

**MADISON COUNTY, KENTUCKY  
CONTROL AND MONUMENTATION PROJECT**

**FOR:**

**RICHMOND UTILITIES  
P.O. BOX 700  
RICHMOND, KENTUCKY 40476  
(859) 623-2323**

**PREPARED BY:**

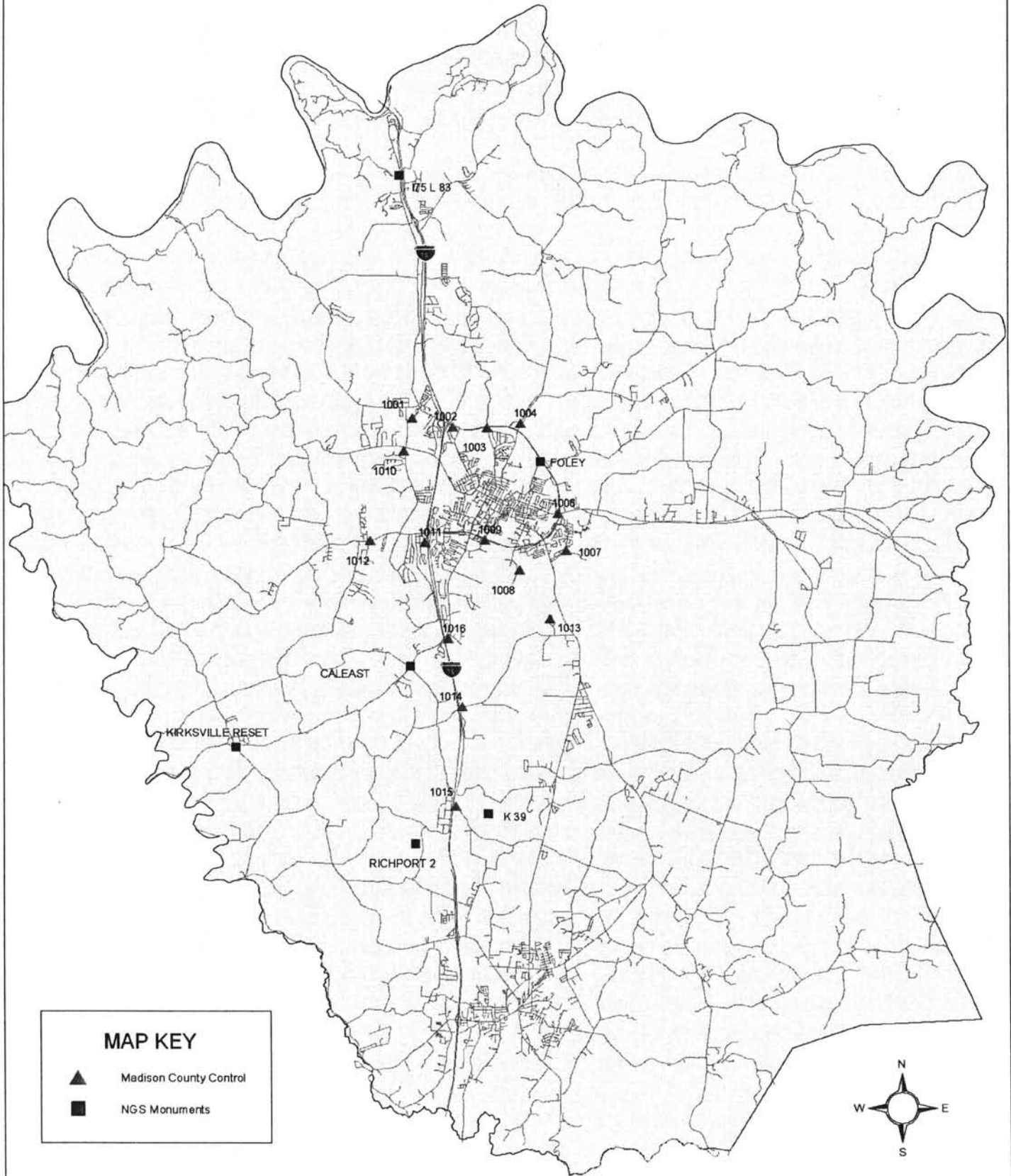
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LEXINGTON, KY 40503**

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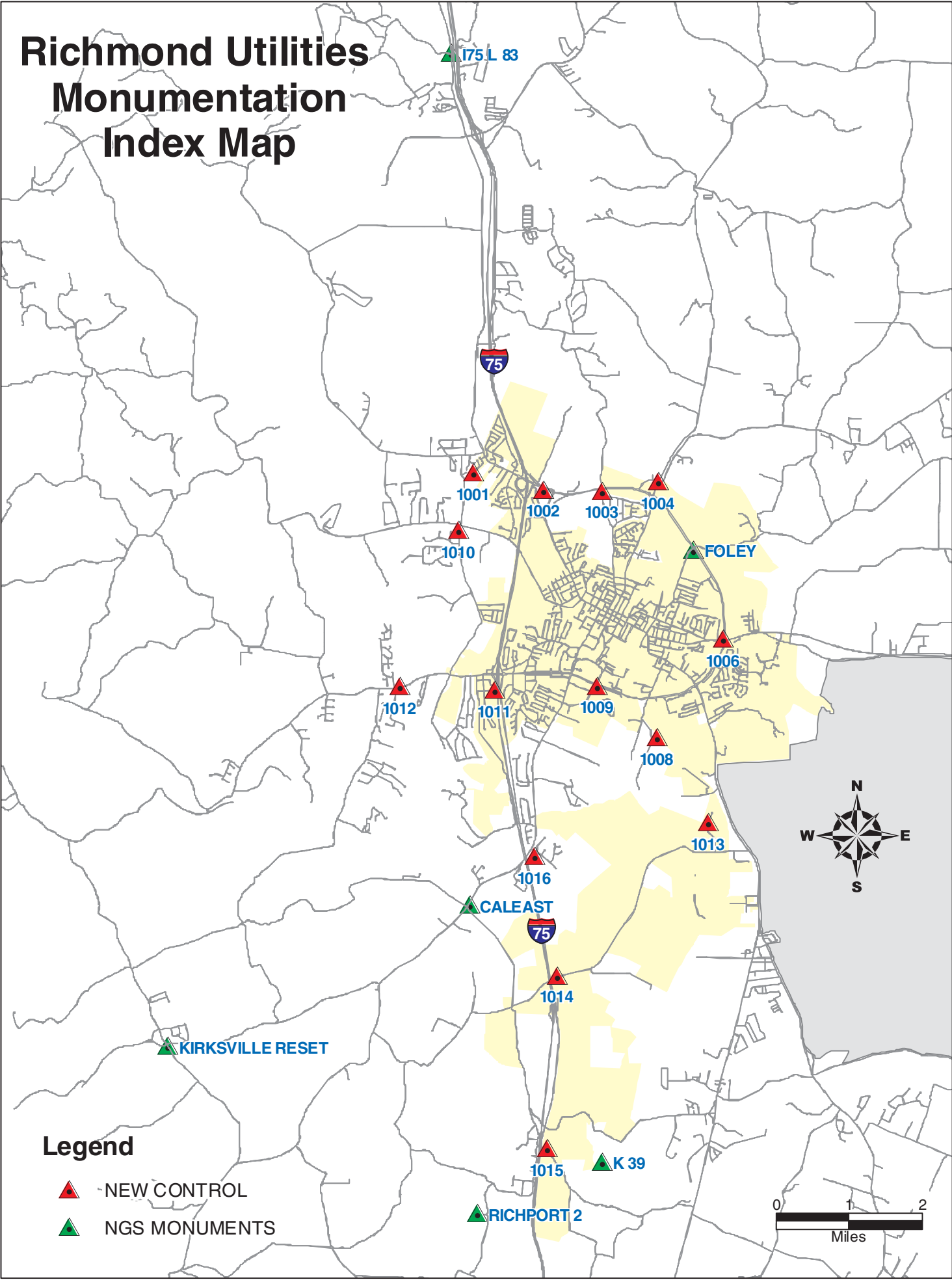


**MapSync®**

# Richmond Utilities Monumentation Index Map



# Richmond Utilities Monumentation Index Map



## Legend

-  - NEW CONTROL
-  NGS MONUMENTS

# Madison County Control Monument Record

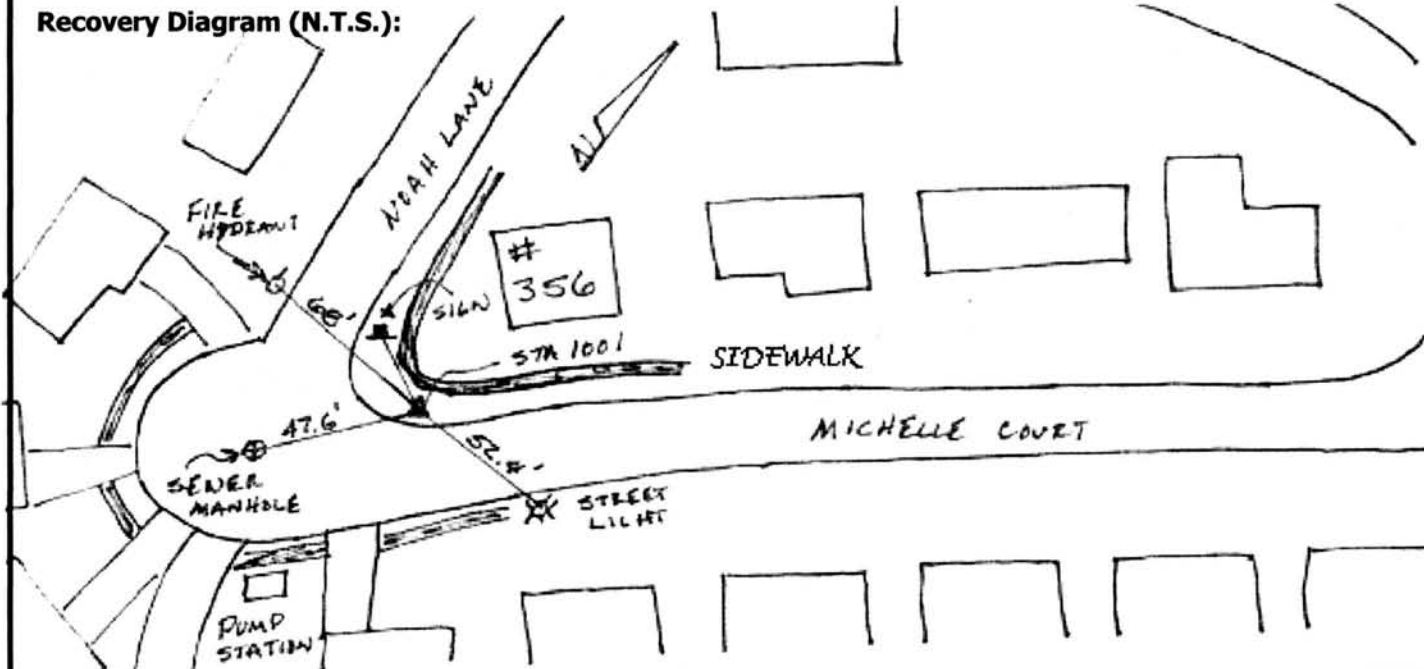
1001

<b>STATION NAME</b> 1001	<b>STATION TYPE</b> BRASS DISC	<b>DATE SET OR FOUND</b> JUNE 2003	<b>COUNTY--STATE</b> MADISON KY
<b>STATE PLANE ZONE</b> KY SOUTH 1602	<b>HORIZONTAL DATUM</b> NAD 83	<b>VERTICAL DATUM</b> NAVD 88	<b>CONVERGENCE</b> 0 51' 42"
<b>LATITUDE</b> N 37 46' 34.59646"	<b>NORTHING (m)</b> 661074.550	<b>NORTHING (USft)</b> 2168875.43	<b>SCALE FACTOR</b> 0.99997511
<b>LONGITUDE</b> W 84 19' 44.93735"	<b>EASTING (m)</b> 625167.160	<b>EASTING (USft)</b> 2051069.25	<b>ELEVATION FACTOR</b> 0.99996074
<b>H.A.E. (USft)</b> 822.58	<b>ELEVATION (m)</b> 282.990	<b>ELEVATION (USft)</b> 928.44	<b>COMBINED FACTOR</b> 0.99993585

## Station Description:

Station is located on the North side of Michelle Court near the intersection with Noah Lane. Station being further described as: 52.4 feet West of a street light, 47.6 feet Northeast of a sanitary sewer man hole, 68.0 feet East of a fire hydrant, 22.3 feet Southeast of a street sign.

