

STATION REPORTS



CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

MAY 2009

INTRODUCTION

The Elizabethton Geodetic Reference Network is a network of sixty-one high order control monuments established for the City of Elizabethton, Tennessee. Six monuments are of horizontal Order B and vertical Order B; fifty-five monuments are of horizontal Order C Class 1 and vertical Order C Class 2. Excepting stations GPS 5 and GPS 6, each monument is intervisible with at least one other monument. Excepting station GPS 1, each monument is a 3-1/2 inch diameter bronze disc – see photographs below - stamped with an ID number which corresponds with the station number at the top of the station reports contained within this booklet.

The Tennessee state plane coordinates and geographic coordinates given for each point, excepting stations GPS 1 and GPS 57, were established by GPS methods during the autumn of 2008. The horizontal control used as the basis for this data was the Order B Cooperative Base Network Control Station established by the Tennessee Department of Transportation which has Designation: GPS 1 and PID: GA3639 in the National Spatial Reference System and is station GPS 1 in this booklet. Excepting station GPS 57, the orthometric heights were established by GPS methods with geoid height determined using geoid model Geoid03. The vertical control used as the basis for this data was the First Order Class 2 benchmark which has Designation: Gaging Sta C and PID: GA0403 in the National Spatial Reference System. Station GPS 57 as originally set was destroyed prior to completion of this project and was reset using conventional surveying methods.



GPS 1



Example of 3-1/2" diameter bronze disc

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May 2009



GPS 1

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 1

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER B

VERTICAL ORDER: ORDER B

NORTHING: **762759.180**

LATITUDE: **36°22'06.43870"N**

EASTING: **3093019.090**

LONGITUDE: **82°10'46.87760"W**

ORTHOMETRIC HEIGHT: **1555.440**

GRID SCALE FACTOR: **0.99999180**

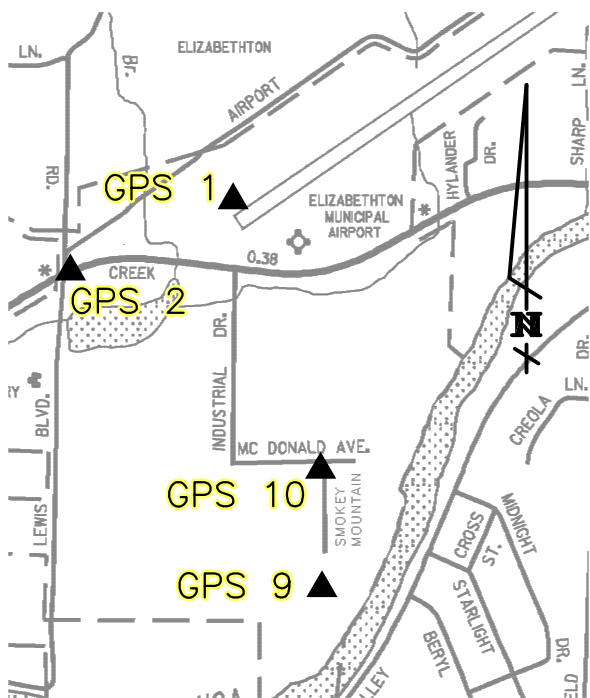
CONVERGENCE: **2°14'11.6"E**

ELEVATION REDUCTION FACTOR: **0.99993051**

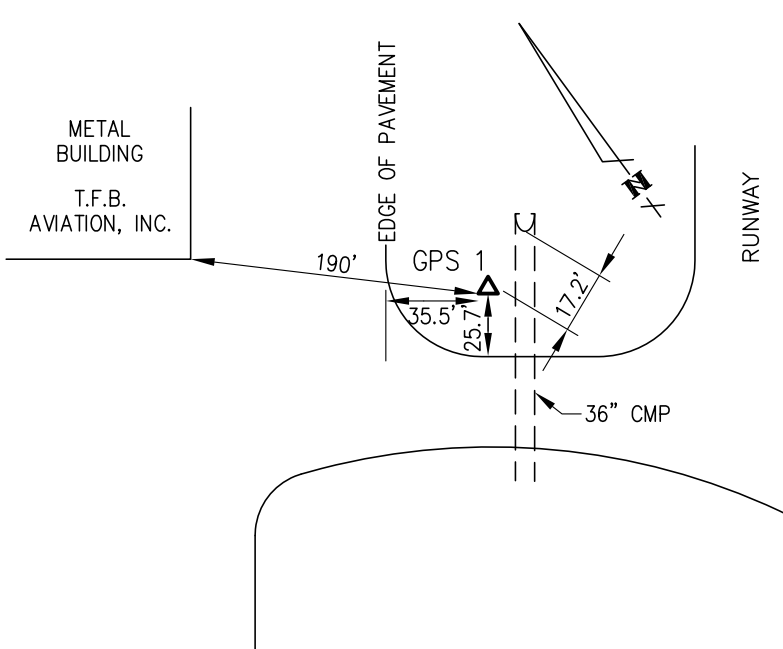
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON AND THE NORTH SIDE OF WATAUGA RIVER. BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND STATE ROUTE 91. GO EASTERLY ALONG STATE ROUTE 91 1.6± MILES TO THE ENTRANCE TO THE ELIZABETHTON AIRPORT. STATION IS NEAR THE WEST END OF THE RUNWAY, LOCATED S 60° W 5.2 FEET FROM A FIBERGLASS WITNESS POST AND PER NGS DESCRIPTION OF YEAR 1987 IS A 3-D MARK WITH STAINLESS STEEL ROD DRIVEN 2.7 METERS (9 FT). THE LOGO CAP IS STAMPED -GPS 1 1987-, AND A STEEL SPIKE IS EMBEDDED IN THE CONCRETE. STATION HAS DESIGNATION: GPS 1 AND PID: GA3639.

VICINITY MAP



REFERENCE DIAGRAM





GPS 2

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 2

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **762269.945**

LATITUDE: **36°22'02.03615"N**

EASTING: **3091900.128**

LONGITUDE: **82°11'00.78209"W**

ORTHOMETRIC HEIGHT: **1558.680**

GRID SCALE FACTOR: **0.99999161**

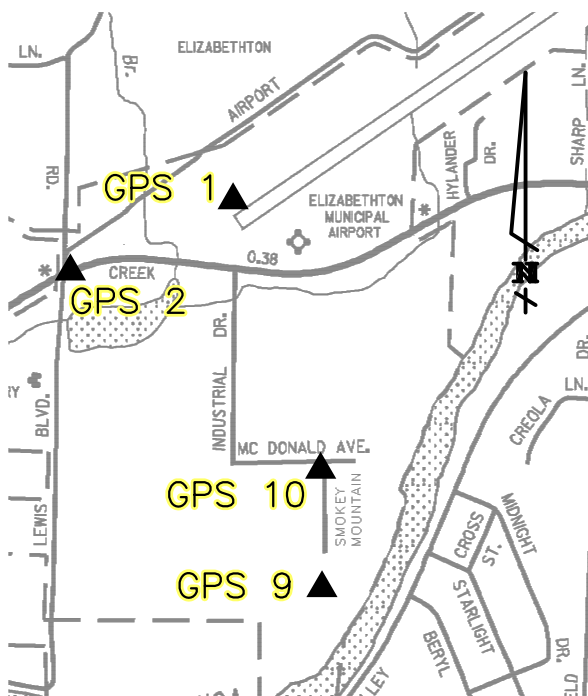
CONVERGENCE: **2°14'03.5"E**

ELEVATION REDUCTION FACTOR: **0.99993036**

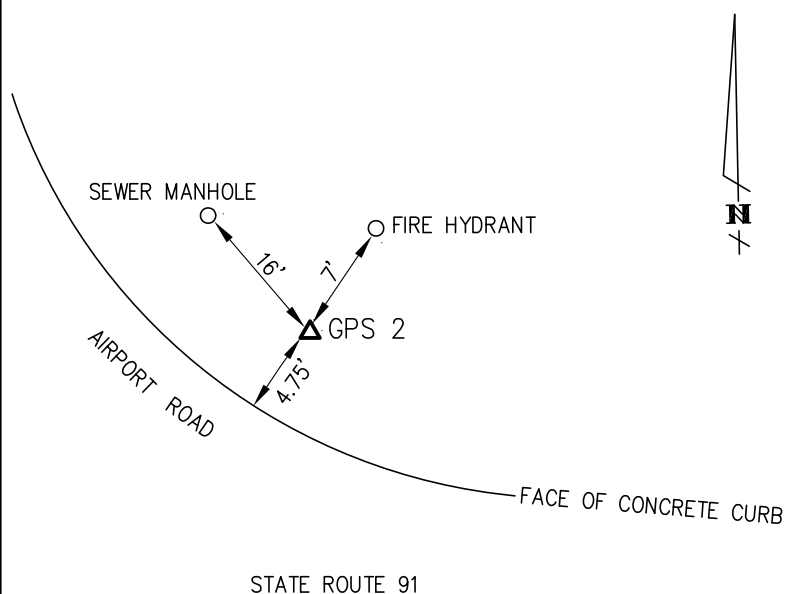
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON AND THE NORTH SIDE OF WATAUGA RIVER. BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND STATE ROUTE 91. GO EASTERLY ALONG STATE ROUTE 91 1.4± MILES TO AIRPORT ROAD. STATION IS ON THE EAST SIDE OF AIRPORT ROAD AND NORTH SIDE OF STATE ROUTE 91. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 2".

VICINITY MAP



REFERENCE DIAGRAM





GPS 3

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 3

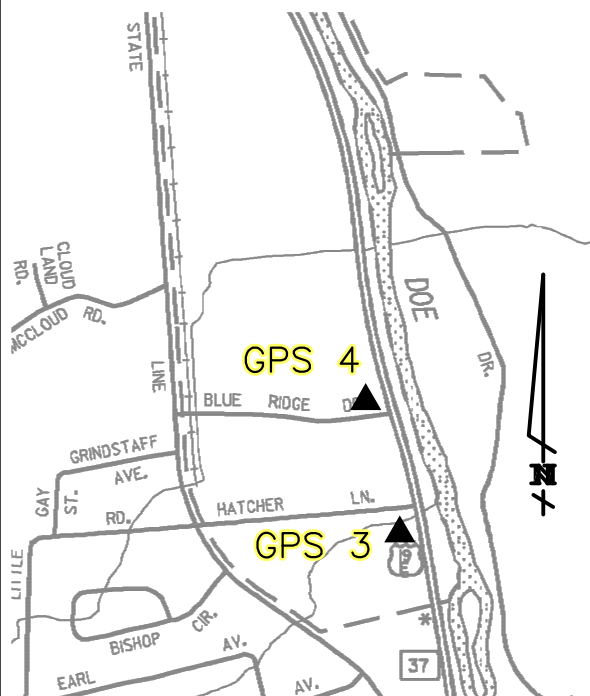
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER B
 VERTICAL ORDER: ORDER B

NORTHING: 746147.108	LATITUDE: 36°19'24.39389"N
EASTING: 3087559.422	LONGITUDE: 82°12'01.46711"W
ORTHOMETRIC HEIGHT: 1578.547	GRID SCALE FACTOR: 0.99998479
CONVERGENCE: 2°13'28.0"E	ELEVATION REDUCTION FACTOR: 0.99992940

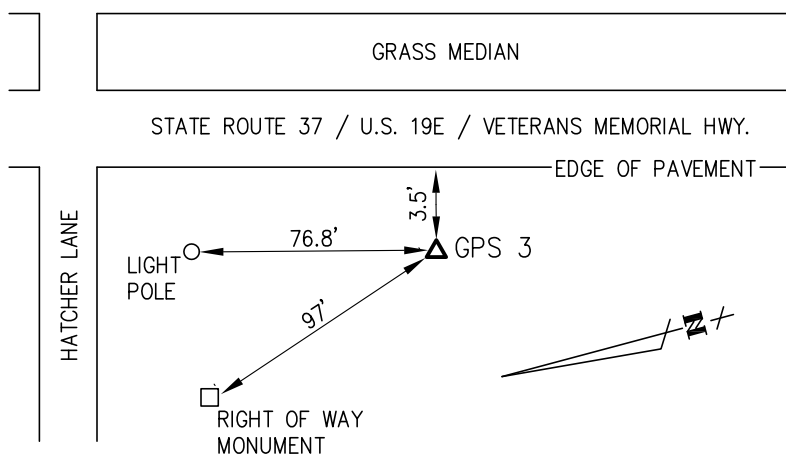
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN AT THE INTERSECTION OF STATE ROUTE 67 (BROAD ST.) AND STATE ROUTE 37 (VETERANS MEMORIAL HWY.). GO SOUTHERLY ALONG STATE ROUTE 37 2.1± MILES TO STATION ON WEST SIDE OF STATE ROUTE 37 NEAR INTERSECTION WITH HATCHER LANE. STATION IS LOCATED N 80° E 5.5 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN CONCRETE AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 3".

VICINITY MAP



REFERENCE DIAGRAM





GPS 4

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION GPS 4

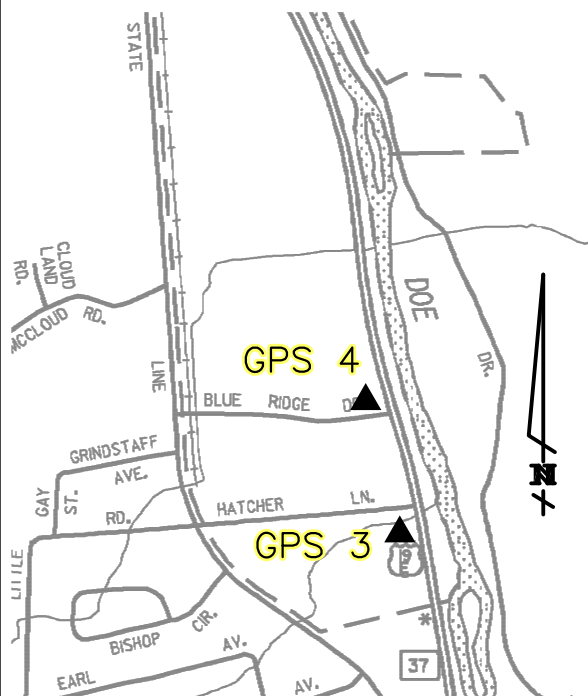
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 747056.211	LATITUDE: 36°19'33.46676"N
EASTING: 3087325.406	LONGITUDE: 82°12'03.89355"W
ORTHOMETRIC HEIGHT: 1576.114	GRID SCALE FACTOR: 0.99998517
CONVERGENCE: 2°13'26.5"E	ELEVATION REDUCTION FACTOR: 0.99992952

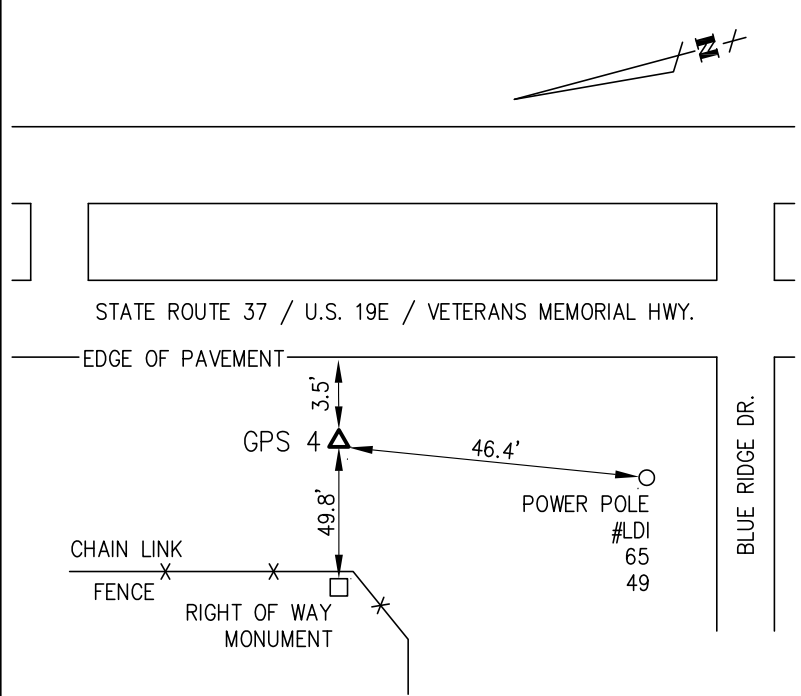
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN AT THE INTERSECTION OF STATE ROUTE 67 (BROAD ST.) AND STATE ROUTE 37 (VETERANS MEMORIAL HWY.). GO SOUTHERLY ALONG STATE ROUTE 37 1.9± MILES TO STATION ON WEST SIDE OF STATE ROUTE 37 NEAR INTERSECTION WITH BLUE RIDGE DR. STATION IS LOCATED N 80° E 4.8 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 4".

VICINITY MAP



REFERENCE DIAGRAM





GPS 5

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION GPS 5

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **756348.980**

LATITUDE: **36°21'10.86165"N**

EASTING: **3072716.875**

LONGITUDE: **82°14'57.93592"W**

ORTHOMETRIC HEIGHT: **1487.243**

GRID SCALE FACTOR: **0.99998933**

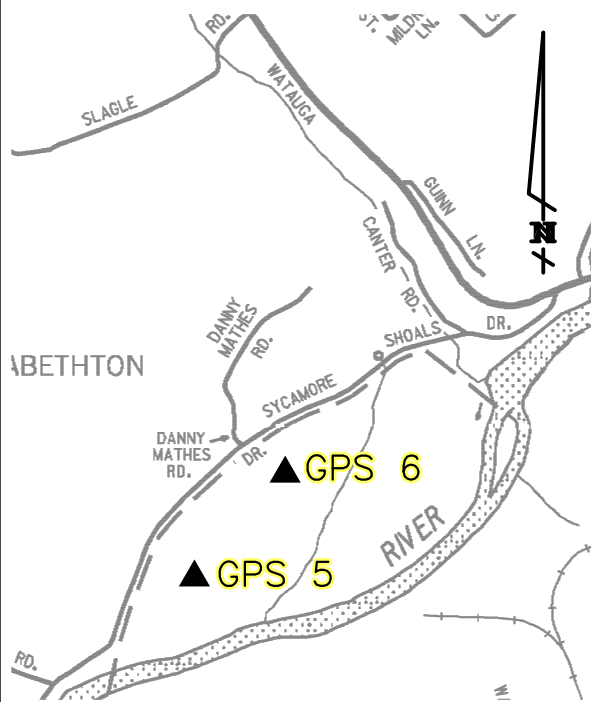
CONVERGENCE: **2°11'44.6"E**

ELEVATION REDUCTION FACTOR: **0.99993378**

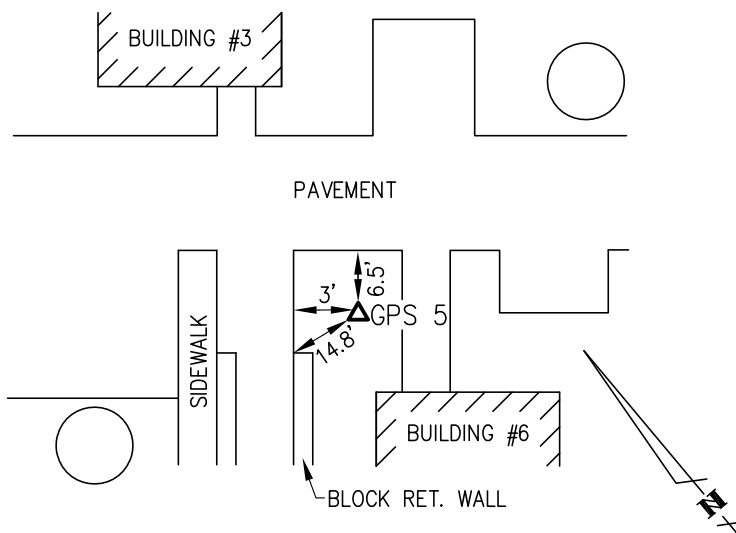
TO REACH DESCRIPTION

STATION IS NORTH OF ELIZABETHTON, BEGIN ON STATE ROUTE 400 (LYNN AVE.) AT ITS INTERSECTION WITH WATAUGA RIVER. GO NORTHERLY ON STATE ROUTE 400 (BRISTOL HWY.) 0.2± MILE TO THE INTERSECTION OF WATAUGA ROAD AND BRISTOL HWY. GO WESTERLY ALONG WATAUGA RD. 1.0± MILES TO SYCAMORE SHOALS DRIVE. GO WESTERLY ON SYCAMORE SHOALS DRIVE 0.7± MILE TO THE ENTRANCE TO CITY OF ELIZABETHTON SEWAGE TREATMENT PLANT SITE. STATION IS IN THE SEWAGE TREATMENT PLANT SITE. STATION IS LOCATED N 15° E 4.1 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN CONCRETE AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 5".

VICINITY MAP



REFERENCE DIAGRAM





GPS 6

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 6

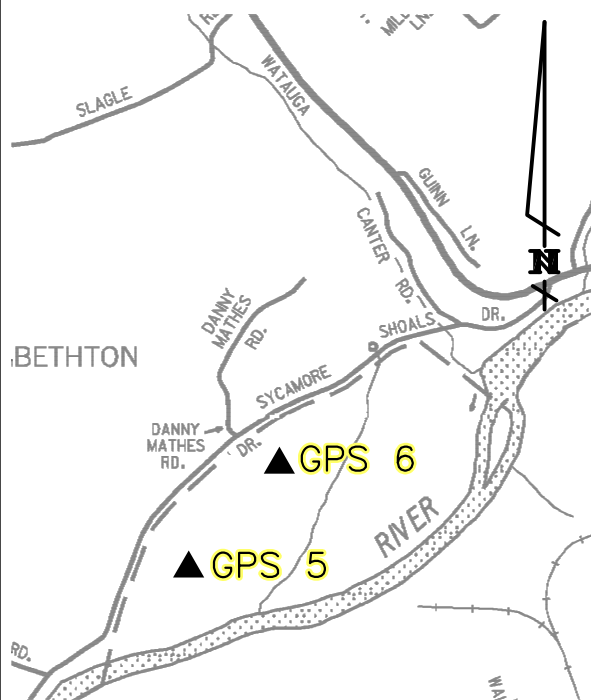
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER B
VERTICAL ORDER: ORDER B

NORTHING: 757062.819	LATITUDE: 36°21'17.67897"N
EASTING: 3073340.535	LONGITUDE: 82°14'49.98290"W
ORTHOMETRIC HEIGHT: 1488.356	GRID SCALE FACTOR: 0.99998963
CONVERGENCE: 2°11'49.3"E	ELEVATION REDUCTION FACTOR: 0.99993373

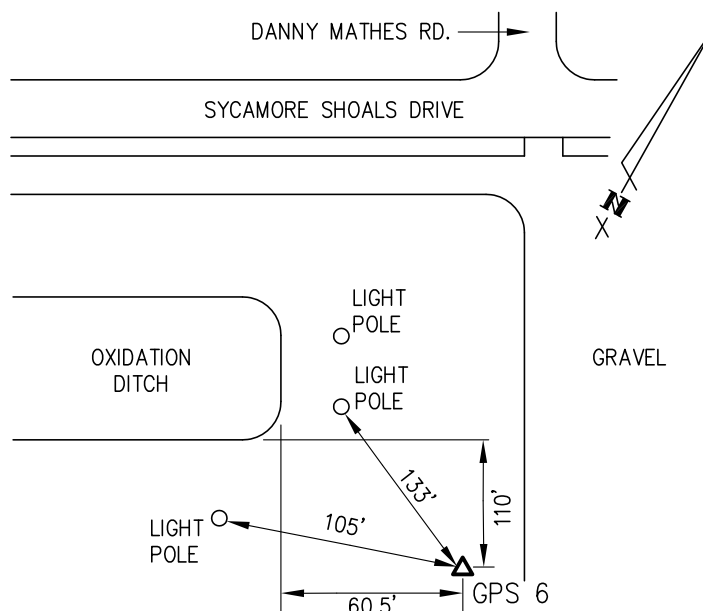
TO REACH DESCRIPTION

STATION IS NORTH OF ELIZABETHTON, BEGIN ON STATE ROUTE 400 (LYNN AVE.) AT ITS INTERSECTION WITH WATAUGA RIVER. GO NORTHERLY ON STATE ROUTE 400 (BRISTOL HWY.) 0.2± MILE TO THE INTERSECTION OF WATAUGA ROAD AND BRISTOL HWY. GO WESTERLY ALONG WATAUGA RD. 1.0± MILES TO SYCAMORE SHOALS DRIVE. GO WESTERLY ON SYCAMORE SHOALS DRIVE 0.7± MILE TO THE ENTRANCE TO CITY OF ELIZABETHTON SEWAGE TREATMENT PLANT SITE. STATION IS IN THE SEWAGE TREATMENT PLANT SITE. STATION IS LOCATED S 45° E 2.6 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3-½ INCH BRONZE DISC SET IN CONCRETE AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 6".

VICINITY MAP



REFERENCE DIAGRAM





GPS 7

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 7

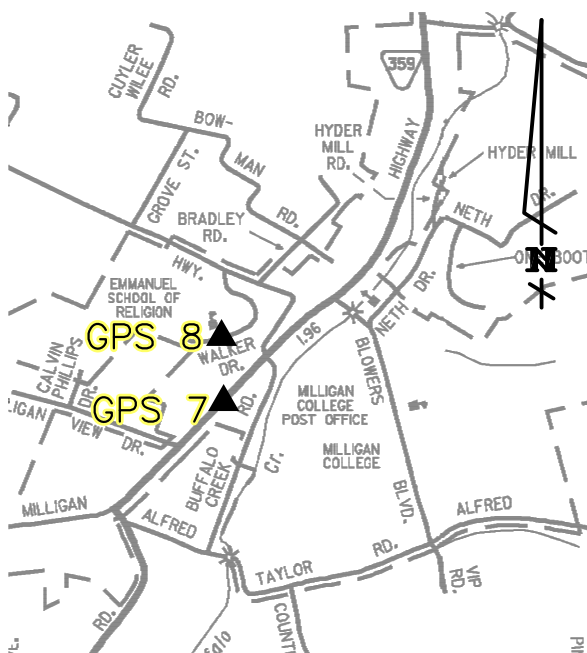
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER C CLASS 1
VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 736602.283	LATITUDE: 36°18'00.89216"N
EASTING: 3059013.586	LONGITUDE: 82°17'54.46313"W
ORTHOMETRIC HEIGHT: 1578.964	GRID SCALE FACTOR: 0.99998142
CONVERGENCE: 2°10'01.3"E	ELEVATION REDUCTION FACTOR: 0.99992939

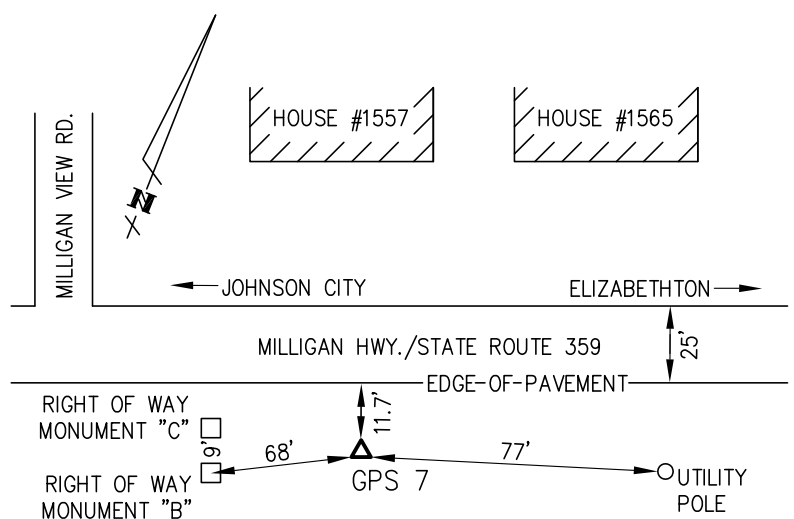
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN ON STATE ROUTE 359 NEAR MILLIGAN COLLEGE AT THE INTERSECTION OF OKALONA RD. AND MILLIGAN HWY. THEN GO EASTERLY ALONG MILLIGAN HWY. $0.2 \pm$ MILES TO STATION ON SOUTH SIDE OF HWY. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN CONCRETE AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 7".

