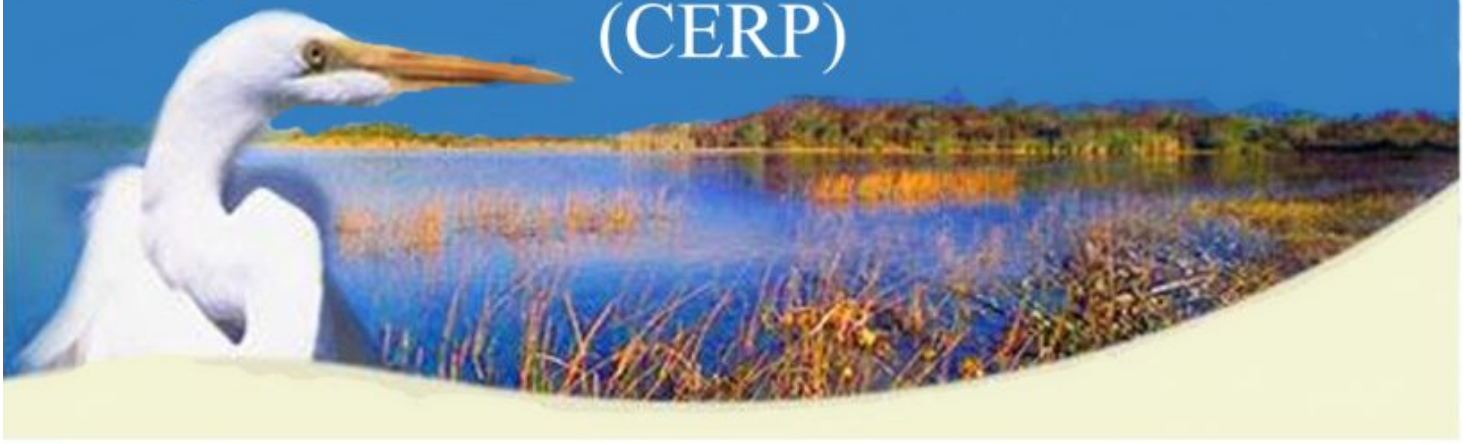
Comprehensive Everglades Restoration Plan (CERP)



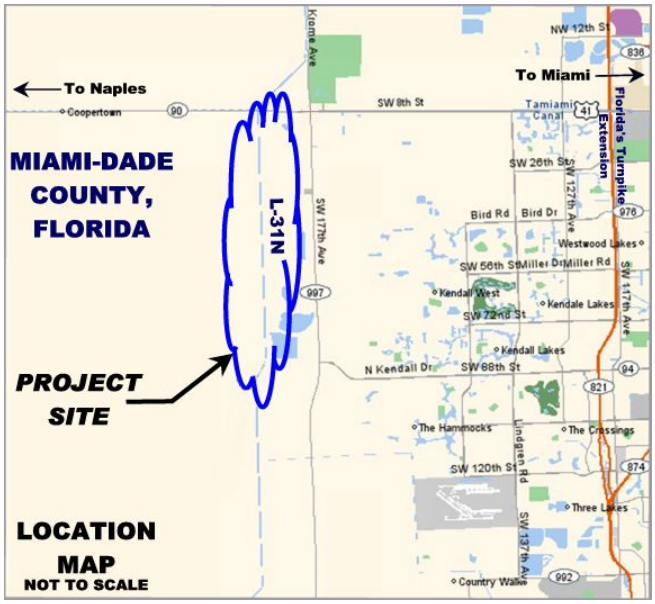
Contract C-C20101P - Work Order No. 2
Specific Purpose Survey
L-31 Seepage Canal Monitoring Wells
PROJECT SURVEYOR'S REPORT

WEIDENER SURVEYING & MAPPING, P.A.
10418 NW 31st Terrace
Miami, Florida 33172
(305) 599-6381
fax (305) 599-2797
www.weidener.com

SURVEYOR'S REPORT

INTRODUCTION

Weidener Surveying & Mapping, P.A. (WSM), LB4207, operating under the authority of the **South Florida Water Management District (the "District")** by Contract C-C19906P was tasked with the execution of this Specific Purpose Survey in support of the **Comprehensive Everglades Restoration Plan (CERP).** The purpose of this Specific Purpose Survey was to provide 4 Monitoring Well locations and elevations at 2 sites along with 4 Core Borings and 5 cross-sections within the L-31 Seepage Canal project area and right-of-way south of Tamiami Trail and north of Coral Reef Drive in Miami-Dade County, Florida. **THIS IS NOT A BOUNDARY SURVEY**.



PROJECT LOCATION

The project area is located in Sections 11, 12, 13, 14, 23, 24, 25, 26, 35, 36 , Lots 1 and 2 of Township 54 South, Range 38 East, and Sections 23, 24 of Township 55 South, Range 38 East in Miami-Dade County, Florida. The sites are accessed from Tamiami Trail (US Highway 41) along a levee road that runs along the west side of the L-31 Seepage Canal.

PROJECT EXECUTION

After receiving Notice to Proceed from the District WSM began work on the project. After some site reconnaissance, WSM recovered sufficient horizontal and vertical control points along the L-31 Seepage Canal Levee and along U.S. Highway No. 41 (Tamiami Trail) to develop a GPS horizontal and vertical control network. All control meets or exceeds the National Geodetic Survey (NGS) standards for Third Order accuracy and procedural methodology and complies with engineering manuals as specified in the Statement of Work issued by the District for this project.

WSM set traverse points in the vicinity of the cross-section lines and monitoring well sites. These points were located horizontally by GPS. Bench level runs using conventional methods were executed to locate the points vertically. Cross sections were taken at the locations as specified in the Statement of Work. At two sites, 4 wells were drilled at each site for a total of 8 wells. Additionally there were 4 core boring sites also. The 8 wells and 3 of the 4 borings, were located horizontally and vertically from the previously set GPS'ed traverse points and benchmarks. The remaining boring, which was located far to the south of the main project area, was located vertically only.

Rock probings and top of silt elevations were taken at points along the cross-sections. Water surface elevations were also noted.

Pictures were taken of the island and were submitted as part of the project's digital deliverables package in JPG format. A Microsoft Power Point presentation format was also included, as specified in the Statement of Work.

All field work was completed on 19 November 2003.

HORIZONTAL and VERTICAL CONTROL

Horizontal control is based on the State Plane Coordinate System, Florida East Zone, North American Datum of 1983, Adjustment of 1999.

Vertical control is based on the North American Vertical Datum of 1988. All control used was 1st Order or better. District Benchmarks "JBA22" and "JBA33", and NGS Benchmarks "203", "Q503", "R503", "S503", "T503", "U503", "KROME" and "KROME RM2" were used. Supplemental data as requested by contractual obligations is based on the National Geodetic Vertical Datum of 1929. A closed level run was executed from existing monuments with published values to the traverse points and benchmarks set within the project area, closing to within .05 feet times the square root of the distance in miles, as specified in the Statement of Work.

PRIMARY GPS SURVEY CONTROL USED (All held fixed)

Name	PID	Horizontal Order	Vertical Order
C 237 RESET	AJ7746	1	1
J 407	AC4738	A	1

BENCHMARK ELEVATIONS

Well	Northing[1] (Y)	Easting[1] (X)	BM Elev 88[2]	BM Elev 29[3]
BM 11	508,229.9	821,686.3	6.97'	2.67'
BM 12	502,717.4	821,898.7	7,06'	8.57'
BM 13	493,796.5	822,238.4	6.59'	2.44'

[1] State Plane Coordinate System, Florida East Zone, North American Datum of 1983 (Adjustment of 1999). At Benchmark.
[2] North American Vertical Datum of 1988 (NAVD 88).
[3] National Geodetic Vertical datum of 1929 (NGVD 29).

WELL & BORINGS LOCATIONS AND ELEVATIONS

Well	Northing[1] (Y)	Easting[1] (X)	Platform Mark Elev 88[2]	Platform Mark Elev 29[2]	Top of Casing Elev 88[2]	Top of Casing Elev 29[3]
MW-0001-1	513,814.7	821,444.8	14.85’	16.36’	14.07’	15.58’
MW-0001-2	513,796.0	821,445.5	14.64’	16.15’	14.14’	15.65’
MW-0001-3	513,777.3	821,445.2	14.88’	16.39’	14.14’	15.65’
MW-0001-4	513,754.1	821,447.2	14.98’	16.49’	14.43’	15.94’
MW-0002-1	497,715.1	822,062.3	14.21’	15.72’	13.86’	15.37’
MW-0002-2	497,704.8	822,062.7	14.32’	15.83’	13.70’	15.21’
MW-0002-3	497,684.0	822,063.5	14.12’	15.63’	13.73’	15.24’
MW-0002-4	497,672.5	822,063.9	14.35’	15.86’	13.96’	15.47’
L31CB1	N/A[4]	N/A[4]	6.47’	7.98’	5.86’	7.37’
L31CB2	493,781.7	822,239.2	7.05’	8.56’	6.65’	8.16’
L31CB3	502,701.8	821,900.5	7.41’	8.92’	7.21’	8.72’
L31CB4	508,211.6	821,691.1	7.54’	9.05’	6.60’	8.11’

[1] State Plane Coordinate System, Florida East Zone, North American Datum of 1983 (Adjustment of 1999). At Benchmark.
[2] North American Vertical Datum of 1988 (NAVD 88).
[3] National Geodetic Vertical datum of 1929 (NGVD 29).
[4] Vertical Position Only was taken at this location.

GPS PLAN

As part of the GPS Plan, six (3) L1/L2 Trimble 4000ssi and 4700 units would be used to collect GPS observation data. Fixed height tripods were used were applicable. Data was collected with a minimum of ninety (90) minute observations, 5-second epochs and a 15-degree elevation mask.

Elevations were not derived from GPS methods. Field observation logs were maintained for each setup. Third order accuracies (centimeter) or better were achieved using this methodology. No problems were encountered.

Vector processing of the GPS observations were performed using Trimble GPSurvey, version 2.35. The precise ephemeris was downloaded from the NGS website and was used in the vector processing. VectorNT was used to perform a Least Squares Adjustment. Only independent vectors were included in the adjustment. Error estimates for constant error are 0.005m / 5 ppm. The adjustment passes the Chi Square test at the 5% significance level. “Geoid 99” was used to compute geoidal separation values (NGS Geoid 99). The minimally vertical constrained adjustment did not result in any outliers beyond 0.1’, therefore all vertical control was held as fixed. All horizontal control was also held as fixed. Separate adjustments were run for NAVD 88 and for NGVD 29 values.

ISSUES AND PROBLEMS

There were no rights of entry issues for this project. There were no staff gauges in place to record any elevations as specified in the District's Statement of Work. Roads adjoining canals require keys for the gates to provide entry and are in well maintained condition. The only problem encountered on this project was the long delay before the wells and borings were finished by their respective contractor in order for the survey work to be completed.

QA/QC

The project's progress was closely monitored throughout the entire period of work. Drawings were reviewed on 24 November before the final submittal.

PROJECT DELIVERABLES

As specified and in consideration of the project's Statement of Work issued, the following items were generated by WSM as deliverables (in hardcopy and digital format on CD-ROM) to the District: (1) This Surveyor's Report; (2) GPS raw data files, field logs and sketches; (3) Computation files with horizontal and vertical extracts; (4) Original Field Book; (5) AutoCAD drawing files; (6) Microstation drawing files; (7) Six (6) Signed and Sealed copies of cross-sections and survey; (8) Benchmark Forms; (9) X,Y,Z, Descriptor ASCII Files in NAVD 88 datum; (10) X,Y,Z, Descriptor ASCII Files in NGVD 29 datum; (11) Digital site pictures in Power Point presentation format; (12) Digital site pictures in JPG format; (13) Metadata file using Corpsmet95.

CERTIFICATION

(1) This survey meets all applicable requirements of the Florida Minimum Technical Standards as contained in Chapter 61G17-6 FAC. (2) This report is not valid without the signature and the original raised seal of the Florida Surveyor and Mapper in responsible charge. (3) Additions or deletions to this data by anyone other than the signing party are prohibited without written consent of the signing party.