## Recovery Diagram (N.T.S.):



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# Madison County Control Monument Record

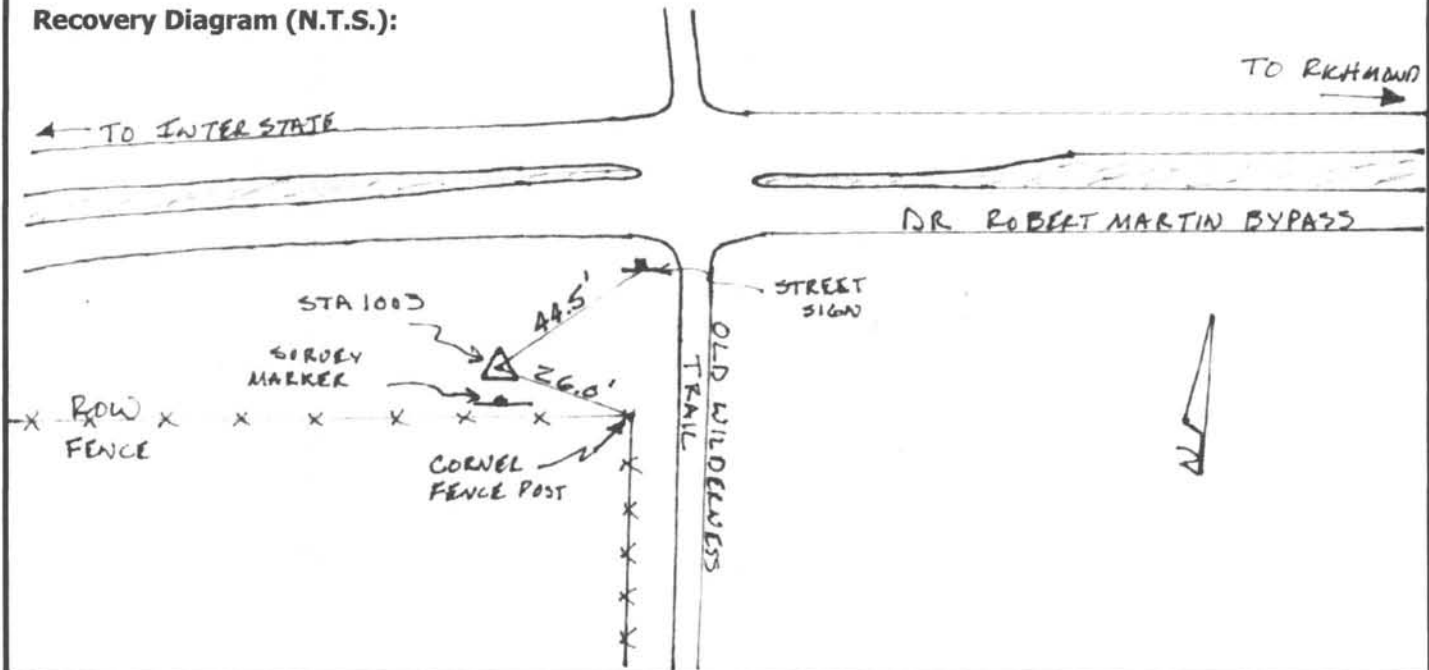
1003

<u>STATION NAME</u> 1003	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 52' 52"
<u>LATITUDE</u> N 37 46' 20.62366"	<u>NORTHING (m)</u> 660686.690	<u>NORTHING (USft)</u> 2167602.92	<u>SCALE FACTOR</u> 0.99997459
<u>LONGITUDE</u> W 84 17' 49.73007"	<u>EASTING (m)</u> 627992.720	<u>EASTING (USft)</u> 2060339.45	<u>ELEVATION FACTOR</u> 0.99996123
<u>H.A.E. (USft)</u> 812.35	<u>ELEVATION (m)</u> 279.870	<u>ELEVATION (USft)</u> 918.21	<u>COMBINED FACTOR</u> 0.99993582

**Station Description:**

Station is located approximately 1 mile Southeast of Interstate 75 (Exit 90), on the South side of the Dr. Robert Martin Bypass near the intersection of Old Wilderness Trail. Station being further described as: 44.5 feet Southwest of street sign, 26.0 feet Northwest of a corner post of the right-of-way fence, 4.5 feet North of the right-of-way fence, 4.0 feet North of survey marker.

**Recovery Diagram (N.T.S.):**



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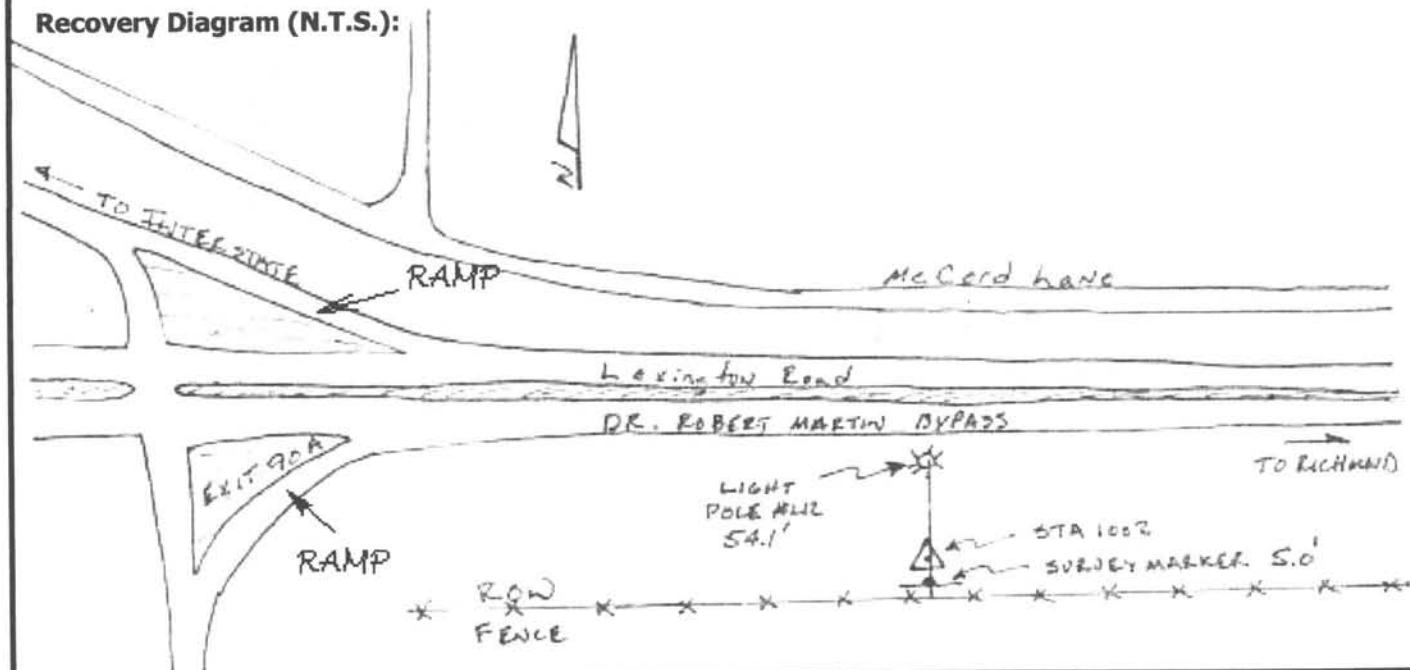
1002

<u>STATION NAME</u>	<u>STATION TYPE</u>	<u>DATE SET OR FOUND</u>	<u>COUNTY--STATE</u>
1002	BRASS DISC	JUNE 2003	MADISON KY
<u>STATE PLANE ZONE</u>	<u>HORIZONTAL DATUM</u>	<u>VERTICAL DATUM</u>	<u>CONVERGENCE</u>
KY SOUTH 1602	NAD 83	NAVD 88	0 52' 20"
<u>LATITUDE</u>	<u>NORTHING (m)</u>	<u>NORTHING (USft)</u>	<u>SCALE FACTOR</u>
N 37 46' 22.11740"	660712.870	2167688.81	0.99997464
<u>LONGITUDE</u>	<u>EASTING (m)</u>	<u>EASTING (USft)</u>	<u>ELEVATION FACTOR</u>
W 84 18' 42.79897"	626693.440	2056076.73	0.99996081
<u>H.A.E. (USft)</u>	<u>ELEVATION (m)</u>	<u>ELEVATION (USft)</u>	<u>COMBINED FACTOR</u>
821.24	282.570	927.07	0.99993545

## Station Description:

Station is located approximately 0.24 miles Southeast of Interstate 75 (Exit 90), along the South side of the Dr. Robert Martin ByPass. Station being further described as: 54.1 feet South of light pole #112, 5.8 feet North of the right-of-way fence, 5.0 feet North of survey marker.

## Recovery Diagram (N.T.S.):



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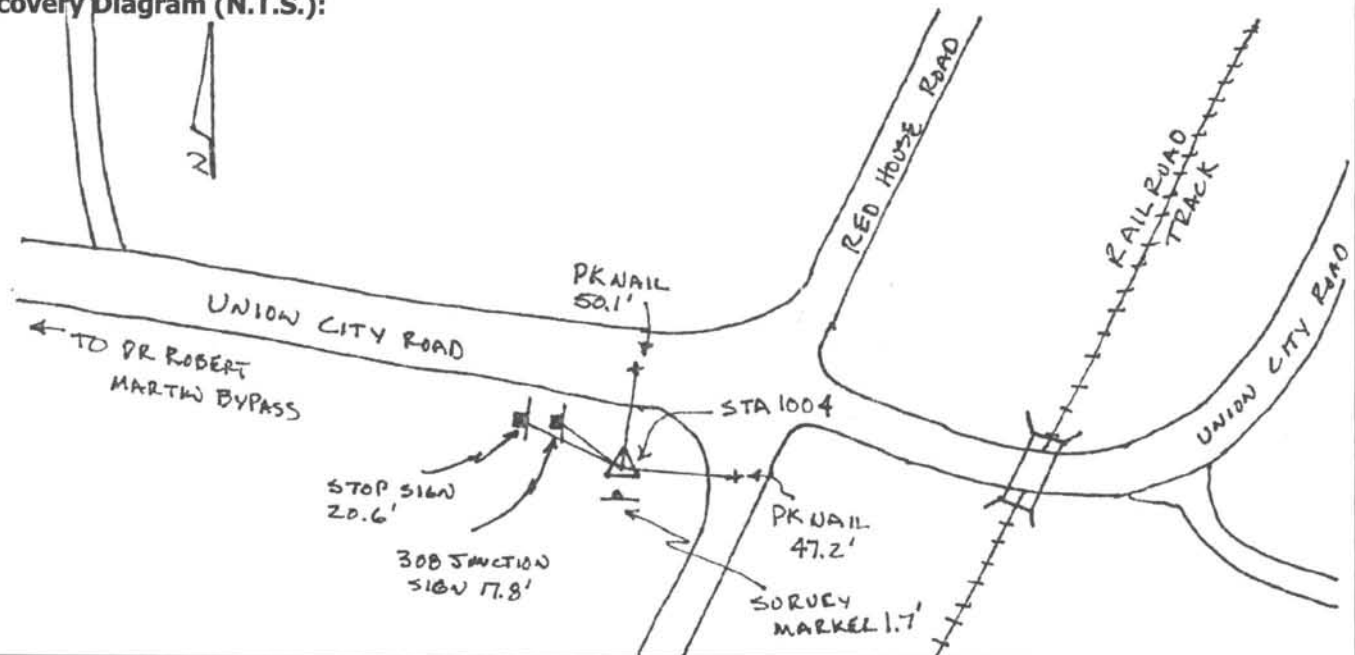
1004

<u>STATION NAME</u>	<u>STATION TYPE</u>	<u>DATE SET OR FOUND</u>	<u>COUNTY--STATE</u>
1004	BRASS DISC	JUNE 2003	MADISON KY
<u>STATE PLANE ZONE</u>	<u>HORIZONTAL DATUM</u>	<u>VERTICAL DATUM</u>	<u>CONVERGENCE</u>
KY SOUTH 1602	NAD 83	NAVD 88	0 53' 23"
<u>LATITUDE</u>	<u>NORTHING (m)</u>	<u>NORTHING (USft)</u>	<u>SCALE FACTOR</u>
N 37 46' 26.35647"	660882.820	2168246.37	0.99997480
<u>LONGITUDE</u>	<u>EASTING (m)</u>	<u>EASTING (USft)</u>	<u>ELEVATION FACTOR</u>
W 84 16' 58.43161"	629245.230	2064448.71	0.99996571
<u>H.A.E. (USft)</u>	<u>ELEVATION (m)</u>	<u>ELEVATION (USft)</u>	<u>COMBINED FACTOR</u>
718.56	251.300	824.47	0.99994051

## Station Description:

Station is located approximately 2 miles East of Interstate 75 (Exit 90), on the South side of Union City Road, near the intersection of Red House Road. Station being further described as: 47.2 feet West of PK Nail in centerline of Red House Road, 50.1 feet South of a PK Nail in the centerline of Union City Road, 20.6 feet East of a stop sign, 17.8 feet East of a road sign, 1.7 feet North of a survey marker.

## Recovery Diagram (N.T.S.):



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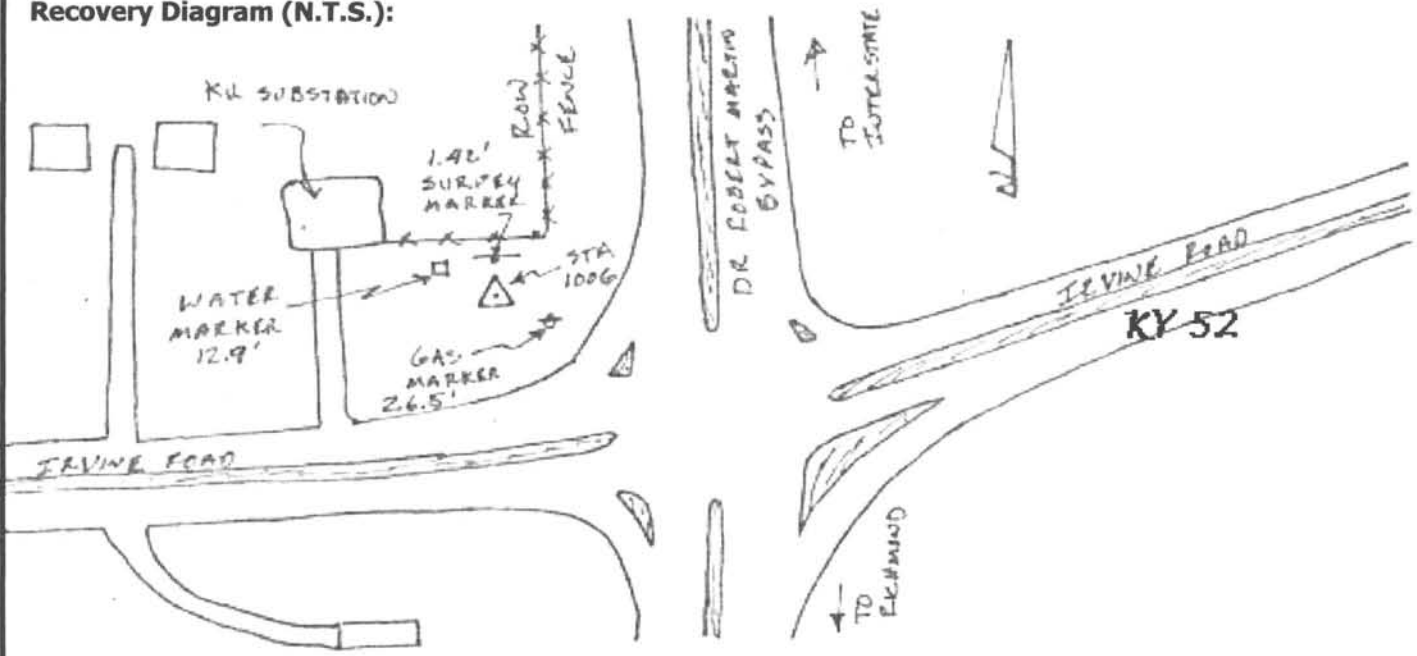
1006

<u>STATION NAME</u> 1006	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 53' 57"
<u>LATITUDE</u> N 37 44' 33.43431"	<u>NORTHING (m)</u> 657423.260	<u>NORTHING (USft)</u> 2156896.14	<u>SCALE FACTOR</u> 0.99997075
<u>LONGITUDE</u> W 84 16' 02.33306"	<u>EASTING (m)</u> 630672.540	<u>EASTING (USft)</u> 2069131.48	<u>ELEVATION FACTOR</u> 0.99996337
<u>H.A.E. (USft)</u> 767.53	<u>ELEVATION (m)</u> 266.140	<u>ELEVATION (USft)</u> 873.16	<u>COMBINED FACTOR</u> 0.99993412

## Station Description:

Station is located approximately 4 miles Southeast of Interstate 75 (Exit 90), on the West side of the Dr. Robert Martin Bypass near the intersection of Irvine Road (KY-52), Southeast of a Kentucky Utilities substation. Station being further described as: 26.5 feet Northwest of a gas line marker, 12.9 feet Southeast of a waterline marker, 1.42 feet South of survey marker.

