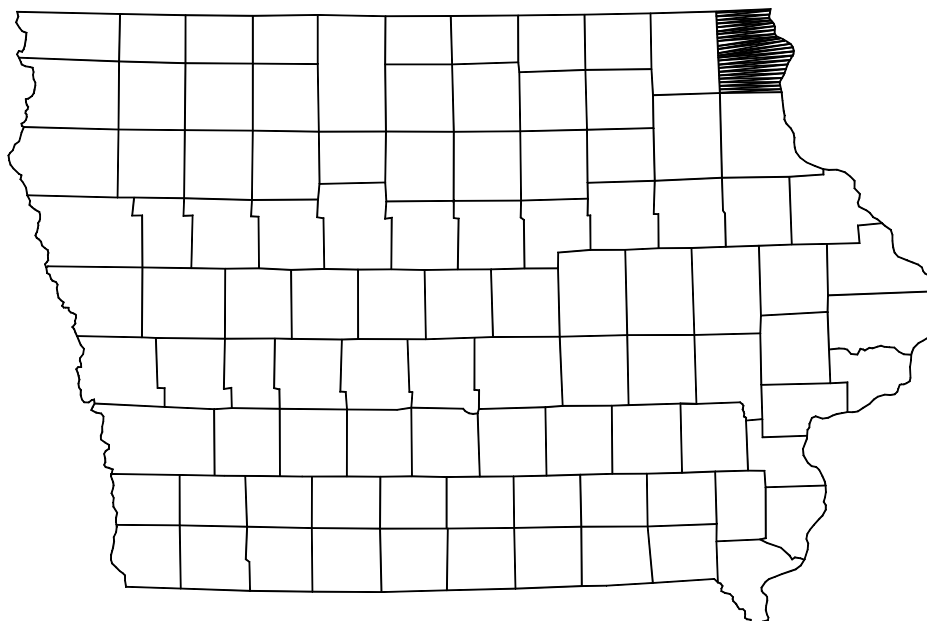


Allamakee County Iowa



G.P.S. Survey Control Network

2002

Aerial Services, Inc.
www.asi-gis.com
2120 Center Street
P.O. Box 336
Cedar Falls, Iowa 50613

INTRODUCTION

During the Fall of 2002 Allamakee County, in northeastern Iowa, chose to embark on a high accuracy control survey.

Eighty new control stations were added within the county, along with three temporary rebar control points on the Wisconsin side of the Mississippi River. One NGS first order triangulation station, which fell near one of the proposed permanent monument locations, was used instead of a new monument. Eight existing points, seven being Clayton County GPS control points and one being a Fayette County GPS control, were recovered and tied into the GPS network.

PROJECT REQUIREMENTS

The purpose of this survey was to establish throughout the project area, a new horizontal control network using GPS survey equipment and techniques. This network was horizontally referenced to the Iowa High Accuracy Reference Network (HARN) of 1996. Vertically the network was referenced to the North American Vertical Datum of 1988 (NAVD88). Because this control would be utilized to control the analytical triangulation of the aerial photography, the network geometry was ideal for a strong GPS survey. All new point locations for control were selected with the needs of both the analytical triangulation and GPS survey requirements in mind. In some instances, all of the needs could not be met due to physical obstructions or existing land features. In these instances, the needs of analytical triangulation were held primary and the GPS survey needs were satisfied second.

MONUMENTATION

To perpetuate the GPS control measurements, eighty new permanent monuments were set. BERNTSEN driven aluminum rod monuments were selected for the permanent monuments. Each BERNTSEN station monument consisted of one three-foot smooth rod section and one three-foot top security fluted rod section with a stamped cap. These were driven to approximately 6" below the existing ground surface. For easy access and protection, a two foot long 5" diameter PVC pipe was placed over each rod monument along with a pre-cast aluminum access cover and backfilled with sand to facilitate drainage and to minimize frost movement. The temporary rebar points set, along with the TBM points, consist of a 5/8" x 30" rebar with a red plastic cap set flush with the ground surface.

The Engineer's Office of Allamakee County handled the coordination of marking the various underground utility locations for each new site.

RECONNAISSANCE

The most important criterion for GPS observations at any given location is a clear view to the sky. In terms of network design, it is desirable that the horizontal control be located near the

perimeter of the project site. With this in mind, five existing HARN horizontal stations were recovered in and/or near Allamakee County. All five were chosen to be included in the network.

Vertical control was selected to provide as much coverage as possible, both at the periphery and in the interior of the project area. Five existing NGS and USGS benchmarks were recovered and included in this survey. All of the benchmarks were occupied directly.

FIELD SURVEY

Four Ashtech Z-Xtreme dual frequency GPS with Z-tracking capabilities, were used in this survey. GPS observations began Monday morning, November 11, 2002. GPS observations were made during daylight hours from Monday, November 11, 2002, through Friday, November 15, 2002. An additional day of observations was completed on Tuesday, November 26, 2002 to observe a replacement monument for control point #212, which was destroyed by underground utility work prior to November 11.

Rapid static GPS techniques were utilized to minimize the time and cost of the survey. The satellite “window”, where at least six satellites were observable, was open for much of the day. Each measurement period during which all receivers observe satellites simultaneously lasted from 10 minutes to 40 minutes, depending on the distance being measured and the geometry of the satellite constellation.

DATA ADJUSTMENT

A total number of 327 vectors were observed and processed. Based on statistical indicators from the ASHTECH SOLUTIONS processing software, sixty-one vectors were rejected and removed prior to data adjustment. These lines were considered unneeded for the adjustment. The final network is comprised of 102 stations and 266 baselines. All data adjustment was performed using the ASHTECH SOLUTIONS least squares adjustment software. An initial free adjustment was performed in NAD83 to check the overall quality of the GPS data and the nature of the control. The initial unconstrained (free) adjustment yielded baseline precisions which ranged from 1:170,000 to 1:730,000. Once the horizontal and vertical control was verified, subsequent adjustments were performed to arrive at the optimal solutions for each datum.

NAD83 (1996)

The initial free adjustment was performed holding point #408 fixed horizontally with the vertical adjustment disabled. Coordinate values on the other HARN control stations were then checked against the published values. One at a time, each of the seven remaining HARN stations were added to the network and a new adjustment performed. After each adjustment a comparison of adjusted coordinates vs. published values was made. By holding the five existing HARN stations fixed, along with holding the eight Clayton County and Fayette County GPS control stations fixed, the precision of the “free” adjustment degraded very little.

Once we were satisfied with the horizontal adjustment, we locked the horizontal positions and concentrated on the vertical adjustment. The Geoid 96 Central zone was utilized to provide a model of the height of the Geoid. Adjustments were then performed locking on to the vertical control stations one at a time. Elevations on the benchmarks were then checked against the published values

A final adjustment of both horizontal and vertical was then performed. All of the horizontal control points were held fixed in x and y and four vertical control stations were held fixed in z. This fully constrained adjustment solved for scale and rotation. In the final adjusted network, all of the adjusted vectors have an estimated error of 1:100,000 or less in x, y and z. The results are well in excess of the first-order precision.

CONCLUSION

All measured points will be usable for better than first-order control in horizontal position and with ± 0.3 ft. vertically for benchmark use.

2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **101**

Northing: **3863205.58(Ft)**

Easting: **5442576.79(Ft)**

Northing: **1177507.414(M)**

Easting: **1658900.722(M)**

Elev: **1157.23(Ft)** NAVD_88

Elev: **352.725(M)** NAVD_88

Ellip Ht: **322.061(M)**

99C Geoid Ht: **-30.664(M)**

Latitude: **43 04 53.47187 N**

Longitude: **91 32 54.48026 W**

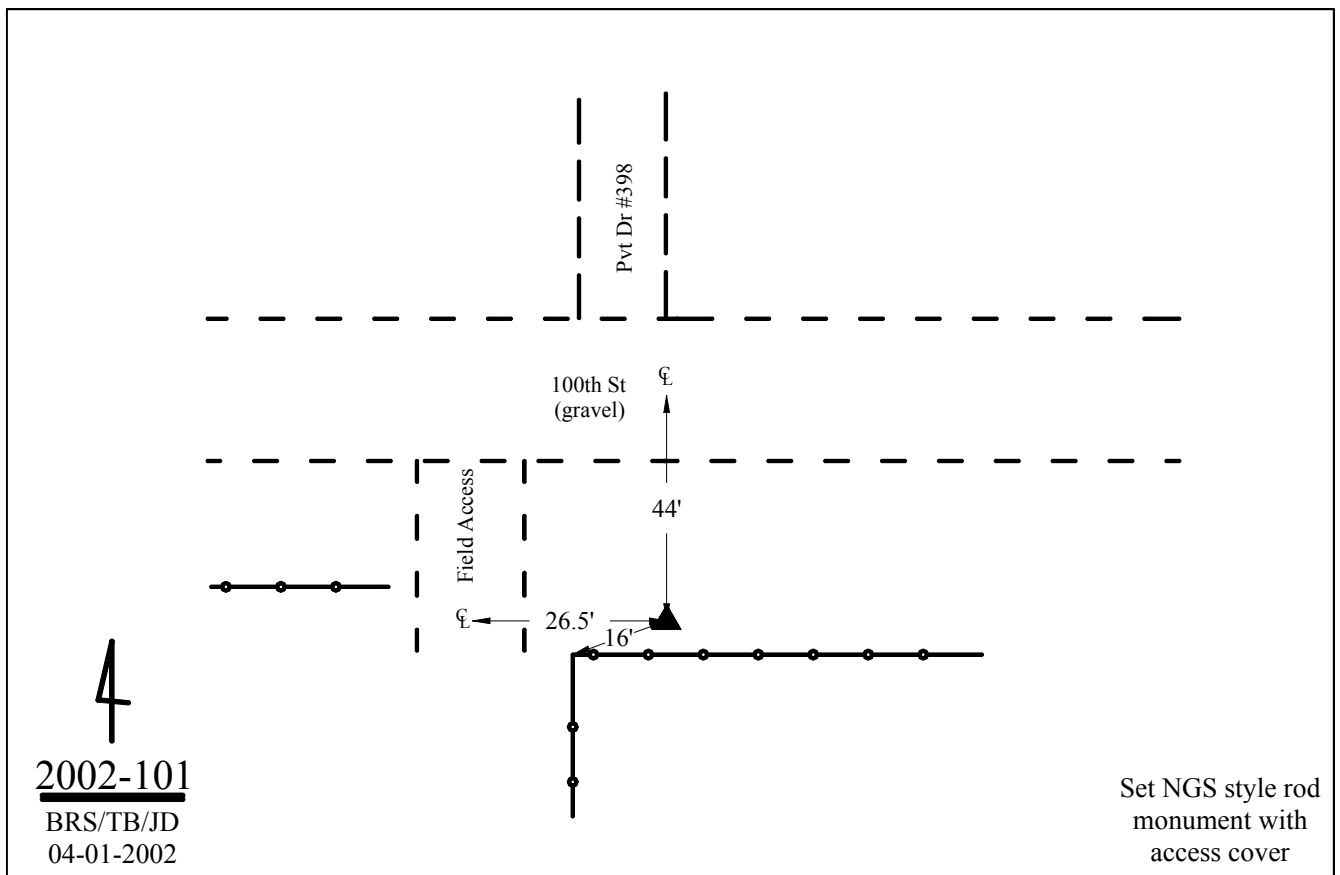
Theta: **1 19 21.508**

Combination Factor: **0.99992092**

Designation: **CLAYTON COUNTY GPS CONTROL PT 2002-101**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE cor. of Sec. 4 T95N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **102**

Northing: **3863357.37(Ft)**

Easting: **5459634.03(Ft)**

Northing: **1177553.681(M)**

Easting: **1664099.781(M)**

Elev: **1033.44(Ft)** NAVD_88

Elev: **314.992(M)** NAVD_88

Ellip Ht: **284.186(M)**

99C Geoid Ht: **-30.806(M)**

Latitude: **43 04 51.01826 N**

Longitude: **91 29 04.64984 W**

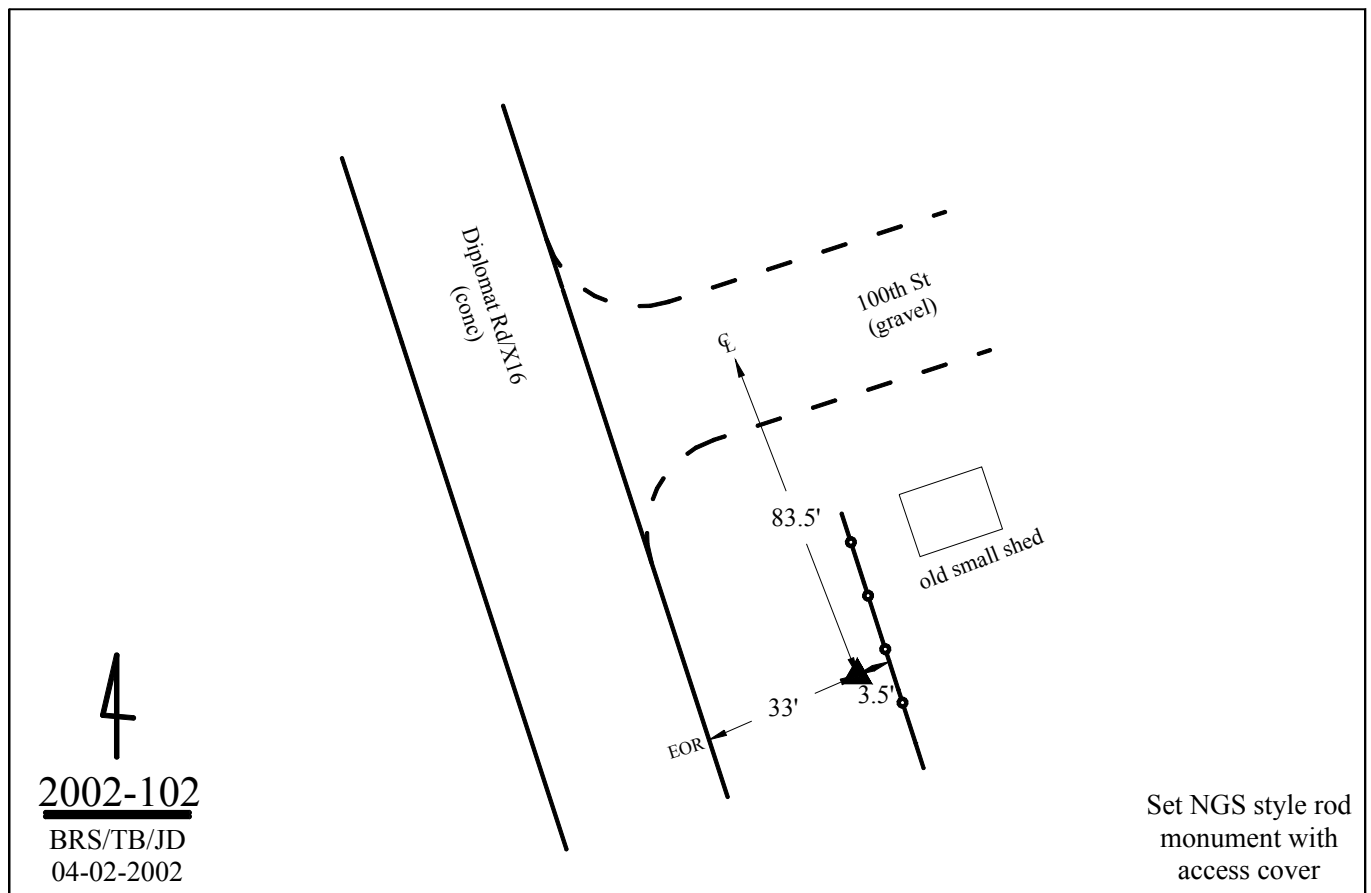
Theta: **1 21 57.274**

Combination Factor: **0.99992677**

Designation: **CLAYTON COUNTY GPS CONTROL PT 2002-102**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the N $\frac{1}{4}$ cor. NW $\frac{1}{4}$ of Sec. 6 T95N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **103**

Northing: **3863925.58(Ft)**

Easting: **5476061.89(Ft)**

Northing: **1177726.872(M)**

Easting: **1669107.002(M)**

Elev: **1124.63(Ft)** NAVD_88

Elev: **342.789(M)** NAVD_88

Ellip Ht: **311.830(M)**

99C Geoid Ht: **-30.959(M)**

Latitude: **43 04 52.70206 N**

Longitude: **91 25 23.16504 W**

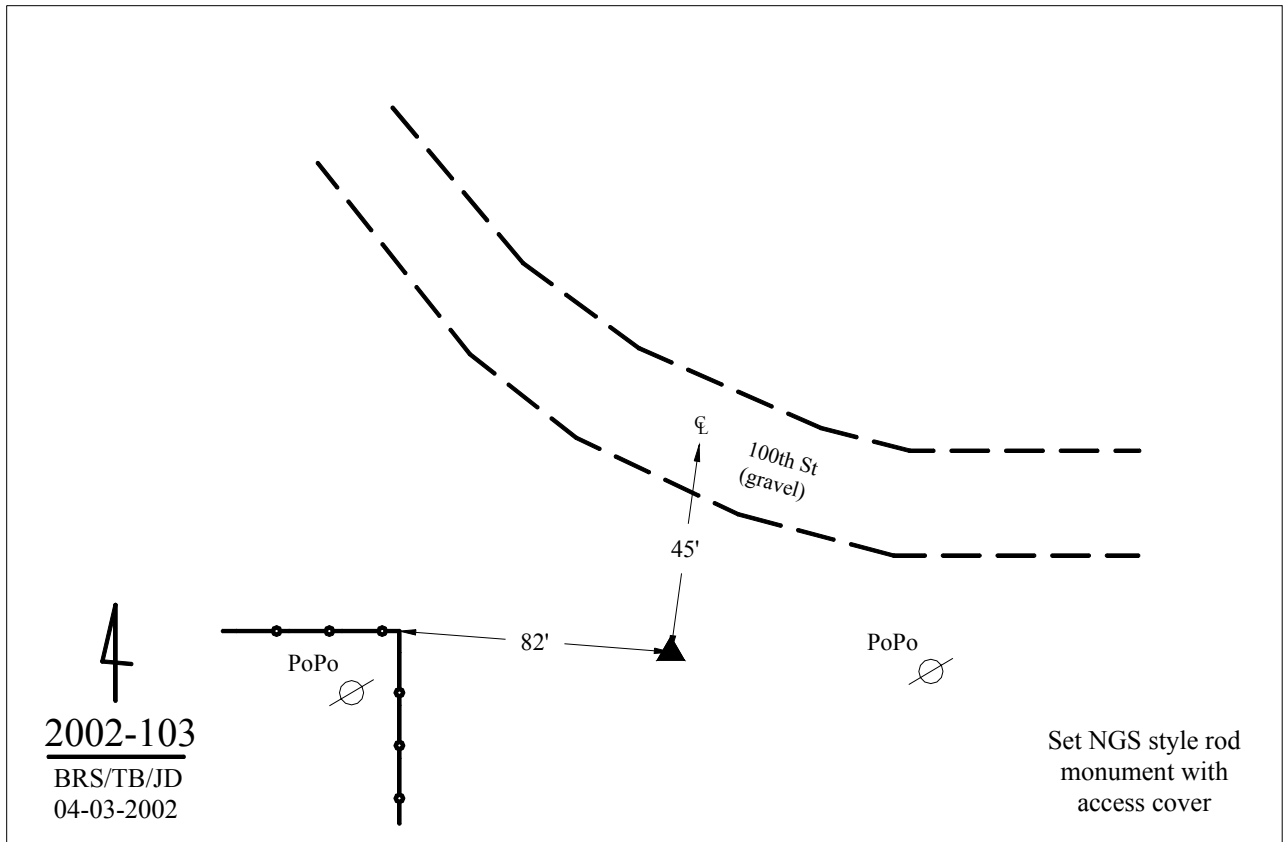
Theta: **1 24 27.384**

Combination Factor: **0.99992249**

Designation: **CLAYTON COUNTY GPS CONTROL PT 2002-103**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the N $\frac{1}{4}$ cor. NW $\frac{1}{4}$ of Sec. 3 T95 R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **104**

Northing: **3864236.45(Ft)**

Easting: **5490205.42(Ft)**

Northing: **1177821.625(M)**

Easting: **1673417.958(M)**

Elev: **1090.35(Ft)** NAVD_88

Elev: **332.338(M)** NAVD_88

Ellip Ht: **301.249(M)**

99C Geoid Ht: **-31.089(M)**

Latitude: **43 04 52.29620 N**

Longitude: **91 22 12.53613 W**

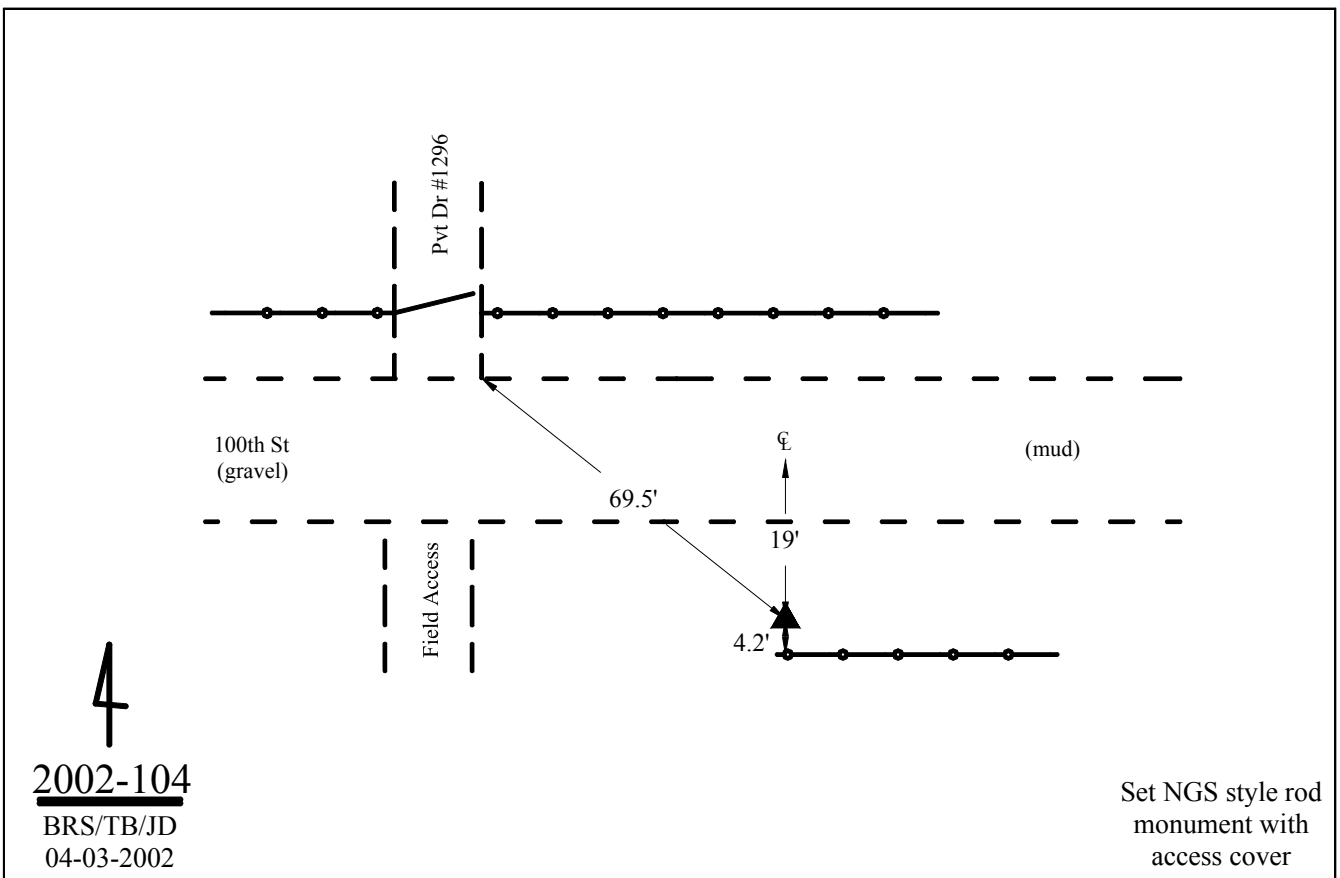
Theta: **1 26 36.582**

Combination Factor: **0.99992414**

Designation: **CLAYTON COUNTY GPS CONTROL PT 2002-104**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE cor. of Sec. 1 T95N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **105**

Northing: **3864493.92(Ft)**

Easting: **5508882.21(Ft)**

Northing: **1177900.103(M)**

Easting: **1679110.657(M)**

Elev: **1110.62(Ft)** NAVD_88

Elev: **338.518(M)** NAVD_88

Ellip Ht: **307.265(M)**

99C Geoid Ht: **-31.253(M)**

Latitude: **43 04 50.11510 N**

Longitude: **91 18 00.86190 W**

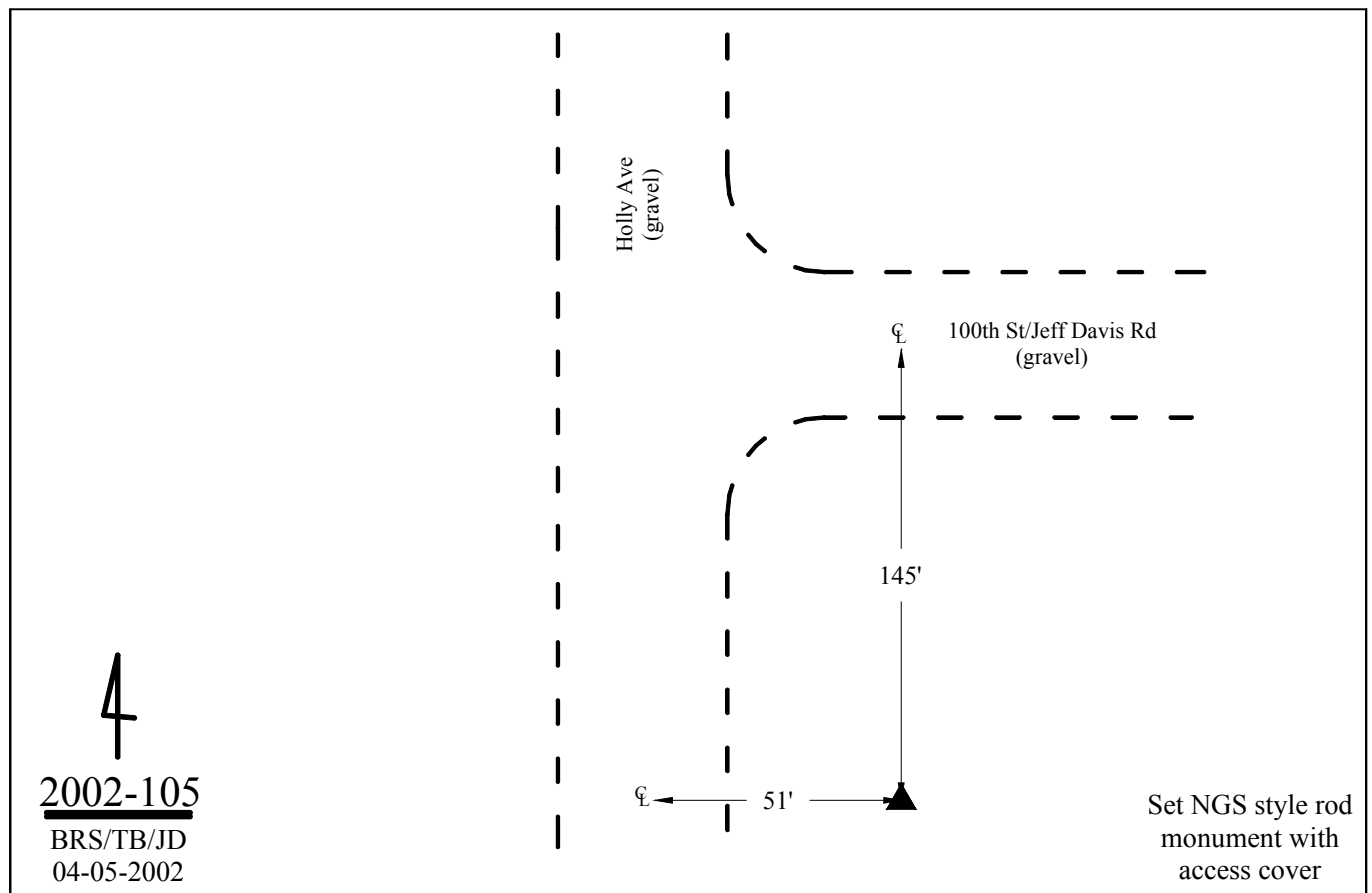
Theta: **1 29 27.153**

Combination Factor: **0.99992312**

Designation: **CLAYTON COUNTY GPS CONTROL PT 2002-105**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the N¼ cor. of Sec. 3 T95N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **106**

Northing: **3863816.85(Ft)**

Easting: **5520428.89(Ft)**

Northing: **1177693.730(M)**

Easting: **1682630.092(M)**

Elev: **1005.72(Ft)** NAVD_88

Elev: **306.544(M)** NAVD_88

Ellip Ht: **275.191(M)**

99C Geoid Ht: **-31.353(M)**

Latitude: **43 04 40.43329 N**

Longitude: **91 15 25.56912 W**

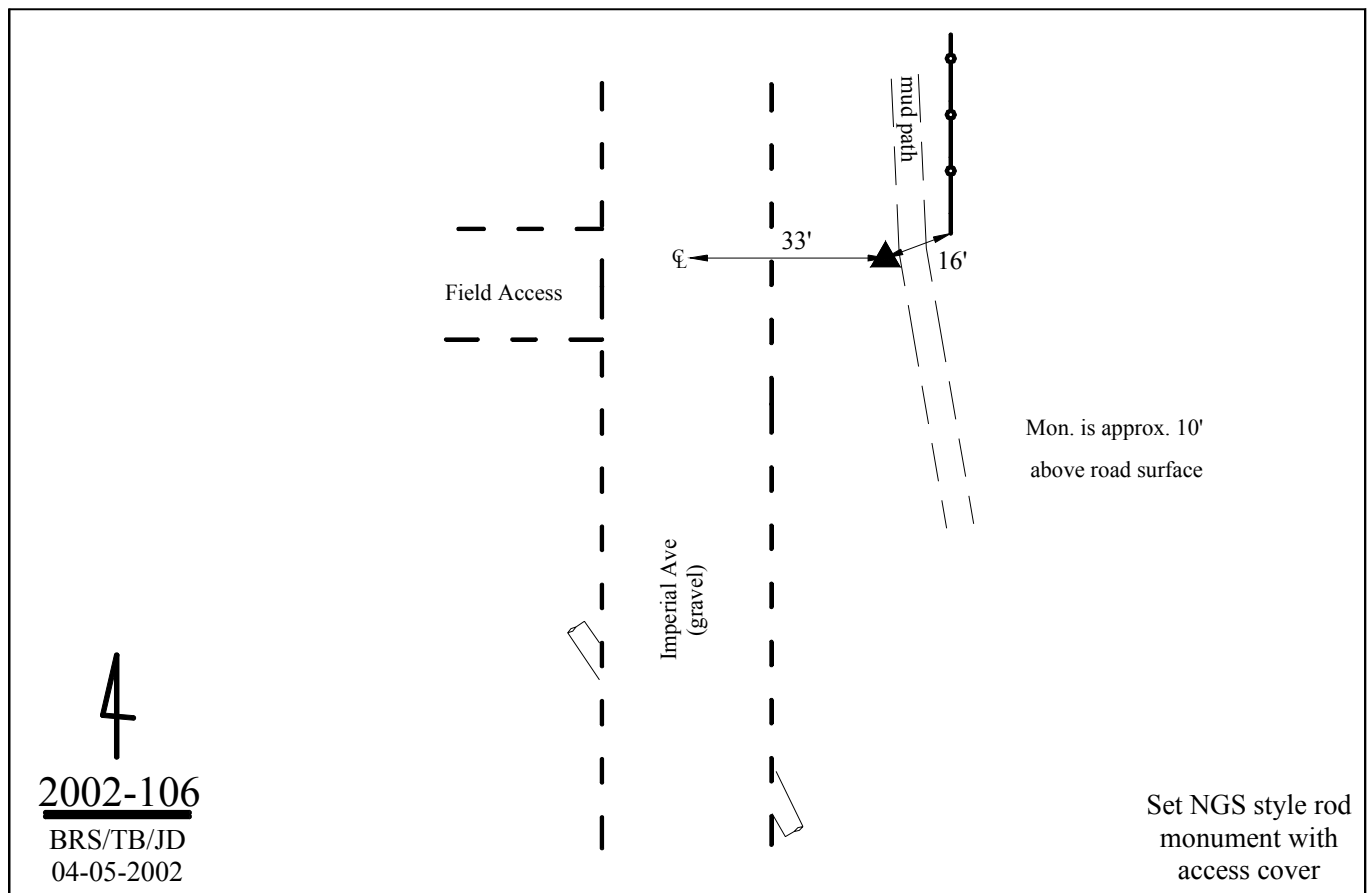
Theta: **1 31 12.402**

Combination Factor: **0.99992782**

Designation: **CLAYTON COUNTY GPS CONTROL PT 2002-106**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE¼ of Sec. 1 T95N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **107**

Northing: **3865562.47(Ft)**

Easting: **5540895.94(Ft)**

Northing: **1178225.796(M)**

Easting: **1688868.459(M)**

Elev: **630.41(Ft)** NAVD_88

Elev: **192.150(M)** NAVD_88

Ellip Ht: **160.590(M)**

99C Geoid Ht: **-31.560(M)**

Latitude: **43 04 52.21446 N**

Longitude: **91 10 49.24963 W**

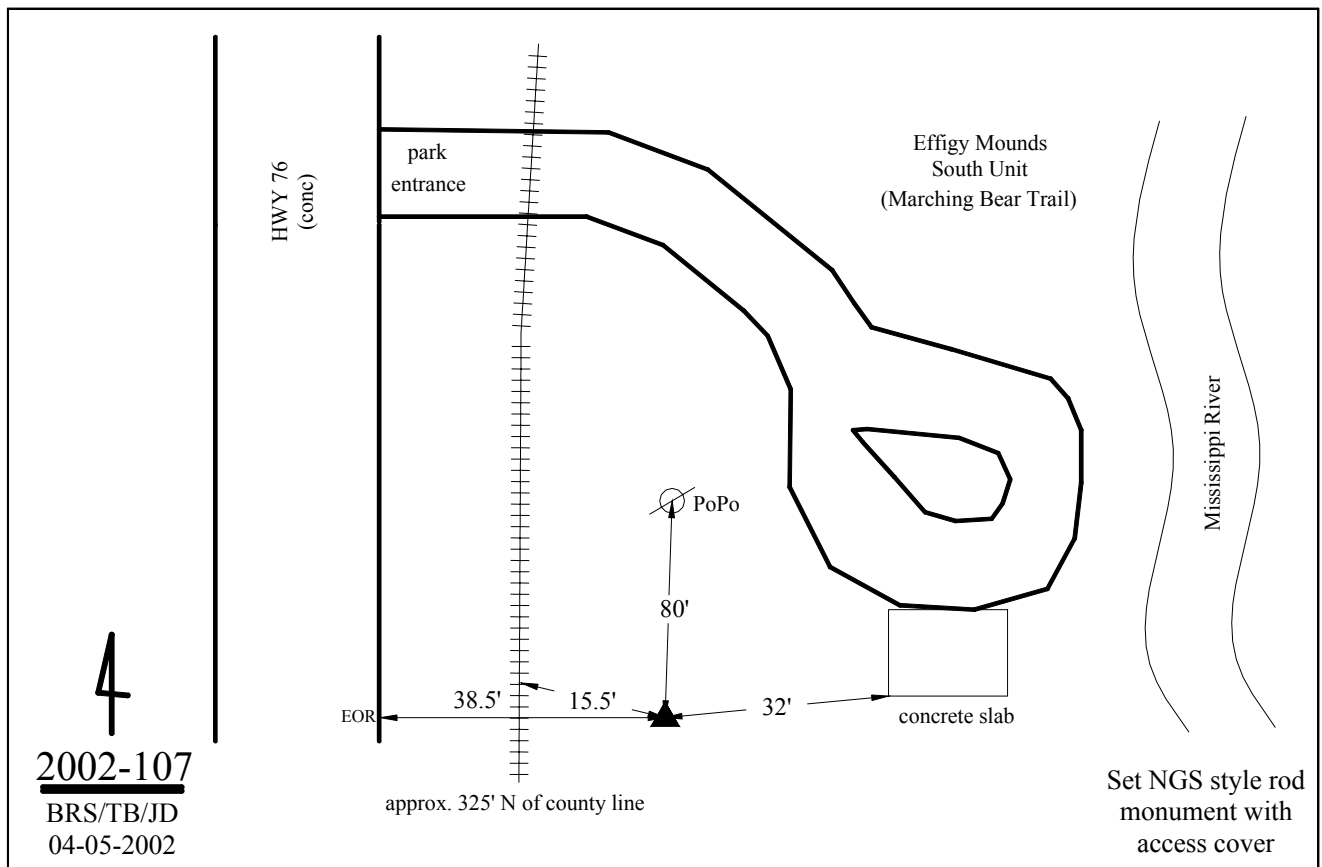
Theta: **1 34 19.676**

Combination Factor: **0.99994620**

Designation: **CLAYTON COUNTY GPS CONTROL PT 2002-107**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE cor. of Sec. 3 T95N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **201**

Northing: **4015535.38(Ft)**

Easting: **5422548.41(Ft)**

Northing: **1223937.630(M)**

Easting: **1652796.062(M)**

Elev: **1219.32(Ft)** NAVD_88

Elev: **371.650(M)** NAVD_88

Ellip Ht: **341.307(M)**

99C Geoid Ht: **-30.343(M)**

Latitude: **43 30 02.07779 N**

Longitude: **91 36 38.42585 W**

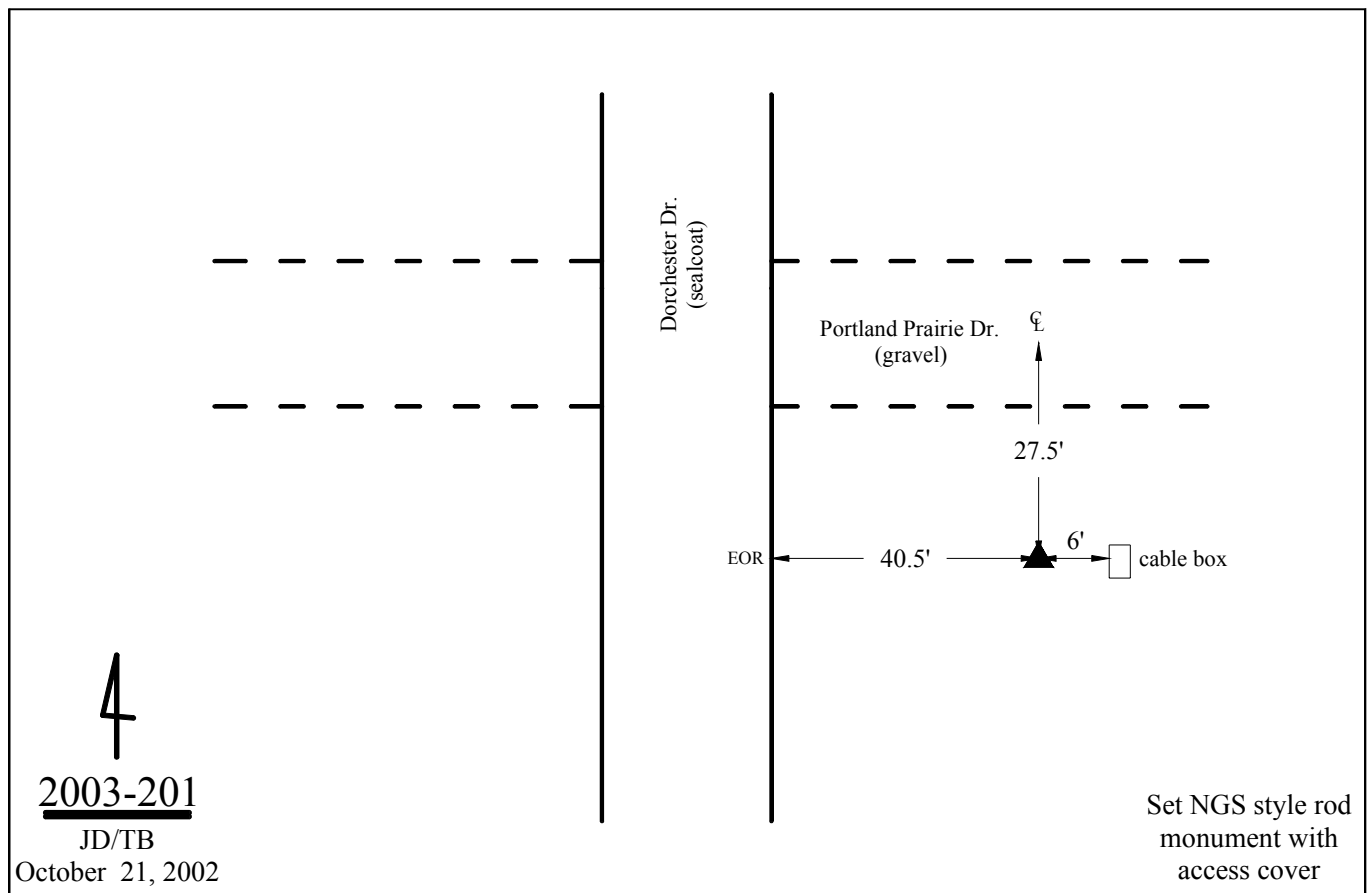
Theta: **1 16 49.730**

Combination Factor: **0.99999762**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-201**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near NW Cor of Sec 7 T100N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **202**

Northing: **4015928.93(Ft)**

Easting: **5438332.50(Ft)**

Northing: **1224057.586(M)**

Easting: **1657607.061(M)**

Elev: **1091.37(Ft)** NAVD_88

Elev: **332.649(M)** NAVD_88

Ellip Ht: **302.178(M)**

99C Geoid Ht: **-30.471(M)**

Latitude: **43 30 02.42519 N**

Longitude: **91 33 04.22034 W**

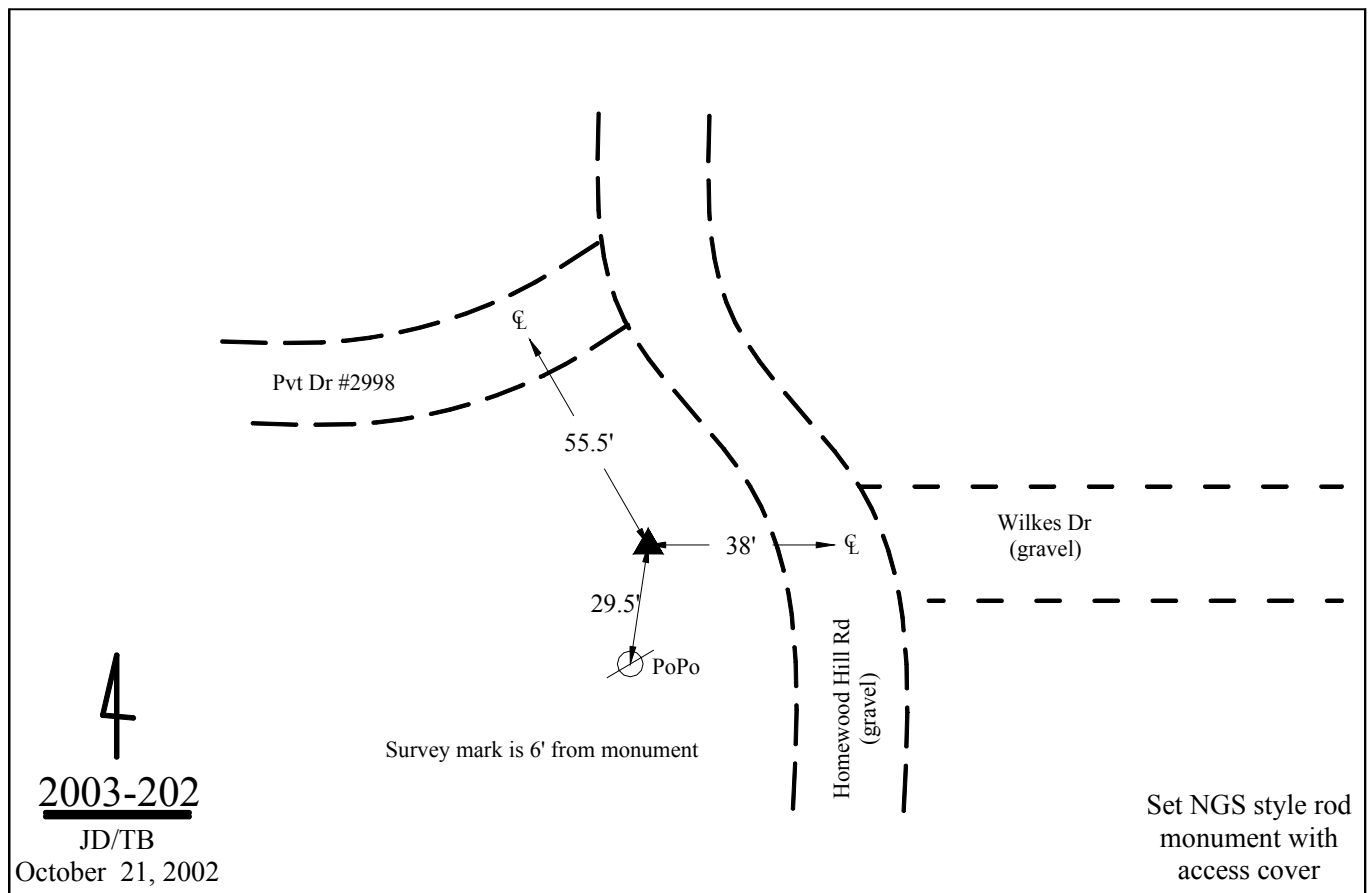
Theta: **1 19 14.907**

Combination Factor: **1.00000378**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-202**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near NE Cor of Sec 9 T100N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **203**

Northing: **4016365.23(Ft)**

Easting: **5453912.38(Ft)**

Northing: **1224190.569(M)**

Easting: **1662355.819(M)**

Elev: **1098.29(Ft)** NAVD_88

Elev: **334.760(M)** NAVD_88

Ellip Ht: **304.125(M)**

99C Geoid Ht: **-30.635(M)**

Latitude: **43 30 03.13272 N**

Longitude: **91 29 32.77010 W**

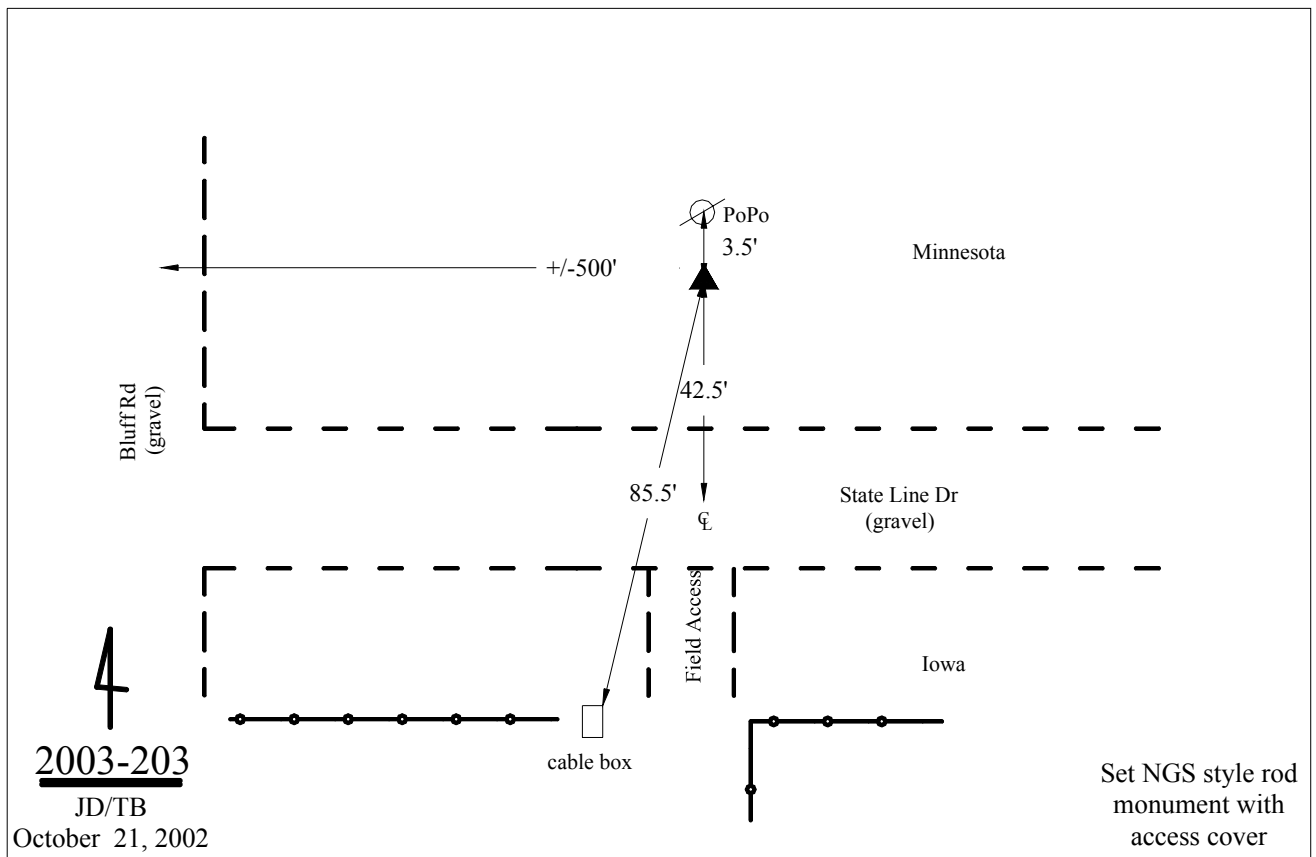
Theta: **1 21 38.216**

Combination Factor: **1.00000352**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-203**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SW Cor of Sec 31 T101N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **204**

Northing: **4016203.42(Ft)**

Easting: **5470072.17(Ft)**

Northing: **1224141.250(M)**

Easting: **1667281.330(M)**

Elev: **1092.07(Ft)** NAVD_88

Elev: **332.862(M)** NAVD_88

Ellip Ht: **302.034(M)**

99C Geoid Ht: **-30.828(M)**

Latitude: **43 29 57.68830 N**

Longitude: **91 25 53.65208 W**

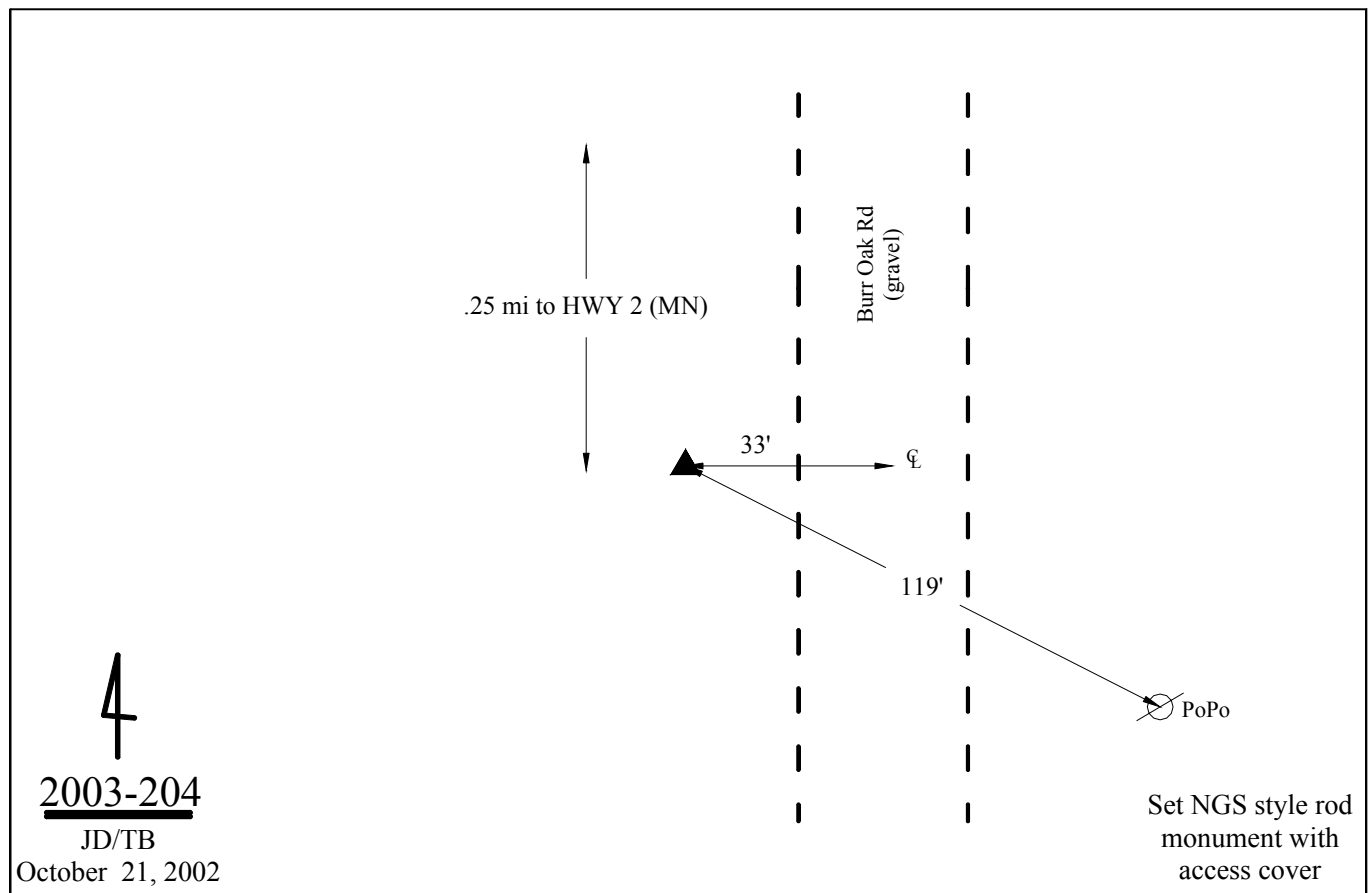
Theta: **1 24 06.722**

Combination Factor: **1.00000347**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-204**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE Cor of Sec 9 T100N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **205**

Northing: **4017111.39(Ft)**

Easting: **5486088.03(Ft)**

Northing: **1224418.000(M)**

Easting: **1672162.976(M)**

Elev: **1174.08(Ft)** NAVD_88

Elev: **357.860(M)** NAVD_88

Ellip Ht: **326.830(M)**

99C Geoid Ht: **-31.030(M)**

Latitude: **43 30 02.72638 N**

Longitude: **91 22 16.13128 W**

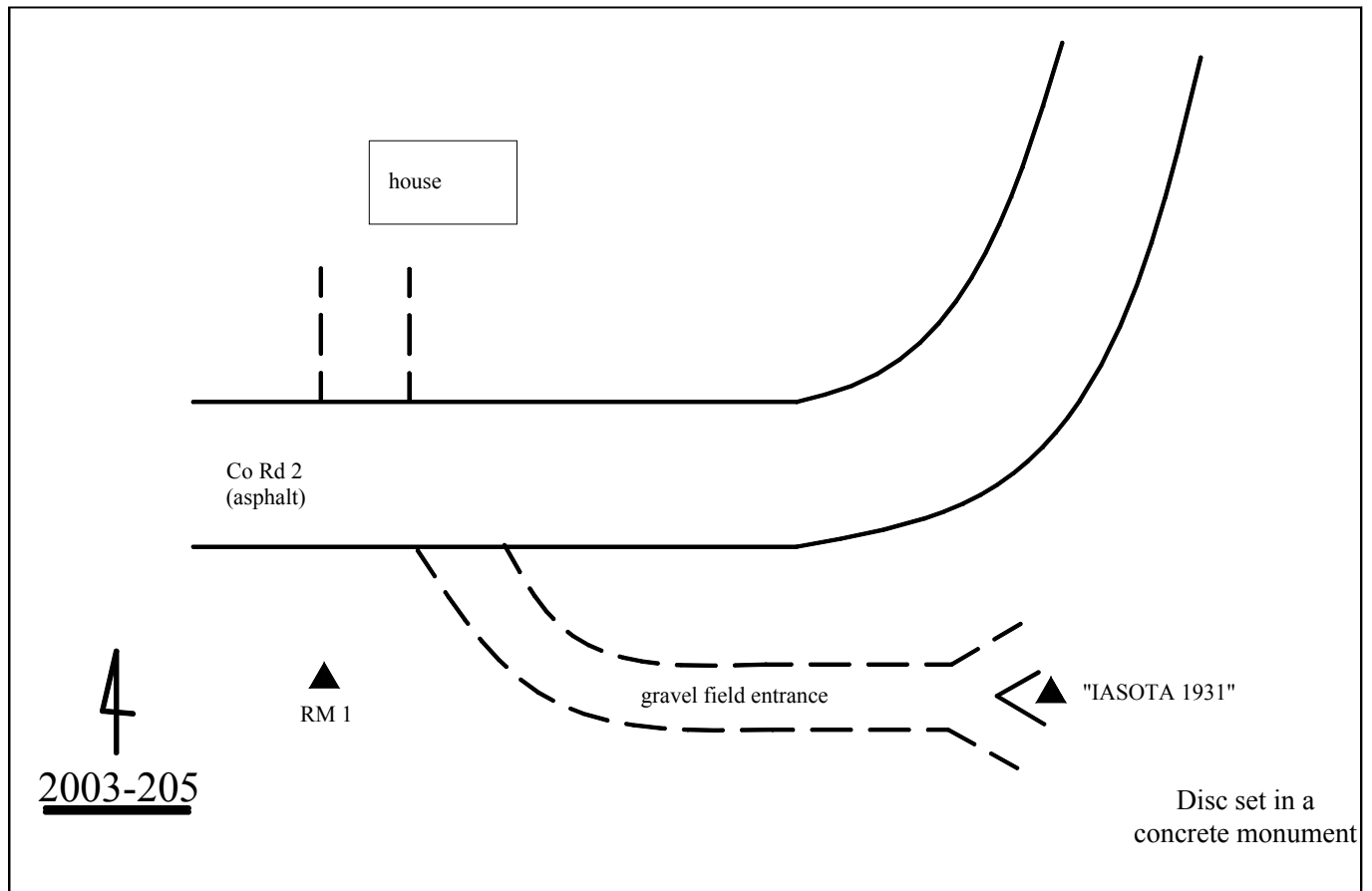
Theta: **1 26 34.145**

Combination Factor: **0.99999993**

Designation: **NGS 1st order horizontal control station "IASOTA" PID ON0780**

Monument Type: A standard horizontal control disk set in the top of a concrete monument.

Remarks: Near the SW Cor of Sec 31 T101N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **206**

Northing: **4017468.53(Ft)**

Easting: **5498760.65(Ft)**

Northing: **1224526.855(M)**

Easting: **1676025.597(M)**

Elev: **923.40(Ft)** NAVD_88

Elev: **281.452(M)** NAVD_88

Ellip Ht: **250.257(M)**

99C Geoid Ht: **-31.195(M)**

Latitude: **43 30 03.06565 N**

Longitude: **91 19 24.13637 W**

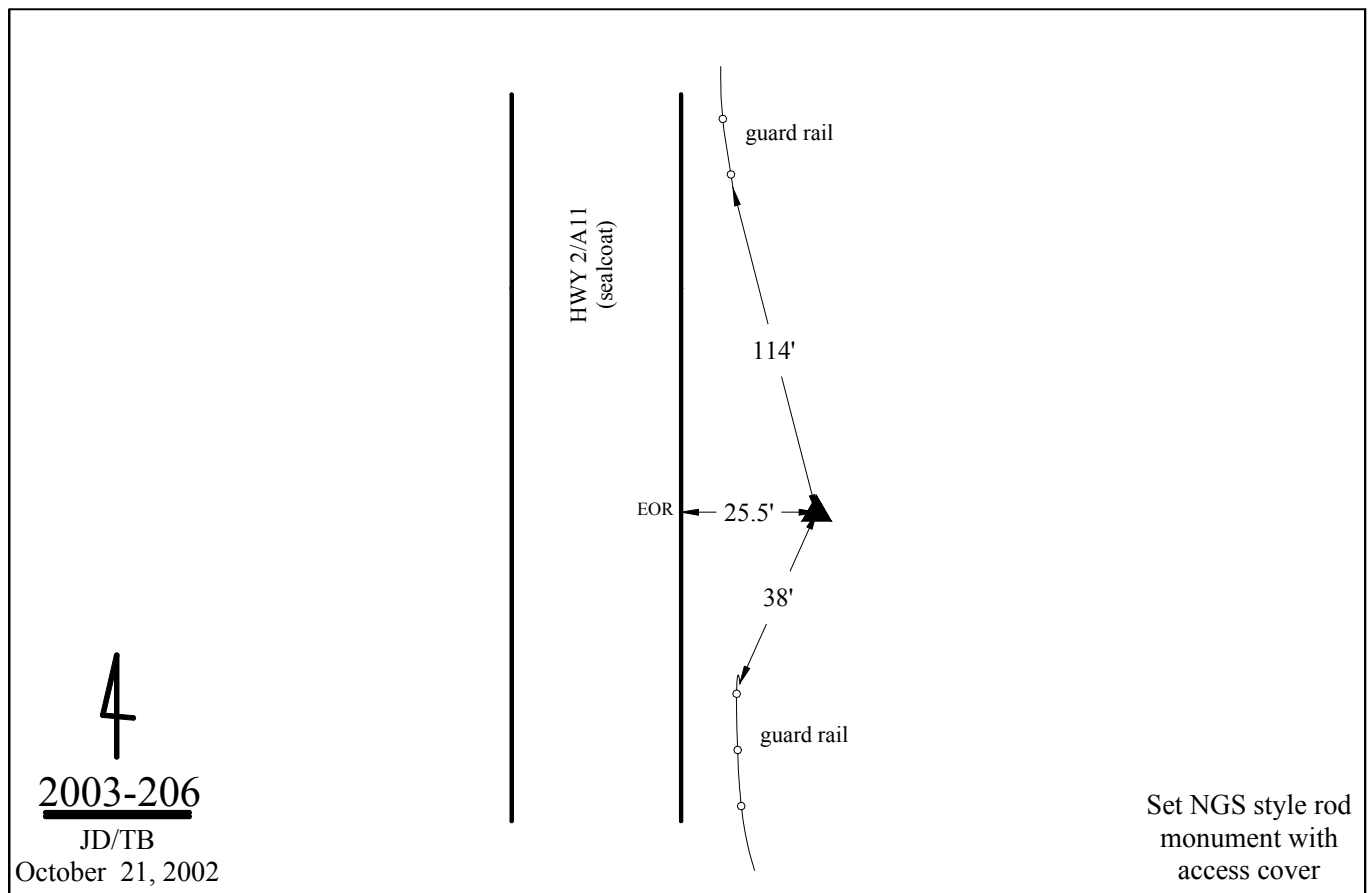
Theta: **1 28 30.714**

Combination Factor: **1.00001197**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-206**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the N 1/4 Cor of Sec 9 T100N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **207**

Northing: **4017718.47(Ft)**

Easting: **5509039.28(Ft)**

Northing: **1224603.040(M)**

Easting: **1679158.530(M)**

Elev: **638.80(Ft)** NAVD_88

Elev: **194.706(M)** NAVD_88

Ellip Ht: **163.372(M)**

99C Geoid Ht: **-31.334(M)**

Latitude: **43 30 02.89672 N**

Longitude: **91 17 04.64679 W**

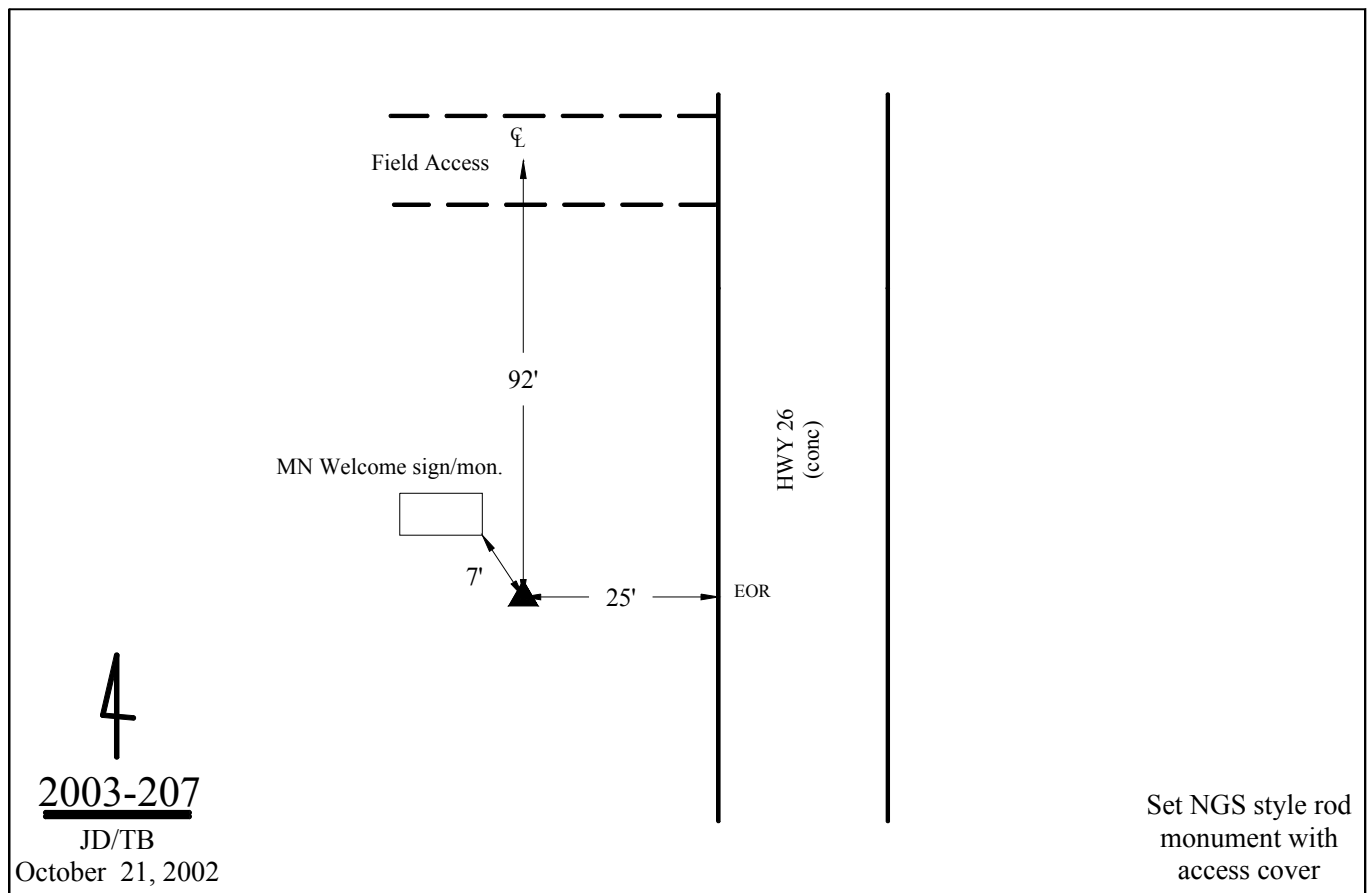
Theta: **1 30 05.252**

Combination Factor: **1.00002558**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-207**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 11 T100N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **208**

Northing: **4004806.51**(Ft)

Easting: **5420100.71**(Ft)

Northing: **1220667.465**(M)

Easting: **1652050.002**(M)

Elev: **1151.46**(Ft) NAVD_88

Elev: **350.965**(M) NAVD_88

Ellip Ht: **320.643**(M)

99C Geoid Ht: **-30.322**(M)

Latitude: **43 28 16.68603 N**

Longitude: **91 37 14.86034 W**

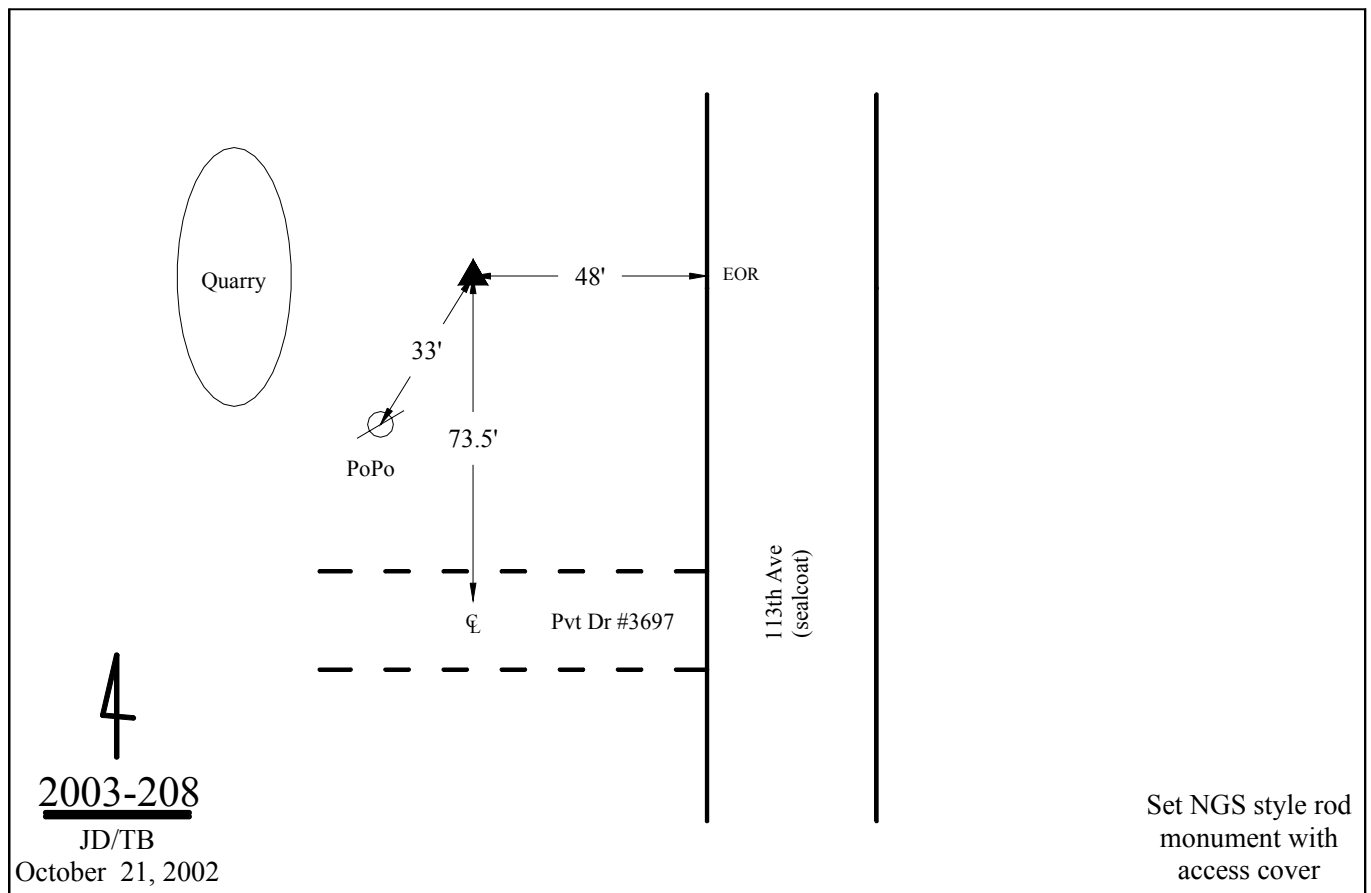
Theta: **1 16 25.037**

Combination Factor: **0.99999354**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-208**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the S 1/4 Cor of Sec 13 T100N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **209**

Northing: **4005506.86(Ft)**

Easting: **5437888.69(Ft)**

Northing: **1220880.933(M)**

Easting: **1657471.789(M)**

Elev: **1162.64(Ft)** NAVD_88

Elev: **354.373(M)** NAVD_88

Ellip Ht: **323.909(M)**

99C Geoid Ht: **-30.464(M)**

Latitude: **43 28 19.62658 N**

Longitude: **91 33 13.49468 W**

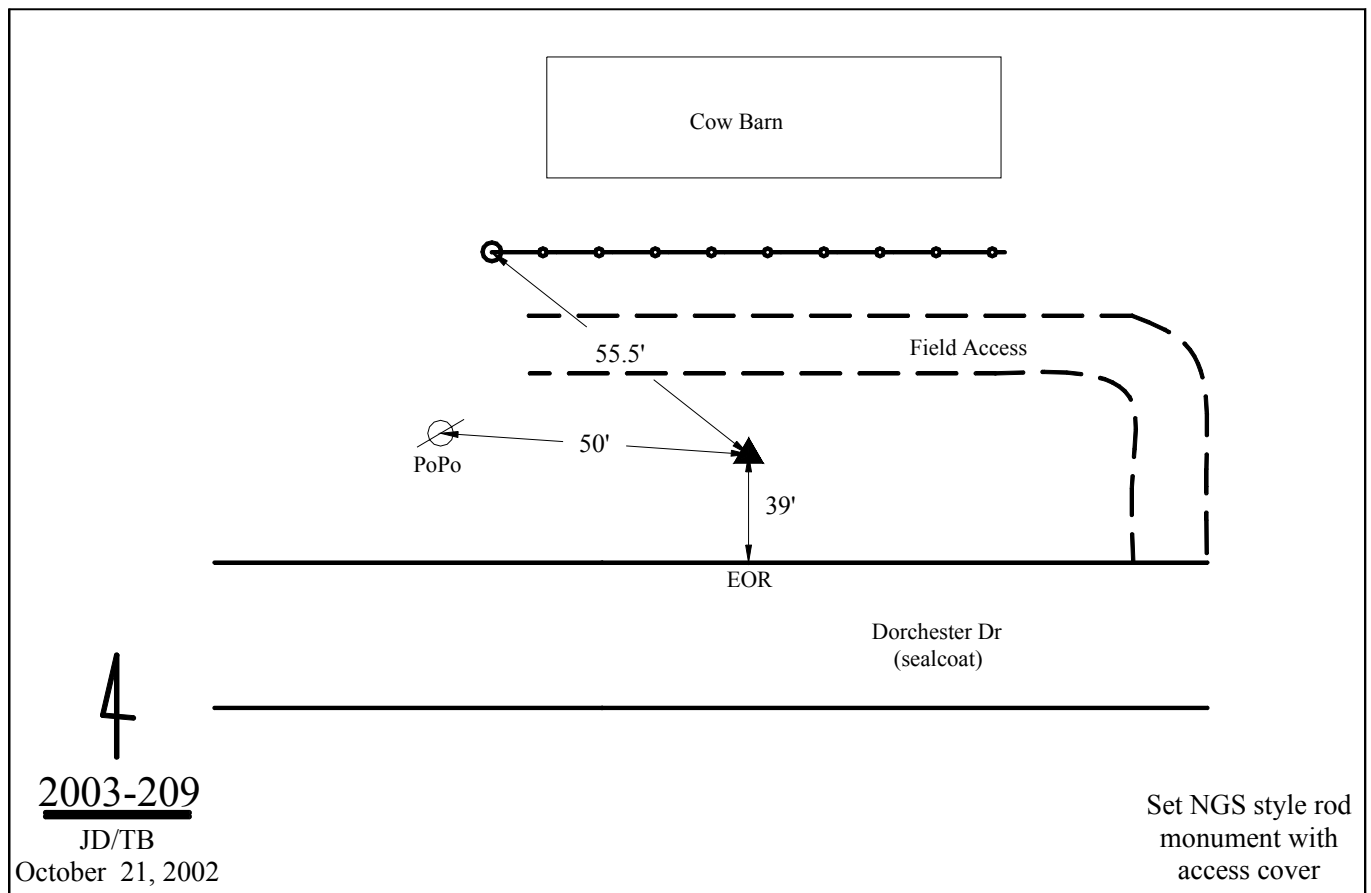
Theta: **1 19 08.621**

Combination Factor: **0.99999323**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-209**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SW Cor of Sec 15 T100N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **210**

Northing: **4006948.94(Ft)**

Easting: **5454510.22(Ft)**

Northing: **1221320.480(M)**

Easting: **1662538.040(M)**

Elev: **1077.13(Ft) NAVD_88**

Elev: **328.308(M) NAVD_88**

Ellip Ht: **297.669(M)**

99C Geoid Ht: **-30.639(M)**

Latitude: **43 28 30.02488 N**

Longitude: **91 29 27.69717 W**

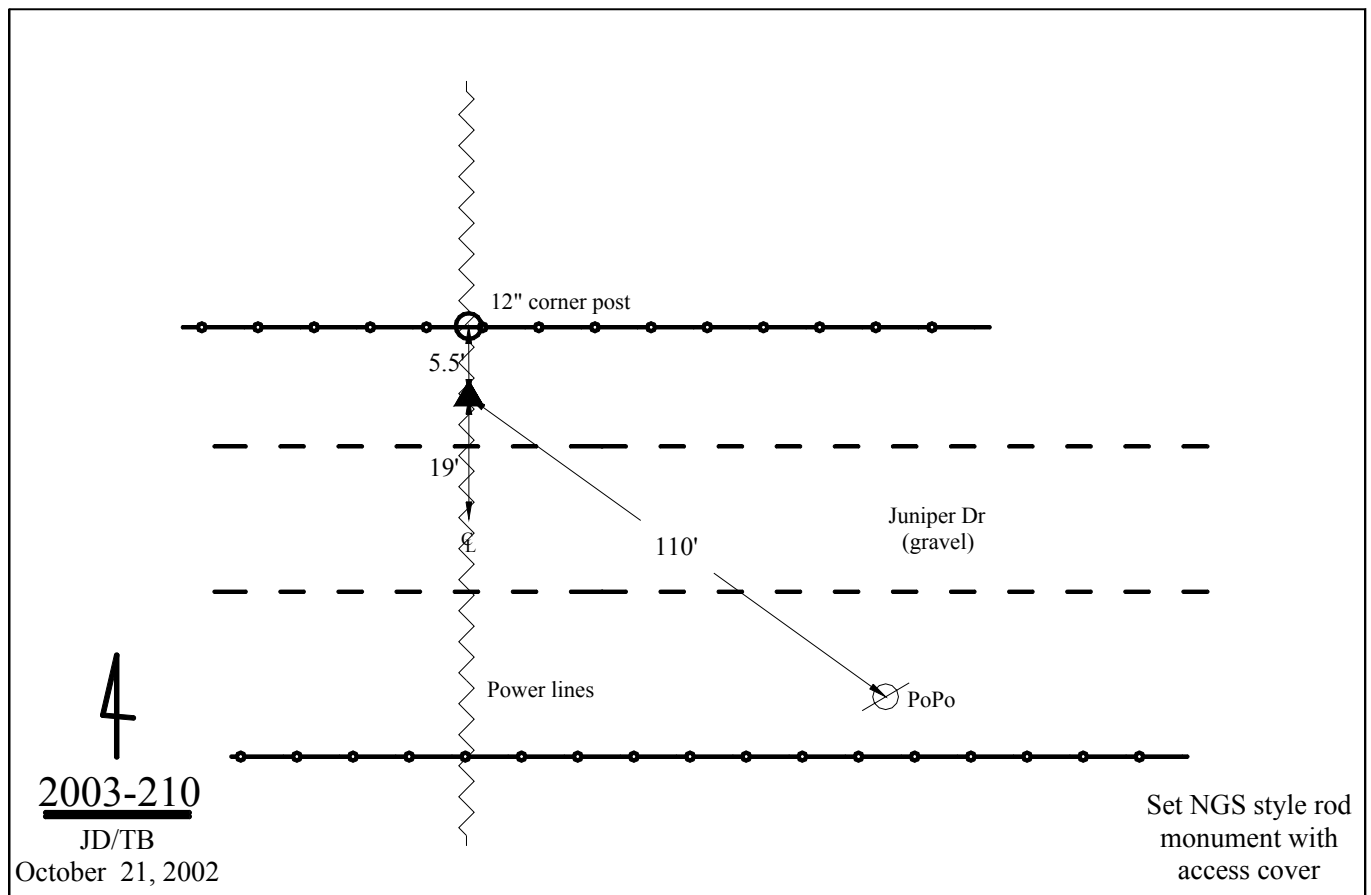
Theta: **1 21 41.654**

Combination Factor: **0.99999805**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-210**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 18 T100N R 5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **211**

Northing: **4005919.47(Ft)**

Easting: **5468768.72(Ft)**

Northing: **1221006.698(M)**

Easting: **1666884.039(M)**

Elev: **1099.81(Ft)** NAVD_88

Elev: **335.223(M)** NAVD_88

Ellip Ht: **304.417(M)**

99C Geoid Ht: **-30.806(M)**

Latitude: **43 28 16.47024 N**

Longitude: **91 26 14.73364 W**

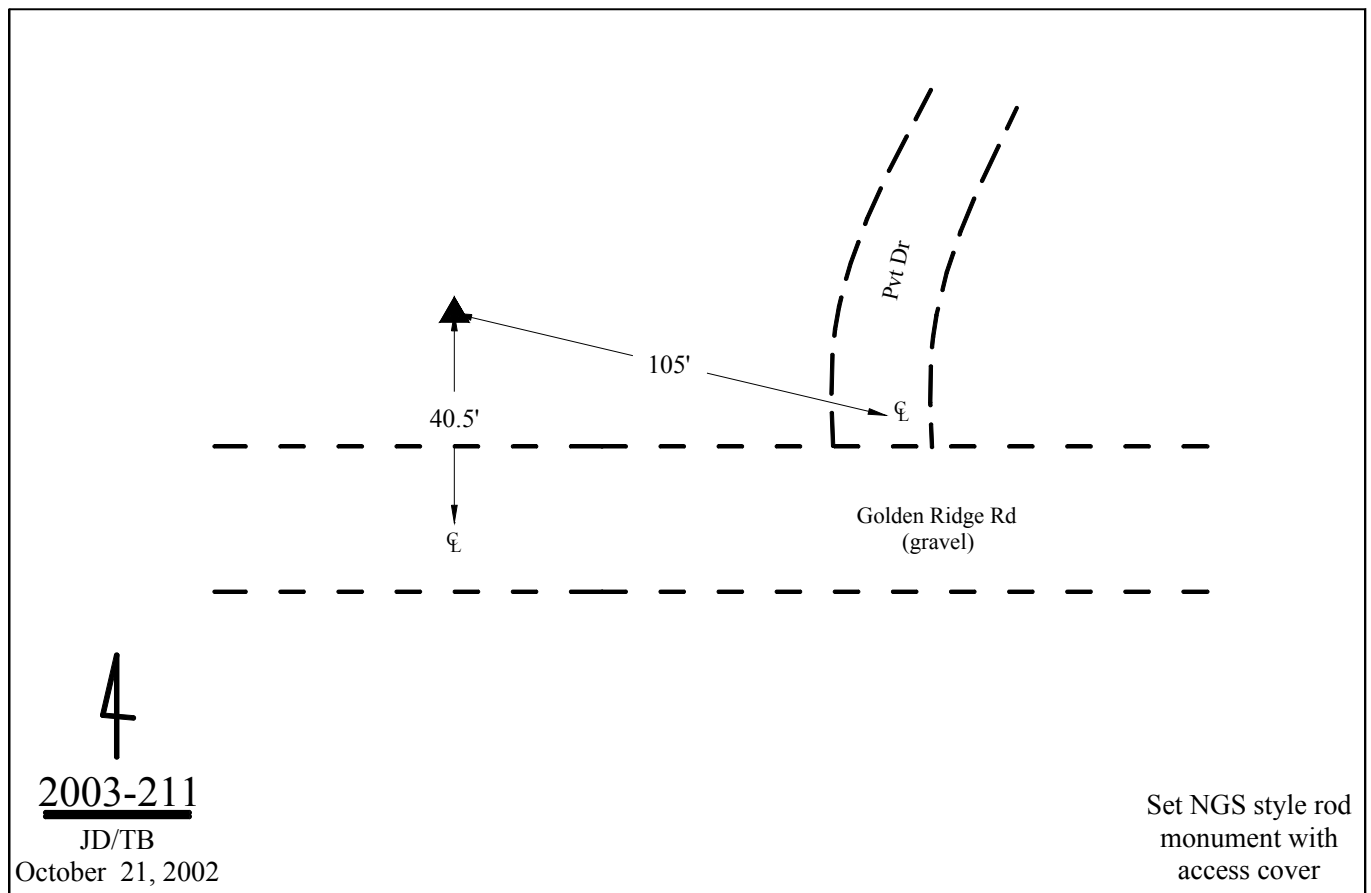
Theta: **1 23 52.434**

Combination Factor: **0.99999607**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-211**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 16 T100N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **213**

