Geodetic Data Sheet (Feet)
GSID Station # 20863

0701 B

04/28/2026
Sheet Help

Mn/DOT Name: 0701 B
NGS Name: 0701 B
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0595 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	108 N	26 W	441010.00	940017.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1973	2022	DESTROYED	Horz=NO Vert=NO	NO	411		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	BENCH MARK DISK	MNDT

Description: (1978) **Stamping:** 0701 B 1973

AT THE SOUTH EDGE OF NORTH MANKATO, IN THE NORTHWEST CORNER OF A HANDRAIL ON TRUNK HIGHWAY 14 BRIDGE NUMBER 411 OVER THE MINNESOTA RIVER, AT TRUNK HIGHWAY 14 MILEPOINT 131.0, 19.7 FEET WEST OF TRUNK HIGHWAY 14, 0.6 FOOT SOUTH OF THE NORTH END OF A GROUND WALL.

Station Notes
NEW BRIDGE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
782.781	.016	2/1				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
782.669	.016	2/1				UNKNOWN/APPROXIMATE	1992	UNCHECKD
782.669	.016	2				VERTICAL CONTROL SURVEY	1980	L24529

Geoid Separations(ft): GEOID18 = -92.920 12B = -92.916 09 = -92.818 03 = -92.707

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 0710 B **NGS Name:** 0710 B

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	8	109 N	29 W	441524.09	942029.94	2	3

NGS ACRN: PQ1726 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	GOOD	Horz=NO Vert=YES	YES	52504	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	BENCH MARK DISK	MNDT

Description: (2009) **Stamping:** 0710 B 1987

1.0 MILE SOUTH OF COURTLAND, IN THE SOUTHEAST CORNER OF NICOLLET COUNTY ROAD 24 AND BLUE EARTH COUNTY ROAD 45 BRIDGE NUMBER 52504 OVER THE MINNESOTA RIVER, 1.0 MILE SOUTH ON COUNTY ROAD 24 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 AT COURTLAND, 18.7 FEET EAST OF A COUNTY ROAD, IN THE SOUTHEAST CORNER OF THE SOUTH ABUTMENT.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
808.565	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
808.565	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
808.565	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
808.332	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
808.502	.262		716.098	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.490 09 = -92.401 03 = -92.244

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Blue Earth County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 24.09049	94 20 29.94156	480353.091	248980.587	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2535158.632	786381.907	1289035.934	16080213.437	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/0710_B-PQ1726-3E-09AUG2011.jpg	E	Aug 9, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/0710_B-PQ1726-2-09AUG2011.jpg		Aug 9, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/0710_B-PQ1726-1-09AUG2011.jpg		Aug 9, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 0716 B

NGS Name: 0716 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0591 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	13	108 N	27 W	440959.00	940100.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1960	2022	DESTROYED	Horz=NO Vert=NO	NO	9098		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	BENCH MARK DISK	MNDT

Description: (1978) **Stamping:** 0716 B 1960

AT THE SOUTH EDGE OF NORTH MANKATO, 0.7 MILE WEST ALONG TRUNK HIGHWAY 169 FROM THE NORTHEAST JUNCTION OF OLD TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 169 MILEPOINT 53.4, IN THE NORTHWEST ABUTMENT OF TRUNK HIGHWAY 169 BRIDGE NUMBER 9098 OVER THE MINNESOTA RIVER-MOUND AVENUE AND A RAILROAD, 25.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169.

Station Notes
NEW BRIDGE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
789.195	.016	2/1				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
789.083	.016	2/1				UNKNOWN/APPROXIMATE	1992	UNCHECKD
789.083	.016	2				VERTICAL CONTROL SURVEY	1980	L24529

Geoid Separations(ft): GEOID18 = -92.854 12B = -92.854 09 = -92.756 03 = -92.644

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 19 GJS **NGS Name:** 19 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	111 N	31 W	442345.00	943645.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 19 GJS 1963 989

4.0 MILES WEST-NORTHWEST OF ST. GEORGE, 1.4 MILES NORTHWEST ON COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND COUNTY ROAD 16 IN ST. GEORGE, THEN 1.8 MILES WEST AND SOUTH ON TOWNSHIP ROAD 57, THEN 1.7 MILES NORTHWEST ON COUNTY ROAD 21, THEN 0.3 MILE NORTH-NORTHEAST ON COUNTY ROAD 9, 38.0 FEET WEST OF COUNTY ROAD 9 AT A FENCE WEST, 3.0 FEET NORTH OF A FENCE CORNER.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.896	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.712 12B = -91.699 09 = -91.621 03 = -91.519

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 2 GJS **NGS Name:** 2 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	111 N	32 W	442710.60	944403.86		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2013	GOOD	Horz=NO Vert=YES	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
STEP	SURVEY DISK	USGS

Description: (1996) **Stamping:** 2 GJS 1963 996

5.28 MILES SOUTH OF FAIRFAX, 5.9 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, THEN 0.3 MILE WEST ALONG COUNTY ROAD 21, THEN 0.6 MILE WEST-NORTHWEST ALONG COUNTY ROAD 30, AT THE WEST END OF FORT RIDGELY STATE PARK, 142.0 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF THE VISITOR CENTER AT FORT RIDGELY, AT THE SOUTH SIDE OF A MONUMENT WHICH PROJECTS ABOUT 35.0 FEET, SET IN THE SECOND STEP.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.169	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.425	.262		905.005	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -91.417 12B = -91.420 09 = -91.342 03 = -91.230

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 10.60000	94 44 03.86109	377852.575	320868.433	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2432906.516	858597.517	1187685.775	16153659.631	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/2_GJS-3E-08JUL2013.jpg	E	Jul 8, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/2_GJS-2-08JUL2013.jpg		Jul 8, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/2_GJS-1-08JUL2013.jpg		Jul 8, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 20 GJS

NGS Name: 20 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	18	111 N	31 W	442512.00	943626.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 20 GJS 1963 1005

4.4 MILES WEST-NORTHWEST OF ST. GEORGE, 4.5 MILES NORTHWEST ON COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND COUNTY ROAD 16 IN ST. GEORGE, NEAR THE CENTER OF SECTION 18, 40.0 FEET WEST AND 51.0 FEET NORTH OF A ROAD AT A DRIVE NORTH, 3.0 FEET WEST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1004.998	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.647 12B = -91.634 09 = -91.552 03 = -91.443

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 21 GJS **NGS Name:** 21 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	8	111 N	31 W	442630.00	943612.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 21 GJS 1963 1012

5.0 MILES NORTHWEST OF ST. GEORGE, 3.9 MILES NORTHWEST ON COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND COUNTY ROAD 16 IN ST. GEORGE, THEN 1.8 MILES NORTH ON TOWNSHIP ROAD 134, THEN 112.0 FEET EAST ON TOWNSHIP ROAD 21, 27.0 FEET SOUTH AND 36.0 FEET EAST OF THE CROSSROADS.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.078	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.584 12B = -91.578 09 = -91.493 03 = -91.378

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 34 GJS **NGS Name:** 34 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	110 N	31 W	442144.00	942949.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1982	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 34 GJS 1963

3.64 MILES WEST OF KLOSSNER, 1.5 MILES WEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, THEN 1.3 MILES SOUTH AND WEST ON TOWNSHIP ROAD 46, THEN 1.0 MILE SOUTH ON TOWNSHIP ROAD 142 AND COUNTY ROAD 7, THEN 1.8 MILES NORTHWEST ON COUNTY ROAD 21, 59.0 FEET EAST AND 41.0 FEET SOUTH OF A TEE-ROAD SOUTH.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
808.092	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.922 12B = -91.893 09 = -91.821 03 = -91.712

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 35 GJS **NGS Name:** 35 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	31 W	442310.00	943007.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1974	GOOD	Horz=? Vert=YES	YES		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 35 GJS 1963 1004

1.6 MILES EAST OF ST. GEORGE, 1.5 MILES EAST-SOUTHEAST ON COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND COUNTY ROAD 16 IN ST. GEORGE, THEN 148.0 FEET NORTH ON TOWNSHIP ROAD 138, 159.0 FEET NORTH AND 33.0 FEET EAST OF THE INTERSECTION OF COUNTY ROAD 5 AND COUNTY ROAD 14 (SOUTH) /TOWNSHIP ROAD 138 (NORTH), 3.0 FEET WEST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.778	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.794 09 = -91.726 03 = -91.617

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 36 GJS
NGS Name: 36 GJS
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6559 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	111 N	31 W	442446.78	943007.67		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 36 GJS 1963 1013

2.2 MILES NORTHEAST OF ST. GEORGE, 1.9 MILES NORTH ALONG 615TH AVENUE FROM THE JUNCTION OF 615TH AVENUE AND COUNTY ROAD 5 IN ST. GEORGE, 32.0 FEET EAST OF A NORTH-SOUTH 615TH AVENUE, 22.0 FEET SOUTH OF 370TH STREET, 1.0 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1013.266	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1013.262	.262		921.517	.197	2011	GPS - OPUS	2021	GPSBM
1013.200	.262		921.455	.197	2011	GPS - OPUS	2021	GPSBM
1013.272	.262		921.530	.197	2011	GPS - RTRN	2021	RTRN2021
			921.566	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			921.658	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1013.318	.131		921.773	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1013.318	.131		921.773	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.745 12B = -91.716 09 = -91.640 03 = -91.532

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 46.78456	94 30 07.67002	438468.006	306044.487	.131	3	GPS - OPUS	2021	GPSBM
44 24 46.78474	94 30 07.66969	438468.030	306044.505	.131	3	GPS - OPUS	2021	GPSBM
44 24 46.78450	94 30 07.66944	438468.048	306044.481	.131	3	GPS - RTRN	2021	RTRN2021
44 24 46.78471	94 30 07.66991	438468.014	306044.502	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 46.78475	94 30 07.67062	438467.963	306044.506	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 46.78414	94 30 07.66994	438468.012	306044.444	.033	C	ADJUSTMENT	2003	GPS1882
44 24 46.78414	94 30 07.66994	438468.011	306044.444	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2493465.344	843576.140	1248049.496	16137901.697	.131	3	GPS - OPUS	2021	GPSBM
2493465.369	843576.158	1248049.521	16137901.714	.131	3	GPS - OPUS	2021	GPSBM
2493465.387	843576.133	1248049.538	16137901.690	.131	3	GPS - RTRN	2021	RTRN2021
2493465.353	843576.155	1248049.505	16137901.711	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2493465.301	843576.159	1248049.453	16137901.717	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2493465.350	843576.097	1248049.502	16137901.654	.033	C	ADJUSTMENT	2003	GPS1882
2493465.350	843576.097	1248049.502	16137901.654	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/36_GJS-DF6559-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/36_GJS-DF6559-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/36_GJS-DF6559-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 37 GJS

NGS Name: 37 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	111 N	31 W	442632.00	943007.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 37 GJS 1963 1045

4.0 MILES NORTH-NORTHEAST OF ST. GEORGE, 3.1 MILES NORTH ON COUNTY ROAD 16 FROM THE JUNCTION OF COUNTY ROAD 16 AND COUNTY ROAD 5 IN ST. GEORGE, THEN 1.4 MILES EAST ON COUNTY ROAD 1, THEN 0.6 MILE NORTH CONTINUED ON COUNTY ROAD 1, 46.0 FEET NORTH AND 46.0 FEET EAST OF A NORTH-SOUTH ROAD AT A TEE-ROAD EAST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1044.509	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.663 12B = -91.640 09 = -91.561 03 = -91.450

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 37 USE

NGS Name: 37 USE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	7	111 N	32 W	442602.00	944300.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1905	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE PILLAR/PIER	BOLT	USACE

Description: (1905)

Stamping:

6.58 MILES SOUTH OF FAIRFAX, THE STATION IS ON THE TOP OF AN ANCHOR BOLT IN A BRIDGE SEAT IN THE UPSTREAM END OF THE CENTER PIER OF TRUNK HIGHWAY 4 BRIDGE OVER THE MINNESOTA RIVER, 6.6 MILES SOUTH ALONG TRUNK HIGHWAY 4/ 480TH STREET FROM THE JUNCTION OF TRUNK HIGHWAY 4/ 480TH STREET AND TRUNK HIGHWAY 19 IN FAIRFAX, 0.3 MILE NORTH FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND COUNTY ROAD 10.

Station Notes

A NEW BRIDGE IS IN PLACE 6/27/13.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
816.120	.033	3				VERTICAL CONTROL SURVEY	1929	CS5201

Geoid Separations(ft): GEOID18 = -91.506 12B = -91.502 09 = -91.424 03 = -91.315

*** No Horizontal Positions in the Database ***

40 GJS

Mn/DOT Name: 40 GJS
NGS Name: 40 GJS
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	110 N	30 W	442159.00	942326.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1974	GOOD	Horz=? Vert=YES	NO			NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 40 GJS 1963 1014

2.0 MILES EAST OF KLOSSNER, 1.6 MILES EAST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, 30.0 FEET NORTH AND 246.0 FEET EAST OF THE JUNCTION OF COUNTY ROAD 5 AND TOWNSHIP ROAD 76, IN LINE WITH A POWER LINE, 106.0 FEET WEST OF THE SECOND POWER POLE NORTH OF A TOWNSHIP ROAD.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1013.951	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.014 12B = -91.988 09 = -91.913 03 = -91.781

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 41 GJS

NGS Name: 41 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	110 N	29 W	442147.00	942106.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1964	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 41 GJS 1963 989

3.55 MILES EAST OF KLOSSNER, 3.6 MILES EAST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, THEN 52.0 FEET NORTH ON COUNTY ROAD 12, 45.0 FEET WEST AND 43.0 FEET NORTH OF THE CROSSROADS (COUNTY ROAD 12 AND COUNTY ROAD 5), 3.0 FEET EAST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.673	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.063 12B = -92.047 09 = -91.968 03 = -91.837

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 42 GJS

NGS Name: 42 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	110 N	29 W	442106.00	941832.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1974	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 42 GJS 1963 1004

6.0 MILES EAST OF KLOSSNER, 5.8 MILES EAST ON COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, 92.0 FEET SOUTH OF THE SOUTHWEST CORNER OF A SCHOOLHOUSE, 3.0 FEET SOUTH OF A POWER POLE WITH A TRANSFORMER.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.653	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.145 12B = -92.132 09 = -92.054 03 = -91.922

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 43 GJS
NGS Name: 43 GJS
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6560 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	110 N	29 W	442050.03	941559.38		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2002	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 43 GJS 1963

5.62 MILES SOUTHWEST OF NEW SWEDEN, 4.7 MILES SOUTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22 IN NEW SWEDEN, THEN 3.85 MILES WEST ALONG COUNTY ROAD 5, 108.0 FEET WEST OF THE EAST ENTRANCE TO THE CEMETERY, 42.0 FEET NORTH OF COUNTY ROAD 5, 6.5 FEET SOUTH-SOUTHEAST OF A CABLE MARKER, 3.3 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.549	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			913.528	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			913.607	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1005.707	.131		913.722	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1005.707	.131		913.722	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.178 12B = -92.175 09 = -92.093 03 = -91.972

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 50.03009	94 15 59.38017	500045.044	281979.721	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 50.03009	94 15 59.38092	500044.989	281979.721	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 50.02949	94 15 59.38030	500045.034	281979.661	.033	C	ADJUSTMENT	2003	GPS1882
44 20 50.02949	94 15 59.38030	500045.033	281979.659	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2554956.046	819312.943	1309228.969	16112894.564	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2554955.991	819312.943	1309228.915	16112894.565	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2554956.036	819312.882	1309228.959	16112894.503	.033	C	ADJUSTMENT	2003	GPS1882
2554956.036	819312.882	1309228.959	16112894.503	.033	C	GPS - STATIC	2002	HNICO

44 GJS

Mn/DOT Name: 44 GJS **NGS Name:** 44 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	2	110 N	29 W	442209.00	941616.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 44 GJS 1963 982

7.5 MILES NORTHWEST OF NICOLLET, 4.7 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 3.5 MILES WEST ON COUNTY ROAD 5, THEN 1.9 MILES NORTH ON TOWNSHIP ROAD 62 (501ST AVENUE), 4.0 MILES WEST OF TRUNK HIGHWAY 111, 229.0 FEET SOUTH AND 30.0 FEET WEST OF THE CROSSROADS.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.655	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.100 09 = -92.021 03 = -91.899

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 45 GJS

NGS Name: 45 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	29 W	442328.00	941502.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1974	1974	UNKNOWN	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963)

Stamping: 45 GJS 1963 980

3.18 MILES SOUTHWEST OF NEW SWEDEN, 1.0 MILE SOUTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22 IN NEW SWEDEN, THEN 2.0 MILES WEST ON COUNTY ROAD 61, THEN 0.5 MILE SOUTH ON TOWNSHIP ROAD 168, THEN 1.0 MILE WEST ON COUNTY ROAD 15, THEN 105.0 FEET SOUTH ON COUNTY ROAD 4, 35.0 FEET WEST AND 33.0 FEET NORTH OF THE CROSSROADS OF COUNTY ROAD 4 AND COUNTY ROAD 15.

Station Notes

SEE 45 GJS RESET 1974.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.182	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.060 09 = -91.975 03 = -91.860

*** No Horizontal Positions in the Database ***

45 GJS RESET 1974

Mn/DOT Name: 45 GJS RESET 1974 **NGS Name:** 45 GJS RESET

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	29 W	442327.00	941506.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1974	1974	GOOD	Horz=? Vert=YES	NO		PROJECTS 12 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1974) **Stamping:** 45 GJS RESET 1974

3.25 MILES SOUTHWEST OF NEW SWEDEN, 1.0 MILE SOUTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22 IN NEW SWEDEN, THEN 2.0 MILES WEST ON COUNTY ROAD 61, THEN 0.5 MILE SOUTH ON TOWNSHIP ROAD 168, THEN 1.0 MILE WEST ON COUNTY ROAD 15, AT THE SOUTHWEST CORNER OF COUNTY ROAD 4 AND COUNTY ROAD 15, 30.5 FEET WEST OF COUNTY ROAD 4, 181.0 FEET SOUTH OF COUNTY ROAD 15, 3.3 FEET NORTH OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.909	.033	3				VERTICAL CONTROL SURVEY	1984	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.060 09 = -91.975 03 = -91.860

*** No Horizontal Positions in the Database ***

46 GJS

Mn/DOT Name: 46 GJS

NGS Name: 46 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	19	111 N	28 W	442422.00	941350.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1974	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 46 GJS 1963 992

1.99 MILES WEST OF NEW SWEDEN, 2.0 MILES WEST ON COUNTY ROAD 60 FROM THE JUNCTION OF COUNTY ROAD 60 (WEST) /TRUNK HIGHWAY 22 (EAST) AND TRUNK HIGHWAY 111 IN NEW SWEDEN, THEN 0.5 MILE SOUTH ON TOWNSHIP ROAD 168, 1.0 MILE NORTH OF COUNTY ROAD 15, 35.0 FEET WEST OF COUNTY ROAD 61, 36.0 FEET NORTH OF A TEE-ROAD WEST, BETWEEN A BRACE POLE AND A TELEPHONE POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.593	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.050 12B = -92.054 09 = -91.962 03 = -91.847

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 47 GJS

NGS Name: 47 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	8	111 N	28 W	442614.00	941345.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1982	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	USGS

Description: (1982) **Stamping:** 47 GJS 1963 997

2.6 MILES NORTHWEST OF NEW SWEDEN, 1.7 MILES NORTH ON TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 IN NEW SWEDEN, THEN 1.5 MILES WEST ON COUNTY ROAD 1, THEN 0.2 MILE NORTH ON COUNTY ROAD 60, NEAR THE QUARTER CORNER BETWEEN SECTION 7 AND SECTION 8, 49.0 FEET NORTH AND 37.0 FEET EAST OF THE JUNCTION OF EAST-WEST COUNTY ROAD 1-COUNTY ROAD 60 (NORTH) AND COUNTY ROAD 69 (SOUTH).

