

Muscatine County  
Iowa

**National Adjustment 2011  
(NA2011)**

Monument  
Records

**2014**

---

Dan Corbin, Inc.  
28 River Ridge Lane  
Cedar Falls, IA 50613

---



---

Cell: (319) 231-7047  
Fax: (319) 266-3398  
E-Mail: dcorbin@cfu.net

---



### Muscatine County, Iowa

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **3**

**Designation:** Louisa Co. GPS Control Pt 2006-003 (Set by DCI in 2006)

NAD 83(NA2011) Latitude: **N41°19'41.02805"** Longitude: **W91°18'51.23228"**

NAVD 88 Ortho Height: **672.390sft** Ellip. Ht: **564.373sft** **Geoid12A**

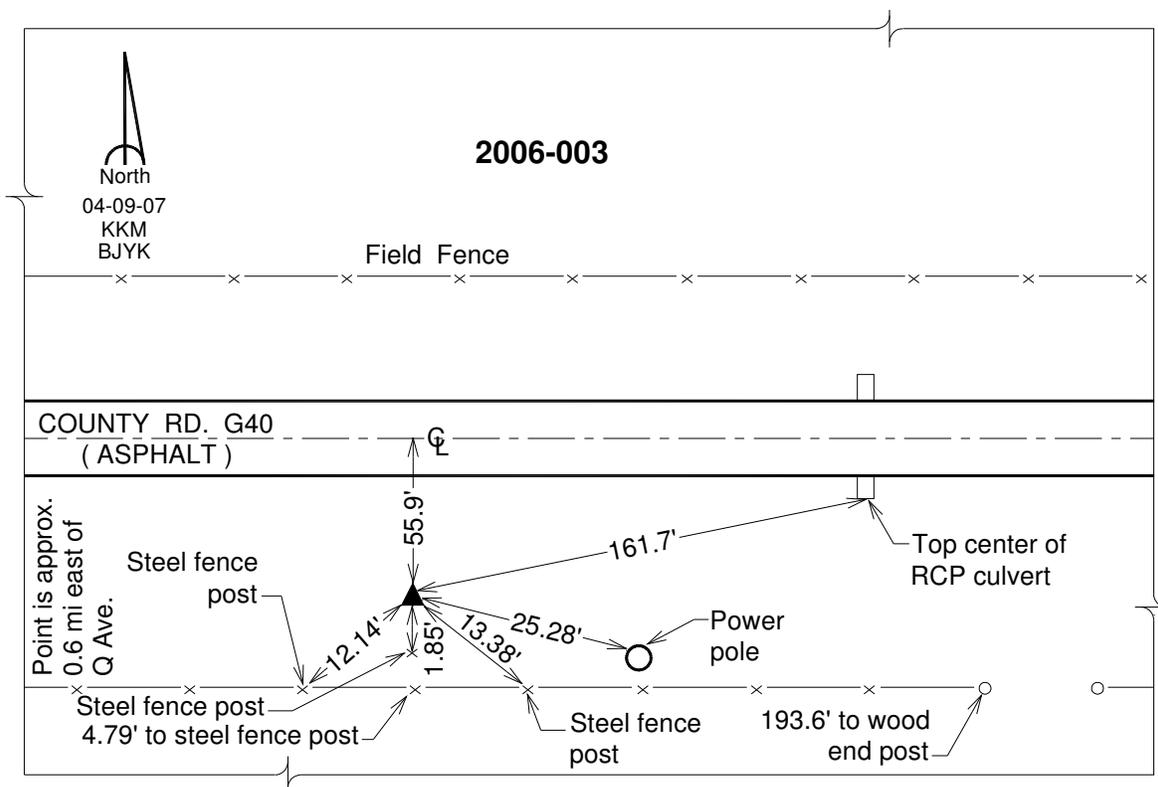
Iowa South Zone (1402) Northing: **491399.782sft** Easting: **2240667.928sft**

Mapping Angle: **1°26'23"** Combination Scale Factor: **0.999923897**

IaRCS Zone 14 Northing: **6592790.897sft** Easting: **24482357.923sft**

Mapping Angle: **-0°02'33"** Combination Scale Factor: **0.9999914249**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

### Muscatine County, Iowa

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **4**

**Designation:** Louisa Co. GPS Control Pt 2006-004 (Set by DCI in 2006)

NAD 83(NA2011) Latitude: **N41°20'04.93573"** Longitude: **W91°11'56.77954"**

NAVD 88 Ortho Height: **733.210sft** Ellip. Ht: **625.108sft** **Geoid12A**

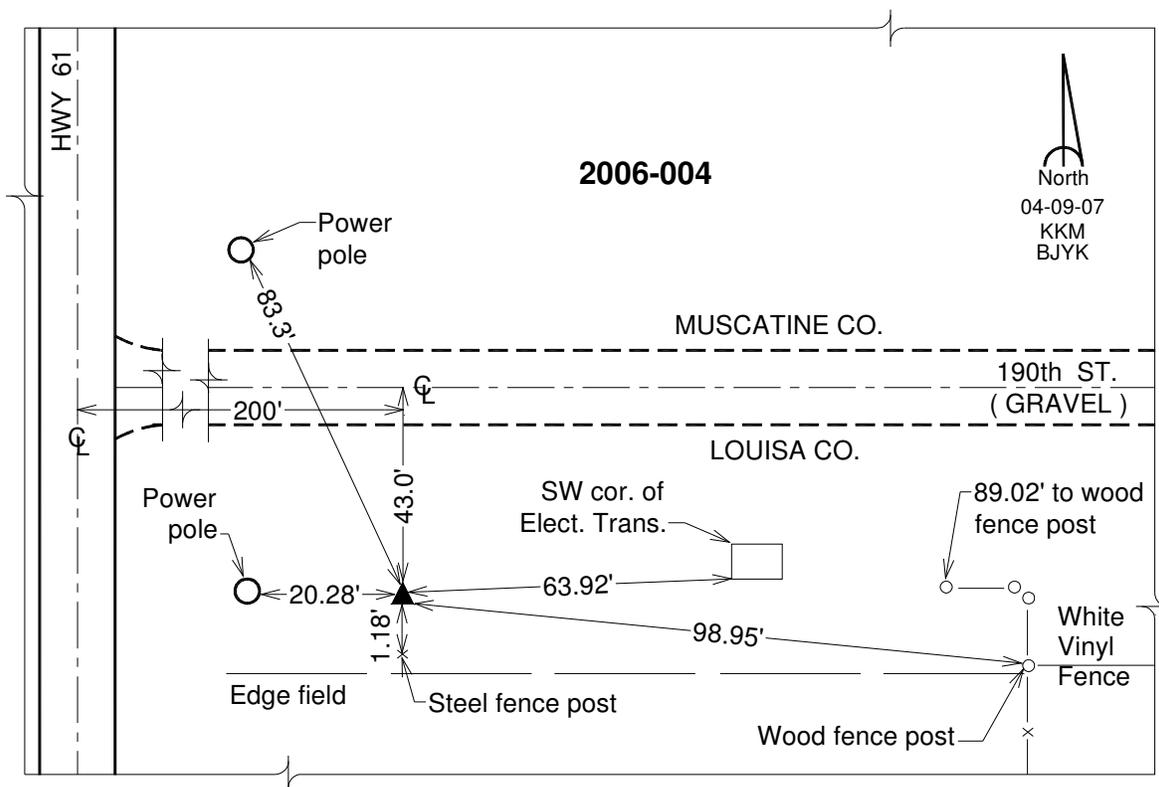
Iowa South Zone (1402) Northing: **494633.985sft** Easting: **2272212.336sft**

Mapping Angle: **1°30'56"** Combination Scale Factor: **0.999921262**

IaRCS Zone 14 Northing: **6595208.303sft** Easting: **24513977.552sft**

Mapping Angle: **0°02'01"** Combination Scale Factor: **0.9999883944**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **5**

**Designation:** Louisa Co. GPS Control Pt 2006-005 (Set by DCI in 2006)

NAD 83(NA2011) Latitude: **N41°35'54.13918"** Longitude: **W91°18'20.07611"**

NAVD 88 Ortho Height: **670.739sft** Ellip. Ht: **563.499sft** **Geoid12A**

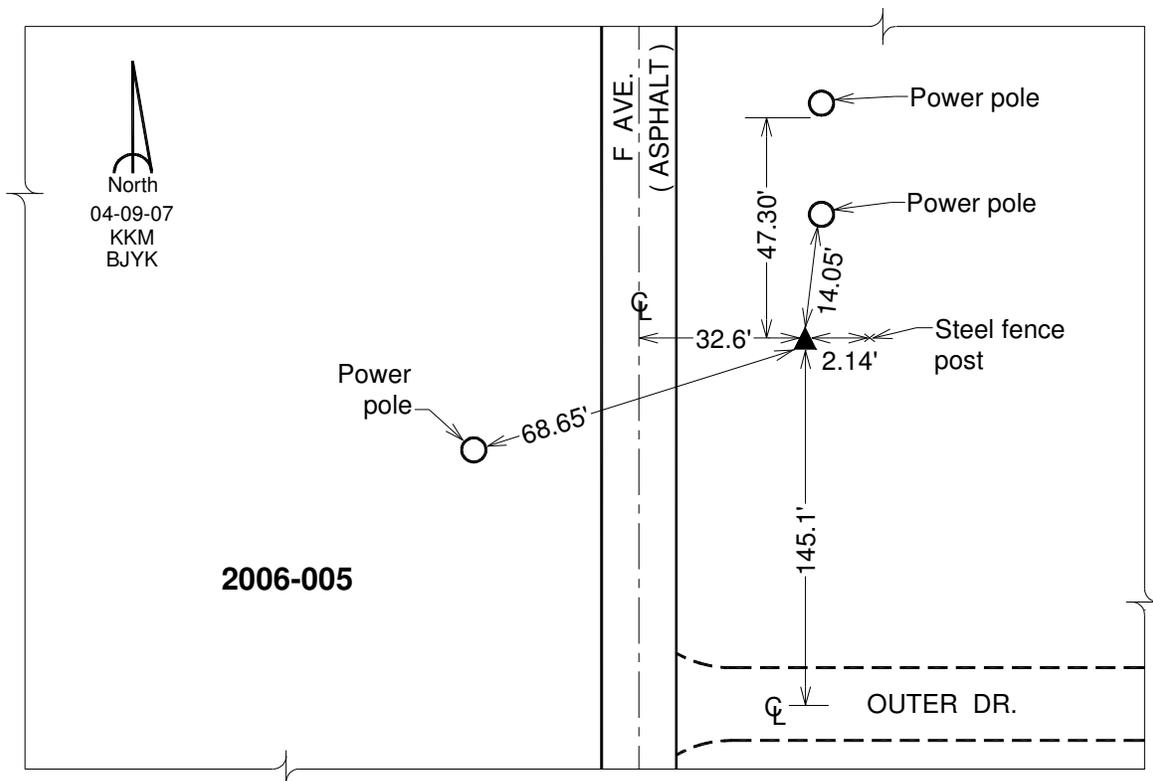
Iowa South Zone (1402) Northing: **589919.051sft** Easting: **2240559.623sft**

Mapping Angle: **1°26'44"** Combination Scale Factor: **0.999945504**

laRCS Zone 14 Northing: **6691285.768sft** Easting: **24484798.273sft**

Mapping Angle: **-0°02'13"** Combination Scale Factor: **0.9999913754**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **20**

**Designation:** Cedar Co. GPS Control Pt 2007-020 (Set by DCI in 2007)

NAD 83(NA2011) Latitude: **N41°35'52.60371"** Longitude: **W91°11'46.66429"**

NAVD 88 Ortho Height: **714.987sft** Ellip. Ht: **607.691sft** **Geoid12A**

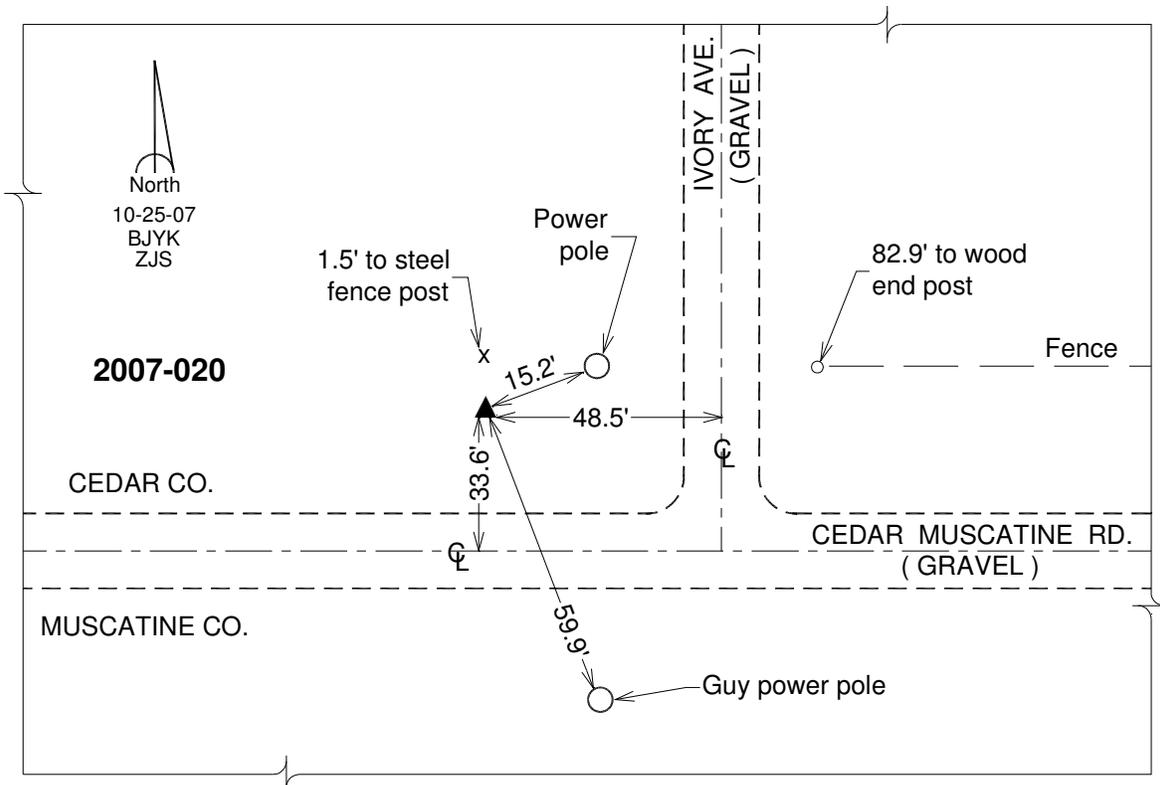
Iowa South Zone (1402) Northing: **590536.451sft** Easting: **2270443.702sft**

Mapping Angle: **1°31'03"** Combination Scale Factor: **0.999943344**

IaRCS Zone 14 Northing: **6691130.023sft** Easting: **24514689.690sft**

Mapping Angle: **0°02'08"** Combination Scale Factor: **0.9999892492**

**Monument Type:** Berntsen 3/4" Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style alum. access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **34**

**Designation:** Cedar Co. GPS Control Pt 2007-034 (Set by DCI in 2007)

NAD 83(NA2011) Latitude: **N41°35'59.29455"** Longitude: **W91°05'53.71159"**

NAVD 88 Ortho Height: **685.272sft** Ellip. Ht: **577.902sft** **Geoid12A**

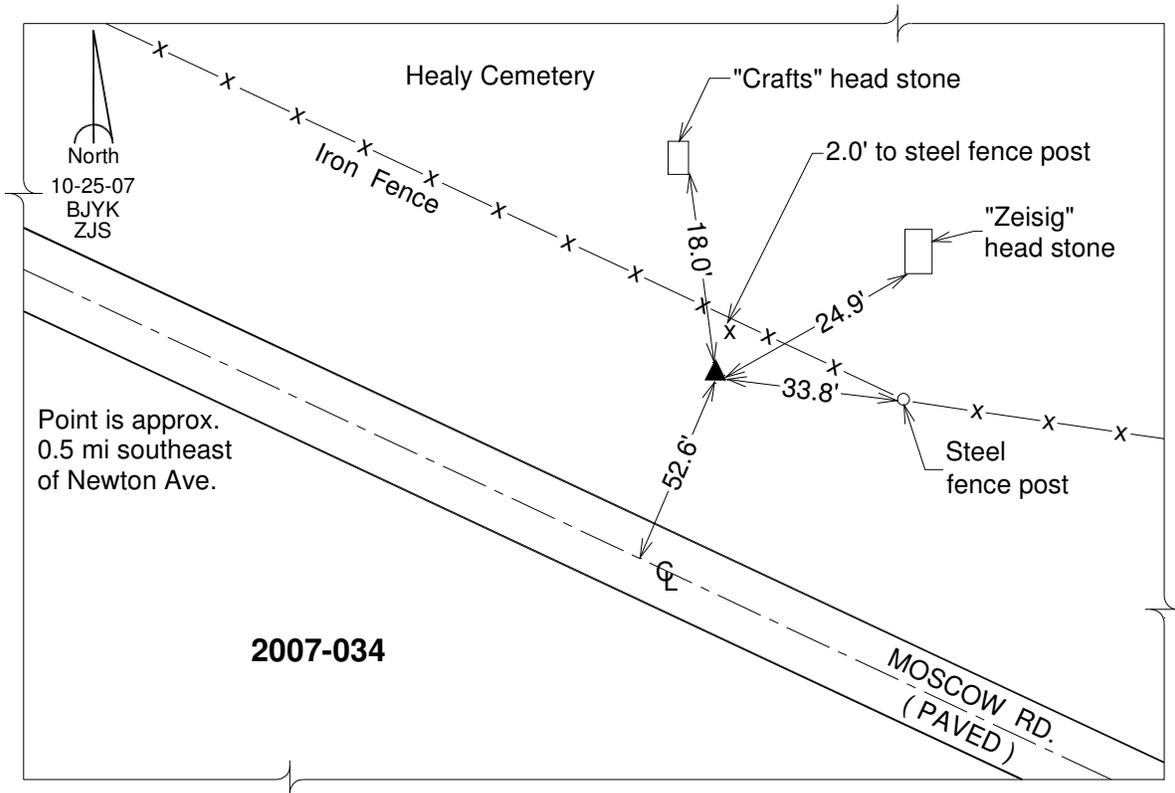
Iowa South Zone (1402) Northing: **591938.651sft** Easting: **2297231.394sft**

Mapping Angle: **1°34'55"** Combination Scale Factor: **0.999944991**

IaRCS Zone 14 Northing: **6691839.194sft** Easting: **24541505.928sft**

Mapping Angle: **0°06'03"** Combination Scale Factor: **0.9999923927**

**Monument Type:** Berntsen 3/4" Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style alum. access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **47**

**Designation:** Cedar Co. GPS Control Pt 2007-047 (Set by DCI in 2007)

NAD 83(NA2011) Latitude: **N41°35'50.86814"** Longitude: **W90°57'28.40938"**

NAVD 88 Ortho Height: **687.539sft** Ellip. Ht: **580.031sft** **Geoid12A**

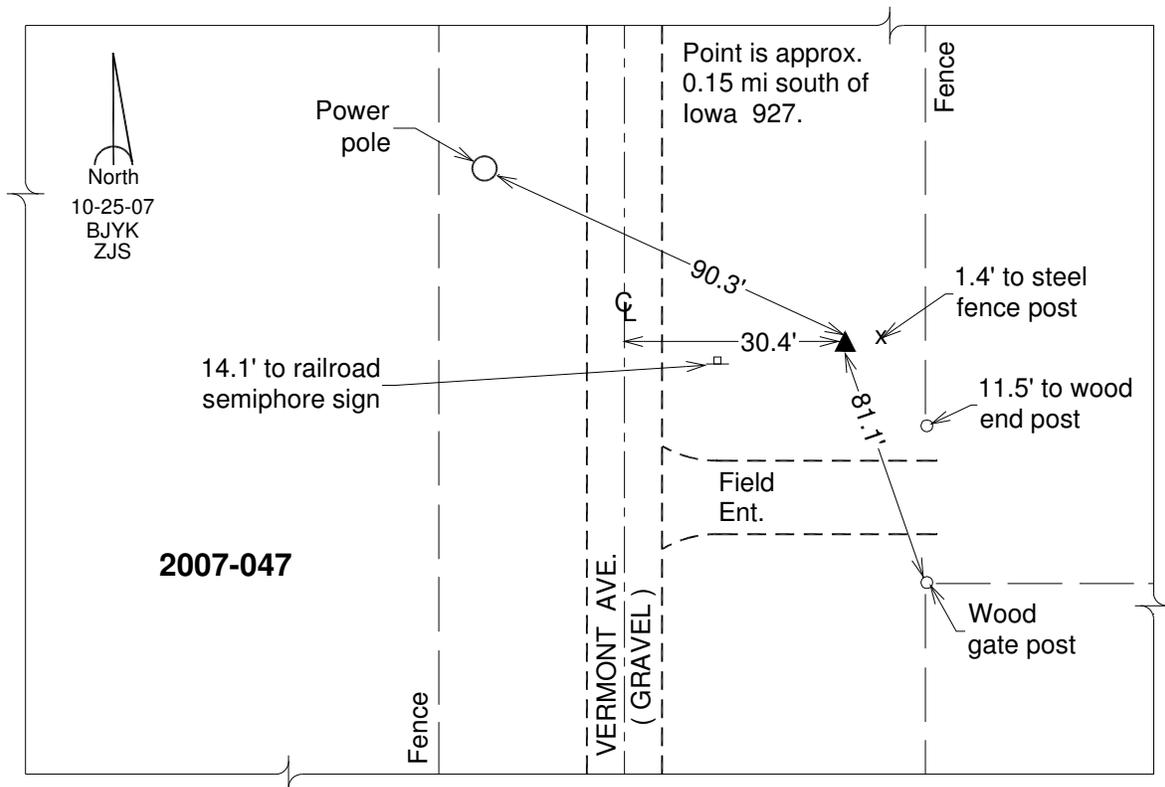
Iowa South Zone (1402) Northing: **592176.972sft** Easting: **2335630.938sft**

Mapping Angle: **1°40'28"** Combination Scale Factor: **0.999944606**

IaRCS Zone 14 Northing: **6691084.997sft** Easting: **24579900.722sft**

Mapping Angle: **0°11'38"** Combination Scale Factor: **0.9999976179**

**Monument Type:** Berntsen 3/4" Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style alum. access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **50**

**Designation:** Johnson Co. GPS Control Pt 92-50 (Set by ASI in 1992)

NAD 83(NA2011) Latitude: **N41°35'53.30384"** Longitude: **W91°21'59.02880"**

NAVD 88 Ortho Height: **736.960sft** Ellip. Ht: **629.734sft** **Geoid12A**

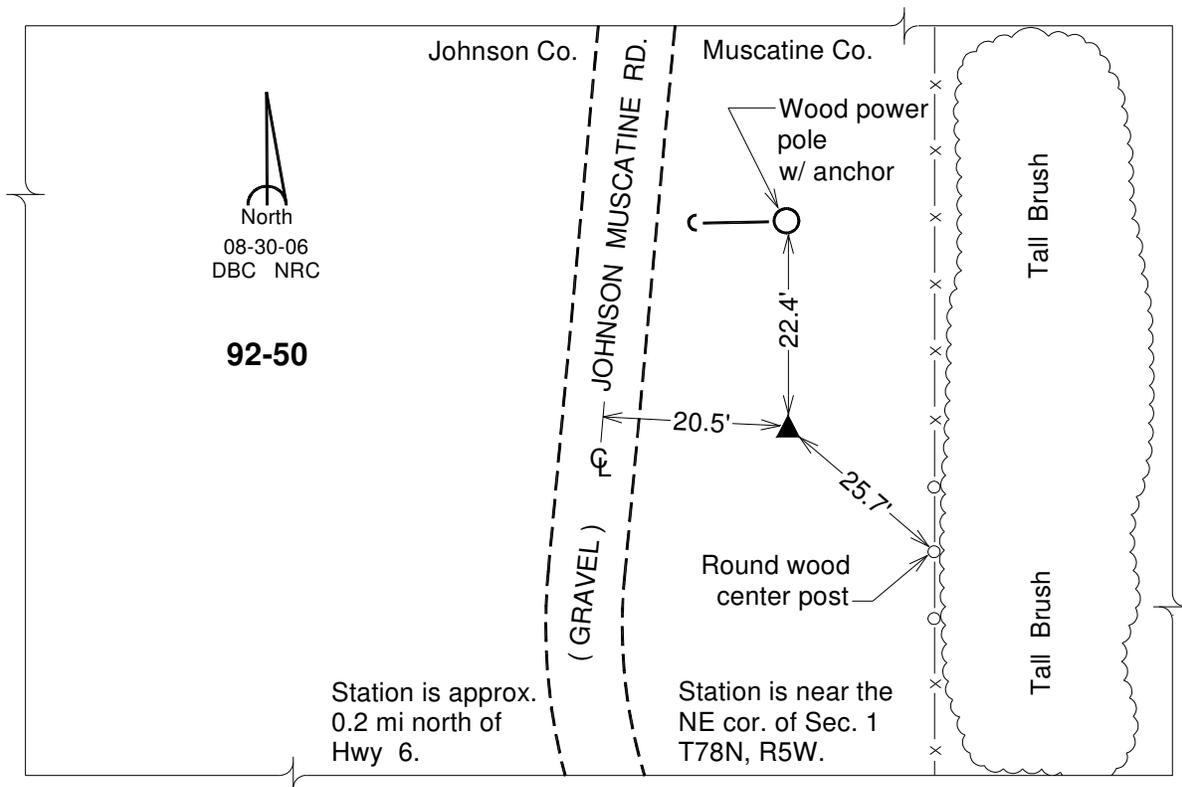
Iowa South Zone (1402) Northing: **589420.709sft** Easting: **2223931.640sft**

Mapping Angle: **1°24'19"** Combination Scale Factor: **0.999942316**

IaRCS Zone 14 Northing: **6691217.790sft** Easting: **24468162.193sft**

Mapping Angle: **-0°04'38"** Combination Scale Factor: **0.9999891092**

**Monument Type:** 5/8" dia. driven aluminum rod with a 2-1/2" dia. aluminum cap and permanent magnet encased in a 6" dia. PVC pipe with an aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

## Muscatine County, Iowa

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **60**

**Designation:** Johnson Co. GPS Control Pt 92-60 (Set by ASI in 1992)

NAD 83(NA2011) Latitude: **N41°32'22.19576"** Longitude: **W91°22'02.17800"**

NAVD 88 Ortho Height: **660.715sft** Ellip. Ht: **553.344sft** **Geoid12A**

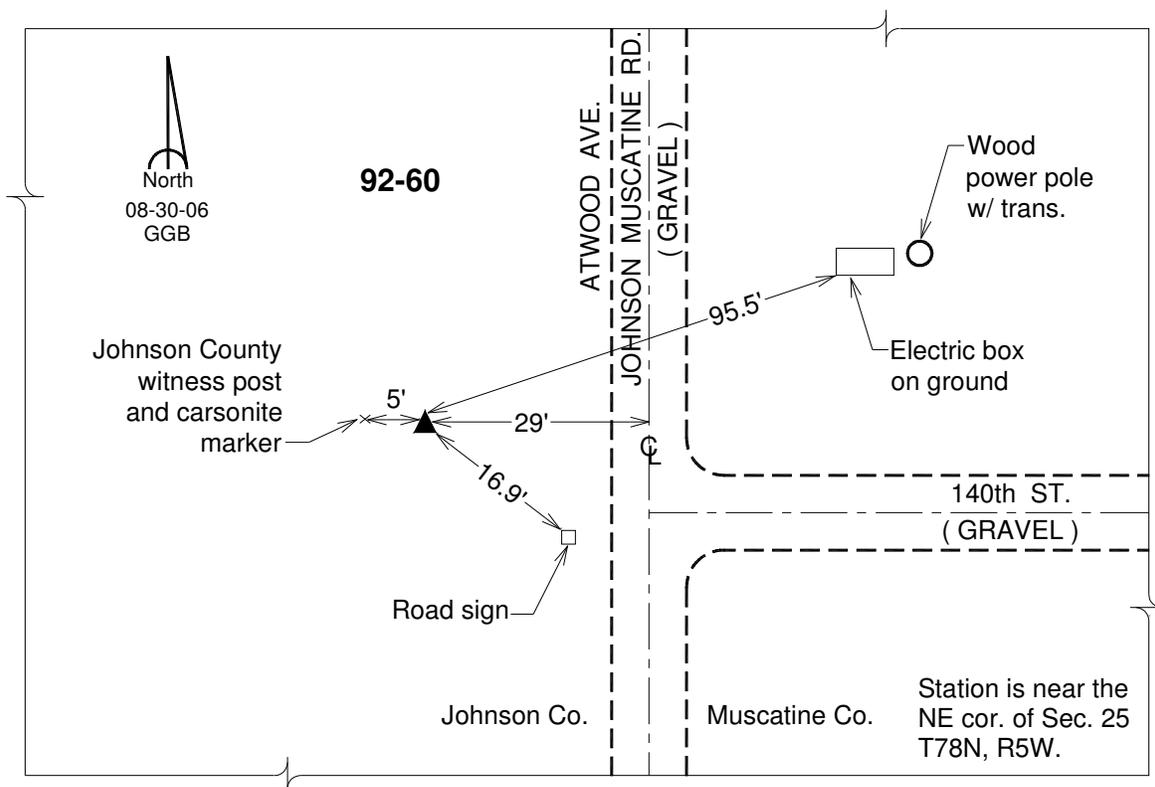
Iowa South Zone (1402) Northing: **568053.949sft** Easting: **2224216.297sft**

Mapping Angle: **1°24'17"** Combination Scale Factor: **0.999939395**

laRCS Zone 14 Northing: **6669849.746sft** Easting: **24467893.896sft**

Mapping Angle: **-0°04'40"** Combination Scale Factor: **0.9999927737**

**Monument Type:** 5/8" dia. driven aluminum rod with a 2-1/2" dia. aluminum cap and permanent magnet encased in a 6" dia. PVC pipe with an aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

### Muscatine County, Iowa

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **72**

**Designation:** Johnson Co. GPS Control Pt 92-72 (Set by ASI in 1992)

NAD 83(NA2011) Latitude: **N41°30'37.41525"** Longitude: **W91°22'04.27902"**

NAVD 88 Ortho Height: **732.590sft** Ellip. Ht: **625.142sft** **Geoid12A**

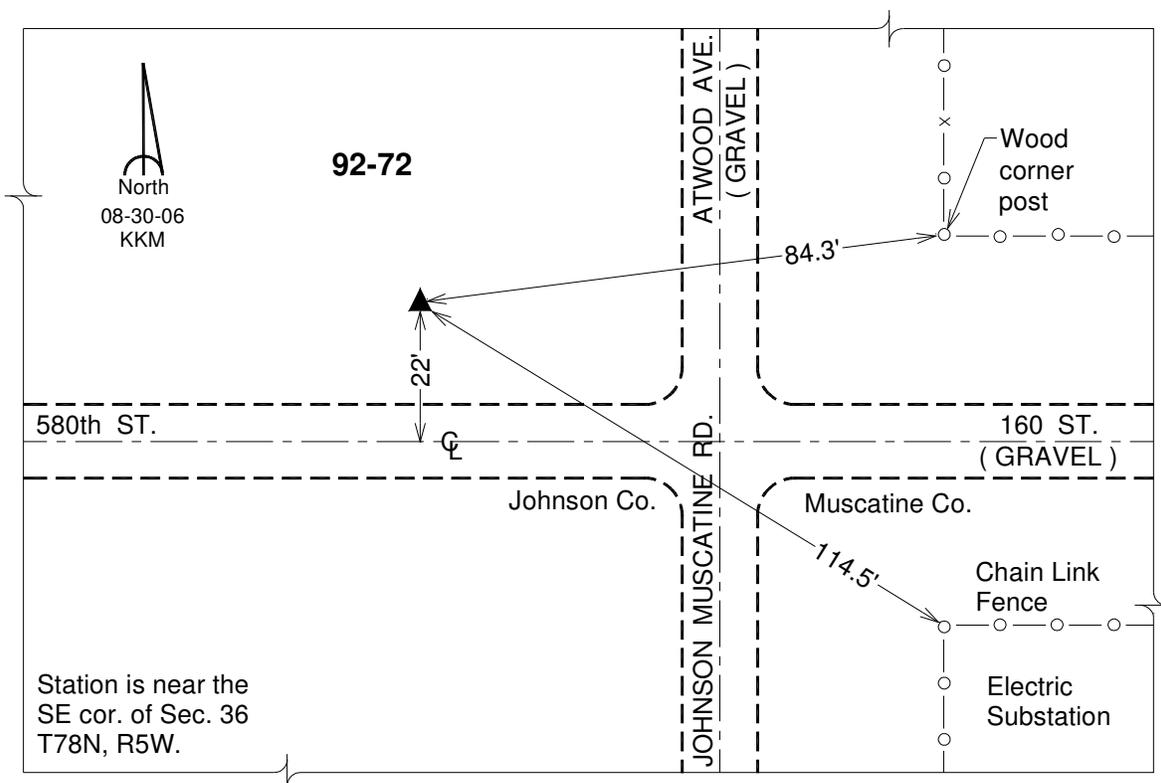
Iowa South Zone (1402) Northing: **557447.984sft** Easting: **2224316.505sft**

Mapping Angle: **1°24'16"** Combination Scale Factor: **0.999933099**

IaRCS Zone 14 Northing: **6659244.157sft** Easting: **24467719.654sft**

Mapping Angle: **-0°04'41"** Combination Scale Factor: **0.9999893606**

**Monument Type:** 5/8" dia. driven aluminum rod with a 2-1/2" dia. aluminum cap and permanent magnet encased in a 6" dia. PVC pipe with an aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **73**

**Designation:** Johnson Co. GPS Control Pt 92-73 (Set by ASI in 1992)

NAD 83(NA2011) Latitude: **N41°28'52.83046"** Longitude: **W91°22'02.68716"**

NAVD 88 Ortho Height: **663.400sft** Ellip. Ht: **555.855sft** **Geoid12A**

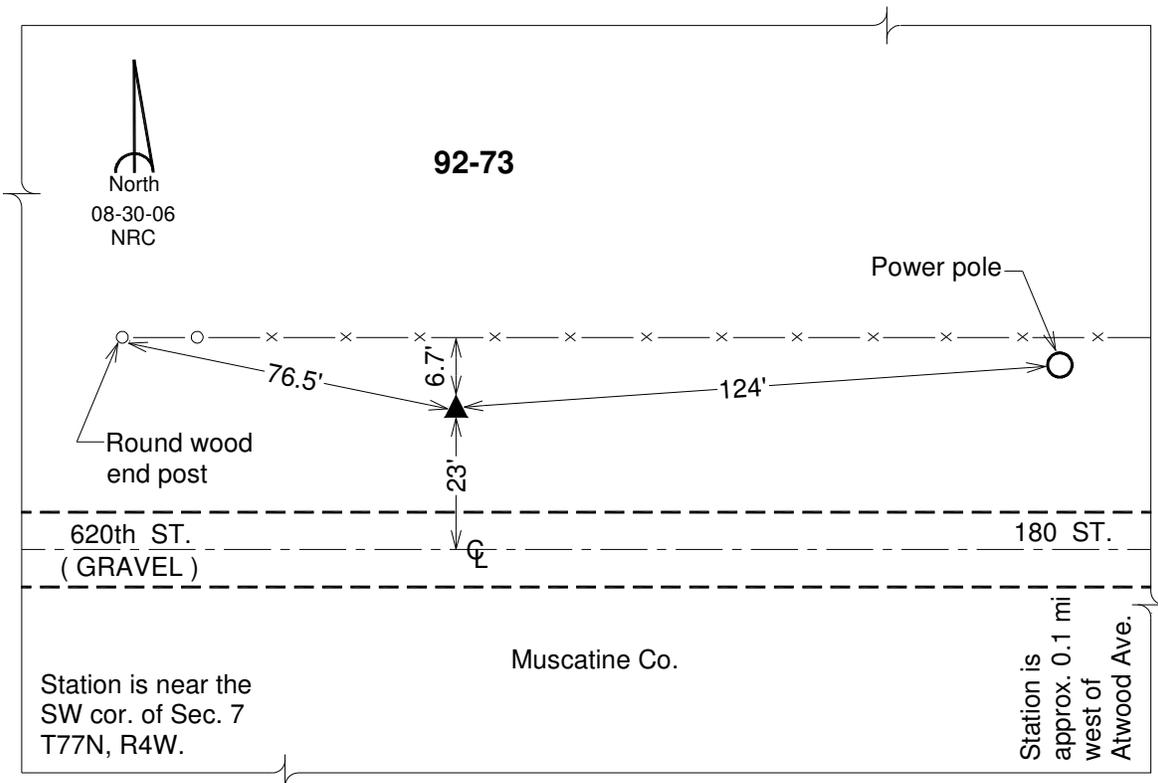
Iowa South Zone (1402) Northing: **546868.792sft** Easting: **2224697.073sft**

Mapping Angle: **1°24'17"** Combination Scale Factor: **0.999933799**

laRCS Zone 14 Northing: **6648658.051sft** Easting: **24467826.394sft**

Mapping Angle: **-0°04'40"** Combination Scale Factor: **0.9999926588**

**Monument Type:** 5/8" dia. driven aluminum rod with a 2-1/2" dia. aluminum cap and permanent magnet encased in a 6" dia. PVC pipe with an aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **78**

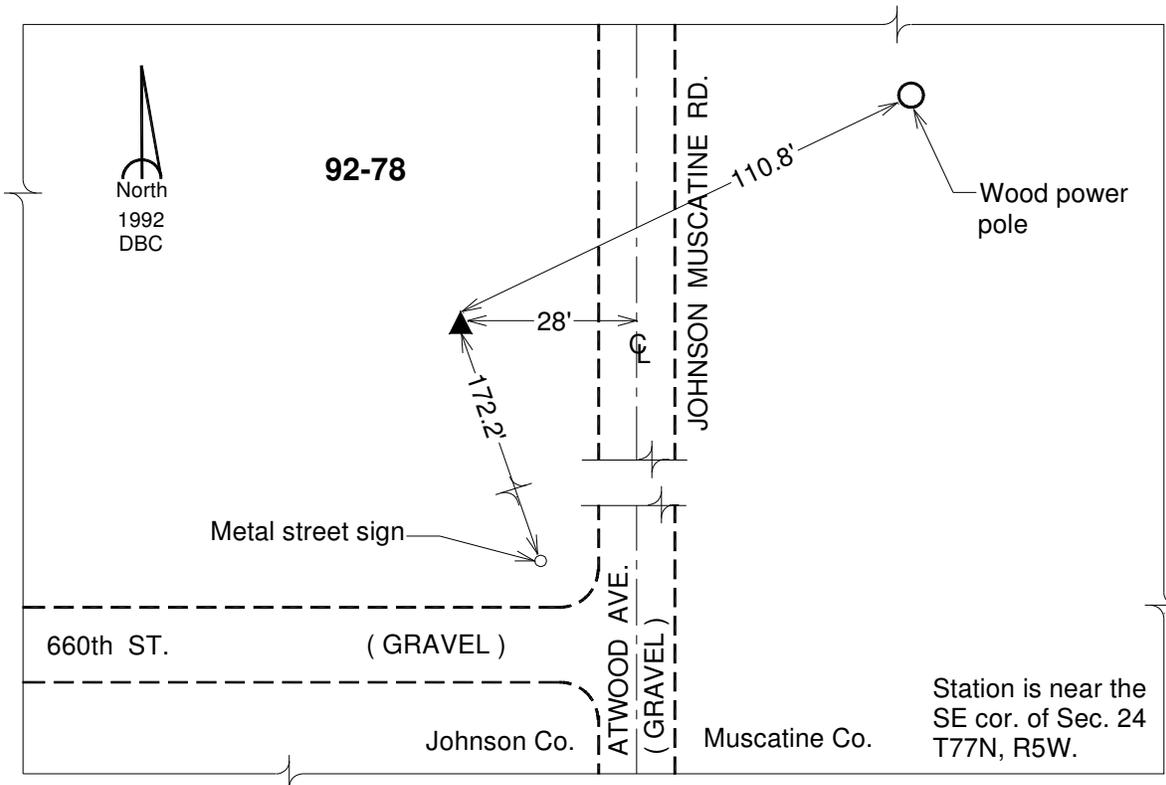
**Designation:** Johnson Co. GPS Control Pt 92-78 (Set by ASI in 1992)

NAD 83(NA2011) Latitude: **N41°27'09.97713"** Longitude: **W91°22'05.52819"**  
NAVD 88 Ortho Height: **709.540sft** Ellip. Ht: **601.896sft** **Geoid12A**

Iowa South Zone (1402) Northing: **536456.600sft** Easting: **2224736.006sft**  
Mapping Angle: **1°24'15"** Combination Scale Factor: **0.999929290**

laRCS Zone 14 Northing: **6638247.711sft** Easting: **24467595.922sft**  
Mapping Angle: **-0°04'42"** Combination Scale Factor: **0.9999904789**

**Monument Type:** 5/8" dia. driven aluminum rod with a 2-1/2" dia. aluminum cap and permanent magnet encased in a 6" dia. PVC pipe with an aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **79**

**Designation:** Johnson Co. GPS Control Pt 92-79 (Set by ASI in 1992)

NAD 83(NA2011) Latitude: **N41°25'24.08814"** Longitude: **W91°22'06.31362"**

NAVD 88 Ortho Height: **615.480sft** Ellip. Ht: **507.738sft** **Geoid12A**

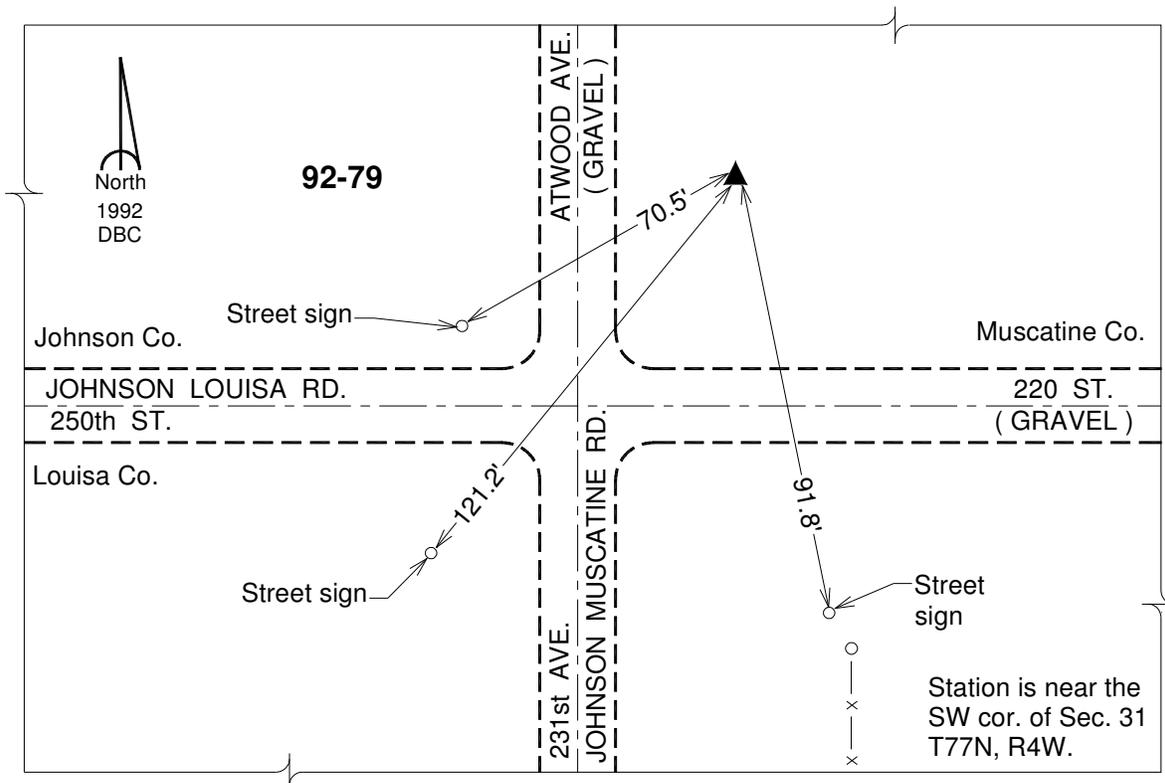
Iowa South Zone (1402) Northing: **525741.167sft** Easting: **2224938.823sft**

Mapping Angle: **1°24'15"** Combination Scale Factor: **0.999931661**

IaRCS Zone 14 Northing: **6627529.950sft** Easting: **24467521.451sft**

Mapping Angle: **-0°04'42"** Combination Scale Factor: **0.9999949772**

**Monument Type:** 5/8" dia. driven aluminum rod with a 2-1/2" dia. aluminum cap and permanent magnet encased in a 6" dia. PVC pipe with an aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **100**

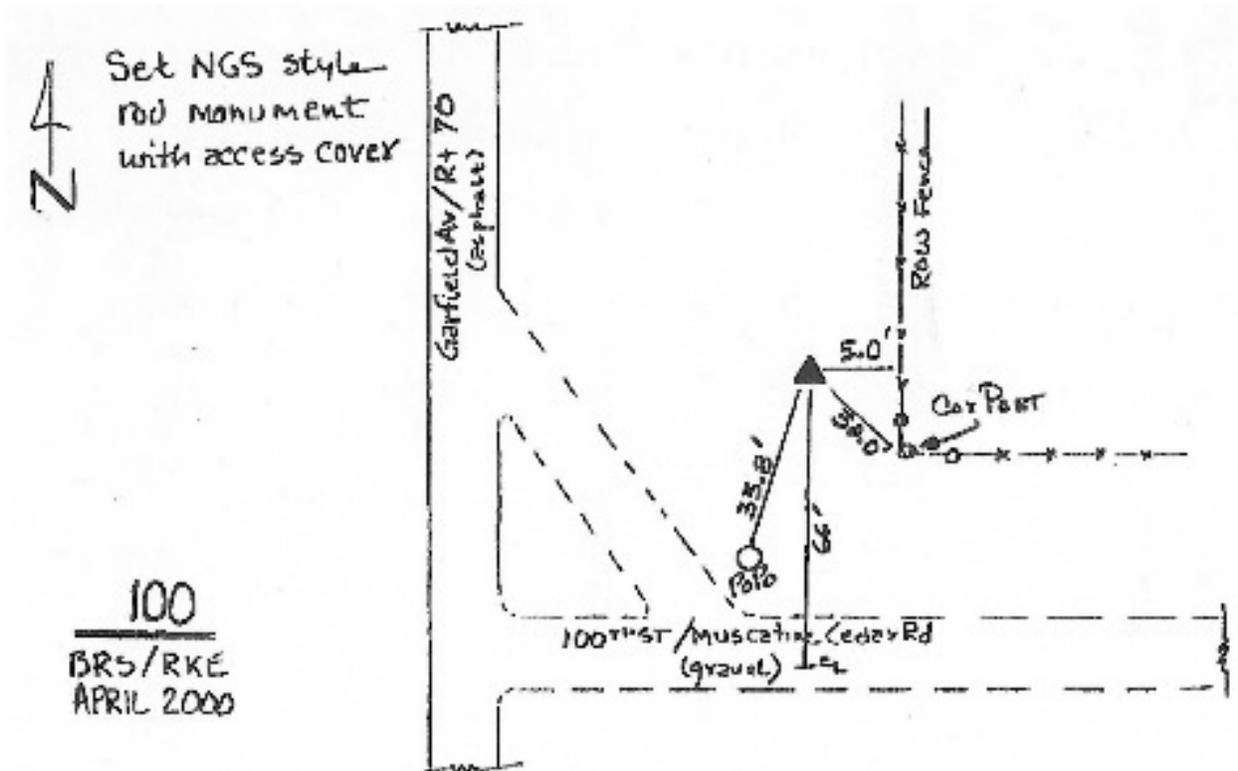
**Designation:** Muscatine Co. GPS Control Pt 2000-100 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°35'53.45604"** Longitude: **W91°14'58.63077"**  
NAVD 88 Ortho Height: **675.250sft** Ellip. Ht: **567.980sft** **Geoid12A**

Iowa South Zone (1402) Northing: **590240.929sft** Easting: **2255861.479sft**  
Mapping Angle: **1°28'56"** Combination Scale Factor: **0.999945268**

IaRCS Zone 14 Northing: **6691211.726sft** Easting: **24500104.034sft**  
Mapping Angle: **0°00'01"** Combination Scale Factor: **0.9999908975**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **101**

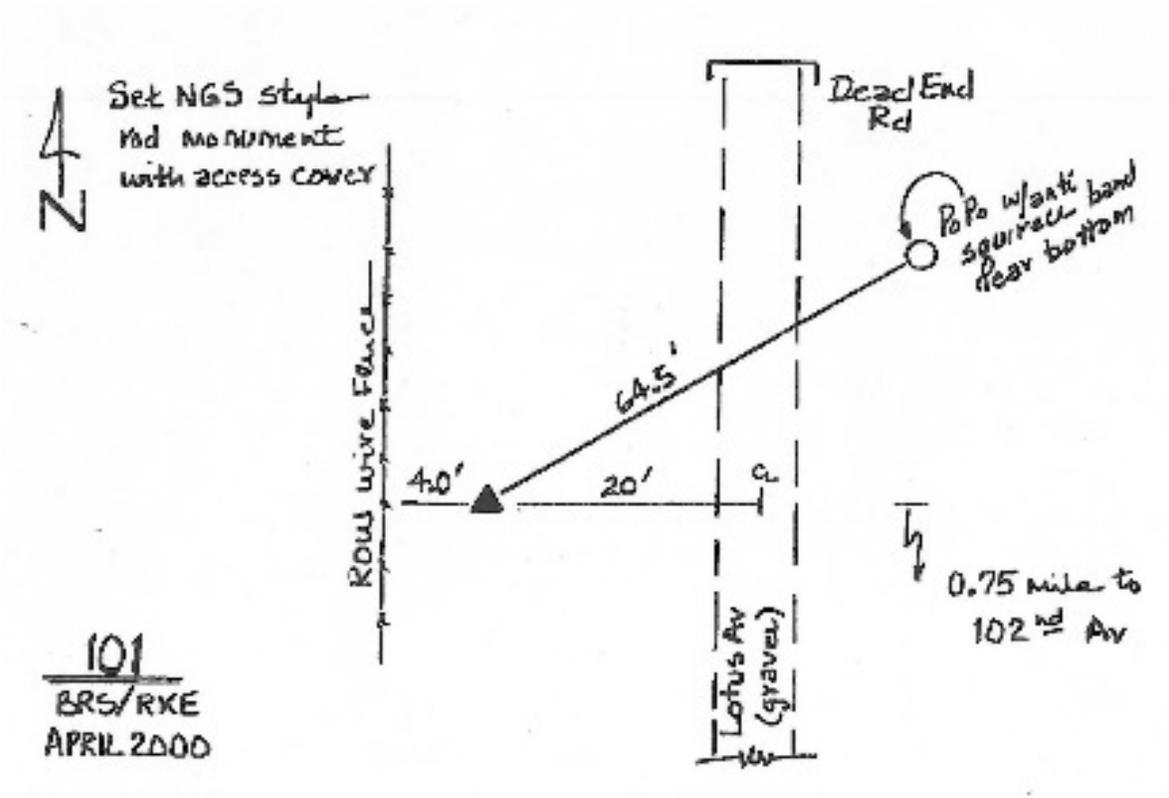
**Designation:** Muscatine Co. GPS Control Pt 2000-101 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°35'48.21787"** Longitude: **W91°08'39.74789"**  
NAVD 88 Ortho Height: **736.520sft** Ellip. Ht: **629.189sft** **Geoid12A**

Iowa South Zone (1402) Northing: **590473.005sft** Easting: **2284651.929sft**  
Mapping Angle: **1°33'06"** Combination Scale Factor: **0.999942171**

IaRCS Zone 14 Northing: **6690699.196sft** Easting: **24528892.184sft**  
Mapping Angle: **0°04'12"** Combination Scale Factor: **0.9999889307**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **102**