VICINITY MAP



REFERENCE DIAGRAM





GPS 8

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 8

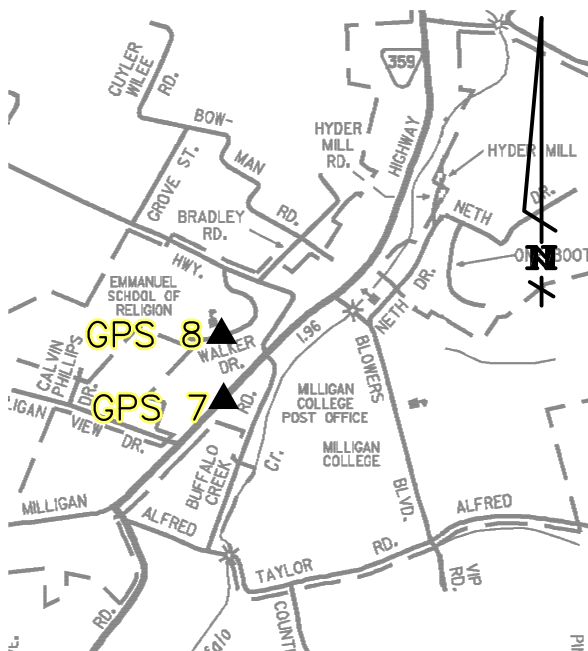
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER B
 VERTICAL ORDER: ORDER B

NORTHING: 737049.391	LATITUDE: 36°18'05.31570"N
EASTING: 3058999.235	LONGITUDE: 82°17'54.43179"W
ORTHOMETRIC HEIGHT: 1657.734	GRID SCALE FACTOR: 0.99998160
CONVERGENCE: 2°10'01.3"E	ELEVATION REDUCTION FACTOR: 0.99992562

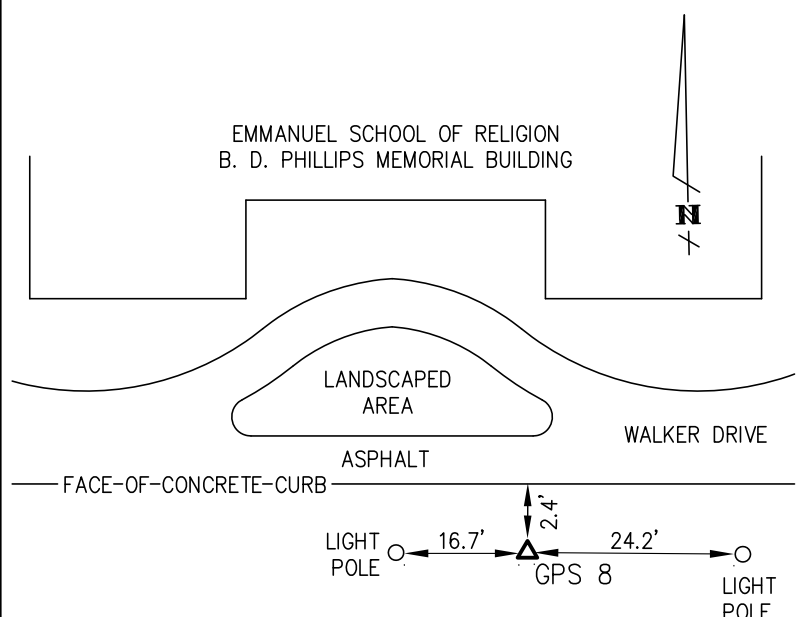
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN ON STATE ROUTE 359 NEAR MILLIGAN COLLEGE AT THE INTERSECTION OF OKALONA RD. AND MILLIGAN HWY. GO EASTERLY ALONG MILLIGAN HWY. 0.3± MILES TO INTERSECTION WITH OLD MILLIGAN HWY. GO NORTHERLY ALONG OLD MILLIGAN HWY. 0.2± MILES TO WALKER DRIVE (ENTRANCE TO EMMANUEL SCHOOL OF RELIGION). GO SOUTHERLY ALONG WALKER DRIVE 0.14± MILE TO STATION ON SOUTHERLY SIDE OF ROAD. STATION IS ON THE SCHOOL CAMPUS. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 8".

VICINITY MAP



REFERENCE DIAGRAM





GPS 9

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 9

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **760092.740**

LATITUDE: **36°21'39.85571"N**

EASTING: **3093630.060**

LONGITUDE: **82°10'40.68581"W**

ORTHOMETRIC HEIGHT: **1536.135**

GRID SCALE FACTOR: **0.99999061**

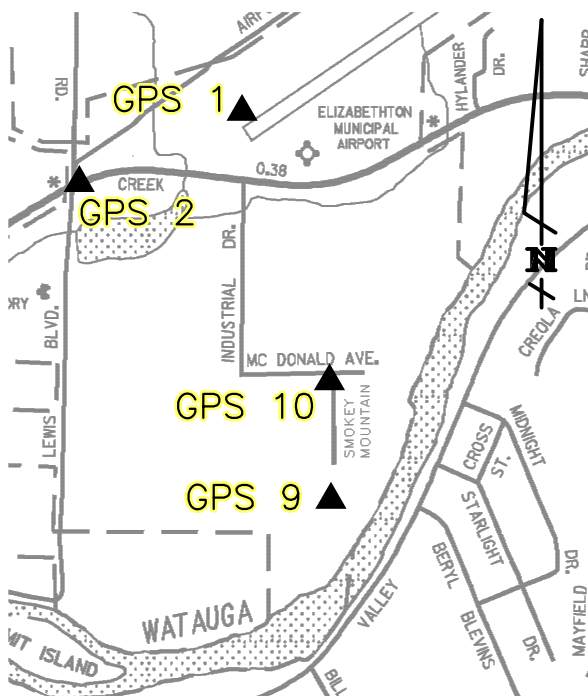
CONVERGENCE: **2°14'15.2"E**

ELEVATION REDUCTION FACTOR: **0.99993143**

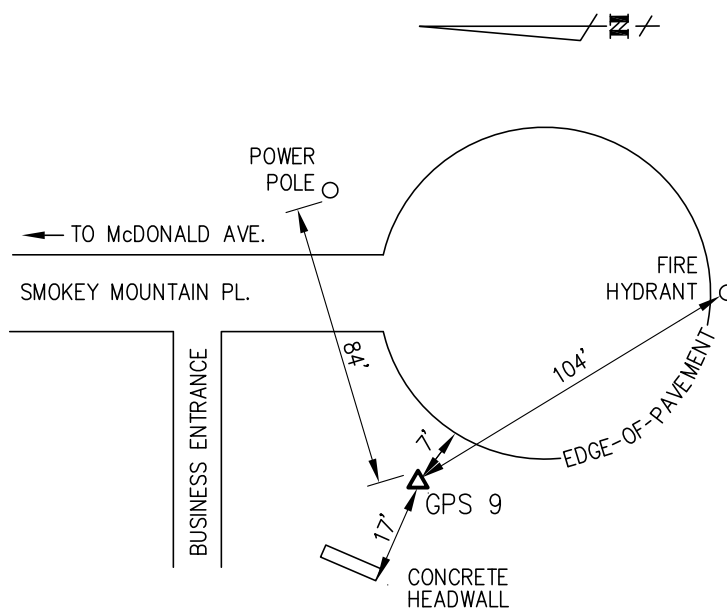
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON AND THE NORTH SIDE OF WATAUGA RIVER. BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND STATE ROUTE 91. GO EASTERLY ALONG STATE ROUTE 91 1.6± MILES TO INDUSTRIAL DR. GO SOUTHERLY ALONG INDUSTRIAL DR. 0.3± MILE TO McDONALD AVE. GO EASTERLY ALONG McDONALD AVE. 0.1± MILE TO SMOKEY MOUNTAIN PL. GO SOUTHERLY ON SMOKEY MOUNTAIN PL. 0.2± MILE TO CUL-DE-SAC. STATION IS ON WEST SIDE OF CUL-DE-SAC. STATION IS LOCATED S 45° E 5.5 FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 9".

VICINITY MAP



REFERENCE DIAGRAM





GPS 10

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 10

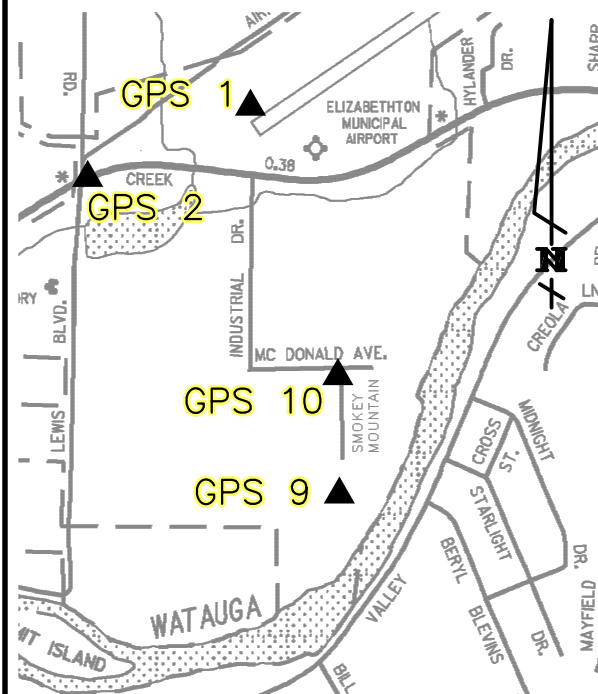
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 760906.789	LATITUDE: 36°21'47.90303"N
EASTING: 3093620.532	LONGITUDE: 82°10'40.41363"W
ORTHOMETRIC HEIGHT: 1542.095	GRID SCALE FACTOR: 0.99999097
CONVERGENCE: 2°14'15.4"E	ELEVATION REDUCTION FACTOR: 0.99993115

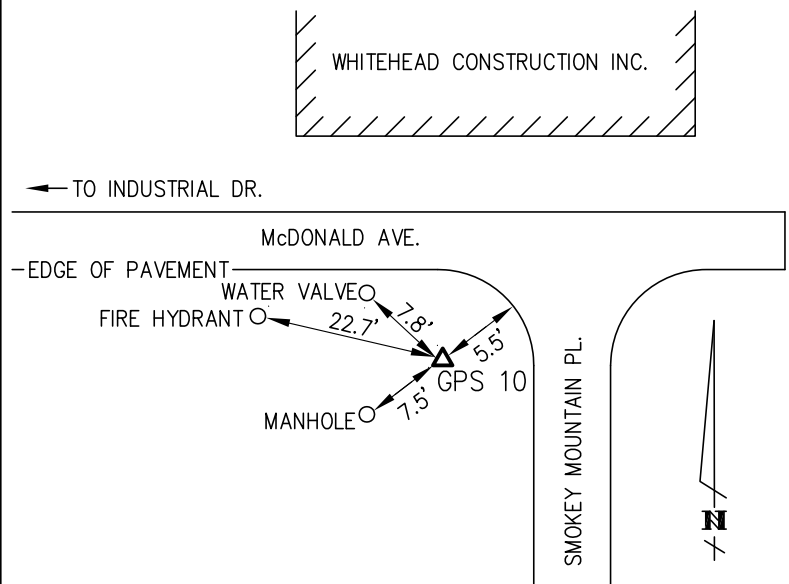
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON AND THE NORTH SIDE OF WATAUGA RIVER. BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND STATE ROUTE 91. GO EASTERLY ALONG STATE ROUTE 91 1.6± MILES TO INDUSTRIAL DR. GO SOUTHERLY ALONG INDUSTRIAL DR. 0.3± MILE TO McDONALD AVE. GO EASTERLY ALONG McDONALD AVE. 0.1± MILE TO SMOKEY MOUNTAIN PL. STATION IS ON SOUTH SIDE OF McDONALD AVE. AND WEST SIDE OF SMOKEY MOUNTAIN PL. STATION IS LOCATED N 30° E 5.3 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3-½ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 10".

VICINITY MAP



REFERENCE DIAGRAM





GPS 11

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 11

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **761024.911**

LATITUDE: **36°21'50.31902"N**

EASTING: **3090381.316**

LONGITUDE: **82°11'19.93107"W**

ORTHOMETRIC HEIGHT: **1538.716**

GRID SCALE FACTOR: **0.99999108**

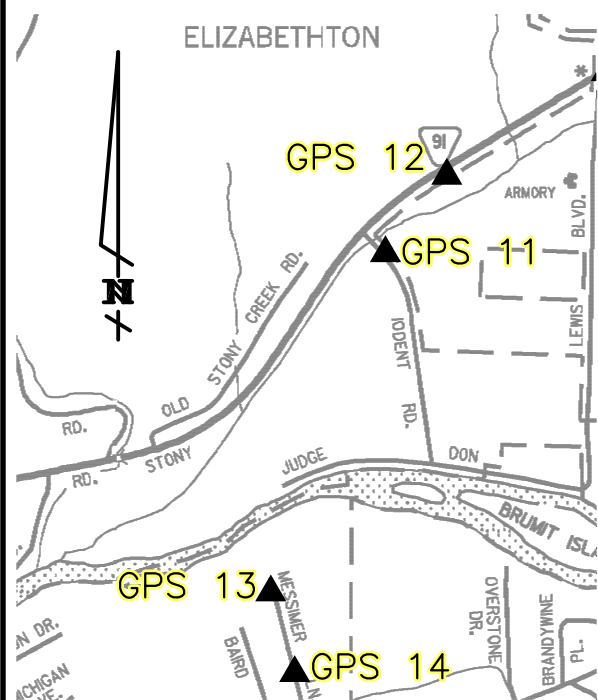
CONVERGENCE: **2°13'52.3"E**

ELEVATION REDUCTION FACTOR: **0.99993131**

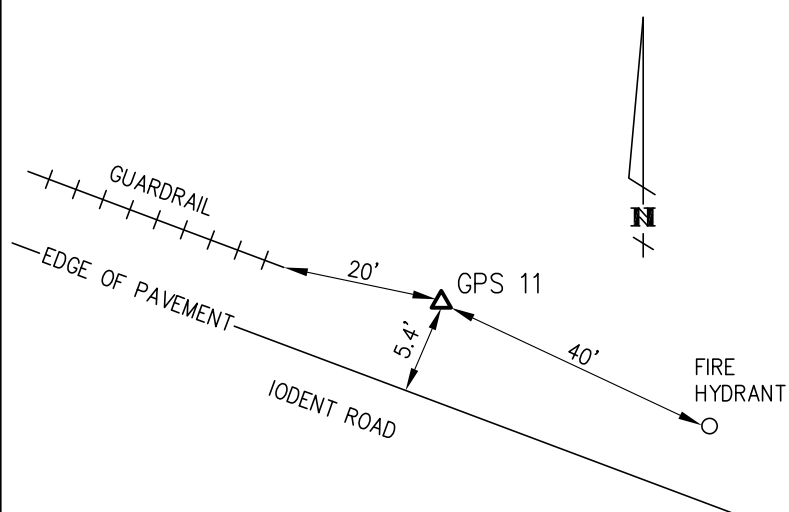
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON AND THE NORTH SIDE OF WATAUGA RIVER. BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND STATE ROUTE 91. GO EASTERLY ALONG STATE ROUTE 91 1.0± MILES TO IODENT RD. GO SOUTHEASTERLY ALONG IODENT RD. 200± FEET TO STATION ON NORTHEAST SIDE OF ROAD. STATION IS LOCATED S 55° W 4.7 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3-½ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 11".

VICINITY MAP



REFERENCE DIAGRAM





GPS 12

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 12

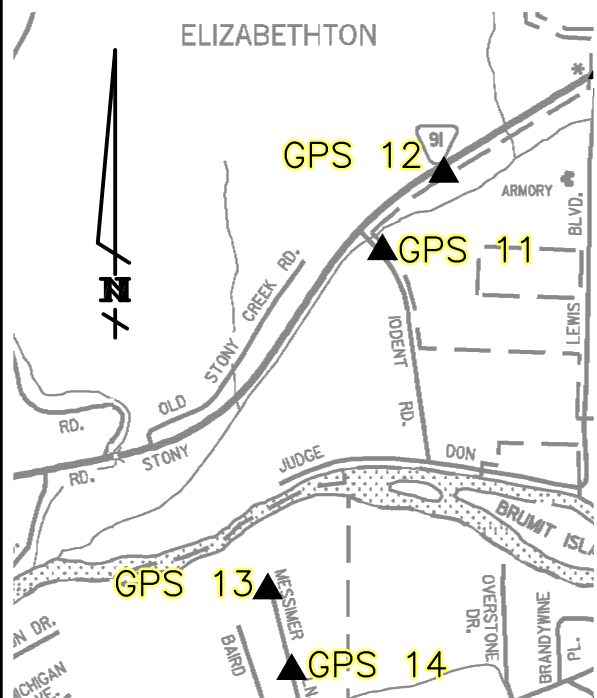
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 761557.107	LATITUDE: 36°21'55.41514"N
EASTING: 3090803.442	LONGITUDE: 82°11'14.52048"W
ORTHOMETRIC HEIGHT: 1547.547	GRID SCALE FACTOR: 0.99999131
CONVERGENCE: 2°13'55.4"E	ELEVATION REDUCTION FACTOR: 0.99993089

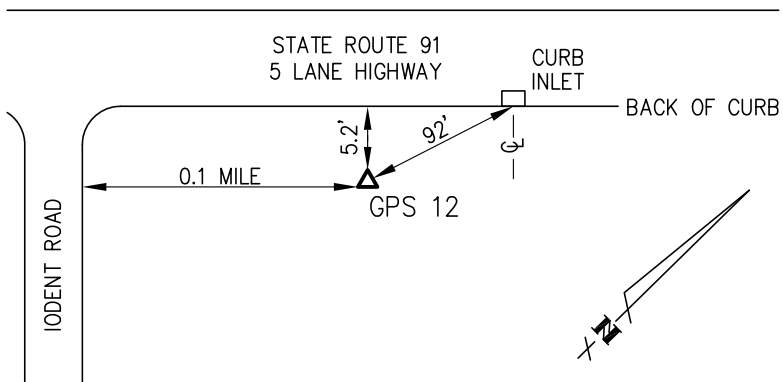
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON AND THE NORTH SIDE OF WATAUGA RIVER. BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND STATE ROUTE 91. GO EASTERLY ALONG STATE ROUTE 91 1.1± MILES TO STATION ON SOUTHERLY SIDE OF ROAD. STATION IS LOCATED N 20° W 5.2 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 12".

VICINITY MAP



REFERENCE DIAGRAM





GPS 13

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 13

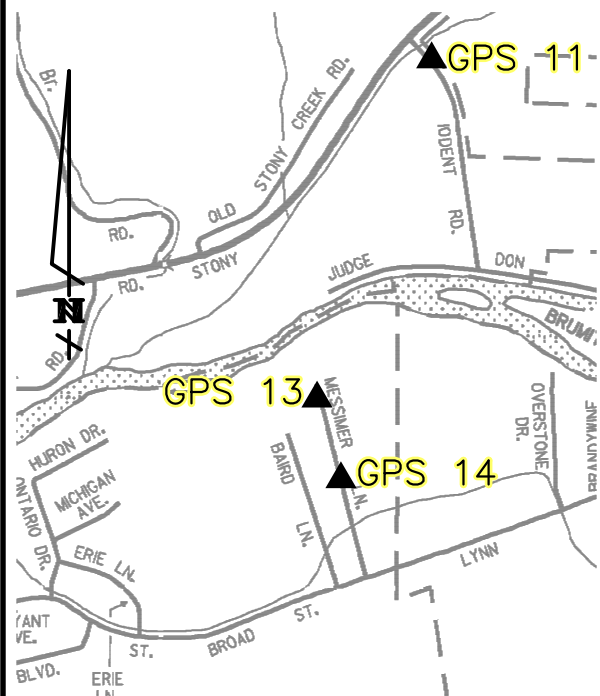
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 758692.354	LATITUDE: 36°21'27.57407"N
EASTING: 3089593.338	LONGITUDE: 82°11'30.66736"W
ORTHOMETRIC HEIGHT: 1525.975	GRID SCALE FACTOR: 0.99999007
CONVERGENCE: 2°13'46.0"E	ELEVATION REDUCTION FACTOR: 0.99993192

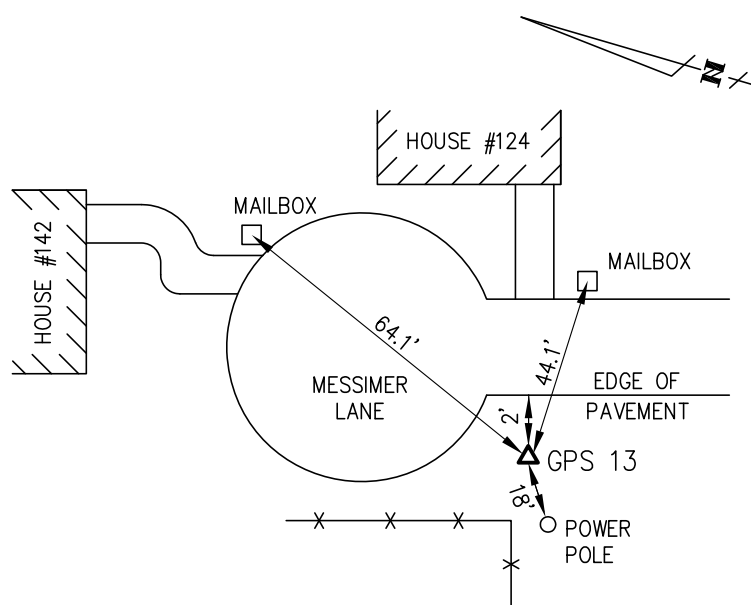
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND BROAD ST. (STATE ROUTE 67). GO EASTERLY ALONG BROAD ST. 1.0± MILE TO MESSIMER LN. GO NORTHERLY ALONG MESSIMER LN. 0.2± MILE TO STATION ON WEST SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 13".

VICINITY MAP



REFERENCE DIAGRAM





GPS 14

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 14

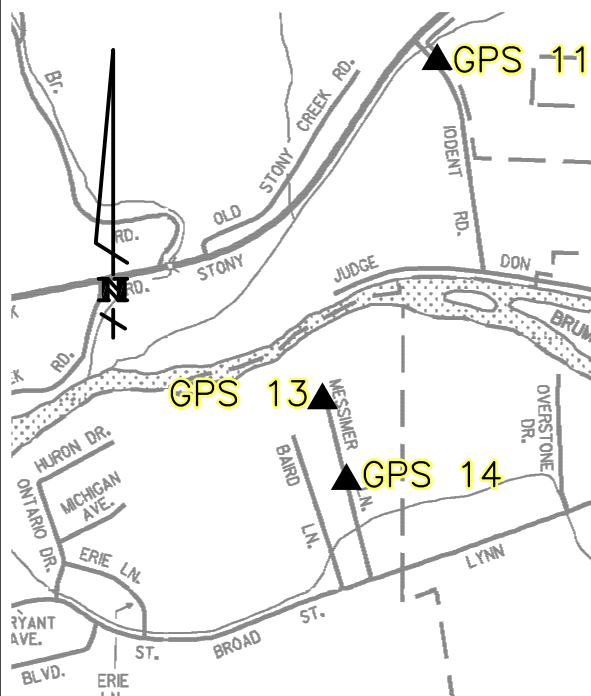
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 758137.930	LATITUDE: 36°21'22.03248"N
EASTING: 3089757.807	LONGITUDE: 82°11'28.92188"W
ORTHOMETRIC HEIGHT: 1524.102	GRID SCALE FACTOR: 0.99998982
CONVERGENCE: 2°13'47.0"E	ELEVATION REDUCTION FACTOR: 0.99993201

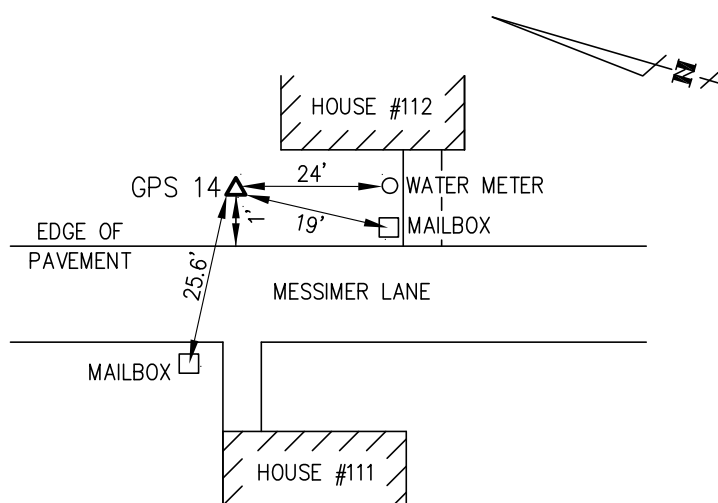
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF STATE ROUTE 37 (U.S. 19E) AND BROAD ST. (STATE ROUTE 67). GO EASTERLY ALONG BROAD ST. 1.0± MILE TO MESSIMER LN. GO NORTHERLY ALONG MESSIMER LN. 0.1± MILE TO STATION ON EAST SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 14".