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.596	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.988 12B = -91.991 09 = -91.893 03 = -91.781

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/47_GJS-3S-07SEP2023.jpg	S	Sep 7, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/47_GJS-2-07SEP2023.jpg		Sep 7, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/47_GJS-1-07SEP2023.jpg		Sep 7, 2023

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 49 GJS

NGS Name: 49 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	109 N	29 W	441620.00	942108.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1987	NOT FOUND	Horz=NO Vert=NO	NO		RECESSED 12 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1987) **Stamping:** 49 GJS 1963 935

IN COURTLAND, 0.3 MILE NORTH ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24, THEN 80.0 FEET NORTH ON COUNTY ROAD 12, 62.0 FEET WEST OF COUNTY ROAD 12 NORTH, 3.0 FEET WEST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
935.359	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.428 12B = -92.421 09 = -92.342 03 = -92.188

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 50 GJS

NGS Name: 50 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	36	110 N	30 W	441737.00	942218.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1987	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1987) **Stamping:** 50 GJS 1963 1005

1.5 MILES NORTHWEST OF COURTLAND, 1.4 MILES NORTH ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 1.1 MILES NORTH ON TOWNSHIP ROAD 155, 34.0 FEET WEST AND 17.0 FEET NORTH OF A DRIVE TO A SCHOOLHOUSE WEST, 6.0 FEET NORTH OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.077	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.316 12B = -92.306 09 = -92.237 03 = -92.086

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 51 GJS **NGS Name:** 51 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6561 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	19	110 N	29 W	441842.76	942107.44		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2002	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 3 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 51 GJS 1963 996

4.0 MILES NORTH OF COURTLAND, 0.3 MILE NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 2.8 MILES NORTH ON COUNTY ROAD 12, AT THE NORTHWEST CORNER OF THE JUNCTION OF COUNTY ROAD 21 AND COUNTY ROAD 12, 39.0 FEET NORTH AND 42.0 FEET WEST OF THE JUNCTION, 24.0 FEET SOUTH OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.064	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			903.883	.011	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			903.948	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
996.127	.131		904.080	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
996.127	.131		904.080	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.270 12B = -92.260 09 = -92.185 03 = -92.044

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.75850	94 21 07.44121	477644.677	269102.380	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.75845	94 21 07.44187	477644.629	269102.375	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.75782	94 21 07.44099	477644.693	269102.311	.033	C	ADJUSTMENT	2003	GPS1882
44 18 42.75782	94 21 07.44099	477644.694	269102.313	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2532516.285	806510.267	1286639.215	16100368.692	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2532516.236	806510.262	1286639.167	16100368.688	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2532516.300	806510.198	1286639.230	16100368.623	.033	C	ADJUSTMENT	2003	GPS1882
2532516.300	806510.198	1286639.230	16100368.623	.033	C	GPS - STATIC	2002	HNICO

52 GJS

Mn/DOT Name: 52 GJS

NGS Name: 52 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	18	110 N	29 W	442013.00	942111.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 52 GJS 1963 985

4.5 MILES NORTH OF COURTLAND, 0.3 MILE NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 4.5 MILES NORTH ON COUNTY ROAD 12, THEN 299.0 FEET WEST ON TOWNSHIP ROAD 78, 370.0 FEET WEST AND 34.0 FEET SOUTH OF COUNTY ROAD 12 AT A TEE-ROAD WEST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.520	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.165 12B = -92.152 09 = -92.073 03 = -91.936

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5201 A **NGS Name:** 5201 A

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	8	111 N	32 W	442604.35	944302.79		3

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094313/
USGS Quad: SLEEPY EYE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1995	1995	GOOD	Horz=NO Vert=NO	YES	08003	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (1995) **Stamping:** 5201 A 1995

6.3 MILES SOUTH OF FAIRFAX, IN A BRIDGE RAILING IN THE NORTHWEST CORNER OF TRUNK HIGHWAY 4 BRIDGE NUMBER 08003 OVER THE MINNESOTA RIVER, 6.55 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, AT TRUNK HIGHWAY 4 MILEPOINT 72.8, 20.0 FEET WEST OF TRUNK HIGHWAY 4.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
827.380	.262		735.881	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -91.502 12B = -91.499 09 = -91.424 03 = -91.312

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 04.35478	94 43 02.79403	382245.574	314134.880	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2437276.741	851850.359	1191972.870	16146860.211	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_A-3W-10JUL2013.jpg	W	Jul 10, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_A-2-10JUL2013.jpg		Jul 10, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_A-1-10JUL2013.jpg		Jul 10, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5201 B **NGS Name:** 5201 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP6108 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	111 N	32 W	442643.66	944313.23	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2013	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 11 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5201 B 2013

5.7 MILES SOUTH OF FAIRFAX, 5.8 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, AT TRUNK HIGHWAY 4 MILEPOINT 73.55, 37.2 FEET WEST OF TRUNK HIGHWAY 4, 41.1 FEET NORTHEAST OF COUNTY ROAD 21, 1.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
864.257	.016	2/1				VERTICAL ADJUSTMENT	2015	00000851
864.254	.016	2/1				VERTICAL CONTROL SURVEY	2014	VHECT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
864.158	.262		772.699	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -91.460 12B = -91.460 09 = -91.384 03 = -91.273

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 43.66044	94 43 13.22635	381510.538	318119.621	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2436554.936	855837.004	1191299.872	16150855.005	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_B-DP6108-3W-26AUG2013.jpg	W	Aug 26, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_B-DP6108-2-26AUG2013.jpg		Aug 26, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_B-DP6108-1-26AUG2013.jpg		Aug 26, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5201 C **NGS Name:** 5201 C

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP4126 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	5	111 N	32 W	442722.53	944305.51	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2014	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 13 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2014) **Stamping:** 5201 C 2013

5.3 MILES SOUTH OF FAIRFAX, 5.05 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, AT TRUNK HIGHWAY 4 MILEPOINT 74.35, 61.6 FEET WEST OF TRUNK HIGHWAY 4, 26.8 FEET SOUTH OF EXTENDED COUNTY ROAD 5 (FORT ROAD), 9.9 FEET EAST OF A BIKE PATH, 1.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.865	.016	2/1				VERTICAL ADJUSTMENT	2015	00000851
992.865	.016	2/1				VERTICAL CONTROL SURVEY	2014	VHECT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.865			901.445	.021	2011	HORIZONTAL ADJUSTMENT	2014	GPS3022
992.865	.131		901.639	.066	1996	GPS - STATIC	2014	HHECT
992.865			901.445	.021	2011	GPS - STATIC	2014	HHECT
992.738	.262		901.311	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -91.424 12B = -91.427 09 = -91.352 03 = -91.233

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.52564	94 43 05.50503	382092.315	322052.523	.023		ADJUSTMENT	2014	GPS3022
44 27 22.52564	94 43 05.50503	382092.315	322052.523	.023	C	GPS - STATIC	2014	HHECT
44 27 22.52604	94 43 05.50379	382092.405	322052.563	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.52505	94 43 05.50519	382092.303	322052.463	.033	C	GPS - STATIC	2014	HHECT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2437149.600	859767.471	1191942.453	16154777.551	.023		ADJUSTMENT	2014	GPS3022
2437149.600	859767.471	1191942.453	16154777.551	.023	C	GPS - STATIC	2014	HHECT
2437149.691	859767.511	1191942.544	16154777.590	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2437149.588	859767.412	1191942.441	16154777.492	.033	C	GPS - STATIC	2014	HHECT

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_C-DP4126-3W-26AUG2013.jpg	W	Aug 26, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_C-DP4126-2-26AUG2013.jpg		Aug 26, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5201_C-DP4126-1-26AUG2013.jpg		Aug 26, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 A **NGS Name:** 5202 A

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1706 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	110 N	30 W	441929.48	942709.34	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2015	GOOD	Horz=NO Vert=NO	YES	9200	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	BENCH MARK DISK	MNDT

Description: (1987) **Stamping:** 5202 A 1964

0.5 MILE NORTHEAST OF NEW ULM, IN THE SOUTHEAST CORNER OF THE EAST ABUTMENT OF TRUNK HIGHWAY 14 BRIDGE NUMBER 9200 OVER THE MINNESOTA RIVER, AT TRUNK HIGHWAY 14 MILEPOINT 103.7, 25.0 FEET SOUTH OF TRUNK HIGHWAY 14.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
817.098	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
817.098	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS
817.098	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
817.098	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
817.098	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
816.829	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM
816.891	.033	3				VERTICAL CONTROL SURVEY	1964	CS5202

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
816.967	.262		724.877	.197	2011	GPS - RTRN	2014	RTRN2014
816.987	.262		724.966	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.116 12B = -92.090 09 = -92.021 03 = -91.890

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Brown County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 29.48031	94 27 09.33964	573473.303	179164.807	.131	3	GPS - RTRN	2014	RTRN2014

NAD83(2007)

Geodetic Position		Brown County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 29.48125	94 27 09.33987	573473.285	179164.902	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2506230.588	811370.732	1260419.208	16105548.036	.131	3	GPS - RTRN	2014	RTRN2014

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2506230.572	811370.827	1260419.193	16105548.131	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_A-PQ1706-3W-07APR2014.jpg	W	Apr 7, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_A-PQ1706-2-07APR2014.jpg		Apr 7, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_A-PQ1706-1-07APR2014.jpg		Apr 7, 2014

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AA

NGS Name: 5202 AA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1737 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	11	109 N	29 W	441603.00	941633.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2005	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AA 1987

3.2 MILES EAST OF COURTLAND, 3.25 MILES EAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 114.2, 138.0 FEET SOUTH OF A POWER POLE, 69.0 FEET SOUTH OF TRUNK HIGHWAY 14, 63.5 FEET EAST OF A GRAVEL ROAD, 43.8 FEET EAST OF A POWER POLE, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.172	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.965	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.483 12B = -92.493 09 = -92.411 03 = -92.254

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 AB **NGS Name:** 5202 AB

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1739 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	109 N	29 W	441607.97	941545.09	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AB 1987

3.8 MILES WEST OF NICOLLET, 3.0 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 114.9, 68.0 FEET SOUTH OF TRUNK HIGHWAY 14, 13.5 FEET EAST OF FARM ENTRANCE NUMBER 49661, 2.3 FEET NORTH OF A WITNESS POST.

Station Pair: 5202 AN - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.899	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1003.899	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1003.899	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1003.899	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
1003.899	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.699	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.807	.262		911.330	.197	2011	GPS - OPUS	2021	GPSBM
1003.919	.262		911.438	.197	2011	GPS - RTRN	2021	RTRN2021
1003.892	.262		911.406	.197	2011	GPS - RTRN	2019	RTRN2019
1003.899			911.445	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1003.899	.131		911.648	.066	1996	GPS - STATIC	2013	HNMAN
1003.899			911.435	.007	2011	GPS - STATIC	2013	HNMAN
			911.445	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1003.837	.262		911.435	.197	2007	GPS - RTRN	2011	RTRN2011
			911.527	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1003.902	.131		911.671	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1003.902	.131		911.671	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.477 12B = -92.487 09 = -92.405 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.96688	94 15 45.09151	501084.847	253415.008	.131	3	GPS - OPUS	2021	GPSBM
44 16 07.96692	94 15 45.09089	501084.893	253415.012	.131	3	GPS - RTRN	2021	RTRN2021
44 16 07.96682	94 15 45.09088	501084.893	253415.002	.131	3	GPS - RTRN	2019	RTRN2019
44 16 07.96703	94 15 45.09080	501084.899	253415.023	.013		ADJUSTMENT	2013	GPS2964
44 16 07.96702	94 15 45.09096	501084.887	253415.022	.013	C	GPS - STATIC	2013	HNMAN
44 16 07.96703	94 15 45.09080	501084.899	253415.023	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.96607	94 15 45.09226	501084.793	253414.926	.131	3	GPS - RTRN	2011	RTRN2011
44 16 07.96698	94 15 45.09156	501084.844	253415.018	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.96632	94 15 45.09044	501084.925	253414.952	.033	C	GPS - STATIC	2013	HNMAN
44 16 07.96632	94 15 45.09044	501084.925	253414.952	.033	C	ADJUSTMENT	2003	GPS1882
44 16 07.96632	94 15 45.09044	501084.926	253414.952	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2555902.558	790748.154	1309827.335	16084326.157	.131	3	GPS - OPUS	2021	GPSBM
2555902.603	790748.158	1309827.380	16084326.160	.131	3	GPS - RTRN	2021	RTRN2021
2555902.604	790748.148	1309827.381	16084326.150	.131	3	GPS - RTRN	2019	RTRN2019
2555902.610	790748.169	1309827.387	16084326.172	.013		ADJUSTMENT	2013	GPS2964
2555902.598	790748.168	1309827.375	16084326.171	.013	C	GPS - STATIC	2013	HNMAN
2555902.610	790748.169	1309827.387	16084326.172	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2555902.503	790748.072	1309827.279	16084326.076	.131	3	GPS - RTRN	2011	RTRN2011
2555902.555	790748.164	1309827.332	16084326.167	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2555902.636	790748.097	1309827.412	16084326.099	.033	C	GPS - STATIC	2013	HNMAN
2555902.636	790748.097	1309827.412	16084326.099	.033	C	ADJUSTMENT	2003	GPS1882
2555902.636	790748.097	1309827.412	16084326.099	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AB-PQ1739-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AB-PQ1739-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AB-PQ1739-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AB 1 **NGS Name:** 5202 AB 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9545 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	109 N	28 W	441553.59	941503.91	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 AB 1 2011

2.8 MILES WEST-SOUTHWEST OF NICOLLET, 2.55 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET TO TRUNK HIGHWAY 14 MILEPOINT 115.40, THEN 0.35 MILE SOUTH ON 491ST AVENUE, 32.3 FEET EAST OF 491ST AVENUE, 13.8 FEET NORTH OF A FIELD ENTRANCE, 2.0 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.415	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1000.415	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1000.415	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1000.411	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.388	.262		907.902	.197	2011	GPS - OPUS	2019	GPSBM
1000.621	.262		908.135	.197	2011	GPS - RTRN	2019	RTRN2019
1000.411			907.941	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1000.411	.131		908.148	.066	1996	GPS - STATIC	2013	HNMAN
1000.411			907.941	.008	2011	GPS - STATIC	2013	HNMAN
1000.329	.262		907.915	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.487 12B = -92.500 09 = -92.415 03 = -92.264

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 53.59046	94 15 03.90838	504081.900	251959.470	.131	3	GPS - OPUS	2019	GPSBM
44 15 53.58969	94 15 03.90737	504081.973	251959.393	.131	3	GPS - RTRN	2019	RTRN2019
44 15 53.59051	94 15 03.90805	504081.924	251959.476	.016		ADJUSTMENT	2013	GPS2964
44 15 53.59051	94 15 03.90805	504081.924	251959.476	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 53.59081	94 15 03.90830	504081.906	251959.506	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 53.58984	94 15 03.90799	504081.928	251959.408	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2558894.529	789283.005	1312800.639	16082825.014	.131	3	GPS - OPUS	2019	GPSBM
2558894.602	789282.927	1312800.711	16082824.935	.131	3	GPS - RTRN	2019	RTRN2019
2558894.553	789283.010	1312800.662	16082825.018	.016		ADJUSTMENT	2013	GPS2964
2558894.553	789283.010	1312800.662	16082825.018	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2558894.535	789283.040	1312800.645	16082825.049	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2558894.557	789282.942	1312800.666	16082824.950	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AB_1-DO9545-3E-29OCT2019.jpg	E	Oct 29, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AB_1-DO9545-2-29OCT2019.jpg		Oct 29, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AB_1-DO9545-1-29OCT2019.jpg		Oct 29, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 AC

Mn/DOT Name: 5202 AC

NGS Name: 5202 AC

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1740 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	109 N	28 W	441613.00	941503.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2006	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AC 1987

3.2 MILES SOUTHWEST OF NICOLLET, 2.4 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 AT NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 115.5, 137.0 FEET EAST OF A GRAVEL ROAD, 118.8 FEET SOUTH OF A TELEPHONE CABLE MARKER POST, 88.0 FEET WEST OF A POWER POLE WITH AN ANCHOR, 66.0 FEET SOUTH OF TRUNK HIGHWAY 14, 4.0 FEET NORTH OF A FENCE LINE, 0.5 FOOT NORTH OF A WITNESS POST.

Station Notes

THE DISK WAS REPORTED LOOSE IN JANUARY 2005, THE MARK WAS LEANING SOUTHWEST, UNSTABLE, APPEARS TO HAVE BEEN DISTURBED IN SEPTEMBER 2006.
2.0 FEET OF ROD WITH DISK WERE STICKING OUT OF THE GROUND AND THE ROD WAS BENT OVER WELL BELOW GROUND LEVEL. UNABLE TO RESET-- 6/15/11.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.316	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.119	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.470 12B = -92.480 09 = -92.395 03 = -92.247

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 AD **NGS Name:** 5202 AD

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1741 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	109 N	28 W	441616.00	941427.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	1995	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	VERTICAL CONTROL DISK	MNDT

Description: (1995) **Stamping:** 5202 AD 1987

2.7 MILES WEST OF NICOLLET, 1.9 MILES WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, 120.8 FEET SOUTH OF A POWER POLE, 70.0 FEET SOUTH OF TRUNK HIGHWAY 14 AT STATION 246+14, 11.0 FEET EAST OF A FIELD ENTRANCE, 5.2 FEET NORTH OF AN ANCHOR POLE, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.603	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.413	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.460 12B = -92.474 09 = -92.388 03 = -92.241

*** No Horizontal Positions in the Database ***

5202 AE

Mn/DOT Name: 5202 AE

NGS Name: 5202 AE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1742 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	109 N	28 W	441620.00	941352.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2006	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 31 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AE 1987

2.2 MILES WEST OF NICOLLET, 1.5 MILES WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 116.45, 177.5 FEET SOUTHWEST OF A POWER POLE, 116.0 FEET WEST OF A POWER POLE, 85.0 FEET WEST OF A GRAVEL ROAD, 74.0 FEET SOUTH OF TRUNK HIGHWAY 14, 3.5 FEET NORTHEAST OF A POWER POLE, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.537	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.347	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.454 12B = -92.464 09 = -92.378 03 = -92.234

*** No Horizontal Positions in the Database ***

5202 AE RESET

Mn/DOT Name: 5202 AE RESET
NGS Name: 5202 AE RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9546 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	109 N	28 W	441619.76	941352.43	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2011)
Stamping: 5202 AE RESET 2011

2.0 MILES WEST OF NICOLLET, 2.15 MILES WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 18.7, 74.0 FEET SOUTH OF TRUNK HIGHWAY 14, 85.0 FEET WEST OF 481ST AVENUE, 3.5 FEET NORTHEAST OF A POWER POLE, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.108	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
982.108	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
982.108	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
982.108	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.124	.262		889.670	.197	2011	GPS - OPUS	2021	GPSBM
982.094	.262		889.644	.197	2011	GPS - RTRN	2021	RTRN2021
982.288	.262		889.824	.197	2011	GPS - RTRN	2019	RTRN2019
982.108			889.703	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
982.108	.131		889.874	.066	1996	GPS - STATIC	2013	HNMAN
982.108			889.703	.008	2011	GPS - STATIC	2013	HNMAN
982.029	.262		889.650	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.454 12B = -92.464 09 = -92.378 03 = -92.234

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 19.75566	94 13 52.43210	509282.230	254610.828	.131	3	GPS - OPUS	2021	GPSBM
44 16 19.75578	94 13 52.43146	509282.277	254610.841	.131	3	GPS - RTRN	2021	RTRN2021
44 16 19.75574	94 13 52.43216	509282.226	254610.837	.131	3	GPS - RTRN	2019	RTRN2019
44 16 19.75602	94 13 52.43204	509282.234	254610.865	.016		ADJUSTMENT	2013	GPS2964
44 16 19.75602	94 13 52.43204	509282.234	254610.865	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 19.75458	94 13 52.43197	509282.240	254610.719	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 19.75540	94 13 52.43192	509282.243	254610.802	.033	C	GPS - STATIC	2013	HNMAN

5202 AE RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2564102.921	791917.113	1318039.607	16085394.994	.131	3	GPS - OPUS	2021	GPSBM
2564102.968	791917.125	1318039.654	16085395.006	.131	3	GPS - RTRN	2021	RTRN2021
2564102.916	791917.122	1318039.603	16085395.003	.131	3	GPS - RTRN	2019	RTRN2019
2564102.925	791917.150	1318039.612	16085395.031	.016		ADJUSTMENT	2013	GPS2964
2564102.925	791917.150	1318039.612	16085395.031	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2564102.930	791917.004	1318039.615	16085394.885	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2564102.934	791917.087	1318039.620	16085394.968	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AE_RESET-DO9546-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AE_RESET-DO9546-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AE_RESET-DO9546-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AF **NGS Name:** 5202 AF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1743 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	109 N	28 W	441623.71	941314.92	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2016	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AF 1987

1.8 MILES WEST OF NICOLLET, 1.0 MILE WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 116.95, 73.0 FEET SOUTH OF TRUNK HIGHWAY 14, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.364	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
993.364	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
993.364	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.180	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.364			900.953	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
993.364	.131		901.140	.066	1996	GPS - STATIC	2013	HNMAN
993.364			900.953	.008	2011	GPS - STATIC	2013	HNMAN
993.220	.262		900.851	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.441 12B = -92.451 09 = -92.369 03 = -92.224

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.71427	94 13 14.91789	512011.655	255013.065	.016		ADJUSTMENT	2013	GPS2964
44 16 23.71427	94 13 14.91789	512011.655	255013.065	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.71475	94 13 14.91935	512011.548	255013.114	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.71358	94 13 14.91785	512011.658	255012.996	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2566833.350	792310.410	1320774.041	16085754.948	.016		ADJUSTMENT	2013	GPS2964
2566833.350	792310.410	1320774.041	16085754.948	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2566833.244	792310.459	1320773.936	16085754.998	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2566833.353	792310.341	1320774.043	16085754.878	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AF-PQ1743-3S-15JUN2011.jpg	S	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AF-PQ1743-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AF-PQ1743-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AG **NGS Name:** 5202 AG

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1744 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	5	109 N	28 W	441628.00	941239.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2005	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AG 1987

1.2 MILES WEST OF NICOLLET, 0.4 MILE WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 117.45, 67.0 FEET SOUTH OF TRUNK HIGHWAY 14, 53.0 FEET WEST OF A GRAVEL ROAD (TOWNSHIP ROAD 173), 32.4 FEET WEST-NORTHWEST OF A TELEPHONE MARKER POST, 21.5 FEET WEST OF AN ANCHOR POST, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.290	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.110	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.428 12B = -92.441 09 = -92.355 03 = -92.214

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 AH **NGS Name:** 5202 AH

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1748 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	4	109 N	28 W	441631.59	941201.31	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AH 1987

IN NICOLLET, 0.5 MILE WEST ALONG NORTH 3RD STREET FROM THE JUNCTION OF TRUNK HIGHWAY 99 (NORTH 3RD STREET) AND TRUNK HIGHWAY 111 IN NICOLLET, 59.6 FEET NORTHWEST OF TRUNK HIGHWAY 99 (NORTH 3RD STREET), 134.0 FEET NORTH OF BLUME ROAD, 18.6 FEET NORTHEAST OF A POWER POLE, 0.5 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.688	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
996.688	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
996.688	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
996.688	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
996.688	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.514	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.963	.262		904.536	.197	2011	GPS - RTRN	2019	RTRN2019
996.609	.262		904.267	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.415 12B = -92.428 09 = -92.342 03 = -92.205

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 31.59675	94 12 01.31224	517366.682	255814.975	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 31.59498	94 12 01.31377	517366.571	255814.795	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572190.388	793094.785	1326139.077	16086473.890	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572190.276	793094.606	1326138.963	16086473.712	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AH-PQ1748-3N-23JUN2019.jpg	N	Jun 23, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AH-PQ1748-2-23JUN2019.jpg		Jun 23, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AH-PQ1748-1-23JUN2019.jpg		Jun 23, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AJ **NGS Name:** 5202 AJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1749 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	4	109 N	28 W	441615.83	941126.53	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2016	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 3 IN.	MARKER W/BAR MAGNET