Northing: **4006145.55(Ft)**

Easting: **5500008.36(Ft)**

Northing: **1221075.605(M)**

Easting: **1676405.900(M)**

Elev: **640.59(Ft)** NAVD_88

Elev: **195.253(M)** NAVD_88

Ellip Ht: **164.047(M)**

99C Geoid Ht: **-31.206(M)**

Latitude: **43 28 10.96108 N**

Longitude: **91 19 11.17579 W**

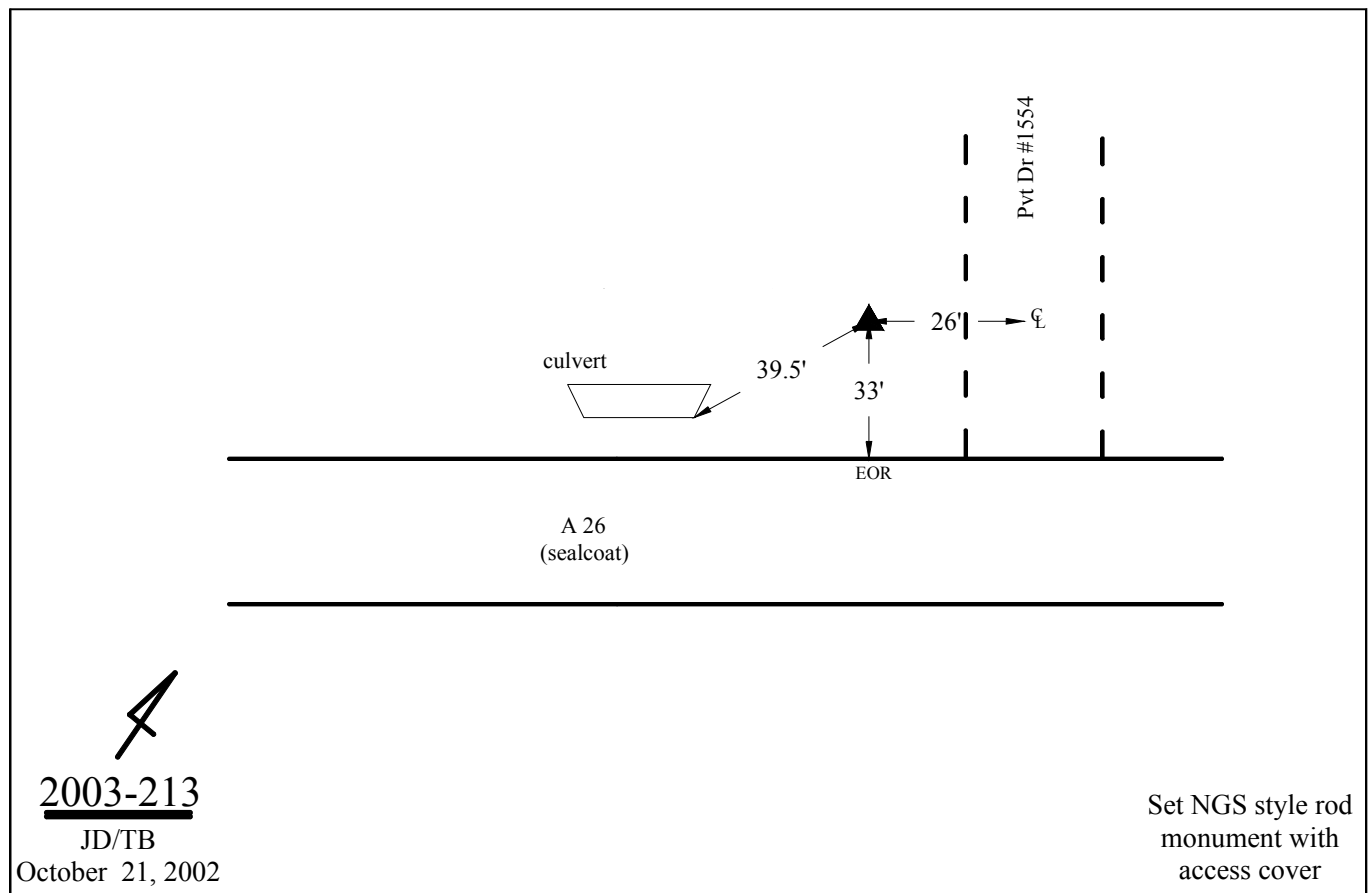
Theta: **1 28 39.498**

Combination Factor: **1.00001771**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-213**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the N 1/4 Cor of Sec 21 T100N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **214**

Northing: **4006744.57(Ft)**

Easting: **5507439.66(Ft)**

Northing: **1221258.187(M)**

Easting: **1678670.964(M)**

Elev: **652.91(Ft)** NAVD_88

Elev: **199.007(M)** NAVD_88

Ellip Ht: **167.707(M)**

99C Geoid Ht: **-31.300(M)**

Latitude: **43 28 14.97029 N**

Longitude: **91 17 30.22972 W**

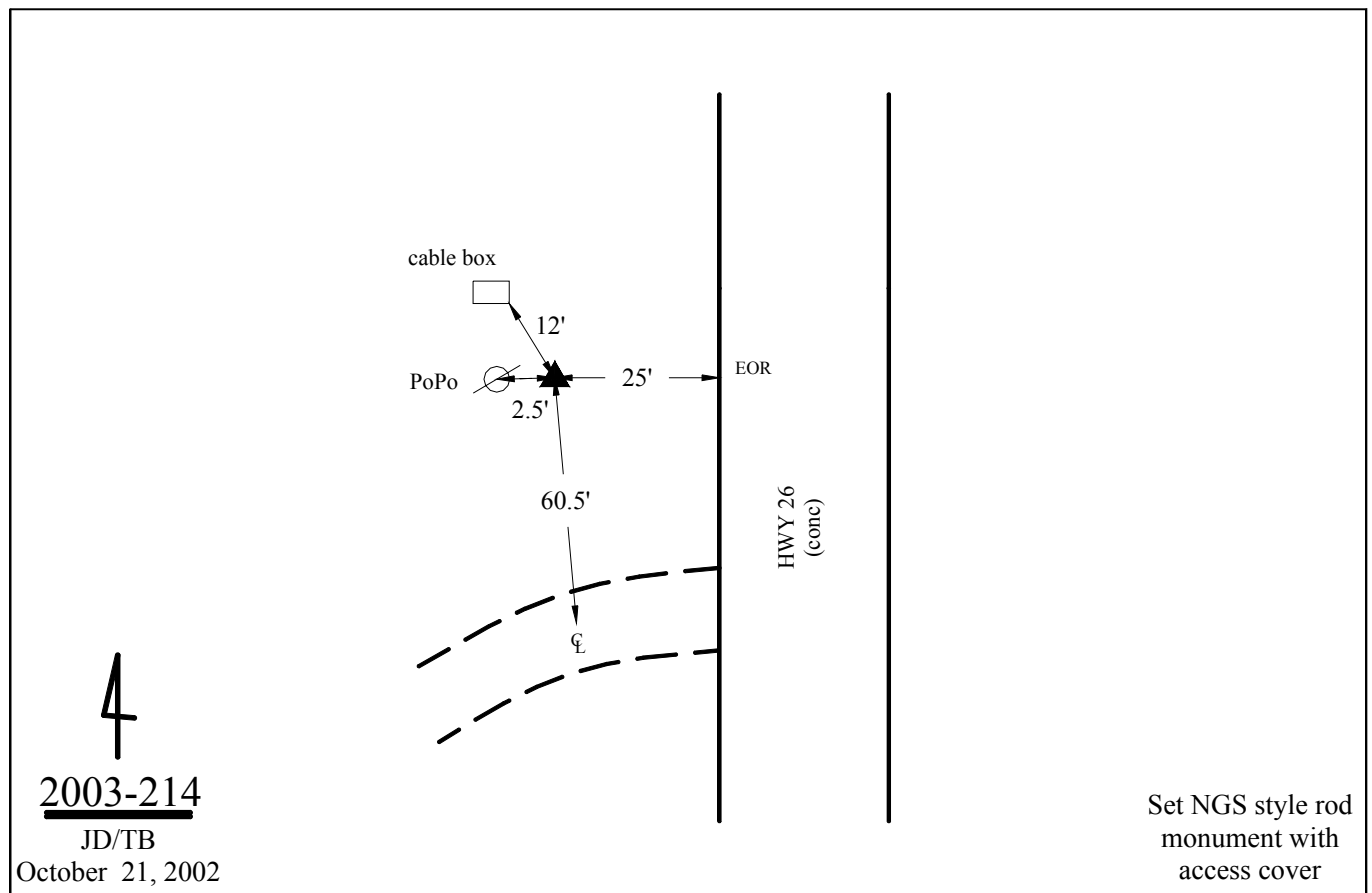
Theta: **1 29 47.914**

Combination Factor: **1.00001740**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-214**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE Cor of Sec 22 T100N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **215**

Northing: **3989129.01**(Ft)

Easting: **5420407.08**(Ft)

Northing: **1215888.953**(M)

Easting: **1652143.382**(M)

Elev: **1100.06**(Ft) NAVD_88

Elev: **335.298**(M) NAVD_88

Ellip Ht: **304.975**(M)

99C Geoid Ht: **-30.323**(M)

Latitude: **43 25 41.82585 N**

Longitude: **91 37 15.43184 W**

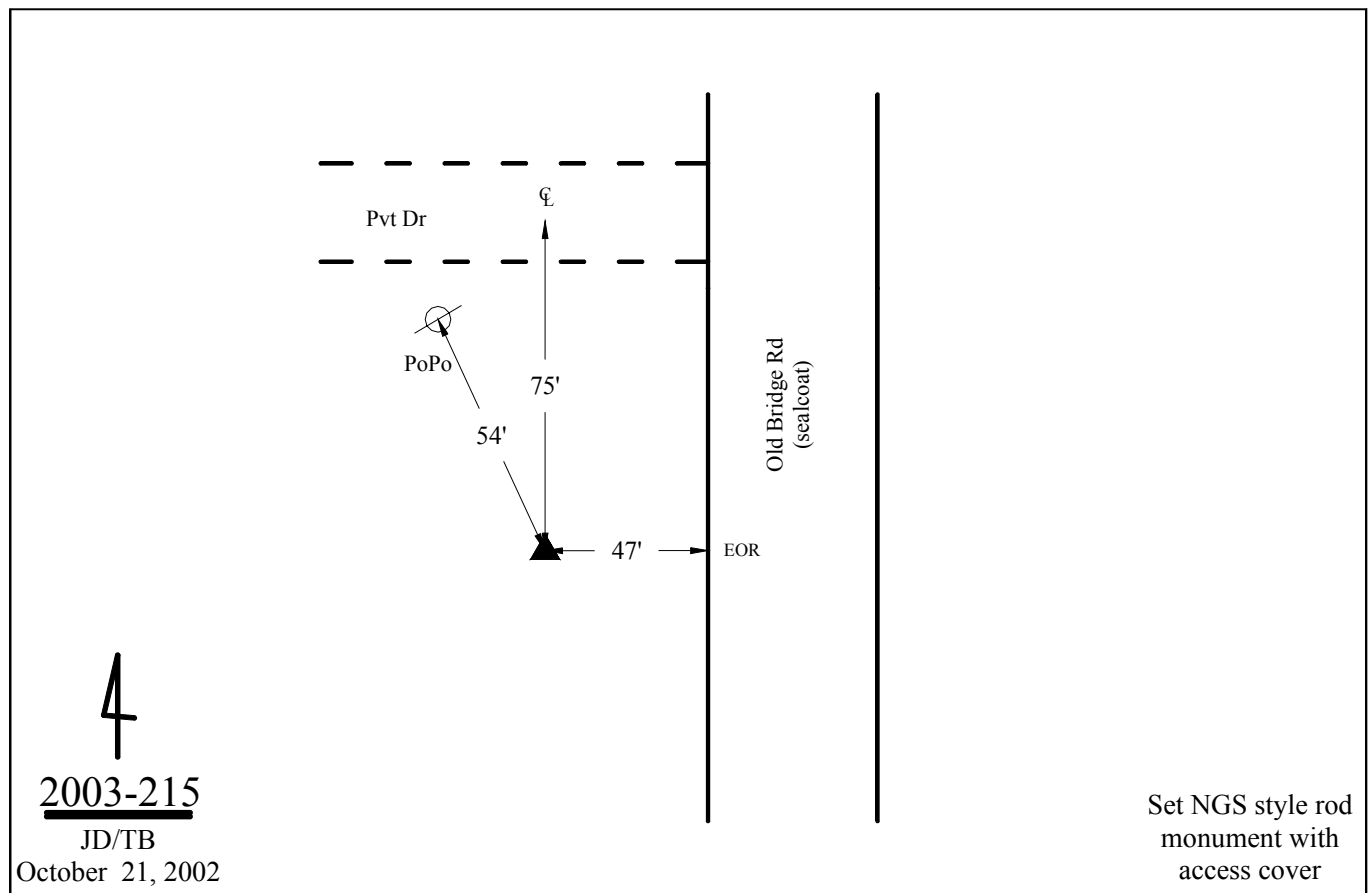
Theta: **1 16 24.649**

Combination Factor: **0.99998572**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-215**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the S 1/4 Cor of Sec 36 T100N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **216**

Northing: **3989250.17**(Ft)

Easting: **5439131.71**(Ft)

Northing: **1215925.884**(M)

Easting: **1657850.660**(M)

Elev: **711.60**(Ft) NAVD_88

Elev: **216.896**(M) NAVD_88

Ellip Ht: **186.412**(M)

99C Geoid Ht: **-30.484**(M)

Latitude: **43 25 38.83509 N**

Longitude: **91 33 01.72647 W**

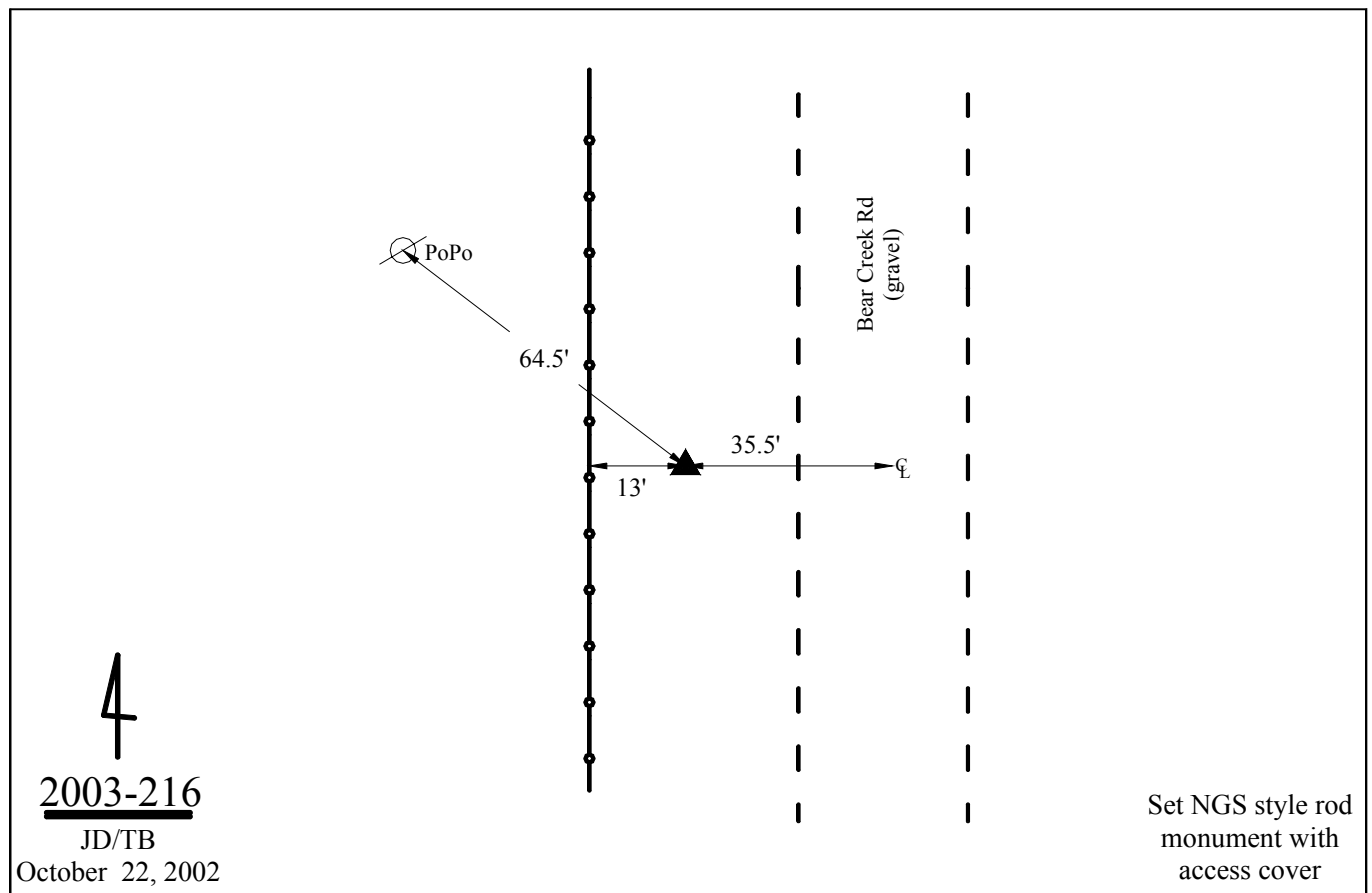
Theta: **1 19 16.597**

Combination Factor: **1.00000411**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-216**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 33 T100N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **217**

Northing: **3990493.39(Ft)**

Easting: **5454933.87(Ft)**

Northing: **1216304.817(M)**

Easting: **1662667.168(M)**

Elev: **671.73(Ft)** NAVD_88

Elev: **204.744(M)** NAVD_88

Ellip Ht: **174.099(M)**

99C Geoid Ht: **-30.645(M)**

Latitude: **43 25 47.45626 N**

Longitude: **91 29 27.25655 W**

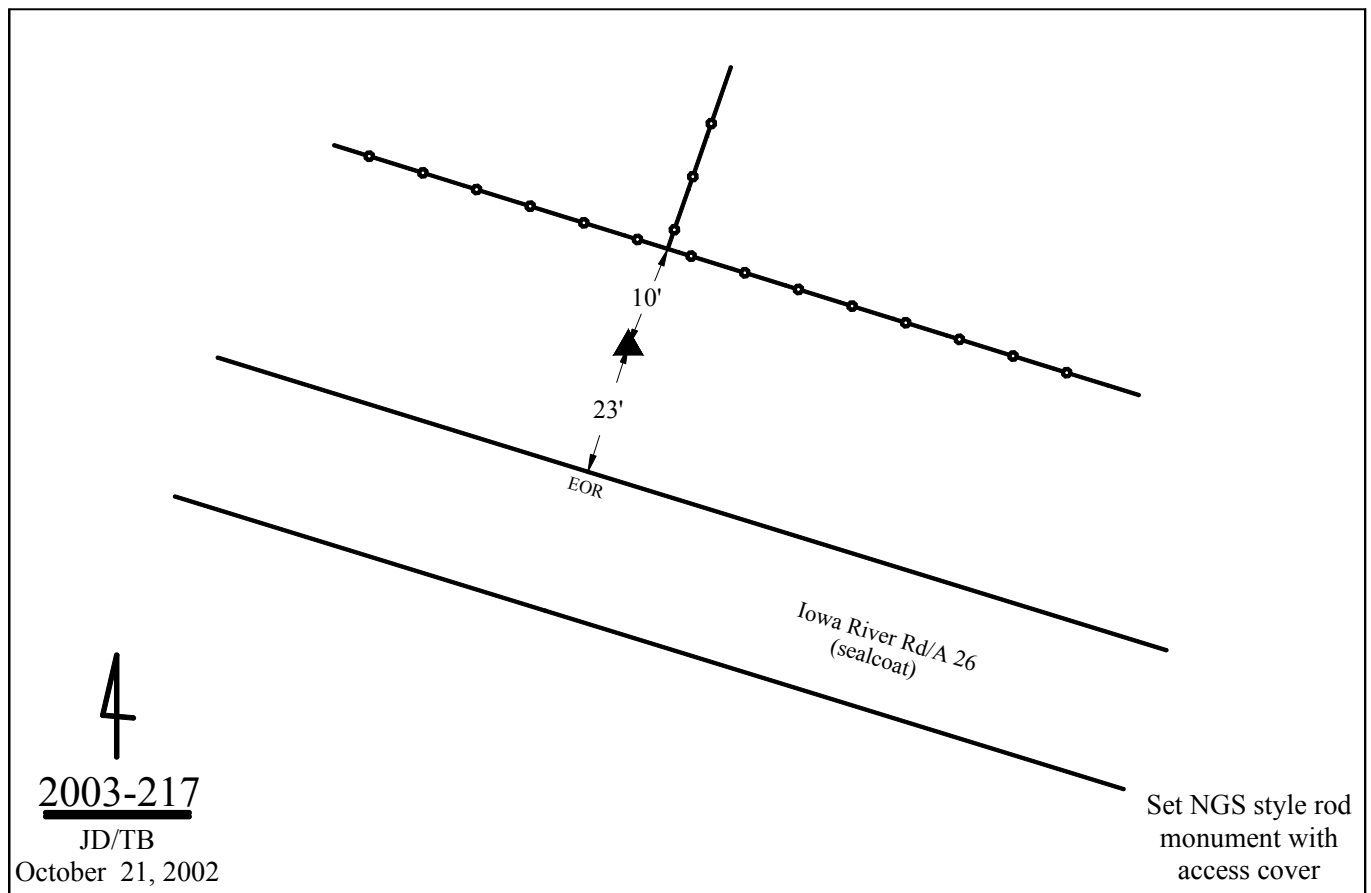
Theta: **1 21 41.953**

Combination Factor: **1.00000660**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-217**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 36 T100N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **218**

Northing: **3990356.19(Ft)**

Easting: **5470743.59(Ft)**

Northing: **1216262.998(M)**

Easting: **1667485.982(M)**

Elev: **666.86(Ft)** NAVD_88

Elev: **203.258(M)** NAVD_88

Ellip Ht: **172.432(M)**

99C Geoid Ht: **-30.826(M)**

Latitude: **43 25 42.33640 N**

Longitude: **91 25 53.12523 W**

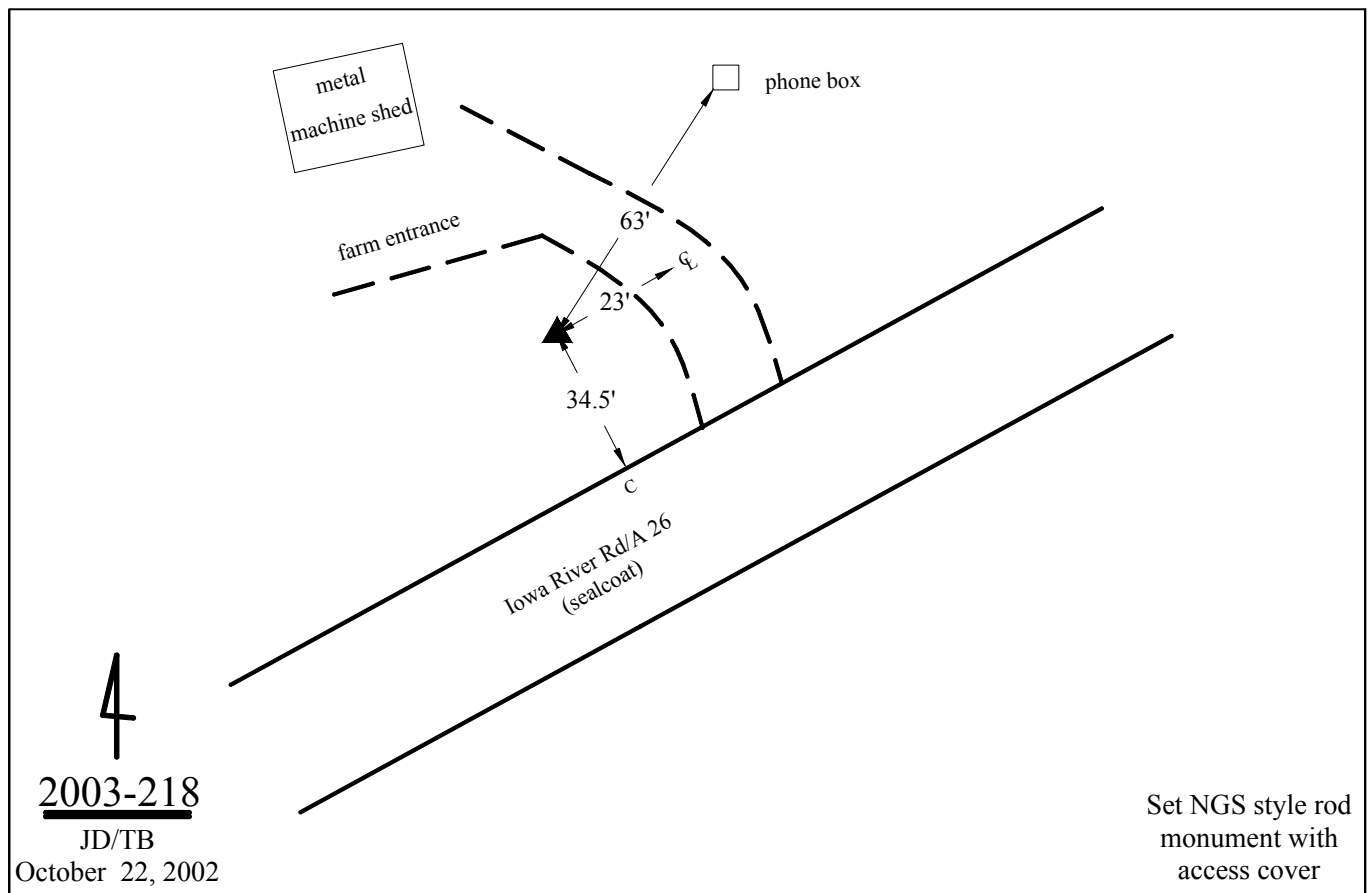
Theta: **1 24 07.079**

Combination Factor: **1.00000653**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-218**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 33 T100N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **219**

Northing: **3990881.09(Ft)**

Easting: **5484764.67(Ft)**

Northing: **1216422.989(M)**

Easting: **1671759.615(M)**

Elev: **647.97(Ft)** NAVD_88

Elev: **197.502(M)** NAVD_88

Ellip Ht: **166.502(M)**

99C Geoid Ht: **-31.000(M)**

Latitude: **43 25 44.08761 N**

Longitude: **91 22 43.00835 W**

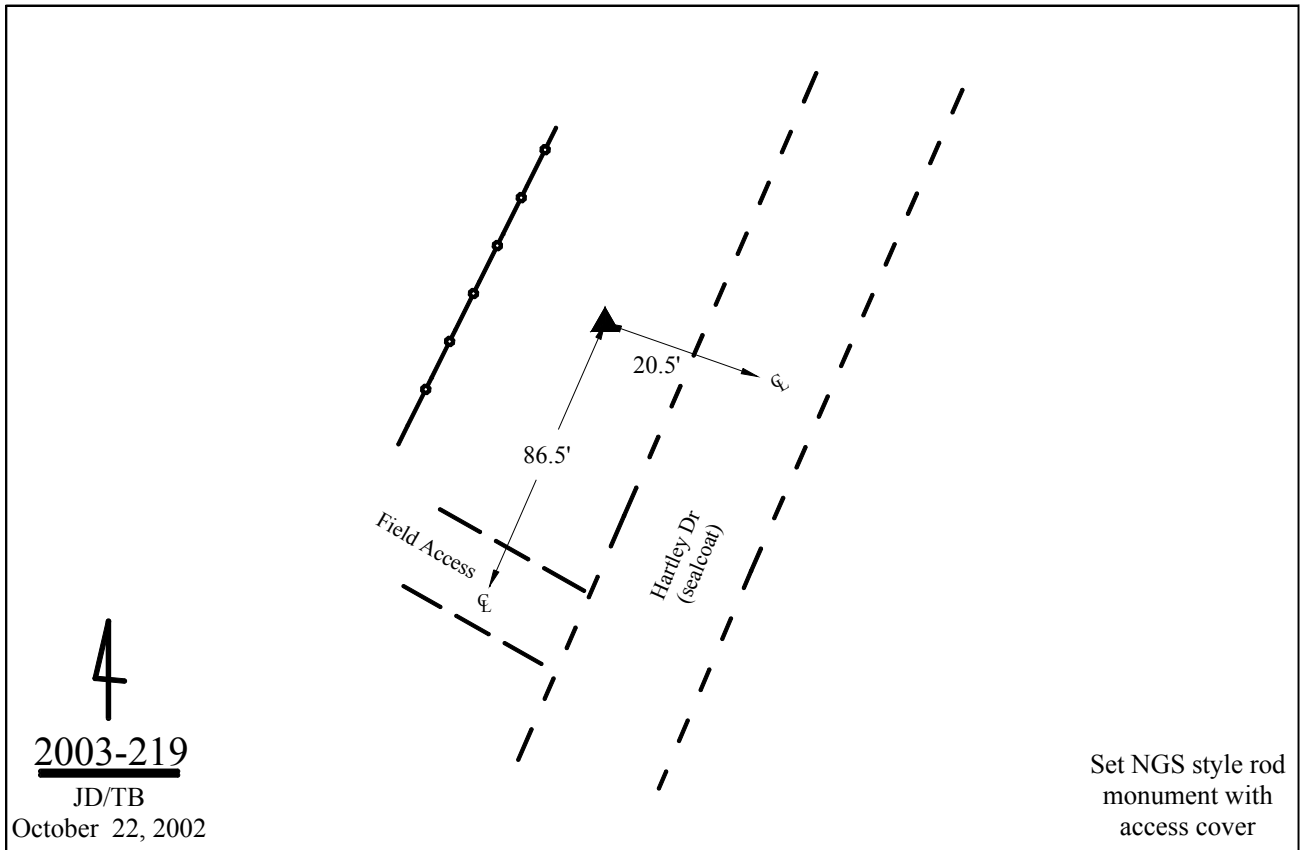
Theta: **1 26 15.930**

Combination Factor: **1.00000757**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-219**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the S 1/4 Cor of Sec 36 T100N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **220**

Northing: **3991366.37(Ft)**

Easting: **5502674.95(Ft)**

Northing: **1216570.903(M)**

Easting: **1677218.679(M)**

Elev: **786.09(Ft)** NAVD_88

Elev: **239.601(M)** NAVD_88

Ellip Ht: **208.388(M)**

99C Geoid Ht: **-31.213(M)**

Latitude: **43 25 44.37003 N**

Longitude: **91 18 40.21714 W**

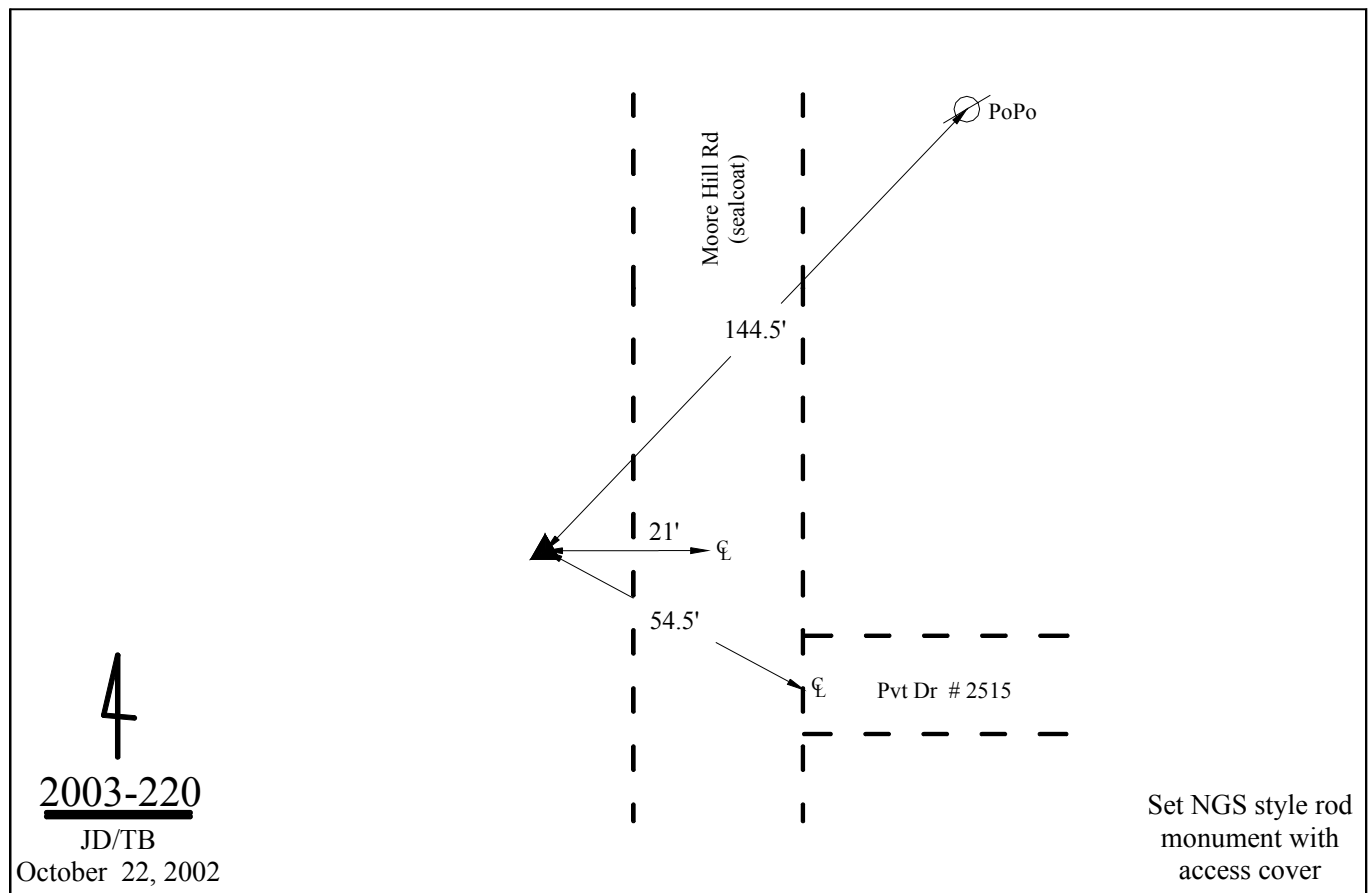
Theta: **1 29 00.480**

Combination Factor: **1.00000102**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-220**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec33 T100N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **221**

Northing: **3991068.82(Ft)**

Easting: **5515431.63(Ft)**

Northing: **1216480.210(M)**

Easting: **1681106.922(M)**

Elev: **643.73(Ft)** NAVD_88

Elev: **196.208(M)** NAVD_88

Ellip Ht: **164.839(M)**

99C Geoid Ht: **-31.369(M)**

Latitude: **43 25 38.13508 N**

Longitude: **91 15 47.51828 W**

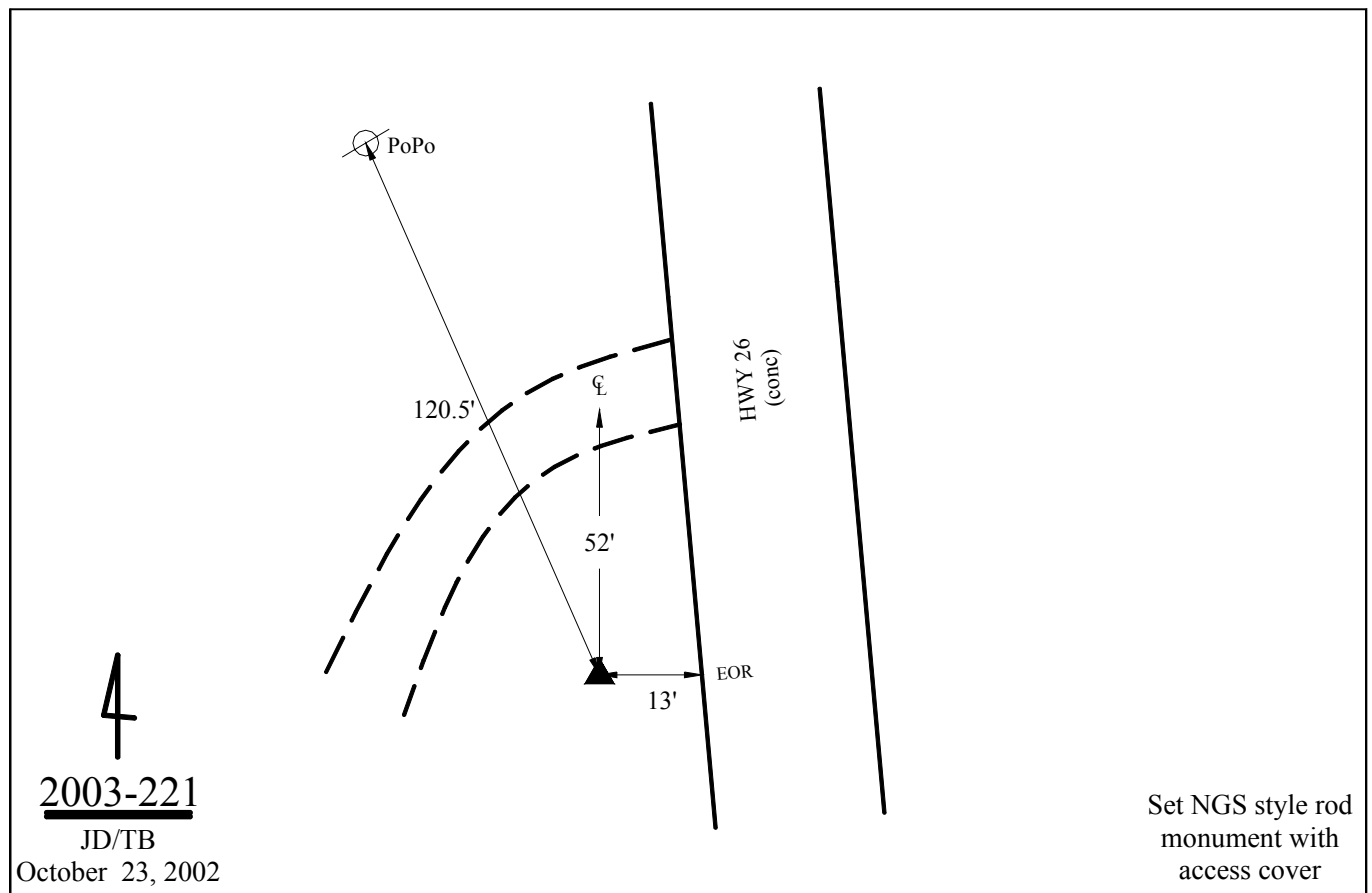
Theta: **1 30 57.526**

Combination Factor: **1.00000745**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-221**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 1 T99N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **222**

Northing: **3975403.92(Ft)**

Easting: **5423348.52(Ft)**

Northing: **1211705.539(M)**

Easting: **1653039.935(M)**

Elev: **1085.63(Ft)** NAVD_88

Elev: **330.900(M)** NAVD_88

Ellip Ht: **300.551(M)**

99C Geoid Ht: **-30.349(M)**

Latitude: **43 23 25.66082 N**

Longitude: **91 36 39.73814 W**

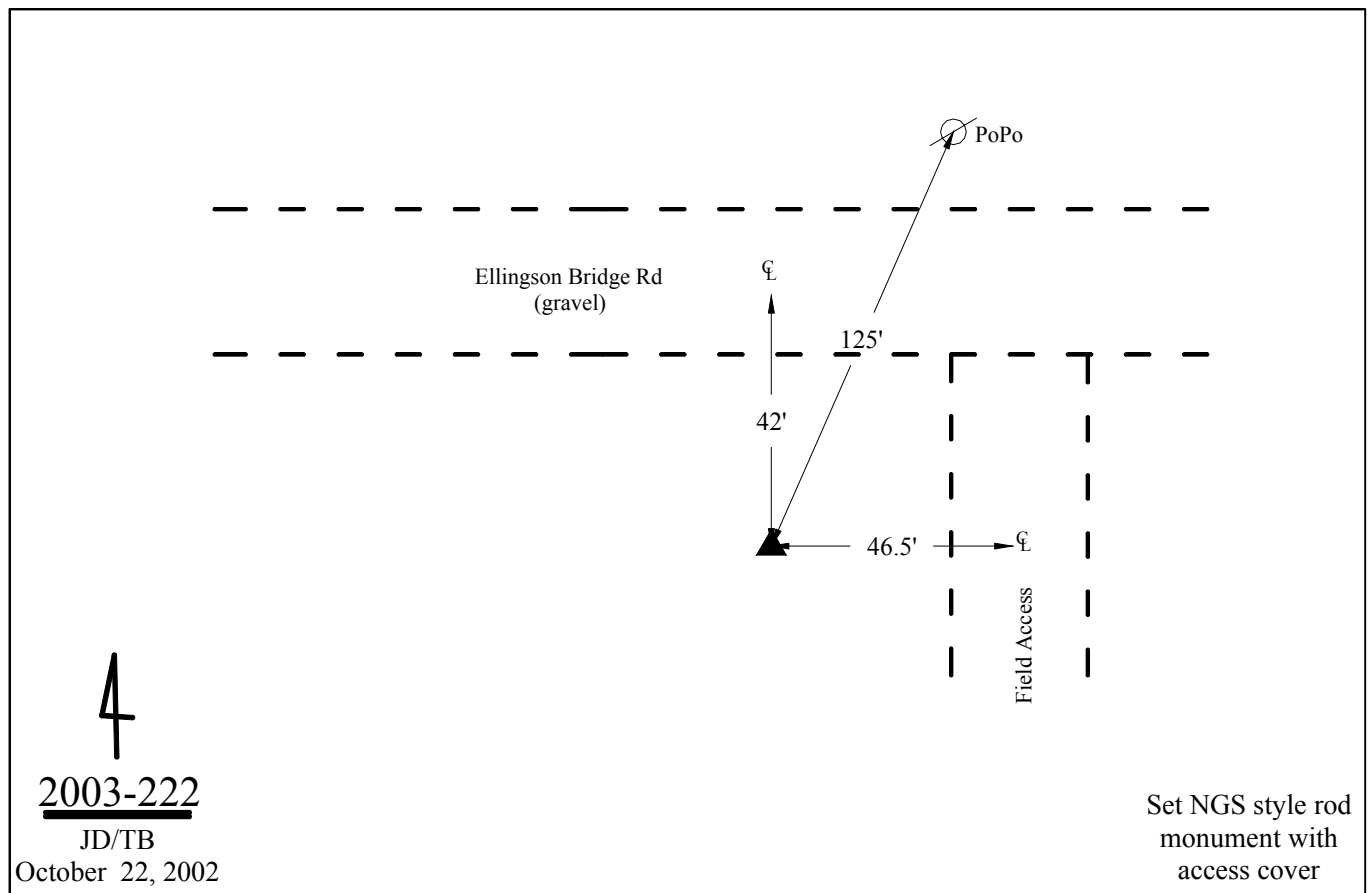
Theta: **1 16 48.841**

Combination Factor: **0.99997784**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-222**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 13 T99N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **223**

Northing: **3974559.21(Ft)**

Easting: **5439464.58(Ft)**

Northing: **1211448.070(M)**

Easting: **1657952.120(M)**

Elev: **825.14(Ft)** NAVD_88

Elev: **251.502(M)** NAVD_88

Ellip Ht: **221.024(M)**

99C Geoid Ht: **-30.478(M)**

Latitude: **43 23 13.70723 N**

Longitude: **91 33 01.80732 W**

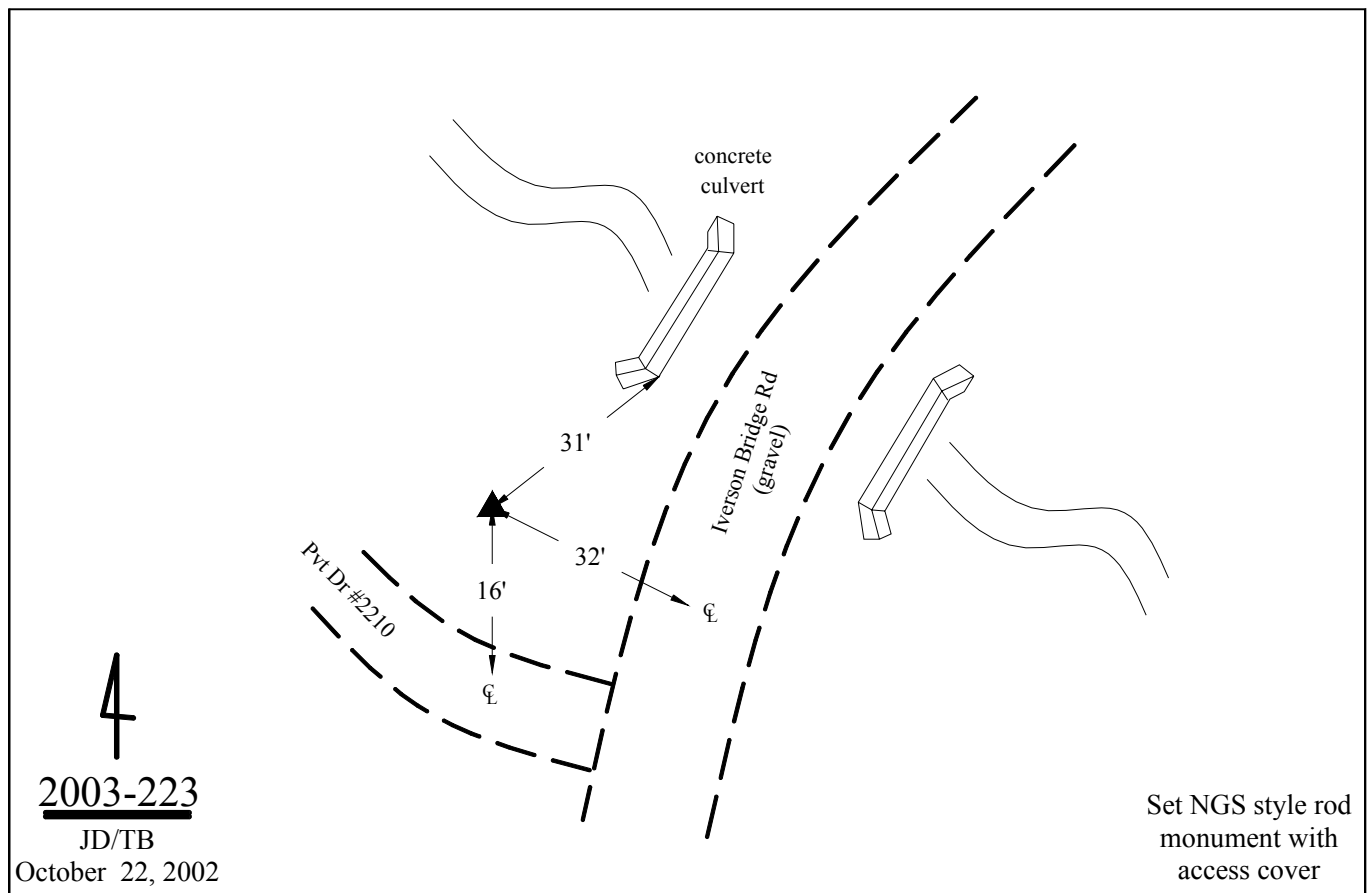
Theta: **1 19 16.542**

Combination Factor: **0.99998958**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-223**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 15 T99N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **224**

Northing: **3974236.24(Ft)**

Easting: **5455321.37(Ft)**

Northing: **1211349.627(M)**

Easting: **1662785.280(M)**

Elev: **1073.16(Ft)** NAVD_88

Elev: **327.099(M)** NAVD_88

Ellip Ht: **296.466(M)**

99C Geoid Ht: **-30.633(M)**

Latitude: **43 23 06.85206 N**

Longitude: **91 29 27.24197 W**

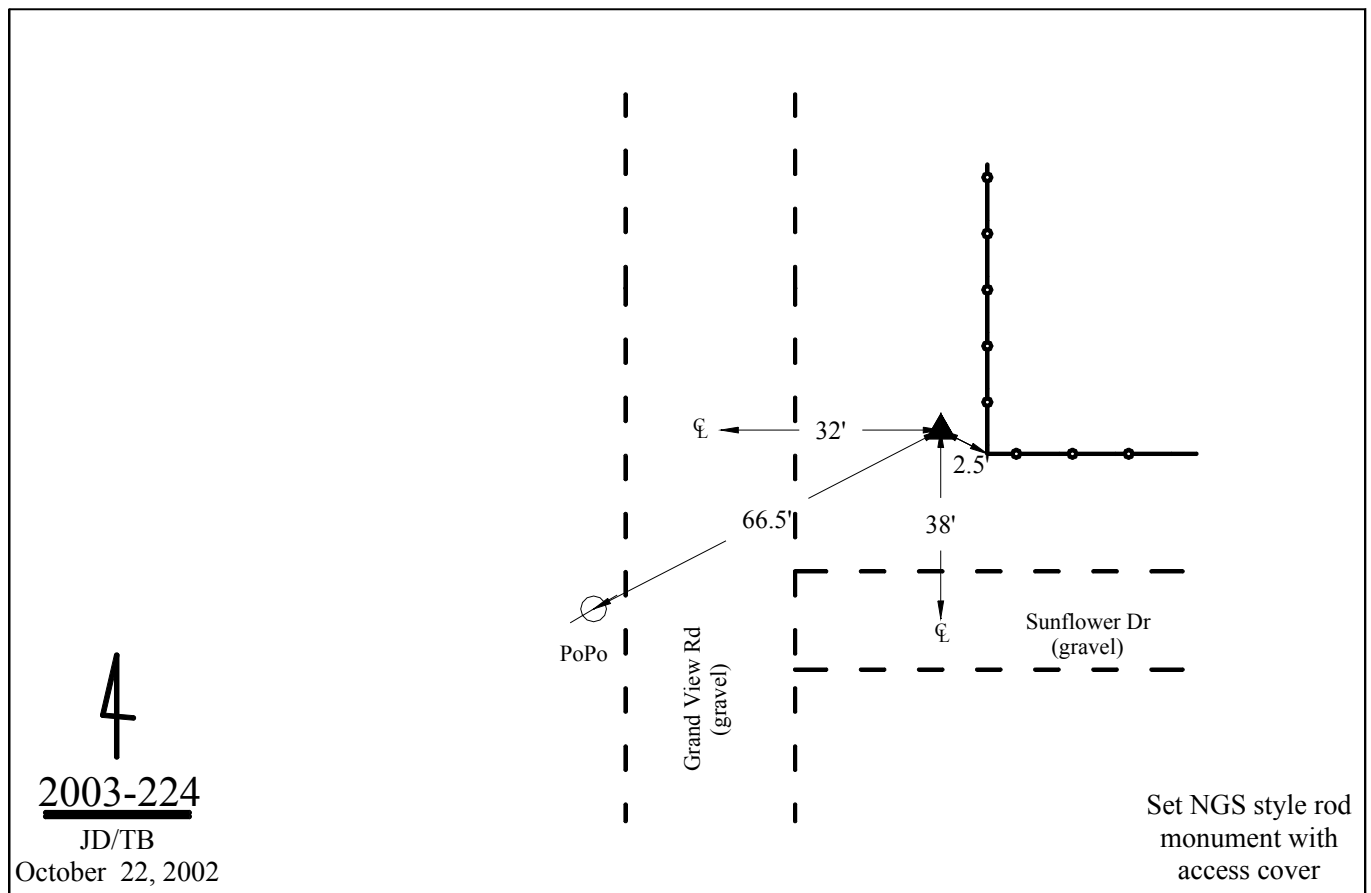
Theta: **1 21 41.962**

Combination Factor: **0.99997733**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-224**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SW Cor of Sec 18 T99N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **225**

Northing: **3974489.13(Ft)**

Easting: **5468652.32(Ft)**

Northing: **1211426.709(M)**

Easting: **1666848.561(M)**

Elev: **1059.74(Ft)** NAVD_88

Elev: **323.010(M)** NAVD_88

Ellip Ht: **292.226(M)**

99C Geoid Ht: **-30.784(M)**

Latitude: **43 23 06.18128 N**

Longitude: **91 26 26.69234 W**

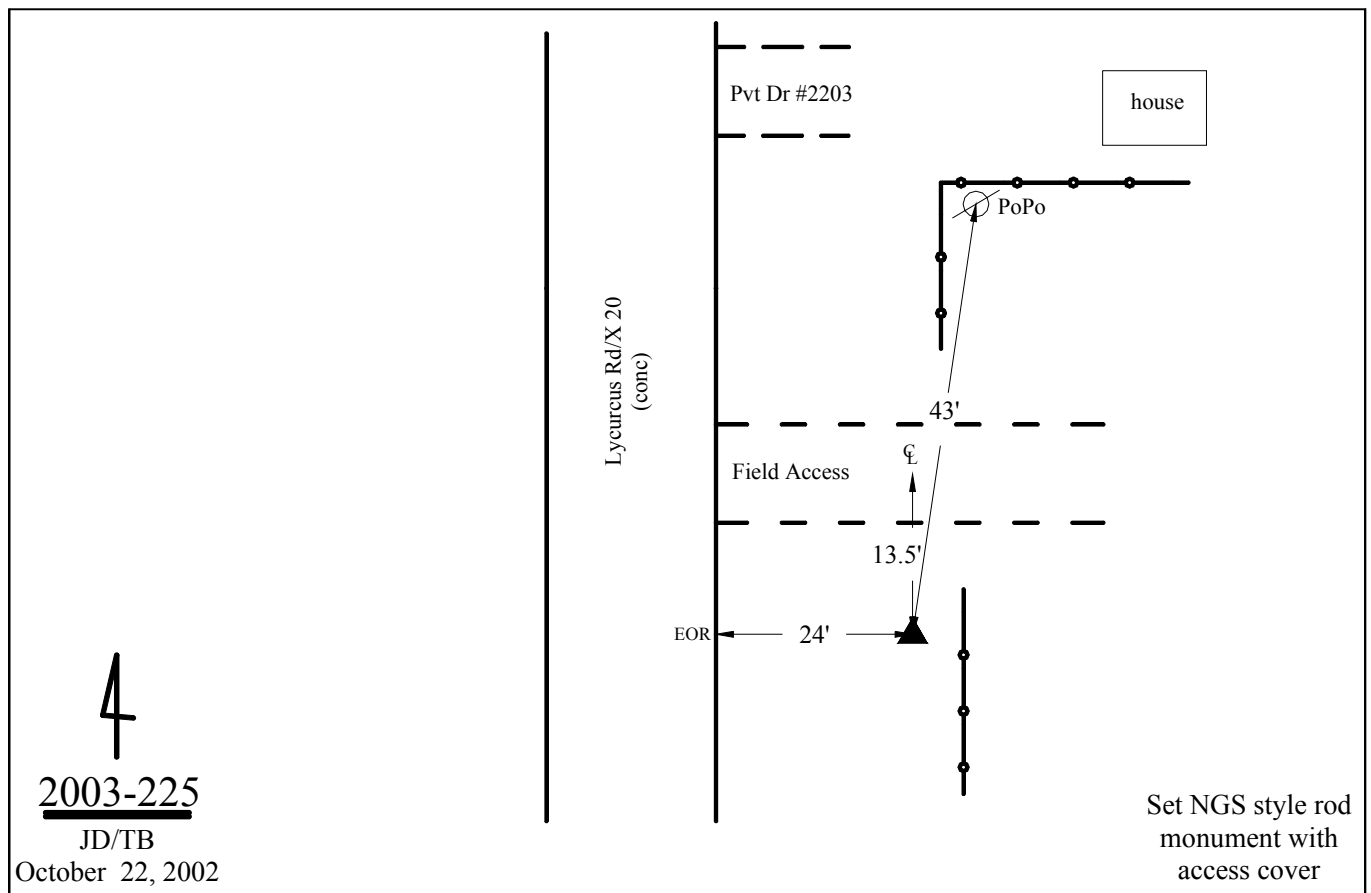
Theta: **1 23 44.329**

Combination Factor: **0.99997796**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-225**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 21 T99N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **226**

Northing: **3974857.85(Ft)**

Easting: **5486939.80(Ft)**

Northing: **1211539.095(M)**

Easting: **1672422.595(M)**

Elev: **1099.19(Ft)** NAVD_88

Elev: **335.033(M)** NAVD_88

Ellip Ht: **304.028(M)**

99C Geoid Ht: **-31.005(M)**

Latitude: **43 23 05.34924 N**

Longitude: **91 22 19.00768 W**

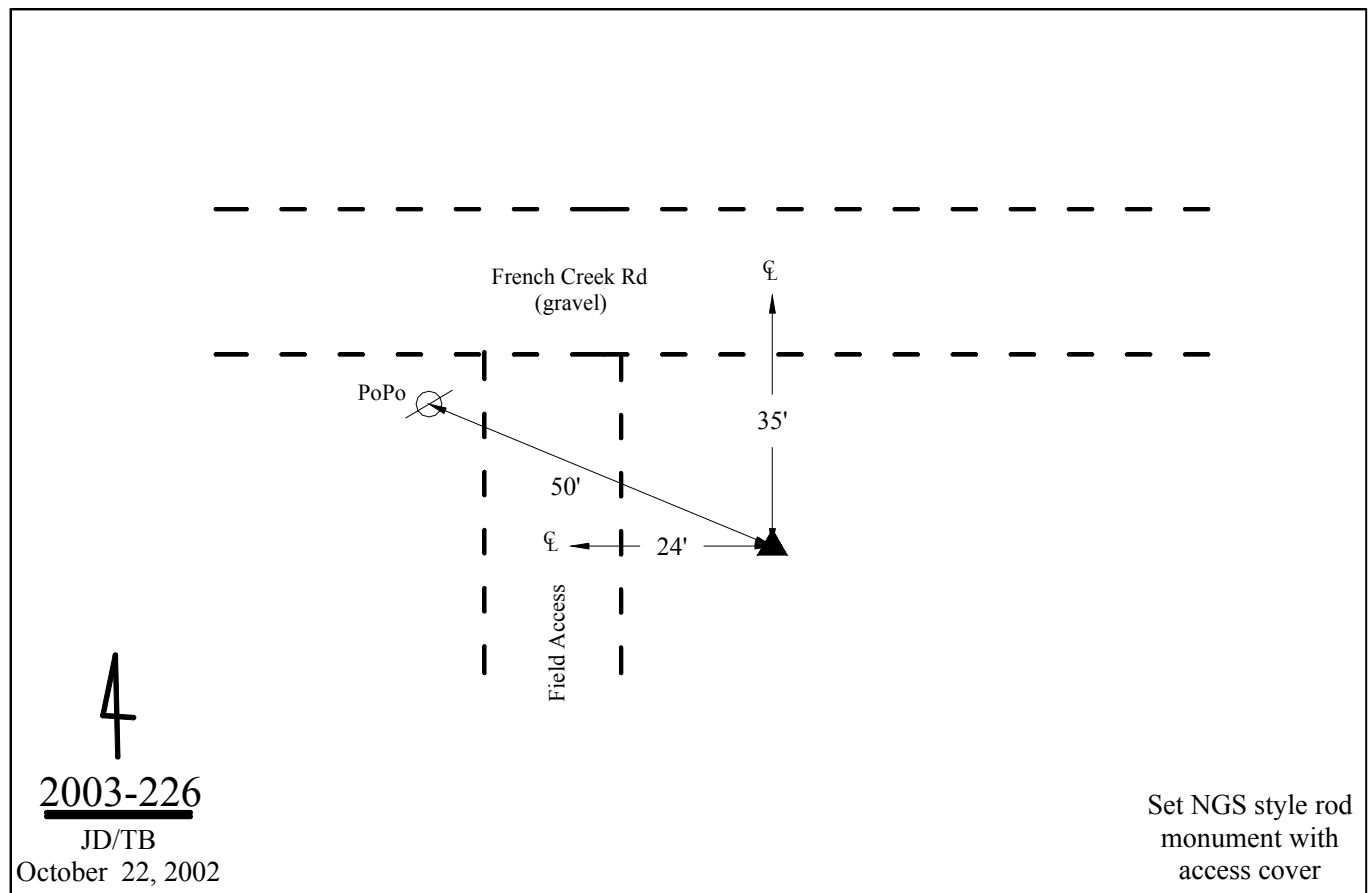
Theta: **1 26 32.196**

Combination Factor: **0.99997606**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-226**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NW Cor of Sec 19 T99N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **227**

Northing: **3975247.04(Ft)**

Easting: **5502805.64(Ft)**

Northing: **1211657.722(M)**

Easting: **1677258.515(M)**

Elev: **1157.18(Ft)** NAVD_88

Elev: **352.708(M)** NAVD_88

Ellip Ht: **321.515(M)**

99C Geoid Ht: **-31.193(M)**

Latitude: **43 23 05.19248 N**

Longitude: **91 18 44.09881 W**

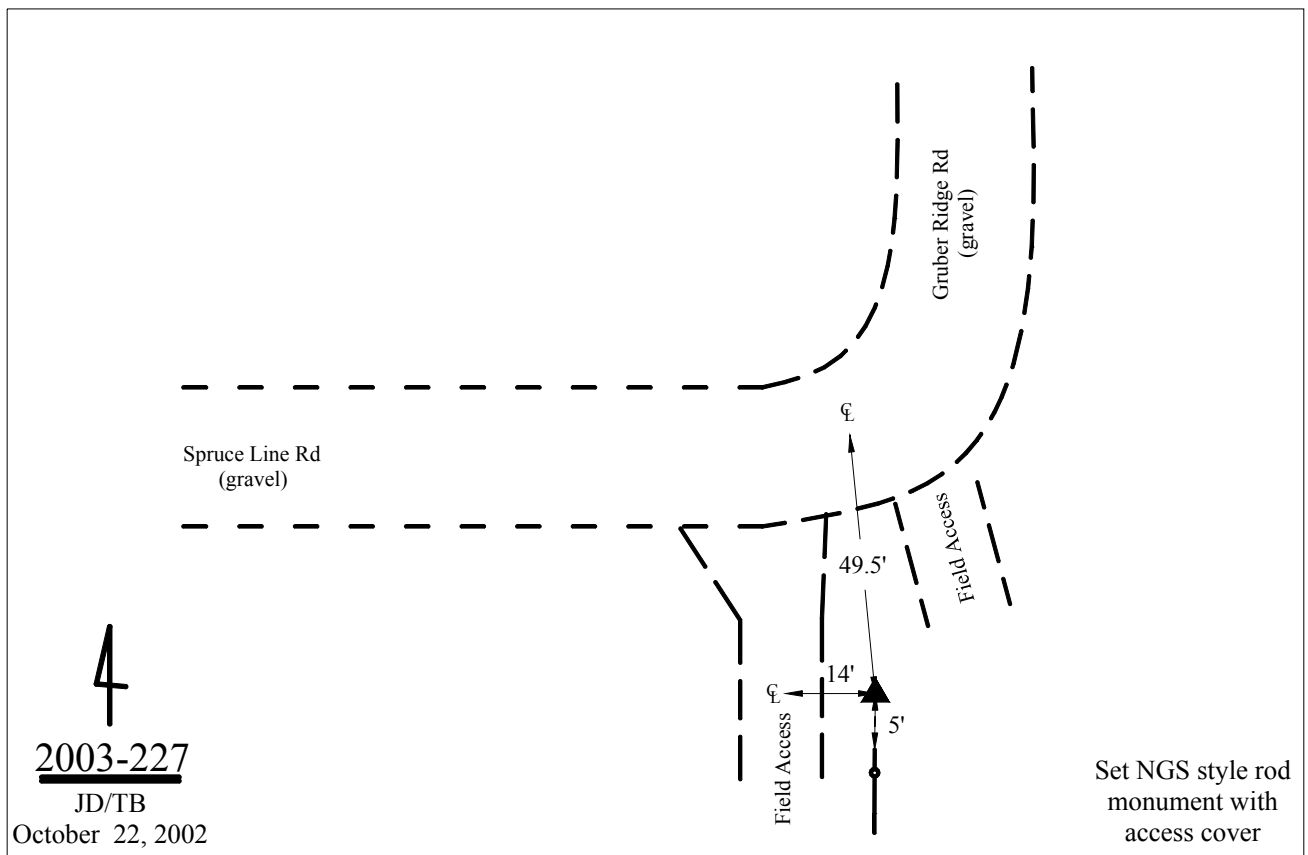
Theta: **1 28 57.849**

Combination Factor: **0.99997330**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-227**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NW Cor of Sec 22 T99N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **228**

Northing: **3975554.71(Ft)**

Easting: **5517694.01(Ft)**

Northing: **1211751.500(M)**

Easting: **1681796.498(M)**

Elev: **1123.03(Ft)** NAVD_88

Elev: **342.301(M)** NAVD_88

Ellip Ht: **310.922(M)**

99C Geoid Ht: **-31.379(M)**

Latitude: **43 23 04.37655 N**

Longitude: **91 15 22.45133 W**

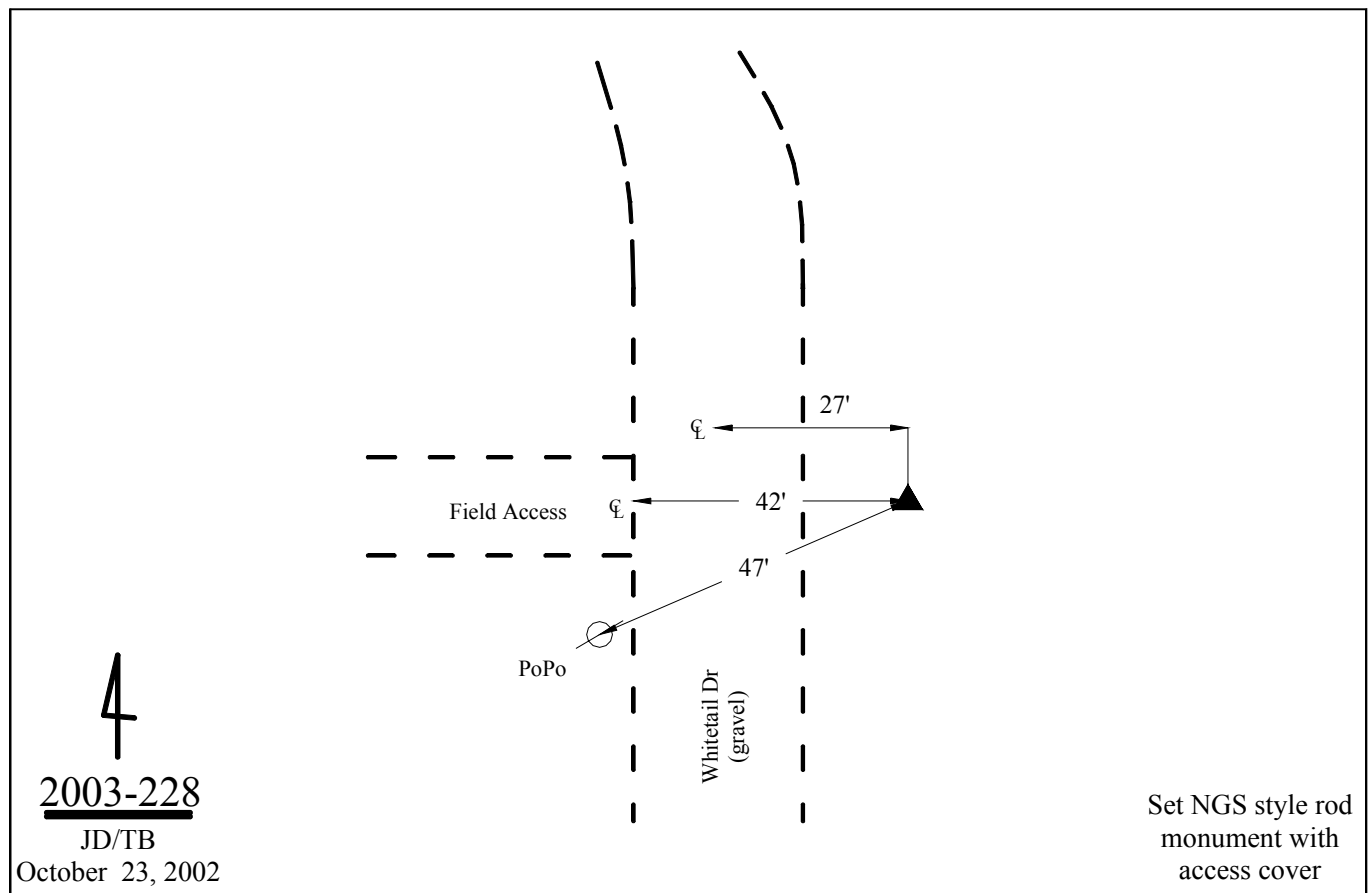
Theta: **1 31 14.515**

Combination Factor: **0.99997491**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-228**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 13 T99N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **229**

Northing: **3958682.23(Ft)**

Easting: **5424564.88(Ft)**

Northing: **1206608.756(M)**

Easting: **1653410.681(M)**

Elev: **802.12(Ft)** NAVD_88

Elev: **244.487(M)** NAVD_88

Ellip Ht: **214.123(M)**

99C Geoid Ht: **-30.364(M)**

Latitude: **43 20 40.28434 N**

Longitude: **91 36 28.33770 W**

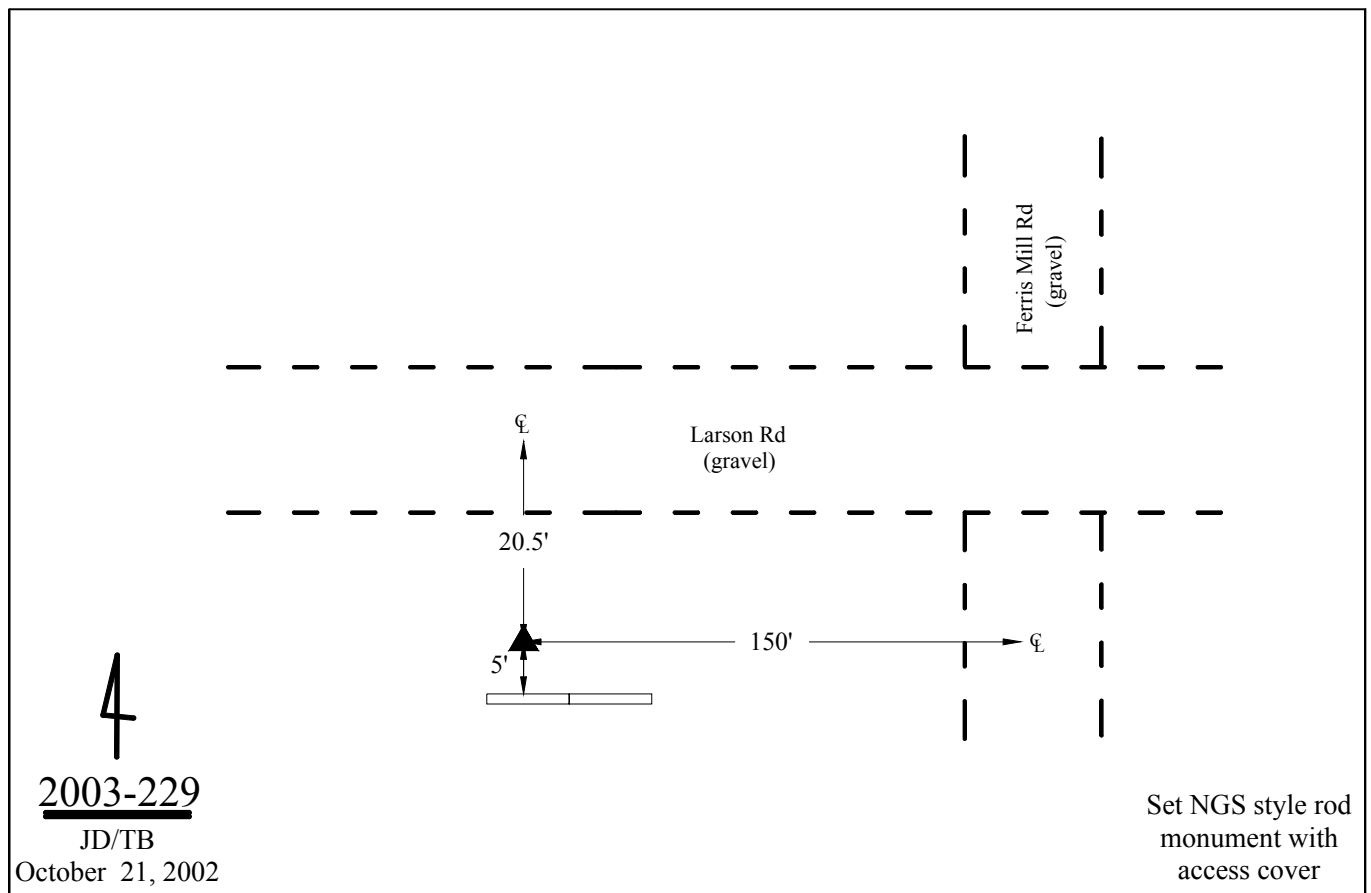
Theta: **1 16 56.567**

Combination Factor: **0.99998158**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-229**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 31 T99N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **230**

Northing: **3958029.84(Ft)**

Easting: **5439704.77(Ft)**

Northing: **1206409.909(M)**

Easting: **1658025.330(M)**

Elev: **857.31(Ft)** NAVD_88

Elev: **261.308(M)** NAVD_88

Ellip Ht: **230.830(M)**

99C Geoid Ht: **-30.478(M)**

Latitude: **43 20 30.44613 N**

Longitude: **91 33 03.71550 W**

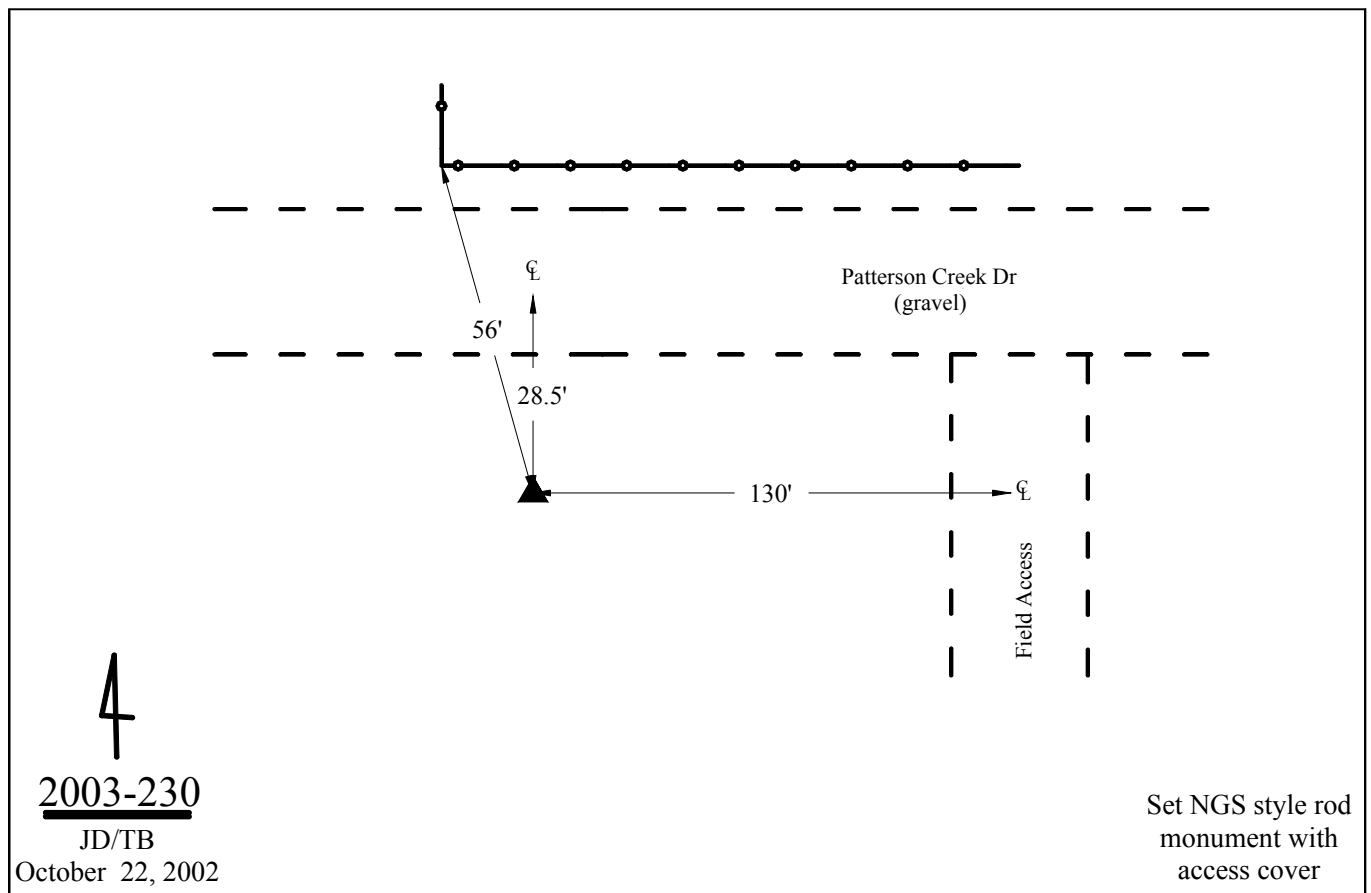
Theta: **1 19 15.249**

Combination Factor: **0.99997839**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-230**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 4 T98N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **231**

Northing: **3958468.45(Ft)**

Easting: **5456916.56(Ft)**

Northing: **1206543.597(M)**

Easting: **1663271.493(M)**

Elev: **936.44(Ft)** NAVD_88

Elev: **285.427(M)** NAVD_88

Ellip Ht: **254.782(M)**

99C Geoid Ht: **-30.645(M)**

Latitude: **43 20 30.79311 N**

Longitude: **91 29 10.73252 W**

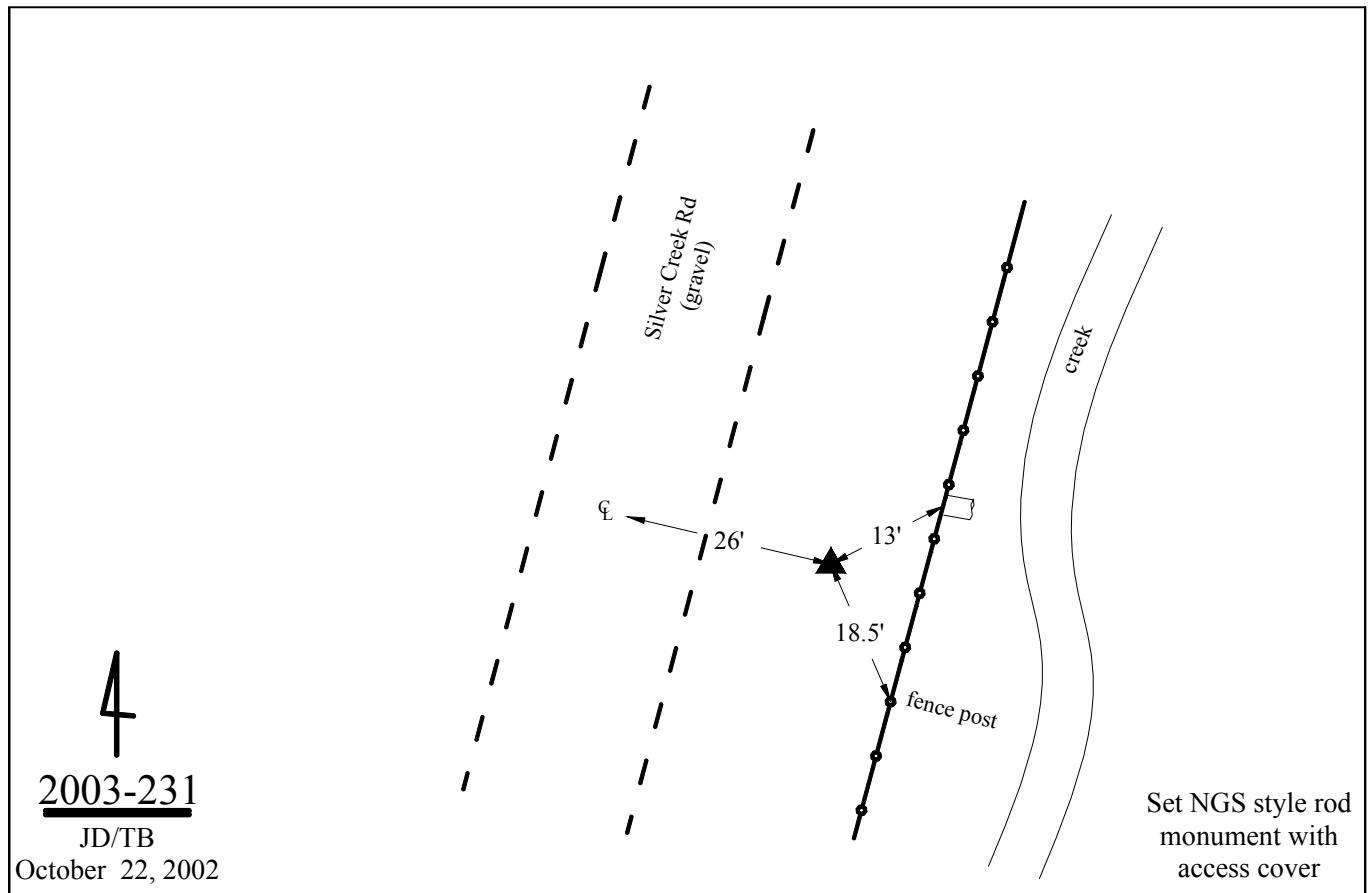
Theta: **1 21 53.152**

Combination Factor: **0.99997466**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-231**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 31 T99N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **232**