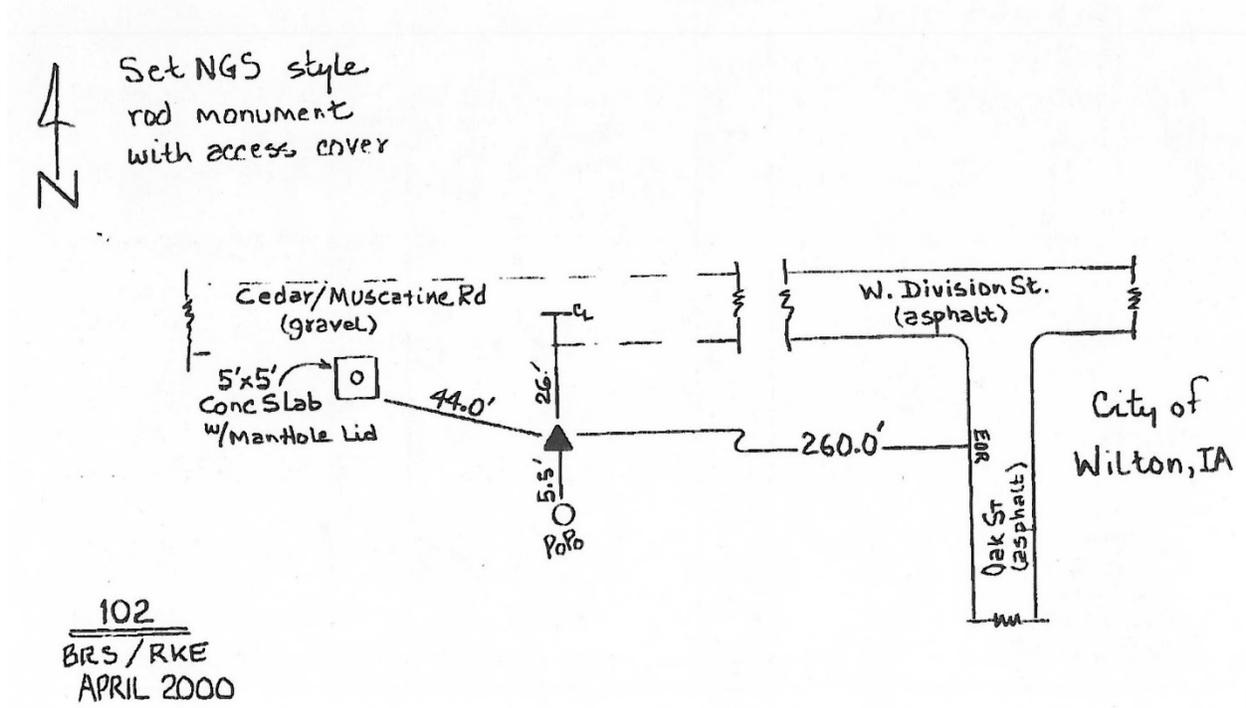
**Designation:** Muscatine Co. GPS Control Pt 2000-102 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°35'50.37009"** Longitude: **W91°01'19.35728"**  
NAVD 88 Ortho Height: **694.700sft** Ellip. Ht: **587.242sft** **Geoid12A**

Iowa South Zone (1402) Northing: **591620.312sft** Easting: **2318092.879sft**  
Mapping Angle: **1°37'56"** Combination Scale Factor: **0.999944245**

laRCS Zone 14 Northing: **6690981.713sft** Easting: **24562353.231sft**  
Mapping Angle: **0°09'05"** Combination Scale Factor: **0.9999944213**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **103**

**Designation:** Muscatine Co. GPS Control Pt 2000-103 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°35'38.96991"** Longitude: **W90°53'58.71279"**

NAVD 88 Ortho Height: **684.640sft** Ellip. Ht: **577.104sft** **Geoid12A**

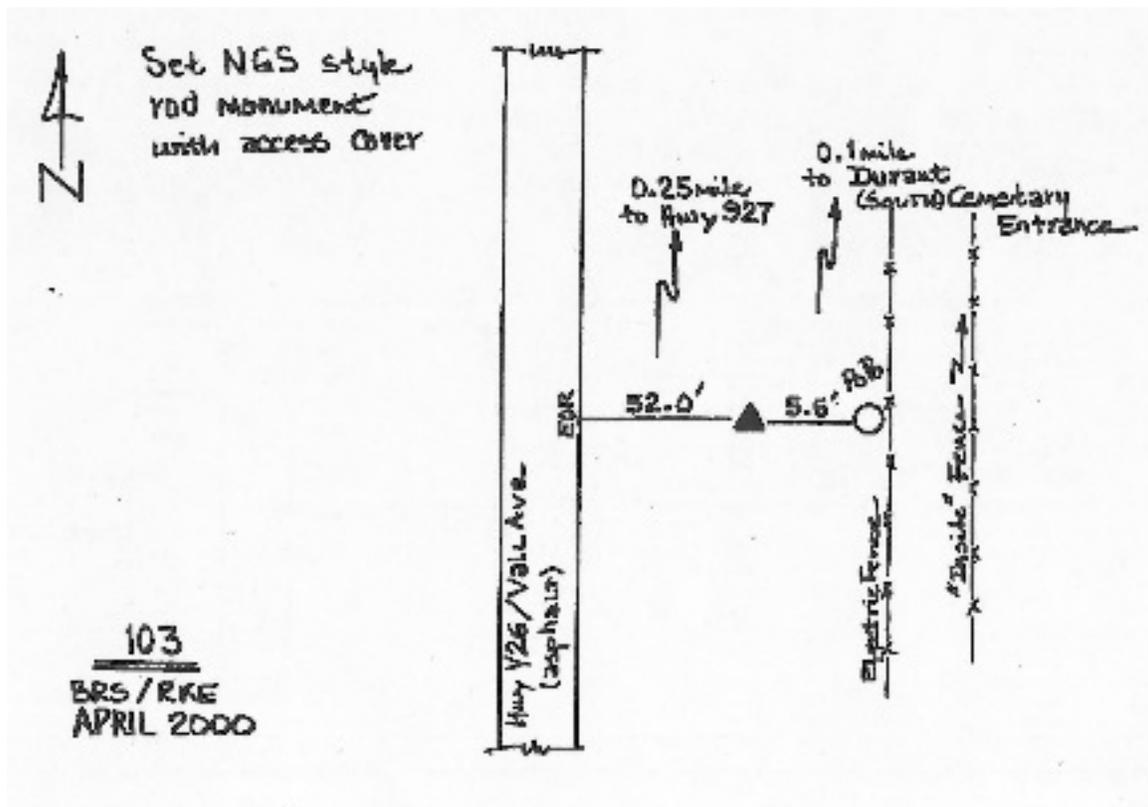
Iowa South Zone (1402) Northing: **591444.111sft** Easting: **2351592.157sft**

Mapping Angle: **1°42'46"** Combination Scale Factor: **0.999944348**

laRCS Zone 14 Northing: **6689939.956sft** Easting: **24595838.553sft**

Mapping Angle: **0°13'57"** Combination Scale Factor: **1.0000009582**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **104**

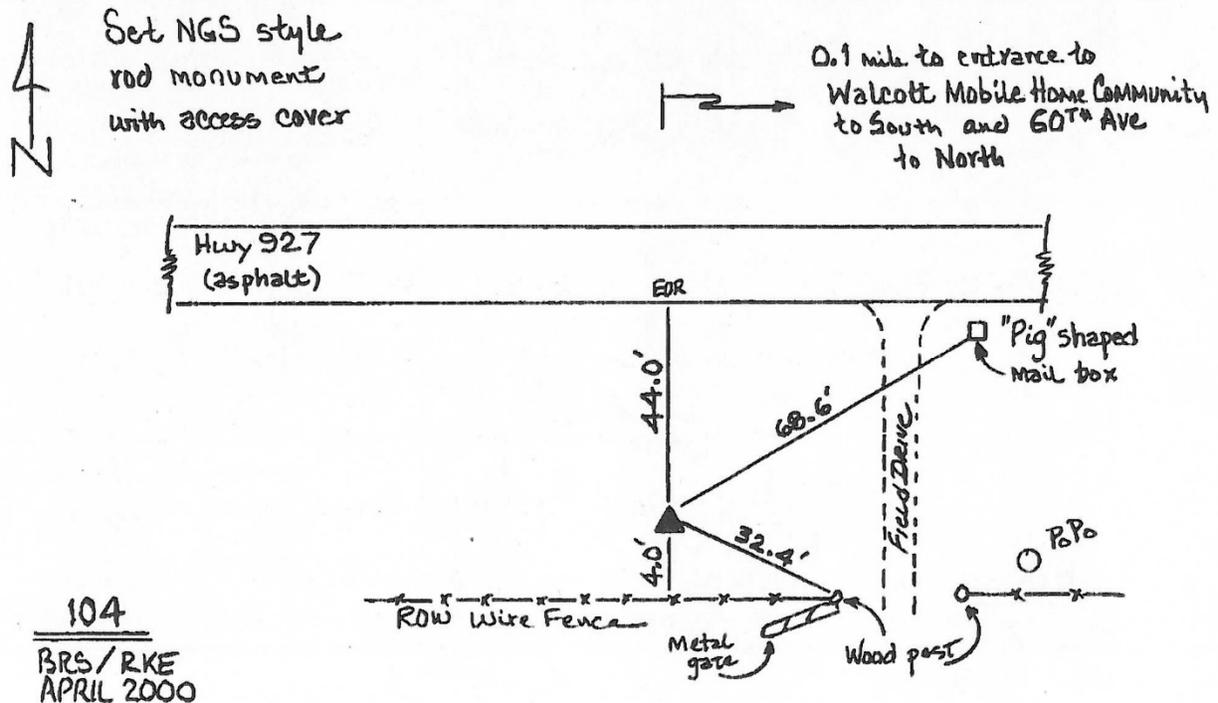
**Designation:** Muscatine Co. GPS Control Pt 2000-104 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°35'46.98679"** Longitude: **W90°47'07.12530"**  
NAVD 88 Ortho Height: **733.820sft** Ellip. Ht: **626.239sft** **Geoid12A**

Iowa South Zone (1402) Northing: **593210.458sft** Easting: **2382825.134sft**  
Mapping Angle: **1°47'17"** Combination Scale Factor: **0.999942271**

IaRCS Zone 14 Northing: **6690899.102sft** Easting: **24627108.616sft**  
Mapping Angle: **0°18'31"** Combination Scale Factor: **1.0000065805**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **105 (Replaced by 151)**

**Designation:** ~~Muscatine Co. GPS Control Pt 2000-105 (Set by ASI in 2000)~~

NAD 83(NA2011) Latitude: ~~**N41°34'03.013662"**~~ Longitude: ~~**W90°47'03.334714"**~~

NAVD 88 Ortho Height: ~~**731.93sft**~~ Ellip. Ht: ~~**624.77sft**~~ **Geoid96C**

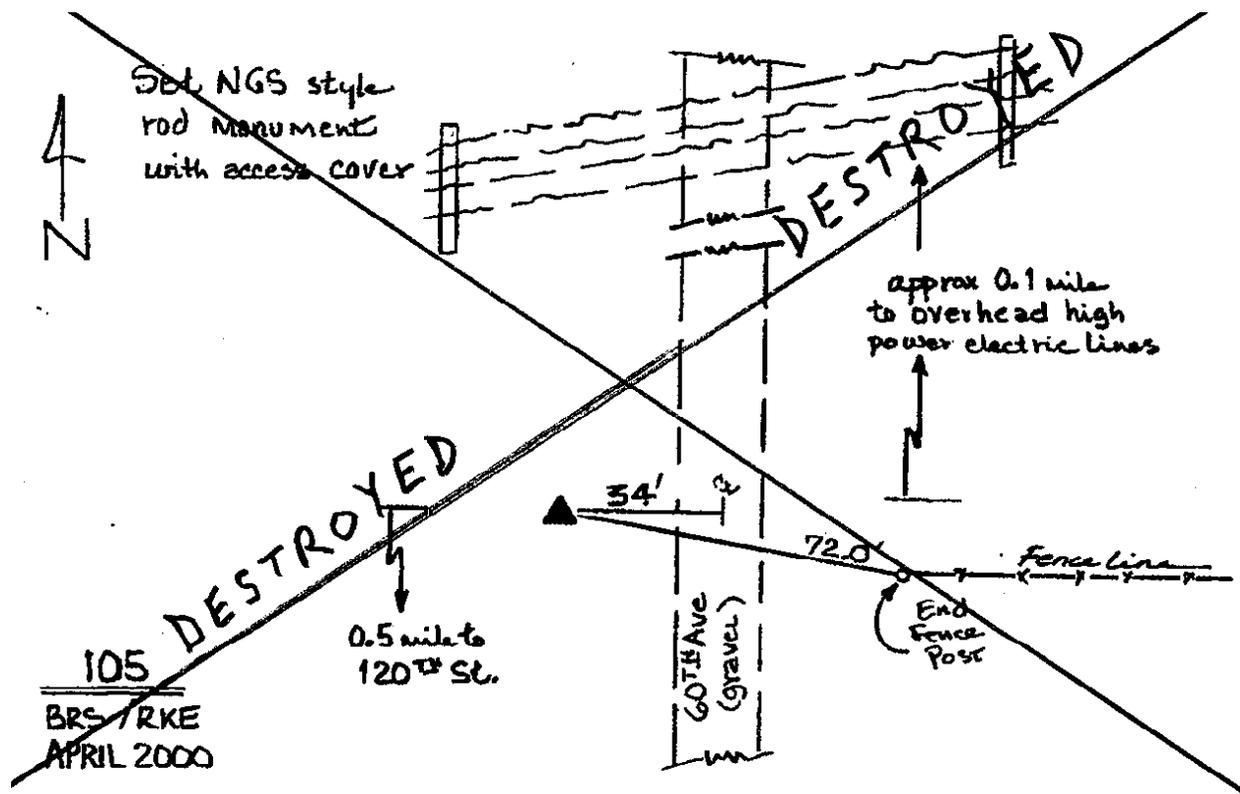
Iowa South Zone (1402) Northing: ~~**582700.89sft**~~ Easting: ~~**2383441.51sft**~~

Mapping Angle: ~~**1°47'20"**~~ Combination Scale Factor: ~~**0.99993892**~~

laRCS Zone 14 Northing: ~~**N/Asft**~~ Easting: ~~**N/Asft**~~

Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**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.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **106**

**Designation:** Muscatine Co. GPS Control Pt 2000-106 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°32'17.99613"** Longitude: **W90°47'04.31679"**

NAVD 88 Ortho Height: **777.780sft** Ellip. Ht: **670.155sft** **Geoid12A**

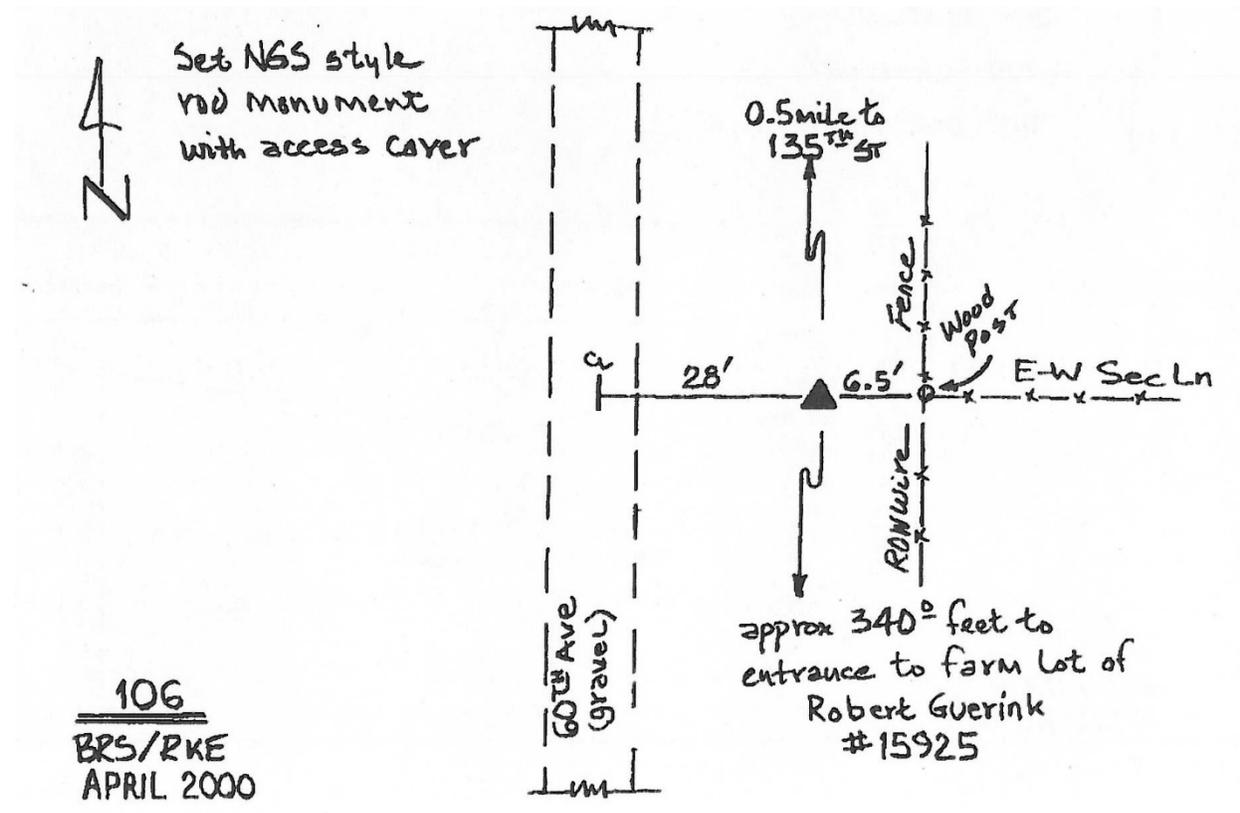
Iowa South Zone (1402) Northing: **572074.433sft** Easting: **2383698.671sft**

Mapping Angle: **1°47'19"** Combination Scale Factor: **0.999933701**

laRCS Zone 14 Northing: **6669746.136sft** Easting: **24627436.041sft**

Mapping Angle: **0°18'31"** Combination Scale Factor: **1.0000045804**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **107**

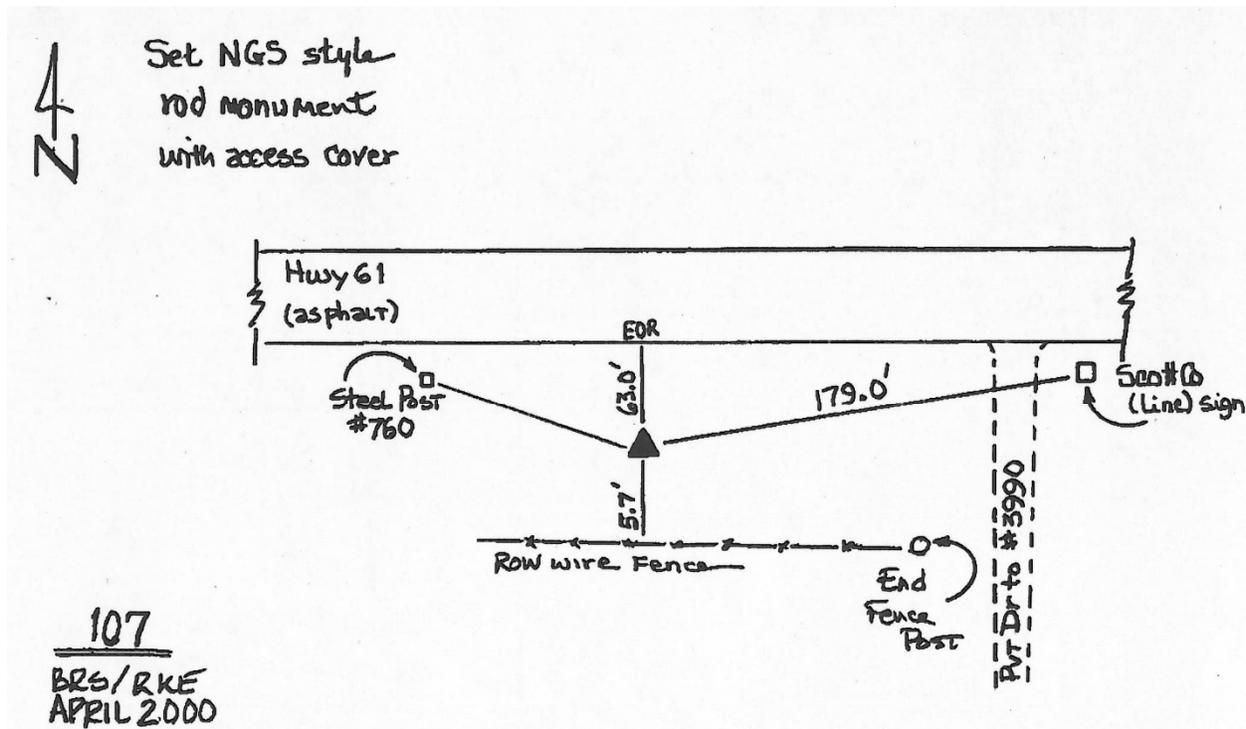
**Designation:** Muscatine Co. GPS Control Pt 2000-107 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°30'32.74854"** Longitude: **W90°47'08.41205"**  
NAVD 88 Ortho Height: **784.240sft** Ellip. Ht: **676.558sft** **Geoid12A**

Iowa South Zone (1402) Northing: **561417.395sft** Easting: **2383719.755sft**  
Mapping Angle: **1°47'17"** Combination Scale Factor: **0.999930524**

IaRCS Zone 14 Northing: **6659091.339sft** Easting: **24627181.830sft**  
Mapping Angle: **0°18'28"** Combination Scale Factor: **1.0000042009**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **108**

**Designation:** Muscatine Co. GPS Control Pt 2000-108 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°30'26.52925"** Longitude: **W90°54'03.72451"**

NAVD 88 Ortho Height: **742.350sft** Ellip. Ht: **634.647sft** **Geoid12A**

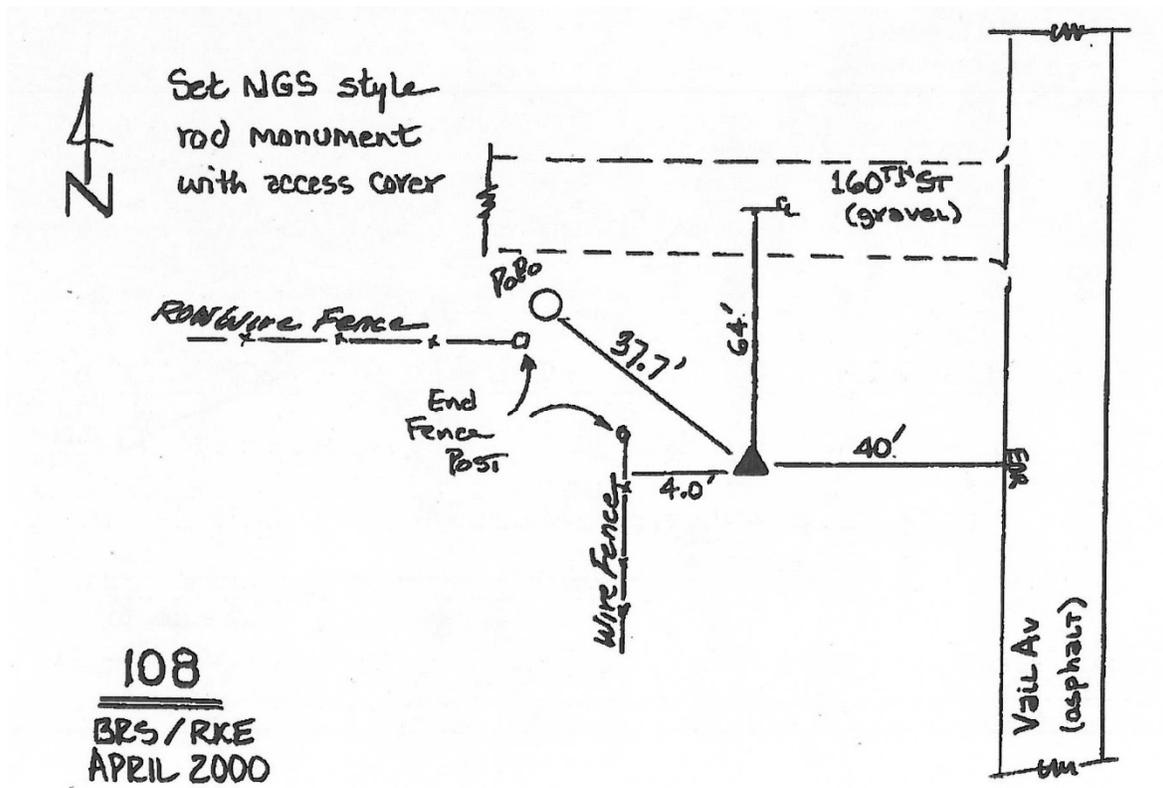
Iowa South Zone (1402) Northing: **559823.309sft** Easting: **2352156.271sft**

Mapping Angle: **1°42'43"** Combination Scale Factor: **0.999932363**

IaRCS Zone 14 Northing: **6658313.193sft** Easting: **24595585.499sft**

Mapping Angle: **0°13'53"** Combination Scale Factor: **0.9999981572**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **109**

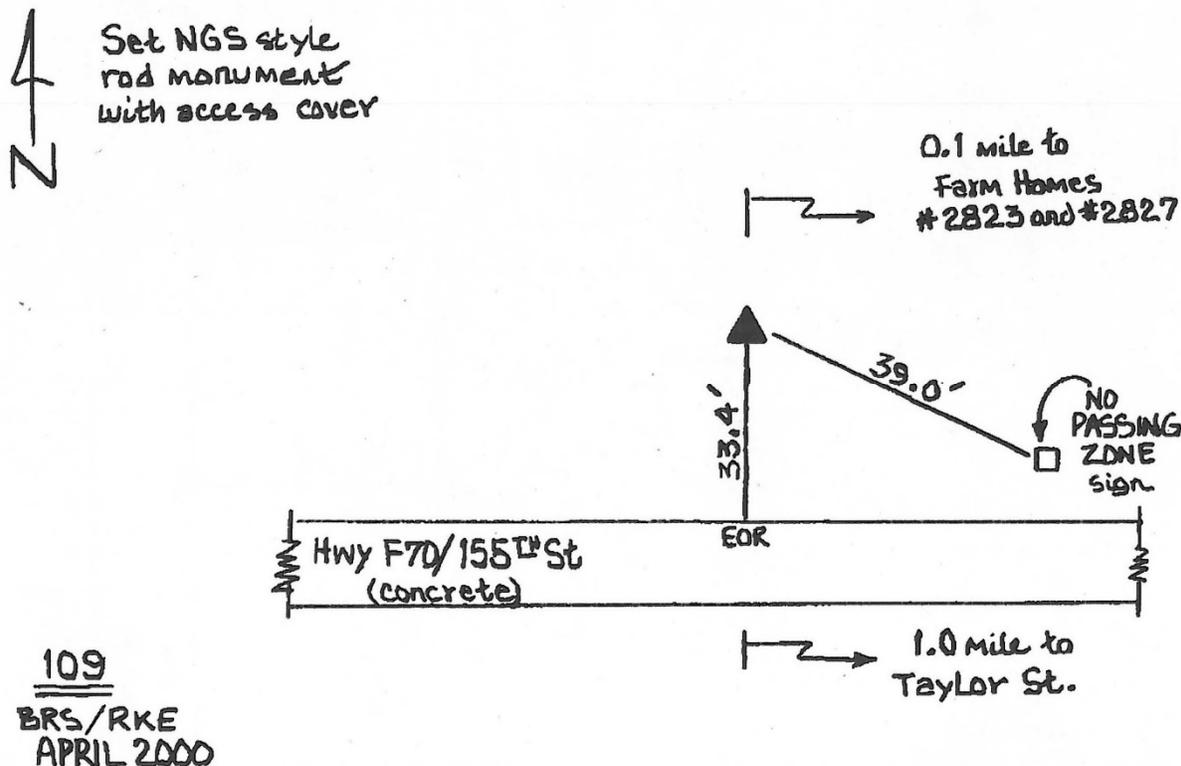
**Designation:** Muscatine Co. GPS Control Pt 2000-109 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°30'28.67615"** Longitude: **W91°01'03.64978"**  
NAVD 88 Ortho Height: **712.760sft** Ellip. Ht: **605.082sft** **Geoid12A**

Iowa South Zone (1402) Northing: **559107.472sft** Easting: **2320214.884sft**  
Mapping Angle: **1°38'06"** Combination Scale Factor: **0.999933829**

IaRCS Zone 14 Northing: **6658423.090sft** Easting: **24563634.280sft**  
Mapping Angle: **0°09'14"** Combination Scale Factor: **0.9999937544**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **110**

**Designation:** Muscatine Co. GPS Control Pt 2000-110 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°30'40.71693"** Longitude: **W91°07'57.21671"**

NAVD 88 Ortho Height: **619.090sft** Ellip. Ht: **511.459sft** **Geoid12A**

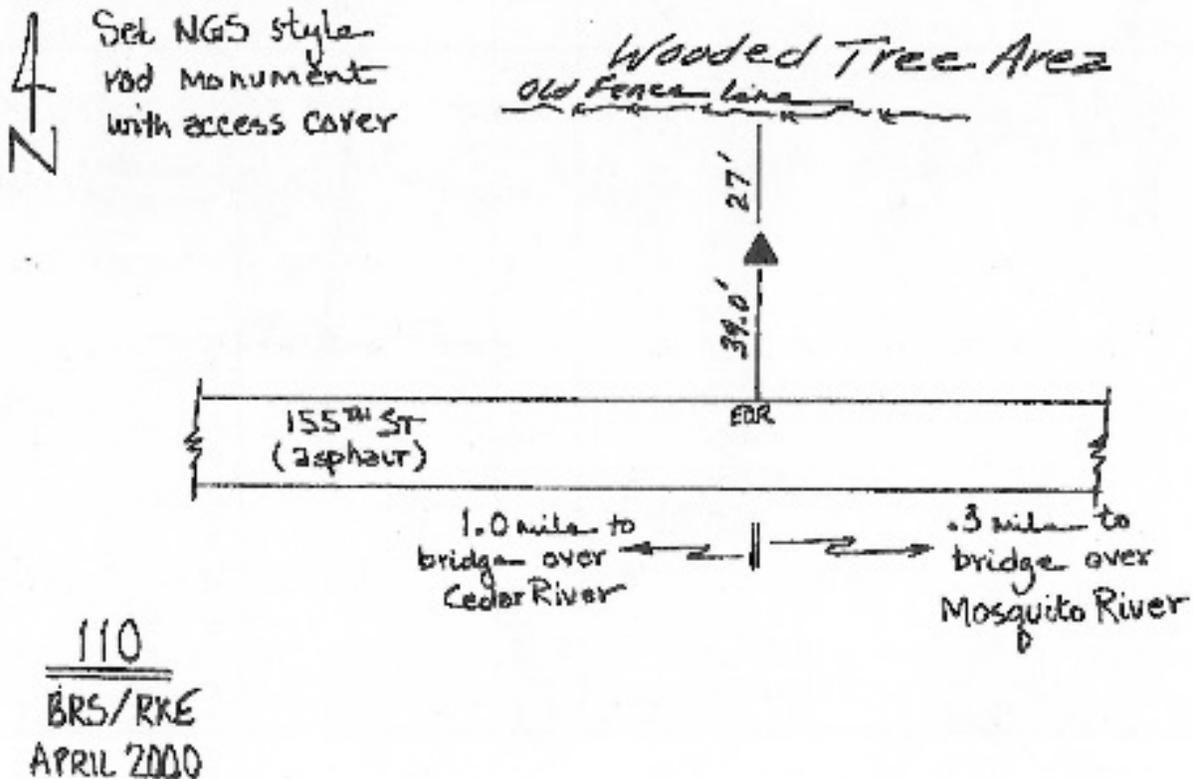
Iowa South Zone (1402) Northing: **559448.658sft** Easting: **2288729.175sft**

Mapping Angle: **1°33'34"** Combination Scale Factor: **0.999938610**

IaRCS Zone 14 Northing: **6659578.195sft** Easting: **24532166.093sft**

Mapping Angle: **0°04'40"** Combination Scale Factor: **0.9999947767**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **111**

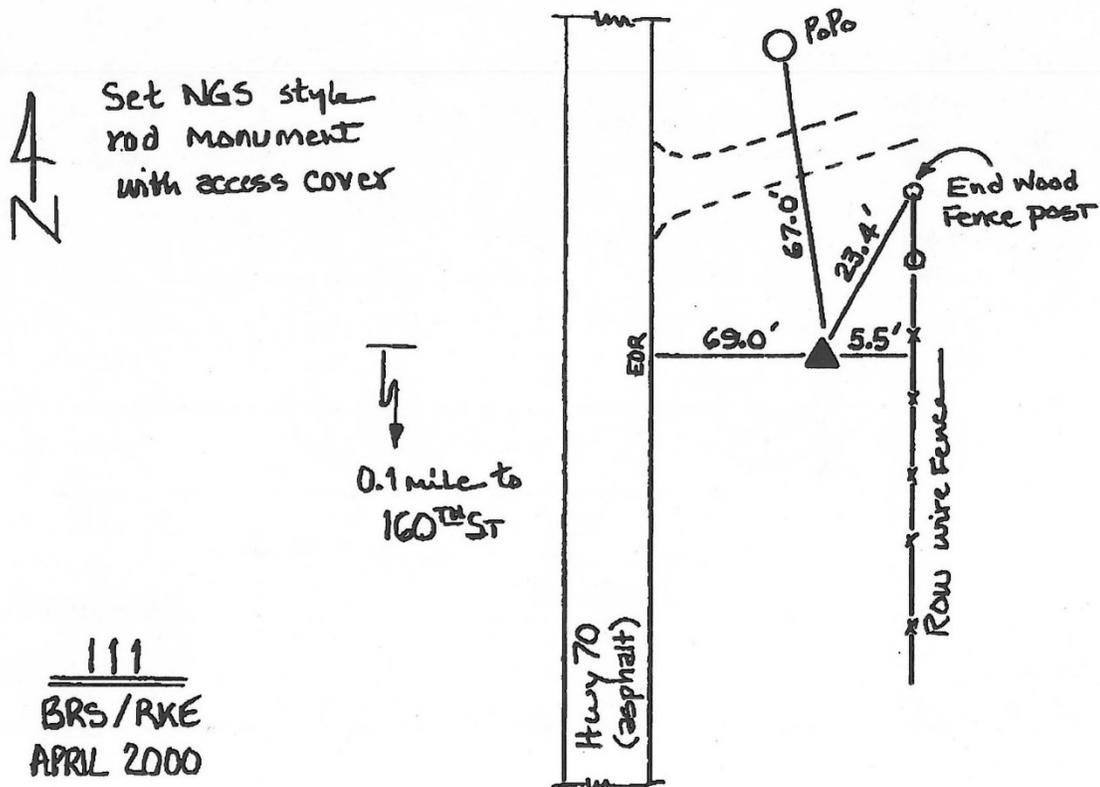
**Designation:** Muscatine Co. GPS Control Pt 2000-111 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°30'41.24282"** Longitude: **W91°15'05.35510"**  
NAVD 88 Ortho Height: **637.570sft** Ellip. Ht: **530.016sft** **Geoid12A**

Iowa South Zone (1402) Northing: **558637.722sft** Easting: **2256167.543sft**  
Mapping Angle: **1°28'52"** Combination Scale Factor: **0.999937739**

IaRCS Zone 14 Northing: **6659609.580sft** Easting: **24499592.576sft**  
Mapping Angle: **-0°00'04"** Combination Scale Factor: **0.9999927091**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **112**

**Designation:** Muscatine Co. GPS Control Pt 2000-112 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°28'45.19005"** Longitude: **W91°03'17.49256"**

NAVD 88 Ortho Height: **722.660sft** Ellip. Ht: **614.906sft** **Geoid12A**

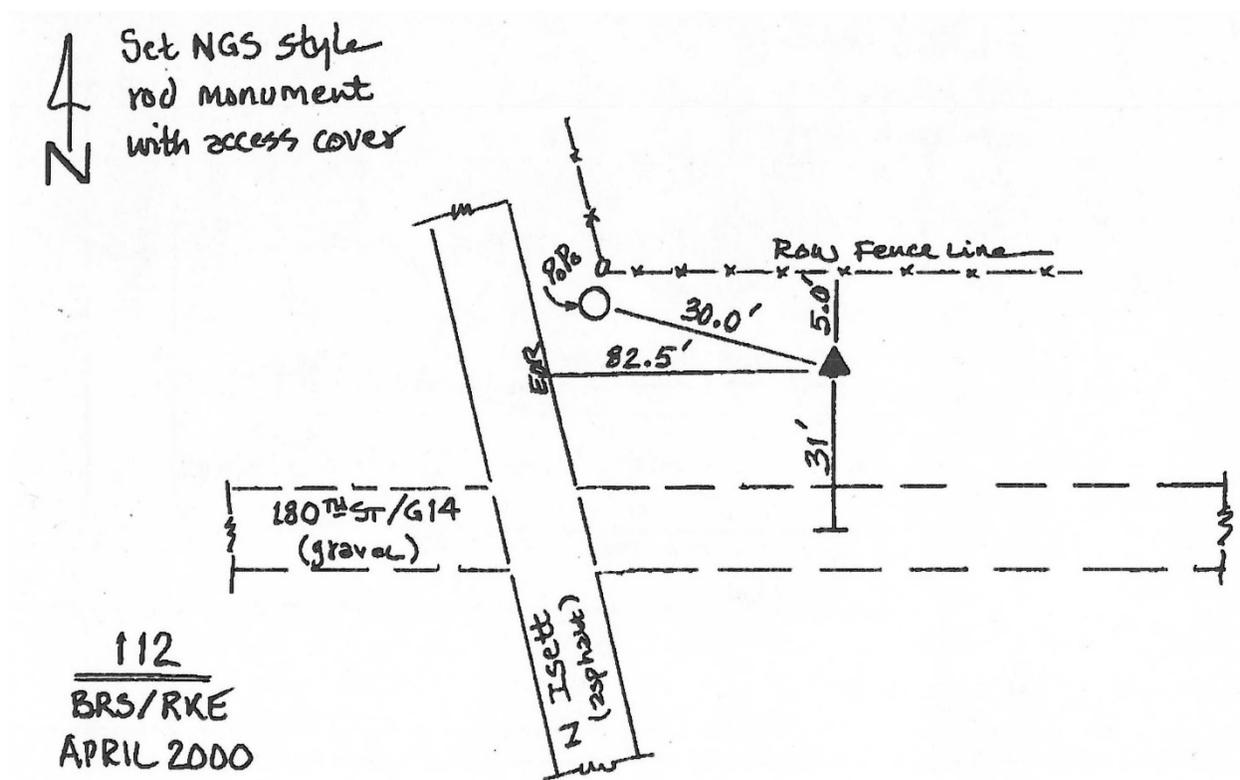
Iowa South Zone (1402) Northing: **548349.089sft** Easting: **2310330.411sft**

Mapping Angle: **1°36'38"** Combination Scale Factor: **0.999930801**

IaRCS Zone 14 Northing: **6647923.179sft** Easting: **24553474.391sft**

Mapping Angle: **0°07'45"** Combination Scale Factor: **0.9999919259**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **113**

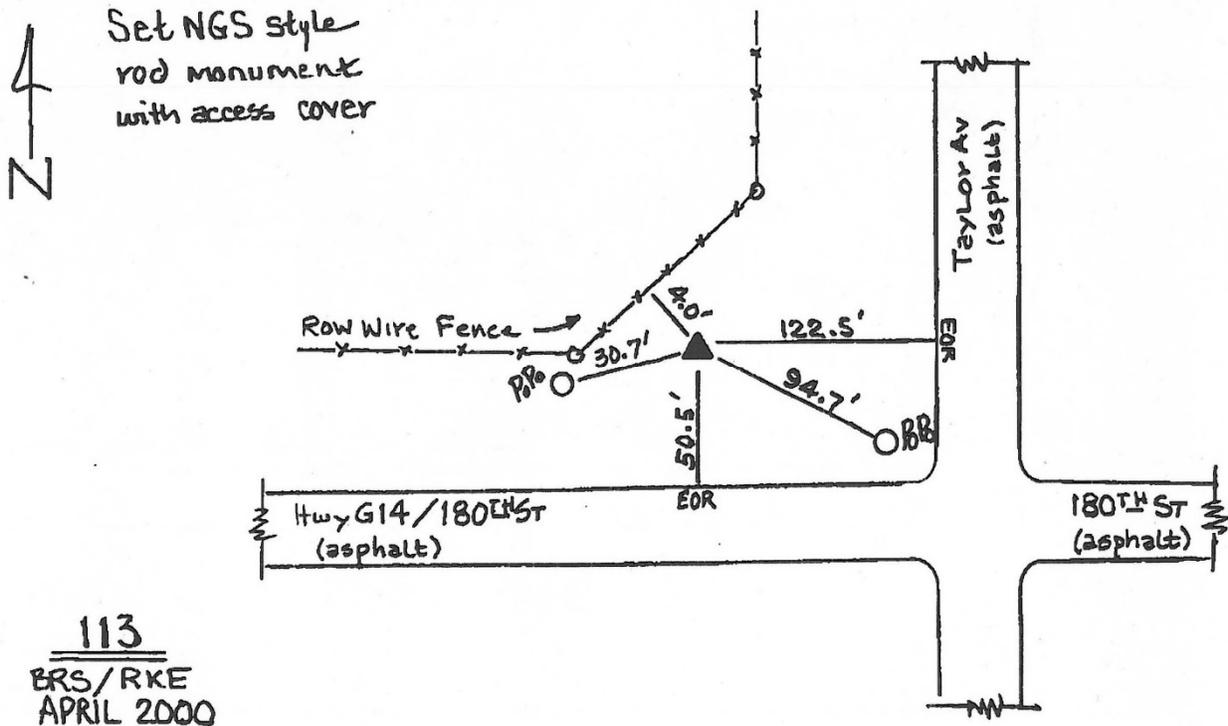
**Designation:** Muscatine Co. GPS Control Pt 2000-113 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°28'43.53768"** Longitude: **W90°59'54.89144"**  
NAVD 88 Ortho Height: **707.430sft** Ellip. Ht: **599.663sft** **Geoid12A**

Iowa South Zone (1402) Northing: **548620.340sft** Easting: **2325749.950sft**  
Mapping Angle: **1°38'52"** Combination Scale Factor: **0.999931490**

IaRCS Zone 14 Northing: **6647795.736sft** Easting: **24568896.748sft**  
Mapping Angle: **0°09'59"** Combination Scale Factor: **0.9999948099**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **114**

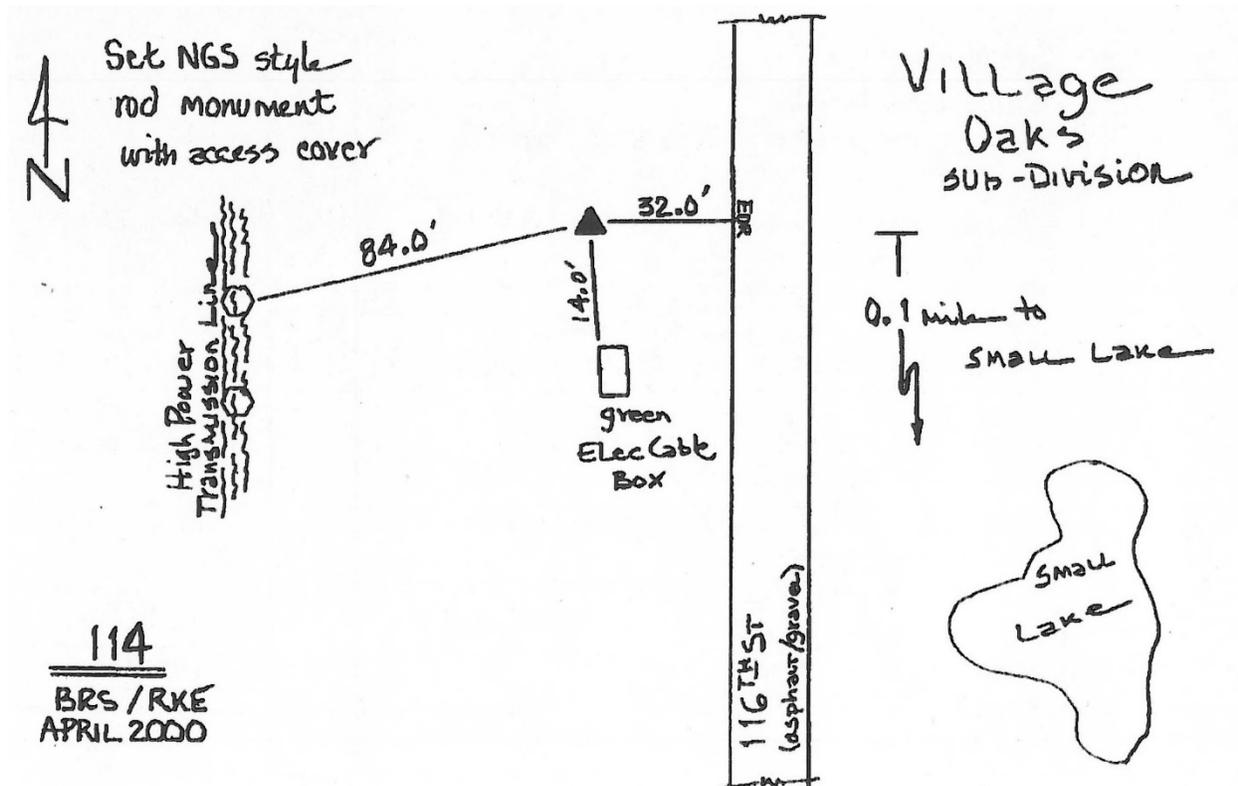
**Designation:** Muscatine Co. GPS Control Pt 2000-114 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°28'40.43577"** Longitude: **W90°47'06.45127"**  
NAVD 88 Ortho Height: **690.920sft** Ellip. Ht: **583.144sft** **Geoid12A**

Iowa South Zone (1402) Northing: **550060.079sft** Easting: **2384223.599sft**  
Mapping Angle: **1°47'18"** Combination Scale Factor: **0.999932205**

IaRCS Zone 14 Northing: **6647723.943sft** Easting: **24627392.127sft**  
Mapping Angle: **0°18'28"** Combination Scale Factor: **1.0000087196**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **115**

**Designation:** Muscatine Co. GPS Control Pt 2000-115 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°28'31.61666"** Longitude: **W91°02'18.54150"**

NAVD 88 Ortho Height: **711.666sft** Ellip. Ht: **603.892sft** **Geoid12A**

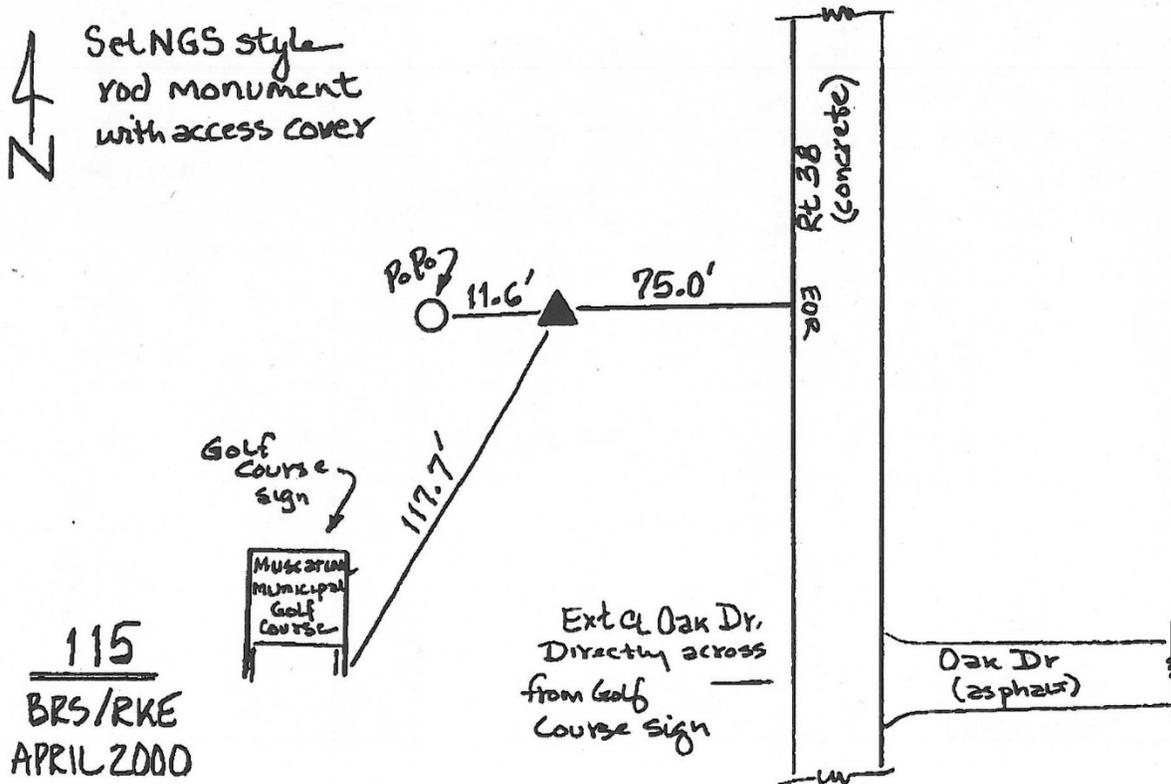
Iowa South Zone (1402) Northing: **547102.382sft** Easting: **2314854.552sft**

Mapping Angle: **1°37'17"** Combination Scale Factor: **0.999931010**

IaRCS Zone 14 Northing: **6646559.850sft** Easting: **24557965.067sft**

Mapping Angle: **0°08'24"** Combination Scale Factor: **0.9999930234**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **116**

**Designation:** Muscatine Co. GPS Control Pt 2000-116 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°28'14.35483"** Longitude: **W91°01'35.15344"**

NAVD 88 Ortho Height: **643.410sft** Ellip. Ht: **535.616sft** **Geoid12A**

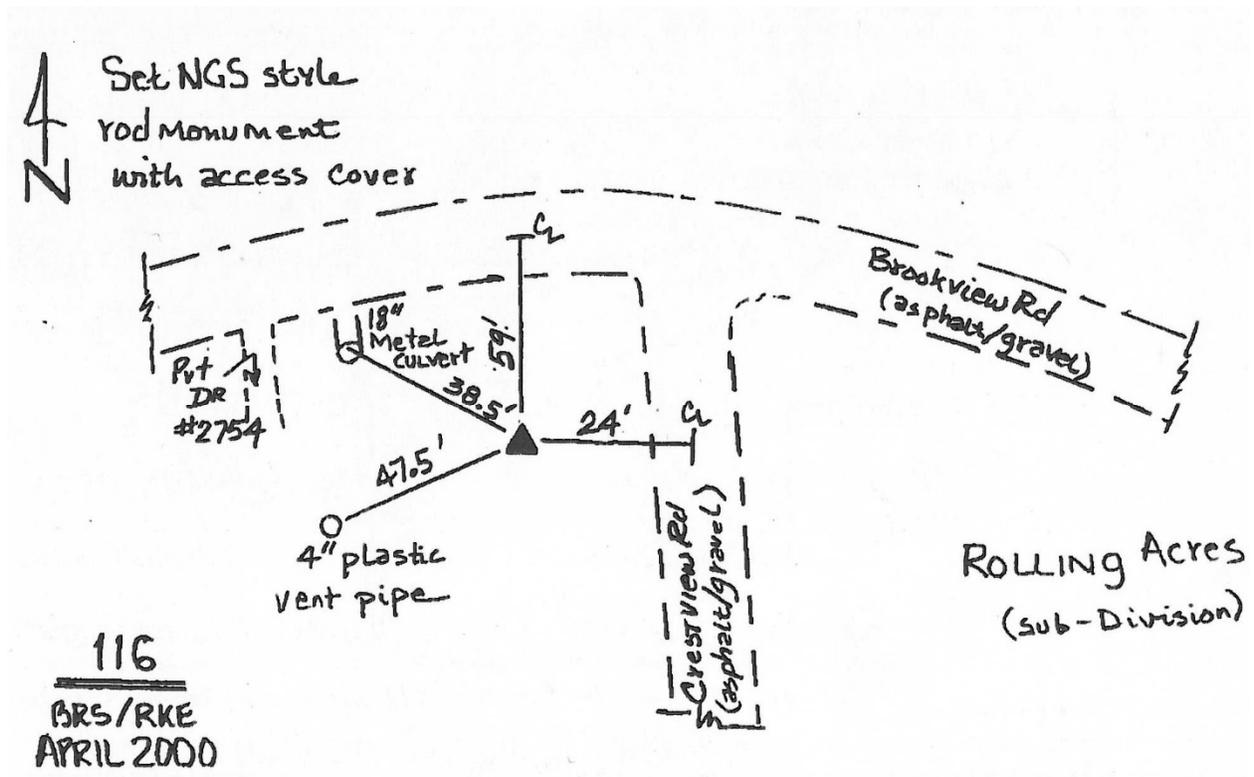
Iowa South Zone (1402) Northing: **545449.654sft** Easting: **2318205.568sft**