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)
Disk Type: VERTICAL CONTROL DISK
Mon. Agency: MNDT

Description: (1991) **Stamping:** 5202 AJ 1987

AT THE SOUTHWEST EDGE OF NICOLLET, AT THE SOUTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 14/TRUNK HIGHWAY 111 AND COUNTY ROAD 23, AT TRUNK HIGHWAY 14 MILEPOINT 118.5, 81.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 76.0 FEET EAST-SOUTHEAST OF A RIGHT-OF-WAY POST, 58.0 FEET WEST OF COUNTY ROAD 23, 12.5 FEET WEST-NORTHWEST OF A POWER POLE, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.755	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
993.755	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
993.755	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
993.755	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE
993.755	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.581	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE
993.584	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.755			901.363	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
993.755	.131		901.540	.066	1996	GPS - STATIC	2013	HNMAN
993.755			901.363	.007	2011	GPS - STATIC	2013	HNMAN
			901.363	.011	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
993.666	.262		901.317	.197	2007	GPS - RTRN	2011	RTRN2011
			901.445	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
993.764	.131		901.589	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
993.764	.131		901.589	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.421 12B = -92.434 09 = -92.352 03 = -92.214

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 15.83067	94 11 26.53115	519898.794	254220.534	.013		ADJUSTMENT	2013	GPS2964
44 16 15.83062	94 11 26.53113	519898.795	254220.529	.013	C	GPS - STATIC	2013	HNMAN
44 16 15.83067	94 11 26.53115	519898.794	254220.534	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 15.82982	94 11 26.53033	519898.853	254220.448	.131	3	GPS - RTRN	2011	RTRN2011
44 16 15.83064	94 11 26.53191	519898.738	254220.531	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 15.82999	94 11 26.53085	519898.816	254220.465	.033	C	GPS - STATIC	2013	HNMAN
44 16 15.82999	94 11 26.53085	519898.816	254220.465	.033	C	ADJUSTMENT	2003	GPS1882
44 16 15.82999	94 11 26.53085	519898.816	254220.466	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574717.022	791492.278	1328645.467	16084841.096	.013		ADJUSTMENT	2013	GPS2964
2574717.023	791492.272	1328645.469	16084841.091	.013	C	GPS - STATIC	2013	HNMAN
2574717.022	791492.278	1328645.467	16084841.096	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574717.082	791492.191	1328645.526	16084841.009	.131	3	GPS - RTRN	2011	RTRN2011
2574716.967	791492.275	1328645.412	16084841.094	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574717.044	791492.209	1328645.488	16084841.027	.033	C	GPS - STATIC	2013	HNMAN
2574717.044	791492.209	1328645.488	16084841.027	.033	C	ADJUSTMENT	2003	GPS1882
2574717.044	791492.209	1328645.488	16084841.027	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AJ-PQ1749-3S-15JUN2011.jpg	S	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AJ-PQ1749-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AJ-PQ1749-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 AK

Mn/DOT Name: 5202 AK

NGS Name: 5202 AK

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1725 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	8	109 N	29 W	441548.00	942032.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2005	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 AK 1987

IN COURTLAND, 0.5 MILE SOUTH ON COUNTY ROAD 24 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24, 147.0 FEET NORTH OF VALLEY VIEW ROAD, 65.4 FEET WEST OF COUNTY ROAD 24, 4.2 FEET SOUTH OF A POWER POLE, 1.0 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
919.965	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
919.736	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.467 09 = -92.385 03 = -92.224

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 AL **NGS Name:** 5202 AL

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9547 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	21	110 N	30 W	441858.74	942602.26	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 AL 2011

1.5 MILES NORTHEAST OF NEW ULM, 0.75 MILE SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 104.95, 74.2 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 25.2 FEET SOUTHEAST OF A FIELD ENTRANCE, 1.5 FEET NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
820.412	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
820.412	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
820.412	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
820.412	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS
820.412	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
820.412	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
820.372	.262		728.233	.197	2011	GPS - RTRN	2019	RTRN2019
820.261	.262		728.122	.197	2011	GPS - RTRN	2015	RTRN2015
820.412			728.227	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
820.412	.131		728.476	.066	1996	GPS - STATIC	2013	HNMAN
820.412			728.227	.010	2011	GPS - STATIC	2013	HNMAN

Geoid Separations(ft): GEOID18 = -92.162 12B = -92.142 09 = -92.073 03 = -91.936

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 58.73716	94 26 02.26085	456210.434	270753.477	.131	3	GPS - RTRN	2019	RTRN2019
44 18 58.73688	94 26 02.26092	456210.429	270753.449	.131	3	GPS - RTRN	2015	RTRN2015
44 18 58.73746	94 26 02.26111	456210.416	270753.508	.016		ADJUSTMENT	2013	GPS2964
44 18 58.73746	94 26 02.26111	456210.416	270753.508	.016	C	GPS - STATIC	2013	HNMAN

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 58.73685	94 26 02.26109	456210.417	270753.446	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511089.946	808231.294	1265239.182	16102350.177	.131	3	GPS - RTRN	2019	RTRN2019
2511089.941	808231.266	1265239.177	16102350.149	.131	3	GPS - RTRN	2015	RTRN2015
2511089.927	808231.325	1265239.164	16102350.208	.016		ADJUSTMENT	2013	GPS2964
2511089.927	808231.325	1265239.164	16102350.208	.016	C	GPS - STATIC	2013	HNMAN

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511089.929	808231.263	1265239.164	16102350.146	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AL-DO9547-3S-08JUL2019.jpg	S	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AL-DO9547-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AL-DO9547-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AM **NGS Name:** 5202 AM

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6217 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	5	109 N	28 W	441616.96	941241.21	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5202 AM 2019

1.5 MILES WEST-SOUTHWEST OF NICOLLET, 1.1 MILES WEST ALONG WESTBOUND TRUNK HIGHWAY 14 FORM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 117.55, 19.5 FEET SOUTH-SOUTHWEST OF THE WESTBOUND TRUNK HIGHWAY 14 FOG LINE, 46.8 FEET NORTH-NORTHEAST OF THE EASTBOUND TRUNK HIGHWAY 14 FOG LINE, 123.9 FEET WEST-NORTHWEST OF 471ST AVENUE, 3.2 FEET NORTH-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.787	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
997.787	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.708	.262		905.257	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.441 12B = -92.451 09 = -92.369 03 = -92.224

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 16.95711	94 12 41.20576	514465.066	254330.276	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569284.261	791619.704	1323215.839	16085034.610	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AM-DR6217-3S-15JUL2019.jpg	S	Jul 15, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AM-DR6217-2-15JUL2019.jpg		Jul 15, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AM-DR6217-1-15JUL2019.jpg		Jul 15, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AN **NGS Name:** 5202 AN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6218 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	109 N	29 W	441611.93	941504.76	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5202 AN 2019

3.0 MILES WEST-SOUTHWEST OF NICOLLET, 3.15 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 115.4, 95.0 FEET SOUTH OF TRUNK HIGHWAY 14, 32.0 FEET WEST OF 491ST AVENUE, 23.6 FEET SOUTH OF A POWER POLE WITH A GUY WIRE, 2.9 FEET NORTH-NORTHEAST OF A WITNESS POST.

Station Pair: 5202 AB - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.407	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
999.407	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.453	.262		906.973	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.470 12B = -92.483 09 = -92.395 03 = -92.247

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 11.93215	94 15 04.75734	504019.772	253816.918	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2558838.465	791140.448	1312767.192	16084682.615	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AN-DR6218-3S-16JUL2019.jpg	S	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AN-DR6218-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AN-DR6218-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AP **NGS Name:** 5202 AP

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6221 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	109 N	29 W	441610.31	942050.79	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 34 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5202 AP 2019

IN COURTLAND, AT THE JUNCTION OF TRUNK HIGHWAY 14 AND RED SHOE DRIVE IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 110.55, 44.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 46.9 FEET NORTHWEST OF RED SHOE DRIVE, 1.4 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
941.871	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
941.868	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
941.908	.262		849.467	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.441 12B = -92.437 09 = -92.359 03 = -92.201

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 10.31095	94 20 50.79108	478840.217	253662.754	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2533661.227	791068.497	1287595.924	16084917.007	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AP-DR6221-3SW-16JUL2019.jpg	SW	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AP-DR6221-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AP-DR6221-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 AQ

Mn/DOT Name: 5202 AQ **NGS Name:** 5202 AQ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6224 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	21	110 N	30 W	441918.85	942621.23	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5202 AQ 2019

1.7 MILES EAST OF NEW ULM, 1.7 MILES NORTHEAST AND SOUTH OF TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 104.55, 110.7 FEET NORTH OF TRUNK HIGHWAY 14, 25.0 FEET NORTH OF A PRIVATE DRIVEWAY, 17.0 FEET EAST OF AN ENTRANCE, 2.6 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
809.880	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
809.877	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
809.818	.262		717.705	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.136 12B = -92.113 09 = -92.047 03 = -91.913

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 18.85447	94 26 21.22642	454835.749	272793.620	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2509722.104	810275.700	1263896.561	16104410.747	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AQ-DR6224-3N-16JUL2019.jpg	N	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AQ-DR6224-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AQ-DR6224-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 AR **NGS Name:** 5202 AR

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6219 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	11	109 N	29 W	441604.19	941635.31	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5202 AR 2019

3.5 MILE EAST OF COURTLAND, 3.3 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 114.15, 84.5 FEET NORTH OF TRUNK HIGHWAY 14, 33.1 FEET EAST OF 466TH STREET, 4.9 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.585	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
995.585	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.523	.262		903.030	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.483 12B = -92.493 09 = -92.408 03 = -92.254

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 04.19078	94 16 35.31201	497430.402	253032.729	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2552247.275	790377.839	1306168.563	16084000.421	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AR-DR6219-3N-16JUL2019.jpg	N	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AR-DR6219-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_AR-DR6219-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 B

Mn/DOT Name: 5202 B

NGS Name: 5202 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	21	110 N	30 W	441929.00	942626.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2011	NOT FOUND	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1964) **Stamping:** 5202 B 1964

IN NEW ULM, AT THE EAST JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15, 0.1 MILE NORTH OF THE CENTER OF THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 21, 38.0 FEET LEFT OF TRUNK HIGHWAY 14, AT TRUNK HIGHWAY 14 STATION 6+50.

Station Notes

USED THE TIES, NO STATION WAS FOUND.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
821.124	.033	3				VERTICAL CONTROL SURVEY	1964	CS5202

Geoid Separations(ft): GEOID18 = -92.126 12B = -92.103 09 = -92.034 03 = -91.899

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 C

NGS Name: 5202 C

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1707 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	21	110 N	30 W	441930.00	942619.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	1987	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 C 1987

1.5 MILES EAST OF NEW ULM, NEAR THE EAST JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15, AT THE HIGHWAY DEPARTMENT MAINTENANCE YARD, 196.0 FEET NORTH OF TRUNK HIGHWAY 15, 133.0 FEET WEST OF A MAINTENANCE BUILDING, 18.0 FEET EAST OF A POWER POLE WITH A TRANSFORMER, 5.6 FEET SOUTH-SOUTHEAST OF A POWER POLE WITH A METER, 0.5 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
848.154	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
847.892	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.126 12B = -92.103 09 = -92.034 03 = -91.903

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 C 1 **NGS Name:** 5202 C 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9548 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	110 N	30 W	441908.21	942549.13	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 C 1 2011

5.75 MILES NORTHWEST OF COURTLAND, 6.5 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND TO TRUNK HIGHWAY 14 MILEPOINT 104.3, THEN 0.65 MILE NORTHEAST ON COUNTY ROAD 21, 48.4 FEET EAST OF COUNTY ROAD 21, 109.2 FEET NORTH OF SPRUCE HAVEN LANE, 34.6 FEET NORTH OF A FIELD ENTRANCE, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
970.077	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
970.077	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
970.077	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
970.077	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS
970.077	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
970.083	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
970.083			877.908	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
970.083	.131		878.154	.066	1996	GPS - STATIC	2013	HNMAN
970.083			877.908	.010	2011	GPS - STATIC	2013	HNMAN
969.946	.262		877.879	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.155 12B = -92.132 09 = -92.067 03 = -91.929

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 08.21289	94 25 49.12827	457167.194	271711.170	.016		ADJUSTMENT	2013	GPS2964
44 19 08.21289	94 25 49.12827	457167.194	271711.170	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 08.21279	94 25 49.13007	457167.063	271711.160	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 08.21223	94 25 49.12817	457167.201	271711.104	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512049.730	809185.743	1266210.356	16103292.709	.016		ADJUSTMENT	2013	GPS2964
2512049.730	809185.743	1266210.356	16103292.709	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512049.599	809185.733	1266210.225	16103292.701	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512049.737	809185.676	1266210.362	16103292.642	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_1-DO9548-3E-04OCT2011.jpg	E	Oct 4, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_1-DO9548-2-04OCT2011.jpg		Oct 4, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_1-DO9548-1-04OCT2011.jpg		Oct 4, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 C 2 **NGS Name:** 5202 C 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9549 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	16	110 N	30 W	441949.49	942641.38	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 C 2 2011

6.1 MILES NORTHWEST OF COURTLAND, 6.55 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND TO TRUNK HIGHWAY 14 MILEPOINT 104.25, THEN 0.4 MILE NORTHWEST ON COUNTY ROAD 21, 30.0 FEET SOUTHWEST OF COUNTY ROAD 21, 1.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
812.626	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
812.626	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
812.626	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
812.626	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS
812.626	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
812.626	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
812.567	.262		720.491	.197	2011	GPS - RTRN	2015	RTRN2015
812.626			720.514	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
812.626	.131		720.750	.066	1996	GPS - STATIC	2013	HNMAN
812.626			720.514	.010	2011	GPS - STATIC	2013	HNMAN
812.564	.262		720.556	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.100 12B = -92.077 09 = -92.008 03 = -91.876

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 49.49022	94 26 41.38478	453376.923	275899.254	.131	3	GPS - RTRN	2015	RTRN2015
44 19 49.49075	94 26 41.38471	453376.929	275899.308	.020		ADJUSTMENT	2013	GPS2964
44 19 49.49075	94 26 41.38471	453376.929	275899.308	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 49.49105	94 26 41.38584	453376.847	275899.338	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 49.49016	94 26 41.38466	453376.932	275899.248	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2508273.622	813385.745	1262486.299	16107537.691	.131	3	GPS - RTRN	2015	RTRN2015
2508273.627	813385.799	1262486.304	16107537.745	.020		ADJUSTMENT	2013	GPS2964
2508273.627	813385.799	1262486.304	16107537.745	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2508273.545	813385.830	1262486.223	16107537.777	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2508273.630	813385.739	1262486.307	16107537.685	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_2-DO9549-3SW-04OCT2011.jpg	SW	Oct 4, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_2-DO9549-2-04OCT2011.jpg		Oct 4, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_2-DO9549-1-04OCT2011.jpg		Oct 4, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 C RESET

Mn/DOT Name: 5202 C RESET
NGS Name: 5202 C RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9550 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	21	110 N	30 W	441930.63	942620.04	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2011)
Stamping: 5202 C RESET 2011

1.5 MILES EAST OF NEW ULM NEAR THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15, AT THE MINNESOTA DEPARTMENT OF TRANSPORTATION MAINTENANCE YARD, 133.0 FEET WEST OF A MAINTENANCE GARAGE, 18.0 FEET EAST OF A POWER POLE WITH A TRANSFORMER, 5.6 FEET SOUTH-SOUTHEAST OF A POWER POLE WITH A METER.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
847.751	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
847.751	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS
847.751	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
847.751	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
847.626	.262		755.527	.197	2011	GPS - RTRN	2015	RTRN2015
847.695	.262		755.599	.197	2011	GPS - RTRN	2014	RTRN2014
847.751			755.622	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
847.751	.131		755.852	.066	1996	GPS - STATIC	2013	HNMAN
847.751			755.622	.010	2011	GPS - STATIC	2013	HNMAN
847.702	.262		755.671	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.126 12B = -92.100 09 = -92.034 03 = -91.899

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 30.63176	94 26 20.04340	454924.255	273986.136	.131	3	GPS - RTRN	2015	RTRN2015
44 19 30.63097	94 26 20.04355	454924.243	273986.056	.131	3	GPS - RTRN	2014	RTRN2014
44 19 30.63137	94 26 20.04326	454924.264	273986.097	.020		ADJUSTMENT	2013	GPS2964
44 19 30.63137	94 26 20.04326	454924.264	273986.097	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 30.63131	94 26 20.04437	454924.184	273986.091	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 30.63086	94 26 20.04319	454924.270	273986.045	.033	C	GPS - STATIC	2013	HNMAN

5202 C RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2509814.504	811467.786	1264003.455	16105601.423	.131	3	GPS - RTRN	2015	RTRN2015
2509814.493	811467.706	1264003.443	16105601.343	.131	3	GPS - RTRN	2014	RTRN2014
2509814.514	811467.746	1264003.464	16105601.383	.020		ADJUSTMENT	2013	GPS2964
2509814.514	811467.746	1264003.464	16105601.383	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2509814.433	811467.741	1264003.384	16105601.378	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2509814.518	811467.694	1264003.469	16105601.331	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_RESET-DO9550-3NE-02JUN2015.jpg	NE	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_RESET-DO9550-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_C_RESET-DO9550-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 D **NGS Name:** 5202 D

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1708 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	21	110 N	30 W	441857.00	942559.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2015	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 5 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 D 1987

1.4 MILES NORTHEAST OF NEW ULM, 0.6 MILE SOUTHEAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 EAST OF NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 104.95, 74.0 FEET WEST OF TRUNK HIGHWAY 14, 12.5 FEET SOUTH OF AN ENTRANCE, 3.5 FEET NORTH OF A POWER POLE WITH AN ANCHOR, 0.5 FOOT EAST-NORTHEAST OF A WITNESS POST.

Station Notes
USED THE TIES, NO STATION WAS FOUND.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
831.750	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
831.494	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.165 12B = -92.142 09 = -92.077 03 = -91.939

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 E

NGS Name: 5202 E

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1709 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	110 N	30 W	441839.00	942547.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2015	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	VERTICAL CONTROL DISK	MNDT

Description: (1987)

Stamping: 5202 E 1987

1.5 MILES EAST OF NEW ULM, 1.25 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 EAST OF NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 105.4, 126.0 FEET NORTHWEST OF AN END GUARDRAIL POST, 9.0 FEET SOUTHWEST OF A FIELD ENTRANCE, 7.0 FEET NORTHEAST OF A POWER POLE, 0.5 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
825.743	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
825.490	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.185 12B = -92.165 09 = -92.096 03 = -91.958

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 F **NGS Name:** 5202 F

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1710 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	27	110 N	30 W	441816.32	942529.32	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 F 1987

1.4 MILES NORTHEAST OF NEW ULM, 1.60 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 105.85, 98.0 FEET NORTHEAST OF TRUNK HIGHWAY 14, 40.5 FEET SOUTH OF 446TH STREET, 2.2 FEET NORTH OF A CABLE PEDESTAL, 3.2 FEET WEST OF A CORNER FENCE POST, 0.5 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
850.287	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
850.287	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
850.287	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
850.287	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
850.287	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
850.034	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
850.320	.262		758.125	.197	2011	GPS - RTRN	2019	RTRN2019
850.139	.262		757.945	.197	2011	GPS - RTRN	2015	RTRN2015
850.297	.262		758.171	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.214 12B = -92.195 09 = -92.126 03 = -91.985

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.32226	94 25 29.32045	458597.225	266453.358	.131	3	GPS - RTRN	2019	RTRN2019
44 18 16.32316	94 25 29.32106	458597.181	266453.450	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.32286	94 25 29.32123	458597.168	266453.419	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2513462.379	803923.861	1267558.604	16098014.904	.131	3	GPS - RTRN	2019	RTRN2019
2513462.335	803923.952	1267558.561	16098014.996	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2513462.322	803923.922	1267558.548	16098014.966	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_F-PQ1710-3N-08JUL2019.jpg	N	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_F-PQ1710-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_F-PQ1710-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 G

NGS Name: 5202 G

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1711 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	27	110 N	30 W	441806.75	942527.80	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 G 1987

1.4 MILES NORTHEAST OF NEW ULM, 1.8 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, 178.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14 MEDIAN, 110.0 FEET NORTHWEST OF COUNTY ROAD 37 MEDIAN, 0.7 FOOT SOUTH-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
829.614	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
829.614	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
829.614	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
829.614	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
829.608	.016	2/1				VERTICAL ADJUSTMENT	2010	00000663
829.608	.016	2/1				VERTICAL CONTROL SURVEY	2006	VNEWU
829.608	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
829.365	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
829.693	.262		737.489	.197	2011	GPS - RTRN	2019	RTRN2019
829.555	.262		737.351	.197	2011	GPS - RTRN	2015	RTRN2015
			737.380	.014	2011	HORIZONTAL ADJUSTMENT	2015	GPS3023
829.608			737.377	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
829.614	.131		737.620	.066	1996	GPS - STATIC	2013	HNMAN
829.608			737.367	.008	2011	GPS - STATIC	2013	HNMAN
			737.377	.008	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
829.585	.262		737.449	.197	2007	GPS - RTRN	2011	RTRN2011
			737.426	.066	2007	HORIZONTAL ADJUSTMENT	2010	GPS2250-B
			737.426	.016	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
829.592	.131		737.544	.066	1996	HORIZONTAL ADJUSTMENT	2006	GPS2250
829.624	.131		737.544	.066	1996	GPS - STATIC	2006	HBRWN
829.592	.131		737.544	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
829.592	.131		737.544	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.224 12B = -92.205 09 = -92.136 03 = -91.995

