D046	87-91-DA31-A2 M1K0040	87-91-DA 31 _ D039	27-91-DA28 - D036	р030	D025	р023	D022	ס20ם	0017	D016	D011	D010	D002	D001	в131	в130	B129
East North	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height	East North Ortho height
934451.861 490286.202	932162.327 509567.654 6.873/	934011.626 507770.233 7.572	938321.359 514195.295 1.614	944694.011 536158.236 7.714	945589.128 543446.865 5.768	945926.043 550787.345 8.138	945880.834 552101.655 9.756	945800.494 554682.805 9.222	945518.394 560363.311 9.370	945359.790 562049.806 9.790	944497.112 573797.007 9.719	944582.182 576922.361 11.966	945419.835 594496.166 8.968	945531.407 596639.469 7.451	945744.244 608213.187 2.393	945884.422 611052.261 27.772	945924.041 619087.618 25.421
0.025	0.011 0.009 0.013	0.011	0.014 0.011 0.019	0.012 0.010 0.016	0.017 0.013 0.025	0.017 0.013 0.024	0.016 0.013 0.022	0.016 0.012 0.022	0.018 0.014 0.023	0.018 0.014 0.023	0.010 0.008 0.012	0.012 0.010 0.014	0.020 0.015 0.026	0.020 0.015 0.026	0.018 0.013 0.024	0.018 0.014 0.025	0.014 0.011 0.017
Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted	Adjusted Adjusted Adjusted

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data sheets

511160.470,935180.870, 4.150,R08591 135.00 R-85 DADE CO 91 510699.950,934302.460, 1.800,T08678 155.00 T-86 DADE CO 78 510020.590,933414.900, 3.800,T08778 155.00 T-87 DADE CO 78 509567.654,932162.327, 6.873,\*D040 87 91 DA31 AZ MK 509358.750,932396.810, 3.530,R08874 135.00 DADE CO R 88 74 **DADE CO R-73 91** 513081.540,937758.640, 5.400,R08291 120.00 R-82 DADE CO 91 512099.080,936946.160, 6.240,R08391 120.00 R-83 DADE CO 91 **DADE CO R 75 74 DADE CO R 77 74** DADE CO R 78 74 513724.810,937879.440, 4.930,R08191 120.00 R-81 DADE CO 91 R-84 DADE CO 91 **DADE CO R-71 91 DADE CO R 74 74** 5.600,R05974 110.00 DADE CO R 59 74 6.710, R06074 110.00 DADE CO R 60 74 534670.390,944168.100,10.160,R06191 110.00 DADE CO R-61 91 8.900,R06291 110.00 DADE CO R-62 91 5.880,R06374 110.00 DADE CO R 63 74 110.00 DADE CO R 67 91 110.00 DADE CO R-68 91 110.00 DADE CO R-69 91 526510.721,924281.674, 4.101,\*D087\* MH 16 (3165) 525810.090,942156.010, 7.460,R07091 110.00 DADE CO R-70 91 T-76 DADE CO 78 90.00 R-79 DADE CO 91 95.00 R-80 DADE CO 91 508022.370,935019.110, 3.090,R09091 0.00 R-90 DADE CO 91 5.00 DADE CO R 89 74 **DADE CO R 51 74** DADE CO R 54 74 **DADE CO R-55 91** 105.00 DADE CO R 57 74 90.00 DADE CO R 65 74 **DADE CO R 52 74** 551090.610,945706.550, 7.140,R04574 90.00 DADE CO R 45 74 95.00 DADE CO R 47 74 DADE CO R-48 91 DADE CO R-53 537465.400,944803.580, 4.220,R05874 110.00 DADE CO R 58 **78 VIALINKINK** 523703.790,942074.140, 8.640,R07297 105.00 R72 DA 97 550155.020,945841.580,10.250,R04697 105.00 R46 DA 97 110.00 R64 DA 97 90.00 R66 DA 97 R50 DA 97 R56 DA 97 87-91-DA-31 95.00 R49 DA 97 87-91-DA-23 87 91 DA28 91 DA19 91 DA21 87 91 DA17 BRUCE 3214 H **D764** 524700.850,942268.690,11.630,R07191 100.00 130.00 522614.000,942050.170,10.970,R07391 100.00 31 105.00 87 521610.720,941726.640, 8.300,R07474 100.00 4.140,R07574 130.00 518551.340,940065.920, 5.320,R07774 120.00 511489.160,936164.270, 3.510,R08491 120.00 95.00 95.00 105.00 105.00 120.00 105.00 87 105.00 105.00 507761.690,934044.790, 3.380, R08974 5.130,R07874 542915.190,945486.130,10.400,R05391 9.950, R06497 7.330,R06991 519495.680,940495.390, 6.050, T07678 515591.710,938317.190, 4.100,R07991 514578,110,938282,130, 4.620,R08091 509553.214,932113.849, 7.362,\*D088 509451.003,932112.045, 7.185,\*D084\* 541718.850,945096.150, 6.940,R05474 8.900, R06291 5.470, R06574 6.550, R06891 4.520,R05774 6.200, R06791 549063,500,945491,620, 6.710,R04774 548123.750,945672.710,10.240,R04891 6.310,R05174 6.400, R05274 540562.760,945348.150, 9.770,R05591 8.340, R06697 7.247, \*D086\* 9.350, R04997 9.550, R05097 9.150,R05697 1.614/\*D036 7.549, \*D028\* 7.956,\*D764 543446.865,945589.128, 5.768,\*D025 7.714,\*D030 550787.345,945926.043, 8.138,\*D023 507770.233,934011.626, 518145.950,939399.670, 514195.295,938321.359, 520210.760,941117.290, 521029.740,942080.752, 537990.589,945019.370, 536158.236,944694.011, 535623.760,944332.840, 533813.450,943889.300, 532116.650,943354.300, 531158.710,942917.930. 529030.670,942758.210, 528016.110,942618.970, 526948.010,942493.170, 532917.870,943430.240, 532361.407,943482.380, 529990.870,942988.080, 547140.140,945705.490, 546123.840,945760.460, 545215.080,945435.000, 544030.330,945517.930, 539491.030,945195.060, 536480.520,944637.400, 538459.140,944915.030,

