

# ***GROUND CONTROL SURVEY REPORT***

## **GROUND TRUTH SURVEY FOR LIDAR CONTROL**

### **Professional Management and LiDAR Data Collection and Processing Services**

#### **Block 2**

**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  
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*Services provided by:*



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June 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 2

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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## **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 2. The data was collected between June 30 and July 3, 2007. Additional survey data was collected on December 9, 2007. The ground control stations were established utilizing six Trimble 4000 series receivers, two Trimble 4700 GPS receivers, six Trimble Compact L1/L2 antennas with ground plane, one Trimble microcentered L1/L2 antenna with ground plane, and one Trimble microcentered L1/L2 antenna without ground plane. There were no problems encountered during this survey.

Following the control network surveys, surveys were conducted at 11 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 four hour occupations. These monuments were then tied to newly established monuments, or secondary control monuments, with multiple 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 positions are 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  $\chi^2$  test. None of the residual components in the network were flagged for possible rejection under the  $\tau$ -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.

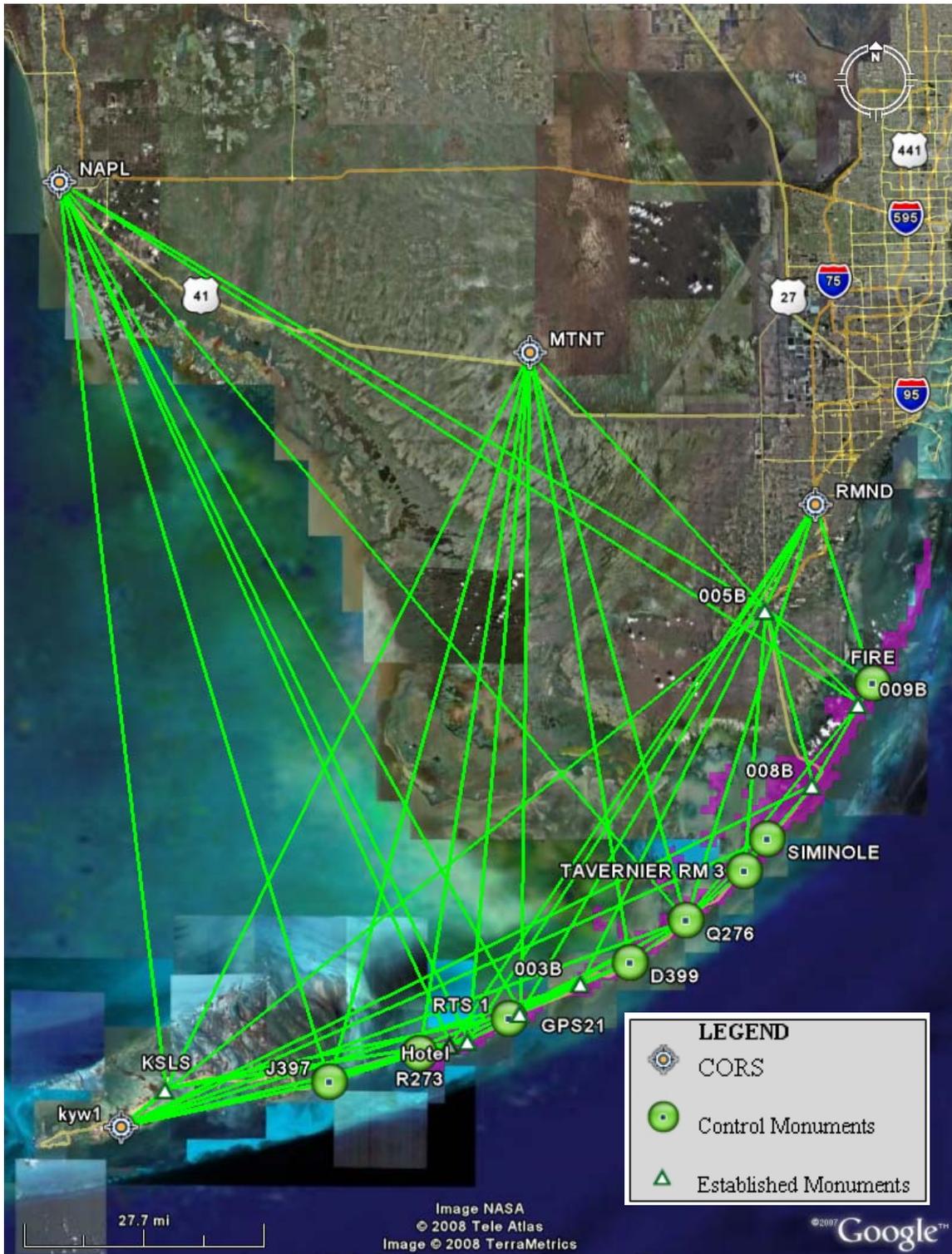
### **SAMPLE POINTS / TEST POINTS**

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**

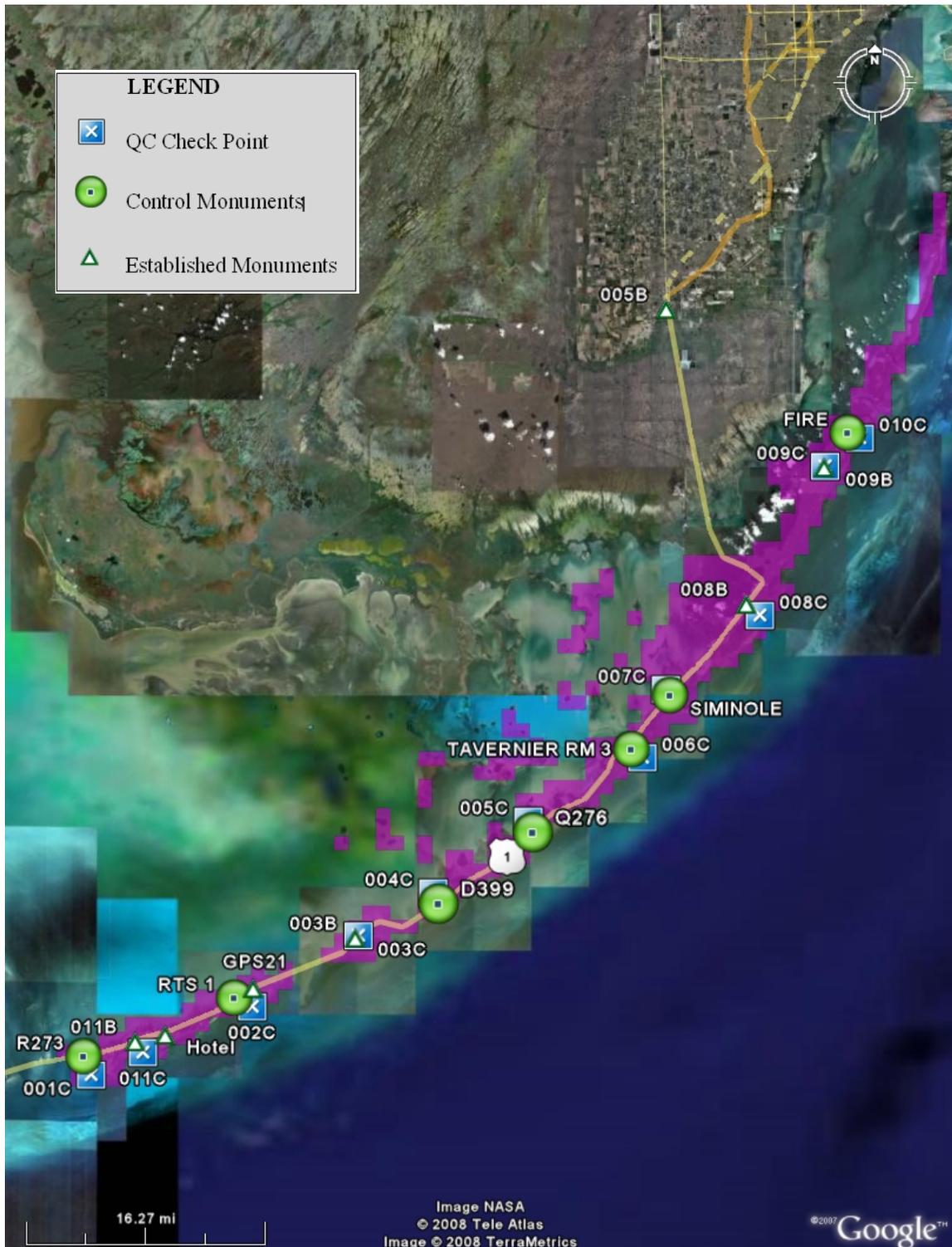
## **A. GPS Network Map**

# 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	Elev	Ellip Ht	Northing error	Easting error	Ellip error	Fix
KYW1	24 34 56.16457	81 39 10.90470	90972.24	439167.31	31.52	-39.84	0.00	0.00	0.00	LLh
MTNT	25 51 56.76081	80 54 25.18701	556914.06	686748.36	17.53	-62.15	0.00	0.00	0.00	LLh
NAPL	26 08 55.10356	81 46 34.62742	660475.38	401512.49	19.92	-57.21	0.00	0.00	0.00	LLh
RMND	25 36 49.58921	80 23 02.14117	465790.41	859175.16	35.96	-46.22	0.00	0.00	0.00	LLh
J397	24 39 38.94748	81 16 20.06492	119091.80	565759.72	8.06	-64.15	0.00	0.00	0.00	LLh
SIMINOLE	25 03 44.30649	80 28 28.23301	265240.75	830112.92	8.93	-70.13	0.00	0.00	0.02	LL
Q276	24 55 42.90856	80 37 22.95398	216480.82	781080.36	7.41	-69.55	0.00	0.00	0.00	h
D399	24 51 31.91037	80 43 29.69810	191062.74	747373.22	3.34	-72.41	0.01	0.01	0.02	
FIRE	25 19 07.45482	80 16 49.77283	358731.69	893839.43	0.69	-81.81	0.01	0.01	0.02	
R273	24 42 30.64860	81 06 31.59837	136348.34	620057.15	3.77	-69.21	0.01	0.01	0.02	
RTS 1	24 45 59.44777	80 56 44.12591	157414.32	674219.95	4.53	-69.41	0.01	0.01	0.02	
TAVERNIER RM 3	25 00 34.77736	80 30 59.28237	246056.18	816292.18	7.12	-71.26	0.01	0.01	0.02	
GPS21	24 46 37.33606	80 55 24.81625	161242.38	681527.61	12.75	-61.35	0.00	0.00	0.01	
Hotel	24 43 51.71006	81 01 07.52246	144516.97	649941.50	5.16	-68.32	0.01	0.01	0.02	
KSLS	24 38 51.90990	81 34 13.30565	114647.36	466736.39	0.94	-70.20	0.01	0.01	0.04	
003B	24 49 35.26182	80 48 47.47316	179238.14	718122.26	3.26	-71.70	0.01	0.00	0.01	
005B	25 26 29.92545	80 28 30.95312	403102.10	829324.17	6.26	-75.20	0.01	0.01	0.02	
008B	25 09 08.59795	80 23 23.75007	298095.91	857962.57	11.04	-69.30	0.01	0.01	0.01	
009B	25 17 09.34818	80 18 17.31747	346765.82	885868.13	2.99	-79.00	0.00	0.00	0.01	
011B	24 43 28.10440	81 03 04.71640	142136.92	639136.04	4.34	-68.97	0.01	0.00	0.01	
001C	24 42 31.26775	81 06 25.08163	136410.36	620658.11	2.80	-70.19	0.01	0.01	0.02	
002C	24 45 54.24492	80 56 50.13116	156888.92	673666.66	4.91	-69.02	0.01	0.01	0.03	
003C	24 49 38.06445	80 48 43.10674	179521.60	718524.13	3.25	-71.73	0.01	0.01	0.02	
004C	24 51 30.12087	80 43 30.22706	190882.00	747324.87	2.61	-73.14	0.01	0.01	0.02	
005C	24 55 42.13948	80 37 20.58986	216403.79	781298.19	2.60	-74.37	0.01	0.01	0.03	
006C	25 00 35.87221	80 31 00.42900	246166.33	816186.31	8.50	-69.88	0.01	0.01	0.03	
007C	25 03 40.85442	80 28 31.66725	264891.04	829798.49	6.78	-72.27	0.01	0.01	0.02	
008C	25 09 12.94435	80 23 21.11675	298535.79	858202.54	10.91	-69.45	0.01	0.01	0.03	
009C	25 17 08.31431	80 18 21.43625	346659.49	885490.63	2.96	-79.02	0.01	0.01	0.02	
010C	25 19 11.35619	80 16 47.71146	359126.57	894026.47	2.43	-80.09	0.01	0.01	0.02	
011C	24 43 26.50271	81 03 09.49848	141975.41	638695.07	3.24	-70.05	0.01	0.01	0.03	

ERRORS ARE REPORTED AT THE 95% CONFIDENCE LEVEL.

## **C. NGS Published Positions vs GPS Derived Positions**

## NGS Positions vs GPS Derived Positions

**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**

### NGS Positions

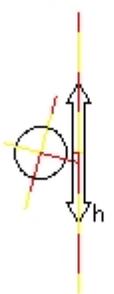
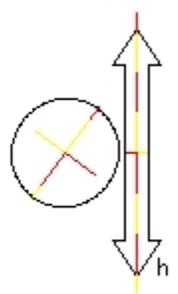
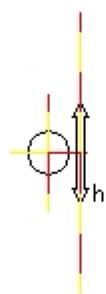
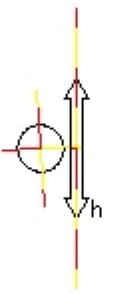
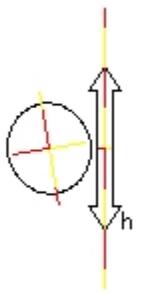
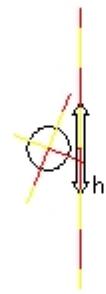
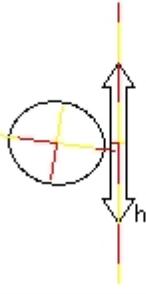
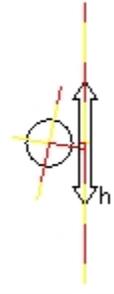
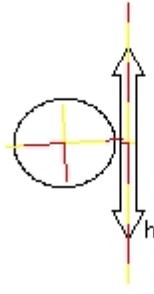
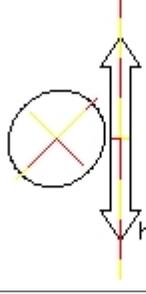
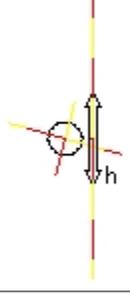
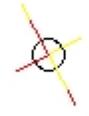
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kyw1	90972.24	439167.31		-39.84	CORS	CORS	CORS
mntnt	556914.06	686748.36		-62.15	CORS	CORS	CORS
napl	660475.38	401512.49		-57.21	CORS	CORS	CORS
rmnd	465790.41	859175.16		-46.22	CORS	CORS	CORS
D 399			3.44		-	1	-
FIRE	358731.72	893839.33	1.0	-81.70	2	-	4
J 397	119091.80	565759.72	8.06	-63.75	2	1	4
Q 276			7.42		-	1	-
R 273	136348.369	620057.116	3.89	-69.22	A	1	4
RTS 1	157414.252	674219.961		-69.11	1	-	4
SIMINOLE	265240.751	830112.92	9.0	-70.24	1	-	4
TAVERNIER RM 3	246055.955	816292.328		-70.82	2	-	4

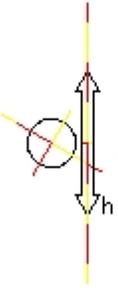
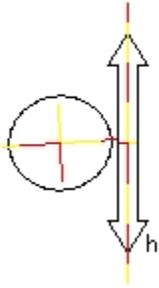
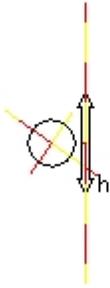
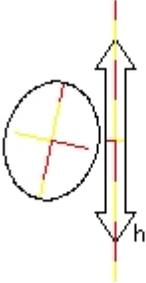
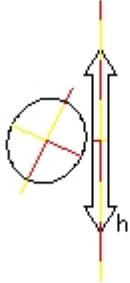
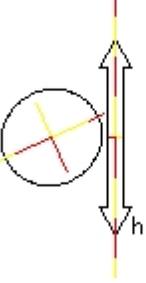
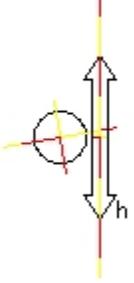
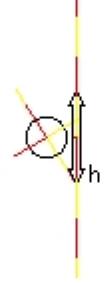
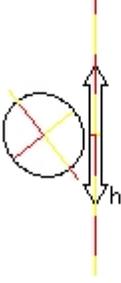
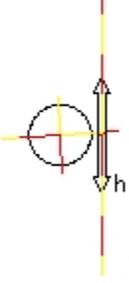
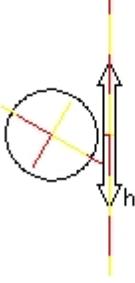
### GPS Derived Positions

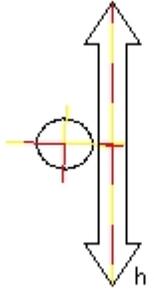
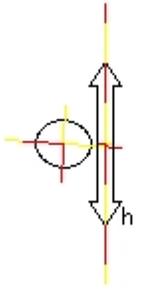
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556914.06	686748.36	17.53	-62.15	0.00	0.00		0.00
660475.38	401512.49	19.92	-57.21	0.00	0.00		0.00
465790.41	859175.16	35.96	-46.22	0.00	0.00		0.00
191062.74	747373.22	3.34	-72.41			0.10	
358731.69	893839.43	0.69	-81.81	0.03	-0.10	0.31	0.11
119091.80	565759.72	8.06	-64.15	0.00	0.00	0.01	0.40
216480.82	781080.36	7.41	-69.55			0.01	
136348.34	620057.15	3.77	-69.21	0.03	-0.03	0.12	-0.01
157414.323	674219.95	4.53	-69.41	-0.07	0.01		0.30
265240.751	830112.92	8.93	-70.13	0.00	0.00	0.07	-0.11
246056.182	816292.18	7.12	-71.26	-0.23	0.15		0.44

## **D. Error Ellipses**

## Point Error Ellipses

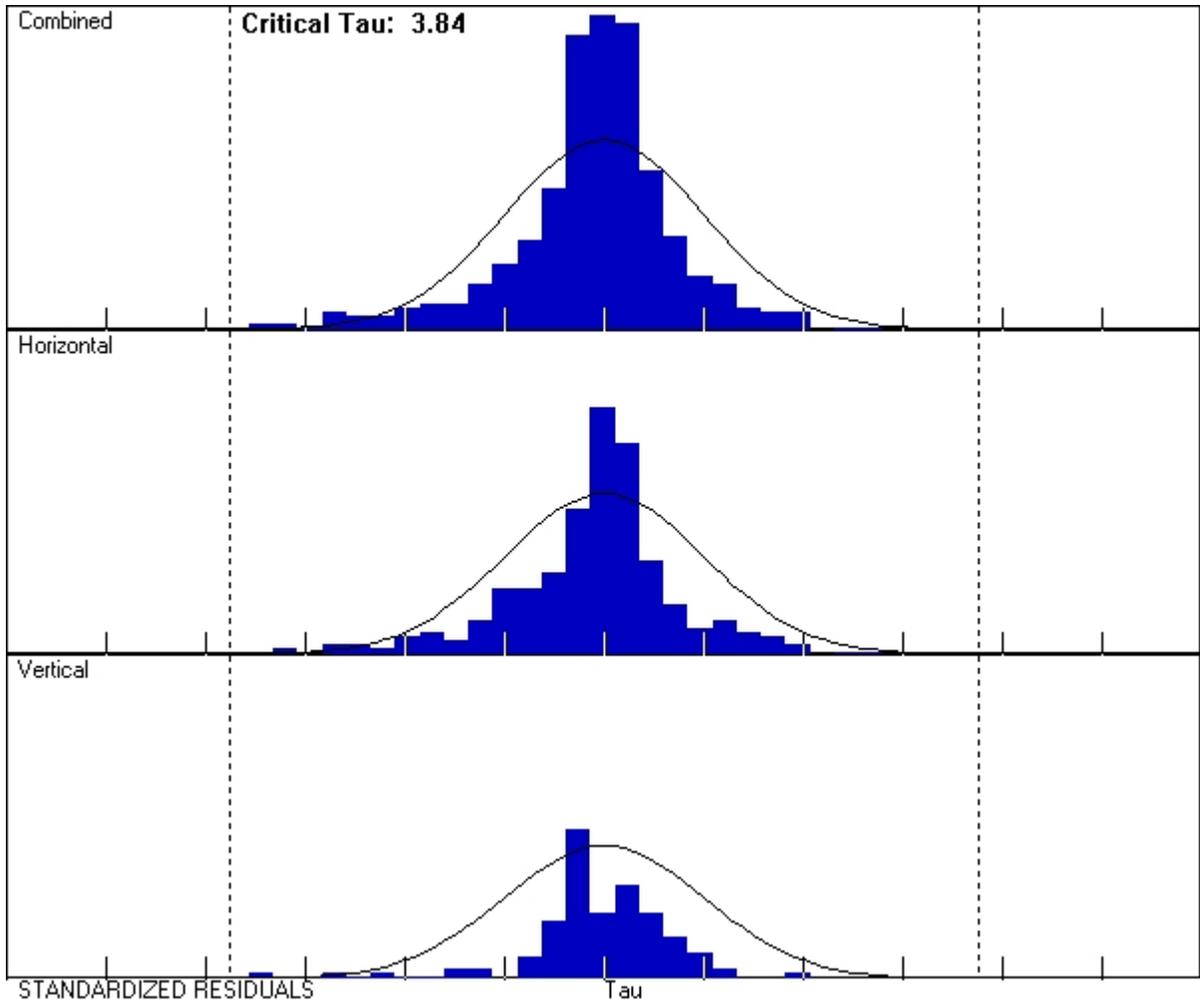
<b>RTS1</b>	<b>002C</b>	<b>011B</b>
 74°	 53°	 90°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		
<b>R273</b>	<b>001C</b>	<b>003B</b>
 -86°	 -79°	 68°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		
<b>003C</b>	<b>D399</b>	<b>004C</b>
 -9°	 79°	 4°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		
<b>011C</b>	<b>GPS21</b>	<b>Q276</b>
 46°	 -17°	 -62°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		

<b>TAVE</b>	<b>006C</b>	<b>008B</b>
 -31°	 4°	 -36°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		
<b>005C</b>	<b>SIMI</b>	<b>007C</b>
 77°	 0°	 64°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		
<b>008C</b>	<b>005B</b>	<b>009B</b>
 25°	 10°	 -58°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		
<b>009C</b>	<b>FIRE</b>	<b>010C</b>
 -52°	 5°	 -30°
Tick Size: 0.033 ft    Horizontal Bivariate Scalar: $2.45\sigma$ Vertical Univariate Scalar: $1.96\sigma$		

KSLs	Hotel	
 <p data-bbox="191 567 224 598">-4°</p>	 <p data-bbox="634 567 667 598">-4°</p>	
<p>Tick Size: 0.033 ft    Horizontal Bivariate Scalar: <math>2.45\sigma</math>    Vertical Univariate Scalar: <math>1.96\sigma</math></p>		