## Recovery Diagram (N.T.S.):



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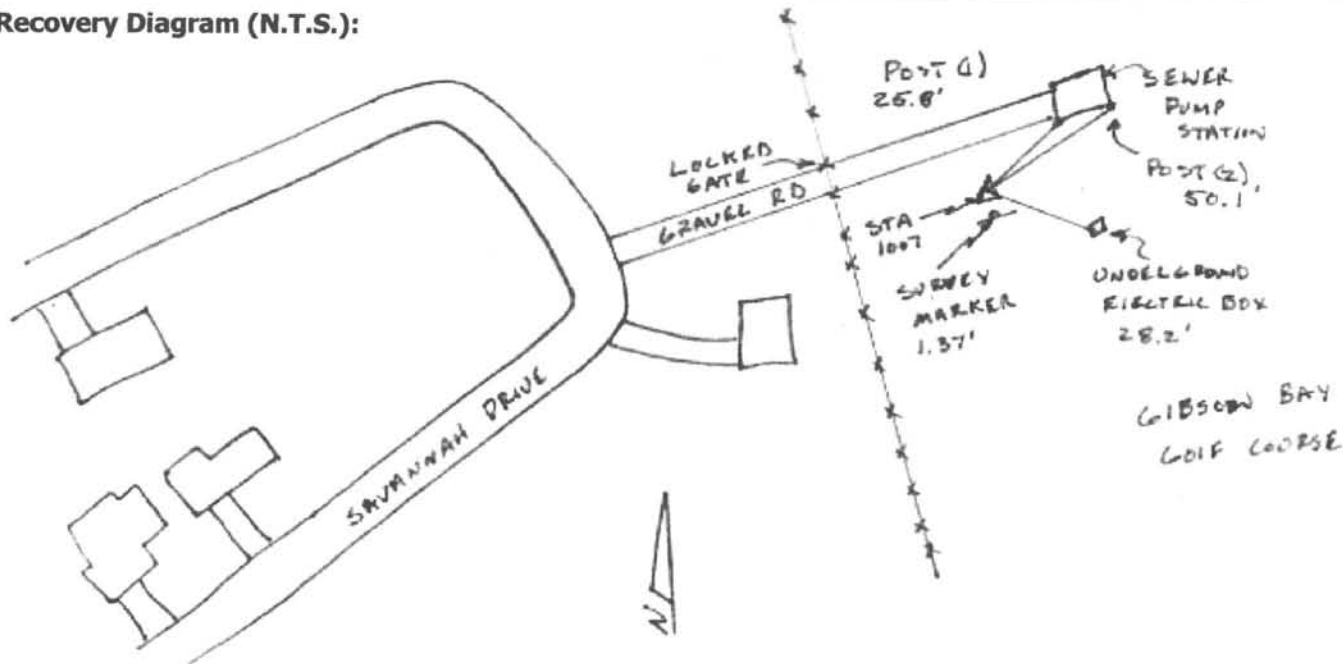
1007

<b>STATION NAME</b> 1007	<b>STATION TYPE</b> BRASS DISC	<b>DATE SET OR FOUND</b> JUNE 2003	<b>COUNTY--STATE</b> MADISON KY
<b>STATE PLANE ZONE</b> KY SOUTH 1602	<b>HORIZONTAL DATUM</b> NAD 83	<b>VERTICAL DATUM</b> NAVD 88	<b>CONVERGENCE</b> 0 54' 04"
<b>LATITUDE</b> N 37 43' 47.27646"	<b>NORTHING (m)</b> 656004.730	<b>NORTHING (USft)</b> 2152242.19	<b>SCALE FACTOR</b> 0.99996918
<b>LONGITUDE</b> W 84 15' 51.03430"	<b>EASTING (m)</b> 630971.500	<b>EASTING (USft)</b> 2070112.33	<b>ELEVATION FACTOR</b> 0.99996284
<b>H.A.E. (USft)</b> 778.67	<b>ELEVATION (m)</b> 269.500	<b>ELEVATION (USft)</b> 884.18	<b>COMBINED FACTOR</b> 0.99993202

## Station Description:

Station is located approximately 0.3 miles East of the intersection of Bayview Drive and Savannah Drive, near a sanitary sewer pump station, close to Gibson Bay Golf Course. Station being further described as: 1.37 feet North of a survey marker, 28.2 feet Northwest of a metal underground electrical box, 25.8 feet Southwest of a fence post corner (post #1), 50.1 feet Southwest of a fence post corner (post #2).

## Recovery Diagram (N.T.S.):



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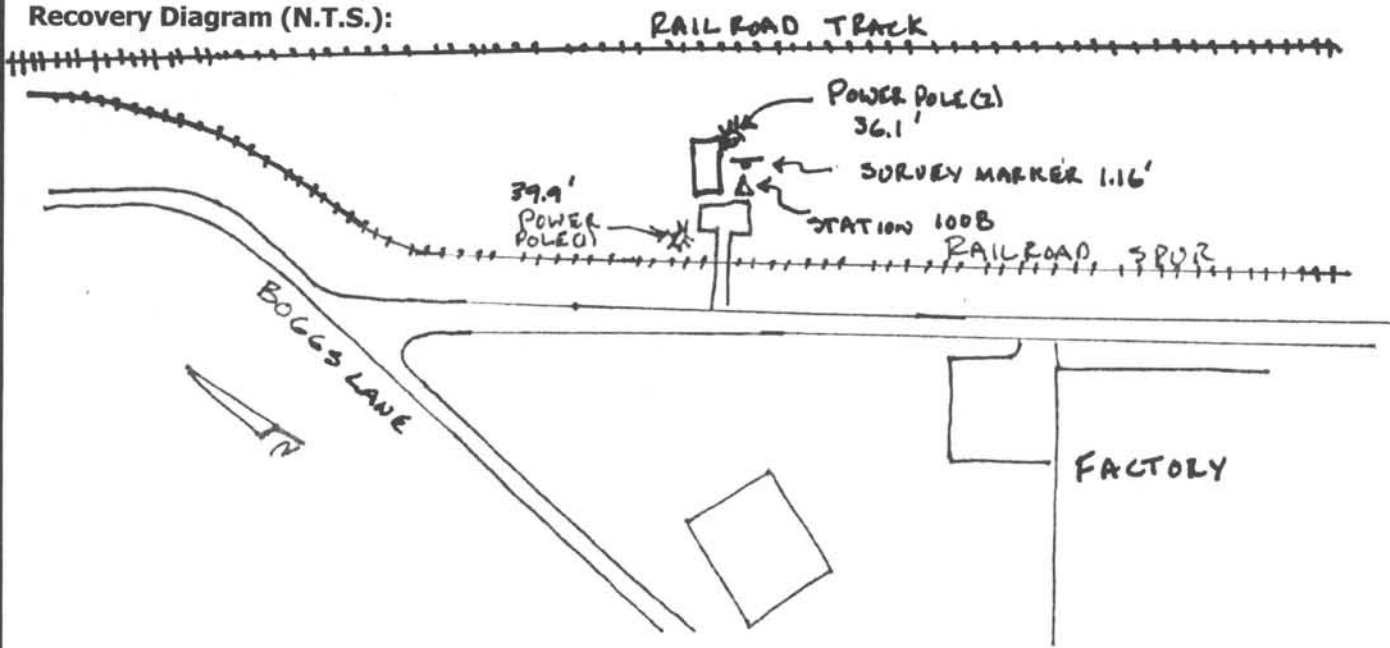
1008

<u>STATION NAME</u> 1008	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 53' 20"
<u>LATITUDE</u> N 37 43' 23.93040"	<u>NORTHING (m)</u> 655257.400	<u>NORTHING (USft)</u> 2149790.33	<u>SCALE FACTOR</u> 0.99996841
<u>LONGITUDE</u> W 84 17' 03.34021"	<u>EASTING (m)</u> 629212.370	<u>EASTING (USft)</u> 2064340.92	<u>ELEVATION FACTOR</u> 0.99995767
<u>H.A.E. (USft)</u> 886.93	<u>ELEVATION (m)</u> 302.460	<u>ELEVATION (USft)</u> 992.32	<u>COMBINED FACTOR</u> 0.99992608

## Station Description:

Station is located approximately 0.7 miles from the intersection of Boggs Lane and the Eastern Bypass, on the east side of Boggs Lane, near the Sherwin Williams Automotive Paint Factory, located between a railroad spur and the railroad track. Station being further described as: 39.9 feet East of a power pole (Pole #1), 36.1 feet Southwest of a power pole (Pole #2), 1.16 feet West of a survey marker.

## Recovery Diagram (N.T.S.):



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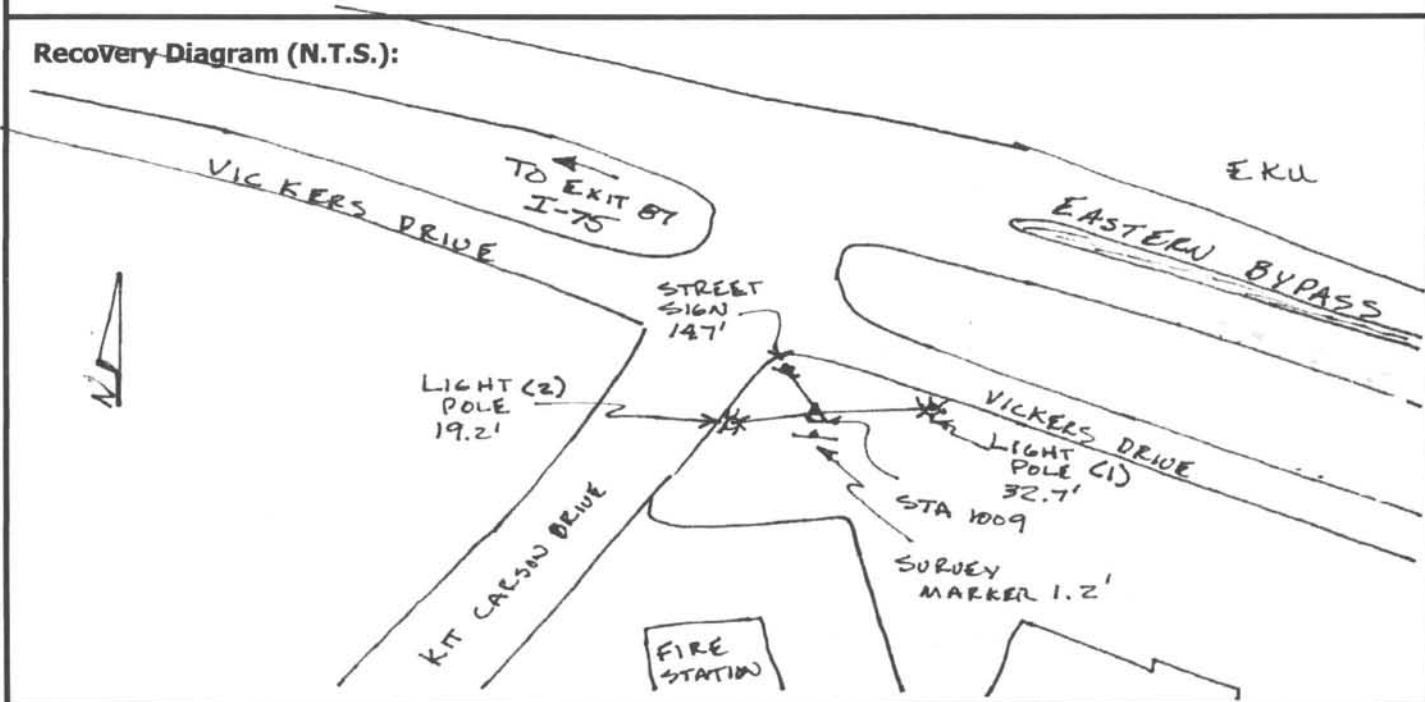
1009

<u>STATION NAME</u> 1009	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 52' 47"
<u>LATITUDE</u> N 37 44' 01.51884"	<u>NORTHING (m)</u> 656395.760	<u>NORTHING (USft)</u> 2153525.10	<u>SCALE FACTOR</u> 0.99996966
<u>LONGITUDE</u> W 84 17' 57.18781"	<u>EASTING (m)</u> 627876.090	<u>EASTING (USft)</u> 2059956.79	<u>ELEVATION FACTOR</u> 0.99995808
<u>H.A.E. (USft)</u> 878.31	<u>ELEVATION (m)</u> 299.860	<u>ELEVATION (USft)</u> 983.78	<u>COMBINED FACTOR</u> 0.99992775

## Station Description:

Station is located approximately 1.4 miles East of Interstate 75 (Exit 87), on the South side of the Eastern Bypass, near the intersection of Kit Carson Drive and Vickers Drive. Station being further described as: 32.7 feet Southwest of a light pole (1), 19.2 feet Northeast of a light pole (2), 14.7 feet Southeast of a street sign, 1.1 feet North of a survey marker.

