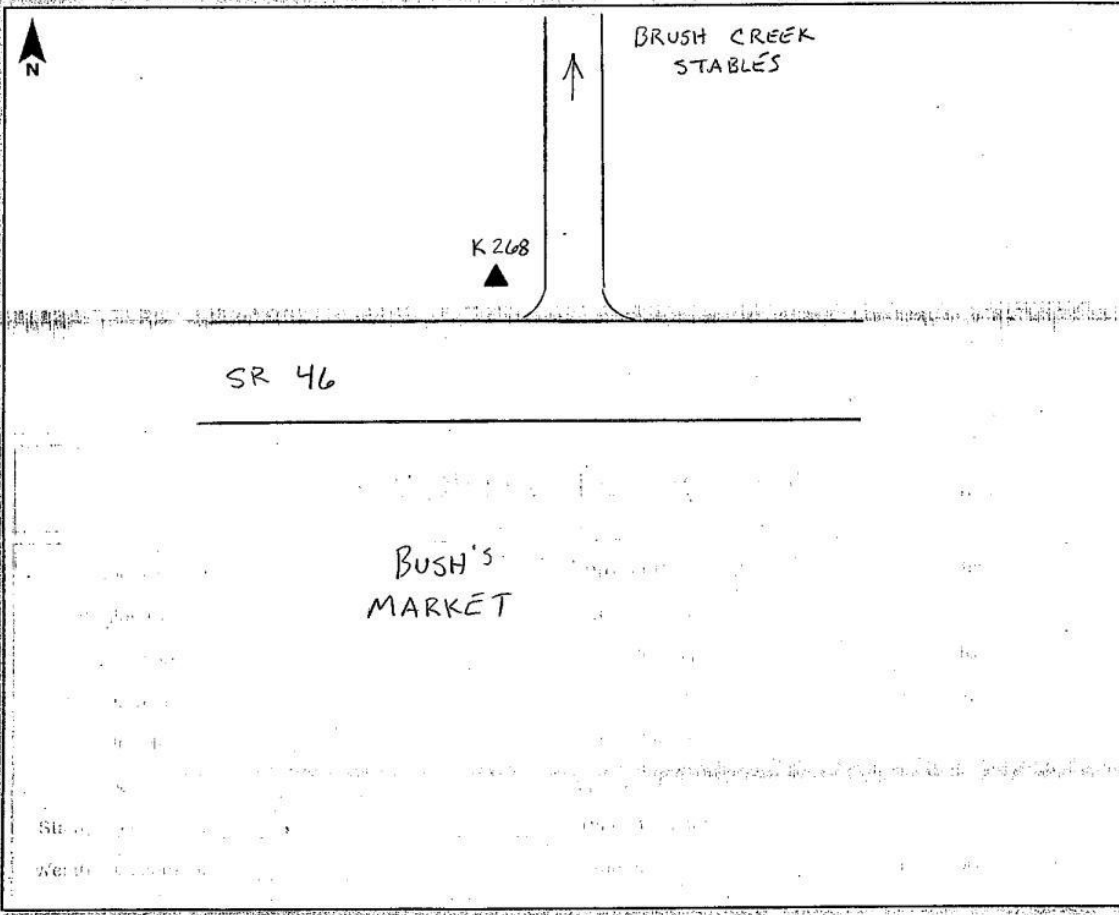


J_279-JA0200-3W-09MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>K 268</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 13' 26.48" N</u>	Julian Day: <u>071</u>	Session No. <u>1</u>
Longitude: <u>85° 50' 24.90" W</u>	Start Time: <u>1754</u>	End Time: <u>1851</u>
Ellip. Height: <u>521.25 sft</u>	Data File Name: <u>K2680711</u>	
Type of Mark: <u>DISK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>K 268 1947</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° Pt. CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





K_268-JZ2225-CBN-1-11MAR2012



K_268-JZ2225-CBN-2-11MAR2012



K_268-JZ2225-CBN-3E-11MAR2012



K_268-JZ2225-CBN-3N-11MAR2012



K_268-JZ2225-CBN-3S-11MAR2012



K_268-JZ2225-CBN-3W-11MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-11</u>
Station Name: <u>KYTE RM 2</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>38° 10' 39.1"</u>	Julian Day: <u>071</u>	Session No. <u>1</u>
Longitude: <u>85° 35' 54.6</u>	Start Time: <u>10:32</u>	End Time: <u>11:17</u>
Ellip. Height: <u>490'</u>	Data File Name: <u>09500710.DAT</u>	
Type of Mark: <u>AL Disc</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>40% clear</u>	Antenna Height: <u>2.000M</u> to bottom of antenna mount	



3+ mileage @ 9.2 prongs cm/sec dang!



KYTE_RM_2-DL8657-1-11MAR2012



KYTE_RM_2-DL8657-2-11MAR2012



KYTE_RM_2-DL8657-3E-11MAR2012



KYTE_RM_2-DL8657-3N-11MAR2012



KYTE_RM_2-DL8657-3S-11MAR2012

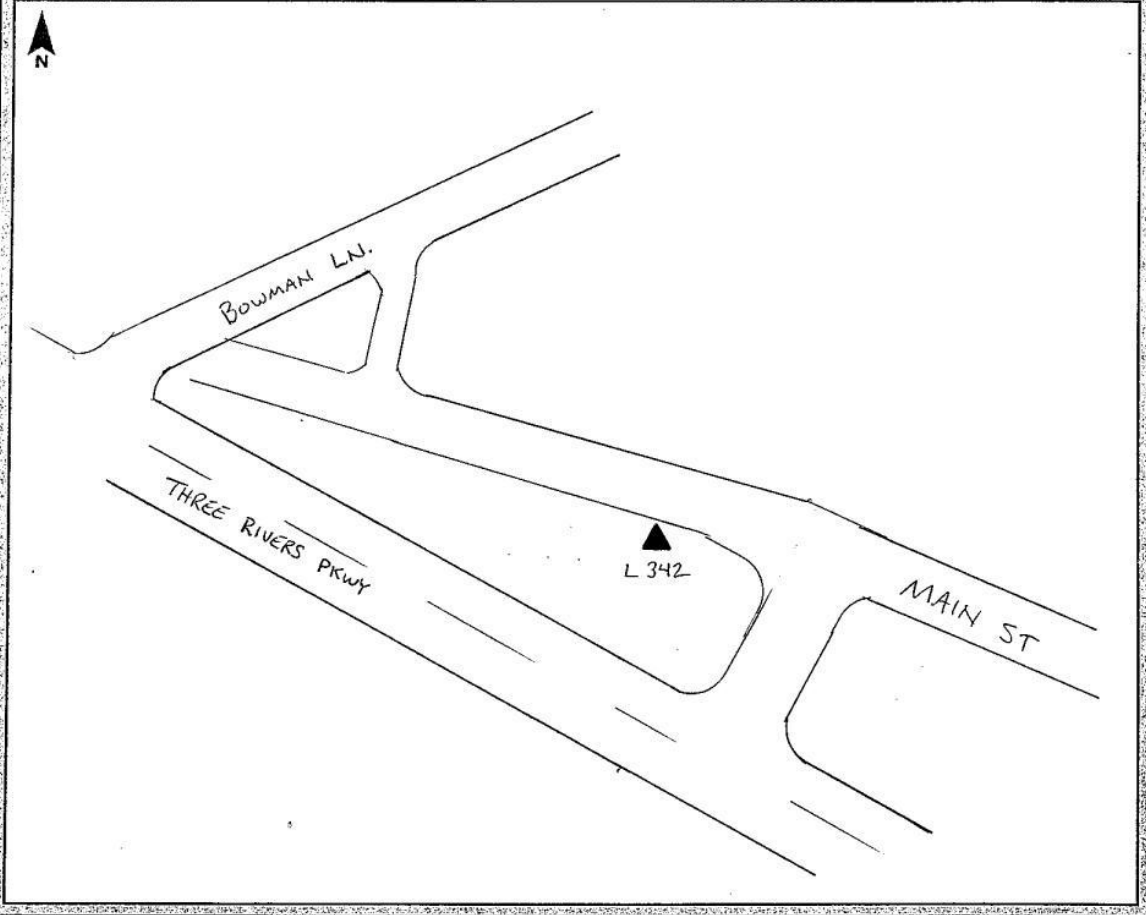


KYTE_RM_2-DL8657-3W-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>L 342</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 08' 29.60" N</u>	Julian Day: <u>070</u>	Session No. <u>0</u>
Longitude: <u>84° 43' 12.51" W</u>	Start Time: <u>1001</u>	End Time: <u>1102</u>
Ellip. Height: <u>391.31 ft</u>	Data File Name: <u>L3420700</u>	
Type of Mark: <u>STEEL ROD</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>L 342 1986</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>40° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount

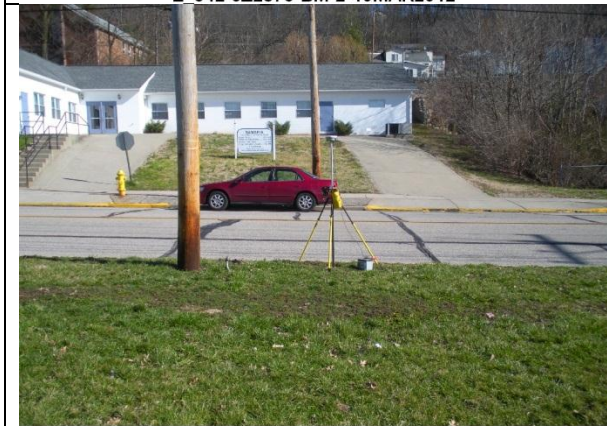




L_342-JZ2873-BM-2-10MAR2012



L_342-JZ2873-BM-1-10MAR2012



L_342-JZ2873-BM-3N-10MAR2012



L_342-JZ2873-BM-3S-10MAR2012



L_342-JZ2873-BM-3W-10MAR2012



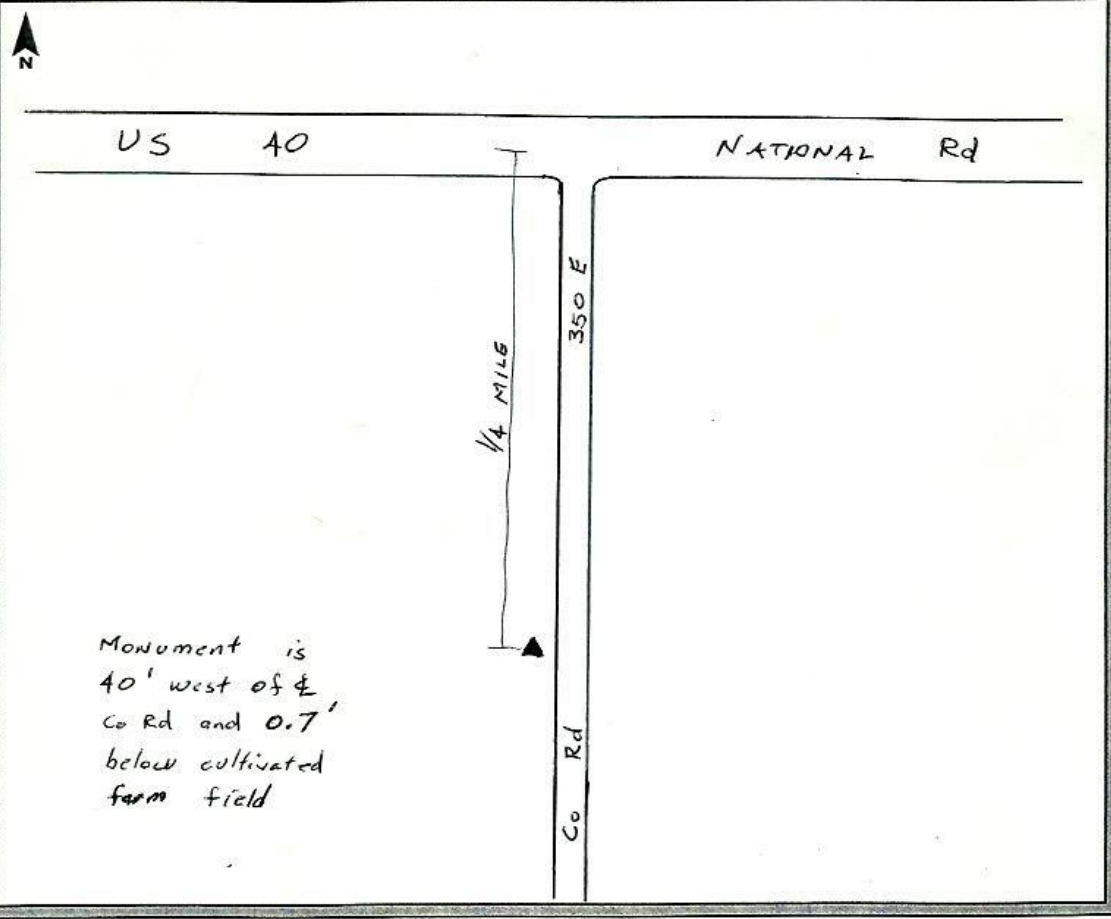
L_342-JZ2873-BM-3E-10MAR2012

GPS Observation Log Sheet



JZ151B

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
 Station Name: METRO - STATIC Operator Name: Stephen Schonegg
 Latitude: 39-48-17.97 Julian Day: 074 Session No. 2
 Longitude: 085-19-11.12 Start Time: 1:36 End Time: 2:08
 Ellip. Height: .977.291 Data File Name: 93570741
 Type of Mark: USCGS Δ DISK Type of Receiver: RB-2, #9357
 Stamping on Mark: METRO 1939 Type of Antenna: _____
 Weather Condition: Sunny, 75°, WINDY Antenna Height: 6.562 to bottom of antenna mount





METRO-JZ1518-CBN-1-13MAR2012



METRO-JZ1518-CBN-2-13MAR2012



METRO-JZ1518-CBN-3E-13MAR2012



METRO-JZ1518-CBN-3N-13MAR2012



METRO-JZ1518-CBN-3S-13MAR2012

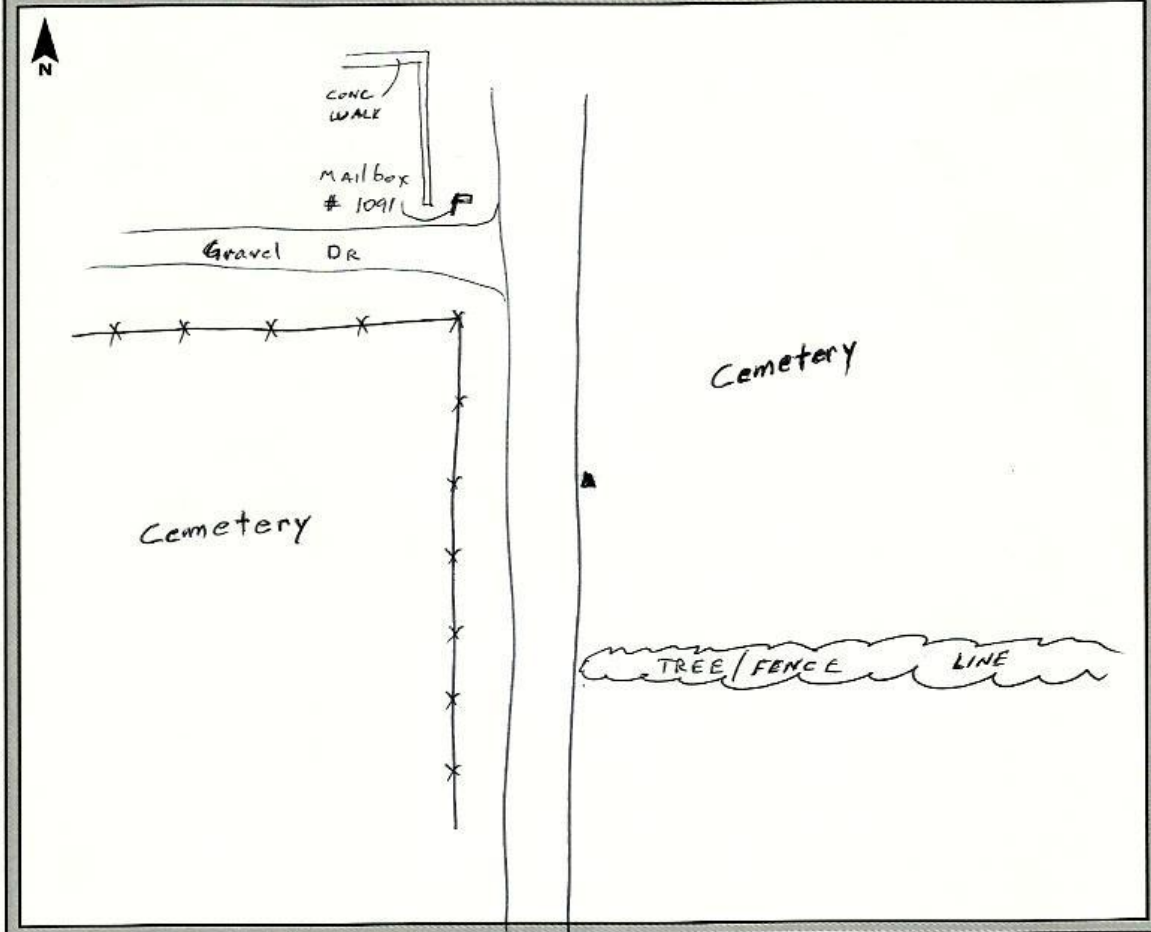


METRO-JZ1518-CBN-3W-13MAR2012

GPS Observation Log Sheet

WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 9 MAR 12
Station Name: N 259_STATIC Operator Name: Stephen Schonegg
Latitude: 39-19-25.73811 Julian Day: 069 Session No. 1
Longitude: 085-19-32.64896 Start Time: 10:00 End Time: 11:00
Ellip. Height: 265.922 (M) Data File Name: 93570690
Type of Mark: US Coast & Geodetic Survey Type of Receiver: R8-Z, # 9357
Stamping on Mark: N 259 1947 Type of Antenna: _____
Weather Condition: Sunny, 40° Antenna Height: 6.562 to bottom of antenna mount





N_259-JZ1981-2-13MAR2012



N_259-JZ1981-1-13MAR2012



N_259-JZ1981-3N-13MAR2012



N_259-JZ1981-3S-13MAR2012



N_259-JZ1981-3W-13MAR2012

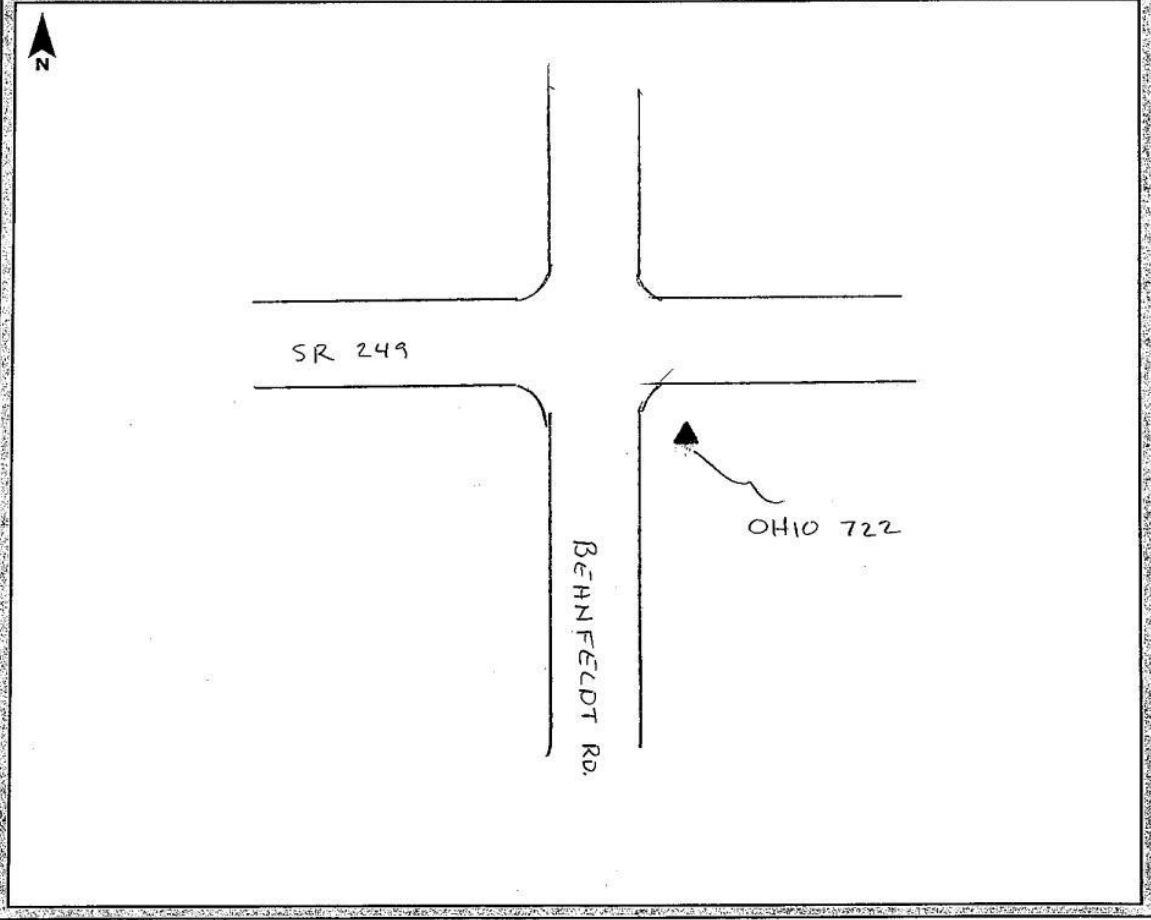


N_259-JZ1981-3E-13MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>OHIO 722</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 23' 00.36" N</u>	Julian Day: <u>086</u>	Session No. <u>0</u>
Longitude: <u>84° 34' 23.08" W</u>	Start Time: <u>1035</u>	End Time: <u>1215</u>
Ellip. Height: <u>185.686 (m)</u>	Data File Name: <u>OHIO7220860</u>	
Type of Mark: <u>DISK</u>	Type of Receiver: <u>RB-2</u>	
Stamping on Mark: <u>OHIO 722</u>	Type of Antenna: <u>RB-2</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





OHIO_722-MD0420-BM-1-26MAR2012



OHIO_722-MD0420-BM-2-26MAR2012



OHIO_722-MD0420-BM-3N-26MAR2012



OHIO_722-MD0420-BM-3S-26MAR2012



OHIO_722-MD0420-BM-3W-26MAR2012

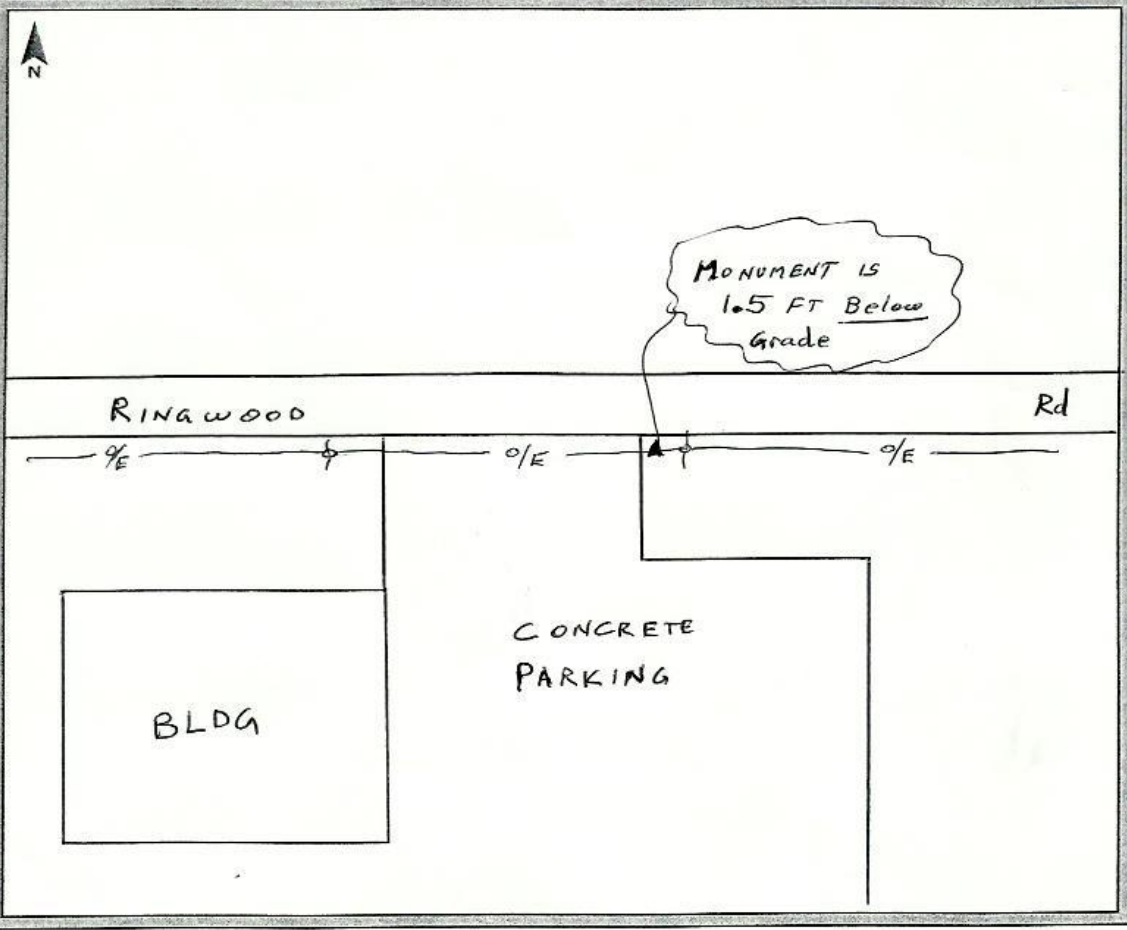


OHIO_722-MD0420-BM-3E-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 28MAR12
Station Name: OXFORD (JZ1237) Operator Name: STEPHEN SCHONEGG
Latitude: 39-31-48.11215 Julian Day: 088 Session No. 1
Longitude: 084-46-29.43676 Start Time: 11:26 End Time: 12:15
Ellip. Height: .928.637 FT Data File Name: 06880880
Type of Mark: USC+GS A DISK Type of Receiver: RB # 0688
Stamping on Mark: OXFORD 1932 Type of Antenna: _____
Weather Condition: Sunny, 55°, WIND Antenna Height: 6.562 FT to bottom of antenna mount





OXFORD-1-28MAR2012



OXFORD-2-28MAR2012



OXFORD-3E-28MAR2012



OXFORD-3N-28MAR2012



OXFORD-3S-28MAR2012

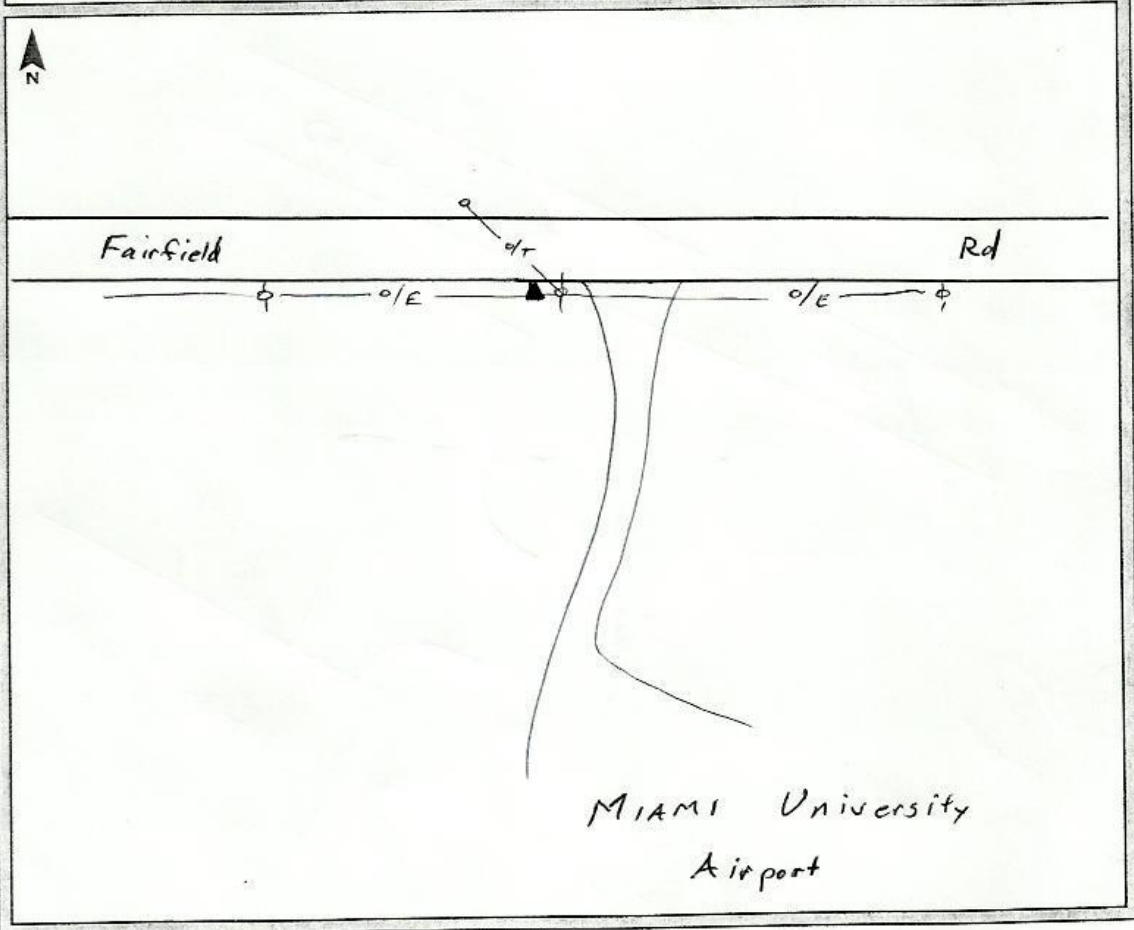


OXFORD-3W-28MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>28MAR12</u>
Station Name: <u>P 134 (JZ 1473)</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>39-30-29.52707</u>	Julian Day: <u>088</u>	Session No. _____
Longitude: <u>084-16-58.13099</u>	Start Time: <u>11:56</u>	End Time: <u>12:01</u>
Ellip. Height: <u>• 926.629 FT</u>	Data File Name: <u>INDST28MAR1255</u>	
Type of Mark: <u>USC 65 BM DISK</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>P 134 1947</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 55°, WINAY</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





P 134-1-28MAR2012



P 134-2-28MAR2012



P 134-3E-28MAR2012



P 134-3N-28MAR2012



P 134-3S-28MAR2012

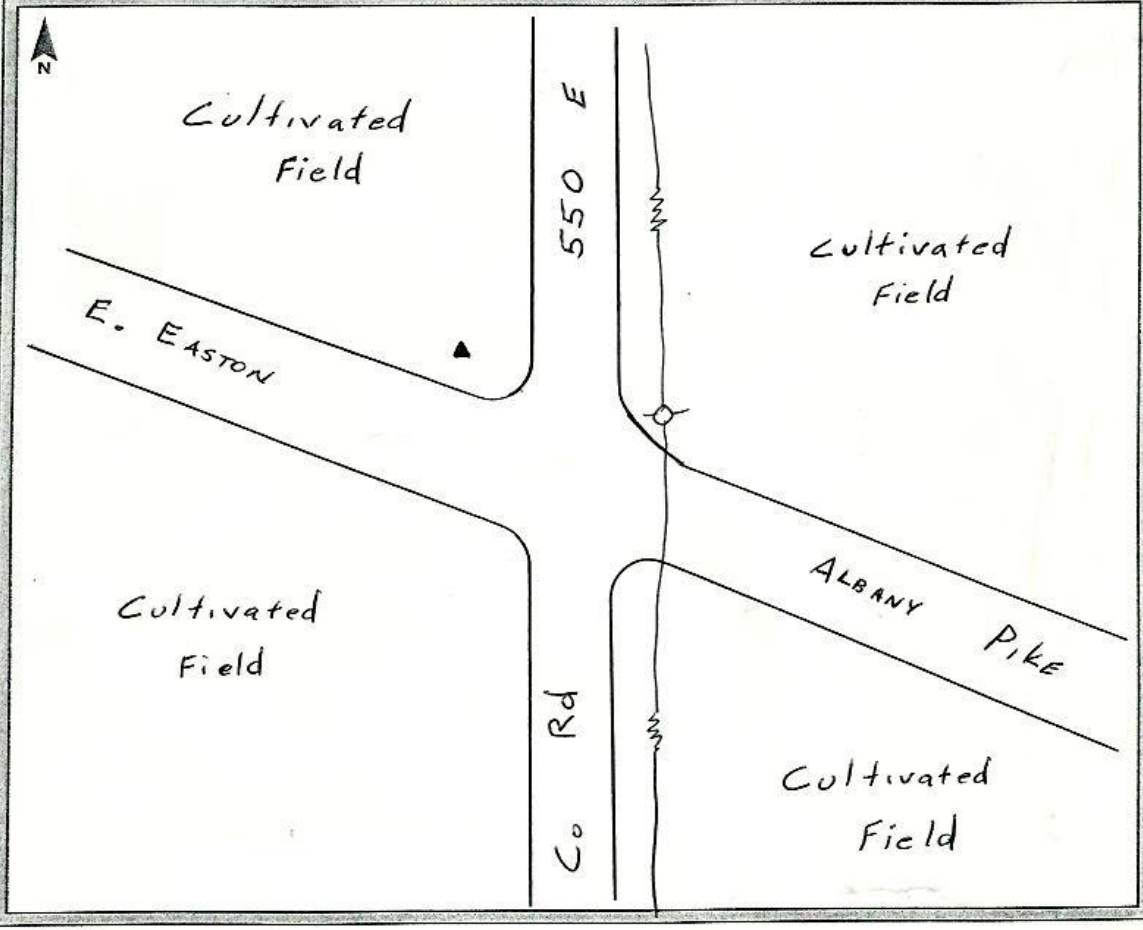


P 134-3W-28MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>15 MAR 12</u>
Station Name: <u>P 220 - STATIC</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-19-34.81</u>	Julian Day: <u>075</u>	Session No. <u>1</u>
Longitude: <u>085-17-08.87</u>	Start Time: <u>12:15</u>	End Time: <u>2:40</u>
Ellip. Height: <u>. 824.85</u>	Data File Name: <u>93570750</u>	
Type of Mark: <u>USC & GS BM Disk</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>P 220 1947</u>	Type of Antenna: <u>_____</u>	
Weather Condition: <u>PT Cloudy, 75°, WINDY</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





P 220-1-15MAR2012



P 220-2-15MAR2012



P 220-3E-15MAR2012



P 220-3N-15MAR2012



P 220-3S-15MAR2012

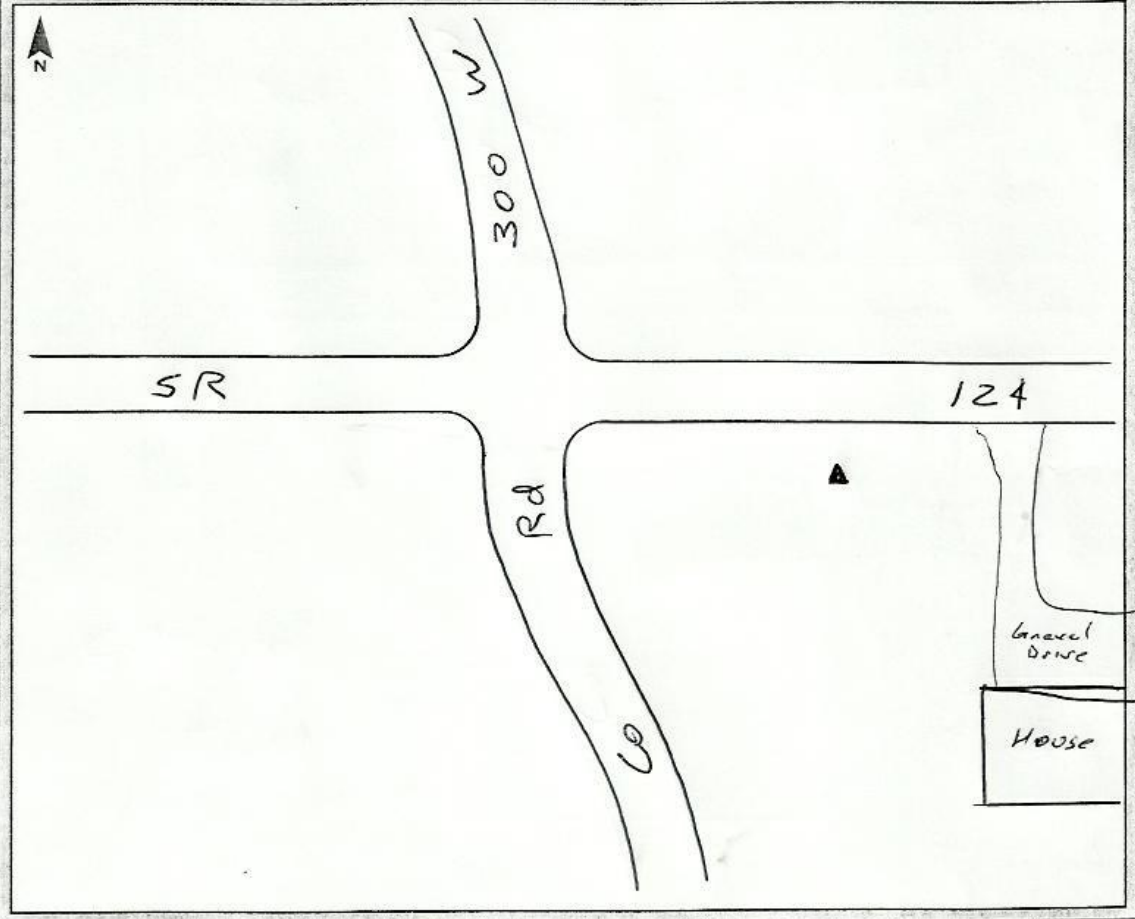


P 220-3W-15MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 28MAR12
Station Name: Q 213 (LA0984) Operator Name: STEPHEN SCHONEGG
Latitude: 40-44-30.88086 Julian Day: 088 Session No. 2
Longitude: 085-16-45.64174 Start Time: 6:08 End Time: 6:45
Ellip. Height: • 721.455 FT Data File Name: 93570881
Type of Mark: USC & GS BM DISK Type of Receiver: R8-2 # 9357
Stamping on Mark: Q 213 1947 Type of Antenna: _____
Weather Condition: Sunny, 65°, WIND Antenna Height: 6.562 FT to bottom of antenna mount





Q 213-1-28MAR2012



Q 213-2-28MAR2012



Q 213-3N-28MAR2012



Q 213-3S-28MAR2012



Q 213-3W-28MAR2012

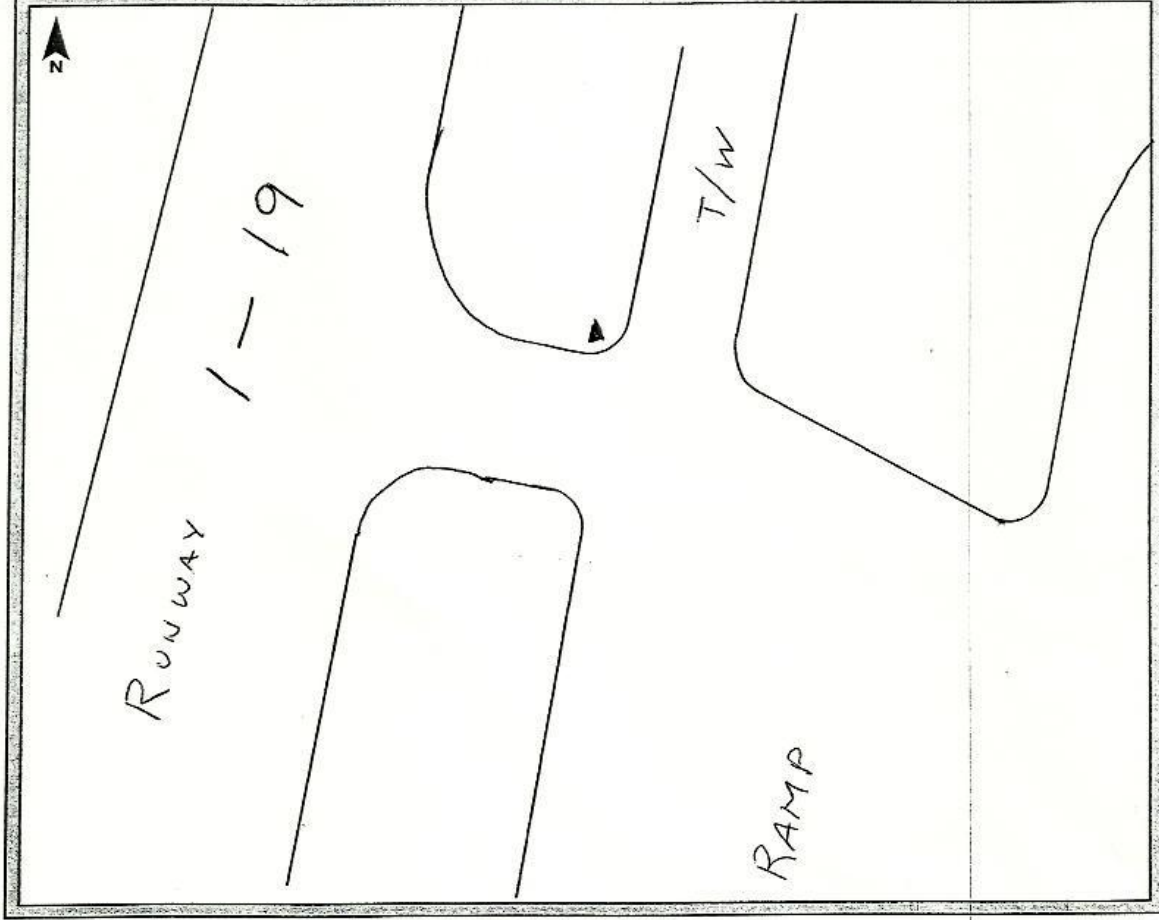


Q 213-3E-28MAR2012

GPS Observation Log Sheet

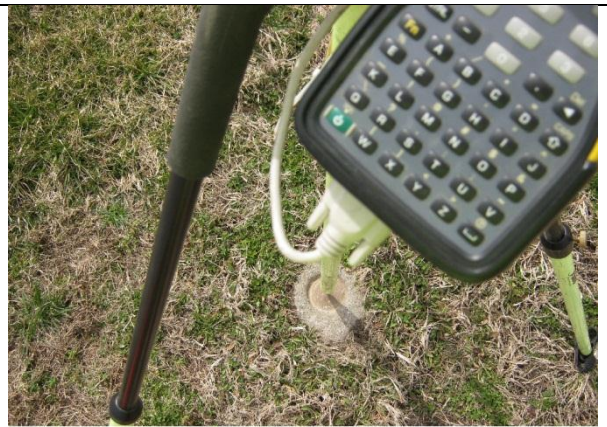


Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>11 MAR 12</u>
Station Name: <u>Shelby</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-34-42.78</u>	Julian Day: <u>071</u>	Session No. <u>1</u>
Longitude: <u>085-48-03.03</u>	Start Time: <u>2:50</u>	End Time: <u>3:37</u>
Ellip. Height: <u>687.695</u>	Data File Name: <u>93570710</u>	
Type of Mark: <u>TRIANGULATION DISK</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>Shelby 1986</u>	Type of Antenna: _____	
Weather Condition: <u>Cloudy, 55°, WINDY</u>	Antenna Height: <u>6.562 ft</u> to bottom of antenna mount	





SHELBY-1-11MAR2012



SHELBY-2-11MAR2012



SHELBY-3E-11MAR2012



SHELBY-3S-11MAR2012



SHELBY-3N-11MAR2012

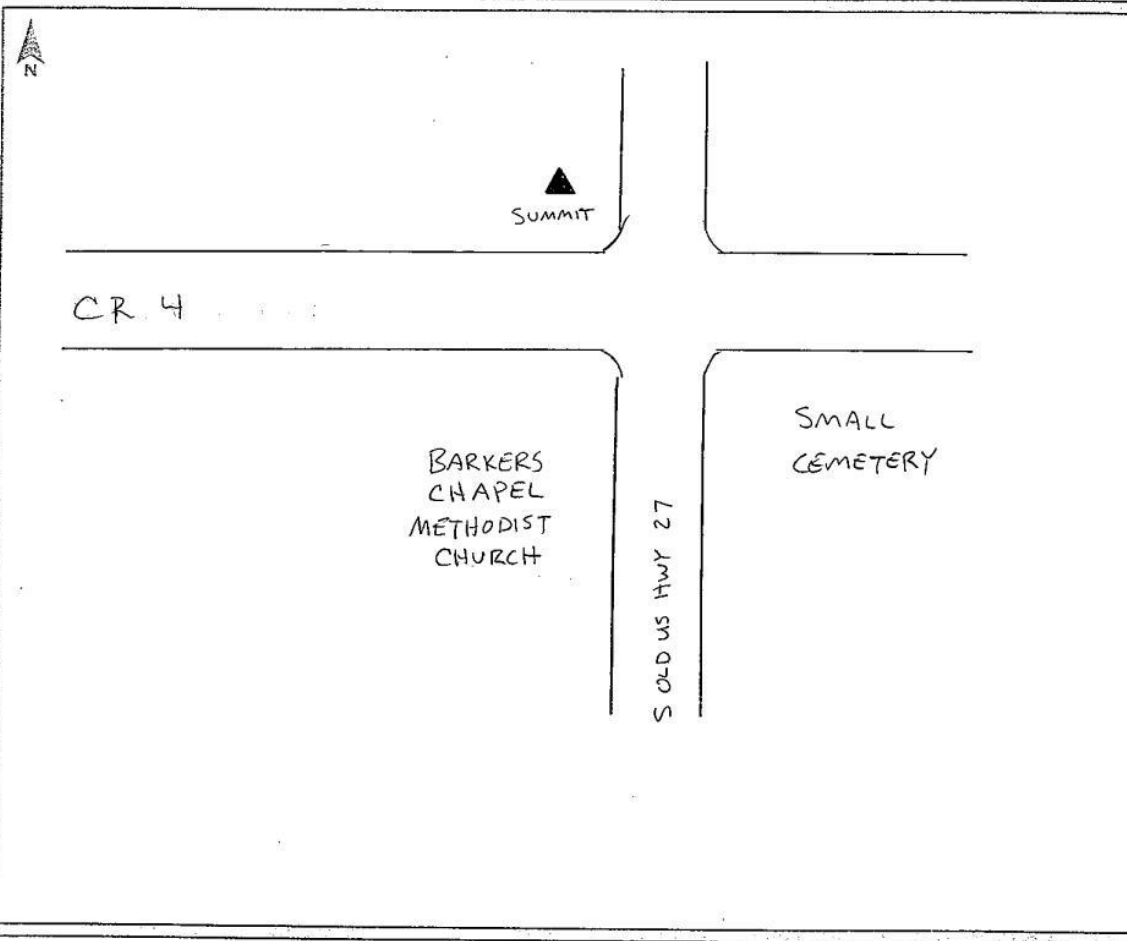


SHELBY-3W-11MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>03/24/2012</u>
Station Name: <u>SUMMIT</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: _____	Julian Day: <u>084</u> Session No. <u>0</u>
Longitude: _____	Start Time: <u>1002</u> End Time: <u>1307</u>
Ellip. Height: _____	Data File Name: <u>SUMMIT 0840</u>
Type of Mark: <u>DISK</u>	Type of Receiver: <u>5700</u>
Stamping on Mark: <u>SUMMIT 1946</u>	Type of Antenna: <u>ZEPHYR GEOD</u>
Weather Condition: <u>65° RAIN</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





SUMMIT-MD1483-1-24MAR2012



SUMMIT-MD1483-2-24MAR2012



SUMMIT-MD1483-3N-24MAR2012



SUMMIT-MD1483-3S-24MAR2012



SUMMIT-MD1483-3W-24MAR2012

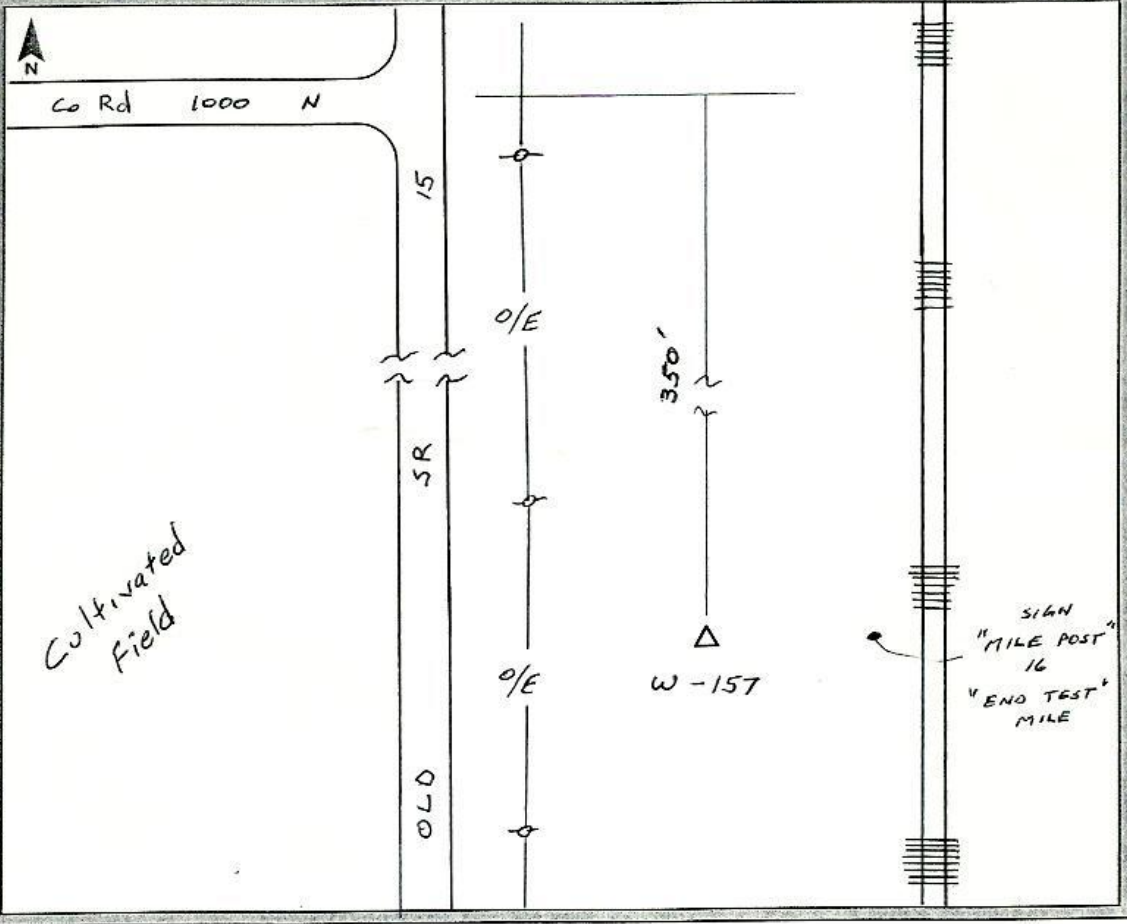


SUMMIT-MD1483-3E-24MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>24MAR12</u>
Station Name: <u>W 157 (MD1058)</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-22-35.27020</u>	Julian Day: <u>084</u>	Session No. <u>1</u>
Longitude: <u>085-50-41.55608</u>	Start Time: <u>8:54</u>	End Time: <u>10:00</u>
Ellip. Height: <u>.733.808 FT</u>	Data File Name: <u>93570840</u>	
Type of Mark: <u>USC & GS BM DISK</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: <u>W 157 1946</u>	Type of Antenna: _____	
Weather Condition: <u>Cloudy, 60°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





W 157-1-24MAR2012



W 157-2-24MAR2012



W 157-3S-24MAR2012



W 157-3N-24MAR2012



W 157-3W-24MAR2012

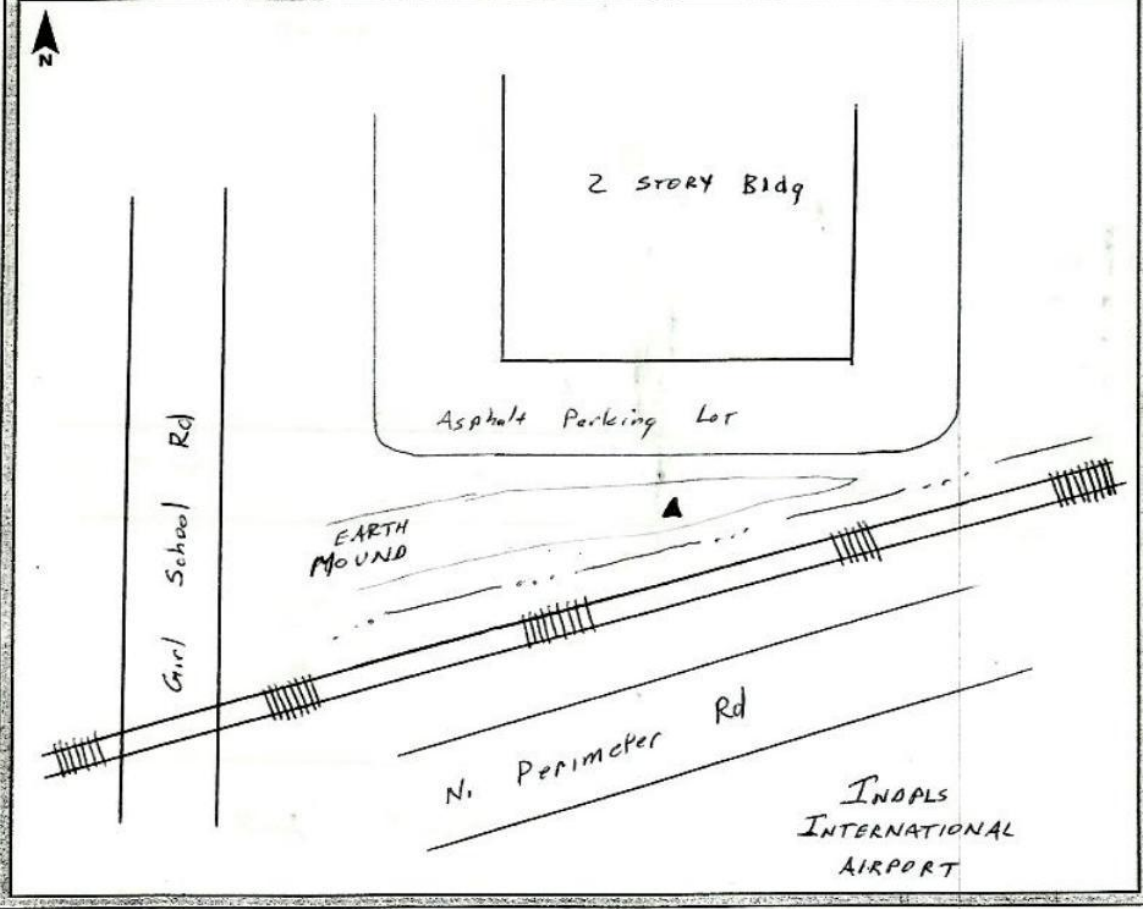


W 157-3E-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 13 MAR 12
Station Name: Z1D B STATIC Operator Name: Stephen Schonegg
Latitude: 39-44-18.12650 Julian Day: 073 Session No. 2
Longitude: 086-17-16.84533 Start Time: 12:05 End Time: 1:00
Ellip. Height: 680.789 Data File Name: 93570731
Type of Mark: DEEP ROO Type of Receiver: RB-2 #9357
Stamping on Mark: Z1D B 1995 Type of Antenna: _____
Weather Condition: Sunny, 65° Antenna Height: 6.562 ft to bottom of antenna mount





ZID B-1-13MAR2012



ZID B-2-13MAR2012



ZID B-3E-13MAR2012



ZID B-3N-13MAR2012



ZID B-3S-13MAR2012



ZID B-3W-13MAR2012

VOLUME 1 - SECTION 5: EXISTING NGS DATA SHEETS

This section contains the published National Geodetic Survey (NGS) Data Sheets used in the final control network for this project.

AB3088 *****
 AB3088 DESIGNATION - 14200
 AB3088 PID - AB3088
 AB3088 STATE/COUNTY- MI/CASS
 AB3088 USGS QUAD - MOTTVILLE (1992)
 AB3088
 AB3088 *CURRENT SURVEY CONTROL
 AB3088
 AB3088* NAD 83(2007)- 41 48 14.98526(N) 085 48 53.51753(W) ADJUSTED
 AB3088* NAVD 88 - 259.652 (meters) 851.87 (feet) ADJUSTED
 AB3088
 AB3088 EPOCH DATE - 2002.00
 AB3088 X - 347,505.789 (meters) COMP
 AB3088 Y - -4,748,997.641 (meters) COMP
 AB3088 Z - 4,229,565.066 (meters) COMP
 AB3088 LAPLACE CORR- 1.49 (seconds) DEFLEC09
 AB3088 ELLIP HEIGHT- 226.392 (meters) (02/10/07) ADJUSTED
 AB3088 GEOID HEIGHT- -33.26 (meters) GEOID09
 AB3088 DYNAMIC HT - 259.559 (meters) 851.57 (feet) COMP
 AB3088
 AB3088 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----
 AB3088 Type PID Designation North East Ellip
 AB3088 -----
 AB3088 NETWORK AB3088 14200 1.33 1.18 3.04
 AB3088 -----
 AB3088 MODELED GRAV- 980,256.6 (mgal) NAVD 88
 AB3088
 AB3088 VERT ORDER - FIRST CLASS II
 AB3088
 AB3088.The horizontal coordinates were established by GPS observations
 AB3088.and adjusted by the National Geodetic Survey in February 2007.
 AB3088
 AB3088.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AB3088.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.
 AB3088
 AB3088.The horizontal coordinates are valid at the epoch date displayed above
 AB3088.which is a decimal equivalence of Year/Month/Day.
 AB3088
 AB3088.The orthometric height was determined by differential leveling and
 AB3088.adjusted in March 2005.
 AB3088
 AB3088.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AB3088
 AB3088.The Laplace correction was computed from DEFLEC09 derived deflections.
 AB3088
 AB3088.The ellipsoidal height was determined by GPS observations
 AB3088.and is referenced to NAD 83.
 AB3088
 AB3088.The geoid height was determined by GEOID09.
 AB3088
 AB3088.The dynamic height is computed by dividing the NAVD 88
 AB3088.geopotential number by the normal gravity value computed on the
 AB3088.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AB3088.degrees latitude (g = 980.6199 gals.).

AB3088

AB3088.The modeled gravity was interpolated from observed gravity values.

AB3088

AB3088; North East Units Scale Factor Converg.

AB3088;SPC MI S - 34,822.059 3,879,644.325 MT 1.00008314 -0 59 08.0

AB3088;SPC MI S - 114,245.60 12,728,491.88 iFT 1.00008314 -0 59 08.0

AB3088;UTM 16 - 4,628,711.765 598,451.144 MT 0.99971927 +0 47 24.2

AB3088

AB3088! - Elev Factor x Scale Factor = Combined Factor

AB3088!SPC MI S - 0.99996449 x 1.00008314 = 1.00004763

AB3088!UTM 16 - 0.99996449 x 0.99971927 = 0.99968377

AB3088

AB3088 SUPERSEDED SURVEY CONTROL

AB3088

AB3088 ELLIP H (07/12/02) 226.403 (m) GP() 4 1

AB3088 NAD 83(1994)- 41 48 14.98496(N) 085 48 53.51758(W) AD() 1

AB3088 ELLIP H (05/08/96) 226.420 (m) GP() 1 1

AB3088 NAVD 88 (05/08/96) 259.6 (m) 852. (f) GPS OBS

AB3088

AB3088.Superseded values are not recommended for survey control.

AB3088.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AB3088.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

AB3088

AB3088_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TEM9845128711(NAD 83)

AB3088

AB3088_MARKER: DH = HORIZONTAL CONTROL DISK

AB3088_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AB3088_STAMPING: 14200 1994

AB3088_MARK LOGO: NONE

AB3088_PROJECTION: FLUSH

AB3088_MAGNETIC: N = NO MAGNETIC MATERIAL

AB3088_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AB3088+STABILITY: SURFACE MOTION

AB3088_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AB3088+SATELLITE: SATELLITE OBSERVATIONS - May 12, 2003

AB3088

AB3088 HISTORY - Date Condition Report By

AB3088 HISTORY - 1994 MONUMENTED MIDT

AB3088 HISTORY - 20030512 GOOD NGS

AB3088

AB3088 STATION DESCRIPTION

AB3088

AB3088'DESCRIBED BY MICHIGAN DEPARTMENT OF TRANSPORTATION 1994 (DR)

AB3088'STATION IS LOCATED IN QUAD 410854. IT IS ON THE MOTTVILLE QUADRANGLE

AB3088'MAP IN THE NORTHWEST 1/4 OF SECTION 3, T-8-S, R-13-W. ABOUT 3.1 MI

AB3088'(5.0 KM) EAST OF UNION, 11.5 MI (18.5 KM) SOUTHEAST OF CASSOPOLIS, 9.5

AB3088'MI (15.3 KM) SOUTHEAST OF VANDALIA ON THE NORTH SIDE OF U.S. HIGHWAY

AB3088'12. TO REACH FROM THE JUNCTION OF U.S. HIGHWAY 12 AND STATE HIGHWAY

AB3088'M-40, 4.0 MI (6.4 KM) EAST OF UNION, GO WEST ALONG U.S. HIGHWAY 12 FOR

AB3088'0.95 MI (1.53 KM) TO THE STATION ON THE RIGHT AS DESCRIBED. STATION

AB3088'IS 52.7 FT (16.1 M) SOUTHWEST FROM A 3-INCH SASAFRAS, 11.0 FT (3.4 M)

AB3088'EAST FROM A 3-INCH SASAFRAS TREE, 90.8 FT (27.7 M) SOUTHWEST FROM A

AB3088'UTILITY POLE, 42.5 FT (13.0 M) NORTH FROM THE CENTER OF U.S. HIGHWAY
AB3088'12 AND 2.4 FT (0.7 M) SOUTH FROM A CARSONITE WITNESS POST.

AB3088

AB3088 STATION RECOVERY (2003)

AB3088

AB3088'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2003 (JDR)

AB3088'RECOVERED AS DESCRIBED.

LA0691 *****

LA0691 CBN - This is a Cooperative Base Network Control Station.

LA0691 DESIGNATION - BAXTER

LA0691 PID - LA0691

LA0691 STATE/COUNTY- OH/VAN WERT

LA0691 USGS QUAD - DIXON (1994)

LA0691

LA0691 *CURRENT SURVEY CONTROL

LA0691* NAD 83(2007)- 40 53 15.71709(N) 084 48 09.29596(W) ADJUSTED

LA0691* NAVD 88 - 248.131 (meters) 814.08 (feet) ADJUSTED

LA0691 EPOCH DATE - 2002.00

LA0691 X - 437,441.291 (meters) COMP

LA0691 Y - -4,809,071.826 (meters) COMP

LA0691 Z - 4,153,143.517 (meters) COMP

LA0691 LAPLACE CORR- -2.28 (seconds) DEFLEC09

LA0691 ELLIP HEIGHT- 214.726 (meters) (02/10/07) ADJUSTED

LA0691 GEOID HEIGHT- -33.40 (meters) GEOID09

LA0691 DYNAMIC HT - 248.024 (meters) 813.73 (feet) COMP

LA0691

LA0691 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	LA0691	BAXTER	0.67	0.45	1.45

LA0691

LA0691 MODELED GRAV- 980,188.0 (mgal) NAVD 88

LA0691

LA0691 VERT ORDER - SECOND CLASS 0

LA0691

LA0691.The horizontal coordinates were established by GPS observations
 LA0691.and adjusted by the National Geodetic Survey in February 2007.

LA0691

LA0691.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 LA0691.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.

LA0691

LA0691.The horizontal coordinates are valid at the epoch date displayed above
 LA0691.which is a decimal equivalence of Year/Month/Day.

LA0691

LA0691.The orthometric height was determined by differential leveling and
 LA0691.adjusted in June 1991.

LA0691

LA0691.The X, Y, and Z were computed from the position and the ellipsoidal ht.

LA0691

LA0691.The Laplace correction was computed from DEFLEC09 derived deflections.

LA0691

LA0691.The ellipsoidal height was determined by GPS observations
 LA0691.and is referenced to NAD 83.

LA0691

LA0691.The geoid height was determined by GEOID09.

LA0691

LA0691.The dynamic height is computed by dividing the NAVD 88
 LA0691.geopotential number by the normal gravity value computed on the
 LA0691.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 LA0691.degrees latitude (g = 980.6199 gals.).

LA0691

LA0691.The modeled gravity was interpolated from observed gravity values.

LA0691

LA0691;	North	East	Units	Scale	Factor	Converg.
LA0691;SPC OH N	- 138,151.874	405,976.777	MT	0.99994405	-1 30	45.7
LA0691;SPC OH N	- 453,253.27	1,331,942.14	sFT	0.99994405	-1 30	45.7
LA0691;SPC IN E	- 626,446.742	172,821.132	MT	1.00003191	+0 33	56.3
LA0691;SPC IN E	- 2,055,267.35	566,997.33	sFT	1.00003191	+0 33	56.3
LA0691;UTM 16	- 4,528,615.094	685,126.099	MT	1.00002183	+1 26	19.6

LA0691

LA0691! - Elev Factor x Scale Factor = Combined Factor
 LA0691!SPC OH N - 0.99996632 x 0.99994405 = 0.99991037
 LA0691!SPC IN E - 0.99996632 x 1.00003191 = 0.99999823
 LA0691!UTM 16 - 0.99996632 x 1.00002183 = 0.99998815

LA0691

LA0691:	Primary Azimuth Mark	Grid Az
LA0691:SPC OH N	- BAXTER AZ MK 2	358 50 58.8
LA0691:SPC IN E	- BAXTER AZ MK 2	356 46 16.8
LA0691:UTM 16	- BAXTER AZ MK 2	355 53 53.5

LA0691

LA0691	PID	Reference Object	Distance	Geod. Az
LA0691			dddmms.s	
LA0691	MD1787	PAYNE MUNICIPAL TANK	APPROX.22.5 KM	0165244.4
LA0691	LA0692	BAXTER RM 1	67.995 METERS	08425
LA0691	LA0693	BAXTER AZ MK		0873707.8
LA0691	LA2362	VAN WERT NW MUNICIPAL TANK	APPROX.18.7 KM	0922100.6
LA0691	LA2363	VAN WERT E FOUNDATION SCH TK	APPROX.20.1 KM	0952352.8
LA0691	LA2365	VAN WERT SW MUNICIPAL TANK	APPROX.18.1 KM	0982831.7
LA0691	LA0690	BAXTER RM 2	59.991 METERS	18143
LA0691	LA2398	PTS 20	5.221 METERS	32443
LA0691	LA2396	MONROEVILLE MUNICIPAL TANK	APPROX.11.2 KM	3300408.1
LA0691	CF2833	BAXTER AZ MK 2		3572013.1
LA0691	MD1802	EDGERTON PANHANDLE PIPE MAST	APPROX.16.6 KM	3583549.2

LA0691

LA0691 SUPERSEDED SURVEY CONTROL

LA0691

LA0691	ELLIP H (03/08/05)	214.723 (m)		GP() 4 2
LA0691	NAD 83(1995)-	40 53 15.71705(N)	084 48 09.29567(W)	AD() B
LA0691	ELLIP H (08/20/96)	214.740 (m)		GP() 4 2
LA0691	NAD 83(1986)-	40 53 15.71915(N)	084 48 09.31155(W)	AD() 1
LA0691	NAD 27	- 40 53 15.54600(N)	084 48 09.44600(W)	AD() 1
LA0691	NAVD 88 (08/20/96)	248.13 (m)	814.1 (f)	LEVELING 3
LA0691	NGVD 29 (??/??/92)	248.287 (m)	814.59 (f)	ADJ UNCH 2 0

LA0691

LA0691.Superseded values are not recommended for survey control.

LA0691.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

LA0691.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

LA0691
 LA0691_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TFL8512628615(NAD 83)
 LA0691
 LA0691_MARKER: DS = TRIANGULATION STATION DISK
 LA0691_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 LA0691_SP_SET: SET IN TOP OF CONCRETE MONUMENT
 LA0691_STAMPING: BAXTER 1932
 LA0691_MARK LOGO: CGS
 LA0691_MAGNETIC: N = NO MAGNETIC MATERIAL
 LA0691_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 LA0691+STABILITY: SURFACE MOTION
 LA0691_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 LA0691+SATELLITE: SATELLITE OBSERVATIONS - August 13, 1997

LA0691	HISTORY	- Date	Condition	Report By
LA0691	HISTORY	- 1932	MONUMENTED	CGS
LA0691	HISTORY	- 1947	SEE DESCRIPTION	CGS
LA0691	HISTORY	- 1955	SEE DESCRIPTION	CGS
LA0691	HISTORY	- 1963	SEE DESCRIPTION	CGS
LA0691	HISTORY	- 1970	GOOD	NGS
LA0691	HISTORY	- 1970	SEE DESCRIPTION	NGS
LA0691	HISTORY	- 1972	SEE DESCRIPTION	NGS
LA0691	HISTORY	- 19950507	GOOD	ABW
LA0691	HISTORY	- 19950804	GOOD	NGS
LA0691	HISTORY	- 19970813	GOOD	NGS

LA0691

LA0691 STATION DESCRIPTION

LA0691

LA0691'DESCRIBED BY COAST AND GEODETIC SURVEY 1932 (HCW)
 LA0691'THE STATION IS
 LA0691'ABOUT 2 MILES
 LA0691'SOUTH AND 5 MILES WEST OF CONVOY, OHIO, 1 MILE
 LA0691'NORTH AND 11 MILES WEST OF VAN
 LA0691'WERT, OHIO. IT IS IN THE SOUTHEAST
 LA0691'CORNER OF THE INTERSECTION OF AN EAST-WEST ROAD
 LA0691'AND THE
 LA0691'OHIO-INDIANA STATE LINE ROAD, ON LAND BELONGING TO MRS. WILLFORD
 LA0691'WHO LIVES ABOUT
 LA0691'0.5 MILE SOUTH AND IS 125.6 FEET SOUTHEAST OF
 LA0691'THE SOUTHEAST CORNER OF A
 LA0691'FARMHOUSE OWNED BY H.E. BAXTER AND
 LA0691'LOCATED ON THE WEST SIDE OF THE STATE LINE
 LA0691'ROAD, 48 FEET SOUTHEAST
 LA0691'OF THE INTERSECTION OF THE STATE LINE ROAD AND T-ROAD, 40.6
 LA0691'FEET SOUTH OF
 LA0691'THE CENTER OF THE T-ROAD, 27.5 FEET EAST OF THE STATE
 LA0691'LINE ROAD AND IS ABOUT 14
 LA0691'INCHES BELOW THE SURFACE OF THE GROUND.
 LA0691'
 LA0691'THE AZIMUTH MARK IS ON THE NORTH SIDE OF THE EAST-WEST ROAD,
 LA0691'ABOUT 0.3
 LA0691'MILE EAST OF THE INTERSECTION WITH THE STATE LINE ROAD,
 LA0691'25.5 FEET NORTH OF THE
 LA0691'CENTER LINE OF THE ROAD AND ON THE EAST-WEST

LA0691'REFERENCE MARK NO 1 IS 223.04 FEET EAST OF THE STATION. IT IS 22
LA0691'FEET SOUTH OF THE CENTER OF THE
LA0691'ROAD, 2 FEET SOUTH OF A TELEPHONE POLE AND 2 FEET EAST OF A WHITE
LA0691'WITNESS POST. THE MARK PROJECTS
LA0691'2 INCHES AND THE DISK IS STAMPED BAXTER NO 1 1932.

LA0691'

LA0691'REFERENCE MARK NO. 2 IS 196.85 FEET SOUTH OF THE STATION. IT IS 23
LA0691'FEET EAST OF THE CENTER OF THE
LA0691'STATE LINE ROAD, 3 FEET SOUTHEAST OF A TELEPHONE POLE AND 2 FEET
LA0691'SOUTH OF A WHITE WITNESS POST. THE
LA0691'MARK PROJECTS 3 INCHES AND THE DISK IS STAMPED BAXTER NO 2 1932.

LA0691'

LA0691'THE AZIMUTH MARK IS 0.3 MILE EAST OF THE STATION. IT IS 21.5 FEET
LA0691'NORTH OF THE CENTER OF THE T-ROAD,
LA0691'1 FOOT NORTH OF A FENCELINE AND 1 FOOT NORTH OF A WHITE WITNESS POST.
LA0691'THE MARK PROJECTS 6 INCHES AND THE
LA0691'DISK IS STAMPED BAXTER 1932.

LA0691'

LA0691'TO REACH THE STATION FROM CONVOY, GO SOUTH FROM THE RAILROAD CROSSING
LA0691'FOR 2 MILES, TURN WEST AND GO
LA0691'5.0 MILES TO THE STATE LINE AND THE STATION ON THE LEFT AS DESCRIBED.

LA0691'

LA0691'HEIGHT OF LIGHT ABOVE STATION MARK, 38 METERS.

LA0691

LA0691 STATION RECOVERY (1955)

LA0691

LA0691'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1955 (WFD)
LA0691'THE STATION WAS RECOVERED AND ALL MARKS ARE IN GOOD CONDITION. THE
LA0691'1947 DESCRIPTION IS ADEQUATE.

LA0691

LA0691 STATION RECOVERY (1963)

LA0691

LA0691'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1963 (VRS)
LA0691'ALL MARKS ARE ALSO BENCH MARKS AND ALL WERE FOUND IN GOOD CONDITION
LA0691'ESSENTIALLY AS RECOVERED IN
LA0691'1947, EXCEPT THAT THE AZIMUTH MARK WAS FOUND DESTROYED AND THE DISK
LA0691'RECLAIMED.

LA0691'

LA0691'ABOUT 2.0 MILES S ALONG NO. 49 OHIO HWY. FROM THE RAILROAD CROSSING
LA0691'IN CONVOY, THENCE 5.0 MILES W TO
LA0691'STATE LINE ROAD AND THE STATION ON LEFT, 125.6 FEET SE OF SE CORNER
LA0691'OF A 2- STORY FRAME HOUSE, 42 FEET S OF
LA0691'CENTER LINE OF ASPHALT E-W ROAD, 29 FEET E OF CENTER LINE
LA0691'OF 16-FOOT ASPHALT STATE LINE ROAD, STANDARD DISKS
LA0691'STAMPED BAXTER 1932 ARE SET IN 1A AND
LA0691'7A MARKS WITH THE UPPER MARK ABOUT 0.7 FOOT UNDERGROUND.

LA0691'

LA0691'REFERENCE STAMPED BAXTER NO 1 1932, NOTE 11A, PROJECTS 0.3 FOOT, IS
LA0691'223.09 FEET (67.998 METERS)
LA0691'E OF STATION, 22 FEET S OF CENTER LINE OF 16-FOOT ASPHALT ROAD, AND
LA0691'0.5 FOOT LOWER THAN SAME.

LA0691'

LA0691'REFERENCE STAMPED BAXTER NO 2 1932, NOTE 11A, PROJECTS 0.3 FOOT, IS
LA0691'196.85 FEET (60.000 METERS)

LA0691'S OF STATION, 22 FEET E OF CENTER LINE OF STATE LINE ROAD, 0.8 FOOT
LA0691'HIGHER THAN SAME, ON CREST OF SLIGHT
LA0691'RIDGE, 1.8 FEET N OF STEEL WITNESS POST, AND 2 FEET SE OF A
LA0691'TELEPHONE POLE.

LA0691

LA0691 STATION RECOVERY (1970)

LA0691

LA0691'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970

LA0691'6 MI WSW FROM CONVOY.

LA0691'ABOUT 2.0 MILES SOUTH ALONG STATE HIGHWAY 49 FROM THE RAILROAD
LA0691'CROSSING IN CONVOY TO A CROSSROAD THENCE WEST ALONG A SURFACED ROAD
LA0691'(WOLFCAL ROAD) 5.1 MILES TO THE INDIANA-OHIO STATE LINE ROAD IN
LA0691'THE SOUTHEAST CORNER OF THE JUNCTION. IT IS 41 FEET SOUTH OF THE
LA0691'CENTER OF WOLFCAL ROAD, 29 FEET EAST OF THE CENTER OF STATE LINE
LA0691'ROAD AND 25 FEET NORTHEAST OF A METAL WITNESS POST WITH SIGN AND
LA0691'IS SET IN THE TOP OF A 12-INCH SQUARE CONCRETE MONUMENT 6 INCHES
LA0691'BELOW THE SURFACE OF THE GROUND.

LA0691

LA0691 STATION RECOVERY (1970)

LA0691

LA0691'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970 (WMJ)

LA0691'THE STATION MARK, REFERENCE MARK 1 AND REFERENCE MARK 2 WERE

LA0691'RECOVERED AND FOUND TO BE IN

LA0691'GOOD CONDITION. THE AZIMUTH MARK HAS BEEN DESTROYED BY ROAD

LA0691'CONSTRUCTION AND A NEW ONE

LA0691'ESTABLISHED AT THIS TIME. THE DISTANCE AND DIRECTION TO THE

LA0691'REFERENCE MARKS COMPARED FAVORABLY

LA0691'WITH THE 1955 OBSERVATIONS. A COMPLETE NEW DESCRIPTION FOLLOWS-
LA0691'

LA0691'THE STATION IS LOCATED ABOUT 11 MILES WEST OF VAN WERT, OHIO, 7-1/2

LA0691'MILES NORTHEAST OF DECATUR,

LA0691'INDIANA, 6 MILES WEST-SOUTHWEST OF CONVOY, OHIO, IN THE SOUTHEAST

LA0691'ANGLE ON THE INTERSECTION OF

LA0691'WOLFCAL ROAD AND THE INDIANA-OHIO STATE LINE ROAD AND ON

LA0691'CULTIVATED LAND OWNED BY MR. VAN MILLER.

LA0691'

LA0691'TO REACH THE STATION FROM THE RAILROAD CROSSING ON STATE HIGHWAY 49

LA0691'IN CONVOY, OHIO, GO SOUTH

LA0691'ON STATE HIGHWAY 49 FOR 2.0 MILES TO A CROSSROAD. TURN RIGHT AND GO

LA0691'WEST ON THE SURFACED ROAD FOR 5.1

LA0691'MILES TO THE INDIANA-OHIO STATE LINE ROAD AND THE

LA0691'STATION ON THE LEFT AS DESCRIBED. TO REACH THE

LA0691'AZIMUTH MARK TURN RIGHT AND GO NORTH

LA0691'ON THE STATE LINE ROAD FOR 0.2 MILE TO THE MARK ON THE LEFT.

LA0691'

LA0691'THE STATION MARK IS A STANDARD DISK STAMPED BAXTER 1932, SET IN THE

LA0691'TOP OF A 12- INCH SQUARE

LA0691'CONCRETE MONUMENT THAT IS 6 INCHES BELOW THE GROUND SURFACE. IT IS

LA0691'41 FEET SOUTH OF THE CENTER OF

LA0691'WOLFCAL ROAD, 29 FEET EAST OF THE CENTER OF THE STATE

LA0691'LINE ROAD AND 25 FEET NORTHEAST OF A METAL

LA0691'WITNESS POST WITH SIGN. NOTE 1A7A

LA0691'

LA0691'REFERENCE MARK 1 IS A STANDARD DISK STAMPED BAXTER NO 1 1932, SET IN

LA0691 THE TOP OF A 12-INCH SQUARE
LA0691 CONCRETE MONUMENT THAT IS FLUSH WITH THE GROUND SURFACE. IT IS 29
LA0691 FEET EAST OF A TELEPHONE POLE, 21
LA0691 FEET SOUTH OF THE CENTER OF WOLFCAL ROAD AND 2 FEET EAST
LA0691 OF A METAL WITNESS POST WITH SIGN. NOTE 11A.
LA0691'
LA0691 REFERENCE MARK 2 IS A STANDARD DISK STAMPED BAXTER NO 2 1932, SET IN
LA0691 THE TOP OF A 12-INCH SQUARE
LA0691 CONCRETE MONUMENT THAT PROJECTS 4 INCHES ABOVE THE GROUND SURFACE.
LA0691 IT IS 22 FEET EAST OF THE CENTER
LA0691 OF THE STATE LINE ROAD, 2 FEET NORTH OF A METAL WITNESS
LA0691 POST WITH SIGN AND 1.5 FEET SOUTHEAST OF A
LA0691 TELEPHONE POLE. NOTE 11A.
LA0691'
LA0691 THE AZIMUTH MARK IS A STANDARD DISK STAMPED BAXTER 1932 1970, SET IN
LA0691 THE TOP OF A ROUND CONCRETE
LA0691 MONUMENT THAT IS 12 INCHES IN DIAMETER AND PROJECTS 4 INCHES ABOVE
LA0691 THE GROUND SURFACE. IT IS 22 FEET
LA0691 WEST OF THE CENTER OF THE STATE LINE ROAD, 3 FEET SOUTH
LA0691 OF A TELEPHONE POLE AND 1.5 FEET NORTH OF A METAL
LA0691 WITNESS POST WITH SIGN. NOTE 16B
LA0691'
LA0691 AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN- 6 MILES
LA0691 WEST-SOUTHWEST OF CONVOY
LA0691
LA0691 STATION RECOVERY (1972)
LA0691
LA0691 RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1972 (LFS)
LA0691 ALL MARKS WERE RECOVERED AND FOUND AS DESCRIBED AND IN GOOD
LA0691 CONDITION. A HOUSE
LA0691 IS BEING BUILT AT THE STATION SITE BUT NONE OF THE MARKS WILL
LA0691 BE DISTURBED. MR. JOHN
LA0691 BURGER WHO NOW OWNS THE PROPERTY SAID THAT THE
LA0691 STATION MARK WILL HAVE AN ADDITIONAL FOOT
LA0691 OF FILL DIRT OVER IT WHEN
LA0691 THE HOUSE IS COMPLETED AND THE YARD GRADED, BUT CARE WOULD
LA0691 BE TAKEN TO
LA0691 PROTECT THE MARKS IN THEIR ORIGINAL POSITION. THE 1970 RECOVERY
LA0691 NOTE IS GOOD.
LA0691'
LA0691 AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN- 6 MILES
LA0691 WEST-SOUTHWEST OF CONVOY
LA0691
LA0691 STATION RECOVERY (1995)
LA0691
LA0691 RECOVERY NOTE BY ABW MAPPING AND CONSULTING 1995 (DAA)
LA0691 STATION RECOVERED AS DESCRIBED, HOWEVER 8 INCHES OF DIRT HAS BEEN
LA0691 FILLED IN AROUND THE MARK, AND A 10 INCH PVC PIPE HAS BEEN INSTALLED
LA0691 OVER THE STATION TO ELIMINATE THE NEED TO EXCAVATE.
LA0691
LA0691 STATION RECOVERY (1995)
LA0691
LA0691 RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (AJL)
LA0691 THE STATION AND RM 2 WERE FOUND IN GOOD CONDITION. RM 1 HAS BEEN

LA0691'DESTROYED, AZ MK 2 WAS NOT SEARCHED FOR. THE MARK IS IN THE LAWN OF A LA0691'PRIVATE RESIDENCE, HOME OF MRS. BURGER, 8015 STATE LINE ROAD, CONVOY, LA0691'OHIO 45832, TELEPHONE 419-749-2642. THE STATION IS LOCATED ABOUT 19.3 LA0691'KM (12.00 MI) WEST OF VAN WERT, AND 8.0 KM (4.95 MI) WEST-SOUTHWEST OF LA0691'CONVOY. TO REACH FROM THE HARRISON TOWNSHIP OFFICE IN MIDDLEBURY, GO LA0691'WEST ON US HIGHWAY 224 FOR 4.8 KM (3.00 MI) TO A CROSSROAD AT THE LA0691'OHIO-INDIANA STATE LINE. TURN RIGHT, NORTH, ON STATE LINE ROAD FOR LA0691'5.0 KM (3.10 MI) TO WOLFCAL ROAD ON THE RIGHT AND THE STATION IN THE LA0691'SOUTHEAST ANGLE OF THE INTERSECTION. THE STATION MARK IS SET IN TOP LA0691'OF A CONCRETE POST 22.86 CM BELOW GROUND AND INSIDE A 10 INCH DIAMETER LA0691'PLASTIC PIPE WITH CAST IRON LID. IT IS 13.3 M (43.6 FT) SOUTH OF THE LA0691'CENTERLINE OF WOLFCAL ROAD, 8.9 M (29.2 FT) EAST OF THE CENTER OF LA0691'STATE LINE ROAD, 4.3 M (14.1 FT) EAST OF THE CENTER OF A ROUND SEWER LA0691'DRAIN, 6.8 M (22.3 FT) SOUTH OF A TELEPHONE JUNCTION BOX, AND 20.5 M LA0691'(67.3 FT) NORTHWEST OF THE NORTHWEST CORNER OF A PORCH.

LA0691

STATION RECOVERY (1997)

LA0691

LA0691

LA0691'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1997 (CSM)

LA0691'RECOVERED AS DESCRIBED.

HZ1709 *****

HZ1709 DESIGNATION - CHELSEA

HZ1709 PID - HZ1709

HZ1709 STATE/COUNTY- IN/JEFFERSON

HZ1709 USGS QUAD - KENT (1994)

HZ1709

HZ1709 *CURRENT SURVEY CONTROL

HZ1709* NAD 83(1997)- 38 39 25.32994(N) 085 31 31.22157(W) ADJUSTED

HZ1709* NAVD 88 - 241.823 (meters) 793.38 (feet) ADJUSTED

HZ1709 LAPLACE CORR- 0.03 (seconds) DEFLEC09

HZ1709 GEOID HEIGHT- -33.77 (meters) GEOID09

HZ1709 DYNAMIC HT - 241.662 (meters) 792.85 (feet) COMP

HZ1709 MODELED GRAV- 979,957.9 (mgal) NAVD 88

HZ1709

HZ1709 HORZ ORDER - SECOND

HZ1709 VERT ORDER - FIRST CLASS II

HZ1709

HZ1709.The horizontal coordinates were established by classical geodetic methods
 HZ1709.and adjusted by the National Geodetic Survey in May 1999.

HZ1709.

HZ1709.The orthometric height was determined by differential leveling and
 HZ1709.adjusted in June 1991.

HZ1709

HZ1709.The Laplace correction was computed from DEFLEC09 derived deflections.

HZ1709

HZ1709.The geoid height was determined by GEOID09.

HZ1709

HZ1709.The dynamic height is computed by dividing the NAVD 88
 HZ1709.geopotential number by the normal gravity value computed on the
 HZ1709.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 HZ1709.degrees latitude (g = 980.6199 gals.).

HZ1709

HZ1709.The modeled gravity was interpolated from observed gravity values.

HZ1709

HZ1709;	North	East	Units	Scale	Factor	Converg.
HZ1709;SPC IN E	- 378,433.856	112,301.154	MT	0.99996853	+0 05	17.8
HZ1709;SPC IN E	- 1,241,578.41	368,441.37	sFT	0.99996853	+0 05	17.8
HZ1709;SPC KY1Z	- 1,257,922.976	1,519,555.084	MT	0.99999769	+0 08	16.6
HZ1709;SPC KY1Z	- 4,127,035.63	4,985,406.97	sFT	0.99999769	+0 08	16.6
HZ1709;SPC KY N	- 129,197.400	388,997.737	MT	0.99996755	-0 47	36.0
HZ1709;SPC KY N	- 423,875.14	1,276,236.74	sFT	0.99996755	-0 47	36.0
HZ1709;UTM 16	- 4,279,750.199	628,310.751	MT	0.99980274	+0 55	16.6

HZ1709

HZ1709! - Elev Factor x Scale Factor = Combined Factor

HZ1709!SPC IN E - 0.99996736 x 0.99996853 = 0.99993589

HZ1709!SPC KY1Z - 0.99996736 x 0.99999769 = 0.99996505

HZ1709!SPC KY N - 0.99996736 x 0.99996755 = 0.99993491

HZ1709!UTM 16 - 0.99996736 x 0.99980274 = 0.99977010

HZ1709

HZ1709: Primary Azimuth Mark Grid Az

HZ1709:SPC IN E - CHELSEA AZ MK 002 28 24.2
 HZ1709:SPC KY1Z - CHELSEA AZ MK 002 25 25.4
 HZ1709:SPC KY N - CHELSEA AZ MK 003 21 18.0
 HZ1709:UTM 16 - CHELSEA AZ MK 001 38 25.4

HZ1709

HZ1709|-----|
 HZ1709| PID Reference Object Distance Geod. Az |
 HZ1709| dddmss.s |
 HZ1709| HZ1707 CHELSEA AZ MK 0023342.0 |
 HZ1709| HZ1710 CHELSEA RM 1 28.937 METERS 16145 |
 HZ1709| HZ1708 CHELSEA RM 2 26.918 METERS 29253 |
 HZ1709|-----|

HZ1709

HZ1709 SUPERSEDED SURVEY CONTROL

HZ1709

HZ1709 NAD 83(1995)- 38 39 25.33041(N) 085 31 31.21960(W) AD() 2
 HZ1709 NAD 83(1993)- 38 39 25.33041(N) 085 31 31.21985(W) AD() 2
 HZ1709 NAD 83(1986)- 38 39 25.33224(N) 085 31 31.22608(W) AD() 2
 HZ1709 NAD 27 - 38 39 25.11500(N) 085 31 31.36700(W) AD() 2
 HZ1709 NGVD 29 (??/??/92) 241.981 (m) 793.90 (f) ADJ UNCH 1 2

HZ1709

HZ1709.Superseded values are not recommended for survey control.

HZ1709.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

HZ1709.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

HZ1709

HZ1709_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFH2831079750(NAD 83)

HZ1709

HZ1709_MARKER: DS = TRIANGULATION STATION DISK

HZ1709_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

HZ1709_SP_SET: SET IN TOP OF CONCRETE MONUMENT

HZ1709_STAMPING: CHELSEA 1947

HZ1709_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

HZ1709+STABILITY: SURFACE MOTION

HZ1709

HZ1709 HISTORY - Date Condition Report By

HZ1709 HISTORY - 1947 MONUMENTED CGS

HZ1709 HISTORY - 1965 GOOD CGS

HZ1709 HISTORY - 1965 GOOD CGS

HZ1709 HISTORY - 1976 GOOD NGS

HZ1709

HZ1709 STATION DESCRIPTION

HZ1709

HZ1709'DESCRIBED BY COAST AND GEODETIC SURVEY 1947 (FXP)

HZ1709'STATION IS 0.5 MILE NO. FROM THE MACADAM CROSS ROAD IN CHELSEA VIA

HZ1709'STATE HIGHWAY 62, AT THE EAST SIDE OF CHELSEA PARK, ON LAND

HZ1709'OWNED BY JAMES FLINT, 135 FEET WEST-SOUTHWEST OF CHELSEA PARK

HZ1709'SANDWICH SHOP, 70 FEET WEST OF THE CENTER LINE OF THE HIGHWAY, 49

HZ1709'FEET SOUTHWEST OF A WIRE GATE, AND 29 FEET WEST OF THE EAST FENCE OF

HZ1709'THE PARK. THE MARK PROJECTS 1 INCH, AND THE DISK IS STAMPED

HZ1709'CHELSEA 1947.

HZ1709'

HZ1709'REFERENCE MARK NO. 1 IS 94.90 FEET SOUTH-SOUTHEAST OF THE STATION AND

HZ1709'1 FOOT WEST OF A FENCE. THE MARK PROJECTS 6 INCHES, AND THE

HZ1709'DISK IS STAMPED CHELSEA NO. 1 1947.

HZ1709'

HZ1709'REFERENCE MARK NO. 2 IS 88.29 FEET WEST-NORTHWEST OF THE STATION AND HZ1709'30 FEET WEST-SOUTHWEST OF A 20-INCH OAK. THE MARK IS FLUSH, HZ1709'AND THE DISK IS STAMPED CHELSEA NO 2 1947.

HZ1709'

HZ1709'AZIMUTH MARK IS 0.4 MILE NORTH OF THE STATION, 38 FEET EAST OF THE HZ1709'CENTERLINE OF THE HIGHWAY, 4 FEET SOUTH OF A TELEPHONE POLE, HZ1709'AND 2 FEET SOUTH OF AN UNPAINTED WITNESS POST. THE MARK PROJECTS 8 HZ1709'INCHES, AND THE DISK IS STAMPED CHELSEA 1947.

HZ1709'

HZ1709'HEIGHT OF LIGHT ABOVE STATION MARK 30 METERS.

HZ1709

HZ1709

STATION RECOVERY (1965)

HZ1709

HZ1709'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1965 (DD)

HZ1709'THE STATION MARK, STAMPED CHELSEA 1947, IS ABOUT 3.2 MILES WEST HZ1709'ALONG STATE HIGHWAYS 56 AND 62 FROM THE METHODIST CHURCH AT HZ1709'HANOVER, THENCE 3.75 MILES SOUTH ALONG STATE HIGHWAY 62, IN SECTION HZ1709'33, T 3 N, R 9 E, ABOUT 0.45 MILE NORTH OF AN INTERSECTION OF THE HZ1709'HIGHWAY AND A ROAD, ON THE EAST SIDE OF A SMALL PARK, 135 FEET HZ1709'WEST-SOUTHWEST AND ACROSS THE HIGHWAY FROM THE SOUTHWEST CORNER HZ1709'OF A PARK BUILDING, 70 FEET WEST OF THE CENTER LINE OF THE HIGHWAY, HZ1709'49 FEET SOUTHWEST OF THE CENTER OF A GATE, 29 FEET WEST OF A HZ1709'FENCE, 29.5 FEET WEST OF A METAL WITNESS POST, ABOUT LEVEL WITH HZ1709'THE HIGHWAY, AND SET IN THE TOP OF A CONCRETE POST FLUSH WITH THE HZ1709'GROUND.

HZ1709'

HZ1709'R.M. 1, STAMPED CHELSEA NO 1 1947, IS 94.9 FEET SOUTH OF THE STATION HZ1709'MARK, 40 FEET WEST OF THE CENTER LINE OF THE HIGHWAY, 46 FEET NORTH HZ1709'OF A FENCE CORNER, 1 FOOT WEST OF A FENCE, ABOUT LEVEL WITH THE HZ1709'HIGHWAY, AND SET IN THE TOP OF A CONCRETE POST PROJECTING 6 HZ1709'INCHES.

HZ1709'

HZ1709'R.M. 2, STAMPED CHELSEA NO 2 1947, IS 88.3 FEET WEST-NORTHWEST OF HZ1709'THE STATION MARK, 150 FEET WEST OF THE CENTER LINE OF THE HIGHWAY, HZ1709'110 FEET WEST OF THE CENTER OF A GATE, 30 FEET WEST-SOUTHWEST OF A HZ1709'24-INCH OAK TREE, ABOUT LEVEL WITH THE HIGHWAY, AND SET IN THE TOP OF HZ1709'A CONCRETE POST FLUSH WITH THE GROUND.

HZ1709

HZ1709

STATION RECOVERY (1965)

HZ1709

HZ1709'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1965

HZ1709'6.9 MI SW FROM HANOVER.

HZ1709'ABOUT 3.2 MILES WEST ALONG STATE HIGHWAYS 56 AND 62 FROM THE HZ1709'METHODIST CHURCH AT HANOVER, THENCE 3.75 MILES SOUTH ALONG HZ1709'STATE HIGHWAY 62, OR ABOUT 6.7 MILES NORTH ALONG STATE HIGHWAY HZ1709'62 FROM THE SCHOOLHOUSE AT NEW WASHINGTON, IN SECTION 33, HZ1709'T 3 N, R 9 E, ABOUT 0.45 MILE NORTH OF AN INTERSECTION OF THE HZ1709'HIGHWAY AND A ROAD, ON THE EAST SIDE OF A SMALL PARK, 135 FEET HZ1709'WEST-SOUTHWEST AND ACROSS THE HIGHWAY FROM THE SOUTHWEST HZ1709'CORNER OF A PARK BUILDING, 70 FEET WEST OF THE CENTER LINE OF THE HZ1709'HIGHWAY, 49 FEET SOUTHWEST OF THE CENTER OF A GATE, 29 FEET HZ1709'WEST OF A FENCE, 29.5 FEET WEST OF A METAL WITNESS POST, ABOUT

HZ1709'LEVEL WITH THE HIGHWAY, AND SET IN THE TOP OF A CONCRETE POST
HZ1709'FLUSH WITH THE GROUND.

HZ1709

HZ1709 STATION RECOVERY (1976)

HZ1709

HZ1709'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1976 (CLN)

HZ1709'STATION MARK, REFERENCE MARKS 1, 2 AND THE AZIMUTH MARK WERE FOUND
HZ1709'IN GOOD CONDITION AND AS DESCRIBED. THE DISTANCE TO REFERENCE MARK
HZ1709'1 WAS FOUND TO BE LONGER BY 0.04 FOOT AND THE DIRECTION WAS LESS BY
HZ1709'2 MINUTES AND 38 SECONDS. THE DISTANCE TO REFERENCE MARK 2 WAS
HZ1709'LONGER BY 0.03 FOOT AND THE DIRECTION WAS GREATER BY 1 MINUTE AND
HZ1709'20 SECONDS.

HZ1709'

HZ1709'THE PREVIOUS DESCRIPTION IS ADEQUATE FOR RECOVERY WITH THE ADDITION
HZ1709'OF METAL WITNESS POST AT THE STATION AND AZIMUTH MARK. THE STATION
HZ1709'IS 30 FEET WEST OF A METAL WITNESS POST AND THE AZIMUTH MARK IS 1
HZ1709'FOOT NORTH OF A METAL WITNESS POST.

HZ1709'

HZ1709'AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN--AT CHELSEA.

HZ1709'

HZ1709'HEIGHT OF LIGHT ABOVE STATION MARK 5 FEET.

HZ1880 *****
 HZ1880 CBN - This is a Cooperative Base Network Control Station.
 HZ1880 DESIGNATION - D 92
 HZ1880 PID - HZ1880
 HZ1880 STATE/COUNTY- IN/JACKSON
 HZ1880 USGS QUAD - CHESTNUT RIDGE (1983)
 HZ1880
 HZ1880 *CURRENT SURVEY CONTROL
 HZ1880
 HZ1880* NAD 83(2007)- 38 58 15.30327(N) 085 50 04.61702(W) ADJUSTED
 HZ1880* NAVD 88 - 178.914 (meters) 586.99 (feet) ADJUSTED
 HZ1880
 HZ1880 EPOCH DATE - 2002.00
 HZ1880 X - 360,670.214 (meters) COMP
 HZ1880 Y - -4,952,355.205 (meters) COMP
 HZ1880 Z - 3,989,898.640 (meters) COMP
 HZ1880 LAPLACE CORR- -1.59 (seconds) DEFLEC09
 HZ1880 ELLIP HEIGHT- 145.041 (meters) (02/10/07) ADJUSTED
 HZ1880 GEOID HEIGHT- -33.87 (meters) GEOID09
 HZ1880 DYNAMIC HT - 178.802 (meters) 586.62 (feet) COMP
 HZ1880
 HZ1880 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----
 HZ1880 Type PID Designation North East Ellip
 HZ1880 -----
 HZ1880 NETWORK HZ1880 D 92 1.04 0.69 2.61
 HZ1880 -----
 HZ1880 MODELED GRAV- 979,996.1 (mgal) NAVD 88
 HZ1880
 HZ1880 VERT ORDER - FIRST CLASS II
 HZ1880
 HZ1880.The horizontal coordinates were established by GPS observations
 HZ1880.and adjusted by the National Geodetic Survey in February 2007.
 HZ1880
 HZ1880.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 HZ1880.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.
 HZ1880
 HZ1880.The horizontal coordinates are valid at the epoch date displayed above
 HZ1880.which is a decimal equivalence of Year/Month/Day.
 HZ1880
 HZ1880.The orthometric height was determined by differential leveling and
 HZ1880.adjusted in June 1991.
 HZ1880
 HZ1880.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 HZ1880
 HZ1880.The Laplace correction was computed from DEFLEC09 derived deflections.
 HZ1880
 HZ1880.The ellipsoidal height was determined by GPS observations
 HZ1880.and is referenced to NAD 83.
 HZ1880
 HZ1880.The geoid height was determined by GEOID09.
 HZ1880

HZ1880.The dynamic height is computed by dividing the NAVD 88
HZ1880.geopotential number by the normal gravity value computed on the
HZ1880.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
HZ1880.degrees latitude (g = 980.6199 gals.).

HZ1880

HZ1880.The modeled gravity was interpolated from observed gravity values.

HZ1880

HZ1880; North East Units Scale Factor Converg.

HZ1880;SPC IN E - 413,281.224 85,445.694 MT 0.99996927 -0 06 20.3

HZ1880;SPC IN E - 1,355,906.82 280,333.08 sFT 0.99996927 -0 06 20.3

HZ1880;UTM 16 - 4,314,195.055 600,955.426 MT 0.99972550 +0 43 58.8

HZ1880

HZ1880! - Elev Factor x Scale Factor = Combined Factor

HZ1880!SPC IN E - 0.99997724 x 0.99996927 = 0.99994651

HZ1880!UTM 16 - 0.99997724 x 0.99972550 = 0.99970275

HZ1880

SUPERSEDED SURVEY CONTROL

HZ1880

HZ1880 NAD 83(1997)- 38 58 15.30354(N) 085 50 04.61714(W) AD() B

HZ1880 ELLIP H (04/10/98) 145.081 (m) GP() 4 1

HZ1880 NAD 83(1993)- 38 58 15.30782(N) 085 50 04.62087(W) AD() 3

HZ1880 NAD 83(1986)- 38 58 15.30810(N) 085 50 04.62200(W) AD() 3

HZ1880 NAD 27 - 38 58 15.11746(N) 085 50 04.71814(W) AD() 3

HZ1880 NAVD 88 (04/10/98) 178.91 (m) 587.0 (f) LEVELING 3

HZ1880 NGVD 29 (??/??/92) 179.035 (m) 587.38 (f) ADJ UNCH 1 2

HZ1880

HZ1880.Superseded values are not recommended for survey control.

HZ1880.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

HZ1880.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to
determine how the superseded data were derived.

HZ1880

HZ1880_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFJ0095514195(NAD 83)

HZ1880

HZ1880_MARKER: DB = BENCH MARK DISK

HZ1880_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE

HZ1880_SP_SET: BRIDGE ABUTMENT

HZ1880_STAMPING: D 92 1938

HZ1880_MARK LOGO: CGS

HZ1880_MAGNETIC: N = NO MAGNETIC MATERIAL

HZ1880_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

HZ1880_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

HZ1880+SATELLITE: SATELLITE OBSERVATIONS - July 06, 2011

HZ1880

HZ1880 HISTORY - Date Condition Report By

HZ1880 HISTORY - 1938 MONUMENTED CGS

HZ1880 HISTORY - 19880720 GOOD NGS

HZ1880 HISTORY - 19970825 GOOD SEC

HZ1880 HISTORY - 20110706 GOOD INDIV

HZ1880 HISTORY - 20110706 GOOD INDIV

HZ1880

STATION DESCRIPTION

HZ1880

HZ1880'DESCRIBED BY NATIONAL GEODETIC SURVEY 1988

HZ1880'THE STATION IS LOCATED ABOUT 19.3 KM (12.00 MI) WEST OF NORTH VERNON,

HZ1880'8.0 KM (4.95 MI) NORTHEAST OF SEYMOUR, 0.8 KM (0.50 MI) EAST FROM
 HZ1880'INTERSTATE HIGHWAY 65 AND ON RAILROAD RIGHT-OF-WAY.
 HZ1880'OWNERSHIP--UNABLE TO LOCATE OWNERSHIP FOR THIS STATION.
 HZ1880'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAYS 50 AND 31,
 HZ1880'ABOUT 4.8 KM (3.00 MI) EAST OF SEYMOUR, GO NORTH ON U.S. HIGHWAY 31
 HZ1880'FOR 0.8 KM (0.50 MI) TO A RAILROAD OVERPASS AND THE MARK ON TOP OF
 HZ1880'THE SOUTHEAST CORNER OF OVERPASS.
 HZ1880'THE STATION IS A STANDARD CGS BENCH MARK DISK STAMPED---D 92 1938---,
 HZ1880'SET IN THE SOUTHEAST CORNER OF CONCRETE HEADWALL ABOUT 5 INCHES LOWER
 HZ1880'THAN THE TRACKS. LOCATED 1.2 M (3.9 FT) SOUTH FROM SOUTH RAIL OF
 HZ1880'TRACKS AND ABOUT 7.6 M (24.9 FT) HIGHER THAN U.S. HIGHWAY 31.
 HZ1880'GPS SURVEY, FAA AIRPORTS, INDIANA.
 HZ1880'DESCRIBED BY D.A. BOWLING.
 HZ1880
 HZ1880 STATION RECOVERY (1997)
 HZ1880
 HZ1880'RECOVERY NOTE BY SCHNEIDER ENGINEERING CORPORATION 1997 (RGR)
 HZ1880'RECOVERED AS DESCRIBED.
 HZ1880
 HZ1880 STATION RECOVERY (2011)
 HZ1880
 HZ1880'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011 (USI)
 HZ1880'RECOVERED FOR INDIANA ORTHO AND LIDAR PROGRAM
 HZ1880
 HZ1880 STATION RECOVERY (2011)
 HZ1880
 HZ1880'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011 (USI)
 HZ1880'RECOVERED FOR INDIANA ORTHO AND LIDAR PROGRAM

HZ1322 *****
 HZ1322 CBN - This is a Cooperative Base Network Control Station.
 HZ1322 DESIGNATION - E 278
 HZ1322 PID - HZ1322
 HZ1322 STATE/COUNTY- IN/FLOYD
 HZ1322 USGS QUAD - NEW ALBANY (1992)
 HZ1322
 HZ1322 *CURRENT SURVEY CONTROL
 HZ1322
 HZ1322* NAD 83(2007)- 38 21 40.63434(N) 085 49 00.93185(W) ADJUSTED
 HZ1322* NAVD 88 - 165.816 (meters) 544.01 (feet) ADJUSTED
 HZ1322
 HZ1322 EPOCH DATE - 2002.00
 HZ1322 X - 365,282.776 (meters) COMP
 HZ1322 Y - -4,994,403.630 (meters) COMP
 HZ1322 Z - 3,937,049.592 (meters) COMP
 HZ1322 LAPLACE CORR- -1.45 (seconds) DEFLEC09
 HZ1322 ELLIP HEIGHT- 132.441 (meters) (02/10/07) ADJUSTED
 HZ1322 GEOID HEIGHT- -33.39 (meters) GEOID09
 HZ1322 DYNAMIC HT - 165.703 (meters) 543.64 (feet) COMP
 HZ1322
 HZ1322 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----
 HZ1322 Type PID Designation North East Ellip
 HZ1322 -----
 HZ1322 NETWORK HZ1322 E 278 0.90 0.65 2.18
 HZ1322 -----
 HZ1322 MODELED GRAV- 979,943.2 (mgal) NAVD 88
 HZ1322
 HZ1322 VERT ORDER - FIRST CLASS II
 HZ1322
 HZ1322.The horizontal coordinates were established by GPS observations
 HZ1322.and adjusted by the National Geodetic Survey in February 2007.
 HZ1322
 HZ1322.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 HZ1322.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.
 HZ1322
 HZ1322.The horizontal coordinates are valid at the epoch date displayed above
 HZ1322.which is a decimal equivalence of Year/Month/Day.
 HZ1322
 HZ1322.The orthometric height was determined by differential leveling and
 HZ1322.adjusted in June 1991.
 HZ1322
 HZ1322.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 HZ1322
 HZ1322.The Laplace correction was computed from DEFLEC09 derived deflections.
 HZ1322
 HZ1322.The ellipsoidal height was determined by GPS observations
 HZ1322.and is referenced to NAD 83.
 HZ1322
 HZ1322.The geoid height was determined by GEOID09.
 HZ1322

HZ1322.The dynamic height is computed by dividing the NAVD 88
HZ1322.geopotential number by the normal gravity value computed on the
HZ1322.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
HZ1322.degrees latitude (g = 980.6199 gals.).

HZ1322

HZ1322.The modeled gravity was interpolated from observed gravity values.

HZ1322

HZ1322;
HZ1322;SPC IN E - 345,606.232 86,867.840 MT 0.99996879 -0 05 35.7
HZ1322;SPC IN E - 1,133,876.45 284,998.91 sFT 0.99996879 -0 05 35.7
HZ1322;UTM 16 - 4,246,564.164 603,360.827 MT 0.99973157 +0 44 03.5

HZ1322

HZ1322! - Elev Factor x Scale Factor = Combined Factor

HZ1322!SPC IN E - 0.99997922 x 0.99996879 = 0.99994801

HZ1322!UTM 16 - 0.99997922 x 0.99973157 = 0.99971079

HZ1322

SUPERSEDED SURVEY CONTROL

HZ1322

HZ1322 NAD 83(1997)- 38 21 40.63466(N) 085 49 00.93197(W) AD() B

HZ1322 ELLIP H (04/10/98) 132.460 (m) GP() 4 1

HZ1322 NAVD 88 (04/10/98) 165.82 (m) 544.0 (f) LEVELING 3

HZ1322 NGVD 29 (??/??/92) 165.954 (m) 544.47 (f) ADJ UNCH 1 2

HZ1322

HZ1322.Superseded values are not recommended for survey control.

HZ1322.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

HZ1322.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to
determine how the superseded data were derived.

HZ1322

HZ1322_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFH0336046564(NAD 83)

HZ1322

HZ1322_MARKER: DB = BENCH MARK DISK

HZ1322_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

HZ1322_SP_SET: SET IN TOP OF CONCRETE MONUMENT

HZ1322_STAMPING: E 278 1949

HZ1322_MARK LOGO: CGS

HZ1322_MAGNETIC: N = NO MAGNETIC MATERIAL

HZ1322_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

HZ1322+STABILITY: SURFACE MOTION

HZ1322_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

HZ1322+SATELLITE: SATELLITE OBSERVATIONS - September 16, 2000

HZ1322

HZ1322 HISTORY - Date Condition Report By

HZ1322 HISTORY - 1949 MONUMENTED CGS

HZ1322 HISTORY - 19970827 GOOD SEC

HZ1322 HISTORY - 20000916 GOOD INDNR

HZ1322

STATION DESCRIPTION

HZ1322

HZ1322'DESCRIBED BY COAST AND GEODETIC SURVEY 1949

HZ1322'5.4 MI N FROM NEW ALBANY.

HZ1322'ABOUT 5.4 MILES NORTH ALONG THE CHICAGO, INDIANAPOLIS AND

HZ1322'LOUISVILLE RAILWAY FROM THE STATION AT NEW ALBANY, AT A DIM ROAD

HZ1322'JUNCTION NEAR A ROAD CROSSING, 44.5 FEET WEST-NORTHWEST AND

HZ1322'ACROSS DIM ROAD NORTH FROM THE CENTER OF THE CROSSING, 42 FEET

HZ1322'WEST-NORTHWEST AND ACROSS DIM ROAD NORTH FROM THE WEST-NORTHWEST
HZ1322'RAIL, 18 FEET WEST-NORTHWEST OF THE CENTER OF THE JUNCTION OF THE
HZ1322'TWO ROADS, 17 FEET NORTH OF THE CENTER LINE OF THE DIM ROAD WEST,
HZ1322'9.5 FEET WEST OF THE CENTER LINE OF THE DIM ROAD NORTH, 7.5 FEET
HZ1322'NORTH-NORTHEAST OF A FENCE CORNER, 1.5 FEET EAST OF THE FENCE
HZ1322'LINE, 1.5 FEET NORTH OF A WHITE WOODEN WITNESS POST, ABOUT LEVEL
HZ1322'WITH THE TRACK AND SET IN THE TOP OF A CONCRETE POST PROJECTING
HZ1322'3 INCHES.

HZ1322

STATION RECOVERY (1997)

HZ1322

HZ1322

HZ1322'RECOVERY NOTE BY SCHNEIDER ENGINEERING CORPORATION 1997 (RGR)
HZ1322'THE STATION IS LOCATED 2 MILES (3.2 KM) NORTH OF NEW ALBANY AND 1.7
HZ1322'MILES (2.7 KM) NORTH OF INTERSTATE 265. TO REACH THE STATION FROM THE
HZ1322'STATE HIGHWAY 111 INTERCHANGE ON INTERSTATE 265, GO NORTH ON STATE
HZ1322'HIGHWAY 111 FOR 1.7 MILES (2.7 KM) TO A CROSS ROAD (DURGEE ROAD), TURN
HZ1322'LEFT AND GO WEST ON DURGEE ROAD FOR 0.1 MILES (0.2 KM) TO JUST ACROSS
HZ1322'THE RAILROAD TRACKS TO STATION ON RIGHT, IN GRAVEL DRIVE OF DRIVEWAY
HZ1322'TO NORTH, IN THE RIGHT-OF-WAY OF DURGEE ROAD. CONTACT IS ROAD
HZ1322'SUPERINTENDENT HERMAN BANET 311-319 WEST 1ST STREET, ROOM 214, NEW
HZ1322'ALBANY IN 47150, PHONE 812-923-3041. THE STATION IS SET IN A ROUND
HZ1322'CONCRETE MONUMENT, ABOUT LEVEL WITH RAILROAD TRACKS AND FLUSH WITH
HZ1322'GRAVEL ROAD. IT IS 13.29 METERS (43.60 FT) WEST OF THE WEST RAIL OF
HZ1322'RAILROAD, 7.16 METERS (23.49 FT) NORTHEAST OF UTILITY POLE, 5.03
HZ1322'METERS (16.50 FT) NORTH OF THE CENTERLINE OF DURGEE ROAD AND 4.04
HZ1322'METERS (13.25 FT) SOUTHEAST OF METAL WITNESS SIGN.

HZ1322

STATION RECOVERY (2000)

HZ1322

HZ1322

HZ1322'RECOVERY NOTE BY IN DEPT OF NAT RES 2000

HZ1322'RECOVERED IN GOOD CONDITION.

LB2522 *****

LB2522 DESIGNATION - EKIN

LB2522 PID - LB2522

LB2522 STATE/COUNTY- IN/HAMILTON

LB2522 USGS QUAD - SHERIDAN (1992)

LB2522

LB2522 *CURRENT SURVEY CONTROL

LB2522* NAD 83(2007)- 40 12 11.09989(N) 086 09 41.31620(W) ADJUSTED

LB2522* NAVD 88 - 277.821 (meters) 911.48 (feet) ADJUSTED

LB2522 EPOCH DATE - 2002.00

LB2522 X - 326,581.226 (meters) COMP

LB2522 Y - -4,867,424.661 (meters) COMP

LB2522 Z - 4,095,391.122 (meters) COMP

LB2522 LAPLACE CORR- -1.26 (seconds) DEFLEC09

LB2522 ELLIP HEIGHT- 243.563 (meters) (02/10/07) ADJUSTED

LB2522 GEOID HEIGHT- -34.28 (meters) GEOID09

LB2522 DYNAMIC HT - 277.668 (meters) 910.98 (feet) COMP

LB2522

LB2522 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

LB2522 Type PID Designation North East Ellip

LB2522 -----

LB2522 NETWORK LB2522 EKIN 0.96 0.65 1.86

LB2522 -----

LB2522 MODELED GRAV- 980,067.6 (mgal) NAVD 88

LB2522

LB2522 VERT ORDER - SECOND CLASS II

LB2522

LB2522.The horizontal coordinates were established by GPS observations

LB2522.and adjusted by the National Geodetic Survey in February 2007.

LB2522

LB2522.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).

LB2522.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

LB2522

LB2522.The horizontal coordinates are valid at the epoch date displayed above

LB2522.which is a decimal equivalence of Year/Month/Day.

LB2522

LB2522.The orthometric height was determined by differential leveling and

LB2522.adjusted in February 2010.

LB2522

LB2522.No vertical observational check was made to the station.

LB2522

LB2522.The X, Y, and Z were computed from the position and the ellipsoidal ht.

LB2522

LB2522.The Laplace correction was computed from DEFLEC09 derived deflections.

LB2522

LB2522.The ellipsoidal height was determined by GPS observations

LB2522.and is referenced to NAD 83.

LB2522

LB2522.The geoid height was determined by GEOID09.

LB2522

LB2522.The dynamic height is computed by dividing the NAVD 88
LB2522.geopotential number by the normal gravity value computed on the
LB2522.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
LB2522.degrees latitude (g = 980.6199 gals.).

LB2522

LB2522.The modeled gravity was interpolated from observed gravity values.

LB2522

LB2522;	North	East	Units	Scale	Factor	Converg.
LB2522:SPC IN E	- 550,183.983	57,873.018	MT	0.99998850	-0 19 09.9	
LB2522:SPC IN E	- 1,805,061.95	189,871.73	sFT	0.99998850	-0 19 09.9	
LB2522:SPC IN W	- 550,474.143	978,485.145	MT	1.00004247	+0 35 42.3	
LB2522:SPC IN W	- 1,806,013.92	3,210,246.68	sFT	1.00004247	+0 35 42.3	
LB2522:UTM 16	- 4,450,634.972	571,364.034	MT	0.99966269	+0 32 28.6	

LB2522

LB2522! - Elev Factor x Scale Factor = Combined Factor

LB2522!SPC IN E - 0.99996179 x 0.99998850 = 0.99995029

LB2522!SPC IN W - 0.99996179 x 1.00004247 = 1.00000426

LB2522!UTM 16 - 0.99996179 x 0.99966269 = 0.99962450

LB2522

LB2522:	Primary Azimuth Mark	Grid Az
LB2522:SPC IN E	- EKIN AZ MK	087 02 36.8
LB2522:SPC IN W	- EKIN AZ MK	086 07 44.6
LB2522:UTM 16	- EKIN AZ MK	086 10 58.3

LB2522

LB2522	PID	Reference Object	Distance	Geod. Az
LB2522			dddmmss.s	
LB2522	CC8645	EKIN RM 1	53.688 METERS	08508
LB2522	CC8644	EKIN AZ MK		0864326.9
LB2522	LB2499	ARCADIA JENKINS GLASS CO TANK	APPROX.12.3 KM	1062847.5
LB2522	LB2504	CICERO MUNICIPAL TANK	APPROX.14.9 KM	1221127.9
LB2522	CC8646	EKIN RM 2	47.226 METERS	18349
LB2522	LB2521	WILSON MILK STK NEAR SHERIDAN	APPROX. 9.3 KM	2102809.2

LB2522

LB2522 SUPERSEDED SURVEY CONTROL

LB2522

LB2522 NAD 83(1997)- 40 12 11.10001(N) 086 09 41.31613(W) AD() B

LB2522 ELLIP H (03/12/99) 243.580 (m) GP() 1 2

LB2522 NAD 83(1986)- 40 12 11.10760(N) 086 09 41.33050(W) AD() 1

LB2522 NAD 27 - 40 12 10.97300(N) 086 09 41.35600(W) AD() 1

LB2522 NAVD 88 (03/12/99) 277.8 (m) 911. (f) GPS OBS

LB2522

LB2522.Superseded values are not recommended for survey control.

LB2522.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

LB2522.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

LB2522

LB2522_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TEK7136450634(NAD 83)

LB2522

LB2522_MARKER: DS = TRIANGULATION STATION DISK

LB2522_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

LB2522_SP_SET: CONCRETE POST

LB2522_STAMPING: EKIN 1934
LB2522_MARK LOGO: CGS
LB2522_MAGNETIC: N = NO MAGNETIC MATERIAL
LB2522_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
LB2522+STABILITY: SURFACE MOTION
LB2522_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
LB2522+SATELLITE: SATELLITE OBSERVATIONS - December 01, 2003

LB2522

LB2522 HISTORY	- Date	Condition	Report By
LB2522 HISTORY	- 1934	MONUMENTED	CGS
LB2522 HISTORY	- 1934	GOOD	CGS
LB2522 HISTORY	- 19920715	GOOD	MSE
LB2522 HISTORY	- 19980318	GOOD	SEC
LB2522 HISTORY	- 19980722	GOOD	WOOLPT
LB2522 HISTORY	- 20031201	GOOD	WOOLPT

LB2522

LB2522 STATION DESCRIPTION

LB2522

LB2522'DESCRIBED BY COAST AND GEODETIC SURVEY 1934 (GLA)
LB2522'ABOUT 8.5 MILES SOUTHWEST OF TIPTON, 6.0 MILES SOUTH OF TEETERSBURG,
LB2522'1.0 MILE SOUTH OF EKIN, IN SOUTHEAST ANGLE OF INTERSECTION
LB2522'OF HALF-SECTION ROADS, IN THE NORTHWEST CORNER OF MR. EGLERS
LB2522'PASTURE, 27 FEET SOUTH OF CENTER LINE OF EAST-WEST ROAD, 12 FEET
LB2522'SOUTH OF FENCE, 28 FEET EAST OF CENTER LINE OF NORTH-SOUTH
LB2522'ROAD, 12 FEET EAST OF NORTH-SOUTH FENCE, 16 FEET SOUTHEAST OF
LB2522'CORNER FENCE POST, 33 FEET NORTHWEST OF 4-FOOT ELM TREE, AND 12
LB2522'INCHES UNDERGROUND.

LB2522'

LB2522'TO REACH, GO TO EKIN, THEN SOUTH 1.0 MILE ON GRAVEL ROAD TO THE
LB2522'SECTION ROAD INTERSECTION AND THE STATION IN THE SOUTHEAST ANGLE OF
LB2522'THE INTERSECTION.

LB2522'

LB2522'SURFACE, UNDERGROUND, REFERENCE AND AZIMUTH MARKS ARE STANDARD
LB2522'BRONZE DISKS SET IN CONCRETE.

LB2522'

LB2522'REFERENCE MARK NO. 1 IS 176.14 FEET EAST OF STATION, 29 FEET EAST
LB2522'OF FIRST TELEPHONE POLE, 8 INCHES SOUTH OF FENCE, 15 FEET SOUTH OF
LB2522'THE CENTER LINE OF ROAD AND PROJECTS 8 INCHES. REFERENCE MARK NO.
LB2522'2 IS 154.94 FEET SOUTH OF STATION, 13 FEET SOUTH-SOUTHEAST OF
LB2522'TELEPHONE POLE, 8 INCHES EAST OF FENCE, 16 FEET EAST OF CENTER
LB2522'LINE OF ROAD, 251.42 FEET SOUTHWEST OF REFERENCE MARK NO. 1 AND
LB2522'PROJECTS 10 INCHES.

LB2522'

LB2522'AZIMUTH MARK IS APPROXIMATELY 0.2 MILE EAST OF STATION, 17 FEET
LB2522'NORTH OF CENTER LINE OF ROAD, 62 FEET WEST OF A T-FENCE, ABOUT 125
LB2522'FEET WEST OF A 14-INCH ELM TREE THAT IS ON SAME FENCE LINE, 10
LB2522'INCHES SOUTH OF FENCE AND PROJECTS 10 INCHES.

LB2522'

LB2522'HEIGHT OF LIGHT ABOVE STATION MARK 103 FEET.

LB2522

LB2522 STATION RECOVERY (1934)

LB2522

LB2522'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1934
LB2522'RECOVERED IN GOOD CONDITION.

LB2522
LB2522 STATION RECOVERY (1992)
LB2522
LB2522'RECOVERY NOTE BY MSE CORPORATION 1992
LB2522'RECOVERED IN GOOD CONDITION.
LB2522
LB2522 STATION RECOVERY (1998)
LB2522
LB2522'RECOVERY NOTE BY SCHNEIDER ENGINEERING CORPORATION 1998 (RGR)
LB2522'RECOVERED AS DESCRIBED.
LB2522
LB2522 STATION RECOVERY (1998)
LB2522
LB2522'RECOVERY NOTE BY WOOLPERT CONSULTANTS 1998 (JCB)
LB2522'RECOVERY NOTE BY WOOLPERT LLP 1998 (JCB). STATION IS ABOUT 8.5 MI
LB2522'(13.7 KM) SOUTHWEST OF TIPTON, AND 1.0 MI (1.6 KM) SOUTH OF EKIN. TO
LB2522'REACH STATION FROM INTERSECTION OF STATE ROUTE 28 AND STATE ROUTE 31,
LB2522'GO SOUTH ON STATE ROUTE 31 FOR 4.8 MI (7.7 KM) TO 286TH STREET. THENCE
LB2522'1.75 MI (2.82 KM) WEST ON 286TH STREET TO THE INTERSECTION OF 286TH
LB2522'STREET AND HORTON ROAD. THE STATION IS IN THE SOUTHEAST QUADRANT OF
LB2522'THE INTERSECTION. THE STATION IS A TRIANGULATION STATION DISK SET IN
LB2522'A CONCRETE MONUMENT STAMPED--EKIN 1934--. THE STATION IS 8.8 M (28.9
LB2522'FT) EAST OF THE CENTERLINE OF HORTON ROAD, 8.4 M (27.6 FT) SOUTH OF
LB2522'THE CENTERLINE OF 286TH STREET, AND 5.7 M (18.7 FT) NORTHEAST OF A
LB2522'GREEN TELEPHONE POLE. THE STATION IS 0.4 M (1.3 FT) BELOW THE SURFACE
LB2522'OF THE GROUND.
LB2522
LB2522 STATION RECOVERY (2003)
LB2522
LB2522'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2003
LB2522'RECOVERED IN GOOD CONDITION.

LA0789 *****

LA0789 DESIGNATION - HARBER AZ MK

LA0789 PID - LA0789

LA0789 STATE/COUNTY- IN/ALLEN

LA0789 USGS QUAD - OSSIAN (1981)

LA0789

LA0789 *CURRENT SURVEY CONTROL

LA0789* NAD 83(2007)- 40 57 02.07302(N) 085 10 04.74466(W) NO CHECK

LA0789* NAVD 88 - 243.833 (meters) 799.98 (feet) ADJUSTED

LA0789 EPOCH DATE - 2002.00

LA0789 X - 406,377.331 (meters) COMP

LA0789 Y - -4,807,203.117 (meters) COMP

LA0789 Z - 4,158,417.195 (meters) COMP

LA0789 LAPLACE CORR- 2.38 (seconds) DEFLEC09

LA0789 ELLIP HEIGHT- 210.462 (meters) (02/10/07) NO CHECK

LA0789 GEOID HEIGHT- -33.36 (meters) GEOID09

LA0789 DYNAMIC HT - 243.727 (meters) 799.63 (feet) COMP

LA0789

LA0789 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	LA0789	HARBER AZ MK	0.67	0.51	1.86

LA0789 -----

LA0789 MODELED GRAV- 980,185.0 (mgal) NAVD 88

LA0789

LA0789 VERT ORDER - SECOND CLASS 0

LA0789

LA0789.The horizontal coordinates were established by GPS observations
 LA0789.and adjusted by the National Geodetic Survey in February 2007.

LA0789

LA0789.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 LA0789.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

LA0789

LA0789.The horizontal coordinates are valid at the epoch date displayed above
 LA0789.which is a decimal equivalence of Year/Month/Day.

LA0789

LA0789.No horizontal observational check was made to the station.

LA0789.

LA0789.The orthometric height was determined by differential leveling and
 LA0789.adjusted in June 1991.

LA0789

LA0789.Photographs <http://www.ngs.noaa.gov/cgi-bin/get_image.prl?PROCESSING=list&PID=LA0789>are available for this station.

LA0789

LA0789.The X, Y, and Z were computed from the position and the ellipsoidal ht.

LA0789

LA0789.The Laplace correction was computed from DEFLEC09 derived deflections.

LA0789

LA0789.The ellipsoidal height was determined by GPS observations

LA0789.and is referenced to NAD 83.

LA0789

LA0789.The geoid height was determined by GEOID09.

LA0789

LA0789.The dynamic height is computed by dividing the NAVD 88

LA0789.geopotential number by the normal gravity value computed on the

LA0789.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

LA0789.degrees latitude (g = 980.6199 gals.).

LA0789

LA0789.The modeled gravity was interpolated from observed gravity values.

LA0789

LA0789; North East Units Scale Factor Converg.

LA0789;SPC IN E - 633,189.413 141,986.708 MT 0.99998836 +0 19 36.6

LA0789;SPC IN E - 2,077,388.93 465,834.72 sFT 0.99998836 +0 19 36.6

LA0789;UTM 16 - 4,534,886.513 654,194.089 MT 0.99989264 +1 12 03.4

LA0789

LA0789! - Elev Factor x Scale Factor = Combined Factor

LA0789!SPC IN E - 0.99996699 x 0.99998836 = 0.99995535

LA0789!UTM 16 - 0.99996699 x 0.99989264 = 0.99985963

LA0789

LA0789 SUPERSEDED SURVEY CONTROL

LA0789

LA0789 NAD 83(1997)- 40 57 02.07314(N) 085 10 04.74449(W) AD() 1

LA0789 ELLIP H (11/27/02) 210.475 (m) GP() 4 1

LA0789 NAD 83(1997)- 40 57 02.07303(N) 085 10 04.74457(W) AD() 1

LA0789 ELLIP H (03/18/02) 210.476 (m) GP() 4 1

LA0789 NAVD 88 (03/18/02) 243.83 (m) 800.0 (f) LEVELING 3

LA0789 NGVD 29 (??/??/92) 243.98 (m) 800.5 (f) COMPUTED 2 0

LA0789

LA0789.Superseded values are not recommended for survey control.

LA0789.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

LA0789.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

LA0789

LA0789_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TFL5419434886(NAD 83)

LA0789

LA0789_MARKER: DB = BENCH MARK DISK

LA0789_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

LA0789_SP_SET: SET IN TOP OF CONCRETE MONUMENT

LA0789_STAMPING: HARBER 1946

LA0789_MARK LOGO: CGS

LA0789_PROJECTION: PROJECTING 25 CENTIMETERS

LA0789_MAGNETIC: N = NO MAGNETIC MATERIAL

LA0789_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

LA0789+STABILITY: SURFACE MOTION

LA0789_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

LA0789+SATELLITE: SATELLITE OBSERVATIONS - May 01, 2001

LA0789

LA0789 HISTORY - Date Condition Report By

LA0789 HISTORY - 1946 MONUMENTED CGS

LA0789 HISTORY - 1968 GOOD CGS

LA0789 HISTORY - 20010501 GOOD WOOLPT

LA0789

LA0789 STATION DESCRIPTION

LA0789

LA0789'DESCRIBED BY COAST AND GEODETIC SURVEY 1968

LA0789'4.8 MI N FROM OSSIAN.

LA0789'4.85 MILES NORTH ALONG S.R.1 FROM THE POST OFFICE AT OSSIAN, 0.15
LA0789'MILE NORTH OF ST. ALOYSIUS CHURCH AND SCHOOL, 41 FT. WEST OF THE
LA0789'C/L OF THE HIGHWAY, 85 FT. WEST-NORTHWEST AND ACROSS THE ROAD
LA0789'FROM POLE 2493, 2.2 FT. SOUTHWEST OF A PWP 1 FT. EAST OF THE FENCE
LA0789'LINE, 2 FT. NORTH OF A STEEL WITNESS POST, ABOUT LEVEL WITH THE
LA0789'HIGHWAY AND SET IN THE TOP OF A CONCRETE POST PROJECTING 6 INCHES.

LA0789

STATION RECOVERY (2001)

LA0789

LA0789

LA0789'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2001 (ARL)

LA0789'THE STATION IS LOCATED APPROXIMATELY 9.6 KM (6 MI) SOUTHWEST OF
LA0789'WAYNE, 4.8 KM (3 MI) SOUTHWEST OF NINE MILE, AND 1.6 KM (1 MI)
LA0789'NORTHEAST OF

LA0789'YODER.

LA0789'

LA0789'TO REACH THE STATION FROM THE JUNCTION OF INTERSTATE 469 (EXIT 6)
LA0789'AND INDIANA ROUTE 1 SOUTH OF FORT WAYNE, PROCEED SOUTH 0.35 MI TO
LA0789'THE STATION ON THE RIGHT.

LA0789'

LA0789'THE STATION IS LOCATED 23.24 M ON AN AZIMUTH OF 185 DEGREES FROM
LA0789'UTILITY POLE-- A706-65--, 19.85 M ON AN AZIMUTH OF 0 DEGREES FROM
LA0789'UTILITY POLE-- A706-109, AND 19.54 M ON AN AZIMUTH OF 280 DEGREES
LA0789'FROM THE CENTERLINE OF INDIANA ROUTE 1. THE STATION IS A USCGS
LA0789'AZIMUTH MARK DISK STAMPED-- HARBER 1946-- SET IN THE TOP OF A 0.3 M
LA0789'DIAMETER SQUARE CONCRETE MONUMENT PROJECT 0.25 M ABOVE THE
LA0789'GROUND.

MD0583 *****

MD0583 DESIGNATION - HILLSDALE 1

MD0583 PID - MD0583

MD0583 STATE/COUNTY- MI/HILLSDALE

MD0583 USGS QUAD - HILLSDALE (1979)

MD0583

MD0583 *CURRENT SURVEY CONTROL

MD0583* NAD 83(2007)- 41 55 22.21280(N) 084 37 55.14102(W) ADJUSTED

MD0583* NAVD 88 - 334.952 (meters) 1098.92 (feet) ADJUSTED

MD0583 EPOCH DATE - 2002.00

MD0583 X - 444,650.962 (meters) COMP

MD0583 Y - -4,732,108.780 (meters) COMP

MD0583 Z - 4,239,431.857 (meters) COMP

MD0583 LAPLACE CORR- -2.69 (seconds) DEFLEC09

MD0583 ELLIP HEIGHT- 301.070 (meters) (09/24/08) ADJUSTED

MD0583 GEOID HEIGHT- -33.90 (meters) GEOID09

MD0583 DYNAMIC HT - 334.826 (meters) 1098.51 (feet) COMP

MD0583 MODELED GRAV- 980,235.7 (mgal) NAVD 88

MD0583

MD0583 HORZ ORDER - FIRST

MD0583 VERT ORDER - SECOND CLASS 0

MD0583 ELLP ORDER - THIRD CLASS I

MD0583

MD0583.The horizontal coordinates were established by GPS observations

MD0583.and adjusted by the MI DEPT OF TRANSP in September 2008.

MD0583

MD0583.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).

MD0583.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

MD0583

MD0583.The horizontal coordinates are valid at the epoch date displayed above

MD0583.which is a decimal equivalence of Year/Month/Day.

MD0583

MD0583.The orthometric height was determined by differential leveling and

MD0583.adjusted in June 1991.

MD0583

MD0583.Photographs <http://www.ngs.noaa.gov/cgi-bin/get_image.prl?PROCESSING=list&PID=MD0583>are available for this station.

MD0583

MD0583.The X, Y, and Z were computed from the position and the ellipsoidal ht.

MD0583

MD0583.The Laplace correction was computed from DEFLEC09 derived deflections.

MD0583

MD0583.The ellipsoidal height was determined by GPS observations

MD0583.and is referenced to NAD 83.

MD0583

MD0583.The geoid height was determined by GEOID09.

MD0583

MD0583.The dynamic height is computed by dividing the NAVD 88

MD0583.geopotential number by the normal gravity value computed on the

MD0583.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
MD0583.degrees latitude (g = 980.6199 gals.).

MD0583

MD0583.The modeled gravity was interpolated from observed gravity values.

MD0583

MD0583; North East Units Scale Factor Converg.

MD0583;SPC MI S - 47,003.679 3,977,990.762 MT 1.00004665 -0 10 50.0

MD0583;SPC MI S - 154,211.55 13,051,150.79 iFT 1.00004665 -0 10 50.0

MD0583;UTM 16 - 4,643,920.819 696,356.329 MT 1.00007446 +1 34 57.5

MD0583

MD0583! - Elev Factor x Scale Factor = Combined Factor

MD0583!SPC MI S - 0.99995278 x 1.00004665 = 0.99999943

MD0583!UTM 16 - 0.99995278 x 1.00007446 = 1.00002724

MD0583

MD0583 SUPERSEDED SURVEY CONTROL

MD0583

MD0583 NAVD 88 (09/24/08) 335.0 (m) 1099. (f) GPS OBS

MD0583 NGVD 29 (??/??/92) 335.061 (m) 1099.28 (f) ADJ UNCH 2 0

MD0583

MD0583.Superseded values are not recommended for survey control.

MD0583.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

MD0583.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to
determine how the superseded data were derived.

MD0583

MD0583_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TFM9635643920(NAD 83)

MD0583

MD0583_MARKER: DB = BENCH MARK DISK

MD0583_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

MD0583_SP_SET: SET IN TOP OF CONCRETE MONUMENT

MD0583_STAMPING: HILLSDALE NO 1 1934

MD0583_MARK LOGO: CGS

MD0583_PROJECTION: FLUSH

MD0583_MAGNETIC: N = NO MAGNETIC MATERIAL

MD0583_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

MD0583+STABILITY: SURFACE MOTION

MD0583_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

MD0583+SATELLITE: SATELLITE OBSERVATIONS - December 30, 2008

MD0583

MD0583 HISTORY - Date Condition Report By

MD0583 HISTORY - 1934 MONUMENTED CGS

MD0583 HISTORY - 1934 GOOD CGS

MD0583 HISTORY - 20000826 GOOD USPSQD

MD0583 HISTORY - 20030910 GOOD INDIV

MD0583 HISTORY - 20070702 GOOD MIDT

MD0583 HISTORY - 20081230 GOOD GEOCAC

MD0583

MD0583 STATION DESCRIPTION

MD0583

MD0583'DESCRIBED BY COAST AND GEODETIC SURVEY 1934

MD0583'AT HILLSDALE.

MD0583'IN HILLSDALE, HILLSDALE COUNTY, AT THE INTERSECTION OF HILLSDALE

MD0583'AND BROAD STREETS, 24 YARDS SOUTH OF THE SOUTH ENTRANCE TO THE

MD0583'CITY HALL, 29 YARDS NORTHWEST OF THE WEST CORNER OF THE POST

MD0583'OFFICE, AT THE APEX OF THE CITY HALL LAWN, 8 YARDS SOUTH OF

MD0583'THE MEMORIAL CANNON, AND 6 FEET NORTH OF A LAMPPOST. A STANDARD
MD0583'DISK, STAMPED HILLSDALE NO 1 1934 AND SET IN THE TOP OF A
MD0583'CONCRETE POST.

MD0583

MD0583 STATION RECOVERY (2000)

MD0583

MD0583'RECOVERY NOTE BY US POWER SQUADRON 2000 (DRR)

MD0583'NO CANON IN FRONT OF BUILDING. BUILDING NOW POLICE DEPT. BUILDING HAS

MD0583'FOUR LARGE PILLARS IN FRONT.

MD0583

MD0583 STATION RECOVERY (2003)

MD0583

MD0583'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2003

MD0583'RECOVERED IN GOOD CONDITION.

MD0583

MD0583 STATION RECOVERY (2007)

MD0583

MD0583'RECOVERY NOTE BY MICHIGAN DEPARTMENT OF TRANSPORTATION 2007 (AS)

MD0583'MARK IS PROTRUDING 10 CM (4 INCHES) ABOVE GROUND SURFACE. RECOVERED AS

MD0583'DESCRIBED.

MD0583

MD0583 STATION RECOVERY (2008)

MD0583

MD0583'RECOVERY NOTE BY GEOCACHING 2008 (MTT)

MD0583'MONUMENT PROJECTING 3 INCHES ABOVE GROUND LEVEL AND IS NOW ADJACENT TO

MD0583'A SIDEWALK. THE MEMORIAL CANNON HAS BEEN REMOVED FROM THE AREA.

MD0583'COORDINATES WERE N 41 55'22.4, W 084 37'55.0 USING HH2 WITH 12 FEET OF

MD0583'ACCURACY.

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HZ0762 *****
HZ0762 DESIGNATION - I71 T 32 RM 1
HZ0762 PID - HZ0762
HZ0762 STATE/COUNTY- KY/GALLATIN
HZ0762 USGS QUAD - VERONA (1981)
HZ0762
HZ0762 *CURRENT SURVEY CONTROL
HZ0762
HZ0762* NAD 83(2007)- 38 48 00.30985(N) 084 43 58.83266(W) ADJUSTED
HZ0762* NAVD 88 - 243.026 (meters) 797.33 (feet) ADJUSTED
HZ0762
HZ0762 EPOCH DATE - 2002.00
HZ0762 X - 456,912.443 (meters) COMP
HZ0762 Y - -4,956,410.876 (meters) COMP
HZ0762 Z - 3,975,176.415 (meters) COMP
HZ0762 LAPLACE CORR- 1.20 (seconds) DEFLEC09
HZ0762 ELLIP HEIGHT- 209.140 (meters) (02/10/07) ADJUSTED
HZ0762 GEOID HEIGHT- -33.89 (meters) GEOID09
HZ0762 DYNAMIC HT - 242.871 (meters) 796.82 (feet) COMP
HZ0762
HZ0762 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----
HZ0762 Type PID Designation North East Ellip
HZ0762 -----
HZ0762 NETWORK HZ0762 I71 T 32 RM 1 0.55 0.47 0.78
HZ0762 -----
HZ0762 MODELED GRAV- 979,985.7 (mgal) NAVD 88
HZ0762
HZ0762 VERT ORDER - SECOND CLASS 0
HZ0762
HZ0762.The horizontal coordinates were established by GPS observations
HZ0762.and adjusted by the National Geodetic Survey in February 2007.
HZ0762
HZ0762.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
HZ0762.See National Readjustment <http://www.ngs.noaa.gov/NationalReadjustment> for more
information.
HZ0762
HZ0762.The horizontal coordinates are valid at the epoch date displayed above
HZ0762.which is a decimal equivalence of Year/Month/Day.
HZ0762
HZ0762.The orthometric height was determined by differential leveling and
HZ0762.adjusted in June 1991.
HZ0762
HZ0762.The X, Y, and Z were computed from the position and the ellipsoidal ht.
HZ0762
HZ0762.The Laplace correction was computed from DEFLEC09 derived deflections.
HZ0762
HZ0762.The ellipsoidal height was determined by GPS observations
HZ0762.and is referenced to NAD 83.
HZ0762
HZ0762.The geoid height was determined by GEOID09.
HZ0762
HZ0762.The dynamic height is computed by dividing the NAVD 88

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HZ0762.geopotential number by the normal gravity value computed on the HZ0762.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45 HZ0762.degrees latitude (g = 980.6199 gals.).

HZ0762

HZ0762.The modeled gravity was interpolated from observed gravity values.

HZ0762

HZ0762;	North	East	Units	Scale	Factor	Converg.
HZ0762;SPC KY1Z	- 1,274,261.104	1,588,346.971	MT	1.00003489	+0 37 27.8	
HZ0762;SPC KY1Z	- 4,180,638.31	5,211,101.69	sFT	1.00003489	+0 37 27.8	
HZ0762;SPC KY N	- 144,418.494	458,042.252	MT	0.99997891	-0 18 01.7	
HZ0762;SPC KY N	- 473,813.01	1,502,760.29	sFT	0.99997891	-0 18 01.7	
HZ0762;UTM 16	- 4,297,033.404	696,865.064	MT	1.00007726	+1 25 15.5	

HZ0762

HZ0762! - Elev Factor x Scale Factor = Combined Factor

HZ0762!SPC KY1Z - 0.99996719 x 1.00003489 = 1.00000208

HZ0762!SPC KY N - 0.99996719 x 0.99997891 = 0.99994610

HZ0762!UTM 16 - 0.99996719 x 1.00007726 = 1.00004444

HZ0762

SUPERSEDED SURVEY CONTROL

HZ0762

HZ0762 NAD 83(1993)- 38 48 00.30978(N) 084 43 58.83271(W) AD() 1

HZ0762 ELLIP H (04/07/03) 209.176 (m) GP() 3 1

HZ0762 NAVD 88 (04/07/03) 243.03 (m) 797.3 (f) LEVELING 3

HZ0762 NGVD 29 (??/??/92) 243.225 (m) 797.98 (f) ADJ UNCH 2 0

HZ0762

HZ0762.Superseded values are not recommended for survey control.

HZ0762.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

HZ0762.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

HZ0762

HZ0762_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFH9686597033(NAD 83)

HZ0762

HZ0762_MARKER: DR = REFERENCE MARK DISK

HZ0762_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

HZ0762_SP_SET: SET IN TOP OF CONCRETE MONUMENT

HZ0762_STAMPING: I-71 T-32 NO 1 1964

HZ0762_MARK LOGO: KYDT

HZ0762_PROJECTION: RECESSED 10 CENTIMETERS

HZ0762_MAGNETIC: N = NO MAGNETIC MATERIAL

HZ0762_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

HZ0762+STABILITY: SURFACE MOTION

HZ0762_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

HZ0762+SATELLITE: SATELLITE OBSERVATIONS - September 19, 2002

HZ0762

HZ0762 HISTORY - Date Condition Report By

HZ0762 HISTORY - 1964 MONUMENTED PAS

HZ0762 HISTORY - 1966 GOOD CGS

HZ0762 HISTORY - 20020919 GOOD WOOLPT

HZ0762

STATION DESCRIPTION

HZ0762

HZ0762'DESCRIBED BY COAST AND GEODETIC SURVEY 1966

HZ0762'4.2 MI W FROM VERONA.

HZ0762'THIS MARK IS LOCATED AT THE I-71 T-32 1964 TRAVERSE STATION SITE,

HZ0762'3.35 MILES SOUTHWEST ALONG STATE ROUTE 16 FROM THE JUNCTION OF HZ0762'STATE ROUTE 14 AT THE POST OFFICE IN VERONA, THENCE 0.95 MILE WEST HZ0762'AND NORTHWEST ON WALNUT LICK ROAD TO A FORK, THENCE LEFT, WEST HZ0762'AND NORTH ON WALNUT LICK ROAD FOR 1.1 MILES TO THE OVERPASS HZ0762'ON INTERSTATE ROUTE 71. CONTINUE NORTH ON WALNUT LICK ROAD HZ0762'(RELOCATED) FOR 0.1 MILE TO OLD WALNUT LICK ROAD ON THE RIGHT, HZ0762'THENCE RIGHT, EASTERLY, ON OLD WALNUT LICK ROAD FOR 0.15 MILE HZ0762'TO A GRAVELED DRIVEWAY ON THE LEFT WHERE OLD WALNUT KICK ROAD HZ0762'DEAD-ENDS AT INTERSTATE ROUTE 71 RIGHT-OF-WAY FENCE, THENCE LEFT, HZ0762'NORTHERLY ON THE GRAVELED DRIVEWAY ABOUT 150 FEET TO THE MARK ON HZ0762'THE RIGHT. IT IS 100 FEET NORTHWEST OF A GUYED, POWERLINE HZ0762'TRANSFORMER POLE, 10.0 FEET NORTH OF A METAL WITNESS POST AND SIGN, HZ0762'10 FEET EAST OF THE APPROXIMATE CENTER OF THE GRAVELED DRIVEWAY, HZ0762'AND 2 FEET EAST OF A FENCE. IT IS A KENTUCKY DEPARTMENT OF HZ0762'HIGHWAYS SURVEY REFERENCE MARK DISK SET IN THE TOP OF A 10-INCH, HZ0762'SQUARE, CONCRETE MONUMENT THAT PROJECTS 1 INCH AND THE DISK IS HZ0762'STAMPED I-71 T-32 NO. 1 1964.

HZ0762

STATION RECOVERY (2002)

HZ0762

HZ0762'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2002 (BJM)

HZ0762'THIS STATION WAS RECOVERED AS DESCRIBED AND FOUND IN GOOD CONDITION.

HZ0762'

HZ0762'--ADDITIONAL TIES--THE STATION IS 8.0 FEET EAST OF THE CENTERLINE OF HZ0762'PRIVATE GRAVEL DRIVE,

HZ0762'107.3 FEET NORTH OF THE T-INTERSECTION OF FENCE LINES, 91.6 FEET

HZ0762'NORTH-NORTHWEST OF

HZ0762'UTILITY POLE --330-2118 FUS H4083--, AND 5.0 FEET WEST-SOUTHWEST OF A

HZ0762'FENCE LINE AND A WHITE

HZ0762'WITNESS POST.

HZ0762'

HZ0762'--NOTE--THERE ARE NO VISIBLE OBSTRUCTIONS EXTENDING HIGHER THAN 15

HZ0762'DEGREES ABOVE THE

HZ0762'HORIZON ARE.

HZ0762'

HZ0762'

HZ0762'

JA0200 *****
 JA0200 DESIGNATION - J 279
 JA0200 PID - JA0200
 JA0200 STATE/COUNTY- IN/WASHINGTON
 JA0200 USGS QUAD - BECKS MILL (1994)
 JA0200
 JA0200 *CURRENT SURVEY CONTROL
 JA0200
 JA0200* NAD 83(2007)- 38 36 47.36601(N) 086 08 30.24623(W) ADJUSTED
 JA0200* NAVD 88 - 248.416 (meters) 815.01 (feet) ADJUSTED
 JA0200
 JA0200 EPOCH DATE - 2002.00
 JA0200 X - 335,797.300 (meters) COMP
 JA0200 Y - -4,979,097.613 (meters) COMP
 JA0200 Z - 3,958,986.387 (meters) COMP
 JA0200 LAPLACE CORR- -0.81 (seconds) DEFLEC09
 JA0200 ELLIP HEIGHT- 215.020 (02/07/12) ADJUSTED
 JA0200 GEOID HEIGHT- -33.39 (meters) GEOID09
 JA0200 DYNAMIC HT - 248.251 (meters) 814.47 (feet) COMP
 JA0200 MODELED GRAV- 979,957.1 (mgal) NAVD 88
 JA0200
 JA0200 HORZ ORDER - FIRST
 JA0200 VERT ORDER - FIRST CLASS II
 JA0200 ELLP ORDER - FIFTH CLASS II
 JA0200
 JA0200.The horizontal coordinates were established by GPS observations
 JA0200.and adjusted by the TERRA SURV in February 2012.
 JA0200
 JA0200.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 JA0200.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.
 JA0200
 JA0200.The horizontal coordinates are valid at the epoch date displayed above
 JA0200.which is a decimal equivalence of Year/Month/Day.
 JA0200
 JA0200.The orthometric height was determined by differential leveling and
 JA0200.adjusted in June 1991.
 JA0200
 JA0200.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 JA0200
 JA0200.The Laplace correction was computed from DEFLEC09 derived deflections.
 JA0200
 JA0200.The ellipsoidal height was determined by GPS observations
 JA0200.and is referenced to NAD 83.
 JA0200
 JA0200.The geoid height was determined by GEOID09.
 JA0200
 JA0200.The dynamic height is computed by dividing the NAVD 88
 JA0200.geopotential number by the normal gravity value computed on the
 JA0200.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 JA0200.degrees latitude (g = 980.6199 gals.).
 JA0200

JA0200.The modeled gravity was interpolated from observed gravity values.

JA0200

JA0200;	North	East	Units	Scale	Factor	Converg.
JA0200;SPC IN E	- 373,660.661	58,624.659	MT	0.99998774	-0 17 47.3	
JA0200;SPC IN E	- 1,225,918.35	192,337.74	sFT	0.99998774	-0 17 47.3	
JA0200;UTM 16	- 4,274,198.921	574,722.270	MT	0.99966876	+0 32 08.3	

JA0200

JA0200! - Elev Factor x Scale Factor = Combined Factor

JA0200!SPC IN E - 0.99996626 x 0.99998774 = 0.99995400

JA0200!UTM 16 - 0.99996626 x 0.99966876 = 0.99963503

JA0200

SUPERSEDED SURVEY CONTROL

JA0200

JA0200	NAVD 88 (02/07/12)	248.42 (m)	815.0 (f)	LEVELING	3
JA0200	NGVD 29 (??/??/92)	248.530 (m)	815.39 (f)	ADJ UNCH	1 2

JA0200

JA0200.Superseded values are not recommended for survey control.

JA0200.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JA0200.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

JA0200

JA0200_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SEH7472274198(NAD 83)

JA0200

JA0200_MARKER: DB = BENCH MARK DISK

JA0200_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JA0200_SP_SET: SET IN TOP OF CONCRETE MONUMENT

JA0200_STAMPING: J 279 1949

JA0200_MARK LOGO: CGS

JA0200_PROJECTION: FLUSH

JA0200_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JA0200+STABILITY: SURFACE MOTION

JA0200_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JA0200+SATELLITE: SATELLITE OBSERVATIONS - April 11, 2011

JA0200

JA0200 HISTORY - Date Condition Report By

JA0200 HISTORY - 1949 MONUMENTED CGS

JA0200 HISTORY - 20110411 GOOD INLAND

JA0200

STATION DESCRIPTION

JA0200

JA0200'DESCRIBED BY COAST AND GEODETIC SURVEY 1949

JA0200'3.4 MI NW FROM SALEM.

JA0200'ABOUT 2.9 MILES NORTHWEST ALONG THE CHICAGO, INDIANAPOLIS AND

JA0200'LOUISVILLE RAILWAY FROM THE STATION AT SALEM, THENCE ABOUT 0.5

JA0200'MILE SOUTH ALONG A GRAVEL ROAD, AT A CROSS ROAD, 83 FEET

JA0200'NORTHWEST OF THE CENTER LINES OF THE ROADS AT THE CROSSING, 47

JA0200'FEET NORTH OF THE CENTER LINE OF STATE HIGHWAY 60, 30 FEET WEST

JA0200'OF THE CENTER LINE OF THE ROAD NORTH, 23.7 FEET NORTHWEST OF THE

JA0200'WEST END OF A 20-INCH PIPE CULVERT UNDER THE ROAD NORTH, 15 FEET

JA0200'SOUTHWEST OF THE R/W MARKER POST, 8 FEET EAST OF A FENCE CORNER,

JA0200'1.5 FEET WEST OF A WHITE WOODEN WITNESS POST, ABOUT 4 FEET ABOVE

JA0200'THE LEVEL OF THE HIGHWAY AND SET IN THE TOP OF A CONCRETE POST

JA0200'PROJECTING 3 INCHES.

JA0200

JA0200 STATION RECOVERY (2011)
JA0200
JA0200'RECOVERY NOTE BY INDEPENDENT LAND SURVEYING INC 2011 (JMI)
JA0200'RECOVERED AS DESCRIBED.

JZ2225 *****

JZ2225 CBN - This is a Cooperative Base Network Control Station.

JZ2225 DESIGNATION - K 268

JZ2225 PID - JZ2225

JZ2225 STATE/COUNTY- IN/BARTHOLOMEW

JZ2225 USGS QUAD - ELIZABETHTOWN (1993)

JZ2225

JZ2225 *CURRENT SURVEY CONTROL

JZ2225

JZ2225* NAD 83(2007)- 39 13 26.47033(N) 085 50 24.88145(W) ADJUSTED

JZ2225* NAVD 88 - 194.349 (meters) 637.63 (feet) ADJUSTED

JZ2225

JZ2225 EPOCH DATE - 2002.00

JZ2225 X - 358,899.122 (meters) COMP

JZ2225 Y - -4,934,728.562 (meters) COMP

JZ2225 Z - 4,011,715.516 (meters) COMP

JZ2225 LAPLACE CORR- -2.33 (seconds) DEFLECO9

JZ2225 ELLIP HEIGHT- 160.400 (meters) (02/10/07) ADJUSTED

JZ2225 GEOID HEIGHT- -33.93 (meters) GEOID09

JZ2225 DYNAMIC HT - 194.229 (meters) 637.23 (feet) COMP

JZ2225

JZ2225 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	JZ2225	K 268	0.73	0.51	1.84

JZ2225

JZ2225 MODELED GRAV- 980,008.0 (mgal) NAVD 88

JZ2225

JZ2225 VERT ORDER - SECOND CLASS 0

JZ2225

JZ2225.The horizontal coordinates were established by GPS observations
 JZ2225.and adjusted by the National Geodetic Survey in February 2007.

JZ2225

JZ2225.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 JZ2225.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.

JZ2225

JZ2225.The horizontal coordinates are valid at the epoch date displayed above
 JZ2225.which is a decimal equivalence of Year/Month/Day.

JZ2225

JZ2225.The orthometric height was determined by differential leveling and
 JZ2225.adjusted in June 1991.

JZ2225

JZ2225.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JZ2225

JZ2225.The Laplace correction was computed from DEFLECO9 derived deflections.

JZ2225

JZ2225.The ellipsoidal height was determined by GPS observations
 JZ2225.and is referenced to NAD 83.

JZ2225

JZ2225.The geoid height was determined by GEOID09.

JZ2225

JZ2225.The dynamic height is computed by dividing the NAVD 88
JZ2225.geopotential number by the normal gravity value computed on the
JZ2225.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
JZ2225.degrees latitude (g = 980.6199 gals.).

JZ2225

JZ2225.The modeled gravity was interpolated from observed gravity values.

JZ2225

JZ2225; North East Units Scale Factor Converg.

JZ2225;SPC IN E - 441,379.936 85,011.571 MT 0.99996943 -0 06 35.1

JZ2225;SPC IN E - 1,448,094.01 278,908.80 sFT 0.99996943 -0 06 35.1

JZ2225;UTM 16 - 4,342,277.489 600,109.174 MT 0.99972340 +0 44 00.4

JZ2225

JZ2225! - Elev Factor x Scale Factor = Combined Factor

JZ2225!SPC IN E - 0.99997484 x 0.99996943 = 0.99994427

JZ2225!UTM 16 - 0.99997484 x 0.99972340 = 0.99969824

JZ2225

JZ2225 SUPERSEDED SURVEY CONTROL

JZ2225

JZ2225 NAD 83(1997)- 39 13 26.47053(N) 085 50 24.88135(W) AD() B

JZ2225 ELLIP H (04/10/98) 160.415 (m) GP() 4 1

JZ2225 NAVD 88 (04/10/98) 194.35 (m) 637.6 (f) LEVELING 3

JZ2225 NGVD 29 (??/??/92) 194.472 (m) 638.03 (f) ADJ UNCH 2 0

JZ2225

JZ2225.Superseded values are not recommended for survey control.

JZ2225.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JZ2225.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to
determine how the superseded data were derived.

JZ2225

JZ2225_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFJ0010942277(NAD 83)

JZ2225

JZ2225_MARKER: DB = BENCH MARK DISK

JZ2225_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JZ2225_SP_SET: SET IN TOP OF CONCRETE MONUMENT

JZ2225_STAMPING: K 268 1947

JZ2225_MARK LOGO: CGS

JZ2225_PROJECTION: FLUSH

JZ2225_MAGNETIC: N = NO MAGNETIC MATERIAL

JZ2225_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JZ2225+STABILITY: SURFACE MOTION

JZ2225_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JZ2225+SATELLITE: SATELLITE OBSERVATIONS - July 06, 2011

JZ2225

JZ2225 HISTORY - Date Condition Report By

JZ2225 HISTORY - 1947 MONUMENTED CGS

JZ2225 HISTORY - 19970819 GOOD SEC

JZ2225 HISTORY - 20010529 GOOD WOOLPT

JZ2225 HISTORY - 20100317 GOOD AEROME

JZ2225 HISTORY - 20100908 GOOD INDIV

JZ2225 HISTORY - 20110706 GOOD INDIV

JZ2225 HISTORY - 20110706 GOOD INDIV

JZ2225

JZ2225 STATION DESCRIPTION

JZ2225

JZ2225'DESCRIBED BY COAST AND GEODETIC SURVEY 1947

JZ2225'1.1 MI W FROM PETERSVILLE.

JZ2225'ABOUT 1.1 MILE WEST ALONG STATE HIGHWAY 46 FROM THE CROSSROADS
JZ2225'AT PETERSVILLE, ABOUT 35 YARDS NORTHEAST AND ACROSS THE HIGHWAY
JZ2225'FROM A SINCLAIR SERVICE STATION AND STORE, AT THE JUNCTION WITH
JZ2225'A FARM ROAD LEADING NORTH TO GEORGE ROBERTSONS FARM HOUSE, 30
JZ2225'FEET NORTH OF THE CENTER LINE OF THE HIGHWAY, 24 FEET WEST OF THE
JZ2225'CENTER LINE OF THE FARM ROAD, 8 FEET WEST OF A CONCRETE FENCE
JZ2225'POST, 88 FEET EAST OF TELEPHONE POLE NUMBER 104, 1 FOOT SOUTH
JZ2225'OF A FENCE LINE, 2 FEET EAST OF A WHITE WOODEN WITNESS POST,
JZ2225'ABOUT LEVEL WITH THE HIGHWAY AND SET IN THE TOP OF A CONCRETE
JZ2225'POST PROJECTING ABOUT 5 INCHES.

JZ2225

STATION RECOVERY (1997)

JZ2225

JZ2225'RECOVERY NOTE BY SCHNEIDER ENGINEERING CORPORATION 1997 (RGR)
JZ2225'THE STATION IS LOCATED AT 5.95 KM (3.70 MI) WEST OF THE JUNCTION OF
JZ2225'STATE ROAD 9 AND HIGHWAY 46, ALONG THE NORTH SIDE OF HIGHWAY 46, WEST
JZ2225'OF A DRIVEWAY AND ACROSS FROM BUSHS MARKET. OWNERSHIP--STATE OF
JZ2225'INDIANA. CONTACT IS HENRY ALDRIDGE, 317-232-6764, INDOT. IT IS 7.62
JZ2225'METERS (25.00 FT) WEST OF THE CENTER OF A DRIVEWAY ENTRANCE TO
JZ2225'PROPERTY OWNED BY TIM ECKLEMAN, 9.14 METERS (29.99 FT) NORTH OF
JZ2225'HIGHWAY 46 CENTERLINE, 2.26 METERS (7.41 FT) WEST OF THE CENTER OF A
JZ2225'CONCRETE GATE POST WEST OF THE DRIVEWAY, 26.76 METERS (87.80 FT) EAST
JZ2225'OF A TELEPHONE POLE, FLUSH WITH GROUND AND ABOUT 6 INCHES BELOW THE
JZ2225'LEVEL OF THE ROAD.

JZ2225

STATION RECOVERY (2001)

JZ2225

JZ2225'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2001 (BJM)
JZ2225'RECOVERED AS DESCRIBED.

JZ2225'

JZ2225

STATION RECOVERY (2010)

JZ2225

JZ2225'RECOVERY NOTE BY AERO METRIC INC 2010
JZ2225'RECOVERED IN GOOD CONDITION.

JZ2225

STATION RECOVERY (2010)

JZ2225

JZ2225'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2010 (ABC)
JZ2225'MARK RECOVERED IN GOOD CONDITION AS DESCRIBED.

JZ2225

STATION RECOVERY (2011)

JZ2225

JZ2225'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011 (USI)
JZ2225'RECOVERED FOR INDIANA ORTHO AND LIDAR PROGRAM

JZ2225

STATION RECOVERY (2011)

JZ2225

JZ2225'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011 (USI)
JZ2225'RECOVERED FOR INDIANA ORTHO AND LIDAR PROGRAM

DL8657 *****

DL8657 DESIGNATION - KYTE RM 2

DL8657 PID - DL8657

DL8657 STATE/COUNTY- KY/JEFFERSON

DL8657 USGS QUAD - ANCHORAGE (1987)

DL8657

DL8657 *CURRENT SURVEY CONTROL

DL8657* NAD 83(2007)- 38 16 39.13985(N) 085 35 54.62546(W) ADJUSTED

DL8657* NAVD 88 - 182.927 (meters) 600.15 (feet) ADJUSTED

DL8657 EPOCH DATE - 2002.00

DL8657 X - 384,762.752 (meters) COMP

DL8657 Y - -4,998,735.460 (meters) COMP

DL8657 Z - 3,929,766.473 (meters) COMP

DL8657 LAPLACE CORR- 0.80 (seconds) DEFLEC09

DL8657 ELLIP HEIGHT- 149.536 (meters) (02/25/11) ADJUSTED

DL8657 GEOID HEIGHT- -33.31 (meters) GEOID09

DL8657 DYNAMIC HT - 182.803 (meters) 599.75 (feet) COMP

DL8657 MODELED GRAV- 979,950.8 (mgal) NAVD 88

DL8657

DL8657 HORZ ORDER - B

DL8657 VERT ORDER - SECOND CLASS I

DL8657 ELLP ORDER - FIFTH CLASS I

DL8657

DL8657.This is a reference station for the KY HWY DIST 5

DL8657.National Continuously Operating Reference Station (KYTE).

DL8657

DL8657.The horizontal coordinates were established by GPS observations

DL8657.and adjusted by the GRW AERIAL SURVEY in February 2011.

DL8657

DL8657.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).

DL8657.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

DL8657

DL8657.The horizontal coordinates are valid at the epoch date displayed above

DL8657.which is a decimal equivalence of Year/Month/Day.

DL8657

DL8657.The orthometric height was determined by differential leveling and

DL8657.adjusted in June 2010.

DL8657

DL8657.No vertical observational check was made to the station.

DL8657

DL8657.Photographs <http://www.ngs.noaa.gov/cgi-bin/get_image.prl?PROCESSING=list&PID=DL8657>are available for this station.

DL8657

DL8657.The X, Y, and Z were computed from the position and the ellipsoidal ht.

DL8657

DL8657.The Laplace correction was computed from DEFLEC09 derived deflections.

DL8657

DL8657.The ellipsoidal height was determined by GPS observations

DL8657.and is referenced to NAD 83.

DL8657

DL8657.The geoid height was determined by GEOID09.

DL8657

DL8657.The dynamic height is computed by dividing the NAVD 88

DL8657.geopotential number by the normal gravity value computed on the

DL8657.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DL8657.degrees latitude (g = 980.6199 gals.).

DL8657

DL8657.The modeled gravity was interpolated from observed gravity values.

DL8657

DL8657;	North	East	Units	Scale	Factor	Converg.
DL8657;SPC KY1Z	- 1,215,785.666	1,513,254.751	MT	0.99992939	+0 05	34.8
DL8657;SPC KY1Z	- 3,988,790.14	4,964,736.63	sFT	0.99992939	+0 05	34.8
DL8657;SPC KY N	- 87,167.923	382,013.125	MT	0.99996753	-0 50	19.9
DL8657;SPC KY N	- 285,983.43	1,253,321.39	sFT	0.99996753	-0 50	19.9
DL8657;UTM 16	- 4,237,538.111	622,585.026	MT	0.99978507	+0 52	05.9

DL8657

DL8657! - Elev Factor x Scale Factor = Combined Factor

DL8657!SPC KY1Z - 0.99997654 x 0.99992939 = 0.99990593

DL8657!SPC KY N - 0.99997654 x 0.99996753 = 0.99994407

DL8657!UTM 16 - 0.99997654 x 0.99978507 = 0.99976161

DL8657

DL8657 SUPERSEDED SURVEY CONTROL

DL8657

DL8657 NAVD 88 (02/25/11) 182.93 (m) 600.2 (f) LEVELING 3

DL8657

DL8657.Superseded values are not recommended for survey control.

DL8657.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

DL8657.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

DL8657

DL8657_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFH2258537538(NAD 83)

DL8657

DL8657_MARKER: DD = SURVEY DISK

DL8657_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DL8657_STAMPING: KYTE RM 2

DL8657_MARK LOGO: KYTC

DL8657_PROJECTION: FLUSH

DL8657_MAGNETIC: N = NO MAGNETIC MATERIAL

DL8657_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

DL8657+STABILITY: SURFACE MOTION

DL8657_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

DL8657+SATELLITE: SATELLITE OBSERVATIONS - May 04, 2009

DL8657

DL8657 HISTORY - Date Condition Report By

DL8657 HISTORY - 20081117 MONUMENTED GRWAS

DL8657 HISTORY - 20090504 GOOD GRWAS

DL8657

DL8657 STATION DESCRIPTION

DL8657

DL8657*DESCRIBED BY GRW AERIAL SURVEY 2008 (JCA)

DL8657*OWNERSHIP--KENTUCKY TRANSPORTATION CABINET.

DL8657*

DL8657*TO REACH FROM THE INTERSECTION OF INTERSTATE 265 AKA GENE SNYDER

JZ2873 *****

JZ2873 DESIGNATION - L 342

JZ2873 PID - JZ2873

JZ2873 STATE/COUNTY- OH/HAMILTON

JZ2873 USGS QUAD - ADDYSTON (1987)

JZ2873

JZ2873 *CURRENT SURVEY CONTROL

JZ2873

JZ2873* NAD 83(2007)- 39 08 29.56096(N) 084 43 12.48195(W) ADJUSTED

JZ2873* NAVD 88 - 154.478 (meters) 506.82 (feet) ADJUSTED

JZ2873

JZ2873 EPOCH DATE - 2002.00

JZ2873 X - 455,825.977 (meters) COMP

JZ2873 Y - -4,932,499.337 (meters) COMP

JZ2873 Z - 4,004,592.773 (meters) COMP

JZ2873 LAPLACE CORR- 1.44 (seconds) DEFLECO9

JZ2873 ELLIP HEIGHT- 120.440 (meters) (02/10/07) ADJUSTED

JZ2873 GEOID HEIGHT- -34.04 (meters) GEOID09

JZ2873 DYNAMIC HT - 154.383 (meters) 506.50 (feet) COMP

JZ2873

JZ2873 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

JZ2873 Type PID Designation North East Ellip

JZ2873 -----

JZ2873 NETWORK JZ2873 L 342 1.61 1.39 3.23

JZ2873 -----

JZ2873 MODELED GRAV- 980,012.4 (mgal) NAVD 88

JZ2873

JZ2873 VERT ORDER - FIRST CLASS II

JZ2873

JZ2873.The horizontal coordinates were established by GPS observations
 JZ2873.and adjusted by the National Geodetic Survey in February 2007.

JZ2873

JZ2873.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 JZ2873.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.

JZ2873

JZ2873.The horizontal coordinates are valid at the epoch date displayed above
 JZ2873.which is a decimal equivalence of Year/Month/Day.

JZ2873

JZ2873.The orthometric height was determined by differential leveling and
 JZ2873.adjusted in June 1991.

JZ2873

JZ2873.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JZ2873

JZ2873.The Laplace correction was computed from DEFLECO9 derived deflections.

JZ2873

JZ2873.The ellipsoidal height was determined by GPS observations
 JZ2873.and is referenced to NAD 83.

JZ2873

JZ2873.The geoid height was determined by GEOID09.

JZ2873

JZ2873.The dynamic height is computed by dividing the NAVD 88

JZ2873.geopotential number by the normal gravity value computed on the
JZ2873.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
JZ2873.degrees latitude (g = 980.6199 gals.).

JZ2873

JZ2873.The modeled gravity was interpolated from observed gravity values.

JZ2873

JZ2873;	North	East	Units	Scale	Factor	Converg.
JZ2873;SPC OH S	- 129,085.752	408,091.481	MT	0.99994484	-1 24	31.4
JZ2873;SPC OH S	- 423,508.84	1,338,880.13	sFT	0.99994484	-1 24	31.4
JZ2873;UTM 16	- 4,334,959.394	697,034.342	MT	1.00007805	+1 26	22.6

JZ2873

JZ2873! - Elev Factor x Scale Factor = Combined Factor

JZ2873!SPC OH S - 0.99998110 x 0.99994484 = 0.99992595

JZ2873!UTM 16 - 0.99998110 x 1.00007805 = 1.00005915

JZ2873

JZ2873 SUPERSEDED SURVEY CONTROL

JZ2873

JZ2873 NAD 83(1995)- 39 08 29.56096(N) 084 43 12.48207(W) AD() 1

JZ2873 ELLIP H (04/27/05) 120.451 (m) GP() 4 2

JZ2873 NAVD 88 (04/27/05) 154.48 (m) 506.8 (f) LEVELING 3

JZ2873 NGVD 29 (06/03/91) 154.664 (m) 507.43 (f) ADJUSTED 1 2

JZ2873

JZ2873.Superseded values are not recommended for survey control.

JZ2873.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JZ2873.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to
determine how the superseded data were derived.

JZ2873

JZ2873_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFJ9703434959(NAD 83)

JZ2873

JZ2873_MARKER: I = METAL ROD

JZ2873_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)

JZ2873_SP_SET: STAINLESS STEEL ROD

JZ2873_STAMPING: L 342 1986

JZ2873_MARK LOGO: NGS

JZ2873_PROJECTION: RECESSED 3 CENTIMETERS

JZ2873_MAGNETIC: N = NO MAGNETIC MATERIAL

JZ2873_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

JZ2873_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JZ2873+SATELLITE: SATELLITE OBSERVATIONS - July 11, 2011

JZ2873_ROD/PIPE-DEPTH: 4.10 meters

JZ2873

JZ2873 HISTORY	- Date	Condition	Report By
JZ2873 HISTORY	- 1986	MONUMENTED	NGS
JZ2873 HISTORY	- 20041107	GOOD	DJR
JZ2873 HISTORY	- 20041229	GOOD	DJR
JZ2873 HISTORY	- 20110711	GOOD	JACOBS

JZ2873

JZ2873 STATION DESCRIPTION

JZ2873

JZ2873'DESCRIBED BY NATIONAL GEODETIC SURVEY 1986

JZ2873'18.4 KM (11.45 MI) EAST FROM LAWRENCEBURG IN.

JZ2873'18.4 KM (11.45 MI) EASTERLY ALONG U.S. HIGHWAY 50 FROM ITS JUNCTION

JZ2873'WITH STATE HIGHWAY 1 IN LAWRENCEBURG IN, OR 19.5 KM (12.1 MI) WESTERLY

JZ2873'ALONG U.S. HIGHWAY 50 (RIVER ROAD) FROM ITS JUNCTION WITH FAIRBANKS

JZ2873 AVENUE IN SEDAMSVILLE, 37.2 M (122.0 FT) NORTHWEST OF THE CENTER OF
JZ2873 STONEKING LANE, 26.6 M (87.3 FT) NORTHEAST OF THE CENTERLINE OF THE
JZ2873 NORTHWEST BOUND LANES OF THREE RIVERS PARKWAY, 6.1 M (22.0 FT)
JZ2873 SOUTHWEST OF THE CENTER OF MAIN STREET, 1.2 M (3.9 FT) SOUTHEAST OF A
JZ2873 UTILITY POLE, AND 0.6 M (2.0 FT) SOUTHEAST OF A CURB. NOTE--ACCESS TO
JZ2873 DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
JZ2873 THE MARK IS ABOVE LEVEL WITH MAIN STREET.

JZ2873

STATION RECOVERY (2004)

JZ2873

JZ2873

JZ2873 RECOVERY NOTE BY D J RENSING 2004

JZ2873 RECOVERED IN GOOD CONDITION.

JZ2873

JZ2873

STATION RECOVERY (2004)

JZ2873

JZ2873 RECOVERY NOTE BY D J RENSING 2004

JZ2873 RECOVERED IN GOOD CONDITION.

JZ2873

JZ2873

STATION RECOVERY (2011)

JZ2873

JZ2873 RECOVERY NOTE BY JACOBS 2011 (CDW)

JZ2873 RECOVERED IN GOOD CONDITION.

JZ1518 *****

JZ1518 CBN - This is a Cooperative Base Network Control Station.

JZ1518 DESIGNATION - METRO

JZ1518 PID - JZ1518

JZ1518 STATE/COUNTY- IN/HENRY

JZ1518 USGS QUAD - LEWISVILLE (1970)

JZ1518

JZ1518 *CURRENT SURVEY CONTROL

JZ1518* NAD 83(2007)- 39 48 17.97268(N) 085 19 11.12275(W) ADJUSTED

JZ1518* NAVD 88 - 331.796 (meters) 1088.57 (feet) ADJUSTED

JZ1518 EPOCH DATE - 2002.00

JZ1518 X - 400,371.731 (meters) COMP

JZ1518 Y - -4,890,464.558 (meters) COMP

JZ1518 Z - 4,061,566.044 (meters) COMP

JZ1518 LAPLACE CORR- -0.49 (seconds) DEFLECO9

JZ1518 ELLIP HEIGHT- 297.879 (meters) (02/10/07) ADJUSTED

JZ1518 GEOID HEIGHT- -33.92 (meters) GEOID09

JZ1518 DYNAMIC HT - 331.604 (meters) 1087.94 (feet) COMP

JZ1518

JZ1518 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	JZ1518	METRO	0.53	0.35	1.47

JZ1518

JZ1518 MODELED GRAV- 980,039.1 (mgal) NAVD 88

JZ1518

JZ1518 VERT ORDER - SECOND CLASS 0

JZ1518

JZ1518.The horizontal coordinates were established by GPS observations
 JZ1518.and adjusted by the National Geodetic Survey in February 2007.

JZ1518

JZ1518.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 JZ1518.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

JZ1518

JZ1518.The horizontal coordinates are valid at the epoch date displayed above
 JZ1518.which is a decimal equivalence of Year/Month/Day.

JZ1518

JZ1518.The orthometric height was determined by differential leveling and
 JZ1518.adjusted in June 1991.

JZ1518

JZ1518.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JZ1518

JZ1518.The Laplace correction was computed from DEFLECO9 derived deflections.

JZ1518

JZ1518.The ellipsoidal height was determined by GPS observations
 JZ1518.and is referenced to NAD 83.

JZ1518

JZ1518.The geoid height was determined by GEOID09.

JZ1518

JZ1518.The dynamic height is computed by dividing the NAVD 88
 JZ1518.geopotential number by the normal gravity value computed on the
 JZ1518.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 JZ1518.degrees latitude (g = 980.6199 gals.).

JZ1518

JZ1518.The modeled gravity was interpolated from observed gravity values.

JZ1518

JZ1518;	North	East	Units	Scale	Factor	Converg.
JZ1518;SPC IN E	- 505,923.702	129,707.153	MT	0.99997753	+0 13 19.5	
JZ1518;SPC IN E	- 1,659,851.35	425,547.55	sFT	0.99997753	+0 13 19.5	
JZ1518;UTM 16	- 4,407,464.027	643,836.018	MT	0.99985471	+1 04 33.0	

JZ1518

JZ1518! - Elev Factor x Scale Factor = Combined Factor
 JZ1518!SPC IN E - 0.99995327 x 0.99997753 = 0.99993080
 JZ1518!UTM 16 - 0.99995327 x 0.99985471 = 0.99980799

JZ1518

JZ1518:	Primary Azimuth Mark	Grid Az
JZ1518:SPC IN E	- METRO AZ MK	056 21 26.2
JZ1518:UTM 16	- METRO AZ MK	055 30 12.7

JZ1518

JZ1518	-----
JZ1518	PID Reference Object Distance Geod. Az
JZ1518	dddmms.s
JZ1518	CC8919 METRO AZ MK 0563445.7
JZ1518	-----

JZ1518

JZ1518 SUPERSEDED SURVEY CONTROL

JZ1518

JZ1518	NAD 83(1997)-	39 48 17.97289(N)	085 19 11.12214(W)	AD() B
JZ1518	ELLIP H (04/10/98)	297.934 (m)	GP() 4 1	
JZ1518	NAD 83(1995)-	39 48 17.97459(N)	085 19 11.13154(W)	AD() 1
JZ1518	NAD 83(1986)-	39 48 17.97517(N)	085 19 11.13736(W)	AD() 1
JZ1518	NAD 27 -	39 48 17.81000(N)	085 19 11.26100(W)	AD() 1
JZ1518	NAVD 88 (04/10/98)	331.80 (m)	1088.6 (f)	LEVELING 3
JZ1518	NGVD 29 (??/??/92)	331.925 (m)	1088.99 (f)	ADJ UNCH 2 0

JZ1518

JZ1518.Superseded values are not recommended for survey control.

JZ1518.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JZ1518.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

JZ1518

JZ1518_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFK4383607464(NAD 83)

JZ1518

JZ1518_MARKER: DS = TRIANGULATION STATION DISK

JZ1518_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JZ1518_SP_SET: SET IN TOP OF CONCRETE MONUMENT

JZ1518_STAMPING: METRO 1939

JZ1518_MARK LOGO: CGS

JZ1518_PROJECTION: FLUSH

JZ1518_MAGNETIC: O = OTHER; SEE DESCRIPTION

JZ1518_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JZ1518+STABILITY: SURFACE MOTION

JZ1518_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JZ1518+SATELLITE: SATELLITE OBSERVATIONS - July 21, 1998

JZ1518
 JZ1518 HISTORY - Date Condition Report By
 JZ1518 HISTORY - 1939 MONUMENTED CGS
 JZ1518 HISTORY - 1947 GOOD CGS
 JZ1518 HISTORY - 19970820 GOOD SEC
 JZ1518 HISTORY - 19980721 GOOD WOOLPT

JZ1518
 JZ1518 STATION DESCRIPTION

JZ1518
 JZ1518 DESCRIBED BY COAST AND GEODETIC SURVEY 1939 (APR)
 JZ1518 ABOUT 2 MILES EAST BY SOUTH OF LEWISVILLE, AND 0.2 MILE SOUTH OF U.S.
 JZ1518 HIGHWAY 40, ON THE WEST SIDE OF A NORTH-SOUTH GRAVEL ROAD, IN A
 JZ1518 CULTIVATED FIELD OWNED BY THE METROPOLITAN LIFE INSURANCE CO. AND
 JZ1518 FARMED BY BERNARD LAUGHLIN, WHO LIVES ABOUT 0.25 MILE NW OF
 JZ1518 STATION. MARK IS 39 FT. W OF THE CENTER LINE OF GRAVEL ROAD, 56 FT. W
 JZ1518 OF THE FENCE LINE ON EAST SIDE OF THE ROAD, 336 FT. S OF THE S
 JZ1518 RAIL OF THE RAILROAD TRACKS. IT IS STAMPED METRO, 1939 AND IS 12
 JZ1518 INCHES UNDERGROUND.
 JZ1518
 JZ1518 TO REACH FROM THE INTERSECTION OF U.S. HIGHWAY 40 AND STATE HIGHWAY
 JZ1518 103 IN LEWISVILLE, GO 1.8 MILES EAST TO A GRAVEL T-ROAD SOUTH,
 JZ1518 TURN SOUTH AND GO 0.2 MILE TO STATION IN FIELD ON THE RIGHT.
 JZ1518
 JZ1518 SURFACE, UNDERGROUND, REFERENCE AND AZIMUTH MARKS ARE STANDARD BRONZE
 JZ1518 DISK SET IN CONCRETE.
 JZ1518
 JZ1518 REFERENCE MARK NO.1 IS NORTH-NORTHEAST OF STATION ON THE EAST SIDE OF
 JZ1518 GRAVEL ROAD, 15 FEET EAST OF THE CENTER LINE OF THE ROAD,
 JZ1518 1 FOOT EAST OF FENCE LINE, 57 FEET NORTH OF RAILROAD WARNING SIGN,
 JZ1518 243 FEET SOUTH OF THE SOUTH RAIL OF R.R. TRACKS. IT IS
 JZ1518 STAMPED METRO NO.1, 1939 AND PROJECTS 6 INCHES ABOVE GROUND.
 JZ1518
 JZ1518 REFERENCE MARK NO. 2 IS SOUTH-SOUTHEAST OF STATION, ON THE EAST SIDE
 JZ1518 OF GRAVEL ROAD, 15 FEET EAST OF THE CENTER LINE OF THE ROAD, 1
 JZ1518 FOOT EAST OF WIRE FENCE, 124 FEET SOUTH OF RAILROAD WARNING SIGN. IT
 JZ1518 IS STAMPED METRO NO. 2, 1939 AND PROJECTS 6 INCHES ABOVE GROUND.
 JZ1518
 JZ1518 AZIMUTH MARK IS NORTHEAST OF STATION ON THE N. SIDE OF U.S. HIGHWAY
 JZ1518 40, EAST OF ENTRANCE TO C.S. DUDLEYS HOUSE, 2.5 FT. E OF A
 JZ1518 CONCRETE-FENCE CORNER POST, 40 FT. N. OF THE CENTER LINE OF U.S.
 JZ1518 HIGHWAY 40, AND 19 FEET WEST OF POWER-LINE POLE 537-729. IT
 JZ1518 IS STAMPED METRO, 1939 AND PROJECTS 6 INCHES ABOVE GROUND.
 JZ1518
 JZ1518 HEIGHT OF LIGHT ABOVE STATION MARK - 34 METERS.

JZ1518
 JZ1518 STATION RECOVERY (1947)

JZ1518
 JZ1518 RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1947
 JZ1518 1.8 MI SW FROM STRAUGHN.
 JZ1518 ABOUT 1.5 MILE WEST ALONG U.S. HIGHWAY 40 FROM THE CROSSROAD AT
 JZ1518 STRAUGHN, THENCE 0.25 MILE SOUTH ALONG A GRAVEL ROAD, 336 FEET
 JZ1518 SOUTH OF THE SOUTH RAIL OF THE PENNSYLVANIA RAILROAD TRACK, 39 FEET
 JZ1518 WEST OF THE CENTER LINE OF THE NORTH-SOUTH GRAVEL ROAD, 105.5 FEET
 JZ1518 SOUTHWEST AND ACROSS THE ROAD FROM REFERENCE MARK NUMBER 1, 107.5

JZ1518'FEET NORTHWEST AND ACROSS THE ROAD FROM REFERENCE MARK NUMBER 2,
JZ1518'ABOUT 25 FEET WEST OF A FENCE LINE, SET IN THE TOP OF CONCRETE
JZ1518'POST ABOUT 12 INCHES BELOW THE SURFACE OF THE GROUND.

JZ1518

JZ1518

STATION RECOVERY (1997)

JZ1518

JZ1518'RECOVERY NOTE BY SCHNEIDER ENGINEERING CORPORATION 1997 (RGR)
JZ1518'ABOUT 2 MILES (3.2 KM) EAST OF LEWISVILLE, ABOUT 0.2 MILES (0.3 KM)
JZ1518'SOUTH OF U.S. HIGHWAY 40. TO REACH THE STATION FROM LEWISVILLE, GO
JZ1518'EAST ON U.S. HIGHWAY 40 FOR 1.7 MILES (2.7 KM) FROM THE INTERSECTION
JZ1518'WITH STATE ROAD 103 TO COUNTY ROAD 350 WEST. THEN GO SOUTH ON COUNTY
JZ1518'ROAD 350 WEST FOR 0.2 MILE (0.3 KM) TO THE STATION ON RIGHT, WEST SIDE
JZ1518'OF ROAD. THE STATION MARK IS SET IN A CONCRETE MONUMENT RECESSED 0.25
JZ1518'METERS (0.82 FT) BELOW GROUND IN A CULTIVATED FIELD. THE STATION IS
JZ1518'12.50 METERS (41.01 FT) WEST OF THE CENTERLINE OF GRAVEL COUNTY ROAD
JZ1518'350 WEST, 104 METERS (341.2 FT) SOUTH OF THE CENTERLINE OF ABANDONED
JZ1518'RAILROAD BED, REFERENCE MARK 1 CONCRETE BASE (DISC DESTROYED) BEARS
JZ1518'AZIMUTH PLUS OR MINUS 36 DEGREES 32.12 METERS (105.38 FT), REFERENCE
JZ1518'MARK 2 DESTROYED COMPLETELY. A 36 INCH LONG 5/8-INCH REBAR WITH CAP
JZ1518'MARKED SCHNEIDER ENG RANDOM POINT SET THIS DATE BEARS AZIMUTH 114
JZ1518'DEGREES 8.00 METERS (26.25 FT) A SIMILAR 5/8 INCH REBAR SET THIS DATE
JZ1518'BEARS AZIMUTH 43 DEGREES 12.05 METERS (39.53 FT). ALSO SEARCHED FOR
JZ1518'AZIMUTH MARK, APPEARS TO HAVE BEEN DESTROYED BY HIGHWAY 40 WIDENING.
JZ1518'THE STATION IS IN CULTIVATED FIELD. ALL FENCES AND RAILROAD RAILS ARE
JZ1518'GONE. THE FIELD IS OWNED BY THE PFAFF ESTATE AND FARMED BY HAROLD
JZ1518'PFAFF WHO RESIDES AT COUNTY ROAD 325 EAST AND U.S HIGHWAY 40, PHONE
JZ1518'765-332-2496.

JZ1518

JZ1518

STATION RECOVERY (1998)

JZ1518

JZ1518'RECOVERY NOTE BY WOOLPERT CONSULTANTS 1998 (ARL)

JZ1518'RECOVERED AS DESCRIBED. WOOLPERT LLP 1998 (ARL).

JZ1981 *****

JZ1981 DESIGNATION - N 259

JZ1981 PID - JZ1981

JZ1981 STATE/COUNTY- IN/DECATUR

JZ1981 USGS QUAD - NEW POINT (1993)

JZ1981

JZ1981 *CURRENT SURVEY CONTROL

JZ1981* NAD 83(2007)- 39 19 25.73811(N) 085 19 32.64896(W) ADJUSTED

JZ1981* NAVD 88 - 300.051 (meters) 984.42 (feet) ADJUSTED

JZ1981 EPOCH DATE - 2002.00

JZ1981 X - 402,632.400 (meters) COMP

JZ1981 Y - -4,924,397.649 (meters) COMP

JZ1981 Z - 4,020,359.549 (meters) COMP

JZ1981 LAPLACE CORR- 0.25 (seconds) DEFLECO9

JZ1981 ELLIP HEIGHT- 265.922 (meters) (02/10/07) ADJUSTED

JZ1981 GEOID HEIGHT- -34.10 (meters) GEOID09

JZ1981 DYNAMIC HT - 299.863 (meters) 983.80 (feet) COMP

JZ1981

JZ1981 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	JZ1981	N 259	0.74	0.51	2.39

JZ1981

JZ1981 MODELED GRAV- 979,994.8 (mgal) NAVD 88

JZ1981

JZ1981 VERT ORDER - FIRST CLASS II

JZ1981

JZ1981.The horizontal coordinates were established by GPS observations
 JZ1981.and adjusted by the National Geodetic Survey in February 2007.

JZ1981

JZ1981.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 JZ1981.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.

JZ1981

JZ1981.The horizontal coordinates are valid at the epoch date displayed above
 JZ1981.which is a decimal equivalence of Year/Month/Day.

JZ1981

JZ1981.The orthometric height was determined by differential leveling and
 JZ1981.adjusted in June 1991.

JZ1981

JZ1981.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JZ1981

JZ1981.The Laplace correction was computed from DEFLECO9 derived deflections.

JZ1981

JZ1981.The ellipsoidal height was determined by GPS observations
 JZ1981.and is referenced to NAD 83.

JZ1981

JZ1981.The geoid height was determined by GEOID09.

JZ1981

JZ1981.The dynamic height is computed by dividing the NAVD 88

JZ1981.geopotential number by the normal gravity value computed on the
JZ1981.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
JZ1981.degrees latitude (g = 980.6199 gals.).

JZ1981

JZ1981.The modeled gravity was interpolated from observed gravity values.

JZ1981

JZ1981; North East Units Scale Factor Converg.

JZ1981;SPC IN E - 452,500.126 129,397.579 MT 0.99997730 +0 12 57.8

JZ1981;SPC IN E - 1,484,577.50 424,531.89 sFT 0.99997730 +0 12 57.8

JZ1981;UTM 16 - 4,354,048.242 644,318.423 MT 0.99985645 +1 03 40.2

JZ1981

JZ1981! - Elev Factor x Scale Factor = Combined Factor

JZ1981!SPC IN E - 0.99995828 x 0.99997730 = 0.99993558

JZ1981!UTM 16 - 0.99995828 x 0.99985645 = 0.99981474

JZ1981

SUPERSEDED SURVEY CONTROL

JZ1981

JZ1981 NAD 83(1997)- 39 19 25.73833(N) 085 19 32.64876(W) AD() B

JZ1981 ELLIP H (03/12/99) 265.958 (m) GP() 2 1

JZ1981 NAVD 88 (03/12/99) 300.05 (m) 984.4 (f) LEVELING 3

JZ1981 NGVD 29 (??/??/92) 300.184 (m) 984.85 (f) ADJ UNCH 1 2

JZ1981

JZ1981.Superseded values are not recommended for survey control.

JZ1981.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JZ1981.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to
determine how the superseded data were derived.

JZ1981

JZ1981_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFJ4431854048(NAD 83)

JZ1981

JZ1981_MARKER: DB = BENCH MARK DISK

JZ1981_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JZ1981_SP_SET: CONCRETE POST

JZ1981_STAMPING: N 259 1947

JZ1981_MARK LOGO: CGS

JZ1981_PROJECTION: FLUSH

JZ1981_MAGNETIC: O = OTHER; SEE DESCRIPTION

JZ1981_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JZ1981+STABILITY: SURFACE MOTION

JZ1981_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JZ1981+SATELLITE: SATELLITE OBSERVATIONS - July 21, 1998

JZ1981

JZ1981 HISTORY - Date Condition Report By

JZ1981 HISTORY - 1947 MONUMENTED CGS

JZ1981 HISTORY - 1986 GOOD NGS

JZ1981 HISTORY - 19980721 GOOD WOOLPT

JZ1981

STATION DESCRIPTION

JZ1981

JZ1981'DESCRIBED BY COAST AND GEODETIC SURVEY 1947

JZ1981'AT ROSSBURG.

JZ1981'AT ROSSBURG, ABOUT 0.1 MILE SOUTH OF THE CROSSROADS, AT THE

JZ1981'ROSSBURG BAPTIST CHURCH AND CEMETERY, 91 FEET SOUTH-SOUTHWEST

JZ1981'OF THE SOUTHWEST CORNER OF THE CHURCH, 43 FEET NORTH OF THE

JZ1981'SOUTHWEST CORNER OF THE CEMETERY ON THE EAST SIDE OF THE

JZ1981 ROAD, 16 FEET EAST OF THE CENTER LINE OF THE ROAD, 1.5 FEET WEST
JZ1981 OF THE CEMETERY FENCE LINE, 2 FEET NORTH OF A WHITE WOODEN
JZ1981 WITNESS POST, ABOUT 1/2-FOOT ABOVE THE ROAD AND SET IN THE TOP
JZ1981 OF A CONCRETE POST PROJECTING 4 INCHES. NOTE-- MARK MAY BE
JZ1981 REACHED FROM THE SCHOOL AT NEW POINT BY GOING ABOUT 0.1 MILE
JZ1981 EAST ALONG STATE HIGHWAY 46, THENCE ABOUT 0.9 MILE NORTH ALONG
JZ1981 THE ROSSBURG ROAD.

JZ1981

JZ1981 STATION RECOVERY (1986)

JZ1981

JZ1981 RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986

JZ1981 RECOVERED IN GOOD CONDITION.

JZ1981

JZ1981 STATION RECOVERY (1998)

JZ1981

JZ1981 RECOVERY NOTE BY WOOLPERT CONSULTANTS 1998 (BBS)

JZ1981 RECOVERY NOTE BY WOOLPERT LLP 1998 (BBS). STATION IS LOCATED ABOUT
JZ1981 0.5 MI (0.8 KM) SOUTH OF ROSSBURG, 1.0 MI (1.6 KM) NORTH OF NEW POINT,
JZ1981 10 MI (16.1 KM) EAST OF GREENSBURG. TO REACH THE STATION FROM THE
JZ1981 JUNCTION OF INTERSTATE 74 (EXIT 143) AND COUNTY ROAD 850E, GO NORTH ON
JZ1981 COUNTY ROAD 850E FOR 0.5 MI (0.8 KM) TO THE MARK ON THE RIGHT. THE
JZ1981 STATION IS ALONG THE CAST IRON FENCE FOR THE OLD CEMETERY ACROSS THE
JZ1981 ROAD FROM THE ROSSBURG CEMETERY. THE STATION IS 5.3 M (17.4 FT) EAST
JZ1981 OF THE CENTERLINE OF COUNTY ROAD 850E, 20.4 M (66.9 FT) SOUTH OF POWER
JZ1981 POLE 5D-8-9, 0.9 M (3.0 FT) NORTHEAST OF A TRAFFIC SIGN--SLOW--, AND
JZ1981 0.4 M (1.3 FT) WEST OF THE CAST IRON FENCE.

MD0420 *****

MD0420 DESIGNATION - OHIO 722

MD0420 PID - MD0420

MD0420 STATE/COUNTY- OH/DEFIANCE

MD0420 USGS QUAD - BRYAN (1977)

MD0420

MD0420 *CURRENT SURVEY CONTROL

MD0420

MD0420* NAD 83(2007)- 41 23 00.36221(N) 084 34 23.08528(W) ADJUSTED

MD0420* NAVD 88 - 219.707 (meters) 720.82 (feet) ADJUSTED

MD0420 EPOCH DATE - 2002.00

MD0420 X - 453,273.412 (meters) COMP

MD0420 Y - -4,771,203.319 (meters) COMP

MD0420 Z - 4,194,590.230 (meters) COMP

MD0420 LAPLACE CORR- -4.52 (seconds) DEFLEC09

MD0420 ELLIP HEIGHT- 185.686 (meters) (02/10/07) ADJUSTED

MD0420 GEOID HEIGHT- -34.01 (meters) GEOID09

MD0420 DYNAMIC HT - 219.619 (meters) 720.53 (feet) COMP

MD0420

MD0420 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

MD0420 Type	PID	Designation	North	East	Ellip
MD0420 NETWORK	MD0420	OHIO 722	1.57	1.18	1.59

MD0420 -----

MD0420 MODELED GRAV- 980,219.7 (mgal) NAVD 88

MD0420

MD0420 VERT ORDER - SECOND CLASS 0

MD0420

MD0420.The horizontal coordinates were established by GPS observations
MD0420.and adjusted by the National Geodetic Survey in February 2007.

MD0420

MD0420.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
MD0420.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
information.

MD0420

MD0420.The horizontal coordinates are valid at the epoch date displayed above
MD0420.which is a decimal equivalence of Year/Month/Day.

MD0420

MD0420.The orthometric height was determined by differential leveling and
MD0420.adjusted in June 1991.

MD0420

MD0420.The X, Y, and Z were computed from the position and the ellipsoidal ht.

MD0420

MD0420.The Laplace correction was computed from DEFLEC09 derived deflections.

MD0420

MD0420.The ellipsoidal height was determined by GPS observations
MD0420.and is referenced to NAD 83.

MD0420

MD0420.The geoid height was determined by GEOID09.

MD0420

MD0420.The dynamic height is computed by dividing the NAVD 88
MD0420.geopotential number by the normal gravity value computed on the
MD0420.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

MD0420.degrees latitude (g = 980.6199 gals.).

MD0420

MD0420.The modeled gravity was interpolated from observed gravity values.

MD0420

MD0420; North East Units Scale Factor Converg.

MD0420;SPC OH N - 192,702.637 426,620.054 MT 0.99995429 -1 21 42.9

MD0420;SPC OH N - 632,225.23 1,399,669.29 sFT 0.99995429 -1 21 42.9

MD0420;UTM 16 - 4,584,165.445 702,928.081 MT 1.00010681 +1 36 17.9

MD0420

MD0420! - Elev Factor x Scale Factor = Combined Factor

MD0420!SPC OH N - 0.99997088 x 0.99995429 = 0.99992517

MD0420!UTM 16 - 0.99997088 x 1.00010681 = 1.00007768

MD0420

MD0420 SUPERSEDED SURVEY CONTROL

MD0420

MD0420 ELLIP H (10/07/05) 185.677 (m) GP() 3 1

MD0420 NAD 83(1995)- 41 23 00.36216(N) 084 34 23.08473(W) AD() 1

MD0420 ELLIP H (11/30/99) 185.707 (m) GP() 3 1

MD0420 NAVD 88 (11/30/99) 219.71 (m) 720.8 (f) LEVELING 3

MD0420 NGVD 29 (??/??/92) 219.857 (m) 721.31 (f) ADJ UNCH 2 0

MD0420

MD0420.Superseded values are not recommended for survey control.

MD0420.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

MD0420.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

MD0420

MD0420_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TGL0292884165(NAD 83)

MD0420

MD0420_MARKER: P = PIPE CAP

MD0420_SETTING: 17 = SET INTO TOP OF METAL PIPE DRIVEN INTO GROUND

MD0420_SP_SET: METAL PIPE DRIVEN INTO GROUND

MD0420_STAMPING: OHIO 722

MD0420_MARK LOGO: USGS

MD0420_MAGNETIC: P = MARKER IS A STEEL PIPE

MD0420_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

MD0420_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

MD0420+SATELLITE: SATELLITE OBSERVATIONS - April 03, 1998

MD0420

MD0420 HISTORY - Date Condition Report By

MD0420 HISTORY - UNK MONUMENTED USGS

MD0420 HISTORY - 1946 GOOD CGS

MD0420 HISTORY - 1985 MARK NOT FOUND USPSQD

MD0420 HISTORY - 19980403 GOOD JCAND

MD0420

MD0420 STATION DESCRIPTION

MD0420

MD0420'DESCRIBED BY COAST AND GEODETIC SURVEY 1946

MD0420'2.6 MI W FROM NEY.

MD0420'ABOUT 2.6 MILES WEST ALONG STATE HIGHWAY 249 FROM THE POST OFFICE

MD0420'AT NEY, ABOUT 3.0 MILES EAST ALONG STATE HIGHWAY 249 FROM ITS

MD0420'JUNCTION WITH STATE HIGHWAY 2N AT FARMER, ABOUT 0.9 MILE WEST OF

MD0420'THE INTERSECTION OF U.S. HIGHWAY 127, AT A NORTH-SOUTH GRAVEL

MD0420'CROSS ROAD, 35 FEET SOUTH OF THE CENTER LINE OF THE HIGHWAY, 22

MD0420'FEET EAST OF THE CENTER LINE OF THE GRAVEL ROAD, 50 FEET SOUTHEAST

MD0420'AND ACROSS THE GRAVEL ROAD FROM THE SOUTHEAST CORNER OF THE SOUTH
MD0420'HEAD WALL OF A CULVERT, 5.5 FEET NORTHEAST OF A FENCE CORNER,
MD0420'4.2 FEET NORTH OF THE FENCE LINE, AND ABOUT 0.5 FOOT BELOW THE
MD0420'HIGHWAY. A BRONZE CAP RIVETED ON A 3 1/2 INCH PIPE, PROJECTING
MD0420'4 IN.

MD0420

MD0420 STATION RECOVERY (1985)

MD0420

MD0420'RECOVERY NOTE BY US POWER SQUADRON 1985

MD0420'MARK NOT FOUND.

MD0420

MD0420 STATION RECOVERY (1998)

MD0420

MD0420'RECOVERY NOTE BY JC ANDRUS ASSOC 1998 (DAA)

MD0420'LOCATED IN THE NORTHWESTERLY CORNER OF SECTION 19, TOWN 5 NORTH, RANGE

MD0420'2 EAST, WASHINGTON TOWNSHIP, DEFIANCE COUNTY, OHIO. TO REACH FROM THE

MD0420'DEFIANCE COUNTY COURT HOUSE, PROCEED NORTH ON STATE ROUTE 66 0.8 MILES

MD0420'(1.3 KM) TO STATE ROUTE 15. PROCEED NOTRHWESTERLY ON STATE ROUTE 15

MD0420'10.5 MILES (16.9 KM) TO STATE ROUTE 249 ON THE WEST EDGE OF THE

MD0420'VILLAGE OF NEY. PROCEED WEST ON STATE ROUTE 249 2.4 MILES (3.9 KM) TO

MD0420'BEHNFELDT ROAD. THE MARK IS LOCATED IN THE SOUTHEASTERLY CORNER OF

MD0420'THE INTERSECTION OF STATE ROUTE 249 AND BEHNFELDT ROAD. MARK IS JUST

MD0420'UNDER THE SURFACE IN A GRASSEY AREA 35.0 FEET (10.7 M) SOUTH OF THE

MD0420'CENTERLINE OF STATE ROUTE 249, 22.0 FEET (6.7 M) EAST OF THE

MD0420'CENTERLINE OF BEHNFELDT ROAD, 32.6 FEET (9.9 M) WEST OF A TREE, AND

MD0420'19.5 FEET (5.9 M) NORTH OF A POWER POLE.

JZ1237 *****

JZ1237 CBN - This is a Cooperative Base Network Control Station.

JZ1237 DESIGNATION - OXFORD

JZ1237 PID - JZ1237

JZ1237 STATE/COUNTY- OH/BUTLER

JZ1237 USGS QUAD - COLLEGE CORNER (1992)

JZ1237

JZ1237 *CURRENT SURVEY CONTROL

JZ1237

JZ1237* NAD 83(2007)- 39 31 48.11215(N) 084 46 29.43676(W) ADJUSTED

JZ1237* NAVD 88 - 316.373 (meters) 1037.97 (feet) ADJUSTED

JZ1237 EPOCH DATE - 2002.00

JZ1237 X - 448,637.537 (meters) COMP

JZ1237 Y - -4,905,831.503 (meters) COMP

JZ1237 Z - 4,038,055.884 (meters) COMP

JZ1237 LAPLACE CORR- 1.77 (seconds) DEFLECO9

JZ1237 ELLIP HEIGHT- 283.049 (meters) (02/10/07) ADJUSTED

JZ1237 GEOID HEIGHT- -33.32 (meters) GEOID09

JZ1237 DYNAMIC HT - 316.195 (meters) 1037.38 (feet) COMP

JZ1237

JZ1237 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	JZ1237	OXFORD	0.71	0.49	1.65

JZ1237

JZ1237 MODELED GRAV- 980,055.7 (mgal) NAVD 88

JZ1237

JZ1237 VERT ORDER - SECOND CLASS 0

JZ1237

JZ1237.The horizontal coordinates were established by GPS observations
 JZ1237.and adjusted by the National Geodetic Survey in February 2007.

JZ1237

JZ1237.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).

JZ1237.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

JZ1237

JZ1237.The horizontal coordinates are valid at the epoch date displayed above
 JZ1237.which is a decimal equivalence of Year/Month/Day.

JZ1237

JZ1237.The orthometric height was determined by differential leveling and
 JZ1237.adjusted in June 1991.

JZ1237

JZ1237.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JZ1237

JZ1237.The Laplace correction was computed from DEFLECO9 derived deflections.

JZ1237

JZ1237.The ellipsoidal height was determined by GPS observations
 JZ1237.and is referenced to NAD 83.

JZ1237

JZ1237.The geoid height was determined by GEOID09.

JZ1237

JZ1237.The dynamic height is computed by dividing the NAVD 88
 JZ1237.geopotential number by the normal gravity value computed on the
 JZ1237.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 JZ1237.degrees latitude (g = 980.6199 gals.).

JZ1237

JZ1237.The modeled gravity was interpolated from observed gravity values.

JZ1237

JZ1237;	North	East	Units	Scale Factor	Converg.
JZ1237;SPC OH S	- 172,317.608	404,449.752	MT	0.99993913	-1 26 36.4
JZ1237;SPC OH S	- 565,345.35	1,326,932.23	sFT	0.99993913	-1 26 36.4
JZ1237;UTM 16	- 4,377,961.689	691,243.628	MT	1.00005032	+1 25 00.1

JZ1237

JZ1237! - Elev Factor x Scale Factor = Combined Factor

JZ1237!SPC OH S - 0.99995560 x 0.99993913 = 0.99989473

JZ1237!UTM 16 - 0.99995560 x 1.00005032 = 1.00000591

JZ1237

JZ1237:	Primary Azimuth Mark	Grid Az
JZ1237:SPC OH S	- OXFORD AZ MK	338 55 17.5
JZ1237:UTM 16	- OXFORD AZ MK	336 03 41.0

JZ1237

JZ1237	-----
JZ1237	PID Reference Object Distance Geod. Az
JZ1237	ddmmss.s
JZ1237	JZ1239 OXFORD RM 3 02032
JZ1237	JZ2638 OXFORD RM 1 02557
JZ1237	JZ3273 OXFORD MUNICIPAL TANK APPROX. 3.5 KM 1270658.0
JZ1237	JZ1238 OXFORD RM 2 45.059 METERS 28302
JZ1237	JZ1240 OXFORD AZ MK 3372841.1
JZ1237	JZ1241 OXFORD AZ MK RESET 33730
JZ1237	-----

JZ1237

JZ1237

SUPERSEDED SURVEY CONTROL

JZ1237

JZ1237	ELLIP H (03/08/05)	283.051 (m)	GP() 4 2
JZ1237	NAD 83(1995)-	39 31 48.11221(N)	084 46 29.43610(W) AD() B
JZ1237	ELLIP H (08/20/96)	283.099 (m)	GP() 4 2
JZ1237	NAD 83(1986)-	39 31 48.11877(N)	084 46 29.44756(W) AD() 1
JZ1237	NAD 27	- 39 31 47.93100(N)	084 46 29.61200(W) AD() 1
JZ1237	NAVD 88 (08/20/96)	316.37 (m)	1038.0 (f) LEVELING 3
JZ1237	NGVD 29 (??/??/92)	316.538 (m)	1038.51 (f) ADJ UNCH 2 0

JZ1237

JZ1237.Superseded values are not recommended for survey control.

JZ1237.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JZ1237.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

JZ1237

JZ1237_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFJ9124377961(NAD 83)

JZ1237

JZ1237_MARKER: DS = TRIANGULATION STATION DISK

JZ1237_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JZ1237_SP_SET: CONCRETE POST

JZ1237_STAMPING: OXFORD 1932

JZ1237_MARK LOGO: CGS

JZ1237_MAGNETIC: N = NO MAGNETIC MATERIAL

JZ1237_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JZ1237+STABILITY: SURFACE MOTION

JZ1237_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JZ1237+SATELLITE: SATELLITE OBSERVATIONS - July 02, 2002

JZ1237

JZ1237 HISTORY	- Date	Condition	Report By
JZ1237 HISTORY	- 1932	MONUMENTED	CGS
JZ1237 HISTORY	- 1961	GOOD	CGS
JZ1237 HISTORY	- 1961	GOOD	CGS
JZ1237 HISTORY	- 1986	GOOD	NGS
JZ1237 HISTORY	- 19870813	GOOD	
JZ1237 HISTORY	- 19880701	GOOD	NGS
JZ1237 HISTORY	- 19950808	GOOD	NGS
JZ1237 HISTORY	- 19970821	GOOD	NGS
JZ1237 HISTORY	- 20020702	GOOD	BUTCOE

JZ1237

JZ1237 STATION DESCRIPTION

JZ1237

JZ1237'DESCRIBED BY COAST AND GEODETIC SURVEY 1932 (HCW)

JZ1237'THE STATION IS 2.3 MILES NORTHWEST FROM THE TOWN OF OXFORD, ON THE

JZ1237'NORTH SIDE OF THE SOUTHWEST 1/4 OF SECTION 16, T. 5 N., R. 1 E.,

JZ1237'ON LAND BELONGING TO MR. HINCKLEY SMITH, WHO LIVES IN HAMILTON. THE

JZ1237'FARM IS OCCUPIED BY EVERETT MILLER. IT IS 0.2 METER S OF

JZ1237'THE S RIGHT-OF-WAY FENCE OF A GRAVEL SECTION-LINE ROAD ABOUT 150

JZ1237'METERS WEST OF ITS INTERSECTION WITH U.S. HIGHWAY 27, 5

JZ1237'METERS SOUTH OF THE CENTER LINE OF THE SECTION-LINE ROAD AND 13

JZ1237'METERS SOUTHWEST OF A TELEGRAPH POLE ON THE NORTH SIDE OF THE

JZ1237'ROAD, APPROXIMATELY 400 METERS EAST OF THE BALTIMORE AND OHIO RAILROAD

JZ1237'CROSSING, 40 METERS WEST OF A TREE ON THE SOUTH SIDE OF THE

JZ1237'ROAD AND IS 1 FOOT BELOW THE SURFACE OF THE GROUND.

JZ1237'

JZ1237'REFERENCE MARK NO. 1 IS ON THE RIGHT-OF-WAY OF U.S. HIGHWAY 27, 0.3

JZ1237'METER NORTHEAST OF THE SOUTHEAST BOUNDARY FENCE, 2 METERS WEST OF

JZ1237'A TELEGRAPH POLE AND ABOUT 150 METERS NORTHWEST OF THE JUNCTION OF

JZ1237'U.S. HIGHWAY 27 AND THE SECTION-LINE ROAD MENTIONED

JZ1237'ABOVE.

JZ1237'

JZ1237'REFERENCE MARK NO. 2 IS 0.3 METER SOUTH OF THE NORTH RIGHT-OF-WAY

JZ1237'FENCE OF THE EAST-WEST SECTION-LINE ROAD, 4 METERS NORTH OF THE

JZ1237'CENTER LINE OF THE ROAD AND 2 METERS WEST OF A TELEGRAPH POLE.

JZ1237'

JZ1237'THE AZIMUTH MARK IS 7 METERS SOUTHWEST OF THE CENTER LINE OF U.S.

JZ1237'HIGHWAY 27, 2 METERS SOUTHEAST OF A TELEGRAPH POLE AND ABOUT 75

JZ1237'METERS EAST OF A WHITE BARN WITH ASBESTOS SHINGLES, AND 0.3 METER

JZ1237'NORTHEAST OF THE SOUTHWEST RIGHT-OF-WAY FENCE ON U.S.

JZ1237'HIGHWAY 27.

JZ1237'

JZ1237'TO REACH THE STATION FROM OXFORD, OHIO, GO OUT ON U.S. HIGHWAY 27

JZ1237'NORTHWEST FROM THE WATER TOWER SILVER MUNICIPAL TANK 2.3 MILES

JZ1237'TO A GRAVEL ROAD LEADING DUE WEST, TURN WEST ON THIS ROAD AND GO 150

JZ1237'METERS TO THE STATION ON THE SOUTH SIDE OF THE ROAD.

JZ1237

JZ1237 STATION RECOVERY (1961)

JZ1237

JZ1237'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1961 (VRS)
JZ1237'RECOVERED STATION AND NO. 2 R.M. IN GOOD CONDITION ESSENTIALLY AS
JZ1237'ORIGINALLY DESCRIBED. AZIMUTH MARK AND NO. 1 R.M. WERE FOUND
JZ1237'UPROOTED. THE POSITION OF THE AZIMUTH MARK WAS REESTABLISHED FROM
JZ1237'REFERENCES SET BY OHIO HWY. DEPT. ENGRS. AND THE AZIMUTH
JZ1237'MARK RESET EXACTLY ON THE LINE BETWEEN THE REESTABLISHED POSITION AND
JZ1237'THE STATION. THE OLD NO. 1 R.M. MONUMENT WAS RESET AS NO. 3
JZ1237'REFERENCE MARK. ALL MARKS ARE ALSO BENCH MARKS.

JZ1237'

JZ1237'ABOUT 2.3 MILES NORTHWESTERLY ALONG NO. 27 U.S. HIGHWAY MAIN ROAD TO
JZ1237'COLLEGE CORNER FROM THE TOWN SQUARE IN OXFORD, THENCE 0.1 MILE W
JZ1237'ON ASPHALT COUNTY ROAD TO STATION ON LEFT, ON APPARENT CREST OF
JZ1237'RIDGE, 97-1/2 FEET W OF CREOSOTED POWER POLE, 16 FT. S OF
JZ1237'CENTER LINE OF 15-FOOT ASPHALT PAVEMENT, 1.7 FEET LOWER THAN SAME,
JZ1237'ONE FOOT N OF A FENCE, A FOOT UNDERGROUND, STANDARD DISKS
JZ1237'STAMPED OXFORD 1932.

JZ1237'

JZ1237'REFERENCE STAMPED OXFORD NO 2 1932, FLUSH TO PROJECTING
JZ1237'0.5 FOOT, IS 147.83 FEET 45.059 METERS WNW FROM THE STATION,
JZ1237'N 66 DEG 57 MIN 11 SEC W, ONE FOOT S OF A FENCE, 14 FEET N OF
JZ1237'CENTER LINE OF ROAD, AND 1.1 FEET LOWER THAN SAME.

JZ1237'

JZ1237'REFERENCE STAMPED OXFORD NO. 3 1932 1961, PROJECTS 0.3 FT.,
JZ1237'IS 446.6 FEET (SLOPE) (136.12 METERS) NNE, N 20 DEG 30 MIN 32 SEC E,
JZ1237'FROM STATION, 55 FEET SW OF CENTER LINE OF HIGHWAY,
JZ1237'AND 3 FEET SE OF CENTER OF A CREOSOTED POWER POLE.

JZ1237'

JZ1237'AZIMUTH STAMPED OXFORD AZIMUTH 1932 1961, PROJECTS 0.3
JZ1237'FOOT, IS ABOUT 0.2 MILE NNW, N 22 DEG 31 MIN 16 SEC W,
JZ1237'FROM THE STATION, 60 FEET SW OF CENTER LINE OF 24-FOOT HWY. PAVEMENT,
JZ1237'8 FEET N OF PROJECTED FENCE LINE, AND 2.5 FEET SSE OF STEEL
JZ1237'WITNESS POST.

JZ1237'

JZ1237' STATION RECOVERY (1961)

JZ1237'

JZ1237'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1961

JZ1237'2.3 MI NW FROM OXFORD.

JZ1237'ABOUT 2.3 MILES NORTHWESTERLY ALONG NO. 27 U.S. HIGHWAY (MAIN ROAD TO
JZ1237'COLLEGE CORNER -- A NEW ROUTING OF THE HWY. IS PLANNED AROUND
JZ1237'THE TOWN FOR THE FUTURE) FROM THE TOWN SQUARE IN OXFORD, THENCE
JZ1237'0.1 MILE W ON ASPHALT COUNTY ROAD TO MARK ON LEFT, ABOUT ON
JZ1237'CREST OF RIDGE, 97-1/2 FEET W OF CENTER OF CREOSOTED POWER POLE,
JZ1237'147.83 FEET ESE IN AZIMUTH 283 DEG 01 SEC FROM OXFORD R.M. NO.
JZ1237'2, ONE FOOT N OF THE S RIGHT-OF-WAY FENCE, 16 FEET S OF CENTER
JZ1237'LINE OF 15-FOOT ASPHALT PAVEMENT, 1.7 FEET LOWER THAN SAME, AND
JZ1237'ABOUT A FOOT UNDERGROUND.

JZ1237'

JZ1237' STATION RECOVERY (1986)

JZ1237'

JZ1237'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986

JZ1237'THE STATION MARK , PS 2 AND AZIMUTH MARK WERE FOUND IN GOOD CONDITION
JZ1237'RM 3 WAS NOT SEARCHED FOR. NEW DESCRIPTION FOLLOWS.

JZ1237'THE STATION IS LOCATED 2.3 MILES NORTHWEST OF OXFORD ON THE RIGHT OF
JZ1237'WAY AT THE SOUTH EDGE OF RINGWOOD ROAD AND JUST EAST OF THE CAPITOL

JZ1237'VARSITY ATHLETIC EQUIPMENT COMPANY.
JZ1237'TO REACH FORM THE WATER TANK AT THE JUNCTION OF US HIGHWAY 27 AND
JZ1237'STATE ROUTE 732 IN OXFORD, GO NORTHWEST 2.3 MILES ON HIGHWAY 27,
JZ1237'THEN LEFT, WEST, 0.15 MILE ON RINGWOOD ROAD TO THE MARK ON THE LEFT.
JZ1237'THE STATION MARK IS A STANDARD CGS DISK STAMPED --OXFORD 1932-- AND
JZ1237'RECESSED 30 CM (12 INCHES). IT IS 23.6 METERS (77.5 FEET) EAST-
JZ1237'NORTHEAST OF THE NORTHEAST CORNER OF THE CAPITOL VARSITY ATHLETIC
JZ1237'EQUIPMENT BUILDING, 50.8 METERS (166.8 FEET) WEST OF A FIRE
JZ1237'HYDRANT, 4.9 METERS (16 FEET) SOUTH OF THE CENTERLINE OF THE ROAD,
JZ1237'1.40 METERS (4.6 FEET) NORTH-NORTHWEST OF UTILITY POLE NUMBER 25-2
JZ1237'AND 0.46 METERS (1.5 FEET) EAST OF A FIBERGLASS WITNESS POST.
JZ1237'TYPED BY JAMES MALONEY 9/10/87.

JZ1237

JZ1237 STATION RECOVERY (1987)

JZ1237

JZ1237'RECOVERED 1987

JZ1237'RECOVERED IN GOOD CONDITION.

JZ1237

JZ1237 STATION RECOVERY (1988)

JZ1237

JZ1237'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1988

JZ1237'RECOVERED IN GOOD CONDITION.

JZ1237

JZ1237 STATION RECOVERY (1995)

JZ1237

JZ1237'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (AJL)

JZ1237'RECOVERED AS DESCRIBED.

JZ1237

JZ1237 STATION RECOVERY (1997)

JZ1237

JZ1237'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1997 (CSM)

JZ1237'RECOVERED AS DESCRIBED.

JZ1237

JZ1237 STATION RECOVERY (2002)

JZ1237

JZ1237'RECOVERY NOTE BY BUTLER COUNTY ENGINEERS 2002 (WCL)

JZ1237'RECOVERED IN GOOD CONDITION.

JZ1473 *****

JZ1473 SACS - This is a Secondary Airport Control Station.

JZ1473 DESIGNATION - P 134

JZ1473 PID - JZ1473

JZ1473 STATE/COUNTY- OH/BUTLER

JZ1473 USGS QUAD - COLLEGE CORNER (1992)

JZ1473

JZ1473 *CURRENT SURVEY CONTROL

JZ1473

JZ1473* NAD 83(2007)- 39 30 29.52707(N) 084 46 58.13099(W) ADJUSTED

JZ1473* NAVD 88 - 315.768 (meters) 1035.98 (feet) ADJUSTED

JZ1473 EPOCH DATE - 2002.00

JZ1473 X - 448,095.265 (meters) COMP

JZ1473 Y - -4,907,429.295 (meters) COMP

JZ1473 Z - 4,036,185.821 (meters) COMP

JZ1473 LAPLACE CORR- 2.16 (seconds) DEFLECO9

JZ1473 ELLIP HEIGHT- 282.437 (meters) (02/10/07) ADJUSTED

JZ1473 GEOID HEIGHT- -33.33 (meters) GEOID09

JZ1473 DYNAMIC HT - 315.590 (meters) 1035.40 (feet) COMP

JZ1473

JZ1473 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	JZ1473	P 134	1.74	1.14	3.74

JZ1473

JZ1473 MODELED GRAV- 980,054.2 (mgal) NAVD 88

JZ1473

JZ1473 VERT ORDER - SECOND CLASS 0

JZ1473

JZ1473.This mark is at Miami Univ Airport (OXD)

JZ1473

JZ1473.The horizontal coordinates were established by GPS observations

JZ1473.and adjusted by the National Geodetic Survey in February 2007.

JZ1473

JZ1473.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).

JZ1473.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

JZ1473

JZ1473.The horizontal coordinates are valid at the epoch date displayed above

JZ1473.which is a decimal equivalence of Year/Month/Day.

JZ1473

JZ1473.The orthometric height was determined by differential leveling and

JZ1473.adjusted in June 1991.

JZ1473

JZ1473.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JZ1473

JZ1473.The Laplace correction was computed from DEFLECO9 derived deflections.

JZ1473

JZ1473.The ellipsoidal height was determined by GPS observations

JZ1473.and is referenced to NAD 83.

JZ1473

JZ1473.The geoid height was determined by GEOID09.

JZ1473

JZ1473.The dynamic height is computed by dividing the NAVD 88

JZ1473.geopotential number by the normal gravity value computed on the

JZ1473.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

JZ1473.degrees latitude (g = 980.6199 gals.).

JZ1473

JZ1473.The modeled gravity was interpolated from observed gravity values.

JZ1473

JZ1473;	North	East	Units	Scale	Factor	Converg.
JZ1473;SPC OH S	- 169,912.228	403,703.466	MT	0.99993824	-1 26 54.6	
JZ1473;SPC OH S	- 557,453.70	1,324,483.79	sFT	0.99993824	-1 26 54.6	
JZ1473;UTM 16	- 4,375,521.802	690,618.213	MT	1.00004738	+1 24 39.5	

JZ1473

JZ1473! - Elev Factor x Scale Factor = Combined Factor

JZ1473!SPC OH S - 0.99995569 x 0.99993824 = 0.99989393

JZ1473!UTM 16 - 0.99995569 x 1.00004738 = 1.00000307

JZ1473

JZ1473:	Primary Azimuth Mark	Grid Az
JZ1473:SPC OH S	- OXPORT	195 11 57.0
JZ1473:UTM 16	- OXPORT	192 20 22.9

JZ1473

JZ1473	-----
JZ1473	PID Reference Object Distance Geod. Az
JZ1473	dddmms.s
JZ1473	JZ3419 OXPORT 422.816 METERS 1934502.4
JZ1473	-----

JZ1473

JZ1473 SUPERSEDED SURVEY CONTROL

JZ1473

JZ1473	ELLIP H (10/07/05)	282.424 (m)	GP() 4 2
JZ1473	NAD 83(1995)-	39 30 29.52724(N)	084 46 58.13071(W) AD() 1
JZ1473	ELLIP H (07/02/97)	282.478 (m)	GP() 4 2
JZ1473	NAD 83(1986)-	39 30 29.53384(N)	084 46 58.14259(W) AD() 3
JZ1473	NAD 27	- 39 30 29.34511(N)	084 46 58.30597(W) AD() 3
JZ1473	NAVD 88 (07/02/97)	315.77 (m)	1036.0 (f) LEVELING 3
JZ1473	NGVD 29 (??/??/92)	315.934 (m)	1036.53 (f) ADJ UNCH 2 0

JZ1473

JZ1473.Superseded values are not recommended for survey control.

JZ1473.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JZ1473.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

JZ1473

JZ1473_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFJ9061875521(NAD 83)

JZ1473

JZ1473_MARKER: DB = BENCH MARK DISK
 JZ1473_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 JZ1473_SP_SET: SQUARE CONCRETE MONUMENT
 JZ1473_STAMPING: P 134 1947
 JZ1473_MARK LOGO: CGS
 JZ1473_MAGNETIC: N = NO MAGNETIC MATERIAL
 JZ1473_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 JZ1473+STABILITY: SURFACE MOTION
 JZ1473_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JZ1473+SATELLITE: SATELLITE OBSERVATIONS - October 11, 1995

JZ1473

JZ1473	HISTORY	- Date	Condition	Report By
JZ1473	HISTORY	- 1947	MONUMENTED	CGS
JZ1473	HISTORY	- 1986	GOOD	NGS
JZ1473	HISTORY	- 19870813	GOOD	
JZ1473	HISTORY	- 19951011	GOOD	NGS
JZ1473	HISTORY	- 20011106	GOOD	BUTCOE

JZ1473

JZ1473 STATION DESCRIPTION

JZ1473

JZ1473'DESCRIBED BY COAST AND GEODETIC SURVEY 1947

JZ1473'1.9 MI W FROM OXFORD.

JZ1473'1.9 MILES WEST ALONG THE FAIRFIELD ROAD FROM THE BALTIMORE AND
JZ1473'OHIO RAILROAD STATION AT OXFORD, AT THE ENTRANCE TO THE MIAMI
JZ1473'UNIVERSITY AIRPORT, 24 FEET SOUTH OF THE CENTER LINE OF FAIRFIELD
JZ1473'ROAD, 37 FEET WEST OF THE CENTER LINE OF THE ENTRANCE ROAD, 5
JZ1473'FEET WEST OF A POWER POLE, 3 FEET SOUTH OF THE FENCE LINE, 2
JZ1473'FEET WEST OF A WHITE WOODEN WITNESS POST, ABOUT LEVEL WITH THE
JZ1473'ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING 4 INCHES.

JZ1473

JZ1473 STATION RECOVERY (1986)

JZ1473

JZ1473'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986

JZ1473'THE STATION IS LOCATED ABOUT 2 MILES WEST OF OXPORT AT THE OXFORD/
JZ1473'MIAMI UNIVERSITY AIRPORT, 0.1 MILE NORTHWEST OF THE MAIN RUNWAY AND AT
JZ1473'THE NORTHEAST EDGE OF A TURF RUNWAY. THE AZIMUTH MARK IS LOCATED AT
JZ1473'THE JUNCTION OF FAIRFIELD ROAD AND THE AIRPORT ENTRANCE DRIVE. AIR-
JZ1473'PORT MANAGER, ROBERT YOUNTS, TELEPHONE 513-529-2735.

JZ1473'TO REACH FROM THE WATER TANK AT THE JUNCTION OF US HIGHWAY 27 (HIGH
JZ1473'STREET) AND MAIN STREET (STATE ROUTE 732) IN OXFORD GO 0.3 MILE SOUTH
JZ1473'ON MAIN STREET THEN RIGHT (WEST) ON SPRING STREET (NAME CHANGES TO
JZ1473'FAIRFIELD) FOR 2.2 MILES TO THE AIRPORT ENTRANCE DRIVE ON THE LEFT.

JZ1473'TURN LEFT AND GO 0.05 MILES SOUTH TO THE AIRPORT OFFICE IN THE SOUTH-
JZ1473'EAST CORNER OF THE TILE HANGER AND THE STATION ABOUT 0.2 MILES SOUTH
JZ1473'OF THE OFFICE.

JZ1473'THE AZIMUTH MARK IS A STANDARD CGS BENCH MARK DISK STAMPED --

JZ1473'P 134 1947-- AND SET IN A 25 CM (10 INCH) SQUARE CONCRETE MONUMENT
JZ1473'PROJECTING 3 CM (1 INCH). IT IS 7.10 METERS (23.3 FEET) SOUTH OF
JZ1473'THE CENTER OF FAIRFIELD ROAD, 11.3 METER (37 FEET) WEST OF THE CENTER
JZ1473'OF THE ENTRANCE DRIVE, 3.66 METERS (12.0 FEET) EAST-SOUTHEAST OF A
JZ1473'FENCE CORNER AND 1.46 METERS (4.8 FEET) WEST-NORTHWEST OF UTILITY
JZ1473'POLE NUMBER 787-116E.

JZ1473'TYPED JAMES MALONEY 9/07/87.

JZ1473

JZ1473 STATION RECOVERY (1987)

JZ1473

JZ1473'RECOVERED 1987

JZ1473'RECOVERED IN GOOD CONDITION.

JZ1473

JZ1473 STATION RECOVERY (1995)

JZ1473

JZ1473'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (AJL)

JZ1473'THE STATION IS LOCATED ABOUT 3.2 KM (2.00 MI) WEST OF OXFORD, AT THE

JZ1473' MIAMI UNIVERSITY AIRPORT. IN THE GRASS, JUST SOUTHWEST OF THE
JZ1473' JUNCTION OF FAIRFIELD ROAD AND THE ENTRANCE ROAD TO THE AIRPORT.
JZ1473' OWNERSHIP--MIAMI UNIVERSITY, 7101 FAIRFIELD ROAD, OXFORD, OH. 45056.
JZ1473' AIRPORT MANAGER RONALD W. DAVIS, PHONE 513-523-3231. NOTE--THIS
JZ1473' STATION WAS SELECTED AS A (SACS) . TO REACH THE STATION FROM THE
JZ1473' JUNCTION OF U.S. HIGHWAY 27 (HIGH STREET) AND STATE HIGHWAY 732 (MAIN
JZ1473' STREET) IN OXFORD, GO SOUTH, 0.48 KM (0.30 MI) ALONG MAIN STREET TO
JZ1473' SPRING STREET ON THE RIGHT. TURN RIGHT, WEST, 4.49 KM (2.80 MI) ALONG
JZ1473' SPRING STREET, THEN (NAME CHANGES TO FAIRFIELD ROAD) , TO THE AIRPORT
JZ1473' ENTRANCE ON THE LEFT AND THE STATION NEAR THE SOUTHWEST CORNER OF THE
JZ1473' JUNCTION. STATION IS 11.9 M (39.0 FT) NORTHWEST OF THE WEST 5-INCH
JZ1473' METAL ENTRANCE GATE POST, 11.6 M (38.1 FT) WEST OF THE ENTRANCE DRIVE
JZ1473' CENTER, 7.0 M (23.0 FT) SOUTH OF THE ROAD CENTERLINE, 1.3 M (4.3 FT)
JZ1473' WEST OF A UTILITY POLE WITH 1 GUY WIRE, A PHONE JUNCTION BOX AND A
JZ1473' WITNESS POST, AND THE MONUMENT IS 0.1 M (0.3 FT) BELOW THE ROAD LEVEL
JZ1473' AND PROJECTING 4 CM. ABOVE THE GROUND SURFACE. BY R.G. HAYES

JZ1473

STATION RECOVERY (2001)

JZ1473

JZ1473' RECOVERY NOTE BY BUTLER COUNTY ENGINEERS 2001 (WCL)

JZ1473' RECOVERED IN GOOD CONDITION.

LA1200 *****

LA1200 FBN - This is a Federal Base Network Control Station.

LA1200 DESIGNATION - P 220

LA1200 PID - LA1200

LA1200 STATE/COUNTY- IN/DELAWARE

LA1200 USGS QUAD - EATON (1981)

LA1200

LA1200 *CURRENT SURVEY CONTROL

LA1200* NAD 83(2007)- 40 19 34.81006(N) 085 17 08.86526(W) ADJUSTED

LA1200* NAVD 88 - 285.313 (meters) 936.06 (feet) ADJUSTED

LA1200 EPOCH DATE - 2002.00

LA1200 X - 400,205.030 (meters) COMP

LA1200 Y - -4,853,055.123 (meters) COMP

LA1200 Z - 4,105,839.899 (meters) COMP

LA1200 LAPLACE CORR- 1.76 (seconds) DEFLEC09

LA1200 ELLIP HEIGHT- 251.415 (meters) (02/10/07) ADJUSTED

LA1200 GEOID HEIGHT- -33.90 (meters) GEOID09

LA1200 DYNAMIC HT - 285.165 (meters) 935.58 (feet) COMP

LA1200

LA1200 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

Type	PID	Designation	North	East	Ellip
NETWORK	LA1200	P 220	0.47	0.35	1.08

LA1200 MODELED GRAV- 980,099.1 (mgal) NAVD 88

LA1200

LA1200 VERT ORDER - SECOND CLASS 0

LA1200

LA1200.The horizontal coordinates were established by GPS observations
 LA1200.and adjusted by the National Geodetic Survey in February 2007.

LA1200

LA1200.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 LA1200.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more
 information.

LA1200

LA1200.The horizontal coordinates are valid at the epoch date displayed above
 LA1200.which is a decimal equivalence of Year/Month/Day.

LA1200

LA1200.The orthometric height was determined by differential leveling and
 LA1200.adjusted in June 1991.

LA1200

LA1200.The X, Y, and Z were computed from the position and the ellipsoidal ht.

LA1200

LA1200.The Laplace correction was computed from DEFLEC09 derived deflections.

LA1200

LA1200.The ellipsoidal height was determined by GPS observations
 LA1200.and is referenced to NAD 83.

LA1200

LA1200.The geoid height was determined by GEOID09.

LA1200

LA1200.The dynamic height is computed by dividing the NAVD 88
LA1200.geopotential number by the normal gravity value computed on the
LA1200.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
LA1200.degrees latitude (g = 980.6199 gals.).

LA1200

LA1200.The modeled gravity was interpolated from observed gravity values.

LA1200

LA1200;
LA1200;SPC IN E - North East Units Scale Factor Converg.
LA1200;SPC IN E - 563,821.686 132,367.628 MT 0.99997956 +0 14 47.3
LA1200;SPC IN E - 1,849,804.98 434,276.13 sFT 0.99997956 +0 14 47.3
LA1200;UTM 16 - 4,465,388.381 645,628.584 MT 0.99986106 +1 06 34.3

LA1200

LA1200! - Elev Factor x Scale Factor = Combined Factor

LA1200!SPC IN E - 0.99996056 x 0.99997956 = 0.99994012

LA1200!UTM 16 - 0.99996056 x 0.99986106 = 0.99982163

LA1200

LA1200 SUPERSEDED SURVEY CONTROL

LA1200

LA1200 NAD 83(1997)- 40 19 34.81012(N) 085 17 08.86493(W) AD() B

LA1200 ELLIP H (04/10/98) 251.433 (m) GP() 4 1

LA1200 NAVD 88 (04/10/98) 285.31 (m) 936.1 (f) LEVELING 3

LA1200 NGVD 29 (??/??/92) 285.448 (m) 936.51 (f) ADJ UNCH 2 0

LA1200

LA1200.Superseded values are not recommended for survey control.

LA1200.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

LA1200.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to
determine how the superseded data were derived.

LA1200

LA1200_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TFK4562865388(NAD 83)

LA1200

LA1200_MARKER: DB = BENCH MARK DISK

LA1200_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

LA1200_SP_SET: SET IN TOP OF CONCRETE MONUMENT

LA1200_STAMPING: P 220 1947

LA1200_MARK LOGO: CGS

LA1200_MAGNETIC: O = OTHER; SEE DESCRIPTION

LA1200_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

LA1200+STABILITY: SURFACE MOTION

LA1200_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

LA1200+SATELLITE: SATELLITE OBSERVATIONS - January 04, 2005

LA1200

LA1200 HISTORY - Date Condition Report By

LA1200 HISTORY - 1947 MONUMENTED CGS

LA1200 HISTORY - 19970808 GOOD SEC

LA1200 HISTORY - 19980726 GOOD WOOLPT

LA1200 HISTORY - 20030623 GOOD NGS

LA1200 HISTORY - 20050104 GOOD SEC

LA1200

LA1200 STATION DESCRIPTION

LA1200

LA1200'DESCRIBED BY COAST AND GEODETIC SURVEY 1947

LA1200'4 MI E FROM EATON.

LA1200'ABOUT 4.0 MILES EAST ALONG A BLACK TOP ROAD FROM ITS INTERSECTION

LA1200'WITH THE NEW YORK, CHICAGO AND ST. LOUIS RAILROAD AT EATON, AT

LA1200'THE INTERSECTION OF A GRAVEL ROAD, 34 FEET WEST OF THE CENTER
LA1200'LINE OF THE NORTH-SOUTH ROAD, 27 FEET NORTH OF THE CENTER LINE
LA1200'OF THE EAST-WEST ROAD, 1 FOOT SOUTHEAST OF A WHITE WOODEN WITNESS
LA1200'POST, ABOUT 1 FOOT BELOW THE ROADS AND SET IN THE TOP OF A
LA1200'CONCRETE POST PROJECTING 4 INCHES. NOTE-- MARK MAY BE REACHED
LA1200'FROM THE HIGH SCHOOL AT MILGROVE, BLACKFORD COUNTY BY GOING ABOUT
LA1200'2.8 MILES SOUTH ALONG A COUNTY ROAD, THENCE 0.5 MILE WEST, THENCE
LA1200'ABOUT 2.6 MILES SOUTH ALONG A BLACK TOP ROAD AND SITE OF MARK.

LA1200

STATION RECOVERY (1997)

LA1200

LA1200

LA1200'RECOVERY NOTE BY SCHNEIDER ENGINEERING CORPORATION 1997 (RGR)
LA1200'THE STATION IS LOCATED 4 MILES (6.4 KM) EAST OF EATON. FROM MUNCIE
LA1200'TAKE BROADWAY NORTH UNTIL IT TURNS INTO U.S. HIGHWAY 67 NORTH. TURN
LA1200'RIGHT, NORTH ON COUNTY ROAD 550 EAST AT MUNCIE SPEEDWAY. STATION IS AT
LA1200'THE CORNER OF COUNTY ROAD 940 NORTH AND COUNTY ROAD 550. FROM
LA1200'MILGROVE HIGH SCHOOL (BLACKFORD COUNTY) GO 2.8 MILES (4.5 KM) SOUTH,
LA1200'THEN 0.5 MILES (0.8 KM) WEST, THEN 2.6 MILES (4.2 KM) SOUTH ALONG
LA1200'BLACKTOP COUNTY ROAD. LOCATED 26.3 FEET (8.0 M) NORTH OF CENTERLINE
LA1200'OF 940 NORTH, 26 FEET (7.9 M) SOUTHWEST OF NORTHWEST CORNER STOP SIGN.
LA1200'OWNERSHIP--DOROTHY POST. NEAREST HOUSE TO THE NORTH ON WEST SIDE OF
LA1200'COUNTY ROAD 550 EAST - 15224 COUNTY ROAD 550 EAST.

LA1200

STATION RECOVERY (1998)

LA1200

LA1200

LA1200'RECOVERY NOTE BY WOOLPERT CONSULTANTS 1998 (BBS)
LA1200'RECOVERED AS DESCRIBED. WOOLPERT LLP 1998 (BBS). ALTERNATE
LA1200'ROUTE--FROM THE INTERSECTION OF STATE ROUTE 35, STATE ROUTE 3 AND
LA1200'STATE ROUTE 28 (8 MI NORTH OF MUNCIE) , PROCEED 2.7 MI (4.3 KM) EAST
LA1200'ON STATE ROUTE 28 TO STATE ROUTE 67. THEN TURN LEFT AND PROCEED 1.5
LA1200'MI (2.4 KM) EAST ALONG COMBINED STATE ROUTES 67 AND 28 TO A
LA1200'CROSSROADS. TURN LEFT ONTO COUNTY ROAD 550 E / BLACK CEMETERY ROAD
LA1200'AND PROCEED 2.2 MI (3.5 KM) NORTHERLY ALONG BLACK CEMETERY ROAD TO THE
LA1200'INTERSECTION OF COUNTY ROAD 550 E AND COUNTY ROAD 940 N / EATON-ALBANY
LA1200'PIKE. THE STATION IS IN THE NORTHWEST QUADRANT OF THE INTERSECTION.

LA1200

STATION RECOVERY (2003)

LA1200

LA1200

LA1200'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2003 (JMW)
LA1200'RECOVERED AS DESCRIBED.

LA1200

STATION RECOVERY (2005)

LA1200

LA1200

LA1200'RECOVERY NOTE BY SCHNEIDER ENGINEERING CORPORATION 2005 (CAC)
LA1200'RECOVERED AS DESCRIBED

LA0984 *****

LA0984 DESIGNATION - Q 213

LA0984 PID - LA0984

LA0984 STATE/COUNTY- IN/WELLS

LA0984 USGS QUAD - LIBERTY CENTER (1962)

LA0984

LA0984 *CURRENT SURVEY CONTROL

LA0984* NAD 83(2007)- 40 44 30.88086(N) 085 16 45.64174(W) ADJUSTED

LA0984* NAVD 88 - 253.824 (meters) 832.75 (feet) ADJUSTED

LA0984 EPOCH DATE - 2002.00

LA0984 X - 398,281.161 (meters) COMP

LA0984 Y - -4,823,095.549 (meters) COMP

LA0984 Z - 4,140,893.629 (meters) COMP

LA0984 LAPLACE CORR- 2.16 (seconds) DEFLEC09

LA0984 ELLIP HEIGHT- 219.900 (meters) (02/10/07) ADJUSTED

LA0984 GEOID HEIGHT- -33.92 (meters) GEOID09

LA0984 DYNAMIC HT - 253.701 (meters) 832.35 (feet) COMP

LA0984

LA0984 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

LA0984 Type PID Designation North East Ellip

LA0984 -----

LA0984 NETWORK LA0984 Q 213 0.82 0.55 2.53

LA0984 -----

LA0984 MODELED GRAV- 980,135.0 (mgal) NAVD 88

LA0984

LA0984 VERT ORDER - SECOND CLASS 0

LA0984

LA0984.The horizontal coordinates were established by GPS observations

LA0984.and adjusted by the National Geodetic Survey in February 2007.

LA0984

LA0984.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).

LA0984.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

LA0984

LA0984.The horizontal coordinates are valid at the epoch date displayed above

LA0984.which is a decimal equivalence of Year/Month/Day.

LA0984

LA0984.The orthometric height was determined by differential leveling and

LA0984.adjusted in June 1991.

LA0984

LA0984.The X, Y, and Z were computed from the position and the ellipsoidal ht.

LA0984

LA0984.The Laplace correction was computed from DEFLEC09 derived deflections.

LA0984

LA0984.The ellipsoidal height was determined by GPS observations

LA0984.and is referenced to NAD 83.

LA0984

LA0984.The geoid height was determined by GEOID09.

LA0984

LA0984.The dynamic height is computed by dividing the NAVD 88

LA0984.geopotential number by the normal gravity value computed on the
LA0984.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
LA0984.degrees latitude (g = 980.6199 gals.).

LA0984

LA0984.The modeled gravity was interpolated from observed gravity values.

LA0984

LA0984;	North	East	Units	Scale Factor	Converg.
LA0984;SPC IN E	- 609,970.207	132,713.115	MT	0.99997983	+0 15 10.0
LA0984;SPC IN E	- 2,001,210.59	435,409.61	sFT	0.99997983	+0 15 10.0
LA0984;UTM 16	- 4,511,531.344	645,276.001	MT	0.99985978	+1 07 23.5

LA0984

LA0984! - Elev Factor x Scale Factor = Combined Factor

LA0984!SPC IN E - 0.99996551 x 0.99997983 = 0.99994534

LA0984!UTM 16 - 0.99996551 x 0.99985978 = 0.99982529

LA0984

LA0984:	Primary Azimuth Mark	Grid Az
LA0984:SPC IN E	- Q 213 AZ MK	181 30 26.0
LA0984:UTM 16	- Q 213 AZ MK	180 38 12.5

LA0984

LA0984	PID	Reference Object	Distance	Geod. Az
LA0984			dddmms.s	
LA0984	CC7805	Q 213 RM 1	25.528 METERS	08849
LA0984	CC7804	Q 213 AZ MK		1814536.0
LA0984	CC7806	Q 213 RM 2	29.179 METERS	20105

LA0984

LA0984

SUPERSEDED SURVEY CONTROL

LA0984

LA0984 NAD 83(1995)- 40 44 30.88108(N) 085 16 45.65159(W) AD() 2

LA0984 NAD 83(1997)- 40 44 30.88089(N) 085 16 45.64137(W) AD() B

LA0984 ELLIP H (03/12/98) 219.926 (m) GP() 1 2

LA0984 NAD 83(1986)- 40 44 30.88312(N) 085 16 45.65901(W) AD() 2

LA0984 NAD 27 - 40 44 30.71390(N) 085 16 45.76330(W) AD() 2

LA0984 NAVD 88 (03/12/98) 253.82 (m) 832.7 (f) LEVELING 3

LA0984 NGVD 29 (??/??/92) 253.961 (m) 833.20 (f) ADJ UNCH 2 0

LA0984

LA0984.Superseded values are not recommended for survey control.

LA0984.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

LA0984.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

LA0984

LA0984_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TFL4527611531(NAD 83)

LA0984

LA0984_MARKER: DS = TRIANGULATION STATION DISK

LA0984_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

LA0984_SP_SET: SET IN TOP OF CONCRETE MONUMENT

LA0984_STAMPING: Q 213 1947

LA0984_MARK LOGO: CGS

LA0984_MAGNETIC: O = OTHER; SEE DESCRIPTION

LA0984_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

LA0984+STABILITY: SURFACE MOTION

LA0984_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

LA0984+SATELLITE: SATELLITE OBSERVATIONS - March 19, 2011

LA0984
 LA0984 HISTORY - Date Condition Report By
 LA0984 HISTORY - 1947 MONUMENTED CGS
 LA0984 HISTORY - 1955 GOOD CGS
 LA0984 HISTORY - 19980726 GOOD WOOLPT
 LA0984 HISTORY - 20110319 GOOD INDIV
 LA0984 HISTORY - 20110319 GOOD INDIV

LA0984

LA0984 STATION DESCRIPTION

LA0984

LA0984'DESCRIBED BY COAST AND GEODETIC SURVEY 1947

LA0984'6 MI W FROM BLUFFTON.

LA0984'ABOUT 5.95 MILES WEST ALONG STATE HIGHWAY 124 FROM THE COURT HOUSE

LA0984'AT BLUFFTON, ABOUT 5.95 MILES EAST OF THE CHRISTIAN CHURCH AT PLUM

LA0984'TREE, HUNTINGTON COUNTY, AT THE INTERSECTION OF STATE HIGHWAY 303,

LA0984'95 FEET EAST OF THE CENTER LINE OF HIGHWAY 303, 40 FEET SOUTH

LA0984'OF THE CENTER LINE OF HIGHWAY 124, 14 FEET EAST OF A FENCE CORNER,

LA0984'1 FOOT NORTH OF THE FENCE LINE, 1.3 FEET WEST OF A WHITE WOODEN

LA0984'WITNESS POST, ABOUT LEVEL WITH THE HIGHWAYS AND SET IN THE TOP OF

LA0984'A CONCRETE POST PROJECTING 6 INCHES. NOTE-- IN MAY 1955, IT WAS

LA0984'REPORTED THAT THIS MARK WAS ESTABLISHED AS A TRIANGULATION STATION.

LA0984

LA0984 STATION RECOVERY (1955)

LA0984

LA0984'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1955 (WFD)

LA0984'THE STATION IS ABOUT 5 MILES WEST OF THE TOWN OF BLUFFTON AND 3 MILES

LA0984'NORTH OF LIBERTY CENTER.

LA0984'IT IS 109 FEET SOUTHEAST OF THE INTERSECTION OF STATE HIGHWAYS 124

LA0984'AND 303, 13 FEET EAST OF A FENCE

LA0984'CORNER AND 1 FOOT NORTH OF A FENCE.

LA0984'

LA0984'TO REACH THE AZIMUTH MARK FROM THE STATION, GO SOUTH ON HIGHWAY 303

LA0984'FOR 0.25 MILE TO THE AZIMUTH

LA0984'MARK ON THE RIGHT.

LA0984'

LA0984'THE STATION MARK IS A STANDARD BENCH MARK DISK SET IN THE TOP OF A 12

LA0984'INCH X 12 INCH CONCRETE POST THAT

LA0984'PROJECTS 4 INCHES AND THE DISK IS STAMPED Q 213 1947.

LA0984'

LA0984'REFERENCE MARK 1 IS 38 FEET SOUTH OF THE CENTER OF HIGHWAY 124 AND 4

LA0984'FEET NORTH OF A FENCE. THE

LA0984'MARK PROJECTS 3 INCHES AND THE DISK IS STAMPED BENCH MARK Q 213 NO 1

LA0984'1947.

LA0984'

LA0984'REFERENCE MARK 2 IS 48 FEET EAST OF THE CENTER OF HIGHWAY 303 AND 21

LA0984'FEET WEST OF A FENCE. THE

LA0984'MARK PROJECTS 2 INCHES AND THE DISK IS STAMPED BENCH MARK Q 213 NO 2

LA0984'1947.

LA0984'

LA0984'THE AZIMUTH MARK IS 39 FEET WEST OF HIGHWAY 303, 2 FEET NORTHWEST OF

LA0984'A POWERLINE POLE AND 2 FEET

LA0984'SOUTHEAST OF A 4 INCH X 4 INCH WHITE WITNESS POST. THE MARK PROJECTS

LA0984'6 INCHES AND THE DISK IS STAMPED BENCH MARK

LA0984'Q 213 1947.

LA0984'
LA0984'HEIGHT OF LIGHT ABOVE STATION MARK 34 METERS.

LA0984

LA0984 STATION RECOVERY (1998)

LA0984

LA0984'RECOVERY NOTE BY WOOLPERT CONSULTANTS 1998 (GTF)
LA0984'DESCRIBED BY WOOLPERT LLP 1998 (GTF) . THE STATION IS 6 MI (9.7 KM)
LA0984'WEST OF BLUFFTON, 3 MI (4.8 KM) NORTH OF LIBERTY CENTER, ON PROPERTY
LA0984'OF MR. PLATT, HOUSE NUMBER 2958, STATE ROUTE 124. TO REACH THE
LA0984'STATION FROM THE INTERSECTION OF STATE ROUTE 3 AND STATE ROUTE 124,
LA0984'ONE MILE WEST OF PLUM TREE, PROCEED 5.0 MI (8.0 KM) ALONG STATE ROUTE
LA0984'124 TO COUNTY ROAD 300 WEST, AND PROCEED APPROXIMATELY 100 FT (30.5 M)
LA0984'ALONG STATE ROUTE 124 TO THE STATION ON THE RIGHT. THE STATION IS
LA0984'LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF STATE ROUTE
LA0984'124 AND COUNTY ROAD 300 WEST. THE STATION IS A TRIANGULATION STATION
LA0984'DISK STAMPED--Q 213 1947-- SET IN A ROUND CONCRETE MONUMENT PROJECTING
LA0984'.15 M (0.49 FT) ABOVE THE GROUND. THE STATION IS 29.0 M (95.1 FT)
LA0984'EAST OF THE CENTERLINE OF COUNTY ROAD 300 WEST, 12.2 M (40.0 FT) SOUTH
LA0984'OF THE CENTERLINE OF STATE ROUTE 124, AND 12.6 M (41.3 FT) NORTHEAST
LA0984'OF A WHITE WELLS COUNTY WITNESS POST.

LA0984

LA0984 STATION RECOVERY (2011)

LA0984

LA0984'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011
LA0984'DES Q 213, PID LA0984, IN/WELLS, LIBERTY CENTER QUAD

LA0984'

LA0984'RECOVERED IN GOOD CONDITION AS DESCRIBED.