Surveyor and Mapper in Responsible Charge:
Jorge Fernandez, II
Florida Professional Land Surveyor License No. 5103

For the Firm of:
Weidener Surveying & Mapping, P.A. (LB 4207)
10418 NW 31 Terrace
Miami, Florida 33172

Signed:_____ SEAL

Date:_____

MW-0001 – Well No. 1

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed - Platform Mark

MW-0001 – Well No. 1

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

MW-0001 – Well No. 2

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed - Platform Mark

MW-0001 – Well No. 2

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

MW-0001 – Well No. 3

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed - Platform Mark

MW-0001 – Well No. 3

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

MW-0001 – Well No. 4

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed - Platform Mark

MW-0001 – Well No. 4

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

MW-0002 – Well No. 1

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed - Platform Mark

MW-0002 – Well No. 1

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

MW-0002 – Well No. 2

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed – Platform Mark

MW-0002 – Well No. 2

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

MW-0002 – Well No. 3

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed – Platform Mark

MW-0002 – Well No. 3

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

MW-0002 – Well No. 4

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Closed – Platform Mark

MW-0002 – Well No. 4

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Well Lid Open

L31CB1

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Platform Mark

L31CB1

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Lid Open

L31CB2

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Platform Mark

L31CB2

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Lid Open

L31CB3

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Platform Mark

L31CB3

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Lid Open

L31CB4

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Platform Mark

L31CB4

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Core Boring – Lid Open

BM – JBA 22

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Benchmark

BM – JBA 33

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Benchmark

BM – BM 11

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: WSM Benchmark

BM – BM 12

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: WSM Benchmark

BM – BM 13

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: WSM Benchmark

BM - KROME

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Benchmark

BM – KROME RM 2

- Weidener Surveying & Mapping P.A.
- Date of Photo: 19 November 2003
- View: Benchmark

Benchmark Form

SOUTH FLORIDA WATER MANAGEMENT DISTRICT Rev. 4/01

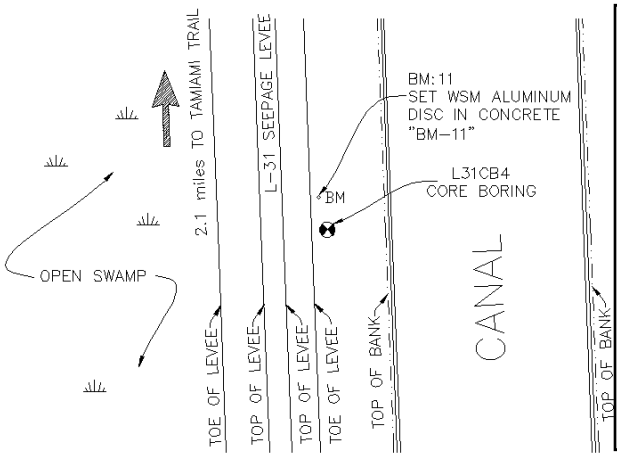
COUNTY Miami-Dade	**PROJECT** L-31 Seepage Canal	**DESIGNATION** BM 11
SECTION 23	**TOWNSHIP** 54 South	**RANGE** 38 East
GEOGRAPHIC INDEX OF QUAD 1404		
Established by X **Recovered by**_____ **Weidener Surveying & Mapping, P.A.**	**NAME OF QUADRANGLE** **SOUTH MIAMI NW**	
SURVEYOR Jorge Fernandez, II, PLS **DATE** 11 / 26 / 2003	**FIELD BOOK** L31SP-1 **PAGE** 17	
HORIZONTAL DATUM: **1927** (**1983**) **Other** 1999 Adjustment (circle one) ZONE (**E**) or **W**		
VERTICAL DATUM: MSL **1929** (**1988**) **Other** _____ (circle one)		
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____(circle one) **VERTICAL** 1 2 (3)		
STATE PLANE COORDINATES	**X** 821,686.3	**Y** 508,229.9 **EL.** 6.97'
LATITUDE **25°43'51.519"**	LONGITUDE **80°29'49.929"**	

DESCRIPTION

To Reach: From the intersection of Tamiami Trail (SR90) and the L-31 canal proceed south 2.1 miles along the levee to point on left. The point is located at the toe of the slope of the levee approximately 19 feet north of core boring L31CB4. The point is an aluminum disk set in concrete stamped "WEIDENER SURVEYING & MAPPING P.A. BM 11".

Notable Land marks: None.

SKETCH



Benchmark Form

SOUTH FLORIDA WATER MANAGEMENT DISTRICT Rev. 4/01

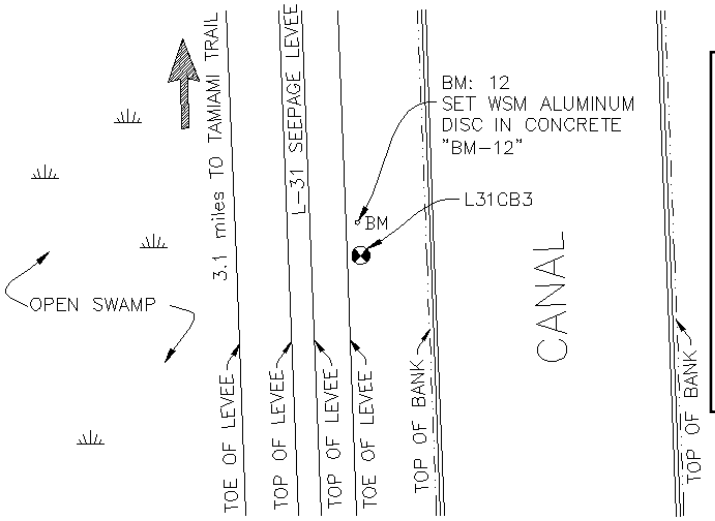
COUNTY Miami-Dade	**PROJECT** L-31 Seepage Canal	**DESIGNATION** BM 12
SECTION 26	**TOWNSHIP** 54 South	**RANGE** 38 East
GEOGRAPHIC INDEX OF QUAD 1404		
Established by X **Recovered by**_____ **Weidener Surveying & Mapping, P.A.**	**NAME OF QUADRANGLE** **SOUTH MIAMI NW**	
SURVEYOR Jorge Fernandez, II, PLS **DATE** 11 / 26 / 2003	**FIELD BOOK** L31SP-1 **PAGE** 18	
HORIZONTAL DATUM: **1927** (**1983**) **Other** 1999 Adjustment (circle one) ZONE (**E**) or **W**		
VERTICAL DATUM: MSL **1929** (**1988**) **Other** _____ (circle one)		
CONTROL ACCURACY: **HORIZONTAL** 1 2 (3) _____(circle one) **VERTICAL** 1 2 (3)		
STATE PLANE COORDINATES	**X** 821,898.7	**Y** 502,717.4 **EL.** 7.06’
LATITUDE **25°42’56.910”**	LONGITUDE **80°29’47.836”**	

DESCRIPTION

To Reach: From the intersection of Tamiami Trail (SR90) and the L-31 canal proceed south 3.1 miles along the levee to point on left. The point is located at the toe of the slope of the levee approximately 16 feet north of core boring L31CB3. The point is an aluminum disk set in concrete stamped “WEIDENER SURVEYING & MAPPING P.A. BM 12”.

Notable Land marks: None.

SKETCH



Benchmark Form

SOUTH FLORIDA WATER MANAGEMENT DISTRICT Rev. 4/01

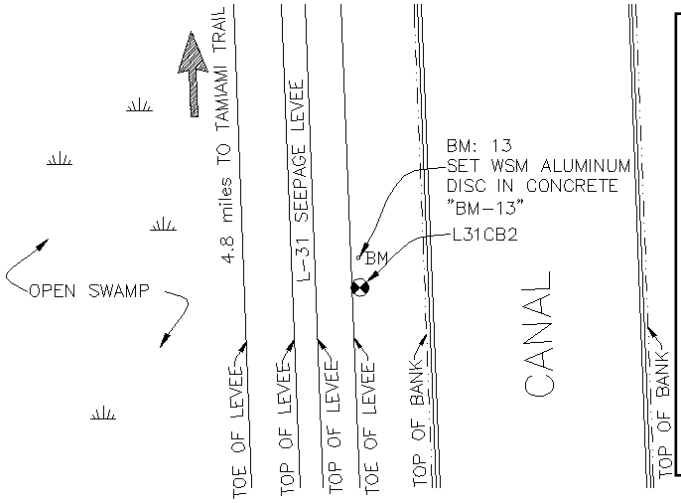
COUNTY Miami-Dade	**PROJECT** L-31 Seepage Canal	**DESIGNATION** BM 13
SECTION 35	**TOWNSHIP** 54 South	**RANGE** 38 East
GEOGRAPHIC INDEX OF QUAD 1404		
Established by X **Recovered by**_____ **Weidener Surveying & Mapping, P.A.**	**NAME OF QUADRANGLE** **SOUTH MIAMI NW**	
SURVEYOR Jorge Fernandez, II, PLS **DATE** 11 / 26 / 2003	**FIELD BOOK** L31SP-1 **PAGE** 19	
HORIZONTAL DATUM: **1927** (**1983**) **Other** 1999 Adjustment (circle one) ZONE (**E**) or **W**		
VERTICAL DATUM: MSL **1929** (**1988**) **Other** _____ (circle one)		
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____(circle one) **VERTICAL** 1 2 (3)		
STATE PLANE COORDINATES	**X** 822,238.4	**Y** 493,796.5 **EL.** 6.59’
LATITUDE **25°41’28.536”**	LONGITUDE **80°29’44.494”**	

DESCRIPTION

To Reach: From the intersection of Tamiami Trail (SR90) and the L-31 canal proceed south 4.8 miles along the levee to point on left. The point is located at the toe of the slope of the levee approximately 15 feet north of core boring L31CB2. The point is an aluminum disk set in concrete stamped “WEIDENER SURVEYING & MAPPING P.A. BM 13”.

Notable Land marks: None.

SKETCH



From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.
Line/Part: L26195 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained

Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes
811	0032	AJ8370	JBA 33	2.3883	2.4371	
815	0036	AJ8374	JBA 22	2.4767	2.5272	