VICINITY MAP



REFERENCE DIAGRAM





GPS 15

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 15

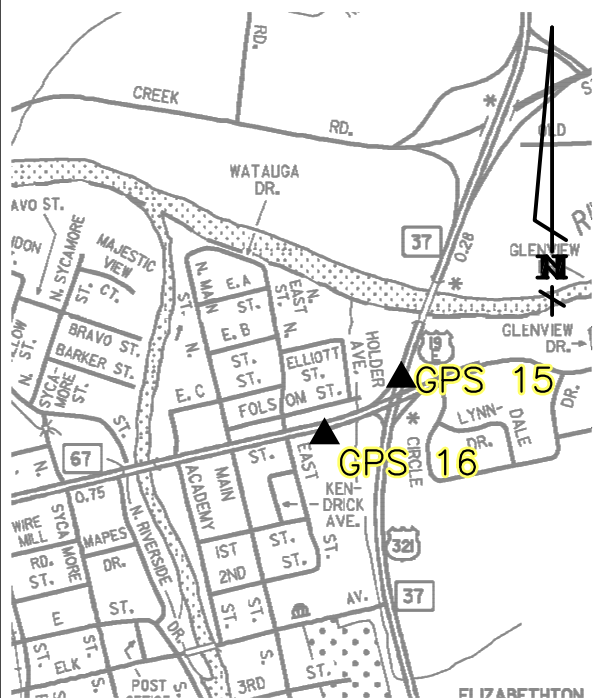
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 756968.012	LATITUDE: 36°21'12.26354"N
EASTING: 3085092.323	LONGITUDE: 82°12'26.46972"W
ORTHOMETRIC HEIGHT: 1519.779	GRID SCALE FACTOR: 0.99998939
CONVERGENCE: 2°13'13.3"E	ELEVATION REDUCTION FACTOR: 0.99993222

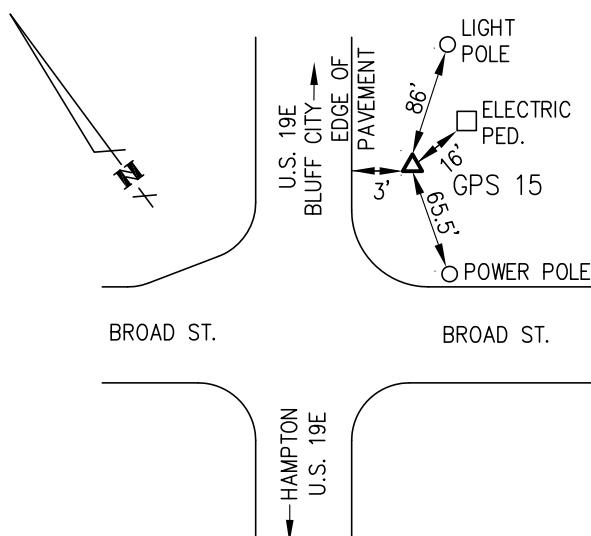
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON, STATION IS AT THE NORTHEASTERLY QUADRANT OF THE INTERSECTION OF BROAD ST. (STATE ROUTE 67) WITH STATE ROUTE 37 (U.S. 19E). STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 15".

VICINITY MAP



REFERENCE DIAGRAM





GPS 16

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 16

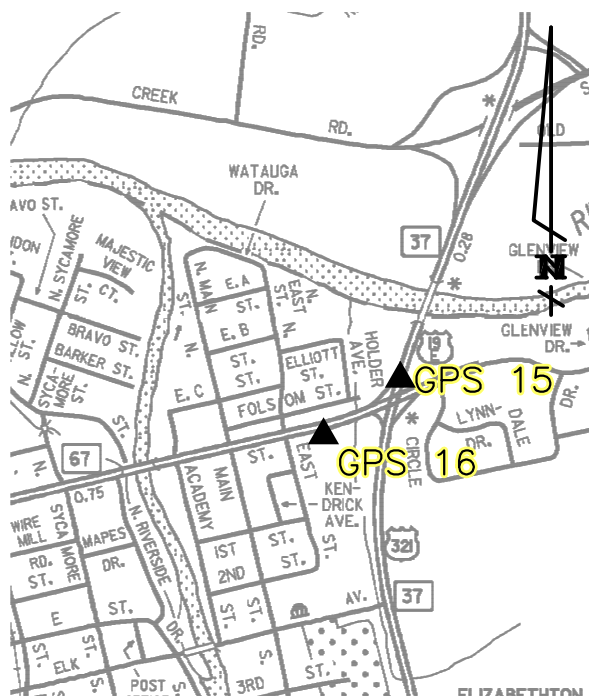
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER B
 VERTICAL ORDER: ORDER B

NORTHING: 756578.710	LATITUDE: 36°21'08.61920"N
EASTING: 3084563.810	LONGITUDE: 82°12'33.11014"W
ORTHOMETRIC HEIGHT: 1517.597	GRID SCALE FACTOR: 0.99998923
CONVERGENCE: 2°13'09.4"E	ELEVATION REDUCTION FACTOR: 0.99993232

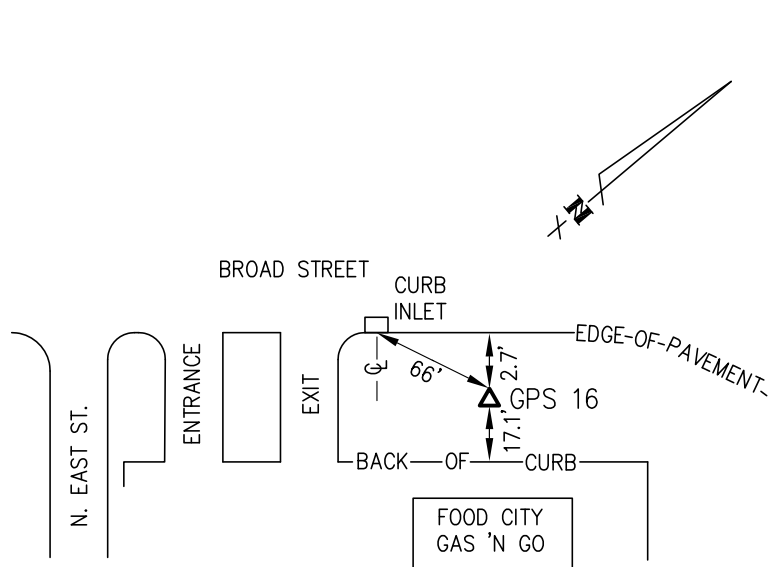
TO REACH DESCRIPTION

ON THE EAST SIDE OF ELIZABETHTON, STATION IS AT THE SOUTHWESTERLY QUADRANT OF THE INTERSECTION OF BROAD ST. (STATE ROUTE 67) WITH STATE ROUTE 37 (U.S. 19E). STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN CONCRETE AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 16".

VICINITY MAP



REFERENCE DIAGRAM





GPS 17

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 17

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **751205.459**

LATITUDE: **36°20'15.24971"N**

EASTING: **3085282.604**

LONGITUDE: **82°12'26.87454"W**

ORTHOMETRIC HEIGHT: **1561.147**

GRID SCALE FACTOR: **0.99998693**

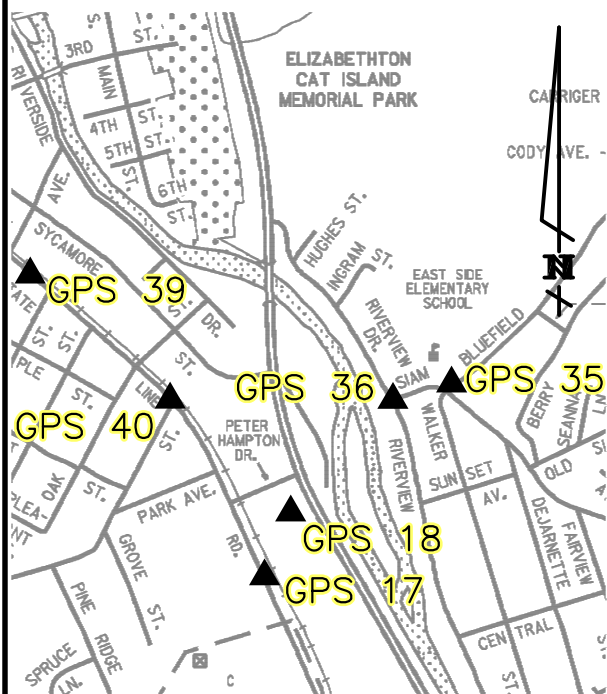
CONVERGENCE: **2°13'13.1"E**

ELEVATION REDUCTION FACTOR: **0.99993024**

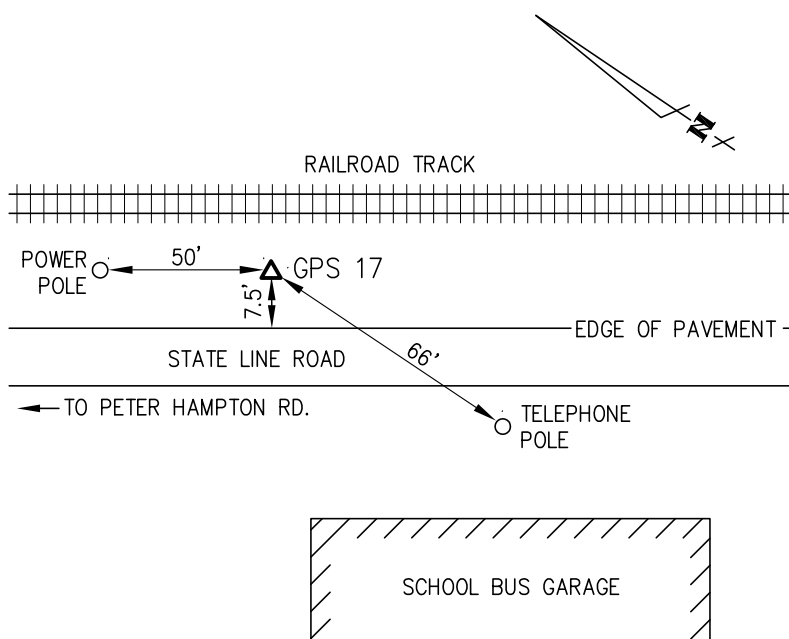
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH VETERANS MEMORIAL HWY. (STATE ROUTE 37 / U.S. 19E). GO SOUTHERLY ALONG VETERANS MEMORIAL HWY. 0.9± MILE TO PETER HAMPTON DR. GO WESTERLY ALONG PETER HAMPTON DR. 0.1± MILE TO STATE LINE RD. GO SOUTHERLY ALONG STATE LINE RD. 0.1± MILE TO STATION ON EAST SIDE OF ROAD. STATION IS LOCATED S 80° W 4.5 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 17".

VICINITY MAP



REFERENCE DIAGRAM





GPS 18

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 18

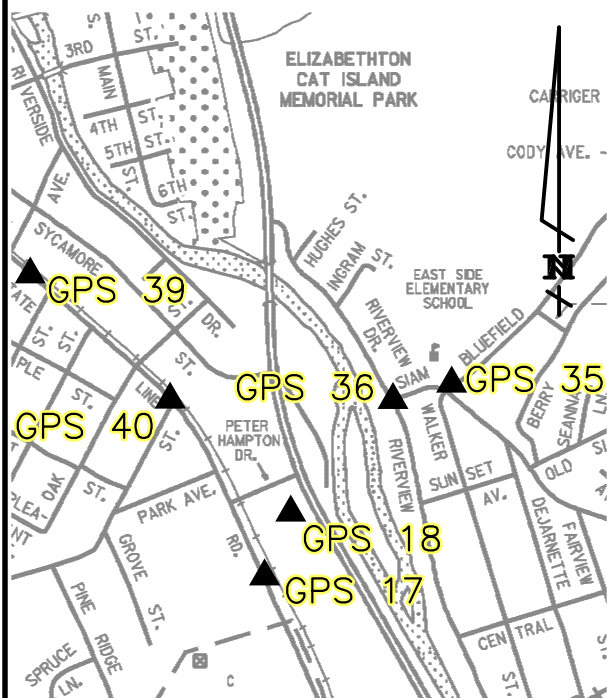
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 751674.035	LATITUDE: 36°20'19.78900"N
EASTING: 3085519.598	LONGITUDE: 82°12'23.75817"W
ORTHOMETRIC HEIGHT: 1553.728	GRID SCALE FACTOR: 0.99998712
CONVERGENCE: 2°13'14.9"E	ELEVATION REDUCTION FACTOR: 0.99993059

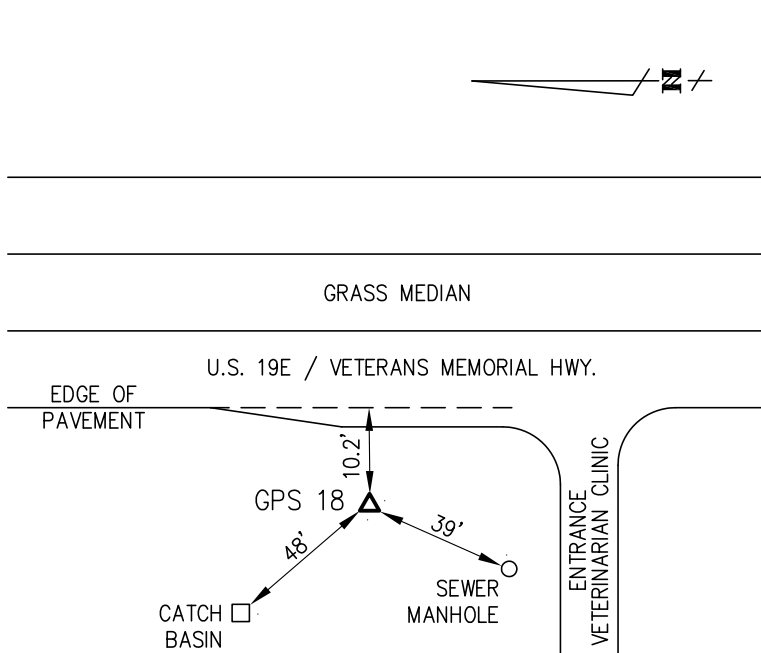
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST.
 WITH VETERANS MEMORIAL HWY. (STATE ROUTE 37 / U.S. 19E). GO SOUTHERLY ALONG
 VETERANS MEMORIAL HWY. 1.0± MILE TO STATION ON WEST SIDE OF ROAD. STATION IS
 A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED
 "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 18".

VICINITY MAP



REFERENCE DIAGRAM





GPS 19

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 19

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **750298.201**

LATITUDE: **36°20'07.71167"N**

EASTING: **3081551.969**

LONGITUDE: **82°13'12.86583"W**

ORTHOMETRIC HEIGHT: **1679.479**

GRID SCALE FACTOR: **0.99998661**

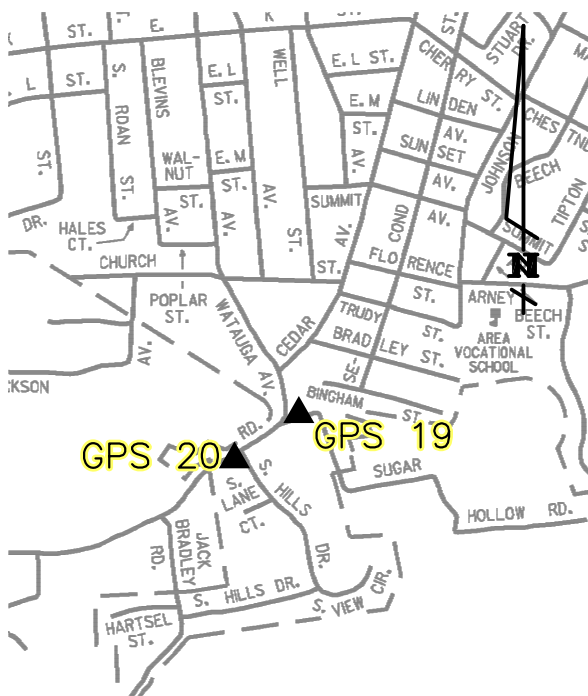
CONVERGENCE: **2°12'46.2"E**

ELEVATION REDUCTION FACTOR: **0.99992458**

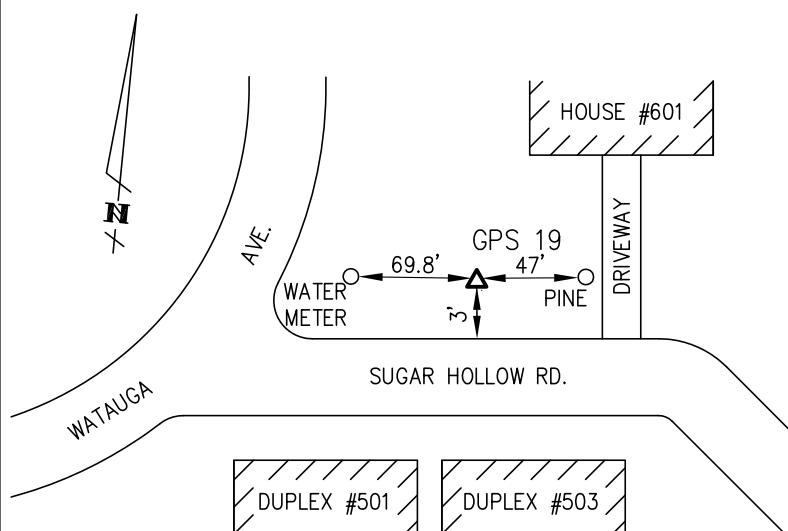
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO EASTERLY ALONG ELK AVE. $0.2 \pm$ MILE TO WATAUGA AVE. GO SOUTHERLY ALONG WATAUGA AVE. $1.0 \pm$ MILE TO SUGAR HOLLOW RD. STATION IS ON EAST SIDE OF WATAUGA AVE. AND ON NORTH SIDE OF SUGAR HOLLOW RD. STATION IS A $3\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 19".

VICINITY MAP



REFERENCE DIAGRAM





GPS 20

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 20

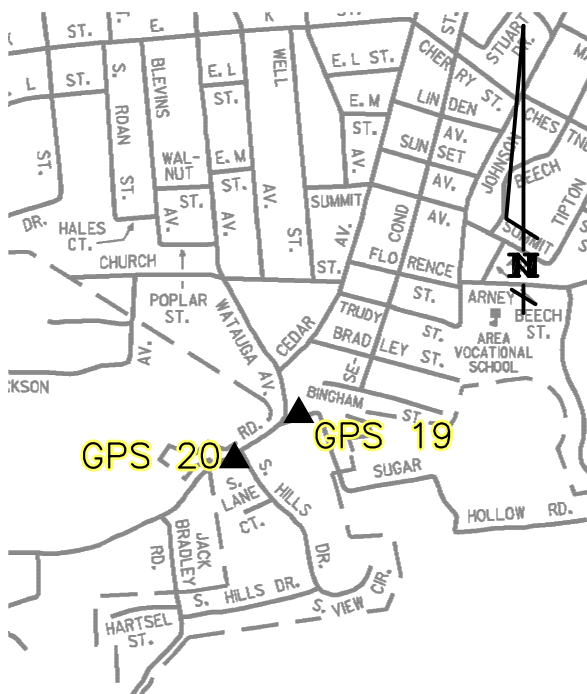
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 749986.264	LATITUDE: 36°20'04.79817"N
EASTING: 3081109.708	LONGITUDE: 82°13'18.41427"W
ORTHOMETRIC HEIGHT: 1673.887	GRID SCALE FACTOR: 0.99998648
CONVERGENCE: 2°12'42.9"E	ELEVATION REDUCTION FACTOR: 0.99992485

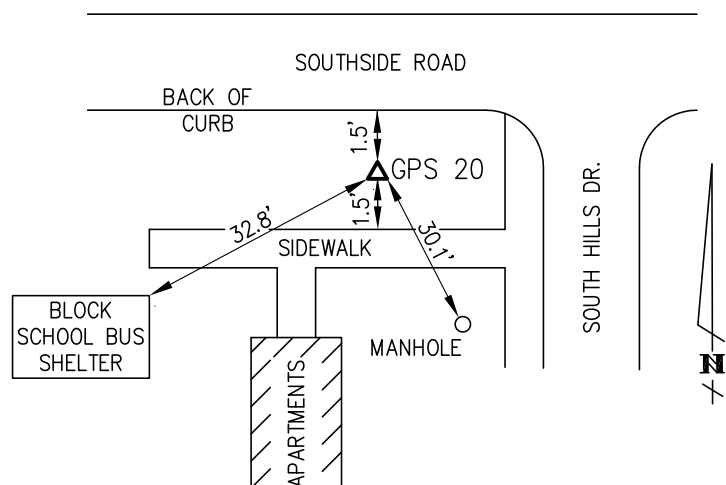
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO EASTERLY ALONG ELK AVE. 0.2± MILE TO WATAUGA AVE. GO SOUTHERLY ALONG WATAUGA AVE. 1.0± MILE TO SUGAR HOLLOW RD. GO SOUTHWESTERLY ALONG WATAUGA AVE. / SOUTHSIDE RD. TO SOUTH HILLS DR. STATION IS ON SOUTH SIDE OF SOUTHSIDE RD. AND ON WEST SIDE OF SOUTH HILLS DR. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 20".

VICINITY MAP



REFERENCE DIAGRAM





GPS 21

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 21

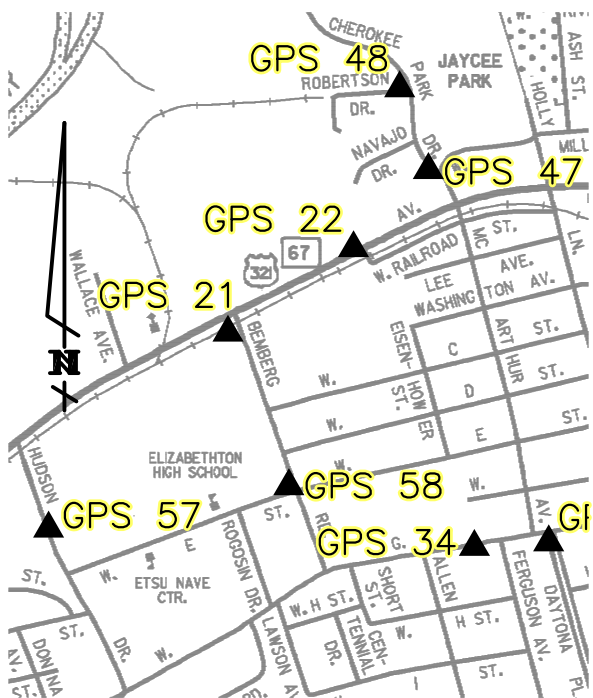
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 755040.674	LATITUDE: 36°20'56.73768"N
EASTING: 3075869.681	LONGITUDE: 82°14'20.03665"W
ORTHOMETRIC HEIGHT: 1508.860	GRID SCALE FACTOR: 0.99998871
CONVERGENCE: 2°12'06.8"E	ELEVATION REDUCTION FACTOR: 0.99993275

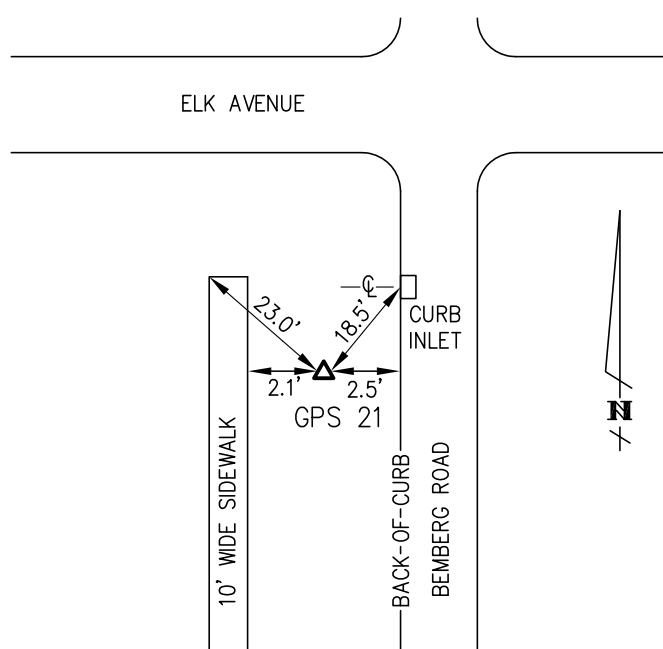
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO WESTERLY ALONG ELK AVE. 0.8± MILE TO BEMBERG RD. STATION IS NEAR ELIZABETHTON HIGH SCHOOL PROPERTY, ON WEST SIDE OF BEMBERG RD. AND ON SOUTH SIDE OF ELK AVE. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 21".