## **E. Histograms of Standardized Residuals**

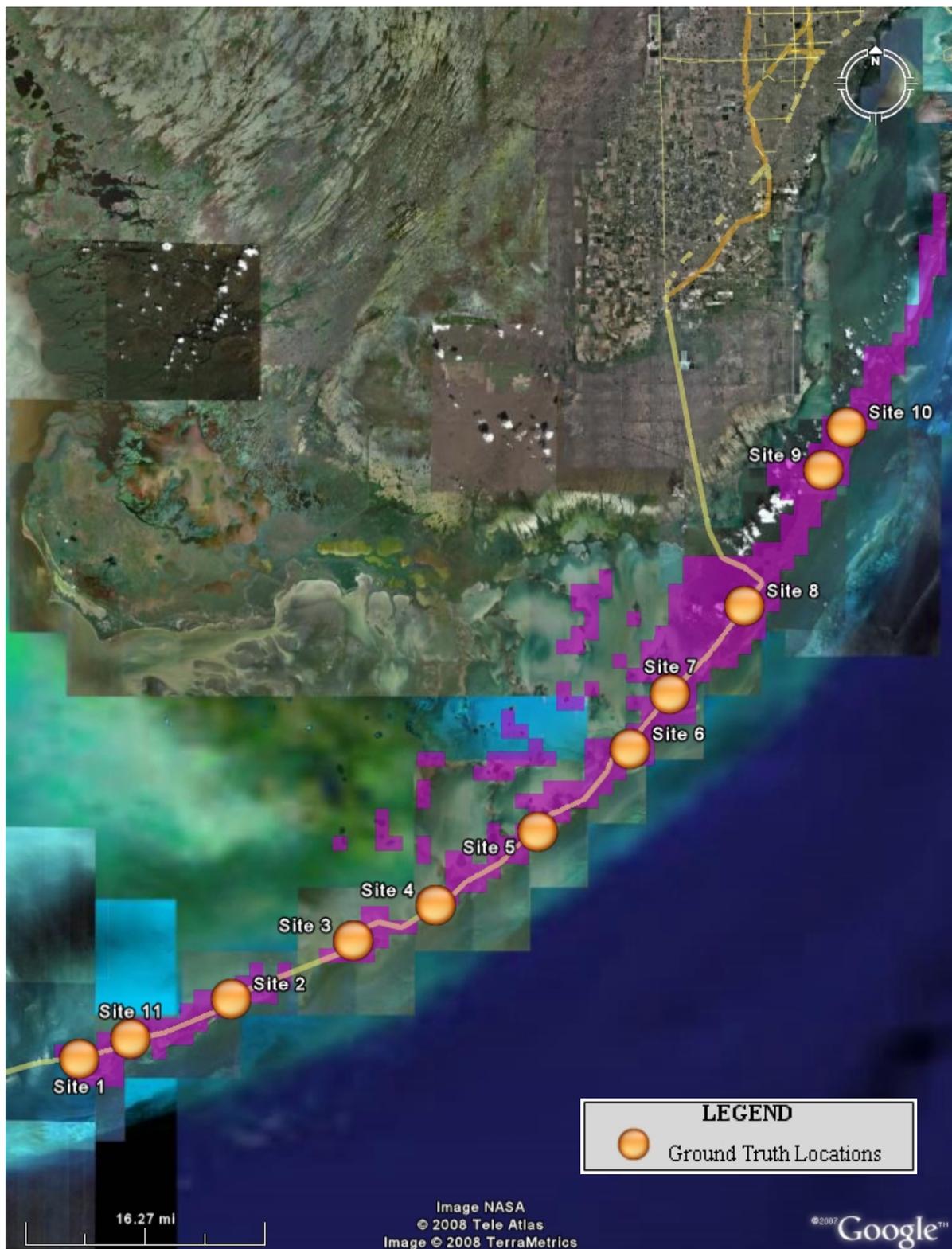
# Histograms of Standardized Residuals



## **GROUND TRUTH SURVEY**

## **A. Map of Ground Truth Locations**

## Ground Control Areas



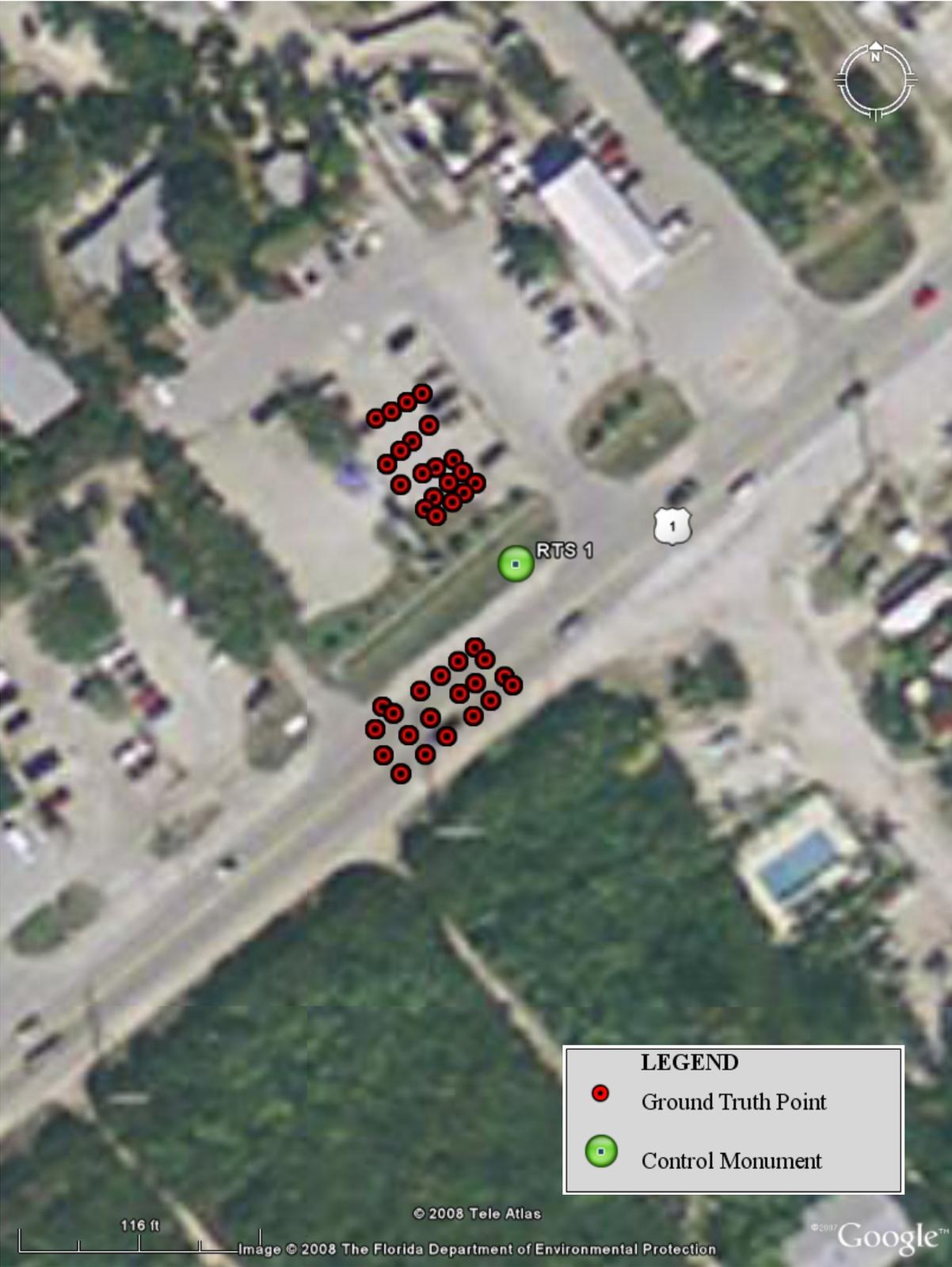
The individual check sites can be seen in detail on the following pages.

## **B. Ground Truth Site Maps**

SITE 1 - Ground Truth Points



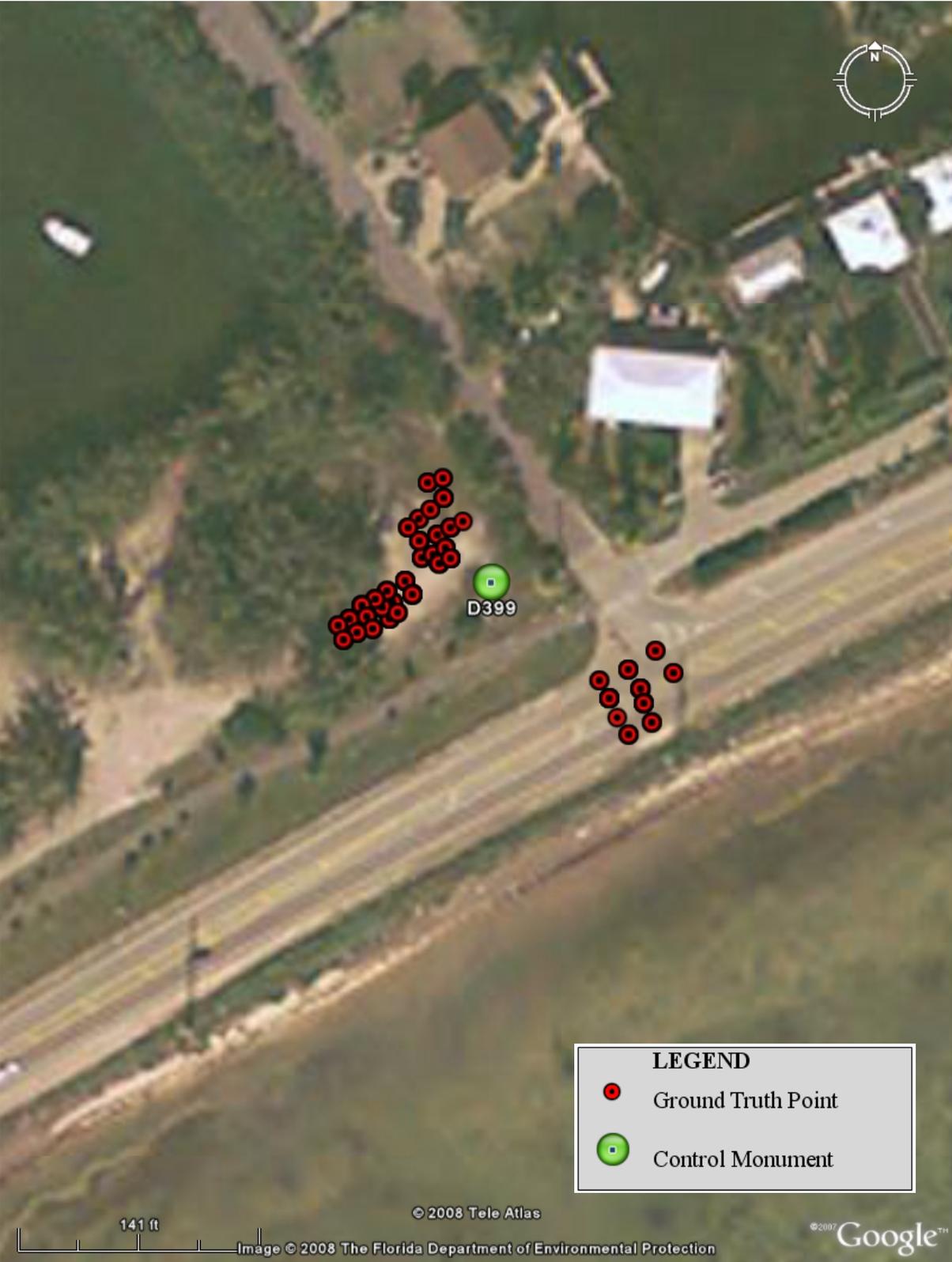
**SITE 2 - Ground Truth Points**



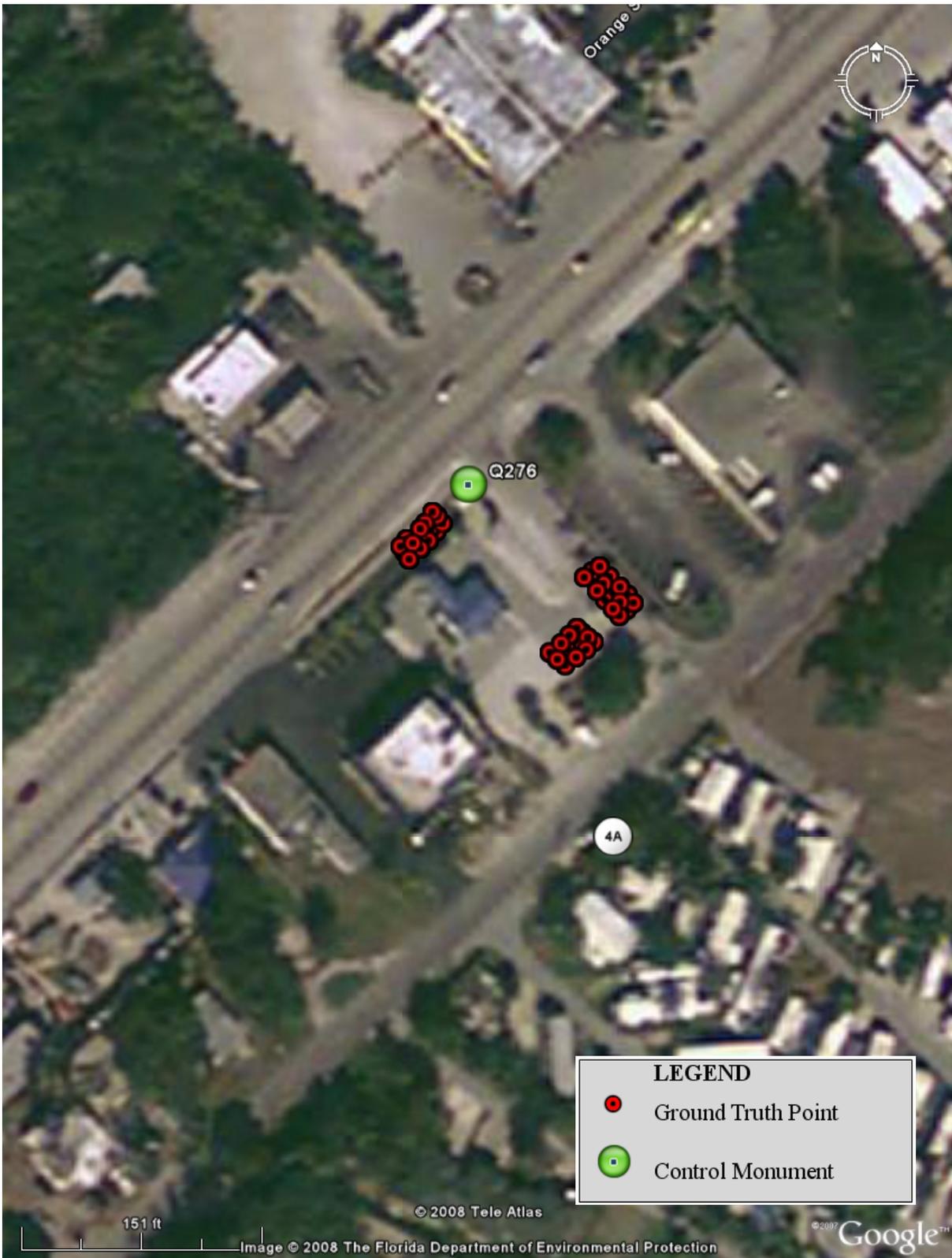
**SITE 3 - Ground Truth Points**



**SITE 4 - Ground Truth Points**



# SITE 5 - Ground Truth Points



# SITE 6 - Ground Truth Points



SITE 7 - Ground Truth Points



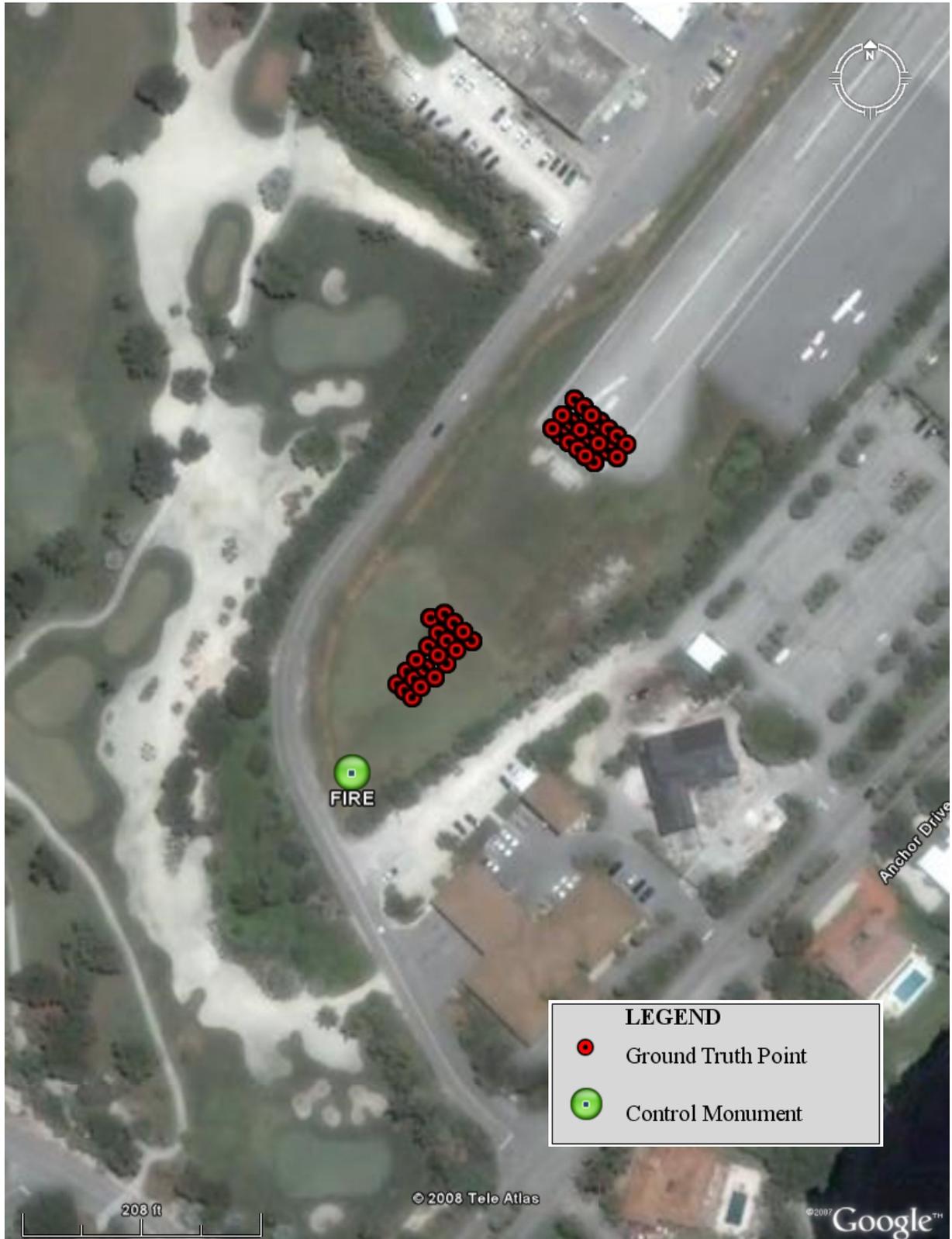
**SITE 8 - Ground Truth Points**



**SITE 9 - Ground Truth Points**



# SITE 10 - Ground Truth Points



# SITE 11 - Ground Truth Points



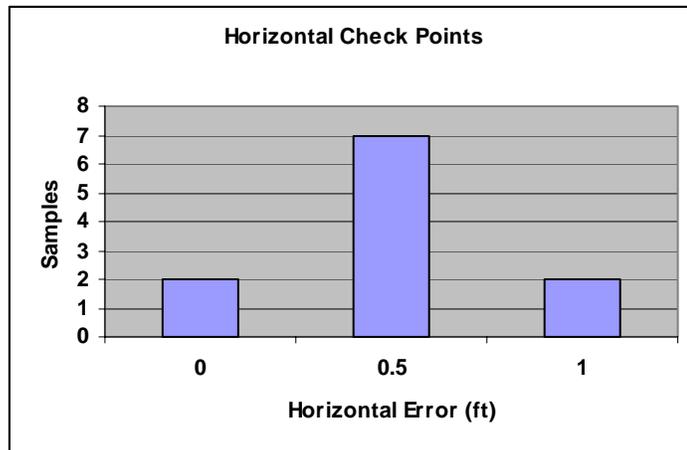
## **C. Horizontal Accuracy Assessment**

## 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.

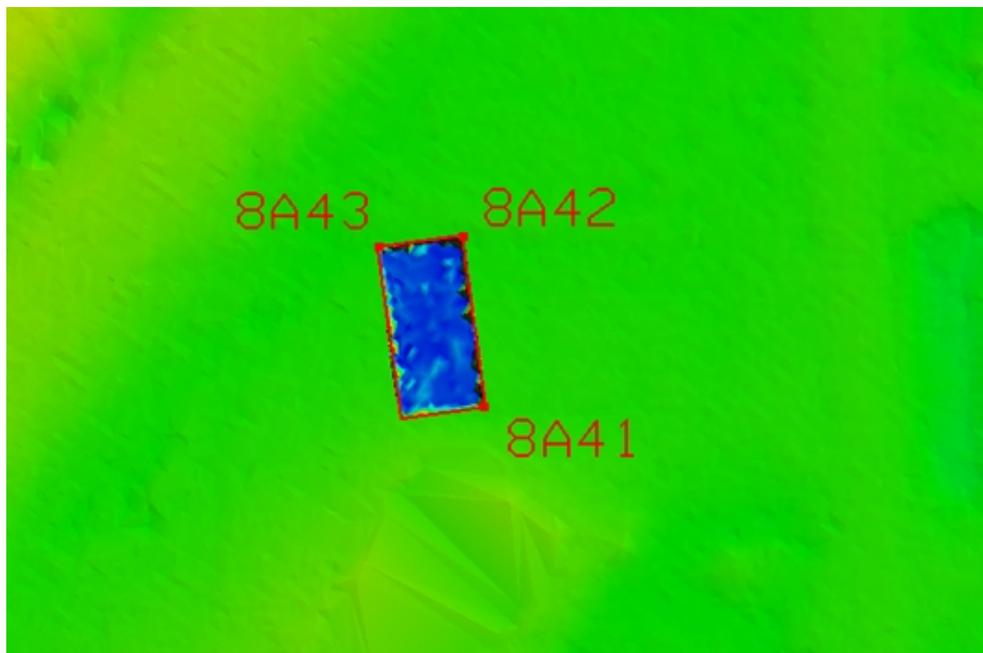
Horizontal Check Points (ft)	
RMSEr	0.64
Mean	0.58
Standard Error	0.09
Median	0.49
Standard Deviation	0.30
Sample Variance	0.09
Kurtosis	0.71
Skewness	0.79
Range	1.04
Minimum	0.13
Maximum	1.17



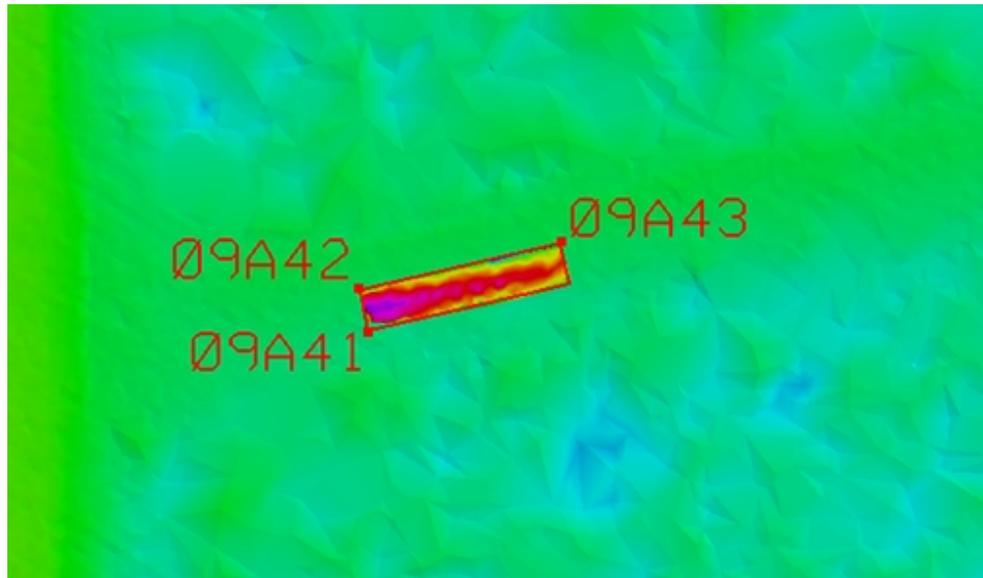
**Site 5 – Horizontal Check Point**



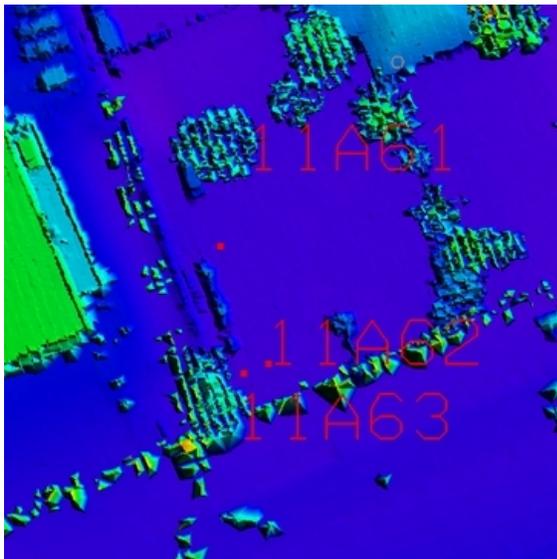
**Site 8 – Horizontal Check Point**



## Site 9 – Horizontal Check Points



## Site 11 – Horizontal Check Points



The building that was surveyed for horizontal checks is no longer located in this area.

## **CONTROL MARK DATA SHEETS**

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 - 1.0000221 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.

DF7052 \*\*\*\*\*

DF7052 CORS - This is a GPS Continuously Operating Reference Station.