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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 AJ8374  DESIGNATION -  JBA 22
 AJ8374  PID         -  AJ8374
 AJ8374  STATE/COUNTY-  FL/MIAMI-DADE
 AJ8374  COUNTRY     -  US
 AJ8374  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ8374
 AJ8374                         *CURRENT SURVEY CONTROL
 AJ8374 ______________________________________________________________________
 AJ8374* NAD 83(1986) POSITION- 25 42 05.     (N) 080 29 46.     (W)    SCALED
 AJ8374* NAVD 88 ORTHO HEIGHT -     2.051 (meters)        6.73   (feet) ADJUSTED
 AJ8374 ______________________________________________________________________
 AJ8374  GEOID HEIGHT    -        -24.685 (meters)                      GEOID12B
 AJ8374  DYNAMIC HEIGHT  -          2.047 (meters)        6.72   (feet) COMP
 AJ8374  MODELED GRAVITY -    979,022.7   (mgal)                        NAVD 88
 AJ8374
 AJ8374  VERT ORDER      -  FIRST     CLASS II
 AJ8374
 AJ8374.The horizontal coordinates were scaled from a topographic map and have
 AJ8374.an estimated accuracy of +/- 6 seconds.
 AJ8374.
 AJ8374.The orthometric height was determined by differential leveling and
 AJ8374.adjusted by the NATIONAL GEODETIC SURVEY
 AJ8374.in June 2002.
 AJ8374
 AJ8374.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ8374.GEOID12B height accuracy estimate available here.
 AJ8374
 AJ8374.The dynamic height is computed by dividing the NAVD 88
 AJ8374.geopotential number by the normal gravity value computed on the
 AJ8374.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8374.degrees latitude (g = 980.6199 gals.).
 AJ8374
 AJ8374.The modeled gravity was interpolated from observed gravity values.
 AJ8374
 AJ8374;                     North         East     Units  Estimated Accuracy
 AJ8374;SPC FL E     -   151,630.      250,570.      MT   (+/- 180 meters Scaled)
 AJ8374
 AJ8374                            SUPERSEDED SURVEY CONTROL
 AJ8374
 AJ8374.No superseded survey control is available for this station.
 AJ8374
 AJ8374_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ505427(NAD 83)
 AJ8374
 AJ8374_MARKER: DD = SURVEY DISK
 AJ8374_SETTING: 0 = UNSPECIFIED SETTING
 AJ8374_STAMPING: JBA 22
 AJ8374_MARK LOGO: BEDMEN
 AJ8374_MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT
```

AJ8374_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ8374+STABILITY: SURFACE MOTION
AJ8374_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8374+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008
AJ8374
AJ8374 HISTORY - Date Condition Report By
AJ8374 HISTORY - UNK MONUMENTED BEDMEN
AJ8374 HISTORY - 20010103 GOOD FLDEP
AJ8374 HISTORY - 20080117 GOOD DCPWD
AJ8374
AJ8374 STATION DESCRIPTION
AJ8374
AJ8374'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
AJ8374'THE MARK IS ABOUT 13.0 MI (20.9 KM) NORTH OF HOMESTEAD, 5.0 MI (8.0
AJ8374'KM) WEST OF KENDALL, IN SECTION 35, TOWNSHIP 54 SOUTH, RANGE 38 EAST.
AJ8374'TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME AVENUE SW
AJ8374'177 AVENUE) AND U.S. HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST) ABOUT 10.0
AJ8374'MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S. HIGHWAY 41
AJ8374'(TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ8374'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ8374'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ8374'SOUTH FOR 4.1 MI (6.6 KM) TO THE MARK ON THE LEFT, A STAINLESS STEEL
AJ8374'ROD WITH A 3 1/2-INCH ALUMINUM DISK SET IN CONCRETE IN A 4-INCH PVC
AJ8374'PIPE PROJECTING 0.3 FT (9.1 CM) ABOVE THE LEVEL OF THE GROUND AND
AJ8374'ABOVE THE LEVEL OF THE LOWER LEVEE ROAD (NEXT TO A 4.0 FT (1.2 M) X
AJ8374'7.0 FT (2.1 M) BLOCK BUILDING USED TO HOUSE A U.S. GEOLOGICAL STORM
AJ8374'GAGE) . LOCATED 3.7 FT (1.1 M) SOUTH OF A WOODEN DECK HOLDING A STORM
AJ8374'GAGE IN THE WATER, 2.1 FT (0.6 M) EAST OF THE SOUTHEAST CORNER OF A
AJ8374'4.0 FT (1.2 M) X 7.0 FT (2.1 M) BLOCK BUILDING AND 1.3 FT (0.4 M) WEST
AJ8374'OF A CARSONITE WITNESS POST. NOTE A BAR MAGNETIC WAS PLACED ON THE

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.
Line/Part: L26195 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained

Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes
811	0032	AJ8370	JBA 33	2.3883	2.4371	
815	0036	AJ8374	JBA 22	2.4767	2.5272	

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.8
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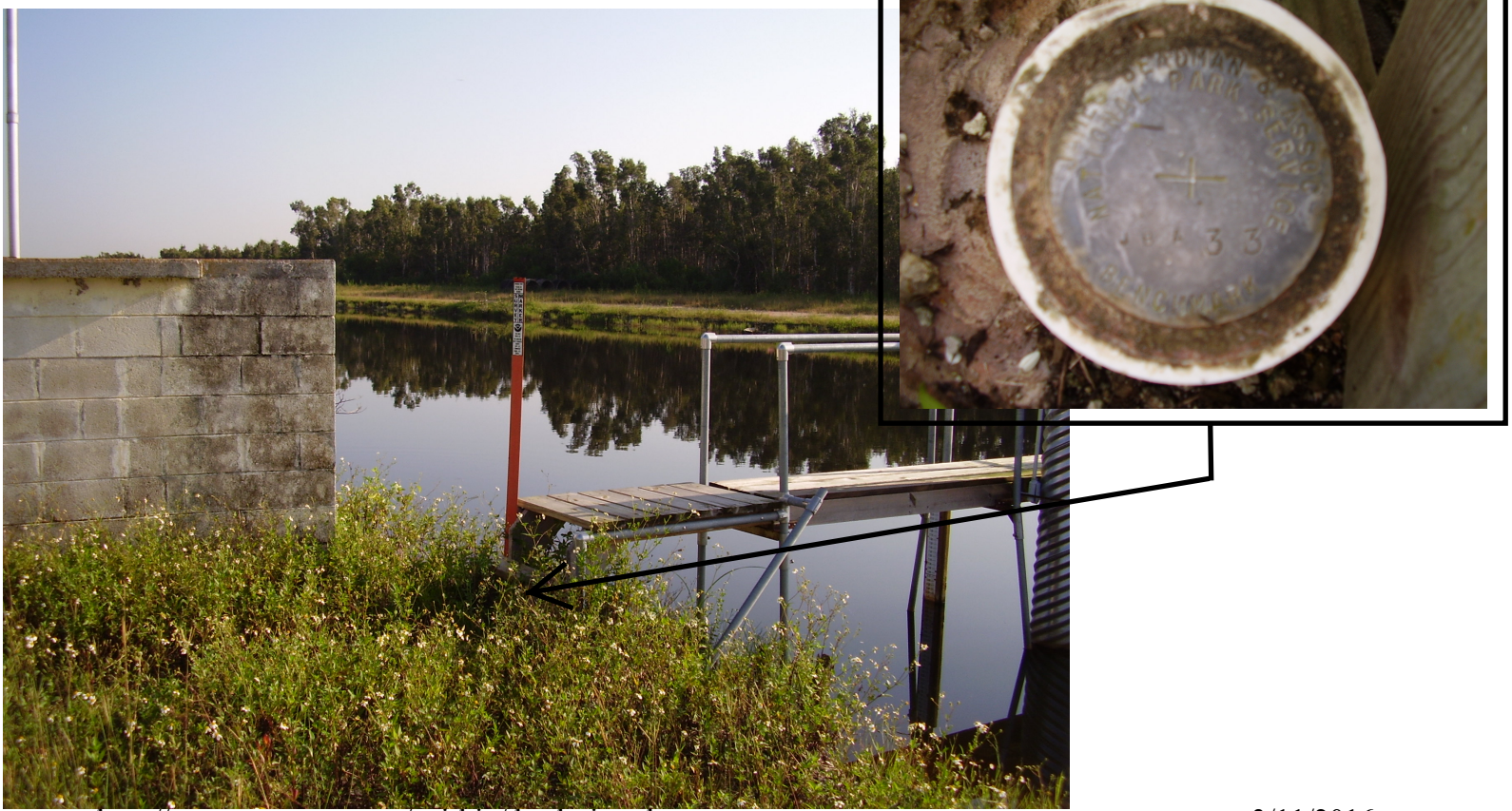
 AJ8370 ***************************************
 AJ8370  DESIGNATION -  JBA 33
 AJ8370  PID         -  AJ8370
 AJ8370  STATE/COUNTY-  FL/MIAMI-DADE
 AJ8370  COUNTRY     -  US
 AJ8370  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ8370
 AJ8370                         *CURRENT SURVEY C
 AJ8370  _____________________________________________________________________
 AJ8370* NAD 83(1986) POSITION- 25 44 42.      (N) 080 29 52.      (W)    SCALED
 AJ8370* NAVD 88 ORTHO HEIGHT -      1.962 (meters)         6.44   (feet) ADJUSTED
 AJ8370  _____________________________________________________________________
 AJ8370  GEOID HEIGHT    -        -24.676 (meters)                       GEOID12B
 AJ8370  DYNAMIC HEIGHT  -          1.958 (meters)         6.42   (feet) COMP
 AJ8370  MODELED GRAVITY -    979,028.6   (mgal)                         NAVD 88
 AJ8370
 AJ8370  VERT ORDER      -  FIRST     CLASS II
 AJ8370
 AJ8370.The horizontal coordinates were scaled from a topographic map and have
 AJ8370.an estimated accuracy of +/- 6 seconds.
 AJ8370.
 AJ8370.The orthometric height was determined by differential leveling and
 AJ8370.adjusted by the NATIONAL GEODETIC SURVEY
 AJ8370.in June 2002.
 AJ8370
 AJ8370.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ8370.GEOID12B height accuracy estimate available here.
 AJ8370
 AJ8370.The dynamic height is computed by dividing the NAVD 88
 AJ8370.geopotential number by the normal gravity value computed on the
 AJ8370.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8370.degrees latitude (g = 980.6199 gals.).
 AJ8370
 AJ8370.The modeled gravity was interpolated from observed gravity values.
 AJ8370
 AJ8370;                     North         East     Units  Estimated Accuracy
 AJ8370;SPC FL E     -   156,460.      250,390.      MT   (+/- 180 meters Scaled)
 AJ8370
 AJ8370                            SUPERSEDED SURVEY CONTROL
 AJ8370
 AJ8370.No superseded survey control is available for this station.
 AJ8370
 AJ8370_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ503475(NAD 83)
 AJ8370
 AJ8370_MARKER: DB = BENCH MARK DISK
 AJ8370_SETTING: 0 = UNSPECIFIED SETTING
 AJ8370_STAMPING: JBA 33
 AJ8370_MARK LOGO: BEDMEN
 AJ8370_MAGNETIC: N = NO MAGNETIC MATERIAL
```

```
AJ8370_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8370_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8370+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008
AJ8370
AJ8370  HISTORY     - Date     Condition        Report By
AJ8370  HISTORY     - UNK      MONUMENTED       BEDMEN
AJ8370  HISTORY     - 20010103 GOOD             FLDEP
AJ8370  HISTORY     - 20080117 GOOD             DCPWD
AJ8370
AJ8370                          STATION DESCRIPTION
AJ8370
AJ8370'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
AJ8370'THE MARK IS ABOUT 18.2 MI (29.3 KM) NORTH OF HOMESTEAD, 9.0 MI (14.5
AJ8370'KM) NORTHWEST OF KENDALL, IN SECTION 11, TOWNSHIP 54 SOUTH, RANGE 38
AJ8370'EAST. TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME
AJ8370'AVENUE SW 177 AVENUE) AND U.S.  HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST)
AJ8370'ABOUT 10.0 MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S.  HIGHWAY
AJ8370'41 (TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ8370'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ8370'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ8370'SOUTH FOR 1.1 MI (1.8 KM) TO THE MARK ON THE LEFT, A 5/8-INCH
AJ8370'STAINLESS STEEL ROD SET IN CONCRETE ENCASED IN A 4-INCH PVE PIPE
AJ8370'PROJECTING 0.5 FT (15.2 CM) ABOVE THE LEVEL OF THE GROUND AND ABOVE
AJ8370'THE LEVEL OF THE LEVEE ROAD. LOCATED 65.6 FT (20.0 M) EAST OF THE
AJ8370'APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 23.5 FT (7.2 M) EAST OF THE
AJ8370'APPROXIMATE CENTERLINE OF A TURNOUT, 12.0 FT (3.7 M) WEST OF A U.S.
AJ8370'GEOLOGICAL SURVEY STORM GAGE IN THE WATER, 2.7 FT (0.8 M) EAST OF THE
AJ8370'SOUTHEAST CORNER OF A 4.0 FT (1.2 M) X 7.0 FT (2.1 M) BLOCK BUILDING
AJ8370'AND 1.0 FT (0.3 M) WEST OF A CARSONITE WITNESS POST. NOTE FOR KEY
AJ8370'CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT 2195 NORTHEAST 8TH
AJ8370'STREET HOMESTEAD, FL 33033, PHONE 305-242-5955.
AJ8370
AJ8370                          STATION RECOVERY (2008)
AJ8370
AJ8370'RECOVERY NOTE BY DADE COUNTY PUBLIC WORKS DEPARTMENT 2008 (MJW)
AJ8370'RECOVERED IN GOOD CONDITION.
```