LA0984

LA0984 STATION RECOVERY (2011)

LA0984

LA0984'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011 (RF)
LA0984'MONUMENT WAS GPS OBSERVED FOR NSPS SURVEYING AMERICA

LA0984'

JZ2850 *****

JZ2850 DESIGNATION - SHELBY

JZ2850 PID - JZ2850

JZ2850 STATE/COUNTY- IN/SHELBY

JZ2850 USGS QUAD - SHELBYVILLE (1994)

JZ2850

JZ2850 *CURRENT SURVEY CONTROL

JZ2850* NAD 83(1997)- 39 34 42.75923(N) 085 48 03.01368(W) ADJUSTED

JZ2850* NAVD 88 - 245.014 (meters) 803.85 (feet) ADJUSTED

JZ2850 X - 360,466.517 (meters) COMP

JZ2850 Y - -4,909,602.040 (meters) COMP

JZ2850 Z - 4,042,163.118 (meters) COMP

JZ2850 LAPLACE CORR- -3.18 (seconds) DEFLEC09

JZ2850 ELLIP HEIGHT- 211.101 (meters) (05/25/99) ADJUSTED

JZ2850 GEOID HEIGHT- -33.81 (meters) GEOID09

JZ2850 DYNAMIC HT - 244.872 (meters) 803.38 (feet) COMP

JZ2850 MODELED GRAV- 980,040.0 (mgal) NAVD 88

JZ2850

JZ2850 HORZ ORDER - THIRD

JZ2850 VERT ORDER - FIRST CLASS II

JZ2850 ELLP ORDER - FOURTH CLASS I

JZ2850

JZ2850.This mark is at Shelbyville Airport (3SM)

JZ2850

JZ2850.The horizontal coordinates were established by GPS observations

JZ2850.and adjusted by the National Geodetic Survey in May 1999.

JZ2850

JZ2850.The orthometric height was determined by differential leveling and

JZ2850.adjusted in June 1991.

JZ2850

JZ2850.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JZ2850

JZ2850.The Laplace correction was computed from DEFLEC09 derived deflections.

JZ2850

JZ2850.The ellipsoidal height was determined by GPS observations

JZ2850.and is referenced to NAD 83.

JZ2850

JZ2850.The geoid height was determined by GEOID09.

JZ2850

JZ2850.The dynamic height is computed by dividing the NAVD 88

JZ2850.geopotential number by the normal gravity value computed on the

JZ2850.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

JZ2850.degrees latitude (g = 980.6199 gals.).

JZ2850

JZ2850.The modeled gravity was interpolated from observed gravity values.

JZ2850

JZ2850;	North	East	Units	Scale	Factor	Converg.
JZ2850;SPC IN E	- 480,733.314	88,472.922	MT	0.99996830	-0 05 07.7	
JZ2850;SPC IN E	- 1,577,205.88	290,264.91	sFT	0.99996830	-0 05 07.7	
JZ2850;UTM 16	- 4,381,668.175	602,988.130	MT	0.99973058	+0 45 50.7	

JZ2850
JZ2850! - Elev Factor x Scale Factor = Combined Factor
JZ2850!SPC IN E - 0.99996688 x 0.99996830 = 0.99993518
JZ2850!UTM 16 - 0.99996688 x 0.99973058 = 0.99969747

JZ2850
JZ2850: Primary Azimuth Mark Grid Az
JZ2850:SPC IN E - SHELBY AZ MK 178 59 08.8
JZ2850:UTM 16 - SHELBY AZ MK 178 08 10.4

JZ2850
JZ2850|-----|
JZ2850| PID Reference Object Distance Geod. Az |
JZ2850| dddmmss.s |
JZ2850| JZ2851 SHELBY AZ MK APPROX. 0.5 KM 1785401.1 |
JZ2850|-----|

JZ2850
JZ2850 SUPERSEDED SURVEY CONTROL
JZ2850

JZ2850 NAD 83(1986)- 39 34 42.76155(N) 085 48 03.02275(W) AD() 3
JZ2850 NAD 27 - 39 34 42.59061(N) 085 48 03.09672(W) AD() 3
JZ2850 NGVD 29 (02/23/89) 245.21 (m) 804.5 (f) LEVELING 3
JZ2850

JZ2850.Superseded values are not recommended for survey control.
JZ2850.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
JZ2850.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

JZ2850
JZ2850_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SFJ0298881668(NAD 83)

JZ2850
JZ2850_MARKER: DS = TRIANGULATION STATION DISK
JZ2850_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
JZ2850_SP_SET: CONCRETE POST
JZ2850_STAMPING: SHELBY 1986
JZ2850_MARK LOGO: NGS
JZ2850_PROJECTION: FLUSH
JZ2850_MAGNETIC: N = NO MAGNETIC MATERIAL
JZ2850_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
JZ2850_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
JZ2850+SATELLITE: SATELLITE OBSERVATIONS - June 29, 1988

JZ2850
JZ2850 HISTORY - Date Condition Report By
JZ2850 HISTORY - 1986 MONUMENTED NGS
JZ2850 HISTORY - 1986 GOOD NGS
JZ2850 HISTORY - 19880629 GOOD
JZ2850 HISTORY - 19970101 GOOD INDNR

JZ2850
JZ2850 STATION DESCRIPTION
JZ2850

JZ2850'DESCRIBED BY NATIONAL GEODETIC SURVEY 1986
JZ2850'8.5 KM (5.3 MI) NW FROM SHELBYVILLE.
JZ2850'THE MARK IS ABOVE LEVEL WITH THE TAXIWAY.
JZ2850'7.2 KM (4.45 MI) NORTHWESTERLY ALONG INTERSTATE HIGHWAY 74 FROM ITS
JZ2850'JUNCTION WITH STATE HIGHWAY 44 IN SHELBYVILLE, THENCE 1.2 KM (0.75 MI)
JZ2850'NORTH ALONG COUNTY ROAD 100 WEST, THENCE 0.1 KM (0.05 MI) WEST ALONG
JZ2850'THE ENTRANCE ROAD TO THE SHELBYVILLE MUNICIPAL AIRPORT, 94.4 M (309.7

JZ2850'FT) WEST OF THE SOUTHWEST CORNER OF THE AIRPORT OFFICE, 27.1 M (88.9 JZ2850'FT) EAST OF THE EAST EDGE OF THE MAIN RUNWAY, 11.6 M (38.1 FT) EAST OF JZ2850'A BLUE RUNWAY MARKER, 10.5 M (34.4 FT) WEST OF THE CENTER OF THE JZ2850'NORTH-SOUTH TAXIWAY, AND 8.5 M (27.9 FT) NORTH OF THE CENTER OF THE JZ2850'EAST-WEST TAXIWAY.

JZ2850

JZ2850

STATION RECOVERY (1986)

JZ2850

JZ2850'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986

JZ2850'THE STATION IS LOCATED ABOUT 32.2 KM (20.00 MI) SOUTHEAST OF JZ2850'GREENWOOD, 25.7 KM (15.95 MI) SOUTH OF GREENFIELD, 4.0 KM (2.50 MI) JZ2850'NORTH OF SHELBYVILLE AND AT THE SHELBYVILLE MUNICIPAL AIRPORT. JZ2850'OWNERSHIP--SHELBYVILLE AVIATION, INC., SHELBYVILLE MUNICIPAL AIRPORT, JZ2850'RT 2, BOX 135, SHELBYVILLE, IN 46176, PHONE 317-392-7627. AIRPORT JZ2850'MANAGER IS DARRELL SHRADER. JZ2850'TO REACH FROM THE CENTER OF OVERPASS OVER INTERSTATE HIGHWAY 74 IN JZ2850'SHELBYVILLE, GO NORTH ON STATE HIGHWAY 9 FOR 3.1 KM (1.95 MI) TO A JZ2850'SIDE ROAD LEFT. TURN LEFT AND GO WEST ON COUNTY ROAD 350N FOR 2.1 KM JZ2850'(1.30 MI) TO A T-ROAD JUNCTION. TURN RIGHT AND GO NORTH ON COUNTY JZ2850'ROAD 100W FOR 0.2 KM (0.10 MI) TO AIRPORT OFFICE ON THE LEFT. FROM JZ2850'WEST SIDE OF OFFICE, GO WEST ACROSS APRON AND TAXIWAY FOR 0.08 KM JZ2850'(0.05 MI) TO A NORTH-SOUTH TAXIWAY AND THE STATION IN THE NORTHWEST JZ2850'QUADRANT OF THIS INTERSECTION.

JZ2850'THE STATION IS A STANDARD NGS STATION MARK DISK STAMPED---SHELBY JZ2850'1986---, SET IN THE TOP OF A 20 CM IN DIAMETER CONCRETE POST THAT IS JZ2850'FLUSH WITH THE GROUND. LOCATED 27.13 M (89.0 FT) EAST FROM EAST EDGE JZ2850'OF RUNWAY, 11.58 M (38.0 FT) EAST FROM A BLUE RUNWAY MARKER LIGHT, JZ2850'10.55 M (34.6 FT) WEST FROM CENTER OF NORTH-SOUTH TAXIWAY, 8.53 M JZ2850'(28.0 FT) NORTH FROM CENTER OF EAST-WEST TAXIWAY AND 1.04 M (3.4 FT) JZ2850'NORTHWEST FROM EDGE OF PAVEMENT.

JZ2850'GPS SURVEY, FAA AIRPORTS, INDIANA.

JZ2850'DESCRIBED BY D.A. BOWLING.

JZ2850

JZ2850

STATION RECOVERY (1988)

JZ2850

JZ2850'RECOVERED 1988

JZ2850'RECOVERED IN GOOD CONDITION.

JZ2850

JZ2850

STATION RECOVERY (1997)

JZ2850

JZ2850'RECOVERY NOTE BY IN DEPT OF NAT RES 1997 (JP)

JZ2850'EXCELLENT CONDITION.

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MD1483 *****
MD1483 DESIGNATION - SUMMIT
MD1483 PID - MD1483
MD1483 STATE/COUNTY- IN/DE KALB
MD1483 USGS QUAD - ASHLEY (1993)
MD1483
MD1483 *CURRENT SURVEY CONTROL
MD1483
MD1483* NAD 83(1997)- 41 30 48.21824(N) 085 00 33.31129(W) ADJUSTED
MD1483* NAVD 88 - 303. (meters) 994. (feet) SCALED
MD1483
MD1483 LAPLACE CORR- -2.63 (seconds) DEFLEC09
MD1483 GEOID HEIGHT- -33.22 (meters) GEOID09
MD1483 HORZ ORDER - THIRD
MD1483
MD1483.The horizontal coordinates were established by classical geodetic methods
MD1483.and adjusted by the National Geodetic Survey in May 1999.
MD1483.
MD1483.The orthometric height was scaled from a topographic map.
MD1483
MD1483.The Laplace correction was computed from DEFLEC09 derived deflections.
MD1483
MD1483.The geoid height was determined by GEOID09.
MD1483
MD1483; North East Units Scale Factor Converg.
MD1483;SPC IN E - 695,781.929 154,878.519 MT 1.00000371 +0 26 08.7
MD1483;SPC IN E - 2,282,744.55 508,130.61 sFT 1.00000371 +0 26 08.7
MD1483;UTM 16 - 4,597,664.435 666,123.132 MT 0.99993962 +1 19 11.1
MD1483
MD1483! - Elev Factor x Scale Factor = Combined Factor
MD1483!SPC IN E - 0.99995771 x 1.00000371 = 0.99996142
MD1483!UTM 16 - 0.99995771 x 0.99993962 = 0.99989733
MD1483
MD1483: Primary Azimuth Mark Grid Az
MD1483:SPC IN E - SUMMIT AZ MK 088 57 50.0
MD1483:UTM 16 - SUMMIT AZ MK 088 04 47.6
MD1483
MD1483|-----|
MD1483| PID Reference Object Distance Geod. Az |
MD1483| dddmmss.s |
MD1483| CF2742 SUMMIT RM 1 23.835 METERS 00346 |
MD1483| CF2741 SUMMIT AZ MK 0892358.7 |
MD1483| CF2743 SUMMIT RM 2 25.756 METERS 25222 |
MD1483|-----|
MD1483
MD1483 SUPERSEDED SURVEY CONTROL
MD1483
MD1483 NAD 83(1995)- 41 30 48.21807(N) 085 00 33.31288(W) AD( ) 3
MD1483 NAD 83(1994)- 41 30 48.21736(N) 085 00 33.32248(W) AD( ) 3
MD1483 NAD 83(1986)- 41 30 48.21914(N) 085 00 33.32455(W) AD( ) 3
MD1483 NAD 27 - 41 30 48.03500(N) 085 00 33.45080(W) AD( ) 3
MD1483

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MD1483.Superseded values are not recommended for survey control.
MD1483.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
MD1483.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.pr?Item=HOW_SUP_DET>to determine how the superseded data were derived.

MD1483

MD1483_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TFL6612397664(NAD 83)

MD1483

MD1483_MARKER: DO = NOT SPECIFIED OR SEE DESCRIPTION

MD1483_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

MD1483

MD1483 HISTORY - Date Condition Report By

MD1483 HISTORY - 1946 MONUMENTED CGS

MD1483 HISTORY - 1960 SEE DESCRIPTION CGS

MD1483

MD1483 STATION DESCRIPTION

MD1483

MD1483'DESCRIBED BY COAST AND GEODETIC SURVEY 1946 (RCB)

MD1483'THE STATION IS LOCATED ABOUT 5-1/2 MILES NORTH OF WATERLOO AND 9-1/2

MD1483'MILES SOUTH OF ANGOLA

MD1483'ALONG THE WEST SIDE OF U.S. HIGHWAY NO. 27. IT IS 47 FEET WEST OF

MD1483'THE CENTERLINE OF U.S. HIGHWAY NO.

MD1483'27, 26 FEET NORTHEAST OF A CONCRETE RIGHT OF WAY POST AND

MD1483'4 FEET SOUTHWEST OF A WHITE WITNESS POST. THE

MD1483'MARK PROJECTS ABOUT 12 INCHES AND THE DISK

MD1483'IS STAMPED SUMMIT 1946.

MD1483'

MD1483'REFERENCE MARK NO. 1 IS 78.20 FEET NORTH OF THE STATION, 40 FEET WEST

MD1483'OF THE CENTERLINE OF U.S. HIGHWAY

MD1483'NO. 27 AND 1 FOOT WEST OF A NORTH-SOUTH FENCE LINE. THE MARK IS

MD1483'FLUSH WITH THE GROUND AND THE DISK

MD1483'IS STAMPED SUMMIT NO 1 1946.

MD1483'

MD1483'REFERENCE MARK NO. 2 IS 84.50 FEET SOUTHWEST OF THE STATION, 21 FEET

MD1483'NORTH OF THE APPROXIMATE CENTERLINE OF A

MD1483'GRAVEL ROAD, 7 FEET WEST OF POWER LINE POLE NO. 467/991 AND 1 FOOT

MD1483'NORTH OF AN EAST-WEST FENCE LINE.

MD1483'THE MARK PROJECTS ABOUT 2 INCHES AND THE DISK IS STAMPED

MD1483'SUMMIT NO 2 1946.

MD1483'

MD1483'THE AZIMUTH MARK IS 0.3 MILE EAST OF THE STATION, 19 FEET NORTH OF

MD1483'THE APPROXIMATE CENTERLINE OF A

MD1483'GRAVEL ROAD, 3 FEET SOUTH OF AN EAST-WEST FENCE LINE AND 2 FEET

MD1483'NORTHWEST OF A WHITE WITNESS POST.

MD1483'THE MARK IS FLUSH WITH THE GROUND AND THE DISK IS STAMPED

MD1483'SUMMIT 1946.

MD1483'

MD1483'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY NO. 6 AND

MD1483'U.S. HIGHWAY NO. 27 IN

MD1483'WATERLOO, GO NORTH ON U.S. HIGHWAY NO. 27 FOR 6.0 MILES TO A GRAVEL

MD1483'CROSSROAD AND THE STATION IN THE

MD1483'NORTHWEST ANGLE. TO REACH THE AZIMUTH MARK FROM THE STATION

MD1483'GO EAST ON A GRAVEL ROAD FOR 0.3 MILE TO

MD1483'THE AZIMUTH MARK ON THE LEFT AS DESCRIBED.

MD1483'

MD1483'HEIGHT OF LIGHT ABOVE STATION MARK - 30 METERS.

MD1483

MD1483 STATION RECOVERY (1960)

MD1483

MD1483'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1960 (ALW)

MD1483'RECOVERED ALL MARKS IN GOOD CONDITION ESSENTIALLY AS ORIGINALLY

MD1483'DESCRIBED.

MD1483'

MD1483'ABOUT 6.0 MILES N ON NO. 27 U.S. HWY. FROM ITS JUNCTION WITH NO. 6

MD1483'U.S. HWY. IN WATERLOO, 4.3

MD1483'MILES S FROM JUNCTION WITH NO. 727 INDIANA HWY. IN PLEASANT LAKE, 0.6

MD1483'MILE E OF OLD ABANDONED R.R. STATION

MD1483'OF SUMMIT, AT BARKERS CHAPEL CHURCH AND CEMETERY, 47 FEET

MD1483'W OF CENTER LINE OF THE HWY., 3.1 FEET HIGHER THAN

MD1483'SAME, 42 FEET N OF CENTER LINE OF NO.

MD1483'4 COUNTY ROAD, 2.2 FEET SW OF STEEL WITNESS POST, AND 1 FOOT SE OF

MD1483'FENCE.

MD1483'

MD1483'REFERENCE STAMPED SUMMIT NO 1 1946, NOTE 11A, FLUSH, IS 78.18 FEET OR

MD1483'23.829 METERS N IN AZIMUTH 183

MD1483'DEG. 46 MIN. FROM STATION, 117 FEET N OF CENTER LINE OF COUNTY ROAD,

MD1483'40 FEET W CENTER LINE OF HWY., AND 1 FOOT W

MD1483'OF FENCE.

MD1483'

MD1483'REFERENCE STAMPED SUMMIT NO 2 1946, NOTE 11A, FLUSH, IS 84.43 FEET OR

MD1483'25.734 METERS WSW IN AZIMUTH 72

MD1483'DEG. 22 MIN. FROM STATION, 128 FEET W OF CENTER LINE OF HWY., 21 FEET

MD1483'N OF CENTER LINE OF ASPHALT COUNTY ROAD, AND 0.5

MD1483'FOOT S OF FENCE.

MD1483'

MD1483'AZIMUTH STAMPED SUMMIT 1946, NOTE 16A, FLUSH, IS ABOUT 0.3 MILE E OF

MD1483'THE STATION, 46 FEET W OF

MD1483'PROJECTED PLANE OF W WALL OF HOUSE THAT IS ON CREST OF RIDGE, 27 FEET

MD1483'W OF CENTER LINE OF LANE, 19 FEET N OF

MD1483'CENTER LINE OF ASPHALT ROAD, 0.5 FOOT HIGHER THAN SAME, 5

MD1483'FEET S OF FENCE, AND 1.5 FEET W OF STEEL

MD1483'WITNESS POST.

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MD1058 *****
MD1058 DESIGNATION - W 157
MD1058 PID - MD1058
MD1058 STATE/COUNTY- IN/KOSCIUSKO
MD1058 USGS QUAD - MILFORD (1994)
MD1058
MD1058 *CURRENT SURVEY CONTROL
MD1058
MD1058* NAD 83(2007)- 41 22 35.27820(N) 085 50 41.55608(W) NO CHECK
MD1058* NAVD 88 - 257.115 (meters) 843.55 (feet) ADJUSTED
MD1058
MD1058 EPOCH DATE - 2002.00
MD1058 X - 347,302.926 (meters) COMP
MD1058 Y - -4,780,627.115 (meters) COMP
MD1058 Z - 4,194,034.665 (meters) COMP
MD1058 LAPLACE CORR- 1.16 (seconds) DEFLEC09
MD1058 ELLIP HEIGHT- 223.665 (meters) (02/10/07) NO CHECK
MD1058 GEOID HEIGHT- -33.45 (meters) GEOID09
MD1058 DYNAMIC HT - 257.012 (meters) 843.21 (feet) COMP
MD1058
MD1058 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----
MD1058 Type PID Designation North East Ellip
MD1058 -----
MD1058 NETWORK MD1058 W 157 1.20 0.80 3.31
MD1058 -----
MD1058 MODELED GRAV- 980,219.2 (mgal) NAVD 88
MD1058
MD1058 VERT ORDER - FIRST CLASS II
MD1058
MD1058.The horizontal coordinates were established by GPS observations
MD1058.and adjusted by the National Geodetic Survey in February 2007.
MD1058
MD1058.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
MD1058.See National Readjustment <http://www.ngs.noaa.gov/NationalReadjustment> for more
information.
MD1058
MD1058.The horizontal coordinates are valid at the epoch date displayed above
MD1058.which is a decimal equivalence of Year/Month/Day.
MD1058
MD1058.No horizontal observational check was made to the station.
MD1058.
MD1058.The orthometric height was determined by differential leveling and
MD1058.adjusted in June 1991.
MD1058
MD1058.The X, Y, and Z were computed from the position and the ellipsoidal ht.
MD1058
MD1058.The Laplace correction was computed from DEFLEC09 derived deflections.
MD1058
MD1058.The ellipsoidal height was determined by GPS observations
MD1058.and is referenced to NAD 83.
MD1058
MD1058.The geoid height was determined by GEOID09.
MD1058
MD1058.The dynamic height is computed by dividing the NAVD 88

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MD1058.geopotential number by the normal gravity value computed on the MD1058.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45 MD1058.degrees latitude (g = 980.6199 gals.).

MD1058

MD1058.The modeled gravity was interpolated from observed gravity values.

MD1058

MD1058; North East Units Scale Factor Converg.

MD1058;SPC IN E - 680,381.537 85,092.398 MT 0.99996940 -0 07 04.1

MD1058;SPC IN E - 2,232,218.43 279,173.98 sFT 0.99996940 -0 07 04.1

MD1058;UTM 16 - 4,581,193.412 596,593.617 MT 0.99971482 +0 45 49.0

MD1058

MD1058! - Elev Factor x Scale Factor = Combined Factor

MD1058!SPC IN E - 0.99996492 x 0.99996940 = 0.99993432

MD1058!UTM 16 - 0.99996492 x 0.99971482 = 0.99967975

MD1058

MD1058 SUPERSEDED SURVEY CONTROL

MD1058

MD1058 NAD 83(1997)- 41 22 35.27822(N) 085 50 41.55611(W) AD() 1

MD1058 ELLIP H (11/27/02) 223.667 (m) GP() 4 1

MD1058 NAD 83(1997)- 41 22 35.27812(N) 085 50 41.55618(W) AD() 1

MD1058 ELLIP H (03/18/02) 223.669 (m) GP() 4 1

MD1058 NAVD 88 (03/18/02) 257.12 (m) 843.6 (f) LEVELING 3

MD1058 NGVD 29 (??/??/92) 257.248 (m) 843.99 (f) ADJ UNCH 1 2

MD1058

MD1058.Superseded values are not recommended for survey control.

MD1058.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

MD1058.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

MD1058

MD1058_U.S. NATIONAL GRID SPATIAL ADDRESS: 16TEL9659381193(NAD 83)

MD1058

MD1058_MARKER: DB = BENCH MARK DISK

MD1058_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

MD1058_SP_SET: SET IN TOP OF CONCRETE MONUMENT

MD1058_STAMPING: W 157 1946

MD1058_MARK LOGO: CGS

MD1058_PROJECTION: FLUSH

MD1058_MAGNETIC: N = NO MAGNETIC MATERIAL

MD1058_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

MD1058+STABILITY: SURFACE MOTION

MD1058_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

MD1058+SATELLITE: SATELLITE OBSERVATIONS - July 06, 2011

MD1058

MD1058 HISTORY - Date Condition Report By

MD1058 HISTORY - 1946 MONUMENTED CGS

MD1058 HISTORY - 19930111 GOOD NGS

MD1058 HISTORY - 19970612 GOOD USPSQD

MD1058 HISTORY - 20010501 GOOD WOOLPT

MD1058 HISTORY - 20110706 GOOD INDIV

MD1058

MD1058 STATION DESCRIPTION

MD1058

MD1058'DESCRIBED BY COAST AND GEODETIC SURVEY 1946

MD1058'3 MI N FROM LEESBURG.

MD1058'3.0 MILES NORTH ALONG THE NEW YORK CENTRAL RAILROAD FROM THE MD1058'STATION AT LEESBURG, ABOUT 2.45 MILE SOUTH FROM THE STATION AT MD1058'MILFORD, 347 FEET SOUTH OF THE CENTER LINE OF A ROAD LEADING WEST, MD1058'36 FEET EAST OF THE CENTER LINE OF A PAVED ROAD PARALLELING THE MD1058'TRACK, 25 FEET WEST OF THE WEST RAIL, 6.5 FEET SOUTHEAST OF A MD1058'RAILROAD RIGHT-OF-WAY MARKER, 2 FEET WEST OF MILE POST 70, ABOUT MD1058'LEVEL WITH THE TRACK, AND SET IN THE TOP OF A CONCRETE POST MD1058'PROJECTING 4 INCHES.

MD1058

MD1058 STATION RECOVERY (1993)

MD1058

MD1058'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993 (RHK)

MD1058'O.4 KM NORTHERLY ALONG MAIN STREET FROM THE POST OFFICE IN MILFORD, MD1058'THENCE 0.1 KM (0.05 MI) EASTERLY ALONG FOURTH STREET, THENCE 3.8 KM MD1058'(2.35 MI) SOUTHERLY ALONG THE CONRAIL RAILROAD, 0.1 KM (0.05 MI) SOUTH MD1058'OF THE JUNCTION OF 1000 NORTH ROAD, 19.3 M (63.3 FT) NORTHEAST OF MD1058'UTILITY POLE NUMBER 1-059 852, 11.0 M (36.1 FT) EAST OF THE CENTERLINE MD1058'OF OLD 15 ROAD, 7.8 M (25.6 FT) WEST OF THE NEAR RAIL, 4.3 M (14.1 FT) MD1058'WEST-SOUTHWEST OF RAILROAD MILE POST 70, 1.7 M (5.6 FT) SOUTHEAST OF A MD1058'CONCRETE ROW MARKER, 0.6 M (2.0 FT) BELOW THE LEVEL OF THE RAIL, 0.3 M MD1058'(1.0 FT) SOUTH OF A WITNESS POST, AND THE MONUMENT PROJECTS 0.1 M (0.3 MD1058'FT) ABOVE THE GROUND SURFACE.

MD1058

MD1058 STATION RECOVERY (1997)

MD1058

MD1058'RECOVERY NOTE BY US POWER SQUADRON 1997

MD1058'RECOVERED IN GOOD CONDITION.

MD1058

MD1058 STATION RECOVERY (2001)

MD1058

MD1058'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2001 (ARL)

MD1058'RECOVERED AS DESCRIBED.

MD1058'

MD1058'

MD1058'

MD1058'

MD1058'

MD1058'

MD1058'

MD1058

MD1058 STATION RECOVERY (2011)

MD1058

MD1058'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011

MD1058'RECOVERED FOR 2011 INDIANA ORTHO AND LIDAR PROGRAM

AA6381 *****

AA6381 FBN - This is a Federal Base Network Control Station.

AA6381 PACS - This is a Primary Airport Control Station.

AA6381 DESIGNATION - ZID B

AA6381 PID - AA6381

AA6381 STATE/COUNTY- IN/MARION

AA6381 USGS QUAD - BRIDGEPORT (1986)

AA6381

AA6381 *CURRENT SURVEY CONTROL

AA6381* NAD 83(2007)- 39 44 18.12656(N) 086 17 16.84533(W) ADJUSTED

AA6381* NAVD 88 - 240.707 (meters) 789.72 (feet) ADJUSTED

AA6381 EPOCH DATE - 2002.00

AA6381 X - 317,975.151 (meters) COMP

AA6381 Y - -4,901,185.116 (meters) COMP

AA6381 Z - 4,055,822.462 (meters) COMP

AA6381 LAPLACE CORR- -3.12 (seconds) DEFLEC09

AA6381 ELLIP HEIGHT- 207.505 (meters) (02/10/07) ADJUSTED

AA6381 GEOID HEIGHT- -33.20 (meters) GEOID09

AA6381 DYNAMIC HT - 240.578 (meters) 789.30 (feet) COMP

AA6381

AA6381 ----- Accuracy Estimates (at 95% Confidence Level in cm) -----

AA6381 Type	PID	Designation	North	East	Ellip
AA6381	NETWORK	AA6381 ZID B	0.55	0.41	1.06

AA6381

AA6381 MODELED GRAV- 980,082.8 (mgal) NAVD 88

AA6381

AA6381 VERT ORDER - FIRST CLASS II

AA6381

AA6381.This mark is at Indianapolis Int'l Airport (IND)

AA6381

AA6381.The horizontal coordinates were established by GPS observations

AA6381.and adjusted by the National Geodetic Survey in February 2007.

AA6381

AA6381.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).

AA6381.See National Readjustment <<http://www.ngs.noaa.gov/NationalReadjustment>> for more information.

AA6381

AA6381.The horizontal coordinates are valid at the epoch date displayed above

AA6381.which is a decimal equivalence of Year/Month/Day.

AA6381

AA6381.The orthometric height was determined by differential leveling and

AA6381.adjusted in April 2001.

AA6381

AA6381.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AA6381

AA6381.The Laplace correction was computed from DEFLEC09 derived deflections.

AA6381

AA6381.The ellipsoidal height was determined by GPS observations

AA6381.and is referenced to NAD 83.

AA6381

AA6381.The geoid height was determined by GEOID09.

AA6381

AA6381.The dynamic height is computed by dividing the NAVD 88

AA6381.geopotential number by the normal gravity value computed on the

AA6381.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AA6381.degrees latitude (g = 980.6199 gals.).

AA6381

AA6381.The modeled gravity was interpolated from observed gravity values.

AA6381

AA6381; North East Units Scale Factor Converg.

AA6381;SPC IN E - 498,653.724 46,740.513 MT 1.00000158 -0 23 50.0

AA6381;SPC IN E - 1,635,999.76 153,347.83 sFT 1.00000158 -0 23 50.0

AA6381;UTM 16 - 4,398,961.664 561,006.633 MT 0.99964582 +0 27 18.6

AA6381

AA6381! - Elev Factor x Scale Factor = Combined Factor

AA6381!SPC IN E - 0.99996745 x 1.00000158 = 0.99996903

AA6381!UTM 16 - 0.99996745 x 0.99964582 = 0.99961328

AA6381

SUPERSEDED SURVEY CONTROL

AA6381

AA6381 NAD 83(1997)- 39 44 18.12707(N) 086 17 16.84500(W) AD(1995.00) A

AA6381 ELLIP H (08/25/95) 207.554 (m) GP(1995.00) 1 1

AA6381 NAVD 88 (08/25/95) 240.71 (m) 789.7 (f) LEVELING 3

AA6381

AA6381.Superseded values are not recommended for survey control.

AA6381.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA6381.See file dsdata.txt <http://www.ngs.noaa.gov/cgi-bin/ds_lookup.prl?Item=HOW_SUP_DET>to determine how the superseded data were derived.

AA6381

AA6381_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SEJ6100698961(NAD 83)

AA6381

AA6381_MARKER: I = METAL ROD

AA6381_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

AA6381_STAMPING: ZID B 1995

AA6381_MARK LOGO: NGS

AA6381_PROJECTION: RECESSED 3 CENTIMETERS

AA6381_MAGNETIC: N = NO MAGNETIC MATERIAL

AA6381_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AA6381_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA6381+SATELLITE: SATELLITE OBSERVATIONS - April 10, 2007

AA6381_ROD/PIPE-DEPTH: 4.5 meters

AA6381_SLEEVE-DEPTH : 1.5 meters

AA6381

AA6381 HISTORY - Date Condition Report By

AA6381 HISTORY - 1995 MONUMENTED NGS

AA6381 HISTORY - 19970527 GOOD NGS

AA6381 HISTORY - 20020610 GOOD INDNR

AA6381 HISTORY - 20030625 GOOD NGS

AA6381 HISTORY - 20070410 GOOD BUTLER

AA6381

STATION DESCRIPTION

AA6381

AA6381'DESCRIBED BY NATIONAL GEODETIC SURVEY 1995 (CSM)

AA6381'LOCATED ON THE SOUTHWEST SIDE OF THE INDIANAPOLIS METROPOLITAN AREA
AA6381'JUST NORTH OF THE INDIANAPOLIS INTERNATIONAL AIRPORT ON THE PROPERTY
AA6381'OF HOOSIER AIRCRAFT ACCESSORIES, INC. ON A GRASSY BURM BETWEEN THE
AA6381'SOUTH PARKING LOT AND THE CONRAIL RR TRACKS. THE STATION WAS
AA6381'ESTABLISHED TO SERVE AS AN FAA WAAS SITE REFERENCE POINT. FAA POINT OF
AA6381'CONTACT, TERESA MATOS OR JEFFREY A. JOHNSON, INDIANAPOLIS ARTCC/AFS,
AA6381'1850 SOUTH SIGSBEE STREET, INDIANAPOLIS, INDIANA 46241-3640, PHONE
AA6381'317-247-2275 OR 317-247-2235. SITE POINT OF CONTACT, HOOSIER AIRCRAFT
AA6381'ACCESSORIES INC., 1919 GIRLS SCHOOL ROAD, INDIANAPOLIS, INDIANA 46241,
AA6381'PHONE 317-244-7264. TO REACH THE STATION FROM THE CENTER OF THE U.S.
AA6381'HIGHWAY 40 (WASHINGTON STREET) UNDERPASS UNDER INTERSTATE HIGHWAY 465
AA6381'IN AN AREA KNOWN AS MICKLEYVILLE, TAKE WASHINGTON STREET SOUTHWEST FOR
AA6381'1.4 MI (2.3 KM) TO A CROSSROADS WITH GIRLS SCHOOL ROAD AND AN AIRPORT
AA6381'SIGN ON THE LEFT, TURN LEFT ON GIRLS SCHOOL ROAD AND PROCEED SOUTH FOR
AA6381'0.2 MI (0.3 KM) TO THE LAST BUILDING ON THE LEFT (HOOSIER
AA6381'AVIATION)BEFORE CROSSING THE CONRAIL TRACKS, TURN LEFT AND PROCEED TO
AA6381'THE SOUTH SIDE OF THE BUILDING AND THE STATION JUST SOUTH OF THE
AA6381'PARKING AREA ALONG A GRASSY BURM. THE STATION MARK IS A STAINLESS
AA6381'STEEL ROD DRIVEN TO REFUSAL ENCASES IN A GREASE FILLED SLEEVE IN A 5
AA6381'INCH PVC PIPE VAULT WITH AN ALUMINUM LOGO CAP AT GROUND LEVEL, THE
AA6381'9/16 INCH ROD WAS ROUNDED AT ITS TOP. IT IS, 67 M (219.8 FT) EAST OF
AA6381'THE CENTERLINE OF GIRLS SCHOOL ROAD, 108 FT (32.9 M) WESR-SOUTHWEST OF
AA6381'A LAMP POLE AT THE SOUTHEAST CORNER OF THE PARKING LOT, 90.1 FT (27.5
AA6381'M) SOUTHWEST OF THE SOUTHEAST CORNER OF THE BUILDING, 53.1 FT (16.2 M)
AA6381'NORTH OF THE NORTH TRACK OF THE CONRAIL RAILROAD, 14 FT (4.3 M) NORTH
AA6381'OF AN ORANGE PLASTIC WITNESS POST IN A SWALE BETWEEN THE BURM AND THE
AA6381'TRACKS, 13 FT (4.0 M) SOUTH OF THE SOUTH EDGE OF THE PARKING LOT AND
AA6381'ABOUT 3.5 FT (1.1 M) ABOVE THE LEVEL OF THE PARKING LOT. DESCRIBED BY
AA6381'C.S. MIDDLETON JR.

AA6381

AA6381 STATION RECOVERY (1997)

AA6381

AA6381'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1997 (CSM)

AA6381'THE STATION IS LOCATED NEAR THE SOUTHWEST SIDE OF THE INDIANAPOLIS
AA6381'METROPOLITAN AREA, ALONG THE NORTH SIDE OF THE INDIANAPOLIS
AA6381'INTERNATIONAL AIRPORT, ON THE PROPERTY OF TH WEISE EQUIPMENT CO., ON A
AA6381'GRASSY BERM BETWEEN THE SOUTH SIDE OF THE PARKING LOT FOR THE FACILITY
AA6381'AND THE CONRAIL RAILROAD TRACKS, AND IN THE NORTHEAST QUADRANT OF THE
AA6381'JUNCTION OF GIRLS SCHOOL ROAD AND NORTH PERIMETER ROAD. THE STATION
AA6381'WAS ESTABLISHED AS AN FAA WAAS SITE REFERENCE POINT. TO REACH FROM
AA6381'THE UNDERPASS AT THE JUNCTION OF COMBINED INTERSTATE HIGHWAYS 74 AND
AA6381'465 AND U.S. HIGHWAY 40 (WASHINGTON STREET) AT EXIT 12, GO SOUTHWEST
AA6381'ON HIGHWAY 40 FOR 2.3 KM (1.40 MI) TO A PAVED CROSSROAD (GIRLS SCHOOL
AA6381'ROAD) AND AN AIRPORT SIGN ON THE LEFT. TURN LEFT, SOUTH ON GIRLS
AA6381'SCHOOL ROAD FOR 0.32 KM (0.20 MI) TO A PAVED ENTRANCE ROAD TO THE
AA6381'WEISE EQUIPMENT CO. BUILDING ON THE LEFT JUST BEFORE REACHING THE
AA6381'RAILROAD TRACKS. TURN LEFT, EAST ON THE ROAD FOR ABOUT 30 M (98.4 FT)
AA6381'TO THE PARKING LOT. TURN RIGHT, SOUTH THROUGH THE PARKING LOT FOR
AA6381'0.08 KM (0.05 MI) TO THE SOUTH EDGE OF THE PARKING LOT AND THE STATION
AA6381'ON THE LEFT. THE STATION IS A PUNCH HOLE TOP CENTER OF A STAINLESS
AA6381'STEEL ROD IN A 2.5 CM GREASE FILLED SLEEVE 0.91 M (3.0 FT) LONG
AA6381'ENCASED IN A 12.7 CM PVC PIPE WITH A LOGO CAP SURROUNDED BY CONCRETE
AA6381'SET FLUSH WITH THE GROUND. IT IS 71.9 M (235.9 FT) EAST OF THE CENTER
AA6381'OF GIRLS SCHOOL ROAD, 33.5 M (109.9 FT) WEST-SOUTHWEST OF A LIGHT POLE

AA6381'AT THE SOUTHEAST CORNER OF THE PARKING LOT, 27.5 M (90.2 FT) SOUTHWEST
AA6381'OF THE SOUTHEAST CORNER OF THE BUILDING, 16.2 M (53.1 FT) NORTH OF THE
AA6381'NORTH RAIL OF THE TRACKS, 4.3 M (14.1 FT) NORTH OF A PLASTIC WITNESS
AA6381'POST, AND 4.0 M (13.1 FT) SOUTH OF AND ABOUT 1.1 M (3.6 FT) HIGHER
AA6381'THAN THE SOUTH EDGE OF THE PARKING LOT. NOTE--THIS STATION IS
AA6381'DESIGNATED AS THE PRIMARY AIRPORT CONTROL STATION.

AA6381

STATION RECOVERY (2002)

AA6381

AA6381

AA6381'RECOVERY NOTE BY IN DEPT OF NAT RES 2002 (RWW)

AA6381'THE BUILDING NORTH OF THE STATION AT 1919 GIRLS SCHOOL ROAD WAS VACANT
AA6381'ON DATE OF RECOVERY.

AA6381

STATION RECOVERY (2003)

AA6381

AA6381

AA6381'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2003 (JMW)

AA6381'RECOVERED AS DESCRIBED. THE BUILDING AT 1919 GIRLS SCHOOL ROAD (NORTH
AA6381'OF STATION) IS NOW OCCUPIED BY INFINITE GRAPHICS. CONTACT IS PAMELA
AA6381'BAKER, PHONE 317-227-8770.

AA6381

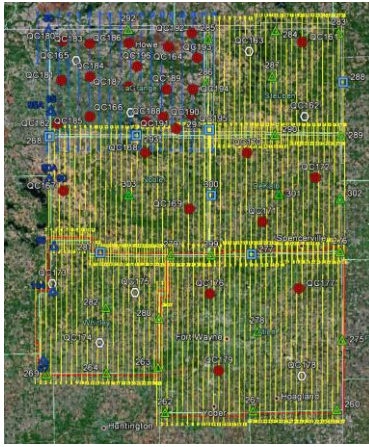
STATION RECOVERY (2007)

AA6381

AA6381

AA6381'RECOVERY NOTE BY BUTLER FAIRMAN AND SEUFERT INC 2007 (JRC)

AA6381'RECOVERED IN GOOD CONDITION.



VOLUME 2 (BLOCK 5)

Block 5 Ground and LiDAR Control

GROUND CONTROL SURVEY REPORT

2012 INDIANA STATEWIDE IMAGERY PROGRAM

Indiana Office of Technology

April 2012

Prepared by Woolpert, Inc.
4454 Idea Center Blvd.
Dayton, OH 45420

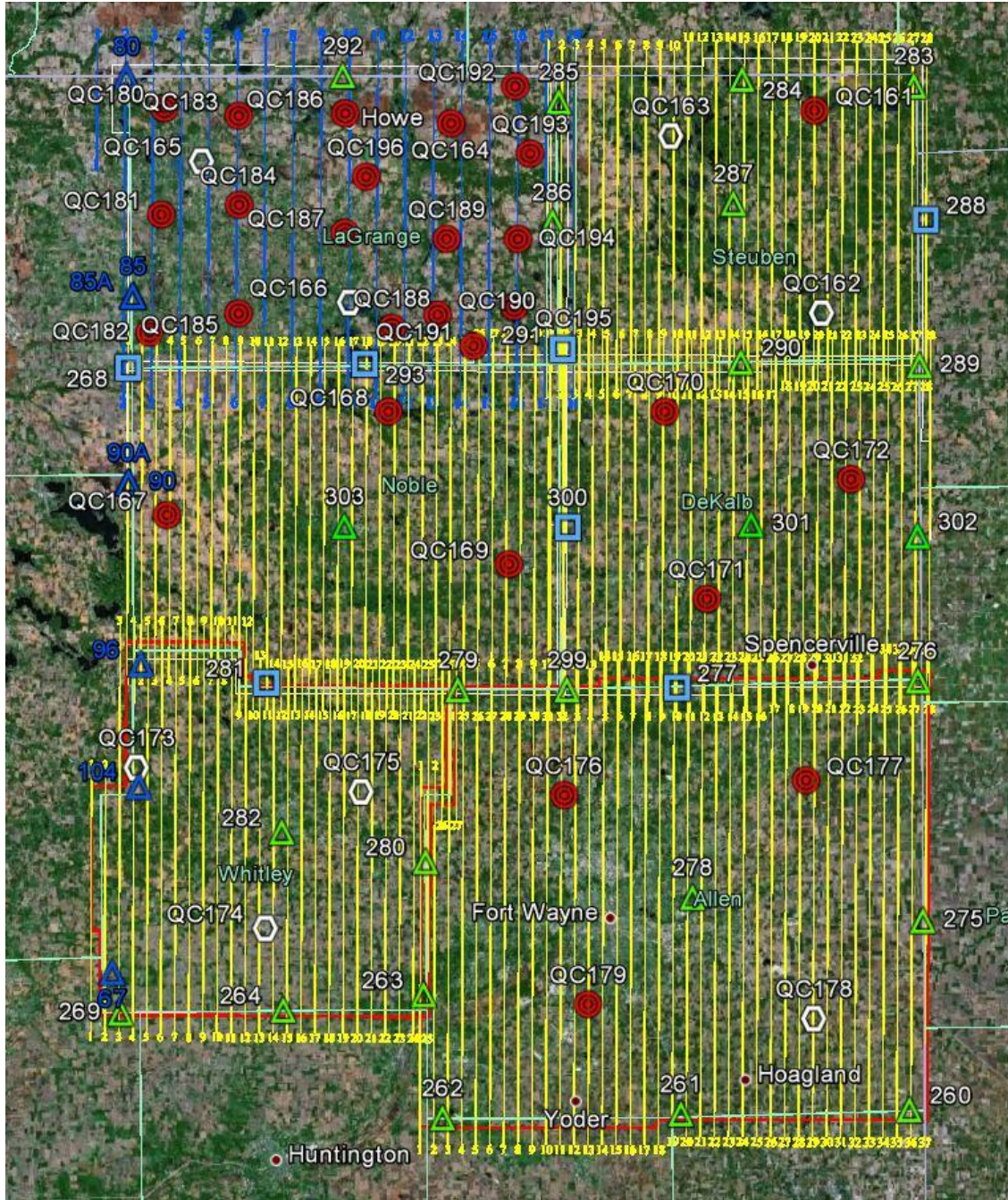
Woolpert.com



WOOLPERT
DESIGN | GEOSPATIAL | INFRASTRUCTURE

VOLUME 2 - SECTION 1: BLOCK 5 GPS CONTROL DIAGRAM

This section contains a graphical representation of the ground control used for Block 5 of the 2012 Indiana Statewide Imagery project.



Not to Scale

VOLUME 2 - SECTION 2: BLOCK 5 GROUND/LIDAR CONTROL COORDINATE LISTINGS

COORDINATE SYSTEM: GRID

HORIZONTAL DATUM: NAD83 (2007)

VERTICAL DATUM: NAVD88

ZONE: State Plane - (Indiana East)

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
268	2285678.20	330230.26	875.73	CORNER CONCRETE DRIVE
275	2123962.91	565980.57	753.84	NW COR PAINT STRIPE
276	2194517.87	564175.60	775.51	NE COR CONCRETE
277	2192086.59	492926.26	853.24	NE ANGLE CONCRETE
278	2130508.17	497765.56	774.69	SW COR PAINT STRIPE
279	2191321.88	428226.73	898.65	CORNER CONCRETE WALK
280	2140707.05	418904.38	856.09	NW CRN CONC PAD
281	2193217.05	371834.55	910.13	CORNER CONCRETE DRIVE
282	2149202.51	376290.01	851.32	CORNER CONCRETE DRIVE
283	2369688.87	562256.48	1051.46	NW COR CONCRETE
284	2371371.48	511451.97	1025.85	SW COR CONCRETE
285	2364523.08	457258.02	947.05	CORNER ASPHALT DRIVE
286	2328908.90	455625.66	988.96	PAINT STRIPE
287	2334750.05	509010.92	1027.30	NW COR SIDEWALK
288	2330175.68	565869.20	978.24	SW COR CONCRETE
288_A	2330113.34	565837.65	976.11	NE COR CONCRETE
289	2287301.22	564247.24	891.83	SW COR CONCRETE
290	2288034.63	511391.63	987.57	SW COR CONCRETE
291	2291593.19	458743.89	956.19	CORNER CONCRETE DRIVE
292	2372056.39	393352.24	873.12	CORNER PAINT STRIPE
292_QC	2372056.33	393352.18	873.14	PAINT STRIPE
293	2287068.83	400243.59	929.00	CORNER CONCRETE DRIVE
299	2191502.05	460477.43	854.40	CORNER CONCRETE WALK
299_QC	2191502.18	460477.54	854.35	CORNER CONCRETE WALK
300	2239190.49	460647.94	929.64	NE COR CONCRETE
301	2239893.90	515059.75	881.75	SW COR CONCRETE
302	2237092.01	563865.10	816.94	SE COR CONCRETE
303	2239513.76	394617.26	959.12	CORNER CONC WALK
QC 161	2362105.73	532899.72	1070.65	SW COR SIDEWALK
QC 162	2302079.37	535283.15	941.25	NE COR CONCRETE

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
QC 163	2354465.59	490450.44	980.12	SE COR CONCRETE
QC 164	2357894.21	425468.67	945.71	PAINT STRIPE
QC 165	2346499.48	351808.88	893.59	PAINT STRIPE
QC 166	2305184.10	395683.35	919.95	CORNER CONCRETE DRIVE
QC 167	2242205.58	342017.64	940.06	PAINT STRIPE
QC 168	2272919.36	407390.13	935.24	PAINT STRIPE
QC 169	2228103.21	442997.70	976.13	SE COR CONCRETE
QC 170	2273324.07	489114.13	994.86	NE COR SIDEWALK
QC 171	2218018.25	501923.06	885.90	SE COR CONCRETE
QC 172	2253570.24	544113.14	866.48	NW ANGLE SIDEWALK
QC 173	2167970.23	333265.48	952.24	CORNER CONCRETE DRIVE
QC 174	2120793.31	371627.44	842.04	CORNER CONCRETE DRIVE
QC 175	2161180.32	399775.36	865.57	CORNER CONCRETE DRIVE
QC 176	2160614.79	459914.55	885.00	SE COR CONCRETE
QC 177	2165083.90	531102.05	779.78	NW COR SIDEWALK
QC 178	2094904.45	533925.69	790.72	COR CONCRETE
QC 179	2098776.42	467009.22	791.85	SW COR SIDEWALK CORNER CONCRETE WALK
QC 180	2362139.09	340512.96	846.58	CENTER OF LANE

LIDAR CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
268_LIDAR	2285687.66	330245.93	875.71	CENTER CONCRETE DRIVE
275	2123962.91	565980.57	753.84	NW COR PAINT STRIPE
276	2194517.87	564175.60	775.51	NE COR CONCRETE
277_LIDAR	2192066.01	492927.63	853.71	CONCRETE
278	2130508.17	497765.56	774.69	SW COR PAINT STRIPE
279_LIDAR	2191310.32	428220.41	898.70	CENTER ASPHALT DRIVE
280	2140707.05	418904.38	856.09	NW CRN CONC PAD
281_LIDAR	2193207.36	371827.68	910.14	CENTER CONCRETE DRIVE
282	2149202.51	376290.01	851.32	CORNER CONCRETE DRIVE
283_LIDAR	2369704.32	562250.92	1052.20	ASPHALT
284	2371371.48	511451.97	1025.85	SW COR CONCRETE
285_LIDAR	2364531.28	457270.07	948.28	CENTER ASPHALT DRIVE
286	2328908.90	455625.66	988.96	PAINT STRIPE
287	2334750.05	509010.92	1027.30	NW COR SIDEWALK
288_LIDAR	2330202.82	565882.46	979.54	CONCRETE
289	2287301.22	564247.24	891.83	SW COR CONCRETE
290	2288034.63	511391.63	987.57	SW COR CONCRETE
291_LIDAR	2291615.24	458742.46	955.43	CONCRETE
292	2372056.39	393352.24	873.12	CORNER PAINT STRIPE

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
293_LIDAR	2287054.79	400274.65	928.23	CENTER CONCRETE DRIVE
299	2191502.05	460477.43	854.40	CORNER CONCRETE WALK
300_LIDAR	2239178.80	460638.35	930.01	CONCRETE
301	2239893.90	515059.75	881.75	SW COR CONCRETE
302	2237092.01	563865.10	816.94	SE COR CONCRETE
303	2239513.76	394617.26	959.12	CORNER CONC WALK
QC 161	2362105.73	532899.72	1070.65	SW COR SIDEWALK
QC 162	2302079.37	535283.15	941.25	NE COR CONCRETE
QC 163_LIDAR	2354475.47	490457.75	980.30	ASPHALT
QC 164	2357894.21	425468.67	945.71	PAINT STRIPE
QC 165	2346499.48	351808.88	893.59	PAINT STRIPE
QC 166	2305184.10	395683.35	919.95	CORNER CONCRETE DRIVE
QC 167	2242205.58	342017.64	940.06	PAINT STRIPE
QC 168	2272919.36	407390.13	935.24	PAINT STRIPE
QC 169	2228103.21	442997.70	976.13	SE COR CONCRETE
QC 170	2273324.07	489114.13	994.86	NE COR SIDEWALK
QC 171	2218018.25	501923.06	885.90	SE COR CONCRETE
QC 172	2253570.24	544113.14	866.48	NW ANGLE SIDEWALK
QC 173	2167970.23	333265.48	952.24	CORNER CONCRETE DRIVE
QC 174_LIDAR	2120779.58	371610.26	841.85	CORNER CONCRETE DRIVE
QC 175	2161180.32	399775.36	865.57	CORNER CONCRETE DRIVE
QC 176	2160614.79	459914.55	885.00	SE COR CONCRETE
QC 177	2165083.90	531102.05	779.78	NW COR SIDEWALK
QC 178	2094904.45	533925.69	790.72	COR CONCRETE
QC 179	2098776.42	467009.22	791.85	SW COR SIDEWALK CORNER CONCRETE
QC 180	2362139.09	340512.96	846.58	CENTER OF LANE
QC 181	2330536.33	339898.10	899.71	CORNER CONCRETE PAD
QC 182	2295941.26	336487.28	906.86	CENTER GRAVEL DRIVE
QC 183	2359962.09	362581.45	842.49	CENTER OF LANE
QC 184	2333647.61	362896.93	919.30	CENTER OF LANE
QC 185	2301618.34	362875.65	918.46	CENTER CONCRETE DRIVE
QC 186	2360413.59	394120.37	880.67	CENTER ASPHALT PAD
QC 187	2325515.16	394043.22	969.79	CENTER CONCRETE DRIVE
QC 188	2297532.87	408224.49	930.15	CENTER CONCRETE DRIVE
QC 189	2323819.78	424311.55	967.91	CENTER OF LANE
QC 190	2301455.56	421807.28	970.65	EDGE OF CONCRETE
QC 191	2292333.49	432407.97	993.85	PAVEMENT
QC 192	2368872.44	444392.12	933.94	EDGE CONCRETE DRIVE
QC 193	2349049.63	448859.99	957.26	CENTER OF LANE
QC 194	2323860.50	445399.94	942.04	CENTER OF LANE
QC 195	2303888.76	444403.88	980.96	CENTER OF LANE
QC 196	2342184.25	400340.37	889.56	CORNER CONCRETE PAD

COORDINATE SYSTEM: GEODETIC

HORIZONTAL DATUM: WGS 84

VERTICAL DATUM: NAVD88

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
268	41°31'23.96628"	-85°39'31.77463"	766.21	CORNER CONCRETE DRIVE
275	41°04'34.51901"	-84°48'13.69939"	644.20	NW COR PAINT STRIPE
276	41°16'11.74602"	-84°48'28.17410"	665.72	NE COR CONCRETE
277	41°15'53.63528"	-85°04'01.40402"	744.64	NE ANGLE CONCRETE
278	41°05'44.90111"	-85°03'03.74219"	666.28	SW COR PAINT STRIPE
279	41°15'49.62612"	-85°18'08.65602"	790.98	CORNER CONCRETE WALK
280	41°07'29.89666"	-85°20'13.23857"	748.41	NW CRN CONC PAD
281	41°16'10.02976"	-85°30'27.04263"	801.72	CORNER CONCRETE DRIVE
282	41°08'55.05715"	-85°29'29.85509"	743.06	CORNER CONCRETE DRIVE
283	41°45'02.44261"	-84°48'30.53239"	940.93	NW COR CONCRETE
284	41°45'23.52818"	-84°59'40.57691"	916.35	SW COR CONCRETE
285	41°44'19.43495"	-85°11'36.09741"	837.94	CORNER ASPHALT DRIVE
286	41°38'27.67497"	-85°12'00.17314"	880.01	PAINT STRIPE
287	41°39'21.92937"	-85°00'16.49750"	918.05	NW COR SIDEWALK
288	41°38'31.74841"	-84°47'48.13955"	867.76	SW COR CONCRETE
288_A	41°38'31.13566"	-84°47'48.56334"	865.64	NE COR CONCRETE
289	41°31'28.36005"	-84°48'15.14153"	781.65	SW COR CONCRETE
290	41°31'40.23374"	-84°59'49.90996"	878.53	SW COR CONCRETE
291	41°32'18.84210"	-85°11'21.82271"	847.46	CORNER CONCRETE DRIVE
292	41°45'36.47426"	-85°25'38.77153"	764.11	CORNER PAINT STRIPE
292_QC	41°45'36.47363"	-85°25'38.77239"	764.14	PAINT STRIPE
293	41°31'36.61967"	-85°24'11.26808"	820.00	CORNER CONCRETE DRIVE
299	41°15'49.85500"	-85°11'06.34338"	746.42	CORNER CONCRETE WALK
299_QC	41°15'49.85628"	-85°11'06.34196"	746.37	CORNER CONCRETE WALK
300	41°23'41.00929"	-85°11'00.63323"	821.10	NE COR CONCRETE
301	41°23'44.34580"	-84°59'06.67016"	772.61	SW COR CONCRETE
302	41°23'12.37811"	-84°48'26.71844"	707.01	SE COR CONCRETE
303	41°23'46.93504"	-85°25'26.99207"	850.22	CORNER CONC WALK
QC 161	41°43'50.24146"	-84°54'58.67671"	960.78	SW COR SIDEWALK
QC 162	41°33'57.03624"	-84°54'34.19682"	831.68	NE COR CONCRETE
QC 163	41°42'38.04016"	-85°04'19.20348"	870.95	SE COR CONCRETE
QC 164	41°43'15.45970"	-85°18'35.77393"	836.67	PAINT STRIPE
QC 165	41°41'24.75782"	-85°34'47.27862"	784.38	PAINT STRIPE

Station Name	Latitude	Longitude	E. Height US Ft.	Description
QC 166	41°34'35.73008"	-85°25'10.54231"	810.94	CORNER CONCRETE DRIVE
QC 167	41°24'14.41052"	-85°36'57.14311"	830.48	PAINT STRIPE
QC 168	41°29'16.59754"	-85°22'37.93237"	826.31	PAINT STRIPE
QC 169	41°21'52.37421"	-85°14'52.91649"	867.78	SE COR CONCRETE
QC 170	41°29'16.50133"	-85°04'44.10770"	886.08	NE COR SIDEWALK
QC 171	41°20'09.20544"	-85°02'01.12281"	776.95	SE COR CONCRETE
QC 172	41°25'57.02560"	-84°52'43.85884"	756.88	NW ANGLE SIDEWALK
QC 173	41°12'00.96774"	-85°38'52.20710"	843.05	CORNER CONCRETE DRIVE
QC 174	41°04'14.44165"	-85°30'31.47575"	732.78	CORNER CONCRETE DRIVE
QC 175	41°10'52.82465"	-85°24'22.39500"	757.92	CORNER CONCRETE DRIVE
QC 176	41°10'44.71253"	-85°11'15.94167"	777.37	SE COR CONCRETE
QC 177	41°11'23.95072"	-84°55'44.53331"	670.82	NW COR SIDEWALK
QC 178	40°59'50.34287"	-84°55'15.45580"	681.60	COR CONCRETE
QC 179	41°00'33.32791"	-85°09'47.83251"	683.02	SW COR SIDEWALK CORNER CONCRETE
QC 180	41°43'59.35871"	-85°37'16.05872"	737.46	CENTER OF LANE

LiDAR CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
268_LIDAR	41°31'24.05968"	-85°39'31.56860"	766.18	CENTER CONCRETE DRIVE
275	41°04'34.51901"	-84°48'13.69939"	644.20	NW COR PAINT STRIPE
276	41°16'11.74602"	-84°48'28.17410"	665.72	NE COR CONCRETE
277_LIDAR	41°15'53.43185"	-85°04'01.38794"	745.11	CONCRETE
278	41°05'44.90111"	-85°03'03.74219"	666.28	SW COR PAINT STRIPE
279_LIDAR	41°15'49.51221"	-85°18'08.73935"	791.03	CENTER ASPHALT DRIVE
280	41°07'29.89666"	-85°20'13.23857"	748.41	NW CRN CONC PAD
281_LIDAR	41°16'09.93408"	-85°30'27.13279"	801.73	CENTER CONCRETE DRIVE
282	41°08'55.05715"	-85°29'29.85509"	743.06	CORNER CONCRETE DRIVE
283_LIDAR	41°45'02.59577"	-84°48'30.60364"	941.67	ASPHALT
284	41°45'23.52818"	-84°59'40.57691"	916.35	SW COR CONCRETE
285_LIDAR	41°44'19.51532"	-85°11'35.93784"	839.18	CENTER ASPHALT DRIVE
286	41°38'27.67497"	-85°12'00.17314"	880.01	PAINT STRIPE
287	41°39'21.92937"	-85°00'16.49750"	918.05	NW COR SIDEWALK
288_LIDAR	41°38'32.01520"	-84°47'47.96136"	869.06	CONCRETE
289	41°31'28.36005"	-84°48'15.14153"	781.65	SW COR CONCRETE
290	41°31'40.23374"	-84°59'49.90996"	878.53	SW COR CONCRETE
291_LIDAR	41°32'19.05999"	-85°11'21.83987"	846.70	CONCRETE
292	41°45'36.47426"	-85°25'38.77153"	764.11	CORNER PAINT STRIPE
293_LIDAR	41°31'36.48001"	-85°24'10.86029"	819.24	CENTER CONCRETE DRIVE
299	41°15'49.85500"	-85°11'06.34338"	746.42	CORNER CONCRETE WALK
300_LIDAR	41°23'40.89423"	-85°11'00.75992"	821.47	CONCRETE

Station Name	Latitude	Longitude	E. Height US Ft.	Description
301	41°23'44.34580"	-84°59'06.67016"	772.61	SW COR CONCRETE
302	41°23'12.37811"	-84°48'26.71844"	707.01	SE COR CONCRETE
303	41°23'46.93504"	-85°25'26.99207"	850.22	CORNER CONC WALK
QC 161	41°43'50.24146"	-84°54'58.67671"	960.78	SW COR SIDEWALK
QC 162	41°33'57.03624"	-84°54'34.19682"	831.68	NE COR CONCRETE
QC 163_LIDAR	41°42'38.13729"	-85°04'19.10621"	871.13	ASPHALT
QC 164	41°43'15.45970"	-85°18'35.77393"	836.67	PAINT STRIPE
QC 165	41°41'24.75782"	-85°34'47.27862"	784.38	PAINT STRIPE
QC 166	41°34'35.73008"	-85°25'10.54231"	810.94	CORNER CONCRETE DRIVE
QC 167	41°24'14.41052"	-85°36'57.14311"	830.48	PAINT STRIPE
QC 168	41°29'16.59754"	-85°22'37.93237"	826.31	PAINT STRIPE
QC 169	41°21'52.37421"	-85°14'52.91649"	867.78	SE COR CONCRETE
QC 170	41°29'16.50133"	-85°04'44.10770"	886.08	NE COR SIDEWALK
QC 171	41°20'09.20544"	-85°02'01.12281"	776.95	SE COR CONCRETE
QC 172	41°25'57.02560"	-84°52'43.85884"	756.88	NW ANGLE SIDEWALK
QC 173	41°12'00.96774"	-85°38'52.20710"	843.05	CORNER CONCRETE DRIVE
QC 174_LIDAR	41°04'14.30632"	-85°30'31.70036"	732.59	CORNER CONCRETE DRIVE
QC 175	41°10'52.82465"	-85°24'22.39500"	757.92	CORNER CONCRETE DRIVE
QC 176	41°10'44.71253"	-85°11'15.94167"	777.37	SE COR CONCRETE
QC 177	41°11'23.95072"	-84°55'44.53331"	670.82	NW COR SIDEWALK
QC 178	40°59'50.34287"	-84°55'15.45580"	681.60	COR CONCRETE
QC 179	41°00'33.32791"	-85°09'47.83251"	683.02	SW COR SIDEWALK CORNER
QC 180	41°43'59.35871"	-85°37'16.05872"	737.46	CENTER OF LANE
QC 181	41°38'47.13401"	-85°37'24.37762"	790.37	CORNER CONCRETE PAD
QC 182	41°33'05.35185"	-85°38'09.46647"	797.41	CENTER GRAVEL DRIVE
QC 183	41°43'37.63287"	-85°32'25.02754"	733.38	CENTER OF LANE
QC 184	41°39'17.64805"	-85°32'21.38018"	810.07	CENTER OF LANE
QC 185	41°34'01.20304"	-85°32'22.28232"	809.20	CENTER CONCRETE DRIVE
QC 186	41°43'41.42694"	-85°25'29.06799"	771.63	CENTER ASPHALT PAD
QC 187	41°37'56.64320"	-85°25'31.37437"	860.75	CENTER CONCRETE DRIVE
QC 188	41°33'19.74958"	-85°22'25.87364"	821.20	CENTER CONCRETE DRIVE
QC 189	41°37'38.86474"	-85°18'52.86810"	858.97	CENTER OF LANE
QC 190	41°33'58.01152"	-85°19'27.01233"	861.77	EDGE OF CONCRETE
QC 191	41°32'27.44856"	-85°17'08.08698"	885.05	PAVEMENT
QC 192	41°45'03.06824"	-85°14'25.51844"	824.85	EDGE CONCRETE DRIVE
QC 193	41°41'47.00767"	-85°13'27.91819"	848.22	CENTER OF LANE
QC 194	41°37'38.32371"	-85°14'15.18048"	833.11	CENTER OF LANE
QC 195	41°34'21.05859"	-85°14'29.59180"	872.13	CENTER OF LANE
QC 196	41°40'41.14682"	-85°24'07.77454"	780.53	CORNER CONCRETE PAD

VOLUME 2 - SECTION 3: BLOCK 5 GROUND/LIDAR CONTROL LOGS AND PHOTOS

This section contains the station recovery information sheets and photographs for the ground control and LiDAR control station.

The data is assembled on the following pages.

GROUND CONTROL

GPS Observation Log Sheet		W WOOLPERT
Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>25MAR12</u>
Station Name: <u>268</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-31-23.96</u>	Julian Day: <u>085</u>	Session No. _____
Longitude: <u>085-39-31.77</u>	Start Time: <u>10:39</u>	End Time: <u>10:45</u>
Ellip. Height: <u>.766.16</u>	Data File Name: <u>IND05T25MAR12.SS</u>	
Type of Mark: <u>Corner Concrete DR</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Pt Sunny, 55°</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount

A hand-drawn site sketch within a rectangular frame. In the top left corner, there is a north arrow pointing upwards with the letter 'N' below it. The sketch depicts a property layout. On the left is a rectangular structure labeled 'House'. To its right is a large, U-shaped structure labeled 'CONCRETE DR' on both vertical sides. The number '268' is written in the center of the U-shape. To the right of the U-shape is a rectangular structure labeled 'BARN'. Below the property, a horizontal line represents a road, with 'Co Rd' on the left and '42' on the right. Below the road, the text 'cultivated Field' is written in a cursive-like font.



268-2-25MAR2012



268-3W-25MAR2012

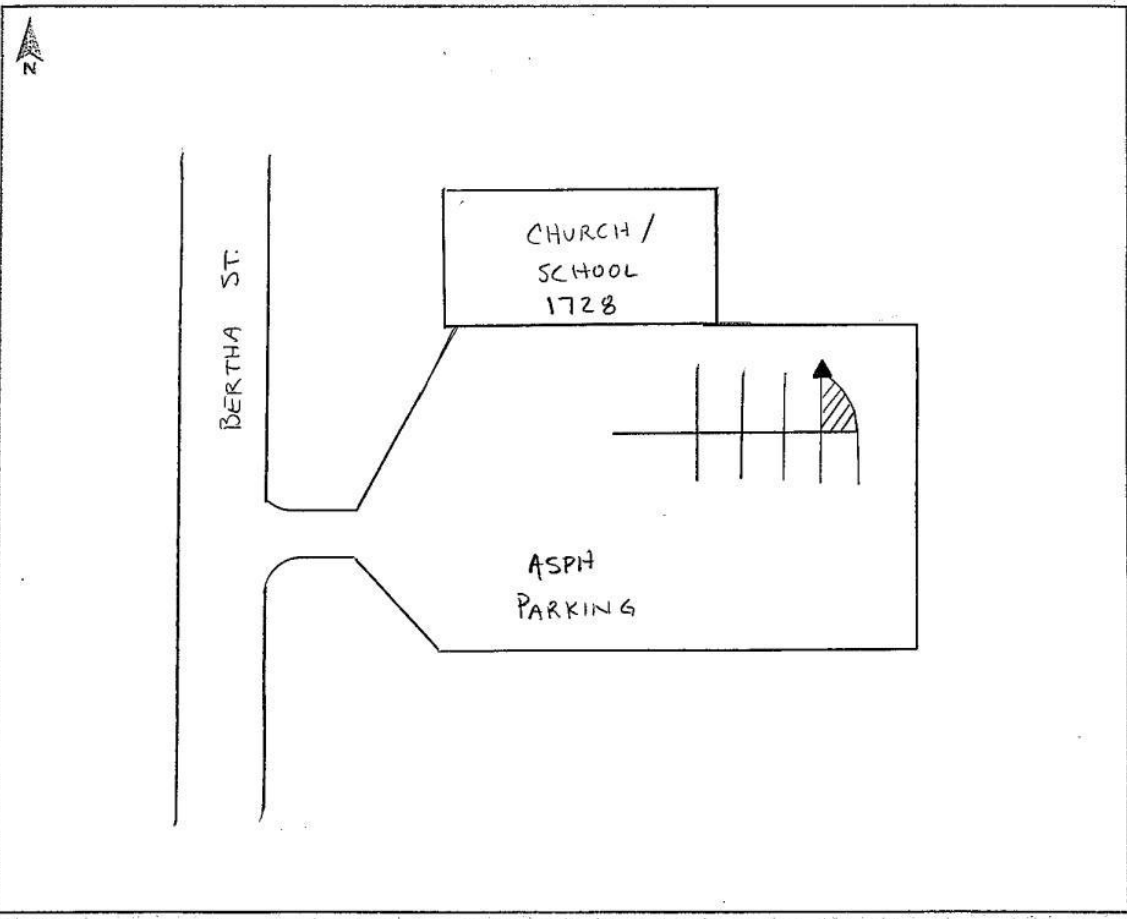


268-3N-25MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/22/2012</u>
Station Name: <u>275</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 04' 34.52" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>84° 48' 13.70" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>644.22' SFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR. PAINT STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





275-2-22MAR2012



275-3W-22MAR2012

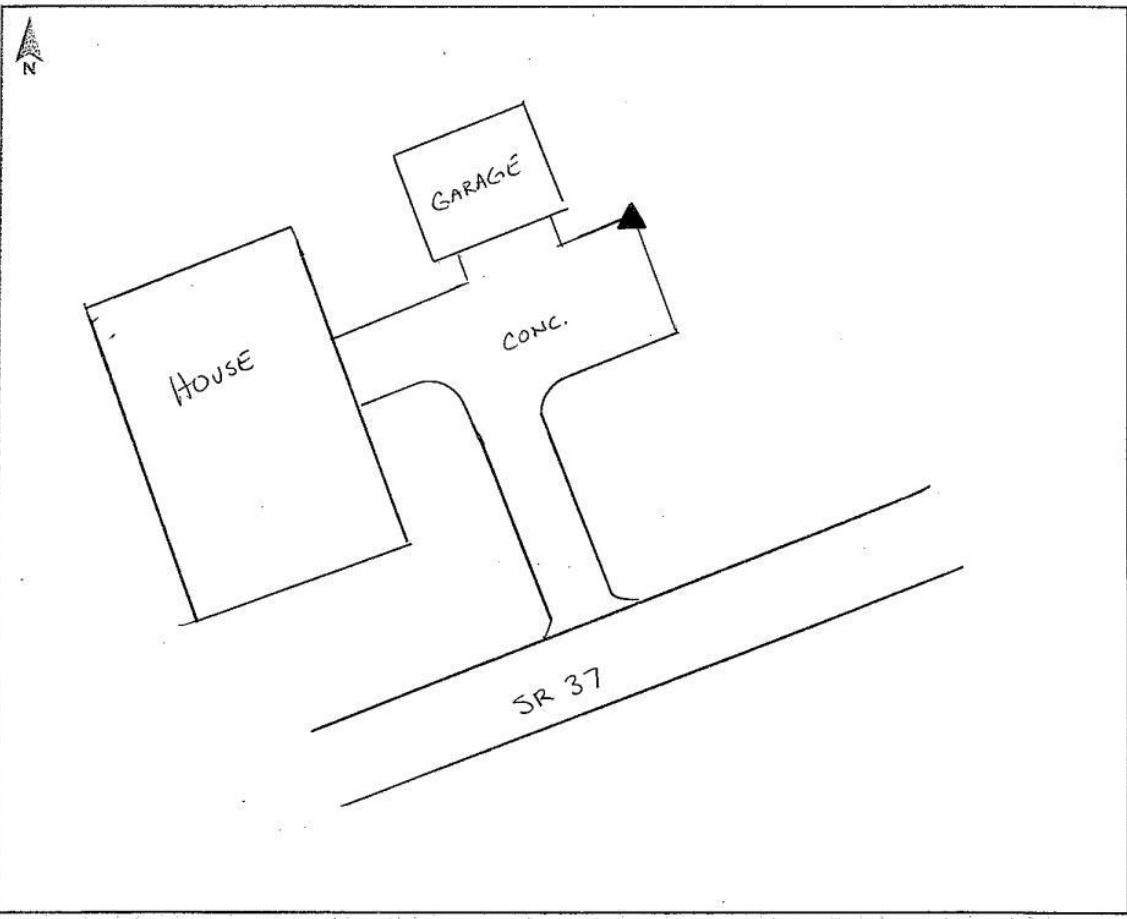


275-3N-22MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>02/22/2012</u>
Station Name: <u>276</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 16' 11.75" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>84° 48' 28.17" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>665.76</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





276-2-22MAR2012



276-3W-22MAR2012

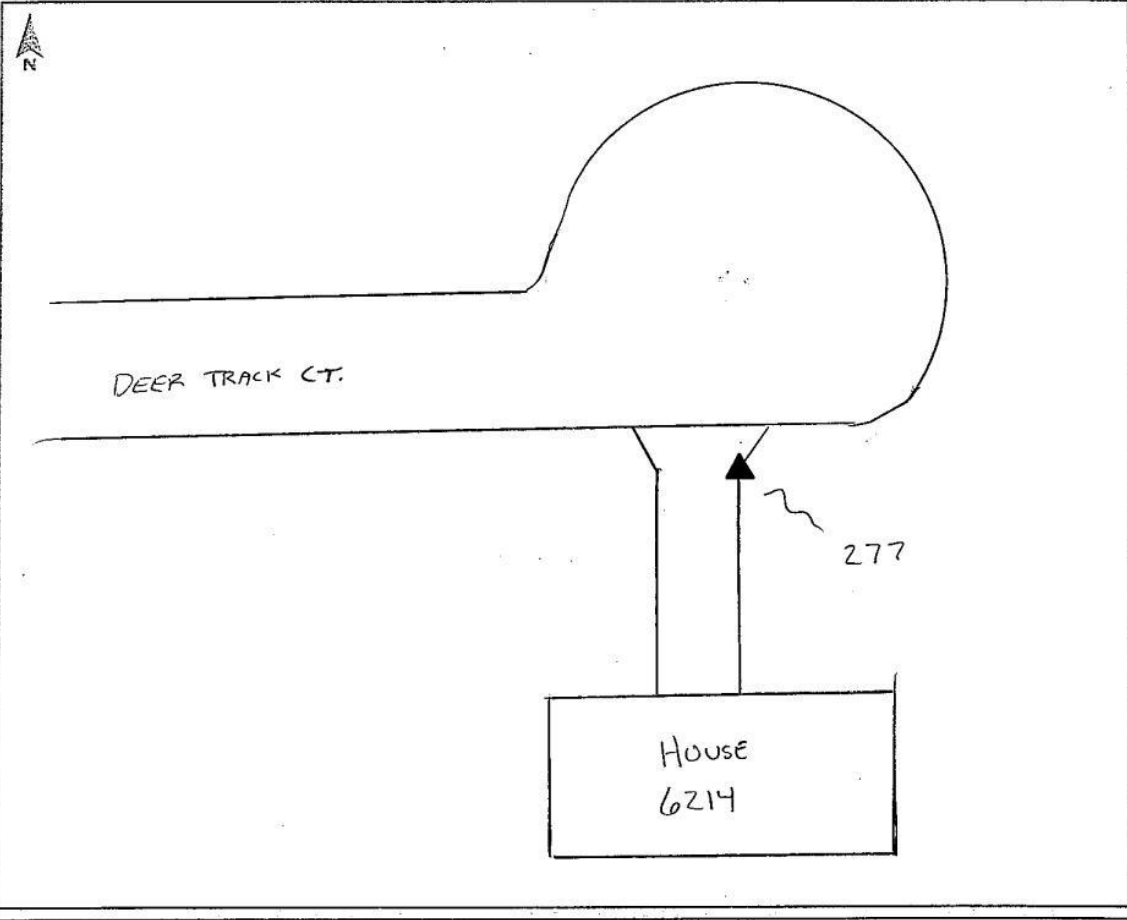


276-3S-22MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/22/2012</u>
Station Name: <u>277</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 15' 53.63" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>85° 04' 01.40" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>744.72</u> <u>5ft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE ANGLE CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





277-2-22MAR2012



277-3N-22MAR2012

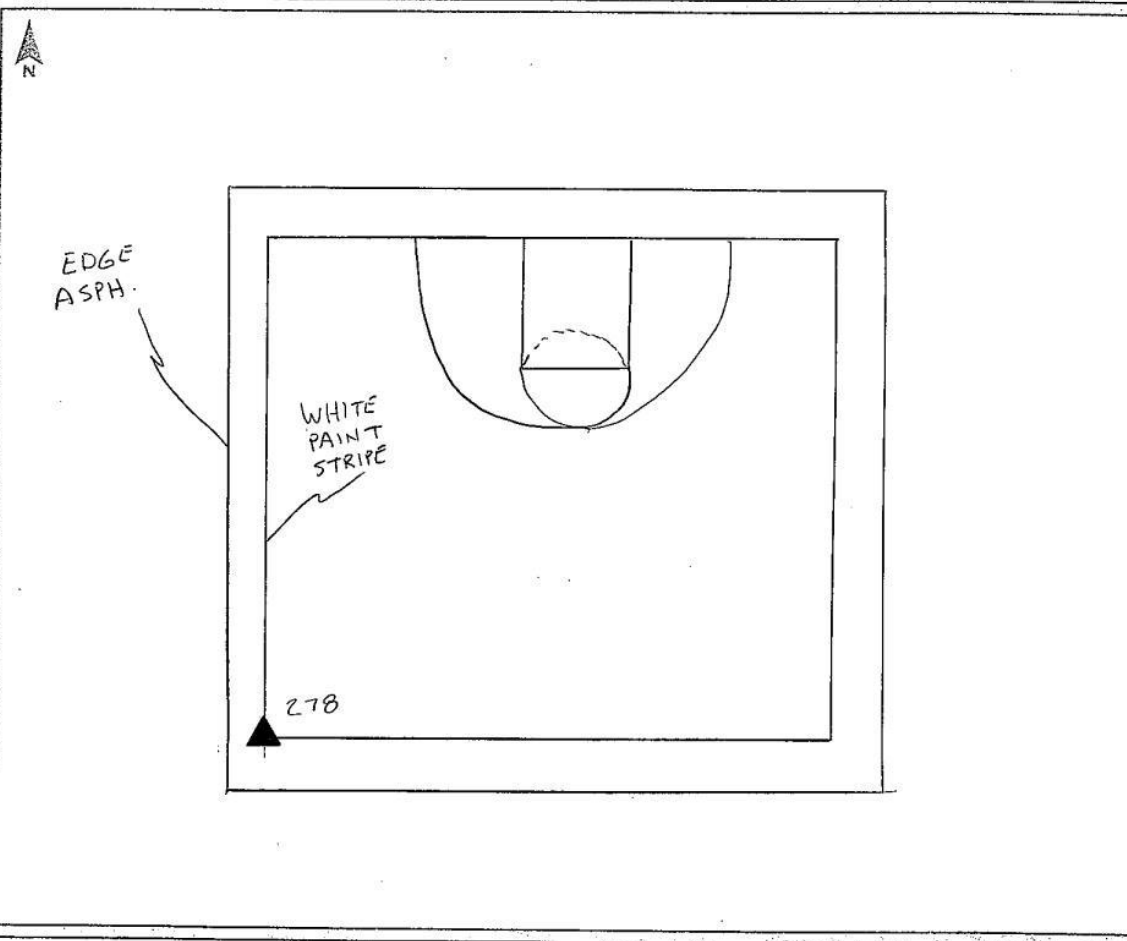


277-3E-22MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN STATE-WIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>03/23/2012</u>
Station Name:	<u>278</u>	Operator Name:	<u>BEN CHRISTIE</u>		
Latitude:	<u>41° 05' 44.90" N</u>	Julian Day:	<u>083</u>	Session No.:	<u>—</u>
Longitude:	<u>85° 03' 03.74" W</u>	Start Time:	<u>—</u>	End Time:	<u>—</u>
Ellip. Height:	<u>666.30 ft</u>	Data File Name:	<u>—</u>		
Type of Mark:	<u>SW COR PAINT STRIPE</u>	Type of Receiver:	<u>R8-2</u>		
Stamping on Mark:	<u>—</u>	Type of Antenna:	<u>R8-2</u>		
Weather Condition:	<u>70° RAIN</u>	Antenna Height:	<u>2m</u>	to bottom of antenna mount	





278-2-23MAR2012



278-3S-23MAR2012

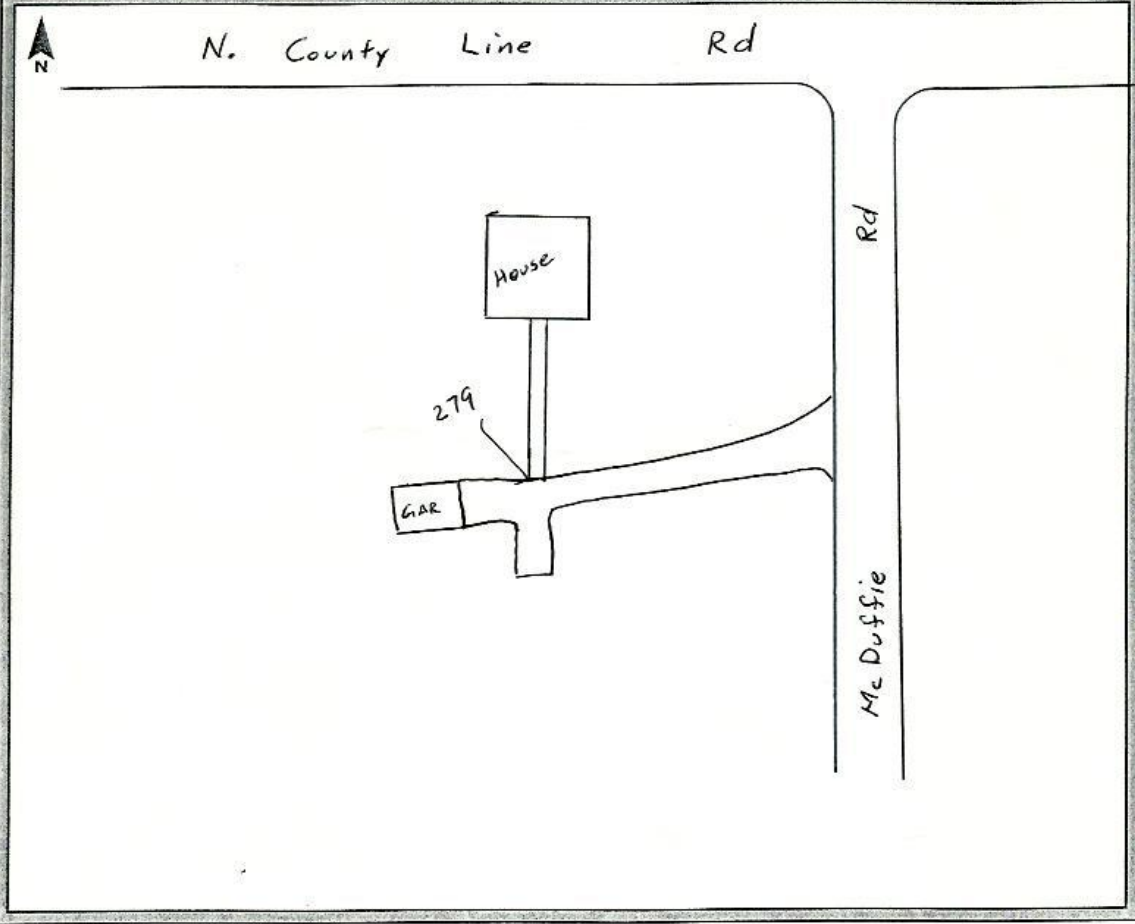


278-3W-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24 MAR 12
Station Name: 279 Operator Name: STEPHEN SCHONEGG
Latitude: 41-15-49.62 Julian Day: 084 Session No. _____
Longitude: 085-18-08.66 Start Time: 11:20 End Time: 11:2
Ellip. Height: . 794.71' Data File Name: IND05T24MAR12SS
Type of Mark: Corner Concrete Walk Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65°, MISTY Antenna Height: 6.562 FT to bottom of antenna mount





279-2-24MAR2012



279-3W-24MAR2012

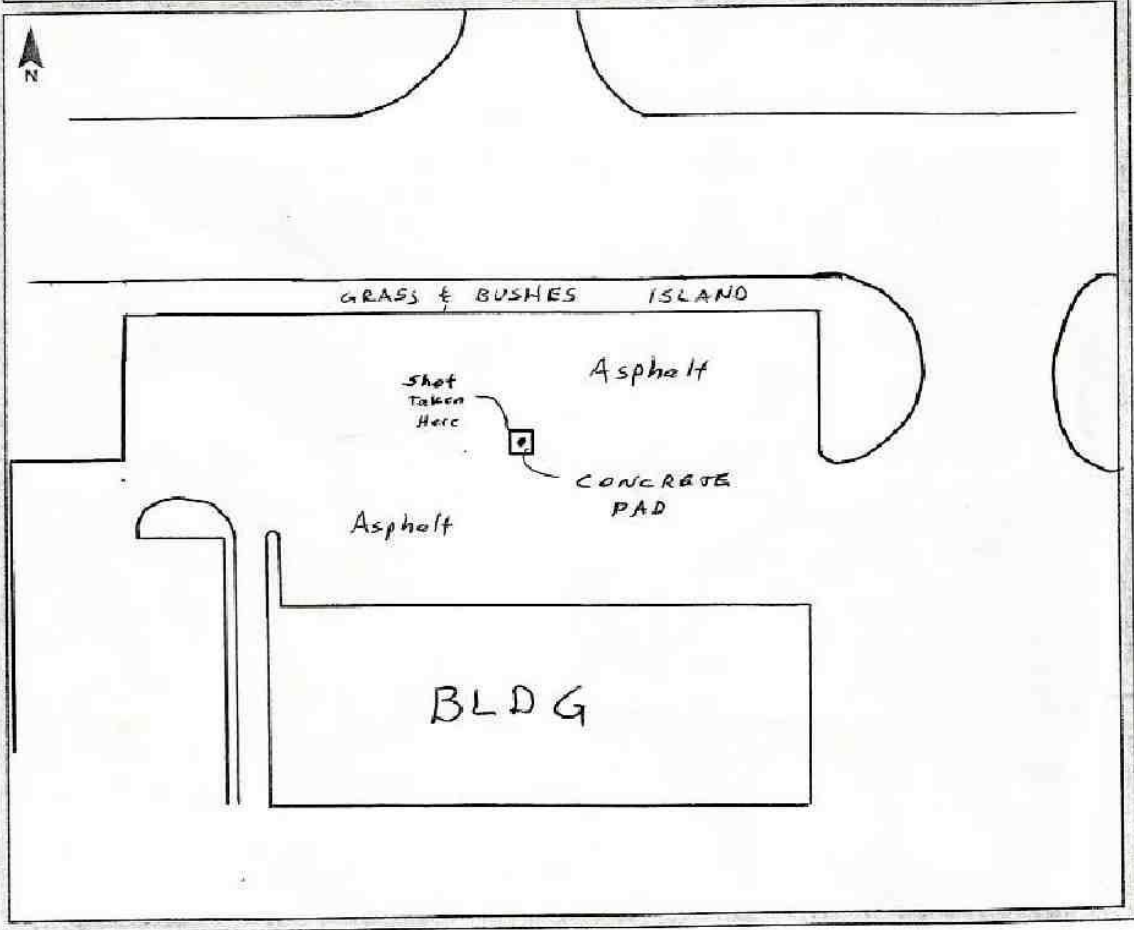


279-3N-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 17 APR 12
Station Name: 280 Operator Name: STEPHEN SCHONEGG
Latitude: 41-07-29.94 Julian Day: 108 Session No. 1
Longitude: 085-20-13.23 Start Time: 9:48 End Time: 10:45
Ellip. Height: .755.10 FT Data File Name: 95481080
Type of Mark: Corner of Conc Type of Receiver: R8-2 #9548
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50, calm Antenna Height: 6.562 FT to bottom of antenna mount





280-2-17APR2012



280-3W-17APR2012

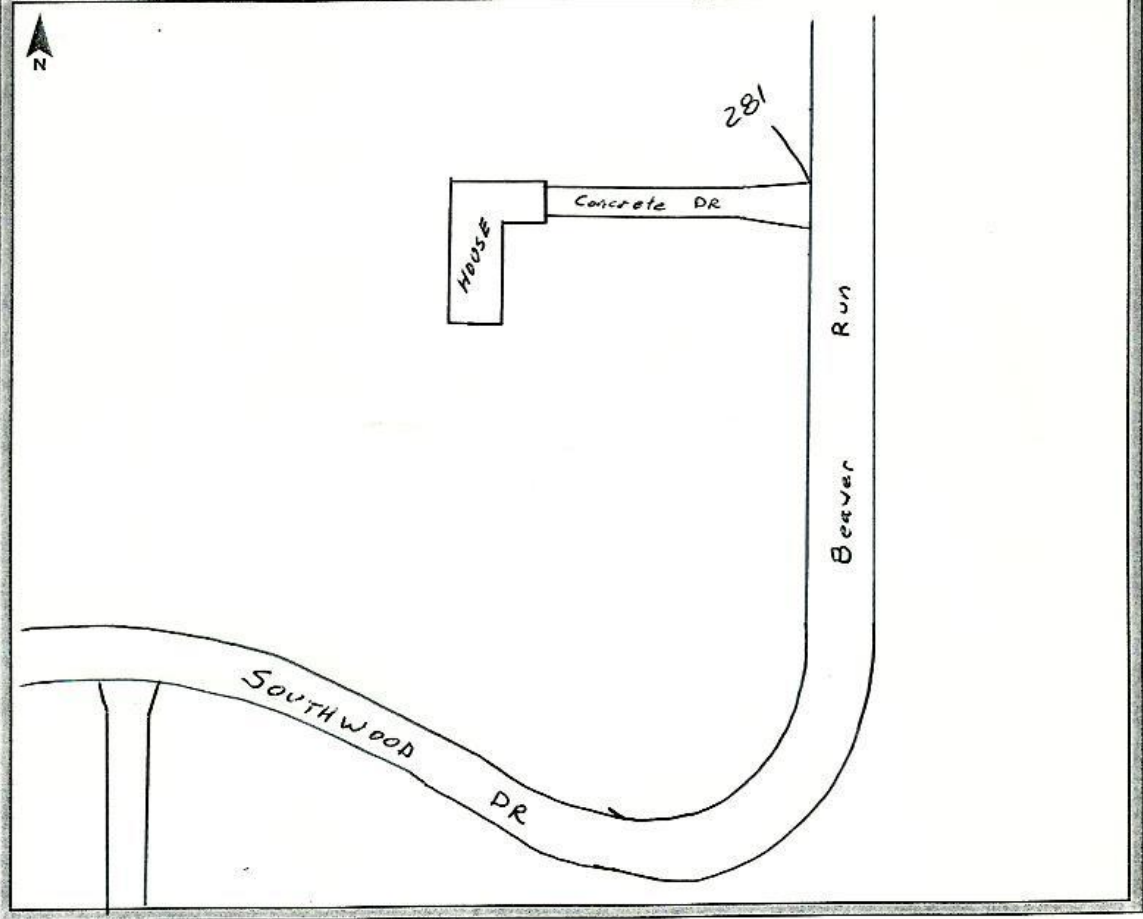


280-3N-17APR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: 281 Operator Name: STEPHEN SCHONEGG
Latitude: 41-16-10.03 Julian Day: 083 Session No. _____
Longitude: 085-30-27.04 Start Time: 1:52 End Time: 1:57
Ellip. Height: .805.50 Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Corner Concrete DR Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 70°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





281-2-23MAR2012



281-3W-23MAR2012

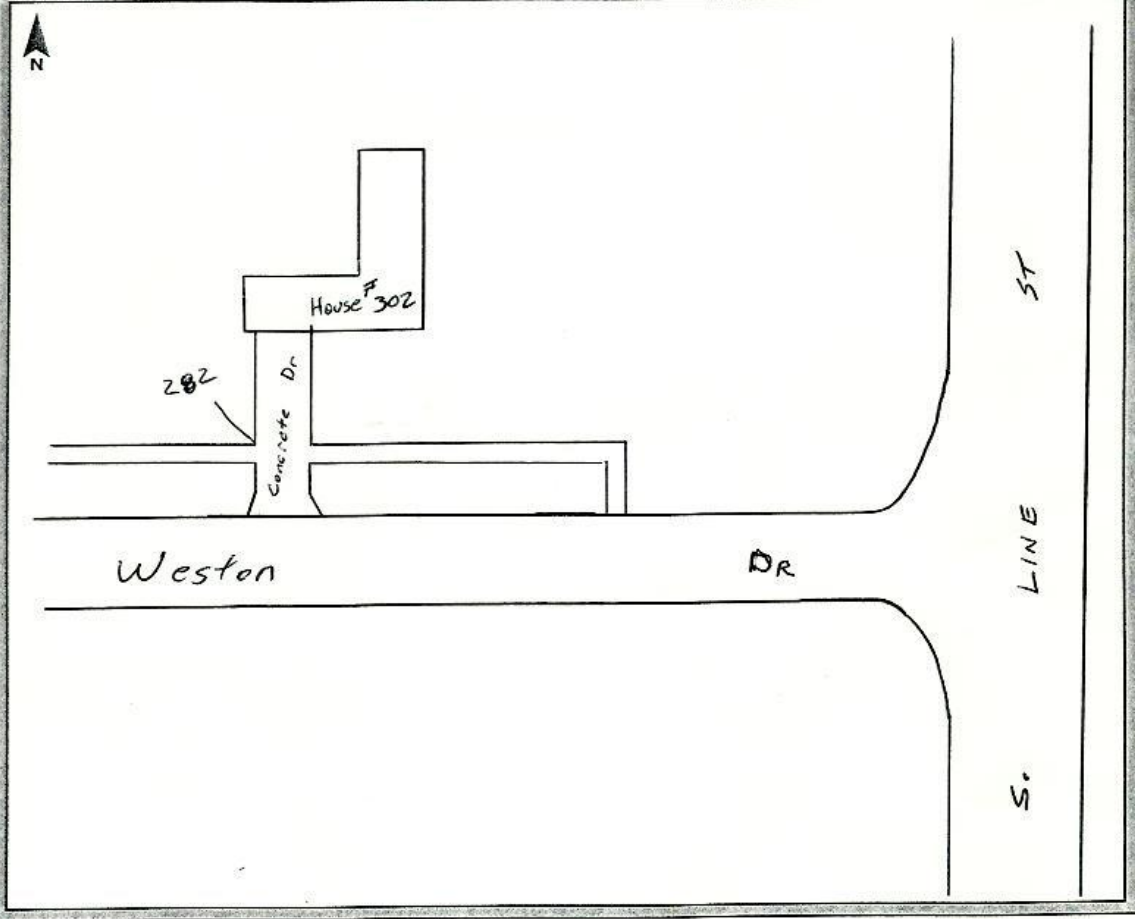


281-3N-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23MAR12
Station Name: 282 Operator Name: STEPHEN SCHONEGG
Latitude: 41-08-55.05 Julian Day: 083 Session No. _____
Longitude: 085-29-29.85 Start Time: 12:16 End Time: 12:20
Ellip. Height: . 746.83 FT Data File Name: INDST23MAR12SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 68°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





282-2-23MAR2012



282-3N-23MAR2012

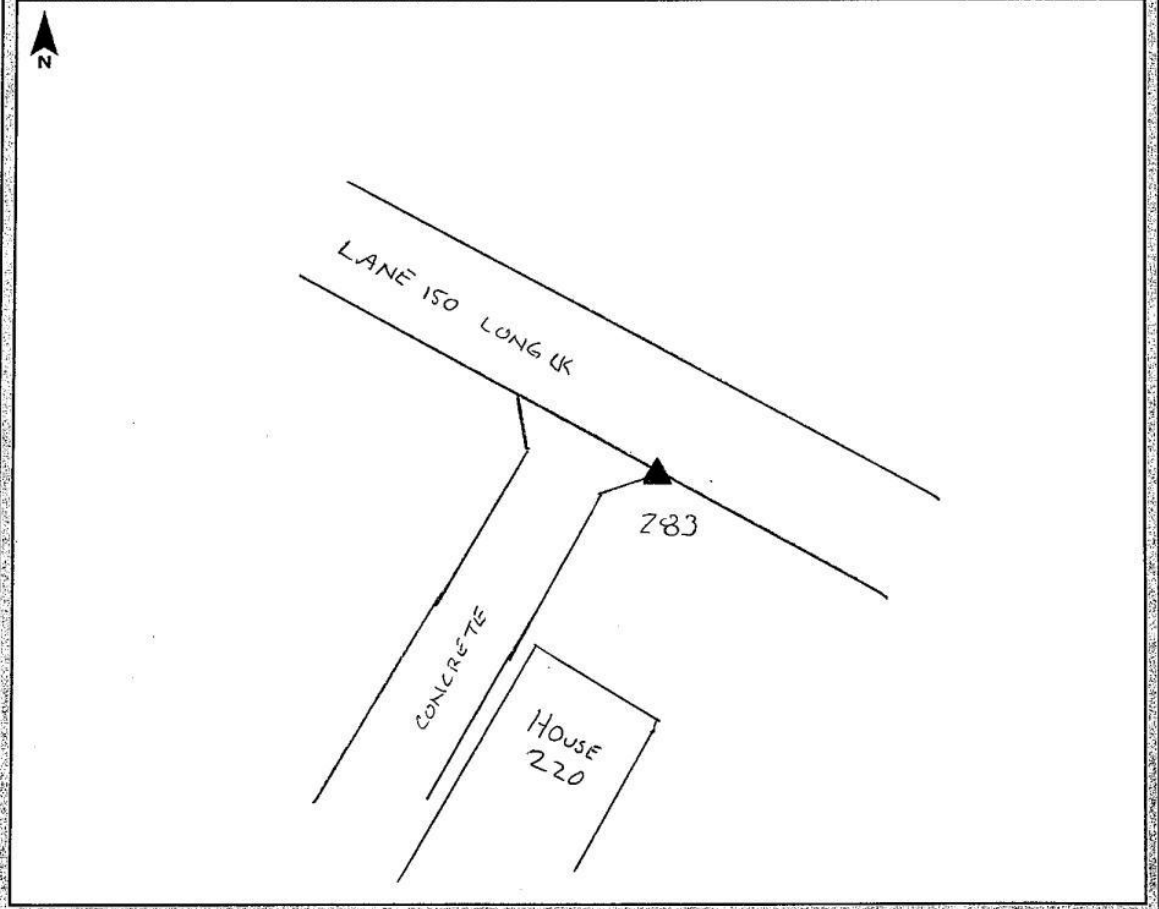


282-3E-23MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>283</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 45' 02.44" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 48' 30.55" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>930.16 ft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>70° PT SUN</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





283-2-25MAR2012



283-3SW-25MAR2012

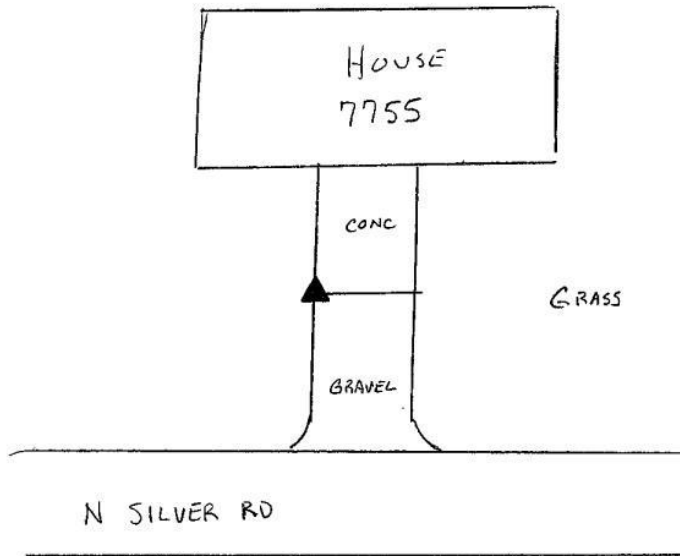


283-3SE-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>284</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 45' 23.53" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>84° 59' 40.58" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>916.39 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





284-2-26MAR2012



284-3W-26MAR2012

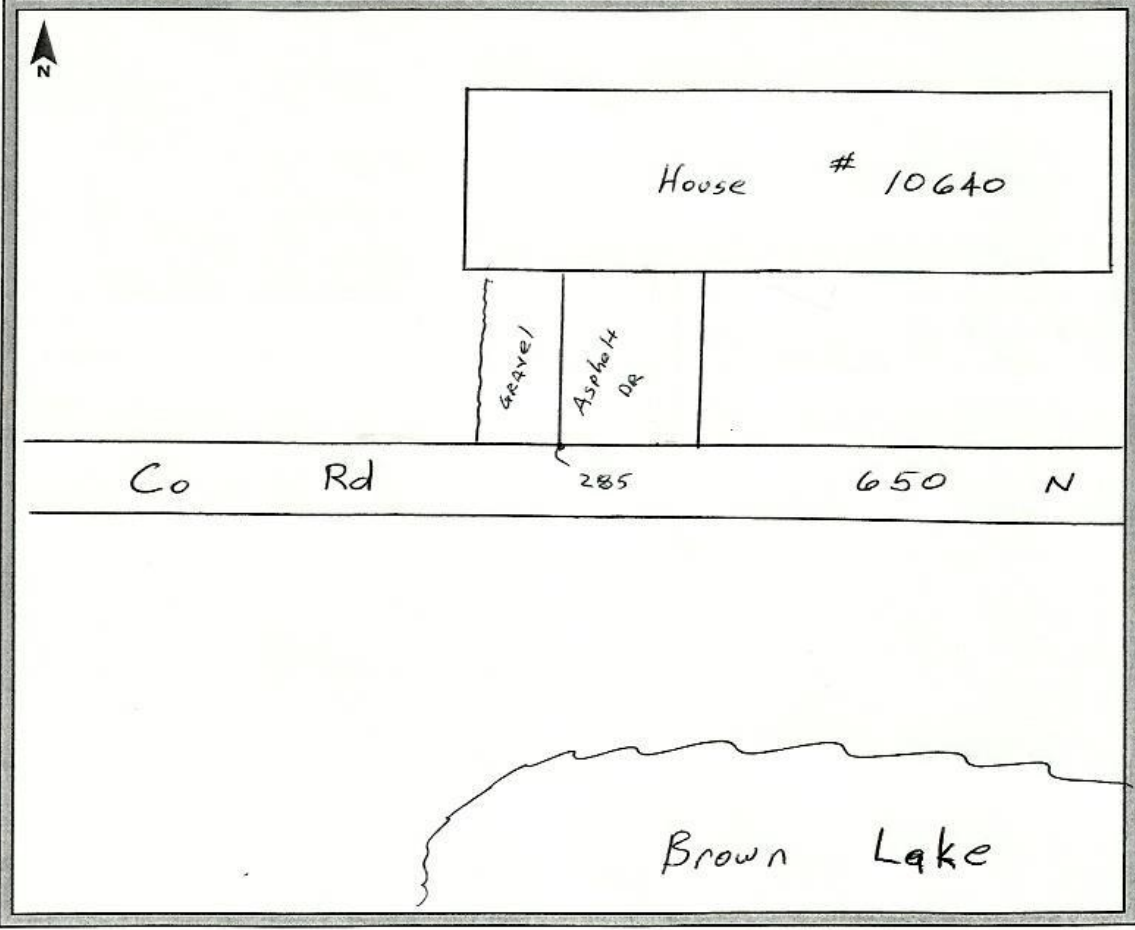


284-3NE-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>26 MAR 12</u>
Station Name: <u>285</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-44-19.43</u>	Julian Day: <u>086</u>	Session No. _____
Longitude: <u>085-11-36.10</u>	Start Time: <u>12:12</u>	End Time: <u>12:16</u>
Ellip. Height: <u>.837.982</u>	Data File Name: <u>INDST26MAR12.SS</u>	
Type of Mark: <u>Corner Asphalt Dr</u>	Type of Receiver: <u>RB-Z #9357</u>	
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 45°, WINDY</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





285-2-26MAR2012



285-3W-26MAR2012

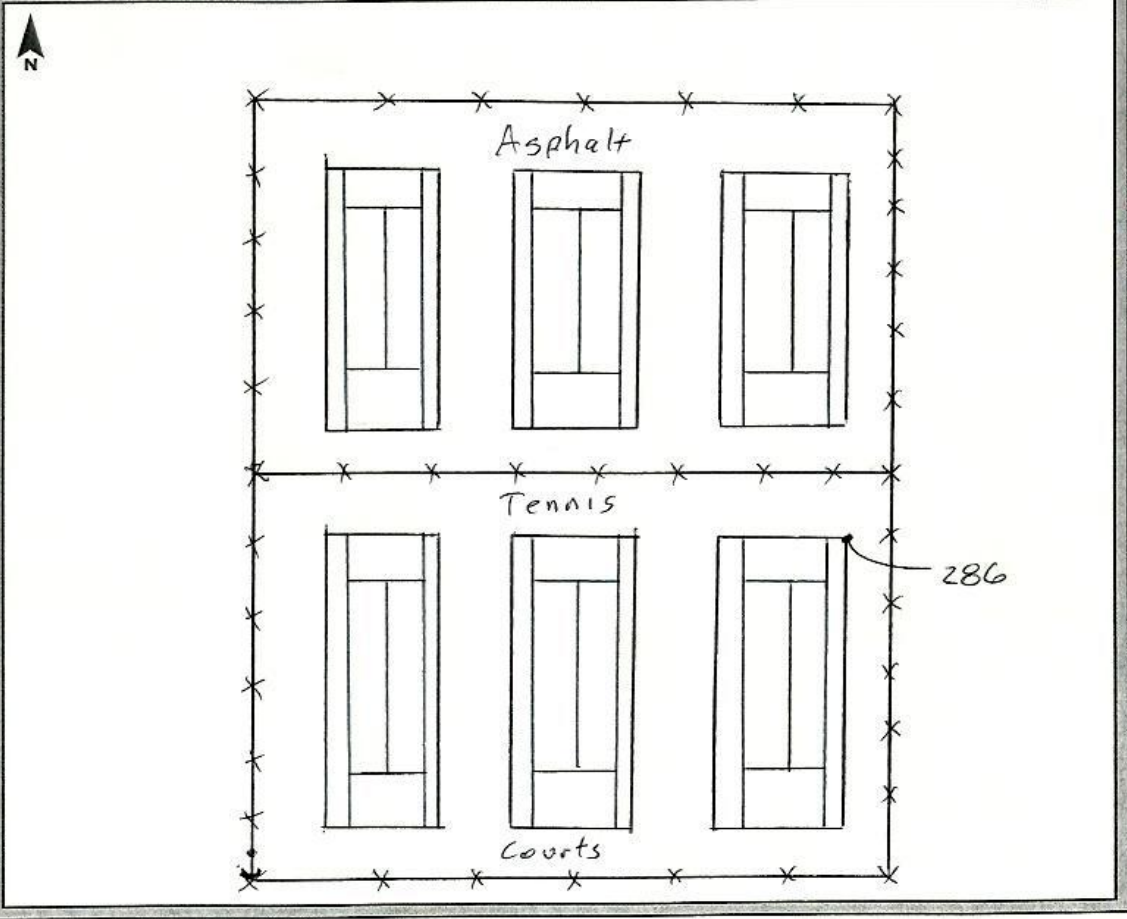


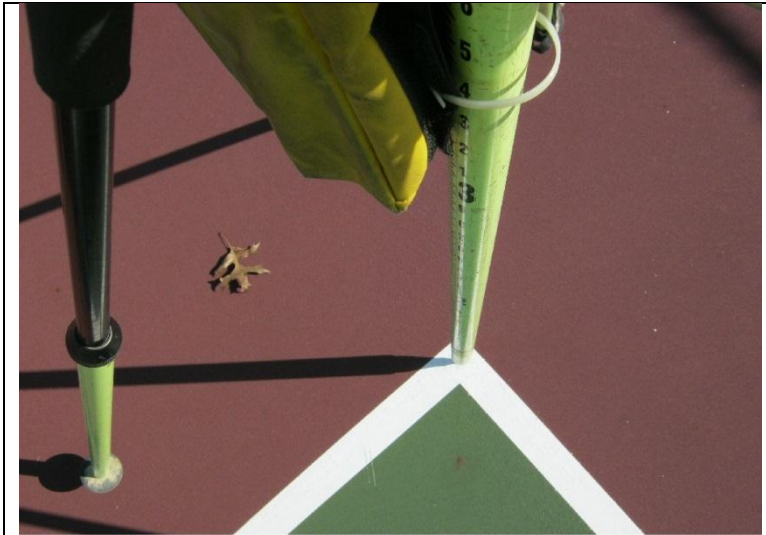
285-3N-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: 286 Operator Name: STEPHEN SCHONEGG
Latitude: 41-38-27.67 Julian Day: 086 Session No. _____
Longitude: 085-12-00.17 Start Time: 11:06 End Time: 11:12
Ellip. Height: . 879.94 FT Data File Name: INDST 26 MAR 12 SS
Type of Mark: Paint STRIPE Type of Receiver: R8-Z #9357
Stamping on Mark: Mag Nail Type of Antenna: _____
Weather Condition: Sunny, 45°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





286-2-26MAR2012



286-3W-26MAR2012

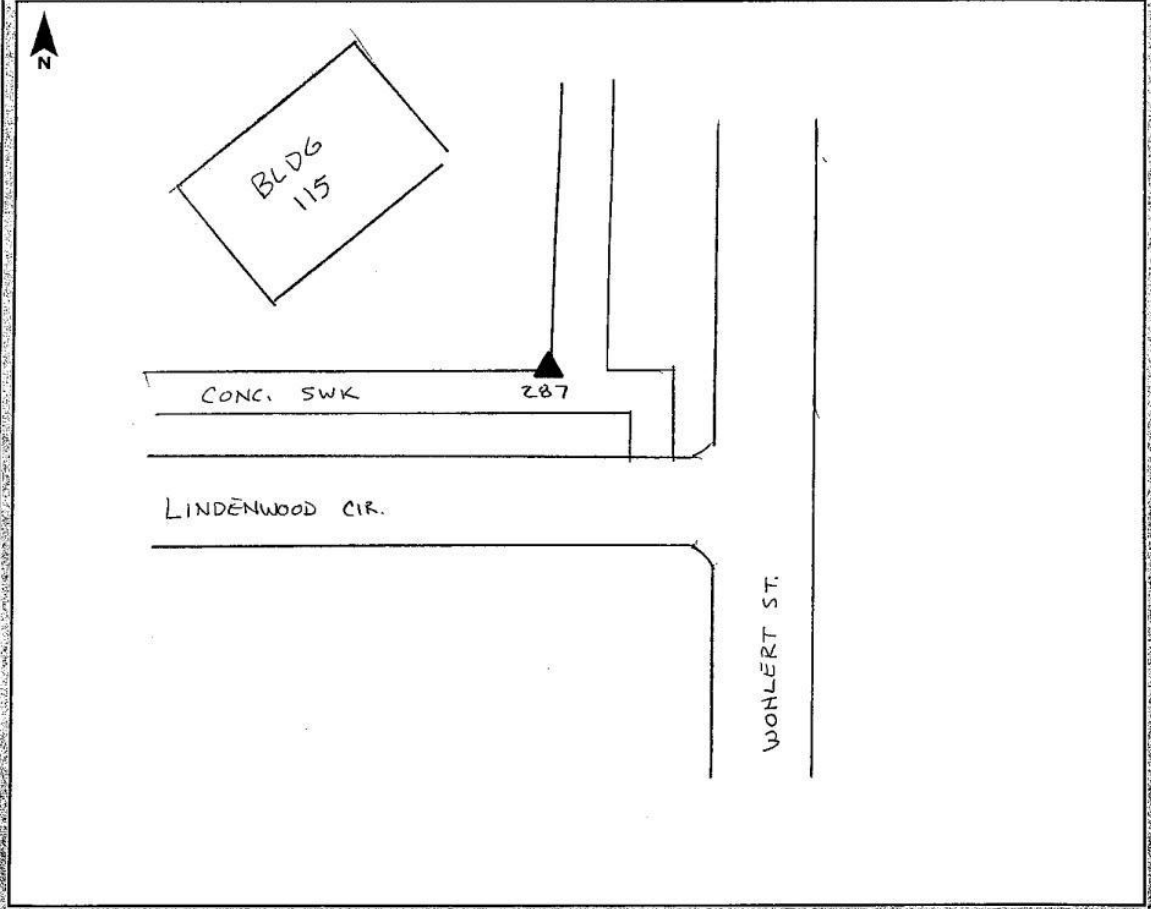


286-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>287</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 39' 21.93" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>85° 00' 16.52" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>907.28 SFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR SIDEWALK</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>65° PT. SUN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





287-2-25MAR2012



287-3N-25MAR2012

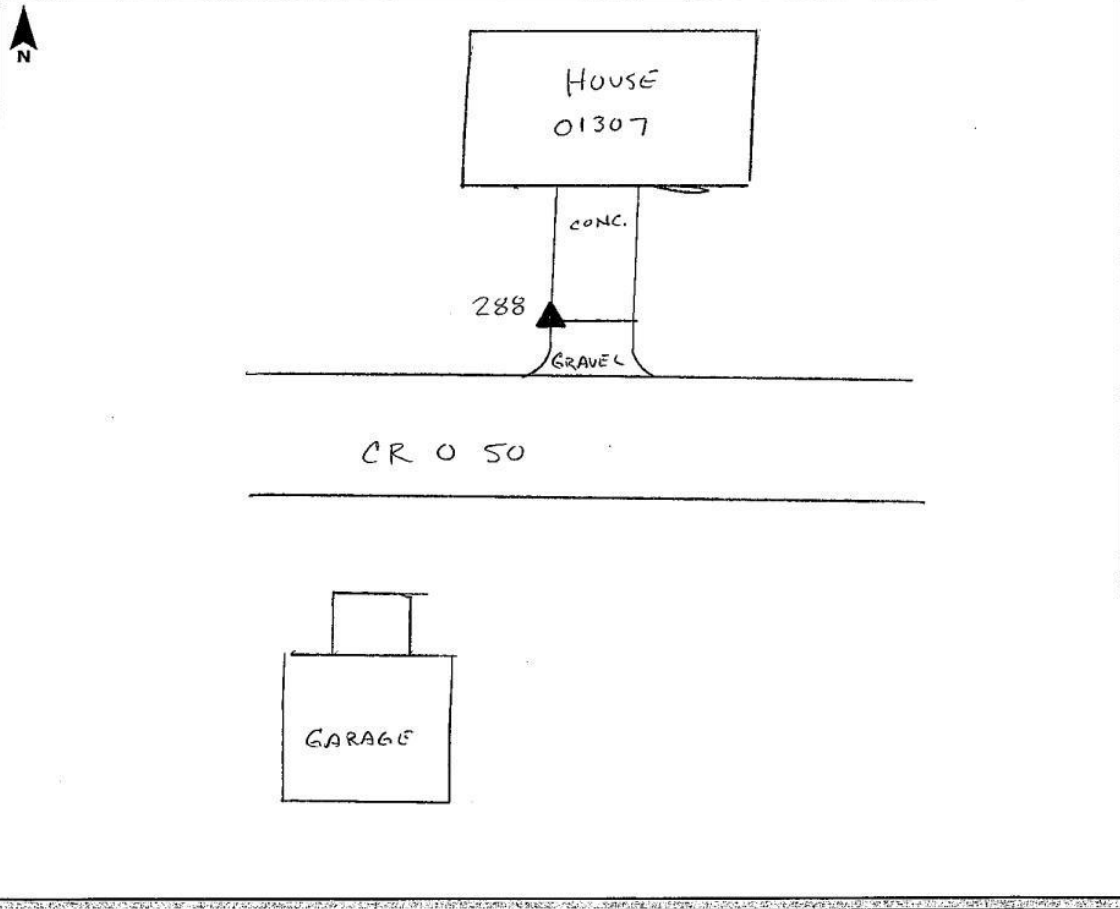


287-3E-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>288</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 38' 31.75" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>84° 47' 48.14" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>867.80' sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-Z</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-Z</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





288-2-26MAR2012



288-3W-26MAR2012

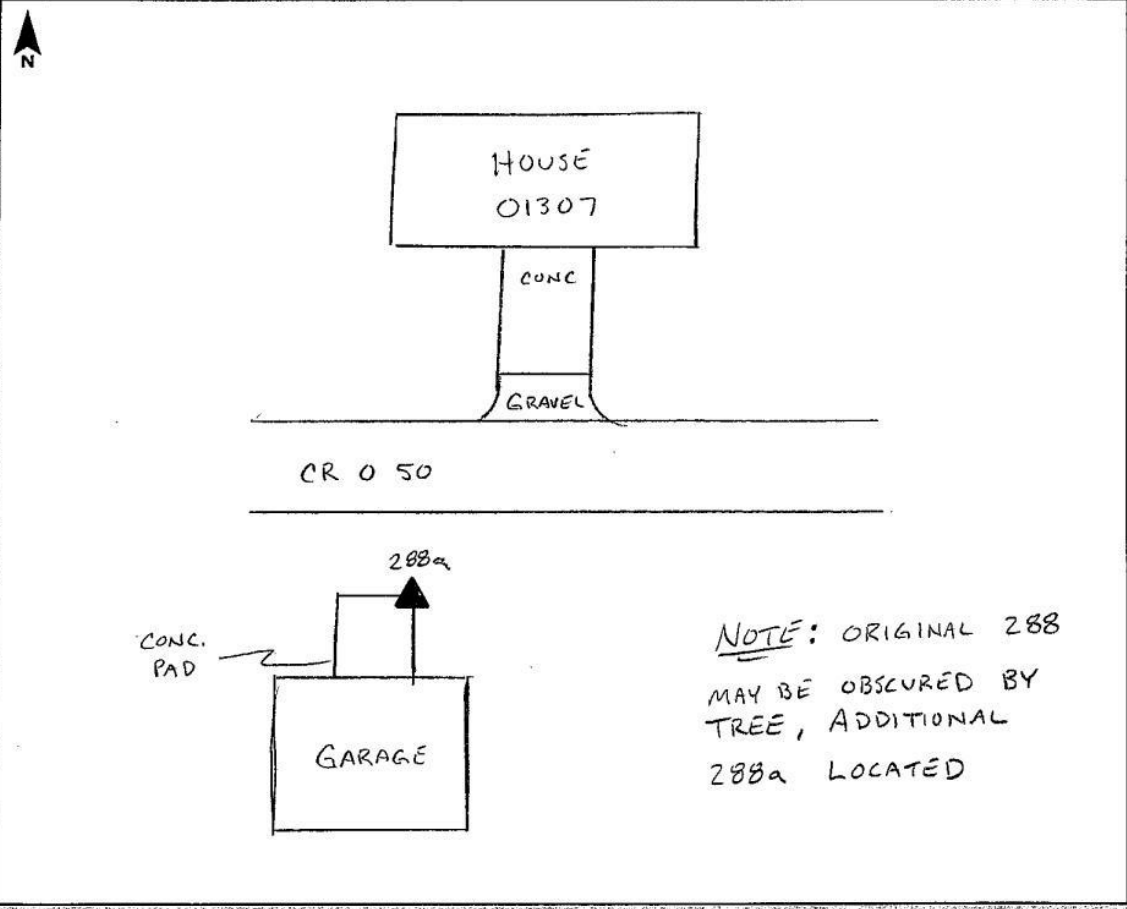


288-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>288a</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 38' 31.13" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>84° 47' 48.56" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>865.68 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2 m</u> to bottom of antenna mount	





288a-2-26MAR2012



288a-3S-26MAR2012

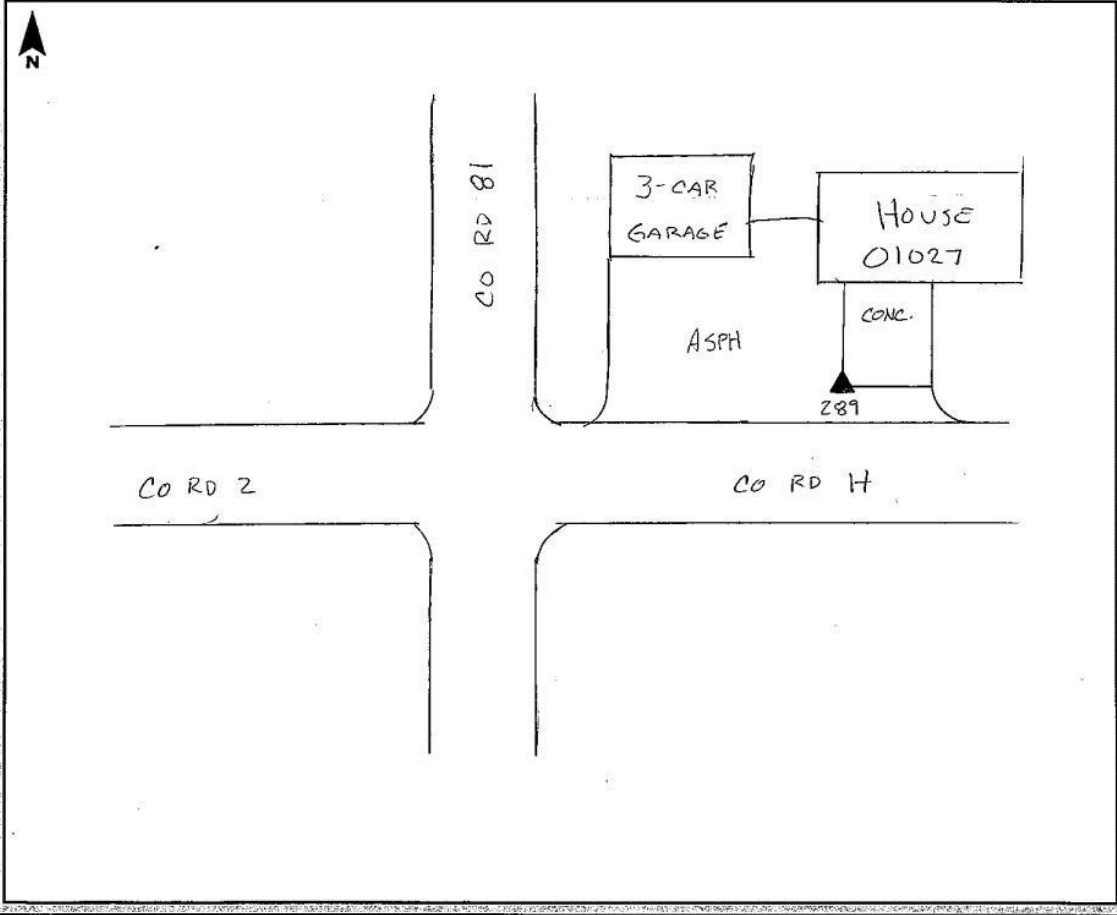


288a-3E-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>289</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 31' 28.36" N</u>	Julian Day: <u>085</u>	Session No. <u> </u>
Longitude: <u>84° 48' 15.16" W</u>	Start Time: <u> </u>	End Time: <u> </u>
Ellip. Height: <u>770.87 SFT.</u>	Data File Name: <u> </u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u> </u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>65° SUNNY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





289-2-25MAR2012



289-3N-25MAR2012

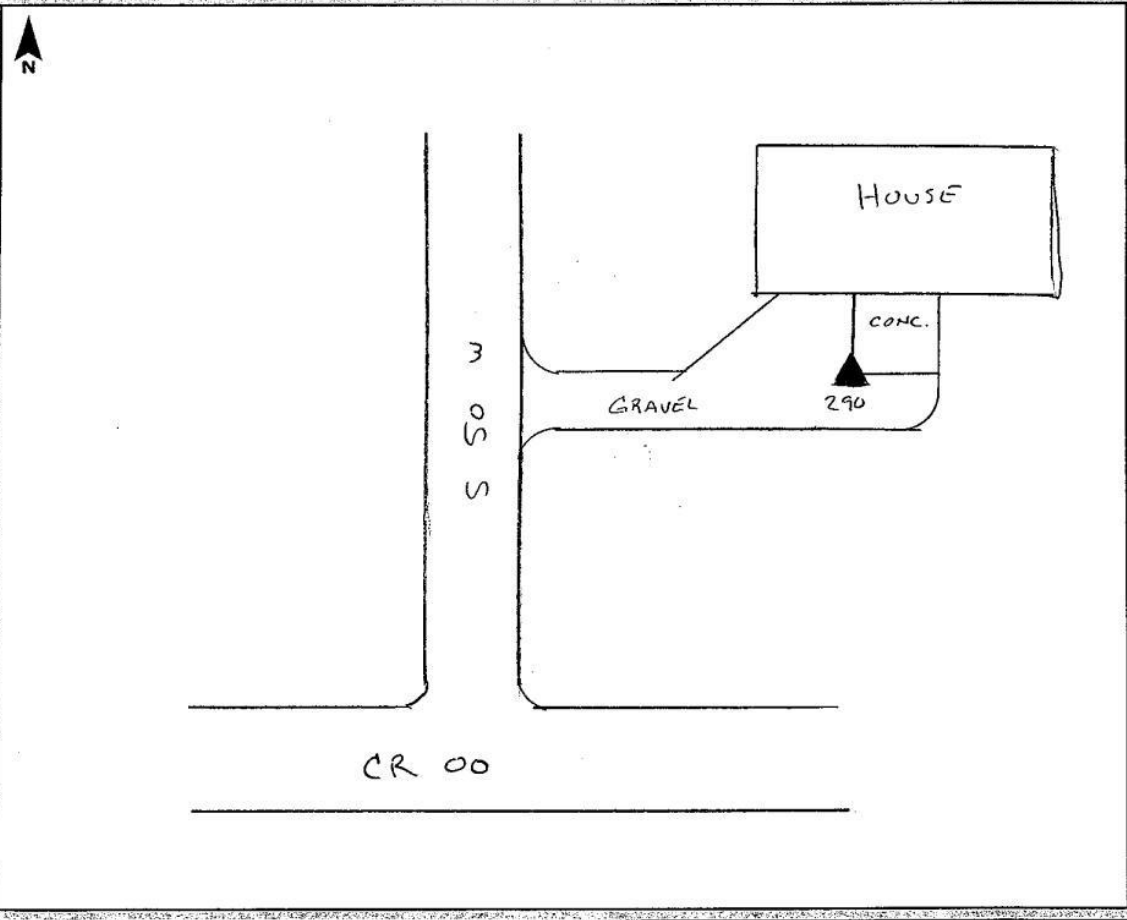


289-3E-25MAR2012

GPS Observation Log Sheet



Project Name: IN STATEWIDE Project Number: 72134 Survey Date: 03/26/2012
Station Name: 290 Operator Name: BEN CHRISTIE
Latitude: 41° 31' 40.23" N Julian Day: 086 Session No. —
Longitude: 84° 59' 49.91" W Start Time: — End Time: —
Ellip. Height: 878.58 sft Data File Name: —
Type of Mark: SW COR CONCRETE Type of Receiver: R8-2
Stamping on Mark: — Type of Antenna: R8-2
Weather Condition: 45° CLEAR Antenna Height: 2m to bottom of antenna mount





290-2-26MAR2012



290-3N-26MAR2012

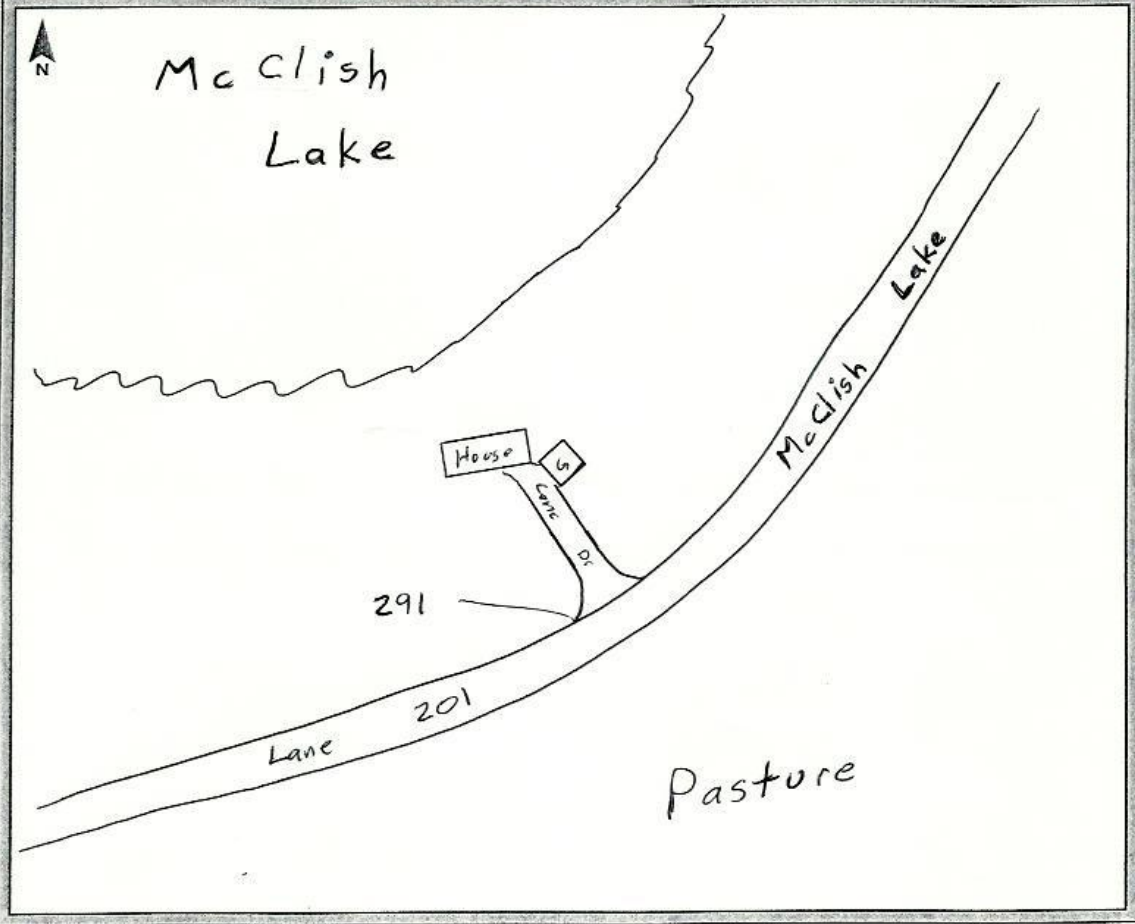


290-3E-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: 291 Operator Name: STEPHEN SCHONEGG
Latitude: 41-32-18.84 Julian Day: 086 Session No. _____
Longitude: 085-11-21.82 Start Time: 9:32 End Time: 9:37
Ellip. Height: • 847.30 Data File Name: IND05T26MAR12SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 35° Antenna Height: 6.562 FT to bottom of antenna mount





291-2-24MAR2012



291-3NW-24MAR2012

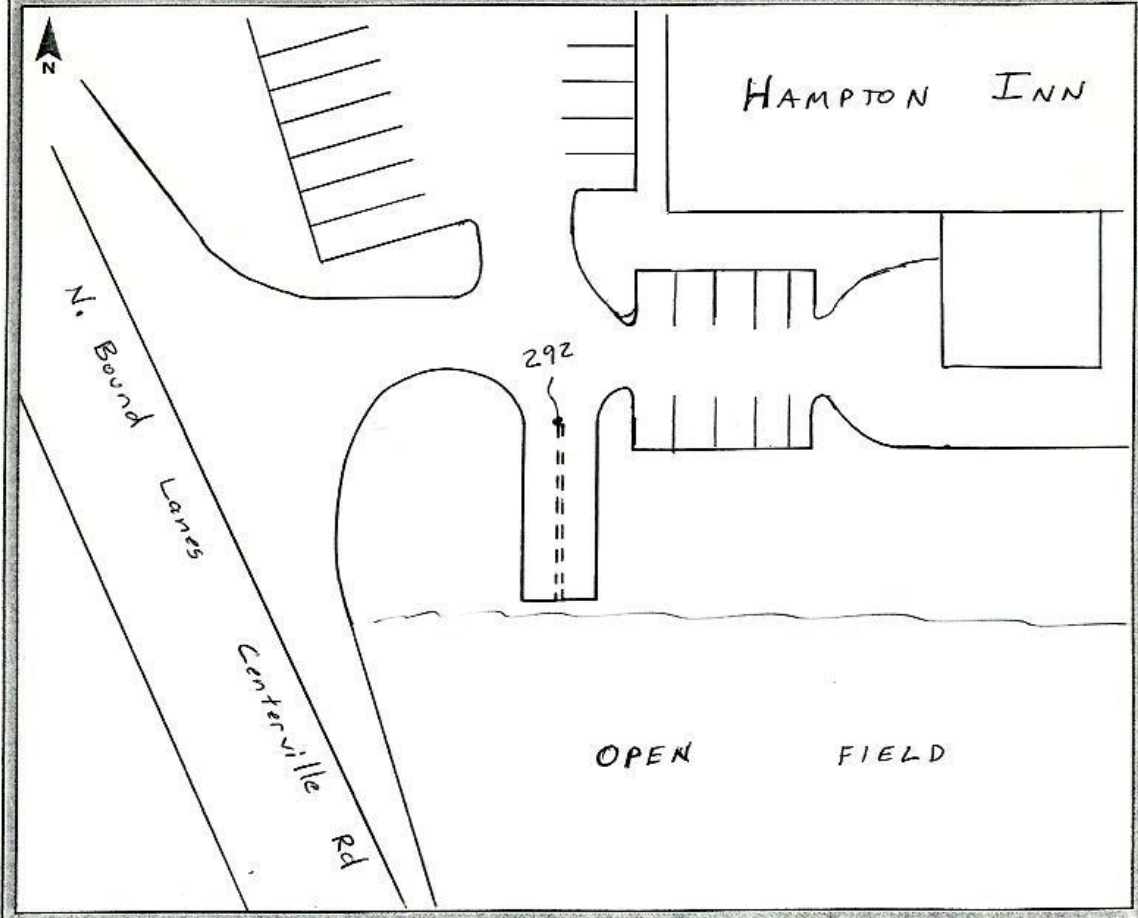


291-3NE-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 25MAR12
Station Name: 292 Operator Name: STEPHEN SCHONEGG
Latitude: 41-45-36.47 Julian Day: 085 Session No. _____
Longitude: 085-25-38.77 Start Time: 1:29 End Time: 1:33
Ellip. Height: .764.10 FT Data File Name: IND05T25MAR12.SS
Type of Mark: Corner Paint Stripe Type of Receiver: R8-2 # 9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 FT to bottom of antenna mount





292-2-25MAR2012



292-3W-25MAR2012

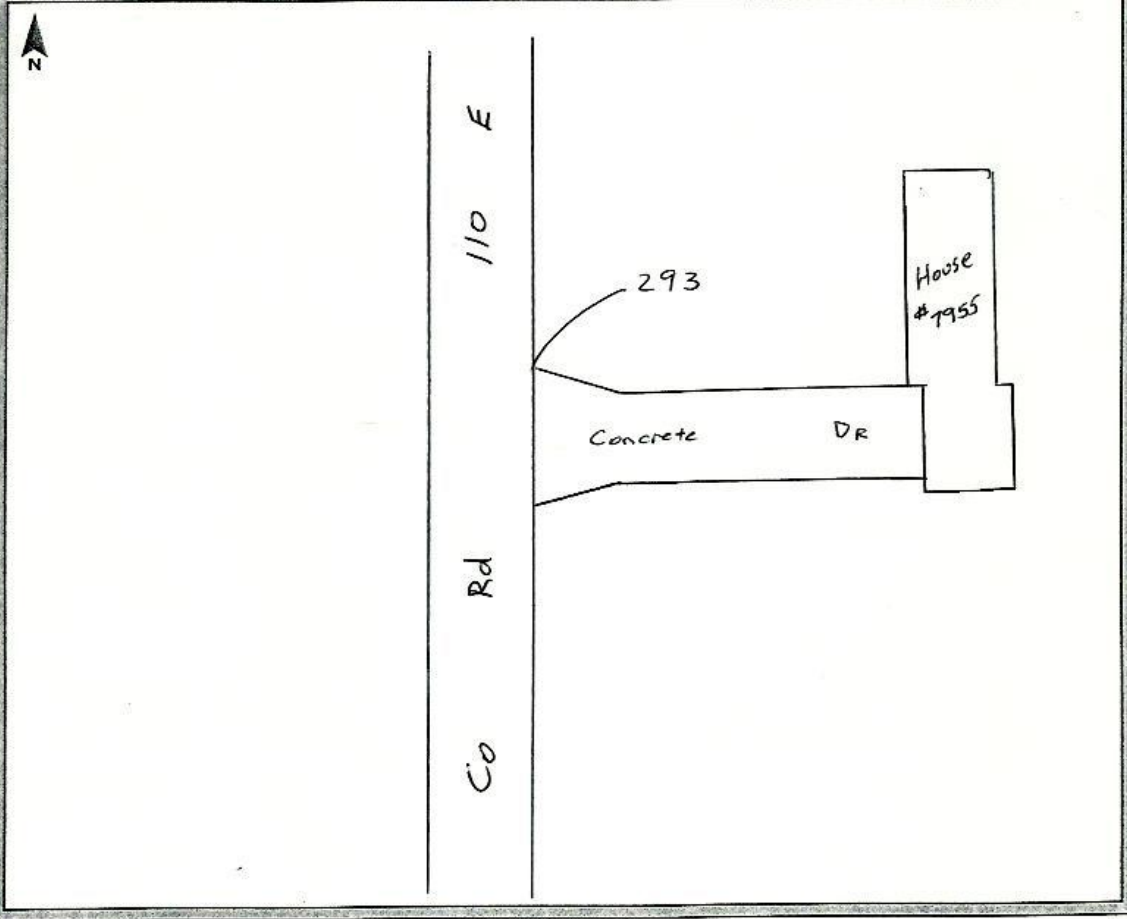


292-3N-25MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24 MAR 12
Station Name: 293 Operator Name: STEPHEN SCHONEGG
Latitude: 41-31-36.63 Julian Day: 084 Session No. _____
Longitude: 085-24-11.27 Start Time: 3:55 End Time: 3:59
Ellip. Height: . 820.47 Data File Name: IND05T24MAR12 SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65° Antenna Height: 6.562 FT to bottom of antenna mount





293-2-24MAR2012



293-3N-24MAR2012

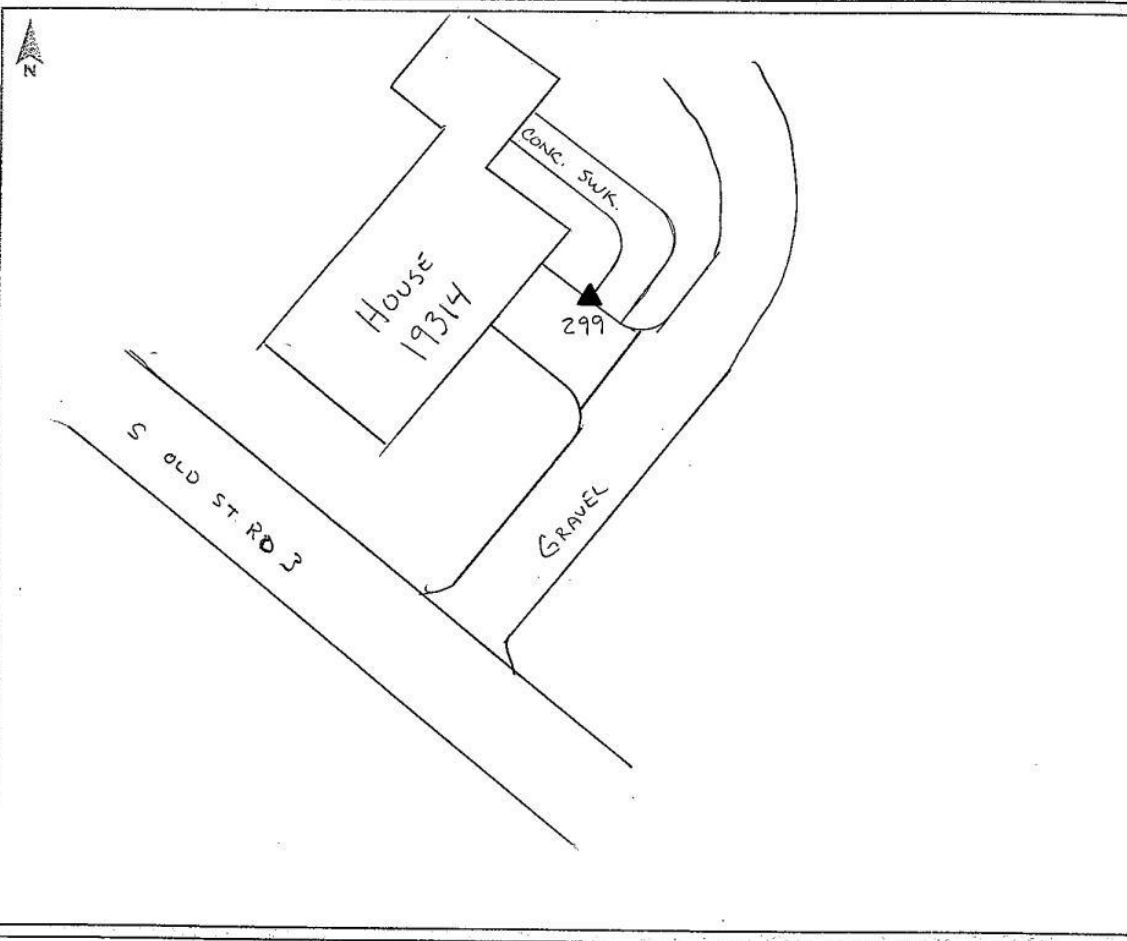


293-3E-24MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/22/2012</u>
Station Name: <u>299</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 15' 49.85" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>85° 11' 06.34" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>746.43" sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR SIDEWALK</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





299-2-22MAR2012



299-3NW-22MAR2012

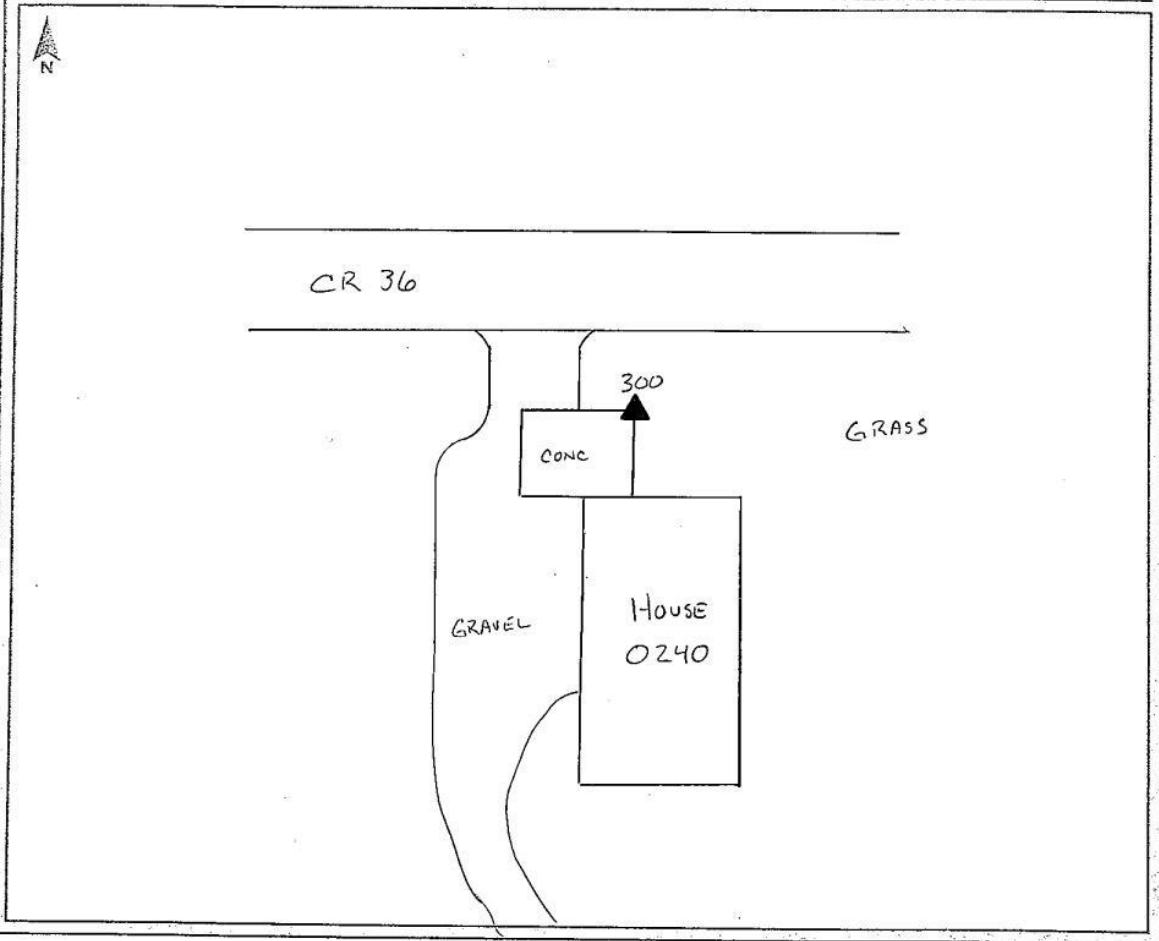


299-3NE-22MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/24/2012</u>
Station Name: <u>300</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 23' 41.01" N</u>	Julian Day: <u>084</u>	Session No. <u>—</u>
Longitude: <u>85° 11' 00.65" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>810.31 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





300-2-24MAR2012



300-3S-24MAR2012

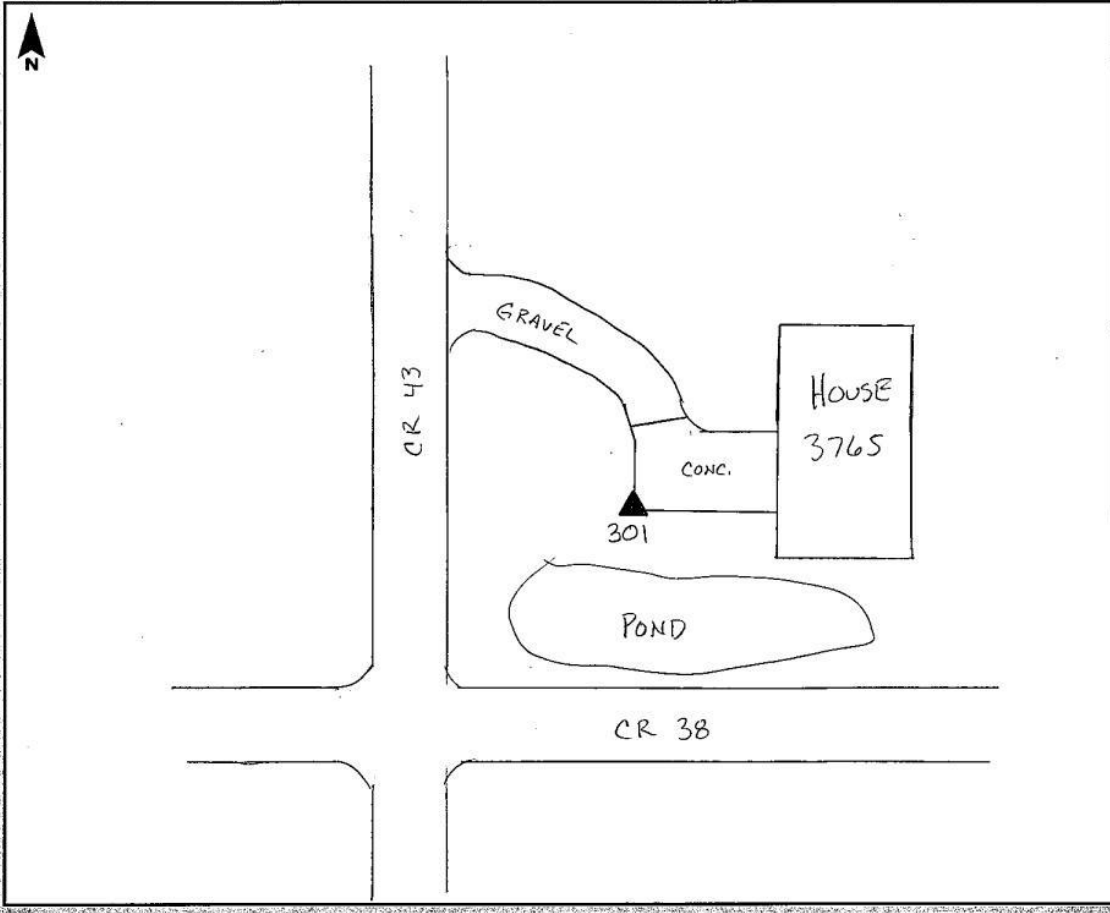


300-3E-24MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>301</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 23' 44.35" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 59' 06.69" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>761.82 spt</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





301-2-25MAR2012



301-3W-25MAR2012

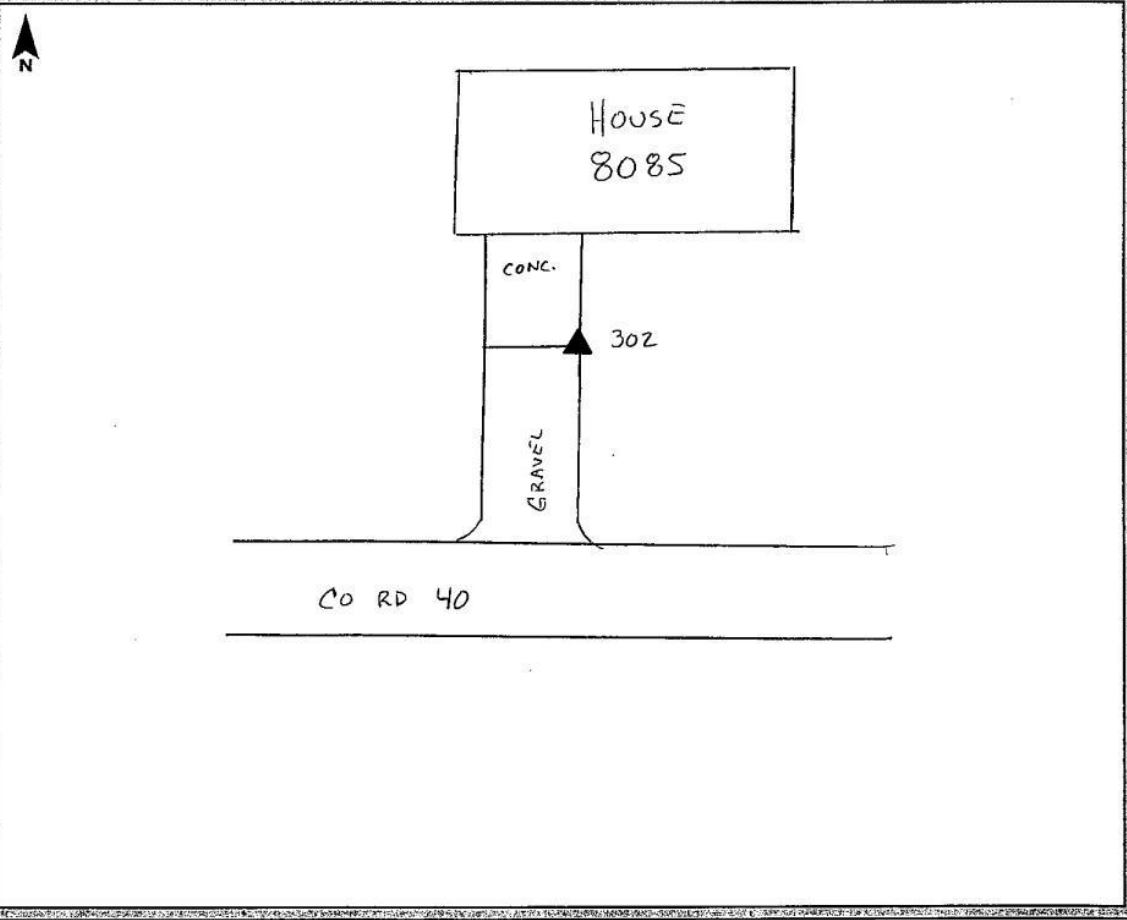


301-3S-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72174</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>302</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 23' 12.38" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 48' 26.74" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>696.23</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2 M</u>	to bottom of antenna mount





302-2-25MAR2012

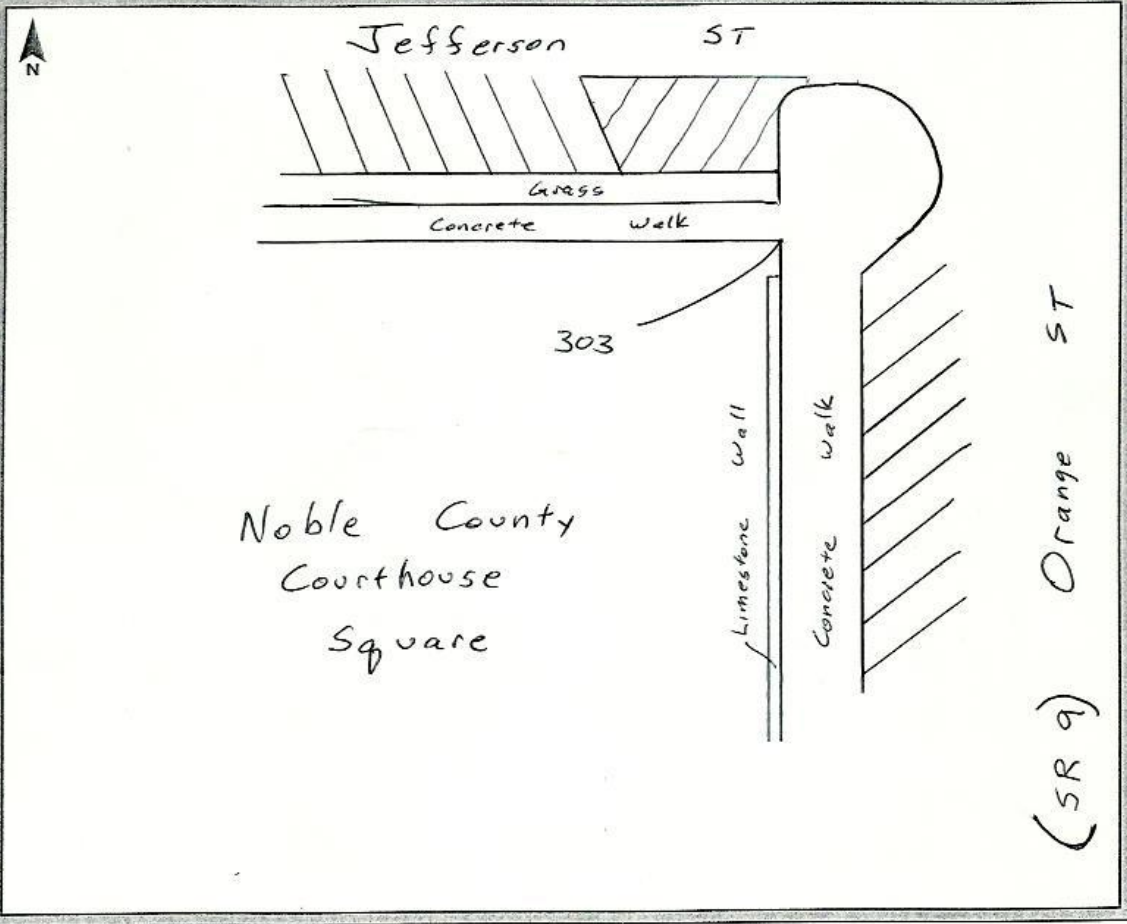


302-3E-25MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>24 MAR 12</u>
Station Name: <u>303</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-23-46.94</u>	Julian Day: <u>084</u>	Session No. _____
Longitude: <u>085-25-27.00</u>	Start Time: <u>5:11</u>	End Time: <u>5:16</u>
Ellip. Height: <u>.850.69</u>	Data File Name: <u>IND ST 24 MAR 12 SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Cloudy, 70°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





303-2-24MAR2012



303-3W-24MAR2012

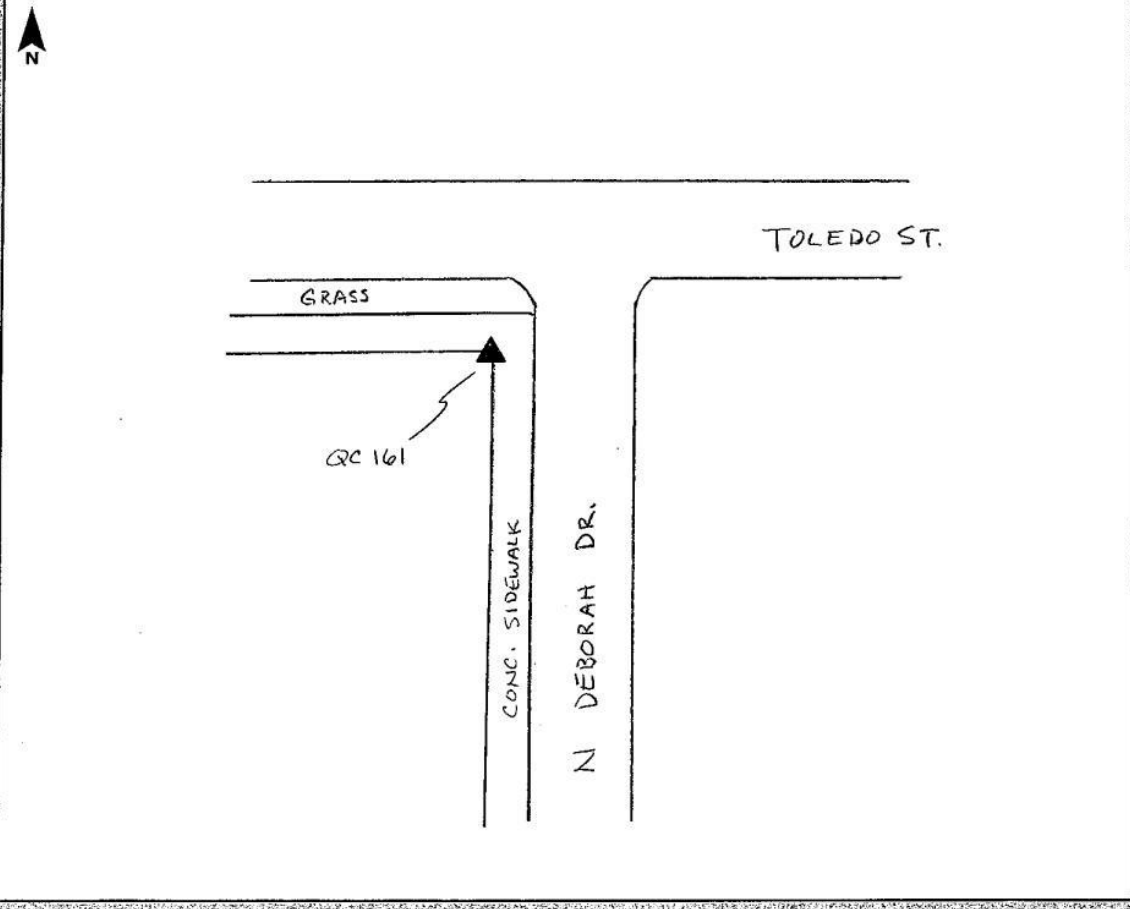


303-3N-24MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>QC 161</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 43' 50.24" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>84° 54' 58.67" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>960.79 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR SIDEWALK</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC161-2-26MAR2012



QC161-3W-26MAR2012

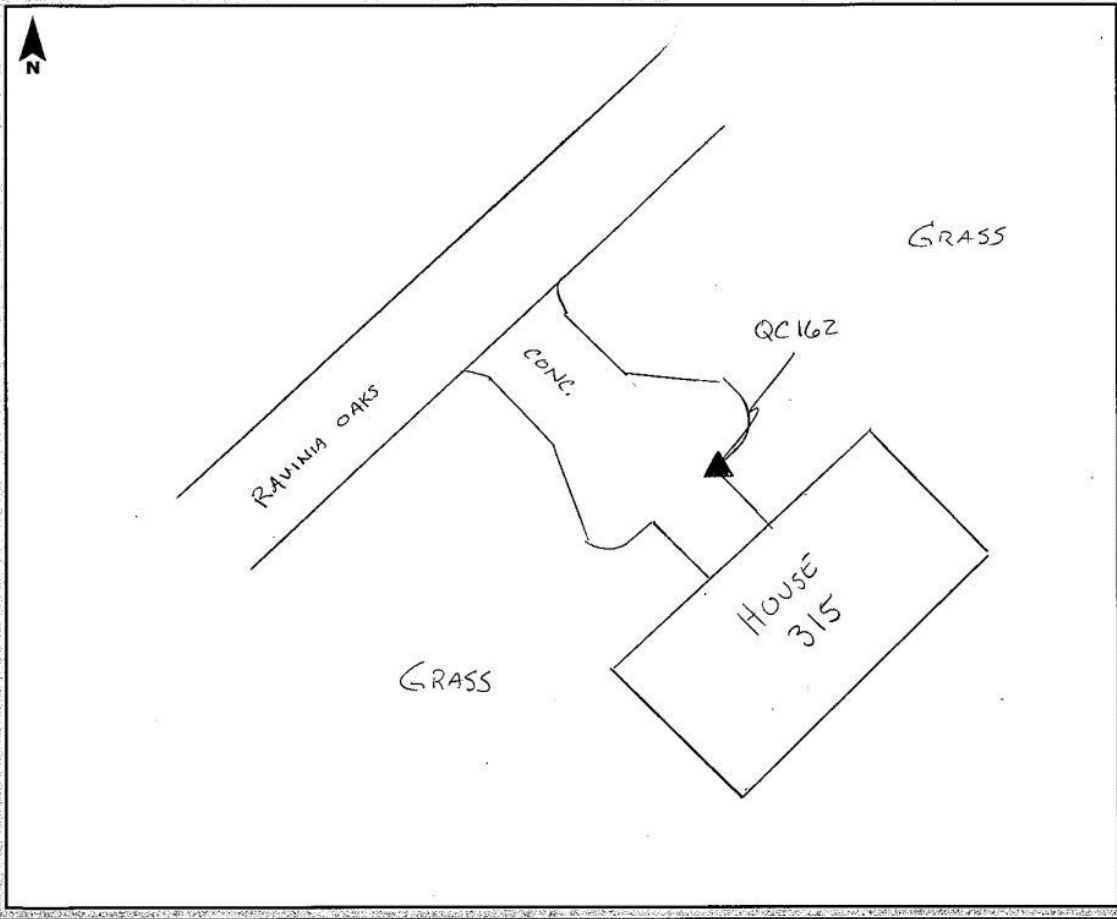


QC161-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>QC162</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 33' 57.04" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 54' 34.22" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>820.91 SP+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>65° PT. SUN</u>	Antenna Height: <u>2.0m</u>	to bottom of antenna mount





QC162-3NE-25MAR2012



QC162-2-25MAR2012

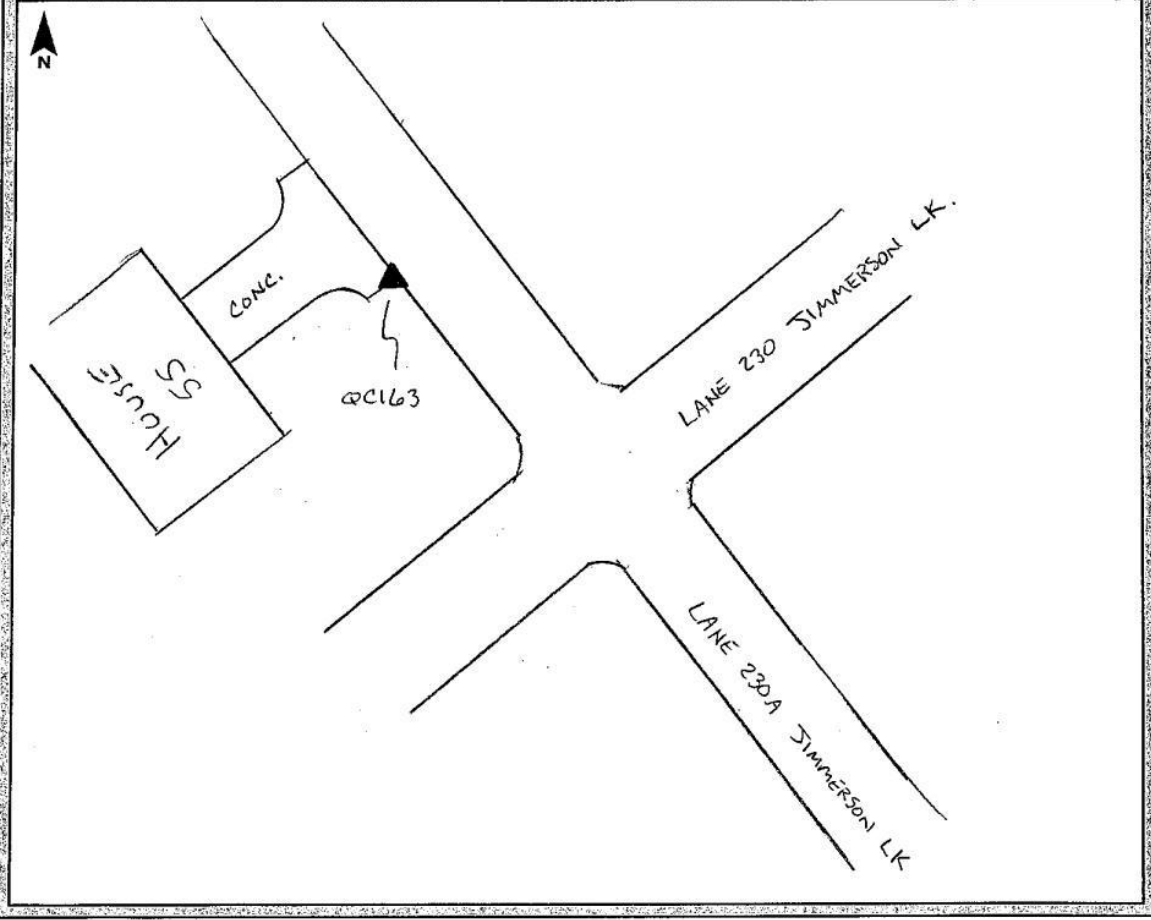


QC162-3SE-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>QC163</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 42' 38.04" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>85° 04' 19.20" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>870.99 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC163-2-26MAR2012



QC163-3SW-26MAR2012

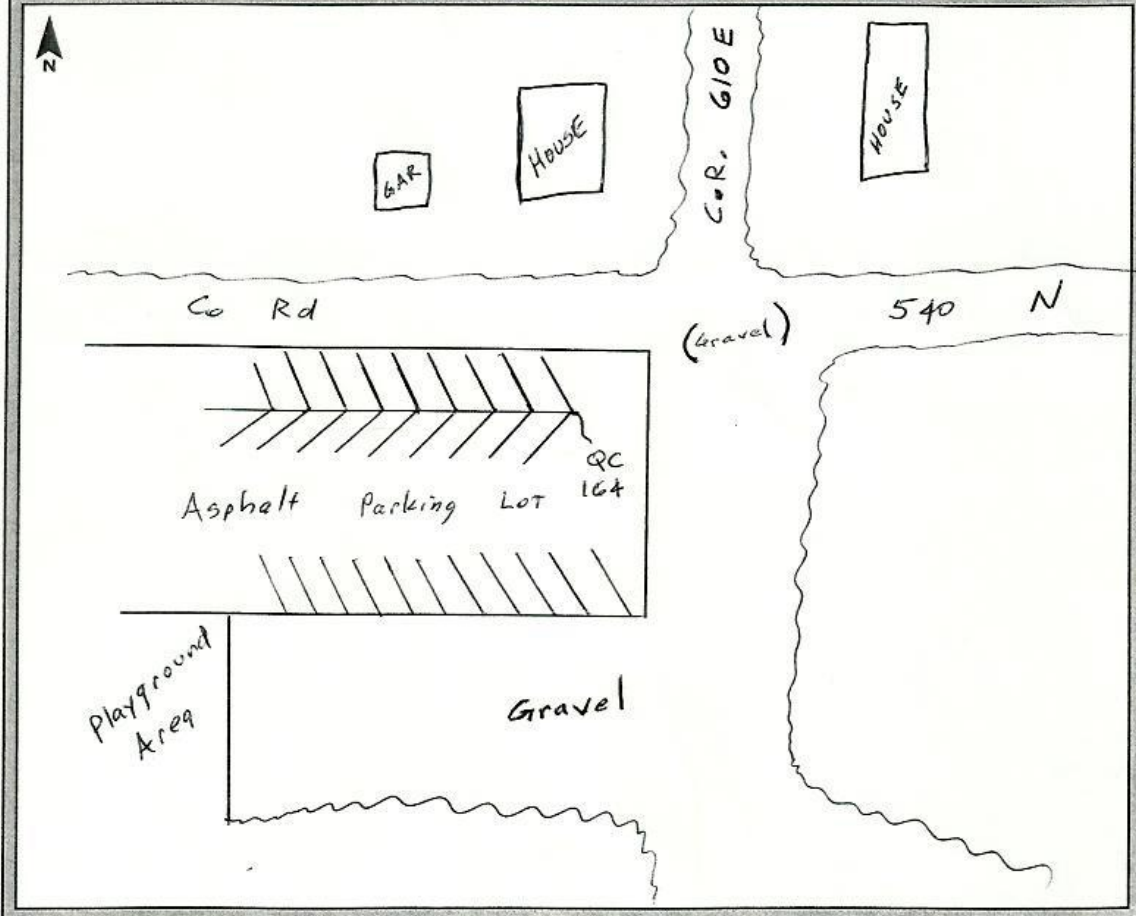


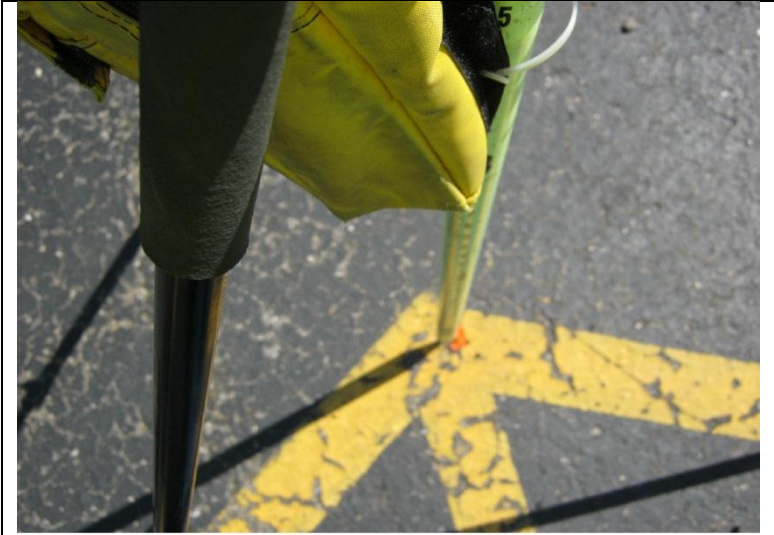
QC163-3NW-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>26 MAR 12</u>
Station Name: <u>QC 164</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-43-15.46</u>	Julian Day: <u>086</u>	Session No. _____
Longitude: <u>085-18-35.77</u>	Start Time: <u>1:16</u>	End Time: <u>1:23</u>
Ellip. Height: <u>. 836.60 FT</u>	Data File Name: <u>IND ST 26 MAR 12 SS</u>	
Type of Mark: <u>Paint Stripe</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: <u>Meg Nail</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 50°, WINDY</u>	Antenna Height: <u>6.562</u>	to bottom of antenna mount





QC 164-2-26MAR2012



QC 164-3E-26MAR2012

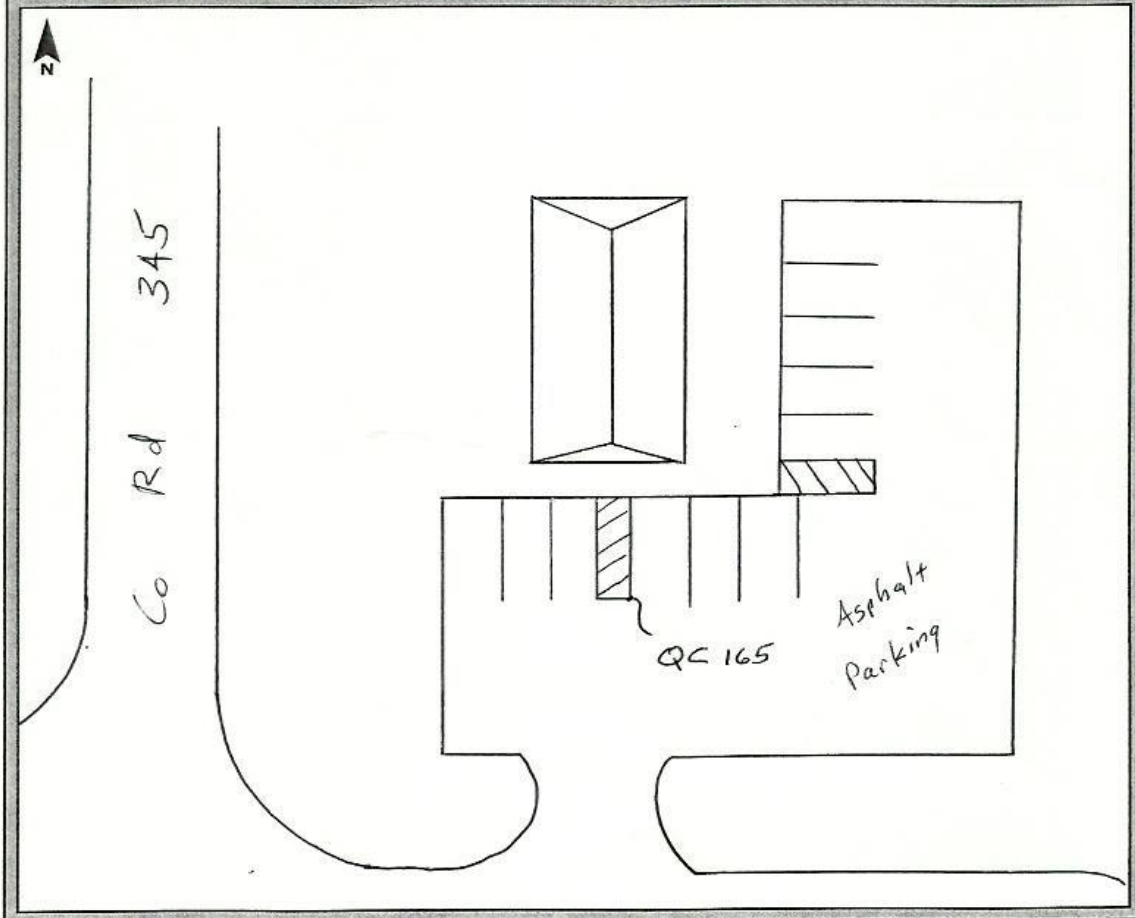


QC 164-3N-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: QC 165 Operator Name: STEPHEN SCHONEGG
Latitude: 41-41-24.76 Julian Day: 086 Session No. _____
Longitude: 085-34-47.28 Start Time: 3:23 End Time: 3:28
Ellip. Height: .784.25 FT Data File Name: INDST 26 MAR 12 SS
Type of Mark: Paint Stripe Type of Receiver: R8-2 #9357
Stamping on Mark: Mag Nail Type of Antenna: _____
Weather Condition: Sunny, 50°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





QC 165-2-26MAR2012



QC 165-3N-26MAR2012

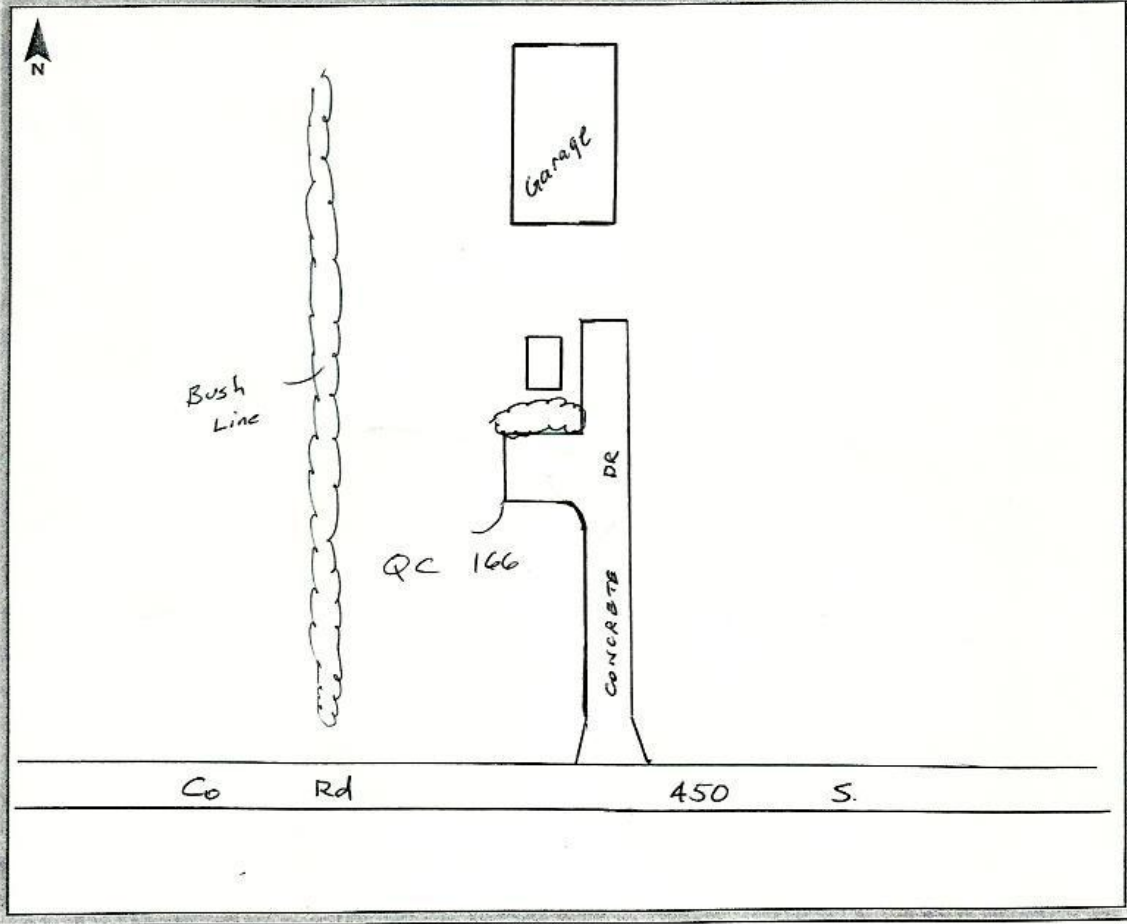


QC 165-3E-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>ZAMAR12</u>
Station Name: <u>QC 166</u>	Operator Name: <u>STEPHEN SCHONEGG</u>
Latitude: <u>41-34-35.74</u>	Julian Day: <u>084</u> Session No. _____
Longitude: <u>085-25-10.54</u>	Start Time: <u>3:05</u> End Time: <u>3:10</u>
Ellip. Height: <u>.811.41</u>	Data File Name: <u>INDSTZAMAR12SS</u>
Type of Mark: <u>Corner Concrete DR</u>	Type of Receiver: <u>RB-2 # 9357</u>
Stamping on Mark: _____	Type of Antenna: _____
Weather Condition: <u>Cloudy, 60°, MIST</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





QC 166-2-24MAR2012



QC 166-3N-24MAR2012

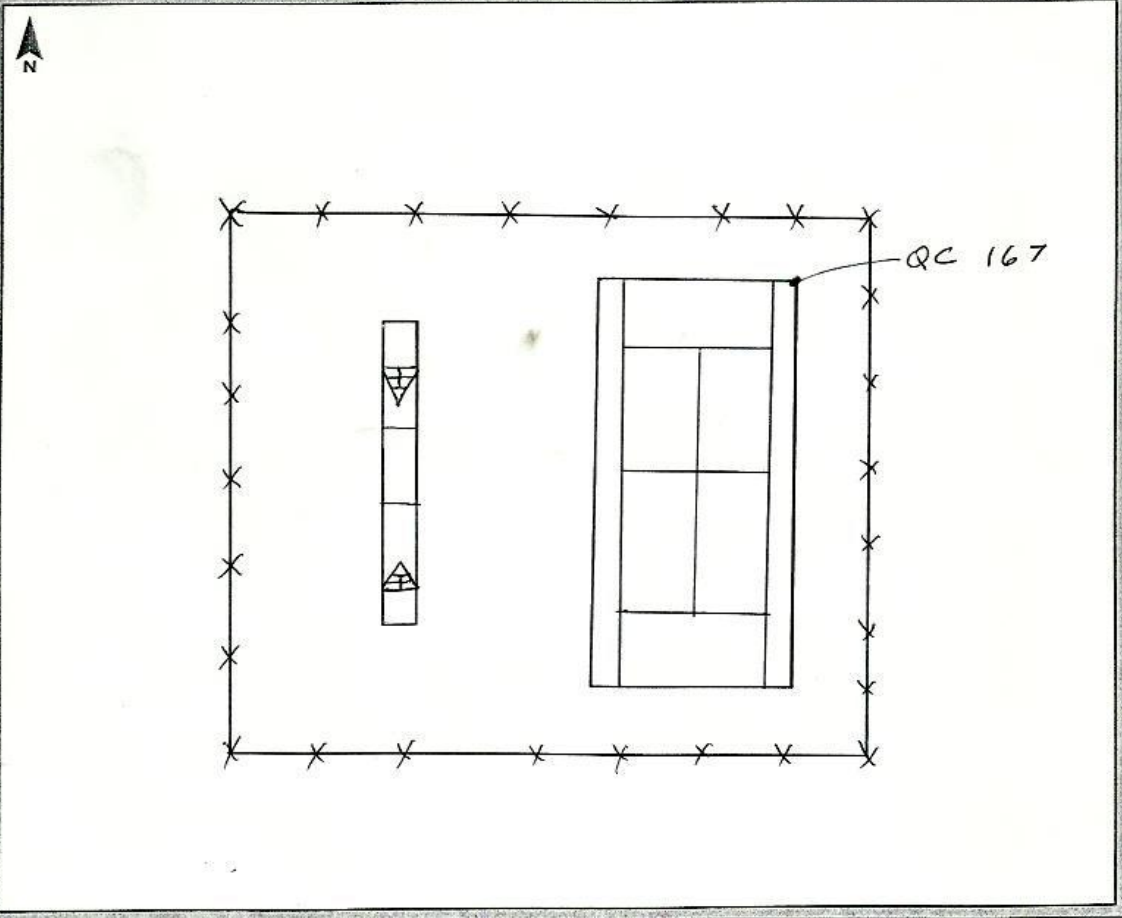


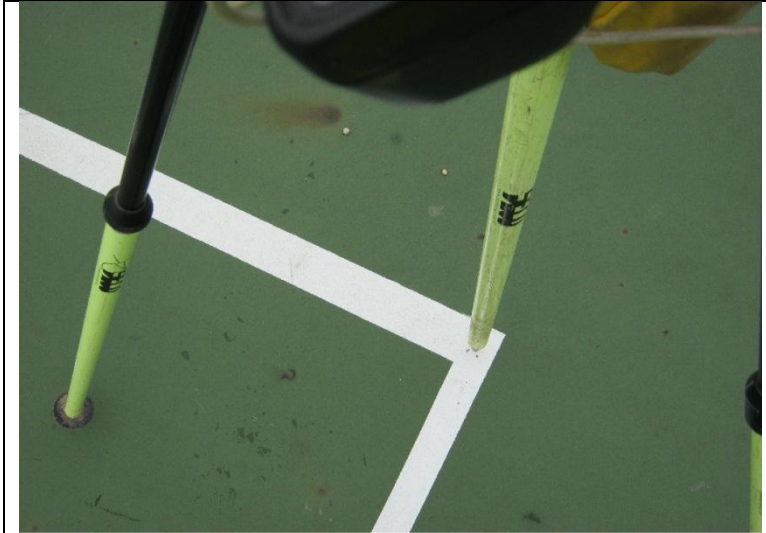
QC 166-3E-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 25 MAR 12
Station Name: QC 167 Operator Name: STEPHEN SCHONEGG
Latitude: 41-24-14.41 Julian Day: 085 Session No. _____
Longitude: 085-36-57.14 Start Time: 9:59 End Time: 10:05
Ellip. Height: .830.37 FT Data File Name: IND ST 25 MAR 12 SS
Type of Mark: Paint Stripe Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 50° Antenna Height: 6.562 FT to bottom of antenna mount





QC 167-2-25MAR2012



QC 167-3E-25MAR2012

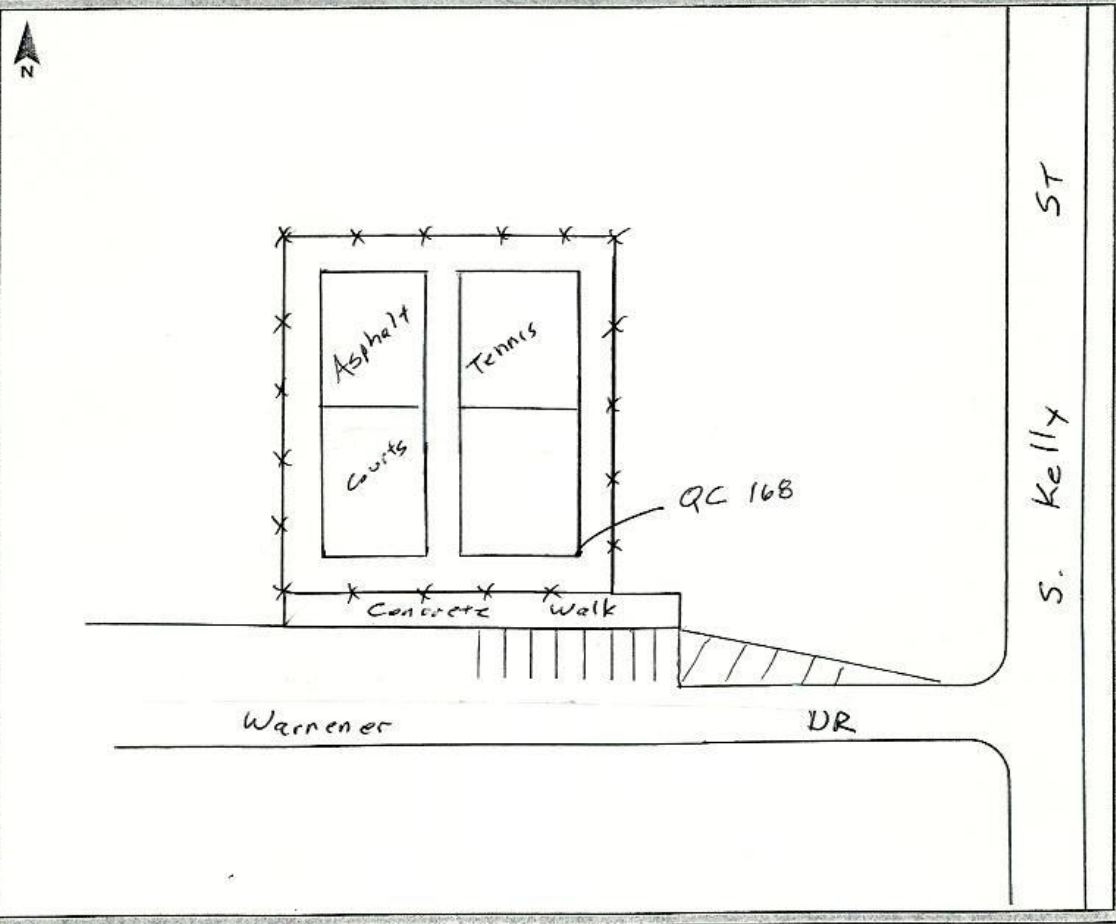


QC 167-3N-25MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24 MAR 12
 Station Name: QC 168 Operator Name: STEPHEN SCHONEGG
 Latitude: 41-29-16.60 Julian Day: 084 Session No. _____
 Longitude: 085-22-37.94 Start Time: 4:43 End Time: 4:48
 Ellip. Height: • 826.75 Data File Name: INDST24MAR12.SS
 Type of Mark: Center Paint Strip Type of Receiver: RB-2 # 9357
 Stamping on Mark: MAG NAIL Type of Antenna: _____
 Weather Condition: Cloudy, 70° Antenna Height: 6.562 FT to bottom of antenna mount





QC 168-2-24MAR2012



QC 168-3W-24MAR2012

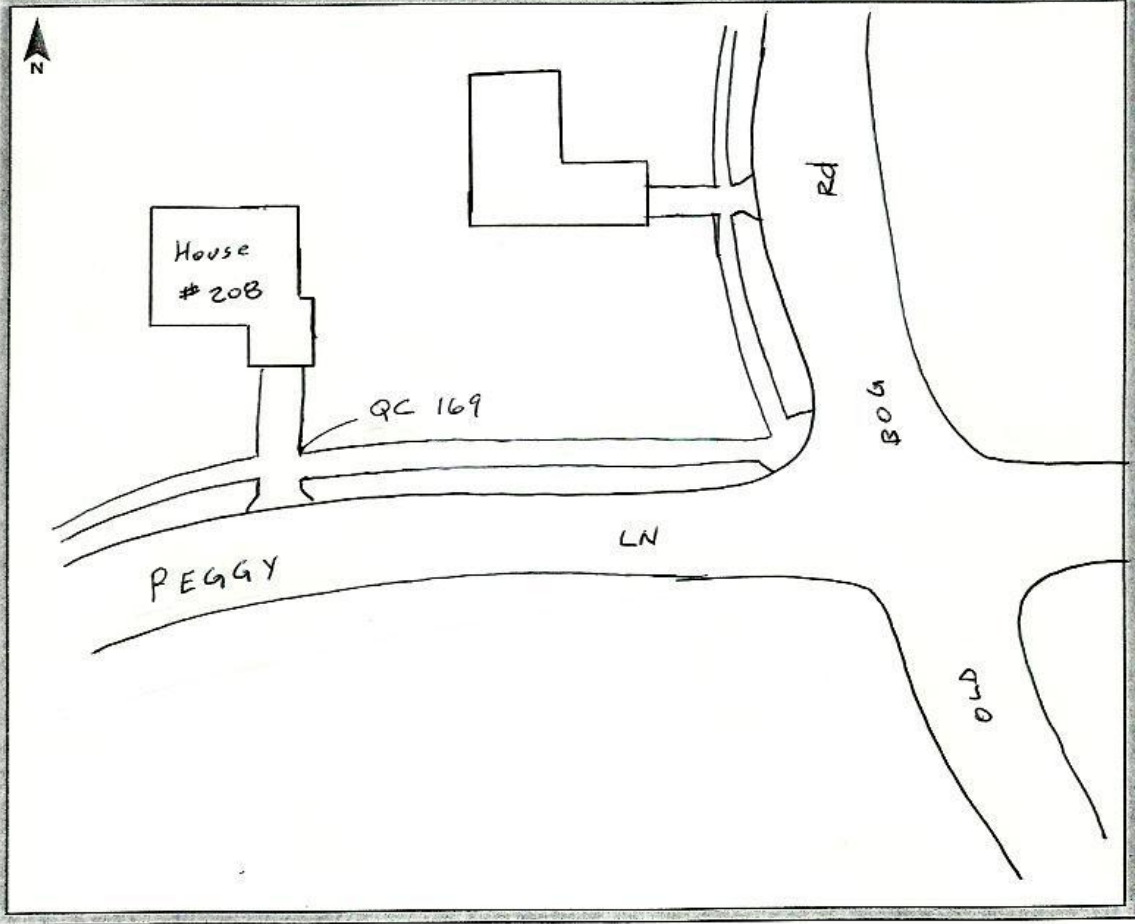


QC 168-3N-24MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24MAR12
Station Name: QC 169 Operator Name: STEPHEN SCHONEGG
Latitude: 41-21-52.37 Julian Day: 084 Session No. _____
Longitude: 085-14-52.92 Start Time: 12:02 End Time: 12:08
Ellip. Height: . 871.59 FT Data File Name: IND ST 24 MAR 12 55
Type of Mark: CORNER Concrete Walk Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 169-2-24MAR2012



QC 169-3N-24MAR2012



QC 169-3E-24MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: IN STATEWIDE Project Number: 72134 Survey Date: 03/25/2012
Station Name: QC170 Operator Name: BEN CHRISTIE
Latitude: 41° 29' 16.50" N Julian Day: 085 Session No. —
Longitude: 85° 04' 44.13" W Start Time: — End Time: —
Ellip. Height: 875.33 SP4 Data File Name: —
Type of Mark: NE COR SIDEWALK Type of Receiver: R8-2
Stamping on Mark: — Type of Antenna: R8-2
Weather Condition: 60° CLOUDY Antenna Height: 2m to bottom of antenna mount



COUNTRY MEADOW
ELEMENTARY

ASPH
BUS
PARKING

QC170

ASPH.
B-BALL
COURT

GRASS

CONC. SWK



QC170-2-25MAR2012



QC170-3N-25MAR2012

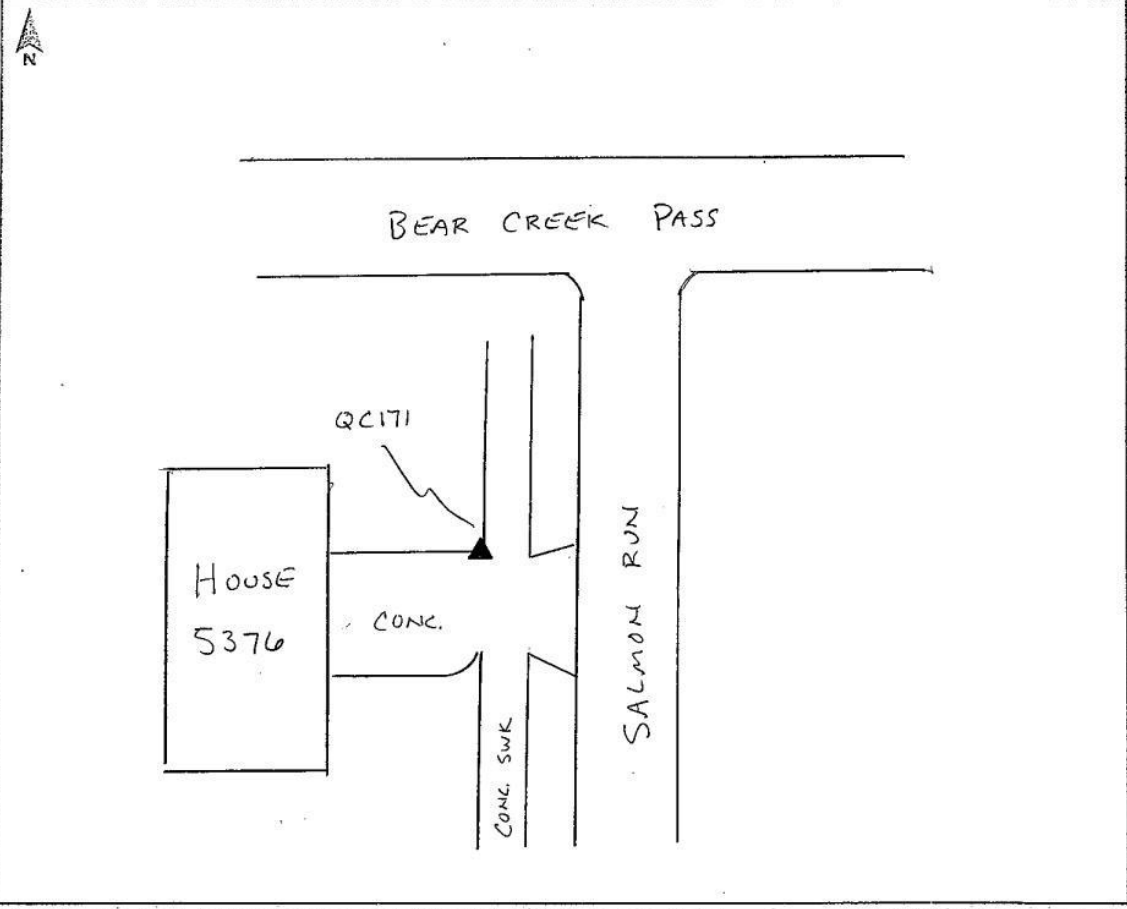


QC170-3E-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>03/24/2012</u>
Station Name: <u>QC 171</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>41° 20' 09.20" N</u>	Julian Day: <u>084</u> Session No. <u>—</u>
Longitude: <u>85° 02' 01.14" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>766.16</u>	Data File Name: <u>—</u>
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>
Weather Condition: <u>65° CLOUDY</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





QC 171-3W-24MAR2012

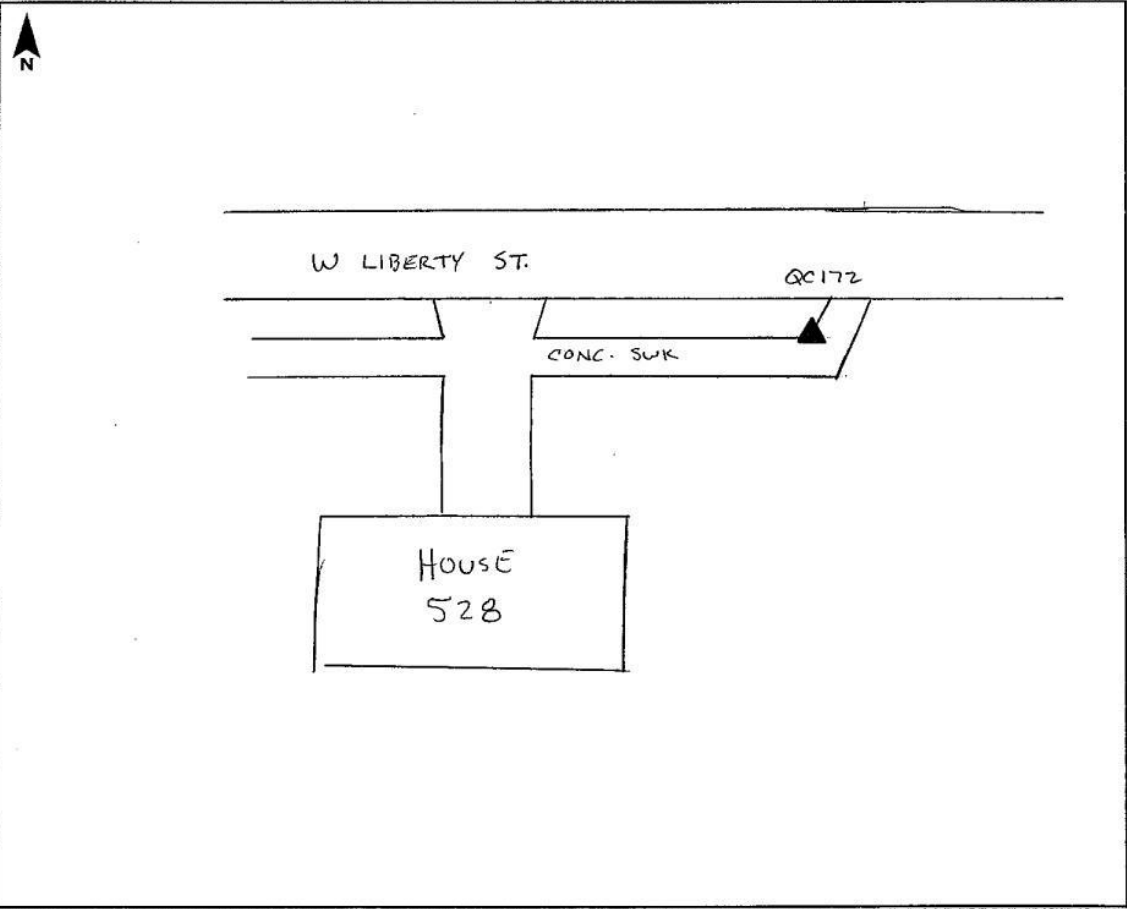


QC 171-3N-24MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>QC172</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 25' 57.03" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 52' 43.88" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>746.11</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW ANGLE SIDEWALK</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC172-2-25MAR2012



QC172-3SW-25MAR2012

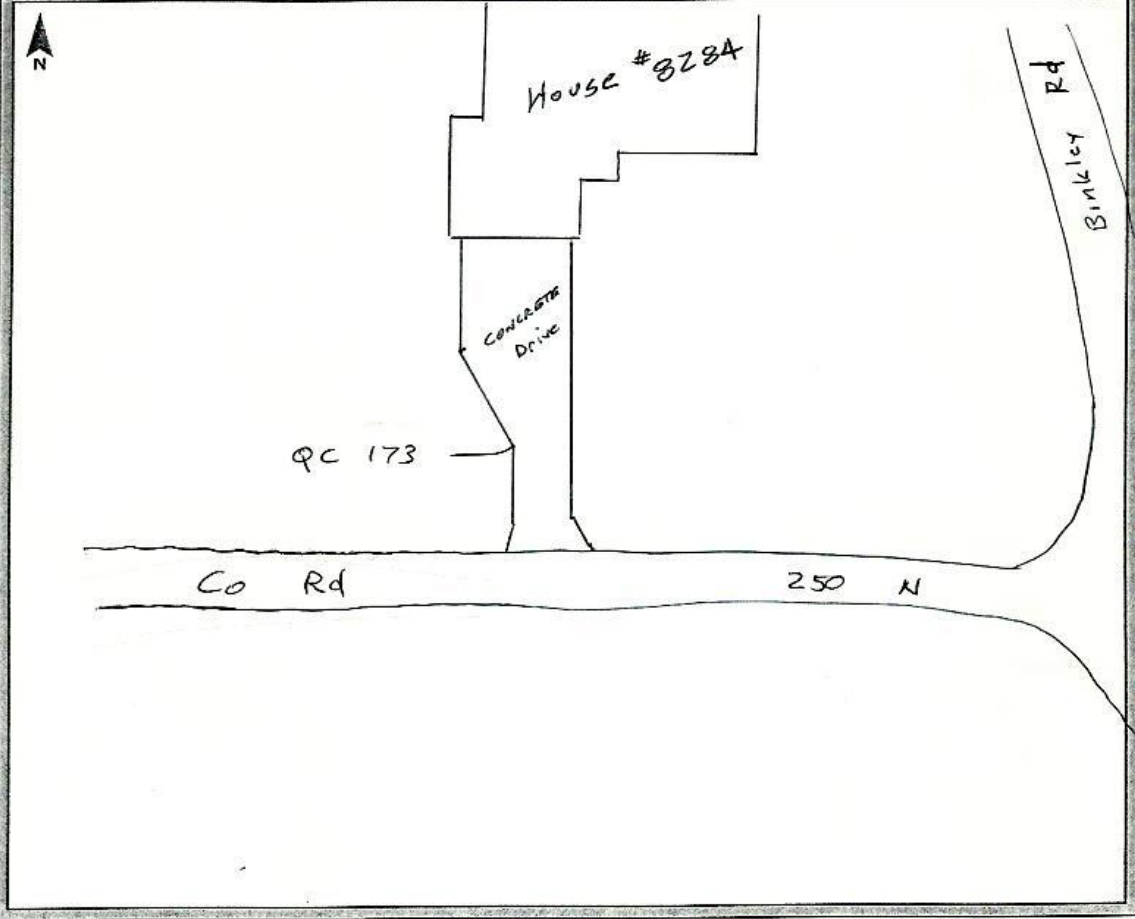


QC172-3E-25MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24 MAR 12
Station Name: QC 173 Operator Name: STEPHEN SCHONEGG
Latitude: 41-12-00.97 Julian Day: 084 Session No. _____
Longitude: 085-38-52.21 Start Time: 10:38 End Time: 10:43
Ellip. Height: .846.82 Data File Name: INDST24MAR12SS
Type of Mark: CORNER CONCRETE DR Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: CLOUDY, 60°, MISTY Antenna Height: 6.562 FT to bottom of antenna mount





QC 173-2-24MAR2012



QC 173-3N-24MAR2012

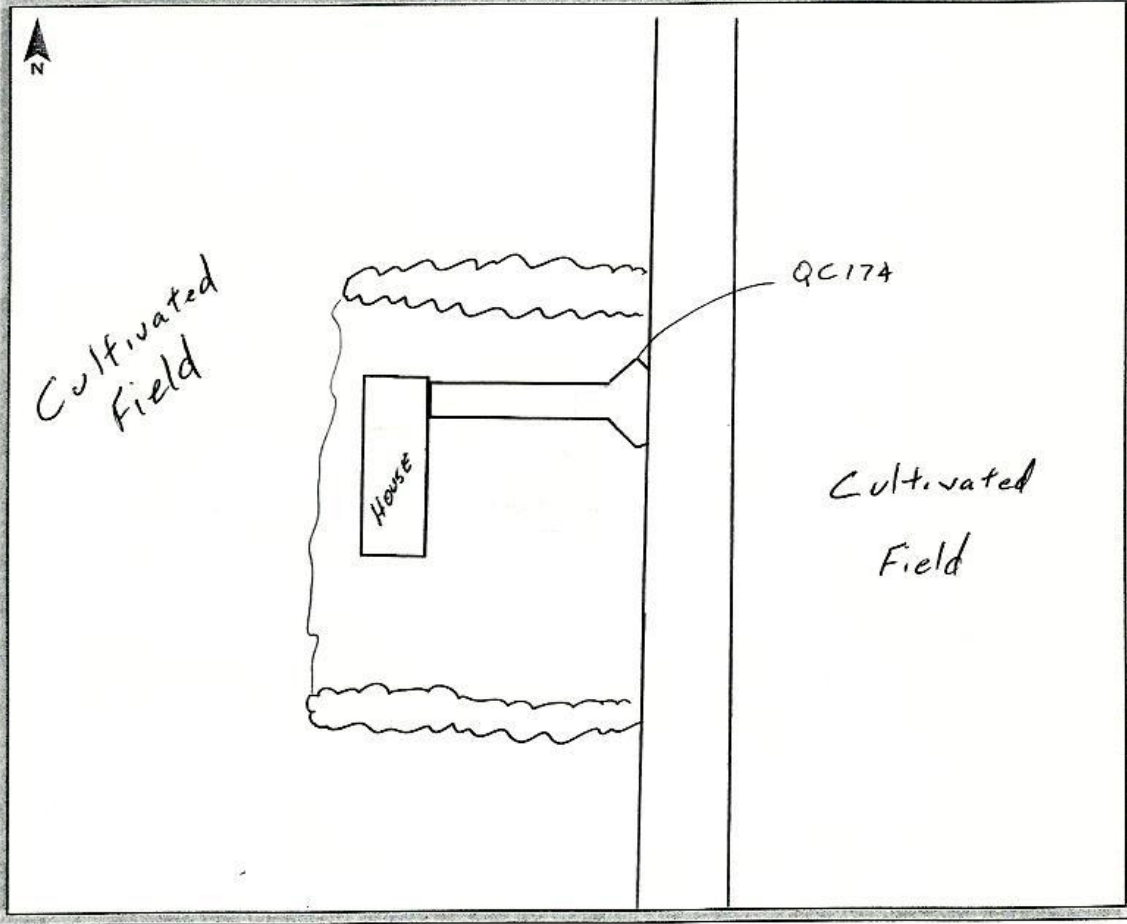


QC 173-3E-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: QC 174 Operator Name: STEPHEN SCHONEGG
Latitude: 41-04-14.30 Julian Day: 083 Session No. _____
Longitude: 085-30-31.70 Start Time: 11:54 End Time: 11:59
Ellip. Height: .736.28 FT Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Center Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 68°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





QC 174-2-23MAR2012



QC 174-3W-23MAR2012

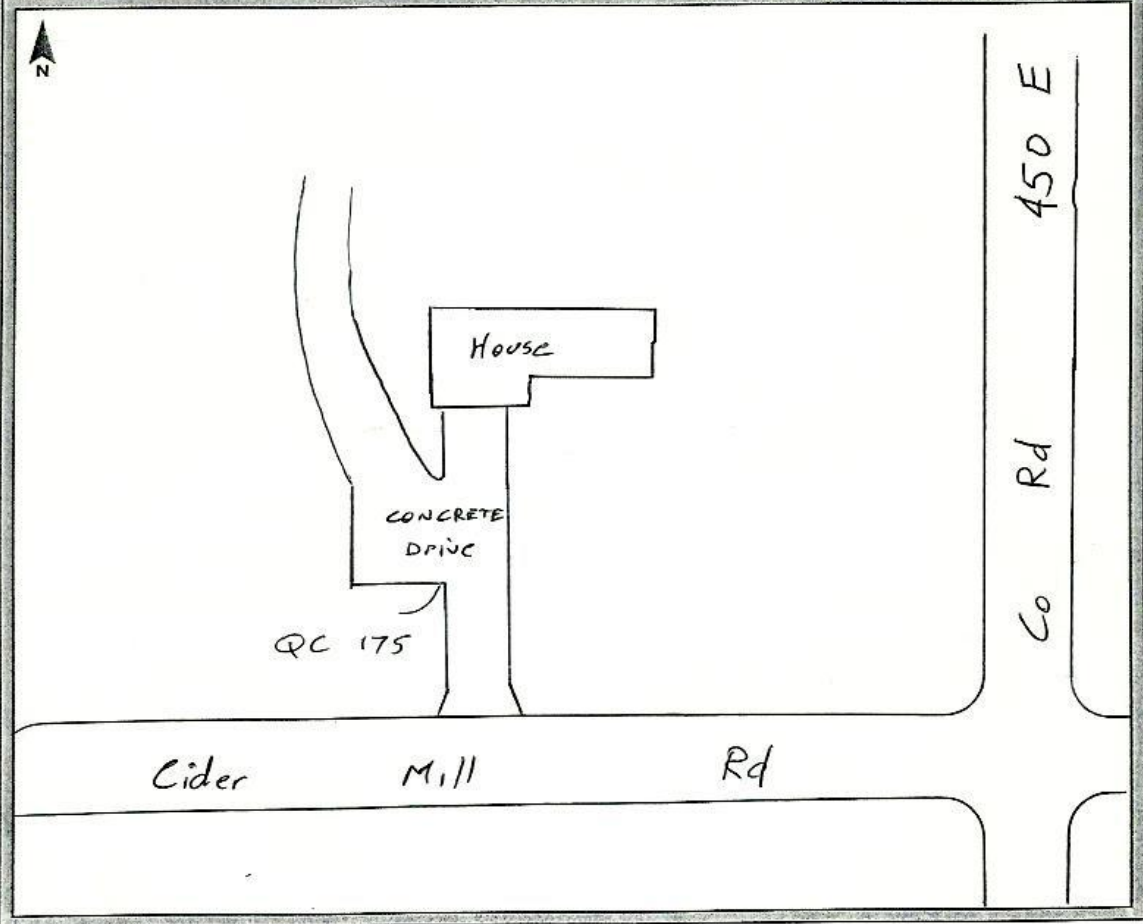


QC 174-3N-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: QC 175 Operator Name: STEPHEN SCHONEGG
Latitude: 41-10-52.82 Julian Day: 083 Session No. _____
Longitude: 085-24-22.40 Start Time: 1:22 End Time: 1:27
Ellip. Height: .761.68 Data File Name: IND05T23MAR12SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





QC 175-2-23MAR2012



QC 175-3N-23MAR2012

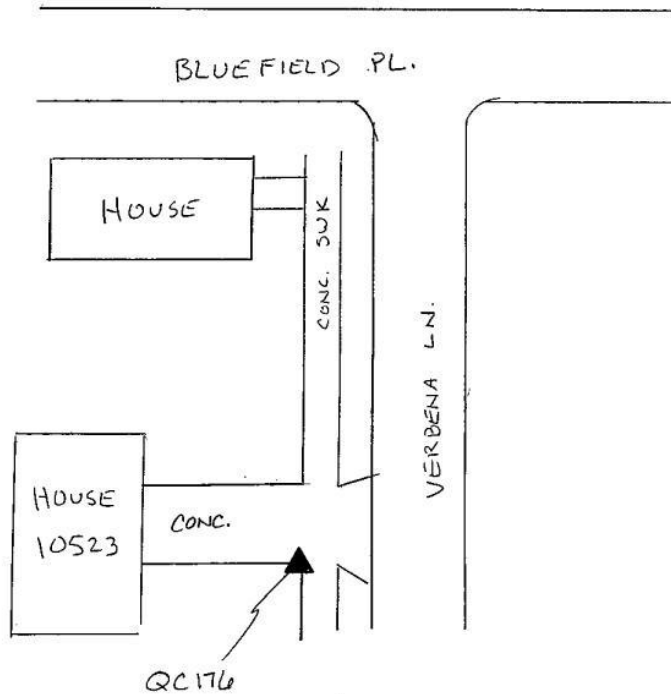


QC 175-3E-23MAR2012

GPS Observation Log Sheet



Project Name: IN STATE-WIDE Project Number: 72134 Survey Date: 03/23/2012
Station Name: QC 176 Operator Name: BEN CHRISTIE
Latitude: 41° 10' 44.71" N Julian Day: 083 Session No. —
Longitude: 85° 11' 15.94" W Start Time: — End Time: —
Ellip. Height: 781.14 sft Data File Name: —
Type of Mark: SE COR CONCRETE Type of Receiver: R8-2
Stamping on Mark: — Type of Antenna: R8-2
Weather Condition: 70° RAIN Antenna Height: 2m to bottom of antenna mount





QC176-2-23MAR2012



QC176-3W-23MAR2012

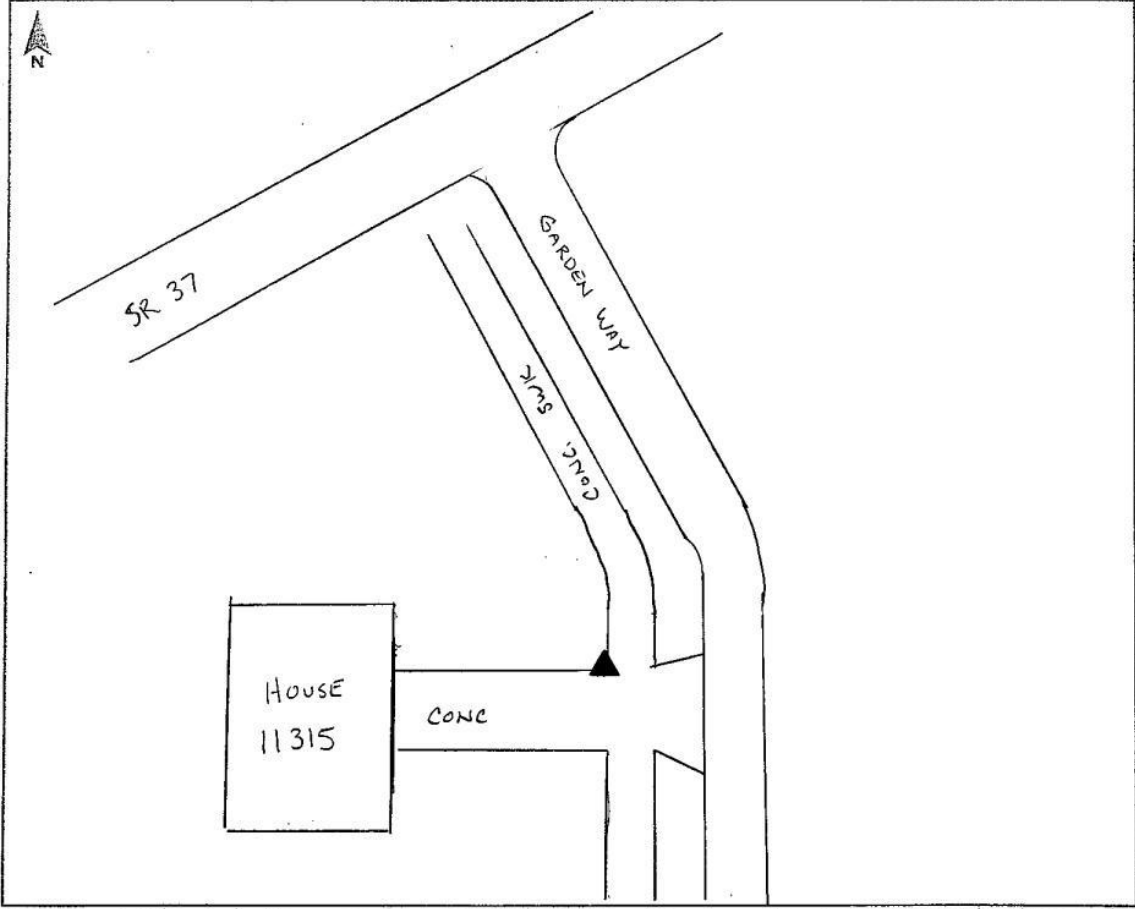


QC176-3N-23MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/22/2012</u>
Station Name: <u>QC 177</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 11' 23.95" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>84° 55' 44.53" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>670.86 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC177-2-22MAR2012



QC177-3W-22MAR2012

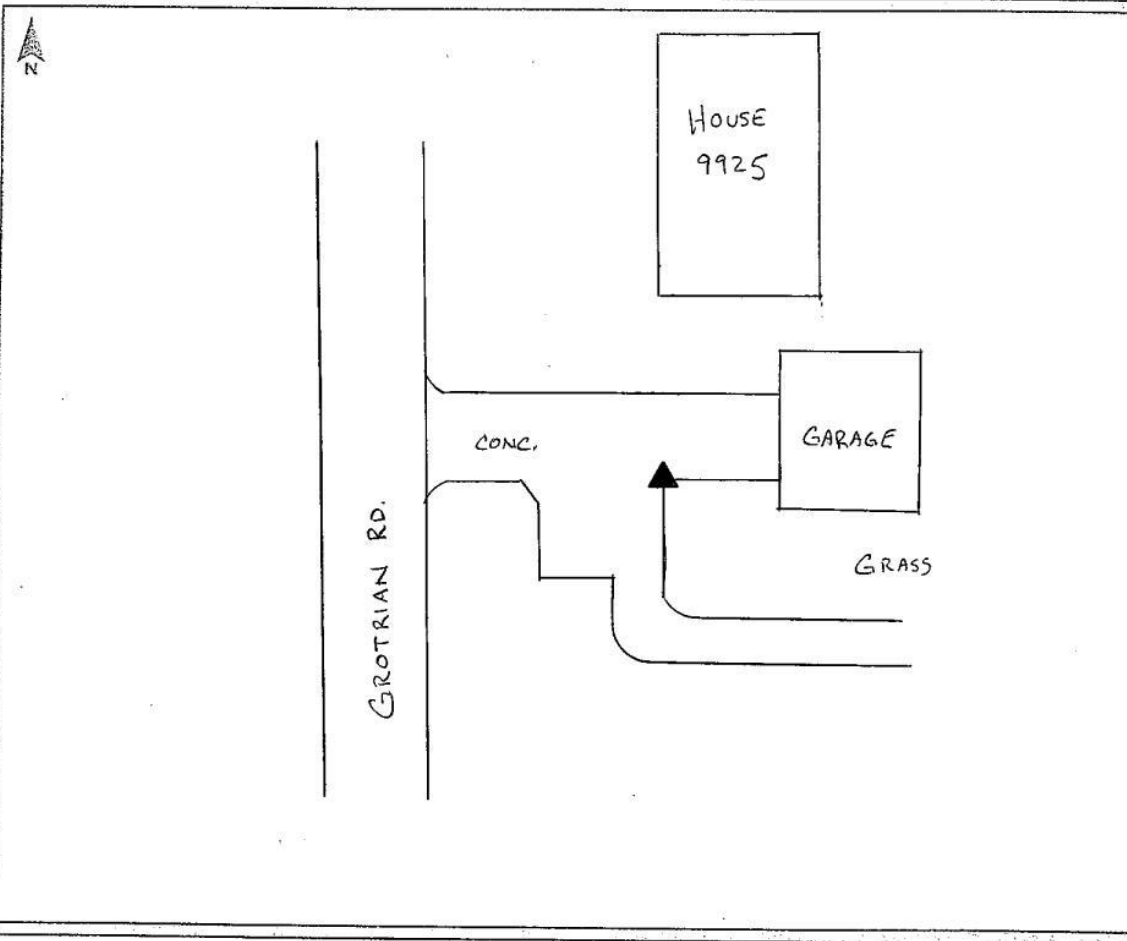


QC177-3N-22MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/21/2012</u>
Station Name: <u>QC 17.8</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 59' 50.36" N</u>	Julian Day: <u>081</u>	Session No. <u>—</u>
Longitude: <u>84° 55' 15.43" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>682.21 Jt</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC178-2-21MAR2012



QC178-3N-21MAR2012

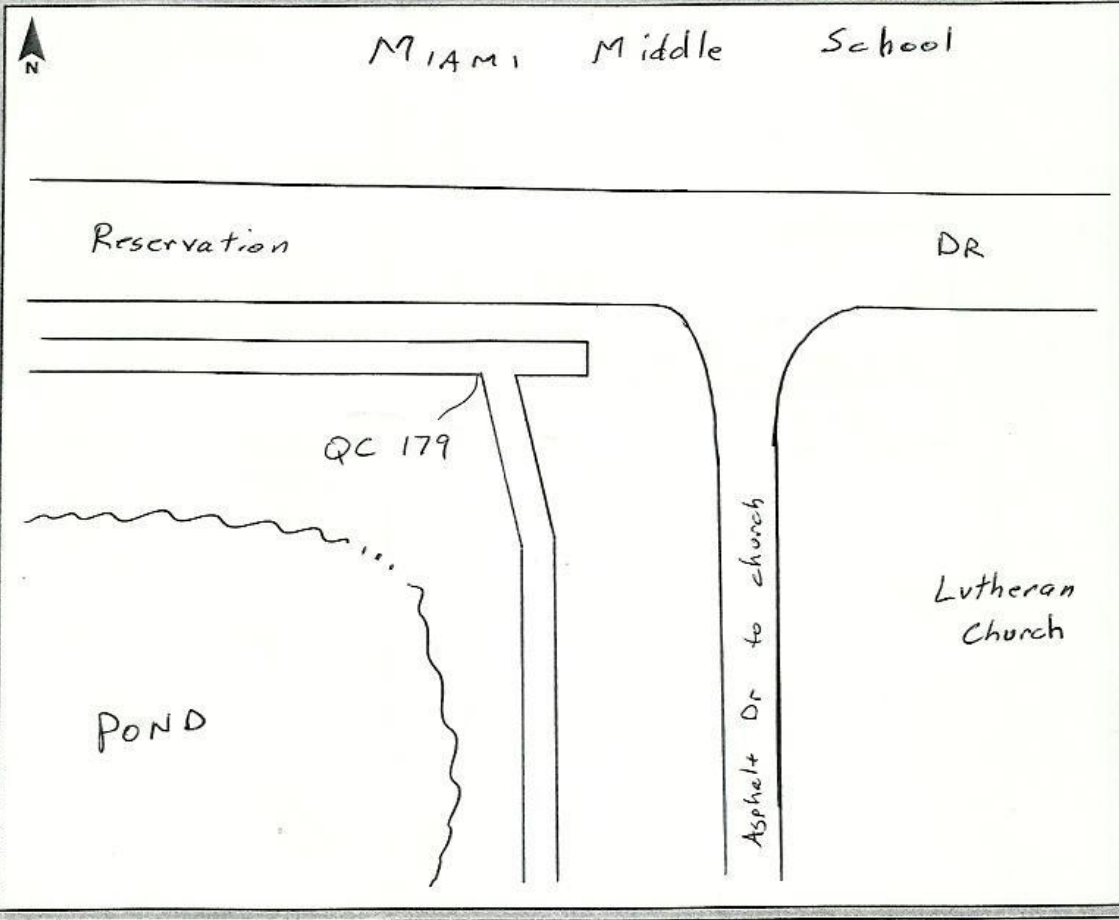


QC178-3E-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 22 MAR 12
Station Name: QC 179 Operator Name: Stephen Schonegg
Latitude: 41-00-33.33 Julian Day: 082 Session No. _____
Longitude: 085-09-47.83 Start Time: 3:01 End Time: 3:05
Ellip. Height: 686.93 FT Data File Name: INDST22MAR12 SS
Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 82°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





QC 179-2-22MAR2012



QC 179-3N-22MAR2012

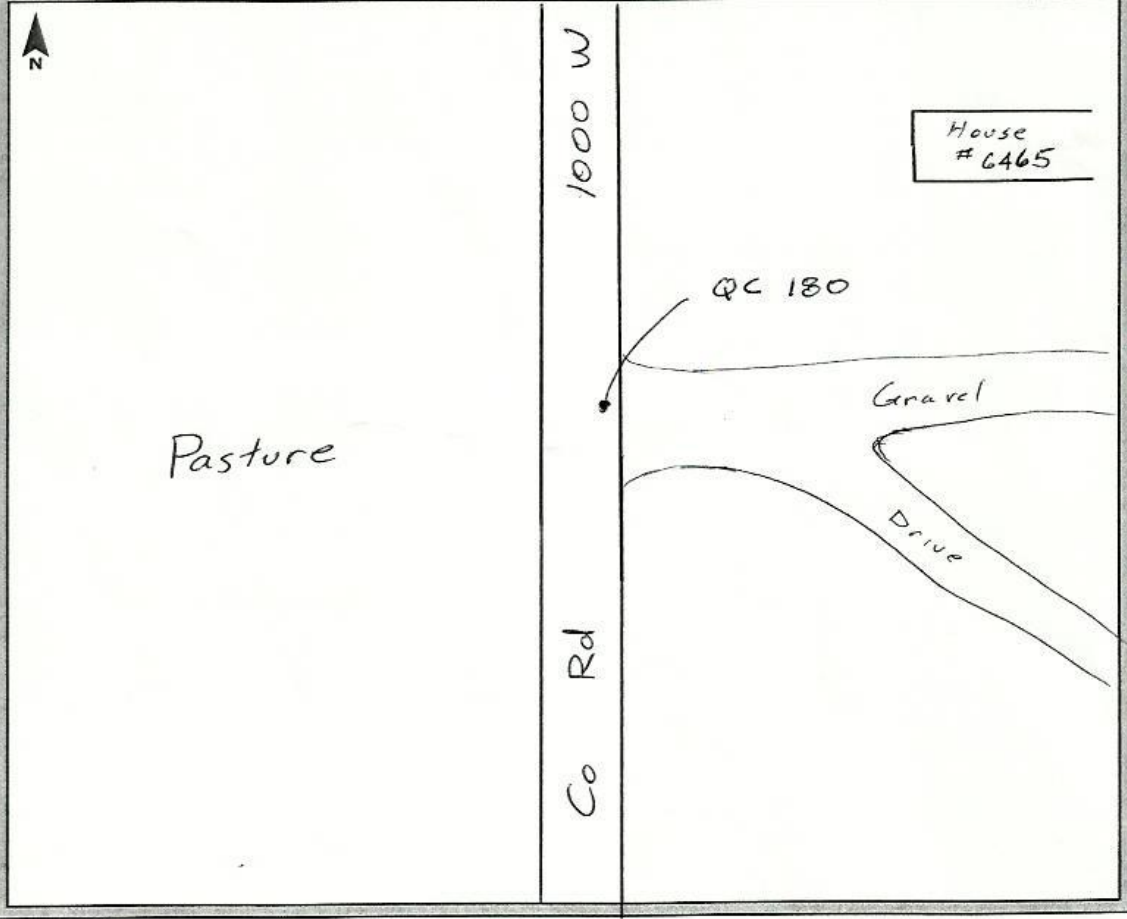


QC 179-3E-22MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: QC 180 Operator Name: STEPHEN SCHONEGG
Latitude: 41-43-59.36 Julian Day: 086 Session No. _____
Longitude: 085-37-16.06 Start Time: 3:00 End Time: 3:04
Ellip. Height: 737.39 FT Data File Name: INDST26MAR12SS
Type of Mark: Center of Lane Type of Receiver: R8-2 #9357
Stamping on Mark: Mag Nail Type of Antenna: _____
Weather Condition: Sunny, 50°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





QC 180-2-26MAR2012





QC 180-3E-26MAR2012

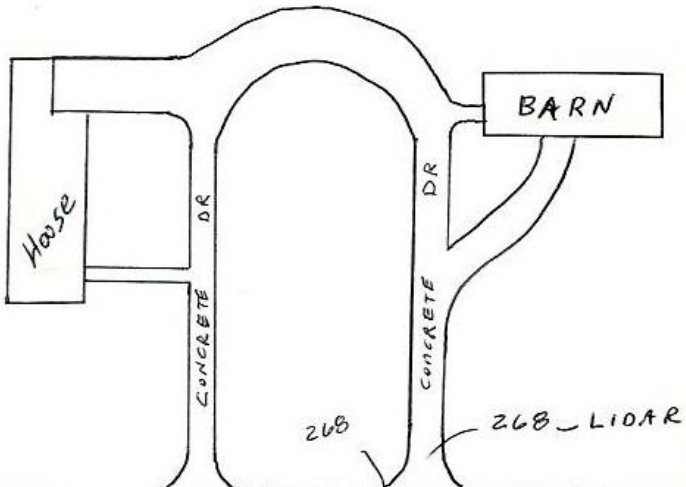


QC 180-3N-26MAR2012

LiDAR CONTROL

GPS Observation Log Sheet		
Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>25MAR12</u>
Station Name: <u>268_LIDAR</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-31-24.06</u>	Julian Day: <u>085</u>	Session No. _____
Longitude: <u>085-39-31.57</u>	Start Time: <u>10:56</u>	End Time: <u>11:00</u>
Ellip. Height: <u>.766.12</u>	Data File Name: <u>IN05T25MAR12SS</u>	
Type of Mark: <u>Center Concrete Dr</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 55°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





Co Rd
42

Cultivated Field



268 LIDAR-2-25MAR2012



268 LIDAR-3W-25MAR2012

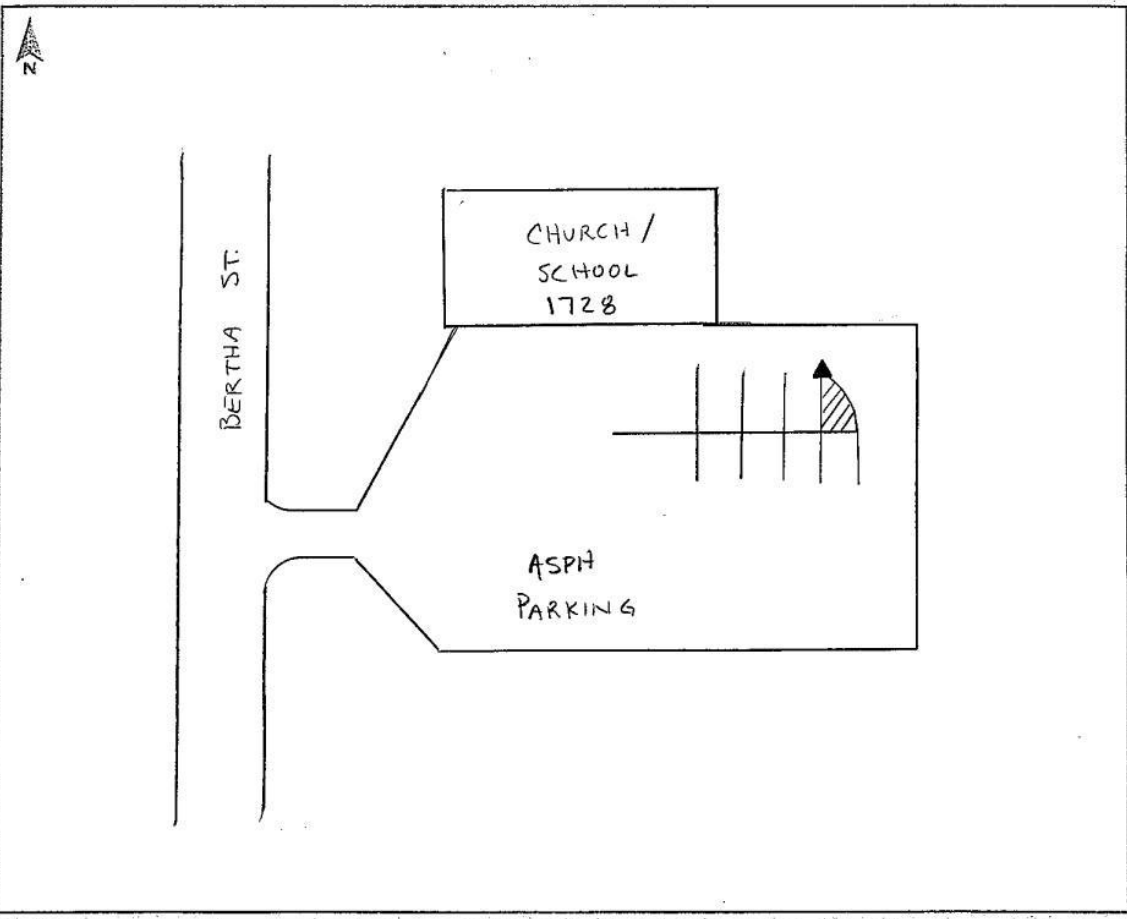


268 LIDAR-3N-25MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/22/2012</u>
Station Name: <u>275</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>41° 04' 34.52" N</u>	Julian Day: <u>082</u> Session No. <u>—</u>
Longitude: <u>84° 48' 13.70" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>644.22' SFT</u>	Data File Name: <u>—</u>
Type of Mark: <u>COR. PAINT STRIPE</u>	Type of Receiver: <u>R8</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





275-2-22MAR2012



275-3W-22MAR2012

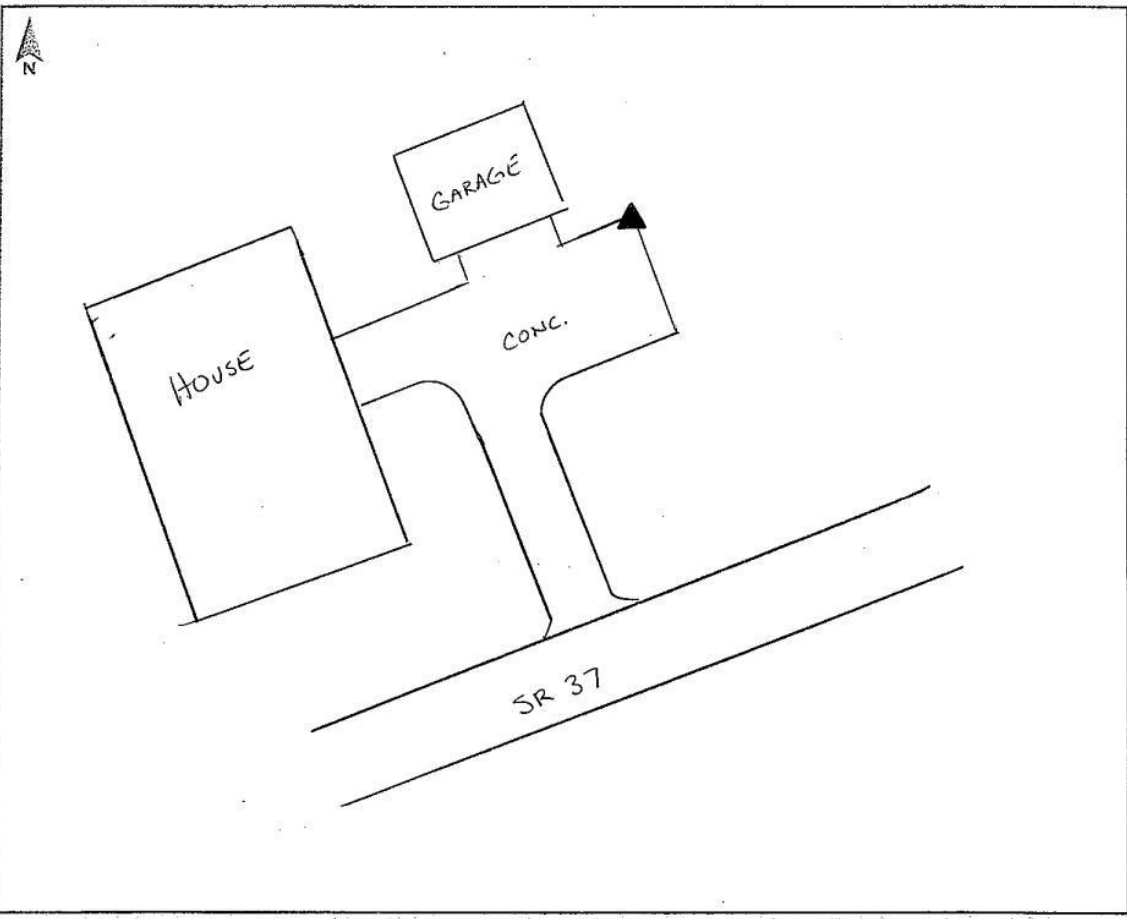


275-3N-22MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>02/22/2012</u>
Station Name: <u>276</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 16' 11.75" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>84° 48' 28.17" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>665.76</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





276-2-22MAR2012



276-3W-22MAR2012

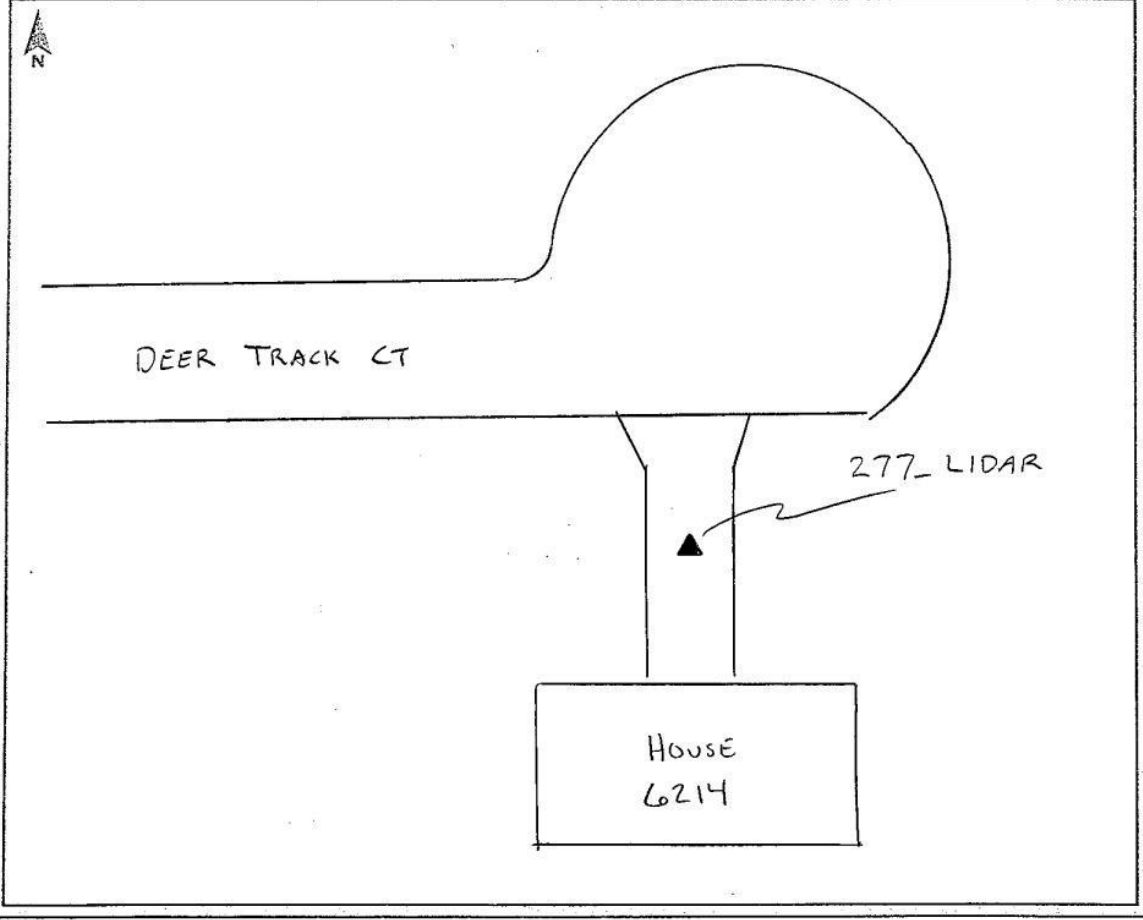


276-3S-22MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/22/2012</u>
Station Name: <u>277 - LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	Session No. <u>—</u>
Latitude: <u>41° 15' 53.43" N</u>	Julian Day: <u>082</u>	Start Time: <u>—</u>
Longitude: <u>85° 04' 01.39" W</u>	Data File Name: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>745.14 sft</u>	Type of Receiver: <u>R8</u>	Type of Antenna: <u>R8</u>
Type of Mark: <u>CONCRETE</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount
Stamping on Mark: <u>—</u>		
Weather Condition: <u>75° CLEAR</u>		





277_LIDAR-2-22MAR2012



277_LIDAR-3W-22MAR2012

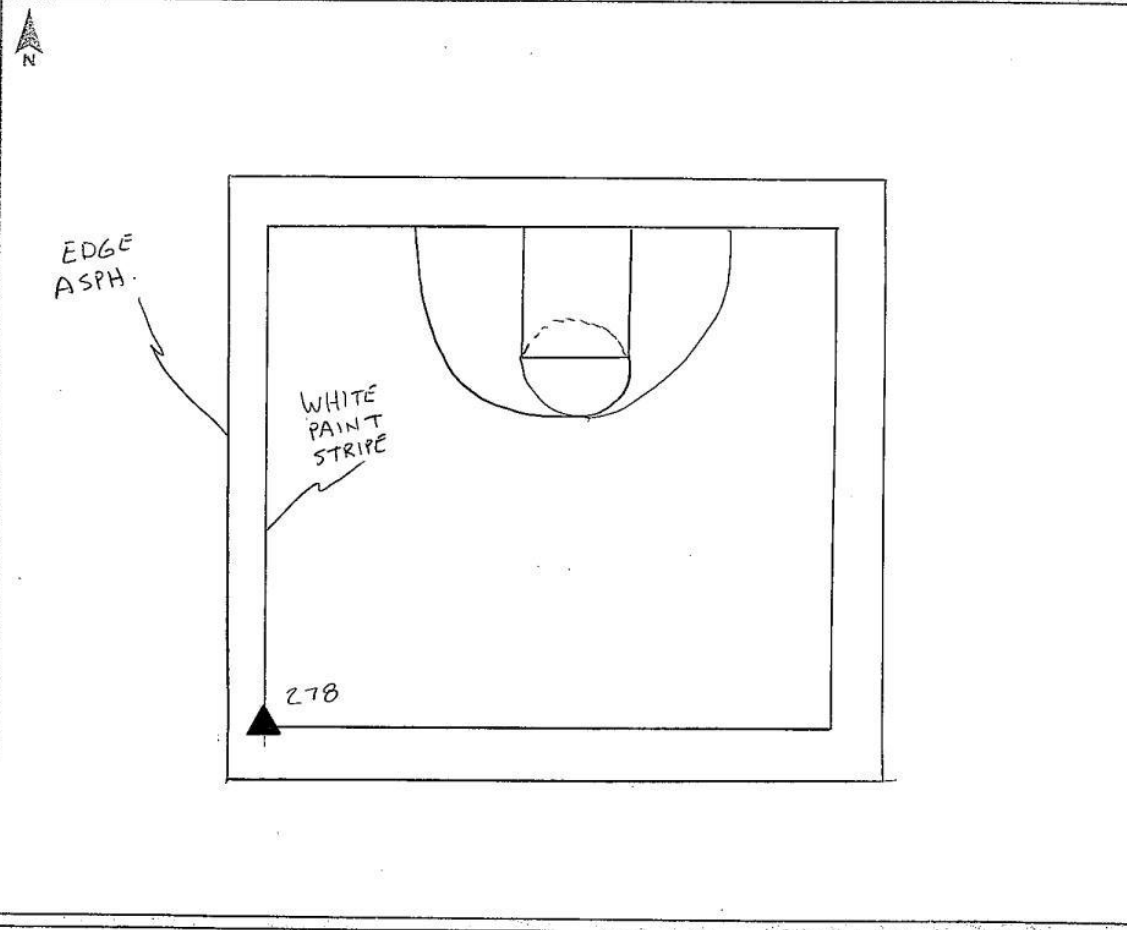


277_LIDAR-3S-22MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN STATE-WIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>03/23/2012</u>
Station Name:	<u>278</u>	Operator Name:	<u>BEN CHRISTIE</u>		
Latitude:	<u>41° 05' 44.90" N</u>	Julian Day:	<u>083</u>	Session No.:	<u>—</u>
Longitude:	<u>85° 03' 03.74" W</u>	Start Time:	<u>—</u>	End Time:	<u>—</u>
Ellip. Height:	<u>666.30 ft</u>	Data File Name:	<u>—</u>		
Type of Mark:	<u>SW COR PAINT STRIPE</u>	Type of Receiver:	<u>R8-2</u>		
Stamping on Mark:	<u>—</u>	Type of Antenna:	<u>R8-2</u>		
Weather Condition:	<u>70° RAIN</u>	Antenna Height:	<u>2m</u>	to bottom of antenna mount	





278-2-23MAR2012



278-3S-23MAR2012

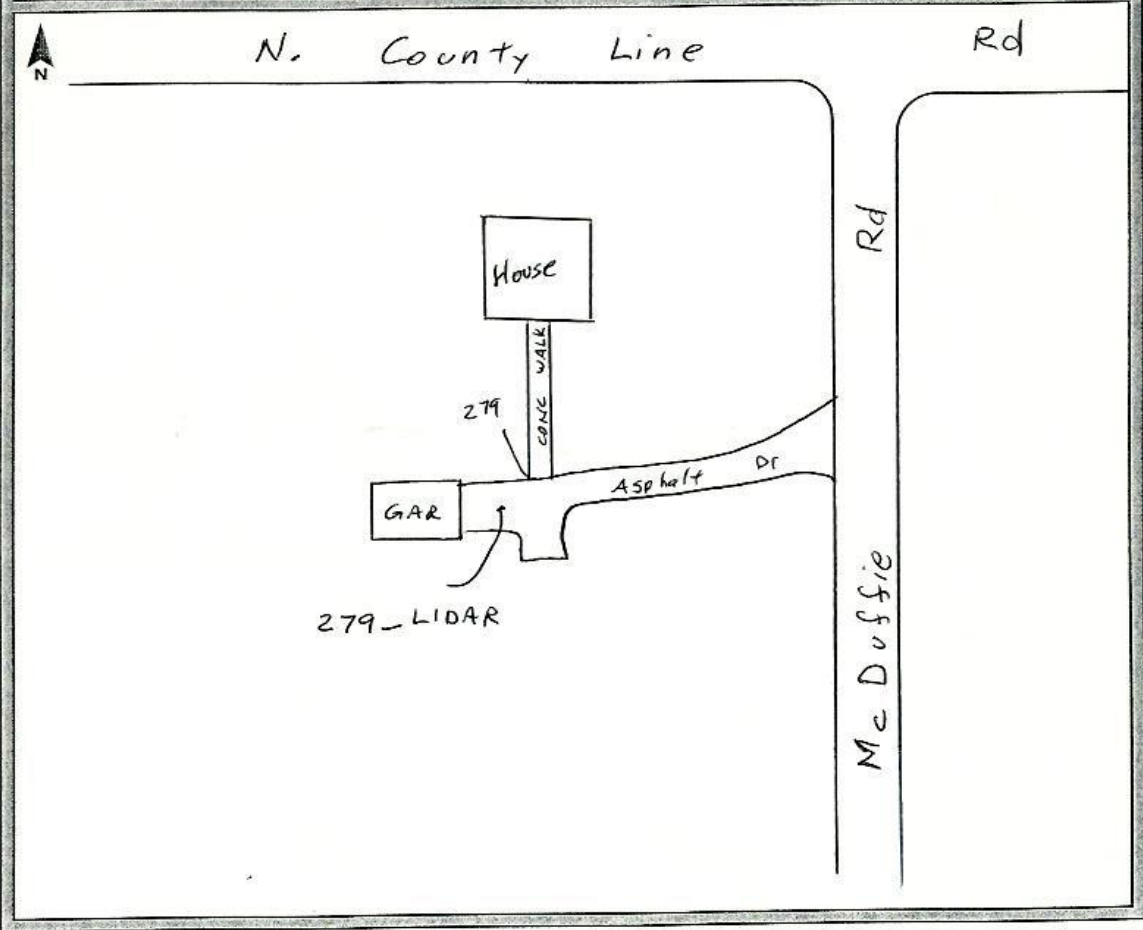


278-3W-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24MAR12
Station Name: 279_LIDAR Operator Name: STEPHEN SCHONEGG
Latitude: 41-15-49-51 Julian Day: 084 Session No. _____
Longitude: 085-18-08.74 Start Time: 11:33 End Time: 11:37
Ellip. Height: .794.75 Data File Name: IND05T24MAR12SS
Type of Mark: Center Asphalt Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: cloudy, 65° Antenna Height: 6.562 FT to bottom of antenna mount





279 LIDAR-2-24MAR2012



279 LIDAR-3W-24MAR2012

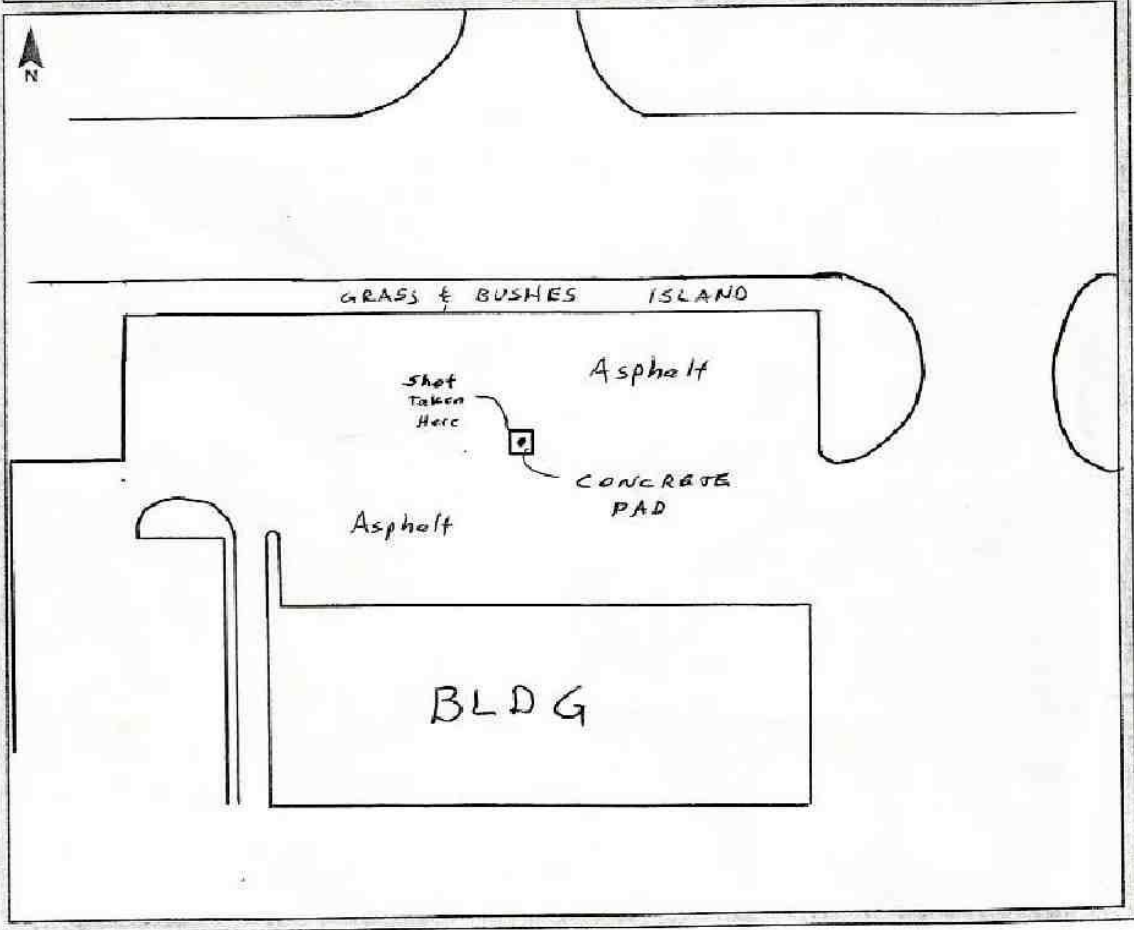


279 LIDAR-3N-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 17 APR 12
Station Name: 280 Operator Name: STEPHEN SCHONEGG
Latitude: 41-07-29.94 Julian Day: 108 Session No. 1
Longitude: 085-20-13.23 Start Time: 9:48 End Time: 10:45
Ellip. Height: .755.10 FT Data File Name: 95481080
Type of Mark: Corner of Conc Type of Receiver: R8-2 #9548
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50, calm Antenna Height: 6.562 FT to bottom of antenna mount