Mapping Angle: **1°37'46"** Combination Scale Factor: **0.999933870**

IaRCS Zone 14 Northing: **6644820.940sft** Easting: **24561272.446sft**

Mapping Angle: **0°08'53"** Combination Scale Factor: **0.9999967319**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **117 (Destroyed)**

**Designation:** ~~Muscatine Co. GPS Control Pt 2000-117 (Set by ASI in 2000)~~

NAD 83(NA2011) Latitude: ~~**N41°28'17.066762"**~~ Longitude: ~~**W91°00'23.372344"**~~

NAVD 88 Ortho Height: ~~**639.85sft**~~ Ellip. Ht: ~~**532.46sft**~~ ~~**Geoid96C**~~

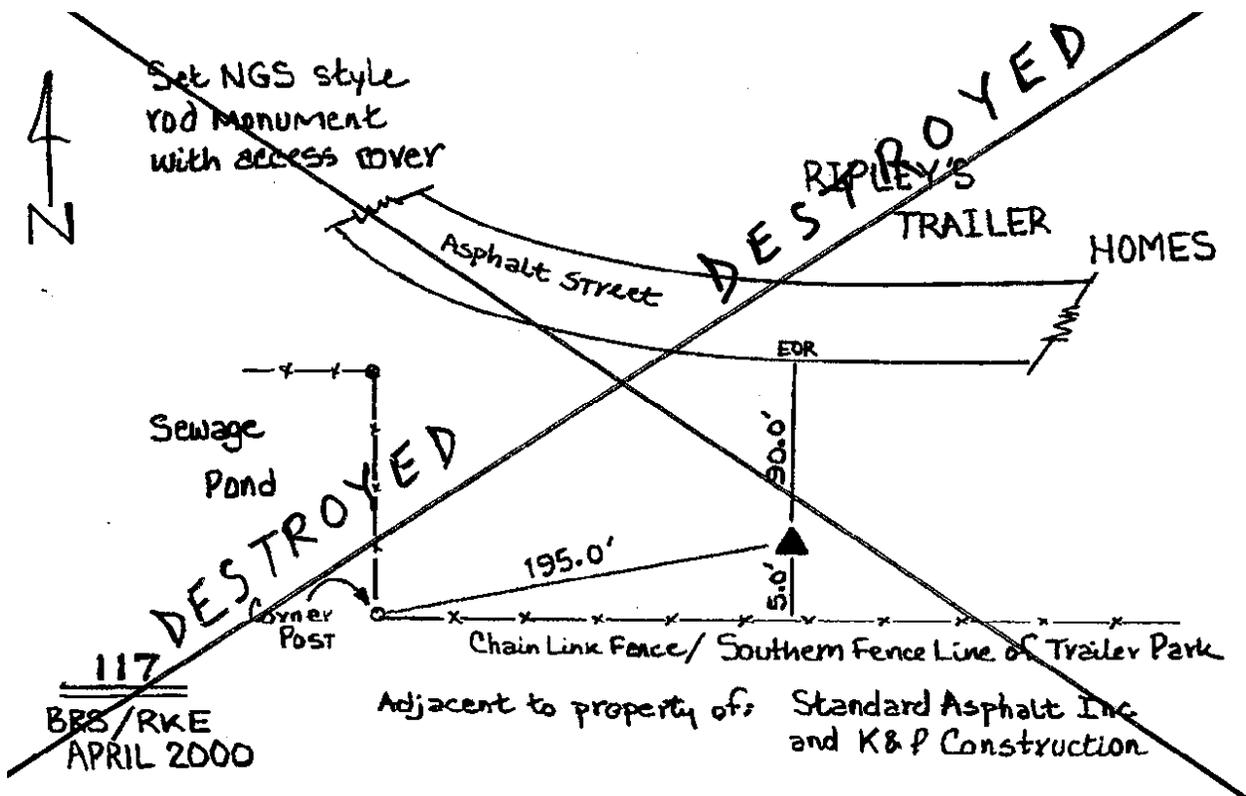
Iowa South Zone (1402) Northing: ~~**545880.02sft**~~ Easting: ~~**2323659.8sft**~~

Mapping Angle: ~~**1°38'33"**~~ Combination Scale Factor: ~~**0.99993402**~~

laRCS Zone 14 Northing: ~~**N/Asft**~~ Easting: ~~**N/Asft**~~

Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**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.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **118**

**Designation:** Muscatine Co. GPS Control Pt 2000-118 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'54.62268"** Longitude: **W91°06'26.09255"**  
NAVD 88 Ortho Height: **711.290sft** Ellip. Ht: **603.499sft** **Geoid12A**

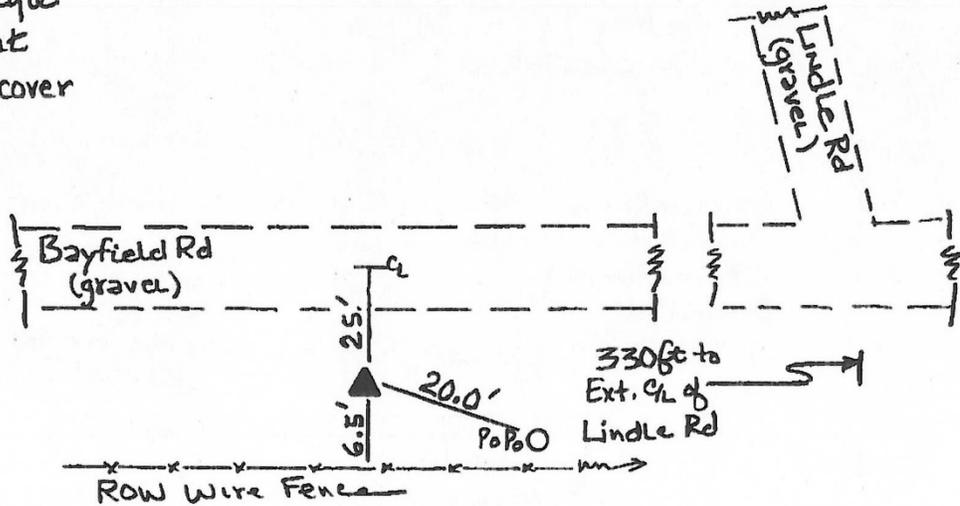
Iowa South Zone (1402) Northing: **542833.821sft** Easting: **2296121.463sft**  
Mapping Angle: **1°34'34"** Combination Scale Factor: **0.999930186**

IaRCS Zone 14 Northing: **6642776.796sft** Easting: **24539126.729sft**  
Mapping Angle: **0°05'40"** Combination Scale Factor: **0.9999909519**

**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.



Set NGS style  
rod monument  
with access cover



118  
BRS/RKE  
APRIL 2000

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **119**

**Designation:** Muscatine Co. GPS Control Pt 2000-119 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'54.88401"** Longitude: **W91°05'30.12707"**  
NAVD 88 Ortho Height: **722.660sft** Ellip. Ht: **614.867sft** **Geoid12A**

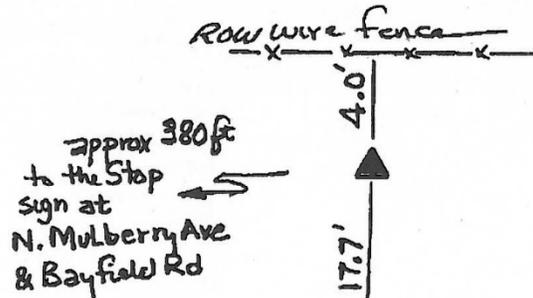
Iowa South Zone (1402) Northing: **542977.831sft** Easting: **2300379.830sft**  
Mapping Angle: **1°35'11"** Combination Scale Factor: **0.999929650**

IaRCS Zone 14 Northing: **6642810.659sft** Easting: **24543387.655sft**  
Mapping Angle: **0°06'17"** Combination Scale Factor: **0.9999908113**

**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.

Set NGS style  
rod monument  
with access cover

Spangler Chapel  
United Methodist Church  
at NE corner of  
Bayfield Rd &  
N Mulberry Av



**119**  
BRS/RKE  
APRIL 2000

### Muscatine County, Iowa

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

2014

Point Name: **120**

**Designation:** Muscatine Co. GPS Control Pt 2000-120 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'54.13804"** Longitude: **W91°04'26.41479"**

NAVD 88 Ortho Height: **735.360sft** Ellip. Ht: **627.560sft** **Geoid12A**

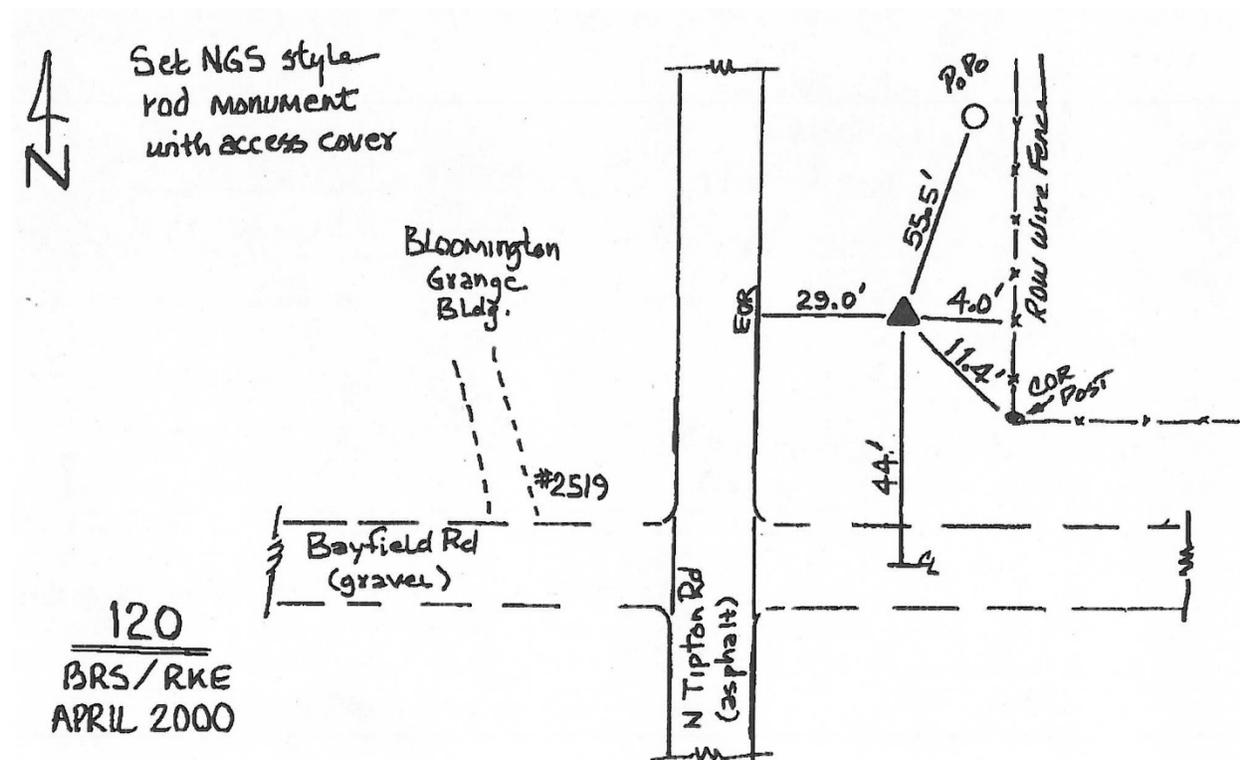
Iowa South Zone (1402) Northing: **543037.131sft** Easting: **2305230.553sft**

Mapping Angle: **1°35'53"** Combination Scale Factor: **0.999929028**

IaRCS Zone 14 Northing: **6642744.524sft** Easting: **24548238.587sft**

Mapping Angle: **0°07'00"** Combination Scale Factor: **0.9999907135**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **121**

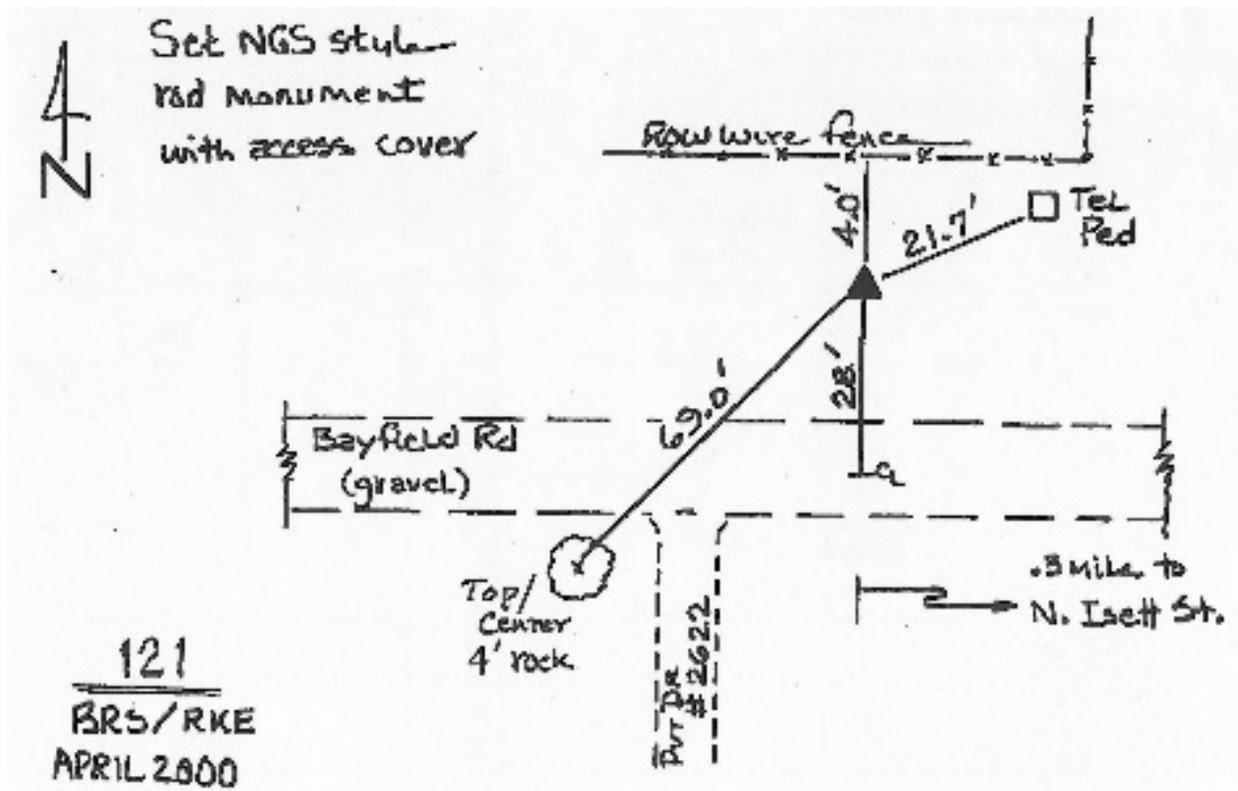
**Designation:** Muscatine Co. GPS Control Pt 2000-121 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'52.90007"** Longitude: **W91°03'23.86091"**  
NAVD 88 Ortho Height: **671.600sft** Ellip. Ht: **563.791sft** **Geoid12A**

Iowa South Zone (1402) Northing: **543045.164sft** Easting: **2309994.521sft**  
Mapping Angle: **1°36'34"** Combination Scale Factor: **0.999932043**

IaRCS Zone 14 Northing: **6642629.384sft** Easting: **24553001.466sft**  
Mapping Angle: **0°07'41"** Combination Scale Factor: **0.9999943074**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **122**

**Designation:** Muscatine Co. GPS Control Pt 2000-122 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'02.05627"** Longitude: **W91°06'21.67971"**

NAVD 88 Ortho Height: **710.860sft** Ellip. Ht: **603.015sft** **Geoid12A**

Iowa South Zone (1402) Northing: **537524.726sft** Easting: **2296603.701sft**

Mapping Angle: **1°34'37"** Combination Scale Factor: **0.999929069**

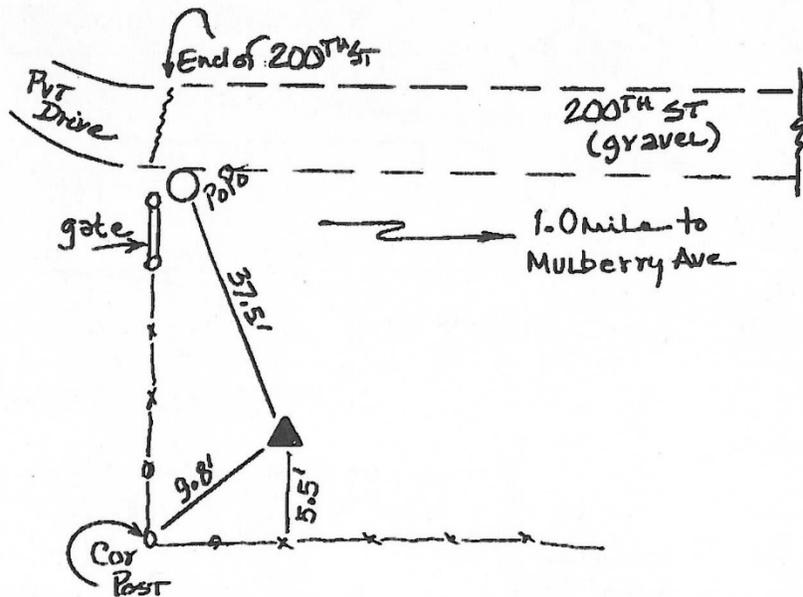
IaRCS Zone 14 Northing: **6637456.681sft** Easting: **24539471.556sft**

Mapping Angle: **0°05'43"** Combination Scale Factor: **0.9999910059**

**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.



Set NGS style  
rod monument  
with access cover



122  
BRS/RKE  
APRIL 2000

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **123**

**Designation:** Muscatine Co. GPS Control Pt 2000-123 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'38.28879"** Longitude: **W90°59'21.38941"**

NAVD 88 Ortho Height: **556.920sft** Ellip. Ht: **449.047sft** **Geoid12A**

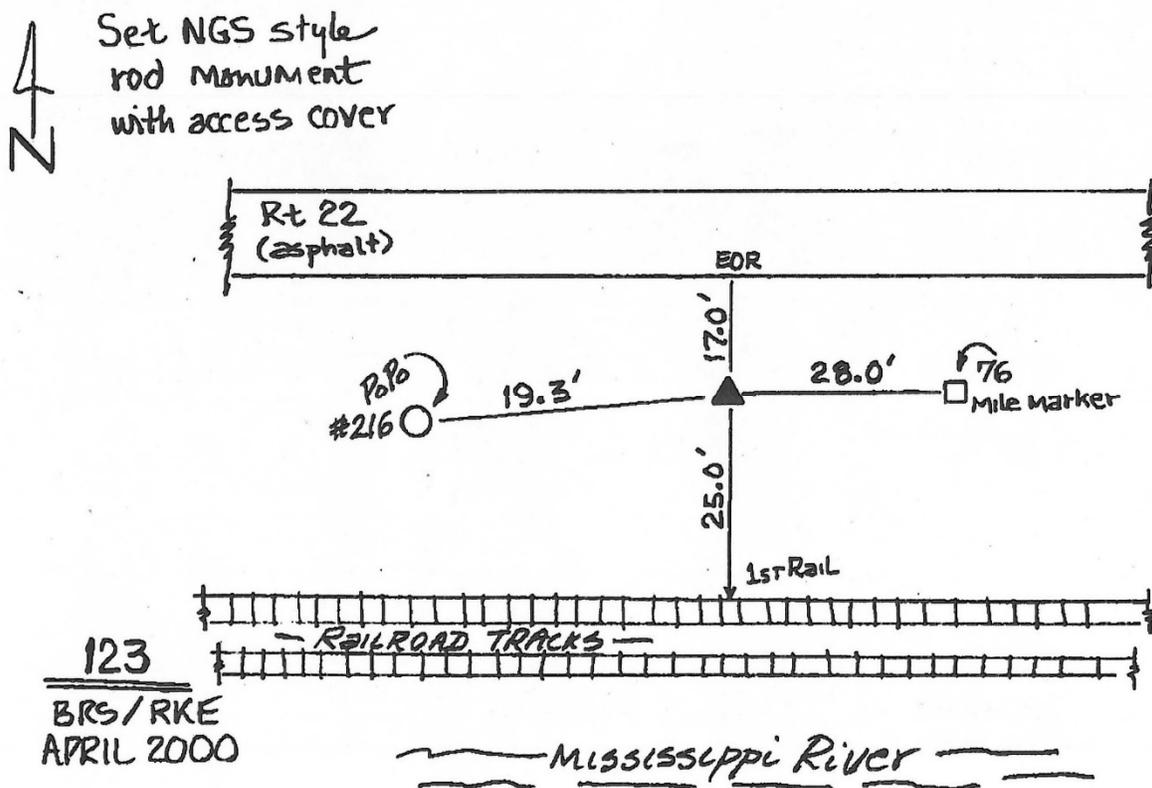
Iowa South Zone (1402) Northing: **536022.373sft** Easting: **2328664.770sft**

Mapping Angle: **1°39'14"** Combination Scale Factor: **0.999935920**

laRCS Zone 14 Northing: **6635125.811sft** Easting: **24571485.117sft**

Mapping Angle: **0°10'21"** Combination Scale Factor: **1.0000024121**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **124**

**Designation:** Muscatine Co. GPS Control Pt 2000-124 (Set by ASI in 2000)

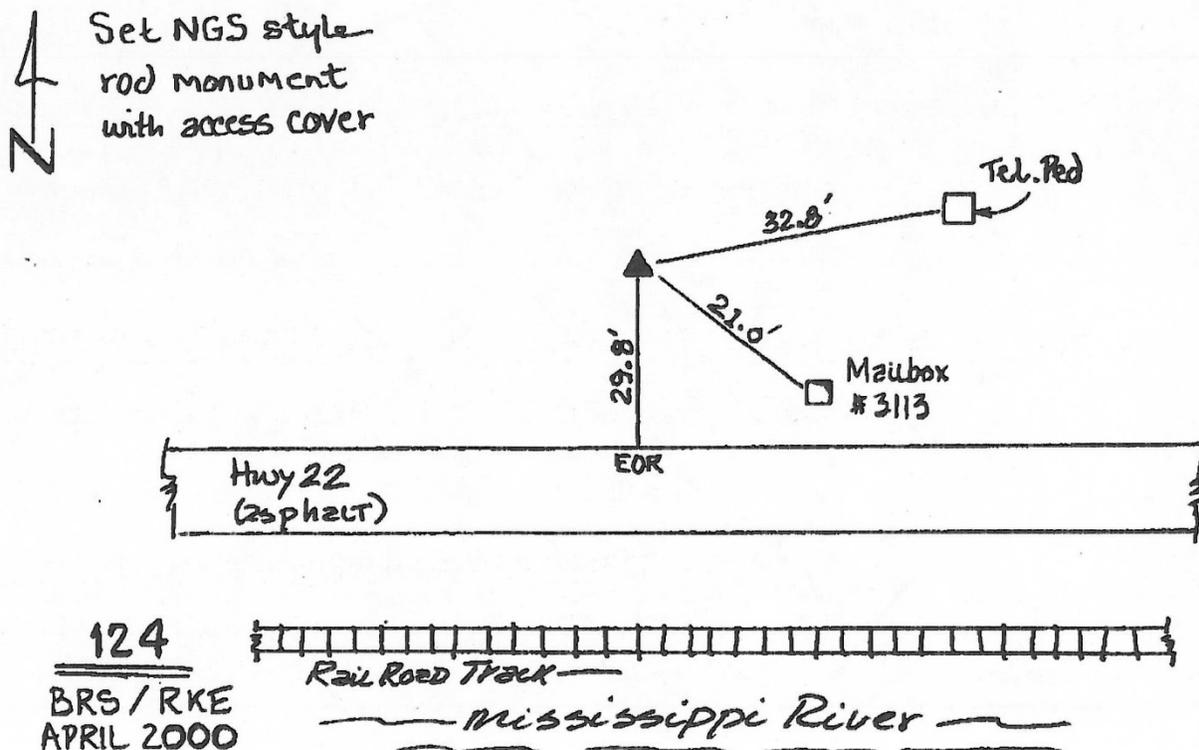
NAD 83(NA2011) Latitude: **N41°26'18.48194"** Longitude: **W90°57'30.64876"**

NAVD 88 Ortho Height: **555.890sft** Ellip. Ht: **448.004sft** **Geoid12A**

Iowa South Zone (1402) Northing: **534263.434sft** Easting: **2337153.335sft**  
Mapping Angle: **1°40'27"** Combination Scale Factor: **0.999935568**

IaRCS Zone 14 Northing: **6633147.905sft** Easting: **24579925.948sft**  
Mapping Angle: **0°11'34"** Combination Scale Factor: **1.0000039224**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **125**

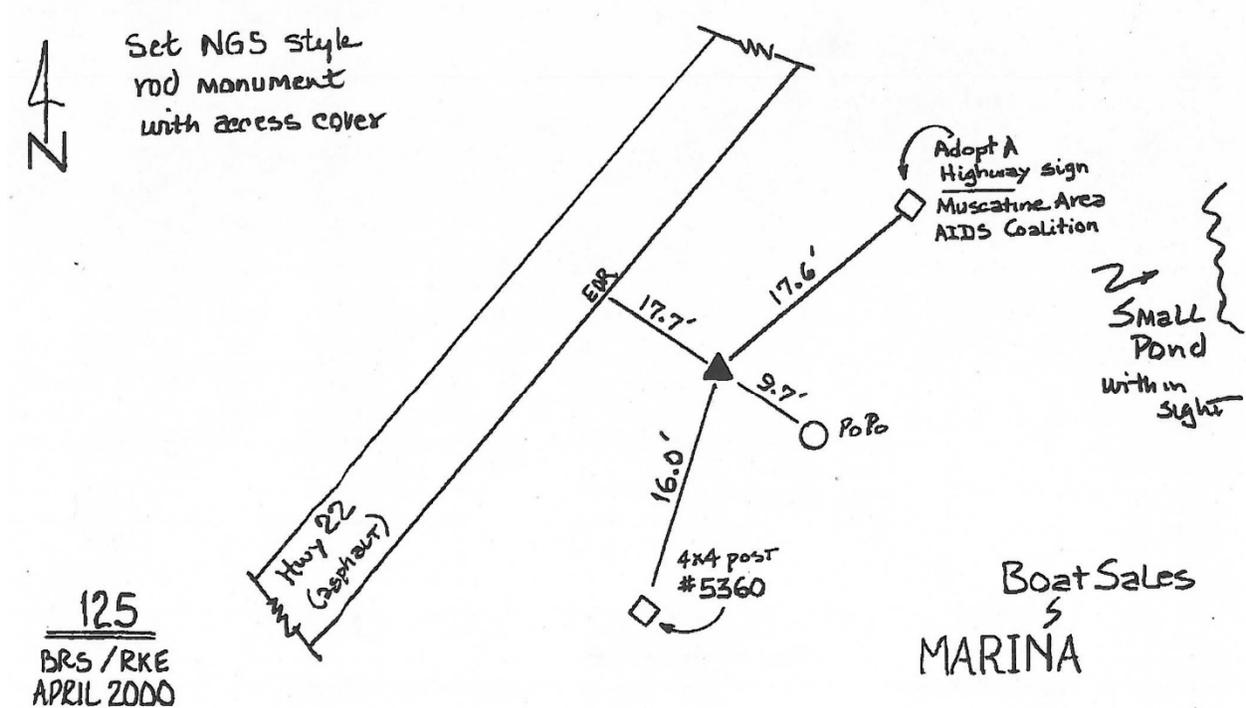
**Designation:** Muscatine Co. GPS Control Pt 2000-125 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'14.26532"** Longitude: **W90°54'05.93873"**  
NAVD 88 Ortho Height: **592.120sft** Ellip. Ht: **484.241sft** **Geoid12A**

Iowa South Zone (1402) Northing: **534297.430sft** Easting: **2352750.467sft**  
Mapping Angle: **1°42'42"** Combination Scale Factor: **0.999933755**

laRCS Zone 14 Northing: **6632778.727sft** Easting: **24595519.839sft**  
Mapping Angle: **0°13'50"** Combination Scale Factor: **1.0000053198**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **126**

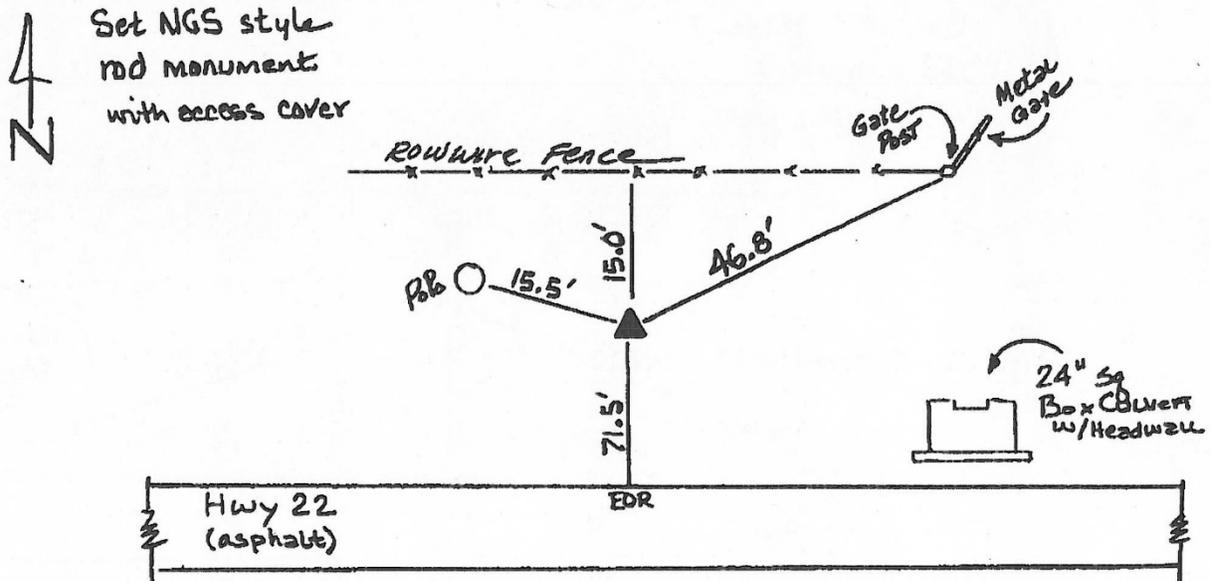
**Designation:** Muscatine Co. GPS Control Pt 2000-126 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'33.41399"** Longitude: **W90°50'39.68276"**  
NAVD 88 Ortho Height: **557.140sft** Ellip. Ht: **449.305sft** **Geoid12A**

Iowa South Zone (1402) Northing: **542778.841sft** Easting: **2368207.981sft**  
Mapping Angle: **1°44'57"** Combination Scale Factor: **0.999937075**

IaRCS Zone 14 Northing: **6640858.425sft** Easting: **24611192.511sft**  
Mapping Angle: **0°16'07"** Combination Scale Factor: **1.0000106893**

**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.



126  
BRS/RKE  
APRIL 2000

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **127**

**Designation:** Muscatine Co. GPS Control Pt 2000-127 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'31.13990"** Longitude: **W90°47'11.53966"**

NAVD 88 Ortho Height: **555.780sft** Ellip. Ht: **447.943sft** **Geoid12A**

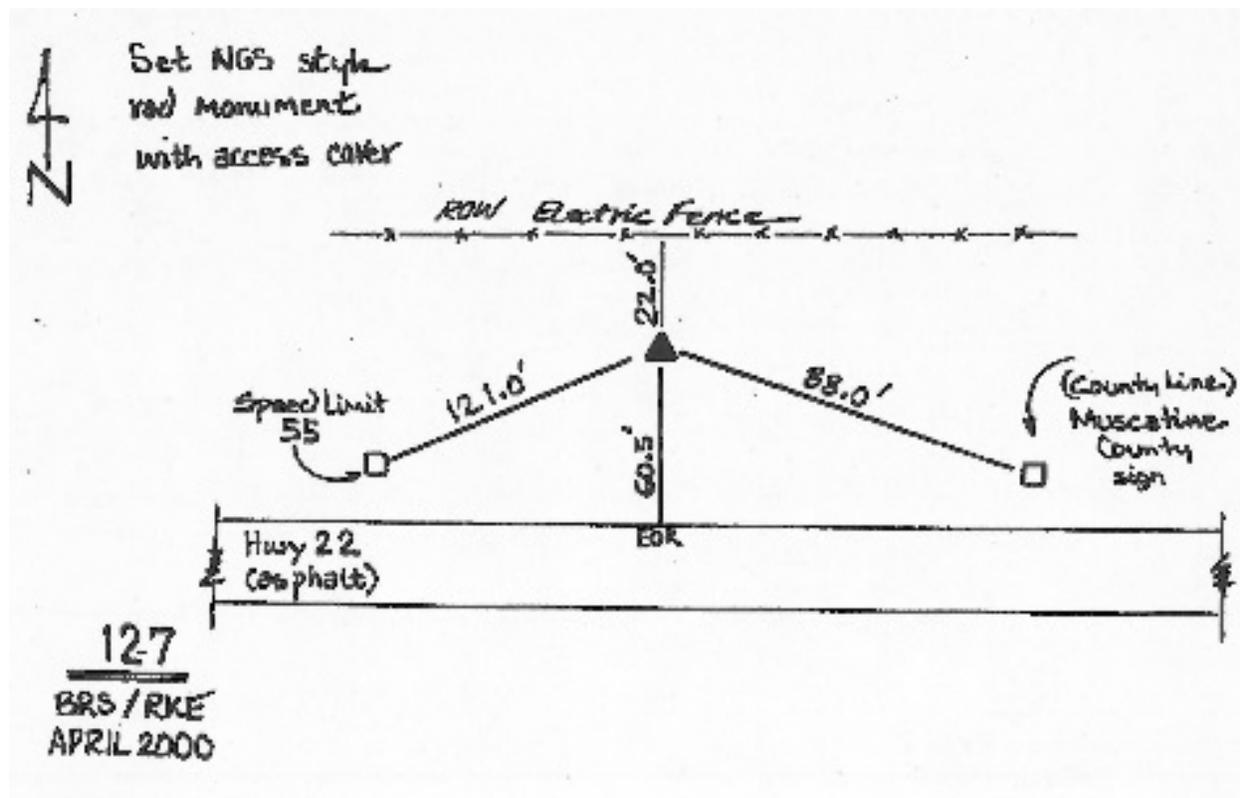
Iowa South Zone (1402) Northing: **543037.814sft** Easting: **2384055.233sft**

Mapping Angle: **1°47'14"** Combination Scale Factor: **0.999937091**

IaRCS Zone 14 Northing: **6640707.830sft** Easting: **24627042.364sft**

Mapping Angle: **0°18'25"** Combination Scale Factor: **1.0000150695**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **128**

**Designation:** Muscatine Co. GPS Control Pt 2000-128 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'08.27850"** Longitude: **W91°07'42.91725"**

NAVD 88 Ortho Height: **723.900sft** Ellip. Ht: **616.013sft** **Geoid12A**

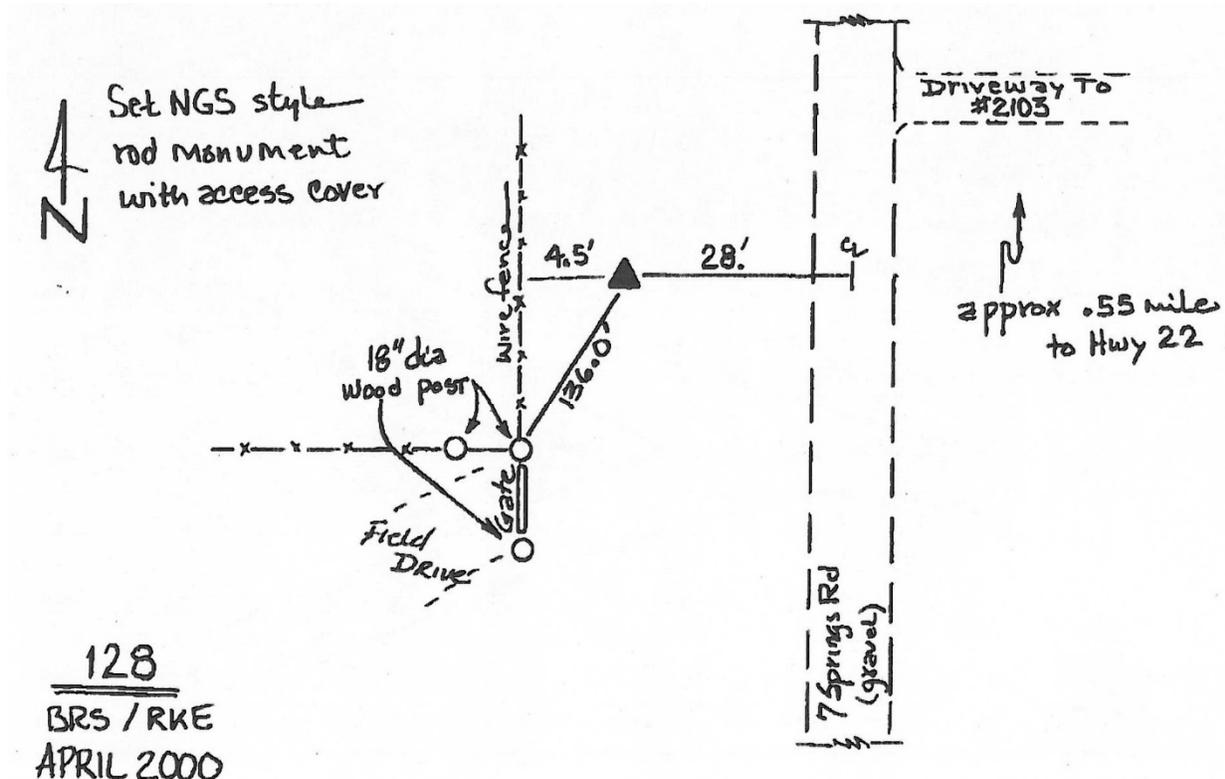
Iowa South Zone (1402) Northing: **531914.379sft** Easting: **2290568.299sft**

Mapping Angle: **1°33'43"** Combination Scale Factor: **0.999927348**

IaRCS Zone 14 Northing: **6632003.928sft** Easting: **24533292.720sft**

Mapping Angle: **0°04'49"** Combination Scale Factor: **0.9999898719**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **129**

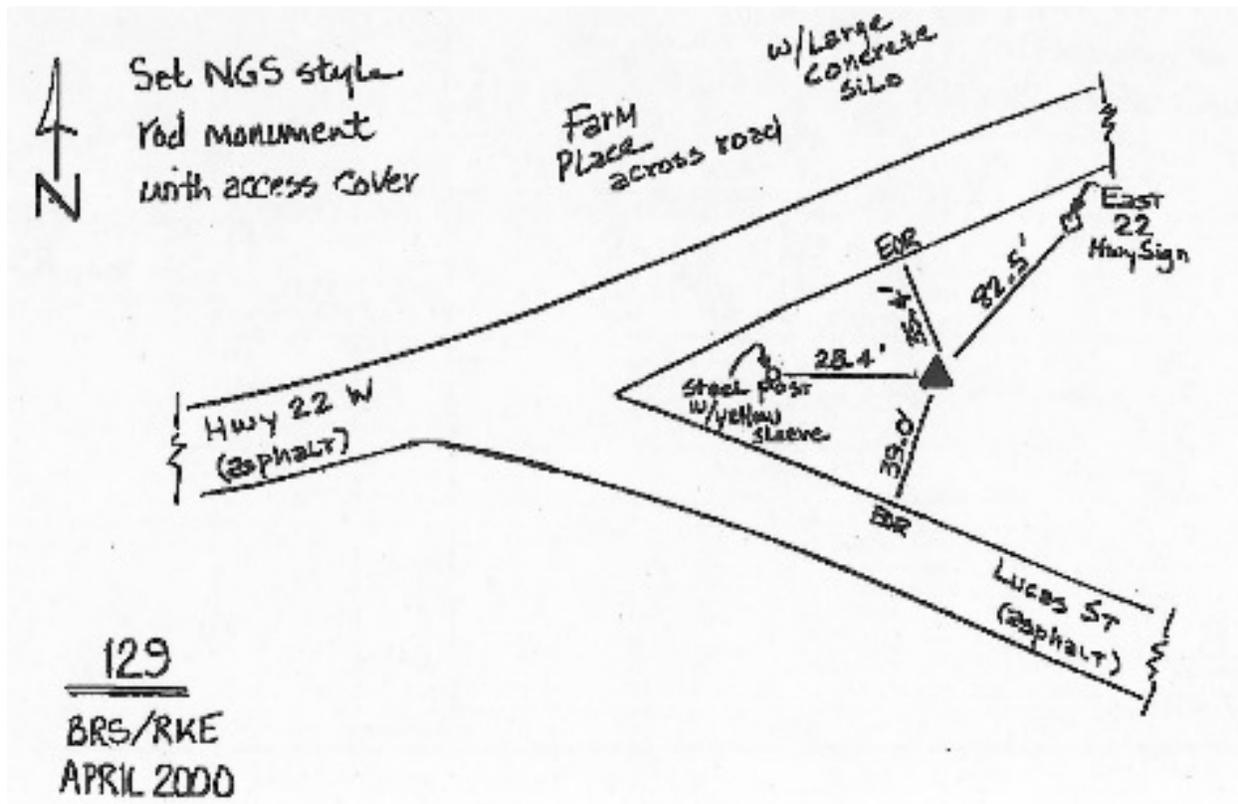
**Designation:** Muscatine Co. GPS Control Pt 2000-129 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'10.55114"** Longitude: **W91°06'25.22057"**  
NAVD 88 Ortho Height: **671.680sft** Ellip. Ht: **563.786sft** **Geoid12A**

Iowa South Zone (1402) Northing: **532306.361sft** Easting: **2296477.568sft**  
Mapping Angle: **1°34'35"** Combination Scale Factor: **0.999929885**

IaRCS Zone 14 Northing: **6632242.996sft** Easting: **24539210.521sft**  
Mapping Angle: **0°05'41"** Combination Scale Factor: **0.9999928544**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **130**

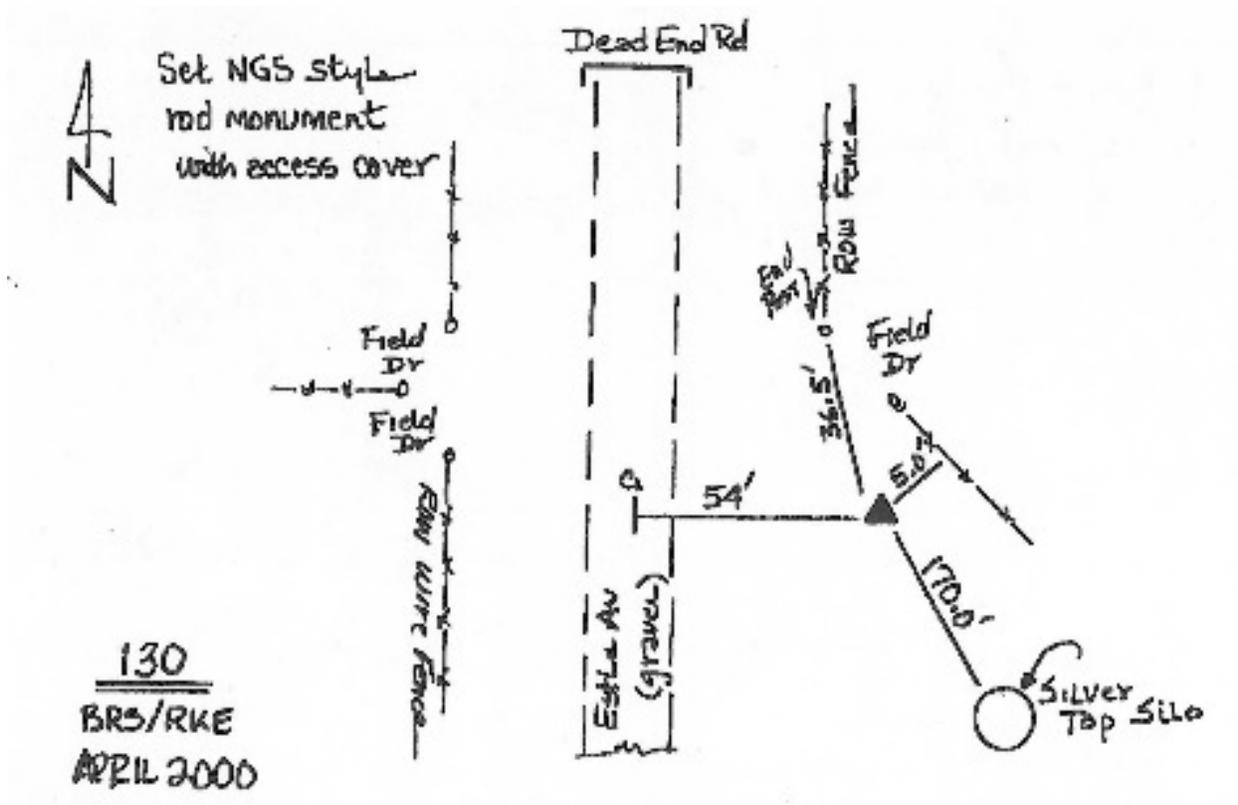
**Designation:** Muscatine Co. GPS Control Pt 2000-130 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°25'21.11454"** Longitude: **W91°15'35.70556"**  
NAVD 88 Ortho Height: **597.520sft** Ellip. Ht: **489.675sft** **Geoid12A**

Iowa South Zone (1402) Northing: **526187.989sft** Easting: **2254693.659sft**  
Mapping Angle: **1°28'32"** Combination Scale Factor: **0.999932468**

IaRCS Zone 14 Northing: **6627206.919sft** Easting: **24497279.751sft**  
Mapping Angle: **-0°00'24"** Combination Scale Factor: **0.9999946421**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **131**

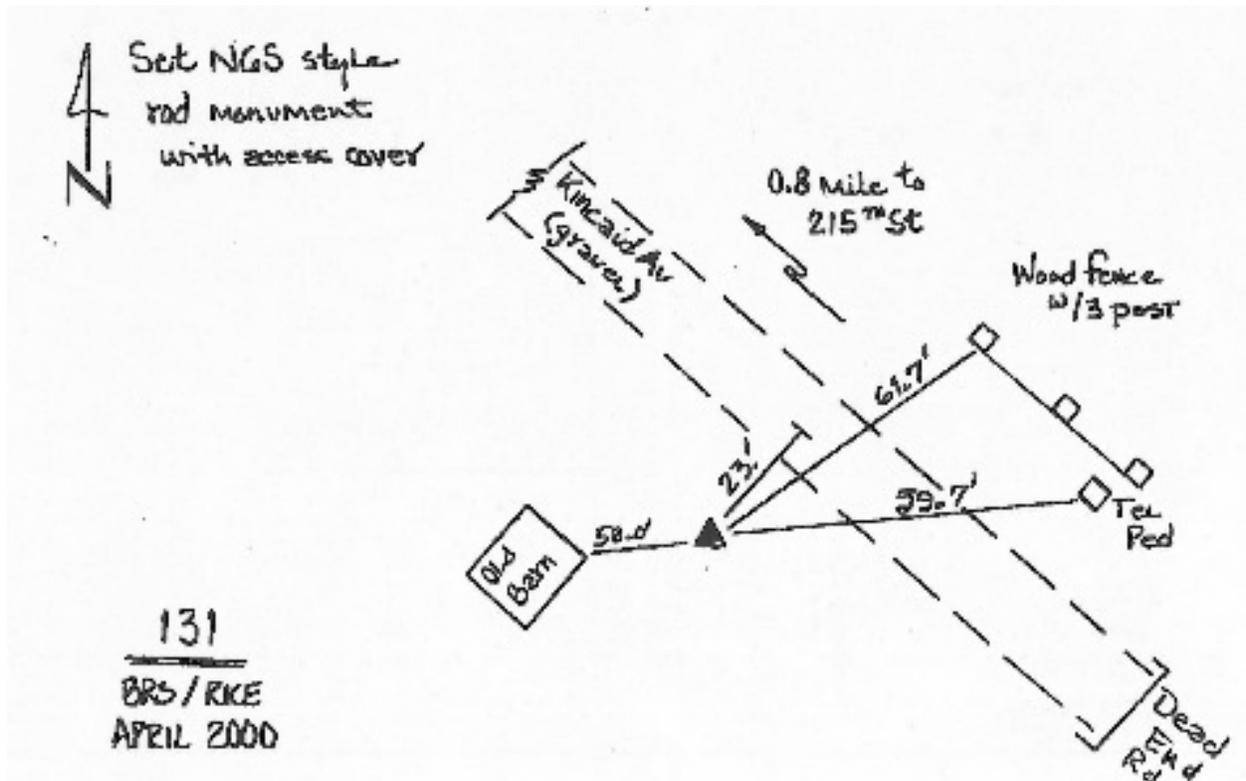
**Designation:** Muscatine Co. GPS Control Pt 2000-131 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°25'13.94675"** Longitude: **W91°07'59.45067"**  
NAVD 88 Ortho Height: **606.930sft** Ellip. Ht: **498.991sft** **Geoid12A**

Iowa South Zone (1402) Northing: **526383.135sft** Easting: **2289459.097sft**  
Mapping Angle: **1°33'32"** Combination Scale Factor: **0.999931889**

IaRCS Zone 14 Northing: **6626502.868sft** Easting: **24532040.783sft**  
Mapping Angle: **0°04'38"** Combination Scale Factor: **0.9999953623**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **132**

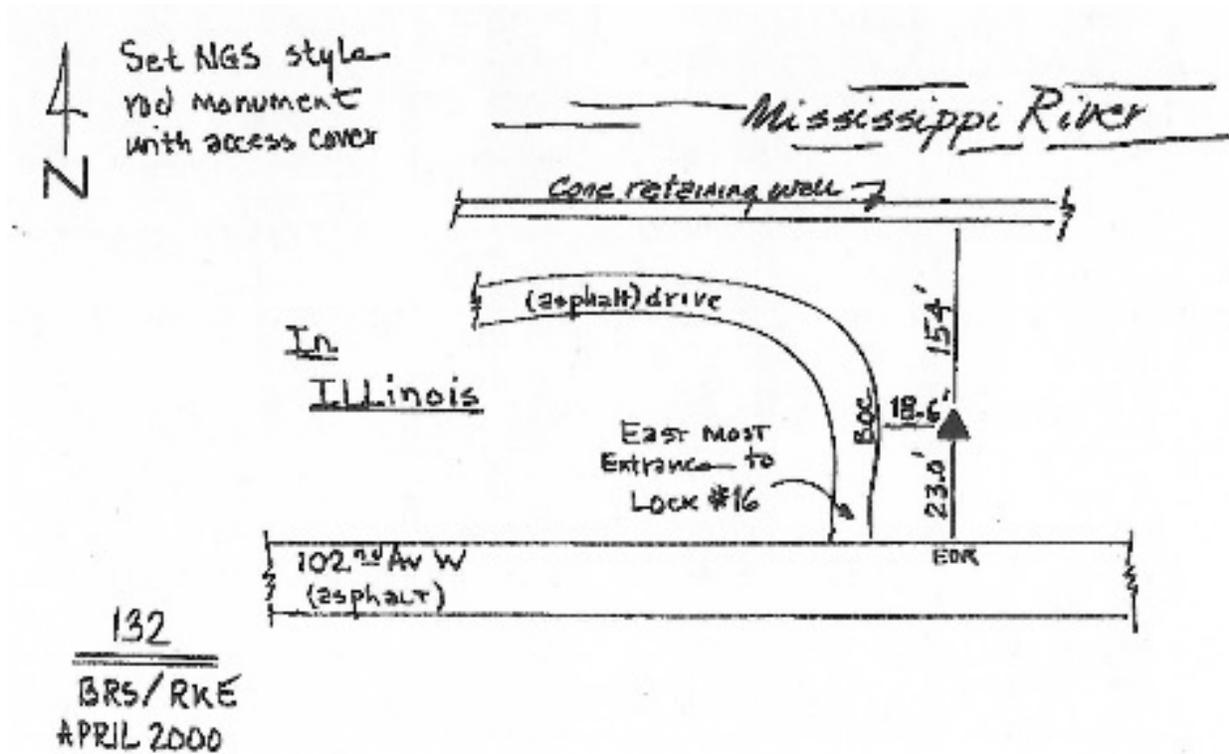
**Designation:** Muscatine Co. GPS Control Pt 2000-132 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°25'29.67883"** Longitude: **W91°00'29.69579"**  
NAVD 88 Ortho Height: **558.530sft** Ellip. Ht: **450.587sft** **Geoid12A**