DF7052 DESIGNATION - NAPLES CORS ARP

DF7052 CORS\_ID - NAPL

DF7052 PID - DF7052

DF7052 STATE/COUNTY- FL/COLLIER

DF7052 USGS QUAD - NAPLES NORTH (1987)

DF7052

DF7052 \*CURRENT SURVEY CONTROL

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DF7052\* NAD 83(CORS)- 26 08 55.10356(N) 081 46 34.62742(W) ADJUSTED

DF7052\* NAVD 88 - 6.1 (meters) 20. (feet) GPS OBS

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DF7052 EPOCH DATE - 2002.00

DF7052 X - 819,477.897 (meters) COMP

DF7052 Y - -5,670,157.335 (meters) COMP

DF7052 Z - 2,793,845.936 (meters) COMP

DF7052 ELLIP HEIGHT- -17.439 (meters) (08/??/03) GPS OBS

DF7052 GEOID HEIGHT- -23.51 (meters) GEOID03

DF7052

DF7052 HORZ ORDER - SPECIAL (CORS)

DF7052 ELLP ORDER - SPECIAL (CORS)

DF7052

DF7052. ITRF positions are available for this station.

DF7052. The coordinates were established by GPS observations

DF7052. and adjusted by the National Geodetic Survey in August 2003.

DF7052. The coordinates are valid at the epoch date displayed above.

DF7052. The epoch date for horizontal control is a decimal equivalence

DF7052. of Year/Month/Day.

DF7052

DF7052. The orthometric height was determined by GPS observations and a

DF7052. high-resolution geoid model.

DF7052

DF7052. The PID for the CORS L1 Phase Center is DF7053.

DF7052

DF7052. The XYZ, and position/ellipsoidal ht. are equivalent.

DF7052

DF7052. The ellipsoidal height was determined by GPS observations

DF7052. and is referenced to NAD 83.

DF7052

DF7052. The geoid height was determined by GEOID03.

DF7052

DF7052;	North	East	Units	Scale	Factor	Converg.
DF7052;SPC FL E	- 201,313.299	122,381.251	MT	1.00001554	-0 20	31.7
DF7052;SPC FL E	- 660,475.38	401,512.49	sFT	1.00001554	-0 20	31.7

DF7052

DF7052! - Elev Factor x Scale Factor = Combined Factor

DF7052!SPC FL E - 1.00000274 x 1.00001554 = 1.00001828

DF7052

DF7052 SUPERSEDED SURVEY CONTROL

DF7052

DF7052. No superseded survey control is available for this station.

DF7052

DF7052\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMJ2240892377(NAD 83)

DF7052\_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA

DF7052

DF7052                    STATION DESCRIPTION  
DF7052  
DF7052'DESCRIBED BY NATIONAL GEODETIC SURVEY 2003  
DF7052'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND  
DF7052'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE  
DF7052'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.  
DF7052' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION\_LOG  
DF7052' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

DF7050 \*\*\*\*\*

DF7050 CORS - This is a GPS Continuously Operating Reference Station.

DF7050 DESIGNATION - MIAMI TNT CORS ARP

DF7050 CORS\_ID - MTNT

DF7050 PID - DF7050

DF7050 STATE/COUNTY- FL/COLLIER

DF7050 USGS QUAD - FIFTYMILE BEND (1995)

DF7050

DF7050 \*CURRENT SURVEY CONTROL

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DF7050\* NAD 83(CORS)- 25 51 56.76081(N) 080 54 25.18701(W) ADJUSTED

DF7050\* NAVD 88 -

---

DF7050 EPOCH DATE - 2002.00

DF7050 X - 907,579.127 (meters) COMP

DF7050 Y - -5,670,639.703 (meters) COMP

DF7050 Z - 2,765,679.841 (meters) COMP

DF7050 ELLIP HEIGHT- -18.942 (meters) (08/??/03) GPS OBS

DF7050 GEOID HEIGHT- -24.29 (meters) GEOID03

DF7050

DF7050 HORZ ORDER - SPECIAL (CORS)

DF7050 ELLP ORDER - SPECIAL (CORS)

DF7050

DF7050. ITRF positions are available for this station.

DF7050. The coordinates were established by GPS observations

DF7050. and adjusted by the National Geodetic Survey in August 2003.

DF7050. The coordinates are valid at the epoch date displayed above.

DF7050. The epoch date for horizontal control is a decimal equivalence

DF7050. of Year/Month/Day.

DF7050

DF7050

DF7050. The PID for the CORS L1 Phase Center is DF7051.

DF7050

DF7050. The XYZ, and position/ellipsoidal ht. are equivalent.

DF7050

DF7050. The ellipsoidal height was determined by GPS observations

DF7050. and is referenced to NAD 83.

DF7050

DF7050. The geoid height was determined by GEOID03.

DF7050

DF7050;	North	East	Units	Scale	Factor	Converg.
DF7050;SPC FL E	- 169,747.743	209,321.320	MT	0.99994225	+0 02 26.1	
DF7050;SPC FL E	- 556,914.05	686,748.36	sFT	0.99994225	+0 02 26.1	

DF7050

DF7050! - Elev Factor x Scale Factor = Combined Factor

DF7050!SPC FL E - 1.00000298 x 0.99994225 = 0.99994523

DF7050

DF7050 SUPERSEDED SURVEY CONTROL

DF7050

DF7050. No superseded survey control is available for this station.

DF7050

DF7050\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ0931860822(NAD 83)

DF7050\_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA

DF7050

DF7050 STATION DESCRIPTION

DF7050

DF7050 DESCRIBED BY NATIONAL GEODETIC SURVEY 2003  
DF7050 STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND  
DF7050 VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE  
DF7050 BY ANONYMOUS FTP OR THE WORLDWIDE WEB.  
DF7050 FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION\_LOG  
DF7050 HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

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AF9578 *****
AF9578 CORS      - This is a GPS Continuously Operating Reference Station.
AF9578 DESIGNATION - KEY WEST 1 CORS ARP
AF9578 CORS_ID   - KYW1
AF9578 PID       - AF9578
AF9578 STATE/COUNTY- FL/MONROE
AF9578 USGS QUAD  - BOCA CHICA KEY (1971)
AF9578
AF9578                *CURRENT SURVEY CONTROL
AF9578
AF9578* NAD 83(CORS)- 24 34 56.16457(N)  081 39 10.90470(W)  ADJUSTED
AF9578* NAVD 88      -
AF9578
AF9578 EPOCH DATE - 2002.00
AF9578 X          - 842,465.065 (meters)          COMP
AF9578 Y          - -5,741,930.642 (meters)       COMP
AF9578 Z          - 2,637,061.739 (meters)       COMP
AF9578 ELLIP HEIGHT- -12.143 (meters)          (03/??/02) GPS OBS
AF9578 GEOID HEIGHT- -21.75 (meters)           GEOID03
AF9578
AF9578 HORZ ORDER - SPECIAL (CORS)
AF9578 ELLP ORDER - SPECIAL (CORS)
AF9578
AF9578. ITRF positions are available for this station.
AF9578. The coordinates were established by GPS observations
AF9578. and adjusted by the National Geodetic Survey in March 2002.
AF9578. The coordinates are valid at the epoch date displayed above.
AF9578. The epoch date for horizontal control is a decimal equivalence
AF9578. of Year/Month/Day.
AF9578
AF9578
AF9578. The PID for the CORS L1 Phase Center is AJ7905.
AF9578
AF9578. The XYZ, and position/ellipsoidal ht. are equivalent.
AF9578
AF9578. The ellipsoidal height was determined by GPS observations
AF9578. and is referenced to NAD 83.
AF9578
AF9578. The geoid height was determined by GEOID03.
AF9578
AF9578;           North      East      Units Scale Factor Converg.
AF9578; SPC FL E - 27,728.394 133,858.464 MT 0.99999519 -0 16 18.0
AF9578; SPC FL E - 90,972.24  439,167.31 sFT 0.99999519 -0 16 18.0
AF9578
AF9578!           - Elev Factor x Scale Factor = Combined Factor
AF9578! SPC FL E - 1.00000191 x 0.99999519 = 0.99999710
AF9578
AF9578                SUPERSEDED SURVEY CONTROL
AF9578
AF9578 NAD 83(CORS)- 24 34 56.16457(N)  081 39 10.90497(W) AD(1997.00) c
AF9578 ELLIP H (07/??/98) -12.165 (m)          GP(1997.00) c c
AF9578 NAD 83(CORS)- 24 34 56.16450(N)  081 39 10.90475(W) AD(1996.00) c
AF9578 ELLIP H (12/??/96) -12.108 (m)          GP(1996.00) c c
AF9578
AF9578. Superseded values are not recommended for survey control.
AF9578. NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

```

AF9578. See file dsdata.txt to determine how the superseded data were derived.

AF9578

AF9578\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMH3388118851(NAD 83)

AF9578\_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA

AF9578

AF9578

STATION DESCRIPTION

AF9578

AF9578'DESCRIBED BY NATIONAL GEODETIC SURVEY 2002

AF9578'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND  
AF9578'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE  
AF9578'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.

AF9578' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION\_LOG

AF9578' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

AA1726 \*\*\*\*\*

AA1726 DESIGNATION - D 399

AA1726 PID - AA1726

AA1726 STATE/COUNTY- FL/MONROE

AA1726 USGS QUAD - LOWER MATECUMBE KEY (1971)

AA1726

AA1726 \*CURRENT SURVEY CONTROL

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AA1726\* NAD 83(1986)- 24 51 31. (N) 080 43 32. (W) SCALED

AA1726\* NAVD 88 - 1.047 (meters) 3.44 (feet) ADJUSTED

---

AA1726 GEOID HEIGHT- -23.09 (meters) GEOID03

AA1726 DYNAMIC HT - 1.046 (meters) 3.43 (feet) COMP

AA1726 MODELED GRAV- 978,974.8 (mgal) NAVD 88

AA1726

AA1726 VERT ORDER - FIRST CLASS II

AA1726

AA1726.The horizontal coordinates were scaled from a topographic map and have  
AA1726.an estimated accuracy of +/- 6 seconds.

AA1726

AA1726.The orthometric height was determined by differential leveling  
AA1726.and adjusted by the NATIONAL GEODETIC SURVEY in May 1994.

AA1726

AA1726.The geoid height was determined by GEOID03.

AA1726

AA1726.The dynamic height is computed by dividing the NAVD 88  
AA1726.geopotential number by the normal gravity value computed on the  
AA1726.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
AA1726.degrees latitude (g = 980.6199 gals.).

AA1726

AA1726.The modeled gravity was interpolated from observed gravity values.

AA1726

AA1726;	North	East	Units	Estimated Accuracy
AA1726;SPC FL E	- 58,210.	227,740.	MT	(+/- 180 meters Scaled)

AA1726

AA1726 SUPERSEDED SURVEY CONTROL

AA1726

AA1726 NGVD 29 (09/01/92) 1.505 (m) 4.94 (f) ADJUSTED 1 2

AA1726

AA1726.Superseded values are not recommended for survey control.  
AA1726.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
AA1726.See file dsdata.txt to determine how the superseded data were derived.

AA1726

AA1726\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNH277493(NAD 83)

AA1726\_MARKER: DB = BENCH MARK DISK

AA1726\_SETTING: 30 = SET IN A LIGHT STRUCTURE

AA1726\_SP\_SET: CONCRETE BASE FOR MANHOLE COVE

AA1726\_STAMPING: D 399 1990

AA1726\_MARK LOGO: NGS

AA1726\_MAGNETIC: N = NO MAGNETIC MATERIAL

AA1726\_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

AA1726\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
AA1726+SATELLITE: SATELLITE OBSERVATIONS - 1990

AA1726

AA1726 HISTORY	- Date	Condition	Report By
AA1726 HISTORY	- 1990	MONUMENTED	FLDNR

AA1726

AA1726

STATION DESCRIPTION

AA1726

AA1726'DESCRIBED BY FL DEPT OF NAT RES 1990

AA1726'TO REACH THE MARK FROM THE POST OFFICE IN ISLAMORADA, GO SOUTHWEST ON

AA1726'U.S. HIGHWAY 1 FOR 7.71 MI (12.41 KM) TO THE INTERSECTION OF U.S.

AA1726'HIGHWAY 1 AND SANDY COVE AVENUE AND THE MARK ON THE RIGHT. LOCATED

AA1726'IN THE NORTHEAST CORNER OF A 4.7 FT (1.4 M) BY 7.9 FT (2.4 M)

AA1726'CONCRETE BASE FOR A WATER PUMPING STATION, 93.1 FT (28.4 M) NORTHEAST

AA1726'OF THE CENTERLINE OF U.S. HIGHWAY 1, 52.8 FT (16.1 M) NORTHWEST OF

AA1726'THE CENTERLINE OF SANDY COVE AVENUE AND 27.3 FT (8.3 M) NORTHWEST OF

AA1726'THE SOUTH END OF A CHAIN LINK FENCE.

