

1 National Geodetic Survey, Retrieval Date = August 3, 2007  
 JV0128 \*\*\*\*\*

**P9130**

JV0128 DESIGNATION - SWAN  
 JV0128 PID - JV0128  
 JV0128 STATE/COUNTY- MD/HARFORD  
 JV0128 USGS QUAD - ABERDEEN (1985)  
 JV0128  
 JV0128 \*CURRENT SURVEY CONTROL  
 JV0128  
 JV0128\* NAD 83(1991)- 39 32 54.49529(N) 076 10 06.43452(W) ADJUSTED  
 JV0128\* NAVD 88 - 81.155 (meters) 266.26 (feet) ADJUSTED  
 JV0128  
 JV0128 X - 1,177,366.983 (meters) COMP  
 JV0128 Y - -4,782,012.292 (meters) COMP  
 JV0128 Z - 4,039,485.252 (meters) COMP  
 JV0128 LAPLACE CORR- -2.43 (seconds) DEFLEC99  
 JV0128 ELLIP HEIGHT- 48.179 (meters) (09/18/02) GPS OBS  
 JV0128 GEOID HEIGHT- -32.98 (meters) GEOID03  
 JV0128 DYNAMIC HT - 81.114 (meters) 266.12 (feet) COMP  
 JV0128 MODELED GRAV- 980,130.4 (mgal) NAVD 88  
 JV0128  
 JV0128 HORZ ORDER - SECOND  
 JV0128 VERT ORDER - SECOND CLASS 0  
 JV0128 ELLP ORDER - FOURTH CLASS II  
 JV0128

JV0128.The horizontal coordinates were established by classical geodetic methods  
 and adjusted by the National Geodetic Survey in January 1992.  
 JV0128  
 JV0128.The orthometric height was determined by differential leveling  
 and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.  
 JV0128  
 JV0128.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 JV0128  
 JV0128.The Laplace correction was computed from DEFLEC99 derived deflections.  
 JV0128  
 JV0128.The ellipsoidal height was determined by GPS observations  
 and is referenced to NAD 83.  
 JV0128  
 JV0128.The geoid height was determined by GEOID03.  
 JV0128  
 JV0128.The dynamic height is computed by dividing the NAVD 88  
 geopotential number by the normal gravity value computed on the  
 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
 degrees latitude (g = 980.6199 gals.).  
 JV0128  
 JV0128.The modeled gravity was interpolated from observed gravity values.

	North	East	Units	Scale	Factor	Converg.
JV0128; SPC MD	- 209,222.026	471,474.755	MT	1.00001871	+0 31 18.9	
JV0128; SPC MD	- 686,422.60	1,546,830.09	sFT	1.00001871	+0 31 18.9	
JV0128; UTM 18	- 4,378,295.725	399,605.958	MT	0.99972409	-0 44 38.6	
JV0128!	- Elev Factor	x Scale Factor	=	Combined Factor		
JV0128! SPC MD	- 0.99999244	x 1.00001871	=	1.00001115		
JV0128! UTM 18	- 0.99999244	x 0.99972409	=	0.99971653		

JV0128  
 JV0128: Primary Azimuth Mark Grid Az  
 JV0128:SPC MD - SWAN RM 3 154 10 26.2  
 JV0128:UTM 18 - SWAN RM 3 155 26 23.7

JV0128

PID	Reference Object	Distance	Geod. Az ddmmss.s
JV0127	SWAN RM 3		1544145.1
JV0126	SWAN AZ MK	380.106 METERS	15737
JV0129	SWAN RM 1	22.820 METERS	16046
JV0130	SWAN RM 2	27.111 METERS	26351
JV4801	CHAPEL HILL RESERVOIR TANK	APPROX. 1.3 KM	3465018.1

JV0128  
 JV0128 SUPERSEDED SURVEY CONTROL

JV0128 ELLIP H (01/27/92) 48.170 (m) GP( ) 4 1  
 JV0128 NAD 83(1986)- 39 32 54.49038(N) 076 10 06.43919(W) AD( ) 2  
 JV0128 NAD 27 - 39 32 54.09910(N) 076 10 07.61240(W) AD( ) 2  
 JV0128 NGVD 29 (??/??/??) 81.417 (m) 267.12 (f) ADJUSTED 2 0

JV0128 Superseded values are not recommended for survey control.  
 JV0128 NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 JV0128 [See file dsdata.txt](#) to determine how the superseded data were derived.