Northing: **3959628.69(Ft)**

Easting: **5470722.82(Ft)**

Northing: **1206897.239(M)**

Easting: **1667479.649(M)**

Elev: **1173.10(Ft)** NAVD_88

Elev: **357.560(M)** NAVD_88

Ellip Ht: **326.756(M)**

99C Geoid Ht: **-30.804(M)**

Latitude: **43 20 38.95923 N**

Longitude: **91 26 03.57986 W**

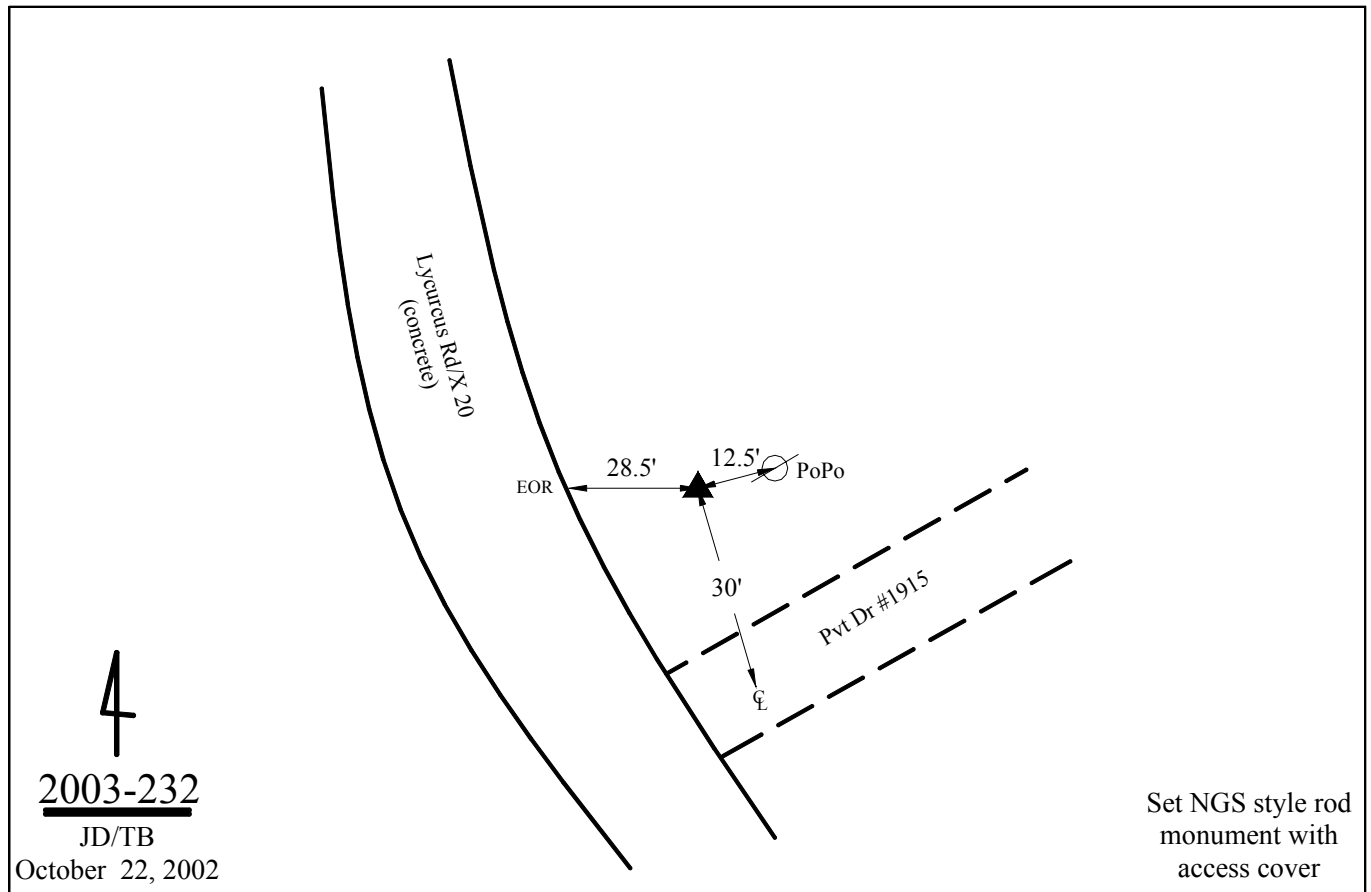
Theta: **1 23 59.993**

Combination Factor: **0.99996384**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-232**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 33 T99N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **233**

Northing: **3958735.71(Ft)**

Easting: **5487890.97(Ft)**

Northing: **1206625.059(M)**

Easting: **1672712.512(M)**

Elev: **1241.28(Ft)** NAVD_88

Elev: **378.342(M)** NAVD_88

Ellip Ht: **347.332(M)**

99C Geoid Ht: **-31.010(M)**

Latitude: **43 20 25.93522 N**

Longitude: **91 22 11.63190 W**

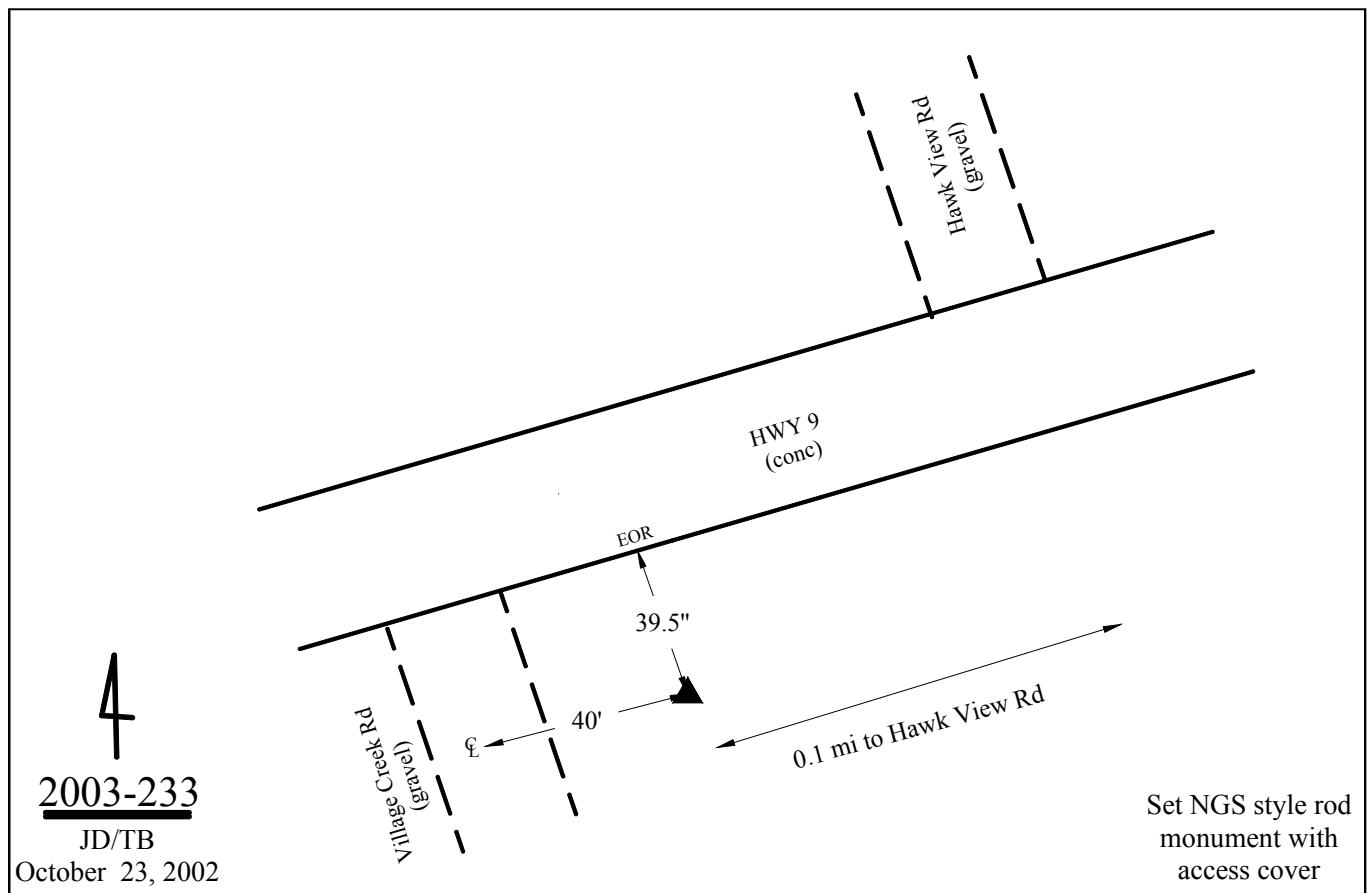
Theta: **1 26 37.195**

Combination Factor: **0.99995987**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-233**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NW Cor of Sec 6 T98N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **234**

Northing: **3959540.71(Ft)**

Easting: **5503195.74(Ft)**

Northing: **1206870.423(M)**

Easting: **1677377.417(M)**

Elev: **1205.44(Ft)** NAVD_88

Elev: **367.418(M)** NAVD_88

Ellip Ht: **336.222(M)**

99C Geoid Ht: **-31.196(M)**

Latitude: **43 20 30.02344 N**

Longitude: **91 18 44.32135 W**

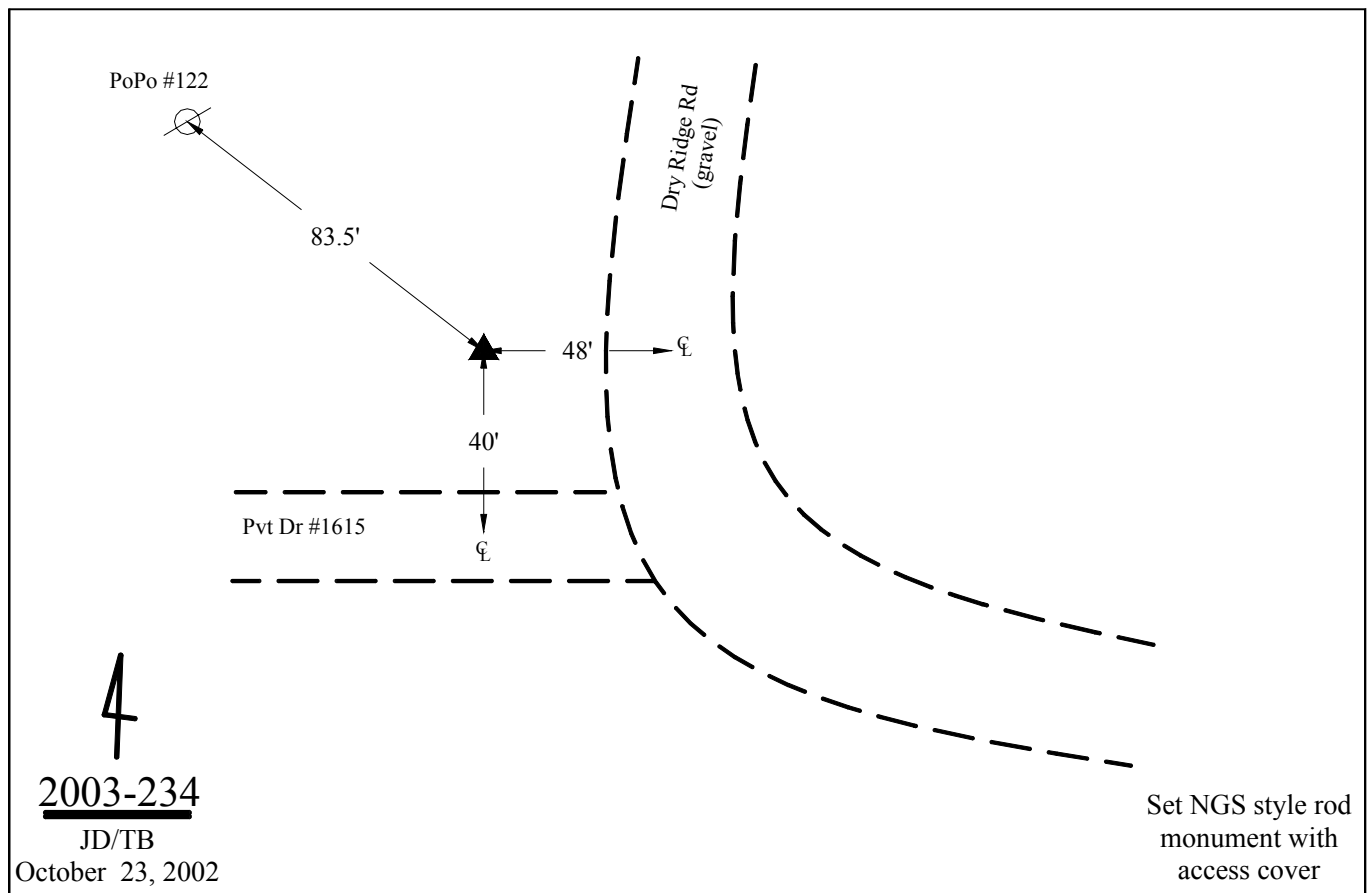
Theta: **1 28 57.698**

Combination Factor: **0.99996185**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-234**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 4 T98N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **235**

Northing: **3959847.01(Ft)**

Easting: **5518726.35(Ft)**

Northing: **1206963.782(M)**

Easting: **1682111.155(M)**

Elev: **1118.26(Ft)** NAVD_88

Elev: **340.847(M)** NAVD_88

Ellip Ht: **309.457(M)**

99C Geoid Ht: **-31.390(M)**

Latitude: **43 20 29.02565 N**

Longitude: **91 15 14.12764 W**

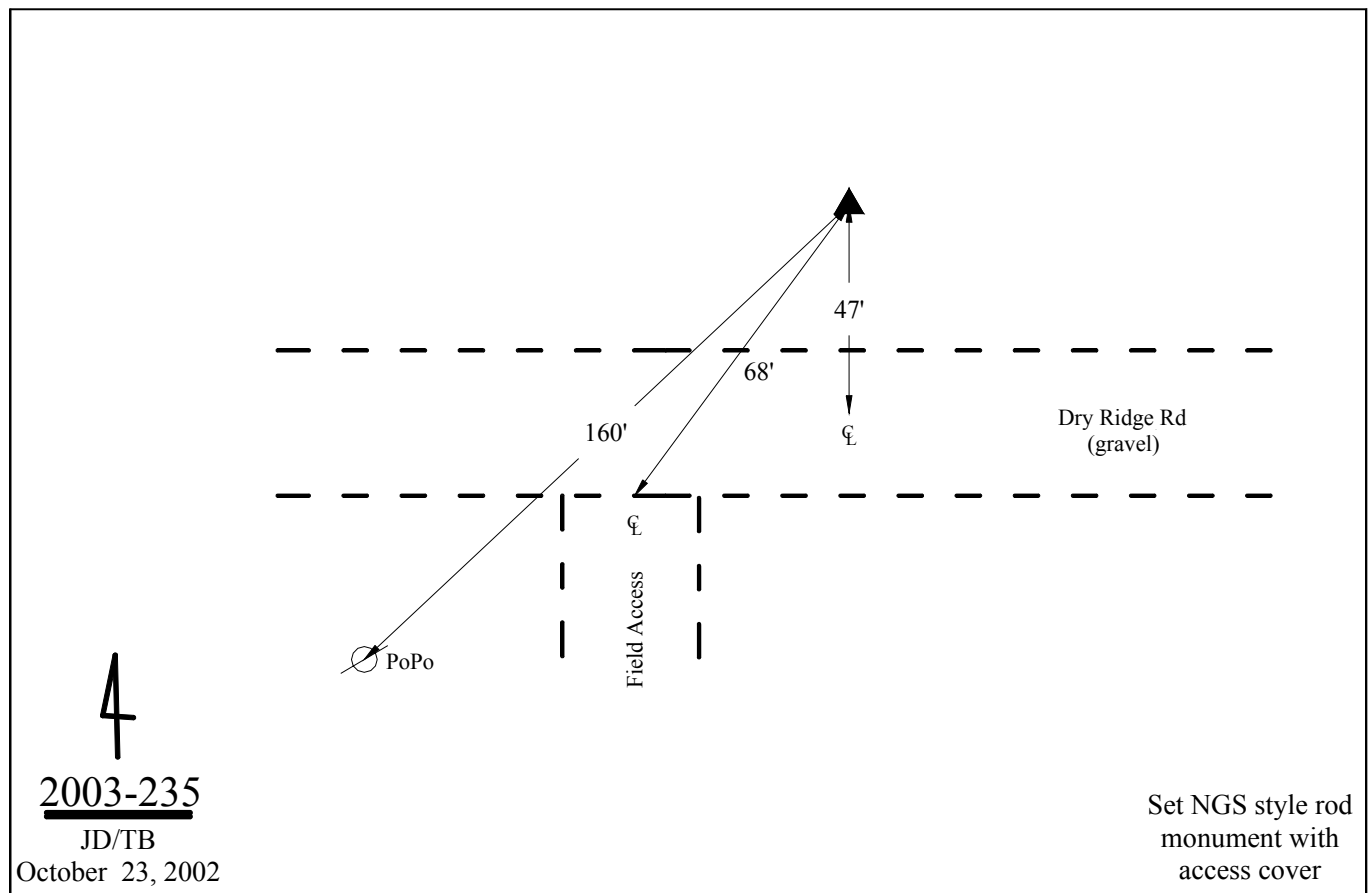
Theta: **1 31 20.156**

Combination Factor: **0.99996598**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-235**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 36 T99N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **236**

Northing: **3960447.38(Ft)**

Easting: **5534056.54(Ft)**

Northing: **1207146.776(M)**

Easting: **1686783.808(M)**

Elev: **786.93(Ft)** NAVD_88

Elev: **239.856(M)** NAVD_88

Ellip Ht: **208.259(M)**

99C Geoid Ht: **-31.597(M)**

Latitude: **43 20 30.87922 N**

Longitude: **91 11 46.53838 W**

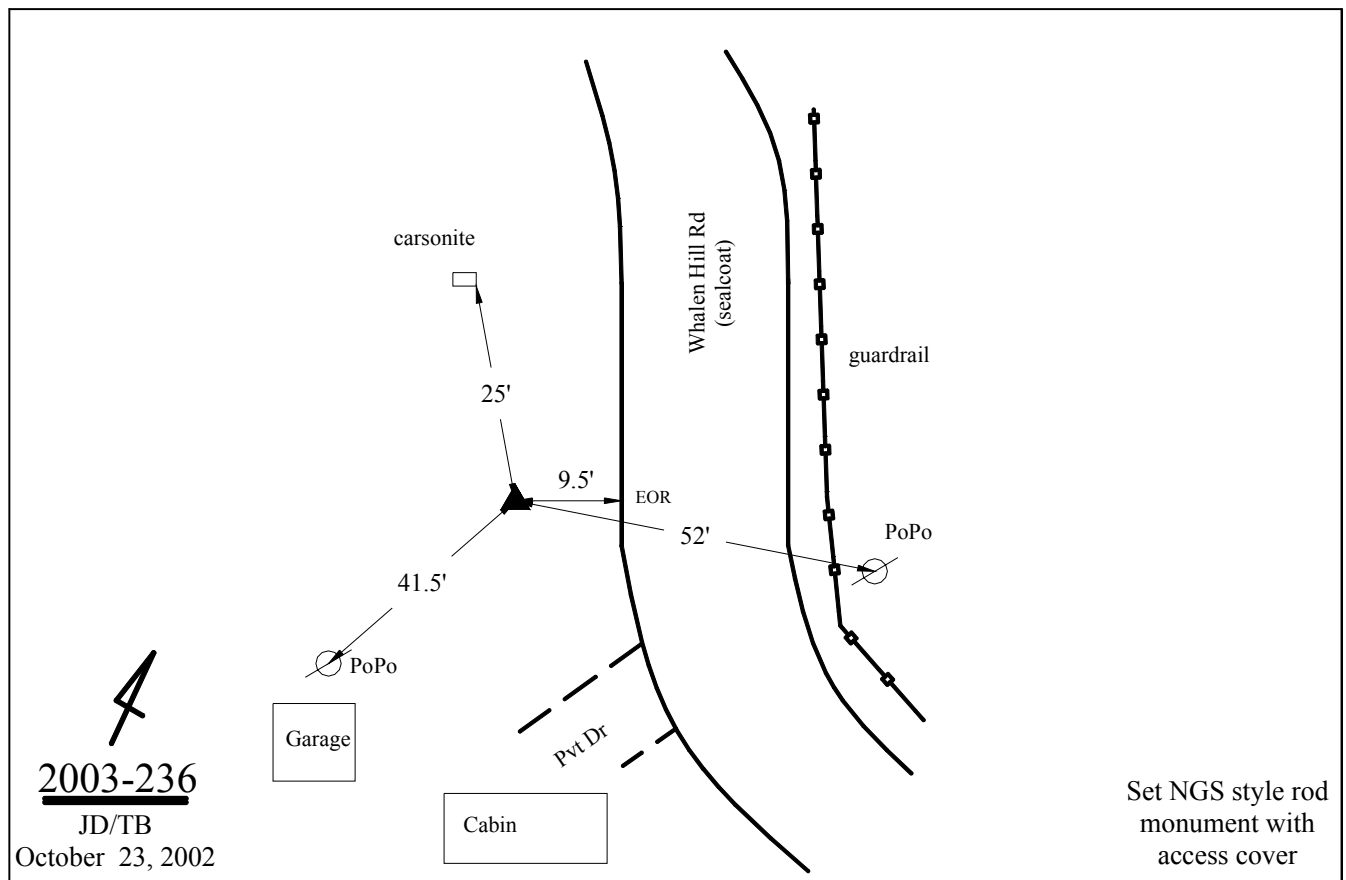
Theta: **1 33 40.849**

Combination Factor: **0.99998196**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-236**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 33 T99N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **237**

Northing: **3942768.39**(Ft)

Easting: **5425661.95**(Ft)

Northing: **1201758.207**(M)

Easting: **1653745.071**(M)

Elev: **911.59**(Ft) NAVD_88

Elev: **277.853**(M) NAVD_88

Ellip Ht: **247.491**(M)

99C Geoid Ht: **-30.362**(M)

Latitude: **43 18 02.90792 N**

Longitude: **91 36 18.32196 W**

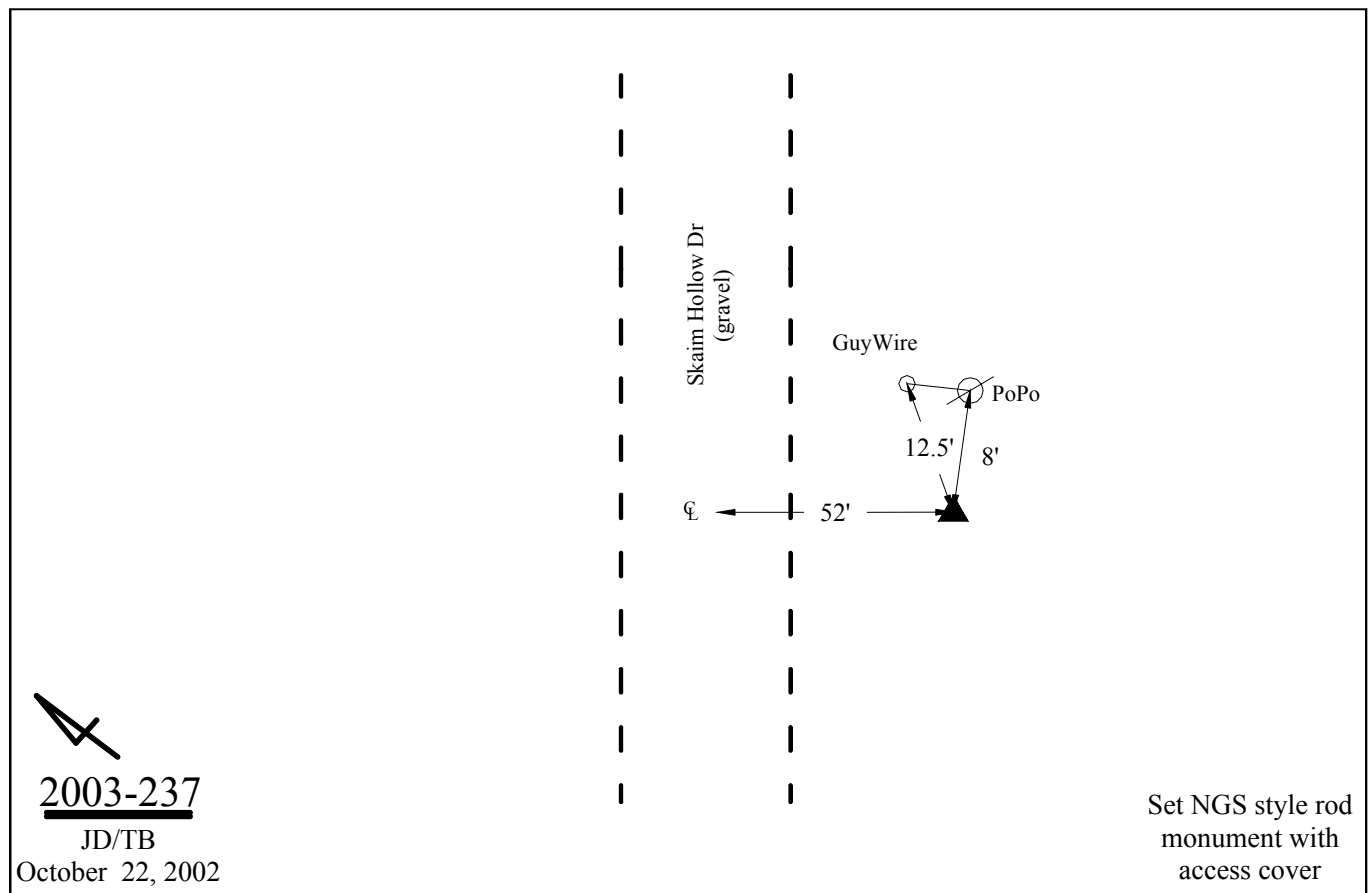
Theta: **1 17 03.355**

Combination Factor: **0.99996761**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-237**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 13 T98N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **238**

Northing: **3944954.93(Ft)**

Easting: **5441374.21(Ft)**

Northing: **1202424.667(M)**

Easting: **1658534.178(M)**

Elev: **1243.78(Ft)** NAVD_88

Elev: **379.104(M)** NAVD_88

Ellip Ht: **348.618(M)**

99C Geoid Ht: **-30.486(M)**

Latitude: **43 18 20.96548 N**

Longitude: **91 32 45.22013 W**

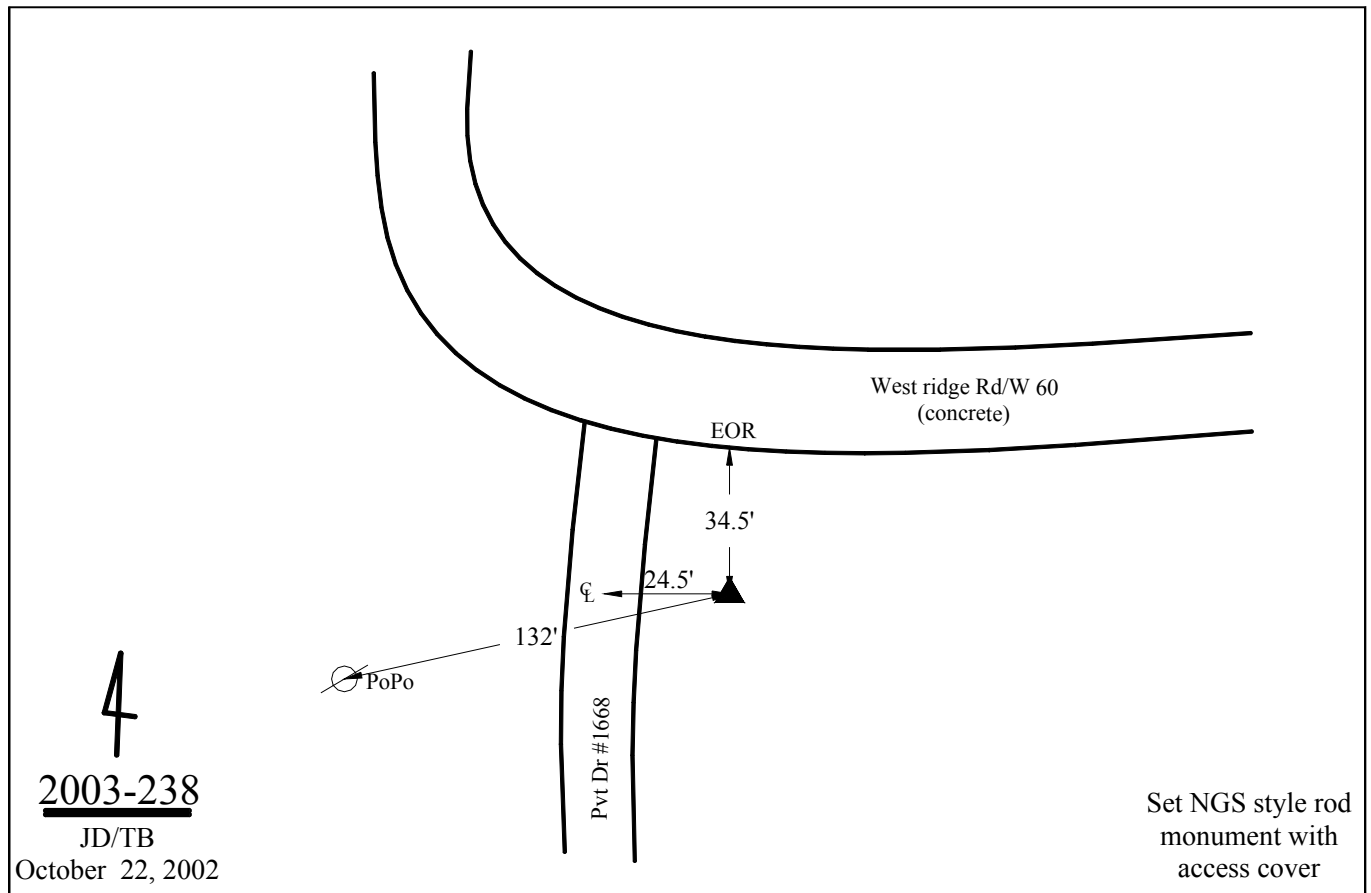
Theta: **1 19 27.784**

Combination Factor: **0.99995272**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-238**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the W 1/4 Cor of Sec 15 T98N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **239**

Northing: **3942105.99(Ft)**

Easting: **5457015.34(Ft)**

Northing: **1201556.310(M)**

Easting: **1663301.602(M)**

Elev: **1293.55(Ft)** NAVD_88

Elev: **394.275(M)** NAVD_88

Ellip Ht: **363.628(M)**

99C Geoid Ht: **-30.647(M)**

Latitude: **43 17 49.21157 N**

Longitude: **91 29 14.66684 W**

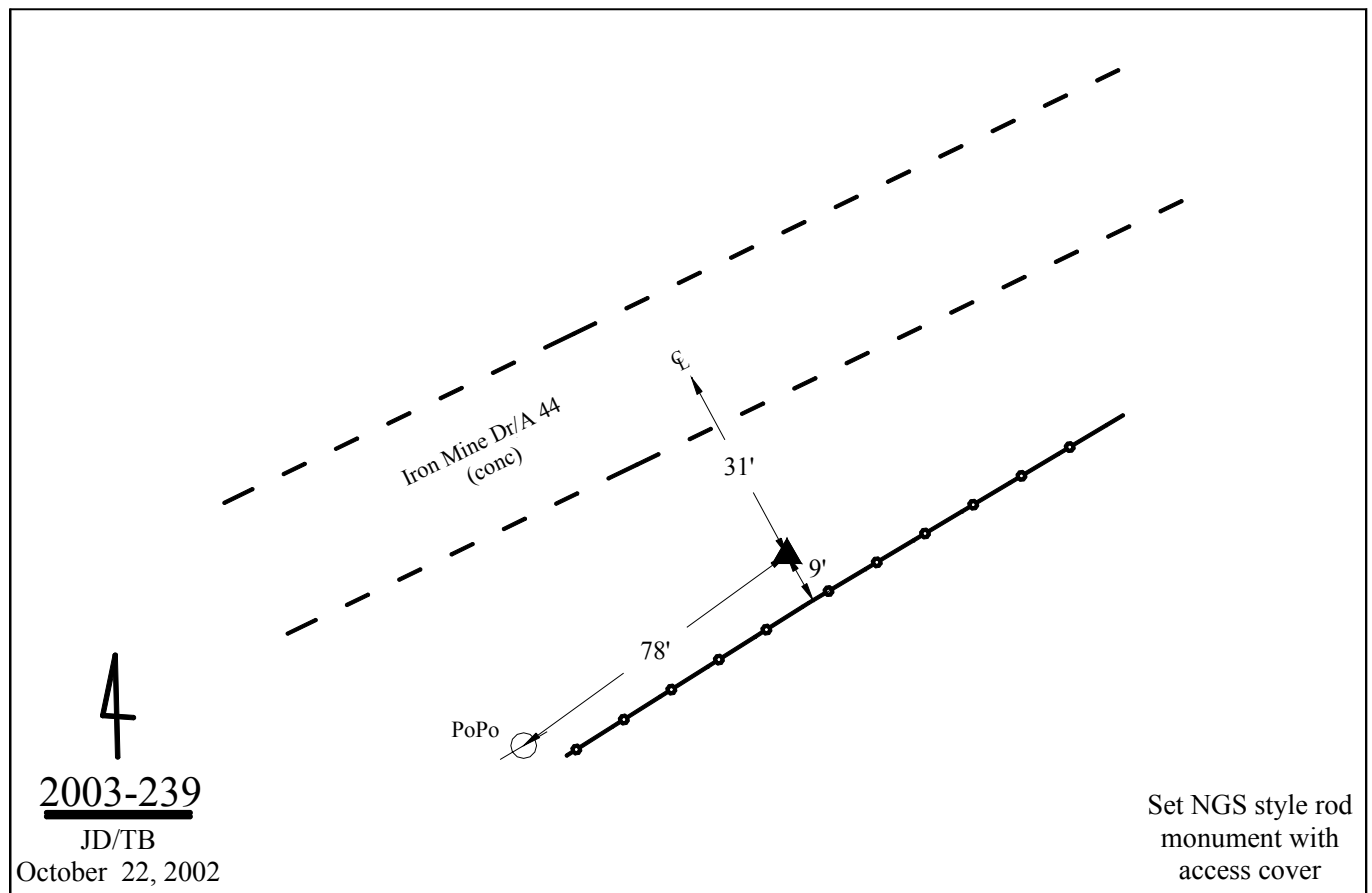
Theta: **1 21 50.485**

Combination Factor: **0.99994866**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-239**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 19 T98N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **240**

Northing: **3942858.47(Ft)**

Easting: **5472520.45(Ft)**

Northing: **1201785.666(M)**

Easting: **1668027.568(M)**

Elev: **1155.65(Ft)** NAVD_88

Elev: **352.242(M)** NAVD_88

Ellip Ht: **321.409(M)**

99C Geoid Ht: **-30.833(M)**

Latitude: **43 17 52.94319 N**

Longitude: **91 25 44.81957 W**

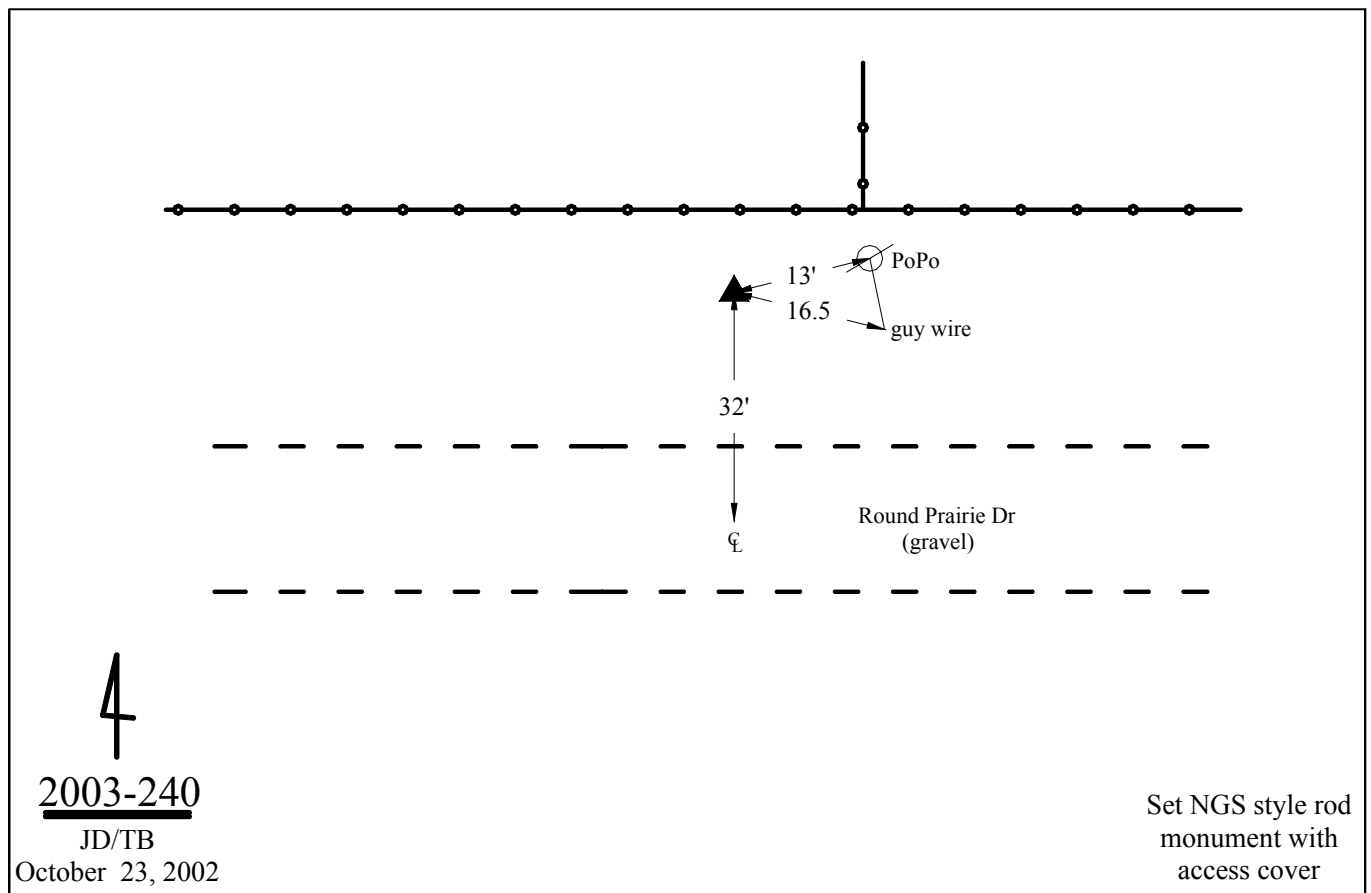
Theta: **1 24 12.708**

Combination Factor: **0.99995548**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-240**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 16 T98N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **241**

Northing: **3944254.84(Ft)**

Easting: **5489187.94(Ft)**

Northing: **1202211.278(M)**

Easting: **1673107.830(M)**

Elev: **887.88(Ft)** NAVD_88

Elev: **270.625(M)** NAVD_88

Ellip Ht: **239.586(M)**

99C Geoid Ht: **-31.039(M)**

Latitude: **43 18 02.63707 N**

Longitude: **91 21 59.03228 W**

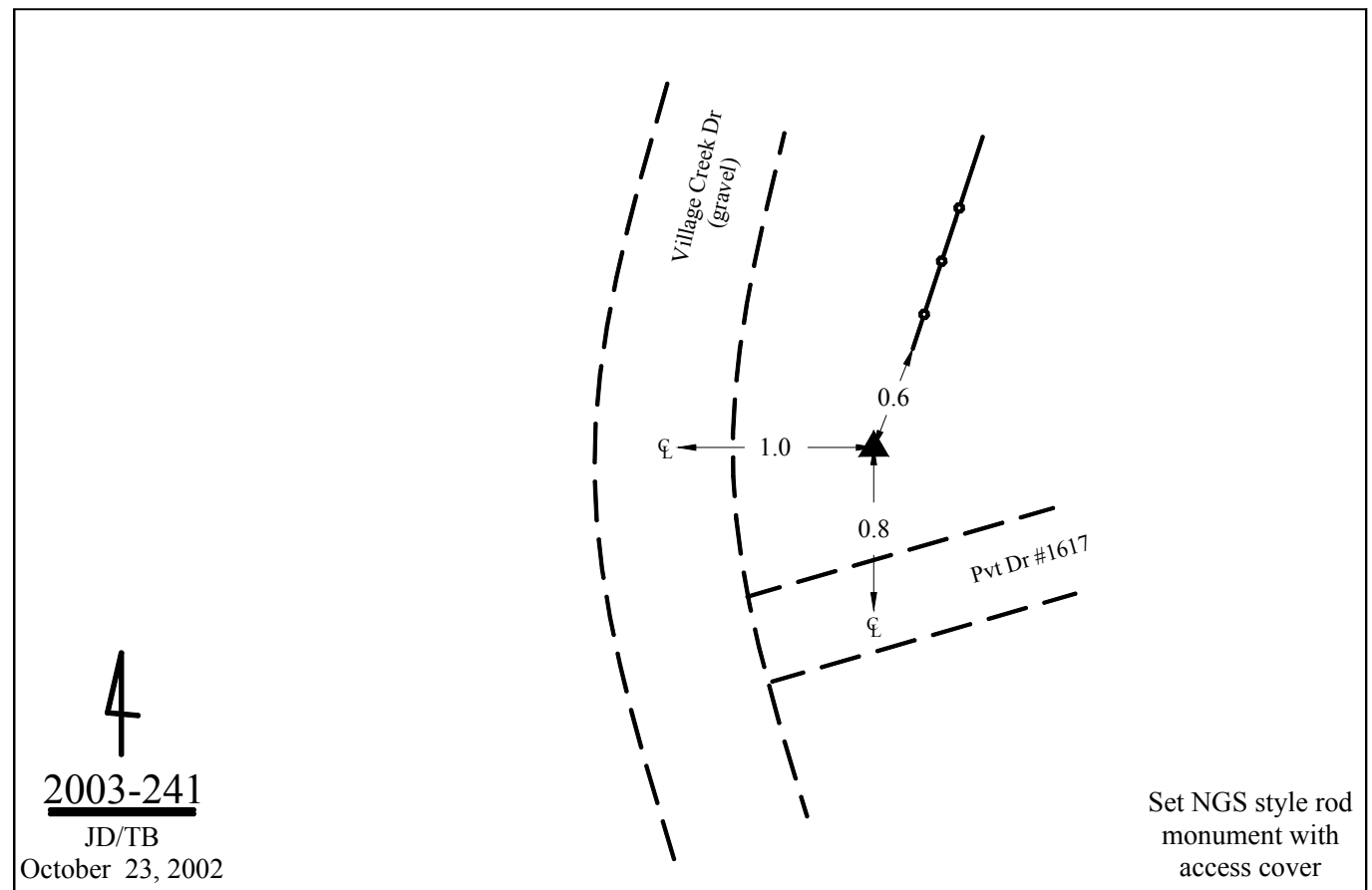
Theta: **1 26 45.734**

Combination Factor: **0.99996883**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-241**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 18 T98N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **242**

Northing: **3944511.51(Ft)**

Easting: **5503012.36(Ft)**

Northing: **1202289.514(M)**

Easting: **1677321.523(M)**

Elev: **744.26(Ft)** NAVD_88

Elev: **226.851(M)** NAVD_88

Ellip Ht: **195.647(M)**

99C Geoid Ht: **-31.204(M)**

Latitude: **43 18 01.68382 N**

Longitude: **91 18 52.05907 W**

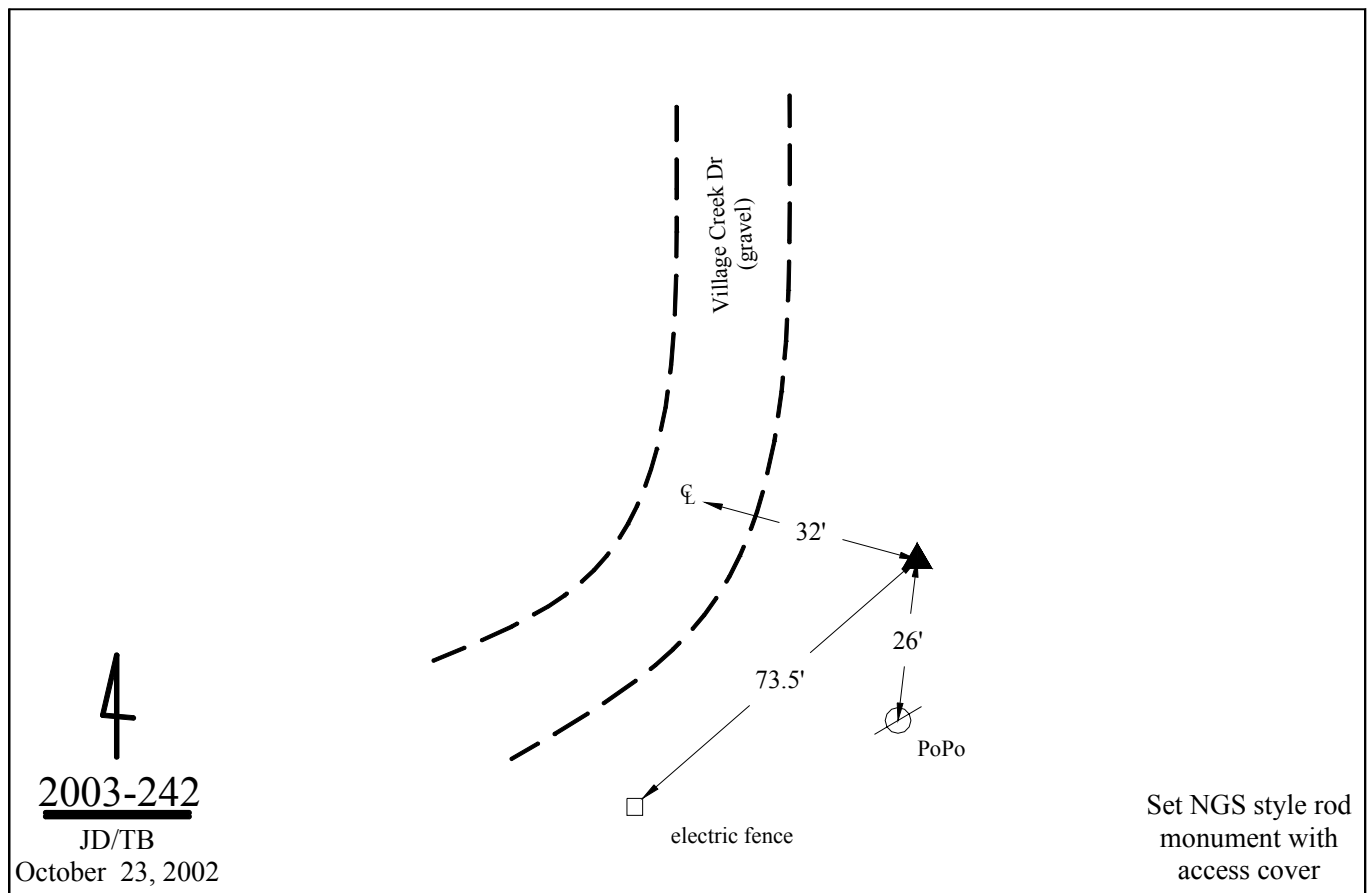
Theta: **1 28 52.454**

Combination Factor: **0.99997567**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-242**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 16 T98N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **243**

Northing: **3945383.11(Ft)**

Easting: **5525485.99(Ft)**

Northing: **1202555.176(M)**

Easting: **1684171.499(M)**

Elev: **727.56(Ft)** NAVD_88

Elev: **221.759(M)** NAVD_88

Ellip Ht: **190.285(M)**

99C Geoid Ht: **-31.474(M)**

Latitude: **43 18 04.44070 N**

Longitude: **91 13 47.94540 W**

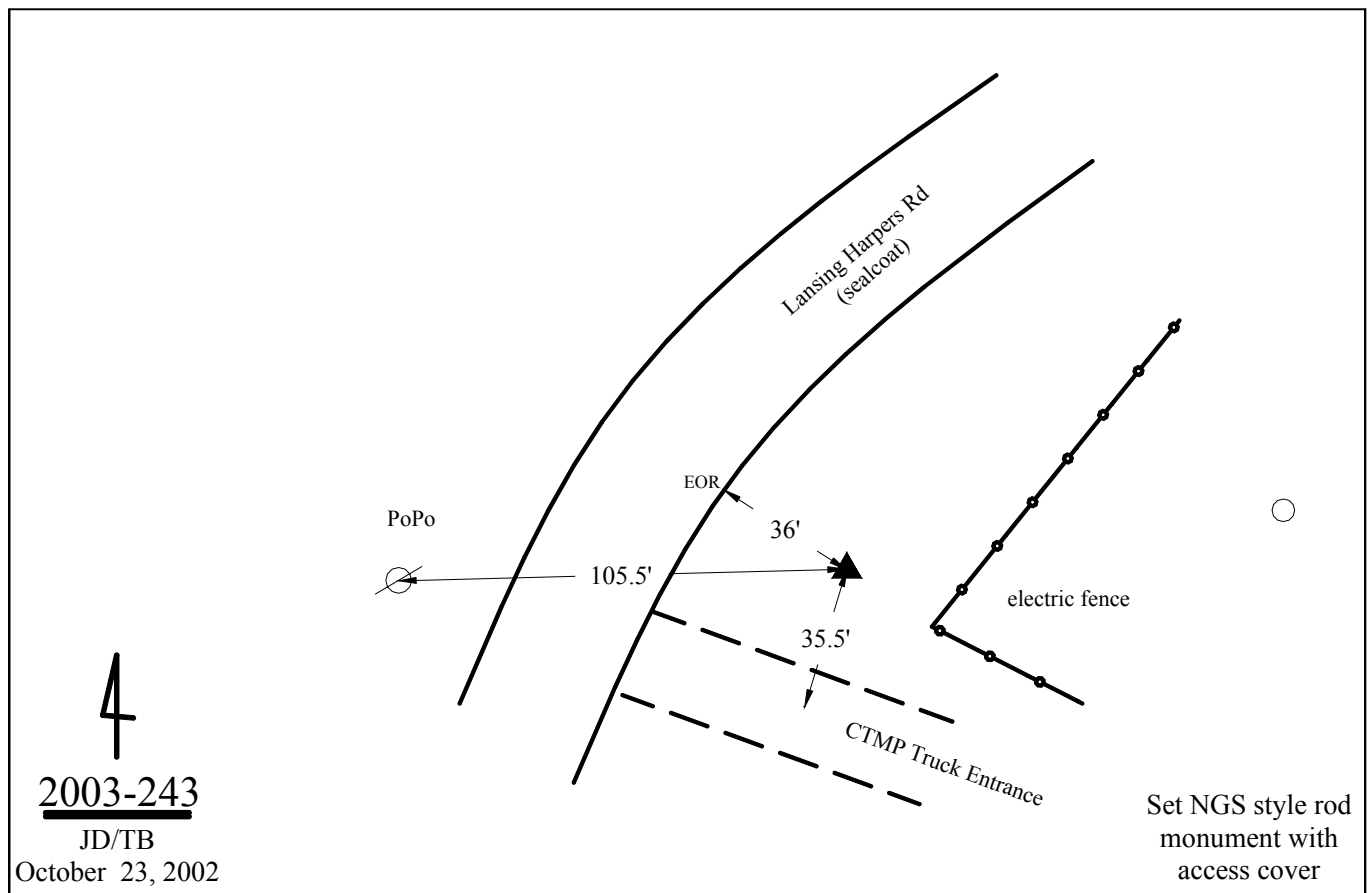
Theta: **1 32 18.566**

Combination Factor: **0.99997666**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-243**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 17 T98N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **244**

Northing: **3944202.67(Ft)**

Easting: **5535895.67(Ft)**

Northing: **1202195.378(M)**

Easting: **1687344.376(M)**

Elev: **1126.97(Ft)** NAVD_88

Elev: **343.501(M)** NAVD_88

Ellip Ht: **311.905(M)**

99C Geoid Ht: **-31.596(M)**

Latitude: **43 17 50.00223 N**

Longitude: **91 11 27.66393 W**

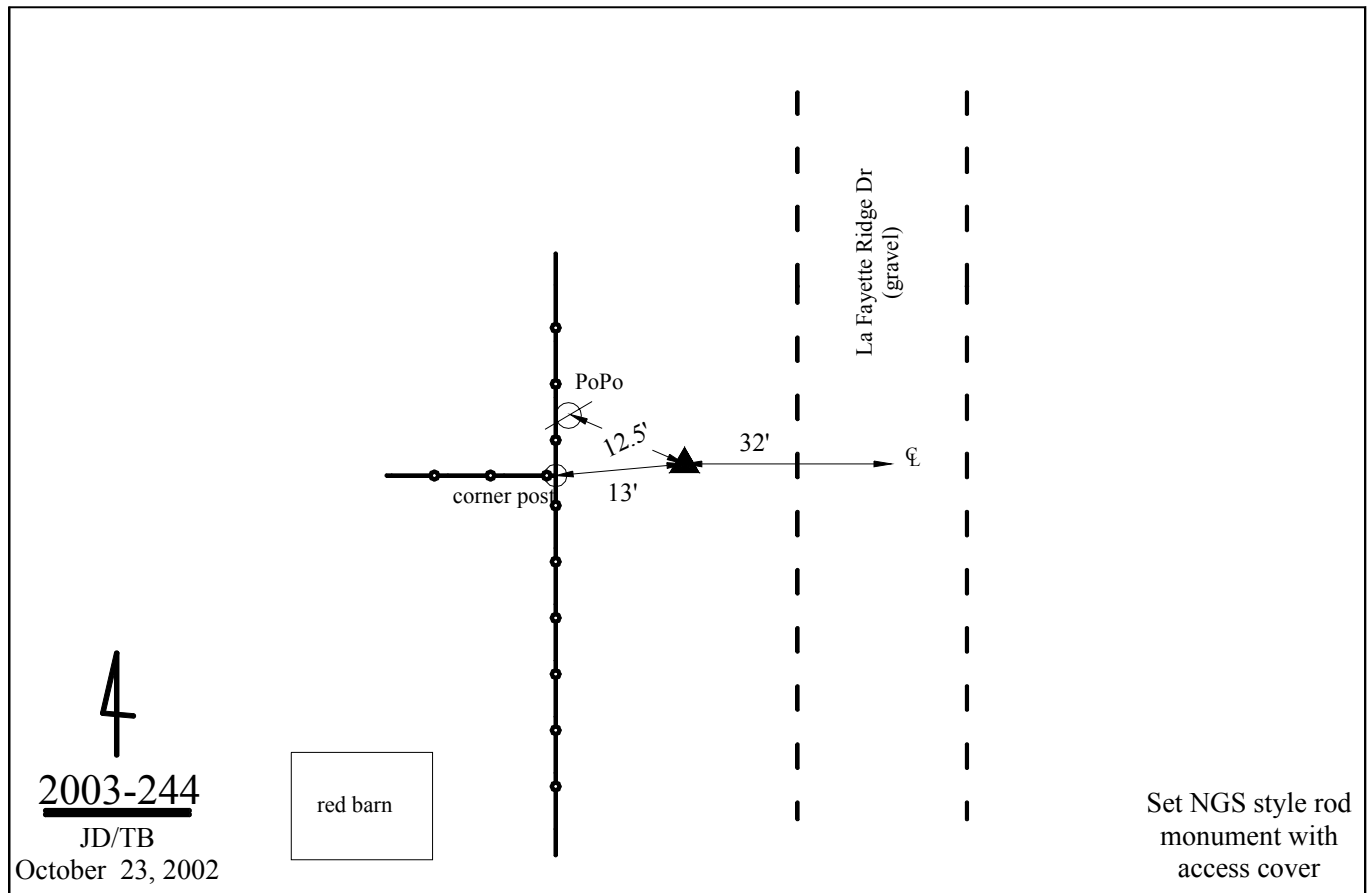
Theta: **1 33 53.641**

Combination Factor: **0.99995682**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-244**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 16 T98N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **245**

Northing: **3946087.21(Ft)**

Easting: **5551434.26(Ft)**

Northing: **1202769.787(M)**

Easting: **1692080.545(M)**

Elev: **1039.24(Ft) NAVD_88**

Elev: **316.760(M) NAVD_88**

Ellip Ht: **284.948(M)**

99C Geoid Ht: **-31.812(M)**

Latitude: **43 18 04.36374 N**

Longitude: **91 07 56.91842 W**

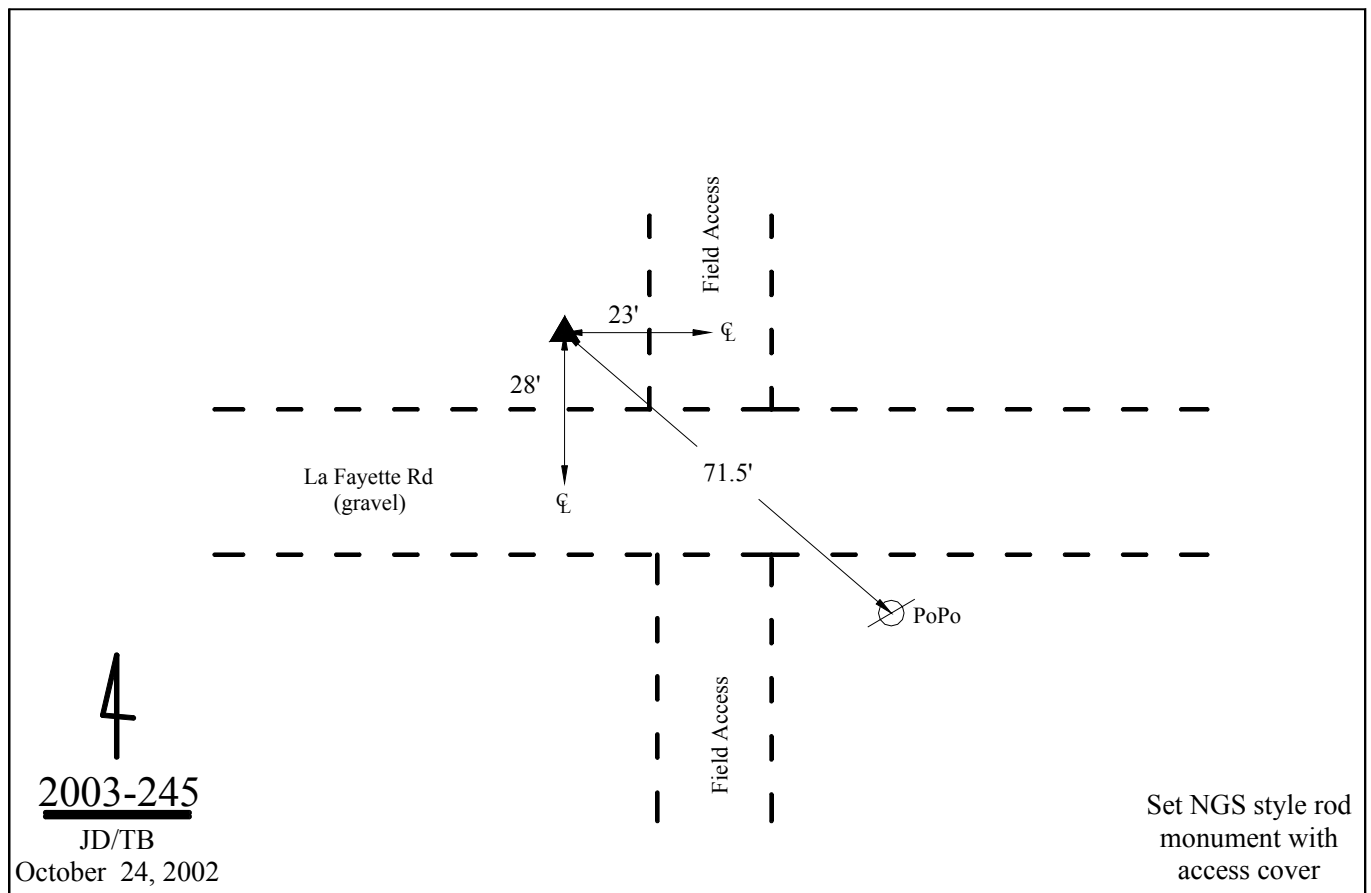
Theta: **1 36 16.472**

Combination Factor: **0.99996181**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-245**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 13 T98N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **246**

Northing: **3944112.32(Ft)**

Easting: **5561761.97(Ft)**

Northing: **1202167.841(M)**

Easting: **1695228.438(M)**

Elev: **653.28(Ft)** NAVD_88

Elev: **199.119(M)** NAVD_88

Ellip Ht: **167.166(M)**

99C Geoid Ht: **-31.953(M)**

Latitude: **43 17 41.98687 N**

Longitude: **91 05 38.07354 W**

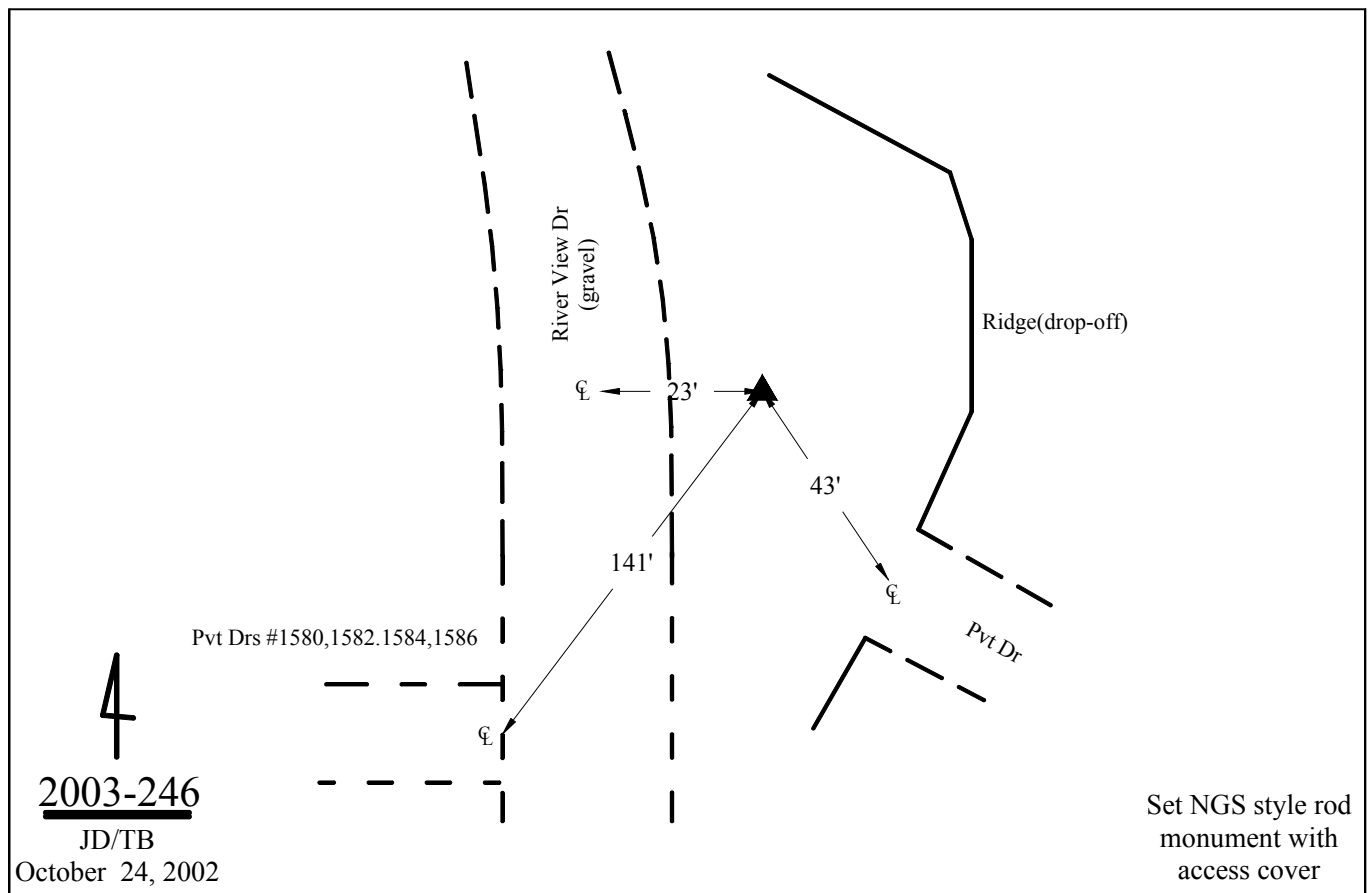
Theta: **1 37 50.574**

Combination Factor: **0.99997909**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-246**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 20 T98N R2W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **247**

Northing: **3925998.22(Ft)**

Easting: **5423422.20(Ft)**

Northing: **1196646.650(M)**

Easting: **1653062.393(M)**

Elev: **1230.95(Ft)** NAVD_88

Elev: **375.193(M)** NAVD_88

Ellip Ht: **344.845(M)**

99C Geoid Ht: **-30.348(M)**

Latitude: **43 15 17.81042 N**

Longitude: **91 36 53.65879 W**

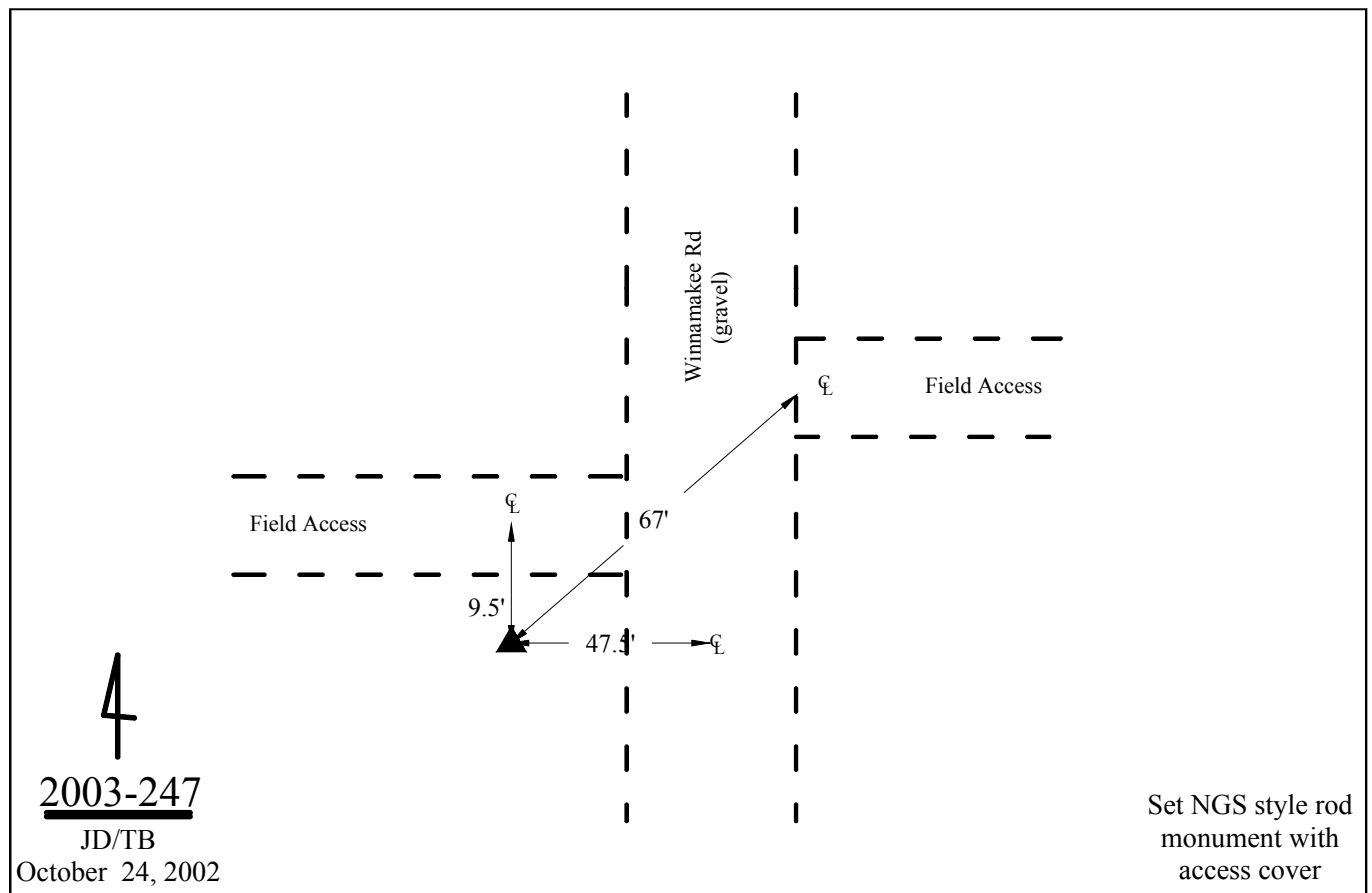
Theta: **1 16 39.406**

Combination Factor: **0.99994380**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-247**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the N 1/4 Cor of Sec 1 T97N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **248**

Northing: **3926395.41**(Ft)

Easting: **5441271.79**(Ft)

Northing: **1196767.713**(M)

Easting: **1658502.958**(M)

Elev: **1239.15**(Ft) NAVD_88

Elev: **377.692**(M) NAVD_88

Ellip Ht: **347.194**(M)

99C Geoid Ht: **-30.498**(M)

Latitude: **43 15 17.73164 N**

Longitude: **91 32 52.40035 W**

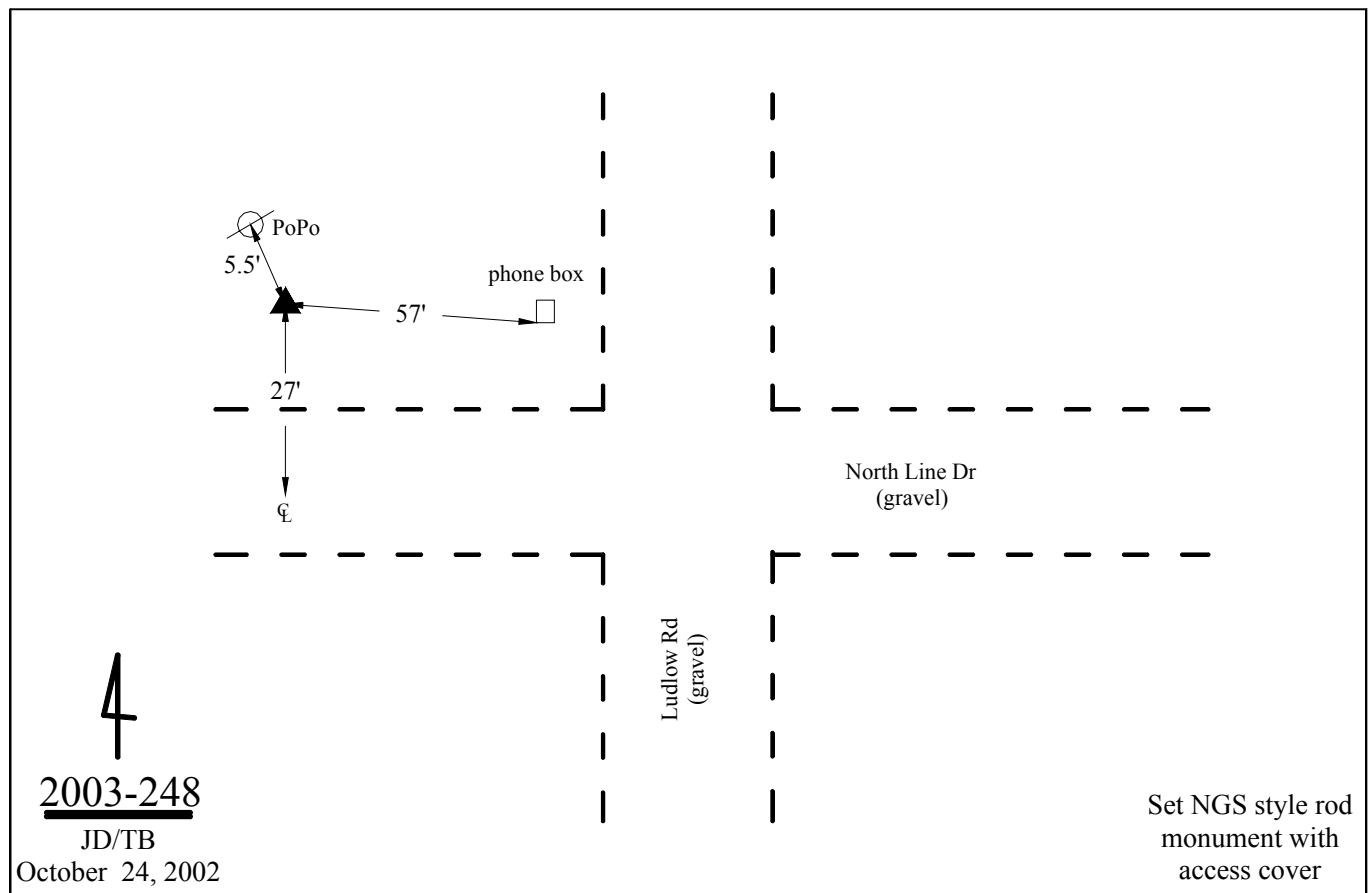
Theta: **1 19 22.917**

Combination Factor: **0.99994344**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-248**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 33 T98N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **249**

Northing: **3926702.69(Ft)**

Easting: **5457190.99(Ft)**

Northing: **1196861.373(M)**

Easting: **1663355.140(M)**

Elev: **1221.57(Ft)** NAVD_88

Elev: **372.334(M)** NAVD_88

Ellip Ht: **341.663(M)**

99C Geoid Ht: **-30.671(M)**

Latitude: **43 15 17.07987 N**

Longitude: **91 29 17.24869 W**

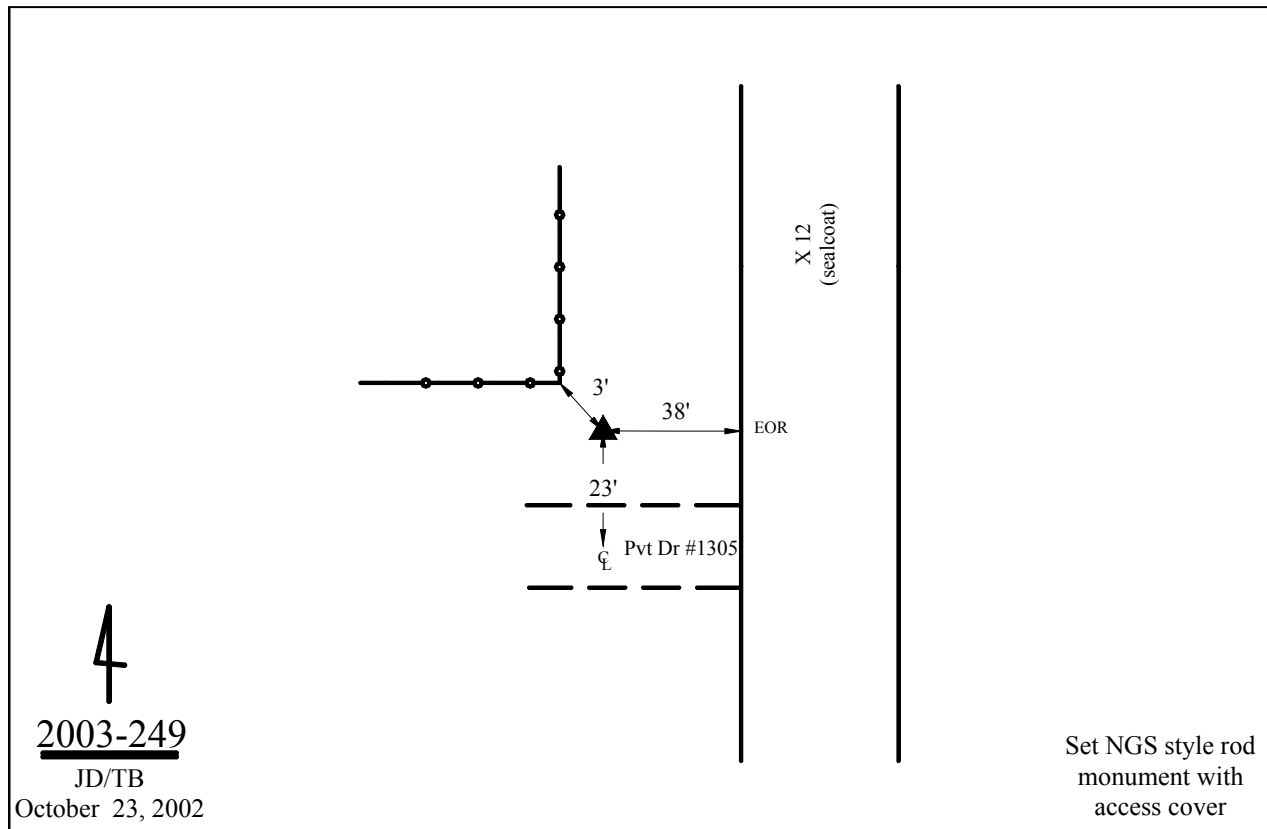
Theta: **1 21 48.735**

Combination Factor: **0.99994426**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-249**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 36 T98N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **250**

Northing: **3927095.45(Ft)**

Easting: **5474163.60(Ft)**

Northing: **1196981.087(M)**

Easting: **1668528.404(M)**

Elev: **1222.85(Ft)** NAVD_88

Elev: **372.727(M)** NAVD_88

Ellip Ht: **341.850(M)**

99C Geoid Ht: **-30.877(M)**

Latitude: **43 15 16.90577 N**

Longitude: **91 25 27.83980 W**

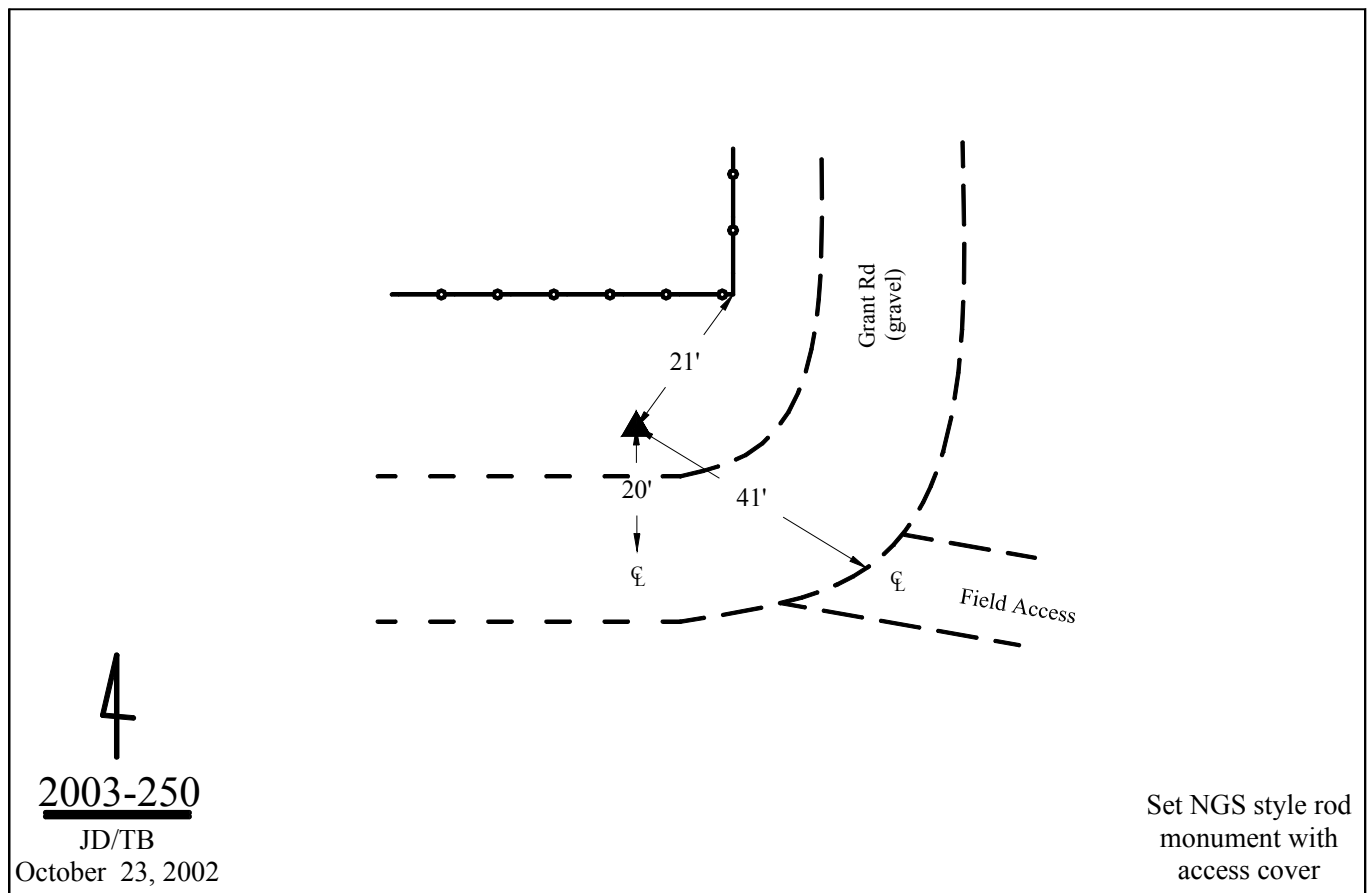
Theta: **1 24 24.216**

Combination Factor: **0.99994422**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-250**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 34 T98N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **251**

Northing: **3927344.37**(Ft)

Easting: **5488987.61**(Ft)

Northing: **1197056.959**(M)

Easting: **1673046.770**(M)

Elev: **1071.28**(Ft) NAVD_88

Elev: **326.526**(M) NAVD_88

Ellip Ht: **295.478**(M)

99C Geoid Ht: **-31.048**(M)