The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.8
1        National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AJ8371 ***********************************************************************
 AJ8371  DESIGNATION -  Q 503
 AJ8371  PID         -  AJ8371
 AJ8371  STATE/COUNTY-  FL/MIAMI-DADE
 AJ8371  COUNTRY     -  US
 AJ8371  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ8371
 AJ8371                        *CURRENT SURVEY CONTROL
 AJ8371  ______________________________________________________________________
 AJ8371* NAD 83(1986) POSITION- 25 44 25.     (N) 080 29 51.     (W)    SCALED
 AJ8371* NAVD 88 ORTHO HEIGHT -     1.751 (meters)        5.74   (feet) ADJUSTED
 AJ8371  ______________________________________________________________________
 AJ8371  GEOID HEIGHT    -        -24.677 (meters)                      GEOID12B
 AJ8371  DYNAMIC HEIGHT  -          1.748 (meters)        5.73   (feet) COMP
 AJ8371  MODELED GRAVITY -    979,028.1   (mgal)                        NAVD 88
 AJ8371
 AJ8371  VERT ORDER      -  FIRST     CLASS II
 AJ8371
 AJ8371.The horizontal coordinates were scaled from a topographic map and have
 AJ8371.an estimated accuracy of +/- 6 seconds.
 AJ8371.
 AJ8371.The orthometric height was determined by differential leveling and
 AJ8371.adjusted by the NATIONAL GEODETIC SURVEY
 AJ8371.in June 2002.
 AJ8371
 AJ8371.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ8371.GEOID12B height accuracy estimate available here.
 AJ8371
 AJ8371.The dynamic height is computed by dividing the NAVD 88
 AJ8371.geopotential number by the normal gravity value computed on the
 AJ8371.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8371.degrees latitude (g = 980.6199 gals.).
 AJ8371
 AJ8371.The modeled gravity was interpolated from observed gravity values.
 AJ8371
 AJ8371;                    North         East     Units  Estimated Accuracy
 AJ8371;SPC FL E     -   155,940.      250,420.      MT  (+/- 180 meters Scaled)
 AJ8371
 AJ8371                          SUPERSEDED SURVEY CONTROL
 AJ8371
 AJ8371.No superseded survey control is available for this station.
 AJ8371
 AJ8371_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ503470(NAD 83)
 AJ8371
 AJ8371_MARKER: F = FLANGE-ENCASED ROD
 AJ8371_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 AJ8371_STAMPING: Q 503 2000
 AJ8371_MARK LOGO: NGS
 AJ8371_PROJECTION: FLUSH
```

AJ8371_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ8371_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8371_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8371+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008
AJ8371_ROD/PIPE-DEPTH: 8.7 meters
AJ8371
AJ8371 HISTORY - Date Condition Report By
AJ8371 HISTORY - 2000 MONUMENTED FLDEP
AJ8371 HISTORY - 20080117 GOOD DCPWD
AJ8371
AJ8371 STATION DESCRIPTION
AJ8371
AJ8371'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ8371'THE MARK IS ABOUT 16.0 MI (25.7 KM) NORTH OF HOMESTEAD, 8.5 MI (13.7
AJ8371'KM) NORTHWEST OF KENDALL, IN SECTION 14, TOWNSHIP 54 SOUTH, RANGE 38
AJ8371'EAST. TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME
AJ8371'AVENUE SW 177 AVENUE) AND U.S. HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST)
AJ8371'ABOUT 10.0 MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S. HIGHWAY
AJ8371'41 (TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ8371'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ8371'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ8371'SOUTH FOR 1.45 MI (2.33 KM) TO THE MARK ON THE LEFT, A STAINLESS STEEL
AJ8371'ROD DRIVEN TO REFUSAL AT A DEPTH OF 28.6 FT (8.7 M) WITH A NGS LOGO
AJ8371'CAP FLUSH WITH THE GROUND, THE DATUM POINT IS RECESSED 0.8 FT (24.4
AJ8371'CM) BELOW THE LEVEL OF THE NGS LOGO CAP. LOCATED 39.6 FT (12.1 M) EAST
AJ8371'OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 30.0 FT (9.1 M) WEST
AJ8371'OF THE APPROXIMATE EDGE OF THE CANAL AND 2.0 FT (0.6 M) EAST OF A
AJ8371'CARSONITE WITNESS POST. NOTE BAR MAGNET WAS PLACED INSIDE THE NGS LOGO
AJ8371'CAP. NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO
AJ8371'CAP. NOTE FOR KEY CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT
AJ8371'2195 NORTHEAST 8TH STREET HOMESTEAD, FL 33033, PHONE 305-242-5955
AJ8371
AJ8371 STATION RECOVERY (2008)
AJ8371
AJ8371'RECOVERY NOTE BY DADE COUNTY PUBLIC WORKS DEPARTMENT 2008 (MJW)
AJ8371'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.8
1        National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AJ8372 ***********************************************************************
 AJ8372  DESIGNATION -  R 503
 AJ8372  PID         -  AJ8372
 AJ8372  STATE/COUNTY-  FL/MIAMI-DADE
 AJ8372  COUNTRY     -  US
 AJ8372  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ8372
 AJ8372                        *CURRENT SURVEY CONTROL
 AJ8372  ______________________________________________________________________
 AJ8372* NAD 83(1986) POSITION- 25 43 30.     (N) 080 29 49.     (W)    SCALED
 AJ8372* NAVD 88 ORTHO HEIGHT -     1.987 (meters)        6.52  (feet) ADJUSTED
 AJ8372  ______________________________________________________________________
 AJ8372  GEOID HEIGHT    -        -24.678 (meters)                     GEOID12B
 AJ8372  DYNAMIC HEIGHT  -          1.984 (meters)        6.51  (feet) COMP
 AJ8372  MODELED GRAVITY -    979,026.2   (mgal)                       NAVD 88
 AJ8372
 AJ8372  VERT ORDER      -  FIRST     CLASS II
 AJ8372
 AJ8372.The horizontal coordinates were scaled from a topographic map and have
 AJ8372.an estimated accuracy of +/- 6 seconds.
 AJ8372.
 AJ8372.The orthometric height was determined by differential leveling and
 AJ8372.adjusted by the NATIONAL GEODETIC SURVEY
 AJ8372.in June 2002.
 AJ8372
 AJ8372.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ8372.GEOID12B height accuracy estimate available here.
 AJ8372
 AJ8372.The dynamic height is computed by dividing the NAVD 88
 AJ8372.geopotential number by the normal gravity value computed on the
 AJ8372.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8372.degrees latitude (g = 980.6199 gals.).
 AJ8372
 AJ8372.The modeled gravity was interpolated from observed gravity values.
 AJ8372
 AJ8372;                    North         East     Units  Estimated Accuracy
 AJ8372;SPC FL E     -   154,250.      250,480.      MT  (+/- 180 meters Scaled)
 AJ8372
 AJ8372                           SUPERSEDED SURVEY CONTROL
 AJ8372
 AJ8372.No superseded survey control is available for this station.
 AJ8372
 AJ8372_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ504453(NAD 83)
 AJ8372
 AJ8372_MARKER: DD = SURVEY DISK
 AJ8372_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AJ8372_STAMPING: R 503 2000
 AJ8372_MARK LOGO: FLDEP
 AJ8372_MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT
```

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AJ8372_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ8372+STABILITY: SURFACE MOTION
AJ8372_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8372+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008
AJ8372
AJ8372  HISTORY     - Date     Condition        Report By
AJ8372  HISTORY     - 2000     MONUMENTED       FLDEP
AJ8372  HISTORY     - 20080117 GOOD             DCPWD
AJ8372
AJ8372                          STATION DESCRIPTION
AJ8372
AJ8372'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ8372'THE MARK IS ABOUT 15.0 MI (24.1 KM) NORTH OF HOMESTEAD, 7.5 MI (12.1
AJ8372'KM) NORTHWEST OF KENDALL, IN SECTION 23, TOWNSHIP 54 SOUTH, RANGE 38
AJ8372'EAST. TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME
AJ8372'AVENUE SW 177 AVENUE) AND U.S.  HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST)
AJ8372'ABOUT 10.0 MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S.  HIGHWAY
AJ8372'41 (TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ8372'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ8372'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ8372'SOUTH FOR 2.5 MI (4.0 KM) TO THE MARK ON THE LEFT, SET IN THE TOP OF A
AJ8372'ROUND CONCRETE MONUMENT RECESSED 0.2 FT (6.1 CM) BELOW THE LEVEL OF
AJ8372'THE GROUND AND 10.0 FT (3.0 M) BELOW THE LEVEL OF THE LEVEE ROAD.
AJ8372'LOCATED 37.0 FT (11.3 M) WEST OF THE APPROXIMATE EDGE OF THE CANAL,
AJ8372'23.7 FT (7.2 M) EAST OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD
AJ8372'AND 1.5 FT (0.5 M) EAST OF A CARSONITE WITNESS POST. NOTE A BAR MAGNET
AJ8372'WAS IMBEDDED ON THE SOUTH SIDE IN THE MONUMENT. NOTE FOR KEY CONTACT
AJ8372'SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT 2195 NORTHEAST 8TH STREET
AJ8372'HOMESTEAD, FL 33033, PHONE 305-242-5955.
AJ8372
AJ8372                          STATION RECOVERY (2008)
AJ8372
AJ8372'RECOVERY NOTE BY DADE COUNTY PUBLIC WORKS DEPARTMENT 2008 (MJW)
AJ8372'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02
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The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.8
1        National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AJ8373 ***********************************************************************
 AJ8373  DESIGNATION -  S 503
 AJ8373  PID         -  AJ8373
 AJ8373  STATE/COUNTY-  FL/MIAMI-DADE
 AJ8373  COUNTRY     -  US
 AJ8373  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ8373
 AJ8373                        *CURRENT SURVEY CONTROL
 AJ8373  ______________________________________________________________________
 AJ8373* NAD 83(1986) POSITION- 25 42 41.     (N) 080 29 47.     (W)    SCALED
 AJ8373* NAVD 88 ORTHO HEIGHT -     2.197 (meters)        7.21   (feet) ADJUSTED
 AJ8373  ______________________________________________________________________
 AJ8373  GEOID HEIGHT    -        -24.681 (meters)                      GEOID12B
 AJ8373  DYNAMIC HEIGHT  -          2.194 (meters)        7.20   (feet) COMP
 AJ8373  MODELED GRAVITY -    979,024.2   (mgal)                        NAVD 88
 AJ8373
 AJ8373  VERT ORDER      -  FIRST     CLASS II
 AJ8373
 AJ8373.The horizontal coordinates were scaled from a topographic map and have
 AJ8373.an estimated accuracy of +/- 6 seconds.
 AJ8373.
 AJ8373.The orthometric height was determined by differential leveling and
 AJ8373.adjusted by the NATIONAL GEODETIC SURVEY
 AJ8373.in June 2002.
 AJ8373
 AJ8373.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ8373.GEOID12B height accuracy estimate available here.
 AJ8373
 AJ8373.The dynamic height is computed by dividing the NAVD 88
 AJ8373.geopotential number by the normal gravity value computed on the
 AJ8373.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8373.degrees latitude (g = 980.6199 gals.).
 AJ8373
 AJ8373.The modeled gravity was interpolated from observed gravity values.
 AJ8373
 AJ8373;                    North         East     Units  Estimated Accuracy
 AJ8373;SPC FL E     -   152,740.      250,540.      MT  (+/- 180 meters Scaled)
 AJ8373
 AJ8373                          SUPERSEDED SURVEY CONTROL
 AJ8373
 AJ8373.No superseded survey control is available for this station.
 AJ8373
 AJ8373_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ505438(NAD 83)
 AJ8373
 AJ8373_MARKER: DD = SURVEY DISK
 AJ8373_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AJ8373_STAMPING: S 503 2000
 AJ8373_MARK LOGO: FLDEP
 AJ8373_MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT
```

```
AJ8373_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ8373+STABILITY: SURFACE MOTION
AJ8373_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8373+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008
AJ8373
AJ8373  HISTORY     - Date     Condition        Report By
AJ8373  HISTORY     - 2000     MONUMENTED       FLDEP
AJ8373  HISTORY     - 20080117 GOOD             DCPWD
AJ8373
AJ8373                          STATION DESCRIPTION
AJ8373
AJ8373'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ8373'THE MARK IS ABOUT 14.0 MI (22.5 KM) NORTH OF HOMESTEAD, 6.5 MI (10.5
AJ8373'KM) WEST OF KENDALL, IN SECTION 26, TOWNSHIP 54 SOUTH, RANGE 38 EAST.
AJ8373'TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME AVENUE SW
AJ8373'177 AVENUE) AND U.S.  HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST) ABOUT 10.0
AJ8373'MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S.  HIGHWAY 41
AJ8373'(TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ8373'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ8373'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ8373'SOUTH FOR 3.5 MI (5.6 KM) TO THE MARK ON THE LEFT, SET IN THE TOP OF A
AJ8373'ROUND CONCRETE MONUMENT RECESSED 0.2 FT (6.1 CM) BELOW THE LEVEL OF
AJ8373'THE GROUND AND BELOW THE LEVEL OF THE LEVEE ROAD. LOCATED 35.6 FT
AJ8373'(10.9 M) WEST OF THE APPROXIMATE EDGE OF THE CANAL, 26.0 FT (7.9 M)
AJ8373'EAST OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD AND 22.0 FT (6.7
AJ8373'M) EAST OF A CARSONITE WITNESS POST. NOTE A BAR MAGNET WAS INBEDDED ON
AJ8373'THE SOUTH SIDE OF THE MONUMENT. NOTE FOR KEY CONTACT SOUTH FLORIDA
AJ8373'WATER MANAGEMENT DISTRICT AT 2195 NORTHEAST 8TH STREET HOMESTEAD, FL
AJ8373'33033, PHONE 305-242-5955.
AJ8373
AJ8373                          STATION RECOVERY (2008)
AJ8373
AJ8373'RECOVERY NOTE BY DADE COUNTY PUBLIC WORKS DEPARTMENT 2008 (MJW)
AJ8373'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02
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The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.8
1        National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AJ8375 ***********************************************************************
 AJ8375  DESIGNATION -  T 503
 AJ8375  PID         -  AJ8375
 AJ8375  STATE/COUNTY-  FL/MIAMI-DADE
 AJ8375  COUNTRY     -  US
 AJ8375  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ8375
 AJ8375                        *CURRENT SURVEY CONTROL
 AJ8375  ______________________________________________________________________
 AJ8375* NAD 83(1986) POSITION- 25 41 47.     (N) 080 29 46.     (W)    SCALED
 AJ8375* NAVD 88 ORTHO HEIGHT -     2.103 (meters)        6.90   (feet) ADJUSTED
 AJ8375  ______________________________________________________________________
 AJ8375  GEOID HEIGHT    -        -24.687 (meters)                      GEOID12B
 AJ8375  DYNAMIC HEIGHT  -          2.100 (meters)        6.89   (feet) COMP
 AJ8375  MODELED GRAVITY -    979,021.8   (mgal)                        NAVD 88
 AJ8375
 AJ8375  VERT ORDER      -  FIRST     CLASS II
 AJ8375
 AJ8375.The horizontal coordinates were scaled from a topographic map and have
 AJ8375.an estimated accuracy of +/- 6 seconds.
 AJ8375.
 AJ8375.The orthometric height was determined by differential leveling and
 AJ8375.adjusted by the NATIONAL GEODETIC SURVEY
 AJ8375.in June 2002.
 AJ8375
 AJ8375.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ8375.GEOID12B height accuracy estimate available here.
 AJ8375
 AJ8375.The dynamic height is computed by dividing the NAVD 88
 AJ8375.geopotential number by the normal gravity value computed on the
 AJ8375.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8375.degrees latitude (g = 980.6199 gals.).
 AJ8375
 AJ8375.The modeled gravity was interpolated from observed gravity values.
 AJ8375
 AJ8375;                    North         East     Units  Estimated Accuracy
 AJ8375;SPC FL E     -   151,080.      250,580.      MT  (+/- 180 meters Scaled)
 AJ8375
 AJ8375                          SUPERSEDED SURVEY CONTROL
 AJ8375
 AJ8375.No superseded survey control is available for this station.
 AJ8375
 AJ8375_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ505421(NAD 83)
 AJ8375
 AJ8375_MARKER: F = FLANGE-ENCASED ROD
 AJ8375_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 AJ8375_STAMPING: T 503 2000
 AJ8375_MARK LOGO: NGS
 AJ8375_PROJECTION: FLUSH
```