280-2-17APR2012



280-3W-17APR2012

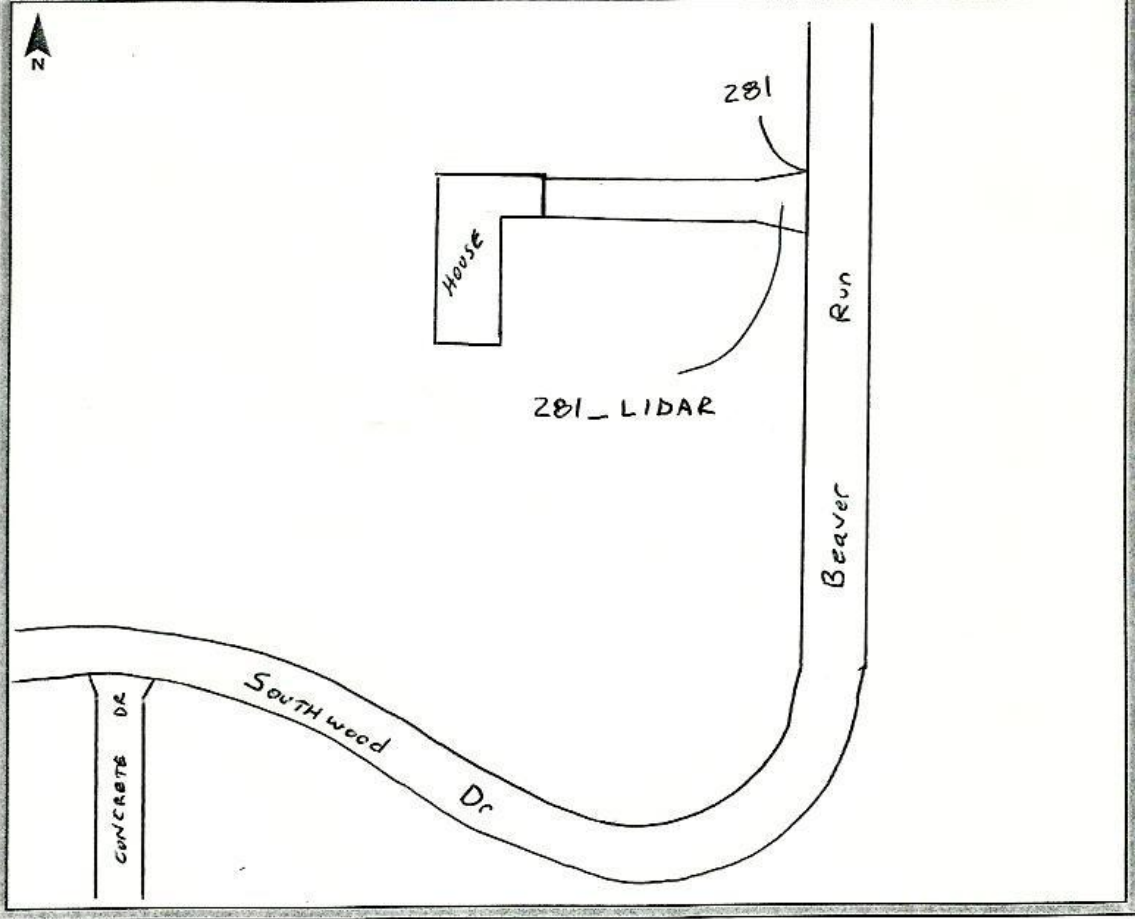


280-3N-17APR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: 281 - LIDAR Operator Name: STEPHEN SCHONEGG
Latitude: 41-16-09.93 Julian Day: 083 Session No. _____
Longitude: 085-30-27.13 Start Time: 2:02 End Time: 2:09
Ellip. Height: .805.48 Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Center Concrete DR Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 70°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





281_LIDAR-2-23MAR2012



281_LIDAR-3W-23MAR2012

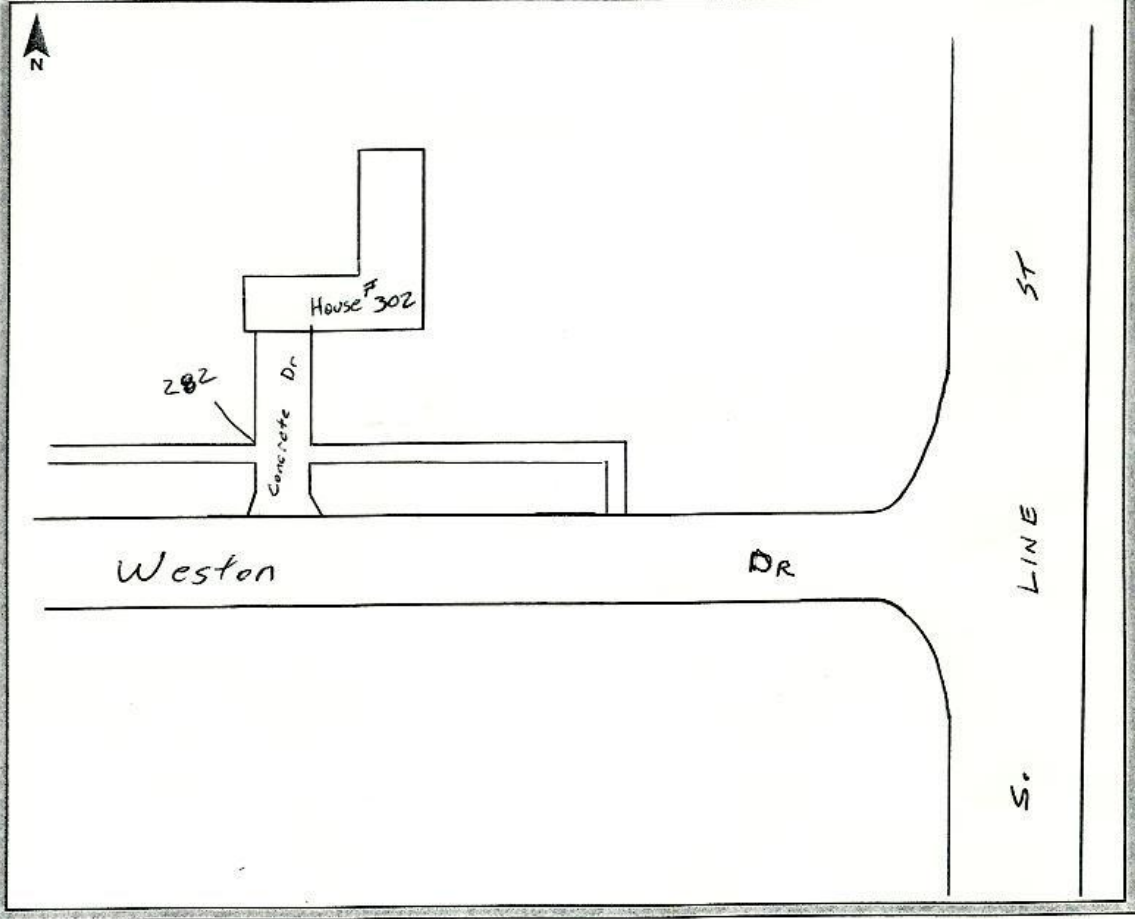


281_LIDAR-3N-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23MAR12
Station Name: 282 Operator Name: STEPHEN SCHONEGG
Latitude: 41-08-55.05 Julian Day: 083 Session No. _____
Longitude: 085-29-29.85 Start Time: 12:16 End Time: 12:20
Ellip. Height: . 746.83 FT Data File Name: INDST23MAR12SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 68°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





282-2-23MAR2012



282-3N-23MAR2012

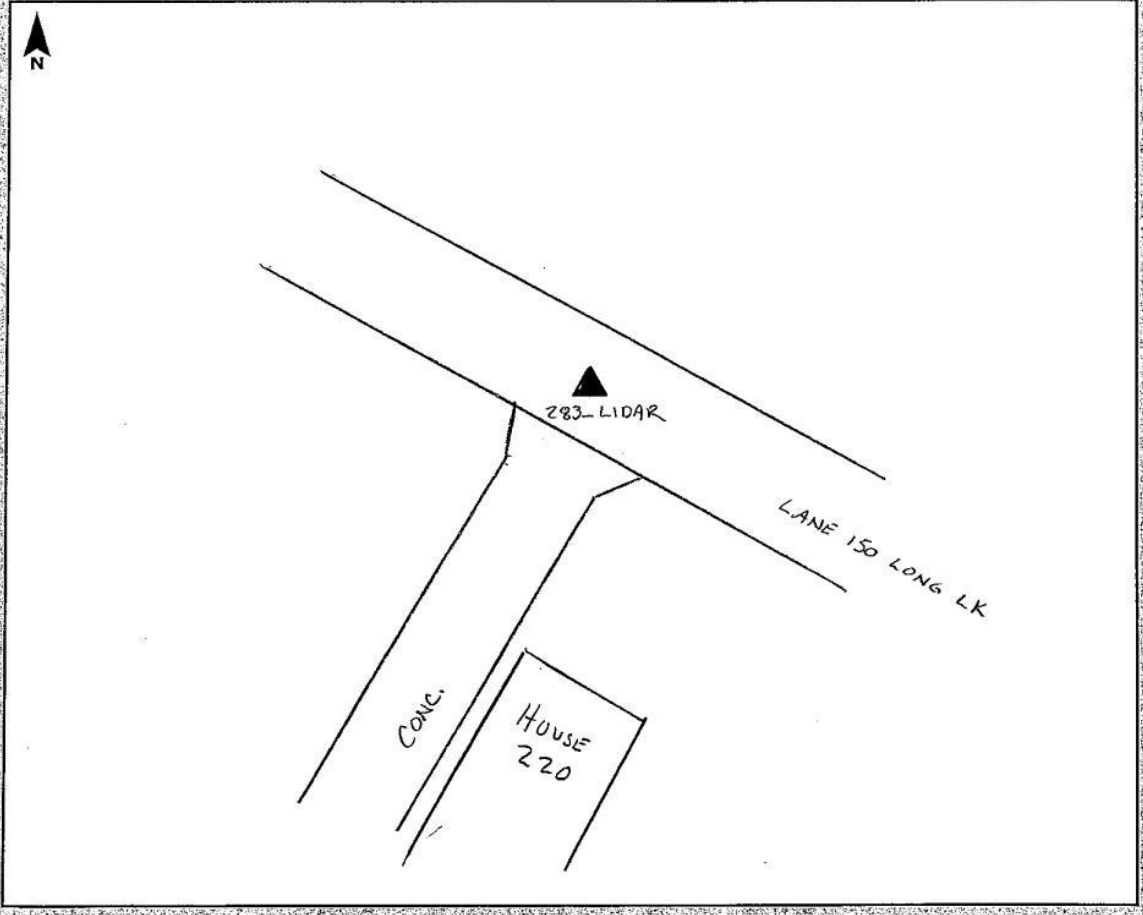


282-3E-23MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>283_LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 45' 02.60" N</u>	Julian Day: <u>085</u>	Session No. <u> </u>
Longitude: <u>84° 48' 30.62" W</u>	Start Time: <u> </u>	End Time: <u> </u>
Ellip. Height: <u>930.89 spz</u>	Data File Name: <u> </u>	
Type of Mark: <u>ASPH.</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u> </u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>70° SUNNY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





283 LIDAR-2-25MAR2012



283 LIDAR-3SE-25MAR2012

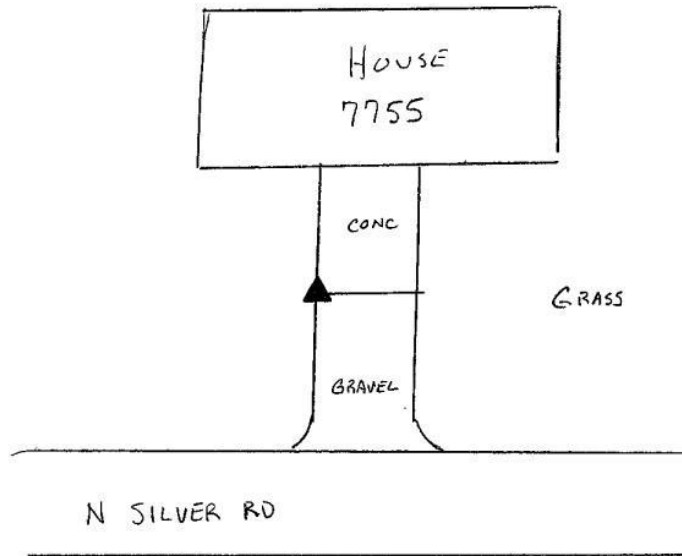


283 LIDAR-3NE-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>284</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 45' 23.53" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>84° 59' 40.58" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>916.39 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





284-2-26MAR2012



284-3W-26MAR2012

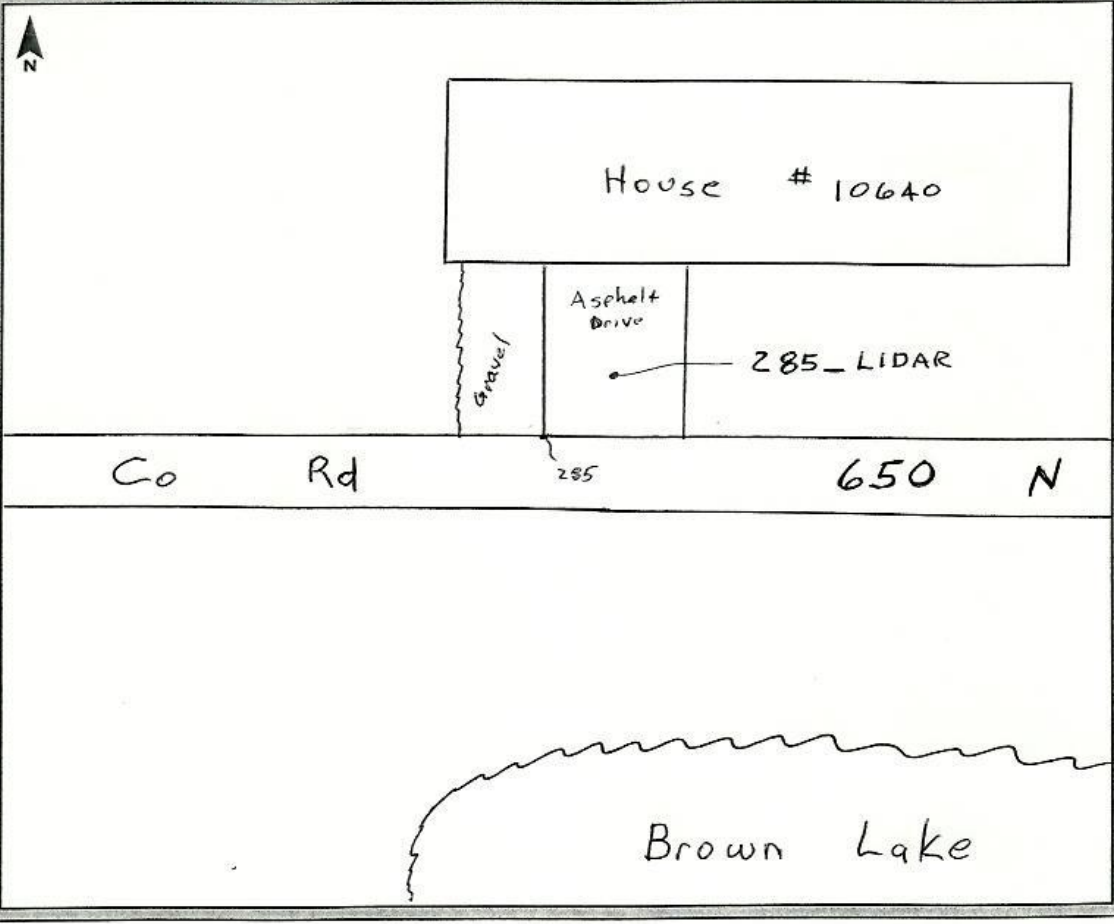


284-3NE-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>26 MAR 12</u>
Station Name: <u>285 - LIDAR</u>	Operator Name: <u>STEPHEN SCHONEGLY</u>
Latitude: <u>41-44-19.51</u>	Julian Day: <u>086</u> Session No. _____
Longitude: <u>085-11-35.94</u>	Start Time: <u>12:25</u> End Time: <u>12:30</u>
Ellip. Height: <u>.839.10 FT</u>	Data File Name: <u>IND ST 26 MAR 12 SS</u>
Type of Mark: <u>Center Asphalt Dr</u>	Type of Receiver: <u>R8-2 #9357</u>
Stamping on Mark: _____	Type of Antenna: _____
Weather Condition: <u>Sunny, 45°, WINDY</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





285_LIDAR-2-26MAR2012



285_LIDAR-3W-26MAR2012

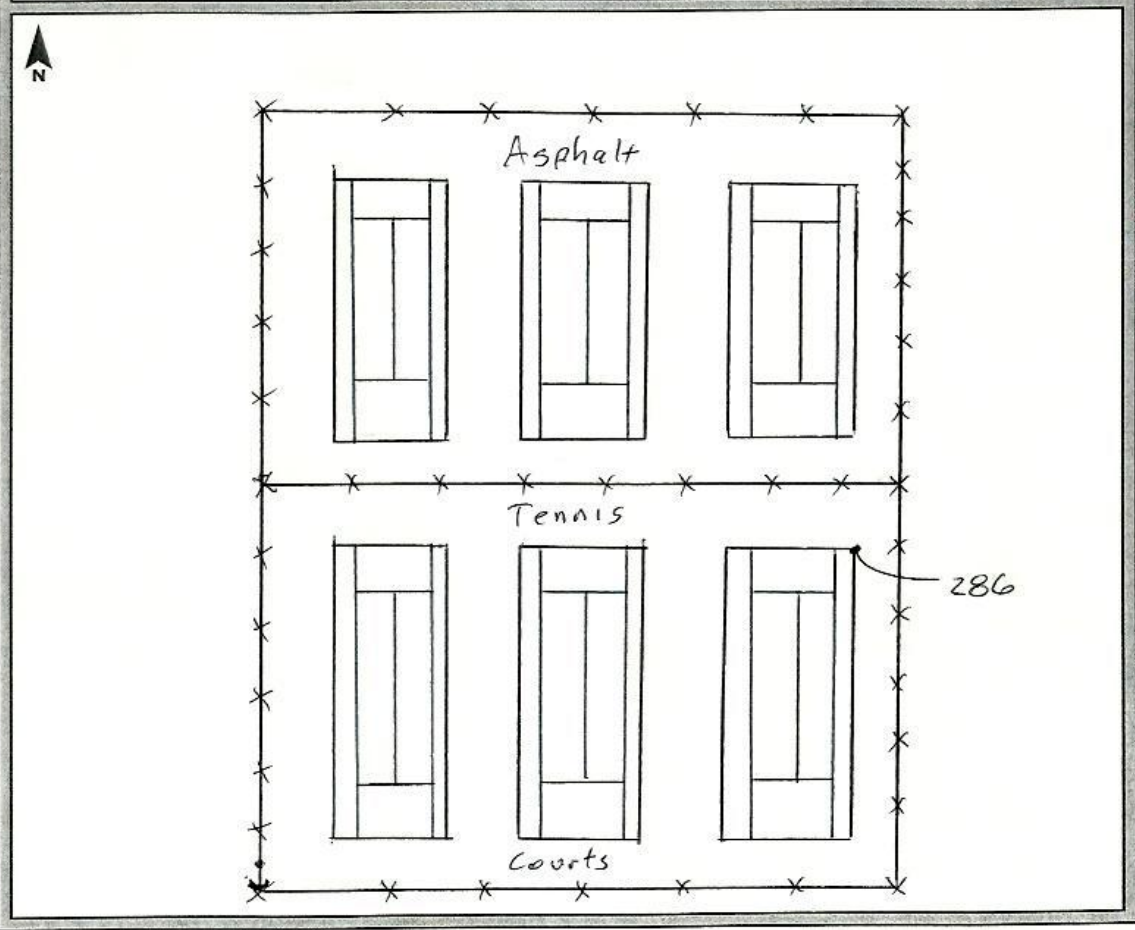


285_LIDAR-3N-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: 286 Operator Name: STEPHEN SCHONEGG
Latitude: 41-38-27.67 Julian Day: 086 Session No. _____
Longitude: 085-12-00.17 Start Time: 11:06 End Time: 11:12
Ellip. Height: . 879.94 FT Data File Name: INDST 26 MAR 12 SS
Type of Mark: Paint STRIPE Type of Receiver: R8-Z #9357
Stamping on Mark: Mag Nail Type of Antenna: _____
Weather Condition: Sunny, 45°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





286-2-26MAR2012



286-3W-26MAR2012

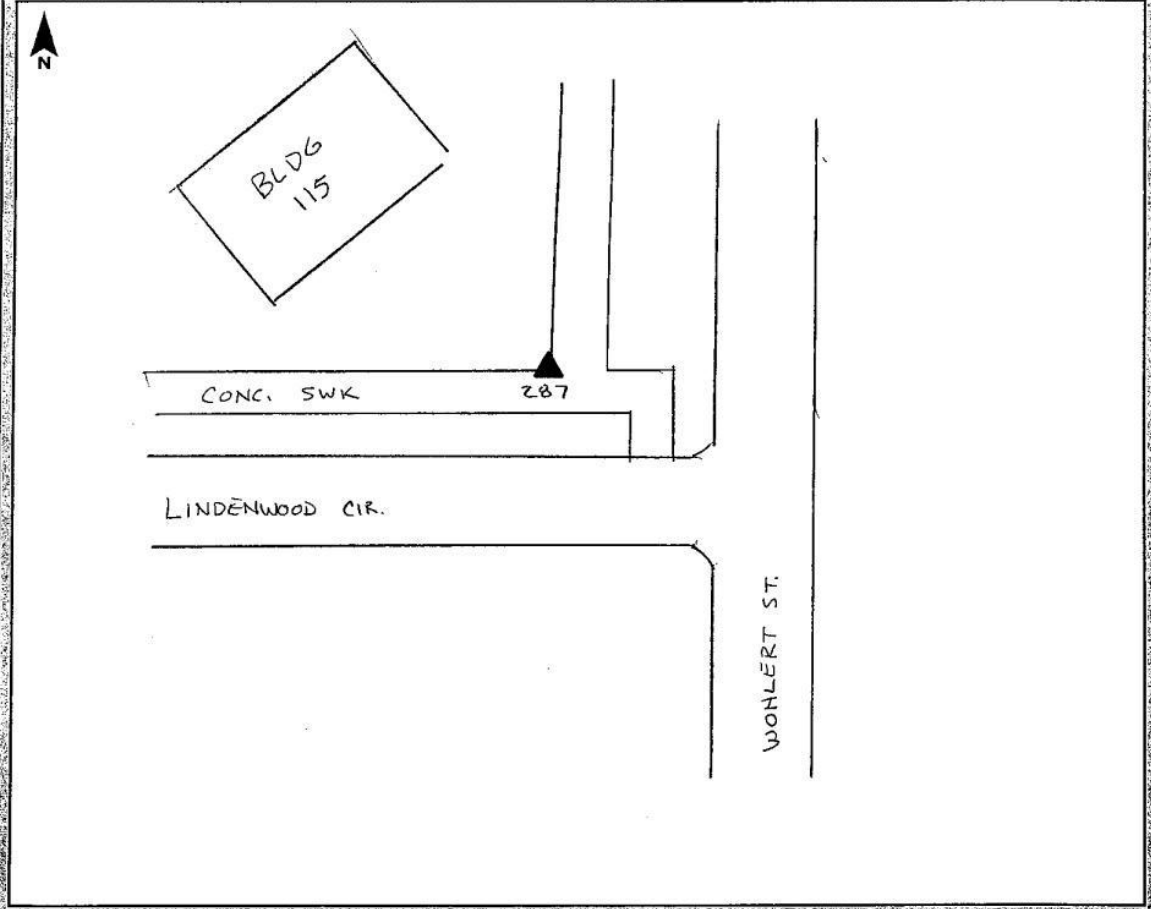


286-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>287</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 39' 21.93" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>85° 00' 16.52" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>907.28 SFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR SIDEWALK</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>65° PT. SUN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





287-2-25MAR2012



287-3N-25MAR2012

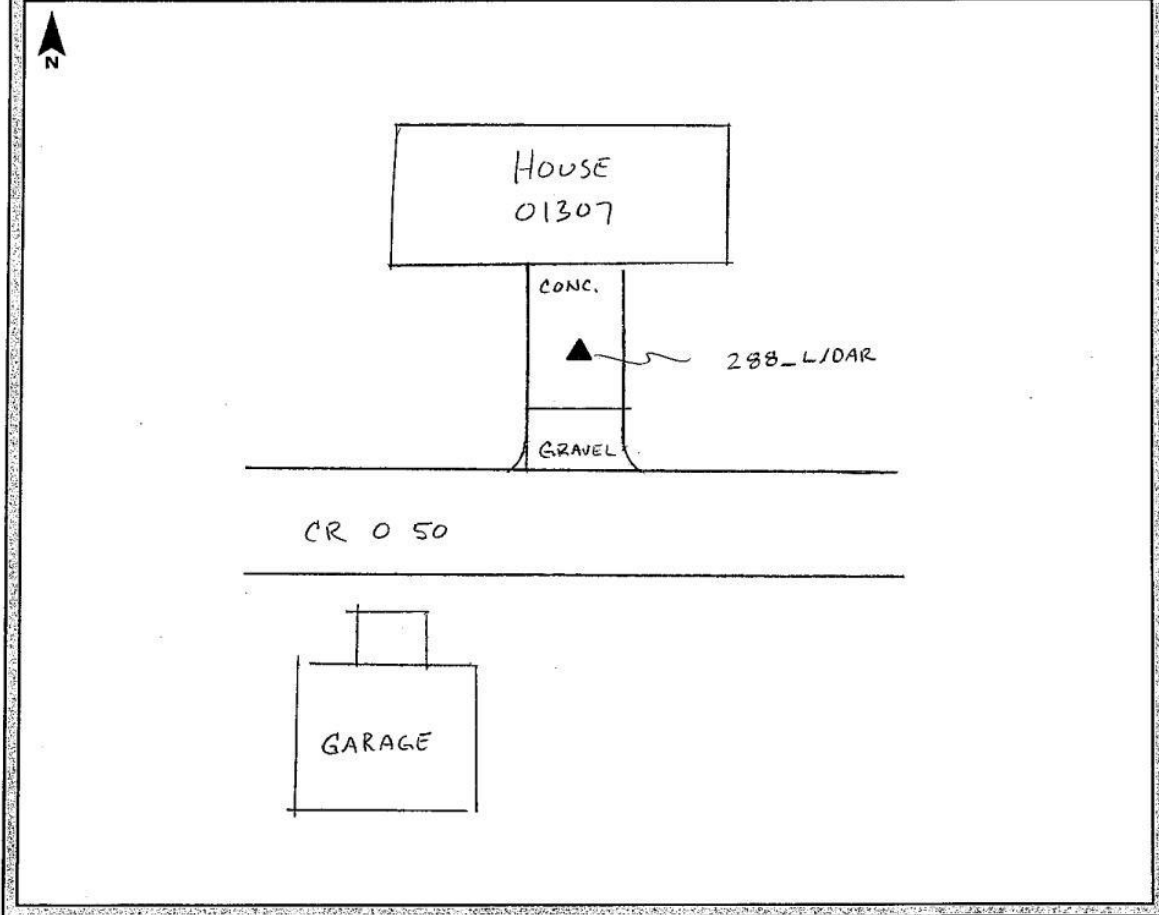


287-3E-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>288-LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 38' 32.01" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>84° 47' 47.96" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>869.14 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8-Z</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-Z</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





288 LIDAR-2-26MAR2012



288 LIDAR-3SW-26MAR2012

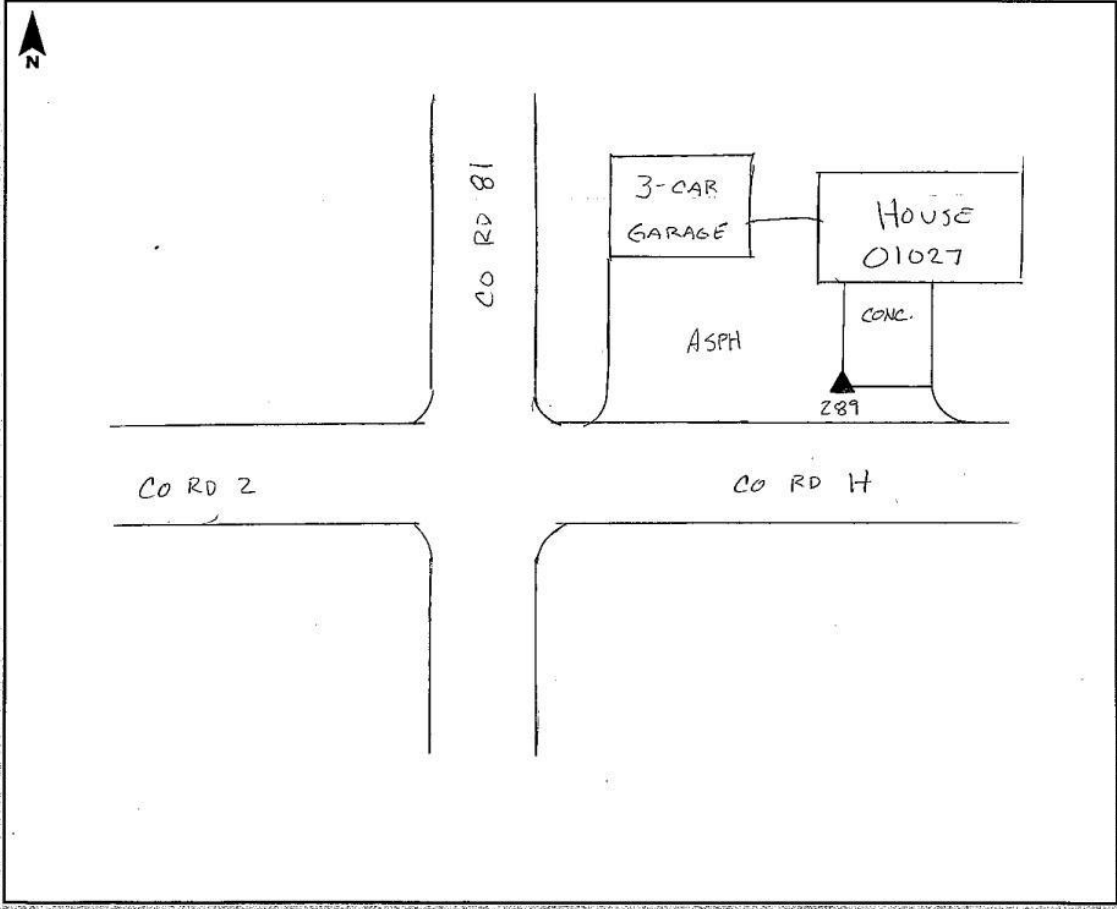


288 LIDAR-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>289</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 31' 28.36" N</u>	Julian Day: <u>085</u>	Session No. <u> </u>
Longitude: <u>84° 48' 15.16" W</u>	Start Time: <u> </u>	End Time: <u> </u>
Ellip. Height: <u>770.87 SFT.</u>	Data File Name: <u> </u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u> </u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>65° SUNNY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





289-2-25MAR2012



289-3N-25MAR2012

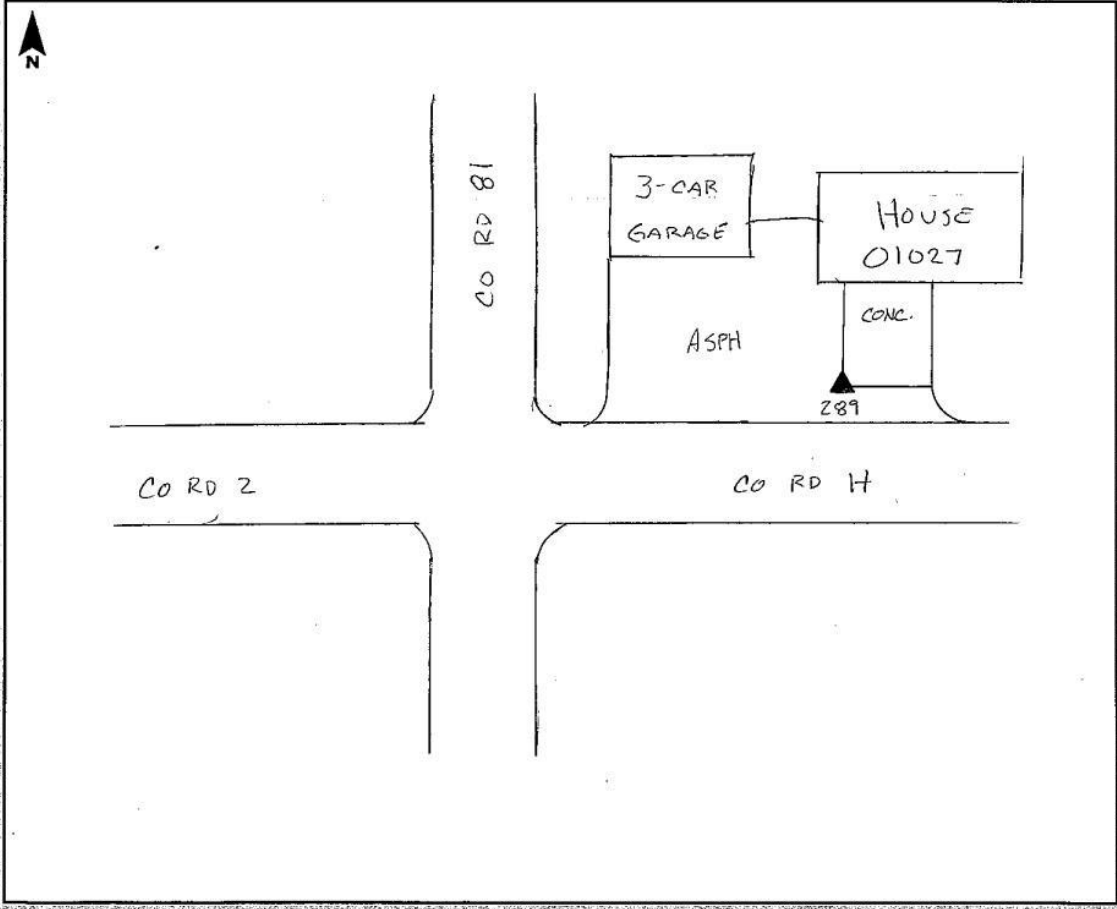


289-3E-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>289</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 31' 28.36" N</u>	Julian Day: <u>085</u>	Session No. <u> </u>
Longitude: <u>84° 48' 15.16" W</u>	Start Time: <u> </u>	End Time: <u> </u>
Ellip. Height: <u>770.87 SFT.</u>	Data File Name: <u> </u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u> </u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>65° SUNNY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





289-2-25MAR2012



289-3N-25MAR2012

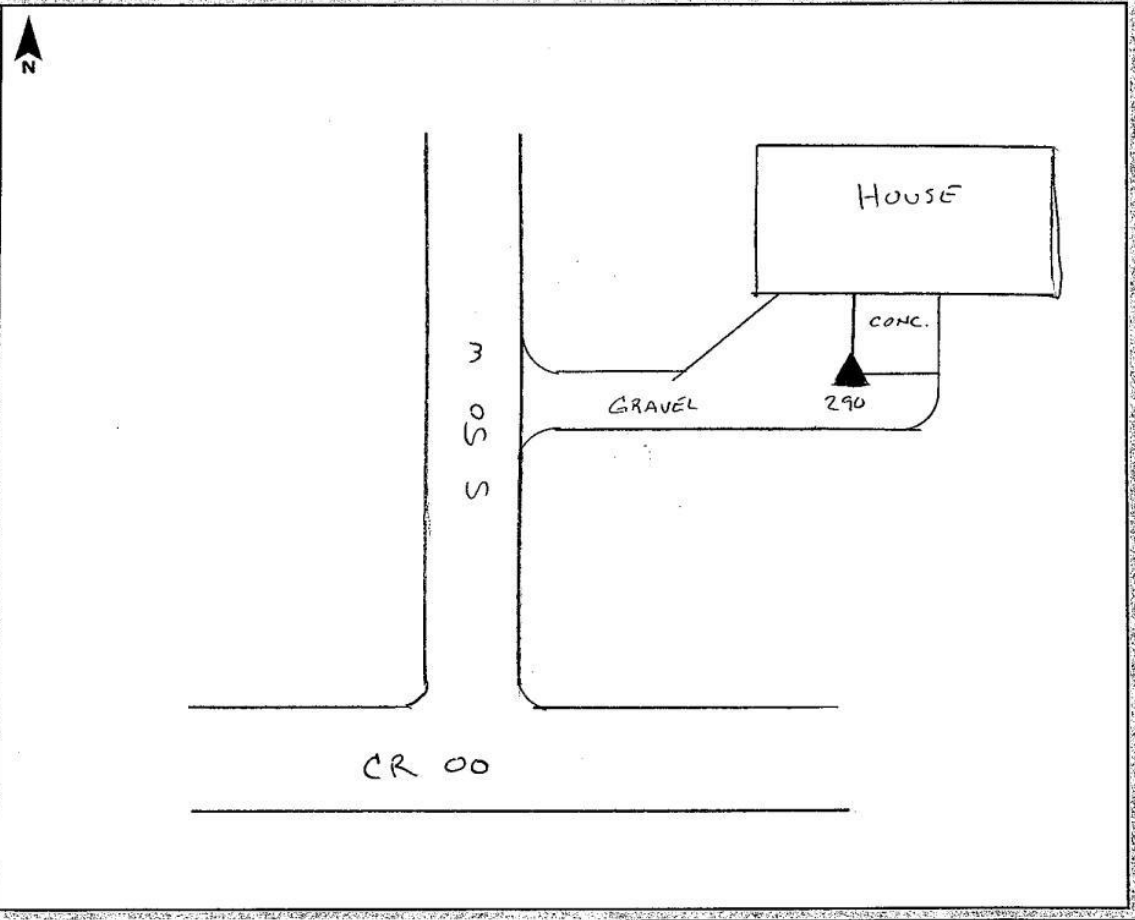


289-3E-25MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>03/26/2012</u>
Station Name:	<u>290</u>	Operator Name:	<u>BEN CHRISTIE</u>		
Latitude:	<u>41° 31' 40.23" N</u>	Julian Day:	<u>086</u>	Session No.:	<u>—</u>
Longitude:	<u>84° 59' 49.91" W</u>	Start Time:	<u>—</u>	End Time:	<u>—</u>
Ellip. Height:	<u>878.58 sft</u>	Data File Name:	<u>—</u>		
Type of Mark:	<u>SW COR CONCRETE</u>	Type of Receiver:	<u>R8-2</u>		
Stamping on Mark:	<u>—</u>	Type of Antenna:	<u>R8-2</u>		
Weather Condition:	<u>45° CLEAR</u>	Antenna Height:	<u>2m</u>	to bottom of antenna mount	





290-2-26MAR2012



290-3N-26MAR2012

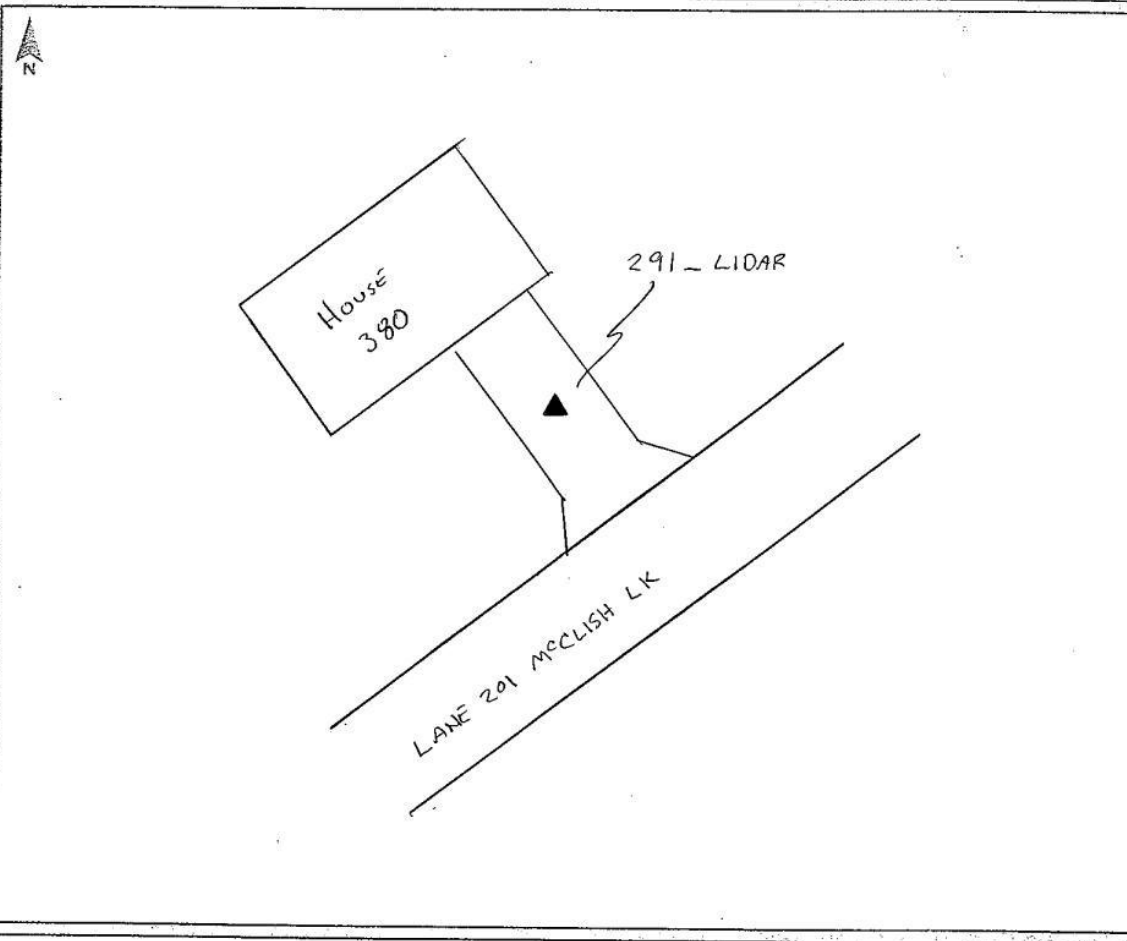


290-3E-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/24/2012</u>
Station Name: <u>291_LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 32' 19.06" N</u>	Julian Day: <u>084</u>	Session No. <u>—</u>
Longitude: <u>85° 11' 21.86" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>835.92 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB-2</u>	
Weather Condition: <u>65° RAIN</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





291_LIDAR-2-24MAR2012



291_LIDAR-3SW-24MAR2012

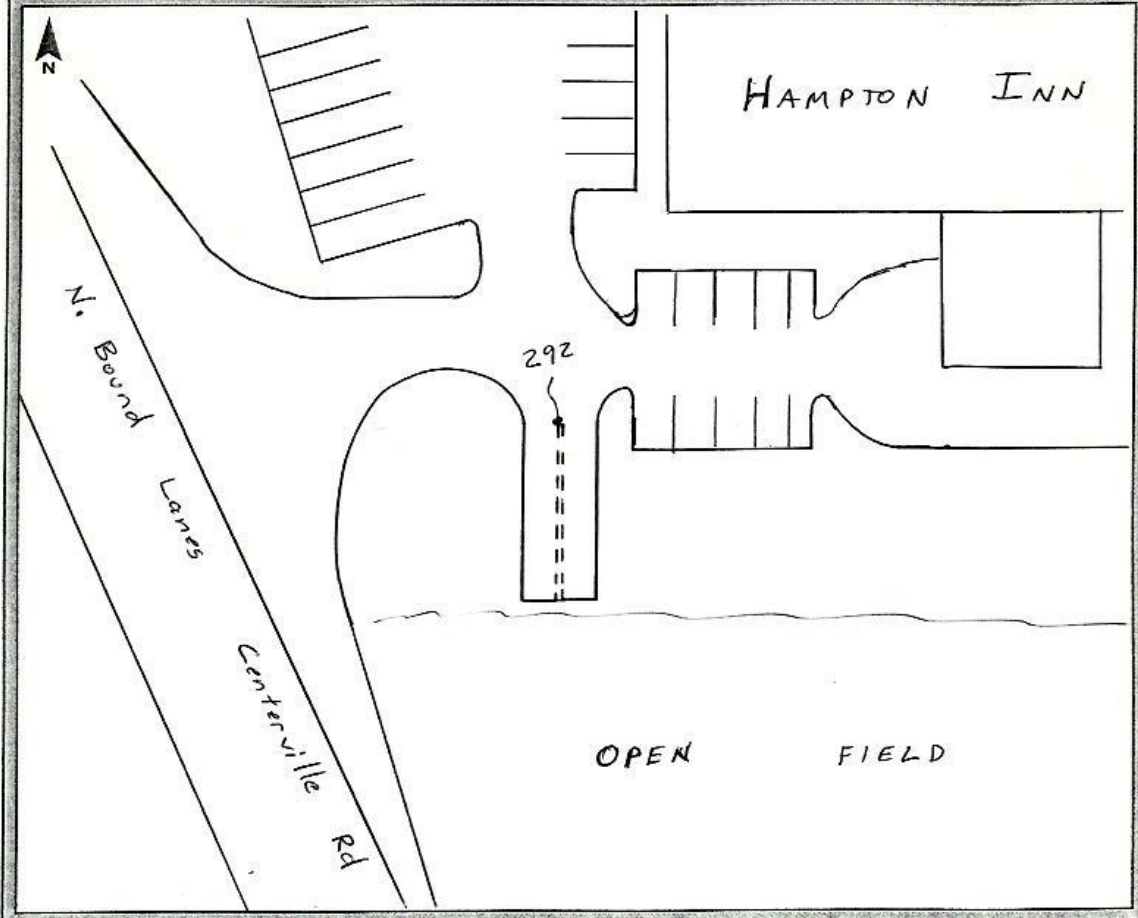


291_LIDAR-3NW-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 25MAR12
 Station Name: 292 Operator Name: STEPHEN SCHONEGG
 Latitude: 41-45-36.47 Julian Day: 085 Session No. _____
 Longitude: 085-25-38.77 Start Time: 1:29 End Time: 1:33
 Ellip. Height: .764.10 FT Data File Name: IN05T25MAR12 SS
 Type of Mark: Corner Paint Stripe Type of Receiver: R8-2 # 9357
 Stamping on Mark: MAG NAIL Type of Antenna: _____
 Weather Condition: Sunny, 60° Antenna Height: 6.562 FT to bottom of antenna mount





292-2-25MAR2012



292-3W-25MAR2012

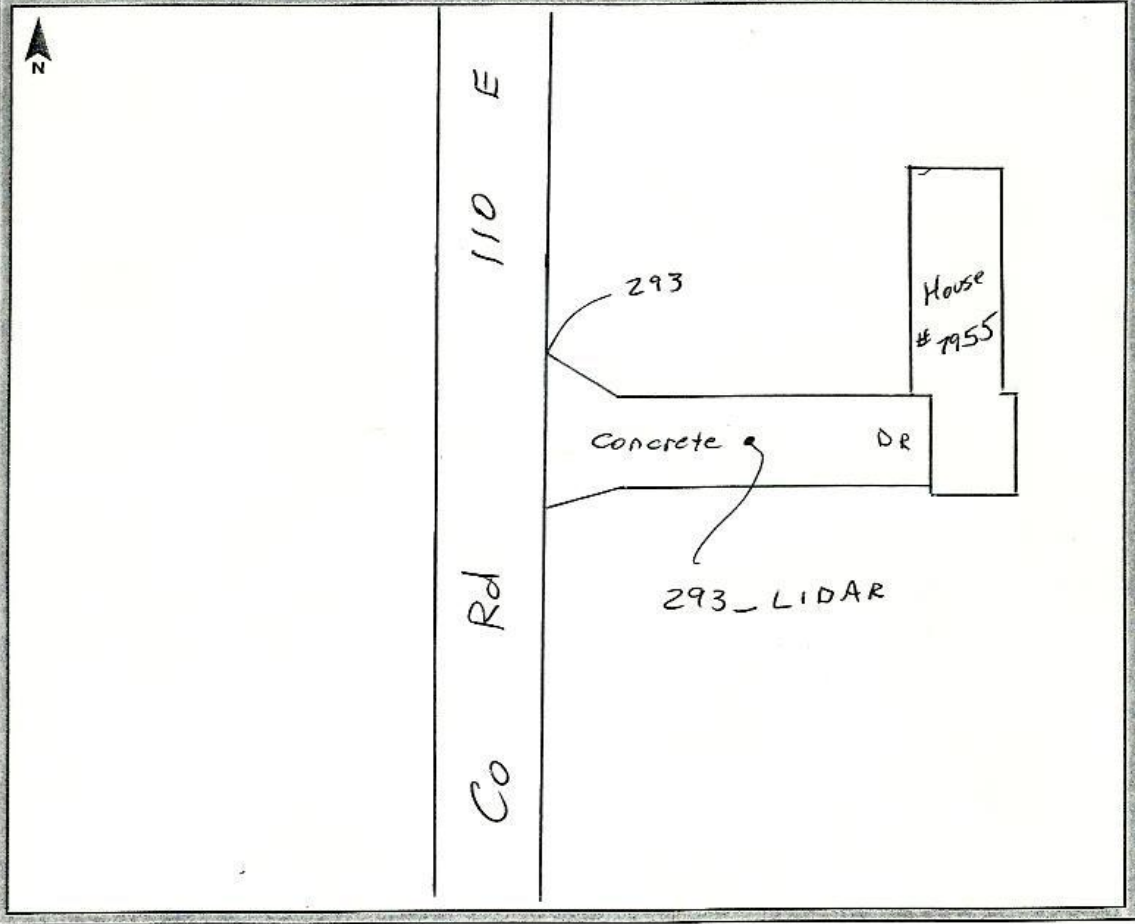


292-3N-25MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24MAR12
Station Name: 293_LIDAR Operator Name: STEPHEN SCHONEGG
Latitude: 41-31-36.49 Julian Day: 084 Session No. _____
Longitude: 085-24-10.86 Start Time: 4:23 End Time: 4:26
Ellip. Height: . 819.72 FT Data File Name: INDST24MAR12SS
Type of Mark: Center Concrete DR Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65° Antenna Height: 6.562 FT to bottom of antenna mount





293_LIDAR-2-24MAR2012



293_LIDAR-3N-24MAR2012

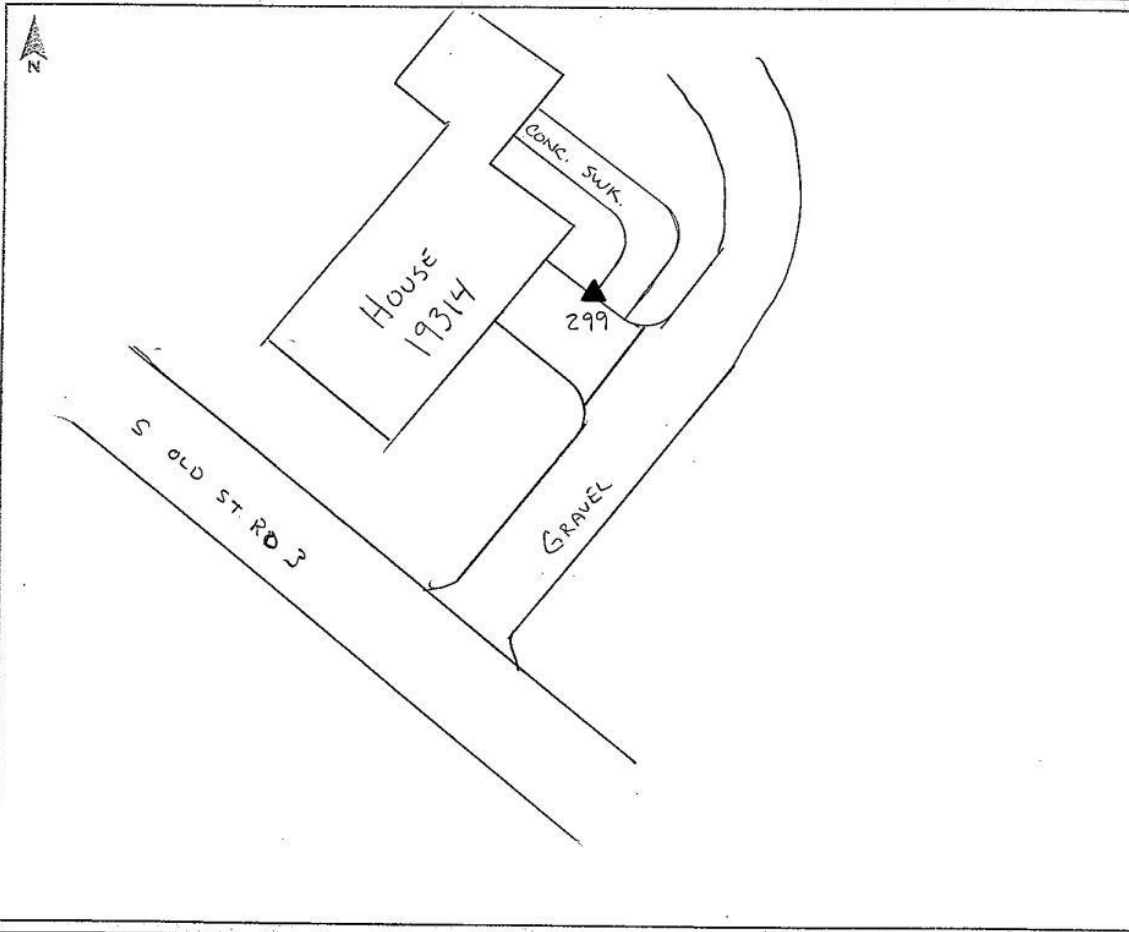


293_LIDAR-3E-24MAR2012

GPS Observation Log Sheet



Project Name: _____ Project Number: 72134 Survey Date: 03/22/2012
Station Name: 299 Operator Name: BEN CHRISTIE
Latitude: 41° 15' 49.85" N Julian Day: 082 Session No. —
Longitude: 85° 11' 06.34" W Start Time: — End Time: —
Ellip. Height: 746.43" sft Data File Name: —
Type of Mark: COR SIDEWALK Type of Receiver: RB
Stamping on Mark: — Type of Antenna: RB
Weather Condition: 75° CLEAR Antenna Height: 2m to bottom of antenna mount





299-2-22MAR2012



299-3NW-22MAR2012

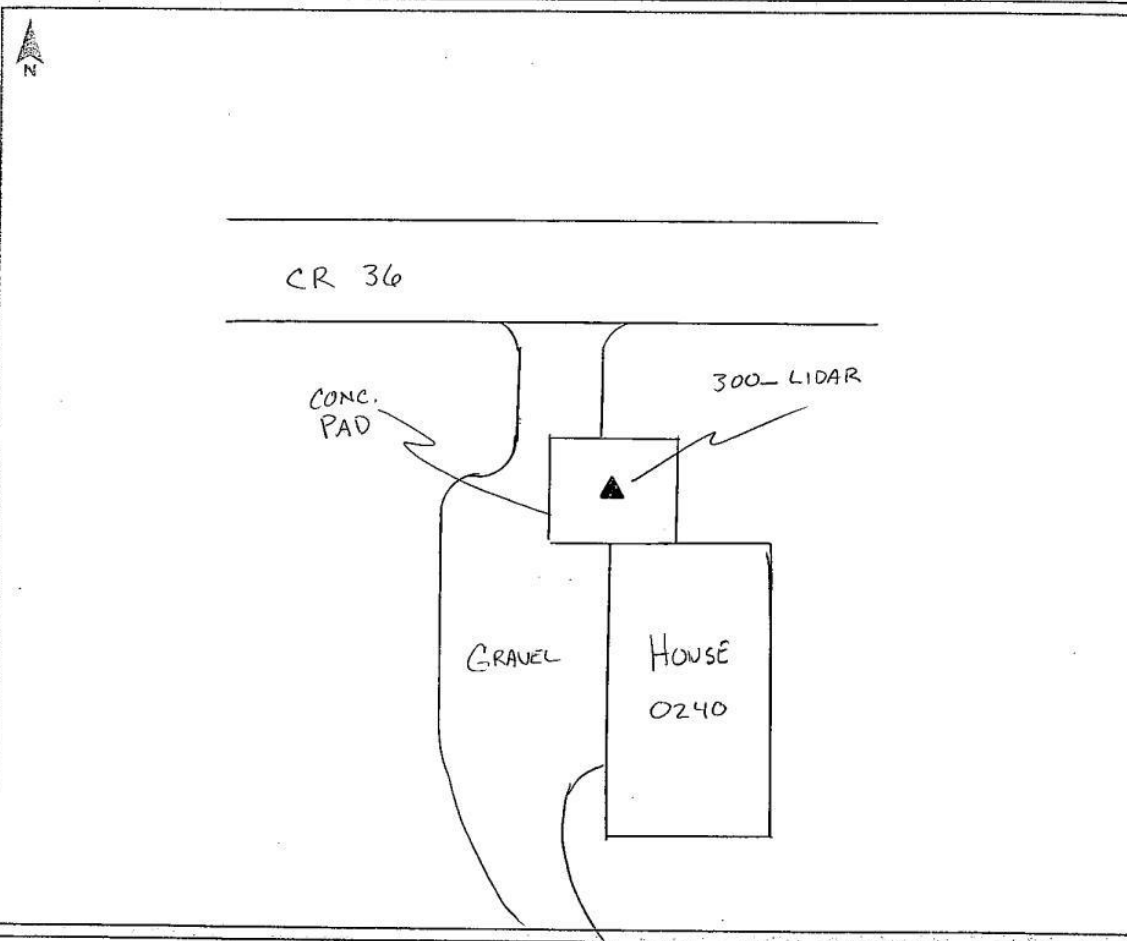


299-3NE-22MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/24/2012</u>
Station Name: <u>300-LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 23' 40.90" N</u>	Julian Day: <u>084</u>	Session No. <u>—</u>
Longitude: <u>85° 11' 00.78" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>810.67</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





300_LIDAR-2-24MAR2012



300_LIDAR-3S-24MAR2012

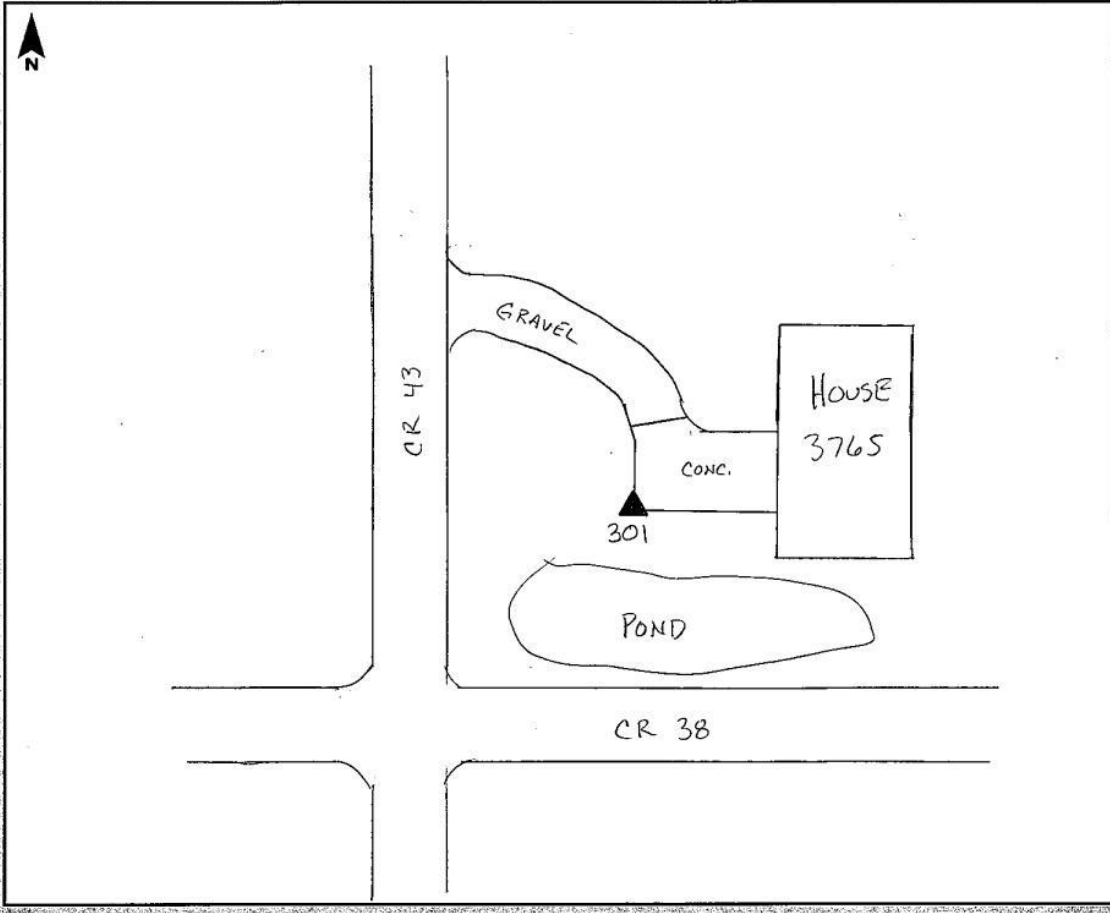


300_LIDAR-3E-24MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>301</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 23' 44.35" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 59' 06.69" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>761.82 spt</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





301-2-25MAR2012



301-3W-25MAR2012

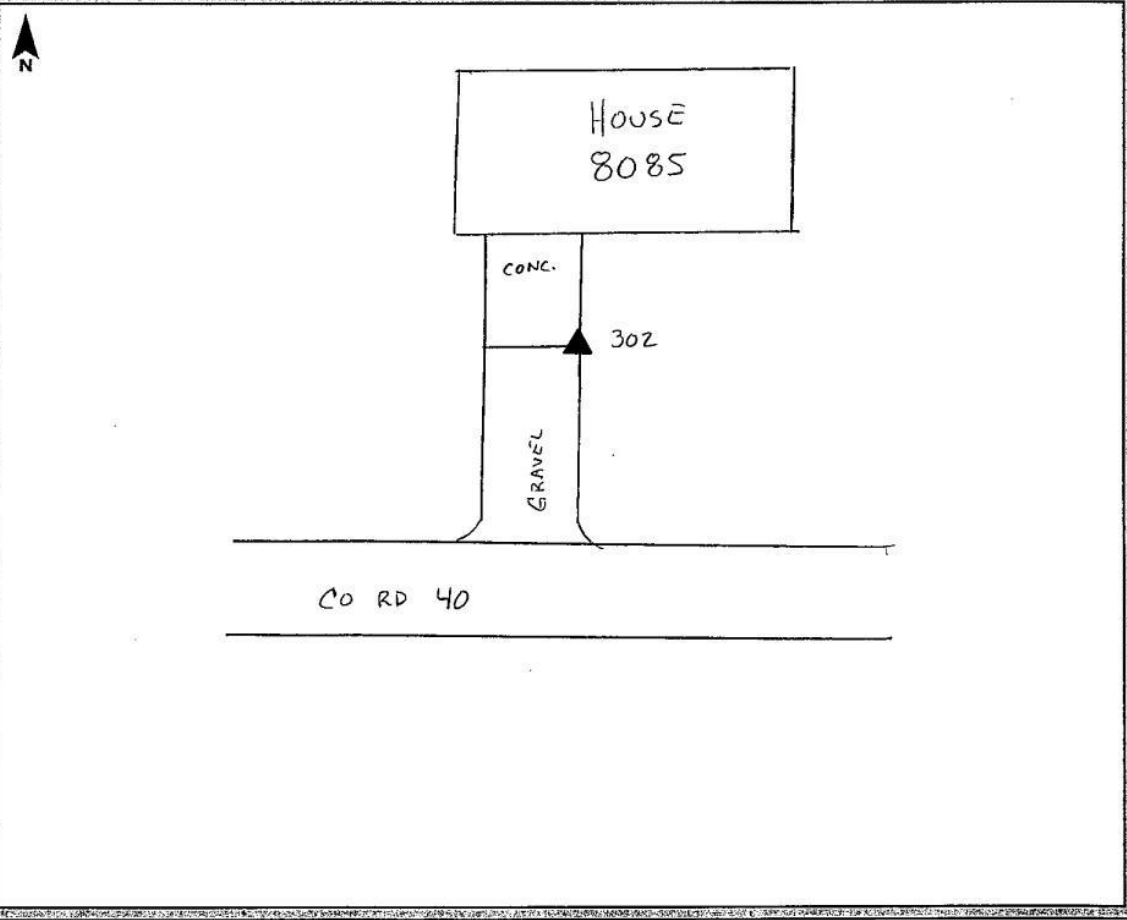


301-3S-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72174</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>302</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 23' 12.38" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 48' 26.74" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>696.23</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2 M</u>	to bottom of antenna mount





302-2-25MAR2012

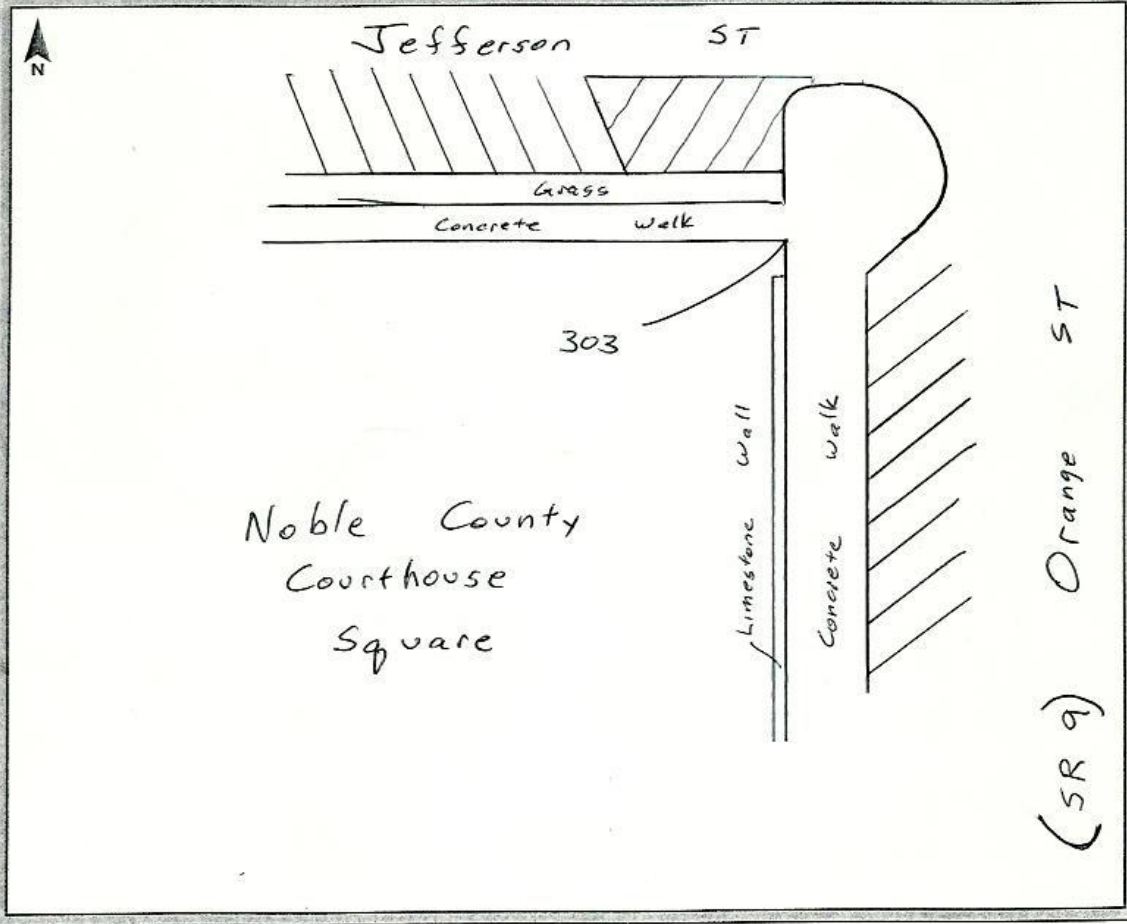


302-3E-25MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>24 MAR 12</u>
Station Name: <u>303</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-23-46.94</u>	Julian Day: <u>084</u>	Session No. _____
Longitude: <u>085-25-27.00</u>	Start Time: <u>5:11</u>	End Time: <u>5:16</u>
Ellip. Height: <u>.850.69</u>	Data File Name: <u>IND ST 24 MAR 12 SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Cloudy, 70°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





303-2-24MAR2012



303-3W-24MAR2012

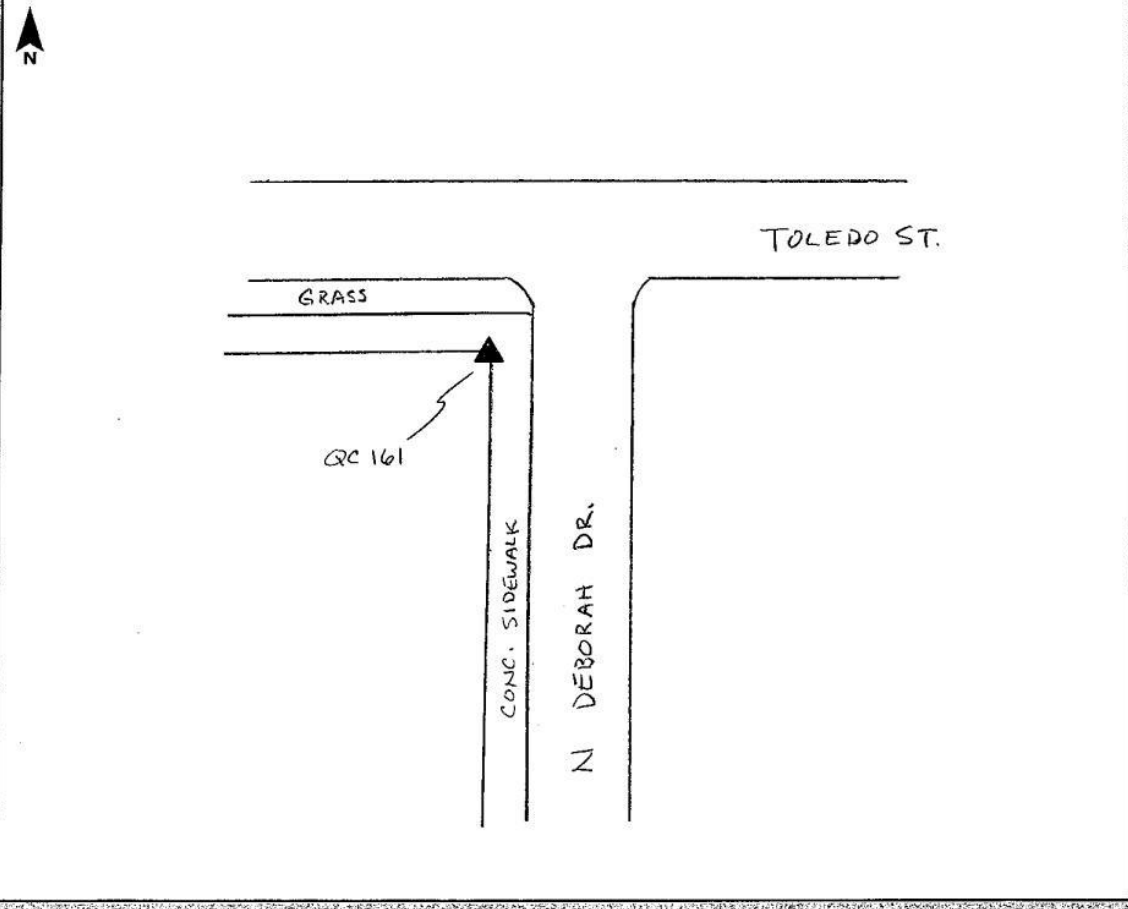


303-3N-24MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>QC 161</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 43' 50.24" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>84° 54' 58.67" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>960.79 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR SIDEWALK</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC161-2-26MAR2012



QC161-3W-26MAR2012

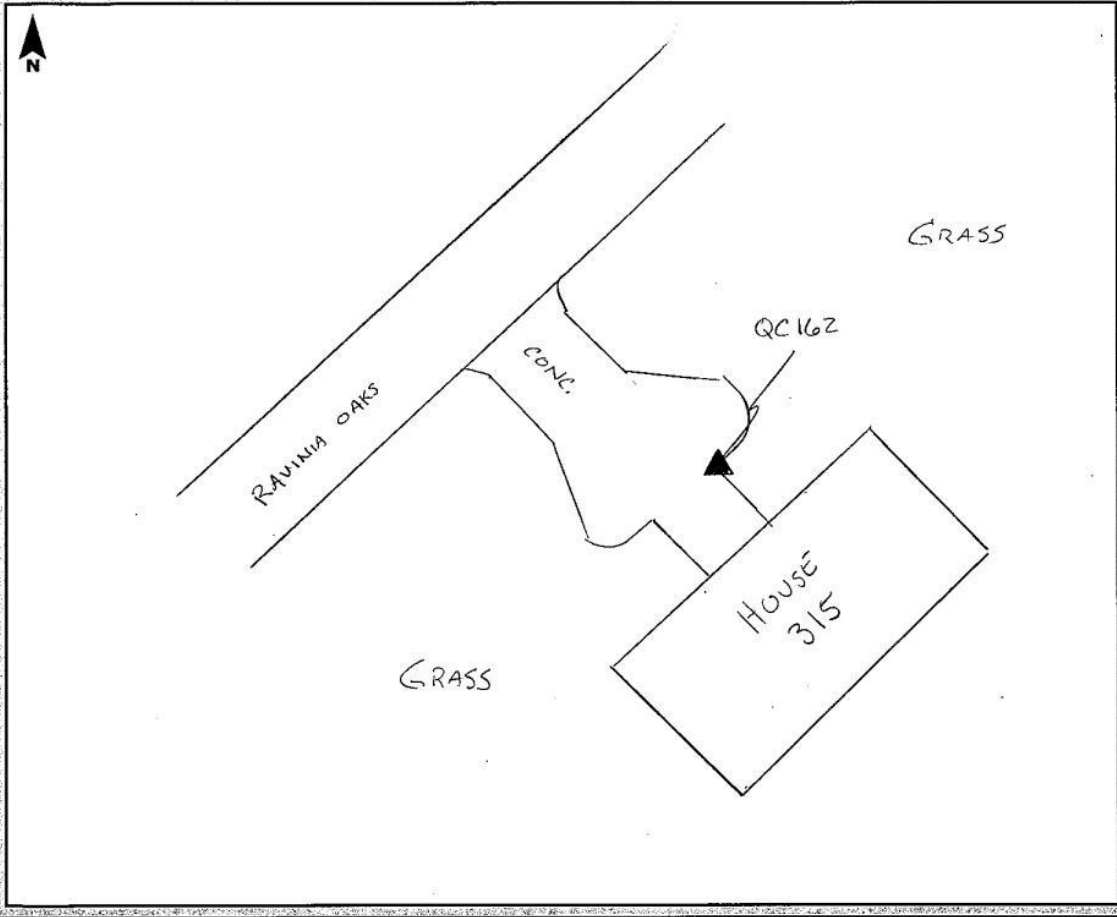


QC161-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>QC162</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 33' 57.04" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 54' 34.22" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>820.91 SP+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>65° PT. SUN</u>	Antenna Height: <u>2.0m</u>	to bottom of antenna mount





QC162-3NE-25MAR2012



QC162-2-25MAR2012

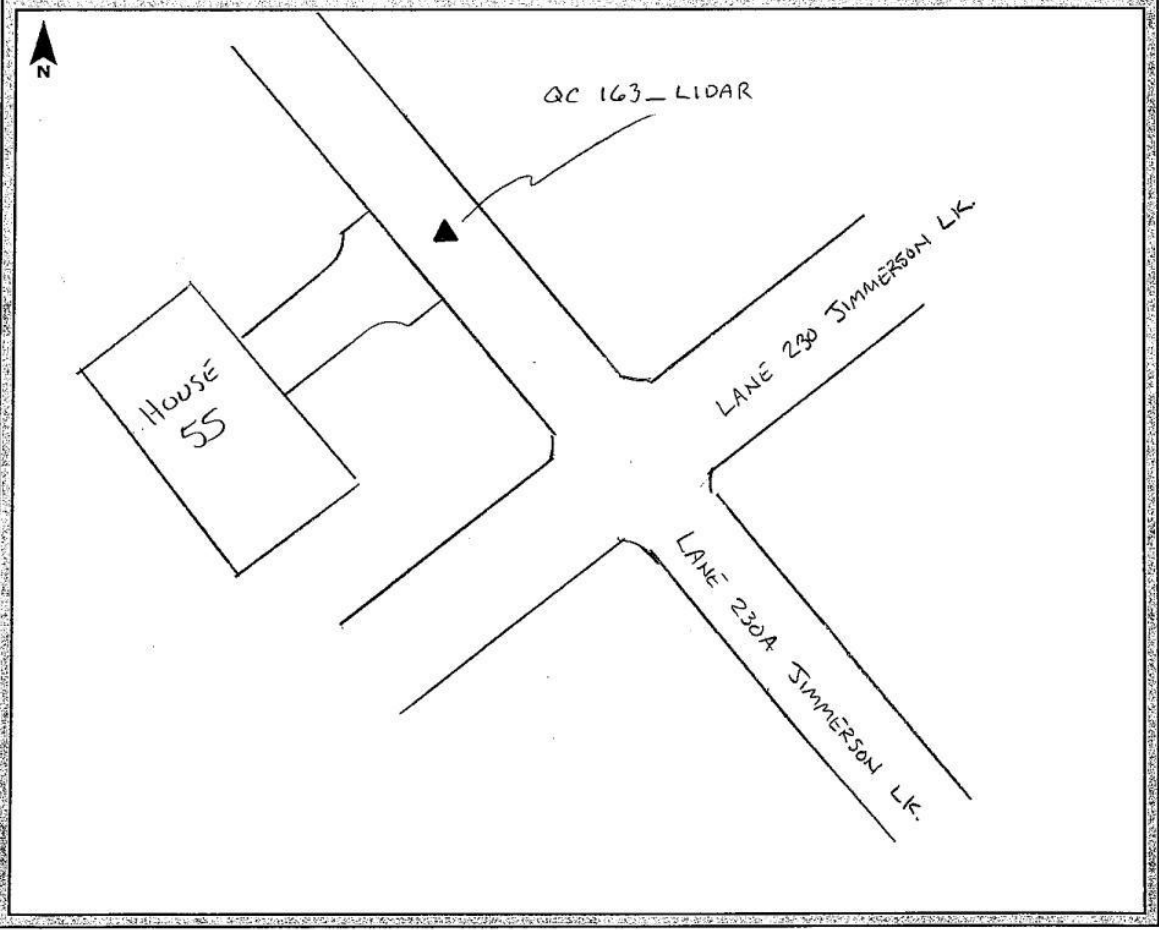


QC162-3SE-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/26/2012</u>
Station Name: <u>QC 163 - LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 42' 38.14" N</u>	Julian Day: <u>086</u>	Session No. <u>—</u>
Longitude: <u>85° 04' 19.11" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>871.14 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>ASPH.</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>SS° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC 163 LIDAR-2-26MAR2012



QC 163 LIDAR-3NW-26MAR2012

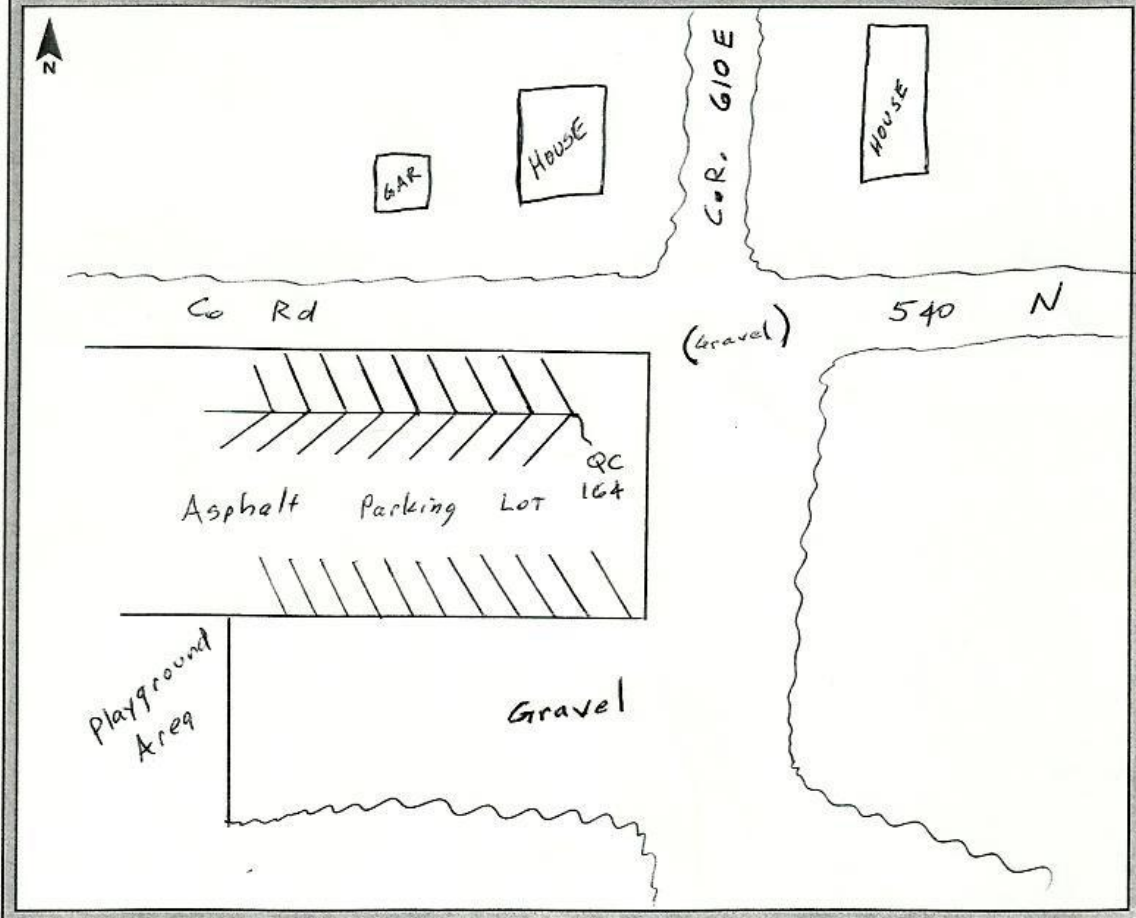


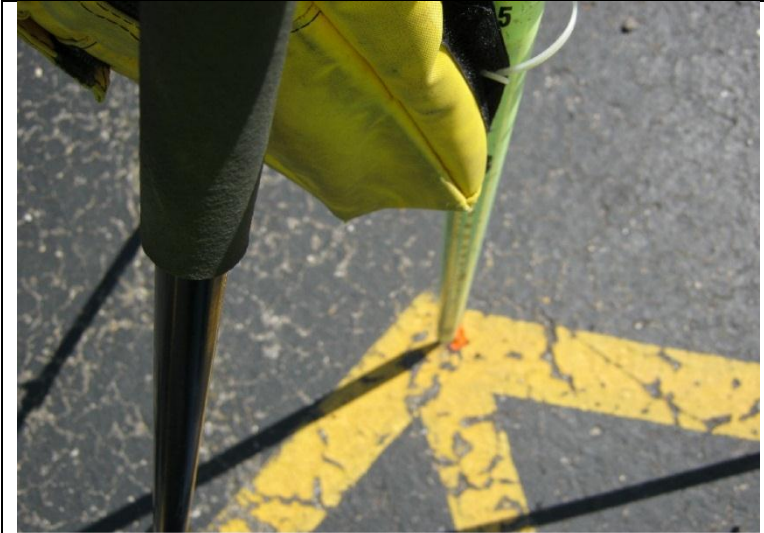
QC 163 LIDAR-3NE-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: QC 164 Operator Name: STEPHEN SCHONEGG
Latitude: 41-43-15.46 Julian Day: 086 Session No. _____
Longitude: 085-18-35.77 Start Time: 1:16 End Time: 1:23
Ellip. Height: . 836.60 FT Data File Name: IND ST 26 MAR 12 SS
Type of Mark: Paint Stripe Type of Receiver: RB-2 #9357
Stamping on Mark: Meg Nail Type of Antenna: _____
Weather Condition: Sunny, 50°, WINDY Antenna Height: 6.562 to bottom of antenna mount





QC 164-2-26MAR2012



QC 164-3E-26MAR2012

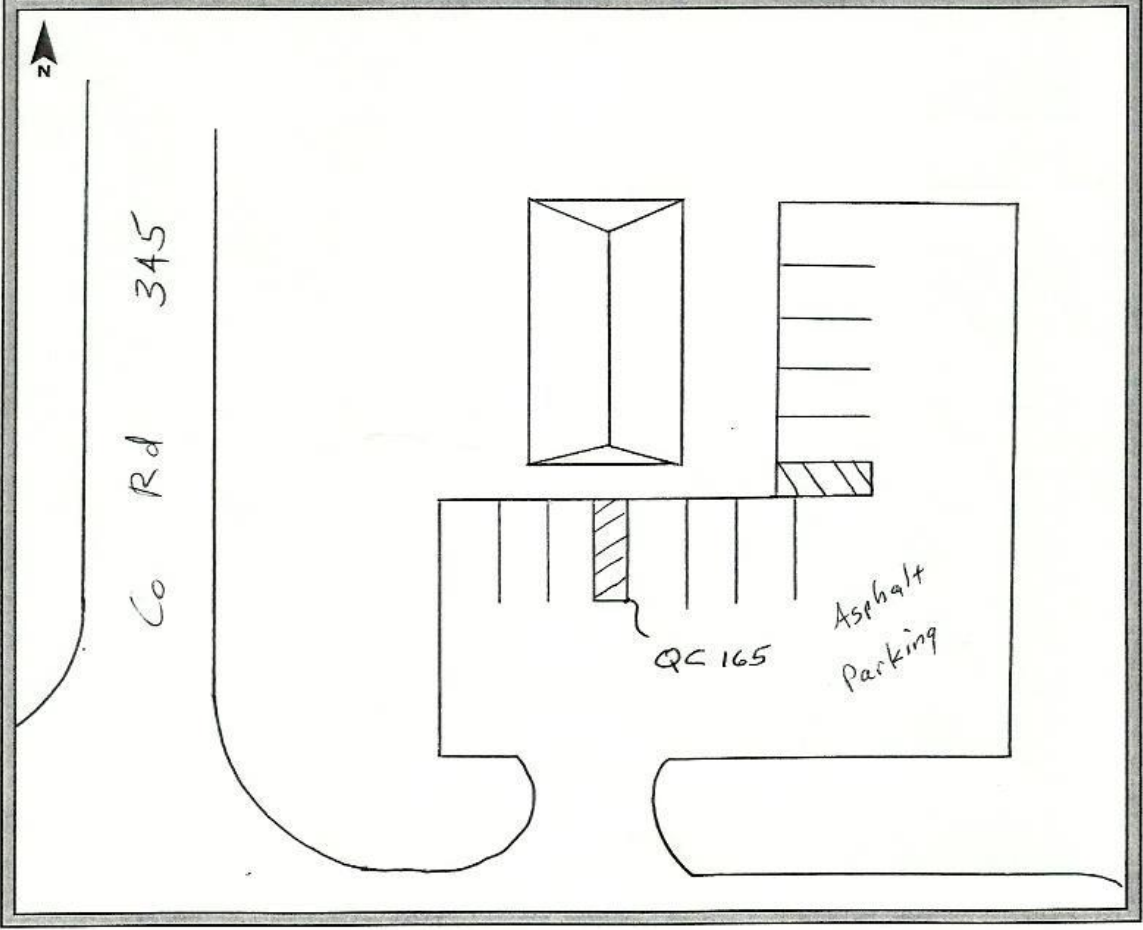


QC 164-3N-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: QC 165 Operator Name: STEPHEN SCHONEGG
Latitude: 41-41-24.76 Julian Day: 086 Session No. _____
Longitude: 085-34-47.28 Start Time: 3:23 End Time: 3:28
Ellip. Height: .784.25 FT Data File Name: INDST 26 MAR 12 SS
Type of Mark: Paint Stripe Type of Receiver: R8-2 #9357
Stamping on Mark: Mag Nail Type of Antenna: _____
Weather Condition: Sunny, 50°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





QC 165-2-26MAR2012



QC 165-3N-26MAR2012

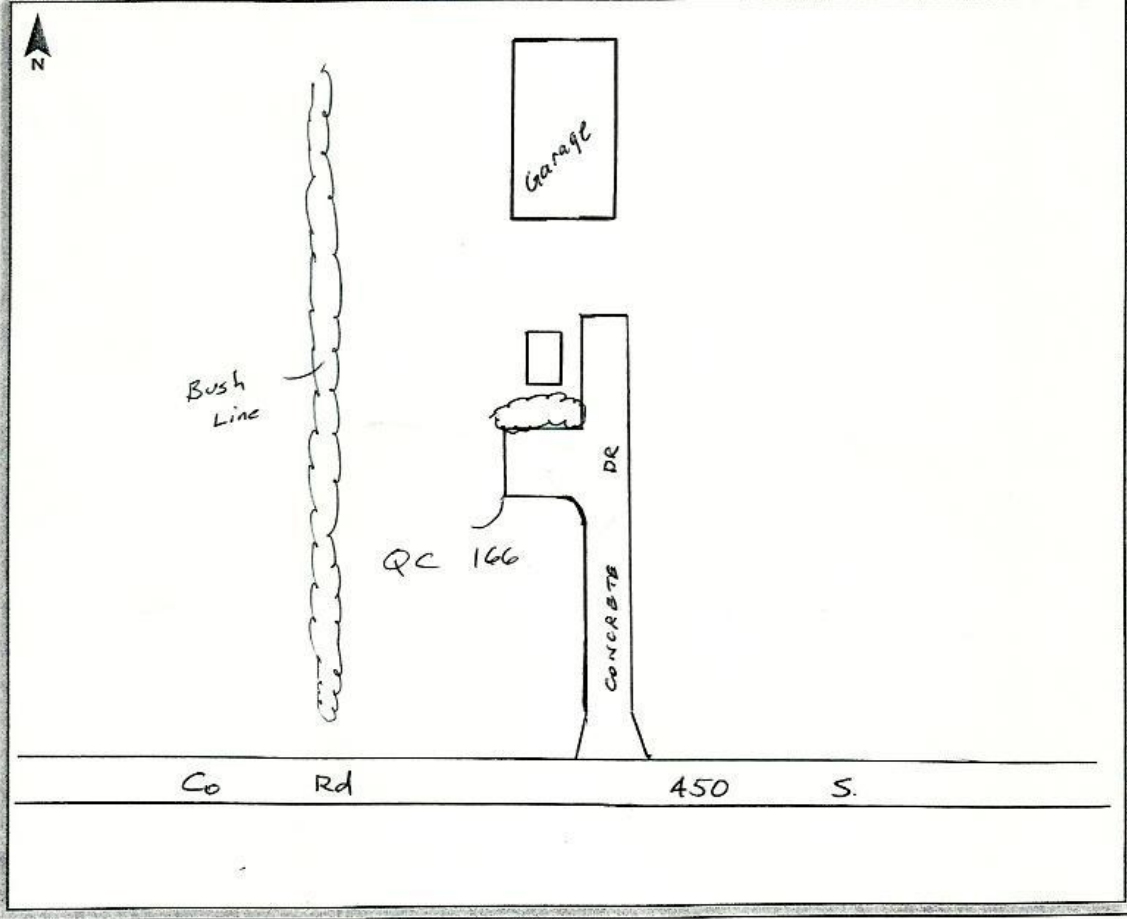


QC 165-3E-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>ZAMAR12</u>
Station Name: <u>QC 166</u>	Operator Name: <u>STEPHEN SCHONEGG</u>
Latitude: <u>41-34-35.74</u>	Julian Day: <u>084</u> Session No. _____
Longitude: <u>085-25-10.54</u>	Start Time: <u>3:05</u> End Time: <u>3:10</u>
Ellip. Height: <u>.811.41</u>	Data File Name: <u>INDSTZAMAR12SS</u>
Type of Mark: <u>Corner Concrete DR</u>	Type of Receiver: <u>RB-2 # 9357</u>
Stamping on Mark: _____	Type of Antenna: _____
Weather Condition: <u>Cloudy, 60°, MIST</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





QC 166-2-24MAR2012



QC 166-3N-24MAR2012

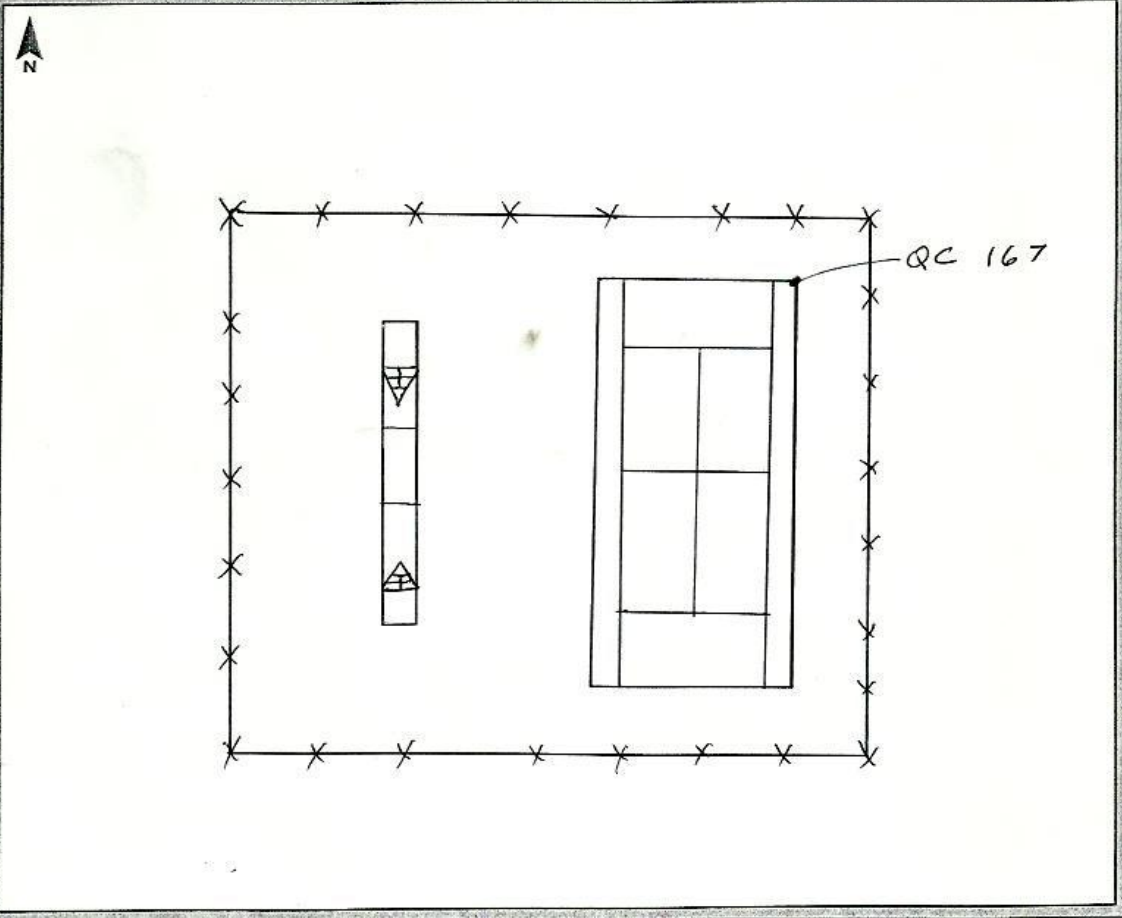


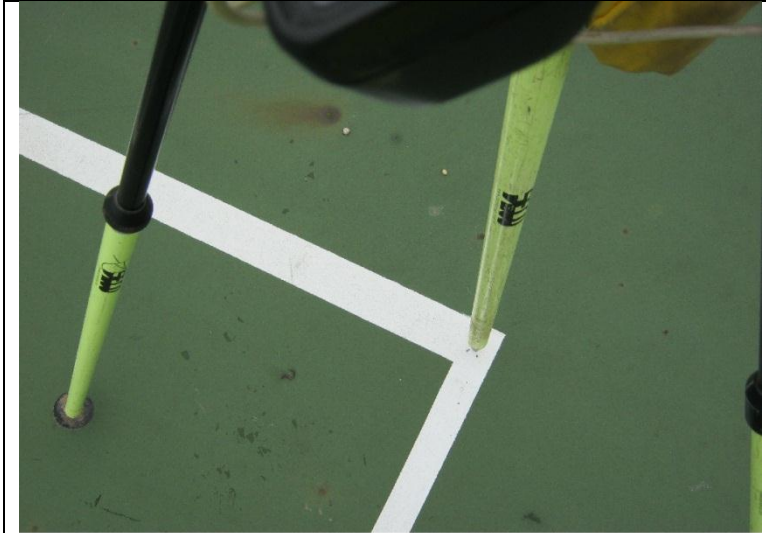
QC 166-3E-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 25 MAR 12
Station Name: QC 167 Operator Name: STEPHEN SCHONEGG
Latitude: 41-24-14.41 Julian Day: 085 Session No. _____
Longitude: 085-36-57.14 Start Time: 9:59 End Time: 10:05
Ellip. Height: .830.37 FT Data File Name: IND ST 25 MAR 12 SS
Type of Mark: Paint Stripe Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 50° Antenna Height: 6.562 FT to bottom of antenna mount





QC 167-2-25MAR2012



QC 167-3E-25MAR2012

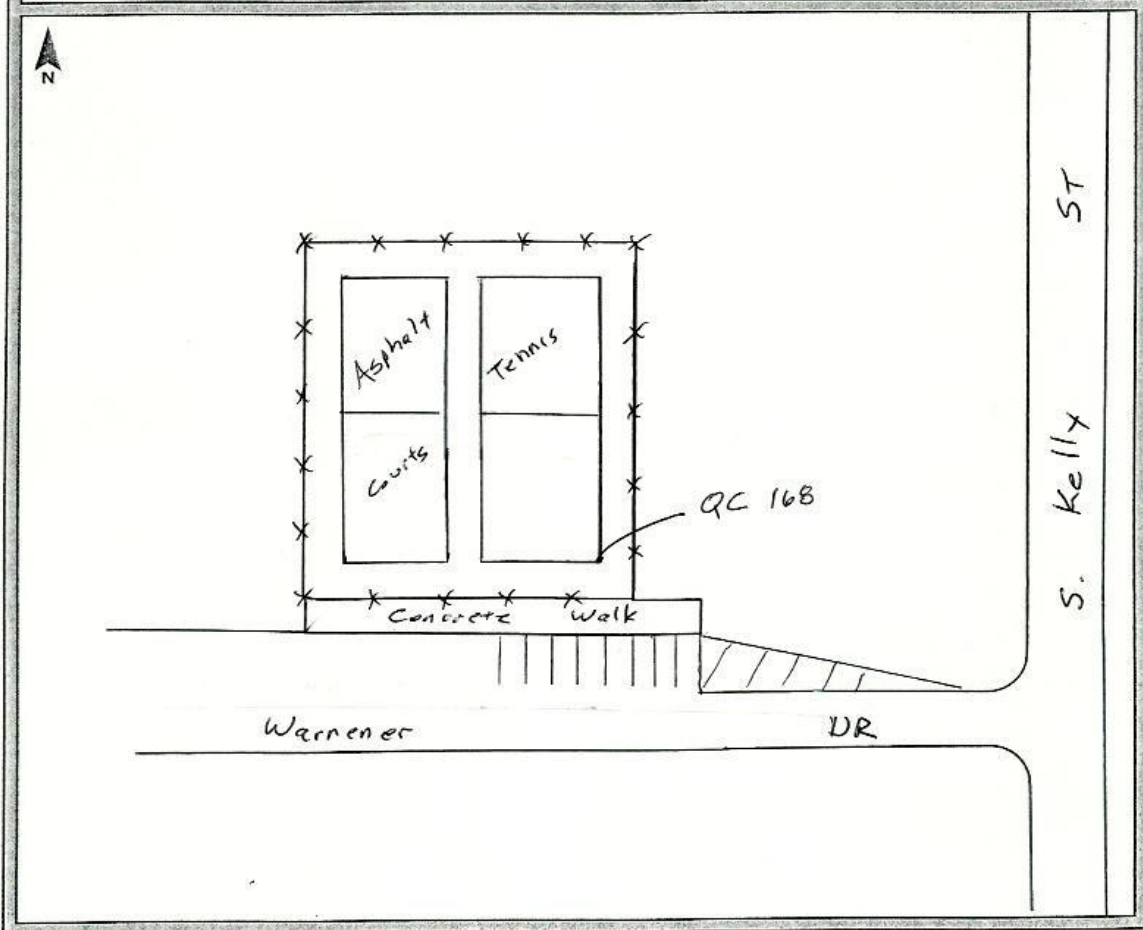


QC 167-3N-25MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24MARI2
Station Name: QC 168 Operator Name: STEPHEN SCHONEGG
Latitude: 41-29-16.60 Julian Day: 084 Session No. _____
Longitude: 085-22-37.94 Start Time: 4:43 End Time: 4:48
Ellip. Height: • 826.75 Data File Name: INDST24MARI255
Type of Mark: Center Paint Strip Type of Receiver: RB-2 # 9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Cloudy, 70° Antenna Height: 6.562 FT to bottom of antenna mount





QC 168-2-24MAR2012



QC 168-3W-24MAR2012

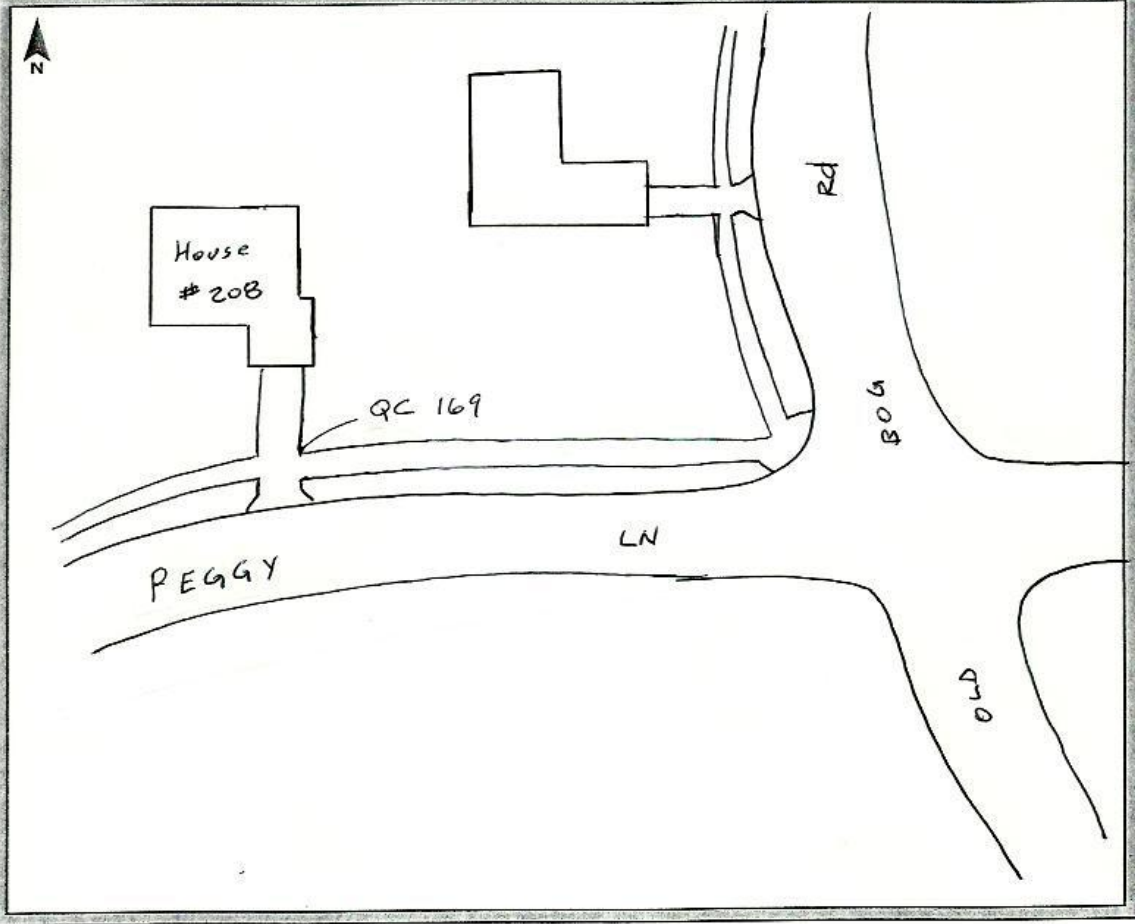


QC 168-3N-24MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24MAR12
Station Name: QC 169 Operator Name: STEPHEN SCHONEGG
Latitude: 41-21-52.37 Julian Day: 084 Session No. _____
Longitude: 085-14-52.92 Start Time: 12:02 End Time: 12:08
Ellip. Height: . 871.59 FT Data File Name: IND ST 24 MAR 12 SS
Type of Mark: Corner Concrete Walk Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 169-2-24MAR2012



QC 169-3N-24MAR2012



QC 169-3E-24MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: IN STATEWIDE Project Number: 72134 Survey Date: 03/25/2012
Station Name: QC170 Operator Name: BEN CHRISTIE
Latitude: 41° 29' 16.50" N Julian Day: 085 Session No. —
Longitude: 85° 04' 44.13" W Start Time: — End Time: —
Ellip. Height: 875.33 SP4 Data File Name: —
Type of Mark: NE COR SIDEWALK Type of Receiver: R8-2
Stamping on Mark: — Type of Antenna: R8-2
Weather Condition: 60° CLOUDY Antenna Height: 2m to bottom of antenna mount



COUNTRY MEADOW
ELEMENTARY

ASPH
BUS
PARKING

QC170

ASPH.
B-BALL
COURT

GRASS

CONC. SWK



QC170-2-25MAR2012



QC170-3N-25MAR2012

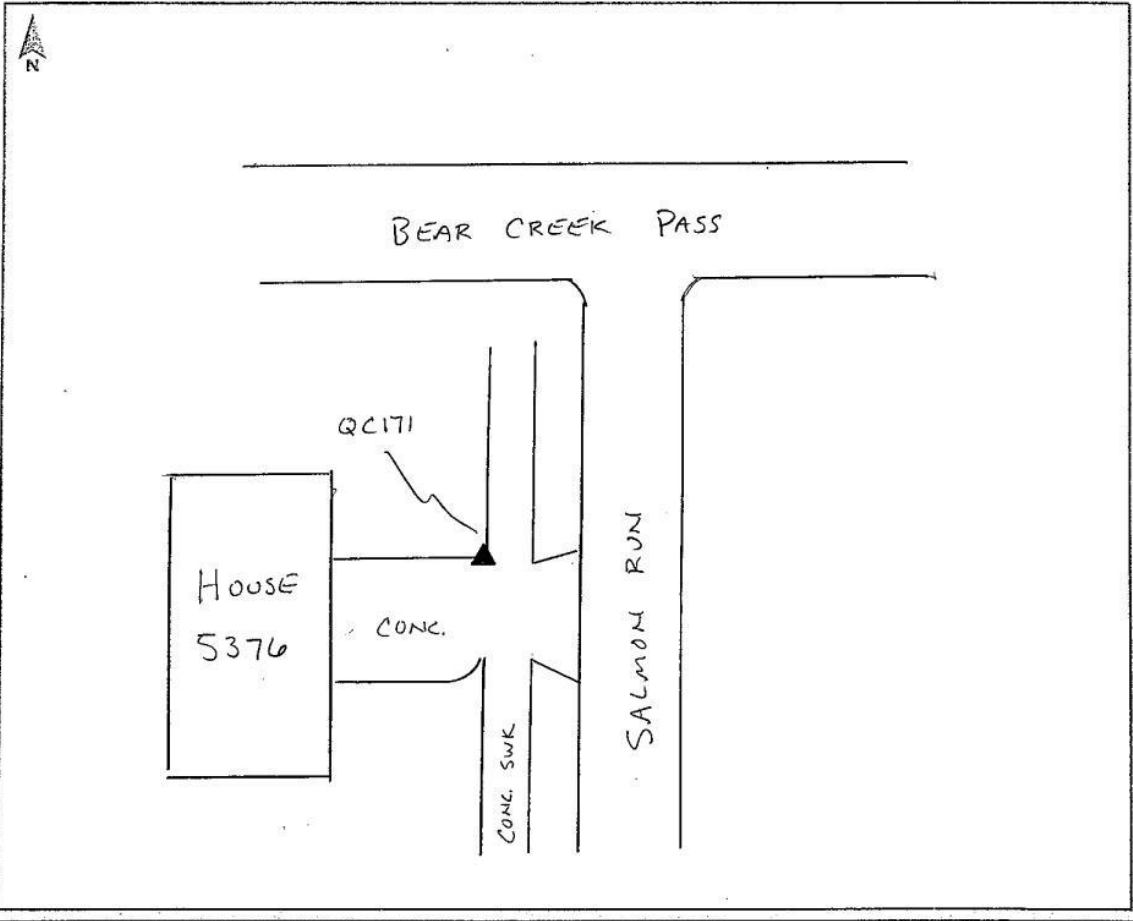


QC170-3E-25MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>03/24/2012</u>
Station Name: <u>QC 171</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>41° 20' 09.20" N</u>	Julian Day: <u>084</u> Session No. <u>—</u>
Longitude: <u>85° 02' 01.14" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>766.16</u>	Data File Name: <u>—</u>
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>
Weather Condition: <u>65° CLOUDY</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





QC 171-3W-24MAR2012

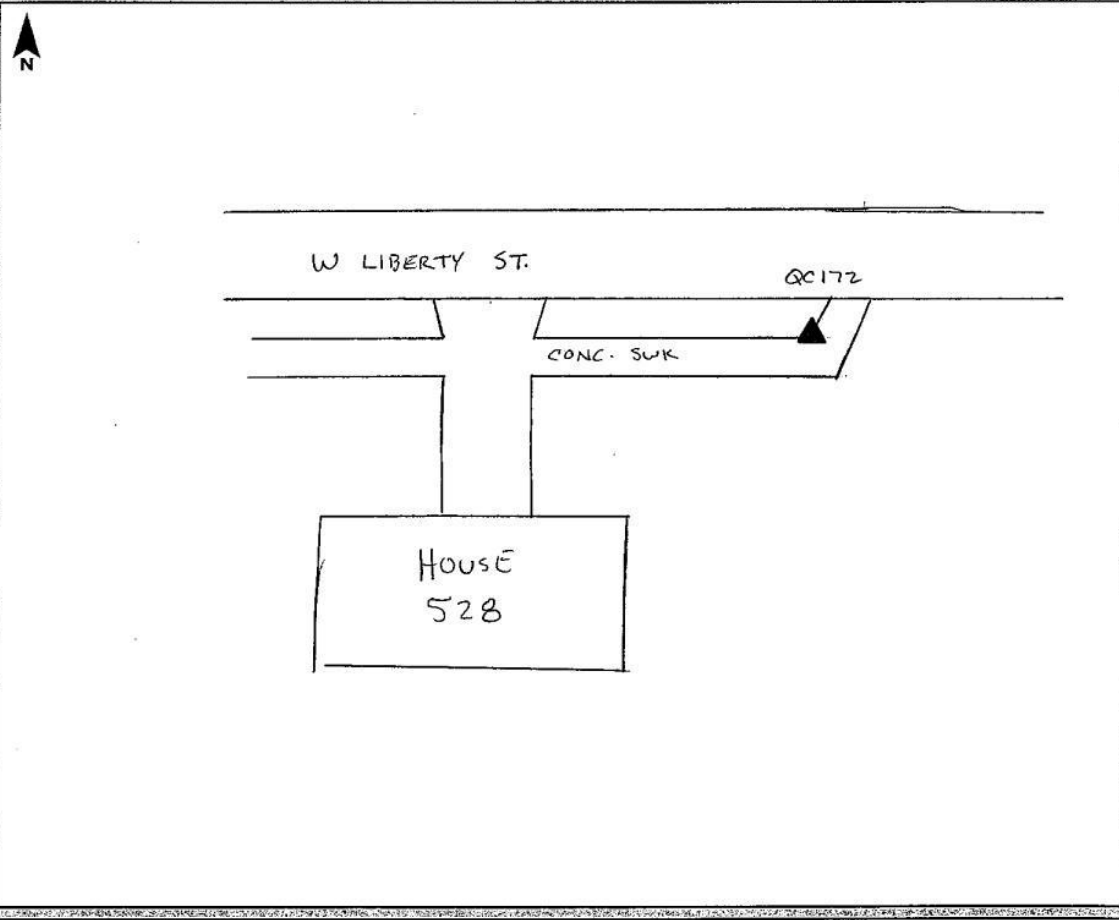


QC 171-3N-24MAR2012

GPS Observation Log Sheet



Project Name: <u>IN STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>03/25/2012</u>
Station Name: <u>QC172</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 25' 57.03" N</u>	Julian Day: <u>085</u>	Session No. <u>—</u>
Longitude: <u>84° 52' 43.88" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>746.11</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW ANGLE SIDEWALK</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC172-2-25MAR2012



QC172-3SW-25MAR2012

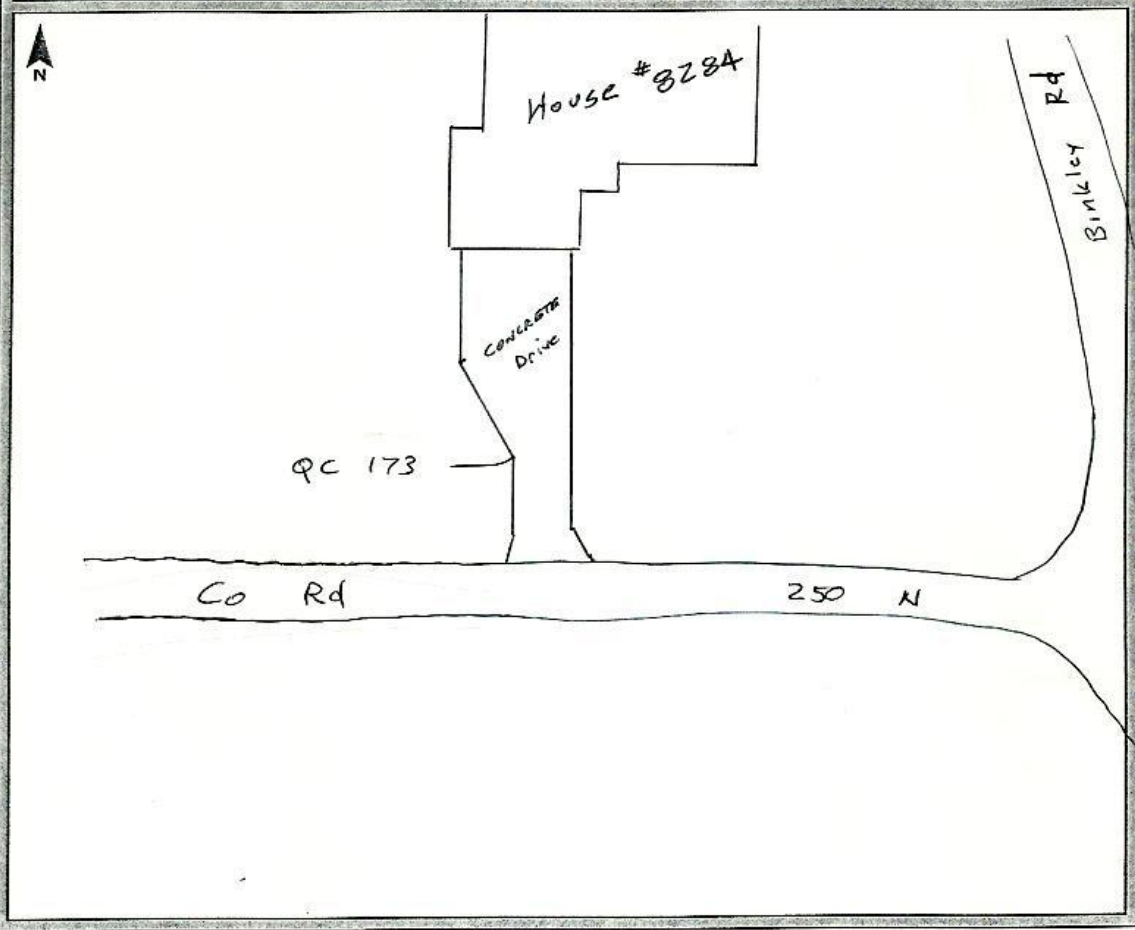


QC172-3E-25MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24 MAR 12
Station Name: QC 173 Operator Name: STEPHEN SCHONEGG
Latitude: 41-12-00.97 Julian Day: 084 Session No. _____
Longitude: 085-38-52.21 Start Time: 10:38 End Time: 10:43
Ellip. Height: .846.82 Data File Name: INDST24MAR12SS
Type of Mark: CORNER CONCRETE DR Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 60°, MISTY Antenna Height: 6.562 FT to bottom of antenna mount





QC 173-2-24MAR2012



QC 173-3N-24MAR2012

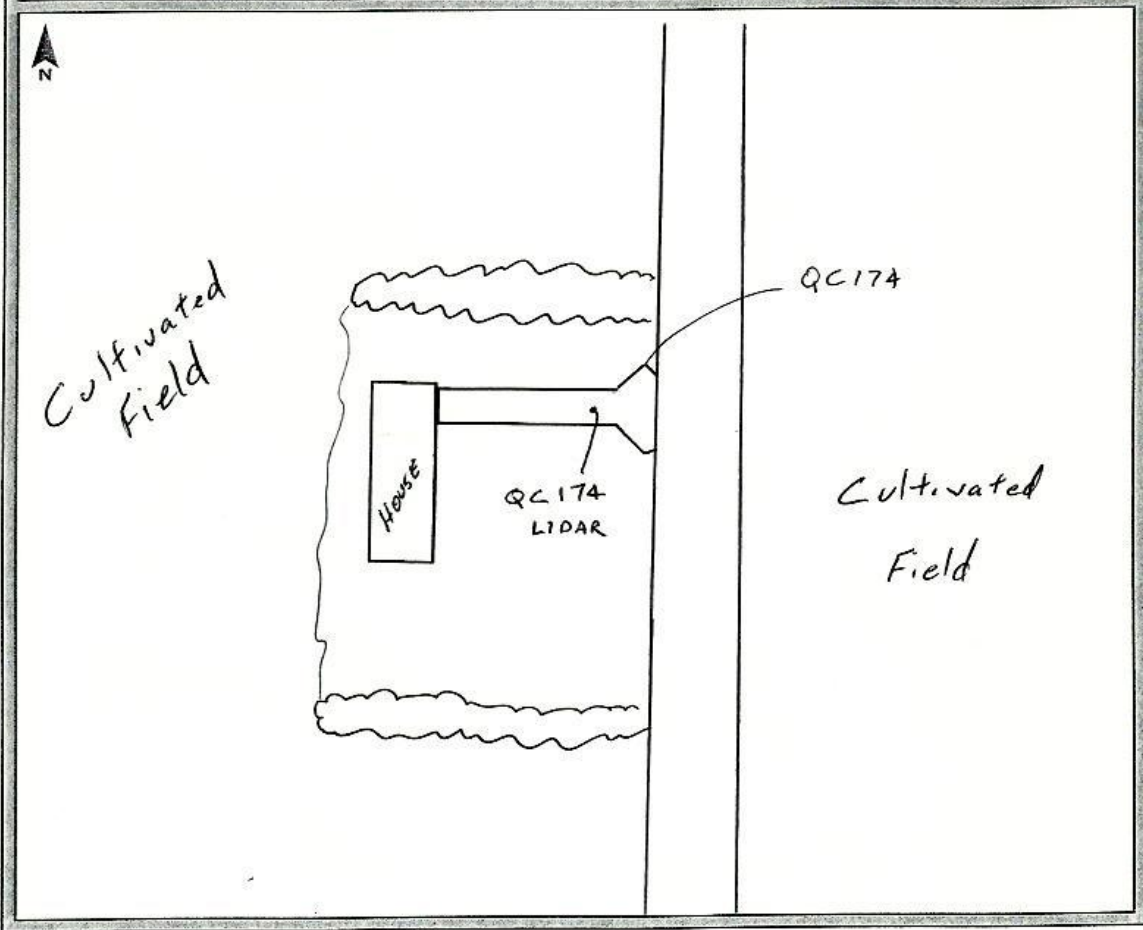


QC 173-3E-24MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: QC 174 - LIDAR Operator Name: STEPHEN SCHONEGG
Latitude: 41-04-14.30 Julian Day: 083 Session No. _____
Longitude: 085-30-31.70 Start Time: 11:54 End Time: 11:59
Ellip. Height: .736.28 FT Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Center Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 68°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





QC 174 LIDAR-2-23MAR2012



QC 174_LIDAR-3W-23MAR2012

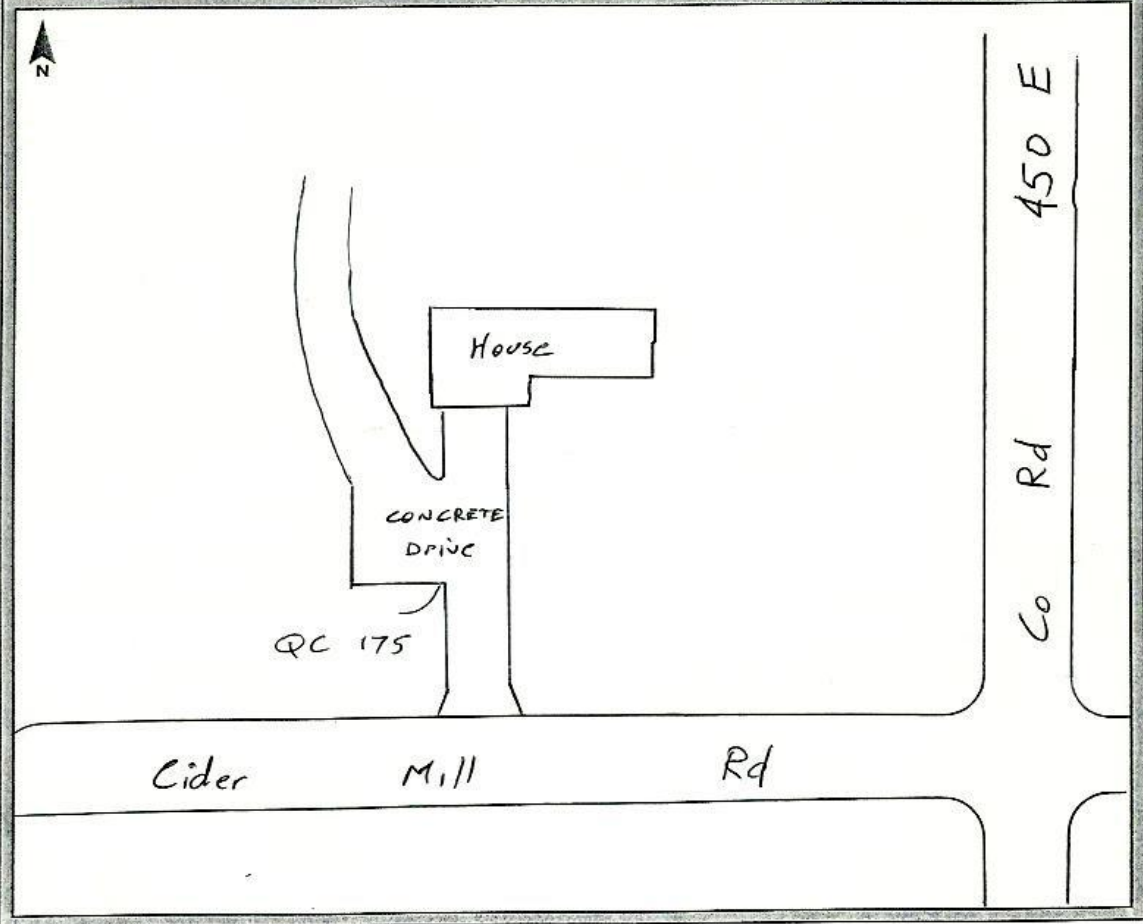


QC 174 LIDAR-3N-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: QC 175 Operator Name: STEPHEN SCHNEGG
Latitude: 41-10-52.82 Julian Day: 083 Session No. _____
Longitude: 085-24-22.40 Start Time: 1:22 End Time: 1:27
Ellip. Height: .761.68 Data File Name: IND05T23MAR12SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





QC 175-2-23MAR2012



QC 175-3N-23MAR2012

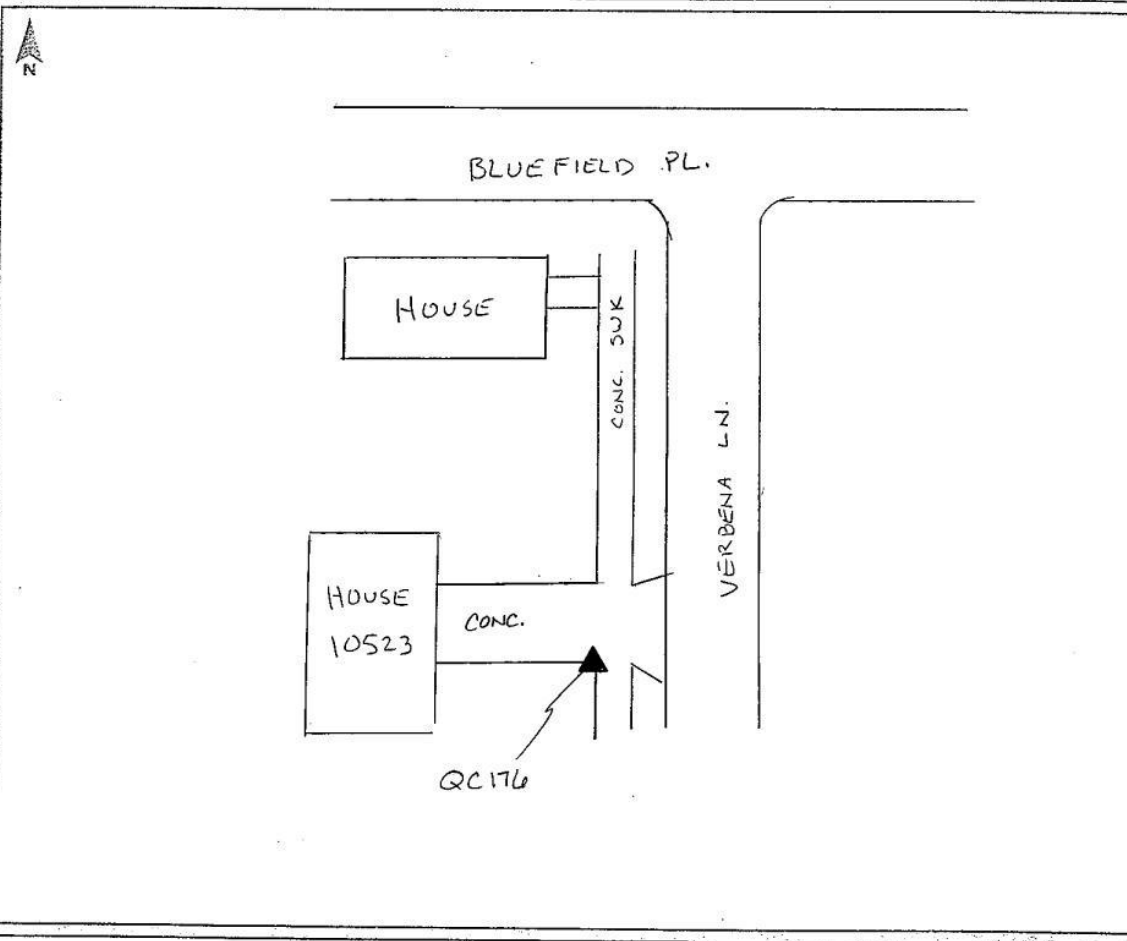


QC 175-3E-23MAR2012

GPS Observation Log Sheet

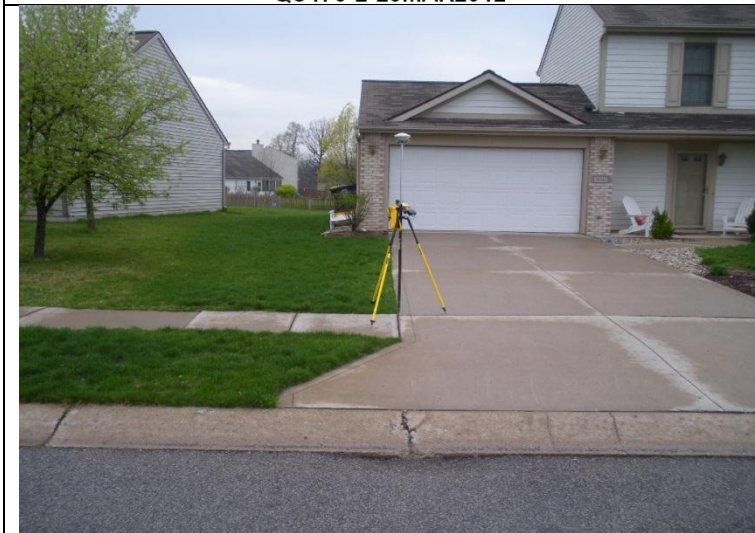


Project Name: <u>IN STATE-WIDE</u>	Project Number: <u>72134</u> Survey Date: <u>03/23/2012</u>
Station Name: <u>QC 176</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>41° 10' 44.71" N</u>	Julian Day: <u>083</u> Session No. <u>—</u>
Longitude: <u>85° 11' 15.94" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>781.14 sft</u>	Data File Name: <u>—</u>
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8-2</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8-2</u>
Weather Condition: <u>70° RAIN</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





QC176-2-23MAR2012



QC176-3W-23MAR2012

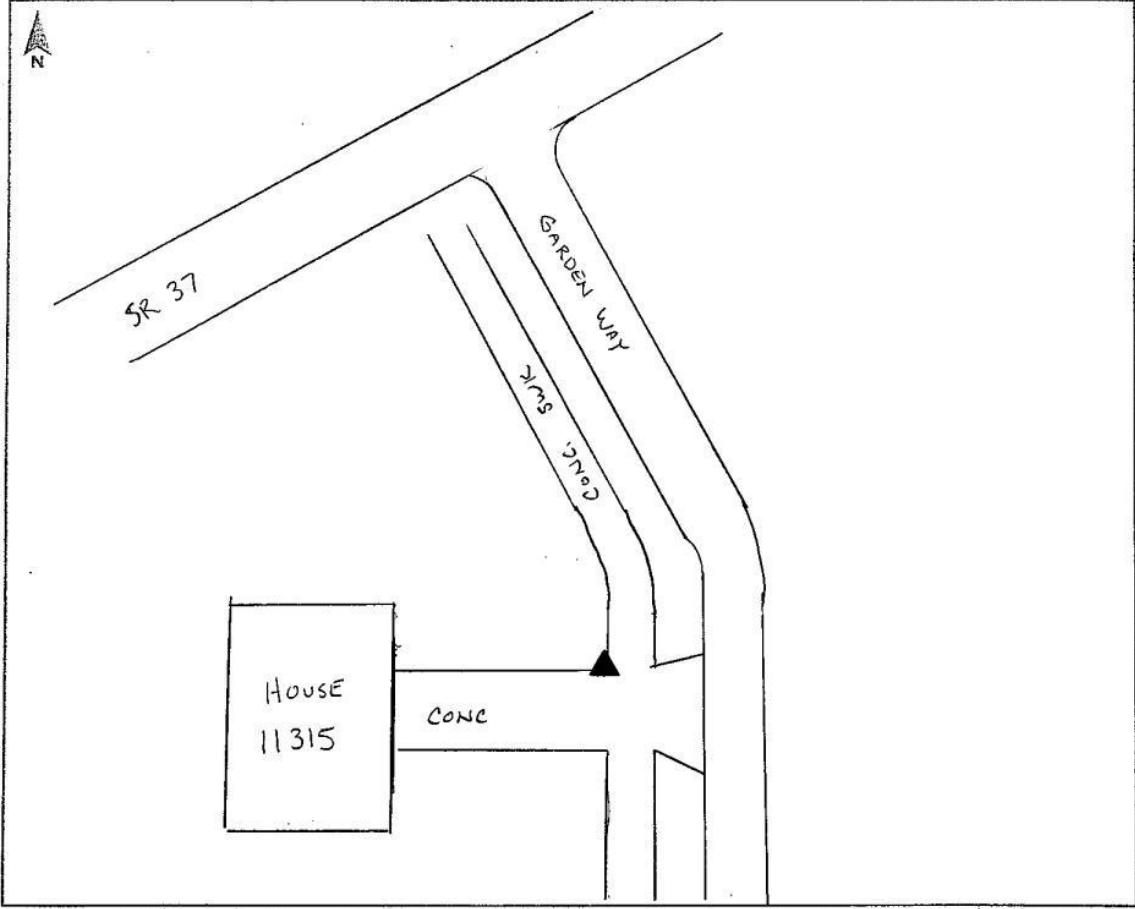


QC176-3N-23MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/22/2012</u>
Station Name: <u>QC 177</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>41° 11' 23.95" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>84° 55' 44.53" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>670.86 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC177-2-22MAR2012



QC177-3W-22MAR2012

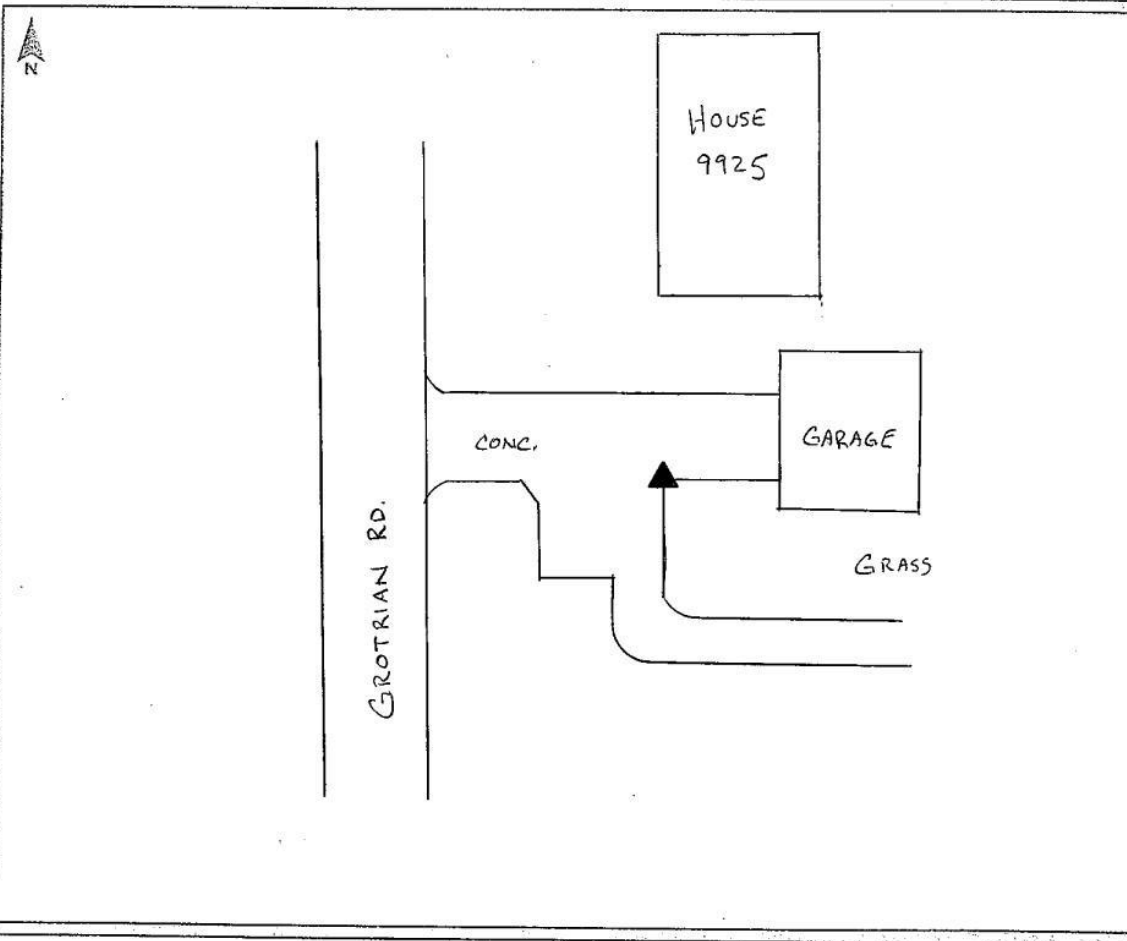


QC177-3N-22MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/21/2012</u>
Station Name: <u>QC 17.8</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 59' 50.36" N</u>	Julian Day: <u>081</u>	Session No. <u>—</u>
Longitude: <u>84° 55' 15.43" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>682.21 JFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC178-2-21MAR2012



QC178-3N-21MAR2012

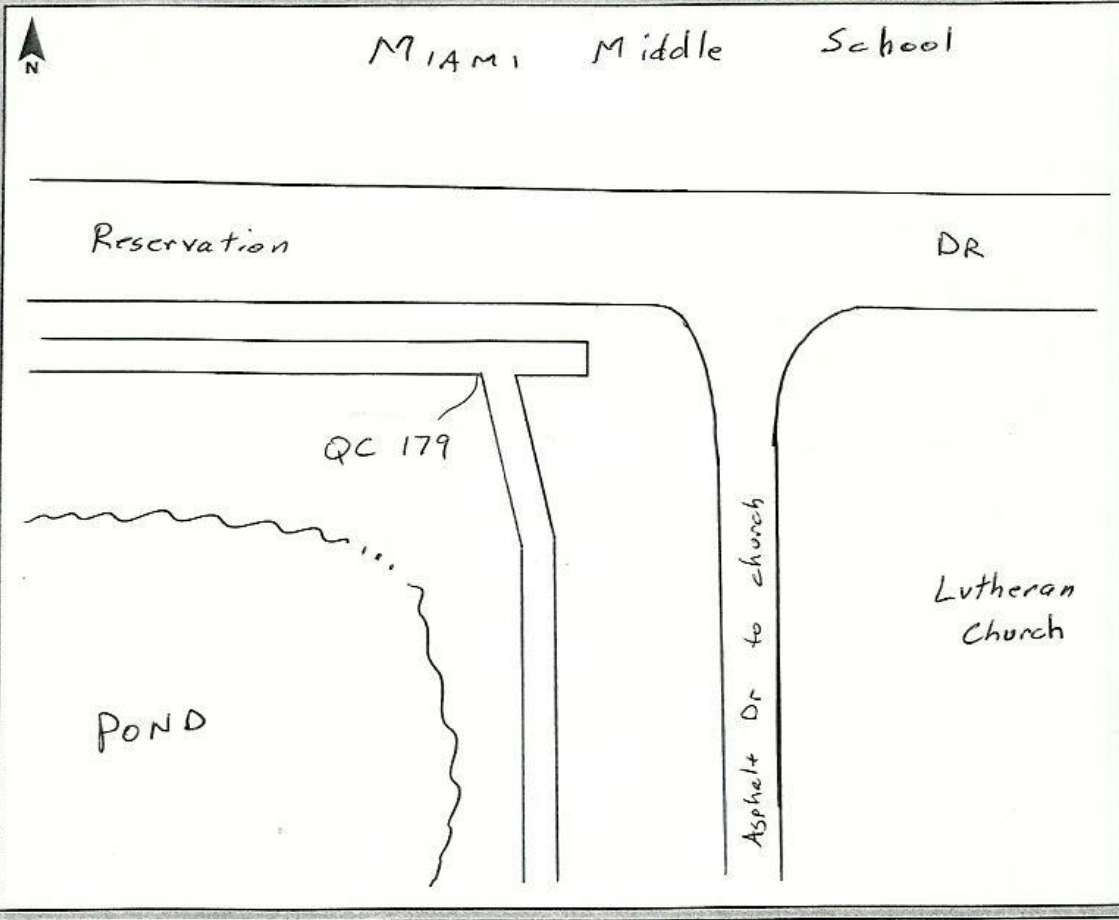


QC178-3E-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 22 MAR 12
 Station Name: QC 179 Operator Name: Stephen Schonegg
 Latitude: 41-00-33.33 Julian Day: 082 Session No. _____
 Longitude: 085-09-47.83 Start Time: 3:01 End Time: 3:05
 Ellip. Height: 686.93 FT Data File Name: INDST22MAR12 SS
 Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: Sunny, 82°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





QC 179-2-22MAR2012



QC 179-3N-22MAR2012

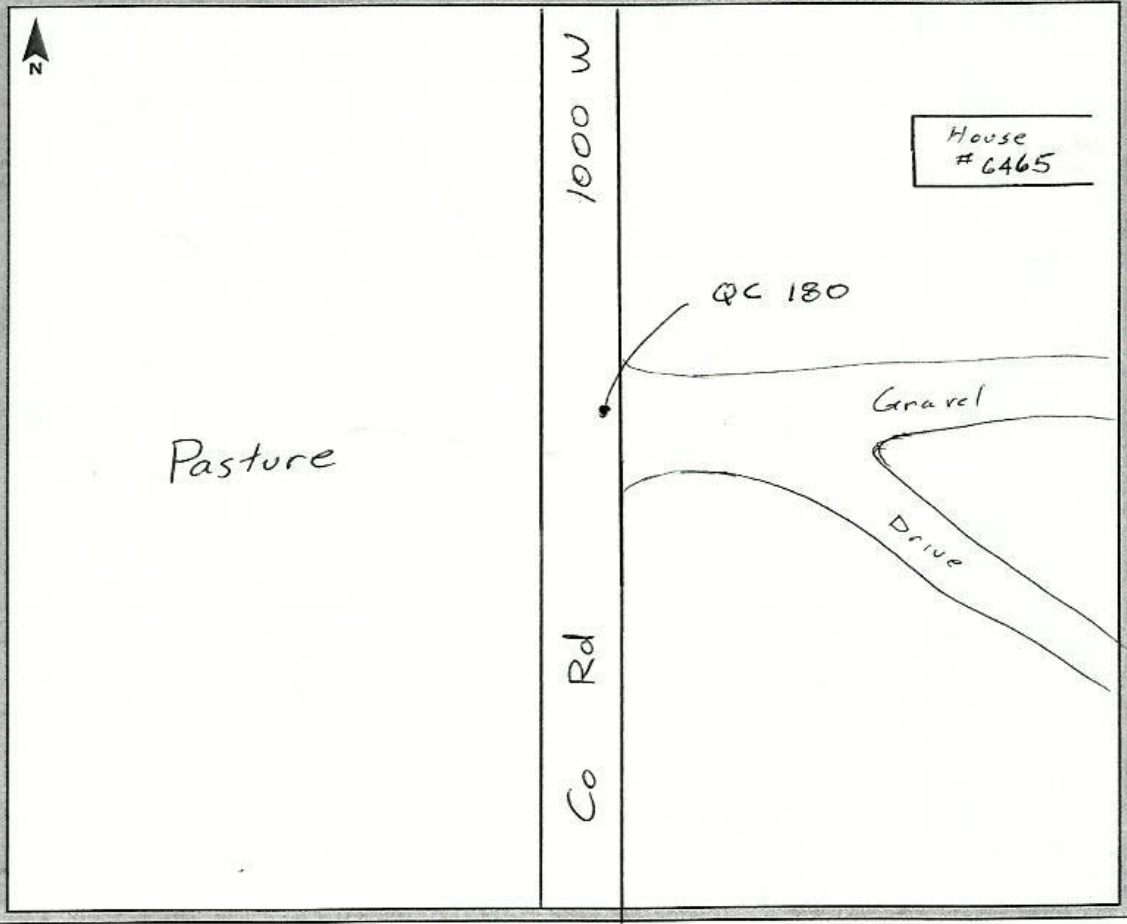


QC 179-3E-22MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>26 MAR 12</u>
Station Name: <u>QC 180</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-43-59.36</u>	Julian Day: <u>086</u>	Session No. _____
Longitude: <u>085-37-16.06</u>	Start Time: <u>3:00</u>	End Time: <u>3:04</u>
Ellip. Height: <u>737.39 FT</u>	Data File Name: <u>INDST26MAR12.SS</u>	
Type of Mark: <u>Center of Lane</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 50°, Windy</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 180-2-26MAR2012



QC 180-3E-26MAR2012

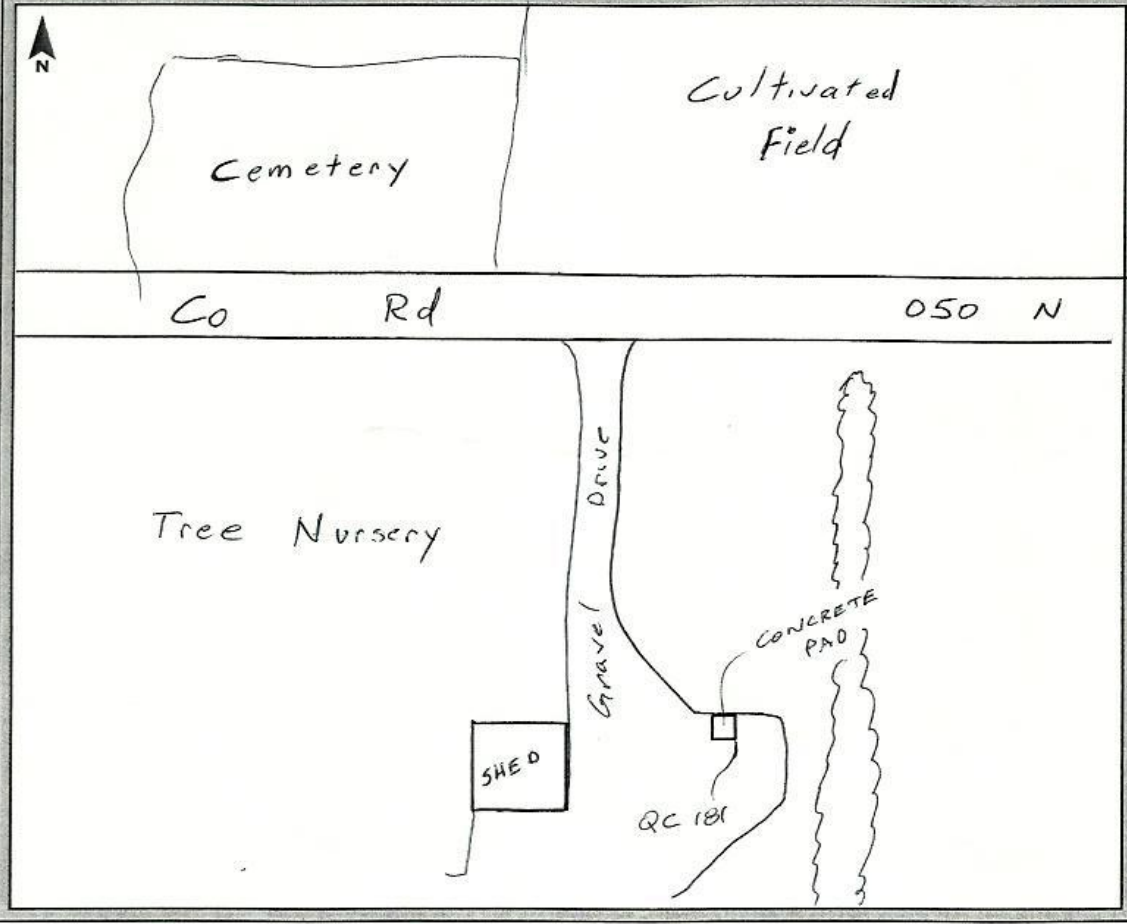


QC 180-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>26 MAR 12</u>
Station Name: <u>QC 181</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-38-47.13</u>	Julian Day: <u>086</u>	Session No. _____
Longitude: <u>085-37-24.38</u>	Start Time: <u>4:00</u>	End Time: <u>4:05</u>
Ellip. Height: <u>.790.28</u>	Data File Name: <u>INDST26MAR12.SS</u>	
Type of Mark: <u>Corner Concrete Pad</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 50°, WINDY</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 181-2-26MAR2012



QC 181-3N-MAR2012

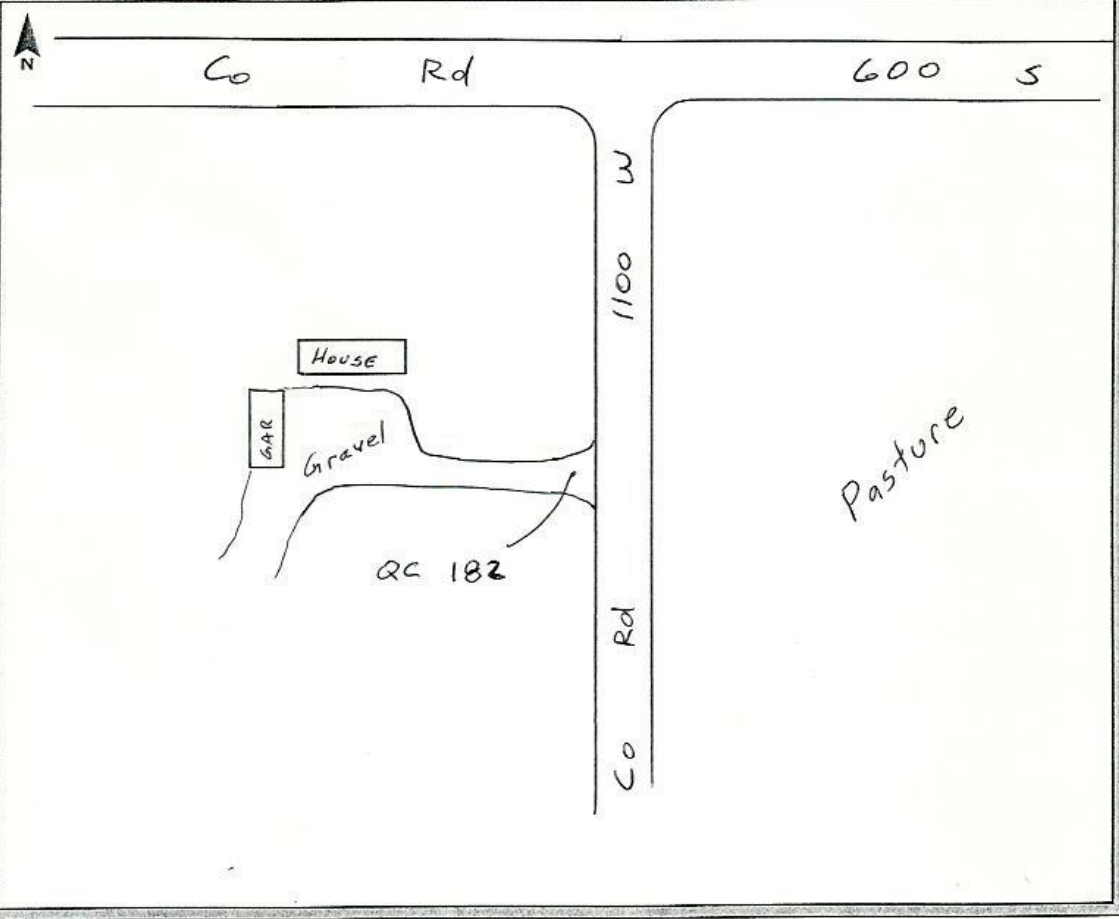


QC 181-3E-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 25 MAR 12
Station Name: QC 182 Operator Name: STEPHEN SCHONEGG
Latitude: 41-33-05.35 Julian Day: 085 Session No. _____
Longitude: 085-38-09.47 Start Time: 11:18 End Time: 11:23
Ellip. Height: .797.34 FT Data File Name: IND05T25MAR12 SS
Type of Mark: Center Gravel Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 FT to bottom of antenna mount





QC 182-2-25MAR2012



QC 182-3W-25MAR2012

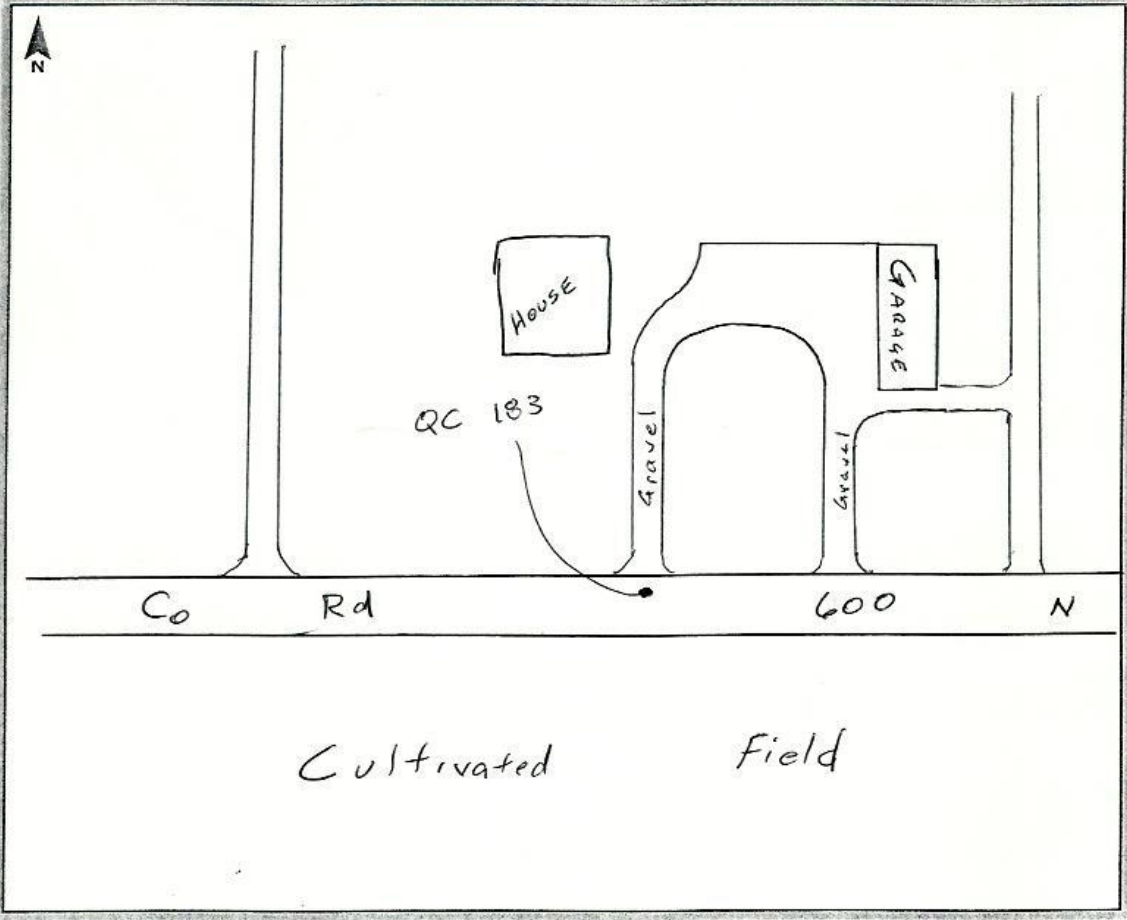


QC 182-3N-25MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 25 MAR 12
Station Name: QC 183 Operator Name: STEPHEN SCHONEGG
Latitude: 41-43-37.63 Julian Day: 085 Session No. _____
Longitude: 085-32-25.03 Start Time: 2:32 End Time: 2:37
Ellip. Height: . 733.31 FT Data File Name: IND05T25MAR12.SS
Type of Mark: Center of Lane Type of Receiver: RB-2 # 9357
Stamping on Mark: Mag Nail Type of Antenna: _____
Weather Condition: Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount

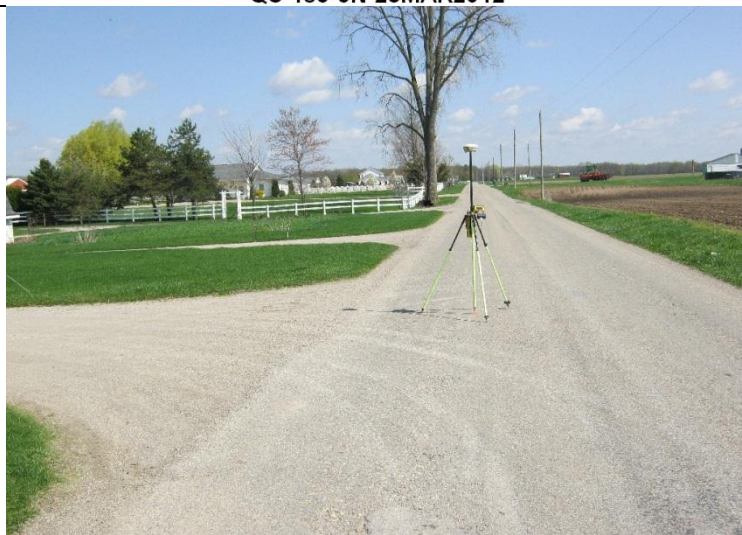




QC 183-2-25MAR2012



QC 183-3N-25MAR2012

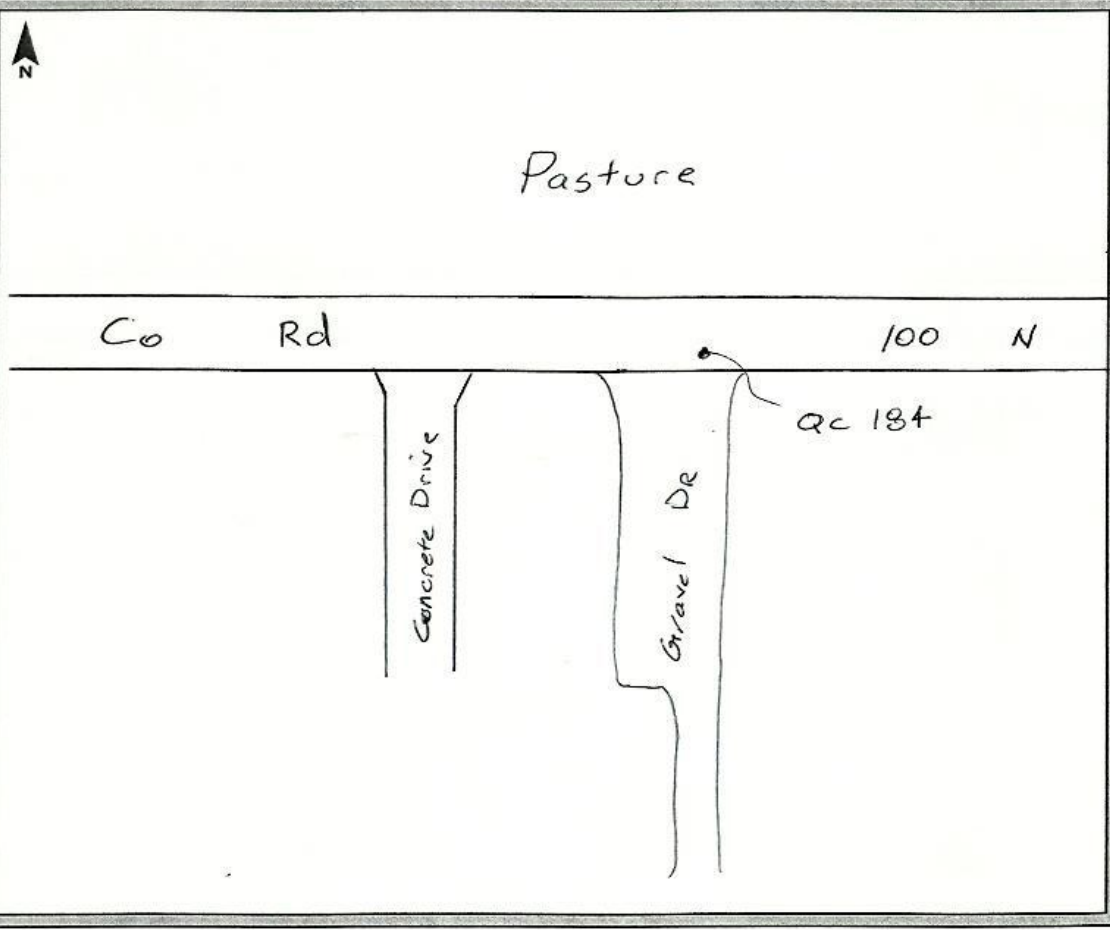


QC 183-3E-25MAR2012

GPS Observation Log Sheet



Project Name:	<u>INDIANA STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>26 MAR 12</u>
Station Name:	<u>QC 184</u>	Operator Name:	<u>STEPHEN SCHONEH4</u>		
Latitude:	<u>41-39-17.65</u>	Julian Day:	<u>086</u>	Session No.:	<u> </u>
Longitude:	<u>085-32-21.38</u>	Start Time:	<u>4:34</u>	End Time:	<u>4:39</u>
Ellip. Height:	<u>. 809.96</u>	Data File Name:	<u>INDST26MAR12SS</u>		
Type of Mark:	<u>Center of Lane</u>	Type of Receiver:	<u>RB-Z # 9357</u>		
Stamping on Mark:	<u>Mag Nail</u>	Type of Antenna:	<u> </u>		
Weather Condition:	<u>Sunny, 50°, WINDY</u>	Antenna Height:	<u>6.562 FT</u>	to bottom of antenna mount	





QC 184-2-26MAR2012



QC 184-3N-26MAR2012

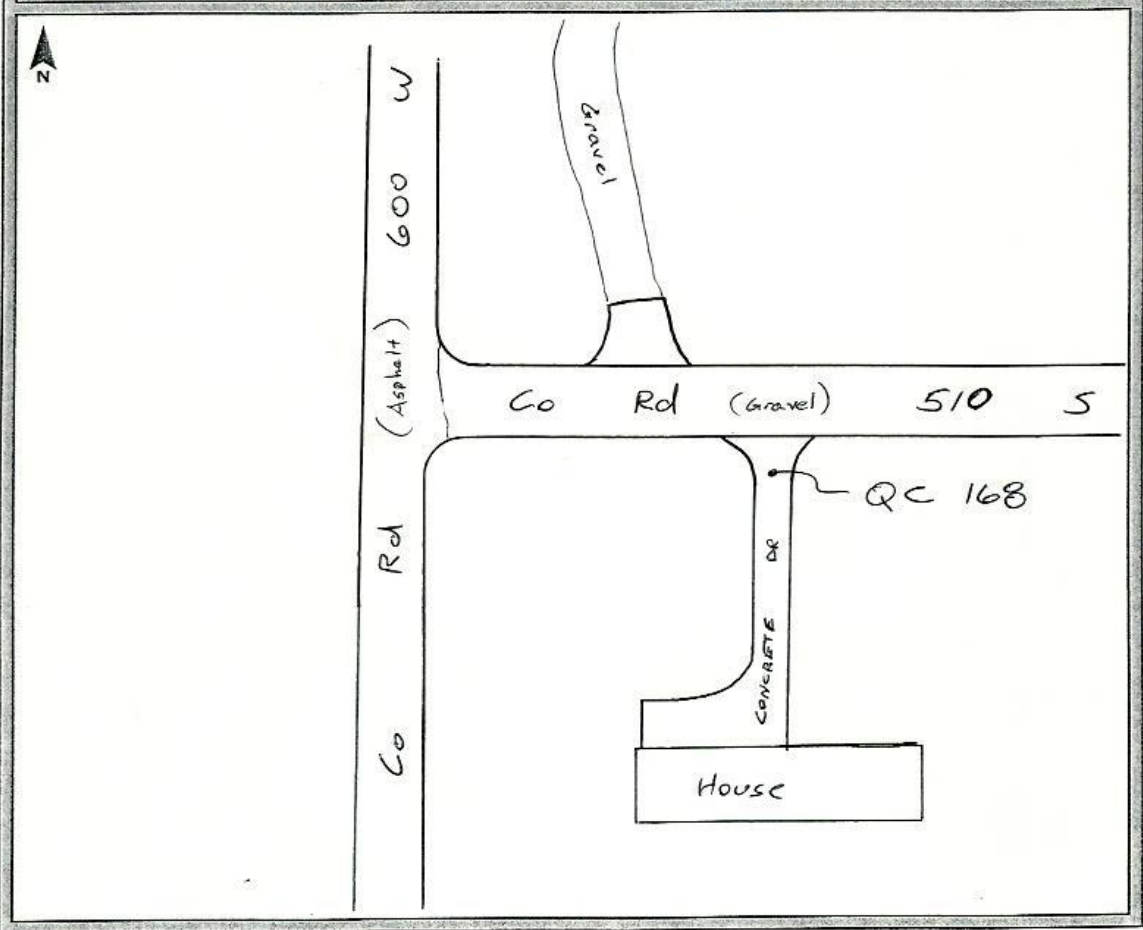


QC 184-3E-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>25 MAR 12</u>
Station Name: <u>QC 185</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-34-01.20</u>	Julian Day: <u>085</u>	Session No. _____
Longitude: <u>085-32-22.28</u>	Start Time: <u>11:41</u>	End Time: <u>11:46</u>
Ellip. Height: <u>.809.14 FT</u>	Data File Name: <u>IND05T25MAR12SS</u>	
Type of Mark: <u>Center Concrete DR</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 60°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 185-2-25MAR2012



QC 185-3W-25MAR2012

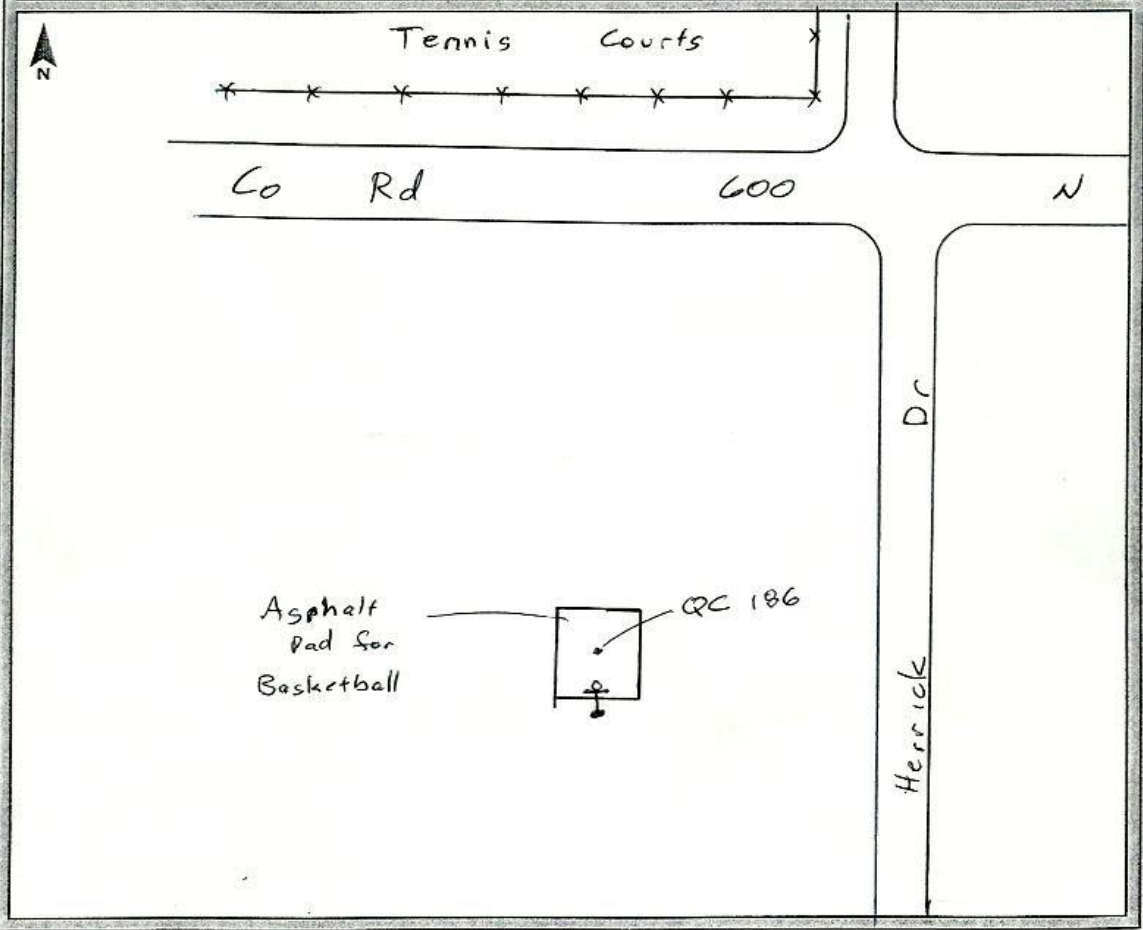


QC 185-3N-25MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>25 MAR 12</u>
Station Name: <u>QC 186</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-34-41.42</u>	Julian Day: <u>085</u>	Session No. _____
Longitude: <u>085-25-29.07</u>	Start Time: <u>1:02</u>	End Time: <u>1:06</u>
Ellip. Height: <u>. 771.56 FT</u>	Data File Name: <u>IN05T25MAR12 SS</u>	
Type of Mark: <u>Center Asphalt Pad</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: <u>MAG NAIL</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 60°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 186-2-25MAR2012



QC 186-3W-25MAR2012

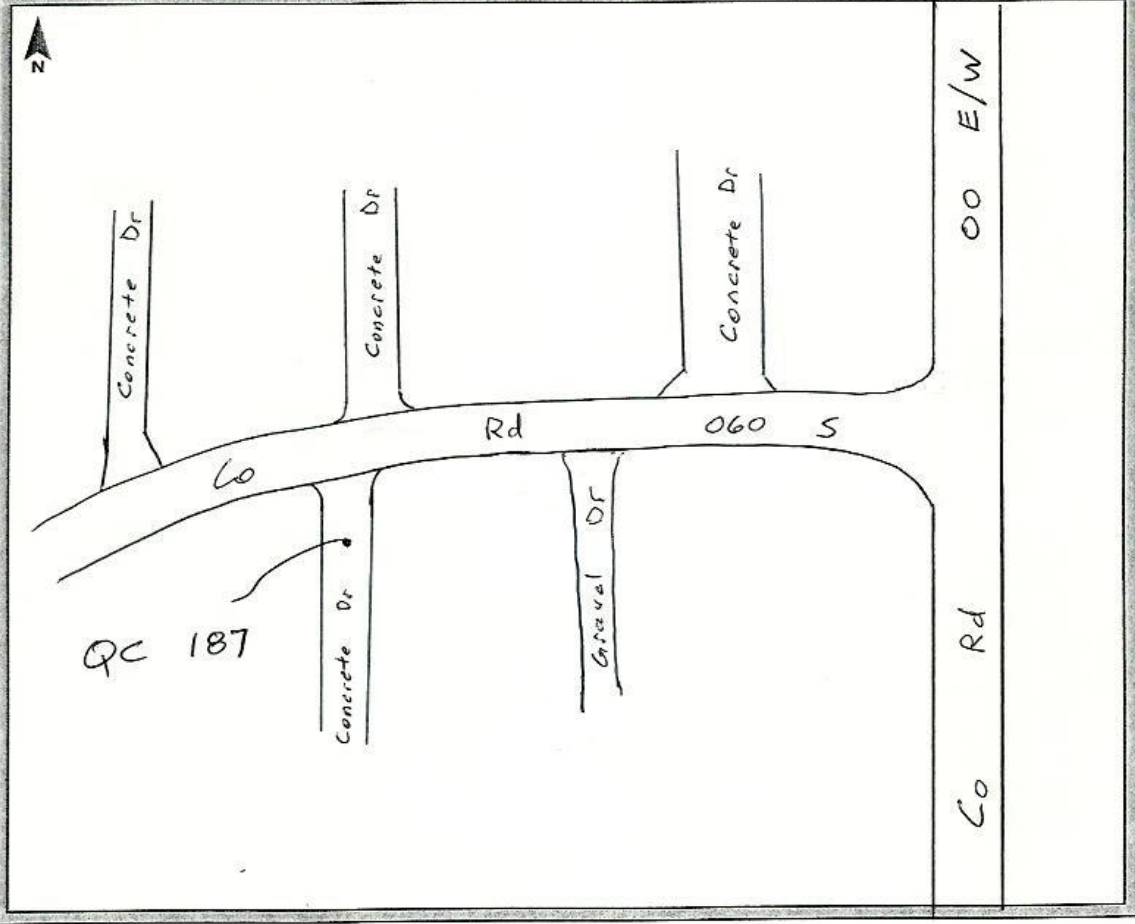


QC 186-3N-25MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>25 MAR 12</u>
Station Name: <u>QC 187</u>	Operator Name: <u>STEPHEN SCHONEGG</u>
Latitude: <u>41-37-56.64</u>	Julian Day: <u>085</u> Session No. _____
Longitude: <u>085-25-31.37</u>	Start Time: <u>12:13</u> End Time: <u>12:19</u>
Ellip. Height: <u>.860.69 F1</u>	Data File Name: <u>IND ST 25 MAR 12 SS</u>
Type of Mark: <u>Center Concrete Dr</u>	Type of Receiver: <u>R8-2 # 9357</u>
Stamping on Mark: _____	Type of Antenna: _____
Weather Condition: <u>Sunny, 60°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





QC 187-2-25MAR2012



QC 187-3N-25MAR2012

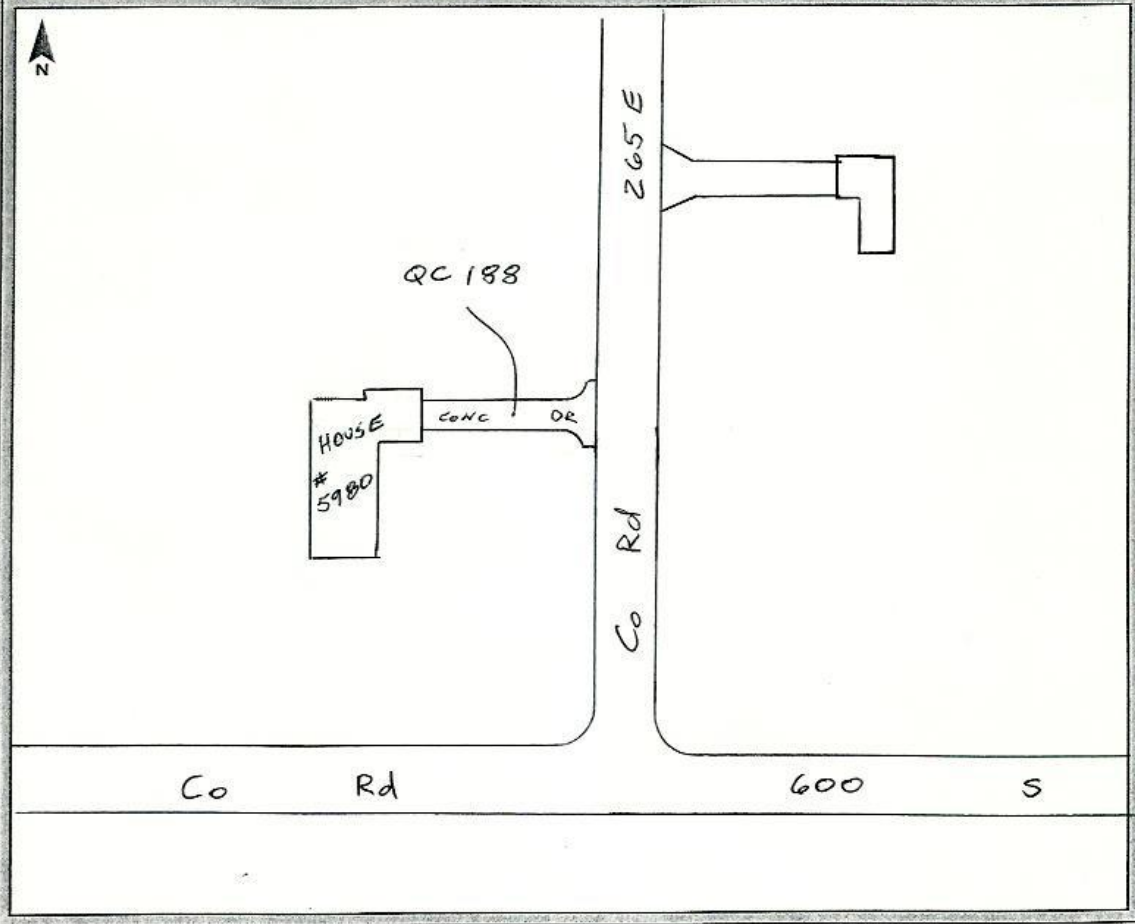


QC 187-3E-25MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 24 MAR 12
 Station Name: QC 188 Operator Name: STEPHEN SCHNEGG
 Latitude: 41-33-19.75 Julian Day: 084 Session No. _____
 Longitude: 085-22-25.88 Start Time: 3:33 End Time: 3:38
 Ellip. Height: .821.68 Data File Name: IN05T24MAR12.SS
 Type of Mark: Center Concrete Dr Type of Receiver: R8-2 # 9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: cloudy, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 188-2-24MAR2012



QC 188-3W-24MAR2012

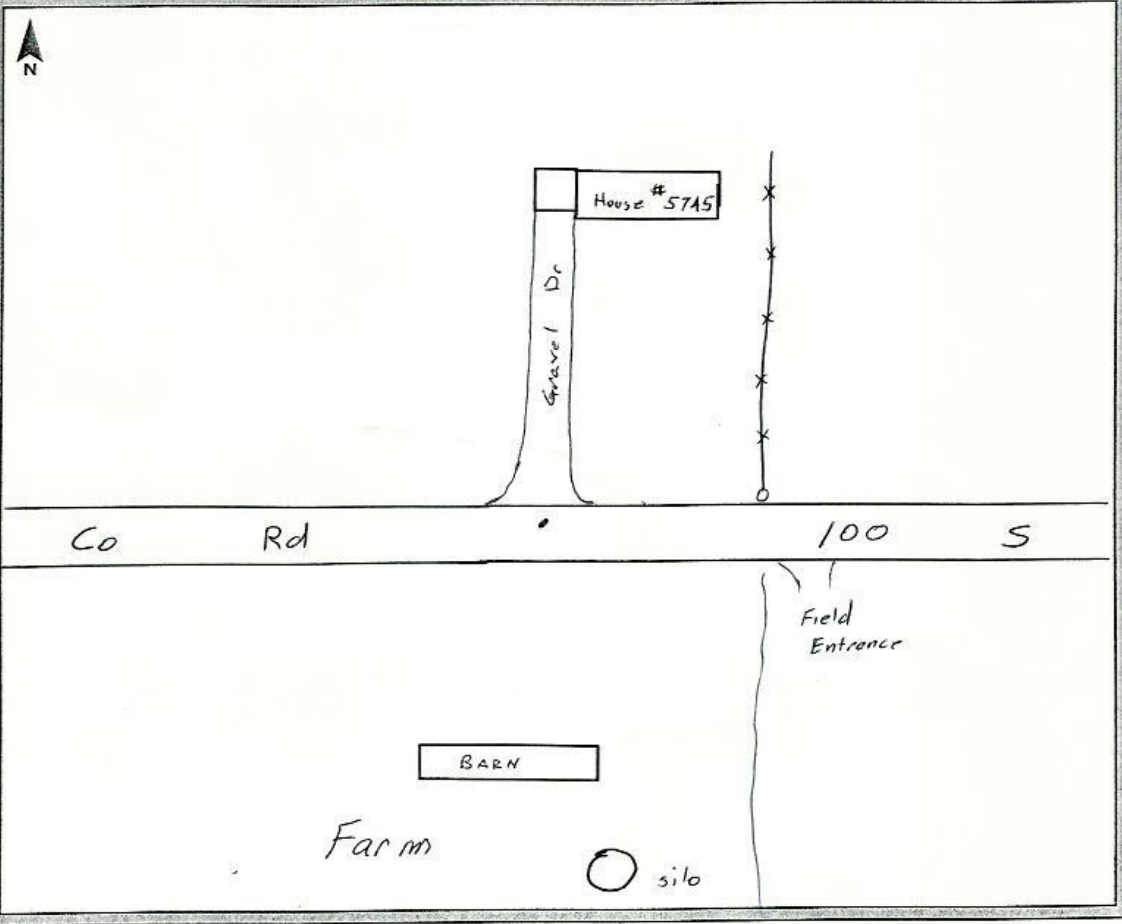


QC 188-3N-24MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>26MAR12</u>
Station Name: <u>QC 189</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-37-38.86</u>	Julian Day: <u>086</u>	Session No. _____
Longitude: <u>085-18-52.87</u>	Start Time: <u>10:28</u>	End Time: <u>10:33</u>
Ellip. Height: <u>.858.89</u>	Data File Name: <u>INDST26MAR12.SS</u>	
Type of Mark: <u>Center of Lane</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 40°, WIND</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 189-2-26MAR2012



QC 189-3W-26MAR2012

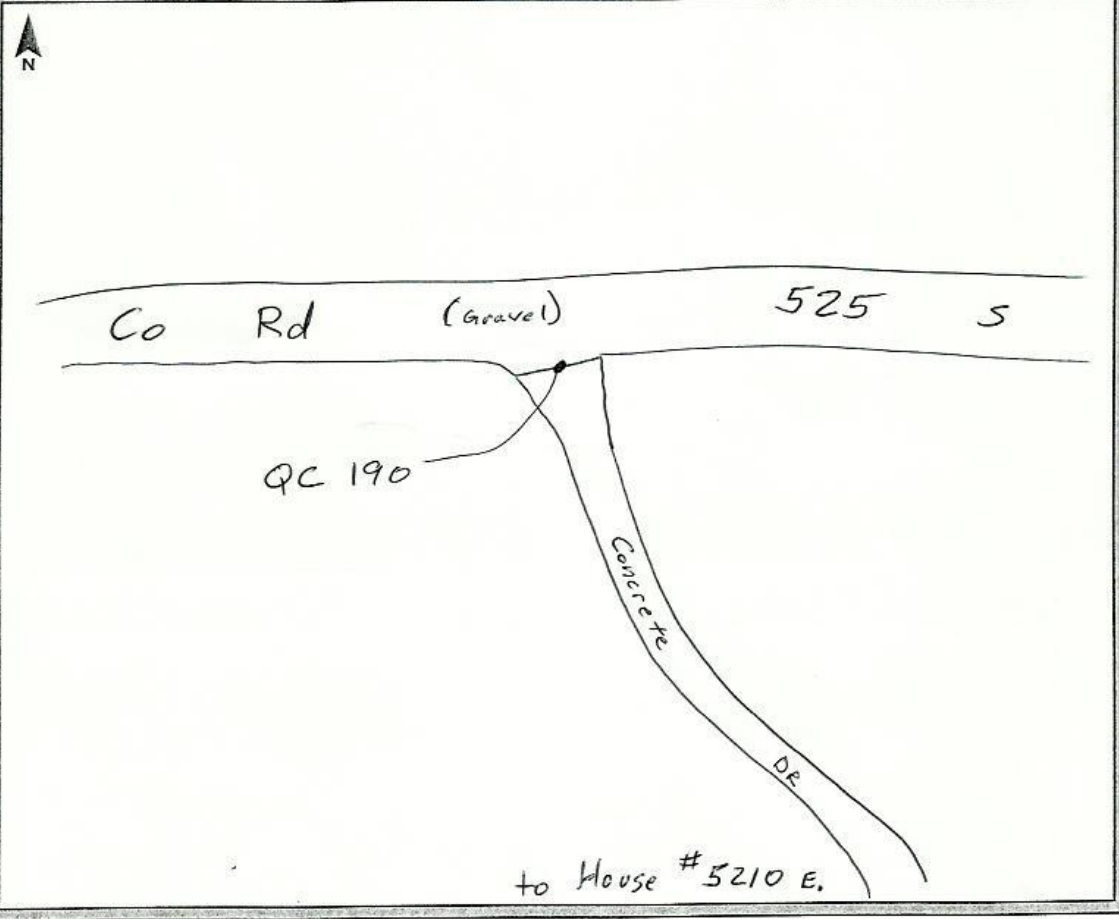


QC 189-3N-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: QC 190 Operator Name: STEPHEN SCHONEGG
Latitude: 41-33-58.01 Julian Day: 086 Session No. _____
Longitude: 085-19-27.01 Start Time: 8:36 End Time: 8:41
Ellip. Height: .861.69 FT Data File Name: IND ST 26 MAR 12 SS
Type of Mark: Edge of Concrete Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: PT Cloudy, 30° WIND Antenna Height: 6.562 FT to bottom of antenna mount





QC 190-2-26MAR2012



QC 190-3N-26MAR2012

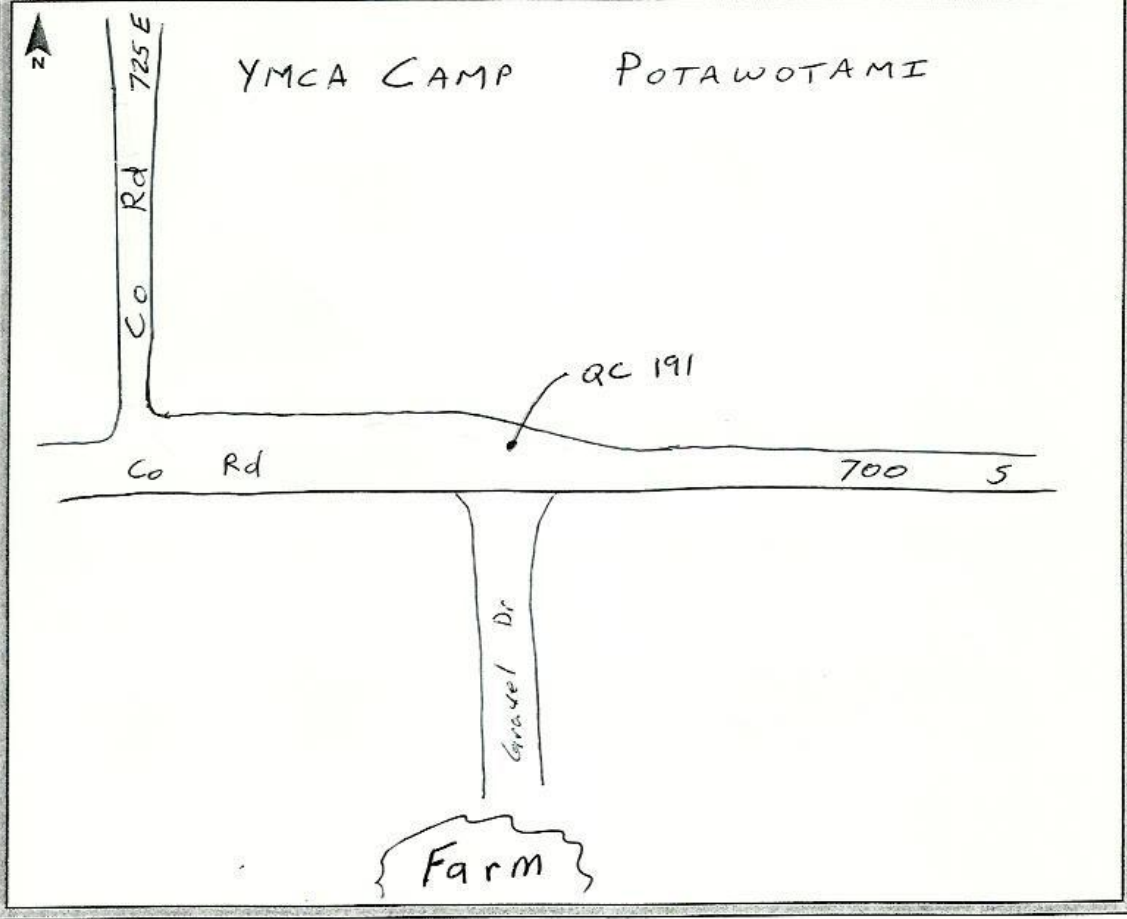


QC 190-3E-26MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: QC 191 Operator Name: STEPHEN SCHONEGG
Latitude: 41-32-27.45 Julian Day: 086 Session No. _____
Longitude: 085-17-08.09 Start Time: 8:57 End Time: 9:03
Ellip. Height: .884.98 Data File Name: IND ST 26 MAR 12 SS
Type of Mark: Pavement Type of Receiver: R8-2 # 9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: PT Sunny, 35° Antenna Height: 6.562 FT to bottom of antenna mount





QC 191-2-26MAR2012



QC 191-3W-26MAR2012

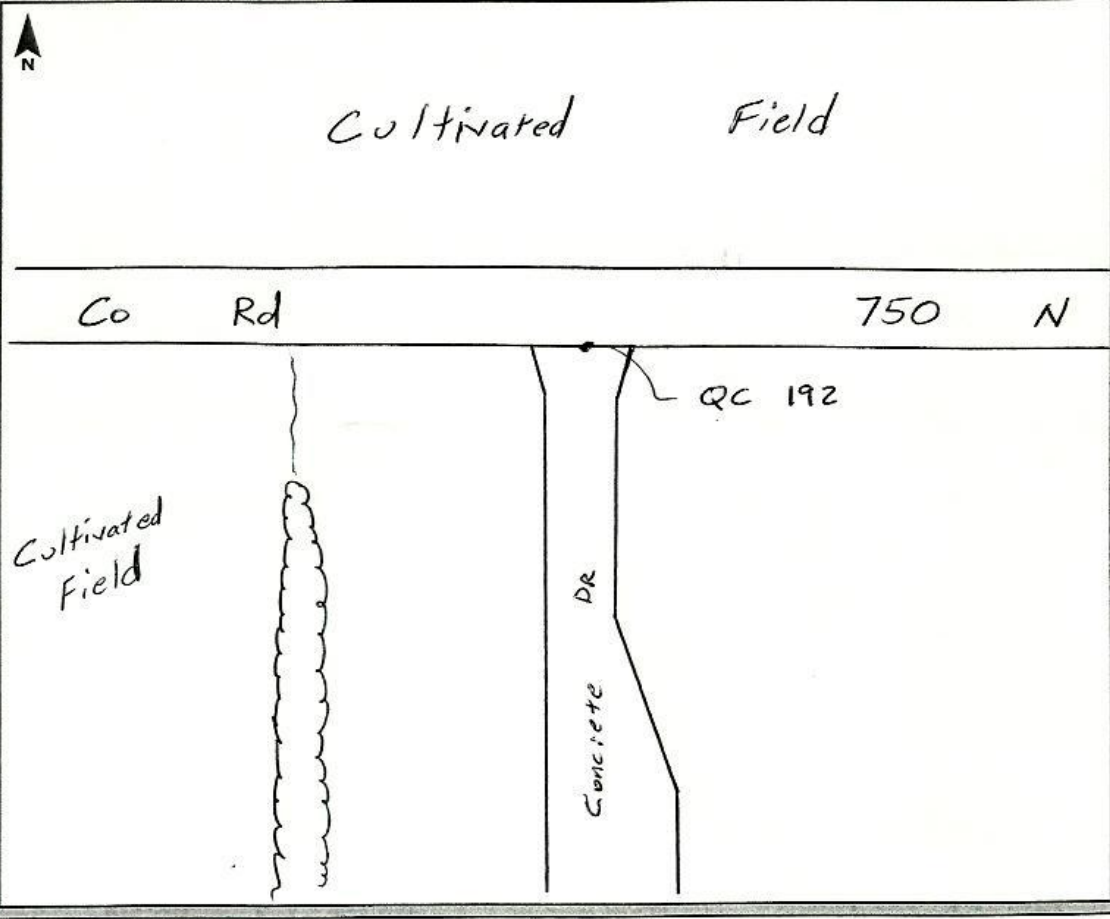


QC 191-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72131</u> Survey Date: <u>26 MAR 12</u>
Station Name: <u>QC 192</u>	Operator Name: <u>STEPHEN SCHONEGG</u>
Latitude: <u>41-45-03.07</u>	Julian Day: <u>086</u> Session No. _____
Longitude: <u>085-14-25.52</u>	Start Time: <u>12:54</u> End Time: <u>1:00</u>
Ellip. Height: <u>. 824.77 FT</u>	Data File Name: <u>INDST26MAR12.SS</u>
Type of Mark: <u>Edge of concrete</u>	Type of Receiver: <u>RB-2 #9357</u>
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____
Weather Condition: <u>Sunny, 50°, WINDY</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





QC 192-2-26MAR2012



QC 192-3N-26MAR2012

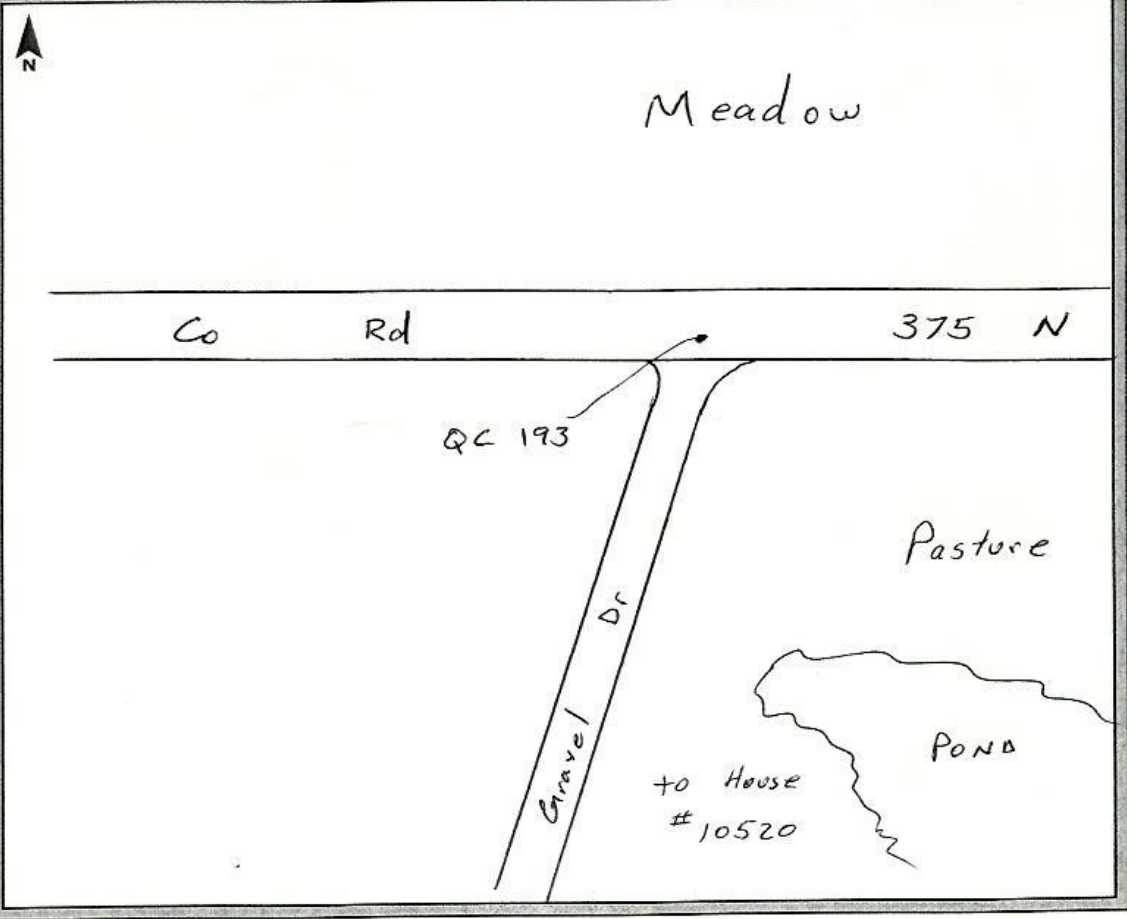


QC 192-3E-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>26 MAR 12</u>
Station Name: <u>QC 193</u>	Operator Name: <u>STEPHEN SCHONEGA</u>
Latitude: <u>41-41-47.01</u>	Julian Day: <u>086</u> Session No. _____
Longitude: <u>085-13-27.92</u>	Start Time: <u>11:51</u> End Time: <u>11:55</u>
Ellip. Height: <u>• 848.13 FT</u>	Data File Name: <u>INOST26MAR12.SS</u>
Type of Mark: <u>Center of Lane</u>	Type of Receiver: <u>RB-2 # 9357</u>
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____
Weather Condition: <u>Sunny, 45°, WINDY</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





QC 193-2-26MAR2012



QC 193-3W-26MAR2012

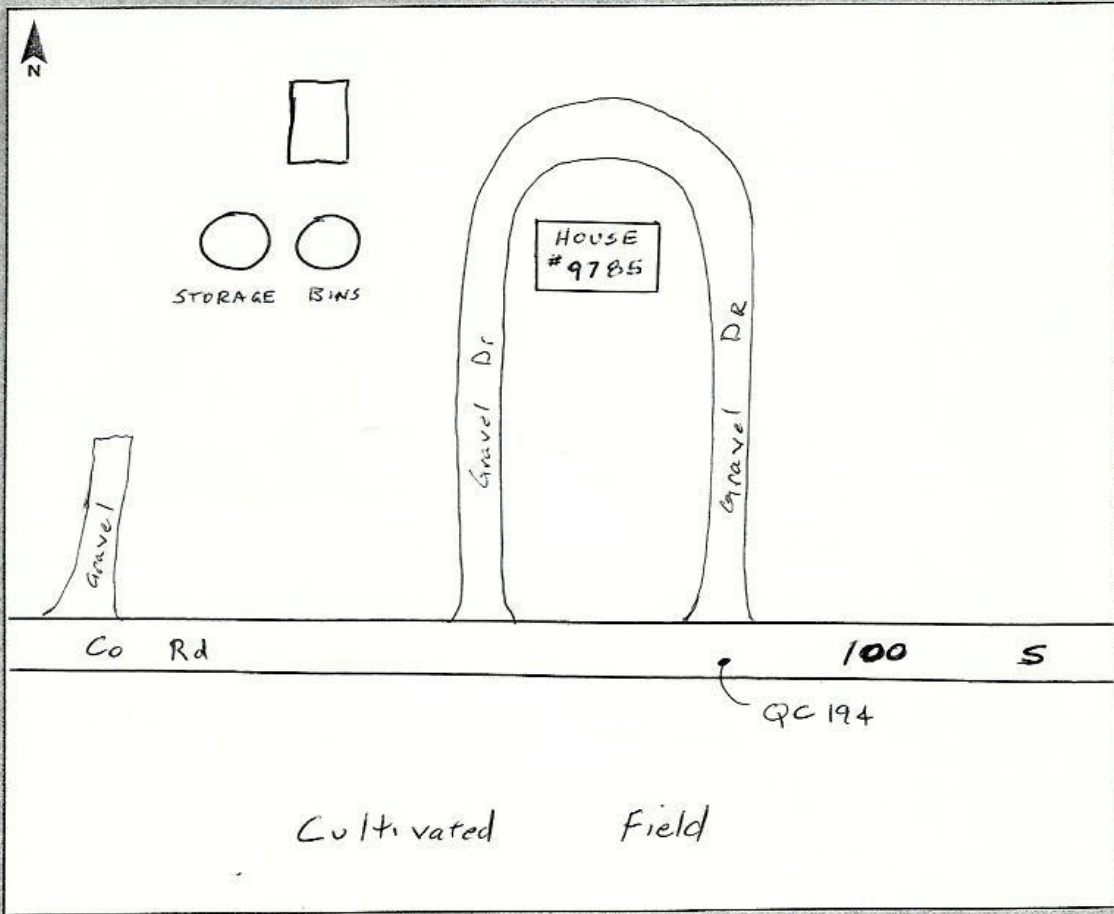


QC 193-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>26 MAR 12</u>
Station Name: <u>QC 194</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-37-38.32</u>	Julian Day: <u>086</u>	Session No. _____
Longitude: <u>085-14-15.18</u>	Start Time: <u>10:40</u>	End Time: <u>10:53</u>
Ellip. Height: <u>.833.05</u>	Data File Name: <u>IND05T26MAR12SS</u>	
Type of Mark: <u>Center of Lane</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 45°, windy</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 194-2-26MAR2012



QC 194-3W-26MAR2012

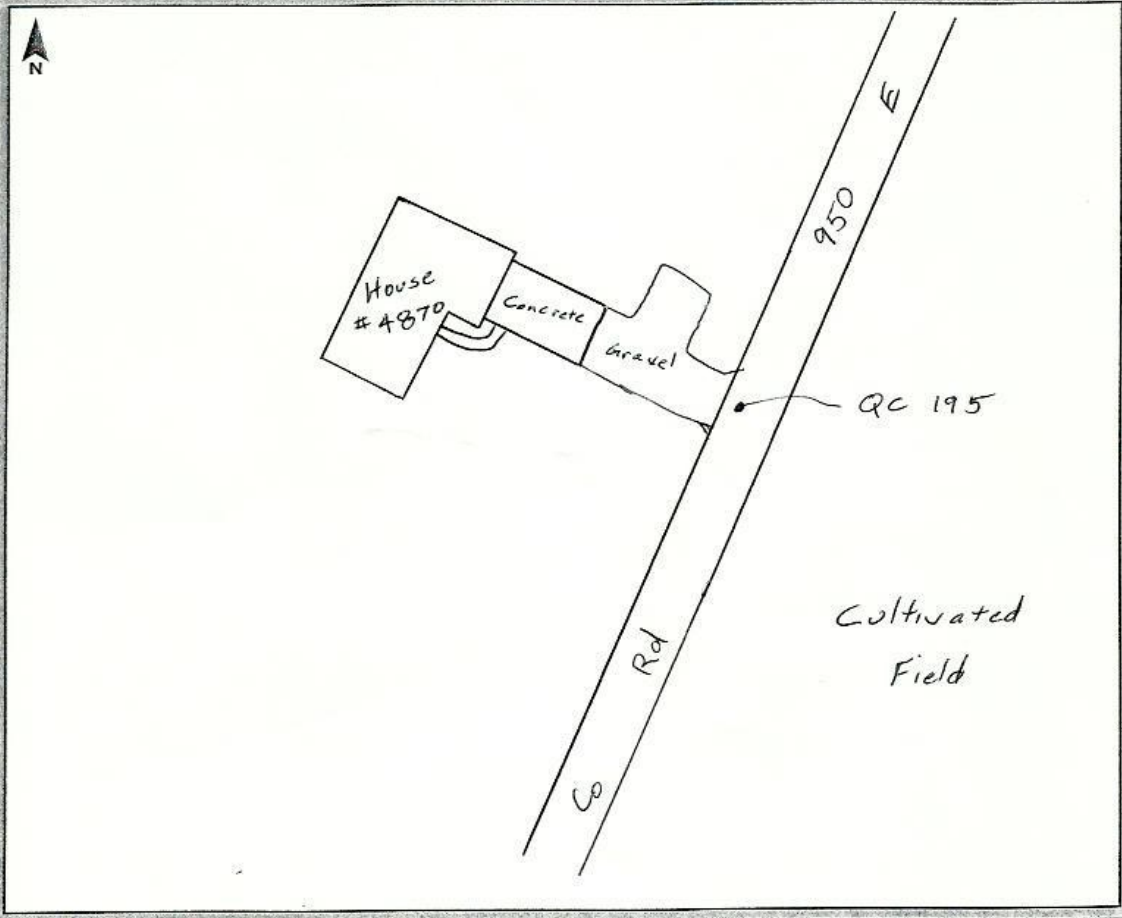


QC 194-3N-26MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 26 MAR 12
Station Name: QC 195 Operator Name: STEPHEN SCHONEGG
Latitude: 41-34-21.06 Julian Day: 086 Session No. _____
Longitude: 085-14-29.59 Start Time: 10:03 End Time: 10:08
Ellip. Height: .872.07 Data File Name: IND ST 26 MAR 12 SS
Type of Mark: Center of Lane Type of Receiver: RB-2 # 9357
Stamping on Mark: Mag Nail Type of Antenna: _____
Weather Condition: Sunny, 40°, wind Antenna Height: 6.562 FT to bottom of antenna mount





QC 195-2-26MAR2012



QC 195-3W-26MAR2012

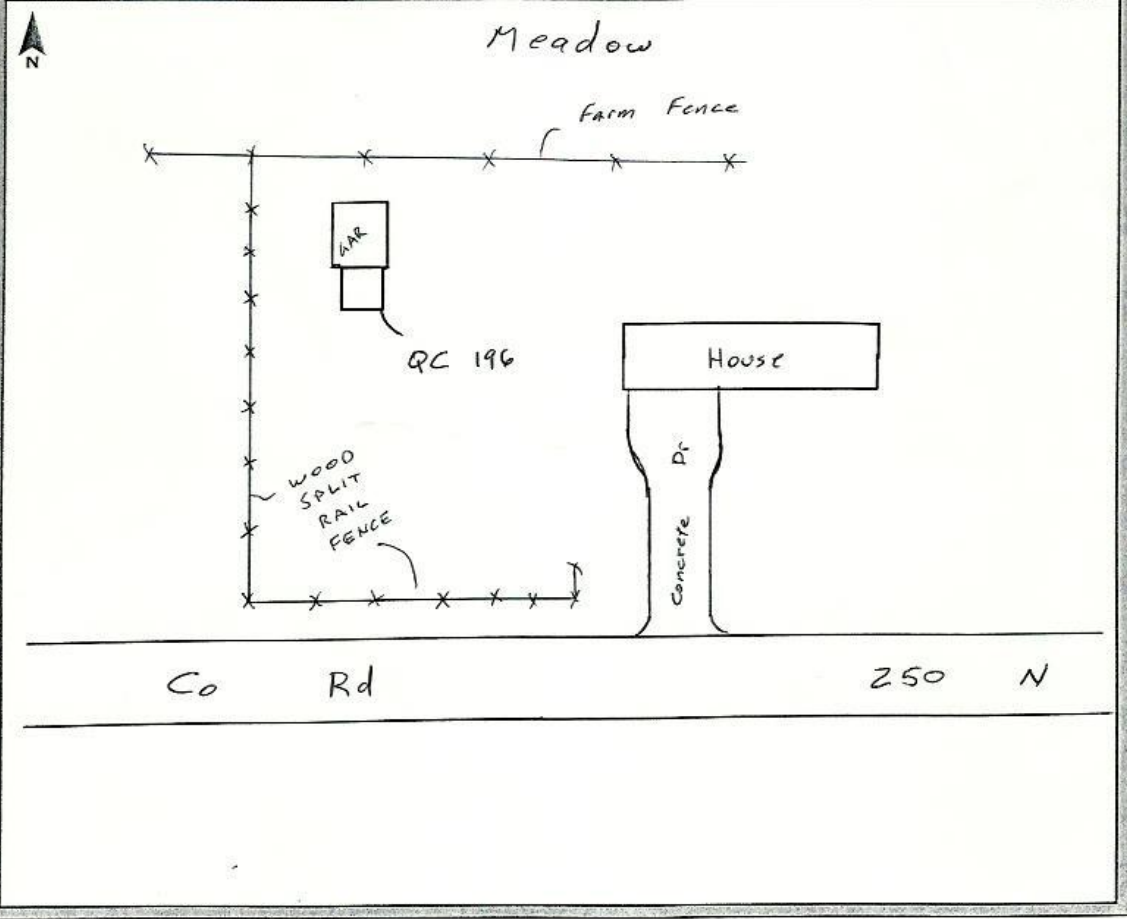


QC 195-3N-26MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>25MAR12</u>
Station Name: <u>QC 196</u>	Operator Name: <u>STEPHEN SCHONEGG</u>	
Latitude: <u>41-40-41.15</u>	Julian Day: <u>085</u>	Session No. _____
Longitude: <u>085-24-07.77</u>	Start Time: <u>12:35</u>	End Time: <u>12:40</u>
Ellip. Height: <u>.780.49 FT</u>	Data File Name: <u>IND ST 25 MAR 12 SS</u>	
Type of Mark: <u>Corner Concrete Pad</u>	Type of Receiver: <u>R8-2 # 9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 60°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





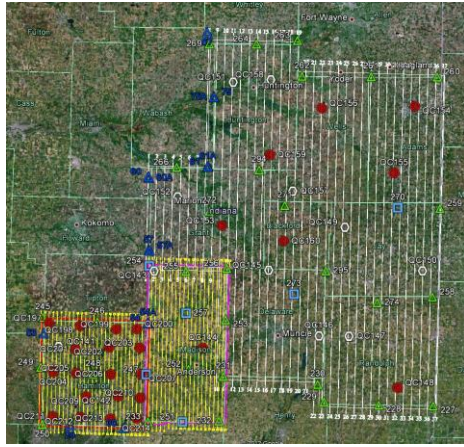
QC 196-2-25MAR2012



QC 196-3W-25MAR2012



QC 196-3N-25MAR2012



VOLUME 3 (BLOCK 6)

Block 6 Ground and LiDAR Control

GROUND CONTROL SURVEY REPORT

2012 INDIANA STATEWIDE IMAGERY PROGRAM

Indiana Office of Technology

April 2012

Prepared by Woolpert, Inc.
4454 Idea Center Blvd.
Dayton, OH 45420

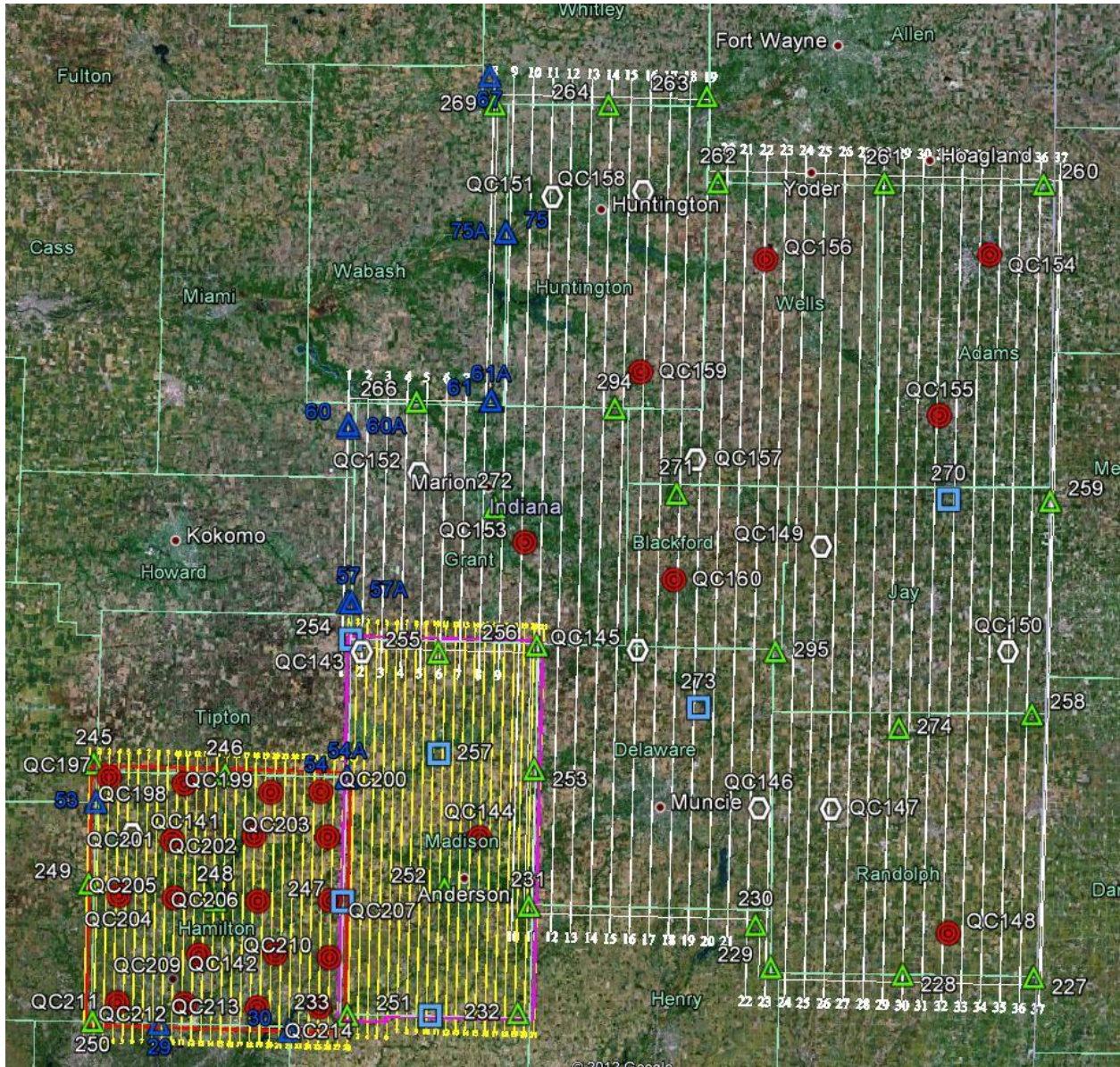
Woolpert.com



WOOLPERT
DESIGN | GEOSPATIAL | INFRASTRUCTURE

VOLUME 3 - SECTION 1: BLOCK 6 GPS CONTROL DIAGRAM

This section contains a graphical representation of the ground control used for Block 6 of the 2012 Indiana Statewide Imagery project.



Not to Scale

VOLUME 3 - SECTION 2: BLOCK 6 GROUND/LIDAR CONTROL COORDINATE LISTINGS

COORDINATE SYSTEM: GRID

HORIZONTAL DATUM: NAD83 (2007)

VERTICAL DATUM: NAVD88

ZONE: State Plane - (Indiana East)

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
227	1733559.841	566733.725	1194.415	CORNER OF CONC WALK
228	1733261.264	511098.639	1216.750	CORNER OF CONC DRIVE
230	1752738.980	448203.752	1094.616	CORNER OF CONC WALK
232	1713025.978	348546.934	999.478	CORNER CONCRETE PAD
233	1710056.559	276272.235	853.910	NW COR CONCRETE
245	1813325.312	165907.526	926.218	SW ANGLE SIDEWALK
246	1810322.713	221915.873	863.297	SE COR CONCRETE
247	1757933.919	272925.913	846.389	SE ANGLE CONCRETE
248	1756742.603	218803.113	825.978	SE COR CONCRETE
249	1762501.610	165044.513	927.944	SW COR CONCRETE
250	1704494.477	167733.482	885.633	INSIDE COR SIDEWALK
251	1710715.031	311225.199	903.326	CORNER CONCRETE DRIVE
252	1764706.792	316044.423	881.243	CORNER CONCRETEWALK
253	1815794.281	352870.946	899.755	CENTER PAINTED >X<
254	1868520.958	273571.898	863.290	CORNER CONCRETE DRIVE
255	1863968.785	310906.269	895.141	CORNER CONCRETE WALK
256	1868154.830	352516.727	891.085	CORNER CONCRETE DRIVE
257	1821361.664	312188.884	859.642	CORNER CONCRETE DRIVE
258	1844612.095	557880.286	1026.711	CORNER CONC DRIVE
259	1934544.865	568330.082	854.480	CORNER CONCRETE DRIVE
260	2068201.807	562208.806	803.854	SW COR CONCRETE
261	2066730.804	494673.457	798.350	NW COR CONCRETE
262	2065230.827	424188.098	780.626	CORNER CONCRETE DRIVE
263	2101564.938	418325.711	834.938	CORNER CONCRETE DRIVE
264	2096771.436	376954.982	840.964	CORNER CONCRETE DRIVE
266	1969451.562	298937.487	800.868	CORNER ASPHALT DRIVE
269	2095583.283	328736.680	856.327	CORNER CONCRETE APRON
270	1933990.177	525125.828	845.361	CORNER CONCRETE DRIVE
271	1933515.482	410024.560	868.569	CORNER CONCRETE PAD
272	1925825.749	333291.083	842.240	CORNER ASPHALT PAD

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
273	1846673.414	423662.288	905.362	CORNER CONC DRIVE
274	1837262.964	506667.579	1000.180	PAINT STRIPE INTERSECTION
294	1968879.047	382961.418	841.497	CENTER PAINTED > X <
295	1868299.563	453593.545	938.841	CORNER OF CONC WALK
QC 141	1783885.526	183011.048	939.186	SE COR CONCRETE
QC 142	1734925.110	245030.344	818.923	COR SIDEWALK
QC 143	1863330.165	278701.151	871.699	CORNER CONCRETE WALK
QC 144	1786349.429	330386.754	862.426	CORNER CONCRETE WALK
QC 145	1867265.234	395358.851	924.613	CORNER GRAVEL DRIVE
QC 146	1801893.369	448453.700	1021.878	CORNER CONC DRIVE
QC 147	1802361.958	478938.947	1037.198	NORTH CORNER OF CONC DRIVE
QC 148	1751018.976	529906.083	1173.916	PAINT STRIPE CORNER
QC 149	1912501.328	472757.360	882.144	CONC CORNER
QC 150	1870576.897	552174.964	959.383	CORNER CONC DRIVE
QC 151	2057248.177	354263.280	809.214	CORNER CONCRETE DRIVE
QC 152	1939344.579	300738.023	845.448	CORNER CONCRETE DRIVE
QC 153	1911106.214	346342.535	852.416	CORNER CONCRETE WALK
QC 154	2037517.186	540109.849	799.207	NW COR SIDEWALK
QC 155	1969121.940	520435.209	876.348	PAINT STRIPE
QC 157	1948064.367	417792.795	851.172	CORNER CONCRETE DRIVE
QC 158	2060703.512	392487.768	795.985	CORNER CONCRETE DRIVE
QC 159	1984159.819	393427.639	837.665	CORNER CONCRETE WALK
QC 160	1897030.060	409827.355	919.104	PAINT STRIPE

LiDAR CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
227	1733559.841	566733.725	1194.415	CORNER OF CONC WALK
230	1752738.980	448203.752	1094.616	CORNER OF CONC WALK
231	1758265.043	351994.719	918.474	CORNER GRAVEL
232	1713025.978	348546.934	999.478	CORNER CONCRETE PAD
233	1710056.559	276272.235	853.910	NW COR CONCRETE
245	1813325.312	165907.526	926.218	SW ANGLE SIDEWALK
246	1810322.713	221915.873	863.297	SE COR CONCRETE
248	1756742.603	218803.113	825.978	SE COR CONCRETE
249	1762501.610	165044.513	927.944	SW COR CONCRETE
250	1704494.477	167733.482	885.633	INSIDE COR SIDEWALK
252	1764706.792	316044.423	881.243	CORNER CONCRETEWALK
253	1815794.281	352870.946	899.755	CENTER PAINTED >X<
256	1868154.830	352516.727	891.085	CORNER CONCRETE DRIVE
258	1844612.095	557880.286	1026.711	CORNER CONC DRIVE

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
259	1934544.865	568330.082	854.480	CORNER CONCRETE DRIVE
260	2068201.807	562208.806	803.854	SW COR CONCRETE
261	2066730.804	494673.457	798.350	NW COR CONCRETE
264	2096771.436	376954.982	840.964	CORNER CONCRETE DRIVE
271	1933515.482	410024.560	868.569	CORNER CONCRETE PAD
274	1837262.964	506667.579	1000.180	PAINT STRIPE INTERSECTION
294	1968879.047	382961.418	841.497	CENTER PAINTED > X <
228_LIDAR	1733250.365	511006.997	1215.448	SHORT GRASS
229_LIDAR	1735104.757	455103.157	1155.262	ASPHALT
247_LIDAR	1757949.239	272921.854	845.757	CONCRETE
251_LIDAR	1710694.315	311212.855	903.272	CONCRETE
254_LIDAR	1868507.796	273545.105	863.150	CENTER CONCRETE DRIVE
255_LIDAR	1863987.349	310914.317	895.096	CENTER GRAVEL DRIVE
257_LIDAR	1821382.477	312173.195	859.708	CENTER CONCRETE DRIVE
262_LIDAR	2065225.261	424196.156	780.847	CORNER CONCRETE DRIVE
263_LIDAR	2101569.634	418344.197	835.135	CENTER CONCRETE DRIVE
266_LIDAR	1969424.189	298929.779	800.920	CENTER ASPHALT DRIVE
269_LIDAR	2095624.311	328779.352	854.332	CENTER GRAVEL DRIVE
270_LIDAR	1934004.610	525108.126	845.031	CONC
272_LIDAR	1925845.079	333320.326	842.371	CENTER ASPHALT PAD
273_LIDAR	1846729.094	423668.304	903.329	BARE EARTH
295_LIDAR	1868295.282	453574.905	938.969	ASPHALT
QC 141_LIDAR	1783911.287	183000.035	939.270	CONCRETE
QC 142	1734925.110	245030.344	818.923	COR SIDEWALK
QC 143_LIDAR	1863329.698	278717.431	871.374	CENTER ASPHALT DRIVE
QC 144	1786349.429	330386.754	862.426	CORNER CONCRETE WALK
QC 145_LIDAR	1867237.174	395357.938	924.646	CENTER GRAVEL DRIVE
QC 146_LIDAR	1801870.017	448438.339	1021.517	SHORT GRASS
QC 147_LIDAR	1802324.336	478927.858	1036.826	SHORT GRASS
QC 148	1751018.976	529906.083	1173.916	PAINT STRIPE CORNER
QC 149_LIDAR	1912497.374	472724.206	882.110	ASPHALT
QC 150_LIDAR_A	1870582.031	552123.213	958.130	BARE EARTH
QC 150_LIDAR_B	1870593.210	552185.195	959.705	CONC
QC 151_LIDAR	2057276.474	354274.763	809.768	CENTER CONCRETE DRIVE
QC 152_LIDAR	1939331.304	300754.692	845.604	CENTER CONCRETE DRIVE
QC 153	1911106.214	346342.535	852.416	CORNER CONCRETE WALK
QC 154	2037517.186	540109.849	799.207	NW COR SIDEWALK
QC 155	1969121.940	520435.209	876.348	PAINT STRIPE
QC 157_LIDAR	1948069.576	417803.547	851.236	CENTER CONCRETE DRIVE
QC 158	2060703.512	392487.768	795.985	CORNER CONCRETE DRIVE
QC 159	1984159.819	393427.639	837.665	CORNER CONCRETE WALK
QC 160	1897030.060	409827.355	919.104	PAINT STRIPE

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
QC 197	1807504.600	171840.815	926.501	NW COR SIDEWALK
QC 198	1802922.782	204577.117	892.044	NW COR CONCRETE
QC 199	1803035.400	241398.115	849.355	NE COR STOP BAR
QC 200	1803449.352	262659.735	844.298	NE COR STOP BAR
QC 201	1781439.897	200169.547	906.970	NE COR CONCRETE
QC 202	1784470.084	234737.817	841.146	NE COR STOP BAR
QC 203	1784899.669	265995.351	831.957	NE COR CONCRETE
QC 203_LIDAR	1784860.174	266015.375	830.215	SHORT GRASS
QC 204	1757800.230	177844.894	939.516	SE COR SIDEWALK
QC 205	1757345.739	201523.420	894.268	NE COR PAINT STRIPE
QC 206	1757020.368	237305.679	775.982	SE COR CONCRETE
QC 207	1758022.052	267508.665	835.785	SE COR CONCRETE
QC 208	1733326.000	172925.793	901.113	NW COR CONCRETE
QC 209	1733447.802	212437.010	825.257	NE COR CONCRETE
QC 210	1734077.652	268508.172	853.914	NW COR CONCRETE
QC 211	1712123.078	178259.764	875.524	COR SIDEWALK
QC 212	1712564.488	206841.117	768.568	NE COR STOP BAR
QC 213	1711447.587	237623.448	787.761	SW COR CONCRETE
QC 214	1712993.429	264717.454	795.819	SE COR SIDEWALK
QC 214_LIDAR	1712989.671	264742.460	796.100	ASPHALT

COORDINATE SYSTEM: GEODETIC

HORIZONTAL DATUM: WGS 84

VERTICAL DATUM: NAVD88

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
227	40°00'17.01601"	-84°48'53.12931"	1084.180	CORNER OF CONC WALK
228	40°00'18.70823"	-85°00'48.06746"	1106.420	CORNER OF CONC DRIVE
230	40°03'34.96692"	-85°14'15.09775"	984.071	CORNER OF CONC WALK
232	39°57'05.27523"	-85°35'37.22684"	888.120	CORNER CONCRETE PAD
233	39°56'35.48178"	-85°51'05.22613"	742.299	NW COR CONCRETE
245	40°13'31.32214"	-86°14'50.85772"	813.945	SW ANGLE SIDEWALK
246	40°13'04.64789"	-86°02'48.62113"	750.707	SE COR CONCRETE
247	40°04'28.56377"	-85°51'49.55035"	734.490	SE ANGLE CONCRETE
248	40°04'15.02514"	-86°03'25.71251"	713.966	SE COR CONCRETE
249	40°05'09.03184"	-86°14'57.68642"	816.318	SW COR CONCRETE
250	39°55'35.96830"	-86°14'18.30354"	774.894	INSIDE COR SIDEWALK
251	39°56'42.46329"	-85°43'36.45539"	791.743	CORNER CONCRETE DRIVE
252	40°05'36.07169"	-85°42'34.91225"	769.577	CORNER CONCRETEWALK
253	40°14'00.84444"	-85°34'40.38532"	788.164	CENTER PAINTED >X<
254	40°22'41.42397"	-85°51'44.37776"	750.731	CORNER CONCRETE DRIVE
255	40°21'56.97596"	-85°43'41.91560"	783.021	CORNER CONCRETE WALK
256	40°22'38.28203"	-85°34'44.28420"	779.225	CORNER CONCRETE DRIVE
257	40°14'55.93492"	-85°43'24.99123"	747.601	CORNER CONCRETE DRIVE
258	40°18'35.18654"	-84°50'33.65749"	917.119	CORNER CONC DRIVE
259	40°33'22.81228"	-84°48'07.41887"	744.792	CORNER CONCRETE DRIVE
260	40°55'23.97237"	84°49'10.00629"-	694.334	SW COR CONCRETE
261	40°55'14.96954"	-85°03'49.87735"	688.998	NW COR CONCRETE
262	40°55'03.93274"	-85°19'08.12590"	670.217	CORNER CONCRETE DRIVE
263	41°01'03.16791"	-85°20'22.71785"	725.787	CORNER CONCRETE DRIVE
264	41°00'16.98409"	-85°29'22.55457"	730.839	CORNER CONCRETE DRIVE
266	40°39'19.22243"	-85°46'18.16664"	688.219	CORNER ASPHALT DRIVE
269	41°00'05.73351"	-85°39'51.47863"	745.396	CORNER CONCRETE APRON
270	40°33'21.14361"	-84°57'27.17580"	735.202	CORNER CONCRETE DRIVE
271	40°33'22.93243"	-85°22'18.38237"	756.609	CORNER CONCRETE PAD
272	40°32'08.29391"	-85°38'52.54997"	729.691	CORNER ASPHALT PAD
273	40°19'04.29276"	-85°19'26.06254"	794.047	CORNER CONC DRIVE
274	40°17'26.74956"	-85°01'35.37948"	889.840	PAINT STRIPE INTERSECTION

Station Name	Latitude	Longitude	E. Height US Ft.	Description
294	40°39'13.12733"	-85°28'07.97635"	729.336	CENTER PAINTED > X <
295	40°22'36.67327"	-85°12'58.23466"	827.754	CORNER OF CONC WALK
QC 141	40°08'41.44783"	-86°11'08.14085"	827.066	SE COR CONCRETE
QC 142	40°00'40.41511"	-85°57'47.41239"	707.067	COR SIDEWALK
QC 143	40°21'50.23547"	-85°50'37.96529"	759.212	CORNER CONCRETE WALK
QC 144	40°09'09.98191"	-85°39'30.33462"	750.763	CORNER CONCRETE WALK
QC 145	40°22'28.70326"	-85°25'30.73477"	812.991	CORNER GRAVEL DRIVE
QC 146	40°11'40.70723"	-85°14'08.81914"	910.999	CORNER CONC DRIVE
QC 147	40°11'43.69046"	-85°07'35.94200"	926.644	NORTH CORNER OF CONC DRIVE
QC 148	40°03'12.75466"	-84°56'44.54304"	1063.804	PAINT STRIPE CORNER
QC 149	40°29'52.41546"	-85°08'47.25727"	771.176	CONC CORNER
QC 150	40°22'52.26547"	-84°51'44.25171"	849.715	CORNER CONC DRIVE
QC 151	40°53'46.80279"	-85°34'19.08613"	697.681	CORNER CONCRETE DRIVE
QC 152	40°34'21.73772"	-85°45'54.36789"	732.702	CORNER CONCRETE DRIVE
QC 153	40°29'42.77693"	-85°36'03.65142"	740.046	CORNER CONCRETE WALK
QC 154	40°50'22.81516"	-84°54'01.36637"	689.653	NW COR SIDEWALK
QC 155	40°39'08.64602"	-84°58'24.35772"	766.110	PAINT STRIPE
QC 157	40°35'46.42856"	-85°20'37.04852"	739.310	CORNER CONCRETE DRIVE
QC 158	40°54'20.23804"	-85°26'01.21182"	684.989	CORNER CONCRETE DRIVE
QC 159	40°41'43.86846"	-85°25'51.65039"	725.728	CORNER CONCRETE WALK
QC 160	40°27'22.40191"	-85°22'22.51141"	807.360	PAINT STRIPE

LIDAR CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
227	40°00'17.01601	-84°48'53.12931"	1084.180	CORNER OF CONC WALK
230	40°03'34.96692	-85°14'15.09775"	984.071	CORNER OF CONC WALK
231	40°04'32.32627	-85°34'52.39686"	807.144	CORNER GRAVEL
232	39°57'05.27523	-85°35'37.22684"	888.120	CORNER CONCRETE PAD
233	39°56'35.48178	-85°51'05.22613"	742.299	NW COR CONCRETE
245	40°13'31.32214	-86°14'50.85772"	813.945	SW ANGLE SIDEWALK
246	40°13'04.64789	-86°02'48.62113"	750.707	SE COR CONCRETE
248	40°04'15.02514	-86°03'25.71251"	713.966	SE COR CONCRETE
249	40°05'09.03184	-86°14'57.68642"	816.318	SW COR CONCRETE
250	39°55'35.96830	-86°14'18.30354"	774.894	INSIDE COR SIDEWALK
252	40°05'36.07169	-85°42'34.91225"	769.577	CORNER CONCRETEWALK
253	40°14'00.84444	-85°34'40.38532"	788.164	CENTER PAINTED >X<
256	40°22'38.28203	-85°34'44.28420"	779.225	CORNER CONCRETE DRIVE
258	40°18'35.18654	-84°50'33.65749"	917.119	CORNER CONC DRIVE
259	40°33'22.81228	-84°48'07.41887"	744.792	CORNER CONCRETE DRIVE
260	40°55'23.97237	-84°49'10.00629"	694.334	SW COR CONCRETE

Station Name	Latitude	Longitude	E. Height US Ft.	Description
261	40°55'14.96954	-85°03'49.87735"	688.998	NW COR CONCRETE
264	41°00'16.98409	-85°29'22.55457"	730.839	CORNER CONCRETE DRIVE
271	40°33'22.93243	-85°22'18.38237"	756.609	CORNER CONCRETE PAD
274	40°17'26.74956	-85°01'35.37948"	889.840	PAINT STRIPE INTERSECTION
294	40°39'13.12733	-85°28'07.97635"	729.336	CENTER PAINTED > X <
228_LIDAR	40°00'18.60716	-85°00'49.24610"	1105.118	SHORT GRASS
229_LIDAR	40°00'40.36213	-85°12'47.51977"	1044.789	ASPHALT
247_LIDAR	40°04'28.71508	-85°51'49.60300"	733.858	CONCRETE
251_LIDAR	39°56'42.25848	-85°43'36.61370"	791.689	CONCRETE
254_LIDAR	40°22'41.29331	-85°51'44.72359"	750.591	CENTER CONCRETE DRIVE
255_LIDAR	40°21'57.15946	-85°43'41.81179"	782.977	CENTER GRAVEL DRIVE
257_LIDAR	40°14'56.14050	-85°43'25.19375"	747.667	CENTER CONCRETE DRIVE
262_LIDAR	40°55'03.87743	-85°19'08.02123"	670.437	CORNER CONCRETE DRIVE
263_LIDAR	41°01'03.21363	-85°20'22.47645"	725.984	CENTER CONCRETE DRIVE
266_LIDAR	40°39'18.95185	-85°46'18.26622"	688.271	CENTER ASPHALT DRIVE
269_LIDAR	41°00'06.13890	-85°39'50.92206"	743.403	CENTER GRAVEL DRIVE
270_LIDAR	40°33'21.28764	-84°57'27.40362"	734.872	CONC
272_LIDAR	40°32'08.48486	-85°38'52.17117"	729.822	CENTER ASPHALT PAD
273_LIDAR	40°19'04.84276	-85°19'25.98209"	792.013	BARE EARTH
295_LIDAR	40°22'36.63190	-85°12'58.47578"	827.881	ASPHALT
QC 141_LIDAR	40°08'41.70176	-86°11'08.28460"	827.150	CONCRETE
QC 142	40°00'40.41511	-85°57'47.41239"	707.067	COR SIDEWALK
QC 143_LIDAR	40°21'50.23117	-85°50'37.75496"	758.887	CENTER ASPHALT DRIVE
QC 144	40°09'09.98191	-85°39'30.33462"	750.763	CORNER CONCRETE WALK
QC 145_LIDAR	40°22'28.42599	-85°25'30.74756"	813.024	CENTER GRAVEL DRIVE
QC 146_LIDAR	40°11'40.47720	-85°14'09.01856"	910.639	SHORT GRASS
QC 147_LIDAR	40°11'43.31935	-85°07'36.08783"	926.272	SHORT GRASS
QC 148	40°03'12.75466	-84°56'44.54304"	1063.804	PAINT STRIPE CORNER
QC 149_LIDAR	40°29'52.37833	-85°08'47.68672"	771.142	ASPHALT
Qc150_LIDAR_A	40°22'52.32086	-84°51'44.91978"	848.461	BARE EARTH
QC	40°22'52.42575	-84°51'44.11760"	850.037	CONC
QC 151_LIDAR	40°53'47.08227	-85°34'18.93620"	698.236	CENTER CONCRETE DRIVE
QC 152_LIDAR	40°34'21.60673	-85°45'54.15169"	732.857	CENTER CONCRETE DRIVE
QC 153	40°29'42.77693	-85°36'03.65142"	740.046	CORNER CONCRETE WALK
QC 154	40°50'22.81516	-84°54'01.36637"	689.653	NW COR SIDEWALK
QC 155	40°39'08.64602	-84°58'24.35772"	766.110	PAINT STRIPE
QC 157_LIDAR	40°35'46.47964	-85°20'36.90889"	739.374	CENTER CONCRETE DRIVE
QC 158	40°54'20.23804	-85°26'01.21182"	684.989	CORNER CONCRETE DRIVE
QC 159	40°41'43.86846	-85°25'51.65039"	725.728	CORNER CONCRETE WALK
QC 160	40°27'22.40191	-85°22'22.51141"	807.360	PAINT STRIPE
QC 197	40°12'34.17968	-86°13'33.89299"	814.211	NW COR SIDEWALK
QC 198	40°11'50.72756	-86°06'31.65666"	779.539	NW COR CONCRETE

Station Name	Latitude	Longitude	E. Height US Ft.	Description
QC 199	40°11'53.38260	-85°58'37.14796"	736.879	NE COR STOP BAR
QC 200	40°11'58.11781	-85°54'03.15734"	731.907	NE COR STOP BAR
QC 201	40°08'18.21143	-86°07'27.03052"	794.751	NE COR CONCRETE
QC 202	40°08'49.67737	-86°00'02.08113"	728.894	NE COR STOP BAR
QC 203	40°08'54.88905	-85°53'19.57152"	719.753	NE COR CONCRETE
QC 203_LIDAR	40°08'54.49924	-85°53'19.31238"	718.012	SHORT GRASS
QC 204	40°04'23.36822	-86°12'12.63666"	827.802	SE COR SIDEWALK
QC 205	40°04'20.17708	-86°07'08.02103"	782.342	NE COR PAINT STRIPE
QC 206	40°04'18.50440	-85°59'27.72405"	663.959	SE COR CONCRETE
QC 207	40°04'29.31036	-85°52'59.24066"	723.858	SE COR CONCRETE
QC 208	40°00'21.21242	-86°13'13.95434"	789.794	NW COR CONCRETE
QC 209	40°00'24.53378	-86°04'46.21119"	713.521	NE COR CONCRETE
QC 210	40°00'32.70290	-85°52'45.64736"	742.154	NW COR CONCRETE
QC 211	39°56'52.00117	-86°12'03.77673"	764.478	COR SIDEWALK
QC 212	39°56'57.89360	-86°05'56.82262"	657.160	NE COR STOP BAR
QC 213	39°56'48.14291	-85°59'21.51413"	676.145	SW COR CONCRETE
QC 214	39°57'04.24312	-85°53'33.67771"	684.170	SE COR CONCRETE
QC 214_LIDAR	39°57'04.20661	-85°53'33.35649"	684.451	ASPHALT

VOLUME 3 - SECTION 3: BLOCK 6 GROUND/LIDAR CONTROL LOGS AND PHOTOS

This section contains the station recovery information sheets and photographs for the ground control and LiDAR control station.

The data is assembled on the following pages.

GROUND CONTROL

GPS Observation Log Sheet		WOOLPERT	
Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-18</u>	
Station Name: <u>227</u>	Operator Name: <u>David Hall</u>		
Latitude: <u>40° 00' 17.1"</u>	Julian Day: <u>073</u>	Session No. <u>1</u>	
Longitude: <u>84° 48' 53.2"</u>	Start Time: <u>08:44</u>	End Time: <u>09:54</u>	
Ellip. Height: <u>10⁰⁰</u>	Data File Name: <u>INDY_073_DMH</u>		
Type of Mark: <u>NE corner of</u>	Type of Receiver: <u>R8-3</u>		
Stamping on Mark: <u>car walk</u>	Type of Antenna: <u>R8-3</u>		
Weather Condition: <u>60's clear</u>	Antenna Height: <u>2.000.6</u>	to bottom of antenna mount	



227-2-13MAR2012



227-3E-13MAR2012

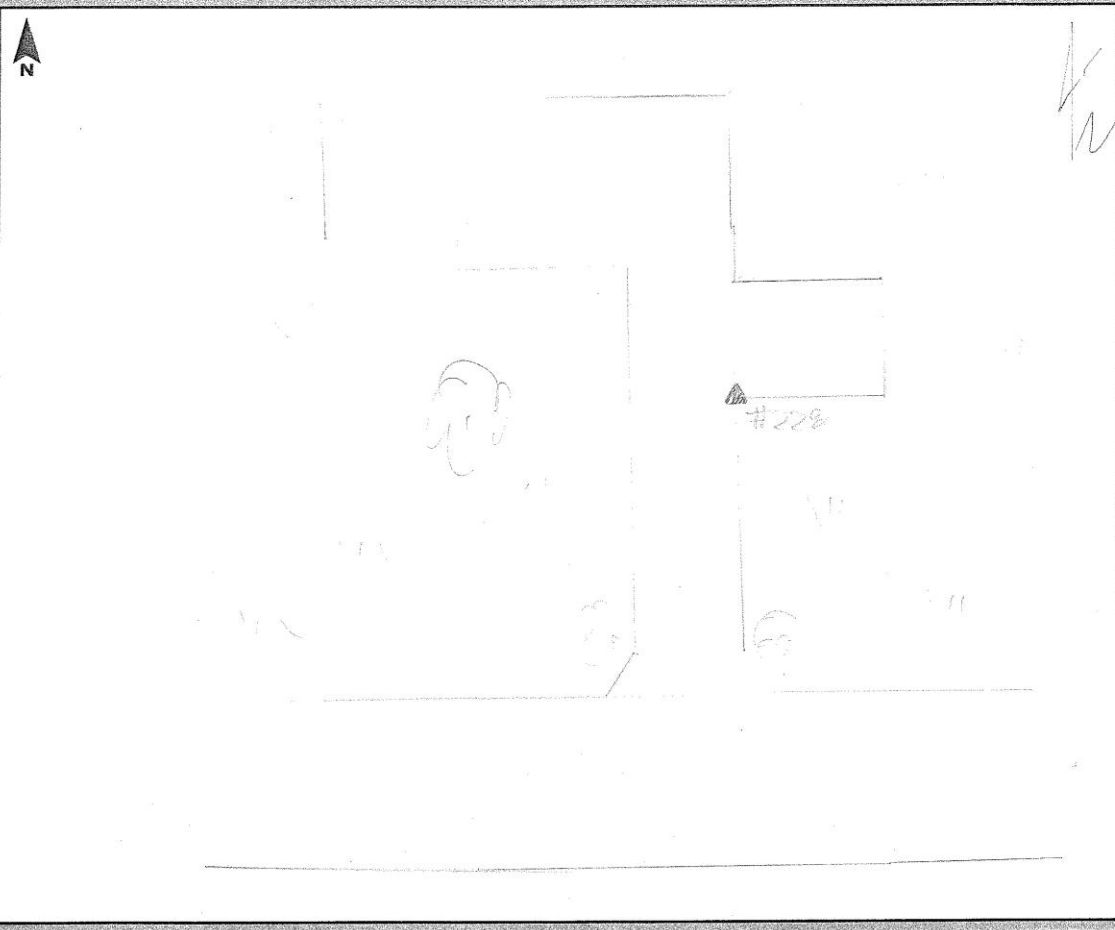


227-3N-13MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-15</u>
Station Name: <u>228</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 00' 18.8"</u>	Julian Day: <u>073</u>	Session No. <u>1</u>
Longitude: <u>85° 00' 48.1"</u>	Start Time: <u>09:16</u>	End Time: <u>09:29</u>
Ellip. Height: <u>1110'</u>	Data File Name: <u>INDY_073_DMA</u>	
Type of Mark: <u>Inside corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>conc DRIVE</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° ± Clear</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





228-2-13MAR2012



228-3E-13MAR2012



228-3N-13MAR2012

Bad Sats

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>230</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 03' 35.0"</u>	Julian Day: <u>074</u>	Session No. <u>1</u>
Longitude: <u>85° 14' 15.1"</u>	Start Time: <u>11:21</u>	End Time: <u>11:56</u>
Ellip. Height: <u>981'</u>	Data File Name: <u>INDY 074 DMH1</u>	
Type of Mark: <u>Trade corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>concrete walks</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's & Clear</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





230-2-14MAR2012



230-3N-14MAR2012

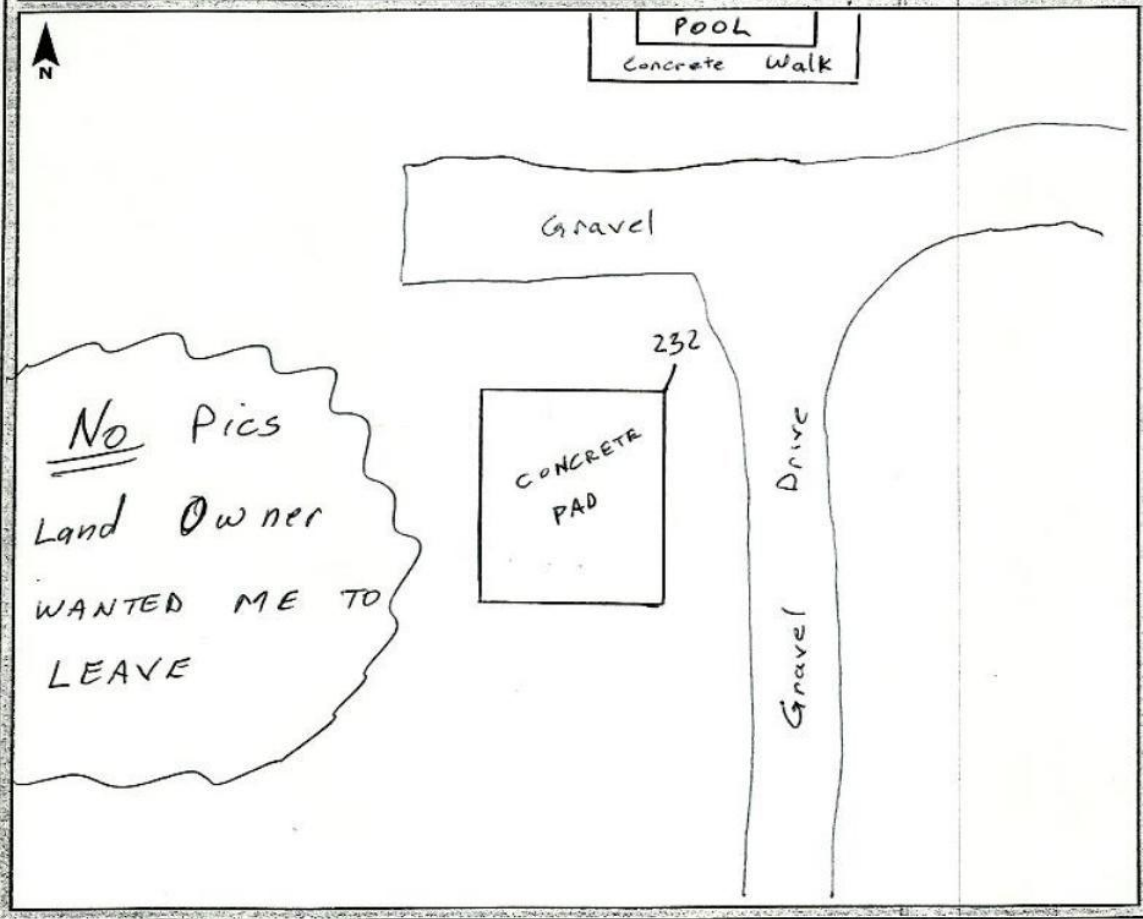


230-3E-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>232</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>39-57-05.33</u>	Julian Day: <u>074</u>	Start Time: <u>10:07</u> End Time: <u>10:12</u>
Longitude: <u>085-35-37.25</u>	Data File Name: <u>IND ST 14 MAR 12 55</u>	Type of Receiver: <u>RB-2 #9357</u>
Ellip. Height: <u>886.56</u>	Type of Antenna: _____	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount
Type of Mark: <u>Corner Concrete Pad</u>	Weather Condition: <u>Sunny, 60°</u>	

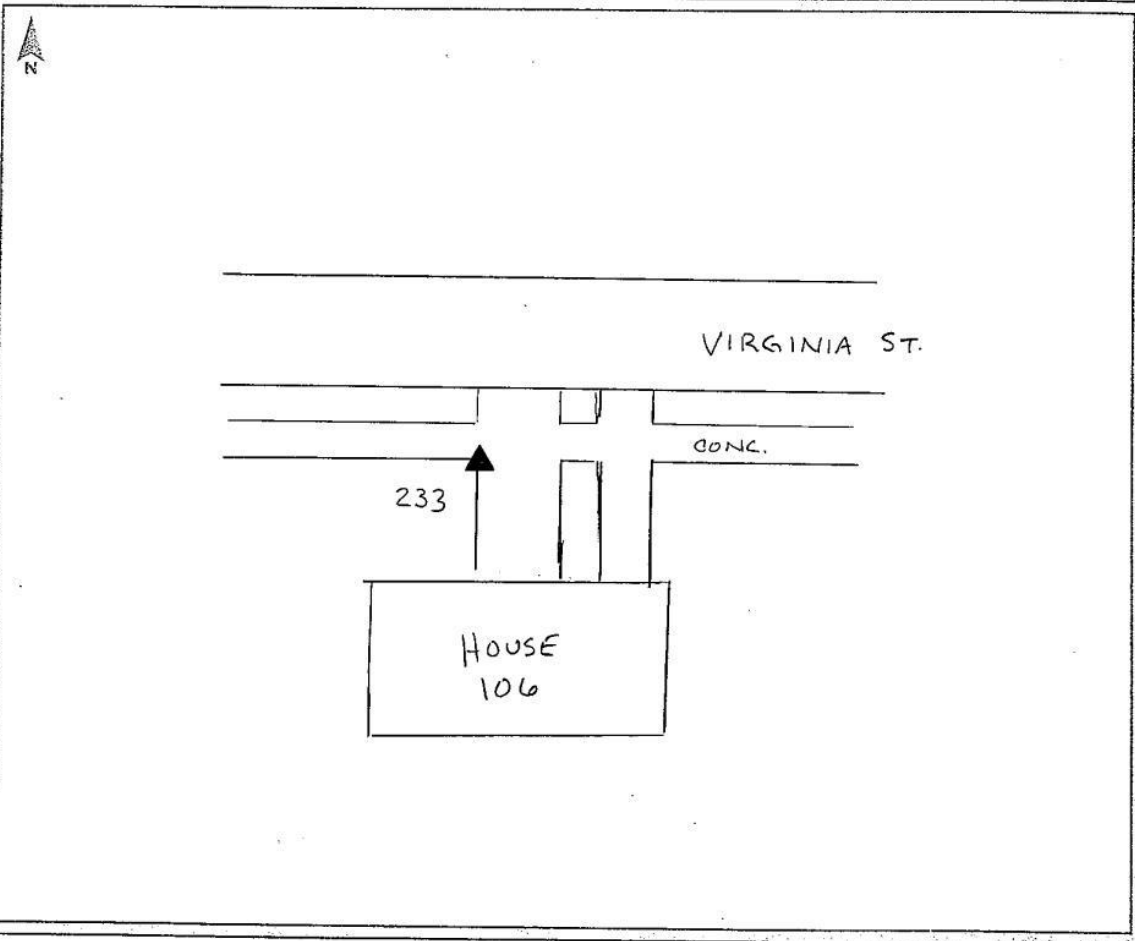


Landowner of #232 did not allow pictures to be taken.