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 06.75285	94 25 27.79873	458706.031	265484.048	.131	3	GPS - RTRN	2019	RTRN2019
44 18 06.75367	94 25 27.79826	458706.065	265484.131	.131	3	GPS - RTRN	2015	RTRN2015
44 18 06.75362	94 25 27.79846	458706.051	265484.126	.010		ADJUSTMENT	2015	GPS3023
44 18 06.75363	94 25 27.79819	458706.070	265484.127	.007		ADJUSTMENT	2013	GPS2964
44 18 06.75363	94 25 27.79815	458706.073	265484.127	.007	C	GPS - STATIC	2013	HNMAN
44 18 06.75363	94 25 27.79819	458706.070	265484.127	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 06.75367	94 25 27.79921	458705.996	265484.131	.131	3	GPS - RTRN	2011	RTRN2011
44 18 06.75399	94 25 27.79897	458706.014	265484.164	.033	C	ADJUSTMENT	2010	GPS2250-B
44 18 06.75399	94 25 27.79897	458706.014	265484.164	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 06.75339	94 25 27.79834	458706.059	265484.103	.033	C	GPS - STATIC	2013	HNMAN
44 18 06.75339	94 25 27.79834	458706.059	265484.103	.033	C	ADJUSTMENT	2006	GPS2250
44 18 06.75339	94 25 27.79834	458706.059	265484.103	.033	C	GPS - STATIC	2006	HBRWN
44 18 06.75339	94 25 27.79834	458706.059	265484.103	.033	C	ADJUSTMENT	2003	GPS1882
44 18 06.75339	94 25 27.79834	458706.058	265484.102	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2513567.998	802954.306	1267652.397	16097044.300	.131	3	GPS - RTRN	2019	RTRN2019
2513568.033	802954.389	1267652.433	16097044.383	.131	3	GPS - RTRN	2015	RTRN2015
2513568.018	802954.384	1267652.418	16097044.378	.010		ADJUSTMENT	2015	GPS3023
2513568.038	802954.385	1267652.438	16097044.378	.007		ADJUSTMENT	2013	GPS2964
2513568.041	802954.385	1267652.441	16097044.378	.007	C	GPS - STATIC	2013	HNMAN
2513568.038	802954.385	1267652.438	16097044.378	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2513567.964	802954.389	1267652.364	16097044.384	.131	3	GPS - RTRN	2011	RTRN2011
2513567.982	802954.422	1267652.382	16097044.416	.033	C	ADJUSTMENT	2010	GPS2250-B
2513567.982	802954.422	1267652.382	16097044.416	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2513568.027	802954.361	1267652.426	16097044.354	.033	C	GPS - STATIC	2013	HNMAN
2513568.027	802954.361	1267652.426	16097044.354	.033	C	ADJUSTMENT	2006	GPS2250
2513568.027	802954.361	1267652.426	16097044.354	.033	C	GPS - STATIC	2006	HBRWN
2513568.027	802954.361	1267652.426	16097044.354	.033	C	ADJUSTMENT	2003	GPS1882
2513568.027	802954.361	1267652.426	16097044.354	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_G-PQ1711-3NW-08JUL2019.jpg	NW	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_G-PQ1711-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_G-PQ1711-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 H **NGS Name:** 5202 H

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1714 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	33	110 N	30 W	441750.94	942556.39	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2014	GOOD	Horz=NO Vert=NO	YES	08520	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 H 1987

1.75 MILES NORTHEAST OF NEW ULM, 2.25 MILES SOUTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, THEN 0.55 MILE NORTHEAST ON 20TH STREET, IN THE SOUTHEAST CORNER OF 20TH STREET AND COUNTY ROAD 37 BRIDGE NUMBER 08520 OVER THE MINNESOTA RIVER.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
817.029	.016	2/1				VERTICAL ADJUSTMENT	2016	00000870
817.029	.016	2/1				VERTICAL CONTROL SURVEY	2014	VMADE
817.029	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
817.029	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
817.039	.016	2/1				VERTICAL ADJUSTMENT	2010	00000663
817.039	.016	2/1				VERTICAL CONTROL SURVEY	2006	VNEWU
817.131	.016	2				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
816.882	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
816.983	.262		724.775	.197	2011	GPS - RTRN	2014	RTRN2014
816.927	.262		724.792	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.228 12B = -92.208 09 = -92.136 03 = -91.998

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 50.93763	94 25 56.39151	456623.357	263886.523	.131	3	GPS - RTRN	2014	RTRN2014

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 50.93757	94 25 56.39165	456623.347	263886.517	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511480.334	801363.785	1265545.883	16095479.572	.131	3	GPS - RTRN	2014	RTRN2014

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511480.324	801363.779	1265545.872	16095479.566	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_H-PQ1714-3SE-19OCT2005.jpg	SE	Oct 19, 2005
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_H-PQ1714-2-19OCT2005.jpg		Oct 19, 2005
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_H-PQ1714-1-19OCT2005.jpg		Oct 19, 2005

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 J

NGS Name: 5202 J

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1715 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	27	110 N	30 W	441754.00	942512.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2005	DESTROYED	Horz=NO Vert=NO	NO			MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 J 1987

2.25 MILES SOUTHEAST OF NEW ULM, 2.0 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 EAST OF NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 106.4, 71.0 FEET EAST OF TRUNK HIGHWAY 14, 58.4 FEET NORTH-NORTHWEST OF A TELEPHONE CABLE MARKER POST, 42.0 FEET NORTH OF AN ENTRANCE, 20.9 FEET NORTH-NORTHWEST OF A POWER POLE, 0.5 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
843.194	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
842.948	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.241 12B = -92.221 09 = -92.155 03 = -92. 011

*** No Horizontal Positions in the Database ***

5202 J RESET

Mn/DOT Name: 5202 J RESET
NGS Name: 5202 J RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9551 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	27	110 N	30 W	441755.42	942512.83	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011)
Stamping: 5202 J RESET 2011

2.0 MILES SOUTHEAST OF NEW ULM, 2.0 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 EAST OF NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 106.4, 71.0 FEET NORTHEAST OF TRUNK HIGHWAY 14, 42.0 FEET NORTHWEST OF DRIVEWAY NUMBER 57248, 12.3 FEET WEST OF A RIGHT-OF-WAY POST, 6.0 FEET WEST OF A POWER CABINET, 0.7 FOOT SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
842.574	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
842.574	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
842.607	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
842.607	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
842.479	.262		750.261	.197	2011	GPS - RTRN	2019	RTRN2019
842.607			750.317	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
842.607	.131		750.599	.066	1996	GPS - STATIC	2013	HNMAN
842.607			750.317	.008	2011	GPS - STATIC	2013	HNMAN
842.544	.262		750.389	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.237 12B = -92.221 09 = -92.152 03 = -92.008

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 55.42477	94 25 12.82652	459792.763	264334.789	.131	3	GPS - RTRN	2019	RTRN2019
44 17 55.42459	94 25 12.82631	459792.778	264334.771	.013		ADJUSTMENT	2013	GPS2964
44 17 55.42459	94 25 12.82631	459792.778	264334.771	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 55.42497	94 25 12.82766	459792.680	264334.810	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 55.42406	94 25 12.82630	459792.779	264334.717	.033	C	GPS - STATIC	2013	HNMAN

5202 J RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514650.843	801801.622	1268720.948	16095878.718	.131	3	GPS - RTRN	2019	RTRN2019
2514650.858	801801.604	1268720.964	16095878.700	.013		ADJUSTMENT	2013	GPS2964
2514650.858	801801.604	1268720.964	16095878.700	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514650.760	801801.643	1268720.866	16095878.740	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514650.859	801801.550	1268720.963	16095878.646	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_J_RESET-DO9551-3NE-08JUL2019.jpg	NE	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_J_RESET-DO9551-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_J_RESET-DO9551-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 K **NGS Name:** 5202 K

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1716 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	35	110 N	30 W	441731.53	942442.21	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=NO Vert=YES	YES		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)	VERTICAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** 5202 K 1987

3.8 MILES NORTHWEST OF COURTLAND, 3.1 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 12 IN COURTLAND, 71.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 68.9 FEET WEST-NORTHWEST OF A CABLE MARKER POST, 68.0 FEET EAST OF 571ST STREET, 51.5 FEET WEST-SOUTHWEST OF TRUNK HIGHWAY 14 MILEPOST 107, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
868.725	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
868.725	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
868.725	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
868.725	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
868.725	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
868.483	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
868.725	.262		776.472	.197	2011	GPS - RTRN	2019	RTRN2019
868.715	.262		776.527	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.270 12B = -92.257 09 = -92.188 03 = -92.037

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 31.53259	94 24 42.21067	462015.194	261911.180	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 31.53236	94 24 42.21236	462015.071	261911.157	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2516865.085	799371.016	1270905.068	16093421.764	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2516864.962	799370.994	1270904.945	16093421.742	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_K-PQ1716-3SW-09JUL2019.jpg	SW	Jul 9, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_K-PQ1716-2-09JUL2019.jpg		Jul 9, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_K-PQ1716-1-09JUL2019.jpg		Jul 9, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 L

NGS Name: 5202 L

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1717 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	35	110 N	30 W	441717.00	942405.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	NOT FOUND	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 L 1987

3.4 MILES SOUTHEAST OF NEW ULM, 3.2 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 EAST OF NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 107.55, 139.4 FEET EAST-SOUTHEAST OF A TELEPHONE CABLE MARKER POST, 70.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 53.0 FEET WEST OF AN ENTRANCE, 49.3 FEET WEST-NORTHWEST OF A TELEPHONE CABLE MARKER POST, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Station Notes

USED THE TIES, NO STATION WAS FOUND.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
924.539	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
924.299	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.296 12B = -92.287 09 = -92.211 03 = -92.063

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 M **NGS Name:** 5202 M

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1718 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	36	110 N	30 W	441705.00	942330.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	NOT FOUND	Horz=NO Vert=NO	YES		PROJECTS 6 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 M 1987

2.8 MILES NORTHWEST OF COURTLAND, 2.7 MILES WEST-NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 108.1, 164.1 FEET NORTH-NORTHWEST OF A TELEPHONE CABLE MARKER POST, 149.2 FEET WEST-NORTHWEST OF A POWER POLE, 75.0 FEET EAST OF A GRAVEL ROAD, 70.0 FEET NORTH OF TRUNK HIGHWAY 14, 27.7 FEET EAST-SOUTHEAST OF A CABLE MARKER POST, 0.5 FOOT SOUTH OF A WITNESS POST.

Station Notes

THE MONUMENT IS TIPPED.
PULLED THE TIES, NO STATION FOUND.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
921.192	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
920.953	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.323 12B = -92.313 09 = -92.237 03 = -92.086

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:			
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_M-PQ1718-2-13OCT2004.jpg		Oct 13, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_M-PQ1718-1-13OCT2004.jpg		Oct 13, 2004

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 N

Mn/DOT Name: 5202 N

NGS Name: 5202 N

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1719 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	109 N	30 W	441656.00	942301.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	NOT FOUND	Horz=? Vert=YES	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 N 1987

2.4 MILES NORTHWEST OF COURTLAND, 2.3 MILES WEST-NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 108.55, 146.3 FEET NORTHEAST OF A TELEPHONE CABLE POST, 61.0 FEET NORTH OF TRUNK HIGHWAY 14, 41.0 FEET EAST OF A WOOD FENCE POST, 28.3 FEET WEST OF A WOOD CORNER FENCE POST, 24.5 FEET EAST OF AN ENTRANCE, 0.5 FOOT SOUTH OF A WITNESS POST.

Station Notes

PULLED THE TIES, NO STATION WAS FOUND.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
935.031	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
934.795	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.342 12B = -92.332 09 = -92.260 03 = -92.106

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 P

NGS Name: 5202 P

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1720 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	109 N	30 W	441646.00	942230.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2005	DESTROYED	Horz=NO Vert=NO	NO			MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 38 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 P 1987

1.9 MILES NORTHWEST OF COURTLAND, 1.8 MILES WEST-NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 109.05, 133.8 FEET WEST-SOUTHWEST OF A POWER POLE, 75.0 FEET NORTH OF TRUNK HIGHWAY 14, 50.8 FEET SOUTHWEST OF A 12.0 INCH DIAMETER TWIN ELM TREE, 0.5 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
938.404	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
938.171	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.365 12B = -92.359 09 = -92.283 03 = -92.129

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 P 1 **NGS Name:** 5202 P 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9552 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	36	110 N	30 W	441723.51	942330.23	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 P 1 2011

2.7 MILES NORTHWEST OF COURTLAND, 2.7 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, TO TRUNK HIGHWAY 14 MILEPOINT 108.1, THEN 0.35 MILE NORTH ALONG 561ST AVENUE, 25.7 FEET EAST OF 561ST AVENUE, 51.8 FEET NORTH OF DRIVEWAY NUMBER 45479, 10.5 FEET SOUTH OF A CABLE BOX, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.615	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1005.615	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1005.615	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1005.618	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.533	.262		913.243	.197	2011	GPS - RTRN	2019	RTRN2019
1005.628	.262		913.335	.197	2011	GPS - RTRN	2014	RTRN2014
1005.618			913.312	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1005.618	.131		913.548	.066	1996	GPS - STATIC	2013	HNMAN
1005.618			913.312	.009	2011	GPS - STATIC	2013	HNMAN
1005.520	.262		913.299	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.303 12B = -92.290 09 = -92.221 03 = -92.070

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 23.51234	94 23 30.23199	467249.574	261090.371	.131	3	GPS - RTRN	2019	RTRN2019
44 17 23.51279	94 23 30.23341	467249.470	261090.417	.131	3	GPS - RTRN	2014	RTRN2014
44 17 23.51283	94 23 30.23225	467249.555	261090.421	.013		ADJUSTMENT	2013	GPS2964
44 17 23.51283	94 23 30.23225	467249.555	261090.421	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 23.51231	94 23 30.23158	467249.604	261090.368	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 23.51225	94 23 30.23222	467249.557	261090.362	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522096.181	798533.173	1276124.666	16092520.474	.131	3	GPS - RTRN	2019	RTRN2019
2522096.078	798533.219	1276124.563	16092520.521	.131	3	GPS - RTRN	2014	RTRN2014
2522096.162	798533.223	1276124.648	16092520.524	.013		ADJUSTMENT	2013	GPS2964
2522096.162	798533.223	1276124.648	16092520.524	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522096.211	798533.170	1276124.695	16092520.470	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522096.164	798533.164	1276124.649	16092520.465	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_P_1-DO9552-3E-08JUL2019.jpg	E	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_P_1-DO9552-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_P_1-DO9552-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 P RESET
NGS Name: 5202 P RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9553 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	109 N	30 W	441644.25	942228.14	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 38 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 P RESET 2011

2.0 MILES NORTHWEST OF COURTLAND, 1.8 MILES WEST-NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 109.05, 75.0 FEET NORTH OF TRUNK HIGHWAY 14, 133.8 FEET WEST-SOUTHWEST OF A POWER POLE, 0.5 FOOT SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
936.976	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
936.970	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
937.003	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
937.003	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
936.937	.262		844.569	.197	2011	GPS - OPUS	2021	GPSBM
936.970	.262		844.601	.197	2011	GPS - RTRN	2021	RTRN2021
936.894	.262		844.532	.197	2011	GPS - RTRN	2019	RTRN2019
937.003			844.601	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
937.003	.131		844.870	.066	1996	GPS - STATIC	2013	HNMAN
937.003			844.601	.008	2011	GPS - STATIC	2013	HNMAN
936.950	.262		844.664	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.369 12B = -92.362 09 = -92.283 03 = -92.132

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 44.25244	94 22 28.14053	471760.969	257108.124	.131	3	GPS - OPUS	2021	GPSBM
44 16 44.25277	94 22 28.13993	471761.012	257108.158	.131	3	GPS - RTRN	2021	RTRN2021
44 16 44.25258	94 22 28.14007	471761.002	257108.138	.131	3	GPS - RTRN	2019	RTRN2019
44 16 44.25263	94 22 28.13977	471761.024	257108.144	.013		ADJUSTMENT	2013	GPS2964
44 16 44.25263	94 22 28.13977	471761.024	257108.144	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 44.25273	94 22 28.14177	471760.878	257108.154	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 44.25214	94 22 28.13988	471761.016	257108.094	.033	C	GPS - STATIC	2013	HNMAN

5202 P RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2526594.038	794536.623	1280572.755	16088470.209	.131	3	GPS - OPUS	2021	GPSBM
2526594.082	794536.656	1280572.799	16088470.242	.131	3	GPS - RTRN	2021	RTRN2021
2526594.072	794536.637	1280572.789	16088470.223	.131	3	GPS - RTRN	2019	RTRN2019
2526594.094	794536.642	1280572.811	16088470.228	.013		ADJUSTMENT	2013	GPS2964
2526594.094	794536.642	1280572.811	16088470.228	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2526593.948	794536.653	1280572.666	16088470.240	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2526594.086	794536.592	1280572.802	16088470.178	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_P_RESET-DO9553-3N-12MAY2021.jpg	N	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_P_RESET-DO9553-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_P_RESET-DO9553-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 Q **NGS Name:** 5202 Q

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1721 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	109 N	29 W	441632.76	942155.54	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		PROJECTS 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 Q 1987

1.4 MILES NORTHWEST OF COURTLAND, 1.3 MILES WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 109.55, 74.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
931.025	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
931.015	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
931.015	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
931.015	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
931.015	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
930.786	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
930.946	.262		838.558	.197	2011	GPS - RTRN	2019	RTRN2019
931.015			838.601	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
931.015	.131		838.860	.066	1996	GPS - STATIC	2013	HNMAN
931.015			838.611	.007	2011	GPS - STATIC	2013	HNMAN
			838.601	.008	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
930.976	.262		838.670	.197	2007	GPS - RTRN	2011	RTRN2011
			838.653	.066	2007	HORIZONTAL ADJUSTMENT	2010	GPS2250-B
			838.653	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
931.002	.131		838.784	.066	1996	HORIZONTAL ADJUSTMENT	2006	GPS2250
931.002	.131		838.784	.066	1996	GPS - STATIC	2006	HBRWN
931.002	.131		838.784	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
931.002	.131		838.784	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.395 12B = -92.392 09 = -92.310 03 = -92.159

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 32.76009	94 21 55.54141	474131.308	255941.317	.131	3	GPS - RTRN	2019	RTRN2019
44 16 32.76000	94 21 55.54147	474131.303	255941.307	.010		ADJUSTMENT	2013	GPS2964
44 16 32.76007	94 21 55.54153	474131.299	255941.315	.010	C	GPS - STATIC	2013	HNMAN
44 16 32.76000	94 21 55.54147	474131.303	255941.307	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 32.76070	94 21 55.54259	474131.222	255941.379	.131	3	GPS - RTRN	2011	RTRN2011
44 16 32.75988	94 21 55.54214	474131.255	255941.295	.033	C	ADJUSTMENT	2010	GPS2250-B
44 16 32.75988	94 21 55.54214	474131.255	255941.295	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 32.75925	94 21 55.54122	474131.321	255941.232	.033	C	GPS - STATIC	2013	HNMAN
44 16 32.75925	94 21 55.54122	474131.321	255941.232	.033	C	ADJUSTMENT	2006	GPS2250
44 16 32.75925	94 21 55.54122	474131.321	255941.232	.033	C	GPS - STATIC	2006	HBRWN
44 16 32.75925	94 21 55.54122	474131.321	255941.232	.033	C	ADJUSTMENT	2003	GPS1882
44 16 32.75925	94 21 55.54122	474131.322	255941.230	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2528960.295	793362.196	1282924.117	16087267.297	.131	3	GPS - RTRN	2019	RTRN2019
2528960.290	793362.187	1282924.112	16087267.288	.010		ADJUSTMENT	2013	GPS2964
2528960.286	793362.194	1282924.108	16087267.295	.010	C	GPS - STATIC	2013	HNMAN
2528960.290	793362.187	1282924.112	16087267.288	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2528960.209	793362.258	1282924.032	16087267.360	.131	3	GPS - RTRN	2011	RTRN2011
2528960.242	793362.175	1282924.063	16087267.276	.033	C	ADJUSTMENT	2010	GPS2250-B
2528960.242	793362.175	1282924.063	16087267.276	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2528960.308	793362.111	1282924.129	16087267.211	.033	C	GPS - STATIC	2013	HNMAN
2528960.308	793362.111	1282924.129	16087267.211	.033	C	ADJUSTMENT	2006	GPS2250
2528960.308	793362.111	1282924.129	16087267.211	.033	C	GPS - STATIC	2006	HBRWN
2528960.308	793362.111	1282924.129	16087267.211	.033	C	ADJUSTMENT	2003	GPS1882
2528960.308	793362.111	1282924.129	16087267.211	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Q-PQ1721-3SW-08JUL2019.jpg	SW	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Q-PQ1721-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Q-PQ1721-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 R **NGS Name:** 5202 R

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1722 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	109 N	29 W	441621.25	942117.65	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 R 1987

0.8 MILE NORTHWEST OF COURTLAND, 0.7 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 110.1, 171.0 FEET WEST-NORTHWEST OF A TELEPHONE CABLE MARKER POST, 152.9 FEET SOUTH OF A POWER POLE, 130.0 FEET WEST-NORTHWEST OF AN ENTRANCE, 75.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 0.7 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
941.350	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
941.347	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
941.297	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
941.297	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
941.297	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
941.064	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
941.245	.262		848.827	.197	2011	GPS - RTRN	2019	RTRN2019
941.297			848.873	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
941.297	.131		849.116	.066	1996	GPS - STATIC	2013	HNMAN
941.297			848.873	.008	2011	GPS - STATIC	2013	HNMAN
941.219	.262		848.880	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.421 12B = -92.418 09 = -92.336 03 = -92.182

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 21.25078	94 21 17.64788	476887.136	254772.636	.131	3	GPS - RTRN	2019	RTRN2019
44 16 21.25064	94 21 17.64852	476887.090	254772.622	.013		ADJUSTMENT	2013	GPS2964
44 16 21.25064	94 21 17.64852	476887.090	254772.622	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 21.25059	94 21 17.64878	476887.071	254772.617	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 21.25009	94 21 17.64818	476887.114	254772.566	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2531711.993	792184.638	1285660.777	16086056.569	.131	3	GPS - RTRN	2019	RTRN2019
2531711.946	792184.624	1285660.730	16086056.555	.013		ADJUSTMENT	2013	GPS2964
2531711.946	792184.624	1285660.730	16086056.555	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2531711.927	792184.619	1285660.711	16086056.550	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2531711.971	792184.569	1285660.754	16086056.499	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_R-PQ1722-3SW-08JUL2019.jpg	SW	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_R-PQ1722-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_R-PQ1722-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 S

Mn/DOT Name: 5202 S

NGS Name: 5202 S

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1723 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	109 N	29 W	441610.00	942049.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	NOT FOUND	Horz=NO Vert=NO	NO		PROJECTS 3 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 24 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 S 1987

IN COURTLAND, 0.25 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24, AT TRUNK HIGHWAY 14 MILEPOINT 110.55, 75.0 FEET NORTHWEST OF TRUNK HIGHWAY 14, 30.7 FEET WEST OF A FIELD ENTRANCE, 10.5 FEET WEST-NORTHWEST OF A WOOD POST, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Station Notes

PULLED THE TIES, NO STATION WAS FOUND.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
938.591	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
938.361	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.441 12B = -92.441 09 = -92.359 03 = -92.205

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 T **NGS Name:** 5202 T

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1724 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	109 N	29 W	441610.00	942031.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=NO Vert=YES	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CONCRETE FOOTING - MEDIUM	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 T 1987

AT THE WATER TANK AT COURTLAND, 1.0 BLOCK NORTH OF TRUNK HIGHWAY 14 AND 180.0 FEET WEST OF 4TH STREET, IN THE SOUTHWEST CORNER OF A CONCRETE BASE OF A STANDPIPE, 36.0 FEET NORTH OF FOOTHILLS ROAD, 0.65 FOOT EAST OF THE WEST EDGE OF THE BASE, 0.45 FOOT NORTH OF THE SOUTH EDGE OF THE BASE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
932.803	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
932.803	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
932.803	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
932.803	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
932.803	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
932.577	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.447 12B = -92.447 09 = -92.365 03 = -92.208

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_T-PQ1724-3N-08JUL2019.jpg	N	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_T-PQ1724-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_T-PQ1724-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 U

NGS Name: 5202 U

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1729 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	8	109 N	29 W	441604.00	942007.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2005	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 26 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 U 1987

IN COURTLAND, 0.3 MILE EAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24, AT TRUNK HIGHWAY 14 MILEPOINT 111.2, 87.0 FEET SOUTH OF THE SOUTHWEST CORNER OF A HOUSE WITH AN ATTACHED GARAGE, 52.0 FEET NORTH OF TRUNK HIGHWAY 14, 15.0 FEET SOUTH OF A GRAVEL STREET, 6.0 FEET EAST-SOUTHEAST OF A POWER POLE WITH A TRANSFORMER, 0.5 FOOT SOUTHWEST OF A WITNESS POST.