```
AJ8375_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ8375_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8375_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8375+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008
AJ8375_ROD/PIPE-DEPTH:  5.8 meters
AJ8375
AJ8375  HISTORY     - Date     Condition        Report By
AJ8375  HISTORY     - 2000     MONUMENTED       FLDEP
AJ8375  HISTORY     - 20080117 GOOD             DCPWD
AJ8375
AJ8375                          STATION DESCRIPTION
AJ8375
AJ8375'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ8375'THE MARK IS ABOUT 12.5 MI (20.1 KM) NORTH OF HOMESTEAD, 5.0 MI (8.0
AJ8375'KM) WEST OF KENDALL, IN SECTION 35, TOWNSHIP 54 SOUTH, RANGE 38 EAST.
AJ8375'TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME AVENUE SW
AJ8375'177 AVENUE) AND U.S.  HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST) ABOUT 10.0
AJ8375'MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S.  HIGHWAY 41
AJ8375'(TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ8375'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ8375'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ8375'SOUTH FOR 4.5 MI (7.2 KM) TO THE MARK ON THE LEFT, A STAINLESS STEEL
AJ8375'ROD DRIVEN TO REFUSAL AT A DEPTH OF 18.9 FT (5.8 M) WITH A NGS LOGO
AJ8375'CAP FLUSH WITH THE GROUND AND LEVEL WITH THE LEVEE ROAD, THE DATUM
AJ8375'POINT IS RECESSED 0.7 FT (21.3 CM) BELOW THE LEVEL OF THE NGS LOGO
AJ8375'CAP. LOCATED 33.8 FT (10.3 M) WEST OF THE APPROXIMATE EDGE OF THE
AJ8375'CANAL, 28.8 FT (8.8 M) EAST OF THE APPROXIMATE CENTERLINE OF THE LEVEE
AJ8375'ROAD AND 1.5 FT (0.5 M) EAST OF A CARSONITE WITNESS POST. NOTE ACCESS
AJ8375'TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP. NOTE A BAR
AJ8375'MAGNET WAS INBEDDED ON THE NORTH SIDE OF THE MONUMENT. NOTE FOR KEY
AJ8375'CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT 2195 NORTHEAST 8TH
AJ8375'STREET HOMESTEAD, FL 33033, PHONE 305-242-5955.
AJ8375
AJ8375                          STATION RECOVERY (2008)
AJ8375
AJ8375'RECOVERY NOTE BY DADE COUNTY PUBLIC WORKS DEPARTMENT 2008 (MJW)
AJ8375'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:03
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The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.8
1        National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AJ8376 ***********************************************************************
 AJ8376  DESIGNATION -  U 503
 AJ8376  PID         -  AJ8376
 AJ8376  STATE/COUNTY-  FL/MIAMI-DADE
 AJ8376  COUNTRY     -  US
 AJ8376  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ8376
 AJ8376                        *CURRENT SURVEY CONTROL
 AJ8376  ______________________________________________________________________
 AJ8376* NAD 83(1986) POSITION- 25 41 00.      (N) 080 29 56.      (W)    SCALED
 AJ8376* NAVD 88 ORTHO HEIGHT -      2.103 (meters)         6.90   (feet) ADJUSTED
 AJ8376  ______________________________________________________________________
 AJ8376  GEOID HEIGHT    -        -24.687 (meters)                       GEOID12B
 AJ8376  DYNAMIC HEIGHT  -          2.099 (meters)         6.89   (feet) COMP
 AJ8376  MODELED GRAVITY -    979,019.6   (mgal)                         NAVD 88
 AJ8376
 AJ8376  VERT ORDER      -  FIRST     CLASS II
 AJ8376
 AJ8376.The horizontal coordinates were scaled from a topographic map and have
 AJ8376.an estimated accuracy of +/- 6 seconds.
 AJ8376.
 AJ8376.The orthometric height was determined by differential leveling and
 AJ8376.adjusted by the NATIONAL GEODETIC SURVEY
 AJ8376.in June 2002.
 AJ8376
 AJ8376.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ8376.GEOID12B height accuracy estimate available here.
 AJ8376
 AJ8376.The dynamic height is computed by dividing the NAVD 88
 AJ8376.geopotential number by the normal gravity value computed on the
 AJ8376.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8376.degrees latitude (g = 980.6199 gals.).
 AJ8376
 AJ8376.The modeled gravity was interpolated from observed gravity values.
 AJ8376
 AJ8376;                     North         East     Units  Estimated Accuracy
 AJ8376;SPC FL E     -   149,630.      250,300.      MT  (+/- 180 meters Scaled)
 AJ8376
 AJ8376                           SUPERSEDED SURVEY CONTROL
 AJ8376
 AJ8376.No superseded survey control is available for this station.
 AJ8376
 AJ8376_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ502407(NAD 83)
 AJ8376
 AJ8376_MARKER: DD = SURVEY DISK
 AJ8376_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AJ8376_STAMPING: U 503 2000
 AJ8376_MARK LOGO: FLDEP
 AJ8376_MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT
```

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AJ8376_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ8376+STABILITY: SURFACE MOTION
AJ8376_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8376+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008
AJ8376
AJ8376  HISTORY     - Date     Condition        Report By
AJ8376  HISTORY     - 2000     MONUMENTED       FLDEP
AJ8376  HISTORY     - 20080117 GOOD             DCPWD
AJ8376
AJ8376                          STATION DESCRIPTION
AJ8376
AJ8376'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ8376'THE MARK IS ABOUT 11.5 MI (18.5 KM) NORTH OF HOMESTEAD, 5.0 MI (8.0
AJ8376'KM) WEST OF KENDALL, IN LOT 2, TOWNSHIP 55 SOUTH, RANGE 38 EAST. TO
AJ8376'REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME AVENUE SW
AJ8376'177 AVENUE) AND U.S.  HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST) ABOUT 10.0
AJ8376'MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S.  HIGHWAY 41
AJ8376'(TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ8376'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ8376'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ8376'SOUTH FOR 5.5 MI (8.9 KM) TO THE MARK ON THE LEFT, SET IN THE TOP OF A
AJ8376'ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND AND LEVEL WITH THE LEVEE
AJ8376'ROAD. LOCATED 34.2 FT (10.4 M) EAST OF THE APPROXIMATE CENTERLINE OF
AJ8376'THE LEVEE ROAD, 28.0 FT (8.5 M) WEST OF THE APPROXIMATE EDGE OF THE
AJ8376'CANAL AND 1.8 FT (0.5 M) EAST OF A CARSONITE WITNESS POST. NOTE A BAR
AJ8376'MAGNET WAS INBEDDED ON THE NORTH SIDE OF THE MONUMENT. NOTE FOR KEY
AJ8376'CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT 2195 NORTHEAST 8TH
AJ8376'STREET HOMESTEAD, FL 33033, PHONE 305-242-5955.
AJ8376
AJ8376                          STATION RECOVERY (2008)
AJ8376
AJ8376'RECOVERY NOTE BY DADE COUNTY PUBLIC WORKS DEPARTMENT 2008 (MJW)
AJ8376'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02
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The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.8
1         National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AC3931 ***********************************************************************
 AC3931  DESIGNATION -  KROME
 AC3931  PID         -  AC3931
 AC3931  STATE/COUNTY-  FL/MIAMI-DADE
 AC3931  COUNTRY     -  US
 AC3931  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AC3931
 AC3931                         *CURRENT SURVEY CONTROL
 AC3931  ______________________________________________________________________
 AC3931* NAD 83(1990) POSITION- 25 38 18.85435(N) 080 29 50.96803(W)    ADJUSTED
 AC3931* NAVD 88 ORTHO HEIGHT -      4.069 (meters)        13.35  (feet) ADJUSTED
 AC3931  ______________________________________________________________________
 AC3931  LAPLACE CORR    -         -2.88  (seconds)                     DEFLEC12B
 AC3931  GEOID HEIGHT    -        -24.724 (meters)                      GEOID12B
 AC3931  DYNAMIC HEIGHT  -          4.062 (meters)        13.33  (feet) COMP
 AC3931  MODELED GRAVITY -    979,011.0   (mgal)                        NAVD 88
 AC3931
 AC3931  HORZ ORDER      -  FIRST
 AC3931  VERT ORDER      -  FIRST     CLASS II
 AC3931
 AC3931.The horizontal coordinates were established by classical geodetic methods
 AC3931.and adjusted by the National Geodetic Survey in May 1991.
 AC3931.
 AC3931.The orthometric height was determined by differential leveling and
 AC3931.adjusted by the NATIONAL GEODETIC SURVEY
 AC3931.in June 2002.
 AC3931
 AC3931.Significant digits in the geoid height do not necessarily reflect accuracy.
 AC3931.GEOID12B height accuracy estimate available here.
 AC3931
 AC3931.The Laplace correction was computed from DEFLEC12B derived deflections.
 AC3931
 AC3931.The dynamic height is computed by dividing the NAVD 88
 AC3931.geopotential number by the normal gravity value computed on the
 AC3931.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AC3931.degrees latitude (g = 980.6199 gals.).
 AC3931
 AC3931.The modeled gravity was interpolated from observed gravity values.
 AC3931
 AC3931. The following values were computed from the NAD 83(1990) position.
 AC3931
 AC3931;                    North         East     Units Scale Factor Converg.
 AC3931;SPC FL E     -   144,671.916   250,460.429   MT  0.99997261   +0 13 02.8
 AC3931;SPC FL E     -   474,644.44    821,718.92    sFT  0.99997261   +0 13 02.8
 AC3931;UTM  17      - 2,835,754.536   550,443.212   MT  0.99963142   +0 13 02.8
 AC3931
 AC3931!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AC3931!SPC FL E     -   1.00000325  x   0.99997261  =   0.99997586
 AC3931!UTM  17      -   1.00000325  x   0.99963142  =   0.99963466
```