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>233</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 35.54" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 51' 05.31" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>718.89</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





233-2-13MAR2012



233-3E-13MAR2012

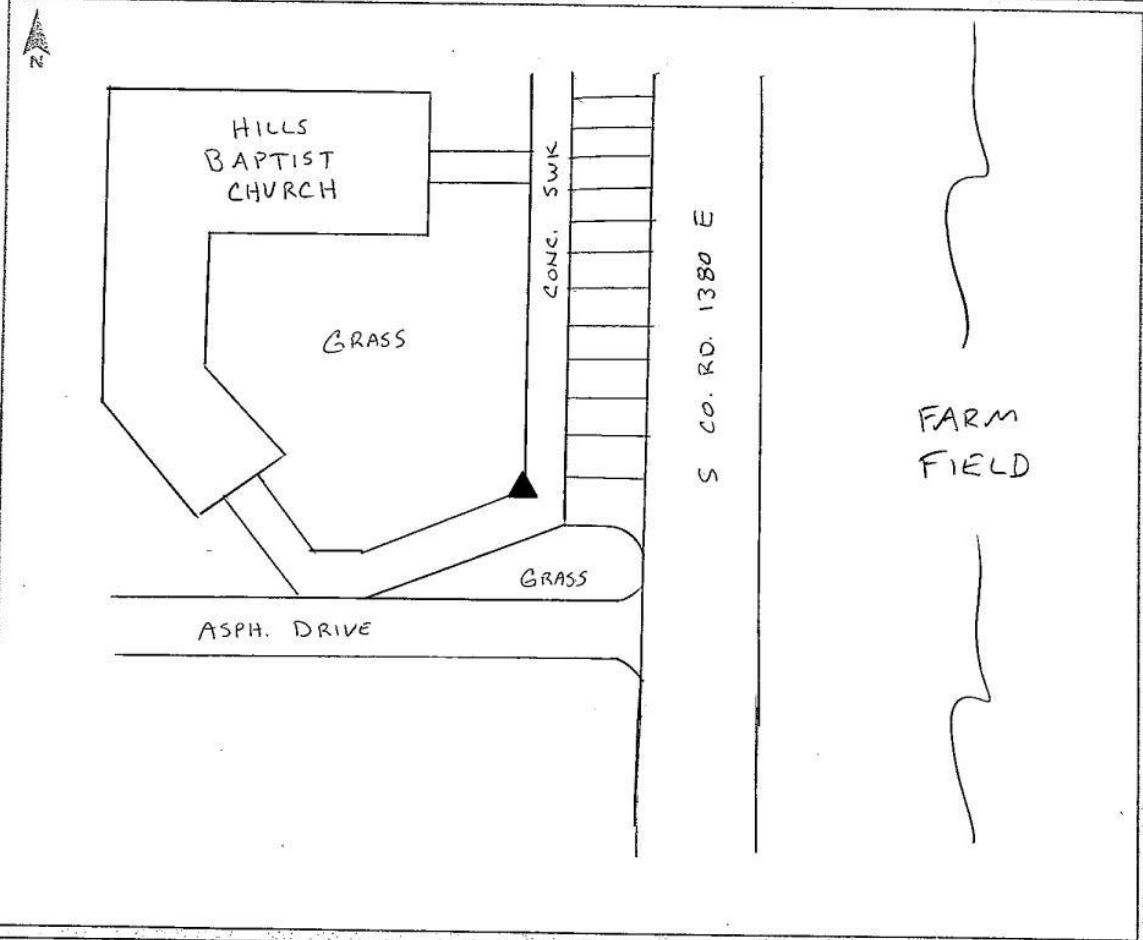


233-3S-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/15/2012</u>
Station Name: <u>245</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 13' 31.32" N</u>	Julian Day: <u>075</u>	Session No. <u>—</u>
Longitude: <u>86° 14' 50.86" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>813.00 SFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW ANGLE SIDEWALK</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2 M</u>	to bottom of antenna mount





245-2-15MAR2012



245-3W-15MAR2012

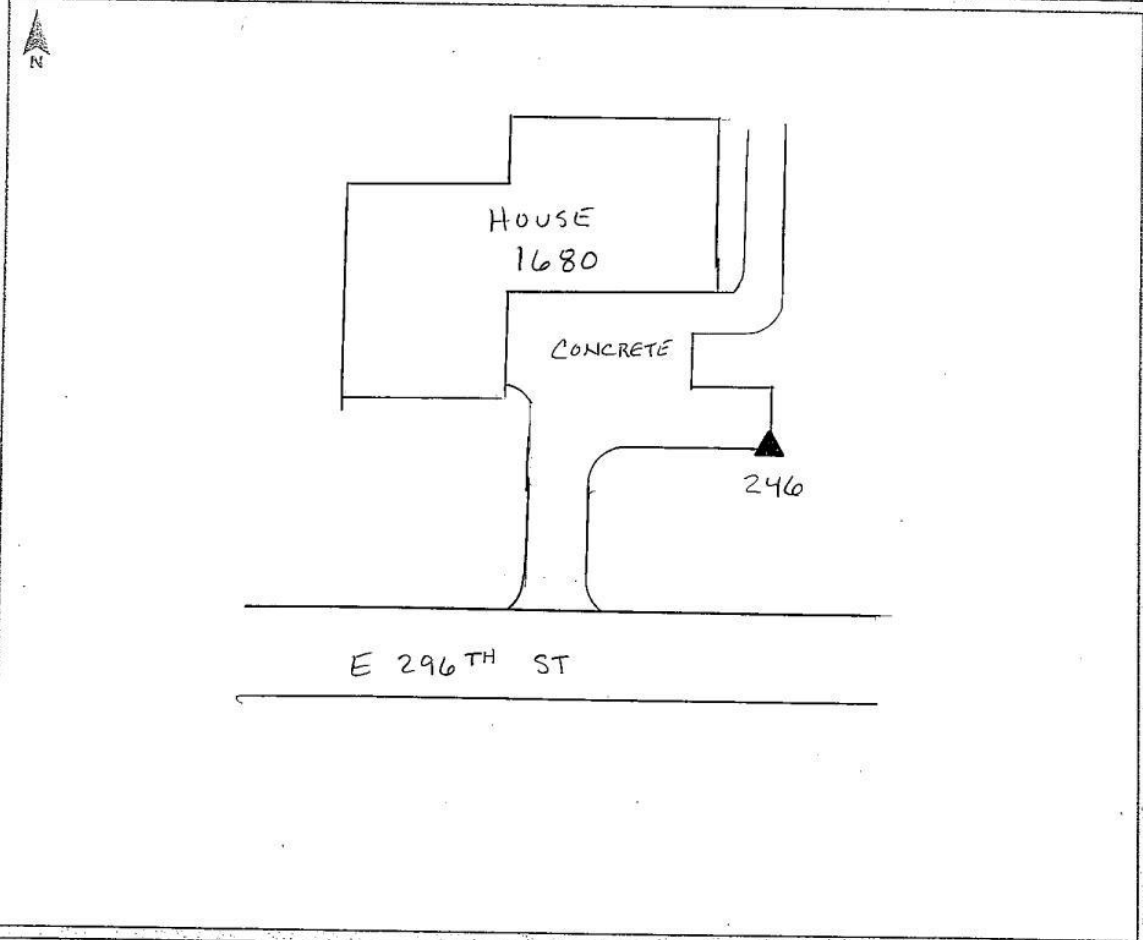


245-3S-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/16/2012</u>
Station Name: <u>246</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 13' 04.64" N</u>	Julian Day: <u>076</u>	Session No. <u>—</u>
Longitude: <u>86° 02' 48.62" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>750.71 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





246-2-16MAR2012



246-3E-16MAR2012

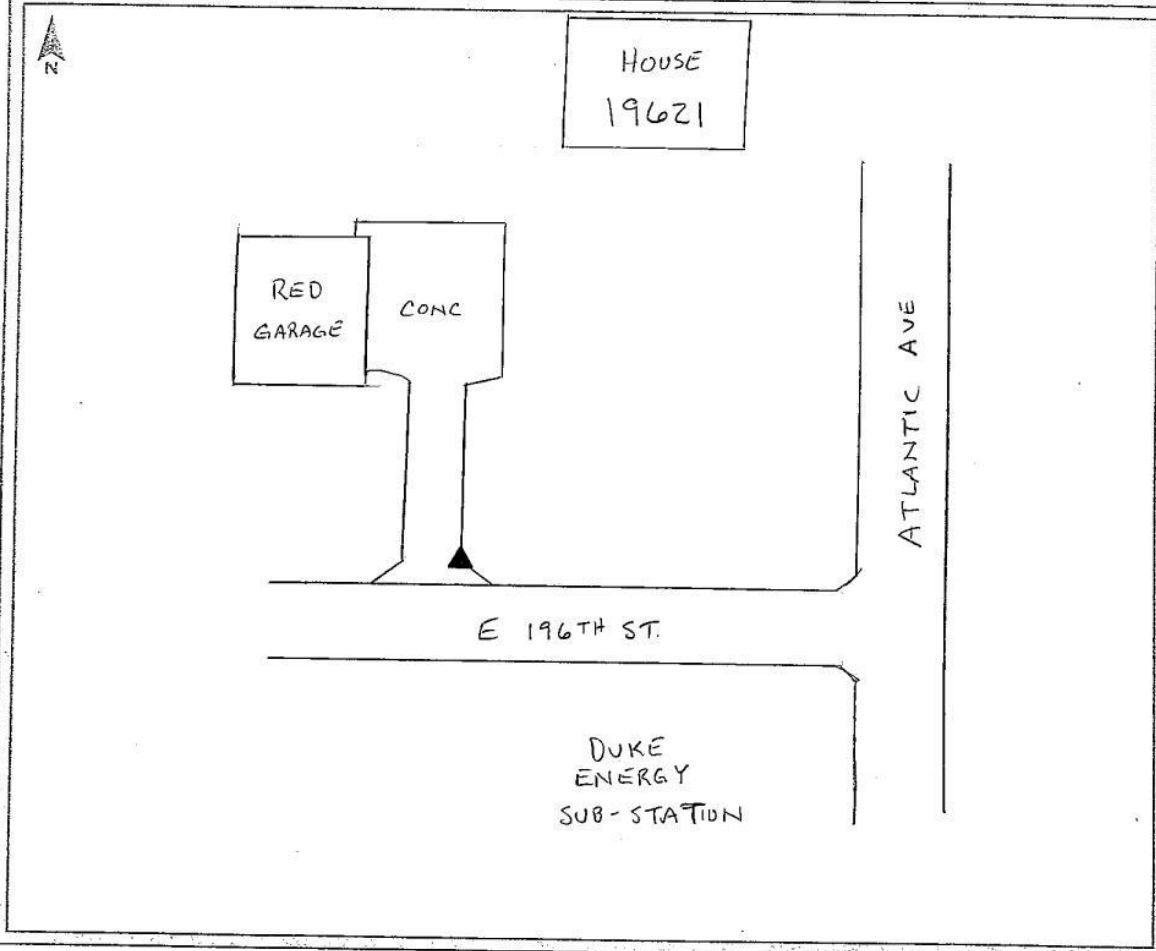


246-3N-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/15/2012</u>
Station Name: <u>247</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 04' 28.56" N</u>	Julian Day: <u>075</u>	Session No. <u>—</u>
Longitude: <u>85° 51' 49.55" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>734.48 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE ANGLE CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>65° CLEAR</u>	Antenna Height: <u>2 M</u>	to bottom of antenna mount





247-2-15MAR2012



247-3S-15MAR2012

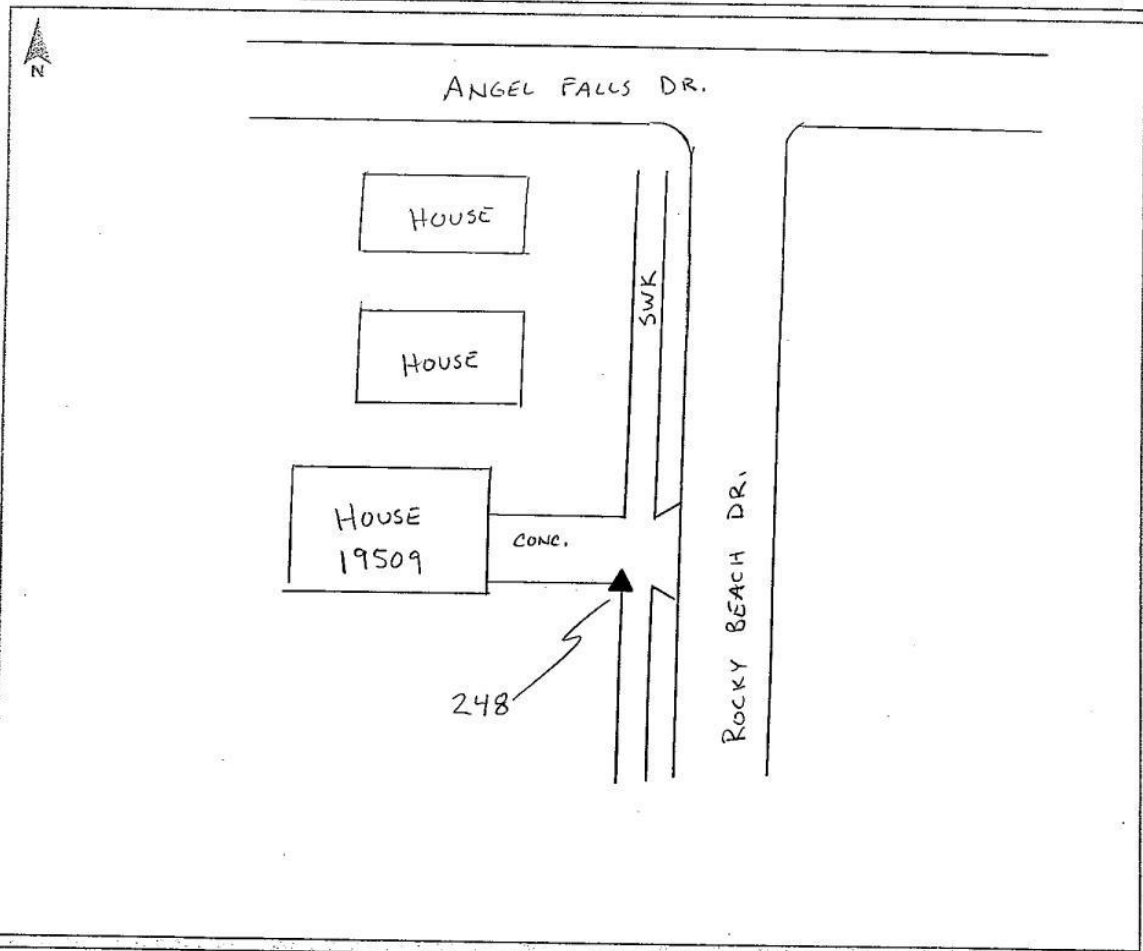


247-3N-15MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	<u>72134</u>	Survey Date:	<u>03/14/2012</u>		
Station Name:	<u>248</u>	Operator Name:	<u>BEN CHRISTIE</u>	Julian Day:	<u>074</u>	Session No.:	<u>—</u>
Latitude:	<u>40° 04' 15.02" N</u>	Start Time:	<u>—</u>	End Time:	<u>—</u>		
Longitude:	<u>86° 03' 25.71" W</u>	Data File Name:	<u>—</u>	Type of Receiver:	<u>RB</u>		
Ellip. Height:	<u>713.961 ftt</u>	Type of Antenna:	<u>RB</u>	Antenna Height:	<u>2m</u>	to bottom of antenna mount	
Type of Mark:	<u>SE COR CONCRETE</u>	Weather Condition:	<u>70° CLEAR</u>				
Stamping on Mark:	<u>—</u>						





248-2-14MAR2012



248-3W-14MAR2012

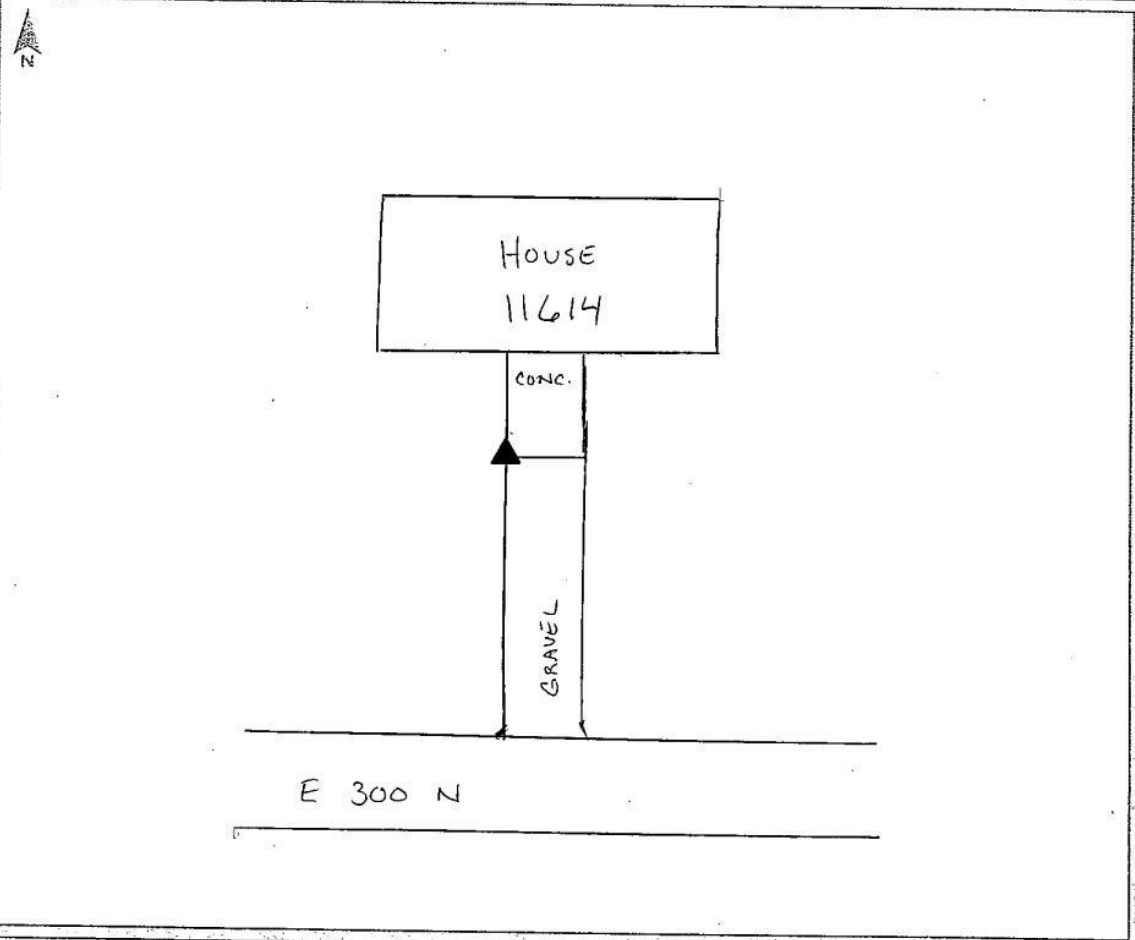


248-3N-14MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	72134	Survey Date:	03/14/2012		
Station Name:	249	Operator Name:	BEN CHRISTIE	Julian Day:	074	Session No.:	—
Latitude:	40° 05' 09.02" N	Start Time:	—	End Time:	—		
Longitude:	86° 14' 57.68" W	Data File Name:	—	Type of Receiver:	R8		
Ellip. Height:	816.16 sft	Type of Antenna:	R8	Antenna Height:	2m	to bottom of antenna mount	
Type of Mark:	SW COR CONCRETE	Stamping on Mark:	—	Weather Condition:	70° CLEAR		





249-2-14MAR2012



249-3N-14MAR2012

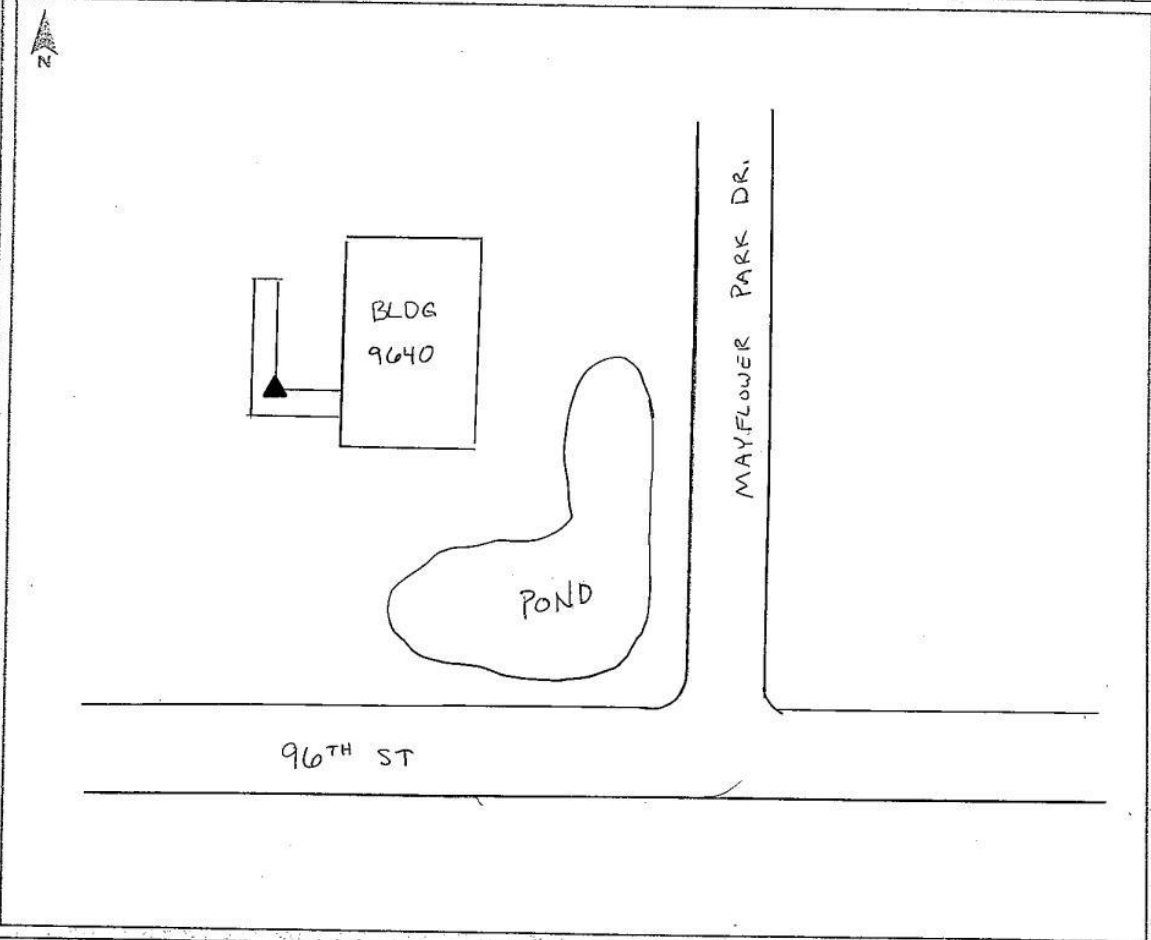


249-3E-14MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/14/2012</u>
Station Name: <u>250</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>39° 55' 35.97" N</u>	Julian Day: <u>074</u> Session No. <u>—</u>
Longitude: <u>86° 14' 18.30" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>774.86</u>	Data File Name: <u>—</u>
Type of Mark: <u>INSIDE COR SIDEWALK</u>	Type of Receiver: <u>R8</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>
Weather Condition: <u>65° CLEAR</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





250-2-14MAR2012



250-3W-14MAR2012

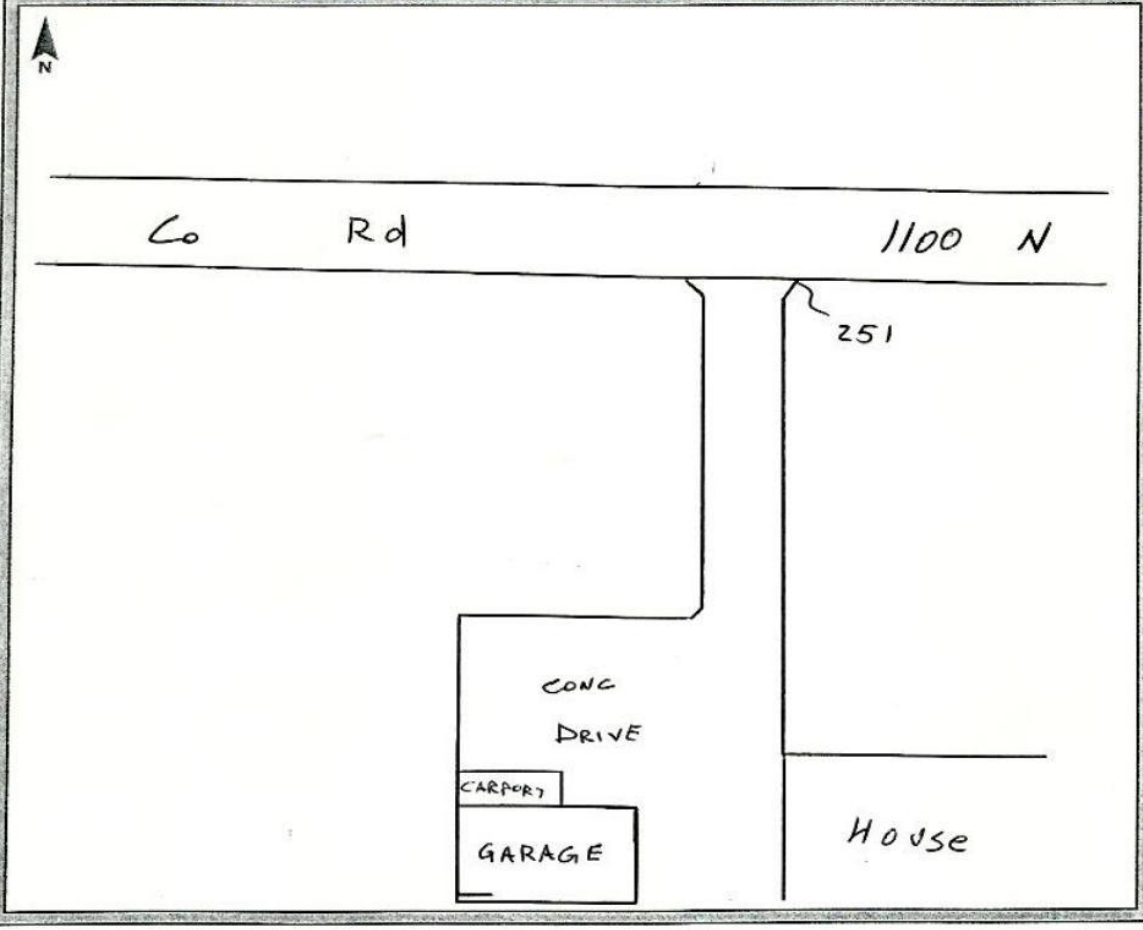


250-3N-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>251</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>39-56-12.51</u>	Julian Day: <u>074</u>	Start Time: <u>10:31</u>
Longitude: <u>085-43-36.48</u>	End Time: <u>10:36</u>	Data File Name: <u>INDST14MAR12SS</u>
Ellip. Height: <u>790.29</u>	Type of Receiver: <u>RB-2 #9357</u>	Type of Antenna: _____
Type of Mark: <u>Corner Conc Dr</u>	Antenna Height: <u>6.562 Ft</u> to bottom of antenna mount	
Stamping on Mark: _____		
Weather Condition: <u>Sunny, 60°</u>		





251-2-14MAR2012



251-3N-14MAR2012

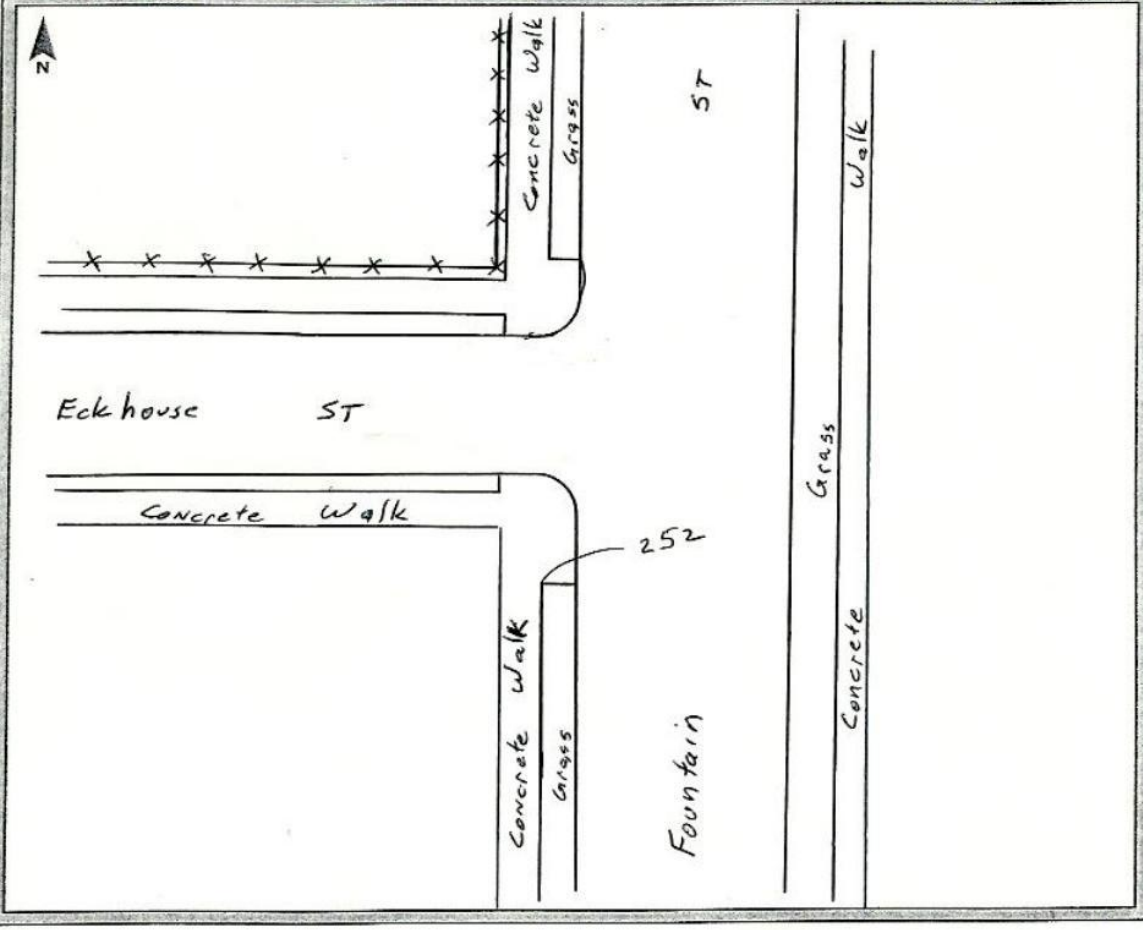


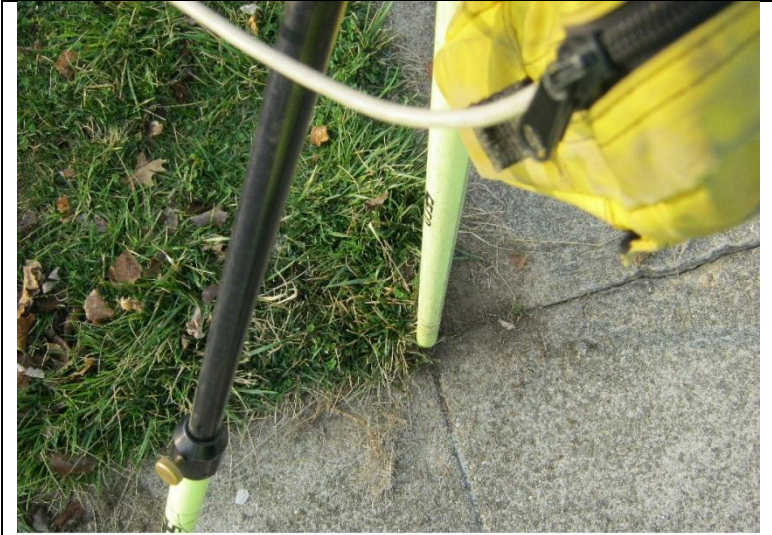
251-3W-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>15MAR12</u>
Station Name: <u>252</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>40-05-36.07</u>	Julian Day: <u>075</u>	Start Time: <u>8:56</u>
Longitude: <u>085-42-34.91</u>	Data File Name: <u>INDST15MAR12SS</u>	End Time: <u>9:04</u>
Ellip. Height: <u>.769.53 FT</u>	Type of Reciever: <u>R8-2 #9357</u>	Type of Antenna: _____
Type of Mark: <u>Corner Concrete Walk</u>	Stamping on Mark: _____	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount
Weather Condition: <u>Pt Sunny, 65°</u>		





252-2-15MAR2012



252-3W-15MAR2012

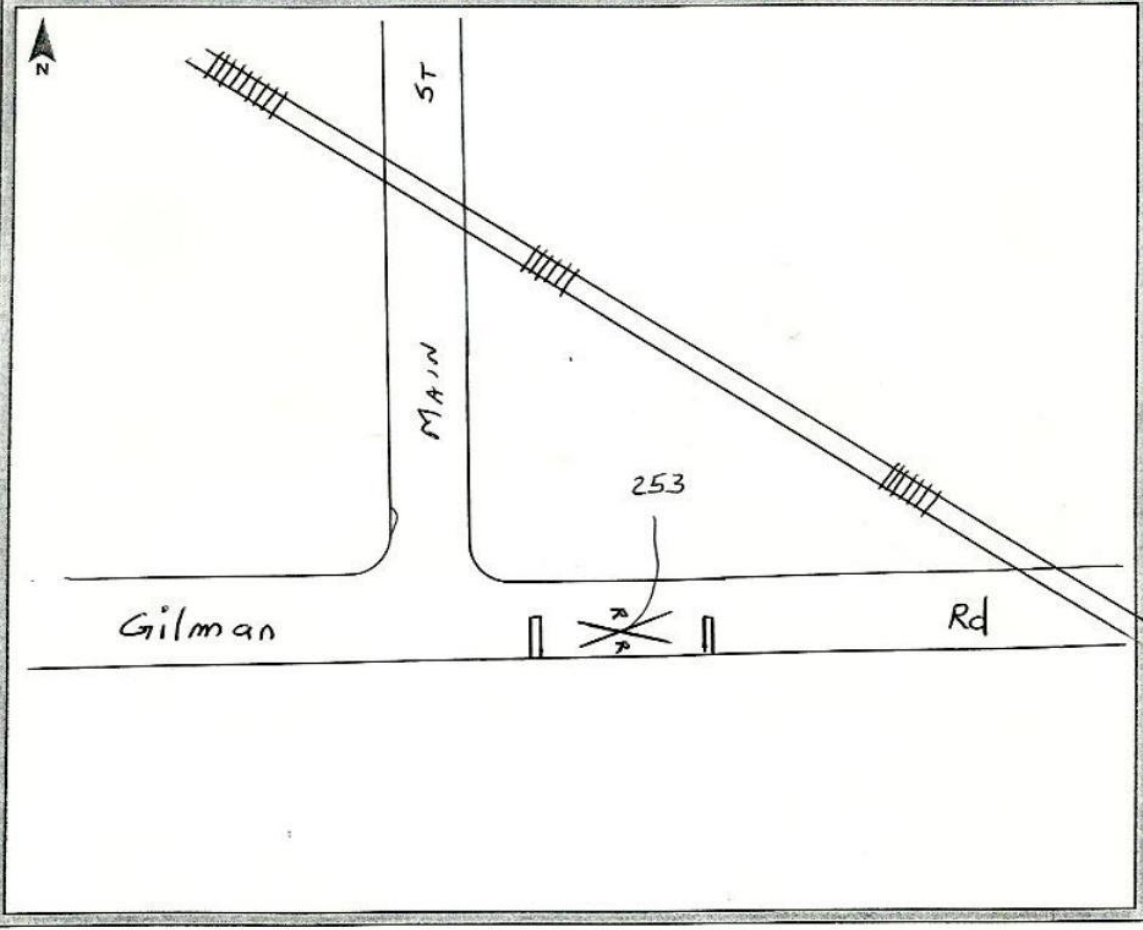


252-3N-15MAR2012

GPS Observation Log Sheet

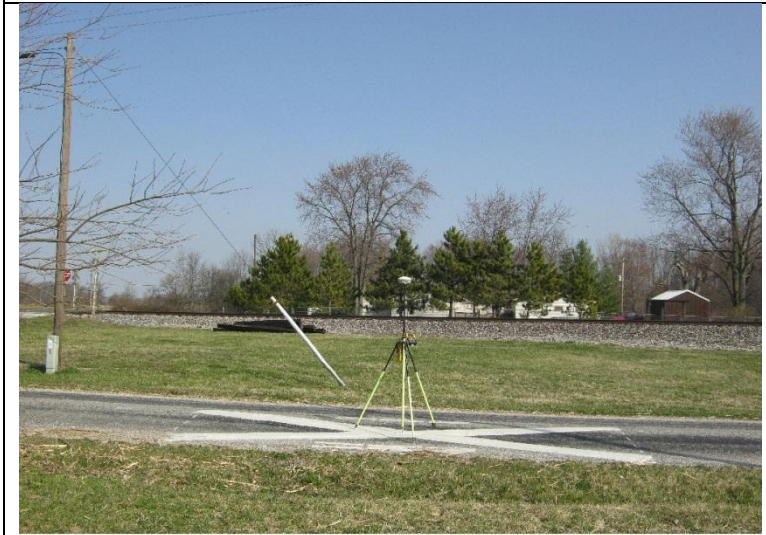


Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>15 MAR 12</u>
Station Name: <u>253</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-14-00.84</u>	Julian Day: <u>075</u>	Session No. _____
Longitude: <u>085-34-40.39</u>	Start Time: <u>11:11</u>	End Time: <u>11:16</u>
Ellip. Height: <u>. 788.18</u>	Data File Name: <u>INDST15MAR12SS</u>	
Type of Mark: <u>Painted "X" for RR</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





253-2-15MAR2012



253-3N-15MAR2012

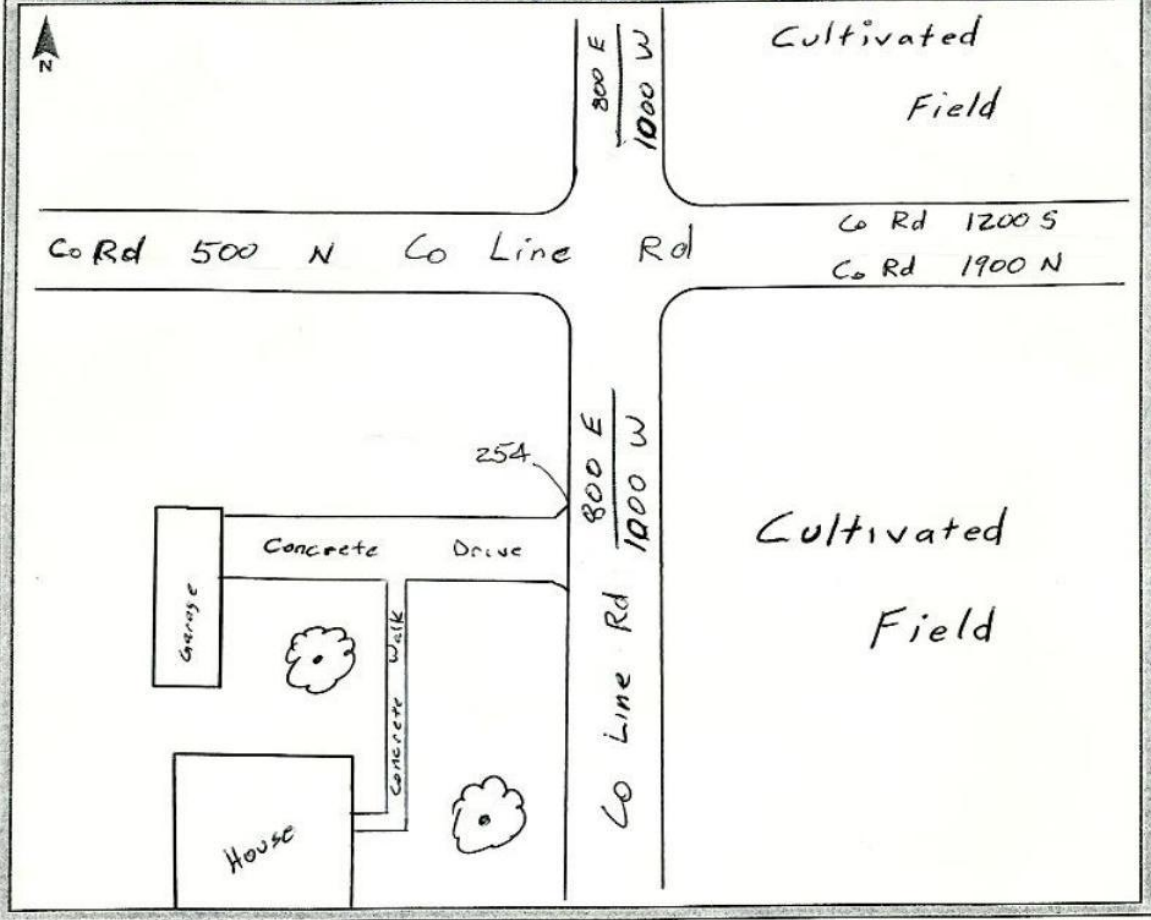


253-3E-15MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 16 MAR 12
 Station Name: 254 Operator Name: Stephen Schonegg
 Latitude: 40-22-41.49 Julian Day: 076 Session No. _____
 Longitude: 085-51-44.43 Start Time: 2:23 End Time: 2:27
 Ellip. Height: 746.43 FT Data File Name: INDST16MAR12SS
 Type of Mark: Corner Concrete Drive Type of Receiver: RB-2 #9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: Sunny, 75° Antenna Height: 6.562 FT to bottom of antenna mount





254-2-16MAR2012



254-3N-16MAR2012

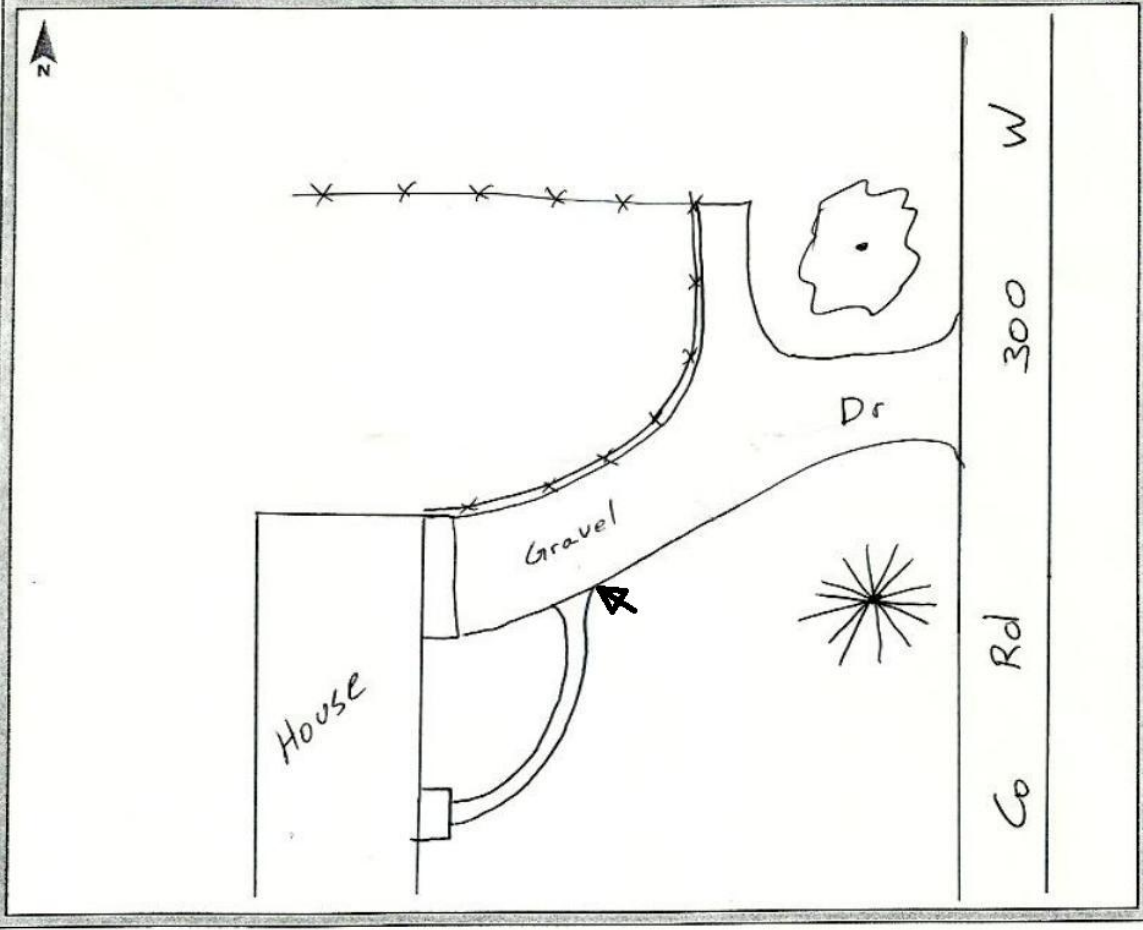


254-3E-16MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>16 MAR 12</u>
Station Name: <u>255</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-21-57.04</u>	Julian Day: <u>076</u>	Session No. _____
Longitude: <u>085-43-41.96</u>	Start Time: <u>3:18</u>	End Time: <u>3:23</u>
Ellip. Height: <u>. 778.58</u>	Data File Name: <u>INDST16MAR12SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 80°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





255-2-16MAR2012



255-3W-16MAR2012

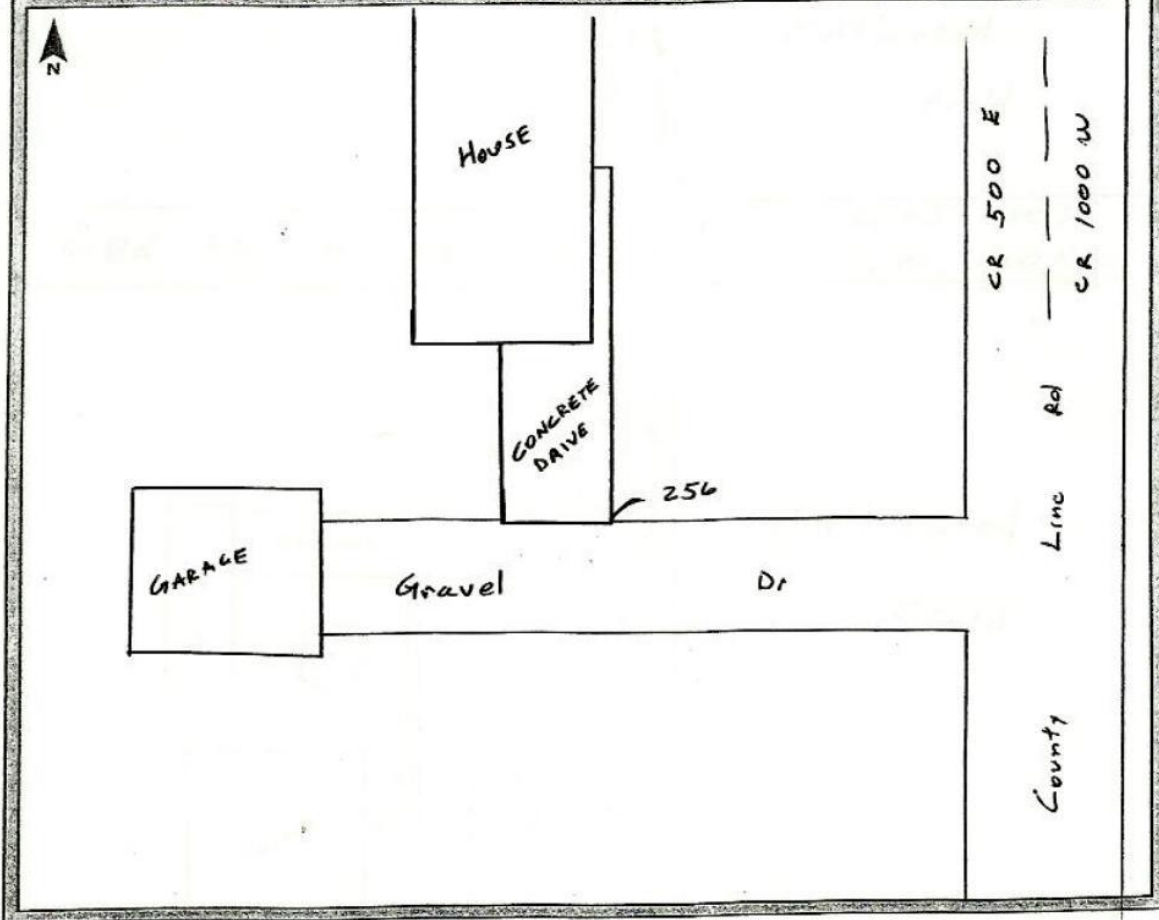


255-3N-16MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>22MAR12</u>
Station Name: <u>256</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-22-38.28</u>	Julian Day: <u>082</u>	Session No. _____
Longitude: <u>085-34-44.28</u>	Start Time: <u>11:45</u>	End Time: <u>11:48</u>
Ellip. Height: <u>.779.17</u>	Data File Name: <u>INDST22MAR12SS</u>	
Type of Mark: <u>Corner Concrete Drive</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°, WIND</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





256-2-21MAR2012



256-3W-21MAR2012

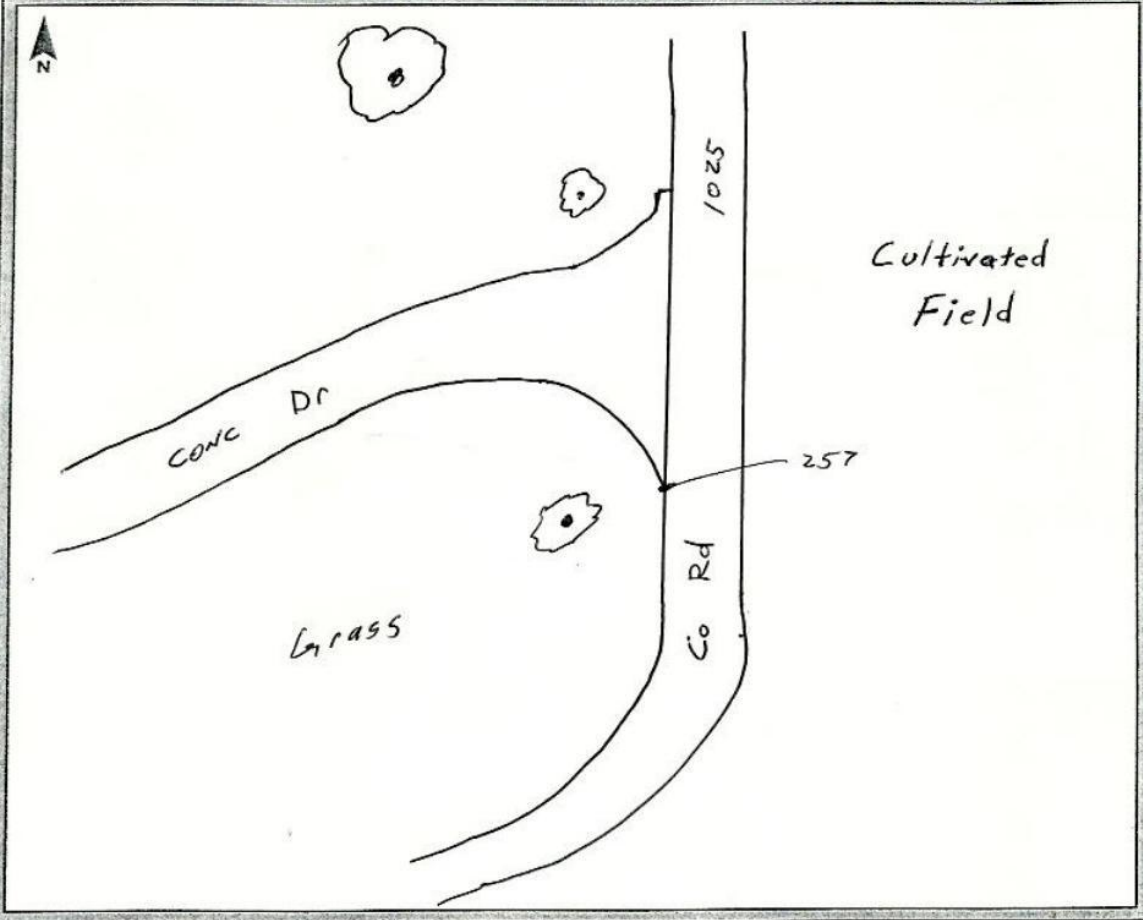


256-3N-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 15 MAR 12
Station Name: 257 Operator Name: Stephen Schonegg
Latitude: 40-14-55.93 Julian Day: 075 Session No. _____
Longitude: 085-43-24.99 Start Time: 10:18 End Time: 10:28
Ellip. Height: .747.59 Data File Name: INDST15MAR12SS
Type of Mark: Corner Concrete Drive Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: PT Sunny, 70° Antenna Height: 6.562 FT to bottom of antenna mount





257-2-15MAR2012



257-3W-15MAR2012

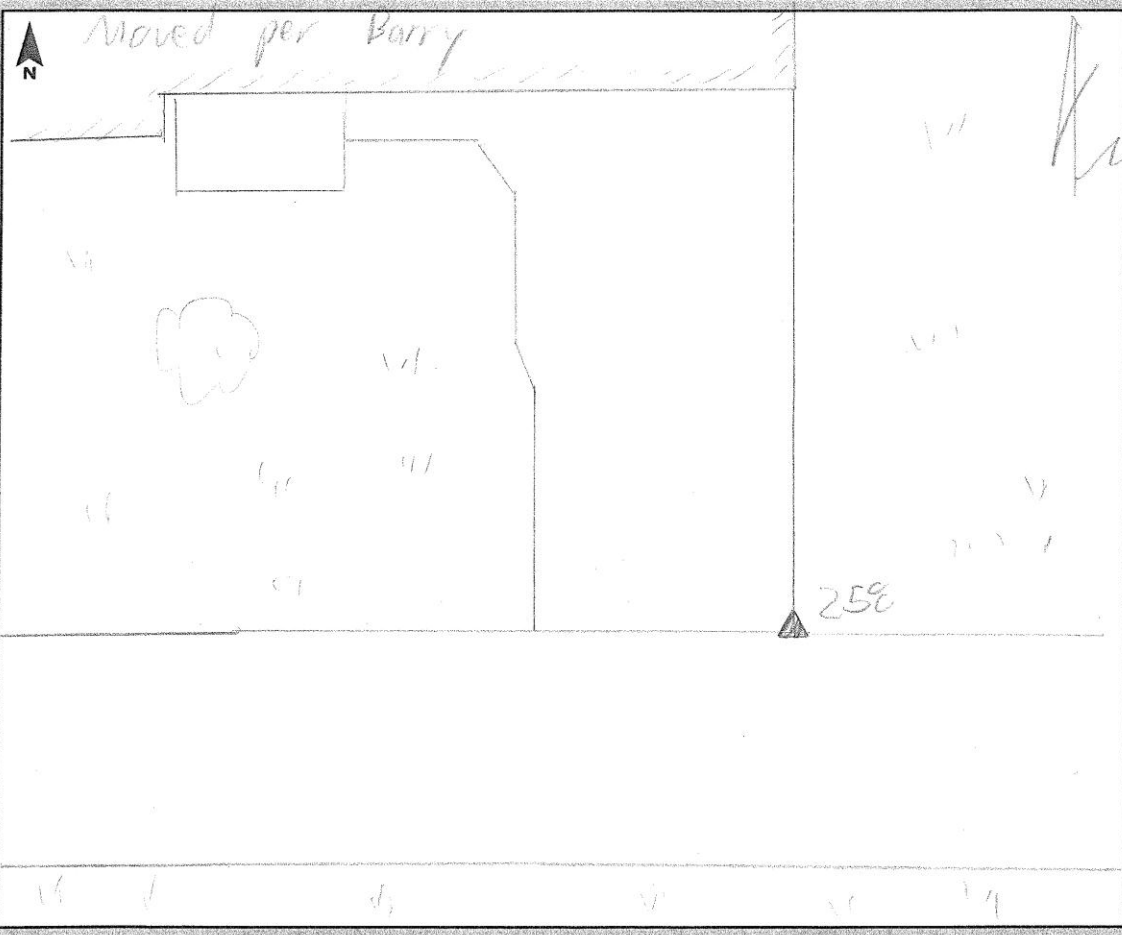


257-3N-15MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72314</u>	Survey Date: <u>2012-0316</u>
Station Name: <u>258</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 18' 35.2"</u>	Julian Day: <u>076</u>	Session No. <u>1</u>
Longitude: <u>84° 50' 33.7"</u>	Start Time: <u>09:09</u>	End Time: <u>09:30</u>
Ellip. Height: <u>9.14'</u>	Data File Name: <u>INDY_076-DNH</u>	
Type of Mark: <u>SF corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>Conc Drive</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's & cloudy</u>	Antenna Height: <u>2000M</u>	to bottom of antenna mount





258-2-16MAR2012



258-3E-16MAR2012

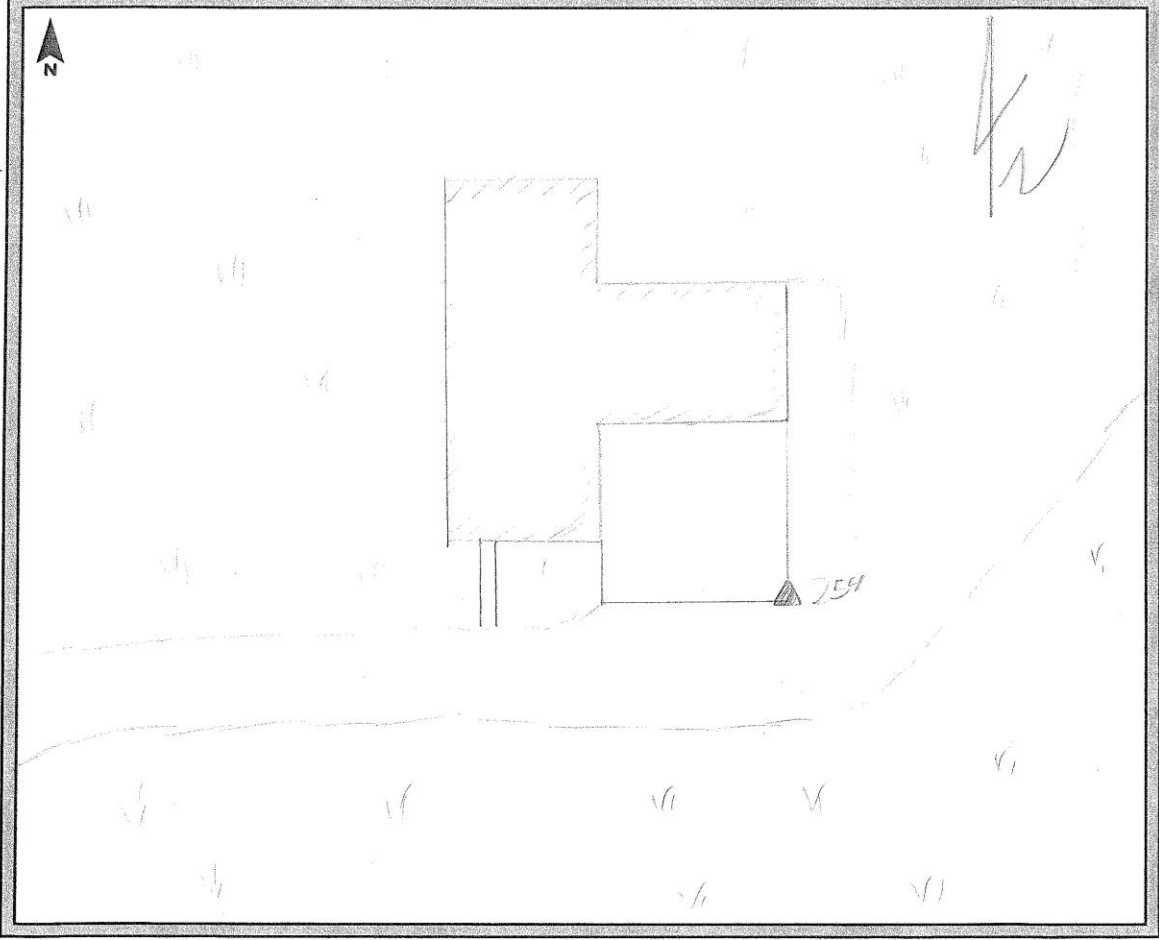


258-3N-16MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72314 Survey Date: 2012-03-16
Station Name: 259 Operator Name: David Hall
Latitude: 40° 33' 22.9" Julian Day: 076 Session No. 1
Longitude: 84° 48' 07.4" Start Time: 10:26 End Time: 10:32
Ellip. Height: 741' Data File Name: INDY_076-DML1
Type of Mark: SE corner of Type of Receiver: R8-3
Stamping on Mark: conc. Apron Type of Antenna: R8-3
Weather Condition: 60% O Partly Cloudy Antenna Height: 2000N to bottom of antenna mount





259-2-16MAR2012



259-3N-16MAR2012

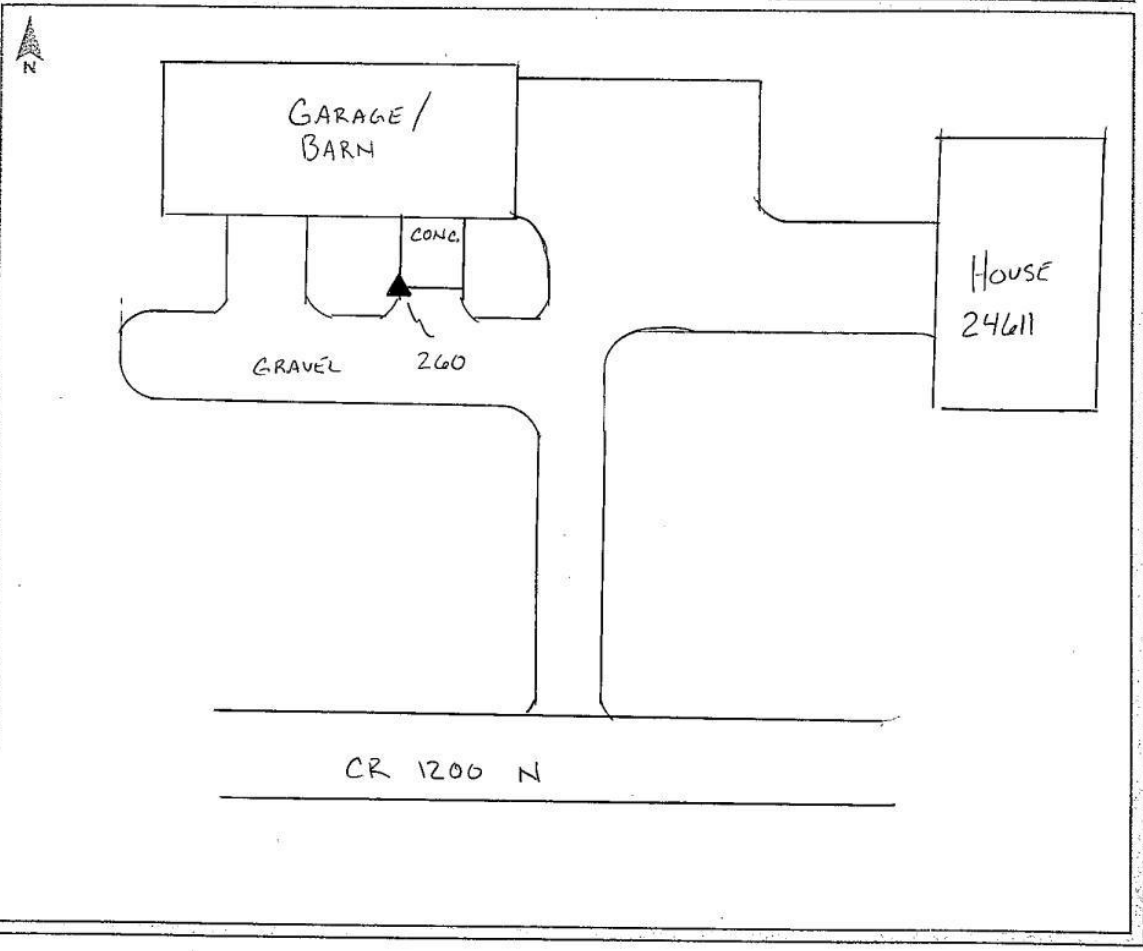


259-3E-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/21/2012</u>
Station Name: <u>260</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 55' 23.99" N</u>	Julian Day: <u>081</u>	Session No. <u>—</u>
Longitude: <u>84° 49' 09.99" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>695.03 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>76° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





260-2-21MAR2012



260-3N-21MAR2012

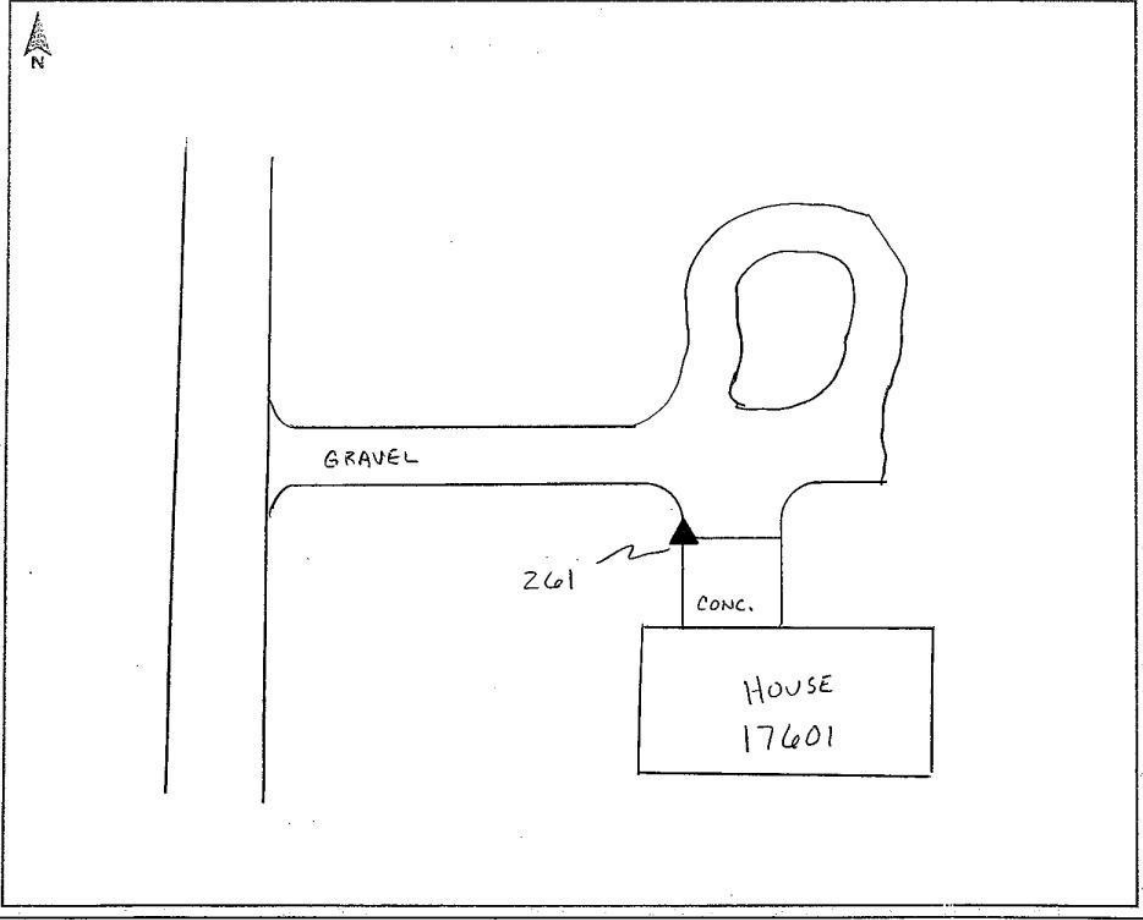


260-3E-21MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>8/22/2012</u>
Station Name: <u>Z61</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 55' 14.97" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>85° 03' 49.88" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>689.02 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





261-2-22MAR2012



261-23E-22MAR2012

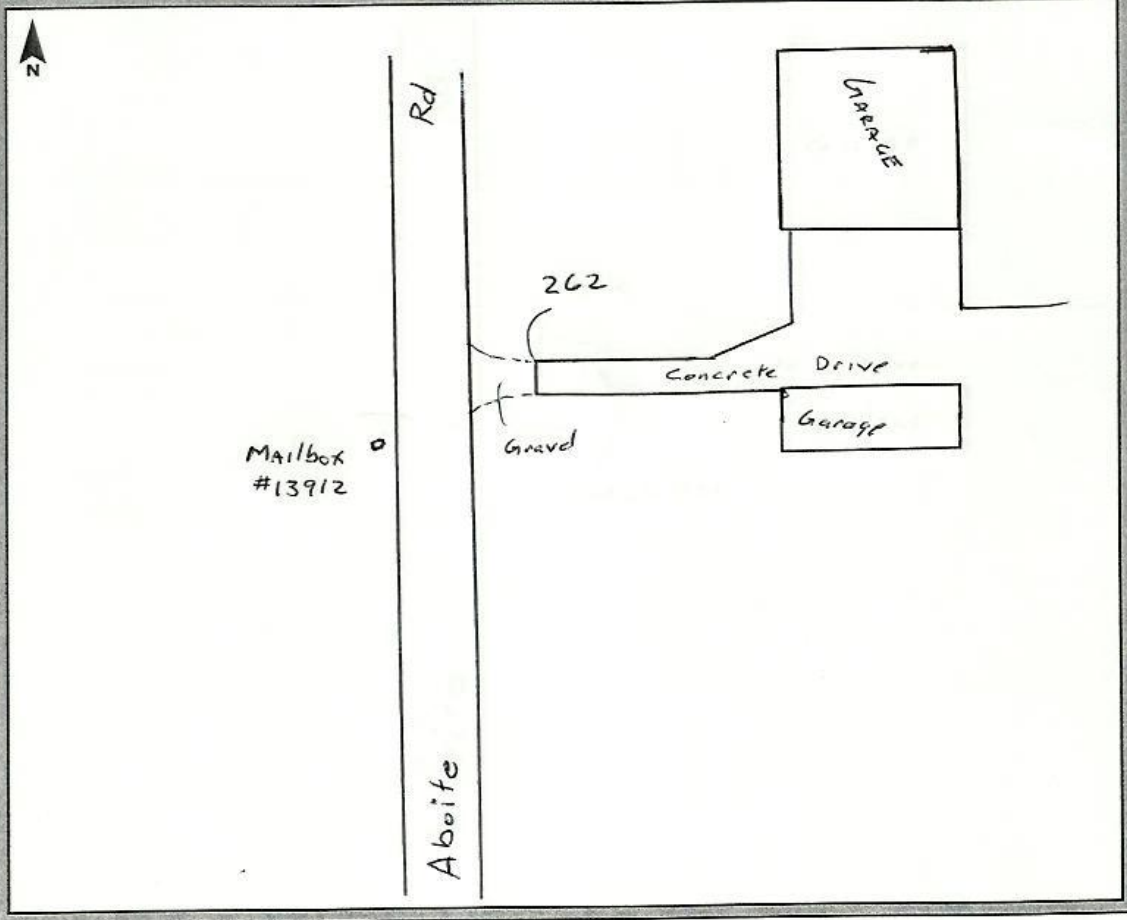


261-3S-22MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>22 MAR 12</u>
Station Name: <u>262</u>	Operator Name: <u>STEPHEN Schonegg</u>	
Latitude: <u>40-55-03.93</u>	Julian Day: <u>082</u>	Session No. _____
Longitude: <u>085-19-08.13</u>	Start Time: <u>3:38</u>	End Time: <u>3:42</u>
Ellip. Height: <u>673.97 FT</u>	Data File Name: <u>IND ST 22 MAR 12 SS</u>	
Type of Mark: <u>Corner Concrete Drive</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>PT Cloudy, 80°, LIGHT WIND</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





262-2-22MAR2012



262-3E-22MAR2012

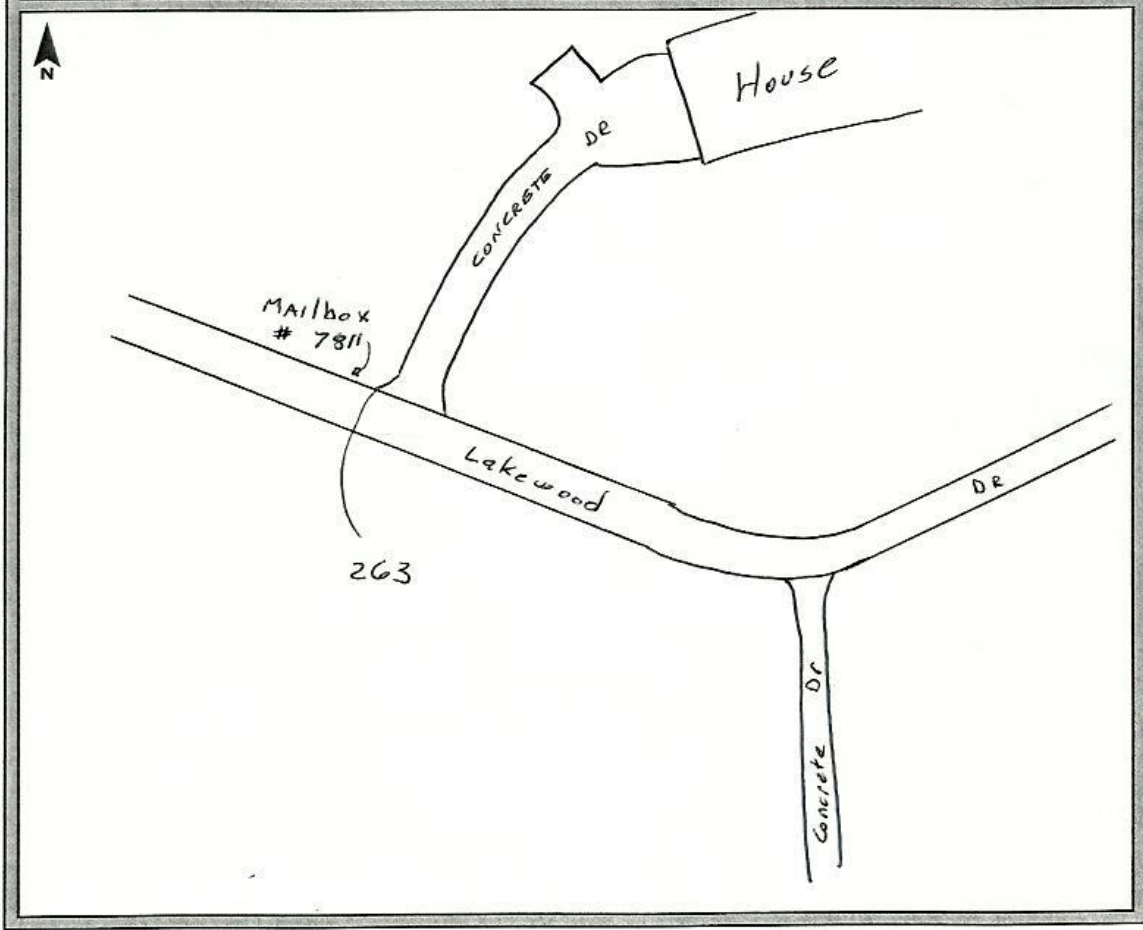


262-3N-22MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: 263 Operator Name: STEPHEN SCHONEGG
Latitude: 41-01-03.17 Julian Day: 083 Session No. _____
Longitude: 085-20-22.72 Start Time: 9:29 End Time: 9:33
Ellip. Height: .729.55 FT Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 70°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





263-2-23MAR2012



263-3N-23MAR2012

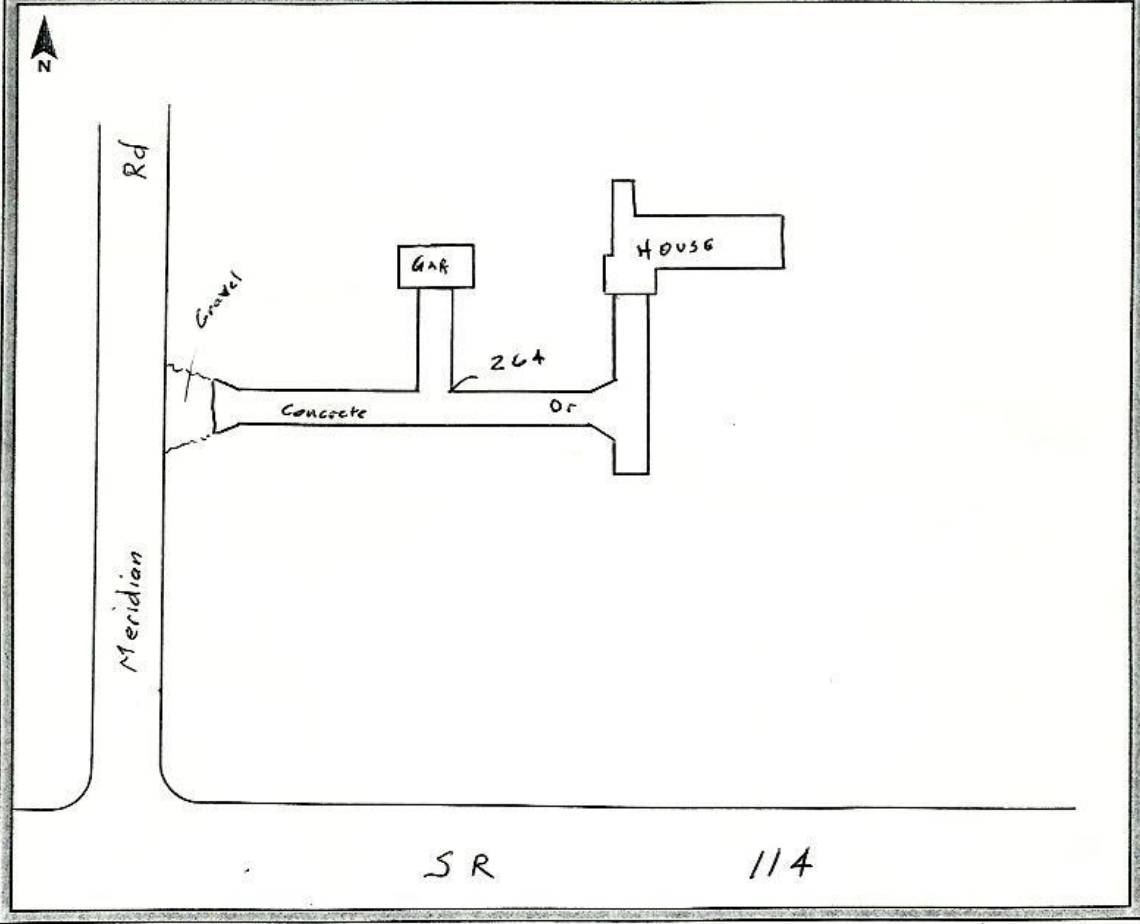


263-3E-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23MAR12
Station Name: 264 Operator Name: STEPHEN SCHONEGG
Latitude: 41-00-16.98 Julian Day: 083 Session No. _____
Longitude: 085-29-22.56 Start Time: 10:03 End Time: 10:08
Ellip. Height: .734.58 Ft Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





264-2-23MAR2012



264-3E-23MAR2012

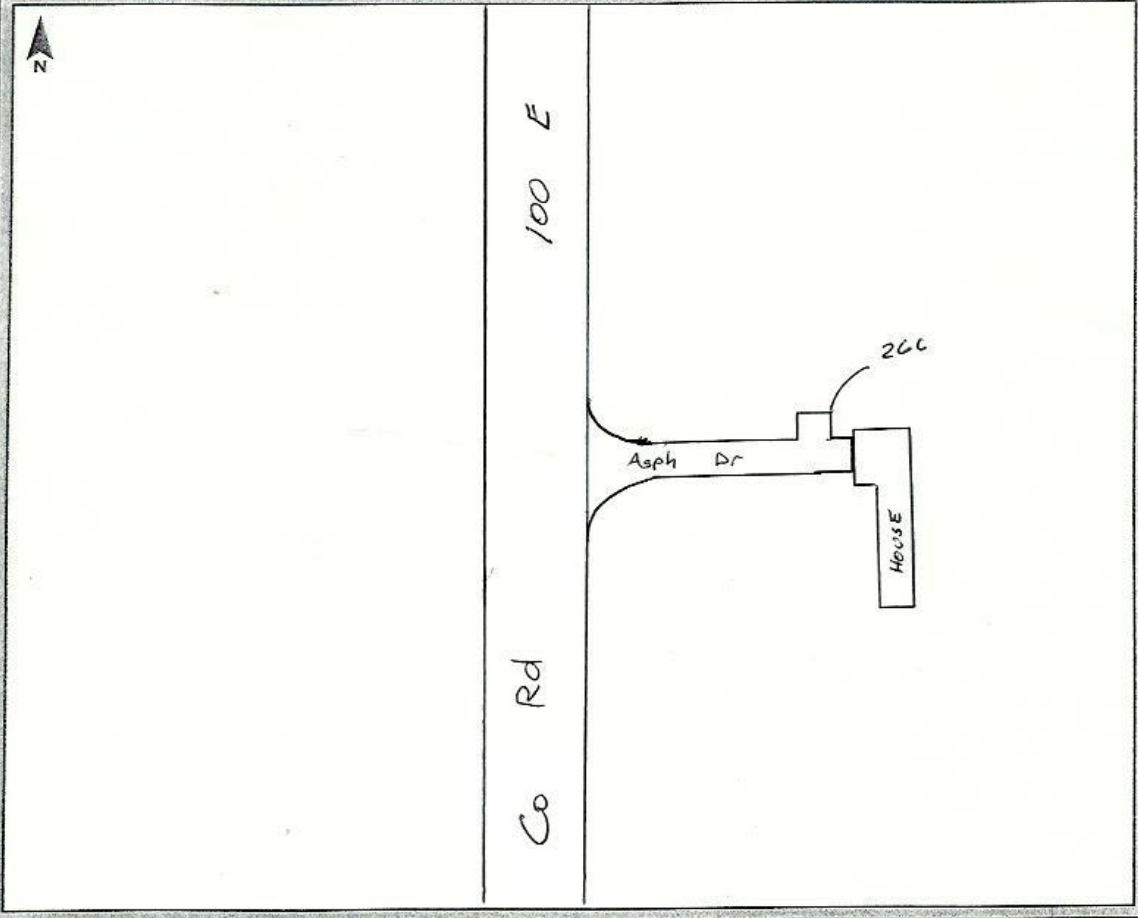


264-3N-23MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>16 MAR 12</u>
Station Name: <u>266</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-39-19.29</u>	Julian Day: <u>076</u>	Session No. _____
Longitude: <u>085-46-18.21</u>	Start Time: <u>10:19</u>	End Time: <u>10:23</u>
Ellip. Height: <u>. 683.89 FT</u>	Data File Name: <u>INDST16 MAR 12 55</u>	
Type of Mark: <u>Corner Asphalt Dr</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 65°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





266-2-16MAR2012



266-3N-16MAR2012

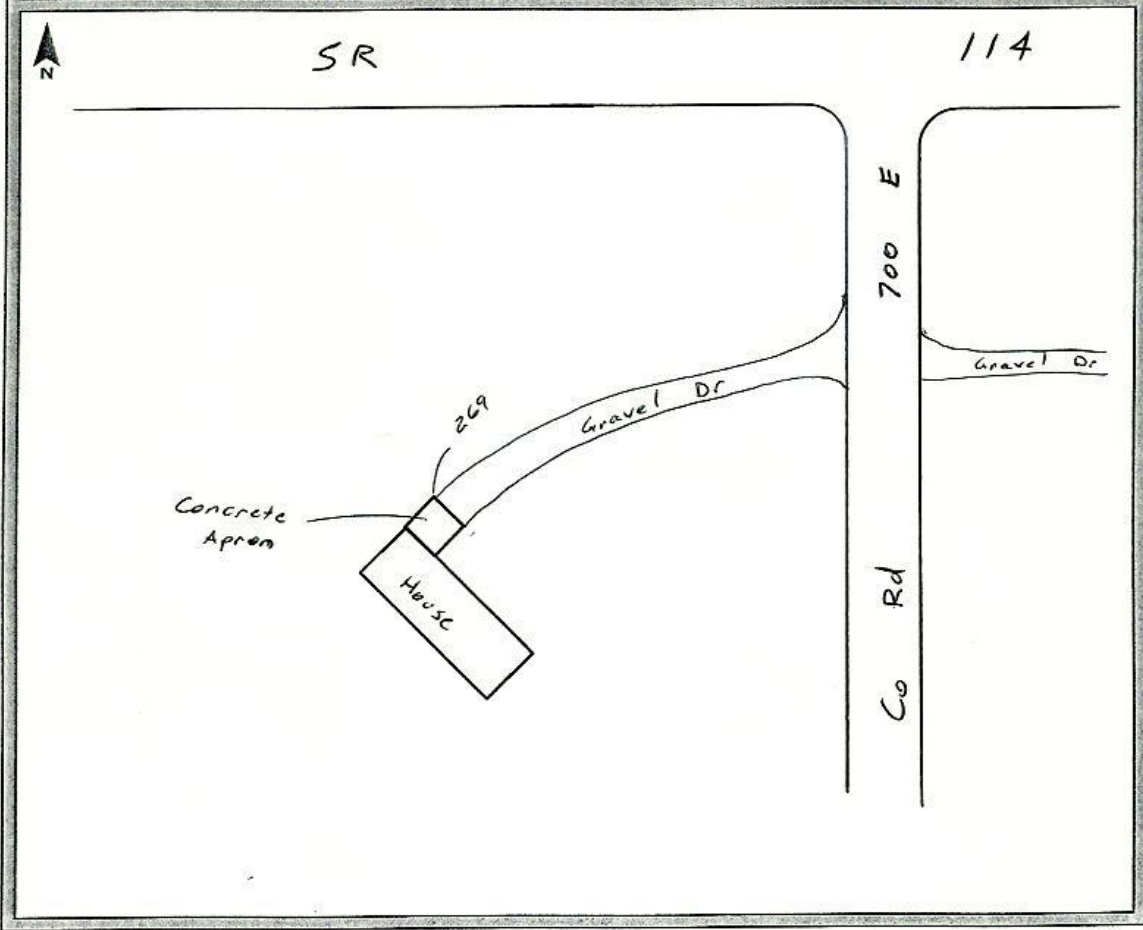


266-3W-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: 269 Operator Name: STEPHEN SCHONEGG
Latitude: 41-00-05.73 Julian Day: 083 Session No. _____
Longitude: 085-39-51.48 Start Time: 10:30 End Time: 10:
Ellip. Height: .749.15 FT Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





269-2-23MAR2012



269-3S-23MAR2012

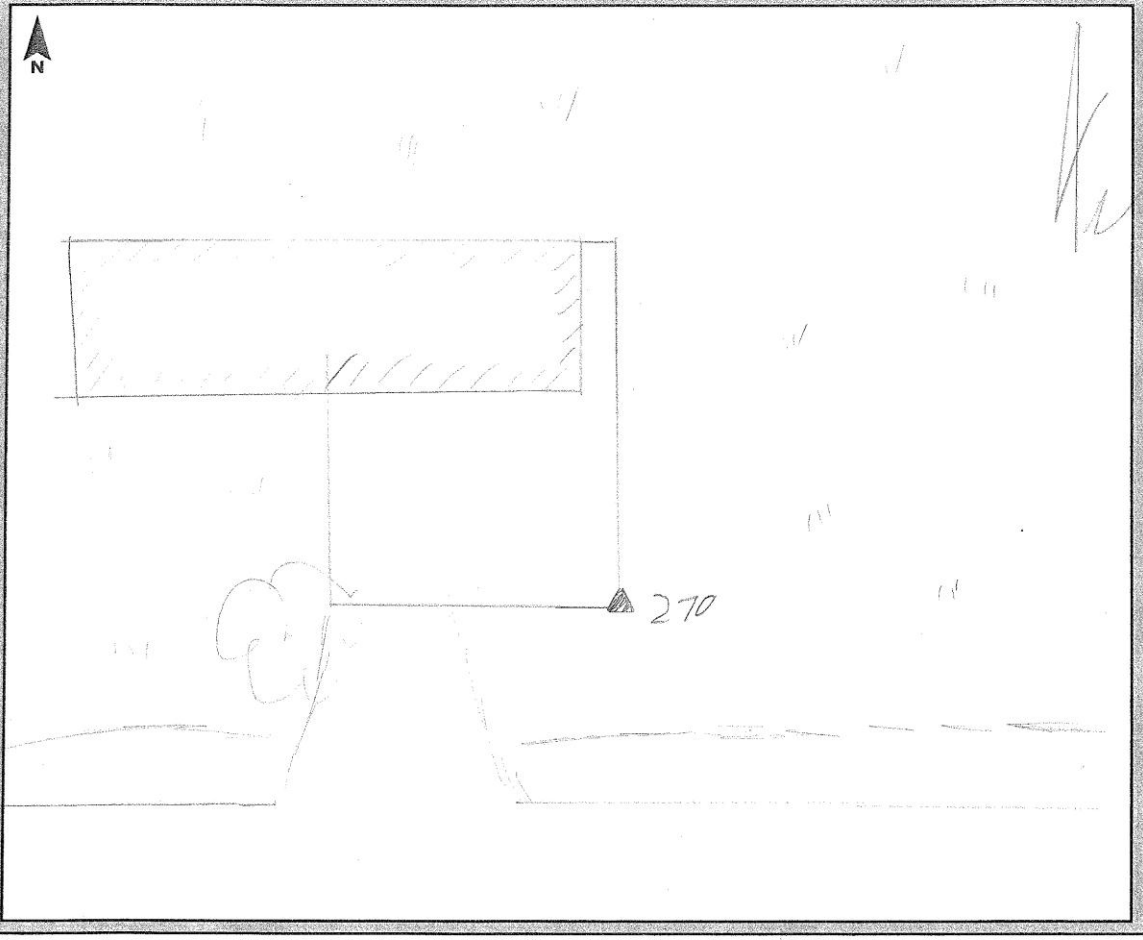


269-3W-23MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72314 Survey Date: 2012-03-16
Station Name: 270 Operator Name: David Hall
Latitude: 40° 33' 21.2" Julian Day: 076 Session No. 1
Longitude: 84° 57' 27.2" Start Time: 12:42 End Time: 12:47
Ellip. Height: 732' Data File Name: INDY-076-DMH1
Type of Mark: Corner of concrete Type of Receiver: RE-3
Stamping on Mark: _____ Type of Antenna: RE-3
Weather Condition: 60's & partly cloudy Antenna Height: 2.000M to bottom of antenna mount





270-2-16MAR2012



270-3E-16MAR2012

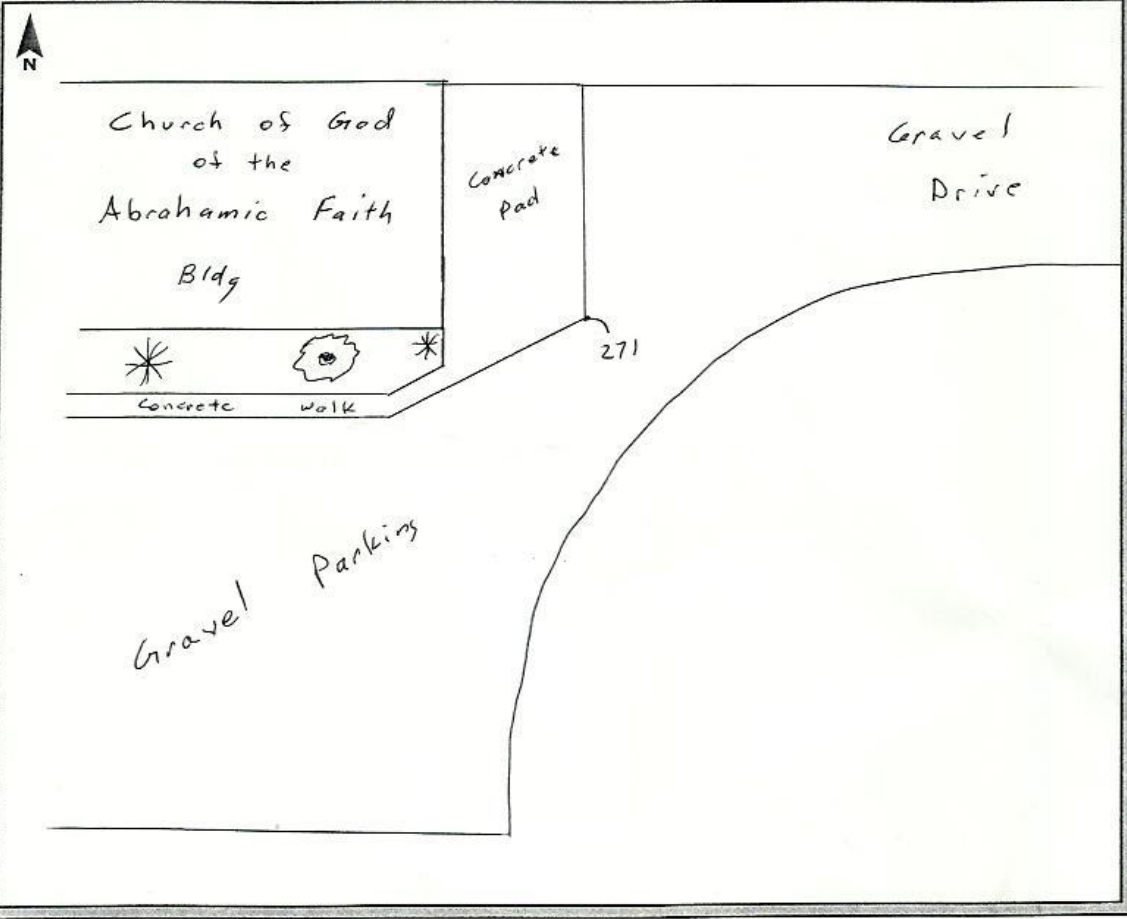


270-3N-16MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>21 MAR 12</u>
Station Name: <u>271</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-33-22.93</u>	Julian Day: <u>081</u>	Session No. _____
Longitude: <u>085-22-18.38</u>	Start Time: <u>11:19</u>	End Time: _____
Ellip. Height: <u>+ 756.61 FT</u>	Data File Name: <u>INDST MAR12SS</u>	
Type of Mark: <u>Corner Concrete Pad</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°, Light Wind</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





271-2-21MAR2012



271-3N-21MAR2012

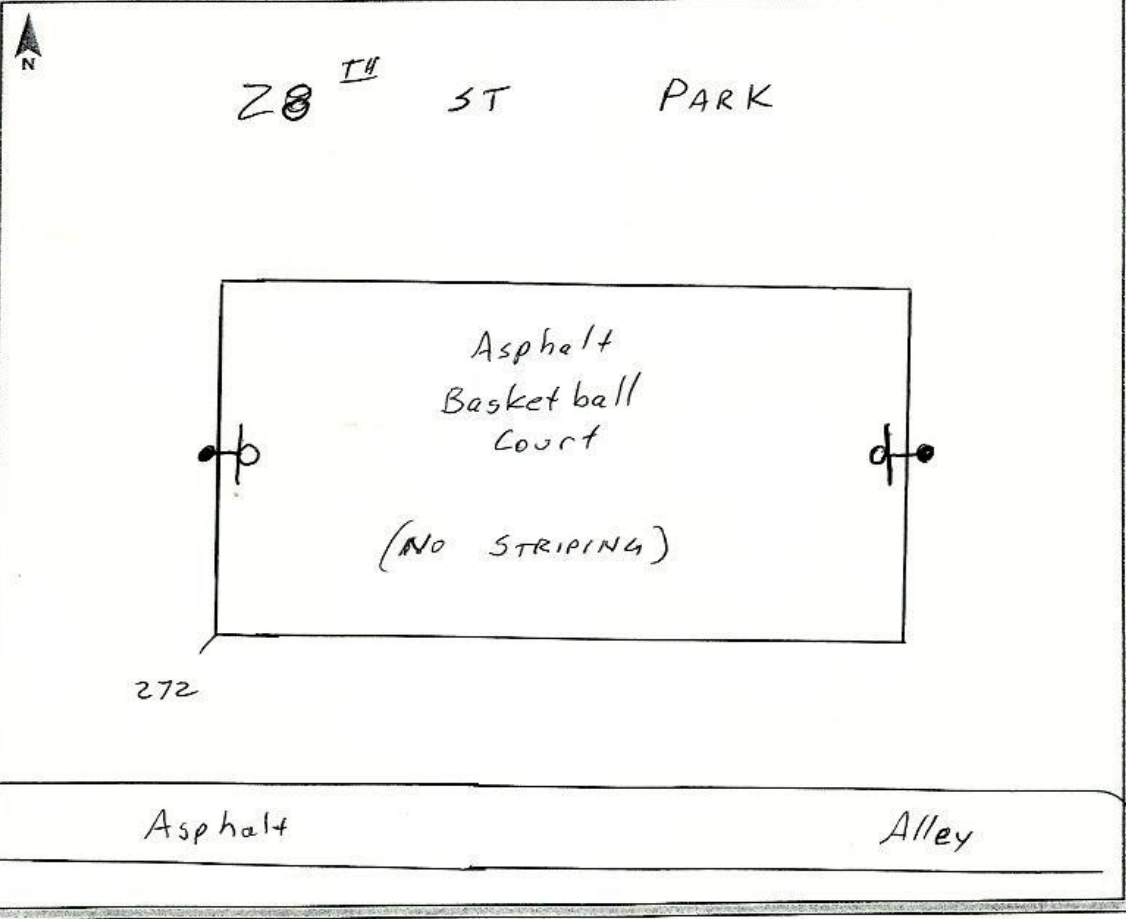


271-3W-21MAR2012

GPS Observation Log Sheet

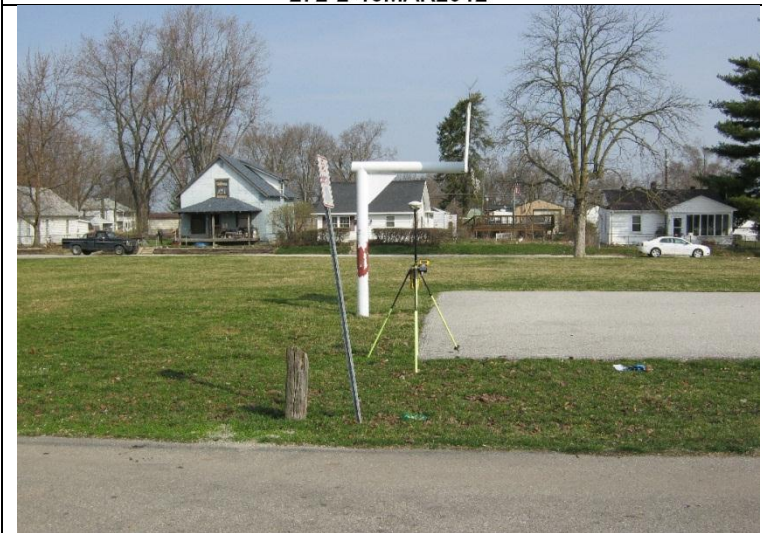


Project Name:	<u>INDIANA STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>16 MAR 12</u>
Station Name:	<u>272</u>	Operator Name:	<u>Stephen Schonegg</u>		
Latitude:	<u>40-32-08.36</u>	Julian Day:	<u>076</u>	Session No.:	
Longitude:	<u>085-38-52.60</u>	Start Time:	<u>11:12</u>	End Time:	<u>11:15</u>
Ellip. Height:	<u>. 725.33</u>	Data File Name:	<u>INDST16 MAR 12 SS</u>		
Type of Mark:	<u>Corner Asphalt Pad</u>	Type of Receiver:	<u>R8-2 #9357</u>		
Stamping on Mark:		Type of Antenna:			
Weather Condition:	<u>Sunny, 65°</u>	Antenna Height:	<u>6.562 FT</u> to bottom of antenna mount		





272-2-16MAR2012



272-3N-16MAR2012

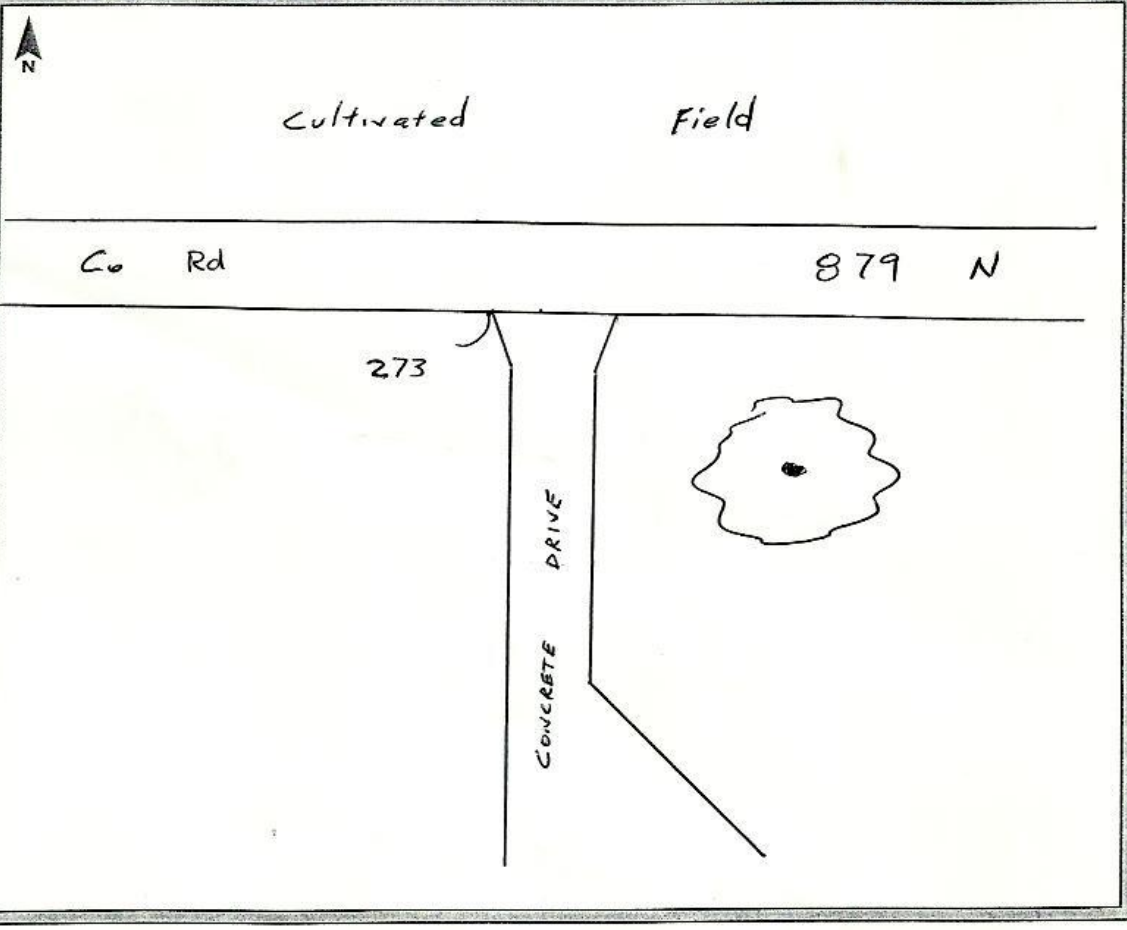


272-3W-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 15 MAR 12
Station Name: 273 Operator Name: Stephen Schonegg
Latitude: 40-19-04.29 Julian Day: 075 Session No. _____
Longitude: 085-19-26.06 Start Time: 3:26 End Time: 3:30
Ellip. Height: .795.00 Data File Name: INDST15MAR12SS
Type of Mark: Corner Concrete Drive Type of Receiver: RB-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: PT Cloudy, 78°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





273-2-14MAR2012



273-3N-14MAR2012

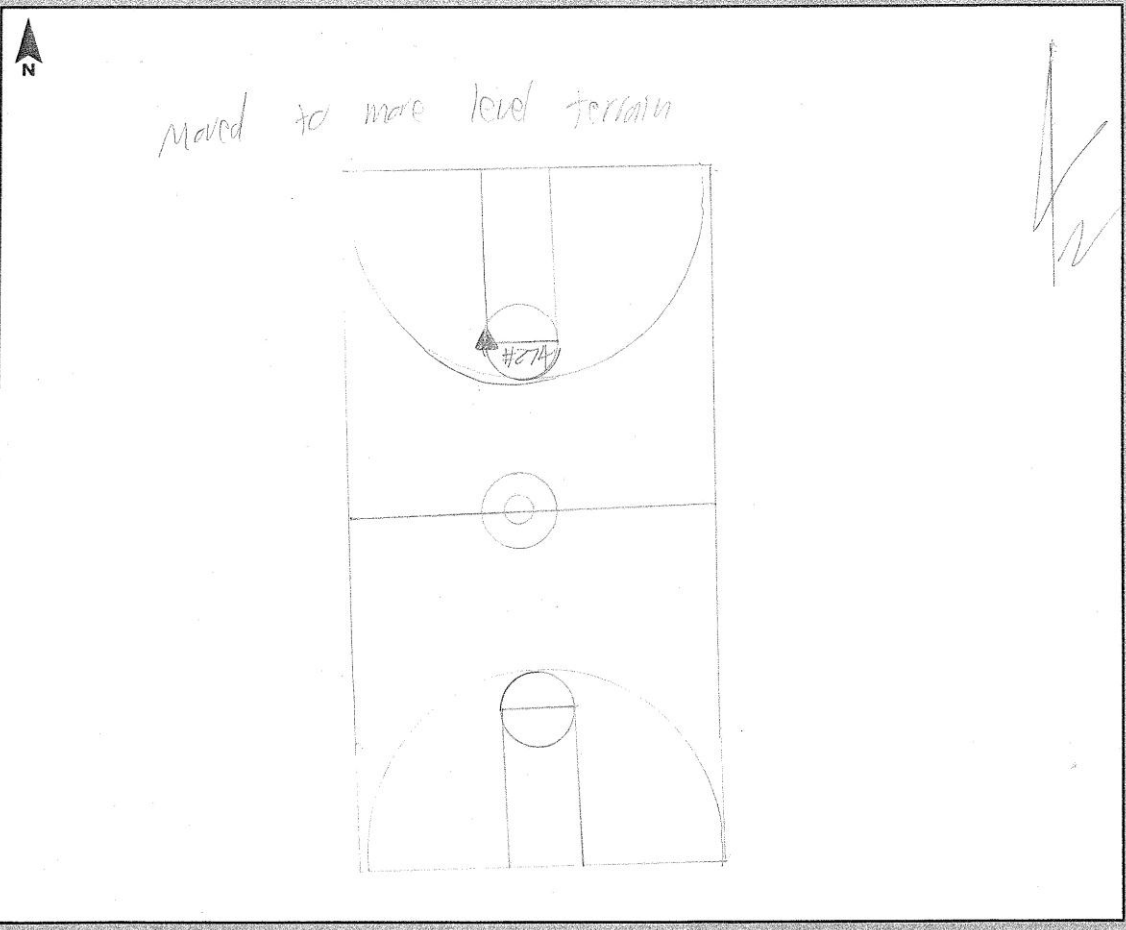


273-3E-14MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u> Survey Date: <u>2012-03-19</u>
Station Name: <u>274</u>	Operator Name: <u>David Hall</u>
Latitude: <u>40° 17' 26.8"</u>	Julian Day: <u>075</u> Session No. <u>2</u>
Longitude: <u>85° 01' 35.4"</u>	Start Time: <u>12:27</u> End Time: <u>12:40</u>
Ellip. Height: <u>887'</u>	Data File Name: <u>INDY_075_D.HH</u>
Type of Mark: <u>Intersection of Pkwy</u>	Type of Receiver: <u>RE-3</u>
Stamping on Mark: <u>Stripes</u>	Type of Antenna: <u>RE-3</u>
Weather Condition: <u>60° ☀ Clear</u>	Antenna Height: <u>2.000M</u> to bottom of antenna mount





274-2-15MAR2012



274-3N-15MAR2012

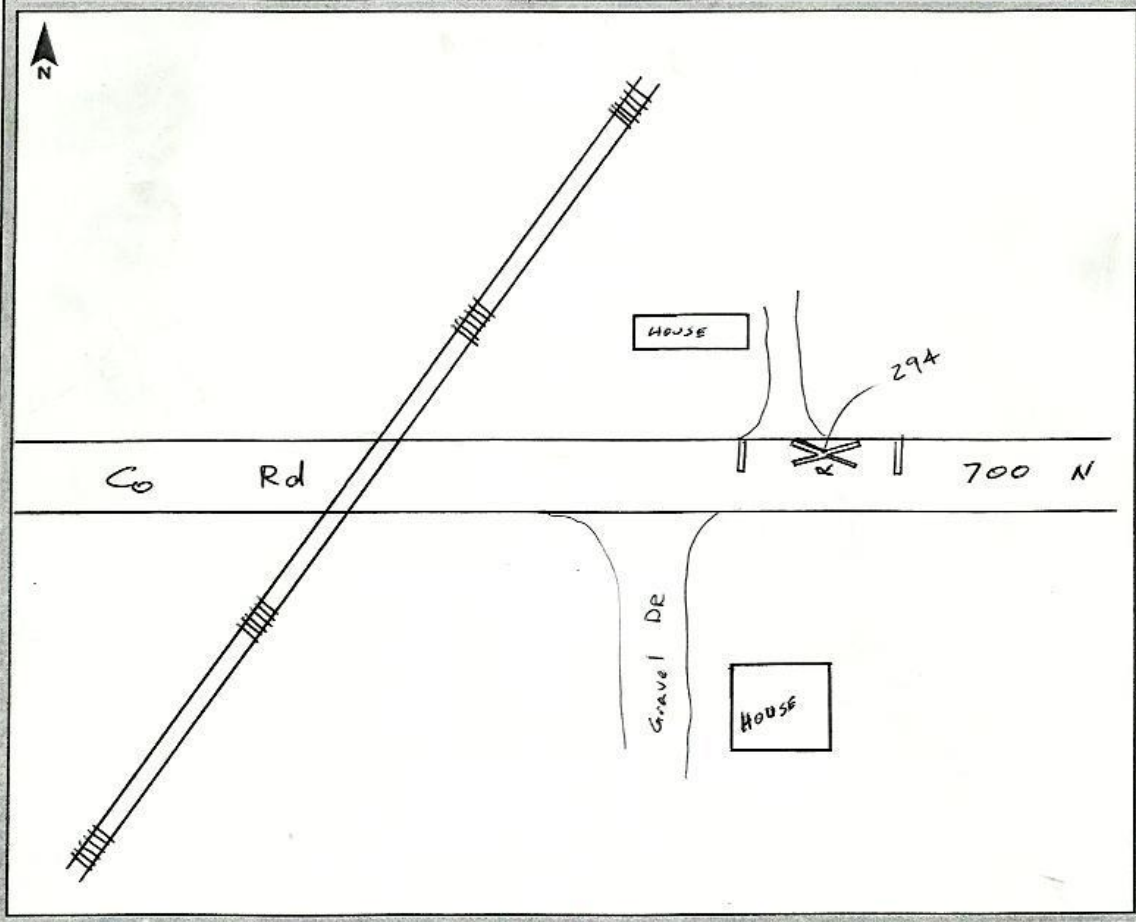


274-3E-15MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21 MAR 12
Station Name: 294 Operator Name: Stephen Schonegg
Latitude: 40-39-13.13 Julian Day: 081 Session No. _____
Longitude: 085-28-07.98 Start Time: 12:42 End Time: 12:46
Ellip. Height: . 729.37 Data File Name: IND ST 21 MAR 12 SS
Type of Mark: Center Painted X Type of Receiver: R8-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 80°, Light Wind Antenna Height: 6.562 FT to bottom of antenna mount





294-2-21MAR2012



294-3W-21MAR2012

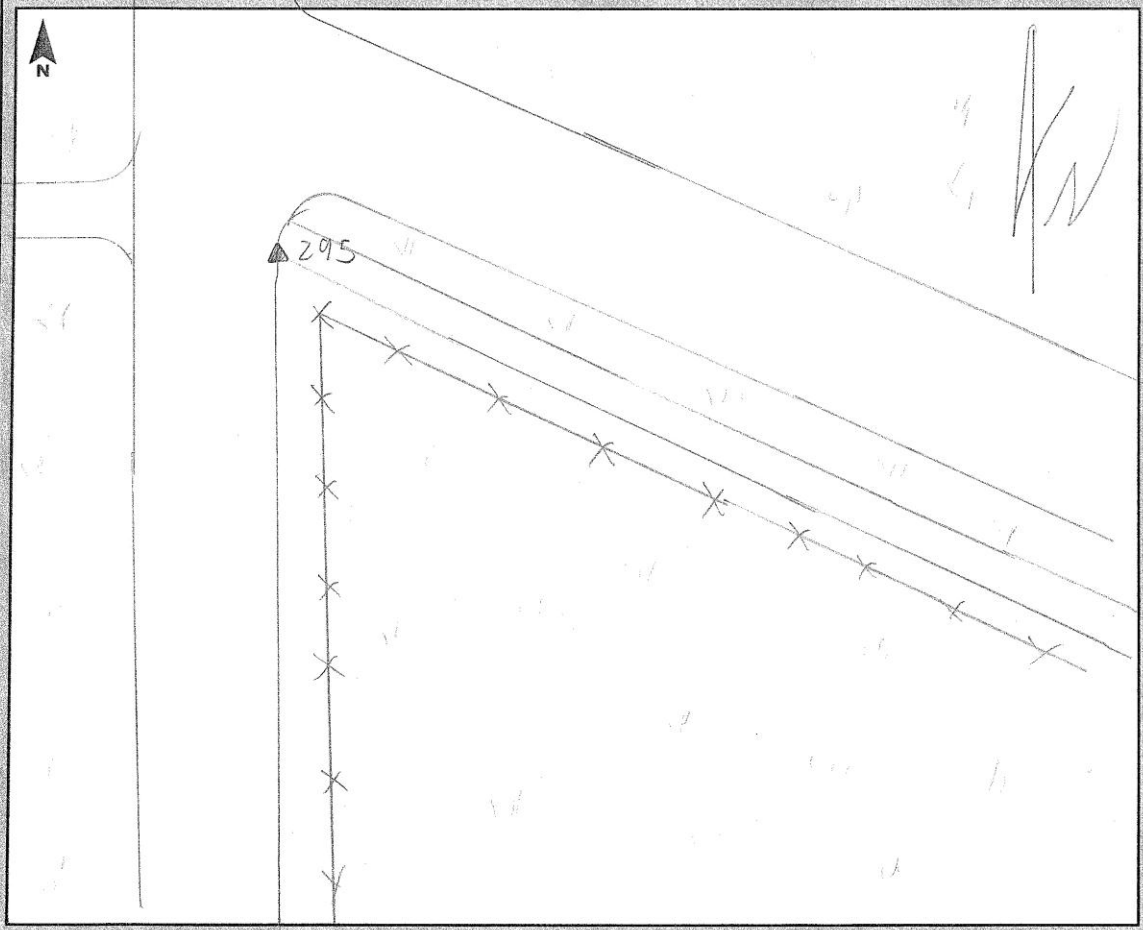


294-3N-21MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-15</u>
Station Name: <u>295</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 22' 36.7"</u>	Julian Day: <u>075</u>	Session No. <u>2</u>
Longitude: <u>85° 12' 50.2"</u>	Start Time: <u>13:15</u>	End Time: <u>13:25</u>
Ellip. Height: <u>824'</u>	Data File Name: <u>JADY_075_DMH</u>	
Type of Mark: <u>Corner of conc</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>walk as probed</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° & Clear</u>	Antenna Height: <u>2.000M</u> to bottom of antenna mount	





295-2-15MAR2012



295-3N-15MAR2012

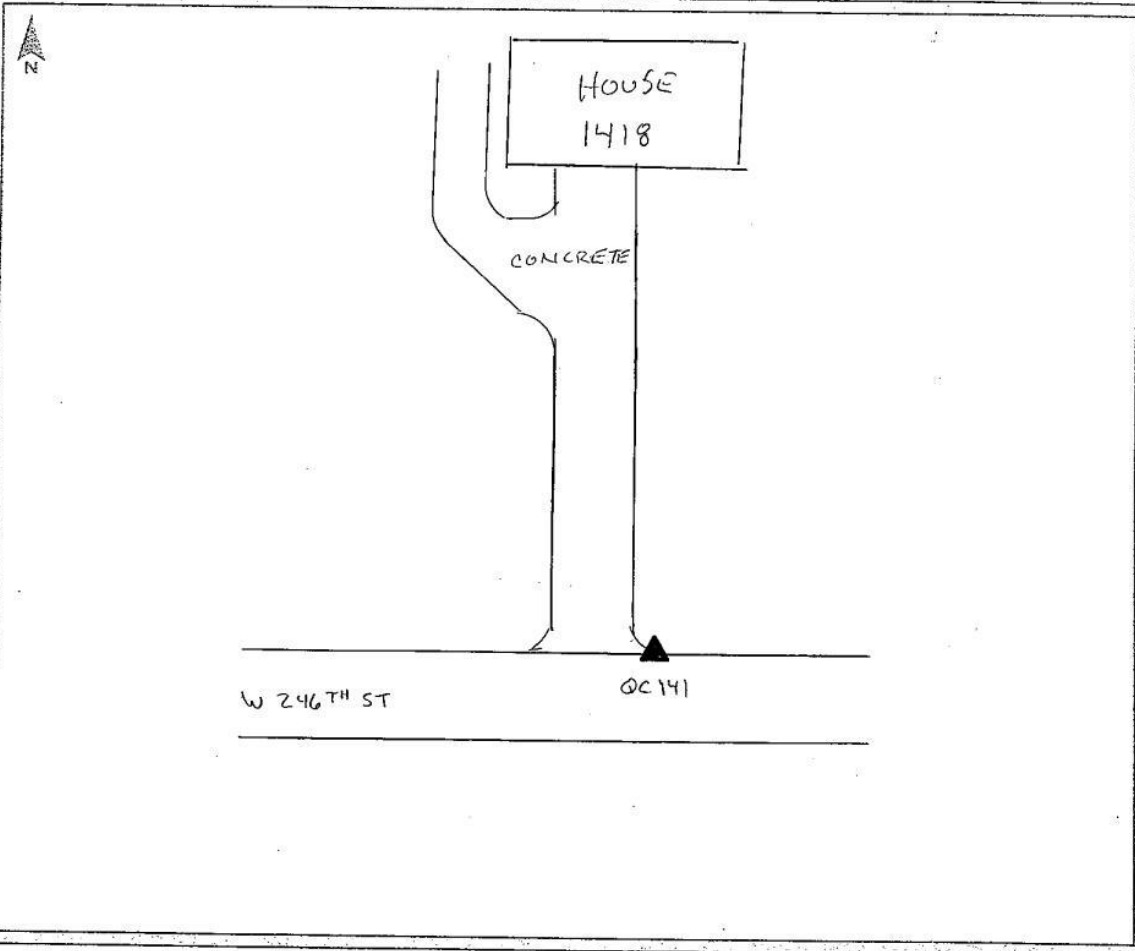


295-3E-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/16/2012</u>
Station Name: <u>QC141</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 08' 41.44" N</u>	Julian Day: <u>076</u>	Session No. <u>—</u>
Longitude: <u>86° 11' 08.14" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>827.15 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>70° SUNNY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC141-2-16MAR2012



QC141-3W-16MAR2012

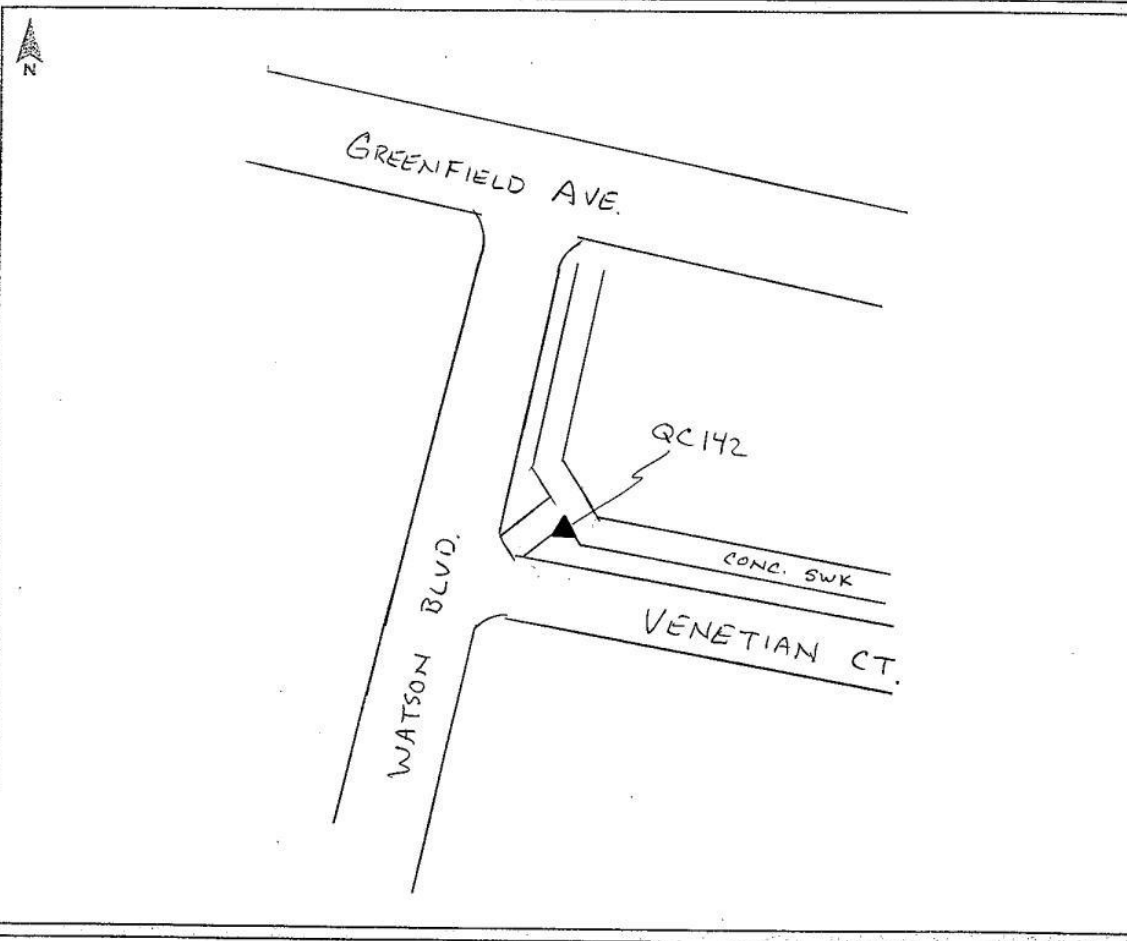


QC141-3N-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>QC 142</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 00' 40.47" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 57' 47.49" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>683.61 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR. SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC142-2-13MAR2012



QC142-3S-13MAR2012

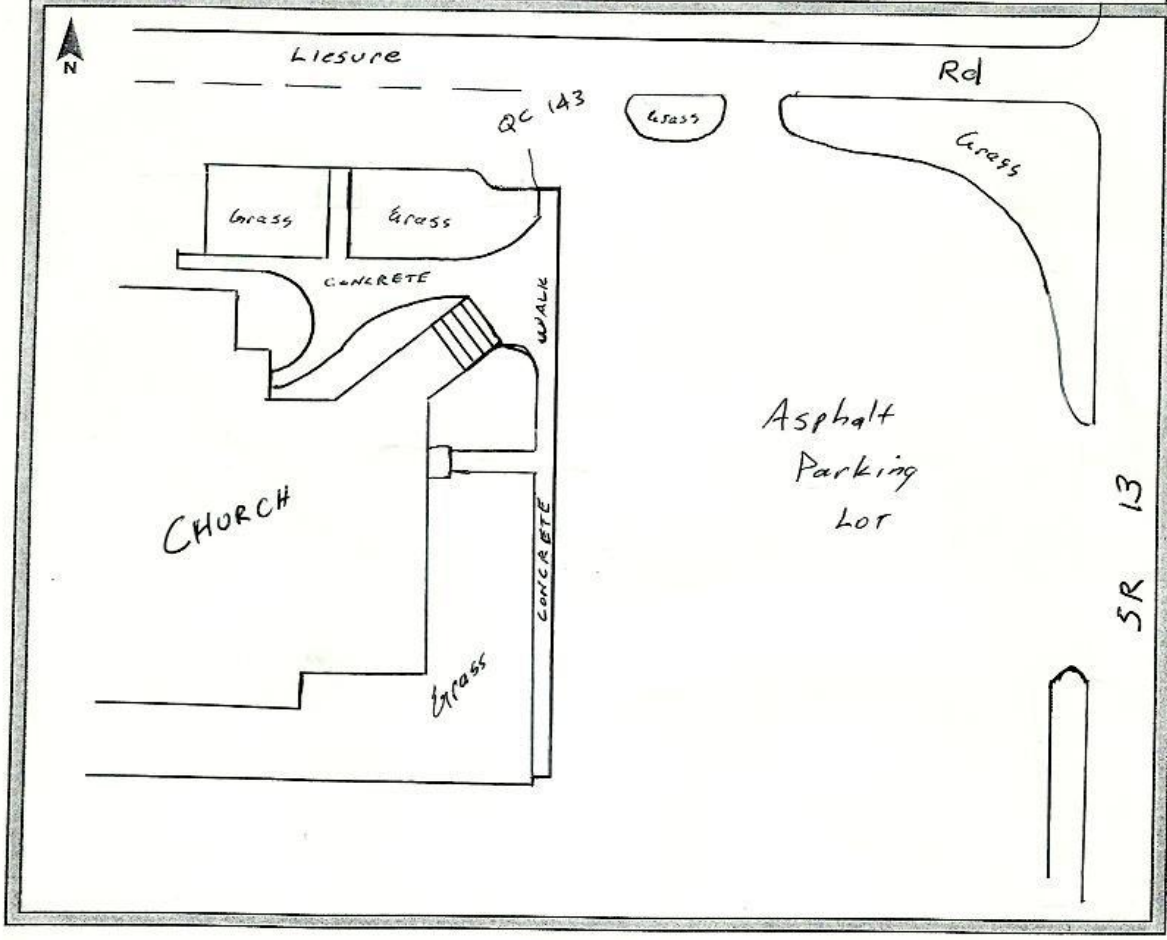


QC142-3N-13MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>16 MAR 12</u>
Station Name: <u>QC 143</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-21-50.30</u>	Julian Day: <u>076</u>	Session No. _____
Longitude: <u>085-50-38.01</u>	Start Time: <u>1:10</u>	End Time: <u>1:16</u>
Ellip. Height: <u>754.85</u>	Data File Name: <u>INDST16MAR12SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 Ft</u> to bottom of antenna mount	





QC 143-2-16MAR2012



QC 143-3W-16MAR2012

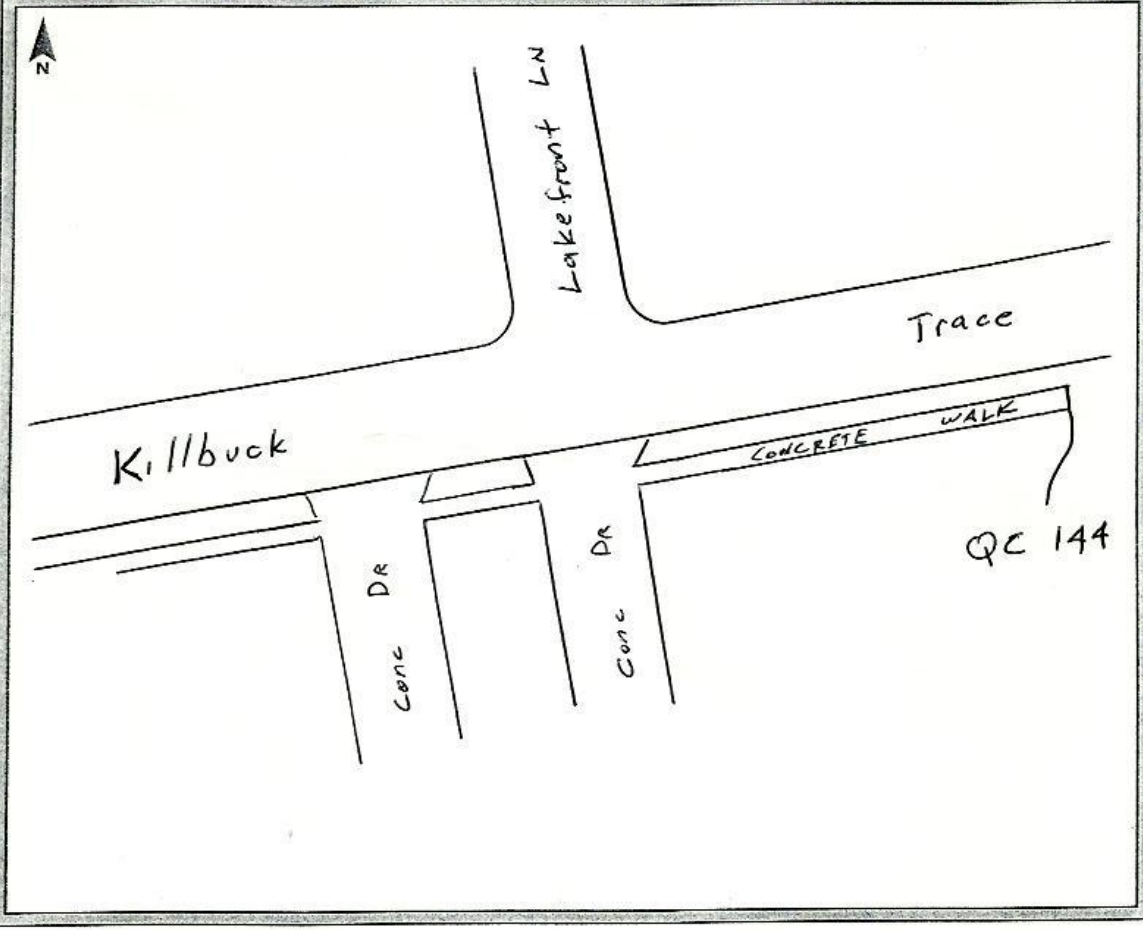


QC 143-3N-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 15 MAR 12
Station Name: QC 144 Operator Name: Stephen Schonegg
Latitude: 40-09-09.98 Julian Day: 075 Session No. _____
Longitude: 085-39-30.33 Start Time: 9:45 End Time: 9:49
Ellip. Height: .750.84 Data File Name: INDST15MAR12SS
Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: PT Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 144-2-15MAR2012



QC 144-3W-15MAR2012

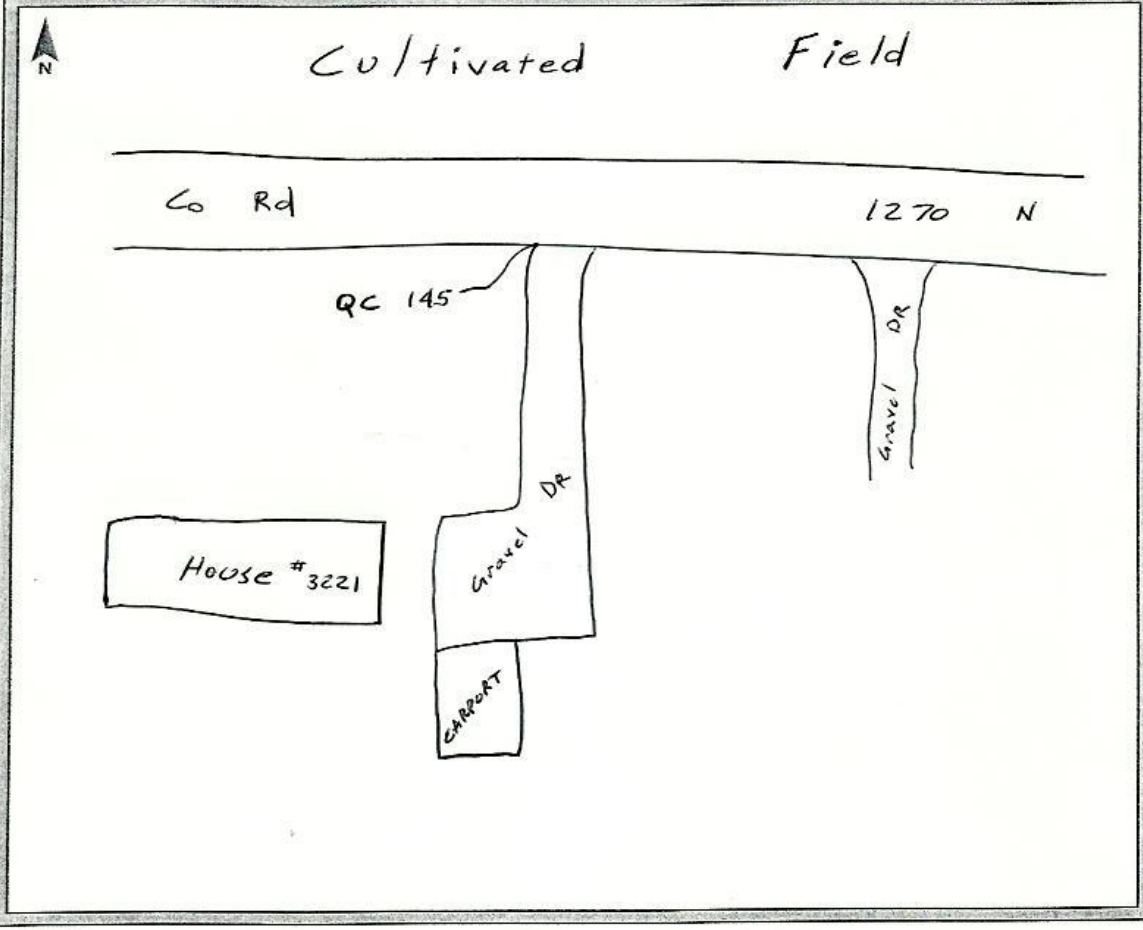


QC 144-3N-15MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>21 MAR 12</u>
Station Name: <u>QC 145</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>40-22-28.70</u>	Julian Day: <u>081</u>	Start Time: <u>10:05</u> End Time: <u>10:09</u>
Longitude: <u>085-25-30.73</u>	Data File Name: <u>INDST21MAR12SS</u>	Type of Receiver: <u>RB-2 #9357</u>
Ellip. Height: <u>813.10 FT</u>	Type of Antenna: _____	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount
Type of Mark: <u>Corner Gravel Drive</u>	Stamping on Mark: _____	Weather Condition: <u>Sunny, 70°, LIGHT WIND</u>





QC 145-2-21MAR2012



QC 145-3W-21MAR2012

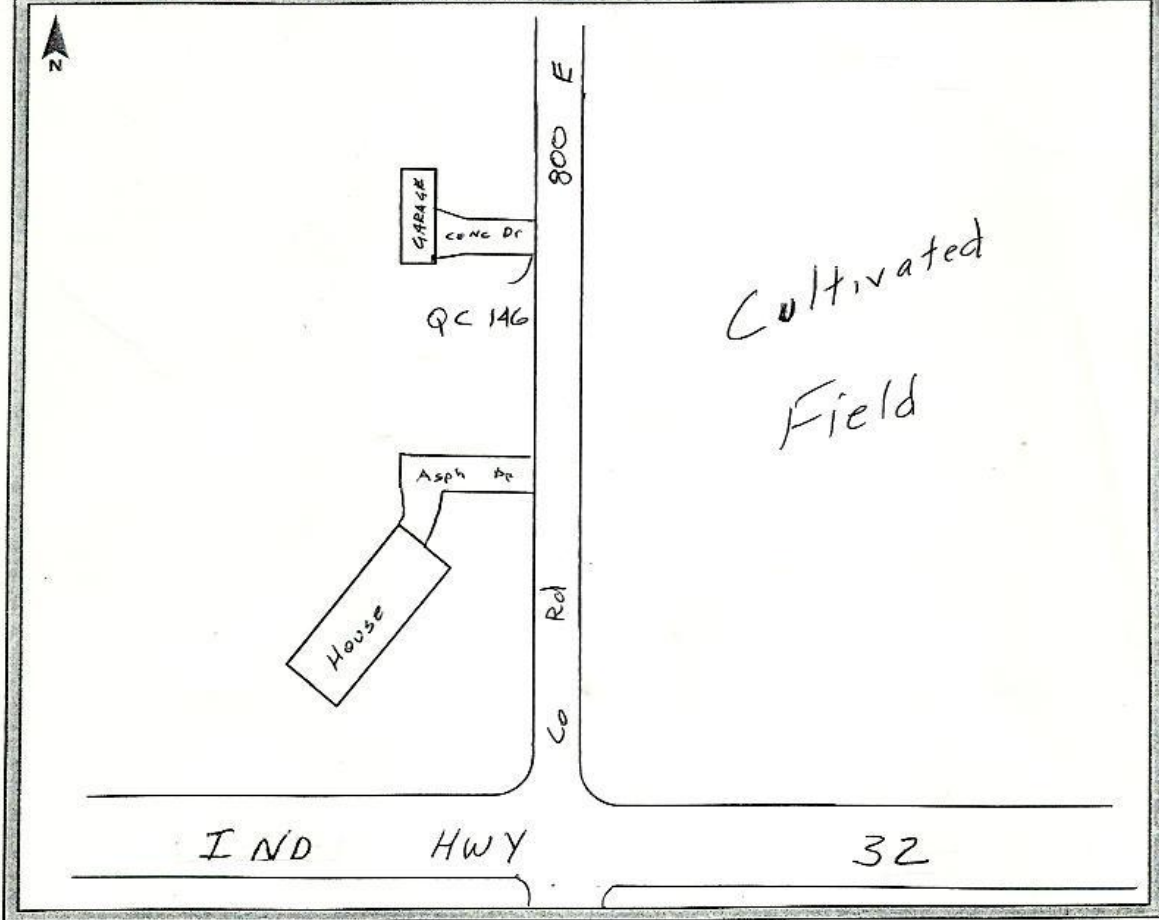


QC 145-3N-21MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>QC 146</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-11-40.76</u>	Julian Day: <u>074</u>	Session No. _____
Longitude: <u>085-14-08.84</u>	Start Time: <u>4:29</u>	End Time: <u>4:33</u>
Ellip. Height: <u>909.50</u>	Data File Name: <u>INDST MAR12SS</u>	
Type of Mark: <u>Corner Concrete Drive</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





QC146-2-14MAR2012



QC146-3N-14MAR2012

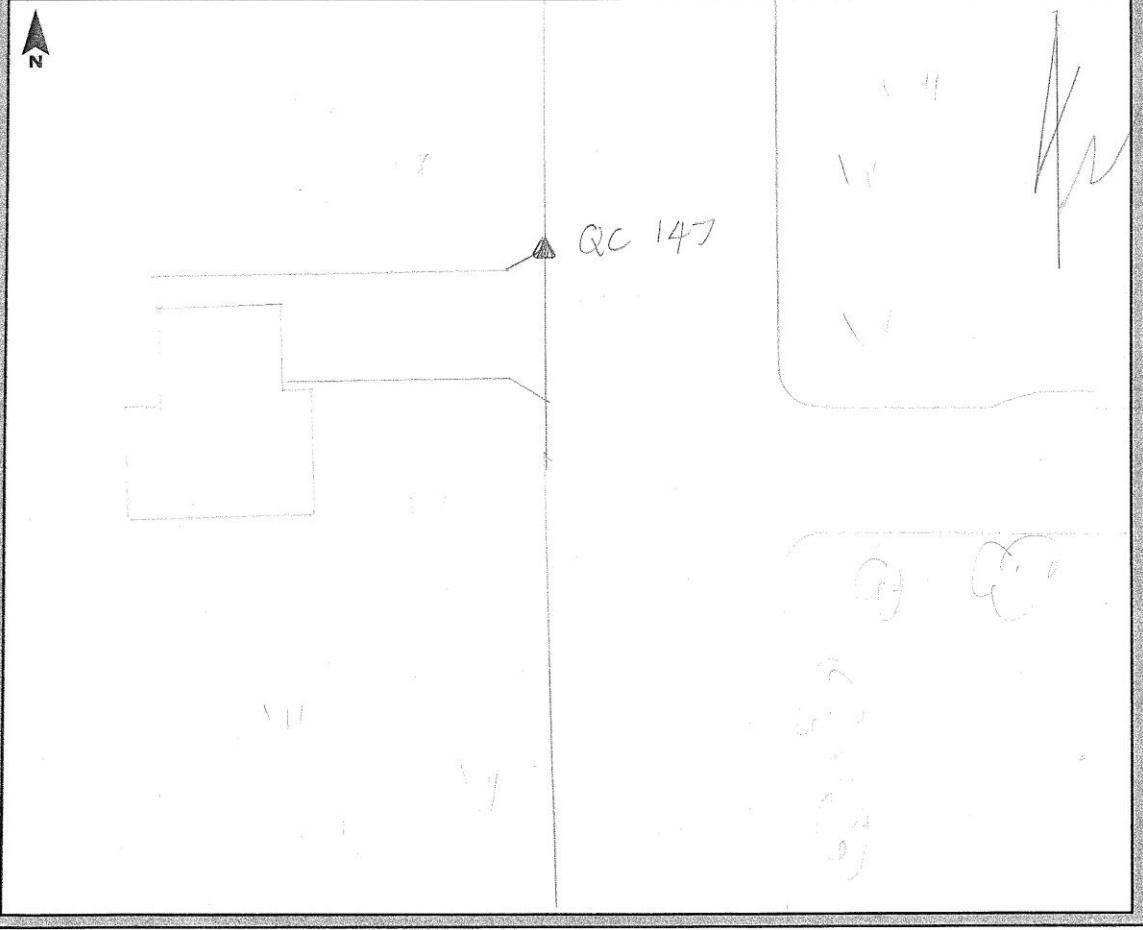


QC146-3E-14MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 200</u>	Project Number: <u>2134</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>QC 147</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 11' 43.7"</u>	Julian Day: <u>074</u>	Session No. <u>2</u>
Longitude: <u>85° 07' 36.0"</u>	Start Time: <u>13:24</u>	End Time: <u>13:34</u>
Ellip. Height: <u>923</u>	Data File Name: <u>JNDY_074.DMS</u>	
Type of Mark: <u>Northerly Corner</u>	Type of Receiver: <u>KR-3</u>	
Stamping on Mark: <u>of Conc Drive</u>	Type of Antenna: <u>RB-3</u>	
Weather Condition: <u>60% & CLEAR</u>	Antenna Height: <u>2.00cm</u>	to bottom of antenna mount





QC147-2-14MAR2012



QC147-3N-14MAR2012

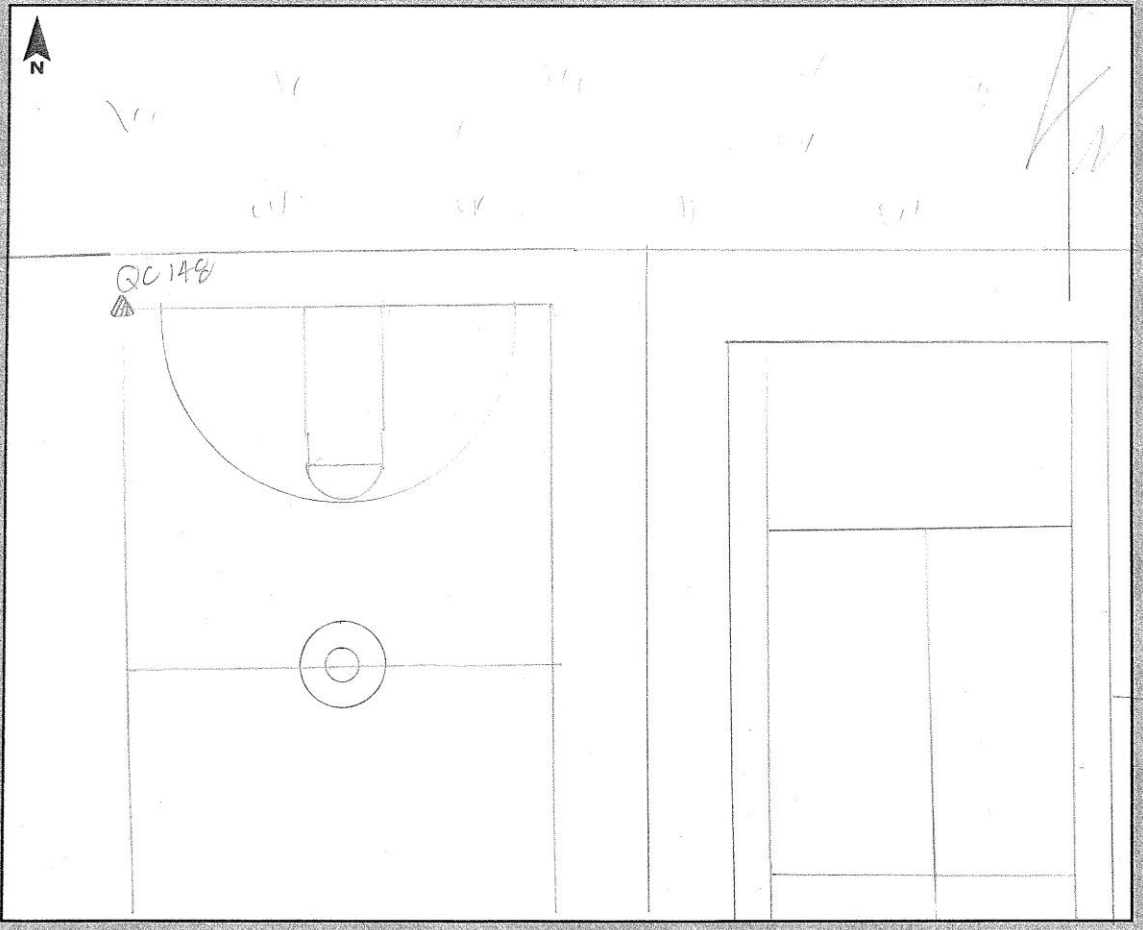


QC147-3E-14MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>QC148</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 03' 12.8"</u>	Julian Day: <u>074</u>	Session No. <u>1</u>
Longitude: <u>84° 56' 44.6"</u>	Start Time: <u>09148</u>	End Time: <u>09158</u>
Ellip. Height: <u>1060'</u>	Data File Name: <u>INDY 074 DM</u>	
Type of Mark: <u>2012 01 post</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>2012</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>50% to clear</u>	Antenna Height: <u>2.000M</u>	to bottom of antenna mount





QC148-2-14MAR2012



QC148-3N-14MAR2012

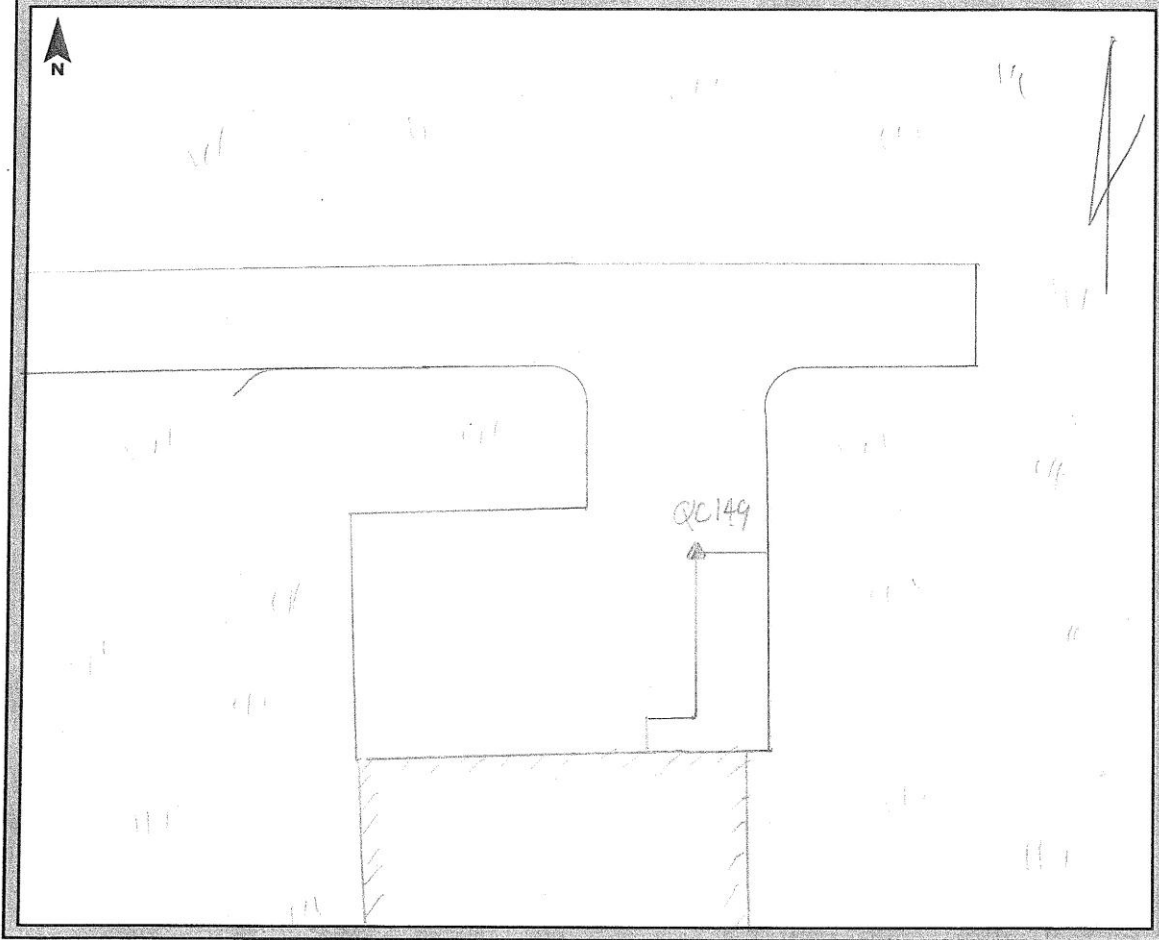


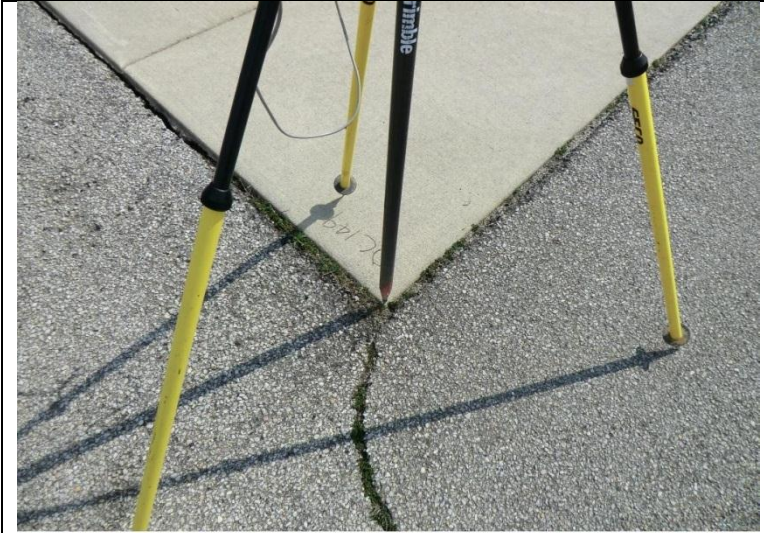
QC148-3E-14MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-15
Station Name: QC149 Operator Name: David Hill
Latitude: 40° 20' 52.5" Julian Day: 075 Session No. 2
Longitude: 85° 08' 47.3" Start Time: 14:22 End Time: 14:32
Ellip. Height: 767.8' Data File Name: INDY075_DWH
Type of Mark: corner of cone Type of Receiver: R8-3
Stamping on Mark: launch ramp Type of Antenna: R8-3
Weather Condition: 60's & clear Antenna Height: 2.000M to bottom of antenna mount





QC149-2-15MAR2012



QC149-3N-15MAR2012



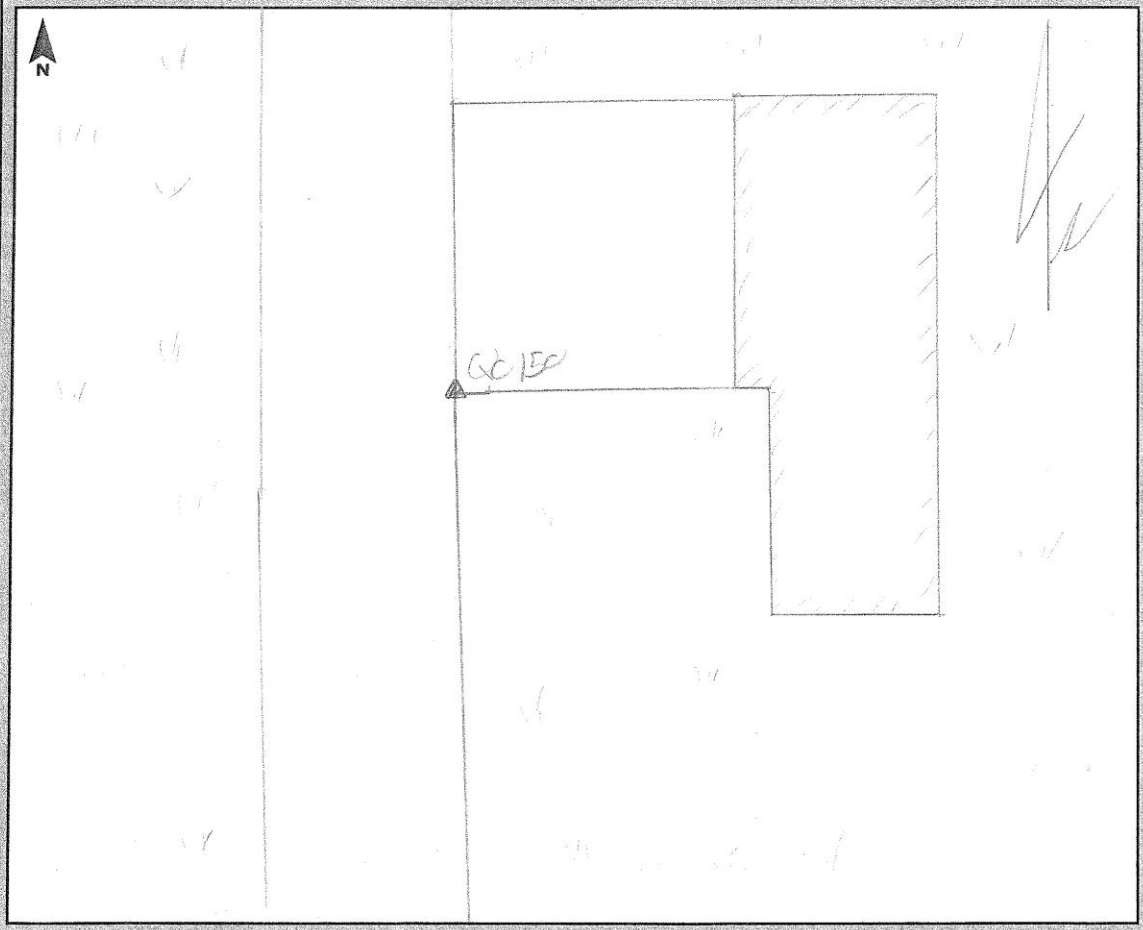
QC149-3E-15MAR2012

Bad Sats?

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72314</u>	Survey Date: <u>2012-03-15</u>
Station Name: <u>QC 150</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 22' 52.3"</u>	Julian Day: <u>075</u>	Session No. <u>2</u>
Longitude: <u>84° 51' 44.3"</u>	Start Time: <u>15:44</u>	End Time: <u>16:01</u>
Ellip. Height: <u>8461</u>	Data File Name: <u>IND7_075_DMH</u>	
Type of Mark: <u>SW corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>Concrete Drive</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° & Clear</u>	Antenna Height: <u>2.000M</u>	to bottom of antenna mount





QC150-2-15MAR2012



QC150-3N-15MAR2012

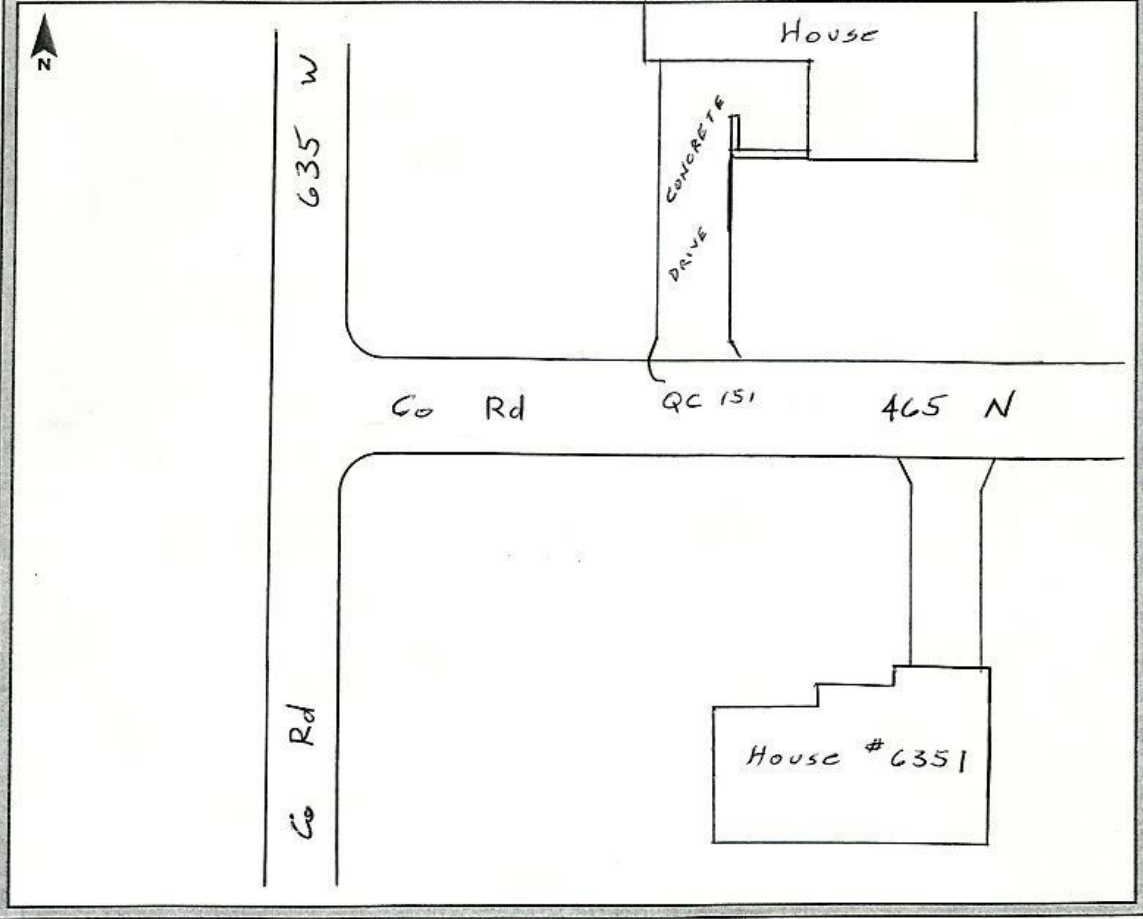


QC150-3E-15MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21MAR12
 Station Name: QC 151 Operator Name: Stephen Schonegg
 Latitude: 40-53-46.80 Julian Day: 081 Session No. _____
 Longitude: 085-34-19.09 Start Time: 2:12 End Time: 2:16
 Ellip. Height: 697.72 FT Data File Name: 1NOST21MAR12SS
 Type of Mark: Corner Concrete Drive Type of Receiver: RB-2 #9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: Sunny, 83°, Light Wind Antenna Height: 6.562 FT to bottom of antenna mount





QC 151-2-21MAR2012



QC 151-3N-21MAR2012

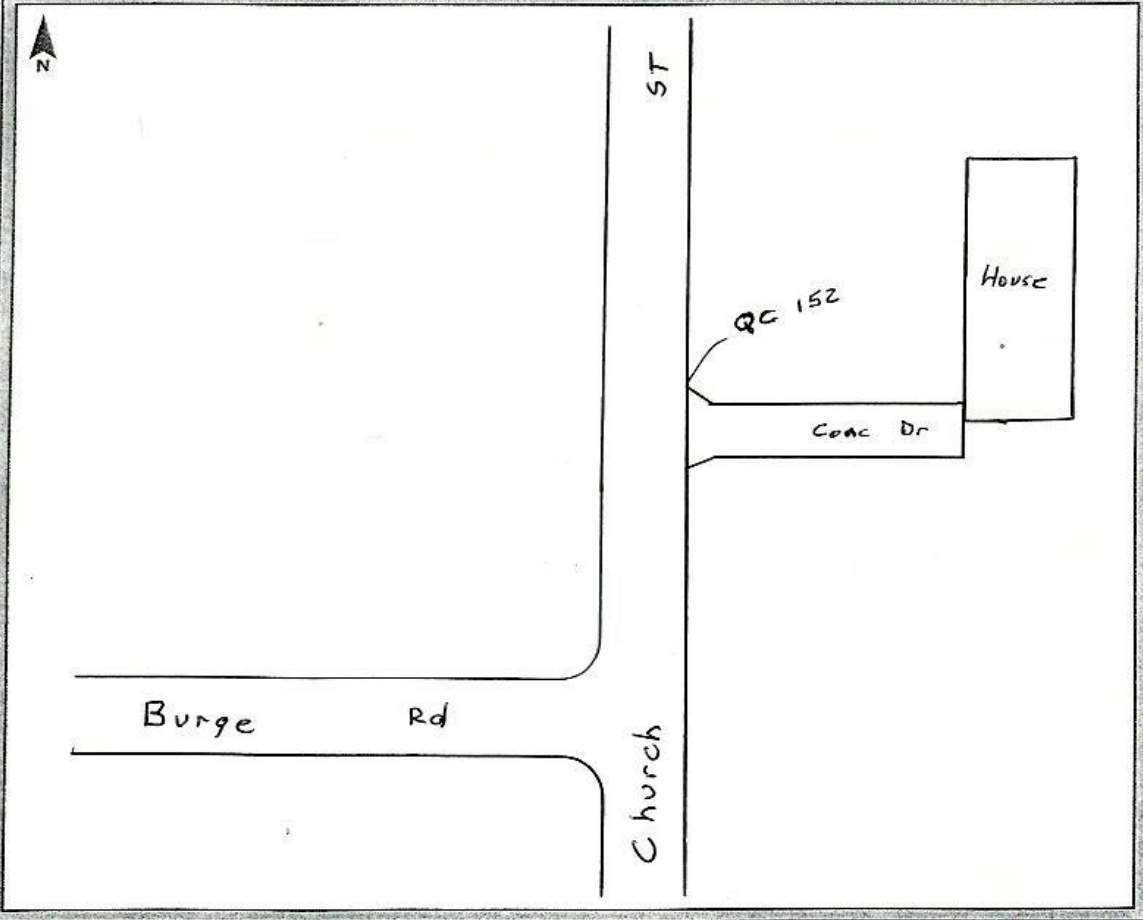


QC 151-3W-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 16 MAR 12
Station Name: QC 152 Operator Name: Stephen Schonegg
Latitude: 40-34-21.80 Julian Day: 076 Session No. _____
Longitude: 085-45-54.42 Start Time: 9:34 End Time: 9:39
Ellip. Height: 728.37 FT Data File Name: INDST16MAR12SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 FT to bottom of antenna mount





QC 152-2-16MAR2012



QC 152-3N-16MAR2012

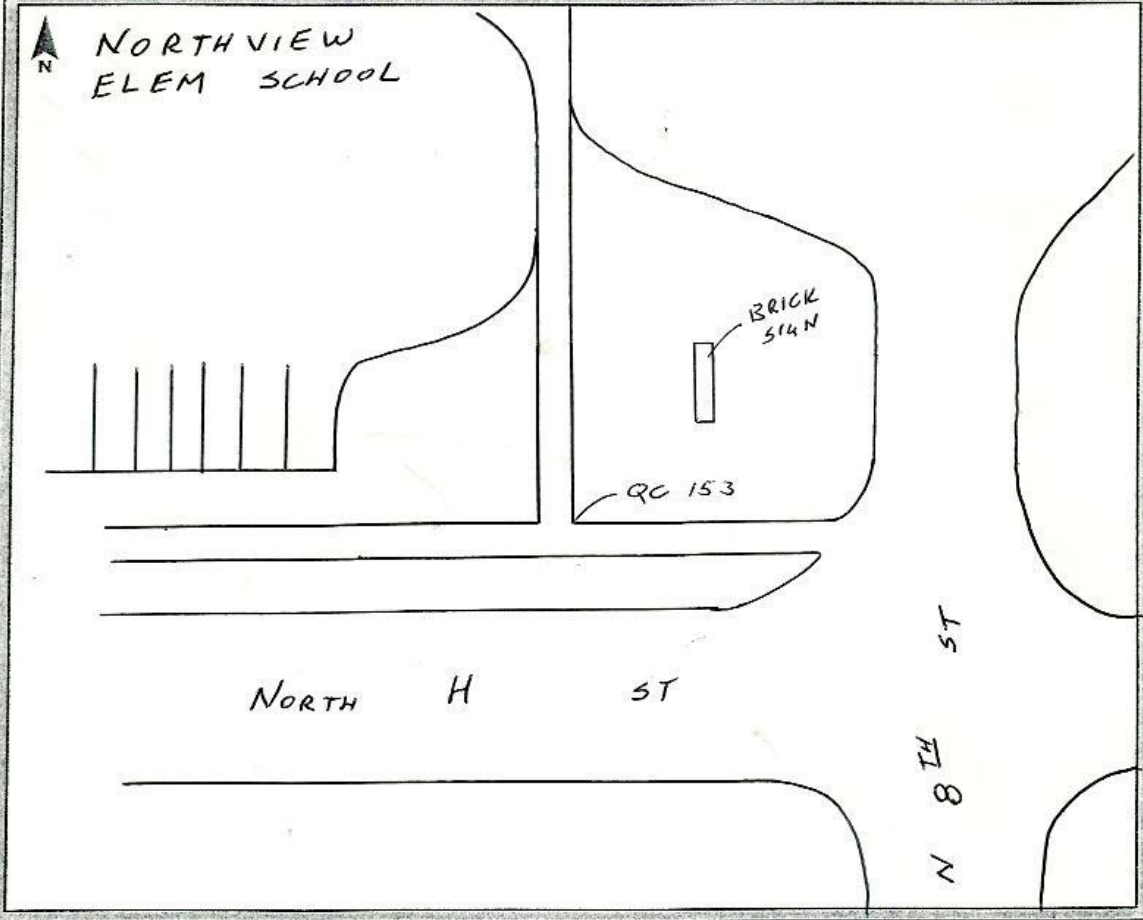


QC 152-3W-16MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>21MAR12</u>
Station Name: <u>QC 153</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>40-29-42.78</u>	Julian Day: <u>081</u>	Start Time: <u>8:15</u>
Longitude: <u>085-36-03.65</u>	Start Time: <u>8:15</u>	End Time: <u>8:51</u>
Ellip. Height: <u>740.09 FI</u>	Data File Name: <u>INDST21MAR12SS</u>	Type of Reciever: <u>RB-2 #9357</u>
Type of Mark: <u>Corner Concrete Walk</u>	Type of Antenna: _____	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount
Stamping on Mark: _____	Weather Condition: <u>Sunny, 65°</u>	





QC 153-2-21MAR2012



QC 153-3W-21MAR2012

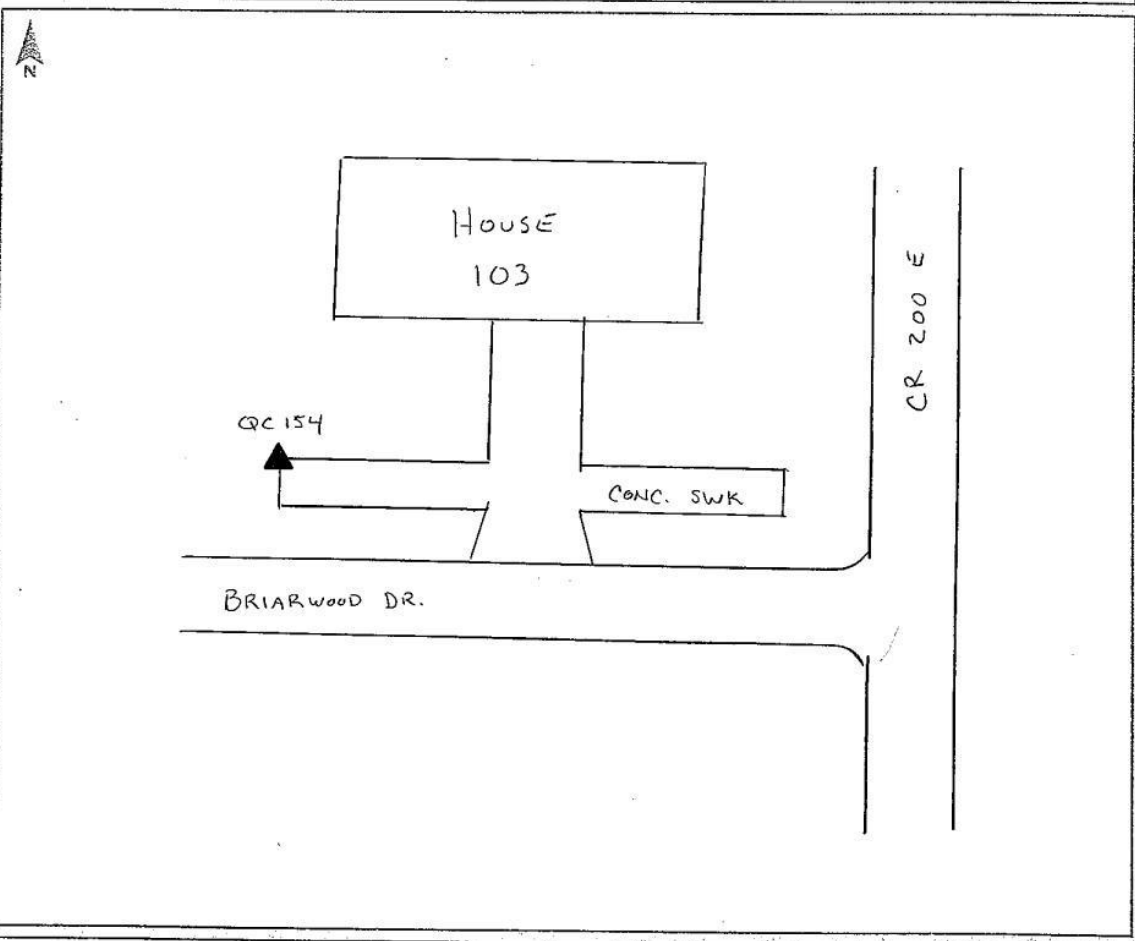


QC 153-3N-21MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/22/2012</u>
Station Name: <u>QC 154</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 50' 22.81" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>84° 54' 01.36" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>689.70 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC154-2-22MAR2012



QC154-3N-22MAR2012

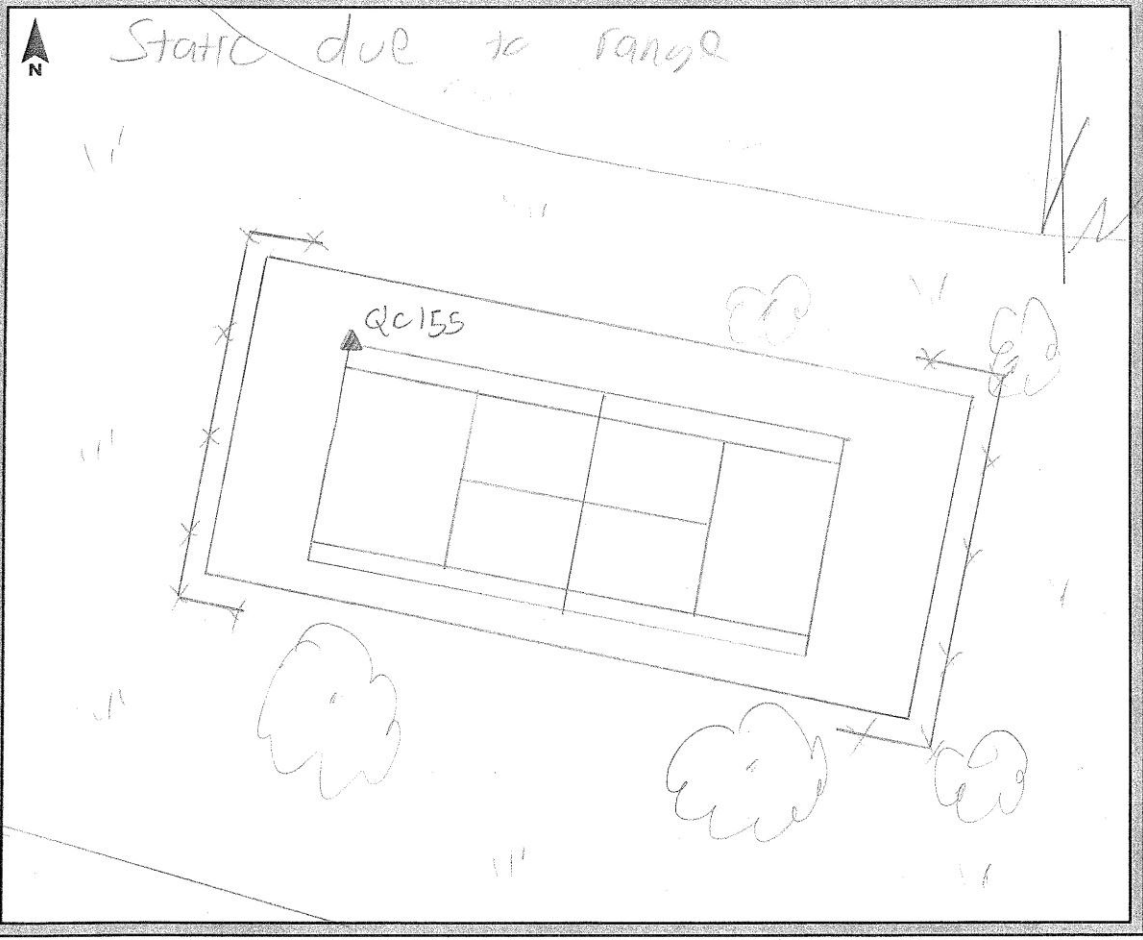


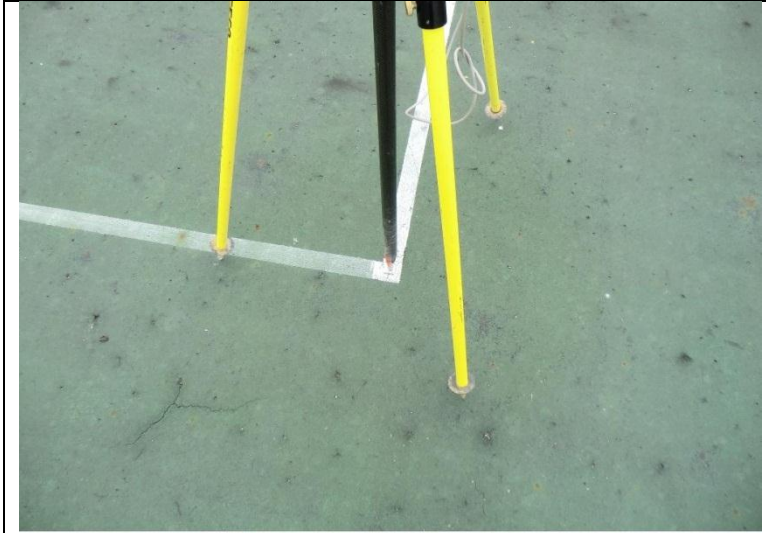
QC154-3E-22MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72314 Survey Date: 2012-03-16
Station Name: QC 155 Operator Name: David Hall
Latitude: 40° 39' 08.6" Julian Day: 076 Session No. _____
Longitude: 84° 58' 24.3" Start Time: 11:13 End Time: 12:22
Ellip. Height: 762' Data File Name: 09500760.DAT
Type of Mark: NW corner of Type of Receiver: R8-3
Stamping on Mark: Tennis court point Type of Antenna: R8-3
Weather Condition: overcast & fog Antenna Height: 2.000m to bottom of antenna mount





QC155-2-16MAR2012



QC155-3E-16MAR2012

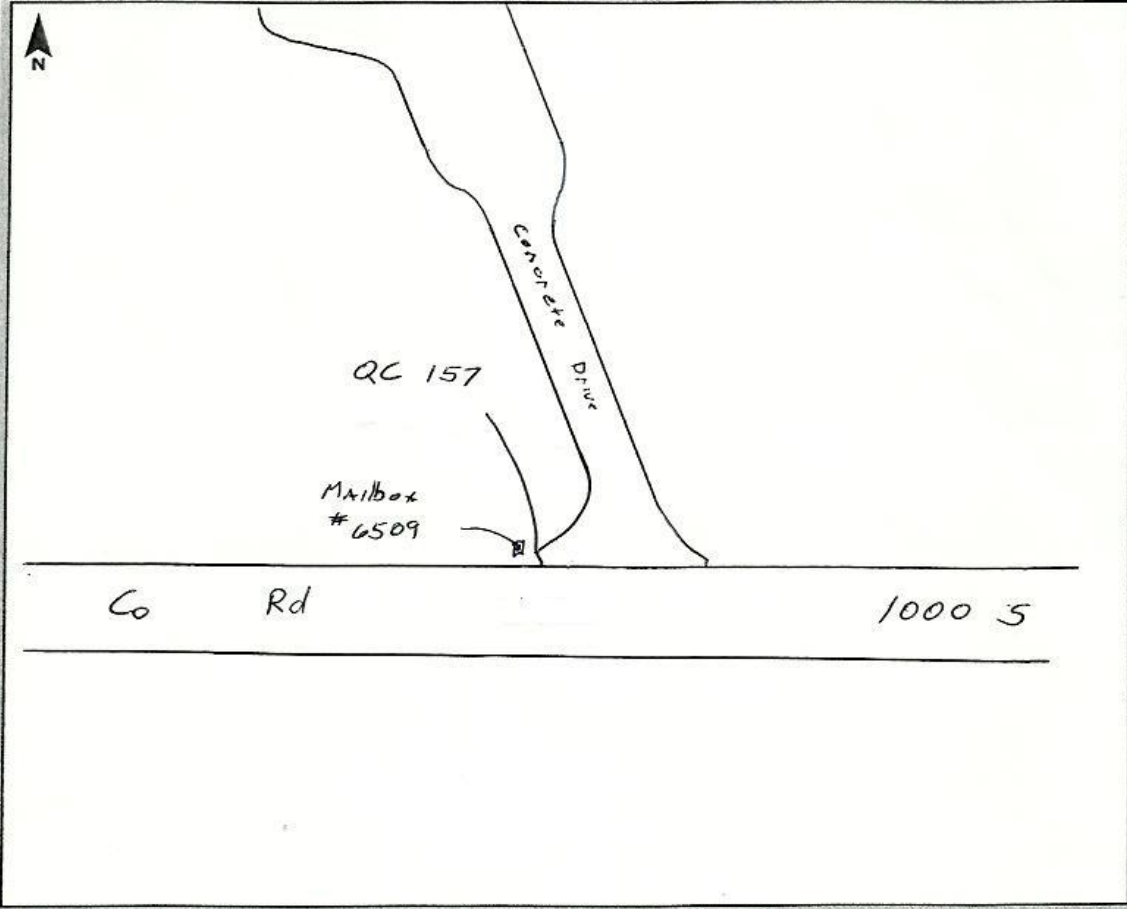


QC155-3N-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21 MAR 12
Station Name: QC 157 Operator Name: Stephen Schonegg
Latitude: 40-35-46.43 Julian Day: 081 Session No. _____
Longitude: 085-20-37.05 Start Time: 11:44 End Time: 11:48
Ellip. Height: • 739.36 FT Data File Name: IND05T21MAR12SS
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 75°, Light Wind Antenna Height: 6.562 FT to bottom of antenna mount





QC 157-2-21MAR2012



QC 157-3N-21MAR2012

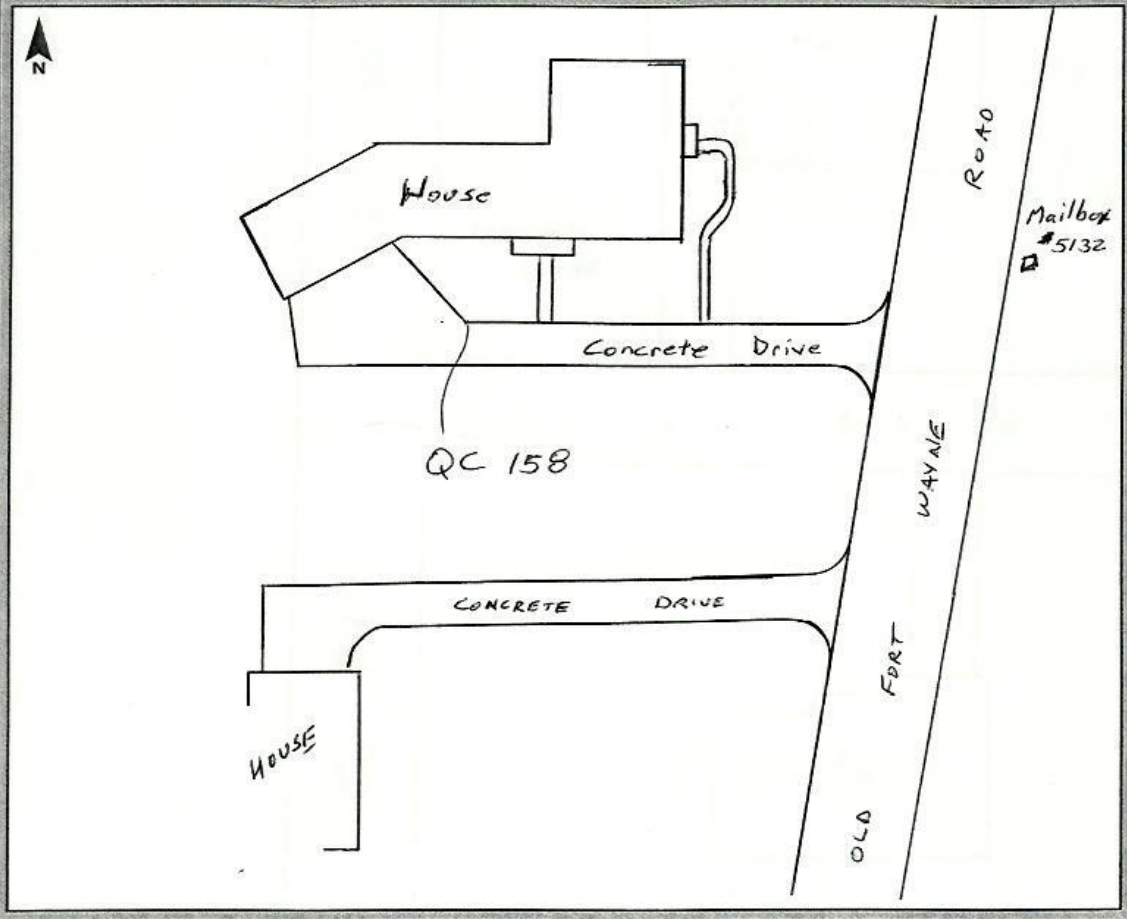


QC 157-3E-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 22 MAR 12
Station Name: QC 158 Operator Name: Stephen Schonegg
Latitude: 40-54-20.24 Julian Day: 082 Session No. _____
Longitude: 085-26-01.21 Start Time: 4:23 End Time: 4:28
Ellip. Height: • 638.79 FT Data File Name: INDST22.MAR12.SS
Type of Mark: Corner Concrete Dr Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 78°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





QC 158-2-22MAR2012



QC 158-3E-22MAR2012

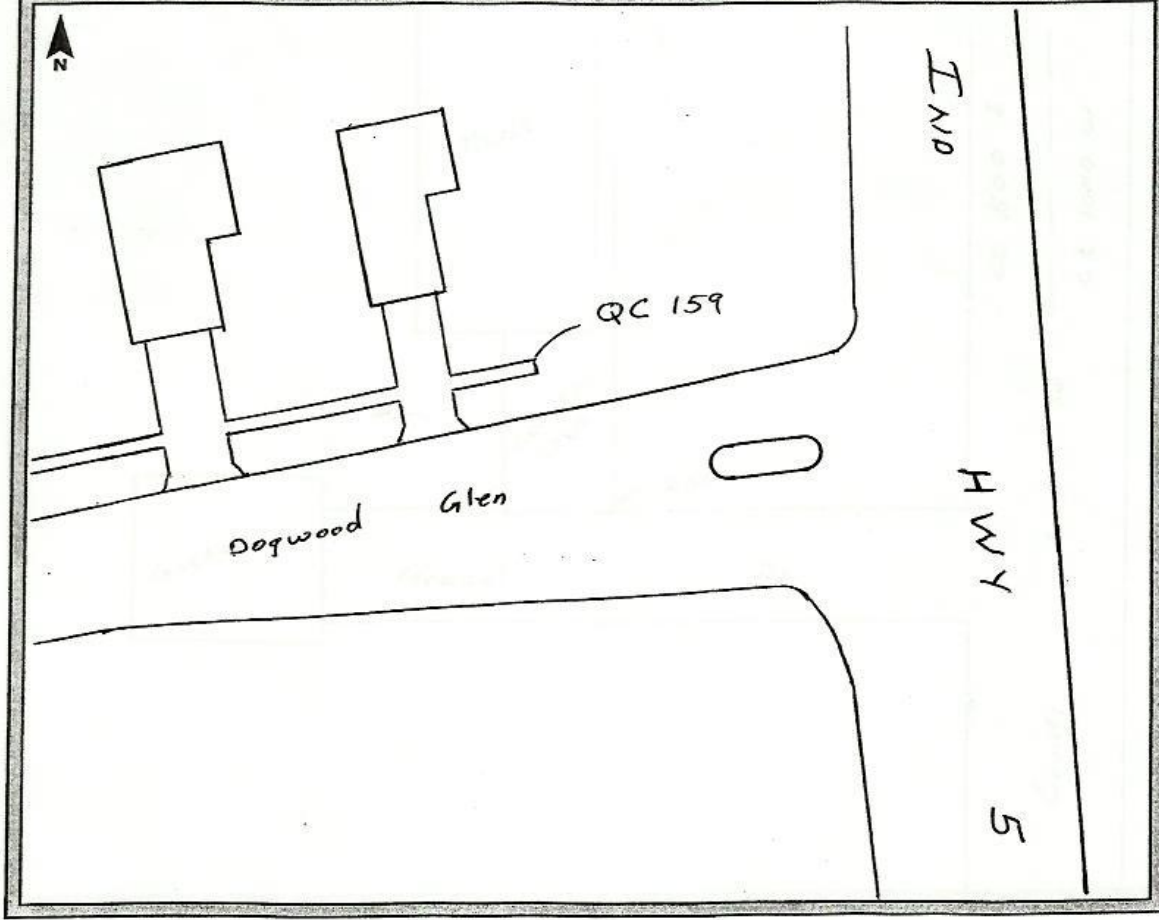


QC 158-3N-22MAR2012

GPS Observation Log Sheet

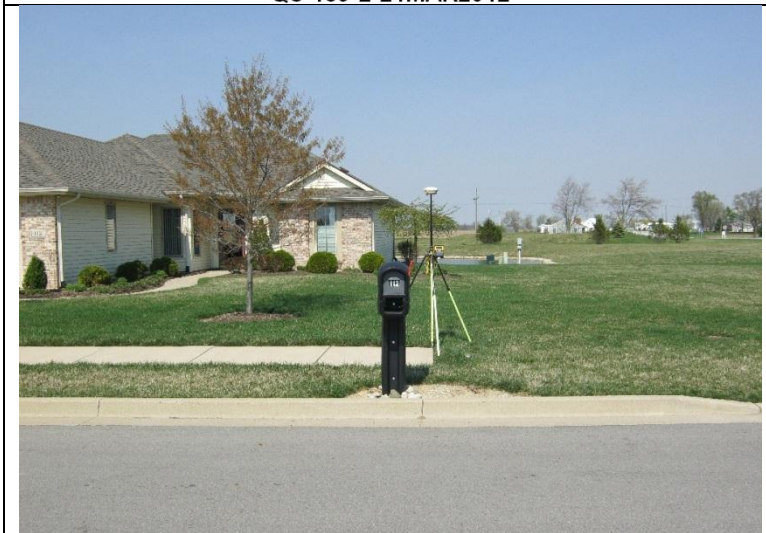


Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>22 MAR 12</u>
Station Name: <u>QC 159</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-41-43.87</u>	Julian Day: <u>082</u>	Session No. _____
Longitude: <u>085-25-51.65</u>	Start Time: <u>11:06</u>	End Time: <u>11:10</u>
Ellip. Height: <u>725.80 FT</u>	Data File Name: <u>INDST22MAR1255</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 70°, Light Wind</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





QC 159-2-21MAR2012



QC 159-3N-21MAR2012

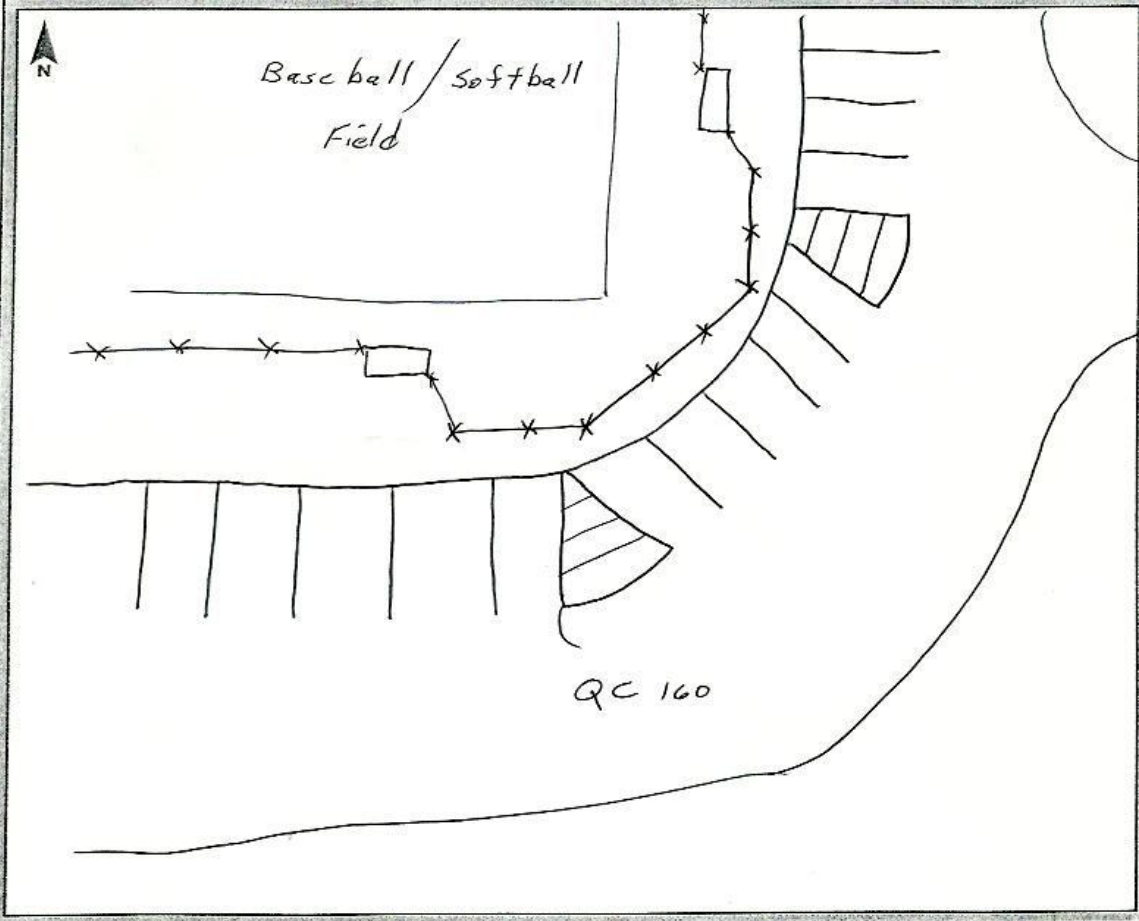


QC 159-3E-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21 MAR 12
Station Name: QC 160 Operator Name: Stephen Schonegg
Latitude: 40-27-22.40 Julian Day: 081 Session No. _____
Longitude: 085-22-22.51 Start Time: 10:41 End Time: 10:45
Ellip. Height: 807.38 Data File Name: INDST21MAR12SS
Type of Mark: Corner Paint Stripes Type of Receiver: RB-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 70°, Light Wind Antenna Height: 6.562 FT to bottom of antenna mount





QC 160-2-21MAR2012



QC 160-3N-21MAR2012



QC 160-3E-21MAR2012

LiDAR CONTROL

GPS Observation Log Sheet		W WOOLPERT	
Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-13</u>	
Station Name: <u>227</u>	Operator Name: <u>David Hall</u>		
Latitude: <u>40° 00' 17.1"</u>	Julian Day: <u>073</u>	Session No. <u>1</u>	
Longitude: <u>84° 48' 53.2"</u>	Start Time: <u>08144</u>	End Time: <u>08154</u>	
Ellip. Height: <u>10⁰⁰</u>	Data File Name: <u>INDY_073_DMH</u>		
Type of Mark: <u>NE corner of</u>	Type of Receiver: <u>R8-3</u>		
Stamping on Mark: <u>conc walk</u>	Type of Antenna: <u>R8-3</u>		
Weather Condition: <u>60's clear</u>	Antenna Height: <u>2.000.6</u>	to bottom of antenna mount	



227-2-13MAR2012



227-3E-13MAR2012



227-3N-13MAR2012

Bad Sats

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-14</u>
Station Name:	<u>230</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>40° 03' 35.0"</u>	Julian Day:	<u>074</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 14' 15.1"</u>	Start Time:	<u>11:21</u>	End Time:	<u>11:56</u>
Ellip. Height:	<u>981'</u>	Data File Name:	<u>INDY 074 DMH1</u>		
Type of Mark:	<u>Trade corner of</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:	<u>concrete walks</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60's & Clear</u>	Antenna Height:	<u>2.000m</u>	to bottom of antenna mount	





230-2-14MAR2012



230-3N-14MAR2012

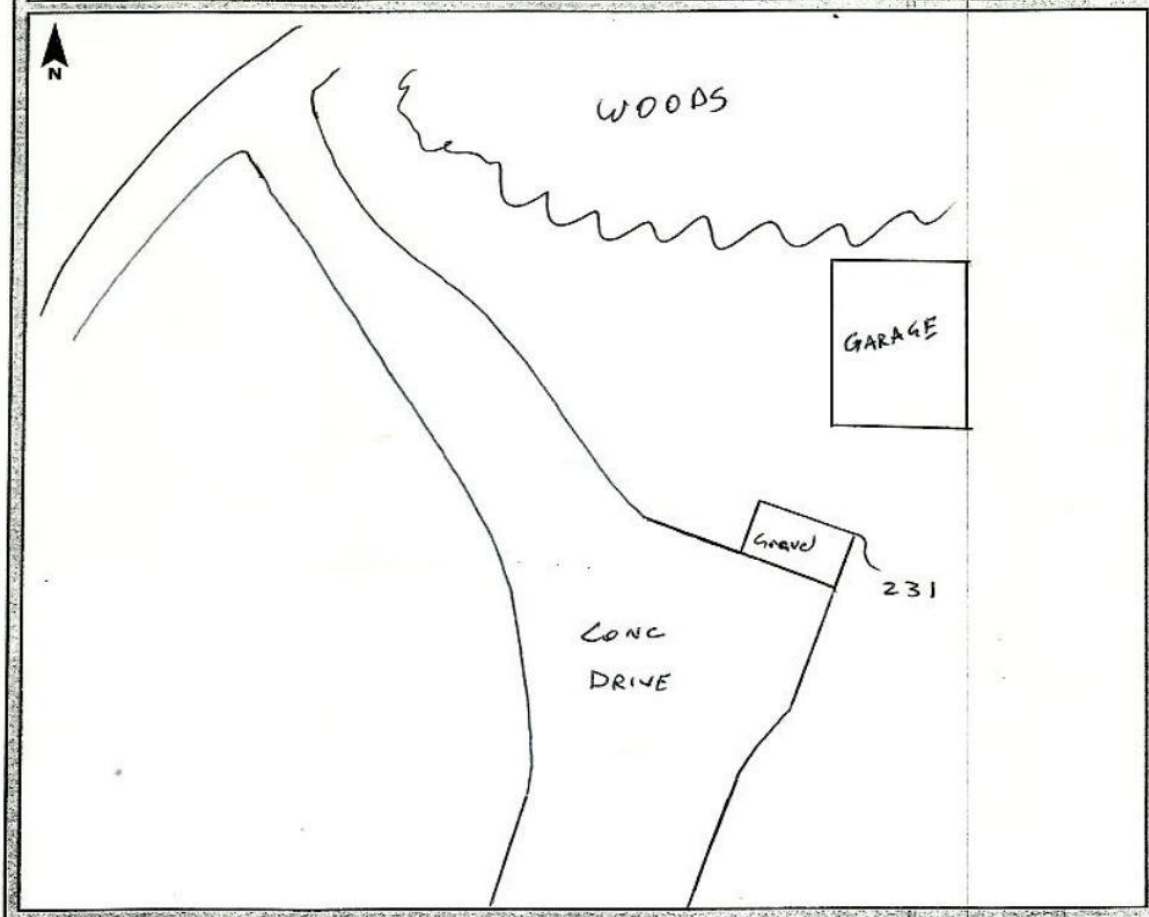


230-3E-14MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: 231 Operator Name: Stephen Schonegg
Latitude: 40-04-32.38 Julian Day: 074 Session No. _____
Longitude: 085-34-52.42 Start Time: 9:25 End Time: 9:30
Ellip. Height: .805.63 Data File Name: INDST14MAR12.SS
Type of Mark: Corner Gravel Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 FT to bottom of antenna mount





231-2-14MAR2012



231-3W-14MAR2012

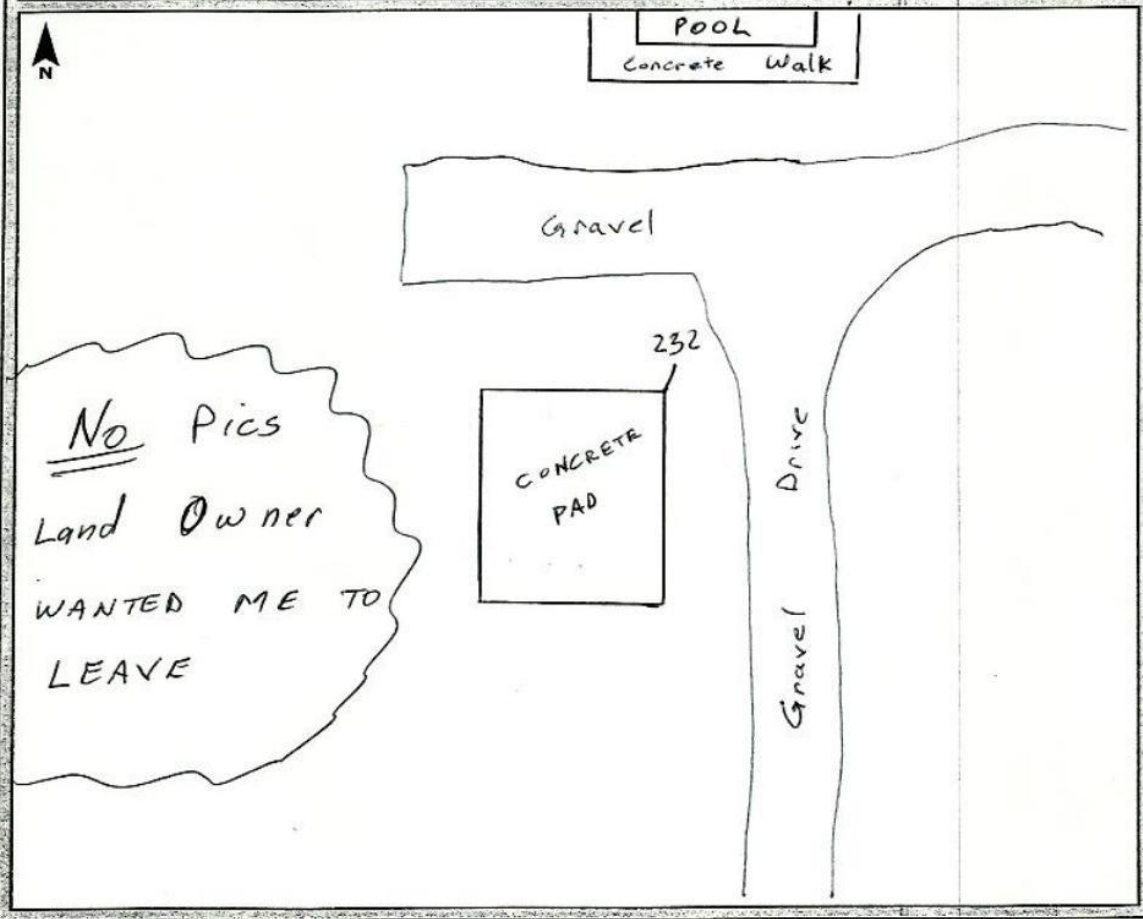


231-3N-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>232</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>39-57-05.33</u>	Julian Day: <u>074</u>	Start Time: <u>10:07</u> End Time: <u>10:12</u>
Longitude: <u>085-35-37.25</u>	Data File Name: <u>IND ST 14 MAR 12 55</u>	Type of Receiver: <u>RB-2 #9357</u>
Ellip. Height: <u>886.56</u>	Type of Antenna: _____	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount
Type of Mark: <u>Corner Concrete Pad</u>	Weather Condition: <u>Sunny, 60°</u>	

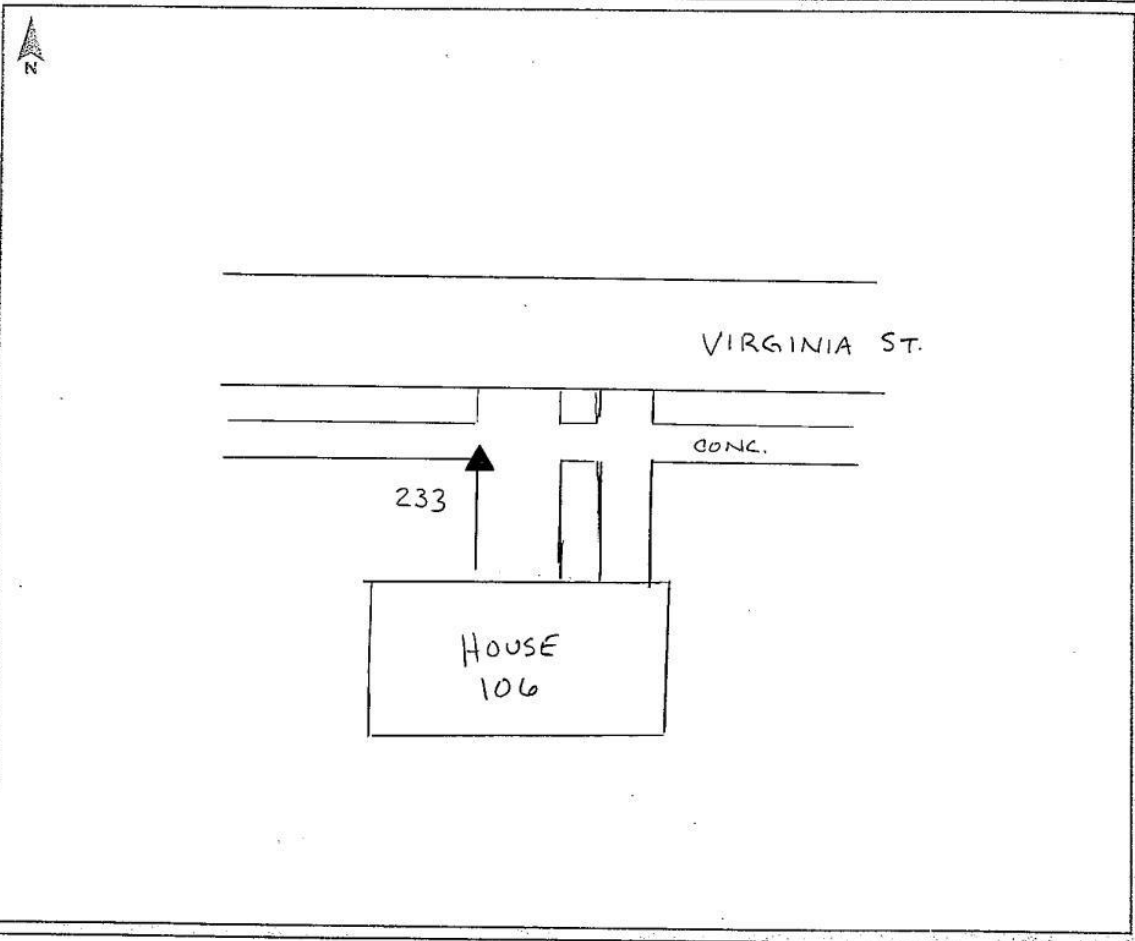


Landowner of #232 did not allow pictures to be taken.

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>233</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 35.54" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 51' 05.31" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>718.89</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





233-2-13MAR2012



233-3E-13MAR2012

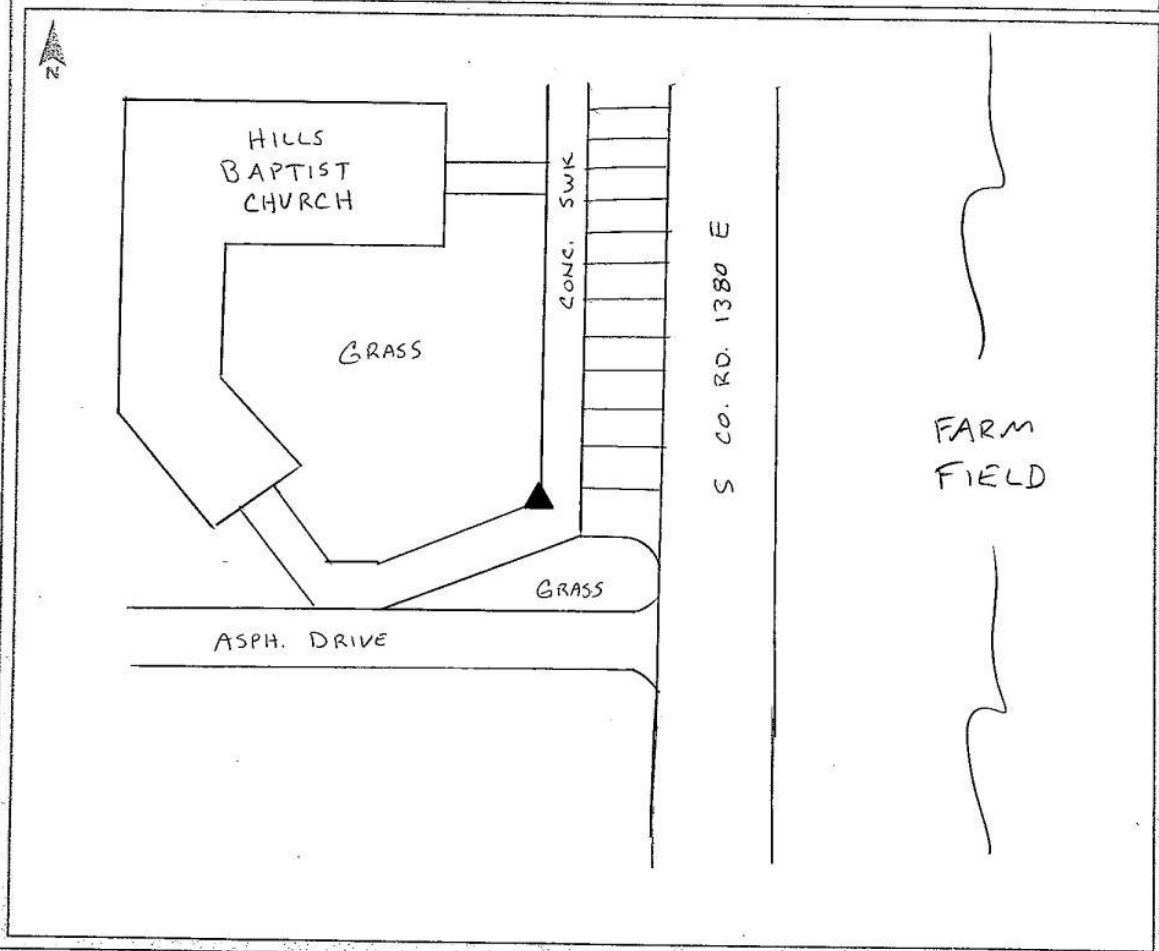


233-3S-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/15/2012</u>
Station Name: <u>245</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>40° 13' 31.32" N</u>	Julian Day: <u>075</u> Session No. <u> </u>
Longitude: <u>86° 14' 50.86" W</u>	Start Time: <u> </u> End Time: <u> </u>
Ellip. Height: <u>813.00 sft</u>	Data File Name: <u> </u>
Type of Mark: <u>SW ANGLE SIDEWALK</u>	Type of Receiver: <u>RB</u>
Stamping on Mark: <u> </u>	Type of Antenna: <u>RB</u>
Weather Condition: <u>75° CLEAR</u>	Antenna Height: <u>2 M</u> to bottom of antenna mount





245-2-15MAR2012



245-3W-15MAR2012

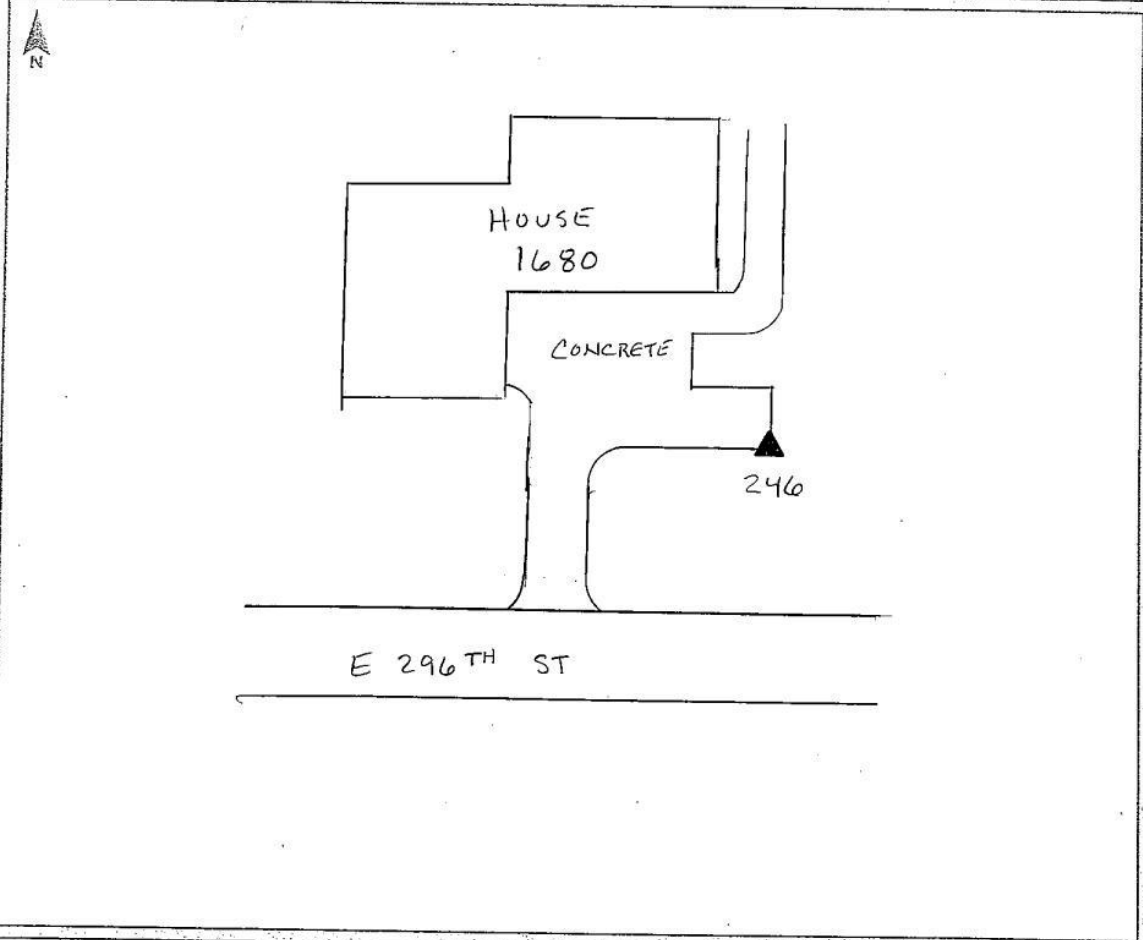


245-3S-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/16/2012</u>
Station Name: <u>246</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 13' 04.64" N</u>	Julian Day: <u>076</u>	Session No. <u>—</u>
Longitude: <u>86° 02' 48.62" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>750.71 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount

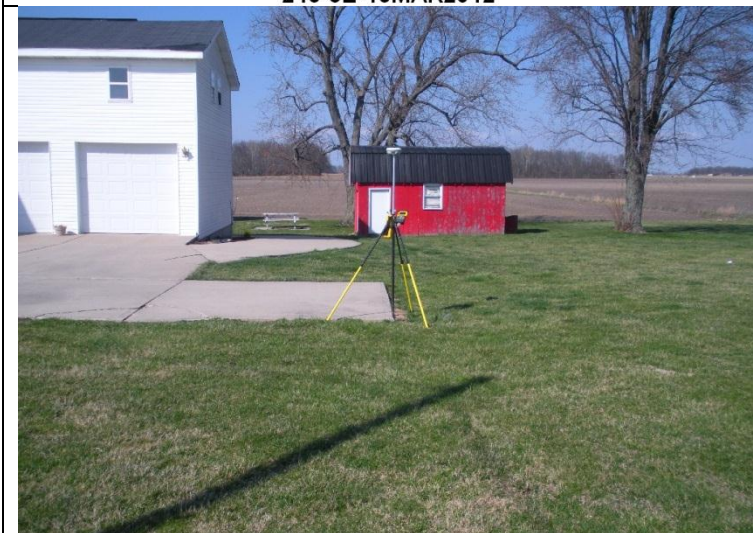




246-2-16MAR2012



246-3E-16MAR2012

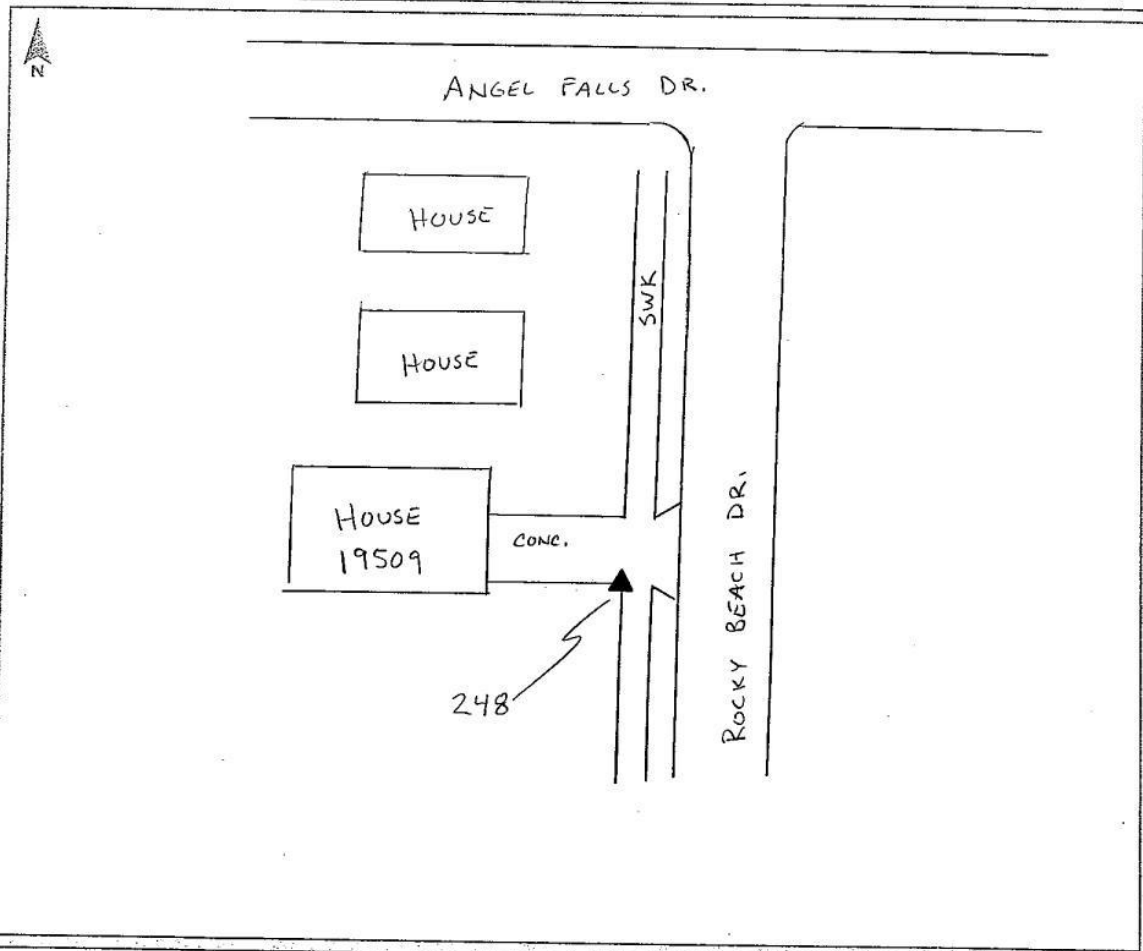


246-3N-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>248</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 04' 15.02" N</u>	Julian Day: <u>074</u>	Session No. <u>—</u>
Longitude: <u>86° 03' 25.71" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>713.961 ftt</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





248-2-14MAR2012



248-3W-14MAR2012

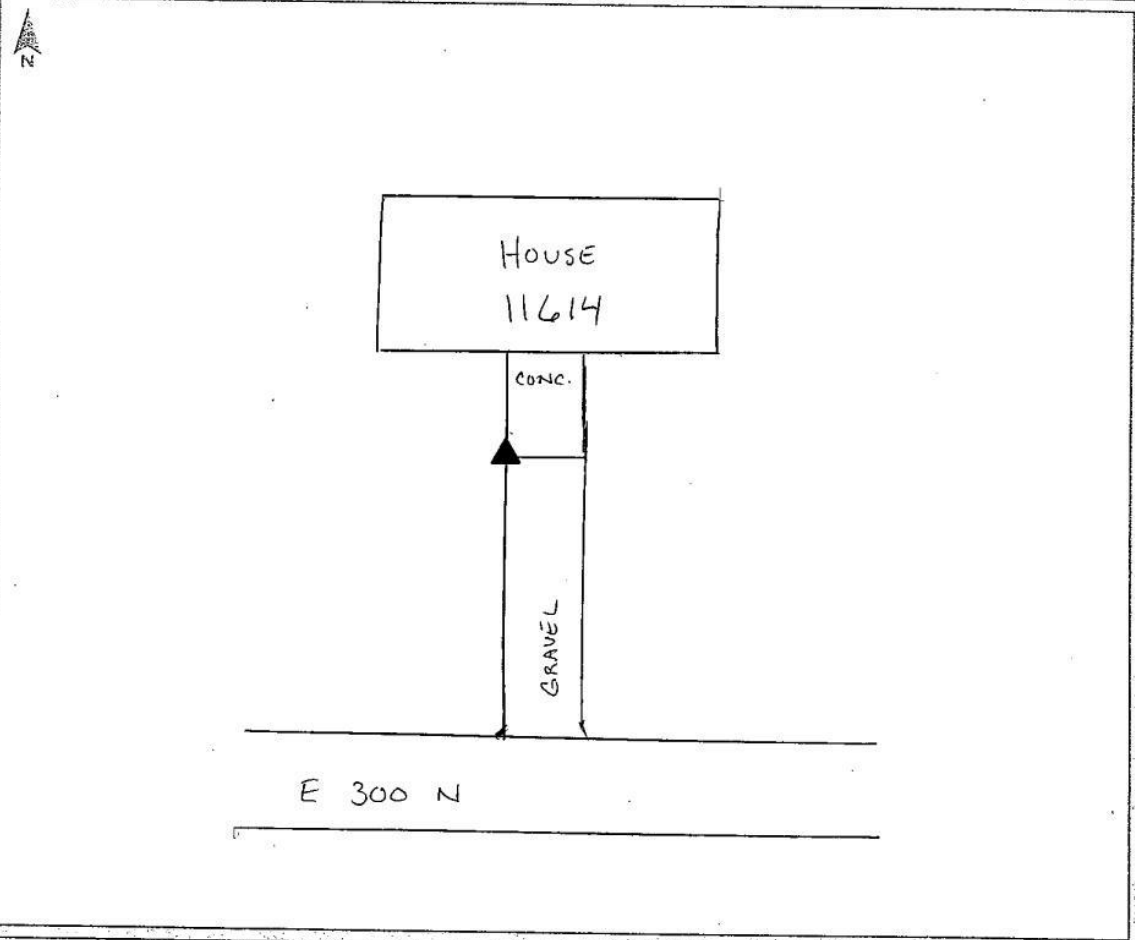


248-3N-14MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	72134	Survey Date:	03/14/2012		
Station Name:	249	Operator Name:	BEN CHRISTIE	Julian Day:	074	Session No.:	—
Latitude:	40° 05' 09.02" N	Start Time:	—	End Time:	—		
Longitude:	86° 14' 57.68" W	Data File Name:	—	Type of Receiver:	R8		
Ellip. Height:	816.16 sft	Type of Antenna:	R8	Antenna Height:	2m	to bottom of antenna mount	
Type of Mark:	SW COR CONCRETE	Stamping on Mark:	—	Weather Condition:	70° CLEAR		





249-2-14MAR2012



249-3N-14MAR2012

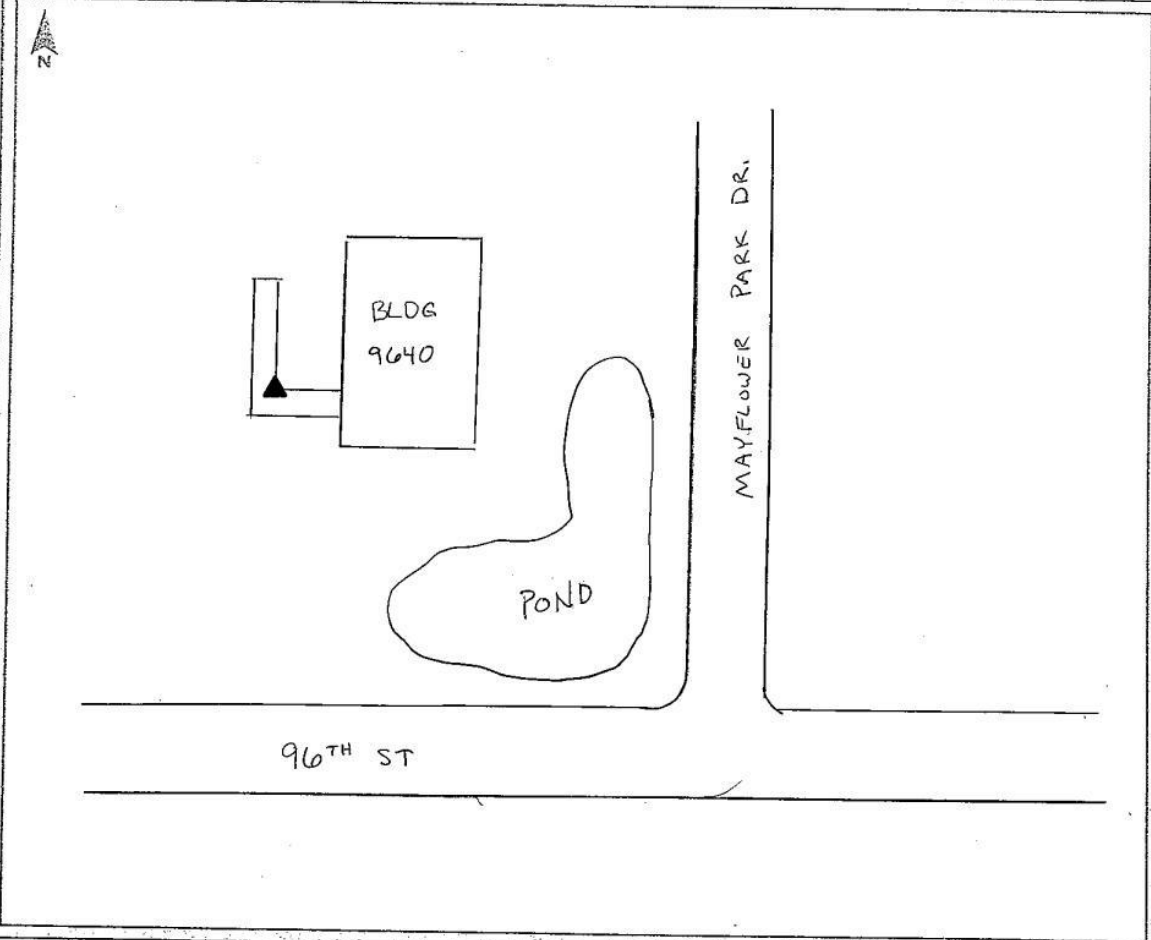


249-3E-14MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/14/2012</u>
Station Name: <u>250</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>39° 55' 35.97" N</u>	Julian Day: <u>074</u> Session No. <u>—</u>
Longitude: <u>86° 14' 18.30" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>774.86</u>	Data File Name: <u>—</u>
Type of Mark: <u>INSIDE COR SIDEWALK</u>	Type of Receiver: <u>R8</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>
Weather Condition: <u>65° CLEAR</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





250-2-14MAR2012



250-3W-14MAR2012

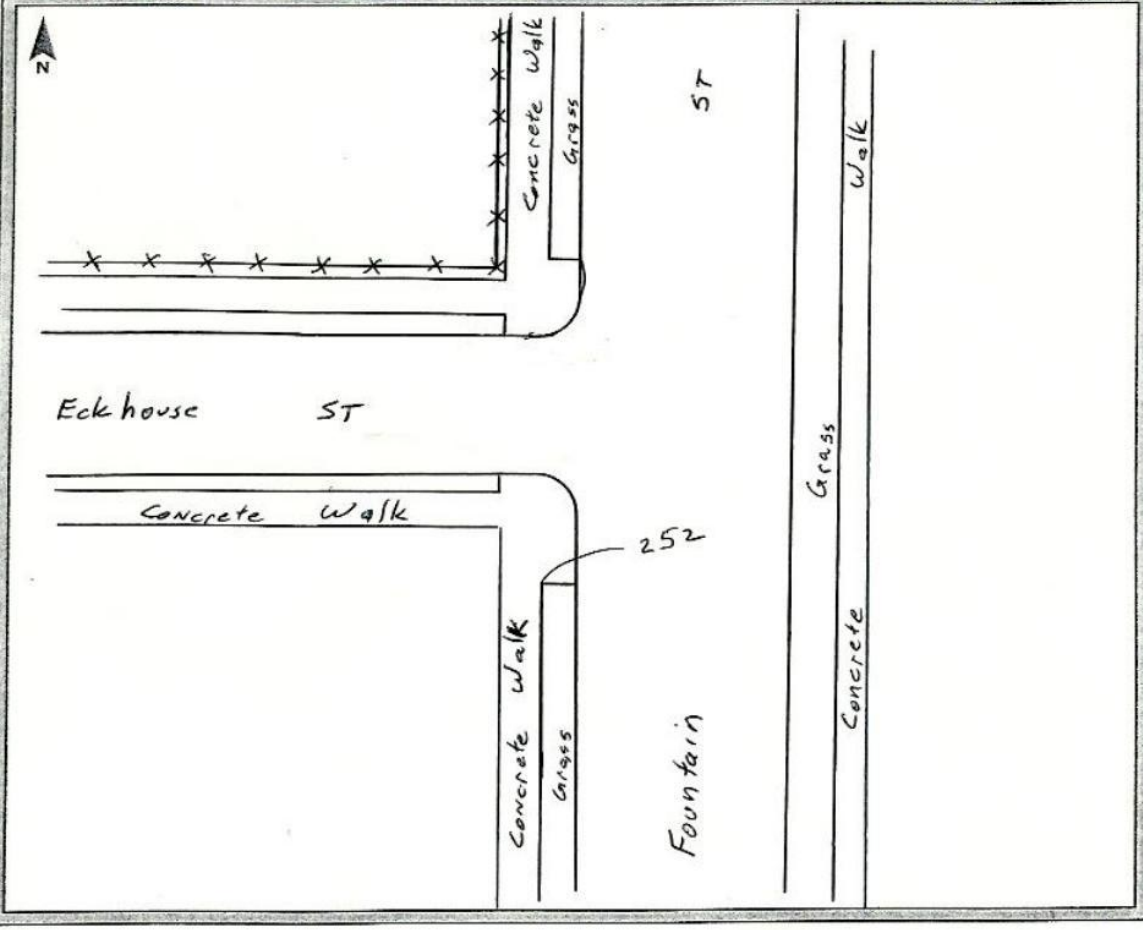


250-3N-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>15 MAR 12</u>
Station Name: <u>252</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-05-36.07</u>	Julian Day: <u>075</u>	Session No. _____
Longitude: <u>085-42-34.91</u>	Start Time: <u>8:56</u>	End Time: <u>9:04</u>
Ellip. Height: <u>.769.53 FT</u>	Data File Name: <u>INDST15MAR12SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Pt Sunny, 65°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





252-2-15MAR2012



252-3W-15MAR2012

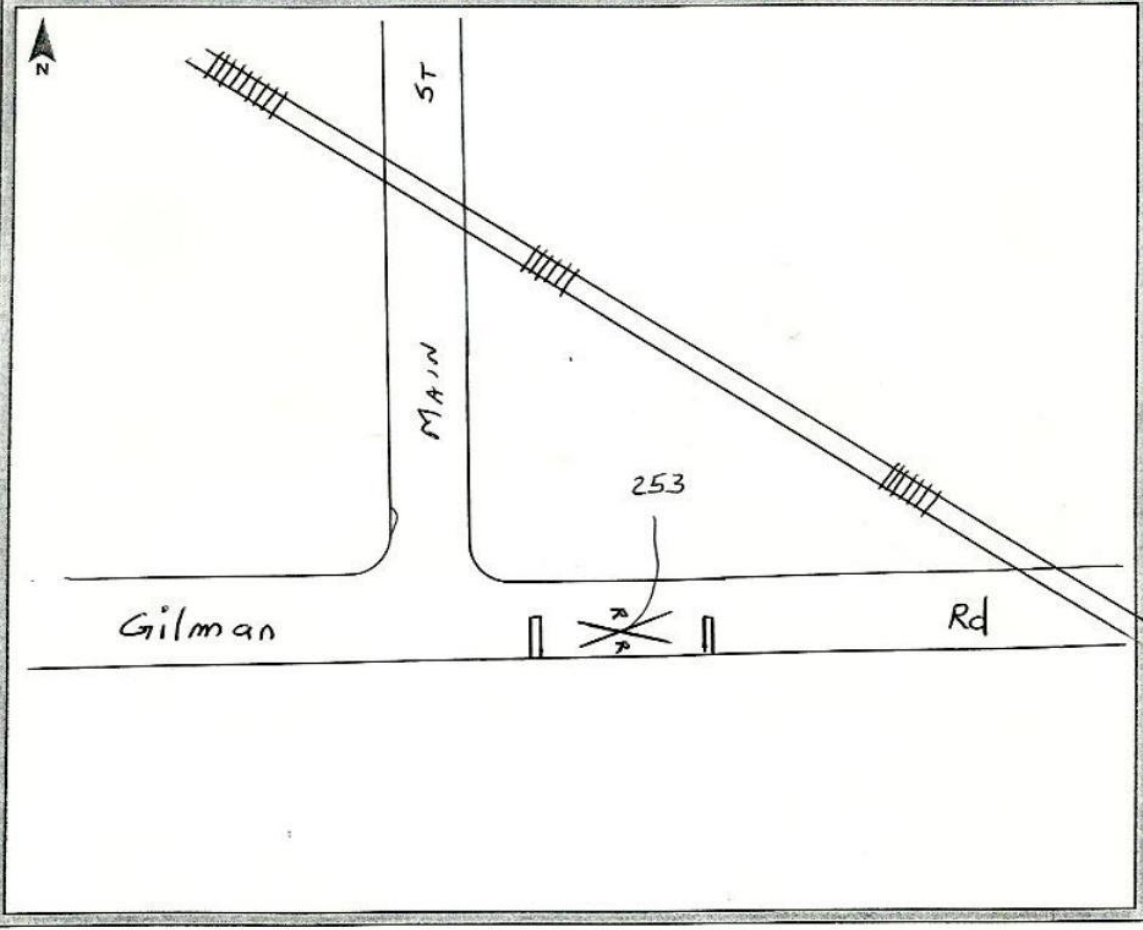


252-3N-15MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>15 MAR 12</u>
Station Name: <u>253</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-14-00.84</u>	Julian Day: <u>075</u>	Session No. _____
Longitude: <u>085-34-40.39</u>	Start Time: <u>11:11</u>	End Time: <u>11:16</u>
Ellip. Height: <u>. 788.18</u>	Data File Name: <u>INDST15MAR12SS</u>	
Type of Mark: <u>Painted "X" for RR</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>Mag Nail</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





253-2-15MAR2012



253-3N-15MAR2012

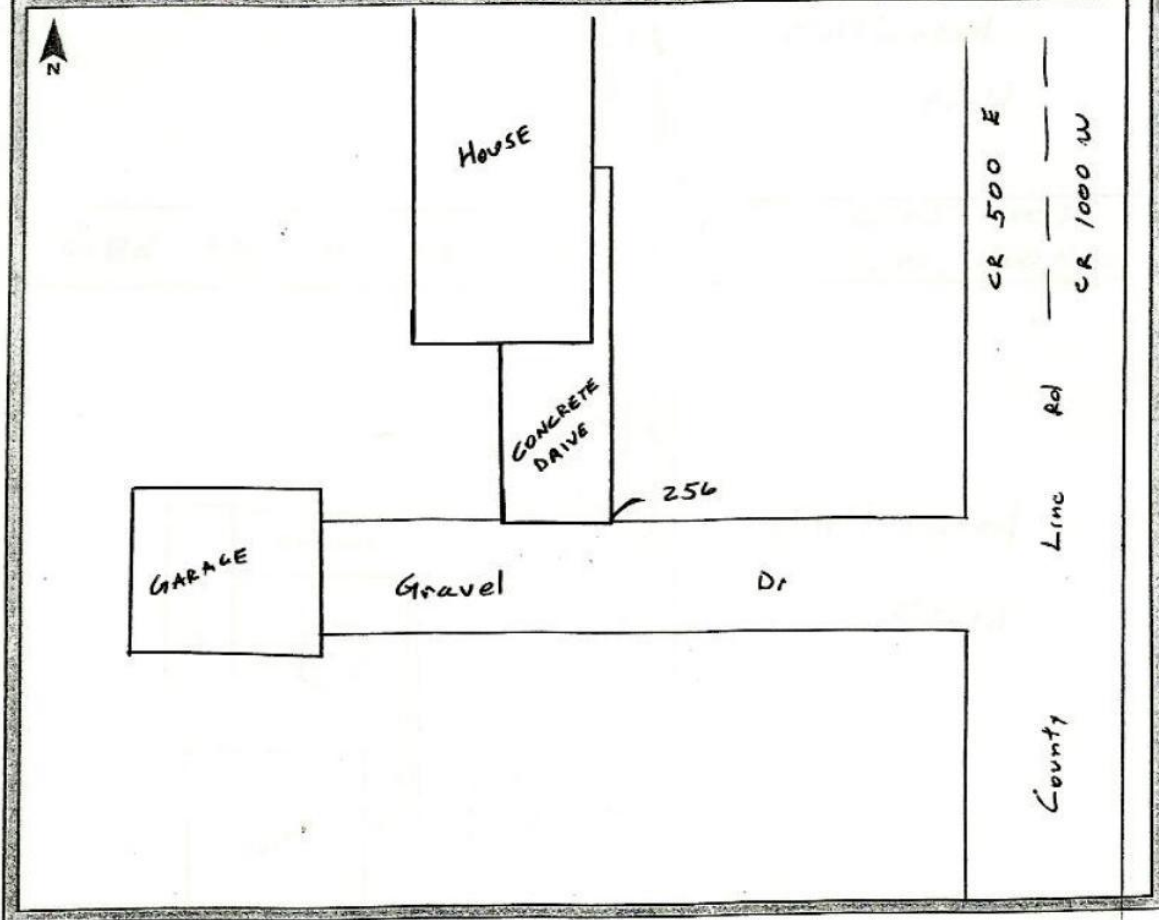


253-3E-15MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>22MAR12</u>
Station Name: <u>256</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-22-38.28</u>	Julian Day: <u>082</u>	Session No. _____
Longitude: <u>085-34-44.28</u>	Start Time: <u>11:45</u>	End Time: <u>11:48</u>
Ellip. Height: <u>.779.17</u>	Data File Name: <u>INDST22MAR12SS</u>	
Type of Mark: <u>Corner Concrete Drive</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°, WIND</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





256-2-21MAR2012



256-3W-21MAR2012

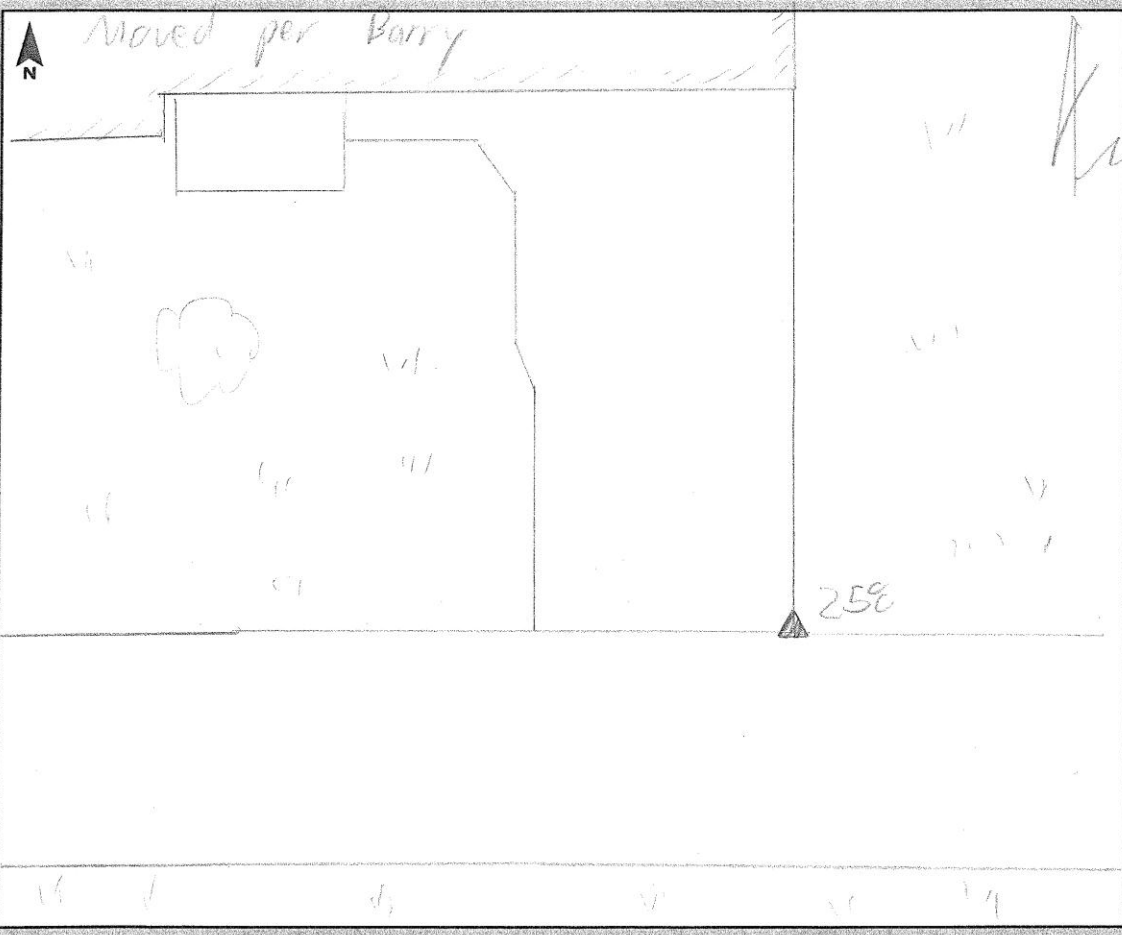


256-3N-21MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72314</u>	Survey Date: <u>2012-0316</u>
Station Name: <u>258</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 18' 35.2"</u>	Julian Day: <u>076</u>	Session No. <u>1</u>
Longitude: <u>84° 50' 33.7"</u>	Start Time: <u>09:09</u>	End Time: <u>09:30</u>
Ellip. Height: <u>9.14'</u>	Data File Name: <u>INDY_076-DNH</u>	
Type of Mark: <u>SF corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>Conc Drive</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's & cloudy</u>	Antenna Height: <u>2.000m</u> to bottom of antenna mount	





258-2-16MAR2012



258-3E-16MAR2012

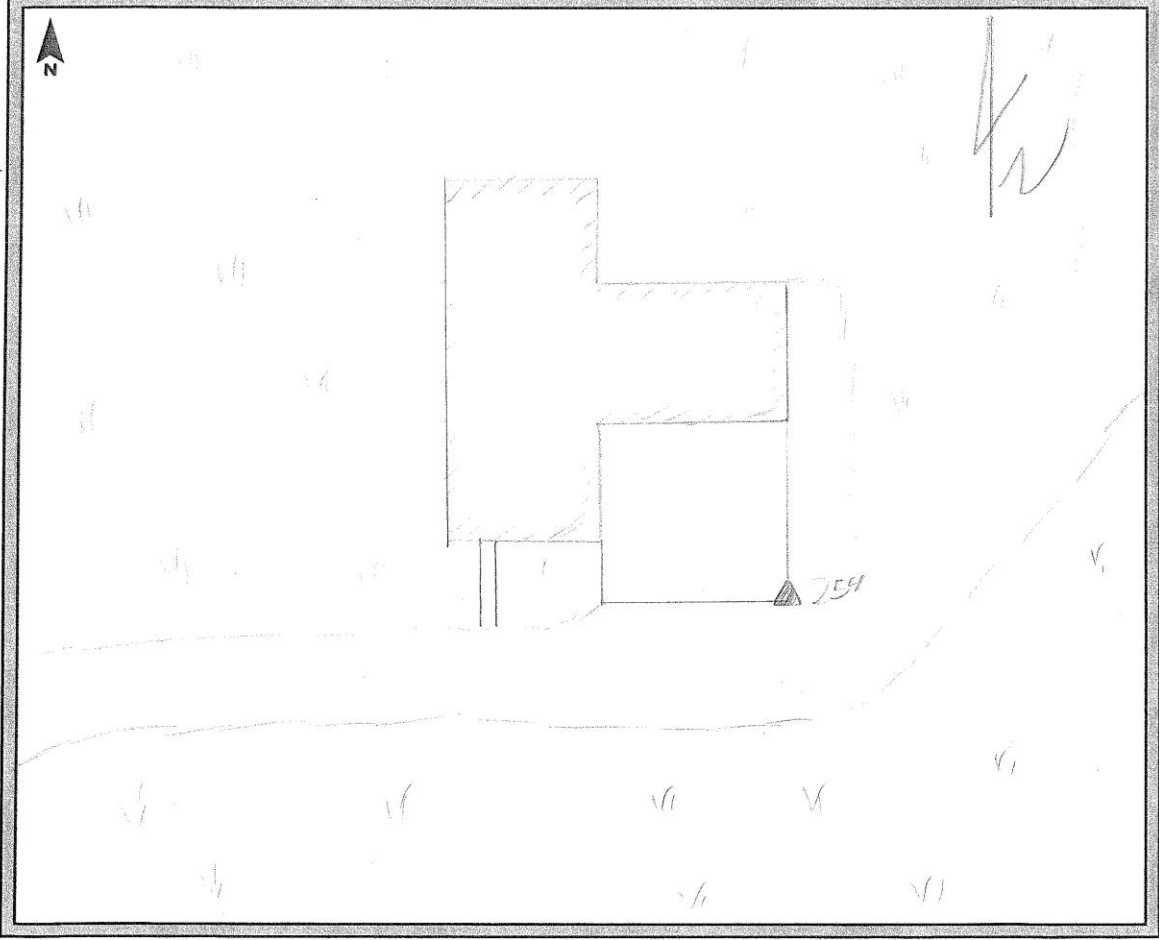


258-3N-16MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72314 Survey Date: 2012-03-16
Station Name: 259 Operator Name: David Hall
Latitude: 40° 33' 22.9" Julian Day: 076 Session No. 1
Longitude: 84° 48' 07.4" Start Time: 10:26 End Time: 10:32
Ellip. Height: 741' Data File Name: INDY_076-DML1
Type of Mark: SE corner of Type of Receiver: R8-3
Stamping on Mark: conc. Apron Type of Antenna: R8-3
Weather Condition: 60% O Partly Cloudy Antenna Height: 2000N to bottom of antenna mount





259-2-16MAR2012



259-3N-16MAR2012

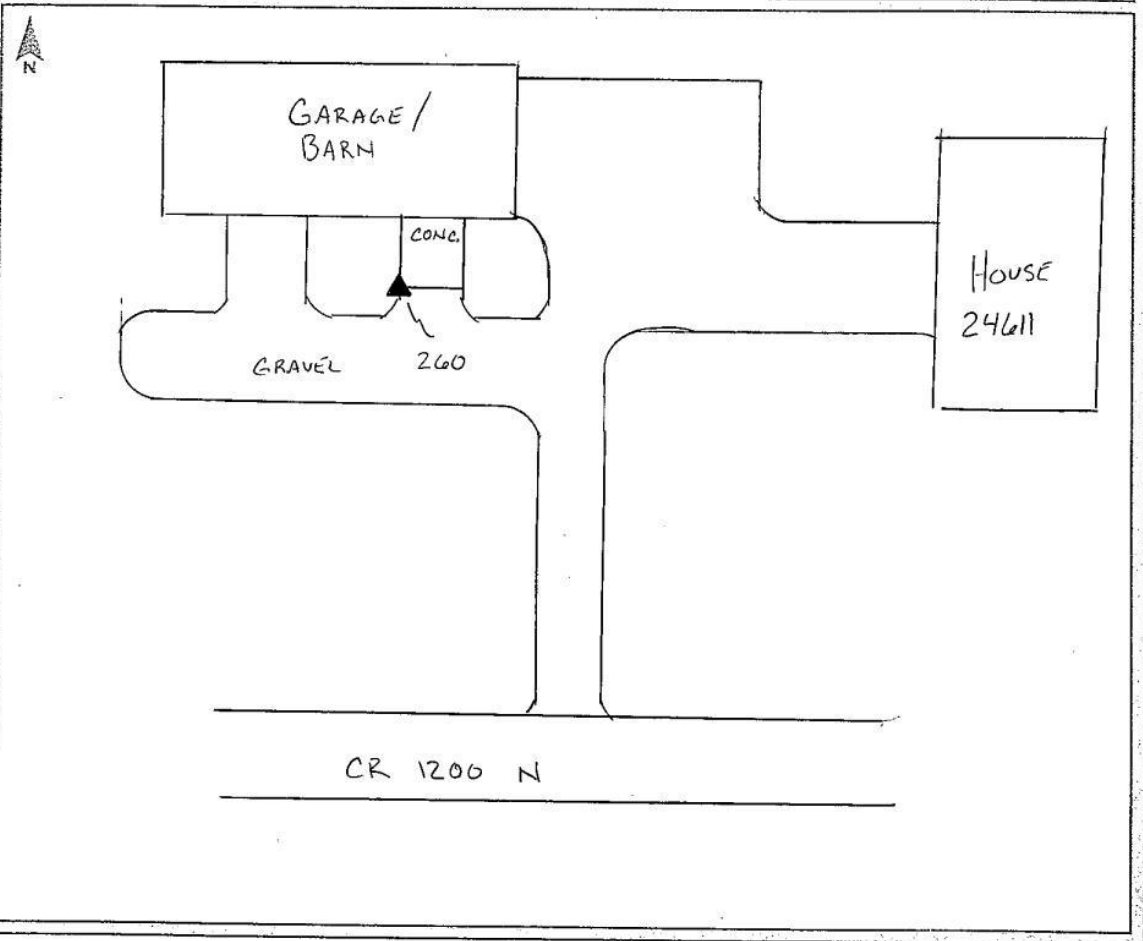


259-3E-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/21/2012</u>
Station Name: <u>260</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 55' 23.99" N</u>	Julian Day: <u>081</u>	Session No. <u>—</u>
Longitude: <u>84° 49' 09.99" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>695.03 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>76° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





260-2-21MAR2012



260-3N-21MAR2012

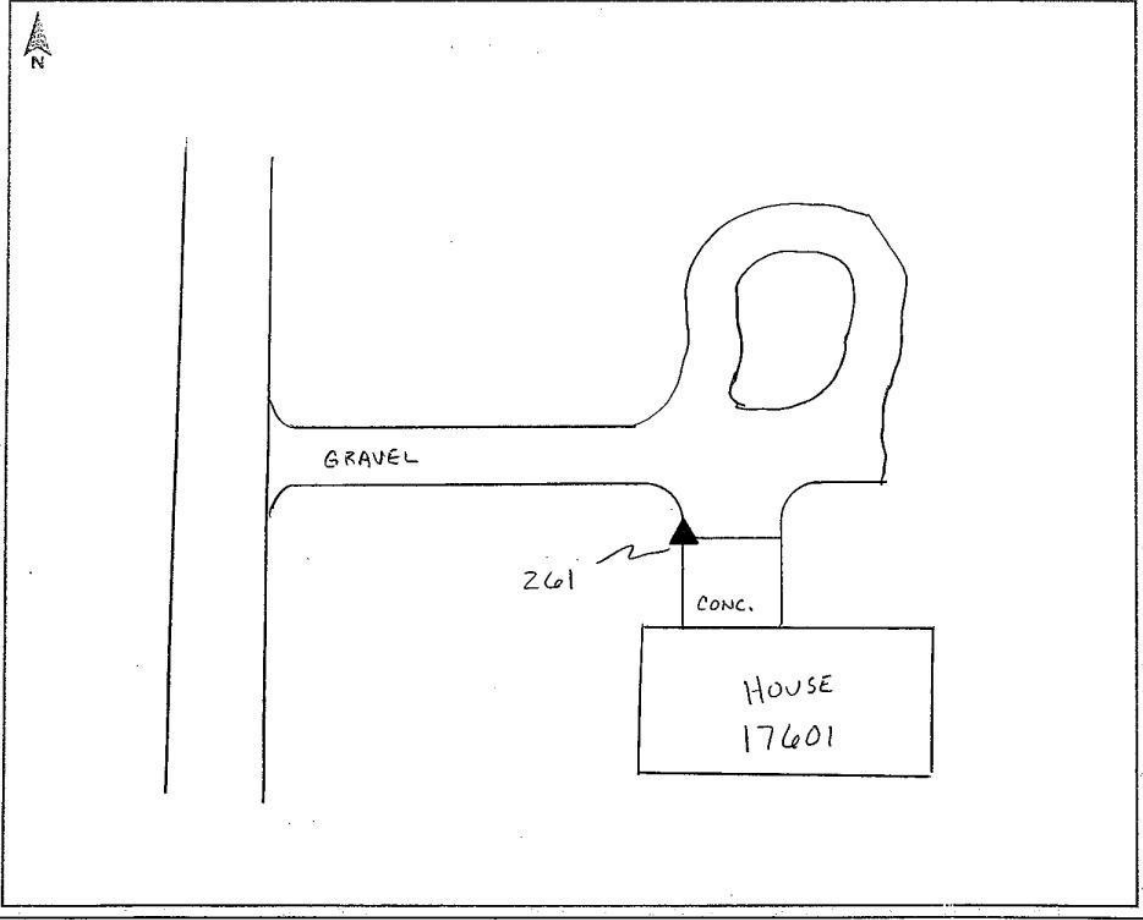


260-3E-21MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>08/22/2012</u>
Station Name: <u>Z61</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 55' 14.97" N</u>	Julian Day: <u>082</u>	Session No. <u>—</u>
Longitude: <u>85° 03' 49.88" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>689.02 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





261-2-22MAR2012



261-23E-22MAR2012

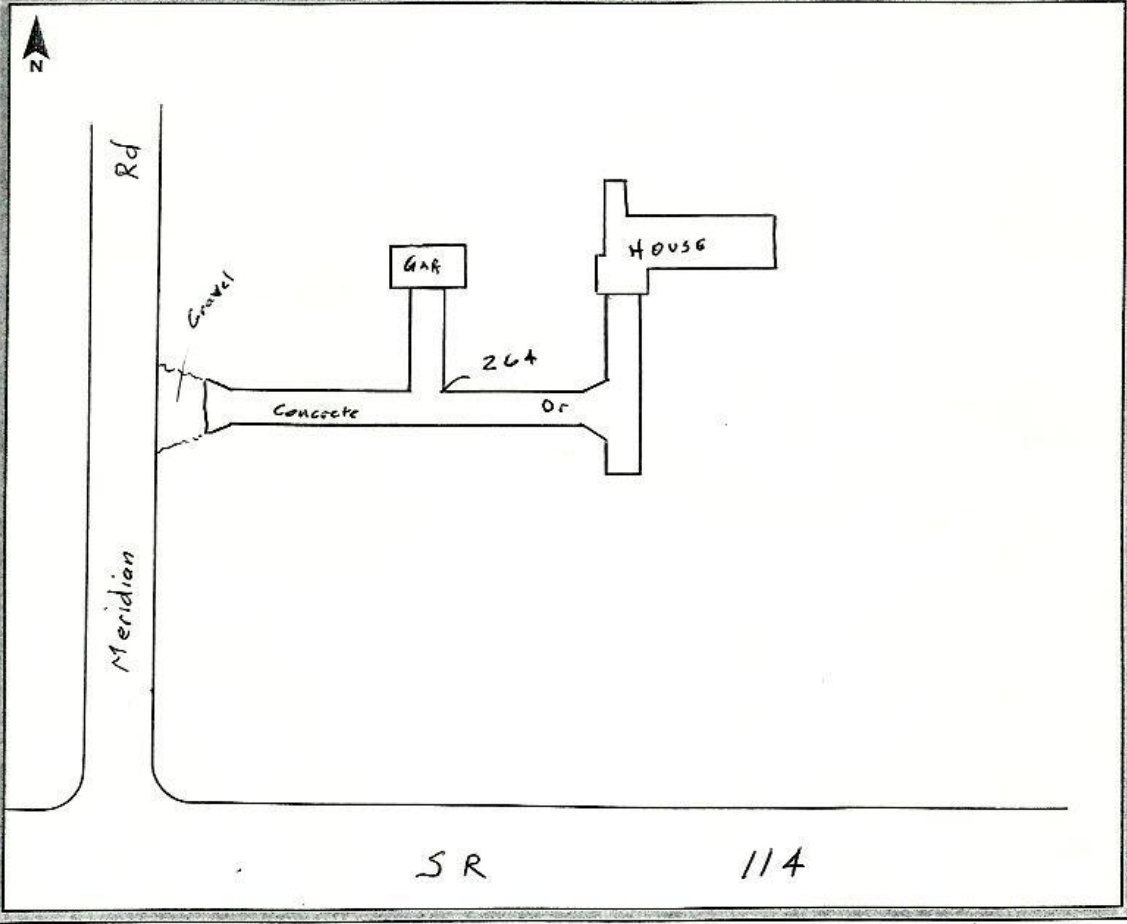


261-3S-22MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23MAR12
 Station Name: 264 Operator Name: STEPHEN SCHONEGG
 Latitude: 41-00-16.98 Julian Day: 083 Session No. _____
 Longitude: 085-29-22.56 Start Time: 10:03 End Time: 10:08
 Ellip. Height: .734.58 Ft Data File Name: INDST23MAR12SS
 Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 # 9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: Cloudy, 65, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





