

GROUND CONTROL SURVEY REPORT

GROUND TRUTH SURVEY FOR LIDAR CONTROL

Professional Management and LiDAR Data Collection and Processing Services

Block 5

PROJECT TITLE: Professional Management and LiDAR Data Collection
and Processing Services

WORK ORDER NAME: Task Order A

WORK ORDER NUMBER: 2007058492720

CONSULTANT NAME: 3001, Inc., CH2M Hill, Inc.

PROJECT MANAGERS: Jeremy Conner, 3001 Project Manager
JoLee Gardner, CH2M Hill Project Manager

Services provided by:



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July 2008

Florida Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

Re: Professional Management and LiDAR Data Collection and Processing Services,
Block 5

This photogrammetric mapping ground control survey is certified as meeting or exceeding, in quality and precision, the standards applicable for this work as set forth in Chapter 61G17-6, Florida Administrative Code.

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Signed: _____ Date: _____

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ABSTRACT

ABSTRACT

This report documents the GPS ground surveys conducted in support of LIDAR data collection for the Professional Management and LiDAR Data Collection and Processing Services project, Block 5. The data was collected between July 8 and July 12, 2007. The ground control stations were established utilizing two Trimble 4700 GPS receivers, seven Trimble 4000 series receivers, two Trimble microcentered L1/L2 antennas with ground plane, and seven Trimble Compact L1/L2 antennas with ground plane. There were no problems encountered during this survey.

Following the control network surveys, surveys were conducted at 10 sites utilizing the base stations established in the static network. These surveys established "Ground Truth" data at each site on different surface types, including bare-earth / low grass, brush lands / low trees, forested areas fully covered by trees, and urban areas.

SURVEY METHODOLOGY

SURVEY METHODOLOGY

Prior to beginning the survey collection, a reconnaissance was done of the existing control in the project area, and surrounding areas. Based on the results of the findings, the controls to be included in the network were selected based on their locations, horizontal and vertical orders, and their accessibility. In addition to the survey control, several Continuously Operating Reference Stations (CORS) were included into the GPS network. All control monuments and CORS can be found in the Fully-Constrained Adjustment table, found in Section 4-B, and can also be seen on the GPS Network Map shown in Section 4-A.

The GPS network was then planned to coincide with the following set of standards:

- FGCC, GEOMETRIC GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATIVE POSITIONING TECHNIQUES, VERSION 5.0, AUGUST 1989
- NGS-58, GUIDELINES FOR ESTABLISHING GPS-DERIVED ELLIPSOID HEIGHTS (2CM AND 5CM)
- NGS-59, GUIDELINES FOR ESTABLISHING GPS-DERIVED ORTHOMETRIC HEIGHTS (2CM AND 5CM)
- FGCC STANDARDS AND SPECIFICATIONS FOR GEODETIC CONTROL NETWORKS, 1984
- FEMA FLOOD HAZARD MAPPING PROGRAM, GUIDELINES AND SPECIFICATIONS FOR FLOOD HAZARD MAPPING PARTNERS, APPENDIX

A

Control monuments were tied together with several sessions, for at least five hours each. These monuments were then tied to newly established monuments, or secondary control monuments, with a minimum of three one hour occupations.

After the static GPS network was completed, the ground truth data points were collected using a total station and data collector. This data was collected from base stations tied into the static GPS network, and additional “check-in” points were collected and compared to positions established in the static network. The ground truth data was then processed and used to verify the LIDAR positions.

The horizontal and vertical datums used for this project are listed below:

Coordinate System: US State Plane
Zone: Florida East 0901
Horizontal Datum: NAD83 (1999) / HARN Adjustment
Vertical Datum: NAVD88
Geoid Model: Geoid03
Units: US Survey Feet

MAIN REPORT

STATIC GPS SUMMARY

The Standard Operating Procedure for the data collection includes a geodetic control network plan designed to maximize the use of the highest order control points in the area of interest, and to optimize the spatial distribution of geodetic control across the network. Also included is the simultaneous occupation of points designed to provide redundant vectors and loop closures, as well as a collection of a superfluity of points to compare observed values against published values of geodetic control points.

In addition, the static GPS network was established to verify the compatibility and correlation of existing published NGS controls in the project area. Horizontal and vertical constraints were selected based on the order of accuracy and correlation of the controls selected.

PRELIMINARY ANALYSIS

The baselines were processed using Trimble Geomatics Offices's baseline processing module, WAVE (*Weighted Ambiguity Vector Estimator*). Ionosphere-free fixed solutions were found to provide the best results. Preliminary blunder detections were undertaken using "Redundant Vectors" and Global Network Closures and any extremely large errors were eliminated.

MINIMALLY CONSTRAINED ADJUSTMENT

The data are then processed using a minimally constrained geodetic control network to test the network internally, without external constraints, and produce a statistical summary. The statistics from this process are required to be within the tolerance outlined in the Geometric Geodetic Accuracy Standards and Specifications for using GPS Relative Positioning Techniques, published by the FGCC. These tolerances are represented as ellipsoids showing the margin of error value on a graph of the theoretical points, covariance values that indicate the degree of error of the vectors relative to the other vectors in the network, and a chi-squared test that compares the predicted variance determined through a least-squares analysis to the observed variance. The summary is evaluated to eliminate vectors that are outside of the error tolerances to be replaced with redundant vectors that are within the tolerances until all tolerances are met.

FULLY CONSTRAINED ADJUSTMENT

The quality of the existing horizontal controls is assessed before undertaking the constrained adjustment. Geodetic inverses between the published NAD83 (1999) coordinates of existing stations were compared with the geodetic inverses derived from the minimally constrained least square adjustment results. This distance analysis is especially useful, since it provides a datum invariant means of comparison.

Once the minimally constrained network satisfies the requirements of the above tests, the highest order control points in the control network are selected with an optimum

spatial relationship to fully constrain the network to known control points, and have their published values entered as the position for those points and the network re-adjusted. The fully constrained report is given in Section 4-B. The same statistical tests are rerun on the adjusted network, as well as visually comparing adjusted values of geodetic control points to published values of control points not used as constraints. Again, the summary is evaluated to identify vectors outside of the tolerances and constraining points reselected to obtain the best fit to the geoid where all vectors are within the prescribed tolerances.

ERROR ELLIPSES

The adjustment results show that the a posteriori variance factor of the network was close to 1.0, as should be desired, and passed the χ^2 test. None of the residual components in the network were flagged for possible rejection under the τ -max test at the 0.05 level of significance. The relative confidence ellipses reveal that the horizontal positional accuracy between all directly connected pairs of stations in the network were better than (1:100,000) at the 95% level of confidence. The horizontal and vertical Error ellipses are included in this report in Section 4-D.

GROUND TRUTH SUMMARY

Surveys were conducted to establish ground truth data at representative sites throughout the project area. These sites were selected on the basis of the various types of ground surfaces and vegetation covers that would be encountered by the LIDAR surveys. As a quality control measure, a number of “check-in” points consisted of published horizontal and vertical control points within the area. The base stations used to collect survey data were included in the static GPS network, and were selected on the basis of their having an unobstructed view of the sky, as well as being in a location considered favorable for collecting ground truth data. The vertical and horizontal accuracy of each base station was determined by the statistical tests performed in the least squares adjustment process.

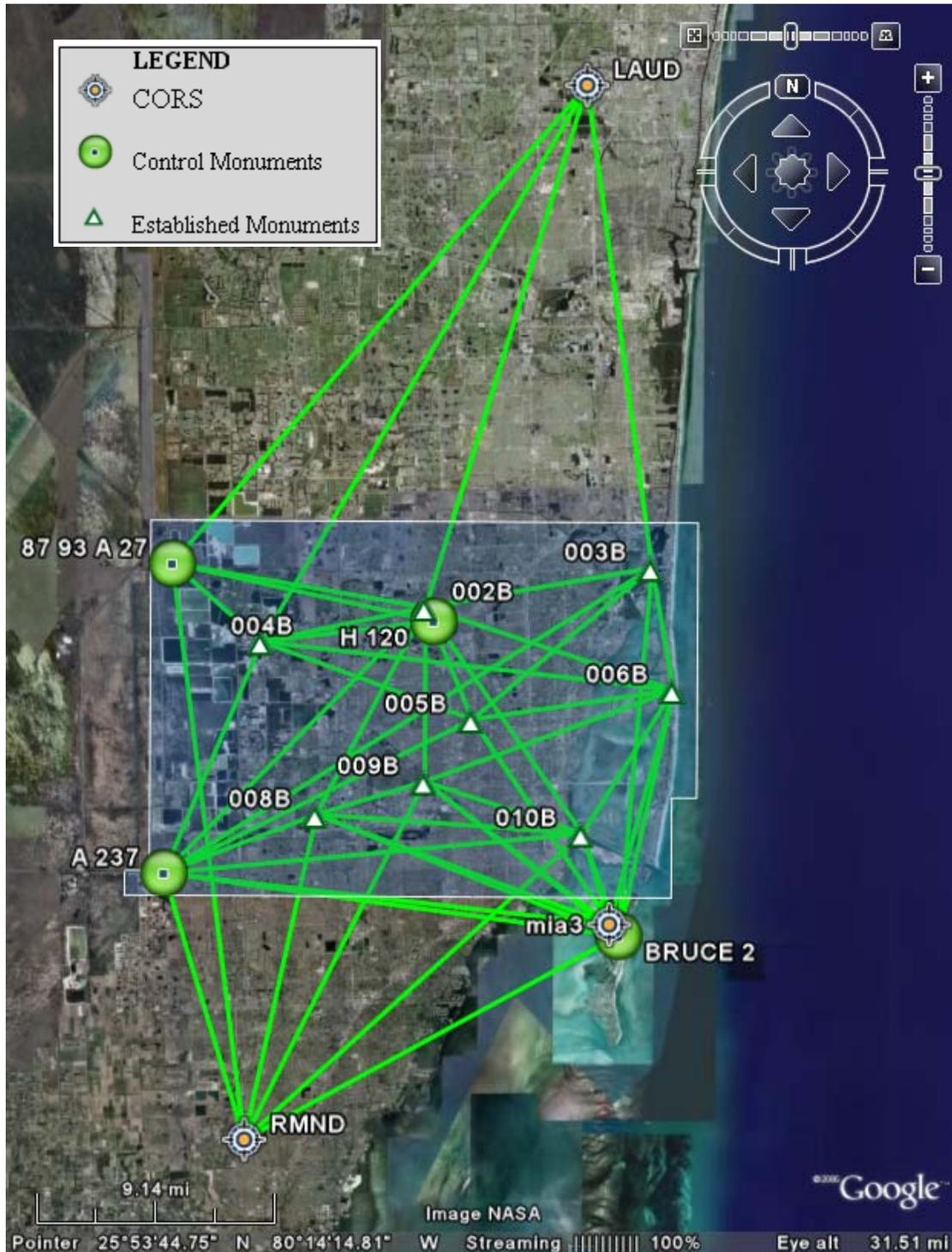
SAMPLE POINTS / TEST POINTS

The test points were distributed and categorized into sites as shown in the Map of Ground Truth Locations attached in this report (Section 5-A). These sites were selected on the basis of various types of ground surfaces and vegetation covers. At the time of LIDAR data acquisition, checkpoints were collected on surfaces with bare-earth / low grass, brush lands / low trees, forested areas fully covered by trees, and urban areas.

GPS NETWORK

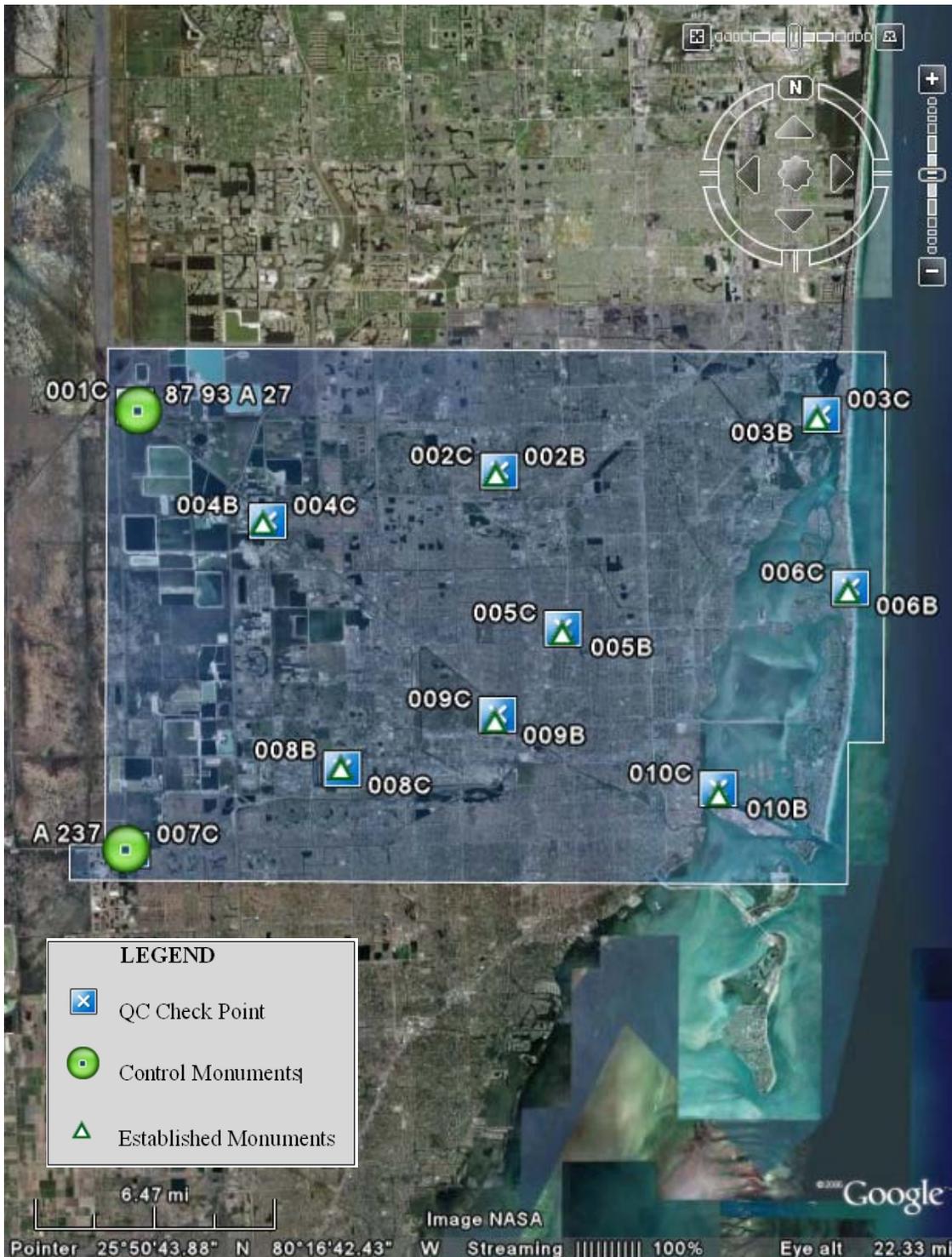
A. GPS Network Map

GPS Network Map



This map shows the GPS baselines processed for this network. The CORS and control monuments can be distinguished from the newly established monuments (see the legend above).

QC Check Points



The QC check points can be seen in the above map. The QC procedures are described in Section 3, in the Ground Truth Summary. The individual check sites can be seen in detail in Section 5-B.

B. Fully Constrained

GPS Control Network
Fully-Constrained Adjustment

Coordinate System: US State Plane
Zone: Florida East 0901
Horizontal Datum: NAD83 (1999) / HARN Adjustment
Vertical Datum: NAVD88
Geoid Model: Geoid03
Units: US Survey Feet

Name	Latitude	Longitude	Northing	Easting	Elevation	Ellipsoid ht	Northing error	Easting error	Ellip error	Fix
LAUD	26°11'46.34168"N	80°10'23.01438"W	677867.55	927328.44	24.47	-59.52	0.00	0.00	0.00	LLh
mia3	25°43'58.09808"N	80°09'36.60080"W	509458.62	932637.26	36.49	-47.71	0.00	0.00	0.00	LLh
RMND	25°36'49.58921"N	80°23'02.14117"W	465790.41	859175.16	35.96	-46.22	0.00	0.00	0.00	LLh
A237	25°45'40.28800"N	80°25'59.08152"W	519296.76	842749.03	6.48	-74.75	0.00	0.00	0.00	LLh
H120	25°54'00.61873"N	80°16'03.05531"W	570080.05	896958.46	5.29	-77.34	0.00	0.00	0.04	LL
8793	25°55'55.40926"N	80°25'40.78480"W	581407.17	844151.46	7.70	-73.80	0.02	0.02	0.05	
BRUC	25°43'35.37018"N	80°09'15.51876"W	507176.25	934579.87	2.28	-82.03	0.01	0.01	0.07	
002B	25°54'28.46750"N	80°16'21.18645"W	572882.54	895287.17	5.31	-77.27	0.01	0.01	0.03	
003B	25°55'46.73289"N	80°08'01.15355"W	581062.17	940894.30	4.34	-79.80	0.02	0.02	0.06	
004B	25°53'20.60227"N	80°22'23.55178"W	565859.86	862231.91	5.34	-76.46	0.01	0.01	0.04	
005B	25°50'45.99456"N	80°14'38.17995"W	550474.07	904822.26	7.47	-75.39	0.02	0.02	0.05	
006B	25°51'43.88507"N	80°07'13.88434"W	556571.59	945374.22	5.67	-78.69	0.01	0.01	0.06	
008B	25°47'37.03130"N	80°20'22.36394"W	531226.58	873473.72	6.29	-75.71	0.02	0.02	0.05	
009B	25°48'42.87168"N	80°16'22.99006"W	537989.24	895315.59	3.88	-78.73	0.02	0.02	0.05	
010B	25°46'59.31281"N	80°10'35.44902"W	527720.69	927141.45	3.73	-80.05	0.01	0.02	0.05	
001C	25°56'01.04549"N	80°25'47.46539"W	581973.55	843539.10	10.53	-70.97	0.03	0.03	0.07	
002C	25°54'30.03928"N	80°16'19.91211"W	573041.88	895402.65	5.42	-77.17	0.03	0.02	0.05	
003C	25°55'48.41252"N	80°07'58.42094"W	581233.41	941142.65	2.99	-81.16	0.03	0.03	0.08	
004C	25°53'19.83912"N	80°22'20.12647"W	565784.31	862545.10	4.45	-77.36	0.03	0.03	0.06	
005C	25°50'49.45412"N	80°14'41.34879"W	550821.70	904530.75	7.08	-75.77	0.03	0.03	0.06	
006C	25°51'45.91135"N	80°07'13.86299"W	556776.19	945374.80	6.03	-78.33	0.03	0.03	0.07	
007C	25°45'39.40318"N	80°25'52.65932"W	519209.95	843336.55	8.61	-72.64	0.02	0.03	0.05	
008C	25°47'32.76278"N	80°20'24.26017"W	530794.76	873302.57	5.71	-76.29	0.03	0.03	0.06	
009C	25°48'48.78924"N	80°16'22.80716"W	538586.79	895329.00	3.94	-78.67	0.03	0.04	0.09	
010C	25°47'04.32885"N	80°10'40.14133"W	528224.45	926709.37	3.69	-80.07	0.03	0.03	0.07	

ERRORS ARE REPORTED AT THE 95% CONFIDENCE LEVEL.