VICINITY MAP



REFERENCE DIAGRAM





GPS 22

MARCH 5, 2009

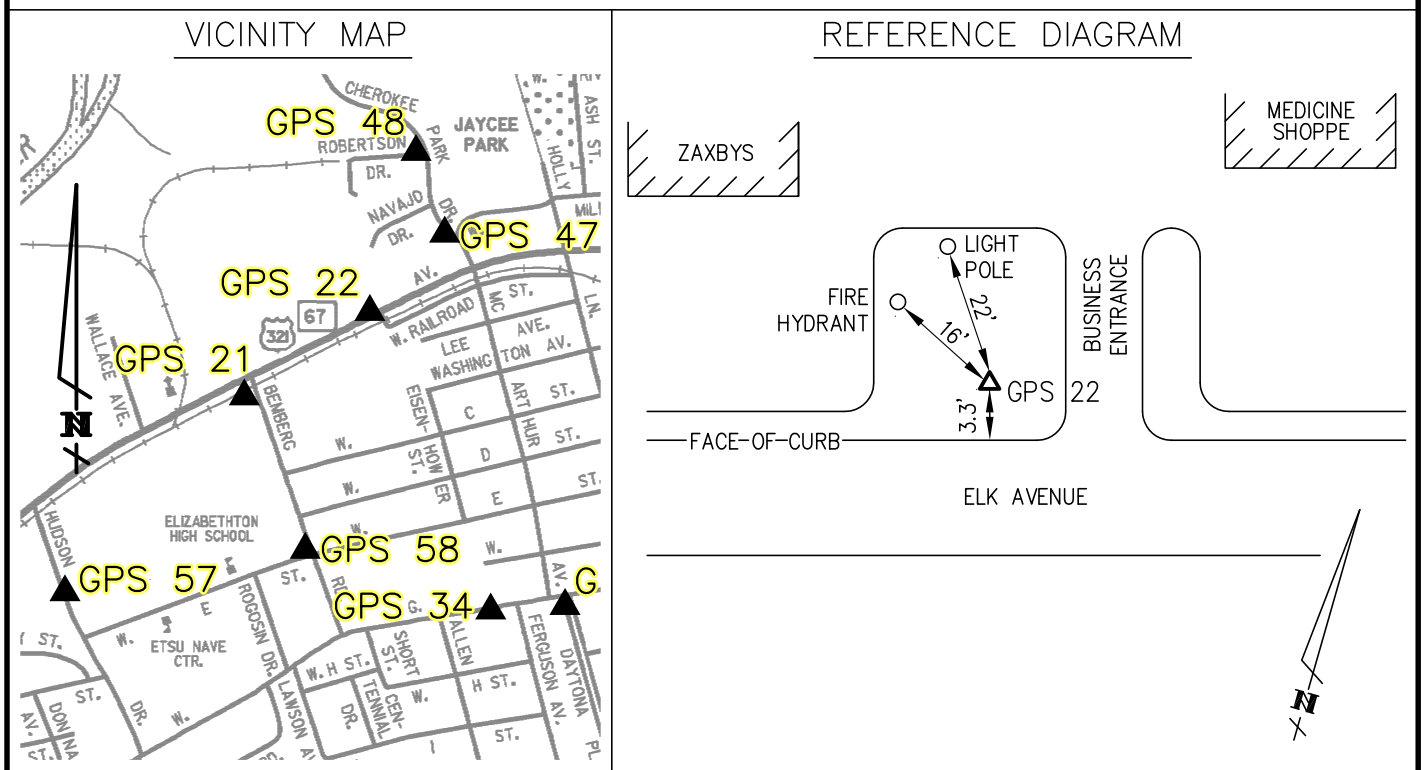
CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 22

HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 755621.534	LATITUDE: 36°21'02.14928"N
EASTING: 3076732.808	LONGITUDE: 82°14'09.22045"W
ORTHOMETRIC HEIGHT: 1518.450	GRID SCALE FACTOR: 0.99998895
CONVERGENCE: 2°12'13.2"E	ELEVATION REDUCTION FACTOR: 0.99993229

TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO WESTERLY ALONG ELK AVE. 0.6± MILE TO STATION ON NORTH SIDE OF ELK AVE. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 22".





GPS 23

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 23

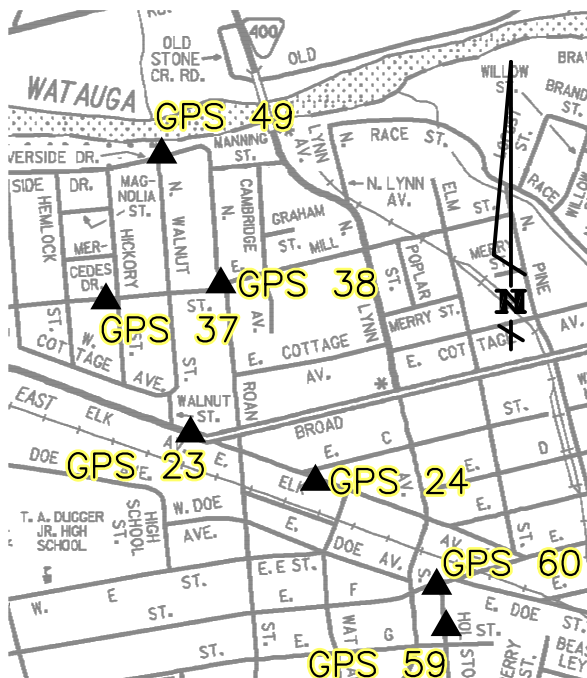
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 755574.441	LATITUDE: 36°21'00.53248"N
EASTING: 3079756.995	LONGITUDE: 82°13'32.30138"W
ORTHOMETRIC HEIGHT: 1527.734	GRID SCALE FACTOR: 0.99998888
CONVERGENCE: 2°12'34.8"E	ELEVATION REDUCTION FACTOR: 0.99993184

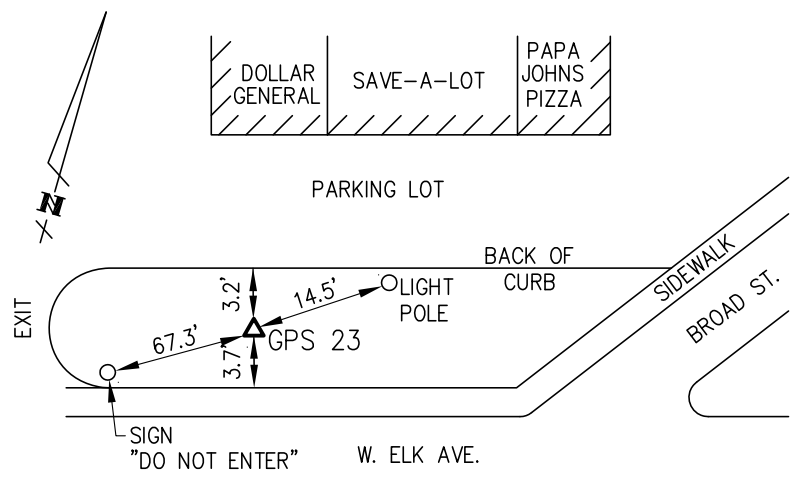
TO REACH DESCRIPTION

IN ELIZABETHTON, NEAR THE INTERSECTION OF BROAD ST. AND ELK AVE. STATION IS ON NORTH SIDE OF ELK AVE., WEST OF ROAN ST. NEAR THE ELK AVE. EXIT FROM SAVE-A-LOT PARKING LOT. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 23".

VICINITY MAP



REFERENCE DIAGRAM





GPS 24

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 24

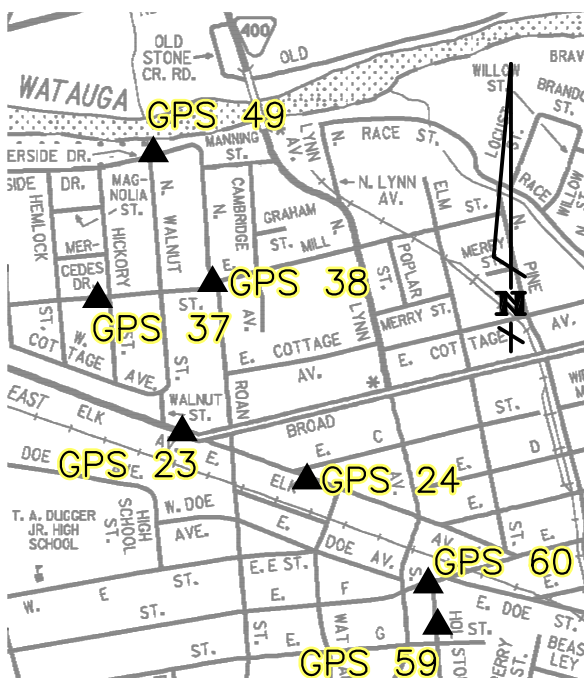
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 755243.032	LATITUDE: 36°20'56.93037"N
EASTING: 3080615.307	LONGITUDE: 82°13'21.97326"W
ORTHOMETRIC HEIGHT: 1531.624	GRID SCALE FACTOR: 0.99998872
CONVERGENCE: 2°12'40.8"E	ELEVATION REDUCTION FACTOR: 0.99993166

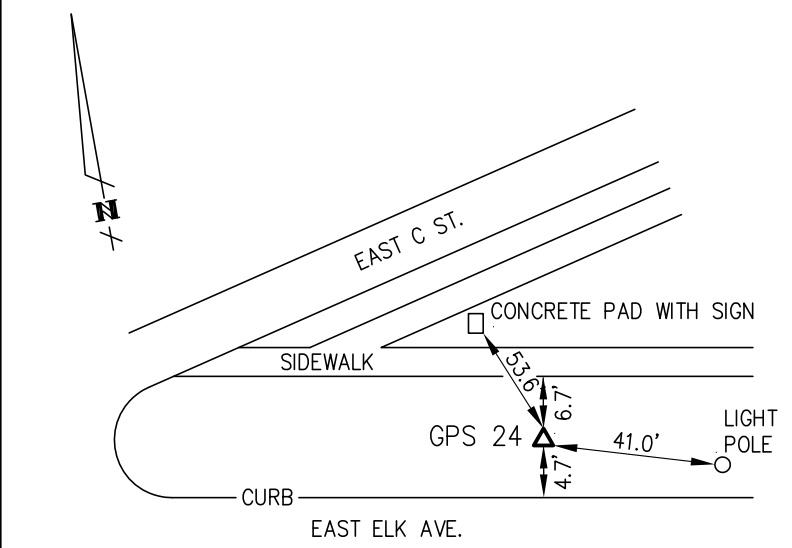
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO EASTERLY ALONG ELK AVE. 0.1± MILE TO STATION NEAR INTERSECTION OF ELK AVE. WITH EAST C. ST. STATION IS ON NORTH SIDE OF ELK AVE. AND ON SOUTH SIDE OF EAST C ST. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 24".

VICINITY MAP



REFERENCE DIAGRAM





GPS 25

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 25

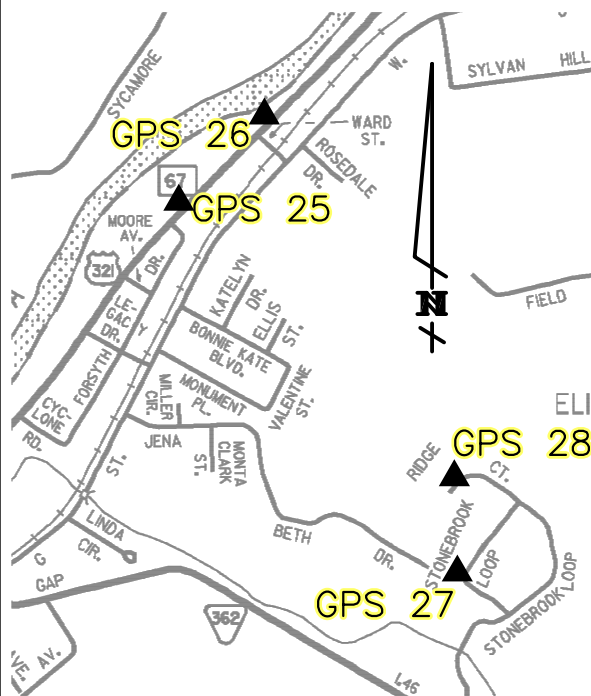
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 750260.984	LATITUDE: 36°20'11.96124"N
EASTING: 3069392.575	LONGITUDE: 82°15'41.38723"W
ORTHOMETRIC HEIGHT: 1474.252	GRID SCALE FACTOR: 0.99998679
CONVERGENCE: 2°11'19.2"E	ELEVATION REDUCTION FACTOR: 0.99993440

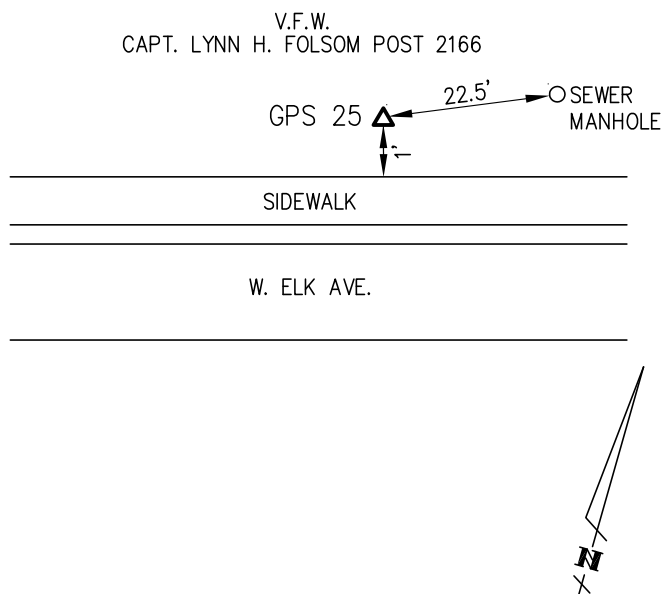
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO WESTERLY ALONG ELK AVE. 2.4± MILES TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 25".

VICINITY MAP



REFERENCE DIAGRAM





GPS 26

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 26

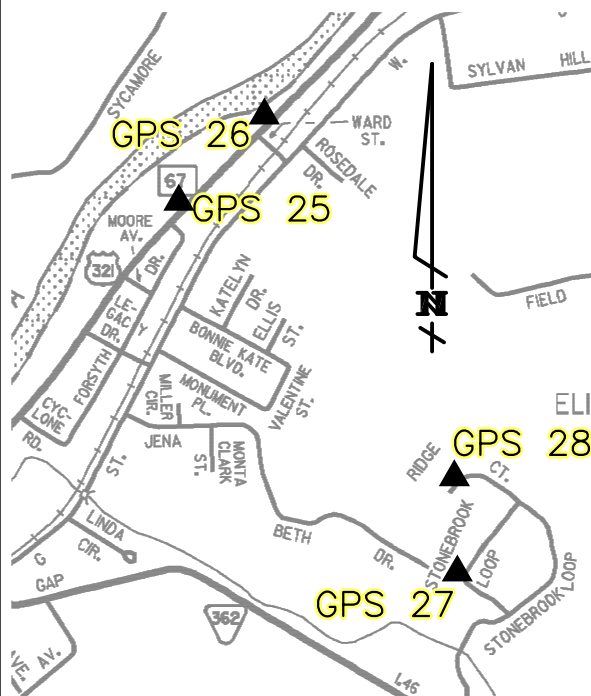
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER C CLASS 1
VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 750853.725	LATITUDE: 36°20'17.59622"N
EASTING: 3069980.640	LONGITUDE: 82°15'33.92820"W
ORTHOMETRIC HEIGHT: 1476.286	GRID SCALE FACTOR: 0.99998703
CONVERGENCE: 2°11'23.6"E	ELEVATION REDUCTION FACTOR: 0.99993430

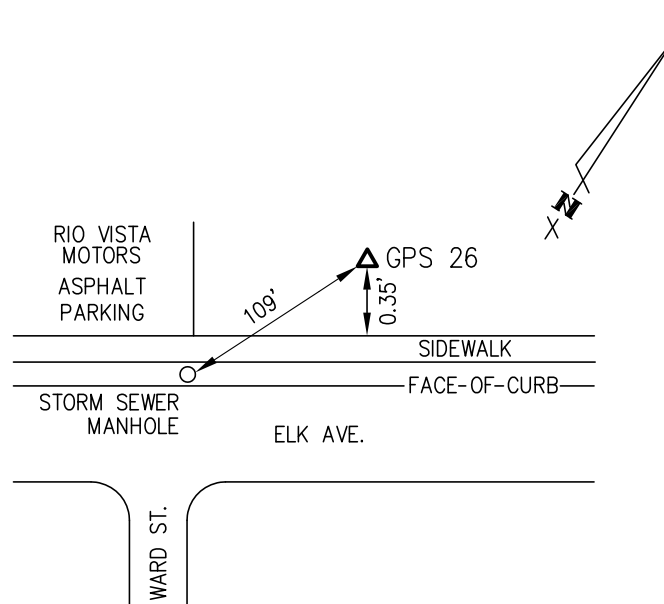
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO WESTERLY ALONG ELK AVE. 2.2± MILES TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 26".

VICINITY MAP



REFERENCE DIAGRAM





GPS 27

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 27

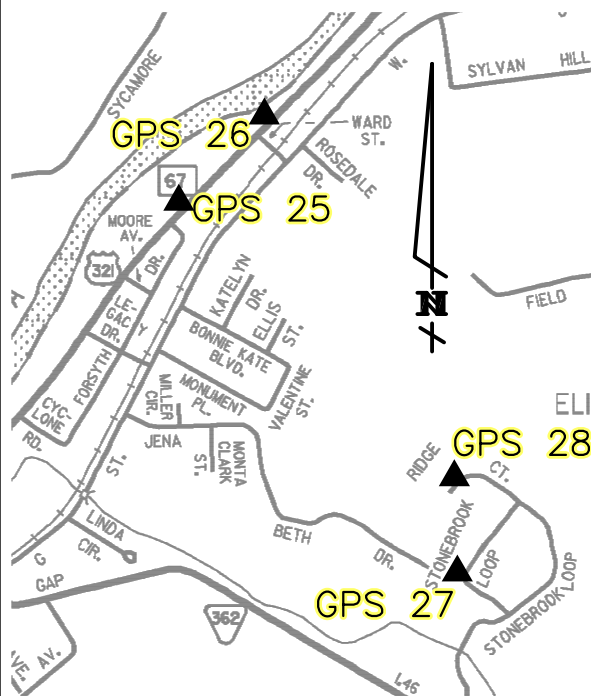
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER C CLASS 1
VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 747711.836	LATITUDE: 36°19'46.04846"N
EASTING: 3071306.892	LONGITUDE: 82°15'19.19899"W
ORTHOMETRIC HEIGHT: 1607.989	GRID SCALE FACTOR: 0.99998569
CONVERGENCE: 2°11'32.2"E	ELEVATION REDUCTION FACTOR: 0.99992800

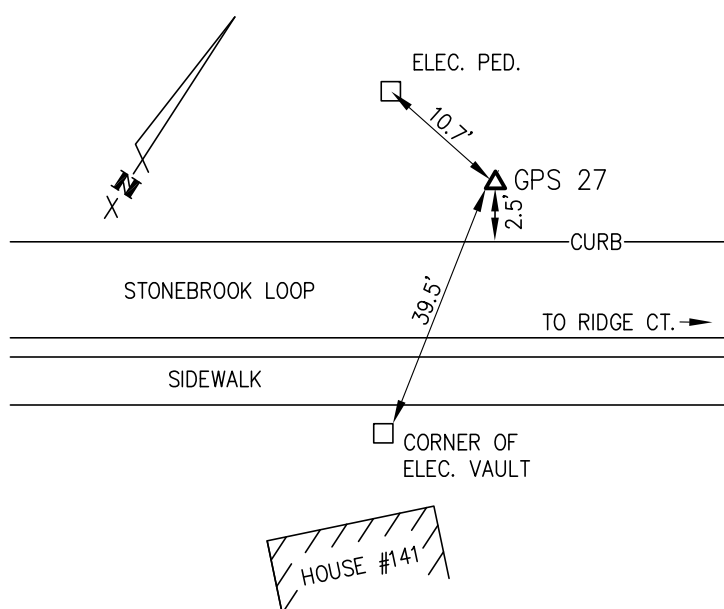
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO EASTERLY ALONG G STREET 0.2± MILE TO GAP CREEK ROAD (STATE ROUTE 362). GO SOUTHERLY ALONG GAP CREEK RD. 0.6± MILE TO STONEBROOK LOOP. GO NORTHEASTERLY ALONG STONEBROOK LOOP 0.2± MILE TO WHERE STONEBROOK LOOP INTERSECTS ITSELF. GO WESTERLY ON STONEBROOK LOOP 0.1± MILE TO STATION ON NORTHWEST SIDE OF ROAD. STATION IS A 3-½ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 27".

VICINITY MAP



REFERENCE DIAGRAM





GPS 28

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 28

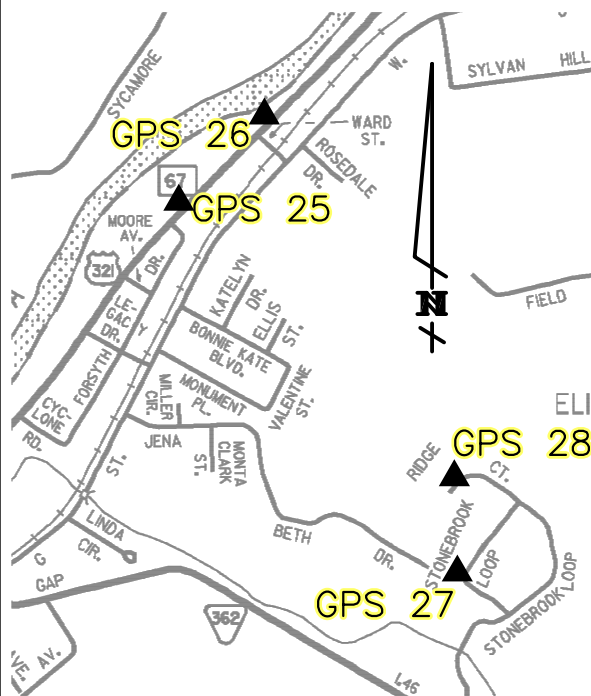
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER C CLASS 1
VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 748367.148	LATITUDE: 36°19'52.53152"N
EASTING: 3071286.696	LONGITUDE: 82°15'19.13927"W
ORTHOMETRIC HEIGHT: 1599.540	GRID SCALE FACTOR: 0.99998597
CONVERGENCE: 2°11'32.2"E	ELEVATION REDUCTION FACTOR: 0.99992841

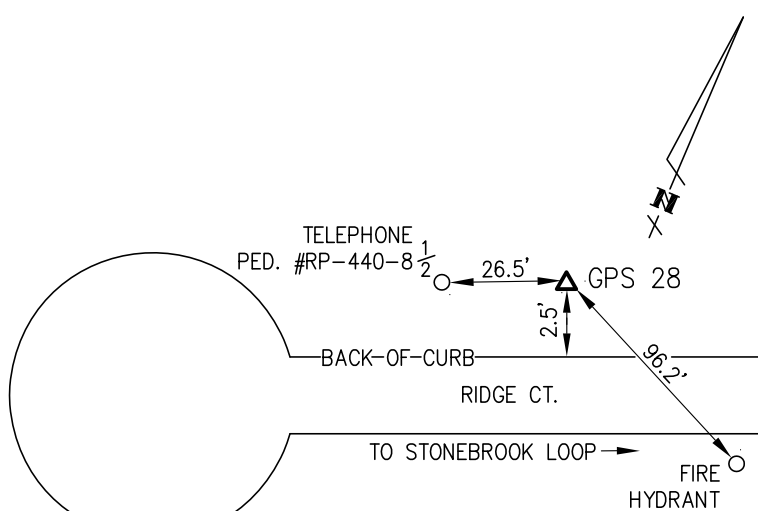
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO EASTERLY ALONG G STREET 0.2± MILE TO GAP CREEK ROAD (STATE ROUTE 362). GO SOUTHERLY ALONG GAP CREEK RD. 0.6± MILE TO STONEBROOK LOOP. GO ALONG STONEBROOK LOOP NORTHEASTERLY 0.3± MILE THEN WESTERLY 0.1± MILE TO WHERE STONEBROOK LOOP INTERSECTS ITSELF AT RIDGE CT. GO WESTERLY ALONG RIDGE CT. 0.1± MILE TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 28".

VICINITY MAP



REFERENCE DIAGRAM





GPS 29

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 29

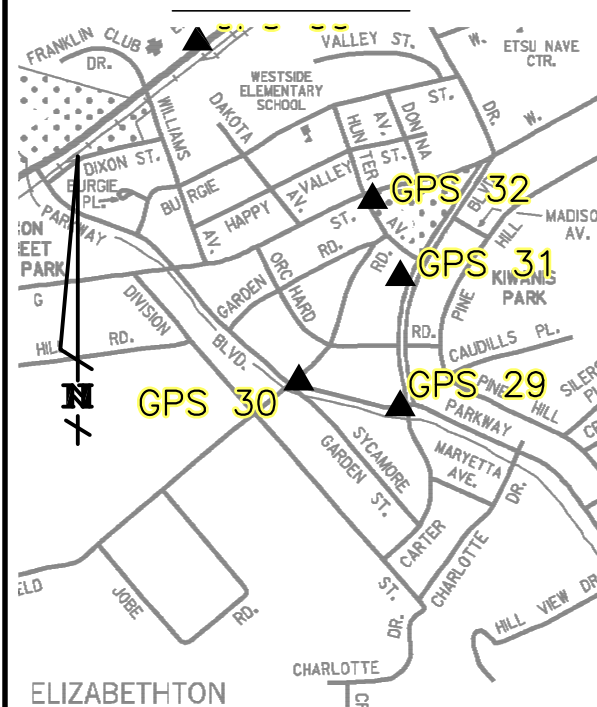
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 750837.295	LATITUDE: 36°20'15.71662"N
EASTING: 3074516.011	LONGITUDE: 82°14'38.54337"W
ORTHOMETRIC HEIGHT: 1556.845	GRID SCALE FACTOR: 0.99998695
CONVERGENCE: 2°11'56.0"E	ELEVATION REDUCTION FACTOR: 0.99993045

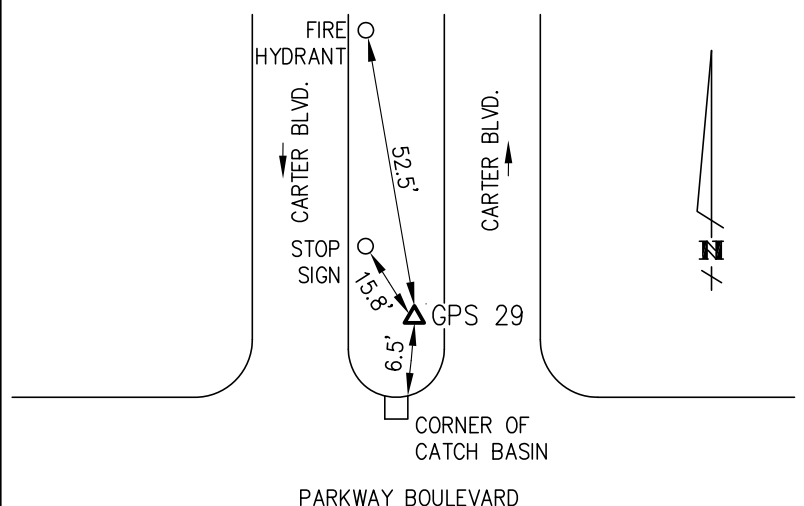
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO WESTERLY ALONG ELK AVE. 1.7± MILES TO PARKWAY BLVD. GO SOUTHERLY ALONG PARKWAY BLVD. 0.6± MILE TO CARTER BLVD. STATION IS ON THE NORTHERLY SIDE OF PARKWAY BLVD. BETWEEN THE SOUTHBOUND AND NORTHBOUND LANES OF CARTER BLVD. STATION IS A 3-½ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 29".