264-2-23MAR2012



264-3E-23MAR2012

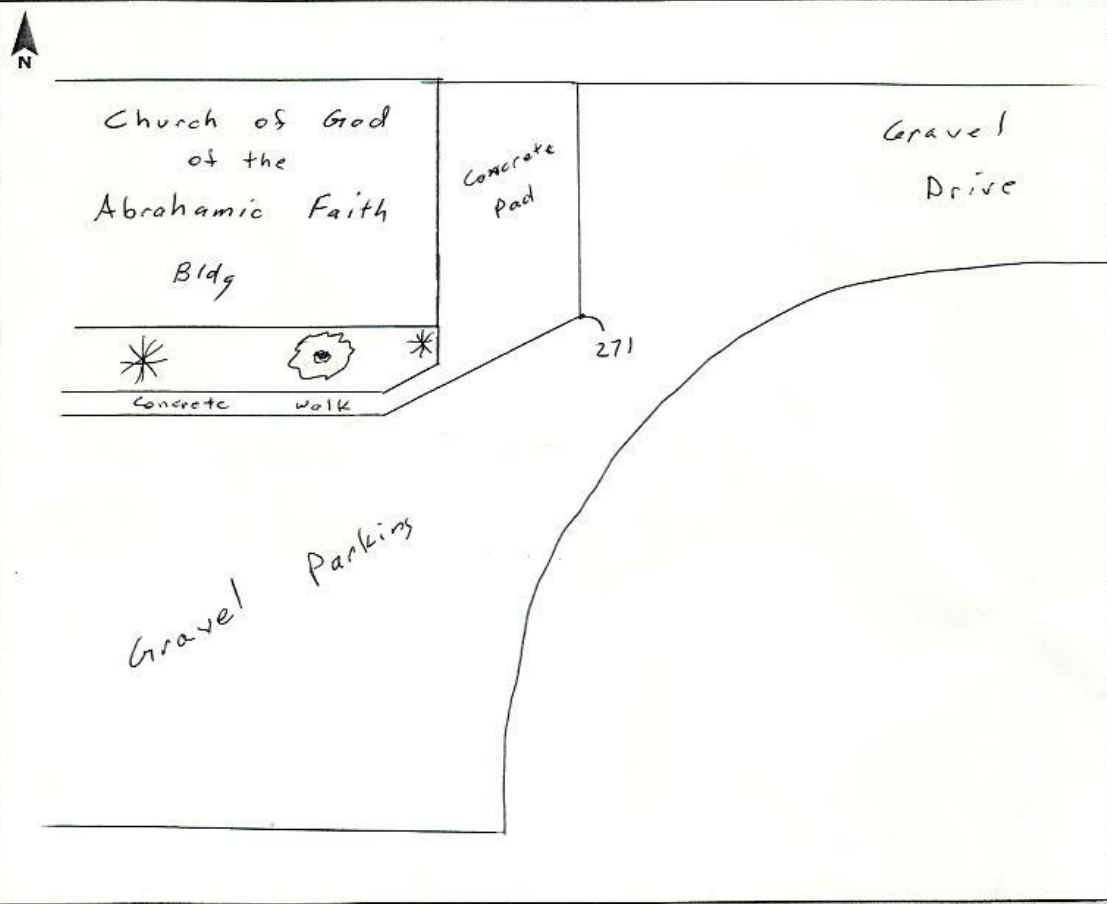


264-3N-23MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21 MAR 12
Station Name: 271 Operator Name: Stephen Schonegg
Latitude: 40-33-22.93 Julian Day: 081 Session No. _____
Longitude: 085-22-18.38 Start Time: 11:19 End Time: _____
Ellip. Height: + 756.61 FT Data File Name: INDST MAR12SS
Type of Mark: Corner Concrete Pad Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 75°, Light Wind Antenna Height: 6.562 FT to bottom of antenna mount





271-2-21MAR2012



271-3N-21MAR2012

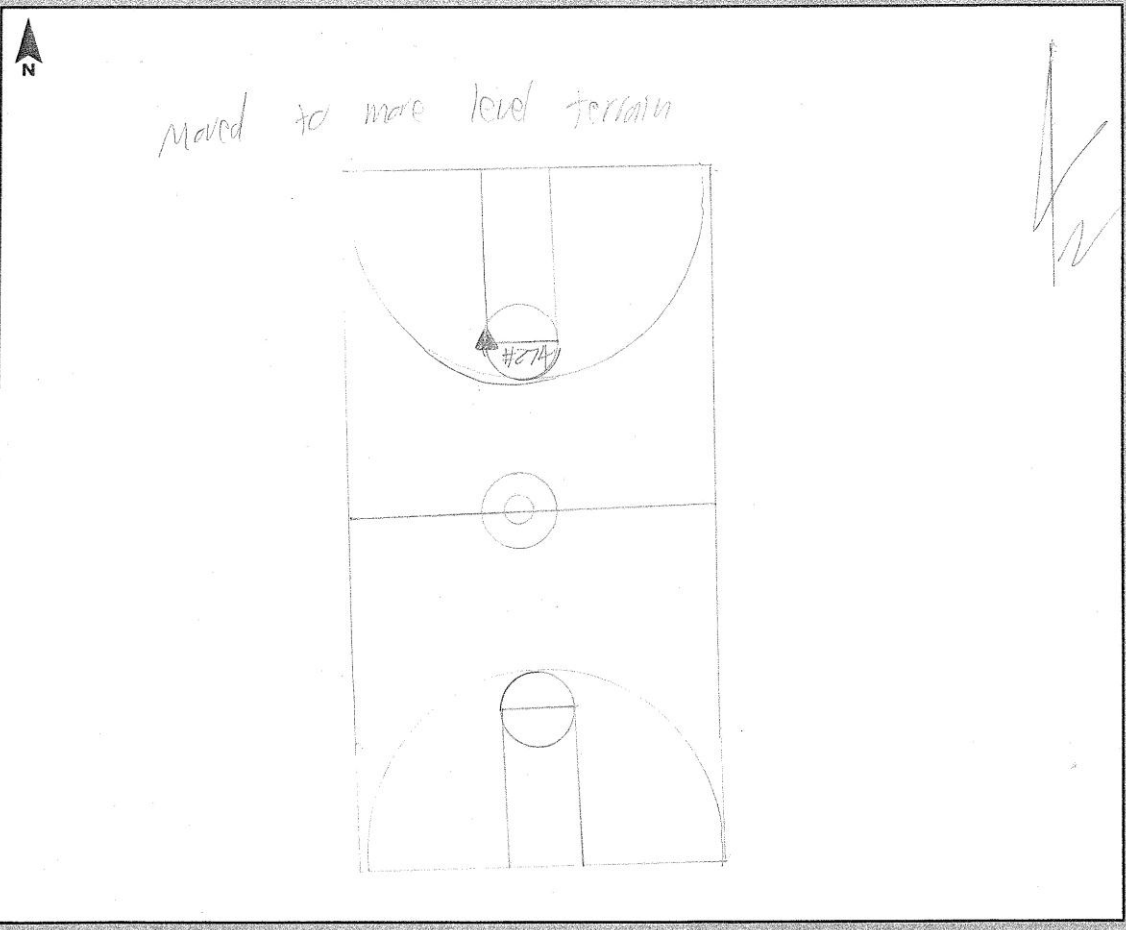


271-3W-21MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-19
Station Name: 274 Operator Name: David Hall
Latitude: 40° 17' 26.8" Julian Day: 075 Session No. 2
Longitude: 85° 01' 35.4" Start Time: 12:27 End Time: 12:40
Ellip. Height: 887' Data File Name: INDY_075_D.HH
Type of Mark: Intersection of Pkwy Type of Receiver: RE-3
Stamping on Mark: Stripes Type of Antenna: RE-3
Weather Condition: 60° & Clear Antenna Height: 2.000M to bottom of antenna mount





274-2-15MAR2012



274-3N-15MAR2012

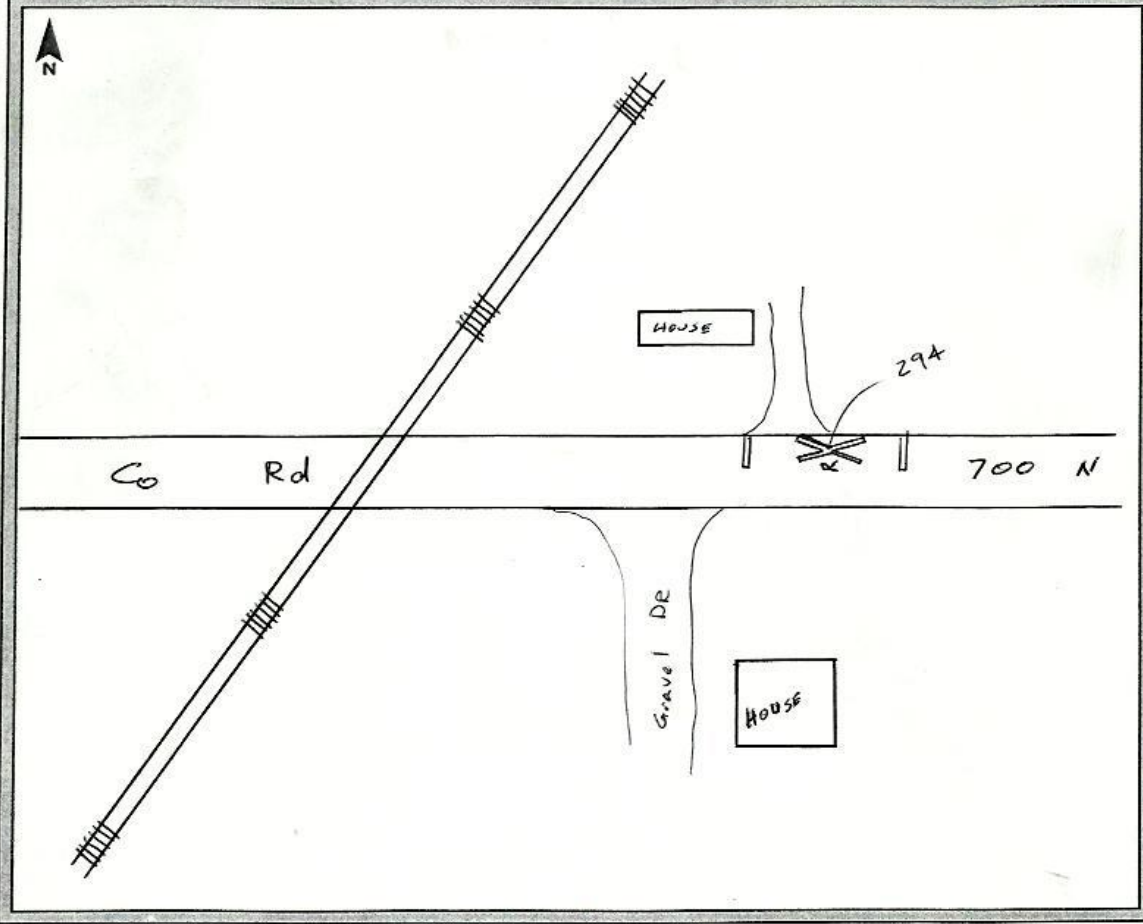


274-3E-15MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>21 MAR 12</u>
Station Name: <u>294</u>	Operator Name: <u>Stephen Schonegg</u>
Latitude: <u>40-39-13.13</u>	Julian Day: <u>081</u> Session No. _____
Longitude: <u>085-28-07.98</u>	Start Time: <u>12:42</u> End Time: <u>12:46</u>
Ellip. Height: <u>. 729.37</u>	Data File Name: <u>IND ST 21 MAR 12 SS</u>
Type of Mark: <u>Center Painted X</u>	Type of Receiver: <u>R8-2 #9357</u>
Stamping on Mark: <u>MAG NAIL</u>	Type of Antenna: _____
Weather Condition: <u>Sunny, 80°, Light Wind</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





294-2-21MAR2012



294-3W-21MAR2012

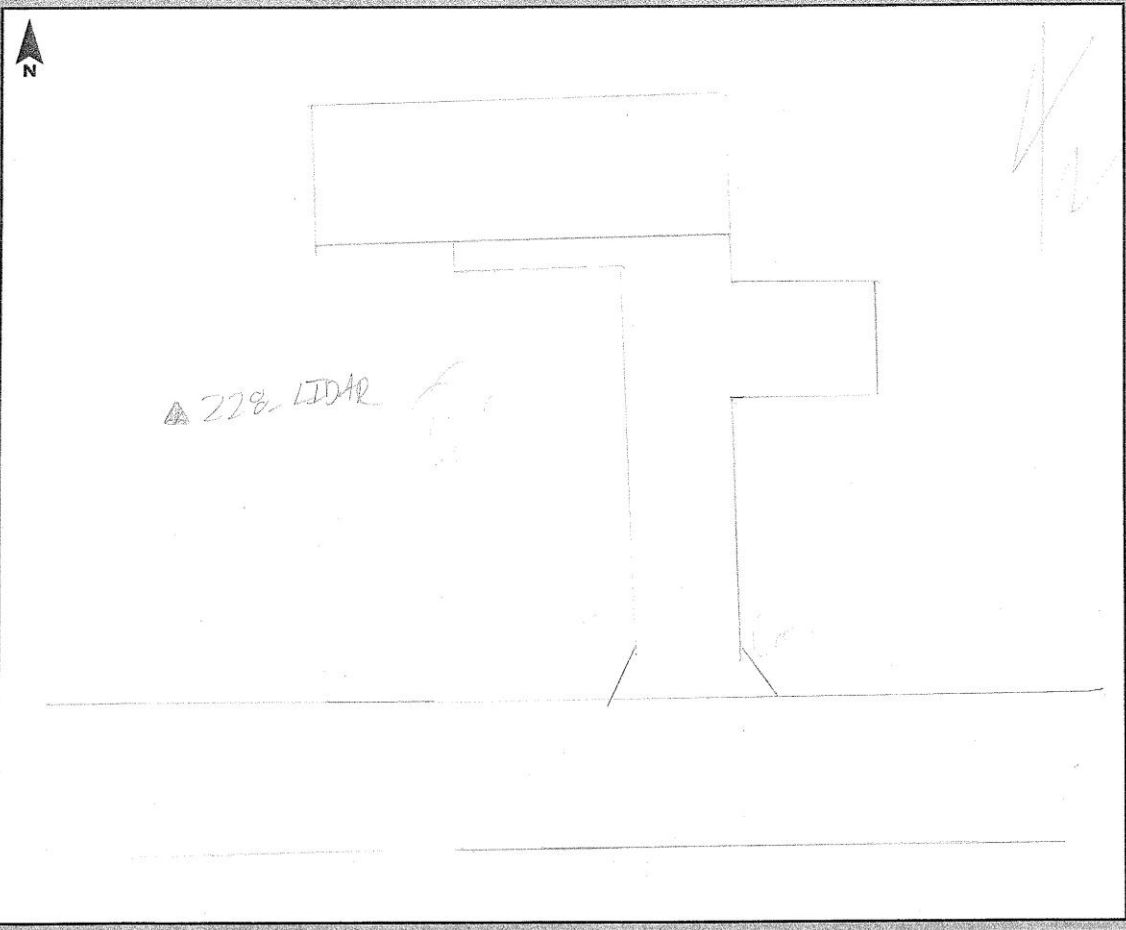


294-3N-21MAR2012

GPS Observation Log Sheet



Project Name: <u>TV Stations 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-1</u>
Station Name: <u>228 LIDAR</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 00' 18.7"</u>	Julian Day: <u>073</u>	Session No. <u>1</u>
Longitude: <u>85° 00' 49.3"</u>	Start Time: <u>09:30</u>	End Time: <u>09:40</u>
Ellip. Height: <u>1109</u>	Data File Name: <u>IM04_073_DWH</u>	
Type of Mark: <u>SHORT CROSS</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>00% & Clear</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





228_LIDAR-2-13MAR2012



228_LIDAR-3E-13MAR2012

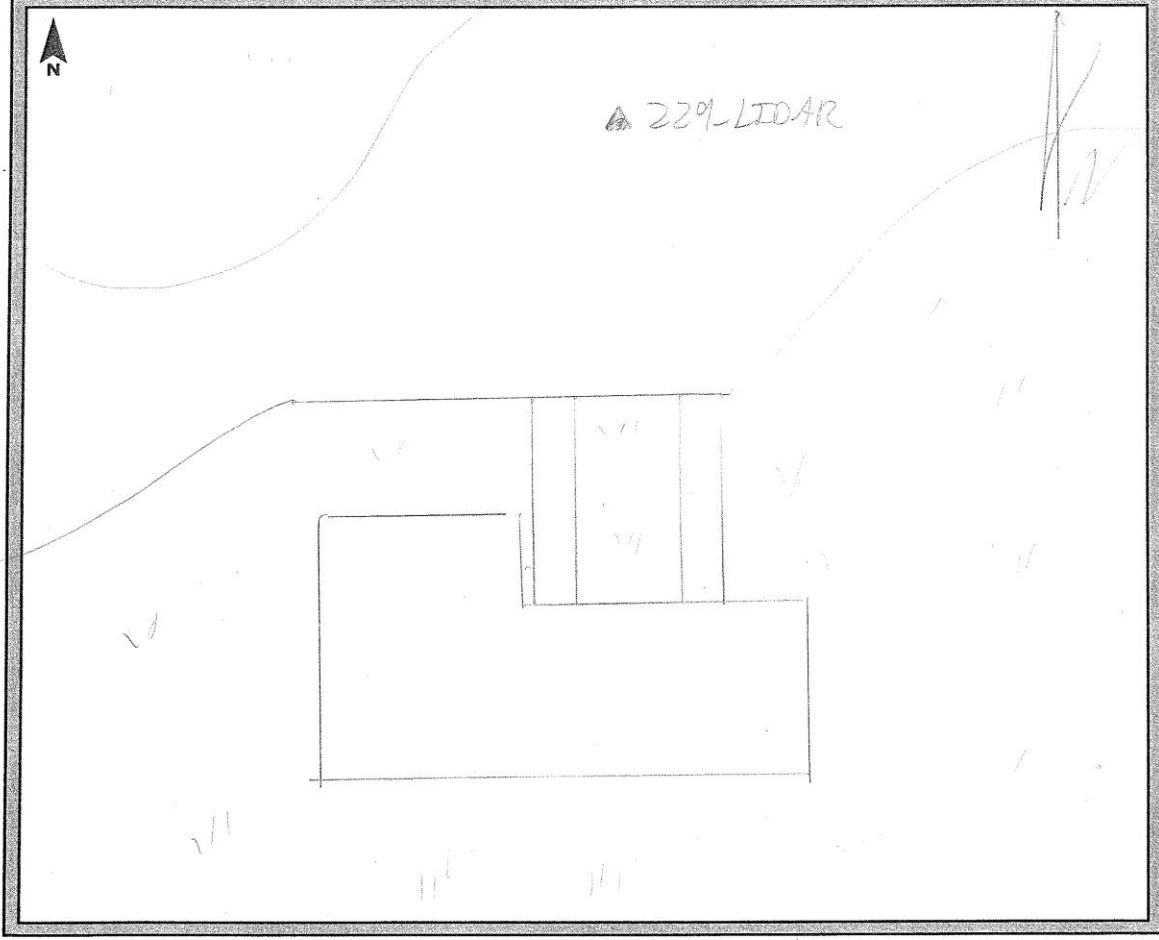


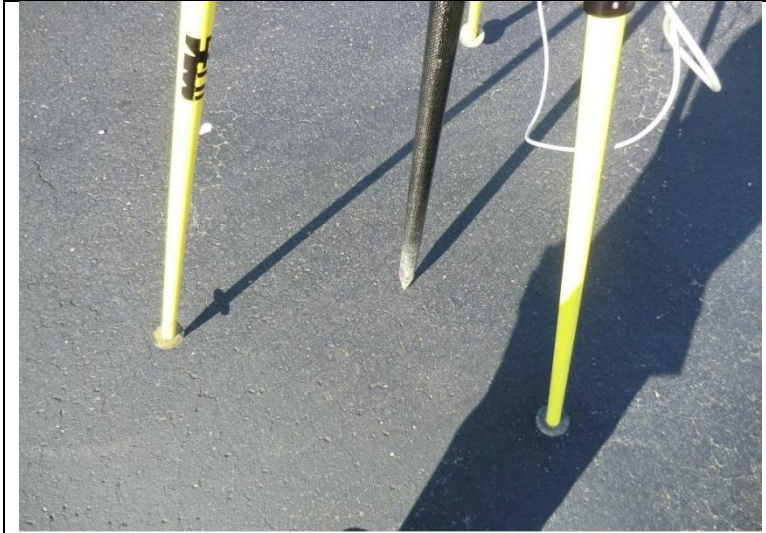
228_LIDAR-3N-13MAR2012

GPS Observation Log Sheet



Project Name: IN STATEWIDE 2012 Project Number: 72134 Survey Date: 2012-03-14
Station Name: 229-LIDAR Operator Name: David Hall
Latitude: 40° 00' 40.4" Julian Day: 074 Session No. 1
Longitude: 85° 12' 47.5" Start Time: 10:53 End Time: 11:01
Ellip. Height: 1041' Data File Name: INDY 074.DMH
Type of Mark: Asphalt Type of Receiver: RE-3
Stamping on Mark: _____ Type of Antenna: RE-3
Weather Condition: 60's & clear Antenna Height: 2.000M to bottom of antenna mount





229 LIDAR-2-14MAR2012



229 LIDAR-3N-14MAR2012

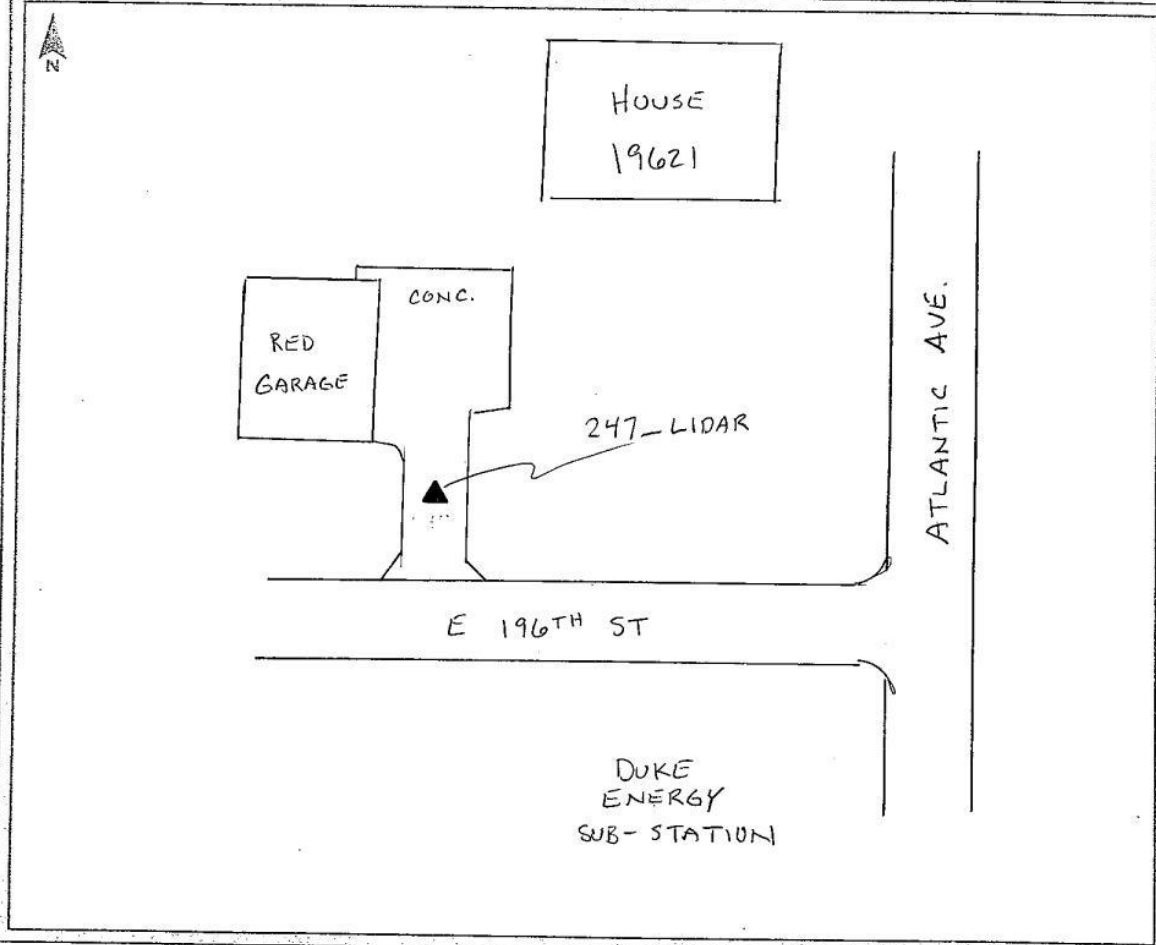


229 LIDAR-3E-14MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	72134	Survey Date:	03/15/2012
Station Name:	247_LIDAR	Operator Name:	BEN CHRISTIE	Julian Day:	075
Latitude:	40° 04' 28.71" N	Session No.:	—	Start Time:	—
Longitude:	85° 51' 49.60" W	End Time:	—	Data File Name:	—
Ellip. Height:	733.89 SFT	Type of Receiver:	RB	Type of Antenna:	RB
Type of Mark:	CONCRETE	Antenna Height:	2m	to bottom of antenna mount	
Stamping on Mark:	—				
Weather Condition:	65° CLEAR				





247 LIDAR-2-15MAR2012



247 LIDAR-3E-15MAR2012

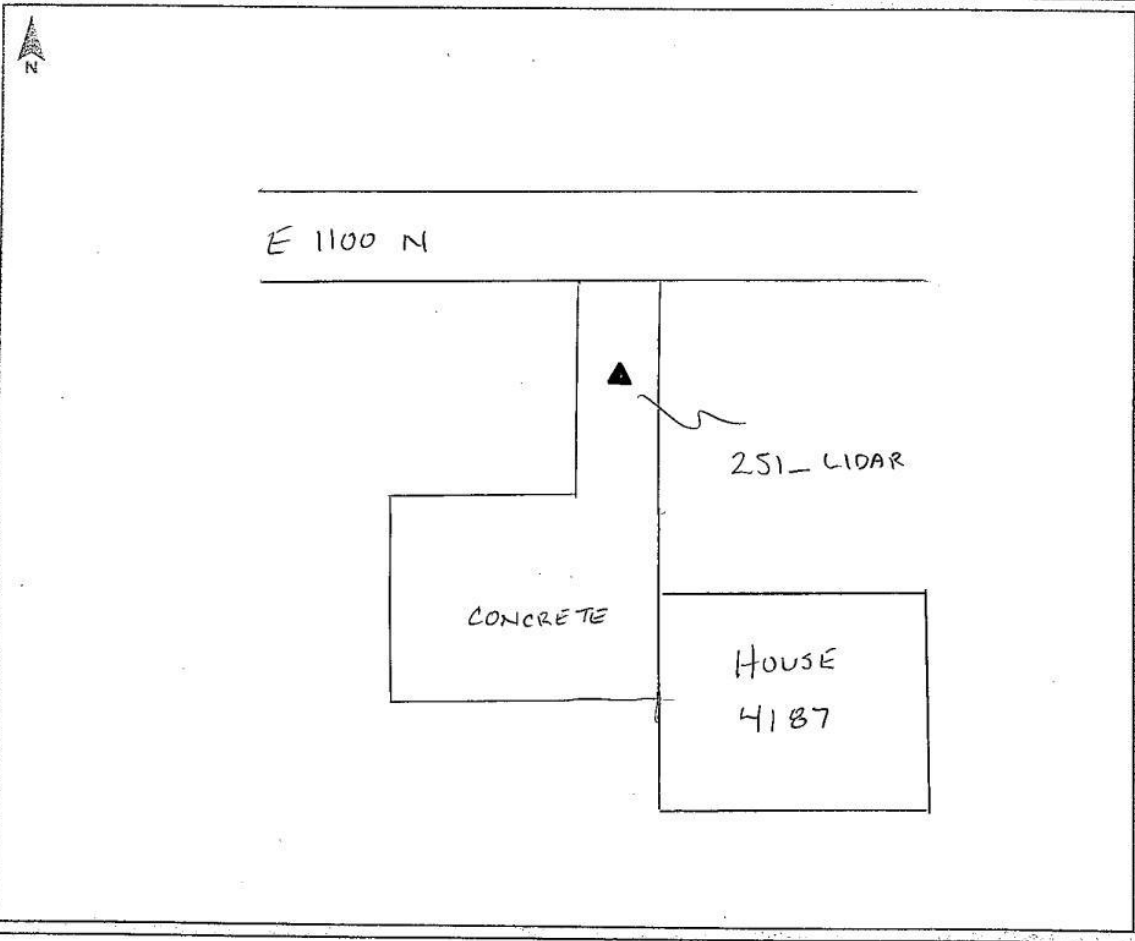


247 LIDAR-3N-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>251 - LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 42.32" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 43' 36.70" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>768.25 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>60° CLEAR</u>	Antenna Height: <u>2 M</u>	to bottom of antenna mount





251_LIDAR-2-13MAR2012



251_LIDAR-3S-13MAR2012

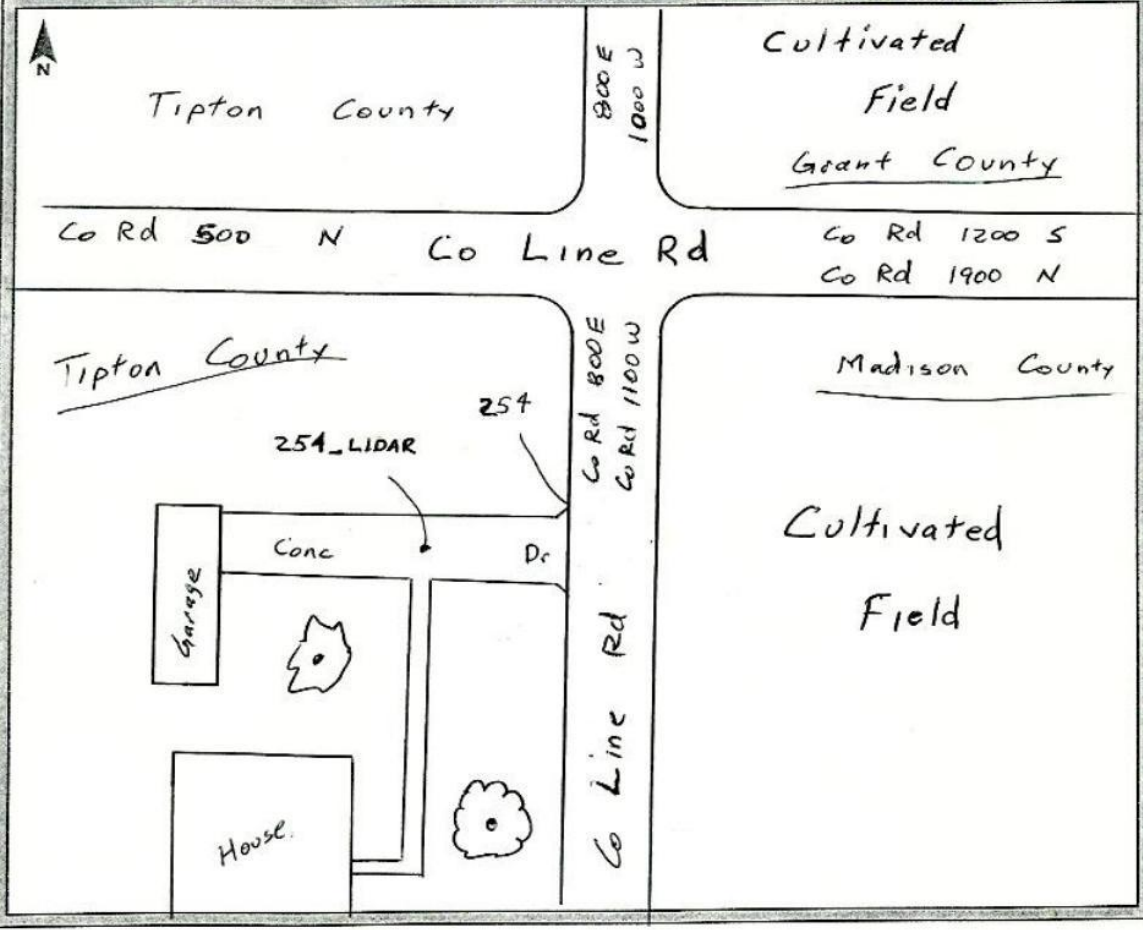


251_LIDAR-3E-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 16 MAR 12
 Station Name: 254_LIDAR Operator Name: Stephen Schonegg
 Latitude: 40-22-41.36 Julian Day: 076 Session No. _____
 Longitude: 085-51-44.77 Start Time: 2:43 End Time: 2:48
 Ellip. Height: .746.24 Data File Name: INDST16MAR12SS
 Type of Mark: Center Concrete Dr Type of Receiver: R8-2 #9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: Sunny, 75° Antenna Height: 6.562 FT to bottom of antenna mount





254 LIDAR-2-16MAR2012



254_LIDAR-3N-16MAR2012

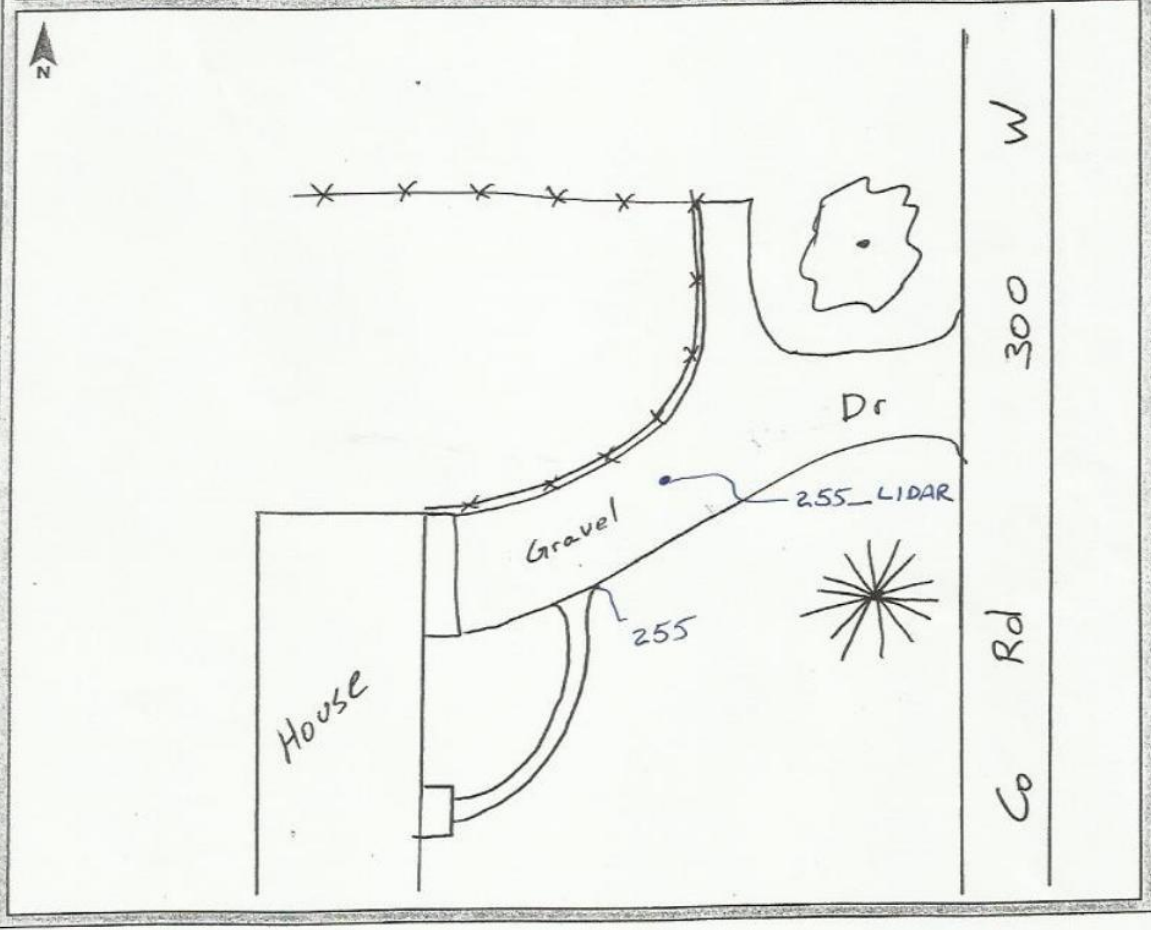


254 LIDAR-3E-16MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>16 MAR 12</u>
Station Name: <u>255-LIDAR</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-21-57.22</u>	Julian Day: <u>076</u>	Session No. _____
Longitude: <u>085-43-41.86</u>	Start Time: <u>3:34</u>	End Time: <u>3:38</u>
Ellip. Height: <u>. 778.00</u>	Data File Name: <u>INDST16MAR12SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 80°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





255_LIDAR-2-16MAR2012



255_LIDAR-3W-16MAR2012

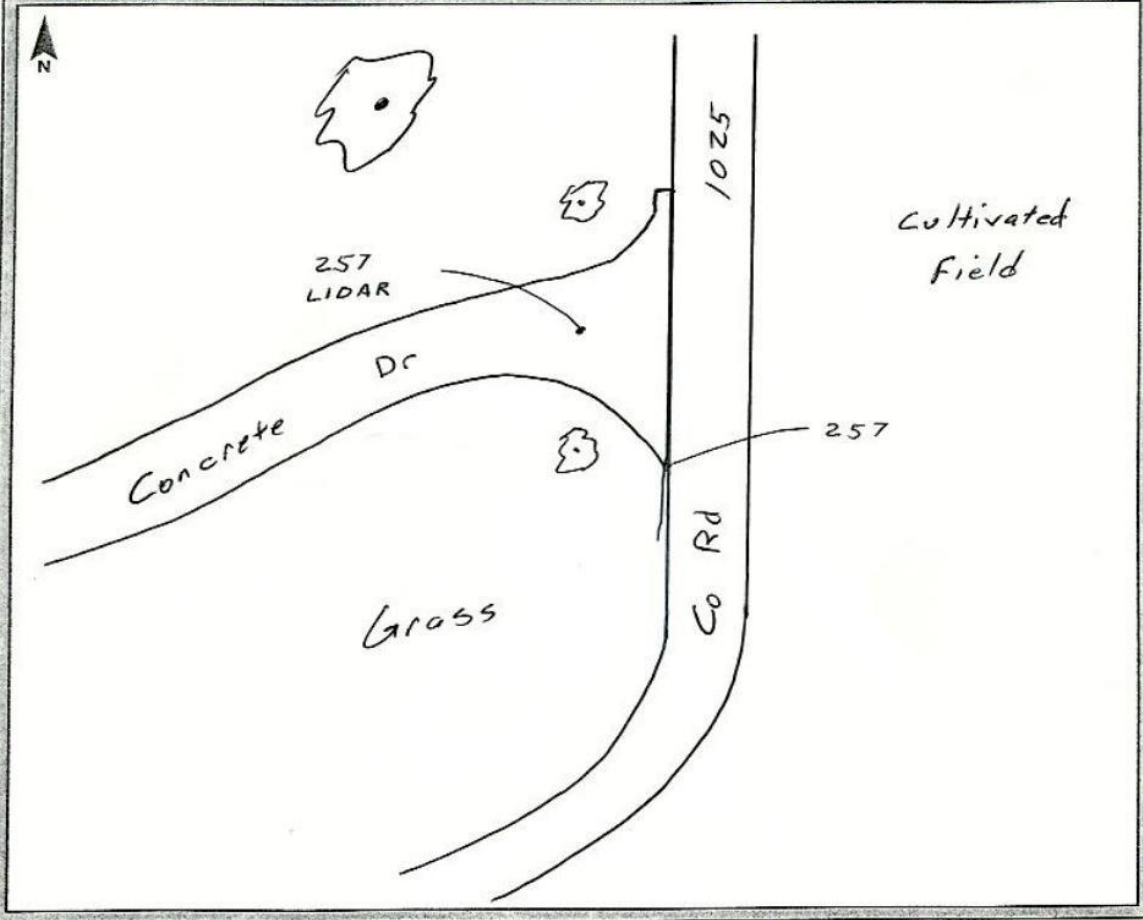


255_LIDAR-3N-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 15 MAR 12
Station Name: 257 - LIDAR Operator Name: Stephen Schonegg
Latitude: 40-14-56.14 Julian Day: 075 Session No. _____
Longitude: 085-43-25.19 Start Time: 10:41 End Time: 10:45
Ellip. Height: .747.76 Data File Name: INDST15MAR12SS
Type of Mark: Center Concrete Drive Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: PT SUNNY, 75° Antenna Height: 6.562 FT to bottom of antenna mount

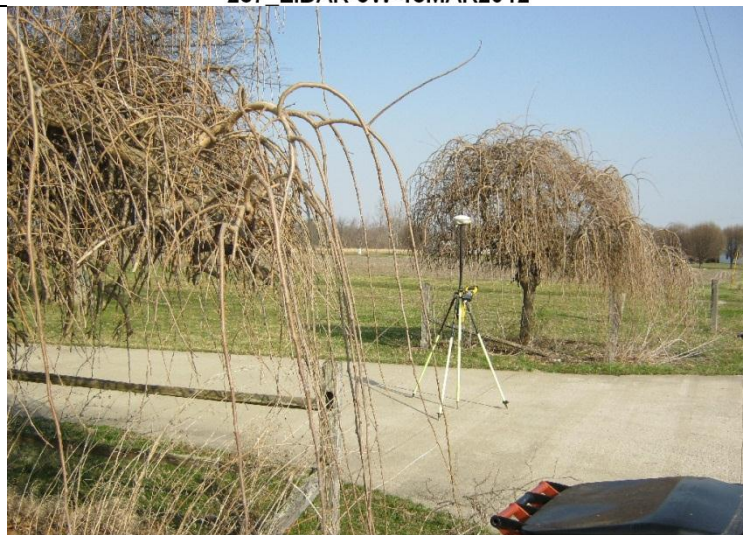




257_LIDAR-2-15MAR2012



257_LIDAR-3W-15MAR2012

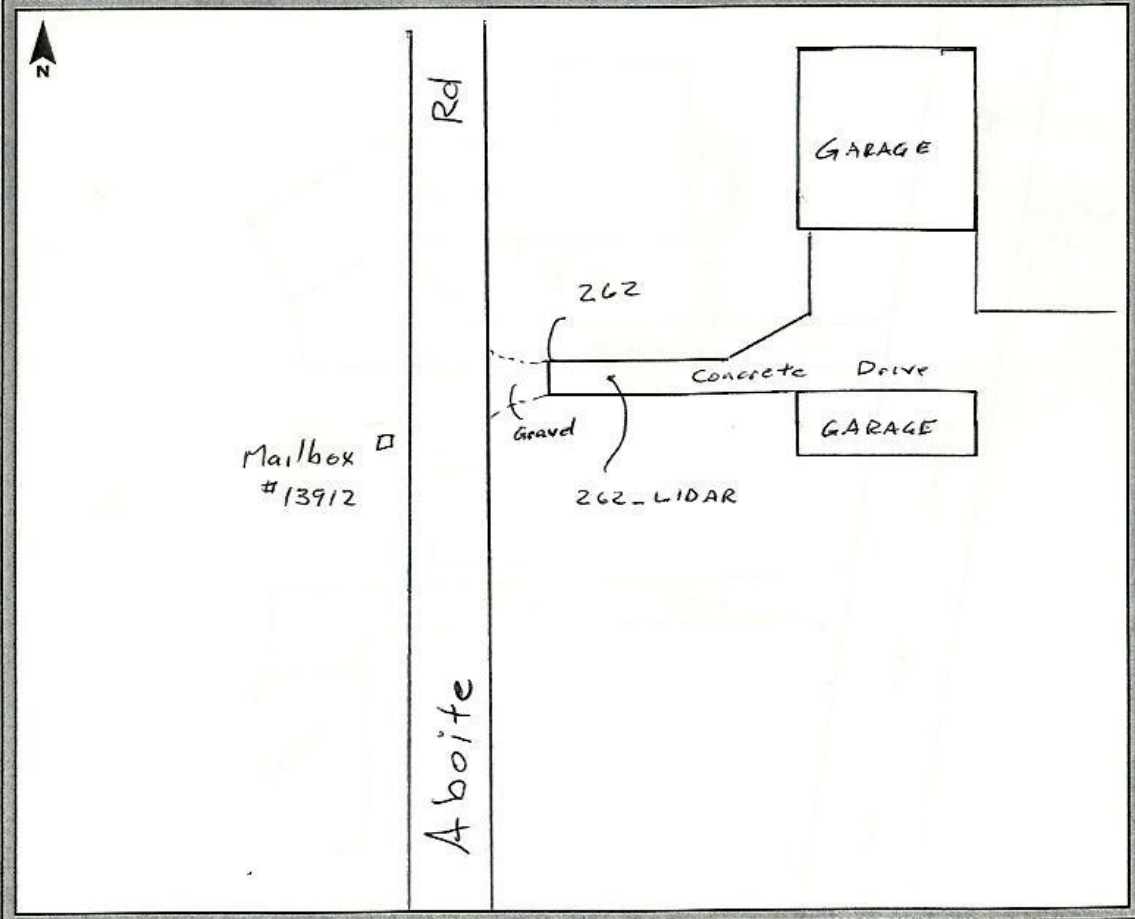


257_LIDAR-3N-15MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>22 MAR 12</u>
Station Name: <u>262 - LIDAR</u>	Operator Name: <u>Stephen Schonegg</u>
Latitude: <u>40-55-03.87</u>	Julian Day: <u>082</u> Session No. _____
Longitude: <u>085-19-08.02</u>	Start Time: <u>3:48</u> End Time: <u>3:52</u>
Ellip. Height: <u>674.20 FT</u>	Data File Name: <u>IND ST 22 MAR 12 SS</u>
Type of Mark: <u>Center Concrete Drive</u>	Type of Receiver: <u>R8-2 #9357</u>
Stamping on Mark: _____	Type of Antenna: _____
Weather Condition: <u>Pt Cloudy, 80°, LIGHT WIND</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount





262_LIDAR-2-22MAR2012



262_LIDAR-3N-22MAR2012

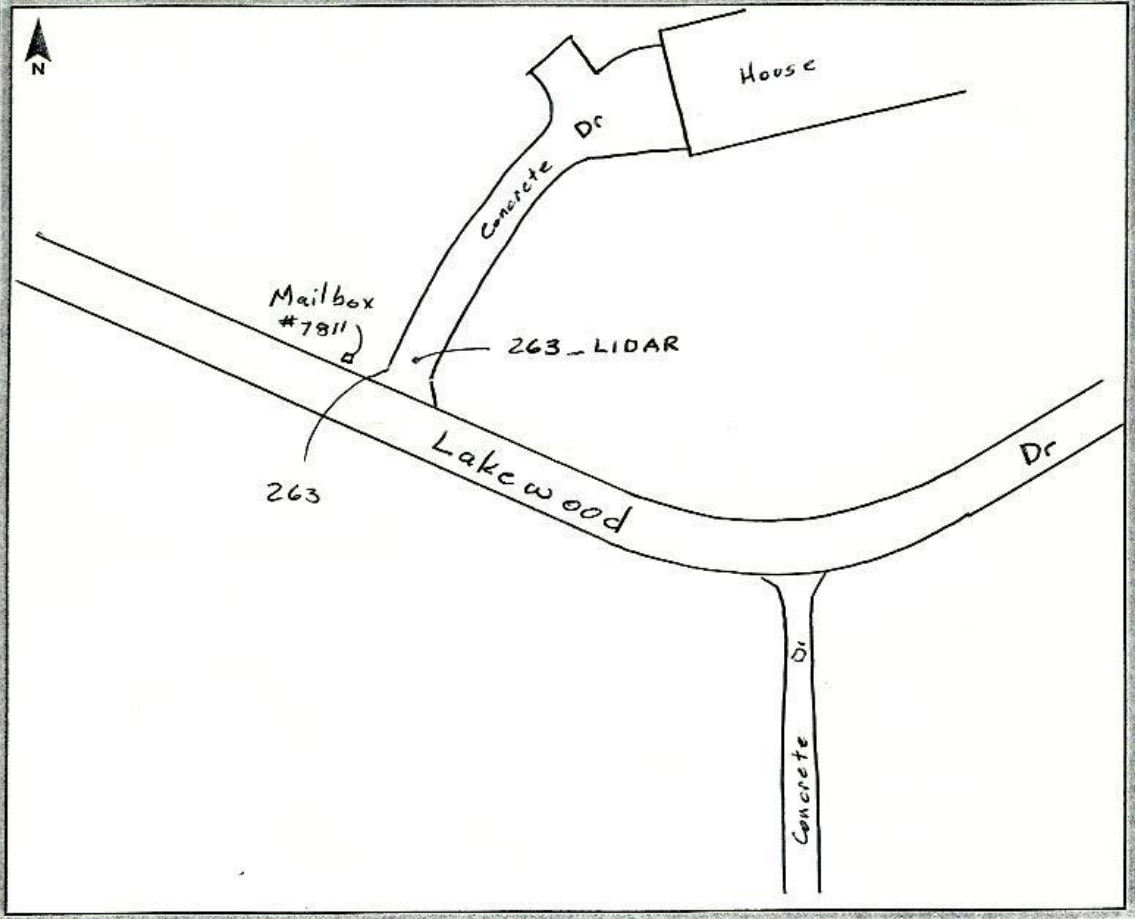


262_LIDAR-3E-22MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23MAR12
Station Name: 263 - LIDAR Operator Name: STEPHEN SCHNEGG
Latitude: 41-01-03.21 Julian Day: 083 Session No. _____
Longitude: 085-20-22.48 Start Time: 9:39 End Time: 9:43
Ellip. Height: • 729.70 FT Data File Name: IND05T23MAR12SS
Type of Mark: Center Concrete Dr Type of Receiver: RB-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





263_LIDAR-2-23MAR2012



263_LIDAR-3N-23MAR2012

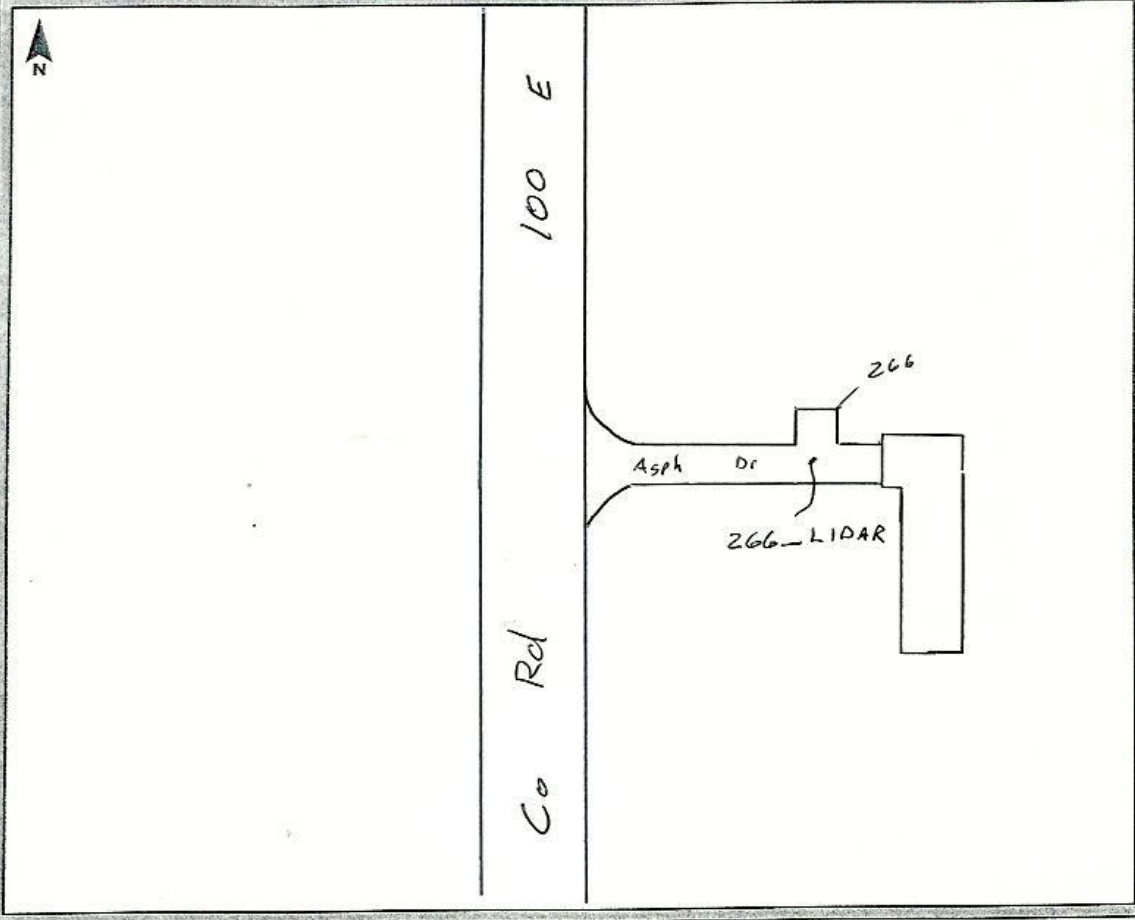


263_LIDAR-3E-23MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>16 MAR 12</u>
Station Name: <u>266 - LIDAR</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-39-19.01</u>	Julian Day: <u>076</u>	Session No. _____
Longitude: <u>085-46-18.31</u>	Start Time: <u>10:28</u>	End Time: <u>10:33</u>
Ellip. Height: <u>683.94</u>	Data File Name: <u>INDST MAR12SS</u>	
Type of Mark: <u>Center Asphalt Dr</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 65°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





266_LIDAR-2-16MAR2012



266_LIDAR-3N-16MAR2012

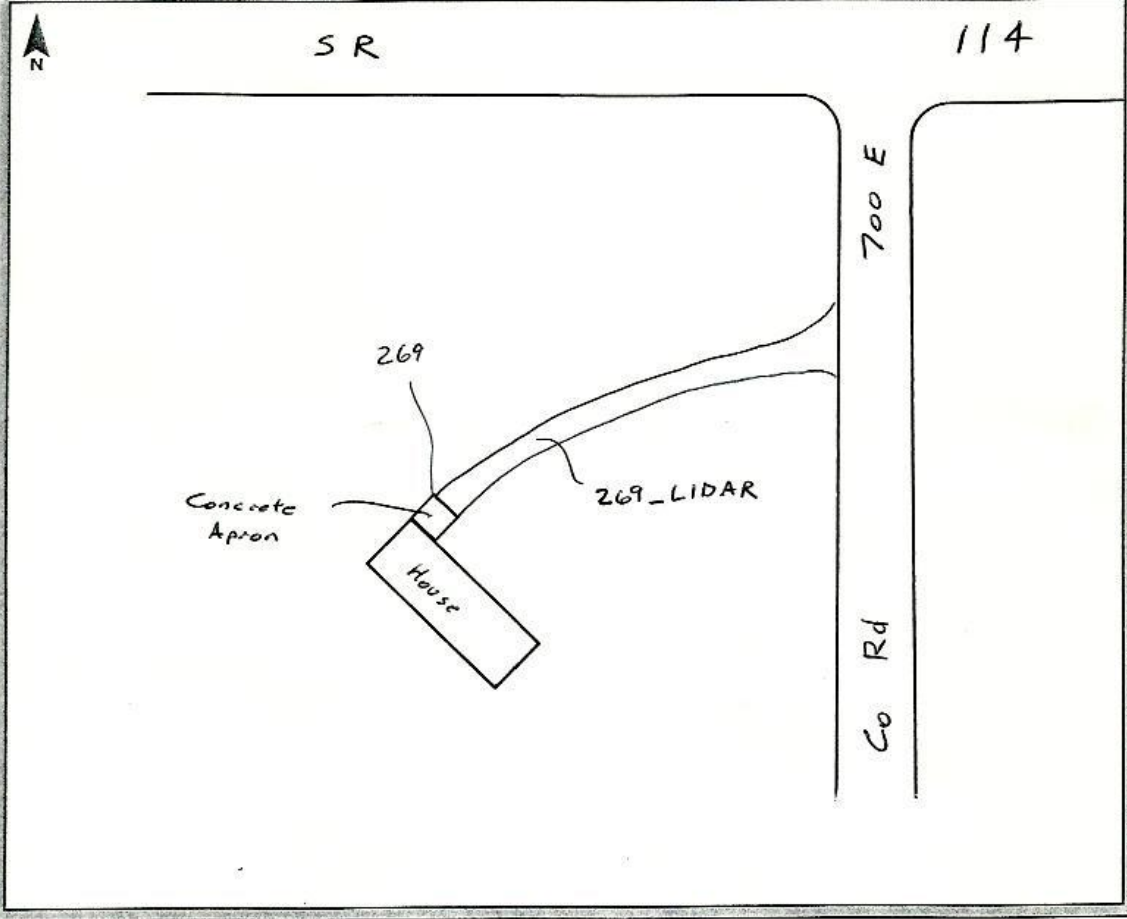


266_LIDAR-3E-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 23 MAR 12
Station Name: 269-LIDAR Operator Name: STEPHEN SCHONEGG
Latitude: 41-00-06.14 Julian Day: 083 Session No. _____
Longitude: 085-39-50.92 Start Time: 10:44 End Time: 10:49
Ellip. Height: .747.16 Data File Name: IND ST 23 MAR 12 SS
Type of Mark: Center Gravel Dr Type of Receiver: R8-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 65°, Light Rain Antenna Height: 6.562 FT to bottom of antenna mount





269_LIDAR-2-23MAR2012



269_LIDAR-3W-23MAR2012

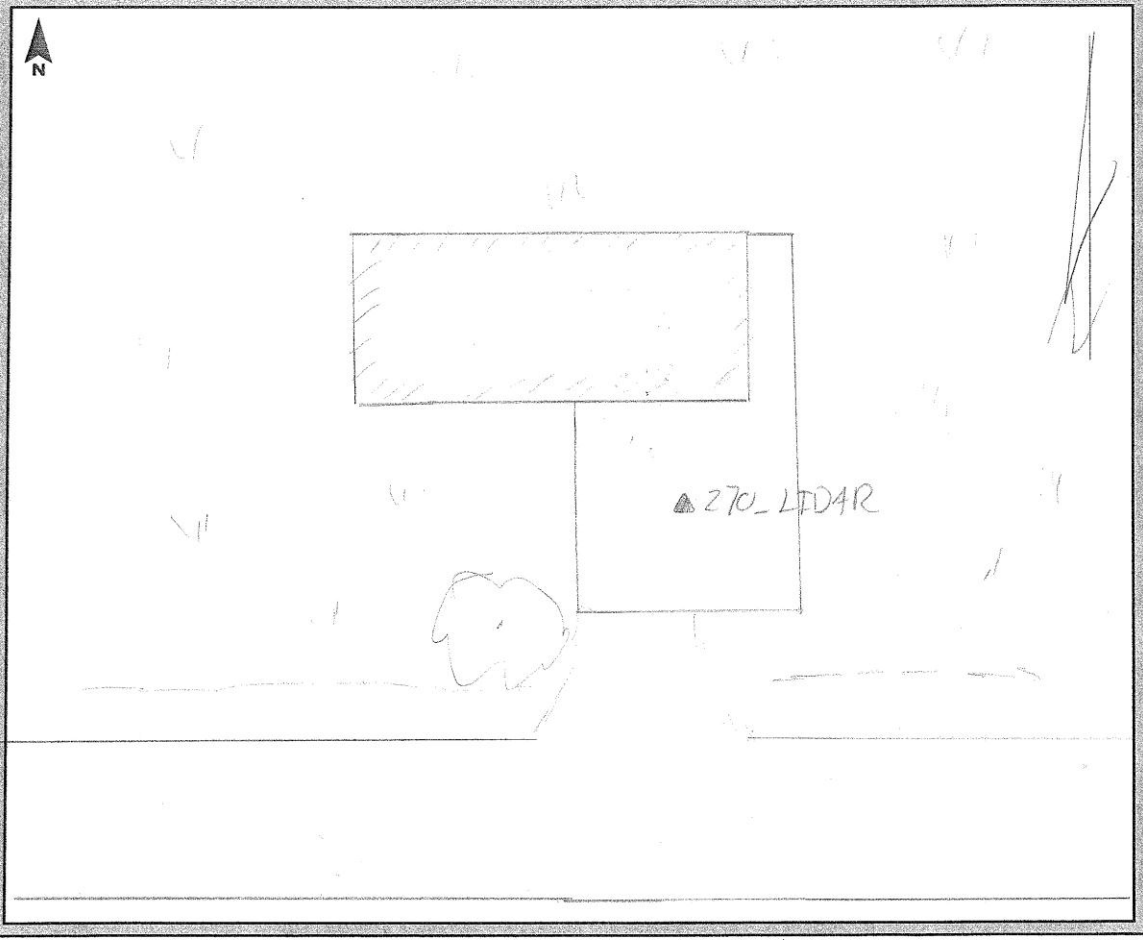


269_LIDAR-3S-23MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72314 Survey Date: 2012-03-16
Station Name: 270 - LIDAR Operator Name: David Hall
Latitude: 40° 33' 21.3" Julian Day: 076 Session No. 1
Longitude: 84° 57' 27.4" Start Time: 12:48 End Time: _____
Ellip. Height: 732' Data File Name: INDY_076 - DMH
Type of Mark: conc Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: 60% & partly cloudy Antenna Height: 2.000m to bottom of antenna mount





270_LIDAR-2-16MAR2012



270_LIDAR-3N-16MAR2012

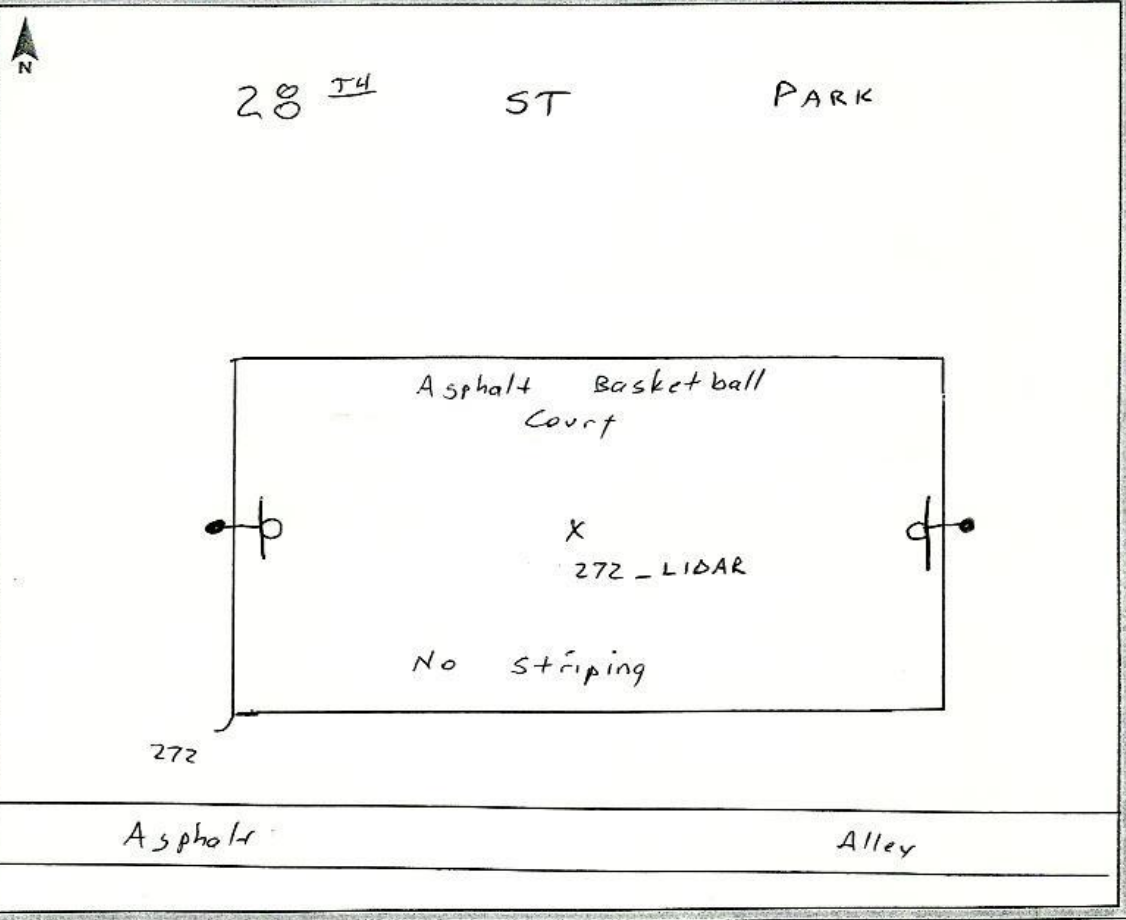


270_LIDAR-3E-16MAR2012

GPS Observation Log Sheet



Project Name:	<u>INDIANA STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>16 MAR 12</u>
Station Name:	<u>272 - LIDAR</u>	Operator Name:	<u>Stephen Schonegg</u>		
Latitude:	<u>40-32-08.55</u>	Julian Day:	<u>076</u>	Session No.:	
Longitude:	<u>085-38-52.22</u>	Start Time:	<u>11:20</u>	End Time:	<u>11:24</u>
Ellip. Height:	<u>725.46</u>	Data File Name:	<u>INDST MAR12SS</u>		
Type of Mark:	<u>Center Asphalt Pad</u>	Type of Receiver:	<u>RB-2 #9357</u>		
Stamping on Mark:	<u> </u>	Type of Antenna:	<u> </u>		
Weather Condition:	<u>Sunny, 65°</u>	Antenna Height:	<u>6.562 FT</u>	to bottom of antenna mount	





272 LIDAR-2-16MAR2012



272_LIDAR-3W-16MAR2012



272 LIDAR-3N-16MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-14
Station Name: 273 - LIDAR Operator Name: David Hall
Latitude: 40° 19' 04.9" Julian Day: 074 Session No. 2
Longitude: 85° 19' 20.0" Start Time: 15:39 End Time: 15:46
Ellip. Height: 789' Data File Name: DVDY_074.DAT
Type of Mark: Bare Earth Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: 100% ☺ clear Antenna Height: 2000mm to bottom of antenna mount





273_LIDAR-2-14MAR2012



273_LIDAR-3N-14MAR2012

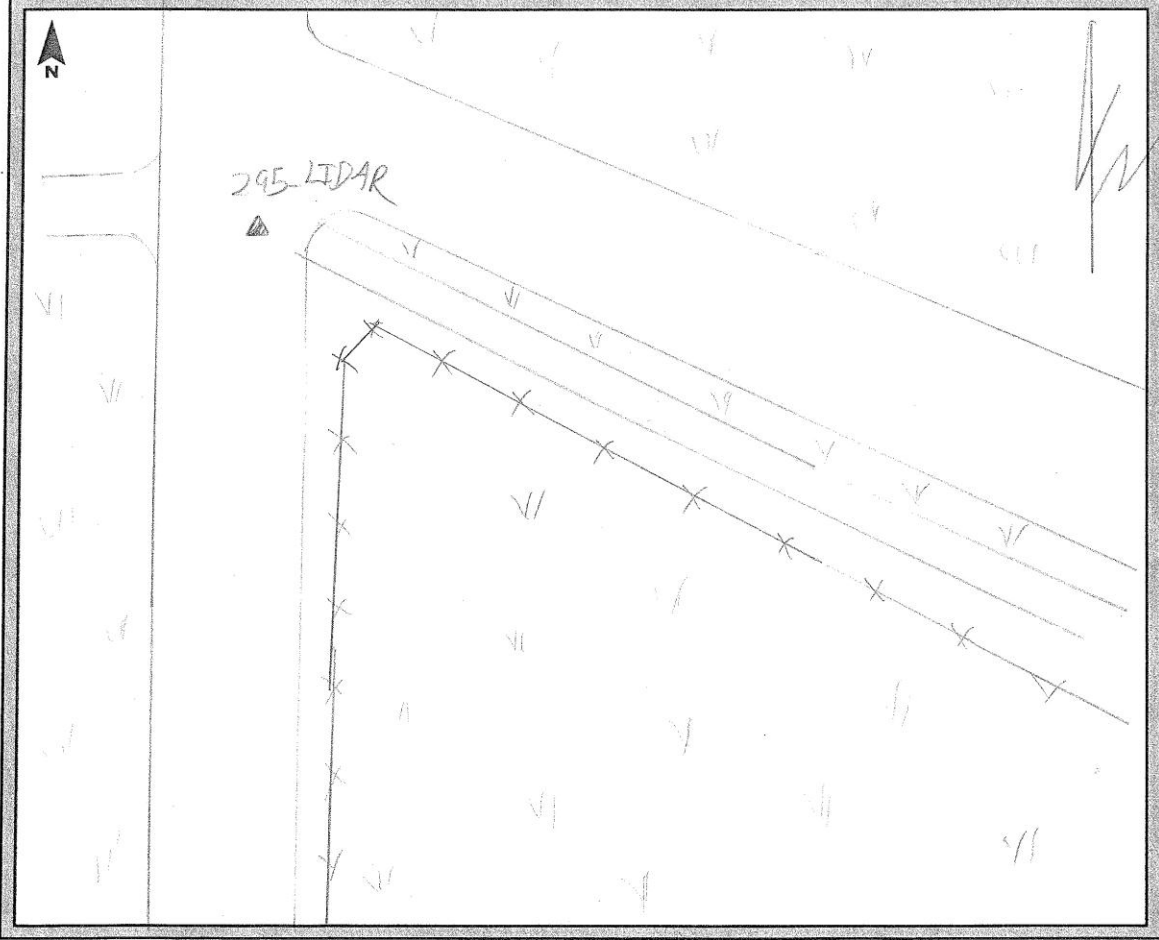


273_LIDAR-3E-14MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-15</u>
Station Name:	<u>295 LIDAR</u>	Operator Name:	<u>David Hay</u>		
Latitude:	<u>40° 22' 36.7"</u>	Julian Day:	<u>075</u>	Session No.:	<u>2</u>
Longitude:	<u>85° 12' 50.5"</u>	Start Time:	<u>13:28</u>	End Time:	<u>13:28</u>
Ellip. Height:	<u>825</u>	Data File Name:	<u>INDY_075_DUH</u>		
Type of Mark:	<u>Flat Asphalt</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:	<u>N/A</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60% ☁ Clear</u>	Antenna Height:	<u>2.000M</u>	to bottom of antenna mount	





295_LIDAR-2-15MAR2012



295_LIDAR-3N-15MAR2012

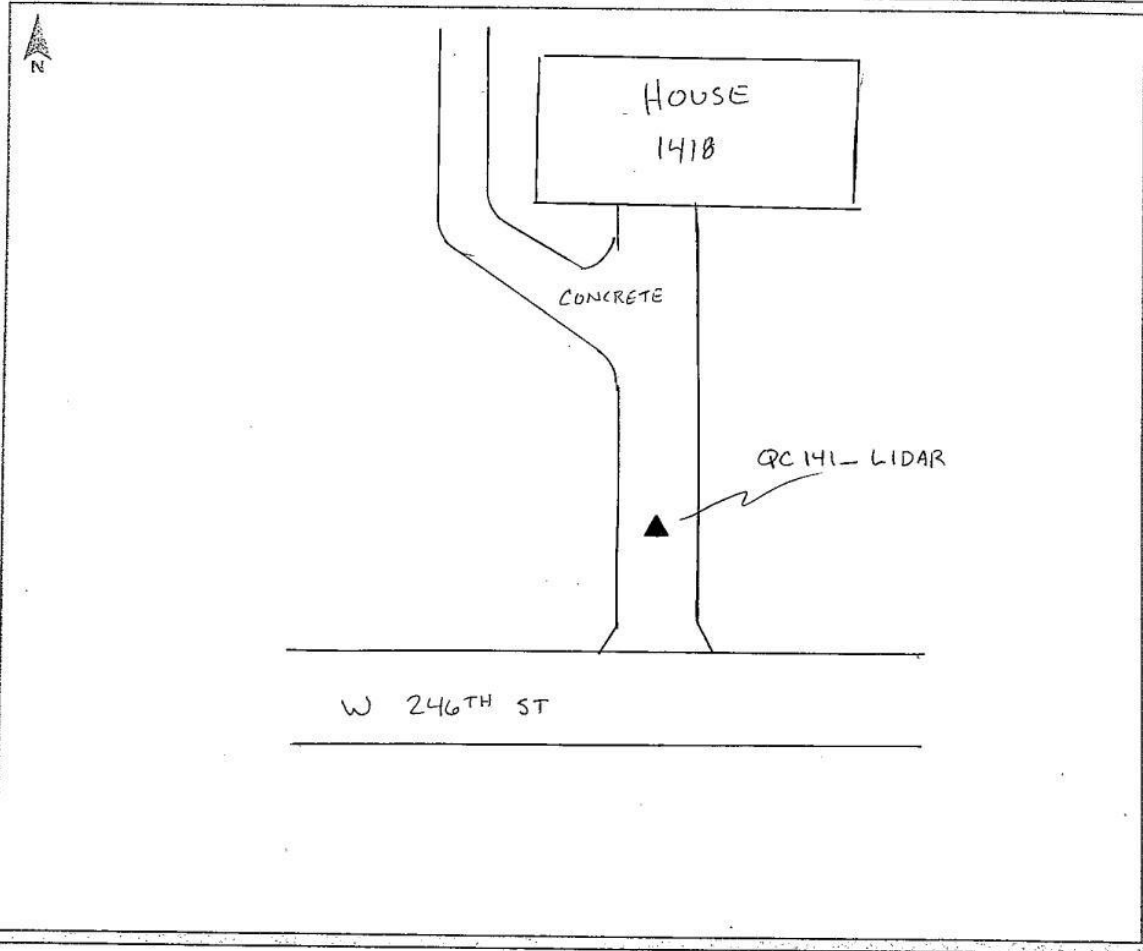


295_LIDAR-3E-15MAR2012

GPS Observation Log Sheet



Project Name:		Project Number:	72134	Survey Date:	03/16/2012
Station Name:	QC 141 LIDAR	Operator Name:	BEN CHRISTIE		
Latitude:	40° 08' 41.70" N	Julian Day:	076	Session No.:	—
Longitude:	86° 11' 08.28" W	Start Time:	—	End Time:	—
Ellip. Height:	827.15 SF+	Data File Name:	—		
Type of Mark:	CONCRETE	Type of Receiver:	R8		
Stamping on Mark:	—	Type of Antenna:	R8		
Weather Condition:	70° CLEAR	Antenna Height:	2 m	to bottom of antenna mount	





QC 141 LIDAR-2-16MAR2012



QC 141_LIDAR-3N-16MAR2012

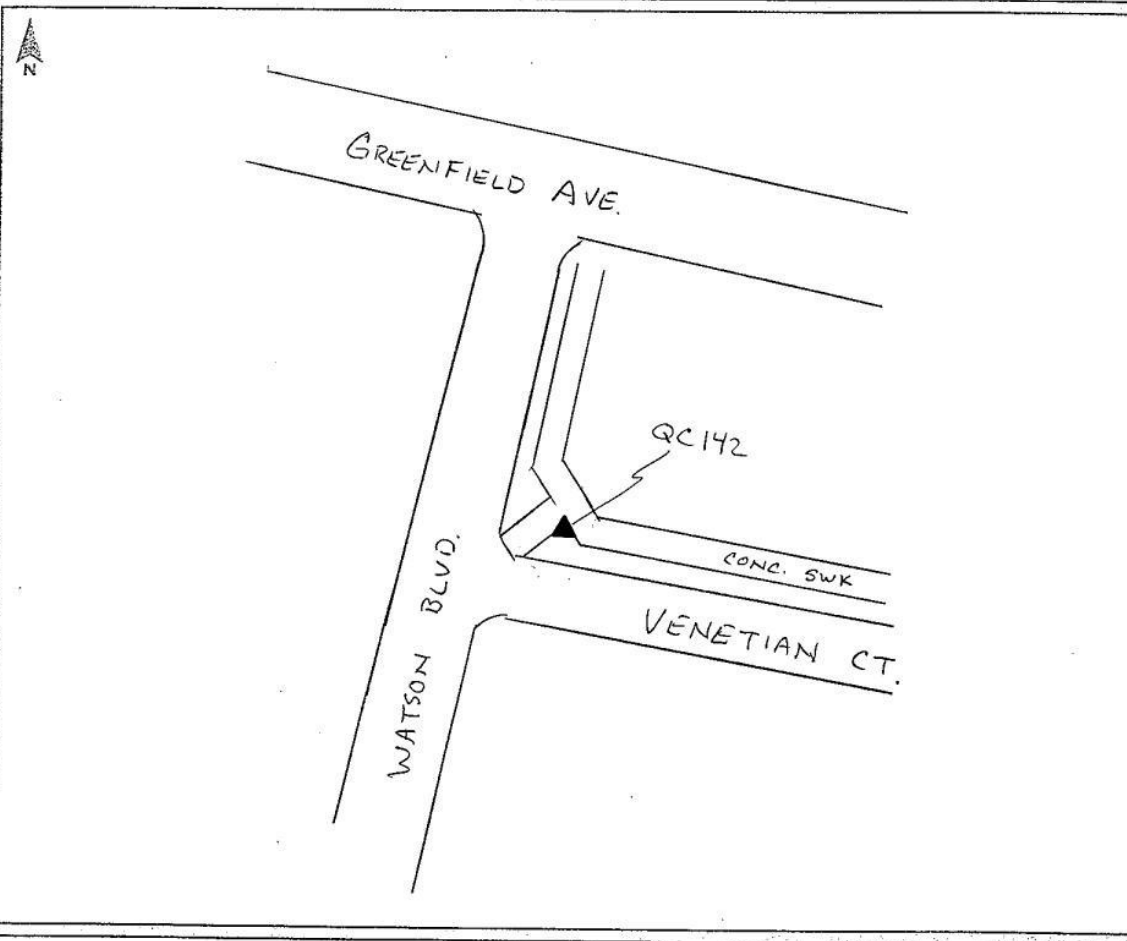


QC 141 LIDAR-3W-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>QC 142</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 00' 40.47" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 57' 47.49" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>683.61 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR. SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC142-2-13MAR2012



QC142-3S-13MAR2012

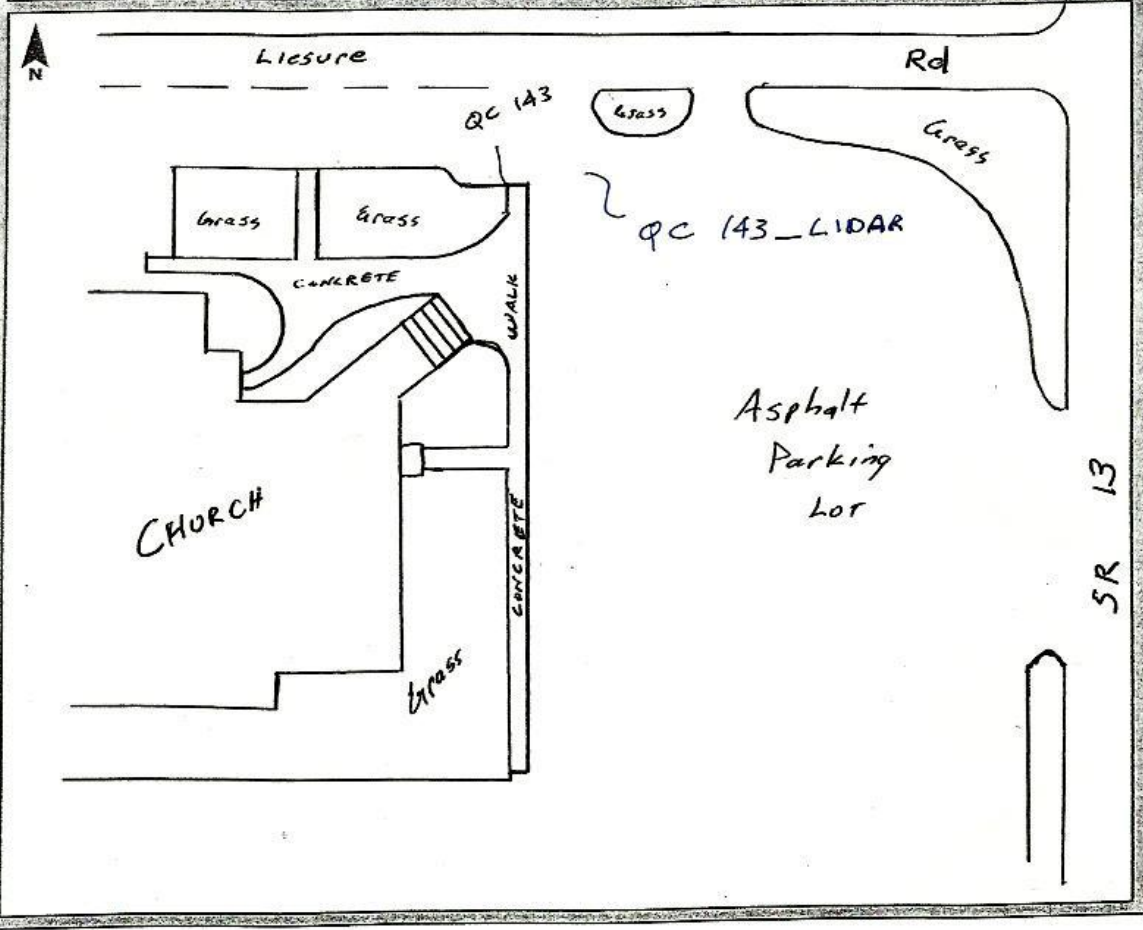


QC142-3N-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 16 MAR 12
 Station Name: QC 143 - LIDAR Operator Name: Stephen Schonegg
 Latitude: 40-21-50.30 Julian Day: 076 Session No. _____
 Longitude: 085-50-37.80 Start Time: 1:40 End Time: 2:44
 Ellip. Height: . 754.45 Data File Name: INDST16MAR12SS
 Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: Sunny, 75° Antenna Height: 6.562 FT to bottom of antenna mount





QC 143 LIDAR-2-16MAR2012



QC 143 LIDAR-3E-16MAR2012

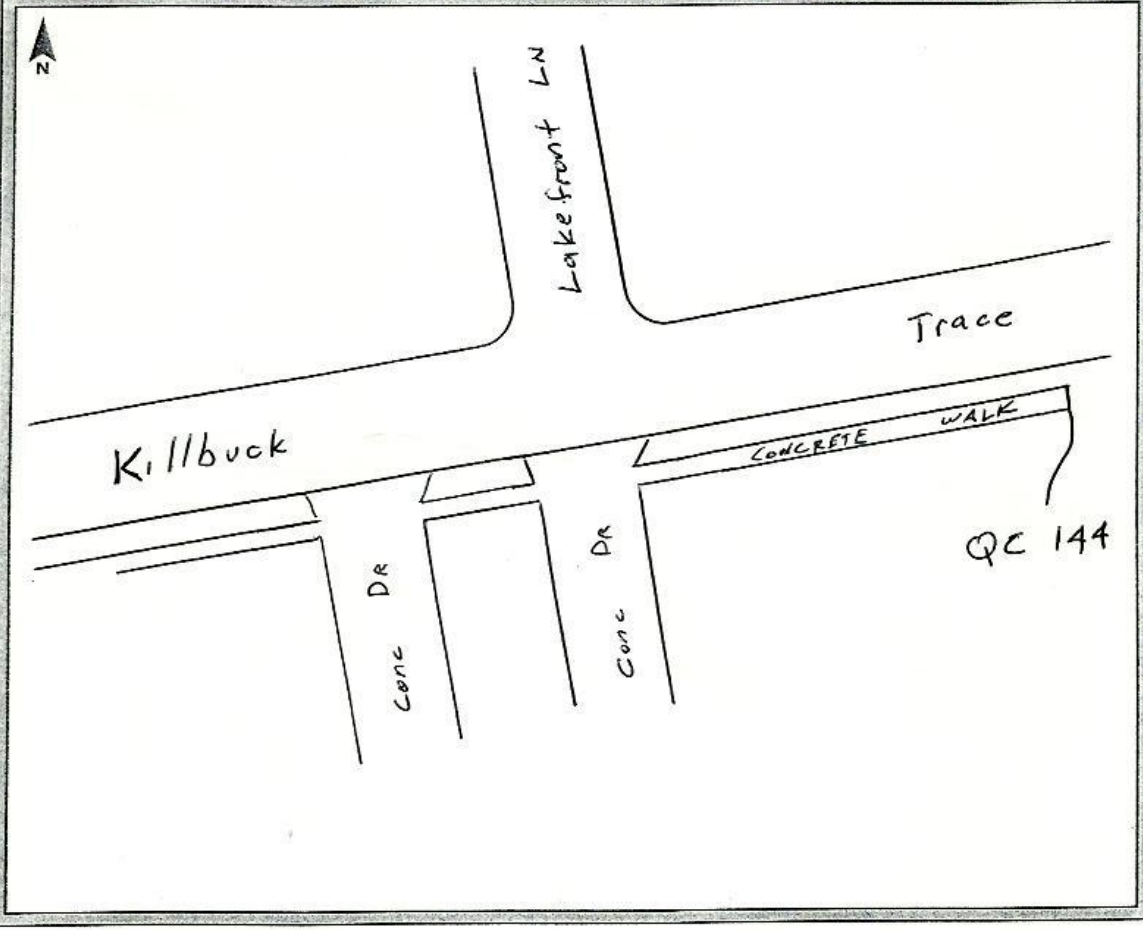


QC 143 LIDAR-3N-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 15 MAR 12
Station Name: QC 144 Operator Name: Stephen Schonegg
Latitude: 40-09-09.98 Julian Day: 075 Session No. _____
Longitude: 085-39-30.33 Start Time: 9:45 End Time: 9:49
Ellip. Height: .750.84 Data File Name: INDST15MAR12SS
Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: PT Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 144-2-15MAR2012



QC 144-3W-15MAR2012

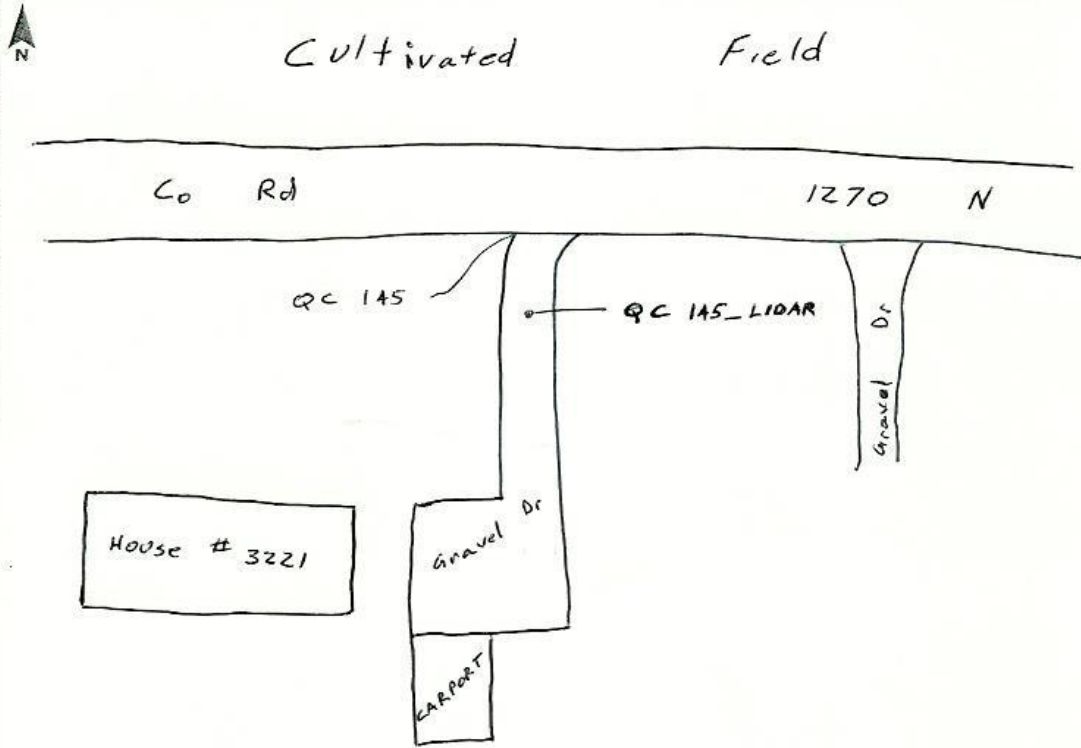


QC 144-3N-15MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21MAR12
Station Name: QC 145_LIDAR Operator Name: Stephen Schonegg
Latitude: 40-22-28.42 Julian Day: 081 Session No. _____
Longitude: 085-25-30.75 Start Time: 10:14 End Time: 10:18
Ellip. Height: . 813.11 Data File Name: INDST21MAR12SS
Type of Mark: Center Gravel Dr Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 70°, Light Wind Antenna Height: 6.562 FT to bottom of antenna mount





QC 145 LIDAR-2-21MAR2012



QC 145_LIDAR-3N-21MAR2012

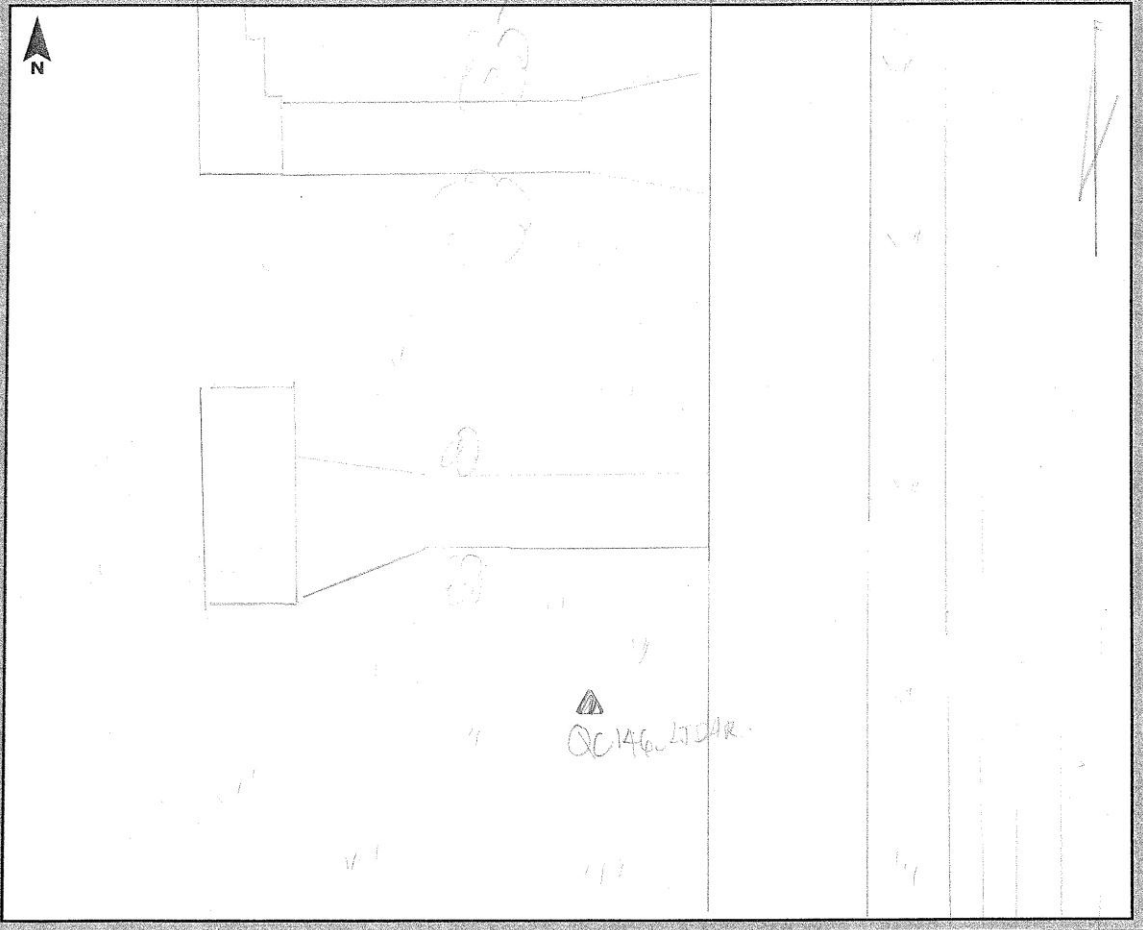


QC 145 LIDAR-3W-21MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>7234</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>OC146 - LIDAR</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 11' 40.5"</u>	Julian Day: <u>074</u>	Session No. <u>2</u>
Longitude: <u>85° 14' 09.0"</u>	Start Time: <u>14:10</u>	End Time: <u>14:20</u>
Ellip. Height: <u>907'</u>	Data File Name: <u>TNDY 074 DMY</u>	
Type of Mark: <u>Short Grass</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° clear, windy</u>	Antenna Height: <u>2.000M</u> to bottom of antenna mount	





QC 146 LIDAR-2-14MAR2012



QC 146 LIDAR-3E-14MAR2012

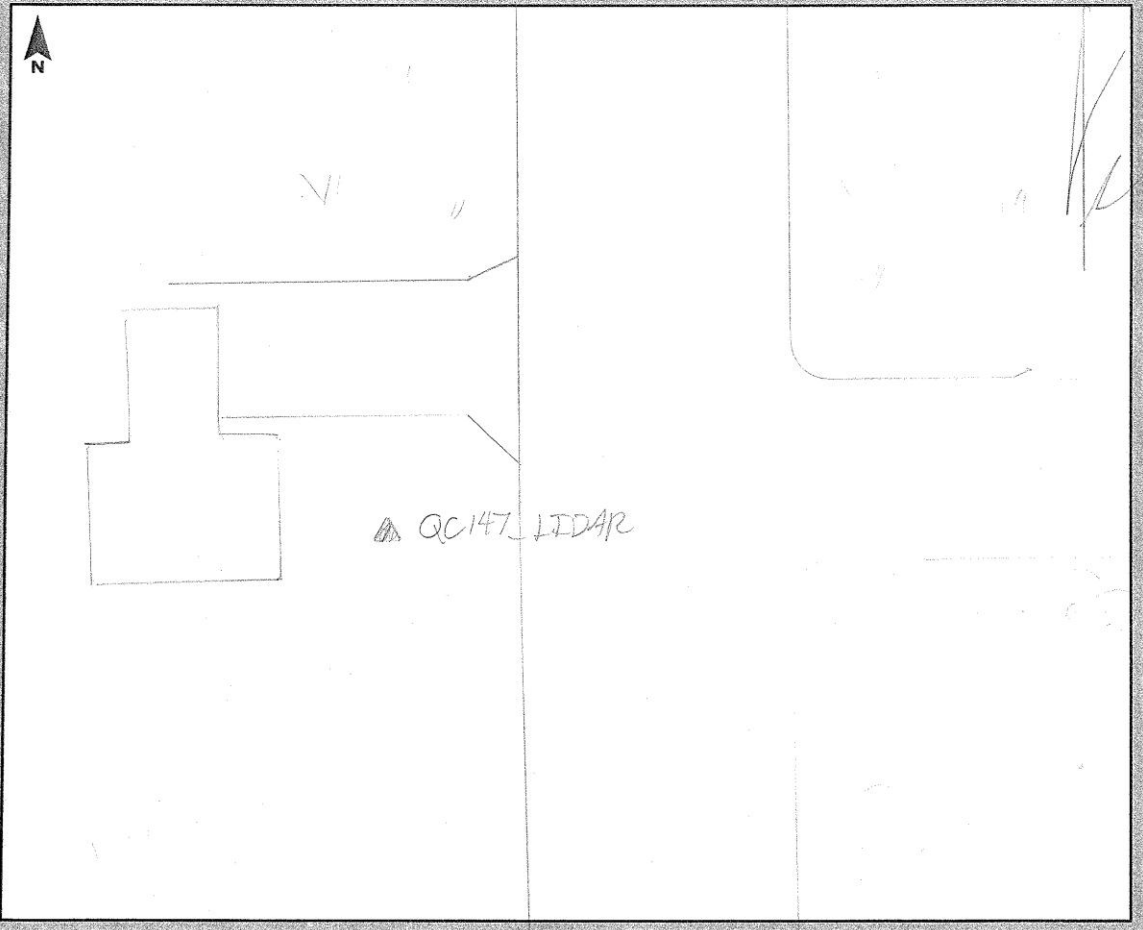


QC 146 LIDAR-3N-14MAR2012

GPS Observation Log Sheet



Project Name: TN Statewide 2012 Project Number: 72134 Survey Date: 2009-14
Station Name: QC147 LIDAR Operator Name: David Hall
Latitude: 40° 11' 43.4" Julian Day: 074 Session No. 2
Longitude: 85° 07' 36.1" Start Time: 13:34 End Time: 13:44
Ellip. Height: 923' Data File Name: INDY_074.DMI
Type of Mark: Short Cross Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: 60° - 50° Antenna Height: 2.000m to bottom of antenna mount





QC 147 LIDAR-2-14MAR2012



QC 147 LIDAR-3E-14MAR2012

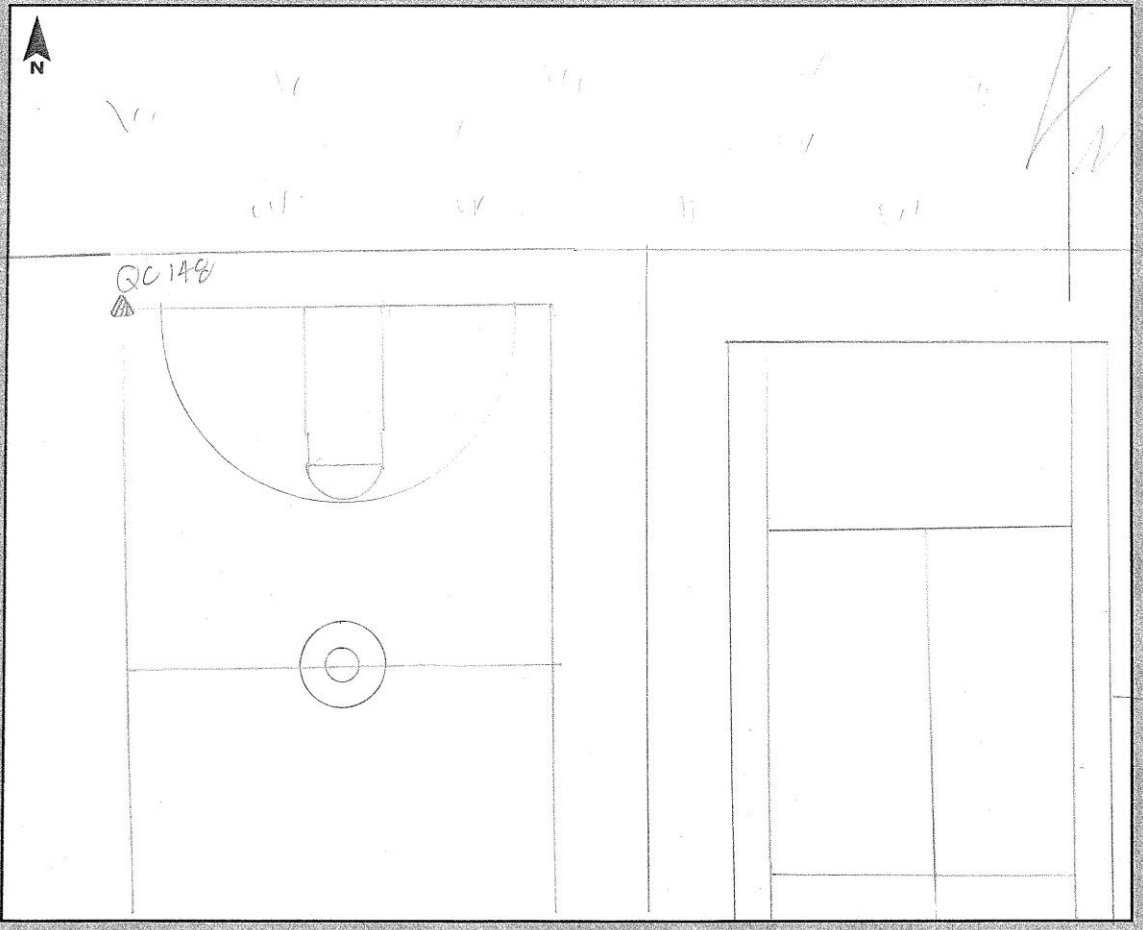


QC 147 LIDAR-3N-14MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>QC148</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 03' 12.8"</u>	Julian Day: <u>074</u>	Session No. <u>1</u>
Longitude: <u>84° 56' 44.6"</u>	Start Time: <u>09148</u>	End Time: <u>09158</u>
Ellip. Height: <u>1060'</u>	Data File Name: <u>INDY 074 DM</u>	
Type of Mark: <u>2012 01 post</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>2012</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>50% to clear</u>	Antenna Height: <u>2.000M</u> to bottom of antenna mount	





QC148-2-14MAR2012



QC148-3N-14MAR2012

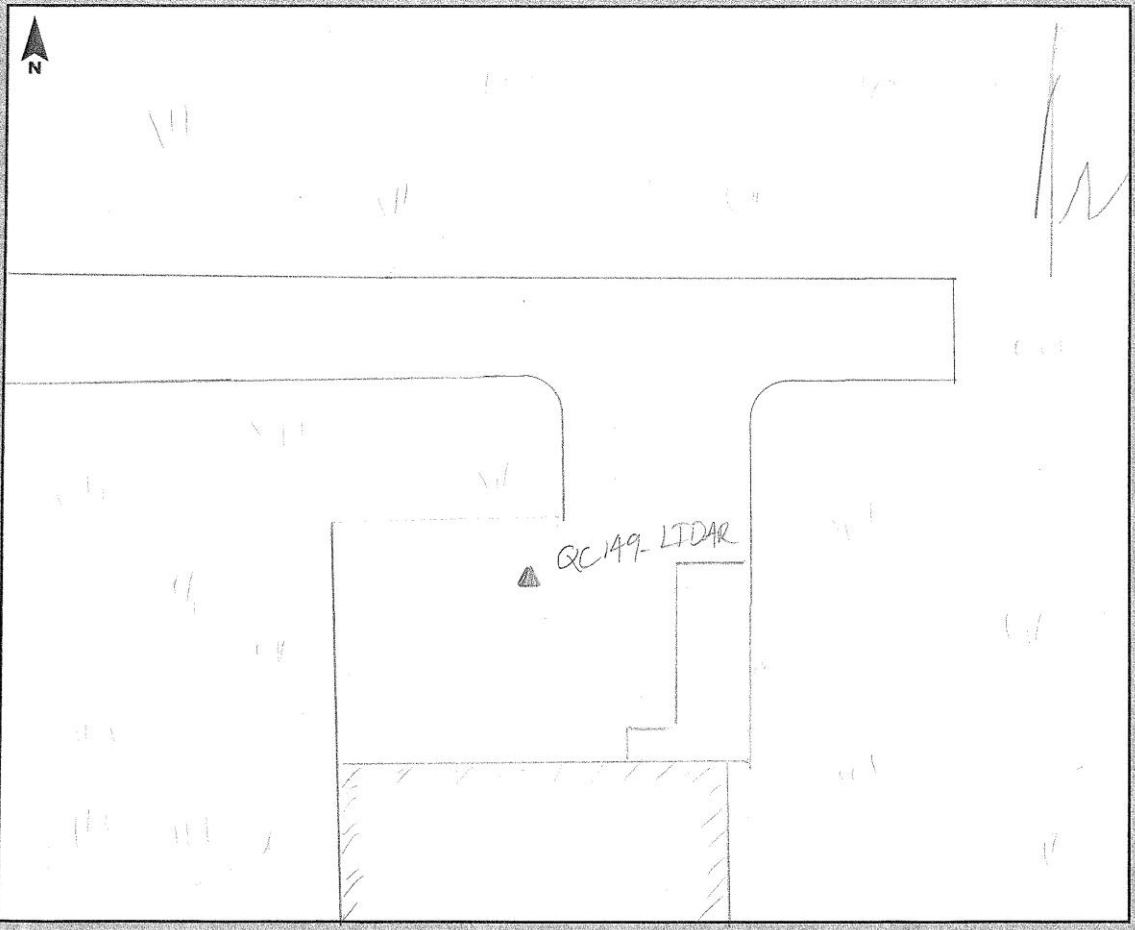


QC148-3E-14MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 7234 Survey Date: 2012-03-15
Station Name: QC 149 - LIDAR Operator Name: David Hal
Latitude: 40° 29' 52.4" Julian Day: 075 Session No. 2
Longitude: 85° 08' 47.7" Start Time: 14:33 End Time: 14:50
Ellip. Height: 768' Data File Name: INDY 075 - DMH
Type of Mark: Flat Asphalt Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: 60's & clear Antenna Height: 2.00m to bottom of antenna mount





QC 149 LIDAR-2-15MAR2012



QC 149_LIDAR-3E-15MAR2012

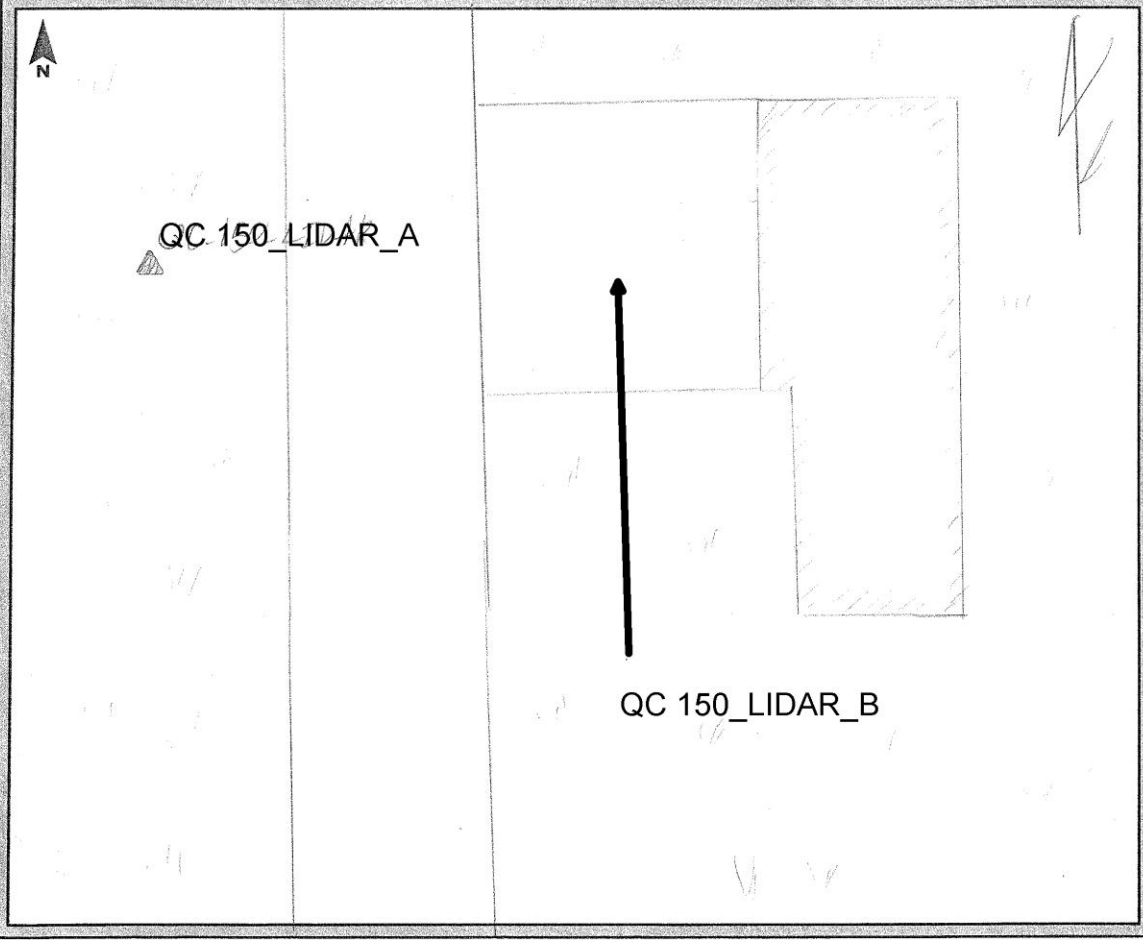


QC 149 LIDAR-3N-15MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 20R Project Number: 72314 Survey Date: 2012-03-16
Station Name: QC 150 LIDAR Operator Name: David Hill
Latitude: 40° 22' 52.4" Julian Day: 076 Session No. 1
Longitude: 84° 51' 44.9" Start Time: 09:50 End Time: 09:59
Ellip. Height: 845 Data File Name: INDY_076_DM1
Type of Mark: Bare Earth Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: low & clear Antenna Height: 2.000m to bottom of antenna mount





QC 150 LIDAR A-2-16MAR2012



QC 150_LIDAR_A-3E-16MAR2012



QC 150 LIDAR A-3N-16MAR2012



QC 150 LIDAR B-2-15MAR2012



QC 150_LIDAR_B-3E-15MAR2012

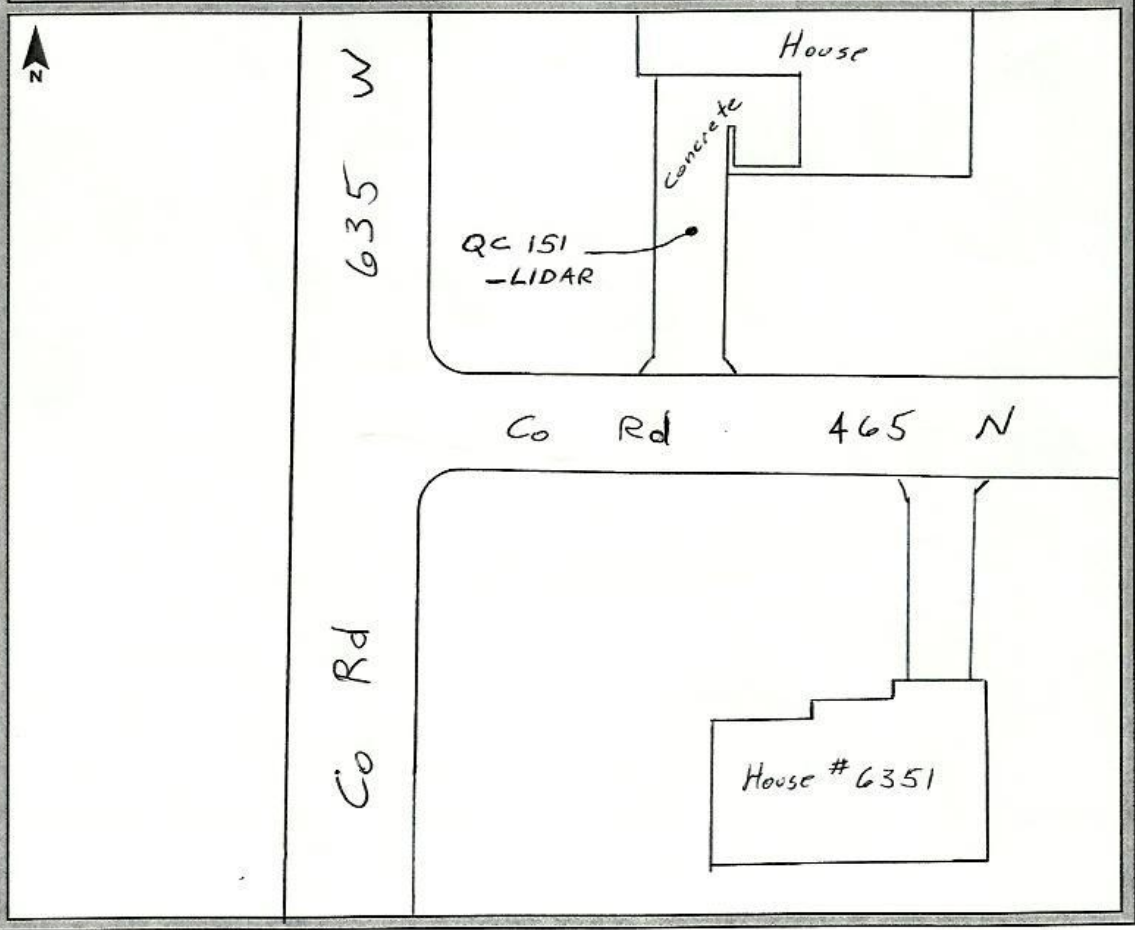


QC 150 LIDAR B-3N-15MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 22 MAR 12
 Station Name: QC 151-LIDAR Operator Name: Stephen Schenrygg
 Latitude: 40-53-47.08 Julian Day: 082 Session No. _____
 Longitude: 085-34-18.94 Start Time: 5:04 End Time: 5:10
 Ellip. Height: .702.01 Data File Name: IND ST 22 MAR 12.SS
 Type of Mark: Center Concrete Drive Type of Receiver: R8-2 #9357
 Stamping on Mark: _____ Type of Antenna: _____
 Weather Condition: Cloudy, 75°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





QC 151 LIDAR-2-21MAR2012



QC 151_LIDAR-3N-21MAR2012

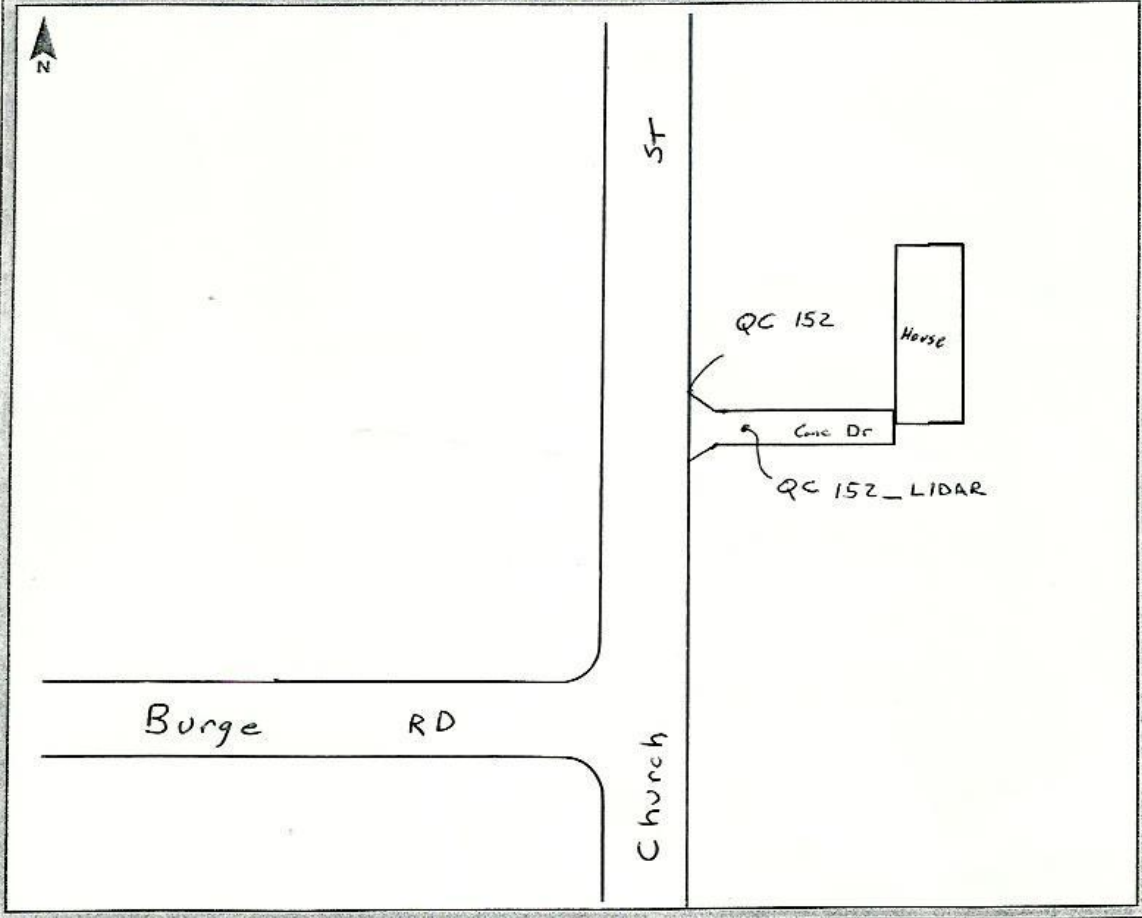


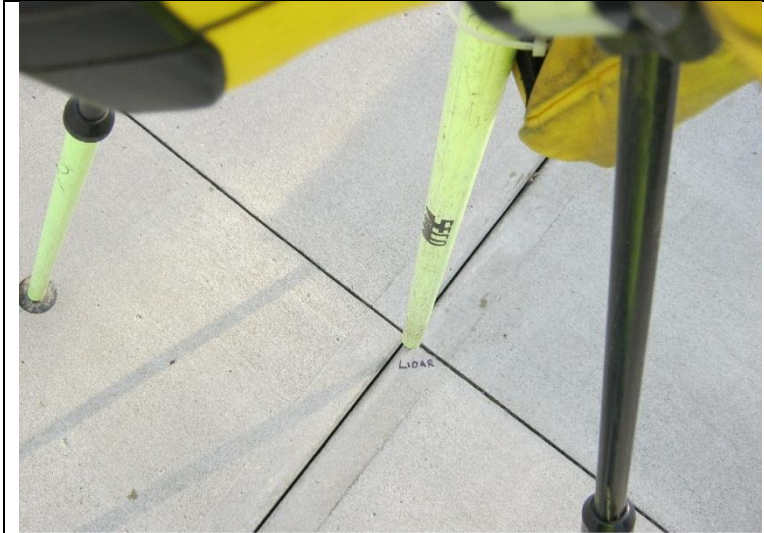
QC 151 LIDAR-3E-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 16 MAR 12
Station Name: QC 152 - LIDAR Operator Name: Stephen Schonegg
Latitude: 40-34-21.67 Julian Day: 076 Session No. _____
Longitude: 085-45-54.20 Start Time: 9:45 End Time: 9:52
Ellip. Height: . 728.48 Data File Name: INDST16MAR12SS
Type of Mark: Center Concrete Dr Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 Ft to bottom of antenna mount





QC 152 LIDAR-2-16MAR2012



QC 152_LIDAR-3W-16MAR2012

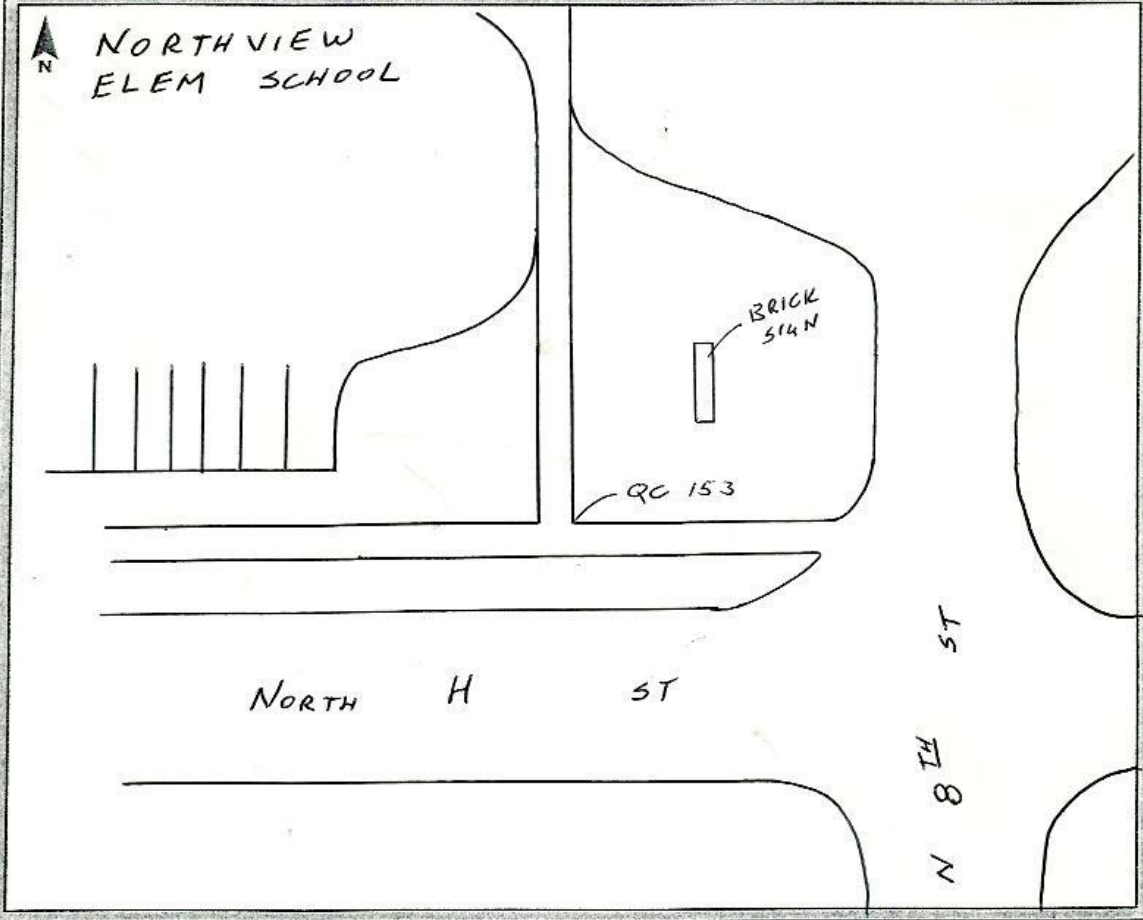


QC 152 LIDAR-3N-16MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21MAR12
Station Name: QC 153 Operator Name: Stephen Schonegg
Latitude: 40-29-42.78 Julian Day: 081 Session No. _____
Longitude: 085-36-03.65 Start Time: 8:15 End Time: 8:51
Ellip. Height: .740.09 FI Data File Name: INDST21MAR12SS
Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 153-2-21MAR2012



QC 153-3W-21MAR2012

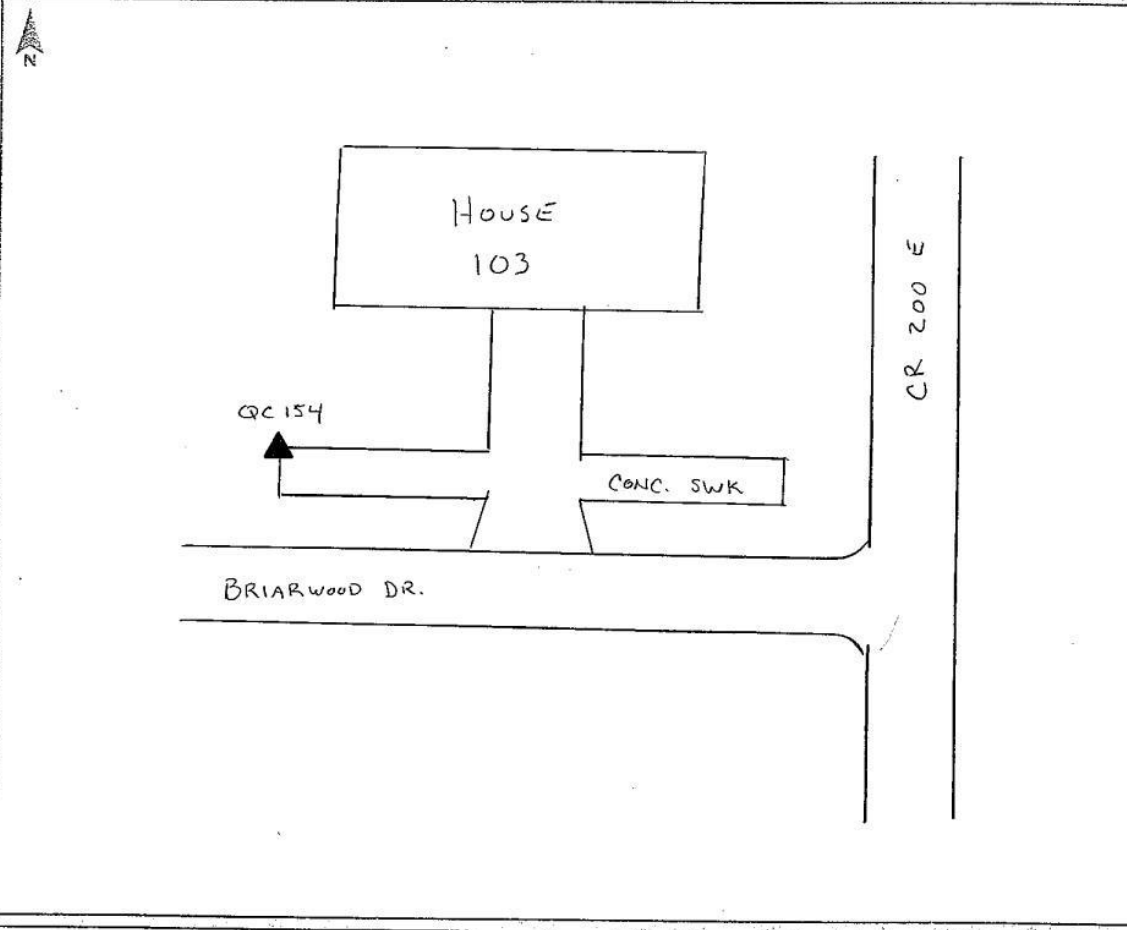


QC 153-3N-21MAR2012

GPS Observation Log Sheet



Project Name: _____ Project Number: 72134 Survey Date: 03/22/2012
Station Name: QC 154 Operator Name: BEN CHRISTIE
Latitude: 40° 50' 22.81" N Julian Day: 082 Session No. —
Longitude: 84° 54' 01.36" W Start Time: — End Time: —
Ellip. Height: 689.70 sft Data File Name: —
Type of Mark: NW COR SIDEWALK Type of Receiver: R8
Stamping on Mark: — Type of Antenna: R8
Weather Condition: 70° CLEAR Antenna Height: 2 m to bottom of antenna mount





QC154-2-22MAR2012



QC154-3N-22MAR2012

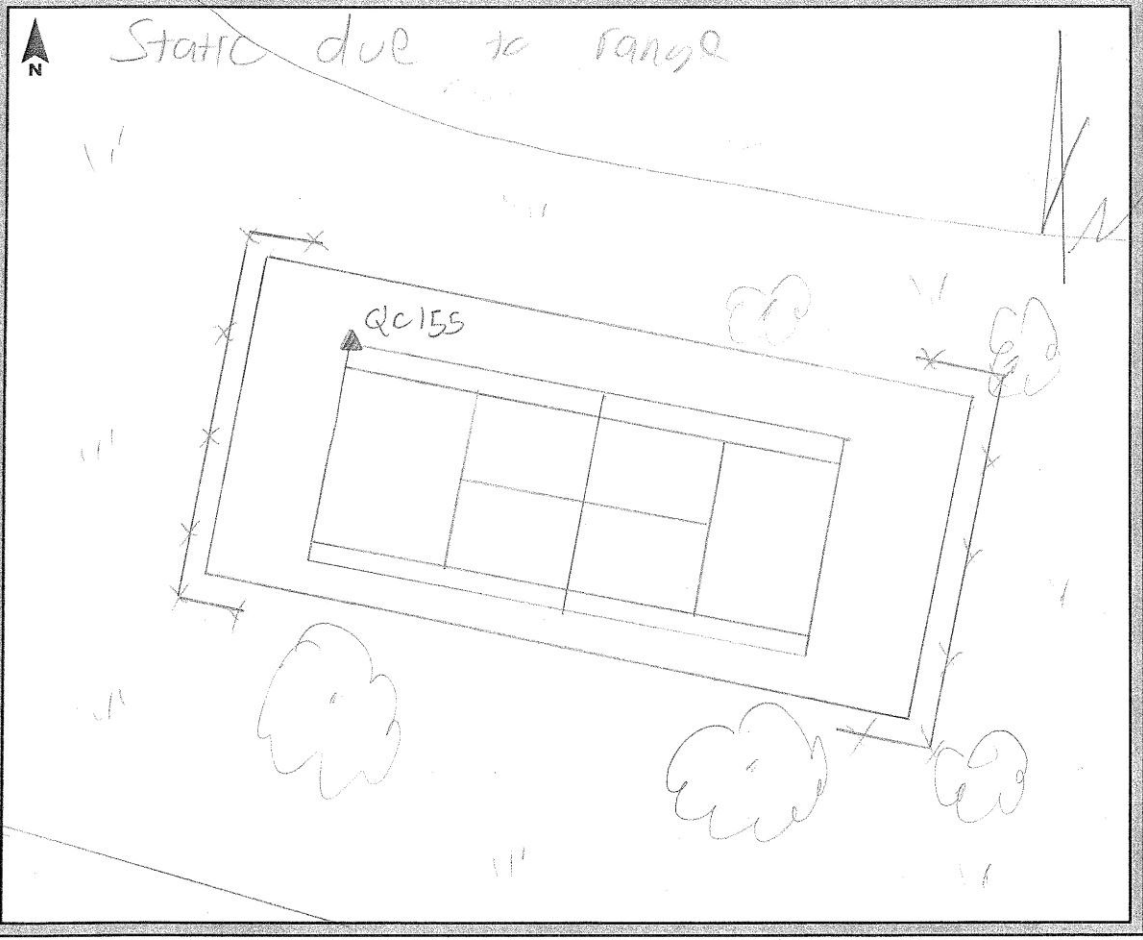


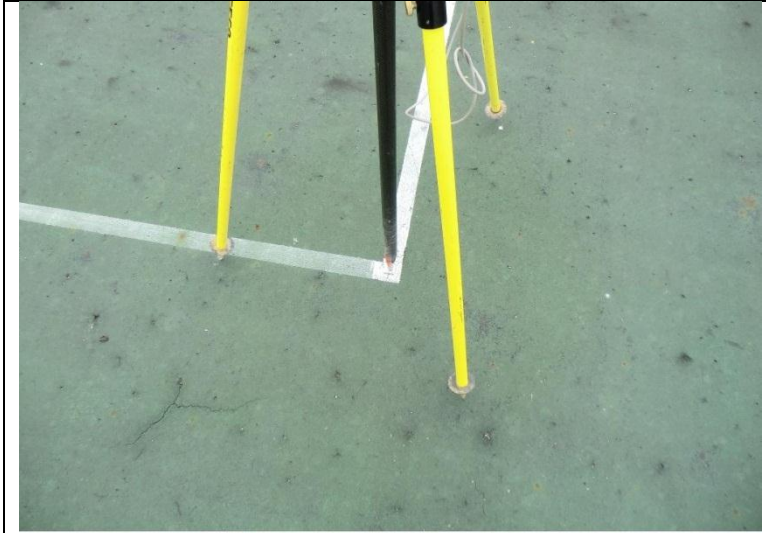
QC154-3E-22MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72314 Survey Date: 2012-03-16
Station Name: QC 155 Operator Name: David Hall
Latitude: 40° 39' 08.6" Julian Day: 076 Session No. _____
Longitude: 84° 58' 24.3" Start Time: 11:13 End Time: 12:22
Ellip. Height: 762' Data File Name: 09500760.DAT
Type of Mark: NW corner of Type of Receiver: R8-3
Stamping on Mark: Tennis court point Type of Antenna: R8-3
Weather Condition: overcast & fog Antenna Height: 2.000m to bottom of antenna mount





QC155-2-16MAR2012



QC155-3E-16MAR2012

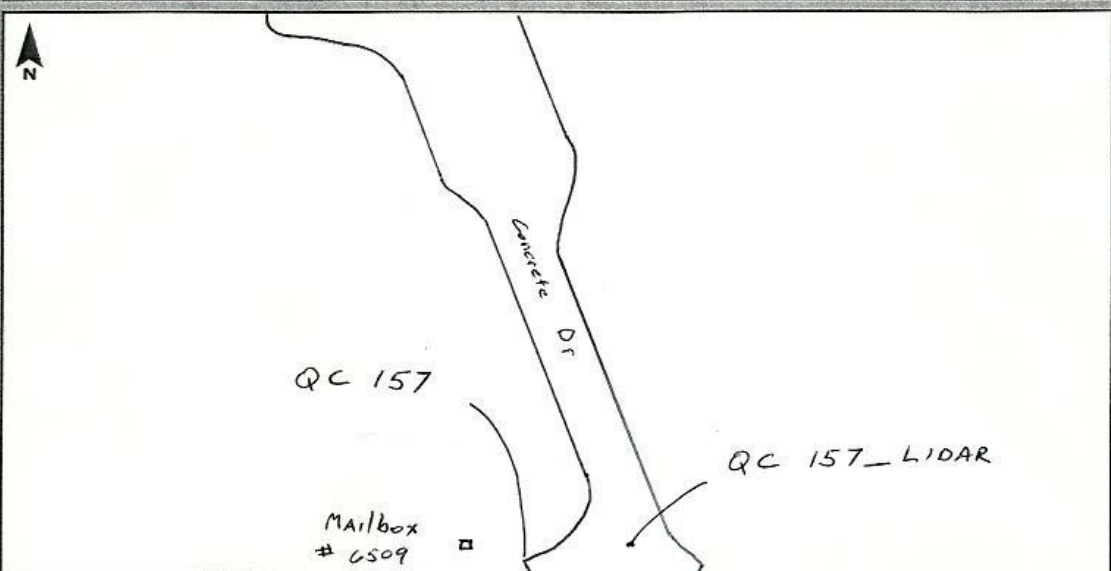


QC155-3N-16MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>21 MAR 12</u>
Station Name: <u>QC 157 - LIDAR</u>	Operator Name: <u>Stephen Schonegg</u>
Latitude: <u>40-35-46.48</u>	Julian Day: <u>081</u> Session No. _____
Longitude: <u>085-20-36.91</u>	Start Time: <u>12:04</u> End Time: <u>12:08</u>
Ellip. Height: <u>739.40 FT</u>	Data File Name: <u>IND ST 21 MAR 12 SS</u>
Type of Mark: <u>Center Concrete Dr</u>	Type of Receiver: <u>RB-2 #935T</u>
Stamping on Mark: _____	Type of Antenna: _____
Weather Condition: <u>Sunny, 75°, Light Wind</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount



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QC 157 LIDAR-2-21MAR2012



QC 157 LIDAR-3W-21MAR2012

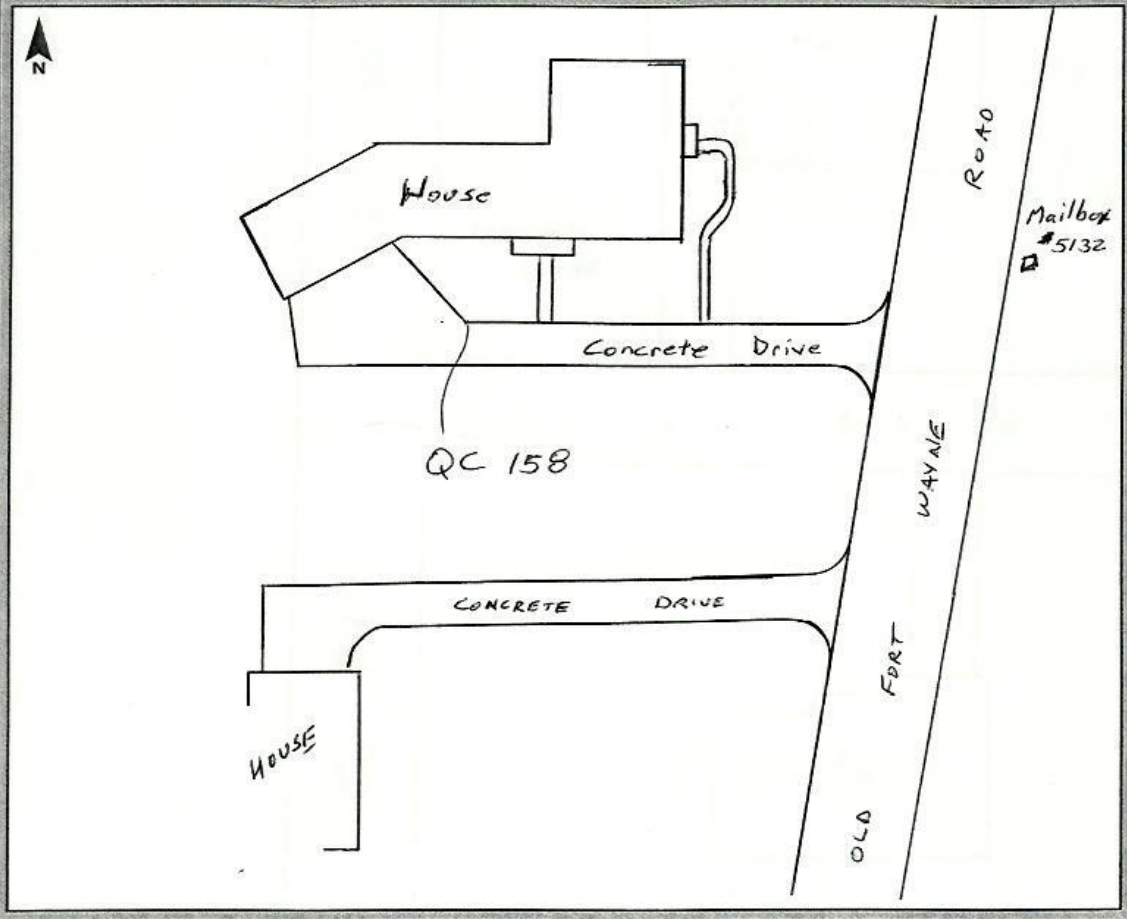


QC 157 LIDAR-3N-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 22 MAR 12
Station Name: QC 158 Operator Name: Stephen Schonegg
Latitude: 40-54-20.24 Julian Day: 082 Session No. _____
Longitude: 085-26-01.21 Start Time: 4:23 End Time: 4:28
Ellip. Height: • 638.79 FT Data File Name: INDST22.MAR12.SS
Type of Mark: Corner Concrete Dr Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Cloudy, 78°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





QC 158-2-22MAR2012



QC 158-3E-22MAR2012

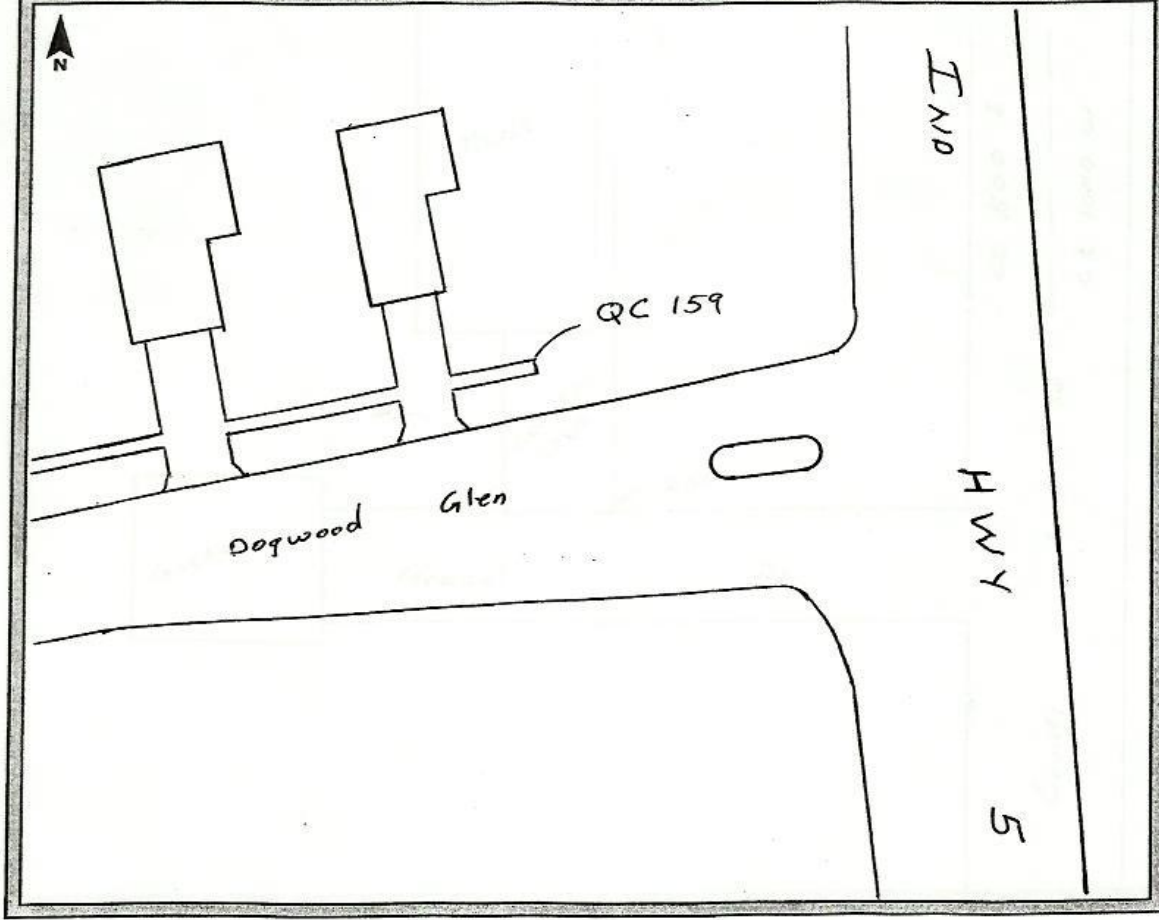


QC 158-3N-22MAR2012

GPS Observation Log Sheet

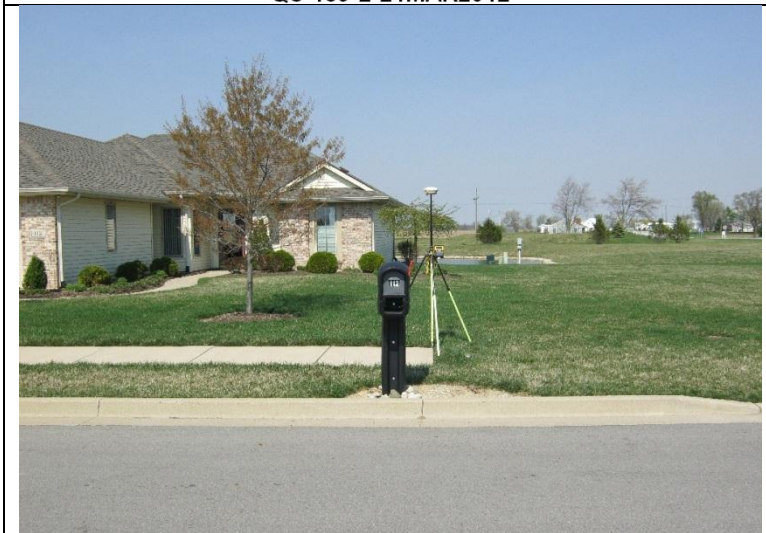


Project Name: <u>INDIANA STATWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>22 MAR 12</u>
Station Name: <u>QC 159</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>40-41-43.87</u>	Julian Day: <u>082</u>	Session No. _____
Longitude: <u>085-25-51.65</u>	Start Time: <u>11:06</u>	End Time: <u>11:10</u>
Ellip. Height: <u>725.80 FT</u>	Data File Name: <u>INDST22MAR1255</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 70°, Light Wind</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





QC 159-2-21MAR2012



QC 159-3N-21MAR2012

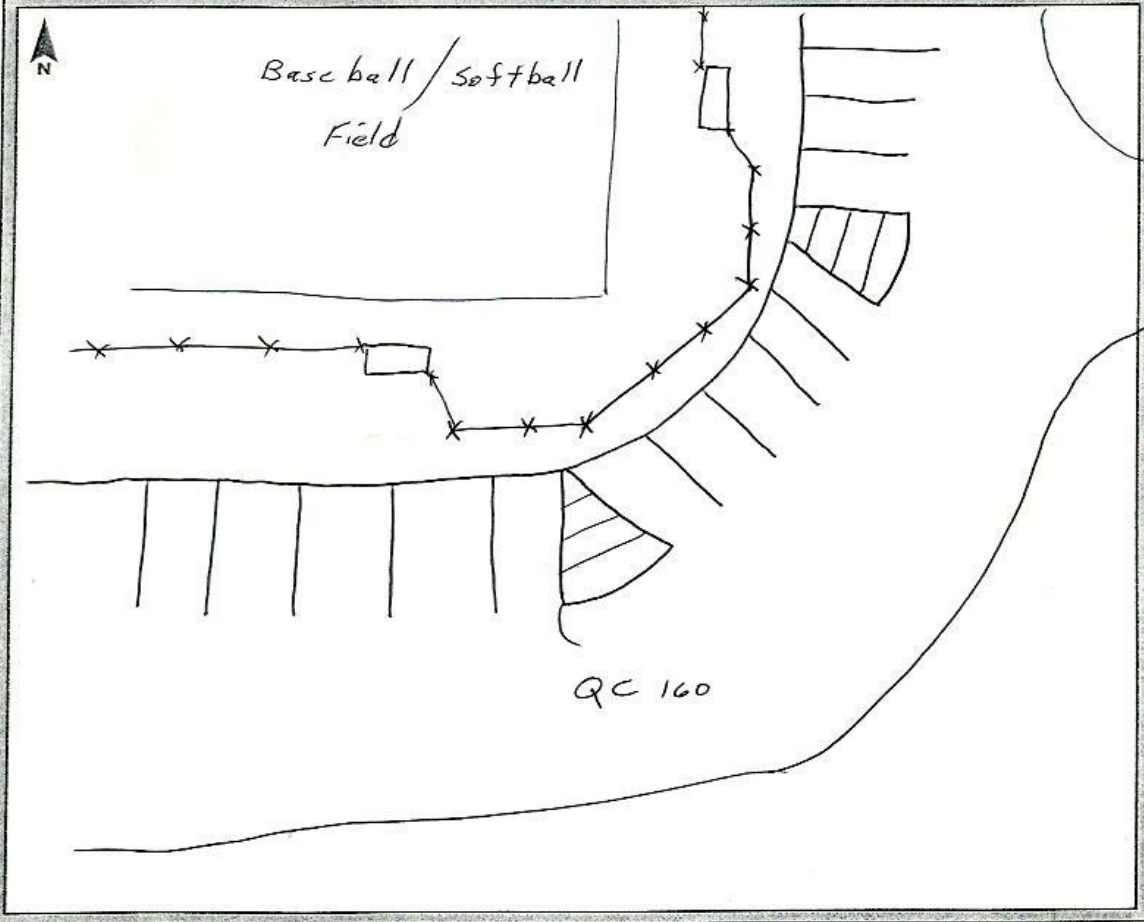


QC 159-3E-21MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 21 MAR 12
Station Name: QC 160 Operator Name: Stephen Schonegg
Latitude: 40-27-22.40 Julian Day: 081 Session No. _____
Longitude: 085-22-22.51 Start Time: 10:41 End Time: 10:45
Ellip. Height: 807.38 Data File Name: INDST21MAR12SS
Type of Mark: Corner Paint Stripes Type of Receiver: RB-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 70°, Light Wind Antenna Height: 6.562 FT to bottom of antenna mount





QC 160-2-21MAR2012



QC 160-3N-21MAR2012

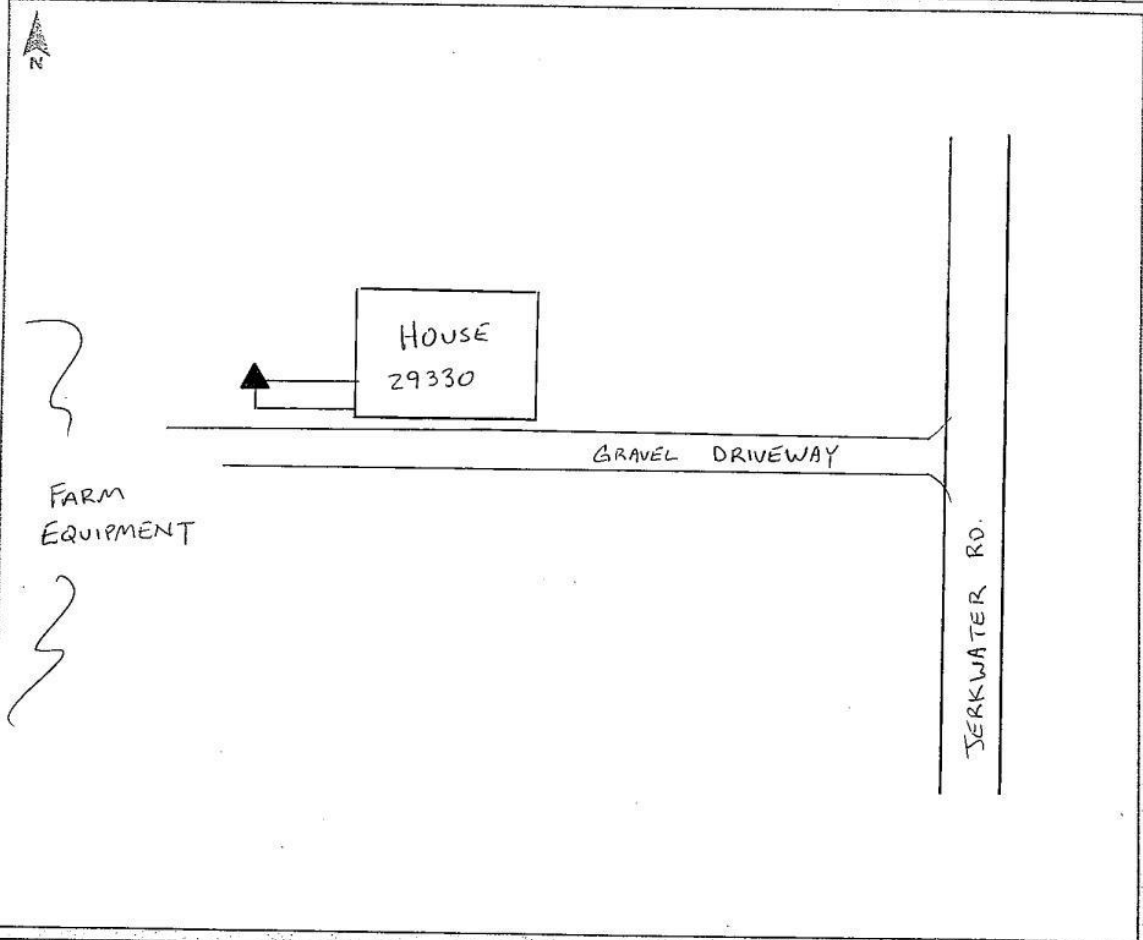


QC 160-3E-21MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/15/2012</u>
Station Name: <u>QC 197</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>40° 12' 34.18" N</u>	Julian Day: <u>075</u> Session No. <u>—</u>
Longitude: <u>86° 13' 33.89" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>814.14 sft</u>	Data File Name: <u>—</u>
Type of Mark: <u>NW COR SIDEWALK</u>	Type of Receiver: <u>R8</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u> to bottom of antenna mount





QC197-2-15MAR2012



QC197-3N-15MAR2012

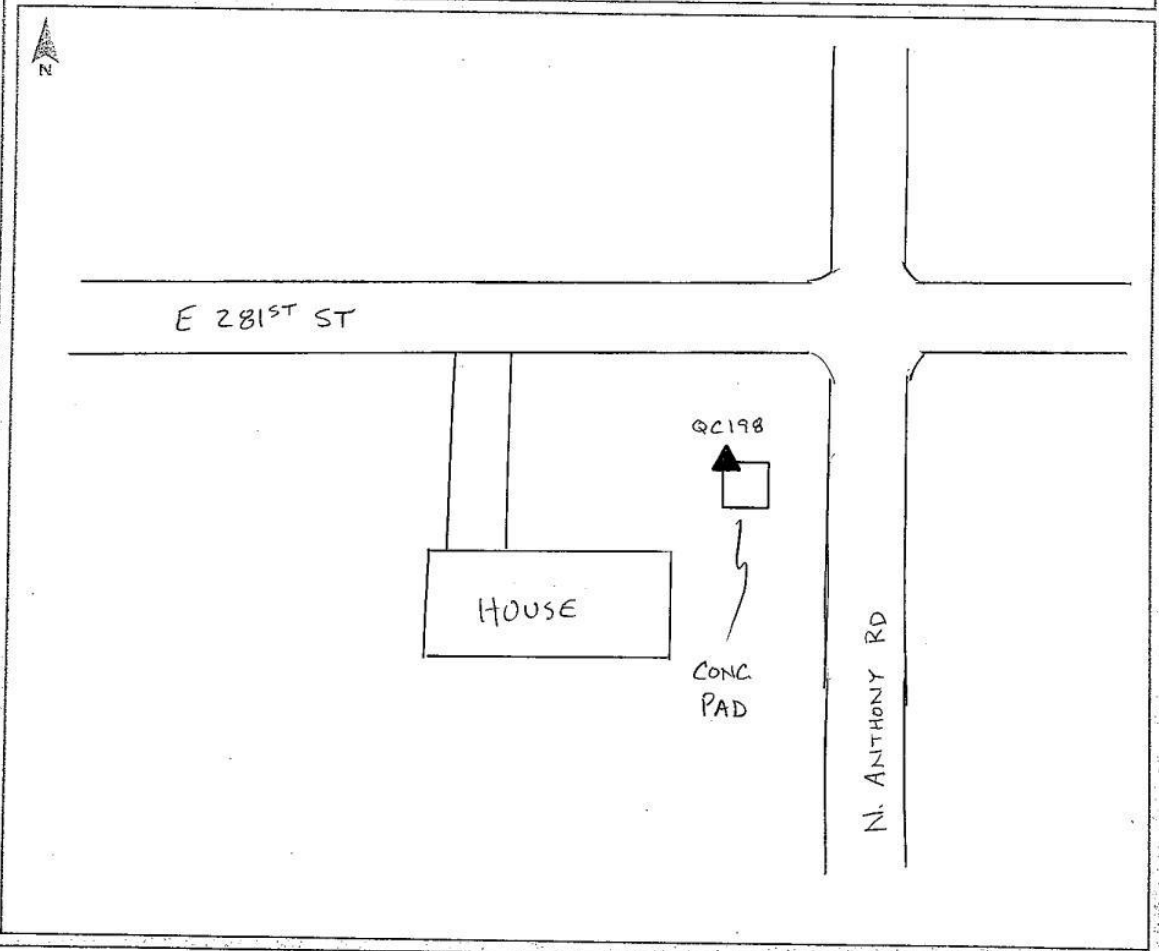


QC197-3E-15MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	72134	Survey Date:	03/10/2012		
Station Name:	QC 198	Operator Name:	BEN CHRISTIE	Julian Day:	076	Session No.:	—
Latitude:	40° 11' 50.73" N	Start Time:	—	End Time:	—		
Longitude:	86° 06' 31.65" W	Data File Name:	—	Type of Receiver:	RB		
Ellip. Height:	779.54 SPT	Type of Antenna:	RB	Antenna Height:	2M	to bottom of antenna mount	
Type of Mark:	NW COR CONCRETE	Weather Condition:	70° CLEAR				
Stamping on Mark:	—						





QC198-2-16MAR2012



QC198-3W-16MAR2012

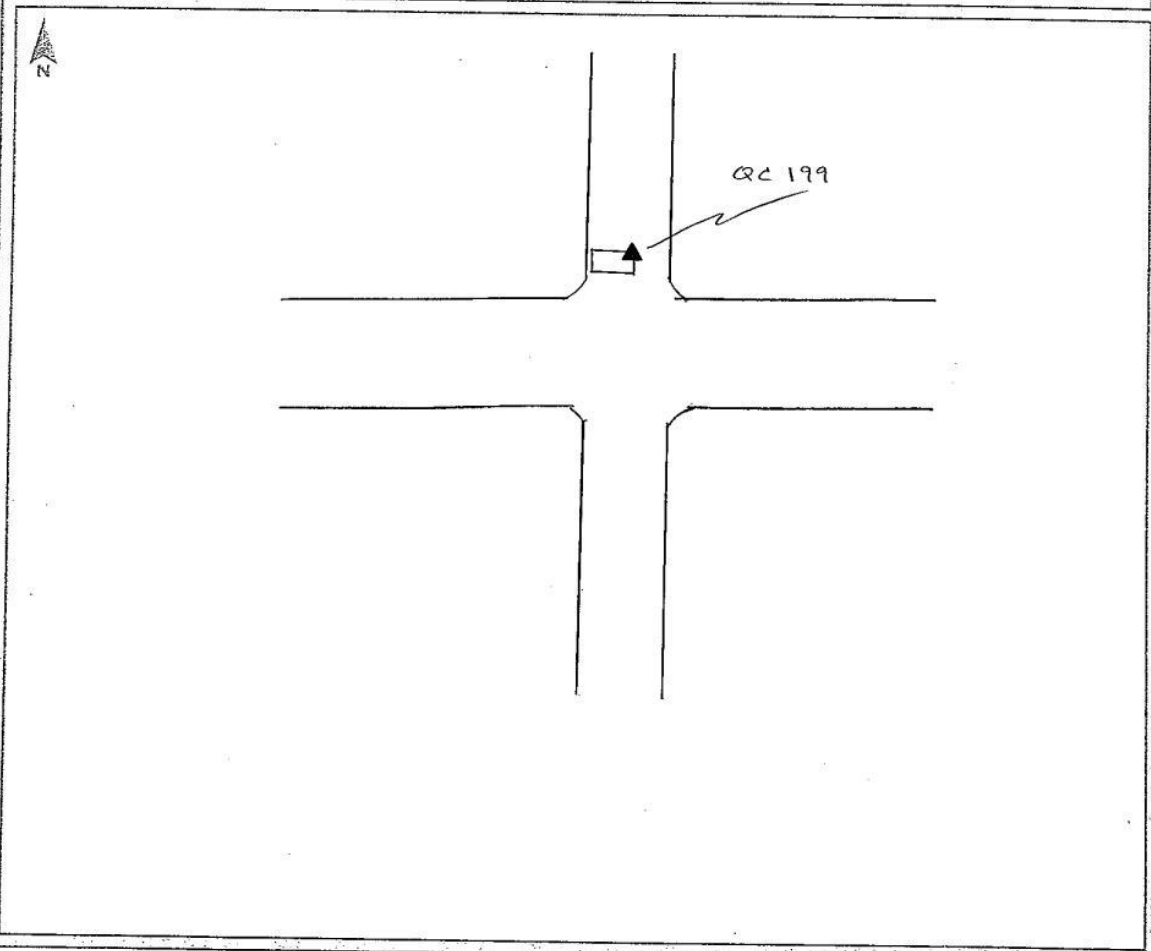


QC198-3S-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>QC 199</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 11' 53.38" N</u>	Julian Day: <u>076</u>	Session No. <u>—</u>
Longitude: <u>85° 58' 37.15" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>736.98 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR STOP BAR</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC199-2-16MAR2012



QC199-3S-16MAR2012

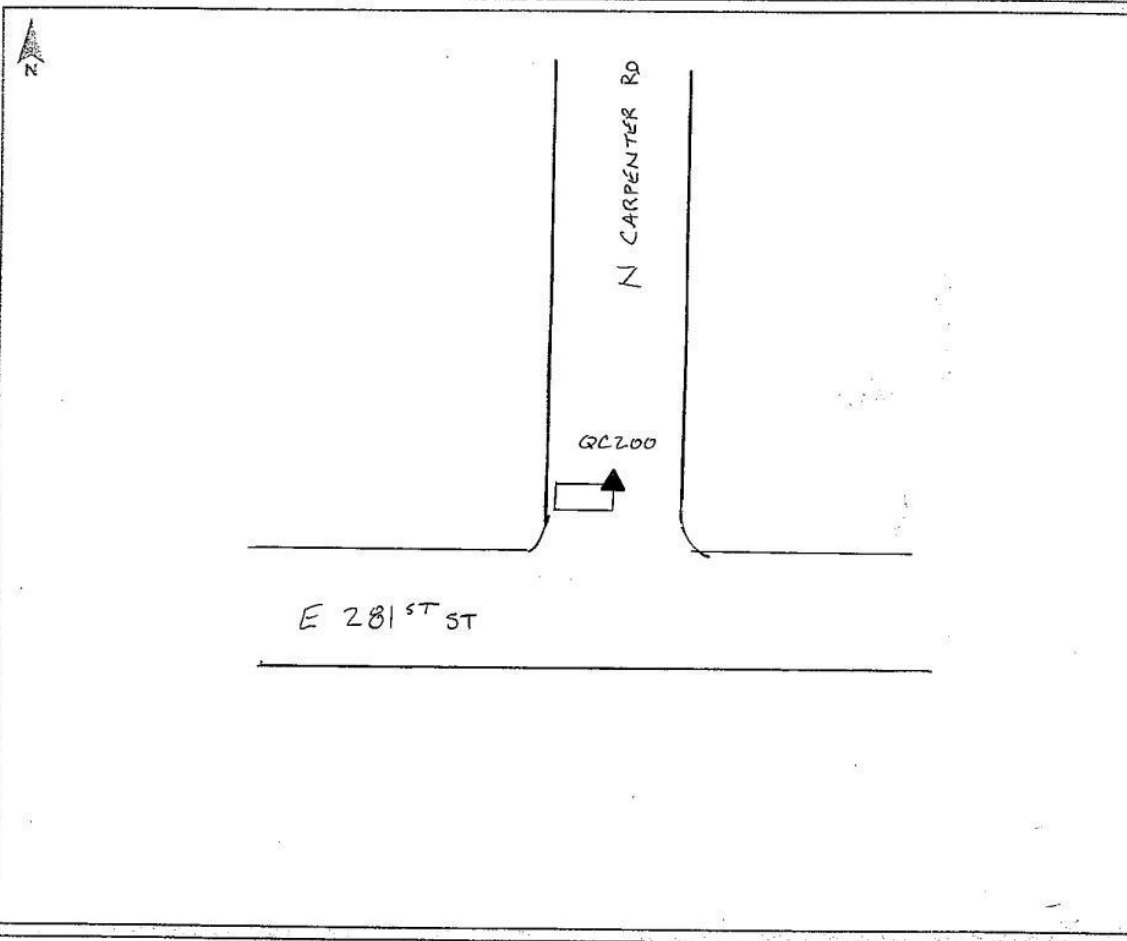


QC199-3W-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: _____
Station Name: <u>QC 200</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 11' 58.12" N</u>	Julian Day: <u>076</u>	Session No. <u>—</u>
Longitude: <u>85° 54' 03.16" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>731.95' SFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR STOP BAR</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC200-2-16MAR2012



QC200-3W-16MAR2012

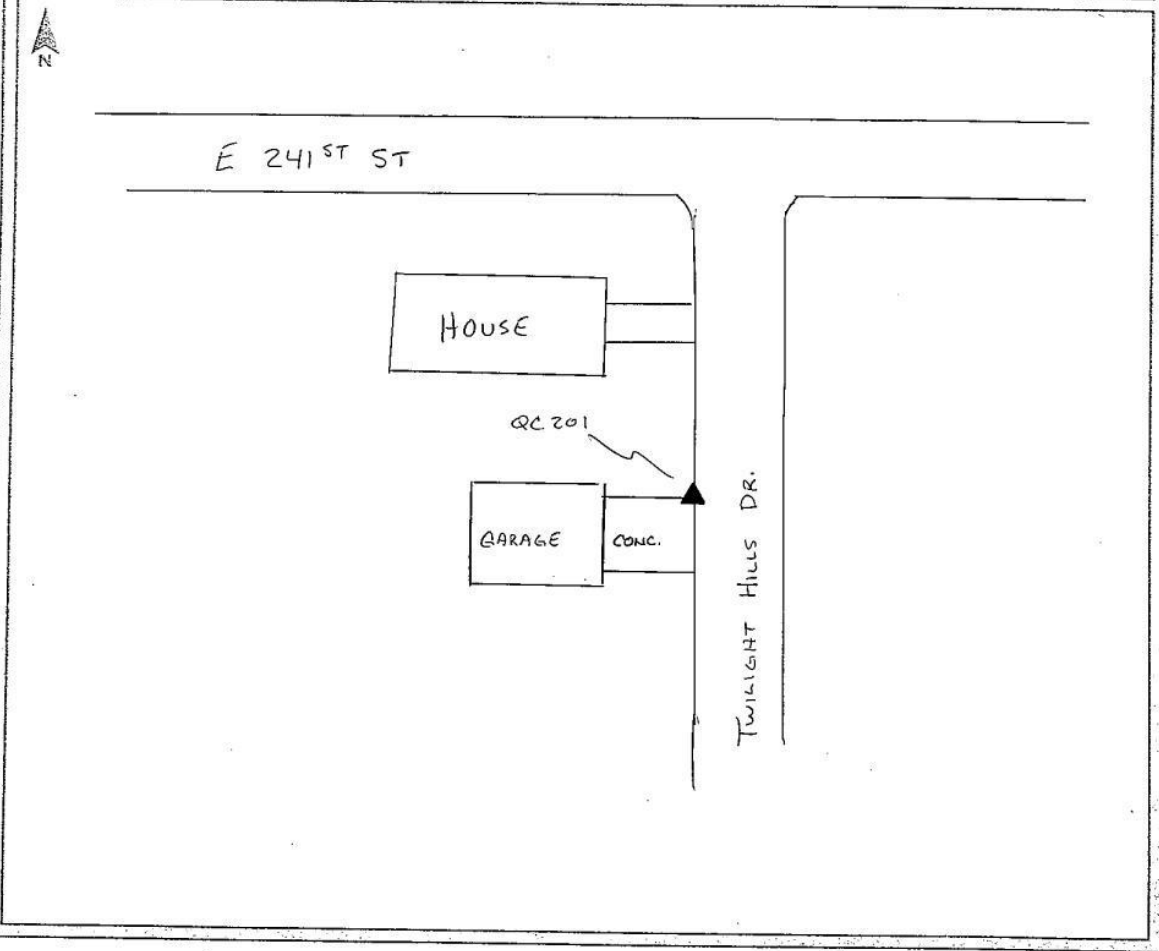


QC200-3S-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/15/2012</u>
Station Name: <u>QC 201</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 08' 18.21" N</u>	Julian Day: <u>075</u>	Session No. <u>—</u>
Longitude: <u>86° 07' 27.02" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>794.74 ft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC201-2-15MAR2012



QC201-3W-15MAR2012

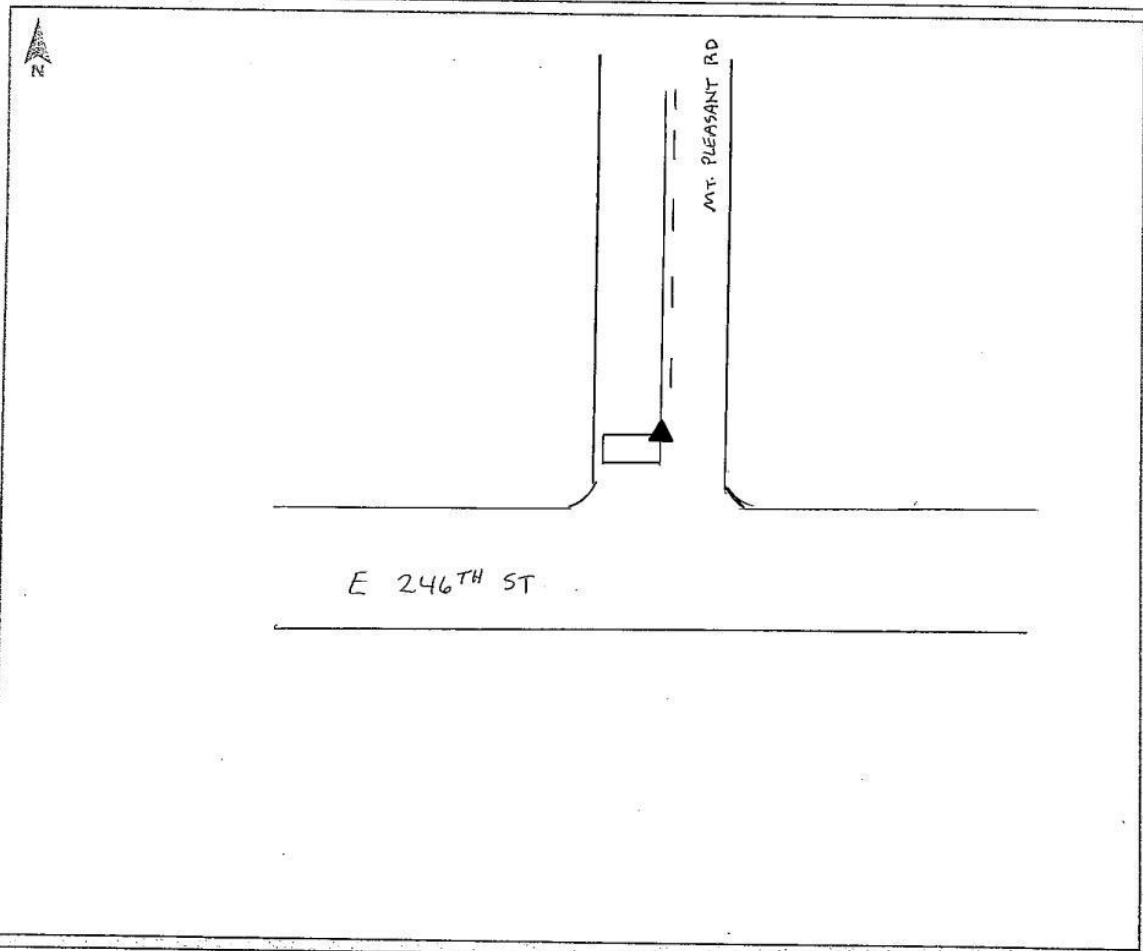


QC201-3N-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/16/2012</u>
Station Name: <u>QC 202</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 08' 49.67" N</u>	Julian Day: <u>076</u>	Session No. <u>—</u>
Longitude: <u>86° 00' 02.08" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>728.86 ft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR STOP BAR</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC202-2-16MAR2012



QC202-3S-16MAR2012

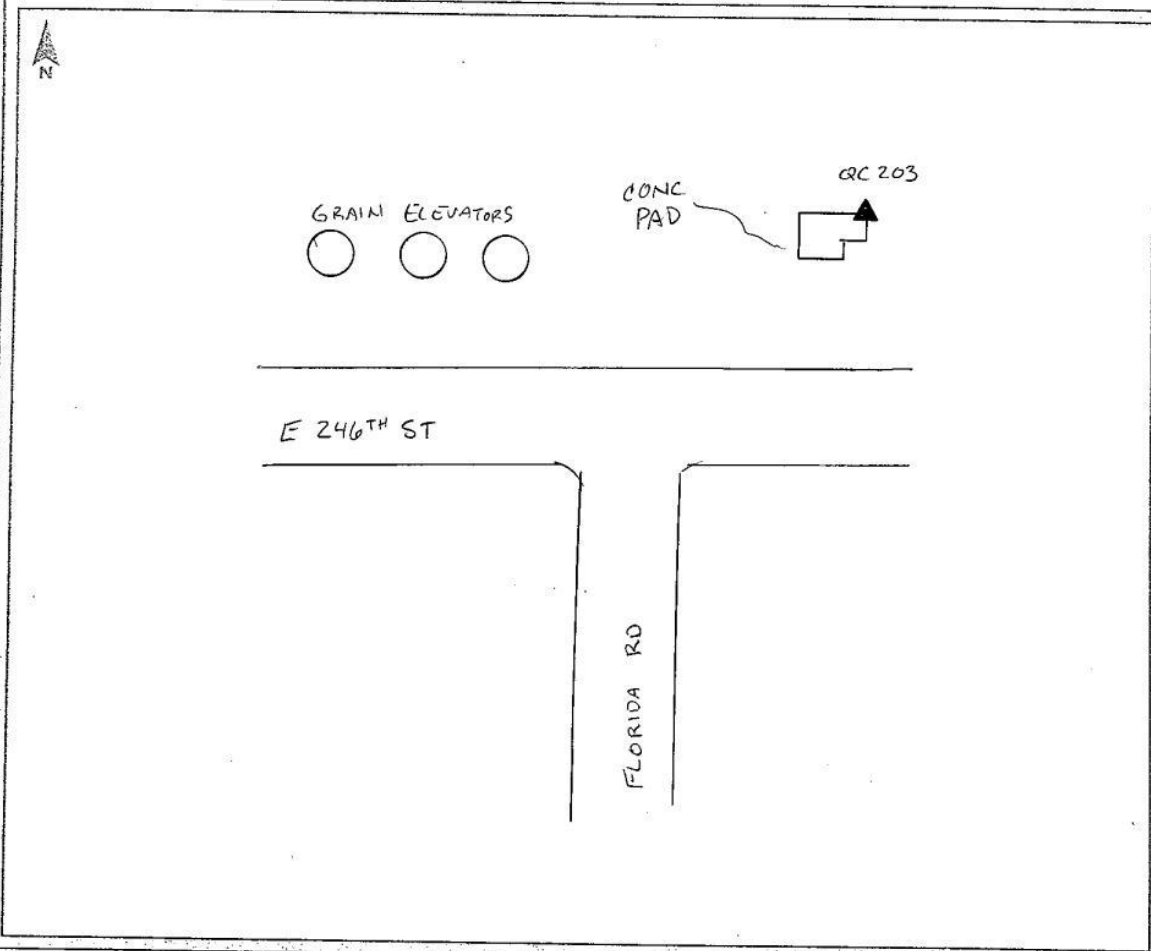


QC202-3E-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/16/2012</u>
Station Name: <u>QC 203</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 08' 54.89" N</u>	Julian Day: <u>076</u>	Session No. <u>—</u>
Longitude: <u>85° 53' 19.57" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>719.80 SFt</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC203-2-16MAR2012



QC203-3W-16MAR2012

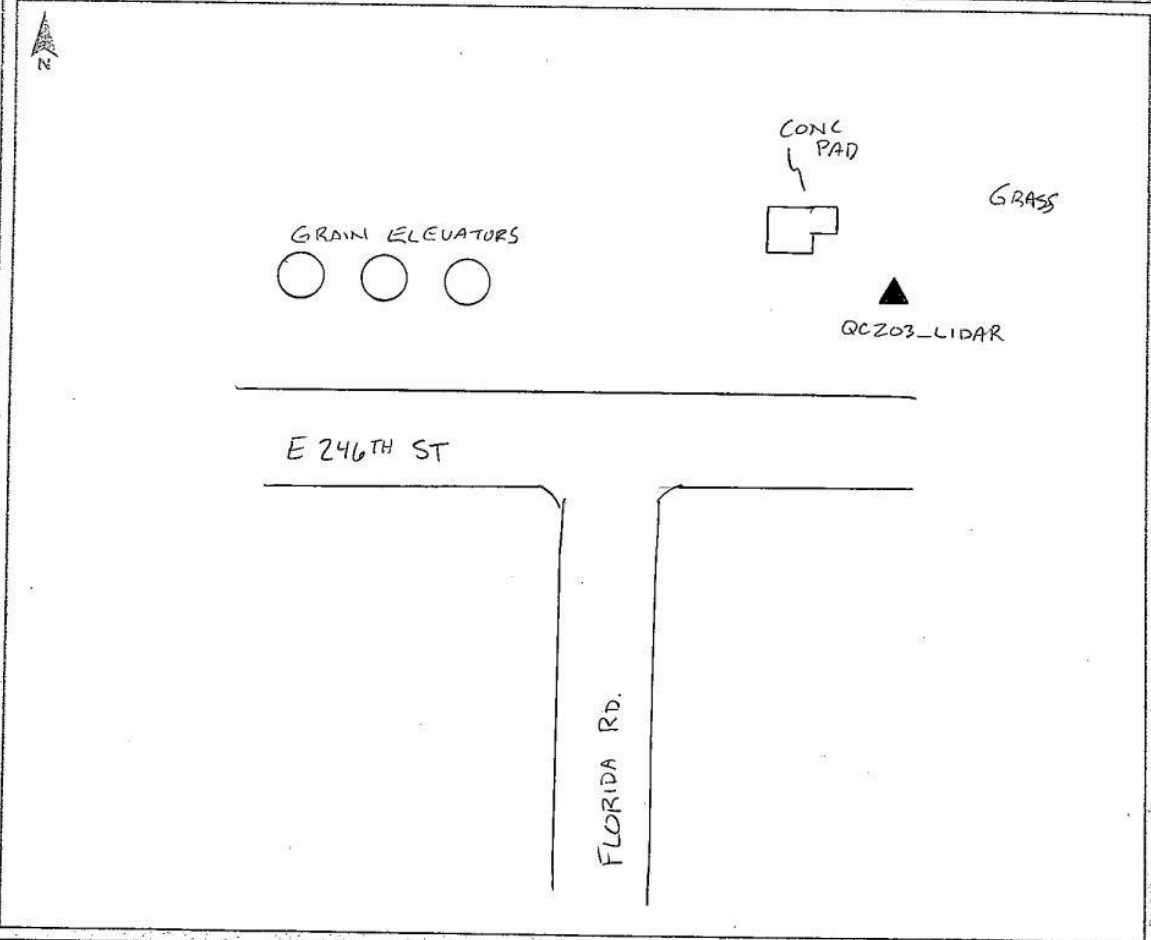


QC203-3S-16MAR2012

GPS Observation Log Sheet

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Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/16/2012</u>
Station Name: <u>QC 203 LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	Session No. _____
Latitude: <u>40° 08' 54.50" N</u>	Julian Day: <u>076</u>	Start Time: _____
Longitude: <u>85° 53' 19.31" W</u>	Data File Name: _____	End Time: _____
Ellip. Height: <u>717.99 sft</u>	Type of Receiver: <u>R8</u>	Type of Antenna: <u>R8</u>
Type of Mark: <u>GRASS</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount
Stamping on Mark: _____		
Weather Condition: <u>70° CLEAR</u>		





QC 203 LIDAR-2-16MAR2012



QC 203_LIDAR-3N-16MAR2012

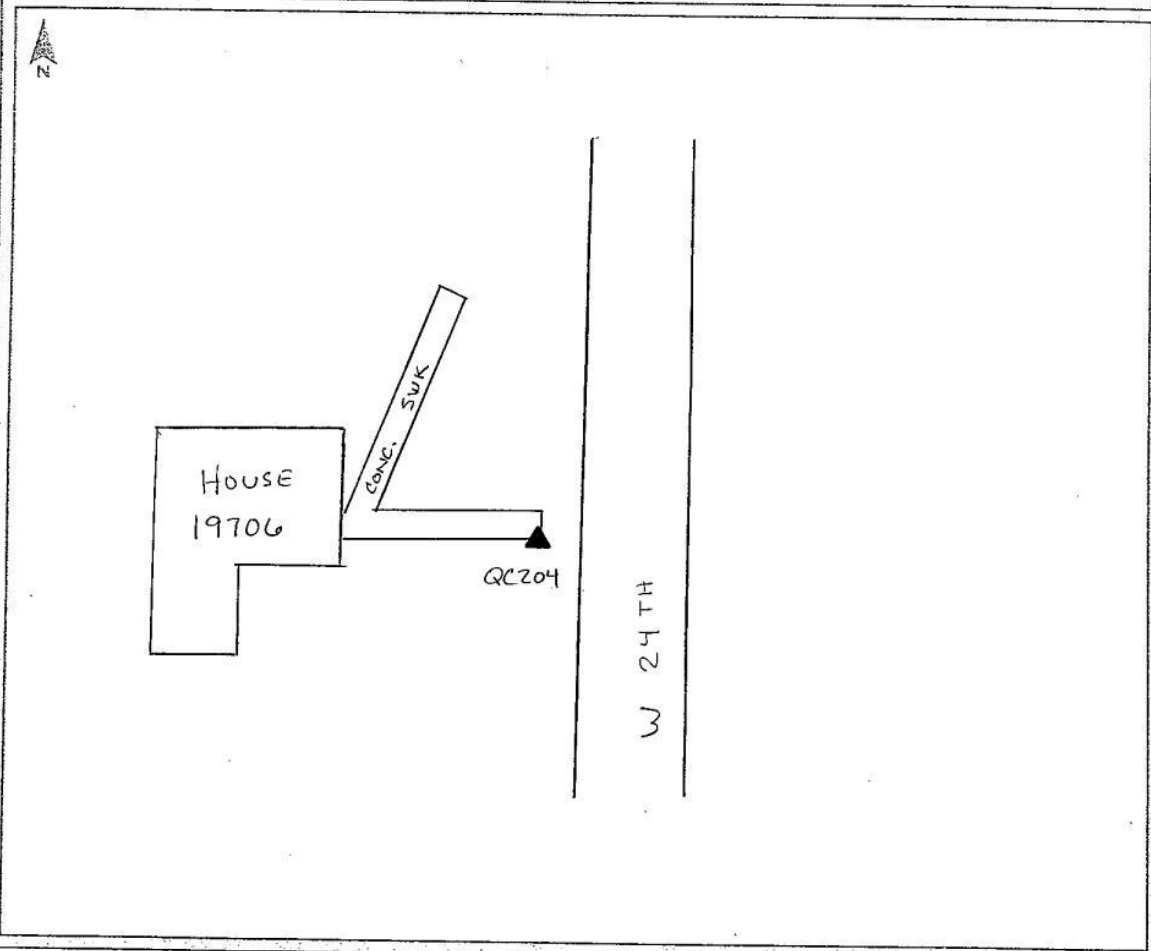


QC 203 LIDAR-3E-16MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>QC 204</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 04' 23.37" N</u>	Julian Day: <u>074</u>	Session No. <u>—</u>
Longitude: <u>86° 12' 12.64" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>827.71 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR. SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC204-2-14MAR2012



QC204-3S-14MAR2012

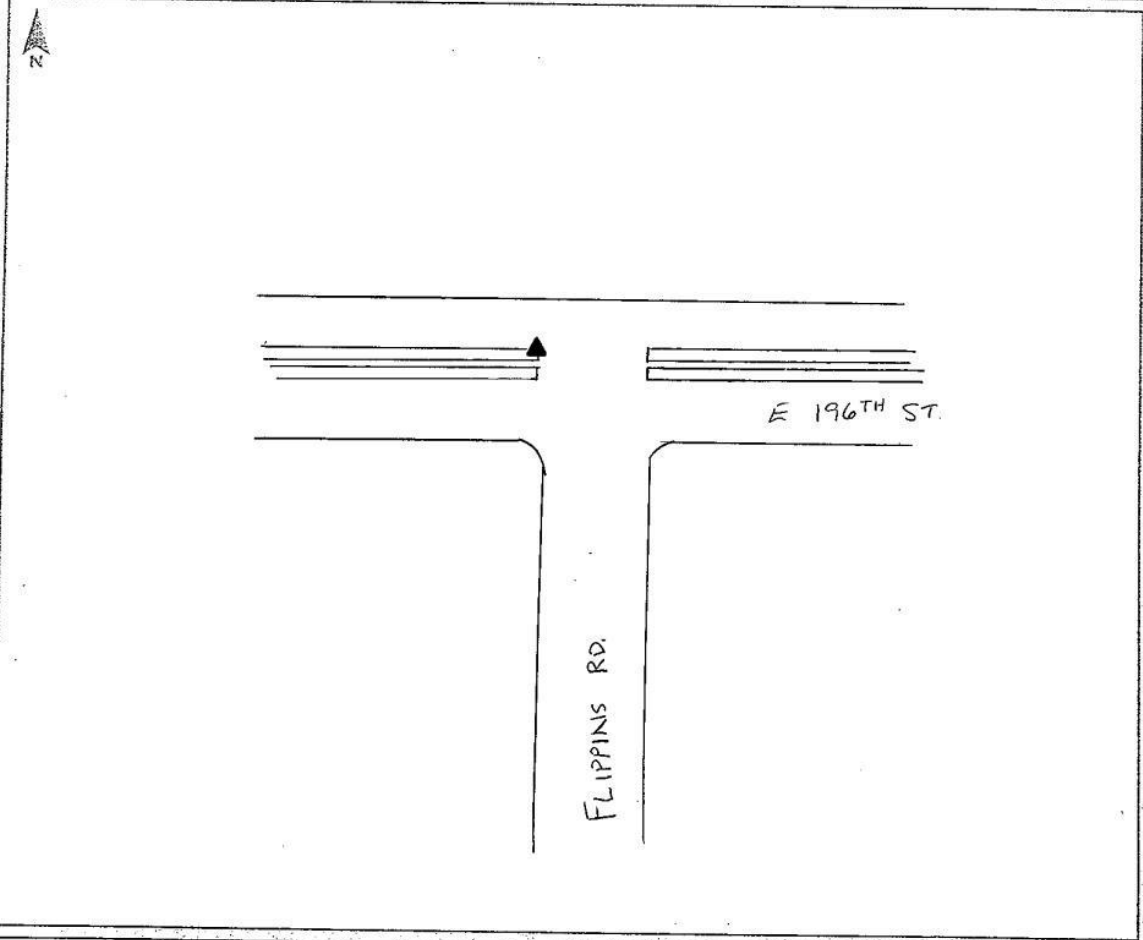


QC204-3E-14MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>QC 205</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 04' 20.18" N</u>	Julian Day: <u>074</u>	Session No. <u>—</u>
Longitude: <u>86° 07' 08.02" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>782.33 gpt</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR PAINT STRIPE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





QC205-2-14MAR2012



QC205-3N-14MAR2012

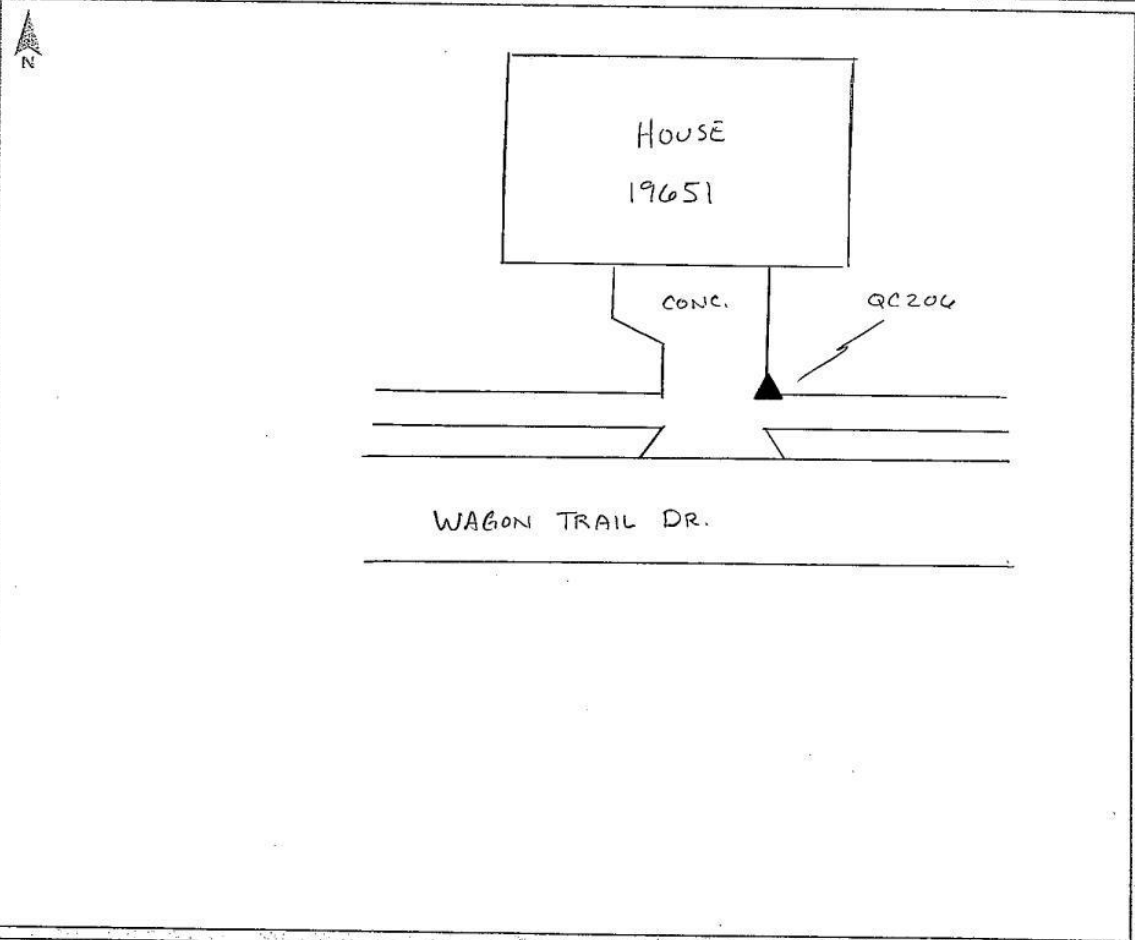


QC205-3E-14MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	<u>72134</u>	Survey Date:	<u>03/15/2012</u>		
Station Name:	<u>QC 206</u>	Operator Name:	<u>BEN CHRISTIE</u>	Julian Day:	<u>075</u>	Session No.:	<u>—</u>
Latitude:	<u>40° 04' 18.50" N</u>	Start Time:	<u>—</u>	End Time:	<u>—</u>		
Longitude:	<u>85° 59' 27.72" W</u>	Data File Name:	<u>—</u>	Type of Receiver:	<u>R8</u>		
Ellip. Height:	<u>663.95 sft</u>	Type of Antenna:	<u>R8</u>	Antenna Height:	<u>2m</u>	to bottom of antenna mount	
Type of Mark:	<u>SE COR CONCRETE</u>	Stamping on Mark:	<u>—</u>	Weather Condition:	<u>70° CLEAR</u>		





QC 206-2-15MAR2012



QC 206-3N-15MAR2012

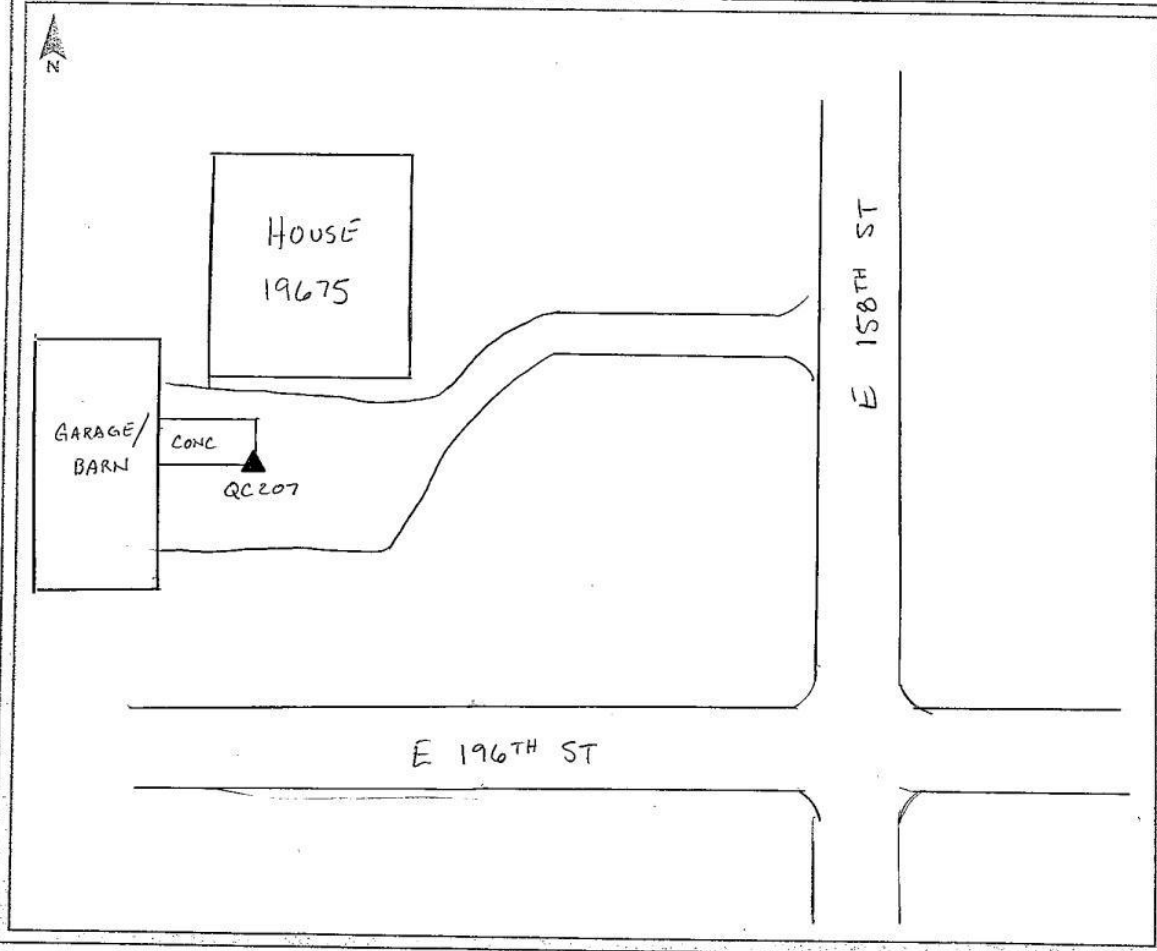


QC 206-3E-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/15/2012</u>
Station Name: <u>QC207</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>40° 04' 29.31" N</u>	Julian Day: <u>075</u> Session No. <u>—</u>
Longitude: <u>85° 52' 59.24" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>723.75 SPT</u>	Data File Name: <u>—</u>
Type of Mark: <u>SE COR. CONCRETE</u>	Type of Receiver: <u>R8</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>
Weather Condition: <u>LD CLOUDY</u>	Antenna Height: <u>2 M</u> to bottom of antenna mount





QC207-2-15MAR2012



QC207-3W-15MAR2012

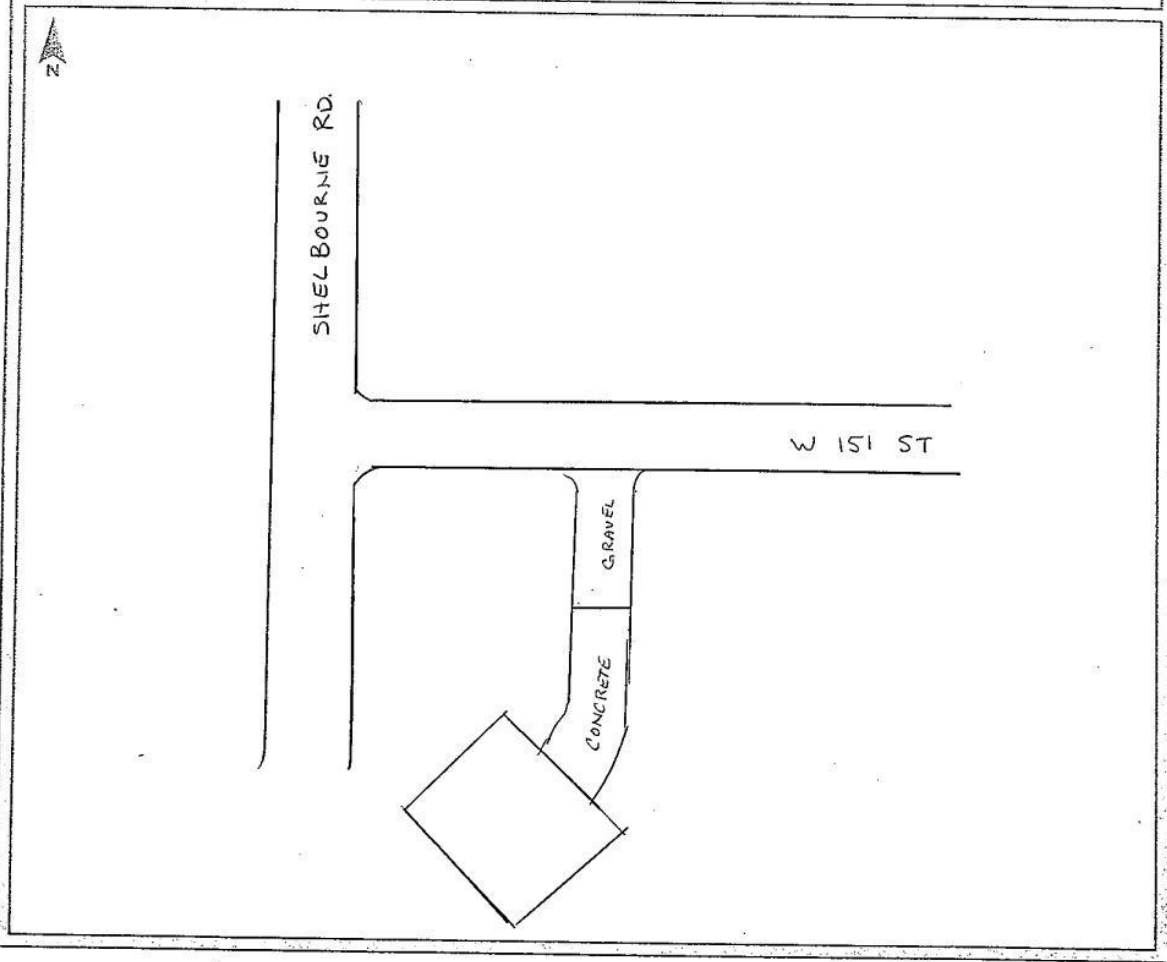


QC207-3N-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>QC 208</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 00' 21.21" N</u>	Julian Day: <u>074</u>	Session No. <u>—</u>
Longitude: <u>86° 13' 13.95" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>789.77 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC208-2-14MAR2012



QC208-3S-14MAR2012

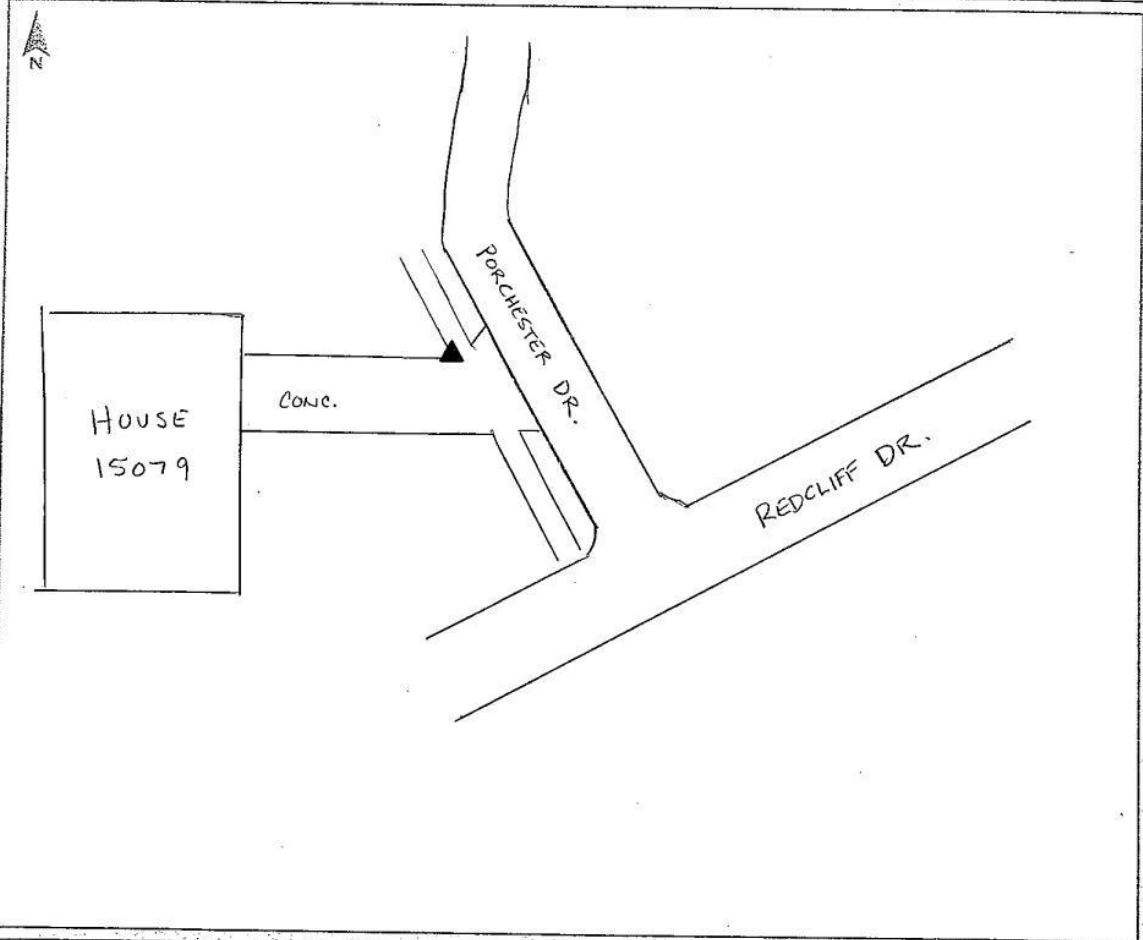


QC208-3E-14MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>QC 209</u>	Operator Name: <u>BEN CHRISTIE</u>	Session No. _____
Latitude: <u>40° 00' 24.53" N</u>	Julian Day: <u>074</u>	Start Time: _____
Longitude: <u>86° 04' 46.21" W</u>	Data File Name: _____	End Time: _____
Ellip. Height: <u>713.44 ft</u>	Type of Receiver: <u>RØ</u>	
Type of Mark: <u>NE COR. CONCRETE</u>	Type of Antenna: <u>RØ</u>	
Stamping on Mark: _____	Antenna Height: <u>2 M</u>	to bottom of antenna mount
Weather Condition: <u>70° CLEAR</u>		





QC209-2-14MAR2012



QC209-3SE-14MAR2012

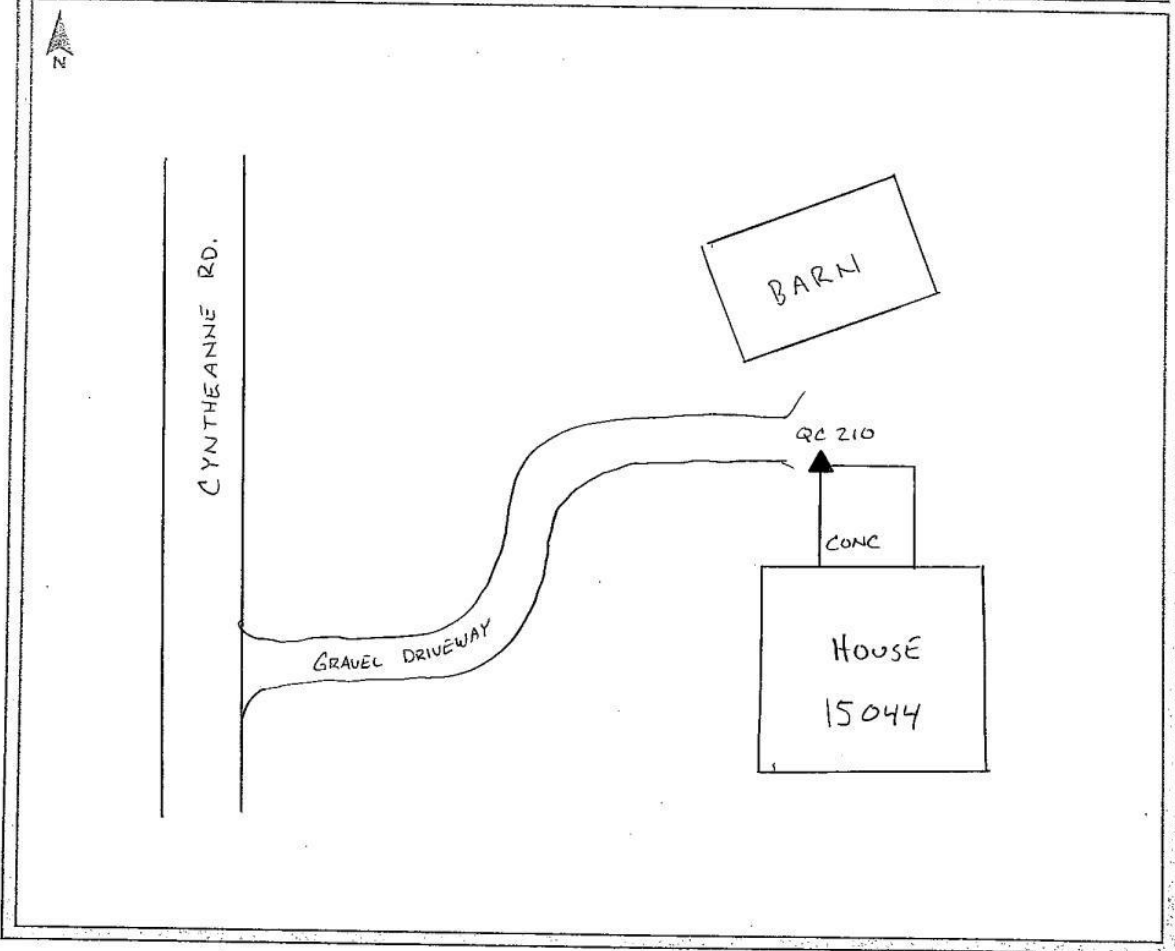


QC209-3NW-14MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/15/2012</u>
Station Name: <u>QC 210</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>40° 00' 32.70" N</u>	Julian Day: <u>075</u>	Session No. <u>—</u>
Longitude: <u>85° 52' 45.65" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>742.16 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>60° CLOUDY</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC210-2-15MAR2012



QC210-3S-15MAR2012

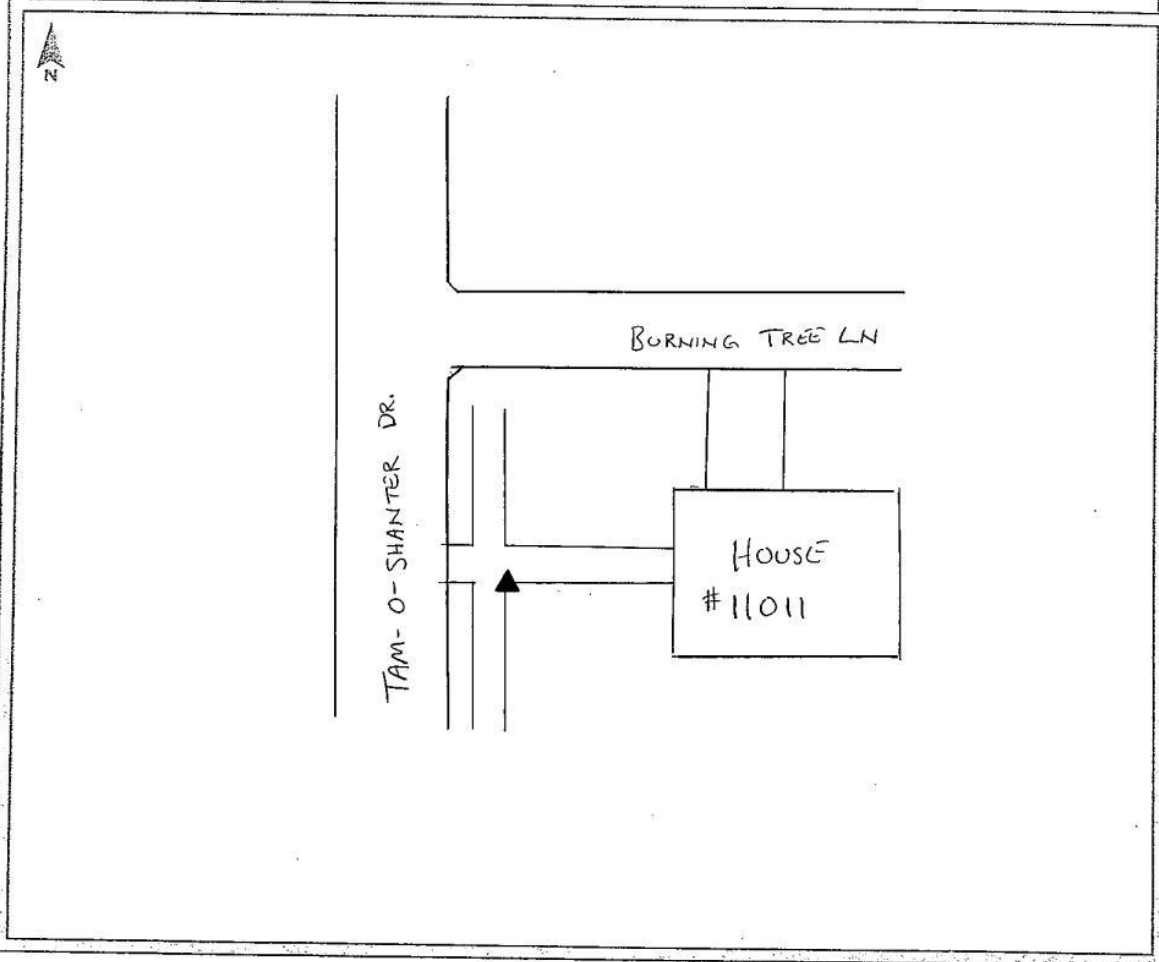


QC210-3E-15MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>QC 211</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 52.00" N</u>	Julian Day: <u>074</u>	Session No. <u>—</u>
Longitude: <u>86° 12' 03.77" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>764.44 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R0</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R0</u>	
Weather Condition: <u>60° CLEAR</u>	Antenna Height: _____	to bottom of antenna mount





QC211-2-14MAR2012



QC211-3N-14MAR2012

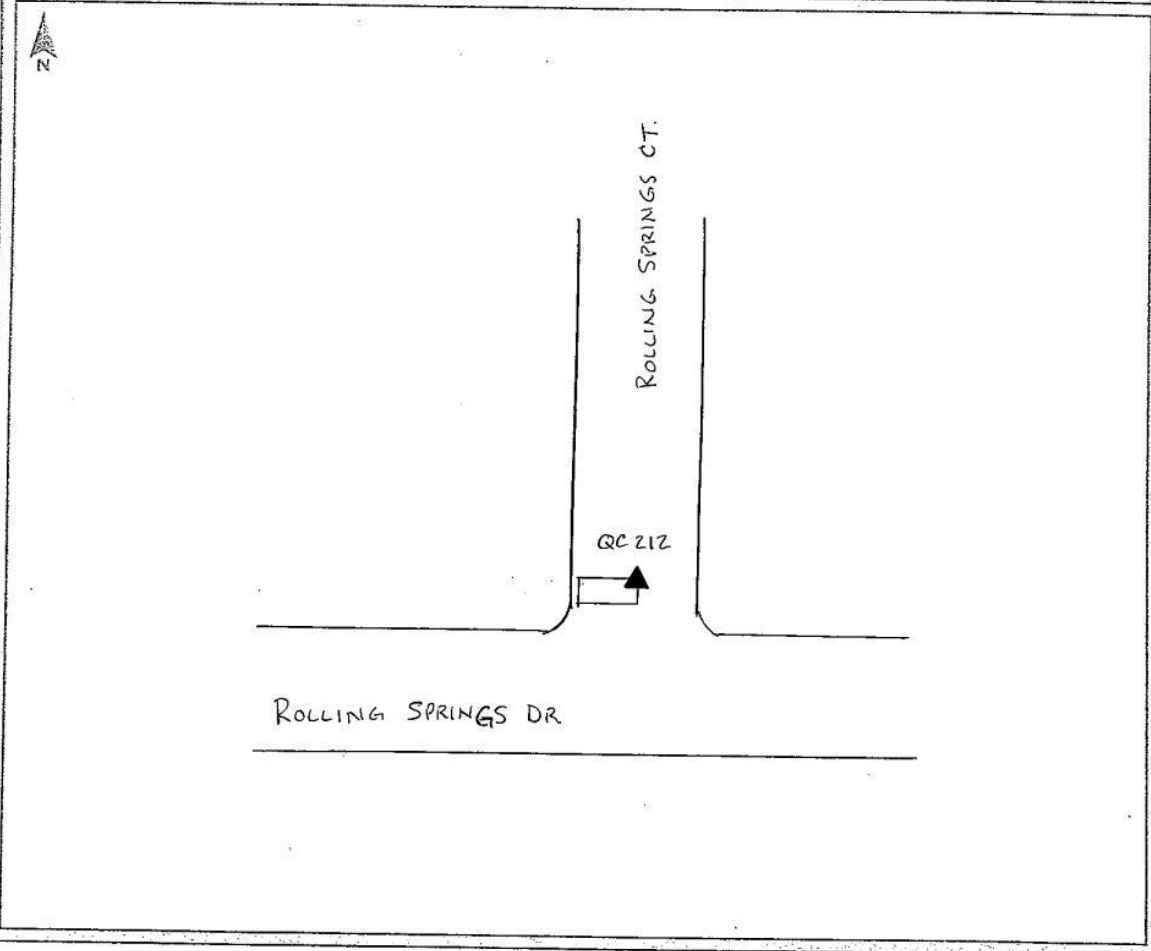


QC211-3E-14MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/14/2012</u>
Station Name: <u>QC 212</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 57.89" N</u>	Julian Day: <u>074</u>	Session No. <u>—</u>
Longitude: <u>86° 05' 56.82" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>657.239 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR. STOP BAR</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>60° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC212-2-14MAR2012



QC212-3W-14MAR2012

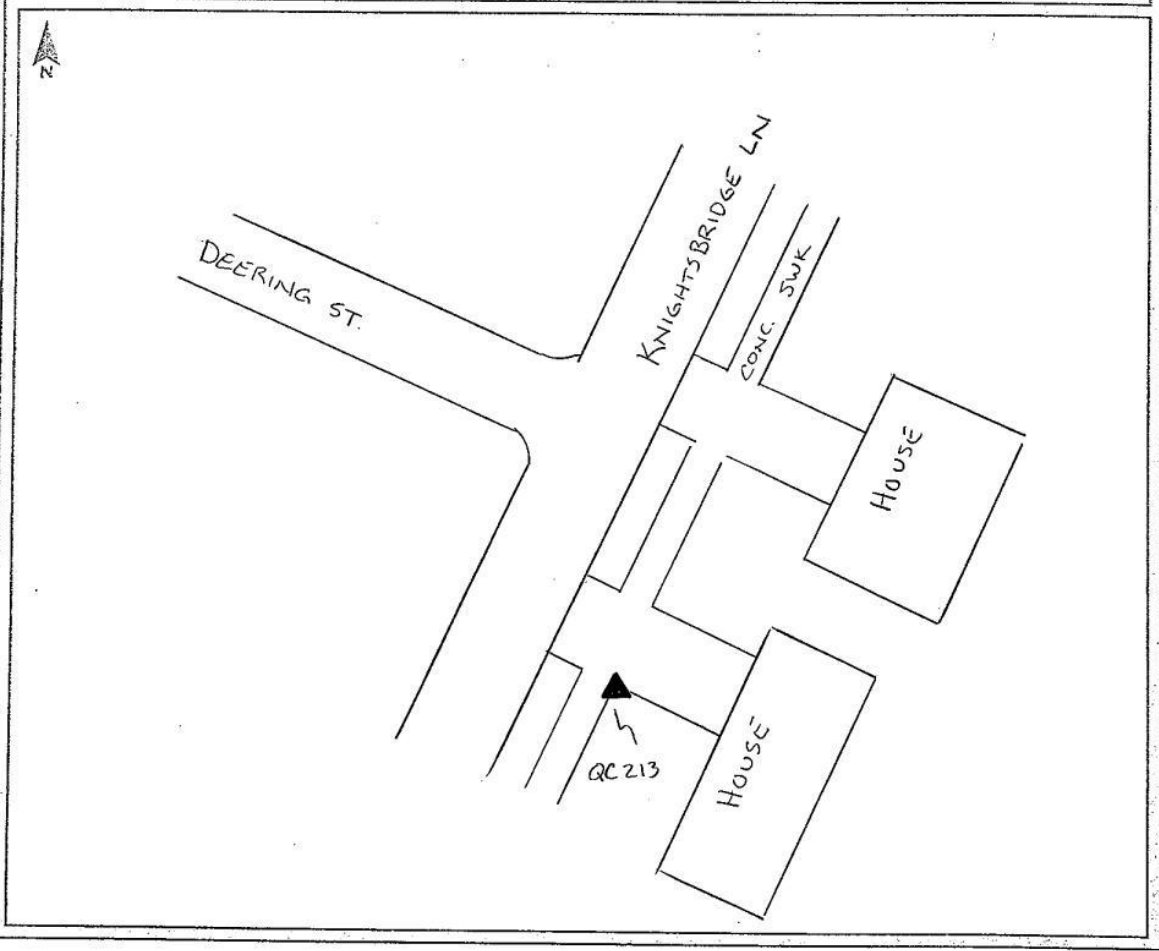


QC212-3S-14MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>QC 213</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 48.20" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 59' 21.59" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>652.78</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR. CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC213-2-13MAR2012



QC213-3SE-13MAR2012

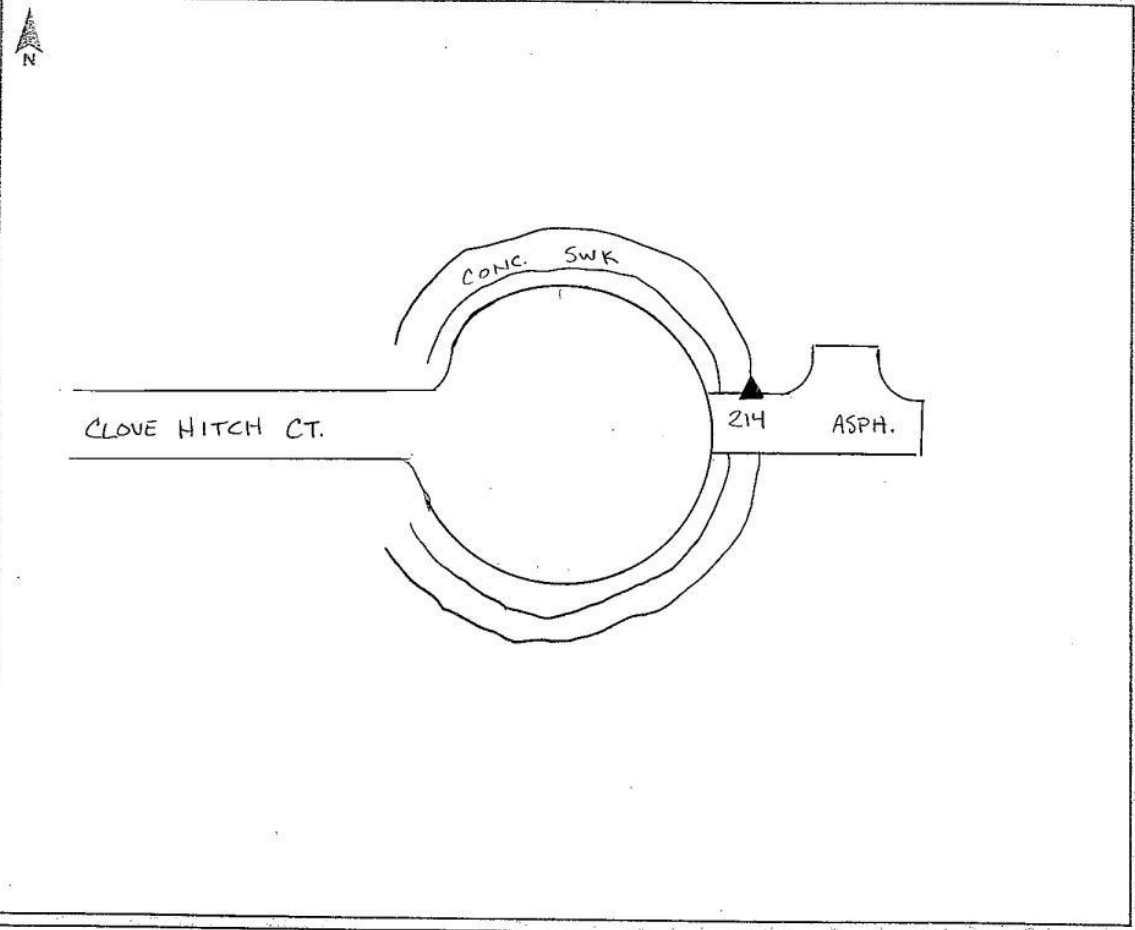


QC213-3NE-13MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>QC214</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 57' 04.30" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 53' 33.76" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>660.76 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR. SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





QC 214-2-13MAR2012



QC 214-3N-13MAR2012

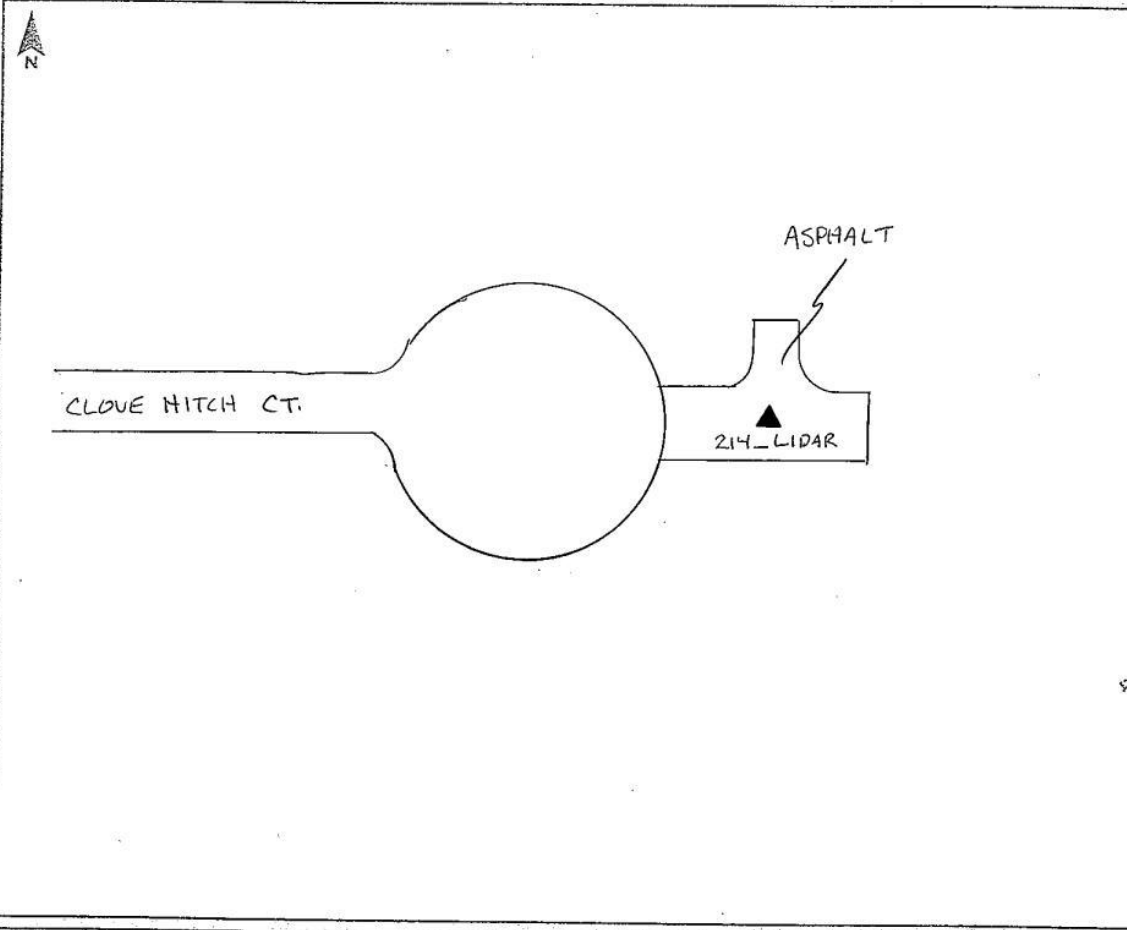


QC 214-3E-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>QC214-LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 57' 04.27" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 53' 33.44" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>660.99</u>	Data File Name: <u>—</u>	
Type of Mark: <u>ASPHALT</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





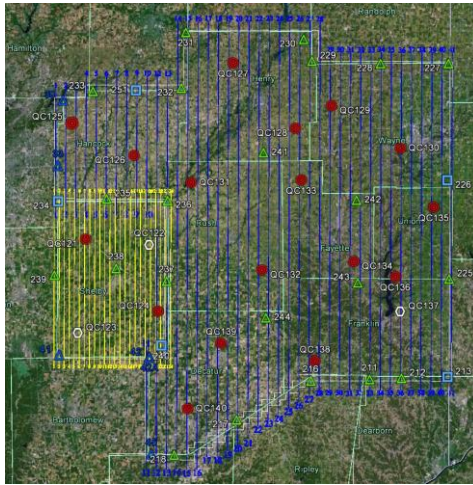
QC 214_LIDAR-2-13MAR2012



QC 214_LIDAR-3NW-13MAR2012



QC 214_LIDAR-3E-13MAR2012



VOLUME 4 (BLOCK 7)

Block 7 Ground and LiDAR Control

GROUND CONTROL SURVEY REPORT

2012 INDIANA STATEWIDE IMAGERY PROGRAM

Indiana Office of Technology

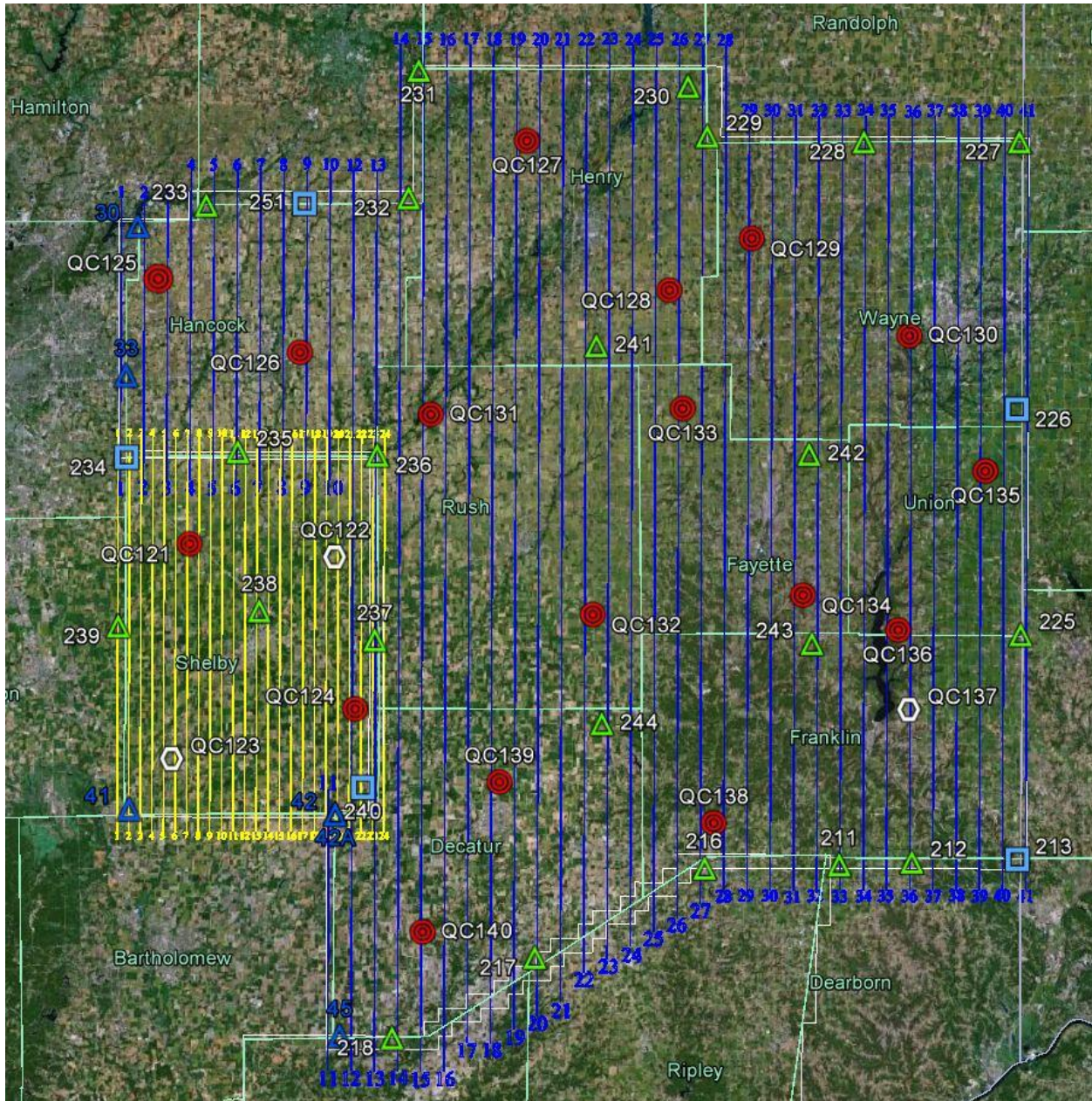
April 2012

Prepared by Woolpert, Inc.
4454 Idea Center Blvd.
Dayton, OH 45420
Woolpert.com



VOLUME 4 - SECTION 1: BLOCK 7 GPS CONTROL DIAGRAM

This section contains a graphical representation of the ground control used for Block 7 of the 2012 Indiana Statewide Imagery project.



Not to Scale

VOLUME 4 - SECTION 2: BLOCK 7 GROUND/LIDAR CONTROL COORDINATE LISTINGS

COORDINATE SYSTEM: GRID

HORIZONTAL DATUM: NAD83 (2007)

VERTICAL DATUM: NAVD88

ZONE: State Plane - (Indiana East)

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
211	1476373.50	503105.37	960.92	SE COR CONCRETE
212	1476412.08	529115.37	1013.04	SW COR CONCRETE
213	1478339.07	566794.58	893.58	COR SIDEWALK
216	1475352.33	454567.25	966.28	COR SIDEWALK
217	1443094.19	394674.27	896.64	CORNER WALK
218	1414250.26	343540.90	758.10	CORNER CONCRETE DRIVE
225	1558323.58	567644.00	969.33	CONC CORNER
226	1638409.82	565941.85	1139.37	CORNER CONC WALK
227	1733559.84	566733.73	1194.42	CORNER OF CONC WALK
228	1733261.26	511098.64	1216.75	CORNER OF CONC DRIVE
229	1735077.98	455105.36	1155.03	CORNER OF CONC WALK
230	1752738.98	448203.75	1094.62	CORNER OF CONC WALK
231	1758265.04	351994.72	918.47	CORNER GRAVEL
232	1713025.98	348546.93	999.48	CORNER CONCRETE PAD
233	1710056.56	276272.24	853.91	NW COR CONCRETE
234	1620313.21	247880.35	808.40	SW COR CONCRETE
235	1622600.48	287809.95	839.61	NW COR PAINT STRIPE
236	1621146.97	337658.86	928.75	NE COR CONCRETE
237	1555789.79	336994.88	907.05	PAINT STRIPE
238	1565946.14	295669.35	792.66	CORNER CONC WALK
239	1560365.89	245154.01	723.38	NW COR CONCRETE
240	1503275.15	332817.34	843.29	CORNER CONCRETE APRON
241	1660445.34	415772.90	1042.64	CORNER CONCRETE WALK
242	1622128.41	491829.80	967.33	CORNER CONC DRIVE
243	1554970.70	493054.10	923.14	CORNER CONC DRIVE
244	1526283.84	418166.40	1063.98	NE COR CONCRETE
251	1710715.03	311225.20	903.33	CORNER CONCRETE DRIVE
QC 121	1589506.80	270852.98	798.08	CORNER CONCRETE WALK
QC 122	1585127.47	322638.65	862.73	CORNER CONCRETE APRON

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
QC 123	1513143.88	264065.05	845.82	NE COR CONCRETE
QC 124	1531065.24	330011.41	834.52	PAINT STRIPE
QC 125	1683620.78	259507.97	865.05	SE COR CONCRETE
QC 126A	1657584.28	310128.70	894.80	CORNER CONCRETE WALK
QC 126B	1657287.17	310454.55	895.88	SE COR SIDEWALK
QC 127	1733076.87	390687.27	1049.78	PAINT STRIPE
QC 128	1680085.21	441727.15	1097.19	PAINT STRIPE INTERSECTION
QC 129	1698619.18	471095.04	983.43	CORNER OF CONC
QC 130	1664247.12	527539.94	1066.64	CORNER OF CONC WALKS
QC 131	1635650.51	356689.93	899.48	PAINT STRIPE
QC 132	1564442.47	414727.59	1033.90	NW COR SIDEWALK
QC 133	1638064.57	446613.01	1053.00	CORNER CONC DRIVE
QC 134	1572099.65	489766.58	1073.64	PAINT STRIPE INTERSECTION
QC 135	1616280.61	554790.16	1104.52	RR CROSSING X
QC 136	1559735.81	523827.68	929.85	PAINT STRIPE INTERSECTION
QC 137	1531787.39	528013.87	993.03	CORNER CON DRIVE
QC 138	1490986.86	458183.13	870.55	NE COR TENNIS COURT
QC 139	1505298.17	381628.96	953.04	SE COR PAINT STRIPE
QC 140	1451914.61	354652.48	893.01	NE COR SIDEWALK

LIDAR CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
211	1476373.50	503105.37	960.92	SE COR CONCRETE
212	1476412.08	529115.37	1013.04	SW COR CONCRETE
213	1478339.07	566794.58	893.58	COR SIDEWALK
216	1475352.33	454567.25	966.28	COR SIDEWALK
217_LIDAR	1443124.65	394683.87	898.20	CENTER ASPHALT DRIVE
218	1414250.26	343540.90	758.10	CORNER CONCRETE DRIVE
225	1558323.58	567644.00	969.33	CONC CORNER
226_LIDAR	1638390.81	565910.31	1139.45	SHORT GRASS
227	1733559.84	566733.73	1194.42	CORNER OF CONC WALK
228_LIDAR	1733250.37	511007.00	1215.45	SHORT GRASS
229_LIDAR	1735104.76	455103.16	1155.26	ASPHALT
230	1752738.98	448203.75	1094.62	CORNER OF CONC WALK
231	1758265.04	351994.72	918.47	CORNER GRAVEL
232	1713025.98	348546.93	999.48	CORNER CONCRETE PAD
233	1710056.56	276272.24	853.91	NW COR CONCRETE
234_LIDAR	1620330.16	247900.20	809.41	CONCRETE
235	1622600.48	287809.95	839.61	NW COR PAINT STRIPE
236	1621146.97	337658.86	928.75	NE COR CONCRETE

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
237	1555789.79	336994.88	907.05	PAINT STRIPE
238	1565946.14	295669.35	792.66	CORNER CONC WALK
239	1560365.89	245154.01	723.38	NW COR CONCRETE
240	1503275.15	332817.34	843.29	CORNER CONCRETE APRON
241	1660445.34	415772.90	1042.64	CORNER CONCRETE WALK
242_LIDAR	1622060.57	491792.04	967.31	SHORT GRASS
243_LIDAR	1555003.59	493051.42	923.18	SHORT GRASS
244	1526283.84	418166.40	1063.98	NE COR CONCRETE
251_LIDAR	1710694.32	311212.86	903.27	CONCRETE
QC 121	1589506.80	270852.98	798.08	CORNER CONCRETE WALK
QC 122_LIDAR	1585115.38	322638.74	862.62	EDGE CONCRETE APRON
QC 123	1513143.88	264065.05	845.82	NE COR CONCRETE
QC 124	1531065.24	330011.41	834.52	PAINT STRIPE
QC 125	1683620.78	259507.97	865.05	SE COR CONCRETE
QC 126A	1657584.28	310128.70	894.80	CORNER CONCRETE WALK
QC 126B	1657287.17	310454.55	895.88	SE COR SIDEWALK
QC 127	1733076.87	390687.27	1049.78	PAINT STRIPE
QC 128	1680085.21	441727.15	1097.19	PAINT STRIPE INTERSECTION
QC 129_LIDAR	1698634.95	471097.73	983.55	SHORT GRASS
QC 130	1664247.12	527539.94	1066.64	CORNER OF CONC WALKS
QC 131	1635650.51	356689.93	899.48	PAINT STRIPE
QC 132	1564442.47	414727.59	1033.90	NW COR SIDEWALK
QC 133	1638064.57	446613.01	1053.00	CORNER CONC DRIVE
QC 134	1572099.65	489766.58	1073.64	PAINT STRIPE INTERSECTION
QC 135	1616280.61	554790.16	1104.52	RR CROSSING X
QC 136	1559735.81	523827.68	929.85	PAINT STRIPE INTERSECTION
QC 137_LIDAR	1531601.73	527909.65	994.51	ASPHALT
QC 138	1490986.86	458183.13	870.55	NE COR TENNIS COURT
QC 139	1505298.17	381628.96	953.04	SE COR PAINT STRIPE
QC 140	1451914.61	354652.48	893.01	NE COR SIDEWALK

COORDINATE SYSTEM: GEODETIC

HORIZONTAL DATUM: WGS 84

VERTICAL DATUM: NAVD88

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
211	N39°18'00.53466"	W85°02'53.52246"	849.50	SE COR CONCRETE
212	N39°17'59.02782"	W84°57'22.66438"	901.90	SW COR CONCRETE
213	N39°18'14.87346"	W84°49'23.16198"	782.93	COR SIDEWALK
216	N39°17'53.26704"	W85°13'11.02532"	854.43	COR SIDEWALK
217	N39°12'36.66439"	W85°25'53.96727"	784.57	CORNER WALK
218	N39°07'52.37595"	W85°36'43.83221"	646.21	CORNER CONCRETE DRIVE
225	N39°31'25.24889"	W84°49'02.78143"	859.83	CONC CORNER
226	N39°44'36.83696"	W84°49'14.87733"	1028.85	CORNER CONC WALK
227	N40°00'17.01600"	W84°48'53.12931"	1084.18	CORNER OF CONC WALK
228	N40°00'18.70823"	W85°00'48.06746"	1106.42	CORNER OF CONC DRIVE
229	N40°00'40.09740"	W85°12'47.49324"	1044.55	CORNER OF CONC WALK
230	N40°03'34.96691"	W85°14'15.09775"	984.07	CORNER OF CONC WALK
231	N40°04'32.32626"	W85°34'52.39686"	807.14	CORNER GRAVEL
232	N39°57'05.27523"	W85°35'37.22684"	888.12	CORNER CONCRETE PAD
233	N39°56'35.48177"	W85°51'05.22613"	742.30	NW COR CONCRETE
234	N39°41'47.82093"	W85°57'06.08831"	697.85	SW COR CONCRETE
235	N39°42'11.36820"	W85°48'35.29221"	728.46	NW COR PAINT STRIPE
236	N39°41'57.30255"	W85°37'57.48943"	817.39	NE COR CONCRETE
237	N39°31'11.35793"	W85°38'06.27841"	795.54	PAINT STRIPE
238	N39°32'51.54870"	W85°46'53.80498"	681.64	CORNER CONC WALK
239	N39°31'55.26254"	W85°57'38.45824"	613.72	NW COR CONCRETE
240	N39°22'32.33463"	W85°38'59.71310"	731.55	CORNER CONCRETE APRON
241	N39°48'24.19874"	W85°21'16.34378"	931.39	CORNER CONCRETE WALK
242	N39°42'01.77028"	W85°05'04.97427"	855.96	CORNER CONC DRIVE
243	N39°30'57.98363"	W85°04'54.90162"	811.67	CORNER CONC DRIVE
244	N39°26'18.17530"	W85°20'51.77689"	952.29	NE COR CONCRETE
251	N39°56'42.46328"	W85°43'36.45539"	791.74	CORNER CONCRETE DRIVE
QC 121	N39°36'43.97319"	W85°52'11.29507"	687.54	CORNER CONCRETE WALK
QC 122	N39°36'01.32428"	W85°41'09.56086"	751.45	CORNER CONCRETE APRON
QC 123	N39°24'09.08455"	W85°53'35.57677"	735.29	NE COR CONCRETE
QC 124	N39°27'07.00636"	W85°39'35.41947"	722.96	PAINT STRIPE
QC 125	N39°52'13.82529"	W85°54'39.54002"	753.63	SE COR CONCRETE
QC 126A	N39°47'57.37071"	W85°43'50.04643"	783.31	CORNER CONCRETE WALK

Station Name	Latitude	Longitude	E. Height US Ft.	Description
QC 126B	N39°47'54.43666"	W85°43'45.86879"	784.39	SE COR SIDEWALK
QC 127	N40°00'22.73932"	W85°26'35.45995"	938.85	PAINT STRIPE
QC 128	N39°51'37.26688"	W85°15'42.63338"	986.06	PAINT STRIPE INTERSECTION
QC 129	N39°54'38.94420"	W85°09'24.67635"	872.57	CORNER OF CONC
QC 130	N39°48'55.46170"	W84°57'23.84623"	955.69	CORNER OF CONC WALKS
QC 131	N39°44'20.50075"	W85°33'53.79296"	788.18	PAINT STRIPE
QC 132	N39°32'35.43015"	W85°21'33.94974"	922.22	NW COR SIDEWALK
QC 133	N39°44'41.76440"	W85°14'42.51655"	941.58	CORNER CONC DRIVE
QC 134	N39°33'47.47735"	W85°05'35.45708"	962.15	PAINT STRIPE INTERSECTION
QC 135	N39°40'59.16793"	W84°51'40.17518"	994.14	RR CROSSING X
QC 136	N39°31'42.91683"	W84°58'21.77358"	819.16	PAINT STRIPE INTERSECTION
QC 137	N39°27'06.38627"	W84°57'31.15336"	882.33	CORNER CON DRIVE
QC 138	N39°20'27.61211"	W85°12'24.01813"	758.76	NE COR TENNIS COURT
QC 139	N39°22'51.77887"	W85°28'38.05128"	841.17	SE COR PAINT STRIPE
QC 140	N39°14'04.56275"	W85°34'22.32388"	781.07	NE COR SIDEWALK

LiDAR CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
211	N39°18'00.53466"	W85°02'53.52246"	849.50	SE COR CONCRETE
212	N39°17'59.02782"	W84°57'22.66438"	901.90	SW COR CONCRETE
213	N39°18'14.87346"	W84°49'23.16198"	782.93	COR SIDEWALK
216	N39°17'53.26704"	W85°13'11.02532"	854.43	COR SIDEWALK
217_LIDAR	N39°12'36.96515"	W85°25'53.84437"	786.13	CENTER ASPHALT DRIVE
218	N39°07'52.37595"	W85°36'43.83221"	646.21	CORNER CONCRETE DRIVE
225	N39°31'25.24889"	W84°49'02.78143"	859.83	CONC CORNER
226_LIDAR	N39°44'36.65203"	W84°49'15.28334"	1028.93	SHORT GRASS
227	N40°00'17.01600"	W84°48'53.12931"	1084.18	CORNER OF CONC WALK
228_LIDAR	N40°00'18.60715"	W85°00'49.24610"	1105.12	SHORT GRASS
229_LIDAR	N40°00'40.36212"	W85°12'47.51977"	1044.79	ASPHALT
230	N40°03'34.96691"	W85°14'15.09775"	984.07	CORNER OF CONC WALK
231	N40°04'32.32626"	W85°34'52.39686"	807.14	CORNER GRAVEL
232	N39°57'05.27523"	W85°35'37.22684"	888.12	CORNER CONCRETE PAD
233	N39°56'35.48177"	W85°51'05.22613"	742.30	NW COR CONCRETE
234_LIDAR	N39°41'47.98910"	W85°57'05.83502"	698.86	CONCRETE
235	N39°42'11.36820"	W85°48'35.29221"	728.46	NW COR PAINT STRIPE
236	N39°41'57.30255"	W85°37'57.48943"	817.39	NE COR CONCRETE
237	N39°31'11.35793"	W85°38'06.27841"	795.54	PAINT STRIPE
238	N39°32'51.54870"	W85°46'53.80498"	681.64	CORNER CONC WALK
239	N39°31'55.26254"	W85°57'38.45824"	613.72	NW COR CONCRETE
240	N39°22'32.33463"	W85°38'59.71310"	731.55	CORNER CONCRETE APRON

Station Name	Latitude	Longitude	E. Height US Ft.	Description
241	N39°48'24.19874"	W85°21'16.34378"	931.39	CORNER CONCRETE WALK
242_LIDAR	N39°42'01.10221"	W85°05'05.46309"	855.94	SHORT GRASS
243_LIDAR	N39°30'58.30890"	W85°04'54.93309"	811.71	SHORT GRASS
244	N39°26'18.17530"	W85°20'51.77689"	952.29	NE COR CONCRETE
251_LIDAR	N39°56'42.25847"	W85°43'36.61370"	791.69	CONCRETE
QC 121	N39°36'43.97319"	W85°52'11.29507"	687.54	CORNER CONCRETE WALK
QC 122_LIDAR	N39°36'01.20482"	W85°41'09.55969"	751.34	EDGE CONCRETE APRON
QC 123	N39°24'09.08455"	W85°53'35.57677"	735.29	NE COR CONCRETE
QC 124	N39°27'07.00636"	W85°39'35.41947"	722.96	PAINT STRIPE
QC 125	N39°52'13.82529"	W85°54'39.54002"	753.63	SE COR CONCRETE
QC 126A	N39°47'57.37071"	W85°43'50.04643"	783.31	CORNER CONCRETE WALK
QC 126B	N39°47'54.43666"	W85°43'45.86879"	784.39	SE COR SIDEWALK
QC 127	N40°00'22.73932"	W85°26'35.45995"	938.85	PAINT STRIPE
QC 128	N39°51'37.26688"	W85°15'42.63338"	986.06	PAINT STRIPE INTERSECTION
QC 129_LIDAR	N39°54'39.09994"	W85°09'24.64076"	872.69	SHORT GRASS
QC 130	N39°48'55.46170"	W84°57'23.84623"	955.69	CORNER OF CONC WALKS
QC 131	N39°44'20.50075"	W85°33'53.79296"	788.18	PAINT STRIPE
QC 132	N39°32'35.43015"	W85°21'33.94974"	922.22	NW COR SIDEWALK
QC 133	N39°44'41.76440"	W85°14'42.51655"	941.58	CORNER CONC DRIVE
QC 134	N39°33'47.47735"	W85°05'35.45708"	962.15	PAINT STRIPE INTERSECTION
QC 135	N39°40'59.16793"	W84°51'40.17518"	994.14	RR CROSSING X
QC 136	N39°31'42.91683"	W84°58'21.77358"	819.16	PAINT STRIPE INTERSECTION
QC 137_LIDAR	N39°27'04.55949"	W84°57'32.50049"	883.80	ASPHALT
QC 138	N39°20'27.61211"	W85°12'24.01813"	758.76	NE COR TENNIS COURT
QC 139	N39°22'51.77887"	W85°28'38.05128"	841.17	SE COR PAINT STRIPE
QC 140	N39°14'04.56275"	W85°34'22.32388"	781.07	NE COR SIDEWALK

VOLUME 4 - SECTION 3: BLOCK 7 GROUND/LIDAR CONTROL LOGS AND PHOTOS

This section contains the station recovery information sheets and photographs for the ground control and LiDAR control station.

The data is assembled on the following pages.

GROUND CONTROL

GPS Observation Log Sheet		W WOOLPERT
Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>211</u>	Operator Name: <u>BEN CHRISTIE</u>	Session No. _____
Latitude: <u>39° 18' 00.58" N</u>	Julian Day: <u>070</u>	Start Time: _____
Longitude: <u>85° 02' 53.55" W</u>	Data File Name: _____	End Time: _____
Ellip. Height: <u>845.69 sft</u>	Type of Reciever: <u>R8</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Antenna: <u>R8</u>	
Stamping on Mark: _____	Antenna Height: <u>2m</u>	to bottom of antenna mount
Weather Condition: <u>55° CLEAR</u>		

A hand-drawn site sketch within a rectangular frame. On the left, a vertical line is labeled 'BLUE CREEK RD.'. To its right, a path or road curves from the bottom left towards the top right. At the top right of this path, there is a rectangular structure labeled 'CONCRETE'. A small black triangle marker is positioned at the bottom right corner of this structure, labeled '211'. To the right of the sketch, there is a handwritten note: '#29456 HOUSE GONE'. In the top left corner of the sketch area, there is a north arrow pointing upwards, labeled 'N'.