JV0128 U.S. NATIONAL GRID SPATIAL ADDRESS: 18SUJ9960678296(NAD 83)  
 JV0128\_MARKER: DS = TRIANGULATION STATION DISK  
 JV0128\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT  
 JV0128\_SP\_SET: CONCRETE POST  
 JV0128\_STAMPING: SWAN 1958  
 JV0128\_MARK LOGO: CGS  
 JV0128\_MAGNETIC: N = NO MAGNETIC MATERIAL  
 JV0128\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
 JV0128+STABILITY: SURFACE MOTION  
 JV0128\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 JV0128+SATELLITE: SATELLITE OBSERVATIONS - October 01, 1989

JV0128

HISTORY	Date	Condition	Report By
JV0128	1958	MONUMENTED	CGS
JV0128	1959	GOOD	CGS
JV0128	1973	GOOD	NGS
JV0128	1973	GOOD	NGS
JV0128	19891001	GOOD	RDA
JV0128	19970418	GOOD	DMW

JV0128  
 JV0128 STATION DESCRIPTION

JV0128 'DESCRIBED BY COAST AND GEODETIC SURVEY 1958 (JCE)  
 JV0128 'THE STATION IS ABOUT 3-1/2 MILES WEST OF HAVRE DE GRACE, ABOUT  
 JV0128 '2-1/2 MILES NORTH OF ABERDEEN, 0.05 MILE WEST OF STATE HIGHWAY 462  
 JV0128 'AND IS IN THE APPROXIMATE CENTER OF A CIRCLE DRIVEWAY. IT IS  
 JV0128 '21 FEET NORTH OF DRIVEWAY, 20 FEET SOUTH OF DRIVEWAY AND 61-1/2  
 JV0128 'FEET NORTHEAST OF THE NORTHEAST CORNER OF BARN. THE MARK IS A  
 JV0128 'STANDARD TRIANGULATION MARK DISK SET IN A 12X12 INCH CONCRETE  
 JV0128 'POST WHICH IS SET FLUSH AND THE DISK IS STAMPED SWAN 1958.  
 JV0128 '

JV0128'REFERENCE MARK NO. 1 IS 37 FEET SOUTHEAST OF THE NORTHEAST  
JV0128'CORNER OF BARN, 14 FEET NORTH OF THE NORTHEAST CORNER OF CINDER  
JV0128'BLOCK MILK HOUSE AND 1/2 FOOT WEST OF BOARD FENCE. THE MARK IS  
JV0128'STANDARD REFERENCE MARK DISK SET IN A 12X12 INCH CONCRETE POST  
JV0128'WHICH IS SET FLUSH AND THE DISK IS STAMPED SWAN NO 1 1958.

JV0128'

JV0128'REFERENCE MARK NO. 2 IS 49-1/2 FEET NORTH OF THE CENTER OF  
JV0128'WOODEN GATE AND FIELD DRIVE, 40 FEET WEST OF DRIVEWAY, 13 FEET  
JV0128'SOUTH OF OLD CAR PORT AND 1/2 FOOT EAST OF BOARD FENCE. THE MARK  
JV0128'IS A STANDARD REFERENCE MARK DISK SET IN A 12X12 INCH CONCRETE  
JV0128'POST WHICH IS SET FLUSH AND THE DISK IS STAMPED SWAN NO 2 1958.

JV0128'

JV0128'AZIMUTH MARK IS 28-1/2 FEET NORTHWEST OF CENTER OF ROAD, 16 FEET  
JV0128'NORTH OF FENCE LINE 10-1/2 FEET WEST OF POWER POLE NO. 6, 3 FEET  
JV0128'NORTHWEST OF FENCE LINE AND 3 FEET NORTH-NORTHWEST OF WITNESS  
JV0128'POST. THE MARK IS A STANDARD AZIMUTH MARK DISK SET IN A 12X12  
JV0128'INCH CONCRETE POST WHICH IS SET FLUSH AND THE DISK IS STAMPED  
JV0128'SWAN 1958.