C. NGS Published Positions vs GPS Derived Positions

NGS Positions vs GPS Derived Positions

NGS Positions

GPS Derived Positions

Designation	Northing	Easting	Elev	Ellip Ht	Horiz Order	Vert Order	Ellip Oer
LAUDERDALE CORS ARP	677867.55	927328.44		-59.52	CORS	CORS	CORS
MIAMI 3 CORS ARP	509458.61	932637.26		-47.71	CORS	CORS	CORS
RICHMOND CORS ARP	465790.41	859175.16		-46.22	CORS	CORS	CORS
A 237	519296.76	842749.03	6.48	-74.72	1	1	5
H 120	570080.05	896958.46	5.58	-77.06	1	1	4
87 93 A 27	581407.14	844151.43	7.66	-73.78	1	1	4
BRUCE 2	507176.30	934579.85	2.37	-82.01	A	1	4

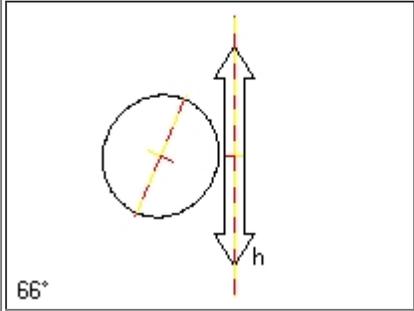
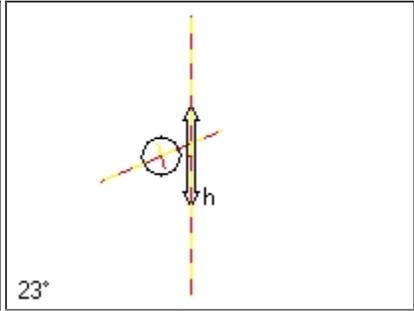
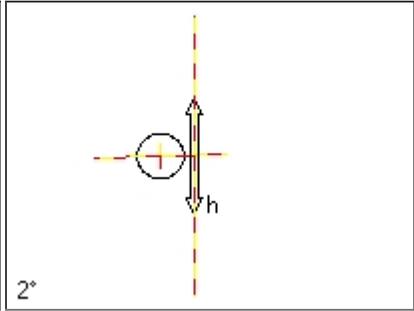
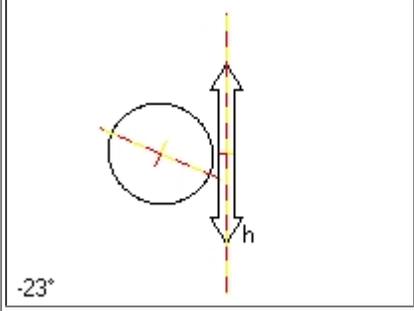
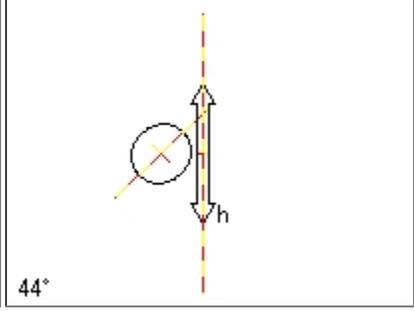
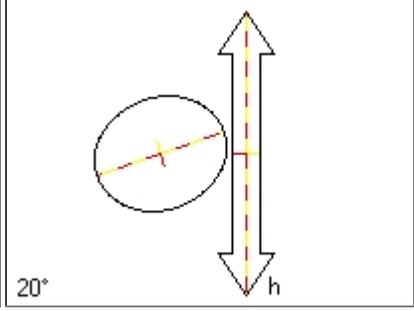
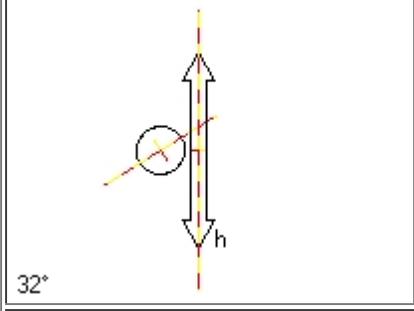
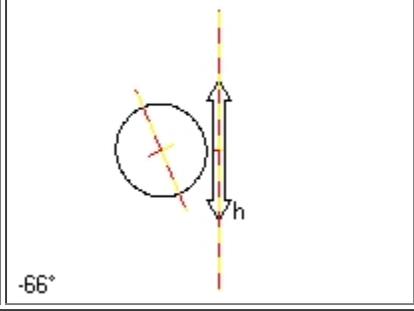
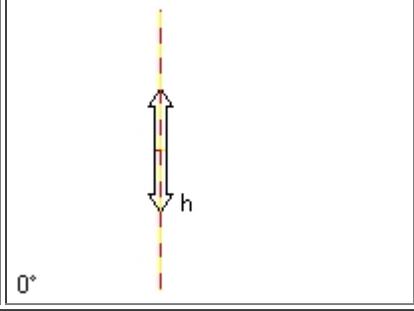
Northing	Easting	Elev	Ellip Ht
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509458.62	932637.26	36.49	-47.71
465790.41	859175.16	35.96	-46.22
519296.76	842749.03	6.48	-74.75
570080.05	896958.46	5.29	-77.34
581407.17	844151.46	7.70	-73.80
507176.25	934579.87	2.28	-82.03

delta Northing	delta Easting	delta Elev	delta Ellip
0.00	0.00		0.00
0.00	0.00		0.00
0.00	0.00		0.00
0.00	0.00	0.00	0.03
0.00	0.00	0.30	0.27
-0.02	-0.03	-0.05	0.02
0.05	-0.02	0.09	0.02

D. Error Ellipses

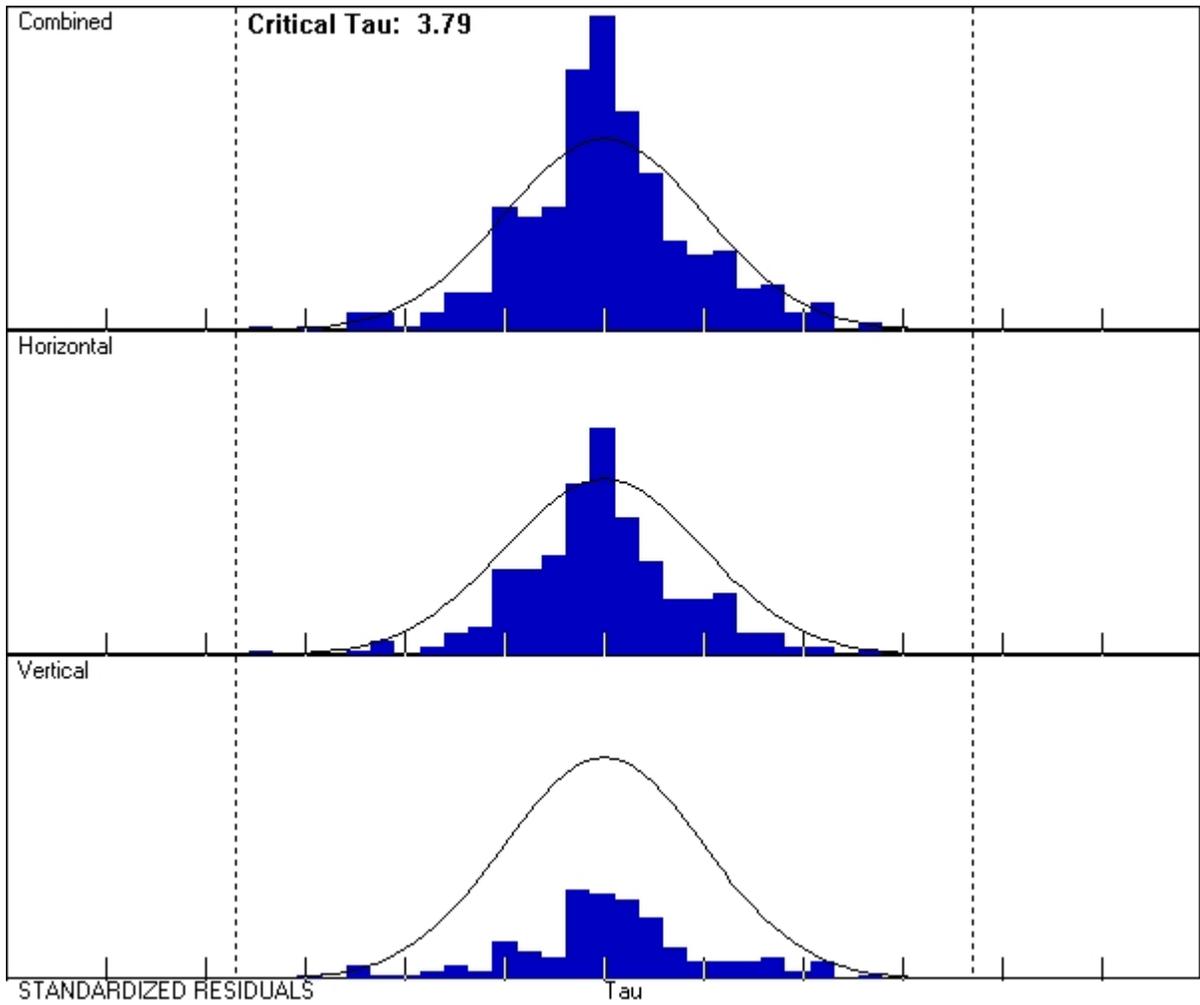
Point Error Ellipses

007C	008B	008C
Tick Size: 0.0100sft Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
010B	010C	003B
Tick Size: 0.0100sft Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
003C	005B	005C
Tick Size: 0.0100sft Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
006B	006C	8793
Tick Size: 0.0100sft Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		

<p style="text-align: center;">001C</p>  <p>66°</p>	<p style="text-align: center;">002B</p>  <p>23°</p>	<p style="text-align: center;">004B</p>  <p>2°</p>
<p style="text-align: center;">Tick Size: 0.0100sft Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ</p>		
<p style="text-align: center;">004C</p>  <p>-23°</p>	<p style="text-align: center;">009B</p>  <p>44°</p>	<p style="text-align: center;">009C</p>  <p>20°</p>
<p style="text-align: center;">Tick Size: 0.0100sft Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ</p>		
<p style="text-align: center;">BRUC</p>  <p>32°</p>	<p style="text-align: center;">002C</p>  <p>-66°</p>	<p style="text-align: center;">H120</p>  <p>0°</p>
<p style="text-align: center;">Tick Size: 0.0100sft Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ</p>		

E. Histograms of Standardized Residuals

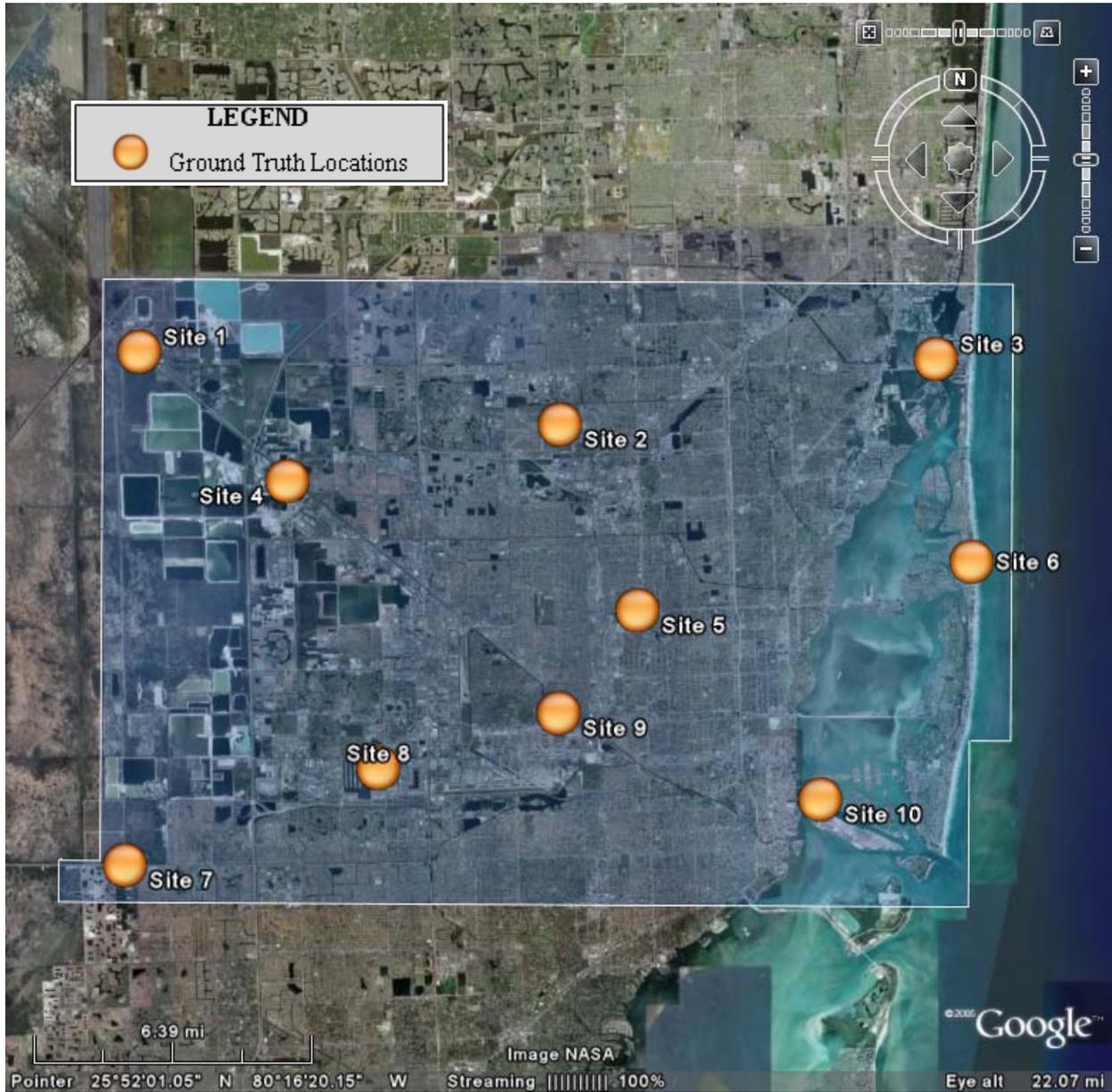
Histograms of Standardized Residuals



GROUND TRUTH SURVEY

A. Map of Ground Truth Locations

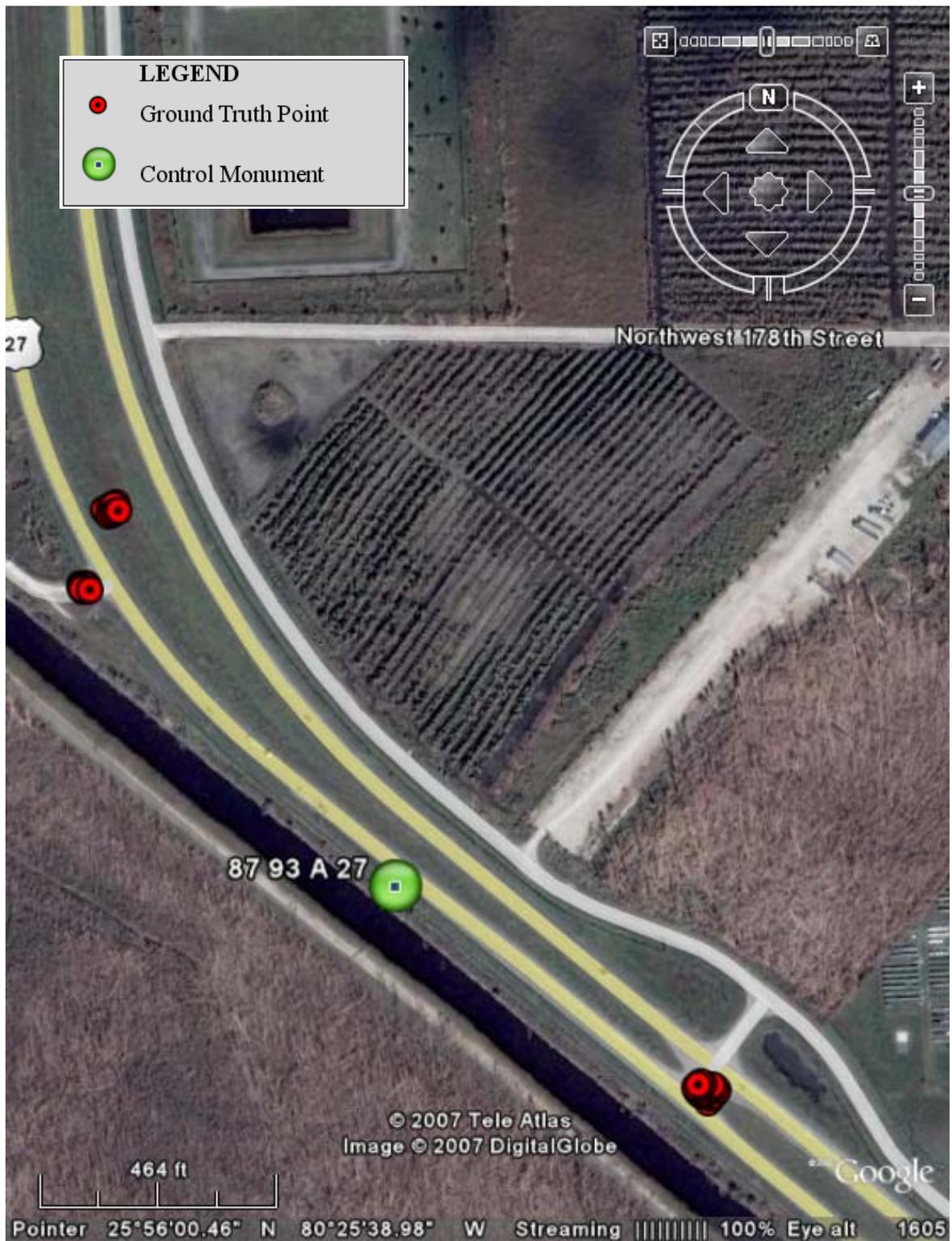
Ground Control Areas



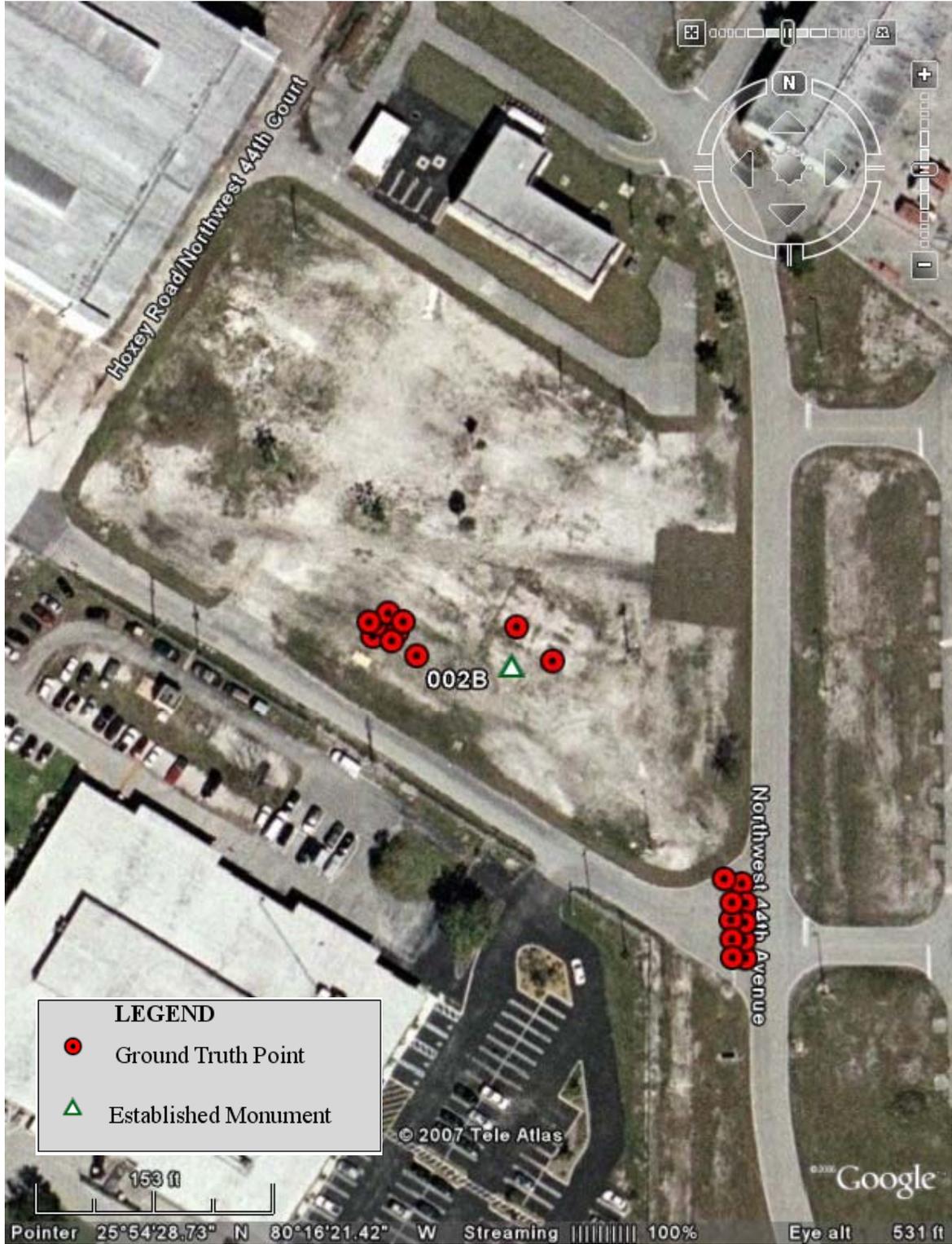
The individual check sites can be seen in detail on the following pages.