VICINITY MAP



REFERENCE DIAGRAM





GPS 30

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 30

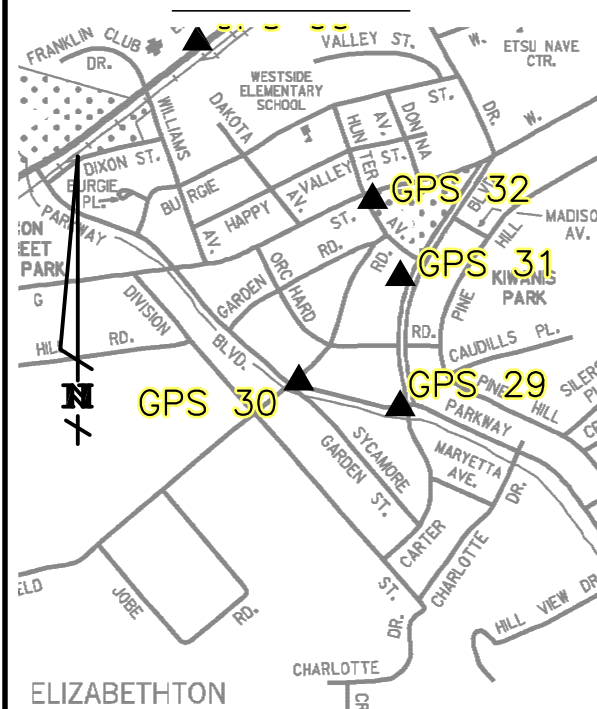
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 751014.816	LATITUDE: 36°20'17.73490"N
EASTING: 3073819.656	LONGITUDE: 82°14'46.96503"W
ORTHOMETRIC HEIGHT: 1546.615	GRID SCALE FACTOR: 0.99998703
CONVERGENCE: 2°11'51.1"E	ELEVATION REDUCTION FACTOR: 0.99993094

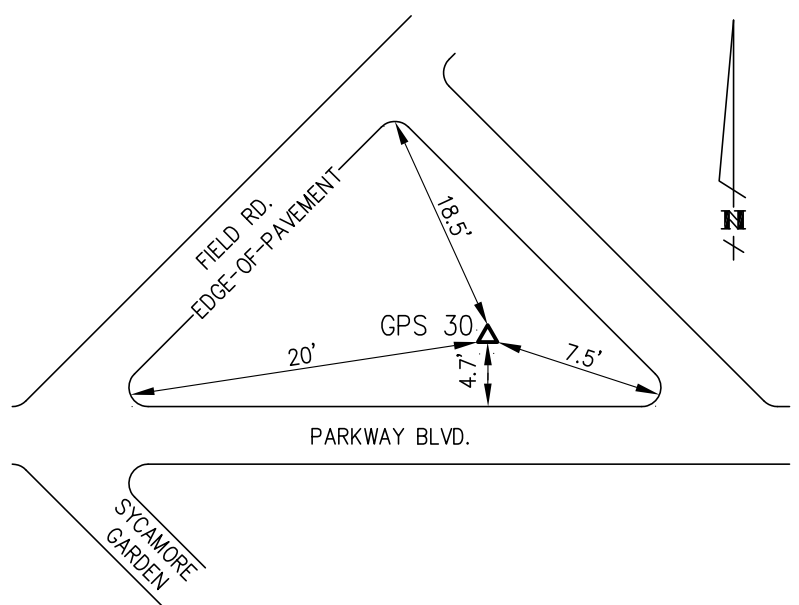
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO WESTERLY ALONG ELK AVE. $1.7 \pm$ MILES TO PARKWAY BLVD. GO SOUTHERLY ALONG PARKWAY BLVD. $0.4 \pm$ MILE TO FIELD RD. AND SYCAMORE GARDEN ST. STATION IS ON NORTHERLY SIDE OF PARKWAY BLVD., SOUTHEASTERLY SIDE OF FIELD RD. AND SOUTHWESTERLY SIDE OF UNNAMED ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 30".

VICINITY MAP



REFERENCE DIAGRAM





GPS 31

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 31

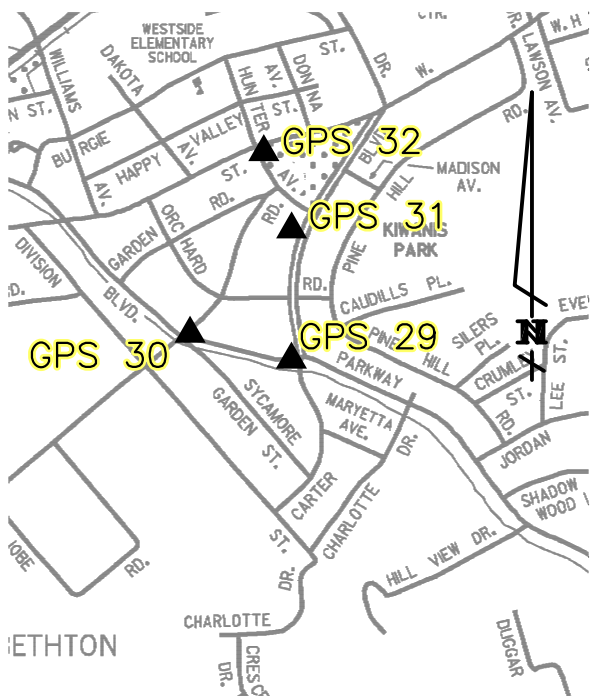
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 751732.517	LATITUDE: 36°20'24.56200"N
EASTING: 3074517.671	LONGITUDE: 82°14'38.10326"W
ORTHOMETRIC HEIGHT: 1564.309	GRID SCALE FACTOR: 0.99998732
CONVERGENCE: 2°11'56.3"E	ELEVATION REDUCTION FACTOR: 0.99993009

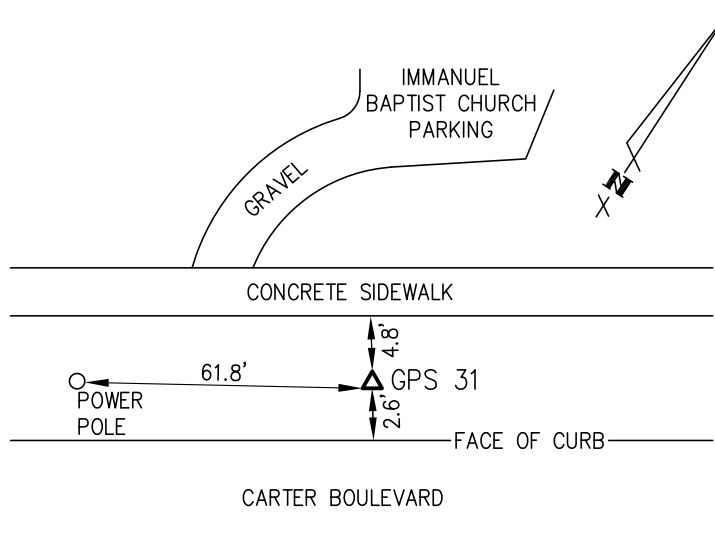
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 1.1± MILES TO HUDSON DR. GO SOUTHERLY ALONG HUDSON DR. TO G STREET AND CARTER BLVD. GO SOUTHWESTERLY ALONG CARTER BLVD. TO STATION ON WESTERLY SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 31".

VICINITY MAP



REFERENCE DIAGRAM





GPS 32

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 32

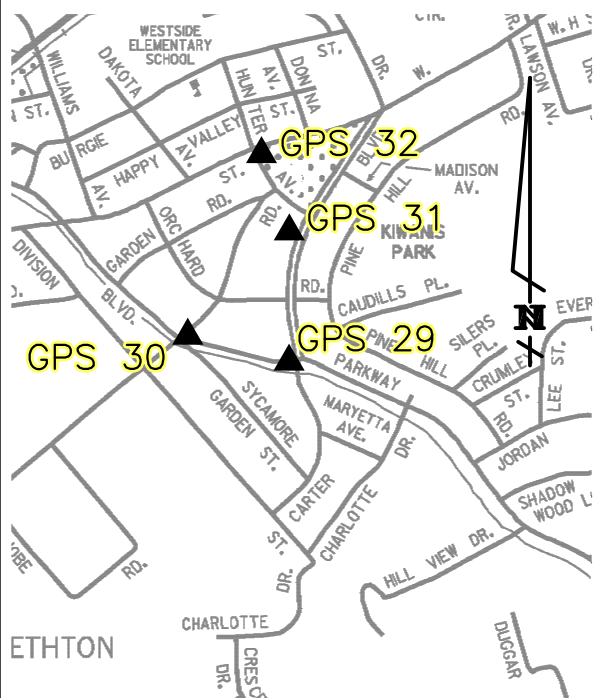
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 752263.421	LATITUDE: 36°20'29.88062"N
EASTING: 3074326.386	LONGITUDE: 82°14'40.19063"W
ORTHOMETRIC HEIGHT: 1546.369	GRID SCALE FACTOR: 0.99998755
CONVERGENCE: 2°11'55.0"E	ELEVATION REDUCTION FACTOR: 0.99993095

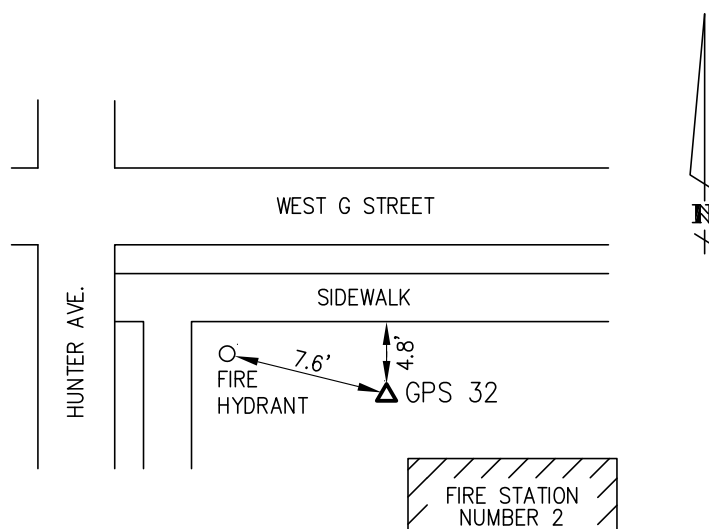
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 1.1± MILES TO HUDSON DR. GO SOUTHERLY ALONG HUDSON DR. TO WEST G STREET. GO WESTERLY ALONG WEST G STREET TO HUNTER AVE. STATION IS ON EAST SIDE OF HUNTER AVE. AND WEST SIDE OF WEST G STREET. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 32".

VICINITY MAP



REFERENCE DIAGRAM





GPS 33

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 33

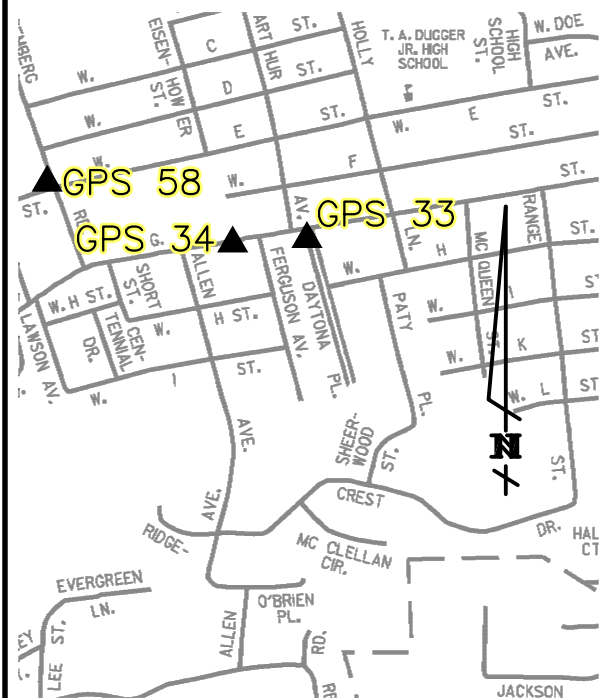
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 753599.145	LATITUDE: 36°20'41.65504"N
EASTING: 3078074.414	LONGITUDE: 82°13'53.78403"W
ORTHOMETRIC HEIGHT: 1555.562	GRID SCALE FACTOR: 0.99998806
CONVERGENCE: 2°12'22.2"E	ELEVATION REDUCTION FACTOR: 0.99993051

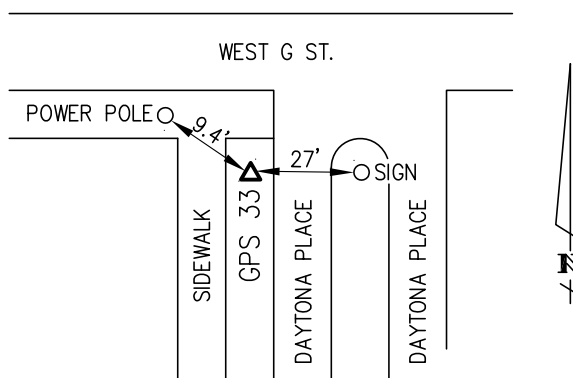
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 0.8± MILES TO BEMBERG RD. GO SOUTHERLY ALONG BEMBERG RD. 0.4± MILE TO WEST G STREET. GO EASTERLY ALONG WEST G STREET 0.3± MILE TO DAYTONA PLACE. STATION IS ON SOUTH SIDE OF WEST G STREET AND ON WEST SIDE OF DAYTONA PLACE. STATION IS A 3-½ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 33".

VICINITY MAP



REFERENCE DIAGRAM





GPS 34

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 34

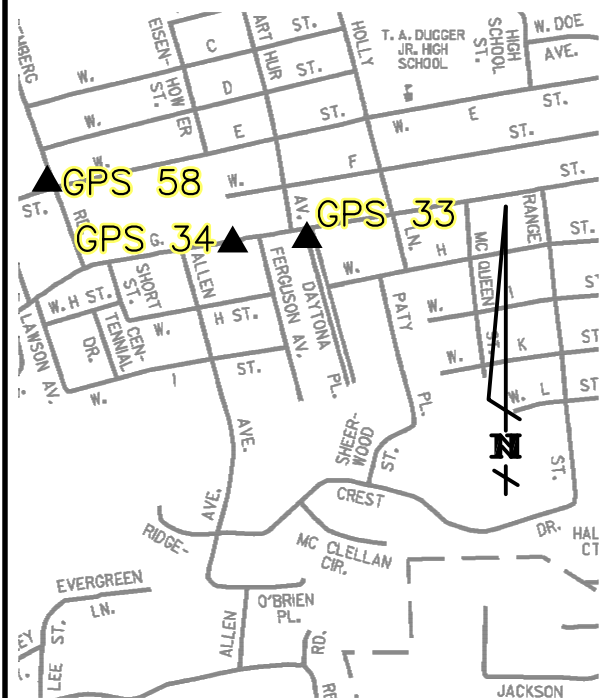
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 753567.997	LATITUDE: 36°20'41.54163"N
EASTING: 3077563.684	LONGITUDE: 82°14'00.03696"W
ORTHOMETRIC HEIGHT: 1554.109	GRID SCALE FACTOR: 0.99998805
CONVERGENCE: 2°12'18.5"E	ELEVATION REDUCTION FACTOR: 0.99993058

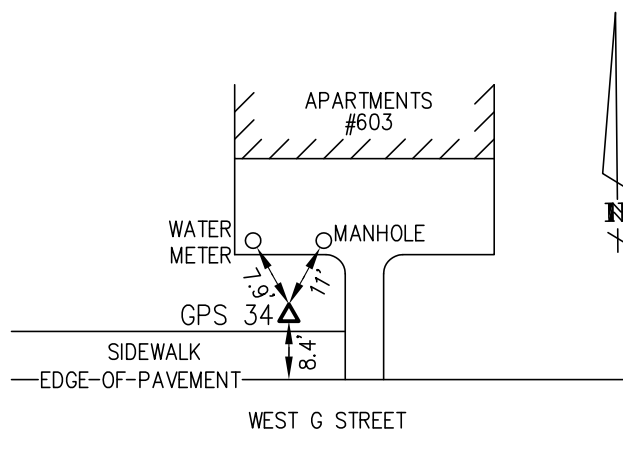
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 0.8± MILES TO BEMBERG RD. GO SOUTHERLY ALONG BEMBERG RD. 0.4± MILE TO WEST G STREET. GO EASTERLY ALONG WEST G STREET 0.2± MILE TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 34".

VICINITY MAP



REFERENCE DIAGRAM





GPS 35

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 35

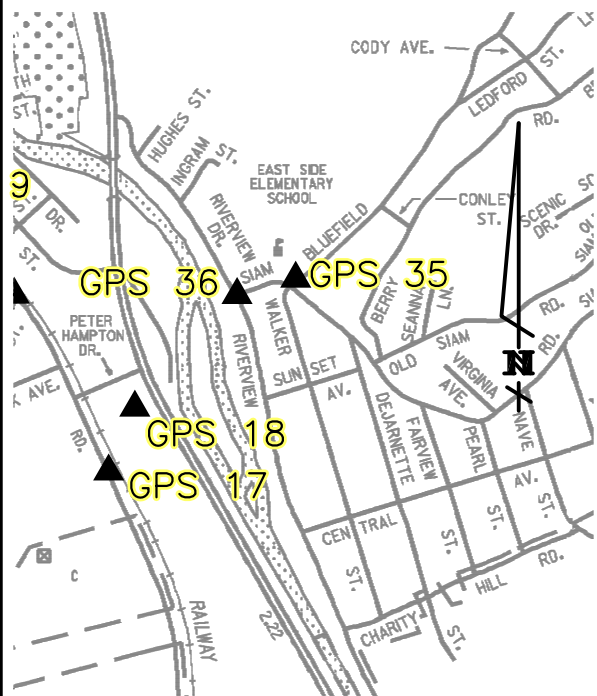
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 752560.637	LATITUDE: 36°20'28.12571"N
EASTING: 3086625.490	LONGITUDE: 82°12'09.83117"W
ORTHOMETRIC HEIGHT: 1572.949	GRID SCALE FACTOR: 0.99998748
CONVERGENCE: 2°13'23.1"E	ELEVATION REDUCTION FACTOR: 0.99992967

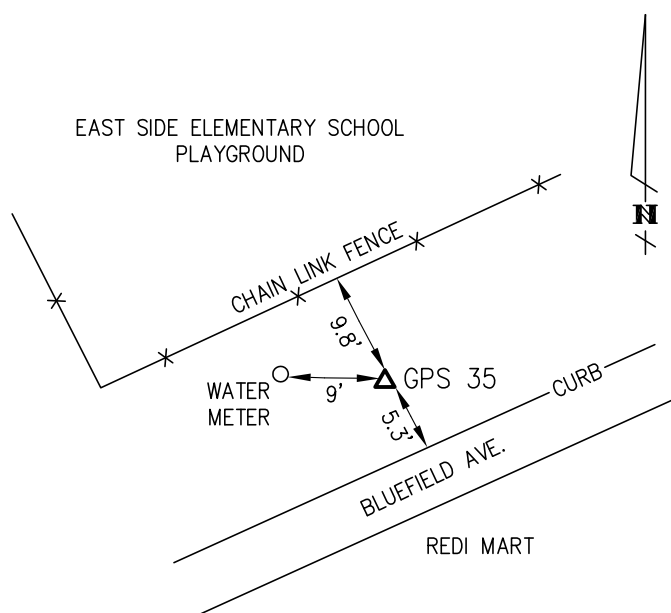
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH VETERANS MEMORIAL HWY. (STATE ROUTE 37 / U.S. 19E). GO SOUTHERLY ALONG VETERANS MEMORIAL HWY. 0.6± MILE TO RIVERVIEW DR. GO SOUTHEASTERLY ALONG RIVERVIEW DR. 0.3± MILE TO SIAM RD. GO EASTERLY ALONG SIAM ROAD 0.1± MILE TO BLUEFIELD AVE. STATION IS ON NORTHWESTERLY SIDE OF BLUEFIELD AVE. AND NORTHEAST OF THE INTERSECTION OF BLUEFIELD AVE. WITH SIAM RD. STATION IS A 3-¹/₂ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 35".

VICINITY MAP



REFERENCE DIAGRAM





GPS 36

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 36

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **752448.514**

LATITUDE: **36°20'27.17244"N**

EASTING: **3086222.262**

LONGITUDE: **82°12'14.80922"W**

ORTHOMETRIC HEIGHT: **1558.678**

GRID SCALE FACTOR: **0.99998744**

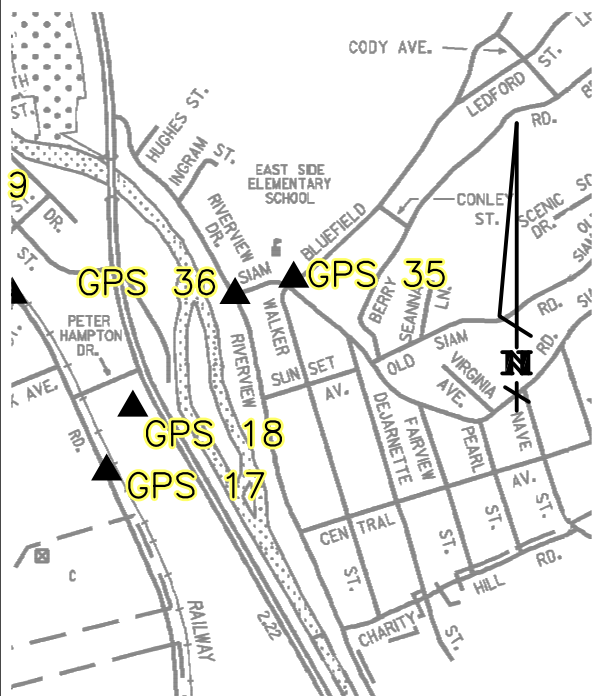
CONVERGENCE: **2°13'20.1"E**

ELEVATION REDUCTION FACTOR: **0.99993036**

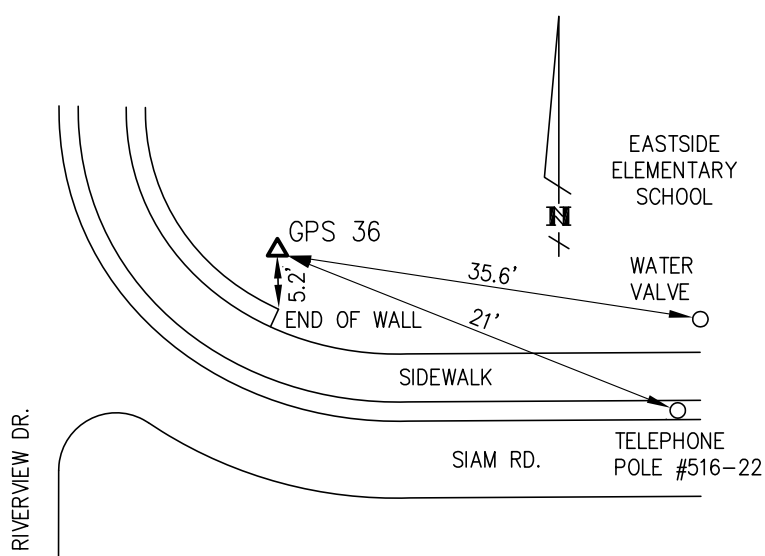
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH VETERANS MEMORIAL HWY. (STATE ROUTE 37 / U.S. 19E). GO SOUTHERLY ALONG VETERANS MEMORIAL HWY. 0.6± MILE TO RIVERVIEW DR. GO SOUTHEASTERLY ALONG RIVERVIEW DR. 0.3± MILE TO SIAM RD. STATION IS ON EAST SIDE OF RIVERVIEW DR. AND ON NORTH SIDE OF SIAM RD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 36".

VICINITY MAP



REFERENCE DIAGRAM





GPS 37

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 37

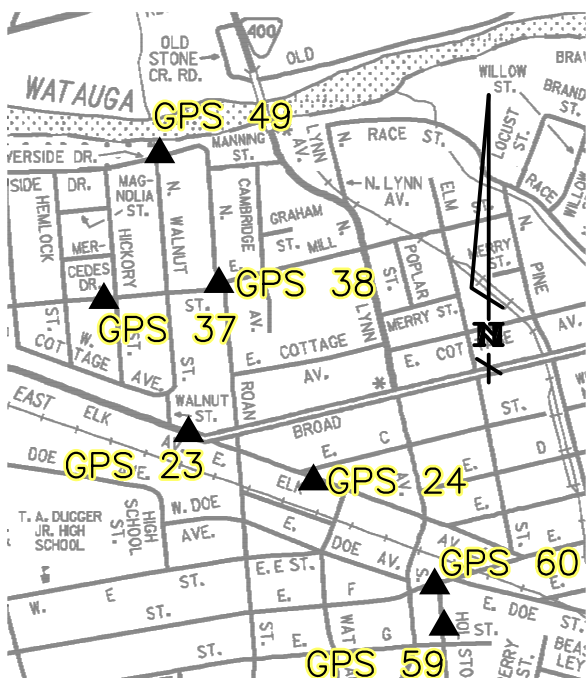
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 756489.877	LATITUDE: 36°21'09.79996"N
EASTING: 3079175.019	LONGITUDE: 82°13'38.97908"W
ORTHOMETRIC HEIGHT: 1502.356	GRID SCALE FACTOR: 0.99998928
CONVERGENCE: 2°12'30.9"E	ELEVATION REDUCTION FACTOR: 0.99993306

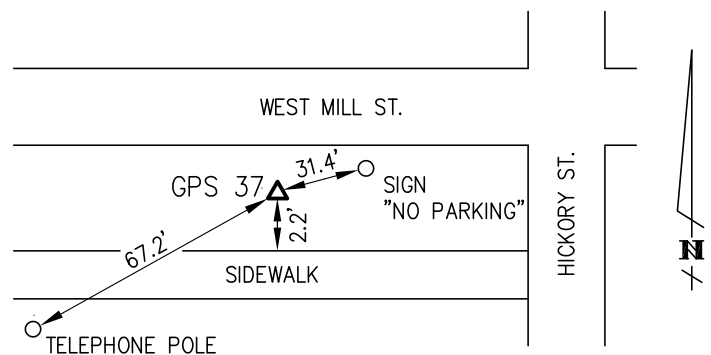
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO EASTERLY ALONG BROAD ST. 200± FEET TO ROAN ST. GO NORTHERLY ALONG ROAN ST. 0.2± MILE TO MILL ST. GO WESTERLY ALONG MILL ST. 0.2± MILE TO STATION ON SOUTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 37".