Station Notes

FOUND THE CAP LOOSE AND THE ROD BENT OVER, TOO LOW TO BE ABLE TO RESET.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
934.132	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
933.909	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.460 12B = -92.464 09 = -92.378 03 = -92.221

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5202 V **NGS Name:** 5202 V

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1730 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	9	109 N	29 W	441559.19	941941.79	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		PROJECTS 5 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 36 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 V 1987

IN COURTLAND, 0.65 MILE EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24, AT TRUNK HIGHWAY 14 MILEPOINT 111.5, 145.0 FEET NORTH OF A POWER POLE WITH AN ANCHOR, 99.0 FEET EAST OF THE EXTENSION OF COUNTY ROAD 25 SOUTH, 70.0 FEET NORTH OF TRUNK HIGHWAY 14, 10.3 FEET EAST-SOUTHEAST OF A POWER POLE WITH AN ANCHOR, 0.5 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
967.974	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
967.974	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
967.974	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
967.974	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
967.974	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
967.747	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
967.974	.262		875.500	.197	2011	GPS - RTRN	2022	RTRN2022P
967.971	.262		875.497	.197	2011	GPS - RTRN	2022	RTRN2022T
967.957	.262		875.481	.197	2011	GPS - RTRN	2019	RTRN2019
967.974			875.503	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
967.974	.131		875.743	.066	1996	GPS - STATIC	2013	HNMAN
967.974			875.503	.009	2011	GPS - STATIC	2013	HNMAN
967.928	.262		875.540	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.474 12B = -92.474 09 = -92.388 03 = -92.231

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 59.18968	94 19 41.79079	483860.266	252532.160	.131	3	GPS - RTRN	2022	RTRN2022P
44 15 59.18954	94 19 41.79072	483860.271	252532.146	.131	3	GPS - RTRN	2022	RTRN2022T
44 15 59.18924	94 19 41.79178	483860.194	252532.115	.131	3	GPS - RTRN	2019	RTRN2019
44 15 59.18917	94 19 41.79134	483860.226	252532.108	.016		ADJUSTMENT	2013	GPS2964
44 15 59.18917	94 19 41.79134	483860.226	252532.108	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 59.18876	94 19 41.79334	483860.080	252532.067	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 59.18848	94 19 41.79112	483860.242	252532.038	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2538677.020	789921.627	1292596.442	16083709.425	.131	3	GPS - RTRN	2022	RTRN2022P
2538677.025	789921.613	1292596.447	16083709.411	.131	3	GPS - RTRN	2022	RTRN2022T
2538676.948	789921.583	1292596.370	16083709.382	.131	3	GPS - RTRN	2019	RTRN2019
2538676.980	789921.575	1292596.401	16083709.375	.016		ADJUSTMENT	2013	GPS2964
2538676.980	789921.575	1292596.401	16083709.375	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2538676.834	789921.535	1292596.255	16083709.335	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2538676.996	789921.505	1292596.416	16083709.304	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_V-PQ1730-3N-08JUL2019.jpg	N	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_V-PQ1730-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_V-PQ1730-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 V 1 **NGS Name:** 5202 V 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9554 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	109 N	29 W	441631.95	941954.07	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 V 1 2011

0.6 MILE EAST-NORTHEAST OF COURTLAND, 0.5 MILE EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND TO TRUNK HIGHWAY 14 MILEPOINT 111.35, THEN 0.55 MILE NORTH ON 531ST AVENUE, 38.6 FEET EAST OF 531ST AVENUE, 41.1 FEET NORTH OF 466TH STREET, 15.3 FEET NORTH-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.548	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1019.548	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1019.548	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1019.552	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.568	.262		927.131	.197	2011	GPS - OPUS	2019	GPSBM
1019.706	.262		927.268	.197	2011	GPS - RTRN	2019	RTRN2019
1019.552			927.114	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1019.552	.131		927.351	.066	1996	GPS - STATIC	2013	HNMAN
1019.552			927.114	.009	2011	GPS - STATIC	2013	HNMAN
1019.358	.262		926.999	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.437 12B = -92.434 09 = -92.355 03 = -92.201

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 31.95350	94 19 54.07140	482969.228	255850.835	.131	3	GPS - OPUS	2019	GPSBM
44 16 31.95298	94 19 54.07067	482969.281	255850.782	.131	3	GPS - RTRN	2019	RTRN2019
44 16 31.95385	94 19 54.07112	482969.248	255850.870	.016		ADJUSTMENT	2013	GPS2964
44 16 31.95385	94 19 54.07112	482969.248	255850.870	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 31.95394	94 19 54.07083	482969.269	255850.879	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 31.95322	94 19 54.07086	482969.267	255850.806	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2537796.923	793242.840	1291756.984	16087040.464	.131	3	GPS - OPUS	2019	GPSBM
2537796.977	793242.788	1291757.036	16087040.411	.131	3	GPS - RTRN	2019	RTRN2019
2537796.944	793242.876	1291757.005	16087040.499	.016		ADJUSTMENT	2013	GPS2964
2537796.944	793242.876	1291757.005	16087040.499	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2537796.965	793242.885	1291757.026	16087040.508	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2537796.963	793242.812	1291757.022	16087040.435	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_V_1-DO9554-3E-29OCT2019.jpg	E	Oct 29, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_V_1-DO9554-2-29OCT2019.jpg		Oct 29, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_V_1-DO9554-1-29OCT2019.jpg		Oct 29, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 W
NGS Name: 5202 W
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1731 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	9	109 N	29 W	441553.65	941900.92	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 5 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 W 1987

1.2 MILES EAST OF COURTLAND, 1.25 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 112.1, 79.0 FEET SOUTH OF TRUNK HIGHWAY 14, 31.0 FEET WEST OF A FIELD ENTRANCE, 15.5 FEET WEST OF A TELEPHONE MARKER POST, 0.5 FOOT NORTH OF A WITNESS POST.

Station Pair: 5202 X - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.936	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
995.936	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
995.936	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
995.936	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
995.936	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.717	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.923	.262		903.437	.197	2011	GPS - OPUS	2021	GPSBM
996.005	.262		903.519	.197	2011	GPS - RTRN	2021	RTRN2021
995.884	.262		903.397	.197	2011	GPS - RTRN	2019	RTRN2019
995.936			903.446	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
995.936	.131		903.689	.066	1996	GPS - STATIC	2013	HNMAN
995.936			903.446	.009	2011	GPS - STATIC	2013	HNMAN
995.874	.262		903.469	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.487 12B = -92.487 09 = -92.405 03 = -92.247

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 53.64526	94 19 00.91546	486834.424	251968.655	.131	3	GPS - OPUS	2021	GPSBM
44 15 53.64546	94 19 00.91495	486834.461	251968.676	.131	3	GPS - RTRN	2021	RTRN2021
44 15 53.64553	94 19 00.91505	486834.453	251968.682	.131	3	GPS - RTRN	2019	RTRN2019
44 15 53.64555	94 19 00.91479	486834.473	251968.684	.016		ADJUSTMENT	2013	GPS2964
44 15 53.64555	94 19 00.91479	486834.473	251968.684	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 53.64479	94 19 00.91514	486834.447	251968.608	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 53.64482	94 19 00.91454	486834.491	251968.611	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2541649.006	789348.471	1295560.661	16083100.270	.131	3	GPS - OPUS	2021	GPSBM
2541649.043	789348.491	1295560.698	16083100.290	.131	3	GPS - RTRN	2021	RTRN2021
2541649.036	789348.498	1295560.691	16083100.297	.131	3	GPS - RTRN	2019	RTRN2019
2541649.054	789348.500	1295560.710	16083100.299	.016		ADJUSTMENT	2013	GPS2964
2541649.054	789348.500	1295560.710	16083100.299	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2541649.029	789348.423	1295560.683	16083100.223	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2541649.073	789348.426	1295560.727	16083100.225	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_W-PQ1731-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_W-PQ1731-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_W-PQ1731-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 X **NGS Name:** 5202 X

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1732 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	109 N	29 W	441551.77	941823.86	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		PROJECTS 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 21 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 X 1987

1.7 MILES EAST OF COURTLAND, 1.75 MILES EAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 112.6, 200.0 FEET WEST OF A TELEPHONE CABLE BOX, 74.0 FEET SOUTH OF TRUNK HIGHWAY 14, 22.0 FEET EAST OF A FIELD ENTRANCE, 0.5 FOOT NORTH OF A WITNESS POST.

Station Pair: 5202 W - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.781	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
998.781	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
998.781	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
998.781	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
998.810	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.591	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.692	.262		906.196	.197	2011	GPS - RTRN	2019	RTRN2019
998.810			906.284	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
998.781	.131		906.527	.066	1996	GPS - STATIC	2013	HNMAN
998.810			906.284	.009	2011	GPS - STATIC	2013	HNMAN
998.705	.262		906.294	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.493 12B = -92.497 09 = -92.411 03 = -92.254

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 51.77062	94 18 23.85681	489531.163	251777.332	.131	3	GPS - RTRN	2019	RTRN2019
44 15 51.77096	94 18 23.85710	489531.141	251777.367	.016		ADJUSTMENT	2013	GPS2964
44 15 51.77096	94 18 23.85710	489531.141	251777.367	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 51.76983	94 18 23.85763	489531.103	251777.252	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 51.77028	94 18 23.85687	489531.158	251777.298	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2544344.819	789148.363	1298253.313	16082867.423	.131	3	GPS - RTRN	2019	RTRN2019
2544344.798	789148.398	1298253.292	16082867.458	.016		ADJUSTMENT	2013	GPS2964
2544344.798	789148.398	1298253.292	16082867.458	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2544344.759	789148.284	1298253.252	16082867.344	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2544344.815	789148.329	1298253.308	16082867.389	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_X-PQ1732-3S-08JUL2019.jpg	S	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_X-PQ1732-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_X-PQ1732-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 Y **NGS Name:** 5202 Y

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1733 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	29 W	441555.20	941746.07	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 5 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (1987)

Stamping: 5202 Y 1987

2.2 MILES EAST OF COURTLAND, 2.25 MILES EAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 AT COURTLAND, NEAR THE EAST EDGE OF A SWAMP, 69.0 FEET SOUTH OF TRUNK HIGHWAY 14, AT TRUNK HIGHWAY 14 MILEPOINT 113.15, 0.5 FOOT NORTH OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.602	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
995.602	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
995.556	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.342	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.556			903.118	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
995.602	.131		903.345	.066	1996	GPS - STATIC	2013	HNMAN
995.556			903.118	.009	2011	GPS - STATIC	2013	HNMAN
995.549	.262		903.138	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.497 09 = -92.411 03 = -92.257

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 55.20314	94 17 46.07000	492281.132	252123.782	.016		ADJUSTMENT	2013	GPS2964
44 15 55.20314	94 17 46.07000	492281.132	252123.782	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 55.20244	94 17 46.07034	492281.107	252123.711	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 55.20249	94 17 46.06982	492281.145	252123.716	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2547095.613	789485.797	1301007.464	16083171.301	.016		ADJUSTMENT	2013	GPS2964
2547095.613	789485.797	1301007.464	16083171.301	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2547095.589	789485.726	1301007.438	16083171.231	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2547095.626	789485.731	1301007.476	16083171.235	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y-PQ1733-3S-16JUN2011.jpg	S	Jun 16, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y-PQ1733-2-16JUN2011.jpg		Jun 16, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y-PQ1733-1-16JUN2011.jpg		Jun 16, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 Y 1 **NGS Name:** 5202 Y 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9555 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	109 N	29 W	441617.79	941728.92	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 Y 1 2011

2.3 MILES EAST OF COURTLAND, 2.5 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, TO TRUNK HIGHWAY 14 MILEPOINT 113.4, THEN 0.4 MILE NORTH ON COUNTY ROAD 21, 49.5 FEET EAST OF COUNTY ROAD 21, 89.1 FEET SOUTH OF 466TH STREET, 21.7 FEET NORTH OF A FIELD ENTRANCE, 2.0 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.121	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
998.121	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
998.121	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
998.121	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.052	.262		905.582	.197	2011	GPS - OPUS	2021	GPSBM
998.217	.262		905.746	.197	2011	GPS - RTRN	2021	RTRN2021
998.095	.262		905.618	.197	2011	GPS - RTRN	2019	RTRN2019
998.121			905.658	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
998.121	.131		905.884	.066	1996	GPS - STATIC	2013	HNMAN
998.121			905.658	.009	2011	GPS - STATIC	2013	HNMAN
998.102	.262		905.707	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.470 12B = -92.477 09 = -92.392 03 = -92.237

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 17.79452	94 17 28.92181	493529.718	254411.196	.131	3	GPS - OPUS	2021	GPSBM
44 16 17.79457	94 17 28.92132	493529.753	254411.201	.131	3	GPS - RTRN	2021	RTRN2021
44 16 17.79422	94 17 28.92148	493529.742	254411.166	.131	3	GPS - RTRN	2019	RTRN2019
44 16 17.79422	94 17 28.92128	493529.756	254411.166	.016		ADJUSTMENT	2013	GPS2964
44 16 17.79422	94 17 28.92128	493529.756	254411.166	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 17.79480	94 17 28.92327	493529.612	254411.224	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 17.79359	94 17 28.92117	493529.764	254411.102	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548351.525	791768.880	1302290.810	16085438.481	.131	3	GPS - OPUS	2021	GPSBM
2548351.561	791768.885	1302290.846	16085438.485	.131	3	GPS - RTRN	2021	RTRN2021
2548351.549	791768.850	1302290.833	16085438.450	.131	3	GPS - RTRN	2019	RTRN2019
2548351.564	791768.850	1302290.848	16085438.450	.016		ADJUSTMENT	2013	GPS2964
2548351.564	791768.850	1302290.848	16085438.450	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548351.419	791768.909	1302290.704	16085438.510	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548351.572	791768.786	1302290.855	16085438.386	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_1-DO9555-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_1-DO9555-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_1-DO9555-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 Y 2 **NGS Name:** 5202 Y 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9556 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	109 N	29 W	441618.83	941636.41	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5202 Y 2 2011

3.0 MILES EAST OF COURTLAND, 3.3 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, TO TRUNK HIGHWAY 14 MILEPOINT 114.15, THEN 0.3 MILE NORTH ON 466TH STREET, 14.8 FEET NORTH OF 466TH STREET, 60.0 FEET WEST OF EXTENDED 466TH STREET, 52.3 FEET WEST OF DRIVEWAY NUMBER 50526, 1.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.571	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
993.571	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
993.571	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
993.571	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.545	.262		901.064	.197	2011	GPS - RTRN	2019	RTRN2019
993.571			901.117	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
993.571	.131		901.330	.066	1996	GPS - STATIC	2013	HNMAN
993.571			901.117	.008	2011	GPS - STATIC	2013	HNMAN

Geoid Separations(ft): GEOID18 = -92.470 12B = -92.480 09 = -92.395 03 = -92.241

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 18.82731	94 16 36.40960	497350.715	254514.978	.131	3	GPS - RTRN	2019	RTRN2019
44 16 18.82746	94 16 36.40894	497350.763	254514.993	.016		ADJUSTMENT	2013	GPS2964
44 16 18.82746	94 16 36.40894	497350.763	254514.993	.016	C	GPS - STATIC	2013	HNMAN

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 18.82673	94 16 36.40867	497350.782	254514.919	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2552172.432	791860.182	1306111.777	16085483.265	.131	3	GPS - RTRN	2019	RTRN2019
2552172.480	791860.197	1306111.825	16085483.279	.016		ADJUSTMENT	2013	GPS2964
2552172.480	791860.197	1306111.825	16085483.279	.016	C	GPS - STATIC	2013	HNMAN

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2552172.500	791860.123	1306111.844	16085483.205	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_2-DO9556-3N-08JUL2019.jpg	N	Jul 8, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_2-DO9556-2-08JUL2019.jpg		Jul 8, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_2-DO9556-1-08JUL2019.jpg		Jul 8, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5202 Y RESET

Mn/DOT Name: 5202 Y RESET
NGS Name: 5202 Y RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6220 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	29 W	441555.20	941746.07	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description:
Stamping: 5202 Y RESET 2019

2.2 MILES EAST OF COURTLAND, 2.25 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, NEAR THE EAST EDGE OF A SWAMP, 69.0 FEET SOUTH OF TRUNK HIGHWAY 14, AT TRUNK HIGHWAY 14 MILEPOINT 113.15, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.398	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
995.398	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.267	.262		902.771	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.497 09 = -92.411 03 = -92.257

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 55.20322	94 17 46.07004	492281.129	252123.790	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2547095.611	789485.806	1301007.461	16083171.310	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_RESET-DR6220-3S-14JUL2019.jpg	S	Jul 14, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_RESET-DR6220-2-14JUL2019.jpg		Jul 14, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5202_Y_RESET-DR6220-1-14JUL2019.jpg		Jul 14, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5202 Z

NGS Name: 5202 Z

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1736 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	11	109 N	29 W	441559.00	941712.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2005	DESTROYED	Horz=NO Vert=NO	NO			MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5202 Z 1987

2.7 MILES EAST OF COURTLAND, 2.5 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 113.6, 167.0 FEET SOUTHWEST OF AN ANCHOR POLE, 125.5 FEET WEST OF A POWER POLE, 120.8 FEET EAST OF A POWER POLE, 75.0 FEET SOUTH OF TRUNK HIGHWAY 14, 3.3 FEET NORTH OF A WOOD POLE, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.156	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.946	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.487 12B = -92.500 09 = -92.411 03 = -92.257

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 AA **NGS Name:** 5203 AA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1695 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	108 N	27 W	440959.18	940240.16	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	GOOD	Horz=NO Vert=YES	YES		RECESSED 6 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1986) **Stamping:** 5203 AA 1986

IN NORTH MANKATO, 1.1 MILES SOUTHEAST ALONG A LOOKOUT DRIVE FROM THE JUNCTION OF LOOKOUT DRIVE AND TRUNK HIGHWAY 14 IN NORTH MANKATO, 150.0 FEET EAST OF THE JUNCTION OF CAROL COURT AND CLIFF DRIVE, 138.0 FEET WEST OF LOOKOUT DRIVE, 121.0 FEET SOUTH OF CAROL COURT, 57.0 FEET EAST OF CLIFF DRIVE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.239	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
993.239	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
993.239	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.134	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1
993.220	.033	3				VERTICAL CONTROL SURVEY	1977	CS5203

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.911	.262		900.307	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.697 12B = -92.700 09 = -92.608 03 = -92.497

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 59.18087	94 02 40.15712	558303.039	216147.207	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612993.419	753298.173	1366445.450	16046193.294	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AA-PQ1695-3E-13JUN2011.jpg	E	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AA-PQ1695-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AA-PQ1695-1-13JUN2011.jpg		Jun 13, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 AA 1 **NGS Name:** 5203 AA 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1768 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	32	109 N	27 W	441239.01	940626.34	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	GOOD	Horz=NO Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 AA 1 1987

5.5 MILES NORTHWEST OF NORTH MANKATO, 2.95 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 124.4, 71.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 70.4 FEET SOUTHEAST OF A POLE, 21.0 FEET SOUTH OF EXTENDED 570TH STREET, 4.9 FEET EAST OF THE NORTH POLE OF 2 (NUMBER 38), 3.3 FEET NORTH-NORTHWEST OF A WARNING SIGN POST FOR AN UNDERGROUND CABLE, 0.5 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.873	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
988.869	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
988.873	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.748	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.755	.262		896.340	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.483 12B = -92.497 09 = -92.415 03 = -92.287