TOWER.

US DEPARTMENT OF COMMERCE - NOAA HORIZONTAL CONTROL DATA
NOS - NATIONAL GEODETIC SURVEY NORTH AMERICAN DATUM 1927 NOS - NATIONAL GEODETIC SURVEY ROCKVILLE MD 20852 - JUL 1980

PROJECT ACCESSION NUMBER 14831

PAGE 053 QUAD N25080124 QSN 0010 CONTROL DIAGRAM NG 17-8 FL-DADE COUNTY

HORIZONTAL CONTROL STATION: CAPE FLORIDA LIGHTHOUSE OLD TOWER GEODETIC POSITION DATA----- STATION INFORMATION-----TYPE: 1ST-ORDER TRIANGULATION DEG MIN SECONDS LATITUDE: 25 39 58.35582N

LONGITUDE: 80 09 22.30462W

AZIMUTH 1: 187 30 24.5 FROM SOUTH

OBSERVATIONS BY US COAST AND GEODETIC SURVEY (NOW NOS) IN 1907

AZIMUTH REFERENCE OBJECT 1: MIAMI BEACH TANK 1918 ELEVATION DETERMINED BY TRIGONOMETRIC LEVELING **ELEVATION:** 30.4 METERS 99.7 FEET GEOID HEIGHT: 10.0 METERS X Y X/EASTING Y/NORTHING POINT SCALE CONVERGENCE GRID AZIMUTH 1 GRID AZIMUTH 2 FACTOR DEG MIN SEC DEG MIN SEC FEET GRID ZONE FEET METERS METERS FL-TM E 777937.48 485240.69 237115.818 147901.659 1.00002976 +0 21 55.8 187 08 28.7\* 584686.616 2838828.619 0.99968856 +0 21 55.8 7 08 28.7\* UTM 17 -17918.534 2848670.431 1.00291398 -2 14 17.8 9 44 42.3\* UTM 18 23/90 934,174.471 485,400.467 \*CAUTION - ARC-TO-CHORD CORRECTION ASSUMED ZERO STATION DESCRIPTION-----YEAR DESCRIBED: 1883 CHIEF OF PARTY: OHT CODE-- MARK----- TYPE OF MARK----- SETTING/LANDMARK TYPE----- MAGNETIC PROPERTY L55 SURFACE LANDMARK TOWER NO DESCRIPTIVE TEXT. RECOVERY BY: US COAST AND GEODETIC SURVEY (NOW NOS) IN 1907 CONDITION: GOOD CODE-- MARK----- TYPE OF MARK----- SETTING/LANDMARK TYPE----- MAGNETIC PROPERTY 155 SURFACE LANDMARK TOWER STATION IS THE CENTER OF THE LANTERN ON THE OLD LIGHTHOUSE ON THE S END OF KEY BISCAYNE, KNOWN AS CAPE FLORIDA. THIS STRUCTURE HAS BEEN ABANDONED AS A LIGHT, AND THE LAND ON WHICH IT STANDS IS NOW THE PROPERTY OF W.S. DAVIS. RECOVERY BY: US COAST AND GEODETIC SURVEY (NOW NOS) IN 1918 CONDITION: GOOD CHIEF OF PARTY: HL CODE-- MARK----- TYPE OF MARK----- SETTING/LANDMARK TYPE----- MAGNETIC PROPERTY TOWER L55 SURFACE LANDMARK SEA WAS WASHING AROUND BASE AND UNDERMINING TOWER. TOWER IS BEING UNDERPINNED BY STEEL GIRDERS AND WILL PROBABLY STAND FOR SOME TIME. LANTERN IS NOT IN PLACE BUT INSTRUMENT CAN BE SET UP ON LANTERN BASE WHICH IS IN THE CENTER OF THE