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AC3931
AC3931:                Primary Azimuth Mark                      Grid Az
AC3931:SPC FL E     -  KROME AZ MK                               099 26 55.1
AC3931:UTM  17      -  KROME AZ MK                               099 26 55.1
AC3931
AC3931|---------------------------------------------------------------------|
AC3931| PID    Reference Object                    Distance      Geod. Az   |
AC3931|                                                          dddmmss.s  |
AC3931| CW8555 KROME RM 1                          22.410 METERS 01617      |
AC3931| AC3934 NEW TAMIAMI APT FAA TWR            APPROX. 6.6 KM 0802248.1  |
AC3931| AC3957 NEW TAMIAMI APT BCN                APPROX. 8.3 KM 0823304.6  |
AC3931| CW8554 KROME AZ MK                                       0993957.9  |
AC3931| AC3900 HOMESTEAD TV STA WCIX MAST         APPROX.11.3 KM 1650024.1  |
AC3931| AJ7772 KROME RM 2                          17.708 METERS 17701      |
AC3931| AC4446 ARVIDA CORP MAST                   APPROX. 8.2 KM 2425903.7  |
AC3931| AC4426 MIAMI FAA INTL COMM TOWER          APPROX. 1.2 KM 3205513.8  |
AC3931|---------------------------------------------------------------------|
AC3931
AC3931                          SUPERSEDED SURVEY CONTROL
AC3931
AC3931  NAD 83(1986)-  25 38 18.85358(N)    080 29 50.96946(W) AD(       ) 1
AC3931  NAD 27      -  25 38 17.47599(N)    080 29 51.76474(W) AD(       ) 1
AC3931  NGVD 29 (07/19/86)    4.6    (m)           15.     (f) VERT ANG
AC3931
AC3931.Superseded values are not recommended for survey control.
AC3931
AC3931.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AC3931.See file dsdata.txt to determine how the superseded data were derived.
AC3931
AC3931_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ5044335754(NAD 83)
AC3931
AC3931_MARKER: DS = TRIANGULATION STATION DISK
AC3931_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AC3931_STAMPING: KROME 1971
AC3931_MARK LOGO: NGS
AC3931_MAGNETIC: N = NO MAGNETIC MATERIAL
AC3931_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AC3931+STABILITY: SURFACE MOTION
AC3931_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AC3931+SATELLITE: SATELLITE OBSERVATIONS - January 03, 2001
AC3931
AC3931  HISTORY     - Date     Condition        Report By
AC3931  HISTORY     - 1971     MONUMENTED       NGS
AC3931  HISTORY     - 1983     GOOD             NGS
AC3931  HISTORY     - 1987     MARK NOT FOUND   USGS
AC3931  HISTORY     - 19970309 GOOD             USPSQD
AC3931  HISTORY     - 20010103 GOOD             FLDEP
AC3931
AC3931                          STATION DESCRIPTION
AC3931
AC3931'DESCRIBED BY NATIONAL GEODETIC SURVEY 1971 (NCA)
AC3931'THE STATION IS LOCATED 14 MILES SOUTHWEST OF SOUTH MIAMI, 11 MILES
AC3931'NORTH OF HOMESTEAD, 1 MILE WEST OF STATE HIGHWAY 27, ON THE WEST
AC3931'SIDE OF CANAL NUMBER L-31N AND OF FLORIDA FLOOD CONTROL PROPERTY.
AC3931'
AC3931'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 94 AND
AC3931'27 ABOUT 11 MILES WEST OF SOUTH MIAMI, GO SOUTH ON HIGHWAY 27 FOR
AC3931'3.55 MILES TO A SIDE ROAD RIGHT.  TURN RIGHT AND GO WEST ON SW
AC3931'136TH ST FOR 0.75 MILE TO THE AZIMUTH MARK ON THE RIGHT.  CONTINUE
AC3931'WEST ON SW 136TH ST FOR 0.3 MILE TO THE TOP OF A LEVEE JUST
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AC3931'AFTER CROSSING A SMALL BRIDGE. TURN RIGHT AND GO NORTH
AC3931'ATOP THE LEVEE FOR 0.05 MILE TO A LOCKED GATE (CONSERVATION AREA 5
AC3931'KEY NECESSARY) AND THE STATION AS DESCRIBED.
AC3931'
AC3931'STATION MARK, STAMPED KROME 1971 IS A STANDARD DISK SET IN A ROUND
AC3931'CONCRETE MONUMENT THAT IS 2 INCHES BELOW THE GROUND SURFACE. IT IS
AC3931'75 FEET WEST OF THE WEST EDGE OF CANAL NUMBER L-31N, 49 FEET
AC3931'NORTHWEST OF THE CENTER OF THE GATE, 16 FEET WEST OF THE CENTER OF
AC3931'THE LEVEE ROAD AND 8 FEET EAST OF THE WEST EDGE OF THE LEVEE.
AC3931'
AC3931'REFERENCE MARK 1, STAMPED KROME NO 1 1971 IS A STANDARD DISK SET
AC3931'IN A ROUND CONCRETE MONUMENT THAT IS FLUSH WITH THE GROUND
AC3931'SURFACE. IT IS 116 FEET NORTH OF THE CENTER OF THE GATE, 55 FEET
AC3931'WEST OF THE WEST EDGE OF THE CANAL AND 7.5 FEET EAST OF THE CENTER
AC3931'OF THE LEVEE ROAD.
AC3931'
AC3931'REFERENCE MARK 2, STAMPED KROME NO 2 1971 IS A STANDARD DISK SET IN
AC3931'A ROUND CONCRETE MONUMENT THAT IS FLUSH WITH THE GROUND SURFACE. IT
AC3931'IS 76 FEET WEST OF THE WEST EDGE OF THE CANAL, 19 FEET SOUTHWEST OF
AC3931'THE CENTER OF THE GATE, 15.5 FEET WEST OF THE CENTER OF THE LEVEE
AC3931'ROAD AND 2 FEET EAST OF THE WEST EDGE OF THE LEVEE.
AC3931'
AC3931'AZIMUTH MARK, STAMPED KROME 1971 IS A STANDARD DISK SET IN A ROUND
AC3931'CONCRETE MONUMENT THAT PROJECTS 4 INCHES ABOVE THE GROUND
AC3931'SURFACE. IT IS 15 FEET NORTH OF THE CENTER OF SW 136TH ST, 3 FEET
AC3931'SOUTH OF THE SOUTH EDGE OF A CULTIVATED FIELD AND 2.5 FEET NORTH
AC3931'OF A METAL WITNESS POST.
AC3931'
AC3931'HEIGHT OF LIGHT ABOVE STATION MARK 22.3 METERS.
AC3931
AC3931 STATION RECOVERY (1983)
AC3931
AC3931'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1983 (EEE)
AC3931'STATION MARK AND REFERENCE MARKS 1 AND 2 WERE RECOVERED AS DESCRIBED
AC3931'IN GOOD CONDITION. THE AZIMUTH MARK WAS NOT SEARCHED FOR.
AC3931'
AC3931'AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN--11 MILES NW OF
AC3931'HOMESTEAD.
AC3931
AC3931 STATION RECOVERY (1987)
AC3931
AC3931'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1987 (RRB)
AC3931'MARK NOT FOUND.
AC3931
AC3931 STATION RECOVERY (1997)
AC3931
AC3931'RECOVERY NOTE BY US POWER SQUADRON 1997
AC3931'RECOVERED IN GOOD CONDITION.
AC3931
AC3931 STATION RECOVERY (2001)
AC3931
AC3931'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AC3931'THE MARK IS ABOUT 8.5 MI (13.7 KM) NORTH OF HOMESTEAD, 6.5 MI (10.5
AC3931'KM) SOUTHWEST OF KENDALL, IN SECTION 14, TOWNSHIP 55 SOUTH, RANGE 38
AC3931'EAST. TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME
AC3931'AVENUE SW 177 AVENUE) AND U.S. HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST)
AC3931'ABOUT 10.0 MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S. HIGHWAY
AC3931'41 (TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AC3931'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AC3931'THE WEST SIDE OF THE CANAL, TURN LEFT ON THE LEVEE ROAD (L-31N) AND GO

AC3931'SOUTH FOR 8.55 MI (13.76 KM) TO A TURNOUT ON THE RIGHT AND THE MARK ON
AC3931'THE RIGHT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.2 FT
AC3931'(6.1 CM) BELOW THE LEVEL OF THE GROUND AND BELOW THE LEVEL OF THE
AC3931'LEVEE ROAD, 0.05 MI (0.08 KM) NORTH OF SW 136TH ST. LOCATED 75.5 FT
AC3931'(23.0 M) WEST OF THE WEST EDGE OF CANAL NUMBER L-31N, 16.2 FT (4.9 M)
AC3931'WEST OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD AND 11.2 FT (3.4
AC3931'M) EAST OF A CARSONITE WITNESS POST. NOTE FOR KEY CONTACT SOUTH
AC3931'FLORIDA WATER MANAGEMENT DISTRICT AT 2195 NORTHEAST 8TH STREET
AC3931'HOMESTEAD, FL 33033, PHONE 305-242-5955.

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

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.8
1         National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AJ7772 ***********************************************************************
 AJ7772  DESIGNATION -  KROME RM 2
 AJ7772  PID         -  AJ7772
 AJ7772  STATE/COUNTY-  FL/MIAMI-DADE
 AJ7772  COUNTRY     -  US
 AJ7772  USGS QUAD   -  SOUTH MIAMI NW (1988)
 AJ7772
 AJ7772                         *CURRENT SURVEY CONTROL
 AJ7772  ______________________________________________________________________
 AJ7772* NAD 83(1986) POSITION- 25 38 18.28    (N) 080 29 50.93    (W)    HD_HELD1
 AJ7772* NAVD 88 ORTHO HEIGHT -      4.108 (meters)        13.48   (feet) ADJUSTED
 AJ7772  ______________________________________________________________________
 AJ7772  GEOID HEIGHT    -        -24.725 (meters)                       GEOID12B
 AJ7772  DYNAMIC HEIGHT  -          4.101 (meters)        13.45   (feet) COMP
 AJ7772  MODELED GRAVITY -    979,010.9   (mgal)                         NAVD 88
 AJ7772
 AJ7772  VERT ORDER      -  FIRST     CLASS II
 AJ7772
 AJ7772.The horizontal coordinates were determined by differentially corrected
 AJ7772.hand held GPS observations or other comparable positioning techniques
 AJ7772.and have an estimated accuracy of +/- 3 meters.
 AJ7772.
 AJ7772.The orthometric height was determined by differential leveling and
 AJ7772.adjusted by the NATIONAL GEODETIC SURVEY
 AJ7772.in June 2002.
 AJ7772
 AJ7772.Significant digits in the geoid height do not necessarily reflect accuracy.
 AJ7772.GEOID12B height accuracy estimate available here.
 AJ7772
 AJ7772.The dynamic height is computed by dividing the NAVD 88
 AJ7772.geopotential number by the normal gravity value computed on the
 AJ7772.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ7772.degrees latitude (g = 980.6199 gals.).
 AJ7772
 AJ7772.The modeled gravity was interpolated from observed gravity values.
 AJ7772
 AJ7772;                    North         East     Units  Estimated Accuracy
 AJ7772;SPC FL E     -   144,654.2     250,461.6     MT  (+/- 3 meters HH1 GPS)
 AJ7772
 AJ7772                           SUPERSEDED SURVEY CONTROL
 AJ7772
 AJ7772.No superseded survey control is available for this station.
 AJ7772
 AJ7772_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ5044435736(NAD 83)
 AJ7772
 AJ7772_MARKER: DR = REFERENCE MARK DISK
 AJ7772_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AJ7772_STAMPING: KROME NO 2 1971
 AJ7772_MARK LOGO: NGS
```

AJ7772_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ7772_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ7772+STABILITY: SURFACE MOTION
AJ7772_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ7772+SATELLITE: SATELLITE OBSERVATIONS - January 03, 2001
AJ7772
AJ7772 HISTORY - Date Condition Report By
AJ7772 HISTORY - 1972 MONUMENTED NGS
AJ7772 HISTORY - 20010103 GOOD FLDEP
AJ7772
AJ7772 STATION DESCRIPTION
AJ7772
AJ7772'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
AJ7772'THE MARK IS ABOUT 7.5 MI (12.1 KM) NORTH OF HOMESTEAD, 6.5 MI (10.5
AJ7772'KM) SOUTHWEST OF KENDALL, IN SECTION 14, TOWNSHIP 55 SOUTH, RANGE 38
AJ7772'EAST. TO REACH THE MARK FROM THE JUNCTION OF STATE ROAD 997 (KROME
AJ7772'AVENUE SW 177 AVENUE) AND U.S. HIGHWAY 41 (TAMIAMI TRAIL SW 8TH ST)
AJ7772'ABOUT 10.0 MI (16.1 KM) SOUTHWEST OF HIALEAH, GO WEST ON U.S. HIGHWAY
AJ7772'41 (TAMIAMI TRAIL SW 8TH ST) FOR 1.0 MI (1.6 KM) T0 THE WEST END OF
AJ7772'BRIDGE NUMBER 8705851979 AND THE JUNCTION OF A LEVEE ROAD (L-31N) ON
AJ7772'THE WEST SIDE OF THE CANAL, TURN LEFT ON LEVEE ROAD (L-31N) AND GO
AJ7772'SOUTH FOR 8.55 MI (13.76 KM) TO A TURNOUT ON THE RIGHT AND THE MARK ON
AJ7772'THE RIGHT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.2 FT
AJ7772'(6.1 CM) BELOW THE LEVEL OF THE GROUND AND BELOW THE LEVEL OF LEVEE
AJ7772'ROAD, 0.05 MI (0.08 KM) NORTH OF SW 136TH ST (HOWARD DRIVE), (4.7 M)
AJ7772'WEST OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD AND 1.0 FT (0.3
AJ7772'M) SOUTH OF A METAL WITNESS POST. NOTE FOR KEY CONTACT SOUTH FLORIDA
AJ7772'WATER MANAGEMENT DISTRICT AT 2195 NORTHEAST 8TH STREET HOMESTEAD, FL
AJ7772'33033, PHONE 305-242-5955.

*** retrieval complete.
Elapsed Time = 00:00:03

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.8
1         National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AJ7746 ***********************************************************************
 AJ7746  DESIGNATION -  C 237 RESET
 AJ7746  PID         -  AJ7746
 AJ7746  STATE/COUNTY-  FL/MIAMI-DADE
 AJ7746  COUNTRY     -  US
 AJ7746  USGS QUAD   -  COOPERTOWN (1973)
 AJ7746
 AJ7746                        *CURRENT SURVEY CONTROL
 AJ7746  ______________________________________________________________________
 AJ7746* NAD 83(2011) POSITION- 25 45 41.83673(N) 080 30 13.04727(W)   ADJUSTED
 AJ7746* NAD 83(2011) ELLIP HT-   -22.559 (meters)        (06/27/12)   ADJUSTED
 AJ7746* NAD 83(2011) EPOCH   -  2010.00
 AJ7746* NAVD 88 ORTHO HEIGHT -     2.110 (meters)        6.92   (feet) ADJUSTED
 AJ7746  ______________________________________________________________________
 AJ7746  NAD 83(2011) X  -    948,306.945 (meters)                      COMP
 AJ7746  NAD 83(2011) Y  - -5,669,061.720 (meters)                      COMP
 AJ7746  NAD 83(2011) Z  -  2,755,291.820 (meters)                      COMP
 AJ7746  LAPLACE CORR    -         -1.98  (seconds)                     DEFLEC12B
 AJ7746  GEOID HEIGHT    -        -24.668 (meters)                      GEOID12B
 AJ7746  DYNAMIC HEIGHT  -          2.107 (meters)        6.91   (feet) COMP
 AJ7746  MODELED GRAVITY -    979,030.1   (mgal)                        NAVD 88
 AJ7746
 AJ7746  VERT ORDER      -  FIRST     CLASS II
 AJ7746
 AJ7746  Network accuracy estimates per FGDC Geospatial Positioning Accuracy
 AJ7746  Standards:
 AJ7746         FGDC (95% conf, cm)     Standard deviation (cm)     CorrNE
 AJ7746            Horiz  Ellip          SD_N   SD_E   SD_h      (unitless)
 AJ7746  ------------------------------------------------------------------
 AJ7746  NETWORK    1.22   2.04          0.53   0.46   1.04     -0.05257568
 AJ7746  ------------------------------------------------------------------
 AJ7746  Click here for local accuracies and other accuracy information.
 AJ7746
 AJ7746
 AJ7746.The horizontal coordinates were established by GPS observations
 AJ7746.and adjusted by the National Geodetic Survey in June 2012.
 AJ7746
 AJ7746.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AJ7746.frame has been affixed to the stable North American tectonic plate. See
 AJ7746.NA2011 for more information.
 AJ7746
 AJ7746.The horizontal coordinates are valid at the epoch date displayed above
 AJ7746.which is a decimal equivalence of Year/Month/Day.
 AJ7746
 AJ7746.The orthometric height was determined by differential leveling and
 AJ7746.adjusted by the NATIONAL GEODETIC SURVEY
 AJ7746.in March 2002.
 AJ7746
 AJ7746.Significant digits in the geoid height do not necessarily reflect accuracy.
```