```

AC4793 *****
AC4793 DESIGNATION - FIRE
AC4793 PID - AC4793
AC4793 STATE/COUNTY- FL/MONROE
AC4793 USGS QUAD - CARD SOUND (1994)
AC4793
AC4793 *CURRENT SURVEY CONTROL
AC4793
AC4793* NAD 83(1990)- 25 19 07.45512(N) 080 16 49.77394(W) ADJUSTED
AC4793* NAVD 88 - 0.3 (meters) 1. (feet) VERTCON
AC4793
AC4793 X - 973,947.993 (meters) COMP
AC4793 Y - -5,686,173.089 (meters) COMP
AC4793 Z - 2,711,022.271 (meters) COMP
AC4793 LAPLACE CORR- -3.04 (seconds) DEFLEC99
AC4793 ELLIP HEIGHT- -24.903 (meters) (09/10/92) GPS OBS
AC4793 GEOID HEIGHT- -25.15 (meters) GEOID03
AC4793
AC4793 HORZ ORDER - SECOND
AC4793 ELLP ORDER - FOURTH CLASS II
AC4793
AC4793.The horizontal coordinates were established by GPS observations
AC4793.and adjusted by the National Geodetic Survey in September 1992.
AC4793
AC4793.The NAVD 88 height was computed by applying the VERTCON shift value to
AC4793.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
AC4793
AC4793.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AC4793
AC4793.The Laplace correction was computed from DEFLEC99 derived deflections.
AC4793
AC4793.The ellipsoidal height was determined by GPS observations
AC4793.and is referenced to NAD 83.
AC4793
AC4793.The geoid height was determined by GEOID03.
AC4793
AC4793; North East Units Scale Factor Converg.
AC4793;SPC FL E - 109,341.647 272,442.773 MT 1.00000596 +0 18 27.8
AC4793;SPC FL E - 358,731.72 893,839.33 sFT 1.00000596 +0 18 27.8
AC4793;UTM 17 - 2,800,436.322 572,418.055 MT 0.99966476 +0 18 27.8
AC4793
AC4793! - Elev Factor x Scale Factor = Combined Factor
AC4793!SPC FL E - 1.00000391 x 1.00000596 = 1.00000987
AC4793!UTM 17 - 1.00000391 x 0.99966476 = 0.99966867
AC4793
AC4793 SUPERSEDED SURVEY CONTROL
AC4793
AC4793 NGVD 29 (09/10/92) 0.8 (m) 3. (f) GPS OBS
AC4793
AC4793.Superseded values are not recommended for survey control.
AC4793.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AC4793.See file dsdata.txt to determine how the superseded data were derived.
AC4793
AC4793_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ7241800436(NAD 83)
AC4793_MARKER: DD = SURVEY DISK
AC4793_SETTING: 66 = SET IN ROCK OUTCROP

```

AC4793\_SP\_SET: ROCK OUTCROP  
AC4793\_STAMPING: FIRE GPS 1991  
AC4793\_MARK LOGO: NOS  
AC4793\_MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT  
AC4793\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
AC4793\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
AC4793+SATELLITE: SATELLITE OBSERVATIONS - July 03, 2001

AC4793  
AC4793 HISTORY - Date Condition Report By  
AC4793 HISTORY - 1992 MONUMENTED NOS  
AC4793 HISTORY - 19911205 GOOD  
AC4793 HISTORY - 20010703 GOOD INDIV

AC4793  
AC4793 STATION DESCRIPTION

AC4793'DESCRIBED BY NATIONAL OCEAN SERVICE 1992  
AC4793'STATION IS LOCATED NEAR THE NE PART OF KEY LARGO ON THE GROUNDS OF THE  
AC4793'OCEAN REEF CLUB, ABOUT 100 YARDS SW OF END OF A SMALL AIRPORT  
AC4793'RUNWAY.  
AC4793'TO REACH THE STATION FROM THE INTERSECTION OF FLORIDA  
AC4793'HIGHWAYS 905 AND CARDSOUND ROAD AT THE NORTH EAST END OF KEY LARGO,  
AC4793'HEAD NORTH ON HWY 905 TO THE GUARD HOUSE AT THE ENTRANCE OF THE OCEAN  
AC4793'REEF CLUB OBTAINING PERMISSION AND DIRECTIONS TO THE OCEAN REEF FIRE  
AC4793'STATION. CONTINUE NORTH EAST TO THE FIRE STATION TURN LEFT AT FIRE  
AC4793'STATION AND GO .05 MI (0.08 KM) NORTH WEST TO PARKING AREA TO A  
AC4793'RECYCLING BIN AND STATION SITE.  
AC4793'STATION IS MARKED BY A STANDARD NOS  
AC4793'DISK STAMPED FIRE GPS 1991 THAT IS CEMENTED INTO A DRILL HOLE IN A  
AC4793'ROCK OUTCROP AND FLUSH WITH THE GROUND. STATION IS ABOUT 100 YARDS SW  
AC4793'OF SW END OF RUNWAY FOR OCEAN REEF AIRPORT AND ABOUT 75 YARDS NW OF NW  
AC4793'CORNER OF THE FIRE STATION. IT IS 17.8 M (58.40 FT) WEST OF NW CORNER  
AC4793'OF PARKING LOT FOR RECYCLING BINS, 16.7 M (54.79 FT) NW OF SW CORNER  
AC4793'OF PARKING LOT FOR BINS AND 9.3 M (30.51 FT) NE OF NE EDGE OF A PAVED  
AC4793'STREET.

AC4793  
AC4793 STATION RECOVERY (1991)

AC4793  
AC4793'RECOVERED 1991  
AC4793'RECOVERED IN GOOD CONDITION.

AC4793  
AC4793 STATION RECOVERY (2001)

AC4793  
AC4793'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2001 (BSB)  
AC4793'REPORTED BY BRIAN S. BOWER OF SCHWEBKE SHISKIN AND ASSOCIATES, MIRAMAR  
AC4793'FLORIDADATASHEETS

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AA1702 *****
AA1702 DESIGNATION - J 397
AA1702 PID - AA1702
AA1702 STATE/COUNTY- FL/MONROE
AA1702 USGS QUAD - BIG PINE KEY (1972)
AA1702
AA1702 *CURRENT SURVEY CONTROL
AA1702
AA1702* NAD 83(1990)- 24 39 38.94748(N) 081 16 20.06492(W) ADJUSTED
AA1702* NAVD 88 - 2.457 (meters) 8.06 (feet) ADJUSTED
AA1702
AA1702 X - 880,056.101 (meters) COMP
AA1702 Y - -5,732,615.296 (meters) COMP
AA1702 Z - 2,644,968.455 (meters) COMP
AA1702 LAPLACE CORR- -1.44 (seconds) DEFLEC99
AA1702 ELLIP HEIGHT- -19.432 (meters) (09/10/92) GPS OBS
AA1702 GEOID HEIGHT- -22.01 (meters) GEOID03
AA1702 DYNAMIC HT - 2.453 (meters) 8.05 (feet) COMP
AA1702 MODELED GRAV- 978,965.4 (mgal) NAVD 88
AA1702
AA1702 HORZ ORDER - SECOND
AA1702 VERT ORDER - FIRST CLASS II
AA1702 ELLP ORDER - FOURTH CLASS II
AA1702
AA1702.The horizontal coordinates were established by GPS observations
AA1702.and adjusted by the National Geodetic Survey in September 1992.
AA1702
AA1702.The orthometric height was determined by differential leveling
AA1702.and adjusted by the NATIONAL GEODETIC SURVEY in May 1994.
AA1702
AA1702.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AA1702
AA1702.The Laplace correction was computed from DEFLEC99 derived deflections.
AA1702
AA1702.The ellipsoidal height was determined by GPS observations
AA1702.and is referenced to NAD 83.
AA1702
AA1702.The geoid height was determined by GEOID03.
AA1702
AA1702.The dynamic height is computed by dividing the NAVD 88
AA1702.geopotential number by the normal gravity value computed on the
AA1702.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AA1702.degrees latitude (g = 980.6199 gals.).
AA1702
AA1702.The modeled gravity was interpolated from observed gravity values.
AA1702
AA1702; North East Units Scale Factor Converg.
AA1702;SPC FL E - 36,299.253 172,443.908 MT 0.99995055 -0 06 48.9
AA1702;SPC FL E - 119,091.80 565,759.72 sFT 0.99995055 -0 06 48.9
AA1702;UTM 17 - 2,727,418.849 472,453.310 MT 0.99960937 -0 06 48.9
AA1702
AA1702! - Elev Factor x Scale Factor = Combined Factor
AA1702!SPC FL E - 1.00000305 x 0.99995055 = 0.99995360
AA1702!UTM 17 - 1.00000305 x 0.99960937 = 0.99961242
AA1702
AA1702 SUPERSEDED SURVEY CONTROL

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AA1702

AA1702 NGVD 29 (09/01/92) 2.880 (m) 9.45 (f) ADJUSTED 1 2

AA1702

AA1702.Superseded values are not recommended for survey control.

AA1702.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA1702.See file dsdata.txt to determine how the superseded data were derived.

AA1702

AA1702\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMH7245327419(NAD 83)

AA1702\_MARKER: DB = BENCH MARK DISK

AA1702\_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES

AA1702\_SP\_SET: CONCRETE BASE FOR MANHOLE

AA1702\_STAMPING: J 397 1988

AA1702\_MARK LOGO: NGS

AA1702\_MAGNETIC: N = NO MAGNETIC MATERIAL

AA1702\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AA1702+STABILITY: SURFACE MOTION

AA1702\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA1702+SATELLITE: SATELLITE OBSERVATIONS - January 30, 1992

AA1702

AA1702 HISTORY - Date Condition Report By

AA1702 HISTORY - 1988 MONUMENTED FLDNR

AA1702 HISTORY - 19911125 GOOD

AA1702 HISTORY - 19920130 GOOD NOS

AA1702 HISTORY - 20050407 GOOD USPSQD

AA1702

AA1702 STATION DESCRIPTION

AA1702

AA1702'DESCRIBED BY FL DEPT OF NAT RES 1988

AA1702'TO REACH THE MARK FROM THE POST OFFICE IN BIG PINE KEY, GO NORTH AND

AA1702'EAST ON U.S. HIGHWAY 1 FOR 6.9 MI (11.1 KM) TO THE MARK IN THE

AA1702'MEDIAN ON THE NORTH SIDE OF THE HIGHWAY, THE MARK IS IN THE SOUTHEAST

AA1702'CORNER OF THE 8 X 9 MANHOLE COVER, LEVEL WITH THE SURFACE OF THE

AA1702'GROUND. LOCATED 35.0 FT (10.7 M) SOUTH OF THE CENTERLINE OF THE

AA1702'WESTBOUND LANE, 22.0 FT (6.7 M) NORTH OF THE CENTERLINE OF THE

AA1702'EASTBOUND LANE AND 430.0 FT (131.1 M) EAST OF THE EAST EDGE OF MEDIAN

AA1702'CROSSING ENTRANCE TO THE BAHIA HONDA STATE PARK.

AA1702

AA1702 STATION RECOVERY (1991)

AA1702

AA1702'RECOVERED 1991

AA1702'RECOVERED IN GOOD CONDITION.

AA1702

AA1702 STATION RECOVERY (1992)

AA1702

AA1702'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1992

AA1702'STATION J39 IS LOCATED ON BAHIA HONDA KEY AT THE WESTERN PART OF THE

AA1702'KEY IN THE MEDIAN STRIP OF US HIGHWAY 1.

AA1702'TO REACH THE STATION FROM

AA1702'THE ENTRANCE TO THE BAHIA HONDA STATE PARK HEAD EAST FOR 0.1 MI (0.16

AA1702'KM) TO THE STATION IN THE SOUTH EAST CORNER OF A 10 FT (3.05 M) BY 10

AA1702'FT (3.05 M) CONCRETE SLAB. STATION IS STAMPED J39 1988.

AA1702

AA1702 STATION RECOVERY (2005)

AA1702

AA1702'RECOVERY NOTE BY US POWER SQUADRON 2005 (JLS)

AA1702'RECOVERED IN GOOD CONDITION.

AA0302 \*\*\*\*\*

AA0302 CBN - This is a Cooperative Base Network Control Station.

AA0302 TIDAL BM - This is a Tidal Bench Mark.

AA0302 DESIGNATION - R 273

AA0302 PID - AA0302

AA0302 STATE/COUNTY- FL/MONROE

AA0302 USGS QUAD - MARATHON (1971)

AA0302

AA0302 \*CURRENT SURVEY CONTROL

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AA0302\* NAD 83(1999)- 24 42 30.64892(N) 081 06 31.59874(W) ADJUSTED

AA0302\* NAVD 88 - 1.185 (meters) 3.89 (feet) ADJUSTED

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AA0302 X - 896,066.203 (meters) COMP

AA0302 Y - -5,727,899.886 (meters) COMP

AA0302 Z - 2,649,768.049 (meters) COMP

AA0302 LAPLACE CORR- -1.87 (seconds) DEFLEC99

AA0302 ELLIP HEIGHT- -21.099 (meters) (04/12/01) GPS OBS

AA0302 GEOID HEIGHT- -22.24 (meters) GEOID03

AA0302 DYNAMIC HT - 1.183 (meters) 3.88 (feet) COMP

AA0302 MODELED GRAV- 978,966.9 (mgal) NAVD 88

AA0302

AA0302 HORZ ORDER - A

AA0302 VERT ORDER - FIRST CLASS II

AA0302 ELLP ORDER - FOURTH CLASS I

AA0302

AA0302.The horizontal coordinates were established by GPS observations

AA0302.and adjusted by the National Geodetic Survey in April 2001.

AA0302

AA0302.The orthometric height was determined by differential leveling

AA0302.and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.

AA0302

AA0302.This Tidal Bench Mark is designated as VM 691

AA0302.by the Center for Operational Oceanographic Products and Services.

AA0302

AA0302.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AA0302

AA0302.The Laplace correction was computed from DEFLEC99 derived deflections.

AA0302

AA0302.The ellipsoidal height was determined by GPS observations

AA0302.and is referenced to NAD 83.

AA0302

AA0302.The geoid height was determined by GEOID03.

AA0302

AA0302.The dynamic height is computed by dividing the NAVD 88

AA0302.geopotential number by the normal gravity value computed on the

AA0302.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AA0302.degrees latitude (g = 980.6199 gals.).

AA0302

AA0302.The modeled gravity was interpolated from observed gravity values.

AA0302

AA0302;	North	East	Units	Scale	Factor	Converg.
AA0302;SPC FL E	- 41,559.066	188,993.787	MT	0.99994267	-0 02	43.7
AA0302;SPC FL E	- 136,348.37	620,057.12	sFT	0.99994267	-0 02	43.7
AA0302;UTM 17	- 2,732,676.868	488,997.542	MT	0.99960149	-0 02	43.7

AA0302

AA0302! - Elev Factor x Scale Factor = Combined Factor  
AA0302!SPC FL E - 1.00000332 x 0.99994267 = 0.99994599  
AA0302!UTM 17 - 1.00000332 x 0.99960149 = 0.99960480

AA0302

AA0302 SUPERSEDED SURVEY CONTROL

AA0302

AA0302 NAD 83(1990)- 24 42 30.64776(N) 081 06 31.59807(W) AD( ) B

AA0302 ELLIP H (09/13/90) -20.979 (m) GP( ) 4 1

AA0302 NAVD 88 (06/02/94) 1.18 (m) 3.9 (f) LEVELING 3

AA0302 NGVD 29 (09/01/92) 1.610 (m) 5.28 (f) ADJUSTED 1 2

AA0302

AA0302.Superseded values are not recommended for survey control.

AA0302.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA0302.See file dsdata.txt to determine how the superseded data were derived.

AA0302

AA0302\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMH8899832677(NAD 83)

AA0302\_MARKER: DB = BENCH MARK DISK

AA0302\_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES

AA0302\_SP\_SET: BASE FOR A MANHOLE

AA0302\_STAMPING: R 273 1966

AA0302\_MARK LOGO: CGS

AA0302\_MAGNETIC: N = NO MAGNETIC MATERIAL

AA0302\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AA0302+STABILITY: SURFACE MOTION

AA0302\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA0302+SATELLITE: SATELLITE OBSERVATIONS - May 03, 2004

AA0302

AA0302 HISTORY	- Date	Condition	Report By
AA0302 HISTORY	- 1966	MONUMENTED	CGS
AA0302 HISTORY	- 1970	GOOD	NGS
AA0302 HISTORY	- 1978	GOOD	NGS
AA0302 HISTORY	- 1982	GOOD	FLDNR
AA0302 HISTORY	- 1989	GOOD	NGS
AA0302 HISTORY	- 19901101	GOOD	FLDNR
AA0302 HISTORY	- 19911111	GOOD	NOS
AA0302 HISTORY	- 19940215	GOOD	KEISCH
AA0302 HISTORY	- 19990405	GOOD	FLDT
AA0302 HISTORY	- 20040503	GOOD	INDIV

AA0302

AA0302 STATION DESCRIPTION

AA0302

AA0302'DESCRIBED BY COAST AND GEODETIC SURVEY 1966

AA0302'1.9 MI W FROM MARATHON.

AA0302'ABOUT 1.9 MILES WEST ALONG U.S. HIGHWAY 1 FROM THE POST OFFICE

AA0302'AT MARATHON, ABOUT 1.0 MILE EAST OF THE EAST END OF THE SEVEN

AA0302'MILE BRIDGE, SET ON THE TOP AND 0.8 FOOT WEST OF THE NORTHEAST

AA0302'CORNER OF A 10-BY-10 FOOT CONCRETE BASE WITH MANHOLE FOR WATER

AA0302'LINE, 32 FEET NORTH OF THE CENTER LINE OF THE HIGHWAY, 1 FOOT

AA0302'EAST OF THE EXTENDED CENTER LINE OF 15TH STREET, AND ABOUT LEVEL

AA0302'WITH THE HIGHWAY.

AA0302

AA0302 STATION RECOVERY (1970)

AA0302

AA0302'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970

AA0302'RECOVERED IN GOOD CONDITION.

AA0302

AA0302 STATION RECOVERY (1978)  
AA0302  
AA0302'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1978  
AA0302'RECOVERED IN GOOD CONDITION.

AA0302  
AA0302 STATION RECOVERY (1982)  
AA0302  
AA0302'RECOVERY NOTE BY FL DEPT OF NAT RES 1982  
AA0302'RECOVERED IN GOOD CONDITION.

AA0302  
AA0302 STATION RECOVERY (1989)  
AA0302  
AA0302'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1989  
AA0302'THE STATION IS LOCATED IN MARATHON, AT THE NORTH EDGE OF U.S. HIGHWAY  
AA0302'1 AND AT THE JUNCTION OF 15TH ST. OWNERSHIP-CITY OF MARATHON.  
AA0302'TO REACH THE STATION FROM THE EAST END OF SEVEN-MILE BRIDGE, LOCATED  
AA0302'AT THE WEST EDGE OF MARATHON, GO EAST ALONG U.S. HIGHWAY 1 FOR 1.4 KM  
AA0302'(0.85 MI) TO THE JUNCTION OF 15TH ST. AND THE STATION ON THE LEFT, AT  
AA0302'A CONCRETE BASE FOR A MANHOLE.  
AA0302'THE STATION IS SET IN THE TOP OF A 10 FT BY 10 FT SQUARE CONCRETE BASE  
AA0302'FOR A MANHOLE FOR CITY WATER LINE. LOCATED ABOUT 18.3 M (60.0 FT)  
AA0302'SOUTH OF THE SOUTHEAST CORNER OF THE SAKURA JAPANESE RESTAURANT, 10 M  
AA0302'(32.8 FT) NORTH OF THE CENTERLINE OF THE HIGHWAY, 0.3 M (1.0 FT) EAST  
AA0302'OF AN EXTENDED CENTERLINE OF 15TH ST., 0.2 M (0.7 FT) WEST OF THE  
AA0302'NORTHWEST CORNER OF THE CONCRETE BASE AND ABOUT LEVEL WITH THE  
AA0302'HIGHWAY.  
AA0302'DESCRIBED BY G.F. SMITH.

AA0302  
AA0302 STATION RECOVERY (1990)  
AA0302  
AA0302'RECOVERY NOTE BY FL DEPT OF NAT RES 1990  
AA0302'RECOVERED IN GOOD CONDITION.

AA0302  
AA0302 STATION RECOVERY (1991)  
AA0302  
AA0302'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1991  
AA0302'THE STATION IS LOCATED IN MARATHON, AT THE NORTH EDGE OF U.S. HIGHWAY  
AA0302'1 AND AT THE JUNCTION OF 15TH ST. TO REACH THE STATION FROM THE EAST  
AA0302'END OF SEVEN MILE BRIDGE. LOCATED AT THE WEST EDGE OF MARATHON, GO  
AA0302'EAST ALONG U.S. HIGHWAY 1 FOR .85 MI (1.37 KM) TO THE JUNCTION OF 15TH  
AA0302'ST AND THE STATION ON THE LEFT, AT A CONCRETE PLATFORM WITH A MANHOLE  
AA0302'COVER.  
AA0302'THE STATION IS SET IN THE TOP OF 10 FT (3.05 M) BY 10 FT (3.05  
AA0302'M) SQUARE CONCRETE BASE FOR CITY WATER LINE, ACROSS FROM THE SOUTH  
AA0302'SEAS RESTAURANT, 32.8 FT (10.00 M) NORTH OF THE CENTER LINE OF THE  
AA0302'HIGHWAY, 3.0 M (9.84 FT) EAST OF AN EXTENDED CENTERLINE OF 15TH ST,  
AA0302'0.2 M (0.66 FT) WEST OF THE NORTHWEST CORNER OF THE CONCRETE BASE AND  
AA0302'ABOUT LEVEL WITH THE HIGHWAY. THE STATION IS A STANDARD C AND GS BENCH  
AA0302'MARK STAMPED R 273 1966.

AA0302  
AA0302 STATION RECOVERY (1994)  
AA0302  
AA0302'RECOVERY NOTE BY KEITH AND SCHNARS - LAKELAND 1994 (RTS)  
AA0302'THE STATION IS LOCATED IN MARATHON IN THE NORTH RIGHT-OF-WAY OF U.S.  
AA0302'1, IN MONROE COUNTY, FLORIDA. TO REACH THE STATION FROM THE VOLUNTEER  
AA0302'FIRE DEPARTMENT HOUSE NO. 2 IN FRONT OF THE MARATHON AIRPORT, GO WEST

AA0302'ON U.S. 1 FOR 3.7 MI (6.0 KM) TO THE STATION ON THE RIGHT. THE STATION  
AA0302'IS .15 MI (0.24 KM) WEST OF MILE MARKER 48 AT THE EAST ENTRANCE TO THE  
AA0302'GATORS BAR. THE STATION LIES 25 FT (7.6 M) NORTH OF THE CENTERLINE OF  
AA0302'U.S. 1, 15 FT (4.6 M) WEST OF THE CENTERLINE OF ENTRANCE DRIVEWAY, AND  
AA0302'21.3 FT (6.5 M) SOUTH OF A CARSONITE WITNESS POST. THE STATION IS A  
AA0302'U.S. COAST AND GEODETIC SURVEY BENCHMARK DISC SET IN A CONCRETE SLAB  
AA0302'WITH A MANHOLE, STAMPED "R 273 1966." REFERENCES-- KEITH AND SCHNARS  
AA0302'NAIL AND DISC, SET IN ASPHALT PAVEMENT, MAGNETIC AZIMUTH OF 240  
AA0302'DEGREES AT 20.62 FT (6.28 M) . KEITH AND SCHNARS NAIL AND DISC, SET IN  
AA0302'ASPHALT PAVEMENT, MAGNETIC AZIMUTH OF 190 DEGREES AT 10.67 FT (3.25 M)  
AA0302'. X-CUT, SET IN THE S.W. CORNER OF A CONCRETE SLAB, MAGNETIC AZIMUTH  
AA0302'OF 70 DEGREES AT 27.43 FT (8.36 M) . SET A CARSONITE WITNESS POST,  
AA0302'MAGNETIC AZIMUTH OF 350 DEGREES AT 21.35 FT (6.51 M) .

AA0302

STATION RECOVERY (1999)

AA0302

AA0302'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1999

AA0302'RECOVERED AS DESCRIBED.

AA0302

AA0302

STATION RECOVERY (2004)

AA0302

AA0302'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2004 (WSP)

AA0302'RECOVERED BY WSP CONSULTANTS, INC.

AA0424 \*\*\*\*\*

AA0424 TIDAL BM - This is a Tidal Bench Mark.

AA0424 DESIGNATION - Q 276

AA0424 PID - AA0424

AA0424 STATE/COUNTY- FL/MONROE

AA0424 USGS QUAD - PLANTATION KEY (1971)

AA0424

AA0424 \*CURRENT SURVEY CONTROL

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AA0424\* NAD 83(1986)- 24 55 42. (N) 080 37 23. (W) SCALED

AA0424\* NAVD 88 - 2.261 (meters) 7.42 (feet) ADJUSTED

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AA0424 GEOID HEIGHT- -23.46 (meters) GEOID03

AA0424 DYNAMIC HT - 2.258 (meters) 7.41 (feet) COMP

AA0424 MODELED GRAV- 978,972.0 (mgal) NAVD 88

AA0424

AA0424 VERT ORDER - FIRST CLASS II

AA0424

AA0424.The horizontal coordinates were scaled from a topographic map and have

AA0424.an estimated accuracy of +/- 6 seconds.

AA0424

AA0424.The orthometric height was determined by differential leveling

AA0424.and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.

AA0424

AA0424.This Tidal Bench Mark is designated as VM 10812

AA0424.by the Center for Operational Oceanographic Products and Services.

AA0424

AA0424.The geoid height was determined by GEOID03.

AA0424

AA0424.The dynamic height is computed by dividing the NAVD 88

AA0424.geopotential number by the normal gravity value computed on the

AA0424.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AA0424.degrees latitude (g = 980.6199 gals.).

AA0424

AA0424.The modeled gravity was interpolated from observed gravity values.

AA0424

AA0424;	North	East	Units	Estimated Accuracy
AA0424;SPC FL E	- 65,960.	238,070.	MT	(+/- 180 meters Scaled)

AA0424

AA0424 SUPERSEDED SURVEY CONTROL

AA0424

AA0424 NGVD 29 (09/01/92) 2.725 (m) 8.94 (f) ADJUSTED 1 2

AA0424

AA0424.Superseded values are not recommended for survey control.

AA0424.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA0424.See file dsdata.txt to determine how the superseded data were derived.

AA0424

AA0424\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNH380570(NAD 83)

AA0424\_MARKER: DB = BENCH MARK DISK

AA0424\_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES

AA0424\_SP\_SET: CONCRETE BASE FOR MANHOLE

AA0424\_STAMPING: Q 276 1966

AA0424\_MARK LOGO: CGS

AA0424\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AA0424+STABILITY: SURFACE MOTION

AA0424\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA0424+SATELLITE: SATELLITE OBSERVATIONS - November 14, 1990

AA0424

AA0424 HISTORY	- Date	Condition	Report By
AA0424 HISTORY	- 1966	MONUMENTED	CGS
AA0424 HISTORY	- 1979	GOOD	NGS
AA0424 HISTORY	- 1982	GOOD	FLDNR
AA0424 HISTORY	- 1982	GOOD	LOCSUR
AA0424 HISTORY	- 19901114	GOOD	FLDNR

AA0424

AA0424 STATION DESCRIPTION

AA0424

AA0424'DESCRIBED BY COAST AND GEODETIC SURVEY 1966

AA0424'AT ISLAMORADA.

AA0424'AT ISLAMORADA, ABOUT 0.4 MILE SOUTHWEST ALONG U.S. HIGHWAY 1 FROM THE POST OFFICE, ABOUT 100 YARDS SOUTH OF THE SOUTH CORNER OF POUCHERS MARKET, AT A NARROW BLACK TOPPED STREET INTERSECTION, IN THE TOP OF A 7-FOOT SQUARE CONCRETE BASE WITH MANHOLE FOR WATER LINE, 45 FEET SOUTHEAST OF THE CENTER LINE OF THE HIGHWAY, 21 FEET SOUTHWEST OF THE CENTER LINE OF THE BLACK TOPPED ROAD, AND ABOUT 1 FOOT ABOVE THE LEVEL OF THE HIGHWAY.

AA0424

AA0424 STATION RECOVERY (1979)

AA0424

AA0424'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1979

AA0424'OMIT 0.4 MILES SOUTHWEST ALONG U. S. HIGHWAY 1 FROM THE POST OFFICE AT ISLAMORADA. ADD 0.05 MILES SOUTHWEST ALONG U. S. HIGHWAY 1 FROM THE POST OFFICE AT ISLAMORADA. OMIT ABOUT 100 YARDS SOUTH OF THE SOUTH CORNER OF POUCHERS MARKET. ADD 118 FEET SOUTHWEST OF THE WEST CORNER OF THE POST OFFICE AT ISLAMORADA. ADD 34 FEET WEST NORTHWEST OF A FIRST FEDERAL BANK SIGN.

AA0424

AA0424 STATION RECOVERY (1982)

AA0424

AA0424'RECOVERY NOTE BY FL DEPT OF NAT RES 1982

AA0424'RECOVERED IN GOOD CONDITION.

AA0424

AA0424 STATION RECOVERY (1982)

AA0424

AA0424'RECOVERY NOTE BY LOCAL SURVEYOR (INDIVIDUAL OR FIRM) 1982

AA0424'LOCATED IN A 6 1/2 X 7 1/2 CONCRETE SLAB FOR THE OLD WATER LINE E OF HIGHWAY U.S. 1, ABOUT 100 FEET NORTHWEST FROM NORTHWEST CORNER OF POST OFFICE IN ISLAMORADA DIRECTLY IN FRONT OF TRAILER OFFICE OF FIRST FEDERAL BANK OF FLORIDA KEYS, ABOUT 45 FEET FROM CENTERLINE OF HIGHWAY.

AA0424

AA0424 STATION RECOVERY (1990)

AA0424

AA0424'RECOVERY NOTE BY FL DEPT OF NAT RES 1990

AA0424'THE MARK IS AT THE ISLAMORADA POST OFFICE SOUTHWEST OF THE INTERSECTION OF U.S. HIGHWAY 1 AND AN UNMARKED CROSS STREET, SET IN THE TOP OF A 7 FT (2.1 M) SQUARE CONCRETE BASE FOR A MANHOLE COVER. LOCATED 93 FT (28.3 M) SOUTHWEST OF THE CENTERLINE OF THE DRIVEWAY TO THE POST OFFICE, 45 FT (13.7 M) SOUTHEAST OF THE CENTERLINE OF U.S. HIGHWAY 1, 21 FT (6.4 M) SOUTHWEST OF THE CENTERLINE OF THE UNNAMED SMALL CROSS STREET AND ABOUT 1 FT (0.3 M) BELOW THE LEVEL OF THE HIGHWAY.

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AC4815 *****
AC4815 DESIGNATION - TAVERNIER RM 3
AC4815 PID - AC4815
AC4815 STATE/COUNTY- FL/MONROE
AC4815 USGS QUAD - TAVERNIER (1971)
AC4815
AC4815 *CURRENT SURVEY CONTROL
AC4815
AC4815* NAD 83(1990)- 25 00 34.77511(N) 080 30 59.28075(W) ADJUSTED
AC4815* NAVD 88 - 2.3 (meters) 8. (feet) VERTCON
AC4815
AC4815 X - 952,920.362 (meters) COMP
AC4815 Y - -5,704,498.555 (meters) COMP
AC4815 Z - 2,680,035.083 (meters) COMP
AC4815 LAPLACE CORR- -2.63 (seconds) DEFLEC99
AC4815 ELLIP HEIGHT- -21.587 (meters) (09/10/92) GPS OBS
AC4815 GEOID HEIGHT- -23.89 (meters) GEOID03
AC4815
AC4815 HORZ ORDER - SECOND
AC4815 ELLP ORDER - FOURTH CLASS II
AC4815
AC4815.The horizontal coordinates were established by GPS observations
AC4815.and adjusted by the National Geodetic Survey in September 1992.
AC4815
AC4815.The NAVD 88 height was computed by applying the VERTCON shift value to
AC4815.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
AC4815
AC4815.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AC4815
AC4815.The Laplace correction was computed from DEFLEC99 derived deflections.
AC4815
AC4815.The ellipsoidal height was determined by GPS observations
AC4815.and is referenced to NAD 83.
AC4815
AC4815.The geoid height was determined by GEOID03.
AC4815
AC4815; North East Units Scale Factor Converg.
AC4815;SPC FL E - 74,998.005 248,806.399 MT 0.99997058 +0 12 15.9
AC4815;SPC FL E - 246,055.95 816,292.33 sFT 0.99997058 +0 12 15.9
AC4815;UTM 17 - 2,766,104.398 548,789.747 MT 0.99962940 +0 12 15.9
AC4815
AC4815! - Elev Factor x Scale Factor = Combined Factor
AC4815!SPC FL E - 1.00000339 x 0.99997058 = 0.99997397
AC4815!UTM 17 - 1.00000339 x 0.99962940 = 0.99963279
AC4815
AC4815 SUPERSEDED SURVEY CONTROL
AC4815
AC4815 NGVD 29 (09/10/92) 2.7 (m) 9. (f) GPS OBS
AC4815
AC4815.Superseded values are not recommended for survey control.
AC4815.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AC4815.See file dsdata.txt to determine how the superseded data were derived.
AC4815
AC4815_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNH4879066104(NAD 83)
AC4815_MARKER: DR = REFERENCE MARK DISK
AC4815_SETTING: 66 = SET IN ROCK OUTCROP

```

AC4815\_SP\_SET: IN DRILL HOLE IN ROCK OUTCROP  
 AC4815\_STAMPING: TAVERNIER 1935 NO 3 1976  
 AC4815\_MARK LOGO: NGS  
 AC4815\_MAGNETIC: N = NO MAGNETIC MATERIAL  
 AC4815\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 AC4815\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 AC4815+SATELLITE: SATELLITE OBSERVATIONS - January 30, 1992  
 AC4815  
 AC4815 HISTORY - Date Condition Report By  
 AC4815 HISTORY - UNK MONUMENTED  
 AC4815 HISTORY - 19911209 GOOD  
 AC4815 HISTORY - 19920130 GOOD NOS  
 AC4815  
 AC4815 STATION DESCRIPTION  
 AC4815  
 AC4815'DESCRIBED 1991  
 AC4815'RECOVERED IN GOOD CONDITION.  
 AC4815  
 AC4815 STATION RECOVERY (1992)  
 AC4815  
 AC4815'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1992  
 AC4815'STATION IS LOCATED NEAR THE CENTER OF THE VILLEGE OF TAVERNIER.  
 AC4815'TO  
 AC4815'REACH FROM THE NEW TAVERNIER POST OFFICE HEAD SW ON U.S. HIGHWAY 1 FOR  
 AC4815'0.1 MILE, TURN LEFT, (SE) CROSSING NORTH BOUND LANE TO OLD U.S.  
 AC4815'HIGHWAY 1 AND HEAD NE 0.1 MI (0.16 KM) TO STATION ON LEFT.  
 AC4815'STATION IS  
 AC4815'MARKED BY A STANDARD NGS RM DISK STAMPED TAVERNIER 1935 NO 3 1976  
 AC4815'AND CEMENTED INTO A DRILL HOLE IN A ROCK OUTCROP. THE STATION IS 12.0  
 AC4815'M (39.37 FT) NW OF THE CENTERLINE OF OLD U.S. HIGHWAY 1, 19.3 NE OF NE  
 AC4815'CORNER OF CONCRETE UTILITY POLE 502, 18.5 M (60.70 FT) NE OF A RED  
 AC4815'FIRE HYDRANT AND 7.15 M (23.46 FT) SE OF SE EDGE OF SIDEWALK.

```

AC4851 *****
AC4851 DESIGNATION - SIMINOLE
AC4851 PID - AC4851
AC4851 STATE/COUNTY- FL/MONROE
AC4851 USGS QUAD - ROCK HARBOR (1990)
AC4851
AC4851 *CURRENT SURVEY CONTROL
AC4851
AC4851* NAD 83(1999)- 25 03 44.30649(N) 080 28 28.23301(W) ADJUSTED
AC4851* NAVD 88 - 2.7 (meters) 9. (feet) GPS OBS
AC4851
AC4851 X - 956,689.117 (meters) COMP
AC4851 Y - -5,701,365.388 (meters) COMP
AC4851 Z - 2,685,319.138 (meters) COMP
AC4851 LAPLACE CORR- -2.78 (seconds) DEFLEC99
AC4851 ELLIP HEIGHT- -21.409 (meters) (06/19/01) GPS OBS
AC4851 GEOID HEIGHT- -24.10 (meters) GEOID03
AC4851
AC4851 HORZ ORDER - FIRST
AC4851 ELLP ORDER - FOURTH CLASS I
AC4851
AC4851.The horizontal coordinates were established by GPS observations
AC4851.and adjusted by the National Geodetic Survey in June 2001.
AC4851
AC4851.The orthometric height was determined by GPS observations and a
AC4851.high-resolution geoid model.
AC4851
AC4851.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AC4851
AC4851.The Laplace correction was computed from DEFLEC99 derived deflections.
AC4851
AC4851.The ellipsoidal height was determined by GPS observations
AC4851.and is referenced to NAD 83.
AC4851
AC4851.The geoid height was determined by GEOID03.
AC4851
AC4851; North East Units Scale Factor Converg.
AC4851;SPC FL E - 80,845.543 253,018.924 MT 0.99997588 +0 13 21.4
AC4851;SPC FL E - 265,240.75 830,112.92 sFT 0.99997588 +0 13 21.4
AC4851;UTM 17 - 2,771,949.940 553,000.834 MT 0.99963469 +0 13 21.4
AC4851
AC4851! - Elev Factor x Scale Factor = Combined Factor
AC4851!SPC FL E - 1.00000336 x 0.99997588 = 0.99997924
AC4851!UTM 17 - 1.00000336 x 0.99963469 = 0.99963805
AC4851
AC4851 SUPERSEDED SURVEY CONTROL
AC4851
AC4851 NAD 83(1990)- 25 03 44.30543(N) 080 28 28.23216(W) AD( ) 1
AC4851 ELLIP H (12/14/93) -21.405 (m) GP( ) 4 1
AC4851
AC4851.Superseded values are not recommended for survey control.
AC4851.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AC4851.See file dsdata.txt to determine how the superseded data were derived.
AC4851
AC4851_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNH5300171950(NAD 83)
AC4851_MARKER: DD = SURVEY DISK

```

AC4851\_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES

AC4851\_SP\_SET: CONCRETE BASE FOR MANHOLE

AC4851\_STAMPING: SIMINOLE 1993

AC4851\_MARK LOGO: FLDNR

AC4851\_MAGNETIC: O = OTHER; SEE DESCRIPTION

AC4851\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AC4851+STABILITY: SURFACE MOTION

AC4851\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AC4851+SATELLITE: SATELLITE OBSERVATIONS - June 02, 2003

AC4851

AC4851 HISTORY - Date Condition Report By

AC4851 HISTORY - 1993 MONUMENTED KEISCH

AC4851 HISTORY - 20030602 GOOD BAH

AC4851

AC4851 STATION DESCRIPTION

AC4851

AC4851'DESCRIBED BY KEITH AND SCHNARS - LAKELAND 1993

AC4851'THE STATION IS LOCATED ON KEY LARGO, 3.5 MI (5.6 KM) SOUTHWEST OF THE

AC4851'KEY LARGO POST OFFICE IN A BIKE PATH IN THE MEDIAN OF U.S. 1.