## Recovery Diagram (N.T.S.):



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# Madison County Control Monument Record

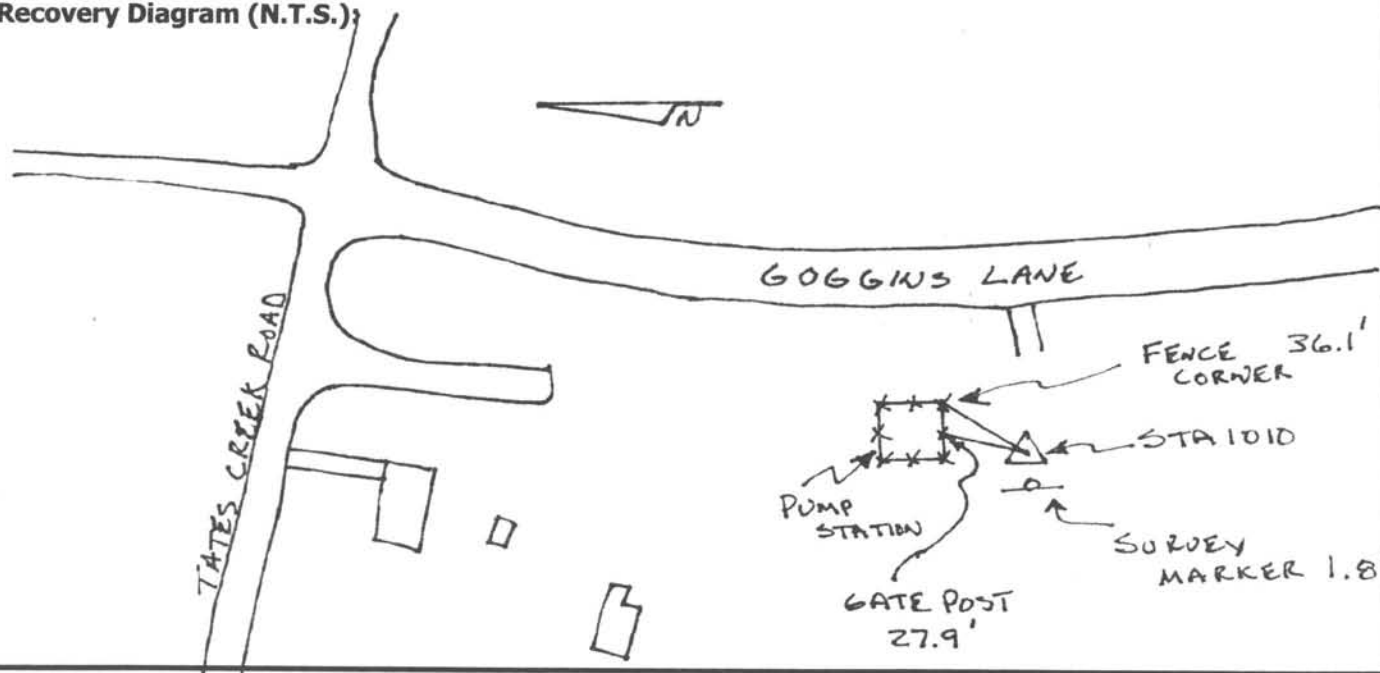
1010

<u>STATION NAME</u> 1010	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 51' 33"
<u>LATITUDE</u> N 37 45' 53.79601"	<u>NORTHING (m)</u> 659811.580	<u>NORTHING (USft)</u> 2164731.84	<u>SCALE FACTOR</u> 0.99997360
<u>LONGITUDE</u> W 84 19' 59.13203"	<u>EASTING (m)</u> 624838.700	<u>EASTING (USft)</u> 2049991.63	<u>ELEVATION FACTOR</u> 0.99996497
<u>H.A.E. (USft)</u> 734.07	<u>ELEVATION (m)</u> 255.980	<u>ELEVATION (USft)</u> 839.82	<u>COMBINED FACTOR</u> 0.99993857

### Station Description:

Station is located approximately 400 feet south of the intersection of Tates Creek Road and Goggins Lane, on the west side of Goggins Lane near a pump station. Station being further described as: 36.1 feet Southwest of a fence corner, 27.9 feet Southwest of a gate post, 1.8 feet East of a survey marker.

### Recovery Diagram (N.T.S.):



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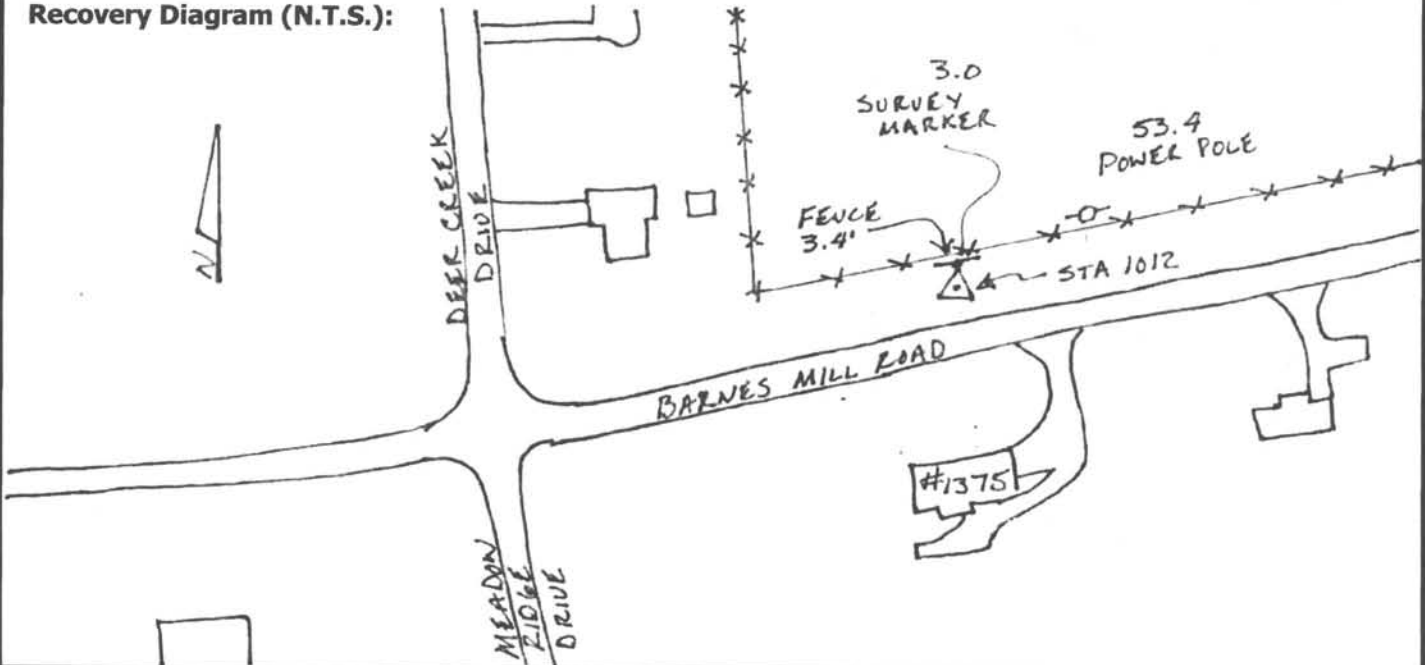
1012

<u>STATION NAME</u> 1012	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 51' 00"
<u>LATITUDE</u> N 37 44' 02.97283"	<u>NORTHING (m)</u> 656375.160	<u>NORTHING (USft)</u> 2153457.51	<u>SCALE FACTOR</u> 0.99996971
<u>LONGITUDE</u> W 84 20' 54.19996"	<u>EASTING (m)</u> 623541.750	<u>EASTING (USft)</u> 2045736.57	<u>ELEVATION FACTOR</u> 0.99995822
<u>H.A.E. (USft)</u> 875.48	<u>ELEVATION (m)</u> 298.980	<u>ELEVATION (USft)</u> 980.91	<u>COMBINED FACTOR</u> 0.99992793

## Station Description:

Station is located approximately 1.4 miles West of Interstate 75 (Exit 87), on the Northerly side of Barnes Mill Road, 400 feet East of the intersections of Barnes Mill Rd, Deer Creek Dr and Meadow Ridge Dr, north of a brick house House #1375 Barnes Mill Rd. Station being further described as: 53.4 feet Southwest of power pole with meter, 3.4 feet South of a fence post, 3.0 feet South of a survey marker.

## Recovery Diagram (N.T.S.):



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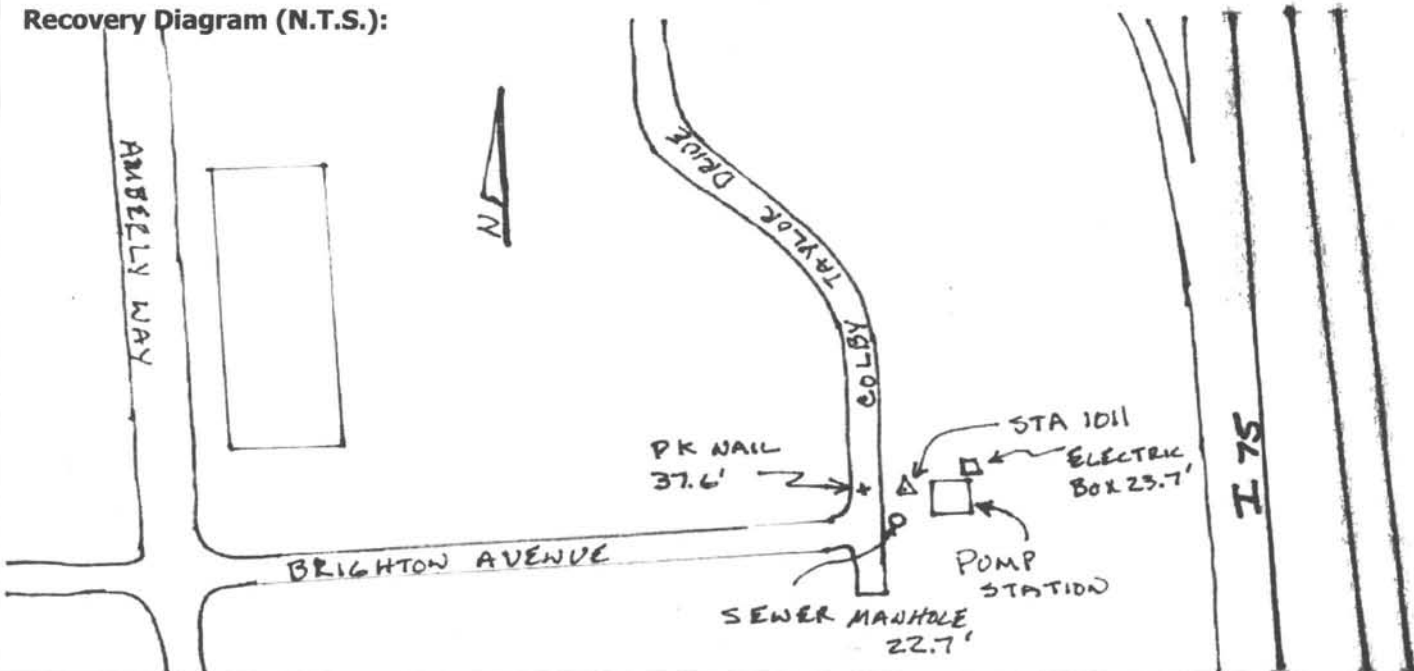
1011

<u>STATION NAME</u> 1011	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 51' 51"
<u>LATITUDE</u> N 37 43' 59.45008"	<u>NORTHING (m)</u> 656297.600	<u>NORTHING (USft)</u> 2153203.05	<u>SCALE FACTOR</u> 0.99996959
<u>LONGITUDE</u> W 84 19' 29.46608"	<u>EASTING (m)</u> 625617.870	<u>EASTING (USft)</u> 2052547.95	<u>ELEVATION FACTOR</u> 0.99996089
<u>H.A.E. (USft)</u> 819.47	<u>ELEVATION (m)</u> 281.910	<u>ELEVATION (USft)</u> 924.91	<u>COMBINED FACTOR</u> 0.99993048

## Station Description:

Station is located approximately 0.5 miles South of Interstate 75 (Exit 87), near the intersection of Colby Taylor Drive and Brighton Avenue, near a pump station. Station being further described as: 23.7 feet West of an electrical box, 22.7 feet Northeast of a sanitary sewer manhole, 37.6 feet East of a PK nail set in the centerline of Colby Taylor Drive.