B. Ground Truth Site Maps

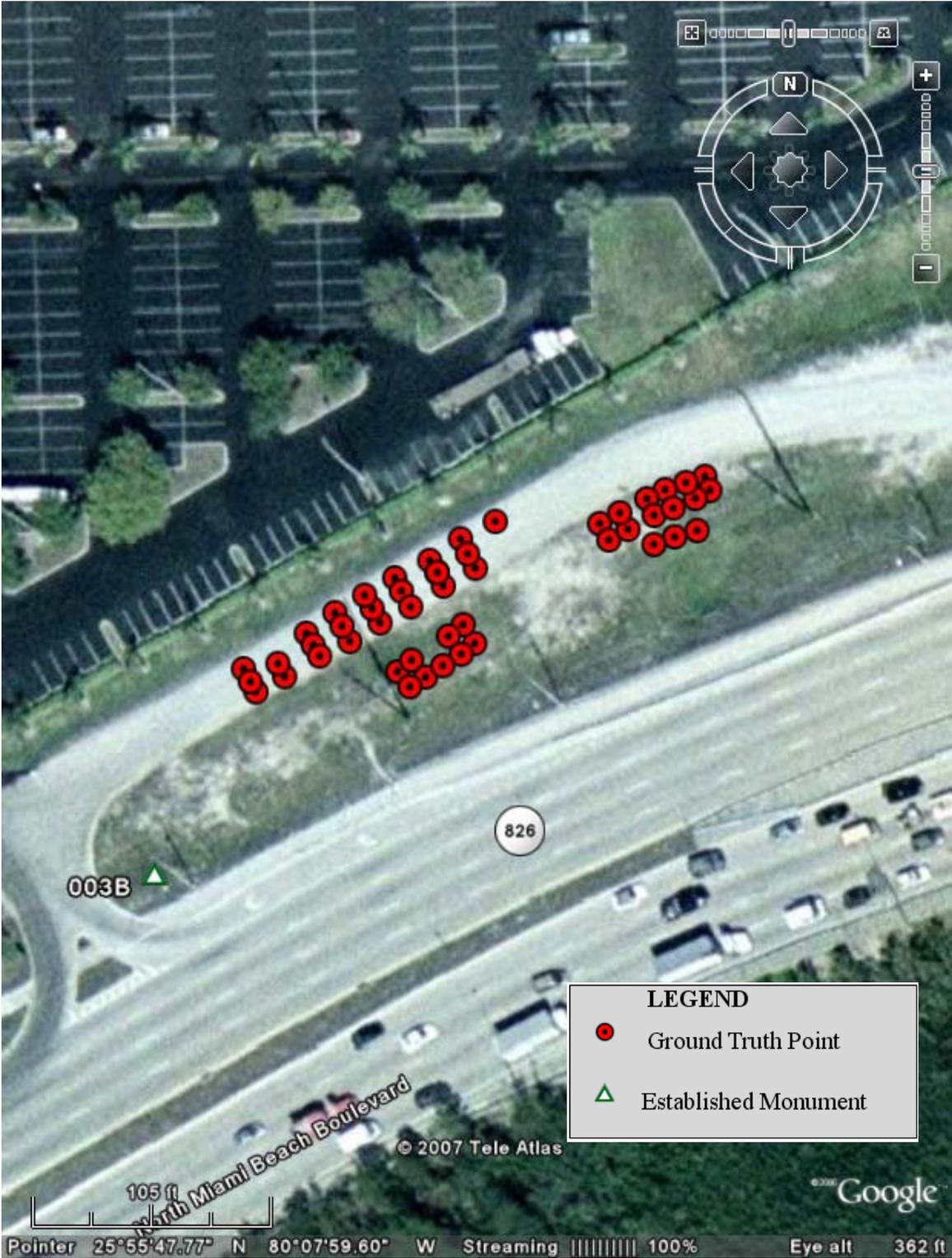
SITE 1 - Ground Truth Points



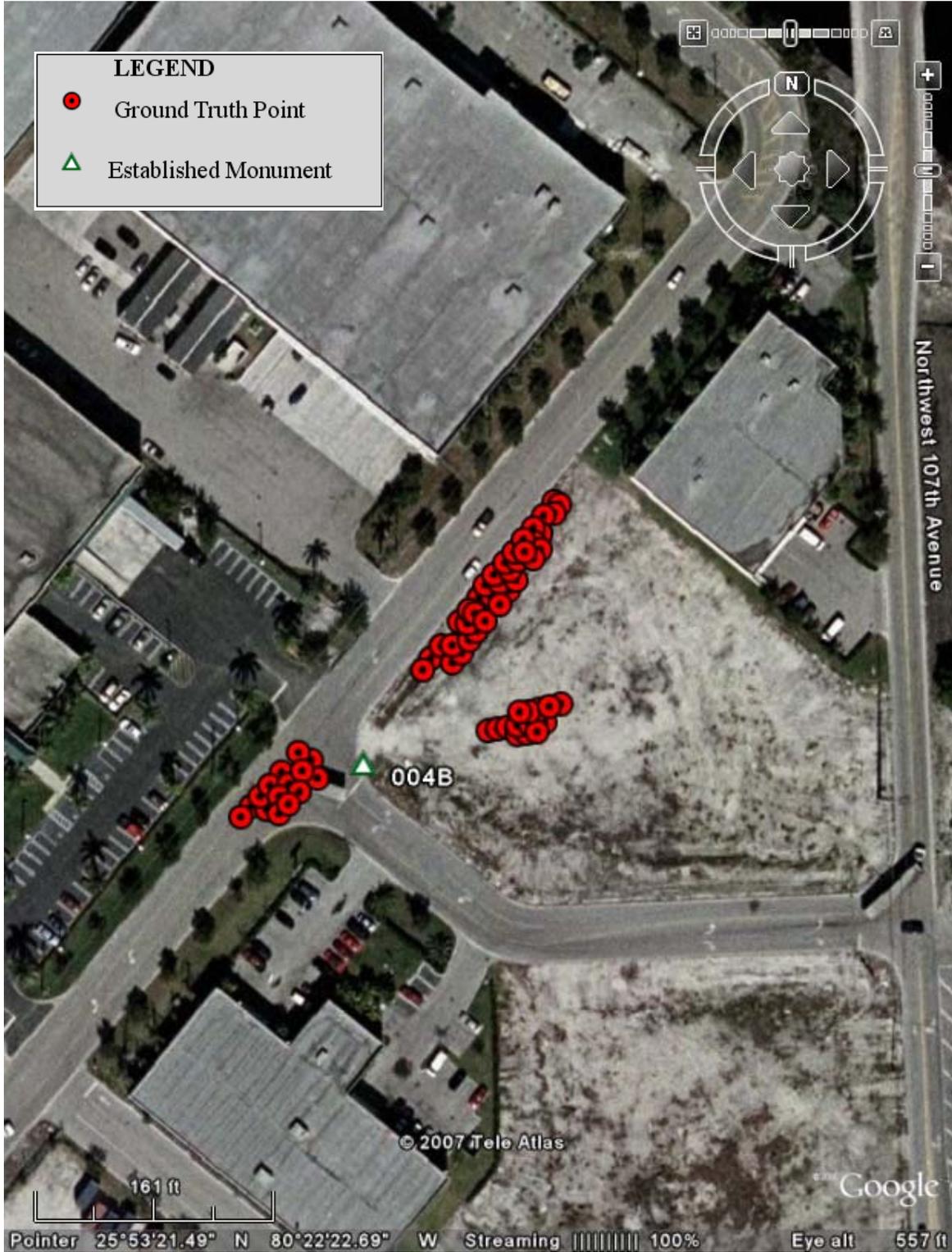
SITE 2 - Ground Truth Points



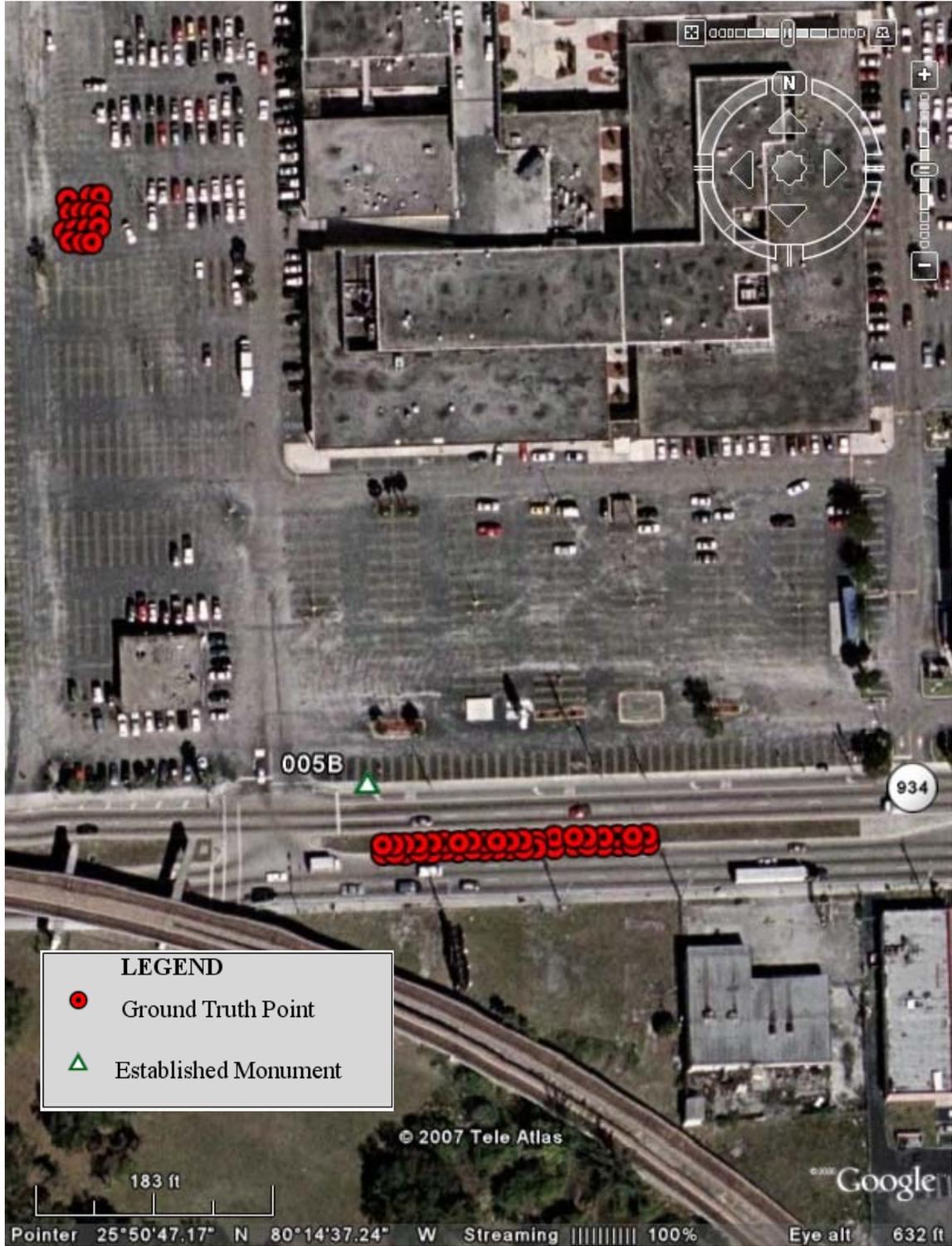
SITE 3 - Ground Truth Points



SITE 4 - Ground Truth Points



SITE 5 - Ground Truth Points



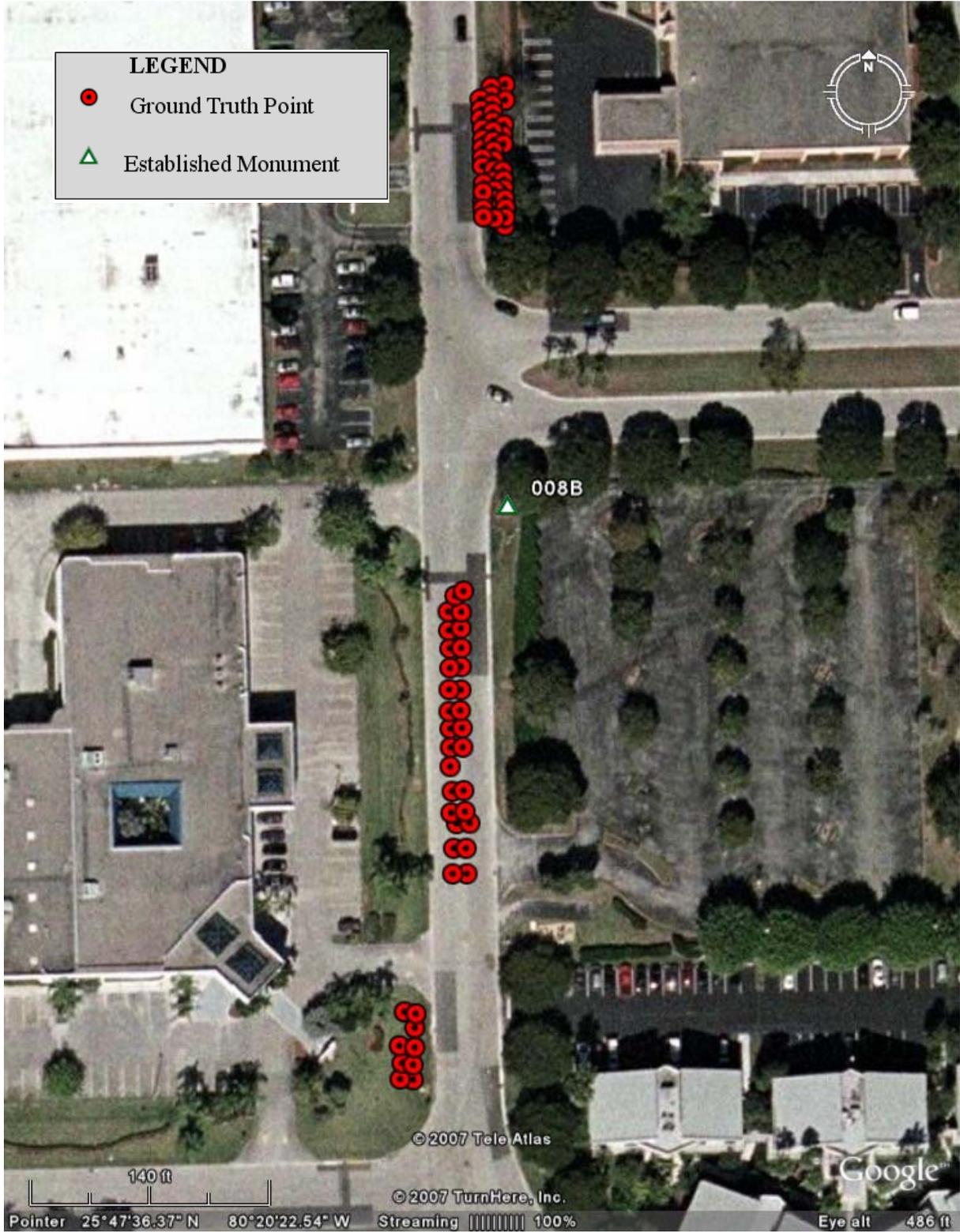
SITE 6 - Ground Truth Points



SITE 7 - Ground Truth Points



SITE 8 - Ground Truth Points



SITE 9 - Ground Truth Points



SITE 10 - Ground Truth Points



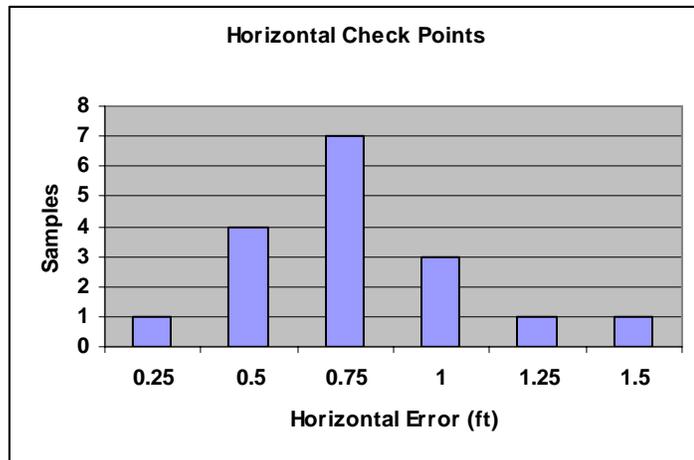
C. Horizontal Accuracy Assessment

HORIZONTAL ACCURACY CHECK POINTS

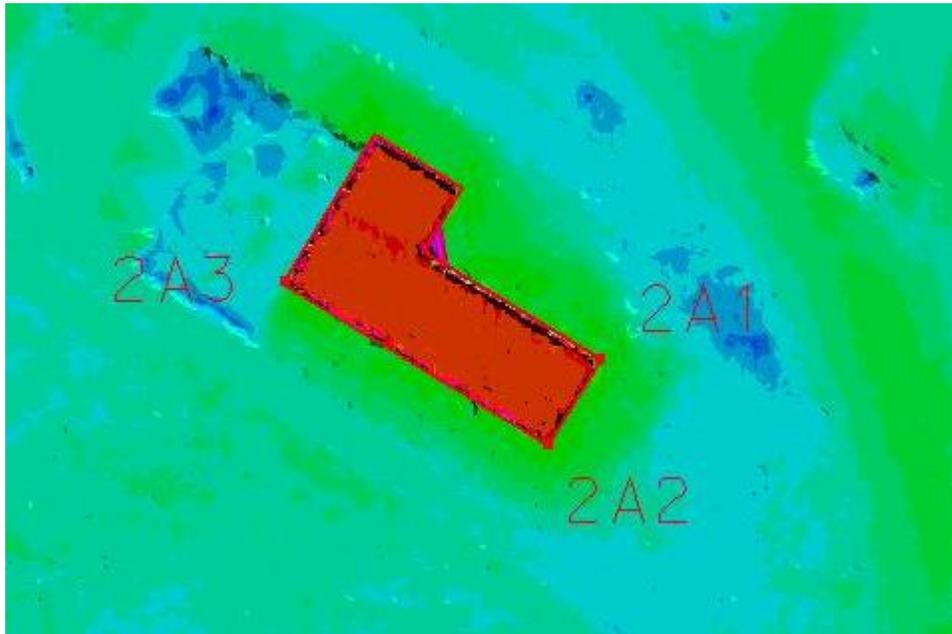
Horizontal check points were collected at several sites within the project area, in order to verify the horizontal accuracy of the LiDAR data. These check points are collected in the same locations as the vertical ground truth data, from base stations that were established in the static GPS network. The horizontal check points were collected with a total station and data collector.

After the LiDAR data has been processed these horizontal check points are plotted and compared to the approximate positions from the LiDAR data set. For this purpose building corners are most often used, because they can be identified from the LiDAR data and the corners can be estimated. Distances are measured from the estimated LiDAR positions to the surveyed positions. The statistics are shown below, and screen captures of the LiDAR derived features are shown on the following pages.

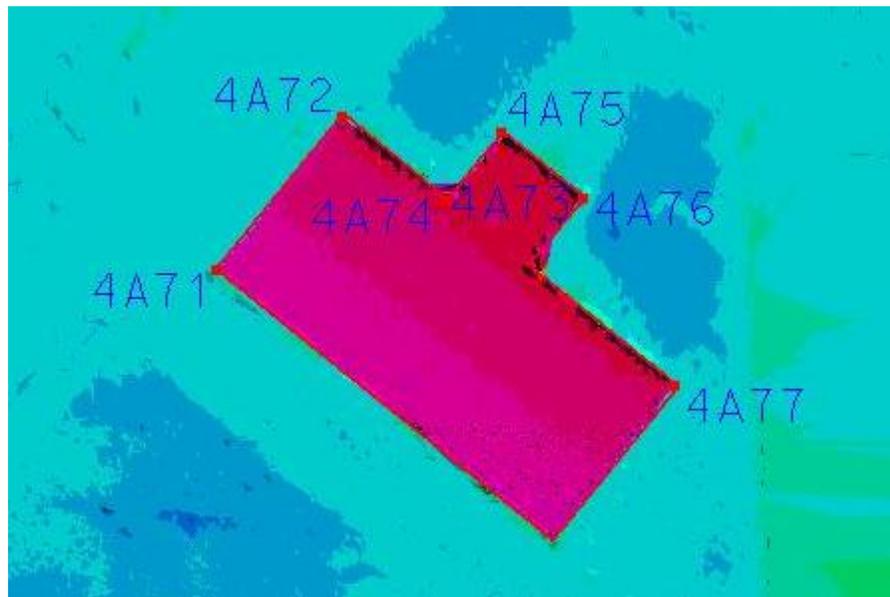
Horizontal Check Points (ft)	
RMSEr	0.81
Mean	0.76
Standard Error	0.07
Median	0.68
Standard Deviation	0.30
Sample Variance	0.09
Kurtosis	2.46
Skewness	1.35
Range	1.27
Minimum	0.32
Maximum	1.59



Site 2 – Horizontal Check Point



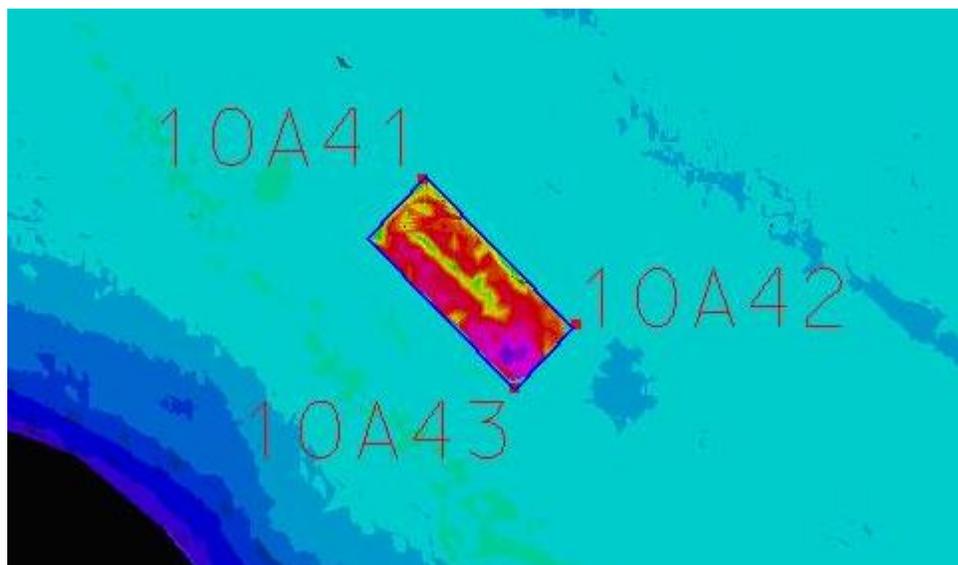
Site 4 – Horizontal Check Point



Site 5 – Horizontal Check Point



Site 10 – Horizontal Check Point



CONTROL MARK DATA SHEETS

DH3834 *****

DH3834 CORS - This is a GPS Continuously Operating Reference Station.