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.01307	94 06 26.34093	541784.466	232294.863	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2596528.989	769497.802	1350183.237	16062587.911	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AA_1-PQ1768-3SW-15JUN2011.jpg	SW	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AA_1-PQ1768-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AA_1-PQ1768-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 AB **NGS Name:** 5203 AB

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1769 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	32	109 N	27 W	441220.78	940559.47	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 AB 1987

5.0 MILES NORTHWEST OF NORTH MANKATO, 2.95 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE IN MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 124.9, 171.9 FEET WEST-NORTHWEST OF A STEEL CULVERT MARKER POST, 75.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 0.5 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.477	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
985.477	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
985.477	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.356	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.326	.262		892.830	.197	2011	GPS - OPUS	2021	GPSBM
985.484	.262		892.987	.197	2011	GPS - RTRN	2021	RTRN2021
985.477			892.967	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
985.477	.131		893.181	.066	1996	GPS - STATIC	2013	HNMAN
985.477			892.967	.008	2011	GPS - STATIC	2013	HNMAN
985.356	.262		892.931	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.497 12B = -92.506 09 = -92.424 03 = -92.300

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 20.77618	94 05 59.46644	543745.706	230451.923	.131	3	GPS - OPUS	2021	GPSBM
44 12 20.77644	94 05 59.46603	543745.736	230451.949	.131	3	GPS - RTRN	2021	RTRN2021
44 12 20.77640	94 05 59.46611	543745.730	230451.945	.013		ADJUSTMENT	2013	GPS2964
44 12 20.77640	94 05 59.46611	543745.730	230451.945	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 20.77604	94 05 59.46591	543745.745	230451.909	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 20.77578	94 05 59.46587	543745.748	230451.883	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2598484.034	767648.684	1352115.183	16060715.597	.131	3	GPS - OPUS	2021	GPSBM
2598484.064	767648.710	1352115.213	16060715.623	.131	3	GPS - RTRN	2021	RTRN2021
2598484.058	767648.706	1352115.207	16060715.619	.013		ADJUSTMENT	2013	GPS2964
2598484.058	767648.706	1352115.207	16060715.619	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2598484.072	767648.669	1352115.221	16060715.583	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2598484.075	767648.643	1352115.224	16060715.556	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AB-PQ1769-3W-11MAY2021.jpg	W	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AB-PQ1769-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AB-PQ1769-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 AC **NGS Name:** 5203 AC

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1770 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	32	109 N	27 W	441202.16	940531.97	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 43 FT)	VERTICAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** 5203 AC 1987

4.5 MILES NORTHWEST OF NORTH MANKATO, 2.4 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 125.5, 177.0 FEET SOUTHWEST OF AN ENTRANCE, 71.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 4.7 FEET EAST OF A POWER POLE, 0.6 FOOT EAST-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.714	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
981.714	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
981.714	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.599	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.714			889.185	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
981.714	.131		889.401	.066	1996	GPS - STATIC	2013	HNMAN
981.714			889.185	.007	2011	GPS - STATIC	2013	HNMAN
981.658	.262		889.221	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.510 12B = -92.519 09 = -92.437 03 = -92.313

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 02.16147	94 05 31.96930	545752.723	228570.999	.013		ADJUSTMENT	2013	GPS2964
44 12 02.16147	94 05 31.96930	545752.723	228570.999	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 02.16094	94 05 31.97021	545752.657	228570.945	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 02.16082	94 05 31.96899	545752.746	228570.933	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2600484.729	765761.436	1354092.299	16058804.616	.013		ADJUSTMENT	2013	GPS2964
2600484.729	765761.436	1354092.299	16058804.616	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2600484.663	765761.382	1354092.232	16058804.563	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2600484.752	765761.370	1354092.320	16058804.550	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AC-PQ1770-3SW-15JUN2011.jpg	SW	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AC-PQ1770-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AC-PQ1770-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 AD **NGS Name:** 5203 AD

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1771 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	108 N	27 W	441140.54	940503.15	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** 5203 AD 1987

3.7 MILES NORTHWEST OF NORTH MANKATO, 1.8 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE IN NORTH MANKATO, 110.3 FEET SOUTHEAST OF A SIGN (EXITS TO NORTH MANKATO), 73.0 FEET SOUTHWEST OF TRUNK 520TH STREET, 47.5 FEET WEST OF A GRAVEL ROAD, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.132	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
989.132	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
989.132	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.024	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.991	.262		896.465	.197	2011	GPS - OPUS	2021	GPSBM
989.148	.262		896.619	.197	2011	GPS - RTRN	2021	RTRN2021
989.135			896.612	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
989.132	.131		896.799	.066	1996	GPS - STATIC	2013	HNMAN
989.135			896.612	.007	2011	GPS - STATIC	2013	HNMAN
989.112	.262		896.658	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.526 12B = -92.533 09 = -92.454 03 = -92.332

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 40.53926	94 05 03.14560	547857.415	226385.913	.131	3	GPS - OPUS	2021	GPSBM
44 11 40.53929	94 05 03.14528	547857.438	226385.916	.131	3	GPS - RTRN	2021	RTRN2021
44 11 40.53936	94 05 03.14525	547857.440	226385.924	.016		ADJUSTMENT	2013	GPS2964
44 11 40.53936	94 05 03.14525	547857.440	226385.924	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 40.53848	94 05 03.14458	547857.489	226385.835	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 40.53879	94 05 03.14509	547857.452	226385.866	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602582.104	763569.742	1356162.360	16056588.115	.131	3	GPS - OPUS	2021	GPSBM
2602582.127	763569.745	1356162.383	16056588.118	.131	3	GPS - RTRN	2021	RTRN2021
2602582.129	763569.752	1356162.385	16056588.125	.016		ADJUSTMENT	2013	GPS2964
2602582.129	763569.752	1356162.385	16056588.125	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602582.178	763569.663	1356162.433	16056588.035	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602582.141	763569.694	1356162.396	16056588.067	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AD-PQ1771-3SW-11MAY2021.jpg	SW	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AD-PQ1771-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AD-PQ1771-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5203 AE

Mn/DOT Name: 5203 AE

NGS Name: 5203 AE

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	4	108 N	27 W	441121.00	940437.00	2	

NGS ACRN: PQ1772 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	1999	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 AE 1987

3.5 MILES NORTHWEST OF NORTH MANKATO, 1.3 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE IN NORTH MANKATO, 176.0 FEET NORTHWEST OF THE NORTHEAST LEG OF A SIGN (LOOKOUT DRIVE EXIT 1 MILE), 70.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14 AT STATION 528+91, 41.8 FEET SOUTHEAST OF A TELEPHONE CABLE MARKER POST NUMBER N 5 B, 18.6 FEET SOUTHEAST OF A POWER POLE, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.218	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.110	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.549 12B = -92.552 09 = -92.474 03 = -92.352

*** No Horizontal Positions in the Database ***

5203 AF

Mn/DOT Name: 5203 AF

NGS Name: 5203 AF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1773 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	108 N	27 W	441105.00	940407.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	NOT FOUND	Horz=? Vert=YES	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 AF 1987

2.5 MILES NORTHWEST OF NORTH MANKATO, 0.6 MILE NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE, AT TRUNK HIGHWAY 14 MILEPOINT 127.05, 74.0 FEET EAST OF A GRAVEL ROAD, 47.9 FEET EAST-SOUTHEAST OF A TELEPHONE CABLE MARKER POST NUMBER N4A4, 8.3 FEET WEST-NORTHWEST OF A STEEL POST, 0.5 FOOT NORTH-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.411	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.306	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.575 12B = -92.582 09 = -92.500 03 = -92.382

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 AG **NGS Name:** 5203 AG

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441002.39	940048.51		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1992	2022	GOOD	Horz=NO Vert=NO	YES	52012	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (2016) **Stamping:** 5203 AG 1992

IN NORTH MANKATO, 2.2 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 53.50, IN A RAIL IN THE NORTHEAST CORNER OF TRUNK HIGHWAY 169 BRIDGE NUMBER 52012 OVER CENTER STREET, 31.0 FEET NORTH OF SOUTHBOUND TRUNK HIGHWAY 169.

Station Notes

THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
794.283	.262		701.413	.197	2011	GPS - RTRN	2022	RTRN2022
794.113	.262		701.340	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.871 12B = -92.871 09 = -92.772 03 = -92.657

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 02.39154	94 00 48.51373	566440.049	216495.858	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 02.39152	94 00 48.51267	566440.126	216495.856	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621130.737	753620.394	1374584.002	16046416.494	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621130.815	753620.392	1374584.080	16046416.491	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AG-3N-23AUG2022.jpg	N	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AG-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AG-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5203 AH

Mn/DOT Name: 5203 AH **NGS Name:** 5203 AH

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441002.76	940050.45		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1992	2022	GOOD	Horz=NO Vert=NO	YES	52011	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (2016) **Stamping:** 5203 AH 1992

IN NORTH MANKATO, 2.05 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, TO TRUNK HIGHWAY 169 MILEPOINT 53.65, THEN 0.1 MILE WEST ON LOOKOUT DRIVE IN A RAIL IN THE NORTHWEST CORNER OF LOOKOUT DRIVE BRIDGE NUMBER 52011 OVER CENTER STREET, 13.5 FEET NORTH OF LOOKOUT DRIVE.

Station Notes

THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
788.588	.262		695.822	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.867 12B = -92.867 09 = -92.769 03 = -92.654

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 02.76344	94 00 50.45104	566298.719	216533.085	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620989.543	753658.076	1374443.313	16046455.879	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AH-3N-23AUG2022.jpg	N	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AH-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AH-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5203 AJ

Mn/DOT Name: 5203 AJ

NGS Name: 5203 AJ

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441003.18	940058.13		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1992	2011	GOOD	Horz=NO Vert=?	YES	52008	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (2011)

Stamping: 5203 AJ 1992

IN NORTH MANKATO, 2.05 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, TO TRUNK HIGHWAY 169 MILEPOINT 53.65, THEN 0.3 MILE WEST ON LOOKOUT DRIVE, IN A RAIL IN THE NORTHEAST CORNER OF SHERMAN STREET BRIDGE NUMBER 52008 OVER LOOKOUT DRIVE, 16.0 FEET EAST OF SHERMAN STREET.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.854 12B = -92.854 09 = -92.756 03 = -92.644

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AJ-3E-30NOV2011.jpg	E	Nov 30, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AJ-2-30NOV2011.jpg		Nov 30, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AJ-1-30NOV2011.jpg		Nov 30, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 AK **NGS Name:** 5203 AK

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	13	108 N	27 W	440958.84	940101.03		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1992	2022	GOOD	Horz=NO Vert=NO	YES	9098	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (2016) **Stamping:** 5203 AK 1992

IN NORTH MANKATO, 2.35 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 53.35, IN A RAIL IN THE NORTHWEST CORNER OF TRUNK HIGHWAY 169 BRIDGE NUMBER 9098 OVER THE MINNESOTA RIVER AND THE RAILROAD TRACKS AND LOOKOUT DRIVE, 20.6 FEET WEST OF AN ON RAMP TO SOUTHBOUND TRUNK HIGHWAY 169.

Station Notes

THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
798.998	.262		706.147	.197	2011	GPS - RTRN	2022	RTRN2022
798.807	.262		706.055	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.851 12B = -92.851 09 = -92.752 03 = -92.641

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 58.84183	94 01 01.02724	565529.008	216133.600	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 58.84182	94 01 01.02795	565528.957	216133.599	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620218.614	753261.127	1373667.814	16046068.434	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620218.562	753261.126	1373667.763	16046068.434	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AK-3W-23AUG2022.jpg	W	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AK-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AK-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 AL **NGS Name:** 5203 AL

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	13	108 N	27 W	440957.93	940058.28		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1992	2022	GOOD	Horz=NO Vert=YES	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (2016) **Stamping:** 5203 AL 1992

IN NORTH MANKATO, IN A RAIL IN THE NORTHEAST CORNER OF TRUNK HIGHWAY 169 BRIDGE NUMBER 9098 OVER THE MINNESOTA RIVER AND THE RAILROAD TRACKS AND LOOKOUT DRIVE, 2.35 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 53.35, 15.5 FEET SOUTHEAST OF AN OFF RAMP TO LOOKOUT DRIVE AND CENTER STREET.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
794.303	.262		701.445	.197	2011	GPS - RTRN	2022	RTRN2022
794.060	.262		701.301	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.854 12B = -92.857 09 = -92.756 03 = -92.644

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 57.93153	94 00 58.28077	565729.488	216042.025	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 57.93197	94 00 58.28211	565729.390	216042.069	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620418.776	753168.911	1373866.789	16045973.815	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620418.678	753168.956	1373866.692	16045973.861	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AL-3SE-23AUG2022.jpg	SE	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AL-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_AL-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5203 BB

Mn/DOT Name: 5203 BB

NGS Name: 5203 BB

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	108 N	27 W	441004.00	940134.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2011	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (2000) **Stamping:** 5203 BB 1961

IN NORTH MANKATO, 50.0 FEET EAST OF THE JUNCTION OF TRUNK HIGHWAY 14 AND BELGRADE AVENUE, 150.0 FEET NORTH OF WESTBOUND TRUNK HIGHWAY 14, 69.0 FEET WEST OF THE END OF A RIGHT-OF-WAY FENCE, 26.0 FEET SOUTH OF SOUTH AVENUE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
783.975	.033	3				VERTICAL CONTROL SURVEY	1964	CS5203

Geoid Separations(ft): GEOID18 = -92.792 12B = -92.795 09 = -92.697 03 = -92.588

*** No Horizontal Positions in the Database ***

5203 CC

Mn/DOT Name: 5203 CC

NGS Name: 5203 CC

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0592 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441003.00	940058.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1961	1986	DESTROYED	Horz=NO Vert=NO	NO	9683		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	BENCH MARK DISK	MNDT

Description: (1986) **Stamping:** 5203 CC 1961

IN NORTH MANKATO, IN THE EAST SIDE OF THE SOUTH ABUTMENT OF SHERMAN STREET BRIDGE NUMBER 9683 OVER THE WESTBOUND LANE OF LOOKOUT DRIVE, 15.5 FEET EAST OF SHERMAN STREET.

Station Notes

NEW BRIDGE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
782.390	.016	2				VERTICAL ADJUSTMENT	1995	00000135
782.390	.016	2/1				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
782.279	.016	2/1				UNKNOWN/APPROXIMATE	1992	UNCHECKD
782.279	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1
782.279	.016	2				VERTICAL CONTROL SURVEY	1980	L24529

Geoid Separations(ft): GEOID18 = -92.854 12B = -92.857 09 = -92.756 03 = -92.644

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 DD **NGS Name:** 5203 DD

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1699 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441002.00	940049.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1961	2022	DESTROYED	Horz=NO Vert=NO	NO	9684		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	BENCH MARK DISK	MNDT

Description: (1986) **Stamping:** 5203 DD 1961

IN NORTH MANKATO, IN THE SOUTHEAST ABUTMENT OF CENTER STREET BRIDGE NUMBER 9684 OVER WESTBOUND LOOKOUT DRIVE, 0.6 MILE WEST OF THE NORTHWEST JUNCTION OF TRUNK HIGHWAY 169 AND BELGRADE AVENUE (OLD TRUNK HIGHWAY 14), 16.5 FEET EAST OF CENTER STREET.

Station Notes

NEW BRIDGE IN 1992.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
781.183	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
781.075	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1
781.114	.033	3				VERTICAL CONTROL SURVEY	1964	CS5203

Geoid Separations(ft): GEOID18 = -92.871 12B = -92.871 09 = -92.772 03 = -92.661

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 E

NGS Name: 5203 E

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	108 N	27 W	441002.00	940239.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1964)

Stamping:

IN NORTH MANKATO, 1.0 MILE SOUTHEAST ON LOOKOUT DRIVE FROM THE JUNCTION OF LOOKOUT DRIVE AND TRUNK HIGHWAY 14, 150.0 FEET EAST OF THE JUNCTION OF CAROL COURT AND A CLIFF DRIVE, 69.0 FEET NORTH OF THE CENTER OF THE JUNCTION OF CAROL COURT AND THE LOOKOUT DRIVE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.066	.033	3				VERTICAL CONTROL SURVEY	1964	CS5203

Geoid Separations(ft): GEOID18 = -92.697 12B = -92.700 09 = -92.608 03 = -92.497

*** No Horizontal Positions in the Database ***

5203 EE

Mn/DOT Name: 5203 EE

NGS Name: 5203 EE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	108 N	26 W	441011.00	940018.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1961	2011	DESTROYED	Horz=NO Vert=NO	NO	9244		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	SURVEY DISK	MNDT

Description: (1976) **Stamping:** 5203 EE 1961

IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 131.0, AT THE NORTHWEST JUNCTION OF TRUNK HIGHWAY 169 AND OLD TRUNK HIGHWAY 14 (BELGRADE AVENUE), IN THE EAST SIDE OF THE SOUTH ABUTMENT OF TRUNK HIGHWAY 169 BRIDGE NUMBER 9244 OVER BELGRADE AVENUE.

Station Notes

THE NEW BRIDGE FOR BELGRADE AVENUE GOES OVER TRUNK HIGHWAY 169 NOW.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
795.379	.033	3				VERTICAL CONTROL SURVEY	1964	CS5203

Geoid Separations(ft): GEOID18 = -92.916 12B = -92.913 09 = -92.815 03 = -92.703

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 K

NGS Name: 5203 K

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	108 N	27 W	441052.00	940303.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1961	2008	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (2008) **Stamping:** 5203 K

AT WEST EDGE OF NORTH MANKATO, AT THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE (OLD TRUNK HIGHWAY 14), 50.0 FEET SOUTHWEST OF EASTBOUND TRUNK HIGHWAY 14, AT TRUNK HIGHWAY 14 STATION 583+10.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.974	.033	3				VERTICAL CONTROL SURVEY	1961	CS5203

Geoid Separations(ft): GEOID18 = -92.641 12B = -92.644 09 = -92.562 03 = -92.447

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 K 1 **NGS Name:** 5203 K 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1693 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	108 N	27 W	441049.92	940312.65	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1977	2011	GOOD	Horz=NO Vert=YES	YES	52006	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 K 1 1977

IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 127.9, IN A RAILING AT THE SOUTHEAST CORNER OF LOOKOUT DRIVE BRIDGE NUMBER 52006 OVER TRUNK HIGHWAY 14, 59.7 FEET NORTH-NORTHWEST OF A LIGHT STANDARD, 28.9 FEET EAST-NORTHEAST OF NORTHBOUND LOOKOUT DRIVE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.217	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1019.217	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
1019.217	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.119	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM
1019.119	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1
1019.155	.033	3				VERTICAL CONTROL SURVEY	1977	CS5203

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.161	.262		926.609	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.631 12B = -92.634 09 = -92.552 03 = -92.437

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 49.91908	94 03 12.64773	555921.388	221279.076	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610628.664	758437.250	1364143.936	16051359.442	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_K_1-PQ1693-3E-13JUN2011.jpg	E	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_K_1-PQ1693-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_K_1-PQ1693-1-13JUN2011.jpg		Jun 13, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 L

NGS Name: 5203 L

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	108 N	27 W	441051.00	940204.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1961	1977	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1977) **Stamping:** 5203 L

IN NORTH MANKATO, SOUTH OF THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 13, 44.0 FEET SOUTHEAST OF OLD COUNTY ROAD 13, 105.0 FEET NORTHWEST OF THE NORTHWEST CORNER OF A TELEPHONE COMPANY TOWER FENCE, 102.0 FEET SOUTH OF A HIGH VOLTAGE POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.169	.033	3				VERTICAL CONTROL SURVEY	1961	CS5203

Geoid Separations(ft): GEOID18 = -92.716 12B = -92.720 09 = -92.638 03 = -92.523

*** No Horizontal Positions in the Database ***

5203 L 1

Mn/DOT Name: 5203 L 1 **NGS Name:** 5203 L 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1687 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	108 N	27 W	441052.00	940209.00	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1977	2011	GOOD	Horz=NO Vert=?	YES	52007		NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	BENCH MARK DISK	MNDT

Description: (1986) **Stamping:** 5203 L 1 1977

IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 128.8, IN 107.8 FEET EAST OF STATION LORAY MNDT RM 2, IN THE EAST RAILING AT THE SOUTHEAST CORNER OF COUNTY ROAD 13 (LOR RAY DRIVE) BRIDGE NUMBER 52007 OVER TRUNK HIGHWAY 14, 31.7 FEET NORTH-NORTHWEST OF A LIGHT STANDARD, 28.7 FEET EAST-NORTHEAST OF NORTHBOUND COUNTY ROAD 13.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.723	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.634	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1
1015.677	.033	3				VERTICAL CONTROL SURVEY	1977	CS5203

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.674	.262		923.039	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.713 12B = -92.720 09 = -92.638 03 = -92.523

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 50.89635	94 02 05.80371	560792.407	221391.215	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2615499.548	758533.571	1369014.402	16051396.512	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_L_1-PQ1687-3NE-13JUN2011.jpg	NE	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_L_1-PQ1687-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_L_1-PQ1687-1-13JUN2011.jpg		Jun 13, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 M 1 **NGS Name:** 5203 M 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1686 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	108 N	27 W	441114.00	940129.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MAT FOUNDATION (NON-PAVEMENT)	VERTICAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** 5203 M 1 1986

1.5 MILES NORTHWEST OF MANKATO, 0.55 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 129.45, 51.5 FEET NORTHWEST OF WESTBOUND TRUNK HIGHWAY 14, IN THE CONCRETE BASE OF THE SOUTHEAST LEG OF COUNTY 13 LOR RAY DRIVE EXIT SIGN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
877.465	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
877.380	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Geoid Separations(ft): GEOID18 = -92.769 12B = -92.775 09 = -92.687 03 = -92.569

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 N 1 **NGS Name:** 5203 N 1

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	108 N	27 W	441021.60	940255.30	2	

NGS ACRN: PQ1694 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2011	GOOD	Horz=NO Vert=YES	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CONCRETE MAT FOUNDATION (NON-PAVEMENT)	VERTICAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** 5203 N 1 1986