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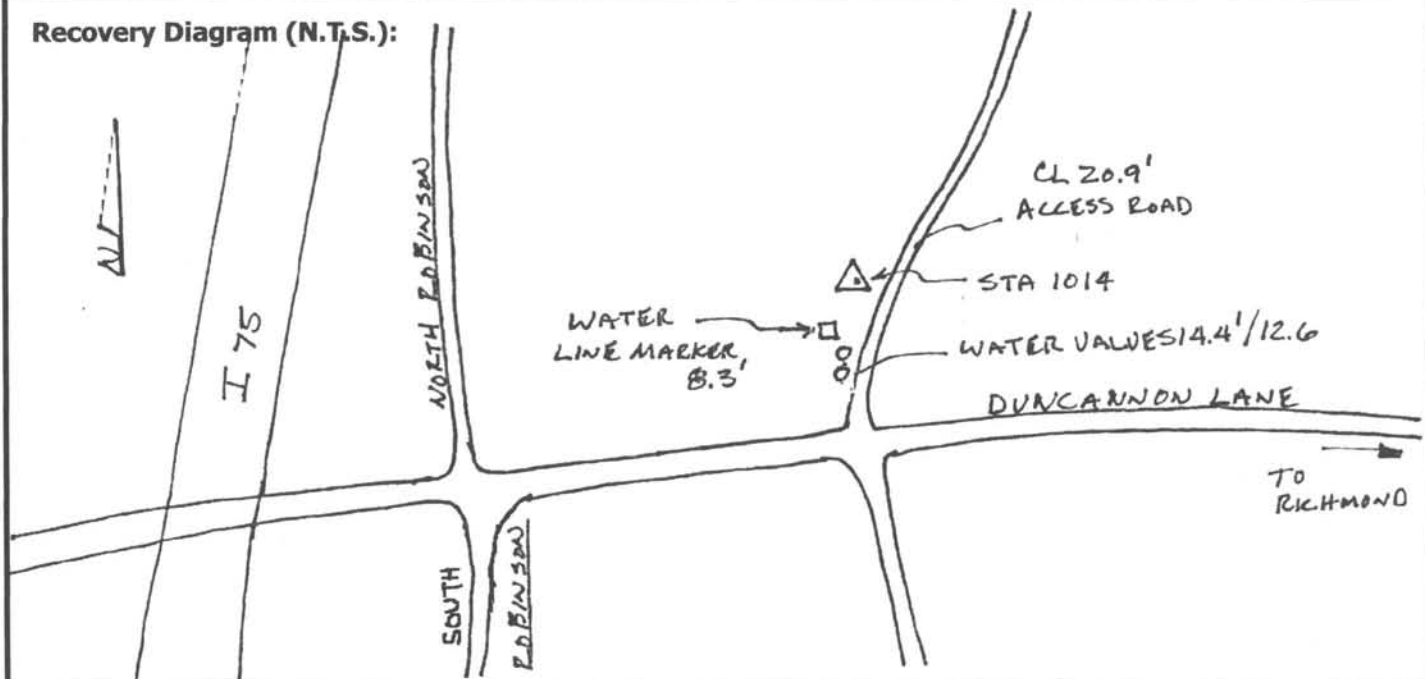
1014

<u>STATION NAME</u> 1014	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 52' 24"
<u>LATITUDE</u> N 37 40' 35.13953"	<u>NORTHING (m)</u> 650019.230	<u>NORTHING (USft)</u> 2132604.77	<u>SCALE FACTOR</u> 0.99996320
<u>LONGITUDE</u> W 84 18' 36.27959"	<u>EASTING (m)</u> 627016.000	<u>EASTING (USft)</u> 2057135.00	<u>ELEVATION FACTOR</u> 0.99995677
<u>H.A.E. (USft)</u> 905.86	<u>ELEVATION (m)</u> 308.050	<u>ELEVATION (USft)</u> 1010.67	<u>COMBINED FACTOR</u> 0.99991996

## Station Description:

Station is located approximately 0.15 miles East of the overpass of Interstate 75, 0.1 miles East of the intersection of North Robinson and Duncannon Lane, on the West side of a gravel drive. Station being further described as: 20.9 feet West of the centerline of a gravel drive, 12.6 feet North of a water valve, 14.4 feet North of a water valve, and 8.3 feet North of a concrete waterline marker.

## Recovery Diagram (N.T.S.):



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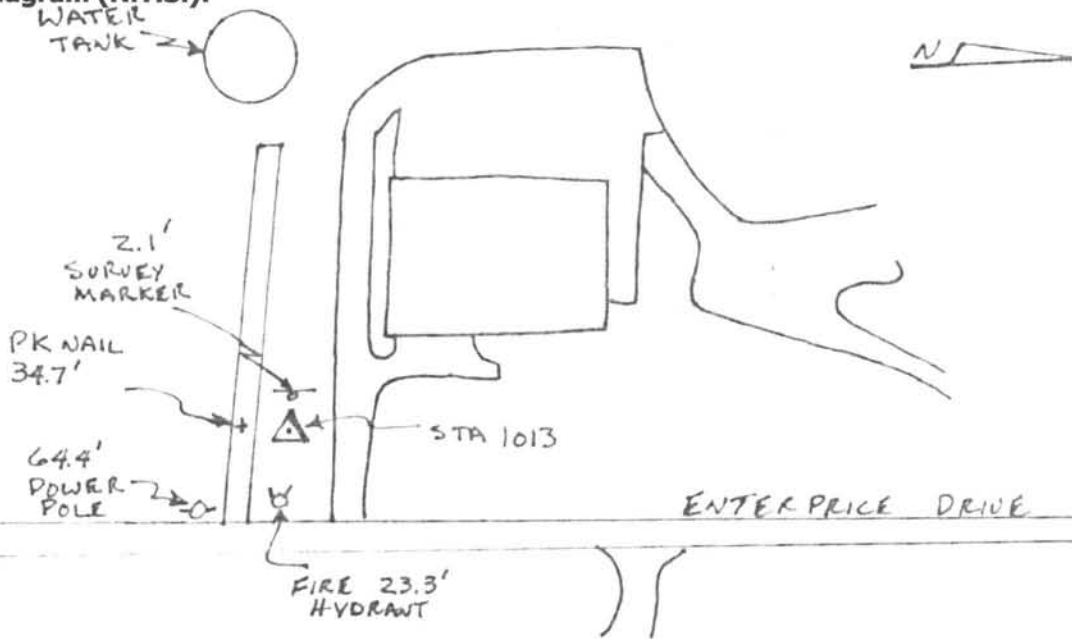
1013

<u>STATION NAME</u> 1013	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 53' 47"
<u>LATITUDE</u> N 37 42' 22.77043"	<u>NORTHING (m)</u> 653389.210	<u>NORTHING (USft)</u> 2143661.11	<u>SCALE FACTOR</u> 0.99996644
<u>LONGITUDE</u> W 84 16' 18.43640"	<u>EASTING (m)</u> 630341.370	<u>EASTING (USft)</u> 2068044.97	<u>ELEVATION FACTOR</u> 0.99995579
<u>H.A.E. (USft)</u> 926.24	<u>ELEVATION (m)</u> 314.390	<u>ELEVATION (USft)</u> 1031.47	<u>COMBINED FACTOR</u> 0.99992224

### Station Description:

Station is located approximately 0.5 miles North of the intersection of Enterprise Drive and Duncannon Lane, on the West side of Enterprise Drive. Station being further described as: 34.7 feet North of a PK nail set in the centerline of the blacktop access road to the water tower, 2.1 feet East of a survey marker, 23.3 feet West of a red Fire Hydrant, 64.4 feet Northwest of a power pole.

### Recovery Diagram (N.T.S.):



**Richmond Utilities**

P.O. Box 700

Richmond, Kentucky 40476

PH: (859) 623-2323 Fax: (859) 623-0805

**MapSync**

2628 Wilhite Court, Suite 116

Lexington, KY 40503

PH:(859) 278-MAPS

www.mapsync.com

# Madison County Control Monument Record

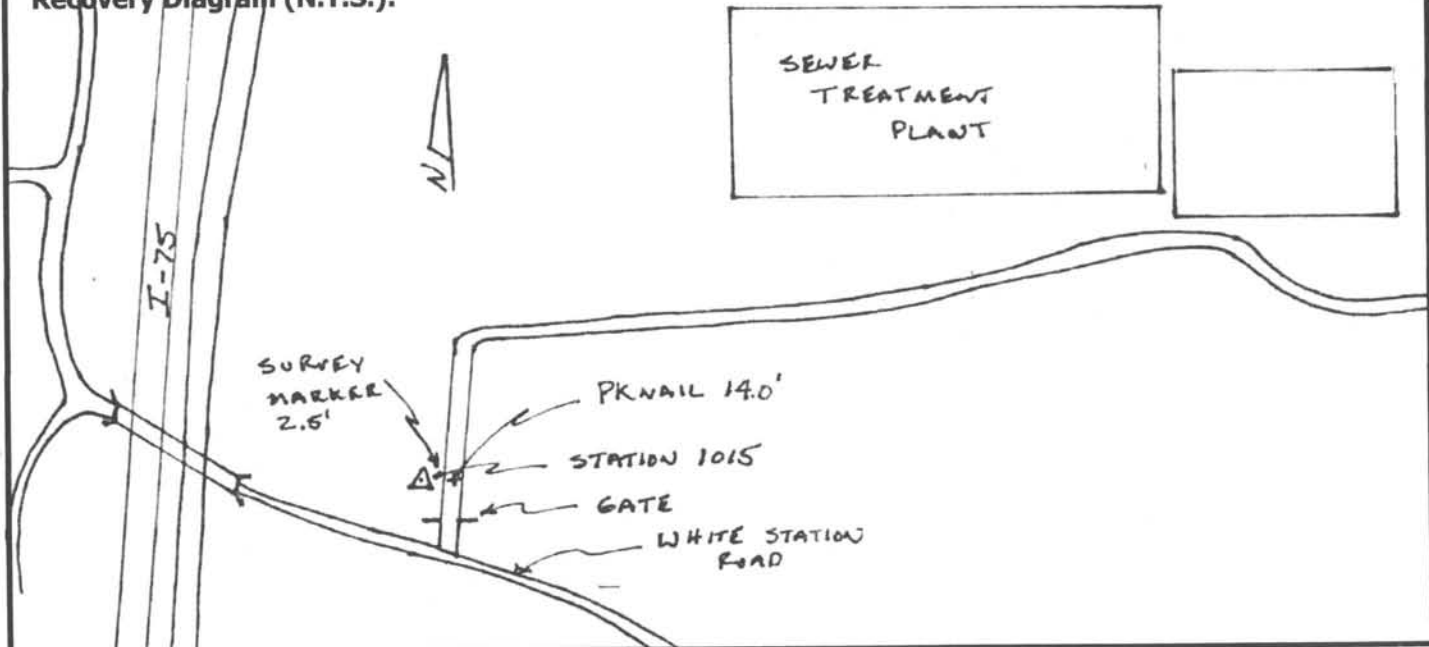
1015

<u>STATION NAME</u> 1015	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 52' 16"
<u>LATITUDE</u> N 37 38' 31.78140"	<u>NORTHING (m)</u> 646212.060	<u>NORTHING (USft)</u> 2120114.07	<u>SCALE FACTOR</u> 0.99995981
<u>LONGITUDE</u> W 84 18' 48.49996"	<u>EASTING (m)</u> 626774.410	<u>EASTING (USft)</u> 2056342.39	<u>ELEVATION FACTOR</u> 0.99995992
<u>H.A.E. (USft)</u> 839.83	<u>ELEVATION (m)</u> 287.800	<u>ELEVATION (USft)</u> 944.22	<u>COMBINED FACTOR</u> 0.99991973

## Station Description:

Station is located approximately 0.1 miles East of the Interstate 75 overpass, 185 feet from the intersection with White Station Road along a blacktop drive leading to the Sanitary Sewer Treatment plant. Station being further described as: 14.0 feet West of PK Nail set in the centerline of a blacktop drive, 3.1 feet West of a guard rail post, and 2.5 feet West of a survey marker.

## Reddvery Diagram (N.T.S.):



**Richmond Utilities**

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Richmond, Kentucky 40476

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# Madison County Control Monument Record

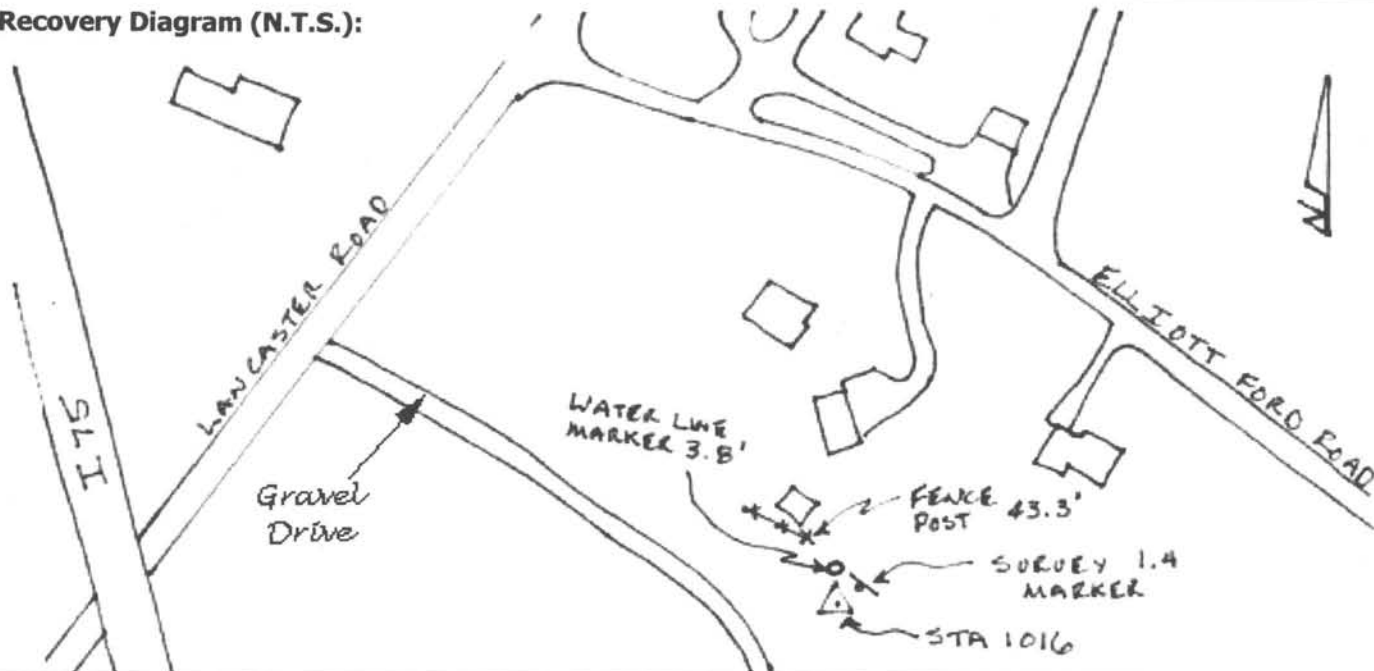
1016

<b>STATION NAME</b> 1016	<b>STATION TYPE</b> BRASS DISC	<b>DATE SET OR FOUND</b> JUNE 2003	<b>COUNTY--STATE</b> MADISON KY
<b>STATE PLANE ZONE</b> KY SOUTH 1602	<b>HORIZONTAL DATUM</b> NAD 83	<b>VERTICAL DATUM</b> NAVD 88	<b>CONVERGENCE</b> 0 52' 12"
<b>LATITUDE</b> N 37 42' 00.41698"	<b>NORTHING (m)</b> 652640.850	<b>NORTHING (USft)</b> 2141205.86	<b>SCALE FACTOR</b> 0.99996575
<b>LONGITUDE</b> W 84 18' 55.46252"	<b>EASTING (m)</b> 626506.080	<b>EASTING (USft)</b> 2055462.03	<b>ELEVATION FACTOR</b> 0.99995798
<b>H.A.E. (USft)</b> 880.33	<b>ELEVATION (m)</b> 300.350	<b>ELEVATION (USft)</b> 985.41	<b>COMBINED FACTOR</b> 0.99992373

## Station Description:

Station is located approximately 0.2 miles Southwest of the intersection of Lancaster Road (KY-52) and Elliott Ford Road, approximately 0.2 miles Northeast of the Interstate 75 underpass. Station being further described as: 1.4 feet Southwest of a survey marker, 43.3 feet south of a fence post, and 3.8 feet South of a waterline marker.