AC4851'TO REACH THE STATION FROM THE POST OFFICE IN THE CITY OF KEY LARGO, GO

AC4851'SOUTHWEST ON U.S. 1 FOR 3.5 MI (5.6 KM) TO THE STATION IN THE MEDIAN.

AC4851'THE STATION LIES 0.45 MI (0.72 KM) SOUTHWEST OF MILE MARKER 97, 30.6

AC4851'FT (9.3 M) SOUTH OF THE SOUTH EDGE OF PAVEMENT OF THE SOUTHBOUND

AC4851'LANE, 18.7 FT (5.7 M) NORTH OF THE NORTH EDGE OF PAVEMENT OF THE

AC4851'NORTHBOUND, AND 21.2 FT (6.5 M) NORTHWEST OF A CARSONITE WITNESS

AC4851'POST.

AC4851'THE STATION IS A FLORIDA DEPARTMENT OF NATURAL RESOURCES SURVEY AND

AC4851'MAPPING SURVEY MARKER SET IN A 7 FOOT BY 9 FOOT CONCRETE STRUCTURE

AC4851'WITH A MANHOLE COVER STAMPED SIMINOLE 1993.

AC4851'REFERENCES--

AC4851'FOUND ALUMINUM DISC SET IN CONCRETE STAMPED F. H. HILDERBRANDT INC

AC4851'PLS 2749, MAGNETIC AZIMUTH OF 197 DEGREES AT 12.75 FT (3.89 M).

AC4851'KEITH AND SCHNARS NAIL AND DISC, SET AT THE EDGE OF PAVEMENT, MAGNETIC

AC4851'AZIMUTH OF 322 DEGREES AT 31.95 FT (9.74 M).

AC4851'X-CUT, SET IN A CONCRETE SLAB, MAGNETIC AZIMUTH OF 03 DEGREES AT 9.22

AC4851'FT (2.81 M).

AC4851'X-CUT, SET IN A CONCRETE SLAB, MAGNETIC AZIMUTH OF 46 DEGREES AT 7.23

AC4851'FT (2.20 M).

AC4851'SET CARSONITE WITNESS POST, MAGNETIC AZIMUTH OF 87 DEGREES AT 21.2 FT

AC4851'(6.5 M).

AC4851

AC4851 STATION RECOVERY (2003)

AC4851

AC4851'RECOVERY NOTE BY BERRYMAN & HENIGAR 2003 (KAW)

AC4851'RECOVERED IN GOOD CONDITION.

```

AA7187 *****
AA7187 DESIGNATION - RTS 1
AA7187 PID - AA7187
AA7187 STATE/COUNTY- FL/MONROE
AA7187 USGS QUAD - GRASSY KEY (1990)
AA7187
AA7187 *CURRENT SURVEY CONTROL
AA7187
AA7187* NAD 83(1999)- 24 45 59.44706(N) 080 56 44.12580(W) ADJUSTED
AA7187* NAVD 88 - 1.5 (meters) 5. (feet) GPS OBS
AA7187
AA7187 X - 911,953.383 (meters) COMP
AA7187 Y - -5,722,669.641 (meters) COMP
AA7187 Z - 2,655,603.036 (meters) COMP
AA7187 LAPLACE CORR- -1.76 (seconds) DEFLEC99
AA7187 ELLIP HEIGHT- -21.064 (meters) (06/19/01) GPS OBS
AA7187 GEOID HEIGHT- -22.54 (meters) GEOID03
AA7187
AA7187 HORZ ORDER - FIRST
AA7187 ELLP ORDER - FOURTH CLASS I
AA7187
AA7187.The horizontal coordinates were established by GPS observations
AA7187.and adjusted by the National Geodetic Survey in June 2001.
AA7187
AA7187.The orthometric height was determined by GPS observations and a
AA7187.high-resolution geoid model.
AA7187
AA7187.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AA7187
AA7187.The Laplace correction was computed from DEFLEC99 derived deflections.
AA7187
AA7187.The ellipsoidal height was determined by GPS observations
AA7187.and is referenced to NAD 83.
AA7187
AA7187.The geoid height was determined by GEOID03.
AA7187
AA7187; North East Units Scale Factor Converg.
AA7187;SPC FL E - 47,979.960 205,502.655 MT 0.99994155 +0 01 22.1
AA7187;SPC FL E - 157,414.25 674,219.96 sFT 0.99994155 +0 01 22.1
AA7187;UTM 17 - 2,739,095.571 505,500.778 MT 0.99960037 +0 01 22.1
AA7187
AA7187! - Elev Factor x Scale Factor = Combined Factor
AA7187!SPC FL E - 1.00000331 x 0.99994155 = 0.99994486
AA7187!UTM 17 - 1.00000331 x 0.99960037 = 0.99960368
AA7187
AA7187 SUPERSEDED SURVEY CONTROL
AA7187
AA7187 NAD 83(1990)- 24 45 59.44538(N) 080 56 44.12523(W) AD( ) 1
AA7187 ELLIP H (07/31/95) -21.023 (m) GP( ) 4 1
AA7187
AA7187.Superseded values are not recommended for survey control.
AA7187.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AA7187.See file dsdata.txt to determine how the superseded data were derived.
AA7187
AA7187_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNH0550139096(NAD 83)
AA7187_MARKER: DH = HORIZONTAL CONTROL DISK

```

AA7187\_SETTING: 30 = SET IN A LIGHT STRUCTURE  
AA7187\_SP\_SET: CONCRETE SLAB WITH WATER VALVES  
AA7187\_STAMPING: RTS 1 1994  
AA7187\_MARK LOGO: NGS  
AA7187\_MAGNETIC: N = NO MAGNETIC MATERIAL  
AA7187\_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY  
AA7187\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
AA7187+SATELLITE: SATELLITE OBSERVATIONS - February 18, 2006

AA7187  
AA7187 HISTORY - Date Condition Report By  
AA7187 HISTORY - 1994 MONUMENTED KEISCH  
AA7187 HISTORY - 20060218 GOOD USPSQD

AA7187  
AA7187 STATION DESCRIPTION

AA7187 DESCRIBED BY KEITH AND SCHNARS - LAKELAND 1994 (MDE)  
AA7187 THE STATION IS LOCATED ON THE EAST END OF GRASSY KEY IN THE NORTH  
AA7187 RIGHT-OF-WAY OF U.S. 1, IN MONROE COUNTY, FLORIDA. THE STATION IS  
AA7187 LOCATED IN FRONT OF THE DOLPHIN RESOURCE CENTER ON GRASSY KEY, 0.05 MI  
AA7187 (0.08 KM) EAST OF MILE MARKER 59, 42 FT (12.8 M) SOUTHWEST OF THE  
AA7187 CENTERLINE OF THE DRIVEWAY TO THE CENTER, AND 31 FT (9.4 M) NORTH OF  
AA7187 THE CENTERLINE OF U.S. 1. THE STATION IS NATIONAL GEODETIC SURVEY  
AA7187 HORIZONTAL CONTROL DISC SET IN THE NORTHWEST CORNER OF A 7' X 4.5'  
AA7187 CONCRETE SLAB WITH WATER VALVE COVERS, STAMPED "RTS 1 1994."  
AA7187 REFERENCES-- X-CUT, SET IN A CONCRETE FENCE POST, MAGNETIC AZIMUTH OF  
AA7187 327 DEGREES AT 19.00 FT (5.79 M) . KEITH AND SCHNARS NAIL AND DISC,  
AA7187 SET IN THE NORTH FACE OF A WOOD POWER POLE (NO. 17629), MAGNETIC  
AA7187 AZIMUTH OF 242 DEGREES AT 16.01 FT (4.88 M) . KEITH AND SCHNARS NAIL  
AA7187 AND DISC, SET AT THE EDGE OF PAVEMENT, MAGNETIC AZIMUTH OF 141 DEGREES  
AA7187 AT 15.94 FT (4.86 M) . SET CARSONITE WITNESS POST, 0.7 FT (0.2 M)  
AA7187 SOUTHWEST.

AA7187  
AA7187 STATION RECOVERY (2006)

AA7187  
AA7187 RECOVERY NOTE BY US POWER SQUADRON 2006 (JPG)  
AA7187 X-CUT IN POST GONE. DISC AND WITNESS POST GONE.

## **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**

**PAGE:**  
1

**JOB REFERENCE**  
FLORIDA KEYS LIDAR

**POINT ID:** 1C  
**Proj. No.:** 02030.18.005.CWJ

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

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 24 42 31.40 (N)

**LONGITUDE** 081 06 25.08 (W)

**RECEIVER S/N** 4305

**SESSION**  
001C-181-1

**DATE:** 06/30/07  
**DAY OF YEAR** 181

**START TIME** 11:40  
**END TIME** 12:11

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	24415	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

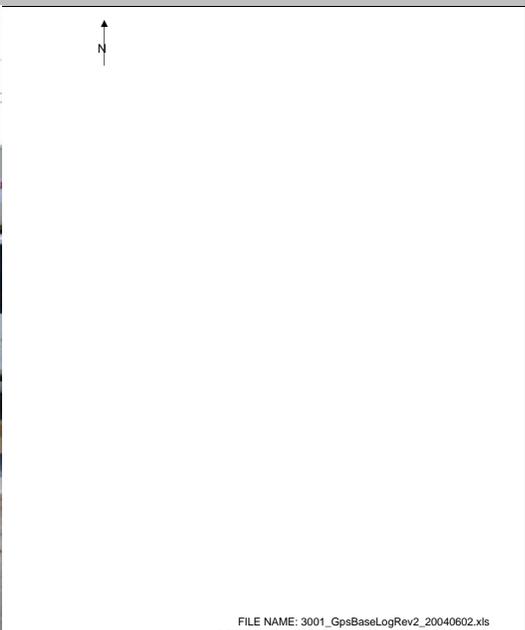
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>BELOW GROUND</b>

**3001 DESCRIPTION:** 1C IS A PK NAIL SET IN A SIDEWALK ON THE NORTH SIDE OF HWY 1 IN THE FRONT OF OVERSEAS OUTFITTERS LOCATED 35' NORTH OF THE CL OF HWY 1... 15' S.E. OF A RED FIRE HYDRANT... 65' SOUTH OF A POWER POLE.

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
1

**JOB REFERENCE**  
FLORIDA KEYS LIDAR

**POINT ID:** 1C  
**Proj. No.:** 02030.18.005.CWJ

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

**STATE** FLORIDA      **COUNTY** MONROE      **QUAD:**

**OPERATOR** C. LAPRARIE

**RECEIVER MODEL** TRIMBLE 4000 SE  
**RECEIVER S/N** 4305

**APPROXIMATE POSITION (C/A/CODE)**

<b>LATITUDE</b>	24 42 31.40 (N)	<b>HGT. MTS</b>
<b>LONGITUDE</b>	081 06 25.08 (W)	

<b>SESSION</b>	<b>DATE:</b> 06/30/07	<b>START TIME</b>	12:16	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
001C-181-2	<b>DAY OF YEAR</b> 181	<b>END TIME</b>	12:47		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA HEIGHT (VERTICAL)**

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

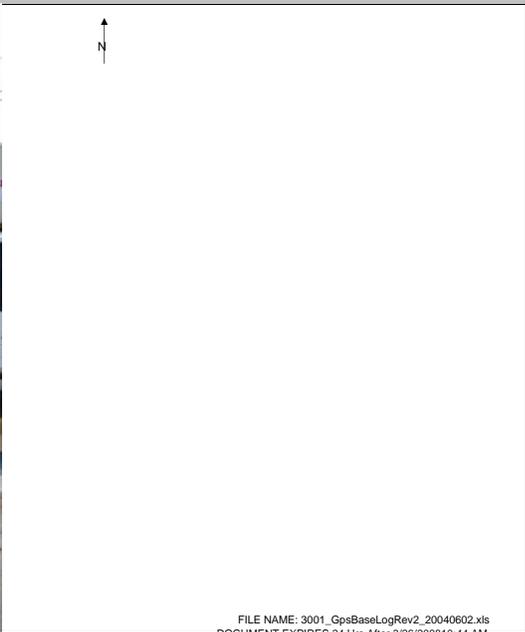
**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	24415	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	
<b>TOP OF MONUMENT IS:</b>	<input checked="" type="checkbox"/>	<b>FLUSH</b>
<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION:** 1C IS A PK NAIL SET IN A SIDEWALK ON THE NORTH SIDE OF HWY 1 IN THE FRONT OF OVERSEAS OUTFITTERS LOCATED 35' NORTH OF THE CL OF HWY 1... 15' S.E. OF A RED FIRE HYDRANT... 65' SOUTH OF A POWER POLE.

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

**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**  
FLORIDA KEYS LIDAR

**POINT ID:** 2C  
**Proj. No.:** 02030.18.005.CWJ

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE  
**RECEIVER S/N** 4305

**LATITUDE** 24 45 54.27 (N)  
**LONGITUDE** 080 56 50.15 (W)  
**HGT. MTS**

**SESSION** 002C-181-1  
**DATE:** 06/30/07  
**DAY OF YEAR** 181

**START TIME** 15:06  
**END TIME** 15:37  
**X** **U.T.C.**  
**LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M)** 0.000  
**S/N NUMBER** 24415 0.000  
**ANTENNA TYPE** TRIMBLE COMPACT 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: 2C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 10' SOUTH OF THE SOUTH EDGE OF HWY 1... 45' WEST OF A CONCRETE POWER POLE... 20' N.W. OF A WOOD LINE.**

**AERIAL TARGET**  
**PUB. BENCH MARK** **X** **NEW CONTROL**  
**PUB. 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**  
FLORIDA KEYS LIDAR

**POINT ID:** 2C  
**Proj. No.:** 02030.18.005.CWJ

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:**

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4305

**LATITUDE:** 24 45 54.27 (N)      **HGT. MTS:**  
**LONGITUDE:** 080 56 50.15 (W)

**SESSION:** 002C-181-2      **DATE:** 06/30/07  
**DAY OF YEAR:** 181

**START TIME:** 15:42      **U.T.C.:** X  
**END TIME:** 16:13      **LOCAL:**

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

**ANTENNA INFO**  
**RADIUS (M):** 0.000  
**S/N NUMBER:** 24415      **0.000**  
**ANTENNA TYPE:** TRIMBLE COMPACT L1/L2 W/GRD PLANE

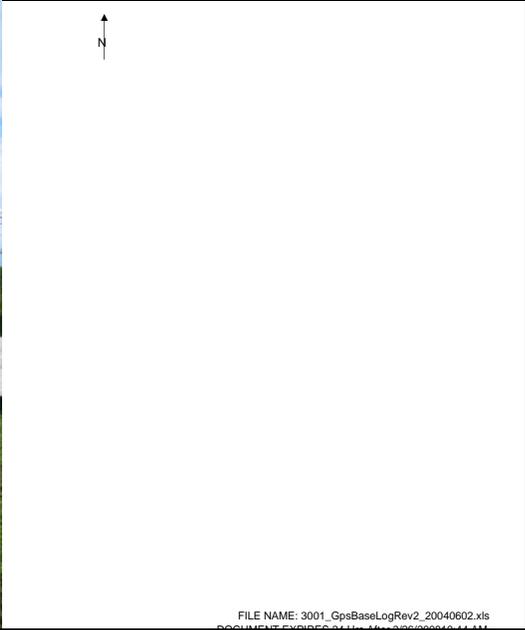
**ANTENNA HEIGHT (VERTICAL)**  
**MTRS/FT:** 2.000M (UNCORRECTED)  
**MEASURED:** X      **FIXED HGT:**

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

**3001 DESCRIPTION: 2C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 10' SOUTH OF THE SOUTH EDGE OF HWY 1... 45' WEST OF A CONCRETE POWER POLE... 20' N.W. OF A WOOD LINE.**

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

**PHOTO:**      **SKETCH:**



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

JOB REFERENCE  
FLA. KEYS LIDAR

POINT ID: 3B  
Proj. No.: 02030.18.005.CWJ

STATE	FLORIDA	COUNTY	MONROE	QUAD:	
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OPERATOR	V. MCNEAL	APPROXIMATE POSITION (C/A/CODE)			
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RECEIVER MODEL	TRIMBLE 4000 SE
RECEIVER S/N	4927

LATITUDE	24 49 35.30N	HGT. MTS	
LONGITUDE	080 48 47.49W		

SESSION	DATE:	06/30/07	START TIME	18:02	X	U.T.C.
003B-181-1	DAY OF YEAR	181	END TIME	19:25		LOCAL

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

ANTENNA INFO			
RADIUS (M)			
S/N NUMBER	10015		
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: 3B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF FLA. HWY 5. POINT IS 14FT N/W OF THE C/L OF FLA. HWY 5-- 71FT N/E OF A POWERPOLE-- 80FT S/W OF THE C/L OF N LAYTON DR.

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

PHOTO: SKETCH:



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

JOB REFERENCE  
FLA. KEYS LIDAR

POINT ID: 3B  
Proj. No.: 0719.01.001.555

STATE: FLORIDA COUNTY: MONROE QUAD:

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

LATITUDE: 24 49 35.30N HGT. MTS  
LONGITUDE: 080 48 47.49W

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

SESSION: 003B-182-1 DATE: 07/01/07 START TIME: 11:13 X U.T.C.  
DAY OF YEAR: 182 END TIME: 13:06 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: 3B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF FLA. HWY 5. POINT IS 14FT N/W OF THE C/L OF FLA. HWY 5-- 71FT N/E OF A POWERPOLE-- 80FT S/W OF THE C/L OF N LAYTON DR.

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

JOB REFERENCE  
FLA. KEYS LIDAR

POINT ID: 3B  
Proj. No.: 0719.01.001.555

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

LATITUDE: 24 49 35.30N HGT. MTS  
LONGITUDE: 080 48 47.49W

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

SESSION: 003B-182-2 DATE: 07/01/07  
DAY OF YEAR: 182

START TIME: 13:11 X U.T.C.  
END TIME: 14:42 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: 3B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF FLA. HWY 5. POINT IS 14FT N/W OF THE C/L OF FLA. HWY 5-- 71FT N/E OF A POWERPOLE-- 80FT S/W OF THE C/L OF N LAYTON DR.

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

JOB REFERENCE  
FLA. KEYS LIDAR

POINT ID: 3C  
Proj. No.: 02030.18.005.CWJ

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

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

LATITUDE: 24 49 38.10N  
LONGITUDE: 080 48 43.12W  
HGT. MTS:

SESSION: 003C-181-1 DATE: 06/30/07  
DAY OF YEAR: 181

START TIME: 18:10 X U.T.C.  
END TIME: 18:41 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 S/E SIDE OF FLA. HWY 5. POINT IS 23FT S/E OF THE C/L OF FLA. HWY 5-- 146FT S/W OF A CONC POWERPOLE-- 171FT N/E OF A CONC 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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SLIDELL, LA. 70458  
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE  
FLA. KEYS LIDAR

POINT ID: 3C  
Proj. No.: 02030.18.005.CWJ

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

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

LATITUDE: 24 49 38.10N  
LONGITUDE: 080 48 43.12W  
HGT. MTS:

SESSION: 003C-181-2 DATE: 06/30/07  
DAY OF YEAR: 181

START TIME: 18:46 X U.T.C.  
END TIME: 19:17 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 S/E SIDE OF FLA. HWY 5. POINT IS 23FT S/E OF THE C/L OF FLA. HWY 5-- 146FT S/W OF A CONC POWERPOLE-- 171FT N/E OF A CONC 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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**JOB REFERENCE**  
FLORIDA KEYS LIDAR

**POINT ID:** 4C  
**Proj. No.:** 02030.18.005.CWJ

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

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 24 51 30.17 (N) **HGT. MTS**

**RECEIVER S/N** 4305

**LONGITUDE** 080 43 30.23 (W)

**SESSION**  
004C-181-1

**DATE:** 06/30/07  
**DAY OF YEAR** 181

**START TIME** 18:26  
**END TIME** 18:58

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	24415	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

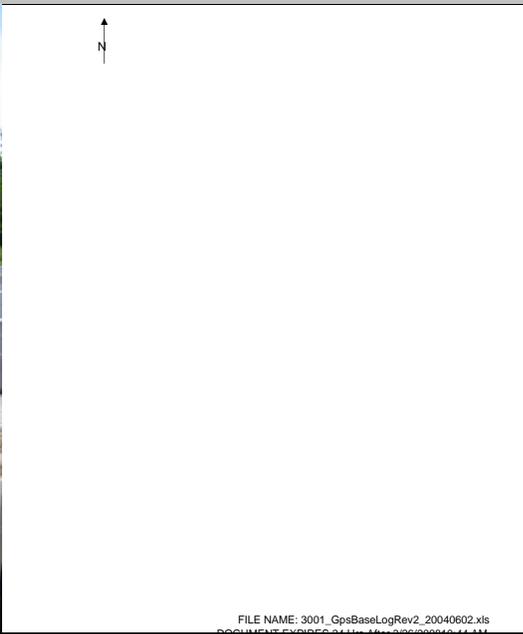
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>BELOW GROUND</b>

**3001 DESCRIPTION: 4C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 9' SOUTH OF THE SOUTH EDGE OF HWY 1... 7' NORTH OF A WHITE ROCK WITH A SIGN ON THE FRONT THE READS (THIS PROPERTY IS A GIFT FROM DR. & MRS. JAMES CALDER MAJOR... 130' WEST OF A CONCERT POWER POLE.**

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
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**JOB REFERENCE**  
FLORIDA KEYS LIDAR

**POINT ID:** 4C  
**Proj. No.:** 02030.18.005.CWJ

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

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:**

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4305

**LATITUDE:** 24 51 30.17 (N)      **HGT. MTS:**  
**LONGITUDE:** 080 43 30.23 (W)

**SESSION:** 004C-181-2      **DATE:** 06/30/07  
**DAY OF YEAR:** 181

**START TIME:** 19:03       **U.T.C.**  
**END TIME:** 19:37       **LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M):** 0.000  
**S/N NUMBER:** 24415      **0.000**  
**ANTENNA TYPE:** TRIMBLE COMPACT L1/L2 W/GRD PLANE