Iowa South Zone (1402) Northing: **528931.547sft** Easting: **2323663.882sft**  
Mapping Angle: **1°38'29"** Combination Scale Factor: **0.999934494**

IaRCS Zone 14 Northing: **6628166.166sft** Easting: **24566302.252sft**  
Mapping Angle: **0°09'36"** Combination Scale Factor: **1.0000015225**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **133**

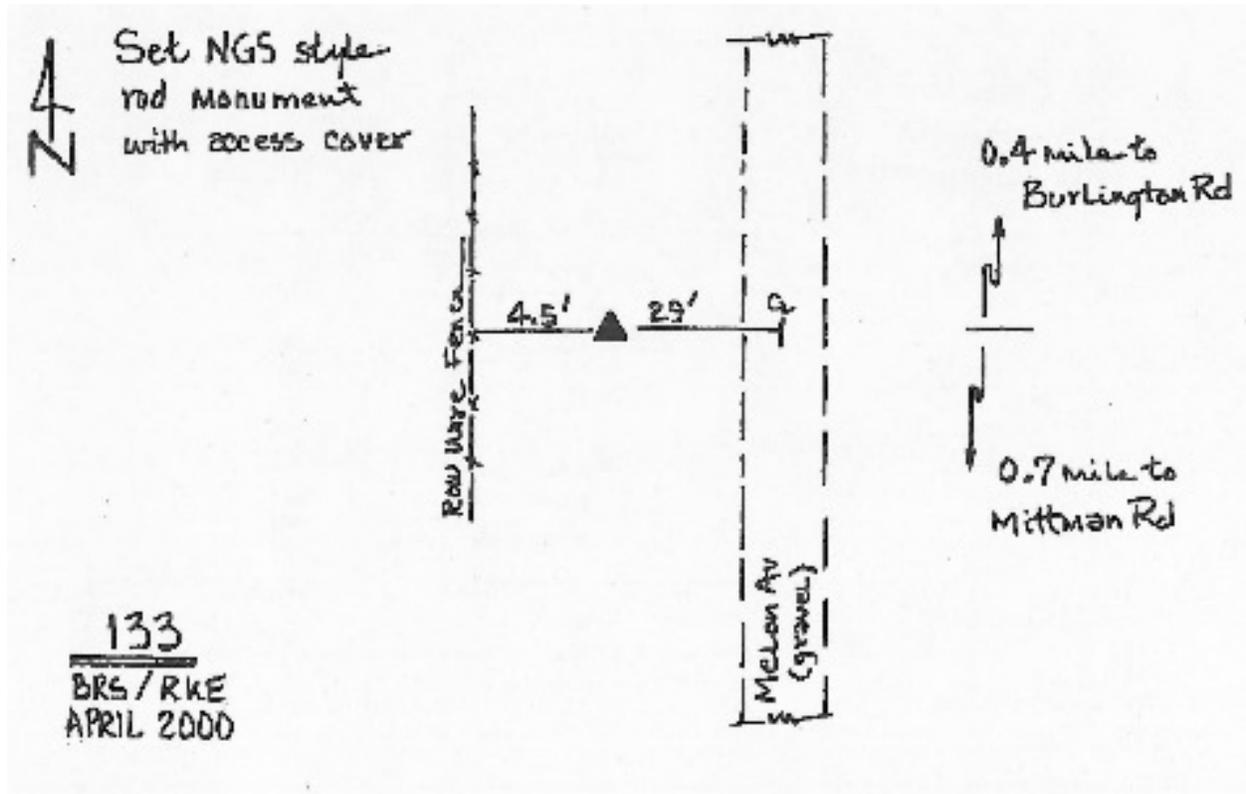
**Designation:** Muscatine Co. GPS Control Pt 2000-133 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°24'24.92260"** Longitude: **W91°08'16.35216"**  
NAVD 88 Ortho Height: **534.860sft** Ellip. Ht: **426.868sft** **Geoid12A**

Iowa South Zone (1402) Northing: **521388.188sft** Easting: **2288306.690sft**  
Mapping Angle: **1°33'21"** Combination Scale Factor: **0.999934450**

IaRCS Zone 14 Northing: **6621539.074sft** Easting: **24530759.517sft**  
Mapping Angle: **0°04'27"** Combination Scale Factor: **0.9999987119**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **134**

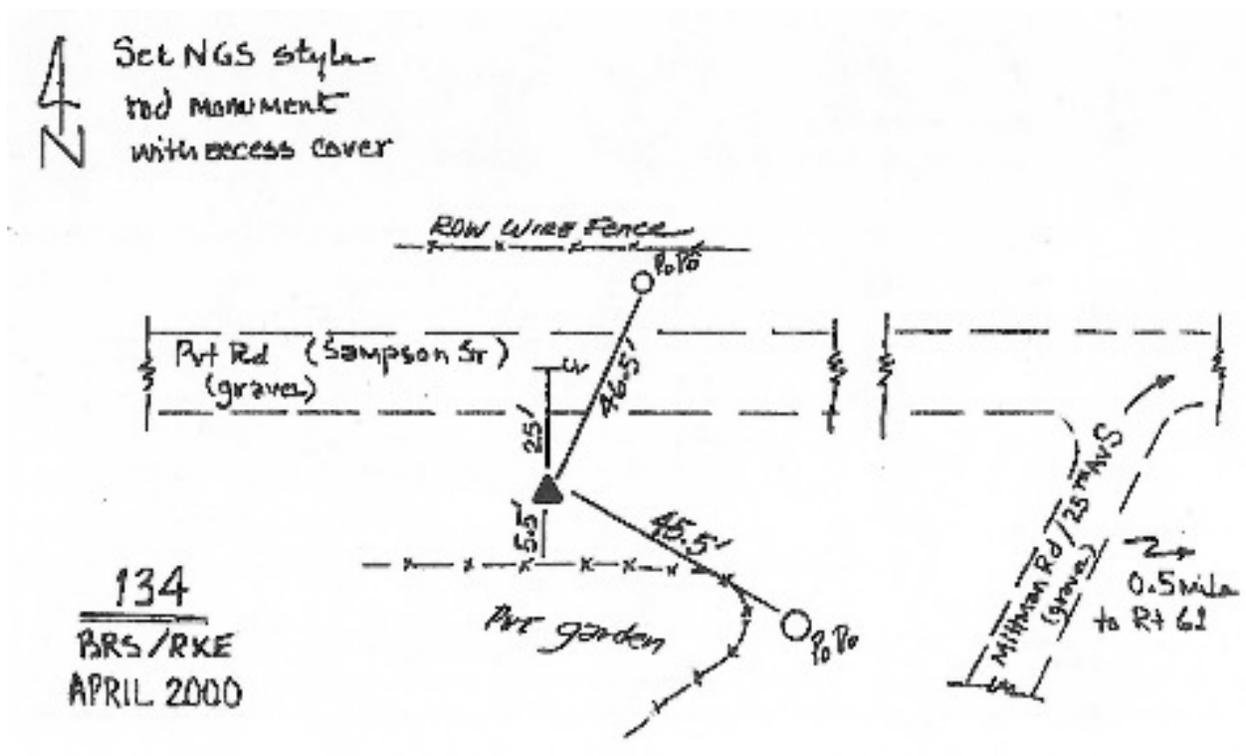
**Designation:** Muscatine Co. GPS Control Pt 2000-134 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°23'58.88197"** Longitude: **W91°05'54.37075"**  
NAVD 88 Ortho Height: **543.060sft** Ellip. Ht: **435.023sft** **Geoid12A**

Iowa South Zone (1402) Northing: **519049.817sft** Easting: **2299194.237sft**  
Mapping Angle: **1°34'55"** Combination Scale Factor: **0.999933616**

IaRCS Zone 14 Northing: **6618919.783sft** Easting: **24541583.661sft**  
Mapping Angle: **0°06'01"** Combination Scale Factor: **0.9999992176**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **135**

**Designation:** Muscatine Co. GPS Control Pt 2000-135 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°24'04.66686"** Longitude: **W91°22'06.71269"**

NAVD 88 Ortho Height: **612.940sft** Ellip. Ht: **505.135sft** **Geoid12A**

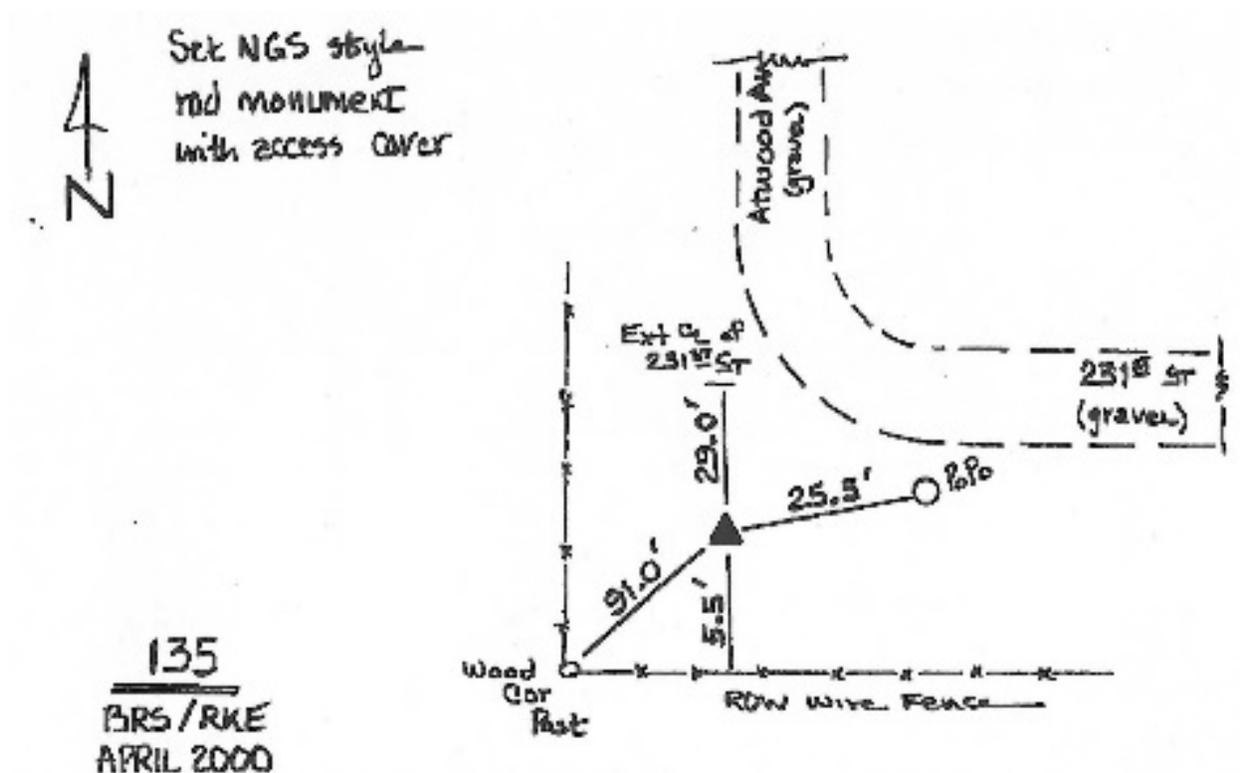
Iowa South Zone (1402) Northing: **517704.537sft** Easting: **2225105.385sft**

Mapping Angle: **1°24'14"** Combination Scale Factor: **0.999930368**

IaRCS Zone 14 Northing: **6619491.186sft** Easting: **24467480.047sft**

Mapping Angle: **-0°04'42"** Combination Scale Factor: **0.9999951045**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **136**

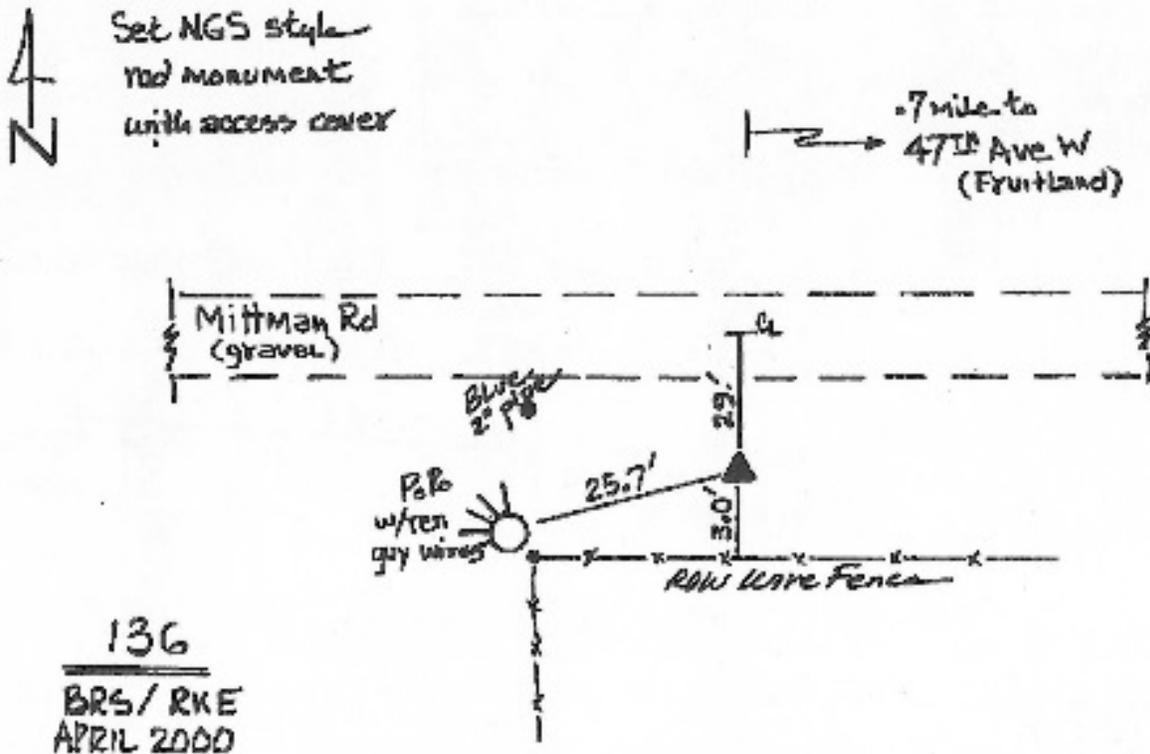
**Designation:** Muscatine Co. GPS Control Pt 2000-136 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°23'33.05669"** Longitude: **W91°07'07.12154"**  
NAVD 88 Ortho Height: **538.390sft** Ellip. Ht: **430.338sft** **Geoid12A**

Iowa South Zone (1402) Northing: **516284.599sft** Easting: **2293723.730sft**  
Mapping Angle: **1°34'07"** Combination Scale Factor: **0.999933414**

IaRCS Zone 14 Northing: **6616296.773sft** Easting: **24536043.117sft**  
Mapping Angle: **0°05'13"** Combination Scale Factor: **0.9999989496**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **137**

**Designation:** Muscatine Co. GPS Control Pt 2000-137 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°22'41.42575"** Longitude: **W91°09'28.56984"**

NAVD 88 Ortho Height: **535.190sft** Ellip. Ht: **427.125sft** **Geoid12A**

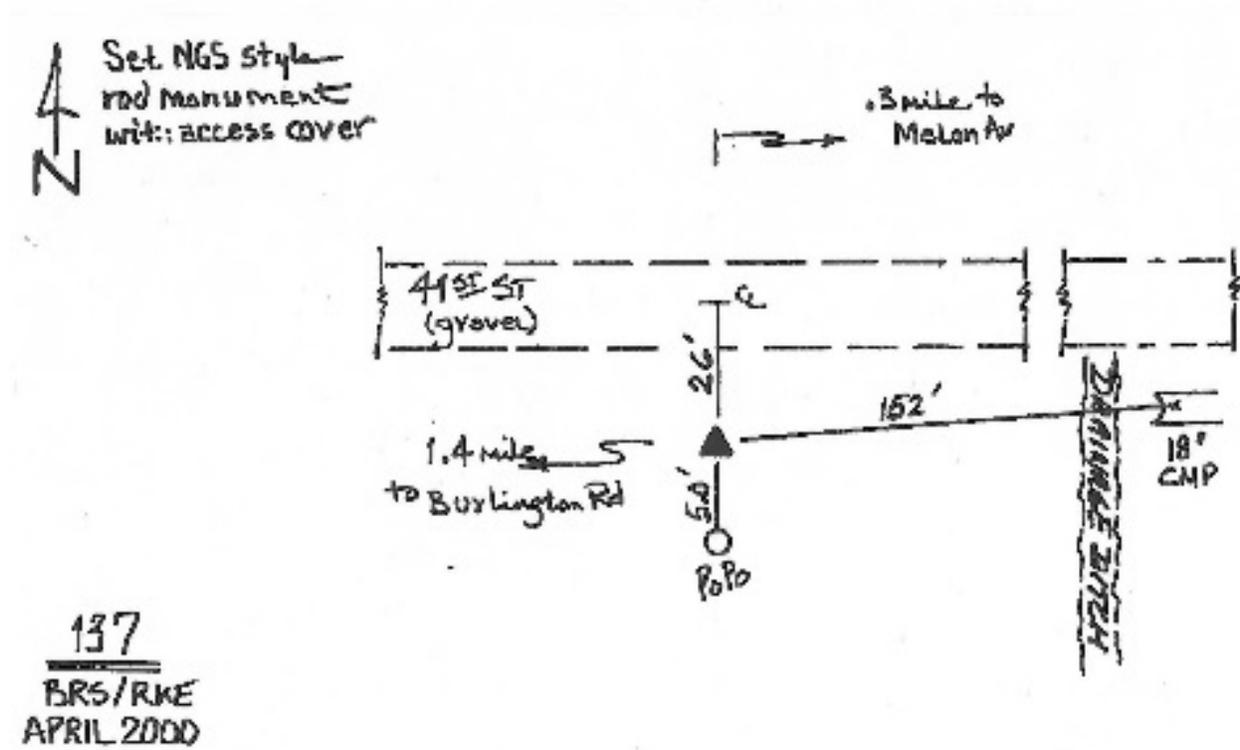
Iowa South Zone (1402) Northing: **510768.240sft** Easting: **2283087.795sft**

Mapping Angle: **1°32'34"** Combination Scale Factor: **0.999932763**

IaRCS Zone 14 Northing: **6611056.956sft** Easting: **24525267.381sft**

Mapping Angle: **0°03'39"** Combination Scale Factor: **0.9999983479**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **138**

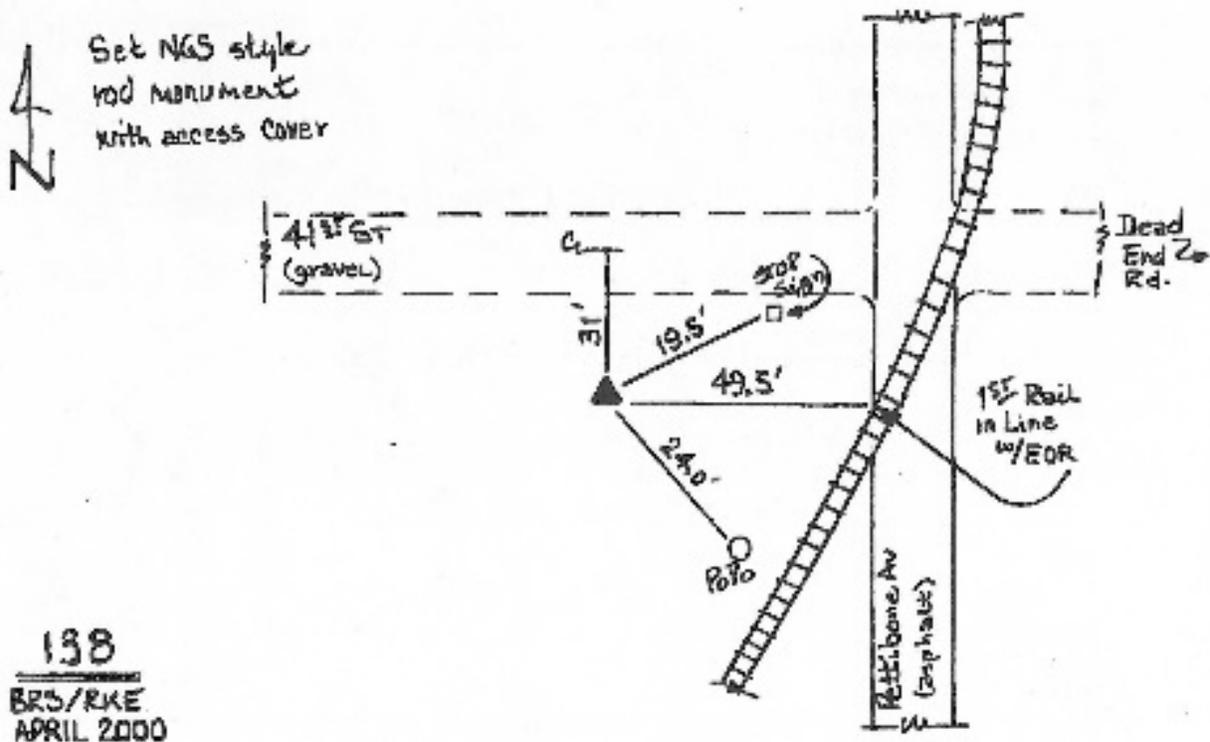
**Designation:** Muscatine Co. GPS Control Pt 2000-138 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°22'38.96213"** Longitude: **W91°04'33.73626"**  
NAVD 88 Ortho Height: **545.500sft** Ellip. Ht: **437.404sft** **Geoid12A**

Iowa South Zone (1402) Northing: **511134.673sft** Easting: **2305562.201sft**  
Mapping Angle: **1°35'48"** Combination Scale Factor: **0.999932236**

IaRCS Zone 14 Northing: **6610842.090sft** Easting: **24547745.241sft**  
Mapping Angle: **0°06'54"** Combination Scale Factor: **0.9999997330**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **139**

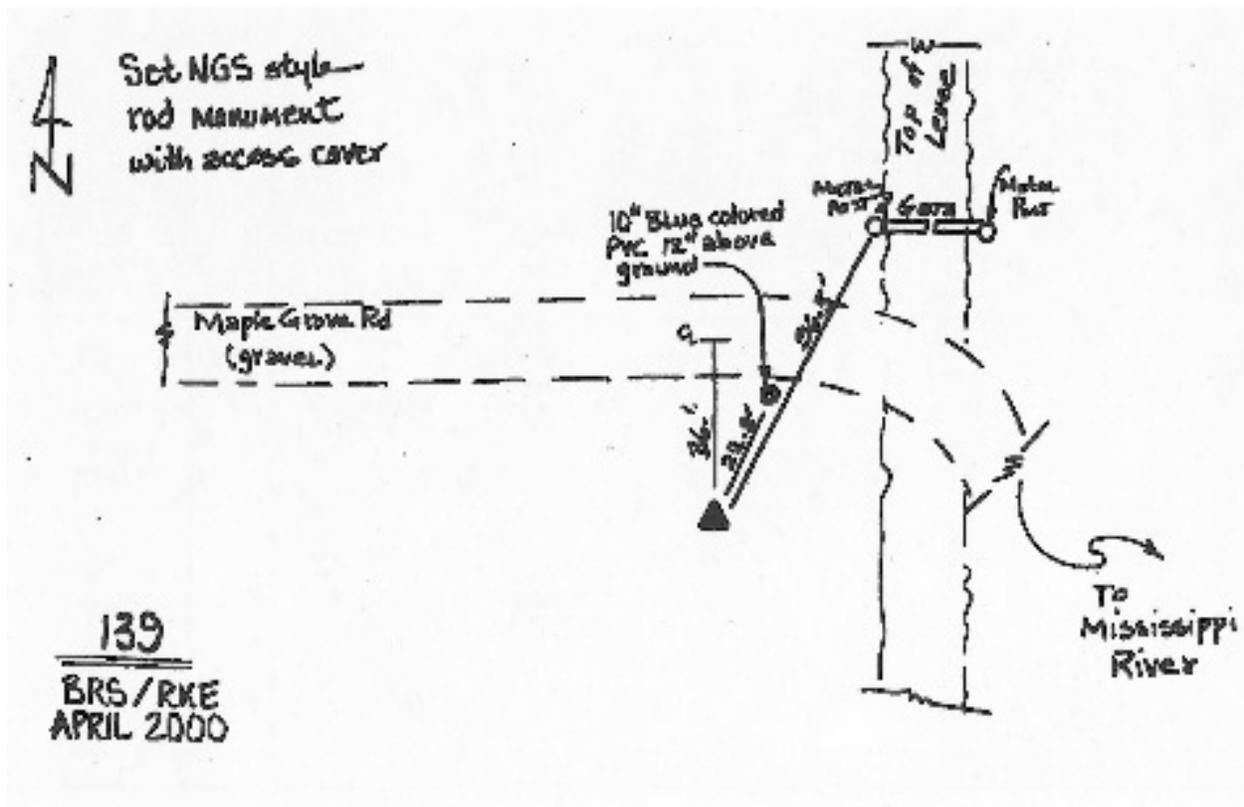
**Designation:** Muscatine Co. GPS Control Pt 2000-139 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°22'38.26000"** Longitude: **W91°03'44.34643"**  
NAVD 88 Ortho Height: **551.530sft** Ellip. Ht: **443.439sft** **Geoid12A**

Iowa South Zone (1402) Northing: **511168.846sft** Easting: **2309327.870sft**  
Mapping Angle: **1°36'21"** Combination Scale Factor: **0.999931937**

IaRCS Zone 14 Northing: **6610778.878sft** Easting: **24551510.790sft**  
Mapping Angle: **0°07'27"** Combination Scale Factor: **0.9999998721**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **140**

**Designation:** Muscatine Co. GPS Control Pt 2000-140 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°21'54.50515"** Longitude: **W91°22'09.59697"**

NAVD 88 Ortho Height: **597.960sft** Ellip. Ht: **490.071sft** **Geoid12A**

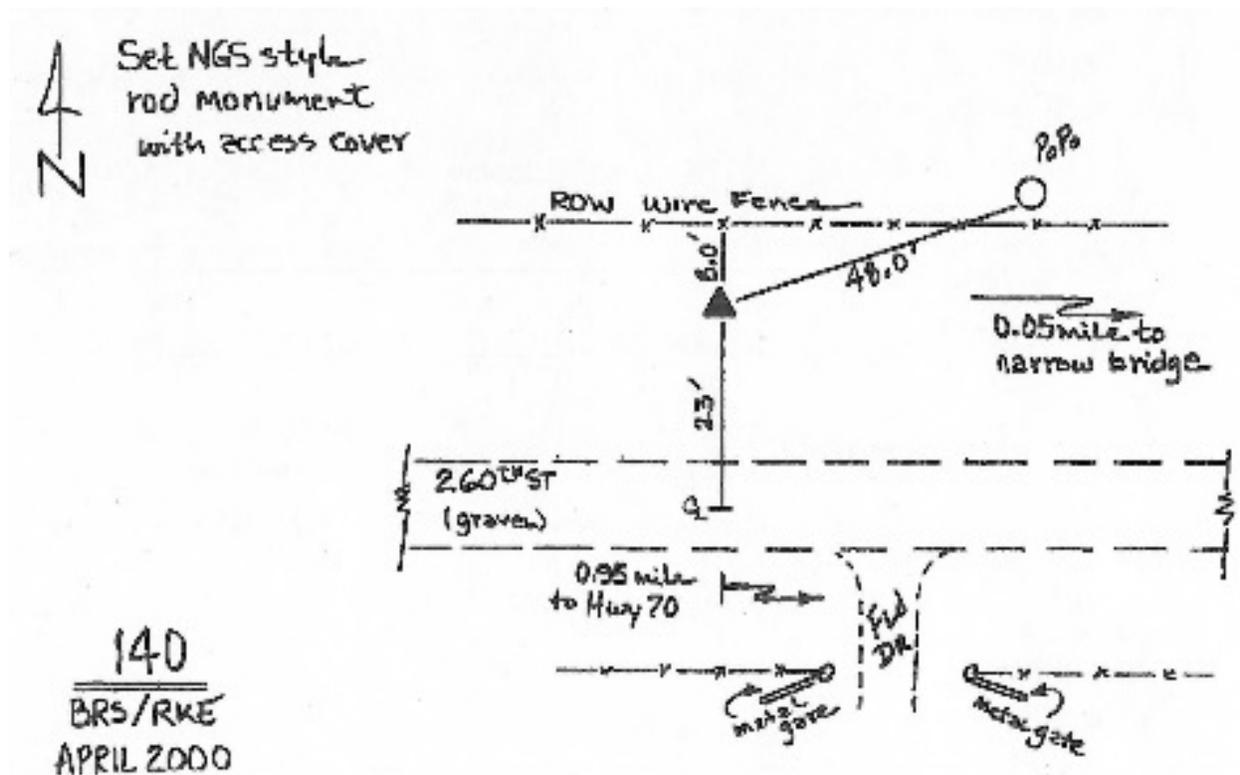
Iowa South Zone (1402) Northing: **504529.411sft** Easting: **2225208.313sft**

Mapping Angle: **1°24'13"** Combination Scale Factor: **0.999929083**

IaRCS Zone 14 Northing: **6606316.940sft** Easting: **24467242.095sft**

Mapping Angle: **-0°04'44"** Combination Scale Factor: **0.9999958410**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **141**

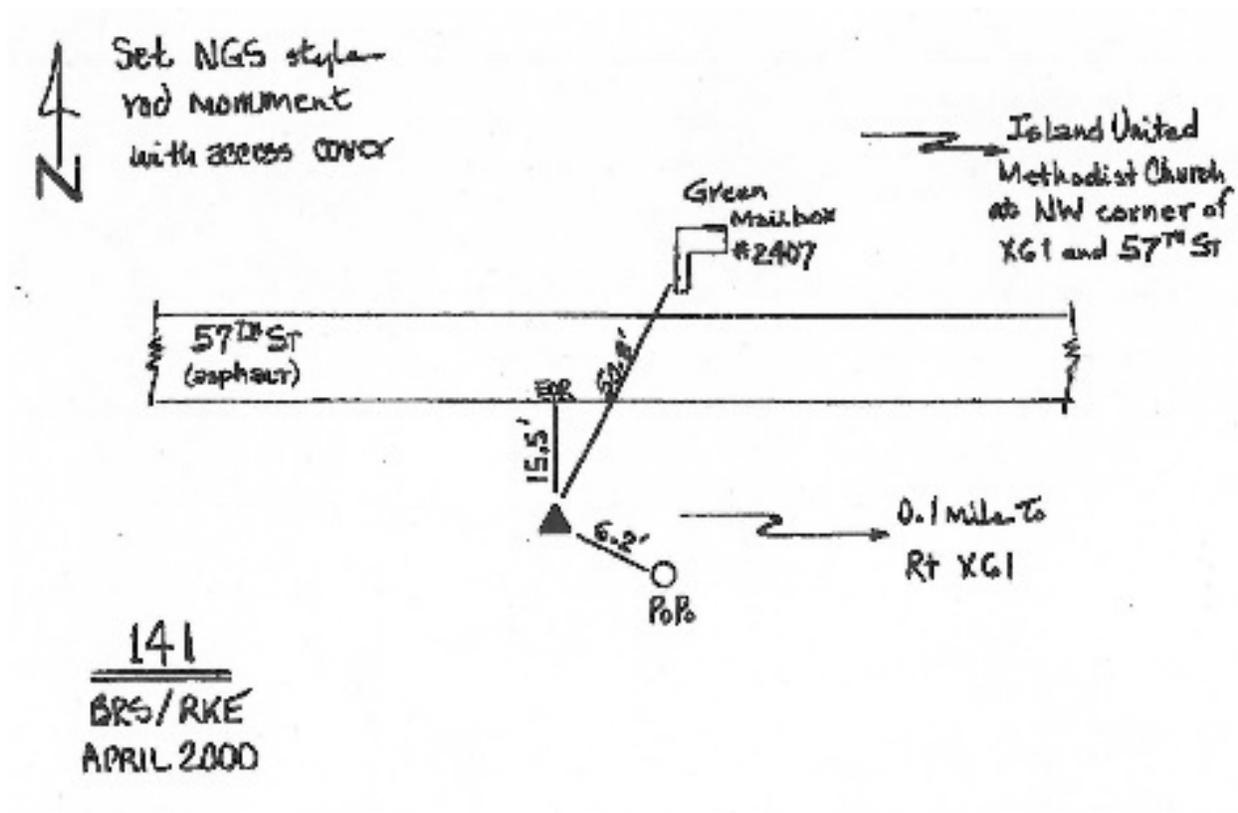
**Designation:** Muscatine Co. GPS Control Pt 2000-141 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°21'47.05887"** Longitude: **W91°05'51.66418"**  
NAVD 88 Ortho Height: **543.990sft** Ellip. Ht: **435.858sft** **Geoid12A**

Iowa South Zone (1402) Northing: **505718.763sft** Easting: **2299768.850sft**  
Mapping Angle: **1°34'57"** Combination Scale Factor: **0.999931567**

IaRCS Zone 14 Northing: **6605577.439sft** Easting: **24541813.383sft**  
Mapping Angle: **0°06'02"** Combination Scale Factor: **0.9999991996**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **142**

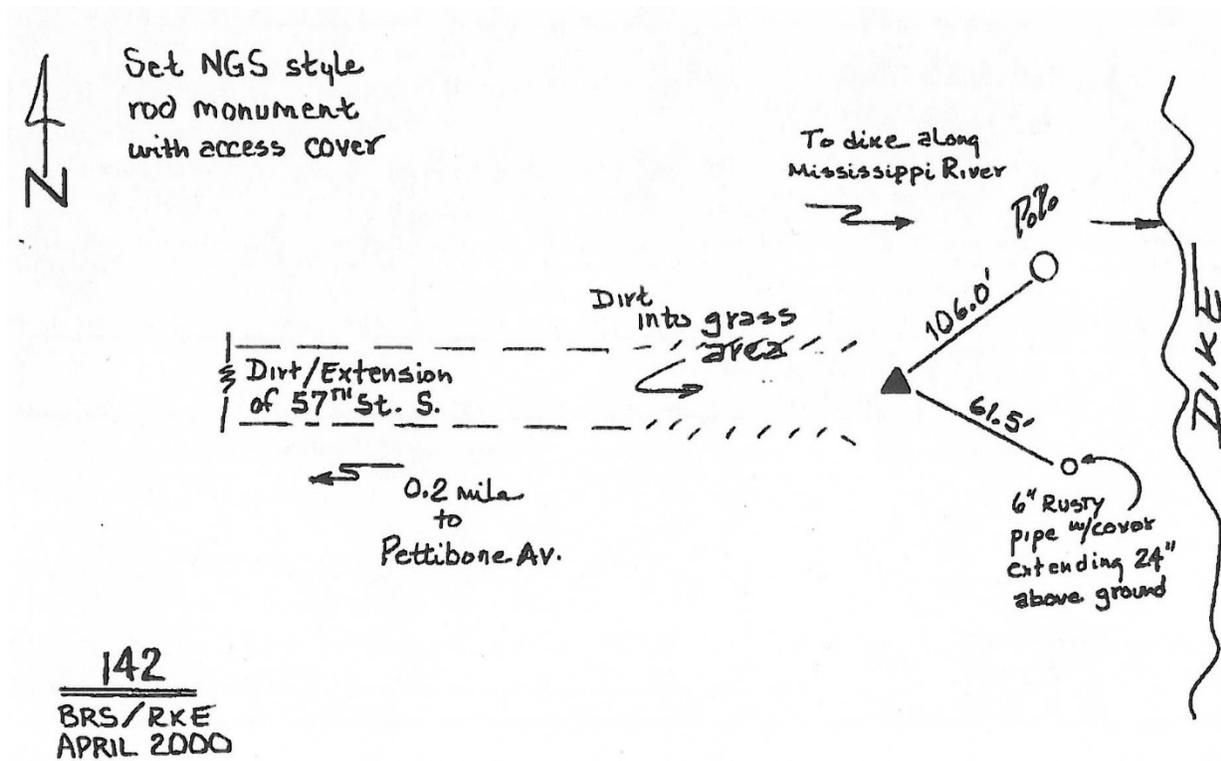
**Designation:** Muscatine Co. GPS Control Pt 2000-142 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°21'46.59573"** Longitude: **W91°04'20.02434"**  
NAVD 88 Ortho Height: **541.590sft** Ellip. Ht: **433.463sft** **Geoid12A**

Iowa South Zone (1402) Northing: **505865.888sft** Easting: **2306755.008sft**  
Mapping Angle: **1°35'57"** Combination Scale Factor: **0.999931675**

IaRCS Zone 14 Northing: **6605543.863sft** Easting: **24548801.484sft**  
Mapping Angle: **0°07'03"** Combination Scale Factor: **1.0000000376**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **143**

**Designation:** Muscatine Co. GPS Control Pt 2000-143 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°21'21.35021"** Longitude: **W91°07'05.59871"**

NAVD 88 Ortho Height: **548.920sft** Ellip. Ht: **440.777sft** **Geoid12A**

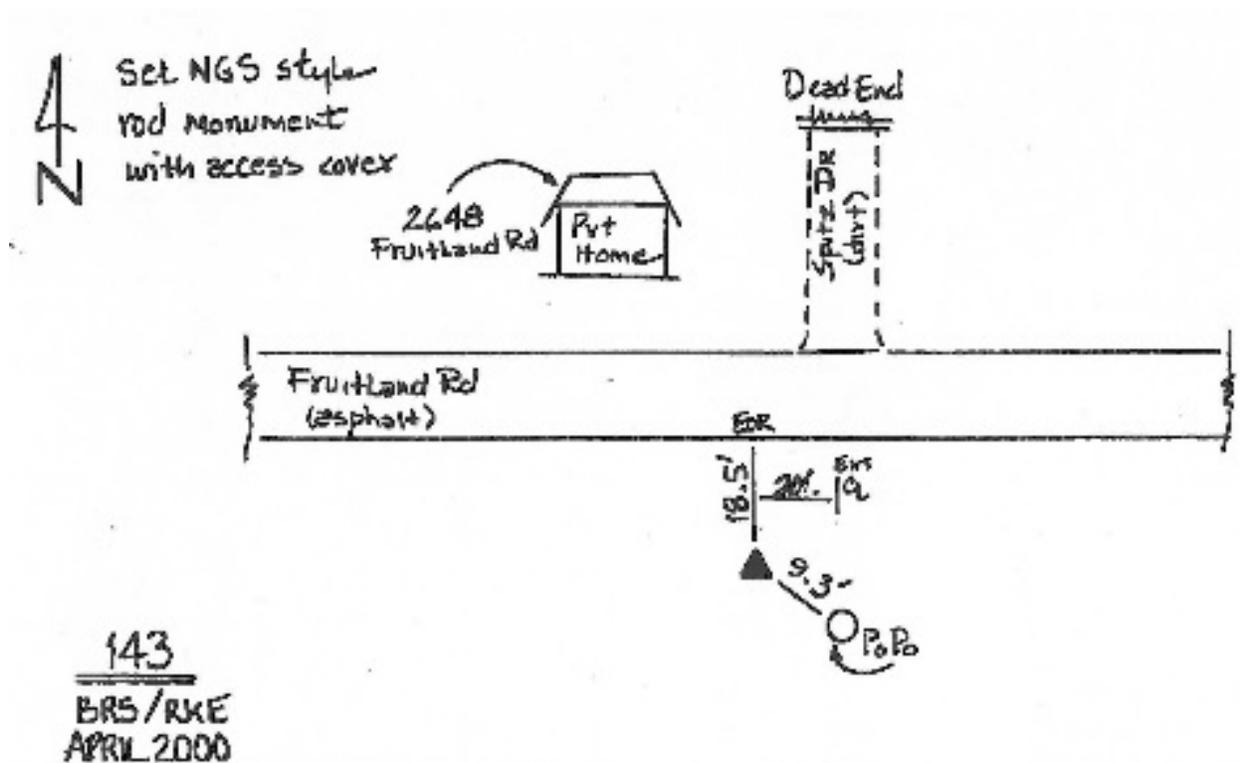
Iowa South Zone (1402) Northing: **502962.761sft** Easting: **2294204.708sft**

Mapping Angle: **1°34'08"** Combination Scale Factor: **0.999930988**

IaRCS Zone 14 Northing: **6602966.066sft** Easting: **24536179.453sft**

Mapping Angle: **0°05'13"** Combination Scale Factor: **0.9999984627**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **144**

**Designation:** Muscatine Co. GPS Control Pt 2000-144 (Set by ASI in 2000)

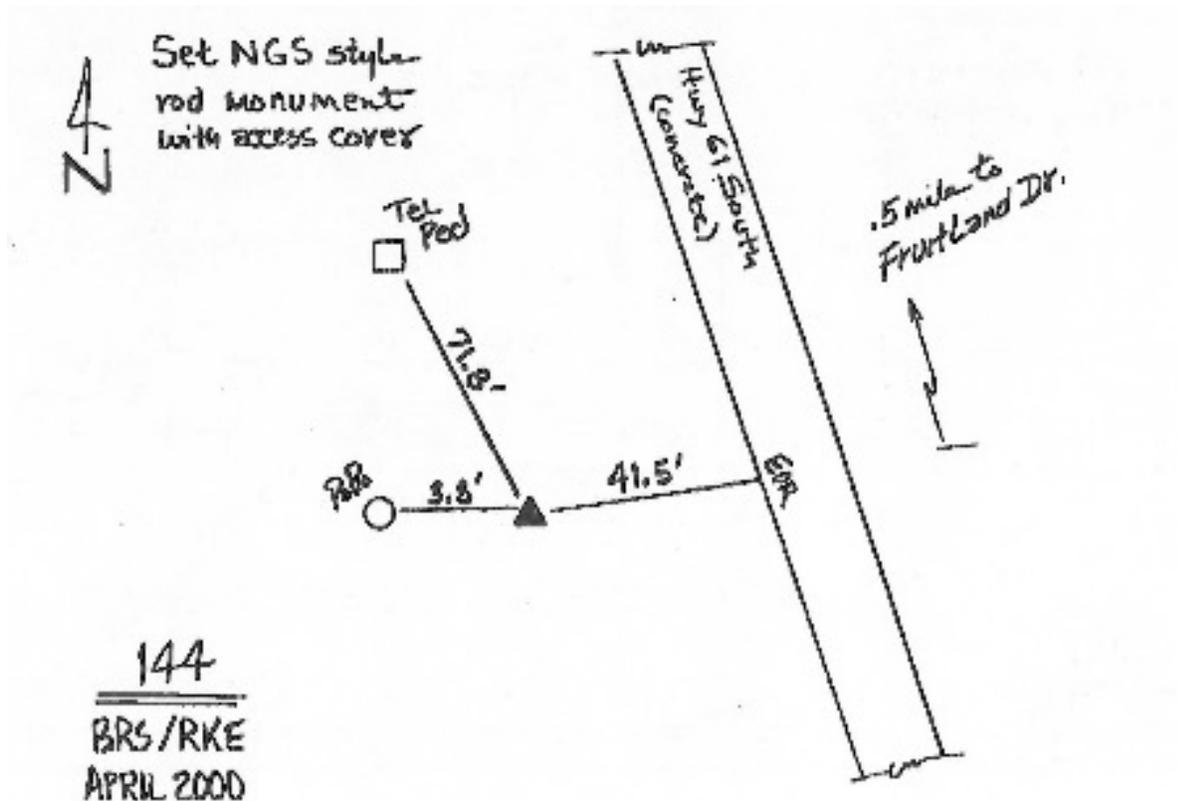
NAD 83(NA2011) Latitude: **N41°21'02.64319"** Longitude: **W91°09'39.20060"**

NAVD 88 Ortho Height: **535.730sft** Ellip. Ht: **427.602sft** **Geoid12A**

Iowa South Zone (1402) Northing: **500752.291sft** Easting: **2282546.503sft**  
Mapping Angle: **1°32'27"** Combination Scale Factor: **0.999931376**

IaRCS Zone 14 Northing: **6601057.692sft** Easting: **24524467.196sft**  
Mapping Angle: **0°03'32"** Combination Scale Factor: **0.9999982796**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **145**

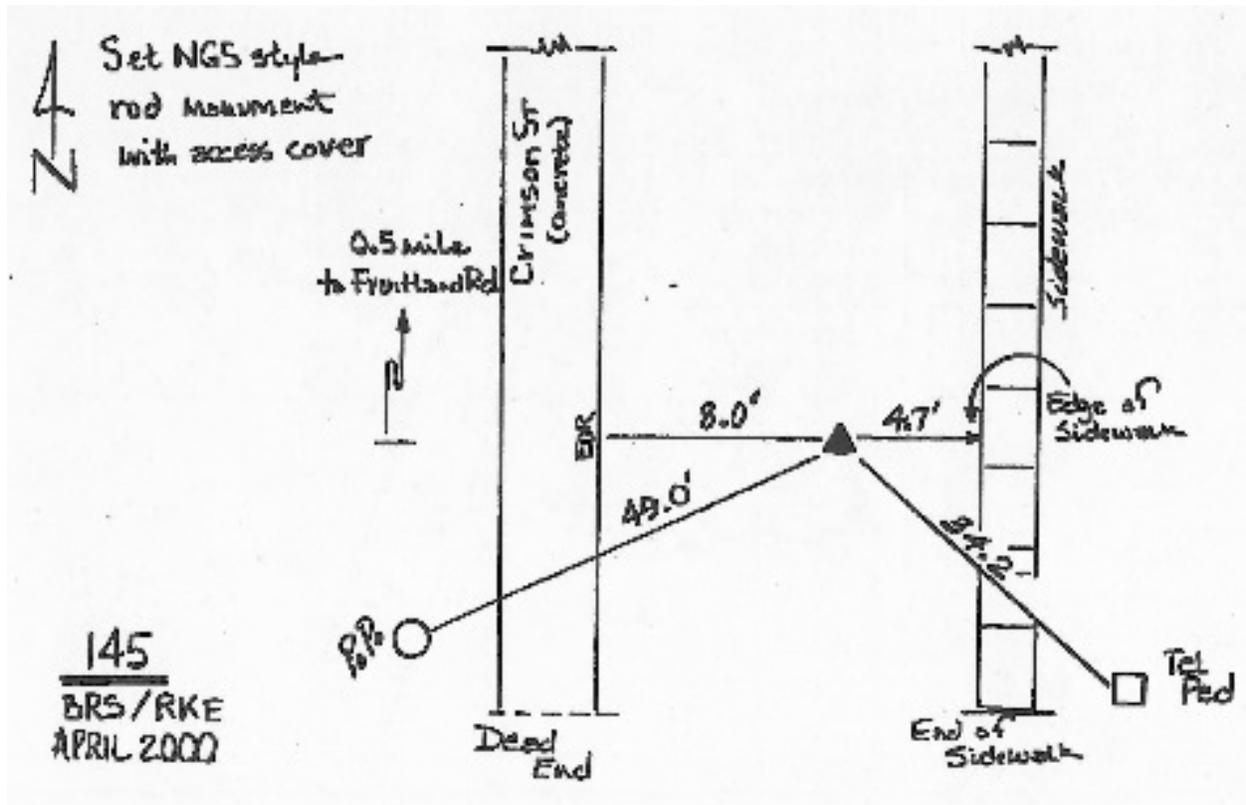
**Designation:** Muscatine Co. GPS Control Pt 2000-145 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°20'56.30089"** Longitude: **W91°08'18.05963"**  
NAVD 88 Ortho Height: **546.080sft** Ellip. Ht: **437.932sft** **Geoid12A**

Iowa South Zone (1402) Northing: **500277.817sft** Easting: **2288749.837sft**  
Mapping Angle: **1°33'20"** Combination Scale Factor: **0.999930804**

IaRCS Zone 14 Northing: **6600422.911sft** Easting: **24530656.601sft**  
Mapping Angle: **0°04'26"** Combination Scale Factor: **0.9999981766**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **146**

**Designation:** Muscatine Co. GPS Control Pt 2000-146 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°20'21.89766"** Longitude: **W91°22'10.98096"**

NAVD 88 Ortho Height: **604.370sft** Ellip. Ht: **496.431sft** **Geoid12A**

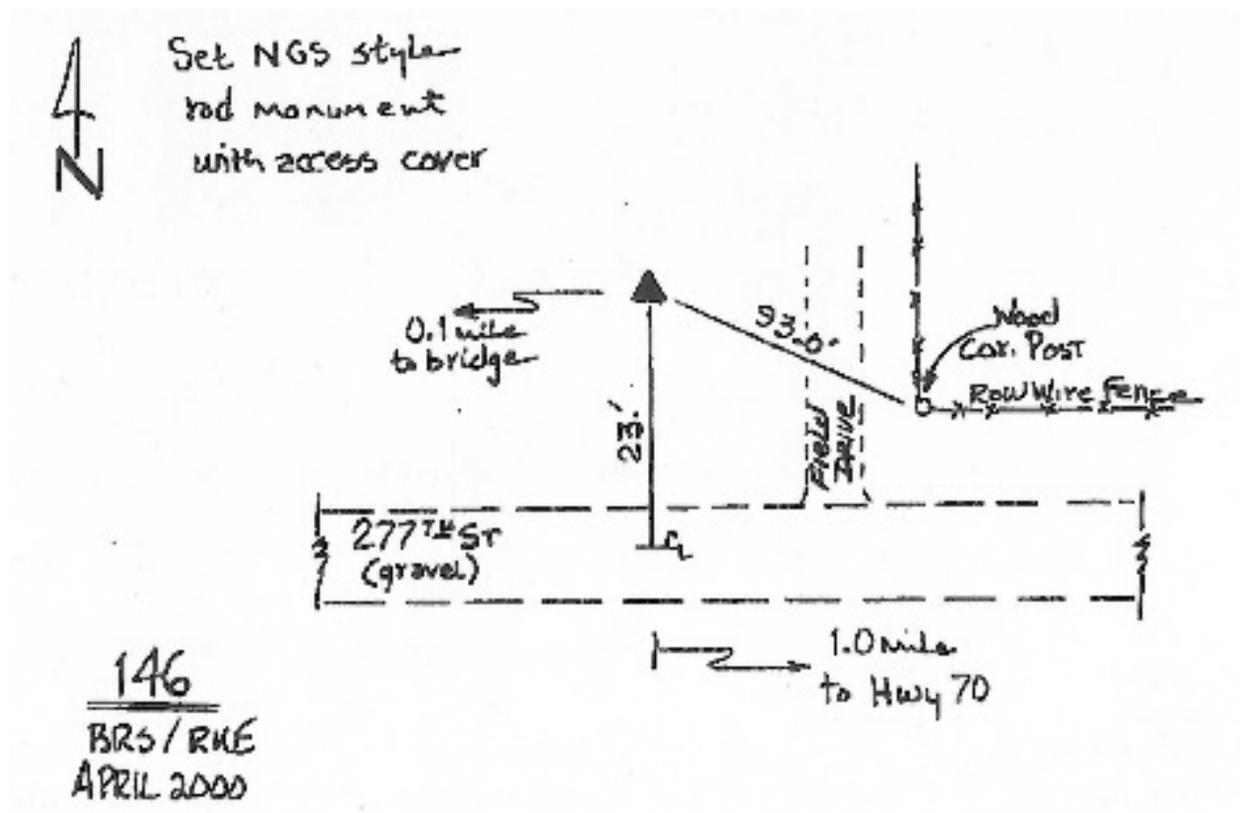
Iowa South Zone (1402) Northing: **495156.880sft** Easting: **2225332.342sft**

Mapping Angle: **1°24'12"** Combination Scale Factor: **0.999927596**

IaRCS Zone 14 Northing: **6596943.706sft** Easting: **24467123.622sft**

Mapping Angle: **-0°04'45"** Combination Scale Factor: **0.9999955464**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **147**