VICINITY MAP



REFERENCE DIAGRAM





GPS 38

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 38

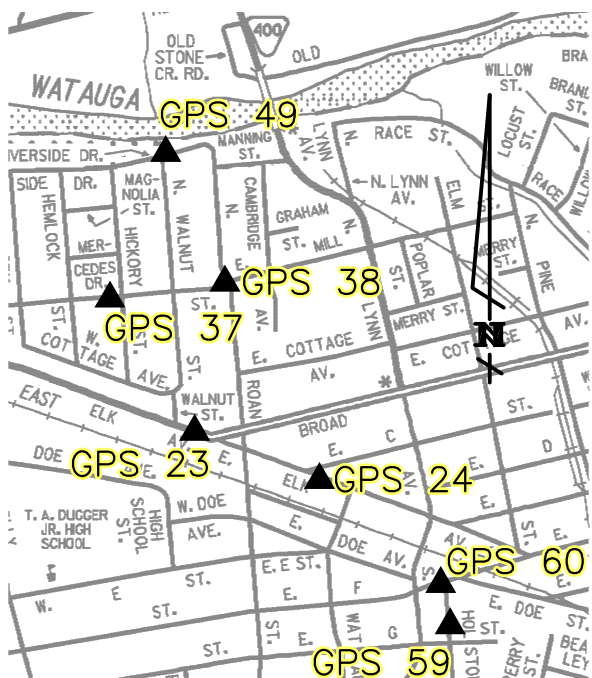
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 756599.578	LATITUDE: 36°21'10.58256"N
EASTING: 3079965.623	LONGITUDE: 82°13'29.26966"W
ORTHOMETRIC HEIGHT: 1504.715	GRID SCALE FACTOR: 0.99998932
CONVERGENCE: 2°12'36.6"E	ELEVATION REDUCTION FACTOR: 0.99993294

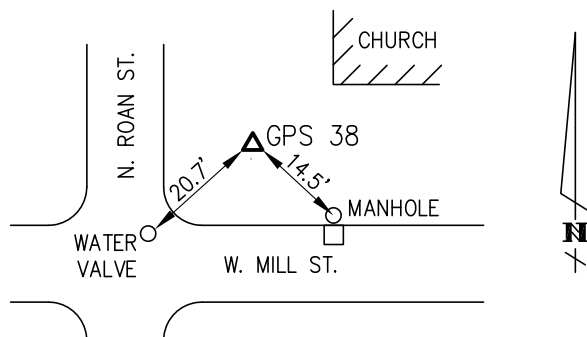
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO EASTERLY ALONG BROAD ST. 200± FEET TO ROAN ST. GO NORTHERLY ALONG ROAN ST. 0.2± MILE TO MILL ST. STATION IS ON NORTH SIDE OF MILL ST. AND EAST SIDE OF ROAN ST. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 38".

VICINITY MAP



REFERENCE DIAGRAM





GPS 39

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 39

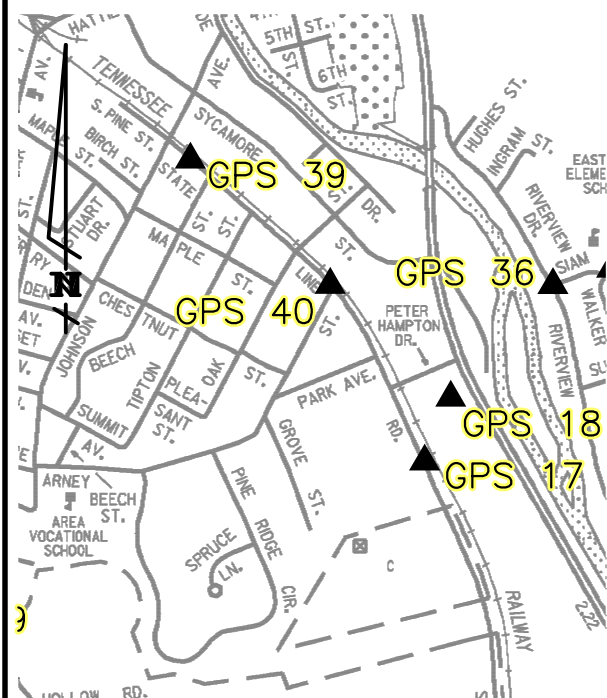
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 753271.622	LATITUDE: 36°20'36.27654"N
EASTING: 3083687.667	LONGITUDE: 82°12'45.37678"W
ORTHOMETRIC HEIGHT: 1553.258	GRID SCALE FACTOR: 0.99998783
CONVERGENCE: 2°13'02.2"E	ELEVATION REDUCTION FACTOR: 0.99993062

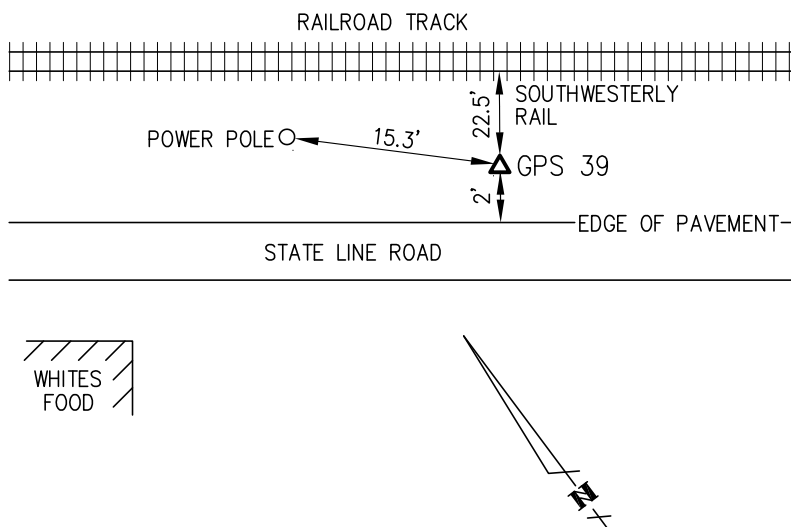
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH VETERANS MEMORIAL HWY. (STATE ROUTE 37 / U.S. 19E). GO SOUTHERLY ALONG VETERANS MEMORIAL HWY. 0.9± MILE TO PETER HAMPTON DR. GO WESTERLY ALONG PETER HAMPTON DR. 0.1± MILE TO STATE LINE RD. GO NORTHWESTERLY ALONG STATE LINE RD. 0.2± MILE TO STATION ON NORTHEAST SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 39".

VICINITY MAP



REFERENCE DIAGRAM





GPS 40

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 40

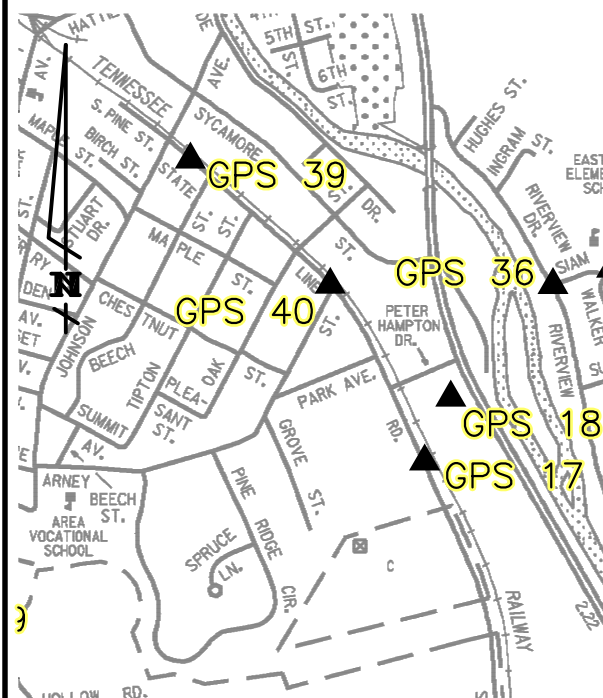
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 752421.651	LATITUDE: 36°20'27.51282"N
EASTING: 3084641.194	LONGITUDE: 82°12'34.13261"W
ORTHOMETRIC HEIGHT: 1566.076	GRID SCALE FACTOR: 0.99998745
CONVERGENCE: 2°13'08.8"E	ELEVATION REDUCTION FACTOR: 0.99993000

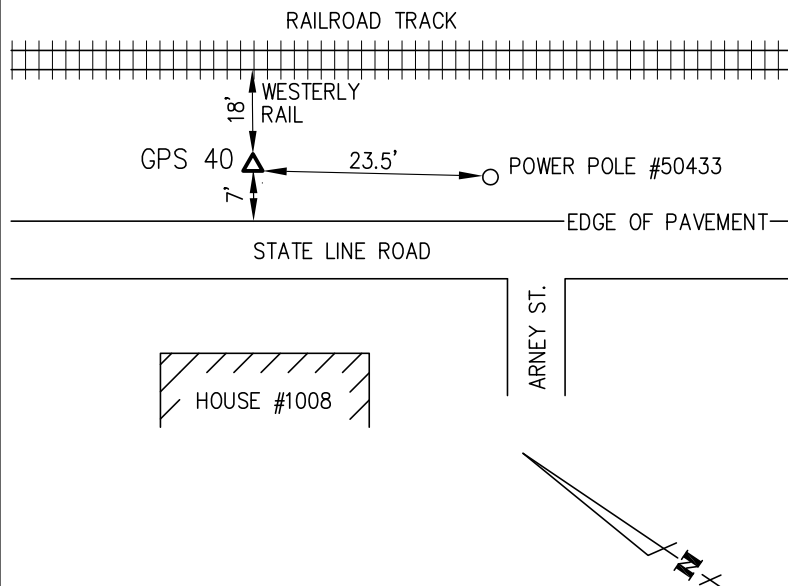
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH VETERANS MEMORIAL HWY. (STATE ROUTE 37 / U.S. 19E). GO SOUTHERLY ALONG VETERANS MEMORIAL HWY. 0.9± MILE TO PETER HAMPTON DR. GO WESTERLY ALONG PETER HAMPTON DR. 0.1± MILE TO STATE LINE RD. GO NORTHWESTERLY ALONG STATE LINE RD. 0.4± MILE TO STATION ON NORTHEAST SIDE OF ROAD. STATION IS A 3-¹/₂ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 40".

VICINITY MAP



REFERENCE DIAGRAM





GPS 41

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 41

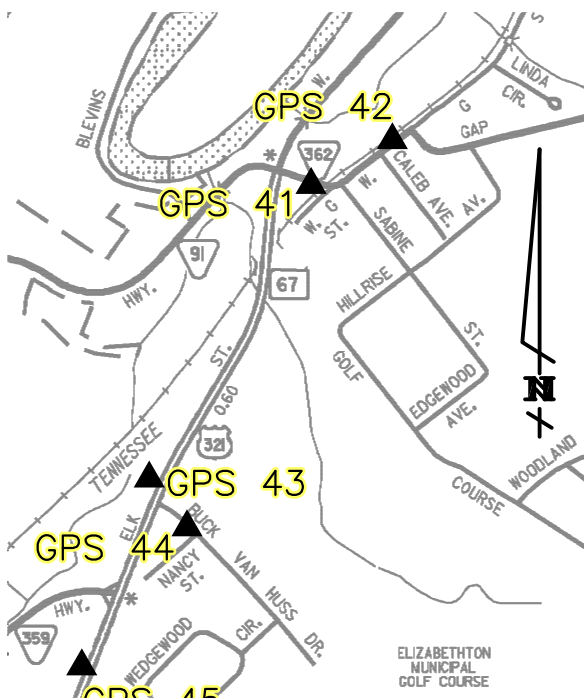
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 747258.978	LATITUDE: 36°19'43.05538"N
EASTING: 3067382.529	LONGITUDE: 82°16'07.33513"W
ORTHOMETRIC HEIGHT: 1473.272	GRID SCALE FACTOR: 0.99998557
CONVERGENCE: 2°11'04.0"E	ELEVATION REDUCTION FACTOR: 0.99993445

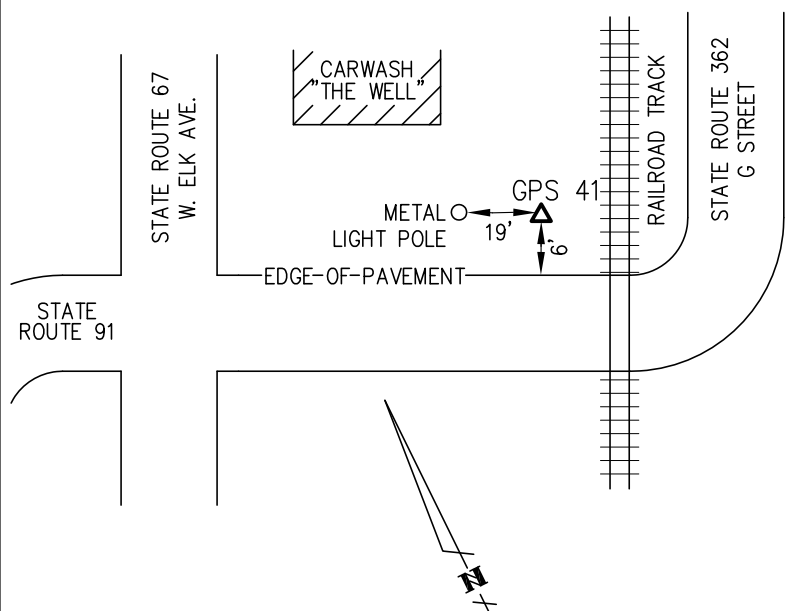
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO EASTERLY ALONG G STREET 300± FEET TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 41".

VICINITY MAP



REFERENCE DIAGRAM





GPS 42

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 42

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **747566.706**

LATITUDE: **36°19'45.88553"N**

EASTING: **3067941.297**

LONGITUDE: **82°16'00.36798"W**

ORTHOMETRIC HEIGHT: **1478.986**

GRID SCALE FACTOR: **0.99998569**

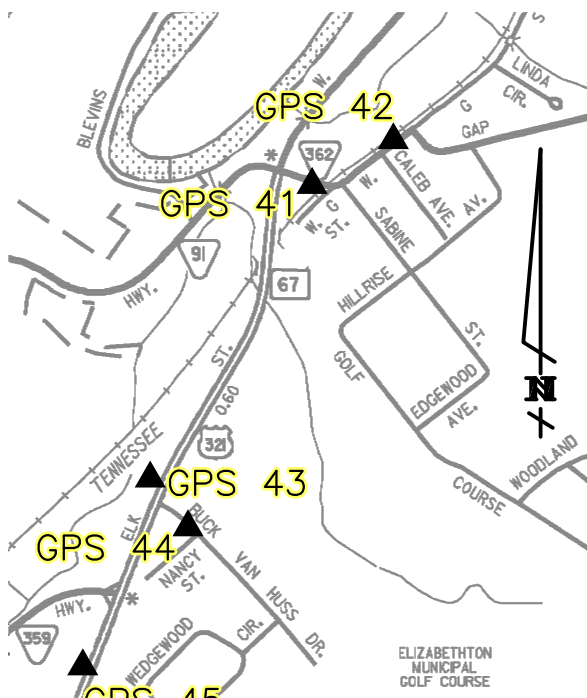
CONVERGENCE: **2°11'08.1"E**

ELEVATION REDUCTION FACTOR: **0.99993418**

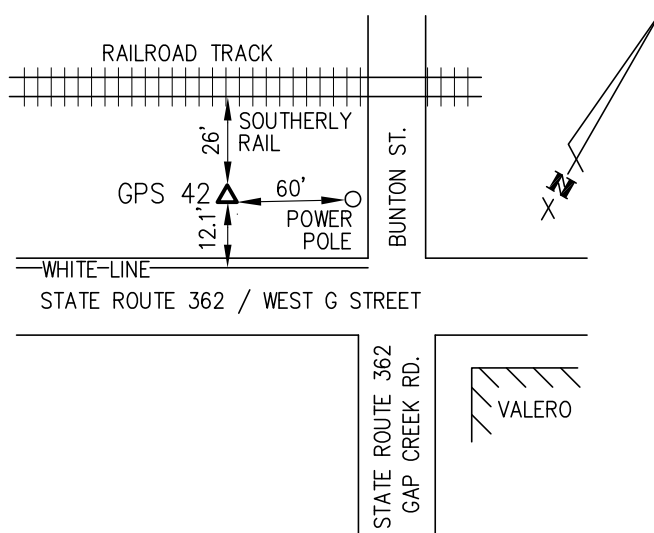
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO EASTERLY ALONG G STREET 0.2± MILE TO STATION ON NORTH SIDE OF ROAD. STATION IS LOCATED S 30° E 5.0 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 42".

VICINITY MAP



REFERENCE DIAGRAM





GPS 43

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 43

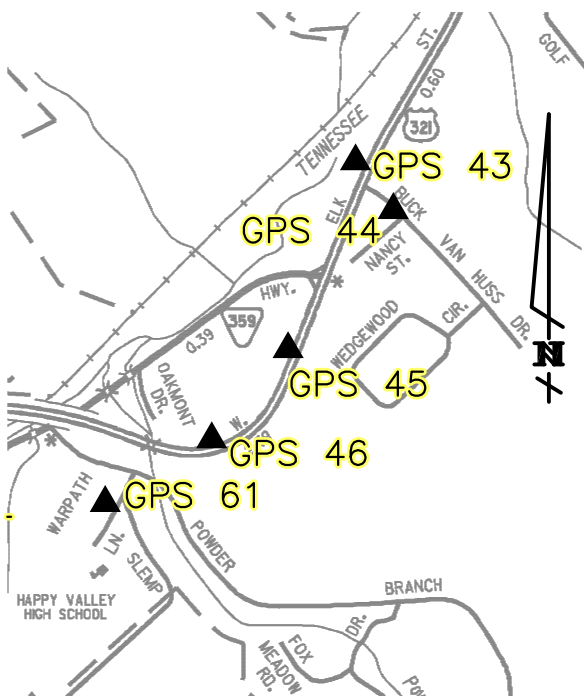
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 745240.517	LATITUDE: 36°19'23.52899"N
EASTING: 3066270.173	LONGITUDE: 82°16'21.85857"W
ORTHOMETRIC HEIGHT: 1531.207	GRID SCALE FACTOR: 0.99998476
CONVERGENCE: 2°10'55.5"E	ELEVATION REDUCTION FACTOR: 0.99993168

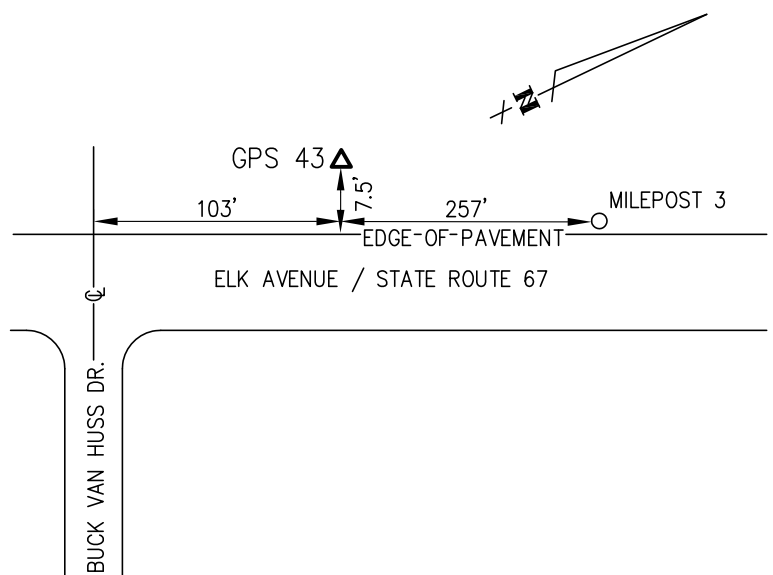
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. $0.4 \pm$ MILE TO STATION ON NORTHWEST SIDE OF ROAD. STATION IS LOCATED S 50° E 4.6 FEET FROM A FIBERGLASS WITNESS POST AND IS A $3\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 43".

VICINITY MAP



REFERENCE DIAGRAM





GPS 44

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 44

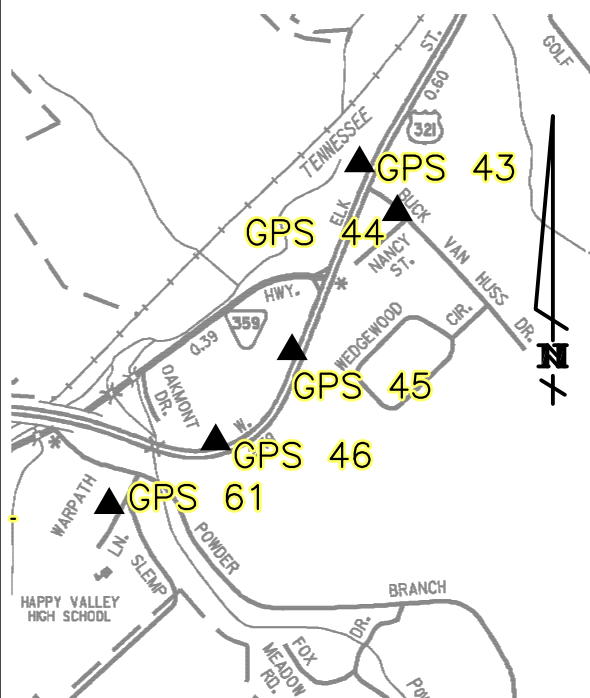
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER C CLASS 1
VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 744905.264	LATITUDE: 36°19'20.11845"N
EASTING: 3066529.720	LONGITUDE: 82°16'18.84519"W
ORTHOMETRIC HEIGHT: 1558.545	GRID SCALE FACTOR: 0.99998462
CONVERGENCE: 2°10'57.3"E	ELEVATION REDUCTION FACTOR: 0.99993037

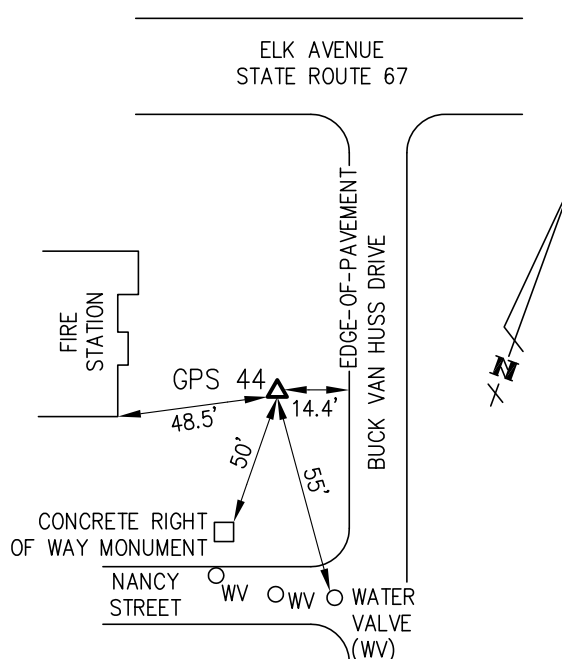
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. 0.5± MILE TO BUCK VAN HUSS DR. GO SOUTHEASTERLY ALONG BUCK VAN HUSS DR. 0.1± MILE TO STATION ON SOUTHWEST SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 44".

VICINITY MAP



REFERENCE DIAGRAM





GPS 45

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 45

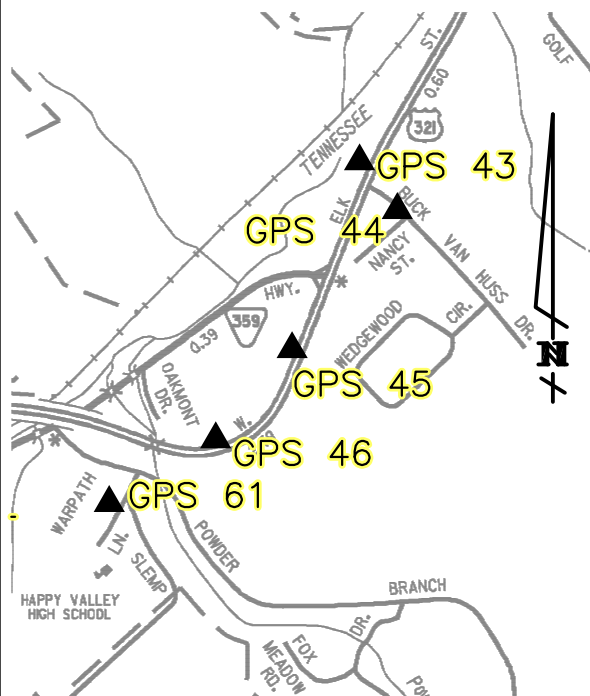
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 743949.252	LATITUDE: 36°19'10.94380"N
EASTING: 3065806.643	LONGITUDE: 82°16'28.11939"W
ORTHOMETRIC HEIGHT: 1563.726	GRID SCALE FACTOR: 0.99998424
CONVERGENCE: 2°10'51.8"E	ELEVATION REDUCTION FACTOR: 0.99993012

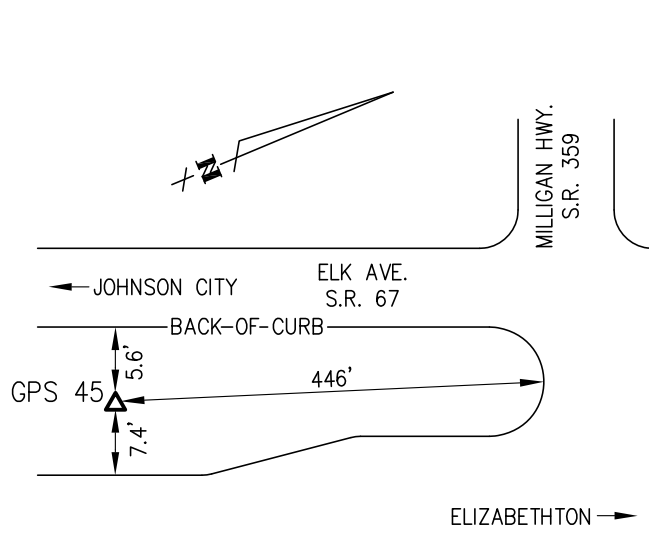
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. 0.7± MILE TO STATION IN GRASS BETWEEN SOUTHWESTERLY BOUND AND NORTHEASTERLY BOUND LANES OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 45".