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

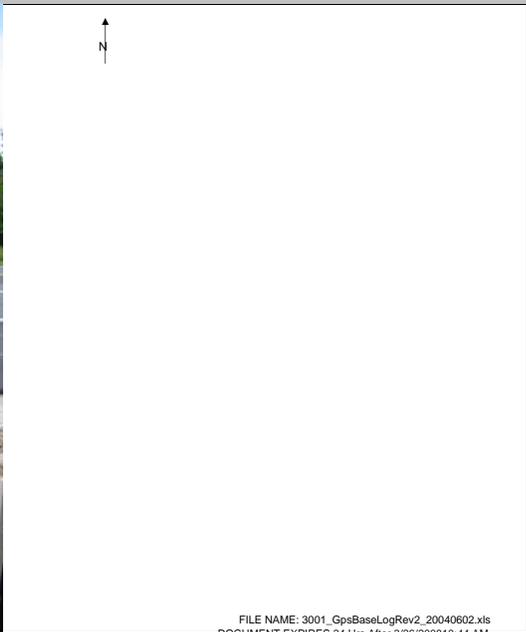
**TOP OF MONUMENT IS:**  **FLUSH**  
**METERS/FEET:** **ABOVE GROUND**  
**METERS/FEET:** **BELOW GROUND**

**3001 DESCRIPTION: 4C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 9' SOUTH OF THE SOUTH EDGE OF HWY 1... 7' NORTH OF A WHITE ROCK WITH A SIGN ON THE FRONT THE READS (THIS PROPERTY IS A GIFT FROM DR. & MRS. JAMES CALDER MAJOR... 130' WEST OF A CONCERT POWER POLE.**

**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**  
TASK ORDER 2

**POINT ID:** 5B-TASK ORDER 3  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MIAMI/DADE

**QUAD:**

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SSI

**LATITUDE** 25 26 29.93N

**LONGITUDE** 080 28 31.01W

**RECEIVER S/N** 3158

**SESSION**  
005B 183 1

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 10:51  
**END TIME** 21:27

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

**MTRS/FT**

**MEASURED**     **FIXED HGT.**

**ANTENNA INFO**

**RADIUS (M)** 0.000

**S/N NUMBER** 10018    0.000

**ANTENNA TYPE** COMPAC L1/L2 WITH GROUND 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: 5B IS A 1/2" IR WITH A YELLOW CAPSET FLUSH WITH THE GROUND ON THE WEST SIDE OF HWY 1 IN A VACANT LOT.**

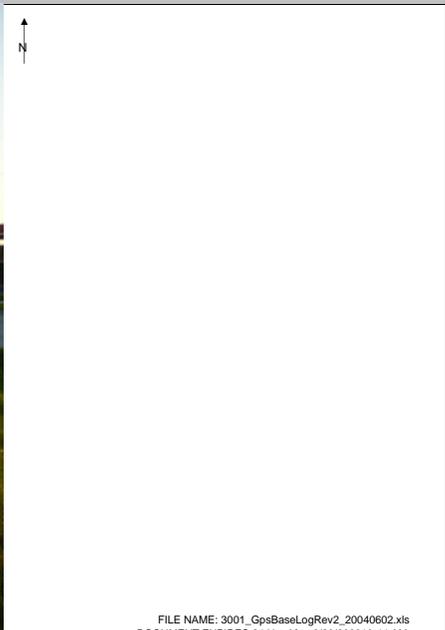
**AERIAL TARGET**     **PHOTO I.D.**

**PUB. BENCH MARK**     **NEW CONTROL**

**PUB. CONTROL**     **BASE STATION**

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 5C  
**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:** MONROE      **QUAD:** PLANTATION KEY 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL:** TRIMBLE 4000 SSI  
**RECEIVER S/N:** 4652

**LATITUDE:** 24 55 42.17N      **HGT. MTS:**  
**LONGITUDE:** 080 37 20.57W

**SESSION:** 005C 183 1      **DATE:** 07/02/07  
**DAY OF YEAR:** 183

**START TIME:** 16:06      X      **U.T.C.**  
**END TIME:** 16:37      **LOCAL**

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

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

**3001 DESCRIPTION:** 5C IS A SPIKE NAIL DRIVEN FLUSH WITH THE GROUND 4.8' SOUTH OF OLD STATE HWY 4A AND 12' NORTH OF A HEDGE ROW. 5C IS ACROSS THE RD FROM THE BACK OF THE POST OFFICE. PICTURE TAKEN LOOKING SOUTH.

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

**PHOTO:**      **SKETCH:**



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

**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 5C  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:** PLANTATION KEY 1971

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SSI

**LATITUDE** 24 55 42.17N

**LONGITUDE** 080 37 20.57W

**RECEIVER S/N** 4652

**SESSION**  
005C 183 2

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 16:42  
**END TIME** 17:13

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	50496	<b>0.000</b>
<b>ANTENNA TYPE</b>	<b>COMPAC L1/L2 WITH GROUND PLANE</b>	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

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

**3001 DESCRIPTION: 5C IS A SPIKE NAIL DRIVEN FLUSH WITH THE GROUND 4.8' SOUTH OF OLD STATE HWY 4A AND 12' NORTH OF A HEDGE ROW. 5C IS ACROSS THE RD FROM THE BACK OF THE POST OFFICE. PICTURE TAKEN LOOKING SOUTH.**

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 6C  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** TAVERNIER 1971

<b>OPERATOR</b>	Purpera	<b>APPROXIMATE POSITION (C/A/CODE)</b>		
<b>RECEIVER MODEL</b>	TRIMBLE 4000 SSI	<b>LATITUDE</b>	25 00 35.92	<b>HGT. MTS</b>
<b>RECEIVER S/N</b>	4652	<b>LONGITUDE</b>	080 31 00.43W	

<b>SESSION</b>		<b>DATE:</b>	07/02/07	<b>START TIME</b>	17:44	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
006C 183 1		<b>DAY OF YEAR</b>	183	<b>END TIME</b>	18:15		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

<b>MTRS/FT</b>		<b>MEASURED</b>	<input type="checkbox"/>	<b>FIXED HGT.</b>	<input type="checkbox"/>
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**ANTENNA HEIGHT (VERTICAL)**

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

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

**3001 DESCRIPTION:** 6C IS A SPIKE NAIL ON THE NORTH SIDE OF HWY 1. 3' NORTH OF A CONCRETE SIDEWALK AND 8' NW OF THE SOUTH END OF A CONCRETE CURB AT THE SOUTH END OF AN ASPHALT PARKING LOT IN FRONT OF AN ACE HARDWARE STORE AND A CENTURY 21 REALTY OFFICE. 6C IS IN A LIMESTONE AREA BETWEEN THE PARKING LOT AND A CHEVRON CONVENIENT STORE. PICTURE TAKEN LOOKING SW.

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
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Slidell, LA 70458  
703-574-2336 voice 985-649-5082 fax

**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 6C  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** TAVERNIER 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL:** TRIMBLE 4000 SSI  
**RECEIVER S/N:** 4652

**LATITUDE:** 25 00 35.92      **HGT. MTS:**  
**LONGITUDE:** 080 31 00.43W

**SESSION:** 006C 183 2      **DATE:** 07/02/07  
**DAY OF YEAR:** 183

**START TIME:** 18:20       **U.T.C.**  
**END TIME:** 18:51       **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

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

**3001 DESCRIPTION:** 6C IS A SPIKE NAIL ON THE NORTH SIDE OF HWY 1. 3' NORTH OF A CONCRETE SIDEWALK AND 8' NW OF THE SOUTH END OF A CONCRETE CURB AT THE SOUTH END OF AN ASPHALT PARKING LOT IN FRONT OF AN ACE HARDWARE STORE AND A CENTURY 21 REALTY OFFICE. 6C IS IN A LIMESTONE AREA BETWEEN THE PARKING LOT AND A CHEVRON CONVENIENT STORE. PICTURE TAKEN LOOKING SW.

**AERIAL TARGET:**      **PHOTO I.D.**  
**PUB. BENCH MARK:**  **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**  
TASK ORDER 2

**POINT ID:** 7C  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:** TAVERNIER 1971

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SSI

**LATITUDE** 25 03 40.92N

**LONGITUDE** 080 28 31.65W

**RECEIVER S/N** 4652

**SESSION**  
007C 183 1

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 19:14  
**END TIME** 19:45

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

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

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION:** 7C IS A SPIKE NAIL SET FLUSH WITH THE GROUND IN THE GRASS MEDIAN BETWEEN THE NORTH AND SOUTH BOUND LANES OF HWY. 1. APPROX 200 SE OF THE ENTRANCE TO BUTTWOOD BAY RESORT AND 5' SOUTH OF THE SOUTH EDGE OF A TURNING LANE ON THE SOUTH SIDE OF THE SOUTH BOUND LANE OF HWY 1. PICTURE TAKEN LOOKING NORTH.

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

**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**  
TASK ORDER 2

**POINT ID:** 7C  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:** TAVERNIER 1971

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SSI

**LATITUDE** 25 03 40.92N

**LONGITUDE** 080 28 31.65W

**RECEIVER S/N** 4652

**SESSION**  
007C 183 2

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 19:50  
**END TIME** 20:21

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

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

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

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

**3001 DESCRIPTION:** 7C IS A SPIKE NAIL SET FLUSH WITH THE GROUND IN THE GRASS MEDIAN BETWEEN THE NORTH AND SOUTH BOUND LANES OF HWY. 1. APPROX 200 SE OF THE ENTRANCE TO BUTTWOOD BAY RESORT AND 5' SOUTH OF THE SOUTH EDGE OF A TURNING LANE ON THE SOUTH SIDE OF THE SOUTH BOUND LANE OF HWY 1. PICTURE TAKEN LOOKING NORTH.

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**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** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE  
**RECEIVER S/N** 4302

**LATITUDE** 25 09 08.63 N  
**LONGITUDE** 080 23 23.75 W  
**HGT. MTS**

**SESSION** 008B-183-1  
**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 17:20  
**END TIME** 18:42  
**X** **U.T.C.**  
**LOCAL**

**ANTENNA HEIGHT (SLANT)**

**MTRS/FT**

**MEASURED** **FIXED HGT.**

**ANTENNA INFO**

**RADIUS (M)** 0.000  
**S/N NUMBER** 10019 0.000  
**ANTENNA TYPE** TRIMBLE COMPACT 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

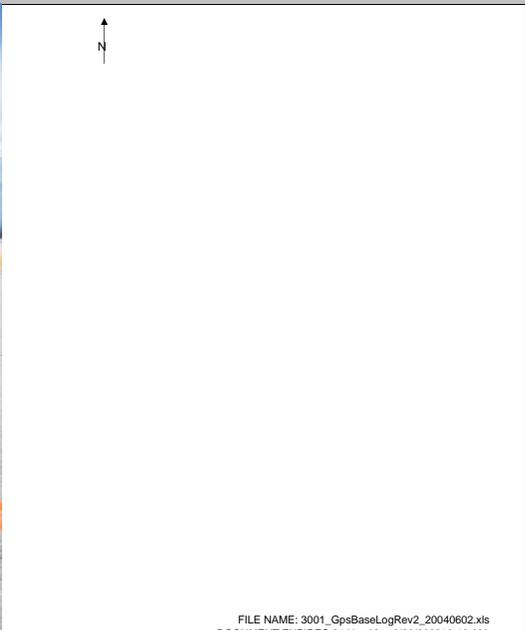
**3001 DESCRIPTION: 8B IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 25' N.W. FROM THE CL OF THE NORTH BOUND LANE OF HWY 1... 9.6' S.E. OF A ONE WAY & YIELD SIGN... 50' S.W. FROM THE CL OF A TURN LANE BETWEEN THE NORTH AND SOUTH BOUND LANES OF HWY 1.**

**AERIAL TARGET**  
**PUB. BENCH MARK** X  
**PUB. CONTROL** X

**PHOTO I.D.**  
X **NEW CONTROL**  
X **BASE STATION**

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**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** MONROE

**QUAD:**

**OPERATOR** MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 09 08.63 N

**LONGITUDE** 080 23 23.75 W

**RECEIVER S/N** 3158

**SESSION**  
008B-184-1

**DATE:** 07/03/07  
**DAY OF YEAR** 184

**START TIME** 11:23  
**END TIME** 12:54

**U.T.C.**  
 **LOCAL**

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

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

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

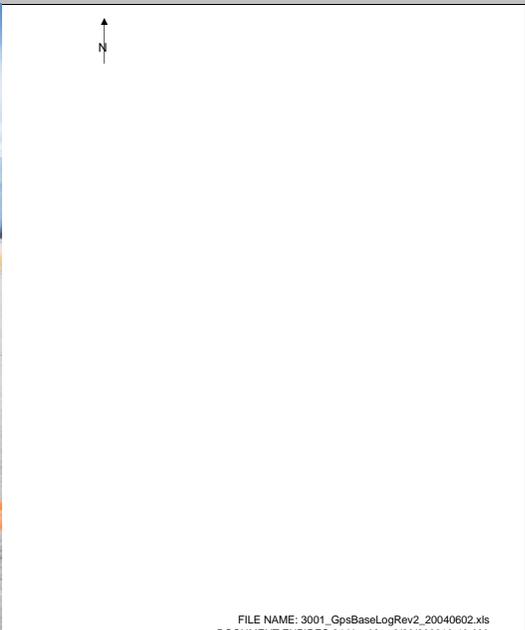
**TOP OF MONUMENT IS:**  **FLUSH**  
 **ABOVE GROUND**  
 **BELOW GROUND**

**3001 DESCRIPTION: 8B IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 25' N.W. FROM THE CL OF THE NORTH BOUND LANE OF HWY 1... 9.6' S.E. OF A ONE WAY & YIELD SIGN... 50' S.W. FROM THE CL OF A TURN LANE BETWEEN THE NORTH AND SOUTH BOUND LANES OF HWY 1.**

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**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** MONROE

**QUAD:**

**OPERATOR** MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 09 08.63 N

**LONGITUDE** 080 23 23.75 W

**RECEIVER S/N** 3158

**SESSION**  
008B-184-2

**DATE:** 07/03/07  
**DAY OF YEAR** 184

**START TIME** 12:59  
**END TIME** 14:30

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	10018	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

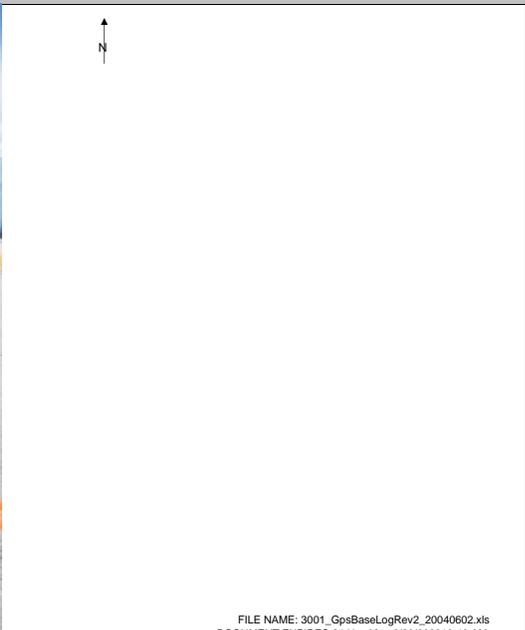
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>BELOW GROUND</b>

**3001 DESCRIPTION: 8B IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 25' N.W. FROM THE CL OF THE NORTH BOUND LANE OF HWY 1... 9.6' S.E. OF A ONE WAY & YIELD SIGN... 50' S.W. FROM THE CL OF A TURN LANE BETWEEN THE NORTH AND SOUTH BOUND LANES OF HWY 1.**

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 8C  
**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** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 09 12.99 (N) **HGT. MTS**

**RECEIVER S/N** 4305

**LONGITUDE** 080 23 21.13 (W)

**SESSION**  
008C-183-1

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 17:31  
**END TIME** 18:02

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	24415	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

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

**3001 DESCRIPTION:** 8C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 12' N.E. OF THE N.E. END OF A GUADRIL ON THE WEST SIDE OF THE SOUTH BOUND LANE OF HWY 1... 34' N.W. FROM THE CL OF THE SOUTH BOUND LANE OF HWY 1... 98' S.W. OF A WOODEN POWER POLE.

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 8C  
**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** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 09 12.99 (N) **HGT. MTS**

**RECEIVER S/N** 4305

**LONGITUDE** 080 23 21.13 (W)

**SESSION**  
008C-183-2

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 18:07  
**END TIME** 18:38

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	24415	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

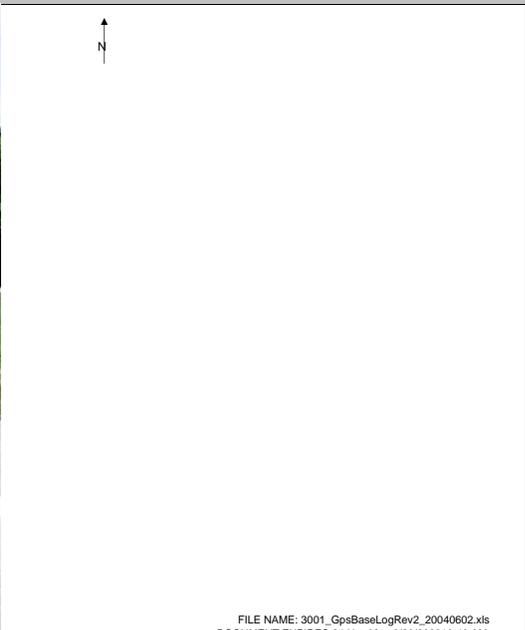
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>BELOW GROUND</b>

**3001 DESCRIPTION:** 8C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 12' N.E. OF THE N.E. END OF A GUADRIL ON THE WEST SIDE OF THE SOUTH BOUND LANE OF HWY 1... 34' N.W. FROM THE CL OF THE SOUTH BOUND LANE OF HWY 1... 98' S.W. OF A WOODEN POWER POLE.

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

**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**  
TASK ORDER 2

**POINT ID:** 9B  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 17 09.4N

**LONGITUDE** 080 18 17.35W

**RECEIVER S/N** 4300

**SESSION**  
009B 183 1

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 11:34  
**END TIME** 13:18

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

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

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

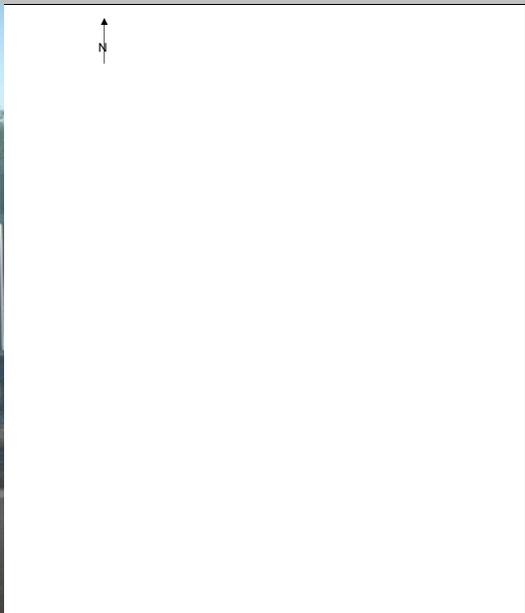
<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION: 9B IS A PK NAIL SET FLUSH WITH THE ASPHALT ON THE NORTH SIDE OF HWY 905A WHICH IS CARD SOUND ROAD. 3.6' NORTH OF THE NORTH EDGE OF THE WHITE LINE ON THE NORTH EDGE OF CARD SOUND RD. AND 4.6' SOUTH OF THE BACK OF THE METAL GUARD RAIL. 14.5' SOUTHWEST OF A MONROE COUNTY RD. SIGN. PICTURE TAKEN LOOKING NORTH.**

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

**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**  
TASK ORDER 2

**POINT ID:** 9B  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 17 09.4N

**LONGITUDE** 080 18 17.35W

**RECEIVER S/N** 4300

**SESSION**  
009B 183 2

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 13:23  
**END TIME** 14:54

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

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

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

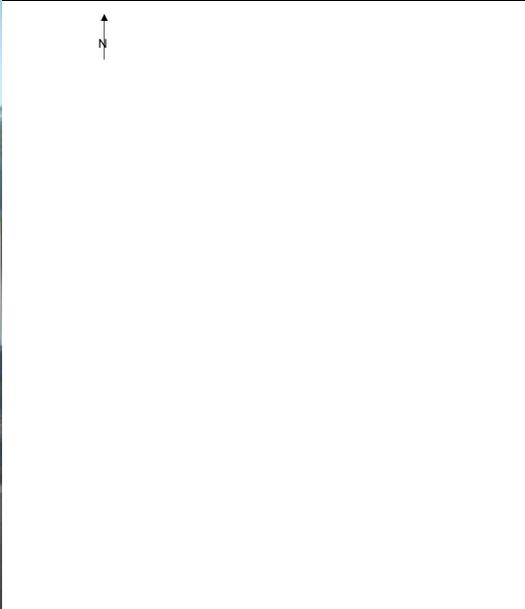
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>BELOW GROUND</b>

**3001 DESCRIPTION: 9B IS A PK NAIL SET FLUSH WITH THE ASPHALT ON THE NORTH SIDE OF HWY 905A WHICH IS CARD SOUND ROAD. 3.6' NORTH OF THE NORTH EDGE OF THE WHITE LINE ON THE NORTH EDGE OF CARD SOUND RD. AND 4.6' SOUTH OF THE BACK OF THE METAL GUARD RAIL. 14.5' SOUTHWEST OF A MONROE COUNTY RD. SIGN. PICTURE TAKEN LOOKING NORTH.**

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**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** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 17 09.4N

**LONGITUDE** 080 18 17.35W

**RECEIVER S/N** 4302

**SESSION**  
009B 184 1

**DATE:** 07/03/07  
**DAY OF YEAR** 184

**START TIME** 10:51  
**END TIME** 12:54

**U.T.C.**  
 **LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M)** 0.000  
**S/N NUMBER** 10019 0.000  
**ANTENNA TYPE** COMPAC L1/L2 WITH GROUND PLANE

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

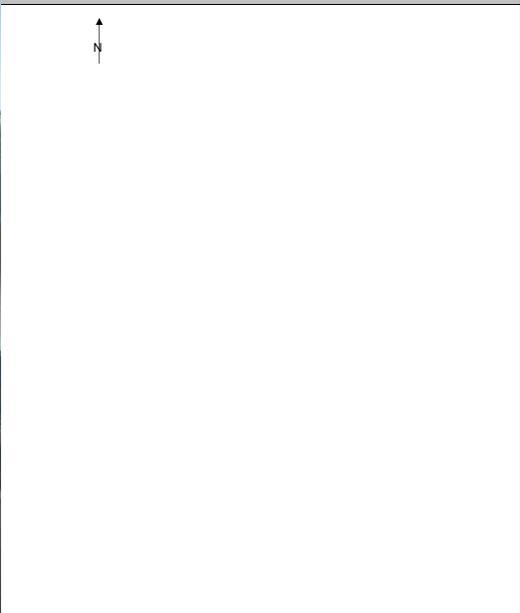
**TOP OF MONUMENT IS:**  **FLUSH**  
**METERS/FEET**  **ABOVE GROUND**  
**METERS/FEET**  **BELOW GROUND**

**3001 DESCRIPTION: 9B IS A PK NAIL SET FLUSH WITH THE ASPHALT ON THE NORTH SIDE OF HWY 905A WHICH IS CARD SOUND ROAD. 3.6' NORTH OF THE NORTH EDGE OF THE WHITE LINE ON THE NORTH EDGE OF CARD SOUND RD. AND 4.6' SOUTH OF THE BACK OF THE METAL GUARD RAIL. 14.5' SOUTHWEST OF A MONROE COUNTY RD. SIGN. PICTURE TAKEN LOOKING NORTH.**

**AERIAL TARGET**  
**PUB. BENCH MARK**   
**PUB. CONTROL**  **PHOTO I.D.**  
 **NEW 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**  
TASK ORDER 2

**POINT ID:** 9B  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE

**LATITUDE** 25 17 09.4N

**LONGITUDE** 080 18 17.35W

**RECEIVER S/N** 4302

**SESSION**  
009B 184 2

**DATE:** 07/03/07  
**DAY OF YEAR** 184

**START TIME** 12:59  
**END TIME** 14:30

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	10019	<b>0.000</b>
<b>ANTENNA TYPE</b>	<b>COMPAC L1/L2 WITH GROUND PLANE</b>	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

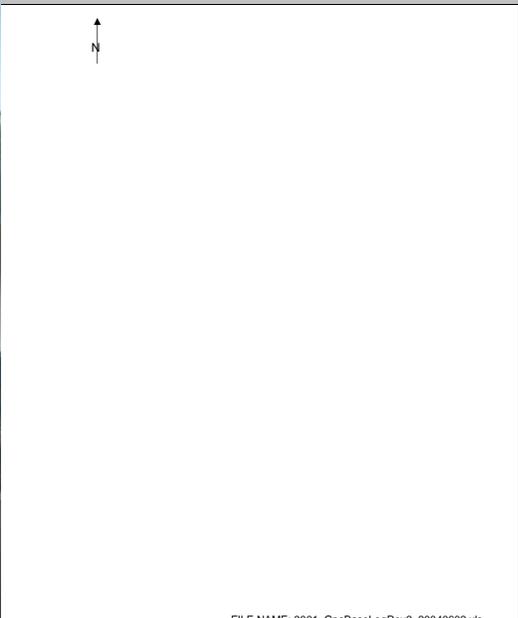
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<input type="checkbox"/>	<b>BELOW GROUND</b>

**3001 DESCRIPTION: 9B IS A PK NAIL SET FLUSH WITH THE ASPHALT ON THE NORTH SIDE OF HWY 905A WHICH IS CARD SOUND ROAD. 3.6' NORTH OF THE NORTH EDGE OF THE WHITE LINE ON THE NORTH EDGE OF CARD SOUND RD. AND 4.6' SOUTH OF THE BACK OF THE METAL GUARD RAIL. 14.5' SOUTHWEST OF A MONROE COUNTY RD. SIGN. PICTURE TAKEN LOOKING NORTH.**

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

**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**  
TASK ORDER 2

**POINT ID:** 9C  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SSI

**LATITUDE** 25 17 08.33N

**LONGITUDE** 080 18 21.47W

**RECEIVER S/N** 4652

**SESSION**  
009C 183 1

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 11:44  
**END TIME** 12:15

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

**MTRS/FT**

**MEASURED**     **FIXED HGT.**

**ANTENNA INFO**

**RADIUS (M)** 0.000

**S/N NUMBER** 50496    0.000

**ANTENNA TYPE** COMPAC L1/L2 WITH GROUND 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:** 9C IS A PK NAIL SET FLUCH WITH THE ASPHALT 4.6' NORTH OF THE NORTH EDGE OF THE WHITE LINE ON THE NORTH SIDE OF CARD SOUND RD. 4.1' SOUTH OF THE BACK OF THE METAL GUARD RAIL. APPROX 100' WEST OF A HURRICANE EVACUATION SIGN. NORTH OF AND ACROSS HWY FROM CONCRETE POWER POLE NUMBER 75. PICTURE TAKEN LOOKING NORTH.