211-2-10MAR2012



211-3S-10MAR2012

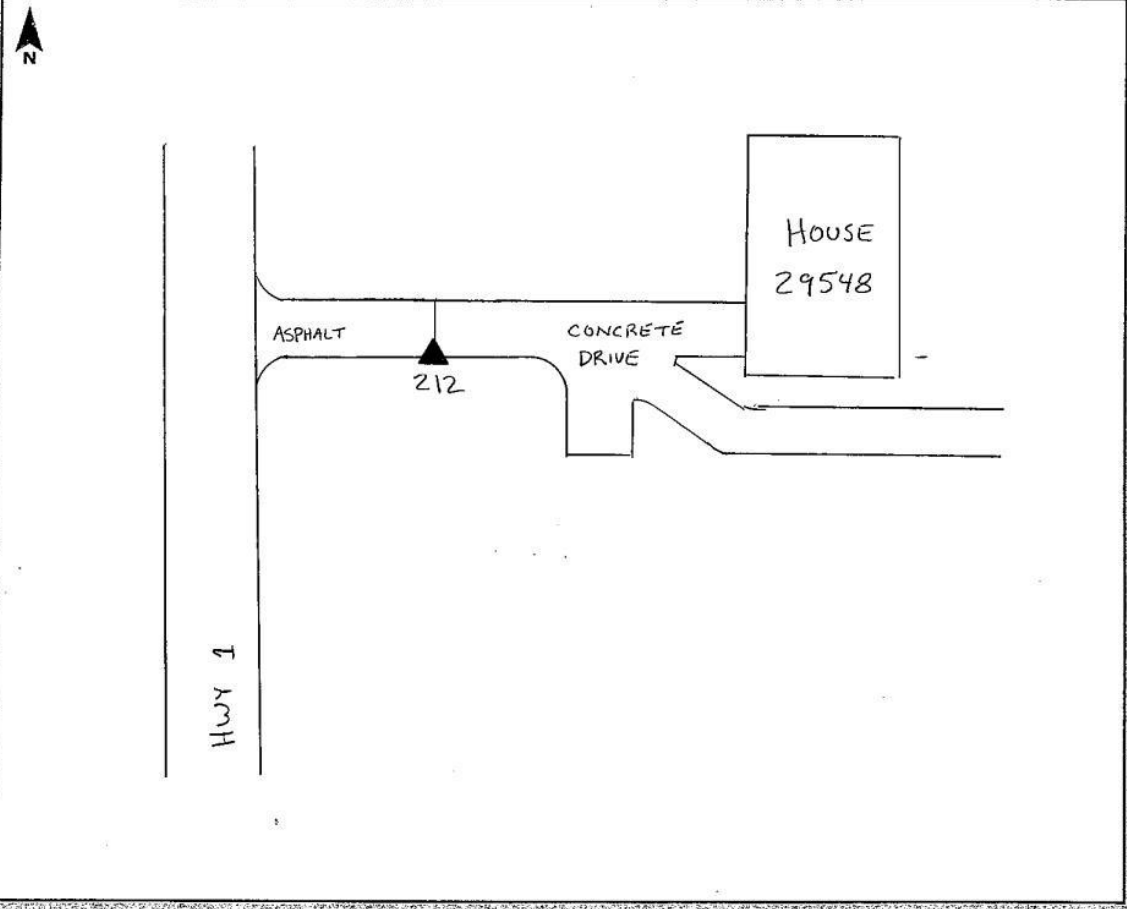


211-3E-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>212</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 59.07" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 22.69" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>898.16</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





212-2-10MAR2012



212-3W-10MAR2012

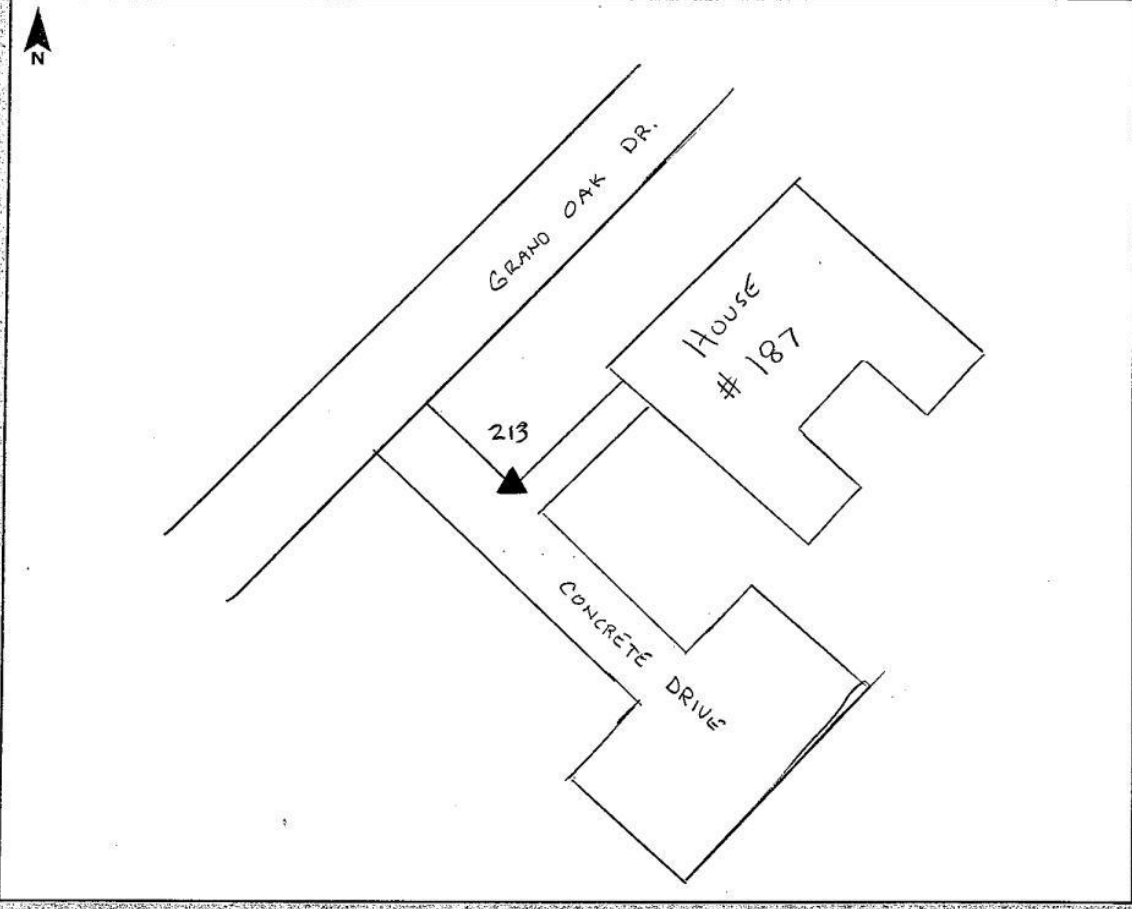


212-3S-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>213</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 18' 14.92" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 49' 23.19" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>779.16 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





213-2-10MAR2012



213-3SE-10MAR2012

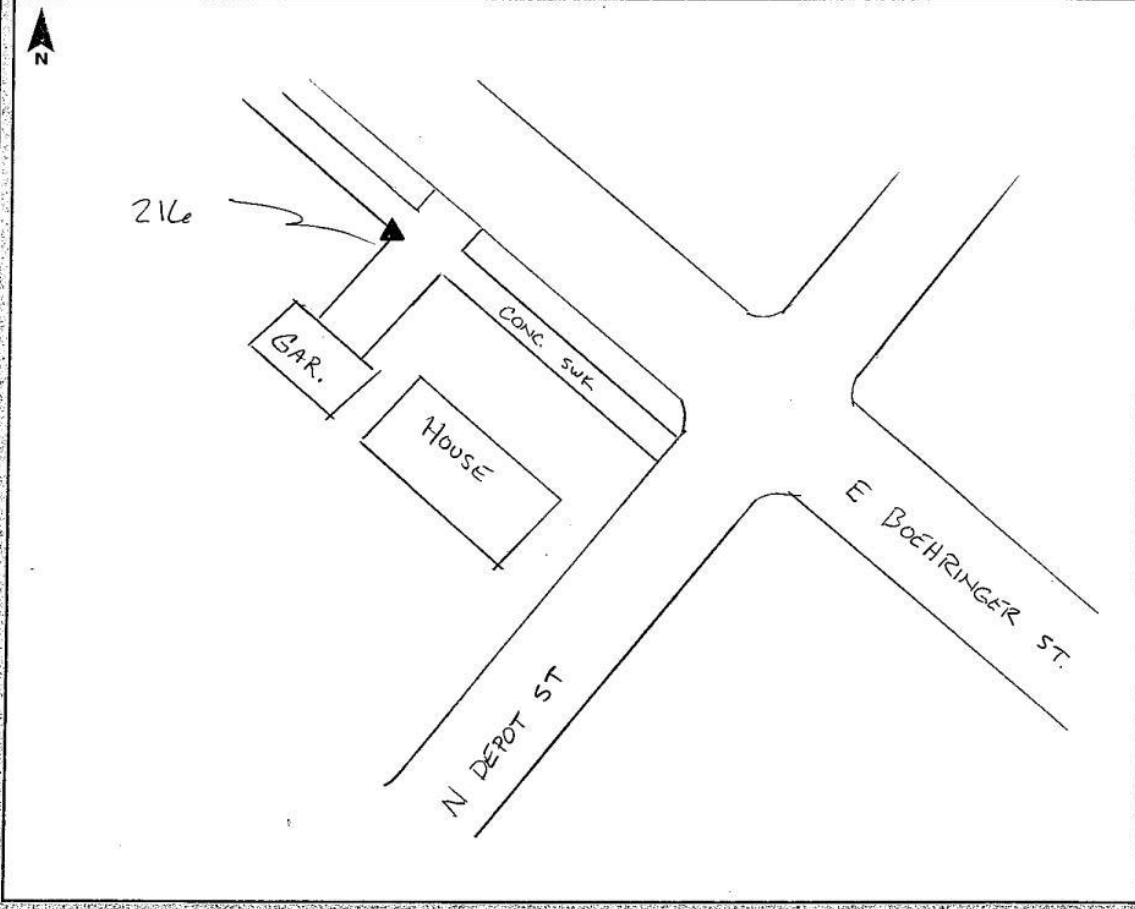


213-3NE-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>216</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 53.31" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 13' 11.05" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>850.67 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





216-2-10MAR2012



216-3SW-10MAR2012

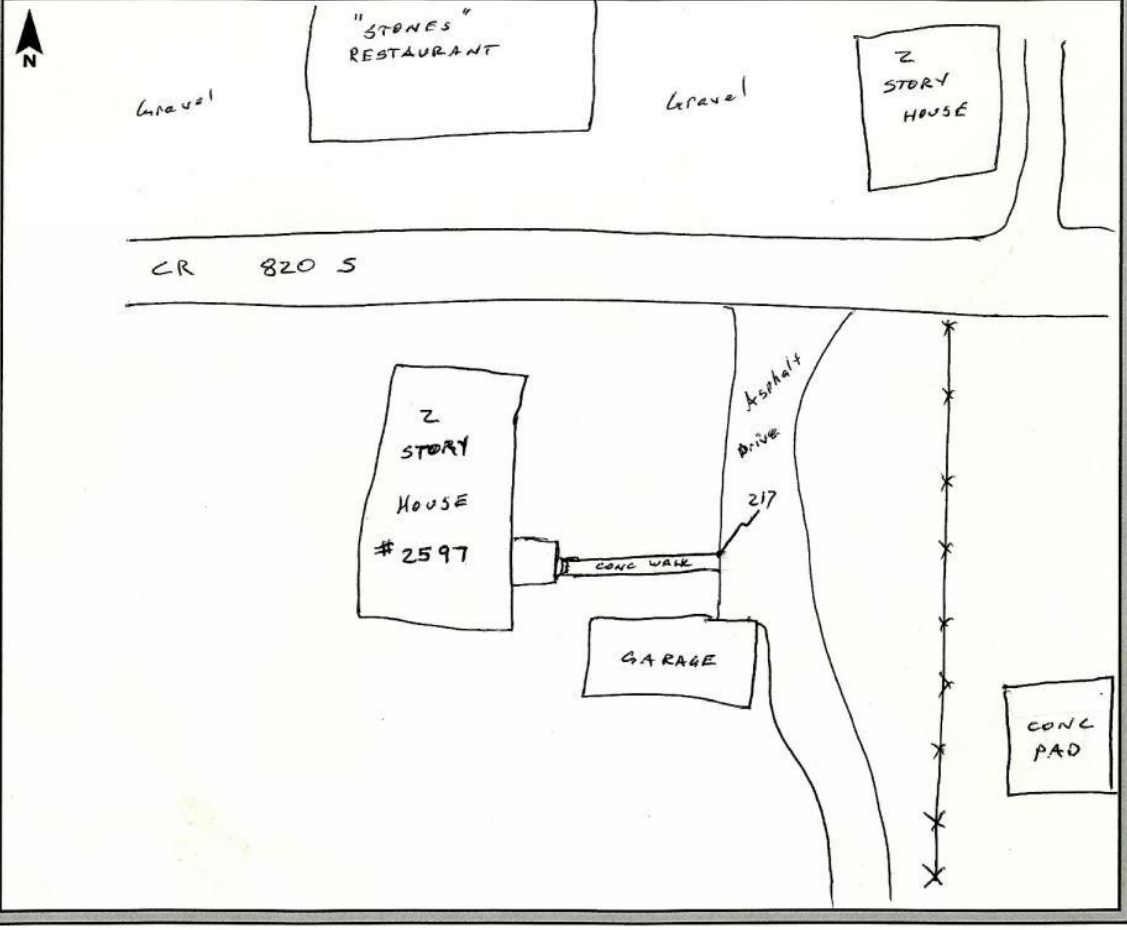


216-3NW-10MAR2012

GPS Observation Log Sheet



Project Name:	INDIANA STATEWIDE	Project Number:	72134	Survey Date:	8 MAR 12
Station Name:	217	Operator Name:	Stephen Schonegg		
Latitude:	39-12-36.6	Julian Day:	068	Session No.:	5
Longitude:	085-25-53.9	Start Time:	4:23	End Time:	4:29
Ellip. Height:	775.2'	Data File Name:	INOST08MAR12 SS		
Type of Mark:	CORNER WALK	Type of Receiver:	R8-2		
Stamping on Mark:	NONE	Type of Antenna:	_____		
Weather Condition:	RAIN, 50°	Antenna Height:	6.562	to bottom of antenna mount	





217-2-08MAR2012



217-3W-08MAR2012

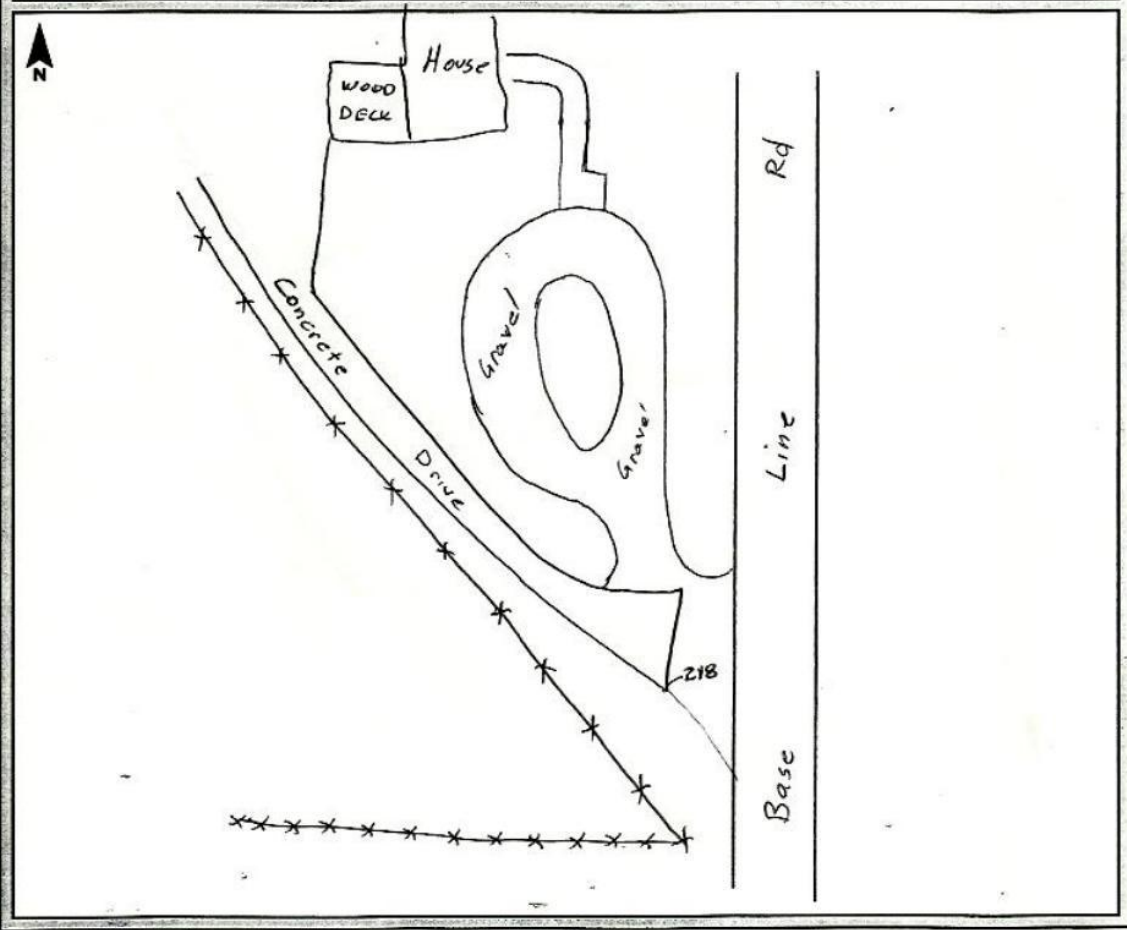


217-3S-08MAR2012

GPS Observation Log Sheet



Project Name:	INDIANA STATEWIDE	Project Number:	72134	Survey Date:	9 Mar 12
Station Name:	218	Operator Name:	Stephen Schonegg	Julian Day:	069
Latitude:	39-07-52.37	Session No.:		Start Time:	2:36
Longitude:	085-36-43.80	End Time:	2:41	Data File Name:	INDST09MAR12SS
Ellip. Height:	637.05 FT	Type of Reciever:	RB-2, #9357	Type of Antenna:	
Type of Mark:	Corner Concrete Drive	Antenna Height:	6.562 (FT)	to bottom of antenna mount	
Stamping on Mark:					
Weather Condition:	Sunny, 45°, WINDY				

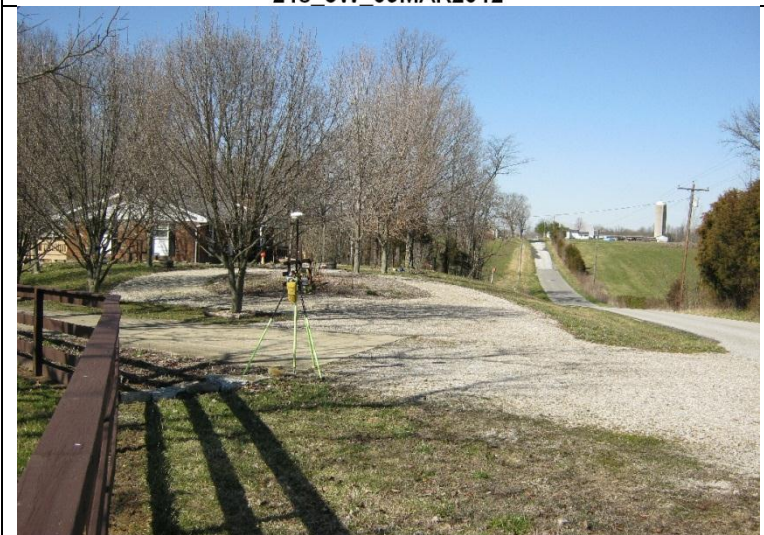




218 2 09MAR2012



218 3W 09MAR2012

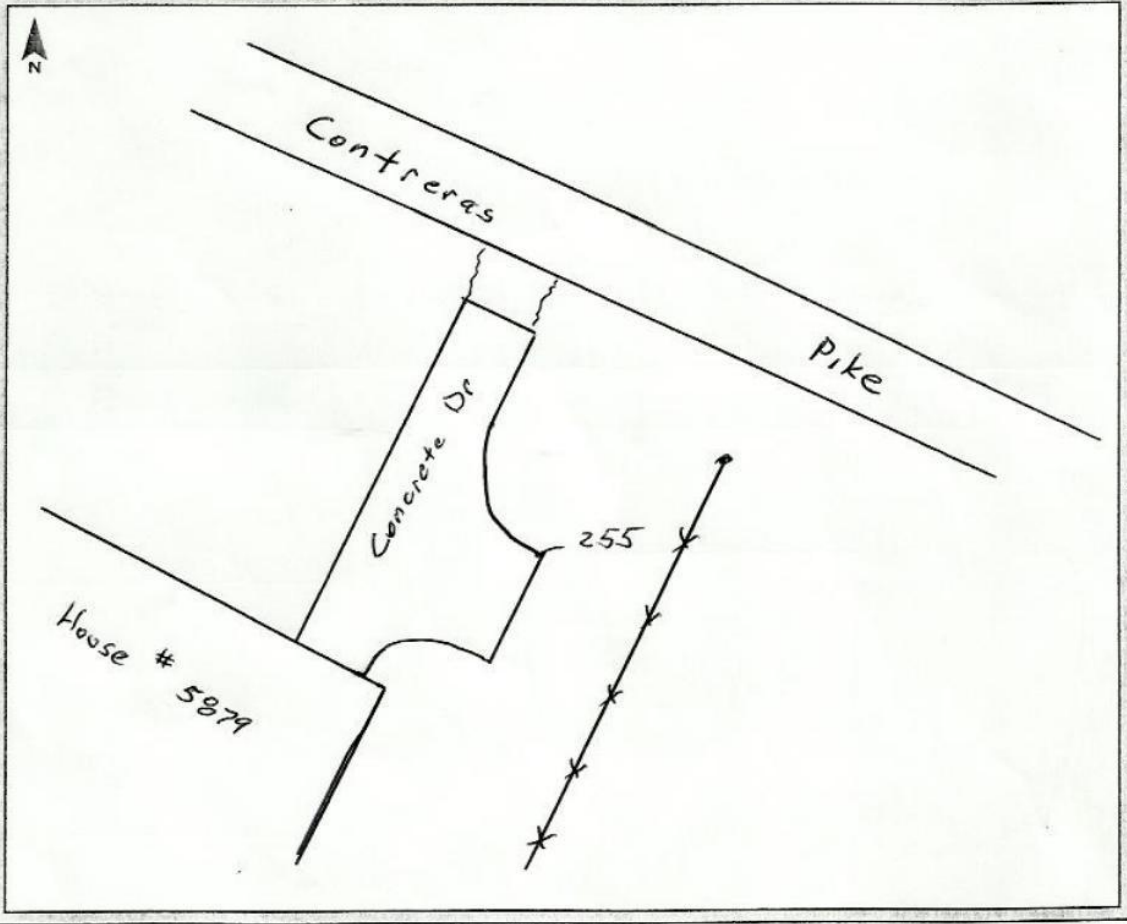


218 3N 09MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 28MAR12
Station Name: 225 Operator Name: STEPHEN SCHONEGG
Latitude: 39-31-25.25 Julian Day: 088 Session No. _____
Longitude: 084-49-02.78 Start Time: 11:42 End Time: 11:45
Ellip. Height: .859-72 FT Data File Name: INDST28MAR1255
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 55°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





225-2-12MAR2012



225-3E-12MAR2012



225-3N-12MAR2012

GPS Observation Log Sheet



Project Name: <u>N. Stateville 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-17</u>
Station Name: <u>226</u>	Operator Name: <u>David Holt</u>	
Latitude: <u>39° 44' 36.9"</u>	Julian Day: <u>072</u>	Session No. <u>2</u>
Longitude: <u>84° 49' 14.9"</u>	Start Time: <u>13:17</u>	End Time: <u>13:27</u>
Ellip. Height: <u>10321</u>	Data File Name: <u>JWDY_072-DMH</u>	
Type of Mark: <u>Corner of Conc.</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>walk</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° & rain</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





226-2-12MAR2012



226-3E-12MAR2012

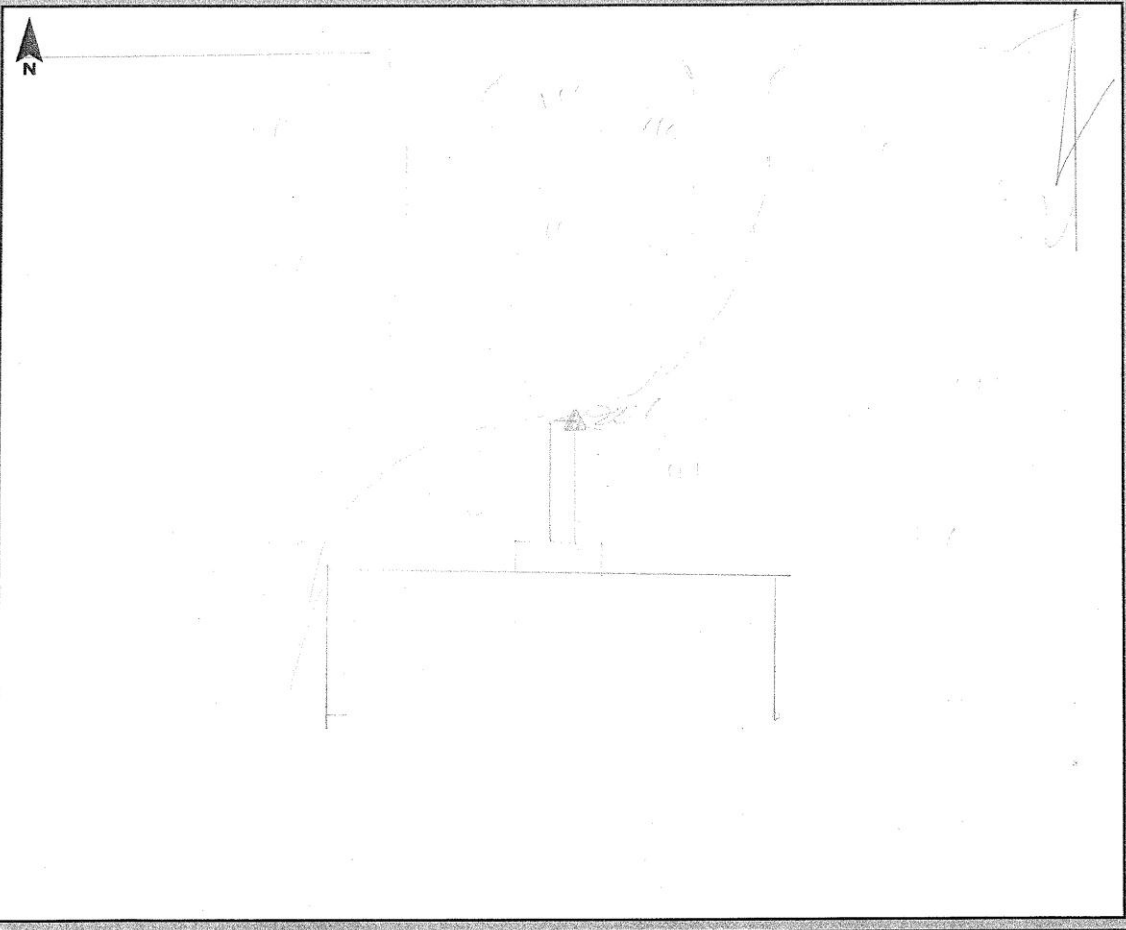


226-3N-12MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-18</u>
Station Name:	<u>227</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>40° 00' 17.1"</u>	Julian Day:	<u>073</u>	Session No.:	<u>1</u>
Longitude:	<u>84° 48' 53.2"</u>	Start Time:	<u>08:44</u>	End Time:	<u>09:54</u>
Ellip. Height:	<u>10⁰⁰</u>	Data File Name:	<u>INDY_073_DMH</u>		
Type of Mark:	<u>NE corner of</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:	<u>conc walk</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60's clear</u>	Antenna Height:	<u>2.000.4</u>	to bottom of antenna mount	





227-2-13MAR2012



227-3N-13MAR2012

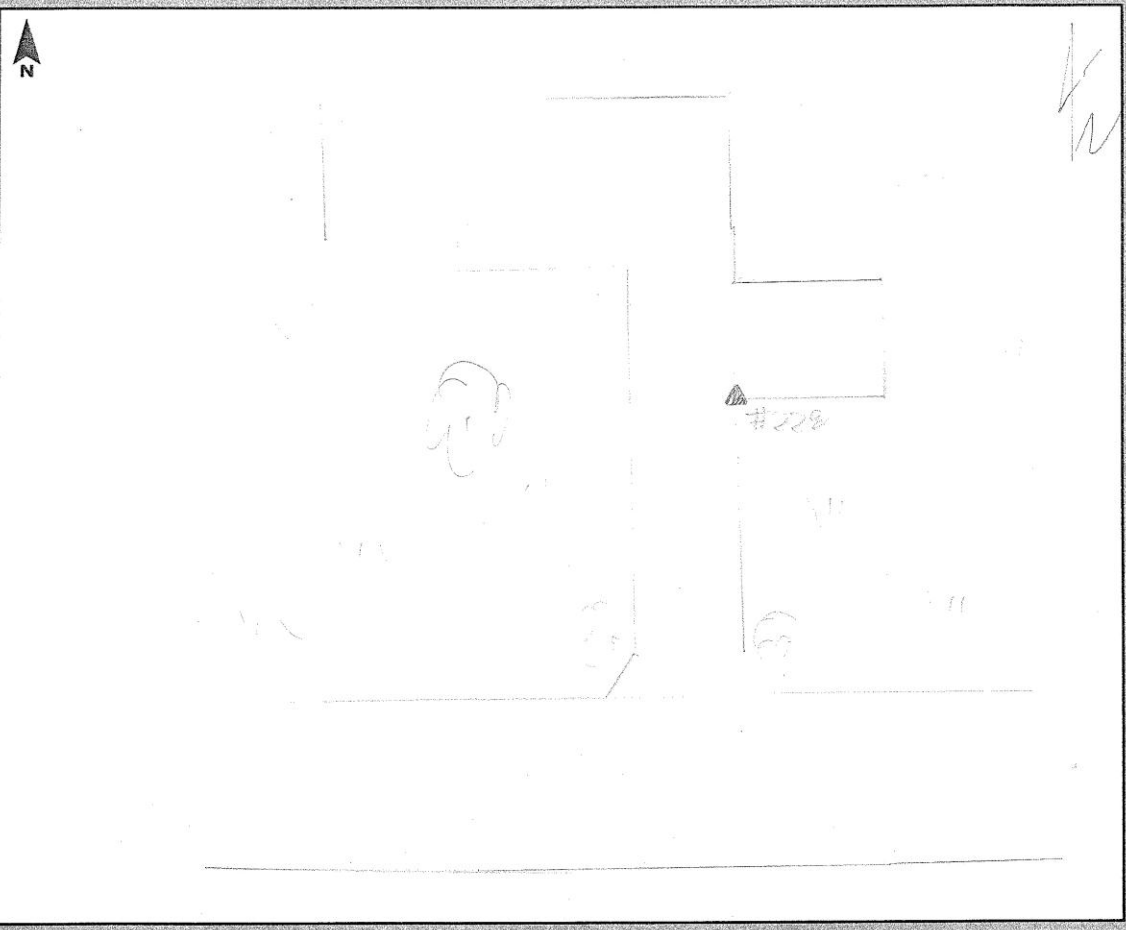


227-3E-13MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-15</u>
Station Name: <u>228</u>	Operator Name: <u>David Hill</u>	
Latitude: <u>40° 00' 18.8"</u>	Julian Day: <u>073</u>	Session No. <u>1</u>
Longitude: <u>85° 00' 48.1"</u>	Start Time: <u>09:16</u>	End Time: <u>09:29</u>
Ellip. Height: <u>1110'</u>	Data File Name: <u>INDY_073_DMA</u>	
Type of Mark: <u>Inside corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>conc DRIVE</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° & Clear</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





228-2-13MAR2012



228-3N-13MAR2012



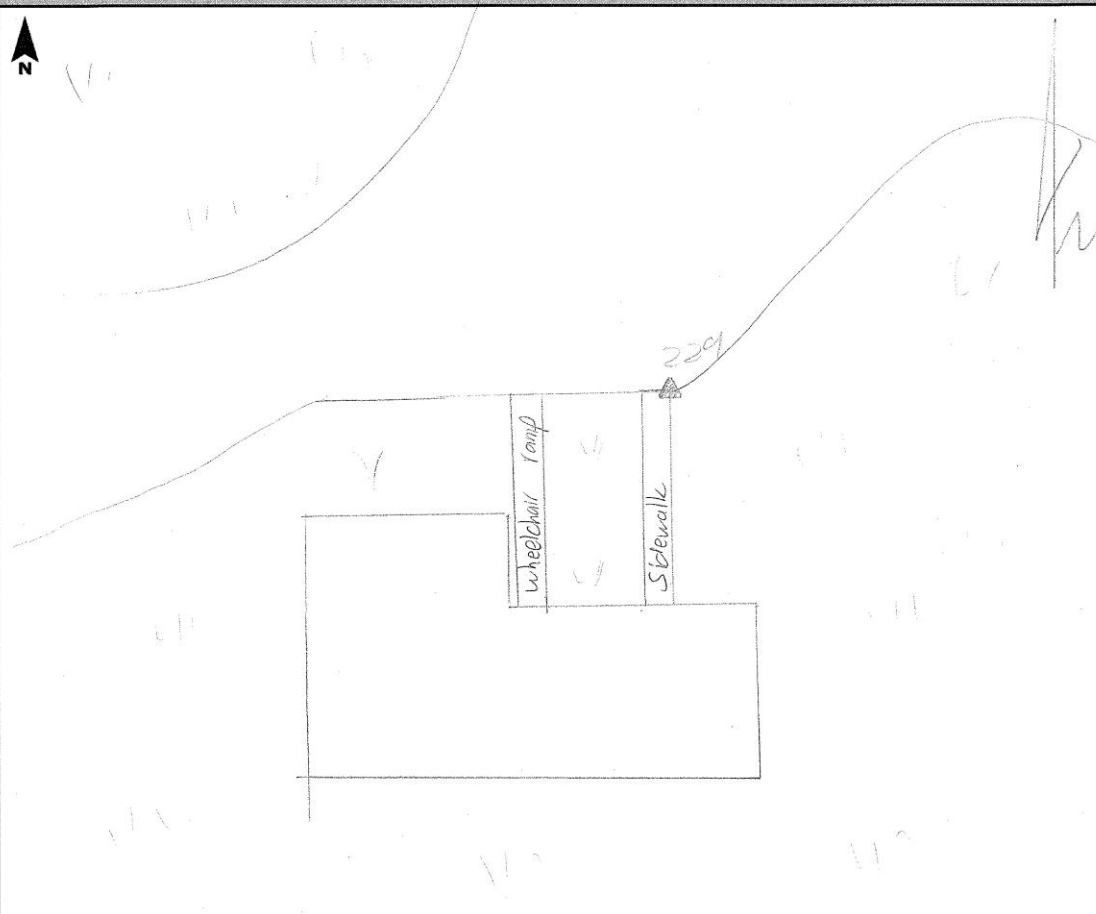
228-3E-13MAR2012

Floating

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>7234</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>229</u>	Operator Name: <u>David Hill</u>	
Latitude: <u>40° 00' 40.1"</u>	Julian Day: <u>074</u>	Session No. <u>1</u>
Longitude: <u>85° 12' 47.5"</u>	Start Time: <u>10:40</u>	End Time: <u>10:52</u>
Ellip. Height: <u>1041'</u>	Data File Name: <u>INDY_074_DWH</u>	
Type of Mark: <u>NE corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>conc walk</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° & Clear</u>	Antenna Height: <u>2.00m</u>	to bottom of antenna mount





229-2-14MAR2012



229-3N-14MAR2012



229-3E-14MAR2012

Bad Sats

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-14</u>
Station Name:	<u>230</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>40° 03' 35.0"</u>	Julian Day:	<u>074</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 14' 15.1"</u>	Start Time:	<u>11:21</u>	End Time:	<u>11:56</u>
Ellip. Height:	<u>981'</u>	Data File Name:	<u>INDY 074_DMHI</u>		
Type of Mark:	<u>Trade corner of</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:	<u>concrete walks</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60's & Clear</u>	Antenna Height:	<u>2.000m</u>	to bottom of antenna mount	





230-2-14MAR2012



230-3E-14MAR2012

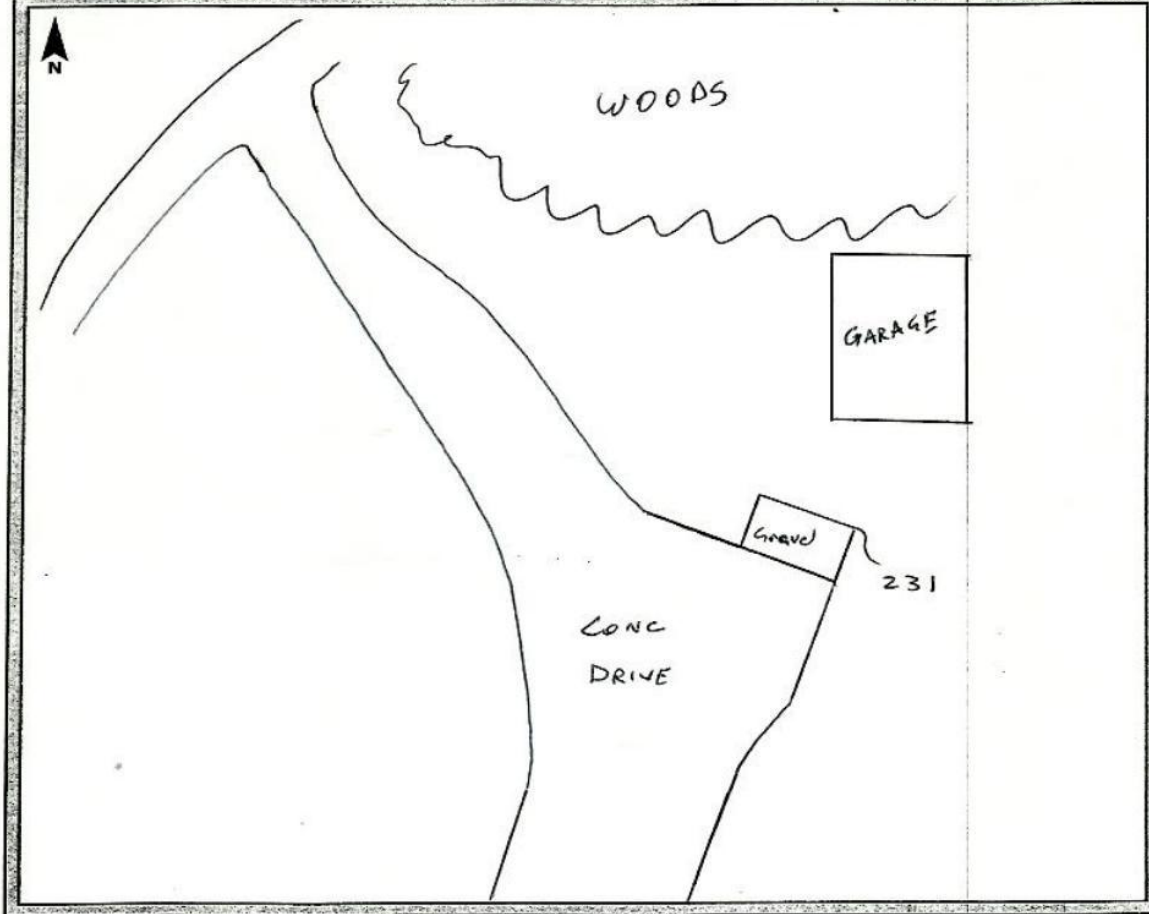


230-3N-14MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: 231 Operator Name: Stephen Schonegg
Latitude: 40-04-32.38 Julian Day: 074 Session No. _____
Longitude: 085-34-52.42 Start Time: 9:25 End Time: 9:30
Ellip. Height: .805.63 Data File Name: INDST14MAR12.SS
Type of Mark: Corner Gravel Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 FT to bottom of antenna mount





231-2-14MAR2012



231-3W-14MAR2012

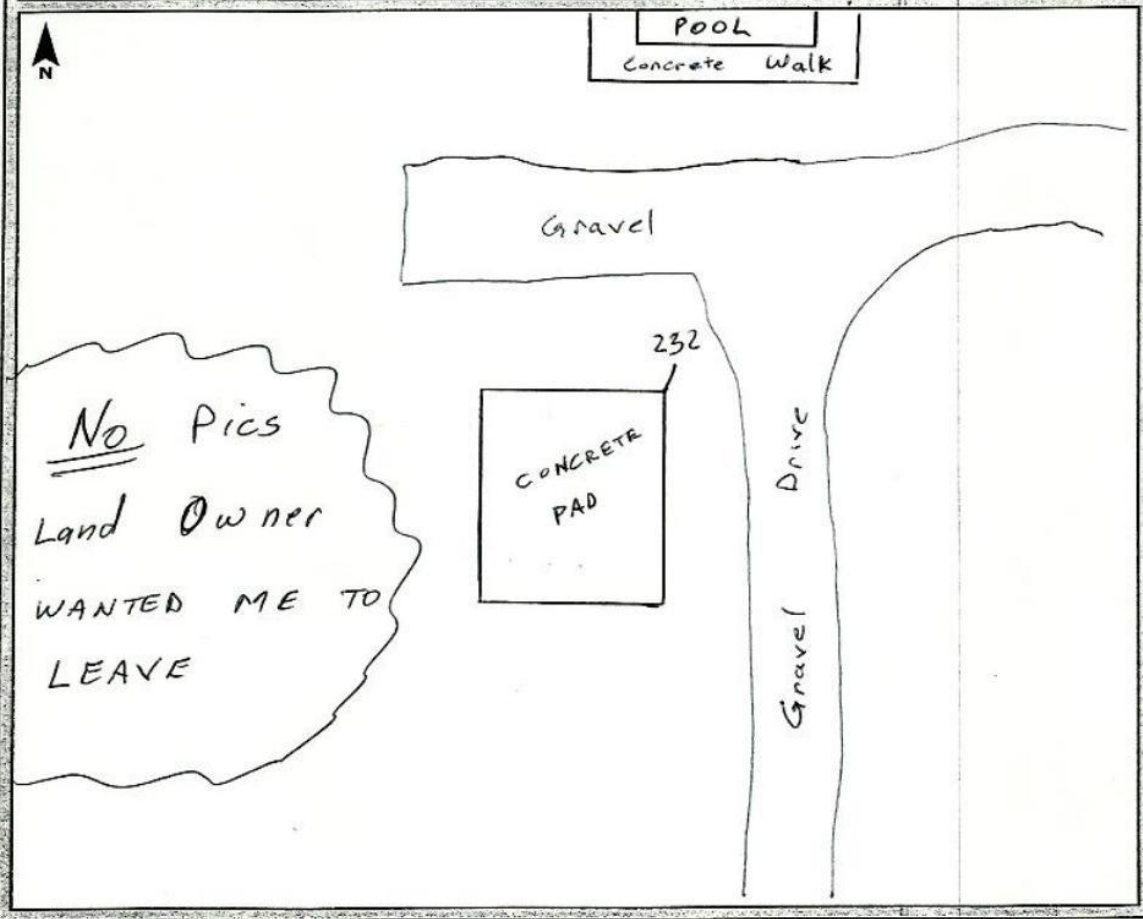


231-3N-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>232</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>39-57-05.33</u>	Julian Day: <u>074</u>	Start Time: <u>10:07</u> End Time: <u>10:12</u>
Longitude: <u>085-35-37.25</u>	Data File Name: <u>IND ST 14 MAR 12 SS</u>	Type of Receiver: <u>RB-2 #9357</u>
Ellip. Height: <u>886.56</u>	Type of Antenna: _____	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount
Type of Mark: <u>Corner Concrete Pad</u>	Weather Condition: <u>Sunny, 60°</u>	

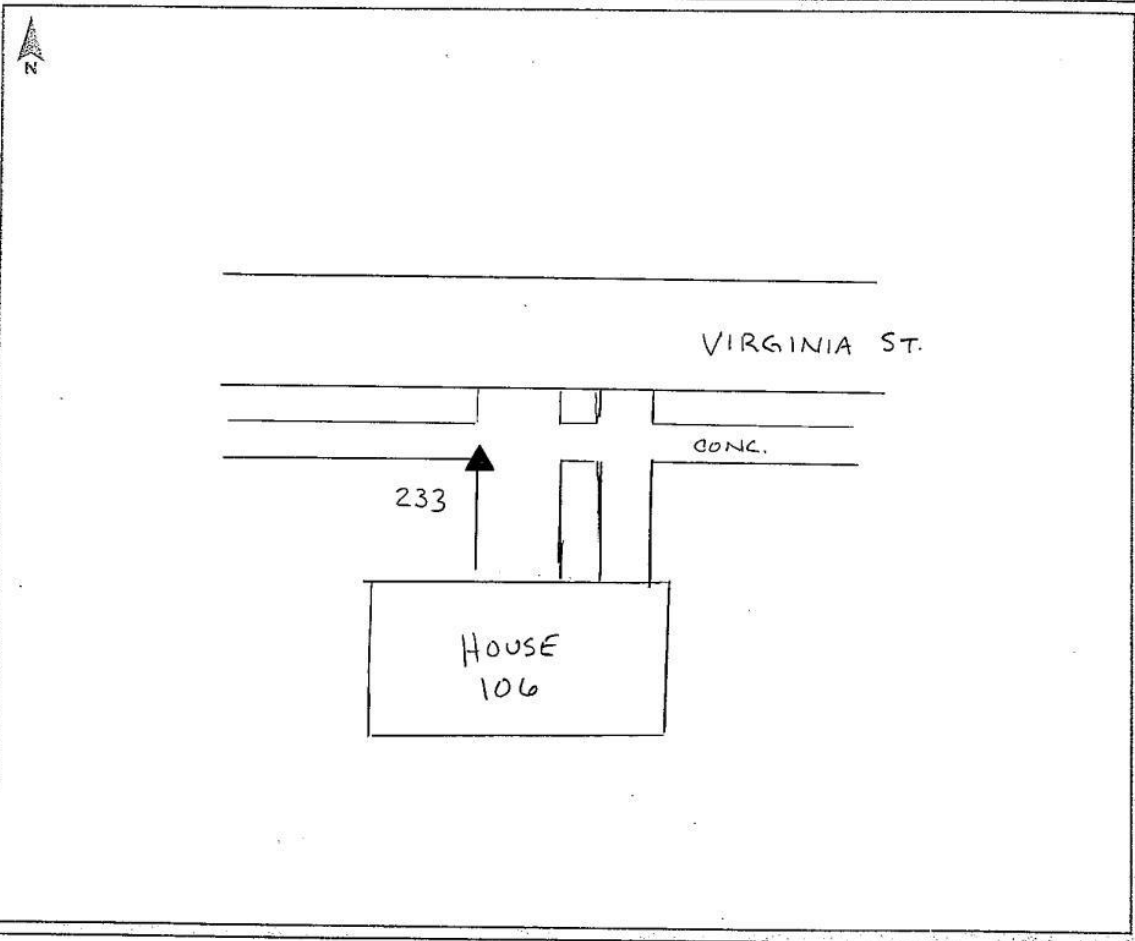


Landowner of #232 did not allow pictures to be taken.

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>233</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 35.54" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 51' 05.31" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>718.89</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





233-2-13MAR2012



233-3S-13MAR2012

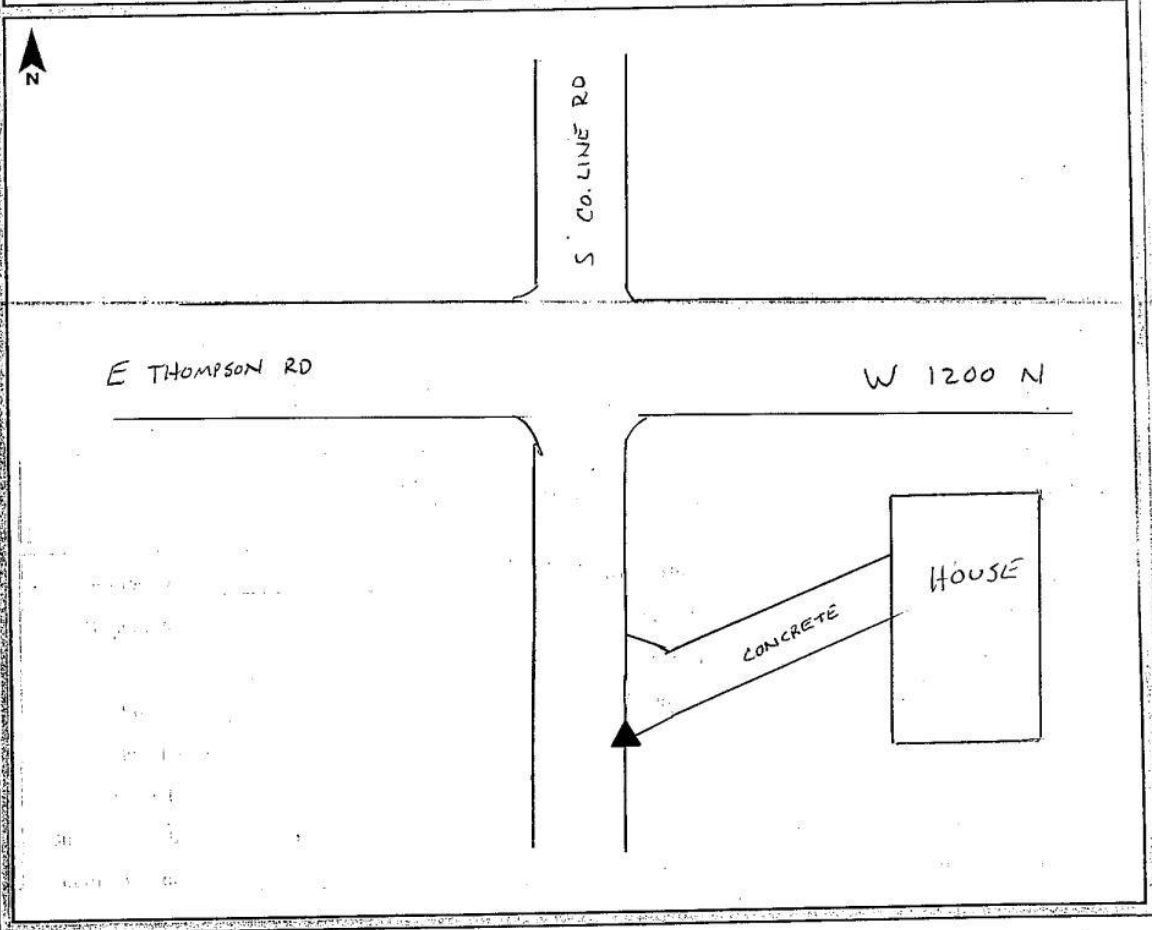


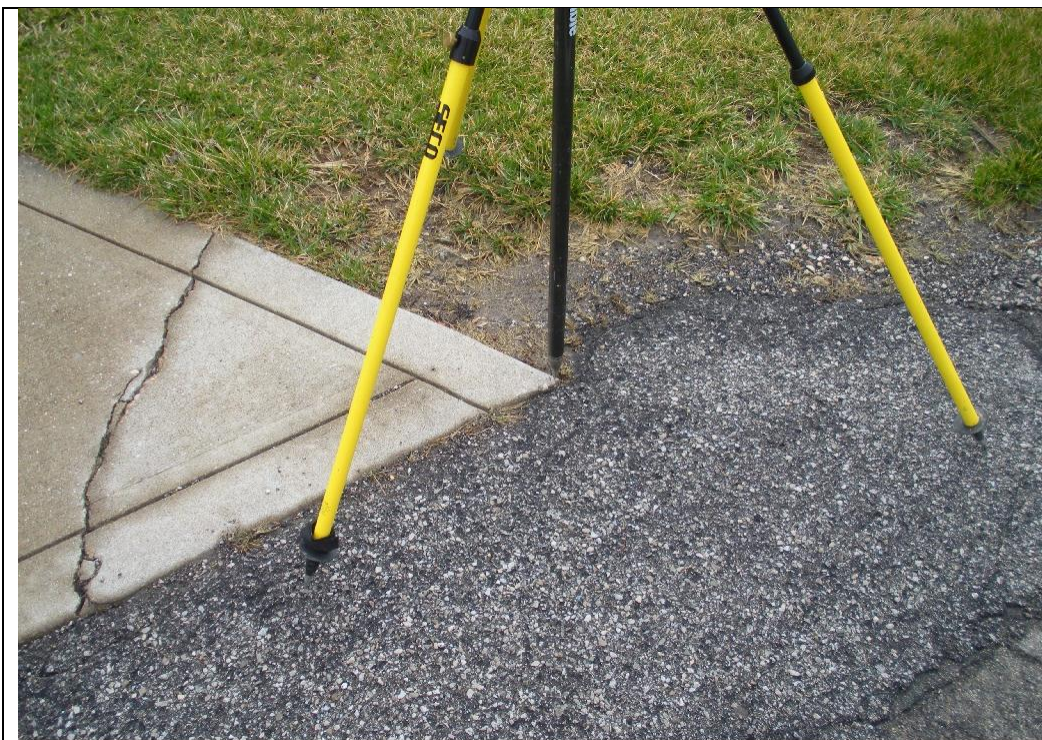
233-3E-13MAR2012

GPS Observation Log Sheet

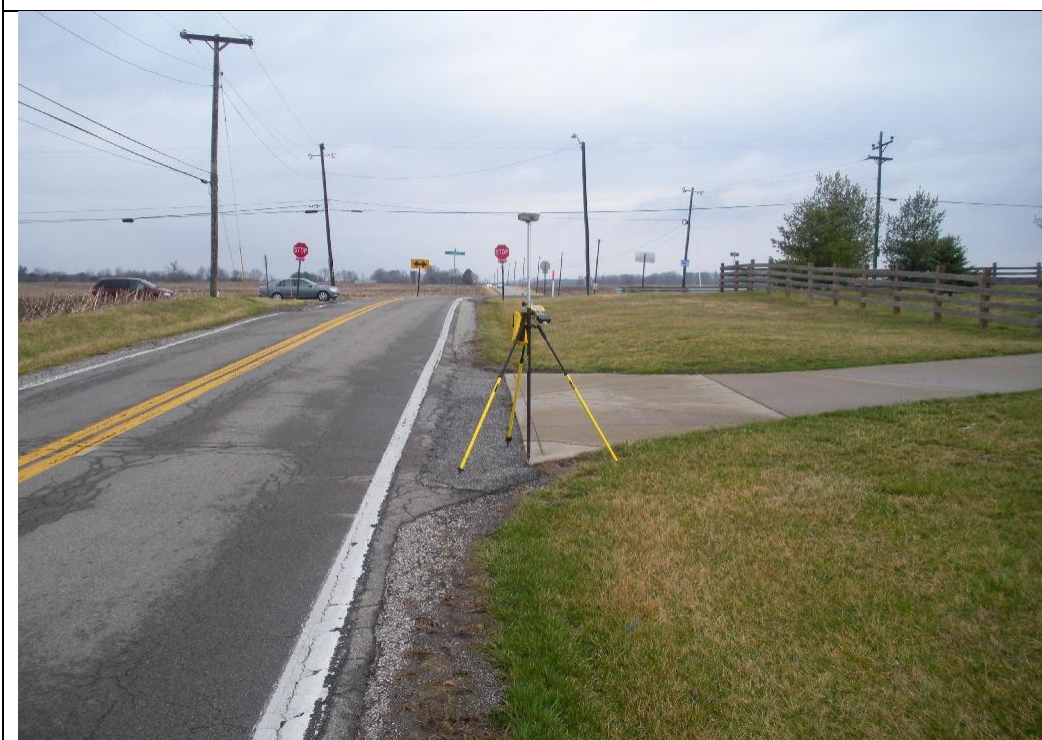


Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>234</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 41' 47.82" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 57' 06.08" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>697.66 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





234-2-12MAR2012

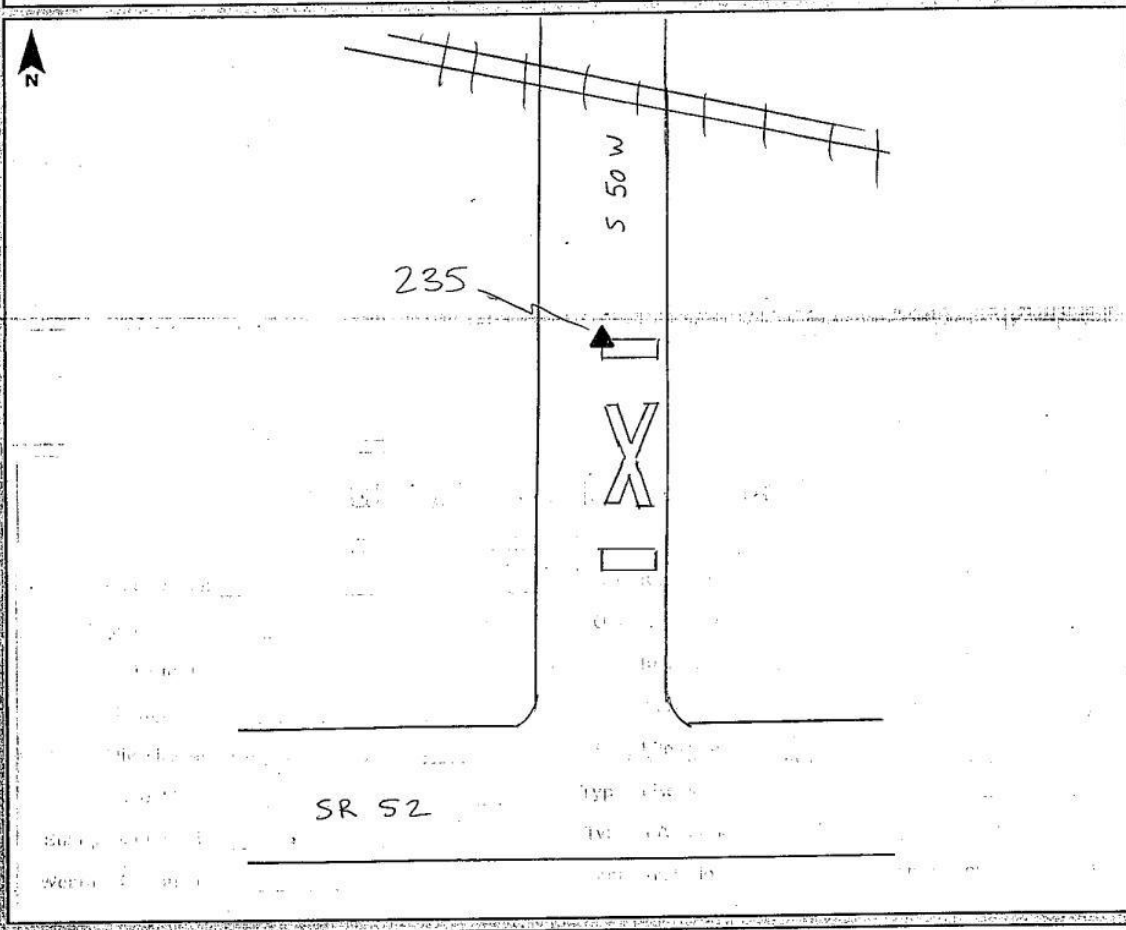


234-3N-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>235</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 42' 11.36" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 48' 35.29" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>728.29</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR. PAINT STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





235-2-12MAR2012



235-3W-12MAR2012

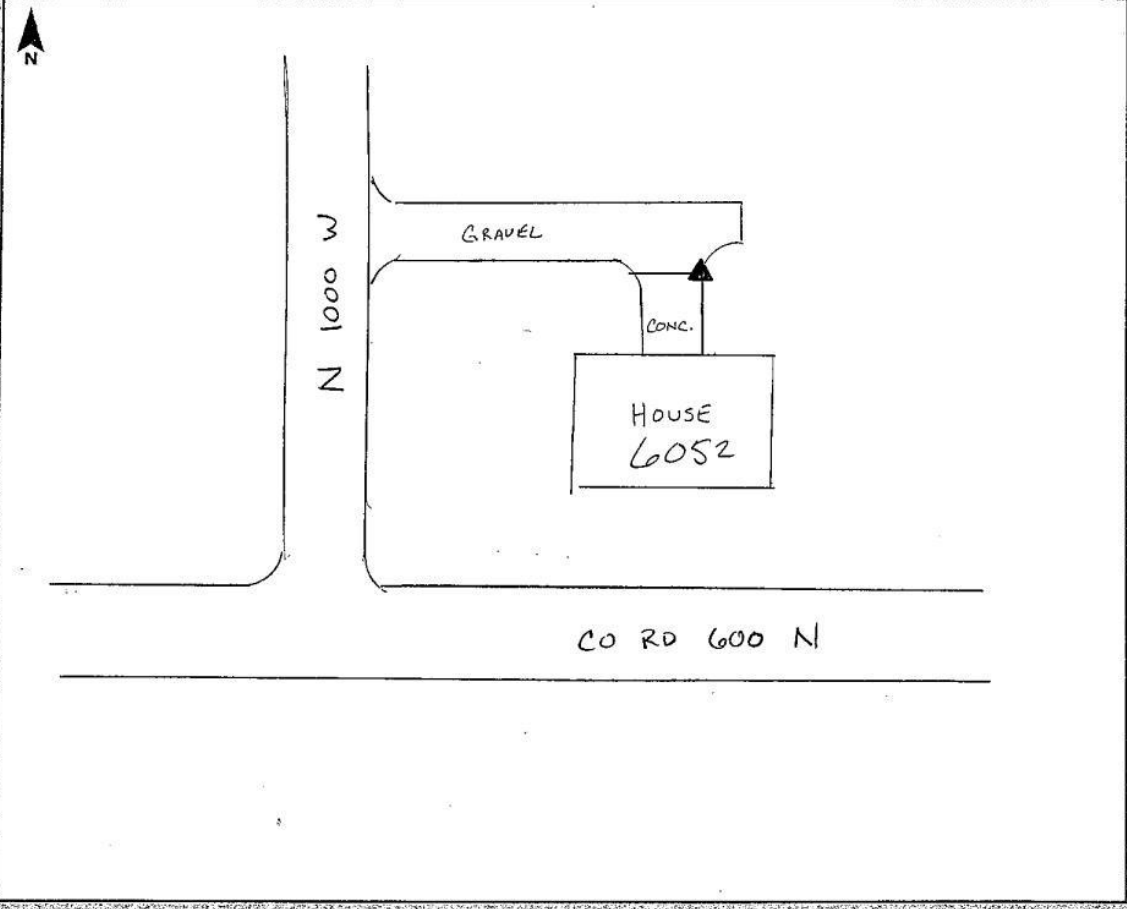


235-3N-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>236</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 41' 57.30" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 37' 57.49" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>817.25 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





236-2-12MAR2012



236-3N-12MAR2012

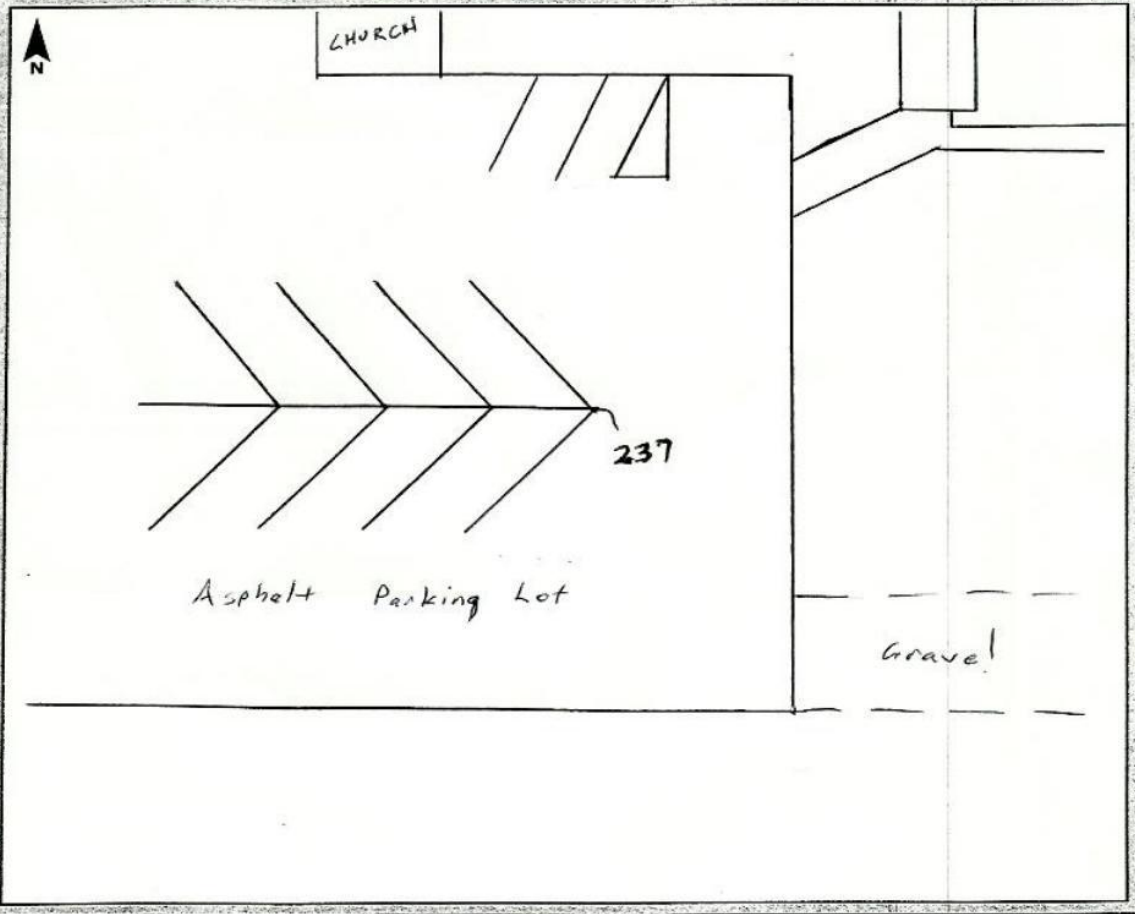


236-3E-12MAR2012

GPS Observation Log Sheet



Project Name:	<u>INDIANA STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>11 MAR 12</u>
Station Name:	<u>237</u>	Operator Name:	<u>Stephen Schonegg</u>		
Latitude:	<u>39-31-11.37</u>	Julian Day:	<u>071</u>	Session No.:	
Longitude:	<u>85-38-06.30</u>	Start Time:	<u>12:20</u>	End Time:	<u>12:27</u>
Ellip. Height:	<u>790.58 FT</u>	Data File Name:	<u>INDST11MAR12.SS</u>		
Type of Mark:	<u>PAINT STRIPE</u>	Type of Receiver:	<u>R8-2 #9357</u>		
Stamping on Mark:	<u>MAG NAIL</u>	Type of Antenna:			
Weather Condition:	<u>Sunny, 45°</u>	Antenna Height:	<u>6.562 FT</u> to bottom of antenna mount		





237-2-11MAR2012



237-3W-11MAR2012

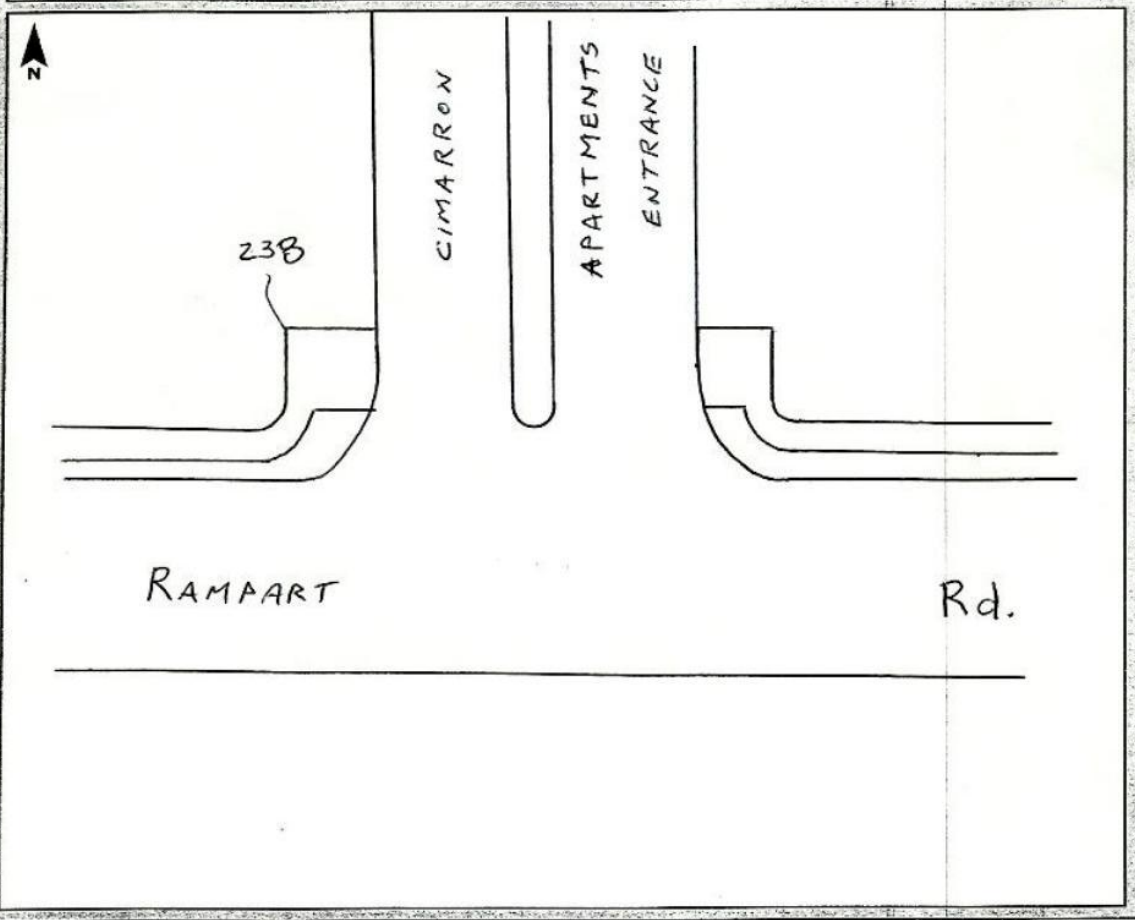


237-3N-11MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 11 MAR 12
Station Name: 238 Operator Name: Stephen Schonegg
Latitude: 39-23-51.56 Julian Day: 071 Session No. _____
Longitude: 085-46-53.83 Start Time: 1:23 End Time: 1:28
Ellip. Height: 676.623 Data File Name: INDST11MAR12SS
Type of Mark: Corner Concrete Walk Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50°, Windy Antenna Height: 6.562 ft to bottom of antenna mount





238-2-11MAR2012



238-3N-11MAR2012

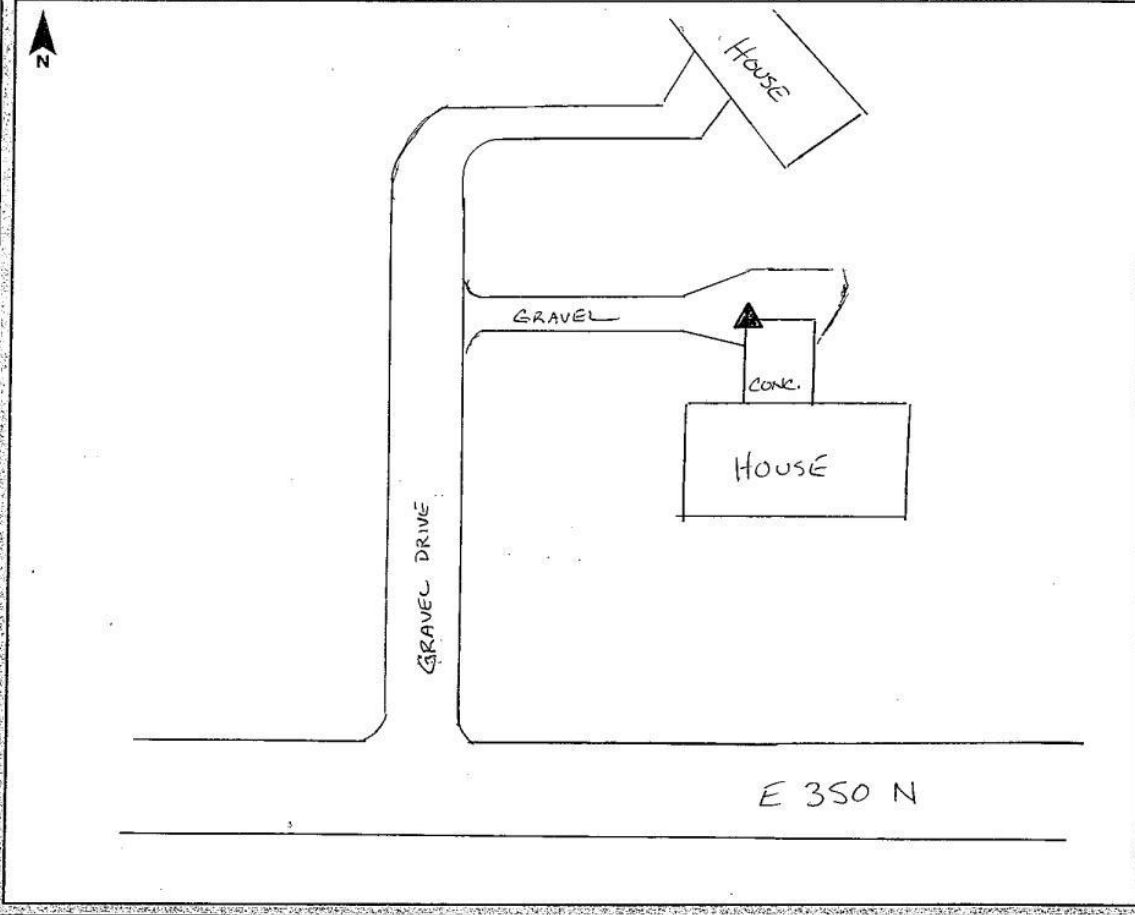


238-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>239</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 31' 55.26" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 57' 38.45</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>613.46</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





239-2-12MAR2012



239-3N-12MAR2012

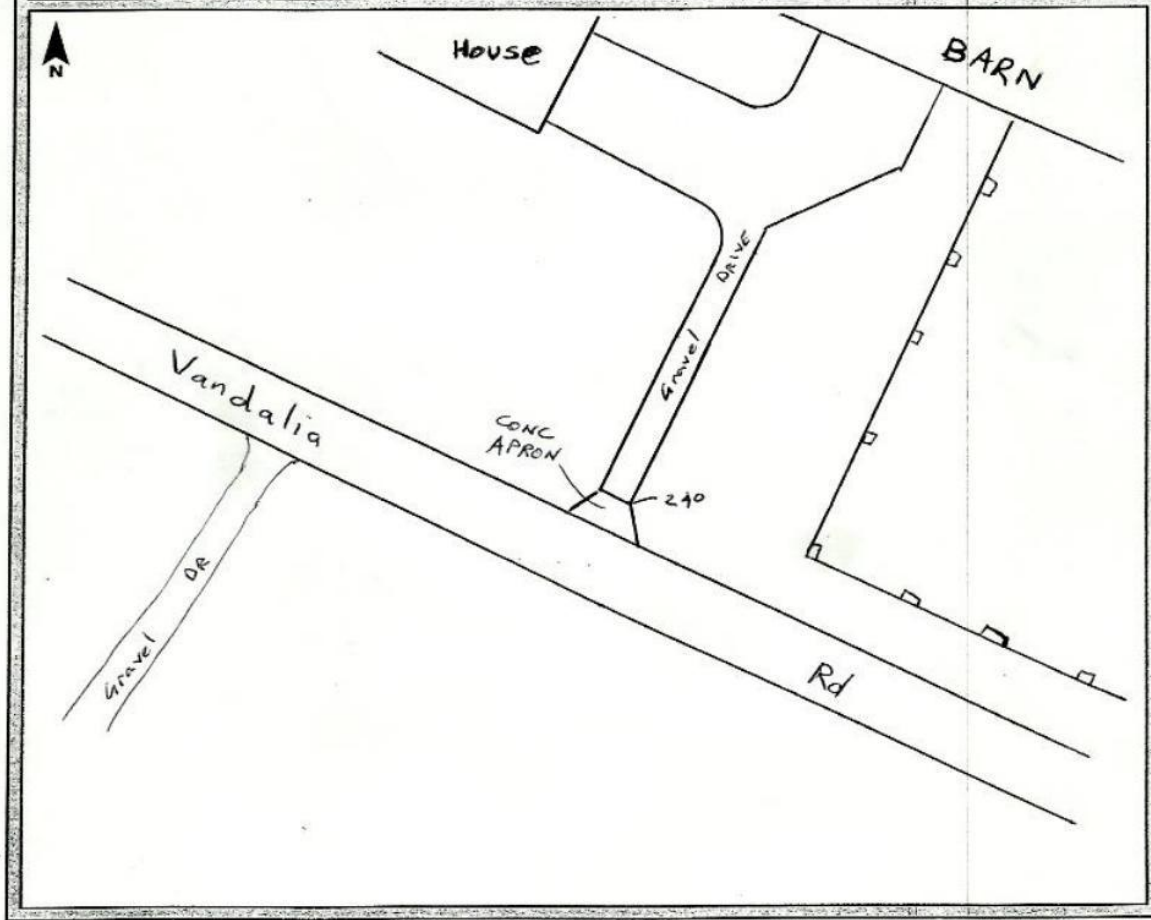


239-3E-12MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 11 MAR 12
Station Name: 240 Operator Name: Stephen Schonegg
Latitude: 39-22-32.35 Julian Day: 071 Session No. _____
Longitude: 085-38-59.73 Start Time: 11:10 End Time: 11:14
Ellip. Height: 726.51 FT Data File Name: INDST11MAR1255
Type of Mark: Corner Concrete Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 45° Antenna Height: 6.562 FT to bottom of antenna mount





240-2-11MAR2012



240-3N-11MAR2012

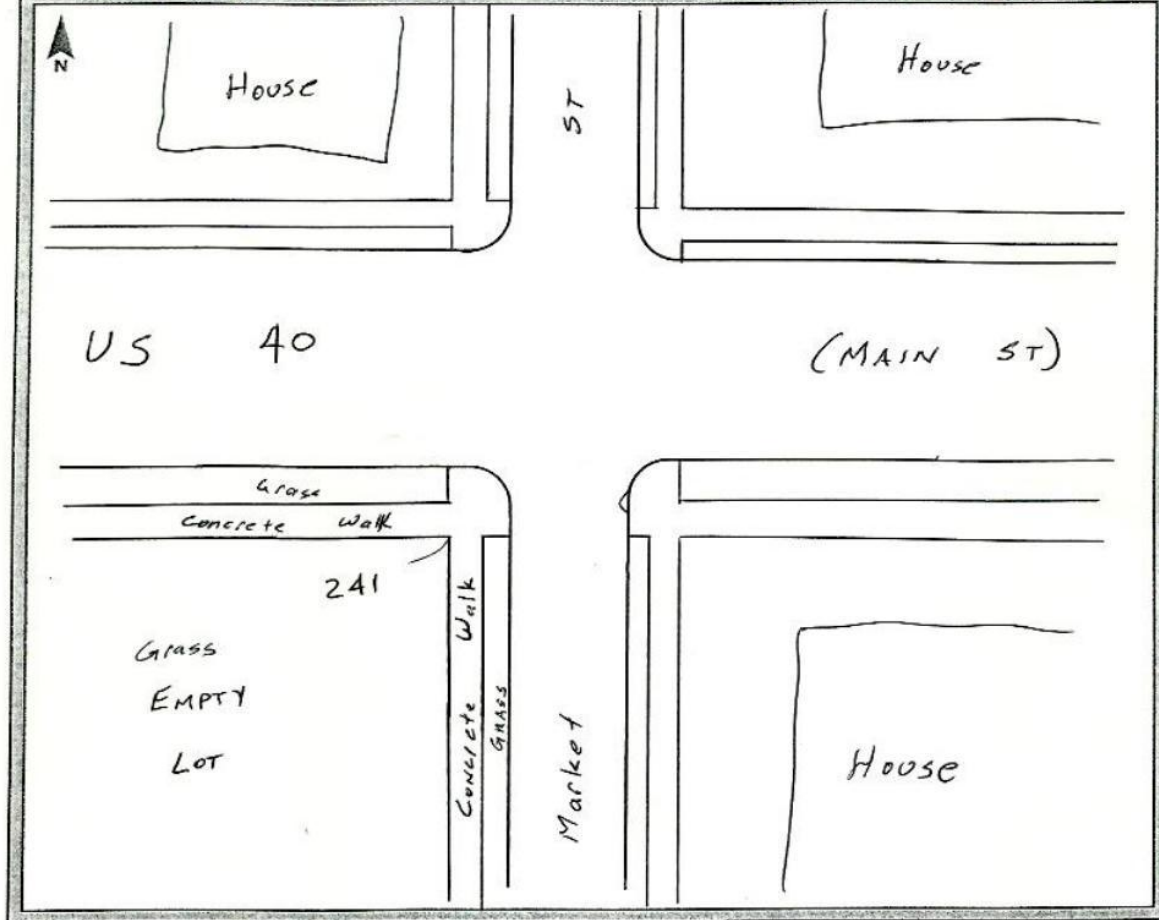


240-3E-11MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>241</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-18-24.25</u>	Julian Day: <u>074</u>	Session No. _____
Longitude: <u>085-21-16.36</u>	Start Time: <u>2:41</u>	End Time: <u>2:46</u>
Ellip. Height: <u>929.82</u>	Data File Name: <u>INDST14MAR12SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





241-2-14MAR2012



241-3N-14MAR2012

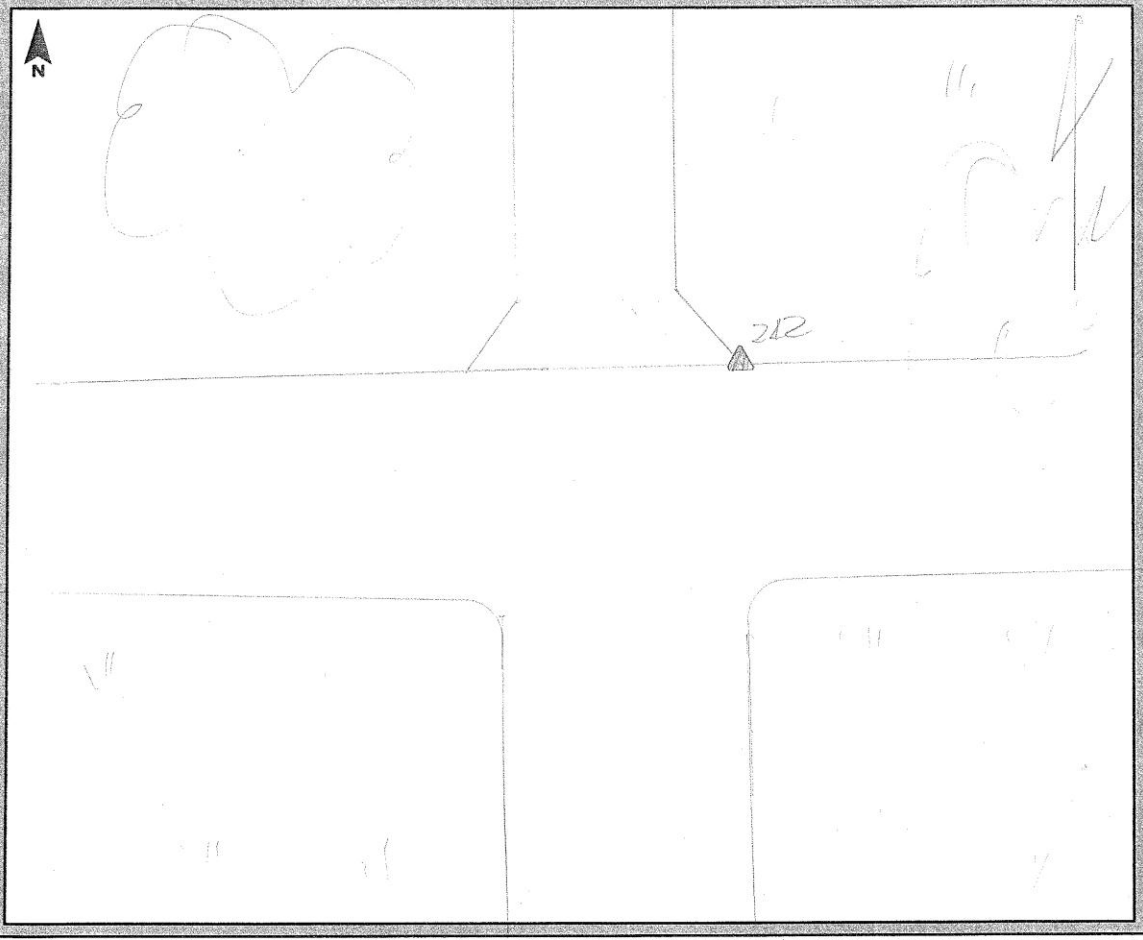


241-3E-14MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-13</u>
Station Name: <u>242</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 42' 01.8"</u>	Julian Day: <u>073</u>	Session No. <u>1</u>
Longitude: <u>85° 05' 05.0"</u>	Start Time: <u>13154</u>	End Time: <u>1415</u>
Ellip. Height: <u>860'</u>	Data File Name: <u>INDY_073_DMH</u>	
Type of Mark: <u>Corner of conc</u>	Type of Receiver: <u>RE-3</u>	
Stamping on Mark: <u>Driveway</u>	Type of Antenna: <u>RE-3</u>	
Weather Condition: <u>Sunny & 60's</u>	Antenna Height: <u>2.000M</u>	to bottom of antenna mount

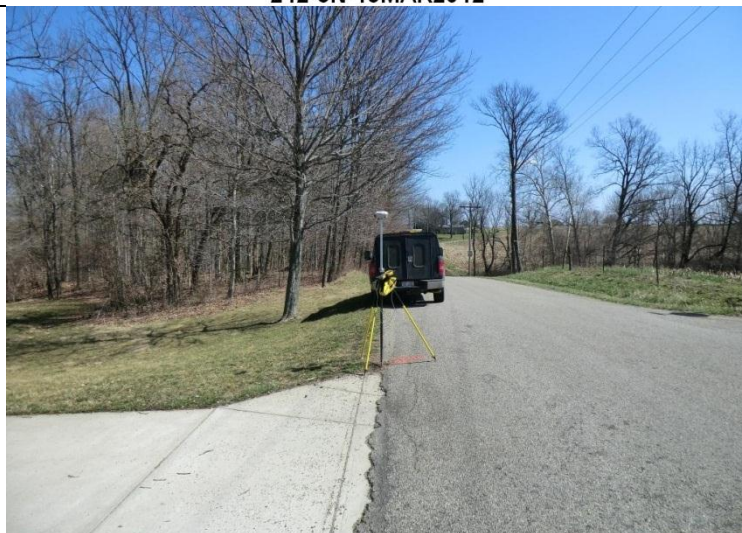




242-2-13MAR2012



242-3N-13MAR2012

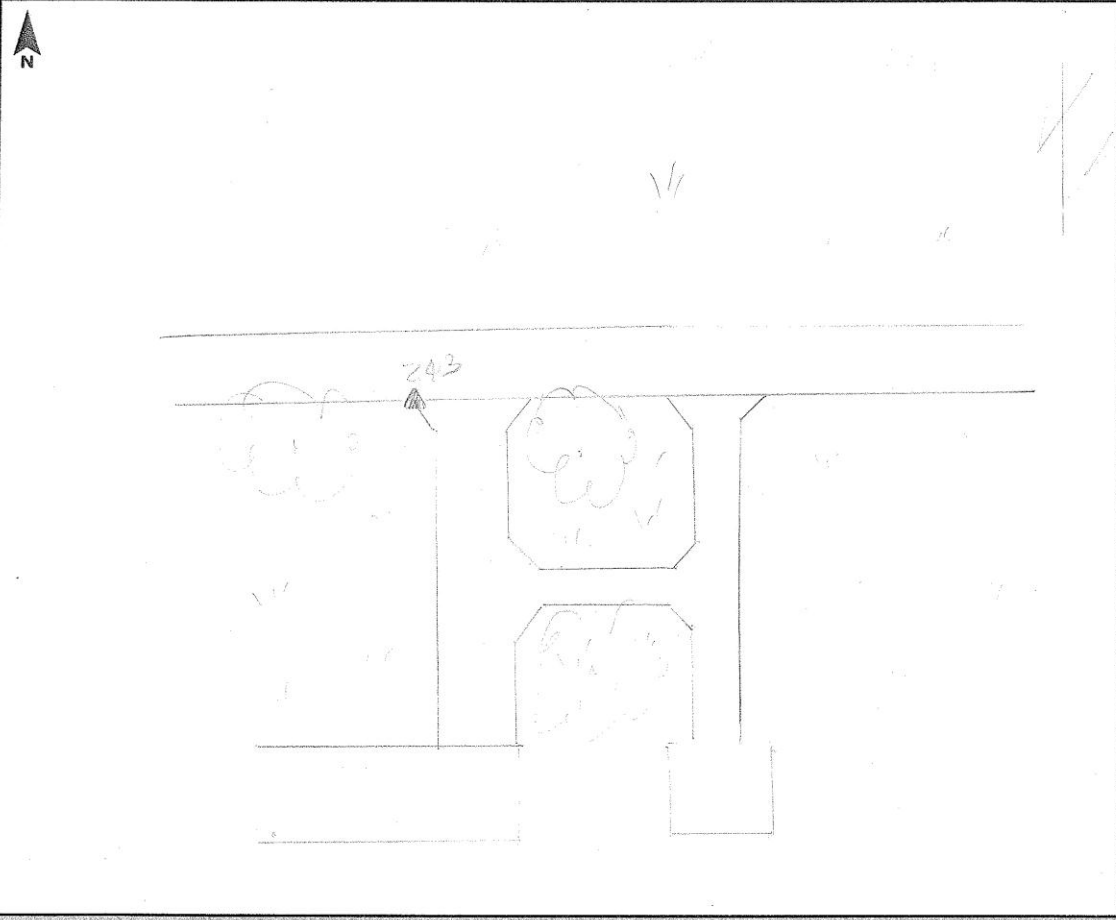


242-3E-13MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 200</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-2</u>
Station Name:	<u>243</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>39° 30' 58.0"</u>	Julian Day:	<u>072</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 04' 55.0"</u>	Start Time:	<u>11:42</u>	End Time:	<u>11:49</u>
Ellip. Height:	<u>815'</u>	Data File Name:	<u>TNDY_072_DMH</u>		
Type of Mark:	<u>Corner of</u>	Type of Receiver:	<u>RB-3</u>		
Stamping on Mark:	<u>Concrete Drive</u>	Type of Antenna:	<u>RB-3</u>		
Weather Condition:	<u>60° overcast</u>	Antenna Height:	<u>200cm</u>	to bottom of antenna mount	





243-2-12MAR2012



243-3N-12MAR2012

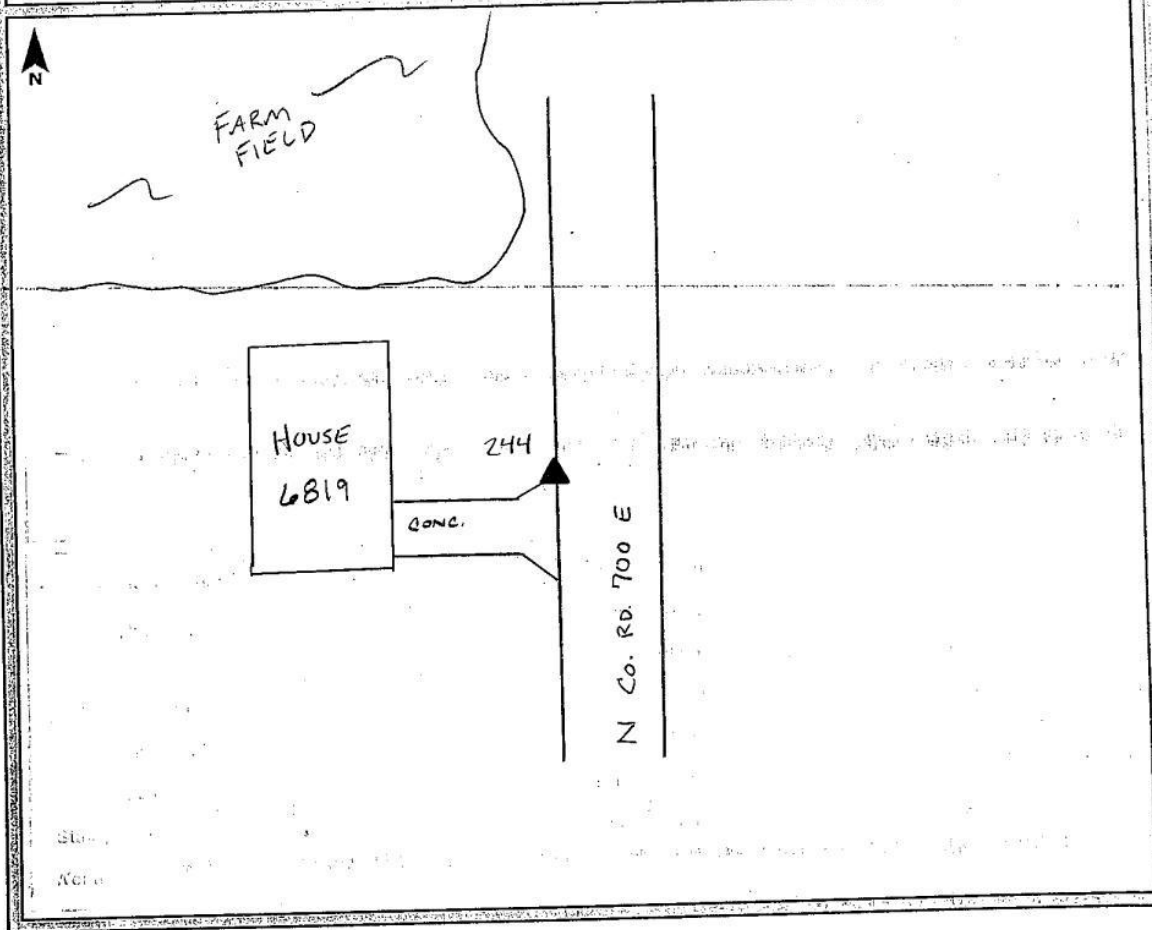


243-3E-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>244</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 26' 18.19" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 20' 51.79" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>947.32 SFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





244-2-11MAR2012



244-3S-11MAR2012

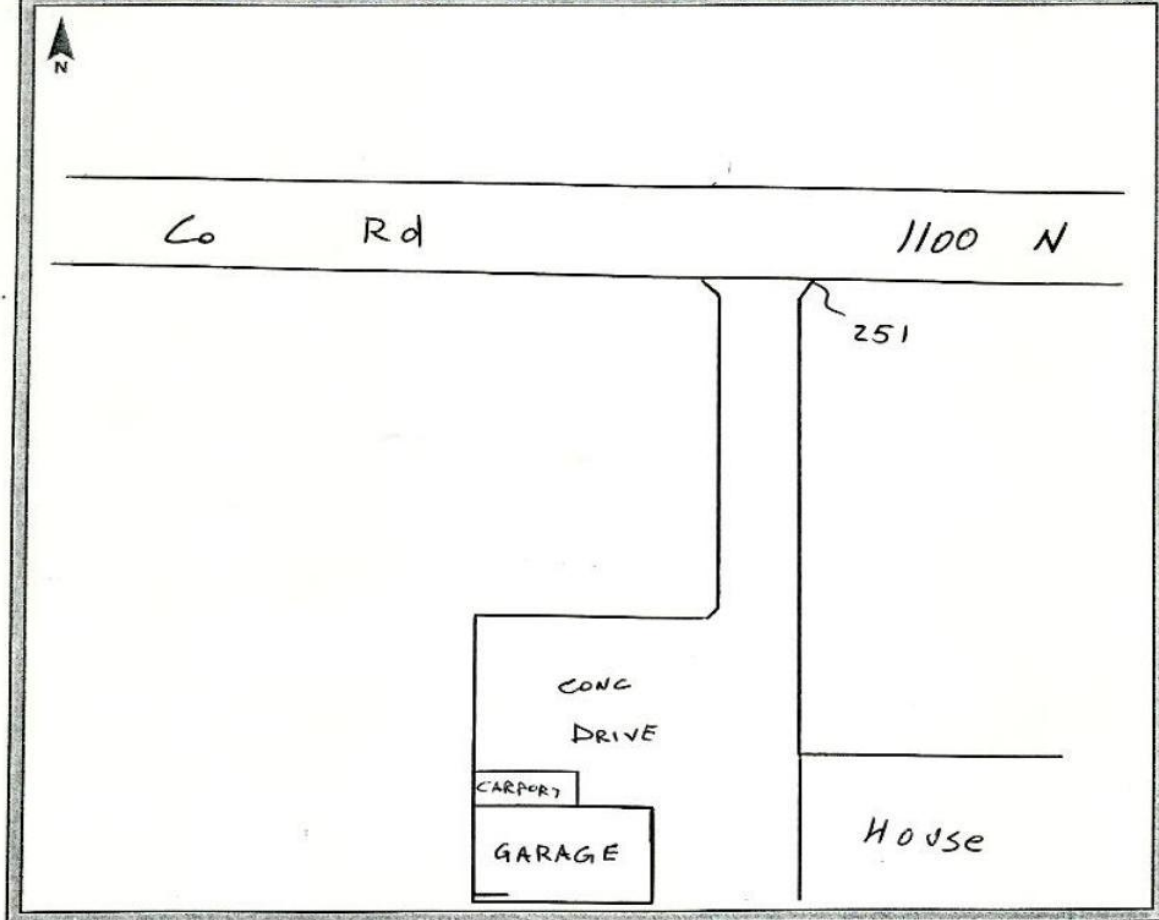


244-3E-11MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: 251 Operator Name: Stephen Schonegg
Latitude: 39-56-12.51 Julian Day: 074 Session No. _____
Longitude: 085-43-36.48 Start Time: 10:31 End Time: 10:36
Ellip. Height: 790.29 Data File Name: INDST14MAR12SS
Type of Mark: Corner Conc Dr Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 Ft to bottom of antenna mount





251-2-14MAR2012



251-3N-14MAR2012

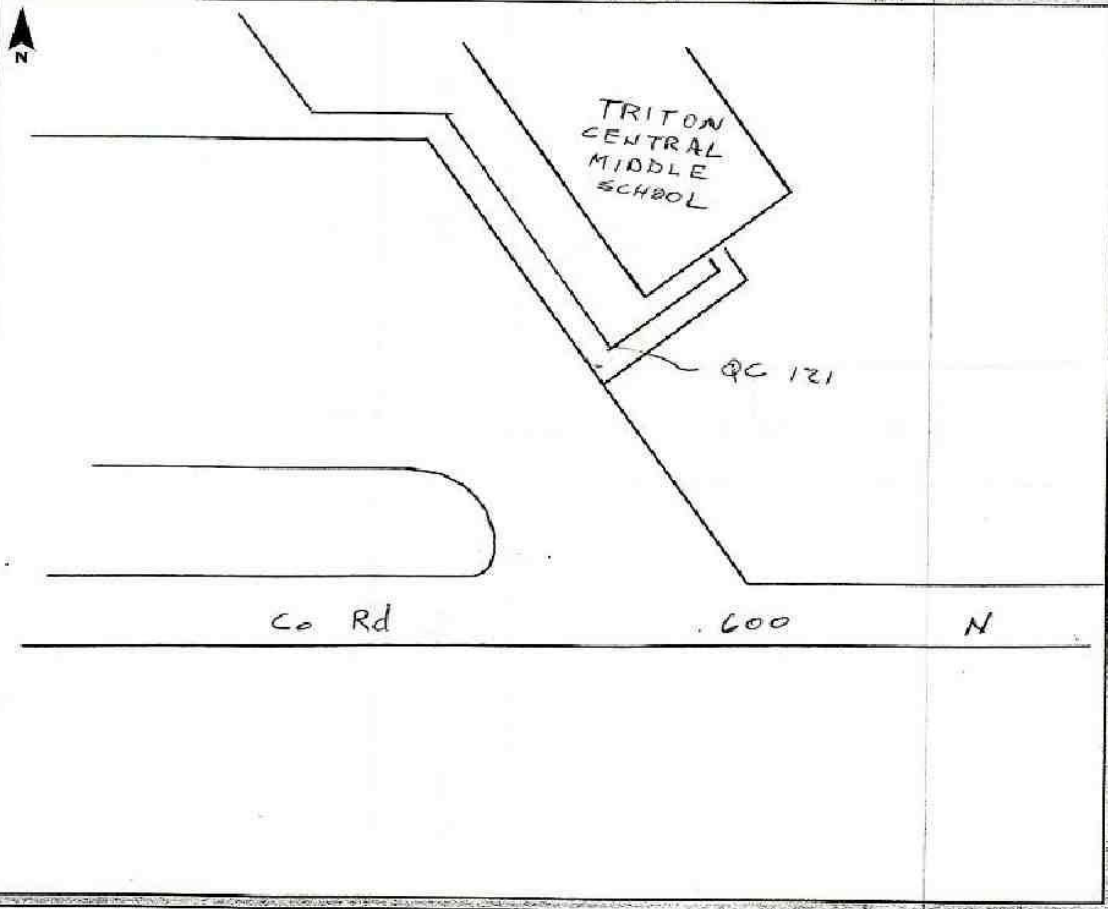


251-3W-14MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 13 MAR 12
Station Name: QC 121 Operator Name: Stephen Schonegg
Latitude: 39-36-43.97 Julian Day: 073 Session No. _____
Longitude: 085-52-11.29 Start Time: 6:01 End Time: 6:05
Ellip. Height: 687.29 Data File Name: INDST 13 MAR 12 SS
Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 70° Antenna Height: 6.562 FT to bottom of antenna mount





QC 121-2-13MAR2012



QC 121-3N-13MAR-2012

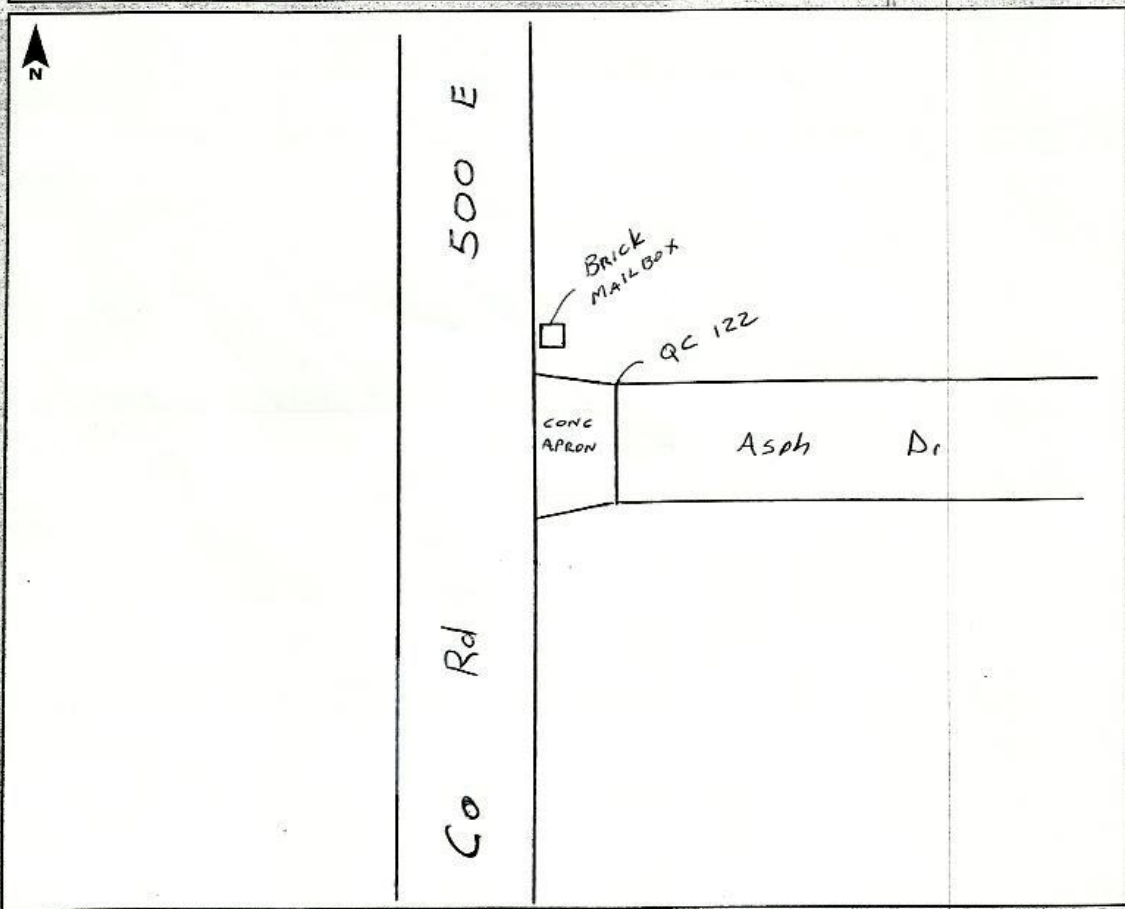


QC 121-3E-13MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>11 MAR 12</u>
Station Name: <u>QC 122</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-36-01.34</u>	Julian Day: <u>071</u>	Session No. _____
Longitude: <u>85-41-09.58</u>	Start Time: <u>12:50</u>	End Time: <u>12:55</u>
Ellip. Height: <u>746.43 FT</u>	Data File Name: <u>INDST11MAR12SS</u>	
Type of Mark: <u>Corner Concrete Apron</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 50°, Windy</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 122-2-11MAR2012



QC 122-3N-11MAR2012

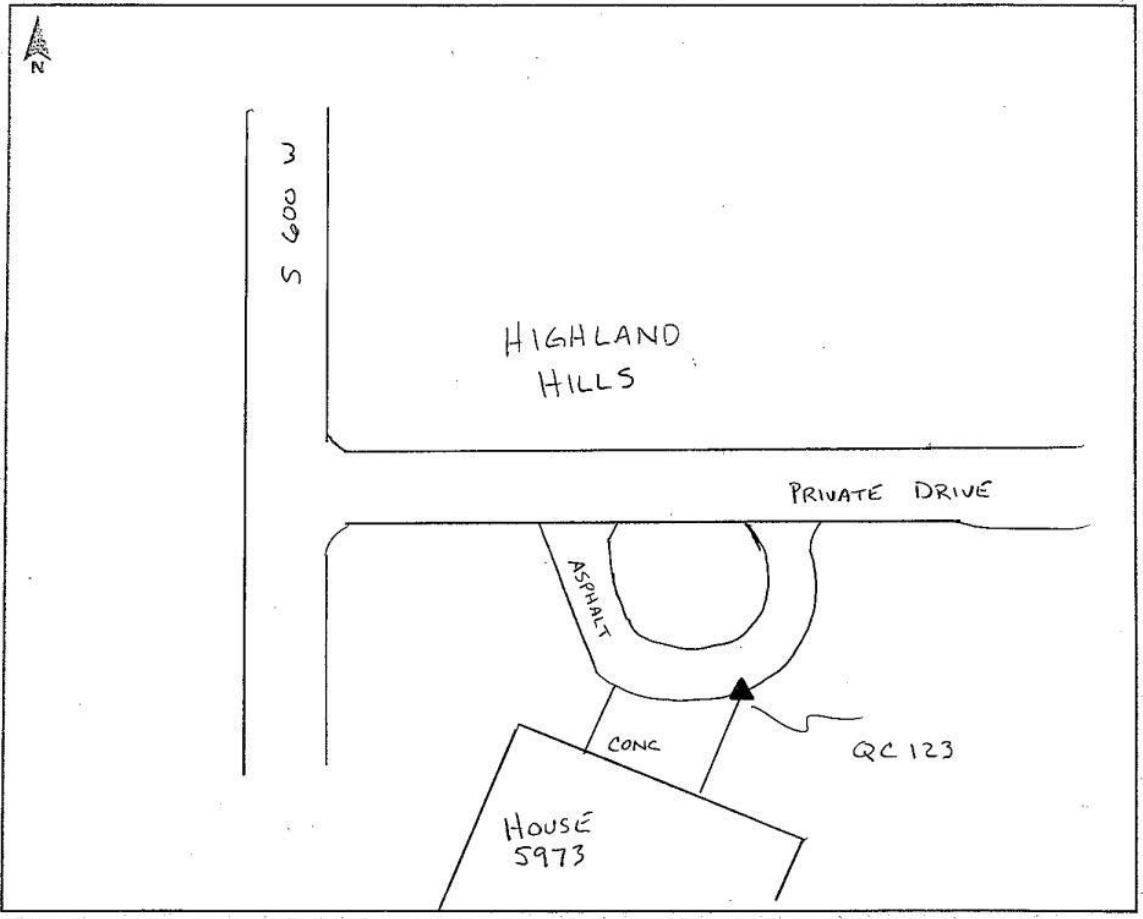


QC 122-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>QC 123</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 24' 09.08" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 53' 35.57" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>735.10 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC123-2-12MAR2012



QC123-3S-12MAR2012

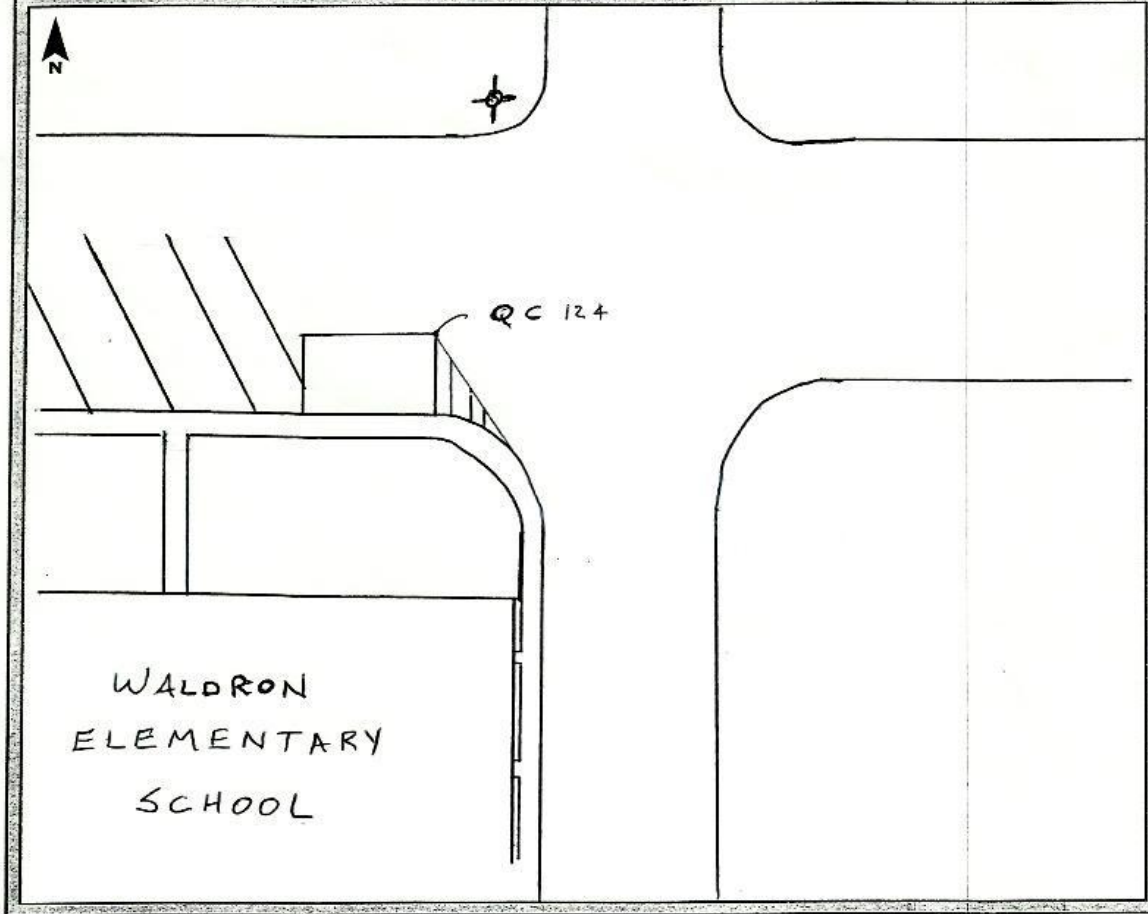


QC123-3N-12MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 11 MAR 12
Station Name: QC 124 Operator Name: Stephen Schonegg
Latitude: 39-27-07.02 Julian Day: 071 Session No. _____
Longitude: 085-39-35.44 Start Time: 11:45 End Time: 11:49
Ellip. Height: 717.93 Data File Name: IND ST 11 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: R8-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 45° Antenna Height: 6.562 FT to bottom of antenna mount





QC 124-2-11MAR2012



QC 124-3S-11MAR2012

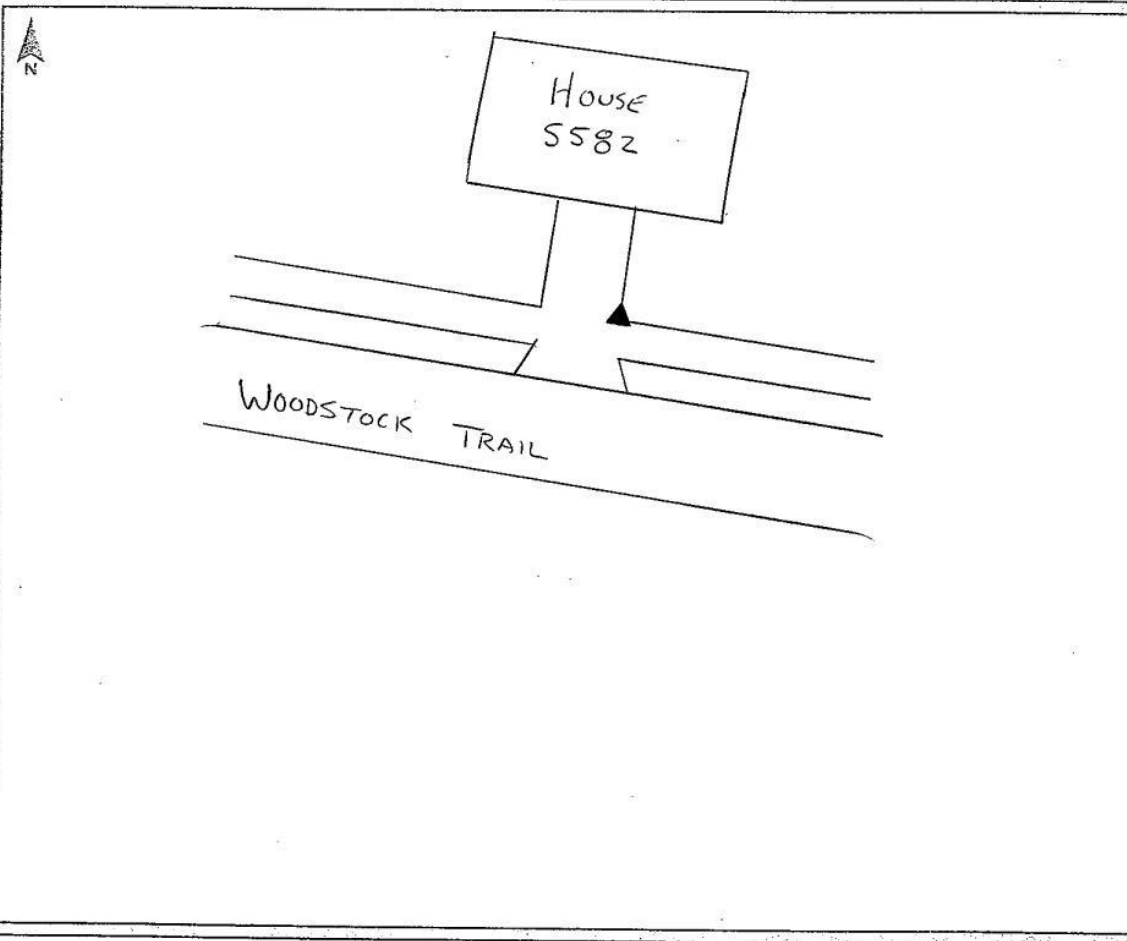


QC 124-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>QC125</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 52' 13.88" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 54' 39.62" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>730.23</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC125-2-13MAR2012



QC125-3W-13MAR2012

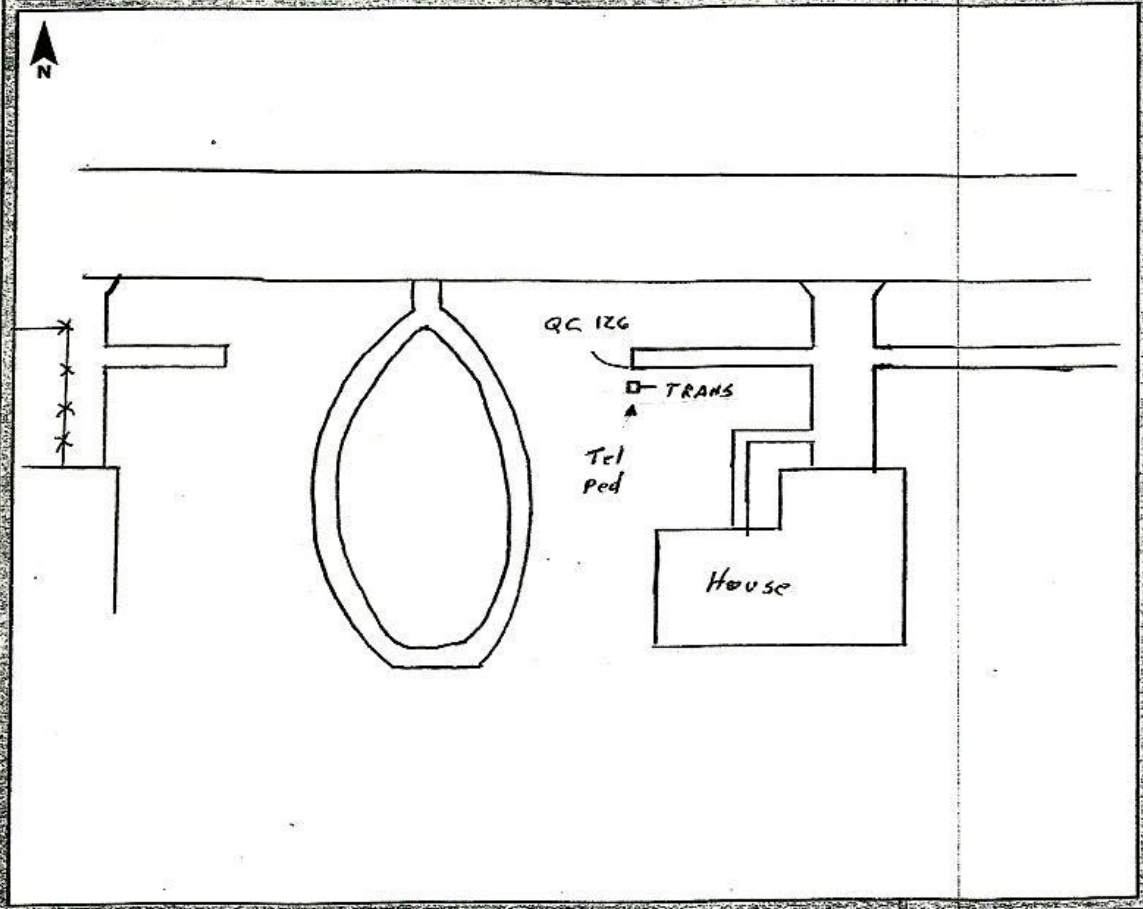


QC125-3N-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: QC 126A Operator Name: Stephen Schonegg
Latitude: 39-47-57.42 Julian Day: 074 Session No. _____
Longitude: 085-43-50.07 Start Time: 11:03 End Time: 11:08
Ellip. Height: .781076 Data File Name: IND ST 14 MAR 12 55
Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 126A-2-13MAR2012



QC 126A-3W-13MAR2012

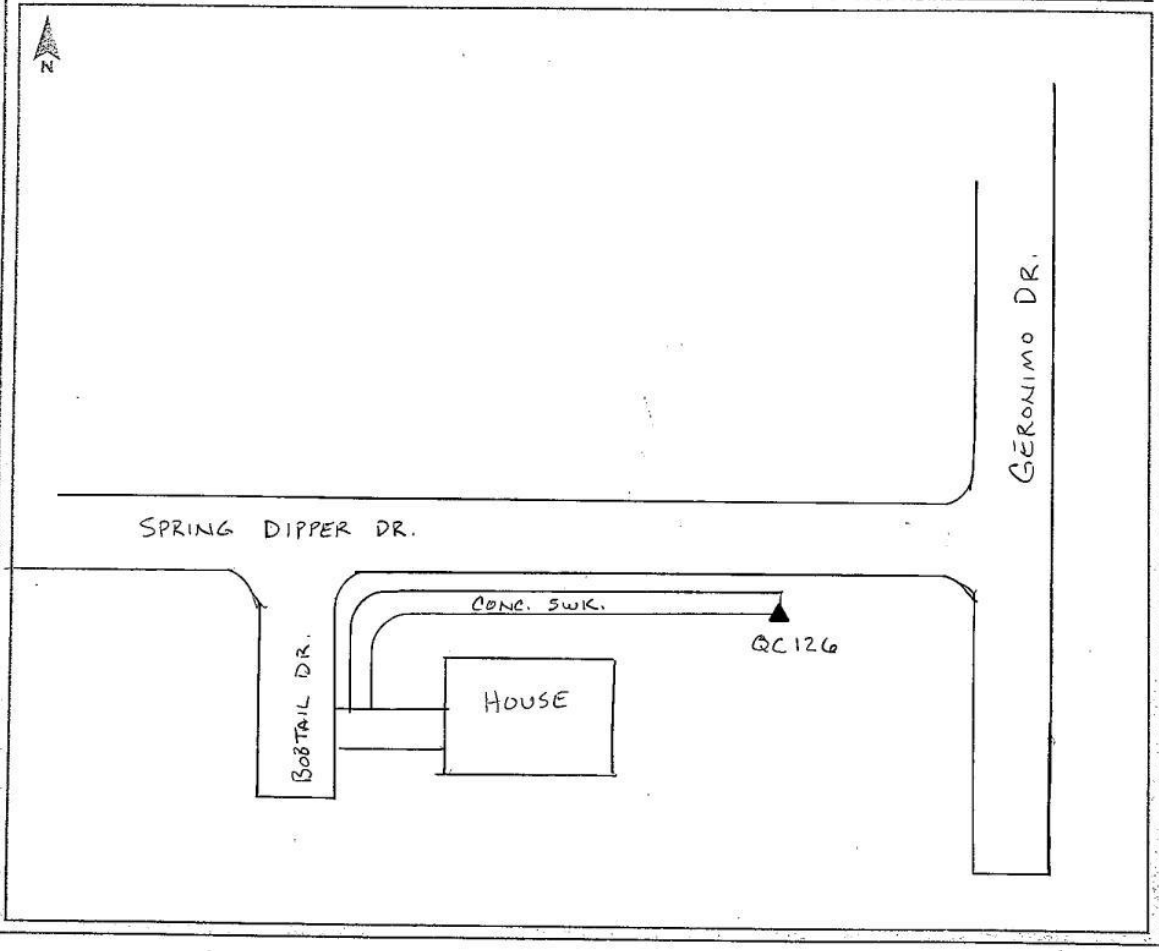


QC 126A-3N-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/13/2012</u>
Station Name: <u>QC 126B</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>39° 47' 54.50" N</u>	Julian Day: <u>073</u> Session No. <u>—</u>
Longitude: <u>85° 43' 45.95" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>760.92 sft</u>	Data File Name: <u>—</u>
Type of Mark: <u>SE COR SIDEWALK</u>	Type of Receiver: <u>R8</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>
Weather Condition: <u>65° CLEAR</u>	Antenna Height: <u>2M</u> to bottom of antenna mount





QC 126B-2-13MAR2012



QC 126B-3E-13MAR2012

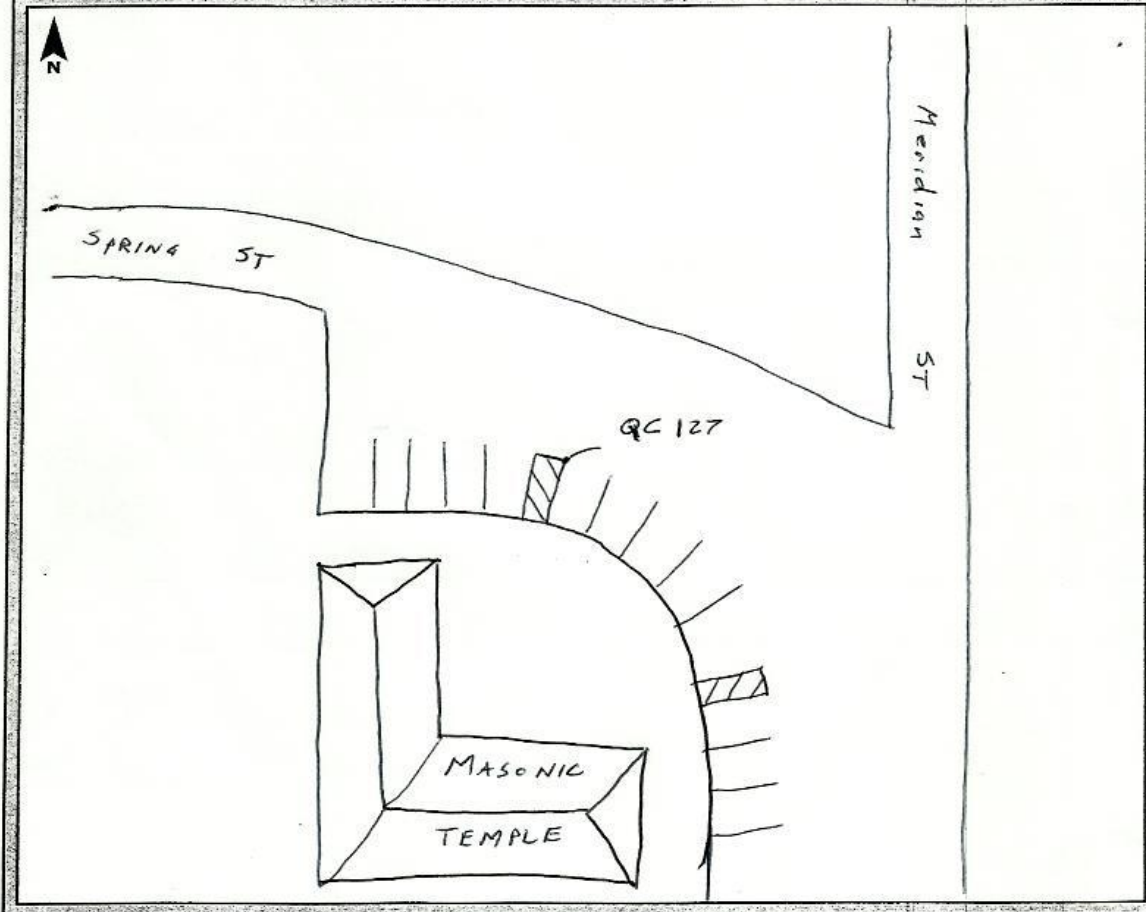


QC 126B-3S-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: MAR 12
Station Name: QC 127 Operator Name: Stephen Schonegg
Latitude: 40-00-22.79 Julian Day: 074 Session No. _____
Longitude: 085-26-36.48 Start Time: 8:53 End Time: 8:58
Ellip. Height: 937.32 FT Data File Name: INDST 14 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: R8-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, Antenna Height: 6.562 FT to bottom of antenna mount





QC 127-2-14MAR2012



QC 127-3W-14MAR2012

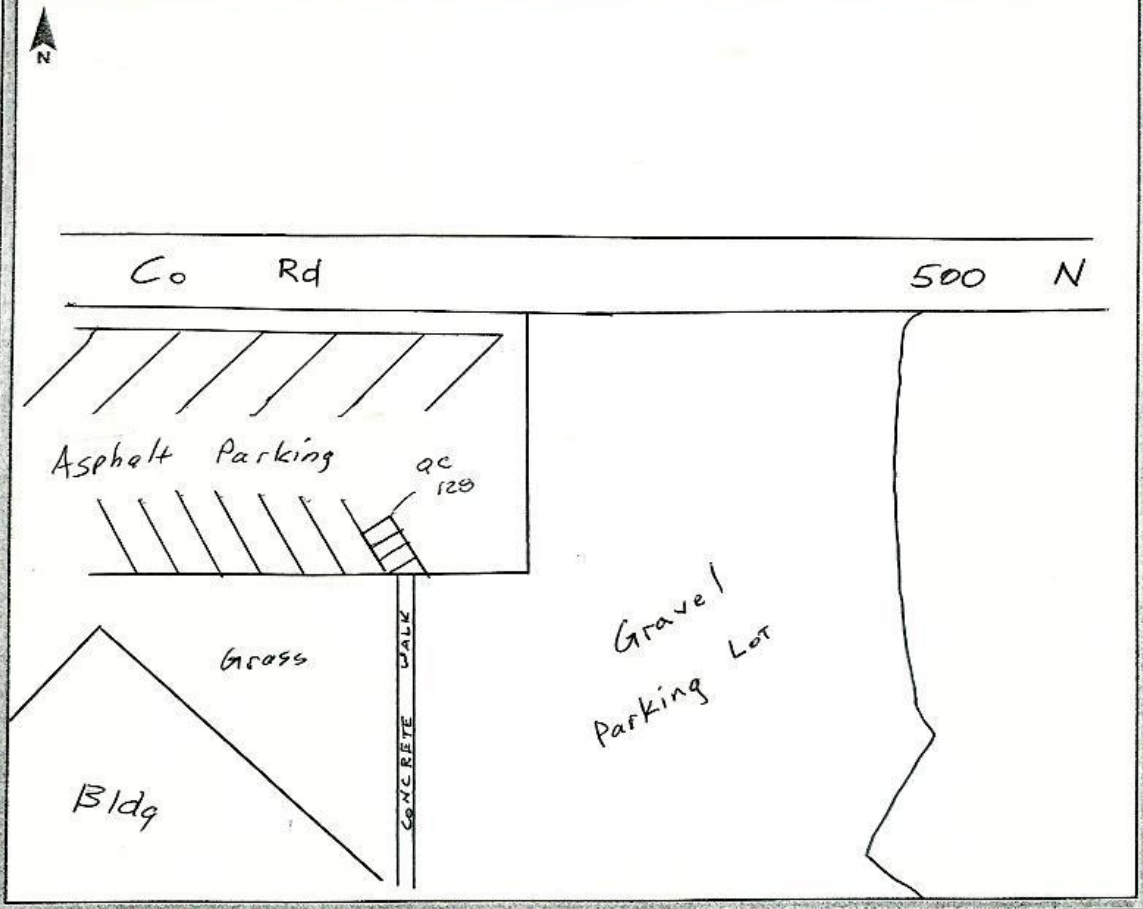


QC 127-3S-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>QC 128</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-51-37.32</u>	Julian Day: <u>074</u>	Session No. _____
Longitude: <u>085-15-42.66</u>	Start Time: <u>3:08</u>	End Time: <u>3:13</u>
Ellip. Height: <u>.984.43</u>	Data File Name: <u>INDST MAR12SS</u>	
Type of Mark: <u>PAINT STRIPE</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>P.K NAIL</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC128-2-12MAR2012



QC128-3N-12MAR2012

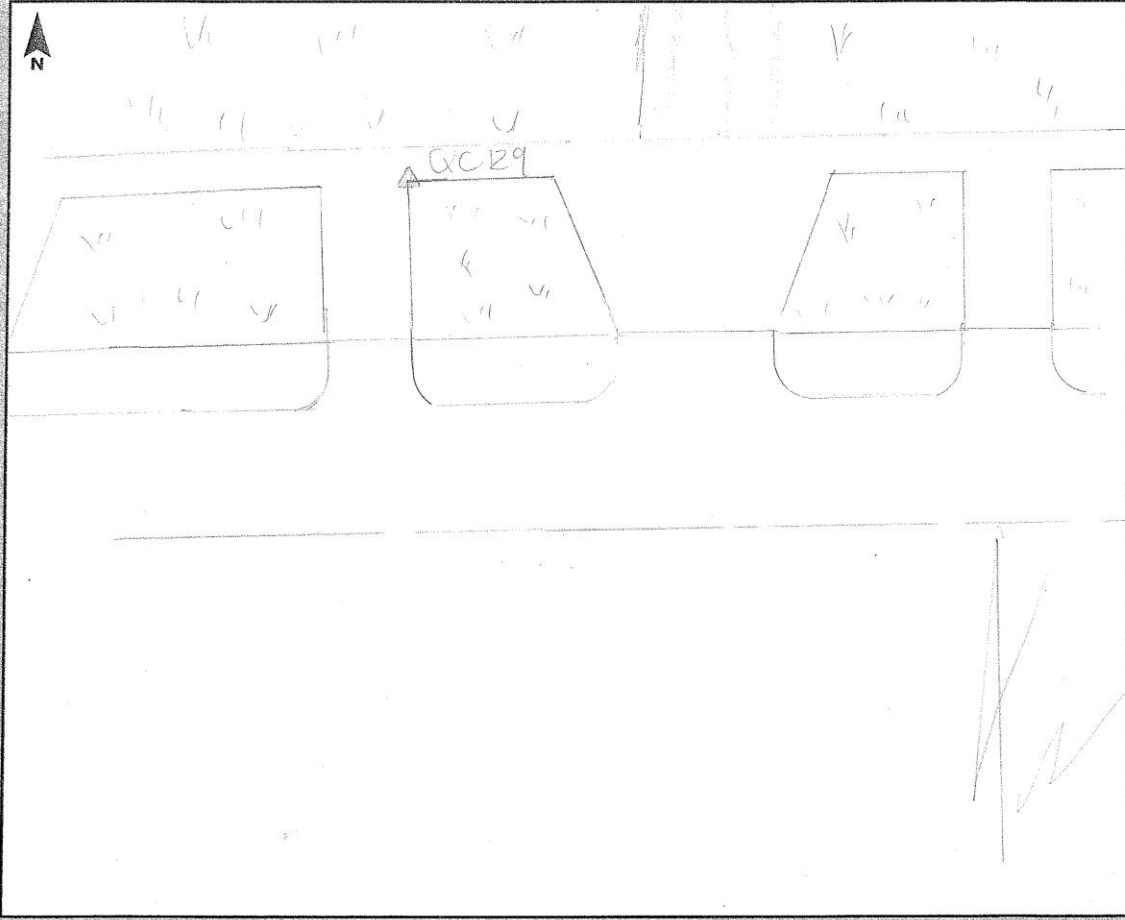


QC128-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-15</u>
Station Name: <u>QC 129</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 54' 39.0"</u>	Julian Day: <u>072</u>	Session No. <u>2</u>
Longitude: <u>85° 09' 24.7"</u>	Start Time: <u>14:55</u>	End Time: <u>15:10</u>
Ellip. Height: <u>876'</u>	Data File Name: <u>INDY_072.DWI</u>	
Type of Mark: <u>cone & cone</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60% & overcast</u>	Antenna Height: <u>2.000m</u> to bottom of antenna mount	





QC129-2-12MAR2012



QC129-3N-12MAR2012

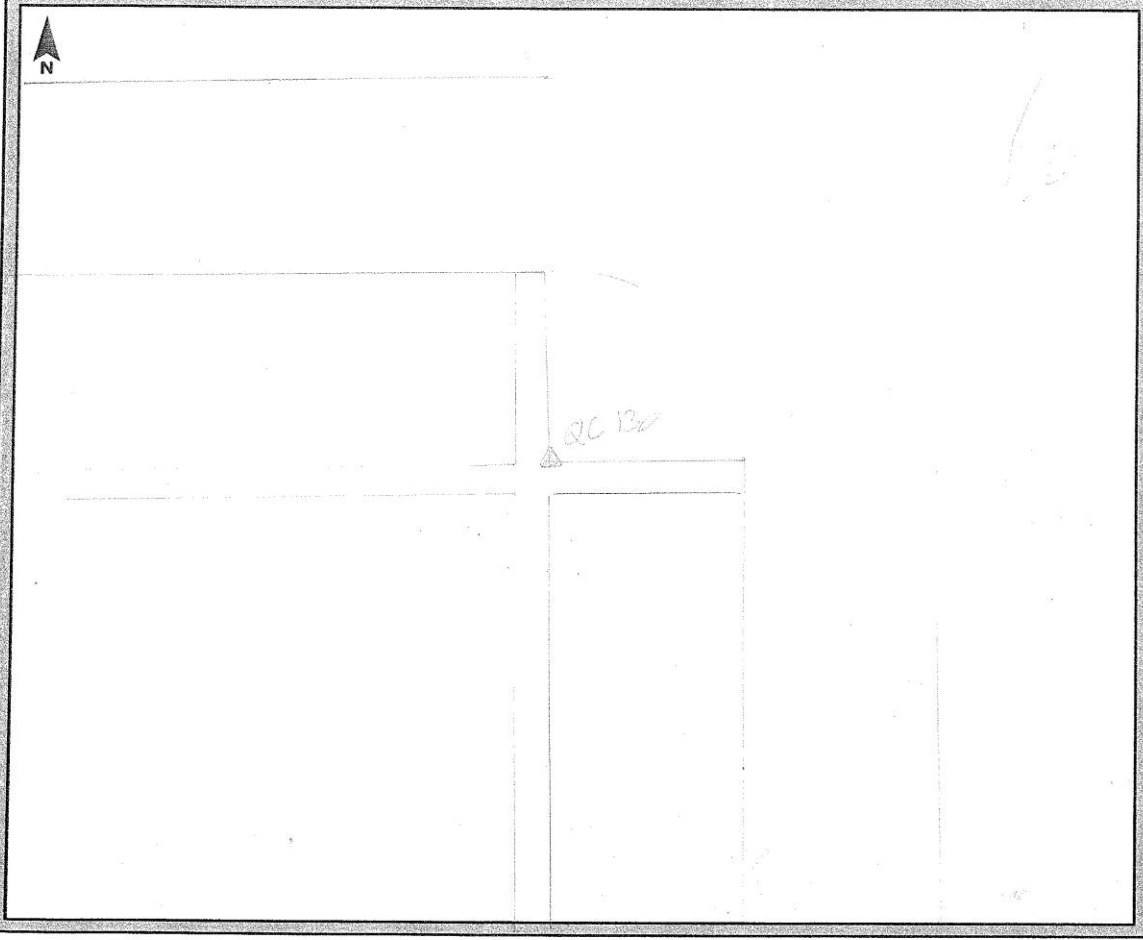


QC129-3E-12MAR2012

GPS Observation Log Sheet



Project Name:	<u>TIN Statewide 2011</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012 03 02</u>
Station Name:	<u>QC130</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>39° 48' 55.5"</u>	Julian Day:	<u>072</u>	Session No.:	<u>2</u>
Longitude:	<u>84° 57' 23.9"</u>	Start Time:	<u>14:10</u>	End Time:	<u>14:20</u>
Ellip. Height:	<u>959.24'</u>	Data File Name:	<u>INDY_072.DMT</u>		
Type of Mark:	<u>Corner of corner</u>	Type of Receiver:	<u>KR-3</u>		
Stamping on Mark:	<u>Sidewalk</u>	Type of Antenna:	<u>R8-2</u>		
Weather Condition:	<u>003 & overcast</u>	Antenna Height:	<u>2.000M</u>	to bottom of antenna mount	





QC130-2-12MAR2012



QC130-3N-12MAR2012

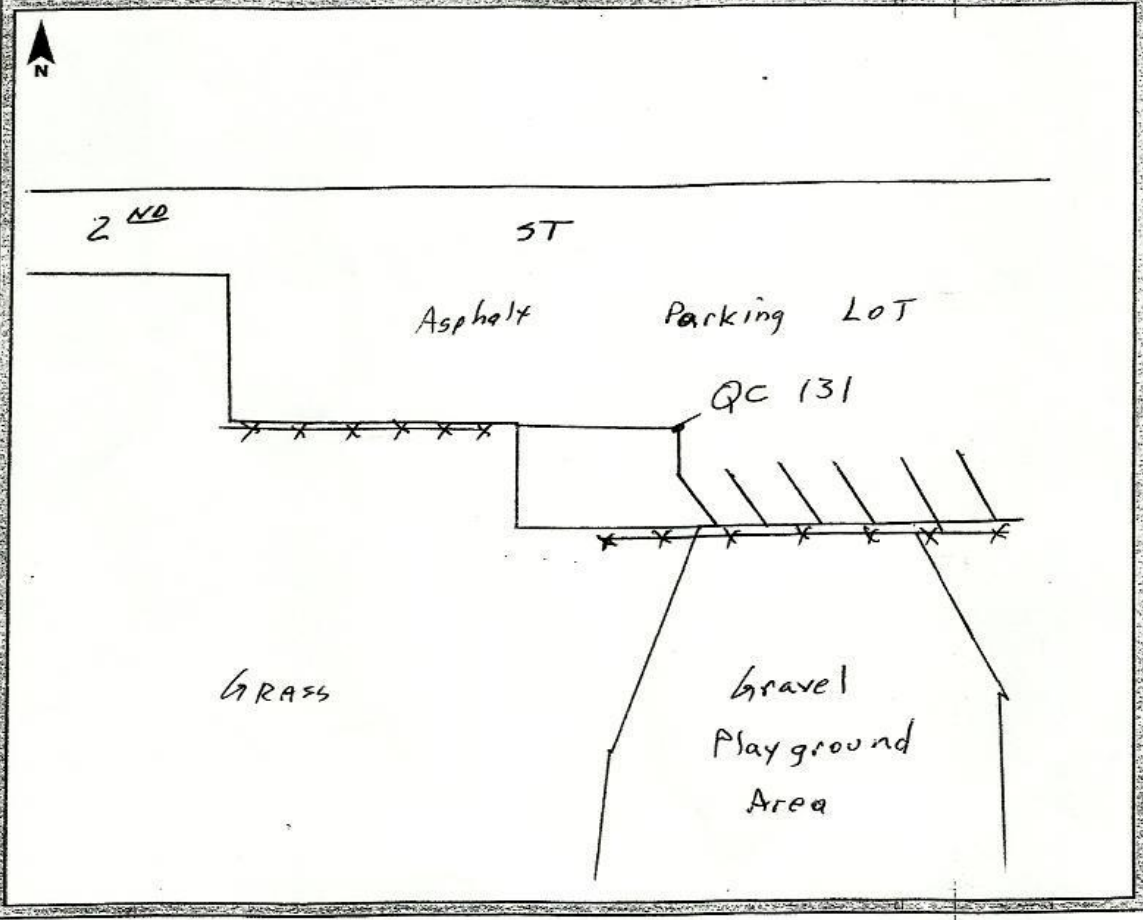


QC130-3E-12MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: QC 131 Operator Name: Stephen Schonegg
Latitude: 39-44-20.55 Julian Day: 074 Session No. _____
Longitude: 085-33-53.81 Start Time: 11:31 End Time: 11:36
Ellip. Height: .786.55 Data File Name: INDST14MAR12.SS
Type of Mark: PAINT STRIPE Type of Receiver: RB-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 131-2-13MAR2012



QC 131-3N-13MAR2012

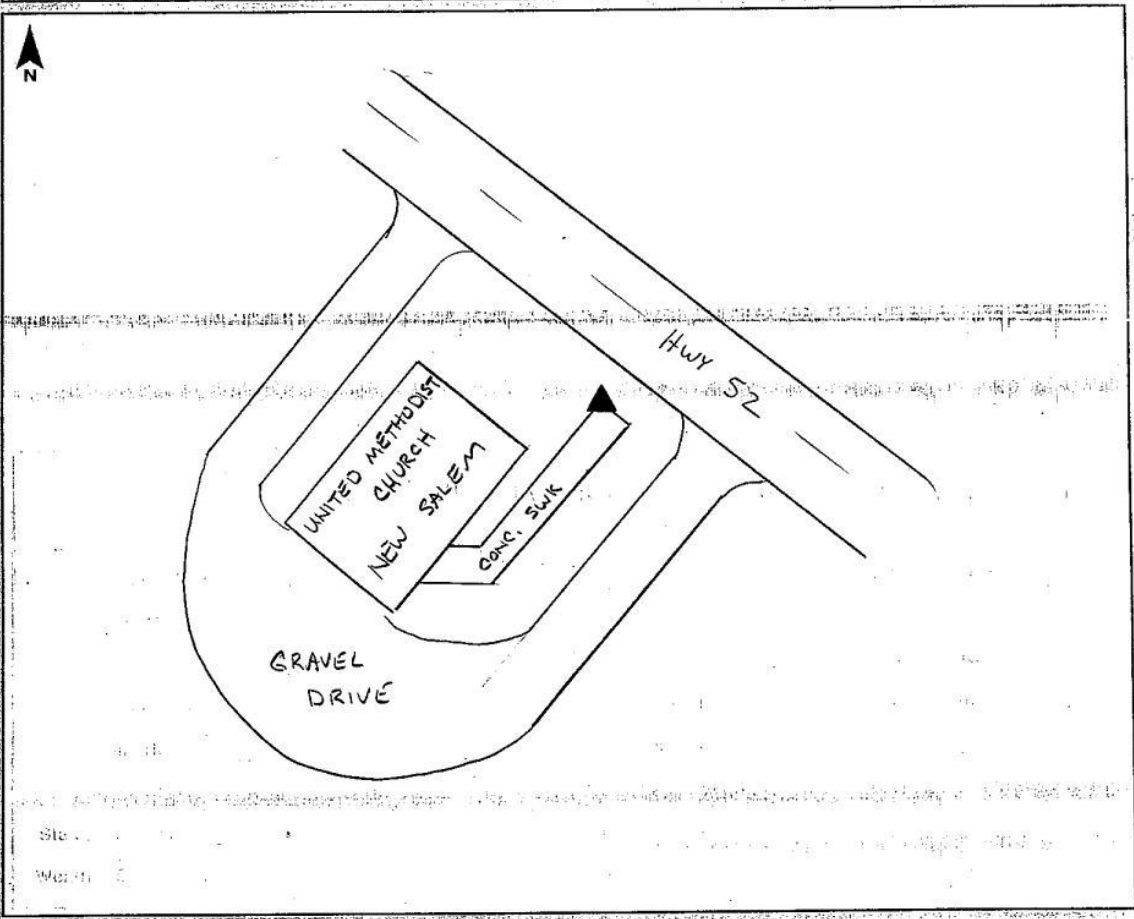


QC 131-3E-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 132</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 32' 35.44" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 21' 33.97" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>917.31 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR. SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° Pt. CLOUDY</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





QC132-2-11MAR2012



QC132-3NW-11MAR2012

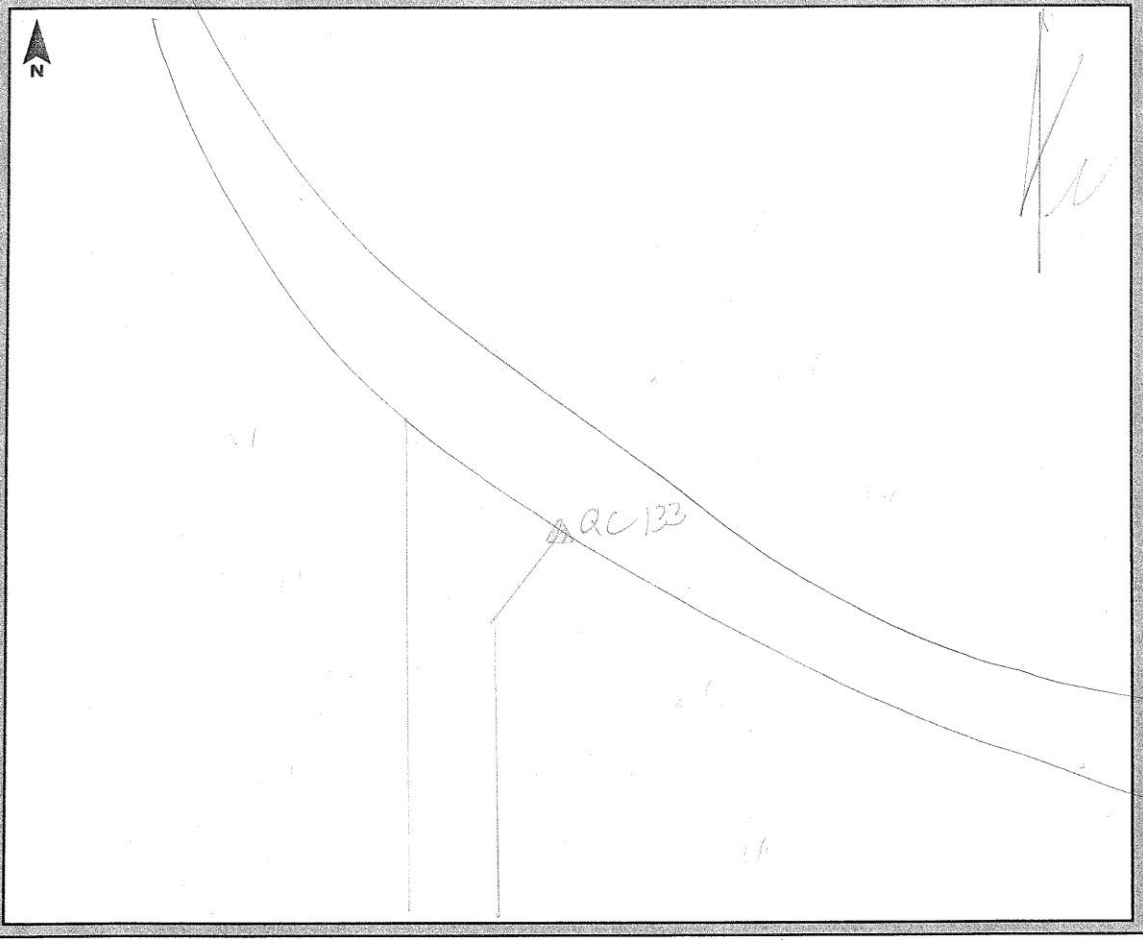


QC132-3NE-11MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-13</u>
Station Name:	<u>QC 133</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>39° 44' 41.8"</u>	Julian Day:	<u>073</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 14' 42.6"</u>	Start Time:	<u>13:21</u>	End Time:	<u>13:31</u>
Ellip. Height:	<u>945</u>	Data File Name:	<u>INDY 073 DMH</u>		
Type of Mark:	<u>corner of Corridor</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:	<u>Driveway</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60% clear</u>	Antenna Height:	<u>1.000M</u>	to bottom of antenna mount	





QC133-2-13MAR2012



QC133-3N-13MAR2012

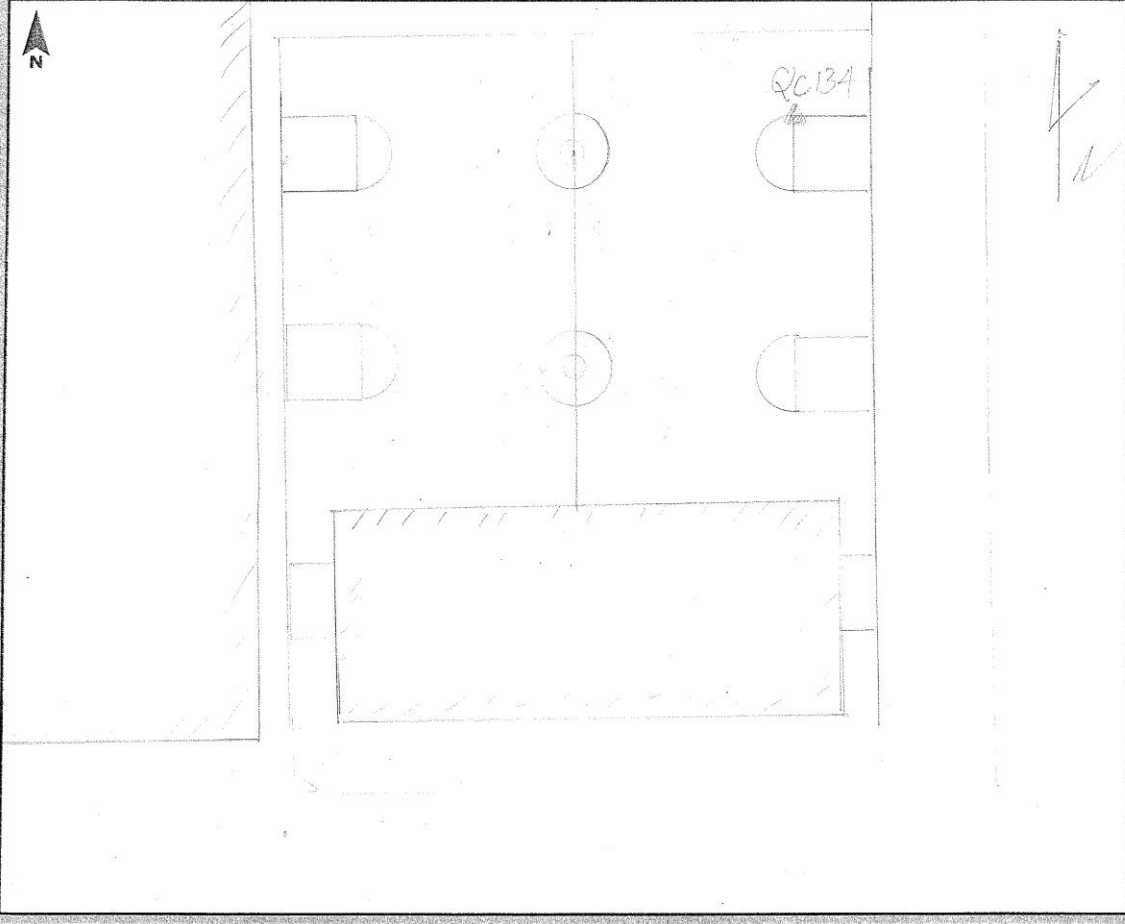


QC133-3E-13MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-1</u>
Station Name: <u>QC134</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 33' 47.5"</u>	Julian Day: <u>072</u>	Session No. <u>2</u>
Longitude: <u>85° 25' 35.5"</u>	Start Time: <u>16:47</u>	End Time: <u>16:58</u>
Ellip. Height: <u>968'</u>	Data File Name: <u>INDY 072.DMT1</u>	
Type of Mark: <u>Intersection of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>Paint - stripes</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's + overcast</u>	Antenna Height: <u>2.000M</u>	to bottom of antenna mount





QC134-2-12MAR2012



QC134-3N-12MAR2012

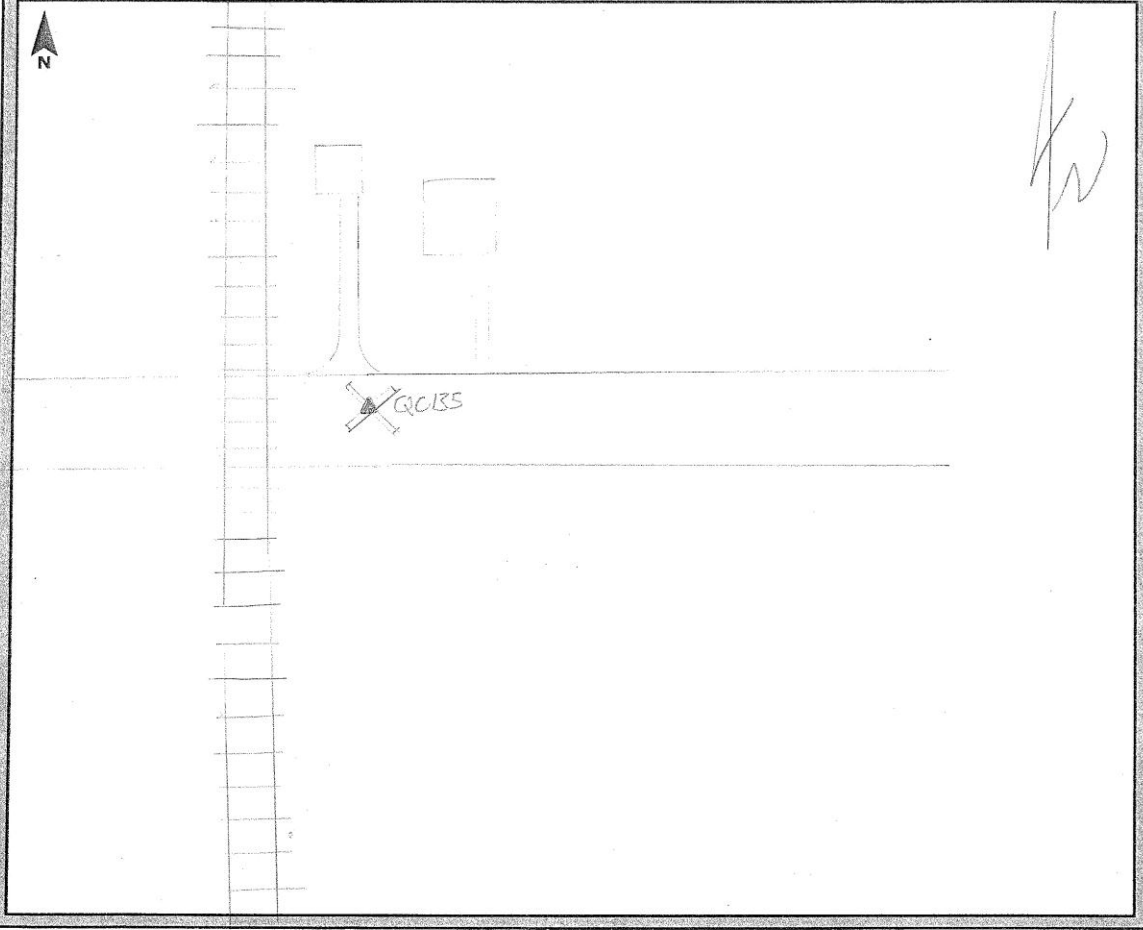


QC134-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>2134</u>	Survey Date: <u>2012-03-12</u>
Station Name: <u>QC 135</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 40' 59.2"</u>	Julian Day: <u>072</u>	Session No. <u>1</u>
Longitude: <u>84° 51' 40.2"</u>	Start Time: <u>09:16</u>	End Time: _____
Ellip. Height: <u>998'</u>	Data File Name: <u>TNDY-072-DNH</u>	
Type of Mark: <u>RR Crossing X</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>R9-3</u>	
Weather Condition: <u>50's Overcast</u>	Antenna Height: <u>2.000M</u>	to bottom of antenna mount





QC135-2-12MAR2012



QC135-3N-12MAR2012

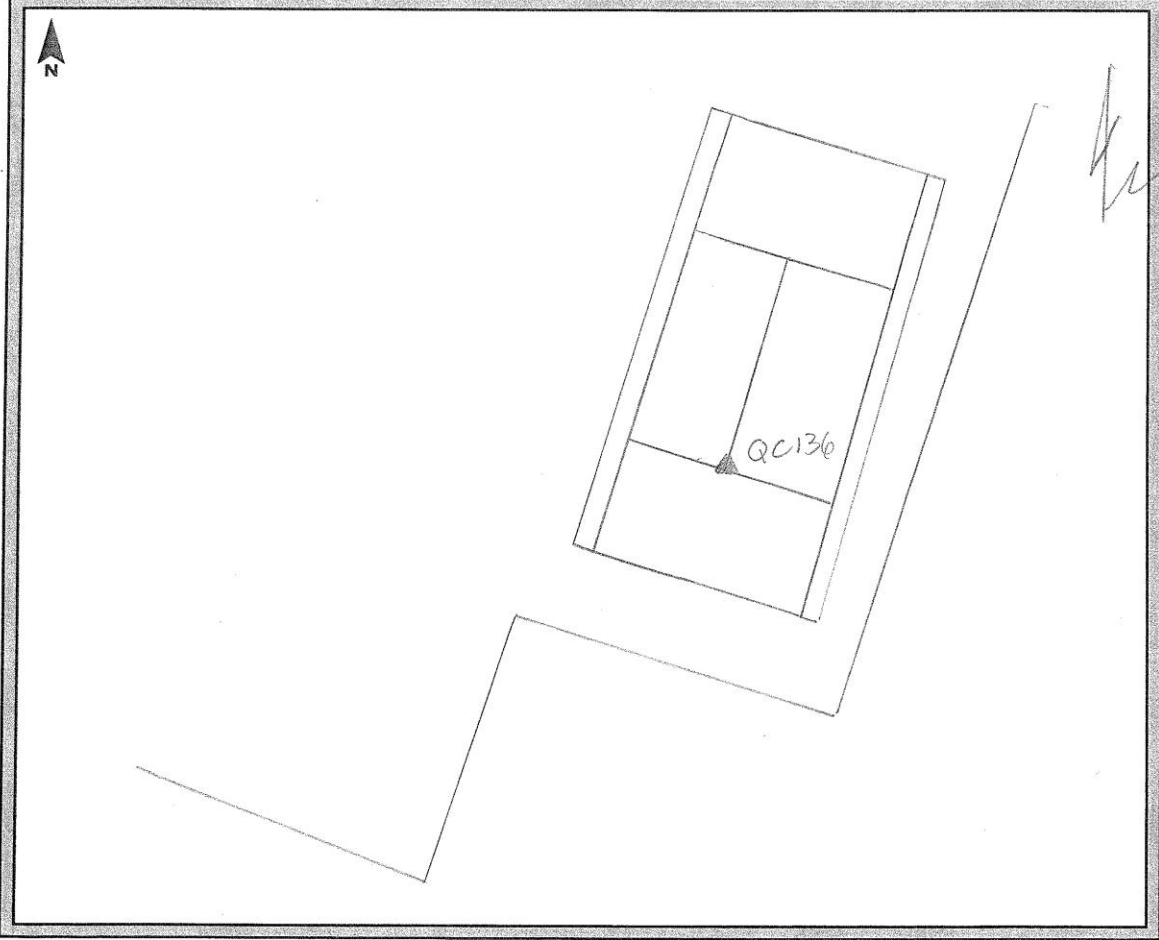


QC135-3E-12MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-12
Station Name: QC136 Operator Name: David Hall
Latitude: 39° 31' 43.0" Julian Day: 072 Session No. 1
Longitude: 84° 58' 21.8" Start Time: 10:36 End Time: 10:47
Ellip. Height: 823' Data File Name: INDY_072_DMH
Type of Mark: Intersection of Type of Receiver: R8-3
Stamping on Mark: Paint stripes Type of Antenna: R8-3
Weather Condition: 60° overcast Antenna Height: 2000 m to bottom of antenna mount





QC136-2-12MAR2012



QC136-3N-12MAR2012

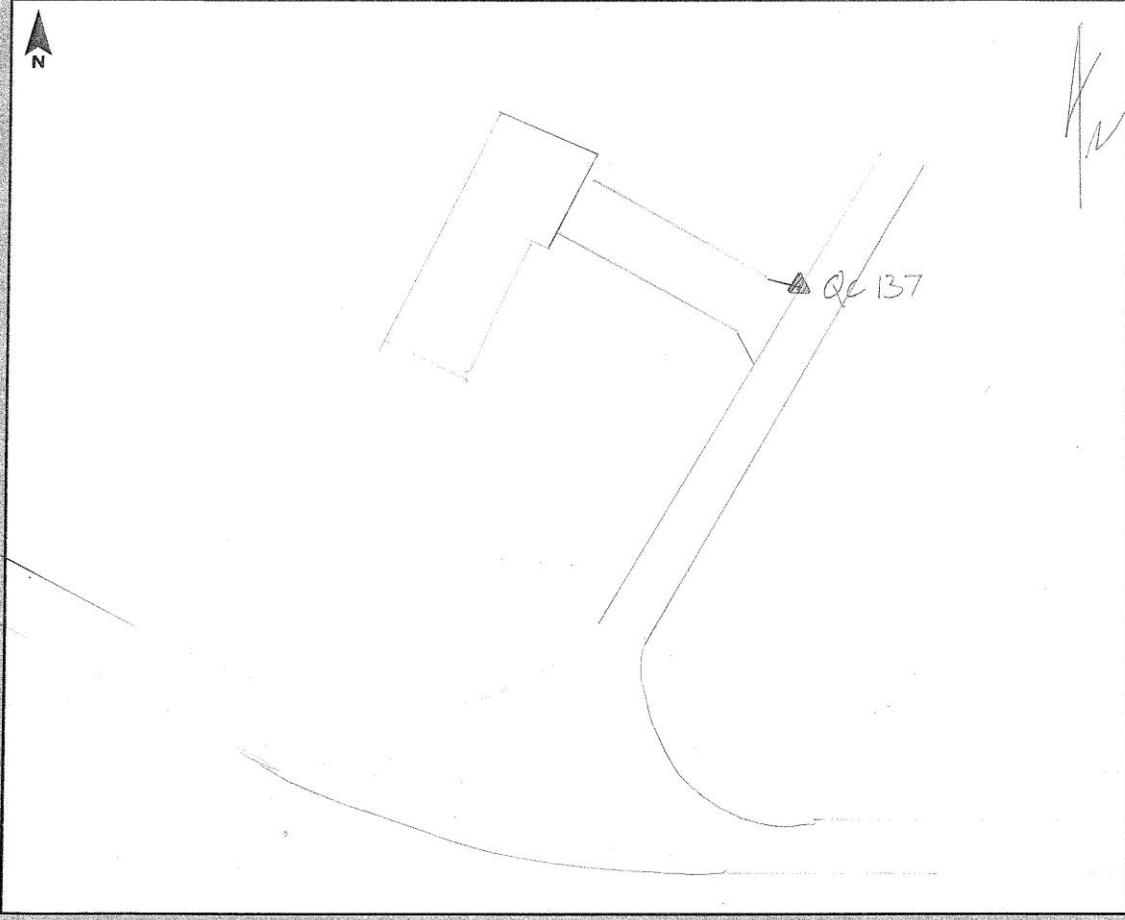


QC136-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 107</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-12</u>
Station Name: <u>QC 137</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 27' 06.4"</u>	Julian Day: <u>072</u>	Session No. <u>1</u>
Longitude: <u>84° 57' 31.2"</u>	Start Time: <u>11:03</u>	End Time: <u>11:13</u>
Ellip. Height: <u>880'</u>	Data File Name: <u>INDY_072_DMHI</u>	
Type of Mark: <u>corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>concrete drive</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's, overcast</u>	Antenna Height: <u>2000M</u>	to bottom of antenna mount





QC137-2-12MAR2012



QC137-3N-12MAR2012

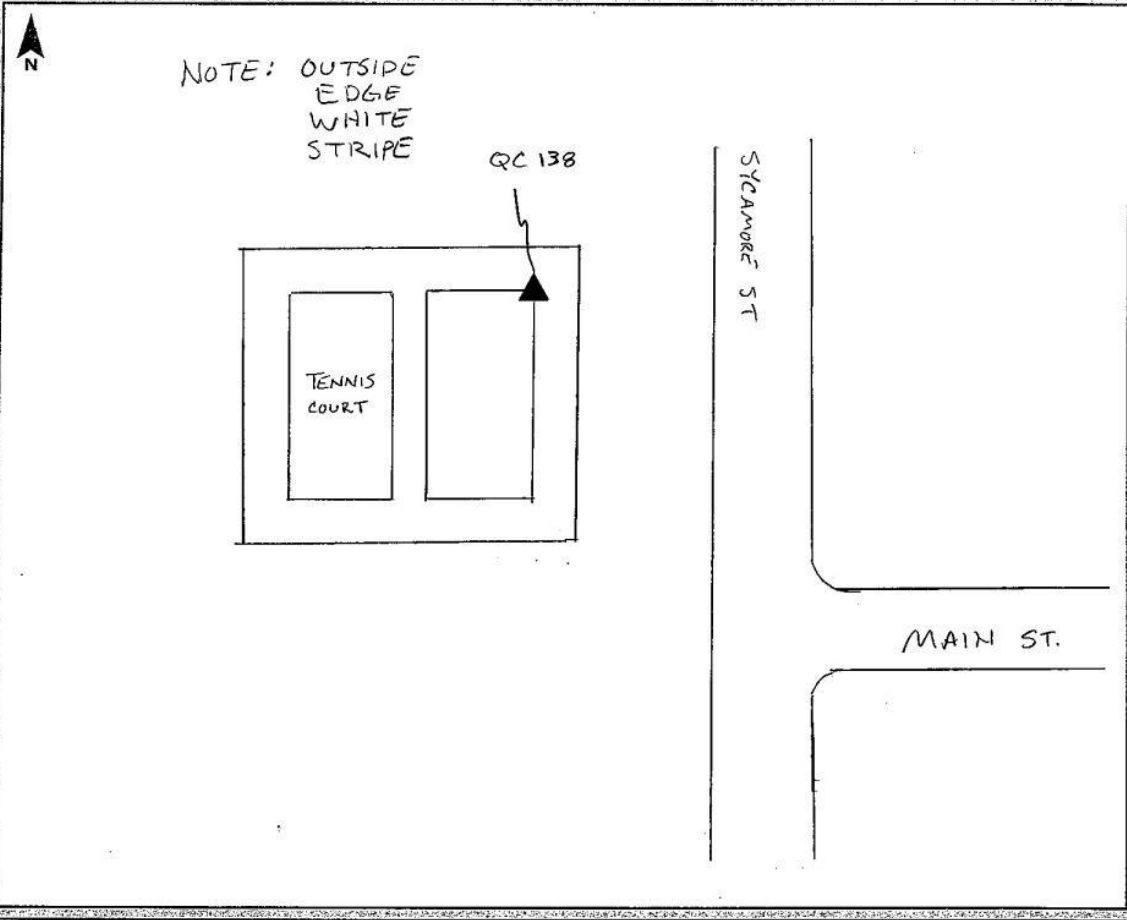


QC137-3E-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: _____
Station Name: <u>QC 138</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 20' 27.65" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 12' 24.04" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>755.08 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR TENNIS COURT</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC138-2-10MAR2012



QC138-3N-10MAR2012

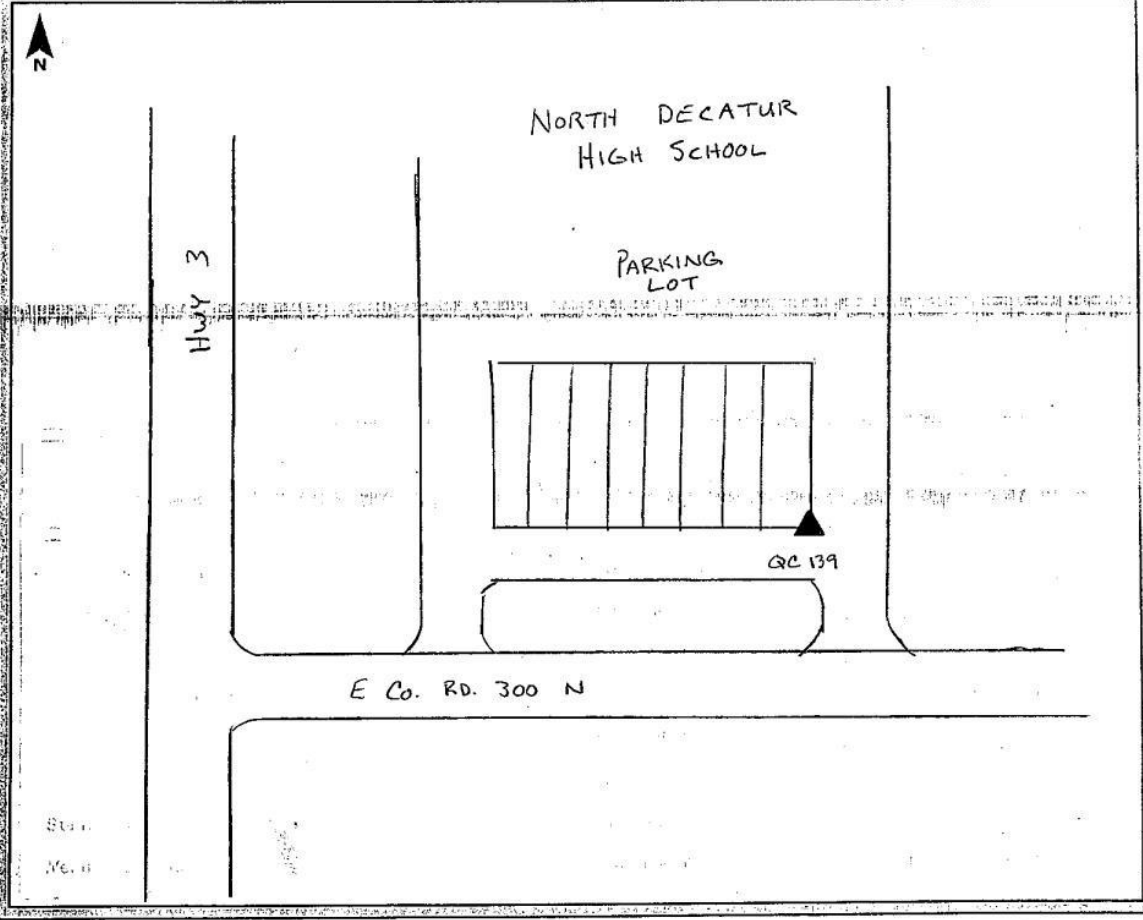


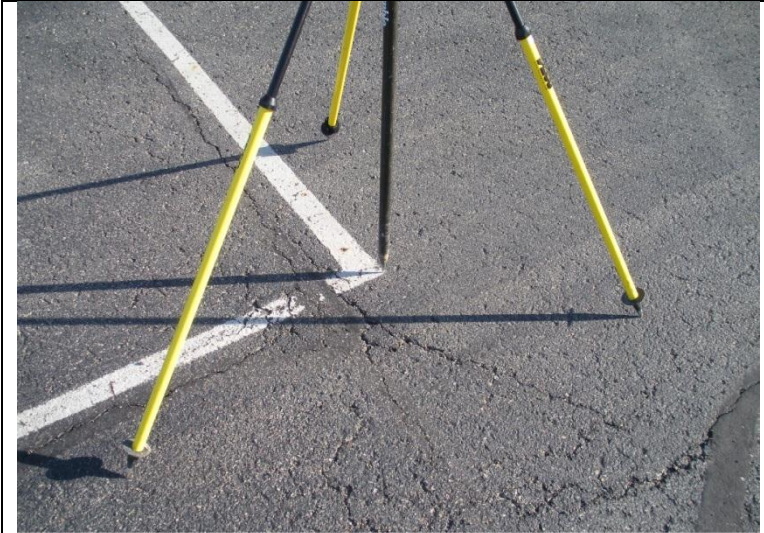
QC138-3E-10MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name:	Project Number:	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 139</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 22' 51.80" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 28' 38.07" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>836.23 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR PAINT STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC139-2-11MAR2012



QC139-3N-11MAR2012

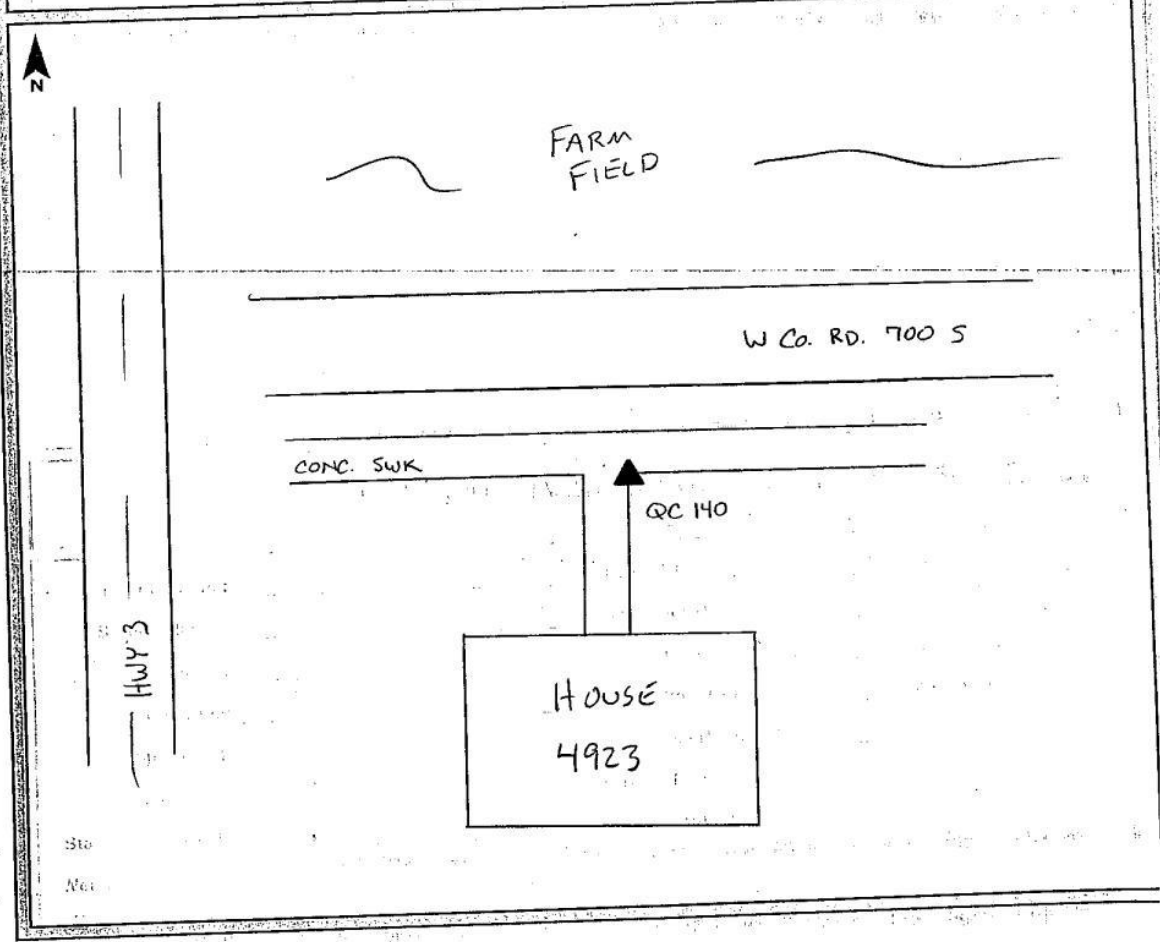


QC139-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 140</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 14' 04.58" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 34' 22.34" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>776.10 SP+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC140-2-11MAR2012



QC140-3S-11MAR2012



QC140-3E-11MAR2012

LiDAR CONTROL

GPS Observation Log Sheet		W WOOLPERT	
Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>	
Station Name: <u>211</u>	Operator Name: <u>BEN CHRISTIE</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Latitude: <u>39° 18' 00.58" N</u>	Longitude: <u>85° 02' 53.55" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>845.69 sft</u>	Data File Name: <u>—</u>	Type of Receiver: <u>R8</u>	Type of Antenna: <u>R8</u>
Type of Mark: <u>SE COR CONCRETE</u>	Stamping on Mark: <u>—</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount
Weather Condition: <u>55° CLEAR</u>			

A hand-drawn sketch map within the log sheet. On the left, a vertical line is labeled 'BLUE CREEK RD.'. A path branches off to the right, leading to a rectangular structure labeled 'CONCRETE'. At the end of this path is a station marker labeled '211'. To the right of the 'CONCRETE' structure, there is a note: '#29456 HOUSE GONE'. A north arrow is located in the top left corner of the sketch area.



211-2-10MAR2012



211-3S-10MAR2012

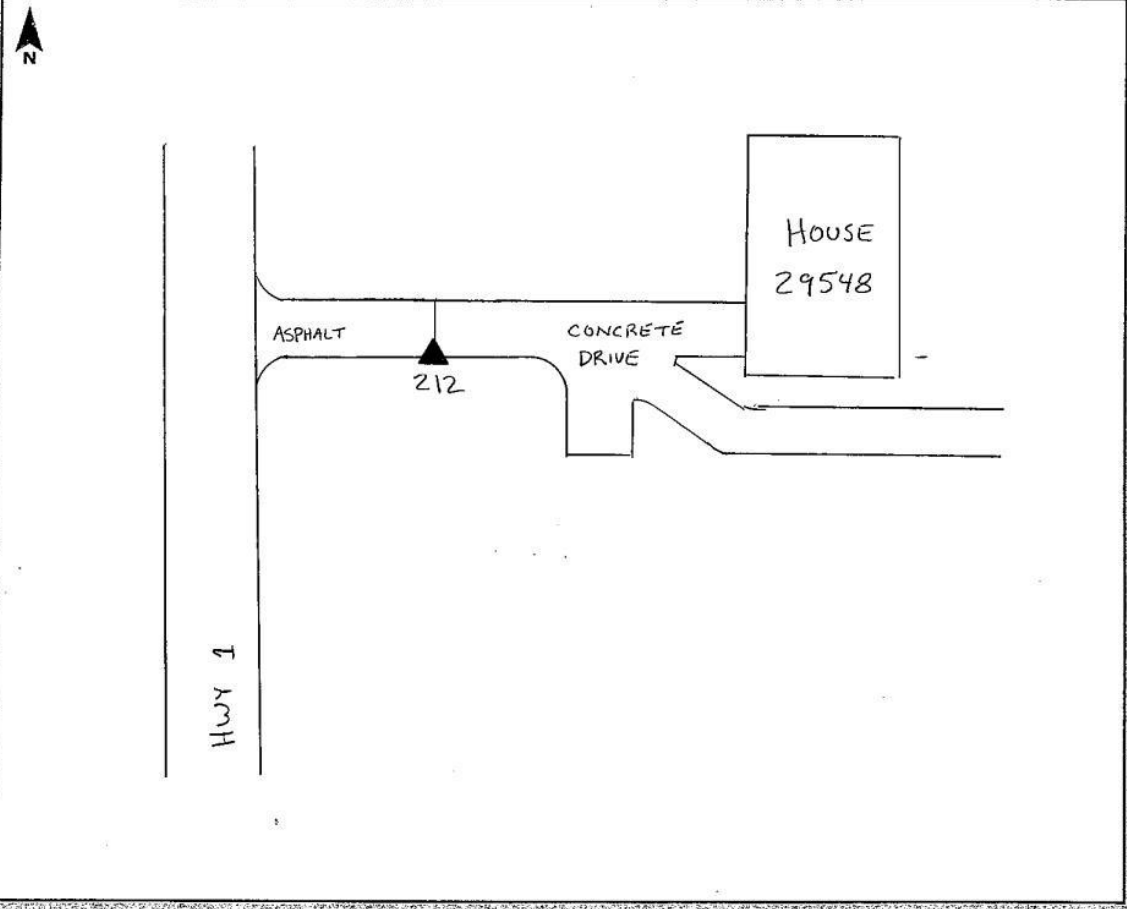


211-3E-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>212</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 59.07" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 22.69" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>898.16</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





212-2-10MAR2012



212-3W-10MAR2012

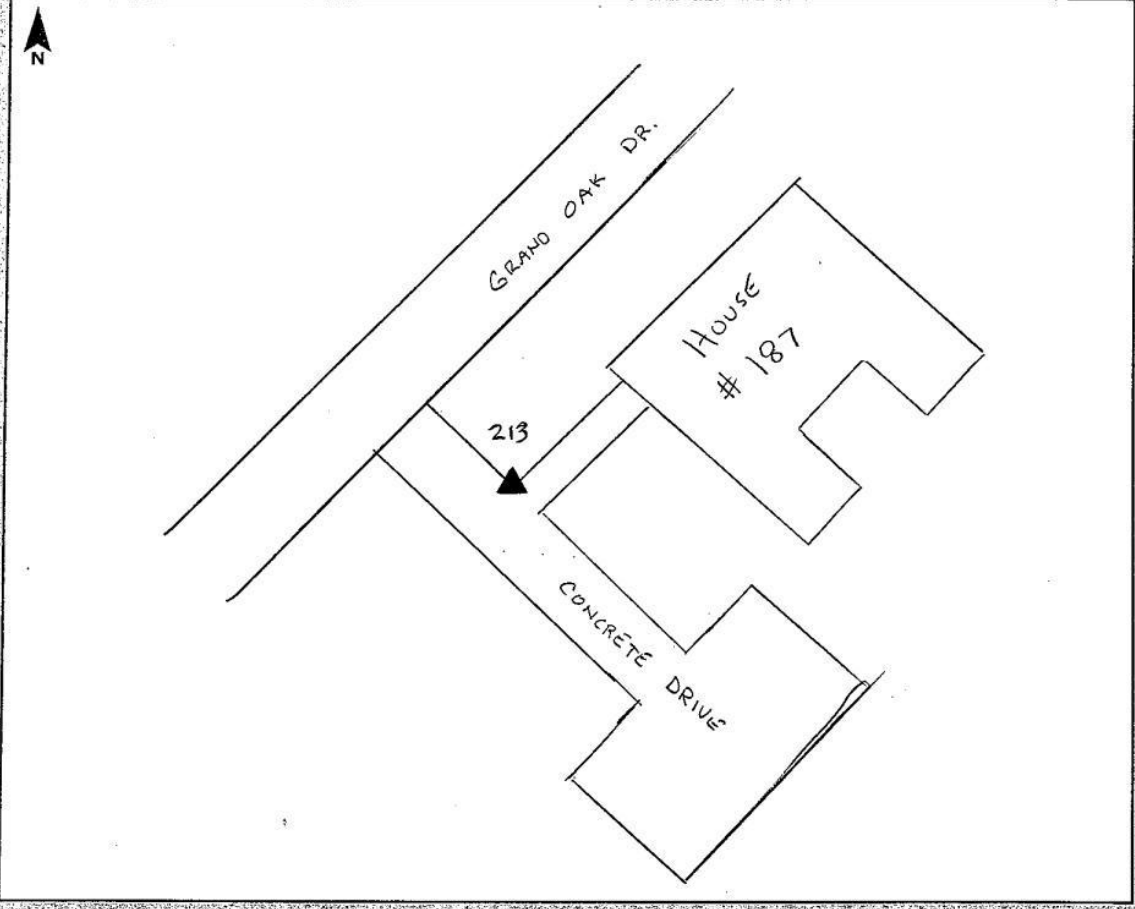


212-3S-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>213</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 18' 14.92" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 49' 23.19" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>779.16 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





213-2-10MAR2012



213-3SE-10MAR2012

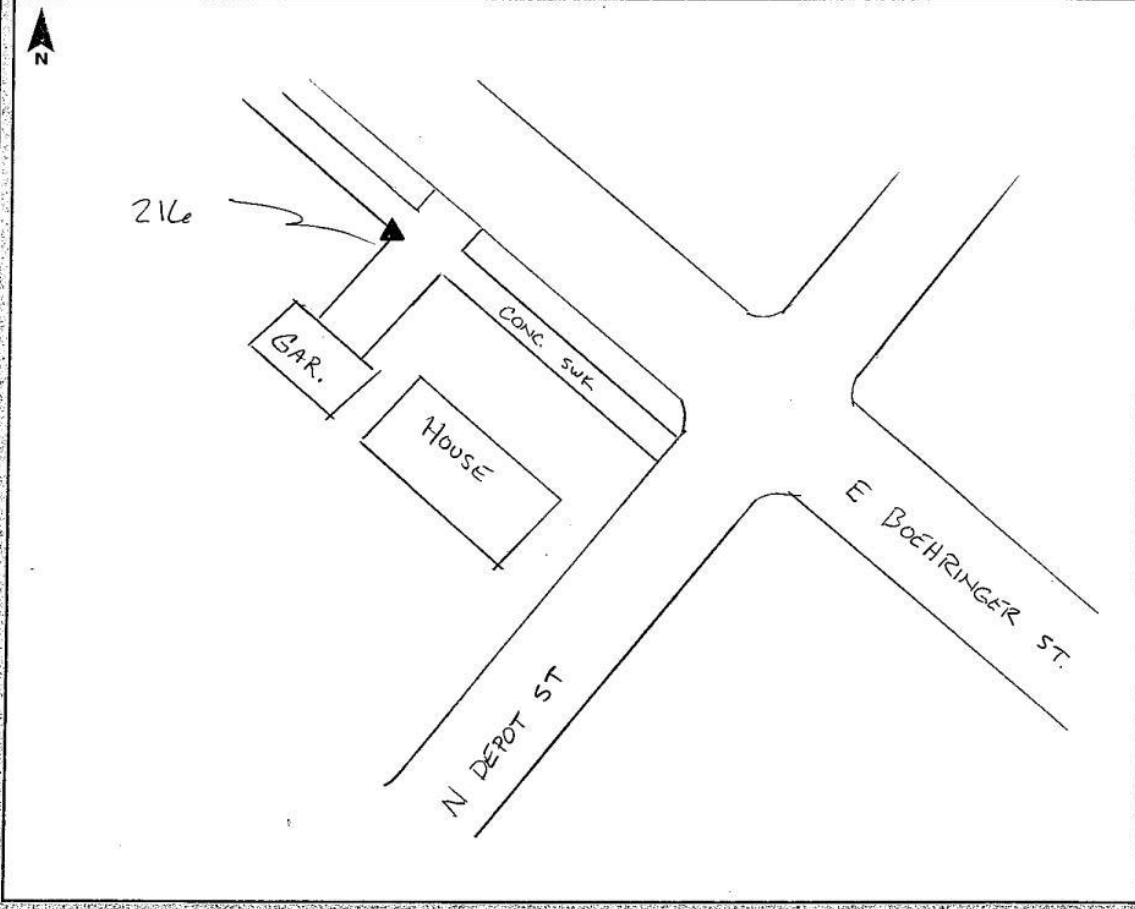


213-3NE-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>216</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 53.31" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 13' 11.05" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>850.67 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





216-2-10MAR2012



216-3SW-10MAR2012

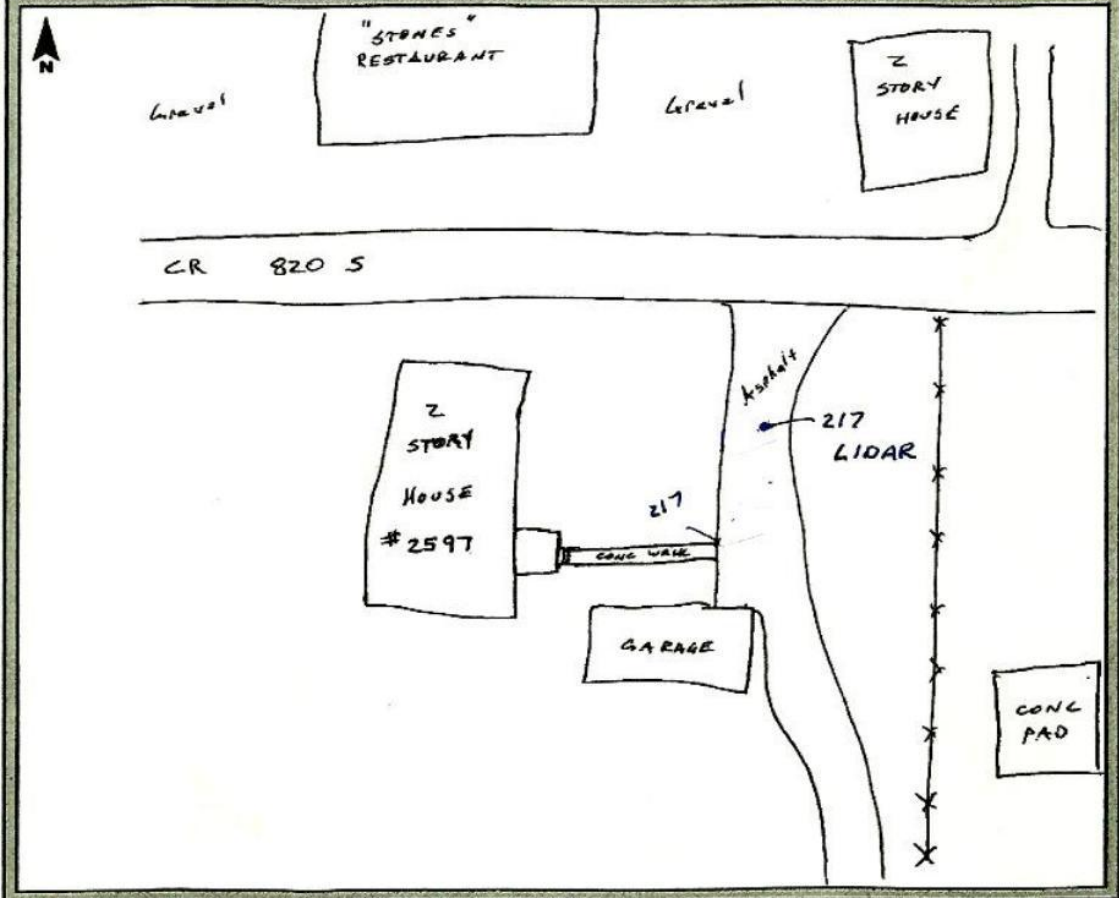


216-3NW-10MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u> Survey Date: <u>12 MAR 12</u>
Station Name: <u>217 - LIDAR</u>	Operator Name: <u>Stephen Schonegg</u>
Latitude: <u>39-12-36.96</u>	Julian Day: <u>072</u> Session No. _____
Longitude: <u>085-25-53.84</u>	Start Time: <u>3:03</u> End Time: <u>3:08</u>
Ellip. Height: <u>786.04</u>	Data File Name: <u>INDST - MAR12 SS</u>
Type of Mark: <u>Center Asphalt DR</u>	Type of Receiver: <u>R8-2 #9357</u>
Stamping on Mark: <u>NONE</u>	Type of Antenna: _____
Weather Condition: <u>Cloudy, 70°</u>	Antenna Height: <u>6.562</u> to bottom of antenna mount





217_LIDAR-2-12MAR2012



217_LIDAR-3N-12MAR2012

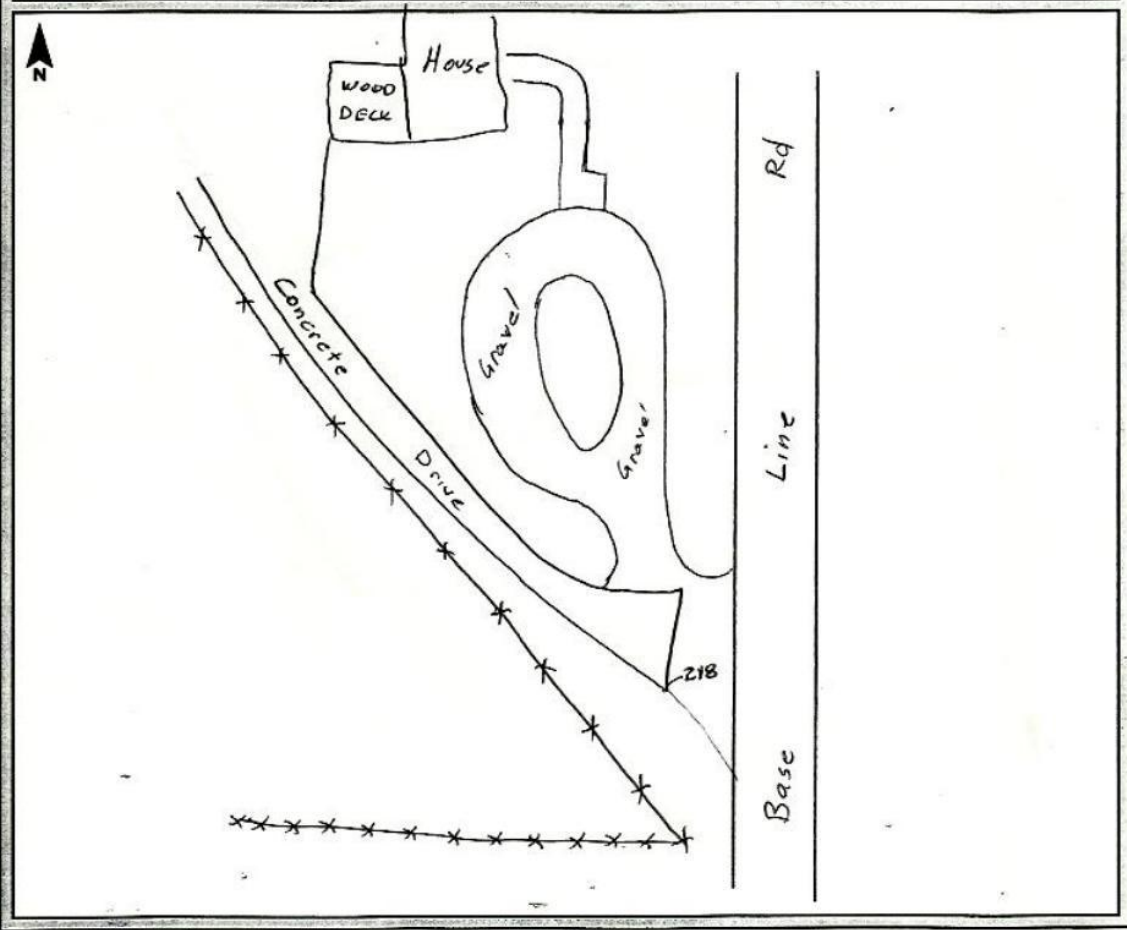


217_LIDAR-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>9 Mar 12</u>
Station Name: <u>218</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-07-52.37</u>	Julian Day: <u>069</u>	Session No. _____
Longitude: <u>085-36-43.80</u>	Start Time: <u>2:36</u>	End Time: <u>2:41</u>
Ellip. Height: <u>637.05 FT</u>	Data File Name: <u>INDST09MAR12SS</u>	
Type of Mark: <u>Corner Concrete Drive</u>	Type of Receiver: <u>RB-2, #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 45°, WINDY</u>	Antenna Height: <u>6.562 (FT)</u>	to bottom of antenna mount





218 2 09MAR2012



218 3W 09MAR2012

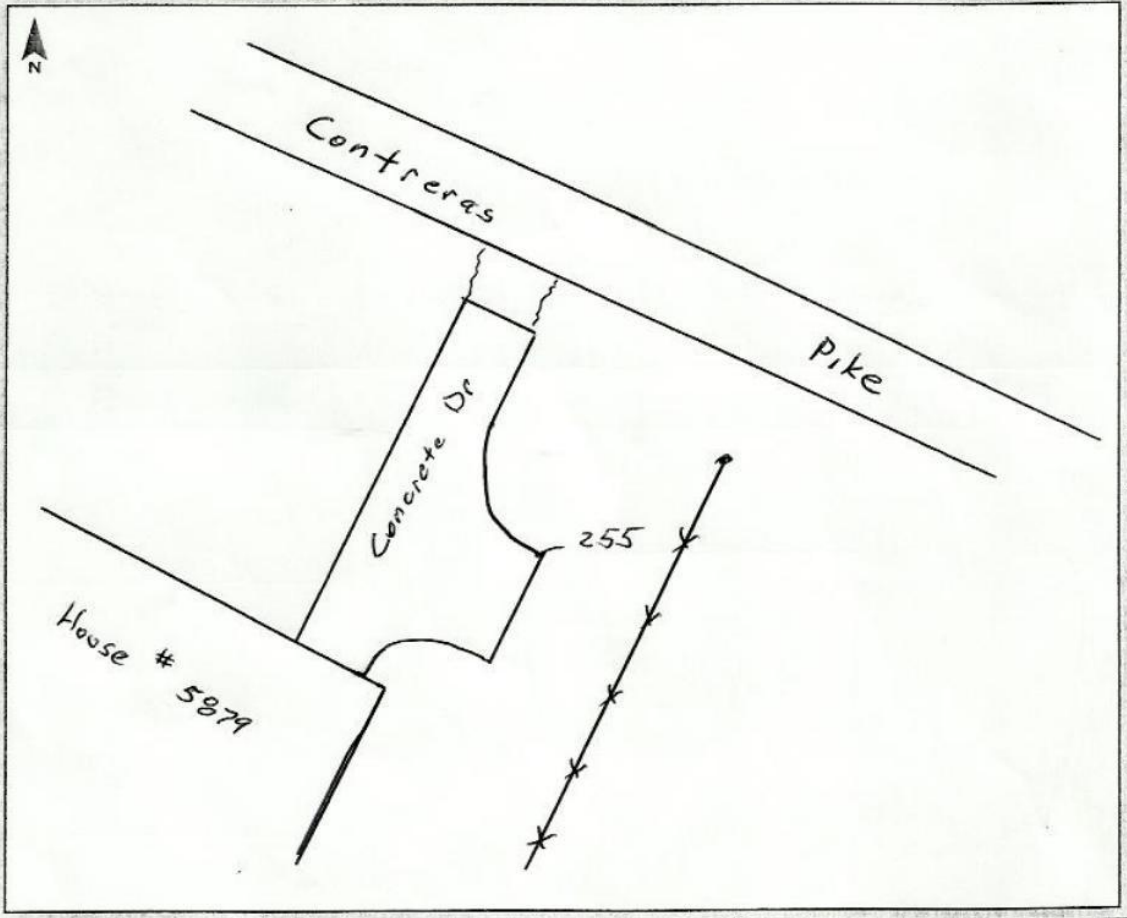


218 3N 09MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 28MAR12
Station Name: 225 Operator Name: STEPHEN SCHONEGG
Latitude: 39-31-25.25 Julian Day: 088 Session No. _____
Longitude: 084-49-02.78 Start Time: 11:42 End Time: 11:45
Ellip. Height: .859-72 FT Data File Name: INDST28MAR1255
Type of Mark: Corner Concrete Dr Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 55°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





225-2-12MAR2012



225-3E-12MAR2012



225-3N-12MAR2012

GPS Observation Log Sheet



Project Name:	<u>IV Statewide 2012</u>	Project Number:	<u>7234</u>	Survey Date:	<u>2012-03-17</u>
Station Name:	<u>226 LIDAR</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>39° 44' 36.7"</u>	Julian Day:	<u>072</u>	Session No.:	<u>2</u>
Longitude:	<u>84° 49' 15.3"</u>	Start Time:	<u>13:28</u>	End Time:	<u>13:38</u>
Ellip. Height:	<u>1033'</u>	Data File Name:	<u>TMPY_072.DAT</u>		
Type of Mark:	<u>SHORT Grass</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:		Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60% Rain</u>	Antenna Height:	<u>2.000m</u>	to bottom of antenna mount	





226_LIDAR-2-12MAR2012



226_LIDAR-3N-12MAR2012

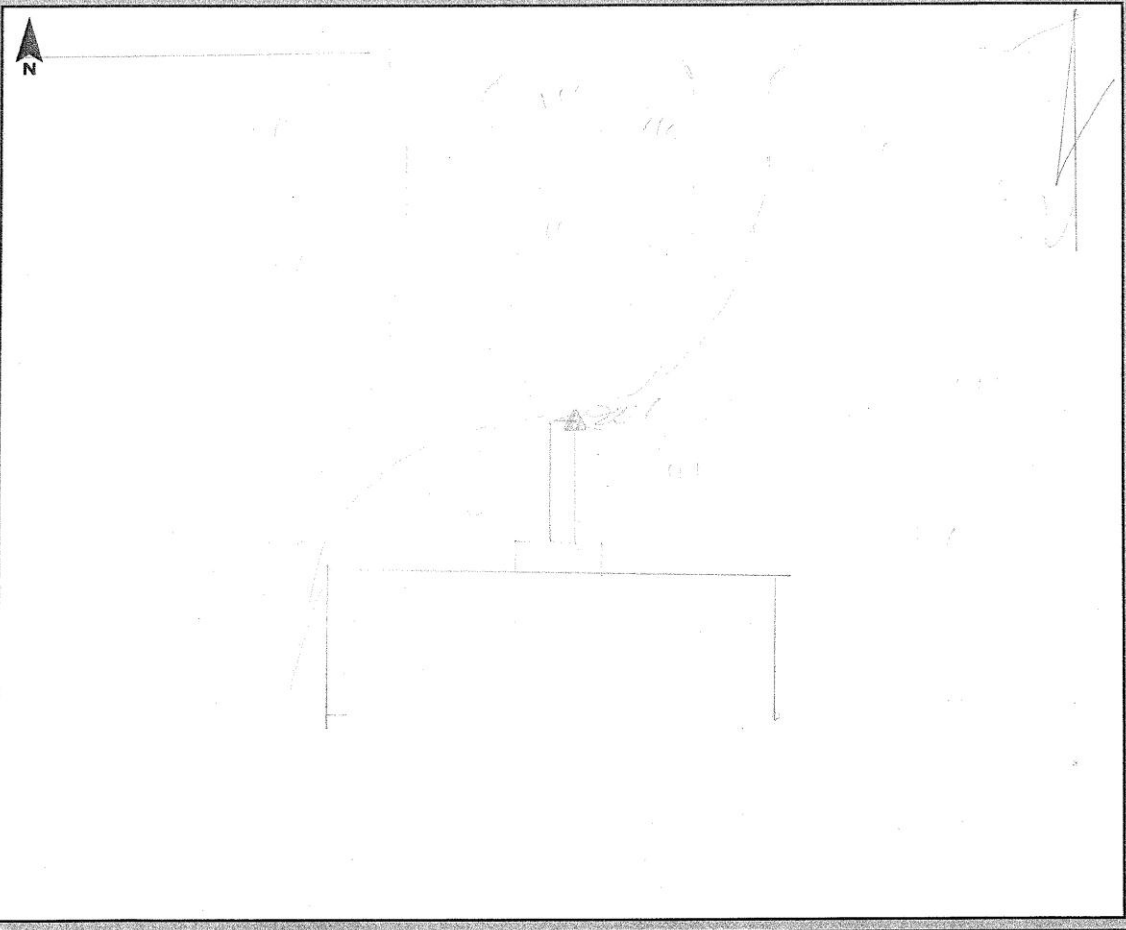


226_LIDAR-3E-12MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-18
Station Name: 227 Operator Name: David Hall
Latitude: 40° 00' 17.1" Julian Day: 073 Session No. 1
Longitude: 84° 48' 53.2" Start Time: 08:44 End Time: 09:54
Ellip. Height: 10⁰⁰ Data File Name: INDY_073_DMH
Type of Mark: NE corner of Type of Receiver: R8-3
Stamping on Mark: car walk Type of Antenna: R8-3
Weather Condition: 60's clear Antenna Height: 2.0004 to bottom of antenna mount





227-2-13MAR2012



227-3N-13MAR2012

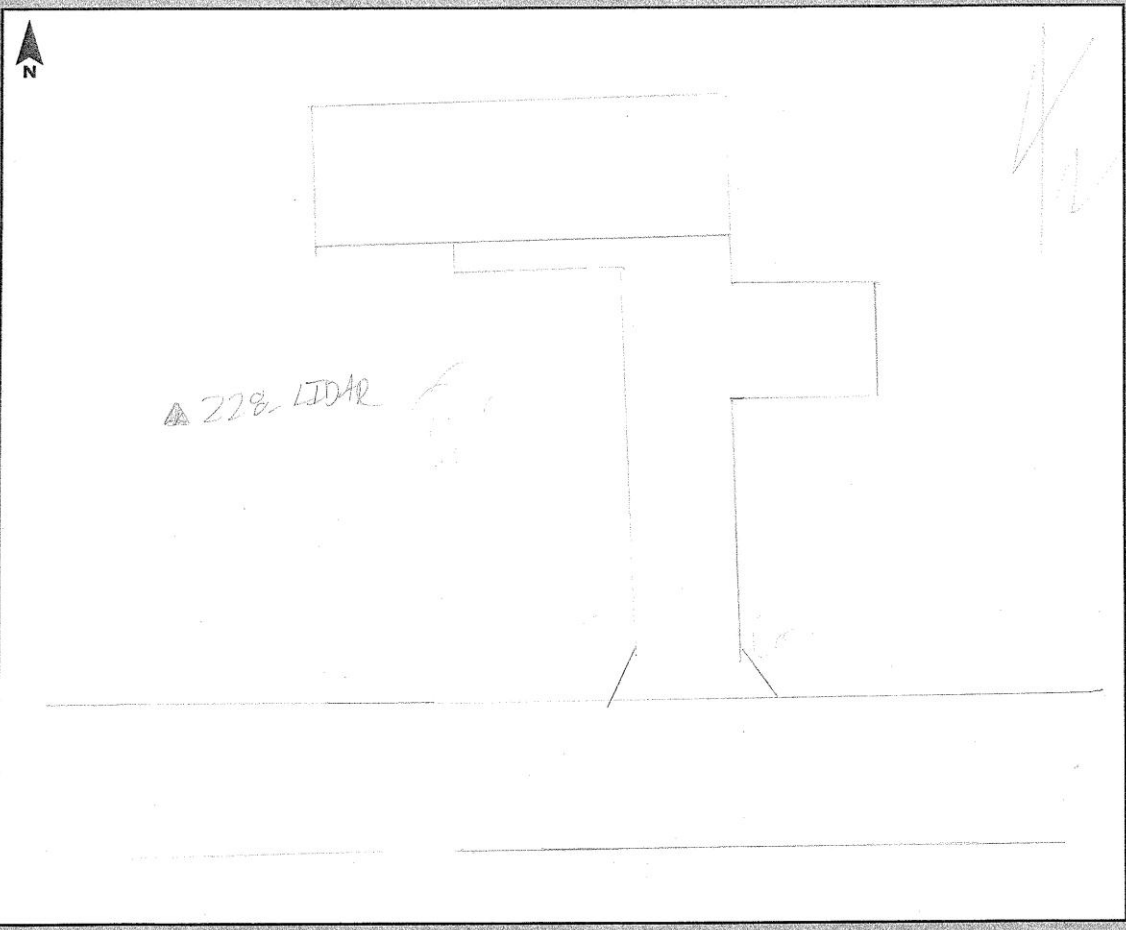


227-3E-13MAR2012

GPS Observation Log Sheet



Project Name: <u>TV Stations 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-1</u>
Station Name: <u>228 LIDAR</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 00' 18.7"</u>	Julian Day: <u>073</u>	Session No. <u>1</u>
Longitude: <u>85° 00' 49.3"</u>	Start Time: <u>09:30</u>	End Time: <u>09:40</u>
Ellip. Height: <u>1109</u>	Data File Name: <u>IM04_073_DWH</u>	
Type of Mark: <u>SHORT CROSS</u>	Type of Receiver: <u>RS-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>RS-3</u>	
Weather Condition: <u>60% + Clear</u>	Antenna Height: <u>2.000 M</u>	to bottom of antenna mount





228_LIDAR-2-13MAR2012



228_LIDAR-3N-13MAR2012

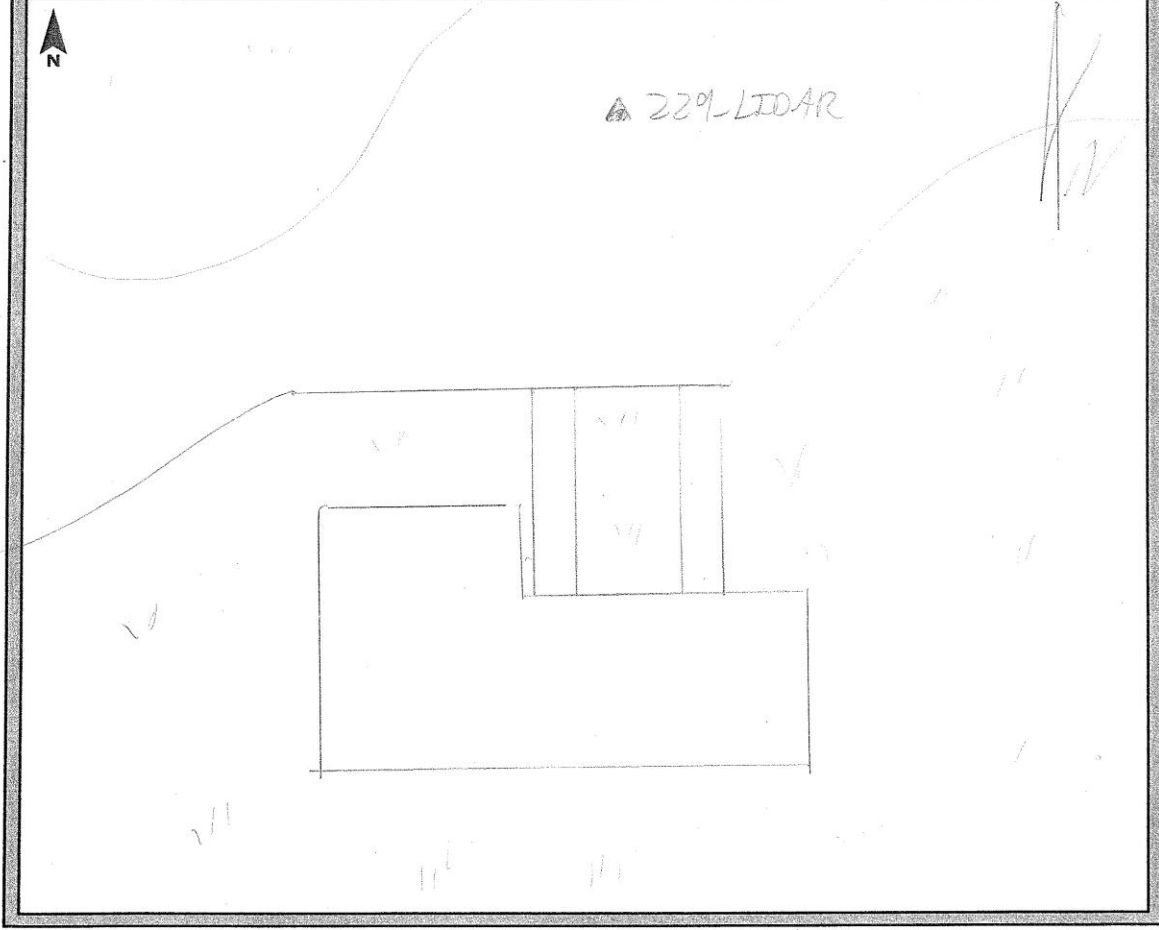


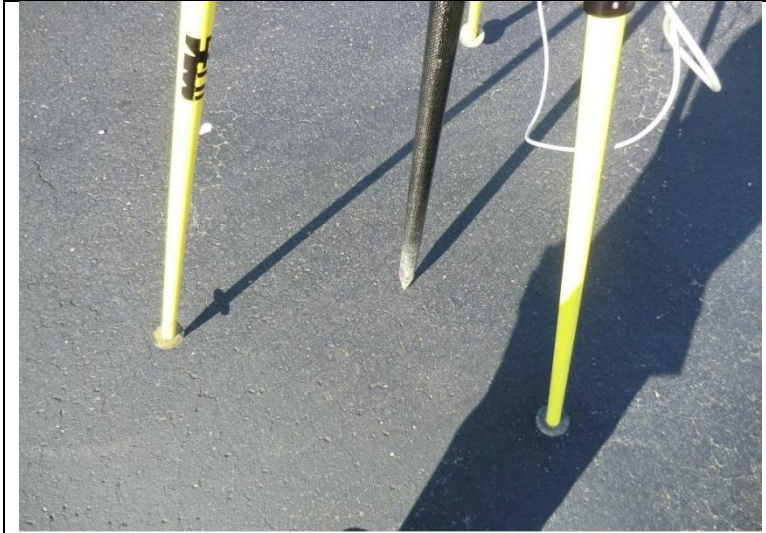
228_LIDAR-3E-13MAR2012

GPS Observation Log Sheet



Project Name: IN STATEWIDE 2012 Project Number: 72134 Survey Date: 2012-03-14
Station Name: 229-LIDAR Operator Name: David Hall
Latitude: 40° 09' 40.4" Julian Day: 074 Session No. 1
Longitude: 85° 12' 47.5" Start Time: 10:53 End Time: 11:01
Ellip. Height: 1041' Data File Name: INDY 074.DMH
Type of Mark: Asphalt Type of Receiver: RE-3
Stamping on Mark: _____ Type of Antenna: RE-3
Weather Condition: 60's & Clear Antenna Height: 2.000M to bottom of antenna mount





229 LIDAR-2-14MAR2012



229 LIDAR-3N-14MAR2012



229 LIDAR-3E-14MAR2012

Bad Sats

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-14</u>
Station Name: <u>230</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>40° 03' 35.0"</u>	Julian Day: <u>074</u>	Session No. <u>1</u>
Longitude: <u>85° 14' 15.1"</u>	Start Time: <u>11:21</u>	End Time: <u>11:56</u>
Ellip. Height: <u>981'</u>	Data File Name: <u>INDY 074_DM11</u>	
Type of Mark: <u>Trade corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>concrete walks</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's & Clear</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





230-2-14MAR2012



230-3E-14MAR2012

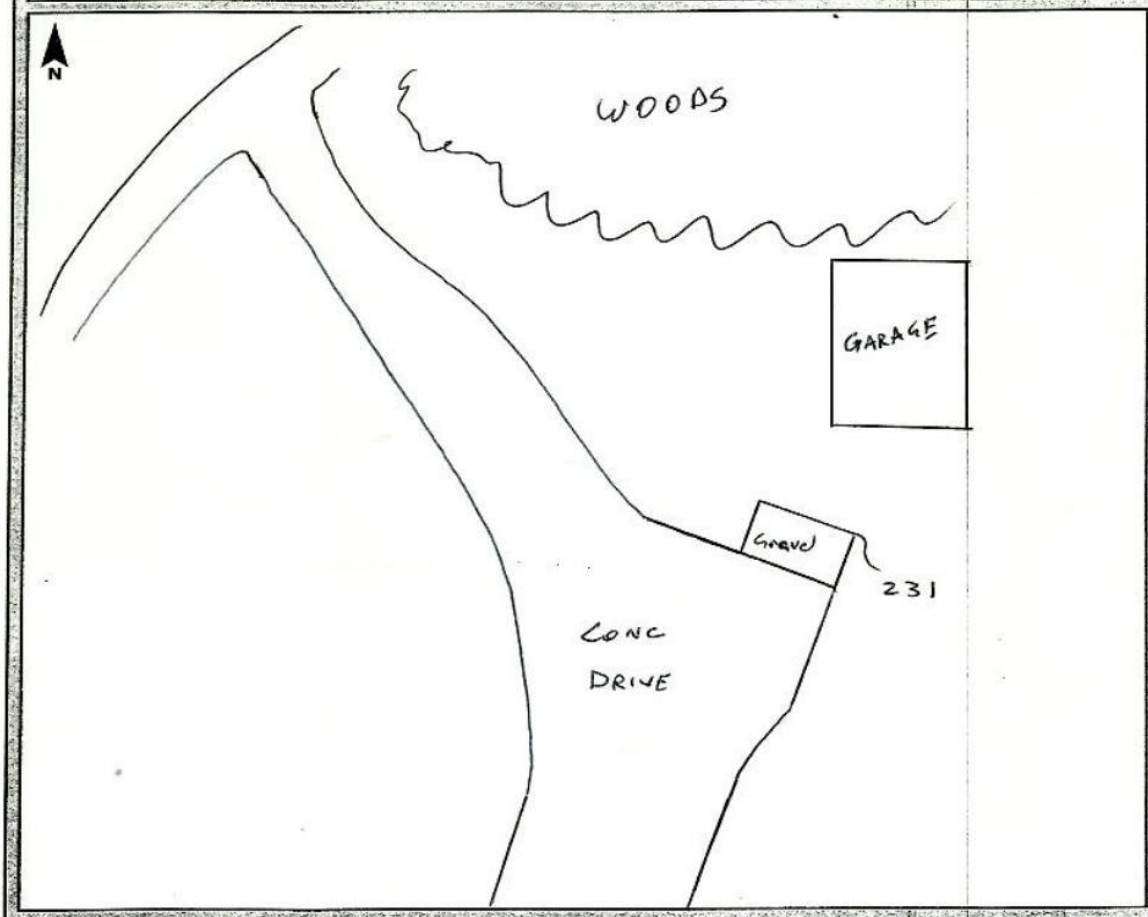


230-3N-14MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: 231 Operator Name: Stephen Schonegg
Latitude: 40-04-32.38 Julian Day: 074 Session No. _____
Longitude: 085-34-52.42 Start Time: 9:25 End Time: 9:30
Ellip. Height: .805.63 Data File Name: INDST14MAR12 SS
Type of Mark: Corner Gravel Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 60° Antenna Height: 6.562 FT to bottom of antenna mount





231-2-14MAR2012



231-3W-14MAR2012

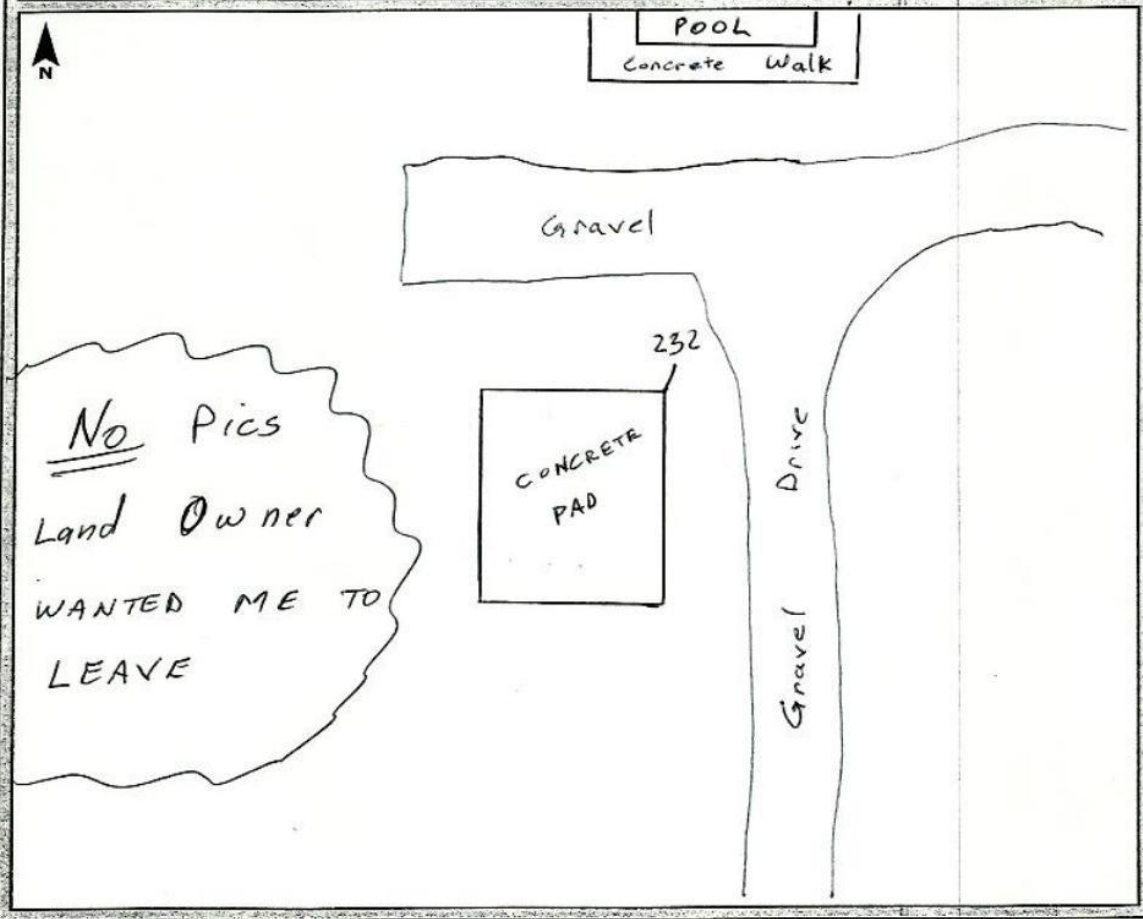


231-3N-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>232</u>	Operator Name: <u>Stephen Schonegg</u>	Session No. _____
Latitude: <u>39-57-05.33</u>	Julian Day: <u>074</u>	Start Time: <u>10:07</u> End Time: <u>10:12</u>
Longitude: <u>085-35-37.25</u>	Data File Name: <u>IND ST 14 MAR 12 SS</u>	Type of Receiver: <u>RB-2 #9357</u>
Ellip. Height: <u>886.56</u>	Type of Antenna: _____	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount
Type of Mark: <u>Corner Concrete Pad</u>	Weather Condition: <u>Sunny, 60°</u>	

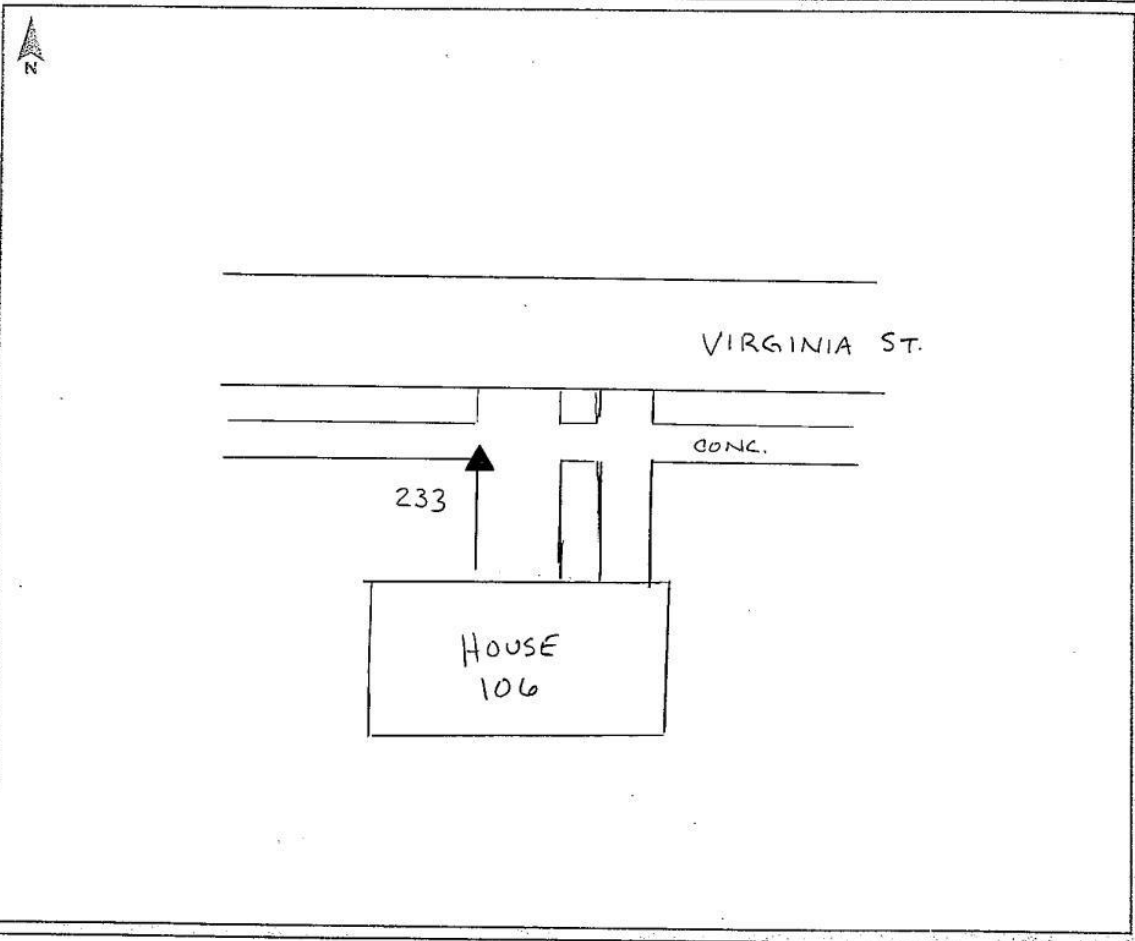


Landowner of #232 did not allow pictures to be taken.