DH3834 DESIGNATION - LAUDERDALE CORS ARP

DH3834 CORS_ID - LAUD

DH3834 PID - DH3834

DH3834 STATE/COUNTY- FL/BROWARD

DH3834 USGS QUAD - FORT LAUDERDALE NORTH (1995)

DH3834

DH3834 *CURRENT SURVEY CONTROL

DH3834

DH3834* NAD 83(CORS)- 26 11 46.34168(N) 080 10 23.01438(W) ADJUSTED

DH3834* NAVD 88 -

DH3834 EPOCH DATE - 2002.00

DH3834 X - 977,399.485 (meters) COMP

DH3834 Y - -5,642,719.499 (meters) COMP

DH3834 Z - 2,798,575.179 (meters) COMP

DH3834 ELLIP HEIGHT- -18.141 (meters) (06/??/05) GPS OBS

DH3834 GEOID HEIGHT- -25.60 (meters) GEOID03

DH3834

DH3834 HORZ ORDER - SPECIAL (CORS)

DH3834 ELLP ORDER - SPECIAL (CORS)

DH3834

DH3834. ITRF positions are available for this station.

DH3834. The coordinates were established by GPS observations

DH3834. and adjusted by the National Geodetic Survey in June 2005.

DH3834. The coordinates are valid at the epoch date displayed above.

DH3834. The epoch date for horizontal control is a decimal equivalence

DH3834. of Year/Month/Day.

DH3834

DH3834

DH3834. The PID for the CORS L1 Phase Center is DH3835.

DH3834

DH3834. The XYZ, and position/ellipsoidal ht. are equivalent.

DH3834

DH3834. The ellipsoidal height was determined by GPS observations

DH3834. and is referenced to NAD 83.

DH3834

DH3834. The geoid height was determined by GEOID03.

DH3834

DH3834;	North	East	Units	Scale	Factor	Converg.
DH3834;SPC FL E	- 206,614.443	282,650.275	MT	1.00002549	+0 21	54.3
DH3834;SPC FL E	- 677,867.55	927,328.44	sFT	1.00002549	+0 21	54.3

DH3834

DH3834! - Elev Factor x Scale Factor = Combined Factor

DH3834!SPC FL E - 1.00000285 x 1.00002549 = 1.00002834

DH3834

DH3834 SUPERSEDED SURVEY CONTROL

DH3834

DH3834. No superseded survey control is available for this station.

DH3834

DH3834 _U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ8262297676(NAD 83)

DH3834 _MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA

DH3834

DH3834 STATION DESCRIPTION

DH3834

DH3834' DESCRIBED BY NATIONAL GEODETIC SURVEY 2005

DH3834' STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND

DH3834' VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE

DH3834' BY ANONYMOUS FTP OR THE WORLDWIDE WEB.

DH3834' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG

DH3834' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

AH3723 *****

AH3723 CORS - This is a GPS Continuously Operating Reference Station.

AH3723 DESIGNATION - MIAMI 3 CORS ARP

AH3723 CORS_ID - MIA3

AH3723 PID - AH3723

AH3723 STATE/COUNTY- FL/MIAMI-DADE

AH3723 USGS QUAD - KEY BISCAYNE (1994)

AH3723

AH3723 *CURRENT SURVEY CONTROL

AH3723* NAD 83(CORS)- 25 43 58.09808(N) 080 09 36.60080(W) ADJUSTED

AH3723* NAVD 88 -

AH3723 EPOCH DATE - 2002.00

AH3723 X - 982,510.903 (meters) COMP

AH3723 Y - -5,664,648.798 (meters) COMP

AH3723 Z - 2,752,419.865 (meters) COMP

AH3723 ELLIP HEIGHT- -14.542 (meters) (03/??/02) GPS OBS

AH3723 GEOID HEIGHT- -25.66 (meters) GEOID03

AH3723

AH3723 HORZ ORDER - SPECIAL (CORS)

AH3723 ELLP ORDER - SPECIAL (CORS)

AH3723

AH3723. ITRF positions are available for this station.

AH3723. The coordinates were established by GPS observations

AH3723. and adjusted by the National Geodetic Survey in March 2002.

AH3723. The coordinates are valid at the epoch date displayed above.

AH3723. The epoch date for horizontal control is a decimal equivalence

AH3723. of Year/Month/Day.

AH3723

AH3723

AH3723. The PID for the CORS L1 Phase Center is AJ7937.

AH3723

AH3723. The XYZ, and position/ellipsoidal ht. are equivalent.

AH3723

AH3723. The ellipsoidal height was determined by GPS observations

AH3723. and is referenced to NAD 83.

AH3723

AH3723. The geoid height was determined by GEOID03.

AH3723

AH3723;	North	East	Units	Scale	Factor	Converg.
AH3723;SPC FL E	- 155,283.296	284,268.404	MT	1.00002883	+0 21 52.8	
AH3723;SPC FL E	- 509,458.61	932,637.26	sFT	1.00002883	+0 21 52.8	

AH3723

AH3723! - Elev Factor x Scale Factor = Combined Factor

AH3723!SPC FL E - 1.00000228 x 1.00002883 = 1.00003111

AH3723

AH3723 SUPERSEDED SURVEY CONTROL

AH3723

AH3723 NAD 83(CORS)- 25 43 58.09790(N) 080 09 36.60095(W) AD(1997.00) c

AH3723 ELLIP H (08/??/98) -14.538 (m) GP(1997.00) c c

AH3723

AH3723. Superseded values are not recommended for survey control.

AH3723. NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AH3723. See file dsdata.txt to determine how the superseded data were derived.

AH3723

AH3723_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ8424046362(NAD 83)

AH3723_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA

AH3723

AH3723 STATION DESCRIPTION

AH3723

AH3723 DESCRIBED BY NATIONAL GEODETIC SURVEY 2002

AH3723 STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
AH3723 VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
AH3723 BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
AH3723 FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
AH3723 HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

DF7988 *****

DF7988 CORS - This is a GPS Continuously Operating Reference Station.

DF7988 DESIGNATION - RICHMOND CORS ARP

DF7988 CORS_ID - RMND

DF7988 PID - DF7988

DF7988 STATE/COUNTY- FL/MIAMI-DADE

DF7988 USGS QUAD - GOULDS (1994)

DF7988

DF7988 *CURRENT SURVEY CONTROL

DF7988* NAD 83(CORS)- 25 36 49.58921(N) 080 23 02.14117(W) ADJUSTED

DF7988* NAVD 88 -

DF7988 EPOCH DATE - 2002.00

DF7988 X - 961,335.300 (meters) COMP

DF7988 Y - -5,674,075.696 (meters) COMP

DF7988 Z - 2,740,535.349 (meters) COMP

DF7988 ELLIP HEIGHT- -14.088 (meters) (09/??/03) GPS OBS

DF7988 GEOID HEIGHT- -25.05 (meters) GEOID03

DF7988

DF7988 HORZ ORDER - SPECIAL (CORS)

DF7988 ELLP ORDER - SPECIAL (CORS)

DF7988

DF7988. ITRF positions are available for this station.

DF7988. The coordinates were established by GPS observations

DF7988. and adjusted by the National Geodetic Survey in September 2003.

DF7988. The coordinates are valid at the epoch date displayed above.

DF7988. The epoch date for horizontal control is a decimal equivalence

DF7988. of Year/Month/Day.

DF7988

DF7988

DF7988. The PID for the CORS L1 Phase Center is DF7989.

DF7988

DF7988. The XYZ, and position/ellipsoidal ht. are equivalent.

DF7988

DF7988. The ellipsoidal height was determined by GPS observations

DF7988. and is referenced to NAD 83.

DF7988

DF7988. The geoid height was determined by GEOID03.

DF7988

DF7988;	North	East	Units	Scale	Factor	Converg.
DF7988;SPC FL E	- 141,973.202	261,877.112	MT	0.99998844	+0 15 58.8	
DF7988;SPC FL E	- 465,790.41	859,175.16	sFT	0.99998844	+0 15 58.8	

DF7988

DF7988! - Elev Factor x Scale Factor = Combined Factor

DF7988!SPC FL E - 1.00000221 x 0.99998844 = 0.99999065

DF7988

DF7988 SUPERSEDED SURVEY CONTROL

DF7988

DF7988. No superseded survey control is available for this station.

DF7988

DF7988_ U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ6185633057(NAD 83)

DF7988_ MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA

DF7988

DF7988 STATION DESCRIPTION

DF7988

DF7988' DESCRIBED BY NATIONAL GEODETIC SURVEY 2003

DF7988' STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND

DF7988' VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE

DF7988' BY ANONYMOUS FTP OR THE WORLDWIDE WEB.

DF7988' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG

DF7988' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

AB7766 *****
 AB7766 DESIGNATION - 87 93 A 27
 AB7766 PID - AB7766
 AB7766 STATE/COUNTY- FL/MIAMI-DADE
 AB7766 USGS QUAD - PENNSUCO (1988)
 AB7766
 AB7766 *CURRENT SURVEY CONTROL
 AB7766
 AB7766* NAD 83(1999)- 25 55 55.40903(N) 080 25 40.78509(W) ADJUSTED
 AB7766* NAVD 88 - 2.334 (meters) 7.66 (feet) ADJUSTED
 AB7766
 AB7766 X - 954,420.233 (meters) COMP
 AB7766 Y - -5,659,687.850 (meters) COMP
 AB7766 Z - 2,772,284.831 (meters) COMP
 AB7766 LAPLACE CORR- -1.71 (seconds) DEFLEC99
 AB7766 ELLIP HEIGHT- -22.487 (meters) (12/12/02) GPS OBS
 AB7766 GEOID HEIGHT- -24.84 (meters) GEOID03
 AB7766 DYNAMIC HT - 2.331 (meters) 7.65 (feet) COMP
 AB7766 MODELED GRAV- 979,042.2 (mgal) NAVD 88
 AB7766
 AB7766 HORZ ORDER - FIRST
 AB7766 VERT ORDER - FIRST CLASS II
 AB7766 ELLP ORDER - FOURTH CLASS I
 AB7766
 AB7766.The horizontal coordinates were established by GPS observations
 AB7766.and adjusted by the National Geodetic Survey in December 2002.
 AB7766
 AB7766.The orthometric height was determined by differential leveling
 AB7766.and adjusted by the NATIONAL GEODETIC SURVEY in March 1997.
 AB7766
 AB7766.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AB7766
 AB7766.The Laplace correction was computed from DEFLEC99 derived deflections.
 AB7766
 AB7766.The ellipsoidal height was determined by GPS observations
 AB7766.and is referenced to NAD 83.
 AB7766
 AB7766.The geoid height was determined by GEOID03.
 AB7766
 AB7766.The dynamic height is computed by dividing the NAVD 88
 AB7766.geopotential number by the normal gravity value computed on the
 AB7766.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AB7766.degrees latitude (g = 980.6199 gals.).
 AB7766
 AB7766.The modeled gravity was interpolated from observed gravity values.
 AB7766
 AB7766; North East Units Scale Factor Converg.
 AB7766;SPC FL E - 177,213.252 257,297.871 MT 0.99998170 +0 15 00.5
 AB7766;SPC FL E - 581,407.14 844,151.43 sFT 0.99998170 +0 15 00.5
 AB7766;UTM 17 - 2,868,284.769 557,278.321 MT 0.99964051 +0 15 00.5
 AB7766
 AB7766! - Elev Factor x Scale Factor = Combined Factor
 AB7766!SPC FL E - 1.00000353 x 0.99998170 = 0.99998523
 AB7766!UTM 17 - 1.00000353 x 0.99964051 = 0.99964404
 AB7766
 AB7766 SUPERSEDED SURVEY CONTROL
 AB7766
 AB7766 NAVD 88 (12/12/02) 2.33 (m) 7.6 (f) LEVELING 3
 AB7766
 AB7766.Superseded values are not recommended for survey control.
 AB7766.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AB7766.See file dsdata.txt to determine how the superseded data were derived.

AB7766
AB7766_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ5727868285(NAD 83)
AB7766_MARKER: DD = SURVEY DISK
AB7766_SETTING: 66 = SET IN ROCK OUTCROP
AB7766_STAMPING: 87 93 A 27
AB7766_MARK LOGO: FLDT
AB7766_MAGNETIC: N = NO MAGNETIC MATERIAL
AB7766_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AB7766+STABILITY: POSITION/ELEVATION WELL
AB7766_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AB7766+SATELLITE: SATELLITE OBSERVATIONS - August 31, 2005

AB7766
AB7766 HISTORY - Date Condition Report By
AB7766 HISTORY - 1993 MONUMENTED FLDT
AB7766 HISTORY - 19930803 GOOD NGS
AB7766 HISTORY - 20001117 GOOD FLDEP
AB7766 HISTORY - 20020527 GOOD MAPTEC
AB7766 HISTORY - 20050831 GOOD WEIDEN

AB7766
AB7766 STATION DESCRIPTION
AB7766

AB7766'DESCRIBED BY NATIONAL GEODETIC SURVEY 1993 (RLT)
AB7766'THE MARK IS ABOUT 15.8 MI (25.4 KM) SOUTHWEST OF COOPER CITY, 24.2 MI
AB7766'(38.9 KM) NORTH-NORTHWEST OF MIAMI IN SECTION 10, TOWNSHIP 52 SOUTH,
AB7766'RANGE 39 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY
AB7766'27 AND THE EASTBOUND LANES OF INTERSTATE 75 (ALLIGATOR ALLEY), GO
AB7766'SOUTH ON U.S. HIGHWAY 27 FOR 5.90 MI (9.49 KM) TO THE INTERSECTION OF
AB7766'STATE HIGHWAY 818 (GRIFFIN ROAD), CONTINUE SOUTH ON U.S. HIGHWAY 27
AB7766'FOR 3.55 MI (5.71 KM) TO THE INTERSECTION OF PINES BOULEVARD, CONTINUE
AB7766'SOUTH ON U.S. HIGHWAY 27 FOR 7.75 MI (12.47 KM) TO THE DADE-BROWARD
AB7766'COUNTY LINE, CONTINUE SOUTH ON U.S. HIGHWAY 27 TO THE JUNCTION OF
AB7766'STATE HIGHWAY 997, CONTINUE SOUTH ON U.S. HIGHWAY 27 FOR 1.35 MI (2.17
AB7766'KM) TO THE MARK ON THE RIGHT, SET ON THE TOP OF A ROCK OUTCROP LEVEL
AB7766'WITH U.S. HIGHWAY 27 AND FLUSH WITH THE GROUND. LOCATED 29.5 FT (9.0
AB7766'M) SOUTHWEST OF THE CENTERLINE OF U.S. HIGHWAY 27, 19.3 FT (5.9 M)
AB7766'WEST OF THE EDGE OF THE ASPHALT AND 14.3 FT (4.4 M) NORTHEAST OF THE
AB7766'METAL GUARDRAIL.

AB7766
AB7766 STATION RECOVERY (2000)

AB7766
AB7766'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AB7766'RECOVERED AS DESCRIBED.

AB7766
AB7766 STATION RECOVERY (2002)

AB7766
AB7766'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AB7766'STATION RECOVERY (2002)
AB7766'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AB7766'RECOVERED AS DESCRIBED.

AB7766'
AB7766
AB7766 STATION RECOVERY (2005)

AB7766
AB7766'RECOVERY NOTE BY WEIDENER SURVEYING AND MAPPING 2005
AB7766'RECOVERED IN GOOD CONDITION.

AC2415 *****

AC2415 SACS - This is a Secondary Airport Control Station.

AC2415 DESIGNATION - H 120

AC2415 PID - AC2415

AC2415 STATE/COUNTY- FL/MIAMI-DADE

AC2415 USGS QUAD - OPA-LOCKA (1988)

AC2415

AC2415 *CURRENT SURVEY CONTROL

AC2415* NAD 83(1999)- 25 54 00.61873(N) 080 16 03.05531(W) ADJUSTED

AC2415* NAVD 88 - 1.702 (meters) 5.58 (feet) ADJUSTED

AC2415 X - 970,529.607 (meters) COMP

AC2415 Y - -5,658,513.216 (meters) COMP

AC2415 Z - 2,769,107.091 (meters) COMP

AC2415 LAPLACE CORR- -2.73 (seconds) DEFLEC99

AC2415 ELLIP HEIGHT- -23.489 (meters) (01/17/02) GPS OBS

AC2415 GEOID HEIGHT- -25.18 (meters) GEOID03

AC2415 DYNAMIC HT - 1.699 (meters) 5.57 (feet) COMP

AC2415 MODELED GRAV- 979,047.4 (mgal) NAVD 88

AC2415

AC2415 HORZ ORDER - FIRST

AC2415 VERT ORDER - FIRST CLASS II

AC2415 ELLP ORDER - FOURTH CLASS I

AC2415

AC2415.This mark is at Opa Locka Airport (OPF)

AC2415

AC2415.The horizontal coordinates were established by GPS observations

AC2415.and adjusted by the National Geodetic Survey in June 2001.

AC2415

AC2415.The orthometric height was determined by differential leveling

AC2415.and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.

AC2415

AC2415.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AC2415

AC2415.The Laplace correction was computed from DEFLEC99 derived deflections.

AC2415

AC2415.The ellipsoidal height was determined by GPS observations

AC2415.and is referenced to NAD 83.

AC2415

AC2415.The geoid height was determined by GEOID03.

AC2415

AC2415.The dynamic height is computed by dividing the NAVD 88

AC2415.geopotential number by the normal gravity value computed on the

AC2415.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AC2415.degrees latitude (g = 980.6199 gals.).

AC2415

AC2415.The modeled gravity was interpolated from observed gravity values.

AC2415

AC2415;	North	East	Units	Scale	Factor	Converg.
AC2415;SPC FL E	- 173,760.746	273,393.486	MT	1.00000766	+0 19 11.9	
AC2415;SPC FL E	- 570,080.05	896,958.46	sFT	1.00000766	+0 19 11.9	
AC2415;UTM 17	- 2,864,833.441	573,368.444	MT	0.99966646	+0 19 11.9	

AC2415

AC2415! - Elev Factor x Scale Factor = Combined Factor

AC2415!SPC FL E - 1.00000369 x 1.00000766 = 1.00001135

AC2415!UTM 17 - 1.00000369 x 0.99966646 = 0.99967015

AC2415

AC2415 SUPERSEDED SURVEY CONTROL

AC2415

AC2415 ELLIP H (06/19/01) -23.528 (m) GP() 4 1

AC2415 NAD 83(1990)- 25 54 00.61757(N) 080 16 03.05396(W) AD() 1

AC2415 ELLIP H (11/21/94) -23.503 (m) GP() 4 2
AC2415 NAVD 88 (11/21/94) 1.70 (m) 5.6 (f) LEVELING 3
AC2415 NGVD 29 (??/??/92) 2.174 (m) 7.13 (f) ADJ UNCH 1 2

AC2415

AC2415.Superseded values are not recommended for survey control.

AC2415.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AC2415.See file dsdata.txt to determine how the superseded data were derived.

AC2415

AC2415_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ7336864833(NAD 83)

AC2415_MARKER: DM = MAGNETIC STATION DISK

AC2415_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AC2415_SP_SET: CONCRETE POST

AC2415_STAMPING: H 120 1945

AC2415_MARK LOGO: CGS

AC2415_MAGNETIC: N = NO MAGNETIC MATERIAL

AC2415_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AC2415+STABILITY: SURFACE MOTION

AC2415_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AC2415+SATELLITE: SATELLITE OBSERVATIONS - November 13, 2001

AC2415

AC2415 HISTORY	- Date	Condition	Report By
AC2415 HISTORY	- 1945	MONUMENTED	CGS
AC2415 HISTORY	- 1967	GOOD	NGS
AC2415 HISTORY	- 19931203	GOOD	NOS
AC2415 HISTORY	- 19960129	GOOD	NGS
AC2415 HISTORY	- 20011113	GOOD	JCLS

AC2415

AC2415 STATION DESCRIPTION

AC2415

AC2415'DESCRIBED BY NATIONAL GEODETIC SURVEY 1967

AC2415'AT MIAMI.

AC2415'AT THE LE JEUNE ROAD ENTRANCE TO OPA LOCKA AIRPORT, 86 FEET
AC2415'EAST OF THE CENTERLINE OF THE ENTRANCE DRIVEWAY, AND 30 FEET
AC2415'EAST OF THE SOUTHEAST CORNER OF THE GUARD BUILDING BY THE
AC2415'ENTRANCE GATE. SET IN THE TOP OF A CONCRETE POST.

AC2415

AC2415 STATION RECOVERY (1993)

AC2415

AC2415'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1993 (RAH)

AC2415'THE STATION IS LOCATED IN THE SOUTHEAST QUADRANT OF THE T INTERSECTION

AC2415'FORMED BY LEJEUNE ROAD (N.W. 42ND AVENUE) AND FISHERMANS ROAD (N.W.