Latitude: **43 15 15.72103 N**

Longitude: **91 22 07.50484 W**

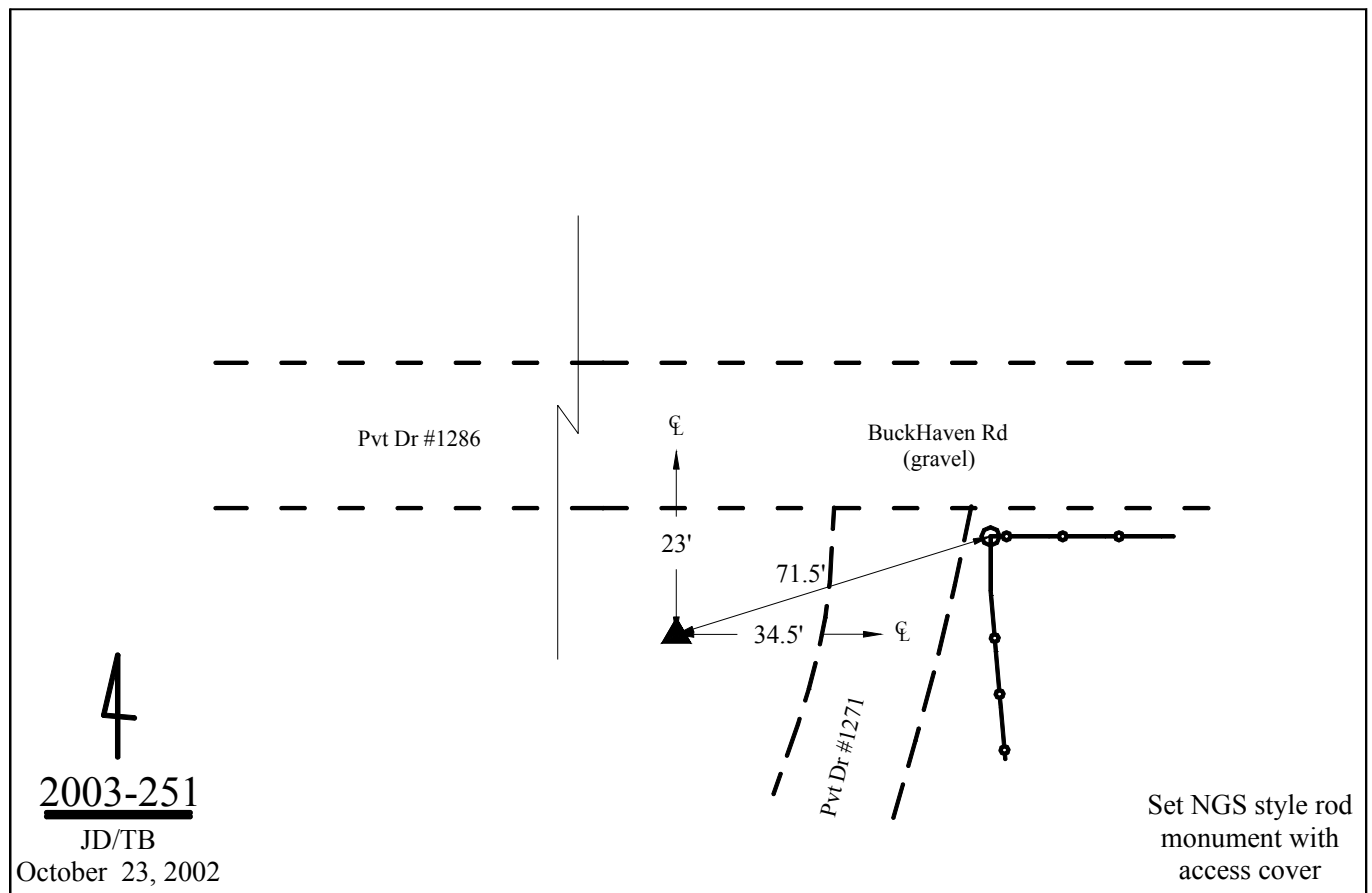
Theta: **1 26 39.992**

Combination Factor: **0.99995145**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-251**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE Cor of Sec 1 T97N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **252**

Northing: **3927752.93(Ft)**

Easting: **5506720.83(Ft)**

Northing: **1197181.487(M)**

Easting: **1678451.866(M)**

Elev: **1203.46(Ft)** NAVD_88

Elev: **366.816(M)** NAVD_88

Ellip Ht: **335.570(M)**

99C Geoid Ht: **-31.246(M)**

Latitude: **43 15 15.27094 N**

Longitude: **91 18 07.81817 W**

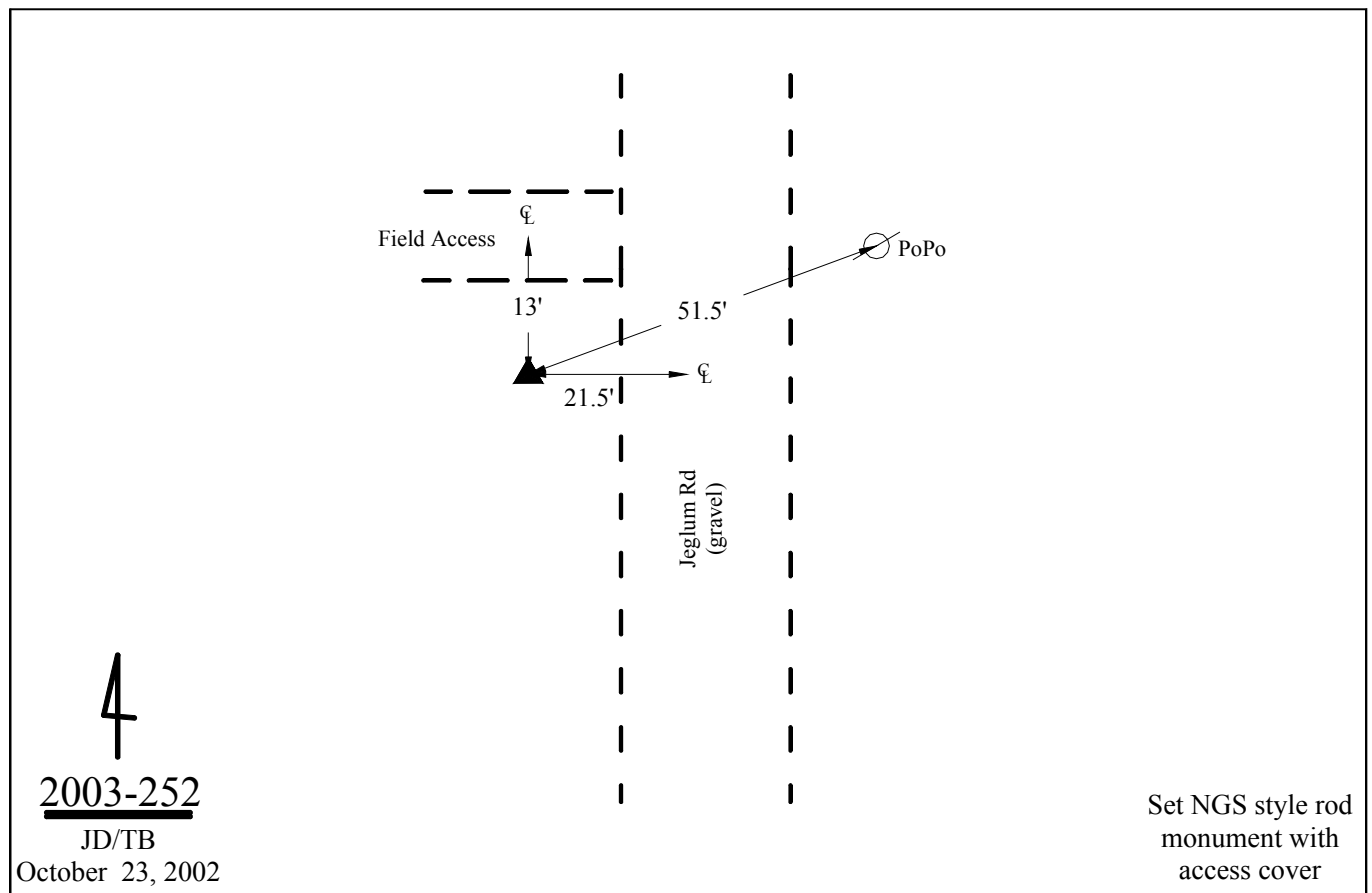
Theta: **1 29 22.438**

Combination Factor: **0.99994513**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-252**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 34 T98N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: 253

Easting: **5520511.11**(Ft)Easting: **1682655.150(M)**Elev: **1120.55**(Ft) NAVD_88Ellip Ht: **310.143(M)**

99C Geoid Ht: **-31.401(M)**

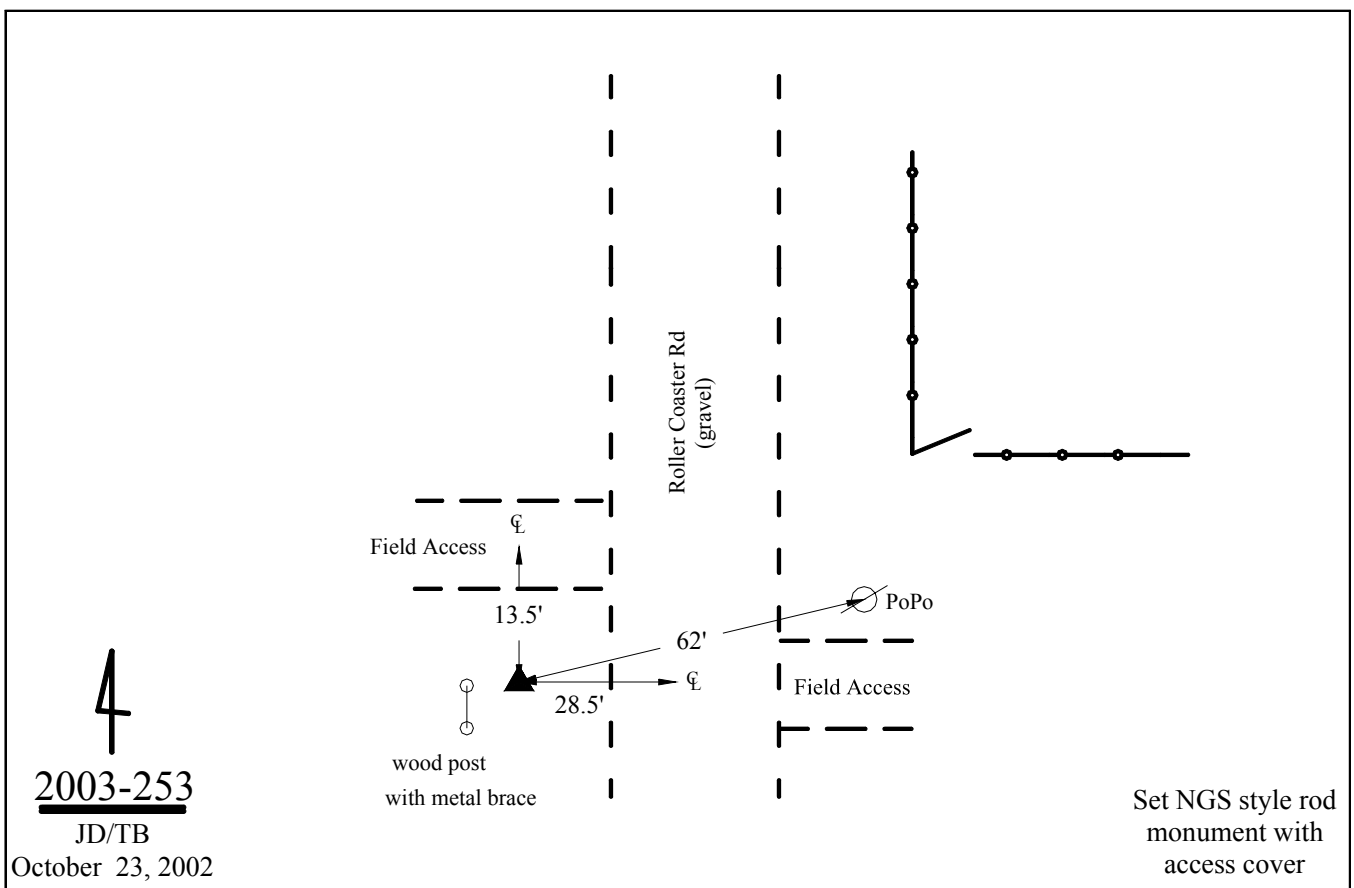
Longitude: **91 15 01.43739 W**

Combination Factor: **0.99994909**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-253**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE Cor of Sec 1 T97N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **254**

Northing: **3928554.54(Ft)**

Easting: **5536354.08(Ft)**

Northing: **1197425.818(M)**

Easting: **1687484.098(M)**

Elev: **1137.86(Ft)** NAVD_88

Elev: **346.821(M)** NAVD_88

Ellip Ht: **315.236(M)**

99C Geoid Ht: **-31.585(M)**

Latitude: **43 15 15.38467 N**

Longitude: **91 11 27.24645 W**

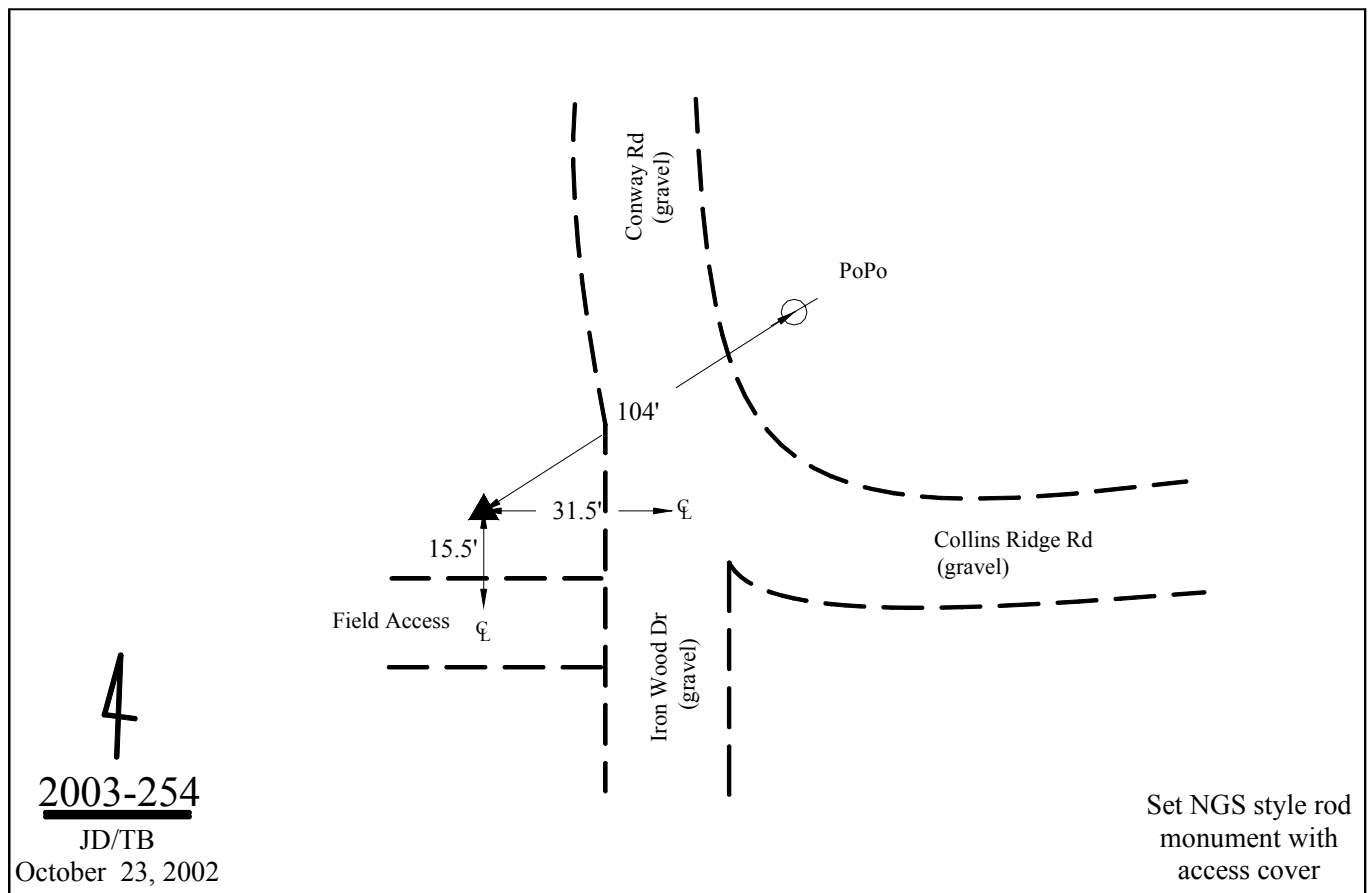
Theta: **1 33 53.924**

Combination Factor: **0.99994833**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-254**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NE Cor of Sec 4 T97N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **255**

Northing: **3929361.70(Ft)**

Easting: **5551303.66(Ft)**

Northing: **1197671.840(M)**

Easting: **1692040.741(M)**

Elev: **1017.20(Ft)** NAVD_88

Elev: **310.043(M)** NAVD_88

Ellip Ht: **278.271(M)**

99C Geoid Ht: **-31.772(M)**

Latitude: **43 15 19.27217 N**

Longitude: **91 08 05.01103 W**

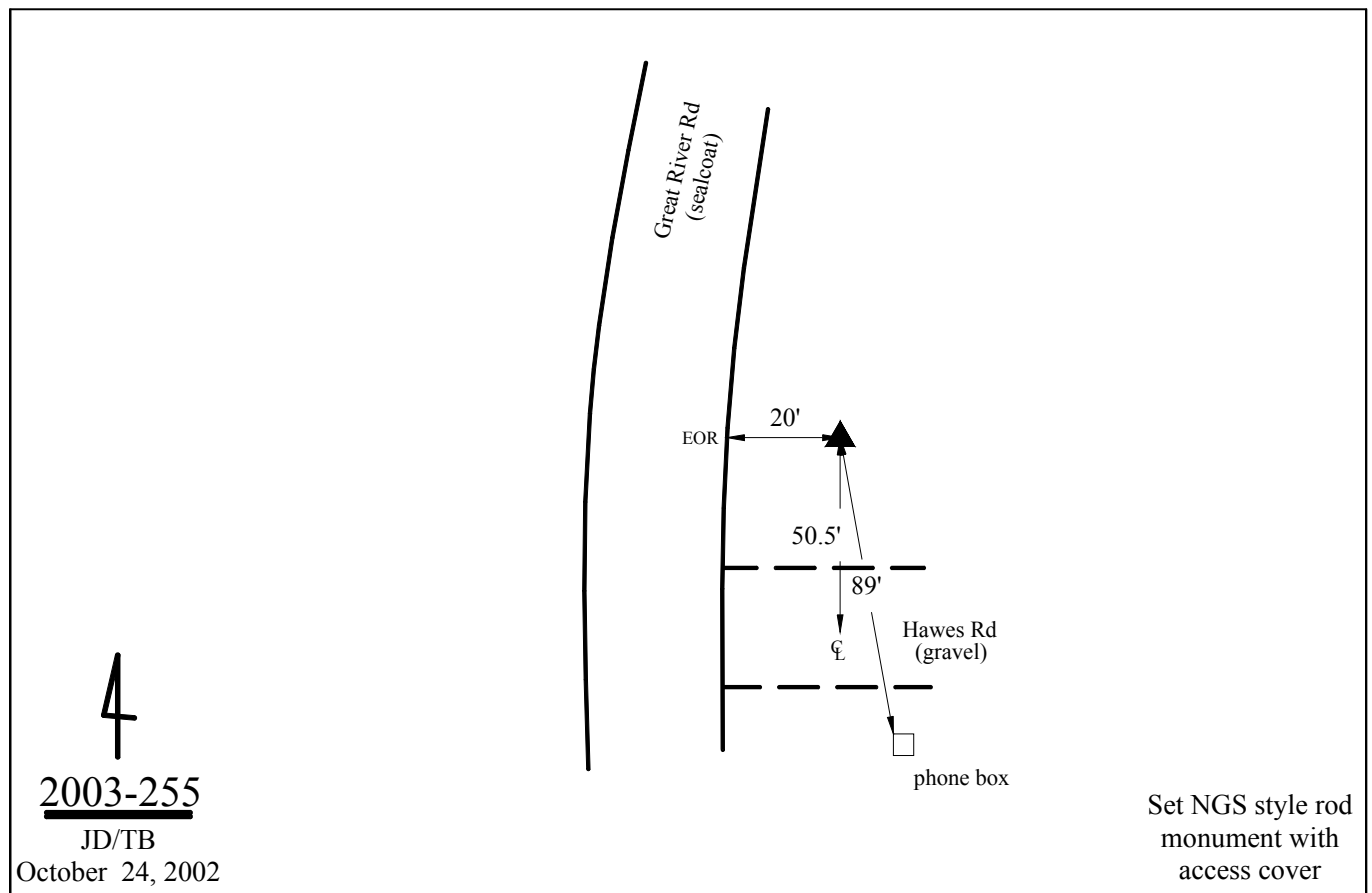
Theta: **1 36 10.988**

Combination Factor: **0.99995431**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-255**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 36 T98 R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **256**

Northing: **3927280.26(Ft)**

Easting: **5558730.01(Ft)**

Northing: **1197037.416(M)**

Easting: **1694304.296(M)**

Elev: **639.03(Ft)** NAVD_88

Elev: **194.776(M)** NAVD_88

Ellip Ht: **162.911(M)**

99C Geoid Ht: **-31.865(M)**

Latitude: **43 14 56.65854 N**

Longitude: **91 06 25.49548 W**

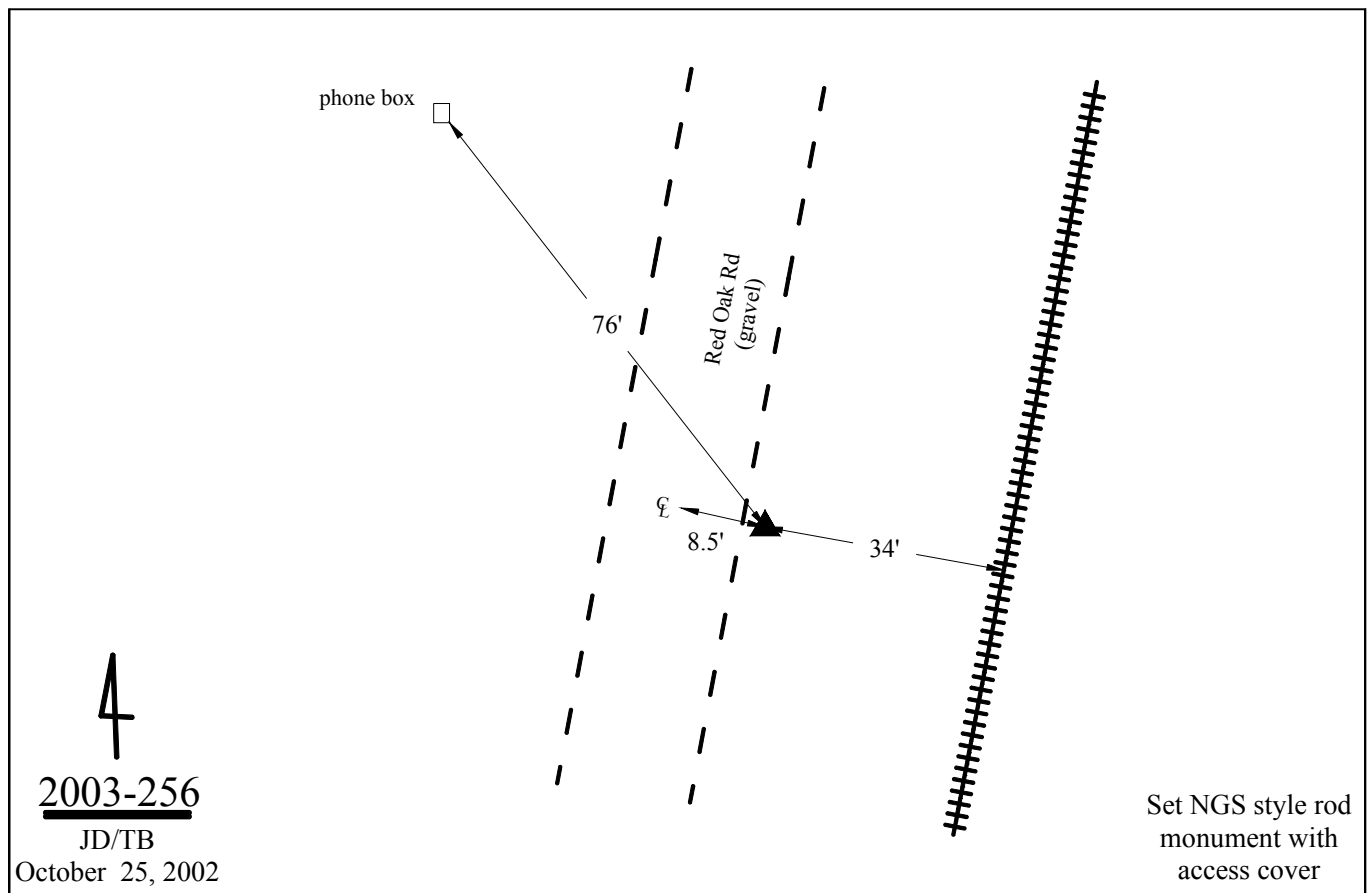
Theta: **1 37 18.434**

Combination Factor: **0.99997128**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-256**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 5 T97N R2W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **257**

Northing: **3910181.04(Ft)**

Easting: **5426628.59(Ft)**

Northing: **1191825.565(M)**

Easting: **1654039.701(M)**

Elev: **1191.89(Ft)** NAVD_88

Elev: **363.288(M)** NAVD_88

Ellip Ht: **332.882(M)**

99C Geoid Ht: **-30.406(M)**

Latitude: **43 12 40.91783 N**

Longitude: **91 36 15.13493 W**

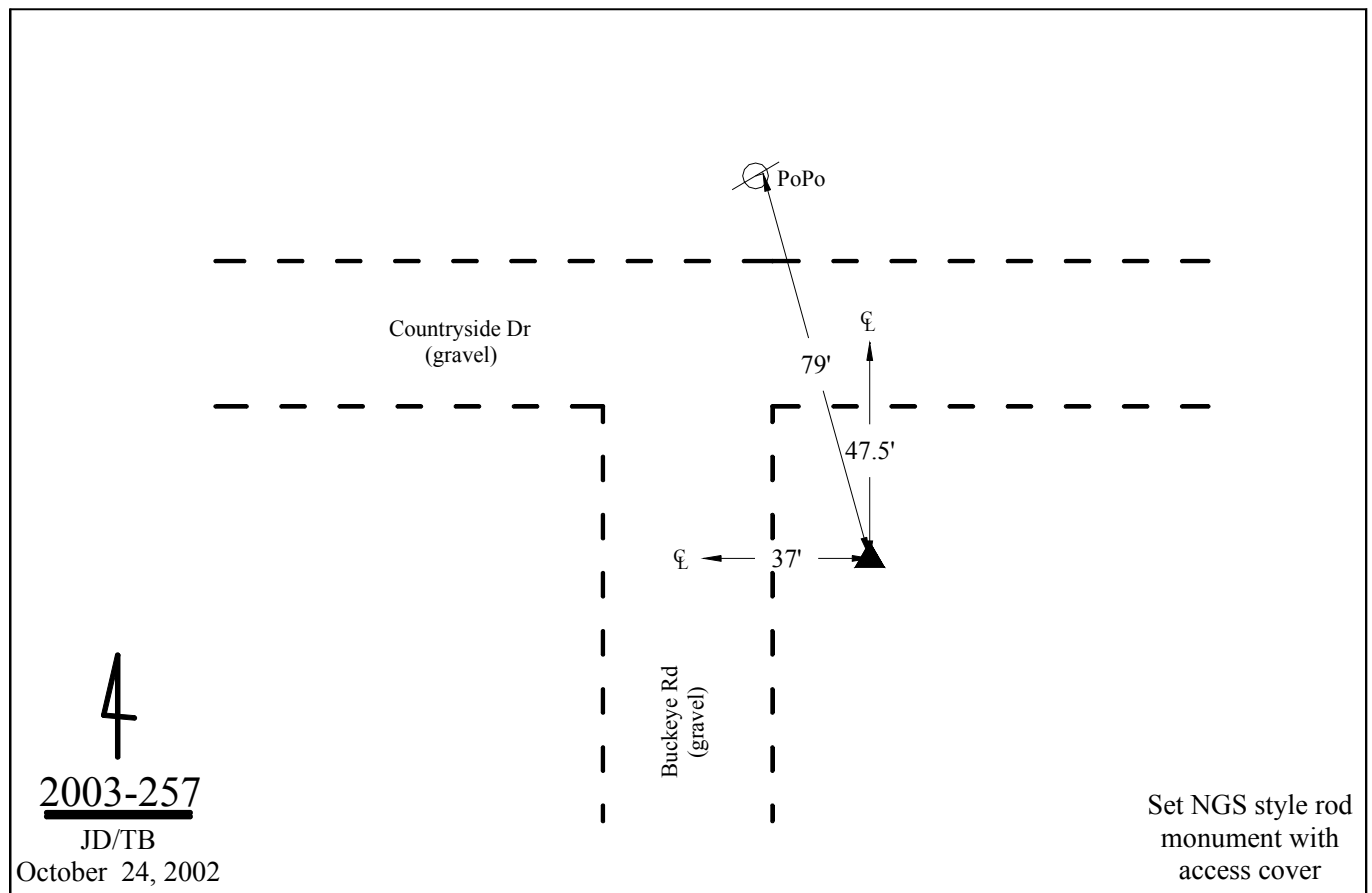
Theta: **1 17 05.515**

Combination Factor: **0.99993816**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-257**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NW Cor of Sec 19 T97N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **258**

Northing: **3910554.57(Ft)**

Easting: **5441868.93(Ft)**

Northing: **1191939.416(M)**

Easting: **1658684.967(M)**

Elev: **1161.77(Ft)** NAVD_88

Elev: **354.109(M)** NAVD_88

Ellip Ht: **323.569(M)**

99C Geoid Ht: **-30.540(M)**

Latitude: **43 12 41.17992 N**

Longitude: **91 32 49.27797 W**

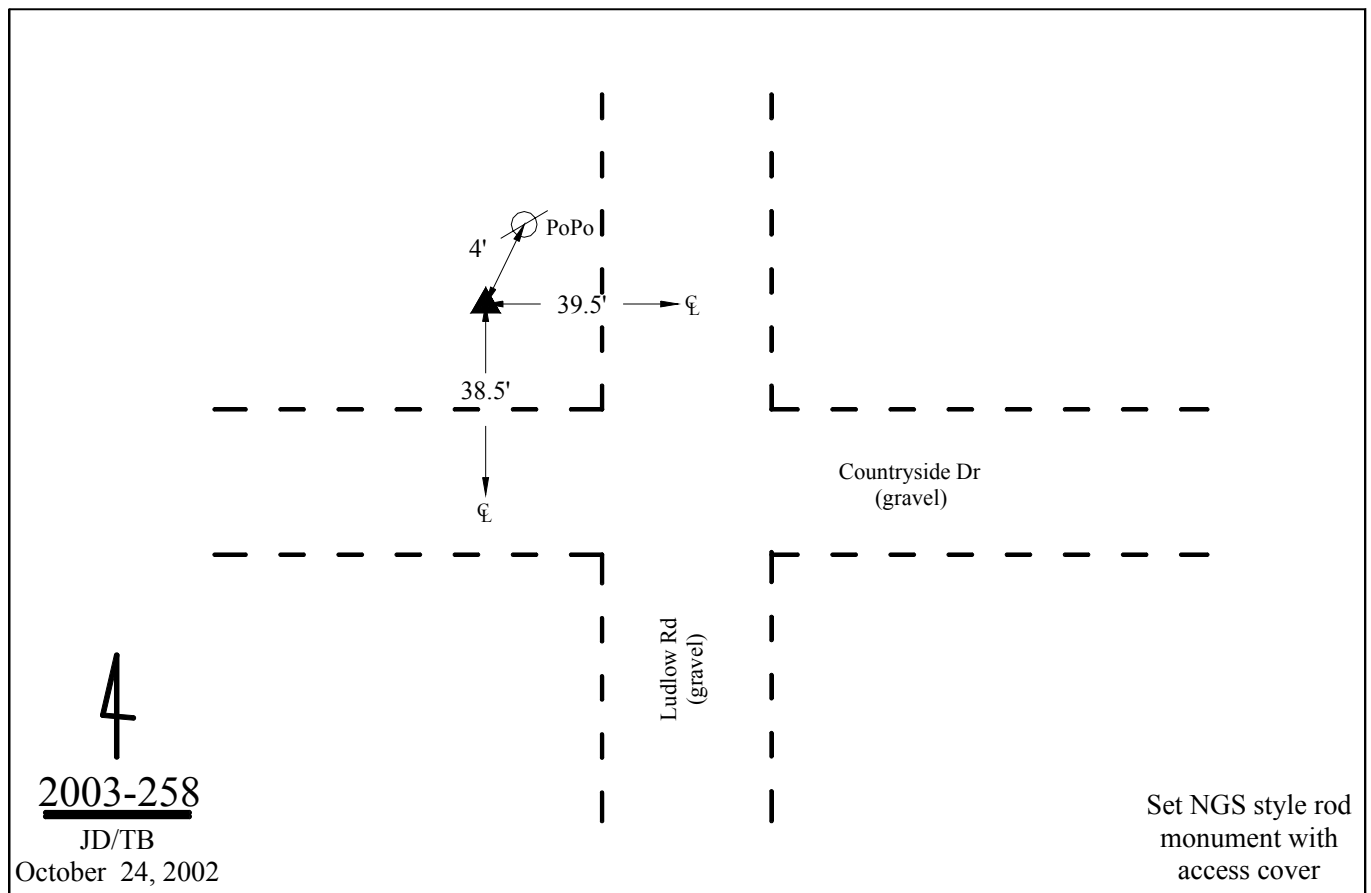
Theta: **1 19 25.034**

Combination Factor: **0.99993964**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-258**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 16 T97N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **259**

Northing: **3910244.93(Ft)**

Easting: **5458070.95(Ft)**

Northing: **1191845.039(M)**

Easting: **1663623.352(M)**

Elev: **973.29(Ft)** NAVD_88

Elev: **296.659(M)** NAVD_88

Ellip Ht: **265.938(M)**

99C Geoid Ht: **-30.721(M)**

Latitude: **43 12 34.36855 N**

Longitude: **91 29 10.65816 W**

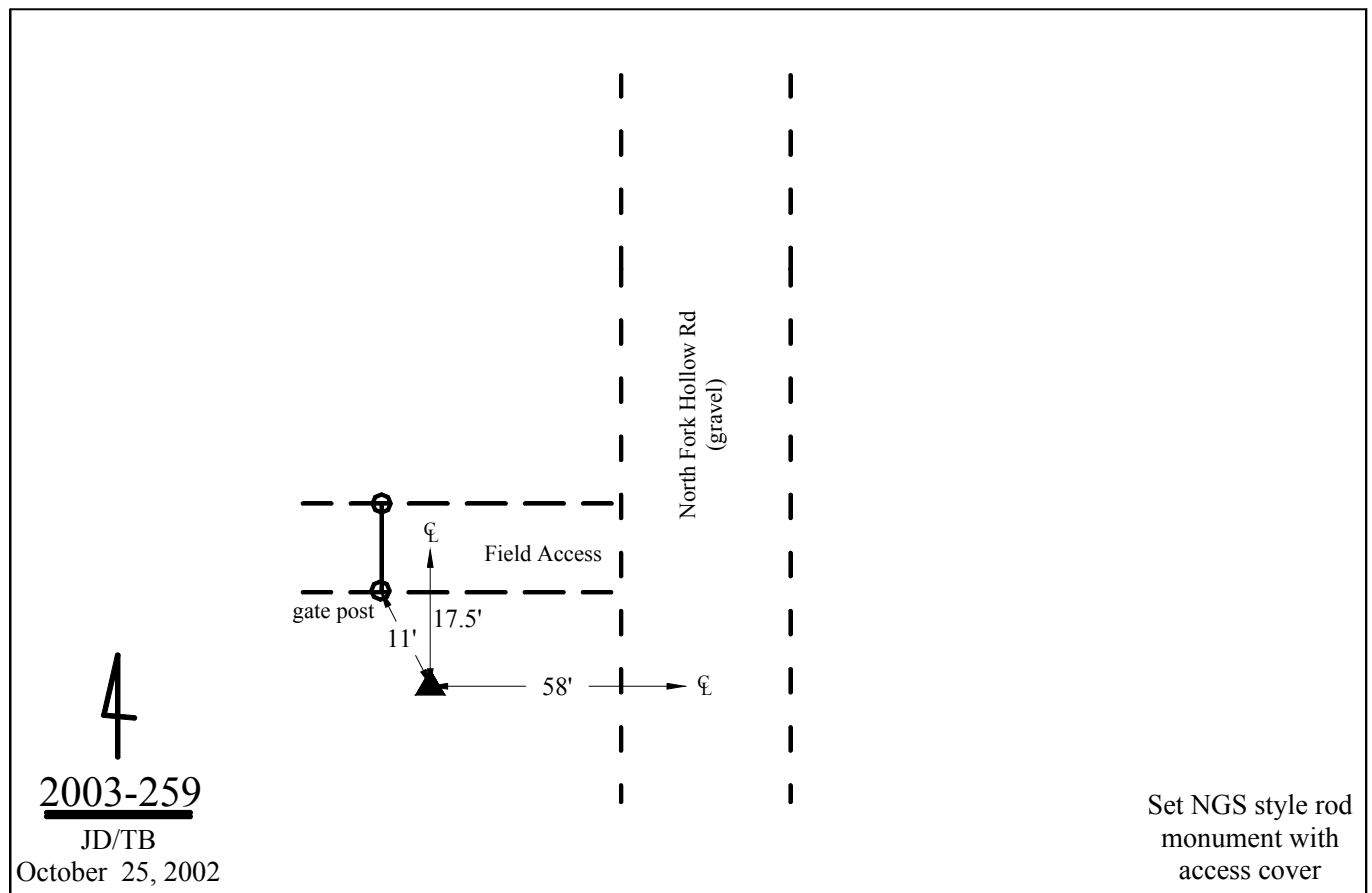
Theta: **1 21 53.202**

Combination Factor: **0.99994836**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-259**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 19 T97N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **260**

Northing: **3911306.80(Ft)**

Easting: **5473203.59(Ft)**

Northing: **1192168.697(M)**

Easting: **1668235.791(M)**

Elev: **1208.12(Ft)** NAVD_88

Elev: **368.236(M)** NAVD_88

Ellip Ht: **337.342(M)**

99C Geoid Ht: **-30.894(M)**

Latitude: **43 12 41.24337 N**

Longitude: **91 25 46.03325 W**

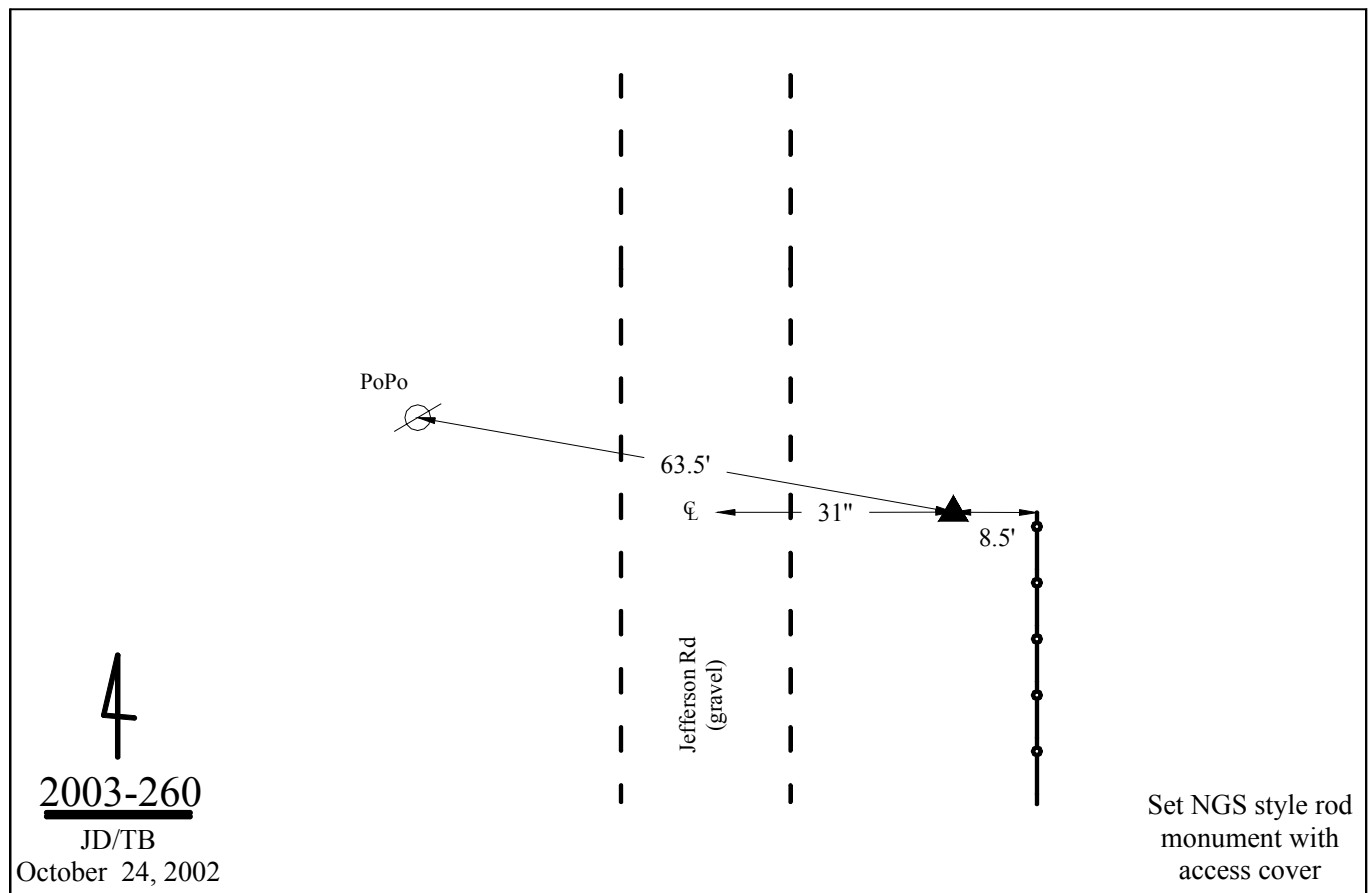
Theta: **1 24 11.885**

Combination Factor: **0.99993748**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-260**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the NW Cor of Sec 22 T97N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **261**

Northing: **3911643.35(Ft)**

Easting: **5488998.43(Ft)**

Northing: **1192271.277(M)**

Easting: **1673050.068(M)**

Elev: **1052.17(Ft)** NAVD_88

Elev: **320.701(M)** NAVD_88

Ellip Ht: **289.629(M)**

99C Geoid Ht: **-31.072(M)**

Latitude: **43 12 40.69124 N**

Longitude: **91 22 12.70320 W**

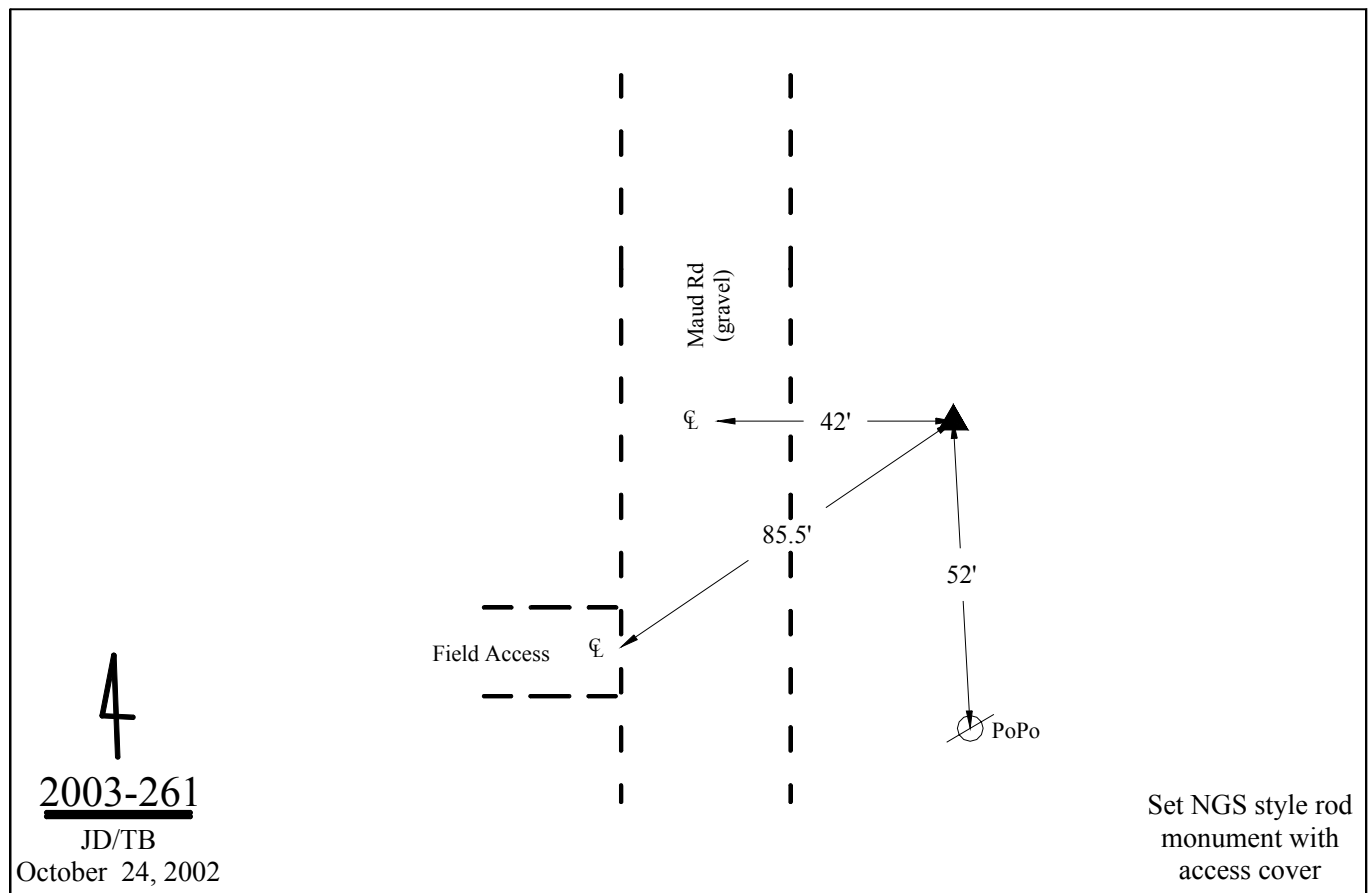
Theta: **1 26 36.469**

Combination Factor: **0.99994493**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-261**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SW Cor of Sec 18 T97N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **262**

Northing: **3912285.04(Ft)**

Easting: **5504489.52(Ft)**

Northing: **1192466.866(M)**

Easting: **1677771.761(M)**

Elev: **1007.77(Ft) NAVD_88**

Elev: **307.169(M) NAVD_88**

Ellip Ht: **275.929(M)**

99C Geoid Ht: **-31.240(M)**

Latitude: **43 12 43.12027 N**

Longitude: **91 18 43.36797 W**

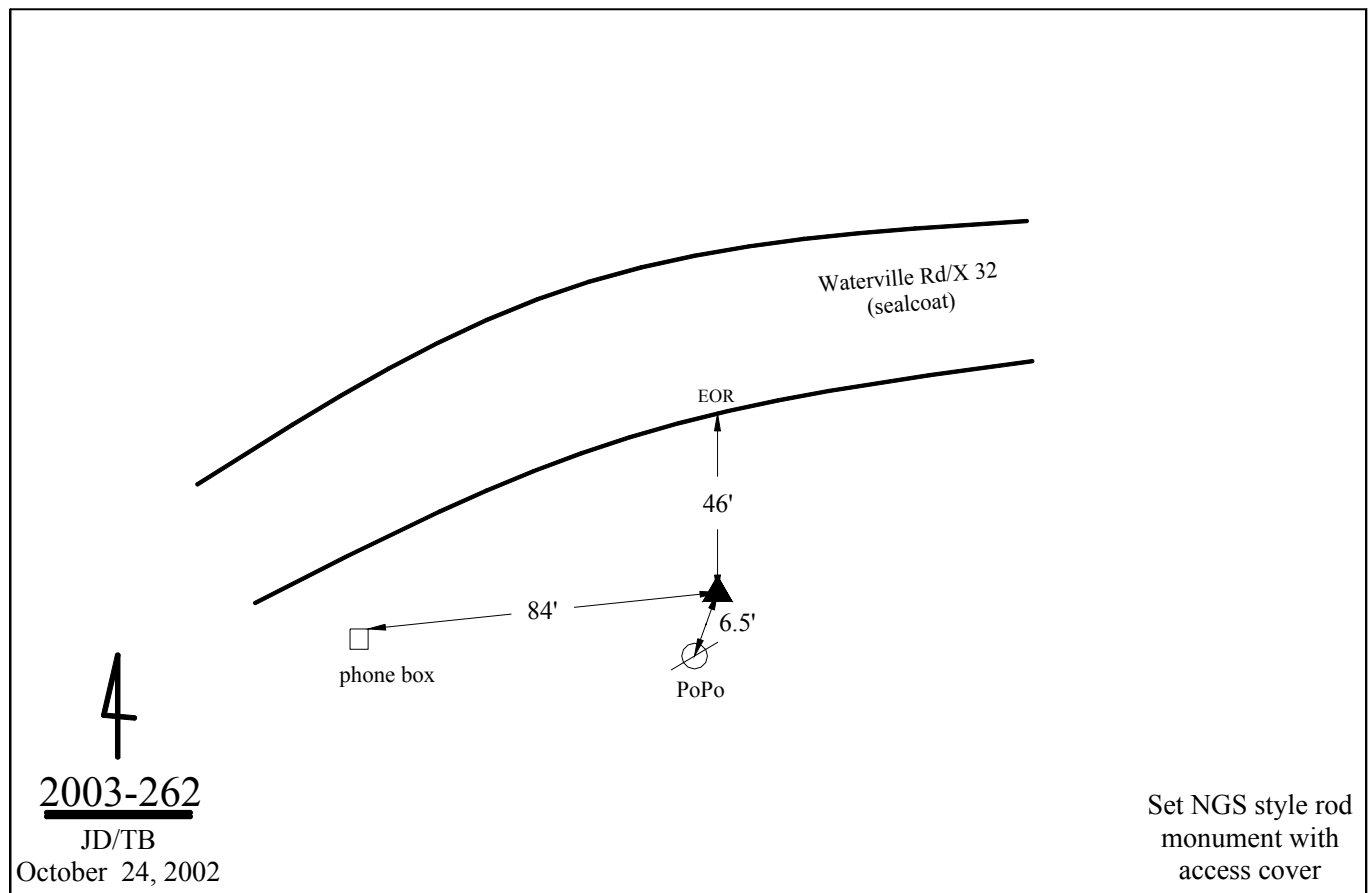
Theta: **1 28 58.345**

Combination Factor: **0.99994720**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-262**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 16 T97N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **263**

Northing: **3915383.17(Ft)**

Easting: **5518405.34(Ft)**

Northing: **1193411.177(M)**

Easting: **1682013.313(M)**

Elev: **1019.81(Ft)** NAVD_88

Elev: **310.838(M)** NAVD_88

Ellip Ht: **279.456(M)**

99C Geoid Ht: **-31.382(M)**

Latitude: **43 13 10.11016 N**

Longitude: **91 15 34.41354 W**

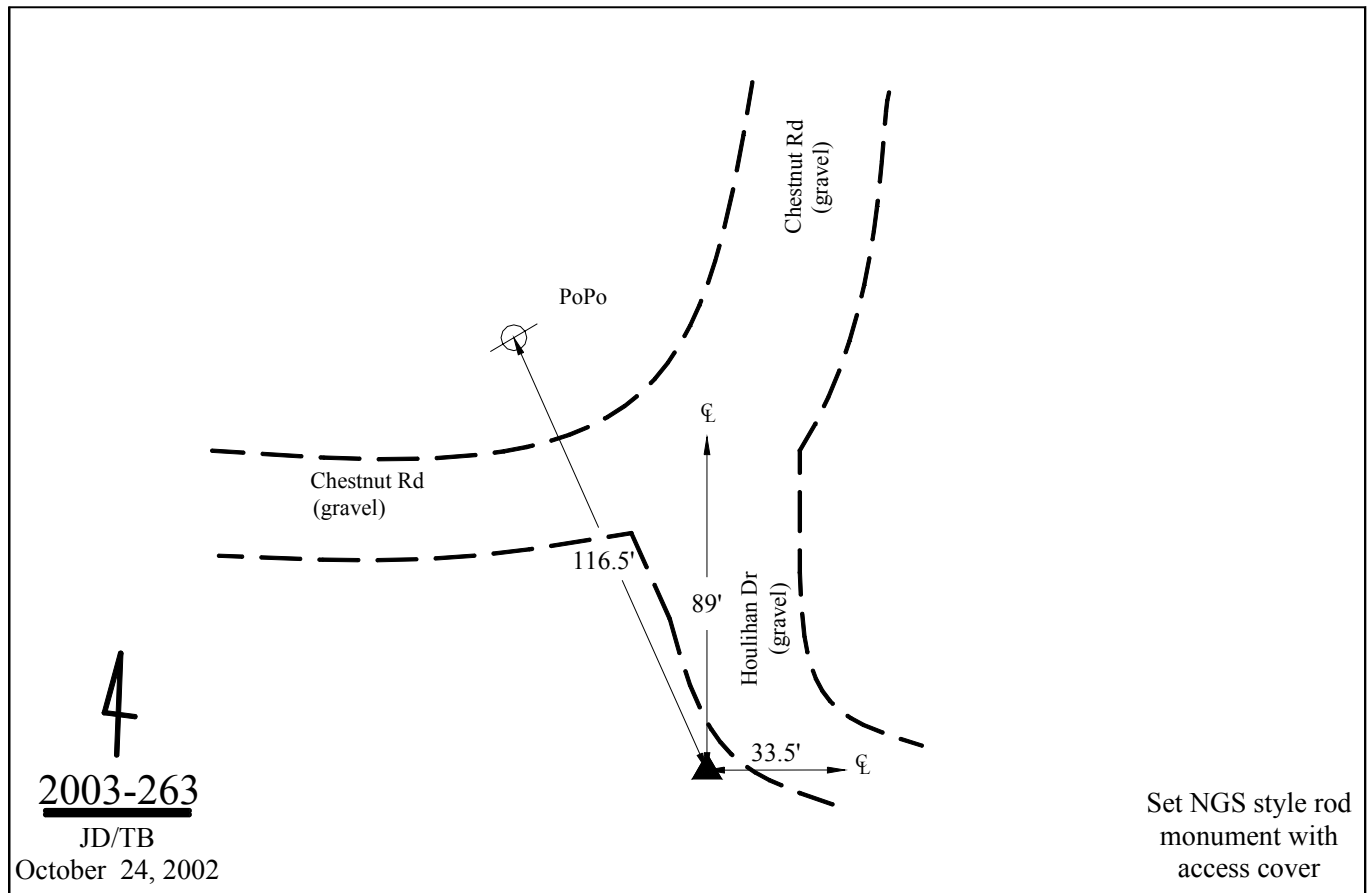
Theta: **1 31 06.407**

Combination Factor: **0.99994790**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-263**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 13 T97N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **264**

Northing: **3912881.99**(Ft)

Easting: **5534173.78(Ft)**

Northing: **1192648.817(M)**

Easting: **1686819.542(M)**Elev: **1088.04**(Ft) NAVD_88Elev: **331.634**(M) NAVD_88Ellip Ht: **300.082(M)**

99C Geoid Ht: **-31.552(M)**

Latitude: **43 12 41.23399 N**

Longitude: **91 12 02.45656 W**

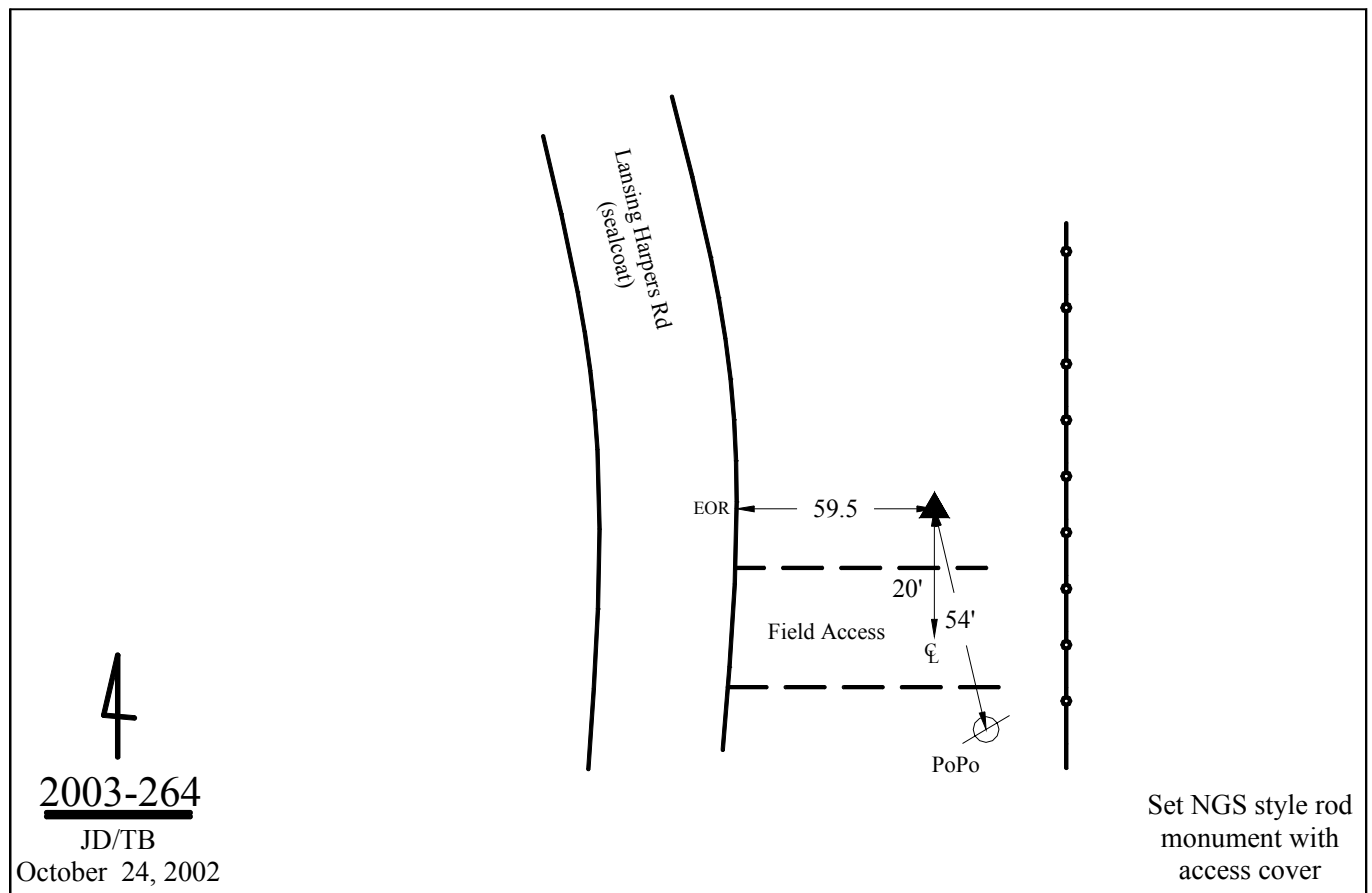
Theta: 1 33 30.060

Combination Factor: **0.99994332**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-264**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the S 1/4 Cor of Sec 16 T97N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **265**

Northing: **3913640.33(Ft)**

Easting: **5549954.58(Ft)**

Northing: **1192879.960(M)**

Easting: **1691629.539(M)**

Elev: **650.23(Ft)** NAVD_88

Elev: **198.190(M)** NAVD_88

Ellip Ht: **166.455(M)**

99C Geoid Ht: **-31.735(M)**

Latitude: **43 12 44.42786 N**

Longitude: **91 08 29.16025 W**

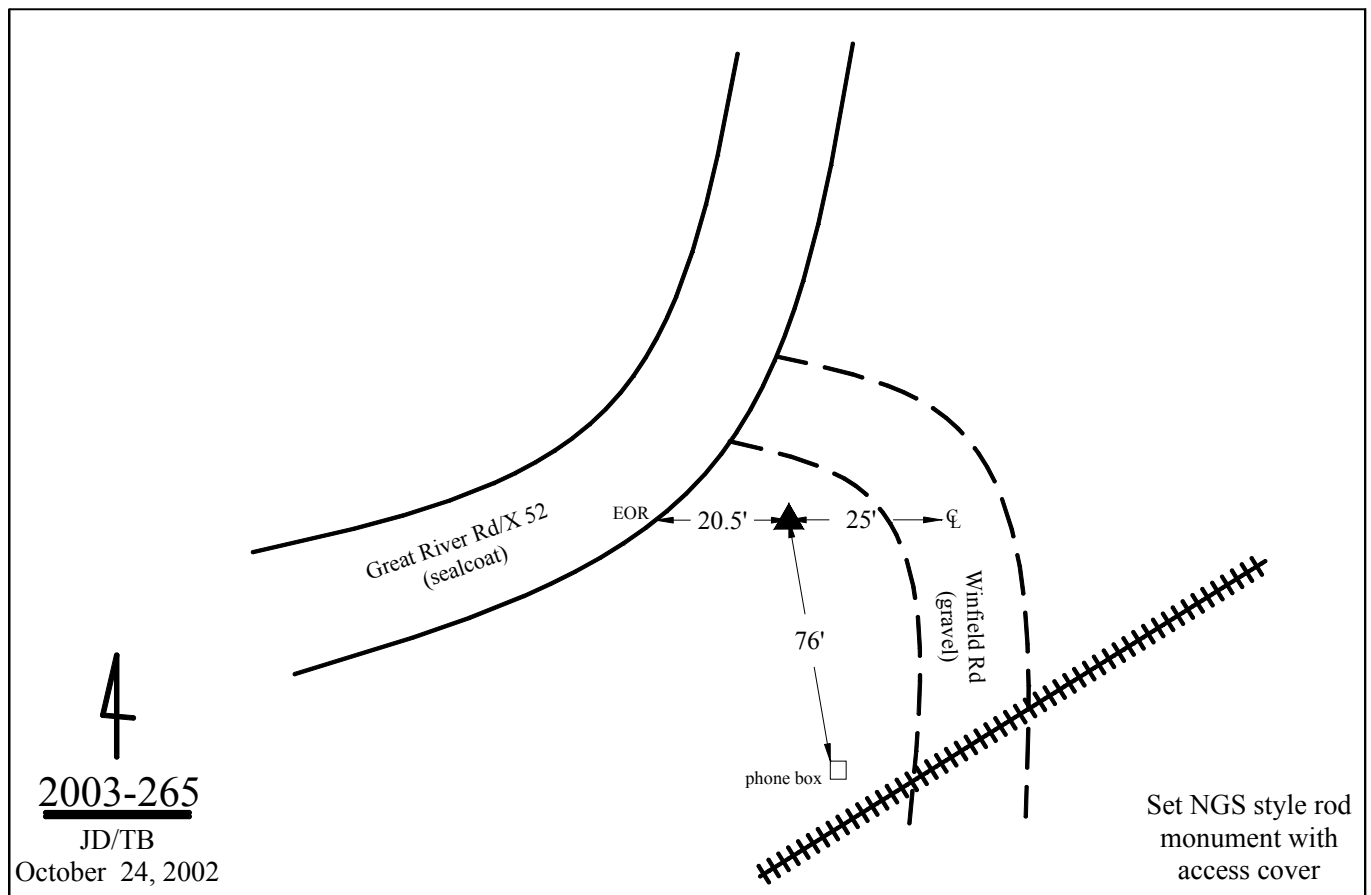
Theta: **1 35 54.621**

Combination Factor: **0.99996443**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-265**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the N 1/4 Cor of Sec 24 T97N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **266**

Northing: **3893256.72(Ft)**

Easting: **5426886.43(Ft)**

Northing: **1186667.021(M)**

Easting: **1654118.291(M)**

Elev: **1186.22(Ft)** NAVD_88

Elev: **361.561(M)** NAVD_88

Ellip Ht: **331.095(M)**

99C Geoid Ht: **-30.466(M)**

Latitude: **43 09 53.74155 N**

Longitude: **91 36 16.77737 W**

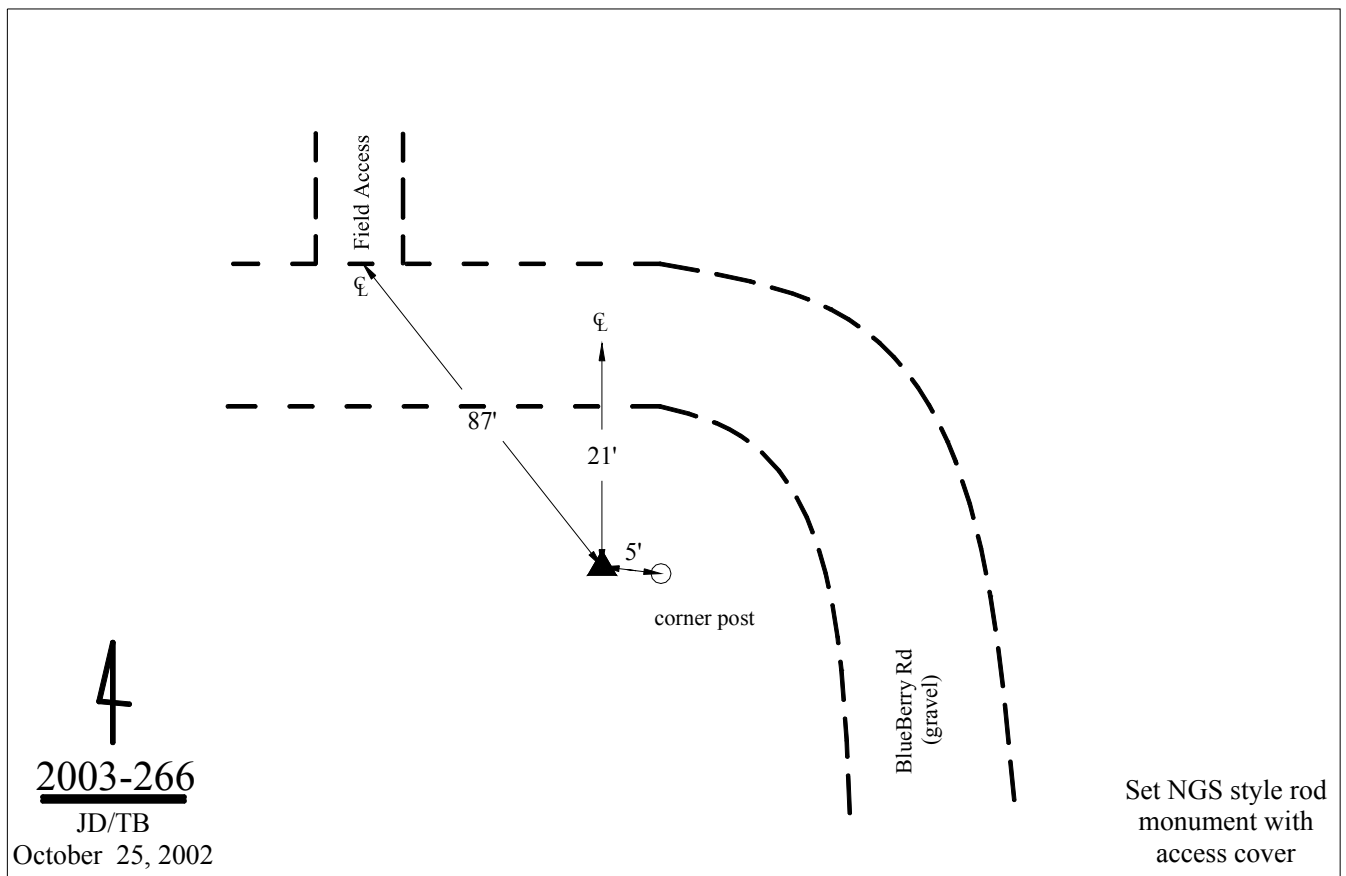
Theta: **1 17 04.402**

Combination Factor: **0.99993108**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-266**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 1 T96N R7W



2002

Allamakee County, Iowa

Iowa North Zone (1401)

NAD_83(1996)

Point Number: 267

Northing: **3894840.90**(Ft)

Easting: **5443324.53**(Ft)

Northing: **1187149.881(M)**

Easting: **1659128.635(M)**Elev: **927.77**(Ft) NAVD_88Elev: **282.784**(M) NAVD_88Ellip Ht: **252.184(M)**

99C Geoid Ht: **-30.600(M)**

Latitude: **43 10 05.68553 N**

Longitude: **91 32 34.53945 W**

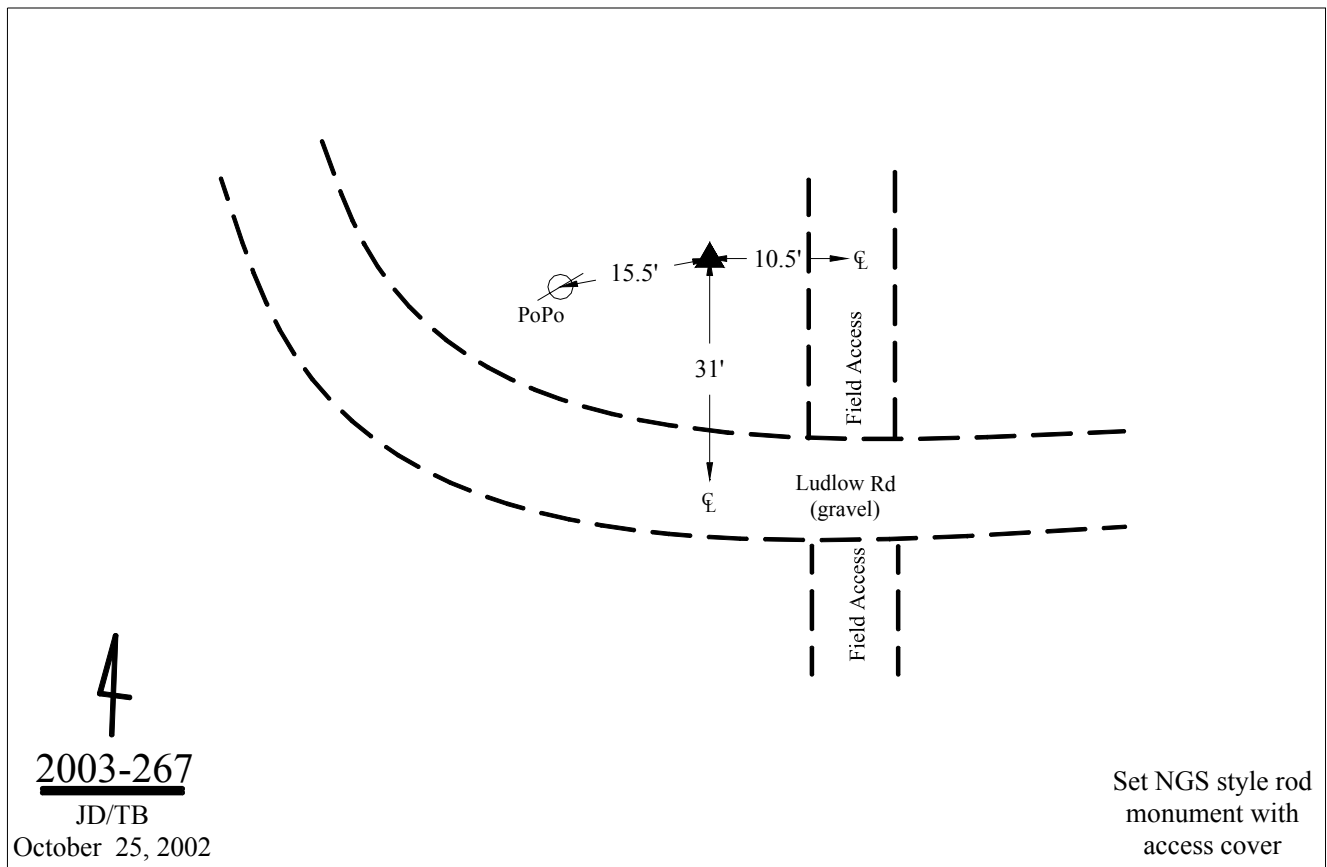
Theta: 1 19 35.023

Combination Factor: **0.99994395**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-267**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 34 T97N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **268**

Northing: **3895155.46(Ft)**

Easting: **5458859.34(Ft)**

Northing: **1187245.759(M)**

Easting: **1663863.655(M)**

Elev: **881.71(Ft)** NAVD_88

Elev: **268.747(M)** NAVD_88

Ellip Ht: **237.984(M)**

99C Geoid Ht: **-30.763(M)**

Latitude: **43 10 05.18698 N**

Longitude: **91 29 04.87232 W**

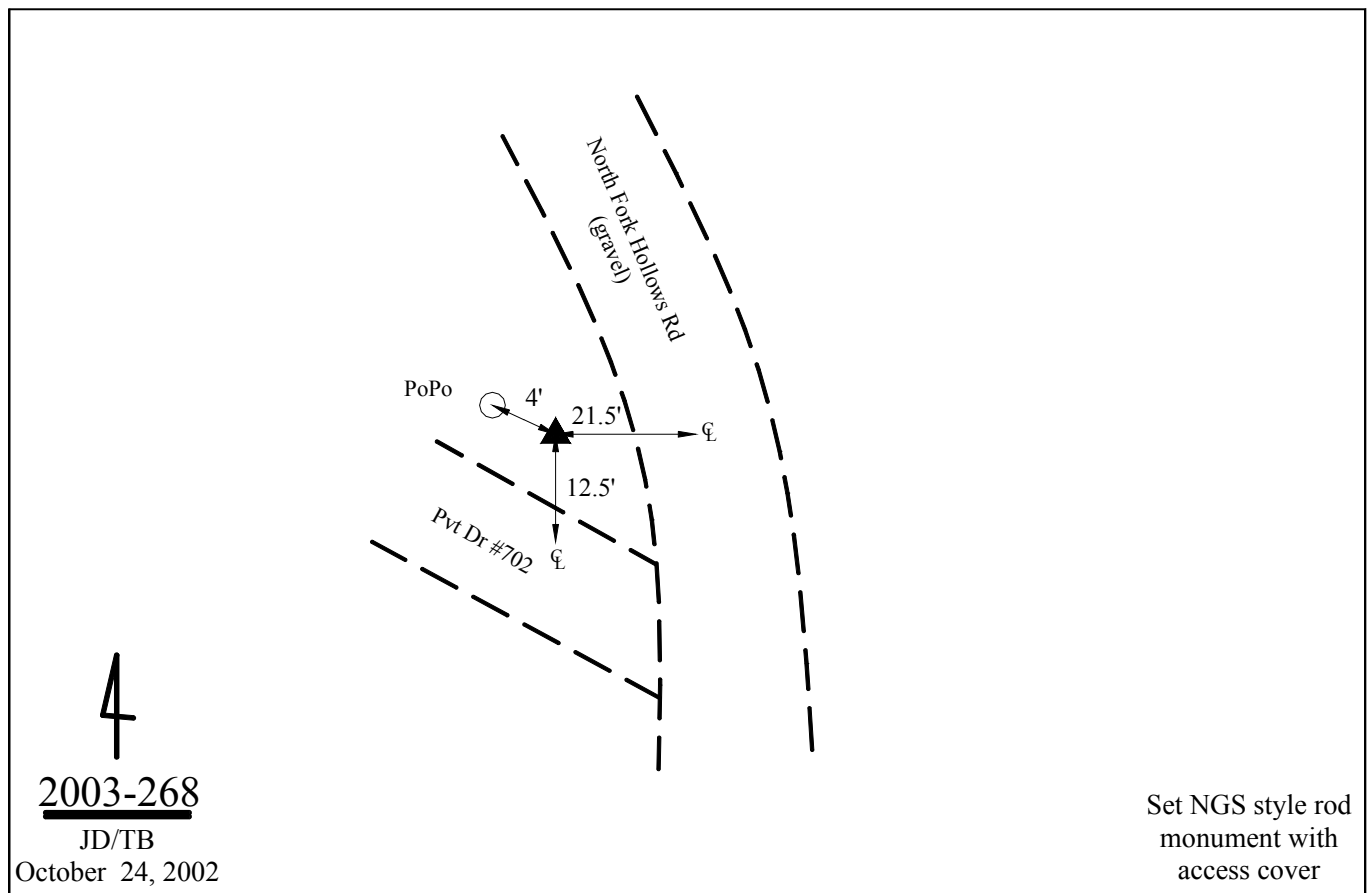
Theta: **1 21 57.123**

Combination Factor: **0.99994616**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-268**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 6 T96N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **269**

Northing: **3895528.62(Ft)**

Easting: **5474959.61(Ft)**

Northing: **1187359.497(M)**

Easting: **1668771.027(M)**

Elev: **1111.34(Ft)** NAVD_88

Elev: **338.738(M)** NAVD_88

Ellip Ht: **307.805(M)**

99C Geoid Ht: **-30.933(M)**

Latitude: **43 10 05.02424 N**

Longitude: **91 25 27.55891 W**

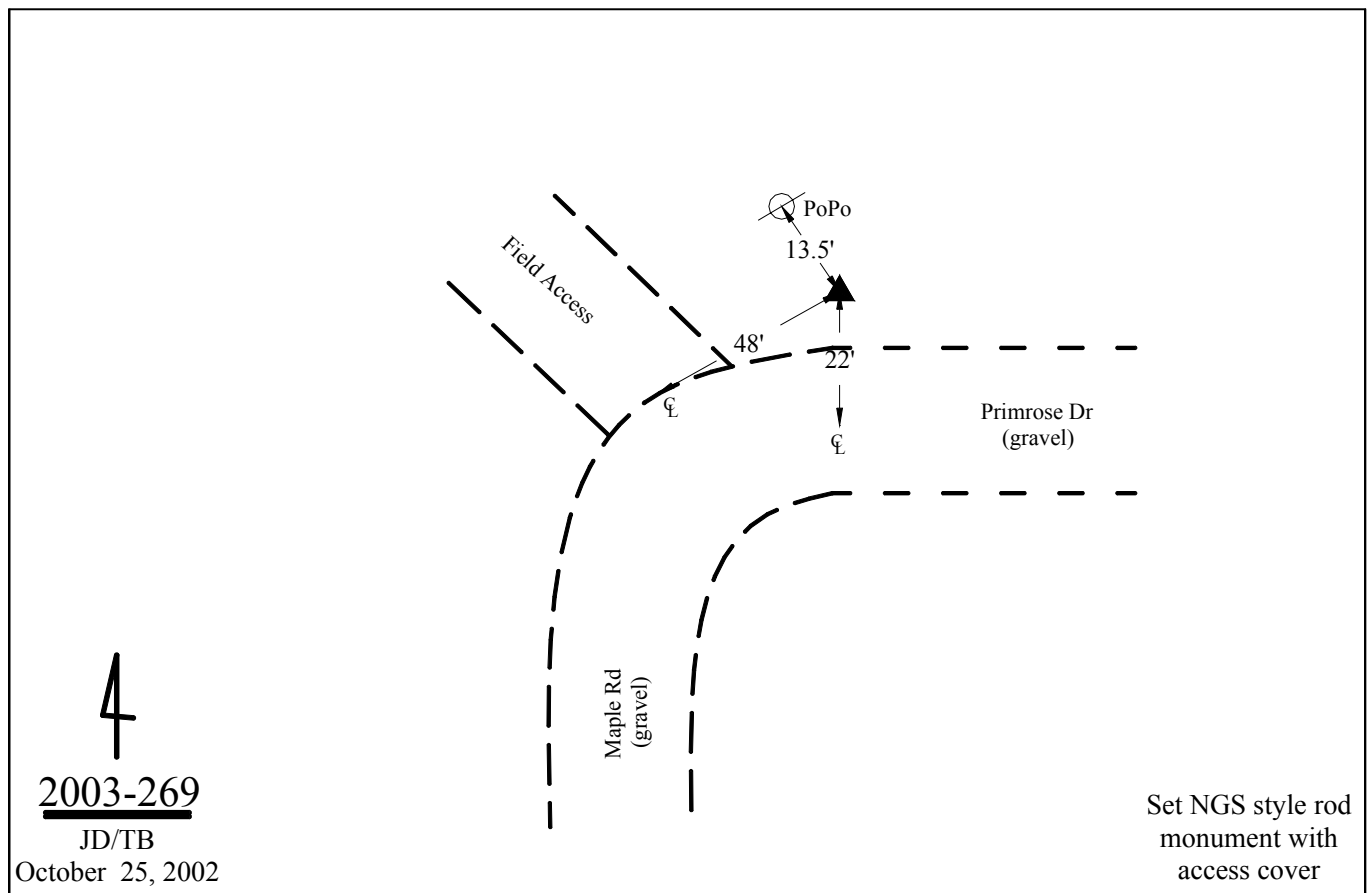
Theta: **1 24 24.406**

Combination Factor: **0.99993520**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-269**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 36 T97N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **270**