US DEPARTMENT OF COMMERCE - NOAA NOS - NATIONAL GEODETIC SURVEY ROCKVILLE MD 20852 - JUL 1980

HORIZONTAL CONTROL DATA NORTH AMERICAN DATUM 1927 PROJECT ACCESSION NUMBER 14831 PAGE 054
QUAD N25080124 QSN 0010
CONTROL DIAGRAM NG 17-8
FL-DADE COUNTY

HURIZUNTAL CONTROL	STATION	NAME:	CAPE	FLORIDA	LIGHTHOUSE	OLD	TOWER	-	CONTINUED
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RECOVERY		
RECOVERY BY: US COAST AND GEODETIC SUCHIEF OF PARTY: GCM	JRVEY (NOW NOS) IN 1928	CONDITION: GOOD
CODE MARK TYPE OF MARK L55 SURFACE LANDMARK	TOWER SETTING/LANDMARK TYPE	MAGNETIC PROPERTY
STATION RECOVERED AS DESCRIBED. NO CHOONDITION.	IANGES IN THE TOWER WERE NOTED. THE ST	FAIRWAY TO THE LAMP ROOM IS IN POOR
The war den and day way ago and a		
CHIEF OF PARTY: CS	RVEY (NOW NOS) IN 1930	
CODE MARK TYPE OF MARK L55 SURFACE LANDMARK	SETTING/LANDMARK TYPE	MAGNETIC PROPERTY
STATION RECOVERED AS DESCRIBED. THE E WINDOW 20 FEET ABOVE THE EASTERLY FOOT	NTRANCES TO THE TOWER HAVE BEEN WALLED ING OF THE TOWER.	UP, AND ACCESS CAN BE HAD ONLY THROUGH A
RECOVERY		
RECOVERY BY: US COAST AND GEODETIC SU CHIEF OF PARTY: HAC	RVEY (NOW NOS) IN 1934	CONDITION: GOOD
L51 REFERENCE LANDMARK	TOWER TANK SET IN THE CENTER OF A CLAY TILE PIPE	IMBEDDED IN THE CROUND
CODE REFERENCE OBJECT H L51 MIAMI BEACH WATER TANK D22 REFERENCE MARK 2		DIRECTION MAGNETIC PROPERTY 000 00 00.0 UNKNOWN 327 18 38.8 UNKNOWN

STATION IS THE PINNACLE ON TOP OF OLD LIGHTHOUSE ON S END OF KEY BISCAYNE KNOWN AS CAPE FLORIDA. THIS STRUCTURE HAS BEEN ABANDONED AS A LIGHT. THE INSTRUMENT CAN BE SET UP ON LANTERN BASE. FOUNDATION AND WALLS OF TOWER APPEAR TO BE IN GOOD CONDITION. THE IRON STAIRWAY INSIDE TOWER IS BADLY RUSTED AND SEVERAL SECTIONS HAS BEEN REPLACED WITH WOODEN LADDERS. THE ENTRANCE TO THE TOWER HAVE BEEN WALLED UP, AND ACCESS CAN BE HAD ONLY THROUGH A WINDOW 20 FEET ABOVE THE EASTERLY FOOTING OF THE TOWER.

TWO NEW REFERENCE MARKS STANDARD DISKS SET IN CONCRETE IN THE TOP OF A TILE WERE ESTABLISHED.