AC2415'139TH STREET) IN OPA LOCKA, FLORIDA. TO REACH THE STATION FROM THE

AC2415'AIRPORT MANAGERS OFFICE PROCEED SOUTH THROUGH THE GATE TO CURTISS ROAD

AC2415'(N.W. 142ND STREET). TURN RIGHT ON CURTISS ROAD AND PROCEED FOR 0.05

AC2415'MI (0.08 KM) TO LEJEUNE ROAD. TURN LEFT ON LEJEUNE ROAD AND PROCEED

AC2415'SOUTH FOR 0.15 MI (0.24 KM) TO FISHERMANS ROAD. TURN LEFT AND THE

AC2415'STATION IS ON THE RIGHT AND IS MARKED BY FOUR CONCRETE FILLED STEEL

AC2415'PIPES. THE STATION IS LOCATED 44.5 FT (13.6 M) EAST OF THE EAST EDGE

AC2415'OF LEJEUNE ROAD, 41.2 FT (12.6 M) SOUTH FROM THE CENTER OF FISHERMANS

AC2415'ROAD, AND 70.9 FT (21.6 M) NORTH NORTHEAST OF THE FIRST STREET LIGHT

AC2415'SOUTH OF LEJEUNE ROAD AND FISHERMANS ROAD INTERSECTION ON EAST EDGE OF

AC2415'LEJEUNE ROAD. THE STATION IS A CGS DISK STAMPED BM H 120 AND SET FLUSH

AC2415'WITH THE GROUND. RECOVERED AND DESCRIBED BY RALPH A HARRELL, CHIEF OF

AC2415'NOS PARTY.

AC2415

AC2415 STATION RECOVERY (1996)

AC2415

AC2415'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1996 (AJL)

AC2415'NOTE-- THIS STATION WAS SELECTED AS A SECONDARY AIRPORT CONTROL

AC2415'STATION (SACS) . THE STATION IS LOCATED NEAR THE WEST SIDE OF

AC2415'OPA-LOCKA, FL. AT THE OPA-LOCKA AIRPORT. IN THE GRASS, ALONG THE

AC2415'EAST SIDE OF THE AIRPORT ENTRANCE ROAD (LE JEUNE ROAD) , ABOUT 0.40 KM

AC2415(0.25 MI) NORTH OF THE INTERSECTION OF NORTHWEST 135TH AVENUE AND LE
AC2415JEUNE ROAD, NEAR THE SOUTHEAST QUADRANT OF LE JEUNE ROAD AND NORTHWEST
AC2415139TH STREET, AND SURROUNDED BY 4 CONCRETE FILLED 4-INCH PIPES ABOUT
AC24153-FOOT HIGH. OWNERSHIP--MIAMI INTERNATIONAL AIRPORT METRO-DADE
AC2415AVIATION DEPARTMENT, OPA-LOCKA AIRPORT, 14300 NORTHWEST 41ST AVENUE,
AC2415OPA-LOCKA, FL. 33054. AIRPORT SUPERVISOR GEORGE W. MANION, PHONE
AC2415305-953-1300 OR 1302. NOTE--CONTACT AIRPORT SUPERVISOR 24-HOURS IN
AC2415ADVANCE, (ESCORT REQUIRED) . TO REACH THE STATION FROM THE JUNCTION
AC2415OF PALMETTO EXPRESSWAY AND STATE HIGHWAY 924, GO EAST, 3.4 KM (2.10
AC2415MI) ALONG HIGHWAY 924 TO STATE HIGHWAY 823 (RED ROAD / NORTHWEST 57TH
AC2415AVENUE) . TURN LEFT, NORTH, 0.42 KM (0.25 MI) ALONG RED ROAD TO STATE
AC2415HIGHWAY 916 EAST ON THE RIGHT. TURN RIGHT, EAST, 2.47 KM (1.55 MI)
AC2415ALONG HIGHWAY 916 TO LE JEUNE ROAD (NORTHWEST 42ND AVENUE) , AIRPORT
AC2415ENTRANCE ROAD AND SIGN ON THE LEFT. TURN LEFT, NORTH, 0.40 KM (0.25
AC2415MI) ALONG AIRPORT ENTRANCE ROAD TO THE STATION ON THE RIGHT. STATION
AC2415IS 22.5 M (73.8 FT) SOUTH OF THE SOUTH-SOUTHWEST CORNER OF A LOW
AC2415CONCRETE WALL JUST SOUTHWEST OF AN OPA-LOCKA AIRPORT SIGN, 17.7 M
AC2415(58.1 FT) EAST OF THE NORTH BOUND LANES CENTERLINE OF LE JEUNE ROAD,
AC241512.3 M (40.4 FT) SOUTH OF 139TH STREET CENTER, AND THE MONUMENT IS
AC2415LEVEL WITH THE ROAD CENTER AND FLUSH WITH THE GROUND SURFACE.

AC2415

AC2415 STATION RECOVERY (2001)

AC2415

AC2415RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2001

AC2415RECOVERED IN GOOD CONDITION.

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AC0477 *****
AC0477 DESIGNATION - A 237
AC0477 PID - AC0477
AC0477 STATE/COUNTY- FL/MIAMI-DADE
AC0477 USGS QUAD - HIALEAH SW (1988)
AC0477
AC0477 *CURRENT SURVEY CONTROL
AC0477
AC0477* NAD 83(1999)- 25 45 40.28800(N) 080 25 59.08152(W) ADJUSTED
AC0477* NAVD 88 - 1.975 (meters) 6.48 (feet) ADJUSTED
AC0477
AC0477 X - 955,289.727 (meters) COMP
AC0477 Y - -5,667,910.043 (meters) COMP
AC0477 Z - 2,755,248.803 (meters) COMP
AC0477 LAPLACE CORR- -2.29 (seconds) DEFLEC99
AC0477 ELLIP HEIGHT- -22.776 (meters) (12/12/02) GPS OBS
AC0477 GEOID HEIGHT- -24.76 (meters) GEOID03
AC0477 DYNAMIC HT - 1.972 (meters) 6.47 (feet) COMP
AC0477 MODELED GRAV- 979,033.0 (mgal) NAVD 88
AC0477
AC0477 HORZ ORDER - FIRST
AC0477 VERT ORDER - FIRST CLASS II
AC0477 ELLP ORDER - FIFTH CLASS I
AC0477
AC0477.The horizontal coordinates were established by GPS observations
AC0477.and adjusted by the National Geodetic Survey in December 2002.
AC0477
AC0477.The orthometric height was determined by differential leveling
AC0477.and adjusted by the NATIONAL GEODETIC SURVEY in July 2006.
AC0477
AC0477.Photographs are available for this station.
AC0477
AC0477.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AC0477
AC0477.The Laplace correction was computed from DEFLEC99 derived deflections.
AC0477
AC0477.The ellipsoidal height was determined by GPS observations
AC0477.and is referenced to NAD 83.
AC0477
AC0477.The geoid height was determined by GEOID03.
AC0477
AC0477.The dynamic height is computed by dividing the NAVD 88
AC0477.geopotential number by the normal gravity value computed on the
AC0477.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AC0477.degrees latitude (g = 980.6199 gals.).
AC0477
AC0477.The modeled gravity was interpolated from observed gravity values.
AC0477
AC0477; North East Units Scale Factor Converg.
AC0477;SPC FL E - 158,281.968 256,870.417 MT 0.99998110 +0 14 47.1
AC0477;SPC FL E - 519,296.76 842,749.03 sFT 0.99998110 +0 14 47.1
AC0477;UTM 17 - 2,849,359.944 556,851.013 MT 0.99963991 +0 14 47.1
AC0477
AC0477! - Elev Factor x Scale Factor = Combined Factor
AC0477!SPC FL E - 1.00000358 x 0.99998110 = 0.99998468
AC0477!UTM 17 - 1.00000358 x 0.99963991 = 0.99964349
AC0477
AC0477 SUPERSEDED SURVEY CONTROL
AC0477
AC0477 NAVD 88 (09/04/92) 1.990 (m) 6.53 (f) UNKNOWN 1 1
AC0477 NAVD 88 (06/15/91) 2.089 (m) 6.85 (f) UNKNOWN 1 1
AC0477 NGVD 29 (09/01/92) 2.467 (m) 8.09 (f) ADJUSTED 1 1

```

AC0477

AC0477.Superseded values are not recommended for survey control.
AC0477.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AC0477.See file dsdata.txt to determine how the superseded data were derived.

AC0477

AC0477_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ5685149360(NAD 83)
AC0477_MARKER: DB = BENCH MARK DISK
AC0477_SETTING: 66 = SET IN ROCK OUTCROP
AC0477_SP_SET: BEDROCK
AC0477_STAMPING: A 237 1965
AC0477_MARK LOGO: CGS
AC0477_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AC0477_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AC0477+STABILITY: POSITION/ELEVATION WELL
AC0477_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AC0477+SATELLITE: SATELLITE OBSERVATIONS - March 05, 2005

AC0477

AC0477 HISTORY	- Date	Condition	Report By
AC0477 HISTORY	- 1965	MONUMENTED	CGS
AC0477 HISTORY	- 1986	MARK NOT FOUND	USPSQD
AC0477 HISTORY	- 1987	MARK NOT FOUND	USPSQD
AC0477 HISTORY	- 19910302	GOOD	USPSQD
AC0477 HISTORY	- 19920218	GOOD	NGS
AC0477 HISTORY	- 20020527	GOOD	MAPTEC
AC0477 HISTORY	- 20050305	GOOD	FLDEP

AC0477

STATION DESCRIPTION

AC0477

AC0477'DESCRIBED BY COAST AND GEODETIC SURVEY 1965
AC0477'7.6 MI W FROM WEST MIAMI.
AC0477'ABOUT 7.6 MILES WEST ALONG U.S. HIGHWAY 41 FROM THE TAMIAMI
AC0477'STATION POST OFFICE AT WEST MIAMI, IN SECTION 4, R 39 E, T 54 S,
AC0477'ABOUT 0.9 MILE EAST OF A 60-FOOT CONCRETE BRIDGE UNDER THE
AC0477'NORTH LANE OF THE HIGHWAY, NEAR THE JUNCTION OF SW 147 TH AVENUE,
AC0477'ON THE SOUTH BANK OF THE TAMIAMI CANAL, SET ON THE TOP OF AND
AC0477'ABOUT IN THE CENTER OF A 4-BY-3-FOOT ROCK OUTCROP WHICH
AC0477'PROJECTS 1 FOOT ABOVE THE LEVEL OF THE GROUND, 45 FEET EAST OF
AC0477'BENCH MARK TC 15 RESET DWC DESCRIBED, 34 1/2 FEET NORTH OF THE
AC0477'CENTER LINE OF THE NORTH LANE OF THE HIGHWAY, 6 FEET SOUTH
AC0477'OF THE SOUTH BANK OF THE CANAL AND 2 FEET BELOW THE LEVEL OF
AC0477'THE HIGHWAY.

AC0477

STATION RECOVERY (1986)

AC0477

AC0477'RECOVERY NOTE BY US POWER SQUADRON 1986 (LEM)
AC0477'MARK NOT FOUND.

AC0477

STATION RECOVERY (1987)

AC0477

AC0477'RECOVERY NOTE BY US POWER SQUADRON 1987 (RRB)
AC0477'MARK NOT FOUND.

AC0477

STATION RECOVERY (1991)

AC0477

AC0477'RECOVERY NOTE BY US POWER SQUADRON 1991 (LEM)
AC0477'RECOVERED IN GOOD CONDITION.

AC0477

STATION RECOVERY (1992)

AC0477

AC0477'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992
AC0477'12.8 KM (7.95 MI) WESTERLY ALONG U.S. HIGHWAY 41 FROM THE POST
AC0477'OFFICE IN WEST MIAMI, IN TOP OF AND NEAR THE CENTER OF A 3 BY 3-FOOT

AC0477'AREA OF EXPOSED BEDROCK, 15.2 M (49.9 FT) WEST OF THE EXTENDED CENTER
AC0477'OF A HIGHWAY CROSSOVER, 10.5 M (34.4 FT) NORTH OF THE CENTERLINE OF
AC0477'THE WESTBOUND LANES OF THE HIGHWAY, 1.0 M (3.3 FT) EAST OF A WITNESS
AC0477'POST, AND 0.3 M (1.0 FT) BELOW THE LEVEL OF THE HIGHWAY.

AC0477

AC0477 STATION RECOVERY (2002)

AC0477

AC0477'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)

AC0477'STATION RECOVERY (2002)

AC0477'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)

AC0477'RECOVERED AS DESCRIBED.

AC0477'

AC0477'

AC0477

AC0477 STATION RECOVERY (2005)

AC0477

AC0477'RECOVERY NOTE BY FL DEPT OF ENV PRO 2005 (JLM)

AC0477'THE MARK IS ABOUT 7.0 MI SOUTH-SOUTHWEST OF HIALEAH, 3.2 MI WEST OF

AC0477'SWEETWATER, IN SECTION 3, TOWNSHIP 54 SOUTH, RANGE 39 EAST.

AC0477'

AC0477'TO REACH THE MARK FROM THE JUNCTION OF STATE HIGHWAY 997 (KROME

AC0477'AVENUE, SW 177 AVENUE) AND U.S. HIGHWAY 41 (TAMIAMI TRAIL, SW 8TH ST)

AC0477'ABOUT 10.0 MI SOUTHWEST OF HIALEAH, GO EAST ON U.S. HIGHWAY 41

AC0477'(TAMIAMI TRAIL, SW 8TH ST) FOR 3.05 MI TO THE JUNCTION OF SOUTHWEST

AC0477'147TH AVENUE ON THE RIGHT, A CROSSOVER AND THE MARK ON THE LEFT, SET

AC0477'IN THE TOP OF A ROCK OUTCROP ABOUT 1.0 FT BELOW THE LEVEL OF U.S.

AC0477'HIGHWAY 41 WESTBOUND LANES. THE MARK CAN ALSO BE REACHED FROM THE

AC0477'HOMESTEAD EXTENSION FLORIDA TURNPIKE OVERPASS EXIT 25 (STATE HIGHWAY

AC0477'821) IN SWEETWATER AND U.S. HIGHWAY 41 (TAMIAMI TRAIL, SW 8TH ST), GO

AC0477'WEST ON U.S. HIGHWAY 41 (TAMIAMI TRAIL, SW 8TH ST) FOR 2.95 MI TO THE

AC0477'JUNCTION OF SOUTHWEST 147TH AVENUE ON THE LEFT AND THE MARK ON THE

AC0477'RIGHT.

AC0477'

AC0477'LOCATED 70.0 FT WEST OF THE EXTENDED CENTERLINE OF SOUTHWEST 147TH

AC0477'AVENUE, 50.0 FT WEST OF THE EXTENDED CENTERLINE OF THE CROSSOVER,

AC0477'32.0 FT NORTHWEST OF AN ALUMINUM POLE NUMBER A-2-20, 28.7 FT NORTH OF

AC0477'THE NORTH CURB AND GUARDRAIL OF U.S. HIGHWAY 41 WESTBOUND LANES AND

AC0477'3.3 FT EAST OF A METAL WITNESS POST.

AC0477'

AC0477'NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE ROCK

AC0477'OUTCROP.

```

AA5493 *****
AA5493 FBN      - This is a Federal Base Network Control Station.
AA5493 DESIGNATION - BRUCE 2
AA5493 PID      - AA5493
AA5493 STATE/COUNTY- FL/MIAMI-DADE
AA5493 USGS QUAD  - KEY BISCAYNE (1994)
AA5493
AA5493          *CURRENT SURVEY CONTROL
AA5493
AA5493* NAD 83(1999)- 25 43 35.37063(N) 080 09 15.51894(W) ADJUSTED
AA5493* NAVD 88      -    0.723 (meters)  2.37 (feet) ADJUSTED
AA5493
AA5493 X      - 983,140.176 (meters)          COMP
AA5493 Y      - -5,664,838.222 (meters)       COMP
AA5493 Z      - 2,751,785.273 (meters)       COMP
AA5493 LAPLACE CORR-    -3.90 (seconds)      DEFLEC99
AA5493 ELLIP HEIGHT-   -24.997 (meters)      (04/12/01) GPS OBS
AA5493 GEOID HEIGHT-   -25.70 (meters)      GEOID03
AA5493 DYNAMIC HT -    0.722 (meters)  2.37 (feet) COMP
AA5493 MODELED GRAV-   979,021.1 (mgal)      NAVD 88
AA5493
AA5493 HORZ ORDER - A
AA5493 VERT ORDER - FIRST CLASS II
AA5493 ELLP ORDER - FOURTH CLASS I
AA5493
AA5493.This is a reference station for the ATL OCEAN&MET LAB
AA5493.National Continuously Operating Reference Station (AOML).
AA5493
AA5493.The horizontal coordinates were established by GPS observations
AA5493.and adjusted by the National Geodetic Survey in April 2001.
AA5493
AA5493.The orthometric height was determined by differential leveling
AA5493.and adjusted by the NATIONAL GEODETIC SURVEY in July 2002.
AA5493.WARNING-GPS observations at this control monument resulted in a GPS
AA5493.derived orthometric height which differed from the leveled height by
AA5493.more than one decimeter (0.1 meter).
AA5493
AA5493.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AA5493
AA5493.The Laplace correction was computed from DEFLEC99 derived deflections.
AA5493
AA5493.The ellipsoidal height was determined by GPS observations
AA5493.and is referenced to NAD 83.
AA5493
AA5493.The geoid height was determined by GEOID03.
AA5493
AA5493.The dynamic height is computed by dividing the NAVD 88
AA5493.geopotential number by the normal gravity value computed on the
AA5493.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AA5493.degrees latitude (g = 980.6199 gals.).
AA5493
AA5493.The modeled gravity was interpolated from observed gravity values.
AA5493
AA5493;          North      East      Units Scale Factor Converg.
AA5493;SPC FL E - 154,587.644 284,860.508 MT 1.00003007 +0 22 01.6
AA5493;SPC FL E - 507,176.30 934,579.85 sFT 1.00003007 +0 22 01.6
AA5493;UTM 17 - 2,845,666.881 584,831.554 MT 0.99968886 +0 22 01.6
AA5493
AA5493!          - Elev Factor x Scale Factor = Combined Factor
AA5493!SPC FL E - 1.00000393 x 1.00003007 = 1.00003400
AA5493!UTM 17 - 1.00000393 x 0.99968886 = 0.99969279
AA5493

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AA5493: Primary Azimuth Mark Grid Az
 AA5493:SPC FL E - BRUCE 313 56 46.8
 AA5493:UTM 17 - BRUCE 313 56 46.8
 AA5493
 AA5493|-----|
 AA5493| PID Reference Object Distance Geod. Az |
 AA5493| dddmmss.s |
 AA5493| AA5494 BRUCE APPROX. 1.0 KM 3141848.4 |
 AA5493|-----|

AA5493
 AA5493 SUPERSEDED SURVEY CONTROL
 AA5493
 AA5493 ELLIP H (07/24/97) -24.843 (m) GP() 2 1
 AA5493 NAD 83(1990)- 25 43 35.37003(N) 080 09 15.51953(W) AD() A
 AA5493 ELLIP H (06/30/95) -25.010 (m) GP() 2 1
 AA5493 NAVD 88 (04/12/01) 0.72 (m) 2.4 (f) LEVELING 3
 AA5493
 AA5493.Superseded values are not recommended for survey control.
 AA5493.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AA5493.See file dsdata.txt to determine how the superseded data were derived.
 AA5493
 AA5493_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ8483245667(NAD 83)
 AA5493_MARKER: F = FLANGE-ENCASED ROD
 AA5493_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 AA5493_STAMPING: BRUCE 2 1995
 AA5493_MARK LOGO: NGS
 AA5493_PROJECTION: FLUSH
 AA5493_MAGNETIC: N = NO MAGNETIC MATERIAL
 AA5493_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AA5493_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AA5493+SATELLITE: SATELLITE OBSERVATIONS - February 07, 2002
 AA5493_ROD/PIPE-DEPTH: 40.2 meters
 AA5493_SLEEVE-DEPTH : 3 meters

AA5493
 AA5493 HISTORY - Date Condition Report By
 AA5493 HISTORY - 1995 MONUMENTED NGS
 AA5493 HISTORY - 19960404 GOOD NGS
 AA5493 HISTORY - 19980408 GOOD NGS
 AA5493 HISTORY - 19980413 GOOD NGS
 AA5493 HISTORY - 19990405 GOOD FL-025
 AA5493 HISTORY - 20020207 GOOD FLDEP
 AA5493 HISTORY - 20050511 GOOD PB

AA5493
 AA5493 STATION DESCRIPTION
 AA5493
 AA5493'DESCRIBED BY NATIONAL GEODETIC SURVEY 1995 (RLT)
 AA5493'THE STATION IS IN VIRGINIA KEY, NEAR THE 1ST ENTRANCE ROAD TO THE
 AA5493'SUNDAY ON THE BAY RESTAURANT AND DOCKSIDE BAR IN SECTION 21, TOWNSHIP
 AA5493'54 SOUTH, RANGE 41 EAST. TO REACH THE STATION FROM THE TOLL BOOTH FOR
 AA5493'THE RICKENBACKER CAUSEWAY ON THE EAST SIDE OF MIAMI, GO EAST-SOUTHEAST
 AA5493'FOR 3.65 MI (5.87 KM) CROSSING THE BEAR CUT BRIDGE TO THE STATION ON
 AA5493'THE LEFT IN THE MEDIAN OF THE RICKENBACKER CAUSEWAY, A STAINLESS STEEL
 AA5493'ROD DRIVEN TO REFUSAL AT A DEPTH OF 58.8 FT, (17.9 M) WITH A LOGO CAP
 AA5493'RECESSED 0.1 FT (3.0 CM) BELOW THE LEVEL OF THE GROUND. LOCATED 63.7
 AA5493'FT (19.4 M) WEST OF AND ACROSS THE WESTBOUND LANES OF THE RICKENBACKER
 AA5493'CAUSEWAY FROM A LIGHT POLE NUMBER 8 7551 4145 06, 35.0 FT (10.7 M)
 AA5493'EAST-NORTHEAST OF THE NORTHEAST EDGE OF THE PAVEMENT OF THE SOUTHBOUND
 AA5493'LANES OF THE RICKENBACKED CAUSEWAY, 6.0 FT (1.8 M) WEST-NORTHWEST OF
 AA5493'THE NORTHWEST EDGE OF THE PAVEMENT OF THE NORTHBOUND LANES OF THE
 AA5493'RICKENBACKED CAUSEWAY AND 1.0 FT (0.3 M) NORTHEAST OF A CARSONITE
 AA5493'WITNESS POST. NOTE ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO
 AA5493'CAP.