IN NORTH MANKATO, 0.65 MILE SOUTHEAST OF A LOOKOUT DRIVE BRIDGE OVER TRUNK HIGHWAY 14, IN THE CONCRETE BASE OF A TELEVISION SATELLITE DISH, 108.0 FEET NORTHEAST OF LOOKOUT DRIVE, 57.0 FEET EAST-SOUTHEAST OF A POWER POLE, 43.9 FEET SOUTHWEST OF THE NORTHWEST CORNER OF A TELEVISION BUILDING, 1.0 FOOT EAST AND 1.0 FOOT NORTH OF THE SOUTHWEST CORNER OF A CONCRETE SLAB, SOUTHWEST OF AN 18.0 FEET BY 18.0 FEET CONCRETE SLAB FOR A SATELLITE DISH.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.621	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
999.624	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
999.621	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.522	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Geoid Separations(ft): GEOID18 = -92.664 12B = -92.667 09 = -92.579 03 = -92.467

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_N_1-PQ1694-3NE-13JUN2011.jpg	NE	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_N_1-PQ1694-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_N_1-PQ1694-1-13JUN2011.jpg		Jun 13, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 P 1 **NGS Name:** 5203 P 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1698 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	108 N	27 W	441004.85	940134.55	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	GOOD	Horz=NO Vert=YES	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
STEP	VERTICAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** 5203 P 1 1986

IN NORTH MANKATO, 0.6 MILE WEST ALONG LOOKOUT DRIVE FROM THE JUNCTION OF LOOKOUT DRIVE AND TRUNK HIGHWAY 169 TO TRUNK HIGHWAY 60 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 53.5, THEN 0.05 MILE NORTH ON LEE BOULEVARD, THEN 0.05 MILE EAST ON SOUTH AVENUE, IN THE LOWER STEP OF THE CITY HALL, 72.0 FEET NORTH OF SOUTH AVENUE, 14.5 FEET EAST-NORTHEAST OF A LIGHT STANDARD, 8.8 FEET NORTH-NORTHEAST OF THE CORNER OF A RETAINING WALL, 0.8 FOOT SOUTH-SOUTHEAST OF A BUILDING WING WALL, IN THE LOWER STEP OF THE CITY HALL.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
780.399	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
780.399	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
780.392	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
780.392	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
780.445	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
780.336	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
779.884	.262		687.190	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.792 12B = -92.795 09 = -92.697 03 = -92.588

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 04.84602	94 01 34.54915	563083.719	216734.349	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617775.520	753869.746	1371232.927	16046706.551	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_P_1-PQ1698-3N-30NOV2011.jpg	N	Nov 30, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_P_1-PQ1698-2-30NOV2011.jpg		Nov 30, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_P_1-PQ1698-1-30NOV2011.jpg		Nov 30, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 P 2 **NGS Name:** 5203 P 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1214 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	108 N	27 W	441002.67	940143.86	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2013	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 38 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5203 P 2 2011

IN NORTH MANKATO, 2.05 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, TO TRUNK HIGHWAY 169 MILEPOINT 53.65, THEN 0.85 MILE WEST ON LOOKOUT DRIVE, 64.3 FEET NORTH OF LOOKOUT DRIVE, 19.9 FEET SOUTH OF SOUTH AVENUE, 200.0 FEET WEST OF LEE BOULEVARD, 42.3 FEET SOUTH OF A SIGNPOST OF A DETAIL CAR SIGN, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
789.342	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
789.339	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
789.329	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
789.329	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
789.247	.262		696.468	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.775 12B = -92.779 09 = -92.684 03 = -92.575

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 02.66771	94 01 43.85776	562405.843	216511.785	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617096.991	753649.403	1370551.943	16046494.529	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_P_2-DP1214-3S-05DEC2011.jpg	S	Dec 5, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_P_2-DP1214-2-05DEC2011.jpg		Dec 5, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_P_2-DP1214-1-05DEC2011.jpg		Dec 5, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 Q
NGS Name: 5203 Q
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1752 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	109 N	28 W	441602.94	941050.28	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 Q 1987

IN NICOLLET, 0.35 MILE NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 14 IN NICOLLET, THEN 0.55 MILE SOUTHEAST ON OLD TRUNK HIGHWAY 14, 74.0 FEET NORTHEAST OF TRUNK HIGHWAY 14 (OLD TRUNK HIGHWAY 14), 51.0 FEET WEST OF COUNTY ROAD 42, 21.0 FEET SOUTH OF AN ENTRANCE, 7.6 FEET SOUTH OF A FENCE POST, 5.7 FEET EAST-SOUTHEAST OF A FENCE POST, 3.0 FEET NORTHWEST OF A WOODEN RIGHT-OF-WAY POST, 0.5 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.150	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
986.150	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
986.150	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
986.150	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
986.150	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.986	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.064	.262		893.643	.197	2011	GPS - OPUS	2021	GPSBM
986.222	.262		893.797	.197	2011	GPS - RTRN	2021	RTRN2021
985.992	.262		893.555	.197	2011	GPS - RTRN	2019	RTRN2019
986.150			893.751	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
986.150	.131		893.932	.066	1996	GPS - STATIC	2013	HNMAN
986.150			893.751	.008	2011	GPS - STATIC	2013	HNMAN
985.986	.262		893.633	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.421 12B = -92.434 09 = -92.352 03 = -92.218

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 02.94247	94 10 50.27509	522538.308	252917.947	.131	3	GPS - OPUS	2021	GPSBM
44 16 02.94243	94 10 50.27409	522538.380	252917.943	.131	3	GPS - RTRN	2021	RTRN2021
44 16 02.94174	94 10 50.27426	522538.368	252917.873	.131	3	GPS - RTRN	2019	RTRN2019
44 16 02.94246	94 10 50.27430	522538.365	252917.946	.016		ADJUSTMENT	2013	GPS2964
44 16 02.94246	94 10 50.27430	522538.365	252917.946	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 02.94273	94 10 50.27503	522538.312	252917.973	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 02.94175	94 10 50.27424	522538.370	252917.874	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2577352.000	790181.242	1331263.712	16083498.375	.131	3	GPS - OPUS	2021	GPSBM
2577352.073	790181.238	1331263.785	16083498.370	.131	3	GPS - RTRN	2021	RTRN2021
2577352.060	790181.168	1331263.772	16083498.300	.131	3	GPS - RTRN	2019	RTRN2019
2577352.058	790181.241	1331263.770	16083498.373	.016		ADJUSTMENT	2013	GPS2964
2577352.058	790181.241	1331263.770	16083498.373	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2577352.004	790181.269	1331263.717	16083498.401	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2577352.061	790181.169	1331263.773	16083498.301	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Q-PQ1752-3NE-12MAY2021.jpg	NE	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Q-PQ1752-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Q-PQ1752-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 R **NGS Name:** 5203 R

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1753 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	28 W	441541.08	941022.98	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 31 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 R 1987

1.25 MILES SOUTHEAST OF NICOLLET, 1.1 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 119.65, 72.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 115.7 FEET NORTH OF A GRAVEL ROAD, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.435	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
981.435	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
981.435	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
981.435	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
981.435	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.274	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.268	.262		888.824	.197	2011	GPS - RTRN	2019	RTRN2019
981.435			889.024	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
981.435	.131		889.208	.066	1996	GPS - STATIC	2013	HNMAN
981.435			889.024	.008	2011	GPS - STATIC	2013	HNMAN
981.241	.262		888.876	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.434 12B = -92.444 09 = -92.365 03 = -92.228

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 41.08381	94 10 22.97911	524527.122	250706.496	.131	3	GPS - RTRN	2019	RTRN2019
44 15 41.08473	94 10 22.97969	524527.080	250706.589	.016		ADJUSTMENT	2013	GPS2964
44 15 41.08473	94 10 22.97969	524527.080	250706.589	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 41.08369	94 10 22.97999	524527.058	250706.484	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 41.08403	94 10 22.97964	524527.083	250706.519	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2579333.394	787963.565	1333217.529	16081257.239	.131	3	GPS - RTRN	2019	RTRN2019
2579333.352	787963.658	1333217.488	16081257.332	.016		ADJUSTMENT	2013	GPS2964
2579333.352	787963.658	1333217.488	16081257.332	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2579333.330	787963.553	1333217.465	16081257.228	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2579333.355	787963.587	1333217.491	16081257.261	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_R-PQ1753-3SW-18JUN2019.jpg	SW	Jun 18, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_R-PQ1753-2-18JUN2019.jpg		Jun 18, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_R-PQ1753-1-18JUN2019.jpg		Jun 18, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 S
NGS Name: 5203 S
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1754 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	109 N	28 W	441519.30	940953.99	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		PROJECTS 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 S 1987

1.8 MILES SOUTHWEST OF NICOLLET, 1.65 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 120.2, 73.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 162.8 FEET SOUTH OF 478TH STREET, 0.5 FOOT EAST OF A WITNESS POST.

Station Pair: 5203 S 1 - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.143	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
986.143	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
986.143	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.989	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.068	.262		893.617	.197	2011	GPS - RTRN	2019	RTRN2019
986.143			893.732	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
986.143	.131		893.906	.066	1996	GPS - STATIC	2013	HNMAN
986.143			893.732	.008	2011	GPS - STATIC	2013	HNMAN
986.071	.262		893.699	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.441 12B = -92.454 09 = -92.372 03 = -92.237

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 19.30231	94 09 53.99267	526639.372	248503.198	.131	3	GPS - RTRN	2019	RTRN2019
44 15 19.30320	94 09 53.99339	526639.319	248503.288	.016		ADJUSTMENT	2013	GPS2964
44 15 19.30320	94 09 53.99339	526639.319	248503.288	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 19.30209	94 09 53.99190	526639.428	248503.176	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 19.30255	94 09 53.99331	526639.325	248503.222	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2581438.240	785753.636	1335294.853	16079022.354	.131	3	GPS - RTRN	2019	RTRN2019
2581438.188	785753.727	1335294.802	16079022.444	.016		ADJUSTMENT	2013	GPS2964
2581438.188	785753.727	1335294.802	16079022.444	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2581438.296	785753.614	1335294.909	16079022.330	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2581438.193	785753.661	1335294.807	16079022.379	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_S-PQ1754-3W-23JUN2019.jpg	W	Jun 23, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_S-PQ1754-2-23JUN2019.jpg		Jun 23, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_S-PQ1754-1-23JUN2019.jpg		Jun 23, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 S 1 **NGS Name:** 5203 S 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9557 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	109 N	28 W	441521.20	940937.01	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5203 S 1 2011

1.9 MILES SOUTHEAST OF NICOLLET, 1.7 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 AND COUNTY ROAD 23 IN NICOLLET TO TRUNK HIGHWAY 14 MILEPOINT 120.2, THEN 0.25 MILE EAST ON 478TH STREET, 32.1 FEET NORTH OF 478TH STREET, 18.8 FEET WEST OF A FIELD ENTRANCE, 2.0 FEET EAST OF A WITNESS POST.

Station Pair: 5203 S - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.783	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
992.783	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.738	.262		900.290	.197	2011	GPS - RTRN	2019	RTRN2019
992.783			900.369	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
992.783	.131		900.549	.066	1996	GPS - STATIC	2013	HNMAN
992.783			900.369	.009	2011	GPS - STATIC	2013	HNMAN
992.619	.262		900.251	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.434 12B = -92.447 09 = -92.365 03 = -92.234

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 21.19670	94 09 37.00848	527875.296	248696.605	.131	3	GPS - RTRN	2019	RTRN2019
44 15 21.19692	94 09 37.00896	527875.261	248696.627	.016		ADJUSTMENT	2013	GPS2964
44 15 21.19692	94 09 37.00896	527875.261	248696.627	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 21.19809	94 09 37.01070	527875.134	248696.746	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 21.19637	94 09 37.00865	527875.283	248696.572	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2582674.656	785943.001	1336533.204	16079196.615	.131	3	GPS - RTRN	2019	RTRN2019
2582674.621	785943.023	1336533.169	16079196.637	.016		ADJUSTMENT	2013	GPS2964
2582674.621	785943.023	1336533.169	16079196.637	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2582674.495	785943.142	1336533.044	16079196.758	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2582674.644	785942.967	1336533.191	16079196.582	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_S_1-DO9557-3N-18JUN2019.jpg	N	Jun 18, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_S_1-DO9557-2-18JUN2019.jpg		Jun 18, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_S_1-DO9557-1-18JUN2019.jpg		Jun 18, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 T **NGS Name:** 5203 T

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1755 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	109 N	28 W	441455.57	940922.40	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		PROJECTS 5 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 T 1987

2.5 MILES SOUTHEAST OF NICOLLET, 2.3 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 120.85, 73.2 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 1.0 FOOT SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.334	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
982.334	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
982.334	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.183	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.357	.262		889.910	.197	2011	GPS - OPUS	2019	GPSBM
982.472	.262		890.024	.197	2011	GPS - RTRN	2019	RTRN2019
982.334			889.900	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
982.334	.131		890.090	.066	1996	GPS - STATIC	2013	HNMAN
982.334			889.900	.008	2011	GPS - STATIC	2013	HNMAN
982.478	.262		890.100	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.451 12B = -92.460 09 = -92.378 03 = -92.247

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 55.57229	94 09 22.40312	528941.802	246103.038	.131	3	GPS - OPUS	2019	GPSBM
44 14 55.57176	94 09 22.40236	528941.857	246102.984	.131	3	GPS - RTRN	2019	RTRN2019
44 14 55.57353	94 09 22.40212	528941.875	246103.164	.016		ADJUSTMENT	2013	GPS2964
44 14 55.57353	94 09 22.40212	528941.875	246103.164	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 55.57362	94 09 22.40241	528941.853	246103.172	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 55.57297	94 09 22.40181	528941.897	246103.107	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2583732.606	783346.249	1337559.238	16076587.769	.131	3	GPS - OPUS	2019	GPSBM
2583732.662	783346.195	1337559.292	16076587.715	.131	3	GPS - RTRN	2019	RTRN2019
2583732.680	783346.374	1337559.312	16076587.894	.016		ADJUSTMENT	2013	GPS2964
2583732.680	783346.374	1337559.312	16076587.894	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2583732.658	783346.383	1337559.291	16076587.903	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2583732.702	783346.317	1337559.334	16076587.837	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_T-PQ1755-3SW-29OCT2019.jpg	SW	Oct 29, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_T-PQ1755-2-29OCT2019.jpg		Oct 29, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_T-PQ1755-1-29OCT2019.jpg		Oct 29, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 U

NGS Name: 5203 U

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1756 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	109 N	28 W	441439.00	940859.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	NOT FOUND	Horz=? Vert=YES	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 U 1987

2.9 MILES SOUTHEAST OF NICOLLET, 2.8 MILES SOUTHEAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, 71.0 FEET NORTHEAST OF TRUNK HIGHWAY 14 AT STATION 186+95, 43.2 FEET NORTHEAST OF THE NORTHEAST END OF A 24.0 INCH DIAMETER STEEL CULVERT WITH A HEADWALL, 0.5 FOOT SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.505	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.358	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.451 12B = -92.464 09 = -92.382 03 = -92.250

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5203 V

NGS Name: 5203 V

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1757 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	109 N	28 W	441421.00	940836.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 V 1987

3.4 MILES SOUTHEAST OF NICOLLET, 3.25 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 121.8, 72.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 30.0 FEET NORTH OF FARM ENTRANCE NUMBER 43721/43725, 3.5 FEET NORTHEAST OF NICOLLET FIRE NUMBER N-752 SIGN, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Station Notes
THE CAP WAS LOOSE, RESET WITH ROD.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.496	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.352	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.454 12B = -92.467 09 = -92.388 03 = -92.254

*** No Horizontal Positions in the Database ***

5203 V RESET

Mn/DOT Name: 5203 V RESET
NGS Name: 5203 V RESET
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	109 N	28 W	441421.00	940835.00	2	

NGS ACRN: DP1219 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2011	GOOD	Horz=NO Vert=YES	YES		PROJECTS 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** 5203 V RESET 2011

3.5 MILES SOUTHEAST OF NICOLLET, 3.25 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 121.8, 72.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 30.0 FEET NORTH OF FARM ENTRANCE NUMBER 43721/43725, 3.5 FEET NORTHEAST OF NICOLLET FIRE NUMBER N-752 SIGN, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.306	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
999.306	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Geoid Separations(ft): GEOID18 = -92.454 12B = -92.467 09 = -92.388 03 = -92.254

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_V_RESET-DP1219-3SW-15JUN2011.jpg	SW	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_V_RESET-DP1219-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_V_RESET-DP1219-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 W **NGS Name:** 5203 W

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1760 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	109 N	28 W	441357.66	940805.22	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 W 1987

4.0 MILES SOUTHEAST OF NICOLLET, 3.85 MILES SOUTHEAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 122.3, 71.7 FEET NORTHEAST OF A POWER POLE 51 (NORTH 1 OF 3), 69.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 69.0 FEET SOUTHEAST OF A FIELD ENTRANCE, 72.1 FEET NORTHEAST OF A POWER POLE NUMBER 51 OF A TRIPLE POWER POLE, 0.5 FOOT NORTH-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.014	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1000.014	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
1000.014	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.877	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.988	.262		907.528	.197	2011	GPS - OPUS	2021	GPSBM
1000.073	.262		907.616	.197	2011	GPS - RTRN	2021	RTRN2021
1000.014			907.564	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1000.014	.131		907.757	.066	1996	GPS - STATIC	2013	HNMAN
1000.014			907.574	.007	2011	GPS - STATIC	2013	HNMAN
			907.564	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
999.985	.262		907.593	.197	2007	GPS - RTRN	2011	RTRN2011
			907.652	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
999.998	.131		907.793	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1000.031	.131		907.793	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.457 12B = -92.474 09 = -92.392 03 = -92.257

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 57.65700	94 08 05.21639	534569.764	240246.284	.131	3	GPS - OPUS	2021	GPSBM
44 13 57.65667	94 08 05.21592	534569.798	240246.250	.131	3	GPS - RTRN	2021	RTRN2021
44 13 57.65683	94 08 05.21572	534569.812	240246.267	.010		ADJUSTMENT	2013	GPS2964
44 13 57.65686	94 08 05.21568	534569.815	240246.270	.010	C	GPS - STATIC	2013	HNMAN
44 13 57.65683	94 08 05.21572	534569.812	240246.267	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 57.65616	94 08 05.21639	534569.764	240246.199	.131	3	GPS - RTRN	2011	RTRN2011
44 13 57.65679	94 08 05.21652	534569.754	240246.263	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 57.65623	94 08 05.21550	534569.828	240246.206	.033	C	GPS - STATIC	2013	HNMAN
44 13 57.65623	94 08 05.21550	534569.828	240246.206	.033	C	ADJUSTMENT	2003	GPS1882
44 13 57.65623	94 08 05.21550	534569.830	240246.206	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2589340.906	777471.827	1343094.365	16070646.898	.131	3	GPS - OPUS	2021	GPSBM
2589340.940	777471.793	1343094.398	16070646.864	.131	3	GPS - RTRN	2021	RTRN2021
2589340.955	777471.810	1343094.413	16070646.880	.010		ADJUSTMENT	2013	GPS2964
2589340.957	777471.813	1343094.416	16070646.883	.010	C	GPS - STATIC	2013	HNMAN
2589340.955	777471.810	1343094.413	16070646.880	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2589340.906	777471.742	1343094.364	16070646.813	.131	3	GPS - RTRN	2011	RTRN2011
2589340.896	777471.806	1343094.355	16070646.877	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2589340.970	777471.749	1343094.429	16070646.819	.033	C	GPS - STATIC	2013	HNMAN
2589340.970	777471.749	1343094.429	16070646.819	.033	C	ADJUSTMENT	2003	GPS1882
2589340.970	777471.749	1343094.429	16070646.819	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_W-PQ1760-3SW-11MAY2021.jpg	SW	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_W-PQ1760-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_W-PQ1760-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 X **NGS Name:** 5203 X

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1761 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	109 N	27 W	441337.75	940739.43	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	GOOD	Horz=NO Vert=YES	YES		PROJECTS 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 X 1987

4.5 MILES SOUTHEAST OF NICOLLET, 4.35 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 122.9, 69.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 7.3 FEET NORTHEAST OF A POWER POLE NUMBER 48 (NORTHEAST 1 OF 2), 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.924	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
996.924	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
996.924	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.789	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.848	.262		904.454	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.464 12B = -92.480 09 = -92.395 03 = -92.264

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 37.74637	94 07 39.43125	536450.628	238233.048	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2591215.021	775452.693	1344943.344	16068605.586	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_X-PQ1761-3SW-15JUN2011.jpg	SW	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_X-PQ1761-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_X-PQ1761-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 Y **NGS Name:** 5203 Y

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1762 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	109 N	27 W	441318.74	940717.39	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 3 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 Y 1987

6.5 MILES NORTHWEST OF NORTH MANKATO, 4.5 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE, AT TRUNK HIGHWAY 14 MILEPOINT 123.4, 70.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 59.5 FEET NORTH OF COUNTY ROAD 25, 33.1 FEET NORTH-NORTHWEST OF A POWER POLE WITH AN ANCHOR, 6.4 FEET NORTH OF A POWER POLE NUMBER 45 (NORTH 1 OF 2), 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.607	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
998.600	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
998.600	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.469	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.531	.262		906.061	.197	2011	GPS - OPUS	2021	GPSBM
998.574	.262		906.104	.197	2011	GPS - OPUS	2021	GPSBM
998.636	.262		906.166	.197	2011	GPS - RTRN	2021	RTRN2021
998.561	.262		906.160	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.483 09 = -92.401 03 = -92.270

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 18.73837	94 07 17.38787	538059.188	236310.905	.131	3	GPS - OPUS	2021	GPSBM
44 13 18.73862	94 07 17.38762	538059.206	236310.931	.131	3	GPS - OPUS	2021	GPSBM
44 13 18.73854	94 07 17.38755	538059.211	236310.922	.131	3	GPS - RTRN	2021	RTRN2021

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 18.73726	94 07 17.38830	538059.157	236310.793	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2592817.160	773525.526	1346521.547	16066659.526	.131	3	GPS - OPUS	2021	GPSBM
2592817.178	773525.551	1346521.565	16066659.551	.131	3	GPS - OPUS	2021	GPSBM
2592817.183	773525.543	1346521.571	16066659.542	.131	3	GPS - RTRN	2021	RTRN2021

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2592817.128	773525.413	1346521.514	16066659.414	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Y-PQ1762-3SW-11MAY2021.jpg	SW	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Y-PQ1762-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Y-PQ1762-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5203 Z
NGS Name: 5203 Z
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	30	109 N	27 W	441258.47	940653.83	2	C

NGS ACRN: PQ1766 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	GOOD	Horz=YES Vert=YES	YES		PROJECTS 6 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** 5203 Z 1987

6.0 MILES NORTHWEST OF NORTH MANKATO, 4.0 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE, AT TRUNK HIGHWAY 14 MILEPOINT 123.9, 205.5 FEET SOUTHEAST OF A POWER POLE (EAST 1 OF 2), 67.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 0.5 FOOT NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.589	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
995.589	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
995.589	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.461	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.589			903.102	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
995.589	.131		903.312	.066	1996	GPS - STATIC	2013	HNMAN
995.589			903.102	.008	2011	GPS - STATIC	2013	HNMAN
995.559	.262		903.151	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.474 12B = -92.490 09 = -92.408 03 = -92.277

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 58.46825	94 06 53.83416	539778.269	234261.273	.013		ADJUSTMENT	2013	GPS2964
44 12 58.46825	94 06 53.83416	539778.269	234261.273	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 58.46806	94 06 53.83355	539778.313	234261.254	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 58.46768	94 06 53.83384	539778.292	234261.216	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2594529.395	771470.524	1348208.258	16064584.336	.013		ADJUSTMENT	2013	GPS2964
2594529.395	771470.524	1348208.258	16064584.336	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2594529.440	771470.505	1348208.302	16064584.317	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2594529.419	771470.467	1348208.281	16064584.278	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Z-PQ1766-3SW-15JUN2011.jpg	SW	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Z-PQ1766-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5203_Z-PQ1766-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5204 A

NGS Name: 5204 A

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	15	110 N	30 W	441958.00	942550.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1968	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	SURVEY DISK	MNDT

Description: (1977) **Stamping:** 5204 A 1968

2.2 MILES NORTHEAST OF NEW ULM, 0.9 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE EAST JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 EAST OF NEW ULM, AT TRUNK HIGHWAY 15 MILEPOINT 60.3, 195.0 FEET SOUTH OF A TOWNSHIP ROAD, 79.3 FEET EAST OF TRUNK HIGHWAY 15.