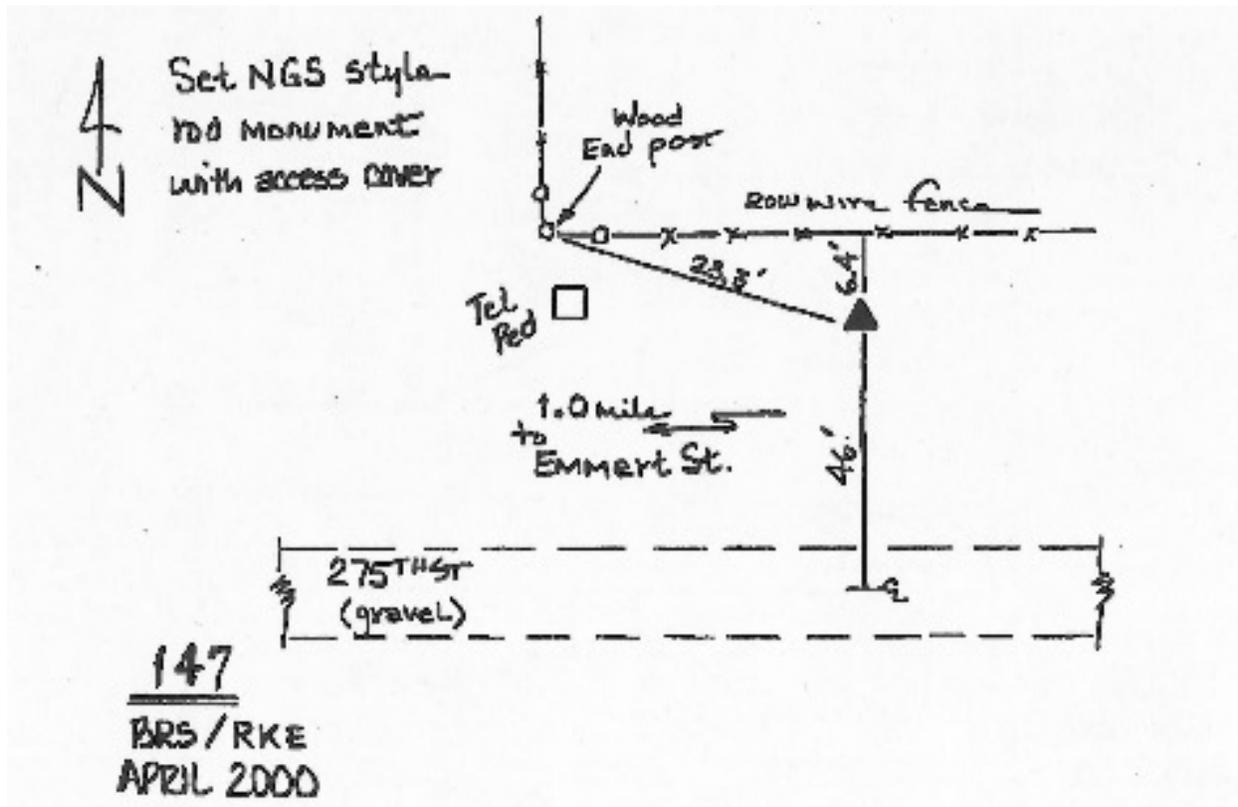
**Designation:** Muscatine Co. GPS Control Pt 2000-147 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°20'34.58123"** Longitude: **W91°15'13.67642"**  
NAVD 88 Ortho Height: **685.380sft** Ellip. Ht: **577.347sft** **Geoid12A**

Iowa South Zone (1402) Northing: **497240.839sft** Easting: **2257120.099sft**  
Mapping Angle: **1°28'46"** Combination Scale Factor: **0.999923886**

IaRCS Zone 14 Northing: **6598204.823sft** Easting: **24498956.782sft**  
Mapping Angle: **-0°00'09"** Combination Scale Factor: **0.9999904513**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **148**

**Designation:** Muscatine Co. GPS Control Pt 2000-148 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°20'17.13021"** Longitude: **W91°08'07.44178"**

NAVD 88 Ortho Height: **545.870sft** Ellip. Ht: **437.698sft** **Geoid12A**

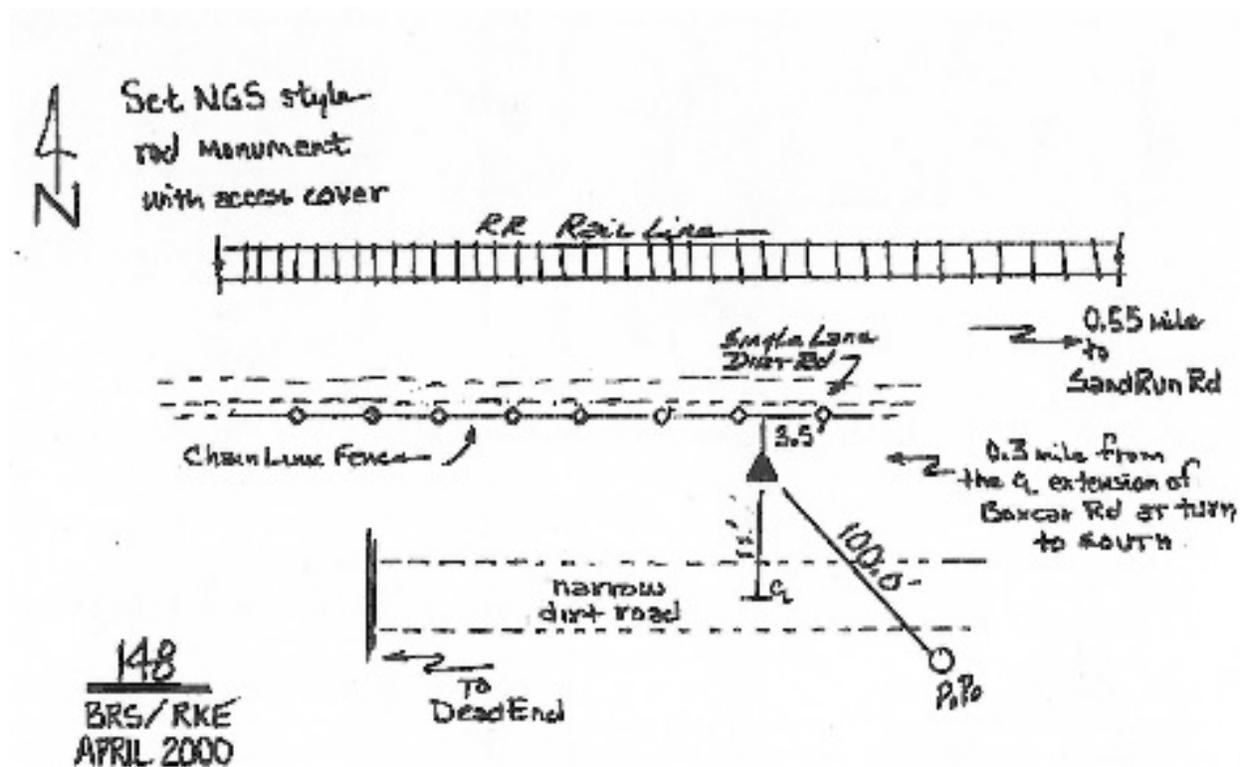
Iowa South Zone (1402) Northing: **496336.843sft** Easting: **2289667.082sft**

Mapping Angle: **1°33'27"** Combination Scale Factor: **0.999930343**

IaRCS Zone 14 Northing: **6596459.267sft** Easting: **24531471.679sft**

Mapping Angle: **0°04'32"** Combination Scale Factor: **0.9999982457**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **149**

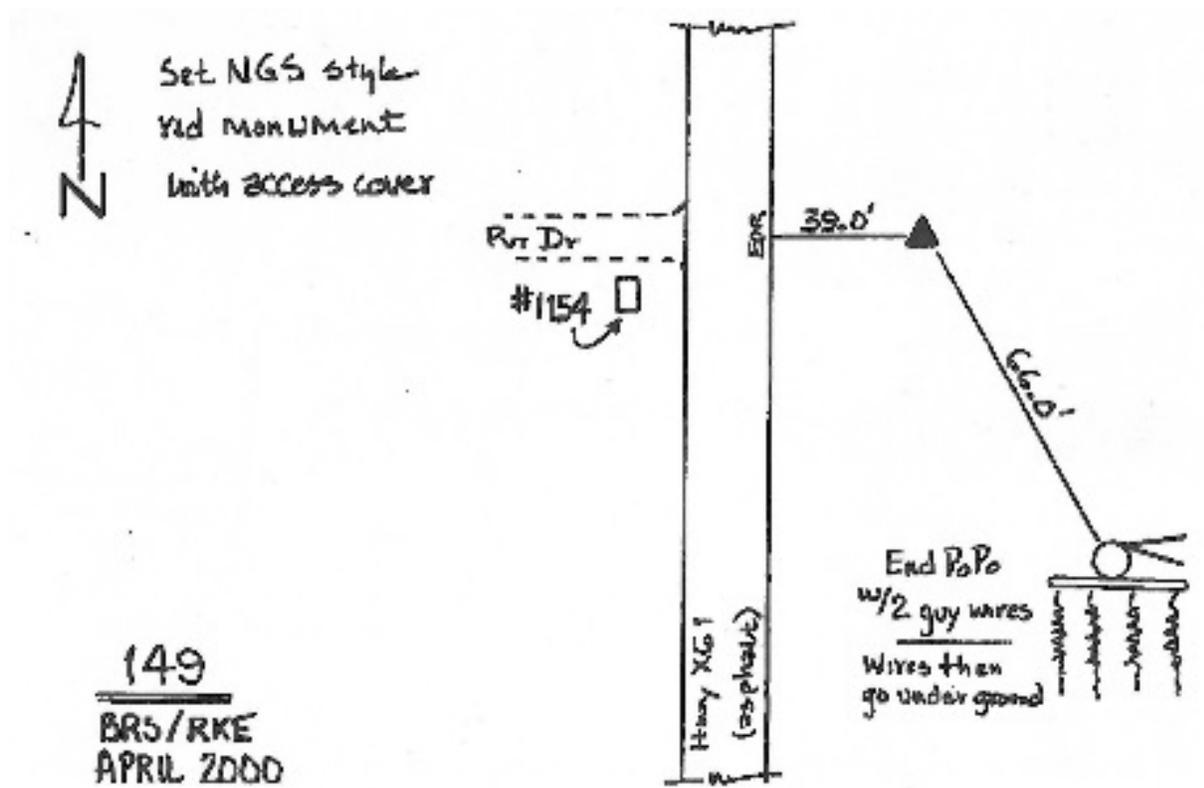
**Designation:** Muscatine Co. GPS Control Pt 2000-149 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°20'02.91641"** Longitude: **W91°06'32.18595"**  
NAVD 88 Ortho Height: **538.460sft** Ellip. Ht: **430.268sft** **Geoid12A**

Iowa South Zone (1402) Northing: **495097.424sft** Easting: **2296969.937sft**  
Mapping Angle: **1°34'30"** Combination Scale Factor: **0.999930536**

IaRCS Zone 14 Northing: **6595031.311sft** Easting: **24538740.536sft**  
Mapping Angle: **0°05'35"** Combination Scale Factor: **0.9999991835**

**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.





**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **151 (Replaces 105)**

**Designation:** 151 (Set by DCI in 2014)

NAD 83(NA2011) Latitude: **N41°34'14.29143"** Longitude: **W90°47'03.13002"**

NAVD 88 Ortho Height: **729.662sft** Ellip. Ht: **622.067sft** **Geoid12A**

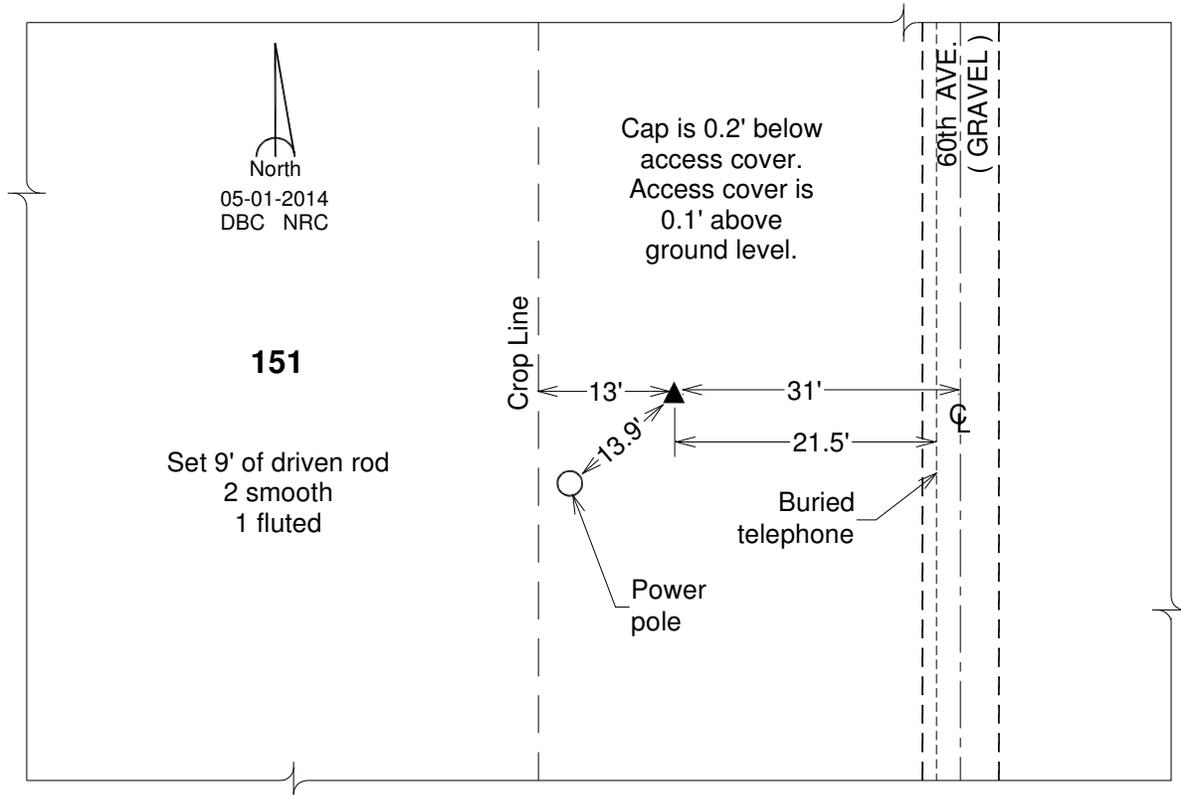
Iowa South Zone (1402) Northing: **583842.299sft** Easting: **2383421.427sft**

Mapping Angle: **1°47'20"** Combination Scale Factor: **0.999939471**

IaRCS Zone 14 Northing: **6681518.051sft** Easting: **24627462.814sft**

Mapping Angle: **0°18'33"** Combination Scale Factor: **1.0000068827**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **299**

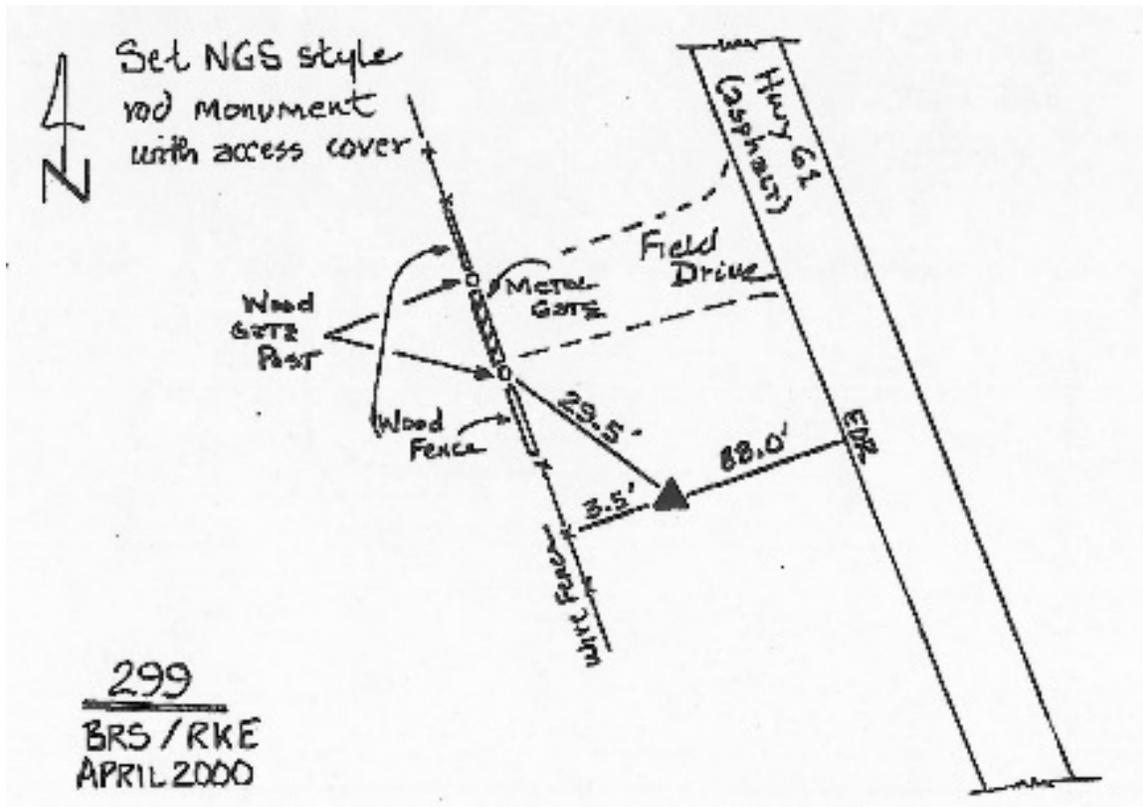
**Designation:** City of Muscatine GPS Control Pt 2000-299 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'52.44848"** Longitude: **W91°00'31.12582"**  
NAVD 88 Ortho Height: **717.600sft** Ellip. Ht: **609.788sft** **Geoid12A**

Iowa South Zone (1402) Northing: **543372.458sft** Easting: **2323141.173sft**  
Mapping Angle: **1°38'28"** Combination Scale Factor: **0.999929838**

IaRCS Zone 14 Northing: **6642616.712sft** Easting: **24566153.016sft**  
Mapping Angle: **0°09'35"** Combination Scale Factor: **0.9999939034**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **300**

**Designation:** City of Muscatine GPS Control Pt 2000-300 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'49.61120"** Longitude: **W91°02'07.76972"**

NAVD 88 Ortho Height: **640.270sft** Ellip. Ht: **532.453sft** **Geoid12A**

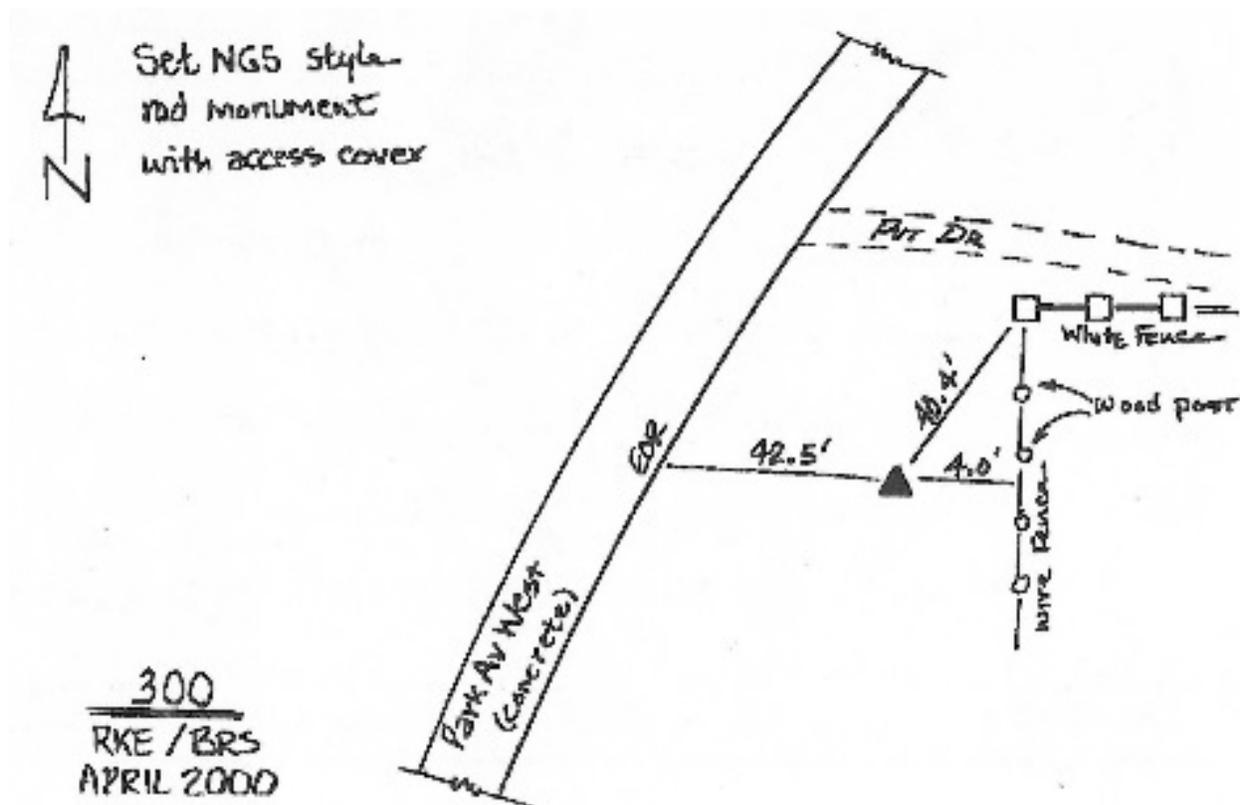
Iowa South Zone (1402) Northing: **542875.832sft** Easting: **2315794.605sft**

Mapping Angle: **1°37'24"** Combination Scale Factor: **0.999933465**

IaRCS Zone 14 Northing: **6642310.145sft** Easting: **24558795.597sft**

Mapping Angle: **0°08'31"** Combination Scale Factor: **0.9999965430**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **301**

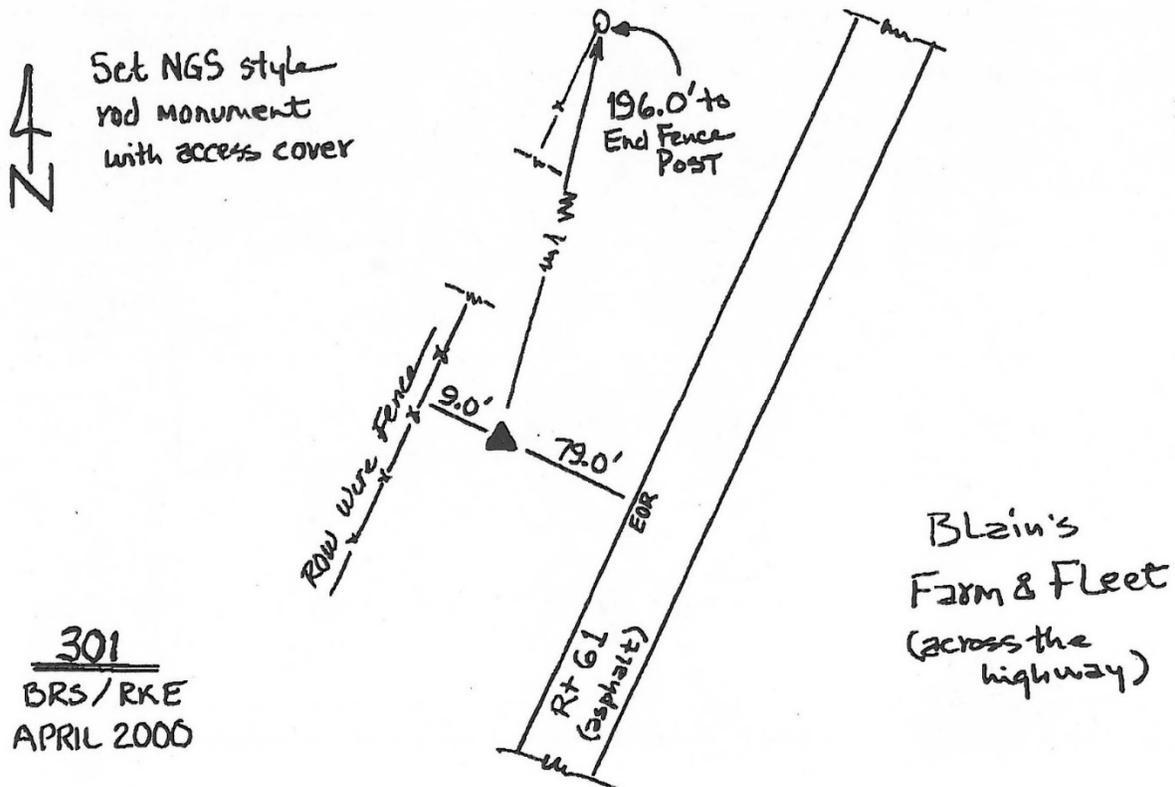
**Designation:** City of Muscatine GPS Control Pt 2000-301 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'33.18183"** Longitude: **W91°01'07.39351"**  
NAVD 88 Ortho Height: **693.590sft** Ellip. Ht: **585.759sft** **Geoid12A**

Iowa South Zone (1402) Northing: **541344.319sft** Easting: **2320436.790sft**  
Mapping Angle: **1°38'04"** Combination Scale Factor: **0.999930560**

laRCS Zone 14 Northing: **6640659.034sft** Easting: **24563396.932sft**  
Mapping Angle: **0°09'11"** Combination Scale Factor: **0.9999946419**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **302**

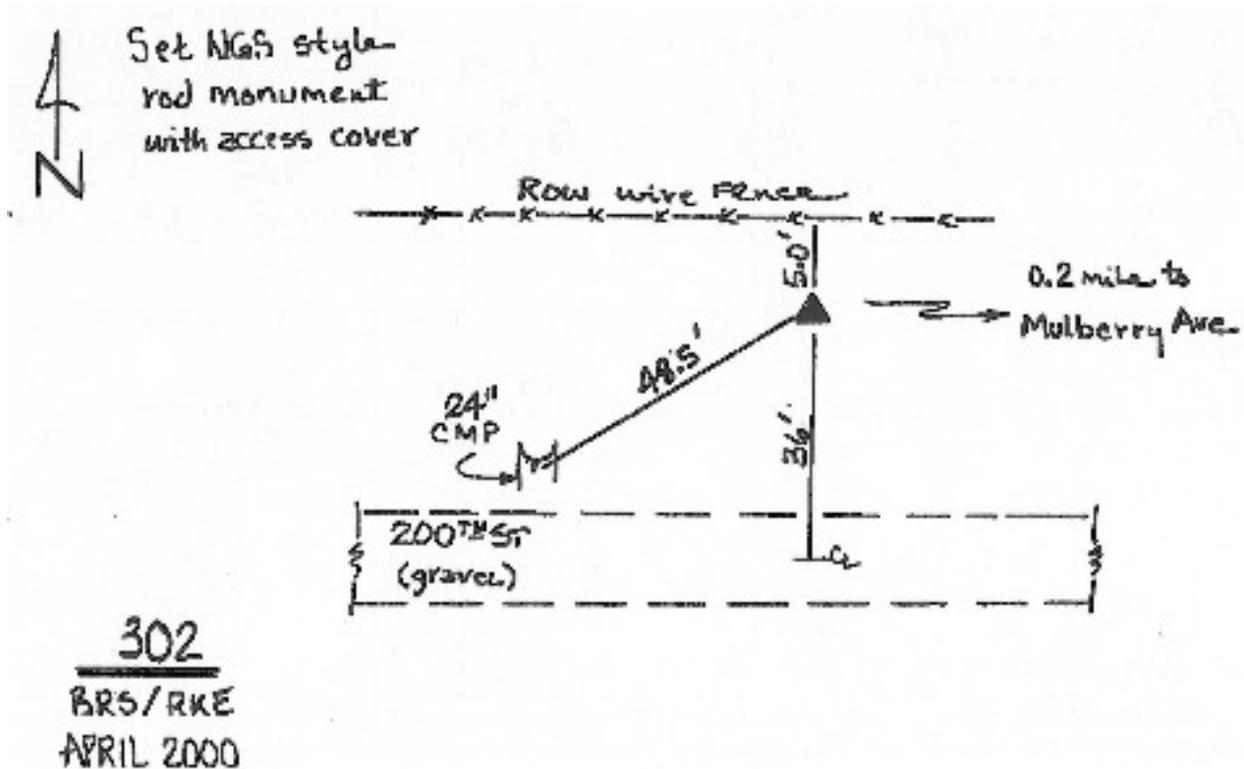
**Designation:** City of Muscatine GPS Control Pt 2000-302 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'02.59228"** Longitude: **W91°05'26.39459"**  
NAVD 88 Ortho Height: **718.790sft** Ellip. Ht: **610.944sft** **Geoid12A**

Iowa South Zone (1402) Northing: **537695.177sft** Easting: **2300810.458sft**  
Mapping Angle: **1°35'13"** Combination Scale Factor: **0.999928702**

IaRCS Zone 14 Northing: **6637518.311sft** Easting: **24543681.575sft**  
Mapping Angle: **0°06'20"** Combination Scale Factor: **0.9999910276**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **303**

**Designation:** City of Muscatine GPS Control Pt 2000-303 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'54.91725"** Longitude: **W91°04'14.76880"**

NAVD 88 Ortho Height: **681.760sft** Ellip. Ht: **573.900sft** **Geoid12A**

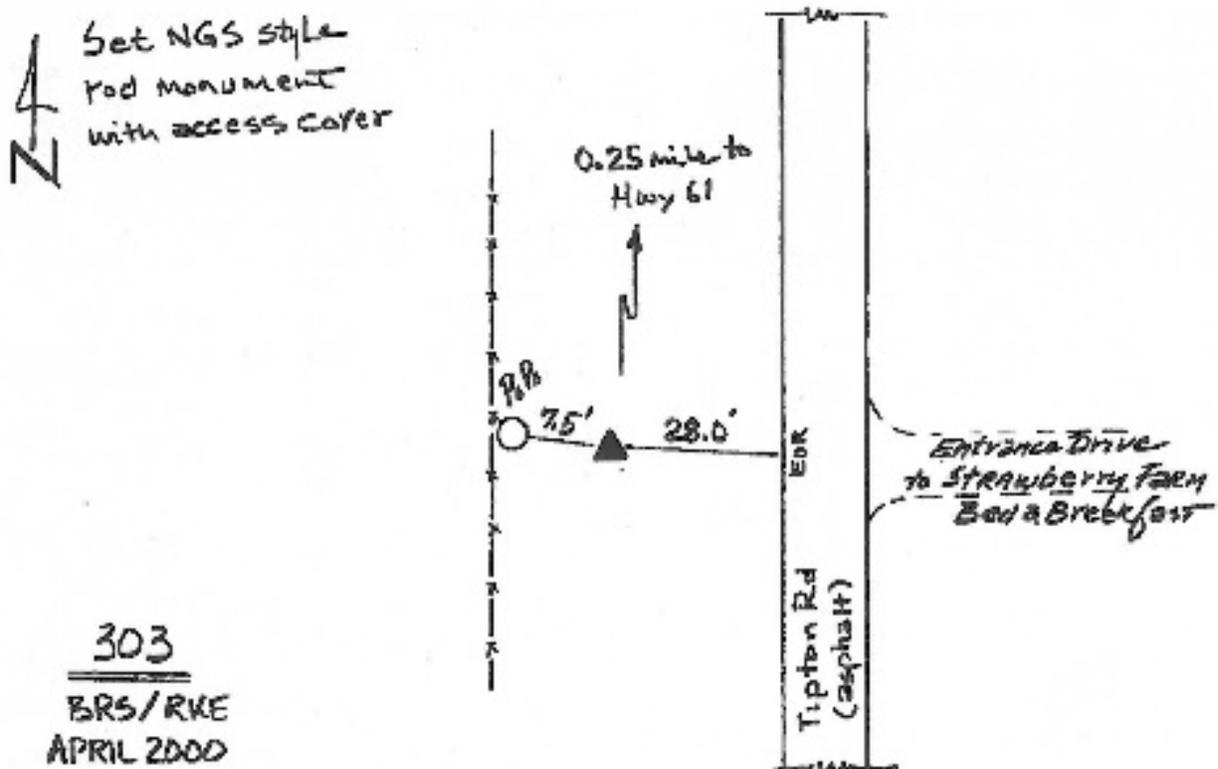
Iowa South Zone (1402) Northing: **537070.356sft** Easting: **2306284.205sft**

Mapping Angle: **1°36'00"** Combination Scale Factor: **0.999930308**

IaRCS Zone 14 Northing: **6636752.129sft** Easting: **24549137.679sft**

Mapping Angle: **0°07'07"** Combination Scale Factor: **0.9999933740**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **304**

**Designation:** City of Muscatine GPS Control Pt 2000-304 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'58.54505"** Longitude: **W91°02'44.38400"**

NAVD 88 Ortho Height: **644.960sft** Ellip. Ht: **537.094sft** **Geoid12A**

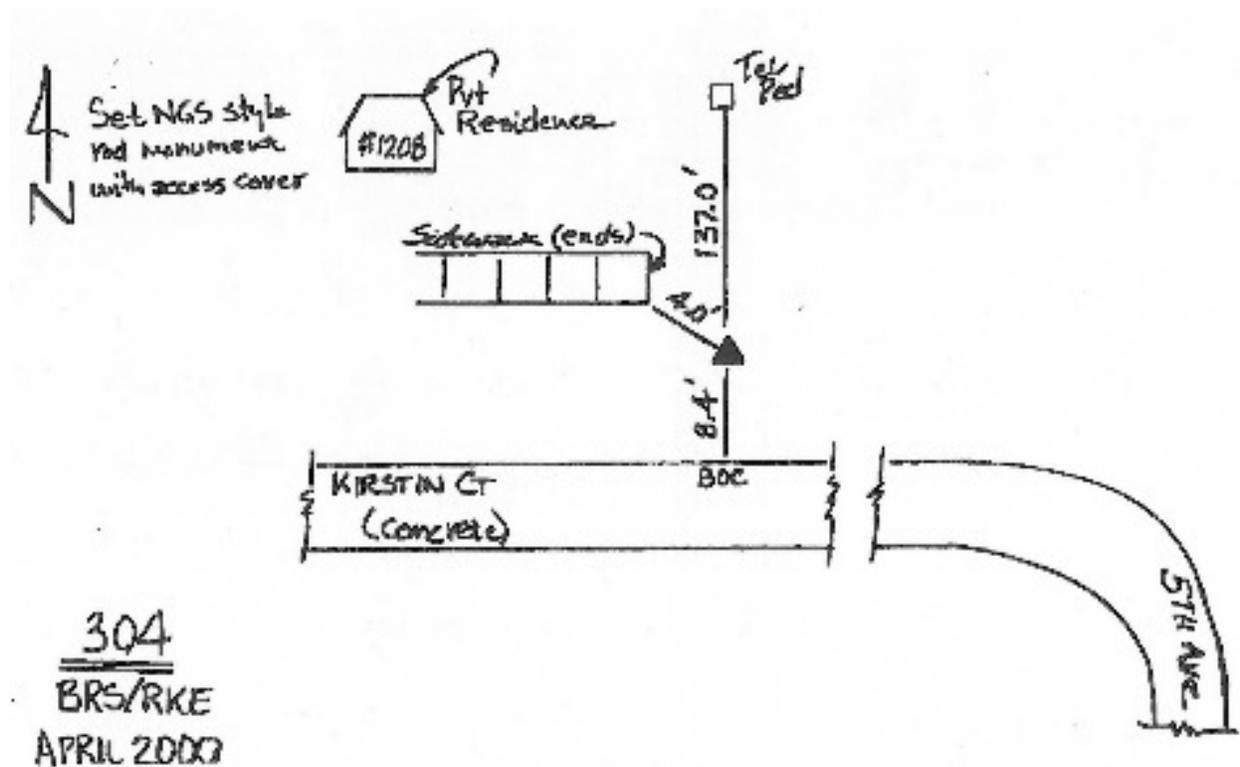
Iowa South Zone (1402) Northing: **537630.576sft** Easting: **2313153.986sft**

Mapping Angle: **1°37'00"** Combination Scale Factor: **0.999932140**

IaRCS Zone 14 Northing: **6637134.579sft** Easting: **24556020.085sft**

Mapping Angle: **0°08'07"** Combination Scale Factor: **0.9999959574**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **305**

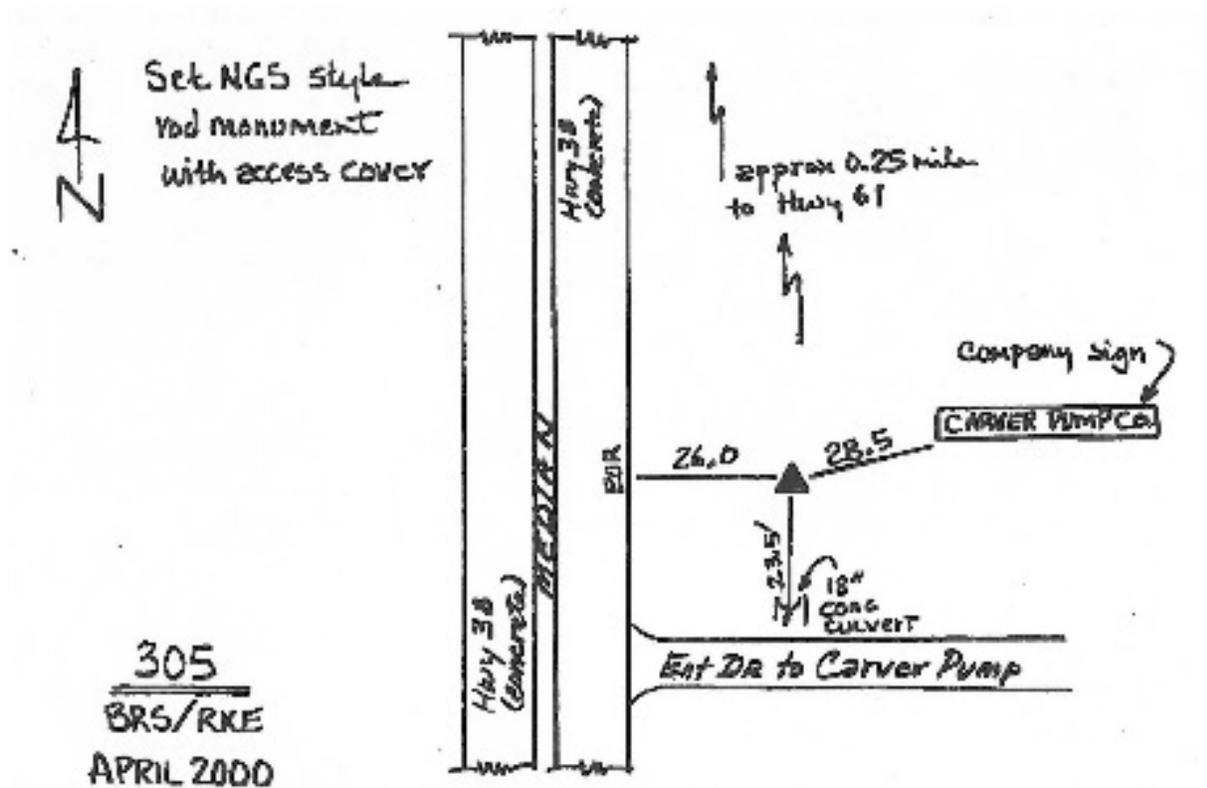
**Designation:** City of Muscatine GPS Control Pt 2000-305 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'01.96860"** Longitude: **W91°01'48.14703"**  
NAVD 88 Ortho Height: **634.410sft** Ellip. Ht: **526.547sft** **Geoid12A**

Iowa South Zone (1402) Northing: **538098.141sft** Easting: **2317424.843sft**  
Mapping Angle: **1°37'37"** Combination Scale Factor: **0.999932715**

IaRCS Zone 14 Northing: **6637491.600sft** Easting: **24560301.875sft**  
Mapping Angle: **0°08'44"** Combination Scale Factor: **0.9999970298**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **306**

**Designation:** City of Muscatine GPS Control Pt 2000-306 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°27'00.75527"** Longitude: **W91°00'32.06200"**

NAVD 88 Ortho Height: **689.520sft** Ellip. Ht: **581.664sft** **Geoid12A**

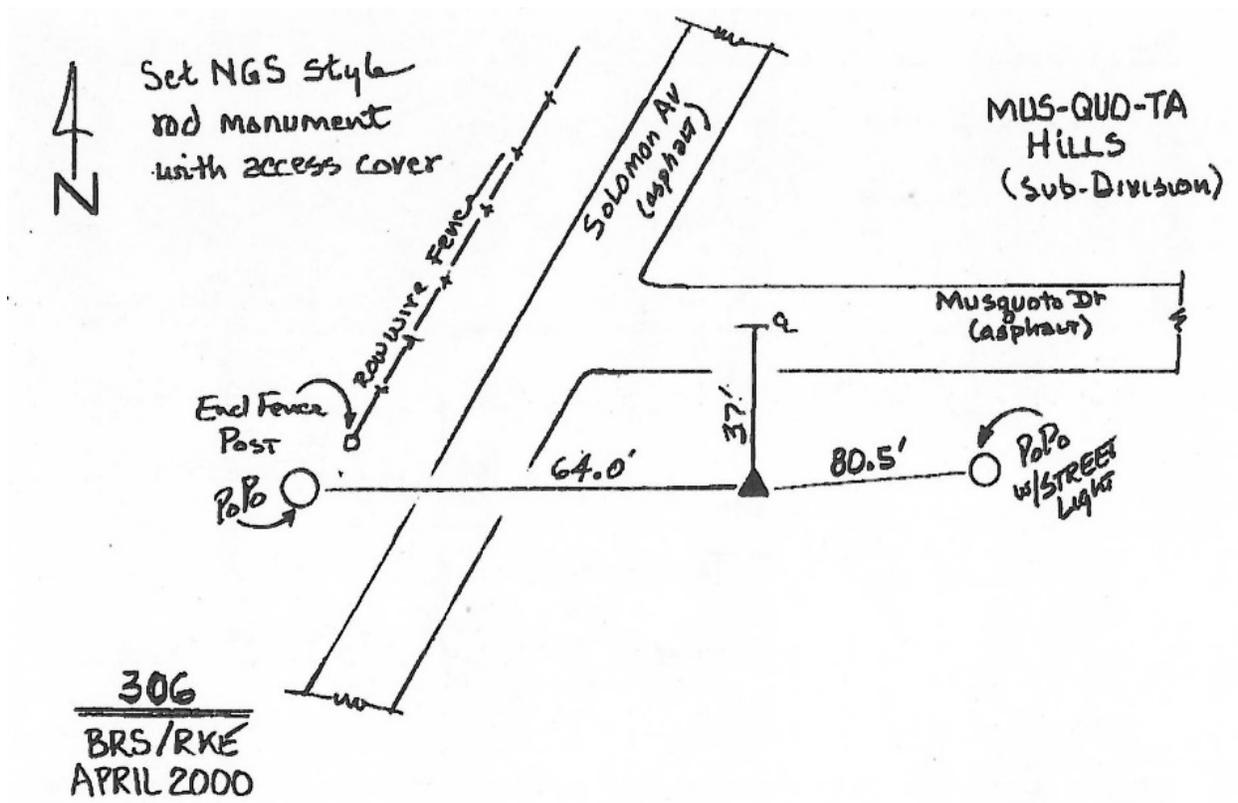
Iowa South Zone (1402) Northing: **538140.589sft** Easting: **2323219.746sft**

Mapping Angle: **1°38'27"** Combination Scale Factor: **0.999930060**

IaRCS Zone 14 Northing: **6637384.222sft** Easting: **24566096.314sft**

Mapping Angle: **0°09'35"** Combination Scale Factor: **0.9999952368**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **307 (Destroyed)**

**Designation:** ~~City of Muscatine GPS Control Pt 2000-307 (Set by ASI in 2000)~~

NAD 83(NA2011) Latitude: ~~**N41°26'09.096300"**~~ Longitude: ~~**W91°05'23.932588"**~~

NAVD 88 Ortho Height: ~~**668.85sft**~~ Ellip. Ht: ~~**561.33sft**~~ **Geoid96C**

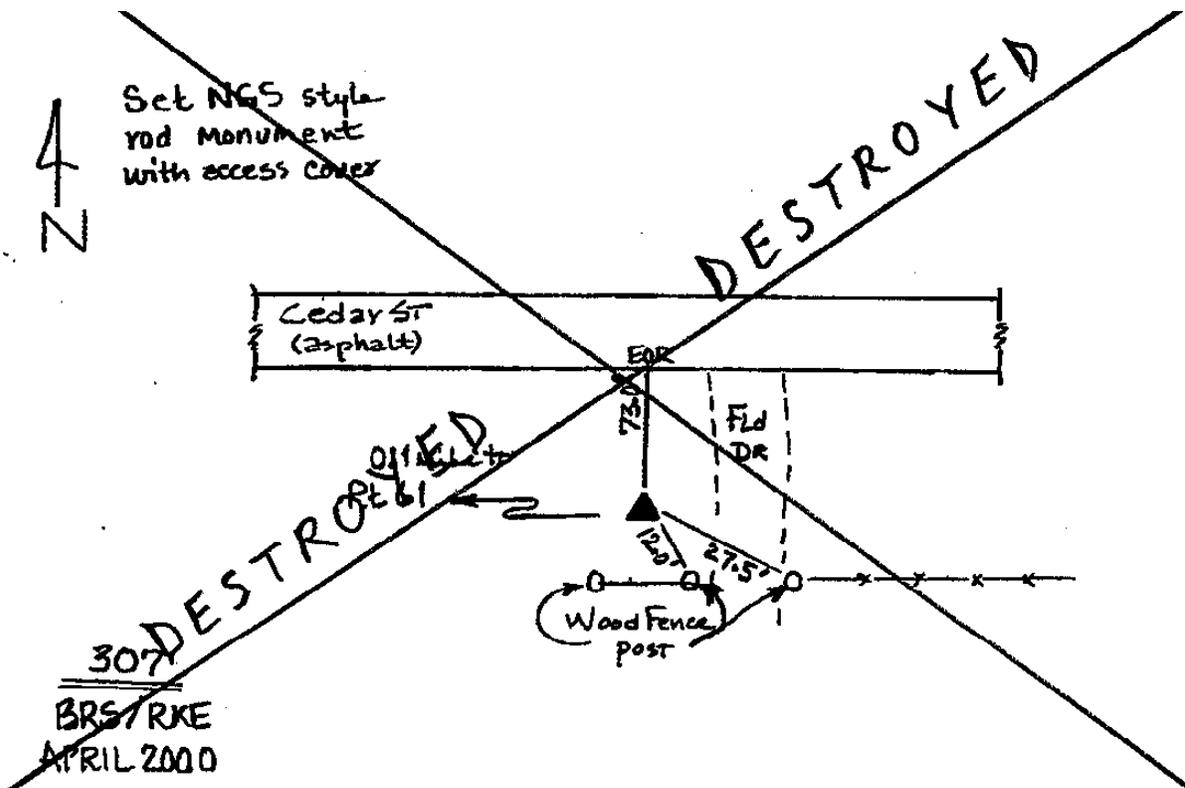
Iowa South Zone (1402) Northing: ~~**532288.03sft**~~ Easting: ~~**2301147.86sft**~~

Mapping Angle: ~~**1°35'15"**~~ Combination Scale Factor: ~~**0.99992991**~~

laRCS Zone 14 Northing: ~~**N/Asft**~~ Easting: ~~**N/Asft**~~

Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**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.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **308 (Destroyed)**

**Designation:** ~~City of Muscatine GPS Control Pt 2000-308 (Set by ASI in 2000)~~

NAD 83(NA2011) Latitude: ~~**N41°26'09.700178"**~~ Longitude: ~~**W91°04'20.184168"**~~

NAVD 88 Ortho Height: ~~**712.1sft**~~ Ellip. Ht: ~~**604.58sft**~~ **Geoid96C**

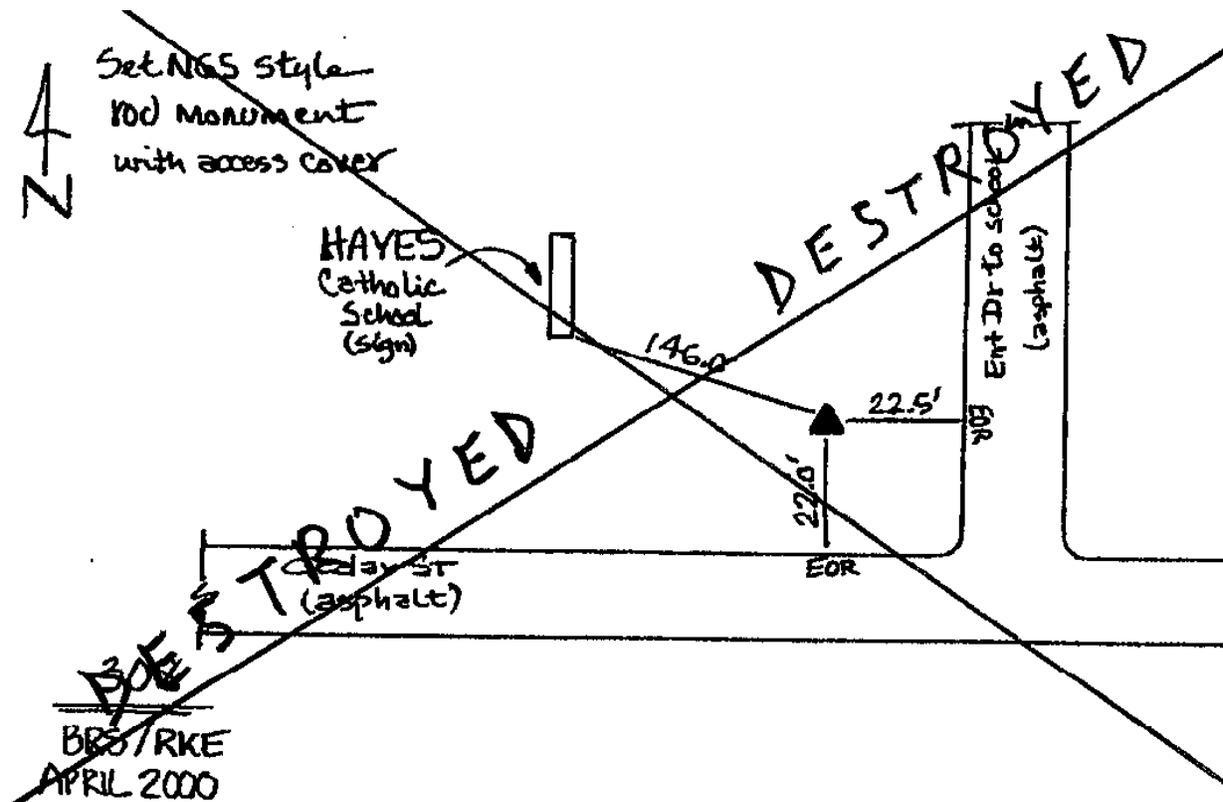
Iowa South Zone (1402) Northing: ~~**532484.13sft**~~ Easting: ~~**2305999.7sft**~~

Mapping Angle: ~~**1°35'57"**~~ Combination Scale Factor: ~~**0.99992785**~~

IaRCS Zone 14 Northing: ~~**N/Asft**~~ Easting: ~~**N/Asft**~~

Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**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.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **309**

**Designation:** City of Muscatine GPS Control Pt 2000-309 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'08.87376"** Longitude: **W91°03'16.88052"**

NAVD 88 Ortho Height: **678.570sft** Ellip. Ht: **570.663sft** **Geoid12A**

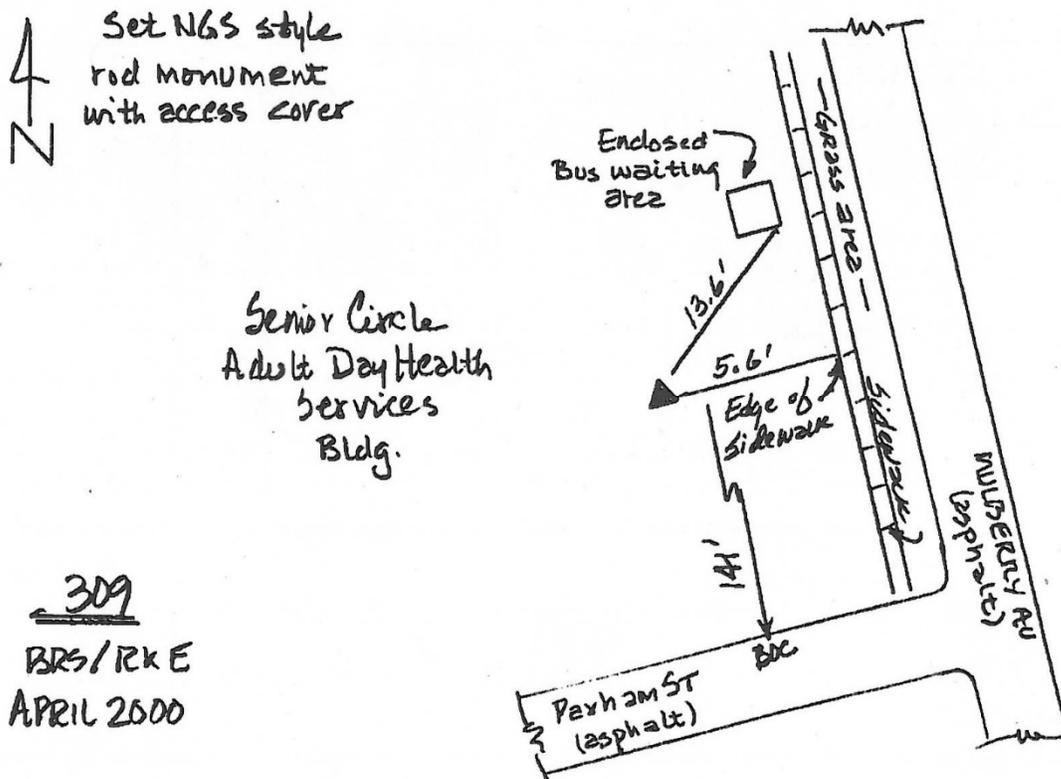
Iowa South Zone (1402) Northing: **532535.563sft** Easting: **2310821.690sft**