(CONTINUED ON NEXT PAGE)

US DEPARTMENT OF COMMERCE - NOAA NOS - NATIONAL GEODETIC SURVEY ROCKVILLE MD 20852 - JUL 1980

RECOVERY BY: NATIONAL GEODETIC SURVEY IN 1972

CHIEF OF PARTY: HLM

L55 SURFACE LANDMARK

## HORIZONTAL CONTROL DATA NORTH AMERICAN DATUM 1927 PROJECT ACCESSION NUMBER 14831

PAGE 055 QUAD N25080124 QSN 0010 CONTROL DIAGRAM NG 17-8 CONTROL DIAGRAM NG 17-8 FL-DADE COUNTY

CONDITION: GOOD

TOWER

HORIZONTAL CONTROL STATION NAME: CAPE FLORIDA LIGHTHOUSE OLD TOWER - CONTINUED RECOVERY------RECOVERY BY: US COAST AND GEODETIC SURVEY (NOW NOS) IN 1935 CONDITION: GOOD CHIEF OF PARTY: ERM CODE-- MARK----- TYPE OF MARK----- SETTING/LANDMARK TYPE----- TYPE OF MARK----- MAGNETIC PROPERTY L55 SURFACE LANDMARK TOWER STATION RECOVERED AS DESCRIBED. LADDER MENTIONED IS NOW IN FAIR CONDITION. STATION ACCESSIBLE BY ROAD DURING THE DRY RECOVERY BY: US COAST AND GEODETIC SURVEY (NOW NOS) IN 1967 CONDITION: GOOD CHIEF OF PARTY: GMW CODE-- MARK----- TYPE OF MARK----- SETTING/LANDMARK TYPE----- TYPE OF MARK----- MAGNETIC PROPERTY L55 SURFACE LANDMARK TOWER THE STATION RECOVERED IN FAIR CONDITION. AREA WAS COMMISSIONED CAPE FLORIDA STATE PARK IN JANUARY, 1967. PRESENT PLANS ARE TO DO EXTENSIVE RESTORATION WORK ON THE TOWER LATER THIS YEAR. REFERENCE MARKS NO. 1 AND 2 WERE NOT RECOVERED AFTER A SHORT SEARCH. AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN 7 MILES SOUTH-SOUTHEAST OF MIAMI. RECOVERY-----RECOVERY BY: NATIONAL GEODETIC SURVEY IN 1971 CONDITION: GOOD CHIEF OF PARTY: JCL CODE-- MARK----- TYPE OF MARK----- MAGNETIC PROPERTY L55 SURFACE LANDMARK TOWER THE TOP OF THE OLD LIGHT HOUSE HAS BEEN REMOVED AND WAS REPLACED BY A NEW ONE. THIS STATION CANNOT BE OCCUPIED AND THE APEX OF VENT AT TOP CENTER IS THE STATION. THE TOWER IS A ROUND, BRICK STRUCTURE WITH A BLACK CAB ON TOP, IT IS APPROXIMATELY 100 FEET HIGH. THE STATION IS LOCATED ON THE SOUTH END OF KEY BISCAYNE. IN THE CAPE FLORIDA STATE PARK. RECOVERY------

(CONTINUED ON NEXT PAGE)

CODE-- MARK----- TYPE OF MARK----- SETTING/LANDMARK TYPE----- TYPE OF MARK----- MAGNETIC PROPERTY

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HORIZONTAL CONTROL DATA NORTH AMERICAN DATUM 1927 PROJECT ACCESSION NUMBER 14831

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HORIZONTAL CONTROL STATION NAME: CAPE FLORIDA LIGHTHOUSE OLD TOWER - CONTINUED

THE TOP OF THE OLD LIGHT HOUSE HAS BEEN REMOVED AND REPLACED BY A NEW ONE (THE TOWER IS A ROUND BRICK STRUCTURE WITH A BLACK CAB ON TOP, IT IS APPROXIMATELY 100 FEET HIGH). A GEODIMETER TRAVERSE TIE WAS MADE FROM TRIANGULATION STATION CAPE TO THE CENTER OF THE METAL PLATFORM WHERE THE LIGHT HAS BEEN MOUNTED IN TOP OF THE TOWER. THE DISTANCE BEING 119.649 METERS.

THE STATION IS LOCATED ON THE SOUTH END OF KEY BISCAYNE, IN THE CAPE FLORIDA STATE PARK.

RECOVERY-----CONDITION: GOOD

RECOVERY BY: NATIONAL GEODETIC SURVEY IN 1975 CHIEF OF PARTY: RRW

CODE-- MARK----- TYPE OF MARK----- SETTING/LANDMARK TYPE----- TYPE OF MARK----- MAGNETIC PROPERTY L55 SURFACE LANDMARK TOWER

STATION RECOVERED AS DESCRIBED.