AJ7746.GEOID12B height accuracy estimate available here.
AJ7746
AJ7746.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ7746
AJ7746.The Laplace correction was computed from DEFLEC12B derived deflections.
AJ7746
AJ7746.The ellipsoidal height was determined by GPS observations
AJ7746.and is referenced to NAD 83.
AJ7746
AJ7746.The dynamic height is computed by dividing the NAVD 88
AJ7746.geopotential number by the normal gravity value computed on the
AJ7746.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ7746.degrees latitude (g = 980.6199 gals.).
AJ7746
AJ7746.The modeled gravity was interpolated from observed gravity values.
AJ7746
AJ7746. The following values were computed from the NAD 83(2011) position.
AJ7746

AJ7746;		North	East	Units	Scale Factor	Converg.
AJ7746;SPC FL E	-	158,301.085	249,793.335	MT	0.99997178	+0 12 56.7
AJ7746;SPC FL E	-	519,359.48	819,530.30	sFT	0.99997178	+0 12 56.7
AJ7746;UTM 17	-	2,849,379.055	549,776.346	MT	0.99963059	+0 12 56.7

AJ7746

AJ7746!	-	Elev Factor	x	Scale Factor	=	Combined Factor
AJ7746!SPC FL E	-	1.00000354	x	0.99997178	=	0.99997532
AJ7746!UTM 17	-	1.00000354	x	0.99963059	=	0.99963413

AJ7746

AJ7746| PID	Reference Object	Distance	Geod. Az |
AJ7746|			dddmmss.s |
AJ7746| AC4738	J 407	60.548 METERS	10138 |

AJ7746
AJ7746 SUPERSEDED SURVEY CONTROL
AJ7746

AJ7746					
AJ7746	NAD 83(2007)-	25 45 41.83708(N)	080 30 13.04826(W)	AD(2002.00)	0
AJ7746	ELLIP H (02/10/07)	-22.520 (m)		GP(2002.00)	
AJ7746	NAD 83(1999)-	25 45 41.83673(N)	080 30 13.04801(W)	AD( )	1
AJ7746	ELLIP H (12/12/02)	-22.489 (m)		GP( )	4 1
AJ7746	NAVD 88 (12/12/02)	2.11 (m)	6.9 (f)	LEVELING	3

AJ7746
AJ7746.Superseded values are not recommended for survey control.
AJ7746
AJ7746.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ7746.See file dsdata.txt to determine how the superseded data were derived.
AJ7746
AJ7746_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ4977649379(NAD 83)
AJ7746
AJ7746_MARKER: DD = SURVEY DISK
AJ7746_SETTING: 66 = SET IN ROCK OUTCROP
AJ7746_STAMPING: C 237 RESET 9/88
AJ7746_MARK LOGO: NGS
AJ7746_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ7746_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AJ7746+STABILITY: POSITION/ELEVATION WELL
AJ7746_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ7746+SATELLITE: SATELLITE OBSERVATIONS - 2002
AJ7746

AJ7746	HISTORY	- Date	Condition	Report By
AJ7746	HISTORY	- 1988	MONUMENTED	FLDT

```
AJ7746  HISTORY     - 20011012 GOOD            LDBLS
AJ7746  HISTORY     - 2002     GOOD            MAPTEC
AJ7746  HISTORY     - 20080204 GOOD            GCYI
AJ7746
AJ7746                          STATION DESCRIPTION
AJ7746
AJ7746'DESCRIBED BY LD BRADLEY LAND SURVEYORS 2001 (JCH)
AJ7746'THE MARK IS ABOUT 141.3 KM (87.83 MI) SOUTHEAST OF NAPLES, ABOUT 20.3
AJ7746'KM (12.61
AJ7746'MI) WEST OF WEST MIAMI IN DADE COUNTY, FLORIDA. OWNERSHIP - FLORIDA
AJ7746'DEPARTMENT
AJ7746'OF TRANSPORTATION.
AJ7746'
AJ7746'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 41 (TAMIAMI
AJ7746'TRAIL) AND
AJ7746'THE FLORIDA TURNPIKE (ABOUT 8.5 KM (5.25 MI) WEST OF WEST MIAMI), GO
AJ7746'WEST ON
AJ7746'U.S. HIGHWAY 41 (TAMIAMI TRAIL) 9.7 KM (6.0 MI) TO ITS INTERSECTION
AJ7746'WITH STATE
AJ7746'ROAD 997, CONTINUE WEST ON U.S. HIGHWAY 41 2.1 KM (1.32 MI) TO THE
AJ7746'JUNCTION
AJ7746'WITH A PAVED ROAD LEADING NORTH TO WEIR STRUCTURE S344, GO NORTH ALONG
AJ7746'THE
AJ7746'PAVED ROAD (CROSSING A BRIDGE ADJACENT TO WEIR STRUCTURE S344) 0.1 KM
AJ7746'(0.05 MI)
AJ7746'TO THE JUNCTION WITH A ROADWAY BETWEEN A CANAL AND LEVEE, GO WEST ON
AJ7746'THE
AJ7746'ROADWAY BETWEEN CANAL AND LEVEE 0.1 KM (0.08 MI) TO THE MARK ON THE
AJ7746'RIGHT.
AJ7746'
AJ7746'THE MARK IS 124.75 M (409.3 FT) WEST OF THE NORTH-SOUTH CENTERLINE OF
AJ7746'A BRIDGE
AJ7746'SPANNING A CANAL, 64.80 M (212.6 FT) WEST OF A WOOD UTILITY POLE,
AJ7746'48.46 M
AJ7746'(159.0 FT) WEST OF A QWEST COMMUNICATIONS BURIED FIBER OPTIC CABLE
AJ7746'WARNING
AJ7746'MARKER NUMBER 08123, 26.67 M (87.5 FT) SOUTHEAST OF A WOOD UTILITY
AJ7746'POLE, 14.6 M
AJ7746'(48.0 FT) NORTH OF THE NORTH EDGE OF A CANAL, AND 2.41 M (7.9 FT)
AJ7746'SOUTH OF A
AJ7746'CARSONITE WITNESS POST. THE MARK IS A DISK SET FLUSH IN THE TOP OF A
AJ7746'ROCK
AJ7746'OUTCROP FLUSH WITH THE LEVEL OF THE GROUND AND ABOUT 2.29 M (7.5 FT)
AJ7746'BELOW THE
AJ7746'TOP OF THE LEVEE.
AJ7746
AJ7746                          STATION RECOVERY (2002)
AJ7746
AJ7746'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ7746'THE MARK IS ABOUT 141.3 KM (87.83 MI) SOUTHEAST OF NAPLES, ABOUT 20.3
AJ7746'KM (12.61
AJ7746'MI) WEST OF WEST MIAMI IN DADE COUNTY, FLORIDA. OWNERSHIP - FLORIDA
AJ7746'DEPARTMENT
AJ7746'OF TRANSPORTATION.
AJ7746'
AJ7746'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 41 (TAMIAMI
AJ7746'TRAIL) AND
AJ7746'THE FLORIDA TURNPIKE (ABOUT 8.5 KM (5.25 MI) WEST OF WEST MIAMI), GO
AJ7746'WEST ON
AJ7746'U.S. HIGHWAY 41 (TAMIAMI TRAIL) 9.7 KM (6.0 MI) TO ITS INTERSECTION
```

AJ7746'WITH STATE
AJ7746'ROAD 997, CONTINUE WEST ON U.S. HIGHWAY 41 2.1 KM (1.32 MI) TO THE
AJ7746'JUNCTION
AJ7746'WITH A PAVED ROAD LEADING NORTH TO WEIR STRUCTURE S344, GO NORTH ALONG
AJ7746'THE
AJ7746'PAVED ROAD (CROSSING A BRIDGE ADJACENT TO WEIR STRUCTURE S344) 0.1 KM
AJ7746'(0.05 MI)
AJ7746'TO THE JUNCTION WITH A ROADWAY BETWEEN A CANAL AND LEVEE, GO WEST ON
AJ7746'THE
AJ7746'ROADWAY BETWEEN CANAL AND LEVEE 0.1 KM (0.08 MI) TO THE MARK ON THE
AJ7746'RIGHT.
AJ7746'
AJ7746'THE MARK IS 124.75 M (409.3 FT) WEST OF THE NORTH-SOUTH CENTERLINE OF
AJ7746'A BRIDGE
AJ7746'SPANNING A CANAL, 64.80 M (212.6 FT) WEST OF A WOOD UTILITY POLE,
AJ7746'48.46 M
AJ7746'(159.0 FT) WEST OF A QWEST COMMUNICATIONS BURIED FIBER OPTIC CABLE
AJ7746'WARNING
AJ7746'MARKER NUMBER 08123, 26.67 M (87.5 FT) SOUTHEAST OF A WOOD UTILITY
AJ7746'POLE, 14.6 M
AJ7746'(48.0 FT) NORTH OF THE NORTH EDGE OF A CANAL, AND 2.41 M (7.9 FT)
AJ7746'SOUTH OF A
AJ7746'CARSONITE WITNESS POST. THE MARK IS A DISK SET FLUSH IN THE TOP OF A
AJ7746'ROCK
AJ7746'OUTCROP FLUSH WITH THE LEVEL OF THE GROUND AND ABOUT 2.29 M (7.5 FT)
AJ7746'BELOW THE
AJ7746'TOP OF THE LEVEE.
AJ7746'
AJ7746'STATION RECOVERY (2002)
AJ7746'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ7746'RECOVERED AS DESCRIBED.
AJ7746
AJ7746 STATION RECOVERY (2008)
AJ7746
AJ7746'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MDL)
AJ7746'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:03

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.8
1         National Geodetic Survey,   Retrieval Date = MARCH 11, 2016
 AC4738 ***********************************************************************
 AC4738  DESIGNATION -  J 407
 AC4738  PID         -  AC4738
 AC4738  STATE/COUNTY-  FL/MIAMI-DADE
 AC4738  COUNTRY     -  US
 AC4738  USGS QUAD   -  COOPERTOWN (1973)
 AC4738
 AC4738                        *CURRENT SURVEY CONTROL
 AC4738  ______________________________________________________________________
 AC4738* NAD 83(2011) POSITION- 25 45 41.43982(N) 080 30 10.91914(W)   ADJUSTED
 AC4738* NAD 83(2011) ELLIP HT-   -22.718 (meters)        (06/27/12)   ADJUSTED
 AC4738* NAD 83(2011) EPOCH    -  2010.00
 AC4738* NAVD 88 ORTHO HEIGHT -     1.953 (meters)        6.41   (feet) ADJUSTED
 AC4738  ______________________________________________________________________
 AC4738  NAD 83(2011) X  -    948,366.287 (meters)                      COMP
 AC4738  NAD 83(2011) Y  - -5,669,057.030 (meters)                      COMP
 AC4738  NAD 83(2011) Z  -  2,755,280.750 (meters)                      COMP
 AC4738  LAPLACE CORR    -         -1.99  (seconds)                     DEFLEC12B
 AC4738  GEOID HEIGHT    -        -24.669 (meters)                      GEOID12B
 AC4738  DYNAMIC HEIGHT  -          1.950 (meters)        6.40   (feet) COMP
 AC4738  MODELED GRAVITY -    979,030.0   (mgal)                        NAVD 88
 AC4738
 AC4738  VERT ORDER      -  FIRST     CLASS II
 AC4738
 AC4738  Network accuracy estimates per FGDC Geospatial Positioning Accuracy
 AC4738  Standards:
 AC4738         FGDC (95% conf, cm)      Standard deviation (cm)      CorrNE
 AC4738            Horiz  Ellip           SD_N   SD_E   SD_h       (unitless)
 AC4738  ------------------------------------------------------------------
 AC4738  NETWORK    0.42   0.76           0.17   0.17   0.39     -0.06099164
 AC4738  ------------------------------------------------------------------
 AC4738  Click here for local accuracies and other accuracy information.
 AC4738
 AC4738
 AC4738.The horizontal coordinates were established by GPS observations
 AC4738.and adjusted by the National Geodetic Survey in June 2012.
 AC4738
 AC4738.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AC4738.frame has been affixed to the stable North American tectonic plate. See
 AC4738.NA2011 for more information.
 AC4738
 AC4738.The horizontal coordinates are valid at the epoch date displayed above
 AC4738.which is a decimal equivalence of Year/Month/Day.
 AC4738
 AC4738.The orthometric height was determined by differential leveling and
 AC4738.adjusted by the NATIONAL GEODETIC SURVEY
 AC4738.in September 1992.
 AC4738
 AC4738.Significant digits in the geoid height do not necessarily reflect accuracy.
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AC4738.GEOID12B height accuracy estimate available here.
AC4738
AC4738.Photographs are available for this station.
AC4738
AC4738.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AC4738
AC4738.The Laplace correction was computed from DEFLEC12B derived deflections.
AC4738
AC4738.The ellipsoidal height was determined by GPS observations
AC4738.and is referenced to NAD 83.
AC4738
AC4738.The dynamic height is computed by dividing the NAVD 88
AC4738.geopotential number by the normal gravity value computed on the
AC4738.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AC4738.degrees latitude (g = 980.6199 gals.).
AC4738
AC4738.The modeled gravity was interpolated from observed gravity values.
AC4738
AC4738. The following values were computed from the NAD 83(2011) position.
AC4738
AC4738;   North   East   Units Scale Factor Converg.
AC4738;SPC FL E   -   158,289.094   249,852.683   MT 0.99997185   +0 12 57.6
AC4738;SPC FL E   -   519,320.14   819,725.01   sFT 0.99997185   +0 12 57.6
AC4738;UTM 17   - 2,849,367.069   549,835.673   MT 0.99963067   +0 12 57.6
AC4738
AC4738!   - Elev Factor x Scale Factor = Combined Factor
AC4738!SPC FL E   -   1.00000357 x   0.99997185 =   0.99997542
AC4738!UTM 17   -   1.00000357 x   0.99963067 =   0.99963424
AC4738
AC4738|---|
AC4738| PID   Reference Object   Distance   Geod. Az |
AC4738| dddmmss.s |
AC4738| AJ7746 C 237 RESET   60.548 METERS 28138 |
AC4738|---|
AC4738
AC4738   SUPERSEDED SURVEY CONTROL
AC4738
AC4738 NAD 83(2007)- 25 45 41.44017(N)   080 30 10.92012(W) AD(2002.00) 0
AC4738 ELLIP H (02/10/07) -22.679 (m)   GP(2002.00)
AC4738 NAD 83(1999)- 25 45 41.43983(N)   080 30 10.91988(W) AD(   ) A
AC4738 ELLIP H (12/09/02) -22.648 (m)   GP(   ) 4 1
AC4738 NAVD 88 (12/09/02)   1.95   (m)   6.4   (f) LEVELING   3
AC4738 NGVD 29 (09/01/92)   2.427 (m)   7.96   (f) ADJUSTED   1 2
AC4738
AC4738.Superseded values are not recommended for survey control.
AC4738
AC4738.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AC4738.See file dsdata.txt to determine how the superseded data were derived.
AC4738
AC4738_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ4983549367(NAD 83)
AC4738
AC4738_MARKER: F = FLANGE-ENCASED ROD
AC4738_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AC4738_STAMPING: J 407 1992
AC4738_MARK LOGO: NGS
AC4738_PROJECTION: RECESSED 10 CENTIMETERS
AC4738_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AC4738_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AC4738_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AC4738+SATELLITE: SATELLITE OBSERVATIONS - November 15, 2015