**AERIAL TARGET**

**PUB. BENCH MARK**  **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**  
TASK ORDER 2

**POINT ID:** 9C  
**Proj. No.:** 07190.01.001.555

**STATE** FLORIDA

**COUNTY** MONROE

**QUAD:**

**OPERATOR** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SSI

**LATITUDE** 25 17 08.33N

**LONGITUDE** 080 18 21.47W

**RECEIVER S/N** 4652

**SESSION**  
009C 183 2

**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 12:20  
**END TIME** 12:51

**U.T.C.**  
 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	50496	<b>0.000</b>
<b>ANTENNA TYPE</b>	<b>COMPAC L1/L2 WITH GROUND PLANE</b>	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  **FLUSH**

<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION:** 9C IS A PK NAIL SET FLUCH WITH THE ASPHALT 4.6' NORTH OF THE NORTH EDGE OF THE WHITE LINE ON THE NORTH SIDE OF CARD SOUND RD. 4.1' SOUTH OF THE BACK OF THE METAL GUARD RAIL. APPROX 100' WEST OF A HURRICANE EVACUATION SIGN. NORTH OF AND ACROSS HWY FROM POWER POLE NUMBER 75. PICTURE TAKEN LOOKING NORTH.

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 10C  
**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** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE  
**RECEIVER S/N** 4305

**LATITUDE** 25 19 11.41 (N) **HGT. MTS**  
**LONGITUDE** 080 16 47.74 (W)

**SESSION** 010C-183-1  
**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 11:59 **X** **U.T.C.**  
**END TIME** 12:33 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

**MTRS/FT**

**MEASURED** **FIXED HGT.**

**ANTENNA INFO**

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

**ANTENNA HEIGHT (VERTICAL)**

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

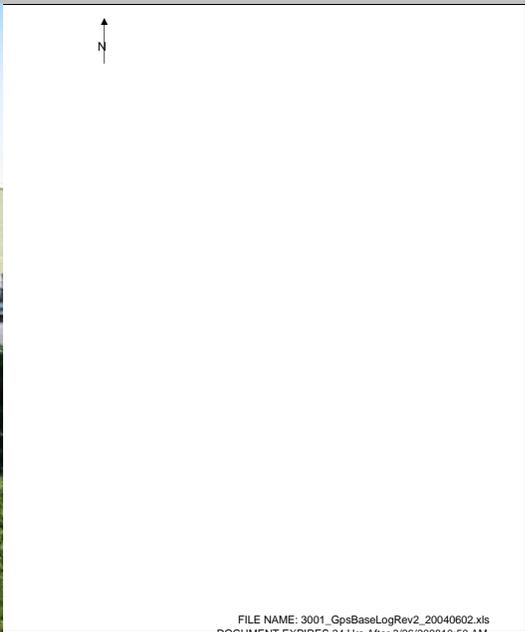
**TOP OF MONUMENT IS:** **X** **FLUSH**  
**METERS/FEET** **ABOVE GROUND**  
**METERS/FEET** **BELOW GROUND**

**3001 DESCRIPTION: 10C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 27' S.E. FROM CL OF BARRACUDA LN. AT THE EDGE OF A ROW OF FLOWERS...(HAD TO REMOVE SPIKE NAIL DO TO GOLF CORSE)**

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
1

**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** 10C  
**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** MONROE

**QUAD:**

**OPERATOR** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL** TRIMBLE 4000 SE  
**RECEIVER S/N** 4305

**LATITUDE** 25 19 11.41 (N) **HGT. MTS**  
**LONGITUDE** 080 16 47.74 (W)

**SESSION** 010C-183-2  
**DATE:** 07/02/07  
**DAY OF YEAR** 183

**START TIME** 12:38 **X** **U.T.C.**  
**END TIME** 13:09 **LOCAL**

**ANTENNA HEIGHT (SLANT)**

**MTRS/FT**

**MEASURED** **FIXED HGT.**

**ANTENNA INFO**

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

**ANTENNA HEIGHT (VERTICAL)**

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

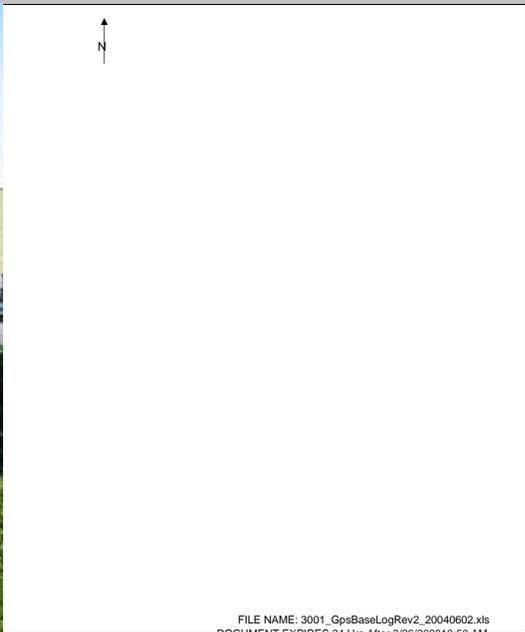
**TOP OF MONUMENT IS:** **X** **FLUSH**  
**METERS/FEET** **ABOVE GROUND**  
**METERS/FEET** **BELOW GROUND**

**3001 DESCRIPTION: 10C IS A SPIKE NAIL SET FLUSH W/GRD LOCATED 27' S.E. FROM CL OF BARRACUDA LN. AT THE EDGE OF A ROW OF FLOWERS...(HAD TO REMOVE SPIKE NAIL DO TO GOLF CORSE)**

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

POINT ID: 11B  
Proj. No.: 02030.18.005.CWJ

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

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

LATITUDE: 24 43 28.19N HGT. MTS  
LONGITUDE: 081 03 04.69W

SESSION: 011B-181-1 DATE: 06/30/07  
DAY OF YEAR: 181

START TIME: 14:32 X U.T.C.  
END TIME: 15:52 LOCAL

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

**ANTENNA INFO**  
RADIUS (M)  
S/N NUMBER: 10015  
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: 11B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF FLA. HWY 1 SOUTHBOUND LANE. POINT IS 30.6FT N TO N/W OF THE C/L OF FLA. HWY 1-- 21FT E OF A 45 MPH SPEED LIMIT SIGN-- 5FT S OF THE S EDGE OF A ASPHALT SIDEWALK.

AERIAL TARGET  
PUB. BENCH MARK X NEW CONTROL  
PUB. 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  
TASK ORDER 2

POINT ID: 11B  
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

RECEIVER MODEL: TRIMBLE 4700  
RECEIVER S/N: 3112

LATITUDE: 24 43 28.19N HGT. MTS  
LONGITUDE: 081 03 04.69W

SESSION: 011B-182-1 DATE: 07/01/07  
DAY OF YEAR: 182

START TIME: 11:08 X U.T.C.  
END TIME: 13:06 LOCAL

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

**ANTENNA INFO**  
RADIUS (M)  
S/N NUMBER: 76678  
ANTENNA TYPE: MICRO CENTERED 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: 11B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF FLA. HWY 1 SOUTHBOUND LANE. POINT IS 30.6FT N TO N/W OF THE C/L OF FLA. HWY 1-- 21FT E OF A 45 MPH SPEED LIMIT SIGN-- 5FT S OF THE S EDGE OF A ASPHALT SIDEWALK.

AERIAL TARGET  
PUB. BENCH MARK X NEW CONTROL  
PUB. 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  
TASK ORDER 2

POINT ID: 11B  
Proj. No.: 07190.01.001.555

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

RECEIVER MODEL: TRIMBLE 4700  
RECEIVER S/N: 3112

LATITUDE: 24 43 28.19N HGT. MTS  
LONGITUDE: 081 03 04.69W

SESSION: 011B-182-2 DATE: 07/01/07  
DAY OF YEAR: 182

START TIME: 13:11 X U.T.C.  
END TIME: 14:42 LOCAL

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

**ANTENNA INFO**  
RADIUS (M)  
S/N NUMBER: 76678  
ANTENNA TYPE: MICRO CENTERED 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: 11B IS A SPIKE NAIL SET FLUSH W/GRD ON THE N/W SIDE OF FLA. HWY 1 SOUTHBOUND LANE. POINT IS 30.6FT N TO N/W OF THE C/L OF FLA. HWY 1-- 21FT E OF A 45 MPH SPEED LIMIT SIGN-- 5FT S OF THE S EDGE OF A ASPHALT SIDEWALK.

AERIAL TARGET  
PUB. BENCH MARK X NEW CONTROL  
PUB. 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

POINT ID: 11C  
Proj. No.: 02030.18.005.CWJ

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

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

LATITUDE: 24 43 26.50N HGT. MTS  
LONGITUDE: 081 03 09.51W

SESSION: 011C-181-1 DATE: 06/30/07  
DAY OF YEAR: 181

START TIME: 14:42 X U.T.C.  
END TIME: 15:13 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: 11C IS A SPIKE NAIL SET FLUSH W/GRD ON THE S/E SIDE OF RICK TURNER ROAD. POINT IS 6.5FT N/W OF THE N/W EDGE OF A ASPHALT SIDEWALK-- 17FT S/E OF THE C/L OF RICK TURNER ROAD-- 84FT S/W OF A CONG POWERPOLE.

AERIAL TARGET  
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

POINT ID: 11C  
Proj. No.: 02030.18.005.CWJ

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

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

LATITUDE: 24 43 26.50N HGT. MTS  
LONGITUDE: 081 03 09.51W

SESSION: 011C-181-2 DATE: 06/30/07  
DAY OF YEAR: 181

START TIME: 15:18 X U.T.C.  
END TIME: 15:49 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

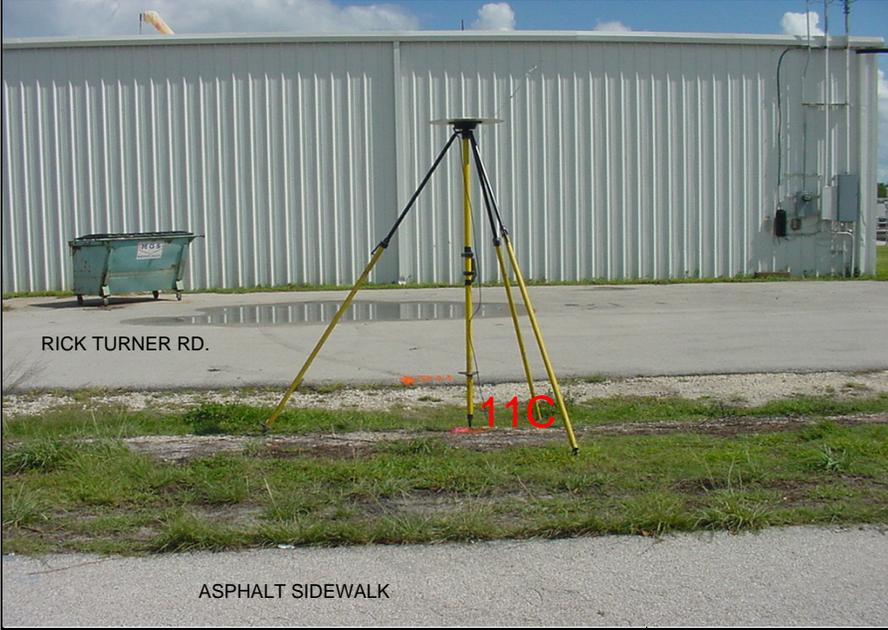
**ANTENNA HEIGHT (VERTICAL)**  
MTRS/FT: 2.000M (UNCORRECTED)  
MEASURED X FIXED HGT

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

3001 DESCRIPTION: 11C IS A SPIKE NAIL SET FLUSH W/GRD ON THE S/E SIDE OF RICK TURNER ROAD. POINT IS 6.5FT N/W OF THE N/W EDGE OF A ASPHALT SIDEWALK-- 17FT S/E OF THE C/L OF RICK TURNER ROAD-- 84FT S/W OF A CONG POWERPOLE.

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

PHOTO: SKETCH:



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
FLORIDA KEYS LIDAR

**POINT ID:** D 399=4B (AA1726)  
**Proj. No.:** 02030.18.005.CWJ

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

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** LOWER MATECUMDE KEY (1971)

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

<b>LATITUDE</b>	24 51 31.96 (N)	<b>HGT. MTS</b>	
<b>LONGITUDE</b>	080 43 29.71 (W)		1.047

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4302

<b>SESSION</b>	<b>DATE:</b> 06/30/07	<b>START TIME</b>	18:13	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
D399-181-1	<b>DAY OF YEAR</b> 181	<b>END TIME</b>	19:41		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	10019	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

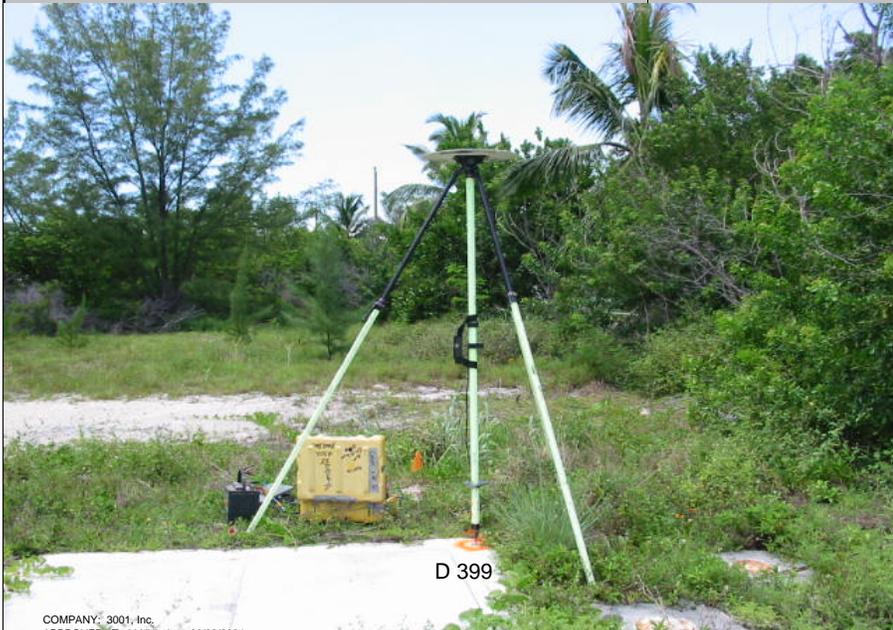
**TOP OF MONUMENT IS:**  FLUSH

<b>METERS/FEET</b>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<b>BELOW GROUND</b>

**3001 DESCRIPTION: SEE NGS DATA SHEET (AA1726)**

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

**PAGE:**  
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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** D 399=4B (AA1726)  
**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:** MONROE      **QUAD:** LOWER MATECUMDE KEY (1971)

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

<b>LATITUDE</b>	24 51 31.96 (N)	<b>HGT. MTS</b>	
<b>LONGITUDE</b>	080 43 29.71 (W)		1.047

**RECEIVER MODEL:** TRIMBLE 4000 SSI  
**RECEIVER S/N:** 4652

<b>SESSION</b>	<b>DATE:</b> 07/01/07	<b>START TIME</b>	10:42	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
D399-182-1	<b>DAY OF YEAR</b> 182	<b>END TIME</b>	14:54		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	50496	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

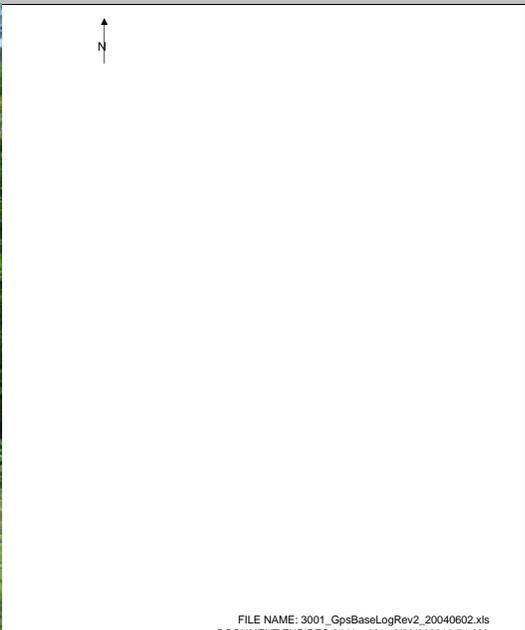
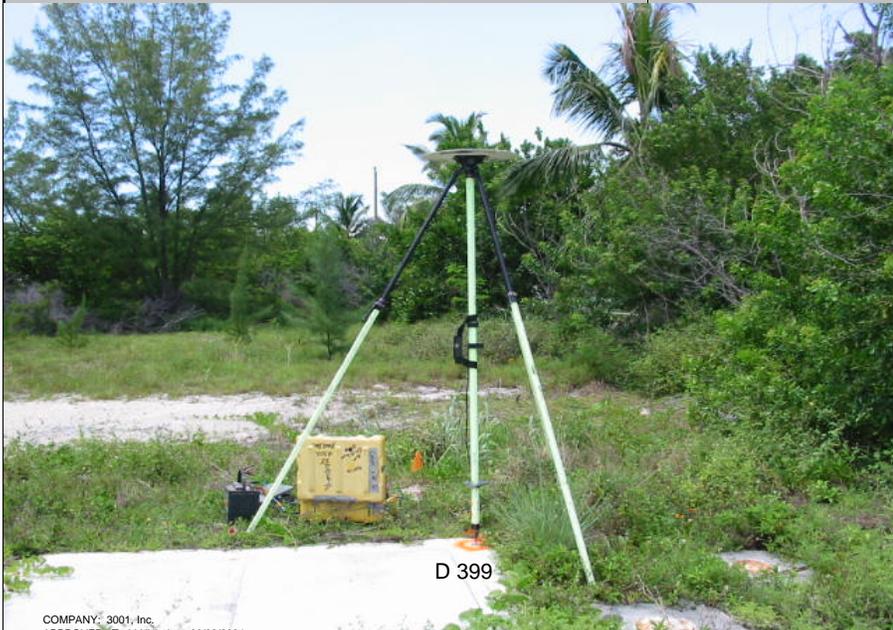
**TOP OF MONUMENT IS:**  FLUSH

<b>METERS/FEET</b>	<b>ABOVE GROUND</b>
<b>METERS/FEET</b>	<b>BELOW GROUND</b>

**3001 DESCRIPTION: SEE NGS DATA SHEET (AA1726)**

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** FIRE=10B (AC4793)  
**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:** MONROE      **QUAD:** CARD SOUND (1994)

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4302

**LATITUDE:** 25 19 07.45512 (N)      **HGT. MTS:**  
**LONGITUDE:** 080 16 49.77394 (W)      0.3

**SESSION:** FIRE-183-1      **DATE:** 07/02/07  
**DAY OF YEAR:** 183

**START TIME:** 11:47      X      **U.T.C.**  
**END TIME:** 13:18      **LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M):** 0.000  
**S/N NUMBER:** 10019      0.000  
**ANTENNA TYPE:** TRIMBLE COMPACT 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: SEE NGS DATA SHEET (AC4793)**

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** FIRE=10B (AC4793)  
**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:** MONROE      **QUAD:** CARD SOUND (1994)

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

<b>LATITUDE</b>	25 19 07.45512 (N)	<b>HGT. MTS</b>	
<b>LONGITUDE</b>	080 16 49.77394 (W)		0.3

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4302

<b>SESSION:</b> FIRE-183-2	<b>DATE:</b> 07/02/07	<b>START TIME:</b> 13:23	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
	<b>DAY OF YEAR:</b> 183	<b>END TIME:</b> 14:54		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	10019	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  FLUSH

<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION: SEE NGS DATA SHEET (AC4793)**

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

**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

POINT ID: GPS21  
Proj. No.: 07190.01.001.550

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4700  
RECEIVER S/N: 9073

LATITUDE: 24 46 37.38N HGT. MTS  
LONGITUDE: 080 55 24.83W

SESSION: GP21 182 1 DATE: 07/01/07  
DAY OF YEAR: 182

START TIME: 11:35 X U.T.C.  
END TIME: 13:06 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: GPS21 IS A SURVEY DISK SET IN CONCRETE SET IN THE N/E CORNER OF A PARKING AREA ON THE S/E SIDE OF FLA. HWY 1. POINT IS 13.2FT S/E OF THE S/E FACE OF A BRIDGE OVER TOM'S HARBOR CHANNEL-- 13.6FT N/W OF THE N/W EDGE OF A ASP. SIDEWALK-- 20.5FT N/E FROM 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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501 ROBERT BLVD. 2nd. FLOOR  
SLIDELL, LA. 70458  
703-574-2336 voice 985-649-5082 fax

JOB REFERENCE  
FLA. KEYS LIDAR

POINT ID: GPS21  
Proj. No.: 07190.01.001.550

STATE: FLORIDA COUNTY: MONROE QUAD:

OPERATOR: V. MCNEAL

APPROXIMATE POSITION (C/A/CODE)

RECEIVER MODEL: TRIMBLE 4700  
RECEIVER S/N: 9073

LATITUDE: 24 46 37.38N HGT. MTS  
LONGITUDE: 080 55 24.83W

SESSION: GP21 182 2 DATE: 07/01/07  
DAY OF YEAR: 182

START TIME: 13:11 X U.T.C.  
END TIME: 14:42 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: GPS21 IS A SURVEY DISK SET IN CONCRETE SET IN THE N/E CORNER OF A PARKING AREA ON THE S/E SIDE OF FLA. HWY 1. POINT IS 13.2FT S/E OF THE S/E FACE OF A BRIDGE OVER TOM'S HARBOR CHANNEL-- 13.6FT N/W OF THE N/W EDGE OF A ASP. SIDEWALK-- 20.5FT N/E FROM 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**  
TASK ORDER 2

**POINT ID:** J 397 (AA1702)  
**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:** MONROE      **QUAD:** BIG PINE KEY (1972)

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

<b>LATITUDE</b>	24 39 38.94748 (N)	<b>HGT. MTS</b>	
<b>LONGITUDE</b>	081 16 20.06492 (W)		2.457

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4302

<b>SESSION</b>	<b>DATE:</b> 07/01/07	<b>START TIME</b>	10:22	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
J397-182-1	<b>DAY OF YEAR</b> 182	<b>END TIME</b>	15:09		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	10019	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

**TOP OF MONUMENT IS:**  FLUSH

<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION: SEE NGS DATA SHEET (AA1702)**

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** Q276=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:** MONROE      **QUAD:** PLANTATION KEY 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

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

**LATITUDE:** 24 55 42.94N      **HGT. MTS:**  
**LONGITUDE:** 081 37 22.99W

**SESSION:** Q276 182 1      **DATE:** 07/01/07  
**DAY OF YEAR:** 182

**START TIME:** 11:02      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:** 10011      0.000  
**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 AA0424

**AERIAL TARGET**      **PHOTO I.D.**  
X      **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**  
TASK ORDER 2

**POINT ID:** Q276=5B  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** PLANTATION KEY 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