JV0128'

JV0128'TO REACH THE STATION FROM THE POST OFFICE IN ABERDEEN, GO  
JV0128'NORTHWEST ON STATE HIGHWAY 22 FOR 0.55 MILE TO THE JUNCTION OF  
JV0128'STATE HIGHWAY 462, TURN RIGHT AND FOLLOW STATE HIGHWAY 462  
JV0128'NORTHERLY FOR 2.25 MILES TO THE AZIMUTH MARK ON TOP OF HIGH  
JV0128'EMBANKMENT ON LEFT AS DESCRIBED. CONTINUE NORTH ON STATE HIGHWAY  
JV0128'462 FOR 0.25 MILE TO GRAVEL DRIVEWAY LEFT, TURN LEFT AND GO WEST  
JV0128'FOR 0.05 MILE TO THE STATION IN CENTER OF A CIRCLE DRIVEWAY AS  
JV0128'DESCRIBED.

JV0128'

JV0128'HEIGHT OF LIGHT ABOVE STATION MARK 30 METERS.

JV0128

JV0128

JV0128

STATION RECOVERY (1959)

JV0128'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1959

JV0128'3.1 MI NE FROM ABERDEEN.

JV0128'ABOUT 0.6 MILE NORTHWEST ALONG STATE HIGHWAY 22 FROM THE POST  
JV0128'OFFICE AT ABERDEEN, THENCE 2.5 MILES NORTHWEST ALONG STATE  
JV0128'HIGHWAY 462, ABOUT 100 YARDS WEST OF THE HIGHWAY, NEAR A LARGE  
JV0128'FARM HOUSE, NEAR THE APPROXIMATE CENTER OF A CIRCLE DRIVEWAY,  
JV0128'61 FEET NORTHEAST OF THE NORTHEAST CORNER OF A LARGE DAIRY BARN,  
JV0128'21 FEET NORTH OF THE CENTER LINE OF A DRIVEWAY, SET IN THE TOP  
JV0128'OF A CONCRETE POST FLUSH WITH THE GROUND.

JV0128

JV0128

JV0128

STATION RECOVERY (1973)

JV0128'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1973 (LFS)

JV0128'THE STATION AND ALL MARKS WERE RECOVERED AND FOUND IN GOOD  
JV0128'CONDITION. THE DIRECTION TO ALL MARKS WERE WITHIN CLOSE AGREEMENT  
JV0128'WITH THE 1958 OBSERVATIONS. THE DISTANCES STATED IN THE 1958  
JV0128'DESCRIPTION APPEARED TO BE SLOPE DISTANCES THEREFOR A SHORTED  
JV0128'DISTANCE TO BOTH MARKS WERE NOTED. THE AZIMUTH MARK WHICH WAS  
JV0128'SET IN 1958 IS IN THE AREA OF CONSTRUCTION AND WILL BE DESTROYED  
JV0128'1 JULY 1973. A NEW RM 3 (AZ MK) WAS ESTABLISHED AT THIS DATE.

JV0128'

JV0128'THE STATION IS LOCATED 3-1/2 MILES WEST OF HAVRE DE GRACE, 2  
JV0128'1/2 MILES NORTH OF ABERDEEN, AND ABOUT 0.15 MILE NORTH OF  
JV0128'INTERSTATE HIGHWAY 95. THE PROPERTY OWNERS NAME WAS NOT OBTAINED  
JV0128'AT THIS TIME.