AC4738_ROD/PIPE-DEPTH: 10.5 meters
AC4738_SLEEVE-DEPTH : 0.9 meters
AC4738
AC4738 HISTORY - Date Condition Report By
AC4738 HISTORY - 1992 MONUMENTED NGS
AC4738 HISTORY - 20001202 GOOD FLDEP
AC4738 HISTORY - 20011012 GOOD LDBLS
AC4738 HISTORY - 20020301 GOOD MAPTEC
AC4738 HISTORY - 20020529 GOOD MAPTEC
AC4738 HISTORY - 20031001 GOOD FLDEP
AC4738 HISTORY - 20050317 GOOD FLDEP
AC4738 HISTORY - 20050603 GOOD FLDEP
AC4738 HISTORY - 20071208 GOOD MAPTEC
AC4738 HISTORY - 20090722 GOOD DCPW
AC4738 HISTORY - 20120612 GOOD INDIV
AC4738 HISTORY - 20140430 GOOD USGS
AC4738 HISTORY - 20151115 GOOD GEOCAC
AC4738
AC4738 STATION DESCRIPTION
AC4738
AC4738'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AC4738'19.8 KM (12.30 MI) WESTERLY ALONG U.S. HIGHWAY 41 FROM THE POST
AC4738'OFFICE IN WEST MIAMI, THENCE 0.1 KM (0.05 MI) NORTHERLY ALONG A ROAD
AC4738'AT FLOOD GATE NUMBER S 334, 65.2 M (213.9 FT) WEST OF THE CENTER OF
AC4738'THE ROAD AND A BRIDGE SPANNING THE TAMIAMI CANAL, 2.0 M (6.6 FT)
AC4738'WEST-SOUTHWEST OF THE MOST NORTHERLY OF 2 SUPPORT LEGS OF A SIGN
AC4738'(DANGER NO SWIMMING BEYOND THIS POINT), AND 1.6 M (5.2 FT) BELOW THE
AC4738'LEVEL OF THE BRIDGE. NOTE--ACCESS TO THE DATUM POINT IS THROUGH A
AC4738'5-INCH LOGO CAP.
AC4738
AC4738 STATION RECOVERY (2000)
AC4738
AC4738'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AC4738'RECOVERED AS DESCRIBED.
AC4738
AC4738 STATION RECOVERY (2001)
AC4738
AC4738'RECOVERY NOTE BY LD BRADLEY LAND SURVEYORS 2001 (JCH)
AC4738'THE MARK IS ABOUT 141.4 KM (87.87 MI) SOUTHEAST OF NAPLES, ABOUT 20.2
AC4738'KM (12.57
AC4738'MI) WEST OF WEST MIAMI IN DADE COUNTY, FLORIDA. OWNERSHIP - FLORIDA
AC4738'DEPARTMENT
AC4738'OF TRANSPORTATION.
AC4738'
AC4738'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 41 (TAMIAMI
AC4738'TRAIL) AND
AC4738'THE FLORIDA TURNPIKE (ABOUT 8.5 KM (5.25 MI) WEST OF WEST MIAMI), GO
AC4738'WEST ON
AC4738'U.S. HIGHWAY 41 (TAMIAMI TRAIL) 9.7 KM (6.0 MI) TO ITS INTERSECTION
AC4738'WITH STATE
AC4738'ROAD 997, CONTINUE WEST ON U.S. HIGHWAY 41 2.1 KM (1.32 MI) TO THE
AC4738'JUNCTION
AC4738'WITH A PAVED ROAD LEADING NORTH TO WEIR STRUCTURE S344, GO NORTH ALONG
AC4738'THE
AC4738'PAVED ROAD (CROSSING A BRIDGE ADJACENT TO WEIR STRUCTURE S344) 0.1 KM
AC4738'(0.05 MI)
AC4738'TO THE JUNCTION WITH A ROADWAY BETWEEN A CANAL AND LEVEE, GO WEST ON
AC4738'THE
AC4738'ROADWAY BETWEEN CANAL AND LEVEE 0.06 KM (0.04 MI) TO THE MARK ON THE
AC4738'LEFT.

AC4738'
AC4738'THE MARK IS 65.93 M (216.3 FT) WEST OF THE NORTH-SOUTH CENTERLINE OF A
AC4738'BRIDGE
AC4738'SPANNING A CANAL, 16.70 M (54.8 FT) SOUTHWEST OF A WOOD UTILITY POLE,
AC4738'2.53 M
AC4738'(8.3 FT) WEST OF THE SOUTH 12-INCH WOOD POST OF A DOUBLE SUPPORT SIGN
AC4738'(NO
AC4738'BOATING BEYOND THIS POINT), 2.50 M (8.2 FT) NORTH OF THE NORTH EDGE OF
AC4738'A CANAL,
AC4738'2.50 M (8.2 FT) WEST OF A CARSONITE WITNESS POST, AND 2.32 M (7.6 FT)
AC4738'SOUTHWEST
AC4738'OF THE NORTH 12-INCH WOOD POST OF A DOUBLE SUPPORT SIGN (NO BOATING
AC4738'BEYOND THIS
AC4738'POINT). THE DATUM POINT IS THE TOP OF A STAINLESS STEEL ROD RECESSED
AC4738'10 CM
AC4738'(0.32 FT) BELOW THE LEVEL OF THE GROUND, ABOUT THE SAME LEVEL OF THE
AC4738'HIGHWAY
AC4738'AND ENCASED IN A 5-INCH PVC PIPE (ACCESS COVER MISSING).
AC4738
AC4738 STATION RECOVERY (2002)
AC4738
AC4738'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
AC4738'RECOVERED AS DESCRIBED
AC4738
AC4738 STATION RECOVERY (2002)
AC4738
AC4738'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AC4738'STATION RECOVERY (2002)
AC4738'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AC4738'RECOVERED AS DESCRIBED.
AC4738
AC4738 STATION RECOVERY (2003)
AC4738
AC4738'RECOVERY NOTE BY FL DEPT OF ENV PRO 2003 (JLM)
AC4738'RECOVERED AS DESCRIBED.
AC4738
AC4738 STATION RECOVERY (2005)
AC4738
AC4738'RECOVERY NOTE BY FL DEPT OF ENV PRO 2005 (JLM)
AC4738'RECOVERED IN GOOD CONDITION.
AC4738
AC4738 STATION RECOVERY (2005)
AC4738
AC4738'RECOVERY NOTE BY FL DEPT OF ENV PRO 2005 (BPJ)
AC4738'RECOVERED IN GOOD CONDITION.
AC4738
AC4738 STATION RECOVERY (2007)
AC4738
AC4738'RECOVERY NOTE BY MAPTECH INCORPORATED 2007 (BH)
AC4738'RECOVERED AS DESCRIBED
AC4738
AC4738 STATION RECOVERY (2009)
AC4738
AC4738'RECOVERY NOTE BY DOUGLAS COUNTY PUBLIC WORKS 2009 (LER)
AC4738'RECOVERED IN GOOD CONDITION.
AC4738
AC4738 STATION RECOVERY (2012)
AC4738
AC4738'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2012 (SU)
AC4738'RECOVERED AS DESCRIBED

AC4738
AC4738 STATION RECOVERY (2014)
AC4738
AC4738'RECOVERY NOTE BY US GEOLOGICAL SURVEY 2014 (CJW)
AC4738'RECOVERED AS DESCRIBED
AC4738
AC4738 STATION RECOVERY (2015)
AC4738
AC4738'RECOVERY NOTE BY GEOCACHING 2015 (KEN)
AC4738'THE MARK IS ABOUT 141.4 KM (87.9 MI) SOUTHEAST OF NAPLES, ABOUT 20.2
AC4738'KM (12.6 MI) WEST OF WEST MIAMI IN DADE COUNTY, FLORIDA. OWNERSHIP -
AC4738'SOUTH FLORIDA WATER MANAGEMENT DISTRICT - SFWMD.
AC4738'
AC4738'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 41 (TAMIAMI
AC4738'TRAIL) AND THE FLORIDA TURNPIKE (ABOUT 8.5 KM (5.3 MI) WEST OF WEST
AC4738'MIAMI), GO WEST ON U.S. HIGHWAY 41 (TAMIAMI TRAIL) 9.7 KM (6.0 MI) TO
AC4738'ITS INTERSECTION WITH STATE ROAD 997. CONTINUE WEST ON U.S. HIGHWAY
AC4738'41 2.1 KM (1.3 MI) TO THE JUNCTION WITH A PAVED ROAD LEADING NORTH TO
AC4738'WEIR STRUCTURE S344, GO NORTH ALONG THE PAVED ROAD (CROSSING A BRIDGE
AC4738'ADJACENT TO WEIR STRUCTURE S344) 0.1 KM (0.1 MI) TO THE JUNCTION WITH
AC4738'A ROADWAY BETWEEN A CANAL AND LEVEE, GO WEST ON THE ROADWAY BETWEEN
AC4738'CANAL AND LEVEE 0.06 KM (0.04 MI) TO THE MARK ON THE LEFT.
AC4738'
AC4738'THE MARK IS 65.93 M (216.3 FT) WEST OF THE NORTH-SOUTH CENTERLINE OF A
AC4738'BRIDGE SPANNING A CANAL, 16.70 M (54.8 FT) SOUTHWEST OF A WOOD UTILITY
AC4738'POLE, 2.53 M (8.3 FT) WEST OF THE SOUTH 12-INCH (30 CM) WOODEN POST OF
AC4738'A DOUBLE SUPPORT SIGN (NO BOATING BEYOND THIS POINT), 2.50 M (8.2 FT)
AC4738'NORTH OF THE NORTH EDGE OF A CANAL, 2.50 M (8.2 FT) WEST OF A
AC4738'CARSONITE WITNESS POST AND 2.32 M (7.6 FT) SOUTHWEST OF THE NORTH
AC4738'12-INCH (30 CM) WOODEN POST OF A DOUBLE SUPPORT SIGN (NO BOATING
AC4738'BEYOND THIS POINT). THE DATUM POINT IS THE TOP OF A STAINLESS STEEL
AC4738'ROD RECESSED 10 CM (4 INCHES) BELOW THE LEVEL OF THE GROUND, ABOUT THE
AC4738'SAME LEVEL OF THE HIGHWAY AND ENCASED IN A 5-INCH (13 CM) PVC PIPE
AC4738'(ACCESS COVER MISSING).

*** retrieval complete.
Elapsed Time = 00:00:03