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>233</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 35.54" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 51' 05.31" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>718.89</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





233-2-13MAR2012



233-3S-13MAR2012

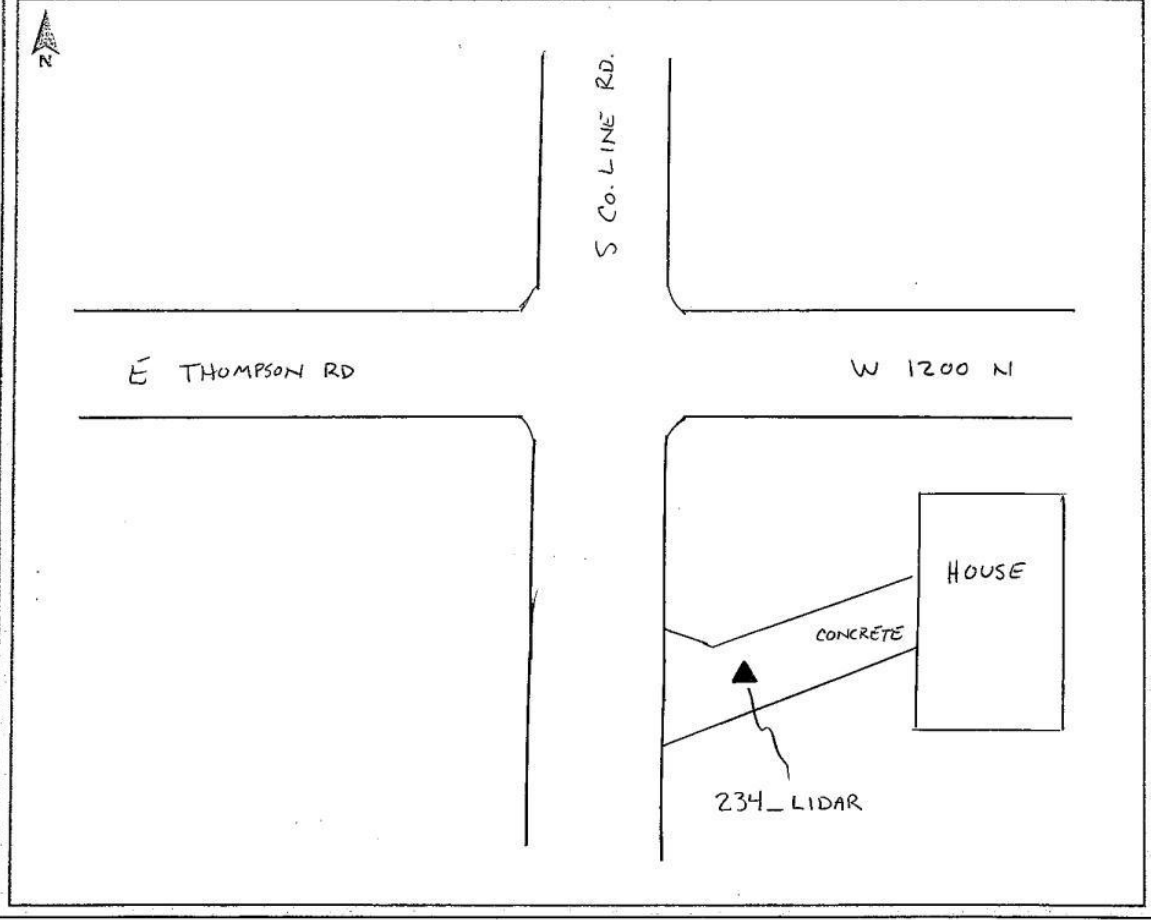


233-3E-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>234 - LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 41' 47.99" N</u>	Jullian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 57' 05.83" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>698.65 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Reciever: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





234 LIDAR-2-12MAR2012



234 LIDAR-3N-12MAR2012

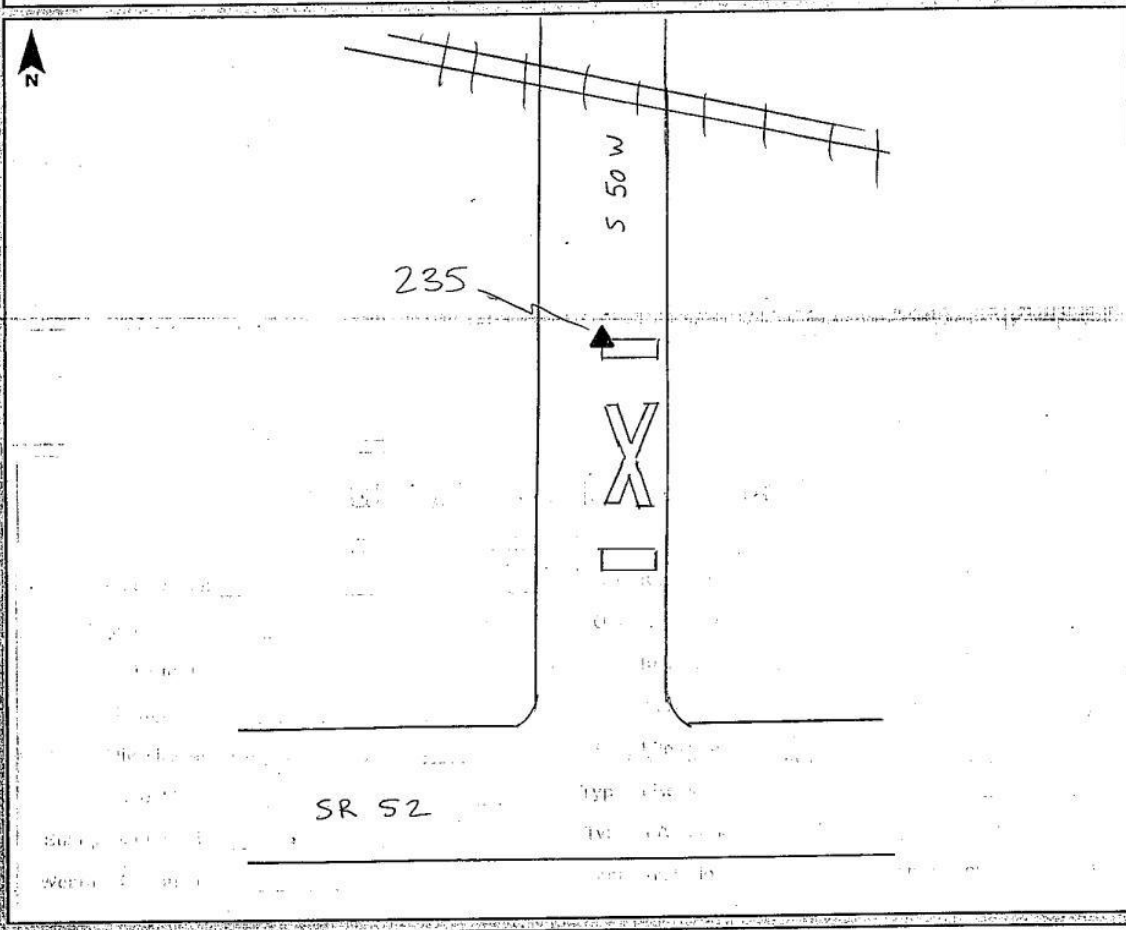


234 LIDAR-3E-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>235</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 42' 11.36" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 48' 35.29" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>728.29</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR. PAINT STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





235-2-12MAR2012



235-3W-12MAR2012

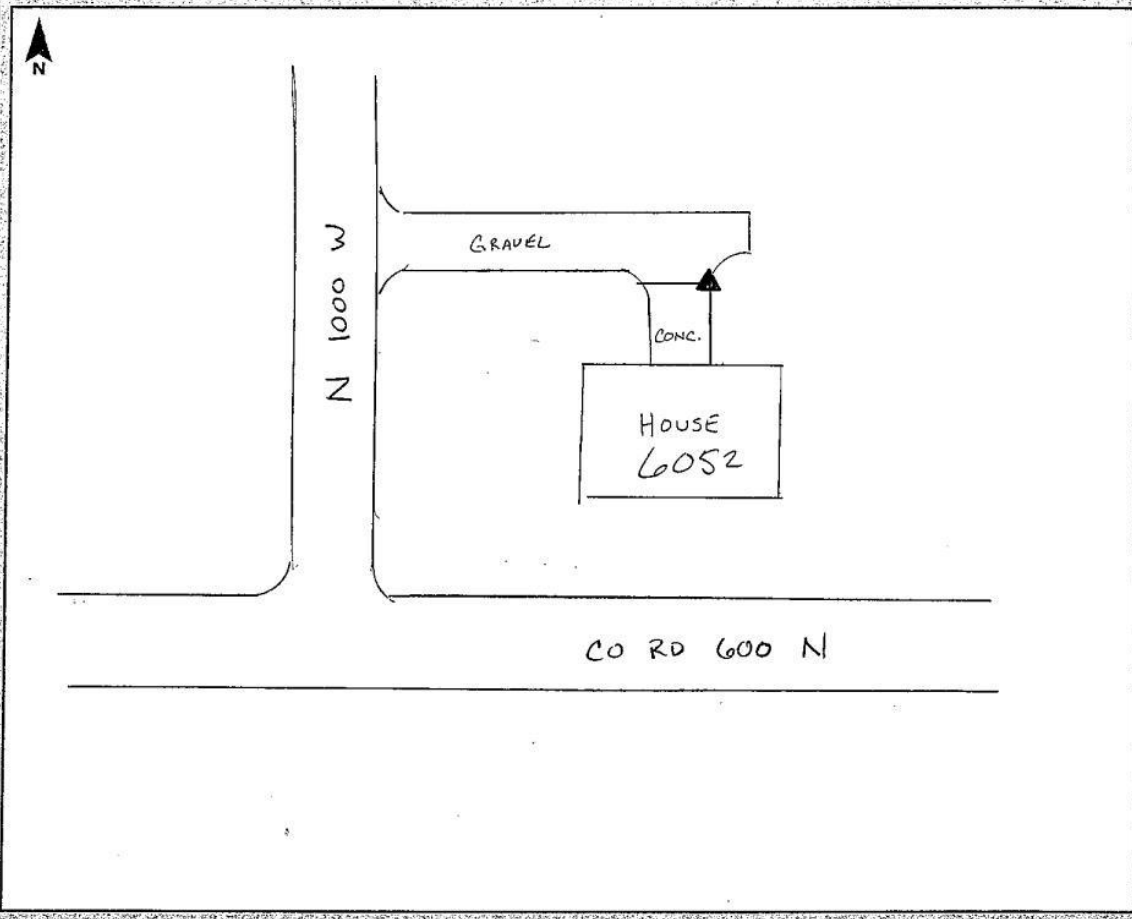


235-3N-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>236</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 41' 57.30" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 37' 57.49" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>817.25 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





236-2-12MAR2012



236-3N-12MAR2012

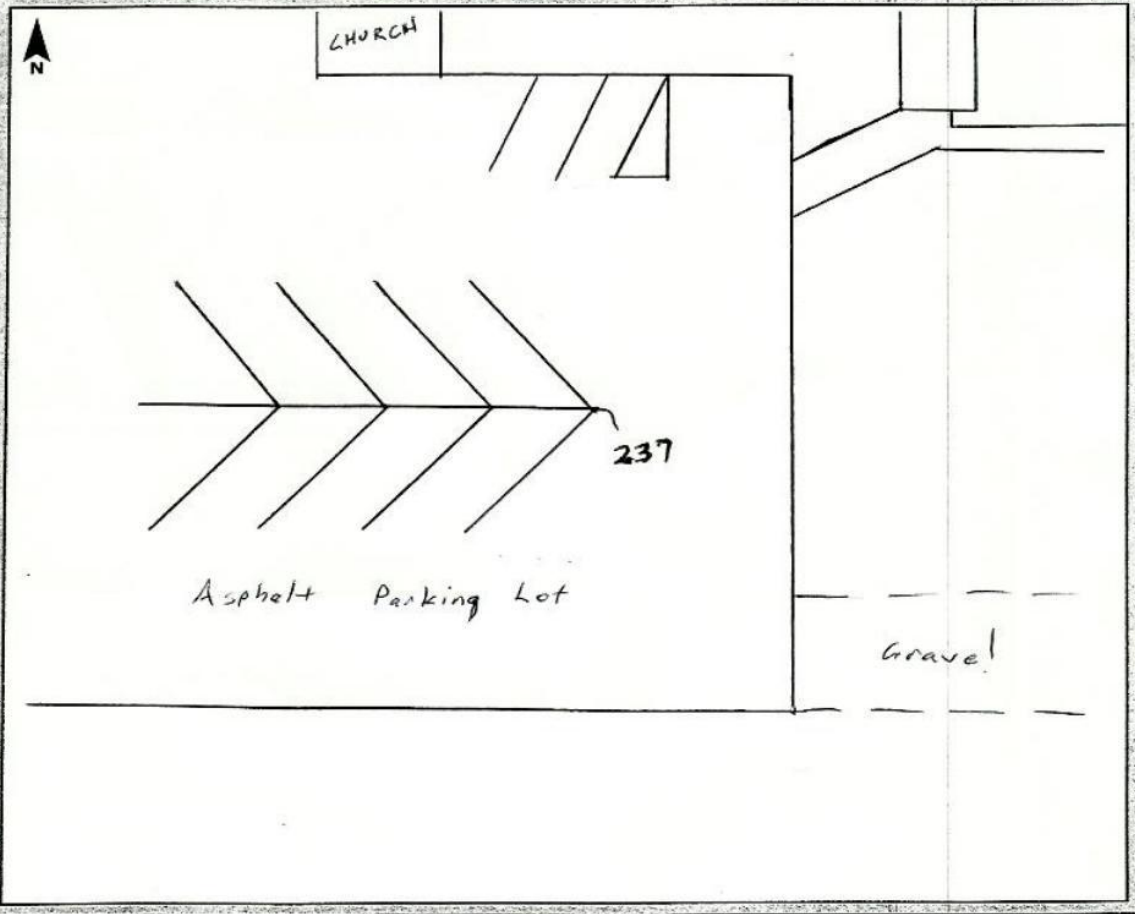


236-3E-12MAR2012

GPS Observation Log Sheet



Project Name:	<u>INDIANA STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>11 MAR 12</u>
Station Name:	<u>237</u>	Operator Name:	<u>Stephen Schonegg</u>		
Latitude:	<u>39-31-11.37</u>	Julian Day:	<u>071</u>	Session No.:	
Longitude:	<u>85-38-06.30</u>	Start Time:	<u>12:20</u>	End Time:	<u>12:27</u>
Ellip. Height:	<u>790.58 FT</u>	Data File Name:	<u>INDST11MAR12.SS</u>		
Type of Mark:	<u>PAINT STRIPE</u>	Type of Receiver:	<u>R8-2 #9357</u>		
Stamping on Mark:	<u>MAG NAIL</u>	Type of Antenna:			
Weather Condition:	<u>Sunny, 45°</u>	Antenna Height:	<u>6.562 FT</u> to bottom of antenna mount		





237-2-11MAR2012



237-3W-11MAR2012

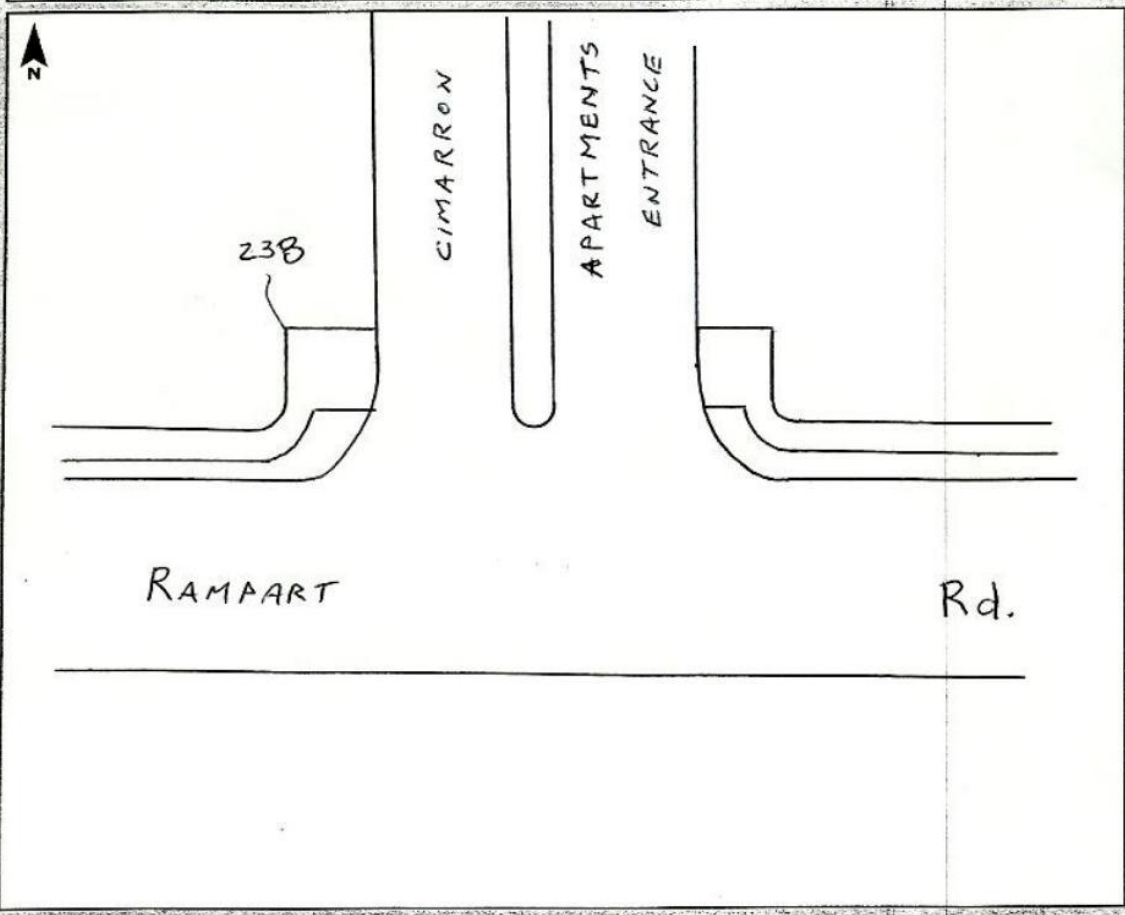


237-3N-11MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 11 MAR 12
Station Name: 238 Operator Name: Stephen Schonegg
Latitude: 39-23-51.56 Julian Day: 071 Session No. _____
Longitude: 085-46-53.83 Start Time: 1:23 End Time: 1:28
Ellip. Height: 676.623 Data File Name: INDST11MAR12SS
Type of Mark: Corner Concrete Walk Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50°, Windy Antenna Height: 6.562 ft to bottom of antenna mount





238-2-11MAR2012



238-3N-11MAR2012

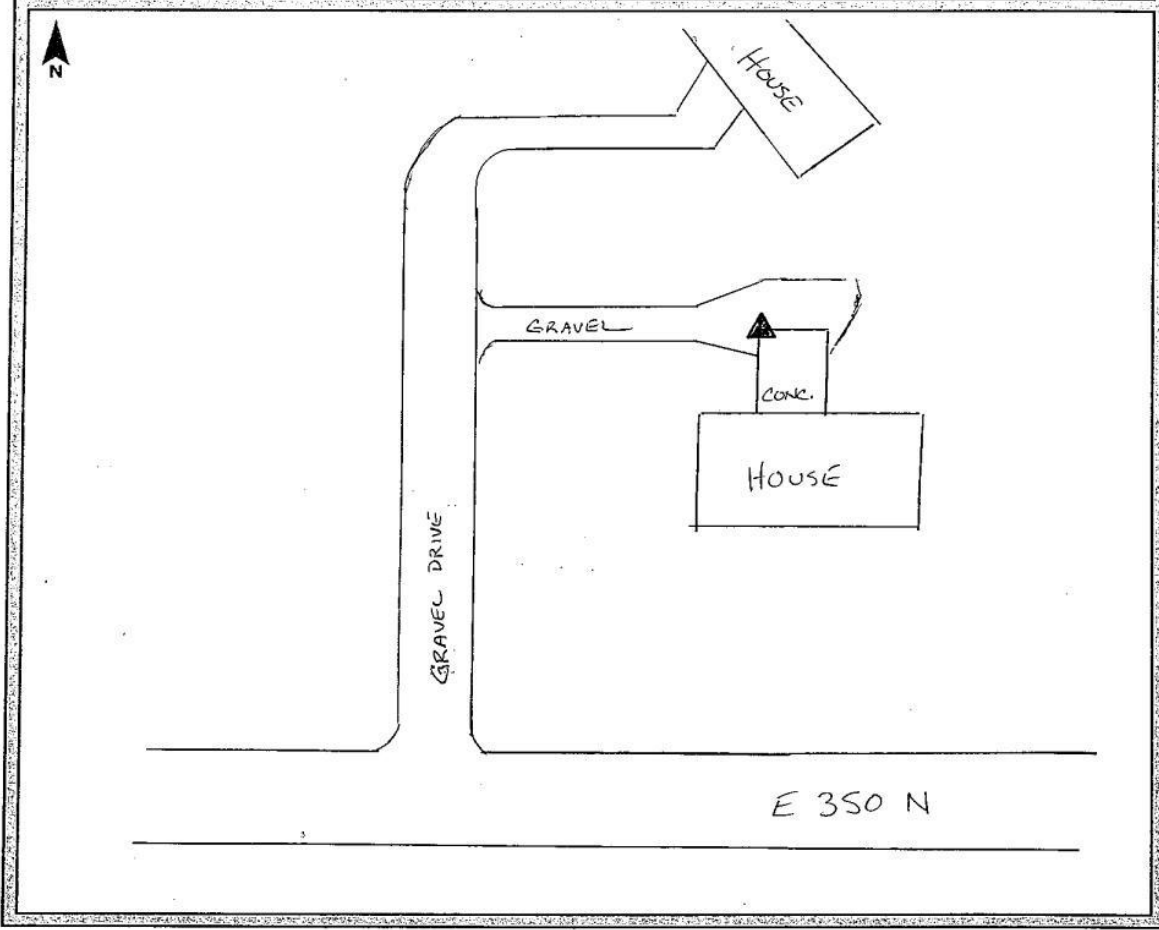


238-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>239</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 31' 55.26" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 57' 38.45</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>613.46</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





239-2-12MAR2012



239-3N-12MAR2012

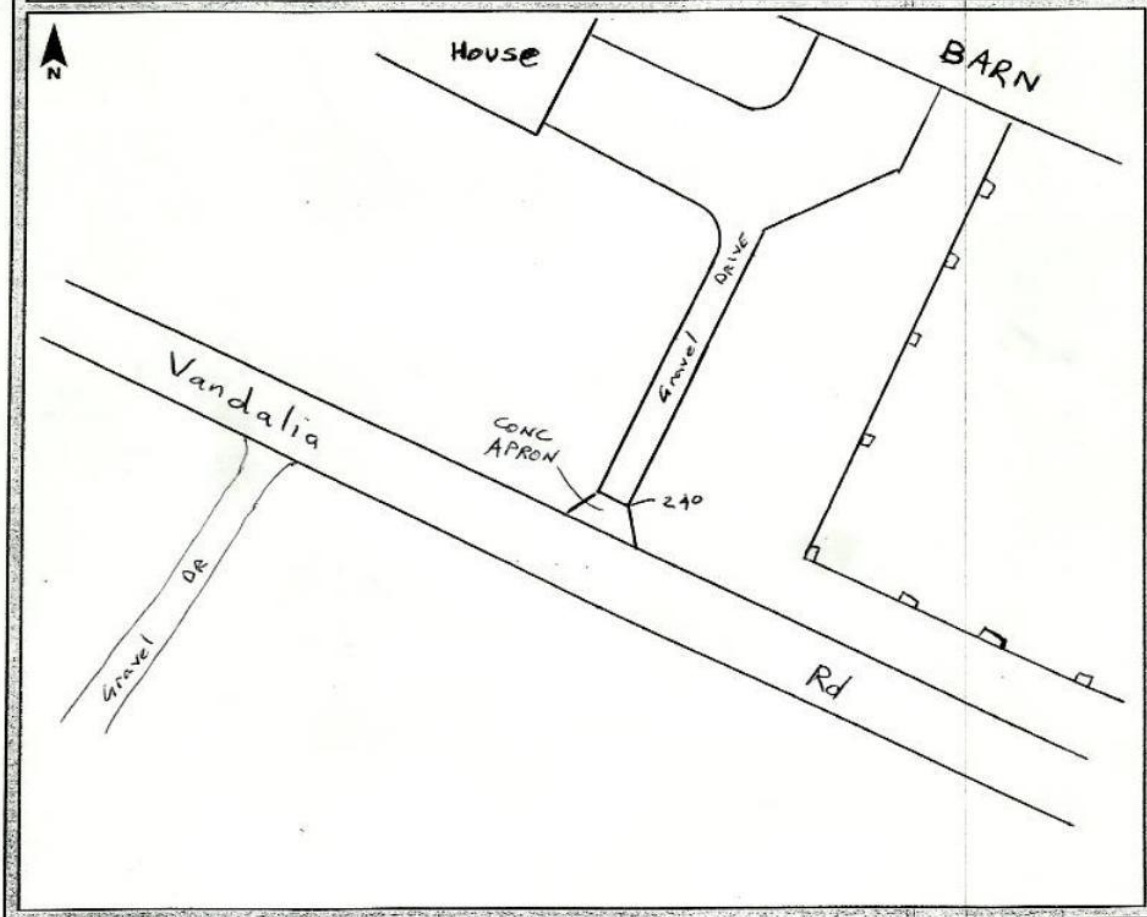


239-3E-12MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 11 MAR 12
Station Name: 240 Operator Name: Stephen Schonegg
Latitude: 39-22-32.35 Julian Day: 071 Session No. _____
Longitude: 085-38-59.73 Start Time: 11:10 End Time: 11:14
Ellip. Height: 726.51 FT Data File Name: INDST11MAR1255
Type of Mark: Corner Concrete Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 45° Antenna Height: 6.562 FT to bottom of antenna mount





240-2-11MAR2012



240-3N-11MAR2012

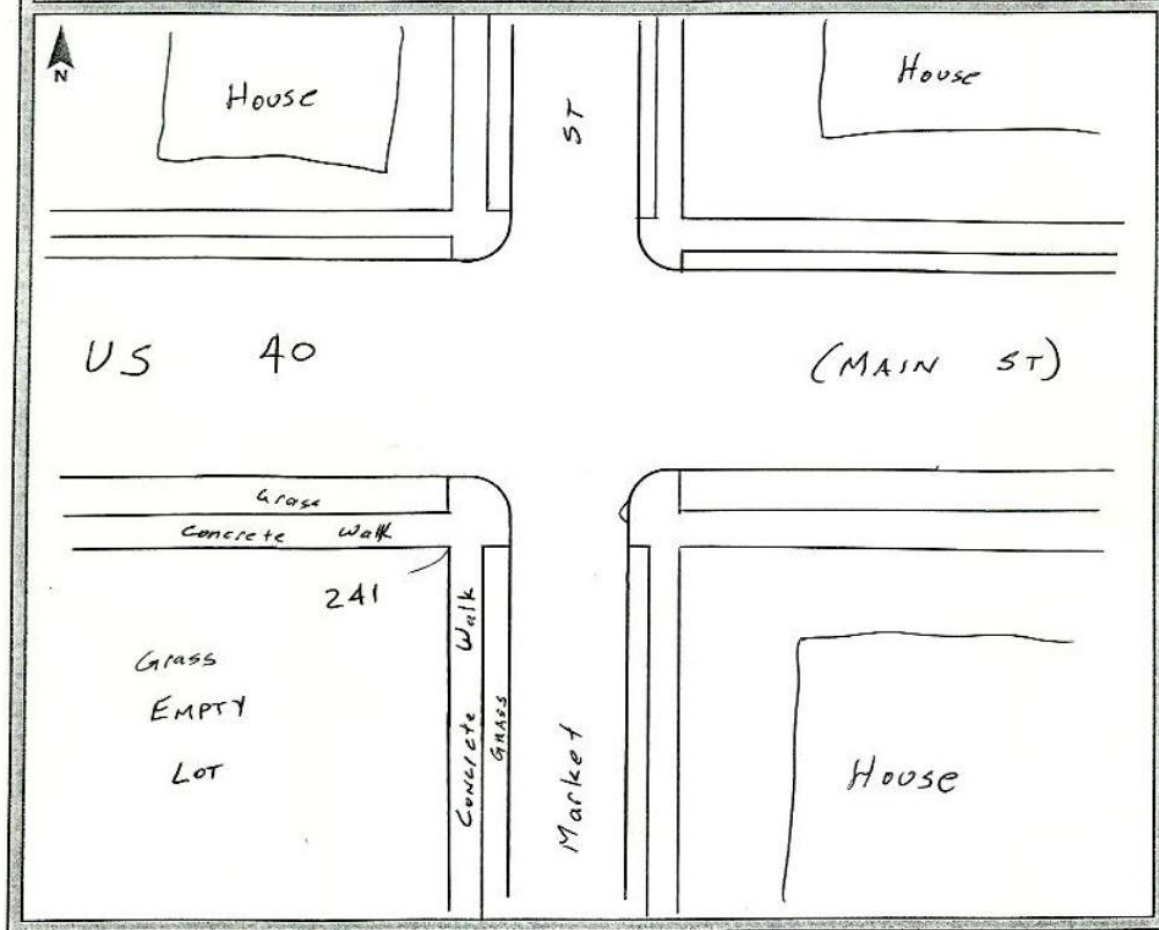


240-3E-11MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>241</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-18-24.25</u>	Julian Day: <u>074</u>	Session No. _____
Longitude: <u>085-21-16.36</u>	Start Time: <u>2:41</u>	End Time: <u>2:46</u>
Ellip. Height: <u>929.82</u>	Data File Name: <u>INDST14MAR12SS</u>	
Type of Mark: <u>Corner Concrete Walk</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





241-2-14MAR2012



241-3N-14MAR2012



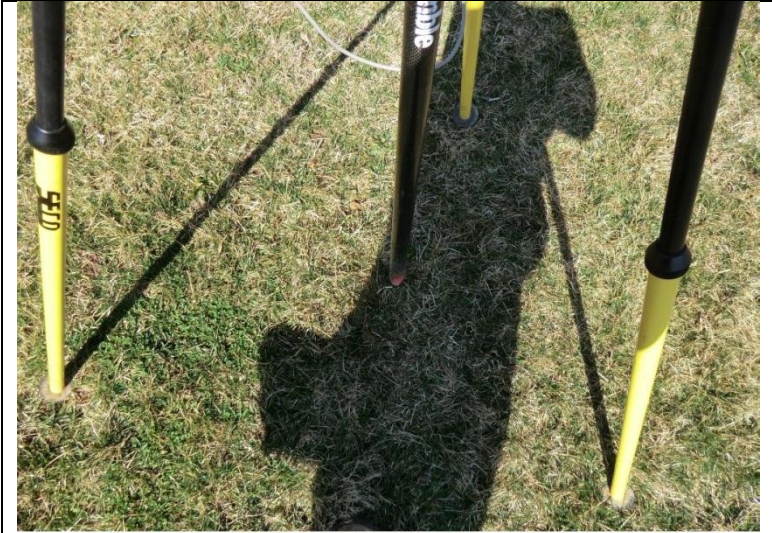
241-3E-14MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-13
Station Name: 242 LIDAR Operator Name: David Hall
Latitude: 39° 42' 01.2" Julian Day: 073 Session No. 1
Longitude: 85° 05' 05.5" Start Time: 14:15 End Time: 14:25
Ellip. Height: 860' Data File Name: INDY 073-DNH
Type of Mark: SHORT GRADE Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: 60° ☉ Sunny Antenna Height: 2000M to bottom of antenna mount





242_LIDAR-2-13MAR2012



242_LIDAR-3N-13MAR2012

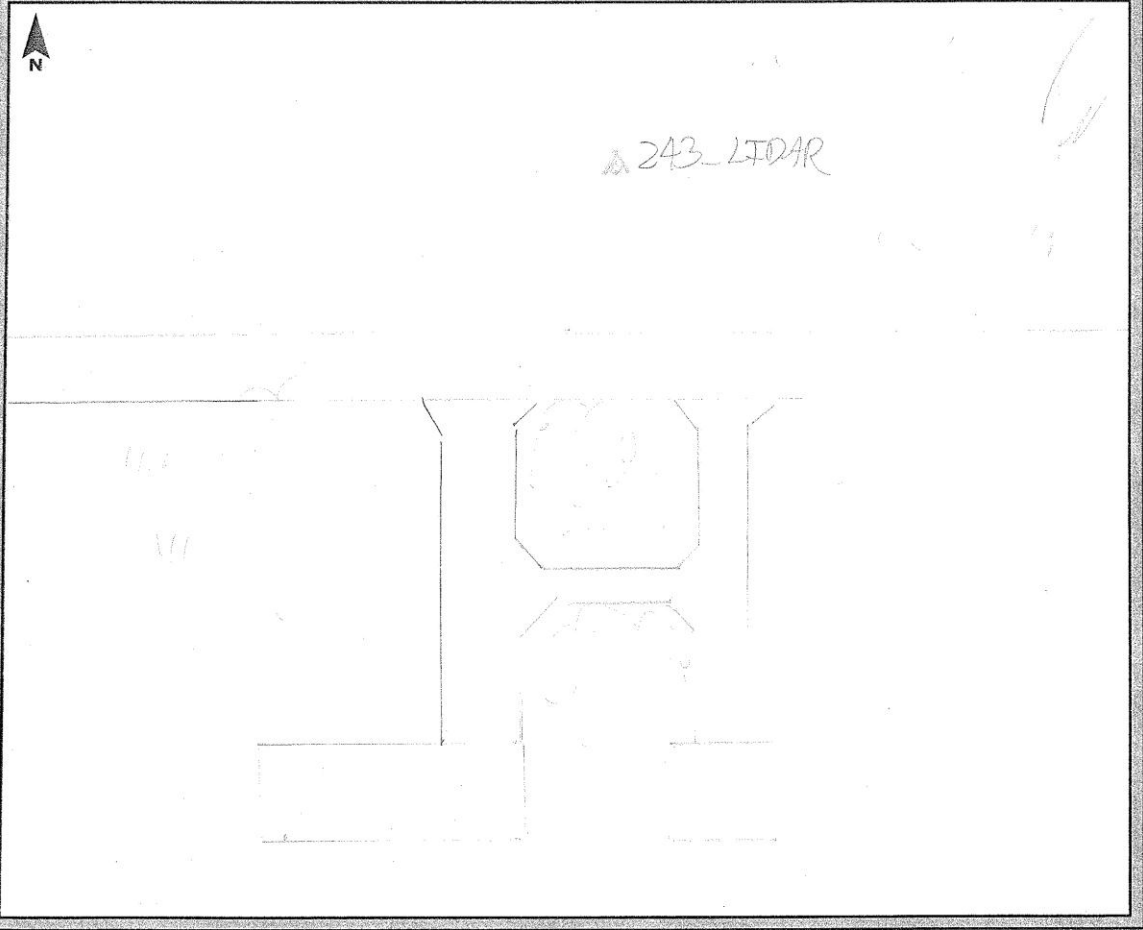


242_LIDAR-3E-13MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-22</u>
Station Name:	<u>243 LIDAR</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>39° 30' 50.4"</u>	Julian Day:	<u>072</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 04' 55.0"</u>	Start Time:	<u>11:51</u>	End Time:	<u>11:59</u>
Ellip. Height:	<u>815'</u>	Data File Name:	<u>INDY-072-DNA</u>		
Type of Mark:	<u>Short Grass</u>	Type of Receiver:	<u>R9-3</u>		
Stamping on Mark:		Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60% & overcast</u>	Antenna Height:	<u>2.000M</u>	to bottom of antenna mount	





243 LIDAR-2-12MAR2012



243_LIDAR-3N-12MAR2012

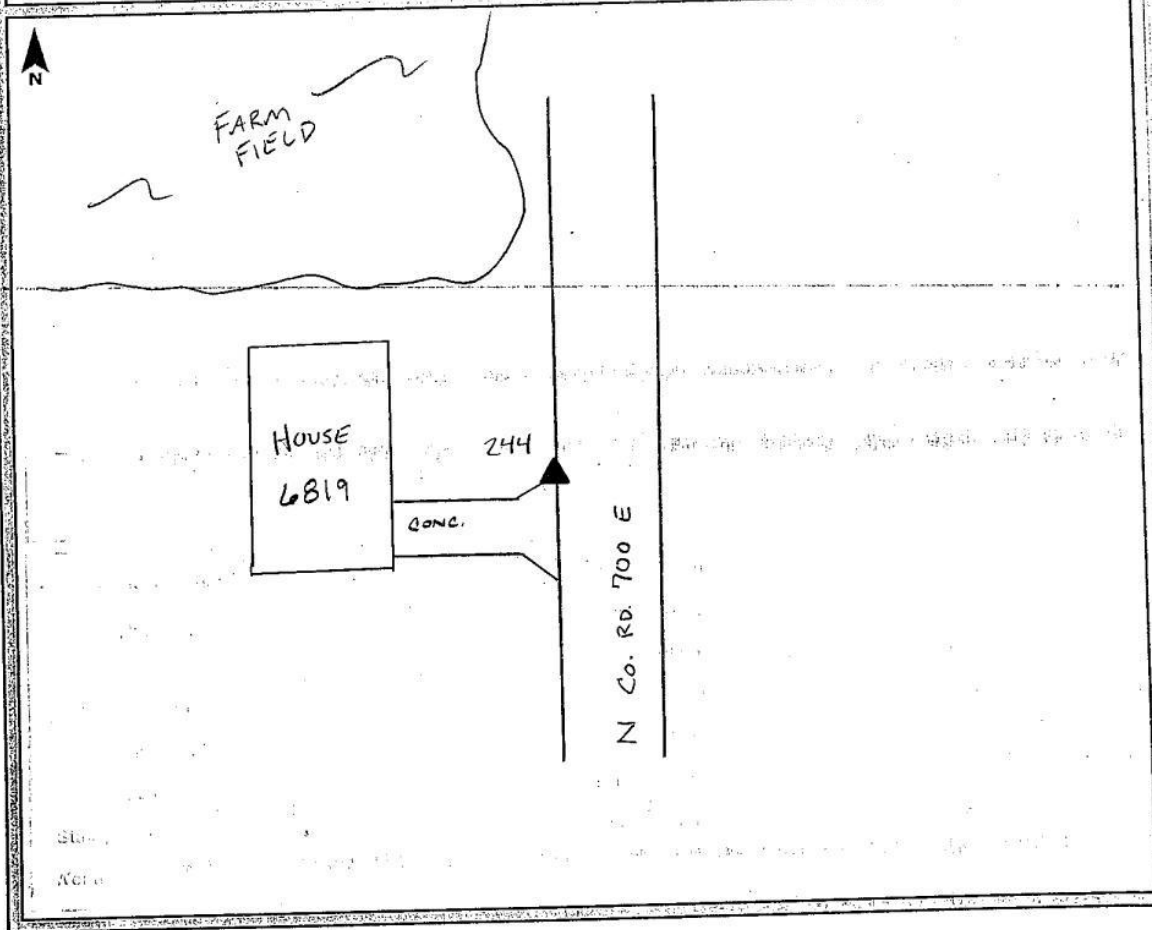


243 LIDAR-3E-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>244</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 26' 18.19" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 20' 51.79" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>947.32 SFT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





244-2-11MAR2012



244-3S-11MAR2012

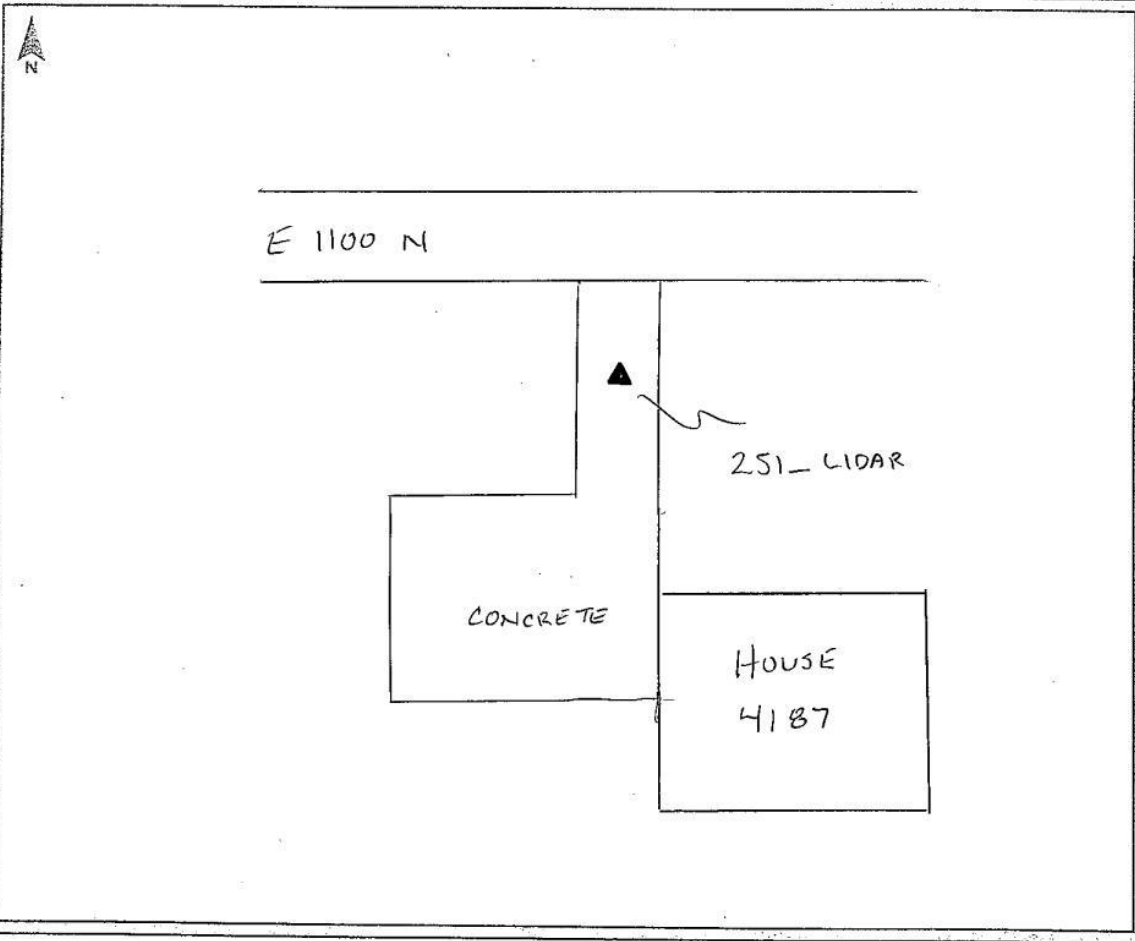


244-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>251 - LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 56' 42.32" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 43' 36.70" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>768.25 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>60° CLEAR</u>	Antenna Height: <u>2 M</u>	to bottom of antenna mount





251_LIDAR-2-13MAR2012



251_LIDAR-3S-13MAR2012

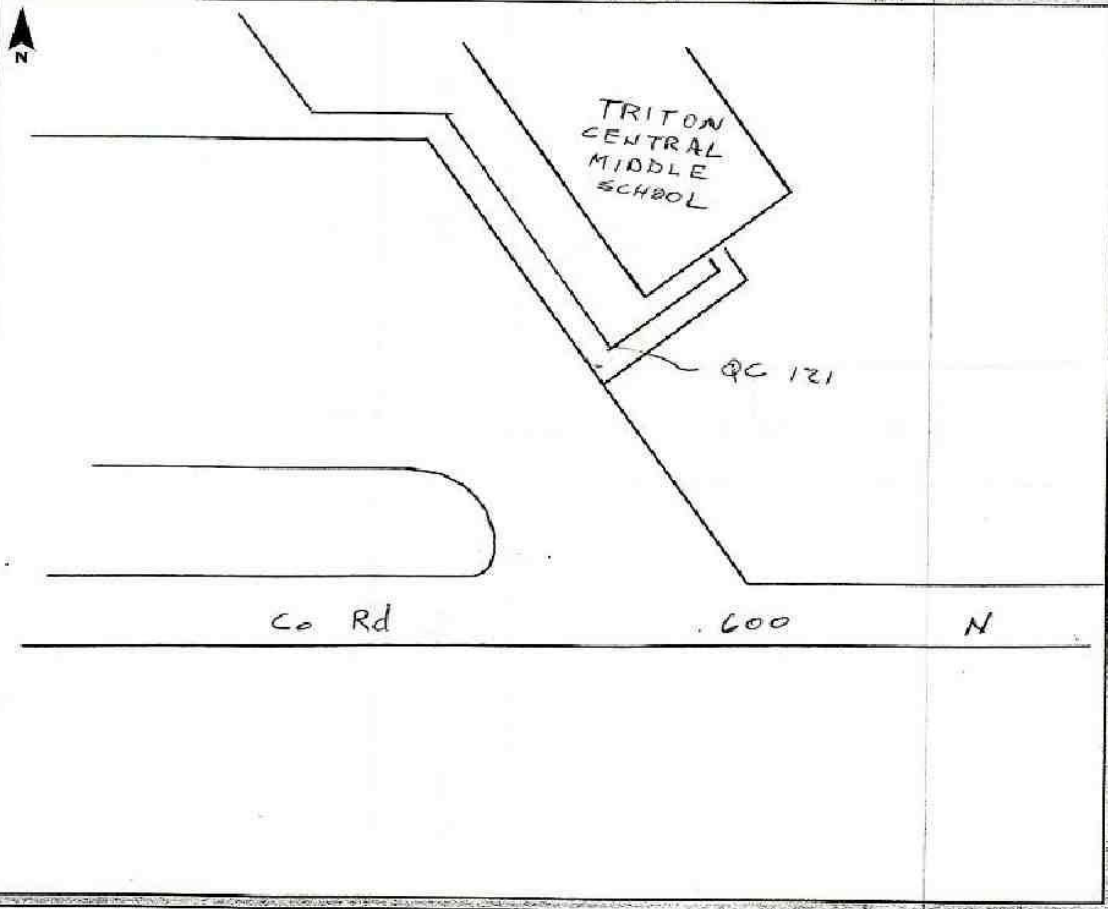


251_LIDAR-3E-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 13 MAR 12
Station Name: QC 121 Operator Name: Stephen Schonegg
Latitude: 39-36-43.97 Julian Day: 073 Session No. _____
Longitude: 085-52-11.29 Start Time: 6:01 End Time: 6:05
Ellip. Height: 687.29 Data File Name: INDST 13 MAR 12 SS
Type of Mark: Corner Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 70° Antenna Height: 6.562 FT to bottom of antenna mount





QC 121-2-13MAR2012



QC 121-3N-13MAR-2012

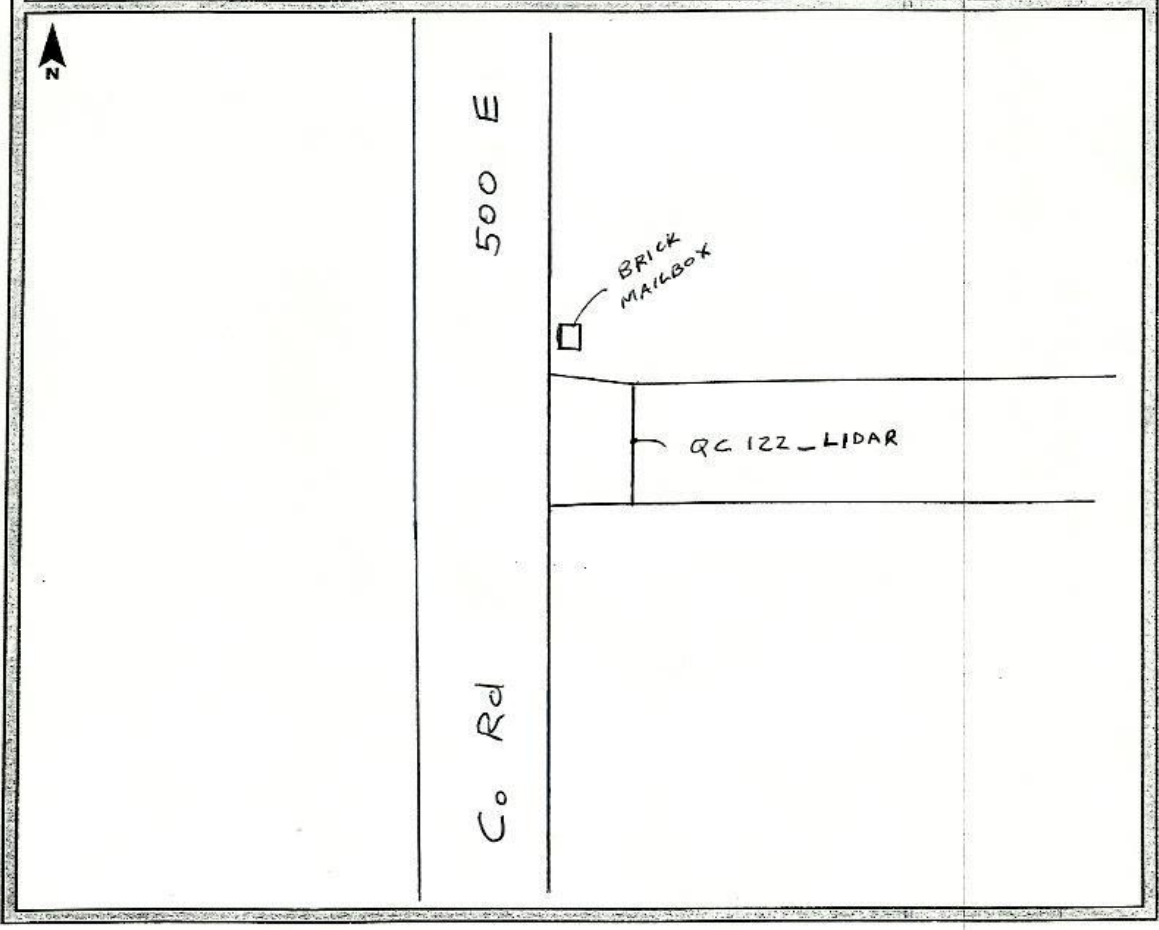


QC 121-3E-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 11 MAR 12
Station Name: QC 122 - LIDAR Operator Name: Stephen Schonegg
Latitude: 39-36-01.22 Julian Day: 071 Session No. _____
Longitude: 085-41-09.58 Start Time: 1:01 End Time: _____
Ellip. Height: 746.35 FT Data File Name: INDST11MAR12SS
Type of Mark: Edge Concrete Apron Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





QC 122 LIDAR-2-11MAR2012



QC 122-LIDAR-3E-11MAR2012

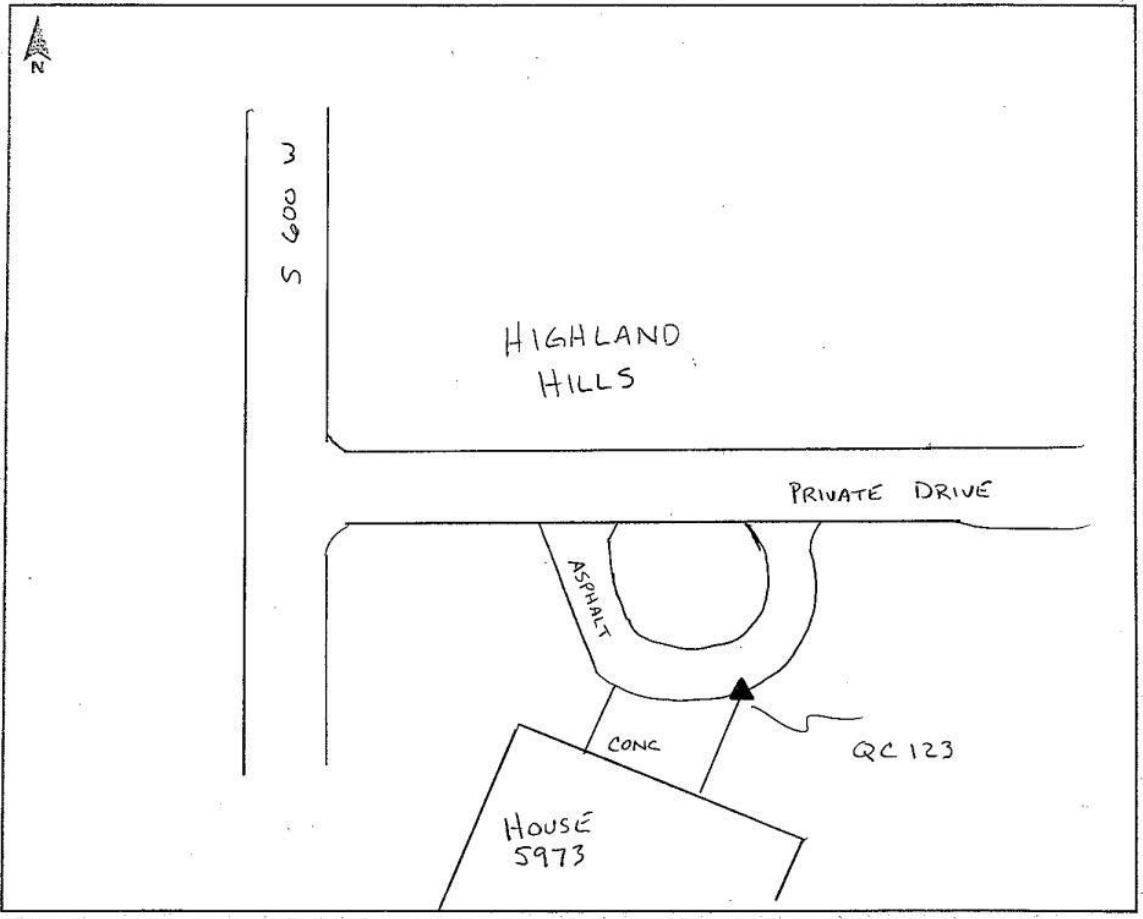


QC 122 LIDAR-3N-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/12/2012</u>
Station Name: <u>QC 123</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 24' 09.08" N</u>	Julian Day: <u>072</u>	Session No. <u>—</u>
Longitude: <u>85° 53' 35.57" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>735.10 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLOUDY</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC123-2-12MAR2012



QC123-3S-12MAR2012

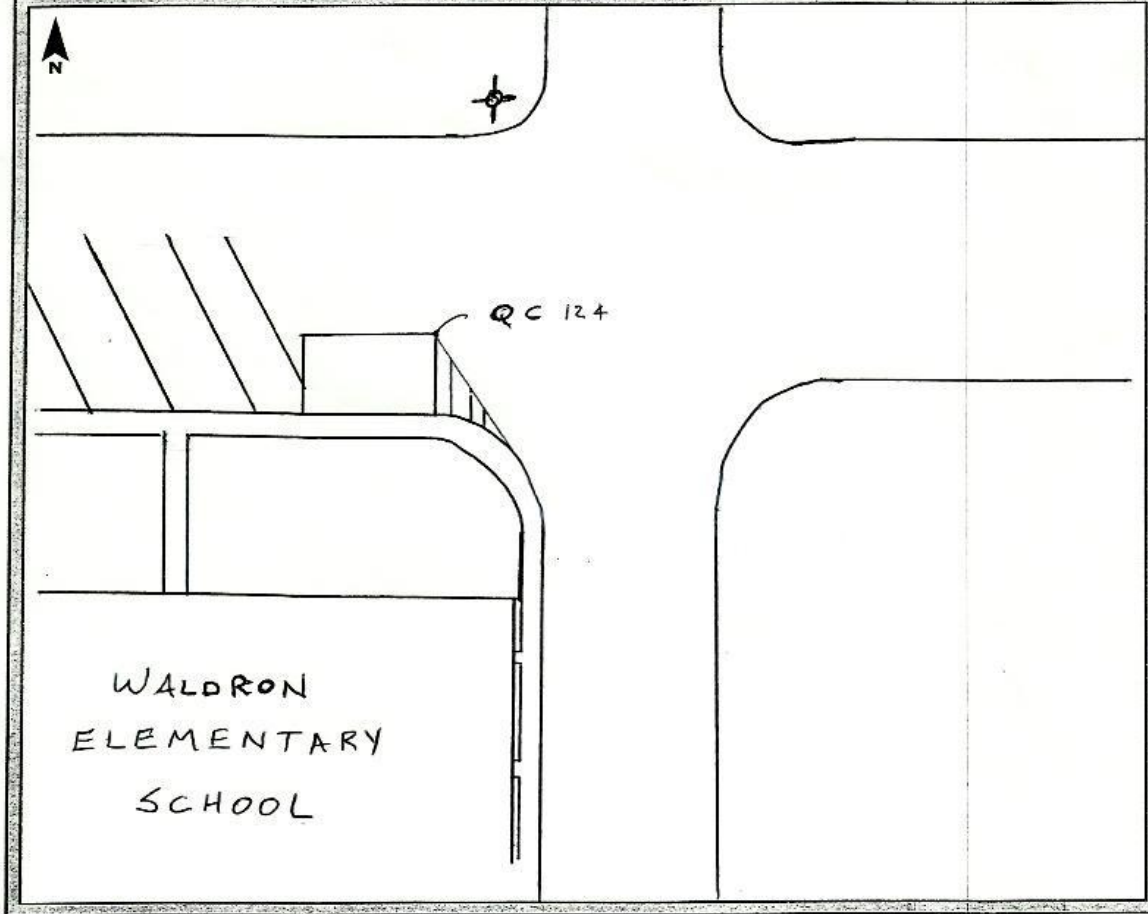


QC123-3N-12MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 11 MAR 12
Station Name: QC 124 Operator Name: Stephen Schonegg
Latitude: 39-27-07.02 Julian Day: 071 Session No. _____
Longitude: 085-39-35.44 Start Time: 11:45 End Time: 11:49
Ellip. Height: 717.93 Data File Name: IND ST 11 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: R8-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 45° Antenna Height: 6.562 FT to bottom of antenna mount





QC 124-2-11MAR2012



QC 124-3S-11MAR2012

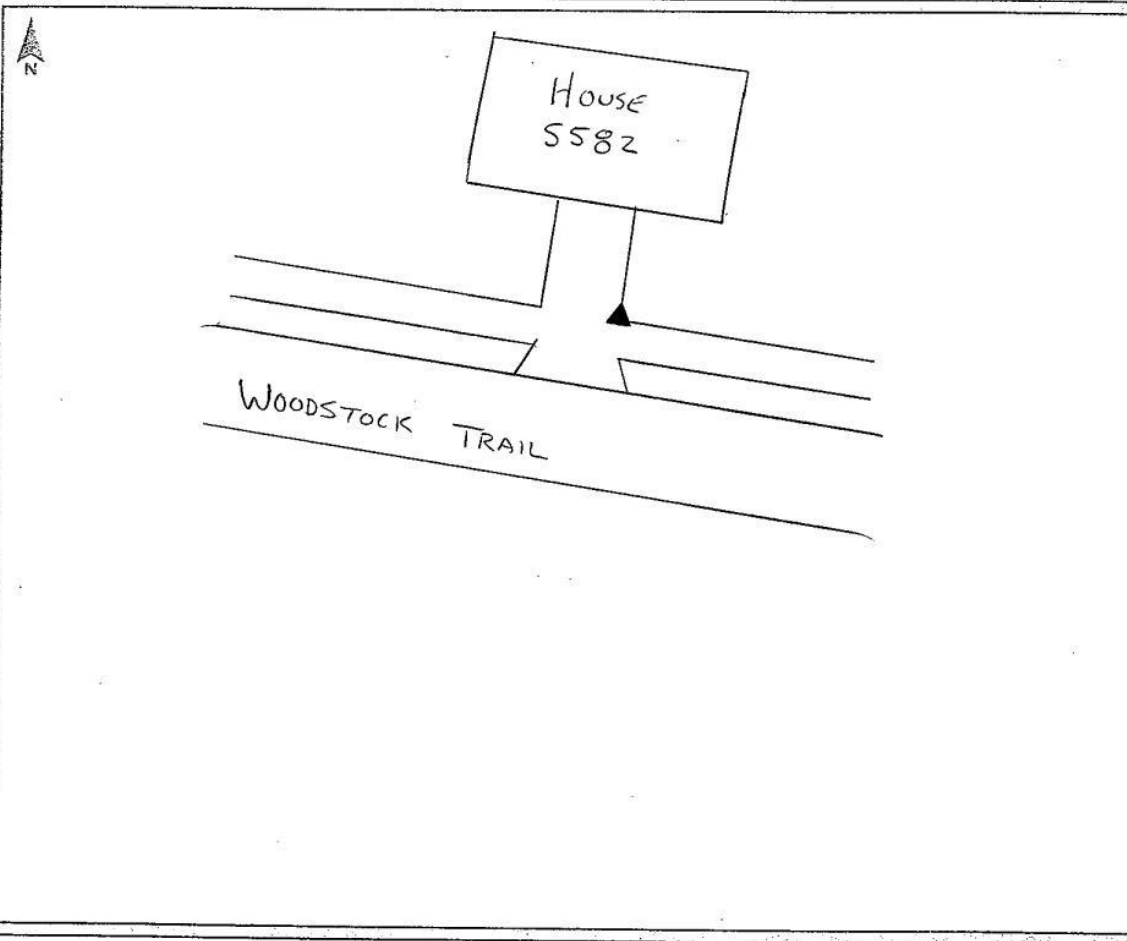


QC 124-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u>	Survey Date: <u>03/13/2012</u>
Station Name: <u>QC125</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 52' 13.88" N</u>	Julian Day: <u>073</u>	Session No. <u>—</u>
Longitude: <u>85° 54' 39.62" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>730.23</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>70° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC125-2-13MAR2012



QC125-3W-13MAR2012

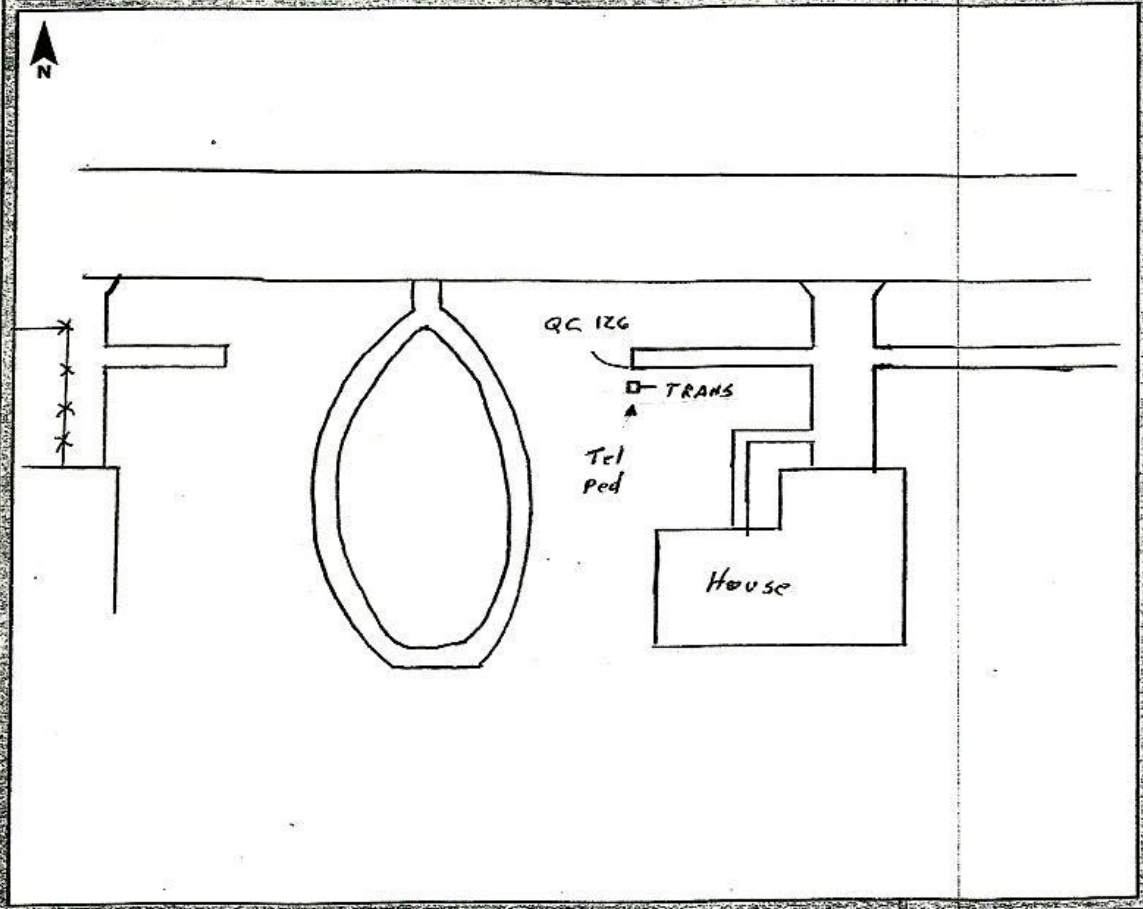


QC125-3N-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 14 MAR 12
Station Name: QC 126A Operator Name: Stephen Schonegg
Latitude: 39-47-57.42 Julian Day: 074 Session No. _____
Longitude: 085-43-50.07 Start Time: 11:03 End Time: 11:08
Ellip. Height: .781076 Data File Name: IND ST 14 MAR 12 SS
Type of Mark: Copper Concrete Walk Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 65° Antenna Height: 6.562 FT to bottom of antenna mount





QC 126A-2-13MAR2012



QC 126A-3W-13MAR2012

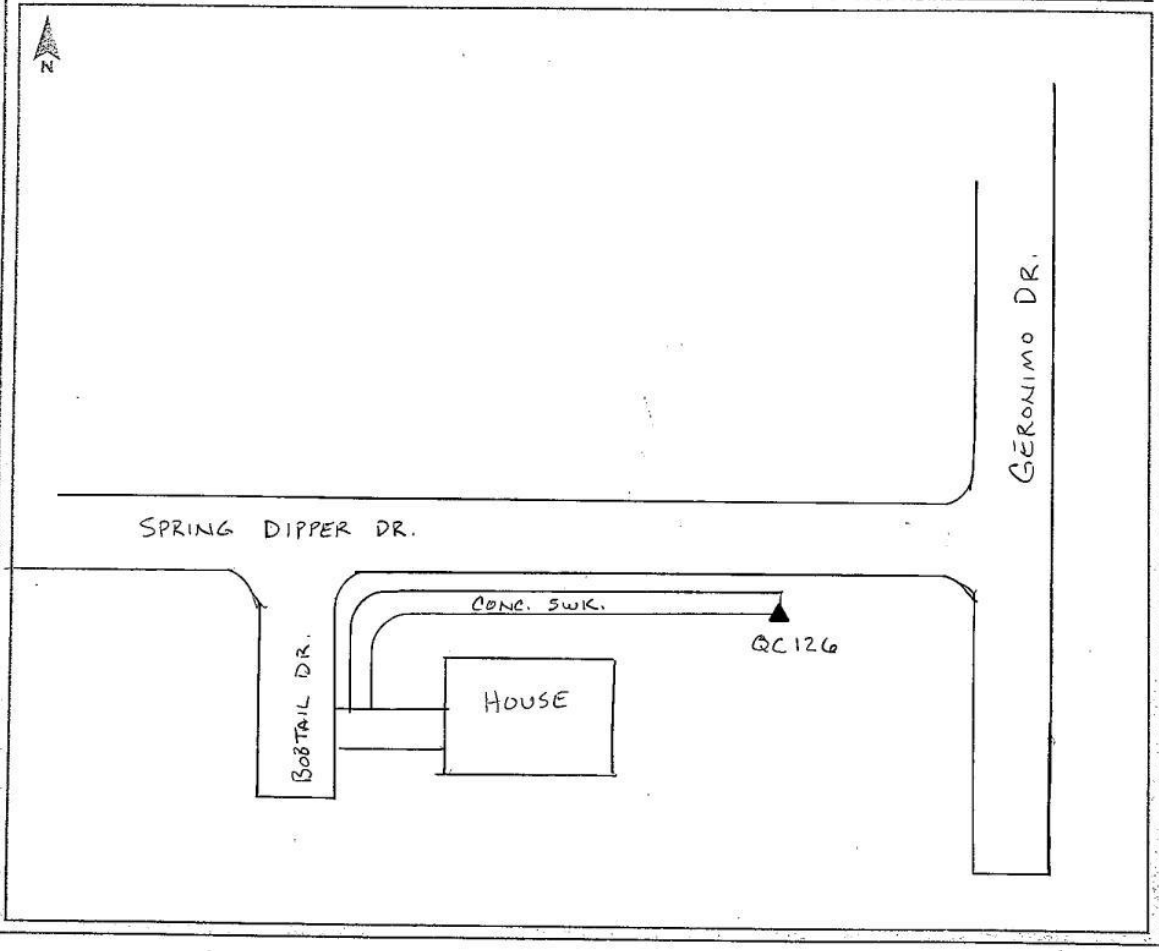


QC 126A-3N-13MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: <u>72134</u> Survey Date: <u>03/13/2012</u>
Station Name: <u>QC 126B</u>	Operator Name: <u>BEN CHRISTIE</u>
Latitude: <u>39° 47' 54.50" N</u>	Julian Day: <u>073</u> Session No. <u>—</u>
Longitude: <u>85° 43' 45.95" W</u>	Start Time: <u>—</u> End Time: <u>—</u>
Ellip. Height: <u>760.92 sft</u>	Data File Name: <u>—</u>
Type of Mark: <u>SE COR SIDEWALK</u>	Type of Receiver: <u>R8</u>
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>
Weather Condition: <u>65° CLEAR</u>	Antenna Height: <u>2M</u> to bottom of antenna mount





QC 126B-2-13MAR2012



QC 126B-3E-13MAR2012

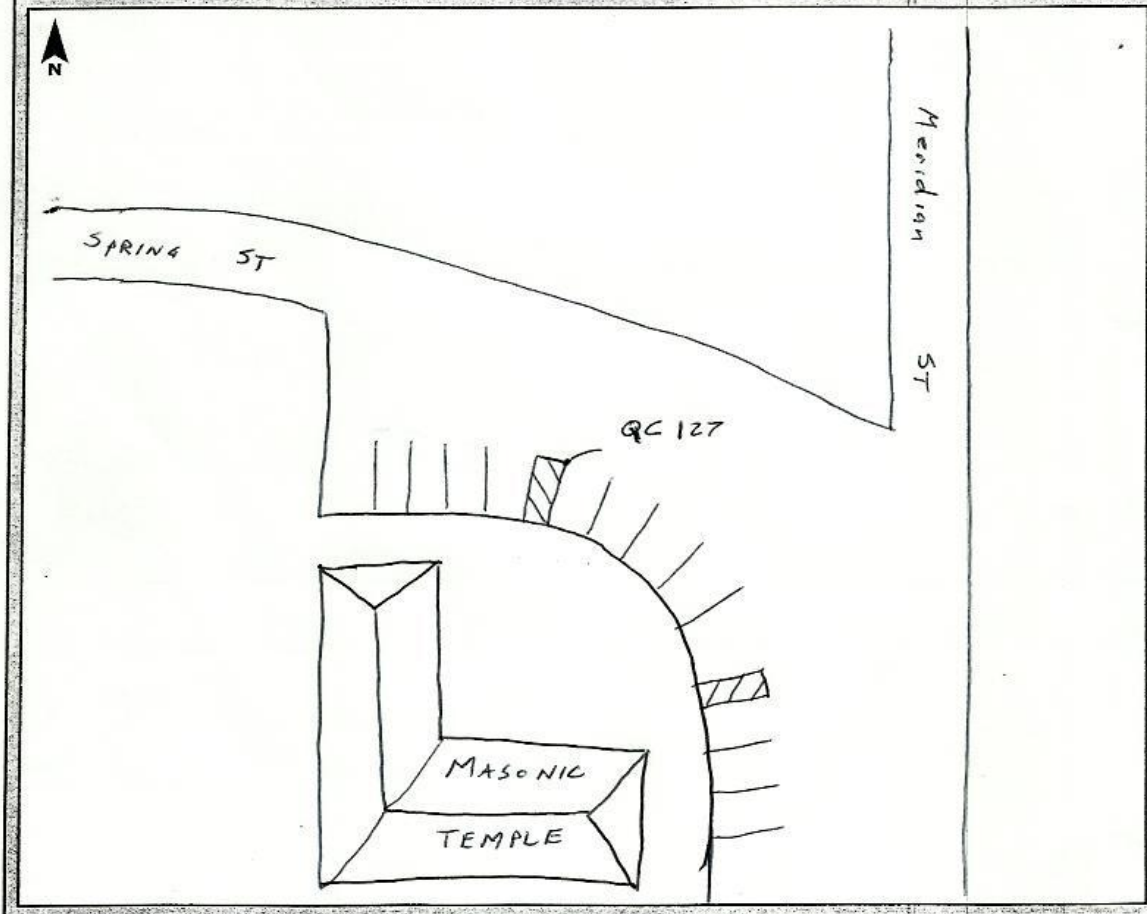


QC 126B-3S-13MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: MAR 12
Station Name: QC 127 Operator Name: Stephen Schonegg
Latitude: 40-00-22.79 Julian Day: 074 Session No. _____
Longitude: 085-26-36.48 Start Time: 8:53 End Time: 8:58
Ellip. Height: 937.32 FT Data File Name: INDST 14 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: R8-2 #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, Antenna Height: 6.562 FT to bottom of antenna mount





QC 127-2-14MAR2012



QC 127-3W-14MAR2012

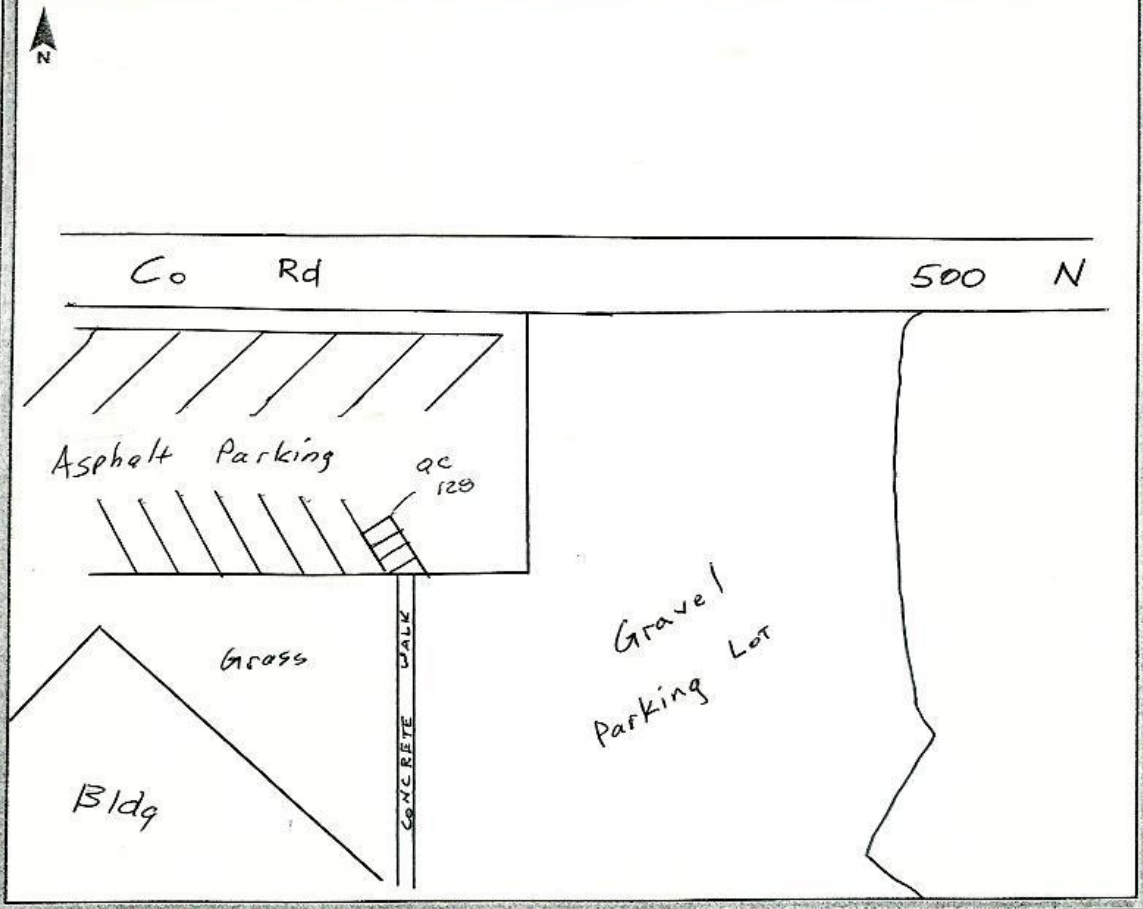


QC 127-3S-14MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>QC 128</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-51-37.32</u>	Julian Day: <u>074</u>	Session No. _____
Longitude: <u>085-15-42.66</u>	Start Time: <u>3:08</u>	End Time: <u>3:13</u>
Ellip. Height: <u>.984.43</u>	Data File Name: <u>INDST MAR12SS</u>	
Type of Mark: <u>PAINT STRIPE</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: <u>P.K NAIL</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 75°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC128-2-12MAR2012



QC128-3N-12MAR2012

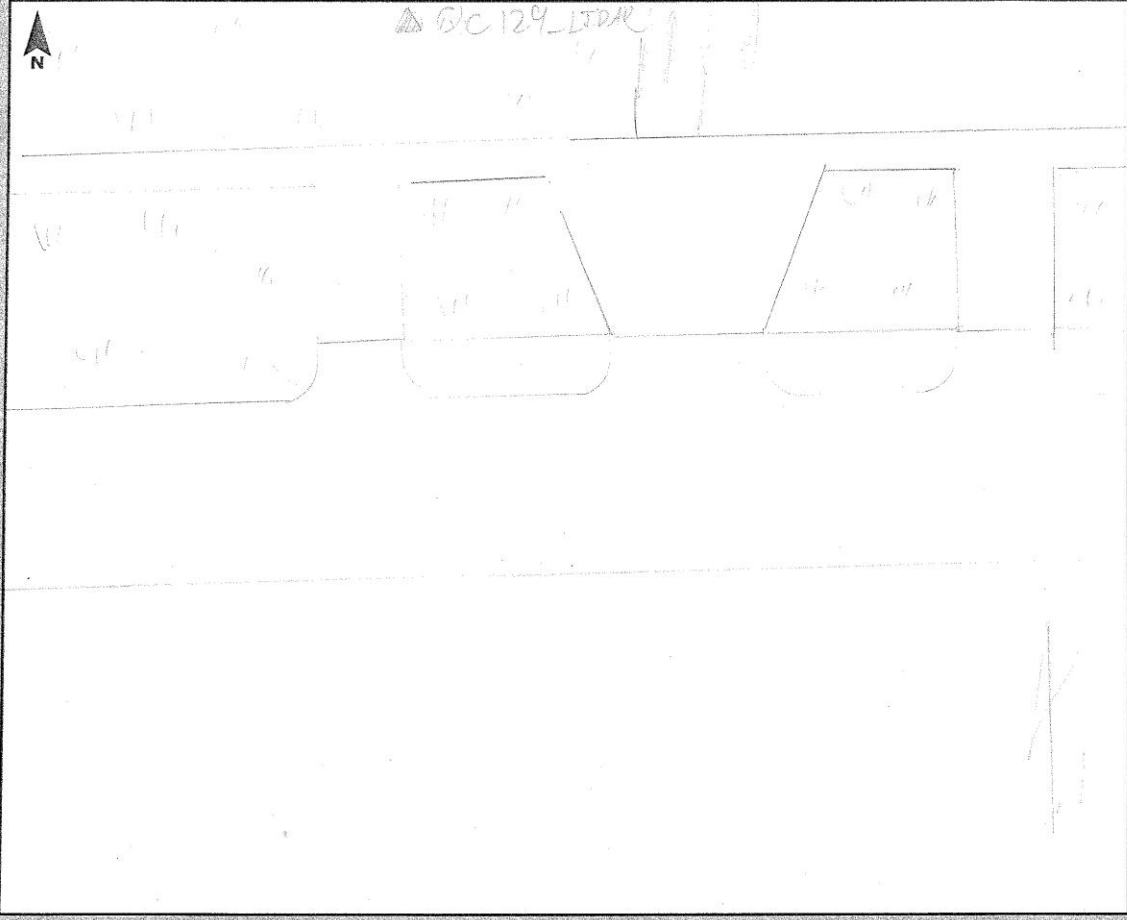


QC128-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>IV Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012.03.12</u>
Station Name: <u>QC 129 - LIDAR</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 54' 39.2"</u>	Julian Day: <u>072</u>	Session No. <u>2</u>
Longitude: <u>87° 08' 24.7"</u>	Start Time: <u>15:12</u>	End Time: <u>15:24</u>
Ellip. Height: <u>876.3'</u>	Data File Name: <u>JNDY_072_D.MK</u>	
Type of Mark: <u>Short cross</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60% cloudy</u>	Antenna Height: <u>2.000m</u> to bottom of antenna mount	





QC 129 LIDAR-2-12MAR2012



QC 129_LIDAR-3N-12MAR2012

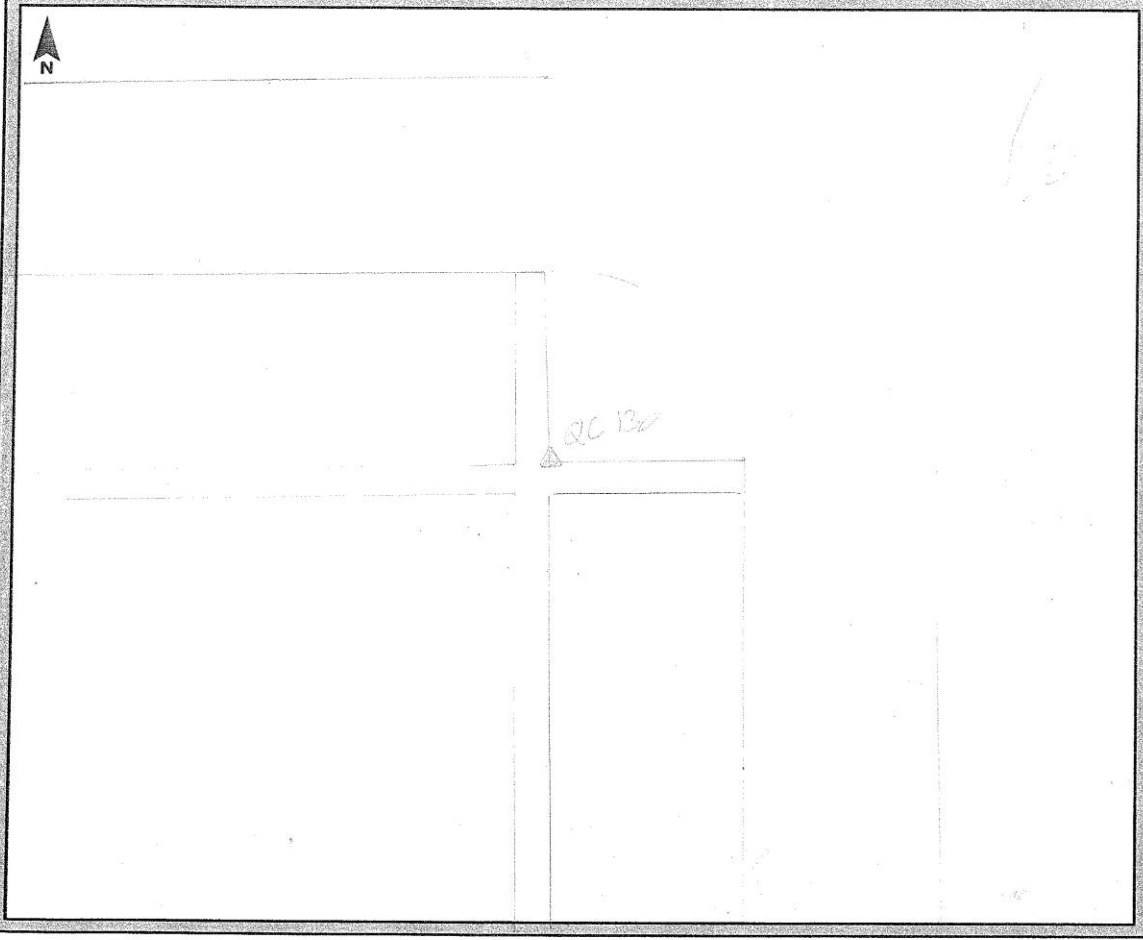


QC 129 LIDAR-3E-12MAR2012

GPS Observation Log Sheet



Project Name:	<u>TAI Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012 03 02</u>
Station Name:	<u>QC130</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>39° 48' 55.5"</u>	Julian Day:	<u>072</u>	Session No.:	<u>2</u>
Longitude:	<u>84° 57' 23.9"</u>	Start Time:	<u>14:10</u>	End Time:	<u>14:20</u>
Ellip. Height:	<u>959.24'</u>	Data File Name:	<u>INDY_072.DMT</u>		
Type of Mark:	<u>Corner of corner</u>	Type of Receiver:	<u>KR-3</u>		
Stamping on Mark:	<u>Indo. atlas</u>	Type of Antenna:	<u>R8-2</u>		
Weather Condition:	<u>003 & overcast</u>	Antenna Height:	<u>2.000 M</u>	to bottom of antenna mount	





QC130-2-12MAR2012



QC130-3N-12MAR2012

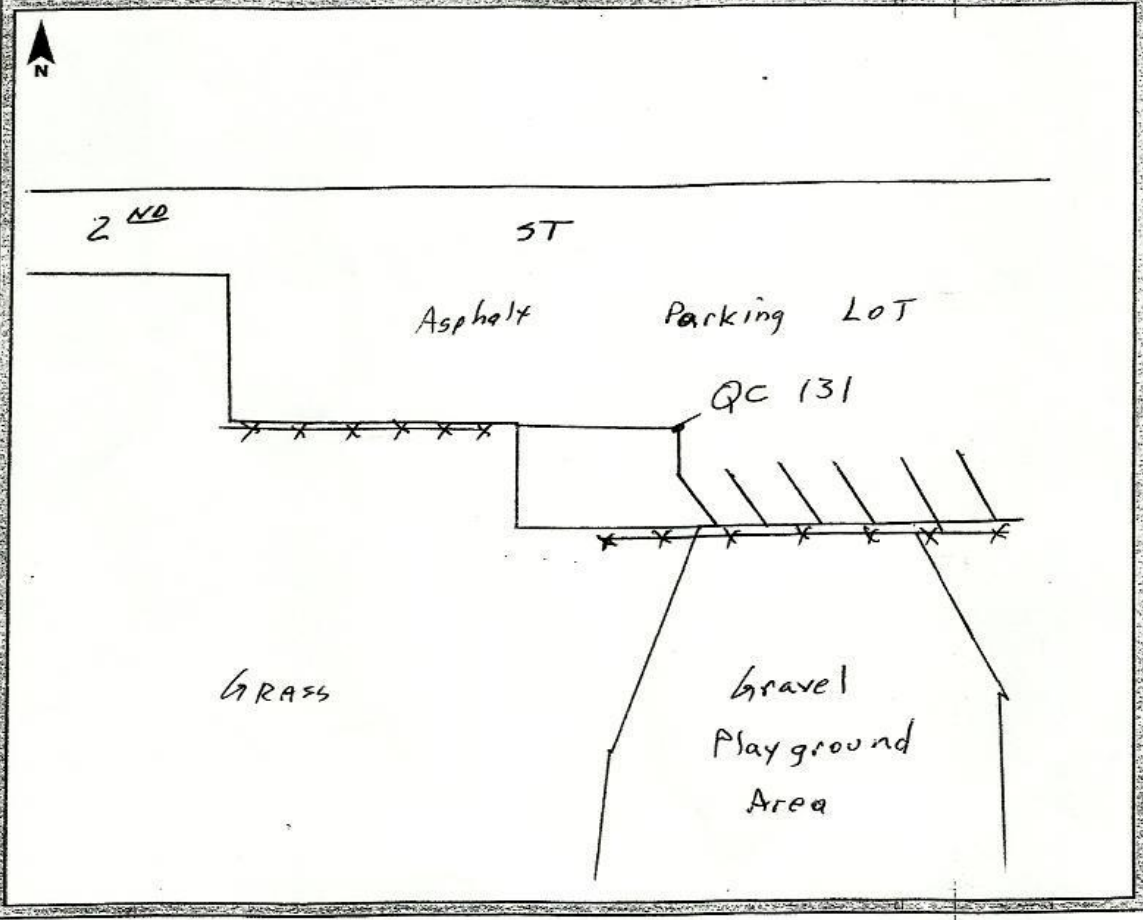


QC130-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>14 MAR 12</u>
Station Name: <u>QC 131</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-44-20.55</u>	Julian Day: <u>074</u>	Session No. _____
Longitude: <u>085-33-53.81</u>	Start Time: <u>11:31</u>	End Time: <u>11:36</u>
Ellip. Height: <u>.786.55</u>	Data File Name: <u>INDST14MAR12.SS</u>	
Type of Mark: <u>PAINT STRIPE</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: <u>MAG NAIL</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 65°</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





QC 131-2-13MAR2012



QC 131-3N-13MAR2012

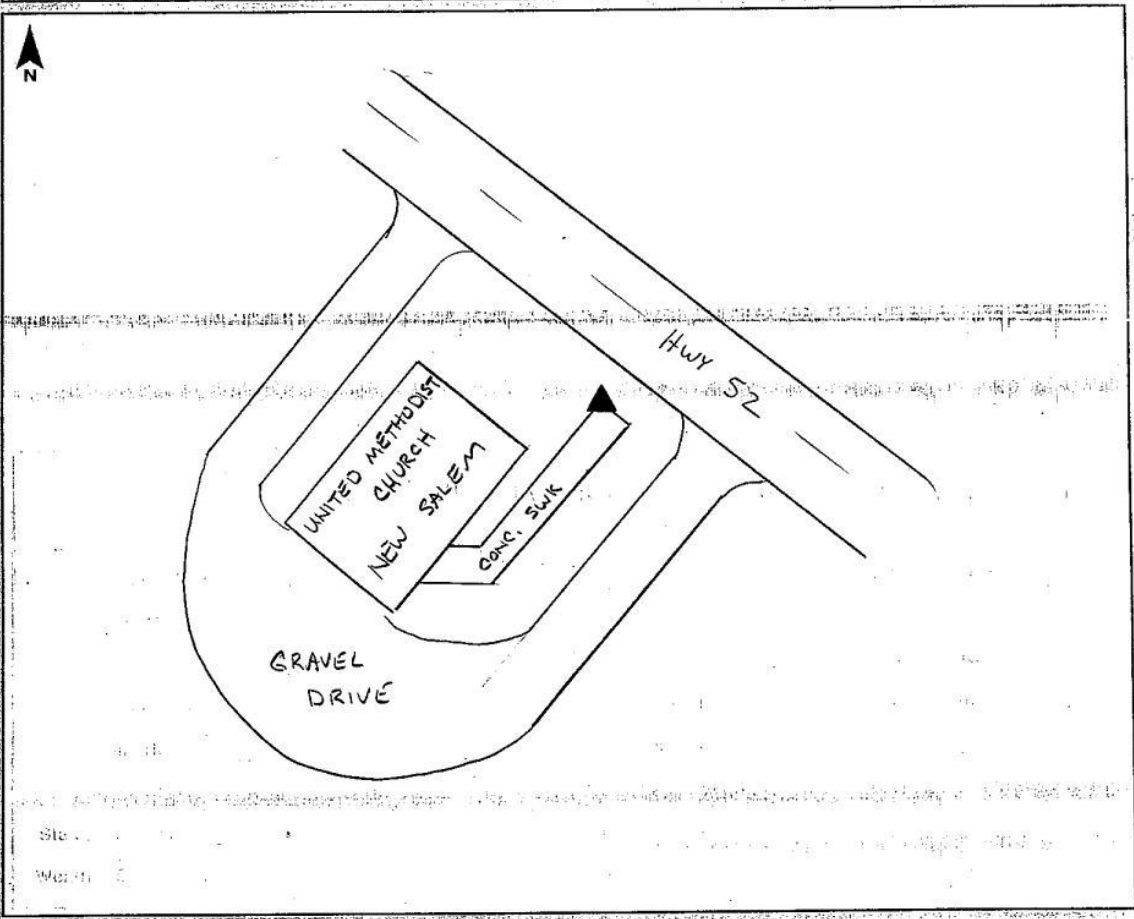


QC 131-3E-13MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	_____	Survey Date:	03/11/2012		
Station Name:	QC 132	Operator Name:	BEN CHRISTIE	Julian Day:	071	Session No.:	—
Latitude:	39° 32' 35.44" N	Start Time:	—	End Time:	—		
Longitude:	85° 21' 33.97" W	Data File Name:	—	Type of Receiver:	R8		
Ellip. Height:	917.31 sft	Type of Antenna:	R8	Antenna Height:	2M to bottom of antenna mount		
Type of Mark:	NW COR. SIDEWALK	Weather Condition:	55° Pt. CLOUDY				
Stamping on Mark:	—						





QC132-2-11MAR2012



QC132-3NW-11MAR2012

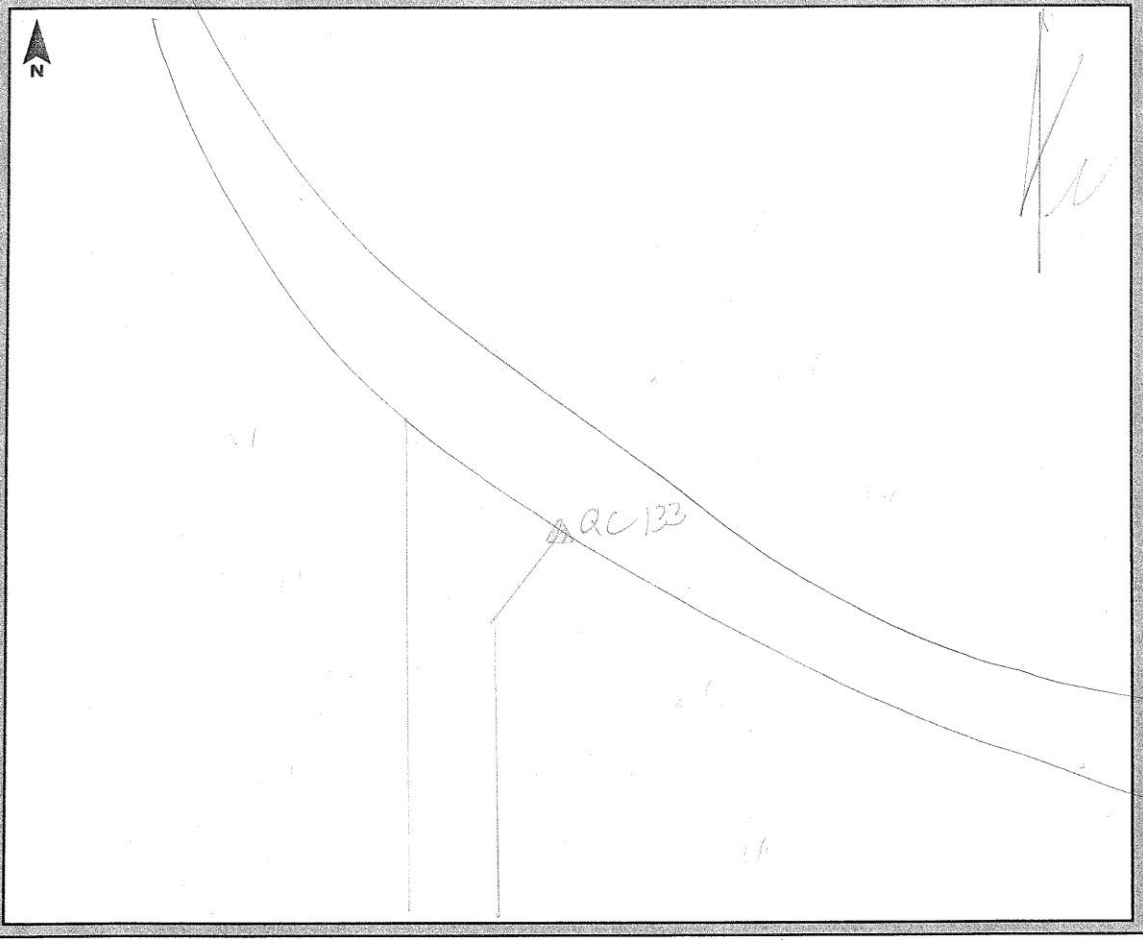


QC132-3NE-11MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-13
Station Name: QC133 Operator Name: David Hall
Latitude: 39° 44' 41.8" Julian Day: 073 Session No. 1
Longitude: 85° 14' 42.6" Start Time: 13:21 End Time: 13:31
Ellip. Height: 945 Data File Name: INDY 073 DMH
Type of Mark: corner of Corridor Type of Receiver: R8-3
Stamping on Mark: Driveway Type of Antenna: R8-3
Weather Condition: 60% clear Antenna Height: 1.000M to bottom of antenna mount





QC133-2-13MAR2012



QC133-3N-13MAR2012

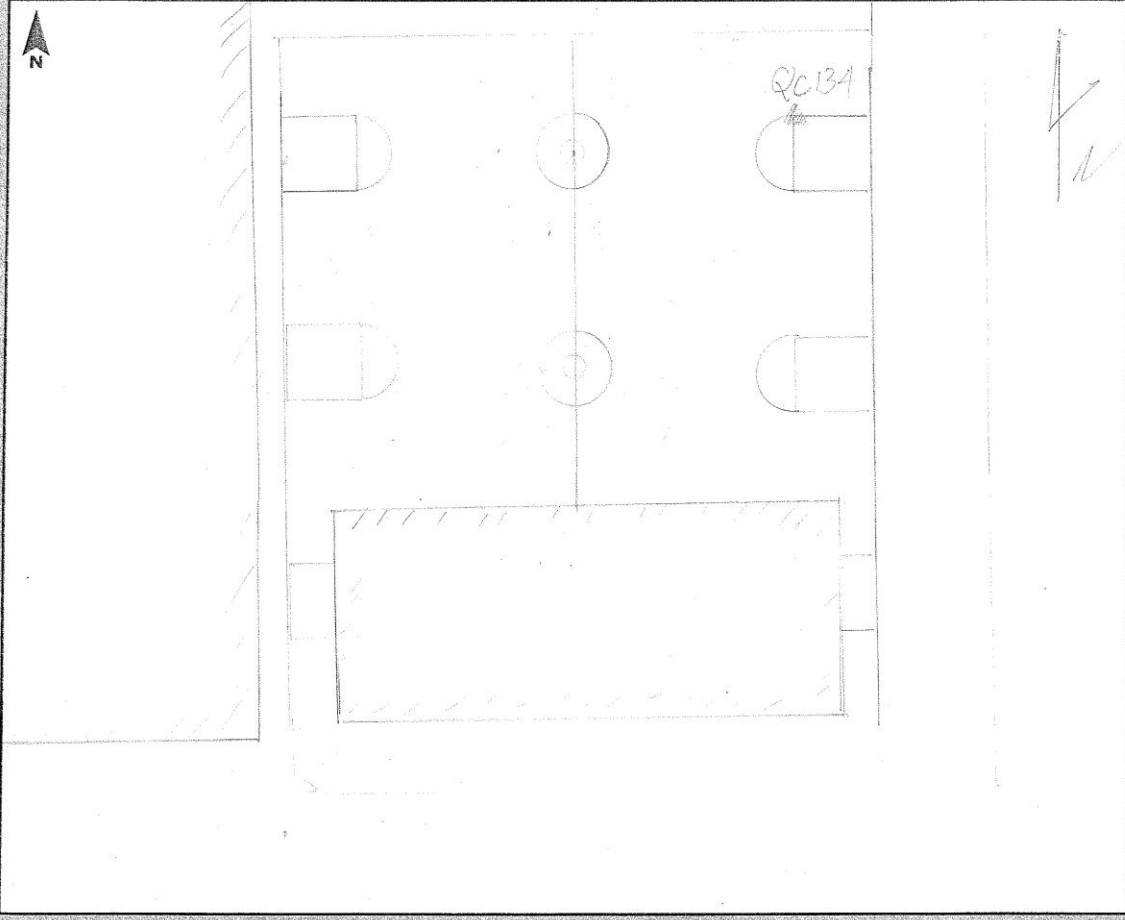


QC133-3E-13MAR2012

GPS Observation Log Sheet



Project Name: <u>2012 Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-1</u>
Station Name: <u>QC134</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 33' 47.5"</u>	Julian Day: <u>072</u>	Session No. <u>2</u>
Longitude: <u>85° 25' 35.5"</u>	Start Time: <u>16:47</u>	End Time: <u>16:58</u>
Ellip. Height: <u>9681</u>	Data File Name: <u>INDY 072.DMT</u>	
Type of Mark: <u>Intersection of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>Paint - stripes</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's + overcast</u>	Antenna Height: <u>2.000M</u> to bottom of antenna mount	





QC134-2-12MAR2012



QC134-3N-12MAR2012

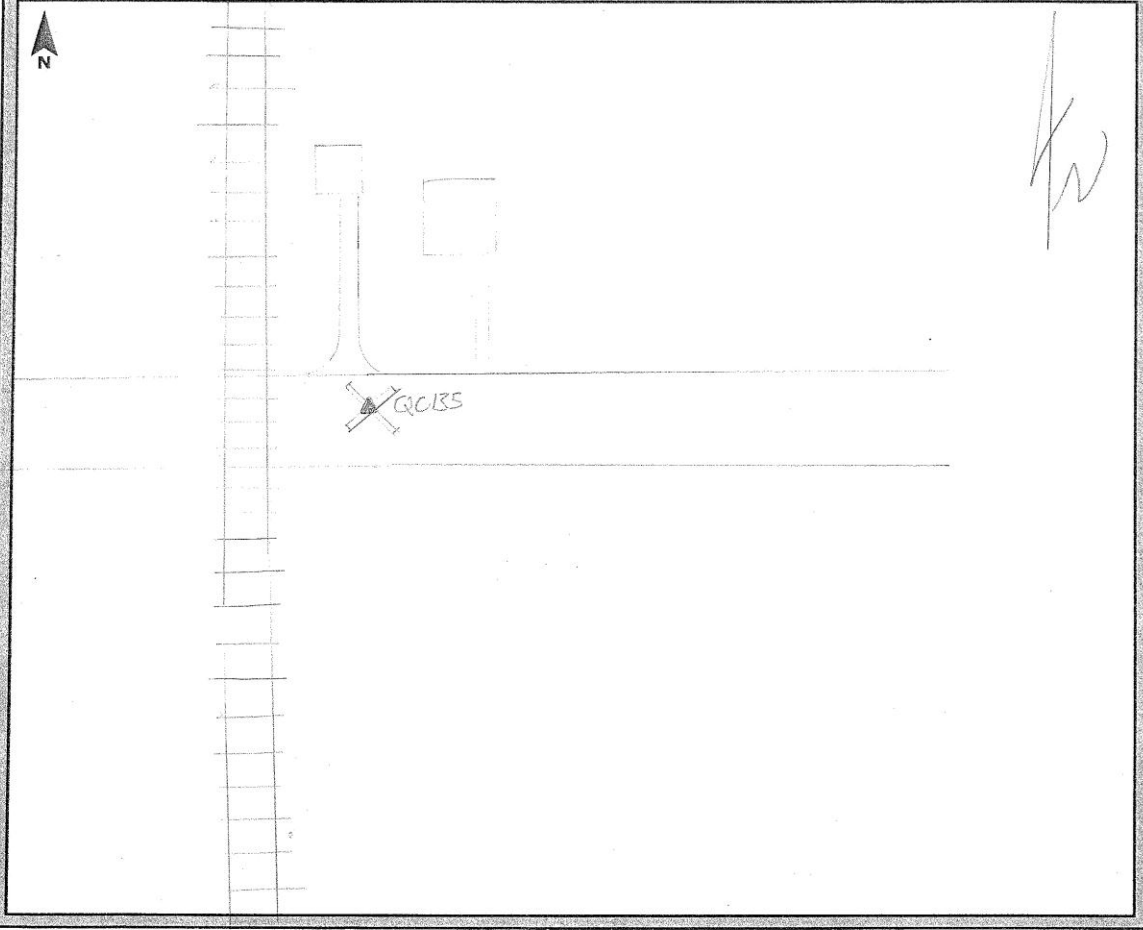


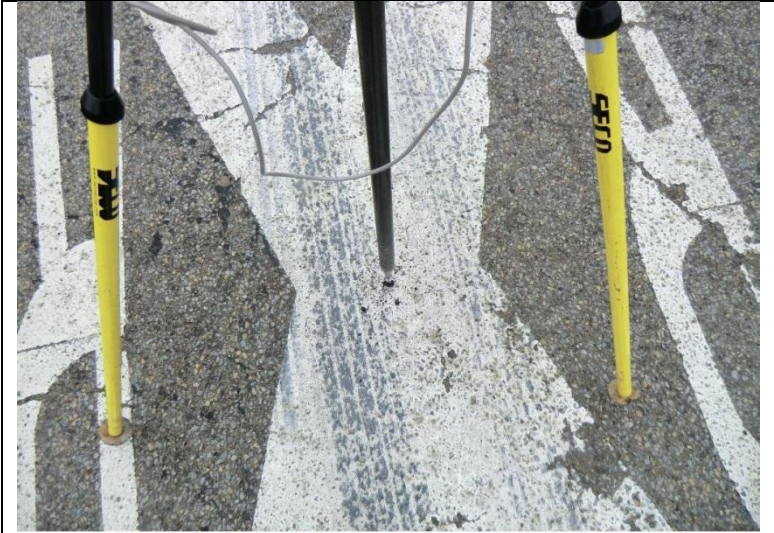
QC134-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>2134</u>	Survey Date: <u>2012-03-12</u>
Station Name: <u>QC 135</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 40' 59.2"</u>	Julian Day: <u>072</u>	Session No. <u>1</u>
Longitude: <u>84° 51' 40.2"</u>	Start Time: <u>09:16</u>	End Time: _____
Ellip. Height: <u>998'</u>	Data File Name: <u>TNDY-072-DNH</u>	
Type of Mark: <u>RR Crossing X</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: _____	Type of Antenna: <u>R9-3</u>	
Weather Condition: <u>50's Overcast</u>	Antenna Height: <u>2.000M</u>	to bottom of antenna mount





QC135-2-12MAR2012



QC135-3N-12MAR2012

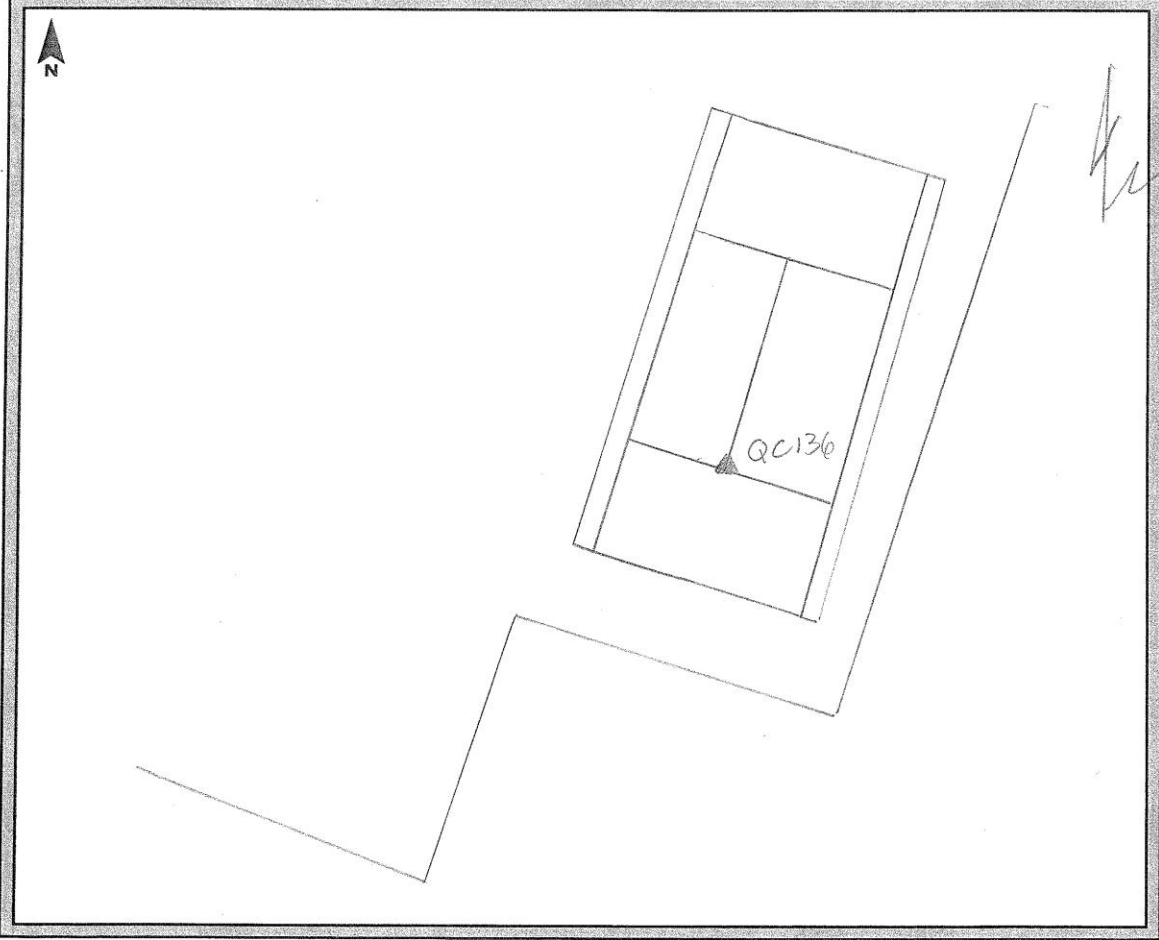


QC135-3E-12MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-12
Station Name: QC136 Operator Name: David Hall
Latitude: 39° 31' 43.0" Julian Day: 072 Session No. 1
Longitude: 84° 58' 21.8" Start Time: 10:36 End Time: 10:47
Ellip. Height: 823' Data File Name: INDY_072_DMH
Type of Mark: Intersection of Type of Receiver: R8-3
Stamping on Mark: Paint stripes Type of Antenna: R8-3
Weather Condition: 60° overcast Antenna Height: 2000 m to bottom of antenna mount





QC136-2-12MAR2012



QC136-3N-12MAR2012

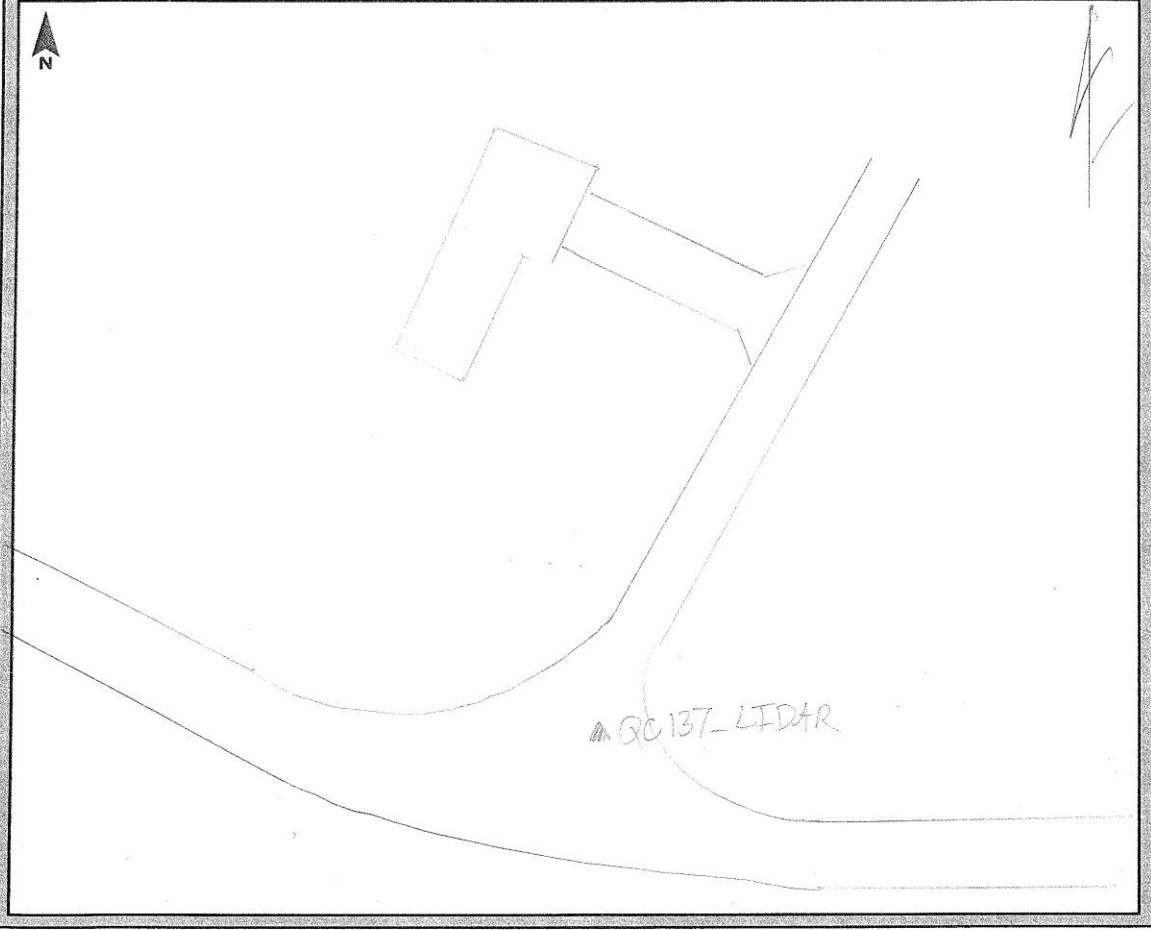


QC136-3E-12MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>7134</u>	Survey Date: <u>2012-03-10</u>
Station Name: <u>QC 137, LIDAR</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 27' 04.6"</u>	Julian Day: <u>072</u>	Session No. <u>1</u>
Longitude: <u>84° 57' 32.6"</u>	Start Time: <u>11:14</u>	End Time: <u>11:24</u>
Ellip. Height: <u>987'</u>	Data File Name: <u>INDY 072-DMH</u>	
Type of Mark: <u>ASPHALT</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark:	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60% overcast</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





QC 137 LIDAR-2-12MAR2012



QC 137_LIDAR-3N-12MAR2012

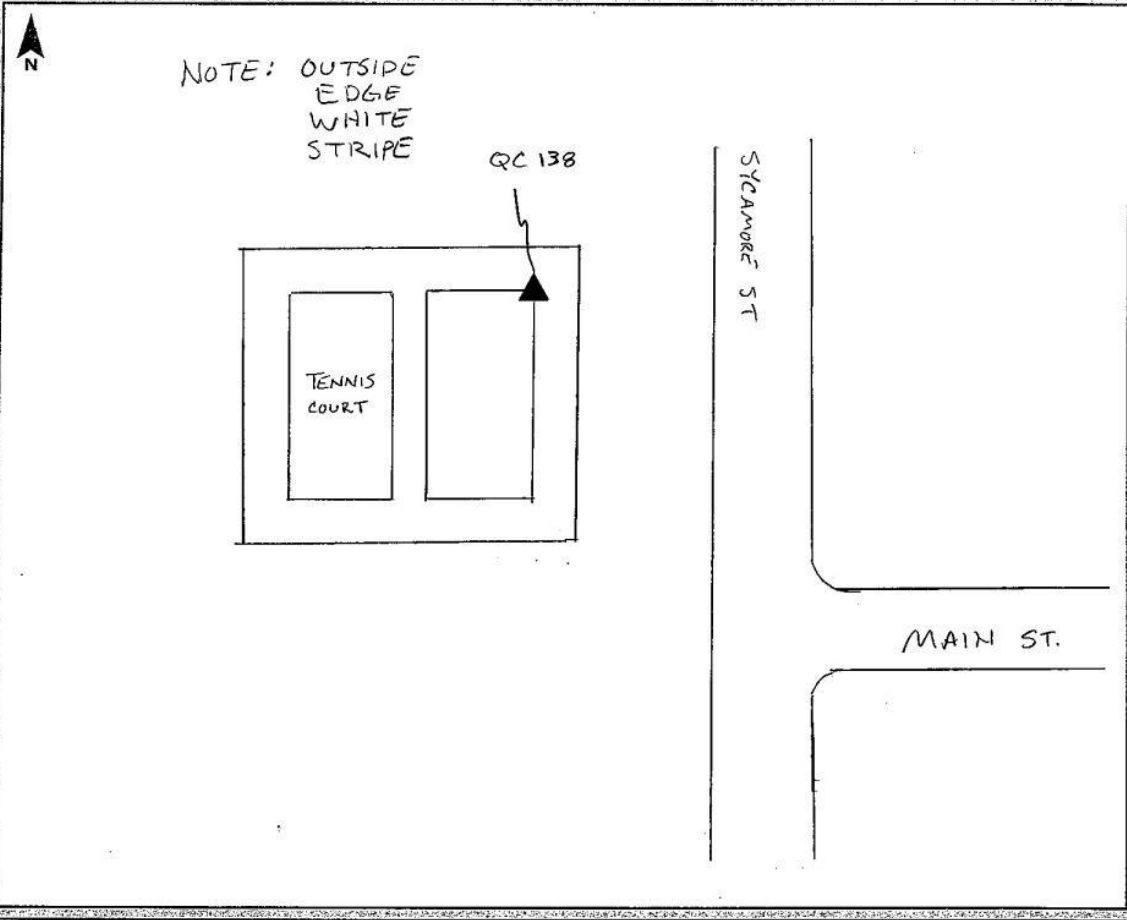


QC 137 LIDAR-3E-12MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: _____
Station Name: <u>QC 138</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 20' 27.65" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 12' 24.04" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>755.08 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR TENNIS COURT</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC138-2-10MAR2012



QC138-3N-10MAR2012

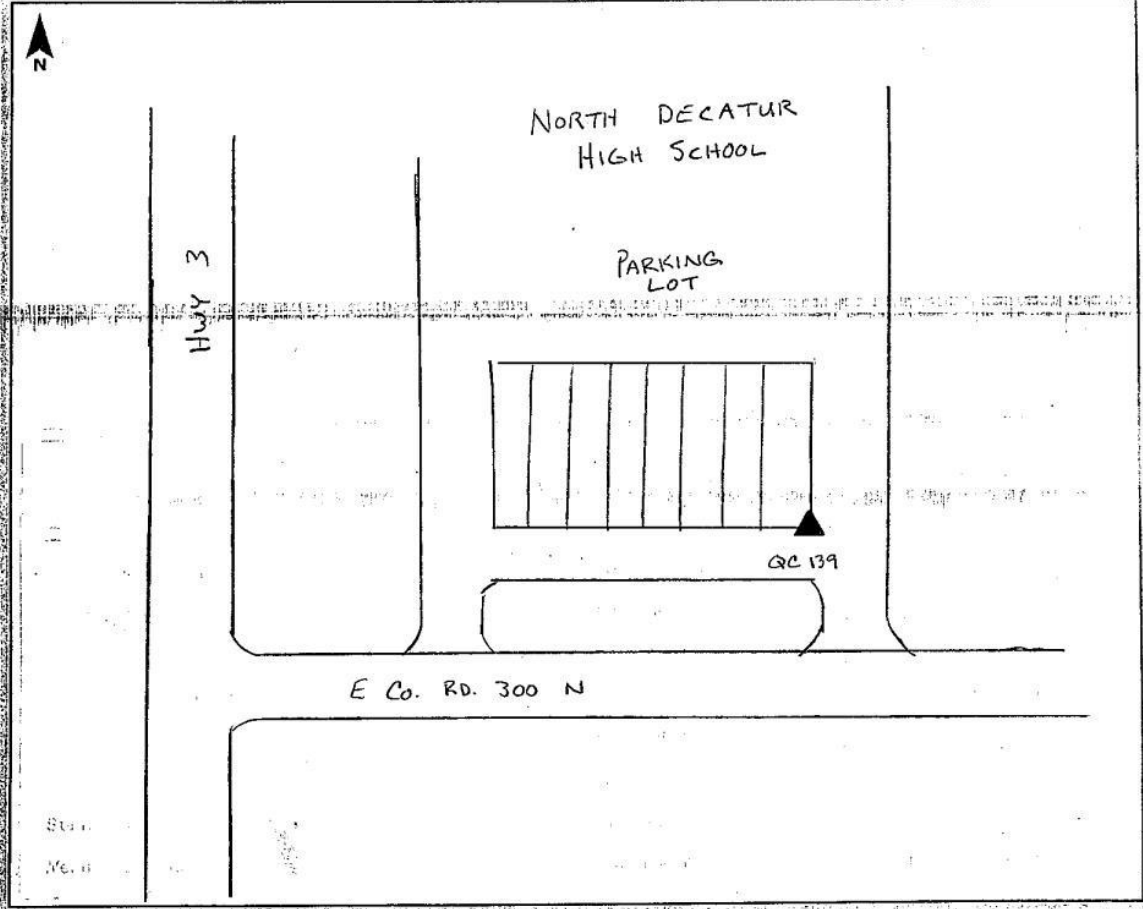


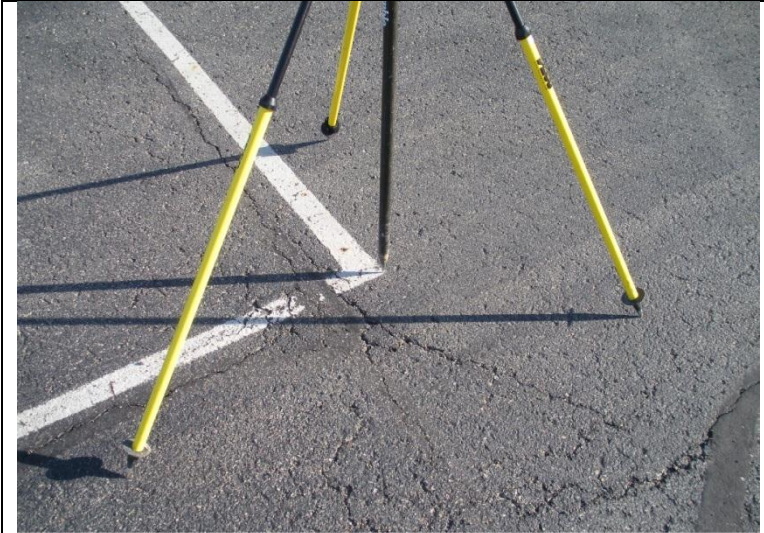
QC138-3E-10MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 139</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 22' 51.80" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 28' 38.07" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>836.23 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR PAINT STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC139-2-11MAR2012



QC139-3N-11MAR2012

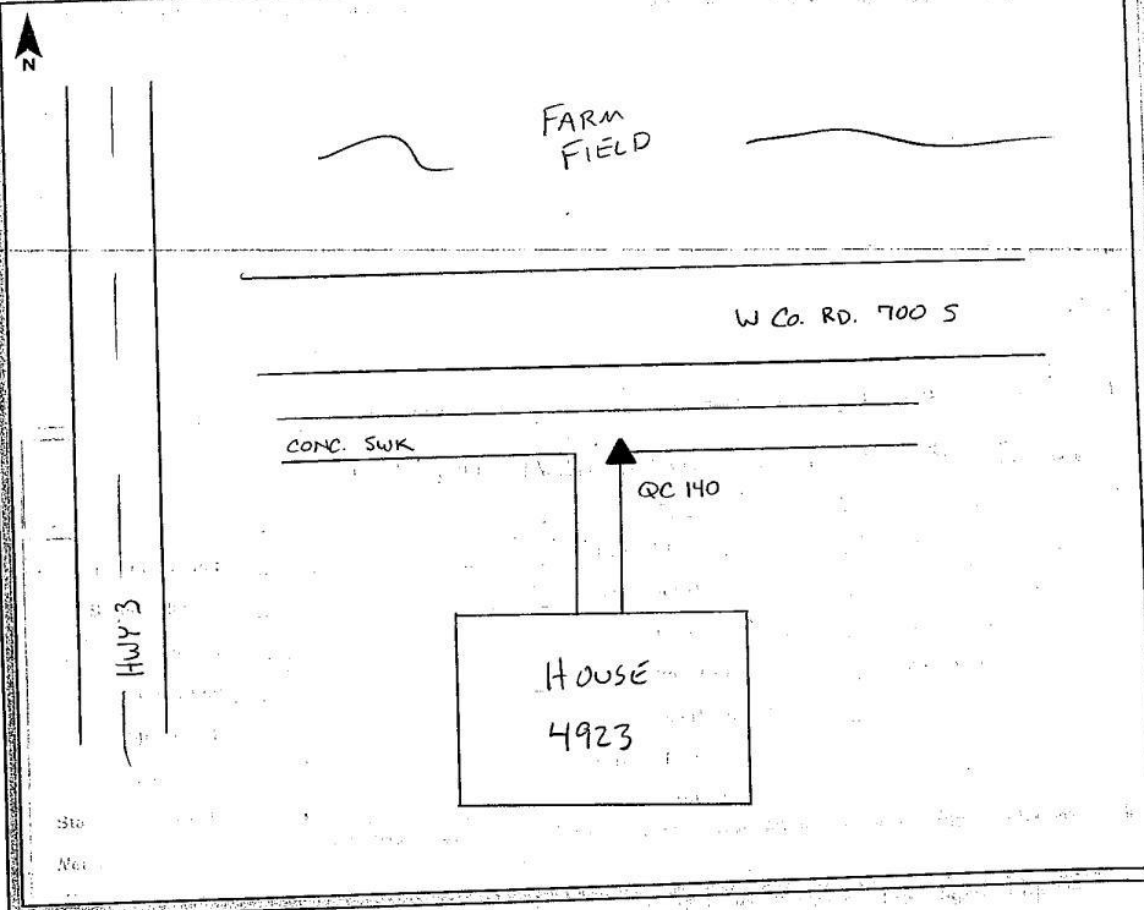


QC139-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 140</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 14' 04.58" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 34' 22.34" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>776.10 SP+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





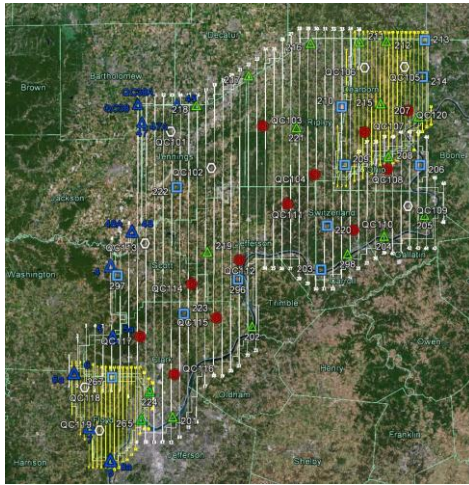
QC140-2-11MAR2012



QC140-3S-11MAR2012



QC140-3E-11MAR2012



VOLUME 5 (BLOCK 8)

Block 8 Ground and LiDAR Control

GROUND CONTROL SURVEY REPORT

2012 INDIANA STATEWIDE IMAGERY PROGRAM

Indiana Office of Technology

April 2012

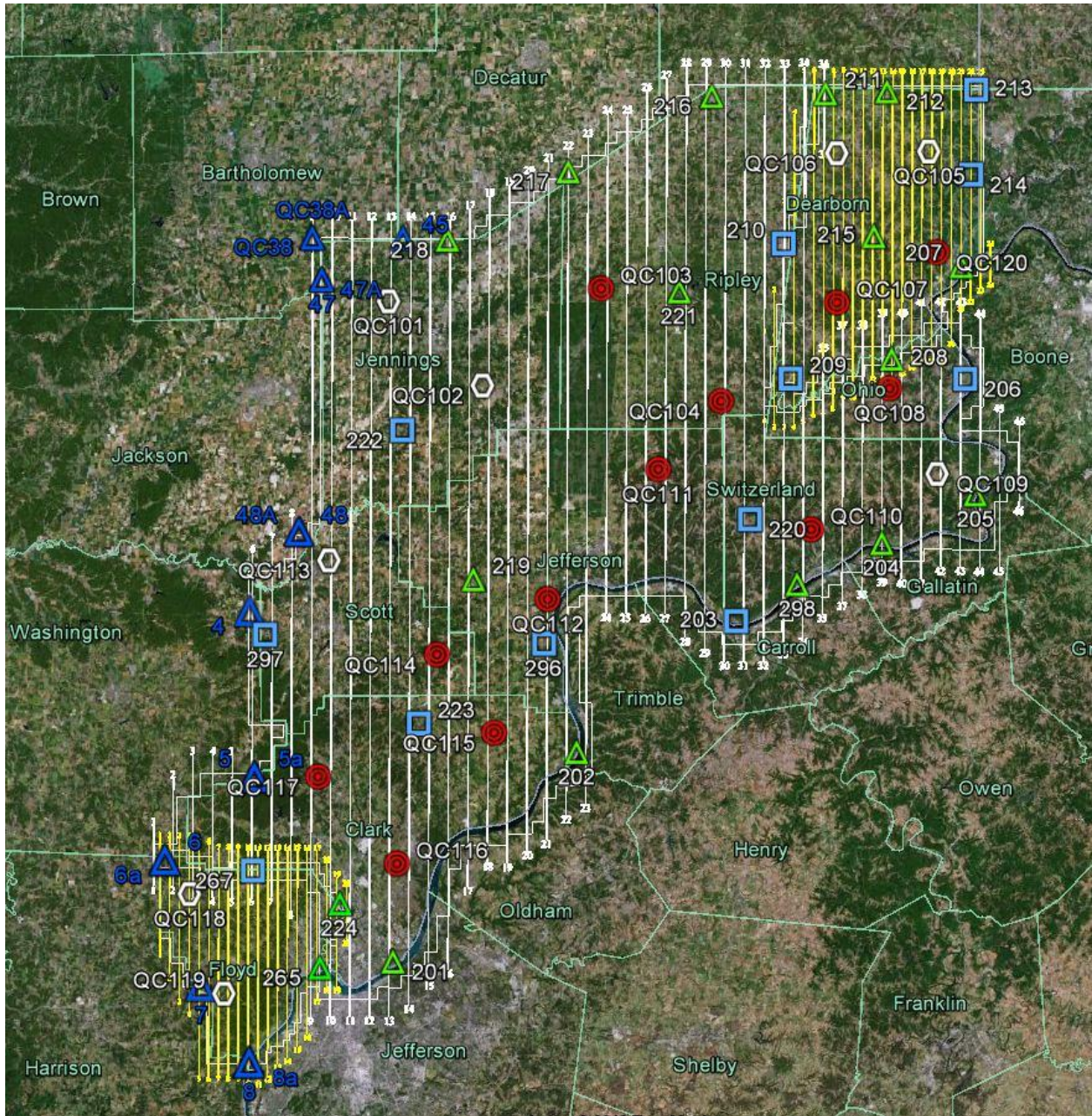
Prepared by Woolpert, Inc.
4454 Idea Center Blvd.
Dayton, OH 45420
Woolpert.com



WOOLPERT
DESIGN | GEOSPATIAL | INFRASTRUCTURE

VOLUME 5 - SECTION 1: BLOCK 8 GPS CONTROL DIAGRAM

This section contains a graphical representation of the ground control used for Block 8 of the 2012 Indiana Statewide Imagery project.



Not to Scale

VOLUME 5 - SECTION 2: BLOCK 8 GROUND/LIDAR CONTROL COORDINATE LISTINGS

COORDINATE SYSTEM: GRID

HORIZONTAL DATUM: NAD83 (2007)

VERTICAL DATUM: NAVD88

ZONE: State Plane - (Indiana East)

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
201	1110827.426	321535.773	470.038	CORNER CONC DRIVE
202	1199293.081	398841.427	470.886	CONC CORNER
203	1254551.716	465918.191	483.128	CORNER ASPHALT DRIVE
204	1287332.456	527542.954	476.471	CORNER ASPHALT
205	1308049.391	566832.596	471.472	CRN CONC
206	1356742.196	562342.801	486.704	SE COR CONCRETE
207	1404171.336	560660.826	469.137	S COR CONCRETE
208	1361596.845	530133.231	747.385	NW COR CONCRETE
209	1356439.229	488486.947	891.536	NE COR CONCRETE
210	1413072.274	485381.591	1004.469	NW COR CONCRETE
211	1476373.492	503105.368	960.927	SE COR CONCRETE
212	1476412.077	529115.365	1013.041	SW COR CONCRETE
213	1478339.073	566794.574	893.587	COR SIDEWALK
214	1442645.888	564648.894	935.171	NE COR CONCRETE
215	1416357.767	523650.550	903.149	SE COR CONCRETE
216	1475352.321	454567.248	966.277	COR SIDEWALK
217	1443094.231	394674.225	896.540	CORNER WALK
218	1414250.208	343540.869	758.147	CORNER CONC DRIVE
219	1271688.264	355040.746	753.111	corner conc drive apron
220	1297428.872	471575.102	880.059	CORNER ASPHALT
221	1392992.276	441562.506	968.393	ANGLE POINT DRIVE
222	1334211.020	324729.202	671.857	CORNER CONC APRON
223	1211067.703	332063.533	698.571	drive and road intersection
224	1135191.189	299038.514	458.310	CONC CORNER
265	1108183.940	290645.432	436.824	CONC CORNER
267	1148948.576	262078.862	908.093	CONC CORNER
296	1244789.775	384885.596	795.293	driveway road intersection
297	1248087.464	267034.251	620.221	corner con drive and road
298	1270166.159	491677.254	480.405	CORNER CONCRETE
QC 101	1388487.125	318895.745	696.677	CORNER CONC DRIVE
QC 102	1353057.202	358675.895	773.305	CORNER CONC DR

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
QC 103	1393829.068	408494.448	908.963	PAINT STRIPE
QC 109	1316675.095	550785.402	869.042	CORNER OF CONCRETE
QC 110	1292940.141	497523.456	794.521	PAINT STRIPE
QC 104	1346729.252	459277.139	953.705	CORNER WALK
QC 105	1452226.324	546967.539	910.296	SE COR CONCRETE
QC 106	1451251.593	507960.961	996.408	NE COR CONCRETE
QC 107	1388298.626	508074.342	856.071	NE COR CONCRETE
QC 108	1352332.229	530369.322	885.242	PARKING STRIPE
QC 111	1317992.219	432901.118	952.752	PAINT STRIPE
QC 112	1263341.169	386402.848	783.334	paint stripe intersection
QC 113	1279471.135	294117.804	575.975	north corner drive and road
QC 114	1239951.436	339696.310	634.266	conc corner
QC 115	1207134.536	363973.419	719.897	paint stripe intersection
QC 116	1151943.637	323088.698	524.863	CONC CORNER
QC 117	1188402.686	289636.404	537.387	CORN CONC WALK AND DRIVE
QC 118	1138933.103	235420.226	828.287	CORNER OF CONC DRIVE
QC 119	1097033.980	250129.025	923.810	CONC CORNER
QC 120	1409641.606	550264.065	840.219	NW COR STOP BAR
QC 132	1564442.472	414727.581	1033.903	NW COR SIDEWALK
QC 138	1490986.909	458183.096	870.474	NE COR TENNIS COURT
QC 139	1505298.175	381628.958	953.042	SE COR PAINT STRIPE
QC 140	1451914.615	354652.490	893.009	NE COR SIDEWALK

LiDAR CONTROL COORDINATES

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
205	1308049.391	566832.596	471.472	SW COR CONCRETE CORNER OF WALK
207	1404171.336	560660.826	469.137	S COR CONCRETE
211	1476373.492	503105.368	960.927	SE COR CONCRETE
212	1476412.077	529115.365	1013.041	SW COR CONCRETE
213	1478339.073	566794.574	893.587	COR SIDEWALK
215	1416357.767	523650.550	903.149	SE COR CONCRETE
216	1475352.321	454567.248	966.277	COR SIDEWALK
217	1443094.231	394674.225	896.540	CORNER WALK
218	1414250.208	343540.869	758.147	CORNER CONC DRIVE
221	1392992.276	441562.506	968.393	ANGLE POINT DRIVE
265	1108183.940	290645.432	436.824	CONC CORNER
298	1270166.159	491677.254	480.405	CORNER CONCRETE
201_LIDAR	1110813.680	321591.559	469.930	ASPHALT
202_LIDAR	1199299.706	398848.827	470.700	CONC
203_LIDAR	1254559.648	465932.872	483.338	CENTER ASPHALT ROAD

Station Name	Northing US Ft.	Easting US Ft.	Elevation US Ft.	Description
204_LIDAR	1287279.212	527569.070	476.292	CENTER OF COURT
206_LIDAR	1356760.132	562316.838	487.042	CONCRETE
208_LIDAR	1361584.480	530155.415	748.092	CONCRETE
209_LIDAR	1356428.361	488471.371	891.565	CONCRETE
210_LIDAR	1413067.938	485393.945	1004.420	CONCRETE
214_LIDAR	1442603.831	564669.987	935.685	CONCRETE
219_LIDAR	1271663.873	355048.255	753.546	conc drive CENTER CONCRETE APRON
220_LIDAR	1297415.801	471560.236	880.243	CENTER ASPHALT DRIVE
222_LIDAR	1334195.083	324740.607	671.465	CENTER CONC APRON
223_LIDAR	1211092.348	332081.865	698.626	short grass
224_LIDAR	1135216.380	299065.659	458.705	SHOST GRASS
267_LIDAR	1148949.042	262141.603	913.512	SHORT GRASS
296_LIDAR	1244809.901	384906.554	795.595	short grass
297_LIDAR	1248091.758	267082.185	620.113	short grass
QC 101_LIDAR	1388479.005	318912.507	697.440	CENTER OF DRIVE
QC 102_LIDAR	1353067.817	358661.804	772.853	CENTER OF DRIVE
QC 103	1393829.068	408494.448	908.963	PAINT STRIPE
QC 109_LIDAR	1316675.963	550834.872	869.562	CENTER OF CONC DR
QC 110	1292940.141	497523.456	794.521	PAINT STRIPE
QC 104	1346729.252	459277.139	953.705	CORNER WALK
QC 105_LIDAR	1452273.852	546982.550	912.825	CONCRETE
QC 106_LIDAR	1451263.126	507924.055	998.596	CONCRETE
QC 107	1388298.626	508074.342	856.071	NE COR CONCRETE
QC 108	1352332.229	530369.322	885.242	PARKING STRIPE
QC 111	1317992.219	432901.118	952.752	PAINT STRIPE
QC 112	1263341.169	386402.848	783.334	paint stripe intersection PAINT STRIPE
QC 113_LIDAR	1279400.535	294092.286	573.306	short grass
QC 114	1239951.436	339696.310	634.266	conc corner
QC 115	1207134.536	363973.419	719.897	paint stripe intersection
QC 116	1151943.637	323088.698	524.863	CONC CORNER
QC 117_LIDAR	1188377.965	289627.501	537.134	ASPHALT
QC 118_LIDAR	1138895.845	235549.989	825.850	ASPHALT
QC 119_LIDAR	1097043.367	250137.009	923.891	ASPHALT
QC 120	1409641.606	550264.065	840.219	NW COR STOP BAR
QC 132	1564442.472	414727.581	1033.903	NW COR SIDEWALK
QC 138	1490986.909	458183.096	870.474	NE COR TENNIS COURT
QC 139	1505298.175	381628.958	953.042	SE COR PAINT STRIPE
QC 140	1451914.615	354652.490	893.009	NE COR SIDEWALK

COORDINATE SYSTEM: GEODETIC

HORIZONTAL DATUM: WGS 84

VERTICAL DATUM: NAVD88

GEOID MODEL: GEOID 09

UNITS: U.S. Survey Ft.

GROUND CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
201	N38°17'53.12159"	W85°41'22.13432"	360.595	CORNER CONC DRIVE
202	N38°32'26.70358"	W85°25'09.41812"	360.421	CONC CORNER
203	N38°41'30.28810"	W85°11'01.53316"	372.007	CORNER ASPHALT DRIVE
204	N38°46'50.36895"	W84°58'01.16605"	365.211	CORNER ASPHALT
205	N38°50'11.86482"	W84°49'42.65189"	360.066	CRN CONC
206	N38°58'13.52427"	W84°50'33.83162"	374.795	SE COR CONCRETE
207	N39°06'02.43070"	W84°50'49.71686"	357.155	S COR CONCRETE
208	N38°59'04.18734"	W84°57'21.15453"	635.438	NW COR CONCRETE
209	N38°58'16.09141"	W85°06'08.95834"	779.656	NE COR CONCRETE
210	N39°07'36.03104"	W85°06'43.90510"	892.578	NW COR CONCRETE
211	N39°18'00.53464"	W85°02'53.52250"	849.502	SE COR CONCRETE
212	N39°17'59.02781"	W84°57'22.66443"	901.907	SW COR CONCRETE
213	N39°18'14.87347"	W84°49'23.16206"	782.935	COR SIDEWALK
214	N39°12'22.31858"	W84°49'54.64268"	823.745	NE COR CONCRETE
215	N39°08'05.91219"	W84°58'37.98988"	791.306	SE COR CONCRETE
216	N39°17'53.26699"	W85°13'11.02531"	854.437	COR SIDEWALK
217	N39°12'36.66476"	W85°25'53.96789"	784.472	CORNER WALK
218	N39°07'52.37544"	W85°36'43.83262"	646.265	CORNER CONC DRIVE
219	N38°44'23.13228"	W85°34'19.76641"	642.131	CORNER CONC DRIVE APRON
220	N38°48'33.80314"	W85°09'47.21193"	768.883	CORNER ASPHALT
221	N39°04'19.83757"	W85°16'01.06972"	856.488	ANGLE POINT DRIVE
222	N38°54'41.28461"	W85°40'42.43481"	560.636	CORNER CONC APRON
223	N38°34'24.03508"	W85°39'09.88139"	588.068	DRIVE AND ROAD INTERSECTION
224	N38°21'53.82022"	W85°46'04.68075"	348.668	CONC CORNER
265	N38°17'26.73615"	W85°47'49.58358"	327.428	CONC CORNER
267	N38°24'09.16067"	W85°53'49.16717"	798.58	CONC CORNER
296	N38°39'56.77245"	W85°28'03.82865"	684.469	DRIVEWAY ROAD INTERSECTION
297	N38°40'29.27519"	W85°52'49.81251"	509.669	CORNER CON DRIVE AND ROAD
298	N38°44'03.16009"	W85°05'35.42345"	369.237	CORNER CONCRETE
QC 101	N39°03'37.75733"	W85°41'56.48077"	585.121	CORNER CONC DRIVE

Station Name	Latitude	Longitude	E. Height US Ft.	Description
QC 102	N38°57'47.39299"	W85°33'32.67701"	661.806	CORNER CONC DR
QC 103	N39°04'29.33633"	W85°23'00.33806"	797.054	PAINT STRIPE
QC 109	N38°51'38.52495"	W84°53'04.50710"	757.621	CORNER OF CONCRETE
QC 110	N38°47'47.89525"	W85°04'19.78002"	683.309	PAINT STRIPE
QC 104	N38°56'41.74200"	W85°12'19.42488"	842.047	CORNER WALK
QC 105	N39°13'58.55241"	W84°53'38.21102"	799	SE COR CONCRETE
QC 106	N39°13'51.91433"	W85°01'53.99905"	884.874	NE COR CONCRETE
QC 107	N39°03'29.70941"	W85°01'58.14540"	744.074	NE COR CONCRETE
QC 108	N38°57'32.60080"	W84°57'19.08097"	773.41	PARKING STRIPE
QC 111	N38°51'58.88235"	W85°17'54.73776"	841.422	PAINT STRIPE
QC 112	N38°43'00.11699"	W85°27'44.17742"	672.393	PAINT STRIPE INTERSECTION
QC 113	N38°45'39.98344"	W85°47'08.81175"	465.01	NORTH CORNER DRIVE AND ROAD
QC 114	N38°39'09.52926"	W85°37'33.60851"	523.445	CONC CORNER
QC 115	N38°33'44.91603"	W85°32'28.14078"	609.429	PAINT STRIPE INTERSECTION
QC 116	N38°24'39.57797"	W85°41'02.75139"	415.069	CONC CORNER
QC 117	N38°30'39.71343"	W85°48'03.70545"	427.243	COR CONC WALK AND DRIVE
QC 118	N38°22'29.36421"	W85°59'23.61565"	718.91	CORNER OF CONC DRIVE
QC 119	N38°15'35.64253"	W85°56'17.36646"	814.879	CONC CORNER
QC 120	N39°06'57.40112"	W84°53'00.99148"	728.275	NW COR STOP BAR
QC 132	N39°32'35.43014"	W85°21'33.94981"	922.228	NW COR SIDEWALK
QC 138	N39°20'27.61256"	W85°12'24.01850"	758.685	NE COR TENNIS COURT
QC 139	N39°22'51.77889"	W85°28'38.05127"	841.178	SE COR PAINT STRIPE
QC 140	N39°14'04.56278"	W85°34'22.32381"	781.072	NE COR SIDEWALK

LiDAR CONTROL COORDINATES

Station Name	Latitude	Longitude	E. Height US Ft.	Description
205	N38°50'11.86482"	W84°49'42.65189"	360.066	SW COR CONCRETE WALK
207	N39°06'02.43070"	W84°50'49.71686"	357.155	S COR CONCRETE
211	N39°18'00.53464"	W85°02'53.52250"	849.502	SE COR CONCRETE
212	N39°17'59.02781"	W84°57'22.66443"	901.907	SW COR CONCRETE
213	N39°18'14.87347"	W84°49'23.16206"	782.935	COR SIDEWALK
215	N39°08'05.91219"	W84°58'37.98988"	791.306	SE COR CONCRETE
216	N39°17'53.26699"	W85°13'11.02531"	854.437	COR SIDEWALK
217	N39°12'36.66476"	W85°25'53.96789"	784.472	CORNER WALK
218	N39°07'52.37544"	W85°36'43.83262"	646.265	CORNER CONC DRIVE
221	N39°04'19.83757"	W85°16'01.06972"	856.488	ANGLE POINT DRIVE
265	N38°17'26.73615"	W85°47'49.58358"	327.428	CONC CORNER

Station Name	Latitude	Longitude	E. Height US Ft.	Description
298	N38°44'03.16009"	W85°05'35.42345"	369.237	CORNER CONCRETE
201_LIDAR	N38°17'52.98583"	W85°41'21.43449"	360.487	ASPHALT
202_LIDAR	N38°32'26.76887"	W85°25'09.32476"	360.235	CONC
203_LIDAR	N38°41'30.36574"	W85°11'01.34748"	372.216	CENTER ASPHALT ROAD
204_LIDAR	N38°46'49.84070"	W84°58'00.84141"	365.033	CENTER OF COURT
206_LIDAR	N38°58'13.70387"	W84°50'34.15829"	375.133	CONCRETE
208_LIDAR	N38°59'04.06342"	W84°57'20.87483"	636.144	CONCRETE
209_LIDAR	N38°58'15.98495"	W85°06'09.15641"	779.685	CONCRETE
210_LIDAR	N39°07'35.98745"	W85°06'43.74867"	892.530	CONCRETE
214_LIDAR	N39°12'21.90101"	W84°49'54.37966"	824.259	CONCRETE
219_LIDAR	N38°44'22.89111"	W85°34'19.67196"	642.566	CENTER CONCRETE APRON
220_LIDAR	N38°48'33.67476"	W85°09'47.40064"	769.067	CENTER ASPHALT DRIVE
222_LIDAR	N38°54'41.12710"	W85°40'42.29049"	560.244	CENTER CONC APRON
223_LIDAR	N38°34'24.27867"	W85°39'09.65051"	588.122	SHORT GRASS
224_LIDAR	N38°21'54.06955"	W85°46'04.34028"	349.062	SHOST GRASS
267_LIDAR	N38°24'09.16682"	W85°53'48.37903"	803.998	SHORT GRASS
296_LIDAR	N38°39'56.97094"	W85°28'03.56385"	684.771	SHORT GRASS
297_LIDAR	N38°40'29.31875"	W85°52'49.20821"	509.560	SHORT GRASS
QC 101_LIDAR	N39°03'37.67712"	W85°41'56.26822"	585.884	CENTER OF DRIVE
QC 102_LIDAR	N38°57'47.49807"	W85°33'32.85524"	661.354	CENTER OF DRIVE
QC 103	N39°04'29.33633"	W85°23'00.33806"	797.054	PAINT STRIPE
QC 109_LIDAR	N38°51'38.52935"	W84°53'03.88165"	758.141	CENTER OF CONC DR
QC 110	N38°47'47.89525"	W85°04'19.78002"	683.309	PAINT STRIPE
QC 104	N38°56'41.74200"	W85°12'19.42488"	842.047	CORNER WALK
QC 105_LIDAR	N39°13'59.02086"	W84°53'38.01511"	801.530	CONCRETE
QC 106_LIDAR	N39°13'52.03086"	W85°01'54.46702"	887.061	CONCRETE
QC 107	N39°03'29.70941"	W85°01'58.14540"	744.074	NE COR CONCRETE
QC 108	N38°57'32.60080"	W84°57'19.08097"	773.410	PARKING STRIPE
QC 111	N38°51'58.88235"	W85°17'54.73776"	841.422	PAINT STRIPE
QC 112	N38°43'00.11699"	W85°27'44.17742"	672.393	PAINT STRIPE INTERSECTION
QC 113_LIDAR	N38°45'39.28524"	W85°47'09.13275"	462.342	SHORT GRASS
QC 114	N38°39'09.52926"	W85°37'33.60851"	523.445	CONC CORNER
QC 115	N38°33'44.91603"	W85°32'28.14078"	609.429	PAINT STRIPE INTERSECTION
QC 116	N38°24'39.57797"	W85°41'02.75139"	415.069	CONC CORNER
QC 117_LIDAR	N38°30'39.46893"	W85°48'03.81701"	426.990	ASPHALT
QC 118_LIDAR	N38°22'29.00039"	W85°59'21.98454"	716.474	ASPHALT
QC 119_LIDAR	N38°15'35.73556"	W85°56'17.26671"	814.960	ASPHALT
QC 120	N39°06'57.40112"	W84°53'00.99148"	728.275	NW COR STOP BAR

Station Name	Latitude	Longitude	E. Height US Ft.	Description
QC 132	N39°32'35.43014"	W85°21'33.94981"	922.228	NW COR SIDEWALK
QC 138	N39°20'27.61256"	W85°12'24.01850"	758.685	NE COR TENNIS COURT
QC 139	N39°22'51.77889"	W85°28'38.05127"	841.178	SE COR PAINT STRIPE
QC 140	N39°14'04.56278"	W85°34'22.32381"	781.072	NE COR SIDEWALK

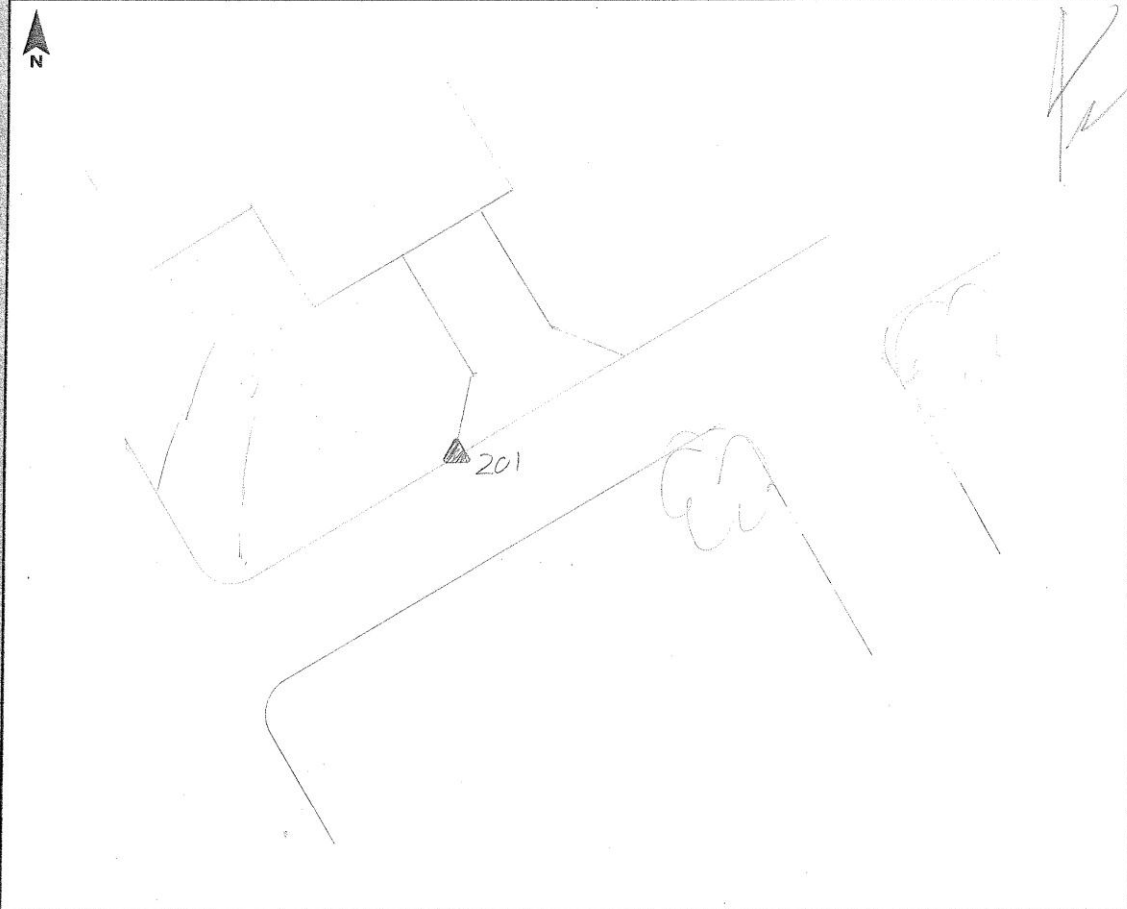
VOLUME 5 - SECTION 3: BLOCK 8 GROUND/LIDAR CONTROL LOGS AND PHOTOS

This section contains the station recovery information sheets and photographs for the ground control and LiDAR control station.

The data is assembled on the following pages.

GROUND CONTROL

GPS Observation Log Sheet		WOOLPERT	
Project Name: <u>IN Statewide 2012</u>	Project Number: <u>12134</u>	Survey Date: <u>2012031</u>	
Station Name: <u>201</u>	Operator Name: <u>David Hall</u>		
Latitude: <u>38° 17' 53.1"</u>	Julian Day: <u>071</u>	Session No. <u>1</u>	
Longitude: <u>85° 41' 22.1"</u>	Start Time: <u>12:04</u>	End Time: <u>12:14</u>	
Ellip. Height: <u>361'</u>	Data File Name: <u>INDY_071-DMH</u>		
Type of Mark: <u>Corner of concrete</u>	Type of Receiver: <u>R8-3</u>		
Stamping on Mark: <u>driveway</u>	Type of Antenna: <u>R8-3</u>		
Weather Condition: <u>60° & clear</u>	Antenna Height: <u>2.000m</u> to bottom of antenna mount		





201-2-11MAR2012



201-3N-11MAR2012

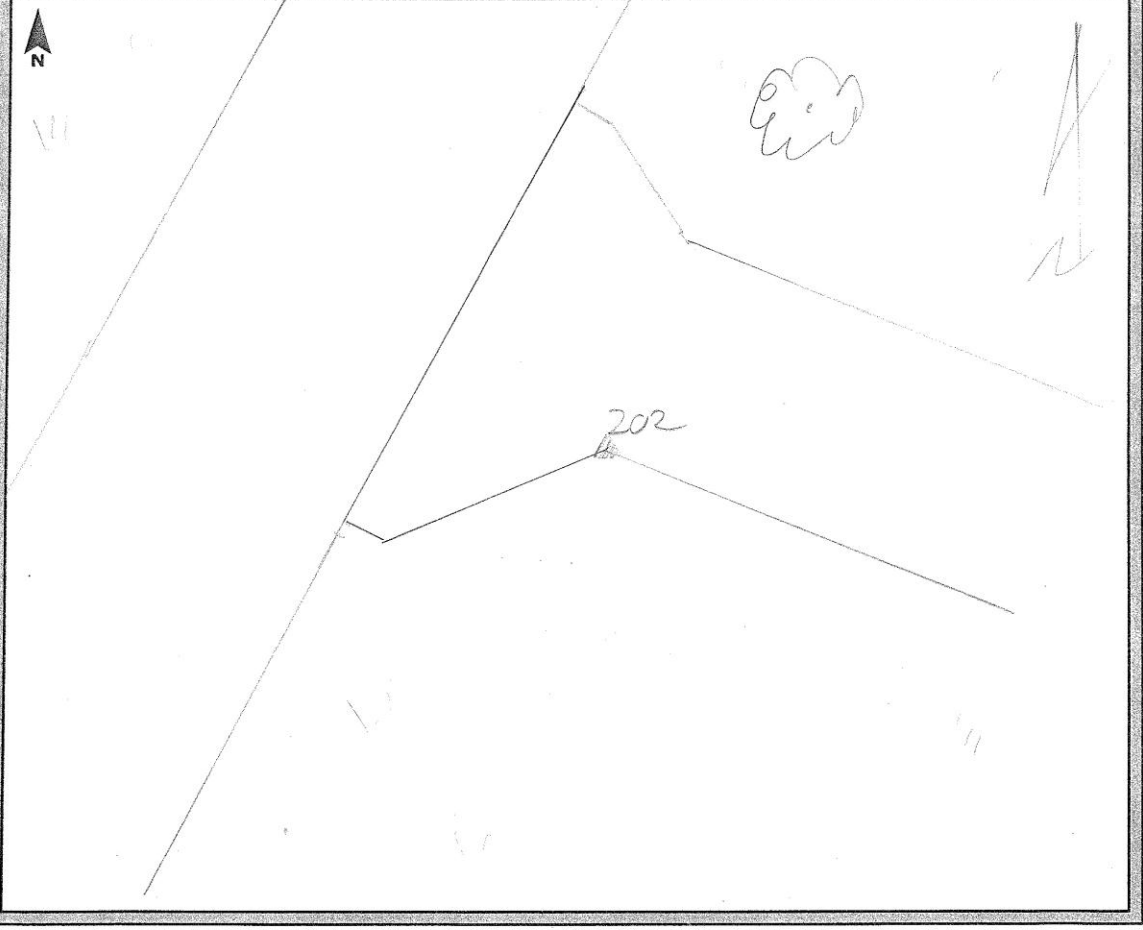


201-3E-11MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>7134</u>	Survey Date:	<u>2012-03-10</u>
Station Name:	<u>202</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>38° 32' 26.7"</u>	Julian Day:	<u>070</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 25' 09.4"</u>	Start Time:	<u>08:31</u>	End Time:	<u>08:37</u>
Ellip. Height:	<u>360'</u>	Data File Name:	<u>INDY_070_DMH</u>		
Type of Mark:	<u>Inside corner at</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:	<u>angle of conc Drive</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>40% Sunny</u>	Antenna Height:	<u>2.000 m</u>	to bottom of antenna mount	





202-2-10MAR2012



202-3E-10MAR2012

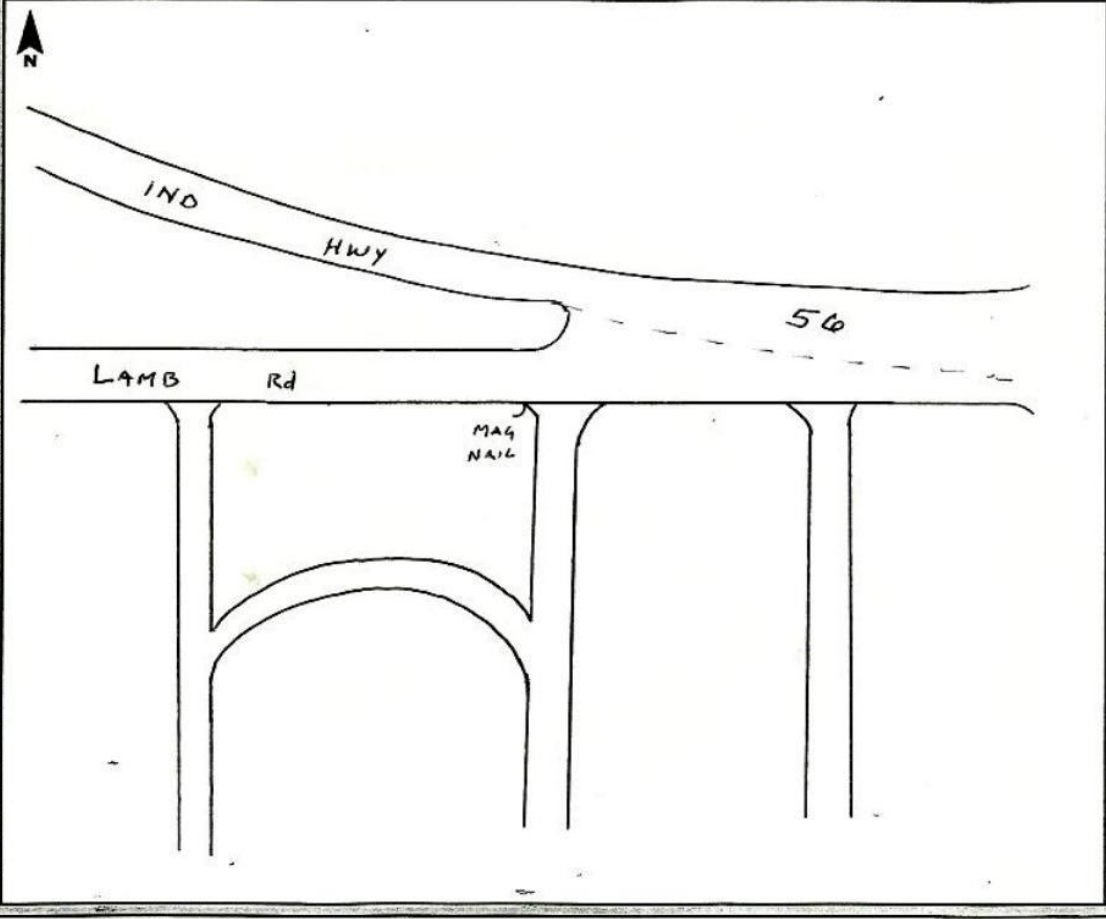


202-3N-10MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>10 MAR 12</u>
Station Name: <u>203</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-41-30.28</u>	Julian Day: <u>070</u>	Session No. _____
Longitude: <u>085-11-01.50</u>	Start Time: <u>10:35</u>	End Time: <u>10:40</u>
Ellip. Height: <u>362.74 FT</u>	Data File Name: <u>IND ST 10 MAR 12 SS</u>	
Type of Mark: <u>Corner Asphalt Drive</u>	Type of Receiver: <u>RS-2 # 9357</u>	
Stamping on Mark: <u>MAG NAIL</u>	Type of Antenna: _____	
Weather Condition: <u>Sunny, 40°</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





203-2-10MAR2012



203-3E-10MAR2012

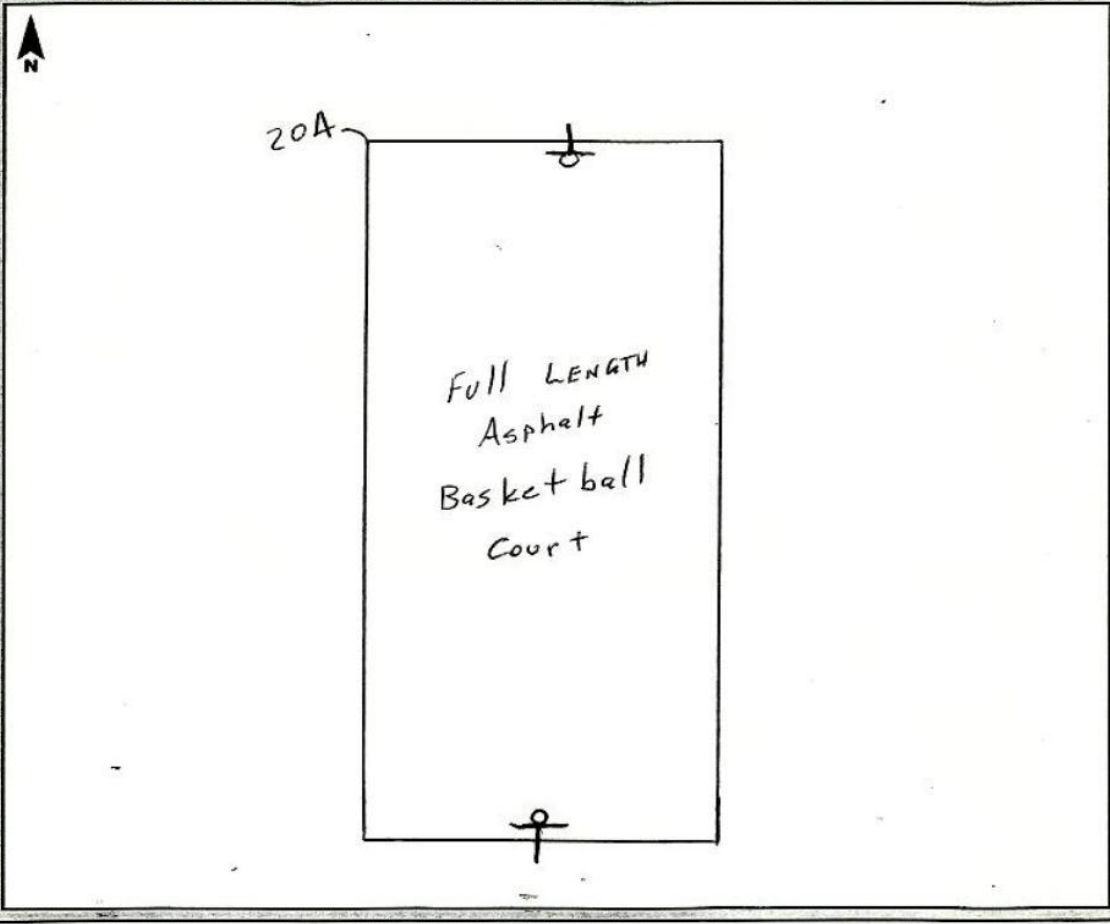


203-3N-10MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>10 MAR 12</u>
Station Name: <u>20A</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-46-50.36</u>	Julian Day: <u>070</u>	Session No. _____
Longitude: <u>084-58-01.13</u>	Start Time: <u>3:00</u>	End Time: <u>3:05</u>
Ellip. Height: <u>355.97 FT</u>	Data File Name: <u>IND0510MAR12.S</u>	
Type of Mark: <u>Corner of Asphalt</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 50°</u>	Antenna Height: <u>4.562 FT</u>	to bottom of antenna mount





204-2-10MAR2012



204-3E-10MAR2012

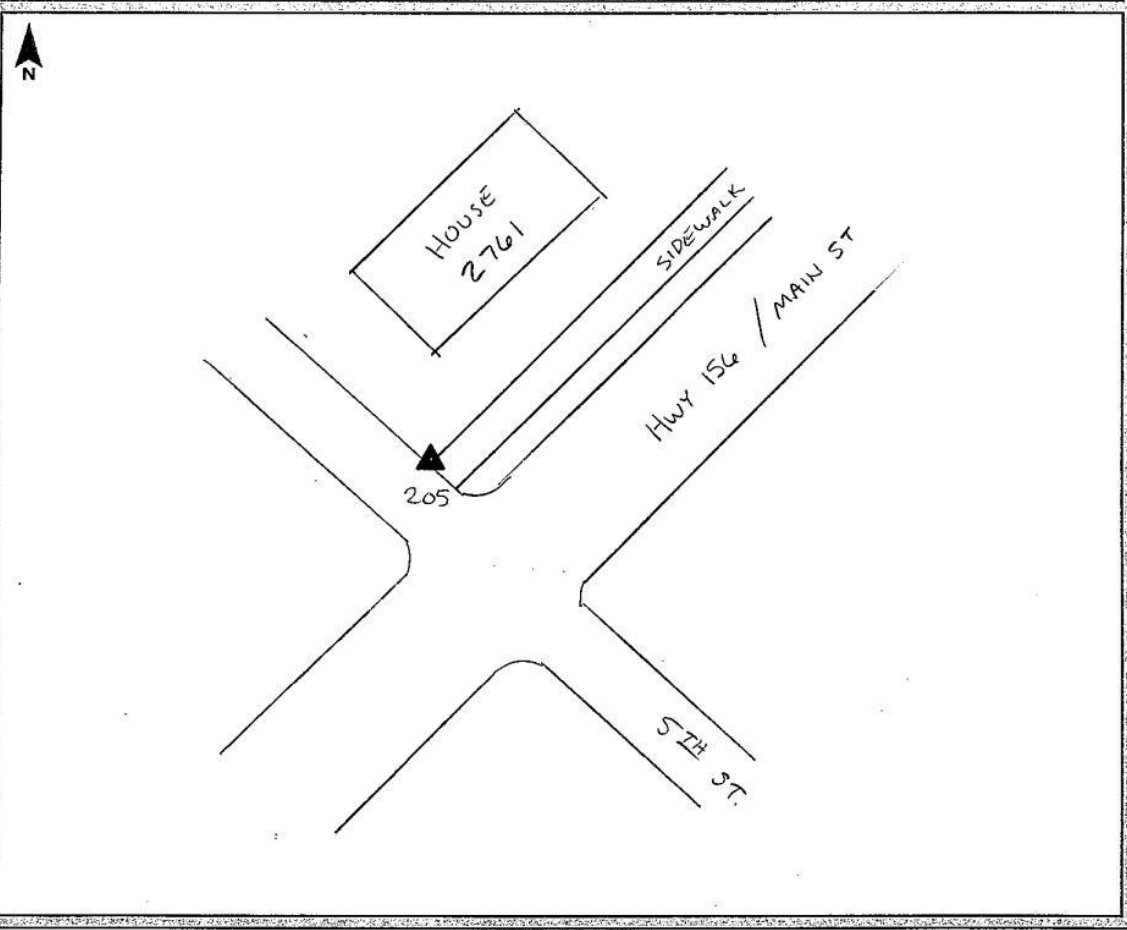


204-3N-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/07/2012</u>
Station Name: <u>205</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 50' 11.91" N</u>	Julian Day: <u>069</u>	Session No. _____
Longitude: <u>84° 49' 42.68" W</u>	Start Time: _____	End Time: _____
Ellip. Height: <u>356.31 sft</u>	Data File Name: _____	
Type of Mark: <u>COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





205-2-09MAR2012



205-3NE-09MAR2012

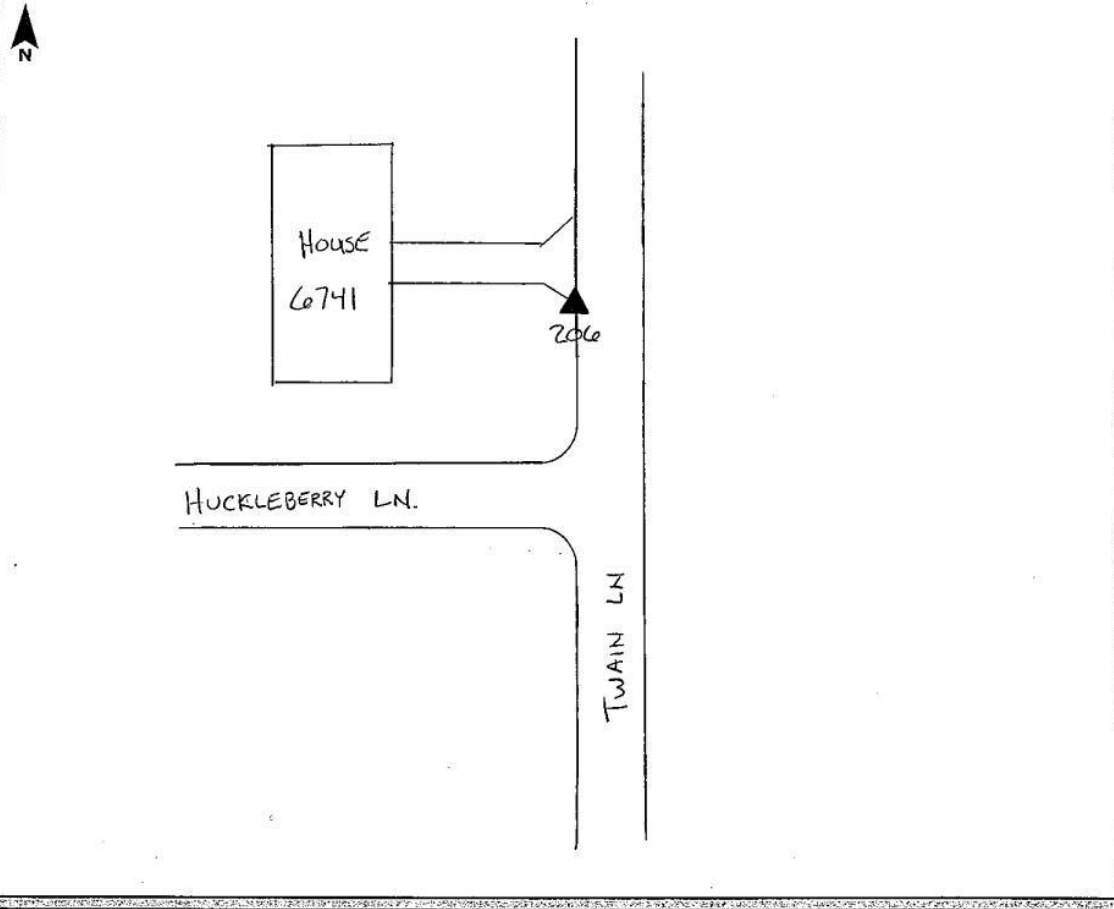


205-3SE-09MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/09/2012</u>
Station Name: <u>206</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 58' 13.56" N</u>	Julian Day: <u>069</u>	Session No. <u>—</u>
Longitude: <u>84° 50' 33.85" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>371.10 sf+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>40° CLEAR</u>	Antenna Height: <u>2.1A</u>	to bottom of antenna mount





206-2-09MAR2012



206-3S-09MAR2012

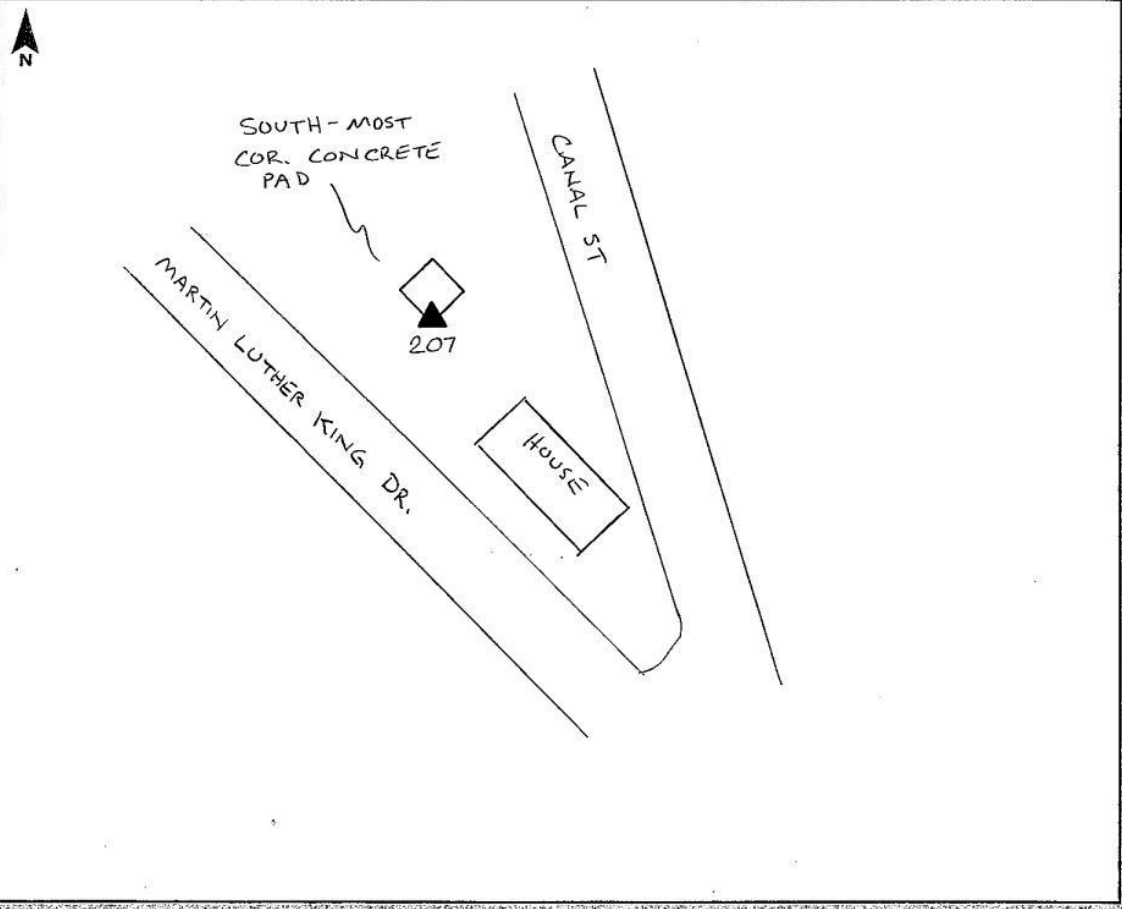


206-3W-09MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: _____
Station Name: <u>207</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 06' 02.5" N</u>	Julian Day: <u>068</u>	Session No. <u>1</u>
Longitude: <u>84° 50' 49.7" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>353.33 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SOUTH COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





207-2-03MAR2012



207-3NE-03MAR2012

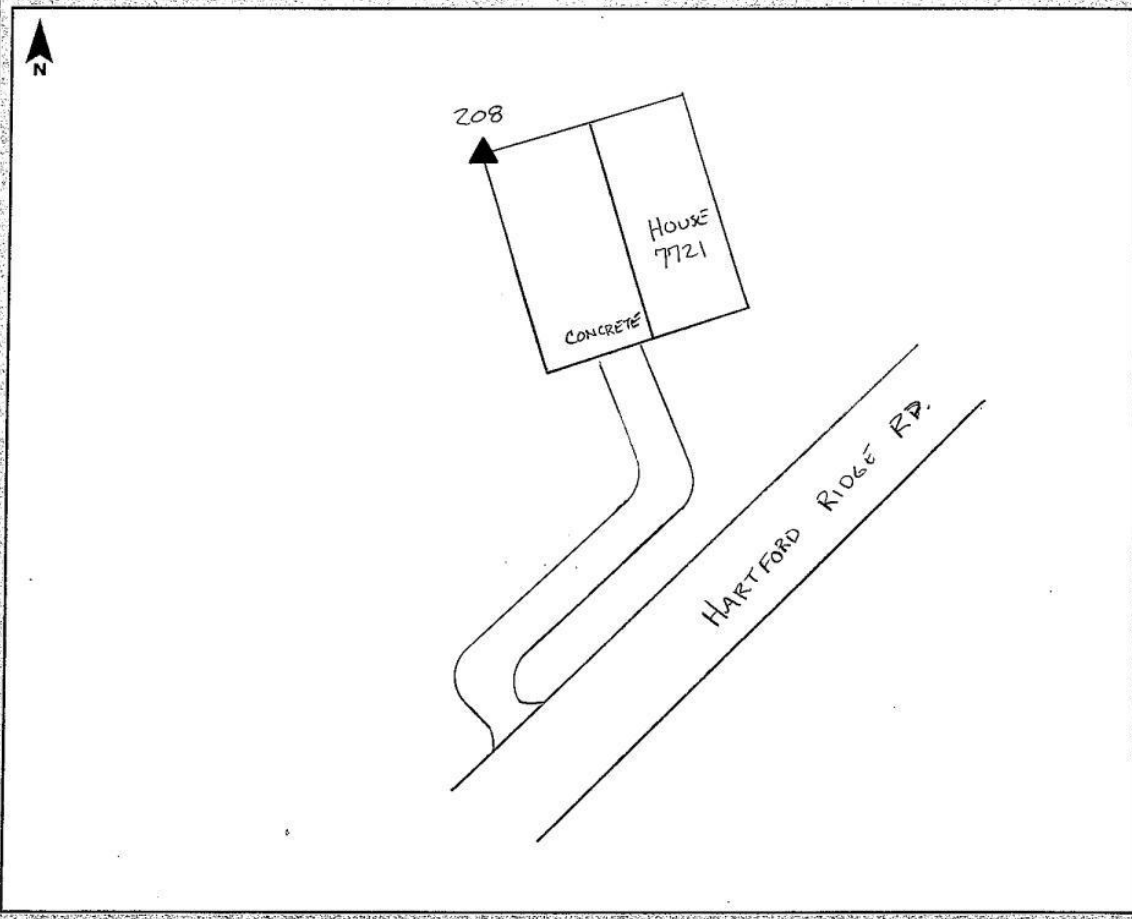


207-3SE-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/09/2012</u>
Station Name: <u>208</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 59' 04.23" N</u>	Julian Day: <u>069</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 21.18" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>631.72</u>	Data File Name: _____	
Type of Mark: <u>NW COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





208-2-09MAR2012



208-3NW-09MAR2012

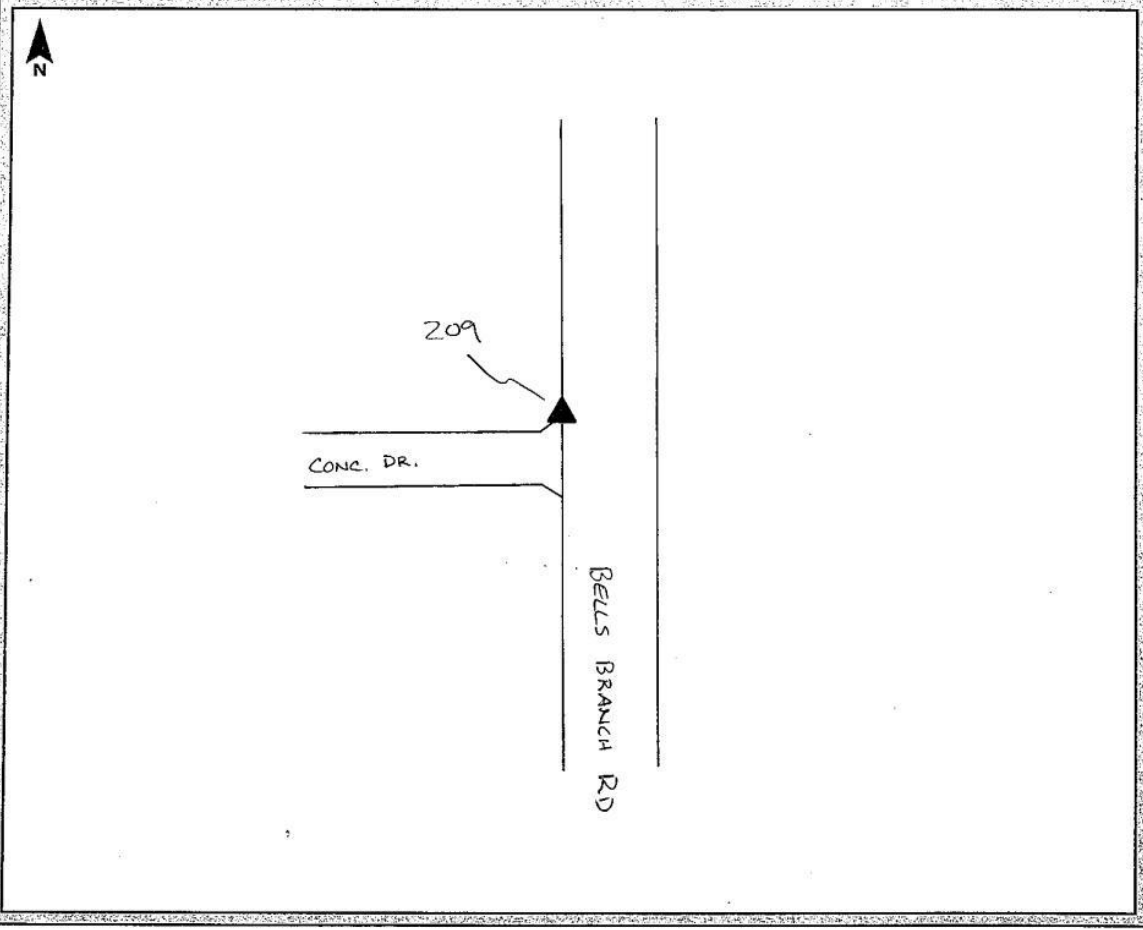


208-3SE-09MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/08/2012</u>
Station Name: <u>209</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38°58' 16.1" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>85° 06' 09.0" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>775.863</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





209-2-03MAR2012



209-3E-03MAR2012

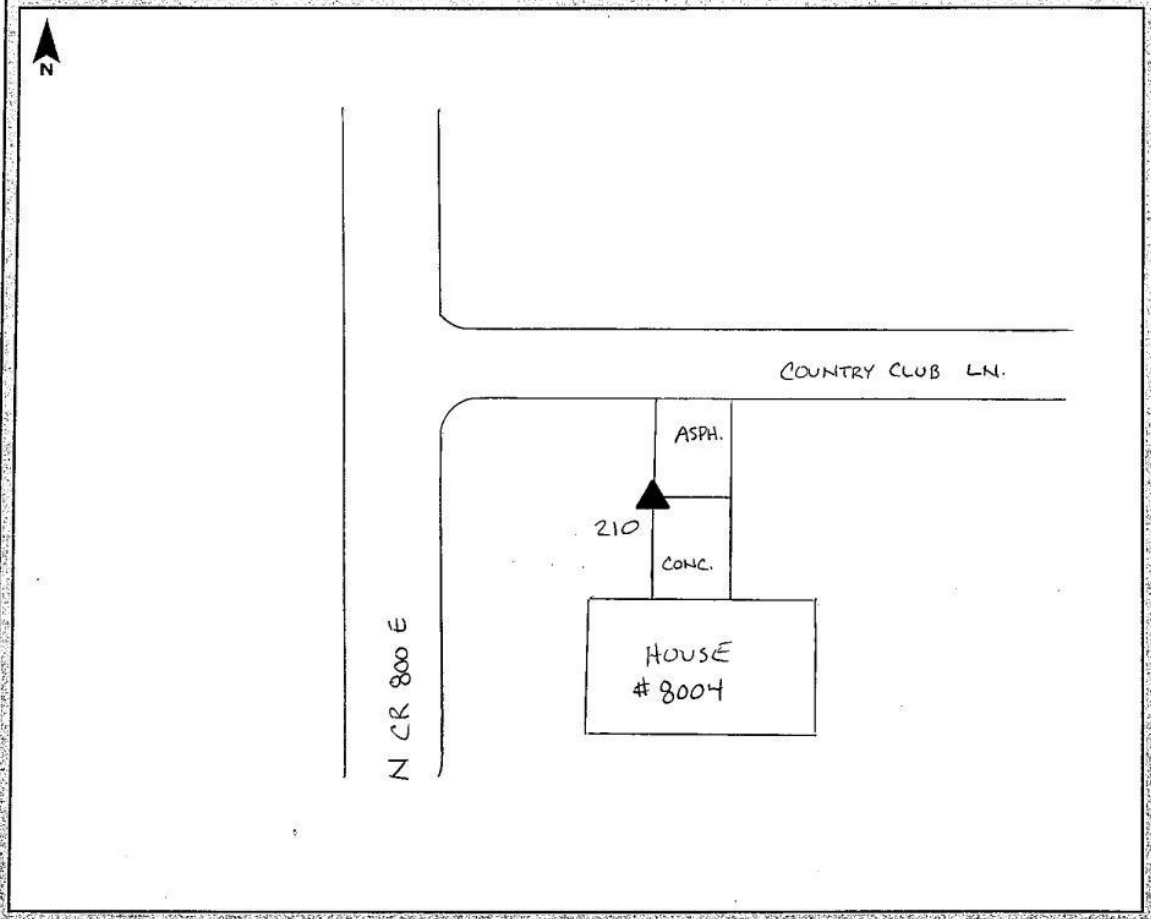


209-3N-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/09/2012</u>
Station Name: <u>210</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 07' 36.1" N</u>	Julian Day: <u>008</u>	Session No. <u>—</u>
Longitude: <u>85° 06' 43.9" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>888.80 sf+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2.11</u>	to bottom of antenna mount





210-2-03MAR2012



210-3W-03MAR2012

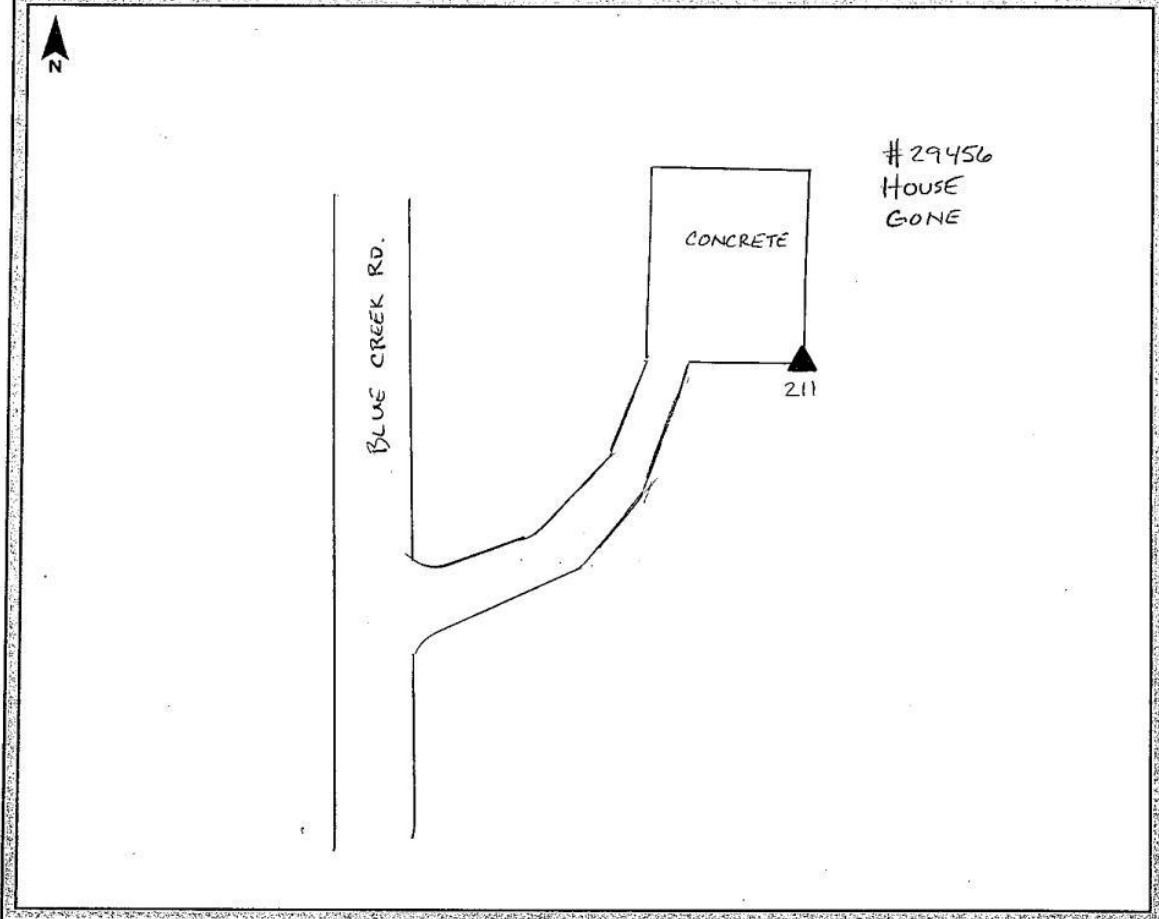


210-3S-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>211</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 18' 00.58" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 02' 53.55" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>845.69 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





211-2-10MAR2012



211-3E-10MAR2012

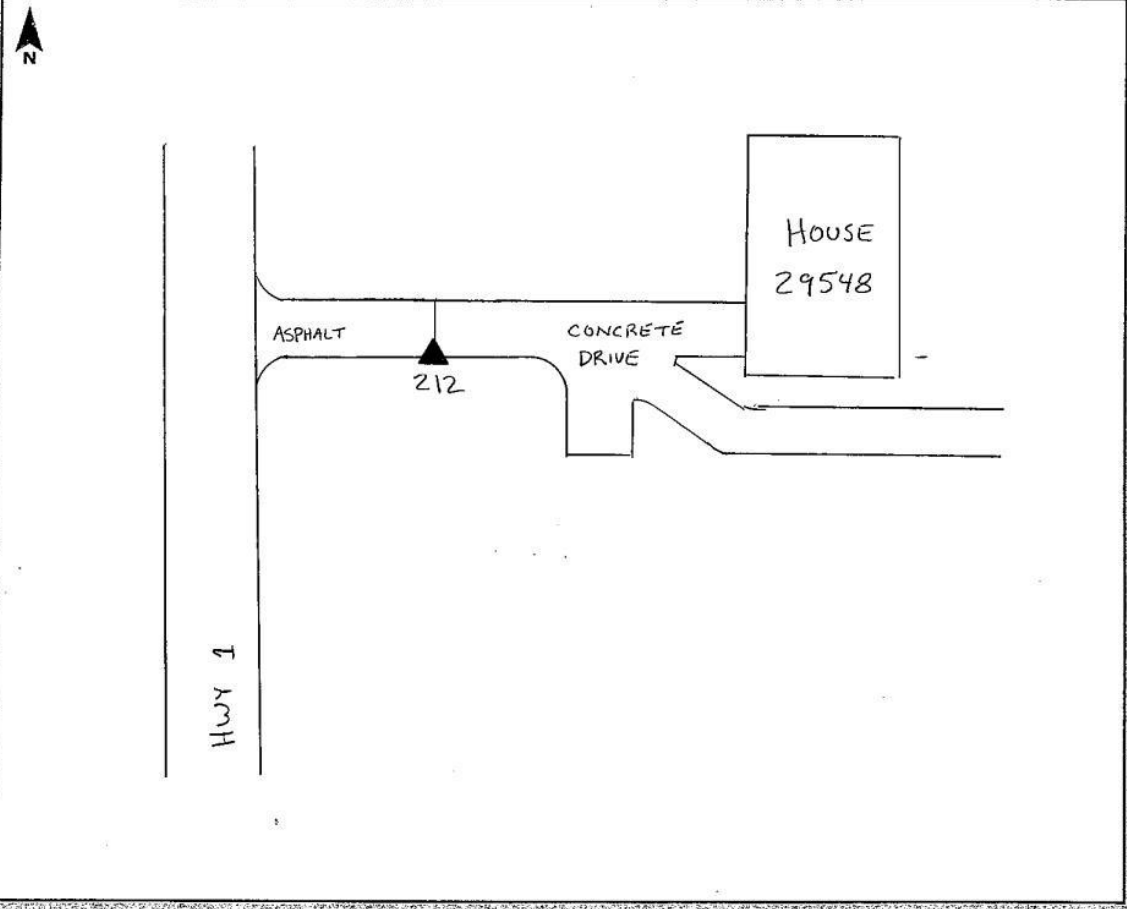


211-3S-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>212</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 59.07" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 22.69" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>898.16</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





212-2-10MAR2012



212-3S-10MAR2012

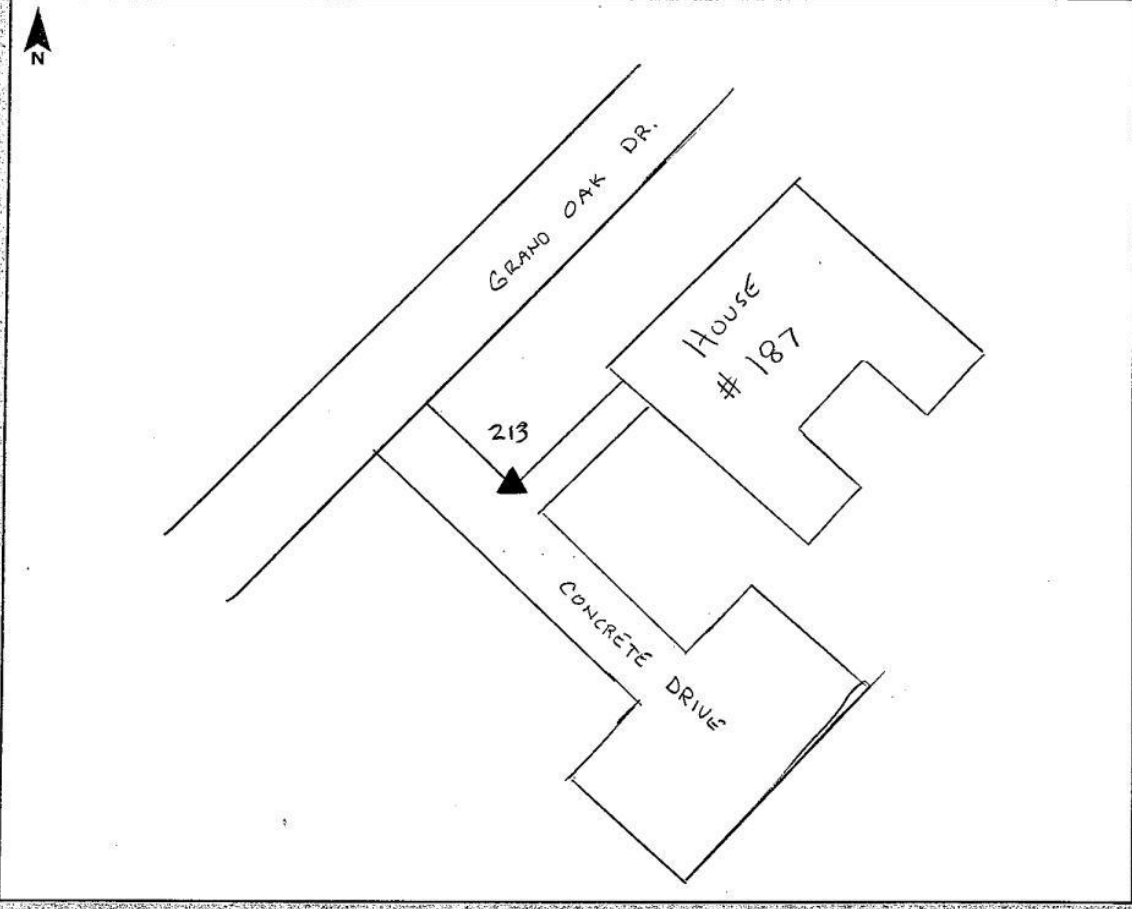


212-3W-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>213</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 18' 14.92" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 49' 23.19" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>779.16 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





213-2-10MAR2012



213-3NE-10MAR2012

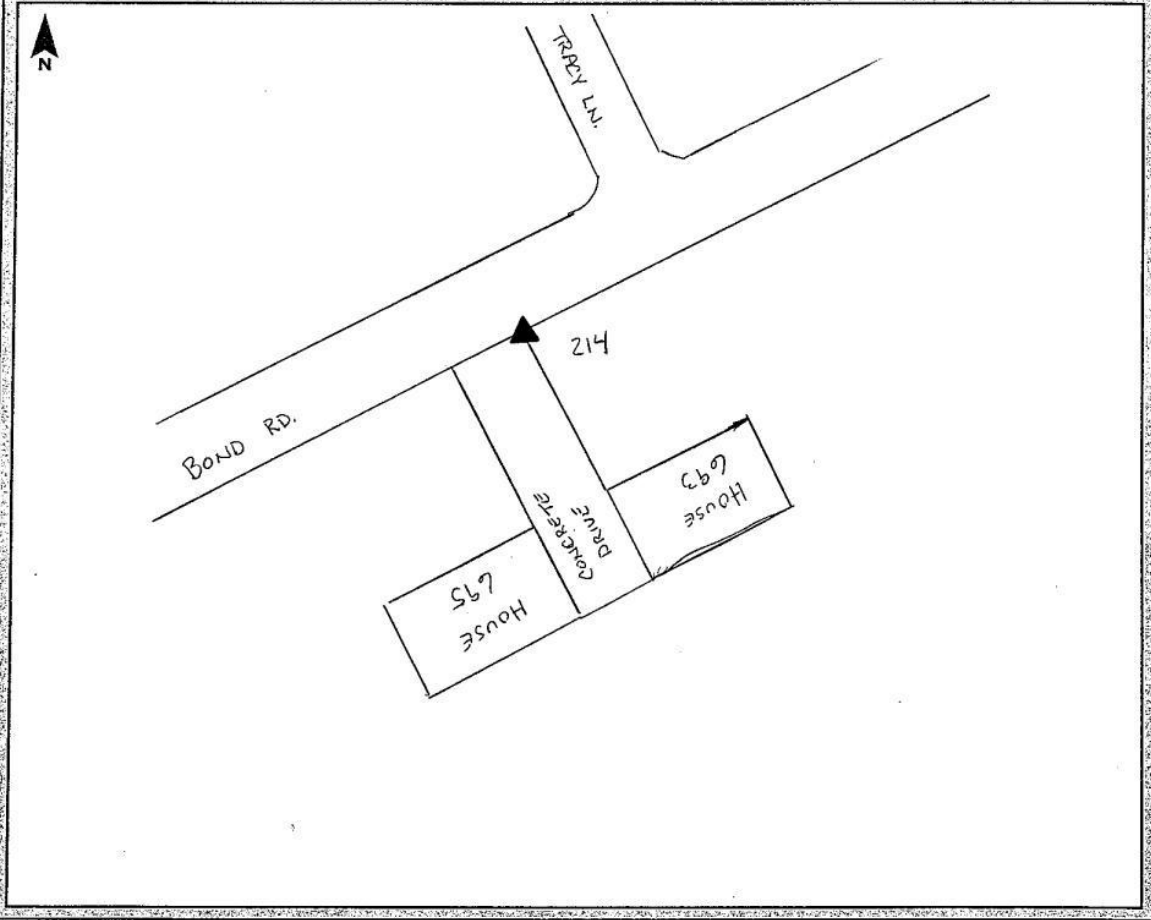


213-3SE-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/1012</u>
Station Name: <u>214</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 12' 22.36" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 49' 54.66" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>819.99</u> <u>5ft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





214-2-10MAR2012



214-3N-10MAR2012

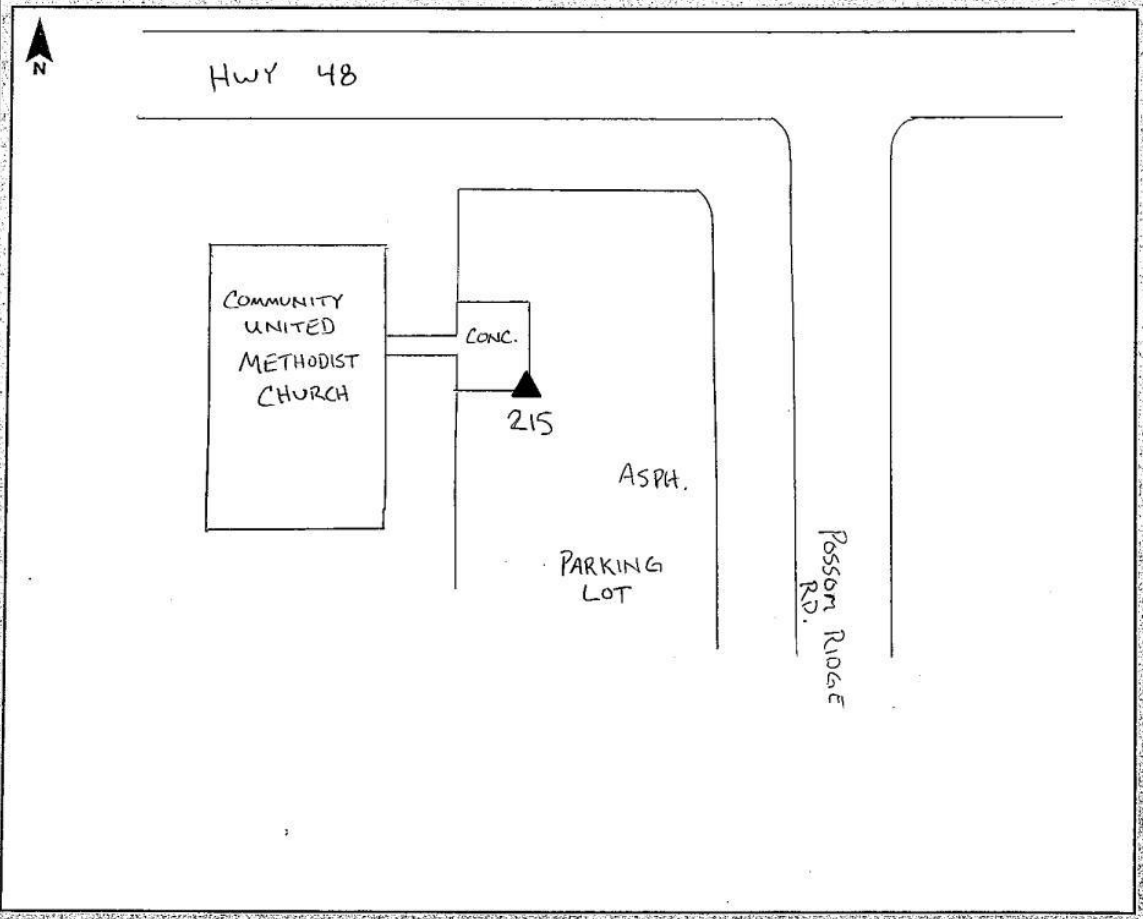


214-3E-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>02/08/2012</u>
Station Name: <u>215</u>	Operator Name: <u>BEN CHRISTIE</u>	Session No. <u>—</u>
Latitude: <u>39°08'05.9" N</u>	Julian Day: <u>068</u>	Start Time: <u>—</u>
Longitude: <u>84°58'38.0" W</u>	Data File Name: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>787.48 sft</u>	Type of Reciever: <u>R8</u>	Type of Antenna: <u>R8</u>
Type of Mark: <u>SE COR CONCRETE</u>	Antenna Height: <u>2m</u> to bottom of antenna mount	
Stamping on Mark: <u>—</u>		
Weather Condition: <u>45° RAIN</u>		





215-2-03MAR2012



215-3N-03MAR2012

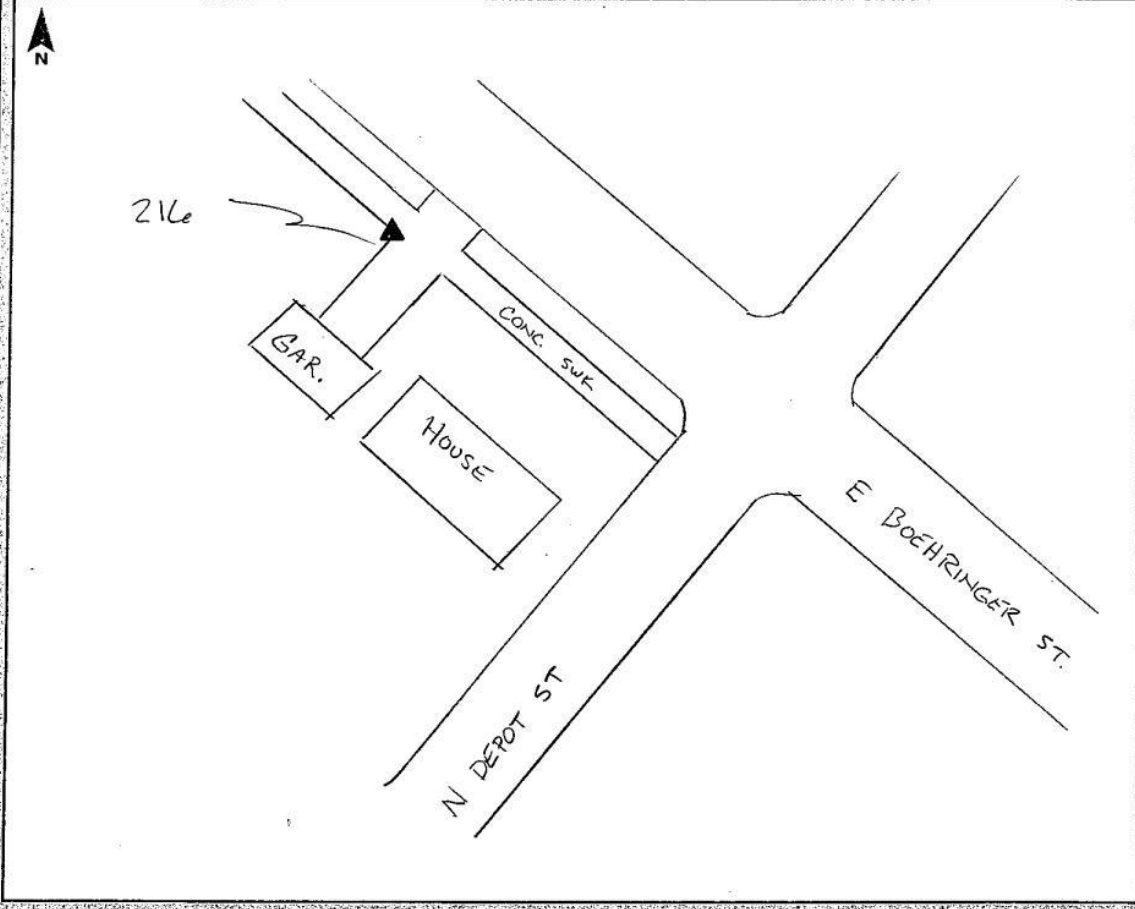


215-3W-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>216</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 53.31" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 13' 11.05" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>850.67 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





216-2-10MAR2012



216-3SW-10MAR2012

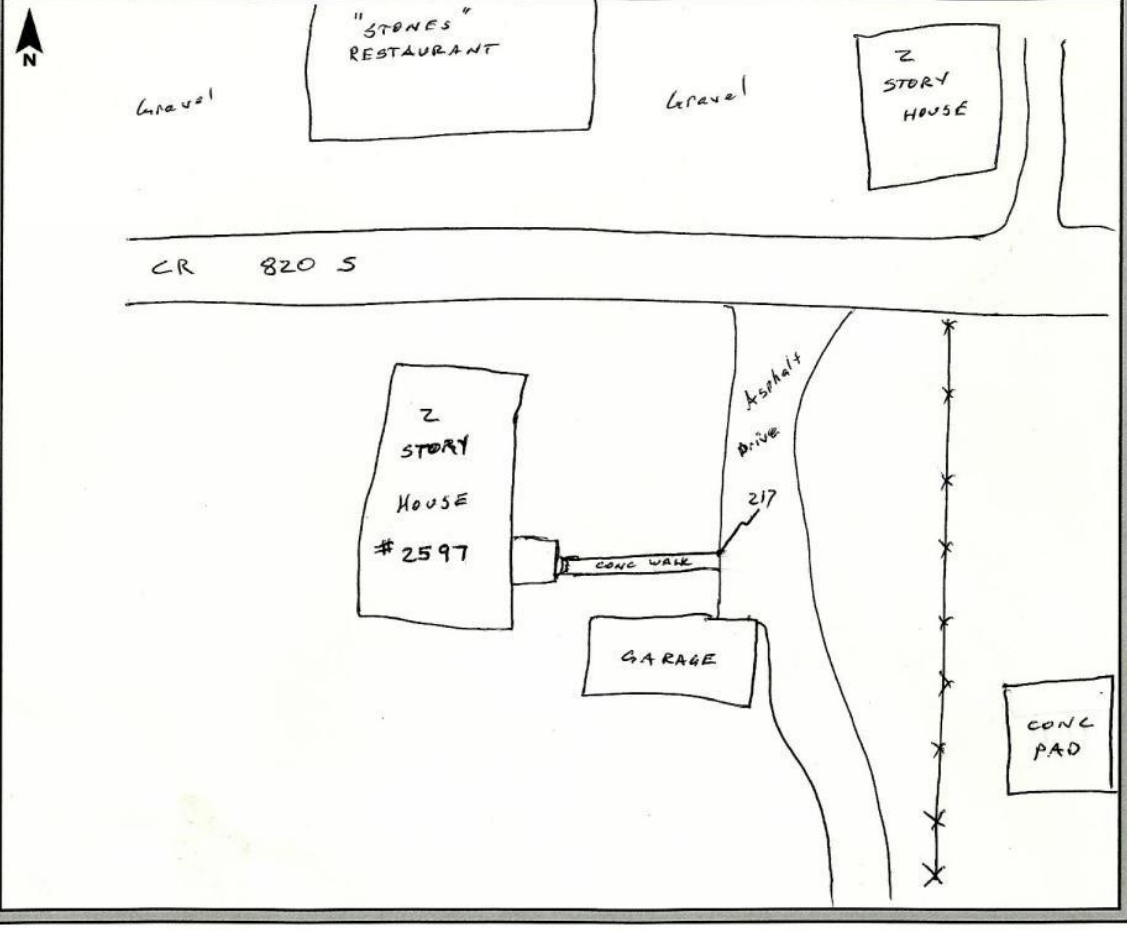


216-3NW-10MAR2012

GPS Observation Log Sheet



Project Name:	INDIANA STATEWIDE	Project Number:	72134	Survey Date:	8 MAR 12
Station Name:	217	Operator Name:	Stephen Schonegg		
Latitude:	39-12-36.6	Julian Day:	068	Session No.:	5
Longitude:	085-25-53.9	Start Time:	4:23	End Time:	4:29
Ellip. Height:	775.2'	Data File Name:	INDST08MAR12 SS		
Type of Mark:	CORNER WALK	Type of Receiver:	R8-2		
Stamping on Mark:	NONE	Type of Antenna:	_____		
Weather Condition:	RAIN, 50°	Antenna Height:	6.562	to bottom of antenna mount	





217-2-08MAR2012



217-3W-08MAR2012

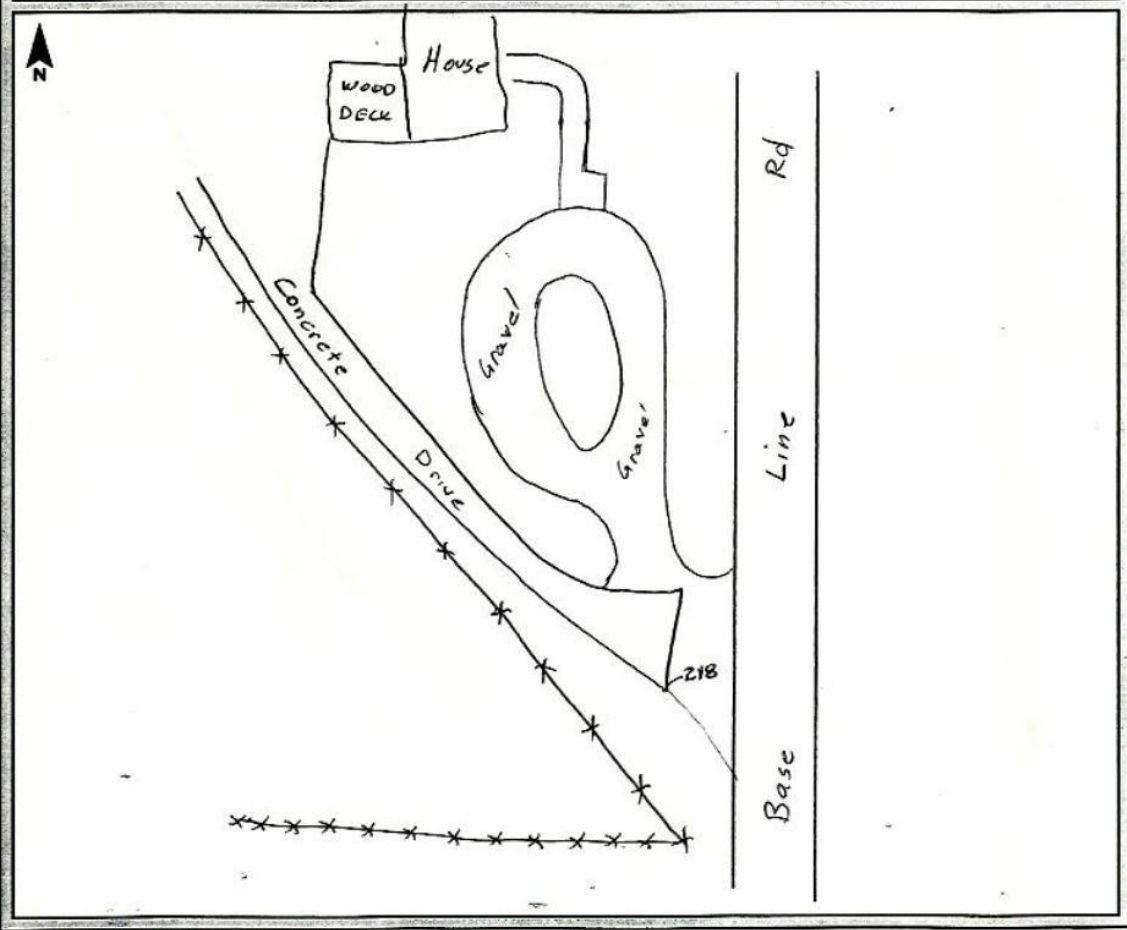


217-3S-08MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>9 Mar 12</u>
Station Name: <u>218</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-07-52.37</u>	Julian Day: <u>069</u>	Session No. _____
Longitude: <u>085-36-43.80</u>	Start Time: <u>2:36</u>	End Time: <u>2:41</u>
Ellip. Height: <u>637.05 FT</u>	Data File Name: <u>INDST09MAR12SS</u>	
Type of Mark: <u>Corner Concrete Drive</u>	Type of Receiver: <u>RB-2, #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 45°, WINDY</u>	Antenna Height: <u>6.562 (FT)</u>	to bottom of antenna mount





218 2 09MAR2012



218_3N_09MAR2012

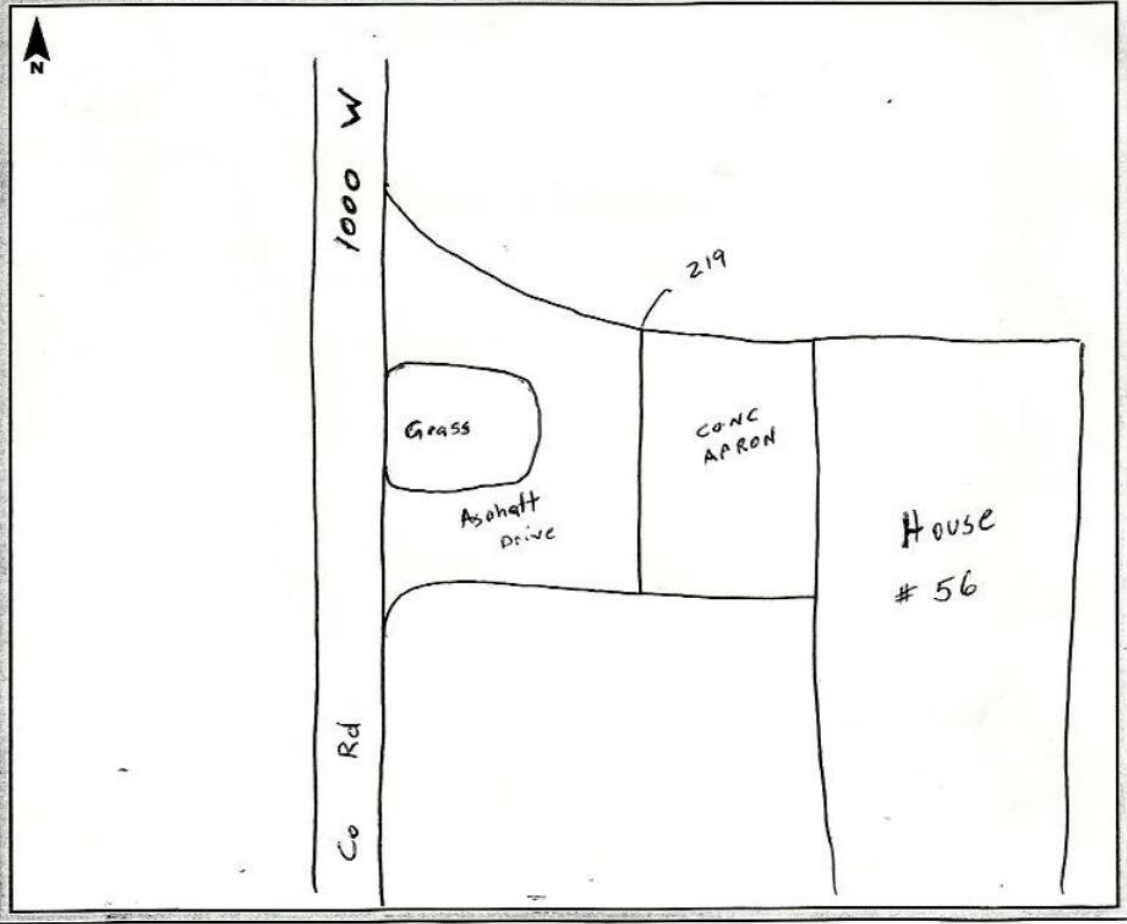


218_3W_09MAR2012

GPS Observation Log Sheet

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WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: 219 Operator Name: Stephen Schonegg
Latitude: 38-44-23.13 Julian Day: 070 Session No. _____
Longitude: 085-34-19.74 Start Time: 9:00 End Time: 9:06
Ellip. Height: 632.93 FT Data File Name: INDST10MAR12SS
Type of Mark: Corner Concrete Type of Receiver: R8-2 *9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 35° Antenna Height: 6.562 FT to bottom of antenna mount





219-2-10MAR2012



219-3E-10MAR2012

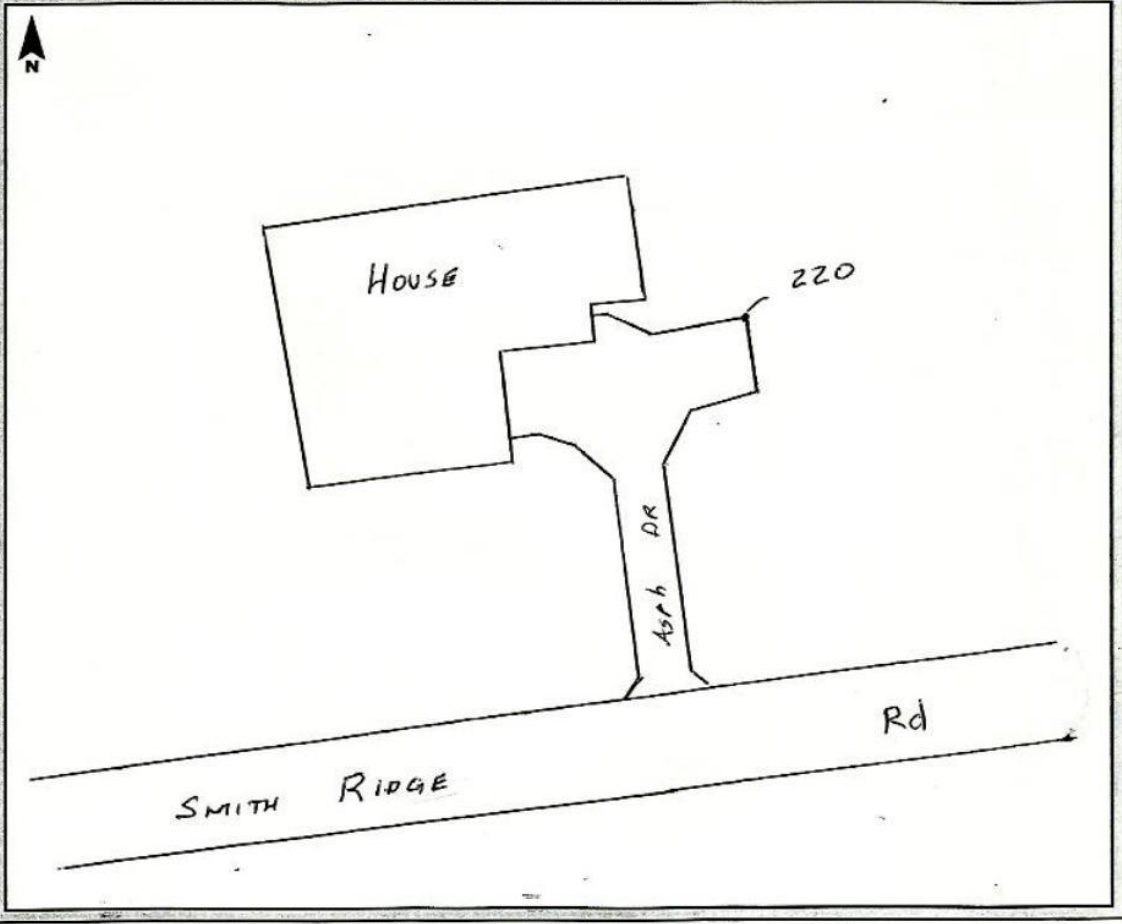


219-3N-10MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>7213A</u>	Survey Date: <u>10 MAR 12</u>
Station Name: <u>220</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-48-33.80</u>	Julian Day: <u>070</u>	Session No. _____
Longitude: <u>085-09-47.18</u>	Start Time: <u>1:47</u>	End Time: <u>1:51</u>
Ellip. Height: <u>759.64 FT</u>	Data File Name: <u>INDST10MAR12SS</u>	
Type of Mark: <u>Corner Asphalt</u>	Type of Receiver: <u>R8-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 45°</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





220-2-10MAR2012



220-3E-10MAR2012

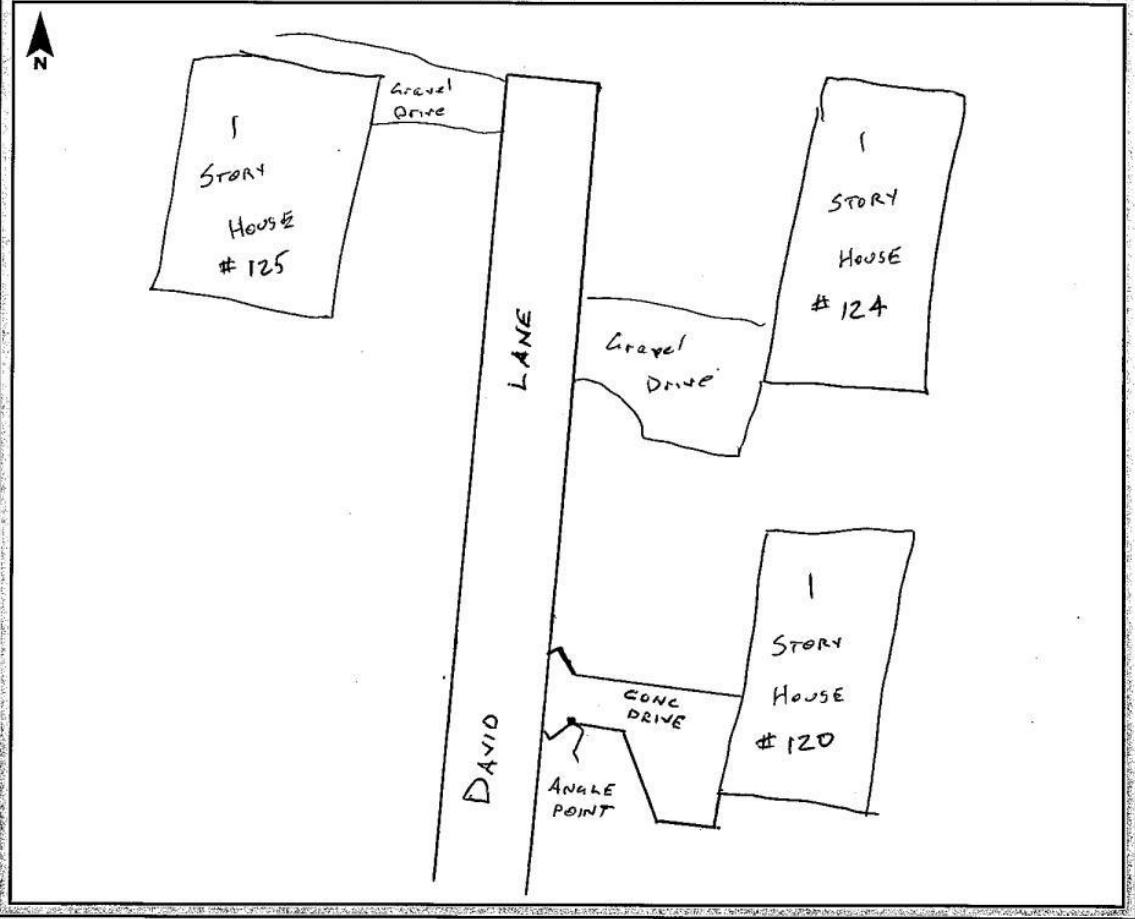


220-3N-10MAR2012

GPS Observation Log Sheet



Project Name:	INDIANA STATEWIDE	Project Number:	72134	Survey Date:	8 MAR 12
Station Name:	221	Operator Name:	Stephen Schonegg		
Latitude:	39-04-19.8	Julian Day:	068	Session No.:	3
Longitude:	085-16-01.0	Start Time:	2:26	End Time:	2:33
Ellip. Height:	847.6	Data File Name:	INDST08MAR12.SS		
Type of Mark:	ANGLE POINT DRIVE	Type of Receiver:	RB-2		
Stamping on Mark:	MAG NAIL	Type of Antenna:			
Weather Condition:	RAIN, 50°	Antenna Height:	6.562 FT	to bottom of antenna mount	





221-2-08MAR2012



221-3E-08MAR2012

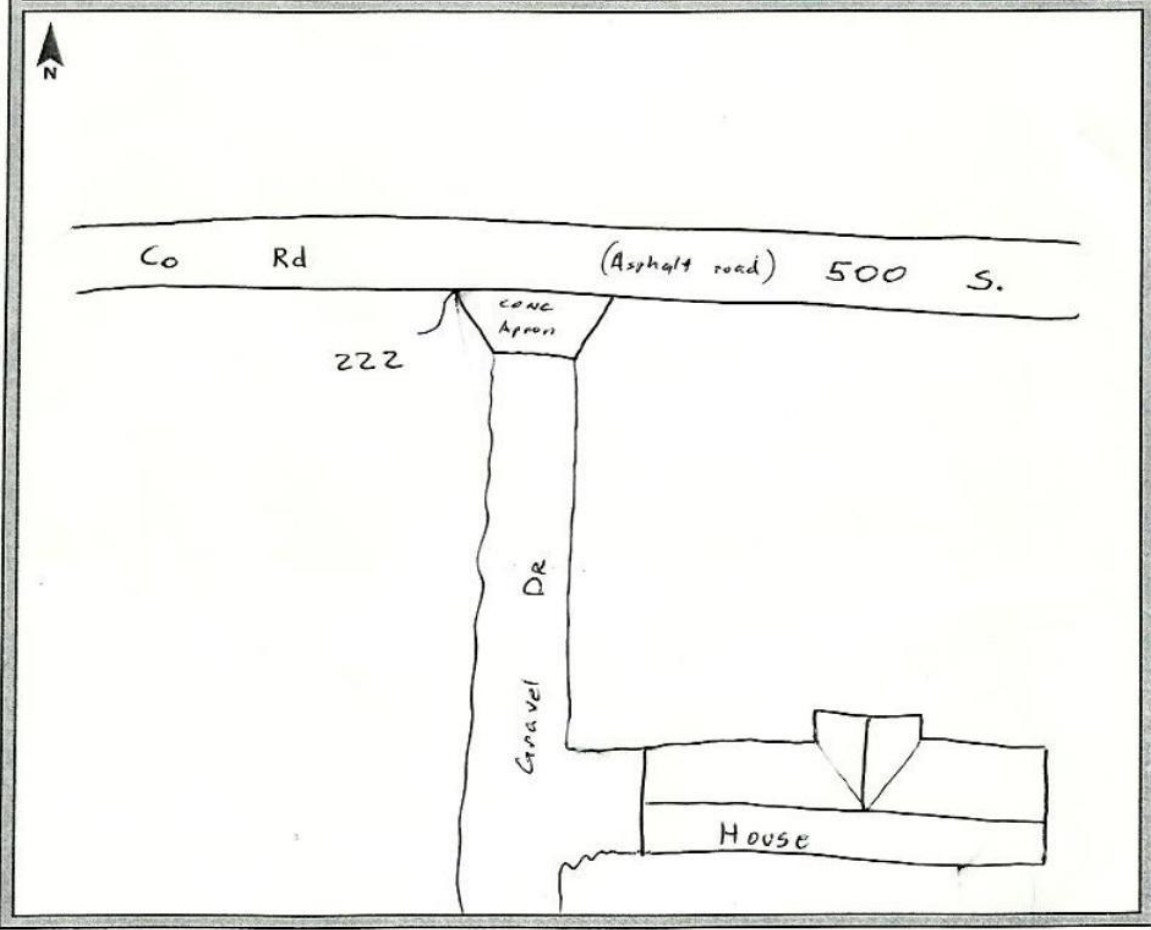


221-3S-08MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 9 MAR 12
Station Name: 222 Operator Name: Stephen Schonegg
Latitude: 38-54-41.28 Julian Day: 069 Session No. _____
Longitude: 085-40-42.40 Start Time: 4:27 End Time: 4:31
Ellip. Height: 551.34 FT Data File Name: INDST09MAR12SS
Type of Mark: Corner Concrete Apron Type of Receiver: RB-2, #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 45°, Windy Antenna Height: 6562 FT to bottom of antenna mount





222_2_09MAR2012



222_3E_09MAR2012

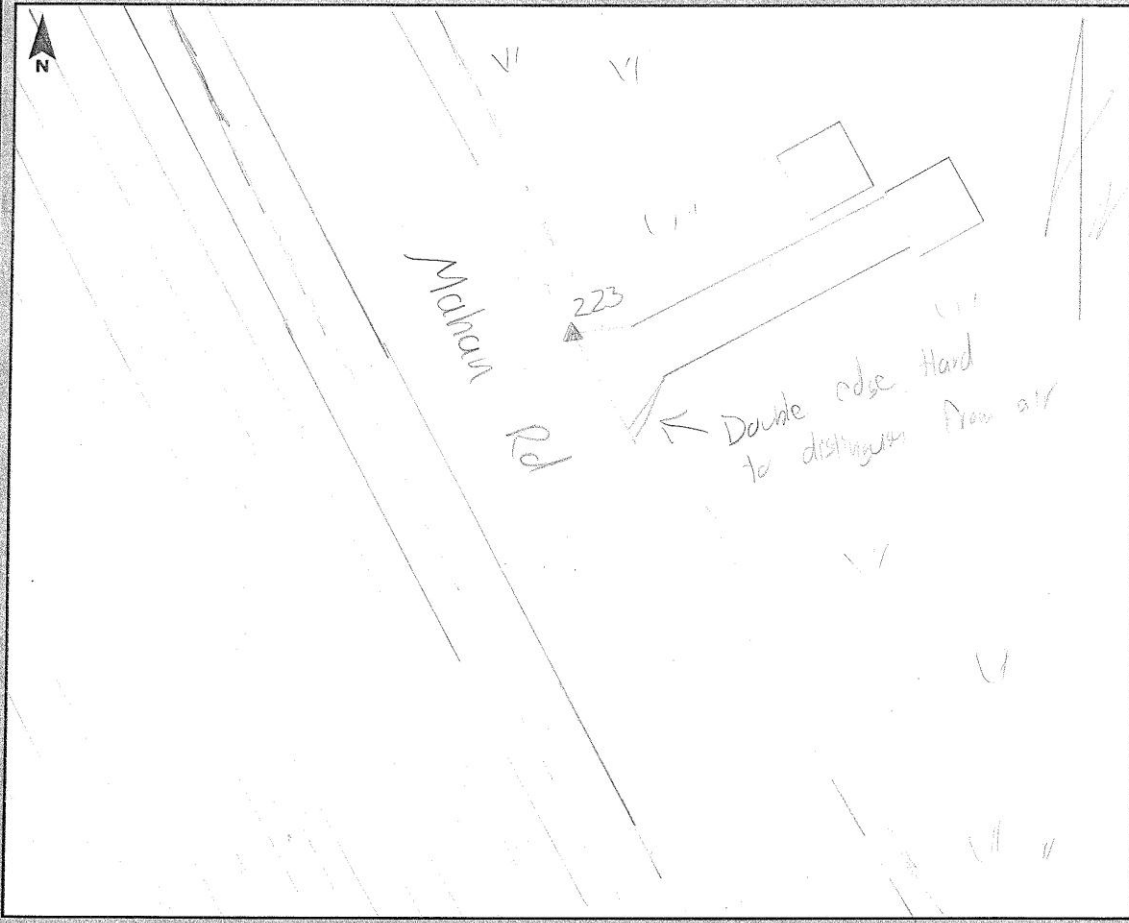


222_3N_09MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-09
Station Name: 223 Operator Name: David Hall
Latitude: 38° 34' 24.1" Julian Day: 069 Session No. 2
Longitude: 85° 39' 09.9" Start Time: 17:59 End Time: 18:06
Ellip. Height: 579' Data File Name: JUDY_069.DMIH
Type of Mark: North intersection of Type of Receiver: RE-3
Stamping on Mark: Driveway road Type of Antenna: RE-3
Weather Condition: 60° clear Antenna Height: 2.000M to bottom of antenna mount





223-2-09MAR2012



223-3NE-09MAR2012



223-3NW-09MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 12134 Survey Date: 2009-06
Station Name: 224 Operator Name: David Hall
Latitude: 38° 21' 53.8" Julian Day: 070 Session No. 2
Longitude: 85° 16' 04.7" Start Time: 14:57 End Time: 15:07
Ellip. Height: 349' Data File Name: INDY_070-DMH
Type of Mark: Inside corner of Type of Receiver: R8-3
Stamping on Mark: Concrete walk Type of Antenna: R8-3
Weather Condition: 60's & sunny Antenna Height: 2.000m to bottom of antenna mount





224-2-10MAR2012



224-3E-10MAR2012

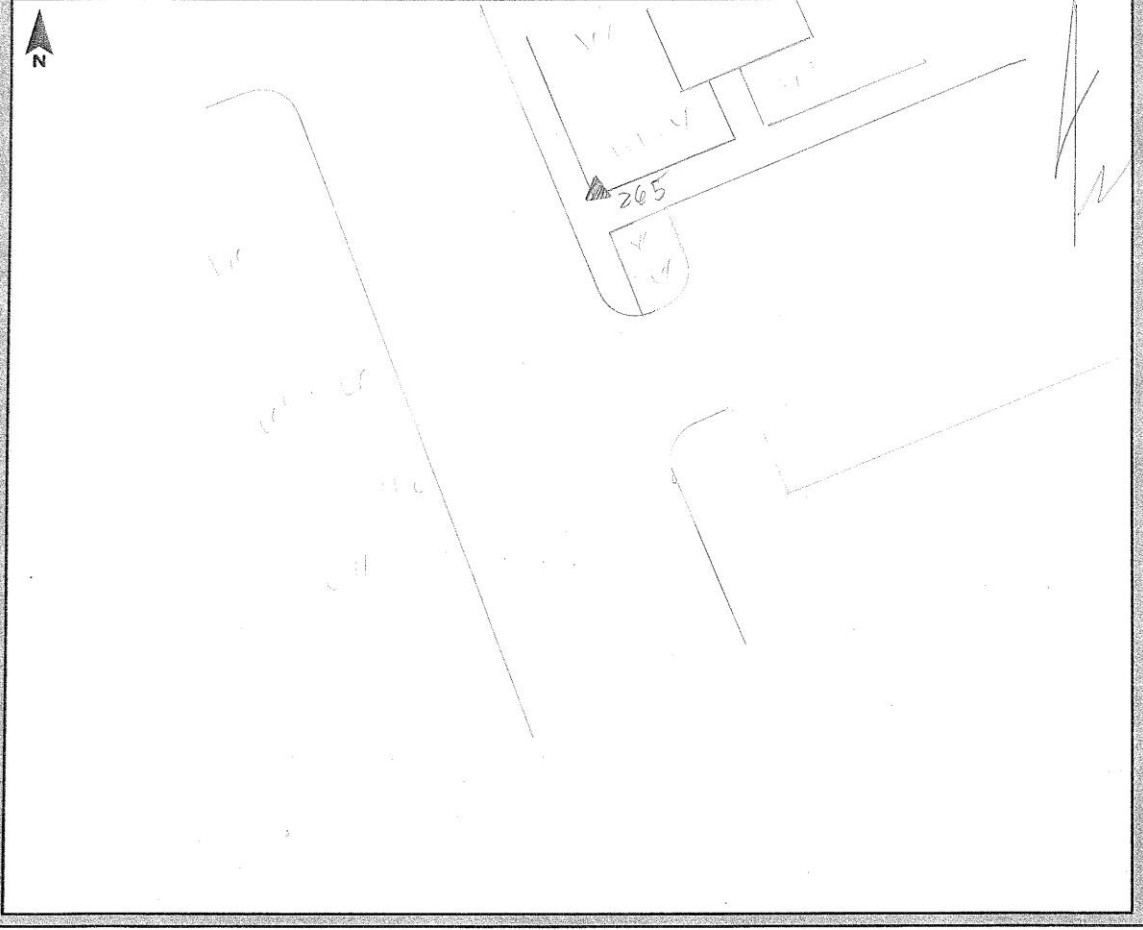


224-3N-10MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 7234 Survey Date: 2012-03-1
Station Name: 265 Operator Name: David Hall
Latitude: 38° 17' 26.7" Julian Day: 071 Session No. 1
Longitude: 85° 47' 49.6" Start Time: 12:46 End Time: 12:56
Ellip. Height: 327' Data File Name: INDY_071.DAT
Type of Mark: Concrete corner Type of Receiver: R8-3
Stamping on Mark: of walls Type of Antenna: R8-3
Weather Condition: 60° & clear Antenna Height: 2.000M to bottom of antenna mount





265-2-11MAR2012



265-3E-11MAR2012



265-3N-11MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u> Station Name: <u>267</u> Latitude: <u>38° 24' 09.2"</u> Longitude: <u>85° 53' 49.2"</u> Ellip. Height: <u>799'</u> Type of Mark: <u>Corner of concrete</u> Stamping on Mark: <u>driveway</u> Weather Condition: <u>60s & clear</u>	Project Number: <u>12134</u> Survey Date: <u>2012-03-6</u> Operator Name: <u>David Hall</u> Julian Day: <u>070</u> Session No. <u>2</u> Start Time: <u>15:49</u> End Time: <u>15:57</u> Data File Name: <u>INDY_070_DMAH</u> Type of Receiver: <u>R8-3</u> Type of Antenna: <u>R8-3</u> Antenna Height: <u>2.000M</u> to bottom of antenna mount
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267-2-10MAR2012



267-3E-10MAR2012



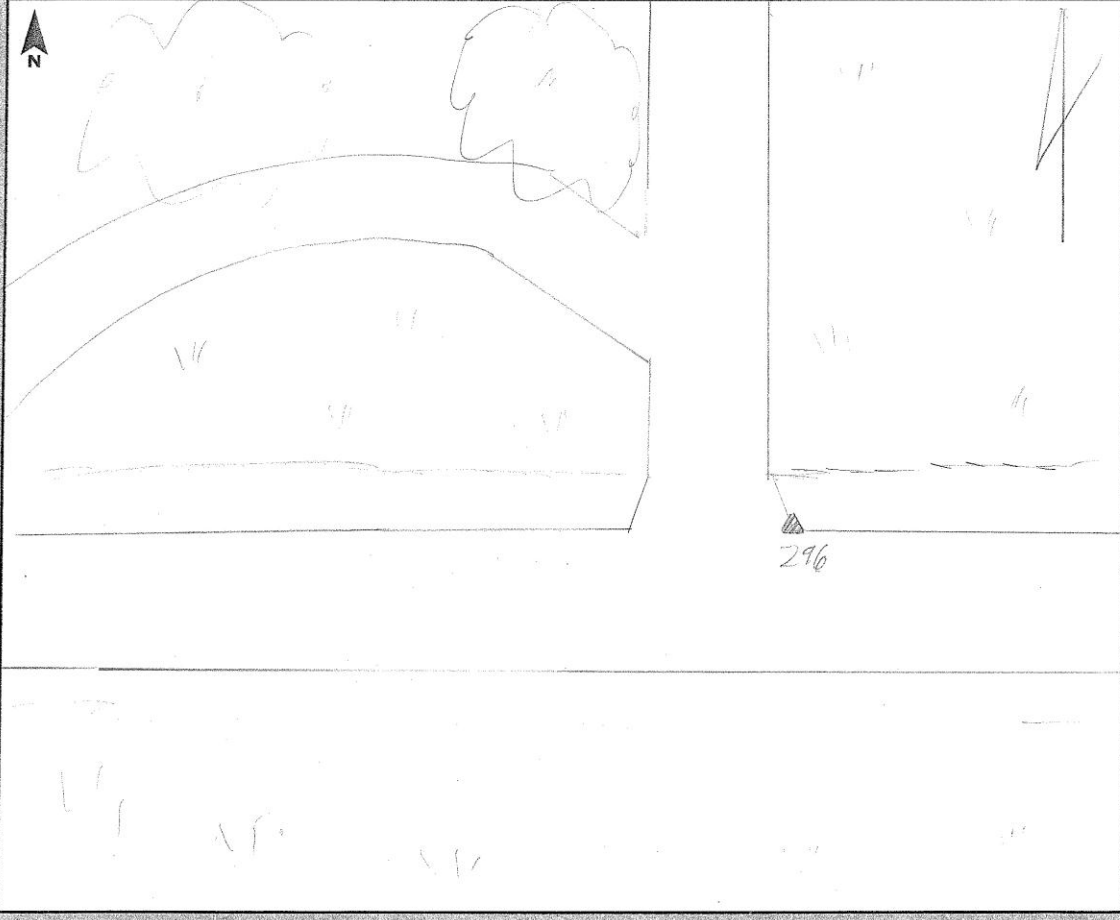
267-3N-10MAR2012

NJF

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>12134</u>	Survey Date: <u>20120308</u>
Station Name: <u>296</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>38° 39' 56.9"</u>	Julian Day: <u>068</u>	Session No. <u> </u>
Longitude: <u>85° 28' 03.9"</u>	Start Time: <u>10:12</u>	End Time: <u>10:27</u>
Ellip. Height: <u>676'</u>	Data File Name: <u>INDY_068_DMV</u>	
Type of Mark: <u>PID Inside Corner</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>of driveway, stroud</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>Rain, 0.5°</u>	Antenna Height: <u>2.000 M</u>	to bottom of antenna mount





296-2-08MAR2012



296-3N-08MAR2012



296-3E-08MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-07
Station Name: 297 Operator Name: David Hall
Latitude: 38° 40' 29.4" Julian Day: 069 Session No. 7
Longitude: 85° 52' 49.8" Start Time: 16:12 End Time: 16:19
Ellip. Height: 501' Data File Name: INDY_069_DMH
Type of Mark: Southern Corner Type of Receiver: R8-3
Stamping on Mark: at conc drive & Road Type of Antenna: R8-3
Weather Condition: 60's & Sunny Antenna Height: 2.00CM to bottom of antenna mount





297-2-09MAR2012



297-3N-09MAR2012

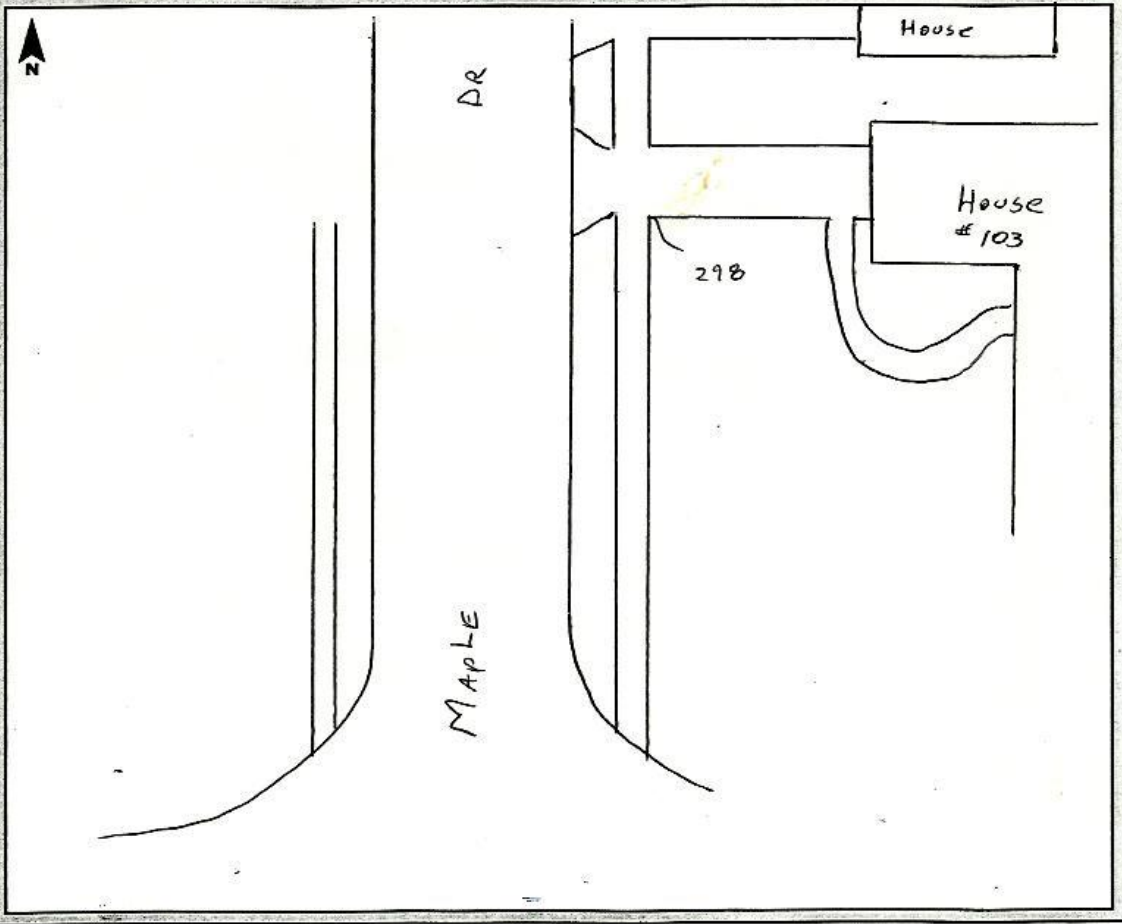


297-3E-09MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>10 MAR 12</u>
Station Name: <u>298</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-44-03.15</u>	Julian Day: <u>070</u>	Session No. _____
Longitude: <u>085-05-35.39</u>	Start Time: <u>11:32</u>	End Time: <u>11:37</u>
Ellip. Height: <u>359.98 FT</u>	Data File Name: <u>IND ST 10 MAR 12</u>	
Type of Mark: <u>Corner Concrete</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 40°</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





298-2-10MAR2012



298-3E-10MAR2012

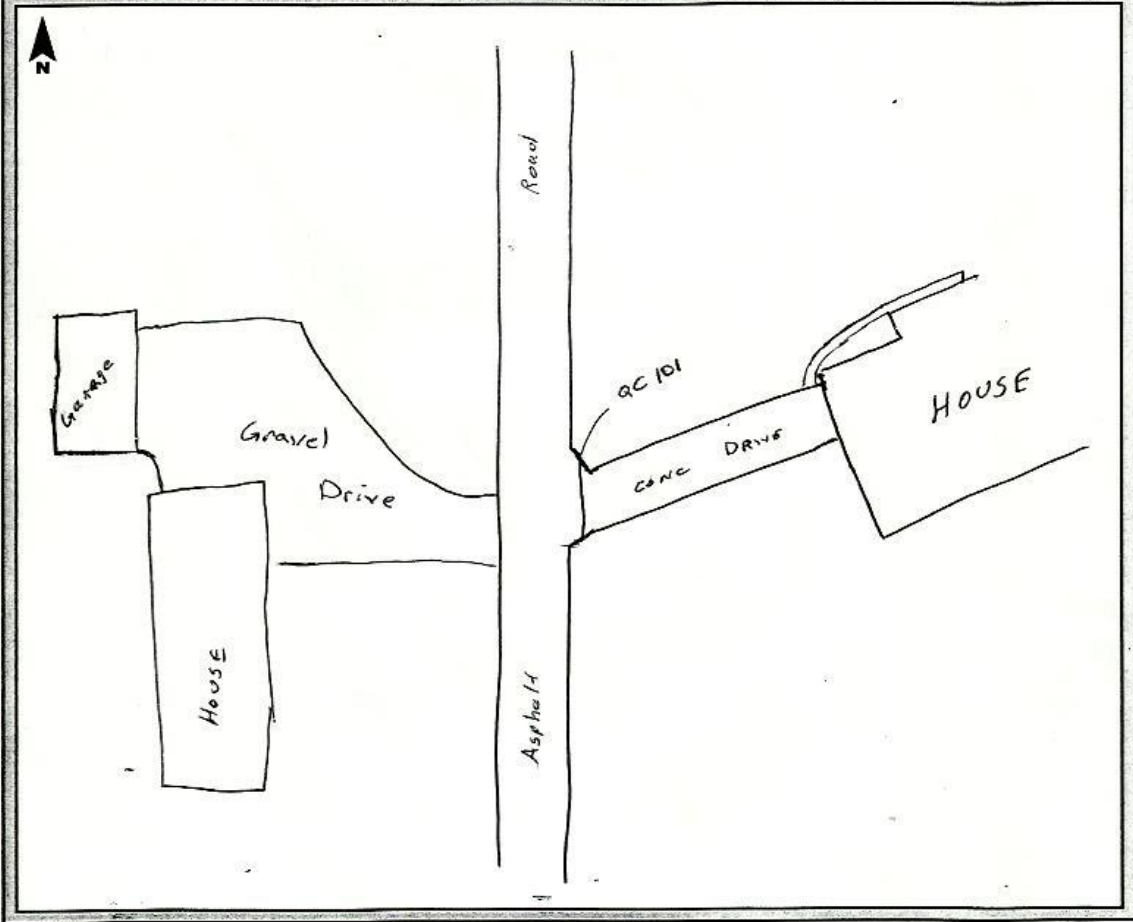


298-3N-10MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 9 MAR 12
Station Name: QC 101 Operator Name: Stephen Schonegg
Latitude: 39-03-37.75 Julian Day: 069 Session No. _____
Longitude: 085-41-56.45 Start Time: 3:25 End Time: 3:29
Ellip. Height: 575.83 Data File Name: INDST09MAR12 SS
Type of Mark: Corner Concrete Drive Type of Receiver: RB-2, # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 45°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





QC 101 2 09MAR2012



QC 101_3E_09MAR2012

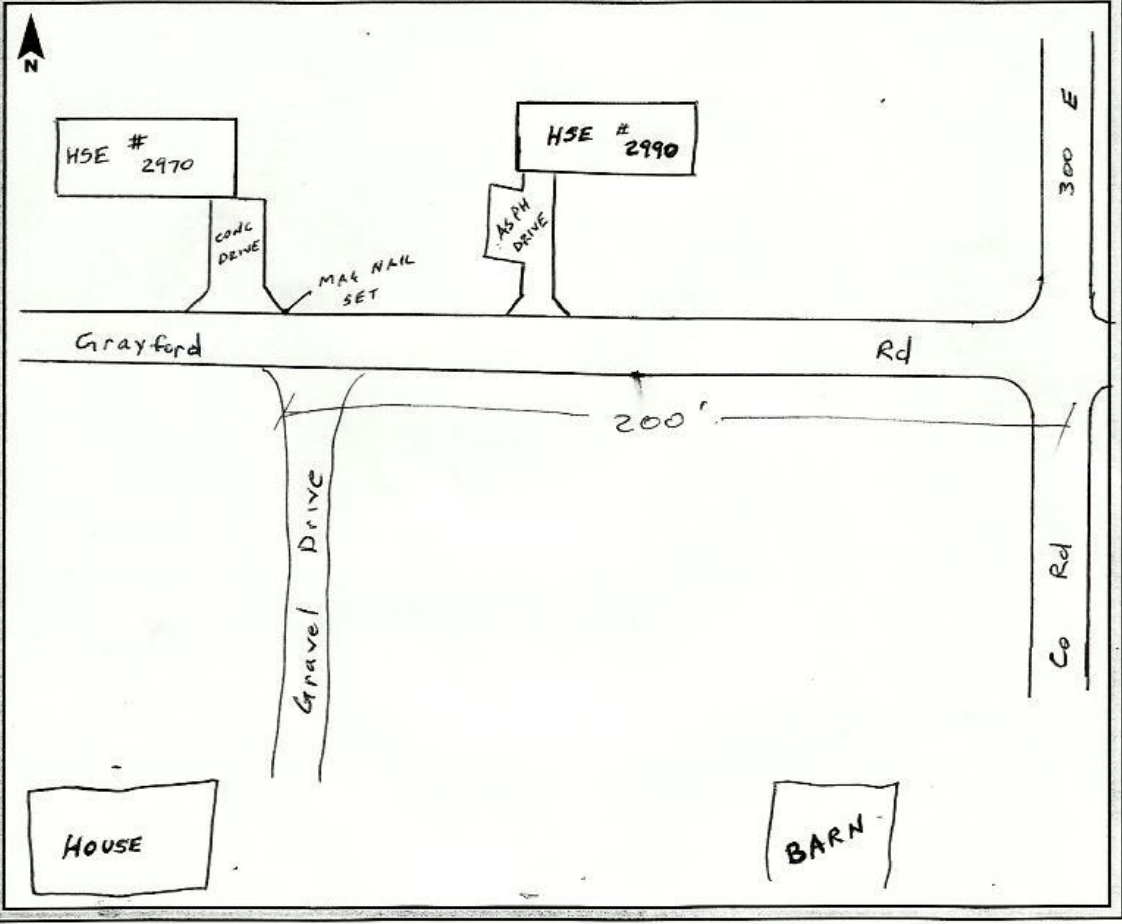


QC 101_3N_09MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 9 MAR 12
 Station Name: QC 102 Operator Name: Stephen Schonegg
 Latitude: 38-57-47.38 Julian Day: 069 Session No. _____
 Longitude: 085-33-32.65 Start Time: 1:06 End Time: 1:10
 Ellip. Height: 652.52 FT Data File Name: INDST09 MAR12 SS
 Type of Mark: Corner Conc Drive Type of Receiver: RB-2, #9357
 Stamping on Mark: MAG NAIL Type of Antenna: _____
 Weather Condition: Sunny, 45°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





QC 102 2 09MAR2012



QC 102_3E_09MAR2012

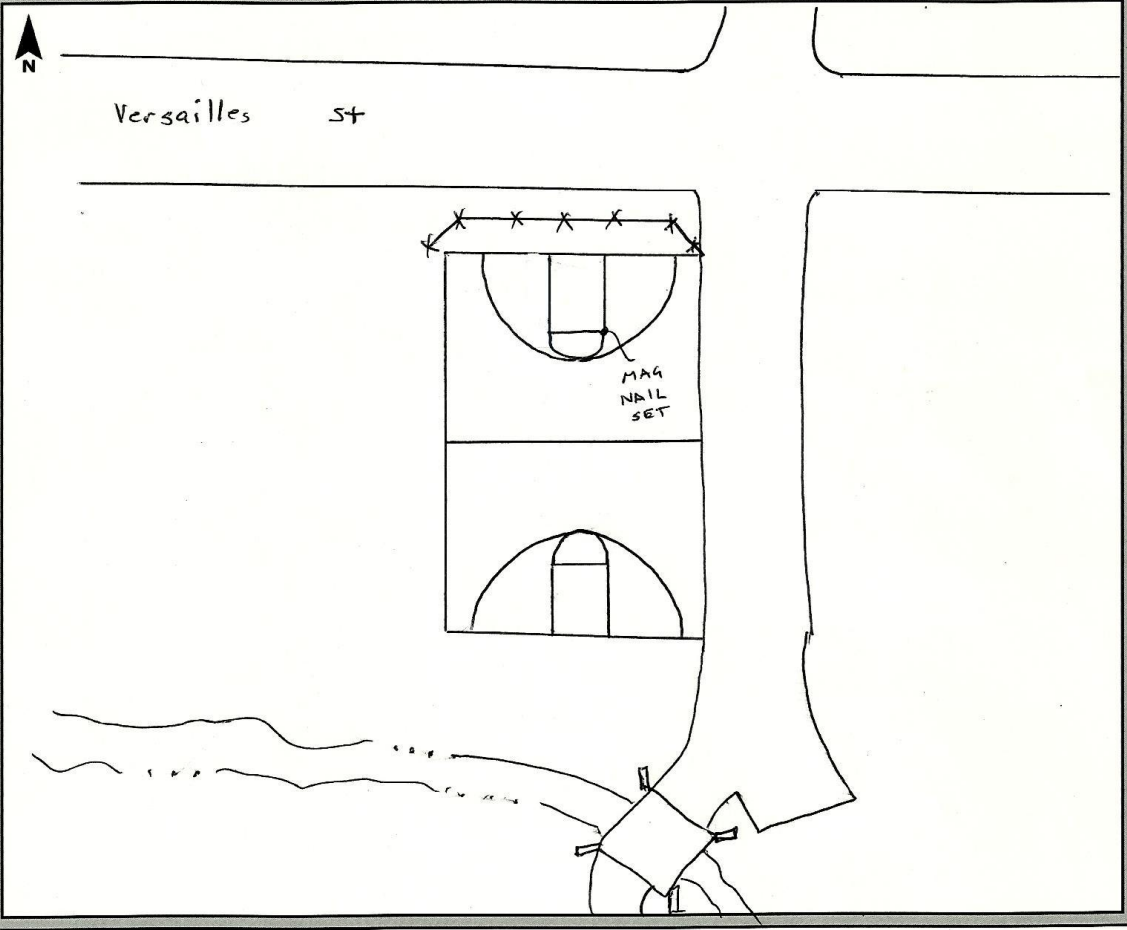


QC 102_3N-09MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 8 MAR 12
Station Name: QC 103 Operator Name: Stephen Schonegg
Latitude: 39-04-29.3 Julian Day: 068 Session No. 4
Longitude: 085-23-00.3 Start Time: 2:59 End Time: 3:04
Ellip. Height: 788.1 Data File Name: INDST08MAR12.SS
Type of Mark: PAINT STRIPE Type of Receiver: RB-2
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: RAIN, 50° Antenna Height: 6.562 to bottom of antenna mount





QC 103-2-08MAR2012



QC 103-3N-08MAR2012

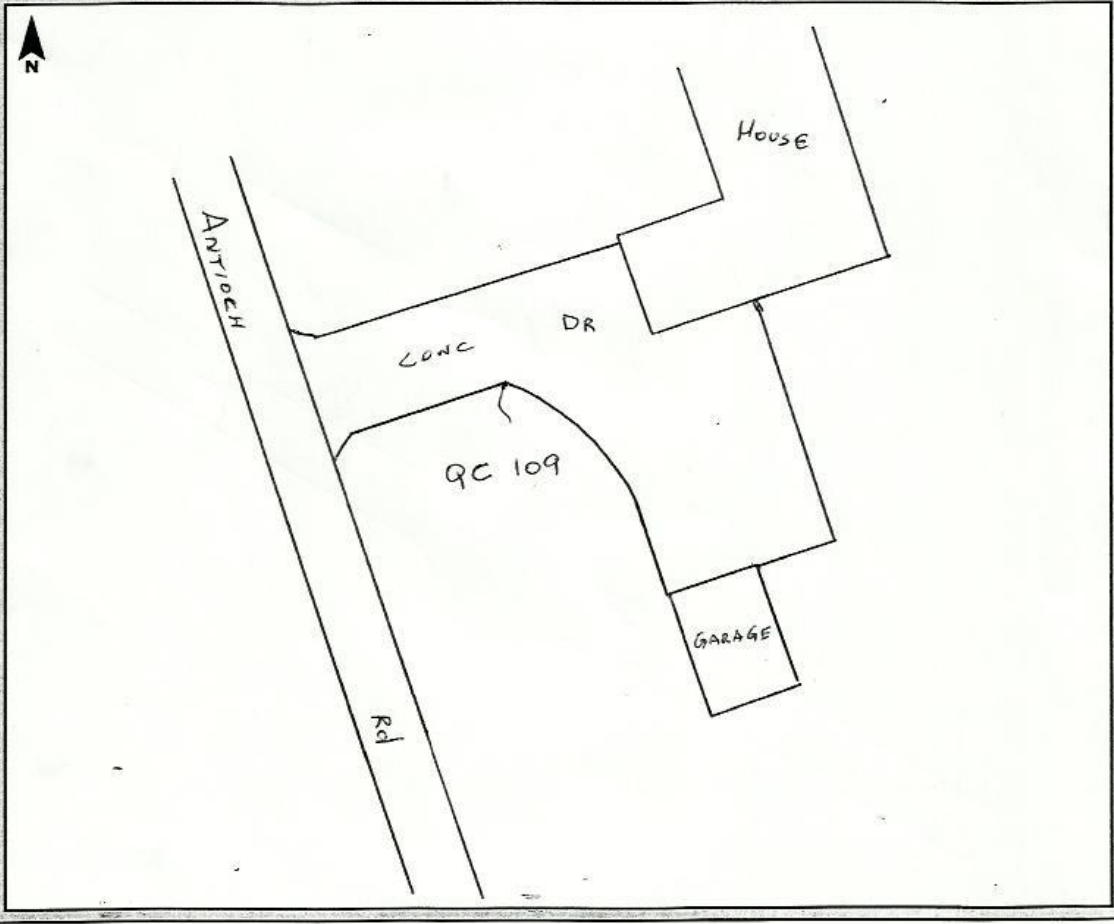


QC 103-3W-08MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: QC 109 Operator Name: Stephen Schonegg
Latitude: 38-51-38.52 Julian Day: 070 Session No. _____
Longitude: 084-53-04.48 Start Time: 1:29 End Time: 4:33
Ellip. Height: 748.37 Data File Name: INDST10MAR12SS
Type of Mark: Corner of Conc Dr Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50° Antenna Height: 6.562 FT to bottom of antenna mount





QC 109-2-10MAR2012



QC 109-3E-10MAR2012

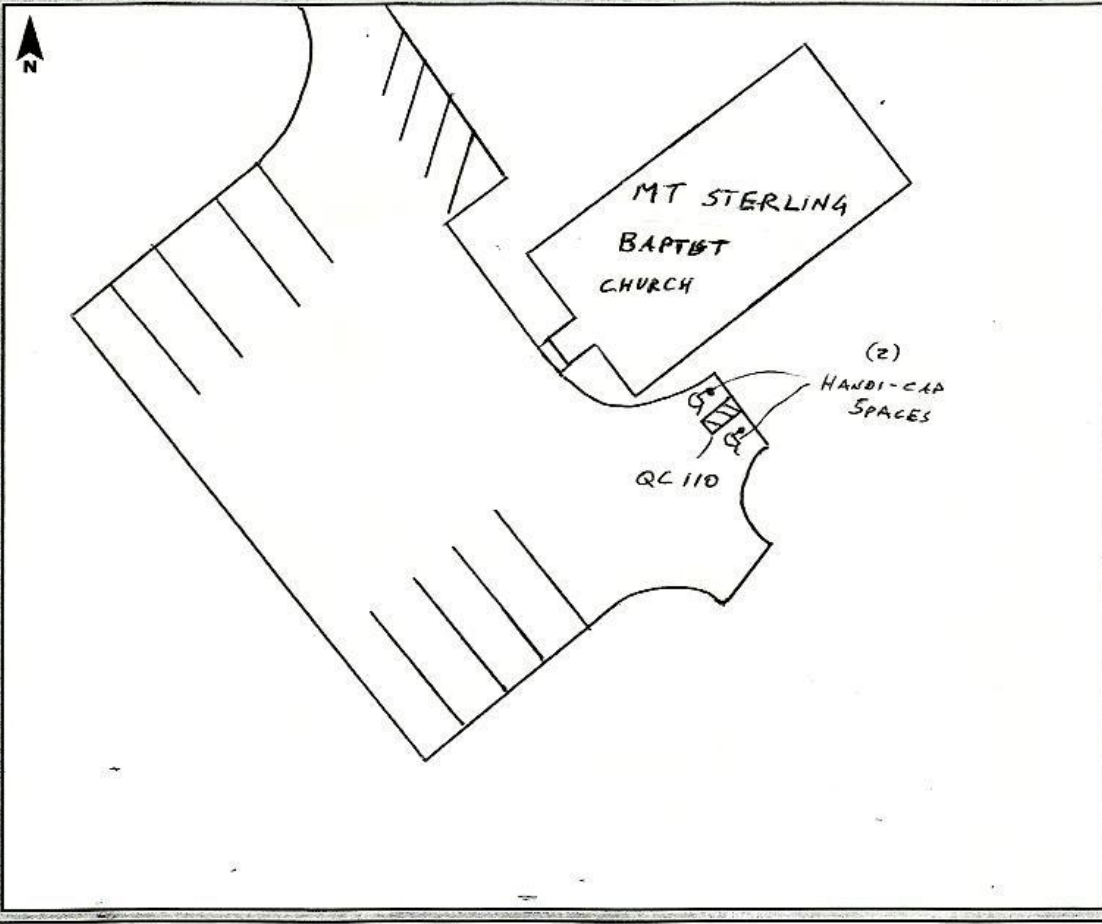


QC 109-3N-10MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: QC 110 Operator Name: Stephen Schonegg
Latitude: 38-47-47.89 Julian Day: 070 Session No. _____
Longitude: 085-04-19.75 Start Time: 2:25 End Time: 2:30
Ellip. Height: 674.05 FT Data File Name: IND ST 10 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: RS-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50° Antenna Height: 6.562 FT to bottom of antenna mount





QC 110-2-10MAR2012



QC 110-3N-10MAR2012

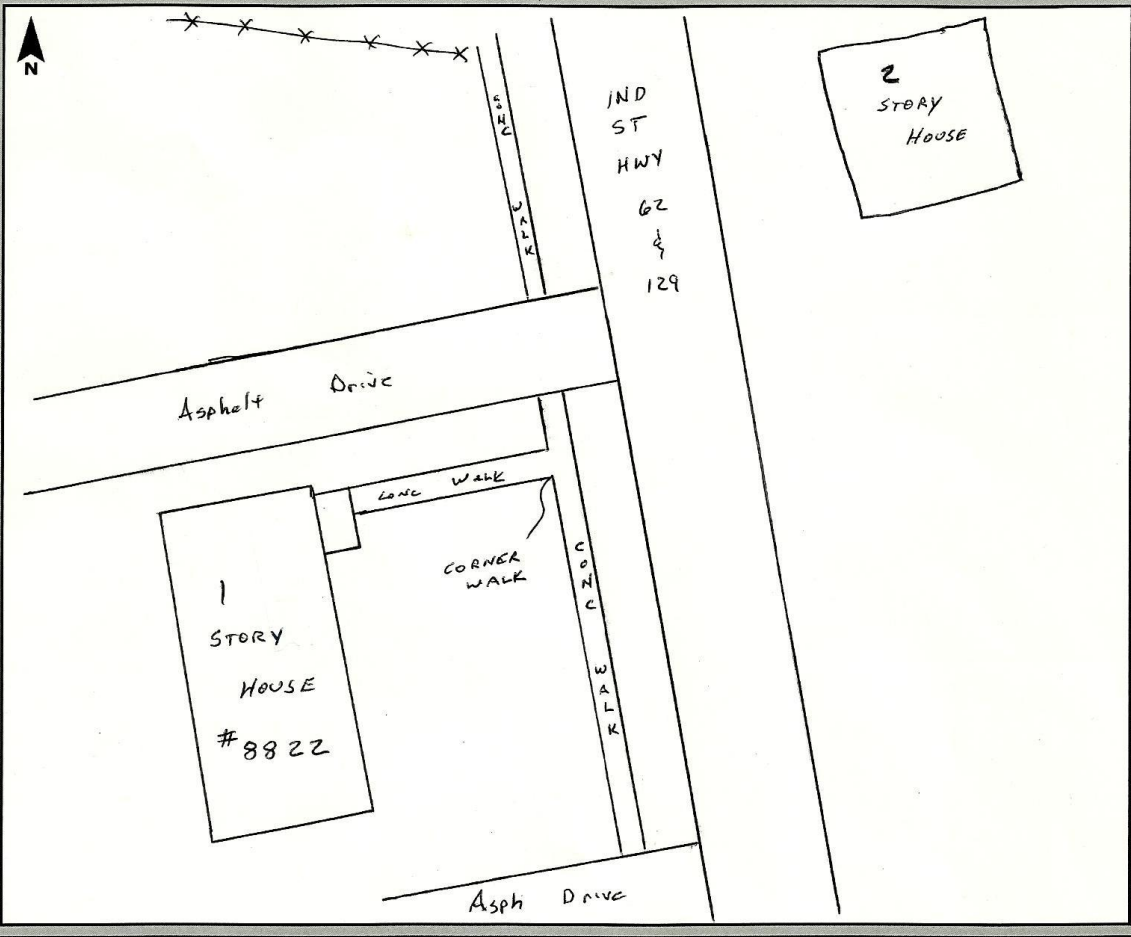


QC 110-3E-10MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>7213A</u>	Survey Date: <u>8 MAR 12</u>
Station Name: <u>QC 104</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-56-41.73</u>	Julian Day: <u>068</u>	Session No. <u>2</u>
Longitude: <u>085-12-19.39</u>	Start Time: <u>1:52</u>	End Time: <u>1:57</u>
Ellip. Height: <u>832.757</u>	Data File Name: <u>IND ST 08 MAR 12 SS</u>	
Type of Mark: <u>CORNER OF WALKS</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>NONE</u>	Type of Antenna: <u>_____</u>	
Weather Condition: <u>cloudy, 50°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 104-2-08MAR2012



QC 104-3W-08MAR2012

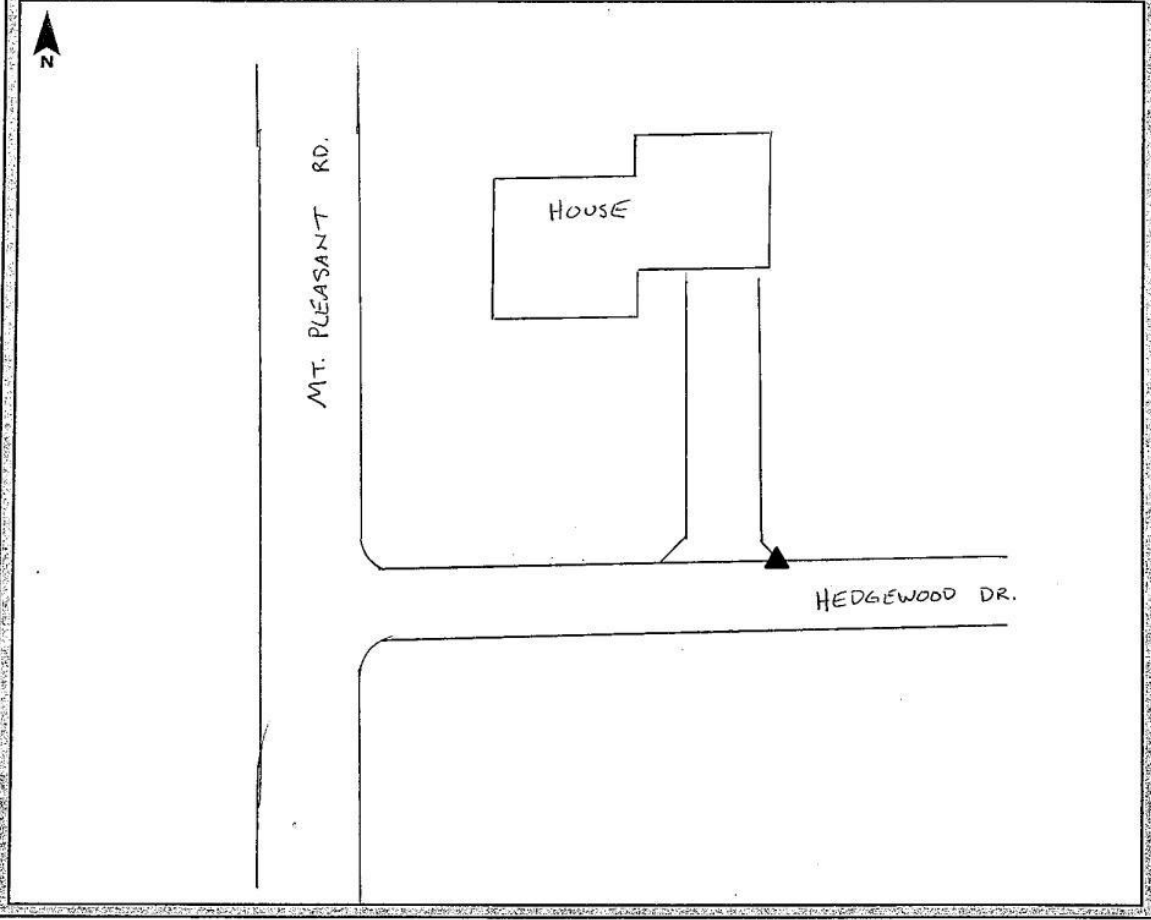


QC 104-3N-08MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>QC 105</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 13' 58.60" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 53' 38.23" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>795.26 sat</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2 M</u>	to bottom of antenna mount





QC105-2-10MAR2012



QC105-3N-10MAR2012

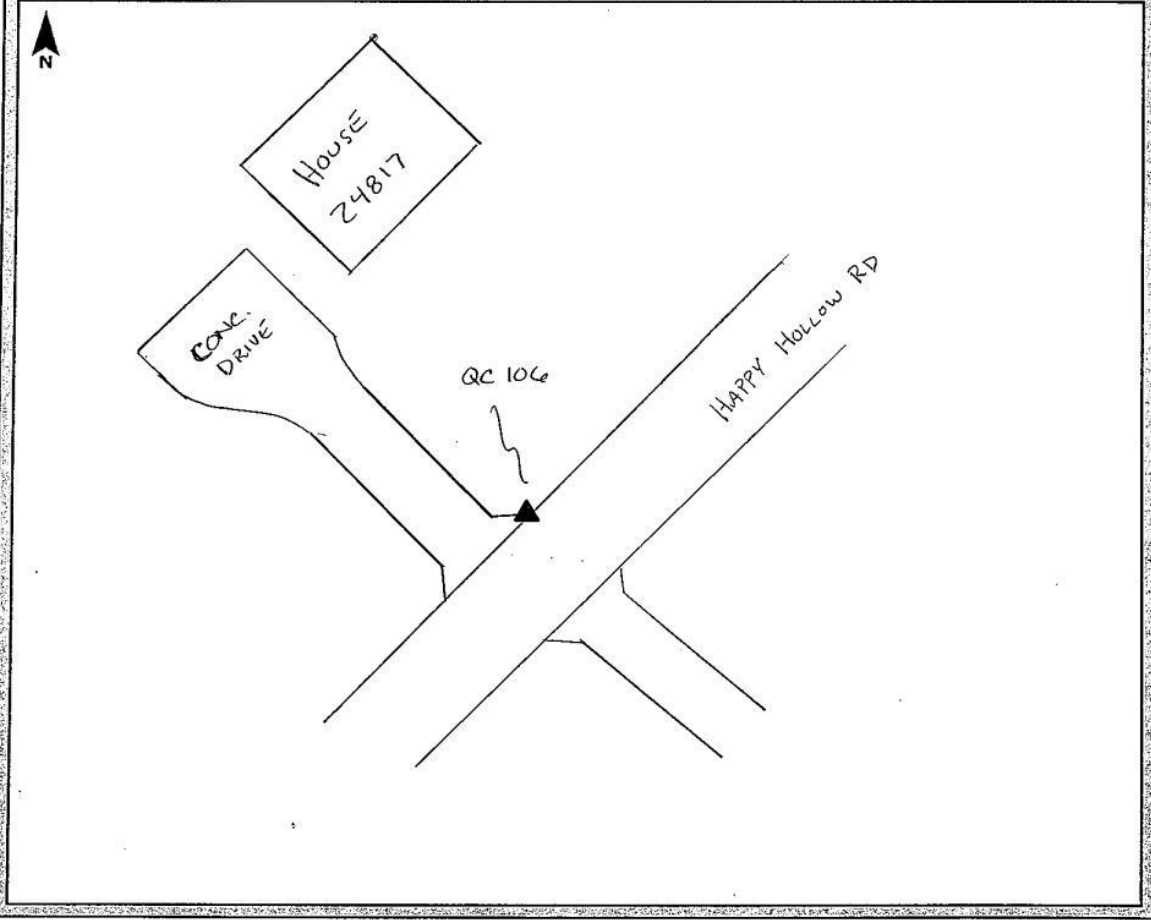


QC105-3W-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>QC 106</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 13' 51.96" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 01' 54.02" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>881.11 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR. CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





QC 106-2-10MAR2012



QC 106-3NE-10MAR2012

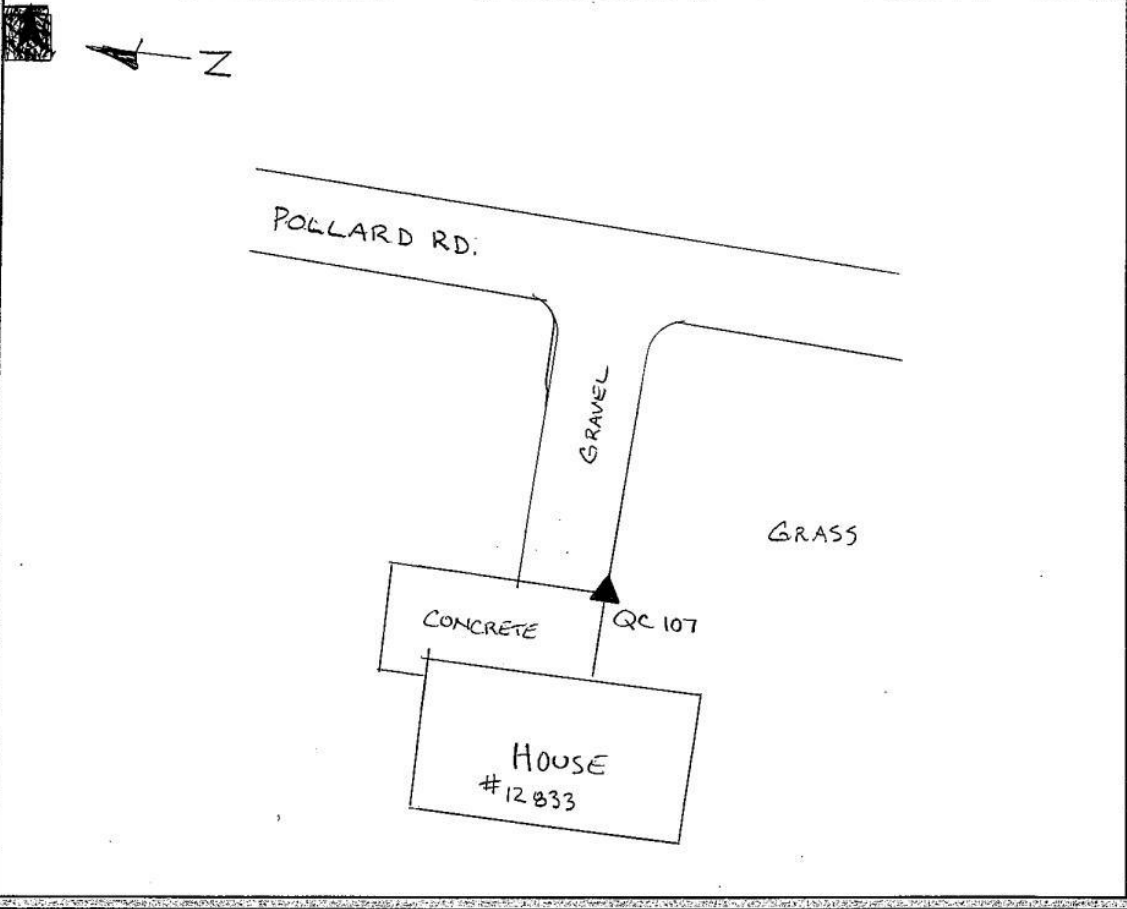


QC 106-3NW-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/08/2012</u>
Station Name: <u>QC 107</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 03' 29.7" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>85° 01' 58.2" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>740.31 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR. CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC107-2-03MAR2012