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1      National Geodetic Survey,  Retrieval Date = August 3, 2007
JV6862 *****
JV6862 DESIGNATION - SWAN AZ MK 2
JV6862 PID - JV6862
JV6862 STATE/COUNTY- MD/HARFORD
JV6862 USGS QUAD - ABERDEEN (1985)
JV6862
JV6862 *CURRENT SURVEY CONTROL
JV6862
JV6862* NAD 83(1991)- 39 32 48.04571(N) 076 10 01.68411(W) ADJUSTED
JV6862* NAVD 88 - 75.2 (meters) 247. (feet) VERTCON
JV6862
JV6862 X - 1,177,506.299 (meters) COMP
JV6862 Y - -4,782,103.694 (meters) COMP
JV6862 Z - 4,039,328.082 (meters) COMP
JV6862 LAPLACE CORR- -2.45 (seconds) DEFLEC99
JV6862 ELLIP HEIGHT- 42.225 (meters) (09/18/02) GPS OBS
JV6862 GEOID HEIGHT- -32.99 (meters) GEOID03
JV6862
JV6862 HORZ ORDER - FIRST
JV6862 ELLP ORDER - FOURTH CLASS II
JV6862
JV6862.The horizontal coordinates were established by GPS observations
JV6862.and adjusted by the National Geodetic Survey in January 1992.
JV6862
JV6862.The NAVD 88 height was computed by applying the VERTCON shift value to
JV6862.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
JV6862
JV6862.The X, Y, and Z were computed from the position and the ellipsoidal ht.
JV6862
JV6862.The Laplace correction was computed from DEFLEC99 derived deflections.
JV6862
JV6862.The ellipsoidal height was determined by GPS observations
JV6862.and is referenced to NAD 83.
JV6862
JV6862.The geoid height was determined by GEOID03.
JV6862
JV6862;
JV6862;SPC MD - North East Units Scale Factor Converg.
JV6862;SPC MD - 209,024.156 471,589.988 MT 1.00001834 +0 31 21.8
JV6862;SPC MD - 685,773.42 1,547,208.15 sFT 1.00001834 +0 31 21.8
JV6862;UTM 18 - 4,378,095.417 399,716.759 MT 0.99972382 -0 44 35.5
JV6862
JV6862! - Elev Factor x Scale Factor = Combined Factor
JV6862!SPC MD - 0.99999338 x 1.00001834 = 1.00001172
JV6862!UTM 18 - 0.99999338 x 0.99972382 = 0.99971720
JV6862
JV6862 SUPERSEDED SURVEY CONTROL
JV6862
JV6862 ELLIP H (01/27/92) 42.215 (m) GP( ) 4 1
JV6862 NAD 83(1986)- 39 32 48.04025(N) 076 10 01.68875(W) AD( ) 1
JV6862 NGVD 29 (06/18/91) 75.5 (m) 248. (f) GPS OBS
JV6862
JV6862.Superseded values are not recommended for survey control.
JV6862.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
JV6862.See file dsdata.txt to determine how the superseded data were derived.
JV6862
JV6862_U.S. NATIONAL GRID SPATIAL ADDRESS: 18SUJ9971778095(NAD 83)

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JV6862\_MARKER: DZ = AZIMUTH MARK DISK  
 JV6862\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT  
 JV6862\_SP\_SET: CONCRETE POST  
 JV6862\_STAMPING: SWAN 2 1989  
 JV6862\_MARK LOGO: MD-025  
 JV6862\_MAGNETIC: N = NO MAGNETIC MATERIAL  
 JV6862\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
 JV6862+STABILITY: SURFACE MOTION  
 JV6862\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 JV6862+SATELLITE: SATELLITE OBSERVATIONS - 1989

JV6862	HISTORY	- Date	Condition	Report By
JV6862	HISTORY	- 1989	MONUMENTED	RDA
JV6862	HISTORY	- 19970418	GOOD	DMW

JV6862  
 JV6862 STATION DESCRIPTION  
 JV6862

JV6862'DESCRIBED BY RINKER DETWILER AND ASSOCIATES 1989  
 JV6862'TO REACH THE AZIMUTH MARK FROM THE STATION PROCEED EAST ALONG PRIVATE  
 JV6862'DRIVE 0.05 MILE TO ITS INTERSECTION WITH HIGHWAY 462, PARADISE ROAD.  
 JV6862'TURN LEFT AND PROCEED SOUTH ALONG HIGHWAY 462, PARADISE ROAD 0.1 MILE  
 JV6862'TO THE U.S. HIGHWAY 95 OVERPASS AND THE MARK ON THE RIGHT.  
 JV6862'THE MARK IS A STANDARD HARFORD COUNTY AZIMUTH DISK SET IN CONCRETE  
 JV6862'ABOUT 1 INCH BELOW GROUND STAMPED SWAN 2 1989. THE MARK IS 7.0  
 JV6862'SOUTHWEST OF THE SOUTHWEST CORNER OF A CONCRETE DRAINAGE DITCH, 8.3  
 JV6862'FEET WEST OF THE NORTHWEST CORNER OF THE BRIDGE ABUTMENT, 5.0 FEET  
 JV6862'NORTHWEST OF THE GUARD RAIL, AND 751.24 FEET FROM THE STATION.