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

**LATITUDE:** 24 55 42.94N      **HGT. MTS:**  
**LONGITUDE:** 081 37 22.99W

**SESSION:** Q276 183 1      **DATE:** 07/02/07  
**DAY OF YEAR:** 183

**START TIME:** 16:01      X      **U.T.C.**  
**END TIME:** 17:16      **LOCAL**

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

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

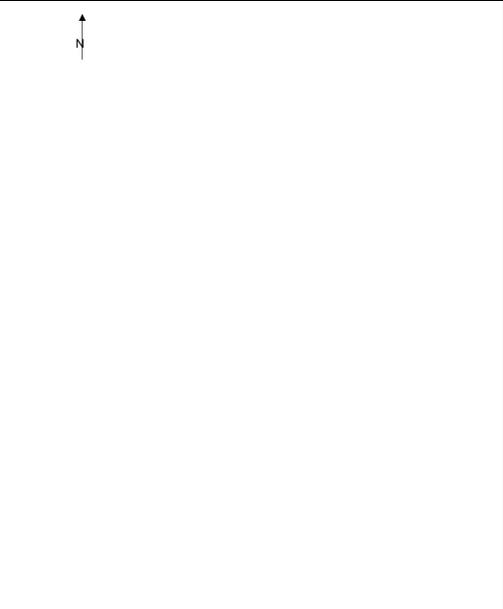
**ANTENNA HEIGHT (VERTICAL)**  
**MTRS/FT:** 2.000 M. UNCORRECTED  
**MEASURED** X **FIXED HGT**

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

3001 DESCRIPTION: REF NGS DATASHEET. PID AA0424

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** Q276=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:** MONROE      **QUAD:** PLANTATION KEY 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL:** TRIMBLE 4000 SSI  
**RECEIVER S/N:** 4652

**LATITUDE:** 24 55 42.94N      **HGT. MTS:**  
**LONGITUDE:** 081 37 22.99W

**SESSION:** Q276 184 1      **DATE:** 07/03/07  
**DAY OF YEAR:** 184

**START TIME:** 10:57       **U.T.C.**  
**END TIME:**       **LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M):** 0.000  
**S/N NUMBER:** 50496      **0.000**  
**ANTENNA TYPE:** COMPAC L1/L2 WITH GROUND PLANE

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

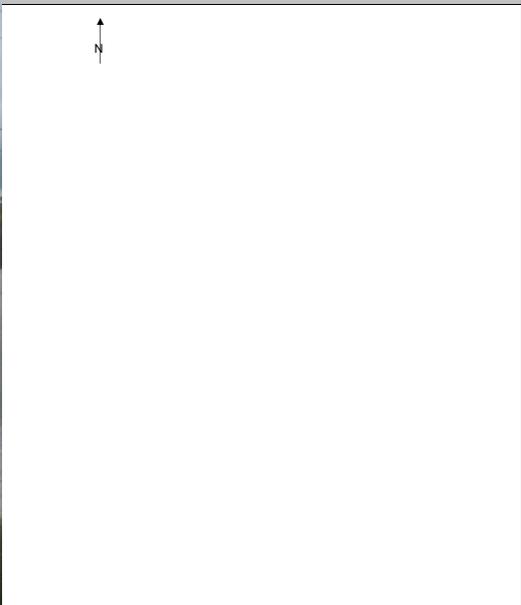
**TOP OF MONUMENT IS:**  **FLUSH**  
**METERS/FEET:** **ABOVE GROUND**  
**METERS/FEET:** **BELOW GROUND**

3001 DESCRIPTION: REF NGS DATASHEET. PID AA0424

**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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**JOB REFERENCE**  
FLORIDA KEYS LIDAR

**POINT ID:** R 273=1B (AA0302)  
**Proj. No.:** 02030.18.005.CWJ

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

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** MARATHON (1971)

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

<b>LATITUDE</b>	24 42 30.64892 (N)	<b>HGT. MTS</b>	
<b>LONGITUDE</b>	081 06 31.59874 (W)		1.185

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4302

<b>SESSION</b>	<b>DATE:</b> 06/30/07	<b>START TIME</b>	11:29	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
R273-181-1	<b>DAY OF YEAR</b> 181	<b>END TIME</b>	12:49		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	10019	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

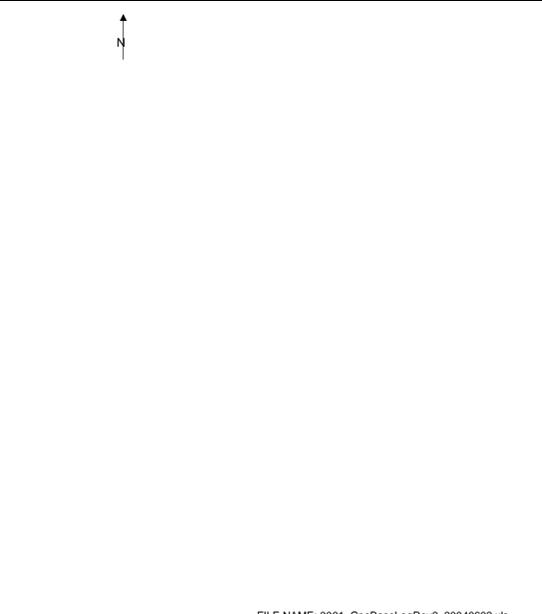
**TOP OF MONUMENT IS:**  FLUSH

<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION: SEE NGS DATA SHEET (AA0302)**

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

**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 2

**POINT ID:** R 273=1B (AA0302)  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** MARATHON (1971)

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

<b>LATITUDE</b>	24 42 30.64892 (N)	<b>HGT. MTS</b>	
<b>LONGITUDE</b>	081 06 31.59874 (W)		1.185

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4305

<b>SESSION</b>	<b>DATE:</b> 07/01/07	<b>START TIME</b>	10:44	<input checked="" type="checkbox"/>	<b>U.T.C.</b>
R273-182-1	<b>DAY OF YEAR</b> 182	<b>END TIME</b>	14:52		<b>LOCAL</b>

**ANTENNA HEIGHT (SLANT)**

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

**ANTENNA INFO**

<b>RADIUS (M)</b>		<b>0.000</b>
<b>S/N NUMBER</b>	24415	<b>0.000</b>
<b>ANTENNA TYPE</b>	TRIMBLE COMPACT L1/L2 W/GRD PLANE	

**ANTENNA HEIGHT (VERTICAL)**

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

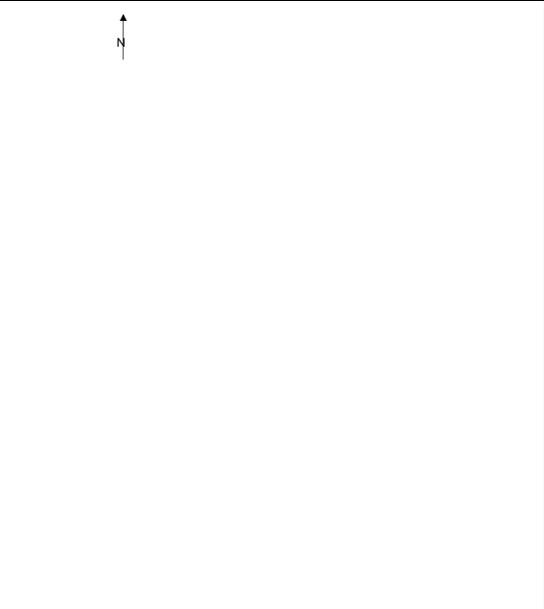
**TOP OF MONUMENT IS:**  FLUSH

<b>METERS/FEET</b>		<b>ABOVE GROUND</b>
<b>METERS/FEET</b>		<b>BELOW GROUND</b>

**3001 DESCRIPTION: SEE NGS DATA SHEET (AA0302)**

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

**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**  
FLORIDA KEYS LIDAR

**POINT ID:** RTS 1=2B (AA7187)  
**Proj. No.:** 02030.18.005.CWJ

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** MARATHON (1971)

**OPERATOR:** C. LAPRARIE

**APPROXIMATE POSITION (C/A/CODE)**

**RECEIVER MODEL:** TRIMBLE 4000 SE  
**RECEIVER S/N:** 4302

**LATITUDE:** 24 45 59.44706 (N)      **HGT. MTS:**  
**LONGITUDE:** 080 56 44.12580 (W)      1.5

**SESSION:** RTS1-181-1      **DATE:** 06/30/07  
**DAY OF YEAR:** 181

**START TIME:** 14:54      X      **U.T.C.**  
**END TIME:** 16:16      **LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M):** 0.000  
**S/N NUMBER:** 10019      0.000  
**ANTENNA TYPE:** TRIMBLE COMPACT L1/L2 W/GRD PLANE

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

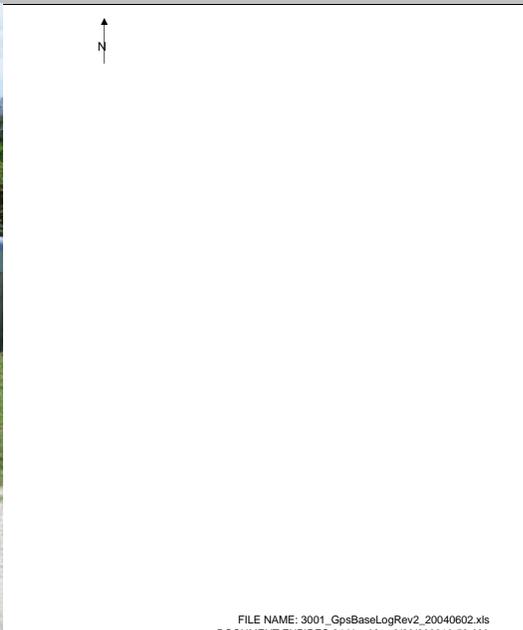
**TOP OF MONUMENT IS:** X **FLUSH**  
**METERS/FEET:** **ABOVE GROUND**  
**METERS/FEET:** **BELOW GROUND**

**3001 DESCRIPTION: SEE NGS DATA SHEET (AA7187)**

**AERIAL TARGET**  
**PUB. BENCH MARK**  
X **PUB. CONTROL**      **PHOTO I.D.**  
**NEW CONTROL**  
X **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**  
FLORIDA KEYS LIDAR

**POINT ID:** RTS 1(PID=AA7187)=2B  
**Proj. No.:** 07190.01.001.550

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** MARATHON (1971)

**OPERATOR:** V. MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

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

**LATITUDE:** 24 45 59.44706 (N)      **HGT. MTS:**  
**LONGITUDE:** 080 56 44.12580 (W)      1.5

**SESSION:** RTS1-182-1      **DATE:** 07/01/07  
**DAY OF YEAR:** 182

**START TIME:** 10:44      X      **U.T.C.**  
**END TIME:** 14:55      **LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M):** 0.000  
**S/N NUMBER:** 10015      0.000  
**ANTENNA TYPE:** TRIMBLE COMPACT L1/L2 W/GRD PLANE

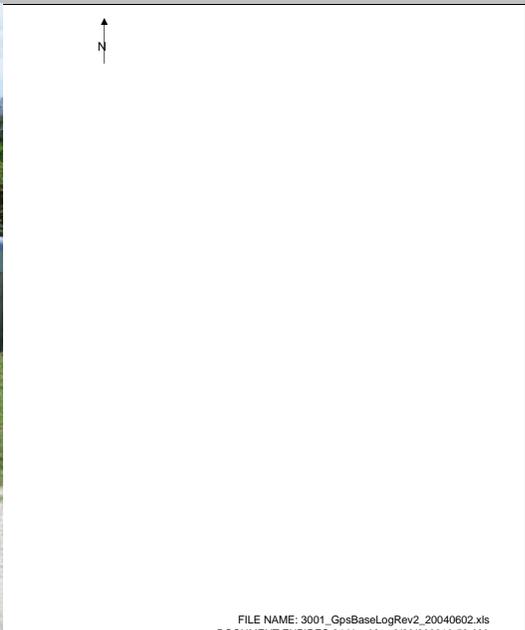
**ANTENNA HEIGHT (VERTICAL)**  
**MTRS/FT:** 2.000M (UNCORRECTED)  
**MEASURED**      X      **FIXED HGT**

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

3001 DESCRIPTION: FOR RECOVERY OF RTS 1(PID=AA7187)=2B SEE NGS DATA SHEET #AA7187. POINT IS A SURVEY DISK SET IN CONCRETE.

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** SIMINOLE=7B  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** ROCK HARBOR 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

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

**LATITUDE:** 25 03 44.31N      **HGT. MTS:**  
**LONGITUDE:** 080 28 28.23W

**SESSION:** SIMI 183 1      **DATE:** 07/02/07  
**DAY OF YEAR:** 183

**START TIME:** 19:07      X      **U.T.C.**  
**END TIME:** 20:23      **LOCAL**

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

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

**3001 DESCRIPTION:** REF NGS DATASHEET PID AC4851. PICTURE TAKEN LOOKING NORTH.

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

**PHOTO:**

**SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** SIMINOLE=7B  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** ROCK HARBOR 1971

**OPERATOR:** MCNEAL

**APPROXIMATE POSITION (C/A/CODE)**

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

**LATITUDE:** 25 03 44.31N      **HGT. MTS:**  
**LONGITUDE:** 080 28 28.23W

**SESSION:** SIMI 184 1      **DATE:** 07/03/07      **START TIME:** 11:05      X      **U.T.C.**  
**DAY OF YEAR:** 184      **END TIME:** 14:46      **LOCAL**

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

**ANTENNA INFO**  
**RADIUS (M):** 0.000  
**S/N NUMBER:** 10015      0.000  
**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 AC4851. 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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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** TAVERNIER RM 3=6B  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** TAVERNIER 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

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

**LATITUDE:** 25 00 34.77N      **HGT. MTS:**  
**LONGITUDE:** 080 30 59.28W

**SESSION:** TAVE 183 1      **DATE:** 07/02/07      **START TIME:** 17:37      X      **U.T.C.**  
**DAY OF YEAR:** 183      **END TIME:** 18:54      **LOCAL**

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

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

**3001 DESCRIPTION:** REF NGS DATASHEET PID AC4815. PICTURE TAKEN LOOKING SOUTH.

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

**PHOTO:**      **SKETCH:**



**GPS CONTROL SURVEY  
FIELD DATA SHEET**

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**JOB REFERENCE**  
TASK ORDER 2

**POINT ID:** TAVERNIER RM 3=6B  
**Proj. No.:** 07190.01.001.555

**STATE:** FLORIDA      **COUNTY:** MONROE      **QUAD:** TAVERNIER 1971

**OPERATOR:** Purpera

**APPROXIMATE POSITION (C/A/CODE)**

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

**LATITUDE:** 25 00 34.77N      **HGT. MTS:**  
**LONGITUDE:** 080 30 59.28W

**SESSION:** TAVE 184 1      **DATE:** 07/03/07  
**DAY OF YEAR:** 184

**START TIME:** 10:30      X      **U.T.C.**  
**END TIME:** 14:49      **LOCAL**

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

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

**3001 DESCRIPTION:** REF NGS DATASHEET PID AC4815. PICTURE TAKEN LOOKING SOUTH.

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

**PHOTO:**      **SKETCH:**



**RTK-TOPO Log**

**Project Name:** FLORIDA KEYS LIDAR  
**Project No:** 02030.18.005.CWJ  
**Project Location:** MONROE COUNTY

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
06/30/07	1	R 273=1B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	4C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	PK NAIL-RTK
06/30/07	1	R 273=1B	1.641M	SOKKIA SET 3B INSTR.	4C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	PK NAIL
06/30/07	1	R 273=1B	1.641M	SOKKIA SET 3B INSTR.	1A1	1A20	1.860M	FIBER ROD W/PRISM	3111
06/30/07	1	R 273=1B	1.641M	SOKKIA SET 3B INSTR.	1A21	1A40	1.860M	FIBER ROD W/PRISM	C111
06/30/07	1	R 273=1B	1.641M	SOKKIA SET 3B INSTR.	1A41	1A50	1.860M	FIBER ROD W/PRISM	6111
06/30/07	1	R 273=1B	1.641M	SOKKIA SET 3B INSTR.	4C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	PK NAIL-CHK
06/30/07	11	11B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	11C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
06/30/07	11	11B	1.602M	SOKKIA SET 3B INSTR.	11C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
06/30/07	11	11B	1.602M	SOKKIA SET 3B INSTR.	11A1	11A30	1.860M	FIBER ROD W/PRISM	5111
06/30/07	11	11B	1.602M	SOKKIA SET 3B INSTR.	11A31	11A45	1.860M	FIBER ROD W/PRISM	3111
06/30/07	11	11B	1.602M	SOKKIA SET 3B INSTR.	11A46	11A60	1.860M	FIBER ROD W/PRISM	C111
06/30/07	11	11B	1.602M	SOKKIA SET 3B INSTR.	11A61	11A63	0.000M	FIBER ROD W/PRISM	BLDG ROOF CORNERS-HORZ
06/30/07	11	11B	1.602M	SOKKIA SET 3B INSTR.	11C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
06/30/07	2	RTS 1	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	2C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
06/30/07	2	RTS 1	1.570M	SOKKIA SET 3B INSTR.	2C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
06/30/07	2	RTS 1	1.570M	SOKKIA SET 3B INSTR.	2A1	2A20	1.860M	FIBER ROD W/PRISM	C111
06/30/07	2	RTS 1	1.570M	SOKKIA SET 3B INSTR.	2A21	2A40	1.860M	FIBER ROD W/PRISM	3111
06/30/07	2	RTS 1	1.570M	SOKKIA SET 3B INSTR.	2C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
06/30/07	3	3B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	3C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
06/30/07	3	3B	1.670M	SOKKIA SET 3B INSTR.	3C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
06/30/07	3	3B	1.670M	SOKKIA SET 3B INSTR.	3A1	3A20	1.860M	FIBER ROD W/PRISM	3111
06/30/07	3	3B	1.670M	SOKKIA SET 3B INSTR.	3A21	3A45	1.860M	FIBER ROD W/PRISM	6111
06/30/07	3	3B	1.670M	SOKKIA SET 3B INSTR.	3A46	3A55	1.860M	FIBER ROD W/PRISM	4111
06/30/07	3	3B	1.670M	SOKKIA SET 3B INSTR.	3C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
06/30/07	4	D 399	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	4C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
06/30/07	4	D 399	1.570M	SOKKIA SET 3B INSTR.	4C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
06/30/07	4	D 399	1.570M	SOKKIA SET 3B INSTR.	4A1	4A10	1.860M	FIBER ROD W/PRISM	5111
06/30/07	4	D 399	1.570M	SOKKIA SET 3B INSTR.	4A11	4A30	1.860M	FIBER ROD W/PRISM	C111
06/30/07	4	D 399	1.570M	SOKKIA SET 3B INSTR.	4A31	4A40	1.860M	FIBER ROD W/PRISM	3111
06/30/07	4	D 399	1.570M	SOKKIA SET 3B INSTR.	4C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
07/01/07	5	Q 276=5B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	5C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/01/07	5	Q 276=5B	1.587M	SOKKIA SET 3B INSTR.	5C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
07/01/07	5	Q 276=5B	1.587M	SOKKIA SET 3B INSTR.	5A1	5A15	1.860M	FIBER ROD W/PRISM	C111
07/01/07	5	Q 276=5B	1.587M	SOKKIA SET 3B INSTR.	5A16	5A30	1.860M	FIBER ROD W/PRISM	3111
07/01/07	5	Q 276=5B	1.587M	SOKKIA SET 3B INSTR.	5A31	5A45	1.860M	FIBER ROD W/PRISM	6111
07/01/07	5	Q 276=5B	1.587M	SOKKIA SET 3B INSTR.	5A46	5A50	1.860M	FIBER ROD W/PRISM	BLDG ROOF CORNERS-HORZ
07/01/07	5	Q 276=5B	1.587M	SOKKIA SET 3B INSTR.	5C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
07/02/07	10	FIRE=10B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	10C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/02/07	10	FIRE=10B	1.726M	SOKKIA SET 3B INSTR.	10C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
07/02/07	10	FIRE=10B	1.726M	SOKKIA SET 3B INSTR.	10A1	10A20	1.860M	FIBER ROD W/PRISM	6111
07/02/07	10	FIRE=10B	1.726M	SOKKIA SET 3B INSTR.	10A21	10A40	1.860M	FIBER ROD W/PRISM	3111
07/02/07	10	FIRE=10B	1.726M	SOKKIA SET 3B INSTR.	10C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
07/02/07	9	9B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	9C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	PK NAIL-RTK
07/02/07	9	9B	1.643M	SOKKIA SET 3B INSTR.	9C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	PK NAIL
07/02/07	9	9B	1.643M	SOKKIA SET 3B INSTR.	9A1	9A20	1.860M	FIBER ROD W/PRISM	C111
07/02/07	9	9B	1.643M	SOKKIA SET 3B INSTR.	9A21	9A40	1.860M	FIBER ROD W/PRISM	3111
07/02/07	9	9B	1.643M	SOKKIA SET 3B INSTR.	9A41	9A43	0.000M	FIBER ROD W/PRISM	BLDG ROOF CORNERS-HORZ
07/02/07	9	9B	1.643M	SOKKIA SET 3B INSTR.	9C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	PK NAIL-CHK
07/02/07	8	8B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	8C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/02/07	8	8B	1.575M	SOKKIA SET 3B INSTR.	8C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
07/02/07	8	8B	1.575M	SOKKIA SET 3B INSTR.	8A1	8A15	1.860M	FIBER ROD W/PRISM	3111
07/02/07	8	8B	1.575M	SOKKIA SET 3B INSTR.	8A16	8A30	1.860M	FIBER ROD W/PRISM	6111
07/02/07	8	8B	1.575M	SOKKIA SET 3B INSTR.	8A31	8A40	1.860M	FIBER ROD W/PRISM	C111
07/02/07	8	8B	1.575M	SOKKIA SET 3B INSTR.	8A41	8A43	0.000M	FIBER ROD W/PRISM	BLDG ROOF CORNERS-HORZ
07/02/07	8	8B	1.575M	SOKKIA SET 3B INSTR.	8C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
07/02/07	6	AVERNIER RM 3=6	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	6C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/02/07	6	AVERNIER RM 3=6	1.569M	SOKKIA SET 3B INSTR.	6C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
07/02/07	6	AVERNIER RM 3=6	1.569M	SOKKIA SET 3B INSTR.	6A1	6A10	1.860M	FIBER ROD W/PRISM	3111
07/02/07	6	AVERNIER RM 3=6	1.597M	SOKKIA SET 3B INSTR.	6A11	6A40	1.860M	FIBER ROD W/PRISM	4111
07/02/07	6	AVERNIER RM 3=6	1.569M	SOKKIA SET 3B INSTR.	6A41	6A50	1.860M	FIBER ROD W/PRISM	C111
07/02/07	6	AVERNIER RM 3=6	1.569M	SOKKIA SET 3B INSTR.	6A51	6A60	0.000M	FIBER ROD W/PRISM	6111
07/02/07	6	AVERNIER RM 3=6	1.569M	SOKKIA SET 3B INSTR.	6C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
07/02/07	7	SIMINOLE=7B	2.063M	TRIMBLE COMP. L1/L2 W/GRD. PLANE	7C CHK		2.063M	TRIMBLE MICRO-CENTERED L1/L2	SPIKE NAIL-RTK
07/02/07	7	SIMINOLE=7B	1.620M	SOKKIA SET 3B INSTR.	7C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL
07/02/07	7	SIMINOLE=7B	1.620M	SOKKIA SET 3B INSTR.	7A1	7A20	1.860M	FIBER ROD W/PRISM	6111
07/02/07	7	SIMINOLE=7B	1.620M	SOKKIA SET 3B INSTR.	7A21	7A40	1.860M	FIBER ROD W/PRISM	3111
07/02/07	7	SIMINOLE=7B	1.620M	SOKKIA SET 3B INSTR.	7C CHK		2.063M	SECO FIXED-HGT. TRIPOD W/PRISM	SPIKE NAIL-CHK
12/09/07	9-TO2	9B	2.063M	MBLE COMPAC L1/L2 WITH GROUND PL	9C CHK		2.063	TRIMBLE MICRO CENTERED L1/L2	PK NAIL
12/09/07	9-TO2	9B	1.612M	SOKKIA SET 3B TOTAL STATION	9C CHK		2.063	ECO FIXED HEIGHT TRIPOD WITH PRIS	PK NAIL
12/09/07	9-TO2	9B	1.612M	SOKKIA SET 3B TOTAL STATION	9A1	9A20	1.86M	FIBER ROD WITH PRISM	7211
12/09/07	9-TO2	9B	1.612M	SOKKIA SET 3B TOTAL STATION	9A21	9A40	1.86M	FIBER ROD WITH PRISM	7211
12/09/07	9-TO2	9B	1.612M	SOKKIA SET 3B TOTAL STATION	9C CHK		2.063	ECO FIXED HEIGHT TRIPOD WITH PRIS	PK NAIL

**Ground Check-Point Descriptive Codes**

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thick cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						