QC107-3N-03MAR2012

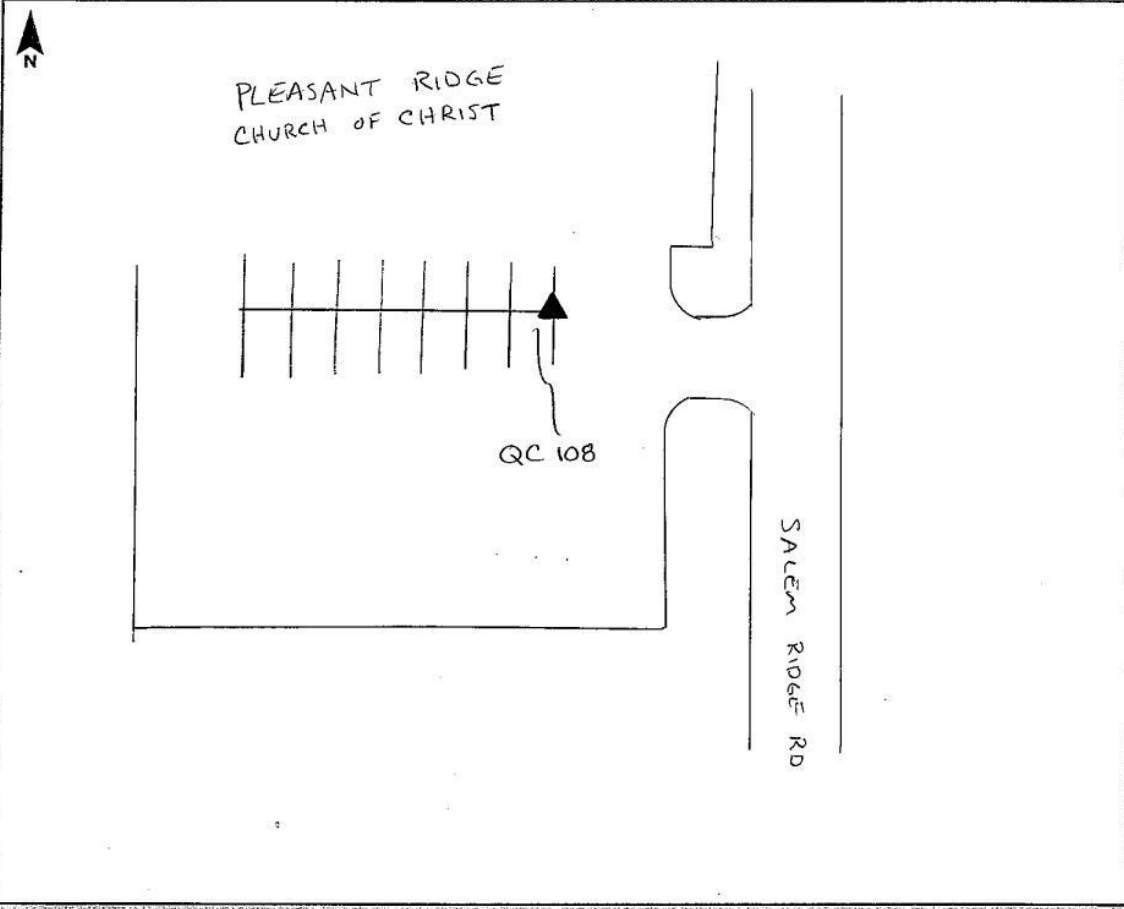


QC107-3S-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>07/08/2012</u>
Station Name: <u>QC 108</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 57' 32.6" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 19.1" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>769.65 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>PARKING STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC108-2-03MAR2012



QC108-3E-03MAR2012

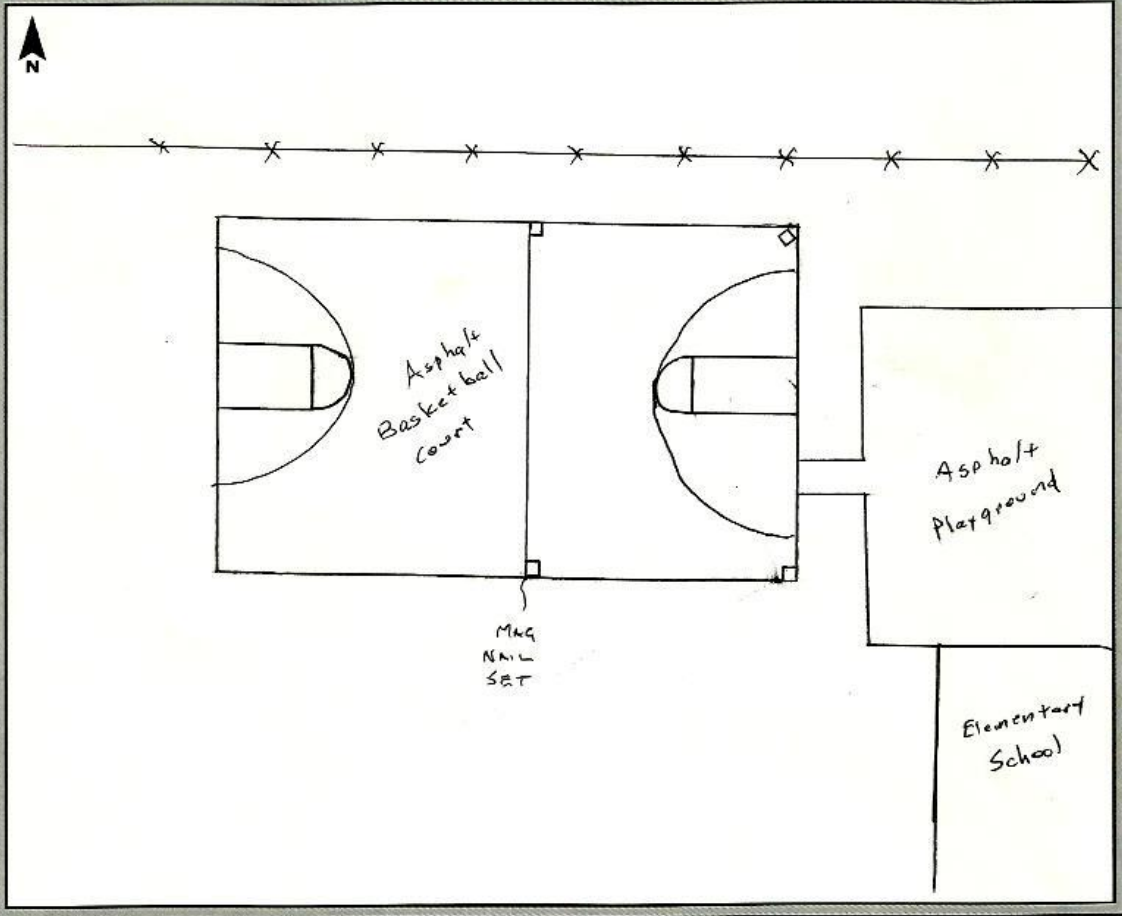


QC108-3S-03MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>10 MAR 12</u>
Station Name: <u>QC III</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-51-59.0</u>	Julian Day: <u>068</u>	Session No. <u> </u>
Longitude: <u>085-17-54.6</u>	Start Time: <u>1:03</u>	End Time: <u>1:06</u>
Ellip. Height: <u>832.111</u>	Data File Name: <u>INOST 10 MAR 12 SS</u>	
Type of Mark: <u>CORNER PAINT STRIPE</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>MAG NAIL</u>	Type of Antenna: <u> </u>	
Weather Condition: <u>Rain, 50°</u>	Antenna Height: <u>6.562 ft</u>	to bottom of antenna mount





QC 111-2-08MAR2012



QC 111-3N-08MAR2012

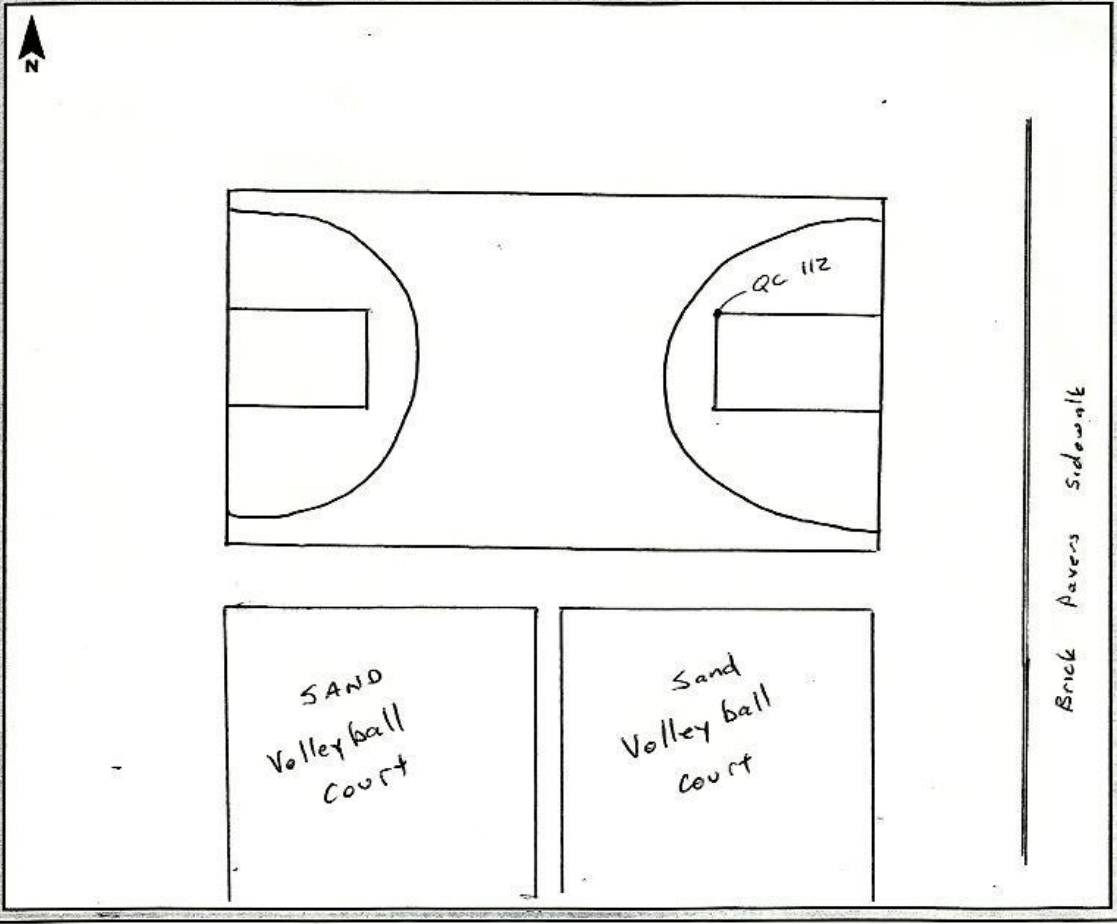


QC 111-3E-08MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: QC 112 Operator Name: Stephen Schonegg
Latitude: 38-43-00.11 Julian Day: 070 Session No. _____
Longitude: 085-27-44.15 Start Time: 9:43 End Time: 9:48
Ellip. Height: 663.31 FT Data File Name: IND ST 10 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: RB-2, #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 35° Antenna Height: 6.562 FT to bottom of antenna mount





QC 112-2-10MAR2012



QC 112-3W-10MAR2012



QC 112-3N-10MAR2012

GPS Observation Log Sheet



Project Name: <u>TN Statewide 2012</u>	Project Number: <u>12134</u>	Survey Date: <u>2012-03-09</u>
Station Name: <u>QC113</u>	Operator Name: <u>David Hall</u>	Session No. <u> </u>
Latitude: <u>38° 45' 40.1"</u>	Julian Day: <u>069</u>	Start Time: <u>12:32</u>
Longitude: <u>85° 47' 08.8"</u>	Data File Name: <u>INDY 069 DALL</u>	End Time: <u>12:38</u>
Ellip. Height: <u>456'</u>	Type of Reciever: <u>RE-3</u>	Type of Antenna: <u>RE-3</u>
Type of Mark: <u>Northern corner</u>	Stamping on Mark: <u>Asphalt Drive + lead</u>	Antenna Height: <u>2.000 M</u> to bottom of antenna mount
Weather Condition: <u>60's, Sunny</u>		





QC113-2-09MAR2012



QC113-3N-09MAR2012

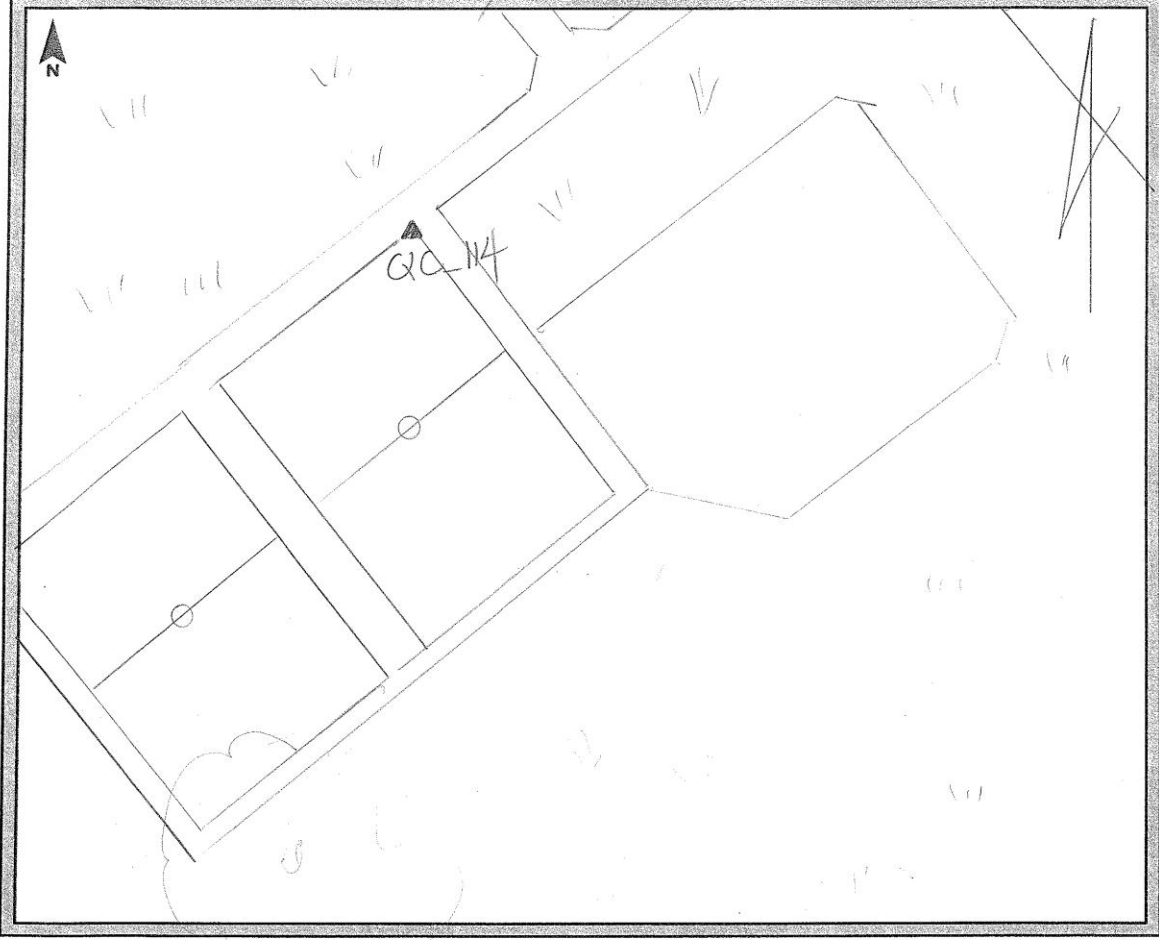


QC113-3E-09MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-09</u>
Station Name: <u>QC 114</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>39° 39' 09.6</u>	Julian Day: <u>069</u>	Session No. <u>2</u>
Longitude: <u>85° 37' 33.6</u>	Start Time: <u>16:58</u>	End Time: <u>17:08</u>
Ellip. Height: <u>515'</u>	Data File Name: <u>INDY_069_DM4</u>	
Type of Mark: <u>Inside Corner of</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>conc walk</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's & Sunny</u>	Antenna Height: <u>2.000M</u>	to bottom of antenna mount





QC114-2-09MAR2012



QC114-3SW-09MAR2012

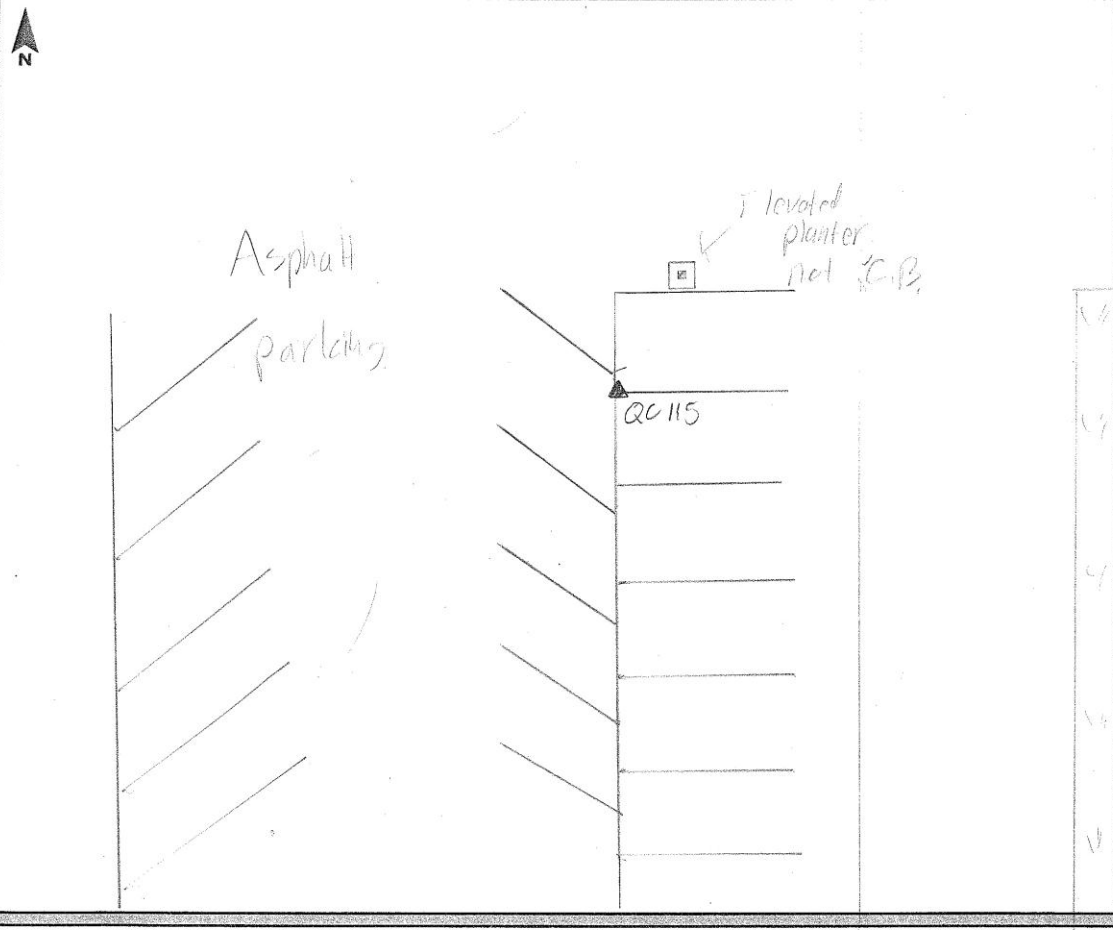


QC114-3SE-09MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 1234 Survey Date: 2012-03-09
 Station Name: QC115 Operator Name: David Hall
 Latitude: 38° 33' 15.0" Julian Day: 069 Session No. 2
 Longitude: 85° 31' 28.2" Start Time: 17128 End Time: 17138
 Ellip. Height: 601' Data File Name: INDY_069-D41
 Type of Mark: Pave Strip Intersection Type of Receiver: R8-3
 Stamping on Mark: N/A Type of Antenna: R8-3
 Weather Condition: 60% 25C Antenna Height: 2.000m to bottom of antenna mount





QC115-2-09MAR2012



QC115-3N-09MAR2012

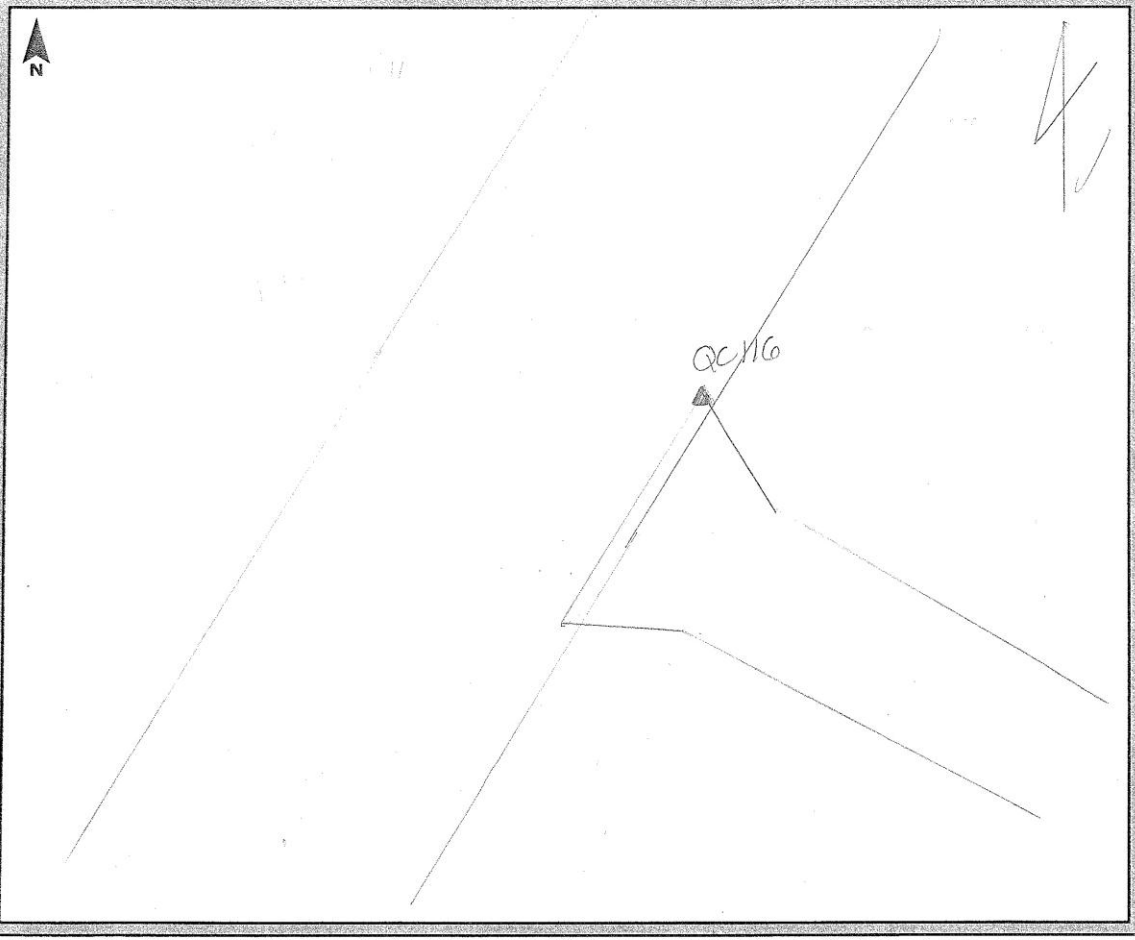


QC115-3E-09MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 20120306
Station Name: QC116 Operator Name: David Hall
Latitude: 38° 24' 39.6" Julian Day: 070 Session No. 2
Longitude: 85° 44' 02.8" Start Time: 14:30 End Time: 14:40
Ellip. Height: 415' Data File Name: INPX_070c.DMH
Type of Mark: Corner of concrete Type of Receiver: R8-3
Stamping on Mark: Drive Type of Antenna: R8-3
Weather Condition: 60% clear Antenna Height: 2.000m to bottom of antenna mount





QC116-2-10MAR2012



QC116-3N-10MAR2012

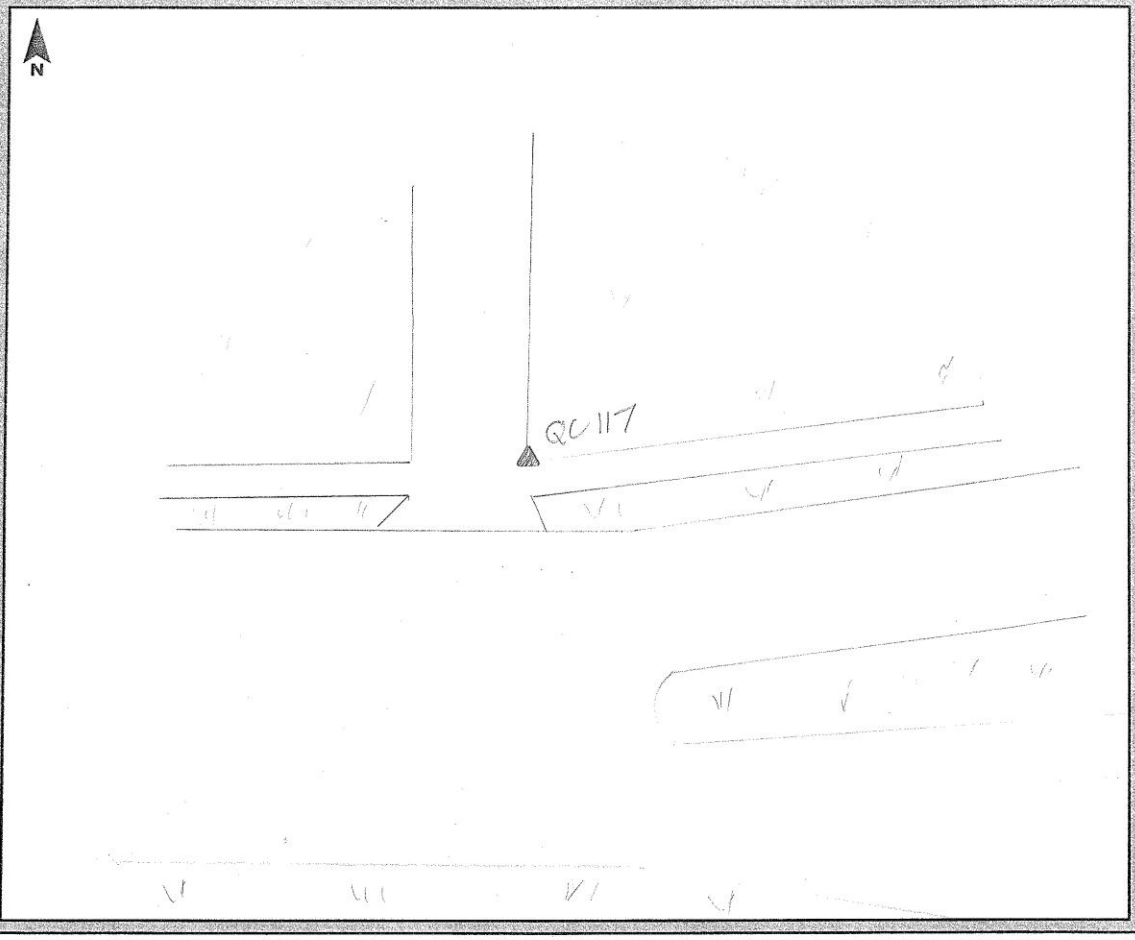


QC116-3E-10MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>12134</u>	Survey Date: <u>2012-03-0</u>
Station Name: <u>QC117</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>38° 30' 39.7"</u>	Julian Day: <u>070</u>	Session No. <u>2</u>
Longitude: <u>85° 48' 03.7"</u>	Start Time: <u>13:49</u>	End Time: <u>13:55</u>
Ellip. Height: <u>427'</u>	Data File Name: <u>INDY_070-DMH</u>	
Type of Mark: <u>corner of core</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>mark on concrete</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60% & Clear</u>	Antenna Height: <u>2.000M</u> to bottom of antenna mount	





QC117-2-10MAR2012



QC117-3N-10MAR2012

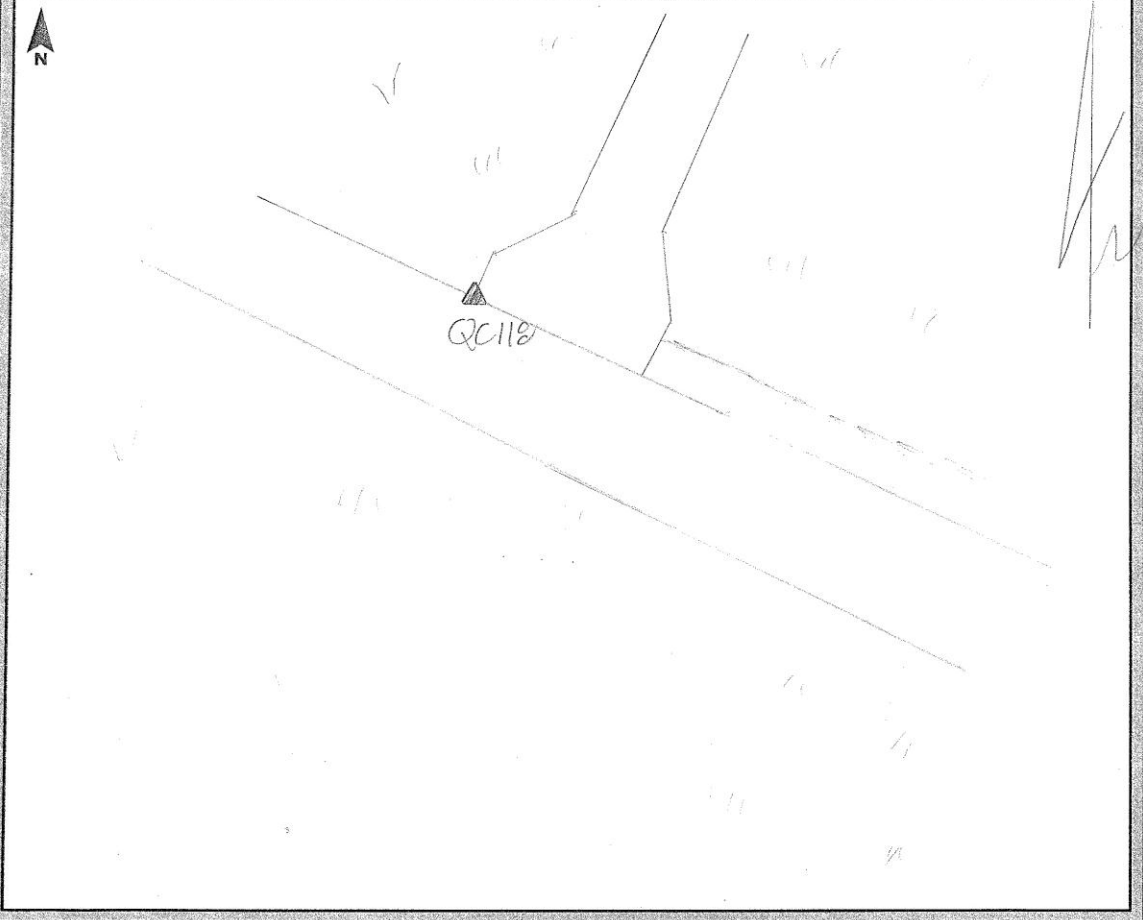


QC117-3E-10MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-10
Station Name: QC-118 Operator Name: David Hall
Latitude: 38° 22' 29.4" Julian Day: 070 Session No. 2
Longitude: 85° 59' 23.6" Start Time: 16:27 End Time: 16:37
Ellip. Height: 719' Data File Name: INDY 070_DM4
Type of Mark: corner of concrete Type of Receiver: R8-3
Stamping on Mark: driveway Type of Antenna: R8-3
Weather Condition: 50° clear Antenna Height: 2.000M to bottom of antenna mount





QC118-2-10MAR2012



QC118-3N-10MAR2012

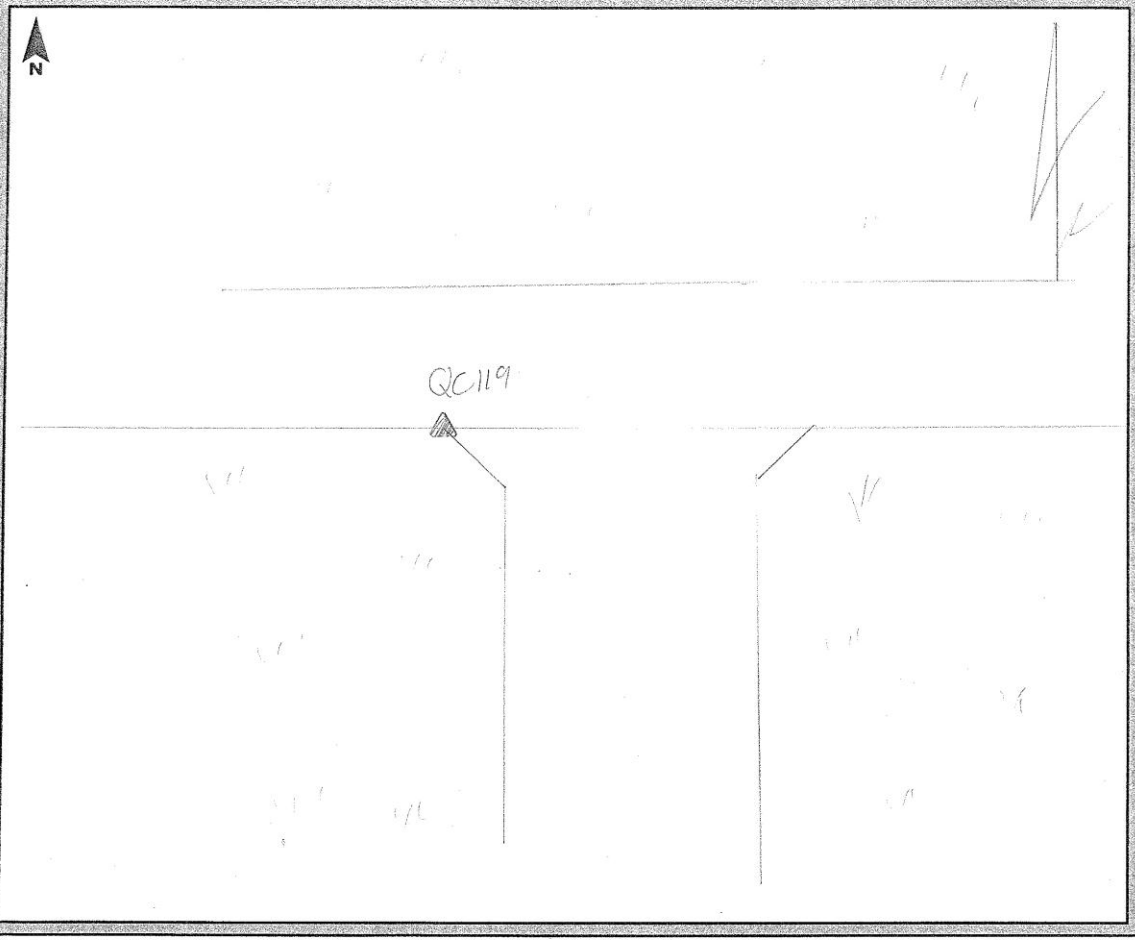


QC118-3E-10MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 7234 Survey Date: 2012-03-1
Station Name: QC 119 Operator Name: David Hall
Latitude: 38° 15' 35.6" Julian Day: 071 Session No. 1
Longitude: 85° 56' 17.4" Start Time: 13:14 End Time: 13:20
Ellip. Height: 815' Data File Name: IND1_071-DAT1
Type of Mark: Corner of concrete Type of Receiver: R8-3
Stamping on Mark: Driveway Type of Antenna: R8-3
Weather Condition: 60° & clear Antenna Height: 2.000m to bottom of antenna mount





QC119-2-11MAR2012



QC119-3N-11MAR2012

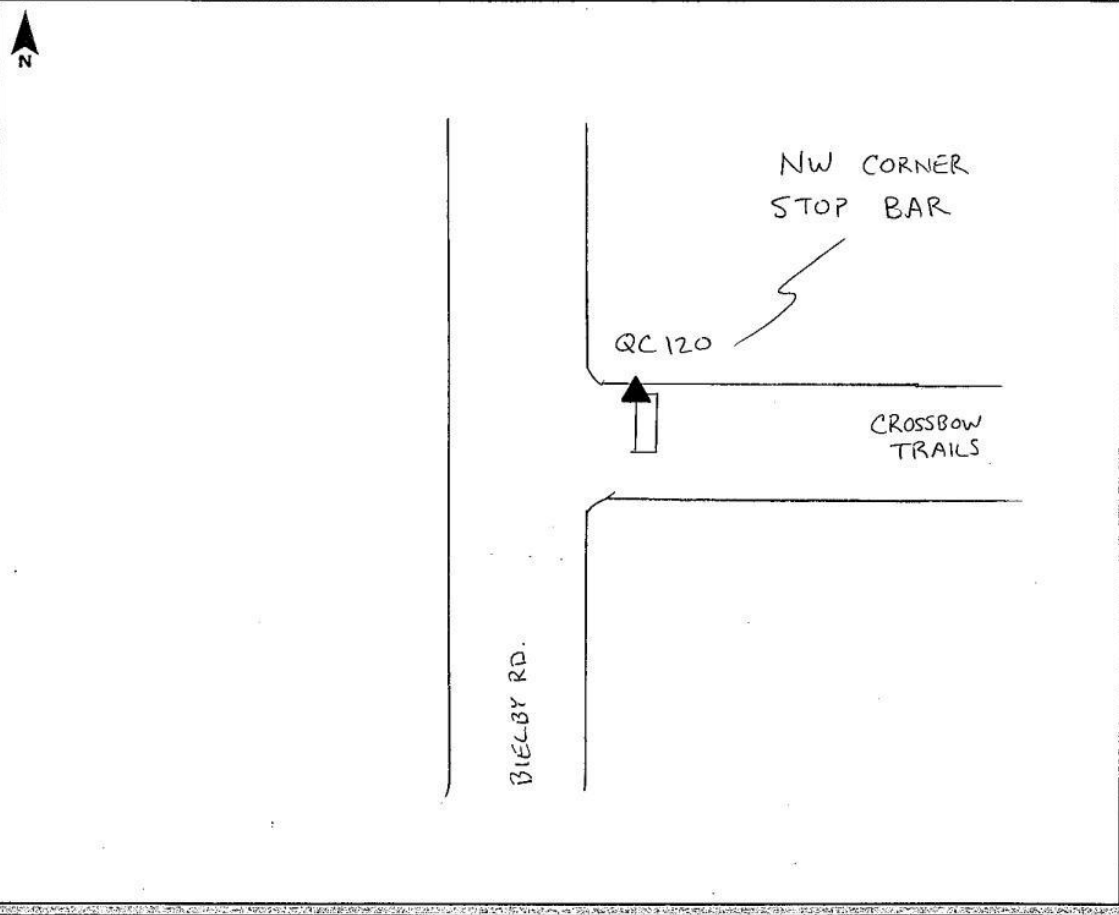


QC119-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/08/2012</u>
Station Name: <u>QC 120</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 06' 57.4" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>84° 53' 01.0" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>724.54 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR STOP BAR</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC120-2-03MAR2012



QC120-3W-03MAR2012

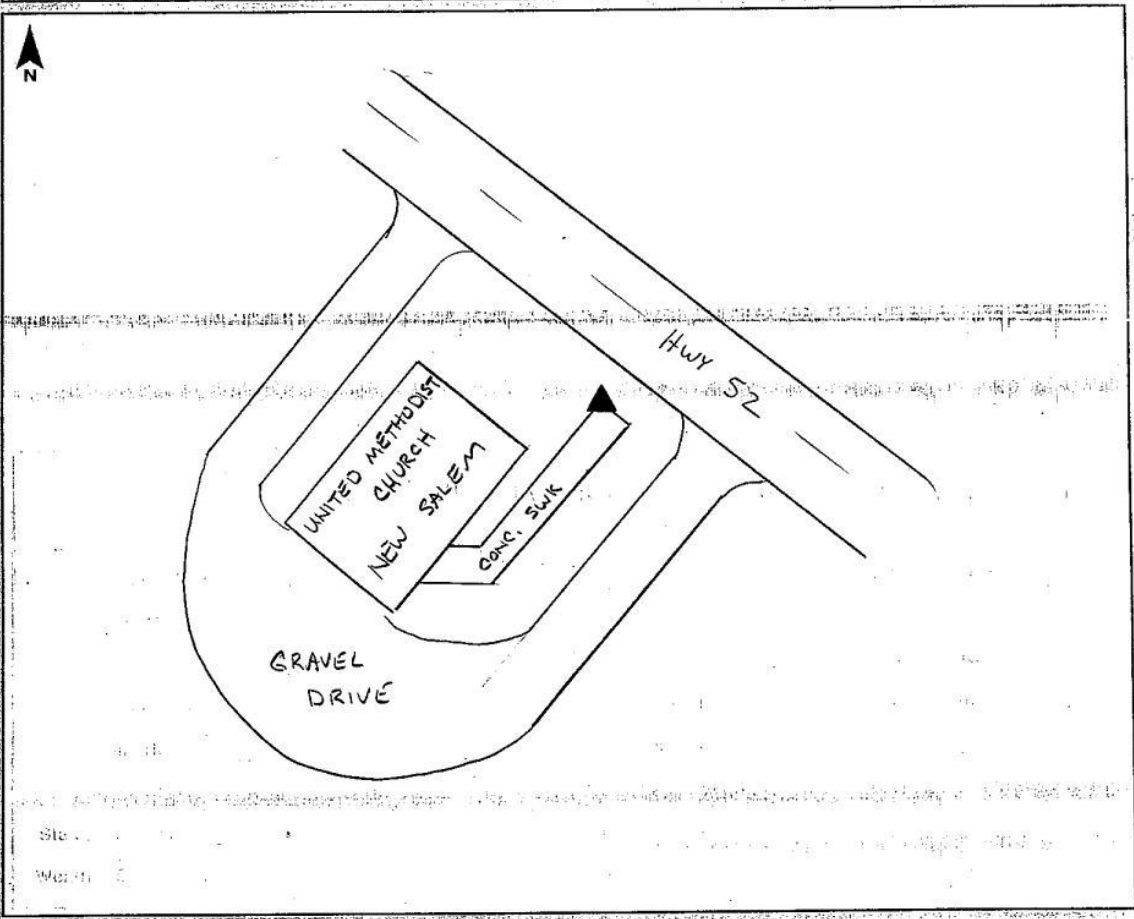


QC120-3N-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 132</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 32' 35.44" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 21' 33.97" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>917.31 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR. SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° Pt. CLOUDY</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





QC132-2-11MAR2012



QC132-3NW-11MAR2012

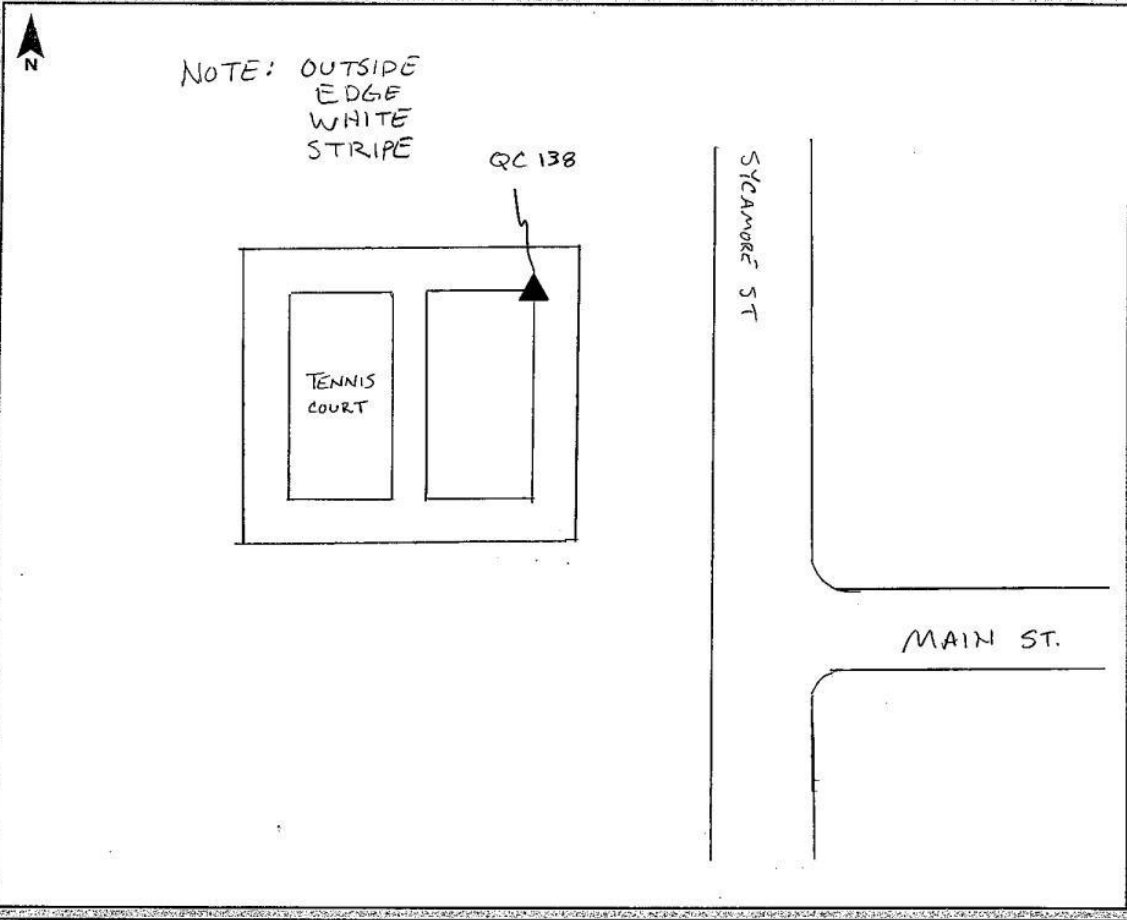


QC132-3NE-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: _____
Station Name: <u>QC 138</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 20' 27.65" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 12' 24.04" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>755.08 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR TENNIS COURT</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC138-2-10MAR2012



QC138-3N-10MAR2012

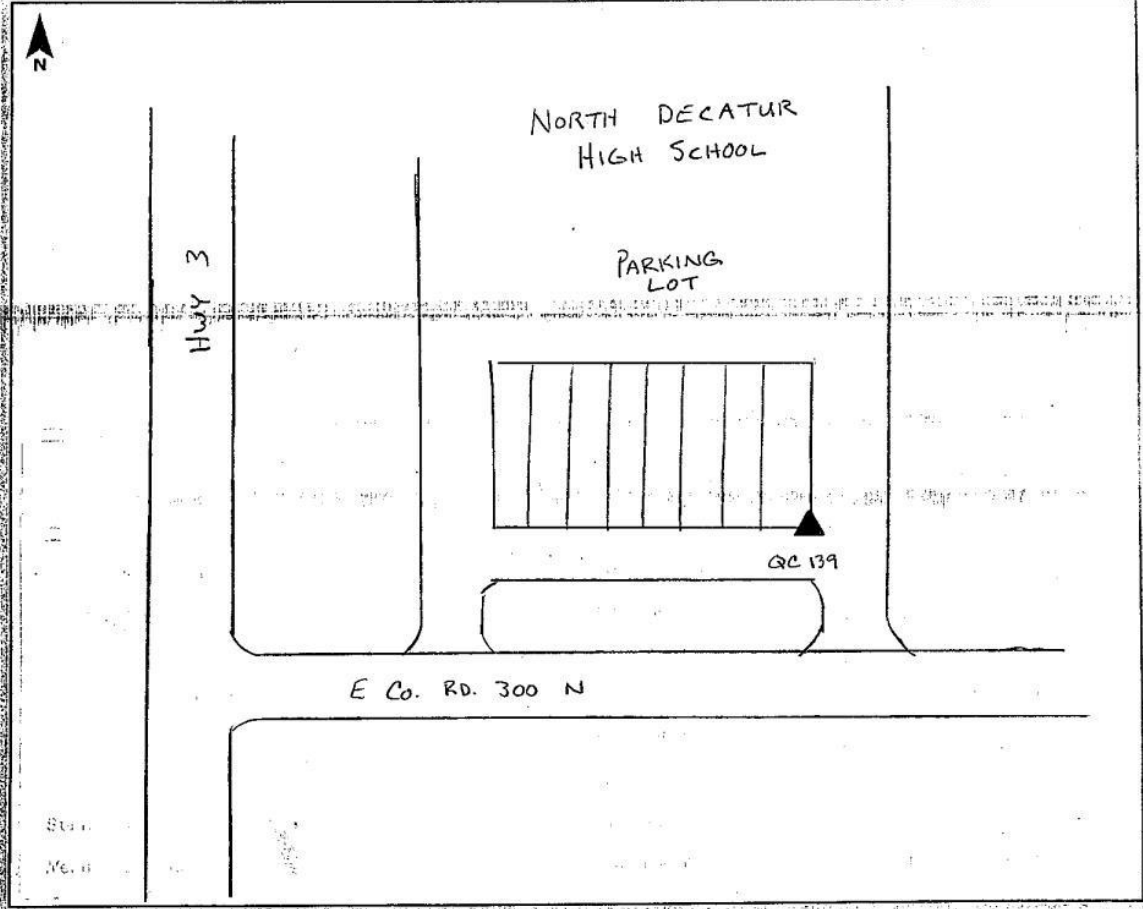


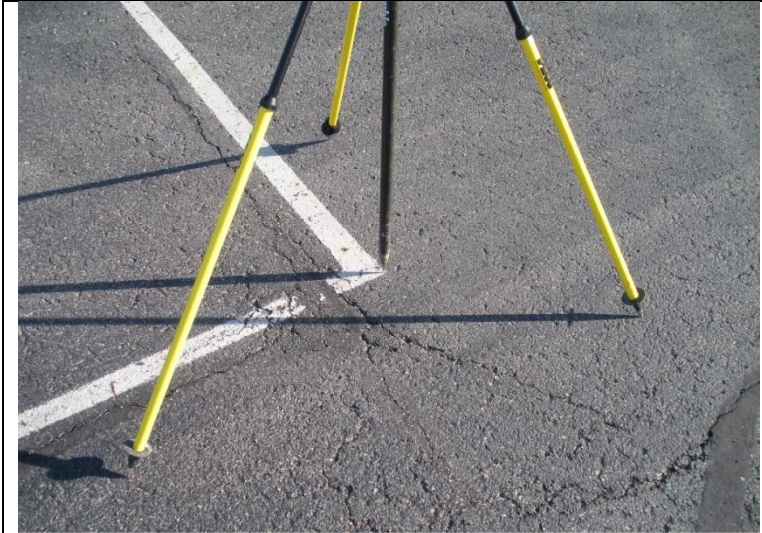
QC138-3E-10MAR2012

GPS Observation Log Sheet



Project Name:	Project Number:	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 139</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 22' 51.80" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 28' 38.07" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>836.23 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR PAINT STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





QC139-2-11MAR2012



QC139-3N-11MAR2012

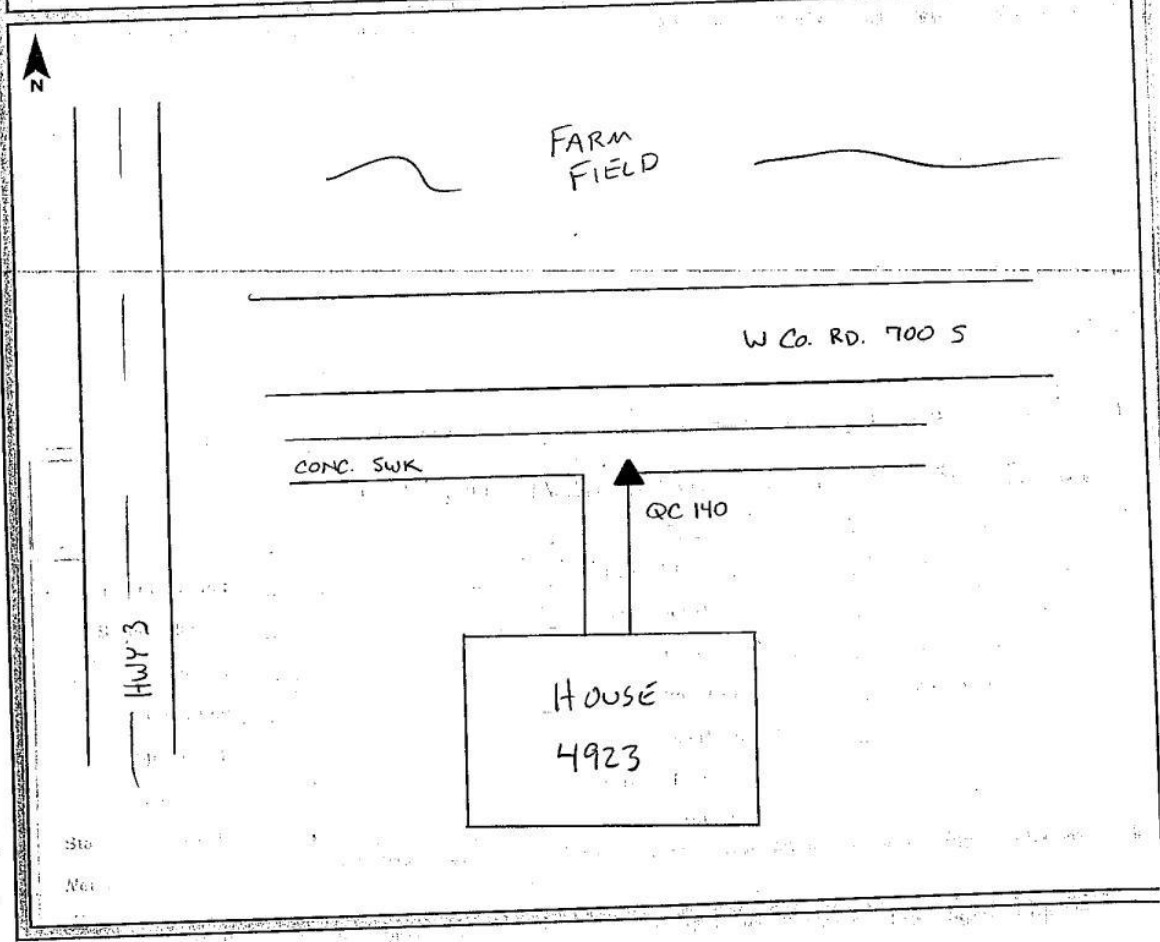


QC139-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 140</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 14' 04.58" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 34' 22.34" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>776.10 SP+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC140-2-11MAR2012



QC140-3S-11MAR2012



QC140-3E-11MAR2012

LiDAR CONTROL

GPS Observation Log Sheet		W WOOLPERT	
Project Name: _____	Project Number: _____	Survey Date: <u>03/07/2012</u>	
Station Name: <u>205</u>	Operator Name: <u>BEN CHRISTIE</u>	Session No. _____	
Latitude: <u>38° 50' 11.91" N</u>	Julian Day: <u>069</u>	Start Time: _____ End Time: _____	
Longitude: <u>84° 49' 42.68" W</u>	Data File Name: _____	Type of Reciever: <u>R8</u>	
Ellip. Height: <u>356.31 sft</u>	Type of Mark: <u>COR. CONCRETE</u>	Type of Antenna: <u>R8</u>	
Stamping on Mark: _____	Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u> to bottom of antenna mount	

A hand-drawn site sketch showing a house at 2761, a sidewalk, Hwy 156/Main St, and Sta St. A station marker '205' is indicated with an arrow pointing to a spot on the sidewalk. A north arrow is located in the top left corner of the sketch area.



205-2-09MAR2012



205-3NE-09MAR2012

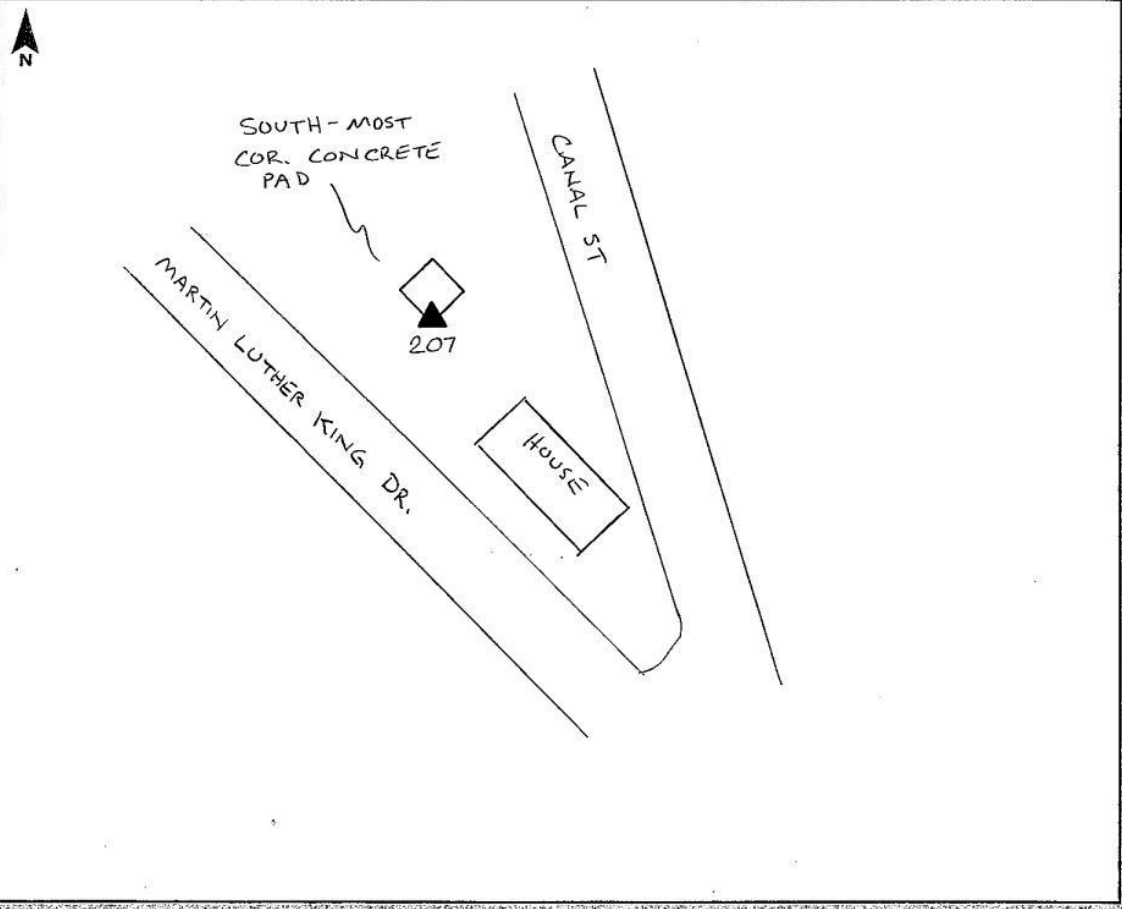


205-3SE-09MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: _____
Station Name: <u>207</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 06' 02.5" N</u>	Julian Day: <u>068</u>	Session No. <u>1</u>
Longitude: <u>84° 50' 49.7" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>353.33 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SOUTH COR. CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





207-2-03MAR2012



207-3NE-03MAR2012

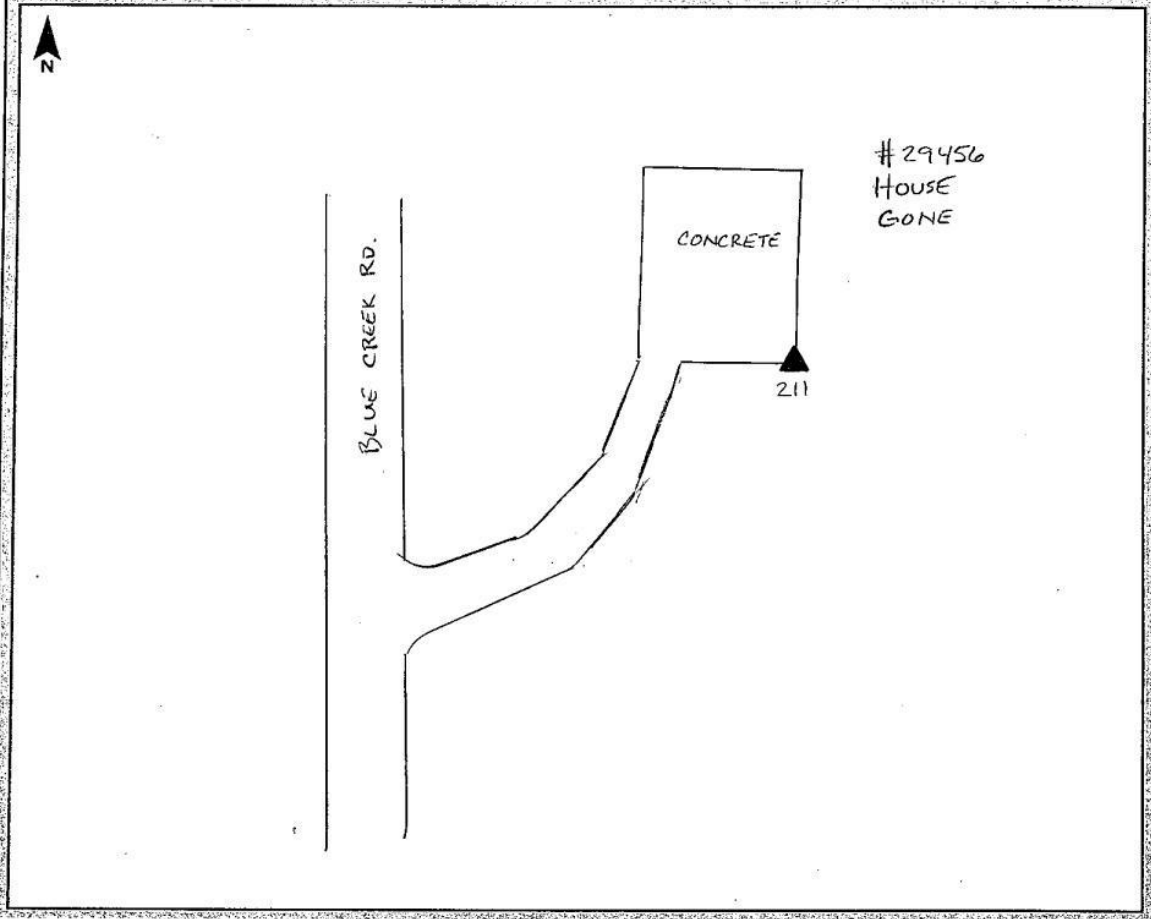


207-3SE-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>211</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 18' 00.58" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 02' 53.55" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>845.69 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





211-2-10MAR2012



211-3E-10MAR2012

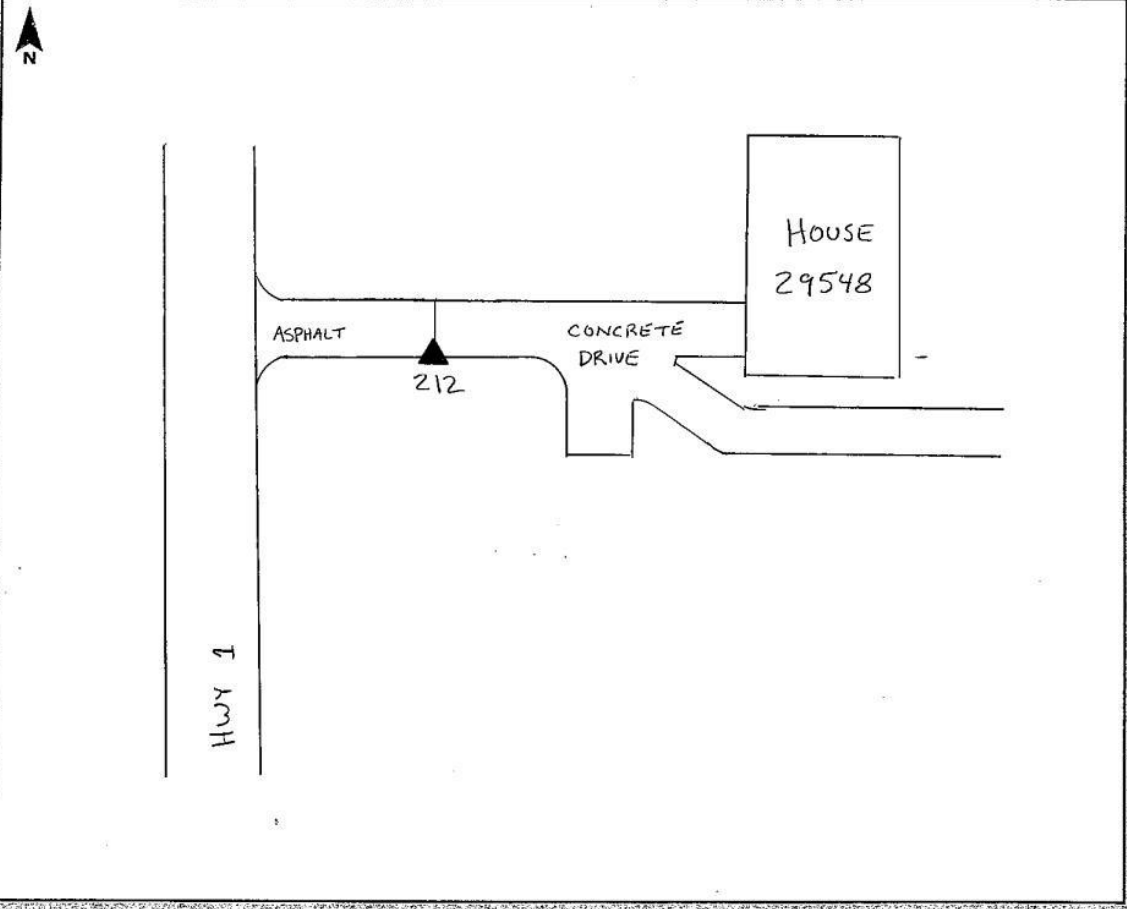


211-3S-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>212</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 59.07" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 22.69" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>898.16</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SW COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





212-2-10MAR2012



212-3S-10MAR2012

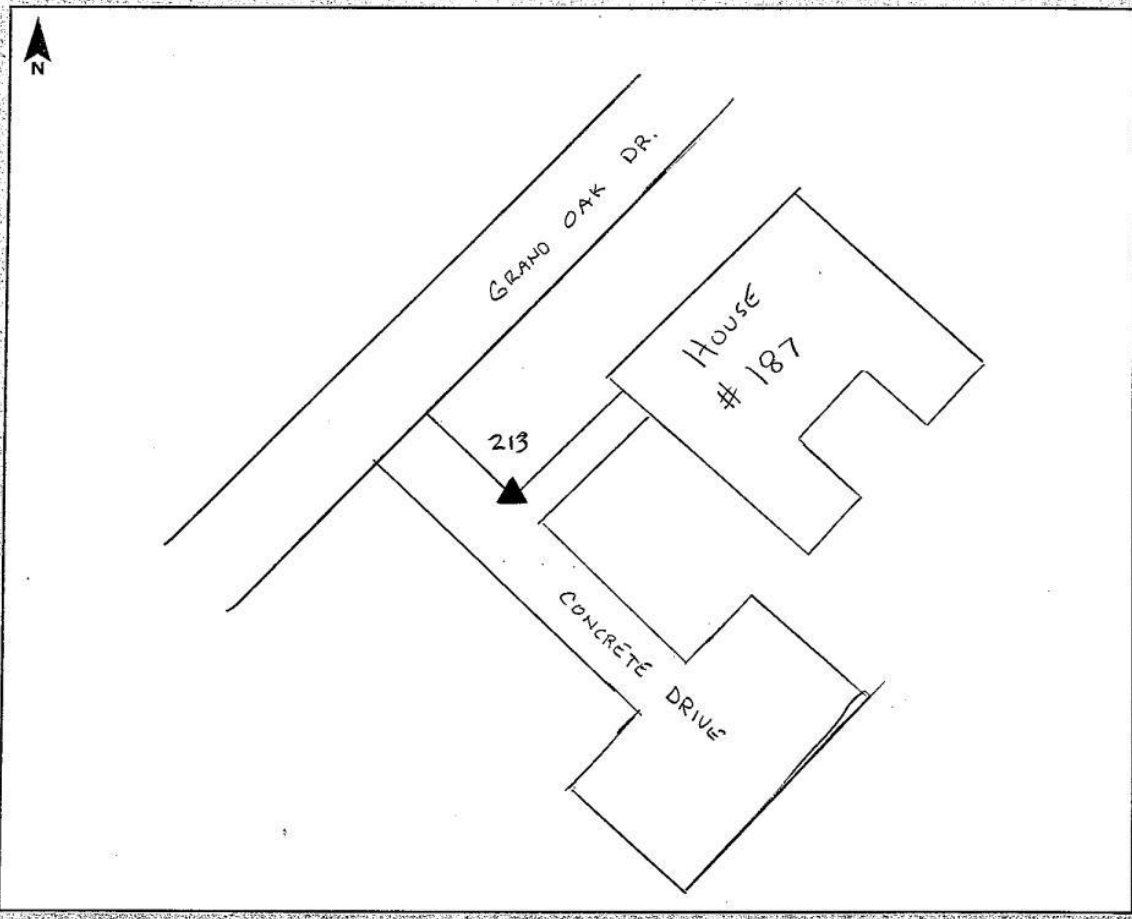


212-3W-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>213</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 18' 14.92" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>84° 49' 23.19" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>779.16 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>COR SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





213-2-10MAR2012



213-3NE-10MAR2012

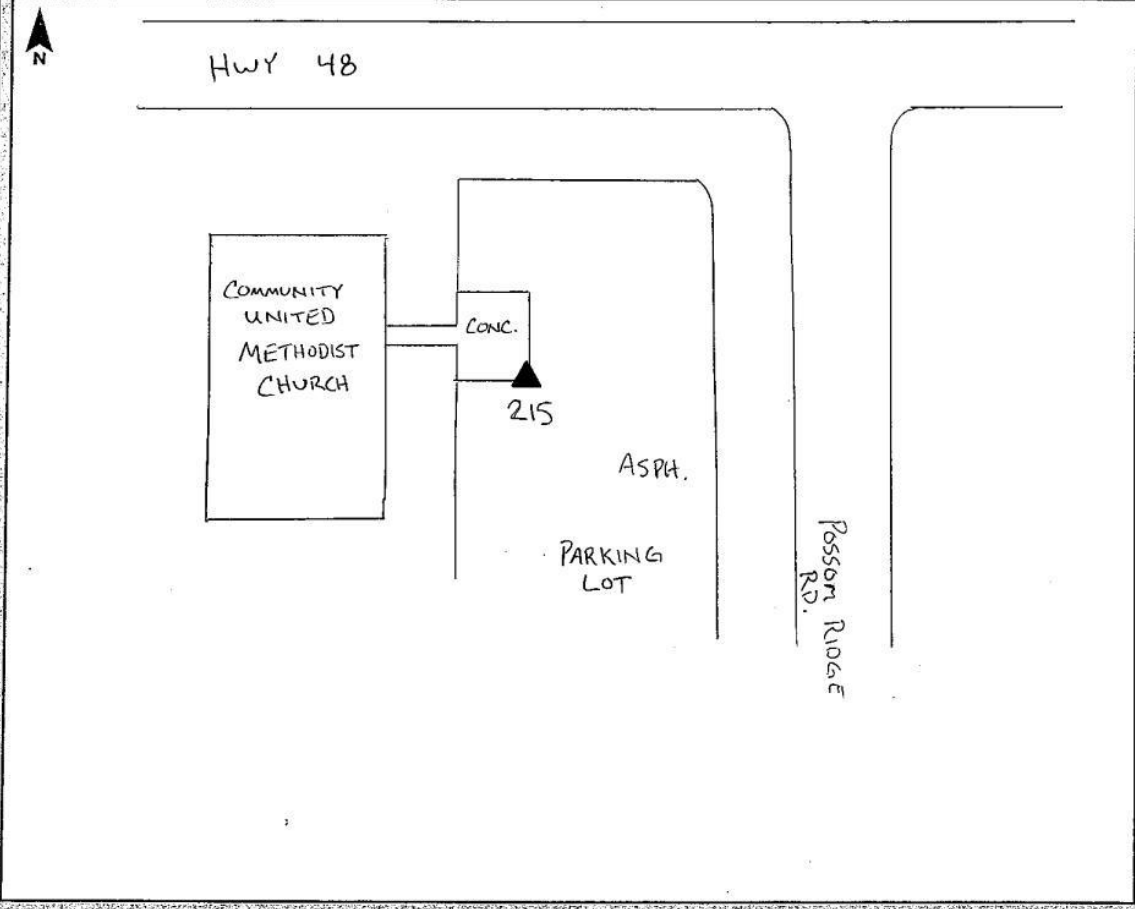


213-3SE-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>02/08/2012</u>
Station Name: <u>215</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39°08'05.9" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>84°58'38.0" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>787.48 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





215-2-03MAR2012



215-3N-03MAR2012

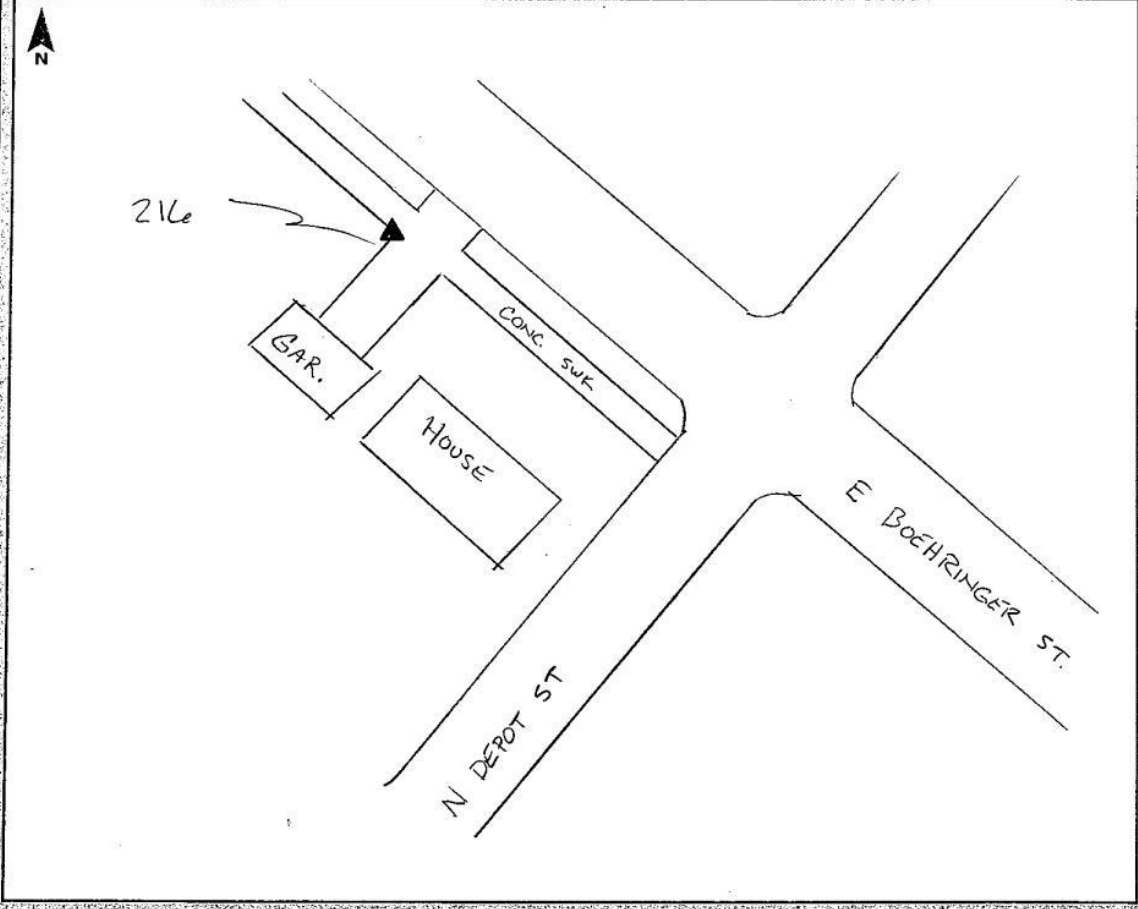


215-3W-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>216</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 17' 53.31" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 13' 11.05" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>850.67 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





216-2-10MAR2012



216-3SW-10MAR2012

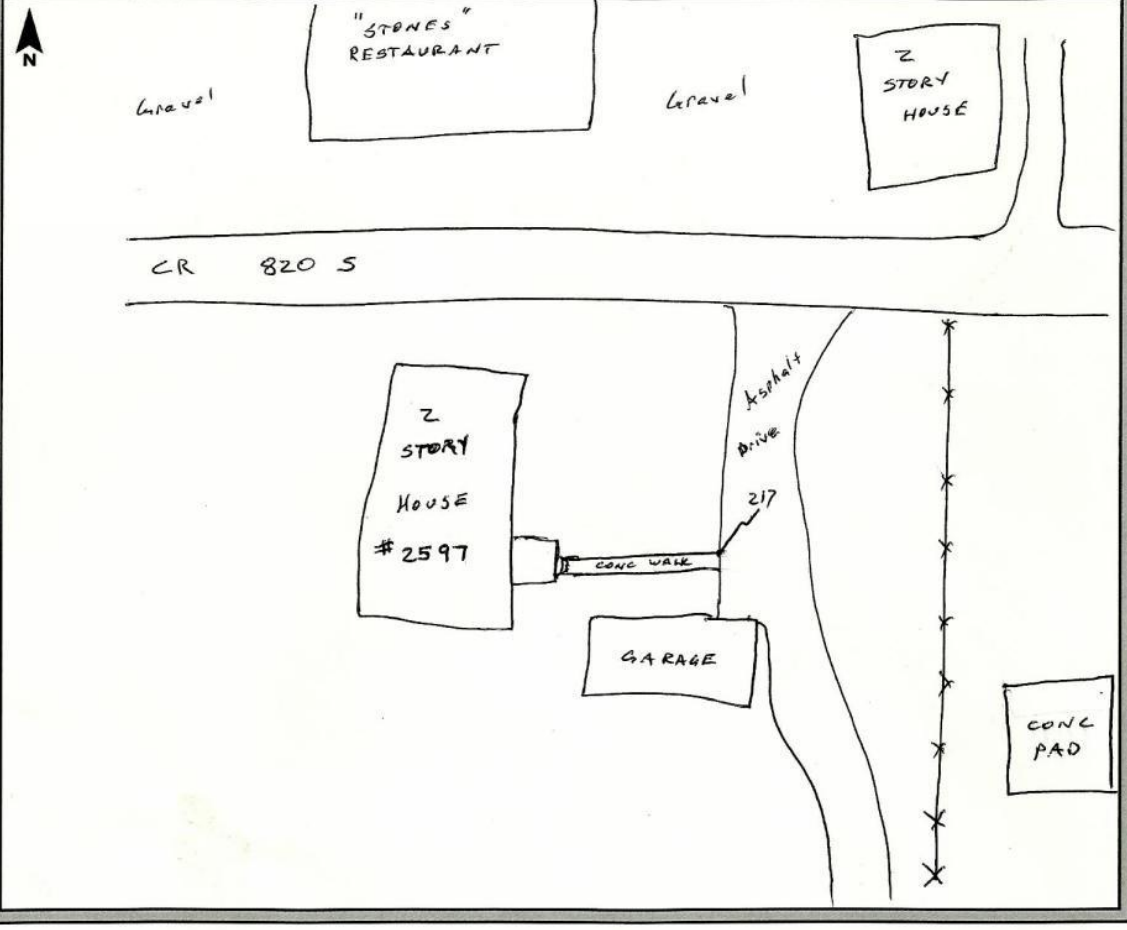


216-3NW-10MAR2012

GPS Observation Log Sheet



Project Name:	INDIANA STATEWIDE	Project Number:	72134	Survey Date:	8 MAR 12
Station Name:	217	Operator Name:	Stephen Schonegg		
Latitude:	39-12-36.6	Julian Day:	068	Session No.:	5
Longitude:	085-25-53.9	Start Time:	4:23	End Time:	4:29
Ellip. Height:	775.2'	Data File Name:	INDST08MAR12 SS		
Type of Mark:	CORNER WALK	Type of Receiver:	R8-2		
Stamping on Mark:	NONE	Type of Antenna:	_____		
Weather Condition:	RAIN, 50°	Antenna Height:	6.562	to bottom of antenna mount	





217-2-08MAR2012



217-3W-08MAR2012

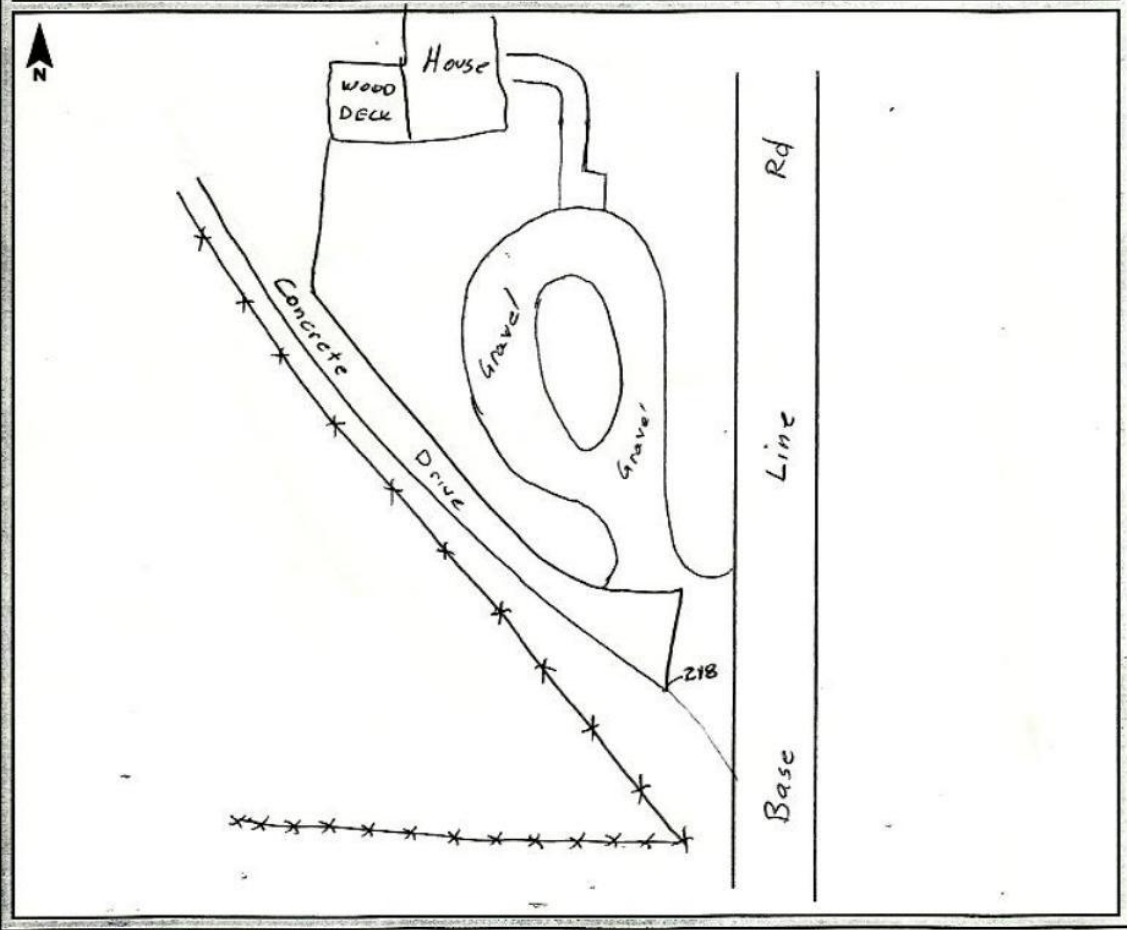


217-3S-08MAR2012

GPS Observation Log Sheet



Project Name:	INDIANA STATEWIDE	Project Number:	72134	Survey Date:	9 Mar 12		
Station Name:	218	Operator Name:	Stephen Schonegg	Julian Day:	069	Session No.:	
Latitude:	39-07-52.37	Start Time:	2:36	End Time:	2:41		
Longitude:	085-36-43.80	Data File Name:	INDST09MAR12SS	Type of Reciever:	RB-2, #9357		
Ellip. Height:	637.05 FT	Type of Antenna:		Antenna Height:	6.562 (FT) to bottom of antenna mount		
Type of Mark:	Corner Concrete Drive	Weather Condition:	Sunny, 45°, WINDY				
Stamping on Mark:							





218 2 09MAR2012



218_3N_09MAR2012

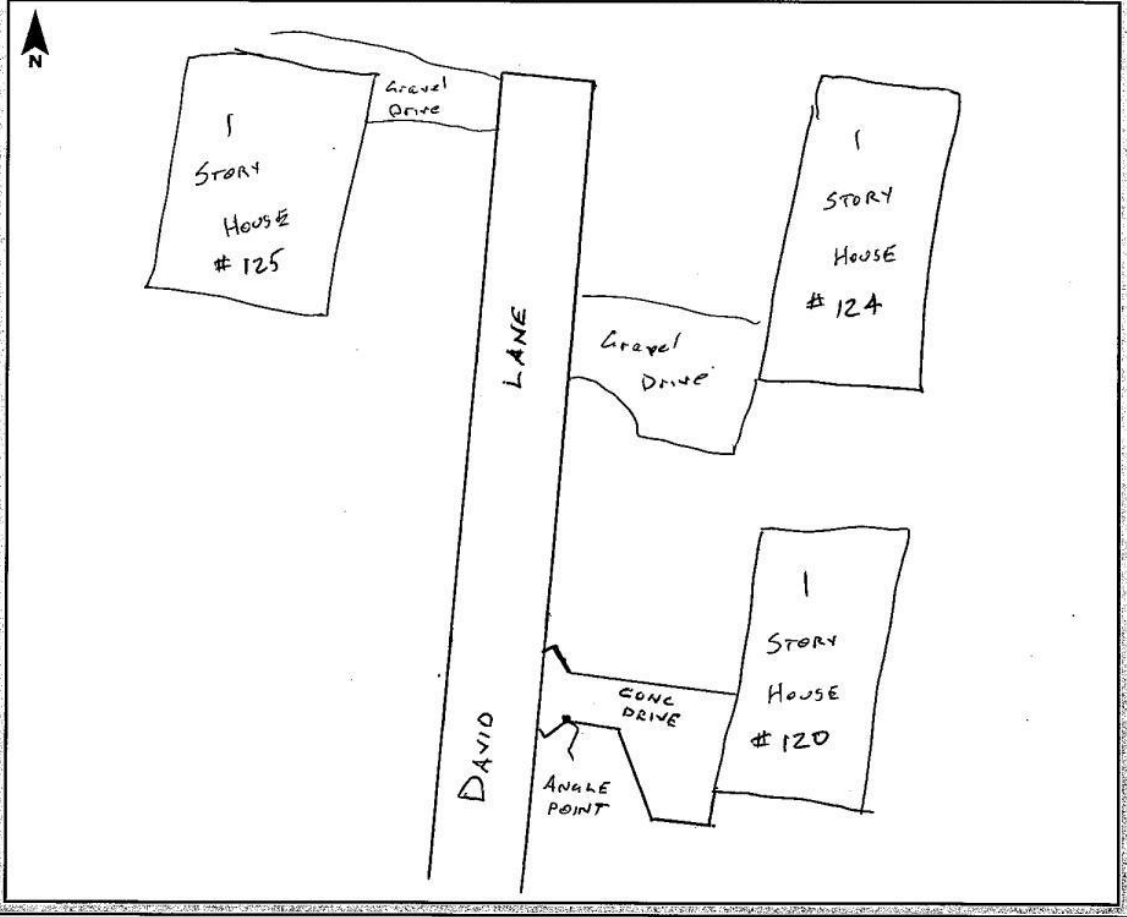


218_3W_09MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>8 MAR 12</u>
Station Name: <u>221</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>39-04-19.8</u>	Julian Day: <u>068</u>	Session No. <u>3</u>
Longitude: <u>085-16-01.0</u>	Start Time: <u>2:26</u>	End Time: <u>2:33</u>
Ellip. Height: <u>847.6</u>	Data File Name: <u>INDST08MAR12.SS</u>	
Type of Mark: <u>ANGLE POINT DRIVE</u>	Type of Receiver: <u>RB-2</u>	
Stamping on Mark: <u>MAG NAIL</u>	Type of Antenna: <u>_____</u>	
Weather Condition: <u>RAIN, 50°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





221-2-08MAR2012



221-3E-08MAR2012

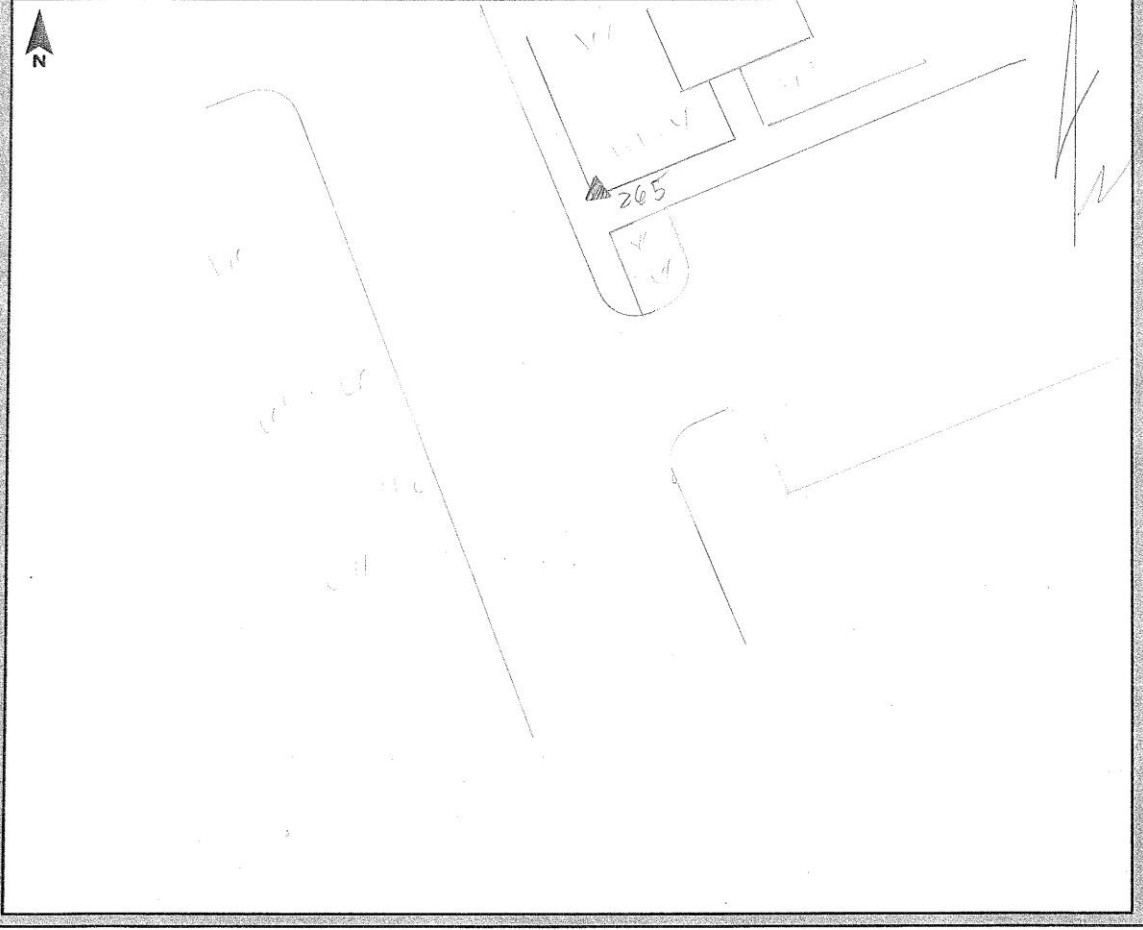


221-3S-08MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 7234 Survey Date: 2012-03-1
Station Name: 265 Operator Name: David Hall
Latitude: 38° 17' 26.7" Julian Day: 071 Session No. 1
Longitude: 85° 47' 49.6" Start Time: 12:46 End Time: 12:56
Ellip. Height: 327' Data File Name: INDY_071.DAT
Type of Mark: Concrete corner Type of Receiver: R8-3
Stamping on Mark: of walls Type of Antenna: R8-3
Weather Condition: 60° & clear Antenna Height: 2.000M to bottom of antenna mount





265-2-11MAR2012



265-3E-11MAR2012

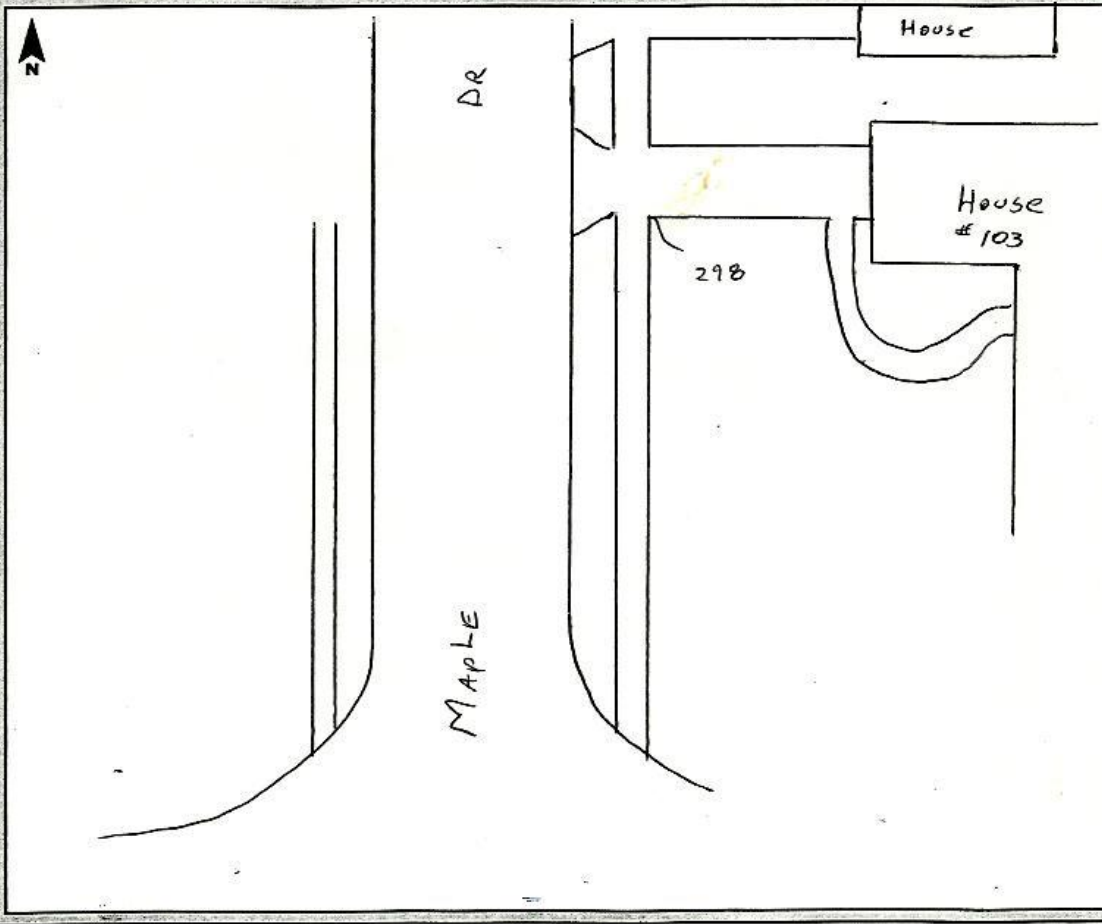


265-3N-11MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>10 MAR 12</u>
Station Name: <u>298</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-44-03.15</u>	Julian Day: <u>070</u>	Session No. _____
Longitude: <u>085-05-35.39</u>	Start Time: <u>11:32</u>	End Time: <u>11:37</u>
Ellip. Height: <u>359.98 FT</u>	Data File Name: <u>IND ST 10 MAR 12</u>	
Type of Mark: <u>Corner Concrete</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 40°</u>	Antenna Height: <u>6.562 FT</u>	to bottom of antenna mount





298-2-10MAR2012



298-3E-10MAR2012

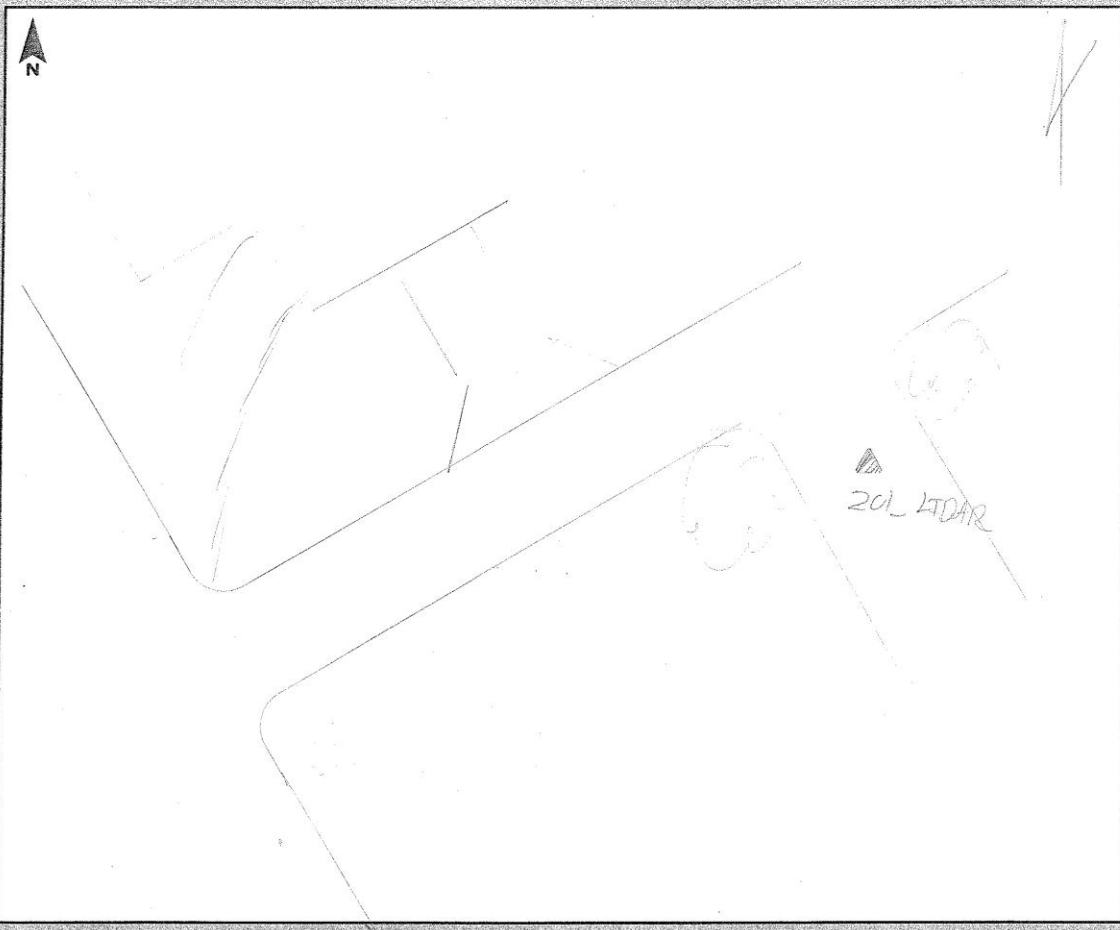


298-3N-10MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-11
Station Name: 201-LIDAR Operator Name: David Hall
Latitude: 38° 17' 53.0" Julian Day: 071 Session No. 1
Longitude: 85° 41' 21.4" Start Time: 12:17 End Time: 12:25
Ellip. Height: 360' Data File Name: INDY_071-DMH
Type of Mark: ASPHALT Type of Receiver: RE-3
Stamping on Mark: _____ Type of Antenna: RE-3
Weather Condition: 60's & Clear Antenna Height: 2.000M to bottom of antenna mount





201_LIDAR-3E-11MAR2012



201_LIDAR-3N-11MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-6
Station Name: 202 - LIDAR Operator Name: David Hall
Latitude: 38° 32' 26.8" Julian Day: 070 Session No. 1
Longitude: 85 25' 09.3" Start Time: 08:39 End Time: 09:49
Ellip. Height: 360' Data File Name: INDY_070_DHH
Type of Mark: Concrete Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: 40's Sunny Antenna Height: 2000M to bottom of antenna mount





202 LIDAR-2-10MAR2012



202 LIDAR-3N-10MAR2012

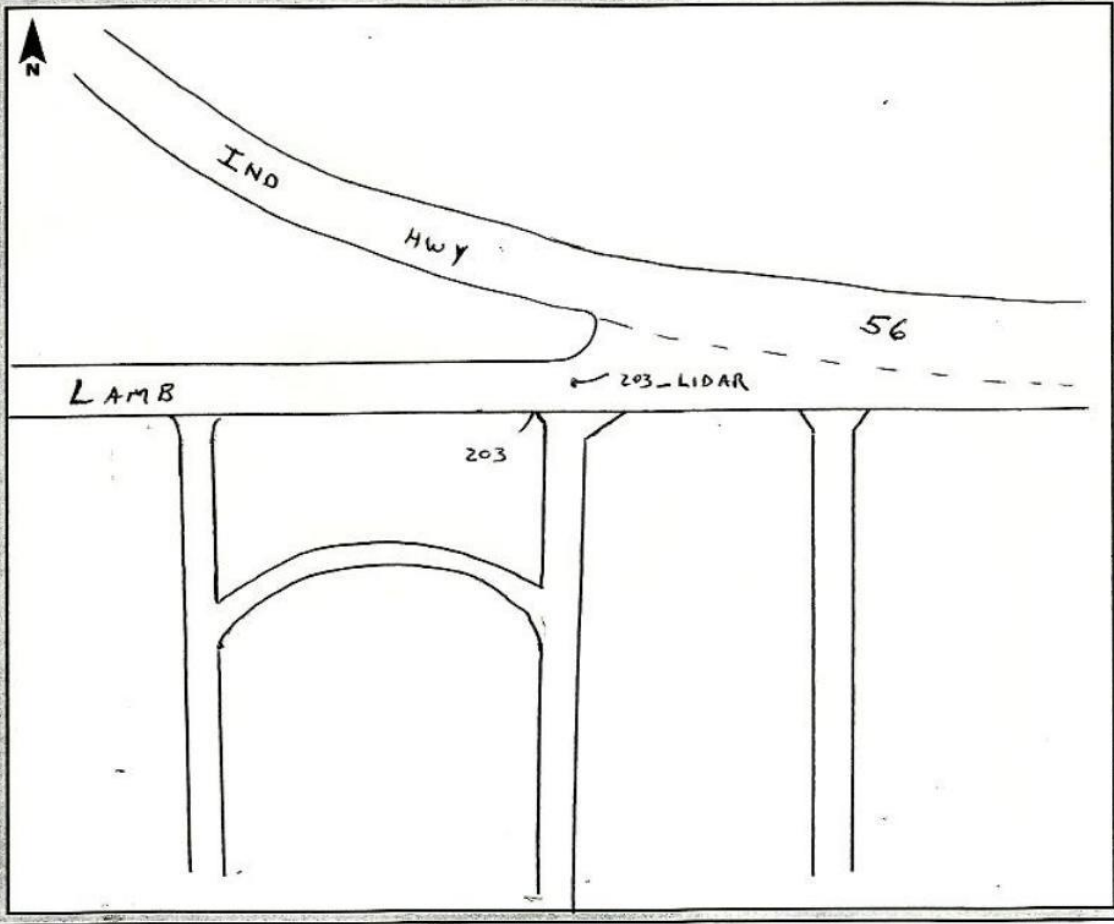


202 LIDAR-3E-10MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: 203 - LIDAR Operator Name: Stephen Schonegg
Latitude: 38-41-30.36 Julian Day: 070 Session No. _____
Longitude: 085-11-01-32 Start Time: 10:58 End Time: 11:02
Ellip. Height: 362.96 FT Data File Name: IND ST 10 MAR 12 SS
Type of Mark: Center Asphalt Road Type of Receiver: RB-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 40° Antenna Height: 6.562 FT to bottom of antenna mount





203_LIDAR-2-10MAR2012



203_LIDAR-3N-10MAR2012

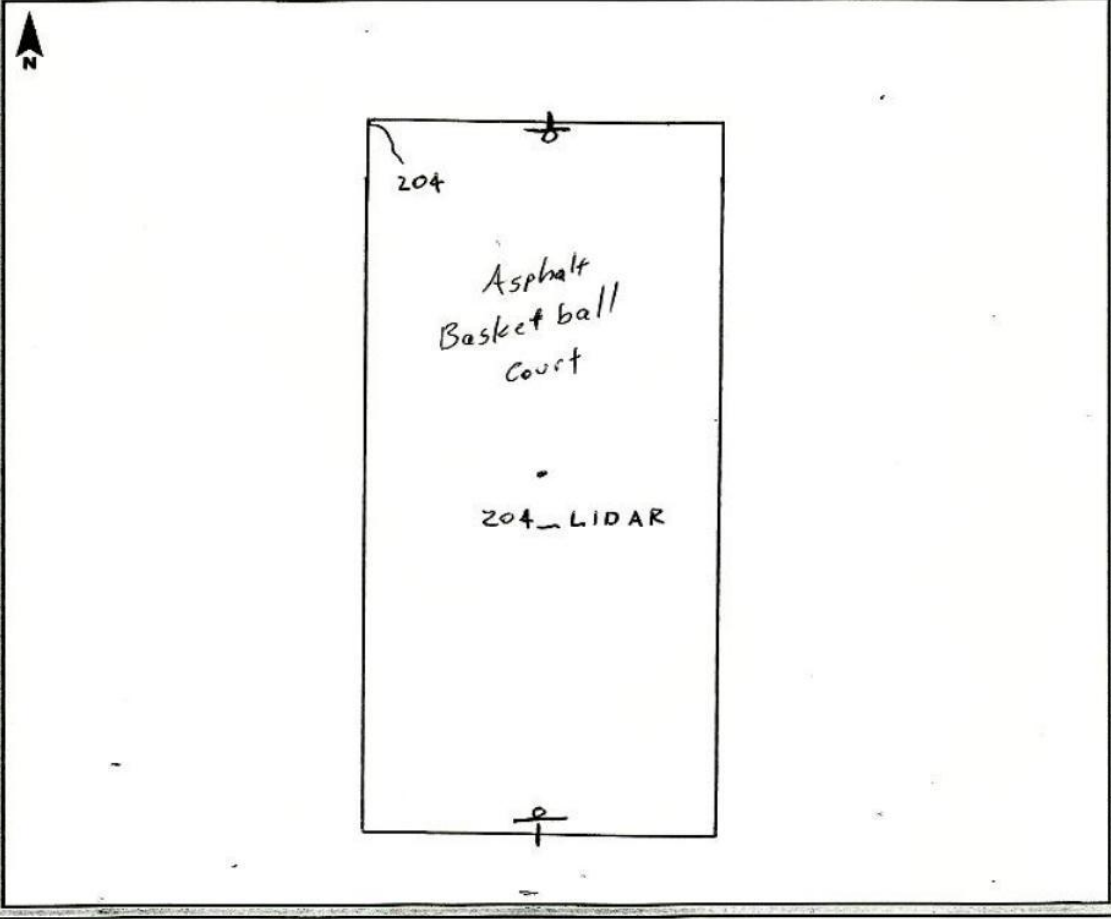


203_LIDAR-3E-10MAR2012

GPS Observation Log Sheet



Project Name:	<u>INDIANA STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>10 MAR 12</u>
Station Name:	<u>204-LIDAR</u>	Operator Name:	<u>Stephen Schonegg</u>		
Latitude:	<u>38-46-49.83</u>	Julian Day:	<u>070</u>	Session No.:	<u> </u>
Longitude:	<u>084-58-00.81</u>	Start Time:	<u>3:08</u>	End Time:	<u>3:13</u>
Ellip. Height:	<u>355.79 FT</u>	Data File Name:	<u>INDST10MAR12SS</u>		
Type of Mark:	<u>Center of Court</u>	Type of Receiver:	<u>R8-2 #9357</u>		
Stamping on Mark:	<u> </u>	Type of Antenna:	<u> </u>		
Weather Condition:	<u>Sunny, 50°</u>	Antenna Height:	<u>6.562 FT</u> to bottom of antenna mount		





204 LIDAR-2-10MAR2012



204 LIDAR-3N-10MAR2012

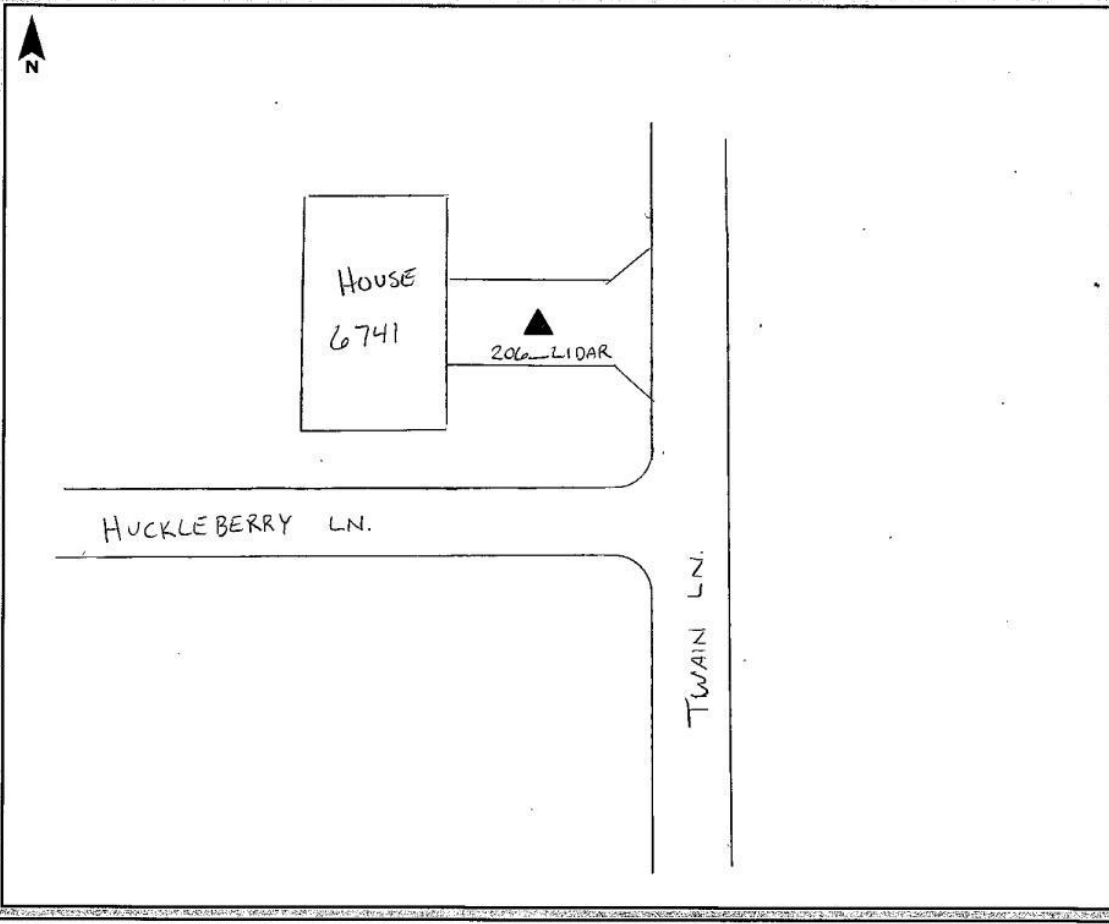


204 LIDAR-3E-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>02/09/2012</u>
Station Name: <u>206-LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 58' 13.75" N</u>	Julian Day: <u>069</u>	Session No. <u>—</u>
Longitude: <u>84° 50' 34.18" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>371.414 SFT</u>	Data File Name: _____	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>40° CLEAR</u>	Antenna Height: <u>2.11</u> to bottom of antenna mount	





206 LIDAR-2-09MAR2012



206_LIDAR-3W-09MAR2012

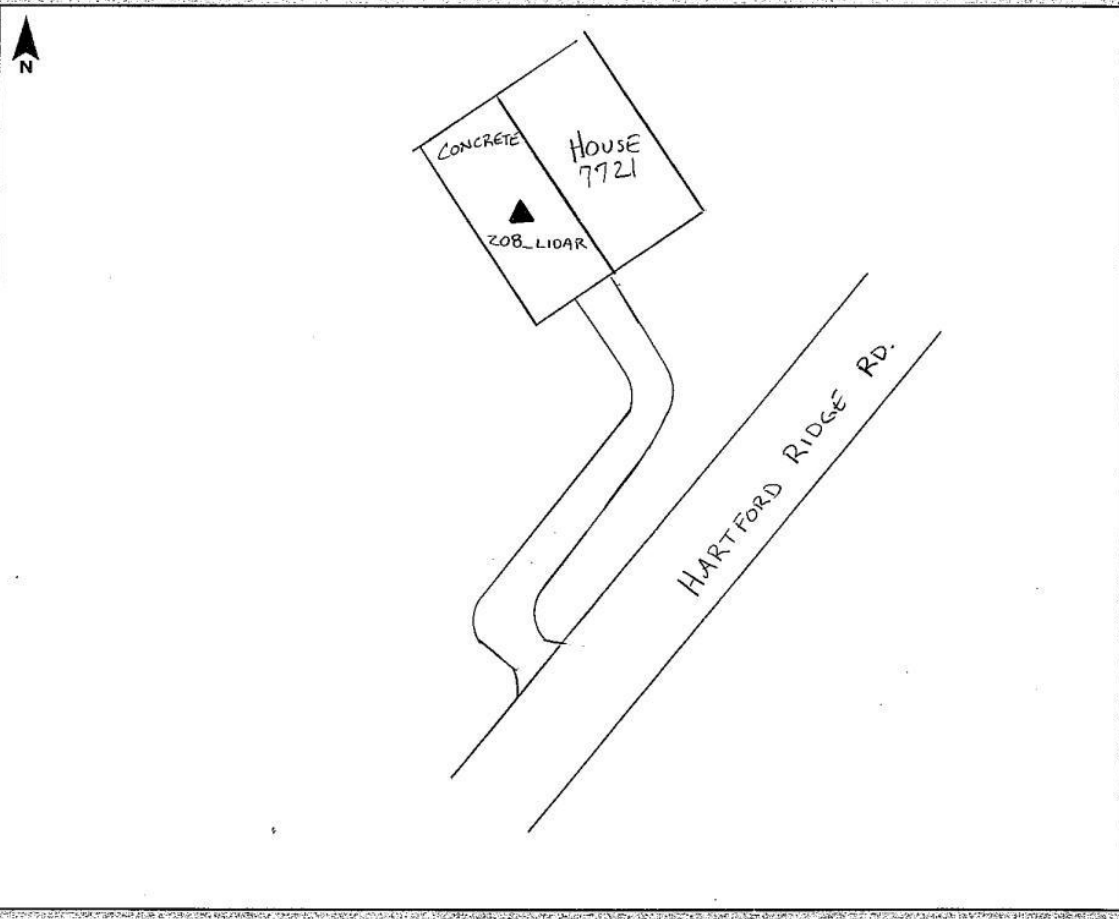


206 LIDAR-3S-09MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/09/2012</u>
Station Name: <u>208_LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 59' 04.11" N</u>	Julian Day: <u>069</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 20.90" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>632.34 SAT</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>50° CLEAR</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





208_LIDAR-2-09MAR2012



208_LIDAR-3SE-09MAR2012

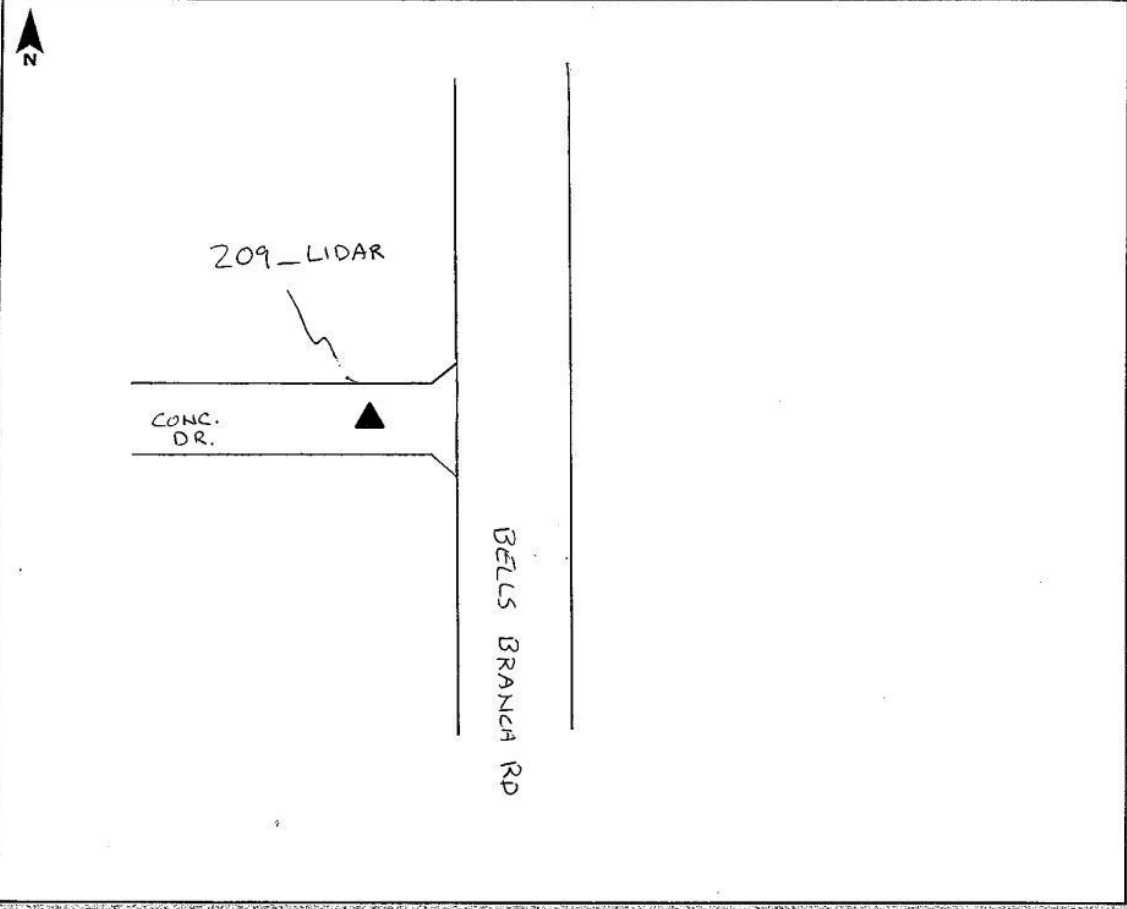


208_LIDAR-3NW-09MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/08/2012</u>
Station Name: <u>209_LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 58' 16.0" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>85° 06' 09.2" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>775.93 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





209 LIDAR-2-03MAR2012



209 LIDAR-3W-03MAR2012

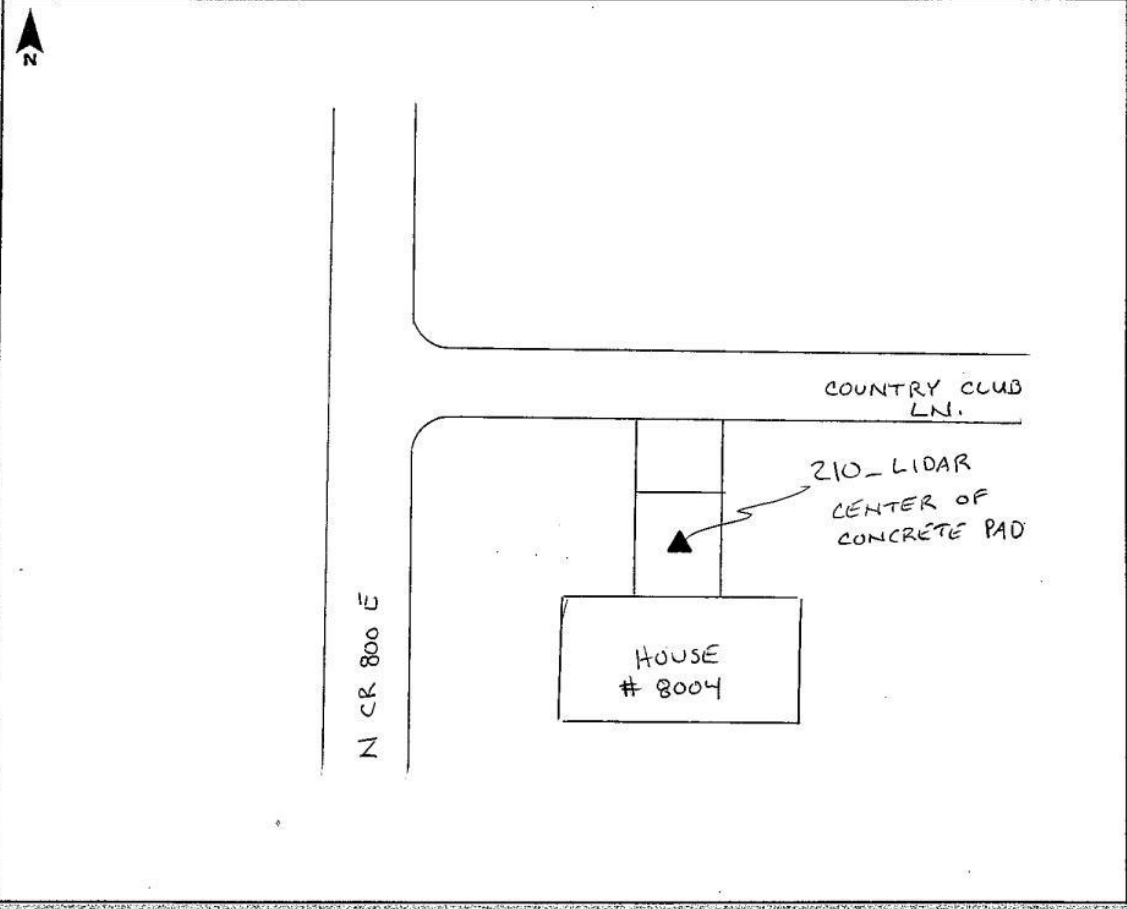


209 LIDAR-3E-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>07/08/2012</u>
Station Name: <u>210-LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 07' 36.0" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>85° 06' 43.8" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>888.767 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





210_LIDAR-2-03MAR2012



210_LIDAR-3S-03MAR2012

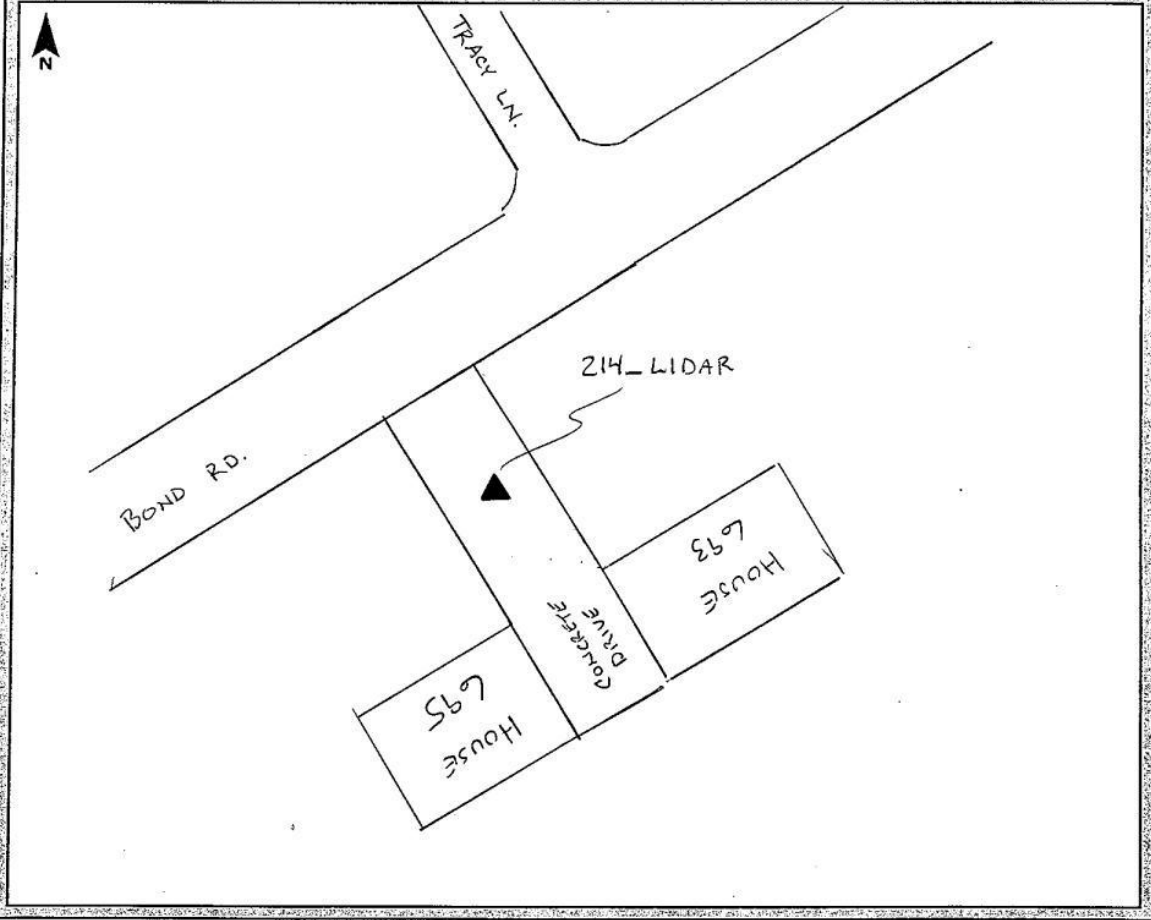


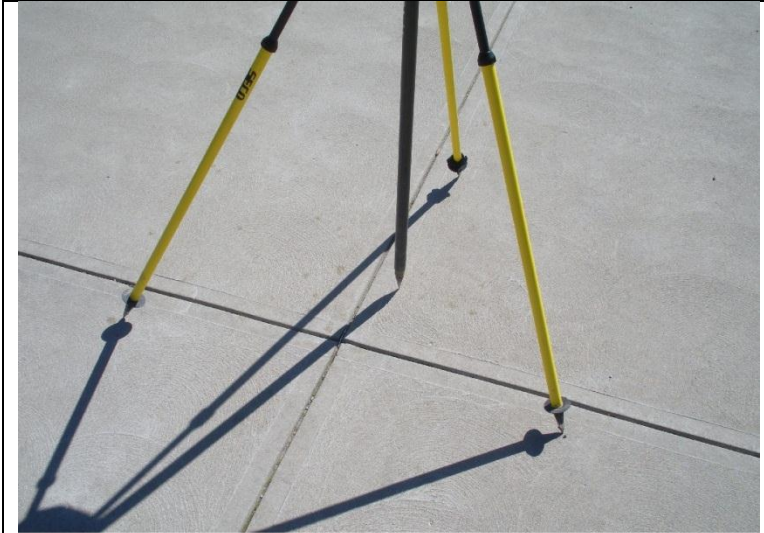
210_LIDAR-3W-03MAR2012

GPS Observation Log Sheet



Project Name:	_____	Project Number:	_____	Survey Date:	03/10/1012
Station Name:	214_LIDAR	Operator Name:	BEN CHRISTIE	Session No.:	—
Latitude:	39° 12' 21.94" N	Julian Day:	070	Start Time:	—
Longitude:	84° 49' 54.40" W	End Time:	—	Data File Name:	—
Ellip. Height:	820.54 sft	Type of Receiver:	R8	Type of Antenna:	R8
Type of Mark:	CONCRETE	Antenna Height:	2m	to bottom of antenna mount	
Stamping on Mark:	—				
Weather Condition:	50° CLEAR				





214 LIDAR-2-10MAR2012



214 LIDAR-3W-10MAR2012

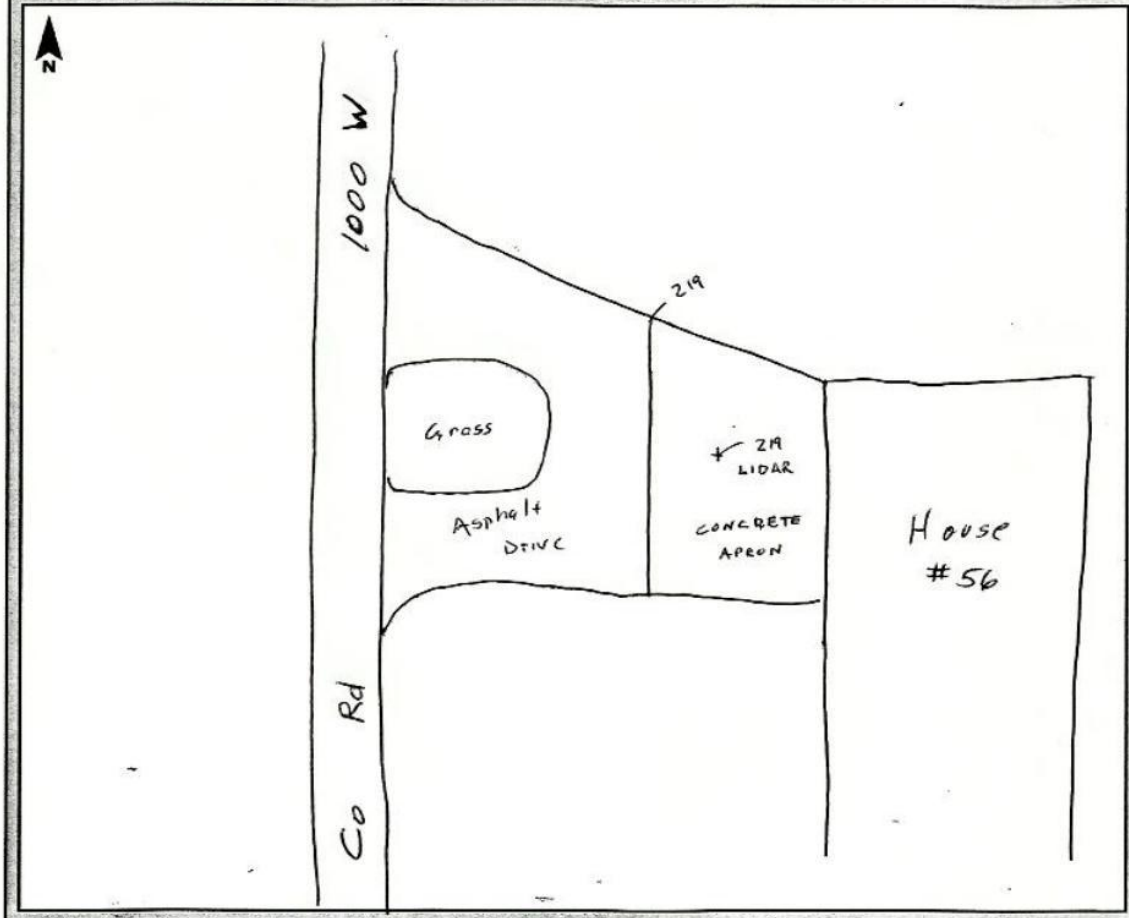


214 LIDAR-3S-10MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: 219 - LIDAR Operator Name: Stephen Schonegg
Latitude: 38-44-22.89 Julian Day: 070 Session No. _____
Longitude: 085-34-19.64 Start Time: 9:12 End Time: 9:17
Ellip. Height: 633.35 FT Data File Name: IND ST 10 MAR 12 SS
Type of Mark: Center Concrete Apron Type of Receiver: R8-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 35° Antenna Height: 6.562 FT to bottom of antenna mount





219_LIDAR-2-10MAR2012



219_LIDAR-3E-10MAR2012

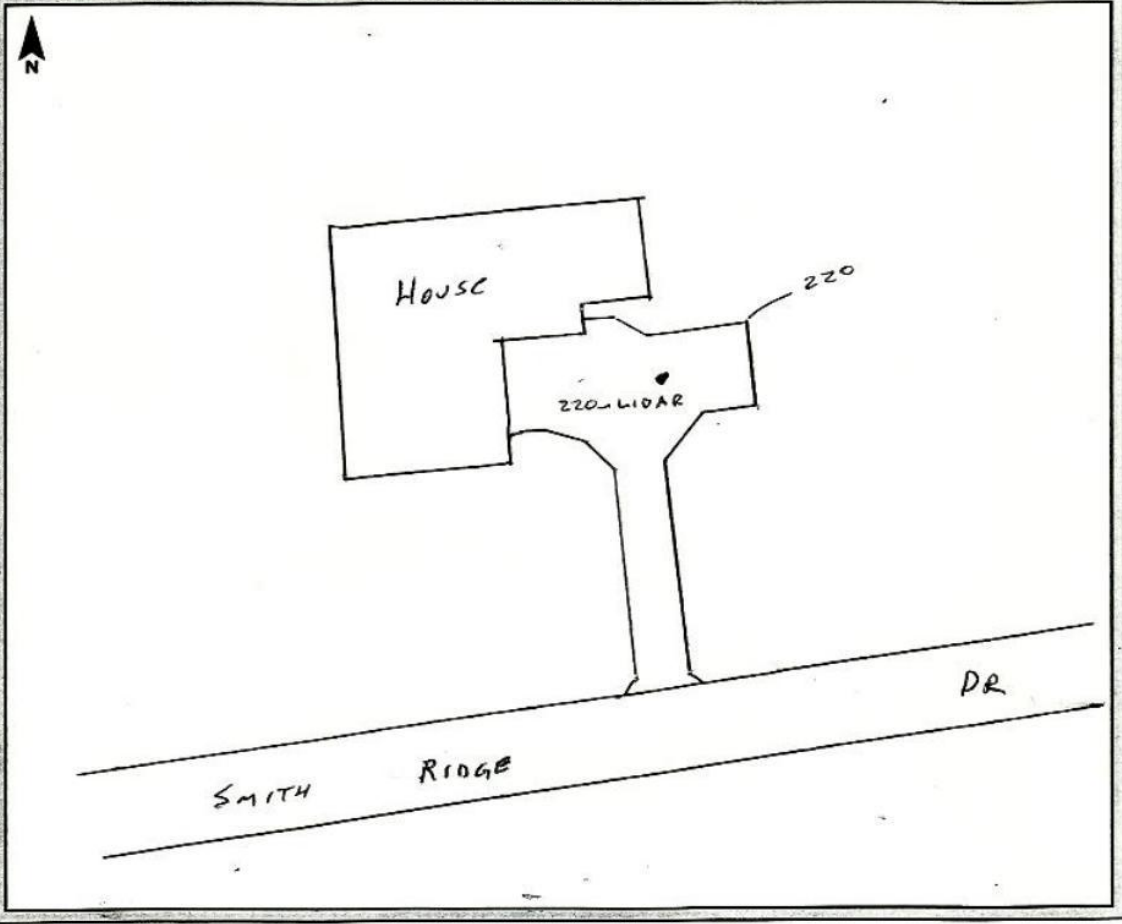


219_LIDAR-3N-10MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>72134</u>	Survey Date: <u>10 MAR 12</u>
Station Name: <u>220 - LIDAR</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-48-33.67</u>	Julian Day: <u>070</u>	Session No. _____
Longitude: <u>085-09-47.39</u>	Start Time: <u>1:59</u>	End Time: <u>2:04</u>
Ellip. Height: <u>759.76</u>	Data File Name: <u>INOST10MAR1255</u>	
Type of Mark: <u>Center Asphalt DRIVE</u>	Type of Receiver: <u>RB-2 #9357</u>	
Stamping on Mark: _____	Type of Antenna: _____	
Weather Condition: <u>Sunny, 45°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





220_LIDAR-2-10MAR2012



220_LIDAR-3E-10MAR2012

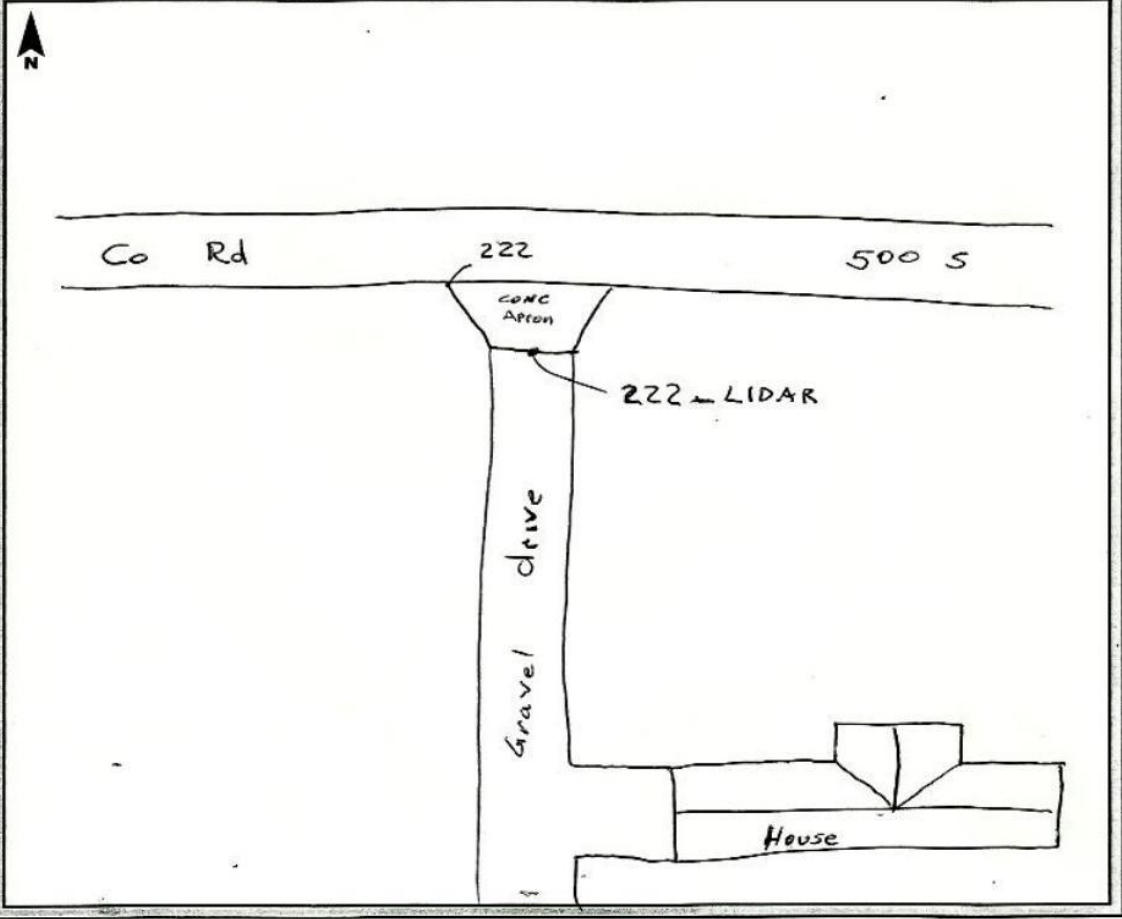


220_LIDAR-3N-10MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 9 MAR 12
Station Name: 222 - LIDAR Operator Name: Stephen Schonegg
Latitude: 38-54-41.12 Julian Day: 069 Session No. _____
Longitude: 085-40-42.26 Start Time: 4:36 End Time: 4:40
Ellip. Height: 550.94 FT Data File Name: IND ST 09 MAR 12 SS
Type of Mark: Center of Concrete Apron Type of Receiver: R8-2, #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 45°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





222_LIDAR_2_09MAR2012



222_LIDAR_3N_09MAR2012



222_LIDAR_3E_09MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-0309</u>
Station Name: <u>223_LEDAR</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>38° 34' 24.4"</u>	Julian Day: <u>069</u>	Session No. <u>2</u>
Longitude: <u>85° 39' 09.7"</u>	Start Time: <u>18:07</u>	End Time: <u>18:13</u>
Ellip. Height: <u>579'</u>	Data File Name: <u>INDY_069.DMI</u>	
Type of Mark: <u>SHORT GELS</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u></u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60°s clear</u>	Antenna Height: <u>2.0004</u>	to bottom of antenna mount





223_LIDAR-2-09MAR2012



223_LIDAR-3NW-09MAR2012



223_LIDAR-3NE-09MAR2012

GPS Observation Log Sheet



Project Name: TV Statewide 2012 Project Number: 72134 Survey Date: 2012-03-10
Station Name: 224 - LIDAR Operator Name: David FHV
Latitude: 38° 21' 54.1" Julian Day: 070 Session No. 2
Longitude: 85° 46' 04.3" Start Time: 15:02 End Time: 15:12
Ellip. Height: 349' Data File Name: INDY_070_DM1
Type of Mark: Asphalt Type of Receiver: R8-3
Stamping on Mark: Short Grass Type of Antenna: R8-3
Weather Condition: Clouds & Clear Antenna Height: 2.000 M to bottom of antenna mount





224 LIDAR-2-10MAR2012



224 LIDAR-3N-10MAR2012

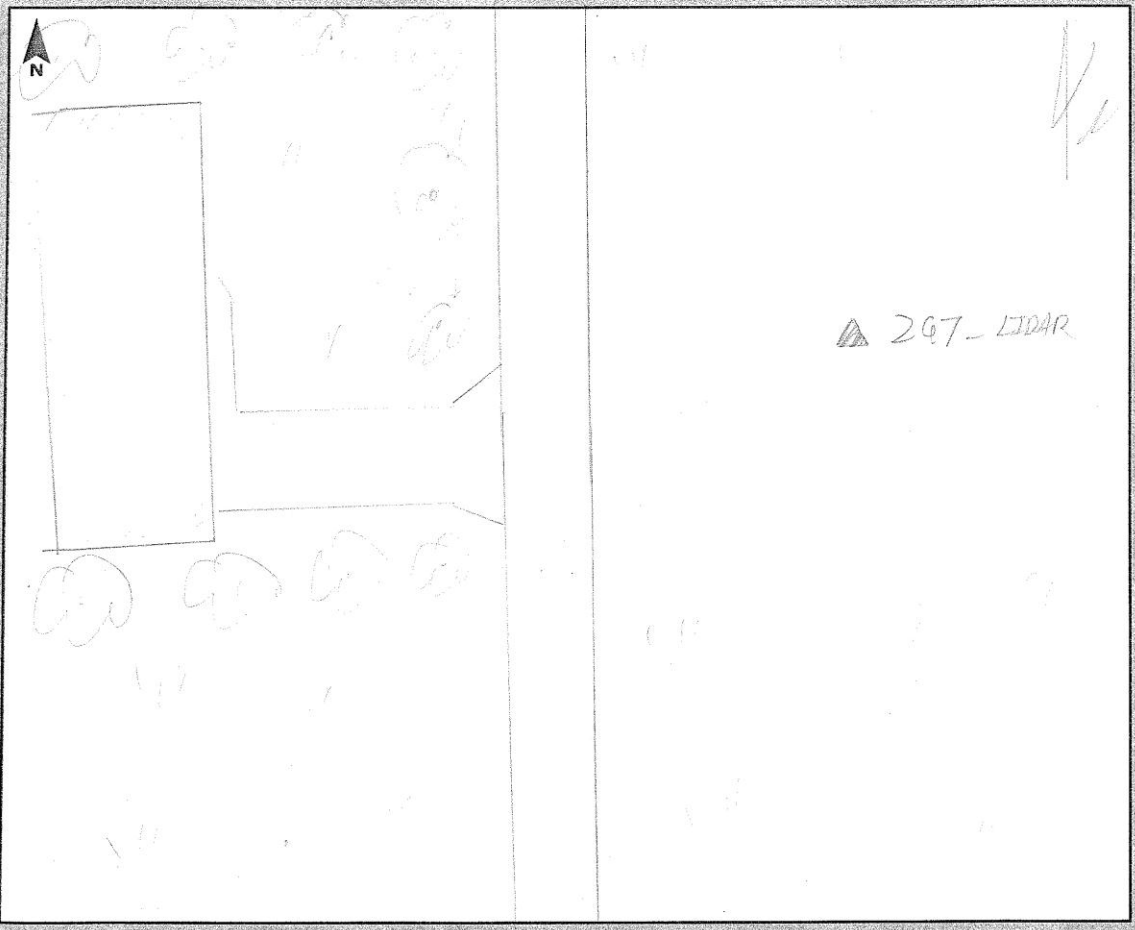


224 LIDAR-3E-10MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 29203-6
Station Name: 267-LIDAR Operator Name: David Hall
Latitude: 38° 24' 09.2" Julian Day: 070 Session No. 2
Longitude: 85° 53' 48.4" Start Time: 15:59 End Time: 16:09
Ellip. Height: 804' Data File Name: INDY_070-DMH
Type of Mark: SHORT GRAB Type of Receiver: R8.3
Stamping on Mark: SHORT GRAB Type of Antenna: R8.3
Weather Condition: 60% & clear Antenna Height: 2.0004 to bottom of antenna mount





267 LIDAR-2-10MAR2012



267 LIDAR-3N-10MAR2012



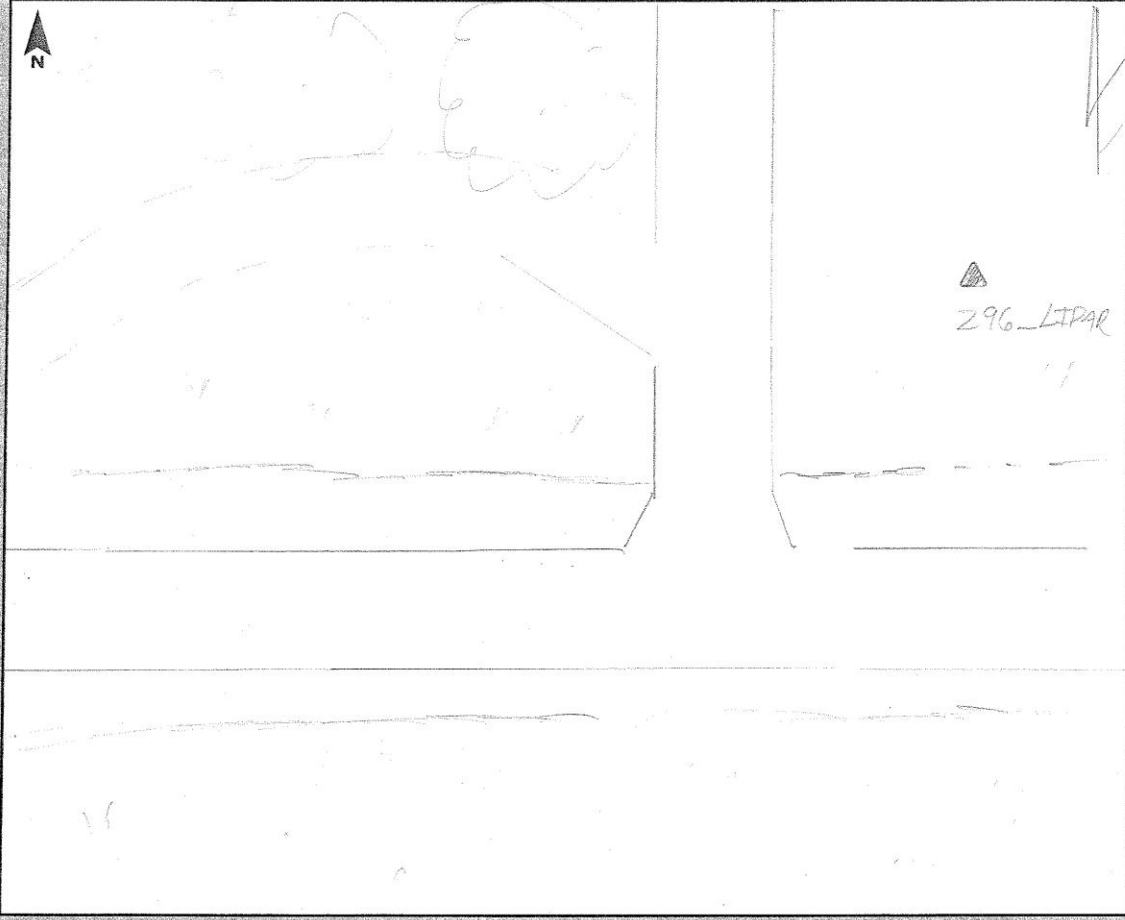
267 LIDAR-3E-10MAR2012

NOF

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>1234</u>	Survey Date: <u>2012-03-08</u>
Station Name: <u>296 LIDAR</u>	Operator Name: <u>David Hall</u>	Session No. <u> </u>
Latitude: <u>38° 39' 57.1"</u>	Julian Day: <u>068</u>	Start Time: <u>10:25</u>
Longitude: <u>85° 28' 03.6"</u>	End Time: <u>10:35</u>	Data File Name: <u>INDY_068_DMH</u>
Ellip. Height: <u>676'</u>	Type of Receiver: <u>R8-3</u>	Type of Antenna: <u>R8-3</u>
Type of Mark: <u>Short Grass</u>	Stamping on Mark: <u>N/A</u>	Antenna Height: <u>2.000m</u> to bottom of antenna mount
Weather Condition: <u>Rain, 65°</u>		





296_LIDAR-2-08MAR2012



296_LIDAR-3N-08MAR2012

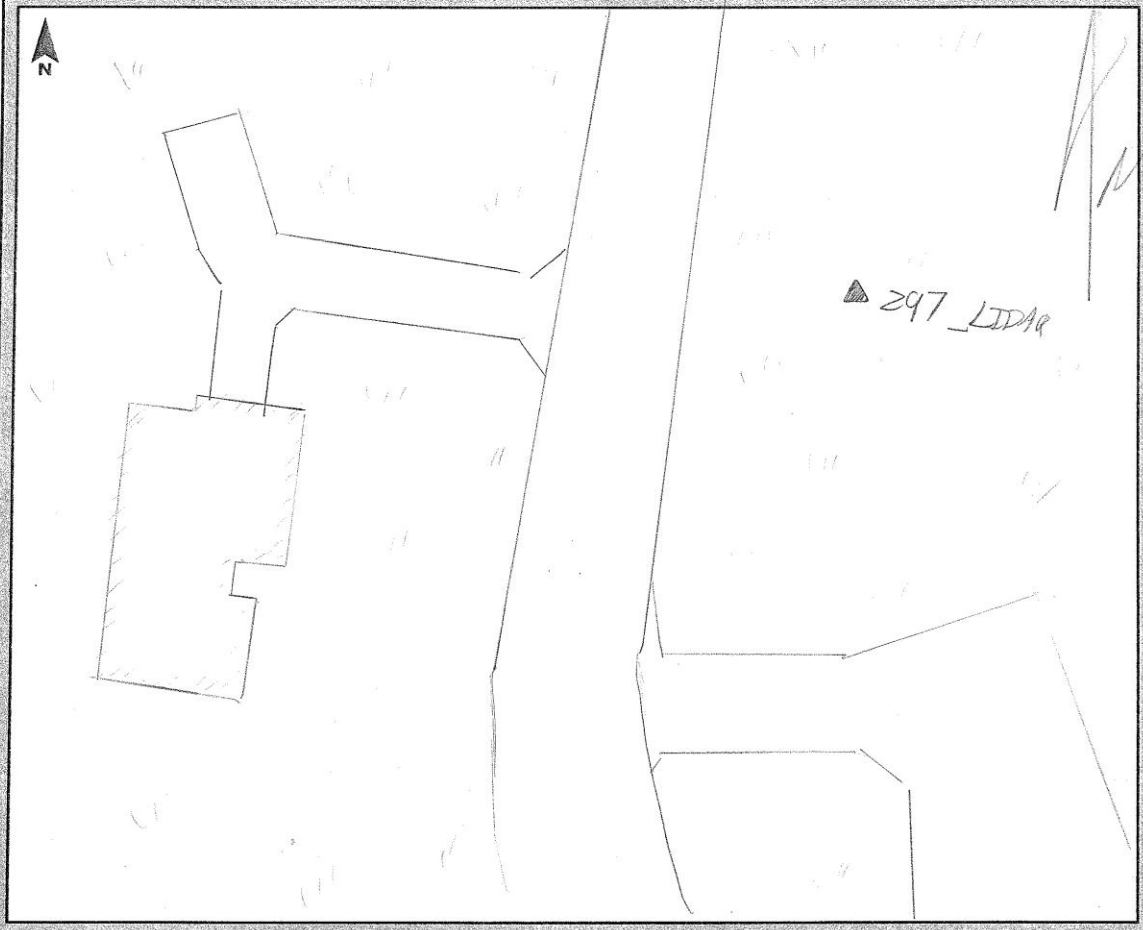


296_LIDAR-3E-08MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-09
Station Name: 297_LIDAR Operator Name: David Hall
Latitude: 38° 40' 29.4" Julian Day: 069 Session No. 2
Longitude: 85° 52' 49.2" Start Time: 14:20 End Time: 14:26
Ellip. Height: 501 Data File Name: INDY_069.DMT
Type of Mark: SHORT GRASS Type of Receiver: R8-3
Stamping on Mark: _____ Type of Antenna: R8-3
Weather Condition: 60's & Sunny Antenna Height: 2.00m to bottom of antenna mount





297_LIDAR-2-09MAR2012



297_LIDAR-3E-09MAR2012

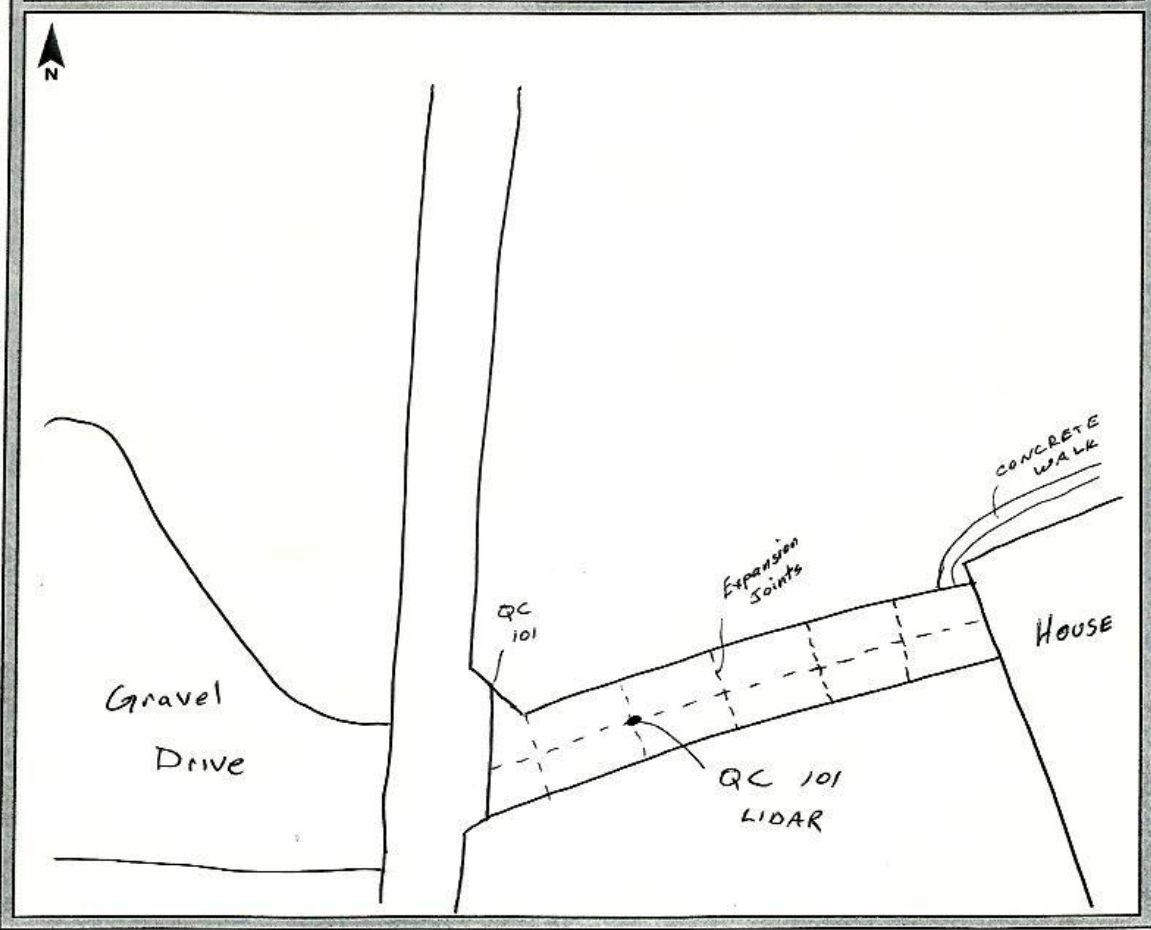


297_LIDAR-3N-09MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 9 MAR 12
Station Name: QC 101_LIDAR Operator Name: Stephen Schonegg
Latitude: 39-03-37.67 Julian Day: 069 Session No. _____
Longitude: 085-41-56.24 Start Time: 3:40 End Time: 3:45
Ellip. Height: 576.72 FT Data File Name: INDST09MAR12SS
Type of Mark: Center of Concrete Dr Type of Receiver: RB-2, #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 45°, WINDY Antenna Height: 6.562 FT to bottom of antenna mount





QC 101 LIDAR 2 09MAR2012



QC 101 LIDAR 3N 09MAR2012

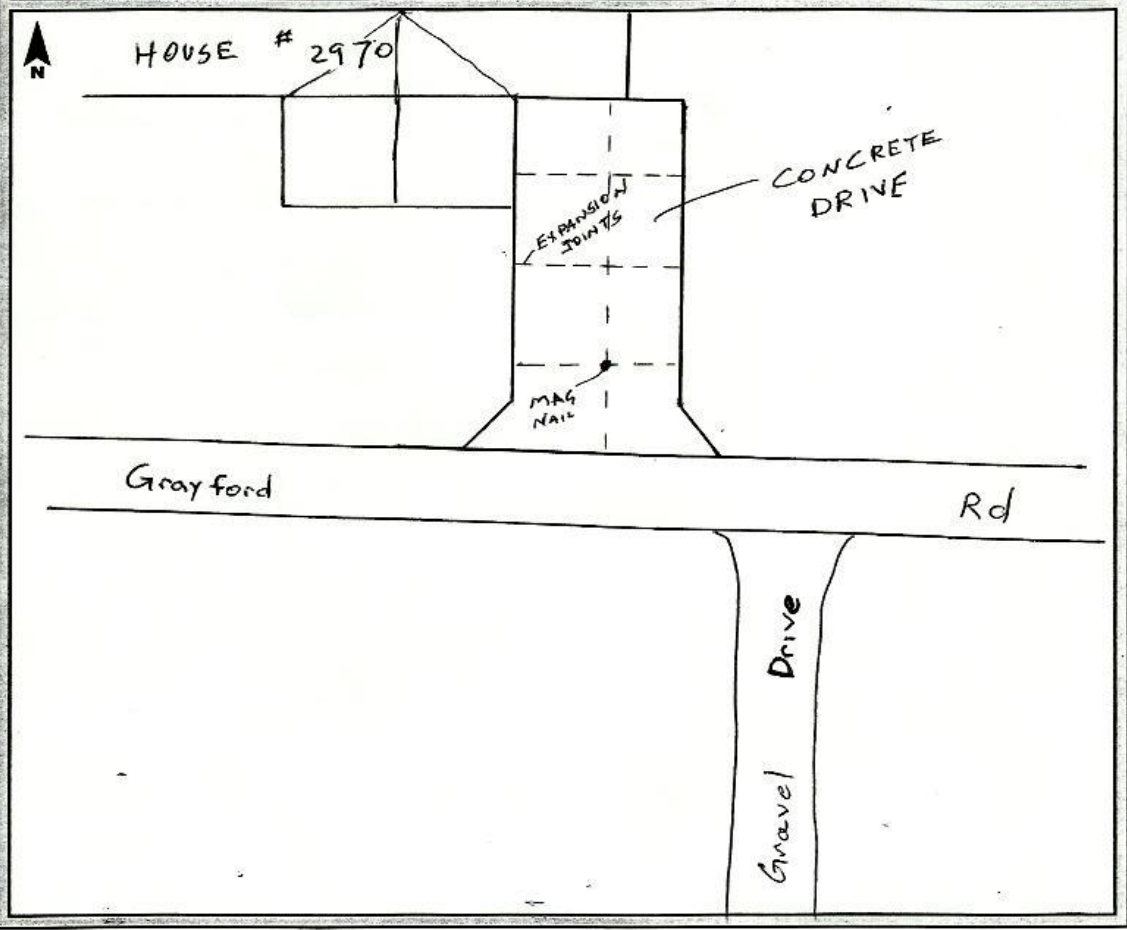


QC 101 LIDAR 3E 09MAR2012

GPS Observation Log Sheet

W
WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 9 MAR 12
Station Name: QC 102 - LIDAR Operator Name: Stephen Schonegg
Latitude: 38-57-47.49 Julian Day: 069 Session No. _____
Longitude: 085-33-32.82 Start Time: 1:14 End Time: 1:18
Ellip. Height: 652.11 FT Data File Name: INDST09 MAR12 SS
Type of Mark: Center of Conc Drive Type of Receiver: RB-2, #9357
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: Sunny, 45°, Windy Antenna Height: 6.562 FT to bottom of antenna mount





QC 102 LIDAR 2 09MAR2012



QC 102 LIDAR 3N 09MAR2012

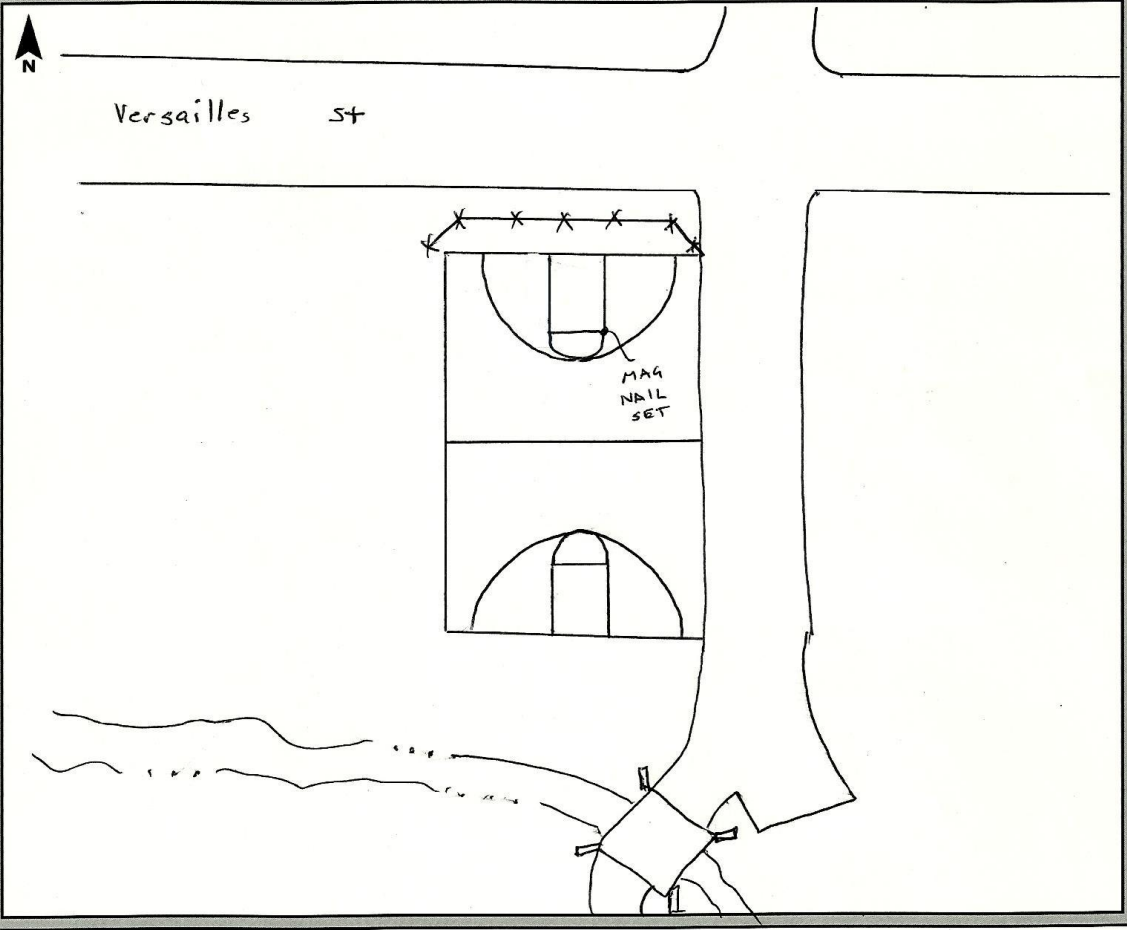


QC 102 LIDAR 3W 09MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 8 MAR 12
Station Name: QC 103 Operator Name: Stephen Schonegg
Latitude: 39-04-29.3 Julian Day: 068 Session No. 4
Longitude: 085-23-00.3 Start Time: 2:59 End Time: 3:04
Ellip. Height: 788.1 Data File Name: INDST08MAR12.SS
Type of Mark: PAINT STRIPE Type of Receiver: RB-2
Stamping on Mark: MAG NAIL Type of Antenna: _____
Weather Condition: RAIN, 50° Antenna Height: 6.562 to bottom of antenna mount





QC 103-2-08MAR2012



QC 103-3N-08MAR2012

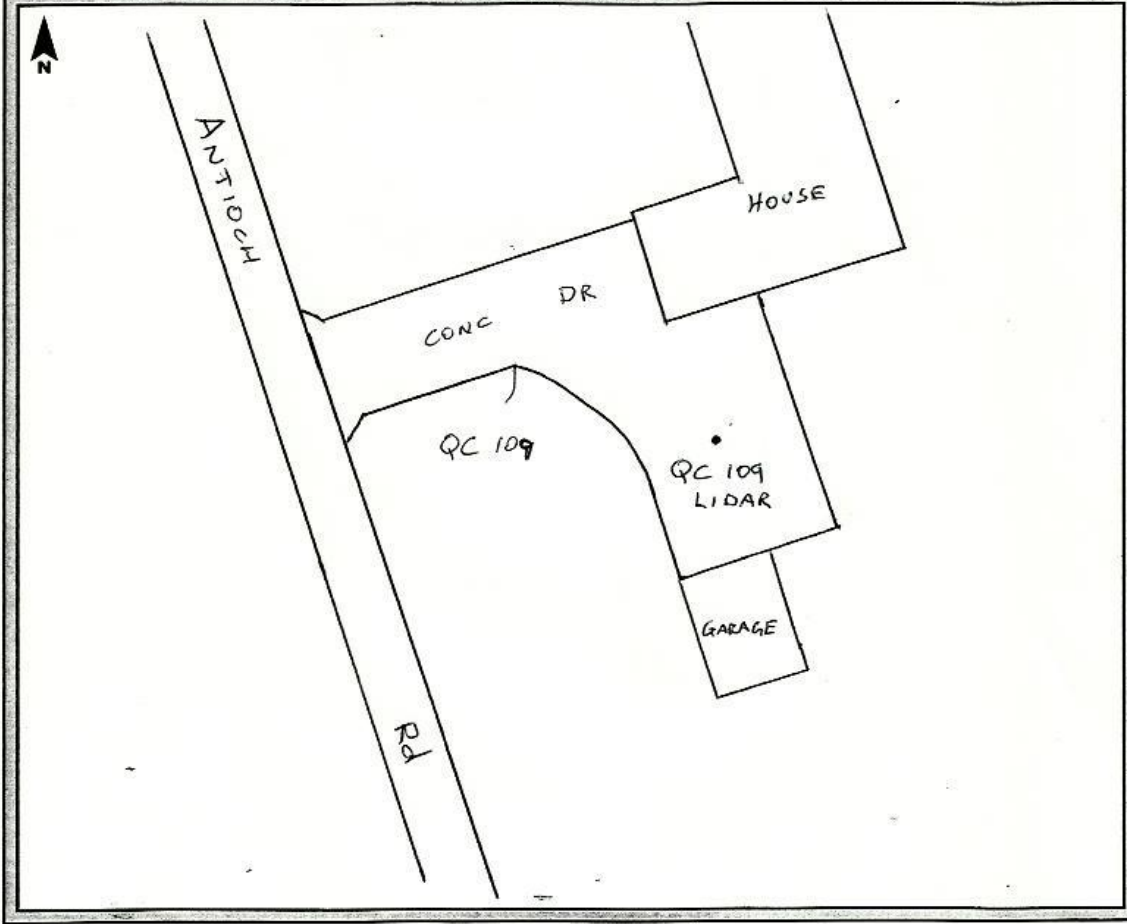


QC 103-3W-08MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: QC 109 - LIDAR Operator Name: Stephen Schonegg
Latitude: 38-51-38.52 Julian Day: 070 Session No. _____
Longitude: 084-53-03.85 Start Time: 4:38 End Time: 4:4
Ellip. Height: 748.88 FT Data File Name: INDST 10 MAR 12 SS
Type of Mark: Center of Cone Dr Type of Receiver: RB-2 #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50° Antenna Height: 6.562 FT to bottom of antenna mount





QC 109 LIDAR-2-10MAR2012



QC 109 LIDAR-3N-10MAR2012

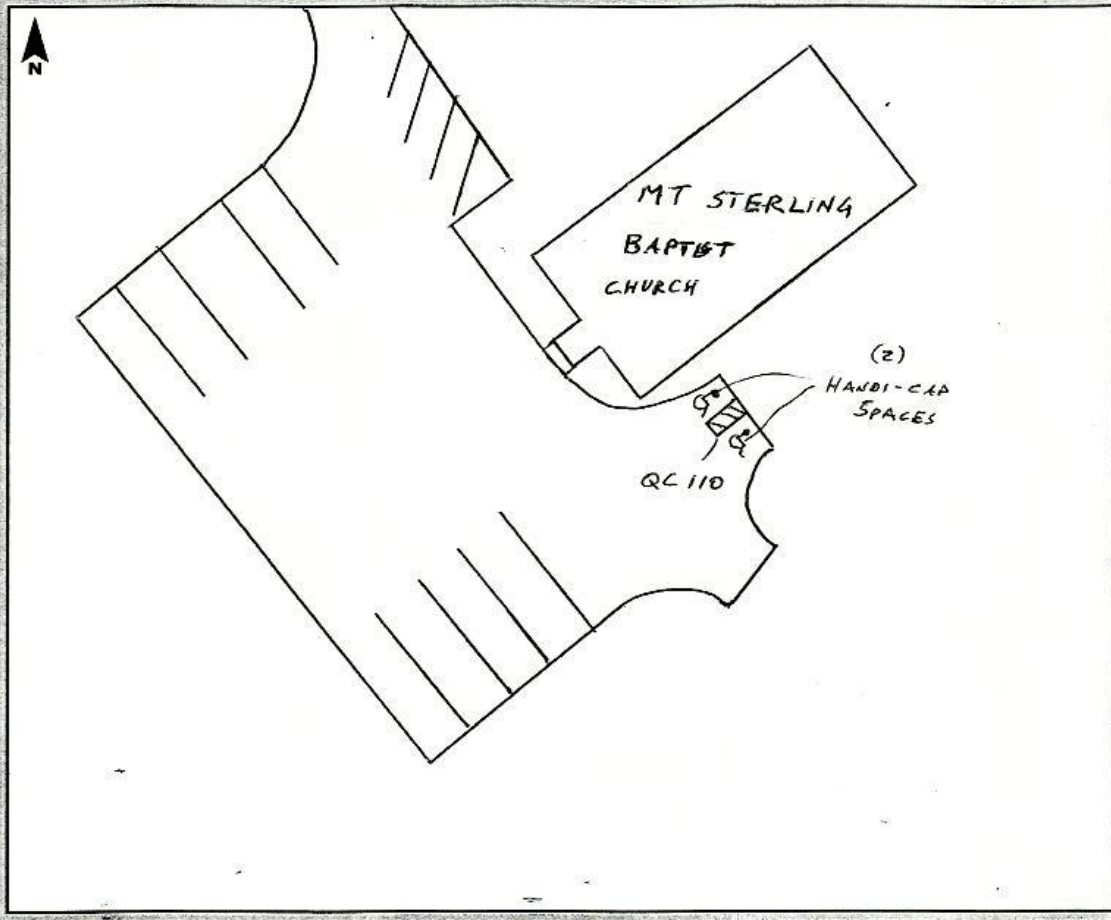


QC 109 LIDAR-3E-10MAR2012

GPS Observation Log Sheet


WOOLPERT

Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: QC 110 Operator Name: Stephen Schonegg
Latitude: 38-47-47.89 Julian Day: 070 Session No. _____
Longitude: 085-04-19.75 Start Time: 2:25 End Time: 2:30
Ellip. Height: 674.05 FT Data File Name: IND ST 10 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: RS-2 # 9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 50° Antenna Height: 6.562 FT to bottom of antenna mount





QC 110-2-10MAR2012



QC 110-3N-10MAR2012

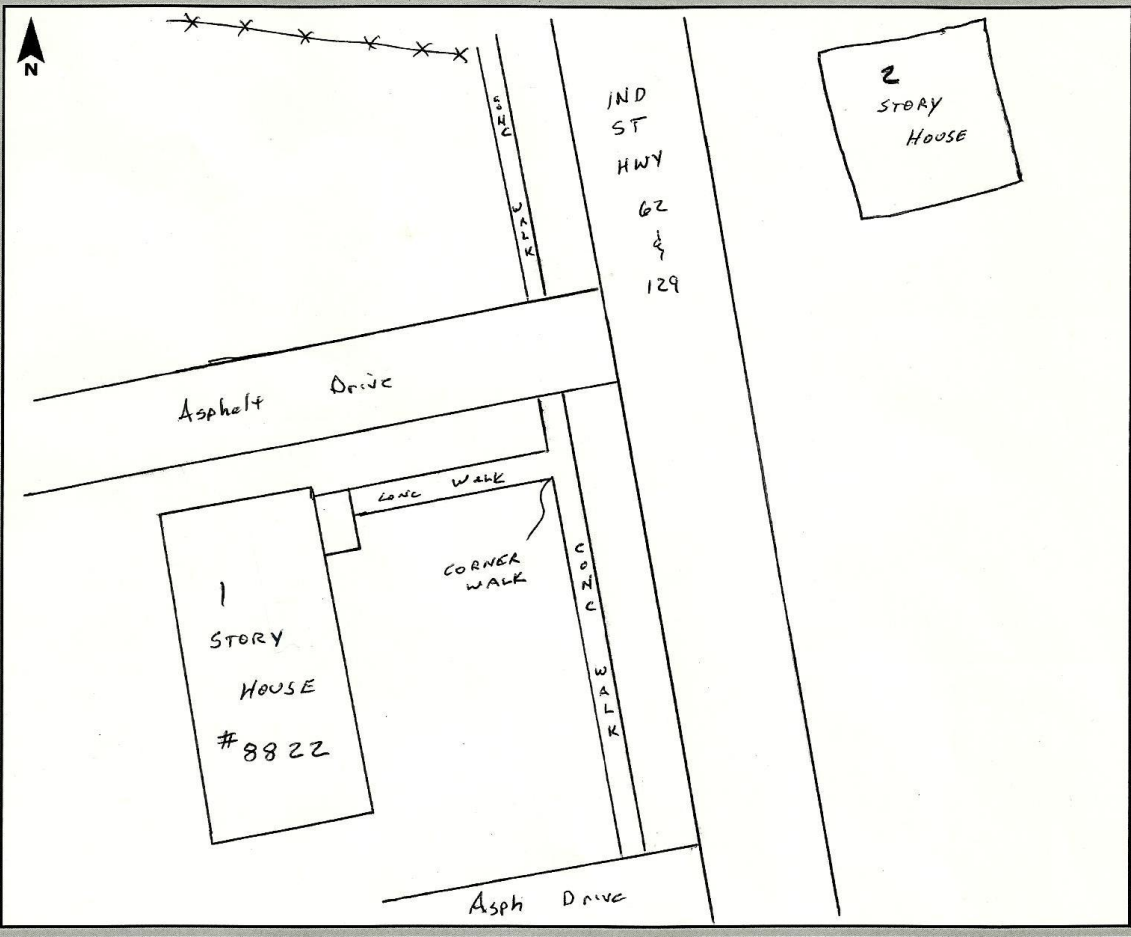


QC 110-3E-10MAR2012

GPS Observation Log Sheet



Project Name: <u>INDIANA STATEWIDE</u>	Project Number: <u>7213A</u>	Survey Date: <u>8 MAR 12</u>
Station Name: <u>QC 104</u>	Operator Name: <u>Stephen Schonegg</u>	
Latitude: <u>38-56-41.73</u>	Julian Day: <u>068</u>	Session No. <u>2</u>
Longitude: <u>085-12-19.39</u>	Start Time: <u>1:52</u>	End Time: <u>1:57</u>
Ellip. Height: <u>832.757</u>	Data File Name: <u>IND ST 08 MAR 12 SS</u>	
Type of Mark: <u>CORNER OF WALKS</u>	Type of Receiver: <u>R8-2</u>	
Stamping on Mark: <u>NONE</u>	Type of Antenna: <u>_____</u>	
Weather Condition: <u>cloudy, 50°</u>	Antenna Height: <u>6.562 FT</u> to bottom of antenna mount	





QC 104-2-08MAR2012



QC 104-3N-08MAR2012

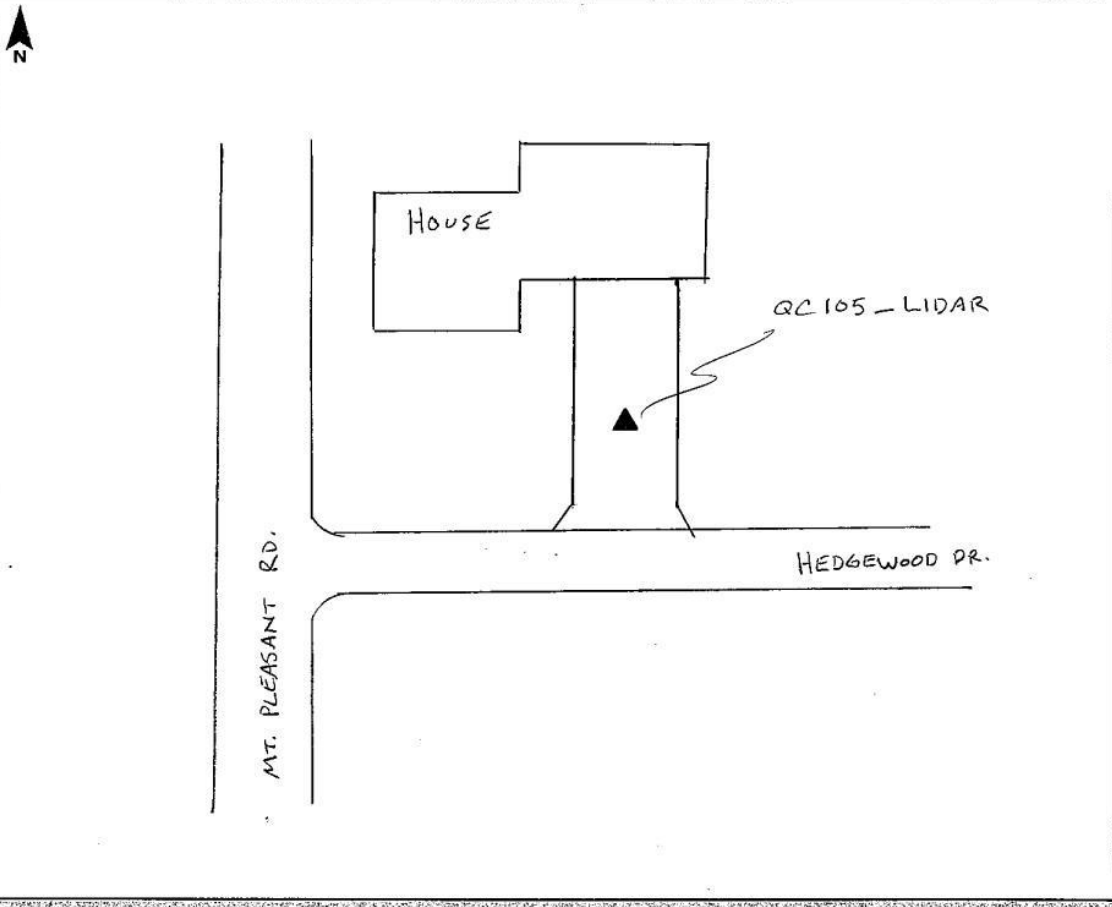


QC 104-3W-08MAR2012

GPS Observation Log Sheet



Project Name: _____ Project Number: _____ Survey Date: 03/10/12
Station Name: QC 105 - LIDAR Operator Name: BEN CHRISTIE
Latitude: 39° 13' 59.06" N Julian Day: 070 Session No. —
Longitude: 84° 53' 38.04" W Start Time: — End Time: —
Ellip. Height: 797.81 ft Data File Name: —
Type of Mark: CONCRETE Type of Receiver: R8
Stamping on Mark: — Type of Antenna: R8
Weather Condition: 50° CLEAR Antenna Height: 2 m to bottom of antenna mount





QC 105 LIDAR-2-10MAR2012



QC 105 LIDAR-3N-10MAR2012

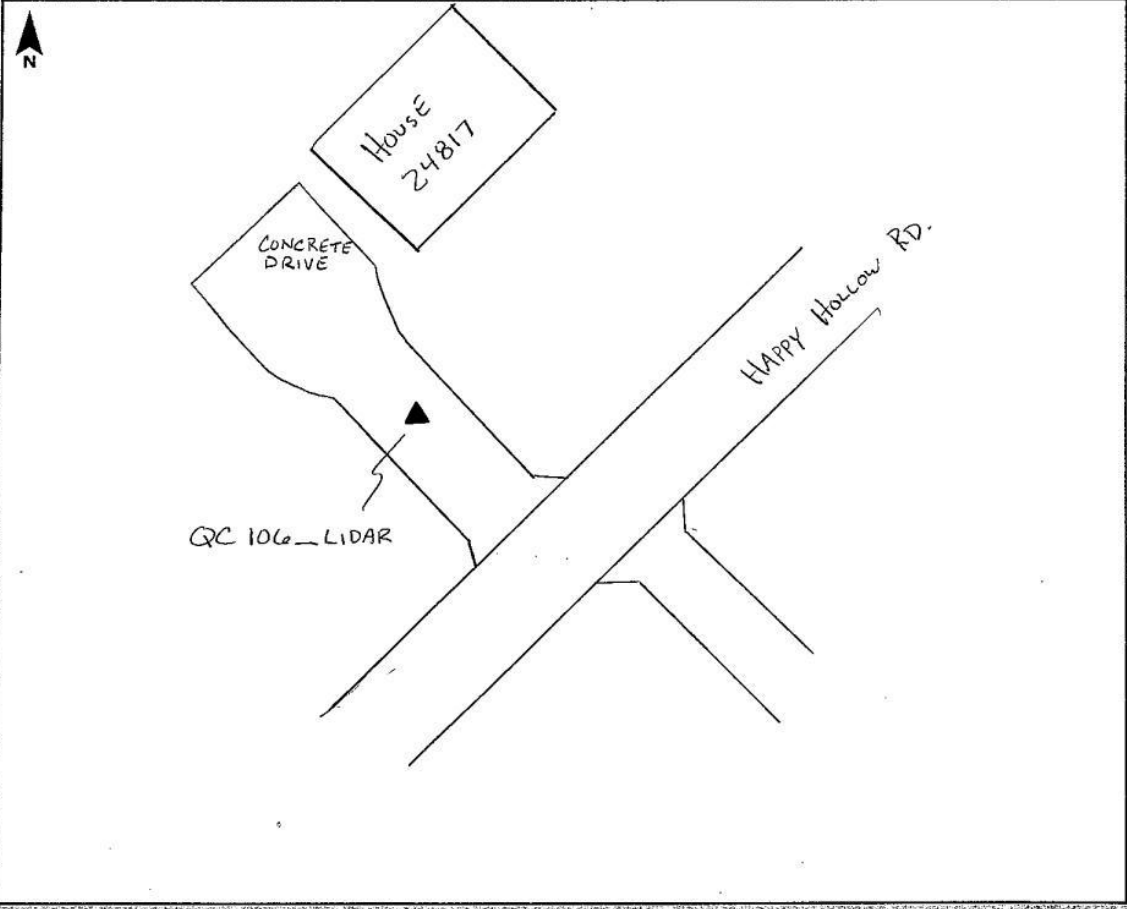


QC 105 LIDAR-3W-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/10/2012</u>
Station Name: <u>QC 106 - LIDAR</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 13' 52.07" N</u>	Julian Day: <u>070</u>	Session No. <u>0</u>
Longitude: <u>85° 01' 54.49" W</u>	Start Time: _____	End Time: _____
Ellip. Height: <u>881.11 sft</u>	Data File Name: _____	
Type of Mark: <u>CONCRETE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: _____	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2m</u> to bottom of antenna mount	





QC 106 LIDAR-2-10MAR2012



QC 106_LIDAR-3NE-10MAR2012

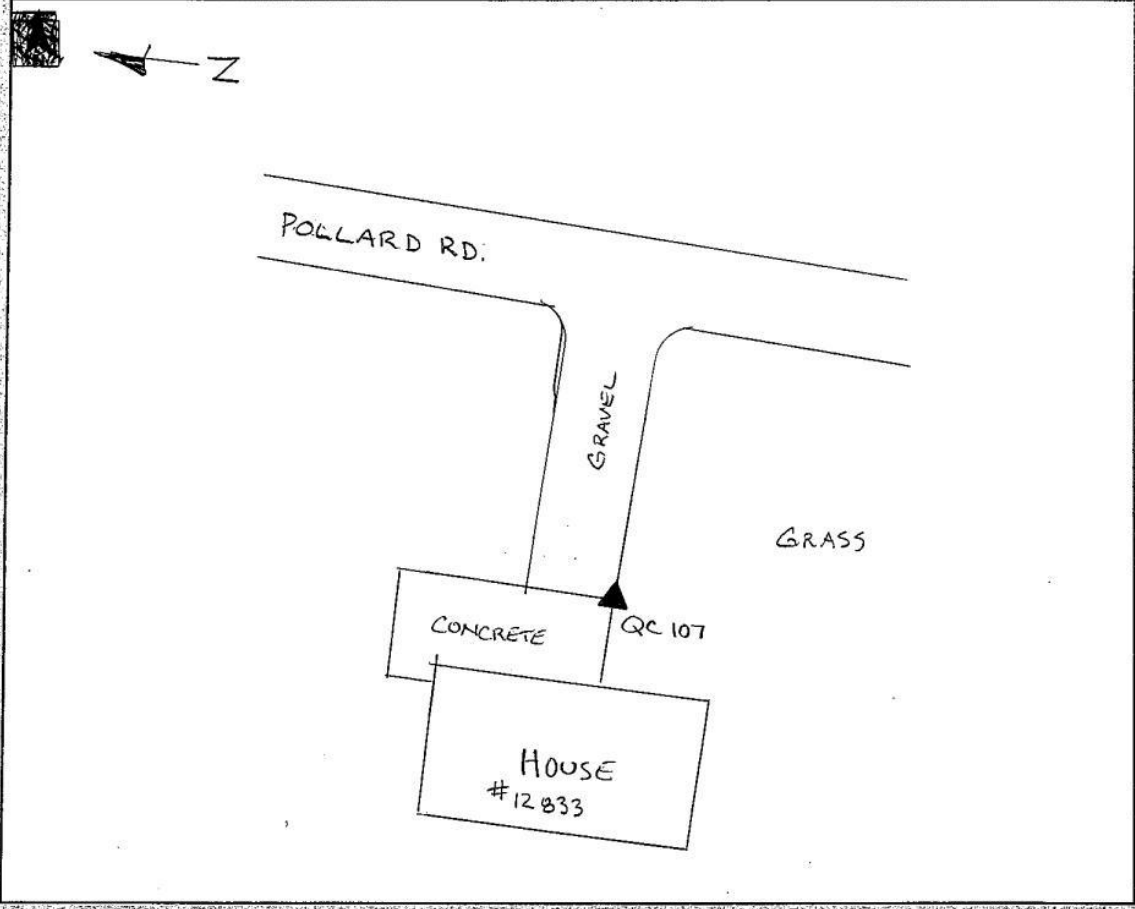


QC 106 LIDAR-3NW-10MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/08/2012</u>
Station Name: <u>QC 107</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 03' 29.7" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>85° 01' 58.2" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>740.31 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR. CONCRETE</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC107-2-03MAR2012



QC107-3N-03MAR2012

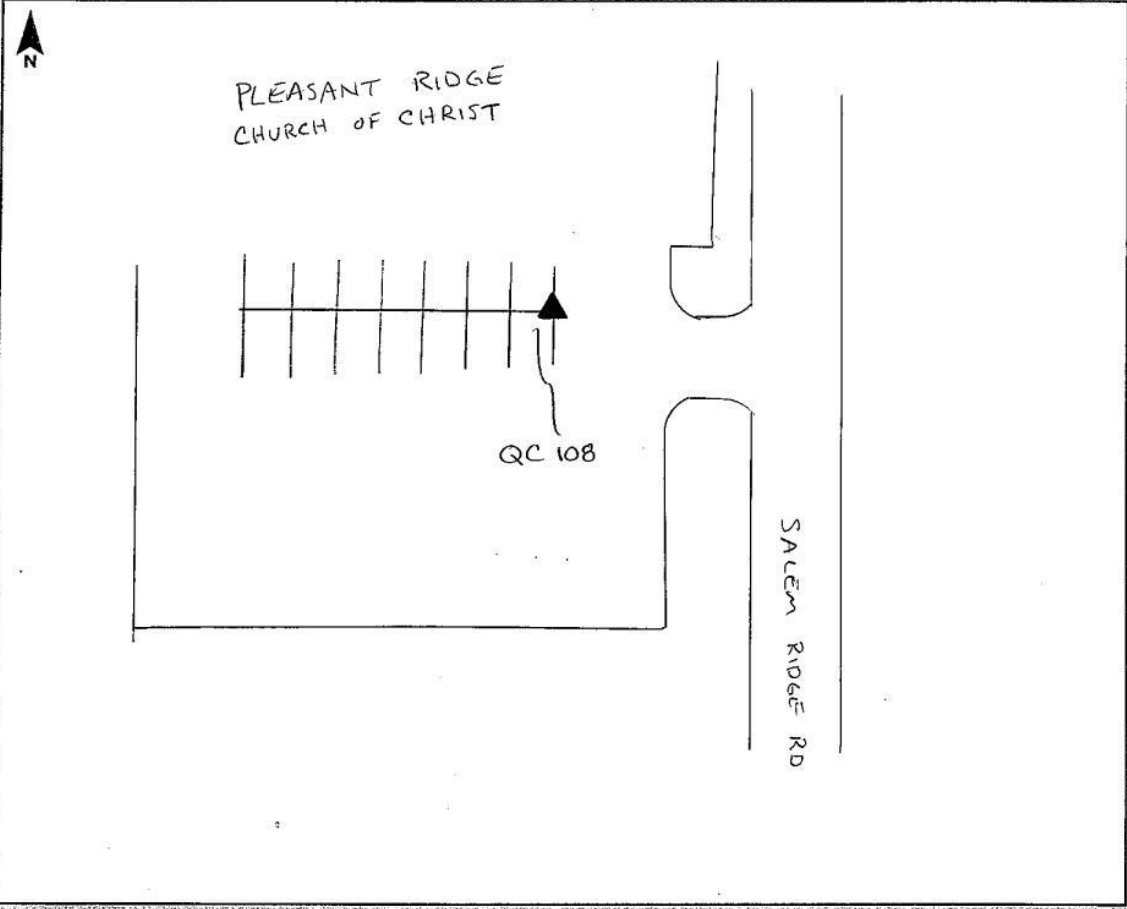


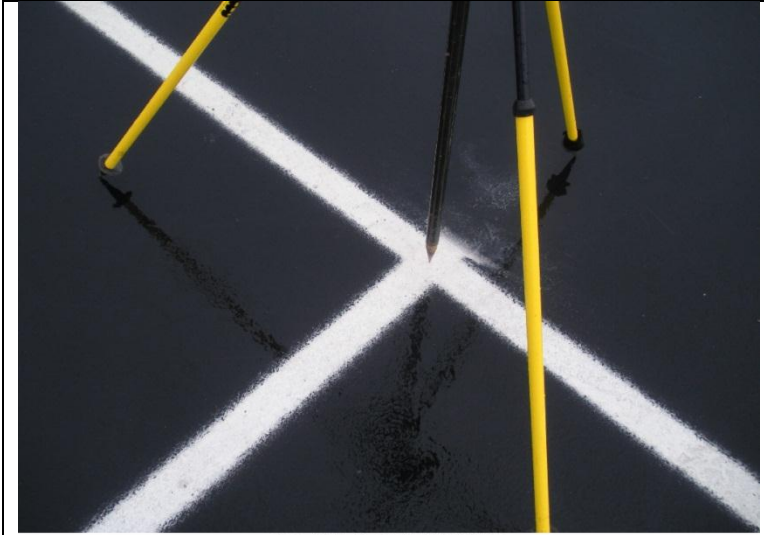
QC107-3S-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>07/08/2012</u>
Station Name: <u>QC 108</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>38° 57' 32.6" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>84° 57' 19.1" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>769.65 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>PARKING STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC108-2-03MAR2012



QC108-3E-03MAR2012

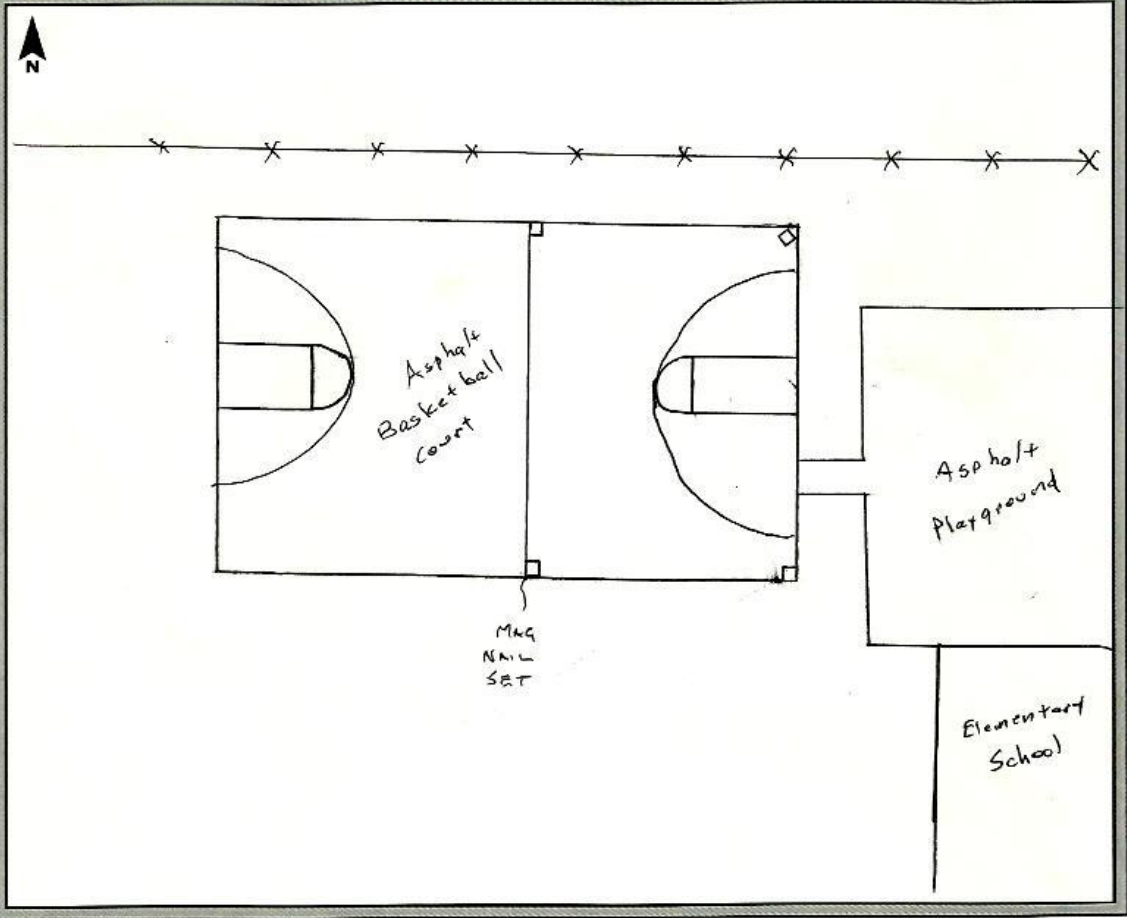


QC108-3S-03MAR2012

GPS Observation Log Sheet



Project Name:	<u>INDIANA STATEWIDE</u>	Project Number:	<u>72134</u>	Survey Date:	<u>10 MAR 12</u>
Station Name:	<u>QC III</u>	Operator Name:	<u>Stephen Schonegg</u>		
Latitude:	<u>38-51-59.0</u>	Julian Day:	<u>068</u>	Session No.:	<u> </u>
Longitude:	<u>085-17-54.6</u>	Start Time:	<u>1:03</u>	End Time:	<u>1:06</u>
Ellip. Height:	<u>832.111</u>	Data File Name:	<u>INOST 10 MAR 12 SS</u>		
Type of Mark:	<u>CORNER PAINT STRIPE</u>	Type of Receiver:	<u>R8-2</u>		
Stamping on Mark:	<u>MAG NAIL</u>	Type of Antenna:	<u> </u>		
Weather Condition:	<u>Rain, 50°</u>	Antenna Height:	<u>6.562 ft</u> to bottom of antenna mount		





QC 111-2-08MAR2012



QC 111-3N-08MAR2012

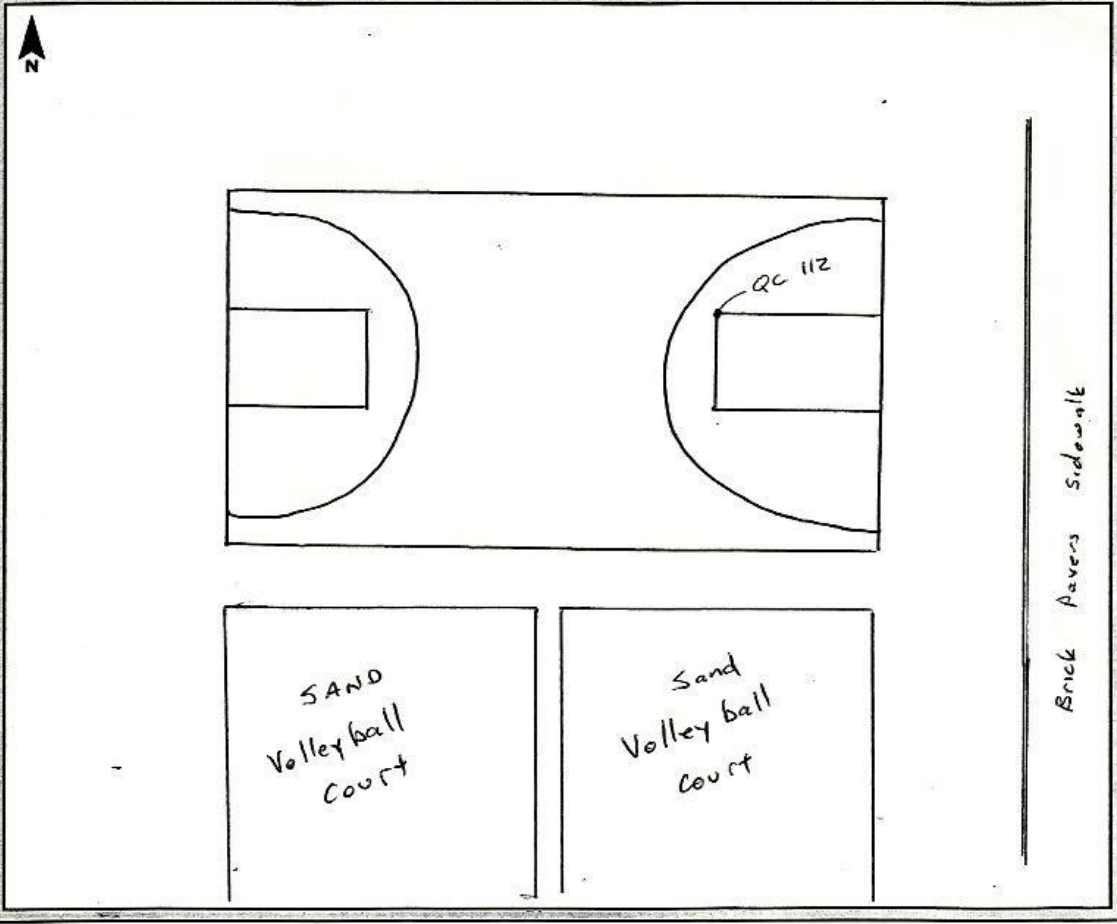


QC 111-3E-08MAR2012

GPS Observation Log Sheet



Project Name: INDIANA STATEWIDE Project Number: 72134 Survey Date: 10 MAR 12
Station Name: QC 112 Operator Name: Stephen Schonegg
Latitude: 38-43-00.11 Julian Day: 070 Session No. _____
Longitude: 085-27-44.15 Start Time: 9:43 End Time: 9:48
Ellip. Height: 663.31 FT Data File Name: IND ST 10 MAR 12 SS
Type of Mark: PAINT STRIPE Type of Receiver: RB-2, #9357
Stamping on Mark: _____ Type of Antenna: _____
Weather Condition: Sunny, 35° Antenna Height: 6.562 FT to bottom of antenna mount





QC 112-2-10MAR2012



QC 112-3W-10MAR2012

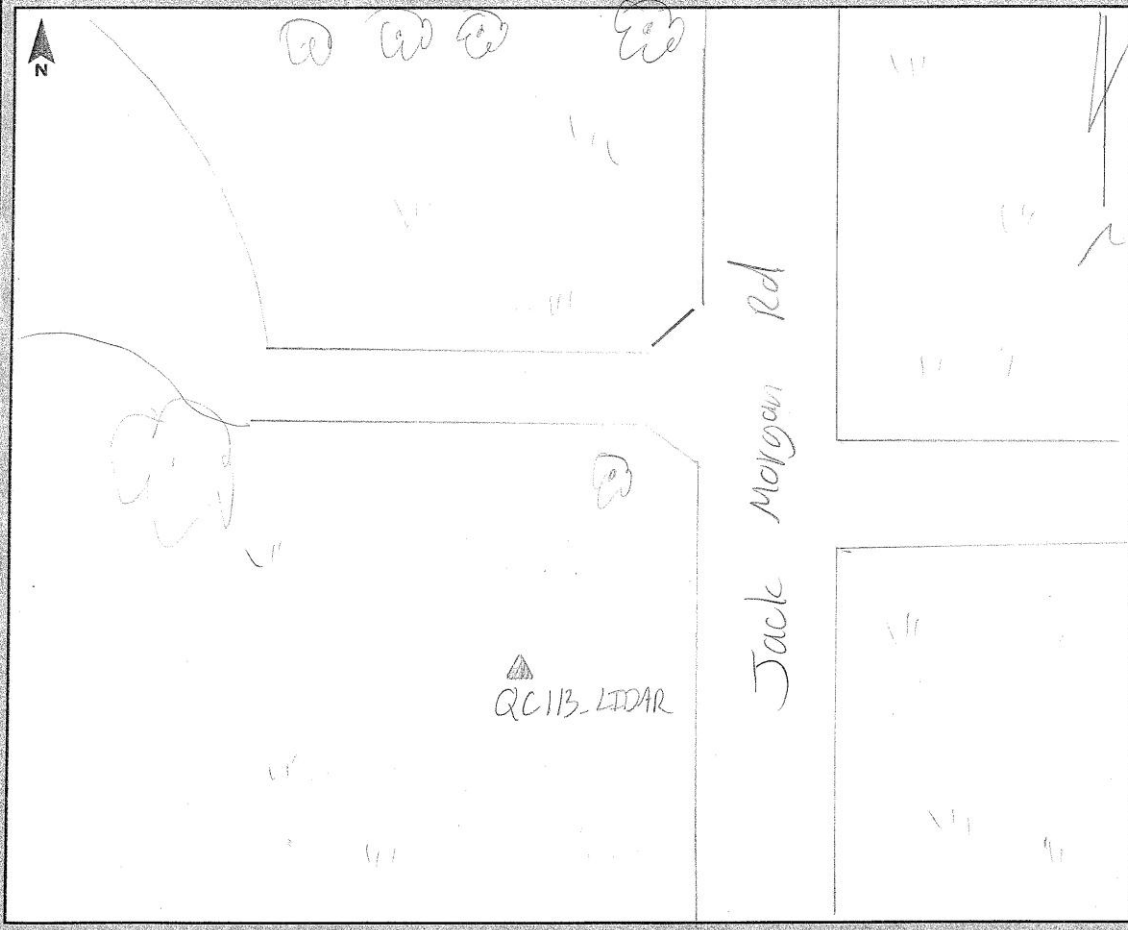


QC 112-3N-10MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u> Station Name: <u>QC113 - LIDAR</u> Latitude: <u>38° 45' 39.4"</u> Longitude: <u>85° 47' 09.2"</u> Ellip. Height: <u>453'</u> Type of Mark: <u>SHORT GRASS</u> Stamping on Mark: _____ Weather Condition: <u>60° & Sunny</u>	Project Number: <u>72134</u> Survey Date: <u>2012-03-01</u> Operator Name: <u>David Hall</u> Julian Day: <u>12140</u> Session No. <u>12146</u> Start Time: <u>0609</u> End Time: _____ Data File Name: <u>Indy_0609_DM4</u> Type of Receiver: <u>R8-3</u> Type of Antenna: <u>R8-3</u> Antenna Height: <u>2.000M</u> to bottom of antenna mount
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QC 113 LIDAR-2-09MAR2012



QC 113 LIDAR-3N-09MAR2012

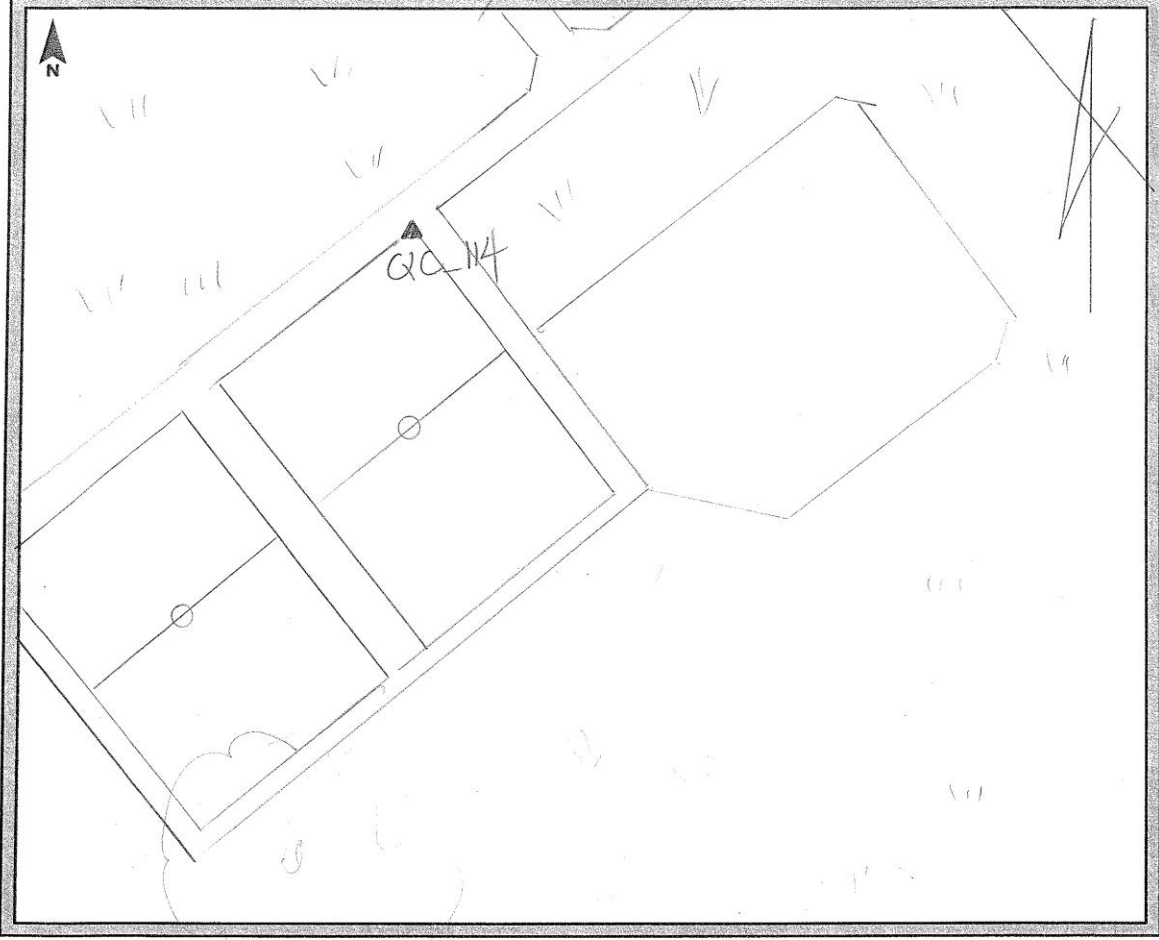


QC 113 LIDAR-3E-09MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 2012-03-09
Station Name: QC 114 Operator Name: David Hall
Latitude: 39° 39' 09.6 Julian Day: 069 Session No. 2
Longitude: 85° 37' 33.6 Start Time: 16:58 End Time: 17:08
Ellip. Height: 515' Data File Name: INDY_069_DMH
Type of Mark: Inside Corner of Type of Receiver: R8-3
Stamping on Mark: conc walk Type of Antenna: R8-3
Weather Condition: 60's & Sunny Antenna Height: 2000M to bottom of antenna mount





QC114-2-09MAR2012



QC114-3SW-09MAR2012

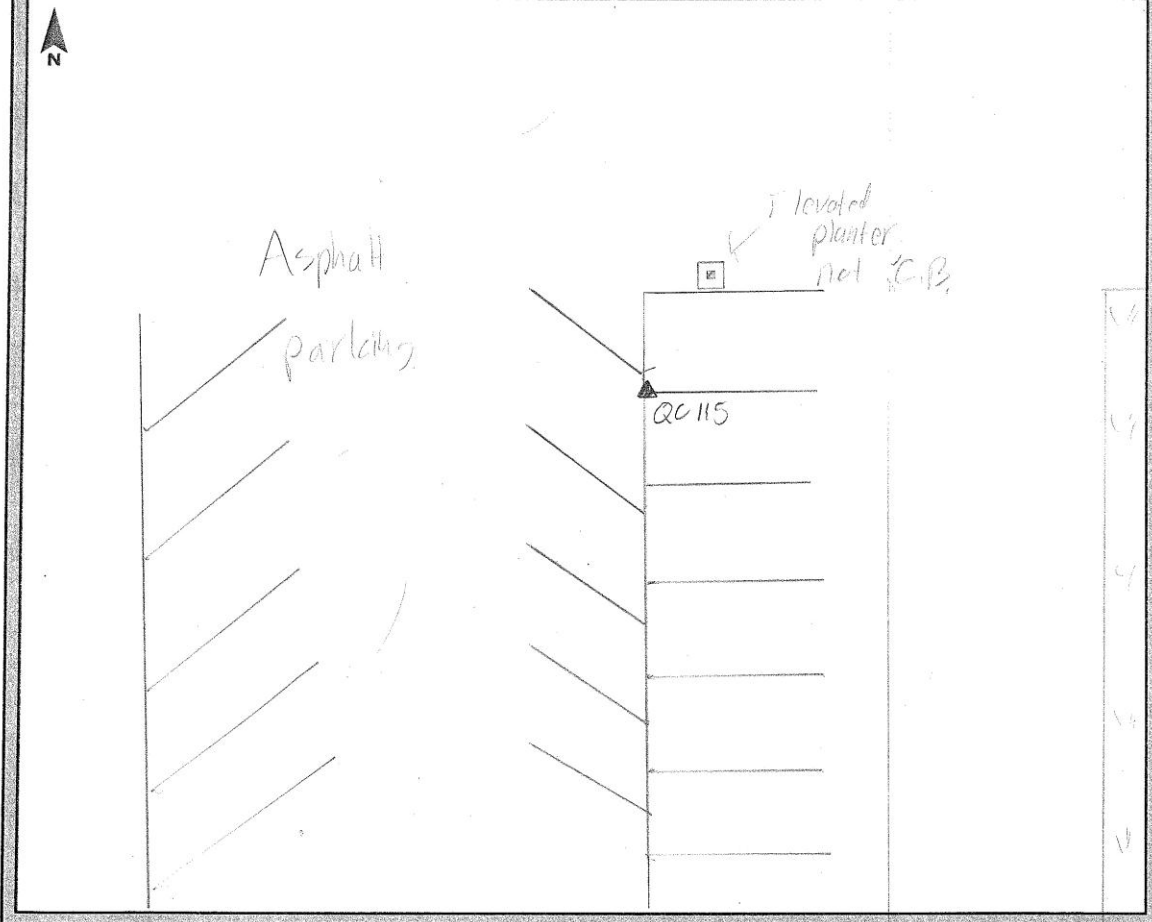


QC114-3SE-09MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>1234</u>	Survey Date: <u>2012-03-09</u>
Station Name: <u>QC115</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>38° 33' 15.0"</u>	Julian Day: <u>069</u>	Session No. <u>2</u>
Longitude: <u>85° 31' 28.2"</u>	Start Time: <u>17128</u>	End Time: <u>17138</u>
Ellip. Height: <u>601'</u>	Data File Name: <u>INDY_069-D41</u>	
Type of Mark: <u>Pave Strip Intersection</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>N/A</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60° 25%</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





QC115-2-09MAR2012



QC115-3N-09MAR2012

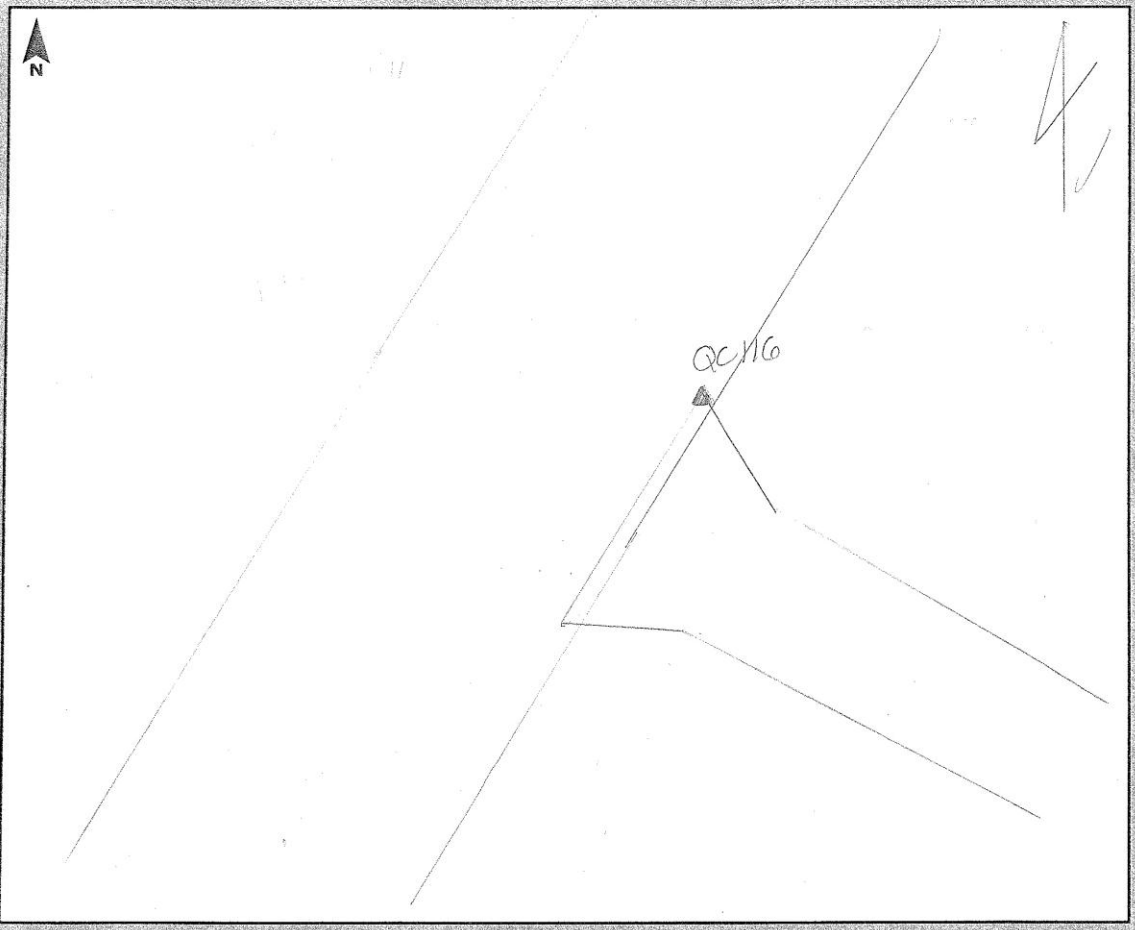


QC115-3E-09MAR2012

GPS Observation Log Sheet



Project Name: IN Statewide 2012 Project Number: 72134 Survey Date: 20120306
Station Name: QC116 Operator Name: David Hall
Latitude: 38° 24' 39.6" Julian Day: 070 Session No. 2
Longitude: 85° 44' 02.8" Start Time: 14:30 End Time: 14:40
Ellip. Height: 415' Data File Name: INPX_070c.DMH
Type of Mark: Corner of concrete Type of Receiver: R8-3
Stamping on Mark: Drive Type of Antenna: R8-3
Weather Condition: 60% clear Antenna Height: 2.000m to bottom of antenna mount





QC116-2-10MAR2012



QC116-3N-10MAR2012

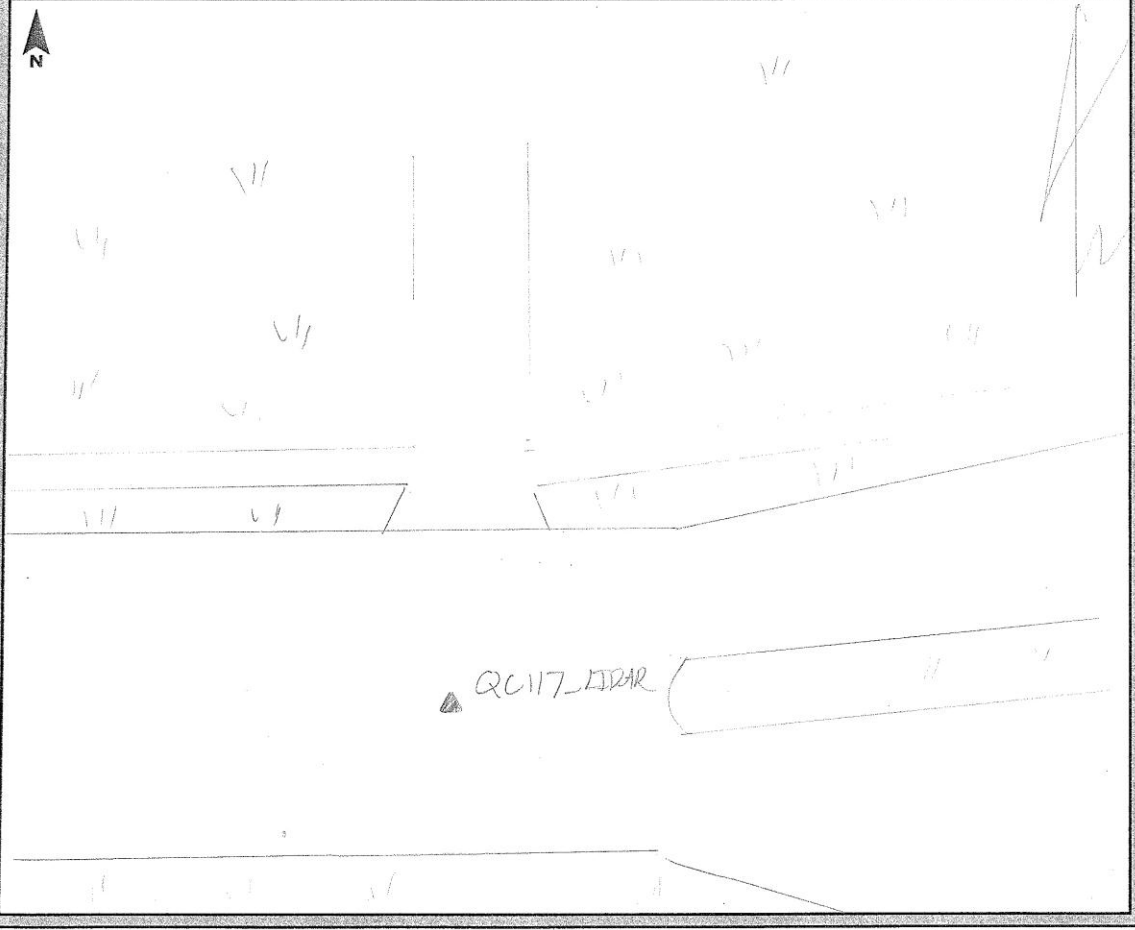


QC116-3E-10MAR2012

GPS Observation Log Sheet



Project Name: <u>IN Statewide 2012</u>	Project Number: <u>72134</u>	Survey Date: <u>2012-03-10</u>
Station Name: <u>QC117_LIDAR</u>	Operator Name: <u>David Hall</u>	
Latitude: <u>38° 38' 30" 39.5"</u>	Julian Day: <u>070</u>	Session No. <u>2</u>
Longitude: <u>85° 48' 03.8"</u>	Start Time: <u>14:00</u>	End Time: <u>14:10</u>
Ellip. Height: <u>427'</u>	Data File Name: <u>INDY_070_DMH</u>	
Type of Mark: <u>Asphalt</u>	Type of Receiver: <u>R8-3</u>	
Stamping on Mark: <u>N/A</u>	Type of Antenna: <u>R8-3</u>	
Weather Condition: <u>60's & clear</u>	Antenna Height: <u>2.000m</u>	to bottom of antenna mount





QC 117 LIDAR-2-10MAR2012



QC 117 LIDAR-3N-10MAR2012

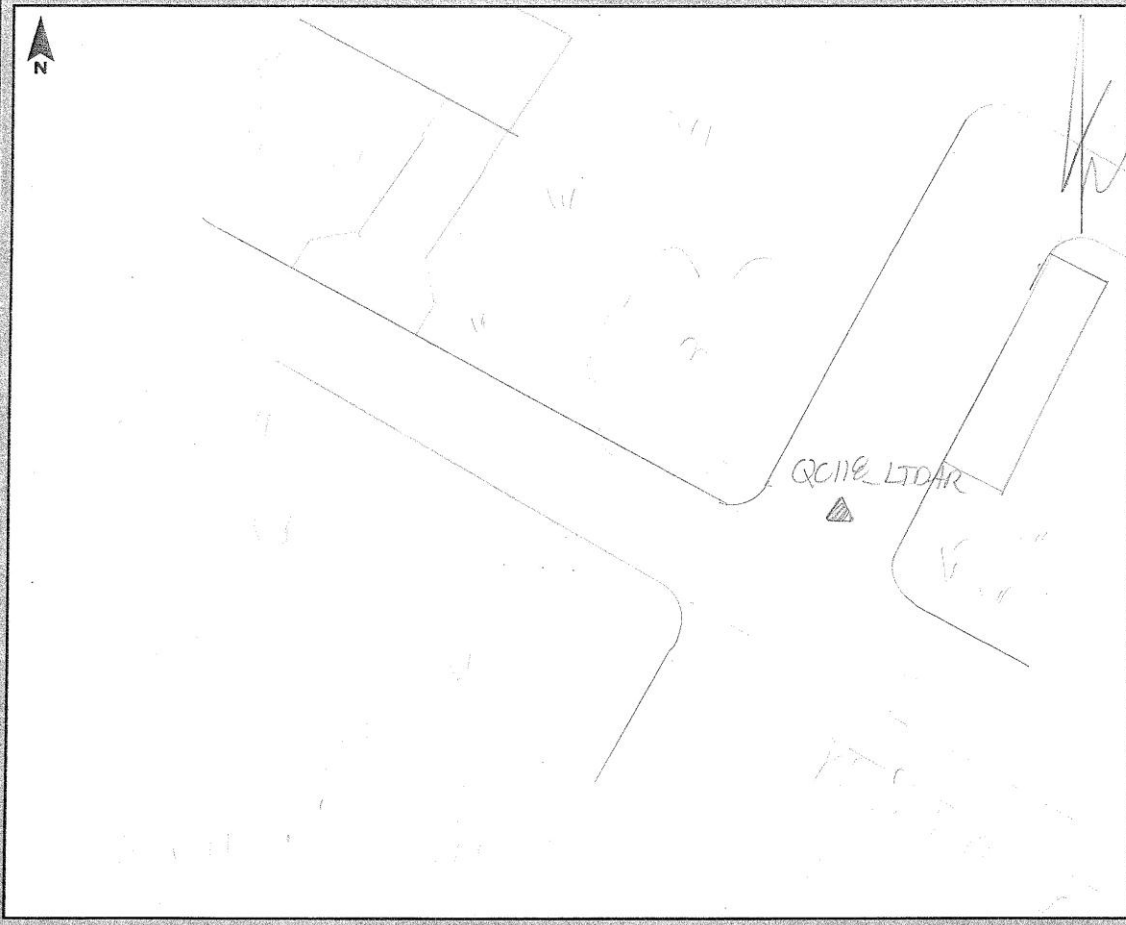


QC 117 LIDAR-3E-10MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>72134</u>	Survey Date:	<u>2012-03-10</u>
Station Name:	<u>QC118 LIDAR</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>38° 22' 29.0"</u>	Julian Day:	<u>076</u>	Session No.:	<u>2</u>
Longitude:	<u>85° 59' 22.0"</u>	Start Time:	<u>16:37</u>	End Time:	<u>16:47</u>
Ellip. Height:	<u>717'</u>	Data File Name:	<u>INDY_076.DMW</u>		
Type of Mark:	<u>ASPHALT</u>	Type of Receiver:	<u>1CR-3</u>		
Stamping on Mark:	<u>N/A</u>	Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>50° Clear</u>	Antenna Height:	<u>2.0000</u>	to bottom of antenna mount	





QC 118 LIDAR-2-10MAR2012



QC 118 LIDAR-3N-10MAR2012

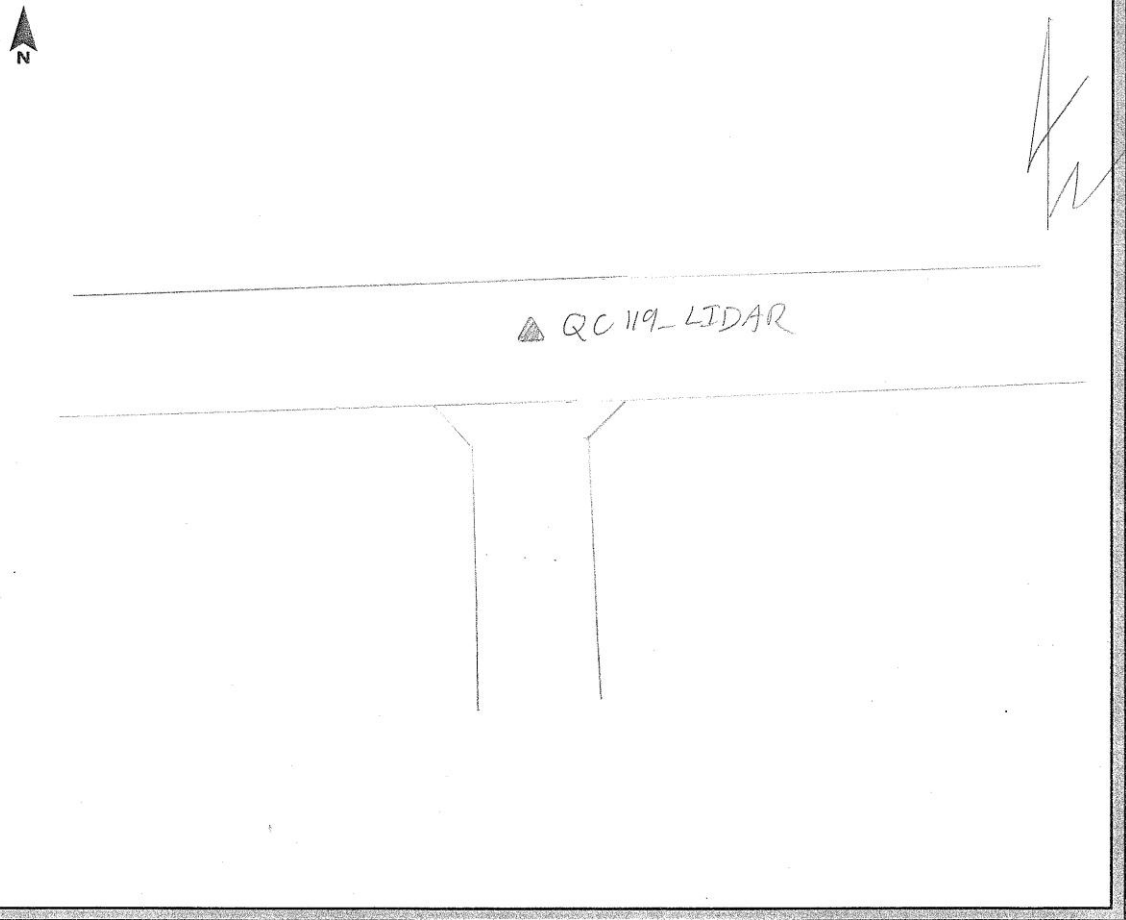


QC 118 LIDAR-3E-10MAR2012

GPS Observation Log Sheet



Project Name:	<u>IN Statewide 2012</u>	Project Number:	<u>7234</u>	Survey Date:	<u>2012-03-</u>
Station Name:	<u>QC 119 LIDAR</u>	Operator Name:	<u>David Hall</u>		
Latitude:	<u>38° 15' 35.7"</u>	Julian Day:	<u>071</u>	Session No.:	<u>1</u>
Longitude:	<u>85° 56' 17.3"</u>	Start Time:	<u>13:22</u>	End Time:	<u>13:32</u>
Ellip. Height:	<u>815'</u>	Data File Name:	<u>INDY-071-DMH</u>		
Type of Mark:	<u>Asphalt</u>	Type of Receiver:	<u>R8-3</u>		
Stamping on Mark:		Type of Antenna:	<u>R8-3</u>		
Weather Condition:	<u>60° & clear</u>	Antenna Height:	<u>20004</u>	to bottom of antenna mount	





QC 119 LIDAR-2-11MAR2012



QC 119_LIDAR-3E-11MAR2012

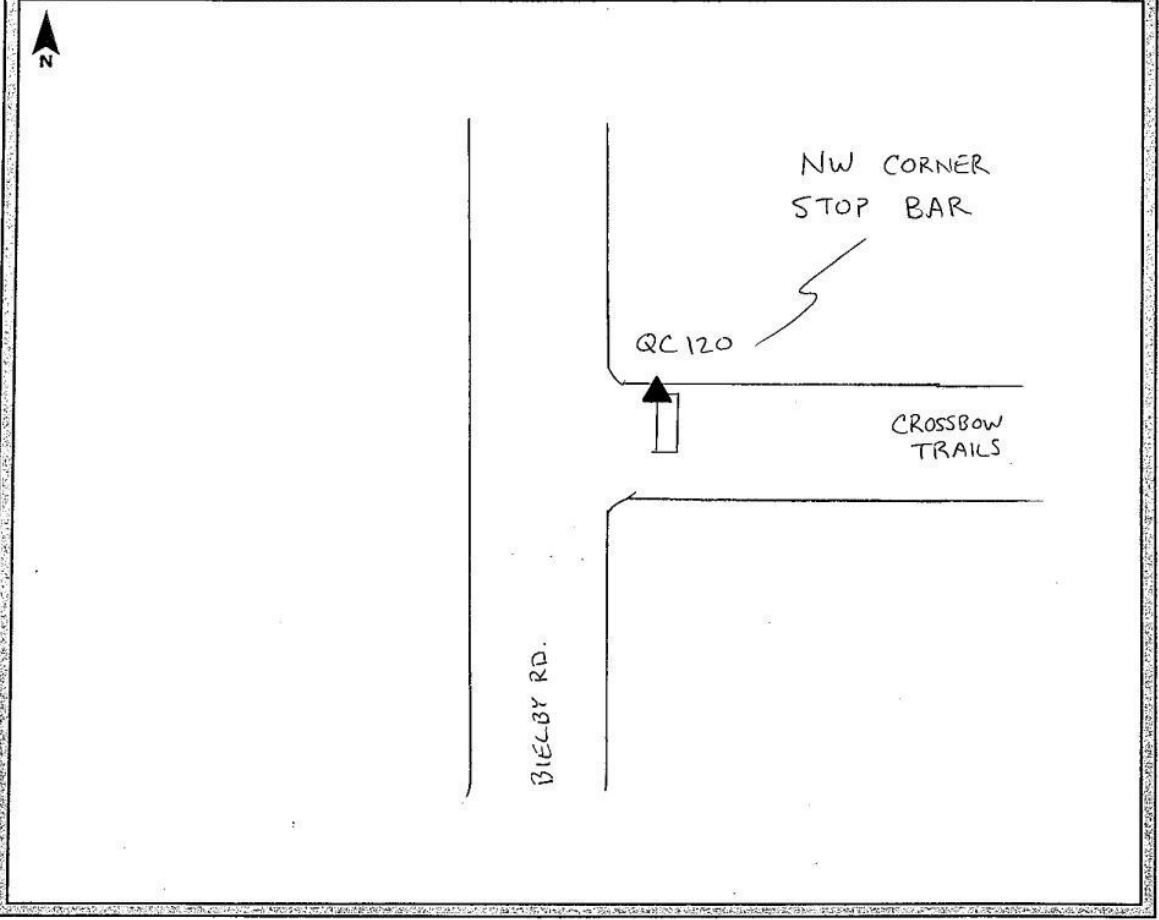


QC 119 LIDAR-3N-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/08/2012</u>
Station Name: <u>QC 120</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 06' 57.4" N</u>	Julian Day: <u>068</u>	Session No. <u>—</u>
Longitude: <u>84° 53' 01.0" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>724.54 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR STOP BAR</u>	Type of Receiver: <u>RB</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>RB</u>	
Weather Condition: <u>45° RAIN</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC120-2-03MAR2012



QC120-3W-03MAR2012

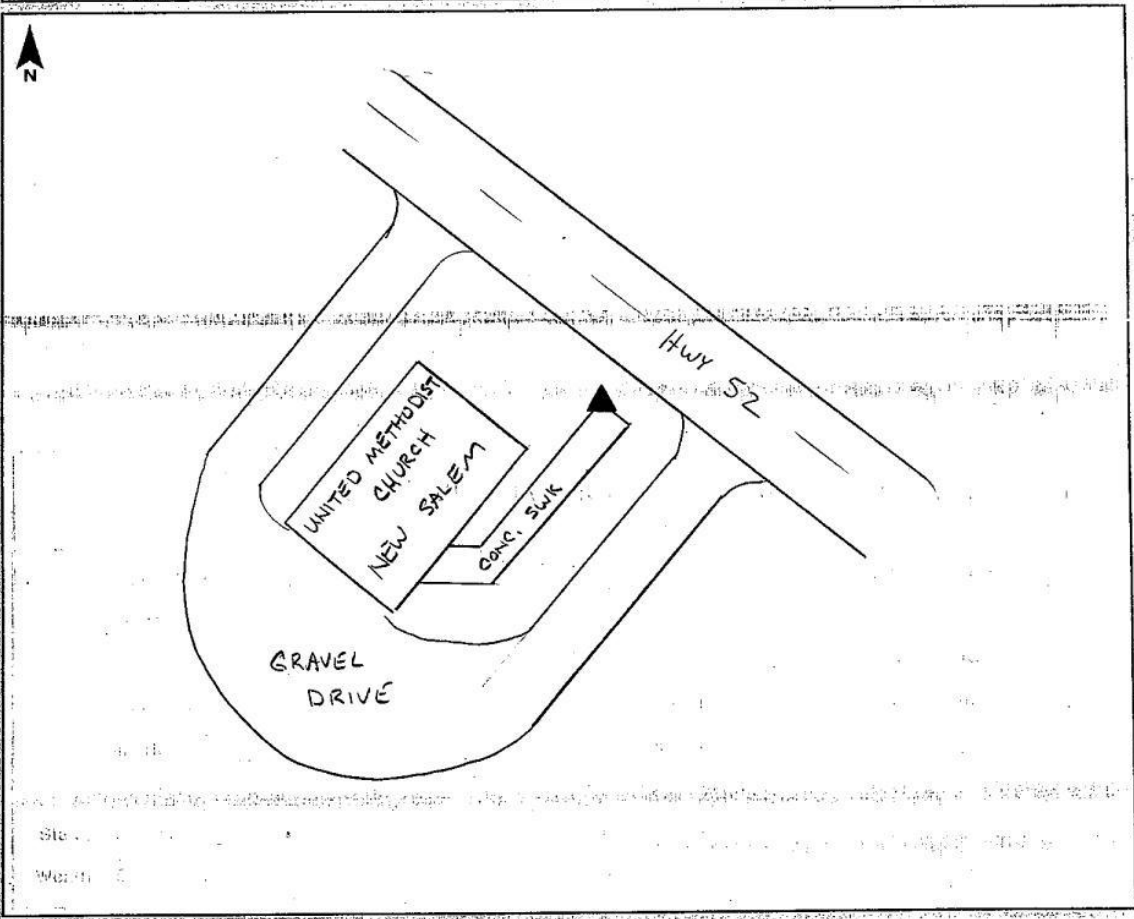


QC120-3N-03MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 132</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 32' 35.44" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 21' 33.97" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>917.31 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NW COR. SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° Pt. CLOUDY</u>	Antenna Height: <u>2M</u>	to bottom of antenna mount





QC132-2-11MAR2012



QC132-3NW-11MAR2012

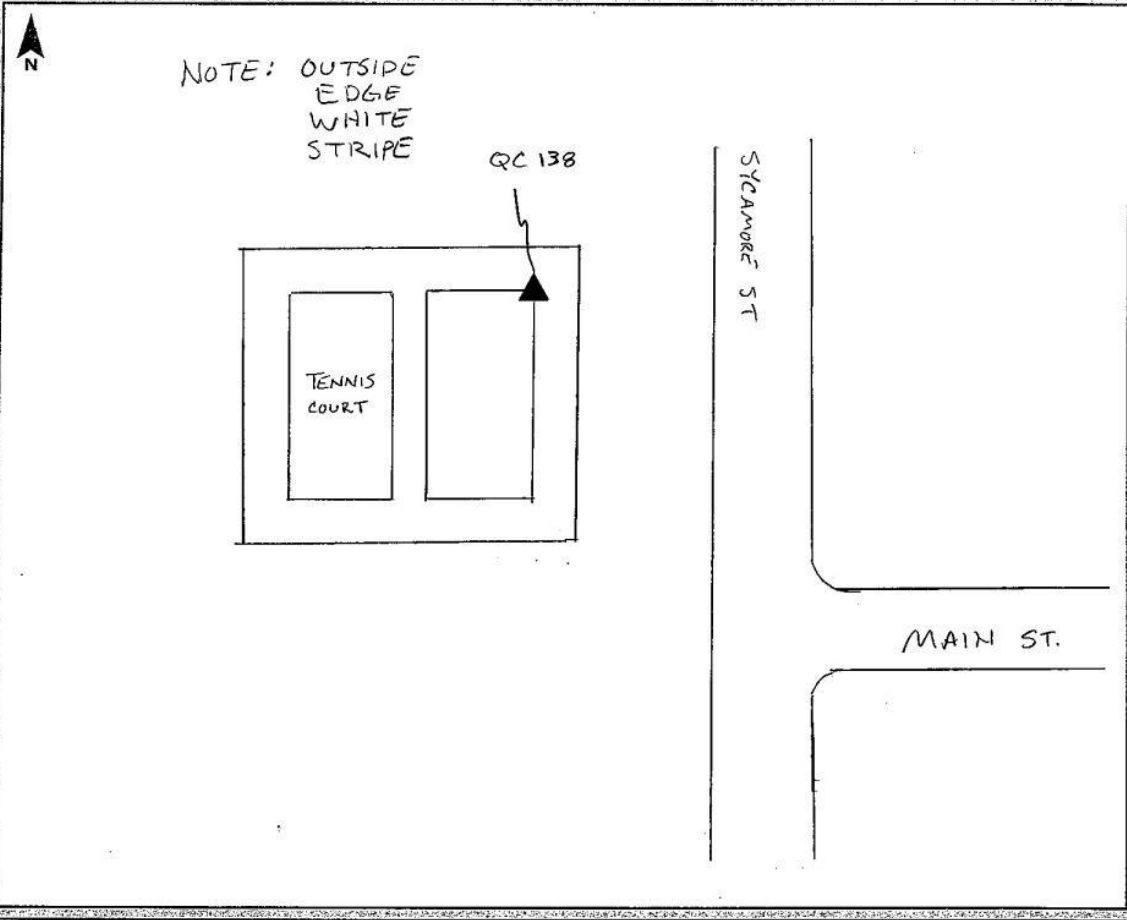


QC132-3NE-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: _____
Station Name: <u>QC 138</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 20' 27.65" N</u>	Julian Day: <u>070</u>	Session No. <u>—</u>
Longitude: <u>85° 12' 24.04" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>755.08 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>NE COR TENNIS COURT</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>55° CLEAR</u>	Antenna Height: <u>2 m</u>	to bottom of antenna mount





QC138-2-10MAR2012



QC138-3N-10MAR2012

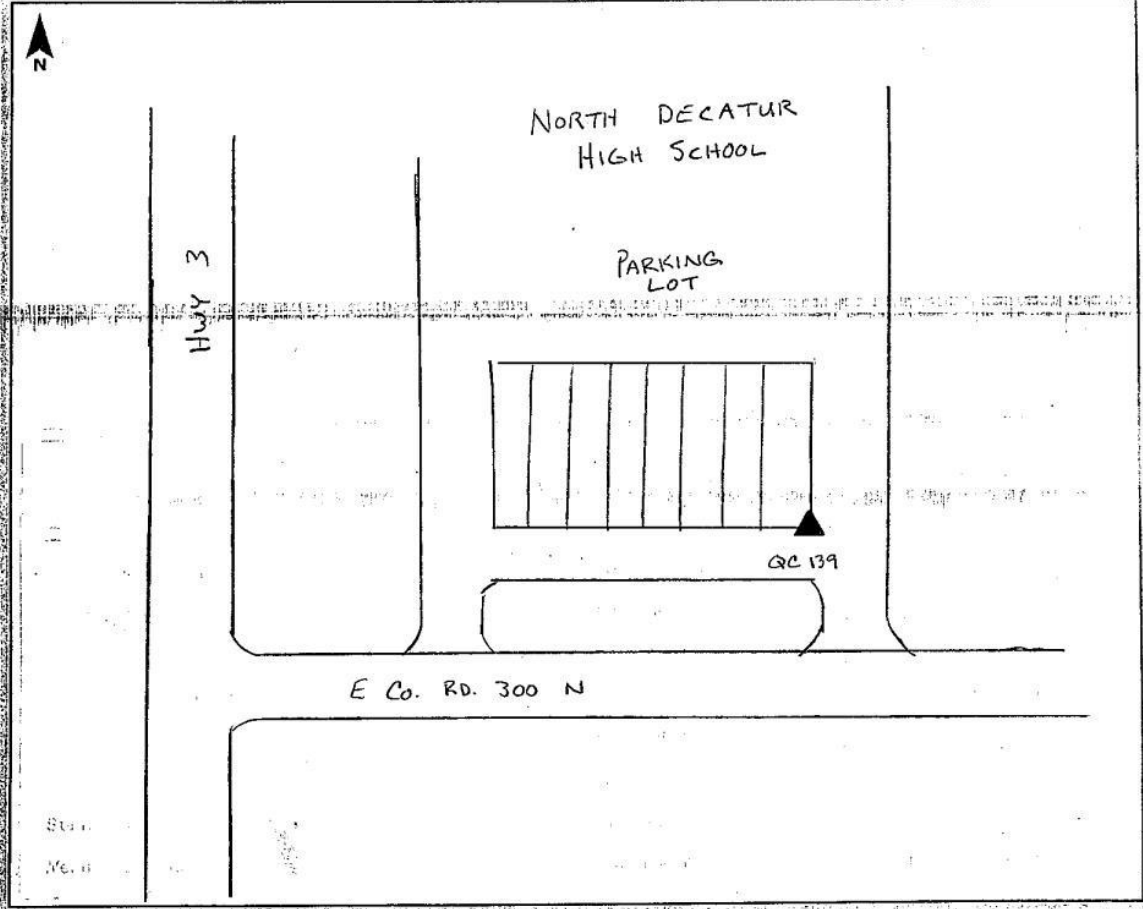


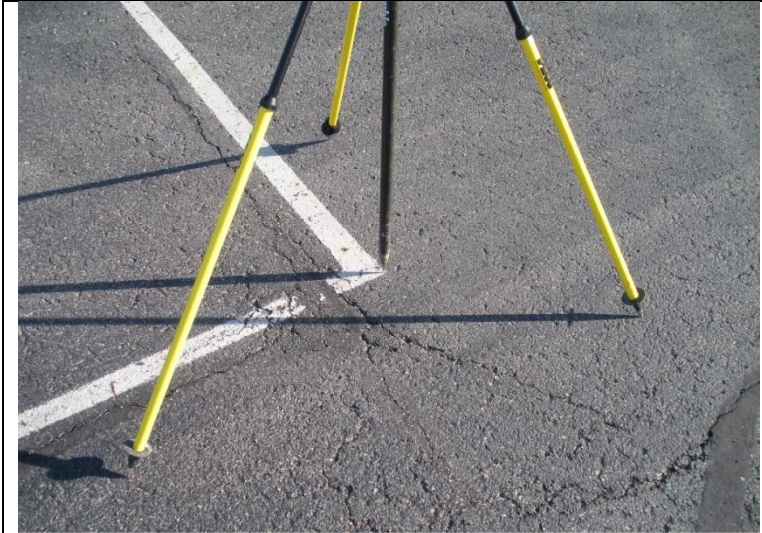
QC138-3E-10MAR2012

GPS Observation Log Sheet



Project Name:	Project Number:	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 139</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 22' 51.80" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 28' 38.07" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>836.23 sft</u>	Data File Name: <u>—</u>	
Type of Mark: <u>SE COR PAINT STRIPE</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC139-2-11MAR2012



QC139-3N-11MAR2012

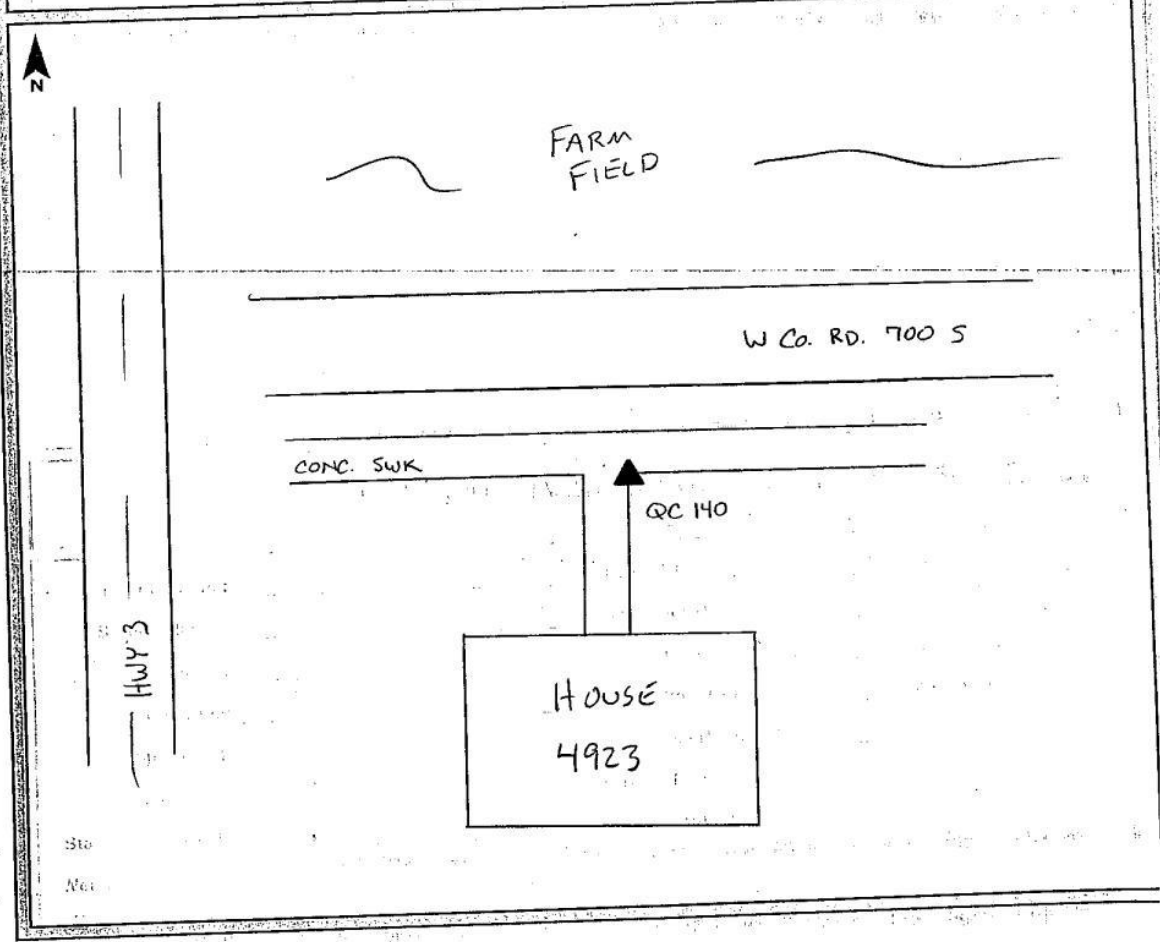


QC139-3E-11MAR2012

GPS Observation Log Sheet



Project Name: _____	Project Number: _____	Survey Date: <u>03/11/2012</u>
Station Name: <u>QC 140</u>	Operator Name: <u>BEN CHRISTIE</u>	
Latitude: <u>39° 14' 04.58" N</u>	Julian Day: <u>071</u>	Session No. <u>—</u>
Longitude: <u>85° 34' 22.34" W</u>	Start Time: <u>—</u>	End Time: <u>—</u>
Ellip. Height: <u>776.10 SP+</u>	Data File Name: <u>—</u>	
Type of Mark: <u>CORNER SIDEWALK</u>	Type of Receiver: <u>R8</u>	
Stamping on Mark: <u>—</u>	Type of Antenna: <u>R8</u>	
Weather Condition: <u>45° CLEAR</u>	Antenna Height: <u>2m</u>	to bottom of antenna mount





QC140-2-11MAR2012



QC140-3S-11MAR2012



QC140-3E-11MAR2012