## Recovery Diagram (N.T.S.):



**Richmond Utilities**

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Richmond, Kentucky 40476

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**MapSync**

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Lexington, KY 40503

PH: (859) 278-MAPS

www.mapsync.com

# Madison County Control Monument Record

CALEAST

<u>STATION NAME</u> CALEAST	<u>STATION TYPE</u> BRASS DISC	<u>DATE SET OR FOUND</u> JUNE 2003	<u>COUNTY--STATE</u> MADISON KY
<u>STATE PLANE ZONE</u> KY SOUTH 1602	<u>HORIZONTAL DATUM</u> NAD 83	<u>VERTICAL DATUM</u> NAVD 88	<u>CONVERGENCE</u> 0 51' 36"
<u>LATITUDE</u> N 37 41' 26.35168"	<u>NORTHING (m)</u> 651568.830	<u>NORTHING (USft)</u> 2137688.75	<u>SCALE FACTOR</u> 0.99996471
<u>LONGITUDE</u> W 84 19' 54.71739"	<u>EASTING (m)</u> 625070.500	<u>EASTING (USft)</u> 2050752.12	<u>ELEVATION FACTOR</u> 0.99995732
<u>H.A.E. (USft)</u> 894.23	<u>ELEVATION (m)</u> 304.570	<u>ELEVATION (USft)</u> 999.24	<u>COMBINED FACTOR</u> 0.99992203

**Station Description:**

See NGS Datasheet

**Recovery Diagram (N.T.S.):**

**Richmond Utilities**

P.O. Box 700

Richmond, Kentucky 40476

PH: (859) 623-2323 Fax: (859) 623-0805

 **MapSync**

2628 Wilhite Court, Suite 116

Lexington, KY 40503

PH:(859) 278-MAPS

www.mapsync.com

The NGS Data Sheet

National Geodetic Survey, Retrieval Date = AUGUST 24, 2003

GZ2894 \*\*\*\*\*

GZ2894 CBN - This is a Cooperative Base Network Control Station.

GZ2894 DESIGNATION - KIRKSVILLE RESET

GZ2894 PID - GZ2894

GZ2894 STATE/COUNTY- KY/MADISON

GZ2894 USGS QUAD - KIRKSVILLE (1979)

GZ2894

\*CURRENT SURVEY CONTROL

GZ2894

GZ2894\* NAD 83(1993)- 37 39 48.72791(N) 084 24 27.23635(W) ADJUSTED

GZ2894\* NAVD 88 - 306.8 (meters) 1007. (feet) GPS OBS

GZ2894

GZ2894 X - 492,671.087 (meters) COMP

GZ2894 Y - -5,031,489.429 (meters) COMP

GZ2894 Z - 3,876,116.101 (meters) COMP

GZ2894 LAPLACE CORR- 1.65 (seconds) DEFLEC99

GZ2894 ELLIP HEIGHT- 274.90 (meters) (09/07/94) GPS OBS

GZ2894 GEOID HEIGHT- -31.93 (meters) GEOID99

GZ2894

GZ2894 HORZ ORDER - B

GZ2894 ELLP ORDER - FOURTH CLASS I

GZ2894

GZ2894.The horizontal coordinates were established by GPS observations

GZ2894.and adjusted by the National Geodetic Survey in September 1994.

GZ2894

GZ2894.The orthometric height was determined by GPS observations and a

GZ2894.high-resolution geoid model.

GZ2894

GZ2894.The X, Y, and Z were computed from the position and the ellipsoidal ht.

GZ2894

GZ2894.The Laplace correction was computed from DEFLEC99 derived deflections.

GZ2894

GZ2894.The ellipsoidal height was determined by GPS observations

GZ2894.and is referenced to NAD 83.

GZ2894

GZ2894.The geoid height was determined by GEOID99.

GZ2894

GZ2894;	North	East	Units	Scale	Converg.
GZ2894;SPC KY1Z	- 1,148,480.940	1,618,431.456	MT	0.99991181	+0 49 27.1
GZ2894;SPC KY1Z	- 3,767,974.55	5,309,803.87	sFT	0.99991181	+0 49 27.1
GZ2894;SPC KY S	- 648,461.903	618,437.486	MT	0.99996188	+0 48 50.9
GZ2894;SPC KY S	- 2,127,495.43	2,028,990.32	sFT	0.99996188	+0 48 50.9
GZ2894;UTM 16	- 4,171,646.793	728,664.740	MT	1.00024408	+1 35 05.0

GZ2894

GZ2894: Primary Azimuth Mark Grid Az

GZ2894:SPC KY1Z - KIRKSVILLE AZ MK 138 36 41.7

GZ2894:SPC KY S - KIRKSVILLE AZ MK 138 37 17.9

GZ2894:UTM 16 - KIRKSVILLE AZ MK 137 51 03.8

GZ2894

GZ2894	PID	Reference Object	Distance	Geod. Az
GZ2894				dddmmss.s
GZ2894	DB6931	KIRKSVILLE RM 3	2.890 METERS	05633
GZ2894	DB9560	KIRKSVILLE AZ MK		1392608.8
GZ2894	DB9561	KIRKSVILLE RM 1	26.299 METERS	15937
GZ2894	DB9562	KIRKSVILLE RM 2	19.883 METERS	25443

GZ2894

GZ2894

SUPERSEDED SURVEY CONTROL

GZ2894

GZ2894 NAD 83(1986)- 37 39 48.73591(N) 084 24 27.24312(W) AD( ) 2



GZ2894 NAD 27 - 37 39 48.44100(N) 084 24 27.47600(W) AD( ) 2  
GZ2894 NGVD 29 - 307.0 (m) 1007. (f) GPS OBS

GZ2894

GZ2894.Superseded values are not recommended for survey control.

GZ2894.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

GZ2894

GZ2894\_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SGG2866571647(NAD 83)

GZ2894\_MARKER: DH = HORIZONTAL CONTROL DISK

GZ2894\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

GZ2894\_STAMPING: KIRKSVILLE 1951 1977

GZ2894\_MARK LOGO: NGS

GZ2894\_MAGNETIC: N = NO MAGNETIC MATERIAL

GZ2894\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

GZ2894+STABILITY: SURFACE MOTION

GZ2894\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

GZ2894+SATELLITE: SATELLITE OBSERVATIONS - October 08, 2001

GZ2894

GZ2894	HISTORY	- Date	Condition	Report By
GZ2894	HISTORY	- 1951	MONUMENTED	CGS
GZ2894	HISTORY	- 1956	SEE DESCRIPTION	CGS
GZ2894	HISTORY	- 1977	GOOD	NGS
GZ2894	HISTORY	- 1977	GOOD	NGS
GZ2894	HISTORY	- 19890404	GOOD	NGS
GZ2894	HISTORY	- 19930826	GOOD	NGS
GZ2894	HISTORY	- 20011008	GOOD	KYDT

GZ2894

GZ2894 STATION DESCRIPTION

GZ2894

GZ2894'DESCRIBED BY COAST AND GEODETIC SURVEY 1951 (LWS)

GZ2894'STATION IS LOCATED ABOUT 4 MILES NORTH OF PAINT LICK IN THE NORTHEAST

GZ2894'CORNER OF THE KIRKSVILLE CHRISTIAN CHURCH YARD. IT IS 86 FEET

GZ2894'NORTH OF THE NORTHEAST CORNER OF THE CHURCH, 34 FEET WEST OF THE

GZ2894'CENTER OF STATE HIGHWAY NO. 595, 17 FEET NORTH OF THE CENTER OF

GZ2894'DRIVEWAY INTO CHURCH YARD, 13 FEET WEST OF WHITE WITNESS POST AND 11

GZ2894'FEET SOUTH OF FENCE LINE. THE MARK IS SET FLUSH WITH THE GROUND

GZ2894'SURFACE AND THE DISK IS STAMPED KIRKSVILLE 1951.

GZ2894'

GZ2894'REFERENCE MARK NO. 1 IS SET IN THE NORTHEAST CORNER OF THE CONCRETE

GZ2894'SIDE WALK ON THE EAST SIDE AND MAIN ENTRANCE INTO CHURCH. THE

GZ2894'MARK IS SET FLUSH WITH THE CONCRETE SURFACE AND THE DISK STAMPED

GZ2894'KIRKSVILLE NO. 1 1951.

GZ2894'

GZ2894'REFERENCE MARK NO. 2 IS 4 FEET SOUTH OF FENCE LINE AND 3 FEET EAST OF

GZ2894'A 20 INCH WALNUT TREE. THE MARK IS SET FLUSH WITH THE GROUND

GZ2894'SURFACE AND THE DISK STAMPED KIRKSVILLE NO. 2 1951.

GZ2894'

GZ2894'THE AZIMUTH MARK IS 17 FEET EAST OF THE CENTER OF STATE HIGHWAY NO.

GZ2894'595, 1 FOOT EAST OF NORTH-SOUTH FENCE LINE AND 3 FEET NORTH OF

GZ2894'WHITE WITNESS POST SET IN BARN YARD. THE MARK PROJECTS ABOUT 6

GZ2894'INCHES AND THE DISK STAMPED KIRKSVILLE 1951.

GZ2894'

GZ2894'TO REACH THE STATION FROM THE CENTER OF TOWN IN PAINT LICK, GO

GZ2894'NORTHEAST ON STATE HIGHWAY NO. 52 FOR 2 MILES TO PAVED SIDE ROAD

GZ2894'LEFT, BEAR LEFT AND FOLLOW PAVED ROAD NORTH FOR 1.3 MILES TO THE

GZ2894'AZIMUTH MARK ON THE EAST SIDE AS DESCRIBED, CONTINUE NORTH ON PAVED

GZ2894'ROAD FOR 0.75 MILE TO THE KIRKSVILLE CHRISTIAN CHURCH ON THE WEST

GZ2894'SIDE AND STATION AS DESCRIBED.

GZ2894'

GZ2894'HEIGHT OF LIGHT ABOVE STATION MARK 26 METERS.

GZ2894

GZ2894 STATION RECOVERY (1956)

GZ2894

GZ2894'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1956 (WRH)

GZ2894'STATION WAS FOUND ON A SMALL MOUND OF DIRT WHERE THE STATE HIGHWAY  
GZ2894'DEPARTMENT HAD BORROWED DIRT WHILE BUILDING NEW ROAD AND LEFT THIS  
GZ2894'MOUND IN THE CORNER OF THE CHURCH YARD. A CROSS REFERENCE WAS SET UP  
GZ2894'TO HOLD THE CENTER, AND AFTER THE GRADING WAS FINISHED THE MARK  
GZ2894'WAS RESET AT THE SAME CENTER.

GZ2894'

GZ2894'THE ORIGINAL DESCRIPTION IS ADEQUATE, EXCEPT THE MARK IS NOW STAMPED  
GZ2894'KIRKSVILLE 1951 RESET 1956, AND THE FENCES AND WITNESS POST ARE  
GZ2894'GONE.

GZ2894

STATION RECOVERY (1977)

GZ2894

GZ2894'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1977 (CLN)

GZ2894'THE UNDERGROUND STATION MARK, REFERENCE MARK 1 AND THE AZIMUTH MARK  
GZ2894'WERE FOUND IN GOOD CONDITION. THE SURFACE STATION MARK WAS FOUND  
GZ2894'UPROOTED BY GRADING AND A NEW MARK WAS SET. REFERENCE MARK 2 WAS  
GZ2894'NOT FOUND AN IT IS ASSUMED THAT IT WAS DESTROYED BY GRADING.

GZ2894'REFERENCE MARK 3 WAS SET. THE DISTANCE AND DIRECTION TO REFERENCE  
GZ2894'MARK 1 CHECKED. A NEW DESCRIPTION FOLLOWS--

GZ2894'

GZ2894'THE STATION IS LOCATED IN THE NORTHEAST CORNER OF THE KIRKSVILLE  
GZ2894'CHRISTIAN CHURCH YARD, 86 FEET NORTH OF THE NORTHEAST CORNER OF THE  
GZ2894'CHURCH, 29 FEET WEST OF THE CENTERLINE OF HIGHWAY 595, 117 FEET  
GZ2894'SOUTH OF THE CENTERLINE OF HIGHWAY 1295, 17 FEET NORTH OF THE  
GZ2894'CENTERLINE OF A DRIVEWAY, 10 FEET WEST OF THE NORTH CONCRETE GATE  
GZ2894'POST AND 24 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF A CONCRETE  
GZ2894'BLOCK BUILDING. THE MONUMENT IS FLUSH AND THE DISK IS STAMPED  
GZ2894'KIRKSVILLE 1951 1977.

GZ2894'

GZ2894'REFERENCE MARK 1 IS A STANDARD DISK SET IN A DRILL HOLE IN THE  
GZ2894'NORTHEAST END OF A CONCRETE SIDEWALK ON THE EAST SIDE OF THE CHURCH,  
GZ2894'5 FEET EAST OF THE NORTHEAST CORNER OF THE CHURCH, 20 FEET NORTH OF  
GZ2894'THE CENTER OF THE EAST ENTRANCE, STAMPED KIRKSVILLE NO 1 1951.