Mapping Angle: **1°36'39"** Combination Scale Factor: **0.999929524**

laRCS Zone 14 Northing: **6632101.244sft** Easting: **24553556.687sft**

Mapping Angle: **0°07'45"** Combination Scale Factor: **0.9999940471**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **310**

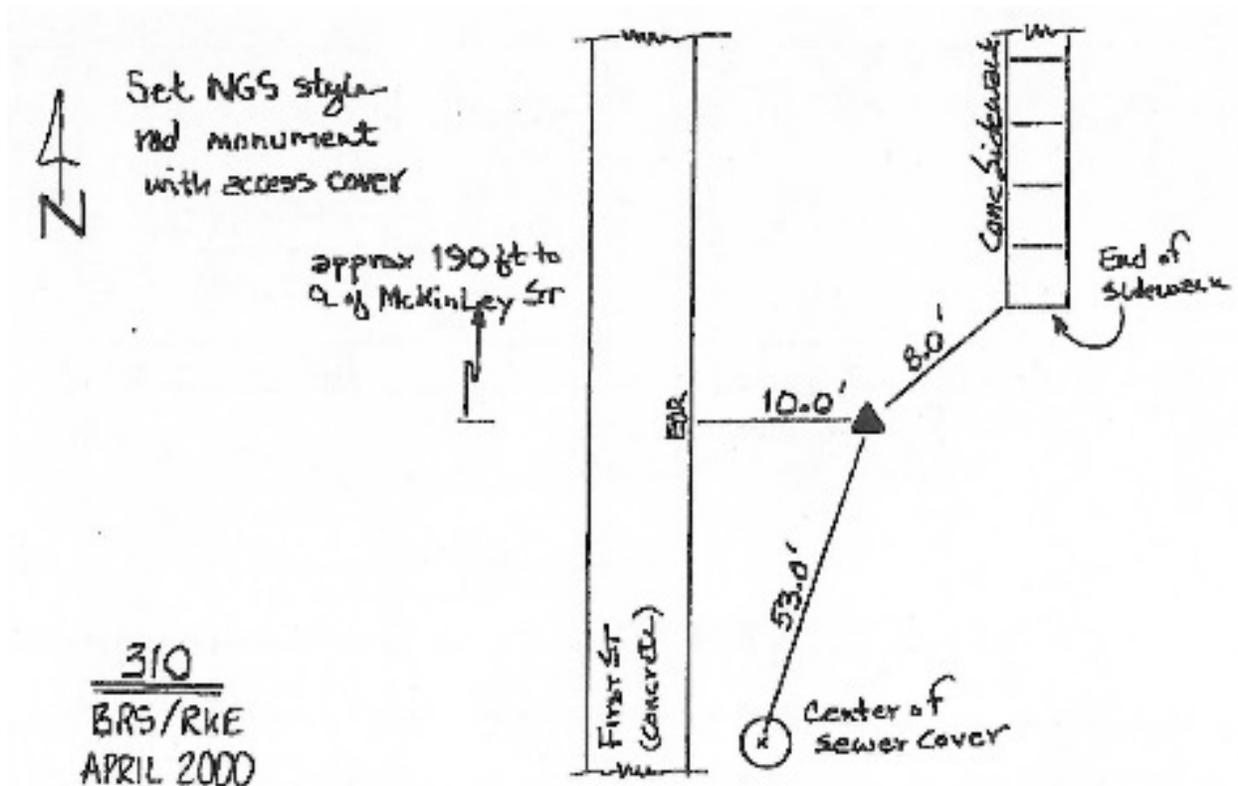
**Designation:** City of Muscatine GPS Control Pt 2000-310 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'12.33560"** Longitude: **W91°02'04.68268"**  
NAVD 88 Ortho Height: **600.650sft** Ellip. Ht: **492.741sft** **Geoid12A**

Iowa South Zone (1402) Northing: **533041.004sft** Easting: **2316308.549sft**  
Mapping Angle: **1°37'26"** Combination Scale Factor: **0.999933311**

IaRCS Zone 14 Northing: **6632464.686sft** Easting: **24559055.136sft**  
Mapping Angle: **0°08'33"** Combination Scale Factor: **0.9999984728**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **311**

**Designation:** City of Muscatine GPS Control Pt 2000-311 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°26'12.05858"** Longitude: **W91°00'57.46465"**

NAVD 88 Ortho Height: **552.710sft** Ellip. Ht: **444.800sft** **Geoid12A**

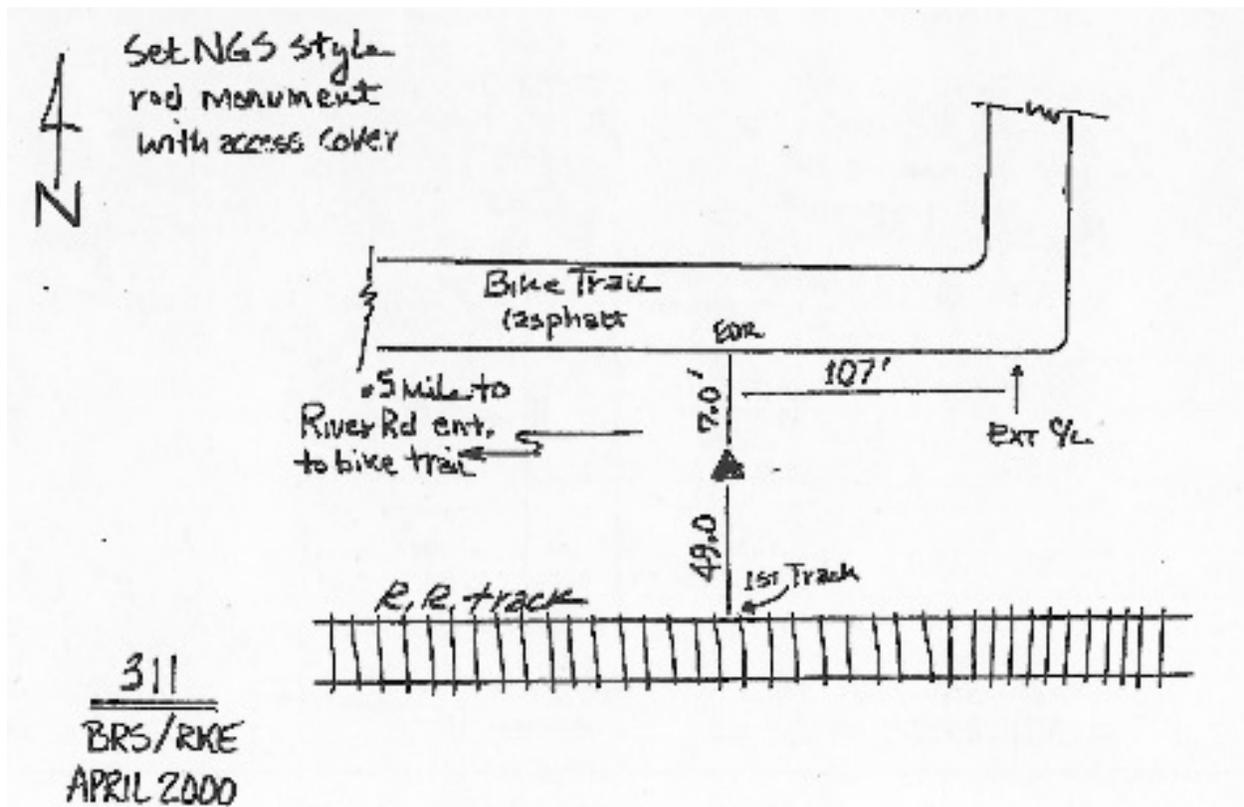
Iowa South Zone (1402) Northing: **533158.613sft** Easting: **2321426.892sft**

Mapping Angle: **1°38'10"** Combination Scale Factor: **0.999935593**

IaRCS Zone 14 Northing: **6632449.935sft** Easting: **24564175.145sft**

Mapping Angle: **0°09'18"** Combination Scale Factor: **1.0000014815**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **312**

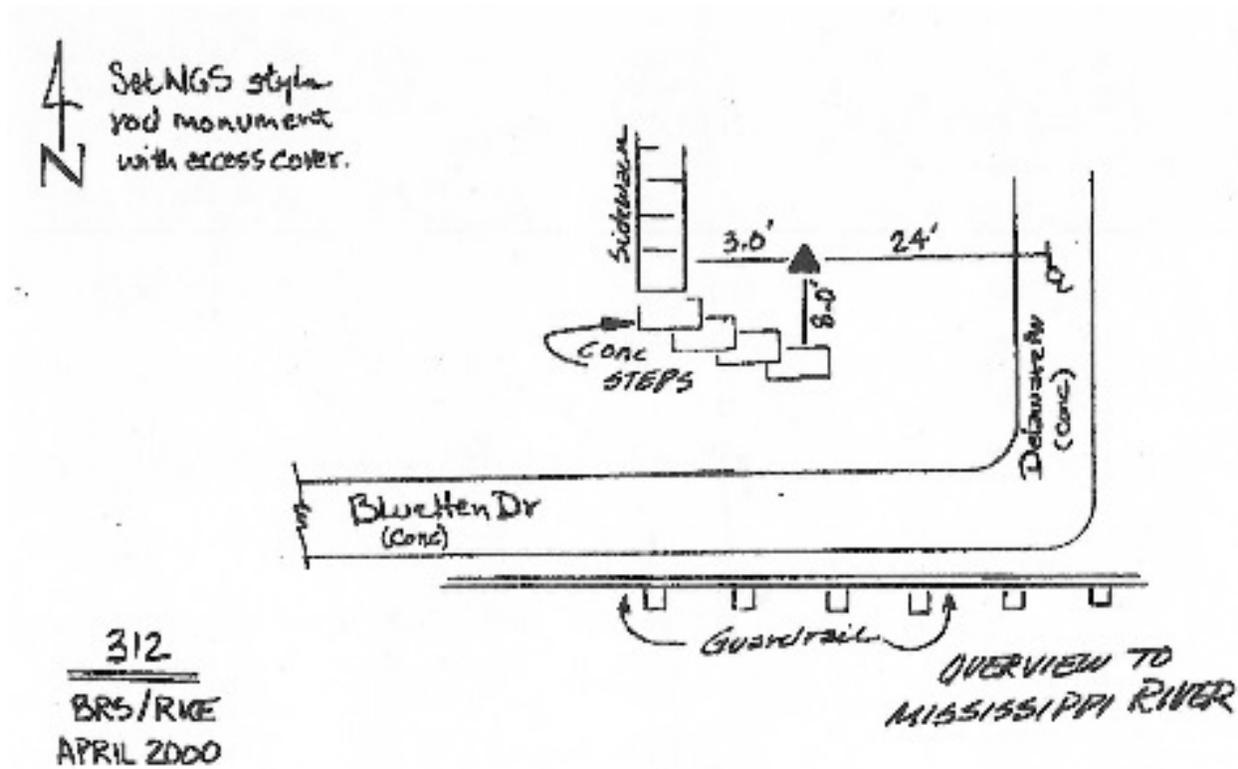
**Designation:** City of Muscatine GPS Control Pt 2000-312 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°25'36.01111"** Longitude: **W91°01'53.71537"**  
NAVD 88 Ortho Height: **595.700sft** Ellip. Ht: **487.758sft** **Geoid12A**

Iowa South Zone (1402) Northing: **529389.720sft** Easting: **2317247.848sft**  
Mapping Angle: **1°37'33"** Combination Scale Factor: **0.999932840**

IaRCS Zone 14 Northing: **6628790.098sft** Easting: **24559899.780sft**  
Mapping Angle: **0°08'40"** Combination Scale Factor: **0.9999988254**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **313**

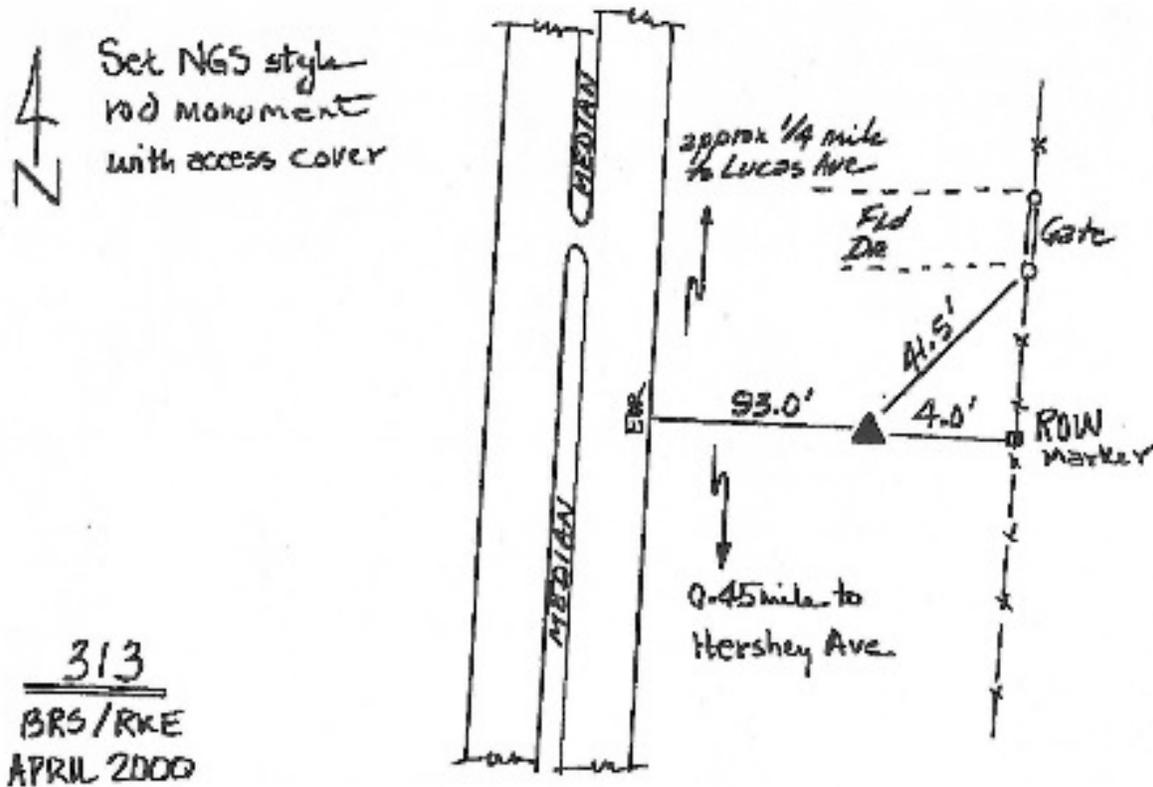
**Designation:** City of Muscatine GPS Control Pt 2000-313 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°25'22.26879"** Longitude: **W91°05'17.18228"**  
NAVD 88 Ortho Height: **683.520sft** Ellip. Ht: **575.567sft** **Geoid12A**

Iowa South Zone (1402) Northing: **527564.630sft** Easting: **2301793.203sft**  
Mapping Angle: **1°35'19"** Combination Scale Factor: **0.999928391**

IaRCS Zone 14 Northing: **6627365.097sft** Easting: **24544402.105sft**  
Mapping Angle: **0°06'26"** Combination Scale Factor: **0.9999927882**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **314**

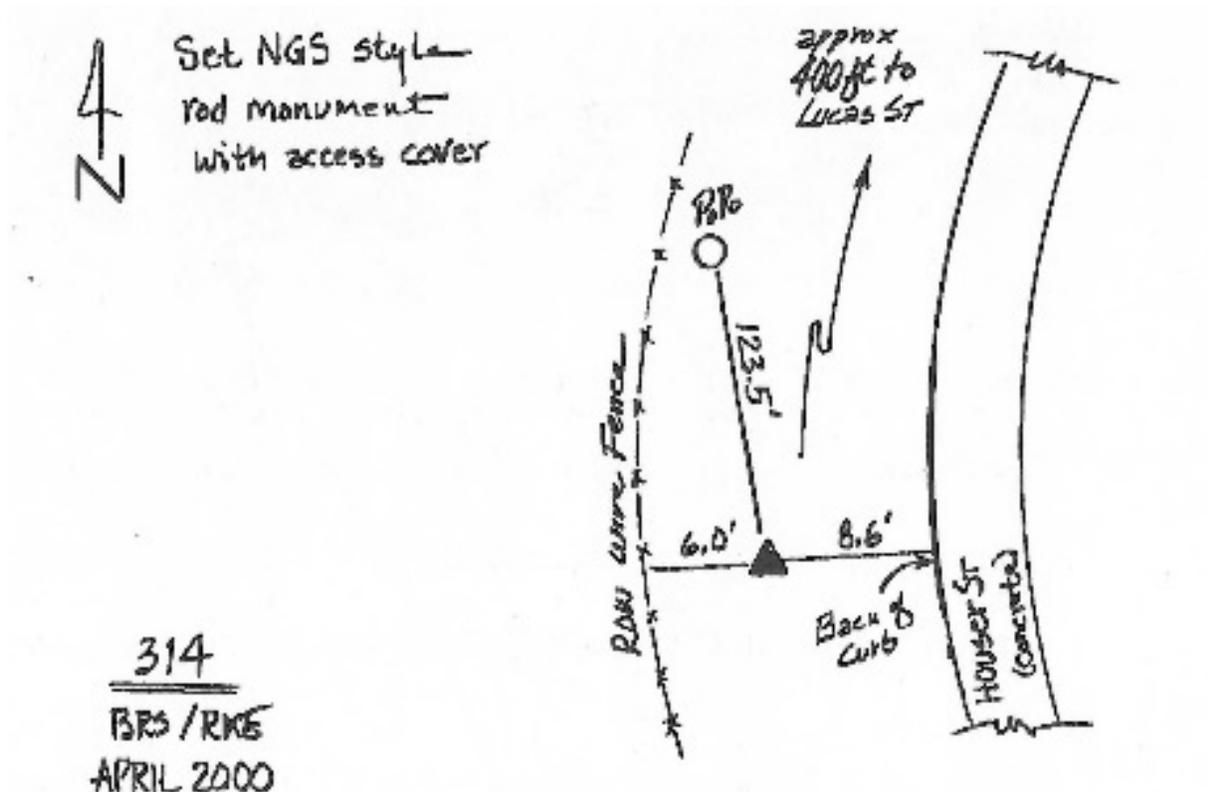
**Designation:** City of Muscatine GPS Control Pt 2000-314 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°25'23.85373"** Longitude: **W91°04'45.39214"**  
NAVD 88 Ortho Height: **684.440sft** Ellip. Ht: **576.489sft** **Geoid12A**

Iowa South Zone (1402) Northing: **527792.248sft** Easting: **2304209.593sft**  
Mapping Angle: **1°35'40"** Combination Scale Factor: **0.999928377**

IaRCS Zone 14 Northing: **6627530.172sft** Easting: **24546823.729sft**  
Mapping Angle: **0°06'47"** Combination Scale Factor: **0.9999929967**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **315**

**Designation:** City of Muscatine GPS Control Pt 2000-315 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°25'16.28211"** Longitude: **W91°03'33.22262"**

NAVD 88 Ortho Height: **653.810sft** Ellip. Ht: **545.852sft** **Geoid12A**

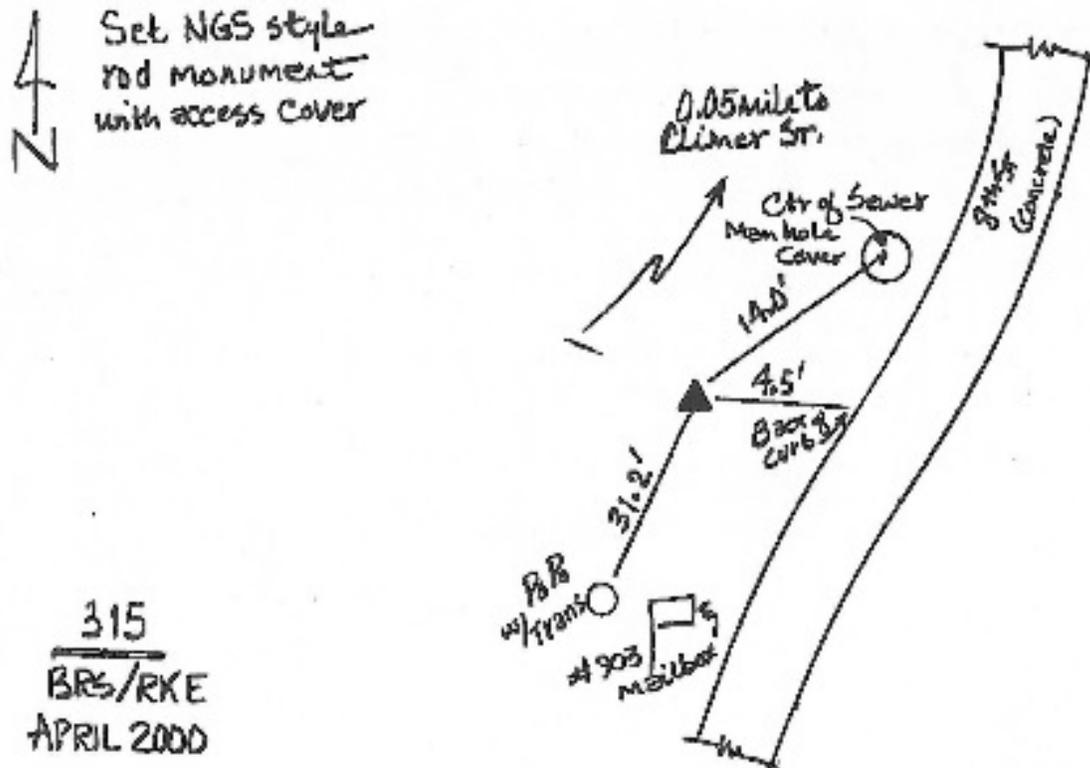
Iowa South Zone (1402) Northing: **527179.836sft** Easting: **2309726.819sft**

Mapping Angle: **1°36'28"** Combination Scale Factor: **0.999929697**

IaRCS Zone 14 Northing: **6626775.268sft** Easting: **24552323.635sft**

Mapping Angle: **0°07'34"** Combination Scale Factor: **0.9999950817**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **316 (Destroyed)**

**Designation:** ~~City of Muscatine GPS Control Pt 2000-316 (Set by ASI in 2000)~~

NAD 83(NA2011) Latitude: ~~**N41°25'16.652021"**~~ Longitude: ~~**W91°02'30.944612"**~~

NAVD 88 Ortho Height: ~~**549.86sft**~~ Ellip. Ht: ~~**442.29sft**~~ **Geoid96C**

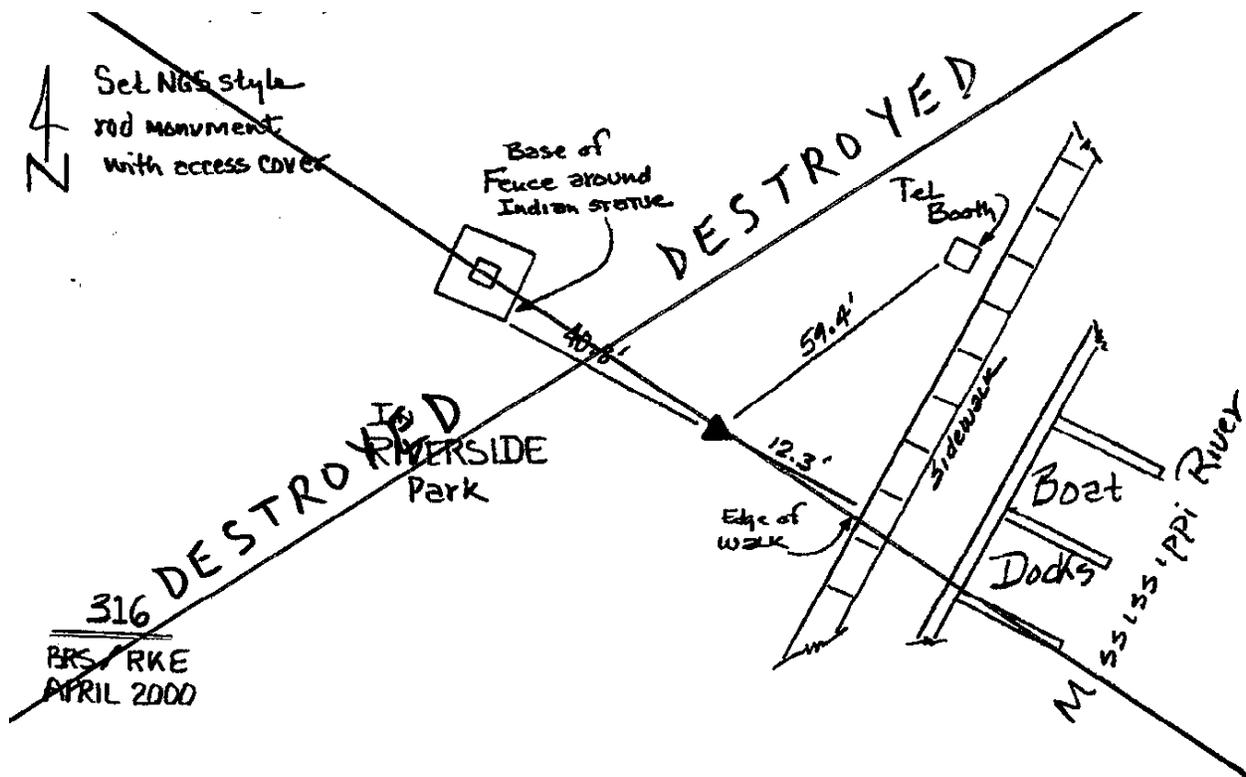
Iowa South Zone (1402) Northing: ~~**527350.85sft**~~ Easting: ~~**2314468.37sft**~~

Mapping Angle: ~~**1°37'09"**~~ Combination Scale Factor: ~~**0.99993459**~~

laRCS Zone 14 Northing: ~~**N/A**~~ Easting: ~~**N/A**~~

Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**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.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **317**

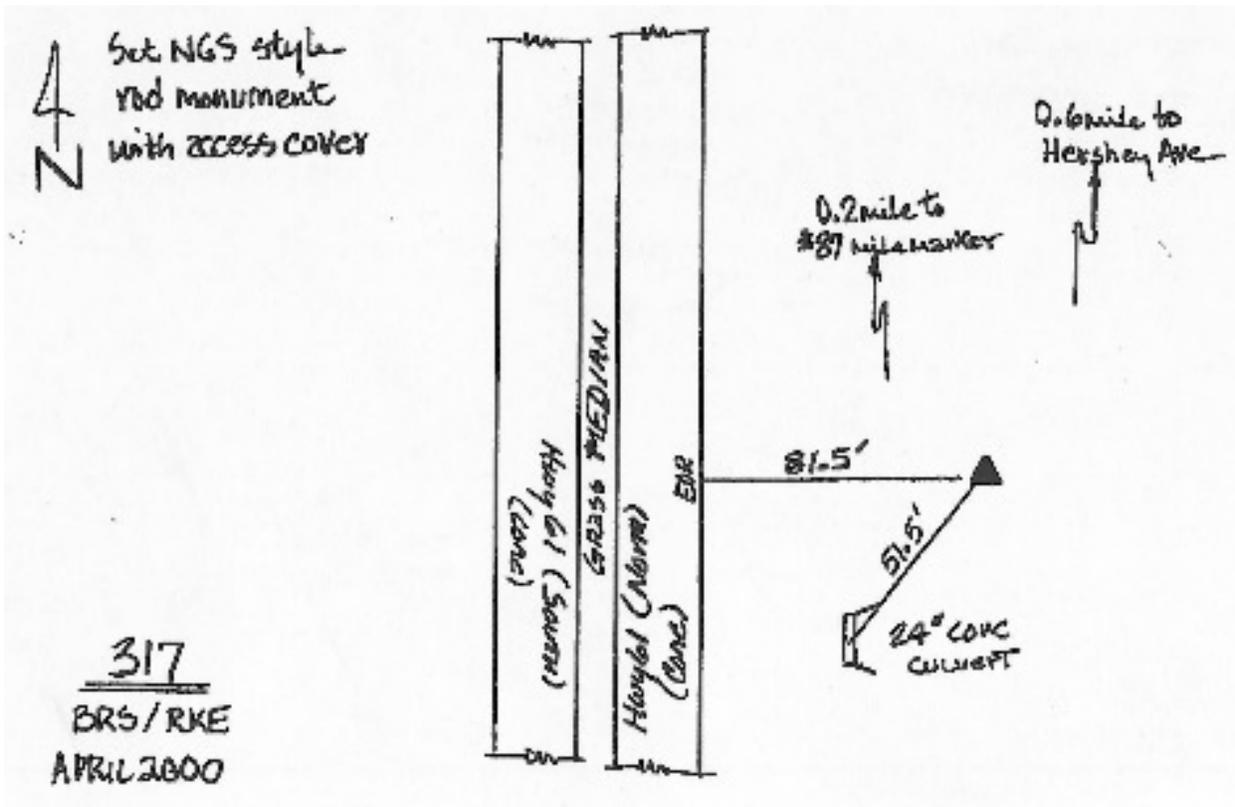
**Designation:** City of Muscatine GPS Control Pt 2000-317 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°24'27.60611"** Longitude: **W91°05'15.06687"**  
NAVD 88 Ortho Height: **540.456sft** Ellip. Ht: **432.444sft** **Geoid12A**

Iowa South Zone (1402) Northing: **522038.764sft** Easting: **2302107.717sft**  
Mapping Angle: **1°35'21"** Combination Scale Factor: **0.999934230**

IaRCS Zone 14 Northing: **6621832.587sft** Easting: **24544573.647sft**  
Mapping Angle: **0°06'27"** Combination Scale Factor: **0.9999996350**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **318**

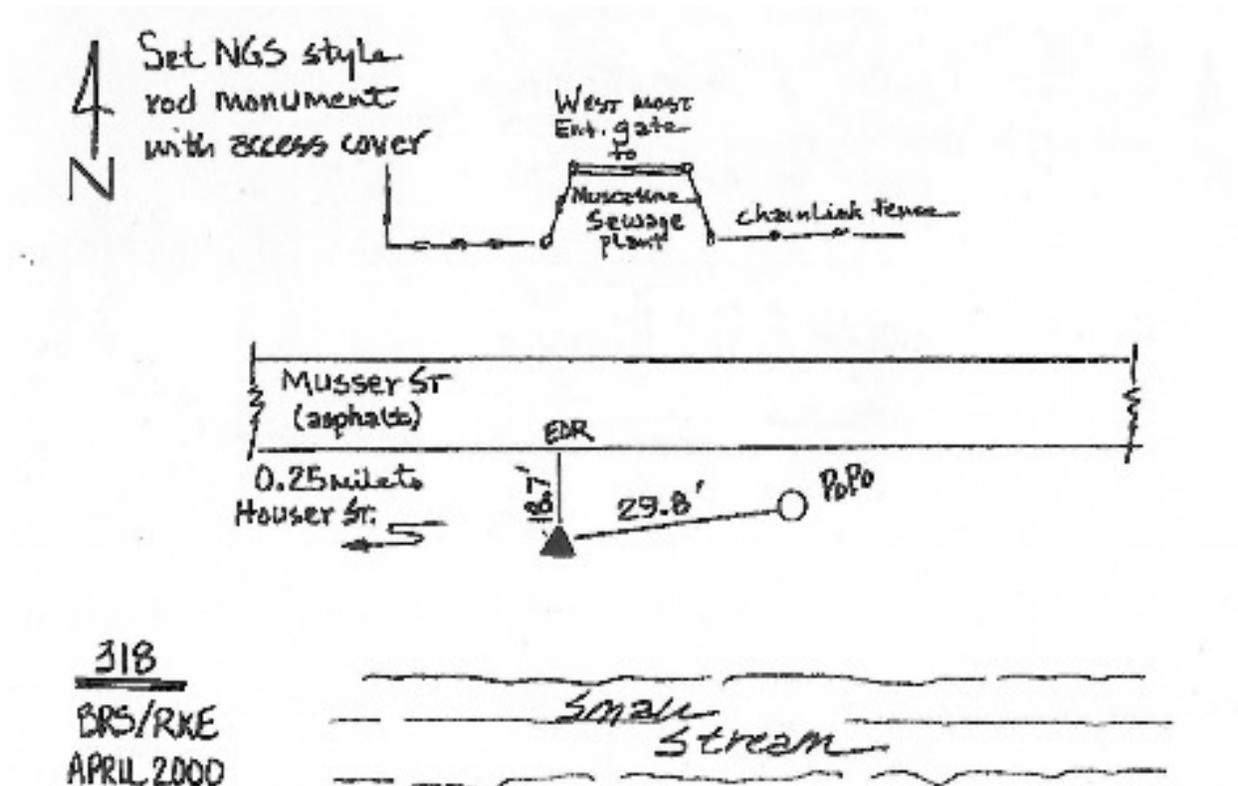
**Designation:** City of Muscatine GPS Control Pt 2000-318 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°24'25.35430"** Longitude: **W91°04'29.64564"**  
NAVD 88 Ortho Height: **539.115sft** Ellip. Ht: **431.105sft** **Geoid12A**

Iowa South Zone (1402) Northing: **521907.175sft** Easting: **2305573.747sft**  
Mapping Angle: **1°35'51"** Combination Scale Factor: **0.999934255**

IaRCS Zone 14 Northing: **6621611.410sft** Easting: **24548035.343sft**  
Mapping Angle: **0°06'57"** Combination Scale Factor: **1.0000000653**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **319**

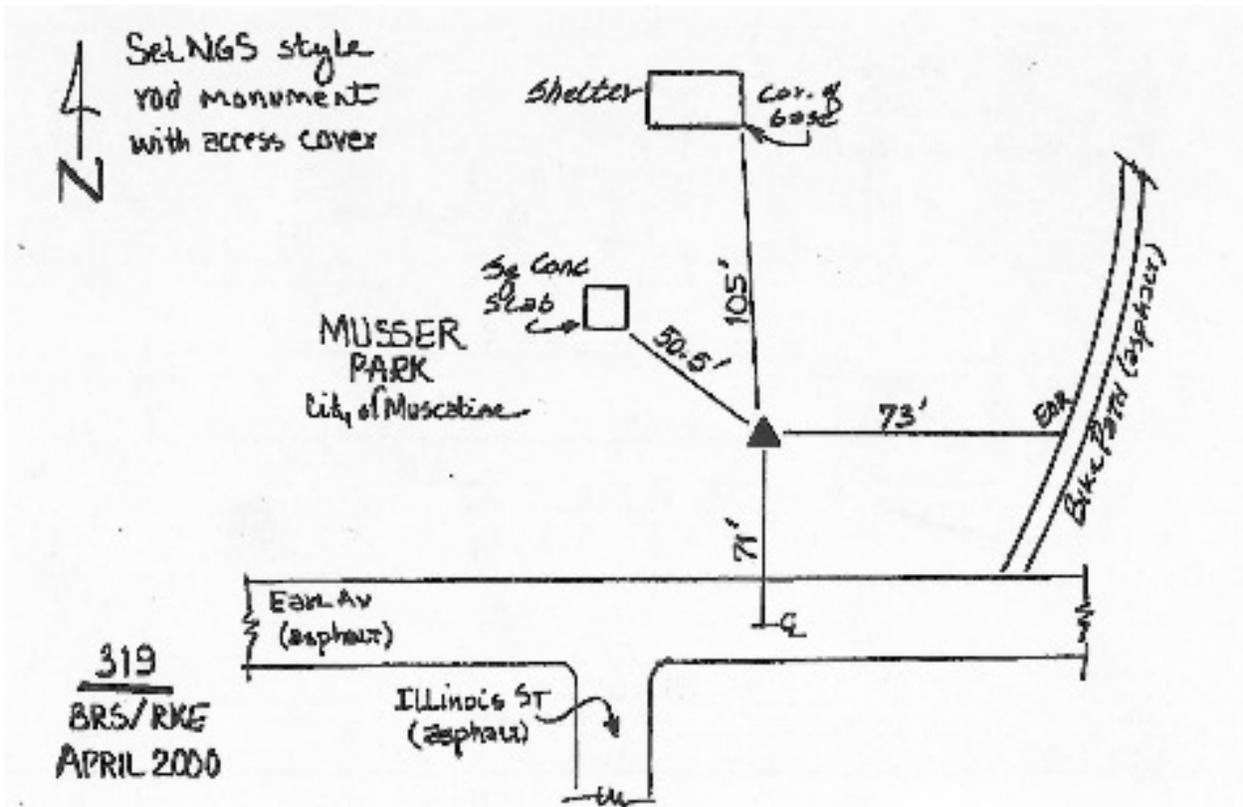
**Designation:** City of Muscatine GPS Control Pt 2000-319 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°24'21.43637"** Longitude: **W91°03'42.53930"**  
NAVD 88 Ortho Height: **543.538sft** Ellip. Ht: **435.526sft** **Geoid12A**

Iowa South Zone (1402) Northing: **521611.125sft** Easting: **2309172.909sft**  
Mapping Angle: **1°36'22"** Combination Scale Factor: **0.999933976**

IaRCS Zone 14 Northing: **6621222.374sft** Easting: **24551625.884sft**  
Mapping Angle: **0°07'28"** Combination Scale Factor: **1.0000002633**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **320**

**Designation:** City of Muscatine GPS Control Pt 2000-320 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°23'32.70601"** Longitude: **W91°06'01.68012"**

NAVD 88 Ortho Height: **538.350sft** Ellip. Ht: **430.292sft** **Geoid12A**

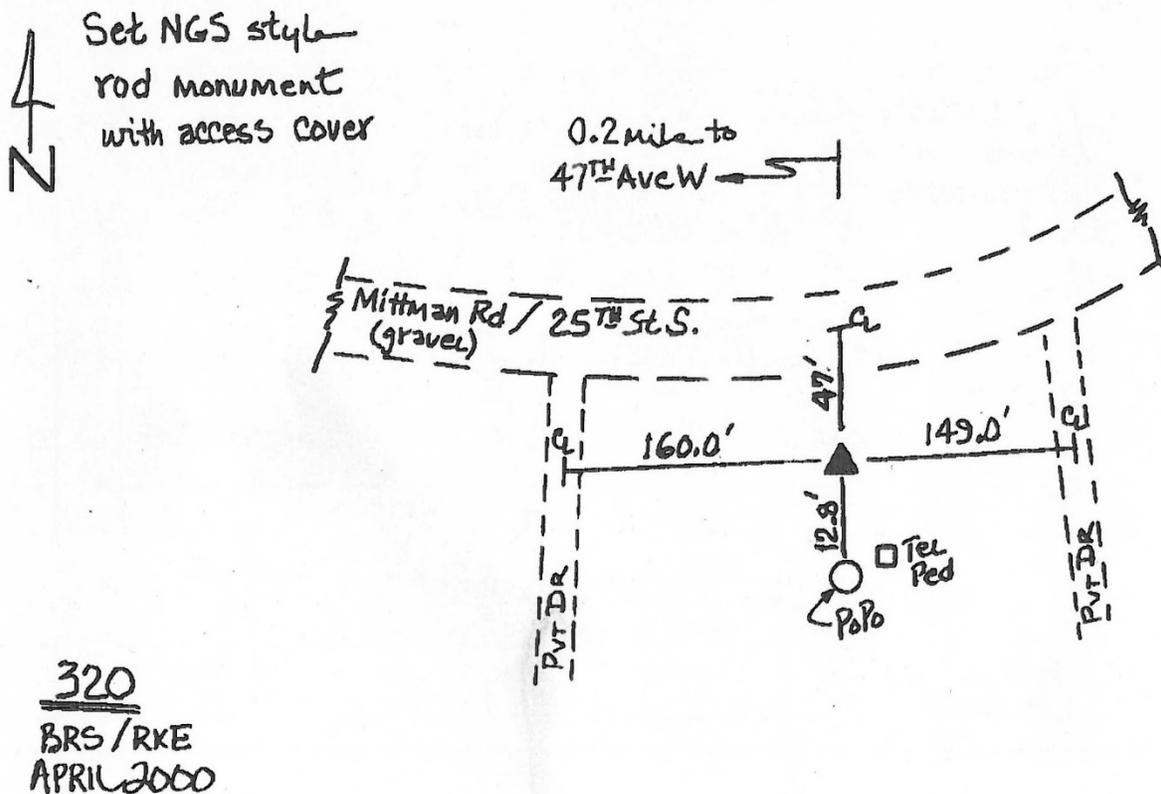
Iowa South Zone (1402) Northing: **516386.172sft** Easting: **2298710.495sft**

Mapping Angle: **1°34'50"** Combination Scale Factor: **0.999933410**

IaRCS Zone 14 Northing: **6616269.362sft** Easting: **24541031.169sft**

Mapping Angle: **0°05'56"** Combination Scale Factor: **0.9999993912**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **321**

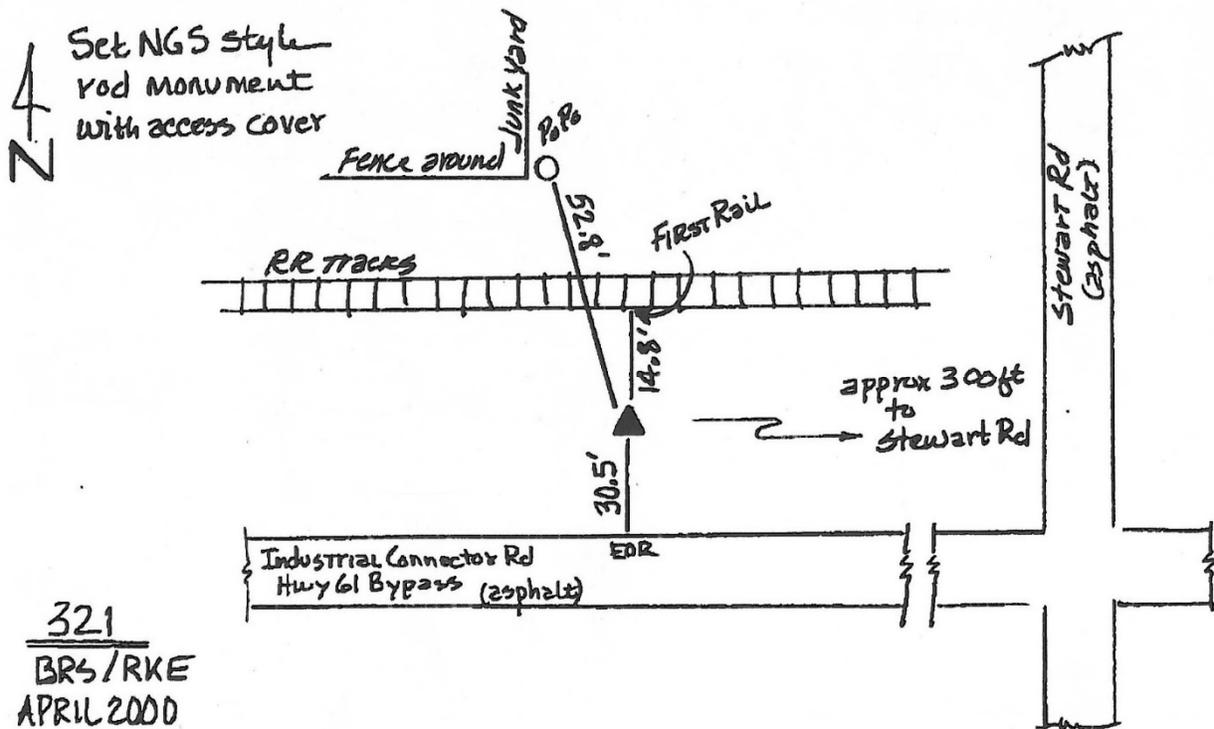
**Designation:** City of Muscatine GPS Control Pt 2000-321 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°23'32.00453"** Longitude: **W91°04'22.21809"**  
NAVD 88 Ortho Height: **543.750sft** Ellip. Ht: **435.693sft** **Geoid12A**

Iowa South Zone (1402) Northing: **516525.499sft** Easting: **2306290.147sft**  
Mapping Angle: **1°35'56"** Combination Scale Factor: **0.999933141**

IaRCS Zone 14 Northing: **6616212.652sft** Easting: **24548612.392sft**  
Mapping Angle: **0°07'02"** Combination Scale Factor: **0.9999999101**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **322**

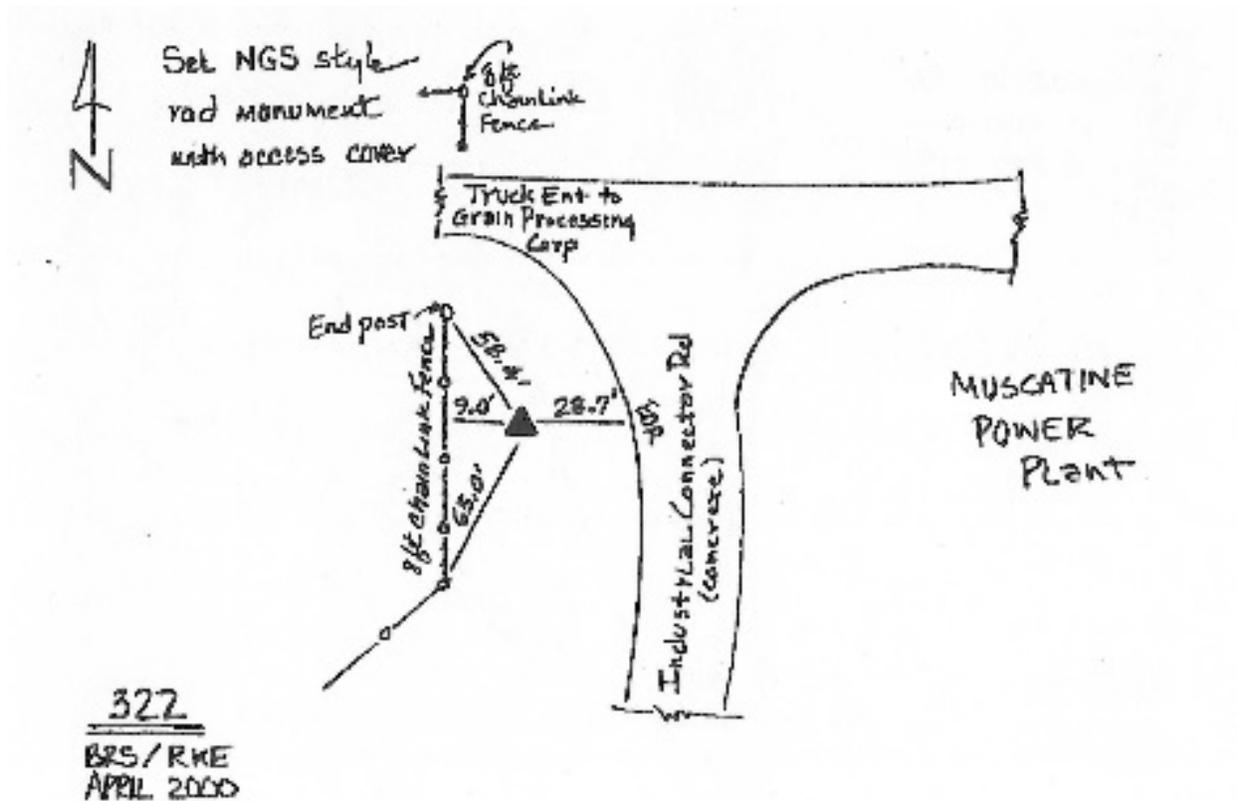
**Designation:** City of Muscatine GPS Control Pt 2000-322 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°23'35.23469"** Longitude: **W91°03'22.25008"**  
NAVD 88 Ortho Height: **546.670sft** Ellip. Ht: **438.621sft** **Geoid12A**

Iowa South Zone (1402) Northing: **516980.253sft** Easting: **2310849.700sft**  
Mapping Angle: **1°36'35"** Combination Scale Factor: **0.999933054**

laRCS Zone 14 Northing: **6616549.384sft** Easting: **24553182.485sft**  
Mapping Angle: **0°07'41"** Combination Scale Factor: **1.0000003020**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **323**

**Designation:** City of Muscatine GPS Control Pt 2000-323 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°23'02.92563"** Longitude: **W91°03'22.26029"**

NAVD 88 Ortho Height: **542.890sft** Ellip. Ht: **434.819sft** **Geoid12A**

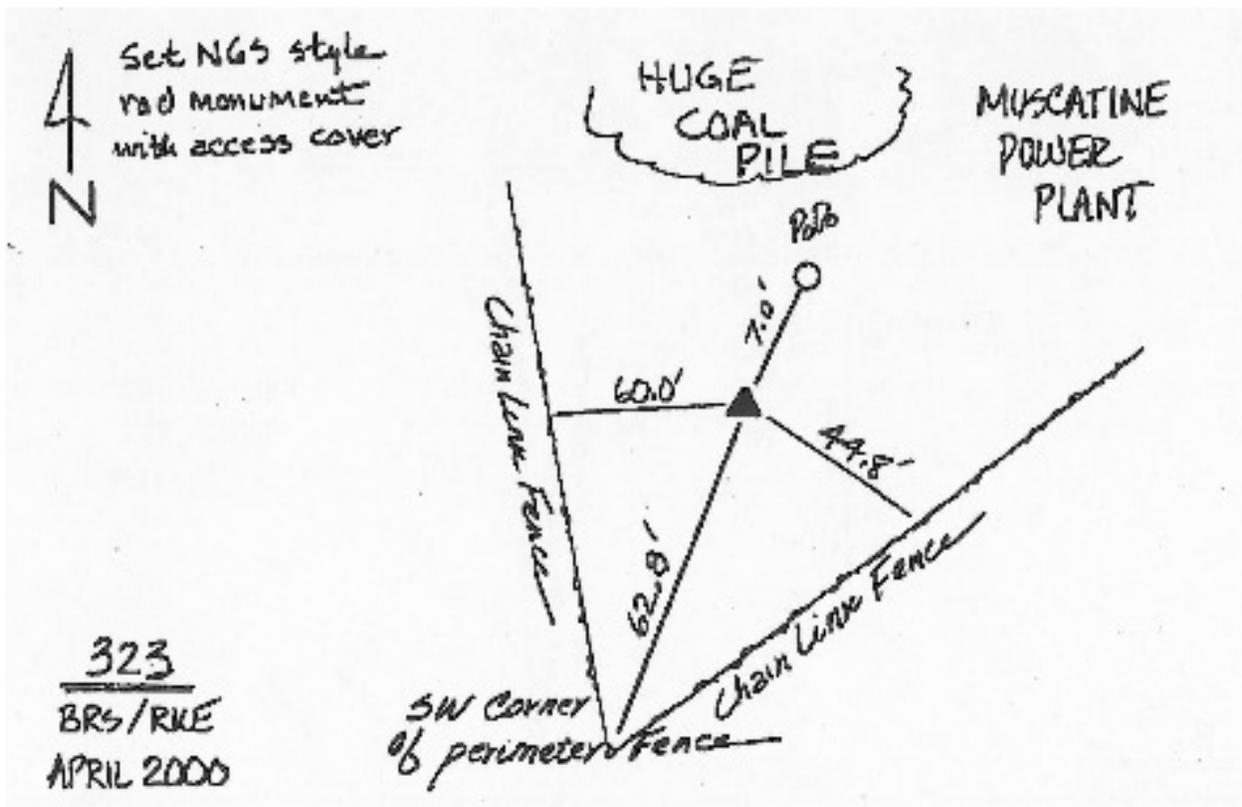
Iowa South Zone (1402) Northing: **513711.511sft** Easting: **2310940.783sft**

Mapping Angle: **1°36'35"** Combination Scale Factor: **0.999932723**

laRCS Zone 14 Northing: **6613279.159sft** Easting: **24553189.022sft**

Mapping Angle: **0°07'41"** Combination Scale Factor: **1.0000004843**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **324**