AA5493
AA5493 STATION RECOVERY (1996)
AA5493
AA5493'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1996 (CFS)
AA5493'RECOVERED AS DESCRIBED WITH THE FOLLOWING ADDITION. THE STATION IS
AA5493'LOCATED 28.65 M (94.00 FT) SOUTHEAST OF THE SOUTHEAST CORNER OF A 1.6
AA5493'X 1.6 METER (5.2 FT) CONCRETE STORM DRAIN.
AA5493
AA5493 STATION RECOVERY (1998)
AA5493
AA5493'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (ALG)
AA5493'THE STATION WAS RECOVERED AS DESCRIBED ALL DISTANCES AND DIRECTIONS
AA5493'CHECKED.
AA5493
AA5493 STATION RECOVERY (1998)
AA5493
AA5493'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (ALG)
AA5493'RECOVERED AS DESCRIBED.
AA5493
AA5493 STATION RECOVERY (1999)
AA5493
AA5493'RECOVERY NOTE BY DADE COUNTY FLORIDA 1999
AA5493'RECOVERED AS DESCRIBED.
AA5493
AA5493 STATION RECOVERY (2002)
AA5493
AA5493'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (SS)
AA5493'RECOVERED AS DESCRIBED.
AA5493
AA5493 STATION RECOVERY (2005)
AA5493
AA5493'RECOVERY NOTE BY PBS&J 2005 (DWD)
AA5493'RECOVERED IN GOOD CONDITION.

SURVEY INFORMATION

A. Field Personnel

The following field personnel worked on this GPS network, and related survey collection:

Field Supervisor: J. Purpera

Party Chief: M. Havard

Instrument Man: V. McNeal

Instrument Man: C. LaPrarie

The point of contact for survey related questions is:

Josh Hardy

Operations Supervisor

(985) 661-3001

B. GPS Logsheets

**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: A 237(PID=AC0477)=7B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE: FLORIDA **COUNTY:** MIAMI-DADE **QUAD:** HIALEAH SW (1988)

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

LATITUDE	25 45 40.28800(N)	HGT. MTS	
LONGITUDE	080 25 59.08152(W)		1.975

RECEIVER MODEL: TRIMBLE 4000 SE
RECEIVER S/N: 4927

SESSION	DATE: 07/09/07	START TIME	17:00	<input checked="" type="checkbox"/>	U.T.C.
A237-190-1	DAY OF YEAR 190	END TIME	18:29		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/>	MEASURED
<input type="checkbox"/>	FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10015	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/>	MEASURED	<input checked="" type="checkbox"/>	FIXED HGT

TOP OF MONUMENT IS: FLUSH

METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: FOR RECOVERY OF 237(PID=AC0477)=7B SEE NGS DATA SHEET # AC0477. POINT IS A BENCH MARK SURVEY DISK.

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input checked="" type="checkbox"/>	PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
<input checked="" type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
SLIDELL, LA. 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 7C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 45 39.43N HGT. MTS
LONGITUDE: 080 25 52.64W

SESSION: 007C-190-1 DATE: 07/09/07
DAY OF YEAR: 190

START TIME: 17:18 X U.T.C.
END TIME: 17:49 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M)
S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 7C IS A SPIKE NAIL SET FLUSH W/GRD IN THE MEDIAN OF HWY 41 EAST-WEST BOUND 6 LANES. POINT IS 35FT S OF THE C/L OF HWY 41 W-- 29FT N OF HWY 41 E.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
SLIDELL, LA. 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 7C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 45 39.43N HGT. MTS
LONGITUDE: 080 25 52.64W

SESSION: 007C-190-2 DATE: 07/09/07
DAY OF YEAR: 190

START TIME: 17:54 X U.T.C.
END TIME: 18:25 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M)
S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 7C IS A SPIKE NAIL SET FLUSH W/GRD IN THE MEDIAN OF HWY 41 EAST-WEST BOUND 6 LANES. POINT IS 35FT S OF THE C/L OF HWY 41 W-- 29FT N OF HWY 41 E.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

PAGE:
1

JOB REFERENCE
FLIDAR-TO 05

POINT ID: 8B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4927

LATITUDE 25 47 37.08N **HGT. MTS**
LONGITUDE 080 20 22.38W

SESSION 008B-190-1 **DATE:** 07/09/07
DAY OF YEAR 190

START TIME 19:16 X **U.T.C.**
END TIME 21:36 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10015 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 8B IS A SPIKE NAIL SET FLUSH W/GRD IN THE S/E CORNER OF THE JUNCTION OF N/W 21 TER AND N/W 88 CT. POINT IS 22FT S OF THE C/L (POINT OF GRASSY MEDIAN) OF N/W 21 TER RD- 32FT E OF THE C/L OF N/W 88 CT-- 0.8FT S/E OF THE S/E CORNER OF A CONC SLAB.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

PAGE:
1

501 ROBERT BLVD. 2nd. FLOOR
SLIDELL, LA. 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 8C
Proj. No.: 07190.01.001.555

STATE: FLORIDA **COUNTY:** DADE **QUAD:**

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE	25 47 32.84N	HGT. MTS
LONGITUDE	080 20 24.27W	

SESSION	DATE: 07/09/07
008C-190-1	DAY OF YEAR: 190

START TIME	19:26	X	U.T.C.
END TIME	19:57		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	MEASURED	FIXED HGT.
----------------	-----------------	-------------------

ANTENNA INFO

RADIUS (M)	
S/N NUMBER	10018
ANTENNA TYPE	TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000M (UNCORRECTED)
MEASURED	X FIXED HGT

TOP OF MONUMENT IS:	X	FLUSH
METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: 8C IS A SPIKE NAIL SET FLUSH W/GRD ON THE S SIDE OF N/W 20 ST. POINT IS 22FT S OF THE C/L OF THE ST-- 25FT E OF THE C/L OF A ASP DRIVE-- 13.5FT N/E OF A STOP SIGN.

AERIAL TARGET		PHOTO I.D.
PUB. BENCH MARK	X	NEW CONTROL
PUB. CONTROL		BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

PAGE:
1

501 ROBERT BLVD. 2nd. FLOOR
SLIDELL, LA. 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 8C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 47 32.84N
LONGITUDE: 080 20 24.27W
HGT. MTS:

SESSION: 008C-190-2 DATE: 07/09/07
DAY OF YEAR: 190

START TIME: 20:02 X U.T.C.
END TIME: 21:33 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT: MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M):
S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 8C IS A SPIKE NAIL SET FLUSH W/GRD ON THE S SIDE OF N/W 20 ST. POINT IS 22FT S OF THE C/L OF THE ST-- 25FT E OF THE C/L OF A ASP DRIVE-- 13.5FT N/E OF A STOP SIGN.

AERIAL TARGET
PUB. BENCH MARK X
PUB. CONTROL
PHOTO I.D.
NEW CONTROL
BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 3B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4927

LATITUDE 25 55 46.77N **HGT. MTS**
LONGITUDE 080 08 01.18W

SESSION 003B-191-1 **DATE:** 07/10/07
DAY OF YEAR 191

START TIME 11:28 X **U.T.C.**
END TIME 12:47 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10015 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 3B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF HWY 826 N/W AND NORTH OF WINN DIXIE. POINT IS 60FT N/W OF THE C/L OF HWY 826 N/W-- 43FT N/E OF THE C/L OFN 36TH AVE-- 49FT S/E OF THE C/L OF A ASP. SERVICE RD..

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
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JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 3C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 55 48.46N HGT. MTS
LONGITUDE: 080 07 58.45W

SESSION: 003C-191-1 DATE: 07/10/07
DAY OF YEAR: 191

START TIME: 11:37 X U.T.C.
END TIME: 12:08 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT: MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M): S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 3C IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF HWY 826 N/W AND SOUTH OF WINN DIXIE. POINT IS 22FT S OF THE C/L OF A ASP. SERVICE RD.-- 37FT N/W OF A POWERPOLE # 24 B 26 -- 34FT W OF A NO PARKING SIGN.

AERIAL TARGET PHOTO I.D.
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
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703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 3C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 55 48.46N
LONGITUDE: 080 07 58.45W
HGT. MTS:

SESSION: 003C-191-2 DATE: 07/10/07
DAY OF YEAR: 191

START TIME: 12:13 X U.T.C.
END TIME: 12:44 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT: MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M):
S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 3C IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF HWY 826 N/W AND SOUTH OF WINN DIXIE. POINT IS 22FT S OF THE C/L OF A ASP. SERVICE RD.-- 37FT N/W OF A POWERPOLE # 24 B 26 -- 34FT W OF A NO PARKING SIGN.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 5B
Proj. No.: 07190.01.001.555

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STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4927

LATITUDE 25 50 46.01N **HGT. MTS**
LONGITUDE 080 14 38.24W

SESSION 005B-191-1 **DATE:** 07/10/07
DAY OF YEAR 191

START TIME 17:57 X **U.T.C.**
END TIME 19:16 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10015 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 5B IS A PK NAIL SET FLUSH W/ ASPHALT IN A SHOPPING CENTER PARKING LOT. POINT IS 2.3FT N OF THE N EDGE OF A CONC SIDEWALK-- 11FT N/W OF A NO STOPPING OR STANDING SIGN--17FT N/E OF A RIGHT LANE MUST TURN SIGN AND THE NORTH SIDE OF NW 79TH ST.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLA. KEYS LIDAR TO5

POINT ID: 5C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 50 49.45N HGT. MTS
LONGITUDE: 080 14 41.38W

SESSION: 005C-191-1 DATE: 07/10/07
DAY OF YEAR: 191

START TIME: 18:05 X U.T.C.
END TIME: 18:36 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M)
S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 5C IS A PK NAIL SET FLUSH W/ASP. IN THE WEST SIDE OF A SHOPPING CENTER PARKING LOT. POINT IS 1FT E OF THE W EDGE OF THE ASP.-- 30 FT N TO N/E OF A LIGHTPOLE-- 44FT S/W OF A LIGHTPOLE.

AERIAL TARGET
PUB. BENCH MARK X
PUB. CONTROL
PHOTO I.D.
NEW CONTROL
BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLA. KEYS LIDAR TO5

POINT ID: 5C
Proj. No.: 07190.01.001.555

STATE FLORIDA **COUNTY** MIAMI-DADE **QUAD:**

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSI
RECEIVER S/N 3158

LATITUDE 25 50 49.45N **HGT. MTS**
LONGITUDE 080 14 41.38W

SESSION 005C-191-2 **DATE:** 07/10/07
DAY OF YEAR 191

START TIME 18:41 X **U.T.C.**
END TIME 19:12 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) **S/N NUMBER** 10018
ANTENNA TYPE TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000M (UNCORRECTED)
MEASURED X **FIXED HGT**

TOP OF MONUMENT IS: X **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: 5C IS A PK NAIL SET FLUSH W/ASP. IN THE WEST SIDE OF A SHOPPING CENTER PARKING LOT. POINT IS 1FT E OF THE W EDGE OF THE ASP.-- 30 FT N TO N/E OF A LIGHTPOLE-- 44FT S/W OF A LIGHTPOLE.

AERIAL TARGET **PHOTO I.D.**
PUB. BENCH MARK X **NEW CONTROL**
PUB. CONTROL **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 6B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI/DADE

QUAD:

OPERATOR V.MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4927

LATITUDE 25 51 43.91N
LONGITUDE 080 07 13.89W
HGT. MTS

SESSION 006B-191-1
DATE: 07/10/07
DAY OF YEAR 191

START TIME 13:37
END TIME 15:02
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
 MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10015
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: 6B IS A SPIKE NAIL SET FLUSH W/GRD IN THE GRASS AT T JUNCTION OF ALTANTIC WAY AND 78TH ST. POITN IS 69FT N/E OF A CONC POWERPOLE-- 2.5FT W OF A ROUND WOODEN POST-- 3.1FT E OF A ROUND WOODEN POST.

AERIAL TARGET
PUB. BENCH MARK
PUB. CONTROL
PHOTO I.D.
 NEW CONTROL
 BASE STATION

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 6C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 51 45.94N
LONGITUDE: 080 07 13.88W
HGT. MTS:

SESSION: 006C-191-1 DATE: 07/10/07
DAY OF YEAR: 191

START TIME: 13:51 X U.T.C.
END TIME: 14:22 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT: MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M):
S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 6C IS A SPIKE NAIL SET FLUSH W/GRD ON THE E SIDE OF A BRICK ROAD. POINT IS 15FT E OF THE C/L OF THE RD-- 4.6FT N/W OF THE N/W CORNER OF CONC-- 6.8FT N/E OF A GREEN ROUND ELECTRIC HOLE COVER.

AERIAL TARGET
PUB. BENCH MARK X
PUB. CONTROL
PHOTO I.D.
NEW CONTROL
BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 6C
Proj. No.: 07190.01.001.555

STATE FLORIDA **COUNTY** MIAMI-DADE **QUAD:**

OPERATOR V. MCNEAL **APPROXIMATE POSITION (C/A/CODE)**

RECEIVER MODEL TRIMBLE 4000 SSI
RECEIVER S/N 3158

LATITUDE 25 51 45.94N **HGT. MTS**
LONGITUDE 080 07 13.88W

SESSION 006C-191-2 **DATE:** 07/10/07 **START TIME** 14:27 X **U.T.C.**
DAY OF YEAR 191 **END TIME** 14:58 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) **S/N NUMBER** 10018
ANTENNA TYPE TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000M (UNCORRECTED)
MEASURED X **FIXED HGT**

TOP OF MONUMENT IS: X **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: 6C IS A SPIKE NAIL SET FLUSH W/GRD ON THE E SIDE OF A BRICK ROAD. POINT IS 15FT E OF THE C/L OF THE RD-- 4.6FT N/W OF THE N/W CORNER OF CONC-- 6.8FT N/E OF A GREEN ROUND ELECTRIC HOLE COVER.

AERIAL TARGET **PHOTO I.D.**
PUB. BENCH MARK X **NEW CONTROL**
PUB. CONTROL **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 10B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4927

LATITUDE 25 46 59.37N **HGT. MTS**
LONGITUDE 80 10 35.45W

SESSION 010B-191-1 **DATE:** 07/10/07
DAY OF YEAR 191

START TIME 15:49 X **U.T.C.**
END TIME 17:08 **LOCAL**

ANTENNA HEIGHT (SLANT)

MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO

RADIUS (M) 0.000
S/N NUMBER 10015 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)

MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 10 B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/E SIDE OF A ASPHALT RD. POINT IS 33FT N/E OF THE C/L OF THE ASP. RD.-- 105FT N OF A POWER/LIGHTPOLE-- 108FT S/W OF A NO PARKING ANYTIME SIGN.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
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703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 10C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 47 04.37N HGT. MTS
LONGITUDE: 080 10 35.45W

SESSION: 010C-191-1 DATE: 07/10/07
DAY OF YEAR: 191

START TIME: 15:58 X U.T.C.
END TIME: 16:29 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M)
S/N NUMBER: 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 10C IS A PK NAIL SET FLUSH W/ASPHALT IN A ASP. PARKING AREA ON THE WEST SIDE OF A ASP. SERVICE ROAD. POINT IS 31FT W OF THE C/L OF THE ASP. ROAD-- 52FT S OF THE CORNER POST OF A HURRICANE FENCLINE-- 107FT N/W OF A POWERPOLE.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
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703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 10C
Proj. No.: 07190.01.001.555

STATE: FLORIDA **COUNTY:** MIAMI-DADE **QUAD:**

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 3158

LATITUDE: 25 47 04.37N **HGT. MTS:**
LONGITUDE: 080 10 35.45W

SESSION: 010C-191-2 **DATE:** 07/10/07
DAY OF YEAR: 191

START TIME: 16:34 X **U.T.C.**
END TIME: 17:05 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT: **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M): **S/N NUMBER:** 10018
ANTENNA TYPE: TRIMBLE COMPAC L1/L2 W/GRD PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X **FIXED HGT**

TOP OF MONUMENT IS: X **FLUSH**
METERS/FEET: **ABOVE GROUND**
METERS/FEET: **BELOW GROUND**

3001 DESCRIPTION: 10C IS A PK NAIL SET FLUSH W/ASPHALT IN A ASP. PARKING AREA ON THE WEST SIDE OF A ASP. SERVICE ROAD. POINT IS 31FT W OF THE C/L OF THE ASP. ROAD-- 52FT S OF THE CORNER POST OF A HURRICANE FENCLINE-- 107FT N/W OF A POWERPOLE.

AERIAL TARGET **PHOTO I.D.**
PUB. BENCH MARK X **NEW CONTROL**
PUB. CONTROL **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 87 93 A 27(PID=AB7766)=1B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** MIAMI-DADE **QUAD:** PENNSUCO (1988)

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

LATITUDE	25 55 55.40903(N)	HGT. MTS	
LONGITUDE	080 25 40.78509(W)		2.334

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4927

SESSION	DATE: 07/11/07	START TIME	19:31	<input checked="" type="checkbox"/>	U.T.C.
8793-192-1	DAY OF YEAR 192	END TIME	20:52		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/>	MEASURED
<input type="checkbox"/>	FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	90103	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/>	MEASURED	<input checked="" type="checkbox"/>	FIXED HGT

TOP OF MONUMENT IS: FLUSH

METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: FOR RECOVERY OF 87 93 A 27 (PID=AB7766)=1B SEE NGS DAT SHETT # AB7766. POINT IS A SURVEY DISK SET IN ROCK OUTCROP.

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/>	PUB. BENCH MARK	<input type="checkbox"/>	NEW CONTROL
<input checked="" type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
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703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR TO5

POINT ID: 1C
Proj. No.: 07190.01.001.555

STATE: FLORIDA **COUNTY:** MIAMI-DADE **QUAD:**

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4700
RECEIVER S/N: 9073

LATITUDE: 25 56 01.13N **HGT. MTS:**
LONGITUDE: 080 25 47.46W

SESSION: 001C-192-1 **DATE:** 07/11/07
DAY OF YEAR: 192

START TIME: 19:40 **X** **U.T.C.**
END TIME: 20:11 **LOCAL**

ANTENNA HEIGHT (SLANT)

MTRS/FT: **MEASURED** **FIXED HGT.**

ANTENNA INFO

RADIUS (M): **S/N NUMBER:** 90103
ANTENNA TYPE: TRIMBLE MICRO-CENTERED L1/L2

ANTENNA HEIGHT (VERTICAL)

MTRS/FT: 2.000M (UNCORRECTED)
MEASURED **X** **FIXED HGT**

TOP OF MONUMENT IS: **X** **FLUSH**
METERS/FEET: **ABOVE GROUND**
METERS/FEET: **BELOW GROUND**

3001 DESCRIPTION: 1C IS A SPIKE NAIL SET FLUSH W/GRD ON THE S/W SIDE OF HWY 27 AND A LEVEE RD. POINT IS 52FT S/W OF THE C/L OF HWY 27 SOUTHBOUND LANE-- 15FT S/E OF THE C/L OF THE LIMESTONE LEVEE RD-- 3FT N OF A ROCK LINE.

AERIAL TARGET **PHOTO I.D.**
PUB. BENCH MARK **X** **NEW CONTROL**
PUB. CONTROL **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

PAGE:
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501 ROBERT BLVD. 2nd. FLOOR
SLIDELL, LA. 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 1C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4700
RECEIVER S/N: 9073

LATITUDE: 25 56 01.13N HGT. MTS
LONGITUDE: 080 25 47.46W

SESSION: 001C-192-2 DATE: 07/11/07
DAY OF YEAR: 192

START TIME: 20:16 X U.T.C.
END TIME: 20:47 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M)
S/N NUMBER: 90103
ANTENNA TYPE: TRIMBLE MICRO-CENTERED L1/L2

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 1C IS A SPIKE NAIL SET FLUSH W/GRD ON THE S/W SIDE OF HWY 27 AND A LEVEE RD. POINT IS 52FT S/W OF THE C/L OF HWY 27 SOUTHBOUND LANE-- 15FT S/E OF THE C/L OF THE LIMESTONE LEVEE RD-- 3FT N OF A ROCK LINE.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLIDAR-TO 05

POINT ID: 2B
Proj. No.: 07190.01.001.555



FLIGHT POINT

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 8613

LATITUDE 25 54 28.52N
LONGITUDE 80 16 21.21W
HGT. MTS

SESSION 002B-192-1
DATE: 07/11/07
DAY OF YEAR 192

START TIME 10:47
END TIME 19:55
X **U.T.C.**
LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 76678
0.000
ANTENNA TYPE TRIMBLE MICRO-CENTERED L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED **X** **FIXED HGT**

TOP OF MONUMENT IS: **X** **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: 2B IS A 1/2" IR W/PLASTIC CAP SET FLUSH IN GROUND (GRASS/LIMESTONE OPEN AREA), (LIMESTONE GRAVEL PAINTED ORANGE), IN THE OPA-LOCKA AIRPORT AREA, ON THE NORTH SIDE OF U.S. COAST GUARD, 62.5' NORTH OF A YELLOW FIRE HYDRANT, 73' WEST OF A 2 TRANSFORMER POWERPOLE, 242.1' S.E. OF THE S.E. CORNER OF A BLDG #176.