Northing: **3895688.75(Ft)**

Easting: **5488065.46(Ft)**

Northing: **1187408.307(M)**

Easting: **1672765.696(M)**

Elev: **1129.25(Ft)** NAVD_88

Elev: **344.196(M)** NAVD_88

Ellip Ht: **313.126(M)**

99C Geoid Ht: **-31.070(M)**

Latitude: **43 10 03.38985 N**

Longitude: **91 22 30.71178 W**

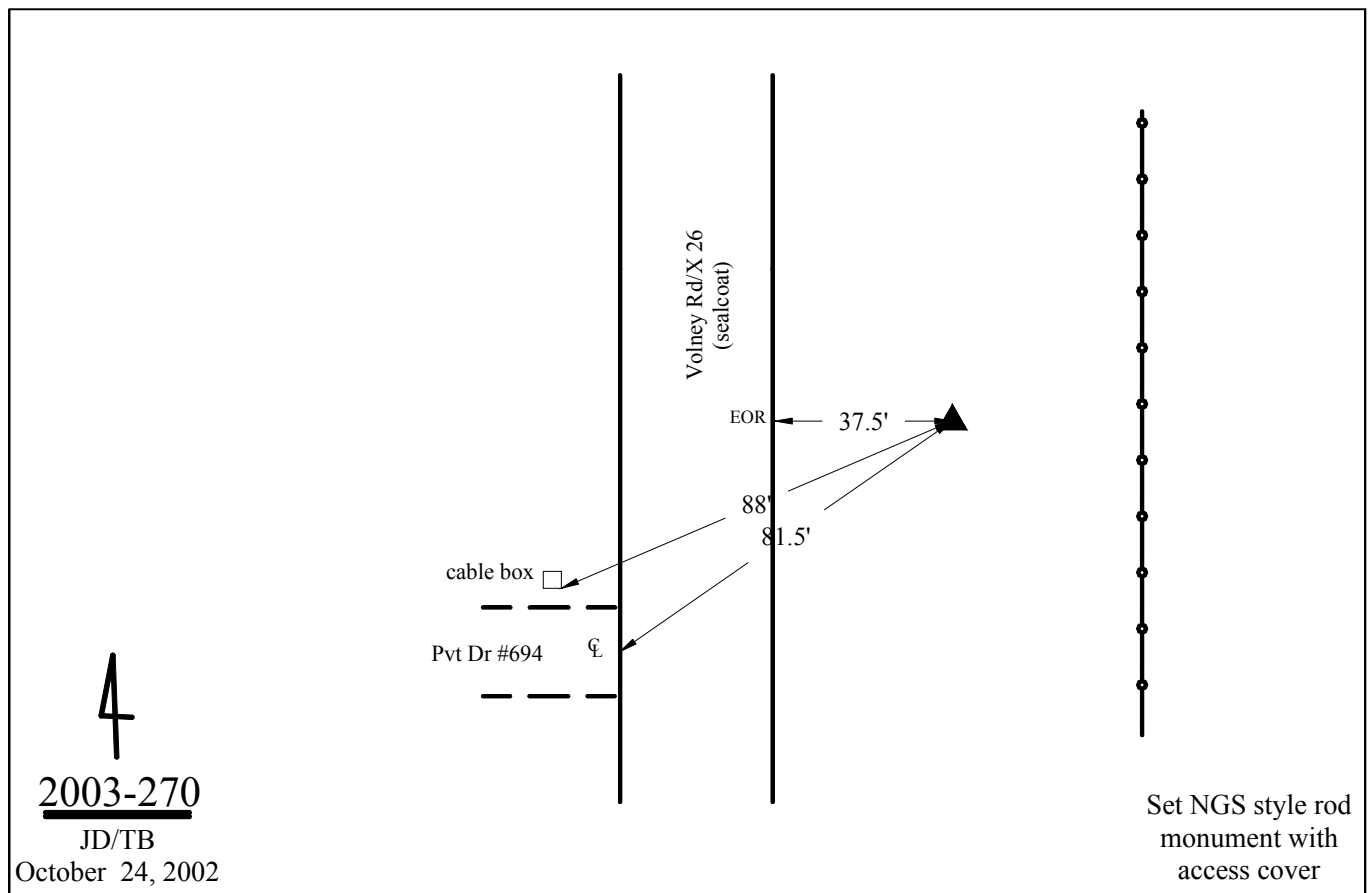
Theta: **1 26 24.264**

Combination Factor: **0.99993430**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-270**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 1 T96N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **271**

Northing: **3896339.15(Ft)**

Easting: **5506573.89(Ft)**

Northing: **1187606.548(M)**

Easting: **1678407.078(M)**

Elev: **1149.78(Ft)** NAVD_88

Elev: **350.454(M)** NAVD_88

Ellip Ht: **319.191(M)**

99C Geoid Ht: **-31.263(M)**

Latitude: **43 10 05.14248 N**

Longitude: **91 18 20.81938 W**

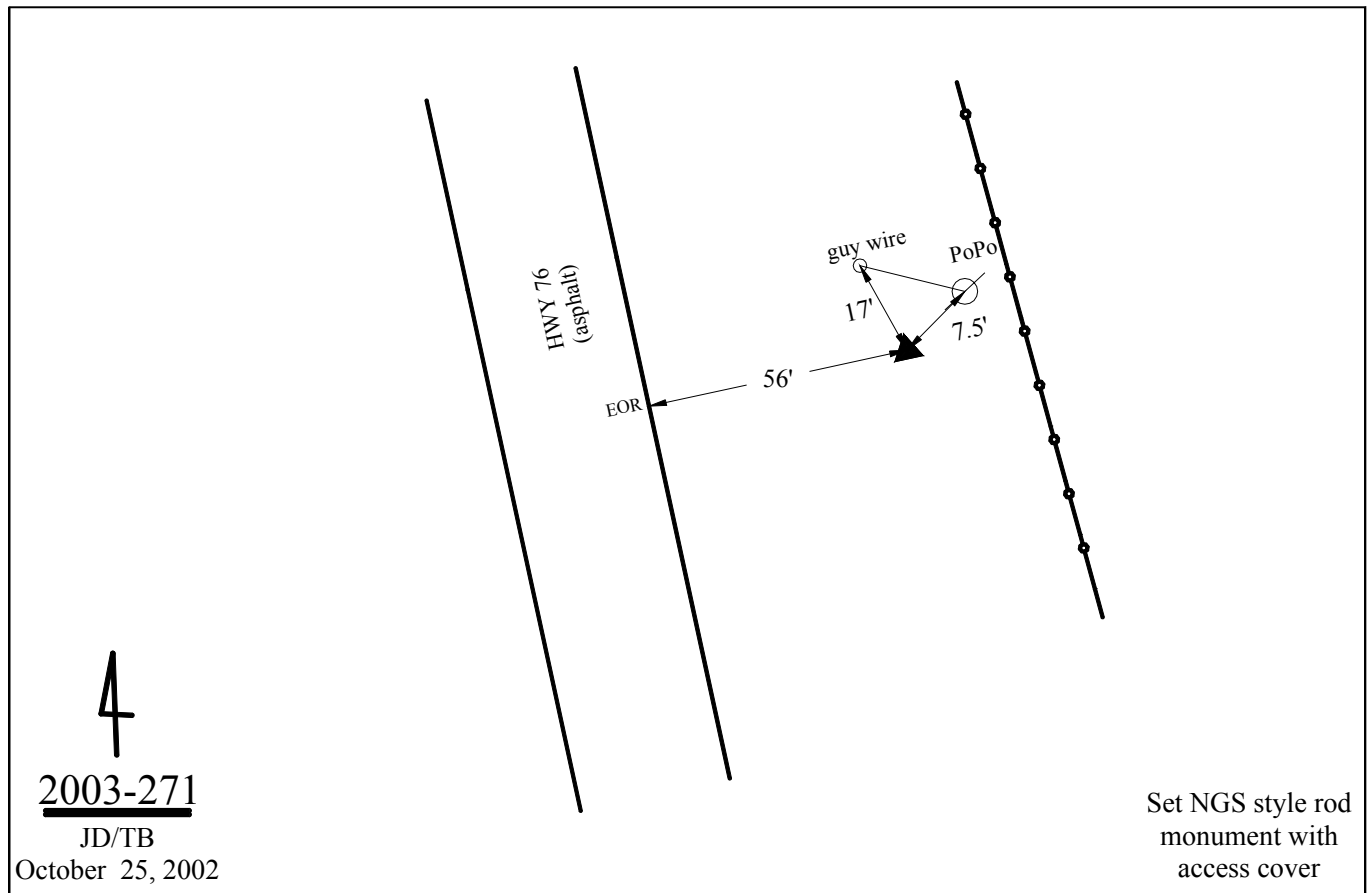
Theta: **1 29 13.627**

Combination Factor: **0.99993343**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-271**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SW 1/4 of Sec 34 T97N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **272**

Northing: **3897944.08(Ft)**

Easting: **5521605.75(Ft)**

Northing: **1188095.732(M)**

Easting: **1682988.799(M)**

Elev: **683.91(Ft)** NAVD_88

Elev: **208.457(M)** NAVD_88

Ellip Ht: **177.040(M)**

99C Geoid Ht: **-31.417(M)**

Latitude: **43 10 17.08627 N**

Longitude: **91 14 57.47650 W**

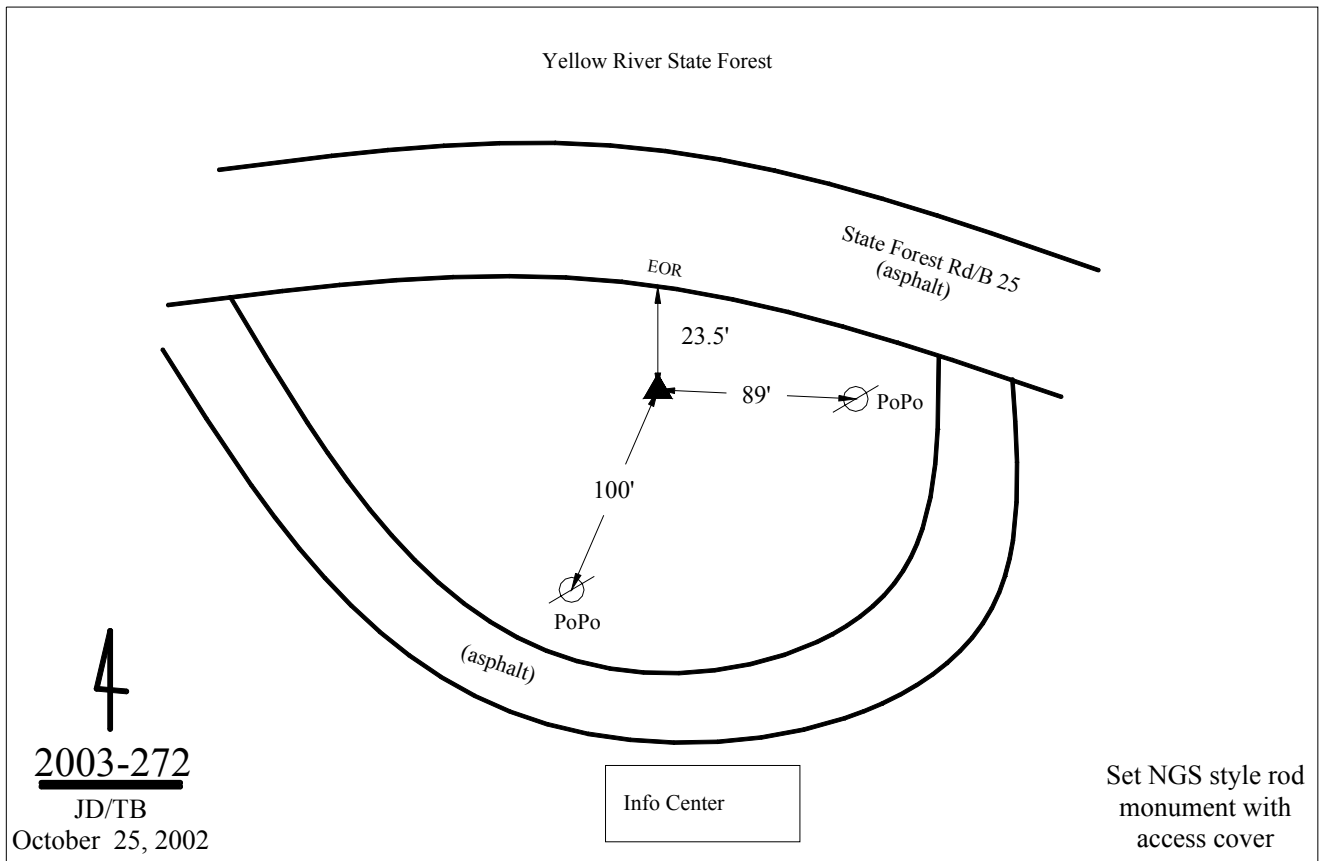
Theta: **1 31 31.441**

Combination Factor: **0.99995623**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-272**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 36 T97N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **273**

Northing: **3896771.27(Ft)**

Easting: **5536140.37(Ft)**

Northing: **1187738.259(M)**

Easting: **1687418.960(M)**

Elev: **998.88(Ft)** NAVD_88

Elev: **304.459(M)** NAVD_88

Ellip Ht: **272.895(M)**

99C Geoid Ht: **-31.564(M)**

Latitude: **43 10 01.63889 N**

Longitude: **91 11 41.84187 W**

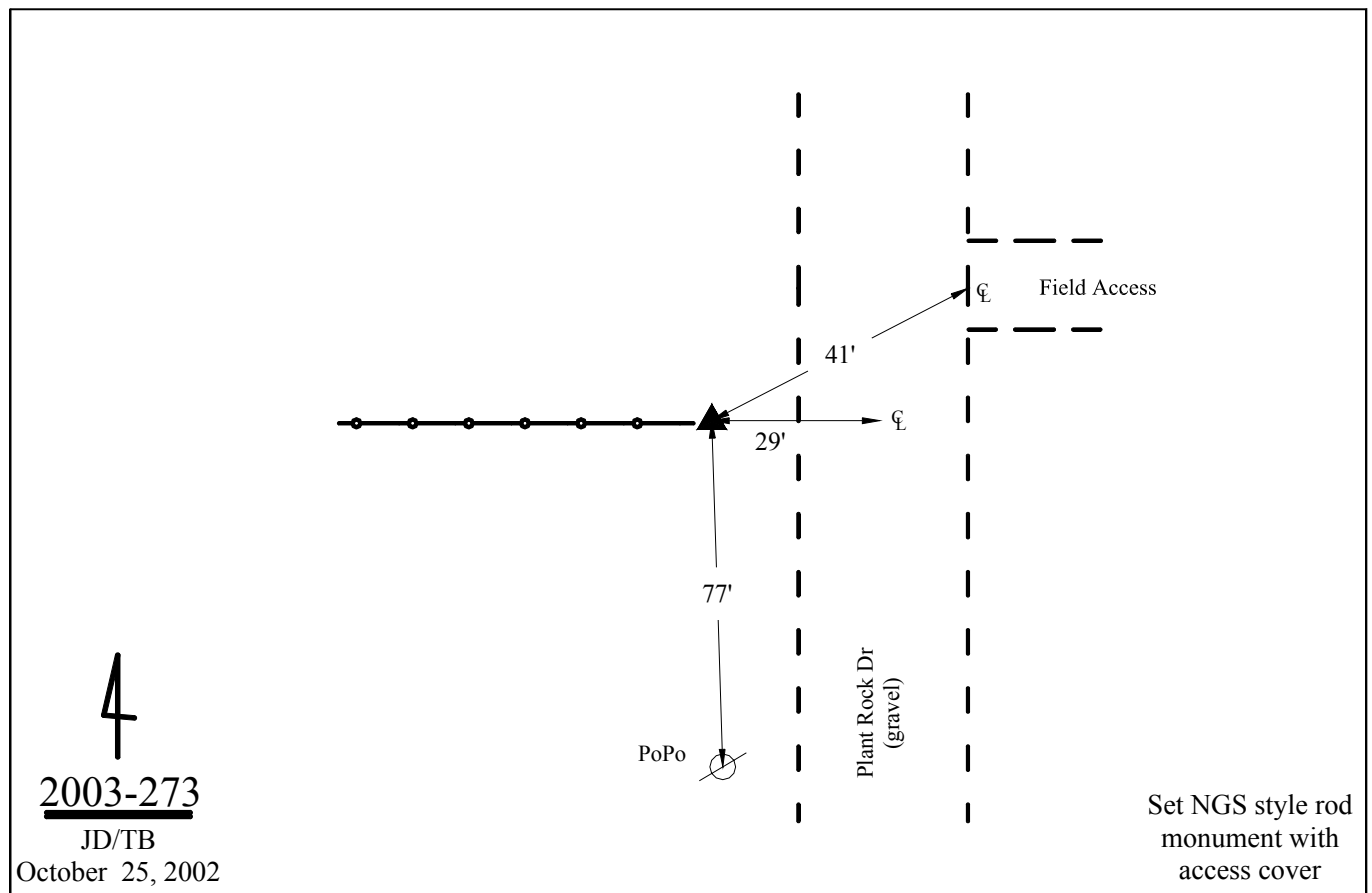
Theta: **1 33 44.032**

Combination Factor: **0.99994054**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-273**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 4 T96N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **274**

Northing: **3878757.27**(Ft)

Easting: **5425757.42**(Ft)

Northing: **1182247.579**(M)

Easting: **1653774.170**(M)

Elev: **1040.09**(Ft) NAVD_88

Elev: **317.021**(M) NAVD_88

Ellip Ht: **286.512**(M)

99C Geoid Ht: **-30.509**(M)

Latitude: **43 07 30.81425 N**

Longitude: **91 36 36.38072 W**

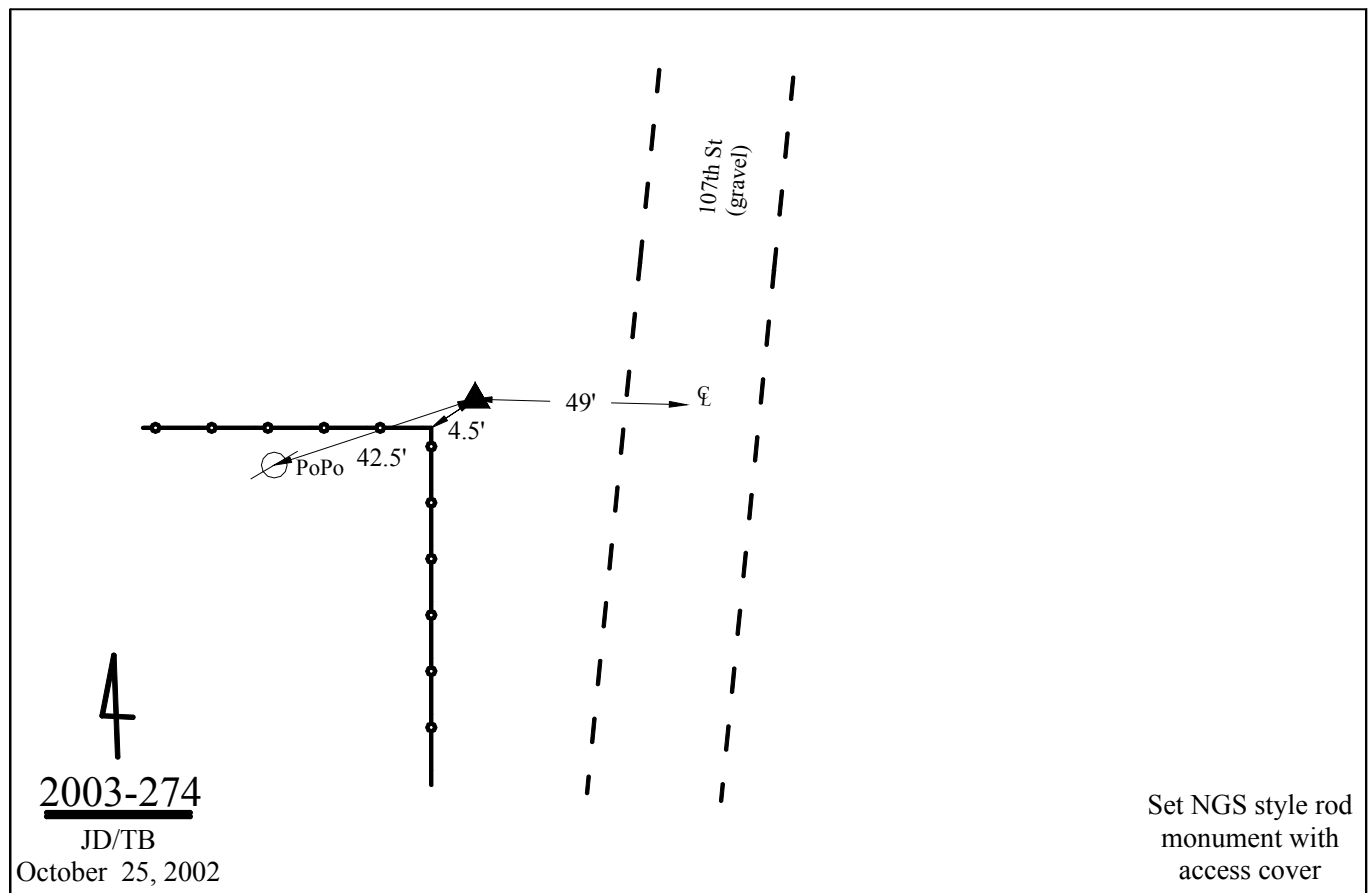
Theta: **1 16 51.116**

Combination Factor: **0.99993229**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-274**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the SE 1/4 of Sec 13 T96N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: 275

Northing: 3879334.25(Ft)

Easting: 5442223.67(Ft)

Northing: 1182423.444(M)

Easting: 1658793.091(M)

Elev: 1110.48(Ft) NAVD_88

Elev: 338.474(M) NAVD_88

Ellip Ht: 307.850(M)

99C Geoid Ht: -30.624(M)

Latitude: 43 07 32.81685 N

Longitude: 91 32 54.22051 W

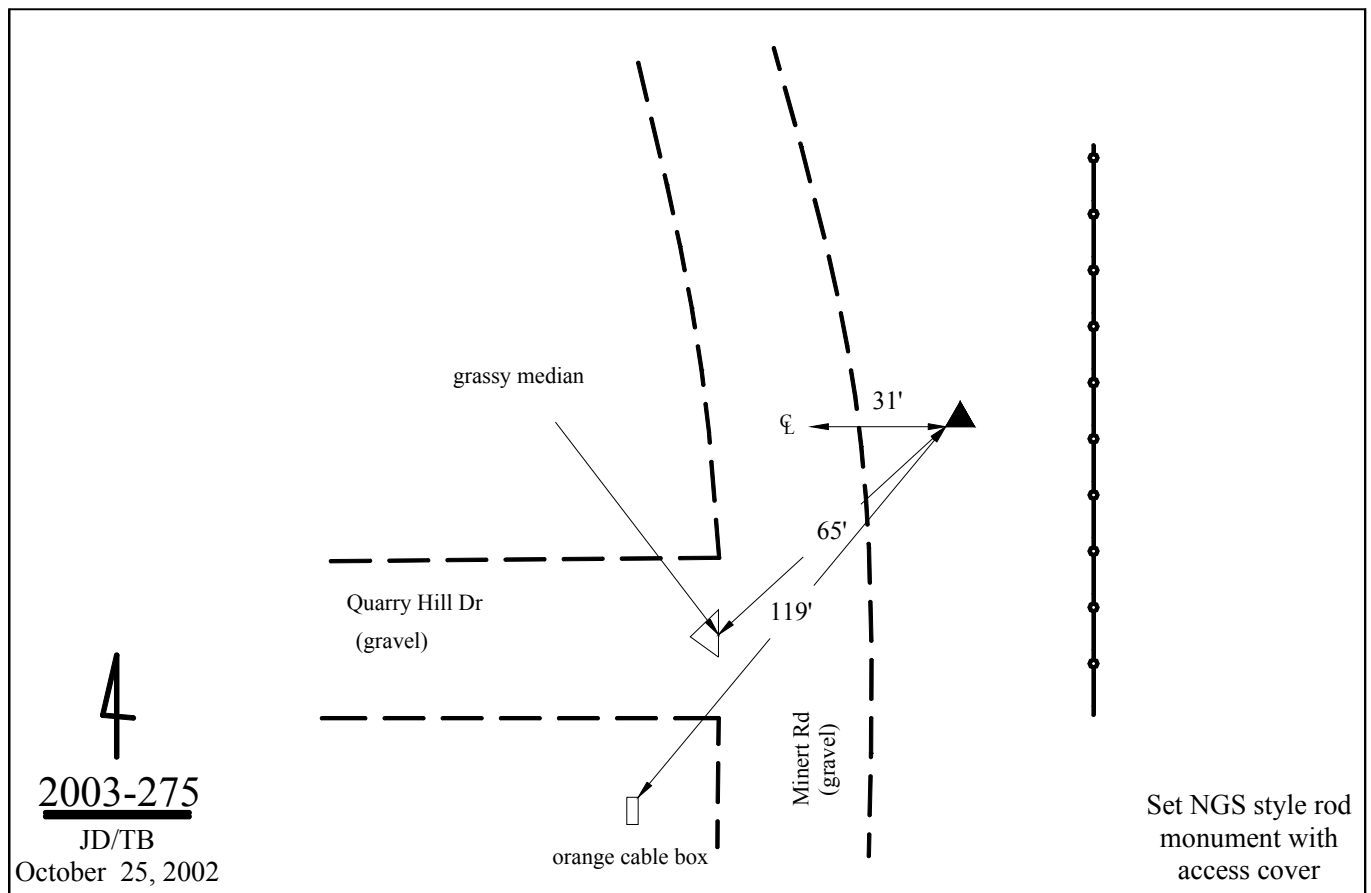
Theta: 1 19 21.684

Combination Factor: 0.99992903

Designation: ALLAMAKEE COUNTY GPS CONTROL PT 2002-275

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SW Cor of Sec 15 T96N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **276**

Northing: **3879719.92(Ft)**

Easting: **5458247.72(Ft)**

Northing: **1182540.996(M)**

Easting: **1663677.232(M)**

Elev: **1128.44(Ft)** NAVD_88

Elev: **343.948(M)** NAVD_88

Ellip Ht: **313.176(M)**

99C Geoid Ht: **-30.772(M)**

Latitude: **43 07 32.91548 N**

Longitude: **91 29 18.07894 W**

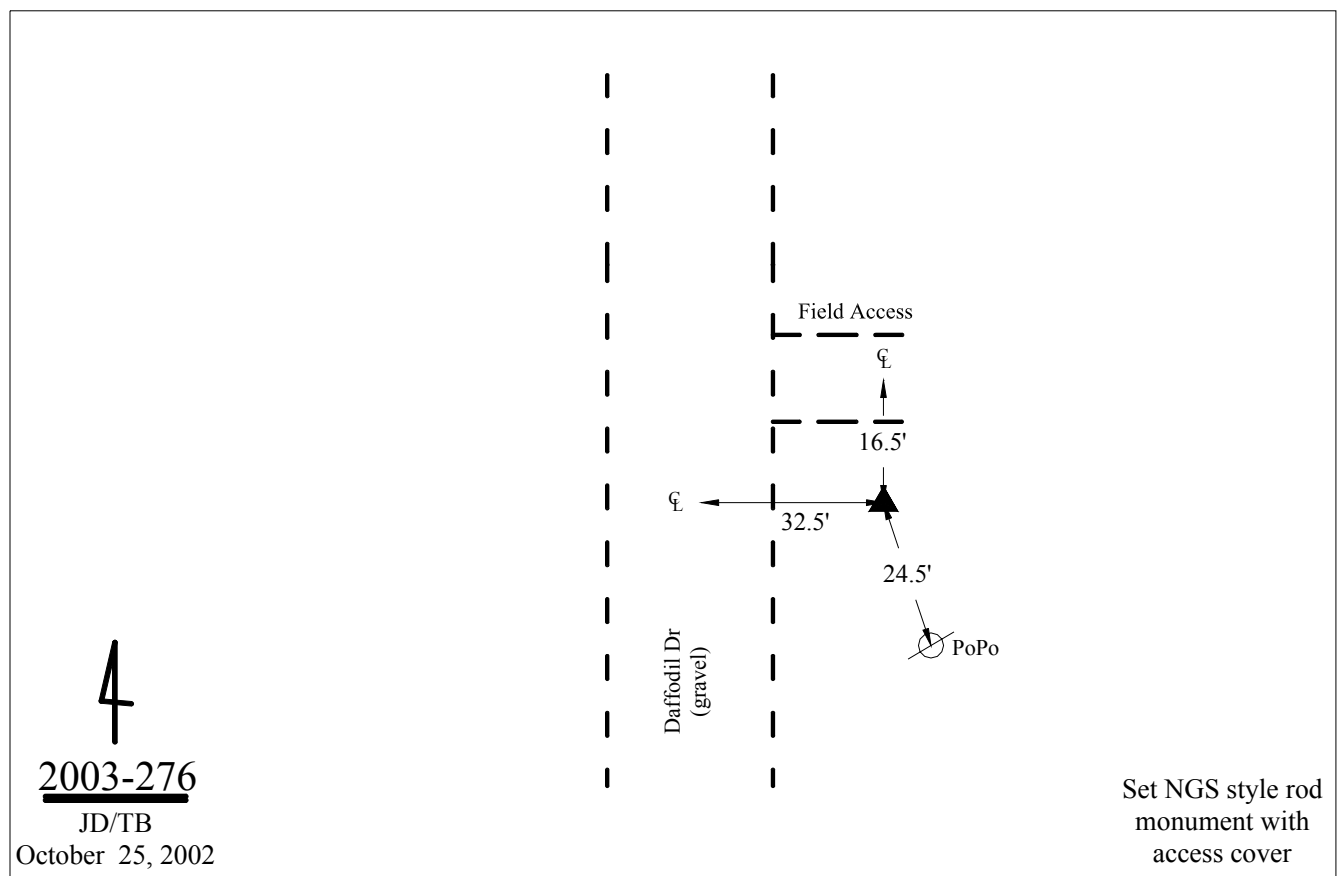
Theta: **1 21 48.173**

Combination Factor: **0.99992819**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-276**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SW Cor of Sec 18 T96N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: 277

Northing: 3879368.65(Ft)

Easting: 5473465.80(Ft)

Northing: 1182433.930(M)

Easting: 1668315.713(M)

Elev: 865.55(Ft) NAVD_88

Elev: 263.820(M) NAVD_88

Ellip Ht: 232.884(M)

99C Geoid Ht: -30.936(M)

Latitude: 43 07 25.81996 N

Longitude: 91 25 53.04541 W

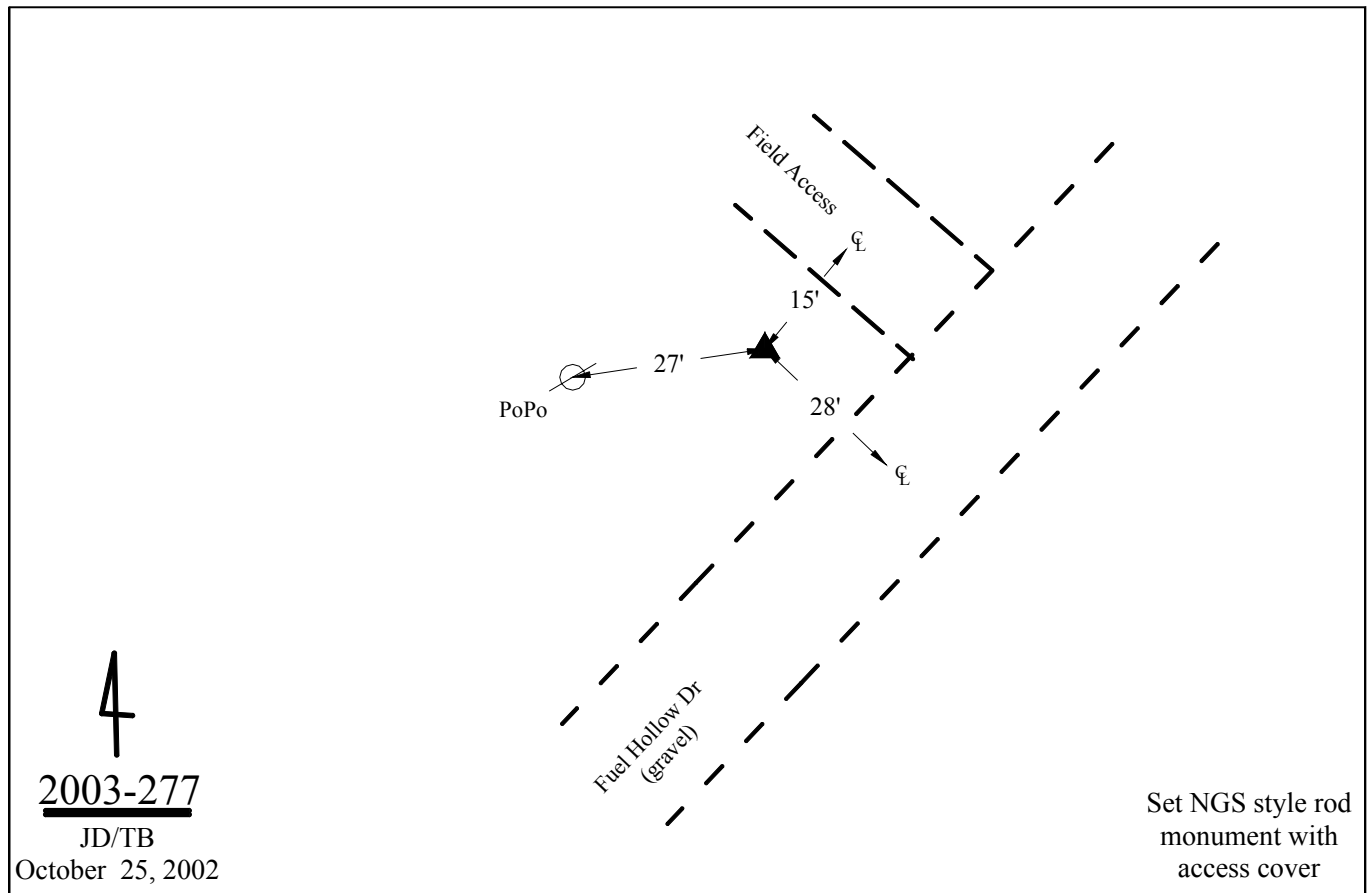
Theta: 1 24 07.133

Combination Factor: 0.99994051

Designation: ALLAMAKEE COUNTY GPS CONTROL PT 2002-277

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SE Cor of Sec 16 T96N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **278**

Northing: **3879394.12(Ft)**

Easting: **5489113.44(Ft)**

Northing: **1182441.692(M)**

Easting: **1673085.124(M)**

Elev: **1050.84(Ft)** NAVD_88

Elev: **320.297(M)** NAVD_88

Ellip Ht: **289.202(M)**

99C Geoid Ht: **-31.095(M)**

Latitude: **43 07 22.23642 N**

Longitude: **91 22 22.10694 W**

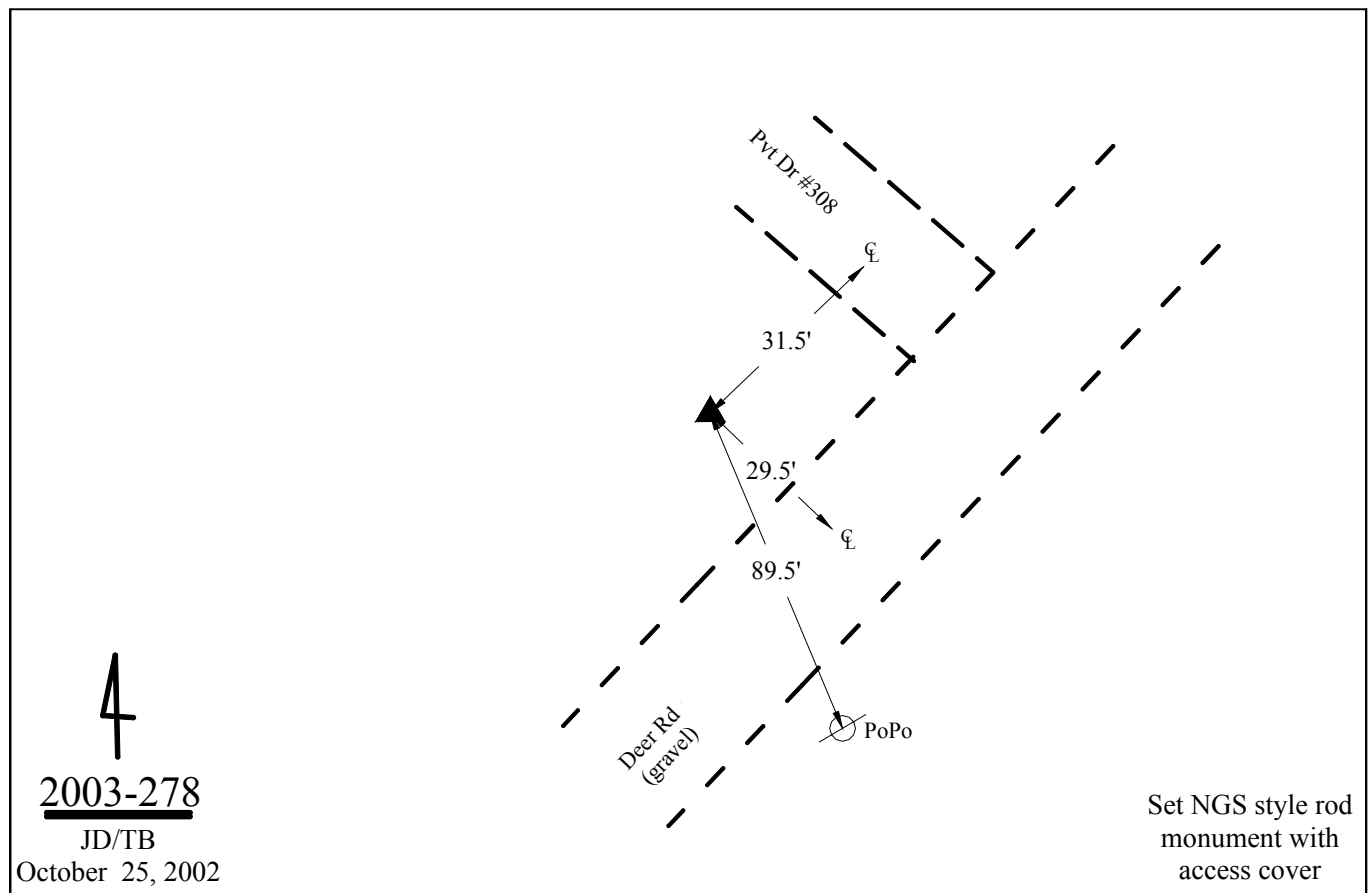
Theta: **1 26 30.095**

Combination Factor: **0.99993154**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-278**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 24 T96N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **279**

Northing: **3880444.73(Ft)**

Easting: **5505095.70(Ft)**

Northing: **1182761.919(M)**

Easting: **1677956.527(M)**

Elev: **888.40(Ft)** NAVD_88

Elev: **270.785(M)** NAVD_88

Ellip Ht: **239.537(M)**

99C Geoid Ht: **-31.248(M)**

Latitude: **43 07 28.58248 N**

Longitude: **91 18 46.30738 W**

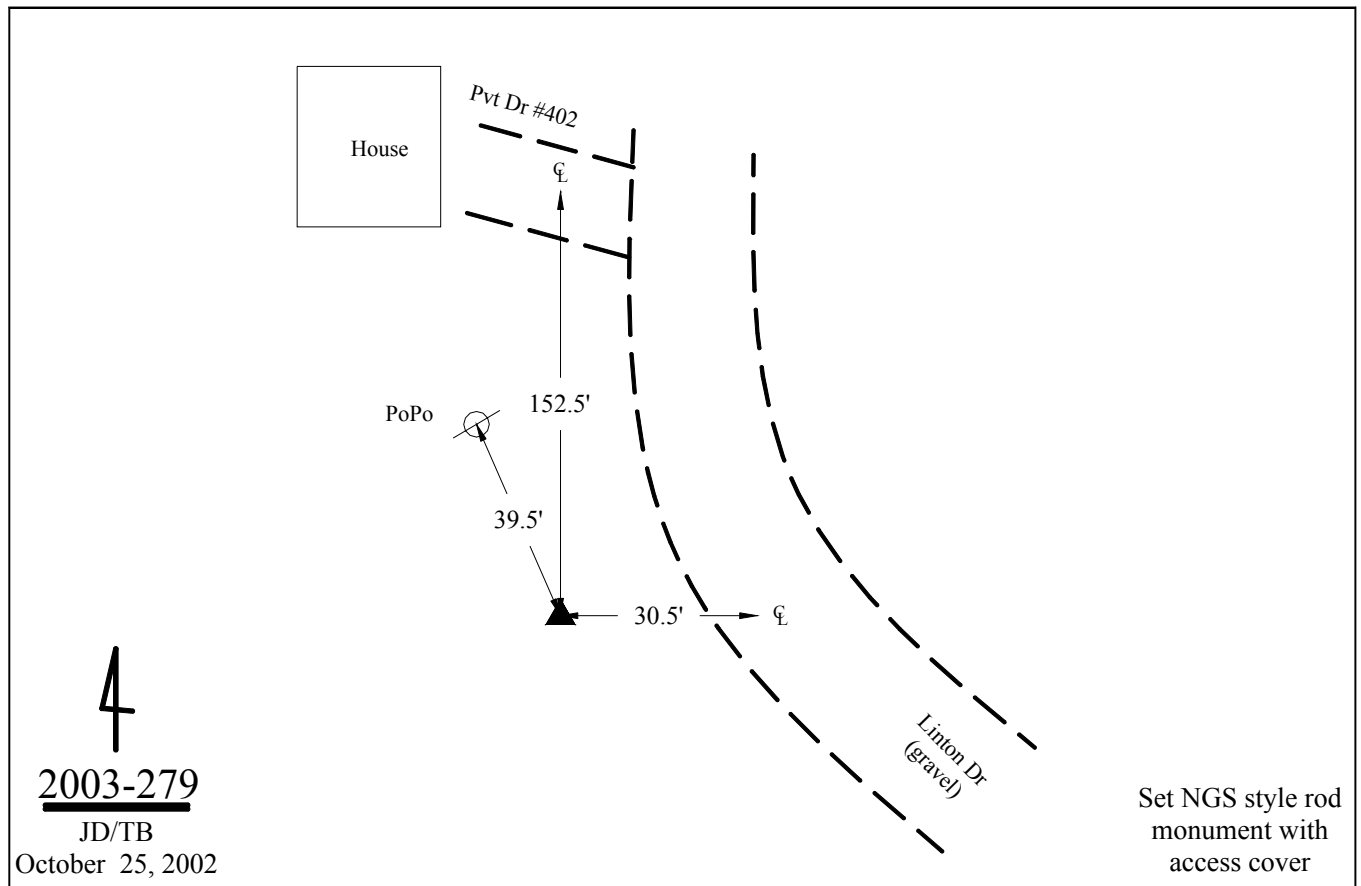
Theta: **1 28 56.352**

Combination Factor: **0.99993957**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-279**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 21 T96N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **280**

Northing: **3878508.15(Ft)**

Easting: **5520962.99(Ft)**

Northing: **1182171.647(M)**

Easting: **1682792.883(M)**

Elev: **661.23(Ft)** NAVD_88

Elev: **201.543(M)** NAVD_88

Ellip Ht: **170.151(M)**

99C Geoid Ht: **-31.392(M)**

Latitude: **43 07 05.35194 N**

Longitude: **91 15 13.11579 W**

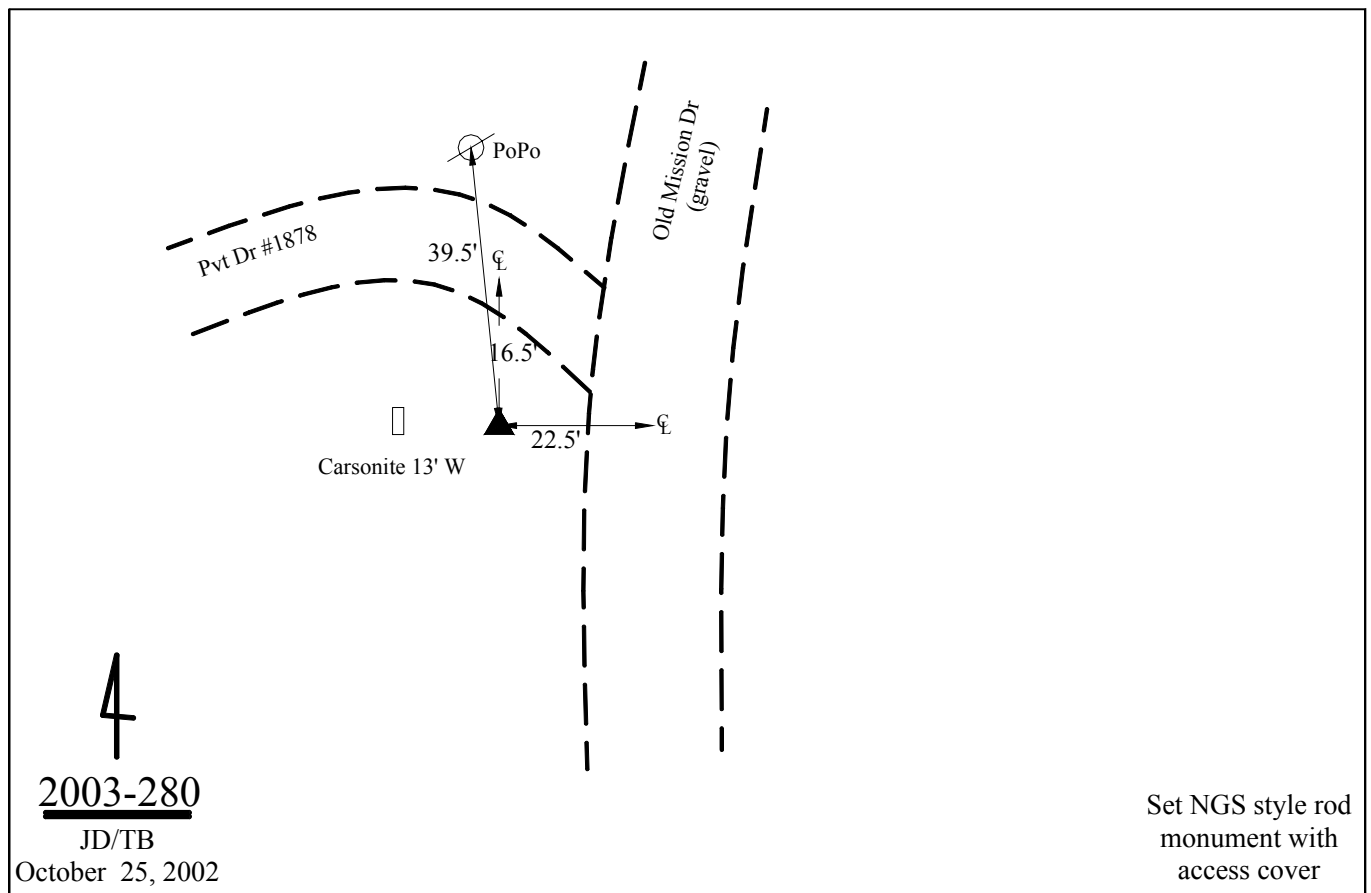
Theta: **1 31 20.842**

Combination Factor: **0.99994956**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-280**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NE 1/4 of Sec 24 T96N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **281**

Northing: **3881096.94(Ft)**

Easting: **5538389.77(Ft)**

Northing: **1182960.714(M)**

Easting: **1688104.578(M)**

Elev: **1103.92(Ft)** NAVD_88

Elev: **336.475(M)** NAVD_88

Ellip Ht: **304.914(M)**

99C Geoid Ht: **-31.561(M)**

Latitude: **43 07 26.27281 N**

Longitude: **91 11 17.28380 W**

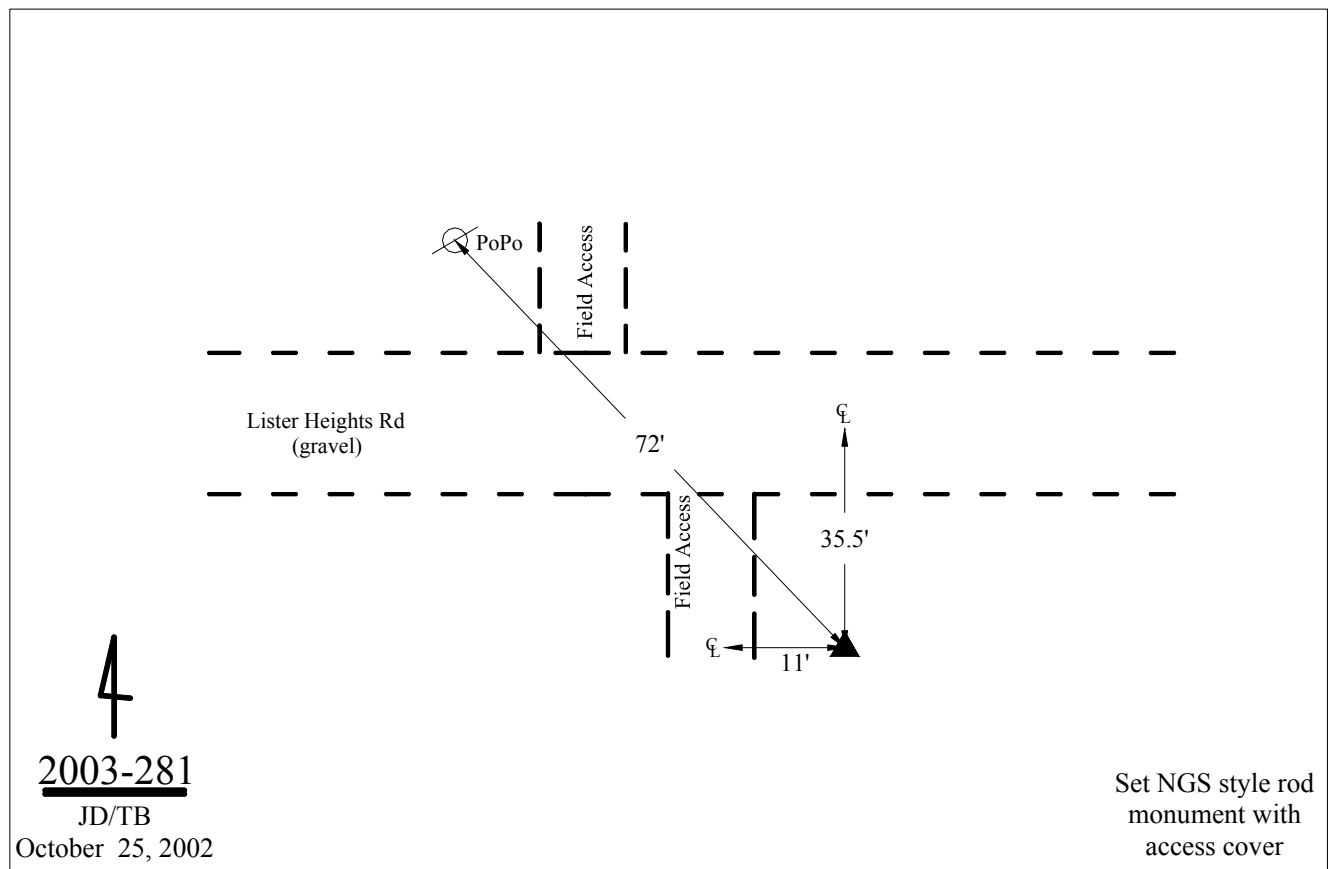
Theta: **1 34 00.676**

Combination Factor: **0.99992924**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-281**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: In the NW 1/4 of Sec 22 T96N R3W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **282**

Northing: **4006517.23(Ft)**

Easting: **5480892.71(Ft)**

Northing: **1221188.893(M)**

Easting: **1670579.440(M)**

Elev: **1102.24(Ft)** NAVD_88

Elev: **335.964(M)** NAVD_88

Ellip Ht: **305.010(M)**

99C Geoid Ht: **-30.954(M)**

Latitude: **43 28 19.41844 N**

Longitude: **91 23 30.17735 W**

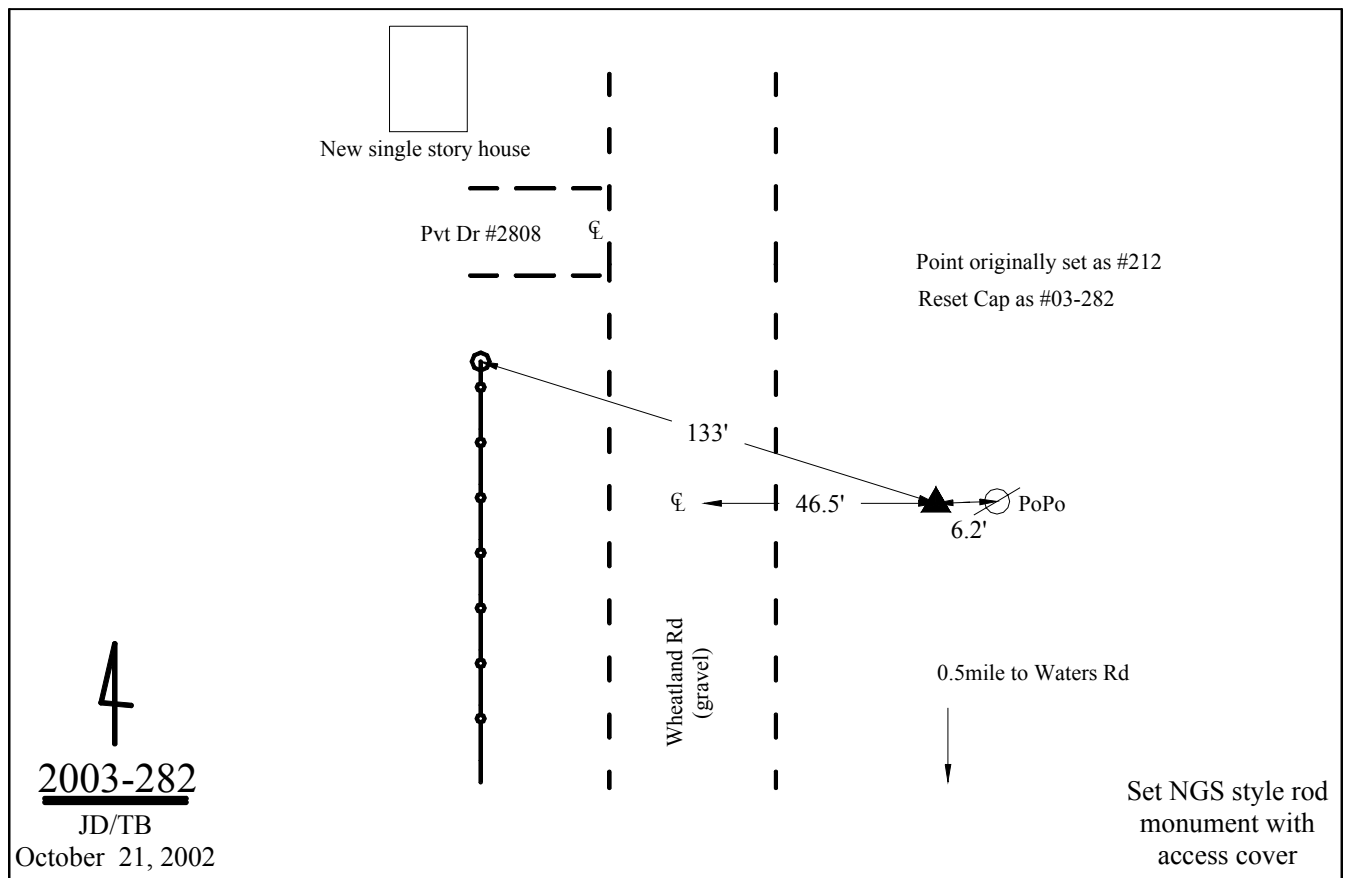
Theta: **1 25 43.961**

Combination Factor: **0.99999617**

Designation: **ALLAMAKEE COUNTY GPS CONTROL PT 2002-282**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.

Remarks: Near the SW Cor of Sec 13 T100N R5W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **301**

Northing: **3914132.80**(Ft)

Easting: **5562104.87**(Ft)

Northing: **1193030.064**(M)

Easting: **1695332.956**(M)

Elev: **634.47**(Ft) NAVD_88

Elev: **193.387**(M) NAVD_88

Ellip Ht: **161.531**(M)

99C Geoid Ht: **-31.856**(M)

Latitude: **43 12 45.90993 N**

Longitude: **91 05 44.96548 W**

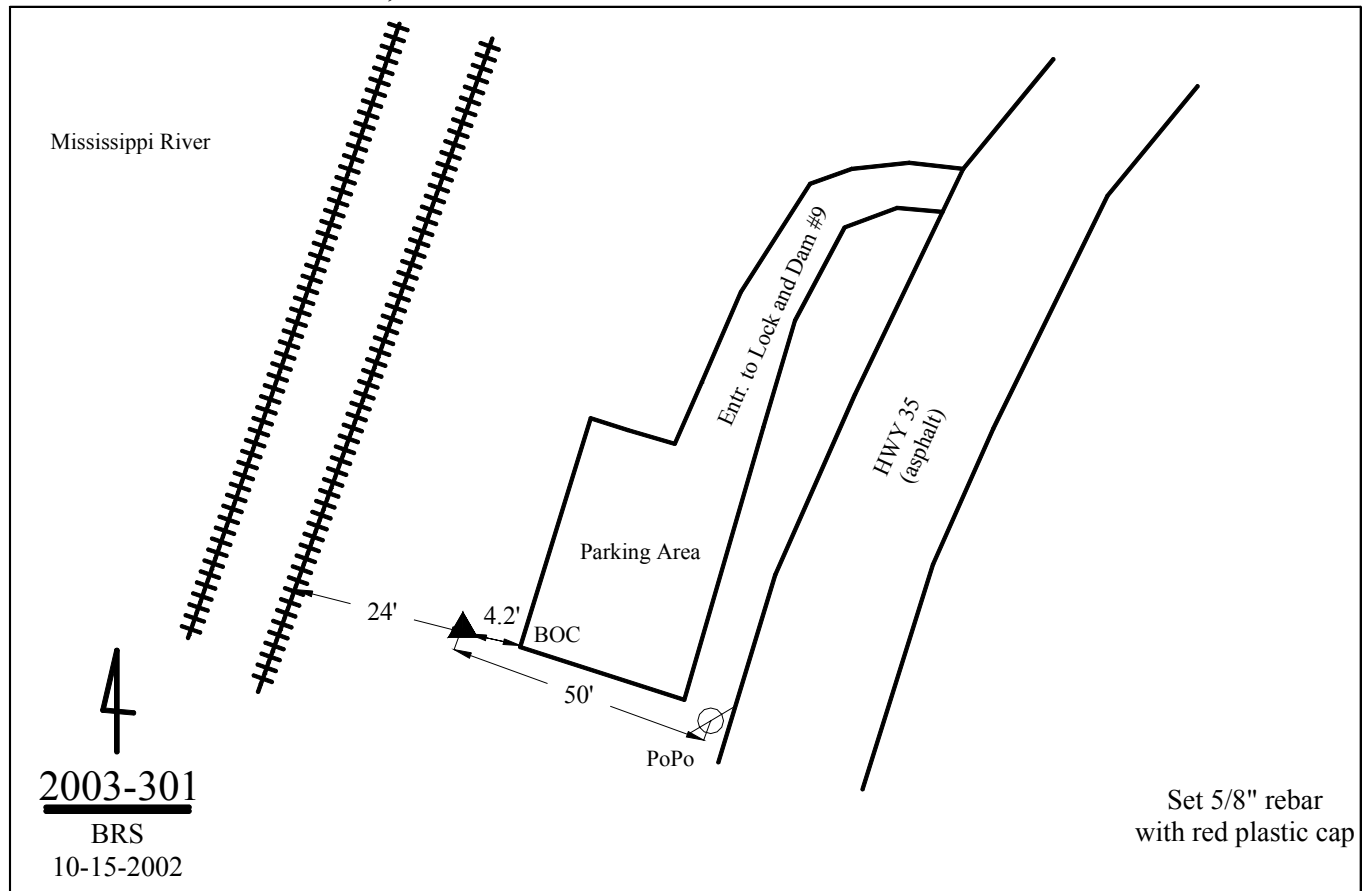
Theta: **1 37 45.903**

Combination Factor: **0.99996526**

Designation: **Photogrammetric Survey Marker**

Monument Type: 5/8" x 30" deformed rebar with a red survey cap.

Remarks: State of Wisconsin, in the SW 1/4 of Sec 33 T9N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **302**

Northing: **3898224.29**(Ft)

Easting: **5560437.65**(Ft)

Northing: **1188181.138**(M)

Easting: **1694824.784**(M)

Elev: **714.98**(Ft) NAVD_88

Elev: **217.927**(M) NAVD_88

Ellip Ht: **186.132**(M)

99C Geoid Ht: **-31.795**(M)

Latitude: **43 10 09.31280 N**

Longitude: **91 06 13.55832 W**

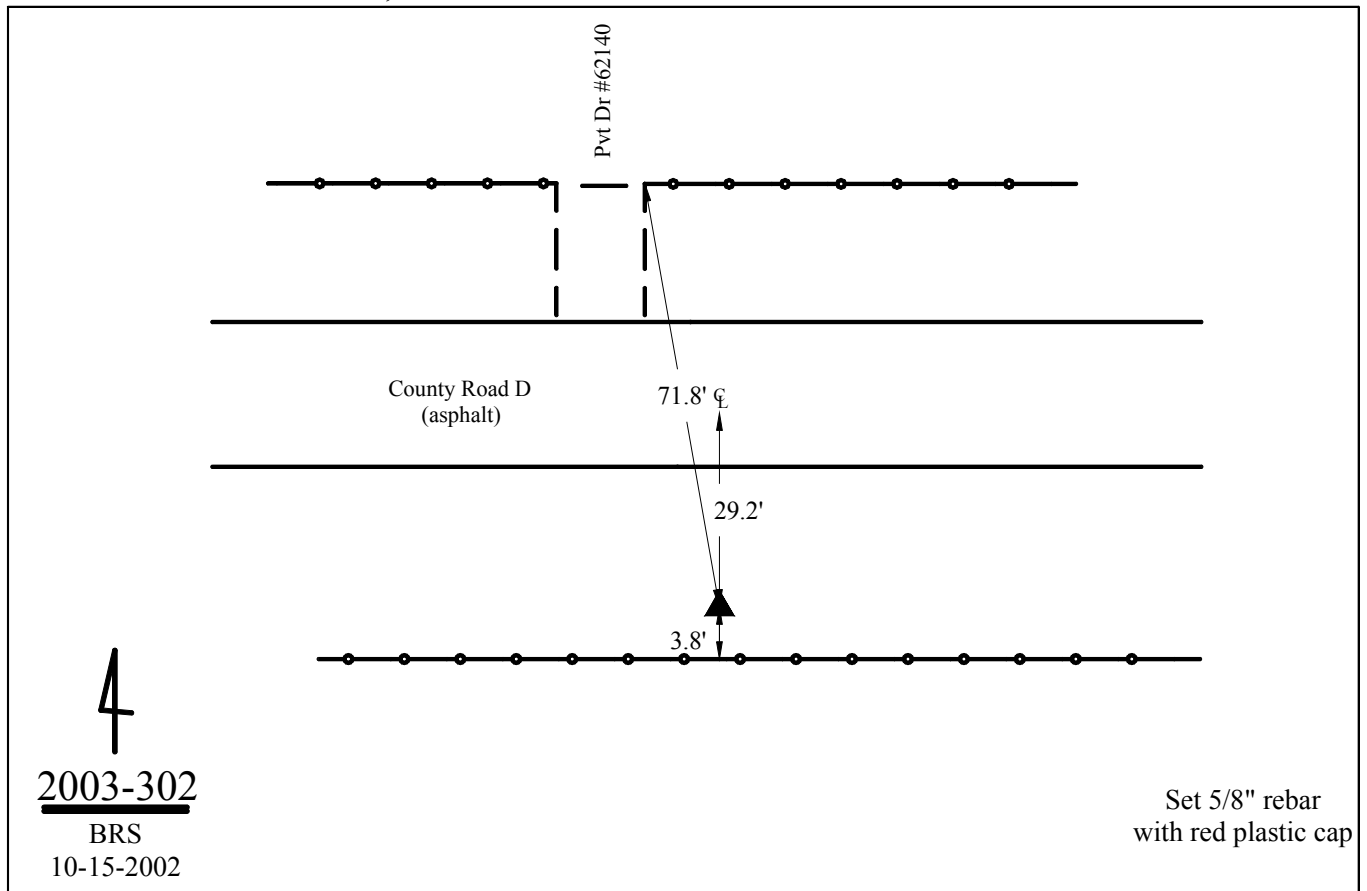
Theta: **1 37 26.524**

Combination Factor: **0.99995447**

Designation: **Photogrammetric Survey Marker**

Monument Type: 5/8" x 30" deformed rebar with a red survey cap.

Remarks: State of Wisconsin, near the E 1/4 Cor of Sec 17 T8N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **303**

Northing: **3881601.67(Ft)**

Easting: **5559545.03(Ft)**

Northing: **1183114.555(M)**

Easting: **1694552.715(M)**

Elev: **1169.29(Ft)** NAVD_88

Elev: **356.400(M)** NAVD_88

Ellip Ht: **324.652(M)**

99C Geoid Ht: **-31.748(M)**

Latitude: **43 07 25.44474 N**

Longitude: **91 06 31.94214 W**

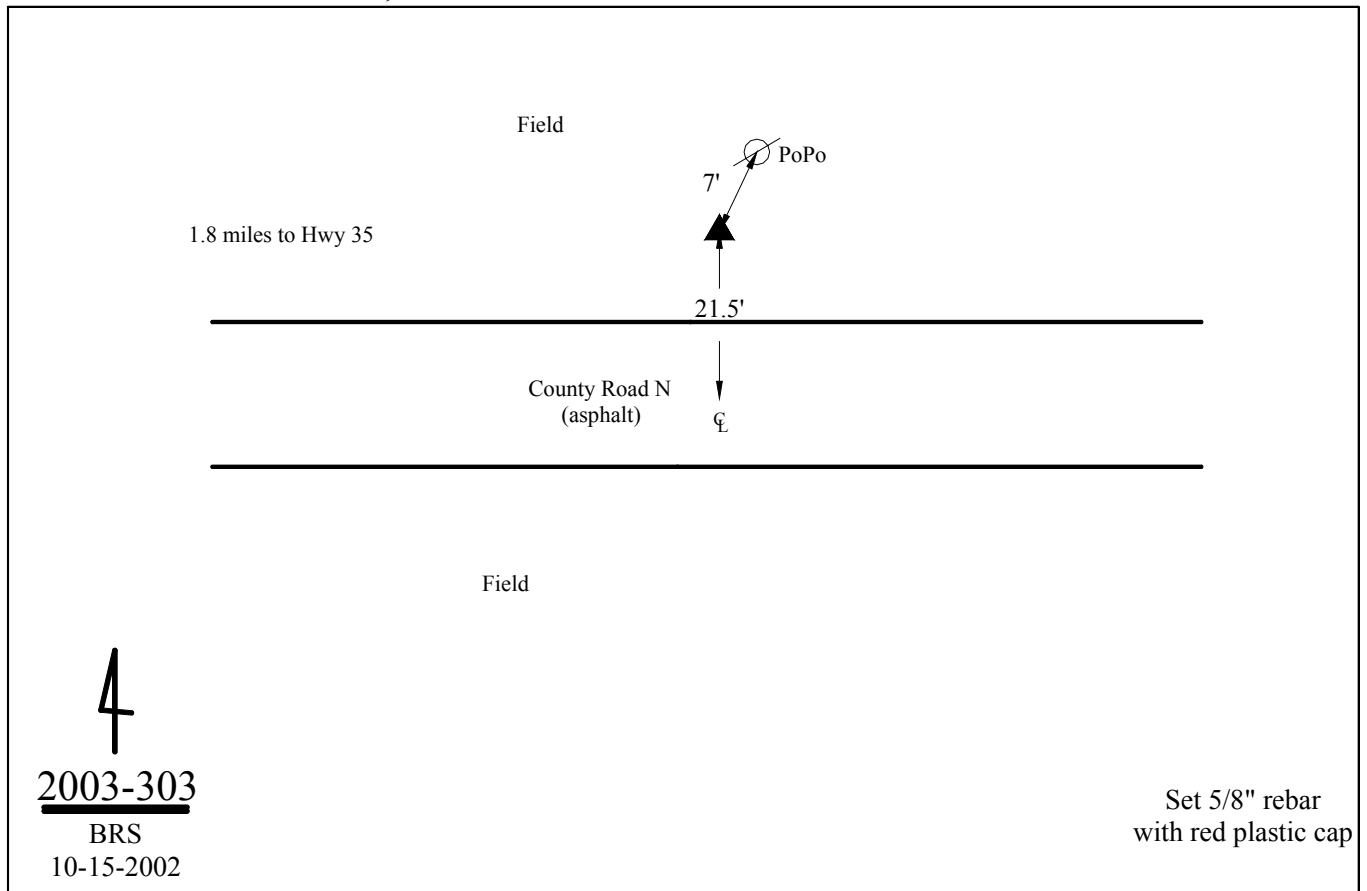
Theta: **1 37 14.064**

Combination Factor: **0.99992610**

Designation: **Photogrammetric Survey Marker**

Monument Type: 5/8" x 30" deformed rebar with a red survey cap.

Remarks: State of Wisconsin, in the SE 1/4 of Sec 32 T8N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **308**

Northing: **3860990.39(Ft)**

Easting: **5427318.67(Ft)**

Northing: **1176832.225(M)**

Easting: **1654250.040(M)**

Elev: **1196.47(Ft)** NAVD_88

Elev: **364.685(M)** NAVD_88

Ellip Ht: **334.107(M)**

99C Geoid Ht: **-30.578(M)**

Latitude: **43 04 35.02514 N**

Longitude: **91 36 20.70102 W**

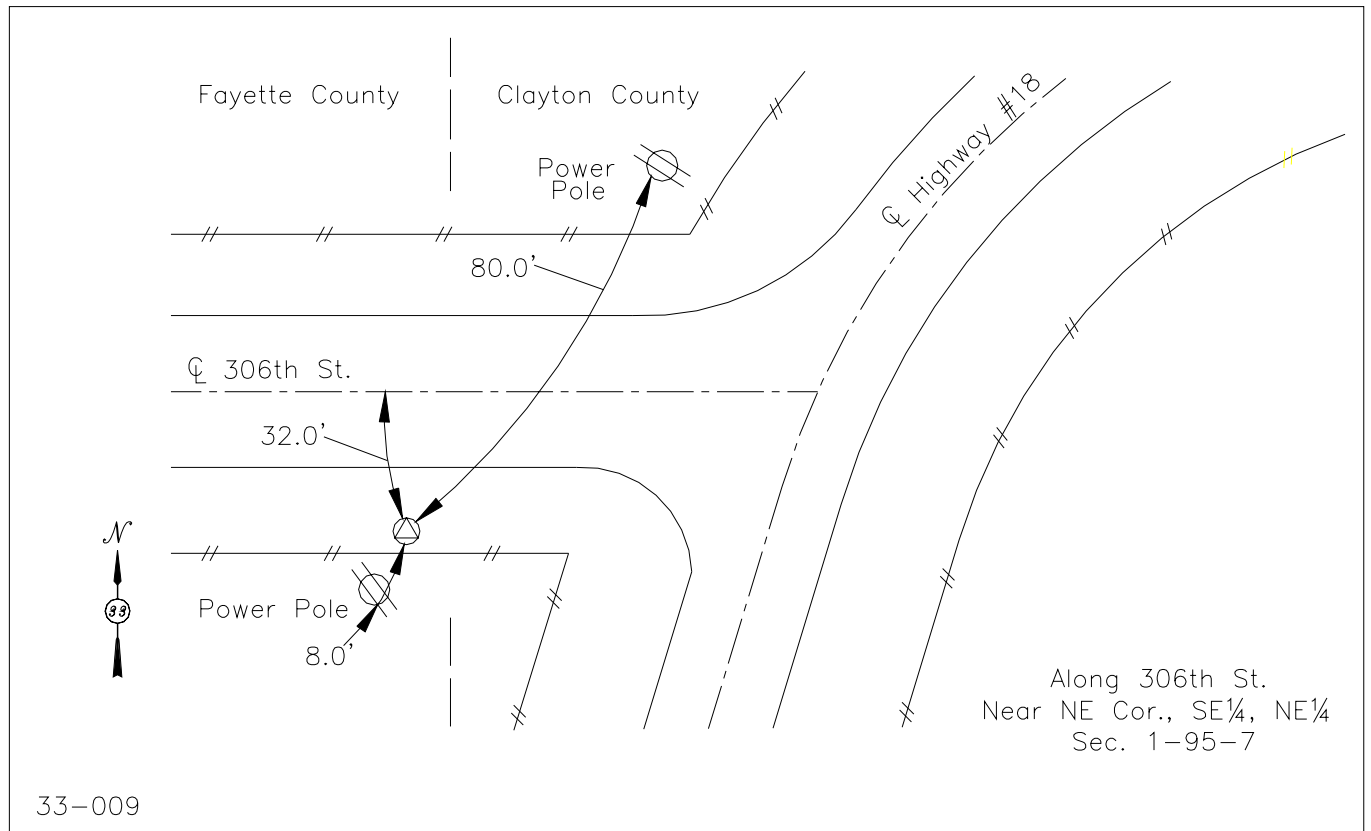
Theta: **1 17 01.743**

Combination Factor: **0.99991839**

Designation: **FAYETTE COUNTY GPS CONTROL PT**

Monument Type: Cast in place concrete monument with a 2-1/2" dia. aluminum cap.

Remarks: In the NE 1/4 of Sec 1 T95N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **402**

Northing: **4022643.89(Ft)**

Easting: **5379356.96(Ft)**

Northing: **1226104.311(M)**

Easting: **1639631.281(M)**

Elev: **1133.74(Ft)** NAVD_88

Elev: **345.564(M)** NAVD_88

Ellip Ht: **315.459(M)**

99C Geoid Ht: **-30.105(M)**

Latitude: **43 31 21.38662 N**

Longitude: **91 46 22.30294 W**

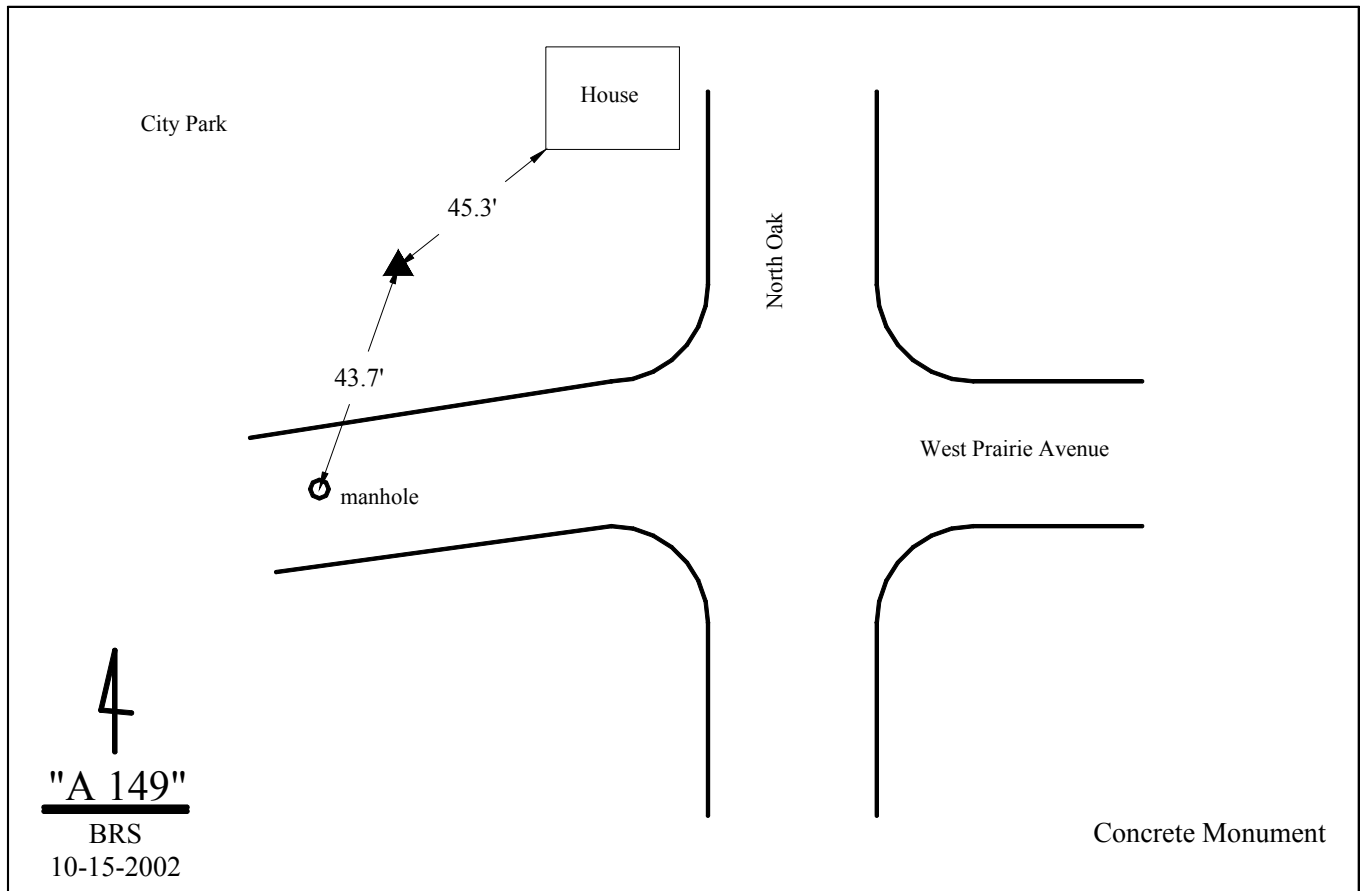
Theta: **1 10 14.010**

Combination Factor: **1.00000735**

Designation: **NGS 2nd order vertical control station "A 149" PID ON0526**

Monument Type: A standard bench mark disk set in the top of a concrete monument.

Remarks: In the SE 1/4 of Sec 27 T101N R8W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **403**

Northing: **3932140.44**(Ft)

Easting: **5392017.33**(Ft)

Northing: **1198518.804**(M)

Easting: **1643490.168**(M)

Elev: **1158.88**(Ft) NAVD_88

Elev: **353.229**(M) NAVD_88

Ellip Ht: **323.065**(M)

99C Geoid Ht: **-30.164**(M)

Latitude: **43 16 25.16196 N**

Longitude: **91 43 56.20022 W**

Theta: **1 11 53.031**

Combination Factor: **0.99995062**

Designation: **CBN control station "DEH A" PID AE2134**

Monument Type: A stainless steel rod in a sleeve with cover.

Remarks: In the SE 1/4 of Sec 25 T98N R8W

2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **404**

Northing: **3865199.20(Ft)**

Easting: **5437240.49(Ft)**

Northing: **1178115.074(M)**

Easting: **1657274.216(M)**

Elev: **1190.34(Ft)** NAVD_88

Elev: **362.818(M)** NAVD_88

Ellip Ht: **332.198(M)**

99C Geoid Ht: **-30.620(M)**

Latitude: **43 05 14.36883 N**

Longitude: **91 34 05.75445 W**

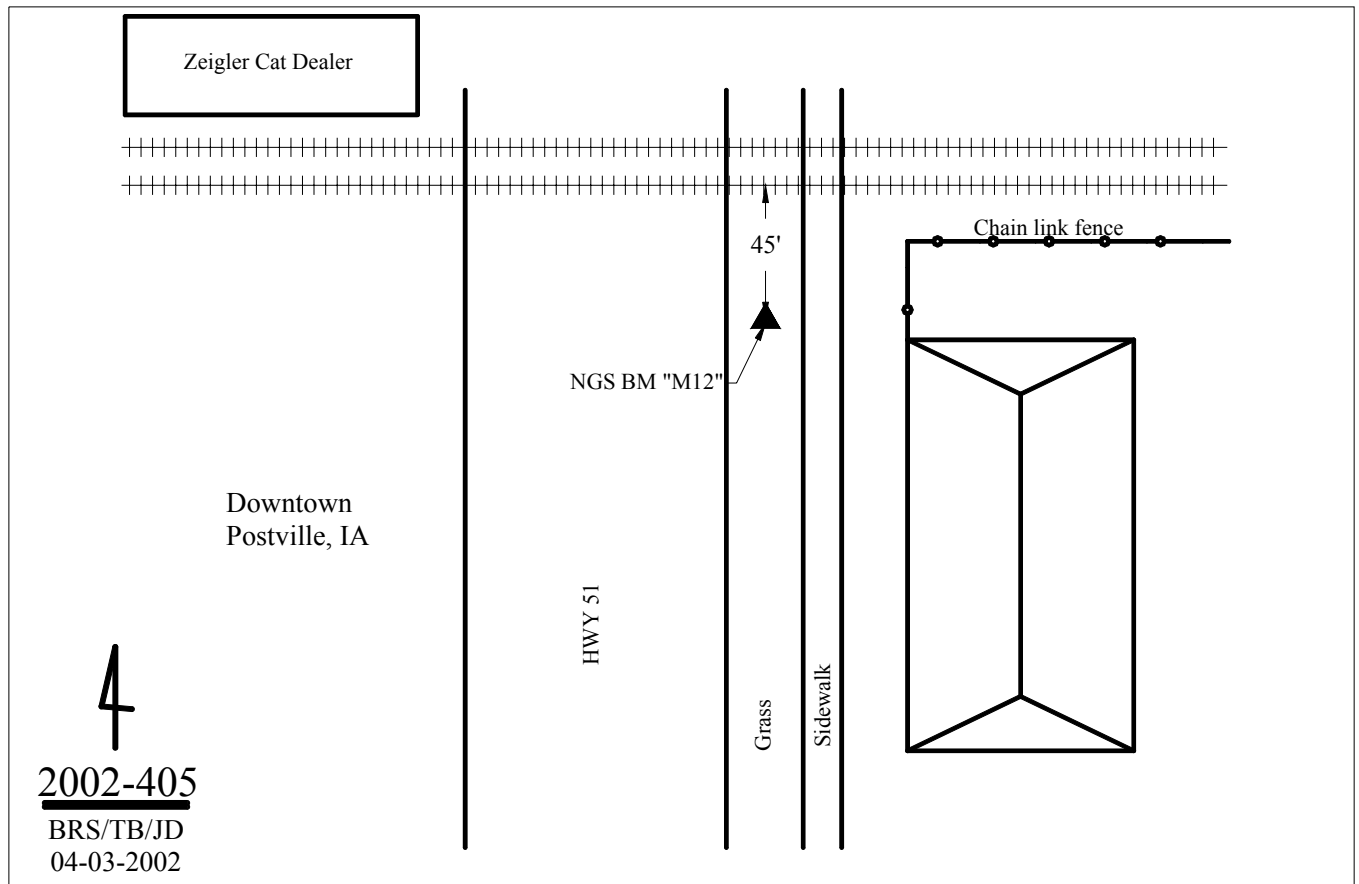
Theta: **1 18 33.202**

Combination Factor: **0.99992007**

Designation: **NGS 1st order vertical control station "M 12" PID ON0502**

Monument Type: A standard bench mark disk set in the top of a concrete monument.