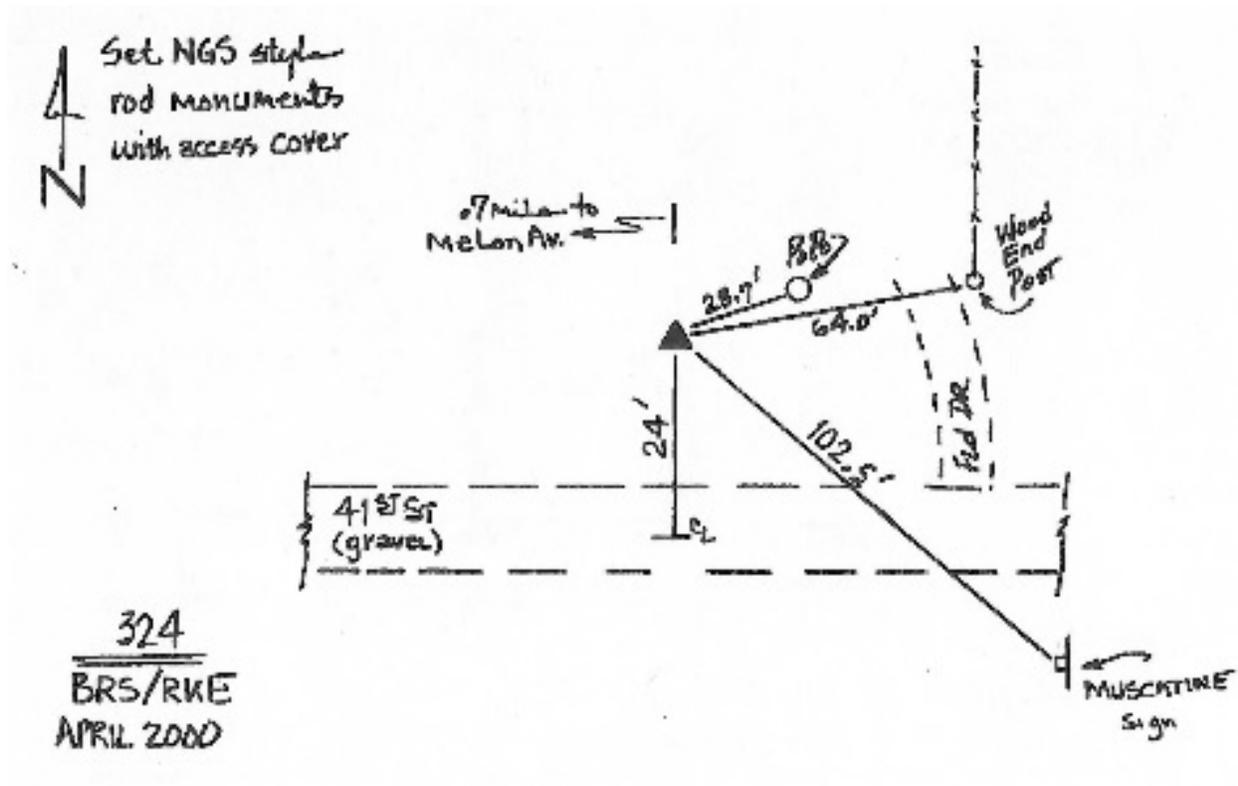
**Designation:** City of Muscatine GPS Control Pt 2000-324 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°22'40.87599"** Longitude: **W91°08'18.05419"**  
NAVD 88 Ortho Height: **540.060sft** Ellip. Ht: **431.979sft** **Geoid12A**

Iowa South Zone (1402) Northing: **510857.948sft** Easting: **2288462.923sft**  
Mapping Angle: **1°33'20"** Combination Scale Factor: **0.999932523**

IaRCS Zone 14 Northing: **6611007.629sft** Easting: **24530643.385sft**  
Mapping Angle: **0°04'26"** Combination Scale Factor: **0.9999984598**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **325**

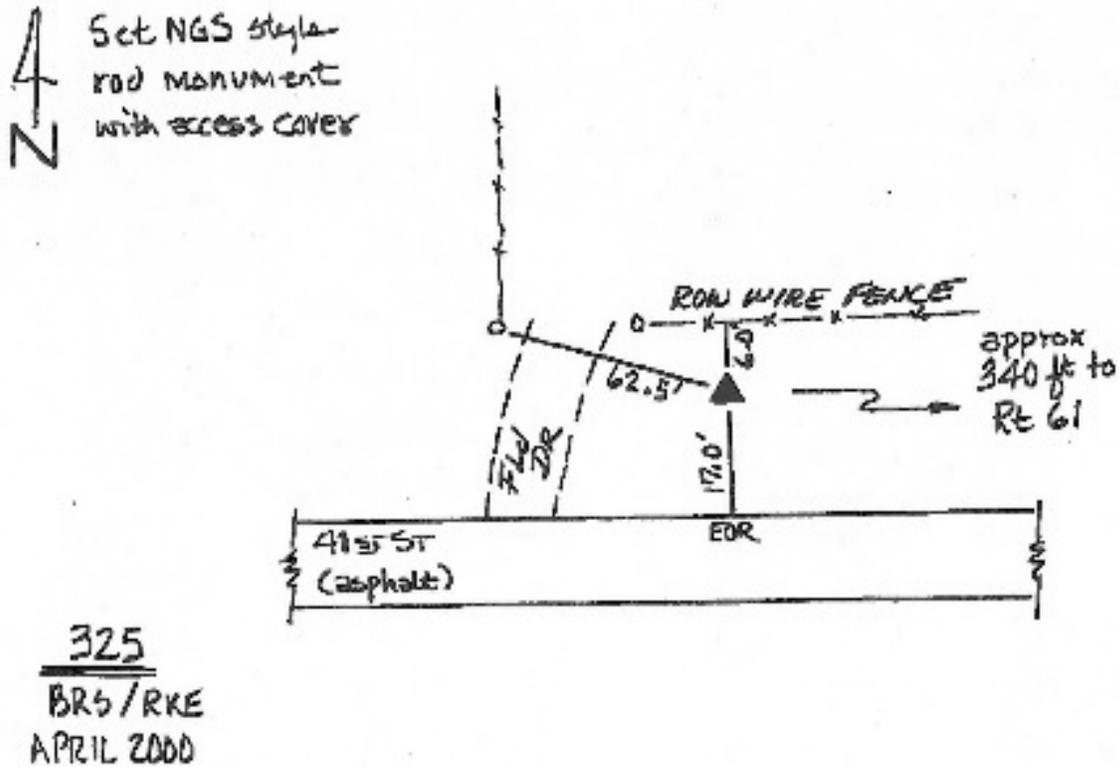
**Designation:** City of Muscatine GPS Control Pt 2000-325 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°22'40.79608"** Longitude: **W91°07'06.91924"**  
NAVD 88 Ortho Height: **542.370sft** Ellip. Ht: **434.280sft** **Geoid12A**

Iowa South Zone (1402) Northing: **510997.694sft** Easting: **2293883.935sft**  
Mapping Angle: **1°34'07"** Combination Scale Factor: **0.999932412**

IaRCS Zone 14 Northing: **6611007.145sft** Easting: **24536066.557sft**  
Mapping Angle: **0°05'13"** Combination Scale Factor: **0.9999987635**

**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.



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **326**

**Designation:** City of Muscatine GPS Control Pt 2000-326 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°22'39.78664"** Longitude: **W91°05'58.44686"**

NAVD 88 Ortho Height: **545.630sft** Ellip. Ht: **437.534sft** **Geoid12A**

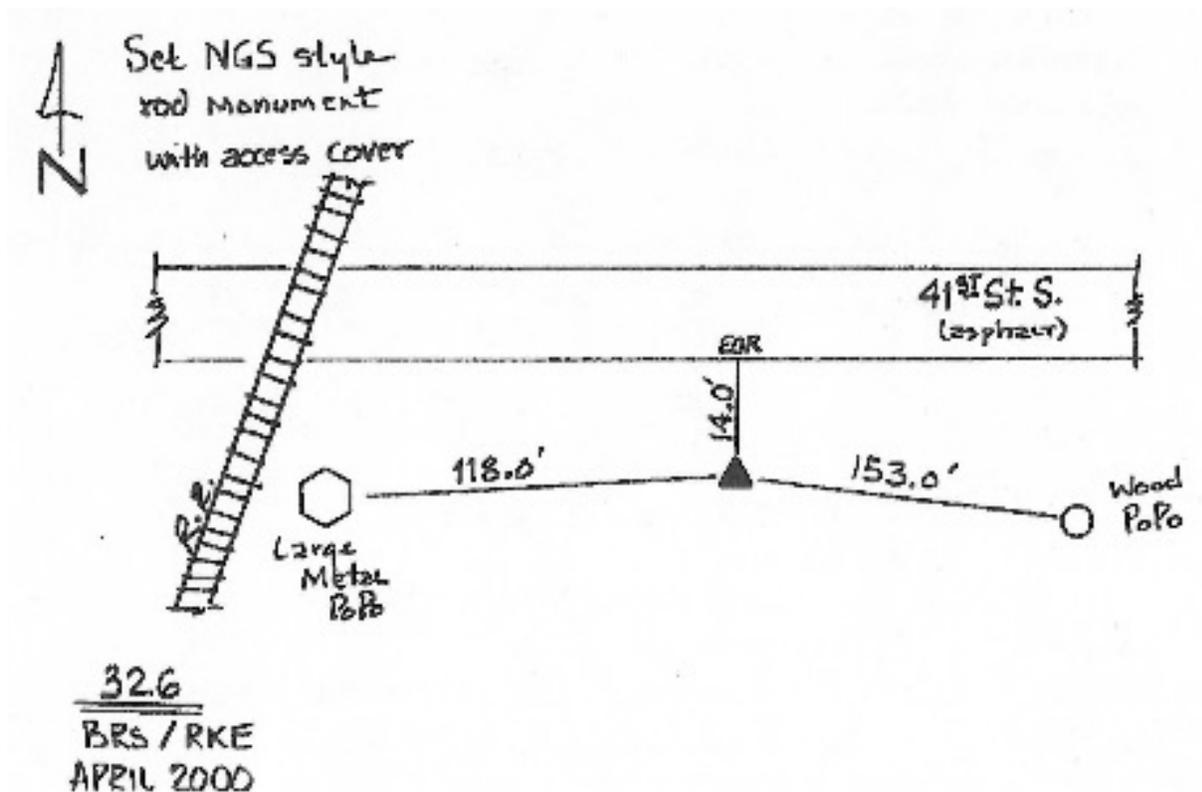
Iowa South Zone (1402) Northing: **511039.027sft** Easting: **2299104.615sft**

Mapping Angle: **1°34'52"** Combination Scale Factor: **0.999932242**

IaRCS Zone 14 Northing: **6610913.459sft** Easting: **24541286.908sft**

Mapping Angle: **0°05'58"** Combination Scale Factor: **0.9999990697**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **327 (Destroyed)**

**Designation:** City of Muscatine GPS Control Pt 2000-327 (Set by ASI in 2000)

NAD 83(NA2011) Latitude: **N41°21'48.688878"** Longitude: **W91°09'19.666371"**

NAVD 88 Ortho Height: **540.08sft** Ellip. Ht: **432.32sft** **Geoid96C**

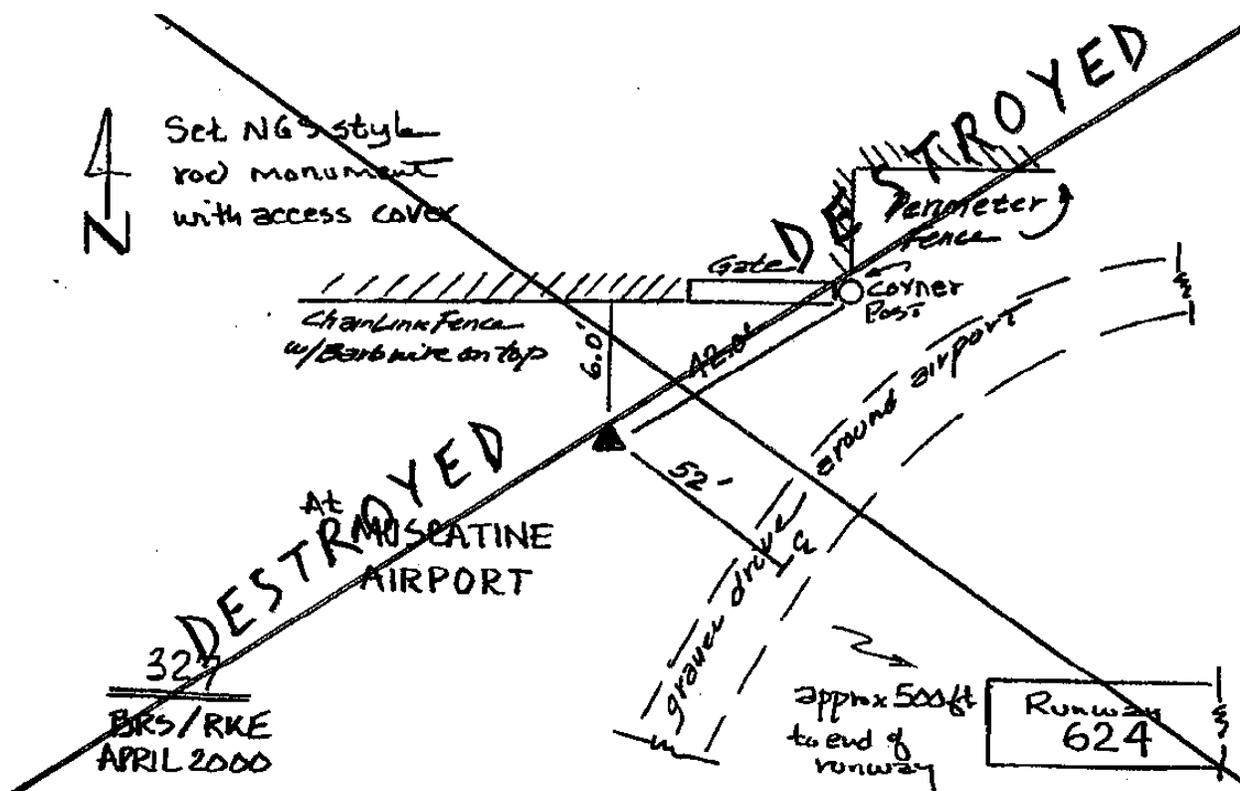
Iowa South Zone (1402) Northing: **505450.97sft** Easting: **2283910.13sft**

Mapping Angle: **1°32'40"** Combination Scale Factor: **0.99993174**

laRCS Zone 14 Northing: **N/Asft** Easting: **N/Asft**

Mapping Angle: **N/A** Combination Scale Factor: **N/A**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **328 (Destroyed)**

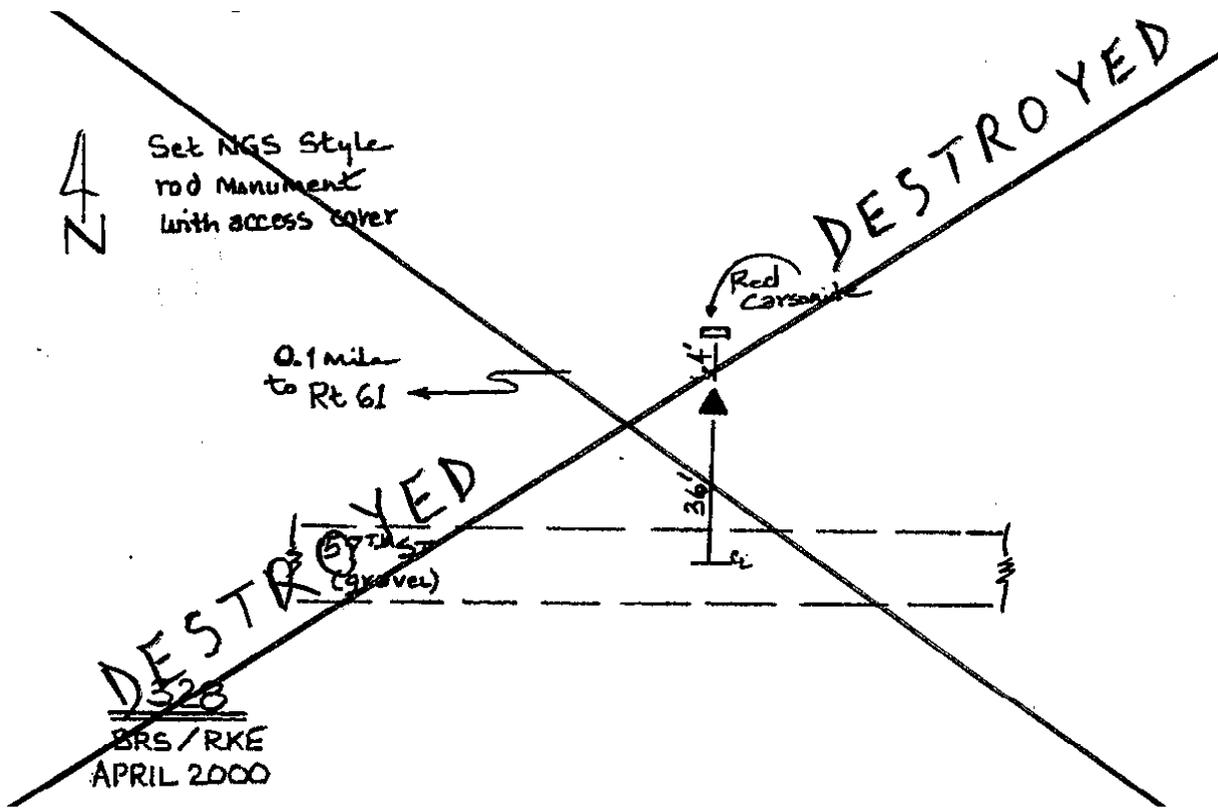
**Designation:** ~~City of Muscatine GPS Control Pt 2000-328 (Set by ASI in 2000)~~

NAD 83(NA2011) Latitude: ~~**N41°21'49.197763"**~~ Longitude: ~~**W91°08'22.858723"**~~  
NAVD 88 Ortho Height: ~~**538.64sft**~~ Ellip. Ht: ~~**430.88sft**~~ **Geoid96C**

Iowa South Zone (1402) Northing: ~~**505619.58sft**~~ Easting: ~~**2288238.71sft**~~  
Mapping Angle: ~~**1°33'17"**~~ Combination Scale Factor: ~~**0.99993178**~~

IaRCS Zone 14 Northing: ~~**N/Asft**~~ Easting: ~~**N/Asft**~~  
Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**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.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **329**

**Designation:** City of Muscatine GPS Control Pt 2000-329 (Set by ASI in 2000)

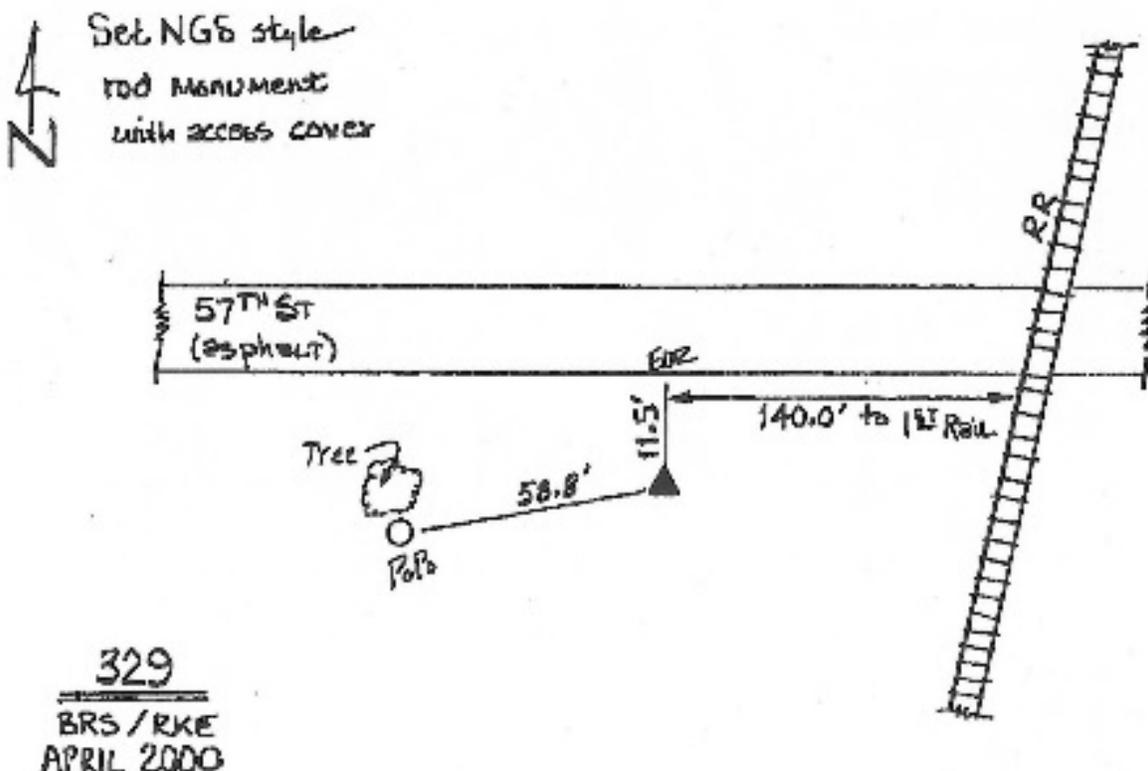
NAD 83(NA2011) Latitude: **N41°21'47.95266"** Longitude: **W91°07'08.34865"**

NAVD 88 Ortho Height: **547.640sft** Ellip. Ht: **439.514sft** **Geoid12A**

Iowa South Zone (1402) Northing: **505648.437sft** Easting: **2293921.390sft**  
Mapping Angle: **1°34'06"** Combination Scale Factor: **0.999931405**

IaRCS Zone 14 Northing: **6605658.351sft** Easting: **24535965.665sft**  
Mapping Angle: **0°05'12"** Combination Scale Factor: **0.9999985054**

**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.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **330**

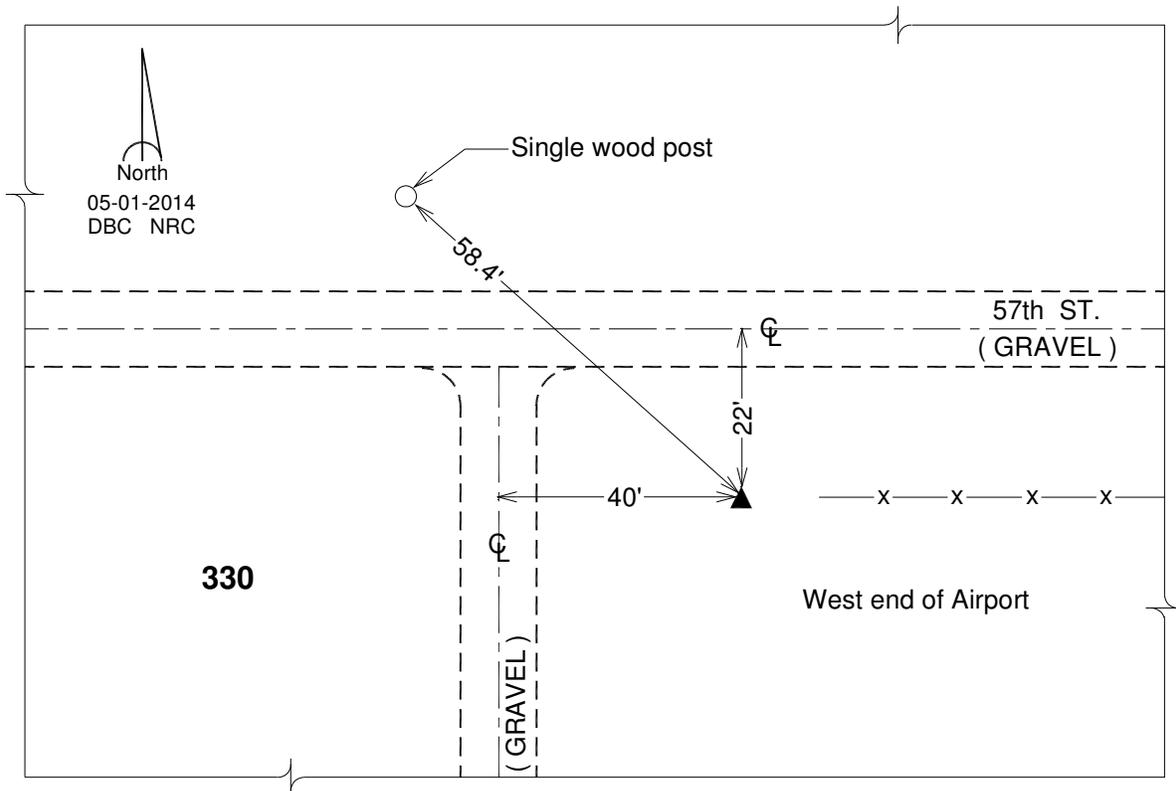
**Designation:** 330 (Set by DCI in 2014)

NAD 83(NA2011) Latitude: **N41°21'49.73683"** Longitude: **W91°09'35.28742"**  
NAVD 88 Ortho Height: **537.724sft** Ellip. Ht: **429.623sft** **Geoid12A**

Iowa South Zone (1402) Northing: **505524.920sft** Easting: **2282716.612sft**  
Mapping Angle: **1°32'29"** Combination Scale Factor: **0.999931902**

IaRCS Zone 14 Northing: **6605824.644sft** Easting: **24524760.694sft**  
Mapping Angle: **0°03'35"** Combination Scale Factor: **0.9999981997**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **331**

**Designation:** 331 (Set by DCI in 2014)

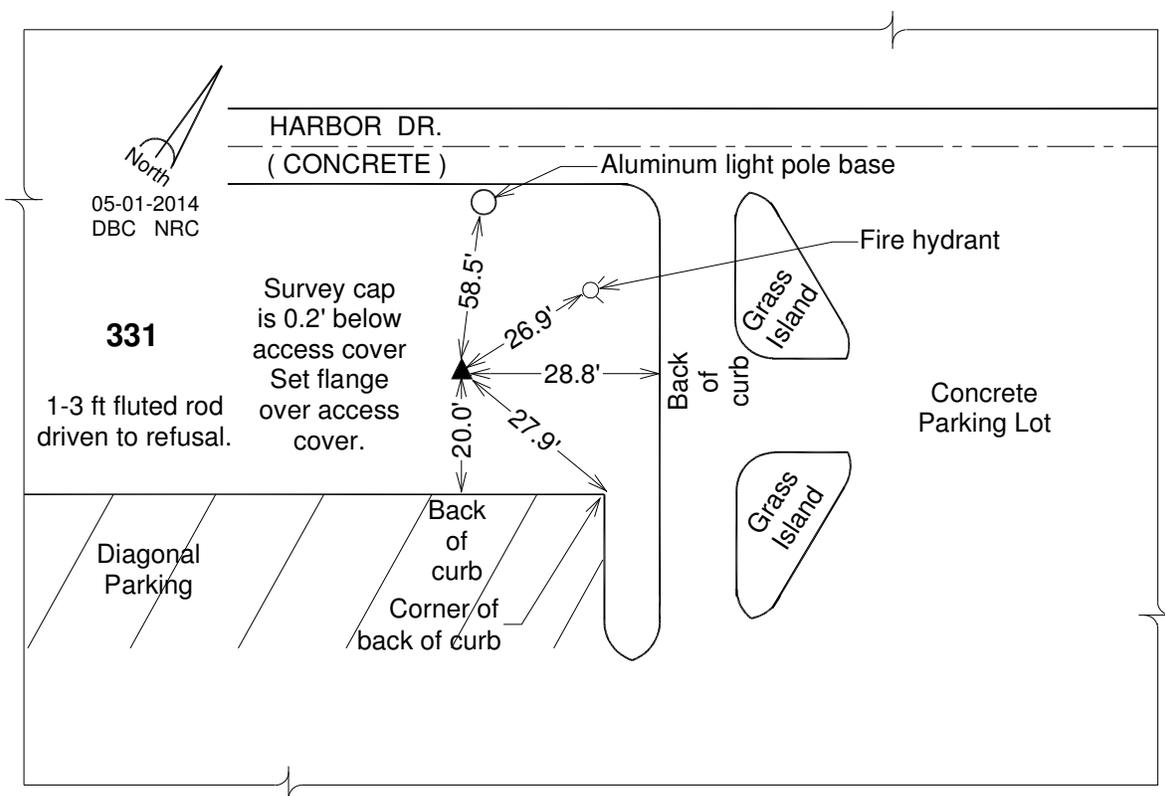
NAD 83(NA2011) Latitude: **N41°25'22.56157"** Longitude: **W91°02'19.13945"**

NAVD 88 Ortho Height: **554.919sft** Ellip. Ht: **446.963sft** **Geoid12A**

Iowa South Zone (1402) Northing: **527974.147sft** Easting: **2315350.433sft**  
Mapping Angle: **1°37'17"** Combination Scale Factor: **0.999934533**

IaRCS Zone 14 Northing: **6627423.962sft** Easting: **24557966.275sft**  
Mapping Angle: **0°08'23"** Combination Scale Factor: **1.0000005116**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **332**

**Designation:** 332 (Set by DCI in 2014)

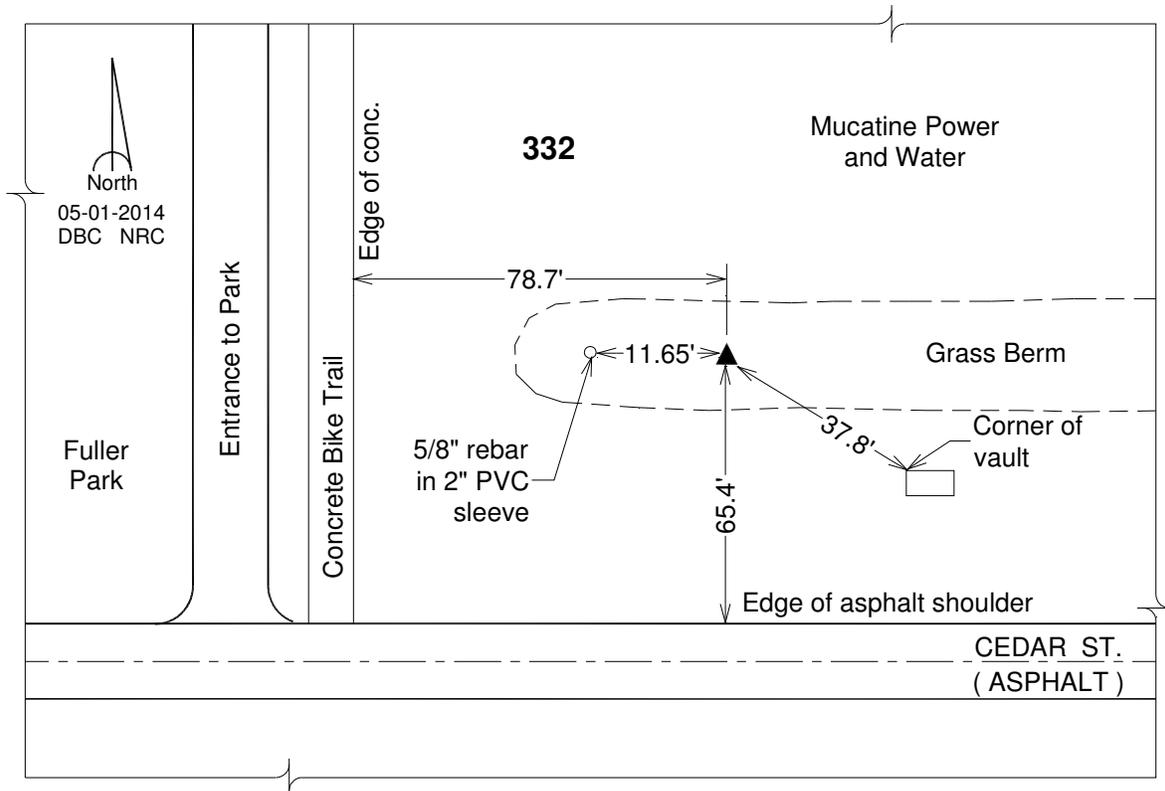
NAD 83(NA2011) Latitude: **N41°26'10.51608"** Longitude: **W91°05'00.23221"**

NAVD 88 Ortho Height: **698.050sft** Ellip. Ht: **590.151sft** **Geoid12A**

Iowa South Zone (1402) Northing: **532481.752sft** Easting: **2302948.321sft**  
Mapping Angle: **1°35'31"** Combination Scale Factor: **0.999928627**

IaRCS Zone 14 Northing: **6632251.022sft** Easting: **24545684.055sft**  
Mapping Angle: **0°06'37"** Combination Scale Factor: **0.9999922243**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a white PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **400**

**Designation:** Photogrammetric Survey Marker

NAD 83(NA2011) Latitude: **N41°34'06.26512"** Longitude: **W91°21'55.96454"**

NAVD 88 Ortho Height: **714.193sft** Ellip. Ht: **606.899sft** **Geoid12A**

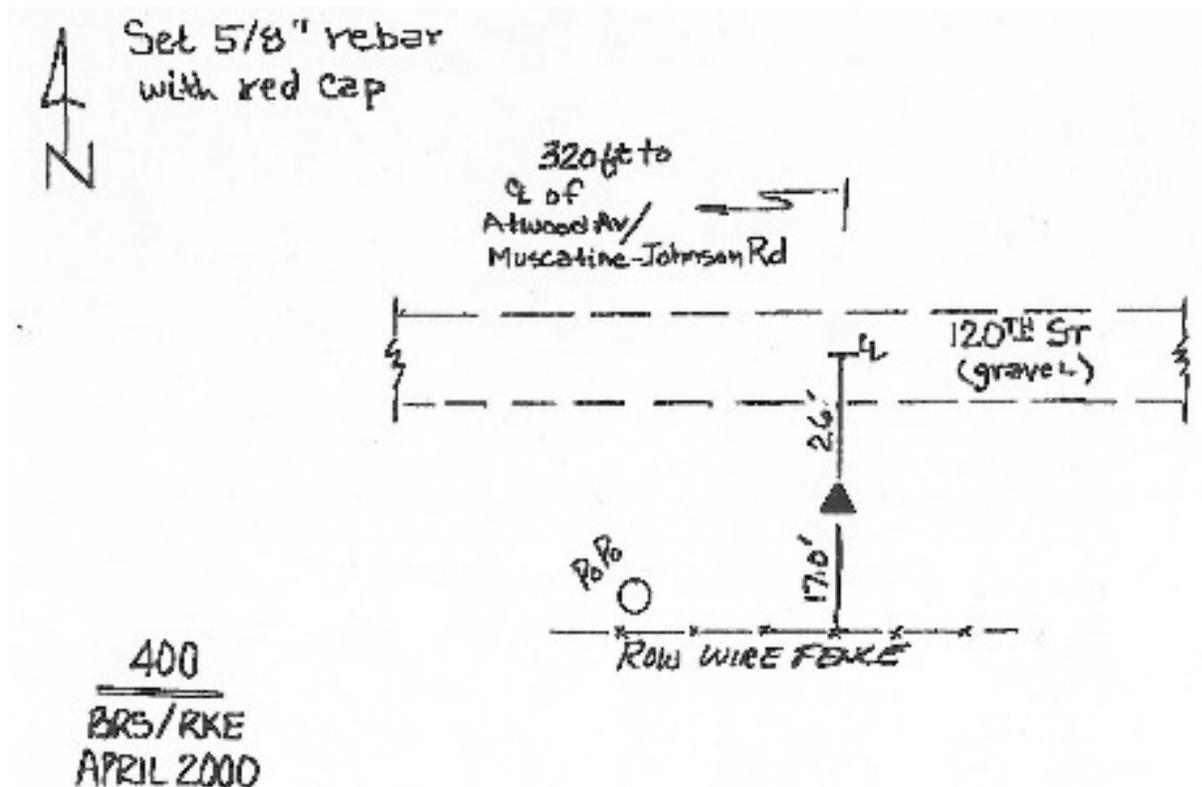
Iowa South Zone (1402) Northing: **578595.708sft** Easting: **2224430.207sft**

Mapping Angle: **1°24'21"** Combination Scale Factor: **0.999939945**

IaRCS Zone 14 Northing: **6680382.987sft** Easting: **24468380.513sft**

Mapping Angle: **-0°04'36"** Combination Scale Factor: **0.9999901829**

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



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **500 (Not Measured)**

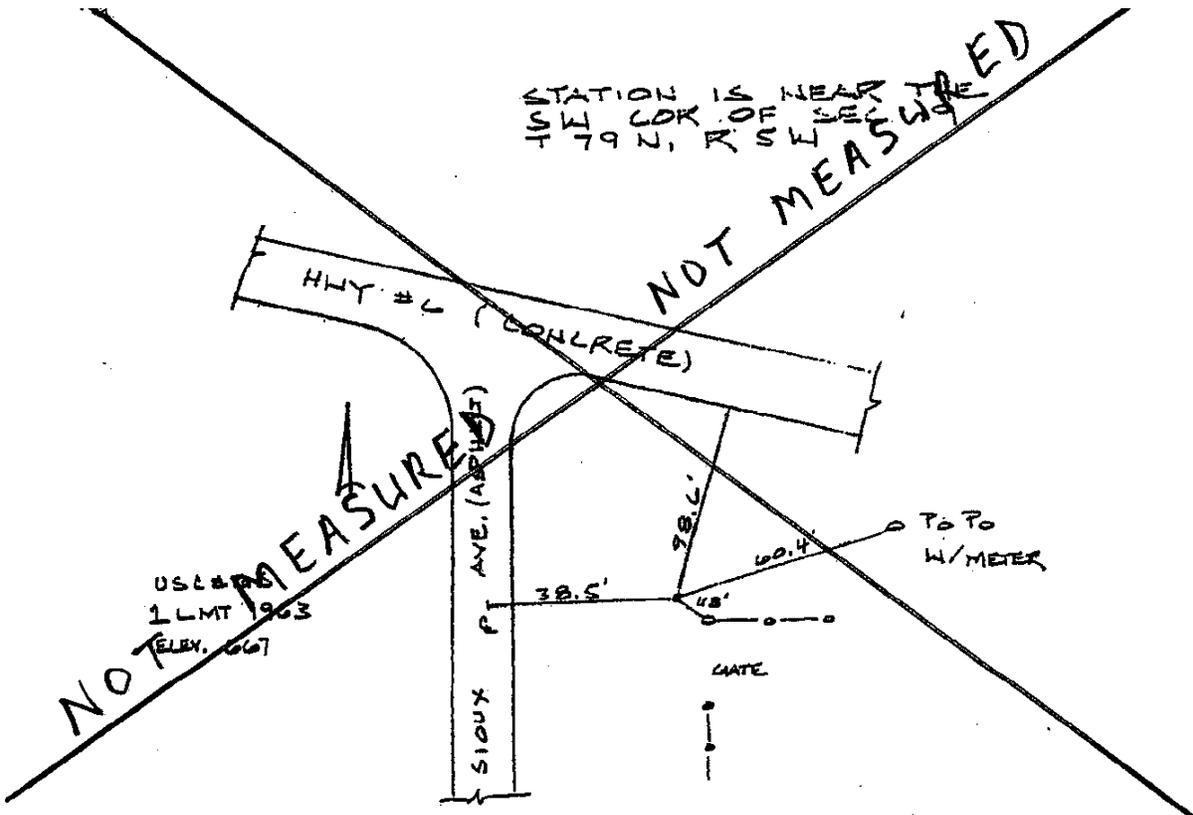
**Designation:** ~~USGS vertical control station "667 1 LMT 1963"~~

NAD 83(NA2011) Latitude: **N41°37'40.606248"** Longitude: **W91°28'57.892089"**  
NAVD 88 Ortho Height: **666.35**sft Ellip. Ht: **559.67**sft **Geoid96C**

Iowa South Zone (1402) Northing: **599519.3**sft Easting: **2191865.07**sft  
Mapping Angle: **1°19'44"** Combination Scale Factor: **0.99994933**

IaRCS Zone 14 Northing: **N/A**sft Easting: **N/A**sft  
Mapping Angle: **N/A** Combination Scale Factor: **N/A**

**Monument Type:** ~~A standard bench disk set in the top of a concrete post.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **501 (Not Measured)**

**Designation:** ~~USGS vertical control station "665-15-LMT-1963"~~

NAD 83(NA2011) Latitude: ~~**N41°32'26.087845"**~~ Longitude: ~~**W91°28'58.231502"**~~

NAVD 88 Ortho Height: ~~**665.03sft**~~ Ellip. Ht: ~~**558.11sft**~~ **Geoid96C**

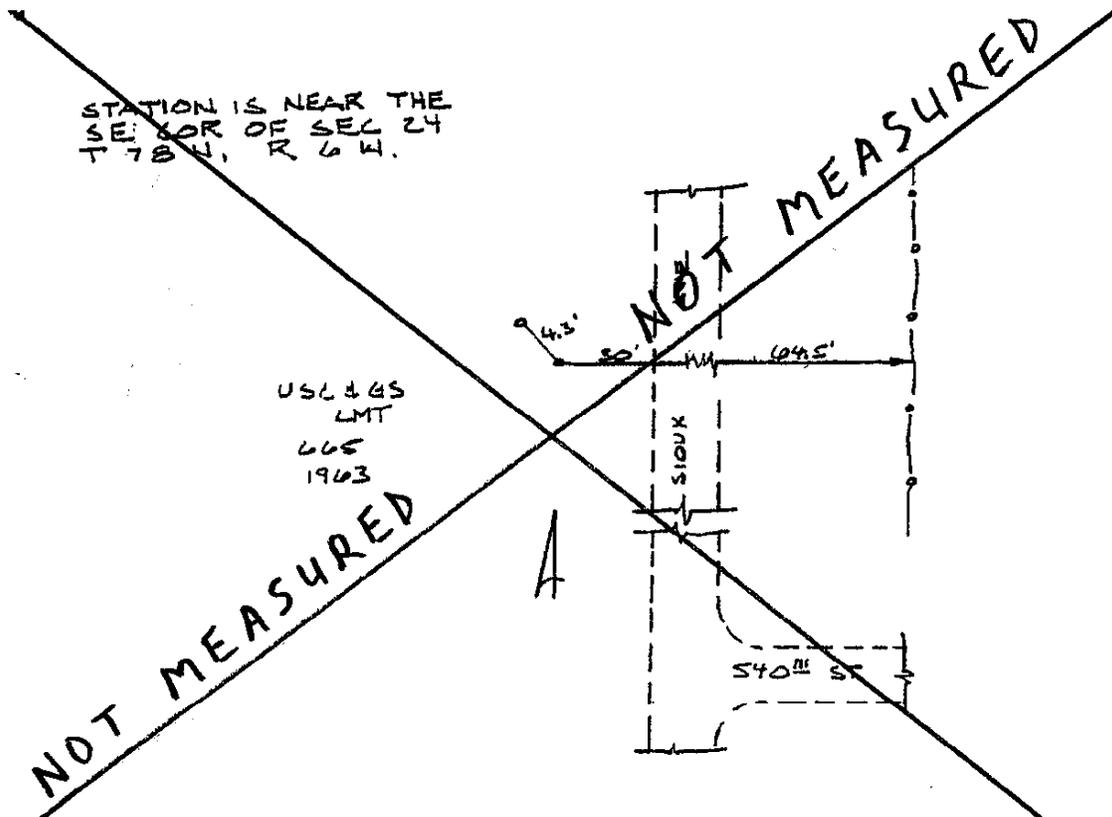
Iowa South Zone (1402) Northing: ~~**567693.12sft**~~ Easting: ~~**2192577.48sft**~~

Mapping Angle: ~~**1°19'43"**~~ Combination Scale Factor: ~~**0.99993921**~~

IaRCS Zone 14 Northing: ~~**N/Asft**~~ Easting: ~~**N/Asft**~~

Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**Monument Type:** ~~A standard bench disk set in the top of a concrete post.~~



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **502 (Not Measured)**

**Designation:** ~~GBN control station "B-8" PID: MG0476~~

NAD 83(NA2011) Latitude: **N41°19'34.286850"** Longitude: **W91°33'39.594640"**

NAVD 88 Ortho Height: **753.17sft** Ellip. Ht: **645.71sft** **Geoid96C**

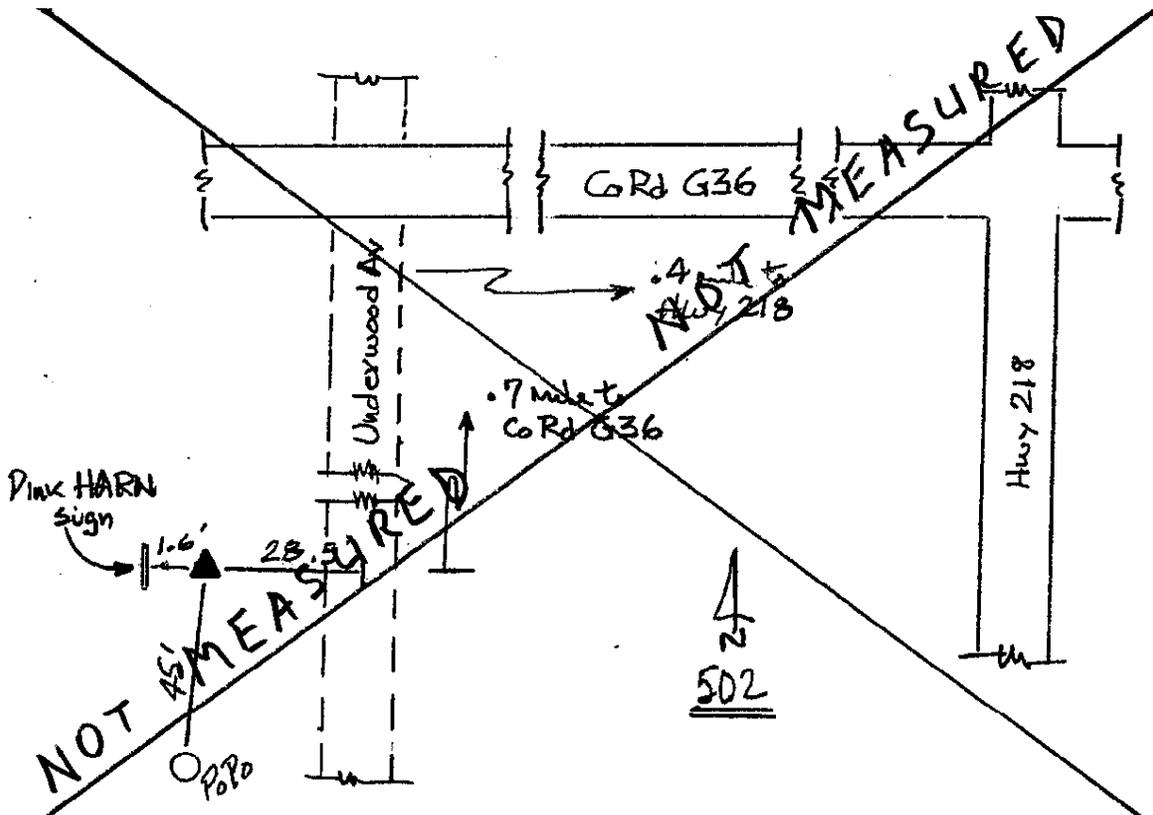
Iowa South Zone (1402) Northing: **489110.9sft** Easting: **2172928.35sft**

Mapping Angle: **1°16'38"** Combination Scale Factor: **0.99991987**

laRCS Zone 14 Northing: **N/Asft** Easting: **N/Asft**

Mapping Angle: **N/A** Combination Scale Factor: **N/A**

**Monument Type:** ~~A standard bench disk set in the top of a concrete post.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **503 (Not Measured)**

**Designation:** ~~NGS 1st order vertical control station "D 8" PID: MG0416~~

NAD 83(NA2011) Latitude: ~~**N41°21'14.809321"**~~ Longitude: ~~**W91°29'04.508123"**~~

NAVD 88 Ortho Height: ~~**683.4sft**~~ Ellip. Ht: ~~**575.96sft**~~ **Geoid96C**

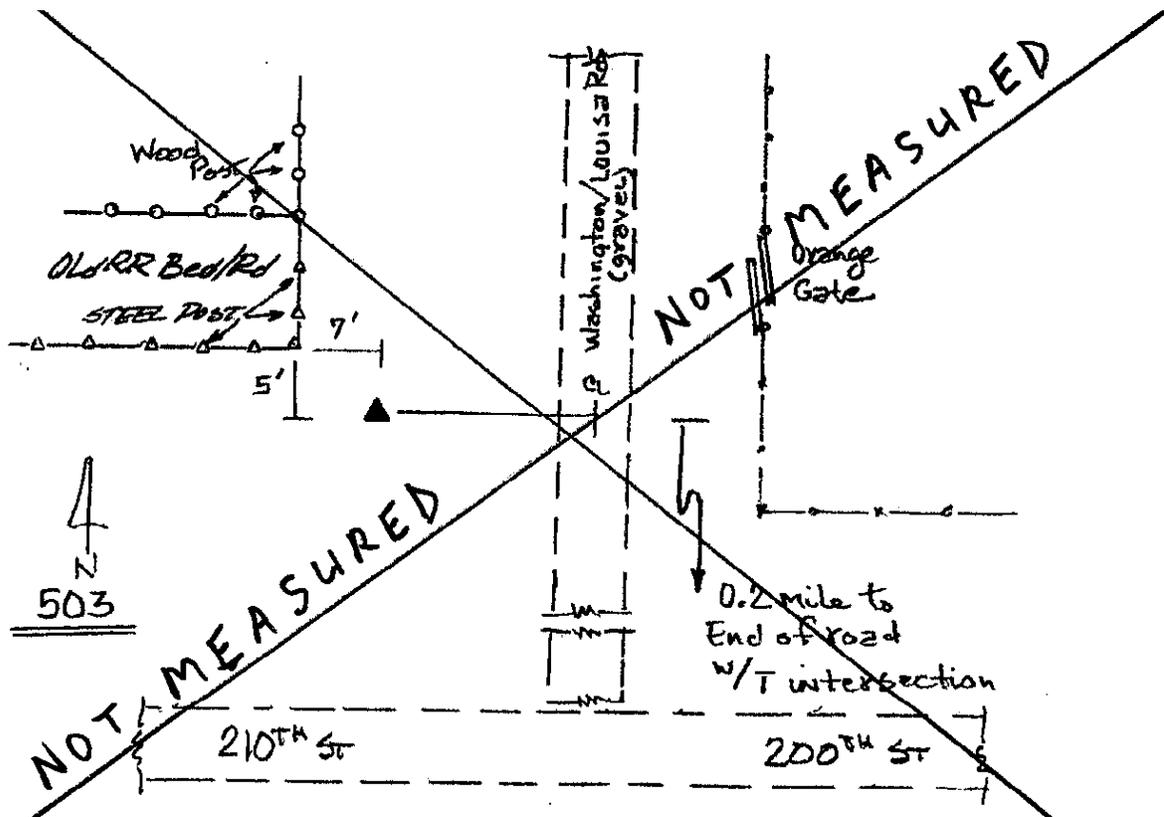
Iowa South Zone (1402) Northing: ~~**499758.99sft**~~ Easting: ~~**2193674.38sft**~~