AERIAL TARGET
PUB. BENCH MARK **X** **NEW CONTROL**
PUB. CONTROL **X** **BASE STATION**

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 3B
Proj. No.: 07190.01.001.555

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STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 3112

LATITUDE 25 55 46.73N **HGT. MTS**
LONGITUDE 080 08 01.18W

SESSION 003B-192-1 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 11:50 X **U.T.C.**
END TIME 13:35 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 59010 0.000
ANTENNA TYPE TRIMBLE MICRO-CENTERED L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 3B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF HWY 826 N/W AND SOUTH OF WINN DIXIE. POINT IS 60FT N/W OF THE C/L OF HWY 826 N/W-- 43FT N/E OF THE C/L OFN 36TH AVE-- 49FT S/E OF THE C/L OF A ASP. SERVICE RD..

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 3B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 3112

LATITUDE 25 55 46.73N **HGT. MTS**
LONGITUDE 080 08 01.18W

SESSION 003B-192-2 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 13:40 X **U.T.C.**
END TIME 15:11 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 59010 0.000
ANTENNA TYPE TRIMBLE MICRO-CENTERED L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 3B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF HWY 826 N/W AND SOUTH OF WINN DIXIE. POINT IS 60FT N/W OF THE C/L OF HWY 826 N/W-- 43FT N/E OF THE C/L OFN 36TH AVE-- 49FT S/E OF THE C/L OF A ASP. SERVICE RD..

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 4B
Proj. No.: 07190.01.001.555

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STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSi

LATITUDE 25 53 20.60N

LONGITUDE 080 22 23.53W

RECEIVER S/N 3158

SESSION
004B-192-1

DATE: 07/11/07
DAY OF YEAR 192

START TIME 11:45
END TIME 13:36

U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/> MEASURED	<input type="checkbox"/> FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10018	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/> MEASURED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> FIXED HGT

TOP OF MONUMENT IS: **FLUSH**

METERS/FEET	<input type="checkbox"/>	ABOVE GROUND
METERS/FEET	<input type="checkbox"/>	BELOW GROUND

3001 DESCRIPTION: 4B IS A SPIKE NAIL SET FLUSH W/LIMESTONE ON THE S/E SIDE OF NW 127TH ST AND THE N/E SIDE OF N/W 107 ST. POINT IS 34FT S/E OF THE C/L OF N/E 127 ST-- 30FT N/E OF THE C/L OF N/W 107 ST-- 19FT N/E OF BURIED FIBER OPTICS CABLE POST.

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/>	PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
<input type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 4B
Proj. No.: 07190.01.001.555

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Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSi

LATITUDE 25 53 20.60N

LONGITUDE 080 22 23.53W

RECEIVER S/N 3158

SESSION
004B-192-2

DATE: 07/11/07
DAY OF YEAR 192

START TIME 13:40
END TIME 15:11

U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/> MEASURED	<input type="checkbox"/> FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10018	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/> MEASURED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	FIXED HGT

TOP OF MONUMENT IS: **FLUSH**

METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: 4B IS A SPIKE NAIL SET FLUSH W/LIMESTONE ON THE S/E SIDE OF NW 127TH ST AND THE N/E SIDE OF N/W 107 ST. POINT IS 34FT S/E OF THE C/L OF N/E 127 ST-- 30FT N/E OF THE C/L OF N/W 107 ST-- 19FT N/E OF BURIED FIBER OPTICS CABLE POST.

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/>	PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
<input type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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SLIDELL, LA. 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 4C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4700
RECEIVER S/N: 9073

LATITUDE: 25 53 19.84N HGT. MTS
LONGITUDE: 080 22 20.11W

SESSION: 004C-192-1 DATE: 07/11/07
DAY OF YEAR: 192

START TIME: 11:54 X U.T.C.
END TIME: 12:25 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT: MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M):
S/N NUMBER: 90103
ANTENNA TYPE: TRIMBLE MICRO-CENTERED L1/L2

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 4C IS A SPIKE NAIL SET FLUSH W/GRD ON THE N SIDE OF NW 127 ST. POINT IS 25FT N OF THE C/L OF N/W 127 ST-- 59FT S/W OF A CONC POWERPOLE-- 40FT W OF THE W EDGE OF N/W 107 ST.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
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703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 4C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4700
RECEIVER S/N: 9073

LATITUDE: 25 53 19.84N HGT. MTS
LONGITUDE: 080 22 20.11W

SESSION: 004C-192-2 DATE: 07/11/07
DAY OF YEAR: 192

START TIME: 12:30 X U.T.C.
END TIME: 13:01 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT: MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M):
S/N NUMBER: 90103
ANTENNA TYPE: TRIMBLE MICRO-CENTERED L1/L2

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 4C IS A SPIKE NAIL SET FLUSH W/GRD ON THE N SIDE OF NW 127 ST. POINT IS 25FT N OF THE C/L OF N/W 127 ST-- 59FT S/W OF A CONC POWERPOLE-- 40FT W OF THE W EDGE OF N/W 107 ST.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 5B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR C. LAPRARIE

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4305

LATITUDE 25 50 46.01N **HGT. MTS**
LONGITUDE 080 14 38.24W

SESSION 005B-192-1 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 12:04 X **U.T.C.**
END TIME 13:35 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 24415 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 5B IS A PK NAIL SET FLUSH W/ ASPHALT IN A SHOPPING CENTER PARKING LOT. POINT IS 2.3FT N OF THE N EDGE OF A CONC SIDEWALK-- 11FT N/W OF A NO STOPPING OR STANDING SIGN--17FT N/E OF A RIGHT LANE MUST TURN SIGN AND THE NORTH SIDE OF NW 79TH ST.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 5B
Proj. No.: 07190.01.001.555

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STATE FLORIDA

COUNTY DADE

QUAD:

OPERATOR C. LAPRARIE

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE

LATITUDE 25 50 46.01N

LONGITUDE 080 14 38.24W

RECEIVER S/N 4305

SESSION
005B-192-2

DATE: 07/11/07
DAY OF YEAR 192

START TIME 13:40
END TIME 15:11

U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/> MEASURED	<input type="checkbox"/> FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	24415	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/> MEASURED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> FIXED HGT

TOP OF MONUMENT IS: **FLUSH**

METERS/FEET	<input type="checkbox"/>	ABOVE GROUND
METERS/FEET	<input type="checkbox"/>	BELOW GROUND

3001 DESCRIPTION:5B IS A PK NAIL SET FLUSH W/ASPHALT IN A SHOPPING CENTER PARKING LOT. POINT IS 2.3FT N OF THE N EDGE OF A CONC SIDEWALK-- 11FT N/W OF A NO STOPPING OR STANDING SIGN--17FT N/E OF A RIGHT LANE MUST TURN SIGN AND THE NORTH SIDE OF NW 79TH ST.

<input type="checkbox"/> AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/> PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
<input type="checkbox"/> PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 6B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI/DADE

QUAD:

OPERATOR J.PURPERA

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSI

LATITUDE 25 51 43.91N

LONGITUDE 080 07 13.89W

RECEIVER S/N 4652

SESSION
006B-192-1

DATE: 07/11/07
DAY OF YEAR 192

START TIME 11:17
END TIME 13:35

U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/> MEASURED	<input type="checkbox"/> FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	50496	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/> MEASURED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> FIXED HGT

TOP OF MONUMENT IS: **FLUSH**

METERS/FEET	<input type="checkbox"/>	ABOVE GROUND
METERS/FEET	<input type="checkbox"/>	BELOW GROUND

3001 DESCRIPTION: 6B IS A SPIKE NAIL SET FLUSH W/GRD IN THE GRASS AT T JUNCTION OF ALTANTIC WAY AND 78TH ST. POITN IS 69FT N/E OF A CONC POWERPOLE-- 2.5FT W OF A ROUND WOODEN POST-- 3.1FT E OF A ROUND WOODEN POST.

<input type="checkbox"/> AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/> PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
<input type="checkbox"/> PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO:

SKETCH:



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FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 6B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI/DADE

QUAD:

OPERATOR J.PURPERA

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSI
RECEIVER S/N 4652

LATITUDE 25 51 43.91N
LONGITUDE 080 07 13.89W
HGT. MTS

SESSION 006B-192-2
DATE: 07/11/07
DAY OF YEAR 192

START TIME 13:40
END TIME 15:11
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
 MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 50496
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: 6B IS A SPIKE NAIL SET FLUSH W/GRD IN THE GRASS AT T JUNCTION OF ALTANTIC WAY AND 78TH ST. POITN IS 69FT N/E OF A CONC POWERPOLE-- 2.5FT W OF A ROUND WOODEN POST-- 3.1FT E OF A ROUND WOODEN POST.

AERIAL TARGET
 PUB. BENCH MARK **NEW CONTROL**
 PUB. CONTROL **BASE STATION**

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 6B
Proj. No.: 07190.01.001.555

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703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 3112

LATITUDE 25 51 43.93N **HGT. MTS**
LONGITUDE 080 07 13.88W

SESSION 006B-192-3 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 15:45 X **U.T.C.**
END TIME 17:23 **LOCAL**

ANTENNA HEIGHT (SLANT)

MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO

RADIUS (M) 0.000
S/N NUMBER 59010 0.000
ANTENNA TYPE TRIMBLE MICRO-CENTERED L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)

MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 6B IS A SPIKE NAIL SET FLUSH W/GRD IN THE GRASS AT T JUNCTION OF ALTANTIC WAY AND 78TH ST. POITN IS 69FT N/E OF A CONC POWERPOLE-- 2.5FT W OF A ROUND WOODEN POST-- 3.1FT E OF A ROUND WOODEN POST, 1' SOUTH OF A CONC SIDEWALK, 8' WEST OF THE S.E. CORNER OF CONC. SIDEWALK.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 6B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 3112

LATITUDE 25 51 43.93N **HGT. MTS**
LONGITUDE 080 07 13.88W

SESSION 006B-192-4 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 17:28 X **U.T.C.**
END TIME 18:59 **LOCAL**

ANTENNA HEIGHT (SLANT)

MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO

RADIUS (M) 0.000
S/N NUMBER 59010 0.000
ANTENNA TYPE TRIMBLE MICRO-CENTERED L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)

MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 6B IS A SPIKE NAIL SET FLUSH W/GRD IN THE GRASS AT T JUNCTION OF ALTANTIC WAY AND 78TH ST. POITN IS 69FT N/E OF A CONC POWERPOLE-- 2.5FT W OF A ROUND WOODEN POST-- 3.1FT E OF A ROUND WOODEN POST, 1' SOUTH OF A CONC SIDEWALK, 8' WEST OF THE S.E. CORNER OF CONC. SIDEWALK.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 8B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR C. LAPRARIE

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4305

LATITUDE 25 47 37.08N **HGT. MTS**
LONGITUDE 080 20 22.38W

SESSION 008B-192-3 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 15:51 X **U.T.C.**
END TIME 17:23 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 24415 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 8B IS A SPIKE NAIL SET FLUSH W/GRD IN THE S/E CORNER OF THE JUNCTION OF N/W 21 TER AND N/W 88 CT. POINT IS 22FT S OF THE C/L (POINT OF GRASSY MEDIAN) OF N/W 21 TER RD- 32FT E OF THE C/L OF N/W 88 CT-- 0.8FT S/E OF THE S/E CORNER OF A CONC SLAB.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 8B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR C. LAPRARIE

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4305

LATITUDE 25 47 37.08N **HGT. MTS**
LONGITUDE 080 20 22.38W

SESSION 008B-192-4 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 17:28 X **U.T.C.**
END TIME 18:59 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 24415 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 8B IS A SPIKE NAIL SET FLUSH W/GRD IN THE S/E CORNER OF THE JUNCTION OF N/W 21 TER AND N/W 88 CT. POINT IS 22FT S OF THE C/L (POINT OF GRASSY MEDIAN) OF N/W 21 TER RD- 32FT E OF THE C/L OF N/W 88 CT- 0.8FT S/E OF THE S/E CORNER OF A CONC SLAB.

AERIAL TARGET
PUB. BENCH MARK X **PHOTO I.D.**
PUB. CONTROL X **NEW CONTROL**
X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 9B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSi
RECEIVER S/N 3158

LATITUDE 25 48 42.92N
LONGITUDE 080 16 22.89W
HGT. MTS

SESSION 009B-192-3
DATE: 07/11/07
DAY OF YEAR 192

START TIME 15:52
END TIME 17:23
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
 MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10018
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT.**

TOP OF MONUMENT IS: **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: 9B IS A SPIKE NAIL SET FLUSH W/GRD IN THE GRASSY AREA ON THE N SIDE OF LEBARON DR AND THE WEST SIDE OF EAST DR. POINT IS 20FT N OF THE C/L OF LEBARON DR-- 65FT W OF THE C/L OF EAST DR-- 22FT S/E OF A CONC LIGHTPOLE.

AERIAL TARGET
 PUB. BENCH MARK **NEW CONTROL**
 PUB. CONTROL **BASE STATION**

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 9B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSi

LATITUDE 25 48 42.92N

LONGITUDE 080 16 22.89W

RECEIVER S/N 3158

SESSION
009B-192-4

DATE: 07/11/07
DAY OF YEAR 192

START TIME 17:28
END TIME 18:59

U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/> MEASURED	<input type="checkbox"/> FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10018	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/> MEASURED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> FIXED HGT

TOP OF MONUMENT IS: **FLUSH**

METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: 9B IS A SPIKE NAIL SET FLUSH W/GRD IN THE GRASSY AREA ON THE N SIDE OF LEBARON DR AND THE WEST SIDE OF EAST DR. POINT IS 20FT N OF THE C/L OF LEBARON DR-- 65FT W OF THE C/L OF EAST DR-- 22FT S/E OF A CONC LIGHTPOLE.

<input type="checkbox"/> AERIAL TARGET	<input type="checkbox"/> PHOTO I.D.
<input type="checkbox"/> PUB. BENCH MARK	<input checked="" type="checkbox"/> NEW CONTROL
<input type="checkbox"/> PUB. CONTROL	<input checked="" type="checkbox"/> BASE STATION

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 ROBERT BLVD. 2nd. FLOOR
SLIDELL, LA. 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 9C
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MIAMI-DADE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4700
RECEIVER S/N: 9073

LATITUDE: 25 48 48.79N
LONGITUDE: 080 16 22.81W
HGT. MTS:

SESSION: 009C-192-1 DATE: 07/11/07
DAY OF YEAR: 192

START TIME: 17:32 X U.T.C.
END TIME: 18:03 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT: MEASURED FIXED HGT.

ANTENNA INFO
RADIUS (M):
S/N NUMBER: 90103
ANTENNA TYPE: TRIMBLE MICRO-CENTERED L1/L2

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000M (UNCORRECTED)
MEASURED X FIXED HGT

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 9C IS A PK NAIL SET FLUSH W/ ASPHALT ON THE W SIDE OF EAST DR AND IN A BUS LOADING UNLOADING AREA. POINT IS 30FT W OF THE C/L OF EAST DR-- 1.5FT E OF THE BOTTOM EDGE OF A CONC CURB-- 28FT S/W OF A PEOPLE CROSSING SIGN.

AERIAL TARGET
PUB. BENCH MARK X NEW CONTROL
PUB. CONTROL BASE STATION

PHOTO: SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLA. KEYS LIDAR T05

POINT ID: 9C
Proj. No.: 07190.01.001.555

STATE FLORIDA **COUNTY** MIAMI-DADE **QUAD:**

OPERATOR V. MCNEAL **APPROXIMATE POSITION (C/A/CODE)**

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 9073

LATITUDE 25 48 48.79N **HGT. MTS**
LONGITUDE 080 16 22.81W

SESSION 009C-192-3 **DATE:** 07/11/07 **START TIME** 18:08 X **U.T.C.**
DAY OF YEAR 192 **END TIME** 18:39 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) **S/N NUMBER** 90103 **ANTENNA TYPE** TRIMBLE MICRO-CENTERED L1/L2

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000M (UNCORRECTED)
MEASURED X **FIXED HGT**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 9C IS A PK NAIL SET FLUSH W/ASPHALT ON THE W SIDE OF EAST DR AND IN A BUS LOADING UNLOADING AREA. POINT IS 30FT W OF THE C/L OF EAST DR-- 1.5FT E OF THE BOTTOM EDGE OF A CONC CURB-- 28FT S/W OF A PEOPLE CROSSING SIGN.

AERIAL TARGET **PHOTO I.D.**
PUB. BENCH MARK X **NEW CONTROL**
PUB. CONTROL **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 10B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** MIAMI/DADE **QUAD:**

OPERATOR J.PURPERA

RECEIVER MODEL TRIMBLE 4000 SSI
RECEIVER S/N 4652

APPROXIMATE POSITION (C/A/CODE)

LATITUDE	25 46 59.37N	HGT. MTS
LONGITUDE	80 10 35.45W	

SESSION	DATE: 07/11/07	START TIME 15:49	<input checked="" type="checkbox"/>	U.T.C.
010B-192-3	DAY OF YEAR 192	END TIME 17:23		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	MEASURED	FIXED HGT.
----------------	-----------------	-------------------

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED	
MEASURED	<input checked="" type="checkbox"/>	FIXED HGT

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	50496	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	
TOP OF MONUMENT IS:	<input checked="" type="checkbox"/>	FLUSH
METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: 10 B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/E SIDE OF A ASPHALT RD. POINT IS 33FT W/E OF THE C/L OF THE ASP. RD.-- 105FT N OF A POWER/LIGHTPOLE-- 108FT S/W OF A NO PARKING ANYTIME SIGN.

AERIAL TARGET		PHOTO I.D.
PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 10B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
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STATE FLORIDA

COUNTY MIAMI/DADE

QUAD:

OPERATOR J.PURPERA

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSI
RECEIVER S/N 4652

LATITUDE 25 46 59.37N
LONGITUDE 80 10 35.45W
HGT. MTS

SESSION 010B-192-4
DATE: 07/11/07
DAY OF YEAR 192

START TIME 17:28
END TIME 18:59
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
 MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 50496
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
 ABOVE GROUND
 BELOW GROUND

3001 DESCRIPTION: 10 B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/E SIDE OF A ASPHALT RD. POINT IS 33FT W/E OF THE C/L OF THE ASP. RD.-- 105FT N OF A POWER/LIGHTPOLE-- 108FT S/W OF A NO PARKING ANYTIME SIGN.

AERIAL TARGET
 PUB. BENCH MARK **NEW CONTROL**
 PUB. CONTROL **BASE STATION**

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: A 237(PID=AC0477)=7B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** MIAMI-DADE **QUAD:** HIALEAH SW (1988)

OPERATOR C. LAPRARIE

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4302

LATITUDE 25 45 40.28800(N) **HGT. MTS**
LONGITUDE 080 25 59.08152(W) 1.975

SESSION A237-192-1 **DATE:** 07/11/07
DAY OF YEAR 192

START TIME 10:50 X **U.T.C.**
END TIME 19:23 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10019 0.000
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X FLUSH
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: FOR RECOVERY OF 237(PID=AC0477)=7B SEE NGS DATA SHEET # AC0477. POINT IS A BENCH MARK SURVEY DISK.

AERIAL TARGET **PHOTO I.D.**
X **PUB. BENCH MARK** X **NEW CONTROL**
X **PUB. CONTROL** X **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
TASK ORDER 4

POINT ID: BRUCE 2=4B
Proj. No.: 07190.01.001.555

STATE FLORIDA

COUNTY MIAMI/DADE

QUAD: KEY BISCAYNE 1994

OPERATOR Purpera

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSE
RECEIVER S/N 4300

LATITUDE 25 43 35.37063N
LONGITUDE 080 09 15.51894W
HGT. MTS

SESSION BRUC 192 1
DATE: 07/11/07
DAY OF YEAR 192

START TIME 10:18
END TIME 19:22
U.T.C. X
LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10011
ANTENNA TYPE COMPAC L1/L2 WITH GROUND PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
MEASURED X **FIXED HGT.**

TOP OF MONUMENT IS: X **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: REF NGS DATASHEET. PID AA5493. PICTURE TAKEN LOOKING NORTH.