VICINITY MAP



REFERENCE DIAGRAM





GPS 46

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 46

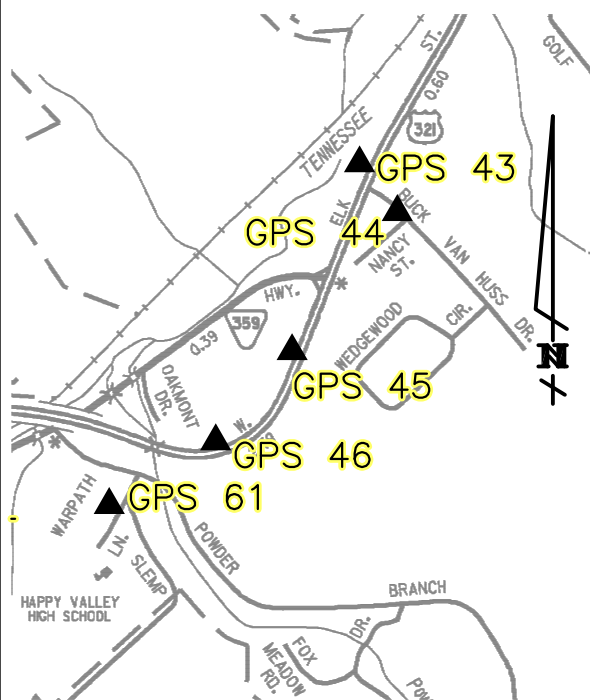
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER C CLASS 1
VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 743329.489	LATITUDE: 36°19'05.01718"N
EASTING: 3065281.456	LONGITUDE: 82°16'34.82039"W
ORTHOMETRIC HEIGHT: 1551.228	GRID SCALE FACTOR: 0.99998400
CONVERGENCE: 2°10'47.9"E	ELEVATION REDUCTION FACTOR: 0.99993072

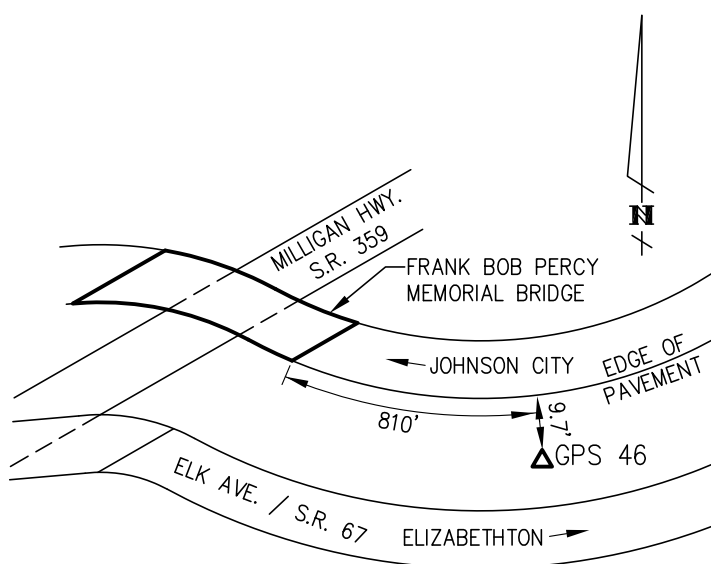
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. $0.9 \pm$ MILE TO STATION IN GRASS BETWEEN SOUTHWESTERLY BOUND AND NORTHEASTERLY BOUND LANES OF ROAD. STATION IS LOCATED N 15° W 4.8 FEET FROM A FIBERGLASS WITNESS POST AND IS A $3\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 46".

VICINITY MAP



REFERENCE DIAGRAM





GPS 47

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 47

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **756159.282**

LATITUDE: **36°21'07.26730"N**

EASTING: **3077247.152**

LONGITUDE: **82°14'02.68468"W**

ORTHOMETRIC HEIGHT: **1536.932**

GRID SCALE FACTOR: **0.99998917**

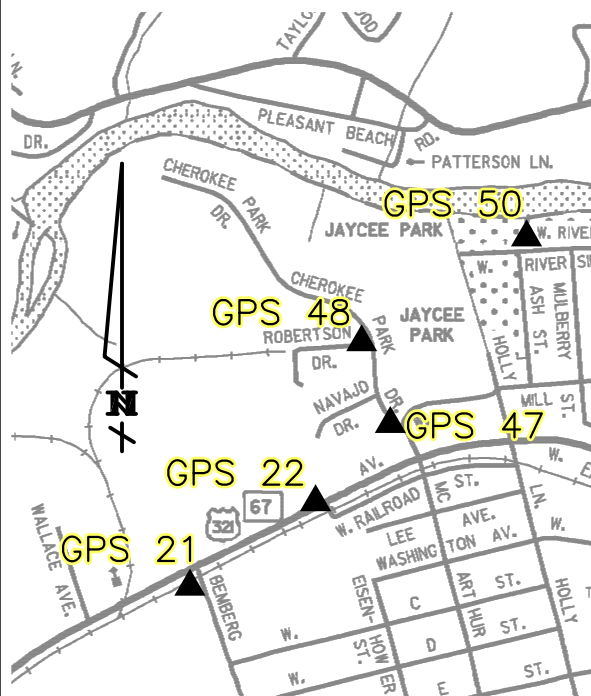
CONVERGENCE: **2°12'17.0"**

ELEVATION REDUCTION FACTOR: **0.99993140**

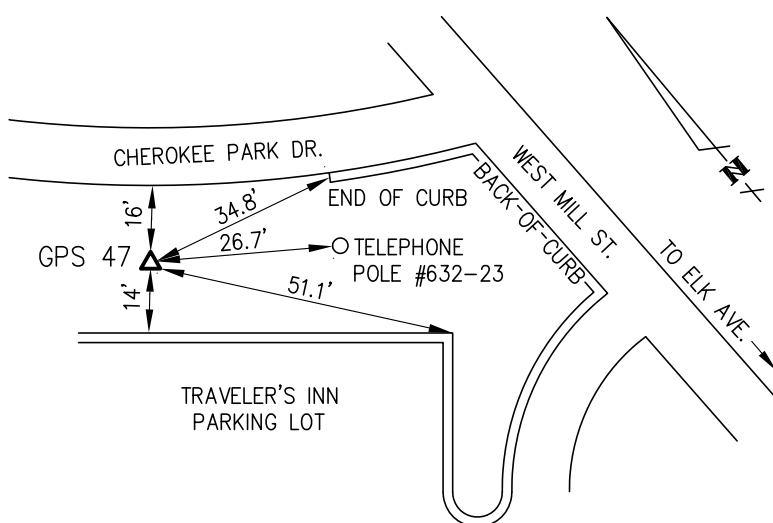
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 0.5± MILES TO WEST MILL ST. GO NORTHERLY ALONG WEST MILL ST. 200± FEET TO CHEROKEE PARK DR. GO NORTHWESTERLY ALONG CHEROKEE PARK DR. 100± FEET TO STATION ON SOUTHWESTERLY SIDE OF RD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 47".

VICINITY MAP



REFERENCE DIAGRAM





GPS 48

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 48

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **756720.750**

LATITUDE: **36°21'12.89032"N**

EASTING: **3077050.002**

LONGITUDE: **82°14'04.82897"W**

ORTHOMETRIC HEIGHT: **1534.080**

GRID SCALE FACTOR: **0.99998942**

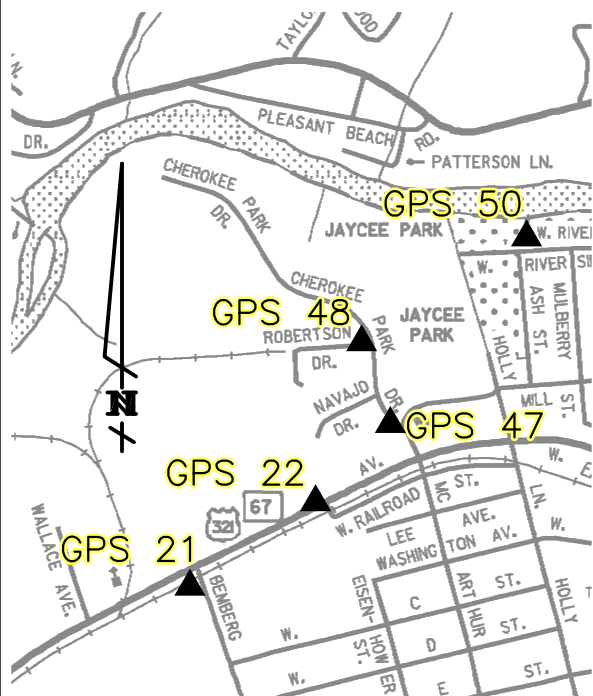
CONVERGENCE: **2°12'15.7"E**

ELEVATION REDUCTION FACTOR: **0.99993154**

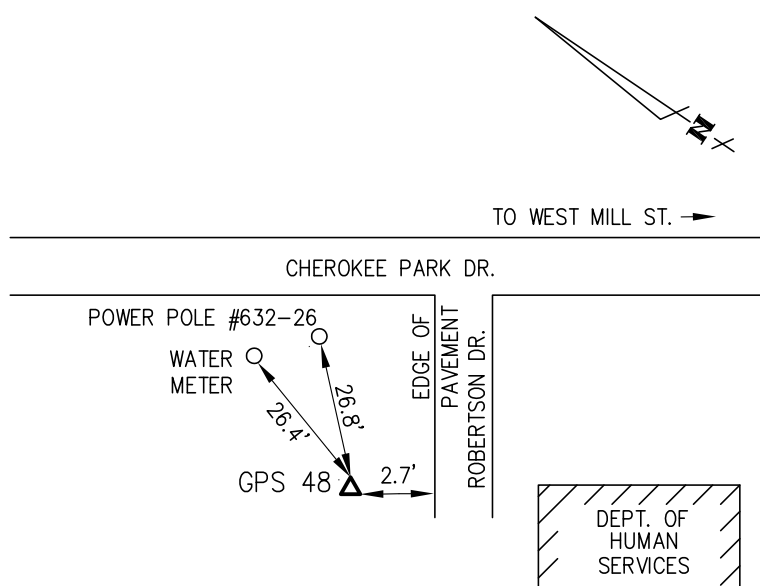
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. $0.5\pm$ MILES TO WEST MILL ST. GO NORTHERLY ALONG WEST MILL ST. $200\pm$ FEET TO CHEROKEE PARK DR. GO NORTHWESTERLY ALONG CHEROKEE PARK DR. $0.1\pm$ MILE TO ROBERTSON DR. STATION IS ON SOUTHWEST SIDE OF CHEROKEE PARK DR. AND ON NORTHWEST SIDE OF ROBERTSON DR. STATION IS A $3\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 48".

VICINITY MAP



REFERENCE DIAGRAM





GPS 49

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 49

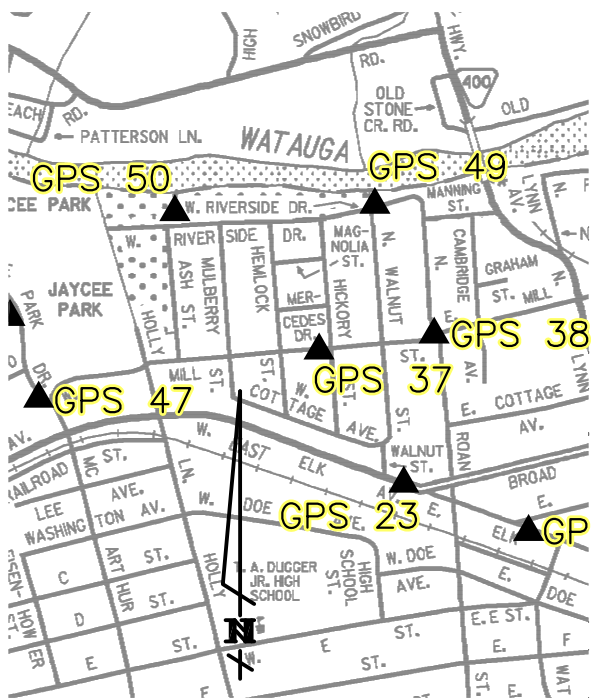
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 757491.571	LATITUDE: 36°21'19.55179"N
EASTING: 3079558.488	LONGITUDE: 82°13'33.82270"W
ORTHOMETRIC HEIGHT: 1501.021	GRID SCALE FACTOR: 0.99998971
CONVERGENCE: 2°12'33.9"E	ELEVATION REDUCTION FACTOR: 0.99993312

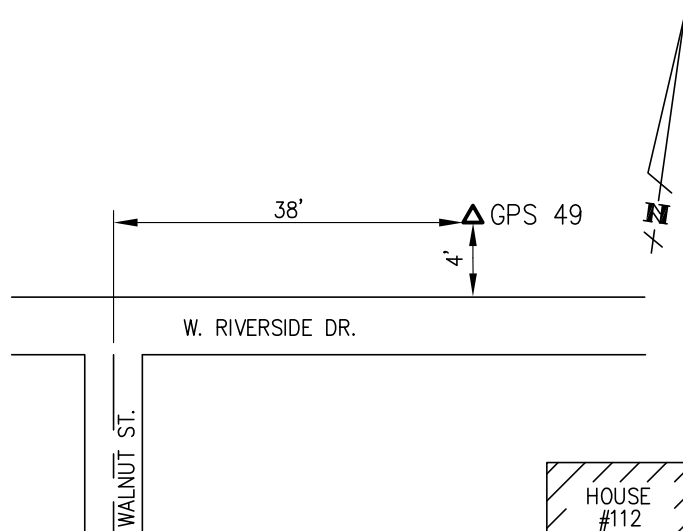
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO EASTERLY ALONG BROAD ST. 200± FEET TO ROAN ST. GO NORTHERLY ALONG ROAN ST. 0.4± MILE RIVERSIDE DR. GO WESTERLY ALONG RIVERSIDE DR. 0.1± MILE TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3-½ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 49".

VICINITY MAP



REFERENCE DIAGRAM





GPS 50

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 50

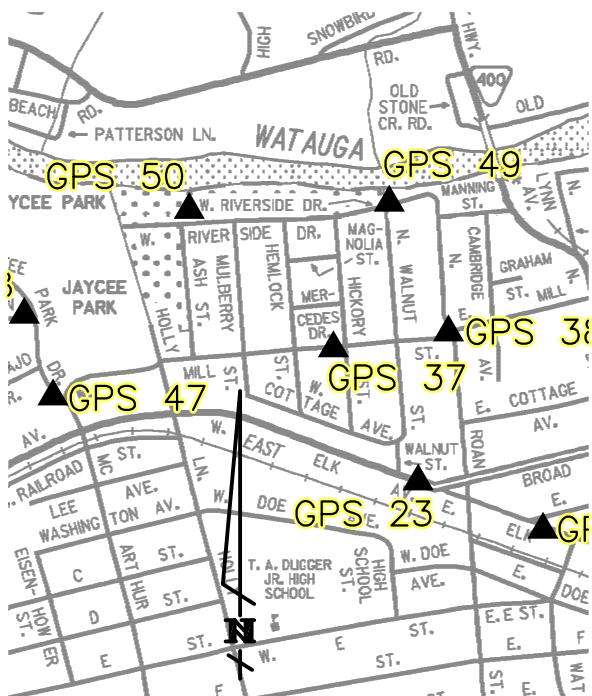
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER C CLASS 1
VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 757441.393	LATITUDE: 36°21'19.57982"N
EASTING: 3078183.518	LONGITUDE: 82°13'50.64300"W
ORTHOMETRIC HEIGHT: 1492.828	GRID SCALE FACTOR: 0.99998971
CONVERGENCE: 2°12'24.0"E	ELEVATION REDUCTION FACTOR: 0.99993351

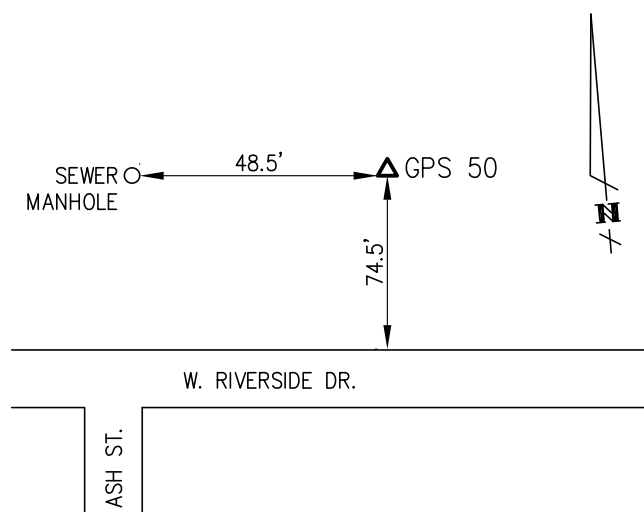
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO EASTERLY ALONG BROAD ST. 200± FEET TO ROAN ST. GO NORTHERLY ALONG ROAN ST. 0.4± MILE RIVERSIDE DR. GO WESTERLY ALONG RIVERSIDE DR. 0.3± MILE TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 50".

VICINITY MAP



REFERENCE DIAGRAM





GPS 51

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 51

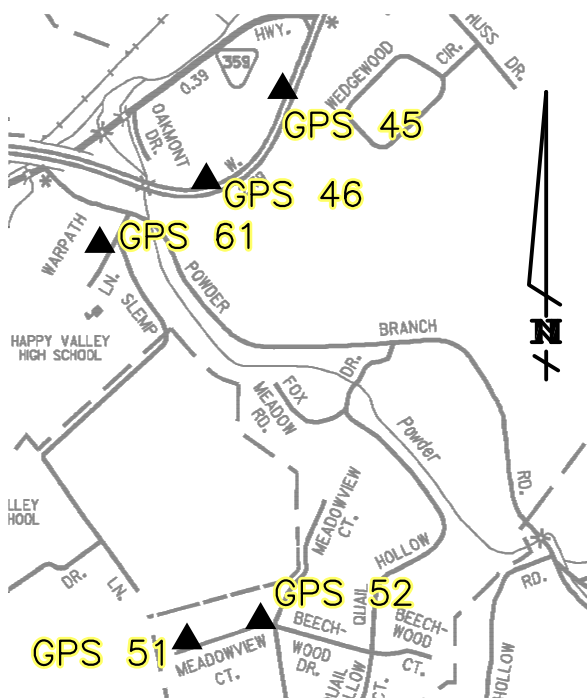
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 740165.311	LATITUDE: 36°18'33.79989"N
EASTING: 3065149.173	LONGITUDE: 82°16'37.90602"W
ORTHOMETRIC HEIGHT: 1660.714	GRID SCALE FACTOR: 0.99998273
CONVERGENCE: 2°10'46.1"E	ELEVATION REDUCTION FACTOR: 0.99992548

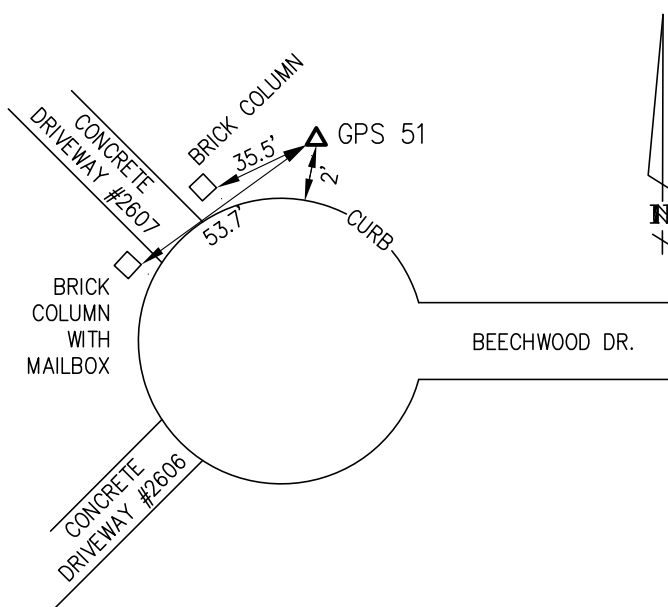
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. 0.6± MILE TO MILLIGAN HWY. (STATE ROUTE 359). GO SOUTHWESTERLY MILLIGAN HWY. 0.4± MILE TO POWDER BRANCH RD. GO SOUTHEASTERLY ALONG POWDER BRANCH RD. 0.6± MILE TO QUAIL HOLLOW DR. GO SOUTHERLY ALONG QUAIL HOLLOW DR. 0.5± MILE TO BEECHWOOD DR. GO WESTERLY ALONG BEECHWOOD DR. 0.2± TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 51".

VICINITY MAP



REFERENCE DIAGRAM





GPS 52

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 52

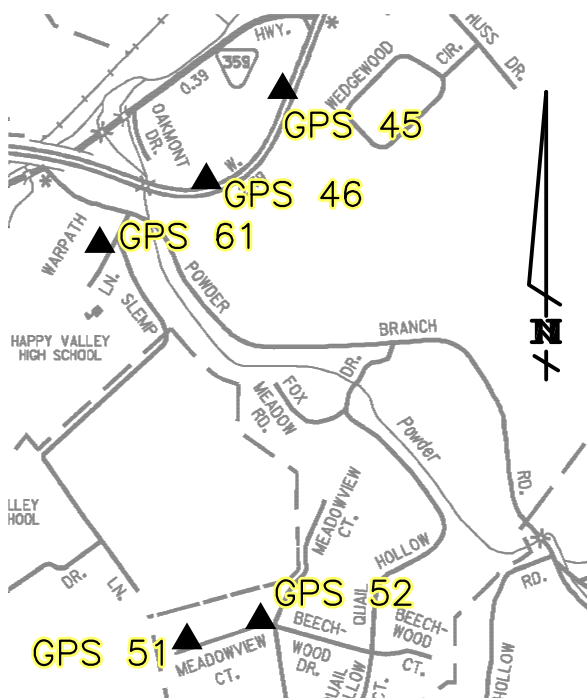
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 740305.599	LATITUDE: 36°18'34.99593"N
EASTING: 3065654.924	LONGITUDE: 82°16'31.66602"W
ORTHOMETRIC HEIGHT: 1618.794	GRID SCALE FACTOR: 0.99998278
CONVERGENCE: 2°10'49.8"E	ELEVATION REDUCTION FACTOR: 0.99992748

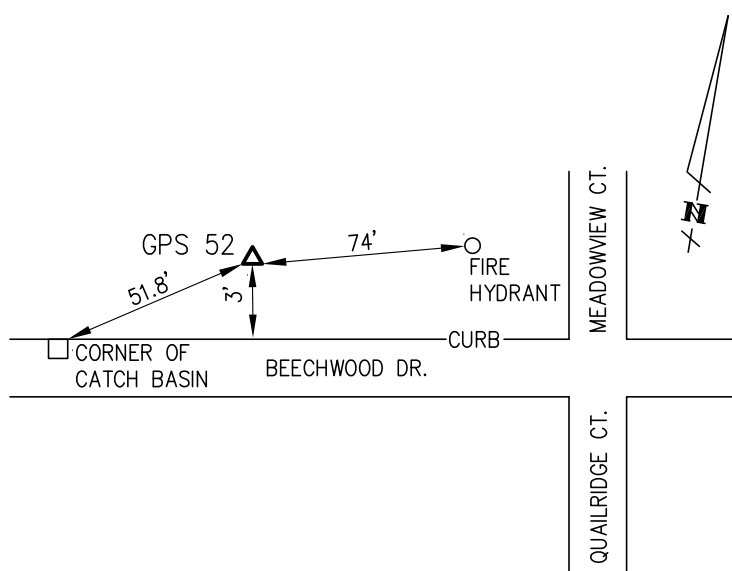
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. 0.6± MILE TO MILLIGAN HWY. (STATE ROUTE 359). GO SOUTHWESTERLY MILLIGAN HWY. 0.4± MILE TO POWDER BRANCH RD. GO SOUTHEASTERLY ALONG POWDER BRANCH RD. 0.6± MILE TO QUAIL HOLLOW DR. GO SOUTHERLY ALONG QUAIL HOLLOW DR. 0.5± MILE TO BEECHWOOD DR. GO WESTERLY ALONG BEECHWOOD DR. 0.2± TO STATION ON NORTH SIDE OF BEECHWOOD DR. AND ON WEST SIDE OF MEADOWVIEW CT. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 52".

VICINITY MAP



REFERENCE DIAGRAM





GPS 53

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 53

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **742463.356**

LATITUDE: **36°18'57.55587"N**

EASTING: **3062359.983**

LONGITUDE: **82°17'10.89467"W**

ORTHOMETRIC HEIGHT: **1514.888**

GRID SCALE FACTOR: **0.99998369**

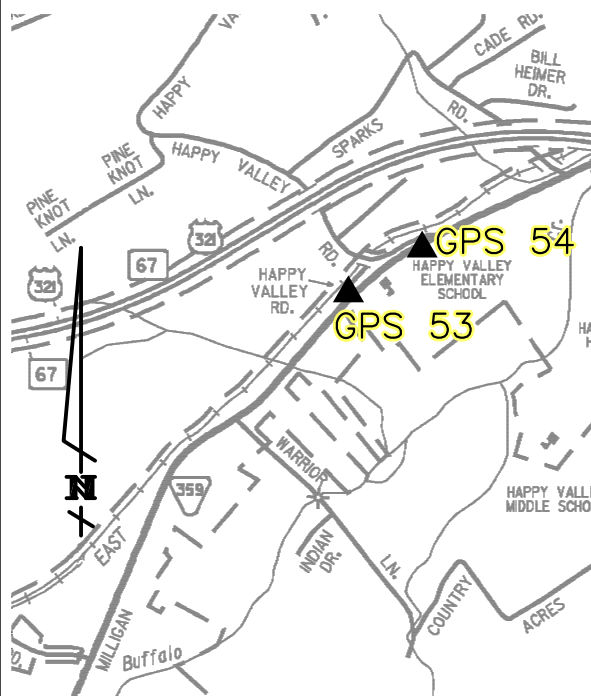
CONVERGENCE: **2°10'26.8"E**

ELEVATION REDUCTION FACTOR: **0.99993246**

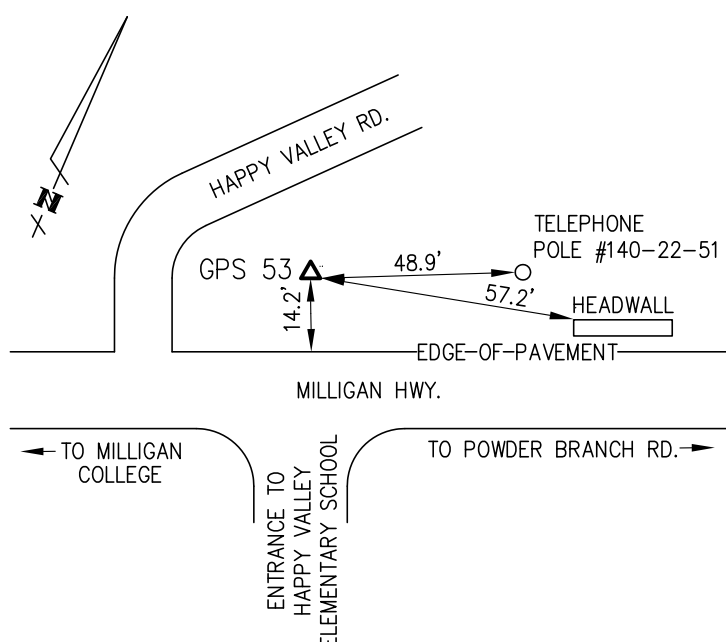
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. 0.6± MILE TO MILLIGAN HWY. (STATE ROUTE 359). GO SOUTHWESTERLY MILLIGAN HWY. 0.8± MILE TO STATION ON NORTH SIDE OF ROAD. STATION IS LOCATED S 30° E 4.9 FEET FROM A FIBERGLASS WITNESS POST AND IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 53".