Mapping Angle: ~~**1°19'39"**~~ Combination Scale Factor: ~~**0.99992439**~~

IaRCS Zone 14 Northing: ~~**N/Asft**~~ Easting: ~~**N/Asft**~~

Mapping Angle: ~~**N/A**~~ Combination Scale Factor: ~~**N/A**~~

**Monument Type:** ~~A standard bench disk set in the top of a concrete post.~~



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **504**

**Designation:** NGS 3rd order vertical control station "H 77 RESET" PID: MG0918

NAD 83(NA2011) Latitude: **N41°27'59.21506"** Longitude: **W91°19'06.76589"**

NAVD 88 Ortho Height: **626.360sft** Ellip. Ht: **518.716sft** **Geoid12A**

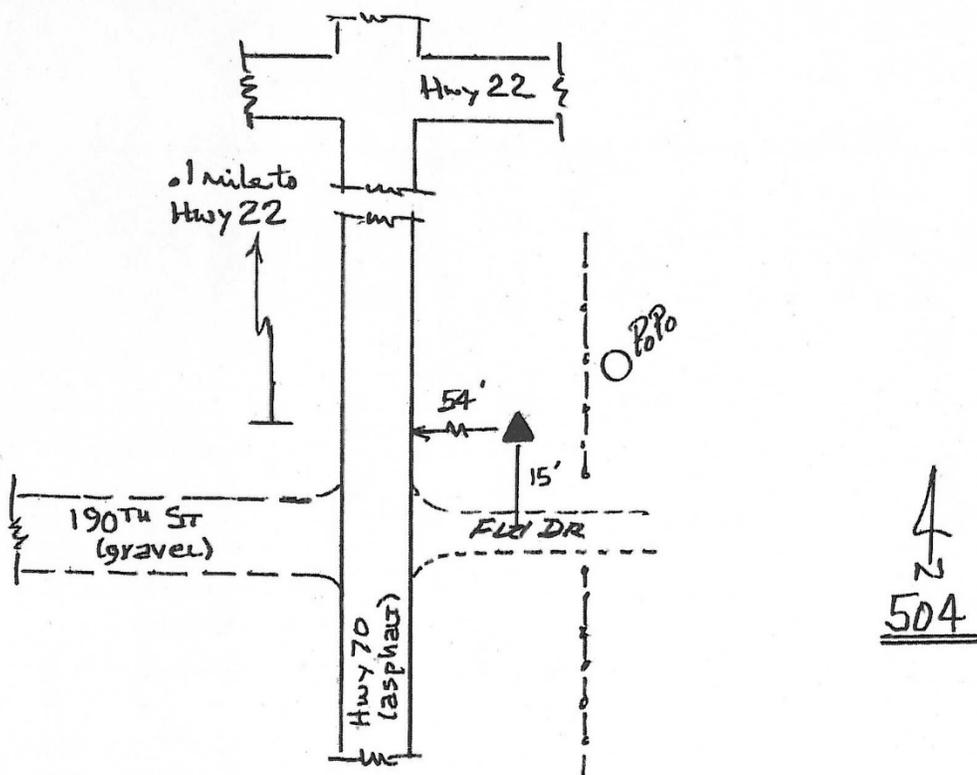
Iowa South Zone (1402) Northing: **541775.961sft** Easting: **2238218.830sft**

Mapping Angle: **1°26'13"** Combination Scale Factor: **0.999934335**

laRCS Zone 14 Northing: **6643216.794sft** Easting: **24481212.664sft**

Mapping Angle: **-0°02'43"** Combination Scale Factor: **0.9999936514**

**Monument Type:** A standard bench disk set in the top of a concrete post.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **505**

**Designation:** USGS vertical control station "1 DRL 1964"

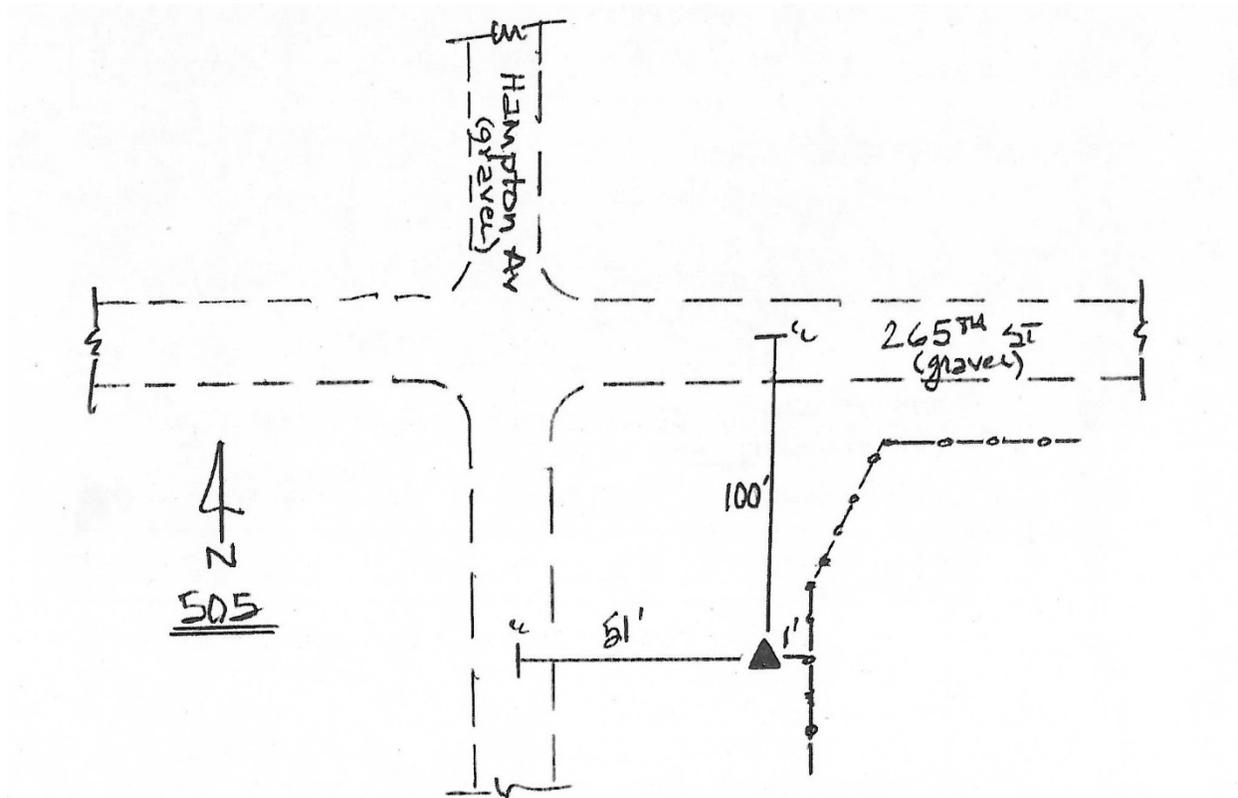
NAD 83(NA2011) Latitude: **N41°21'24.58102"** Longitude: **W91°14'21.11590"**

NAVD 88 Ortho Height: **720.910sft** Ellip. Ht: **612.897sft** **Geoid12A**

Iowa South Zone (1402) Northing: **502403.430sft** Easting: **2260996.215sft**  
Mapping Angle: **1°29'21"** Combination Scale Factor: **0.999922818**

IaRCS Zone 14 Northing: **6603265.770sft** Easting: **24502965.393sft**  
Mapping Angle: **0°00'26"** Combination Scale Factor: **0.9999887639**

**Monument Type:** A standard bench disk set in the top of a concrete post.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **506**

**Designation:** CBN control station "ARDON AZ MK RESET" PID: AE2148

NAD 83(NA2011) Latitude: **N41°26'37.28223"** Longitude: **W91°10'26.06733"**

NAVD 88 Ortho Height: **741.890sft** Ellip. Ht: **634.055sft** **Geoid12A**

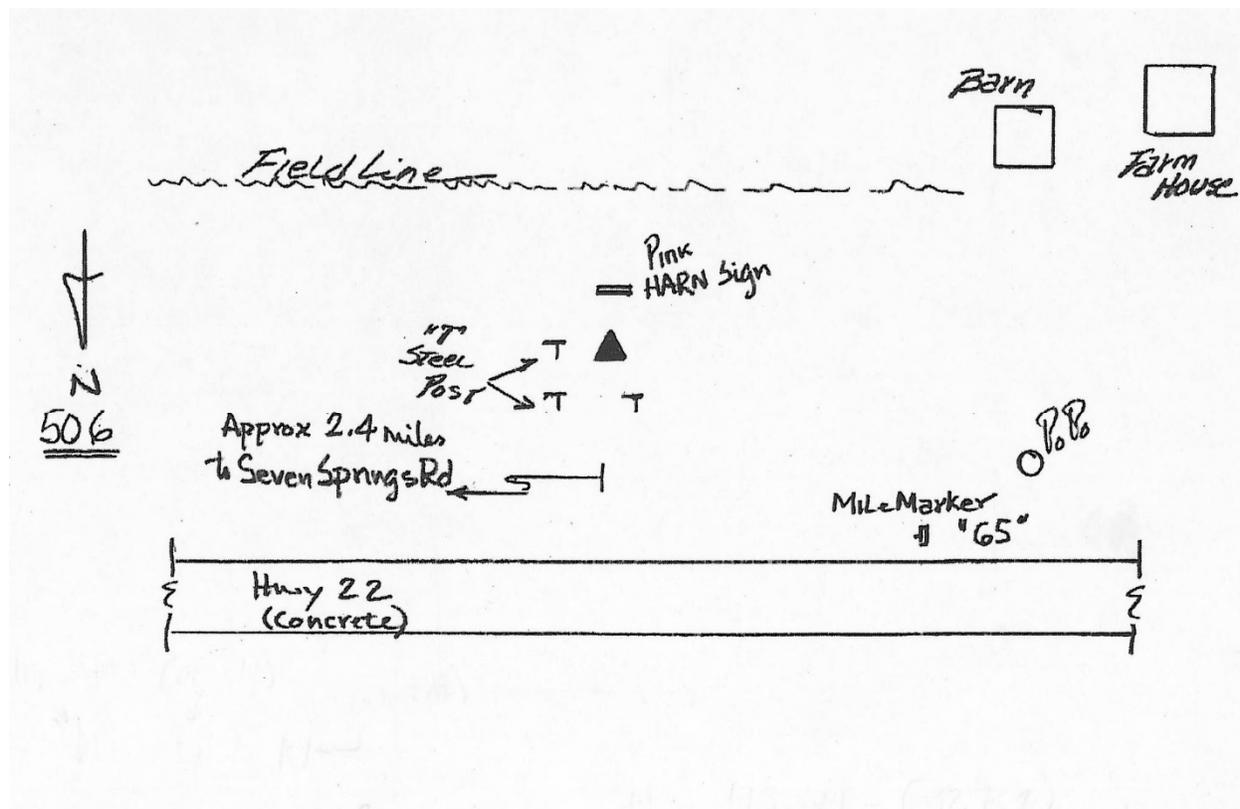
Iowa South Zone (1402) Northing: **534513.340sft** Easting: **2278067.910sft**

Mapping Angle: **1°31'56"** Combination Scale Factor: **0.999927072**

IaRCS Zone 14 Northing: **6634925.445sft** Easting: **24520862.949sft**

Mapping Angle: **0°03'01"** Combination Scale Factor: **0.9999882418**

**Monument Type:** A survey disk on a copper clad steel rod w/o sleeve (10 FT. +).



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **507**

**Designation:** USGS vertical control station "4 DRL 1964"

NAD 83(NA2011) Latitude: **N41°16'21.55732"** Longitude: **W91°09'31.63952"**

NAVD 88 Ortho Height: **696.810sft** Ellip. Ht: **588.543sft** **Geoid12A**

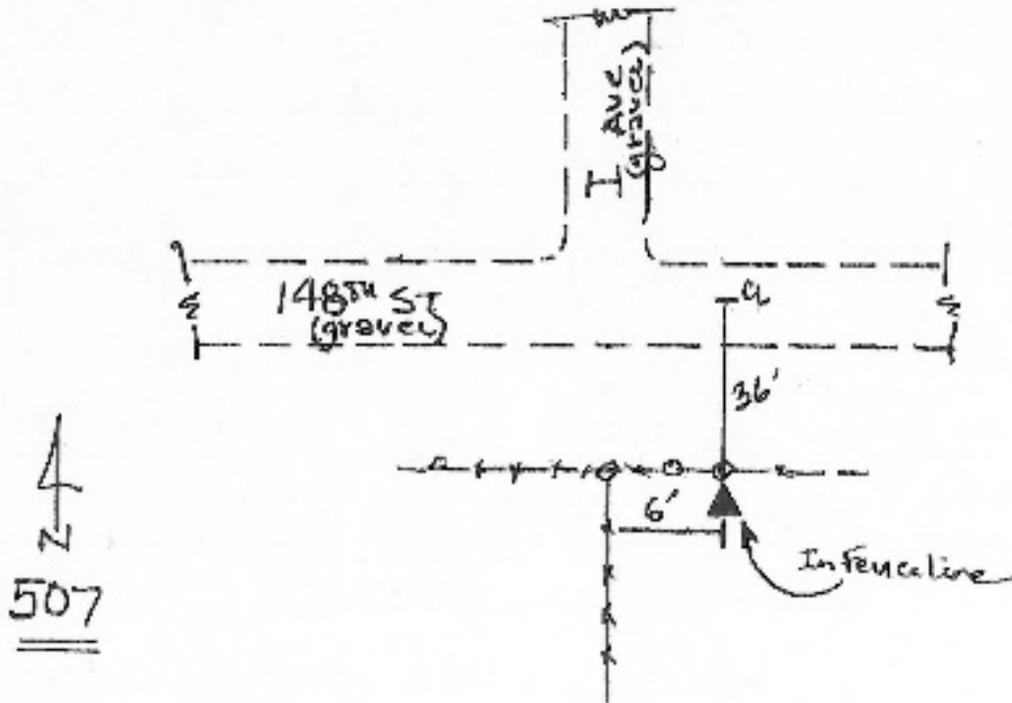
Iowa South Zone (1402) Northing: **472329.793sft** Easting: **2283888.550sft**

Mapping Angle: **1°32'32"** Combination Scale Factor: **0.999921069**

IaRCS Zone 14 Northing: **6572608.047sft** Easting: **24525073.775sft**

Mapping Angle: **0°03'37"** Combination Scale Factor: **0.9999906343**

**Monument Type:** A standard bench disk set in the top of a concrete post.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **509**

**Designation:** CBN control station "ROC92-1B" PID: AF9289

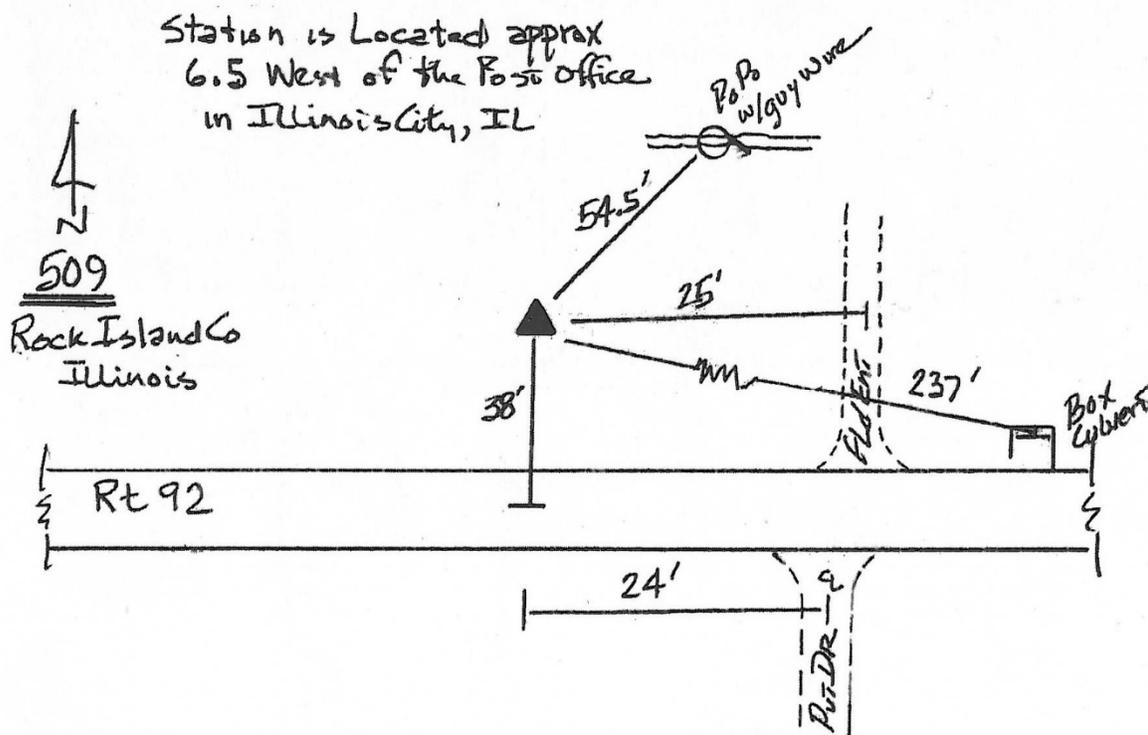
NAD 83(NA2011) Latitude: **N41°24'40.89901"** Longitude: **W91°01'14.65748"**

NAVD 88 Ortho Height: **545.437sft** Ellip. Ht: **437.454sft** **Geoid12A**

Iowa South Zone (1402) Northing: **523898.639sft** Easting: **2320380.886sft**  
Mapping Angle: **1°37'59"** Combination Scale Factor: **0.999934226**

IaRCS Zone 14 Northing: **6623219.482sft** Easting: **24562890.009sft**  
Mapping Angle: **0°09'06"** Combination Scale Factor: **1.0000016454**

**Monument Type:** A stainless steel rod in sleeve (10 FT. +).



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **510 (Not Measured)**

**Designation:** TBM for "P 70" NGS 2nd order vert control PID: MG0337

NAD 83(NA2011) Latitude: **N41°44'33.591112"** Longitude: **W90°46'49.949715"**

NAVD 88 Ortho Height: **670.39sft** Ellip. Ht: **563.45sft** **Geoid96C**

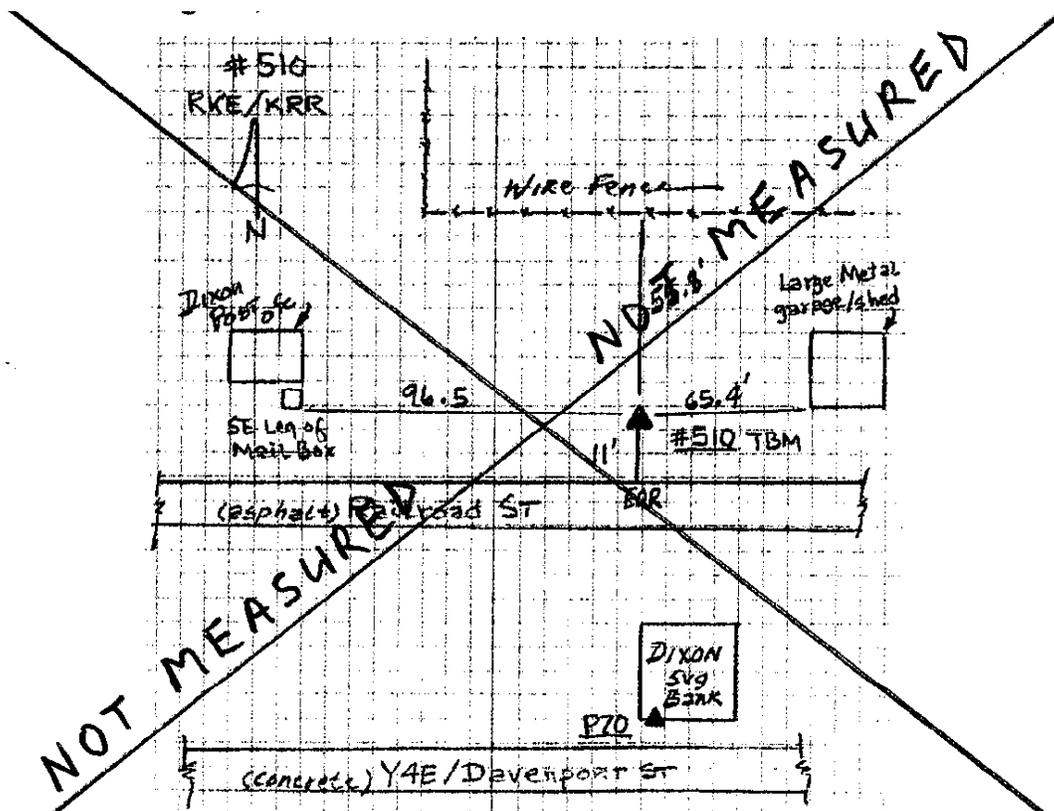
Iowa South Zone (1402) Northing: **646527.08sft** Easting: **2382463.3sft**

Mapping Angle: **1°47'29"** Combination Scale Factor: **0.99996608**

IaRCS Zone 14 Northing: **N/Asft** Easting: **N/Asft**

Mapping Angle: **N/A** Combination Scale Factor: **N/A**

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



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **511**

**Designation:** CBN control station "ROC92-3A" PID: AF9290

NAD 83(NA2011) Latitude: **N41°26'16.50167"** Longitude: **W90°46'07.62722"**

NAVD 88 Ortho Height: **555.180sft** Ellip. Ht: **447.307sft** **Geoid12A**

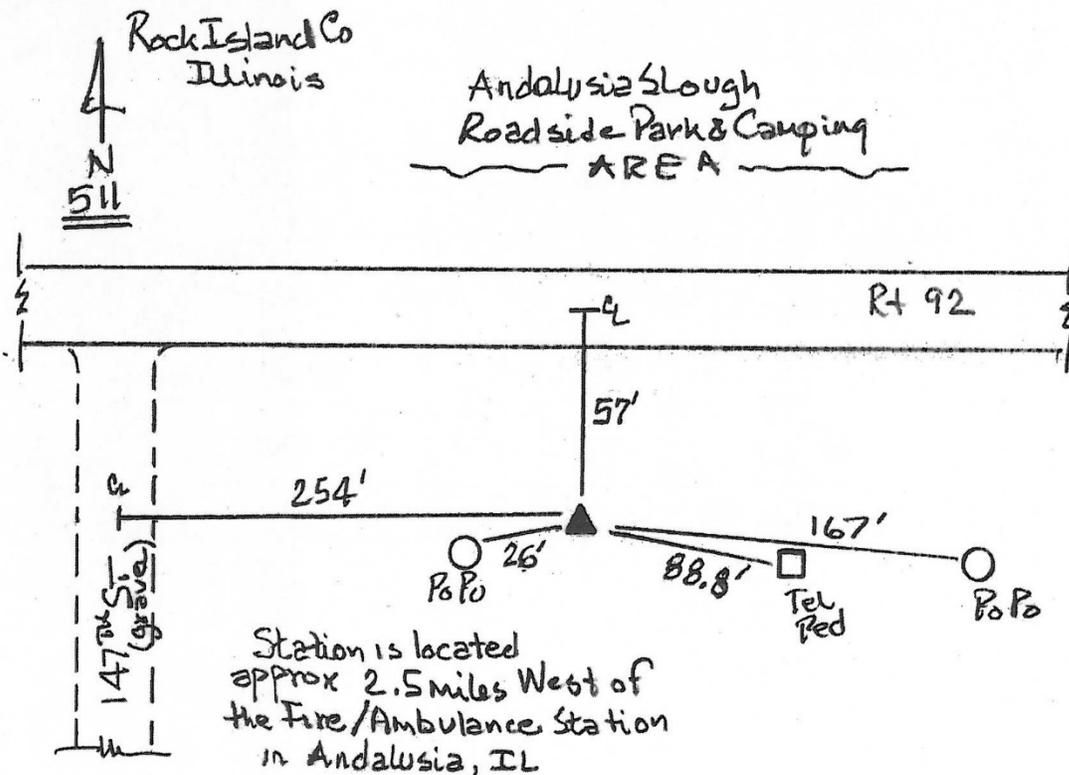
Iowa South Zone (1402) Northing: **535639.545sft** Easting: **2389156.229sft**

Mapping Angle: **1°47'57"** Combination Scale Factor: **0.999935562**

IaRCS Zone 14 Northing: **6633179.636sft** Easting: **24631950.895sft**

Mapping Angle: **0°19'07"** Combination Scale Factor: **1.0000165527**

**Monument Type:** A stainless steel rod in sleeve (10 FT. +). Recessed 5 centimeters.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **512 (Not Measured)**

**Designation:** CBN control station "SCHUMAKER 2" PID: MG0753

NAD 83(NA2011) Latitude: **N41°35'24.071640"** Longitude: **W90°41'14.262550"**

NAVD 88 Ortho Height: **760.37sft** Ellip. Ht: **653.19sft** **Geoid12A**

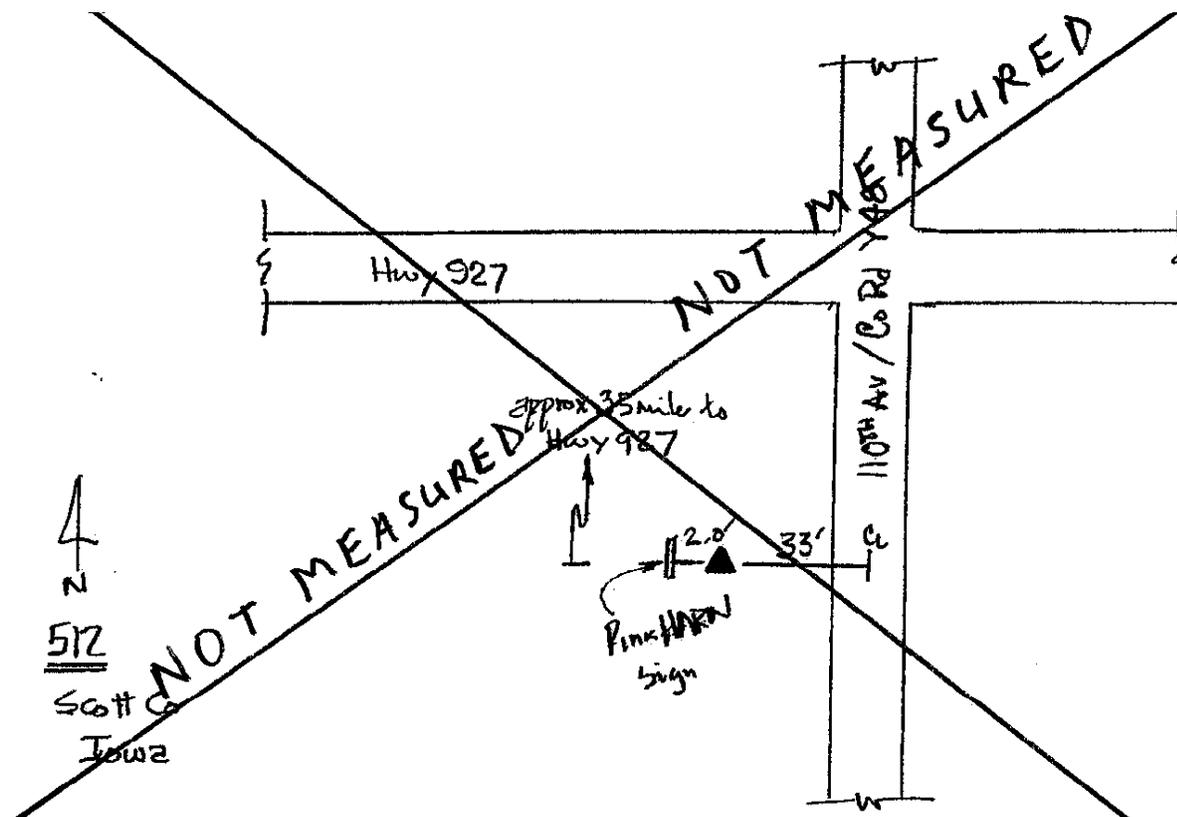
Iowa South Zone (1402) Northing: **591743.98sft** Easting: **2409696.59sft**

Mapping Angle: **1°51'10"** Combination Scale Factor: **0.99994015**

laRCS Zone 14 Northing: **N/A**sft Easting: **N/A**sft

Mapping Angle: **N/A** Combination Scale Factor: **N/A**

**Monument Type:** A standard bench disk set in the top of a concrete post.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*



**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **631**

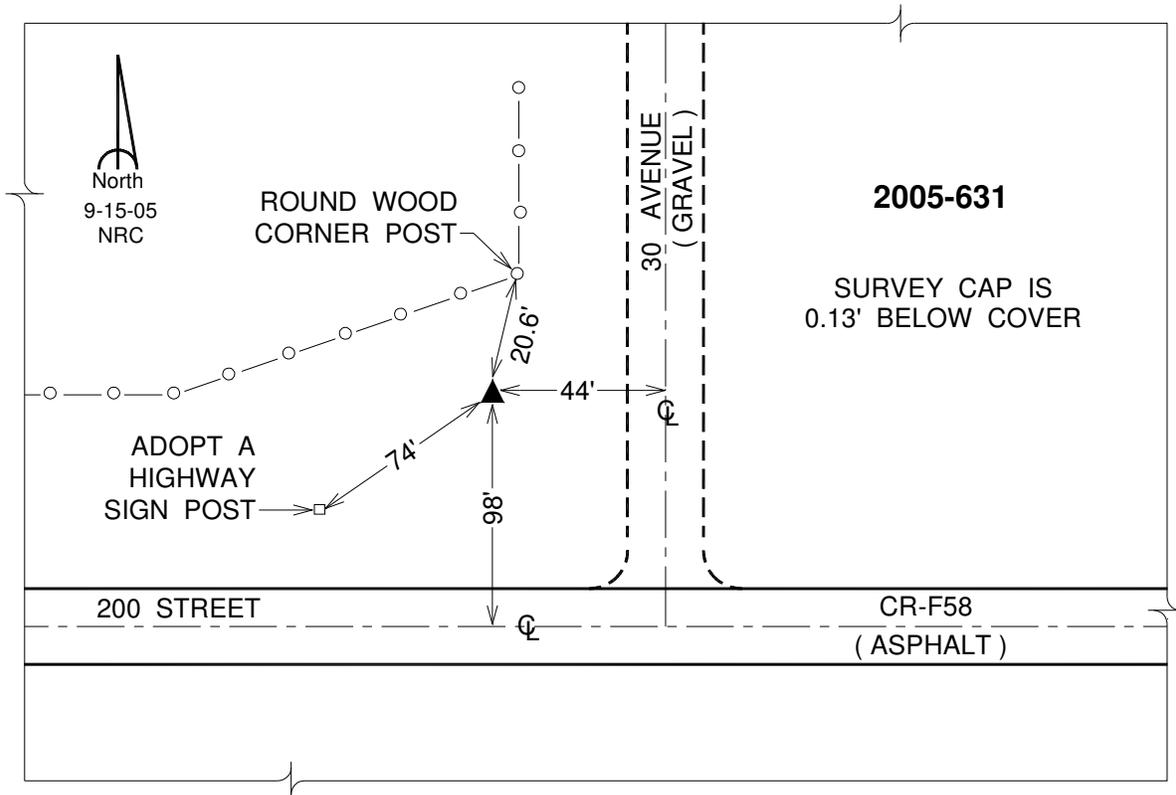
**Designation:** Scott Co. GPS Control Pt 2005-631 (Set by DCI in 2005)

NAD 83(NA2011) Latitude: **N41°35'49.06962"** Longitude: **W90°50'29.18996"**  
NAVD 88 Ortho Height: **718.560sft** Ellip. Ht: **611.006sft** **Geoid12A**

Iowa South Zone (1402) Northing: **592947.059sft** Easting: **2367473.432sft**  
Mapping Angle: **1°45'04"** Combination Scale Factor: **0.999943068**

IaRCS Zone 14 Northing: **6691032.253sft** Easting: **24611754.277sft**  
Mapping Angle: **0°16'16"** Combination Scale Factor: **1.0000031162**

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed survey cap and permanent magnet encased in a 5" dia. PVC pipe with a NGS style aluminum access cover.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **801**

**Designation:** 801 (Set by Secondary Roads Dept. in 2002)

NAD 83(NA2011) Latitude: **N41°31'14.60850"** Longitude: **W90°51'26.54028"**

NAVD 88 Ortho Height: **777.206sft** Ellip. Ht: **669.544sft** **Geoid12A**

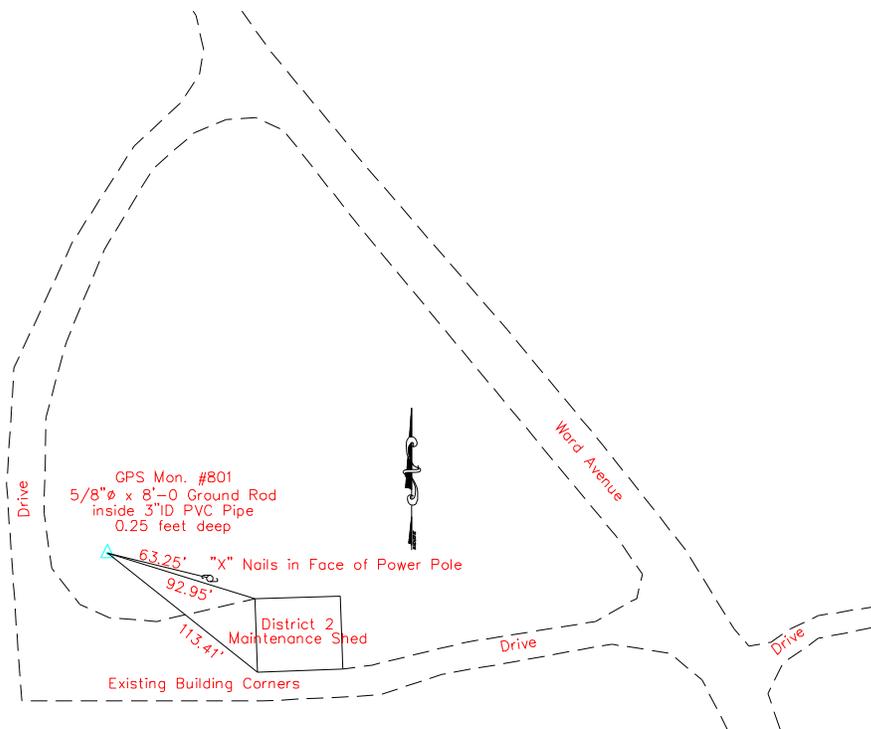
Iowa South Zone (1402) Northing: **565047.600sft** Easting: **2363961.936sft**

Mapping Angle: **1°44'27"** Combination Scale Factor: **0.999931970**

IaRCS Zone 14 Northing: **6663231.036sft** Easting: **24607523.002sft**

Mapping Angle: **0°15'37"** Combination Scale Factor: **0.9999992628**

**Monument Type:** 5/8" copper rod.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **802**

**Designation:** 802 (Set by Secondary Roads Dept. in 2002)

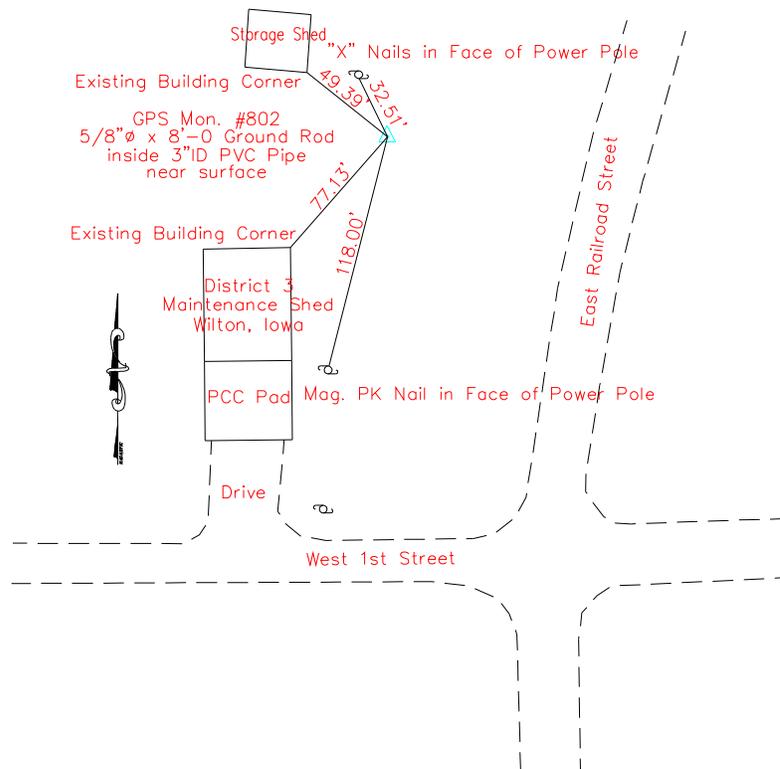
NAD 83(NA2011) Latitude: **N41°35'09.07303"** Longitude: **W91°01'07.41636"**

NAVD 88 Ortho Height: **674.863sft** Ellip. Ht: **567.375sft** **Geoid12A**

Iowa South Zone (1402) Northing: **587467.959sft** Easting: **2319118.971sft**  
Mapping Angle: **1°38'04"** Combination Scale Factor: **0.999943829**

IaRCS Zone 14 Northing: **6686804.016sft** Easting: **24563271.715sft**  
Mapping Angle: **0°09'13"** Combination Scale Factor: **0.9999955011**

**Monument Type:** 5/8" copper rod.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **803**

**Designation:** 803 (Set by Secondary Roads Dept. in 2002)

NAD 83(NA2011) Latitude: **N41°34'05.78703"** Longitude: **W91°16'10.99827"**

NAVD 88 Ortho Height: **657.905sft** Ellip. Ht: **550.567sft** **Geoid12A**

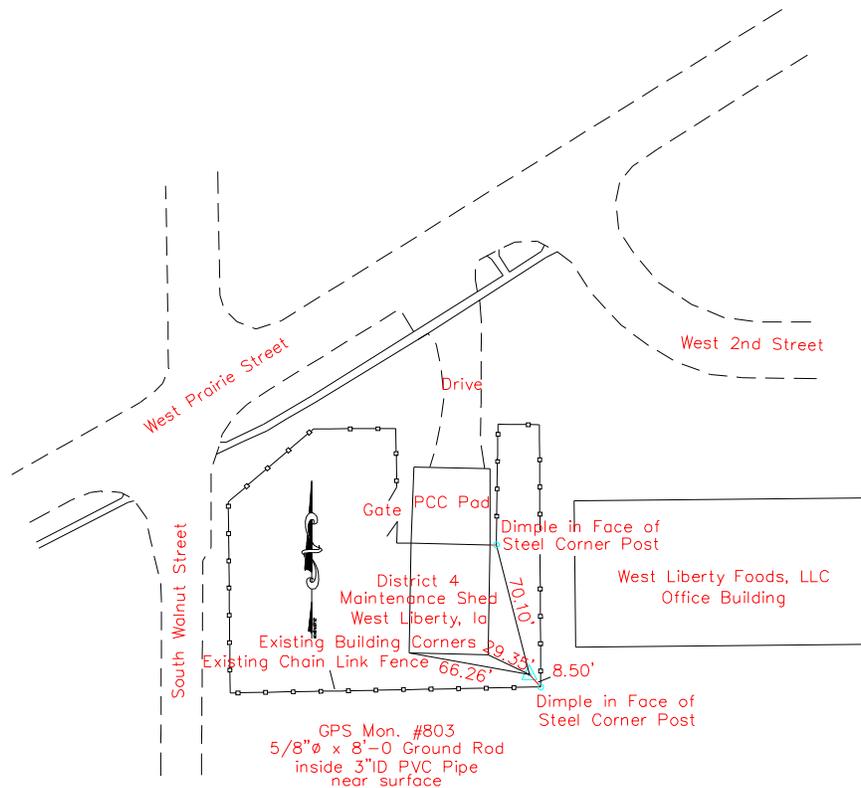
Iowa South Zone (1402) Northing: **579205.145sft** Easting: **2250644.467sft**

Mapping Angle: **1°28'09"** Combination Scale Factor: **0.999942618**

IaRCS Zone 14 Northing: **6680314.056sft** Easting: **24494603.066sft**

Mapping Angle: **-0°00'47"** Combination Scale Factor: **0.9999917616**

**Monument Type:** 5/8" copper rod.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **804**

**Designation:** 804 (Set by Secondary Roads Dept. in 2002)

NAD 83(NA2011) Latitude: **N41°29'07.76237"** Longitude: **W91°18'23.79845"**

NAVD 88 Ortho Height: **634.399sft** Ellip. Ht: **526.811sft** **Geoid12A**

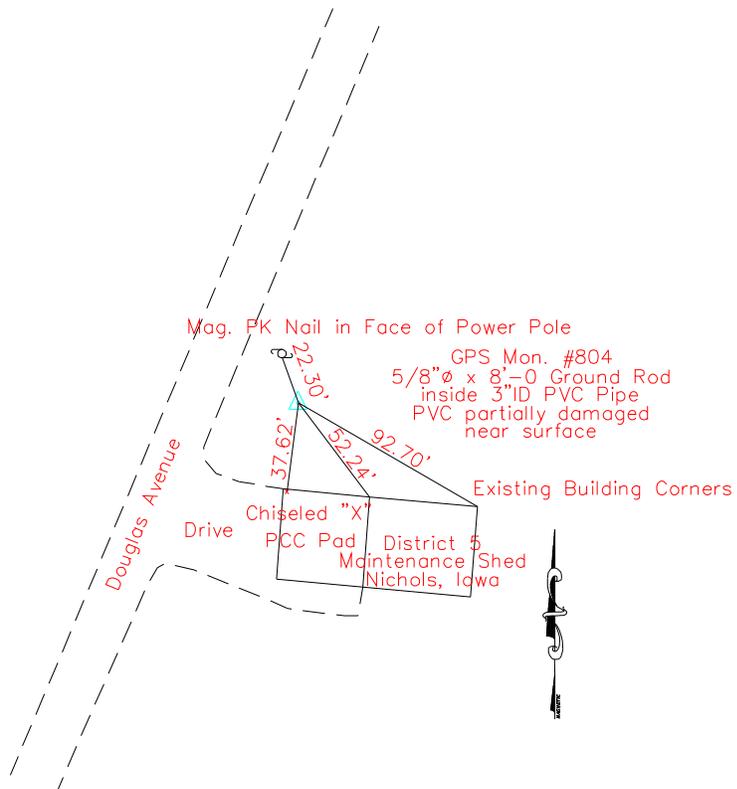
Iowa South Zone (1402) Northing: **548793.852sft** Easting: **2241313.969sft**

Mapping Angle: **1°26'41"** Combination Scale Factor: **0.999935541**

IaRCS Zone 14 Northing: **6650152.676sft** Easting: **24484488.499sft**

Mapping Angle: **-0°02'15"** Combination Scale Factor: **0.9999931367**

**Monument Type:** 5/8" copper rod.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**  
Iowa State Plane South Zone (1402)  
Iowa Regional Coordinate System Zone 14 Burlington  
US Survey Feet  
**2014**

Point Name: **805**

**Designation:** 805 (Set by Secondary Roads Dept. in 2002)

NAD 83(NA2011) Latitude: **N41°28'57.53686"** Longitude: **W91°15'07.45650"**  
NAVD 88 Ortho Height: **629.668sft** Ellip. Ht: **522.007sft** **Geoid12A**

Iowa South Zone (1402) Northing: **548140.700sft** Easting: **2256278.958sft**  
Mapping Angle: **1°28'51"** Combination Scale Factor: **0.999935526**

IaRCS Zone 14 Northing: **6649112.596sft** Easting: **24499432.446sft**  
Mapping Angle: **-0°00'05"** Combination Scale Factor: **0.9999930913**

**Monument Type:** 5/8" copper rod.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **807**

**Designation:** 807 (Set by Secondary Roads Dept. in 2002)

NAD 83(NA2011) Latitude: **N41°24'56.01661"** Longitude: **W91°08'25.13647"**

NAVD 88 Ortho Height: **738.314sft** Ellip. Ht: **630.363sft** **Geoid12A**

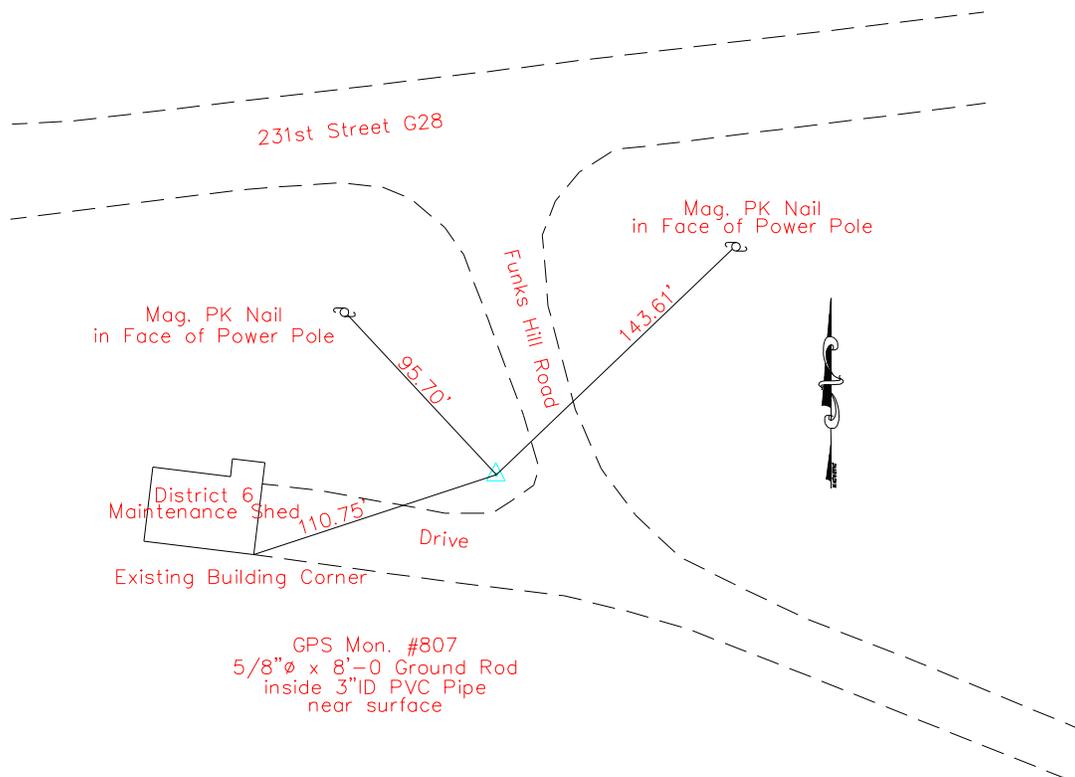
Iowa South Zone (1402) Northing: **524515.916sft** Easting: **2287552.218sft**

Mapping Angle: **1°33'16"** Combination Scale Factor: **0.999925292**

IaRCS Zone 14 Northing: **6624685.467sft** Easting: **24530086.134sft**

Mapping Angle: **0°04'21"** Combination Scale Factor: **0.9999889549**

**Monument Type:** 5/8" copper rod.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **808**

**Designation:** 808 (Set by Secondary Roads Dept. in 2002)

NAD 83(NA2011) Latitude: **N41°27'44.27996"** Longitude: **W91°02'18.95234"**

NAVD 88 Ortho Height: **615.887sft** Ellip. Ht: **508.064sft** **Geoid12A**

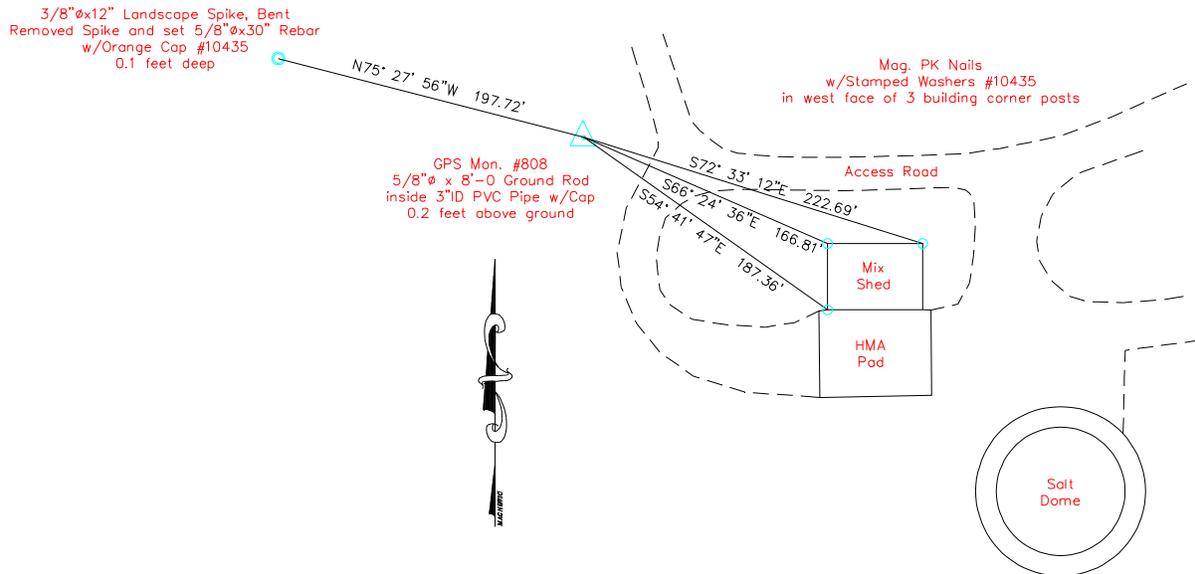
Iowa South Zone (1402) Northing: **542312.358sft** Easting: **2314958.848sft**

Mapping Angle: **1°37'17"** Combination Scale Factor: **0.999934510**

laRCS Zone 14 Northing: **6641768.431sft** Easting: **24557945.499sft**

Mapping Angle: **0°08'24"** Combination Scale Factor: **0.9999975933**

**Monument Type:** 5/8" copper rod.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*

**Muscatine County, Iowa**

Horizontal Datum: **NAD 83(2011)** - Vertical Datum: **NAVD 1988**

Iowa State Plane South Zone (1402)

Iowa Regional Coordinate System Zone 14 Burlington

US Survey Feet

**2014**

Point Name: **961**

**Designation:** NGS 2nd order control station "LAKE" PID: MG0798

NAD 83(NA2011) Latitude: **N41°26'55.34603"** Longitude: **W91°07'40.60540"**

NAVD 88 Ortho Height: **745.441sft** Ellip. Ht: **637.599sft** **Geoid12A**

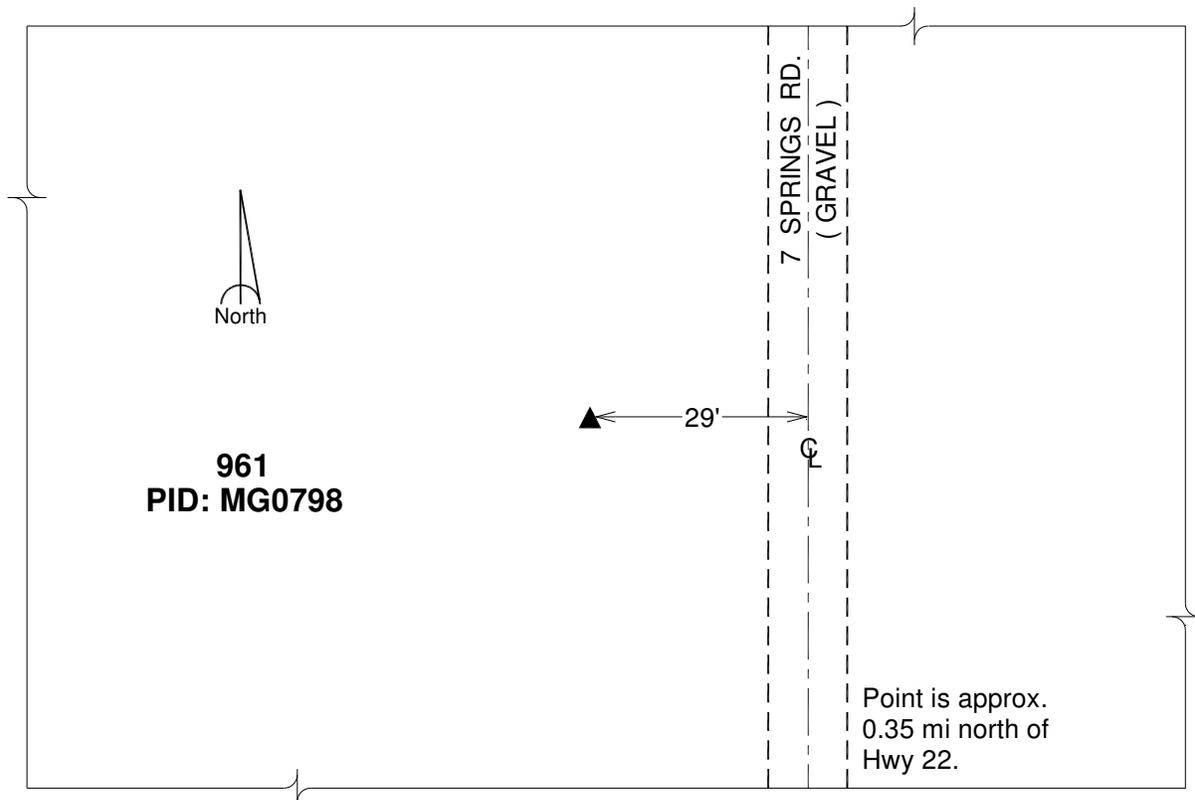
Iowa South Zone (1402) Northing: **536681.189sft** Easting: **2290614.423sft**

Mapping Angle: **1°33'45"** Combination Scale Factor: **0.999927277**

IaRCS Zone 14 Northing: **6636768.247sft** Easting: **24533462.097sft**

Mapping Angle: **0°04'51"** Combination Scale Factor: **0.9999888548**

**Monument Type:** A survey disk stamped "LAKE 1968" and crimped onto 10 ft length of copper coated rod, driven flush with ground and set in 6 in. tile filled with gravel.



*This document was prepared by DCI on November 10, 2014 for use by Muscatine County, Iowa*