GZ2894'

GZ2894'REFERENCE MARK 3 IS A STANDARD PRE-CAST ALUMINUM MONUMENT, WITH  
GZ2894'MAGNETS, FLUSH WITH THE GROUND, STAMPED KIRKSVILLE 1951 NO 3 1977,  
GZ2894'6 INCHES NORTHWEST OF THE NORTHWEST CORNER OF THE NORTH GATE POST,  
GZ2894'17 FEET NORTH OF THE CENTERLINE OF THE DRIVEWAY, 19 FEET WEST OF  
GZ2894'THE CENTERLINE OF HIGHWAY 595 AND 29 FEET SOUTHEAST OF THE  
GZ2894'SOUTHEAST CORNER OF THE CONCRETE BLOCK BUILDING.

GZ2894'

GZ2894'THE AZIMUTH MARK IS 0.75 MILE SOUTHEAST ALONG HIGHWAY 595 FROM THE  
GZ2894'STATION, 16 FEET EAST OF THE CENTERLINE OF THE HIGHWAY, 62 FEET  
GZ2894'NORTH OF THE NORTHWEST CORNER OF A BARN, 2 FEET WEST OF A FENCE AND  
GZ2894'1 FOOT SOUTH OF A METAL WITNESS POST. THE MONUMENT PROJECTS 4  
GZ2894'INCHES AND THE DISK IS STAMPED KIRKSVILLE 1951.

GZ2894'

GZ2894'AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN--AT KIRKSVILLE.

GZ2894'

GZ2894'HEIGHT OF LIGHT ABOVE STATION MARK IS 5 FEET.

GZ2894

STATION RECOVERY (1977)

GZ2894

GZ2894'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1977

GZ2894'RECOVERED IN GOOD CONDITION.

GZ2894

STATION RECOVERY (1989)

GZ2894

GZ2894'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1989

GZ2894'THE STATION WAS RECOVERED IN GOOD CONDITION. A NEW DESCRIPTION  
GZ2894'FOLLOWS. THE STATION IS LOCATED IN THE TOWN OF KIRKSVILLE WHICH IS  
GZ2894'ABOUT 6.4 KM (4.00 MI) NORTHEAST OF PAINT LICK AND IN THE NORTHEAST  
GZ2894'CORNER OF THE KIRKSVILLE CHRISTIAN CHURCH YARD. OWNERSHIP--KIRKSVILLE

GZ2894'CHRISTIAN CHURCH, KIRKSVILLE, KENTUCKY.

GZ2894'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROADS 21 AND 52 IN  
GZ2894'PAINT LICK, DRIVE EAST ON STATE ROAD 52 FOR 2.75 KM (1.70 MI) TO THE  
GZ2894'JUNCTION OF STATE ROAD 595 ON THE LEFT. TURN LEFT AND GO NORTH ON  
GZ2894'STATE ROAD 595 FOR 3.22 KM (2.00 MI) TO THE KIRKSVILLE CHRISTIAN  
GZ2894'CHURCH AND THE STATION ON THE LEFT.

GZ2894'THE STATION IS A STANDARD NGS HORIZONTAL CONTROL DISK

GZ2894'STAMPED---KIRKSVILLE 1951 1977---, SET IN THE TOP OF A SQUARE CONCRETE  
GZ2894'POST THAT IS FLUSH WITH THE GROUND. LOCATED 26.2 M (86.0 FT) NORTH OF

GZ2894'THE NORTHEAST CORNER OF THE CHURCH, 8.8 M (28.9 FT) WEST FROM THE

GZ2894'CENTER OF STATE HIGHWAY 595, 7.6 M (24.9 FT) SOUTHEAST OF THE

GZ2894'SOUTHEAST CORNER OF A CONCRETE BLOCK BUILDING, 5.1 M (16.7 FT)

GZ2894'SOUTHWEST FROM A FIBERGLASS WITNESS POST AND 3.1 M (10.2 FT) WEST OF

GZ2894'THE NORTH CONCRETE GATE POST.

GZ2894'DESCRIBED BY M.J. WELLSLAGER.

GZ2894

STATION RECOVERY (1993)

GZ2894

GZ2894'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993

GZ2894'THE STATION IS LOCATED ABOUT 8 MI (12.9 KM) SOUTHWEST OF RICHMOND, IN

GZ2894'KIRKSVILLE, IN THE NORTHEAST CORNER OF THE KIRKSVILLE CHRISTIAN

GZ2894'CHURCH YARD. OWNERSHIP--UNKNOWN.

GZ2894'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAY 52 AND

GZ2894'SECONDARY STATE HIGHWAY 21 IN PAINT LICK, GO NORTHEAST ON HIGHWAY 52

GZ2894'FOR 2.75 KM (1.70 MI) TO THE JUNCTION WITH STATE HIGHWAY 595 NORTH ON

GZ2894'THE LEFT, TURN LEFT AND GO NORTH ON HIGHWAY 595 FOR 3.2 KM (2.00 MI)

GZ2894'TO THE STATION ON THE LEFT, APPROXIMATELY 100 FT (30.5 M) SOUTH OF THE

GZ2894'INTERSECTION OF STATE HIGHWAY 595 AND 1295 IN KIRKSVILLE.

GZ2894'LOCATED 26.2 M (86.0 FT) NORTH FROM THE NORTHEAST CORNER OF THE

GZ2894'CHURCH, 8.8 M (28.9 FT) WEST FROM THE CENTERLINE OF HIGHWAY 595, 3.1

GZ2894'M (10.2 FT) WEST FROM THE NORTH CONCRETE GATE POST, 7.6 M (24.9 FT)

GZ2894'SOUTHEAST FROM THE SOUTHEAST CORNER OF A ONE-STORY CONCRETE BLOCK

GZ2894'BUILDING AND 5.1 M (16.7 FT) SOUTHWEST FROM A WITNESS POST.

GZ2894

STATION RECOVERY (2001)

GZ2894

GZ2894

GZ2894'RECOVERY NOTE BY KENTUCKY DEPARTMENT OF TRANSPORTATION 2001 (GT)

GZ2894'RECOVERED IN GOOD CONDITION.

The NGS Data Sheet

GZ0132 \*\*\*\*\*

GZ0132 CBN - This is a Cooperative Base Network Control Station.

GZ0132 DESIGNATION - I75 L 83

GZ0132 PID - GZ0132

GZ0132 STATE/COUNTY- KY/MADISON

GZ0132 USGS QUAD - RICHMOND NORTH (1993)

GZ0132

\*CURRENT SURVEY CONTROL

GZ0132

GZ0132\* NAD 83(1993)- 37 51 34.68569(N) 084 19 59.19617(W) ADJUSTED

GZ0132\* NAVD 88 - 286.293 (meters) 939.28 (feet) ADJUSTED

GZ0132

GZ0132 X - 497,891.230 (meters) COMP

GZ0132 Y - -5,017,564.276 (meters) COMP

GZ0132 Z - 3,893,310.905 (meters) COMP

GZ0132 LAPLACE CORR- 0.42 (seconds) DEFLEC99

GZ0132 ELLIP HEIGHT- 253.79 (meters) (09/07/94) GPS OBS

GZ0132 GEOID HEIGHT- -32.51 (meters) GEOID99

GZ0132 DYNAMIC HT - 286.087 (meters) 938.60 (feet) COMP

GZ0132 MODELED GRAV- 979,903.0 (mgal) NAVD 88

GZ0132

GZ0132 HORZ ORDER - B

GZ0132 VERT ORDER - SECOND CLASS 0

GZ0132 ELLP ORDER - FOURTH CLASS I

GZ0132

GZ0132.The horizontal coordinates were established by GPS observations

GZ0132.and adjusted by the National Geodetic Survey in September 1994.

GZ0132

GZ0132.The orthometric height was determined by differential leveling

GZ0132.and adjusted by the National Geodetic Survey in June 1991.

GZ0132

GZ0132.The X, Y, and Z were computed from the position and the ellipsoidal ht.

GZ0132

GZ0132.The Laplace correction was computed from DEFLEC99 derived deflections.

GZ0132

GZ0132.The ellipsoidal height was determined by GPS observations

GZ0132.and is referenced to NAD 83.

GZ0132

GZ0132.The geoid height was determined by GEOID99.

GZ0132

GZ0132.The dynamic height is computed by dividing the NAVD 88

GZ0132.geopotential number by the normal gravity value computed on the

GZ0132.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

GZ0132.degrees latitude (g = 980.6199 gals.).

GZ0132

GZ0132.The modeled gravity was interpolated from observed gravity values.

GZ0132

GZ0132;	North	East	Units	Scale	Converg.
GZ0132;SPC KY1Z	- 1,170,338.983	1,624,669.125	MT	0.99990498	+0 52 11.7
GZ0132;SPC KY1Z	- 3,839,687.15	5,330,268.62	sFT	0.99990498	+0 52 11.7
GZ0132;SPC KY S	- 670,320.267	624,679.514	MT	0.99998738	+0 51 33.4
GZ0132;SPC KY S	- 2,199,209.08	2,049,469.37	sFT	0.99998738	+0 51 33.4
GZ0132;SPC KY N	- 39,921.624	492,686.218	MT	1.00001792	-0 03 06.1
GZ0132;SPC KY N	- 130,976.19	1,616,421.37	sFT	1.00001792	-0 03 06.1
GZ0132;UTM 16	- 4,193,593.825	734,612.496	MT	1.00027800	+1 38 15.0

GZ0132

SUPERSEDED SURVEY CONTROL

GZ0132

GZ0132 NAD 83(1986)- 37 51 34.69097(N) 084 19 59.20499(W) AD( ) 3

GZ0132 NGVD 29 - 286.448 (m) 939.79 (f) ADJ UNCH 2 0

GZ0132

GZ0132.Superseded values are not recommended for survey control.

GZ0132.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

GZ0132

GZ0132\_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SGG3461293594(NAD 83)

GZ0132\_MARKER: DD = SURVEY DISK



GZ0132'INTERSTATE 75 AND IS ON THE WESTERN RIGHT OF WAY FOR STATE HIGHWAYS  
GZ0132'25 AND 421. OWNERSHIP--HIGHWAY RIGHT OF WAY.  
GZ0132'TO REACH THE STATION FROM THE EXIT 97 OVERPASS BRIDGE, INTERCHANGE OF  
GZ0132'INTERSTATE 75 AND STATE HIGHWAYS 25 AND 421, GO WEST THEN SOUTH 1.5  
GZ0132'MI (2.4 KM) ON STATE HIGHWAYS 25 AND 421 TO LOWER HINES CREEK ROAD  
GZ0132'RIGHT AND THE STATION ON THE RIGHT.  
GZ0132'THE STATION PROJECTS 8 CM ABOVE THE GROUND. LOCATED 15.5 M (50.9 FT)  
GZ0132'NORTH OF CENTER OF LOWER HINES CREEK ROAD, 9.0 M (29.5 FT) WEST OF THE  
GZ0132'CENTERLINE OF HIGHWAYS 25 AND 421, 0.8 M (2.6 FT) EAST FROM A BOARD  
GZ0132'FENCE AND 0.5 M (1.6 FT) EAST OF A METAL WITNESS POST.  
GZ0132  
GZ0132 STATION RECOVERY (1995)  
GZ0132  
GZ0132'RECOVERY NOTE BY LOWE ENGINEERS 1995 (LDS)  
GZ0132'RECOVERED AS DESCRIBED.  
GZ0132  
GZ0132 STATION RECOVERY (2001)  
GZ0132  
GZ0132'RECOVERY NOTE BY KENTUCKY DEPARTMENT OF TRANSPORTATION 2001 (GT)  
GZ0132'RECOVERED IN GOOD CONDITION.



The NGS Data Sheet

GZ0048 \*\*\*\*\*

GZ0048 DESIGNATION - K 39  
 GZ0048 PID - GZ0048  
 GZ0048 STATE/COUNTY- KY/MADISON  
 GZ0048 USGS QUAD - RICHMOND SOUTH (1987)

\*CURRENT SURVEY CONTROL

GZ0048*	NAD 83(1993)-	37 38 21.67506(N)	084 17 58.50424(W)	ADJUSTED
GZ0048*	NAVD 88	- 275.836 (meters)	904.97 (feet)	ADJUSTED
GZ0048	X	- 502,313.112 (meters)		COMP
GZ0048	Y	- 5,032,159.147 (meters)		COMP
GZ0048	Z	- 3,873,972.250 (meters)		COMP
GZ0048	LAPLACE CORR-	-0.52 (seconds)		DEFLEC99
GZ0048	ELLIP HEIGHT-	244.09 (meters)	(01/09/97)	GPS OBS
GZ0048	GEOID HEIGHT-	-31.81 (meters)		GEOID99
GZ0048	DYNAMIC HT -	275.630 (meters)	904.30 (feet)	COMP
GZ0048	MODELED GRAV-	979,874.0 (mgal)		NAVD 88

GZ0048 HORZ ORDER - FIRST  
 GZ0048 VERT ORDER - SECOND CLASS 0  
 GZ0048 ELLP ORDER - FOURTH CLASS I

GZ0048.The horizontal coordinates were established by GPS observations  
 GZ0048.and adjusted by the National Geodetic Survey in January 1997.  
 GZ0048  
 GZ0048.The orthometric height was determined by differential leveling  
 GZ0048.and adjusted by the National Geodetic Survey in June 1991.  
 GZ0048  
 GZ0048.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 GZ0048  
 GZ0048.The Laplace correction was computed from DEFLEC99 derived deflections.  
 GZ0048  
 GZ0048.The ellipsoidal height was determined by GPS observations  
 GZ0048.and is referenced to NAD 83.  
 GZ0048  
 GZ0048.The geoid height was determined by GEOID99.  
 GZ0048  
 GZ0048.The dynamic height is computed by dividing the NAVD 88  
 GZ0048.geopotential number by the normal gravity value computed on the  
 GZ0048.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
 GZ0048.degrees latitude (g = 980.6199 gals.).  
 GZ0048  
 GZ0048.The modeled gravity was interpolated from observed gravity values.