VICINITY MAP



REFERENCE DIAGRAM





GPS 54

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 54

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **742771.279**

LATITUDE: **36°19'00.40856"N**

EASTING: **3062866.533**

LONGITUDE: **82°17'04.56677"W**

ORTHOMETRIC HEIGHT: **1507.693**

GRID SCALE FACTOR: **0.99998381**

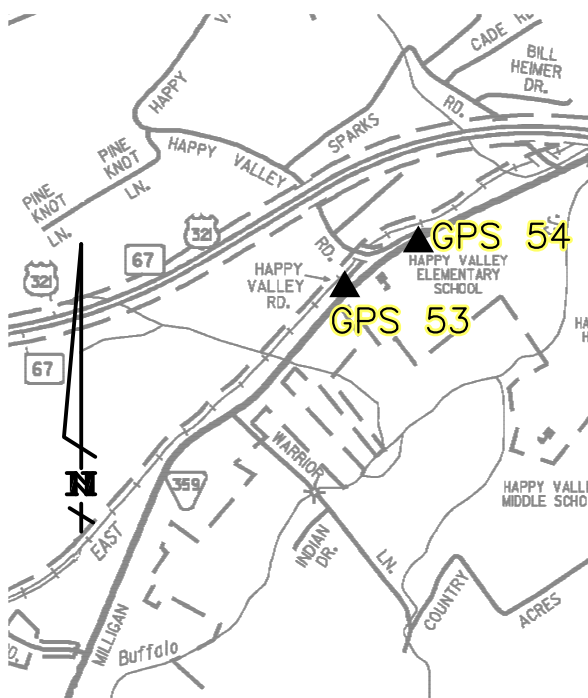
CONVERGENCE: **2°10'30.5"E**

ELEVATION REDUCTION FACTOR: **0.99993280**

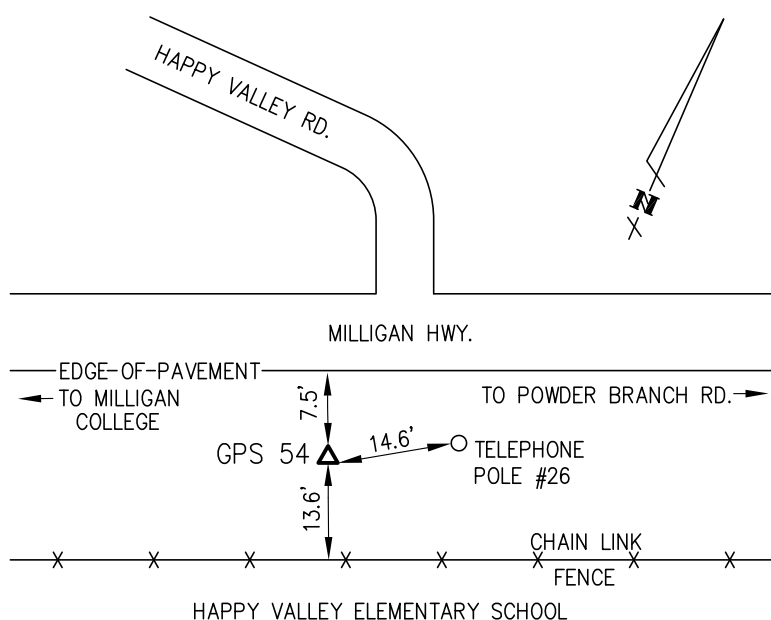
TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. $0.6 \pm$ MILE TO MILLIGAN HWY. (STATE ROUTE 359). GO SOUTHWESTERLY MILLIGAN HWY. $0.7 \pm$ MILE TO STATION ON SOUTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 54".

VICINITY MAP



REFERENCE DIAGRAM





GPS 55

MARCH 2, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 55

HORIZONTAL DATUM: NAD83(2007)

COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)

VERTICAL DATUM: NAVD88

LINEAR UNIT: U. S. SURVEY FOOT

HORIZONTAL ORDER: ORDER C CLASS 1

VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: **753352.104**

LATITUDE: **36°20'41.09456"N**

EASTING: **3073123.019**

LONGITUDE: **82°14'54.37858"W**

ORTHOMETRIC HEIGHT: **1499.035**

GRID SCALE FACTOR: **0.99998803**

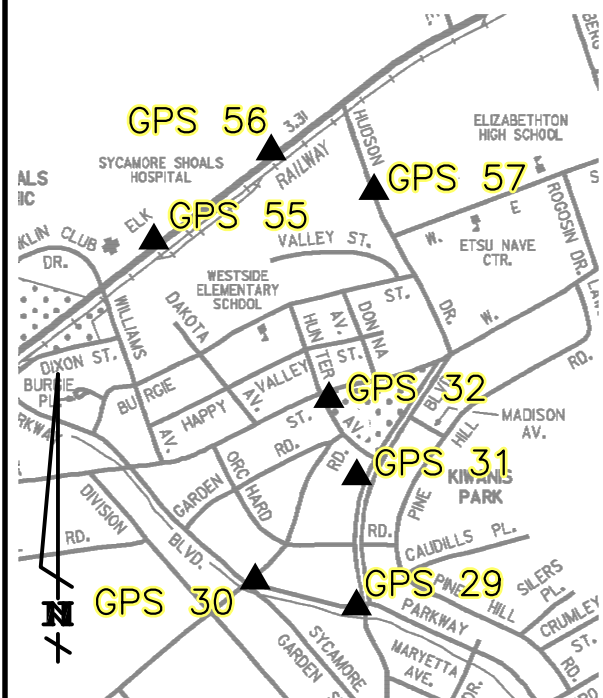
CONVERGENCE: **2°11'46.7"E**

ELEVATION REDUCTION FACTOR: **0.99993322**

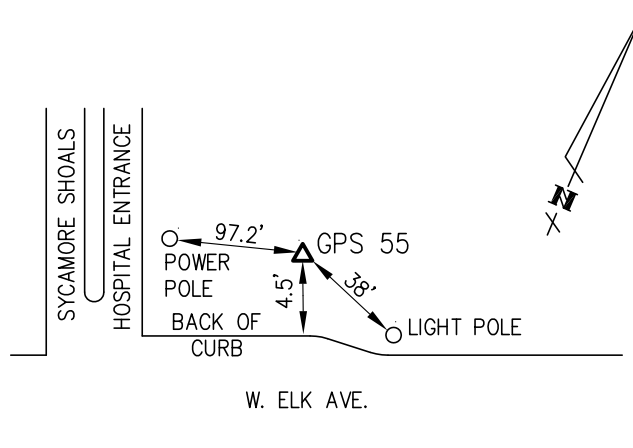
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 1.4± MILES TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 55".

VICINITY MAP



REFERENCE DIAGRAM





GPS 56

MARCH 2, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 56

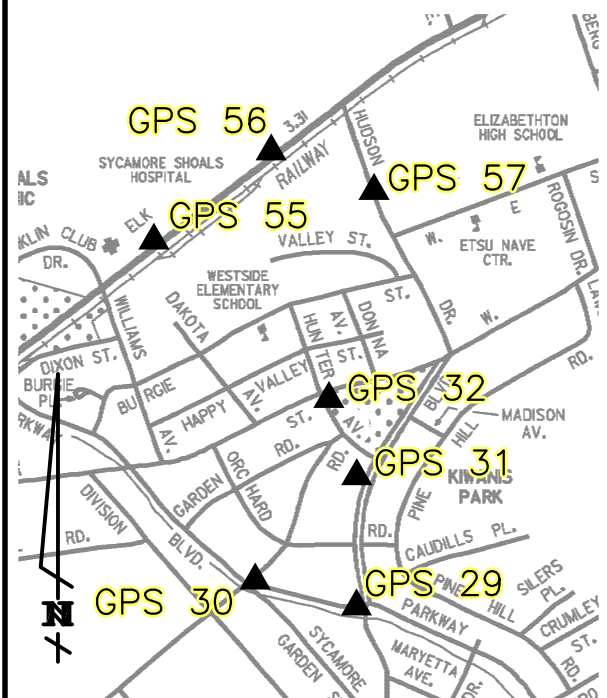
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 753965.201	LATITUDE: 36°20'46.84712"N
EASTING: 3073929.310	LONGITUDE: 82°14'44.24275"W
ORTHOMETRIC HEIGHT: 1505.495	GRID SCALE FACTOR: 0.99998828
CONVERGENCE: 2°11'52.7"E	ELEVATION REDUCTION FACTOR: 0.99993291

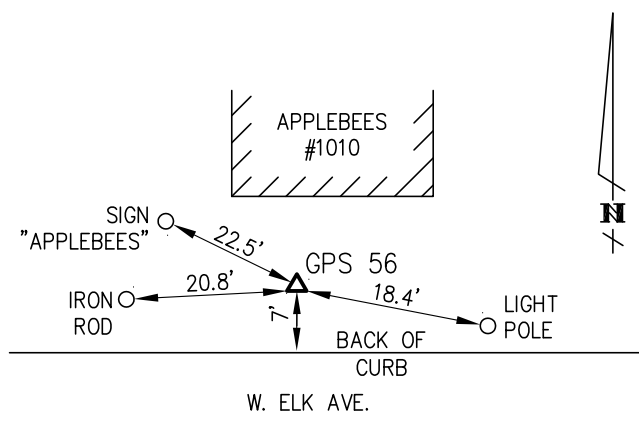
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 1.2± MILES TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 56".

VICINITY MAP



REFERENCE DIAGRAM





GPS 57

MARCH 2, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 57

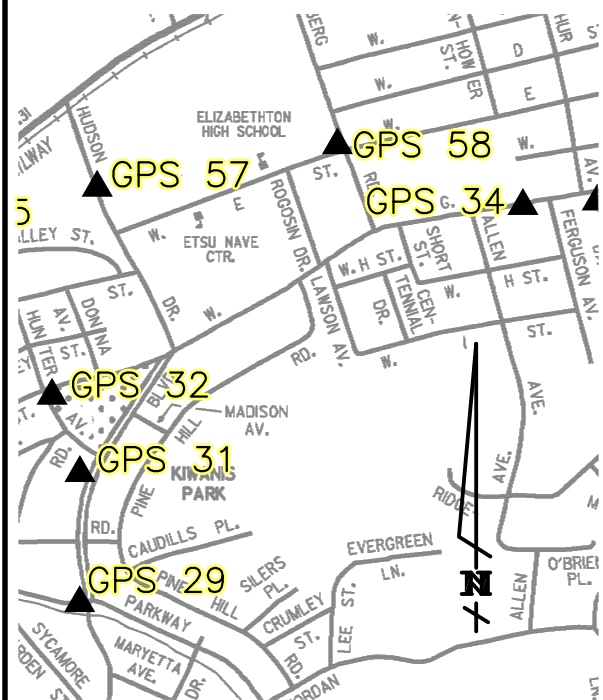
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 753689.922	LATITUDE: 36°20'43.85873"N
EASTING: 3074636.456	LONGITUDE: 82°14'35.73431"W
ORTHOMETRIC HEIGHT: 1501.310	GRID SCALE FACTOR: 0.99998815
CONVERGENCE: 2°11'57.6"E	ELEVATION REDUCTION FACTOR: 0.99993311

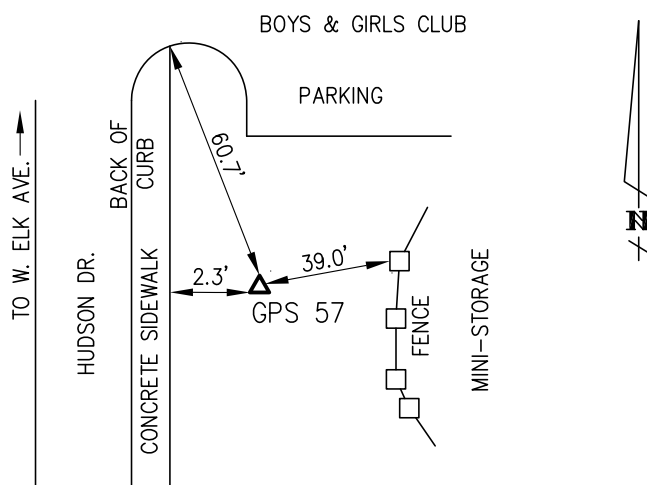
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 1.1± MILES TO HUDSON DR. GO SOUTHERLY ALONG HUDSON DR. 0.1± MILE TO STATION ON EAST SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN CONCRETE AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 57".

VICINITY MAP



REFERENCE DIAGRAM





GPS 58

MARCH 5, 2009

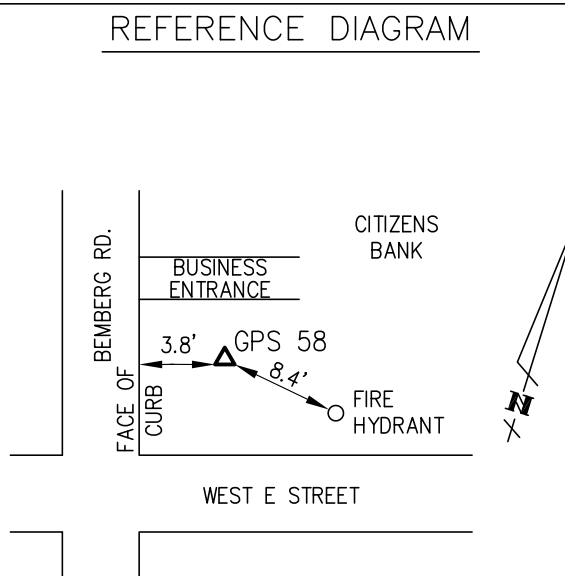
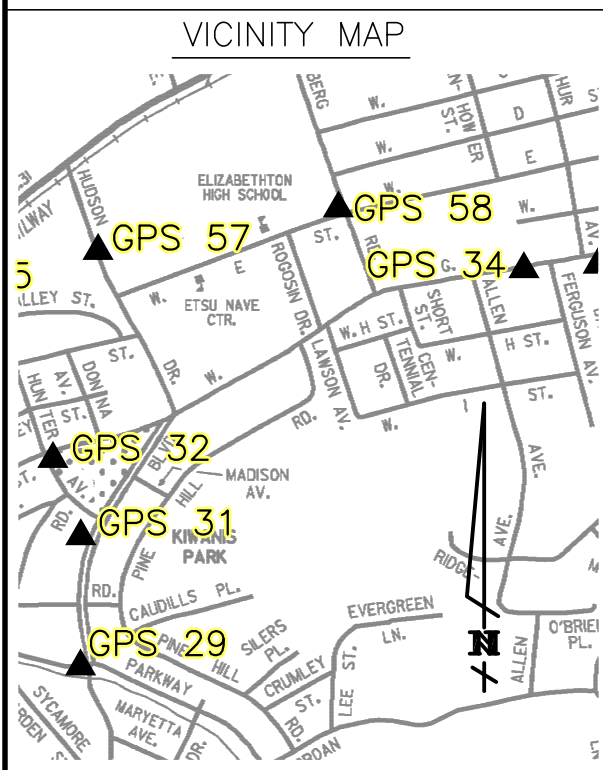
CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 58

HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 753985.691	LATITUDE: 36°20'46.15396"N
EASTING: 3076288.389	LONGITUDE: 82°14'15.41774"W
ORTHOMETRIC HEIGHT: 1509.889	GRID SCALE FACTOR: 0.99998825
CONVERGENCE: 2°12'09.5"E	ELEVATION REDUCTION FACTOR: 0.99993270

TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVENUE. GO WESTERLY ALONG ELK AVE. 0.8± MILES TO BEMBERG RD. GO SOUTHERLY ALONG BEMBERG RD. 0.2± MILE TO STATION ON EAST SIDE OF BEMBERG RD. AND ON NORTH SIDE OF WEST E ST. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 58".





GPS 59

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 59

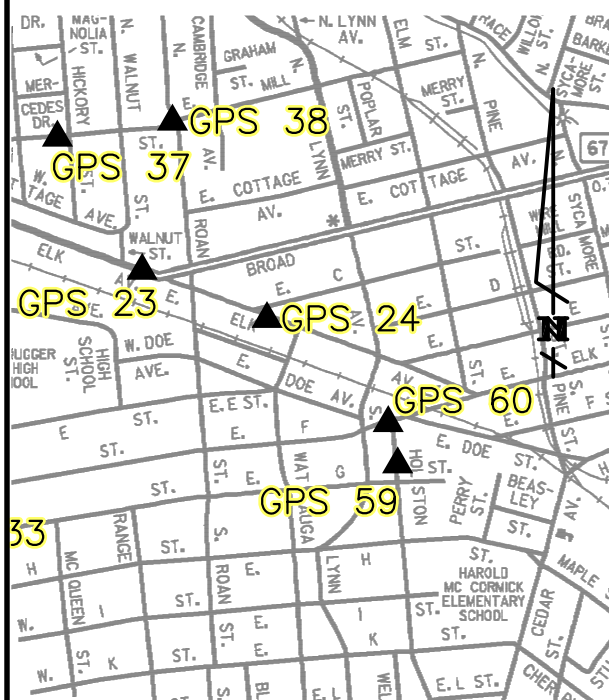
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 754243.983	LATITUDE: 36°20'46.71568"N
EASTING: 3081513.489	LONGITUDE: 82°13'11.47353"W
ORTHOMETRIC HEIGHT: 1559.739	GRID SCALE FACTOR: 0.99998828
CONVERGENCE: 2°12'47.0"E	ELEVATION REDUCTION FACTOR: 0.99993031

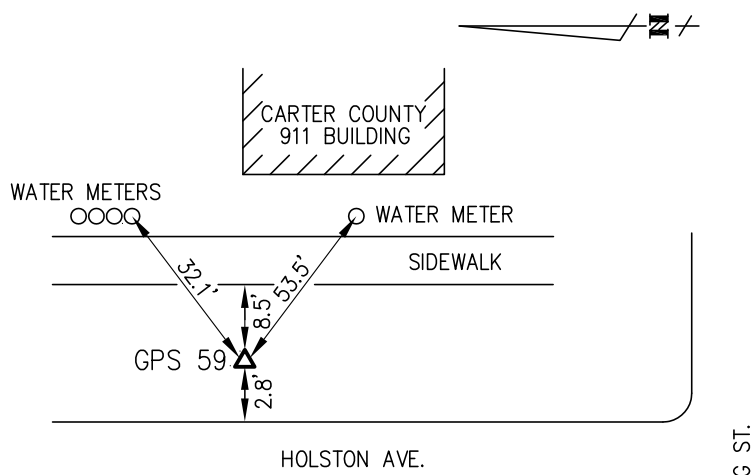
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO EASTERLY ALONG ELK AVE. $0.3\pm$ MILE TO LYNN AVE. GO SOUTHERLY ALONG LYNN AVE. $0.1\pm$ MILE TO EAST F STREET. GO EASTERLY ALONG EAST F STREET $200\pm$ FEET TO HOLSTON AVE. GO SOUTHERLY ALONG HOLSTON AVE. $300\pm$ FEET TO STATION ON EAST SIDE OF RD. STATION IS A $3\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 59".

VICINITY MAP



REFERENCE DIAGRAM





GPS 60

MARCH 5, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK

STATION: GPS 60

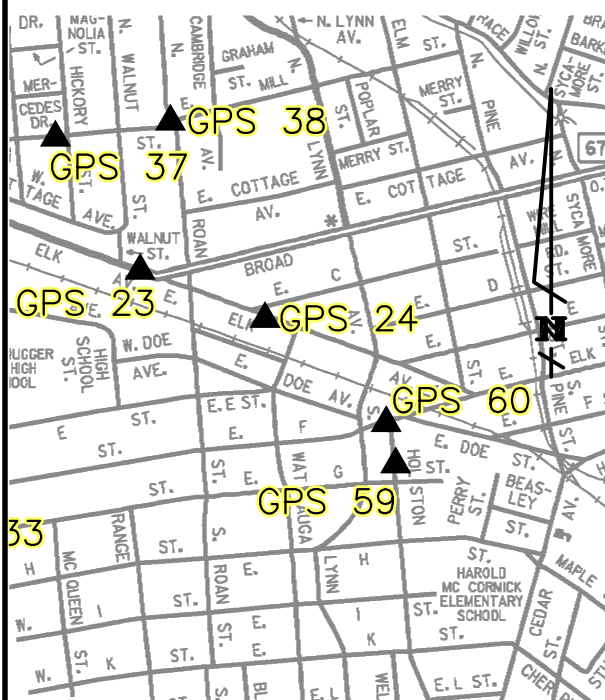
HORIZONTAL DATUM: NAD83(2007)
 COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
 VERTICAL DATUM: NAVD88
 LINEAR UNIT: U. S. SURVEY FOOT
 HORIZONTAL ORDER: ORDER C CLASS 1
 VERTICAL ORDER: ORDER C CLASS 2-1

NORTHING: 754527.966	LATITUDE: 36°20'49.54657"N
EASTING: 3081448.580	LONGITUDE: 82°13'12.13232"W
ORTHOMETRIC HEIGHT: 1549.891	GRID SCALE FACTOR: 0.99998840
CONVERGENCE: 2°12'46.6"E	ELEVATION REDUCTION FACTOR: 0.99993078

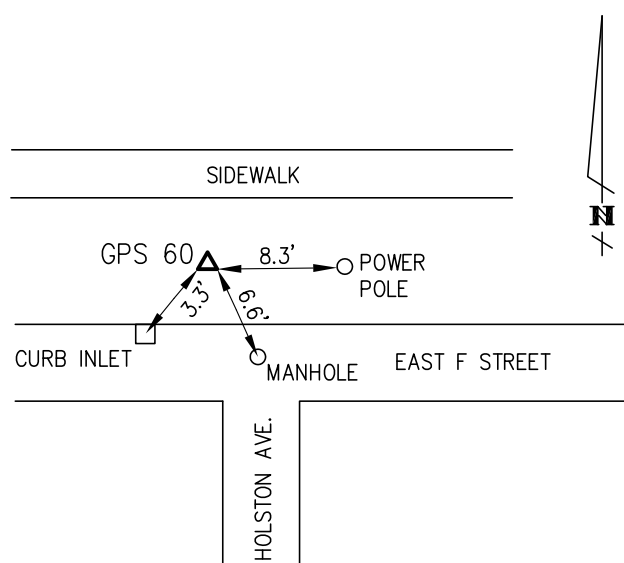
TO REACH DESCRIPTION

IN ELIZABETHTON, BEGIN ON STATE ROUTE 67 AT THE INTERSECTION OF BROAD ST. WITH ELK AVE. GO EASTERLY ALONG ELK AVE. 0.3± MILE TO LYNN AVE. GO SOUTHERLY ALONG LYNN AVE. 0.1± MILE TO EAST F STREET. GO EASTERLY ALONG EAST F STREET 200± FEET TO STATION ON NORTH SIDE OF ROAD. STATION IS A 3- $\frac{1}{2}$ INCH BRONZE DISC SET IN A FENO ANCHORED SURVEY MARKER AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 60".

VICINITY MAP



REFERENCE DIAGRAM





GPS 61

MARCH 6, 2009

CITY OF ELIZABETHTON, TENNESSEE GEODETIC REFERENCE NETWORK
STATION: GPS 61

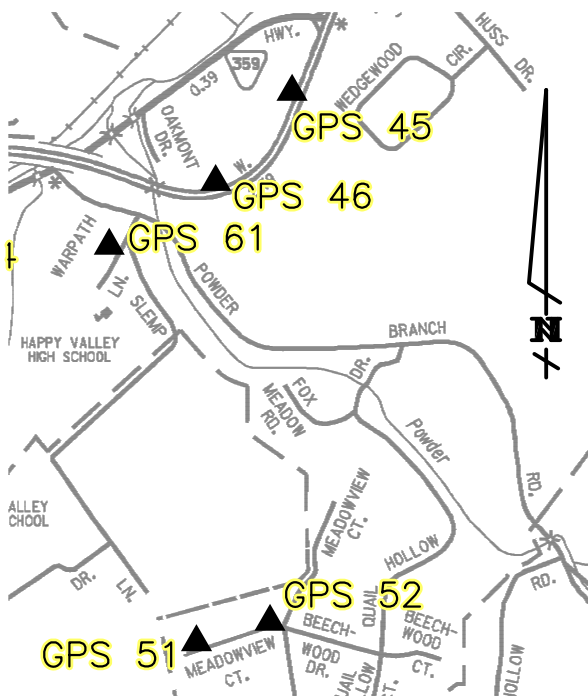
HORIZONTAL DATUM: NAD83(2007)
COORDINATE SYSTEM: TENNESSEE COORDINATE SYSTEM OF 1983 (ZONE 4100)
VERTICAL DATUM: NAVD88
LINEAR UNIT: U. S. SURVEY FOOT
HORIZONTAL ORDER: ORDER B
VERTICAL ORDER: ORDER B

NORTHING: 742891.408	LATITUDE: 36°19'00.96348"N
EASTING: 3064549.547	LONGITUDE: 82°16'43.96085"W
ORTHOMETRIC HEIGHT: 1523.320	GRID SCALE FACTOR: 0.99998383
CONVERGENCE: 2°10'42.6"E	ELEVATION REDUCTION FACTOR: 0.99993205

TO REACH DESCRIPTION

ON THE WEST SIDE OF ELIZABETHTON, BEGIN AT THE INTERSECTION OF ELK AVE. (STATE ROUTE 67 / U.S. 321) WITH G STREET (STATE ROUTE 362) AND ELIZABETHTON HWY. (STATE ROUTE 91). GO SOUTHWESTERLY ALONG ELK AVE. $0.6\pm$ MILE TO MILLIGAN HWY. (STATE ROUTE 359). GO SOUTHWESTERLY MILLIGAN HWY. $0.4\pm$ MILE TO POWDER BRANCH RD. GO SOUTHEASTERLY ALONG POWDER BRANCH RD. $0.1\pm$ MILE TO WARPATH LANE. GO SOUTHWESTERLY ALONG WARPATH LANE $300\pm$ FEET TO MONUMENT ON NORTHWESTERLY SIDE OF ROAD. STATION IS LOCATED S 70° E 5.2 FEET FROM A FIBERGLASS WITNESS POST AND IS A $3\frac{1}{2}$ INCH BRONZE DISC SET IN CONCRETE AND STAMPED "CITY OF ELIZABETHTON ENGINEERING DEPT. GEODETIC REFERENCE NETWORK 61".

VICINITY MAP



REFERENCE DIAGRAM