AERIAL TARGET
PUB. BENCH MARK
X **PUB. CONTROL**
PHOTO I.D.
NEW CONTROL
X **BASE STATION**

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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Slidell, LA 70458
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JOB REFERENCE
FLIDAR-TO 05

POINT ID: H 120 (AC2415)
Proj. No.: 07190.01.001.555

STATE: FLORIDA **COUNTY:** MIAMI-DADE **QUAD:** OPA-LOCKA (1988)

OPERATOR: M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 4570

LATITUDE: 25 54 00.61873N **HGT. MTS:** 1.702M
LONGITUDE: 80 16 03.05531W

SESSION: H120-192-1 **DATE:** 07/11/07
DAY OF YEAR: 192

START TIME: 10:26 **U.T.C.**
END TIME: 19:48 **LOCAL**

ANTENNA HEIGHT (SLANT)

MTRS/FT: **MEASURED** **FIXED HGT.**

ANTENNA INFO

RADIUS (M): 0.000
S/N NUMBER: 24419 **0.000**
ANTENNA TYPE: TRIMBLE COMP. L1/L2 WGRD. PLANE

ANTENNA HEIGHT (VERTICAL)

MTRS/FT: 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT.**

TOP OF MONUMENT IS: **FLUSH**
METERS/FEET: **ABOVE GROUND**
METERS/FEET: **BELOW GROUND**

3001 DESCRIPTION: H 120----- REF. DATASHEET AC2415

AERIAL TARGET **PHOTO I.D.**
 PUB. BENCH MARK **NEW CONTROL**
 PUB. CONTROL **BASE STATION**

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLIDAR-TO 05

POINT ID: 2B
Proj. No.: 07190.01.001.555



FLIGHT POINT

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 3112

LATITUDE 25 54 28.52N
LONGITUDE 80 16 21.21W
HGT. MTS

SESSION 002B-193-1
DATE: 07/12/07
DAY OF YEAR 193

START TIME 10:58
END TIME 12:40
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT

MEASURED **FIXED HGT.**

ANTENNA INFO

RADIUS (M) 0.000
S/N NUMBER 76678 0.000
ANTENNA TYPE TRIMBLE MICRO-CENTERED L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)

MTRS/FT 2.000 M. UNCORRECTED

MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
METERS/FEET ABOVE GROUND
METERS/FEET BELOW GROUND

3001 DESCRIPTION: 2B IS A 1/2" IR W/PLASTIC CAP SET FLUSH IN GROUND (GRASS/LIMESTONE OPEN AREA), (LIMESTONE GRAVEL PAINTED ORANGE), IN THE OPA-LOCKA AIRPORT AREA, ON THE NORTH SIDE OF U.S. COAST GUARD, 62.5' NORTH OF A YELLOW FIRE HYDRANT, 73' WEST OF A 2 TRANSFORMER POWERPOLE, 242.1' S.E. OF THE S.E. CORNER OF A BLDG #176.

AERIAL TARGET
PUB. BENCH MARK
PUB. CONTROL **PHOTO I.D.**
 NEW CONTROL
 BASE STATION

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 Robert Blvd 2nd Floor
Slidell, LA 70458
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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 2B
Proj. No.: 07190.01.001.555

FLIGHT POINT

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4700
RECEIVER S/N 3112

LATITUDE 25 54 28.52N
LONGITUDE 80 16 21.21W

SESSION 002B-193-2
DATE: 07/12/07
DAY OF YEAR 193

START TIME 12:45
END TIME 14:16
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
 MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 76678
ANTENNA TYPE TRIMBLE MICRO-CENTERED L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
METERS/FEET **ABOVE GROUND**
METERS/FEET **BELOW GROUND**

3001 DESCRIPTION: 2B IS A 1/2" IR W/PLASTIC CAP SET FLUSH IN GROUND (GRASS/LIMESTONE OPEN AREA), (LIMESTONE GRAVEL PAINTED ORANGE), IN THE OPA-LOCKA AIRPORT AREA, ON THE NORTH SIDE OF U.S. COAST GUARD, 62.5' NORTH OF A YELLOW FIRE HYDRANT, 73' WEST OF A 2 TRANSFORMER POWERPOLE, 242.1' S.E. OF THE S.E. CORNER OF A BLDG #176.

AERIAL TARGET
PUB. BENCH MARK
PUB. CONTROL
PHOTO I.D.
 NEW CONTROL
 BASE STATION

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 2C
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR C. LAPRARIE

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4302

APPROXIMATE POSITION (C/A/CODE)

LATITUDE	25 54 30.06 N	HGT. MTS
LONGITUDE	080 16 19.94 W	

SESSION	DATE: 07/12/07	START TIME	11:08	<input checked="" type="checkbox"/>	U.T.C.
002C-193-1	DAY OF YEAR 193	END TIME	11:39		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/>	MEASURED
<input type="checkbox"/>	FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10019	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/>	MEASURED	<input checked="" type="checkbox"/>	FIXED HGT

TOP OF MONUMENT IS: FLUSH

METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: 2C IS A PK NAIL SET IN ASPHALT ON THE OPA LOCKA - PUBLIC AIRPORT LOCATED 106.2' S.E. OF THE S.E. CORNER OF BUILDING 176 ... 159.2' N.E. O A POWER POLE W/ TRANSFORMER

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/>	PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
<input type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 2C
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA **COUNTY** DADE **QUAD:**

OPERATOR C. LAPRARIE

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SE
RECEIVER S/N 4302

LATITUDE 25 54 30.06 N **HGT. MTS**
LONGITUDE 080 16 19.94 W

SESSION	DATE: 07/12/07	START TIME 11:44	<input checked="" type="checkbox"/>	U.T.C.
002C-193-2	DAY OF YEAR 193	END TIME 12:15		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/>	MEASURED
<input type="checkbox"/>	FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10019	0.000
ANTENNA TYPE	TRIMBLE COMP L1/L2 W/GRD. PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/>	MEASURED	<input checked="" type="checkbox"/>	FIXED HGT

TOP OF MONUMENT IS: FLUSH

METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: 2C IS A PK NAIL SET IN ASPHALT ON THE OPA LOCKA - PUBLIC AIRPORT LOCATED 106.2' S.E. OF THE S.E. CORNER OF BUILDING 176 ... 159.2' N.E. O A POWER POLE W/ TRANSFORMER

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/>	PUB. BENCH MARK	<input checked="" type="checkbox"/>	NEW CONTROL
<input type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 4B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSi
RECEIVER S/N 3158

LATITUDE 25 53 20.60N
LONGITUDE 080 22 23.53W

SESSION 004B-193-1
DATE: 07/12/07
DAY OF YEAR 193

START TIME 11:09
END TIME 12:40
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
 MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10018
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
 ABOVE GROUND
 BELOW GROUND

3001 DESCRIPTION: 4B IS A SPIKE NAIL SET FLUSH W/LIMESTONE ON THE S/E SIDE OF NW 127TH ST AND THE N/E SIDE OF N/W 107 ST. POINT IS 34FT S/E OF THE C/L OF N/E 127 ST-- 30FT N/E OF THE C/L OF N/W 107 ST-- 19FT N/E OF BURIED FIBER OPTICS CABLE POST.

AERIAL TARGET
 PUB. BENCH MARK **NEW CONTROL**
 PUB. CONTROL **BASE STATION**

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
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JOB REFERENCE
FLIDAR-TO 05

POINT ID: 4B
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE FLORIDA

COUNTY MIAMI-DADE

QUAD:

OPERATOR V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL TRIMBLE 4000 SSi
RECEIVER S/N 3158

LATITUDE 25 53 20.60N
LONGITUDE 080 22 23.53W

SESSION 004B-193-2
DATE: 07/12/07
DAY OF YEAR 193

START TIME 12:45
END TIME 14:16
 U.T.C.
 LOCAL

ANTENNA HEIGHT (SLANT)
MTRS/FT
 MEASURED **FIXED HGT.**

ANTENNA INFO
RADIUS (M) 0.000
S/N NUMBER 10018
ANTENNA TYPE TRIMBLE COMP L1/L2 W/GRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT 2.000 M. UNCORRECTED
 MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
 ABOVE GROUND
 BELOW GROUND

3001 DESCRIPTION: 4B IS A SPIKE NAIL SET FLUSH W/LIMESTONE ON THE S/E SIDE OF NW 127TH ST AND THE N/E SIDE OF N/W 107 ST. POINT IS 34FT S/E OF THE C/L OF N/E 127 ST-- 30FT N/E OF THE C/L OF N/W 107 ST-- 19FT N/E OF BURIED FIBER OPTICS CABLE POST.

AERIAL TARGET
 PUB. BENCH MARK **NEW CONTROL**
 PUB. CONTROL **BASE STATION**

PHOTO:

SKETCH:



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLIDAR-TASK ORDER 5

POINT ID: 87 93 A 27=1B
Proj. No.: 07190.01.001.555

STATE: FLORIDA **COUNTY:** MIAMI/DADE **QUAD:** PENNSUCO 1988

OPERATOR: Purpera

APPROXIMATE POSITION (C/A/CODE)

LATITUDE	25 55 55.40N	HGT. MTS	
LONGITUDE	80 25 40.78W		2.334

RECEIVER MODEL: TRIMBLE 4000SE
RECEIVER S/N: 4300

SESSION	DATE: 07/12/07	START TIME	10:43	<input checked="" type="checkbox"/>	U.T.C.
8793 193 1	DAY OF YEAR 193	END TIME	12:40		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/>	MEASURED
<input type="checkbox"/>	FIXED HGT.

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10011	0.000
ANTENNA TYPE	COMPAC L1/L2 WITH GROUND PLANE	

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED		
<input type="checkbox"/>	MEASURED	<input checked="" type="checkbox"/>	FIXED HGT

TOP OF MONUMENT IS: **FLUSH**

METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION:REF NGS DATASHEET PID AB7766.

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/>	PUB. BENCH MARK	<input type="checkbox"/>	NEW CONTROL
<input checked="" type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE
FLIDAR-TASK ORDER 5

POINT ID: 87 93 A 27=1B
Proj. No.: 07190.01.001.555

STATE: FLORIDA **COUNTY:** MIAMI/DADE **QUAD:** PENNSUCO 1988

OPERATOR: Purpera

RECEIVER MODEL: TRIMBLE 4000SE
RECEIVER S/N: 4300

APPROXIMATE POSITION (C/A/CODE)

LATITUDE	25 55 55.40N	HGT. MTS	
LONGITUDE	80 25 40.78W		2.334

SESSION	DATE: 07/12/07	START TIME	12:45	<input checked="" type="checkbox"/>	U.T.C.
8793 193 2	DAY OF YEAR 193	END TIME	14:16		LOCAL

ANTENNA HEIGHT (SLANT)

MTRS/FT	
<input type="checkbox"/>	MEASURED
<input type="checkbox"/>	FIXED HGT.

ANTENNA HEIGHT (VERTICAL)

MTRS/FT	2.000 M. UNCORRECTED
<input type="checkbox"/>	MEASURED
<input checked="" type="checkbox"/>	FIXED HGT

ANTENNA INFO

RADIUS (M)		0.000
S/N NUMBER	10011	0.000
ANTENNA TYPE	COMPAC L1/L2 WITH GROUND PLANE	
TOP OF MONUMENT IS:	<input checked="" type="checkbox"/>	FLUSH
METERS/FEET		ABOVE GROUND
METERS/FEET		BELOW GROUND

3001 DESCRIPTION: REF NGS DATASHEET PID AB7766.

<input type="checkbox"/>	AERIAL TARGET	<input type="checkbox"/>	PHOTO I.D.
<input type="checkbox"/>	PUB. BENCH MARK	<input type="checkbox"/>	NEW CONTROL
<input checked="" type="checkbox"/>	PUB. CONTROL	<input checked="" type="checkbox"/>	BASE STATION

PHOTO: **SKETCH:**



**GPS CONTROL SURVEY
FIELD DATA SHEET**

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JOB REFERENCE
FLIDAR-TO 05

POINT ID: H 120 (AC2415)
Proj. No.: 07190.01.001.555

501 Robert Blvd 2nd Floor
Slidell, LA 70458
703-574-2336 voice 985-649-5082 fax

STATE: FLORIDA **COUNTY:** MIAMI-DADE **QUAD:** OPA-LOCKA (1988)

OPERATOR: M. HAVARD

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4000 SSI
RECEIVER S/N: 4570

LATITUDE: 25 54 00.61873N **HGT. MTS:**
LONGITUDE: 80 16 03.05531W 1.702M

SESSION: H120-193-1 **DATE:** 07/12/07
DAY OF YEAR: 193

START TIME: 10:50 **U.T.C.**
END TIME: 14:22 **LOCAL**

ANTENNA HEIGHT (SLANT)
MTRS/FT: **MEASURED** **FIXED HGT.**

ANTENNA INFO
RADIUS (M): 0.000
S/N NUMBER: 24419 0.000
ANTENNA TYPE: TRIMBLE COMP. L1/L2 WGRD. PLANE

ANTENNA HEIGHT (VERTICAL)
MTRS/FT: 2.000 M. UNCORRECTED
MEASURED **FIXED HGT**

TOP OF MONUMENT IS: **FLUSH**
METERS/FEET: **ABOVE GROUND**
METERS/FEET: **BELOW GROUND**

3001 DESCRIPTION: H 120----- REF. DATASHEET AC2415

AERIAL TARGET **PHOTO I.D.**
PUB. BENCH MARK **NEW CONTROL**
 PUB. CONTROL **BASE STATION**

PHOTO: **SKETCH:**



RTK GPS Log

Project Name: FLIDAR-TO05
Project No: 07190.01.001.555
Project Location: MIAMI-DADE CO.,FL.

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
07/09/07	10	10B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	10C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	PK NAIL-RTK
07/09/07	10	10B	1.701M	SOKKIA SET 3B INSTR.	10C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL
07/09/07	10	10B	1.701M	SOKKIA SET 3B INSTR.	10A1	10A15	1.86M	FIBER ROD W/PRISMS	3111
07/09/07	10	10B	1.701M	SOKKIA SET 3B INSTR.	10A16	10A30	1.86M	FIBER ROD W/PRISMS	C111
07/09/07	10	10B	1.701M	SOKKIA SET 3B INSTR.	10A31	10A40	1.86M	FIBER ROD W/PRISMS	6111
07/09/07	10	10B	1.701M	SOKKIA SET 3B INSTR.	10A41	10A43	0.00M	FIBER ROD W/PRISMS	BLDG ROOF CORNERS-HORZ
07/09/07	10	10B	1.701M	SOKKIA SET 3B INSTR.	10C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL-CHK
07/09/07	6	6B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	6C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/09/07	6	6B	1.681M	SOKKIA SET 3B INSTR.	6C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	SPIKE NAIL
07/09/07	6	6B	1.649M	SOKKIA SET 3B INSTR.	6A1	6A15	1.86M	FIBER ROD W/PRISMS	6111
07/09/07	6	6B	1.681M	SOKKIA SET 3B INSTR.	6A16	6A30	1.86M	FIBER ROD W/PRISMS	C111
07/09/07	6	6B	1.681M	SOKKIA SET 3B INSTR.	6A31	6A40	1.86M	FIBER ROD W/PRISMS	3111
07/09/07	6	6B	1.681M	SOKKIA SET 3B INSTR.	6C CHK		2.063M	FIBER ROD W/PRISMS	SPIKE NAIL-CHK
07/09/07	3	3B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	3C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/09/07	3	3B	1.649M	SOKKIA SET 3B INSTR.	3C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	SPIKE NAIL
07/09/07	3	3B	1.649M	SOKKIA SET 3B INSTR.	3A1	3A25	1.86M	FIBER ROD W/PRISMS	3111
07/09/07	3	3B	1.649M	SOKKIA SET 3B INSTR.	3A26	3A40	1.86M	FIBER ROD W/PRISMS	C111
07/09/07	3	3B	1.649M	SOKKIA SET 3B INSTR.	3A41	3A50	1.86M	FIBER ROD W/PRISMS	6111
07/09/07	3	3B	1.649M	SOKKIA SET 3B INSTR.	3C CHK		2.063M	FIBER ROD W/PRISMS	SPIKE NAIL-CHK
07/10/07	5	5B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	5C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	PK NAIL-RTK
07/10/07	5	5B	1.706M	SOKKIA SET 3B INSTR.	5C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL
07/10/07	5	5B	1.706M	SOKKIA SET 3B INSTR.	5A1	5A40	1.86M	FIBER ROD W/PRISMS	A111
07/10/07	5	5B	1.706M	SOKKIA SET 3B INSTR.	5A41	5A55	1.86M	FIBER ROD W/PRISMS	3111
07/10/07	5	5B	1.706M	SOKKIA SET 3B INSTR.	5A56	5A60	0.00M	FIBER ROD W/PRISMS	CONC BLOCK CORNERS-HORZ
07/10/07	5	5B	1.706M	SOKKIA SET 3B INSTR.	5C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL-CHK
07/10/07	1	87 93 A 27=1B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	1C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/10/07	1	87 93 A 27=1B	1.714M	SOKKIA SET 3B INSTR.	1C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	SPIKE NAIL
07/10/07	1	87 93 A 27=1B	1.714M	SOKKIA SET 3B INSTR.	1A1	1A20	1.86M	FIBER ROD W/PRISMS	3111
07/10/07	1	87 93 A 27=1B	1.714M	SOKKIA SET 3B INSTR.	1A21	1A30	1.86M	FIBER ROD W/PRISMS	C111
07/10/07	1	87 93 A 27=1B	1.714M	SOKKIA SET 3B INSTR.	1A31	1A40	1.86M	FIBER ROD W/PRISMS	A111
07/10/07	1	87 93 A 27=1B	1.714M	SOKKIA SET 3B INSTR.	1C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	SPIKE NAIL-CHK
07/10/07	4	4B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	4C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	PK NAIL-RTK
07/10/07	4	4B	1.699M	SOKKIA SET 3B INSTR.	4C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL
07/10/07	4	4B	1.699M	SOKKIA SET 3B INSTR.	4A1	4A15	1.86M	FIBER ROD W/PRISMS	C111
07/10/07	4	4B	1.699M	SOKKIA SET 3B INSTR.	4A16	4A30	1.86M	FIBER ROD W/PRISMS	3111
07/10/07	4	4B	1.699M	SOKKIA SET 3B INSTR.	4A31	4A70	1.86M	FIBER ROD W/PRISMS	8111
07/10/07	4	4B	1.699M	SOKKIA SET 3B INSTR.	4A71	4A77	0.00M	FIBER ROD W/PRISMS	BLDG ROOF CORNERS-HORZ
07/10/07	4	4B	1.699M	SOKKIA SET 3B INSTR.	4C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL-CHK
07/10/07	8	8B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	8C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/10/07	8	8B	1.670M	SOKKIA SET 3B INSTR.	8C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	SPIKE NAIL
07/10/07	8	8B	1.670M	SOKKIA SET 3B INSTR.	8A1	8A30	1.86M	FIBER ROD W/PRISMS	3111
07/10/07	8	8B	1.670M	SOKKIA SET 3B INSTR.	8A31	8A40	1.86M	FIBER ROD W/PRISMS	6111
07/10/07	8	8B	1.670M	SOKKIA SET 3B INSTR.	8C CHK		2.063M	FIBER ROD W/PRISMS	SPIKE NAIL-CHK
07/10/07	7	A 237=7B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	7C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/10/07	7	A 237=7B	1.484M	SOKKIA SET 3B INSTR.	7C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	SPIKE NAIL
07/10/07	7	A 237=7B	1.484M	SOKKIA SET 3B INSTR.	7A1	7A40	1.86M	FIBER ROD W/PRISMS	5121
07/10/07	7	A 237=7B	1.484M	SOKKIA SET 3B INSTR.	7A41	7A55	1.86M	FIBER ROD W/PRISMS	3111
07/10/07	7	A 237=7B	1.484M	SOKKIA SET 3B INSTR.	7A56	7A70	1.86M	FIBER ROD W/PRISMS	A111
07/10/07	7	A 237=7B	1.484M	SOKKIA SET 3B INSTR.	7C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	SPIKE NAIL-CHK
07/10/07	9	9B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	9C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	PK NAIL-RTK
07/10/07	9	9B	1.730M	SOKKIA SET 3B INSTR.	9C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL
07/10/07	9	9B	1.730M	SOKKIA SET 3B INSTR.	9A1	9A20	1.86M	FIBER ROD W/PRISMS	3111
07/10/07	9	9B	1.730M	SOKKIA SET 3B INSTR.	9A21	9A40	1.86M	FIBER ROD W/PRISMS	6111
07/10/07	9	9B	1.730M	SOKKIA SET 3B INSTR.	9A41	9A44	1.86M	FIBER ROD W/PRISMS	CONC SIDEWALK CORNERS-HORZ
07/10/07	9	9B	1.730M	SOKKIA SET 3B INSTR.	9C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL-CHK
07/10/07	2	2B	2.063M	TRIMBLE COMP.L1/L2 W/GRD.PLANE	2C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	PK NAIL-RTK
07/10/07	2	2B	1.708M	SOKKIA SET 3B INSTR.	2C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL
07/10/07	2	2B	1.708M	SOKKIA SET 3B INSTR.	2A1	2A3	0.00M	FIBER ROD W/PRISMS	BLDG ROOF CORNERS-HORZ
07/10/07	2	2B	1.708M	SOKKIA SET 3B INSTR.	2A4	2A20	1.86M	FIBER ROD W/PRISMS	6111
07/10/07	2	2B	1.708M	SOKKIA SET 3B INSTR.	2A21	2A30	1.86M	FIBER ROD W/PRISMS	3111
07/10/07	2	2B	1.708M	SOKKIA SET 3B INSTR.	2A31	2A45	1.86M	FIBER ROD W/PRISMS	C111
07/10/07	2	2B	1.708M	SOKKIA SET 3B INSTR.	2C CHK		2.063M	SECO FIXED HGT.TRIPOD W/PRISMS	PK NAIL-CHK