GZ0048;	North	East	Units	Scale	Converg.
GZ0048;SPC KY1Z	- 1,145,940.160	1,627,998.675	MT	0.99991346	+0 53 25.8
GZ0048;SPC KY1Z	- 3,759,638.67	5,341,192.32	sFT	0.99991346	+0 53 25.8
GZ0048;SPC KY S	- 645,919.252	628,004.700	MT	0.99995955	+0 52 46.6
GZ0048;SPC KY S	- 2,119,153.41	2,060,378.75	sFT	0.99995955	+0 52 46.6
GZ0048;UTM 16	- 4,169,232.265	738,268.262	MT	1.00029933	+1 38 59.6

SUPERSEDED SURVEY CONTROL

GZ0048 NGVD 29 - 275.988 (m) 905.47 (f) ADJ UNCH 2 0

GZ0048.Superseded values are not recommended for survey control.  
 GZ0048.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 GZ0048

GZ0048\_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SGG3826869232(NAD 83)  
 GZ0048\_MARKER: DB = BENCH MARK DISK  
 GZ0048\_SETTING: 36 = HEADWALL  
 GZ0048\_STAMPING: K 39 1935 905.471  
 GZ0048\_MARK LOGO: CGS  
 GZ0048\_MAGNETIC: N = NO MAGNETIC MATERIAL

GZ0048\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
GZ0048\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
GZ0048+SATELLITE: SATELLITE OBSERVATIONS - October 08, 2001

GZ0048	HISTORY	- Date	Condition	Report By
GZ0048	HISTORY	- 1935	MONUMENTED	CGS
GZ0048	HISTORY	- 1958	POOR	NGS
GZ0048	HISTORY	- 1961	GOOD	NGS
GZ0048	HISTORY	- 19951001	GOOD	LOWE
GZ0048	HISTORY	- 20011008	GOOD	KYDT

GZ0048  
GZ0048  
GZ0048

GZ0048

STATION DESCRIPTION

GZ0048'DESCRIBED BY NATIONAL GEODETIC SURVEY 1958  
GZ0048'4.9 MI N FROM BEREА.  
GZ0048'4.9 MILES NORTH ALONG THE LOUISVILLE AND NASHVILLE RAILROAD  
GZ0048'FROM THE STATION AT BEREА, MADISON COUNTY, 0.6 MILE NORTH OF  
GZ0048'WHITES STATION, 40 YARDS SOUTH OF MILEPOST C 127, AT RAILROAD  
GZ0048'BRIDGE NO. 49 OVER A SMALL STREAM, IN THE TOP OF THE WEST END  
GZ0048'OF THE NORTH ABUTMENT, 6 FEET WEST OF THE WEST RAIL, AND ABOUT  
GZ0048'1 FOOT LOWER THAN THE TRACK. A STANDARD DISK, STAMPED K 39 1935.

GZ0048  
GZ0048

STATION RECOVERY (1961)

GZ0048  
GZ0048

GZ0048'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1961  
GZ0048'RECOVERED IN GOOD CONDITION.

GZ0048  
GZ0048

STATION RECOVERY (1995)

GZ0048  
GZ0048

GZ0048'RECOVERY NOTE BY LOWE ENGINEERS 1995 (LDS)  
GZ0048'RECOVERED AS DESCRIBED.

GZ0048  
GZ0048

STATION RECOVERY (2001)

GZ0048  
GZ0048

GZ0048'RECOVERY NOTE BY KENTUCKY DEPARTMENT OF TRANSPORTATION 2001 (GT)  
GZ0048'ABOUT 5.5 MILES NORTH ALONG US 25 FROM THE JUNCTION WITH KY 21 AT  
GZ0048'BEREA, THENCE 1.7 MILES WEST ALONG MENALAUS ROAD TO CSX RAILROAD  
GZ0048'CROSSING, THENCE 0.4 MILE SOUTH ALONG RAILROAD TO BRIDGE OVER SILVER  
GZ0048'CREEK AND MARK ON THE RIGHT.

National Geodetic Survey, Retrieval Date = AUGUST 24, 2003

GZ0163 \*\*\*\*\*

GZ0163 DESIGNATION - CALEAST
GZ0163 PID - GZ0163
GZ0163 STATE/COUNTY- KY/MADISON
GZ0163 USGS QUAD - RICHMOND SOUTH (1987)

\*CURRENT SURVEY CONTROL

GZ0163\* NAD 83(1993)- 37 41 26.34845(N) 084 19 54.71912(W) ADJUSTED
GZ0163\* NAVD 88 - 304.568 (meters) 999.24 (feet) ADJUSTED

GZ0163 LAPLACE CORR- 0.07 (seconds) DEFLEC99
GZ0163 GEOID HEIGHT- -31.99 (meters) GEOID99
GZ0163 DYNAMIC HT - 304.342 (meters) 998.50 (feet) COMP
GZ0163 MODELED GRAV- 979,881.4 (mgal) NAVD 88

GZ0163 HORZ ORDER - THIRD
GZ0163 VERT ORDER - SECOND CLASS 0

GZ0163.The horizontal coordinates were established by classical geodetic methods
GZ0163.and adjusted by the National Geodetic Survey in December 1995.

GZ0163.The orthometric height was determined by differential leveling
GZ0163.and adjusted by the National Geodetic Survey in June 1991.

GZ0163.The Laplace correction was computed from DEFLEC99 derived deflections.

GZ0163.The geoid height was determined by GEOID99.

GZ0163.The dynamic height is computed by dividing the NAVD 88
GZ0163.geopotential number by the normal gravity value computed on the
GZ0163.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
GZ0163.degrees latitude (g = 980.6199 gals.).

GZ0163.The modeled gravity was interpolated from observed gravity values.

Table with 7 columns: Station, North, East, Units, Scale, Convergency. Rows include SPC KY1Z, SPC KY S, SPC KY S, and UTM 16.

Table with 3 columns: Station, Primary Azimuth Mark, Grid Az. Rows include SPC KY1Z, SPC KY S, and UTM 16.

Table with 4 columns: Station, Reference Object, Distance, Geod. Az. Rows include GZ2909 RICHMOND MUNICIPAL TANK, GZ0164 CALEAST RM 1, GZ2881 RICHMOND EASTERN ST COLL TANK, GZ2882 RICHMOND EASTERN ST COLL TWR, GZ2880 RICHMOND EASTERN ST COLL STACK, DB8917 CALEAST AZ MK, GZ2866 BLUE GRASS ORD DEPOT TK 227, GZ0165 CALEAST RM 2.

SUPERSEDED SURVEY CONTROL

GZ0163 NAD 83(1986)- 37 41 26.35600(N) 084 19 54.72508(W) AD( ) 3
GZ0163 NAD 27 - 37 41 26.06100(N) 084 19 54.96600(W) AD( ) 3
GZ0163 NGVD 29 - 304.718 (m) 999.73 (f) ADJ UNCH 2 0

GZ0163

GZ0163.Superseded values are not recommended for survey control.  
GZ0163.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
GZ0163

GZ0163\_U.S. NATIONAL GRID SPATIAL ADDRESS: 16SGG3525774844(NAD 83)

GZ0163\_MARKER: DS = TRIANGULATION STATION DISK

GZ0163\_SETTING: 17 = SET INTO TOP OF METAL PIPE DRIVEN INTO GROUND

GZ0163\_STAMPING: CALEAST 1951

GZ0163\_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

GZ0163

GZ0163	HISTORY	- Date	Condition	Report By
GZ0163	HISTORY	- 1951	MONUMENTED	CGS
GZ0163	HISTORY	- 1961	GOOD	CGS
GZ0163	HISTORY	- 1961	GOOD	PAS
GZ0163	HISTORY	- 1962	GOOD	PAS
GZ0163	HISTORY	- 1962	GOOD	USAF

GZ0163

GZ0163 STATION DESCRIPTION

GZ0163

GZ0163'DESCRIBED BY COAST AND GEODETIC SURVEY 1951 (LWS)

GZ0163'THE STATION IS LOCATED ABOUT 4 MILES SOUTHWEST OF RICHMOND. IT IS 53

GZ0163'FEET SOUTHWEST OF THE CENTER OF A FARM LANE, 38 FEET NORTHEAST OF

GZ0163'THE CENTER OF STATE HIGHWAY 52, 5 FEET SOUTHWEST OF A WHITE WITNESS

GZ0163'POST, 3 FEET EAST OF THE EDGE OF A HIGH BANK AND 2 FEET WEST OF A

GZ0163'FENCE LINE. THE MARK IS A 6 INCH CAST IRON PIPE, FILLED WITH

GZ0163'CONCRETE AND PROJECTS ABOUT 3 INCHES. THE DISK IS SET IN THE TOP

GZ0163'OF THE PIPE AND IS STAMPED CALEAST 1951.

GZ0163'

GZ0163'REFERENCE MARK NO. 1 IS 37 FEET NORTHEAST OF THE CENTER OF THE

GZ0163'HIGHWAY, 8 FEET NORTH OF THE WHITE WITNESS POST AND 3 FEET WEST

GZ0163'OF THE FENCE LINE. THE MARK IS A 4 INCH CAST IRON PIPE FILLED WITH

GZ0163'CONCRETE WHICH PROJECTS ABOUT 2 INCHES. THE DISK IS SET IN THE TOP

GZ0163'OF THE PIPE AND IS STAMPED CLAEAST NO 1 1951.

GZ0163'

GZ0163'REFERENCE MARK NO. 2 IS 39 FEET NORTHEAST OF THE CNETER OF THE

GZ0163'HIGHWAY AND 1 FOOT WEST OF THE FENCE LINE. THE MARK IS A 4 INCH CAST

GZ0163'IRON PIPE, FILLED WITH CONCRETE WHICH PROJECTS ABOUT 6 INCHES. THE

GZ0163'DISK IS SET IN THE TOP OF THE PIPE AND IS STAMPED CALEAST NO 2

GZ0163'1951.

GZ0163'

GZ0163'AZIMUTH MARK IS 44 FEET NORTHWEST OF THE CENTER OF STATE HIGHWAY 52,

GZ0163'2 FEET SOUTH OF A WHITE WITNESS POST AND 1 FOOT EAST OF A FENCE

GZ0163'LINE. THE MARK PROJECTS ABOUT 2 INCHES AND THE DISK IS STAMPED

GZ0163'CALEAST 1951.

GZ0163'

GZ0163'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 25 AND STATE

GZ0163'HIGHWAY 52 (WEST) IN RICHMOND GO SOUTHWEST ON HIGHWAY 52 FOR

GZ0163'4.35 MILES TO THE AZIMUTH MARK ON THE RIGHT AS DESCRIBED, CONTINUE

GZ0163'SOUTHWEST ON HIGHWAY FOR 0.3 MILES TO THE STATION ON THE LEFT NEAR

GZ0163'THE EDGE OF THE BANK AS DESCRIBED.

GZ0163'

GZ0163'HEIGHT OF LIGHT ABOVE STATION MARK 1 METER.

GZ0163

GZ0163 STATION RECOVERY (1961)

GZ0163

GZ0163'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1961 (EB)

GZ0163'THE STATION, AZIMUTH AND REFERENCE MARKS WERE RECOVERED AS DESCRIBED

GZ0163'AND IN GOOD CONDITION. OLD DESCRIPTION AND THE TO REACH IS

GZ0163'ADEQUATE.

GZ0163'

GZ0163'A METAL WITNESS POST AND SIGN WAS SET AT THE STATION AND AZIMUTH

GZ0163'MARKS. STATION IS 2.7 FEET WEST OF WITNESS POST AND AZIMUTH MARK

GZ0163'IS 1.6 FEET SOUTH OF WITNESS POST.

GZ0163

GZ0163 STATION RECOVERY (1961)

GZ0163

GZ0163'RECOVERY NOTE BY PARK AERIAL SURVEYS INCORPORATED 1961

GZ0163'4.8 MI SW FROM RICHMOND.

GZ0163'ABOUT 0.2 MILE NORTHWEST ALONG U.S. HIGHWAY 25 AND 421 FROM THE  
GZ0163'MADISON COUNTY COURT HOUSE IN RICHMOND, THENCE ABOUT 4.8 MILES  
GZ0163'SOUTHWEST ALONG STATE HIGHWAY 52, ABOUT 200 FEET NORTHEAST OF  
GZ0163'CROSSROADS AT TOP OF HILL, 53 FEET SOUTH-SOUTHWEST OF CENTER OF  
GZ0163'FARM LANE, 52.4 FEET WEST-SOUTHWEST OF A POWER POLE, 36 FEET  
GZ0163'SOUTHEAST OF THE CENTERLINE OF HIGHWAY, 2.7 FEET NORTHWEST OF WIRE  
GZ0163'FENCE, 2.7 FEET WEST OF A METAL WITNESS POST AND SIGN AND ABOUT  
GZ0163'10 FEET HIGHER THAN HIGHWAY. A STANDARD U.S.C. AND G.S. TRIANGULATION  
GZ0163'DISK SET IN TOP OF A 6 INCH IRON PIPE FILLED WITH CONCRETE AND  
GZ0163'STAMPED CALEAST 1951. PIPE PROJECTS 3 INCHES.

GZ0163

STATION RECOVERY (1962)

GZ0163

GZ0163

GZ0163'RECOVERY NOTE BY PARK AERIAL SURVEYS INCORPORATED 1962 (EB)  
GZ0163'STATION, AZIMUTH AND REFERENCE MARKS WERE FOUND AS DESCRIBED AND IN  
GZ0163'GOOD CONDITION. A METAL WITNESS POST AND SIGN WAS SET (BY THIS  
GZ0163'AGENCY IN OCTOBER 1961) AT THE STATION AND AT THE AZIMUTH MARK.  
GZ0163'STATION IS 2.7 FEET WEST OF WITNESS POST AND SIGN AND AZIMUTH MARK  
GZ0163'IS 1.6 FEET SOUTH OF WITNESS POST AND SIGN.

GZ0163'

GZ0163'DIRECTION BETWEEN AZIMUTH MARK AND BLUE GRASS ORDINANCE DEPOT WATER  
GZ0163'TANK NO. 227 FAILED TO CHECK THE 1951 DIRECTIONS BY 0 DEG 09 MIN 54  
GZ0163'SEC.

GZ0163'

GZ0163'THE OLD DESCRIPTION AND TO REACH IS ADEQUATE.

GZ0163'

GZ0163'HEIGHT OF LIGHT ABOVE STATION MARK 1.6 METERS.

GZ0163

GZ0163

STATION RECOVERY (1962)

GZ0163

GZ0163'RECOVERY NOTE BY US AIR FORCE 1962  
GZ0163'STATION MARK RECOVERED AS DESCRIBED.