Remarks: In the SW 1/4 of Sec 33 T96N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **405**

Northing: **4018640.97(Ft)**

Easting: **5443000.40(Ft)**

Northing: **1224884.218(M)**

Easting: **1659029.841(M)**

Elev: **1107.30(Ft)** NAVD_88

Elev: **337.507(M)** NAVD_88

Ellip Ht: **306.989(M)**

99C Geoid Ht: **-30.518(M)**

Latitude: **43 30 28.13410 N**

Longitude: **91 32 00.05307 W**

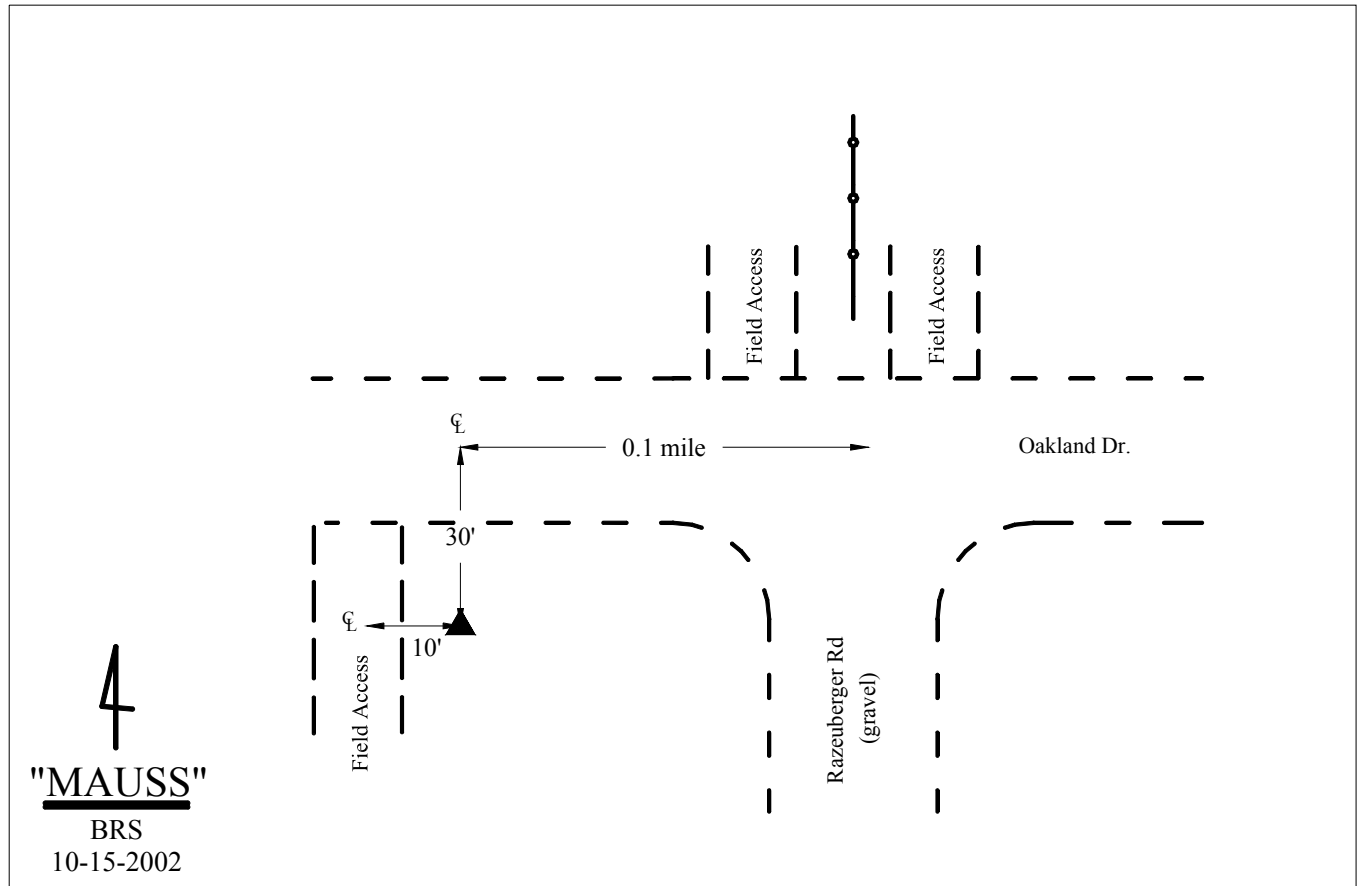
Theta: **1 19 58.396**

Combination Factor: **1.00000485**

Designation: **CBN control station "MAUSS" PID AC4922**

Monument Type: A stainless steel rod in a 5" dia. PVC pipe.

Remarks: Near the E 1/4 Cor of Sec 34 T101N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **406**

Northing: **4018681.39(Ft)**

Easting: **5496348.26(Ft)**

Northing: **1224896.538(M)**

Easting: **1675290.300(M)**

Elev: **1159.46(Ft)** NAVD_88

Elev: **353.403(M)** NAVD_88

Ellip Ht: **322.238(M)**

99C Geoid Ht: **-31.165(M)**

Latitude: **43 30 15.65179 N**

Longitude: **91 19 56.43221 W**

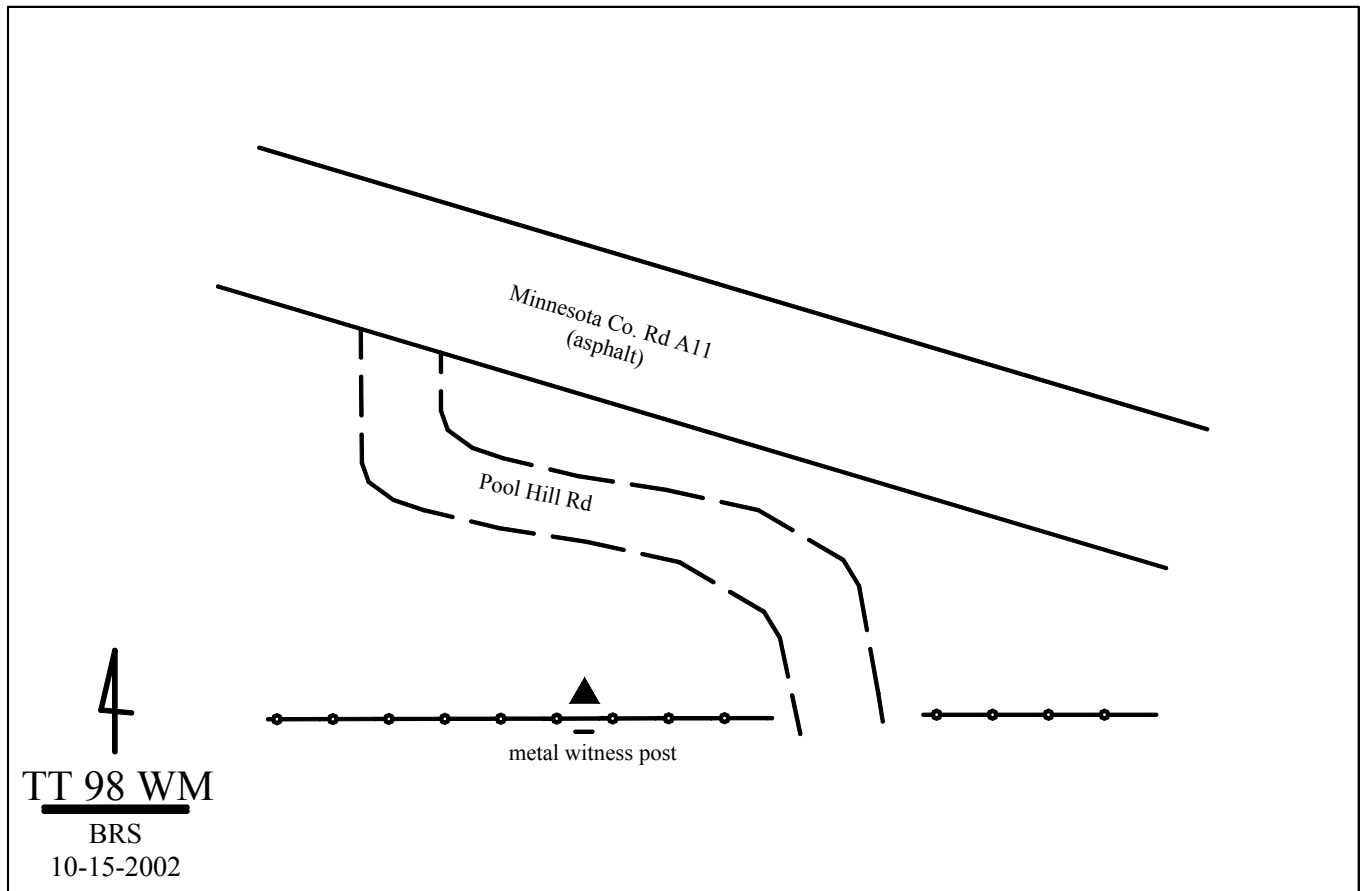
Theta: **1 28 08.826**

Combination Factor: **1.00000157**

Designation: **CBN control station "TT 98 WM" PID AC4927**

Monument Type: A standard bench mark disk set in the top of a concrete monument.

Remarks: In the SE 1/4 of Sec 32 T101N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **407**

Northing: **4020877.93(Ft)**

Easting: **5527844.78(Ft)**

Northing: **1225566.045(M)**

Easting: **1684890.459(M)**

Elev: **634.62(Ft)** NAVD_88

Elev: **193.433(M)** NAVD_88

Ellip Ht: **161.875(M)**

99C Geoid Ht: **-31.558(M)**

Latitude: **43 30 29.14334 N**

Longitude: **91 12 48.44966 W**

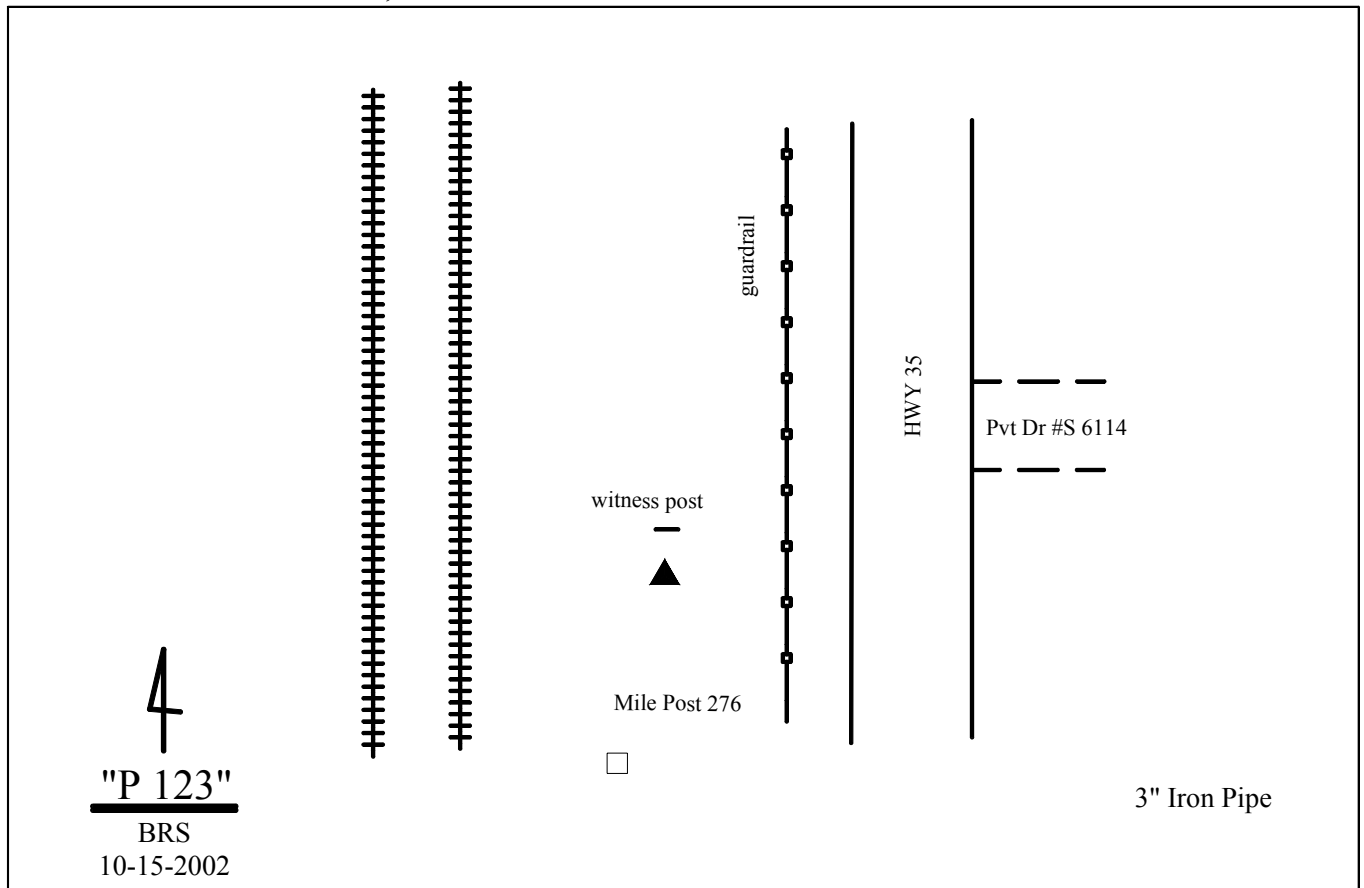
Theta: **1 32 58.889**

Combination Factor: **1.00002768**

Designation: **NGS 1st order vertical control station "P 123" PID ON0206**

Monument Type: A standard bench mark disk set in the top of a driven metal pipe.

Remarks: State of Wisconsin, in the NE 1/4 of Sec 21 T12N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **408**

Northing: **3891222.00(Ft)**

Easting: **5515854.64(Ft)**

Northing: **1186046.838(M)**

Easting: **1681235.856(M)**

Elev: **1160.25(Ft)** NAVD_88

Elev: **353.646(M)** NAVD_88

Ellip Ht: **322.290(M)**

99C Geoid Ht: **-31.356(M)**

Latitude: **43 09 12.21982 N**

Longitude: **91 16 17.44951 W**

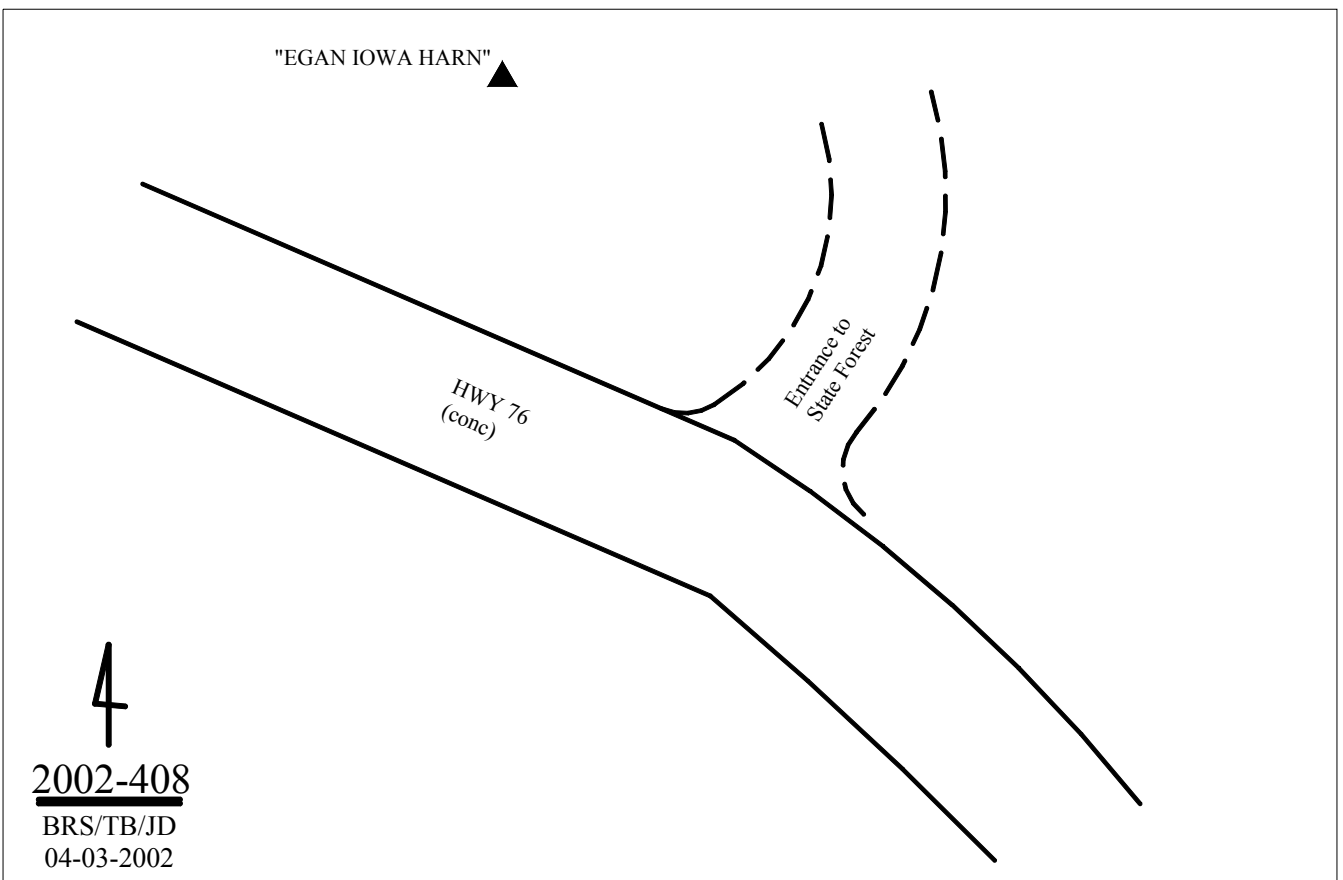
Theta: **1 30 37.240**

Combination Factor: **0.99993073**

Designation: **CBN control station "EGAN IOWA HARN" PID AE2132**

Monument Type: A standard triangulation disk set in the top of a concrete monument.

Remarks: In the SE 1/4 of Sec 2 T96N R4W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **409**

Northing: **3940144.09(Ft)**

Easting: **5573846.30(Ft)**

Northing: **1200958.320(M)**

Easting: **1698911.749(M)**

Elev: **639.25(Ft)** NAVD_88

Elev: **194.844(M)** NAVD_88

Ellip Ht: **162.758(M)**

99C Geoid Ht: **-32.086(M)**

Latitude: **43 16 59.38206 N**

Longitude: **91 02 56.29798 W**

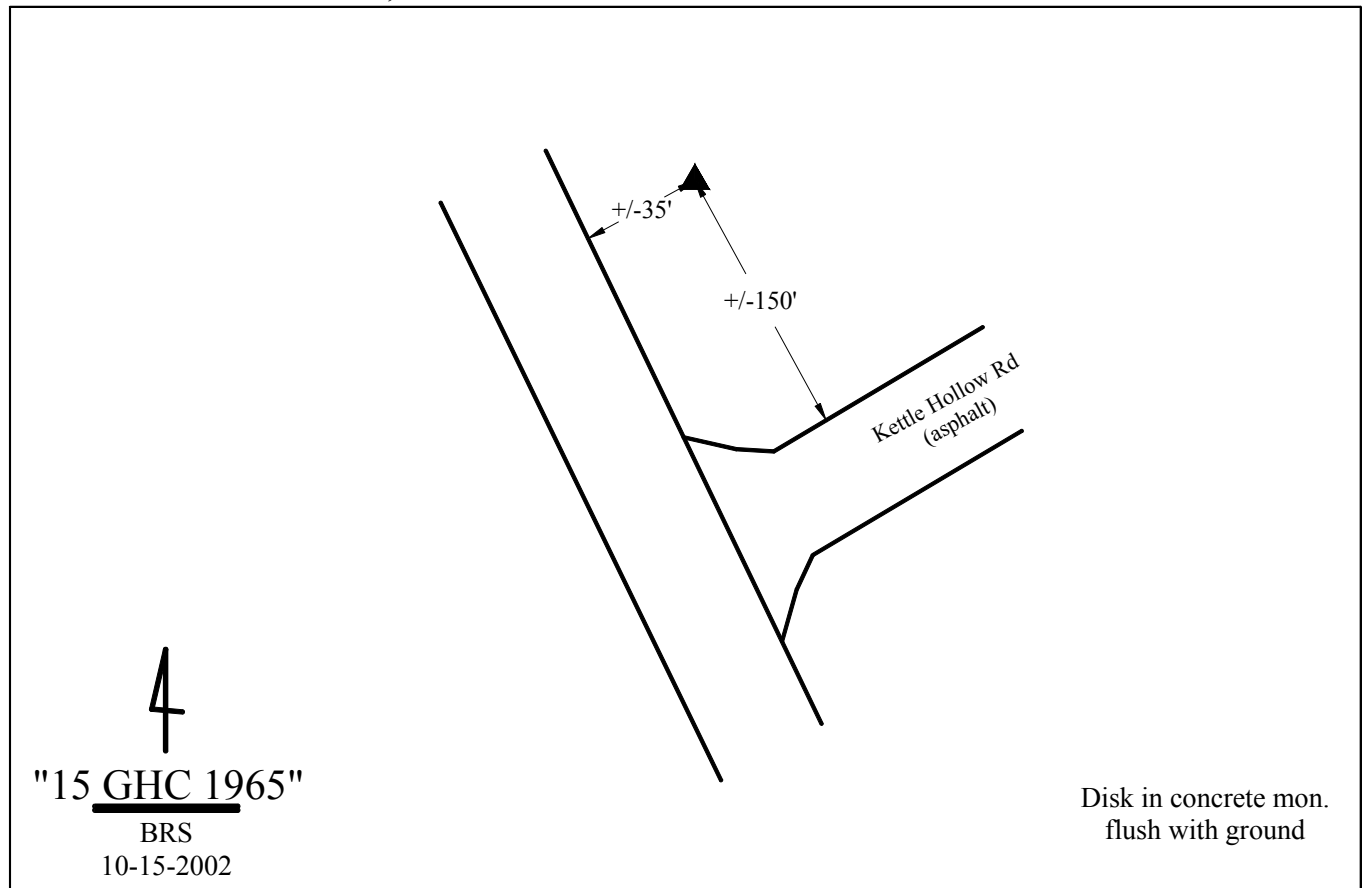
Theta: **1 39 40.216**

Combination Factor: **0.99997754**

Designation: **NGS 1st order vertical control station "15 GHC" PID ON0389**

Monument Type: A standard survey disk set in the top of a concrete monument.

Remarks: State of Wisconsin, in the SE 1/4 of Sec 2 T9N R6W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **410**

Northing: **3859732.06(Ft)**

Easting: **5551193.31(Ft)**

Northing: **1176448.683(M)**

Easting: **1692007.106(M)**

Elev: **636.15(Ft)** NAVD_88

Elev: **193.898(M)** NAVD_88

Ellip Ht: **162.255(M)**

99C Geoid Ht: **-31.643(M)**

Latitude: **43 03 51.83427 N**

Longitude: **91 08 32.73756 W**

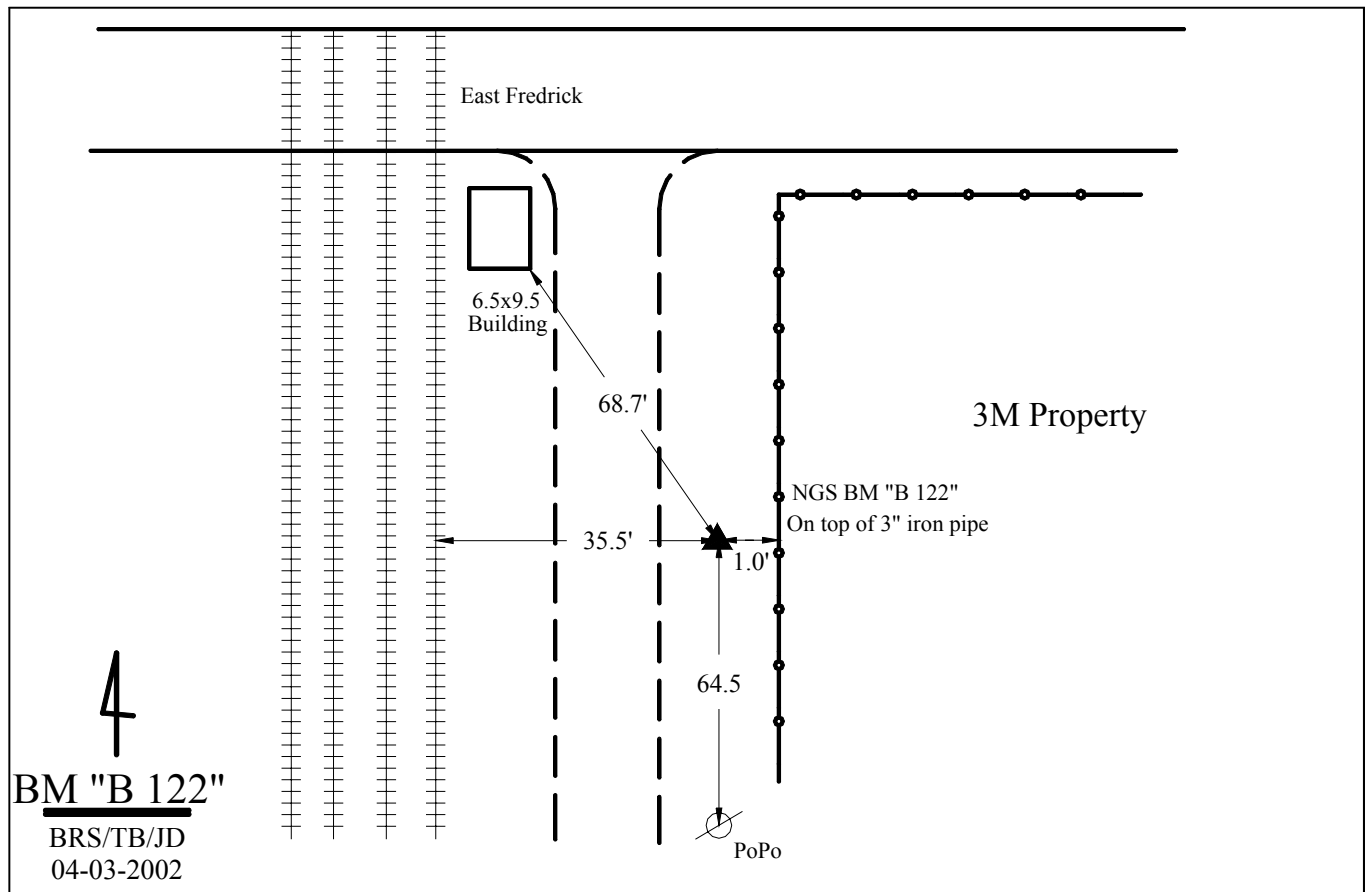
Theta: **1 35 52.196**

Combination Factor: **0.99994387**

Designation: **NGS 1st order vertical control station "B 122" PID ON0349**

Monument Type: A standard bench mark disk set in the top of a driven metal pipe.

Remarks: State of Wisconsin, in the SE 1/4 of Sec.13 T7N R7W



2002
Allamakee County, Iowa
Iowa North Zone (1401)
NAD_83(1996)

Point Number: **411**

Northing: **3844971.57(Ft)**

Easting: **5553915.09(Ft)**

Northing: **1171949.678(M)**

Easting: **1692836.705(M)**

Elev: **647.77(Ft)** NAVD_88

Elev: **197.442(M)** NAVD_88

Ellip Ht: **165.799(M)**

99C Geoid Ht: **-31.643(M)**

Latitude: **43 01 25.34459 N**

Longitude: **91 08 01.65081 W**

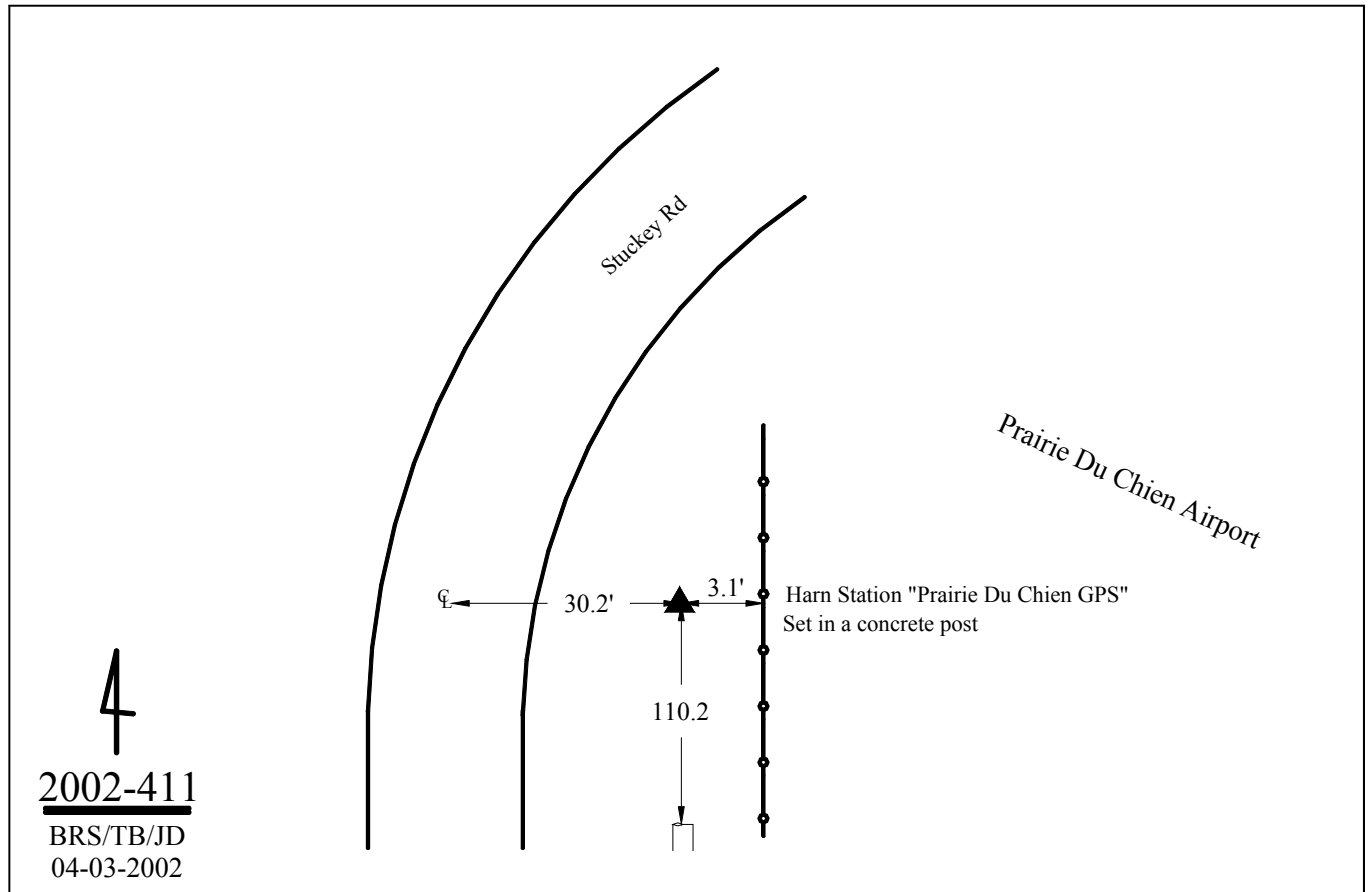
Theta: **1 36 13.265**

Combination Factor: **0.99993864**

Designation: **CBN control station "PRAIRIE DU CHIEN GPS" PID ON1190**

Monument Type: A standard horizontal control disk set in the top of a concrete monument.

Remarks: State of Wisconsin, in the SW 1/4 of Sec. 6 T6N R6W



Project Summary

Final Adjustment

Project file: Final Adjustment.spr

Date: 12/22/02

Client Name:	Allamakee County
Project Name:	Final Adjustment
Project Comments:	NAD 83(1996)Iowa State Plane North ZoneNAVD 88U.S. feet
Desired Horizontal Accuracy:	0.033USft + 5ppm
Desired Vertical Accuracy:	0.066USft + 5ppm
Confidence Level:	95% Err.
Horizontal Coordinate System:	State Plane Coordinate 1983
Height System:	Ortho. Ht. (GEOID99)
Linear Units:	US Feet
Number of Sites:	102
Number of Vectors:	327
Survey Company Name:	Aerial Services, Inc

Adjustment Summary

Project file: Final Adjustment.spr

Date: 12/22/02

Adjustment Type:	Fully Constrained
Variance of Unit Weight:	1.0
Adjustment scale factor:	1.70
Vectors Failing Tau Test:	2
Site Pairs Failing Relative Accuracy QA Test:	0
Vector Total:	266
Site Total:	102
Horizontally Constrained Sites:	13
Vertically Constrained Sites:	10
Horizontal Coordinate System:	State Plane Coordinate 1983
Height System:	Ortho. Ht. (GEOID99)
Desired Horizontal Accuracy:	0.033USft + 5ppm
Desired Vertical Accuracy:	0.066USft + 5ppm
Confidence Level:	95% Err.

Site Positions

Final Adjustment

Horizontal Coordinate System: State Plane Coordinate 1983 **Date:** 12/22/02
Height System: Ortho. Ht. (GEOID99) **Project file:** Final
 Adjustment.spr
Desired Horizontal Accuracy: 0.033USft + 5ppm
Desired Vertical Accuracy: 0.066USft + 5ppm
Confidence Level: 95% Err.
Linear Units of Measure: US Feet

	<u>Site ID</u>	<u>Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Fix Status</u>	<u>Position Status</u>
1	0101	Clayton Co 2002-101	East.	5442576.785	0.000	Fixed	Adjusted
			Nrth.	3863205.575	0.000	Fixed	
			Elev.	1157.232	0.000	Fixed	
2	0102	Clayton Co 2002-102	East.	5459634.031	0.000	Fixed	Adjusted
			Nrth.	3863357.369	0.000	Fixed	
			Elev.	1033.437	0.000	Fixed	
3	0103	Clayton Co 2002-103	East.	5476061.889	0.000	Fixed	Adjusted
			Nrth.	3863925.579	0.000	Fixed	
			Elev.	1124.632	0.044		
4	0104	Clayton Co 2002-104	East.	5490205.417	0.000	Fixed	Adjusted
			Nrth.	3864236.448	0.000	Fixed	
			Elev.	1090.345	0.000	Fixed	
5	0105	Clayton Co 2002-105	East.	5508882.214	0.000	Fixed	Adjusted
			Nrth.	3864493.922	0.000	Fixed	
			Elev.	1110.620	0.000	Fixed	
6	0106	Clayton Co 2002-106	East.	5520428.893	0.000	Fixed	Adjusted
			Nrth.	3863816.846	0.000	Fixed	
			Elev.	1005.721	0.000	Fixed	
7	0107	Clayton Co 2002-107	East.	5540895.936	0.000	Fixed	Adjusted
			Nrth.	3865562.466	0.000	Fixed	
			Elev.	630.411	0.048		
8	0205	IASOTA	East.	5486088.031	0.027		Adjusted
			Nrth.	4017111.388	0.022		
			Elev.	1174.078	0.069		
9	0403	CBN "DEH A"	East.	5392017.326	0.000	Fixed	Adjusted
			Nrth.	3932140.443	0.000	Fixed	
			Elev.	1158.884	0.123		
10	0404	M 12	East.	5437240.490	0.020		Adjusted
			Nrth.	3865199.204	0.016		
			Elev.	1190.344	0.030		
11	0402	A 149	East.	5379356.962	0.101		Adjusted

			Nrth.	4022643.892	0.066		
			Elev.	1133.737	0.000	Fixed	
12	0405	CBN "MAUSS"	East.	5443000.403	0.000	Fixed	Adjusted
			Nrth.	4018640.972	0.000	Fixed	
			Elev.	1107.304	0.083		
13	0406	CBN "TT98 WM"	East.	5496348.259	0.000	Fixed	Adjusted
			Nrth.	4018681.392	0.000	Fixed	
			Elev.	1159.456	0.065		
14	0408	CBN "EGAN IOWA HARN"	East.	5515854.638	0.000	Fixed	Adjusted
			Nrth.	3891222.001	0.000	Fixed	
			Elev.	1160.253	0.042		
15	0407	P 123	East.	5527844.782	0.054		Adjusted
			Nrth.	4020877.931	0.039		
			Elev.	634.623	0.000	Fixed	
16	0409	15 GHC	East.	5573846.298	0.061		Adjusted
			Nrth.	3940144.088	0.043		
			Elev.	639.251	0.000	Fixed	
17	0410	B 122	East.	5551193.312	0.040		Adjusted
			Nrth.	3859732.055	0.026		
			Elev.	636.148	0.000	Fixed	
18	0411	PRAIRIE DU CHIEN GPS	East.	5553915.090	0.000	Fixed	Adjusted
			Nrth.	3844971.569	0.000	Fixed	
			Elev.	647.773	0.109		
19	0308	Fayette Co 2002-308	East.	5427318.673	0.000	Fixed	Adjusted
			Nrth.	3860990.392	0.000	Fixed	
			Elev.	1196.471	0.000	Fixed	
20	0204		East.	5470072.165	0.033		Adjusted
			Nrth.	4016203.419	0.025		
			Elev.	1092.066	0.076		
21	0201		East.	5422548.413	0.039		Adjusted
			Nrth.	4015535.375	0.030		
			Elev.	1219.323	0.088		
22	0202		East.	5438332.500	0.019		Adjusted
			Nrth.	4015928.930	0.015		
			Elev.	1091.367	0.082		
23	0203		East.	5453912.384	0.026		Adjusted
			Nrth.	4016365.226	0.019		
			Elev.	1098.292	0.079		
24	0206		East.	5498760.646	0.014		Adjusted
			Nrth.	4017468.525	0.014		
			Elev.	923.397	0.062		
25	0207		East.	5509039.277	0.034		Adjusted
			Nrth.	4017718.474	0.026		

		Elev.	638.797	0.061	
26	0208	East.	5420100.714	0.039	Adjusted
		Nrth.	4004806.508	0.029	
		Elev.	1151.458	0.085	
27	0209	East.	5437888.693	0.026	Adjusted
		Nrth.	4005506.862	0.020	
		Elev.	1162.639	0.078	
28	0210	East.	5454510.220	0.031	Adjusted
		Nrth.	4006948.942	0.022	
		Elev.	1077.125	0.077	
29	0211	East.	5468768.719	0.035	Adjusted
		Nrth.	4005919.474	0.025	
		Elev.	1099.811	0.076	
30	0213	East.	5500008.356	0.026	Adjusted
		Nrth.	4006145.546	0.022	
		Elev.	640.591	0.061	
31	0214	East.	5507439.655	0.028	Adjusted
		Nrth.	4006744.568	0.024	
		Elev.	652.909	0.058	
32	0215	East.	5420407.080	0.042	Adjusted
		Nrth.	3989129.008	0.032	
		Elev.	1100.057	0.086	
33	0216	East.	5439131.708	0.038	Adjusted
		Nrth.	3989250.171	0.027	
		Elev.	711.601	0.079	
34	0217	East.	5454933.866	0.036	Adjusted
		Nrth.	3990493.387	0.024	
		Elev.	671.730	0.075	
35	0218	East.	5470743.591	0.040	Adjusted
		Nrth.	3990356.186	0.027	
		Elev.	666.857	0.075	
36	0219	East.	5484764.670	0.037	Adjusted
		Nrth.	3990881.089	0.026	
		Elev.	647.970	0.069	
37	0220	East.	5502674.949	0.036	Adjusted
		Nrth.	3991366.372	0.026	
		Elev.	786.091	0.067	
38	0221	East.	5515431.627	0.039	Adjusted
		Nrth.	3991068.822	0.030	
		Elev.	643.726	0.067	
39	0222	East.	5423348.519	0.043	Adjusted
		Nrth.	3975403.922	0.032	
		Elev.	1085.627	0.083	

40	0223	East.	5439464.579	0.038	Adjusted
		Nrth.	3974559.210	0.028	
		Elev.	825.135	0.075	
41	0224	East.	5455321.372	0.038	Adjusted
		Nrth.	3974236.235	0.028	
		Elev.	1073.157	0.071	
42	0225	East.	5468652.319	0.038	Adjusted
		Nrth.	3974489.129	0.028	
		Elev.	1059.743	0.068	
43	0226	East.	5486939.798	0.039	Adjusted
		Nrth.	3974857.848	0.032	
		Elev.	1099.187	0.065	
44	0227	East.	5502805.644	0.042	Adjusted
		Nrth.	3975247.043	0.035	
		Elev.	1157.175	0.067	
45	0228	East.	5517694.011	0.043	Adjusted
		Nrth.	3975554.712	0.034	
		Elev.	1123.032	0.068	
46	0229	East.	5424564.877	0.049	Adjusted
		Nrth.	3958682.226	0.034	
		Elev.	802.121	0.090	
47	0230	East.	5439704.769	0.041	Adjusted
		Nrth.	3958029.844	0.031	
		Elev.	857.309	0.074	
48	0231	East.	5456916.555	0.039	Adjusted
		Nrth.	3958468.450	0.032	
		Elev.	936.440	0.067	
49	0232	East.	5470722.815	0.046	Adjusted
		Nrth.	3959628.690	0.036	
		Elev.	1173.095	0.072	
50	0233	East.	5487890.968	0.036	Adjusted
		Nrth.	3958735.714	0.029	
		Elev.	1241.278	0.059	
51	0234	East.	5503195.742	0.043	Adjusted
		Nrth.	3959540.714	0.032	
		Elev.	1205.437	0.065	
52	0235	East.	5518726.348	0.041	Adjusted
		Nrth.	3959847.007	0.032	
		Elev.	1118.262	0.062	
53	0236	East.	5534056.544	0.047	Adjusted
		Nrth.	3960447.381	0.037	
		Elev.	786.928	0.067	

54	0237	East.	5425661.953	0.042	Adjusted
		Nrth.	3942768.385	0.028	
		Elev.	911.588	0.080	
55	0238	East.	5441374.214	0.041	Adjusted
		Nrth.	3944954.928	0.029	
		Elev.	1243.778	0.072	
56	0239	East.	5457015.338	0.041	Adjusted
		Nrth.	3942105.993	0.033	
		Elev.	1293.549	0.066	
57	0240	East.	5472520.446	0.041	Adjusted
		Nrth.	3942858.472	0.035	
		Elev.	1155.647	0.063	
58	0241	East.	5489187.938	0.045	Adjusted
		Nrth.	3944254.835	0.034	
		Elev.	887.877	0.069	
59	0242	East.	5503012.364	0.040	Adjusted
		Nrth.	3944511.513	0.030	
		Elev.	744.261	0.060	
60	0243	East.	5525485.994	0.043	Adjusted
		Nrth.	3945383.107	0.035	
		Elev.	727.555	0.059	
61	0244	East.	5535895.673	0.042	Adjusted
		Nrth.	3944202.669	0.033	
		Elev.	1126.971	0.058	
62	0245	East.	5551434.255	0.050	Adjusted
		Nrth.	3946087.211	0.039	
		Elev.	1039.236	0.064	
63	0246	East.	5561761.968	0.052	Adjusted
		Nrth.	3944112.324	0.039	
		Elev.	653.277	0.061	
64	0247	East.	5423422.202	0.044	Adjusted
		Nrth.	3925998.219	0.031	
		Elev.	1230.946	0.078	
65	0248	East.	5441271.787	0.040	Adjusted
		Nrth.	3926395.406	0.028	
		Elev.	1239.145	0.068	
66	0249	East.	5457190.988	0.038	Adjusted
		Nrth.	3926702.687	0.028	
		Elev.	1221.565	0.061	
67	0250	East.	5474163.604	0.042	Adjusted
		Nrth.	3927095.450	0.028	
		Elev.	1222.854	0.063	
68	0251	East.	5488987.611	0.038	Adjusted

		Nrth.	3927344.374	0.029	
		Elev.	1071.279	0.056	
69	0252	East.	5506720.830	0.038	Adjusted
		Nrth.	3927752.930	0.028	
		Elev.	1203.463	0.057	
70	0253	East.	5520511.106	0.036	Adjusted
		Nrth.	3928039.150	0.027	
		Elev.	1120.549	0.053	
71	0254	East.	5536354.078	0.042	Adjusted
		Nrth.	3928554.539	0.032	
		Elev.	1137.863	0.057	
72	0255	East.	5551303.664	0.044	Adjusted
		Nrth.	3929361.696	0.034	
		Elev.	1017.201	0.055	
73	0256	East.	5558730.010	0.047	Adjusted
		Nrth.	3927280.257	0.036	
		Elev.	639.026	0.057	
74	0257	East.	5426628.587	0.048	Adjusted
		Nrth.	3910181.042	0.036	
		Elev.	1191.886	0.076	
75	0258	East.	5441868.928	0.042	Adjusted
		Nrth.	3910554.566	0.029	
		Elev.	1161.774	0.066	
76	0259	East.	5458070.947	0.041	Adjusted
		Nrth.	3910244.931	0.029	
		Elev.	973.290	0.062	
77	0260	East.	5473203.590	0.050	Adjusted
		Nrth.	3911306.800	0.034	
		Elev.	1208.120	0.072	
78	0261	East.	5488998.431	0.036	Adjusted
		Nrth.	3911643.349	0.025	
		Elev.	1052.166	0.053	
79	0262	East.	5504489.519	0.036	Adjusted
		Nrth.	3912285.044	0.026	
		Elev.	1007.769	0.053	
80	0263	East.	5518405.343	0.034	Adjusted
		Nrth.	3915383.171	0.026	
		Elev.	1019.808	0.052	
81	0264	East.	5534173.782	0.036	Adjusted
		Nrth.	3912881.993	0.027	
		Elev.	1088.035	0.051	
82	0265	East.	5549954.578	0.045	Adjusted
		Nrth.	3913640.334	0.034	

		Elev.	650.227	0.056	
83	0266	East.	5426886.426	0.045	Adjusted
		Nrth.	3893256.718	0.033	
		Elev.	1186.220	0.068	
84	0267	East.	5443324.529	0.036	Adjusted
		Nrth.	3894840.902	0.026	
		Elev.	927.767	0.054	
85	0268	East.	5458859.341	0.035	Adjusted
		Nrth.	3895155.462	0.024	
		Elev.	881.713	0.052	
86	0269	East.	5474959.611	0.033	Adjusted
		Nrth.	3895528.617	0.024	
		Elev.	1111.343	0.047	
87	0270	East.	5488065.455	0.032	Adjusted
		Nrth.	3895688.754	0.025	
		Elev.	1129.250	0.045	
88	0271	East.	5506573.889	0.025	Adjusted
		Nrth.	3896339.150	0.020	
		Elev.	1149.782	0.043	
89	0272	East.	5521605.752	0.024	Adjusted
		Nrth.	3897944.081	0.020	
		Elev.	683.914	0.045	
90	0273	East.	5536140.371	0.031	Adjusted
		Nrth.	3896771.271	0.025	
		Elev.	998.878	0.047	
91	0274	East.	5425757.424	0.036	Adjusted
		Nrth.	3878757.266	0.026	
		Elev.	1040.094	0.053	
92	0275	East.	5442223.666	0.034	Adjusted
		Nrth.	3879334.250	0.025	
		Elev.	1110.478	0.048	
93	0276	East.	5458247.719	0.033	Adjusted
		Nrth.	3879719.918	0.025	
		Elev.	1128.435	0.047	
94	0277	East.	5473465.801	0.030	Adjusted
		Nrth.	3879368.652	0.024	
		Elev.	865.549	0.043	
95	0278	East.	5489113.444	0.030	Adjusted
		Nrth.	3879394.119	0.023	
		Elev.	1050.842	0.040	
96	0279	East.	5505095.704	0.025	Adjusted
		Nrth.	3880444.730	0.021	
		Elev.	888.401	0.036	

97	0280	East.	5520962.985	0.026	Adjusted
		Nrth.	3878508.146	0.021	
		Elev.	661.228	0.039	
98	0281	East.	5538389.769	0.033	Adjusted
		Nrth.	3881096.942	0.022	
		Elev.	1103.917	0.048	
99	0282	East.	5480892.714	0.036	Adjusted
		Nrth.	4006517.227	0.029	
		Elev.	1102.242	0.074	
100	0301	East.	5562104.873	0.049	Adjusted
		Nrth.	3914132.800	0.037	
		Elev.	634.472	0.059	
101	0302	East.	5560437.646	0.045	Adjusted
		Nrth.	3898224.285	0.030	
		Elev.	714.982	0.061	
102	0303	East.	5559545.031	0.043	Adjusted
		Nrth.	3881601.669	0.029	
		Elev.	1169.289	0.059	

Adjusted Vectors

Final Adjustment

Vector Stage: Adjusted **Date:** 12/22/02
Horizontal Coordinate System: State Plane Coordinate 1983 **Project file:** Final
 Adjustment.spr
Height System: Ortho. Ht. (GEOID99)
Linear Units of Measure: US Feet

	<u>Vector Identifier</u>	<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
1	0105-0104 11/11 22:50	18679.938	0.071	X	-18669.700	0.033	
				Y	600.454	0.044	
				Z	147.800	-0.044	
2	0105-0278 11/11 22:50	24756.984	0.054	X	-19130.604	0.036	
				Y	11016.753	0.032	
				Z	11205.328	-0.025	
3	0105-0106 11/15 16:39	11567.811	0.016	X	11509.626	-0.014	
				Y	-849.729	0.006	
				Z	-787.868	0.004	
4	0105-0279 11/15 16:39	16396.656	0.040	X	-3117.085	-0.001	
				Y	11199.675	0.033	
				Z	11562.931	-0.024	
5	0105-0280 11/15 16:39	18509.105	0.047	X	12658.535	0.015	
				Y	9404.342	0.032	
				Z	9690.552	-0.031	
6	0106-0107 11/14 19:42	20546.006	0.042	X	20526.435	-0.015	
				Y	652.892	-0.035	
				Z	614.459	0.016	
7	0106-0281 11/14 19:42	24925.660	0.081	X	18660.141	0.020	
				Y	11006.298	-0.052	
				Z	12326.762	0.059	
8	0106-0411 11/14 19:43	38428.957	0.258	X	32679.158	-0.179	
				Y	-13906.342	0.008	
				Z	-14678.931	0.186	
9	0106-0279 11/15 16:38	22620.147	0.052	X	-14626.711	0.014	
				Y	12049.404	0.030	
				Z	12350.799	-0.039	
10	0106-0280 11/15 16:39	14705.892	0.037	X	1148.909	0.024	
				Y	10254.071	-0.000	
				Z	10478.420	-0.029	
11	0102-0101 11/11 19:15	17059.609	0.107	X	-17049.284	0.024	
				Y	530.335	-0.095	
				Z	266.310	0.044	

12	0102-0275 11/11 19:15	23631.844	0.076	X	-16731.203	-0.006
				Y	11584.274	-0.074
				Z	12013.971	0.014
13	0102-0276 11/11 19:15	16422.580	0.051	X	-707.214	-0.007
				Y	11153.595	-0.043
				Z	12033.216	-0.026
14	0102-0103 11/11 22:13	16439.109	0.066	X	16433.956	-0.010
				Y	-366.882	0.055
				Z	186.478	-0.035
15	0102-0277 11/11 22:13	21160.424	0.043	X	14486.353	-0.020
				Y	10467.441	0.027
				Z	11328.803	-0.027
16	0101-0274 11/11 15:36	22909.230	0.050	X	-16154.253	0.003
				Y	11420.541	0.042
				Z	11551.804	-0.027
17	0101-0308 11/11 15:32	15419.306	0.065	X	-15335.824	0.035
				Y	-882.785	0.044
				Z	-1337.233	-0.033
18	0101-0404 11/11 15:34	5697.073	0.019	X	-5248.906	0.008
				Y	1564.294	0.013
				Z	1567.997	-0.011
19	0101-0275 11/11 19:11	16133.762	0.049	X	318.081	-0.034
				Y	11053.938	0.016
				Z	11747.661	-0.032
20	0101-0276 11/11 19:11	22767.893	0.080	X	16342.070	-0.034
				Y	10623.259	0.041
				Z	11766.907	-0.061
21	0308-0274 11/11 15:36	17837.291	0.045	X	-818.429	-0.021
				Y	12303.326	0.037
				Z	12889.038	-0.015
22	0308-0404 11/11 15:34	10778.427	0.038	X	10086.919	-0.024
				Y	2447.079	-0.022
				Z	2905.230	0.019
23	0103-0104 11/11 22:15	14148.019	0.090	X	14143.647	-0.040
				Y	-347.549	0.030
				Z	-53.713	-0.075
24	0104-0277 11/11 22:15	22567.983	0.119	X	-16091.251	0.029
				Y	11181.872	-0.066
				Z	11196.038	0.095
25	0104-0278 11/11 22:46	15198.048	0.026	X	-460.904	0.004
				Y	10416.300	-0.015
				Z	11057.528	0.021

26	0104-0279 11/11 23:04	22012.099	0.078	X	15552.615	-0.006
				Y	10599.221	-0.073
				Z	11415.131	0.028
27	0103-0277 11/11 22:12	15662.922	0.031	X	-1947.603	-0.009
				Y	10834.323	-0.029
				Z	11142.325	0.009
28	0107-0281 11/14 19:36	15743.383	0.143	X	-1866.294	0.041
				Y	10353.405	-0.094
				Z	11712.304	0.101
29	0107-0411 11/14 19:43	24362.836	0.120	X	12152.723	-0.053
				Y	-14559.235	0.102
				Z	-15293.390	0.034
30	0107-0303 11/14 20:29	24605.027	0.041	X	19289.924	0.031
				Y	9824.662	0.004
				Z	11695.391	0.026
31	0107-0410 11/14 20:25	11834.020	0.033	X	10045.908	0.003
				Y	-4383.451	0.031
				Z	-4461.965	-0.009
32	0403-0237 11/11 16:49	35285.518	0.086	X	34056.693	-0.069
				Y	5977.241	-0.005
				Z	7034.350	0.051
33	0403-0247 11/11 16:49	32001.540	0.064	X	31115.031	0.055
				Y	-5637.055	0.032
				Z	-4917.011	0.001
34	0403-0257 11/11 16:49	40991.828	0.173	X	33661.146	-0.102
				Y	-16565.549	0.120
				Z	-16517.863	0.072
35	0405-0202 11/12 19:51	5398.544	0.009	X	-4775.623	0.003
				Y	-1652.680	-0.008
				Z	-1899.039	-0.000
36	0405-0203 11/12 19:51	11146.679	0.021	X	10805.778	0.015
				Y	-2021.934	-0.009
				Z	-1842.664	-0.012
37	0405-0209 11/12 19:51	14093.846	0.040	X	-5654.603	0.007
				Y	-8846.555	0.010
				Z	-9402.150	-0.038
38	0205-0204 11/13 15:52	16041.701	0.024	X	-16035.731	-0.011
				Y	100.055	-0.020
				Z	-426.053	-0.004
39	0205-0206 11/13 16:52	12680.012	0.018	X	12678.813	0.006
				Y	-92.259	-0.000
				Z	-148.002	0.017

40	0205-0213 11/13 16:44	17728.580	0.024	X	13458.670	0.011
				Y	-7718.554	0.021
				Z	-8578.501	-0.004
41	0205-0406 11/13 16:43	10379.618	0.003	X	10315.407	0.002
				Y	668.720	-0.000
				Z	938.964	0.002
42	0205-0282 11/26 17:55	11799.671	0.021	X	-5629.849	0.006
				Y	-7013.188	0.012
				Z	-7638.863	-0.017
43	0406-0206 11/13 16:52	2710.401	0.003	X	2363.406	0.002
				Y	-760.980	-0.001
				Z	-1086.966	0.003
44	0406-0213 11/13 16:44	13069.376	0.023	X	3143.263	0.009
				Y	-8387.274	0.020
				Z	-9517.464	-0.005
45	0408-0271 11/13 21:29	10598.680	0.015	X	-9059.411	-0.014
				Y	3877.588	0.003
				Z	3901.719	0.003
46	0408-0279 11/13 21:29	15231.754	0.028	X	-11191.891	0.003
				Y	-6726.200	0.011
				Z	-7842.585	0.026
47	0408-0272 11/13 22:03	8859.856	0.021	X	6032.504	-0.019
				Y	4708.810	-0.009
				Z	4464.644	0.004
48	0408-0273 11/13 22:04	21032.956	0.024	X	20499.932	-0.012
				Y	3100.459	0.020
				Z	3539.096	-0.008
49	0408-0280 11/13 22:07	13711.587	0.047	X	4583.729	-0.032
				Y	-8521.532	0.002
				Z	-9714.964	0.035
50	0402-0201 11/12 18:21	43772.310	0.160	X	42845.458	-0.031
				Y	-6858.490	-0.134
				Z	-5765.672	0.082
51	0402-0202 11/12 18:21	59356.035	0.070	X	58631.569	-0.035
				Y	-7176.802	-0.036
				Z	-5828.512	0.049
52	0402-0208 11/12 18:21	44477.062	0.112	X	39954.639	0.047
				Y	-14074.636	-0.039
				Z	-13555.089	0.094
53	0407-0206 11/14 14:36	29284.034	0.040	X	-29201.051	-0.004
				Y	-1381.999	0.018
				Z	-1715.623	-0.036

54	0407-0207 11/14 13:57	19068.486	0.018	X	-18917.852	-0.003
				Y	-1421.033	0.016
				Z	-1924.245	-0.007
55	0407-0214 11/14 14:13	24821.145	0.009	X	-20972.778	0.005
				Y	-8907.433	0.000
				Z	-9843.244	-0.007
56	0409-0246 11/14 22:55	12719.432	0.010	X	-11908.376	0.010
				Y	3170.569	0.003
				Z	3149.926	-0.001
57	0409-0256 11/14 22:50	19849.373	0.127	X	-15636.405	0.017
				Y	-8224.122	0.068
				Z	-9047.887	-0.106
58	0409-0301 11/14 22:27	28539.253	0.132	X	-12810.575	-0.100
				Y	-17344.245	-0.045
				Z	-18696.398	0.073
59	0410-0281 11/14 20:25	24913.499	0.052	X	-11912.202	0.023
				Y	14736.856	0.044
				Z	16174.268	-0.015
60	0410-0303 11/14 20:29	23417.567	0.037	X	9244.017	0.019
				Y	14208.113	0.008
				Z	16157.356	0.030
61	0404-0274 11/11 15:36	17769.317	0.049	X	-10905.348	0.004
				Y	9856.247	0.042
				Z	9983.807	-0.026
62	0207-0206 11/14 14:36	10285.389	0.021	X	-10283.199	-0.008
				Y	39.034	0.014
				Z	208.622	-0.012
63	0207-0214 11/14 14:13	11089.610	0.012	X	-2054.926	0.005
				Y	-7486.400	-0.007
				Z	-7918.999	0.008
64	0282-0204 11/26 17:55	14522.577	0.026	X	-10405.882	-0.011
				Y	7113.243	-0.024
				Z	7212.811	-0.003
65	0282-0218 11/26 18:26	19088.466	0.027	X	-10803.645	-0.005
				Y	-10359.700	0.006
				Z	-11845.986	0.026
66	0282-0219 11/26 18:28	16114.730	0.054	X	3225.101	0.013
				Y	-10567.724	0.033
				Z	-11730.578	-0.041
67	0202-0201 11/12 18:17	15789.444	0.083	X	-15786.110	-0.014
				Y	318.313	-0.075
				Z	62.840	0.032

68	0202-0208 11/12 18:13	21356.681	0.035	X	-18676.929	0.020
				Y	-6897.834	-0.013
				Z	-7726.577	0.026
69	0202-0203 11/12 19:45	15585.877	0.011	X	15581.401	0.008
				Y	-369.253	-0.008
				Z	56.375	0.000
70	0202-0209 11/12 19:33	10431.736	0.027	X	-878.980	-0.001
				Y	-7193.875	0.022
				Z	-7503.111	-0.015
71	0208-0201 11/12 17:30	11004.755	0.042	X	2890.819	0.014
				Y	7216.146	0.039
				Z	7789.418	0.004
72	0208-0209 11/12 17:42	17801.814	0.034	X	17797.949	0.025
				Y	-296.041	-0.008
				Z	223.467	0.022
73	0208-0215 11/12 17:29	15680.684	0.082	X	-346.111	-0.030
				Y	-10740.974	-0.076
				Z	-11419.087	0.003
74	0257-0266 11/11 16:05	16927.336	0.012	X	-445.872	-0.010
				Y	-11572.467	-0.006
				Z	-12345.603	0.001
75	0257-0267 11/11 16:05	22676.008	0.044	X	16046.718	-0.030
				Y	-11009.059	0.028
				Z	-11640.652	-0.016
76	0257-0247 11/11 16:44	16139.840	0.025	X	-2546.115	0.006
				Y	10928.494	0.018
				Z	11600.852	0.016
77	0214-0213 11/13 17:19	7455.254	0.043	X	-7448.416	0.021
				Y	-100.861	-0.000
				Z	-302.878	0.038
78	0214-0220 11/13 17:29	16099.767	0.042	X	-5401.964	0.019
				Y	-10463.859	0.037
				Z	-10978.568	-0.004
79	0214-0221 11/13 17:23	17595.192	0.132	X	7331.821	-0.064
				Y	-11080.295	-0.054
				Z	-11535.262	-0.102
80	0214-0206 11/14 14:36	13798.364	0.027	X	-8228.273	-0.017
				Y	7525.433	0.014
				Z	8127.621	-0.016
81	0201-0209 11/12 17:42	18327.550	0.071	X	14907.130	-0.006
				Y	-7512.188	-0.060
				Z	-7565.951	0.038

82	0204-0203 11/13 15:24	16160.475	0.012	X	-16136.255	-0.011
				Y	786.467	0.002
				Z	404.596	-0.003
83	0204-0210 11/13 15:24	18105.710	0.010	X	-15930.886	-0.001
				Y	-5693.919	-0.010
				Z	-6450.029	0.001
84	0204-0211 11/13 15:24	10366.188	0.018	X	-1730.508	-0.004
				Y	-7017.576	-0.017
				Z	-7430.802	0.001
85	0237-0247 11/11 16:44	16922.774	0.058	X	-2941.661	0.010
				Y	-11614.296	0.047
				Z	-11951.362	-0.033
86	0237-0238 11/12 14:38	15867.714	0.040	X	15780.412	0.002
				Y	578.916	-0.035
				Z	1558.145	0.019
87	0237-0248 11/12 14:38	22624.990	0.040	X	14906.173	-0.004
				Y	-12118.121	-0.037
				Z	-11951.876	0.014
88	0237-0229 11/12 15:18	15952.336	0.033	X	-431.385	-0.010
				Y	11028.997	-0.010
				Z	11517.471	0.030
89	0237-0230 11/12 15:18	20739.718	0.032	X	14664.338	-0.021
				Y	9888.891	0.012
				Z	10830.648	0.021
90	0247-0248 11/11 17:55	17854.944	0.089	X	17847.834	0.033
				Y	-503.824	0.079
				Z	-0.515	-0.026
91	0247-0258 11/11 17:56	24059.431	0.052	X	17787.232	0.041
				Y	-11307.276	0.031
				Z	-11602.419	-0.005
92	0224-0217 11/12 21:10	16266.797	0.026	X	297.257	-0.016
				Y	11462.652	0.005
				Z	11538.108	0.021
93	0224-0223 11/12 21:10	15862.216	0.087	X	-15822.081	-0.003
				Y	1076.946	-0.065
				Z	334.411	0.057
94	0224-0225 11/12 21:11	13333.601	0.024	X	13328.122	0.004
				Y	-377.614	0.023
				Z	-58.906	0.008
95	0224-0231 11/12 21:56	15849.184	0.078	X	939.956	0.008
				Y	-10778.389	0.029
				Z	-11581.859	-0.072

96	0224-0232 11/12 21:49	21227.763	0.057	X	14776.156	0.020
				Y	-10735.201	-0.029
				Z	-10818.438	-0.045
97	0206-0213 11/13 16:52	11394.817	0.019	X	779.857	0.006
				Y	-7626.294	0.018
				Z	-8430.499	0.005
98	0244-0243 11/14 16:30	10484.300	0.009	X	-10344.572	-0.007
				Y	1511.874	0.004
				Z	790.315	0.005
99	0244-0254 11/14 16:29	15655.535	0.022	X	-192.342	-0.001
				Y	-10738.269	0.000
				Z	-11390.714	0.022
100	0244-0245 11/14 17:06	15653.273	0.053	X	15603.652	0.006
				Y	745.415	0.048
				Z	997.666	-0.022
101	0244-0255 11/14 17:07	21394.163	0.023	X	14778.700	0.007
				Y	-10684.028	0.017
				Z	-11187.127	-0.014
102	0244-0235 11/15 14:30	23228.620	0.061	X	-16502.653	0.008
				Y	11407.306	-0.045
				Z	11709.168	-0.040
103	0244-0253 11/15 14:27	22315.634	0.031	X	-16041.633	0.028
				Y	-10448.761	-0.007
				Z	-11466.339	-0.012
104	0244-0236 11/15 15:03	16352.466	0.042	X	-1157.101	-0.003
				Y	11449.497	-0.032
				Z	11617.799	0.027
105	0209-0215 11/12 17:42	23955.221	0.124	X	-18144.060	-0.065
				Y	-10444.933	-0.103
				Z	-11642.554	-0.022
106	0209-0203 11/12 19:45	19356.276	0.038	X	16460.381	0.008
				Y	6824.621	-0.029
				Z	7559.486	0.023
107	0209-0210 11/12 20:23	16684.200	0.012	X	16665.749	0.003
				Y	344.235	0.012
				Z	704.860	-0.002
108	0209-0216 11/12 20:33	16310.346	0.041	X	573.423	0.020
				Y	-10888.749	0.028
				Z	-12129.869	-0.022
109	0209-0217 11/12 20:26	22719.601	0.038	X	16411.340	0.033
				Y	-10679.556	0.014
				Z	-11523.683	-0.011

110	0238-0239	11/12 14:36	15899.266	0.084	X	15505.931	-0.031
					Y	-2652.285	-0.058
					Z	-2306.110	0.053
111	0238-0248	11/12 14:36	18560.704	0.043	X	-874.239	0.006
					Y	-12697.037	-0.042
					Z	-13510.022	0.004
112	0238-0230	11/12 15:53	13187.136	0.025	X	-1116.073	0.005
					Y	9309.975	0.022
					Z	9272.503	-0.011
113	0238-0231	11/12 16:01	20598.595	0.031	X	16094.680	-0.005
					Y	8820.627	0.030
					Z	9352.001	-0.006
114	0236-0228	11/14 15:44	22273.193	0.015	X	-15723.839	-0.009
					Y	10765.667	-0.003
					Z	11530.674	-0.011
115	0236-0235	11/14 15:43	15345.882	0.012	X	-15345.552	-0.005
					Y	-42.191	-0.011
					Z	91.368	0.004
116	0236-0243	11/14 16:30	17332.063	0.032	X	-9187.471	0.008
					Y	-9937.623	-0.016
					Z	-10827.485	0.027
117	0236-0245	11/15 15:03	22545.232	0.013	X	16760.754	-0.010
					Y	-10704.082	0.006
					Z	-10620.134	0.007
118	0236-0246	11/15 15:09	32163.262	0.023	X	27002.207	-0.008
					Y	-12175.899	0.021
					Z	-12534.103	-0.003
119	0225-0217	11/12 21:11	21082.838	0.030	X	-13030.865	0.007
					Y	11840.266	0.029
					Z	11597.014	-0.001
120	0225-0226	11/13 13:43	18291.588	0.028	X	18283.732	-0.008
					Y	-534.915	-0.027
					Z	-34.617	0.001
121	0225-0233	11/13 14:01	24866.892	0.063	X	18560.852	0.007
					Y	-11730.957	-0.045
					Z	-11672.264	-0.044
122	0225-0218	11/13 14:42	16009.171	0.033	X	2756.668	0.003
					Y	11085.033	0.030
					Z	11216.789	-0.012
123	0225-0219	11/13 14:41	22988.653	0.020	X	16785.414	0.002
					Y	10877.010	0.019
					Z	11332.198	0.003

124	0230-0222 11/12 15:19	23863.332	0.083	X	-15620.388	0.023
				Y	12451.524	0.079
				Z	13054.564	-0.010
125	0230-0229 11/12 15:18	15154.288	0.008	X	-15095.723	0.005
				Y	1140.106	-0.001
				Z	686.823	-0.006
126	0230-0223 11/12 16:12	16531.348	0.049	X	448.717	-0.004
				Y	11365.987	0.025
				Z	11995.768	-0.041
127	0230-0231 11/12 16:01	17217.892	0.061	X	17210.754	-0.017
				Y	-489.347	-0.014
				Z	79.499	0.057
128	0226-0227 11/13 13:52	15871.065	0.039	X	15865.368	-0.005
				Y	-424.316	-0.026
				Z	27.884	-0.029
129	0226-0233 11/13 14:01	16151.253	0.053	X	277.119	0.013
				Y	-11196.042	-0.013
				Z	-11637.647	-0.049
130	0226-0219 11/13 18:01	16176.571	0.040	X	-1498.318	-0.011
				Y	11411.925	0.004
				Z	11366.814	0.038
131	0226-0220 11/13 18:01	22808.616	0.049	X	16411.550	-0.005
				Y	10911.285	-0.025
				Z	11482.065	0.042
132	0258-0248 11/11 17:56	15853.152	0.041	X	60.602	-0.011
				Y	10803.451	0.037
				Z	11601.905	-0.015
133	0258-0249 11/11 17:56	22261.734	0.098	X	15977.030	0.013
				Y	10349.636	0.076
				Z	11541.418	-0.060
134	0258-0267 11/11 18:28	15783.538	0.050	X	805.601	0.018
				Y	-10630.277	-0.035
				Z	-11639.084	0.031
135	0258-0268 11/11 18:29	22933.416	0.042	X	16338.874	0.002
				Y	-11041.337	-0.032
				Z	-11707.761	0.027
136	0265-0256 11/14 21:43	16219.459	0.030	X	9333.816	-0.015
				Y	8997.229	-0.025
				Z	9746.825	0.005
137	0265-0301 11/14 21:43	12160.664	0.009	X	12159.646	-0.001
				Y	-122.894	-0.008
				Z	98.315	0.004

138	0265-0302 11/14 21:38	18643.475	0.020	X	9832.381	-0.010
				Y	-10990.976	0.016
				Z	-11406.222	0.006
139	0265-0255 11/15 15:47	15783.988	0.053	X	1995.439	0.010
				Y	10434.295	-0.041
				Z	11673.816	0.032
140	0265-0264 11/15 15:44	15805.757	0.087	X	-15804.122	0.012
				Y	-217.987	0.070
				Z	64.475	-0.050
141	0270-0261 11/11 21:00	15982.945	0.008	X	1596.280	-0.003
				Y	10921.710	-0.008
				Z	11559.527	-0.001
142	0270-0269 11/11 21:35	13107.640	0.020	X	-13099.596	0.006
				Y	446.082	0.012
				Z	108.742	0.015
143	0270-0277 11/11 21:44	21900.262	0.046	X	-15258.750	-0.002
				Y	-10347.539	0.040
				Z	-11820.342	-0.022
144	0270-0278 11/11 21:36	16329.527	0.035	X	371.596	-0.000
				Y	-11113.111	0.017
				Z	-11958.852	-0.030
145	0270-0271 11/13 21:21	18521.024	0.048	X	18517.595	-0.007
				Y	-326.402	-0.046
				Z	143.055	0.009
146	0270-0279 11/13 21:17	22858.915	0.024	X	16385.115	0.004
				Y	-10930.190	-0.022
				Z	-11601.249	0.008
147	0223-0231 11/12 16:12	23738.414	0.120	X	16762.037	0.018
				Y	-11855.334	-0.061
				Z	-11916.269	0.102
148	0223-0215 11/12 16:55	23990.689	0.049	X	-18436.062	0.016
				Y	10620.329	0.041
				Z	11084.827	0.021
149	0223-0216 11/12 16:54	14695.164	0.020	X	281.421	-0.009
				Y	10176.513	-0.008
				Z	10597.511	0.016
150	0223-0222 11/12 16:51	16140.494	0.004	X	-16069.104	0.001
				Y	1085.537	-0.004
				Z	1058.796	-0.000
151	0223-0217 11/12 21:07	22208.530	0.037	X	16119.338	-0.027
				Y	10385.706	-0.020
				Z	11203.697	-0.016

152	0302-0273 11/14 21:04	24343.534	0.052	X	-24339.398	0.019
				Y	-251.001	-0.017
				Z	-371.966	0.045
153	0302-0281 11/14 21:04	27922.957	0.064	X	-22744.368	0.006
				Y	-11120.765	0.058
				Z	-11777.684	-0.027
154	0302-0303 11/14 21:04	16653.701	0.045	X	-1588.150	-0.022
				Y	-11649.509	0.031
				Z	-11794.596	-0.024
155	0302-0301 11/14 21:43	15996.429	0.029	X	2327.265	0.004
				Y	10868.082	-0.029
				Z	11504.537	0.001
156	0233-0232 11/12 21:49	17192.084	0.037	X	-17112.818	-0.002
				Y	1373.369	0.028
				Z	912.732	0.025
157	0233-0240 11/12 22:39	22099.430	0.032	X	-16014.191	0.010
				Y	-10177.873	-0.022
				Z	-11328.785	0.021
158	0233-0241 11/12 22:52	14543.608	0.031	X	699.655	0.019
				Y	-9716.928	0.021
				Z	-10798.533	-0.012
159	0233-0227 11/13 14:01	22251.027	0.032	X	15588.248	-0.020
				Y	10771.726	-0.019
				Z	11665.531	0.016
160	0233-0234 11/13 19:27	15326.515	0.034	X	15323.953	0.002
				Y	-48.049	-0.008
				Z	276.055	-0.033
161	0233-0242 11/13 19:28	20766.723	0.050	X	14523.580	0.003
				Y	-10001.675	-0.025
				Z	-10967.631	-0.043
162	0227-0221 11/13 18:41	20248.785	0.069	X	13279.968	-0.041
				Y	10719.166	-0.001
				Z	10897.487	-0.055
163	0227-0228 11/13 18:38	14891.916	0.033	X	14887.199	-0.003
				Y	-365.244	-0.027
				Z	-83.905	0.019
164	0227-0235 11/13 18:40	22150.794	0.040	X	15265.487	0.010
				Y	-11173.102	0.021
				Z	-11523.211	0.033
165	0252-0242 11/13 20:03	17170.754	0.034	X	-3000.701	-0.001
				Y	11956.809	0.032
				Z	11952.627	0.011

166	0252-0251 11/13 20:04	17739.263	0.041	X	-17730.937	0.011
				Y	540.419	0.014
				Z	-56.954	0.036
167	0252-0253 11/13 20:03	13794.176	0.016	X	13790.473	0.000
				Y	-298.960	-0.008
				Z	-112.928	-0.014
168	0252-0261 11/13 20:43	23951.693	0.022	X	-18372.307	-0.013
				Y	-10185.258	-0.008
				Z	-11506.625	-0.016
169	0252-0262 11/13 20:37	15630.007	0.024	X	-2868.646	-0.011
				Y	-10347.013	-0.017
				Z	-11358.139	-0.013
170	0239-0231 11/12 13:46	16367.221	0.039	X	588.749	-0.006
				Y	11472.913	-0.034
				Z	11658.111	-0.017
171	0239-0240 11/12 13:43	15524.660	0.043	X	15523.576	-0.026
				Y	-35.143	-0.030
				Z	180.015	0.017
172	0239-0249 11/12 13:41	15405.246	0.072	X	-463.742	-0.007
				Y	-10498.566	0.018
				Z	-11264.398	0.070
173	0239-0248 11/12 14:32	22242.631	0.066	X	-16380.170	0.039
				Y	-10044.752	0.017
				Z	-11203.912	-0.050
174	0303-0273 11/14 21:02	27893.041	0.068	X	-22751.248	0.025
				Y	11398.508	0.040
				Z	11422.630	0.049
175	0303-0281 11/14 21:00	21162.832	0.055	X	-21156.219	-0.005
				Y	528.743	0.055
				Z	16.912	-0.007
176	0276-0275 11/11 19:11	16029.787	0.039	X	-16023.989	-0.000
				Y	430.679	-0.025
				Z	-19.246	0.029
177	0276-0268 11/11 19:49	15450.542	0.028	X	1256.957	-0.015
				Y	10694.566	-0.008
				Z	11079.962	-0.022
178	0276-0269 11/11 19:48	23005.892	0.082	X	17352.722	-0.023
				Y	10107.467	0.044
				Z	11224.671	-0.066
179	0242-0234 11/13 19:28	15037.810	0.023	X	800.373	-0.002
				Y	9953.626	0.023
				Z	11243.686	0.005

180	0242-0235 11/13 19:28	21960.663	0.025	X	16330.155	0.008
				Y	9600.298	0.023
				Z	11109.951	0.000
181	0242-0251 11/13 20:04	22170.788	0.022	X	-14730.236	0.014
				Y	-11416.390	-0.015
				Z	-12009.581	0.008
182	0242-0253 11/13 19:58	24035.912	0.045	X	16791.175	0.002
				Y	-12255.769	-0.034
				Z	-12065.556	-0.028
183	0255-0245 11/14 17:07	16726.682	0.016	X	824.953	0.004
				Y	11429.443	0.013
				Z	12184.793	-0.009
184	0255-0246 11/14 17:10	18086.167	0.057	X	11066.406	0.006
				Y	9957.626	0.054
				Z	10270.823	-0.018
185	0255-0254 11/14 17:44	14972.524	0.017	X	-14971.041	-0.011
				Y	-54.241	-0.013
				Z	-203.587	-0.000
186	0255-0264 11/14 17:47	23771.249	0.051	X	-17799.561	-0.012
				Y	-10652.282	-0.049
				Z	-11609.341	0.006
187	0255-0256 11/15 15:54	7722.061	0.039	X	7338.377	0.009
				Y	-1437.066	-0.020
				Z	-1926.991	0.033
188	0256-0301 11/14 21:43	13574.082	0.035	X	2825.830	0.009
				Y	-9120.123	0.030
				Z	-9648.510	-0.015
189	0256-0246 11/14 22:55	17103.329	0.171	X	3728.029	0.007
				Y	11394.692	-0.123
				Z	12197.814	0.119
190	0277-0269 11/11 21:44	16231.674	0.019	X	2159.155	0.007
				Y	10793.620	-0.012
				Z	11929.084	0.013
191	0277-0278 11/11 21:44	15649.697	0.041	X	15630.346	-0.014
				Y	-765.572	-0.025
				Z	-138.510	0.030
192	0231-0240 11/12 13:46	22073.312	0.057	X	14934.827	0.012
				Y	-11508.055	-0.017
				Z	-11478.096	-0.054
193	0231-0232 11/12 21:56	13857.312	0.008	X	13836.200	-0.006
				Y	43.187	-0.005
				Z	763.421	0.001

194	0279-0278 11/11 23:04	16018.555	0.012	X	-16013.519	0.008
				Y	-182.921	0.008
				Z	-357.603	0.004
195	0279-0271 11/13 21:21	15966.103	0.017	X	2132.480	-0.011
				Y	10603.788	-0.009
				Z	11744.304	-0.009
196	0279-0280 11/15 16:39	15987.470	0.023	X	15775.620	0.018
				Y	-1795.332	0.005
				Z	-1872.379	-0.014
197	0213-0220 11/13 17:29	15018.323	0.101	X	2046.451	0.067
				Y	-10362.998	0.074
				Z	-10675.690	-0.016
198	0213-0221 11/13 17:23	21567.796	0.093	X	14780.237	-0.015
				Y	-10979.434	-0.029
				Z	-11232.384	0.087
199	0249-0248 11/11 17:55	15923.011	0.067	X	-15916.428	-0.021
				Y	453.815	-0.038
				Z	60.486	0.050
200	0249-0250 11/11 20:31	16978.042	0.054	X	16972.231	0.004
				Y	-444.005	0.045
				Z	-12.406	-0.030
201	0249-0259 11/11 20:28	16483.963	0.039	X	199.590	0.011
				Y	-11112.455	0.037
				Z	-12173.519	0.004
202	0249-0260 11/11 20:31	22214.673	0.030	X	15357.150	0.007
				Y	-11192.269	0.027
				Z	-11505.772	-0.011
203	0249-0240 11/12 13:43	22272.229	0.075	X	15987.318	-0.019
				Y	10463.424	-0.046
				Z	11444.413	-0.056
204	0215-0216 11/12 16:55	18729.085	0.051	X	18717.483	-0.027
				Y	-443.816	-0.043
				Z	-487.316	-0.001
205	0215-0222 11/12 16:55	14036.952	0.038	X	2366.957	-0.016
				Y	-9534.792	-0.034
				Z	-10026.031	-0.005
206	0264-0253 11/14 17:47	20407.132	0.045	X	-13020.772	0.013
				Y	10887.549	0.039
				Z	11330.129	0.019
207	0264-0254 11/14 17:47	15824.355	0.036	X	2828.520	0.003
				Y	10598.041	0.035
				Z	11405.754	-0.006

208	0264-0263 11/14 18:20	15966.526	0.018	X	-15648.747	0.010
				Y	2387.843	-0.015
				Z	2084.442	0.002
209	0264-0272 11/14 18:58	19526.778	0.059	X	-13170.322	0.018
				Y	-9415.638	0.028
				Z	-10917.116	-0.049
210	0264-0273 11/14 18:58	16231.436	0.060	X	1297.105	0.000
				Y	-11023.990	0.002
				Z	-11842.663	-0.060
211	0278-0269 11/11 21:36	21464.267	0.038	X	-13471.192	0.019
				Y	11559.193	-0.006
				Z	12067.594	0.032
212	0281-0272 11/14 19:01	23785.836	0.078	X	-16062.457	0.035
				Y	12478.116	0.015
				Z	12331.265	0.068
213	0281-0273 11/14 21:02	15836.234	0.064	X	-1595.030	0.028
				Y	10869.765	-0.014
				Z	11405.718	0.057
214	0245-0246 11/14 17:10	10522.209	0.038	X	10241.453	0.005
				Y	-1471.817	0.035
				Z	-1913.970	-0.016
215	0240-0241 11/12 22:52	16728.606	0.047	X	16713.846	-0.027
				Y	460.946	-0.039
				Z	530.252	0.004
216	0240-0251 11/12 22:40	22625.338	0.092	X	15807.535	-0.043
				Y	-11240.192	-0.075
				Z	-11648.427	0.030
217	0271-0261 11/13 20:43	23306.368	0.034	X	-16921.315	-0.002
				Y	11248.112	-0.018
				Z	11416.472	0.029
218	0271-0262 11/13 20:37	16083.076	0.026	X	-1417.654	0.008
				Y	11086.357	-0.006
				Z	11564.959	0.024
219	0271-0263 11/13 22:39	22421.665	0.053	X	12613.491	-0.038
				Y	12634.703	0.014
				Z	13564.483	-0.034
220	0271-0272 11/13 22:37	15125.267	0.046	X	15091.915	-0.032
				Y	831.222	-0.032
				Z	562.925	-0.007
221	0251-0250 11/11 20:57	14827.595	0.045	X	-14822.622	0.006
				Y	332.763	-0.034
				Z	191.608	0.029

222	0251-0261	11/11 21:00	15701.798	0.007	X	-641.370	0.005
					Y	-10725.676	-0.004
					Z	-11449.671	0.004
223	0251-0241	11/12 22:52	16913.256	0.016	X	906.311	0.001
					Y	11701.137	0.010
					Z	12178.679	0.012
224	0259-0268	11/11 19:52	15111.072	0.040	X	162.253	0.034
					Y	-10278.518	0.022
					Z	-11075.660	0.000
225	0259-0269	11/11 19:52	22402.466	0.017	X	16258.018	-0.006
					Y	-10865.618	-0.015
					Z	-10930.952	0.003
226	0259-0250	11/11 20:31	23303.004	0.024	X	16772.641	-0.015
					Y	10668.450	0.010
					Z	12161.113	-0.015
227	0259-0260	11/11 20:31	15172.471	0.013	X	15157.560	-0.005
					Y	-79.814	0.011
					Z	667.747	-0.006
228	0269-0268	11/11 19:49	16107.118	0.018	X	-16095.764	0.012
					Y	587.099	0.005
					Z	-144.709	0.013
229	0235-0234	11/13 19:27	15534.377	0.012	X	-15529.782	-0.010
					Y	353.328	-0.001
					Z	133.735	0.007
230	0235-0228	11/14 15:44	15742.002	0.015	X	-378.287	-0.008
					Y	10807.858	-0.012
					Z	11439.306	-0.004
231	0235-0243	11/15 14:30	15970.688	0.034	X	6158.080	0.028
					Y	-9895.432	0.005
					Z	-10918.853	-0.018
232	0210-0216	11/12 20:33	23449.375	0.022	X	-16092.327	0.022
					Y	-11232.984	-0.002
					Z	-12834.729	-0.003
233	0210-0217	11/12 20:26	16465.903	0.028	X	-254.410	0.025
					Y	-11023.791	-0.012
					Z	-12228.543	0.005
234	0210-0203	11/13 15:23	9435.225	0.014	X	-205.369	-0.010
					Y	6480.386	0.010
					Z	6854.626	-0.002
235	0210-0211	11/13 15:23	14295.620	0.008	X	14200.379	-0.003
					Y	-1323.656	-0.007
					Z	-980.773	0.000

236	0254-0243 11/14 16:30	20037.746	0.026	X	-10152.231	-0.012
				Y	12250.143	-0.007
				Z	12181.028	-0.022
237	0254-0253 11/14 17:46	15852.116	0.025	X	-15849.292	0.000
				Y	289.508	0.011
				Z	-75.625	0.022
238	0228-0221 11/13 18:41	15685.608	0.049	X	-1607.231	-0.026
				Y	11084.409	-0.026
				Z	10981.392	-0.032
239	0228-0234 11/14 15:48	21602.799	0.064	X	-15151.495	0.027
				Y	-10454.531	-0.031
				Z	-11305.571	0.049
240	0268-0267 11/11 18:29	15538.862	0.017	X	-15533.272	0.015
				Y	411.060	-0.005
				Z	68.676	0.006
241	0268-0275 11/11 18:31	22960.202	0.041	X	-17280.946	0.036
				Y	-10263.887	0.019
				Z	-11099.208	-0.001
242	0267-0266 11/11 16:04	16517.261	0.048	X	-16492.590	0.018
				Y	-563.408	-0.039
				Z	-704.951	0.022
243	0267-0274 11/11 16:03	23819.430	0.087	X	-18220.008	0.027
				Y	-10308.344	-0.075
				Z	-11363.741	0.035
244	0267-0275 11/11 18:31	15547.684	0.040	X	-1747.674	0.023
				Y	-10674.947	0.031
				Z	-11167.884	-0.011
245	0217-0216 11/12 20:33	15850.894	0.009	X	-15837.917	0.003
				Y	-209.194	0.008
				Z	-606.186	-0.004
246	0253-0262 11/14 18:19	22470.968	0.013	X	-16659.120	0.007
				Y	-10048.052	0.010
				Z	-11245.210	-0.003
247	0253-0263 11/14 18:20	12830.977	0.012	X	-2627.975	0.008
				Y	-8499.706	-0.005
				Z	-9245.686	0.008
248	0253-0243 11/15 14:28	18048.237	0.012	X	5697.061	-0.011
				Y	11960.636	-0.003
				Z	12256.654	-0.005
249	0220-0221 11/13 17:29	12760.846	0.134	X	12733.785	0.082
				Y	-616.436	0.102
				Z	-556.695	-0.028

250	0220-0219 11/13 17:56	17917.236	0.020	X	-17909.869	-0.011
				Y	500.640	-0.016
				Z	-115.251	0.001
251	0229-0222 11/12 15:19	16768.556	0.017	X	-524.664	-0.002
				Y	11311.418	0.003
				Z	12367.741	0.017
252	0211-0218 11/13 14:43	15693.985	0.040	X	1332.744	-0.001
				Y	-10455.367	-0.039
				Z	-11627.995	0.009
253	0211-0219 11/13 14:43	21959.575	0.048	X	15361.491	-0.003
				Y	-10663.390	-0.043
				Z	-11512.586	0.021
254	0211-0203 11/13 15:15	18161.005	0.022	X	-14405.748	-0.001
				Y	7804.043	0.021
				Z	7835.399	0.007
255	0273-0280 11/13 22:07	23750.080	0.055	X	-15916.203	0.004
				Y	-11621.991	-0.034
				Z	-13254.061	0.043
256	0273-0263 11/13 22:39	25709.986	0.080	X	-16945.852	0.024
				Y	13411.832	-0.043
				Z	13927.106	0.063
257	0273-0272 11/14 18:58	14585.948	0.040	X	-14467.428	0.022
				Y	1608.351	0.034
				Z	925.548	0.006
258	0262-0261 11/13 20:43	15505.216	0.005	X	-15503.661	-0.004
				Y	161.755	-0.002
				Z	-148.487	-0.003
259	0262-0263 11/14 18:20	14257.226	0.017	X	14031.145	0.001
				Y	1548.346	-0.014
				Z	1999.524	0.010
260	0222-0216 11/12 16:54	20999.348	0.016	X	16350.526	-0.014
				Y	9090.976	0.000
				Z	9538.715	0.008
261	0263-0272 11/13 22:39	17734.296	0.067	X	2478.424	-0.001
				Y	-11803.481	-0.058
				Z	-13001.558	0.033
262	0274-0266 11/11 16:04	14545.019	0.042	X	1727.417	-0.007
				Y	9744.937	0.037
				Z	10658.790	-0.019
263	0250-0260 11/11 20:31	15818.696	0.028	X	-1615.081	0.002
				Y	-10748.265	-0.024
				Z	-11493.366	0.013

264	0250-0261 11/11 21:00	21422.333	0.055	X	14181.252	0.007
				Y	-11058.439	0.045
				Z	-11641.279	-0.031
265	0219-0218 11/13 14:42	14030.763	0.011	X	-14028.746	0.002
				Y	208.024	0.006
				Z	-115.408	-0.009
266	0272-0280 11/13 22:07	19447.421	0.059	X	-1448.775	-0.033
				Y	-13230.343	-0.037
				Z	-14179.608	0.031

Network Relative Accuracy

Final Adjustment

Desired Horizontal Accuracy: 0.033USft + 5ppm

Date: 12/22/02

Desired Vertical Accuracy: 0.066USft + 5ppm

Project file: Final

Adjustment.spr

Confidence Level: 95% Err.