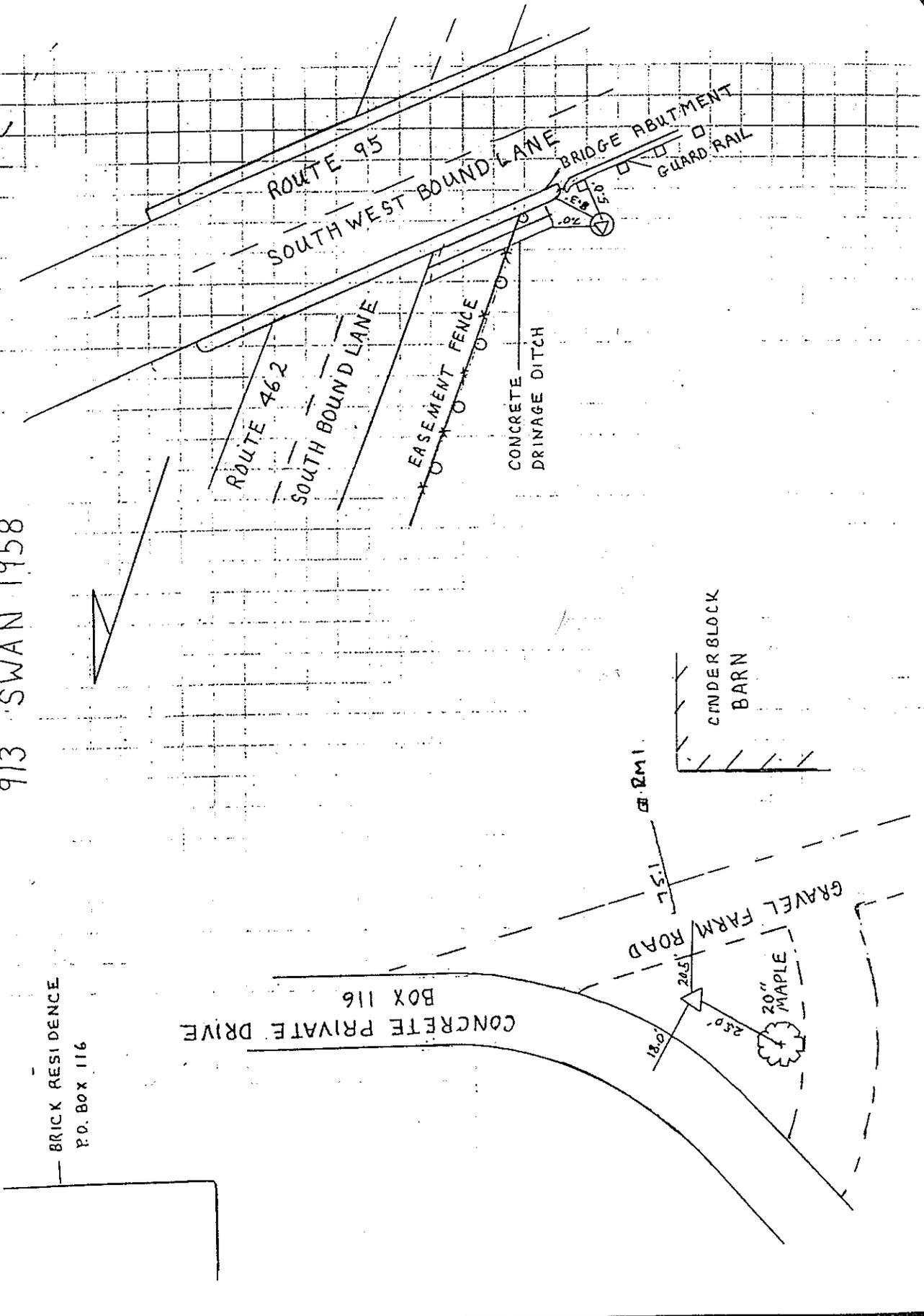
JV6862  
 JV6862 STATION RECOVERY (1997)  
 JV6862

JV6862'RECOVERY NOTE BY DAFT MCCUNE WALKER INCORPORATED 1997 (GAB)  
 JV6862'RECOVERED AS DESCRIBED.

**RINKER-DETWILER INFORMATION FROM HARFORD COUNTY SURVEY CONTROL BOOK  
 NAD 83/86 COORDINATES - NGVD29 ELEVATIONS**

LATITUDE	039 32 48.03877	NORTH(sf)	685772.713
LONGITUDE	076 10 01.69056	EAST(sf)	1547207.655
GRID AZ.	330 47 02.8	ELEV. GPS OBS.	247.64 ft.

913 SWAN 1958



# RINKER-DETWILER & ASSOCIATES, P.C.

Engineering • Surveying • Land Planning  
Global Positioning System • Mapping