Linear Units of Measure: US Feet

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
1	0105	Lat	0.000	0.030	1:0	1:0	18679.938	
	0104	Lng	0.000	0.030				
		Elv	0.000	0.035				
2	0105	Lat	0.023	0.039	1:825233	1:618925	24756.984	
	0278	Lng	0.030	0.039				
		Elv	0.040	0.043				
3	0105	Lat	0.000	0.020	1:0	1:0	11567.811	
	0106	Lng	0.000	0.020				
		Elv	0.000	0.027				
4	0105	Lat	0.021	0.027	1:655865	1:455462	16396.656	
	0279	Lng	0.025	0.027				
		Elv	0.036	0.032				
5	0105	Lat	0.021	0.030	1:711888	1:474592	18509.105	
	0280	Lng	0.026	0.030				
		Elv	0.039	0.035				
6	0106	Lat	0.000	0.033	1:3424337	1:428042	20546.006	
	0107	Lng	0.006	0.033				
		Elv	0.048	0.037				
7	0106	Lat	0.022	0.039	1:755322	1:519284	24925.660	
	0281	Lng	0.033	0.039				
		Elv	0.048	0.043				
8	0106	Lat	0.000	0.059	1:7685836	1:352561	38428.957	
	0411	Lng	0.005	0.059				
		Elv	0.109	0.062				
9	0106	Lat	0.021	0.036	1:904806	1:628337	22620.147	
	0279	Lng	0.025	0.036				
		Elv	0.036	0.040				
10	0106	Lat	0.021	0.025	1:565611	1:377074	14705.892	
	0280	Lng	0.026	0.025				
		Elv	0.039	0.030				
11	0102	Lat	0.000	0.028	1:0	1:0	17059.609	
	0101	Lng	0.000	0.028				
		Elv	0.000	0.033				

12	0102 0275	Lat Lng Elv	0.025 0.034 0.048	0.037 0.037 0.041	1:695054	1:492330	23631.844
13	0102 0276	Lat Lng Elv	0.025 0.033 0.047	0.027 0.027 0.032	1:497655	1:349417	16422.580
14	0102 0103	Lat Lng Elv	0.000 0.006 0.044	0.027 0.027 0.032	1:2739853	1:373616	16439.109
15	0102 0277	Lat Lng Elv	0.024 0.030 0.043	0.034 0.034 0.038	1:705347	1:492103	21160.424
16	0101 0274	Lat Lng Elv	0.026 0.036 0.053	0.036 0.036 0.040	1:636367	1:432249	22909.230
17	0101 0308	Lat Lng Elv	0.000 0.000 0.000	0.026 0.026 0.031	1:0	1:0	15419.306
18	0101 0404	Lat Lng Elv	0.016 0.020 0.030	0.013 0.013 0.022	1:284853	1:189902	5697.073
19	0101 0275	Lat Lng Elv	0.025 0.034 0.048	0.027 0.027 0.032	1:474522	1:336120	16133.762
20	0101 0276	Lat Lng Elv	0.025 0.033 0.047	0.036 0.036 0.040	1:689937	1:484424	22767.893
21	0308 0274	Lat Lng Elv	0.026 0.036 0.053	0.029 0.029 0.034	1:495479	1:336552	17837.291
22	0308 0404	Lat Lng Elv	0.016 0.020 0.030	0.019 0.019 0.026	1:538922	1:359281	10778.427
23	0103 0104	Lat Lng Elv	0.000 0.006 0.044	0.024 0.024 0.029	1:2358009	1:321546	14148.019
24	0104 0277	Lat Lng Elv	0.024 0.030 0.043	0.036 0.036 0.040	1:752266	1:524836	22567.983
25	0104 0278	Lat Lng Elv	0.023 0.030 0.040	0.025 0.025 0.031	1:506601	1:379951	15198.048

26	0104 0279	Lat Lng Elv	0.021 0.025 0.036	0.035 0.035 0.039	1:880484	1:611447	22012.099
27	0103 0277	Lat Lng Elv	0.024 0.030 0.051	0.026 0.026 0.031	1:522097	1:307116	15662.922
28	0107 0281	Lat Lng Elv	0.022 0.033 0.056	0.026 0.026 0.031	1:477071	1:281131	15743.383
29	0107 0411	Lat Lng Elv	0.000 0.005 0.105	0.038 0.038 0.042	1:4872588	1:232028	24362.836
30	0107 0303	Lat Lng Elv	0.029 0.043 0.066	0.039 0.039 0.043	1:572209	1:372802	24605.027
31	0107 0410	Lat Lng Elv	0.026 0.040 0.048	0.021 0.021 0.027	1:295850	1:246542	11834.020
32	0403 0237	Lat Lng Elv	0.028 0.042 0.103	0.055 0.055 0.057	1:840132	1:342578	35285.518
33	0403 0247	Lat Lng Elv	0.031 0.044 0.100	0.050 0.050 0.053	1:727306	1:320014	32001.540
34	0403 0257	Lat Lng Elv	0.036 0.048 0.106	0.063 0.063 0.066	1:853999	1:386716	40991.828
35	0405 0202	Lat Lng Elv	0.015 0.019 0.028	0.013 0.013 0.022	1:284133	1:192805	5398.544
36	0405 0203	Lat Lng Elv	0.019 0.026 0.039	0.020 0.020 0.026	1:428717	1:285811	11146.679
37	0405 0209	Lat Lng Elv	0.020 0.026 0.038	0.024 0.024 0.029	1:542070	1:370890	14093.846
38	0205 0204	Lat Lng Elv	0.027 0.034 0.051	0.026 0.026 0.032	1:471814	1:314542	16041.701
39	0205 0206	Lat Lng Elv	0.024 0.028 0.040	0.022 0.022 0.028	1:452857	1:317000	12680.012

40	0205 0213	Lat Lng Elv	0.027 0.033 0.046	0.029 0.029 0.034	1:537229	1:385403	17728.580
41	0205 0406	Lat Lng Elv	0.022 0.027 0.039	0.019 0.019 0.026	1:384430	1:266143	10379.618
42	0205 0282	Lat Lng Elv	0.028 0.033 0.050	0.021 0.021 0.027	1:357565	1:235993	11799.671
43	0406 0206	Lat Lng Elv	0.014 0.014 0.021	0.011 0.011 0.021	1:193599	1:129066	2710.401
44	0406 0213	Lat Lng Elv	0.022 0.026 0.037	0.022 0.022 0.028	1:502668	1:353226	13069.376
45	0408 0271	Lat Lng Elv	0.020 0.025 0.038	0.019 0.019 0.026	1:423946	1:278912	10598.680
46	0408 0279	Lat Lng Elv	0.021 0.025 0.041	0.025 0.025 0.031	1:609270	1:371506	15231.754
47	0408 0272	Lat Lng Elv	0.020 0.024 0.037	0.017 0.017 0.024	1:369161	1:239455	8859.856
48	0408 0273	Lat Lng Elv	0.025 0.031 0.047	0.034 0.034 0.038	1:678482	1:447509	21032.956
49	0408 0280	Lat Lng Elv	0.021 0.026 0.042	0.023 0.023 0.029	1:527370	1:326467	13711.587
50	0402 0201	Lat Lng Elv	0.063 0.098 0.088	0.067 0.067 0.070	1:446656	1:497412	43772.310
51	0402 0202	Lat Lng Elv	0.065 0.100 0.082	0.091 0.091 0.093	1:593560	1:723854	59356.035
52	0402 0208	Lat Lng Elv	0.063 0.098 0.085	0.069 0.069 0.071	1:453847	1:523259	44477.062
53	0407 0206	Lat Lng Elv	0.037 0.053 0.062	0.046 0.046 0.049	1:552528	1:472323	29284.034

54	0407 0207	Lat Lng Elv	0.034 0.050 0.061	0.031 0.031 0.035	1:381369	1:312598	19068.486
55	0407 0214	Lat Lng Elv	0.035 0.052 0.058	0.039 0.039 0.043	1:477329	1:427950	24821.145
56	0409 0246	Lat Lng Elv	0.023 0.043 0.061	0.022 0.022 0.028	1:295800	1:208515	12719.432
57	0409 0256	Lat Lng Elv	0.026 0.046 0.057	0.032 0.032 0.036	1:431507	1:348234	19849.373
58	0409 0301	Lat Lng Elv	0.034 0.051 0.059	0.045 0.045 0.048	1:559592	1:483715	28539.253
59	0410 0281	Lat Lng Elv	0.029 0.045 0.048	0.039 0.039 0.043	1:553633	1:519031	24913.499
60	0410 0303	Lat Lng Elv	0.032 0.050 0.059	0.037 0.037 0.041	1:468350	1:396907	23417.567
61	0404 0274	Lat Lng Elv	0.029 0.039 0.056	0.029 0.029 0.034	1:455623	1:317309	17769.317
62	0207 0206	Lat Lng Elv	0.023 0.031 0.044	0.019 0.019 0.026	1:331786	1:233758	10285.389
63	0207 0214	Lat Lng Elv	0.022 0.031 0.043	0.020 0.020 0.026	1:357729	1:257897	11089.610
64	0282 0204	Lat Lng Elv	0.028 0.035 0.052	0.024 0.024 0.030	1:414930	1:279280	14522.577
65	0282 0218	Lat Lng Elv	0.028 0.040 0.057	0.031 0.031 0.035	1:477212	1:334885	19088.466
66	0282 0219	Lat Lng Elv	0.028 0.037 0.053	0.027 0.027 0.032	1:435532	1:304051	16114.730
67	0202 0201	Lat Lng Elv	0.027 0.037 0.048	0.026 0.026 0.031	1:426741	1:328946	15789.444

68	0202 0208	Lat Lng Elv	0.027 0.037 0.050	0.034 0.034 0.038	1:577208	1:427134	21356.681
69	0202 0203	Lat Lng Elv	0.021 0.028 0.040	0.026 0.026 0.031	1:556638	1:389646	15585.877
70	0202 0209	Lat Lng Elv	0.019 0.025 0.034	0.019 0.019 0.026	1:417269	1:306815	10431.736
71	0208 0201	Lat Lng Elv	0.026 0.034 0.047	0.020 0.020 0.026	1:323668	1:234143	11004.755
72	0208 0209	Lat Lng Elv	0.028 0.036 0.047	0.029 0.029 0.034	1:494494	1:378761	17801.814
73	0208 0215	Lat Lng Elv	0.032 0.042 0.058	0.026 0.026 0.031	1:373348	1:270355	15680.684
74	0257 0266	Lat Lng Elv	0.034 0.046 0.065	0.028 0.028 0.033	1:367985	1:260420	16927.336
75	0257 0267	Lat Lng Elv	0.034 0.046 0.066	0.036 0.036 0.040	1:492957	1:343576	22676.008
76	0257 0247	Lat Lng Elv	0.034 0.046 0.060	0.027 0.027 0.032	1:350865	1:268996	16139.840
77	0214 0213	Lat Lng Elv	0.023 0.025 0.034	0.015 0.015 0.023	1:298211	1:219272	7455.254
78	0214 0220	Lat Lng Elv	0.029 0.034 0.050	0.027 0.027 0.032	1:473523	1:321995	16099.767
79	0214 0221	Lat Lng Elv	0.032 0.037 0.052	0.029 0.029 0.034	1:475543	1:338367	17595.192
80	0214 0206	Lat Lng Elv	0.021 0.027 0.039	0.023 0.023 0.029	1:511050	1:353803	13798.364
81	0201 0209	Lat Lng Elv	0.029 0.037 0.047	0.030 0.030 0.034	1:495339	1:389947	18327.550

82	0204 0203	Lat Lng Elv	0.024 0.032 0.049	0.027 0.027 0.032	1:505014	1:329805	16160.475
83	0204 0210	Lat Lng Elv	0.025 0.034 0.049	0.029 0.029 0.034	1:532520	1:369504	18105.710
84	0204 0211	Lat Lng Elv	0.022 0.030 0.044	0.019 0.019 0.026	1:345539	1:235594	10366.188
85	0237 0247	Lat Lng Elv	0.027 0.043 0.061	0.028 0.028 0.033	1:393553	1:277422	16922.774
86	0237 0238	Lat Lng Elv	0.024 0.038 0.056	0.026 0.026 0.031	1:417571	1:283351	15867.714
87	0237 0248	Lat Lng Elv	0.025 0.041 0.060	0.036 0.036 0.040	1:551828	1:377083	22624.990
88	0237 0229	Lat Lng Elv	0.028 0.044 0.069	0.026 0.026 0.032	1:362552	1:231193	15952.336
89	0237 0230	Lat Lng Elv	0.027 0.039 0.058	0.033 0.033 0.037	1:531787	1:357581	20739.718
90	0247 0248	Lat Lng Elv	0.028 0.042 0.060	0.029 0.029 0.034	1:425116	1:297581	17854.944
91	0247 0258	Lat Lng Elv	0.031 0.046 0.068	0.038 0.038 0.042	1:523030	1:353814	24059.431
92	0224 0217	Lat Lng Elv	0.024 0.036 0.050	0.027 0.027 0.032	1:451854	1:325335	16266.797
93	0224 0223	Lat Lng Elv	0.026 0.037 0.050	0.026 0.026 0.031	1:428708	1:317244	15862.216
94	0224 0225	Lat Lng Elv	0.027 0.036 0.048	0.023 0.023 0.029	1:370377	1:277783	13333.601
95	0224 0231	Lat Lng Elv	0.030 0.037 0.049	0.026 0.026 0.031	1:428355	1:323452	15849.184

96	0224 0232	Lat Lng Elv	0.035 0.043 0.058	0.034 0.034 0.038	1:493667	1:365995	21227.763
97	0206 0213	Lat Lng Elv	0.022 0.026 0.035	0.020 0.020 0.027	1:438262	1:325566	11394.817
98	0244 0243	Lat Lng Elv	0.024 0.030 0.038	0.019 0.019 0.026	1:349476	1:275902	10484.300
99	0244 0254	Lat Lng Elv	0.027 0.035 0.045	0.026 0.026 0.031	1:447301	1:347901	15655.535
100	0244 0245	Lat Lng Elv	0.029 0.040 0.053	0.026 0.026 0.031	1:391331	1:295344	15653.273
101	0244 0255	Lat Lng Elv	0.028 0.038 0.051	0.034 0.034 0.038	1:563004	1:419493	21394.163
102	0244 0235	Lat Lng Elv	0.028 0.038 0.053	0.037 0.037 0.041	1:611280	1:438276	23228.620
103	0244 0253	Lat Lng Elv	0.027 0.037 0.049	0.035 0.035 0.040	1:603125	1:455421	22315.634
104	0244 0236	Lat Lng Elv	0.030 0.039 0.051	0.027 0.027 0.032	1:419294	1:320636	16352.466
105	0209 0215	Lat Lng Elv	0.031 0.040 0.056	0.038 0.038 0.042	1:598877	1:427769	23955.221
106	0209 0203	Lat Lng Elv	0.022 0.030 0.041	0.031 0.031 0.036	1:645208	1:472104	19356.276
107	0209 0210	Lat Lng Elv	0.022 0.032 0.044	0.027 0.027 0.032	1:521381	1:379186	16684.200
108	0209 0216	Lat Lng Elv	0.025 0.036 0.051	0.027 0.027 0.032	1:453065	1:319810	16310.346
109	0209 0217	Lat Lng Elv	0.024 0.036 0.053	0.036 0.036 0.040	1:631099	1:428671	22719.601

110	0238 0239	Lat Lng Elv	0.027 0.037 0.053	0.026 0.026 0.031	1:429710	1:299986	15899.266
111	0238 0248	Lat Lng Elv	0.025 0.039 0.055	0.030 0.030 0.035	1:475914	1:337466	18560.704
112	0238 0230	Lat Lng Elv	0.027 0.035 0.048	0.022 0.022 0.028	1:376775	1:274731	13187.136
113	0238 0231	Lat Lng Elv	0.032 0.038 0.053	0.033 0.033 0.037	1:542068	1:388652	20598.595
114	0236 0228	Lat Lng Elv	0.033 0.045 0.062	0.035 0.035 0.039	1:494959	1:359245	22273.193
115	0236 0235	Lat Lng Elv	0.028 0.038 0.052	0.025 0.025 0.031	1:403838	1:295113	15345.882
116	0236 0243	Lat Lng Elv	0.032 0.039 0.051	0.028 0.028 0.033	1:444412	1:339844	17332.063
117	0236 0245	Lat Lng Elv	0.036 0.047 0.062	0.036 0.036 0.040	1:479686	1:363632	22545.232
118	0236 0246	Lat Lng Elv	0.038 0.051 0.066	0.050 0.050 0.053	1:630652	1:487322	32163.262
119	0225 0217	Lat Lng Elv	0.027 0.039 0.055	0.034 0.034 0.038	1:540585	1:383324	21082.838
120	0225 0226	Lat Lng Elv	0.034 0.040 0.053	0.030 0.030 0.034	1:457289	1:345124	18291.588
121	0225 0233	Lat Lng Elv	0.034 0.040 0.055	0.039 0.039 0.043	1:621671	1:452124	24866.892
122	0225 0218	Lat Lng Elv	0.025 0.040 0.057	0.026 0.026 0.032	1:400228	1:280862	16009.171
123	0225 0219	Lat Lng Elv	0.026 0.039 0.056	0.036 0.036 0.040	1:589452	1:410511	22988.653

124	0230 0222	Lat Lng Elv	0.031 0.041 0.058	0.038 0.038 0.042	1:582031	1:411436	23863.332
125	0230 0229	Lat Lng Elv	0.030 0.041 0.059	0.025 0.025 0.031	1:369616	1:256852	15154.288
126	0230 0223	Lat Lng Elv	0.030 0.037 0.053	0.027 0.027 0.032	1:446793	1:311912	16531.348
127	0230 0231	Lat Lng Elv	0.032 0.038 0.053	0.028 0.028 0.033	1:453102	1:324866	17217.892
128	0226 0227	Lat Lng Elv	0.037 0.040 0.053	0.026 0.026 0.031	1:396776	1:299454	15871.065
129	0226 0233	Lat Lng Elv	0.035 0.038 0.049	0.027 0.027 0.032	1:425031	1:329616	16151.253
130	0226 0219	Lat Lng Elv	0.030 0.040 0.055	0.027 0.027 0.032	1:404413	1:294118	16176.571
131	0226 0220	Lat Lng Elv	0.029 0.043 0.063	0.036 0.036 0.040	1:530432	1:362041	22808.616
132	0258 0248	Lat Lng Elv	0.027 0.040 0.058	0.026 0.026 0.031	1:396328	1:273329	15853.152
133	0258 0249	Lat Lng Elv	0.030 0.043 0.060	0.035 0.035 0.039	1:517714	1:371028	22261.734
134	0258 0267	Lat Lng Elv	0.027 0.040 0.058	0.026 0.026 0.031	1:394588	1:272129	15783.538
135	0258 0268	Lat Lng Elv	0.028 0.043 0.063	0.036 0.036 0.040	1:533335	1:364022	22933.416
136	0265 0256	Lat Lng Elv	0.027 0.034 0.046	0.027 0.027 0.032	1:477043	1:352597	16219.459
137	0265 0301	Lat Lng Elv	0.026 0.033 0.044	0.021 0.021 0.027	1:368504	1:276378	12160.664

138	0265 0302	Lat Lng Elv	0.030 0.041 0.056	0.030 0.030 0.035	1:454719	1:332919	18643.475
139	0265 0255	Lat Lng Elv	0.027 0.034 0.048	0.026 0.026 0.031	1:464235	1:328833	15783.988
140	0265 0264	Lat Lng Elv	0.030 0.039 0.052	0.026 0.026 0.031	1:405276	1:303957	15805.757
141	0270 0261	Lat Lng Elv	0.028 0.039 0.052	0.026 0.026 0.032	1:409819	1:307364	15982.945
142	0270 0269	Lat Lng Elv	0.025 0.033 0.044	0.022 0.022 0.028	1:397201	1:297901	13107.640
143	0270 0277	Lat Lng Elv	0.029 0.037 0.050	0.035 0.035 0.039	1:591899	1:438005	21900.262
144	0270 0278	Lat Lng Elv	0.027 0.035 0.047	0.027 0.027 0.032	1:466557	1:347436	16329.527
145	0270 0271	Lat Lng Elv	0.027 0.035 0.048	0.030 0.030 0.035	1:529172	1:385854	18521.024
146	0270 0279	Lat Lng Elv	0.030 0.036 0.047	0.036 0.036 0.040	1:634969	1:486359	22858.915
147	0223 0231	Lat Lng Elv	0.032 0.039 0.055	0.038 0.038 0.041	1:608677	1:431607	23738.414
148	0223 0215	Lat Lng Elv	0.032 0.040 0.054	0.038 0.038 0.042	1:599766	1:444271	23990.689
149	0223 0216	Lat Lng Elv	0.026 0.035 0.048	0.025 0.025 0.030	1:419861	1:306149	14695.164
150	0223 0222	Lat Lng Elv	0.029 0.037 0.049	0.027 0.027 0.032	1:436229	1:329397	16140.494
151	0223 0217	Lat Lng Elv	0.024 0.038 0.053	0.035 0.035 0.039	1:584435	1:419029	22208.530

152	0302 0273	Lat Lng Elv	0.031 0.045 0.061	0.038 0.038 0.042	1:540967	1:399074	24343.534
153	0302 0281	Lat Lng Elv	0.030 0.047 0.064	0.044 0.044 0.047	1:594105	1:436296	27922.957
154	0302 0303	Lat Lng Elv	0.025 0.045 0.062	0.027 0.027 0.032	1:370082	1:268608	16653.701
155	0302 0301	Lat Lng Elv	0.031 0.041 0.055	0.026 0.026 0.032	1:390157	1:290844	15996.429
156	0233 0232	Lat Lng Elv	0.035 0.043 0.056	0.028 0.028 0.033	1:399815	1:307001	17192.084
157	0233 0240	Lat Lng Elv	0.033 0.039 0.052	0.035 0.035 0.039	1:566652	1:424989	22099.430
158	0233 0241	Lat Lng Elv	0.029 0.039 0.055	0.024 0.024 0.030	1:372913	1:264429	14543.608
159	0233 0227	Lat Lng Elv	0.035 0.040 0.053	0.035 0.035 0.039	1:556276	1:419830	22251.027
160	0233 0234	Lat Lng Elv	0.028 0.038 0.050	0.025 0.025 0.031	1:403329	1:306530	15326.515
161	0233 0242	Lat Lng Elv	0.028 0.038 0.052	0.033 0.033 0.038	1:546491	1:399359	20766.723
162	0227 0221	Lat Lng Elv	0.033 0.042 0.062	0.032 0.032 0.037	1:482115	1:326594	20248.785
163	0227 0228	Lat Lng Elv	0.031 0.038 0.054	0.025 0.025 0.030	1:391892	1:275776	14891.916
164	0227 0235	Lat Lng Elv	0.034 0.042 0.058	0.035 0.035 0.039	1:527400	1:381910	22150.794
165	0252 0242	Lat Lng Elv	0.027 0.039 0.054	0.028 0.028 0.033	1:440274	1:317976	17170.754

166	0252 0251	Lat Lng Elv	0.029 0.039 0.052	0.029 0.029 0.034	1:454853	1:341139	17739.263
167	0252 0253	Lat Lng Elv	0.024 0.035 0.048	0.023 0.023 0.029	1:394119	1:287378	13794.176
168	0252 0261	Lat Lng Elv	0.027 0.040 0.054	0.038 0.038 0.042	1:598791	1:443549	23951.693
169	0252 0262	Lat Lng Elv	0.025 0.037 0.050	0.026 0.026 0.031	1:422431	1:312599	15630.007
170	0239 0231	Lat Lng Elv	0.035 0.038 0.051	0.027 0.027 0.032	1:430717	1:320926	16367.221
171	0239 0240	Lat Lng Elv	0.038 0.039 0.051	0.026 0.026 0.031	1:398068	1:304405	15524.660
172	0239 0249	Lat Lng Elv	0.032 0.037 0.050	0.026 0.026 0.031	1:416359	1:308106	15405.246
173	0239 0248	Lat Lng Elv	0.029 0.040 0.056	0.035 0.035 0.039	1:556066	1:397190	22242.631
174	0303 0273	Lat Lng Elv	0.030 0.044 0.061	0.044 0.044 0.047	1:633932	1:457262	27893.041
175	0303 0281	Lat Lng Elv	0.029 0.044 0.059	0.034 0.034 0.038	1:480973	1:358691	21162.832
176	0276 0275	Lat Lng Elv	0.028 0.038 0.052	0.026 0.026 0.032	1:421836	1:308265	16029.787
177	0276 0268	Lat Lng Elv	0.024 0.037 0.053	0.026 0.026 0.031	1:417582	1:291520	15450.542
178	0276 0269	Lat Lng Elv	0.028 0.040 0.055	0.036 0.036 0.040	1:575148	1:418289	23005.892
179	0242 0234	Lat Lng Elv	0.027 0.038 0.051	0.025 0.025 0.030	1:395731	1:294858	15037.810

180	0242 0235	Lat Lng Elv	0.029 0.040 0.054	0.035 0.035 0.039	1:549016	1:406678	21960.663
181	0242 0251	Lat Lng Elv	0.031 0.041 0.055	0.035 0.035 0.039	1:540751	1:403105	22170.788
182	0242 0253	Lat Lng Elv	0.027 0.040 0.055	0.038 0.038 0.042	1:600896	1:437015	24035.912
183	0255 0245	Lat Lng Elv	0.028 0.038 0.053	0.027 0.027 0.032	1:440175	1:315597	16726.682
184	0255 0246	Lat Lng Elv	0.026 0.036 0.052	0.029 0.029 0.034	1:502392	1:347810	18086.167
185	0255 0254	Lat Lng Elv	0.026 0.037 0.049	0.025 0.025 0.030	1:404662	1:305561	14972.524
186	0255 0264	Lat Lng Elv	0.028 0.038 0.051	0.038 0.038 0.041	1:625558	1:466102	23771.249
187	0255 0256	Lat Lng Elv	0.024 0.028 0.043	0.015 0.015 0.023	1:275787	1:179582	7722.061
188	0256 0301	Lat Lng Elv	0.027 0.035 0.048	0.023 0.023 0.029	1:387831	1:282793	13574.082
189	0256 0246	Lat Lng Elv	0.022 0.037 0.058	0.028 0.028 0.033	1:462251	1:294884	17103.329
190	0277 0269	Lat Lng Elv	0.028 0.036 0.050	0.027 0.027 0.032	1:450879	1:324633	16231.674
191	0277 0278	Lat Lng Elv	0.027 0.035 0.047	0.026 0.026 0.031	1:447134	1:332972	15649.697
192	0231 0240	Lat Lng Elv	0.040 0.042 0.055	0.035 0.035 0.039	1:525553	1:401332	22073.312
193	0231 0232	Lat Lng Elv	0.032 0.040 0.053	0.023 0.023 0.029	1:346432	1:261458	13857.312

194	0279 0278	Lat Lng Elv	0.029 0.035 0.046	0.026 0.026 0.032	1:457673	1:348229	16018.555
195	0279 0271	Lat Lng Elv	0.027 0.031 0.042	0.026 0.026 0.032	1:515036	1:380145	15966.103
196	0279 0280	Lat Lng Elv	0.027 0.032 0.043	0.026 0.026 0.032	1:499607	1:371801	15987.470
197	0213 0220	Lat Lng Elv	0.025 0.034 0.051	0.025 0.025 0.030	1:441716	1:294477	15018.323
198	0213 0221	Lat Lng Elv	0.030 0.037 0.054	0.034 0.034 0.039	1:582914	1:399404	21567.796
199	0249 0248	Lat Lng Elv	0.027 0.038 0.053	0.026 0.026 0.032	1:419026	1:300433	15923.011
200	0249 0250	Lat Lng Elv	0.026 0.038 0.053	0.028 0.028 0.033	1:446790	1:320340	16978.042
201	0249 0259	Lat Lng Elv	0.029 0.039 0.052	0.027 0.027 0.032	1:422666	1:316999	16483.963
202	0249 0260	Lat Lng Elv	0.030 0.045 0.063	0.035 0.035 0.039	1:493659	1:352613	22214.673
203	0249 0240	Lat Lng Elv	0.037 0.041 0.054	0.035 0.035 0.039	1:543226	1:412449	22272.229
204	0215 0216	Lat Lng Elv	0.031 0.040 0.054	0.030 0.030 0.035	1:468227	1:346835	18729.085
205	0215 0222	Lat Lng Elv	0.029 0.038 0.050	0.024 0.024 0.029	1:369392	1:280738	14036.952
206	0264 0253	Lat Lng Elv	0.024 0.035 0.049	0.033 0.033 0.037	1:583060	1:416471	20407.132
207	0264 0254	Lat Lng Elv	0.025 0.036 0.050	0.026 0.026 0.031	1:439564	1:316486	15824.355

208	0264 0263	Lat Lng Elv	0.025 0.035 0.049	0.026 0.026 0.032	1:456186	1:325847	15966.526
209	0264 0272	Lat Lng Elv	0.027 0.035 0.049	0.031 0.031 0.036	1:557907	1:398505	19526.778
210	0264 0273	Lat Lng Elv	0.028 0.036 0.049	0.027 0.027 0.032	1:450872	1:331252	16231.436
211	0278 0269	Lat Lng Elv	0.028 0.037 0.050	0.034 0.034 0.038	1:580115	1:429285	21464.267
212	0281 0272	Lat Lng Elv	0.026 0.036 0.054	0.038 0.038 0.041	1:660717	1:440478	23785.836
213	0281 0273	Lat Lng Elv	0.026 0.036 0.049	0.026 0.026 0.031	1:439894	1:323187	15836.234
214	0245 0246	Lat Lng Elv	0.026 0.035 0.048	0.019 0.019 0.026	1:300634	1:219212	10522.209
215	0240 0241	Lat Lng Elv	0.032 0.041 0.058	0.027 0.027 0.032	1:408015	1:288424	16728.606
216	0240 0251	Lat Lng Elv	0.034 0.041 0.056	0.036 0.036 0.040	1:551837	1:404024	22625.338
217	0271 0261	Lat Lng Elv	0.026 0.037 0.052	0.037 0.037 0.041	1:629901	1:448199	23306.368
218	0271 0262	Lat Lng Elv	0.025 0.035 0.048	0.026 0.026 0.032	1:459516	1:335063	16083.076
219	0271 0263	Lat Lng Elv	0.027 0.035 0.048	0.036 0.036 0.040	1:640619	1:467118	22421.665
220	0271 0272	Lat Lng Elv	0.024 0.030 0.042	0.025 0.025 0.031	1:504176	1:360126	15125.267
221	0251 0250	Lat Lng Elv	0.028 0.039 0.052	0.025 0.025 0.030	1:380194	1:285146	14827.595

222	0251 0261	Lat Lng Elv	0.027 0.037 0.050	0.026 0.026 0.031	1:424372	1:314035	15701.798
223	0251 0241	Lat Lng Elv	0.031 0.042 0.058	0.028 0.028 0.033	1:402696	1:291607	16913.256
224	0259 0268	Lat Lng Elv	0.025 0.040 0.057	0.025 0.025 0.031	1:377777	1:265106	15111.072
225	0259 0269	Lat Lng Elv	0.029 0.043 0.061	0.036 0.036 0.040	1:520987	1:367253	22402.466
226	0259 0250	Lat Lng Elv	0.028 0.042 0.057	0.037 0.037 0.041	1:554833	1:408824	23303.004
227	0259 0260	Lat Lng Elv	0.029 0.043 0.060	0.025 0.025 0.031	1:352848	1:252874	15172.471
228	0269 0268	Lat Lng Elv	0.024 0.037 0.053	0.027 0.027 0.032	1:435327	1:303908	16107.118
229	0235 0234	Lat Lng Elv	0.028 0.037 0.050	0.026 0.026 0.031	1:419847	1:310687	15534.377
230	0235 0228	Lat Lng Elv	0.027 0.036 0.051	0.026 0.026 0.031	1:437278	1:308666	15742.002
231	0235 0243	Lat Lng Elv	0.029 0.037 0.050	0.026 0.026 0.032	1:431639	1:319413	15970.688
232	0210 0216	Lat Lng Elv	0.027 0.039 0.055	0.037 0.037 0.041	1:601266	1:426352	23449.375
233	0210 0217	Lat Lng Elv	0.023 0.037 0.052	0.027 0.027 0.032	1:445024	1:316651	16465.903
234	0210 0203	Lat Lng Elv	0.020 0.027 0.039	0.018 0.018 0.025	1:349452	1:241928	9435.225
235	0210 0211	Lat Lng Elv	0.024 0.034 0.049	0.024 0.024 0.030	1:420459	1:291747	14295.620

236	0254 0243	Lat Lng Elv	0.031 0.037 0.048	0.032 0.032 0.037	1:541561	1:417453	20037.746
237	0254 0253	Lat Lng Elv	0.025 0.035 0.048	0.026 0.026 0.031	1:452917	1:330252	15852.116
238	0228 0221	Lat Lng Elv	0.032 0.042 0.063	0.026 0.026 0.031	1:373467	1:248978	15685.608
239	0228 0234	Lat Lng Elv	0.031 0.042 0.057	0.034 0.034 0.039	1:514353	1:378996	21602.799
240	0268 0267	Lat Lng Elv	0.025 0.037 0.053	0.026 0.026 0.031	1:419969	1:293186	15538.862
241	0268 0275	Lat Lng Elv	0.027 0.039 0.055	0.036 0.036 0.040	1:588724	1:417458	22960.202
242	0267 0266	Lat Lng Elv	0.031 0.042 0.058	0.027 0.027 0.032	1:393268	1:284780	16517.261
243	0267 0274	Lat Lng Elv	0.030 0.041 0.058	0.038 0.038 0.042	1:580961	1:410679	23819.430
244	0267 0275	Lat Lng Elv	0.026 0.038 0.054	0.026 0.026 0.031	1:409150	1:287920	15547.684
245	0217 0216	Lat Lng Elv	0.024 0.037 0.052	0.026 0.026 0.031	1:428402	1:304824	15850.894
246	0253 0262	Lat Lng Elv	0.026 0.037 0.051	0.036 0.036 0.040	1:607323	1:440607	22470.968
247	0253 0263	Lat Lng Elv	0.024 0.033 0.048	0.022 0.022 0.028	1:388817	1:267312	12830.977
248	0253 0243	Lat Lng Elv	0.029 0.037 0.049	0.029 0.029 0.034	1:487790	1:368331	18048.237
249	0220 0221	Lat Lng Elv	0.027 0.038 0.056	0.022 0.022 0.028	1:335809	1:227870	12760.846

250	0220 0219	Lat Lng Elv	0.025 0.041 0.062	0.029 0.029 0.034	1:437005	1:288987	17917.236
251	0229 0222	Lat Lng Elv	0.031 0.045 0.065	0.027 0.027 0.033	1:372634	1:257977	16768.556
252	0211 0218	Lat Lng Elv	0.024 0.038 0.056	0.026 0.026 0.031	1:412999	1:280249	15693.985
253	0211 0219	Lat Lng Elv	0.025 0.039 0.057	0.035 0.035 0.039	1:563065	1:385255	21959.575
254	0211 0203	Lat Lng Elv	0.024 0.033 0.050	0.029 0.029 0.034	1:550333	1:363219	18161.005
255	0273 0280	Lat Lng Elv	0.030 0.037 0.050	0.038 0.038 0.041	1:641894	1:475001	23750.080
256	0273 0263	Lat Lng Elv	0.029 0.038 0.052	0.040 0.040 0.044	1:676578	1:494422	25709.986
257	0273 0272	Lat Lng Elv	0.025 0.032 0.045	0.024 0.024 0.030	1:455811	1:324132	14585.948
258	0262 0261	Lat Lng Elv	0.025 0.037 0.051	0.026 0.026 0.031	1:419059	1:304023	15505.216
259	0262 0263	Lat Lng Elv	0.025 0.035 0.048	0.024 0.024 0.030	1:407349	1:297025	14257.226
260	0222 0216	Lat Lng Elv	0.030 0.040 0.054	0.034 0.034 0.038	1:524983	1:388876	20999.348
261	0263 0272	Lat Lng Elv	0.026 0.034 0.048	0.029 0.029 0.034	1:521596	1:369464	17734.296
262	0274 0266	Lat Lng Elv	0.031 0.042 0.059	0.024 0.024 0.030	1:346309	1:246525	14545.019
263	0250 0260	Lat Lng Elv	0.028 0.042 0.060	0.026 0.026 0.031	1:376635	1:263644	15818.696

264	0250	Lat	0.026	0.034	1:498193	1:357038	21422.333
	0261	Lng	0.043	0.034			
		Elv	0.060	0.038			
265	0219	Lat	0.022	0.024	1:389743	1:269822	14030.763
	0218	Lng	0.036	0.024			
		Elv	0.052	0.029			
266	0272	Lat	0.026	0.031	1:607731	1:422769	19447.421
	0280	Lng	0.032	0.031			
		Elv	0.046	0.036			

Control Site Positions

Final Adjustment

Horizontal Coordinate System: State Plane Coordinate 1983 **Date:** 12/22/02
Height System: Ortho. Ht. (GEOID99) **Project file:** Final
 Adjustment.spr
Desired Horizontal Accuracy: 0.033USft + 5ppm
Desired Vertical Accuracy: 0.066USft + 5ppm
Confidence Level: 95% Err.
Linear Units of Measure: US Feet

	<u>Site ID</u>	<u>Control Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Control Type</u>	<u>Fix Status</u>
1	0101	Clayton Co 2002-101	East.	5442576.785	0.000	Hor/Ver	Fixed
			Nrth.	3863205.575	0.000		Fixed
			Elev.	1157.232	0.000		Fixed
2	0102	Clayton Co 2002-102	East.	5459634.031	0.000	Hor/Ver	Fixed
			Nrth.	3863357.369	0.000		Fixed
			Elev.	1033.437	0.000		Fixed
3	0103	Clayton Co 2002-103	East.	5476061.889	0.000	Hor/Ver	Fixed
			Nrth.	3863925.579	0.000		Fixed
			Elev.	1125.004	0.000		
4	0104	Clayton Co 2002-104	East.	5490205.417	0.000	Hor/Ver	Fixed
			Nrth.	3864236.448	0.000		Fixed
			Elev.	1090.345	0.000		Fixed
5	0105	Clayton Co 2002-105	East.	5508882.214	0.000	Hor/Ver	Fixed
			Nrth.	3864493.922	0.000		Fixed
			Elev.	1110.620	0.000		Fixed
6	0106	Clayton Co 2002-106	East.	5520428.893	0.000	Hor/Ver	Fixed
			Nrth.	3863816.846	0.000		Fixed
			Elev.	1005.721	0.000		Fixed
7	0107	Clayton Co 2002-107	East.	5540895.936	0.000	Hor/Ver	Fixed
			Nrth.	3865562.466	0.000		Fixed
			Elev.	630.609	0.000		
8	0205	IASOTA	East.	5486088.029	0.000	Hor.	
			Nrth.	4017111.388	0.000		
			Elev.	1174.210	0.000		
9	0403	CBN "DEH A"	East.	5392017.326	0.000	Hor.	Fixed
			Nrth.	3932140.443	0.000		Fixed
			Elev.	1273.724	0.000		
10	0404	M 12	East.	5437240.490	0.000	Ver.	
			Nrth.	3865199.206	0.000		
			Elev.	1190.428	0.000		

11	0402	A 149	East.	5379356.968	0.000	Ver.	
			Nrth.	4022643.897	0.000		
			Elev.	1133.737	0.000		Fixed
12	0405	CBN "MAUSS"	East.	5443000.403	0.000	Hor.	Fixed
			Nrth.	4018640.972	0.000		Fixed
			Elev.	1222.344	0.000		
13	0406	CBN "TT98 WM"	East.	5496348.259	0.000	Hor.	Fixed
			Nrth.	4018681.392	0.000		Fixed
			Elev.	1274.524	0.000		
14	0408	CBN "EGAN IOWA HARN"	East.	5515854.638	0.000	Hor.	Fixed
			Nrth.	3891222.001	0.000		Fixed
			Elev.	1275.184	0.000		
15	0407	P 123	East.	5527844.781	0.000	Ver.	
			Nrth.	4020877.930	0.000		
			Elev.	634.623	0.000		Fixed
16	0409	15 GHC	East.	5573846.300	0.000	Ver.	
			Nrth.	3940144.082	0.000		
			Elev.	639.251	0.000		Fixed
17	0410	B 122	East.	5551193.310	0.000	Ver.	
			Nrth.	3859732.061	0.000		
			Elev.	636.148	0.000		Fixed
18	0411	PRAIRIE DU CHIEN GPS	East.	5553915.090	0.000	Hor.	Fixed
			Nrth.	3844971.569	0.000		Fixed
			Elev.	762.620	0.000		
19	0308	Fayette Co 2002-308	East.	5427318.673	0.000	Hor/Ver	Fixed
			Nrth.	3860990.392	0.000		Fixed
			Elev.	1196.471	0.000		Fixed

	<u>Site ID</u>	<u>Control Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
1	0101	Clayton Co 2002-101	1 19.358	0.99997142	0.99994950
2	0102	Clayton Co 2002-102	1 21.955	0.99997133	0.99995544
3	0103	Clayton Co 2002-103	1 24.456	0.99997139	0.99995110
4	0104	Clayton Co 2002-104	1 26.610	0.99997138	0.99995276
5	0105	Clayton Co 2002-105	1 29.453	0.99997130	0.99995182
6	0106	Clayton Co 2002-106	1 31.207	0.99997097	0.99995685
7	0107	Clayton Co 2002-107	1 34.328	0.99997138	0.99997482
8	0205	IASOTA	1 26.569	1.00005118	0.99994875
9	0403	CBN "DEH A"	1 11.884	1.00000128	0.99994934

10	0404	M 12	1	18.553	0.99997216	0.99994791
11	0402	A 149	1	10.234	1.00005682	0.99995053
12	0405	CBN "MAUSS"	1	19.973	1.00005299	0.99995186
13	0406	CBN "TT98 WM"	1	28.147	1.00005210	0.99994947
14	0408	CBN "EGAN IOWA HARN"	1	30.621	0.99998127	0.99994946
15	0407	P 123	1	32.981	1.00005306	0.99997462
16	0409	15 GHC	1	39.670	1.00000306	0.99997448
17	0410	B 122	1	35.870	0.99996931	0.99997456
18	0411	PRAIRIE DU CHIEN GPS	1	36.221	0.99996464	0.99997400
19	0308	Fayette Co 2002-308	1	17.029	0.99997078	0.99994761

Control Tie Analysis

Final Adjustment

Coordinate System: State Plane Coordinate 1983 **Date:** 12/22/02
Height System: Ortho. Ht. (GEOID99) **Project file:** Final
 Adjustment.spr
Desired Horizontal Accuracy: 0.033USft + 5ppm
Desired Vertical Accuracy: 0.066USft + 5ppm
Confidence Level: 95% Err.
Linear Units of Measure: US Feet

	<u>Site ID</u>	<u>Control Site Descriptor</u>	<u>Control Type</u>	<u>Misclosure</u>		<u>Relative Accuracy</u>	<u>Control QA</u>
1	0101	Clayton Co 2002-101	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
2	0102	Clayton Co 2002-102	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
3	0103	Clayton Co 2002-103	Hor/Ver	East	Fixed	0.000	
				Nrth	Fixed		
				Elev	0.372	1:38009	Fail
4	0104	Clayton Co 2002-104	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
5	0105	Clayton Co 2002-105	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
6	0106	Clayton Co 2002-106	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
7	0107	Clayton Co 2002-107	Hor/Ver	East	Fixed	0.000	
				Nrth	Fixed		
				Elev	0.198	1:59899	Fail
8	0205	IASOTA	Hor.	East	-0.002	1:6465037	
				Nrth	-0.000		
				Elev		1:316959	
9	0403	CBN "DEH A"	Hor.	East	Fixed	0.000	
				Nrth	Fixed		
				Elev		1:692	
10	0404	M 12	Ver.	East		1:3917763	
				Nrth			
				Elev	0.084	1:67522	Fail

11	0402	A 149	Ver.	East Nrth Elev		1:8494529 Fixed 0.000
12	0405	CBN "MAUSS"	Hor.	East Nrth Elev	Fixed Fixed	0.000 1:554
13	0406	CBN "TT98 WM"	Hor.	East Nrth Elev	Fixed Fixed	0.000 1:274
14	0408	CBN "EGAN IOWA HARN"	Hor.	East Nrth Elev	Fixed Fixed	0.000 1:240
15	0407	P 123	Ver.	East Nrth Elev		1:18279511 Fixed 0.000
16	0409	15 GHC	Ver.	East Nrth Elev		1:12015067 Fixed 0.000
17	0410	B 122	Ver.	East Nrth Elev		1:2034323 Fixed 0.000
18	0411	PRAIRIE DU CHIEN GPS	Hor.	East Nrth Elev	Fixed Fixed	0.000 1:131
19	0308	Fayette Co 2002-308	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed	

Coordinate System Definition Summary

Final Adjustment

Linear Units of Measure: US Feet

Date: 12/22/02

Geodetic Datum

Name: North American 1983-CONUS

Reference Ellipsoid: GRS80
a = 6378137.000m
1/f = 298.257222000

Transformation Parameters:

X Translation	=	0.000m
Y Translation	=	0.000m
Z Translation	=	0.000m
X Rotation	=	0.000000"
Y Rotation	=	0.000000"
Z Rotation	=	0.000000"
Scale Diff. (ppm)	=	0.000000

Note: Parameters define transformation from LOCAL SYSTEM to WGS84

Grid System

Name: State Plane Coordinate 1983

Projection Type: LC83

Zone Name: Iowa (North)

Zone Parameters:

Latitude of Southern Standard parallel	=	42°04'00.00"N
Latitude of Northern Standard parallel	=	43°16'00.00"N
Longitude of the grid origin	=	093°30'00.00"W
Latitude of grid origin	=	41°30'00.00"N
False easting (m)	=	1500000.000 m
False northing (m)	=	1000000.000 m

Observation Information

Final Adjustment

Time System: UTC
Linear Units of Measure: US Feet
Adjustment.spr

Date: 12/22/02
Project file: Final

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
1	0204	4.698	0.433	0.000	05:55:05 PM	06:09:15 PM	B0204A02.330
2	0101	4.698	0.433	0.000	07:11:05 PM	07:30:15 PM	B0101F02.315
3	0102	4.698	0.433	0.000	07:15:00 PM	07:30:40 PM	B0102F02.315
4	0102	4.698	0.433	0.000	10:13:05 PM	10:32:15 PM	B0102K02.315
5	0103	4.698	0.433	0.000	10:12:35 PM	10:32:15 PM	B0103K02.315
6	0104	4.698	0.433	0.000	10:15:05 PM	10:32:15 PM	B0104K02.315
7	0104	4.698	0.433	0.000	10:43:35 PM	11:15:35 PM	B0104L02.315
8	0105	4.698	0.433	0.000	04:39:35 PM	04:56:15 PM	B0105D02.319
9	0105	4.698	0.433	0.000	10:50:35 PM	11:15:15 PM	B0105L02.315
10	0106	4.698	0.433	0.000	04:38:35 PM	04:56:10 PM	B0106D02.319
11	0106	4.698	0.433	0.000	07:42:05 PM	08:04:15 PM	B0106H02.318
12	0107	4.698	0.433	0.000	07:36:05 PM	08:04:45 PM	B0107H02.318
13	0107	4.698	0.433	0.000	08:18:35 PM	08:49:15 PM	B0107I02.318
14	0201	4.698	0.433	0.000	05:30:35 PM	05:58:15 PM	B0201F02.316
15	0201	4.698	0.433	0.000	06:17:35 PM	07:22:15 PM	B0201G02.316
16	0202	4.698	0.433	0.000	06:13:35 PM	07:26:30 PM	B0202G02.316
17	0202	4.698	0.433	0.000	07:27:35 PM	08:07:40 PM	B0202H02.316
18	0203	4.698	0.433	0.000	03:15:05 PM	03:35:15 PM	B0203C02.317
19	0203	4.698	0.433	0.000	07:45:35 PM	08:07:15 PM	B0203H02.316
20	0101	4.698	0.433	0.000	03:32:05 PM	03:47:15 PM	B0101A02.315
21	0204	4.698	0.433	0.000	03:24:05 PM	03:35:50 PM	B0204C02.317
22	0204	4.698	0.433	0.000	03:37:05 PM	04:39:05 PM	B0204D02.317
23	0205	4.698	0.433	0.000	05:55:35 PM	06:09:15 PM	B0205A02.330

24	0205	4.698	0.433	0.000	03:52:35 PM	04:35:15 PM	B0205D02.317
25	0205	4.698	0.433	0.000	04:41:35 PM	05:08:15 PM	B0205E02.317
26	0206	4.698	0.433	0.000	02:36:35 PM	03:19:15 PM	B0206B02.318
27	0206	4.698	0.433	0.000	04:52:05 PM	05:08:55 PM	B0206E02.317
28	0207	4.698	0.433	0.000	01:57:35 PM	03:19:15 PM	B0207A02.318
29	0208	4.698	0.433	0.000	05:29:05 PM	05:58:20 PM	B0208F02.316
30	0208	4.698	0.433	0.000	06:10:05 PM	07:22:15 PM	B0208G02.316
31	0209	4.698	0.433	0.000	05:42:05 PM	05:58:25 PM	B0209F02.316
32	0209	4.698	0.433	0.000	07:33:35 PM	08:07:15 PM	B0209H02.316
33	0209	4.698	0.433	0.000	08:08:35 PM	08:49:15 PM	B0209I02.316
34	0210	4.698	0.433	0.000	03:23:35 PM	03:35:20 PM	B0210C02.317
35	0210	4.698	0.433	0.000	08:23:35 PM	08:49:10 PM	B0210I02.316
36	0211	4.698	0.433	0.000	02:43:35 PM	03:00:15 PM	B0211B02.317
37	0211	4.698	0.433	0.000	03:13:05 PM	03:35:15 PM	B0211C02.317
38	????	4.698	0.433	0.000	04:06:05 PM	04:10:45 PM	B0212D02.317
39	0213	4.698	0.433	0.000	04:44:35 PM	05:08:30 PM	B0213E02.317
40	0213	4.698	0.433	0.000	05:10:05 PM	05:40:20 PM	B0213F02.317
41	0214	4.698	0.433	0.000	02:13:40 PM	03:19:20 PM	B0214A02.318
42	0214	4.698	0.433	0.000	05:19:35 PM	05:40:15 PM	B0214F02.317
43	0215	4.698	0.433	0.000	04:55:05 PM	05:12:15 PM	B0215E02.316
44	0215	4.698	0.433	0.000	05:28:50 PM	05:58:10 PM	B0215F02.316
45	0216	4.698	0.433	0.000	04:54:35 PM	05:12:15 PM	B0216E02.316
46	0216	4.698	0.433	0.000	08:33:05 PM	08:49:50 PM	B0216I02.316
47	0217	4.698	0.433	0.000	08:26:25 PM	08:49:15 PM	B0217I02.316
48	0217	4.698	0.433	0.000	09:07:05 PM	09:27:15 PM	B0217J02.316
49	0218	4.698	0.433	0.000	02:42:35 PM	03:00:15 PM	B0218B02.317
50	0218	4.698	0.433	0.000	06:26:45 PM	06:45:15 PM	B0218B02.330
51	0219	4.698	0.433	0.000	02:41:35 PM	03:00:30 PM	B0219B02.317

52	0219	4.698	0.433	0.000	06:28:35 PM	06:45:15 PM	B0219B02.330
53	0219	4.698	0.433	0.000	05:56:35 PM	06:16:15 PM	B0219G02.317
54	0220	4.698	0.433	0.000	05:29:35 PM	05:40:15 PM	B0220F02.317
55	0220	4.698	0.433	0.000	05:53:35 PM	06:16:15 PM	B0220G02.317
56	0221	4.698	0.433	0.000	05:23:35 PM	05:40:20 PM	B0221F02.317
57	0221	4.698	0.433	0.000	06:41:35 PM	07:03:30 PM	B0221H02.317
58	0222	4.698	0.433	0.000	03:19:05 PM	03:40:15 PM	B0222C02.316
59	0222	4.698	0.433	0.000	04:51:35 PM	05:12:15 PM	B0222E02.316
60	0223	4.698	0.433	0.000	04:12:05 PM	04:33:30 PM	B0223D02.316
61	0223	4.698	0.433	0.000	04:34:35 PM	05:12:25 PM	B0223E02.316
62	0223	4.698	0.433	0.000	09:04:35 PM	09:27:40 PM	B0223J02.316
63	0224	4.698	0.433	0.000	09:10:05 PM	09:27:15 PM	B0224J02.316
64	0224	4.698	0.433	0.000	09:28:35 PM	10:17:15 PM	B0224K02.316
65	0225	4.698	0.433	0.000	01:42:35 PM	02:22:15 PM	B0225A02.317
66	0225	4.698	0.433	0.000	02:23:35 PM	03:00:10 PM	B0225B02.317
67	0225	4.698	0.433	0.000	09:11:35 PM	09:27:15 PM	B0225J02.316
68	0226	4.698	0.433	0.000	01:43:35 PM	02:22:15 PM	B0226A02.317
69	0226	4.698	0.433	0.000	06:01:05 PM	06:16:25 PM	B0226G02.317
70	0227	4.698	0.433	0.000	01:52:05 PM	02:22:15 PM	B0227A02.317
71	0227	4.698	0.433	0.000	06:27:35 PM	07:03:15 PM	B0227G02.317
72	0228	4.698	0.433	0.000	03:44:05 PM	04:09:15 PM	B0228B02.318
73	0228	4.698	0.433	0.000	06:38:05 PM	07:03:10 PM	B0228H02.317
74	0229	4.698	0.433	0.000	03:18:05 PM	03:40:20 PM	B0229C02.316
75	0230	4.698	0.433	0.000	03:18:05 PM	03:47:10 PM	B0230C02.316
76	0230	4.698	0.433	0.000	03:53:35 PM	04:33:15 PM	B0230D02.316
77	0231	4.698	0.433	0.000	01:46:05 PM	02:11:15 PM	B0231A02.316
78	0231	4.698	0.433	0.000	04:01:05 PM	04:33:15 PM	B0231D02.316
79	0231	4.698	0.433	0.000	09:56:05 PM	10:17:15 PM	B0231K02.316
80	0232	4.698	0.433	0.000	09:49:05 PM	10:17:25 PM	B0232K02.316

81	0233	4.698	0.433	0.000	02:01:05 PM	02:22:20 PM	B0233A02.317
82	0233	4.698	0.433	0.000	07:20:35 PM	07:43:15 PM	B0233H02.317
83	0233	4.698	0.433	0.000	09:41:05 PM	10:17:30 PM	B0233K02.316
84	0233	4.698	0.433	0.000	10:37:35 PM	11:07:25 PM	B0233L02.316
85	0234	4.698	0.433	0.000	03:48:35 PM	04:11:15 PM	B0234C02.318
86	0234	4.698	0.433	0.000	07:27:15 PM	07:43:45 PM	B0234I02.317
87	0235	4.698	0.433	0.000	02:30:05 PM	02:47:00 PM	B0235A02.319
88	0235	4.698	0.433	0.000	03:43:35 PM	04:09:15 PM	B0235B02.318
89	0235	4.698	0.433	0.000	06:40:05 PM	07:03:20 PM	B0235H02.317
90	0235	4.698	0.433	0.000	07:18:15 PM	07:43:15 PM	B0235I02.317
91	0236	4.698	0.433	0.000	03:40:35 PM	04:09:20 PM	B0236B02.318
92	0236	4.698	0.433	0.000	03:03:15 PM	03:30:10 PM	B0236B02.319
93	0236	4.698	0.433	0.000	04:10:50 PM	04:51:25 PM	B0236C02.318
94	0237	4.698	0.433	0.000	02:38:05 PM	02:58:45 PM	B0237B02.316
95	0237	4.698	0.433	0.000	04:42:05 PM	05:37:25 PM	B0237C02.315
96	0237	4.698	0.433	0.000	02:59:35 PM	03:40:25 PM	B0237C02.316
97	0238	4.698	0.433	0.000	02:36:35 PM	02:58:15 PM	B0238B02.316
98	0238	4.698	0.433	0.000	03:52:35 PM	04:33:15 PM	B0238D02.316
99	0239	4.698	0.433	0.000	01:36:35 PM	02:11:15 PM	B0239A02.316
100	0239	4.698	0.433	0.000	02:28:05 PM	02:58:15 PM	B0239B02.316
101	0240	4.698	0.433	0.000	01:43:35 PM	02:11:15 PM	B0240A02.316
102	0240	4.698	0.433	0.000	10:39:05 PM	11:07:10 PM	B0240L02.316
103	0241	4.698	0.433	0.000	10:52:05 PM	11:07:15 PM	B0241L02.316
104	0242	4.698	0.433	0.000	07:28:05 PM	07:43:15 PM	B0242I02.317
105	0242	4.698	0.433	0.000	07:44:35 PM	08:18:20 PM	B0242J02.317
106	0243	4.698	0.433	0.000	02:28:35 PM	02:46:15 PM	B0243A02.319
107	0243	4.698	0.433	0.000	04:30:05 PM	04:51:15 PM	B0243D02.318
108	0244	4.698	0.433	0.000	02:26:05 PM	02:46:15 PM	B0244A02.319

109	0244	4.698	0.433	0.000	02:47:35 PM	03:30:15 PM	B0244B02.319
110	0244	4.698	0.433	0.000	04:29:35 PM	04:51:10 PM	B0244C02.318
111	0244	4.698	0.433	0.000	05:05:35 PM	05:25:10 PM	B0244D02.318
112	0245	4.698	0.433	0.000	03:02:05 PM	03:30:15 PM	B0245B02.319
113	0245	4.698	0.433	0.000	05:06:00 PM	05:25:15 PM	B0245E02.318
114	0246	4.698	0.433	0.000	03:09:35 PM	03:31:05 PM	B0246B02.319
115	0246	4.698	0.433	0.000	05:10:05 PM	05:25:15 PM	B0246D02.318
116	0246	4.698	0.433	0.000	10:55:05 PM	11:16:15 PM	B0246N02.318
117	0247	4.698	0.433	0.000	04:44:35 PM	05:37:15 PM	B0247C02.315
118	0247	4.698	0.433	0.000	05:52:35 PM	06:12:15 PM	B0247D02.315
119	0248	4.698	0.433	0.000	02:32:05 PM	02:58:15 PM	B0248B02.316
120	0248	4.698	0.433	0.000	05:55:35 PM	06:12:10 PM	B0248D02.315
121	0249	4.698	0.433	0.000	01:41:35 PM	02:11:25 PM	B0249A02.316
122	0249	4.698	0.433	0.000	05:55:05 PM	06:12:30 PM	B0249D02.315
123	0249	4.698	0.433	0.000	08:28:05 PM	08:42:15 PM	B0249H02.315
124	0250	4.698	0.433	0.000	08:31:05 PM	08:42:15 PM	B0250H02.315
125	0250	4.698	0.433	0.000	08:57:05 PM	09:17:10 PM	B0250I02.315
126	0251	4.698	0.433	0.000	08:57:35 PM	09:17:15 PM	B0251I02.315
127	0251	4.698	0.433	0.000	08:04:05 PM	08:18:15 PM	B0251I02.317
128	0251	4.698	0.433	0.000	10:40:05 PM	11:07:25 PM	B0251L02.316
129	0252	4.698	0.433	0.000	08:03:05 PM	08:23:25 PM	B0252J02.317
130	0252	4.698	0.433	0.000	08:24:35 PM	08:59:25 PM	B0252K02.317
131	0253	4.698	0.433	0.000	02:27:05 PM	02:46:15 PM	B0253A02.319
132	0253	4.698	0.433	0.000	05:46:35 PM	06:02:15 PM	B0253E02.318
133	0253	4.698	0.433	0.000	06:18:35 PM	06:41:15 PM	B0253F02.318
134	0253	4.698	0.433	0.000	07:58:35 PM	08:18:15 PM	B0253J02.317
135	0254	4.698	0.433	0.000	04:26:05 PM	04:51:20 PM	B0254C02.318
136	0254	4.698	0.433	0.000	05:44:05 PM	06:02:15 PM	B0254F02.318
137	0255	4.698	0.433	0.000	03:47:05 PM	04:11:10 PM	B0255C02.319

138	0255	4.698	0.433	0.000	05:07:35 PM	05:27:20 PM	B0255D02.318
139	0255	4.698	0.433	0.000	05:28:35 PM	06:02:20 PM	B0255E02.318
140	0256	4.698	0.433	0.000	03:54:05 PM	04:11:20 PM	B0256C02.319
141	0256	4.698	0.433	0.000	09:43:35 PM	10:15:15 PM	B0256K02.318
142	0256	4.698	0.433	0.000	10:16:05 PM	10:49:35 PM	B0256L02.318
143	0256	4.698	0.433	0.000	10:50:35 PM	11:16:15 PM	B0256M02.318
144	0257	4.698	0.433	0.000	04:05:35 PM	04:26:50 PM	B0257B02.315
145	0257	4.698	0.433	0.000	04:28:05 PM	05:37:30 PM	B0257C02.315
146	0258	4.698	0.433	0.000	05:56:35 PM	06:12:25 PM	B0258D02.315
147	0258	4.698	0.433	0.000	06:13:35 PM	06:52:10 PM	B0258E02.315
148	0259	4.698	0.433	0.000	07:52:35 PM	08:14:50 PM	B0259G02.315
149	0259	4.698	0.433	0.000	08:16:05 PM	08:42:35 PM	B0259H02.315
150	0260	4.698	0.433	0.000	08:31:05 PM	08:42:15 PM	B0260H02.315
151	0261	4.698	0.433	0.000	09:00:55 PM	09:17:25 PM	B0261I02.315
152	0261	4.698	0.433	0.000	08:43:35 PM	08:59:15 PM	B0261K02.317
153	0262	4.698	0.433	0.000	06:19:35 PM	06:41:15 PM	B0262G02.318
154	0262	4.698	0.433	0.000	08:37:20 PM	08:59:15 PM	B0262K02.317
155	0263	4.698	0.433	0.000	06:20:15 PM	06:41:25 PM	B0263F02.318
156	0263	4.698	0.433	0.000	10:39:35 PM	10:55:25 PM	B0263N02.317
157	0264	4.698	0.433	0.000	03:43:05 PM	04:11:20 PM	B0264C02.319
158	0264	4.698	0.433	0.000	05:47:05 PM	06:02:25 PM	B0264E02.318
159	0264	4.698	0.433	0.000	06:12:05 PM	06:41:15 PM	B0264F02.318
160	0264	4.698	0.433	0.000	06:53:35 PM	07:16:15 PM	B0264G02.318
161	0265	4.698	0.433	0.000	03:44:05 PM	04:11:15 PM	B0265C02.319
162	0265	4.698	0.433	0.000	09:37:05 PM	10:15:15 PM	B0265L02.318
163	0265	4.698	0.433	0.000	10:25:05 PM	10:35:35 PM	B0265M02.318
164	0266	4.698	0.433	0.000	04:04:05 PM	04:21:15 PM	B0266B02.315
165	0267	4.698	0.433	0.000	04:03:05 PM	04:21:15 PM	B0267B02.315

166	0267	4.698	0.433	0.000	06:28:35 PM	06:52:15 PM	B0267E02.315
167	0268	4.698	0.433	0.000	06:29:35 PM	06:52:25 PM	B0268E02.315
168	0268	4.698	0.433	0.000	07:49:05 PM	08:14:15 PM	B0268G02.315
169	0269	4.698	0.433	0.000	07:48:35 PM	08:14:15 PM	B0269G02.315
170	0269	4.698	0.433	0.000	09:33:35 PM	09:55:15 PM	B0269J02.315
171	0270	4.698	0.433	0.000	08:59:05 PM	09:17:15 PM	B0270I02.315
172	0270	4.698	0.433	0.000	09:35:05 PM	09:55:15 PM	B0270J02.315
173	0270	4.698	0.433	0.000	09:11:05 PM	09:49:15 PM	B0270L02.317
174	0271	4.698	0.433	0.000	08:36:35 PM	08:59:15 PM	B0271J02.317
175	0271	4.698	0.433	0.000	09:21:35 PM	09:49:15 PM	B0271K02.317
176	0271	4.698	0.433	0.000	10:34:05 PM	10:55:15 PM	B0271N02.317
177	0272	4.698	0.433	0.000	06:58:05 PM	07:16:10 PM	B0272G02.318
178	0272	4.698	0.433	0.000	10:03:35 PM	10:22:15 PM	B0272M02.317
179	0272	4.698	0.433	0.000	10:37:35 PM	10:55:15 PM	B0272N02.317
180	0273	4.698	0.433	0.000	06:58:05 PM	07:16:30 PM	B0273G02.318
181	0273	4.698	0.433	0.000	09:02:15 PM	09:24:15 PM	B0273K02.318
182	0273	4.698	0.433	0.000	10:04:05 PM	10:22:15 PM	B0273L02.317
183	0273	4.698	0.433	0.000	10:39:05 PM	10:55:10 PM	B0273M02.317
184	0274	4.698	0.433	0.000	03:36:35 PM	03:47:15 PM	B0274A02.315
185	0274	4.698	0.433	0.000	04:00:35 PM	04:21:15 PM	B0274B02.315
186	0275	4.698	0.433	0.000	06:31:05 PM	06:52:15 PM	B0275E02.315
187	0275	4.698	0.433	0.000	07:11:05 PM	07:30:15 PM	B0275F02.315
188	0276	4.698	0.433	0.000	07:10:05 PM	07:30:15 PM	B0276F02.315
189	0276	4.698	0.433	0.000	07:40:05 PM	08:14:15 PM	B0276G02.315
190	0277	4.698	0.433	0.000	09:44:05 PM	09:58:50 PM	B0277J02.315
191	0277	4.698	0.433	0.000	10:00:05 PM	10:32:35 PM	B0277K02.315
192	0278	4.698	0.433	0.000	09:36:35 PM	09:55:15 PM	B0278J02.315
193	0278	4.698	0.433	0.000	10:46:05 PM	11:15:15 PM	B0278L02.315
194	0279	4.698	0.433	0.000	04:38:05 PM	04:56:10 PM	B0279D02.319

195	0279	4.698	0.433	0.000	11:04:35 PM	11:15:25 PM	B0279L02.315
196	0279	4.698	0.433	0.000	09:17:35 PM	09:49:15 PM	B0279L02.317
197	0280	4.698	0.433	0.000	04:39:35 PM	04:56:25 PM	B0280D02.319
198	0280	4.698	0.433	0.000	10:07:05 PM	10:22:10 PM	B0280M02.317
199	0281	4.698	0.433	0.000	07:01:05 PM	07:16:15 PM	B0281H02.318
200	0281	4.698	0.433	0.000	07:36:05 PM	08:04:15 PM	B0281I02.318
201	0281	4.698	0.433	0.000	09:00:05 PM	09:24:10 PM	B0281J02.318
202	0281	4.698	0.433	0.000	08:22:35 PM	08:49:15 PM	B0281N02.318
203	0282	4.698	0.433	0.000	05:37:35 PM	06:54:35 PM	B0282A02.330
204	0301	4.698	0.433	0.000	09:43:05 PM	10:15:30 PM	B0301K02.318
205	0301	4.698	0.433	0.000	10:26:35 PM	10:49:15 PM	B0301L02.318
206	0302	4.698	0.433	0.000	09:04:05 PM	09:26:25 PM	B0302J02.318
207	0302	4.698	0.433	0.000	09:38:35 PM	10:15:15 PM	B0302K02.318
208	0303	4.698	0.433	0.000	08:29:05 PM	08:49:30 PM	B0303I02.318
209	0303	4.698	0.433	0.000	08:49:50 PM	09:24:30 PM	B0303J02.318
210	0308	4.698	0.433	0.000	03:30:35 PM	03:47:15 PM	B0308A02.315
211	0402	4.698	0.433	0.000	06:21:55 PM	07:22:20 PM	B0402G02.316
212	0403	4.698	0.433	0.000	04:49:35 PM	05:37:15 PM	B0403C02.315
213	0404	4.698	0.433	0.000	03:34:05 PM	03:47:25 PM	B0404A02.315
214	0405	4.698	0.433	0.000	07:51:35 PM	08:07:15 PM	B0405H02.316
215	0406	4.698	0.433	0.000	04:20:35 PM	04:35:10 PM	B0406D02.317
216	0406	4.698	0.433	0.000	04:43:35 PM	05:08:15 PM	B0406E02.317
217	0407	4.698	0.433	0.000	01:55:35 PM	03:19:30 PM	B0407A02.318
218	0408	4.698	0.433	0.000	09:29:05 PM	09:49:45 PM	B0408L02.317
219	0408	4.698	0.433	0.000	09:50:35 PM	10:22:20 PM	B0408M02.317
220	0409	4.698	0.433	0.000	10:27:50 PM	11:16:25 PM	B0409L02.318
221	0410	4.698	0.433	0.000	08:25:35 PM	08:49:15 PM	B0410I02.318
222	0411	4.698	0.433	0.000	07:43:35 PM	08:04:25 PM	B0411H02.318

Project Files

Final Adjustment

Time System: UTC

Date: 12/22/02

Project file: Final Adjustment.spr

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
1	B0204A02.330	11/26/2002 05:55:05 PM	11/26/2002	5.0	171	141915	L1/L2 GPS
2	B0101F02.315	11/11/2002 07:11:05 PM	11/11/2002	5.0	240	199306	L1/L2 GPS
3	B0102F02.315	11/11/2002 07:15:00 PM	11/11/2002	5.0	189	156604	L1/L2 GPS
4	B0102K02.315	11/11/2002 10:13:05 PM	11/11/2002	5.0	238	194419	L1/L2 GPS
5	B0103K02.315	11/11/2002 10:12:35 PM	11/11/2002	5.0	248	208766	L1/L2 GPS
6	B0104K02.315	11/11/2002 10:15:05 PM	11/11/2002	5.0	230	193689	L1/L2 GPS
7	B0104L02.315	11/11/2002 10:43:35 PM	11/11/2002	5.0	394	310116	L1/L2 GPS
8	B0105D02.319	11/15/2002 04:39:35 PM	11/15/2002	5.0	211	161958	L1/L2 GPS
9	B0105L02.315	11/11/2002 10:50:35 PM	11/11/2002	5.0	306	236514	L1/L2 GPS
10	B0106D02.319	11/15/2002 04:38:35 PM	11/15/2002	5.0	218	160681	L1/L2 GPS
11	B0106H02.318	11/14/2002 07:42:05 PM	11/14/2002	5.0	276	244495	L1/L2 GPS
12	B0107H02.318	11/14/2002 07:36:05 PM	11/14/2002	5.0	356	259167	L1/L2 GPS
13	B0107I02.318	11/14/2002 08:18:35 PM	11/14/2002	5.0	377	223811	L1/L2 GPS
14	B0201F02.316	11/12/2002 05:30:35 PM	11/12/2002	5.0	343	301558	L1/L2 GPS
15	B0201G02.316	11/12/2002 06:17:35 PM	11/12/2002	5.0	788	586774	L1/L2 GPS
16	B0202G02.316	11/12/2002 06:13:35 PM	11/12/2002	5.0	886	663665	L1/L2 GPS
17	B0202H02.316	11/12/2002 07:27:35 PM	11/12/2002	5.0	492	422897	L1/L2 GPS
18	B0203C02.317	11/13/2002 03:15:05 PM	11/13/2002	5.0	250	183971	L1/L2 GPS
19	B0203H02.316	11/12/2002 07:45:35 PM	11/12/2002	5.0	267	235356	L1/L2 GPS
20	B0101A02.315	11/11/2002 03:32:05 PM	11/11/2002	5.0	183	140003	L1/L2 GPS

21	B0204C02.317	11/13/2002 03:24:05 PM	11/13/2002	5.0	148	113020	L1/L2 GPS
22	B0204D02.317	11/13/2002 03:37:05 PM	11/13/2002	5.0	755	548285	L1/L2 GPS
23	B0205A02.330	11/26/2002 05:55:35 PM	11/26/2002	5.0	165	139185	L1/L2 GPS
24	B0205D02.317	11/13/2002 03:52:35 PM	11/13/2002	5.0	524	372855	L1/L2 GPS
25	B0205E02.317	11/13/2002 04:41:35 PM	11/13/2002	5.0	331	257104	L1/L2 GPS
26	B0206B02.318	11/14/2002 02:36:35 PM	11/14/2002	5.0	518	293495	L1/L2 GPS
27	B0206E02.317	11/13/2002 04:52:05 PM	11/13/2002	5.0	208	143327	L1/L2 GPS
28	B0207A02.318	11/14/2002 01:57:35 PM	11/14/2002	5.0	981	710673	L1/L2 GPS
29	B0208F02.316	11/12/2002 05:29:05 PM	11/12/2002	5.0	359	315531	L1/L2 GPS
30	B0208G02.316	11/12/2002 06:10:05 PM	11/12/2002	5.0	873	662212	L1/L2 GPS
31	B0209F02.316	11/12/2002 05:42:05 PM	11/12/2002	5.0	206	167055	L1/L2 GPS
32	B0209H02.316	11/12/2002 07:33:35 PM	11/12/2002	5.0	412	354196	L1/L2 GPS
33	B0209I02.316	11/12/2002 08:08:35 PM	11/12/2002	5.0	495	386529	L1/L2 GPS
34	B0210C02.317	11/13/2002 03:23:35 PM	11/13/2002	5.0	151	114676	L1/L2 GPS
35	B0210I02.316	11/12/2002 08:23:35 PM	11/12/2002	5.0	317	264605	L1/L2 GPS
36	B0211B02.317	11/13/2002 02:43:35 PM	11/13/2002	5.0	207	172263	L1/L2 GPS
37	B0211C02.317	11/13/2002 03:13:05 PM	11/13/2002	5.0	273	205591	L1/L2 GPS
38	B0212D02.317	11/13/2002 04:06:05 PM	11/13/2002	5.0	67	38335	L1/L2 GPS
39	B0213E02.317	11/13/2002 04:44:35 PM	11/13/2002	5.0	297	217578	L1/L2 GPS
40	B0213F02.317	11/13/2002 05:10:05 PM	11/13/2002	5.0	373	276796	L1/L2 GPS
41	B0214A02.318	11/14/2002 02:13:40 PM	11/14/2002	5.0	833	460682	L1/L2 GPS
42	B0214F02.317	11/13/2002 05:19:35 PM	11/13/2002	5.0	255	163742	L1/L2 GPS
43	B0215E02.316	11/12/2002 04:55:05 PM	11/12/2002	5.0	212	160279	L1/L2 GPS

44	B0215F02.316	11/12/2002 05:28:50 PM	11/12/2002	5.0	353	310958	L1/L2 GPS
45	B0216E02.316	11/12/2002 04:54:35 PM	11/12/2002	5.0	221	142743	L1/L2 GPS
46	B0216I02.316	11/12/2002 08:33:05 PM	11/12/2002	5.0	212	150288	L1/L2 GPS
47	B0217I02.316	11/12/2002 08:26:25 PM	11/12/2002	5.0	275	195540	L1/L2 GPS
48	B0217J02.316	11/12/2002 09:07:05 PM	11/12/2002	5.0	252	190507	L1/L2 GPS
49	B0218B02.317	11/13/2002 02:42:35 PM	11/13/2002	5.0	223	162665	L1/L2 GPS
50	B0218B02.330	11/26/2002 06:26:45 PM	11/26/2002	5.0	224	170492	L1/L2 GPS
51	B0219B02.317	11/13/2002 02:41:35 PM	11/13/2002	5.0	235	165603	L1/L2 GPS
52	B0219B02.330	11/26/2002 06:28:35 PM	11/26/2002	5.0	210	175665	L1/L2 GPS
53	B0219G02.317	11/13/2002 05:56:35 PM	11/13/2002	5.0	247	211027	L1/L2 GPS
54	B0220F02.317	11/13/2002 05:29:35 PM	11/13/2002	5.0	130	96973	L1/L2 GPS
55	B0220G02.317	11/13/2002 05:53:35 PM	11/13/2002	5.0	280	226042	L1/L2 GPS
56	B0221F02.317	11/13/2002 05:23:35 PM	11/13/2002	5.0	211	155653	L1/L2 GPS
57	B0221H02.317	11/13/2002 06:41:35 PM	11/13/2002	5.0	271	199637	L1/L2 GPS
58	B0222C02.316	11/12/2002 03:19:05 PM	11/12/2002	5.0	264	198004	L1/L2 GPS
59	B0222E02.316	11/12/2002 04:51:35 PM	11/12/2002	5.0	259	198542	L1/L2 GPS
60	B0223D02.316	11/12/2002 04:12:05 PM	11/12/2002	5.0	264	168516	L1/L2 GPS
61	B0223E02.316	11/12/2002 04:34:35 PM	11/12/2002	5.0	463	296406	L1/L2 GPS
62	B0223J02.316	11/12/2002 09:04:35 PM	11/12/2002	5.0	286	212088	L1/L2 GPS
63	B0224J02.316	11/12/2002 09:10:05 PM	11/12/2002	5.0	215	187252	L1/L2 GPS
64	B0224K02.316	11/12/2002 09:28:35 PM	11/12/2002	5.0	590	501049	L1/L2 GPS
65	B0225A02.317	11/13/2002 01:42:35 PM	11/13/2002	5.0	477	300254	L1/L2 GPS
66	B0225B02.317	11/13/2002 02:23:35 PM	11/13/2002	5.0	450	344423	L1/L2 GPS
67	B0225J02.316	11/12/2002 09:11:35 PM	11/12/2002	5.0	198	172242	L1/L2 GPS

68	B0226A02.317	11/13/2002 01:43:35 PM	11/13/2002	5.0	465	293145	L1/L2 GPS
69	B0226G02.317	11/13/2002 06:01:05 PM	11/13/2002	5.0	193	167639	L1/L2 GPS
70	B0227A02.317	11/13/2002 01:52:05 PM	11/13/2002	5.0	363	227044	L1/L2 GPS
71	B0227G02.317	11/13/2002 06:27:35 PM	11/13/2002	5.0	435	345261	L1/L2 GPS
72	B0228B02.318	11/14/2002 03:44:05 PM	11/14/2002	5.0	310	214569	L1/L2 GPS
73	B0228H02.317	11/13/2002 06:38:05 PM	11/13/2002	5.0	309	249810	L1/L2 GPS
74	B0229C02.316	11/12/2002 03:18:05 PM	11/12/2002	5.0	274	183833	L1/L2 GPS
75	B0230C02.316	11/12/2002 03:18:05 PM	11/12/2002	5.0	361	260181	L1/L2 GPS
76	B0230D02.316	11/12/2002 03:53:35 PM	11/12/2002	5.0	487	342731	L1/L2 GPS
77	B0231A02.316	11/12/2002 01:46:05 PM	11/12/2002	5.0	303	164048	L1/L2 GPS
78	B0231D02.316	11/12/2002 04:01:05 PM	11/12/2002	5.0	398	255773	L1/L2 GPS
79	B0231K02.316	11/12/2002 09:56:05 PM	11/12/2002	5.0	264	174530	L1/L2 GPS
80	B0232K02.316	11/12/2002 09:49:05 PM	11/12/2002	5.0	347	290865	L1/L2 GPS
81	B0233A02.317	11/13/2002 02:01:05 PM	11/13/2002	5.0	256	157213	L1/L2 GPS
82	B0233H02.317	11/13/2002 07:20:35 PM	11/13/2002	5.0	288	238606	L1/L2 GPS
83	B0233K02.316	11/12/2002 09:41:05 PM	11/12/2002	5.0	443	372763	L1/L2 GPS
84	B0233L02.316	11/12/2002 10:37:35 PM	11/12/2002	5.0	369	294279	L1/L2 GPS
85	B0234C02.318	11/14/2002 03:48:35 PM	11/14/2002	5.0	278	186332	L1/L2 GPS
86	B0234I02.317	11/13/2002 07:27:15 PM	11/13/2002	5.0	199	164161	L1/L2 GPS
87	B0235A02.319	11/15/2002 02:30:05 PM	11/15/2002	5.0	203	167339	L1/L2 GPS
88	B0235B02.318	11/14/2002 03:43:35 PM	11/14/2002	5.0	318	219858	L1/L2 GPS
89	B0235H02.317	11/13/2002 06:40:05 PM	11/13/2002	5.0	286	233137	L1/L2 GPS
90	B0235I02.317	11/13/2002 07:18:15 PM	11/13/2002	5.0	301	249177	L1/L2 GPS

91	B0236B02.318	11/14/2002 03:40:35 PM	11/14/2002	5.0	354	211794	L1/L2 GPS
92	B0236B02.319	11/15/2002 03:03:15 PM	11/15/2002	5.0	331	193375	L1/L2 GPS
93	B0236C02.318	11/14/2002 04:10:50 PM	11/14/2002	5.0	502	314636	L1/L2 GPS
94	B0237B02.316	11/12/2002 02:38:05 PM	11/12/2002	5.0	258	179754	L1/L2 GPS
95	B0237C02.315	11/11/2002 04:42:05 PM	11/11/2002	5.0	671	428294	L1/L2 GPS
96	B0237C02.316	11/12/2002 02:59:35 PM	11/12/2002	5.0	496	301333	L1/L2 GPS
97	B0238B02.316	11/12/2002 02:36:35 PM	11/12/2002	5.0	267	212949	L1/L2 GPS
98	B0238D02.316	11/12/2002 03:52:35 PM	11/12/2002	5.0	493	348662	L1/L2 GPS
99	B0239A02.316	11/12/2002 01:36:35 PM	11/12/2002	5.0	417	270141	L1/L2 GPS
100	B0239B02.316	11/12/2002 02:28:05 PM	11/12/2002	5.0	367	281535	L1/L2 GPS
101	B0240A02.316	11/12/2002 01:43:35 PM	11/12/2002	5.0	333	216207	L1/L2 GPS
102	B0240L02.316	11/12/2002 10:39:05 PM	11/12/2002	5.0	348	276479	L1/L2 GPS
103	B0241L02.316	11/12/2002 10:52:05 PM	11/12/2002	5.0	189	140890	L1/L2 GPS
104	B0242I02.317	11/13/2002 07:28:05 PM	11/13/2002	5.0	189	155537	L1/L2 GPS
105	B0242J02.317	11/13/2002 07:44:35 PM	11/13/2002	5.0	417	341339	L1/L2 GPS
106	B0243A02.319	11/15/2002 02:28:35 PM	11/15/2002	5.0	213	127560	L1/L2 GPS
107	B0243D02.318	11/14/2002 04:30:05 PM	11/14/2002	5.0	265	187789	L1/L2 GPS
108	B0244A02.319	11/15/2002 02:26:05 PM	11/15/2002	5.0	243	193396	L1/L2 GPS
109	B0244B02.319	11/15/2002 02:47:35 PM	11/15/2002	5.0	523	399269	L1/L2 GPS
110	B0244C02.318	11/14/2002 04:29:35 PM	11/14/2002	5.0	266	208323	L1/L2 GPS
111	B0244D02.318	11/14/2002 05:05:35 PM	11/14/2002	5.0	244	183278	L1/L2 GPS
112	B0245B02.319	11/15/2002 03:02:05 PM	11/15/2002	5.0	349	257146	L1/L2 GPS
113	B0245E02.318	11/14/2002 05:06:00 PM	11/14/2002	5.0	232	173550	L1/L2 GPS
114	B0246B02.319	11/15/2002 03:09:35 PM	11/15/2002	5.0	268	203704	L1/L2 GPS

115	B0246D02.318	11/14/2002 05:10:05 PM	11/14/2002	5.0	193	136599	L1/L2 GPS
116	B0246N02.318	11/14/2002 10:55:05 PM	11/14/2002	5.0	261	143871	L1/L2 GPS
117	B0247C02.315	11/11/2002 04:44:35 PM	11/11/2002	5.0	642	490759	L1/L2 GPS
118	B0247D02.315	11/11/2002 05:52:35 PM	11/11/2002	5.0	247	230136	L1/L2 GPS
119	B0248B02.316	11/12/2002 02:32:05 PM	11/12/2002	5.0	321	245376	L1/L2 GPS
120	B0248D02.315	11/11/2002 05:55:35 PM	11/11/2002	5.0	209	194125	L1/L2 GPS
121	B0249A02.316	11/12/2002 01:41:35 PM	11/12/2002	5.0	359	233081	L1/L2 GPS
122	B0249D02.315	11/11/2002 05:55:05 PM	11/11/2002	5.0	218	202876	L1/L2 GPS
123	B0249H02.315	11/11/2002 08:28:05 PM	11/11/2002	5.0	179	150502	L1/L2 GPS
124	B0250H02.315	11/11/2002 08:31:05 PM	11/11/2002	5.0	144	121191	L1/L2 GPS
125	B0250I02.315	11/11/2002 08:57:05 PM	11/11/2002	5.0	248	203722	L1/L2 GPS
126	B0251I02.315	11/11/2002 08:57:35 PM	11/11/2002	5.0	243	180495	L1/L2 GPS
127	B0251I02.317	11/13/2002 08:04:05 PM	11/13/2002	5.0	195	148082	L1/L2 GPS
128	B0251L02.316	11/12/2002 10:40:05 PM	11/12/2002	5.0	338	268146	L1/L2 GPS
129	B0252J02.317	11/13/2002 08:03:05 PM	11/13/2002	5.0	252	212041	L1/L2 GPS
130	B0252K02.317	11/13/2002 08:24:35 PM	11/13/2002	5.0	429	355529	L1/L2 GPS
131	B0253A02.319	11/15/2002 02:27:05 PM	11/15/2002	5.0	231	182504	L1/L2 GPS
132	B0253E02.318	11/14/2002 05:46:35 PM	11/14/2002	5.0	199	184434	L1/L2 GPS
133	B0253F02.318	11/14/2002 06:18:35 PM	11/14/2002	5.0	279	207642	L1/L2 GPS
134	B0253J02.317	11/13/2002 07:58:35 PM	11/13/2002	5.0	244	205103	L1/L2 GPS
135	B0254C02.318	11/14/2002 04:26:05 PM	11/14/2002	5.0	315	242064	L1/L2 GPS
136	B0254F02.318	11/14/2002 05:44:05 PM	11/14/2002	5.0	225	208874	L1/L2 GPS
137	B0255C02.319	11/15/2002 03:47:05 PM	11/15/2002	5.0	295	192612	L1/L2 GPS

138	B0255D02.318	11/14/2002 05:07:35 PM	11/14/2002	5.0	244	181435	L1/L2 GPS
139	B0255E02.318	11/14/2002 05:28:35 PM	11/14/2002	5.0	416	373670	L1/L2 GPS
140	B0256C02.319	11/15/2002 03:54:05 PM	11/15/2002	5.0	216	136491	L1/L2 GPS
141	B0256K02.318	11/14/2002 09:43:35 PM	11/14/2002	5.0	390	243209	L1/L2 GPS
142	B0256L02.318	11/14/2002 10:16:05 PM	11/14/2002	5.0	408	257122	L1/L2 GPS
143	B0256M02.318	11/14/2002 10:50:35 PM	11/14/2002	5.0	316	170060	L1/L2 GPS
144	B0257B02.315	11/11/2002 04:05:35 PM	11/11/2002	5.0	266	180775	L1/L2 GPS
145	B0257C02.315	11/11/2002 04:28:05 PM	11/11/2002	5.0	844	642324	L1/L2 GPS
146	B0258D02.315	11/11/2002 05:56:35 PM	11/11/2002	5.0	198	180196	L1/L2 GPS
147	B0258E02.315	11/11/2002 06:13:35 PM	11/11/2002	5.0	473	366431	L1/L2 GPS
148	B0259G02.315	11/11/2002 07:52:35 PM	11/11/2002	5.0	279	232765	L1/L2 GPS
149	B0259H02.315	11/11/2002 08:16:05 PM	11/11/2002	5.0	330	239383	L1/L2 GPS
150	B0260H02.315	11/11/2002 08:31:05 PM	11/11/2002	5.0	145	122131	L1/L2 GPS
151	B0261I02.315	11/11/2002 09:00:55 PM	11/11/2002	5.0	199	166392	L1/L2 GPS
152	B0261K02.317	11/13/2002 08:43:35 PM	11/13/2002	5.0	198	153521	L1/L2 GPS
153	B0262G02.318	11/14/2002 06:19:35 PM	11/14/2002	5.0	267	199563	L1/L2 GPS
154	B0262K02.317	11/13/2002 08:37:20 PM	11/13/2002	5.0	264	216337	L1/L2 GPS
155	B0263F02.318	11/14/2002 06:20:15 PM	11/14/2002	5.0	255	190223	L1/L2 GPS
156	B0263N02.317	11/13/2002 10:39:35 PM	11/13/2002	5.0	195	157006	L1/L2 GPS
157	B0264C02.319	11/15/2002 03:43:05 PM	11/15/2002	5.0	349	236582	L1/L2 GPS
158	B0264E02.318	11/14/2002 05:47:05 PM	11/14/2002	5.0	195	178928	L1/L2 GPS
159	B0264F02.318	11/14/2002 06:12:05 PM	11/14/2002	5.0	358	266576	L1/L2 GPS
160	B0264G02.318	11/14/2002 06:53:35 PM	11/14/2002	5.0	282	234906	L1/L2 GPS
161	B0265C02.319	11/15/2002 03:44:05 PM	11/15/2002	5.0	334	229660	L1/L2 GPS

162	B0265L02.318	11/14/2002 09:37:05 PM	11/14/2002	5.0	465	391406	L1/L2 GPS
163	B0265M02.318	11/14/2002 10:25:05 PM	11/14/2002	5.0	135	113798	L1/L2 GPS
164	B0266B02.315	11/11/2002 04:04:05 PM	11/11/2002	5.0	217	146258	L1/L2 GPS
165	B0267B02.315	11/11/2002 04:03:05 PM	11/11/2002	5.0	224	151383	L1/L2 GPS
166	B0267E02.315	11/11/2002 06:28:35 PM	11/11/2002	5.0	292	216467	L1/L2 GPS
167	B0268E02.315	11/11/2002 06:29:35 PM	11/11/2002	5.0	283	208201	L1/L2 GPS
168	B0268G02.315	11/11/2002 07:49:05 PM	11/11/2002	5.0	313	213509	L1/L2 GPS
169	B0269G02.315	11/11/2002 07:48:35 PM	11/11/2002	5.0	319	268910	L1/L2 GPS
170	B0269J02.315	11/11/2002 09:33:35 PM	11/11/2002	5.0	272	232393	L1/L2 GPS
171	B0270I02.315	11/11/2002 08:59:05 PM	11/11/2002	5.0	228	188608	L1/L2 GPS
172	B0270J02.315	11/11/2002 09:35:05 PM	11/11/2002	5.0	253	213563	L1/L2 GPS
173	B0270L02.317	11/13/2002 09:11:05 PM	11/13/2002	5.0	464	403076	L1/L2 GPS
174	B0271J02.317	11/13/2002 08:36:35 PM	11/13/2002	5.0	284	233100	L1/L2 GPS
175	B0271K02.317	11/13/2002 09:21:35 PM	11/13/2002	5.0	343	298939	L1/L2 GPS
176	B0271N02.317	11/13/2002 10:34:05 PM	11/13/2002	5.0	265	215434	L1/L2 GPS
177	B0272G02.318	11/14/2002 06:58:05 PM	11/14/2002	5.0	229	185183	L1/L2 GPS
178	B0272M02.317	11/13/2002 10:03:35 PM	11/13/2002	5.0	232	175005	L1/L2 GPS
179	B0272N02.317	11/13/2002 10:37:35 PM	11/13/2002	5.0	219	163270	L1/L2 GPS
180	B0273G02.318	11/14/2002 06:58:05 PM	11/14/2002	5.0	231	191525	L1/L2 GPS
181	B0273K02.318	11/14/2002 09:02:15 PM	11/14/2002	5.0	265	234931	L1/L2 GPS
182	B0273L02.317	11/13/2002 10:04:05 PM	11/13/2002	5.0	224	188534	L1/L2 GPS
183	B0273M02.317	11/13/2002 10:39:05 PM	11/13/2002	5.0	204	164302	L1/L2 GPS
184	B0274A02.315	11/11/2002 03:36:35 PM	11/11/2002	5.0	129	99428	L1/L2 GPS

185	B0274B02.315	11/11/2002 04:00:35 PM	11/11/2002	5.0	255	174800	L1/L2 GPS
186	B0275E02.315	11/11/2002 06:31:05 PM	11/11/2002	5.0	265	196228	L1/L2 GPS
187	B0275F02.315	11/11/2002 07:11:05 PM	11/11/2002	5.0	242	201768	L1/L2 GPS
188	B0276F02.315	11/11/2002 07:10:05 PM	11/11/2002	5.0	248	206535	L1/L2 GPS
189	B0276G02.315	11/11/2002 07:40:05 PM	11/11/2002	5.0	421	366827	L1/L2 GPS
190	B0277J02.315	11/11/2002 09:44:05 PM	11/11/2002	5.0	185	143823	L1/L2 GPS
191	B0277K02.315	11/11/2002 10:00:05 PM	11/11/2002	5.0	401	335999	L1/L2 GPS
192	B0278J02.315	11/11/2002 09:36:35 PM	11/11/2002	5.0	236	197583	L1/L2 GPS
193	B0278L02.315	11/11/2002 10:46:05 PM	11/11/2002	5.0	359	272657	L1/L2 GPS
194	B0279D02.319	11/15/2002 04:38:05 PM	11/15/2002	5.0	224	154875	L1/L2 GPS
195	B0279L02.315	11/11/2002 11:04:35 PM	11/11/2002	5.0	139	97867	L1/L2 GPS
196	B0279L02.317	11/13/2002 09:17:35 PM	11/13/2002	5.0	392	280009	L1/L2 GPS
197	B0280D02.319	11/15/2002 04:39:35 PM	11/15/2002	5.0	212	136320	L1/L2 GPS
198	B0280M02.317	11/13/2002 10:07:05 PM	11/13/2002	5.0	187	138040	L1/L2 GPS
199	B0281H02.318	11/14/2002 07:01:05 PM	11/14/2002	5.0	194	161304	L1/L2 GPS
200	B0281I02.318	11/14/2002 07:36:05 PM	11/14/2002	5.0	348	296364	L1/L2 GPS
201	B0281J02.318	11/14/2002 09:00:05 PM	11/14/2002	5.0	301	263048	L1/L2 GPS
202	B0281N02.318	11/14/2002 08:22:35 PM	11/14/2002	5.0	332	273564	L1/L2 GPS
203	B0282A02.330	11/26/2002 05:37:35 PM	11/26/2002	5.0	925	766576	L1/L2 GPS
204	B0301K02.318	11/14/2002 09:43:05 PM	11/14/2002	5.0	395	332881	L1/L2 GPS
205	B0301L02.318	11/14/2002 10:26:35 PM	11/14/2002	5.0	282	204060	L1/L2 GPS
206	B0302J02.318	11/14/2002 09:04:05 PM	11/14/2002	5.0	275	184676	L1/L2 GPS
207	B0302K02.318	11/14/2002 09:38:35 PM	11/14/2002	5.0	450	285350	L1/L2 GPS
208	B0303I02.318	11/14/2002 08:29:05 PM	11/14/2002	5.0	252	205348	L1/L2 GPS

209	B0303J02.318	11/14/2002 08:49:50 PM	11/14/2002	5.0	417	362582	L1/L2 GPS
210	B0308A02.315	11/11/2002 03:30:35 PM	11/11/2002	5.0	201	151200	L1/L2 GPS
211	B0402G02.316	11/12/2002 06:21:55 PM	11/12/2002	5.0	726	540037	L1/L2 GPS
212	B0403C02.315	11/11/2002 04:49:35 PM	11/11/2002	5.0	584	447491	L1/L2 GPS
213	B0404A02.315	11/11/2002 03:34:05 PM	11/11/2002	5.0	161	123979	L1/L2 GPS
214	B0405H02.316	11/12/2002 07:51:35 PM	11/12/2002	5.0	200	174898	L1/L2 GPS
215	B0406D02.317	11/13/2002 04:20:35 PM	11/13/2002	5.0	186	135936	L1/L2 GPS
216	B0406E02.317	11/13/2002 04:43:35 PM	11/13/2002	5.0	306	237969	L1/L2 GPS
217	B0407A02.318	11/14/2002 01:55:35 PM	11/14/2002	5.0	1008	710736	L1/L2 GPS
218	B0408L02.317	11/13/2002 09:29:05 PM	11/13/2002	5.0	258	217293	L1/L2 GPS
219	B0408M02.317	11/13/2002 09:50:35 PM	11/13/2002	5.0	388	326398	L1/L2 GPS
220	B0409L02.318	11/14/2002 10:27:50 PM	11/14/2002	5.0	584	430225	L1/L2 GPS
221	B0410I02.318	11/14/2002 08:25:35 PM	11/14/2002	5.0	293	217504	L1/L2 GPS
222	B0411H02.318	11/14/2002 07:43:35 PM	11/14/2002	5.0	259	227351	L1/L2 GPS

Repeat Vector Analysis

Final Adjustment

Desired Horizontal Accuracy: 0.033USft + 5ppm

Date: 12/22/02

Desired Vertical Accuracy: 0.066USft + 5ppm

Project file: Final

Adjustment.spr

Confidence Level: 95% Err.

Linear Units of Measure: US Feet

	<u>Repeat Vector</u>	<u>Vector Difference</u>	<u>Vector Length</u>	<u>Horizontal Relatv Acc</u>	<u>Vertical Relatv Acc</u>	<u>Repeat QA</u>
1	0105-0279 11/11 23:04 11/15 16:39	X: -0.026 Y: 0.050 Z: 0.004	16396.691	1:448991	1:496343	
2	0107-0281 11/14 19:36 11/14 20:22	X: 0.029 Y: 0.100 Z: -0.085	15743.375	1:602733	1:119978	Fail
3	0205-0204 11/13 15:52 11/26 17:55	X: 0.007 Y: 0.007 Z: -0.015	16041.690	1:2237383	1:1015641	
4	0205-0406 11/13 16:20 11/13 16:43	X: -0.003 Y: -0.008 Z: 0.036	10379.615	1:496013	1:342233	
5	0409-0256 11/14 22:27 11/14 22:50	X: -0.140 Y: -0.306 Z: 0.073	19849.570	1:150693	1:72040	Fail
6	0208-0201 11/12 17:30 11/12 18:17	X: -0.050 Y: -0.113 Z: 0.012	11004.723	1:231663	1:120141	Fail
7	0244-0236 11/14 16:29 11/15 15:03	X: 0.000 Y: -0.035 Z: 0.042	16352.473	1:2667311	1:302130	
8	0244-0243 11/14 16:30 11/15 14:28	X: 0.033 Y: -0.039 Z: 0.044	10484.292	1:307822	1:180636	
9	0244-0245 11/14 17:06 11/15 15:02	X: -0.033 Y: -0.039 Z: 0.041	15653.266	1:6178167	1:276179	
10	0244-0246 11/14 17:10 11/15 15:09	X: -0.029 Y: -0.053 Z: 0.079	25871.529	1:1256826	1:278030	
11	0265-0256 11/14 21:43 11/14 22:25	X: -0.038 Y: 0.092 Z: -0.039	16219.479	1:471535	1:173910	

12	0265-0256	11/14 21:43 11/15 15:54	X: 0.055 Y: -0.048 Z: 0.084	16219.479	1:290237	1:177173	
13	0265-0301	11/14 21:43 11/14 22:26	X: -0.018 Y: 0.031 Z: -0.041	12160.665	1:1337201	1:242637	
14	0265-0256	11/14 22:25 11/15 15:54	X: 0.093 Y: -0.141 Z: 0.123	16219.473	1:168739	1:87763	Fail
15	0303-0281	11/14 20:29 11/14 21:00	X: -0.007 Y: 0.020 Z: 0.027	21162.832	1:637182	1:5163274	
16	0255-0264	11/14 17:47 11/15 15:47	X: 0.019 Y: 0.147 Z: -0.079	23771.221	1:548417	1:146855	Fail
17	0256-0301	11/14 21:43 11/14 22:26	X: -0.014 Y: -0.033 Z: 0.017	13574.090	1:1238487	1:377354	
18	0264-0253	11/14 17:47 11/14 18:18	X: -0.014 Y: -0.063 Z: -0.033	20407.109	1:1627403	1:864284	
19	0281-0273	11/14 19:01 11/14 21:02	X: 0.014 Y: 0.005 Z: -0.002	15836.205	1:1148956	1:3032696	
20	0245-0246	11/14 17:10 11/15 15:09	X: -0.000 Y: -0.016 Z: 0.058	10522.207	1:336405	1:205978	
21	0235-0228	11/13 18:40 11/14 15:44	X: 0.006 Y: 0.038 Z: 0.003	15742.041	1:549411	1:617968	
22	0235-0234	11/13 19:27 11/14 15:48	X: 0.028 Y: -0.041 Z: 0.038	15534.366	1:531548	1:280043	
23	0273-0272	11/13 22:04 11/13 22:39	X: 0.034 Y: -0.039 Z: 0.097	14585.942	1:328646	1:154297	
24	0273-0272	11/13 22:04 11/14 18:58	X: 0.033 Y: 0.083 Z: -0.003	14585.942	1:262506	1:230442	
25	0273-0272	11/13 22:39 11/14 18:58	X: -0.001 Y: 0.123 Z: -0.100	14585.974	1:1304400	1:92417	Fail

26	0219-0218	11/13 14:42	X: -0.003	14030.765	1:490029	1:125693	Fail
		11/26 18:28	Y: -0.062				
			Z: 0.097				

Processed Vectors

Final Adjustment

Vector Stage: Processed
Horizontal Coordinate System: State Plane Coordinate 1983
 Adjustment.spr
Height System: Ortho. Ht. (GEOID99)
Desired Horizontal Accuracy: 0.033USft + 5ppm
Desired Vertical Accuracy: 0.066USft + 5ppm
Confidence Level: 95% Err.
Linear Units of Measure: US Feet

Date: 12/22/02
Project file: Final

	<u>Vector Identifier</u>	<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
1	0105-0104 11/11 22:50	18679.970	0.068	X	-18669.733	0.038		8	1.6	L1/L2 GPS
				Y	600.410	0.040				
				Z	147.845	0.040				
2	0105-0278 11/11 22:50	24757.009	0.091	X	-19130.640	0.051		8	1.5	L1/L2 GPS
				Y	11016.722	0.052				
				Z	11205.354	0.054				
3	0105-0106 11/15 16:39	11567.826	0.046	X	11509.640	0.026		8	1.5	L1/L2 GPS
				Y	-849.735	0.027				
				Z	-787.872	0.028				
4	0105-0279 11/15 16:39	16396.649	0.064	X	-3117.084	0.035		8	1.9	L1/L2 GPS
				Y	11199.642	0.036				
				Z	11562.955	0.040				
5	0105-0280 11/15 16:39	18509.094	0.070	X	12658.519	0.039		7	1.8	L1/L2 GPS
				Y	9404.311	0.041				
				Z	9690.583	0.041				
6	0106-0107 11/14 19:42	20546.023	0.082	X	20526.451	0.045		7	1.6	L1/L2 GPS
				Y	652.928	0.047				
				Z	614.443	0.051				
7	0106-0281 11/14 19:42	24925.639	0.102	X	18660.121	0.055		9	1.2	L1/L2 GPS
				Y	11006.350	0.060				
				Z	12326.703	0.062				
8	0106-0411 11/14 19:43	38429.183	0.139	X	32679.337	0.078		9	1.2	L1/L2 GPS
				Y	-13906.350	0.081				
				Z	-14679.117	0.082				
9	0106-0279 11/15 16:38	22620.161	0.088	X	-14626.725	0.049		8	1.9	L1/L2 GPS
				Y	12049.373	0.050				
				Z	12350.838	0.054				
10	0106-0280 11/15 16:39	14705.911	0.057	X	1148.885	0.031		7	1.9	L1/L2 GPS
				Y	10254.072	0.033				
				Z	10478.449	0.034				
11	0102-0101 11/11 19:15	17059.635	0.070	X	-17049.308	0.037		8	2.0	L1/L2 GPS
				Y	530.431	0.039				
				Z	266.266	0.046				
12	0102-0275 11/11 19:15	23631.870	0.095	X	-16731.197	0.050		8	2.0	L1/L2 GPS
				Y	11584.348	0.052				
				Z	12013.957	0.061				
13	0102-0276 11/11 19:15	16422.627	0.066	X	-707.208	0.035		8	2.0	L1/L2 GPS
				Y	11153.638	0.036				
				Z	12033.242	0.042				

14	0102-0103 11/11 22:13	16439.120	0.066	X Y Z	16433.966 -366.936 186.514	0.035 0.037 0.042	8	1.7	L1/L2 GPS
15	0102-0277 11/11 22:13	21160.438	0.085	X Y Z	14486.372 10467.414 11328.831	0.045 0.047 0.054	8	1.7	L1/L2 GPS
16	0101-0274 11/11 15:36	22909.225	0.095	X Y Z	-16154.256 11420.499 11551.831	0.050 0.053 0.061	8	1.3	L1/L2 GPS
17	0101-0308 11/11 15:32	15419.341	0.060	X Y Z	-15335.859 -882.830 -1337.201	0.033 0.034 0.037	8	1.6	L1/L2 GPS
18	0101-0404 11/11 15:34	5697.080	0.028	X Y Z	-5248.914 1564.281 1568.008	0.014 0.015 0.019	8	1.3	L1/L2 GPS
19	0101-0275 11/11 19:11	16133.775	0.062	X Y Z	318.114 11053.923 11747.693	0.034 0.035 0.039	8	2.0	L1/L2 GPS
20	0101-0276 11/11 19:11	22767.930	0.089	X Y Z	16342.103 10623.219 11766.968	0.048 0.049 0.056	8	1.9	L1/L2 GPS
21	0308-0274 11/11 15:36	17837.275	0.072	X Y Z	-818.408 12303.289 12889.053	0.039 0.040 0.045	8	1.8	L1/L2 GPS
22	0308-0404 11/11 15:34	10778.449	0.045	X Y Z	10086.942 2447.102 2905.211	0.024 0.025 0.029	8	1.7	L1/L2 GPS
23	0103-0104 11/11 22:15	14148.059	0.055	X Y Z	14143.688 -347.579 -53.637	0.030 0.031 0.034	8	1.7	L1/L2 GPS
24	0104-0277 11/11 22:15	22567.990	0.084	X Y Z	-16091.280 11181.938 11195.943	0.046 0.047 0.052	8	1.7	L1/L2 GPS
25	0104-0278 11/11 22:46	15198.042	0.056	X Y Z	-460.908 10416.314 11057.507	0.031 0.032 0.033	8	1.5	L1/L2 GPS
26	0104-0279 11/11 23:04	22012.124	0.087	X Y Z	15552.621 10599.293 11415.102	0.047 0.051 0.053	7	1.9	L1/L2 GPS
27	0103-0277 11/11 22:12	15662.934	0.062	X Y Z	-1947.594 10834.351 11142.316	0.033 0.034 0.039	8	1.7	L1/L2 GPS
28	0107-0281 11/14 19:36	15743.375	0.067	X Y Z	-1866.335 10353.499 11712.203	0.035 0.038 0.042	7	1.6	L1/L2 GPS
29	0107-0411 11/14 19:43	24362.944	0.111	X Y Z	12152.776 -14559.337 -15293.424	0.061 0.063 0.067	7	1.6	L1/L2 GPS
30	0107-0303 11/14 20:29	24604.988	0.101	X Y Z	19289.893 9824.658 11695.365	0.054 0.059 0.061	7	2.4	L1/L2 GPS
31	0107-0410 11/14 20:25	11834.026	0.053	X Y Z	10045.905 -4383.482 -4461.956	0.028 0.031 0.033	6	2.4	L1/L2 GPS

32	0403-0237 11/11 16:49	35285.576	0.128	X Y Z	34056.762 5977.246 7034.299	0.072 0.076 0.074	7	2.1	L1/L2 GPS
33	0403-0247 11/11 16:49	32001.492	0.122	X Y Z	31114.976 -5637.087 -4917.013	0.068 0.071 0.072	9	1.4	L1/L2 GPS
34	0403-0257 11/11 16:49	40991.989	0.147	X Y Z	33661.248 -16565.668 -16517.935	0.084 0.085 0.085	9	1.4	L1/L2 GPS
35	0405-0202 11/12 19:51	5398.544	0.025	X Y Z	-4775.626 -1652.672 -1899.039	0.013 0.015 0.015	9	1.2	L1/L2 GPS
36	0405-0203 11/12 19:51	11146.661	0.044	X Y Z	10805.763 -2021.925 -1842.652	0.024 0.026 0.027	9	1.2	L1/L2 GPS
37	0405-0209 11/12 19:51	14093.830	0.056	X Y Z	-5654.610 -8846.566 -9402.112	0.030 0.033 0.034	9	1.3	L1/L2 GPS
38	0205-0204 11/13 15:52	16041.690	0.061	X Y Z	-16035.719 100.075 -426.049	0.034 0.034 0.038	8	1.7	L1/L2 GPS
39	0205-0206 11/13 16:52	12680.007	0.060	X Y Z	12678.807 -92.259 -148.019	0.032 0.036 0.036	7	1.6	L1/L2 GPS
40	0205-0213 11/13 16:44	17728.579	0.077	X Y Z	13458.659 -7718.574 -8578.496	0.042 0.045 0.046	7	1.5	L1/L2 GPS
41	0205-0406 11/13 16:43	10379.615	0.045	X Y Z	10315.405 668.720 938.962	0.024 0.026 0.027	8	1.4	L1/L2 GPS
42	0205-0282 11/26 17:55	11799.670	0.052	X Y Z	-5629.855 -7013.200 -7638.846	0.026 0.029 0.035	8	1.6	L1/L2 GPS
43	0406-0206 11/13 16:52	2710.400	0.018	X Y Z	2363.404 -760.979 -1086.968	0.009 0.011 0.011	7	1.7	L1/L2 GPS
44	0406-0213 11/13 16:44	13069.384	0.054	X Y Z	3143.254 -8387.294 -9517.459	0.030 0.032 0.032	7	1.5	L1/L2 GPS
45	0408-0271 11/13 21:29	10598.666	0.043	X Y Z	-9059.396 3877.585 3901.715	0.024 0.025 0.027	8	1.3	L1/L2 GPS
46	0408-0279 11/13 21:29	15231.774	0.063	X Y Z	-11191.894 -6726.210 -7842.611	0.033 0.035 0.041	8	2.0	L1/L2 GPS
47	0408-0272 11/13 22:03	8859.872	0.040	X Y Z	6032.523 4708.820 4464.640	0.020 0.023 0.026	8	2.0	L1/L2 GPS
48	0408-0273 11/13 22:04	21032.966	0.086	X Y Z	20499.944 3100.439 3539.104	0.045 0.047 0.055	8	1.7	L1/L2 GPS

49	0408-0280 11/13 22:07	13711.624	0.054	X Y Z	4583.761 -8521.535 -9714.999	0.029 0.030 0.034	7	1.8	L1/L2 GPS
50	0402-0201 11/12 18:21	43772.330	0.158	X Y Z	42845.489 -6858.356 -5765.754	0.088 0.090 0.095	7	2.3	L1/L2 GPS
51	0402-0202 11/12 18:21	59356.070	0.211	X Y Z	58631.604 -7176.767 -5828.561	0.119 0.120 0.125	7	2.4	L1/L2 GPS
52	0402-0208 11/12 18:21	44477.036	0.160	X Y Z	39954.592 -14074.598 -13555.183	0.090 0.091 0.096	7	2.4	L1/L2 GPS
53	0407-0206 11/14 14:36	29284.029	0.117	X Y Z	-29201.047 -1382.017 -1715.587	0.064 0.067 0.071	7	1.7	L1/L2 GPS
54	0407-0207 11/14 13:57	19068.484	0.070	X Y Z	-18917.849 -1421.049 -1924.238	0.039 0.041 0.042	8	1.3	L1/L2 GPS
55	0407-0214 11/14 14:13	24821.146	0.093	X Y Z	-20972.783 -8907.433 -9843.236	0.051 0.053 0.056	7	1.6	L1/L2 GPS
56	0409-0246 11/14 22:55	12719.441	0.066	X Y Z	-11908.385 3170.567 3149.927	0.031 0.036 0.047	5	4.1	L1/L2 GPS
57	0409-0256 11/14 22:50	19849.366	0.096	X Y Z	-15636.422 -8224.191 -9047.781	0.046 0.052 0.067	5	4.3	L1/L2 GPS
58	0409-0301 11/14 22:27	28539.228	0.113	X Y Z	-12810.475 -17344.200 -18696.471	0.060 0.065 0.071	6	2.1	L1/L2 GPS
59	0410-0281 11/14 20:25	24913.493	0.095	X Y Z	-11912.225 14736.812 16174.283	0.053 0.056 0.057	7	1.5	L1/L2 GPS
60	0410-0303 11/14 20:29	23417.534	0.090	X Y Z	9243.997 14208.105 16157.326	0.050 0.053 0.054	7	1.5	L1/L2 GPS
61	0404-0274 11/11 15:36	17769.310	0.076	X Y Z	-10905.351 9856.205 9983.833	0.040 0.042 0.049	8	1.3	L1/L2 GPS
62	0207-0206 11/14 14:36	10285.381	0.046	X Y Z	-10283.191 39.020 208.634	0.024 0.026 0.029	7	1.7	L1/L2 GPS
63	0207-0214 11/14 14:13	11089.612	0.044	X Y Z	-2054.931 -7486.393 -7919.007	0.024 0.025 0.027	7	1.6	L1/L2 GPS
64	0282-0204 11/26 17:55	14522.582	0.063	X Y Z	-10405.871 7113.267 7212.814	0.032 0.034 0.041	8	1.6	L1/L2 GPS
65	0282-0218 11/26 18:26	19088.482	0.076	X Y Z	-10803.640 -10359.706 -11846.012	0.041 0.043 0.048	8	2.3	L1/L2 GPS
66	0282-0219 11/26 18:28	16114.719	0.064	X Y Z	3225.088 -10567.757 -11730.537	0.034 0.036 0.040	8	1.9	L1/L2 GPS

67	0202-0201 11/12 18:17	15789.432	0.060	X Y Z	-15786.096 318.388 62.808	0.033 0.034 0.037	7	2.2	L1/L2 GPS
68	0202-0208 11/12 18:13	21356.703	0.078	X Y Z	-18676.949 -6897.821 -7726.603	0.044 0.044 0.047	8	2.0	L1/L2 GPS
69	0202-0203 11/12 19:45	15585.869	0.059	X Y Z	15581.393 -369.246 56.375	0.033 0.034 0.035	9	1.3	L1/L2 GPS
70	0202-0209 11/12 19:33	10431.740	0.041	X Y Z	-878.979 -7193.897 -7503.095	0.022 0.023 0.025	9	1.3	L1/L2 GPS
71	0208-0201 11/12 17:30	11004.723	0.047	X Y Z	2890.805 7216.107 7789.414	0.025 0.029 0.027	9	1.3	L1/L2 GPS
72	0208-0209 11/12 17:42	17801.789	0.071	X Y Z	17797.925 -296.033 223.445	0.039 0.043 0.041	8	1.4	L1/L2 GPS
73	0208-0215 11/12 17:29	15680.634	0.066	X Y Z	-346.081 -10740.898 -11419.089	0.035 0.040 0.038	9	1.3	L1/L2 GPS
74	0257-0266 11/11 16:05	16927.332	0.067	X Y Z	-445.862 -11572.461 -12345.603	0.036 0.037 0.042	7	2.0	L1/L2 GPS
75	0257-0267 11/11 16:05	22676.034	0.092	X Y Z	16046.748 -11009.087 -11640.636	0.049 0.051 0.059	7	1.9	L1/L2 GPS
76	0257-0247 11/11 16:44	16139.817	0.061	X Y Z	-2546.121 10928.476 11600.836	0.034 0.035 0.036	9	1.4	L1/L2 GPS
77	0214-0213 11/13 17:19	7455.276	0.037	X Y Z	-7448.437 -100.861 -302.916	0.019 0.022 0.023	6	2.1	L1/L2 GPS
78	0214-0220 11/13 17:29	16099.795	0.082	X Y Z	-5401.984 -10463.896 -10978.564	0.040 0.056 0.045	5	3.0	L1/L2 GPS
79	0214-0221 11/13 17:23	17595.118	0.077	X Y Z	7331.884 -11080.240 -11535.160	0.041 0.046 0.047	6	2.2	L1/L2 GPS
80	0214-0206 11/14 14:36	13798.355	0.059	X Y Z	-8228.256 7525.419 8127.637	0.031 0.033 0.037	7	1.7	L1/L2 GPS
81	0201-0209 11/12 17:42	18327.546	0.069	X Y Z	14907.136 -7512.127 -7565.988	0.038 0.042 0.040	7	1.6	L1/L2 GPS
82	0204-0203 11/13 15:24	16160.464	0.065	X Y Z	-16136.244 786.465 404.599	0.035 0.036 0.041	7	1.3	L1/L2 GPS
83	0204-0210 11/13 15:24	18105.706	0.074	X Y Z	-15930.885 -5693.910 -6450.030	0.039 0.041 0.047	8	1.3	L1/L2 GPS

84	0204-0211 11/13 15:24	10366.176	0.044	X Y Z	-1730.504 -7017.559 -7430.803	0.023 0.024 0.029	8	1.3	L1/L2 GPS
85	0237-0247 11/11 16:44	16922.785	0.067	X Y Z	-2941.672 -11614.343 -11951.329	0.036 0.041 0.039	7	2.0	L1/L2 GPS
86	0237-0238 11/12 14:38	15867.711	0.065	X Y Z	15780.409 578.951 1558.126	0.035 0.038 0.039	7	1.4	L1/L2 GPS
87	0237-0248 11/12 14:38	22624.980	0.087	X Y Z	14906.177 -12118.084 -11951.890	0.047 0.050 0.052	7	1.4	L1/L2 GPS
88	0237-0229 11/12 15:18	15952.321	0.079	X Y Z	-431.375 11029.007 11517.442	0.037 0.043 0.055	5	3.2	L1/L2 GPS
89	0237-0230 11/12 15:18	20739.716	0.085	X Y Z	14664.359 9888.879 10830.627	0.046 0.049 0.053	6	3.1	L1/L2 GPS
90	0247-0248 11/11 17:55	17854.913	0.072	X Y Z	17847.801 -503.903 -0.489	0.039 0.044 0.042	9	1.2	L1/L2 GPS
91	0247-0258 11/11 17:56	24059.413	0.099	X Y Z	17787.191 -11307.307 -11602.414	0.053 0.060 0.058	9	1.2	L1/L2 GPS
92	0224-0217 11/12 21:10	16266.780	0.061	X Y Z	297.273 11462.648 11538.087	0.034 0.036 0.036	8	1.4	L1/L2 GPS
93	0224-0223 11/12 21:10	15862.217	0.062	X Y Z	-15822.079 1077.011 334.354	0.034 0.036 0.036	7	1.4	L1/L2 GPS
94	0224-0225 11/12 21:11	13333.597	0.052	X Y Z	13328.118 -377.636 -58.914	0.029 0.030 0.031	10	1.1	L1/L2 GPS
95	0224-0231 11/12 21:56	15849.151	0.064	X Y Z	939.948 -10778.418 -11581.786	0.035 0.037 0.039	8	1.8	L1/L2 GPS
96	0224-0232 11/12 21:49	21227.712	0.081	X Y Z	14776.136 -10735.173 -10818.394	0.044 0.046 0.050	8	1.5	L1/L2 GPS
97	0206-0213 11/13 16:52	11394.832	0.052	X Y Z	779.851 -7626.312 -8430.504	0.029 0.031 0.031	7	1.6	L1/L2 GPS
98	0244-0243 11/14 16:30	10484.292	0.040	X Y Z	-10344.566 1511.870 790.310	0.023 0.023 0.024	8	1.6	L1/L2 GPS
99	0244-0254 11/14 16:29	15655.551	0.060	X Y Z	-192.340 -10738.269 -11390.736	0.033 0.034 0.037	8	1.6	L1/L2 GPS
100	0244-0245 11/14 17:06	15653.266	0.061	X Y Z	15603.646 745.367 997.688	0.034 0.036 0.036	8	1.5	L1/L2 GPS
101	0244-0255 11/14 17:07	21394.160	0.094	X Y Z	14778.693 -10684.045 -11187.113	0.051 0.055 0.055	8	1.6	L1/L2 GPS

102	0244-0235 11/15 14:30	23228.668	0.107	X Y Z	-16502.661 11407.352 11709.208	0.054 0.062 0.069	8	1.2	L1/L2 GPS
103	0244-0253 11/15 14:27	22315.645	0.093	X Y Z	-16041.661 -10448.755 -11466.327	0.049 0.054 0.057	8	1.2	L1/L2 GPS
104	0244-0236 11/15 15:03	16352.469	0.075	X Y Z	-1157.098 11449.529 11617.772	0.042 0.042 0.047	8	1.8	L1/L2 GPS
105	0209-0215 11/12 17:42	23955.116	0.099	X Y Z	-18143.995 -10444.830 -11642.532	0.053 0.061 0.058	8	1.4	L1/L2 GPS
106	0209-0203 11/12 19:45	19356.270	0.072	X Y Z	16460.372 6824.650 7559.462	0.040 0.042 0.043	9	1.3	L1/L2 GPS
107	0209-0210 11/12 20:23	16684.197	0.063	X Y Z	16665.746 344.223 704.862	0.035 0.037 0.037	8	1.5	L1/L2 GPS
108	0209-0216 11/12 20:33	16310.348	0.068	X Y Z	573.403 -10888.777 -12129.847	0.036 0.040 0.041	8	1.7	L1/L2 GPS
109	0209-0217 11/12 20:26	22719.578	0.087	X Y Z	16411.306 -10679.570 -11523.672	0.048 0.051 0.052	7	1.5	L1/L2 GPS
110	0238-0239 11/12 14:36	15899.294	0.062	X Y Z	15505.962 -2652.227 -2306.163	0.034 0.036 0.038	8	1.2	L1/L2 GPS
111	0238-0248 11/12 14:36	18560.678	0.071	X Y Z	-874.245 -12696.995 -13510.026	0.039 0.041 0.043	8	1.2	L1/L2 GPS
112	0238-0230 11/12 15:53	13187.129	0.053	X Y Z	-1116.079 9309.953 9272.514	0.029 0.030 0.034	8	1.7	L1/L2 GPS
113	0238-0231 11/12 16:01	20598.589	0.081	X Y Z	16094.685 8820.598 9352.007	0.043 0.045 0.051	6	2.4	L1/L2 GPS
114	0236-0228 11/14 15:44	22273.194	0.091	X Y Z	-15723.829 10765.671 11530.685	0.048 0.050 0.060	7	2.9	L1/L2 GPS
115	0236-0235 11/14 15:43	15345.877	0.062	X Y Z	-15345.547 -42.180 91.364	0.033 0.034 0.040	7	2.8	L1/L2 GPS
116	0236-0243 11/14 16:30	17332.075	0.074	X Y Z	-9187.480 -9937.607 -10827.511	0.040 0.044 0.044	7	2.6	L1/L2 GPS
117	0236-0245 11/15 15:03	22545.245	0.108	X Y Z	16760.763 -10704.088 -10620.140	0.060 0.059 0.067	7	1.8	L1/L2 GPS
118	0236-0246 11/15 15:09	32163.275	0.158	X Y Z	27002.215 -12175.921 -12534.100	0.090 0.087 0.097	8	1.7	L1/L2 GPS

119	0225-0217 11/12 21:11	21082.827	0.079	X Y Z	-13030.872 11840.237 11597.015	0.044 0.046 0.047	8	1.4	L1/L2 GPS
120	0225-0226 11/13 13:43	18291.595	0.075	X Y Z	18283.740 -534.888 -34.618	0.038 0.040 0.050	6	3.0	L1/L2 GPS
121	0225-0233 11/13 14:01	24866.844	0.102	X Y Z	18560.844 -11730.912 -11672.219	0.053 0.056 0.068	6	2.8	L1/L2 GPS
122	0225-0218 11/13 14:42	16009.158	0.064	X Y Z	2756.665 11085.003 11216.801	0.034 0.037 0.039	7	1.4	L1/L2 GPS
123	0225-0219 11/13 14:41	22988.641	0.093	X Y Z	16785.412 10876.990 11332.195	0.050 0.054 0.057	7	1.4	L1/L2 GPS
124	0230-0222 11/12 15:19	23863.311	0.095	X Y Z	-15620.411 12451.445 13054.574	0.052 0.054 0.060	8	1.4	L1/L2 GPS
125	0230-0229 11/12 15:18	15154.293	0.063	X Y Z	-15095.728 1140.107 686.829	0.034 0.036 0.039	7	1.7	L1/L2 GPS
126	0230-0223 11/12 16:12	16531.361	0.070	X Y Z	448.721 11365.962 11995.809	0.036 0.038 0.046	6	2.9	L1/L2 GPS
127	0230-0231 11/12 16:01	17217.909	0.076	X Y Z	17210.771 -489.333 79.442	0.038 0.041 0.051	6	2.4	L1/L2 GPS
128	0226-0227 11/13 13:52	15871.069	0.066	X Y Z	15865.372 -424.291 27.914	0.033 0.036 0.044	6	3.0	L1/L2 GPS
129	0226-0233 11/13 14:01	16151.208	0.066	X Y Z	277.106 -11196.029 -11637.598	0.034 0.036 0.043	6	2.9	L1/L2 GPS
130	0226-0219 11/13 18:01	16176.540	0.072	X Y Z	-1498.307 11411.921 11366.776	0.040 0.042 0.042	9	1.3	L1/L2 GPS
131	0226-0220 11/13 18:01	22808.610	0.096	X Y Z	16411.555 10911.310 11482.024	0.050 0.057 0.059	8	1.5	L1/L2 GPS
132	0258-0248 11/11 17:56	15853.137	0.066	X Y Z	60.613 10803.414 11601.919	0.035 0.040 0.038	9	1.2	L1/L2 GPS
133	0258-0249 11/11 17:56	22261.721	0.090	X Y Z	15977.018 10349.560 11541.479	0.049 0.054 0.052	9	1.2	L1/L2 GPS
134	0258-0267 11/11 18:28	15783.537	0.063	X Y Z	805.584 -10630.242 -11639.116	0.034 0.036 0.040	7	2.0	L1/L2 GPS
135	0258-0268 11/11 18:29	22933.413	0.090	X Y Z	16338.872 -11041.305 -11707.788	0.049 0.051 0.056	7	2.0	L1/L2 GPS
136	0265-0256 11/14 21:43	16219.479	0.064	X Y Z	9333.831 8997.255 9746.821	0.035 0.036 0.040	6	2.0	L1/L2 GPS

137	0265-0301	11/14 21:43	12160.665	0.048	X Y Z	12159.647 -122.886 98.310	0.026 0.027 0.030	8	1.5	L1/L2 GPS
138	0265-0302	11/14 21:38	18643.493	0.073	X Y Z	9832.391 -10990.992 -11406.227	0.040 0.042 0.044	7	1.8	L1/L2 GPS
139	0265-0255	11/15 15:47	15783.990	0.064	X Y Z	1995.429 10434.336 11673.784	0.034 0.035 0.041	7	2.0	L1/L2 GPS
140	0265-0264	11/15 15:44	15805.770	0.068	X Y Z	-15804.134 -218.057 64.525	0.035 0.037 0.044	8	1.7	L1/L2 GPS
141	0270-0261	11/11 21:00	15982.952	0.062	X Y Z	1596.283 10921.718 11559.529	0.034 0.035 0.037	8	1.2	L1/L2 GPS
142	0270-0269	11/11 21:35	13107.646	0.049	X Y Z	-13099.602 446.070 108.727	0.027 0.028 0.029	8	1.3	L1/L2 GPS
143	0270-0277	11/11 21:44	21900.268	0.086	X Y Z	-15258.748 -10347.579 -11820.320	0.047 0.049 0.052	8	1.4	L1/L2 GPS
144	0270-0278	11/11 21:36	16329.517	0.066	X Y Z	371.597 -11113.129 -11958.821	0.036 0.038 0.041	8	1.3	L1/L2 GPS
145	0270-0271	11/13 21:21	18521.031	0.072	X Y Z	18517.603 -326.356 143.046	0.040 0.041 0.044	10	1.2	L1/L2 GPS
146	0270-0279	11/13 21:17	22858.906	0.088	X Y Z	16385.111 -10930.168 -11601.257	0.048 0.050 0.055	9	1.9	L1/L2 GPS
147	0223-0231	11/12 16:12	23738.422	0.109	X Y Z	16762.019 -11855.273 -11916.371	0.054 0.058 0.074	6	3.0	L1/L2 GPS
148	0223-0215	11/12 16:55	23990.674	0.093	X Y Z	-18436.078 10620.288 11084.806	0.051 0.053 0.057	6	2.2	L1/L2 GPS
149	0223-0216	11/12 16:54	14695.158	0.060	X Y Z	281.431 10176.521 10597.495	0.032 0.036 0.036	6	2.5	L1/L2 GPS
150	0223-0222	11/12 16:51	16140.496	0.063	X Y Z	-16069.105 1085.541 1058.796	0.035 0.036 0.039	6	2.3	L1/L2 GPS
151	0223-0217	11/12 21:07	22208.567	0.085	X Y Z	16119.365 10385.727 11203.713	0.047 0.050 0.050	6	1.8	L1/L2 GPS
152	0302-0273	11/14 21:04	24343.553	0.098	X Y Z	-24339.417 -250.984 -372.011	0.054 0.057 0.058	7	1.8	L1/L2 GPS
153	0302-0281	11/14 21:04	27922.974	0.108	X Y Z	-22744.374 -11120.823 -11777.657	0.059 0.064 0.064	7	1.8	L1/L2 GPS

154	0302-0303	11/14 21:04	16653.704	0.065	X Y Z	-1588.128 -11649.540 -11794.572	0.035 0.039 0.038	7	1.8	L1/L2 GPS
155	0302-0301	11/14 21:43	15996.447	0.063	X Y Z	2327.261 10868.111 11504.536	0.034 0.036 0.039	7	1.9	L1/L2 GPS
156	0233-0232	11/12 21:49	17192.079	0.064	X Y Z	-17112.817 1373.341 912.707	0.035 0.036 0.039	8	1.5	L1/L2 GPS
157	0233-0240	11/12 22:39	22099.437	0.081	X Y Z	-16014.201 -10177.852 -11328.806	0.045 0.047 0.049	8	1.4	L1/L2 GPS
158	0233-0241	11/12 22:52	14543.612	0.058	X Y Z	699.636 -9716.949 -10798.522	0.031 0.034 0.035	7	1.8	L1/L2 GPS
159	0233-0227	11/13 14:01	22251.042	0.085	X Y Z	15588.269 10771.745 11665.515	0.046 0.048 0.054	6	2.9	L1/L2 GPS
160	0233-0234	11/13 19:27	15326.514	0.057	X Y Z	15323.951 -48.041 276.088	0.032 0.032 0.035	8	2.4	L1/L2 GPS
161	0233-0242	11/13 19:28	20766.687	0.076	X Y Z	14523.577 -10001.649 -10967.588	0.043 0.044 0.046	8	2.3	L1/L2 GPS
162	0227-0221	11/13 18:41	20248.842	0.081	X Y Z	13280.009 10719.167 10897.542	0.043 0.044 0.053	7	2.7	L1/L2 GPS
163	0227-0228	11/13 18:38	14891.918	0.061	X Y Z	14887.202 -365.217 -83.924	0.032 0.034 0.039	8	1.7	L1/L2 GPS
164	0227-0235	11/13 18:40	22150.815	0.099	X Y Z	15265.477 -11173.123 -11523.244	0.050 0.054 0.066	8	1.6	L1/L2 GPS
165	0252-0242	11/13 20:03	17170.724	0.066	X Y Z	-3000.700 11956.777 11952.616	0.036 0.039 0.040	8	1.5	L1/L2 GPS
166	0252-0251	11/13 20:04	17739.274	0.068	X Y Z	-17730.949 540.404 -56.990	0.037 0.040 0.041	8	1.8	L1/L2 GPS
167	0252-0253	11/13 20:03	13794.175	0.054	X Y Z	13790.473 -298.952 -112.915	0.029 0.031 0.032	8	1.5	L1/L2 GPS
168	0252-0261	11/13 20:43	23951.672	0.091	X Y Z	-18372.295 -10185.249 -11506.609	0.051 0.053 0.054	9	1.3	L1/L2 GPS
169	0252-0262	11/13 20:37	15629.984	0.060	X Y Z	-2868.635 -10346.995 -11358.126	0.033 0.035 0.036	9	1.2	L1/L2 GPS
170	0239-0231	11/12 13:46	16367.257	0.077	X Y Z	588.756 11472.947 11658.128	0.036 0.038 0.056	6	4.7	L1/L2 GPS
171	0239-0240	11/12 13:43	15524.685	0.068	X Y Z	15523.602 -35.112 179.997	0.034 0.035 0.048	6	3.7	L1/L2 GPS

172	0239-0249	11/12 13:41	15405.309	0.065	X Y Z	-463.735 -10498.584 -11264.468	0.033 0.034 0.044	6	3.5	L1/L2 GPS
173	0239-0248	11/12 14:32	22242.642	0.085	X Y Z	-16380.209 -10044.768 -11203.862	0.047 0.050 0.051	8	1.2	L1/L2 GPS
174	0303-0273	11/14 21:02	27893.025	0.103	X Y Z	-22751.273 11398.468 11422.581	0.058 0.059 0.061	10	1.1	L1/L2 GPS
175	0303-0281	11/14 21:00	21162.825	0.079	X Y Z	-21156.213 528.688 16.919	0.045 0.046 0.047	10	1.1	L1/L2 GPS
176	0276-0275	11/11 19:11	16029.787	0.064	X Y Z	-16023.988 430.704 -19.275	0.034 0.035 0.041	8	1.9	L1/L2 GPS
177	0276-0268	11/11 19:49	15450.564	0.062	X Y Z	1256.972 10694.574 11079.984	0.034 0.035 0.038	7	2.0	L1/L2 GPS
178	0276-0269	11/11 19:48	23005.922	0.083	X Y Z	17352.744 10107.423 11224.736	0.047 0.048 0.049	9	1.3	L1/L2 GPS
179	0242-0234	11/13 19:28	15037.792	0.058	X Y Z	800.375 9953.603 11243.681	0.032 0.033 0.036	8	1.8	L1/L2 GPS
180	0242-0235	11/13 19:28	21960.647	0.083	X Y Z	16330.147 9600.275 11109.951	0.046 0.047 0.050	8	1.8	L1/L2 GPS
181	0242-0251	11/13 20:04	22170.794	0.085	X Y Z	-14730.250 -11416.375 -12009.590	0.047 0.050 0.051	8	1.8	L1/L2 GPS
182	0242-0253	11/13 19:58	24035.878	0.090	X Y Z	16791.173 -12255.735 -12065.527	0.050 0.053 0.054	8	1.5	L1/L2 GPS
183	0255-0245	11/14 17:07	16726.680	0.071	X Y Z	824.948 11429.430 12184.802	0.038 0.042 0.042	8	1.5	L1/L2 GPS
184	0255-0246	11/14 17:10	18086.144	0.077	X Y Z	11066.400 9957.572 10270.841	0.041 0.046 0.046	7	1.6	L1/L2 GPS
185	0255-0254	11/14 17:44	14972.513	0.061	X Y Z	-14971.030 -54.228 -203.586	0.033 0.037 0.036	9	1.2	L1/L2 GPS
186	0255-0264	11/14 17:47	23771.221	0.091	X Y Z	-17799.549 -10652.233 -11609.347	0.050 0.054 0.053	9	1.2	L1/L2 GPS
187	0255-0256	11/15 15:54	7722.057	0.045	X Y Z	7338.368 -1437.046 -1927.024	0.020 0.022 0.033	6	3.3	L1/L2 GPS
188	0256-0301	11/14 21:43	13574.090	0.053	X Y Z	2825.821 -9120.153 -9648.495	0.029 0.030 0.033	6	2.0	L1/L2 GPS

189	0256-0246 11/14 22:55	17103.324	0.077	X Y Z	3728.022 11394.814 12197.694	0.038 0.043 0.052	5	4.3	L1/L2 GPS
190	0277-0269 11/11 21:44	16231.671	0.067	X Y Z	2159.148 10793.632 11929.071	0.036 0.038 0.041	8	1.4	L1/L2 GPS
191	0277-0278 11/11 21:44	15649.710	0.063	X Y Z	15630.361 -765.548 -138.540	0.034 0.036 0.039	8	1.4	L1/L2 GPS
192	0231-0240 11/12 13:46	22073.267	0.112	X Y Z	14934.815 -11508.039 -11478.043	0.055 0.059 0.078	6	4.7	L1/L2 GPS
193	0231-0232 11/12 21:56	13857.318	0.056	X Y Z	13836.206 43.192 763.419	0.030 0.032 0.035	8	1.9	L1/L2 GPS
194	0279-0278 11/11 23:04	16018.563	0.078	X Y Z	-16013.526 -182.929 -357.607	0.045 0.045 0.046	7	2.0	L1/L2 GPS
195	0279-0271 11/13 21:21	15966.117	0.063	X Y Z	2132.492 10603.797 11744.312	0.034 0.035 0.040	9	2.0	L1/L2 GPS
196	0279-0280 11/15 16:39	15987.452	0.065	X Y Z	15775.602 -1795.338 -1872.365	0.035 0.037 0.041	6	2.4	L1/L2 GPS
197	0213-0220 11/13 17:29	15018.354	0.068	X Y Z	2046.385 -10363.072 -10675.674	0.037 0.040 0.041	7	2.2	L1/L2 GPS
198	0213-0221 11/13 17:23	21567.837	0.082	X Y Z	14780.252 -10979.405 -11232.472	0.046 0.049 0.048	6	1.8	L1/L2 GPS
199	0249-0248 11/11 17:55	15922.991	0.064	X Y Z	-15916.407 453.853 60.436	0.035 0.039 0.037	9	1.2	L1/L2 GPS
200	0249-0250 11/11 20:31	16978.039	0.066	X Y Z	16972.227 -444.050 -12.377	0.036 0.039 0.039	8	1.4	L1/L2 GPS
201	0249-0259 11/11 20:28	16483.992	0.069	X Y Z	199.579 -11112.492 -12173.523	0.037 0.039 0.042	8	1.8	L1/L2 GPS
202	0249-0260 11/11 20:31	22214.676	0.086	X Y Z	15357.142 -11192.296 -11505.761	0.047 0.051 0.051	8	1.4	L1/L2 GPS
203	0249-0240 11/12 13:43	22272.293	0.089	X Y Z	15987.337 10463.470 11444.469	0.046 0.048 0.059	6	3.7	L1/L2 GPS
204	0215-0216 11/12 16:55	18729.111	0.079	X Y Z	18717.510 -443.773 -487.315	0.043 0.049 0.044	8	1.8	L1/L2 GPS
205	0215-0222 11/12 16:55	14036.928	0.054	X Y Z	2366.974 -9534.757 -10026.026	0.030 0.031 0.032	8	1.4	L1/L2 GPS
206	0264-0253 11/14 17:47	20407.109	0.080	X Y Z	-13020.785 10887.510 11330.110	0.044 0.048 0.047	9	1.2	L1/L2 GPS

207	0264-0254 11/14 17:47	15824.336	0.063	X Y Z	2828.516 10598.006 11405.761	0.035 0.038 0.037	9	1.2	L1/L2 GPS
208	0264-0263 11/14 18:20	15966.538	0.062	X Y Z	-15648.756 2387.857 2084.440	0.034 0.035 0.039	8	2.0	L1/L2 GPS
209	0264-0272 11/14 18:58	19526.776	0.081	X Y Z	-13170.341 -9415.666 -10917.067	0.042 0.044 0.053	8	1.9	L1/L2 GPS
210	0264-0273 11/14 18:58	16231.393	0.065	X Y Z	1297.105 -11023.992 -11842.603	0.035 0.036 0.042	8	1.9	L1/L2 GPS
211	0278-0269 11/11 21:36	21464.265	0.085	X Y Z	-13471.211 11559.199 12067.562	0.047 0.048 0.052	8	1.3	L1/L2 GPS
212	0281-0272 11/14 19:01	23785.816	0.097	X Y Z	-16062.492 12478.101 12331.197	0.051 0.053 0.063	8	2.0	L1/L2 GPS
213	0281-0273 11/14 21:02	15836.205	0.060	X Y Z	-1595.057 10869.778 11405.661	0.034 0.034 0.036	10	1.1	L1/L2 GPS
214	0245-0246 11/14 17:10	10522.207	0.047	X Y Z	10241.448 -1471.852 -1913.954	0.025 0.028 0.028	7	1.6	L1/L2 GPS
215	0240-0241 11/12 22:52	16728.634	0.067	X Y Z	16713.873 460.984 530.248	0.036 0.039 0.040	7	1.8	L1/L2 GPS
216	0240-0251 11/12 22:40	22625.346	0.089	X Y Z	15807.578 -11240.116 -11648.456	0.048 0.051 0.054	8	1.4	L1/L2 GPS
217	0271-0261 11/13 20:43	23306.361	0.093	X Y Z	-16921.313 11248.130 11416.443	0.052 0.055 0.055	9	1.3	L1/L2 GPS
218	0271-0262 11/13 20:37	16083.063	0.062	X Y Z	-1417.662 11086.363 11564.935	0.034 0.036 0.037	9	1.2	L1/L2 GPS
219	0271-0263 11/13 22:39	22421.700	0.085	X Y Z	12613.529 12634.689 13564.518	0.047 0.049 0.052	8	1.3	L1/L2 GPS
220	0271-0272 11/13 22:37	15125.301	0.062	X Y Z	15091.947 831.255 562.932	0.033 0.036 0.038	7	1.9	L1/L2 GPS
221	0251-0250 11/11 20:57	14827.602	0.058	X Y Z	-14822.628 332.797 191.578	0.032 0.033 0.035	8	1.4	L1/L2 GPS
222	0251-0261 11/11 21:00	15701.799	0.061	X Y Z	-641.375 -10725.673 -11449.675	0.034 0.035 0.036	8	1.3	L1/L2 GPS
223	0251-0241 11/12 22:52	16913.240	0.067	X Y Z	906.309 11701.127 12178.667	0.036 0.039 0.041	7	1.9	L1/L2 GPS

224	0259-0268	11/11 19:52	15111.087	0.062	X Y Z	162.219 -10278.540 -11075.660	0.033 0.035 0.038	7	2.0	L1/L2 GPS
225	0259-0269	11/11 19:52	22402.465	0.085	X Y Z	16258.024 -10865.602 -10930.954	0.047 0.049 0.051	8	1.4	L1/L2 GPS
226	0259-0250	11/11 20:31	23303.018	0.091	X Y Z	16772.656 10668.440 12161.128	0.049 0.053 0.054	7	1.7	L1/L2 GPS
227	0259-0260	11/11 20:31	15172.476	0.063	X Y Z	15157.564 -79.825 667.753	0.033 0.037 0.038	7	1.7	L1/L2 GPS
228	0269-0268	11/11 19:49	16107.130	0.066	X Y Z	-16095.776 587.095 -144.721	0.035 0.038 0.041	7	2.0	L1/L2 GPS
229	0235-0234	11/13 19:27	15534.366	0.060	X Y Z	-15529.772 353.329 133.727	0.033 0.034 0.037	8	1.8	L1/L2 GPS
230	0235-0228	11/14 15:44	15742.013	0.063	X Y Z	-378.280 10807.870 11439.310	0.034 0.035 0.040	7	1.6	L1/L2 GPS
231	0235-0243	11/15 14:30	15970.668	0.065	X Y Z	6158.052 -9895.437 -10918.835	0.034 0.039 0.039	7	1.6	L1/L2 GPS
232	0210-0216	11/12 20:33	23449.387	0.093	X Y Z	-16092.348 -11232.982 -12834.726	0.052 0.054 0.055	8	1.7	L1/L2 GPS
233	0210-0217	11/12 20:26	16465.898	0.063	X Y Z	-254.434 -11023.779 -12228.548	0.035 0.037 0.038	7	1.5	L1/L2 GPS
234	0210-0203	11/13 15:23	9435.220	0.041	X Y Z	-205.358 6480.377 6854.628	0.022 0.023 0.027	7	1.3	L1/L2 GPS
235	0210-0211	11/13 15:23	14295.622	0.061	X Y Z	14200.382 -1323.649 -980.773	0.032 0.034 0.040	8	1.3	L1/L2 GPS
236	0254-0243	11/14 16:30	20037.757	0.080	X Y Z	-10152.219 12250.150 12181.050	0.045 0.046 0.048	8	1.7	L1/L2 GPS
237	0254-0253	11/14 17:46	15852.116	0.060	X Y Z	-15849.292 289.497 -75.648	0.033 0.036 0.035	9	1.2	L1/L2 GPS
238	0228-0221	11/13 18:41	15685.646	0.076	X Y Z	-1607.205 11084.435 10981.424	0.036 0.039 0.054	7	2.7	L1/L2 GPS
239	0228-0234	11/14 15:48	21602.828	0.081	X Y Z	-15151.521 -10454.499 -11305.620	0.045 0.046 0.050	7	1.7	L1/L2 GPS
240	0268-0267	11/11 18:29	15538.878	0.063	X Y Z	-15533.288 411.065 68.670	0.034 0.036 0.040	7	2.1	L1/L2 GPS
241	0268-0275	11/11 18:31	22960.238	0.091	X Y Z	-17280.983 -10263.907 -11099.207	0.049 0.051 0.057	7	2.1	L1/L2 GPS

242	0267-0266 11/11 16:04	16517.279	0.065	X Y Z	-16492.609 -563.369 -704.973	0.035 0.036 0.041	7	1.9	L1/L2 GPS
243	0267-0274 11/11 16:03	23819.435	0.092	X Y Z	-18220.034 -10308.269 -11363.776	0.050 0.052 0.057	7	1.7	L1/L2 GPS
244	0267-0275 11/11 18:31	15547.700	0.061	X Y Z	-1747.697 -10674.978 -11167.873	0.033 0.034 0.038	7	2.1	L1/L2 GPS
245	0217-0216 11/12 20:33	15850.897	0.064	X Y Z	-15837.920 -209.201 -606.182	0.035 0.038 0.039	7	1.8	L1/L2 GPS
246	0253-0262 11/14 18:19	22470.976	0.093	X Y Z	-16659.127 -10048.063 -11245.207	0.049 0.052 0.059	8	2.0	L1/L2 GPS
247	0253-0263 11/14 18:20	12830.981	0.059	X Y Z	-2627.983 -8499.701 -9245.694	0.030 0.033 0.039	8	2.0	L1/L2 GPS
248	0253-0243 11/15 14:28	18048.246	0.072	X Y Z	5697.071 11960.639 12256.659	0.038 0.043 0.043	7	1.6	L1/L2 GPS
249	0220-0221 11/13 17:29	12760.768	0.066	X Y Z	12733.703 -616.538 -556.667	0.035 0.040 0.041	7	2.3	L1/L2 GPS
250	0220-0219 11/13 17:56	17917.225	0.075	X Y Z	-17909.858 500.656 -115.252	0.039 0.044 0.046	8	1.5	L1/L2 GPS
251	0229-0222 11/12 15:19	16768.542	0.070	X Y Z	-524.662 11311.416 12367.724	0.037 0.040 0.044	7	1.7	L1/L2 GPS
252	0211-0218 11/13 14:43	15693.966	0.062	X Y Z	1332.745 -10455.328 -11628.003	0.034 0.036 0.038	7	1.5	L1/L2 GPS
253	0211-0219 11/13 14:43	21959.567	0.089	X Y Z	15361.493 -10663.347 -11512.608	0.048 0.052 0.054	7	1.4	L1/L2 GPS
254	0211-0203 11/13 15:15	18160.993	0.073	X Y Z	-14405.747 7804.022 7835.392	0.039 0.041 0.046	7	1.3	L1/L2 GPS
255	0273-0280 11/13 22:07	23750.090	0.094	X Y Z	-15916.207 -11621.957 -13254.104	0.051 0.053 0.059	7	1.8	L1/L2 GPS
256	0273-0263 11/13 22:39	25709.990	0.097	X Y Z	-16945.875 13411.875 13927.043	0.054 0.056 0.059	8	1.3	L1/L2 GPS
257	0273-0272 11/14 18:58	14585.966	0.061	X Y Z	-14467.449 1608.318 925.542	0.032 0.033 0.040	8	1.9	L1/L2 GPS
258	0262-0261 11/13 20:43	15505.212	0.060	X Y Z	-15503.657 161.757 -148.483	0.033 0.035 0.036	9	1.3	L1/L2 GPS

259	0262-0263	11/14 18:20	14257.225	0.056	X	14031.144	0.031	8	2.0	L1/L2 GPS
					Y	1548.360	0.032			
					Z	1999.514	0.035			
260	0222-0216	11/12 16:54	20999.355	0.081	X	16350.539	0.045	8	1.8	L1/L2 GPS
					Y	9090.975	0.048			
					Z	9538.707	0.047			
261	0263-0272	11/13 22:39	17734.282	0.069	X	2478.426	0.037	7	1.9	L1/L2 GPS
					Y	-11803.423	0.040			
					Z	-13001.591	0.041			
262	0274-0266	11/11 16:04	14545.009	0.060	X	1727.424	0.032	7	2.0	L1/L2 GPS
					Y	9744.900	0.033			
					Z	10658.809	0.038			
263	0250-0260	11/11 20:31	15818.689	0.062	X	-1615.083	0.034	8	1.4	L1/L2 GPS
					Y	-10748.240	0.036			
					Z	-11493.379	0.037			
264	0250-0261	11/11 21:00	21422.336	0.085	X	14181.245	0.046	5	2.4	L1/L2 GPS
					Y	-11058.485	0.050			
					Z	-11641.248	0.051			
265	0219-0218	11/13 14:42	14030.765	0.056	X	-14028.749	0.030	7	1.5	L1/L2 GPS
					Y	208.017	0.033			
					Z	-115.400	0.034			
266	0272-0280	11/13 22:07	19447.417	0.078	X	-1448.742	0.042	7	2.1	L1/L2 GPS
					Y	-13230.305	0.045			
					Z	-14179.639	0.048			

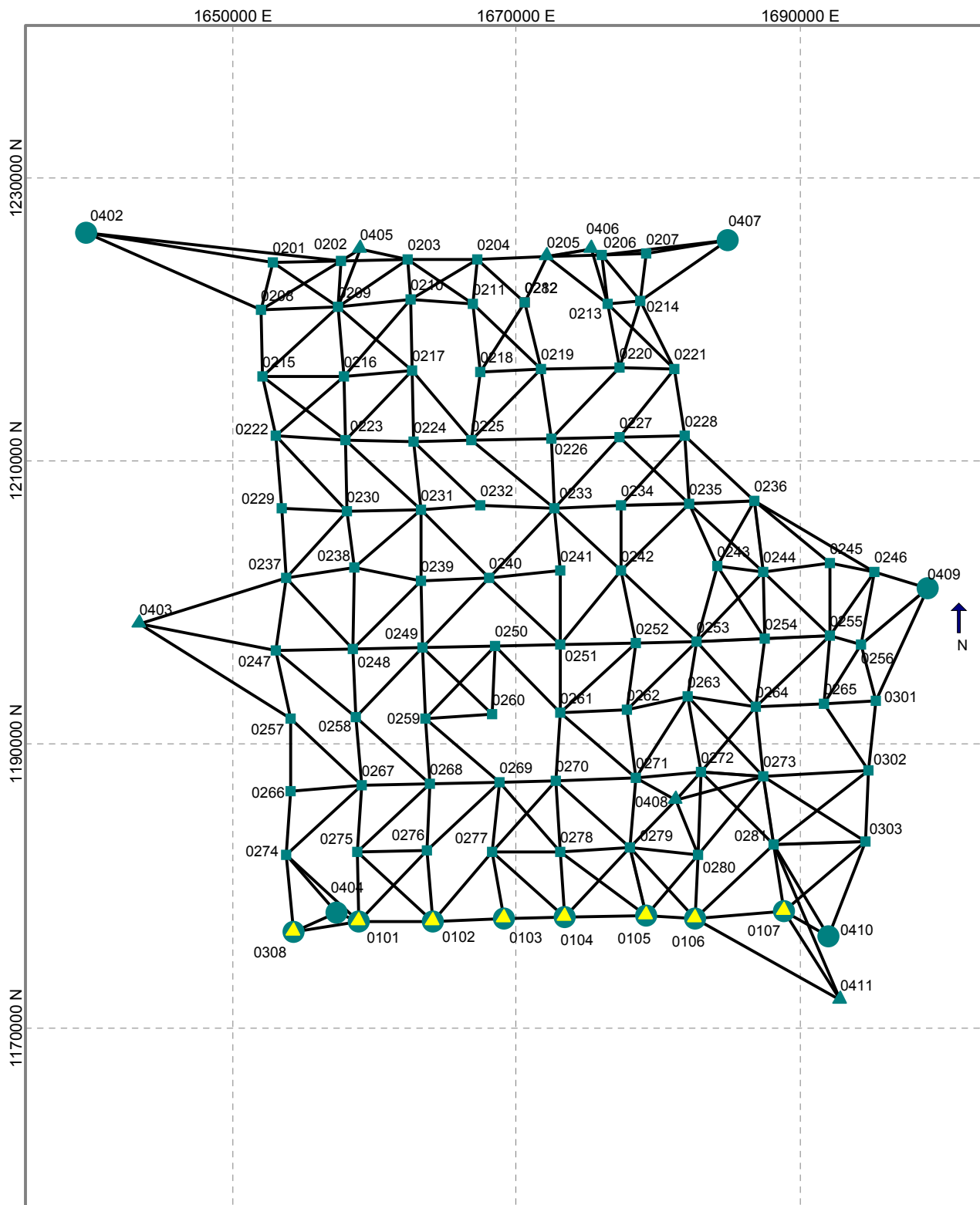
	<u>Site ID</u>	<u>Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
1	0101	Clayton Co 2002-101	1 19.358	0.99997142	0.99994950
2	0102	Clayton Co 2002-102	1 21.955	0.99997133	0.99995544
3	0103	Clayton Co 2002-103	1 24.456	0.99997139	0.99995110
4	0104	Clayton Co 2002-104	1 26.610	0.99997138	0.99995276
5	0105	Clayton Co 2002-105	1 29.453	0.99997130	0.99995182
6	0106	Clayton Co 2002-106	1 31.207	0.99997097	0.99995685
7	0107	Clayton Co 2002-107	1 34.328	0.99997138	0.99997482
8	0205	IASOTA	1 26.569	1.00005118	0.99994875
9	0403	CBN "DEH A"	1 11.884	1.00000128	0.99994934
10	0404	M 12	1 18.553	0.99997216	0.99994791
11	0402	A 149	1 10.234	1.00005682	0.99995053
12	0405	CBN "MAUSS"	1 19.973	1.00005299	0.99995186
13	0406	CBN "TT98 WM"	1 28.147	1.00005210	0.99994947
14	0408	CBN "EGAN IOWA HARN"	1 30.621	0.99998127	0.99994946

15	0407	P 123	1	32.981	1.00005306	0.99997462
16	0409	15 GHC	1	39.670	1.00000306	0.99997448
17	0410	B 122	1	35.870	0.99996931	0.99997456
18	0411	PRAIRIE DU CHIEN GPS	1	36.221	0.99996464	0.99997400
19	0308	Fayette Co 2002-308	1	17.029	0.99997078	0.99994761
20	0204		1	24.112	1.00005083	0.99995264
21	0201		1	16.829	1.00005114	0.99994648
22	0202		1	19.248	1.00005116	0.99995262
23	0203		1	21.637	1.00005121	0.99995231
24	0206		1	28.512	1.00005121	0.99996076
25	0207		1	30.088	1.00005120	0.99997438
26	0208		1	16.417	1.00004382	0.99994972
27	0209		1	19.144	1.00004402	0.99994921
28	0210		1	21.694	1.00004473	0.99995332
29	0211		1	23.874	1.00004380	0.99995227
30	0213		1	28.658	1.00004343	0.99997428
31	0214		1	29.799	1.00004370	0.99997370
32	0215		1	16.411	1.00003354	0.99995218
33	0216		1	19.277	1.00003334	0.99997077
34	0217		1	21.699	1.00003390	0.99997270
35	0218		1	24.118	1.00003357	0.99997296
36	0219		1	26.265	1.00003368	0.99997389
37	0220		1	29.008	1.00003370	0.99996732
38	0221		1	30.959	1.00003330	0.99997415
39	0222		1	16.814	1.00002497	0.99995287
40	0223		1	19.276	1.00002424	0.99996534
41	0224		1	21.699	1.00002382	0.99995351
42	0225		1	23.739	1.00002378	0.99995418

43	0226	1	26.537	1.00002373	0.99995233
44	0227	1	28.964	1.00002372	0.99994958
45	0228	1	31.242	1.00002367	0.99995124
46	0229	1	16.943	1.00001516	0.99996642
47	0230	1	19.254	1.00001459	0.99996380
48	0231	1	21.886	1.00001461	0.99996005
49	0232	1	24.000	1.00001508	0.99994876
50	0233	1	26.620	1.00001433	0.99994554
51	0234	1	28.962	1.00001457	0.99994728
52	0235	1	31.336	1.00001451	0.99995147
53	0236	1	33.681	1.00001462	0.99996734
54	0237	1	17.056	1.00000642	0.99996119
55	0238	1	19.463	1.00000739	0.99994533
56	0239	1	21.841	1.00000568	0.99994298
57	0240	1	24.212	1.00000588	0.99994960
58	0241	1	26.762	1.00000640	0.99996243
59	0242	1	28.874	1.00000635	0.99996932
60	0243	1	32.309	1.00000650	0.99997016
61	0244	1	33.894	1.00000573	0.99995109
62	0245	1	36.275	1.00000649	0.99995532
63	0246	1	37.843	1.00000530	0.99997379
64	0247	1	16.657	0.99999788	0.99994592
65	0248	1	19.382	0.99999788	0.99994556
66	0249	1	21.812	0.99999784	0.99994642
67	0250	1	24.404	0.99999783	0.99994639
68	0251	1	26.667	0.99999778	0.99995367
69	0252	1	29.374	0.99999775	0.99994738
70	0253	1	31.479	0.99999772	0.99995137
71	0254	1	33.899	0.99999776	0.99995057

72	0255	1	36.183	0.99999795	0.99995636
73	0256	1	37.307	0.99999683	0.99997445
74	0257	1	17.092	0.99999036	0.99994780
75	0258	1	19.417	0.99999038	0.99994926
76	0259	1	21.887	0.99999006	0.99995830
77	0260	1	24.198	0.99999038	0.99994710
78	0261	1	26.608	0.99999035	0.99995458
79	0262	1	28.972	0.99999047	0.99995673
80	0263	1	31.107	0.99999172	0.99995618
81	0264	1	33.501	0.99999038	0.99995294
82	0265	1	35.910	0.99999053	0.99997390
83	0266	1	17.073	0.99998300	0.99994808
84	0267	1	19.584	0.99998350	0.99996045
85	0268	1	21.952	0.99998348	0.99996268
86	0269	1	24.407	0.99998347	0.99995173
87	0270	1	26.404	0.99998340	0.99995090
88	0271	1	29.227	0.99998348	0.99994995
89	0272	1	31.524	0.99998399	0.99997224
90	0273	1	33.734	0.99998333	0.99995721
91	0274	1	16.852	0.99997722	0.99995507
92	0275	1	19.361	0.99997730	0.99995173
93	0276	1	21.803	0.99997730	0.99995089
94	0277	1	24.119	0.99997703	0.99996348
95	0278	1	26.502	0.99997689	0.99995465
96	0279	1	28.939	0.99997713	0.99996244
97	0280	1	31.347	0.99997624	0.99997332
98	0281	1	34.011	0.99997705	0.99995219
99	0282	1	25.733	1.00004400	0.99995217

100	0301	1	37.765	0.99999059	0.99997467
101	0302	1	37.442	0.99998366	0.99997081
102	0303	1	37.234	0.99997701	0.99994909



MAP

Project Name: 026039_Min.spr
 Client: Allamakee County
 Date: Friday December 06, 2002
 Coordinate System: State Plane Coordinate 1983

LEGEND

- △ Horizontal Control
- Vertical Control
- ⊠ Horizontal & Vertical Control
- New Site
- Map Grid Scale: 5000 m 