Station Notes

USED THE TIES, NO STATION WAS FOUND.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.000	.033	3				VERTICAL CONTROL SURVEY	1968	CS5204

Geoid Separations(ft): GEOID18 = -92.096 12B = -92.070 09 = -92.008 03 = -91.876

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5204 B **NGS Name:** 5204 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6562 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	110 N	30 W	442039.41	942545.83		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1968	2005	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL SPIKE IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (2005) **Stamping:** 5204 B 1968

2.7 MILES NORTHEAST OF NEW ULM, 1.6 MILES NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE EAST JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 EAST OF NEW ULM, AT TRUNK HIGHWAY 15 MILEPOINT 6.1, THEN 0.1 MILE WEST ON A FIELD ROAD, 12.0 FEET SOUTH OF A DRIVEWAY, 0.8 FOOT WEST OF A WITNESS POST.

Station Notes

THE CONCRETE WAS PROJECTING 1.0 FOOT AND LOOSE. RECOVERED THE DISK.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.836	.033	3				VERTICAL CONTROL SURVEY	1968	CS5204

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			921.071	.013	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			921.150	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1013.121	.131		921.265	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1013.121	.131		921.265	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.054 12B = -92.027 09 = -91.962 03 = -91.834

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 39.40535	94 25 45.82817	457425.399	280945.850	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 39.40543	94 25 45.82883	457425.351	280945.858	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 39.40483	94 25 45.82822	457425.395	280945.797	.033	C	ADJUSTMENT	2003	GPS1882
44 20 39.40483	94 25 45.82822	457425.394	280945.796	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512338.142	818418.481	1266611.155	16112519.711	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512338.094	818418.489	1266611.107	16112519.720	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512338.138	818418.428	1266611.150	16112519.659	.033	C	ADJUSTMENT	2003	GPS1882
2512338.138	818418.428	1266611.150	16112519.658	.033	C	GPS - STATIC	2002	HNICO

Mn/DOT Name: 5204 D **NGS Name:** 5204 D

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3239 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	34	111 N	30 W	442305.33	942455.13	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1968	2015	GOOD	Horz=NO Vert=NO	YES		PROJECTS 6 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1977) **Stamping:** 5204 D 1968

1.2 MILES NORTHEAST OF KLOSSNER, 1.4 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 64.4, 134.5 FEET WEST OF TRUNK HIGHWAY 15, 21.0 FEET NORTH OF A FIELD ENTRANCE.

Station Notes
THE MARK IS ON PRIVATE PROPERTY.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.267	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1000.270	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.005	.033	3				VERTICAL CONTROL SURVEY	1968	CS5204

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.136	.262		908.246	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.922 12B = -91.890 09 = -91.817 03 = -91.703

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 05.33392	94 24 55.12995	461136.554	295717.335	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2516097.202	833176.012	1270549.212	16127227.856	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_D-DQ3239-3W-02JUN2015.jpg	W	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_D-DQ3239-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_D-DQ3239-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5204 E

NGS Name: 5204 E

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	111 N	30 W	442334.00	942437.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1968	2015	DESTROYED	Horz=NO Vert=NO	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1968) **Stamping:** 5204 E 1968

2.0 MILES NORTH OF KLOSSNER, 2.0 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, 140.0 FEET WEST OF TRUNK HIGHWAY 15, 48.0 FEET WEST OF A RAILROAD, 45.0 FEET NORTH OF A DRIVEWAY.

Station Notes

THE ELEVATION IS NOT AVAILABLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.903 12B = -91.870 09 = -91.794 03 = -91.683

Mn/DOT Name: 5204 F

NGS Name: 5204 F

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	111 N	30 W	442410.00	942359.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1968	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1977) **Stamping:** 5204 F 1968

3.0 MILES NORTH OF KLOSSNER, 3.0 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, 122.0 FEET WEST OF TRUNK HIGHWAY 15, 30.0 FEET WEST OF A RAILROAD, 25.0 FEET NORTH OF A DRIVEWAY WEST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1024.352	.033	3				VERTICAL CONTROL SURVEY	1968	CS5204

Geoid Separations(ft): GEOID18 = -91.886 12B = -91.853 09 = -91.775 03 = -91.666

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5204 G
NGS Name: 5204 G
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0774 Get Map
NGS Quad / Sta Num : 44094244/1054
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	111 N	30 W	442512.31	942331.41		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2015	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 3 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (1975) **Stamping:** 5204 G 1968

1.8 MILES SOUTH OF LAFAYETTE, 1.4 MILES SOUTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 38 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 67.2, THEN 82.0 FEET WEST ON COUNTY ROAD 8, 48.0 FEET SOUTH OF COUNTY ROAD 8, 0.7 FOOT SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1010.487	.033	3				VERTICAL CONTROL SURVEY	1968	CS5204

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1010.497	.262		918.932	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -91.847 12B = -91.817 09 = -91.732 03 = -91.630

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 12.31266	94 23 31.41213	467236.101	308566.707	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 12.30628	94 23 31.40794	467236.404	308566.060	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 12.43564	94 23 30.49191			.100	3	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522238.027	846003.803	1276845.069	16139977.578	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522238.329	846003.155	1276845.362	16139976.927	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1897635.219	517927.143			.100	3	CLASSICAL SURVEY	1977	16059

Mn/DOT Name: 5204 H **NGS Name:** 5204 H

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0772 Get Map
NGS Quad / Sta Num : 44094244/1055
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442605.19	942330.92		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (1975) **Stamping:** 5204 H 1968

0.8 MILE SOUTH OF LAFAYETTE, 0.4 MILE SOUTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 38 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 68.2, 47.0 FEET WEST OF TRUNK HIGHWAY 15, 20.0 FEET NORTH OF A FIELD ENTRANCE, 0.6 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.957	.033	3				VERTICAL CONTROL SURVEY	1968	CS5204

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1013.777	.262		922.252	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -91.811 12B = -91.781 09 = -91.696 03 = -91.594

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 05.18928	94 23 30.92082	467279.915	313921.653	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 05.18287	94 23 30.91672	467280.211	313921.004	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 05.31255	94 23 29.99775			.100	3	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522299.354	851357.916	1276971.757	16145329.623	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522299.649	851357.265	1276972.043	16145328.969	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1897696.737	523281.236			.100	3	CLASSICAL SURVEY	1977	16059

Mn/DOT Name: 5204 J **NGS Name:** 5204 J

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3136 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	12	111 N	30 W	442612.84	942329.08	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1989	2016	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1988) **Stamping:** 5204 J 1989

0.5 MILE SOUTH OF LAFAYETTE, 0.35 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 68.5, 80.0 FEET EAST-SOUTHEAST OF TRUNK HIGHWAY 15, 41.5 FEET NORTH-NORTHEAST OF AN ENTRANCE, 1.8 FEET WEST-NORTHWEST OF A FENCE, 0.4 FOOT WEST-NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.615	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1005.615	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.615			913.804	.017	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1005.615	.131		913.994	.066	1996	GPS - STATIC	2016	HKLOS
1005.615			913.804	.017	2011	GPS - STATIC	2016	HKLOS
1005.461	.262		913.683	.197	2011	GPS - RTRN	2015	RTRN2015

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.608						RECIPROCAL VERTICAL ANGLE	1988	HORZ

Geoid Separations(ft): GEOID18 = -91.808 12B = -91.778 09 = -91.689 03 = -91.588

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 12.84407	94 23 29.08272	467414.468	314696.680	.010		ADJUSTMENT	2016	GPS3141
44 26 12.84407	94 23 29.08272	467414.468	314696.680	.010	C	GPS - STATIC	2016	HKLOS
44 26 12.84367	94 23 29.08275	467414.466	314696.639	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 12.84393	94 23 29.08318	467414.435	314696.666	.033	C	GPS - STATIC	2016	HKLOS

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 12.83551	94 23 29.07395	467415.102	314695.811	3.281		CLASSICAL SURVEY	1988	7204-13

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522436.426	852132.402	1277118.253	16146102.243	.010		ADJUSTMENT	2016	GPS3141
2522436.426	852132.402	1277118.253	16146102.243	.010	C	GPS - STATIC	2016	HKLOS
2522436.423	852132.361	1277118.250	16146102.203	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522436.392	852132.388	1277118.219	16146102.230	.033	C	GPS - STATIC	2016	HKLOS

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522437.057	852131.532	1277118.874	16146101.367	3.281		CLASSICAL SURVEY	1988	7204-13

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_J-DQ3136-3E-02JUN2015.jpg	E	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_J-DQ3136-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_J-DQ3136-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5204 K **NGS Name:** 5204 K

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3137 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	110 N	30 W	442052.83	942531.85	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5204 K 2015

1.3 MILES SOUTH OF KLOSSNER, 1.25 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 61.55, 66.1 FEET EAST OF TRUNK HIGHWAY 15, 38.5 FEET NORTH OF A FIELD ENTRANCE, 0.25 MILE SOUTH OF 412TH STREET, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.543	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
996.547	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.553	.262		904.509	.197	2011	GPS - RTRN	2025	RTRN2025
996.448	.262		904.431	.197	2011	GPS - RTRN	2019	RTRN2019
996.547			904.539	.018	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
996.547	.131		904.700	.066	1996	GPS - STATIC	2016	HKLOS
996.547			904.539	.018	2011	GPS - STATIC	2016	HKLOS
996.461	.262		904.444	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.044 12B = -92.018 09 = -91.952 03 = -91.821

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 52.82629	94 25 31.85222	458443.713	282303.022	.131	3	GPS - RTRN	2025	RTRN2025
44 20 52.82585	94 25 31.85203	458443.727	282302.977	.131	3	GPS - RTRN	2019	RTRN2019
44 20 52.82610	94 25 31.85174	458443.748	282303.002	.010		ADJUSTMENT	2016	GPS3141
44 20 52.82610	94 25 31.85174	458443.748	282303.002	.010	C	GPS - STATIC	2016	HKLOS
44 20 52.82604	94 25 31.85190	458443.737	282302.996	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 52.82593	94 25 31.85223	458443.713	282302.985	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2513360.778	819772.155	1267650.039	16113860.599	.131	3	GPS - RTRN	2025	RTRN2025
2513360.791	819772.111	1267650.052	16113860.555	.131	3	GPS - RTRN	2019	RTRN2019
2513360.813	819772.136	1267650.073	16113860.580	.010		ADJUSTMENT	2016	GPS3141
2513360.813	819772.136	1267650.073	16113860.580	.010	C	GPS - STATIC	2016	HKLOS
2513360.801	819772.130	1267650.061	16113860.574	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2513360.777	819772.119	1267650.037	16113860.563	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_K-DQ3137-3E-23SEP2025.jpg	E	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_K-DQ3137-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_K-DQ3137-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5204 L **NGS Name:** 5204 L

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3138 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	110 N	30 W	442139.67	942518.25	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5204 L 2015

0.3 MILE SOUTH OF KLOSSNER, 0.3 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 62.55, 88.5 FEET EAST-NORTHEAST OF TRUNK HIGHWAY 15, 48.0 FEET NORTH-NORTHWEST OF A FIELD ENTRANCE, NEAREST CROSS STREET COUNTRY ROAD 5, 1.5 FEET WEST-SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.550	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
997.554	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.557	.262		905.556	.197	2011	GPS - RTRN	2025	RTRN2025
997.554			905.579	.018	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
997.554	.131		905.746	.066	1996	GPS - STATIC	2016	HKLOS
997.554			905.579	.018	2011	GPS - STATIC	2016	HKLOS
997.390	.262		905.421	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.001 12B = -91.968 09 = -91.899 03 = -91.778

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 39.66999	94 25 18.25468	459440.784	287045.073	.131	3	GPS - RTRN	2025	RTRN2025
44 21 39.67010	94 25 18.25469	459440.783	287045.084	.010		ADJUSTMENT	2016	GPS3141
44 21 39.67010	94 25 18.25469	459440.783	287045.084	.010	C	GPS - STATIC	2016	HKLOS
44 21 39.66967	94 25 18.25483	459440.773	287045.040	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 39.66993	94 25 18.25517	459440.748	287045.067	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514373.252	824510.368	1268720.016	16118585.329	.131	3	GPS - RTRN	2025	RTRN2025
2514373.251	824510.380	1268720.015	16118585.341	.010		ADJUSTMENT	2016	GPS3141
2514373.251	824510.380	1268720.015	16118585.341	.010	C	GPS - STATIC	2016	HKLOS
2514373.241	824510.336	1268720.004	16118585.297	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514373.216	824510.362	1268719.980	16118585.324	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_L-DQ3138-3E-23SEP2025.jpg	E	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_L-DQ3138-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_L-DQ3138-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5204 M
NGS Name: 5204 M
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	111 N	30 W	442332.27	942436.60	2	C

NGS ACRN: DQ3139 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 29 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5204 M 2015

1.95 MILES NORTH OF KLOSSNER, 2.05 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 65.0, 67.0 FEET EAST-SOUTHEAST OF TRUNK HIGHWAY 15, 33.3 FEET EAST-SOUTHEAST OF MILEPOST NUMBER 65, 0.2 MILE SOUTHWEST OF COUNTY ROAD 15 (382ND STREET), 1.5 FEET WEST-NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.707	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1000.707	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.674	.262		908.771	.197	2011	GPS - RTRN	2025	RTRN2025
1000.707			908.778	.019	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1000.707	.131		908.965	.066	1996	GPS - STATIC	2016	HKLOS
1000.707			908.778	.019	2011	GPS - STATIC	2016	HKLOS
1000.667	.262		908.794	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.906 12B = -91.873 09 = -91.794 03 = -91.683

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 32.27449	94 24 36.59841	462487.153	298443.283	.131	3	GPS - RTRN	2025	RTRN2025
44 23 32.27457	94 24 36.59818	462487.170	298443.291	.010		ADJUSTMENT	2016	GPS3141
44 23 32.27457	94 24 36.59818	462487.170	298443.291	.010	C	GPS - STATIC	2016	HKLOS
44 23 32.27482	94 24 36.59846	462487.149	298443.316	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 32.27439	94 24 36.59859	462487.140	298443.273	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2517456.555	835897.199	1271941.428	16129931.802	.131	3	GPS - RTRN	2025	RTRN2025
2517456.572	835897.207	1271941.445	16129931.810	.010		ADJUSTMENT	2016	GPS3141
2517456.572	835897.207	1271941.445	16129931.810	.010	C	GPS - STATIC	2016	HKLOS
2517456.551	835897.233	1271941.425	16129931.835	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2517456.542	835897.189	1271941.415	16129931.792	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_M-DQ3139-3SE-23SEP2025.jpg	SE	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_M-DQ3139-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_M-DQ3139-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5204 N **NGS Name:** 5204 N

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3140 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	111 N	30 W	442415.25	942406.51	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5204 N 2015

2.9 MILES SOUTH OF LAFAYETTE, 2.85 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 66.0, 58.7 FEET SOUTHEAST OF TRUNK HIGHWAY 15, 25.6 FEET SOUTHEAST OF MILEPOST NUMBER 66, 0.7 MILES NORTHEAST OF COUNTY ROAD 15 (382ND STREET), 1.5 FEET NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.228	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1016.232	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.169	.262		924.289	.197	2011	GPS - RTRN	2025	RTRN2025
1016.232			924.342	.019	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1016.232	.131		924.526	.066	1996	GPS - STATIC	2016	HKLOS
1016.232			924.342	.019	2011	GPS - STATIC	2016	HKLOS
1016.090	.262		924.244	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.880 12B = -91.847 09 = -91.765 03 = -91.660

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 15.25358	94 24 06.51424	464678.867	302792.192	.131	3	GPS - RTRN	2025	RTRN2025
44 24 15.25349	94 24 06.51427	464678.865	302792.183	.010		ADJUSTMENT	2016	GPS3141
44 24 15.25349	94 24 06.51427	464678.865	302792.183	.010	C	GPS - STATIC	2016	HKLOS
44 24 15.25300	94 24 06.51465	464678.837	302792.134	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 15.25331	94 24 06.51466	464678.836	302792.165	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519662.225	840238.390	1274199.529	16134245.021	.131	3	GPS - RTRN	2025	RTRN2025
2519662.223	840238.381	1274199.527	16134245.012	.010		ADJUSTMENT	2016	GPS3141
2519662.223	840238.381	1274199.527	16134245.012	.010	C	GPS - STATIC	2016	HKLOS
2519662.195	840238.331	1274199.498	16134244.963	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519662.195	840238.362	1274199.498	16134244.994	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_N-DQ3140-3SE-23SEP2025.jpg	SE	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_N-DQ3140-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_N-DQ3140-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 103587

5204 P

04/28/2026
Sheet Help

Mn/DOT Name: 5204 P
NGS Name: 5204 P
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3141 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	111 N	30 W	442512.45	942332.01	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)	VERTICAL CONTROL DISK	MNDT

Description: (2015) **Stamping:** 5204 P 2015

1.8 MILES SOUTH OF LAFAYETTE, 1.6 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 67.3, 123.0 FEET WEST OF TRUNK HIGHWAY 15, 36.7 FEET SOUTH OF COUNTY ROAD 88/366TH STREET, 6.0 FEET EAST-SOUTHEAST OF A POWER POLE WITH A GUY WIRE, 1.0 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1011.284	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1011.284	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1011.284			919.444	.019	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1011.284	.131		919.641	.066	1996	GPS - STATIC	2016	HKLOS
1011.284			919.444	.019	2011	GPS - STATIC	2016	HKLOS
1011.159	.262		919.345	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.847 12B = -91.817 09 = -91.732 03 = -91.630

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 12.45458	94 23 32.01208	467192.578	308581.146	.010		ADJUSTMENT	2016	GPS3141
44 25 12.45458	94 23 32.01208	467192.578	308581.146	.010	C	GPS - STATIC	2016	HKLOS
44 25 12.45428	94 23 32.01145	467192.624	308581.116	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 12.45442	94 23 32.01246	467192.551	308581.130	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522194.557	846018.382	1276801.788	16139992.685	.010		ADJUSTMENT	2016	GPS3141
2522194.557	846018.382	1276801.788	16139992.685	.010	C	GPS - STATIC	2016	HKLOS
2522194.603	846018.352	1276801.833	16139992.654	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522194.530	846018.366	1276801.760	16139992.669	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_P-DQ3141-3W-02JUN2015.jpg	W	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_P-DQ3141-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5204_P-DQ3141-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 A

NGS Name: 5205 A

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	111 N	26 W	442220.00	940011.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1953	2022	DESTROYED	Horz=NO Vert=NO	NO	4014	FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	SURVEY DISK	MNDT

Description: (1953)

Stamping:

3.2 MILES NORTHWEST OF THE NORTH LIMITS OF ST. PETER, IN THE SOUTHWEST CORNER OF A HEADWALL OF TRUNK HIGHWAY 22 DOUBLE BOX CULVERT 4014, 2.5 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND WASHINGTON AVENUE IN ST. PETER, AT TRUNK HIGHWAY 22 STATION 238.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
927.150	.033	3				VERTICAL CONTROL SURVEY	1955	CS5205

Geoid Separations(ft): GEOID18 = -92.536 12B = -92.536 09 = -92.467 03 = -92.313

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5205 B **NGS Name:** 5205 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2804 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	27	111 N	27 W	442326.39	940324.68	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1953	2015	GOOD	Horz=NO Vert=NO	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	BENCH MARK DISK	MNDT

Description: (1953) **Stamping:**

7.5 MILES NORTHWEST OF ST. PETER, 5.4 MILES NORTHWEST ON TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND WASHINGTON AVENUE IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 72.4, 23.0 FEET NORTHEAST OF TRUNK HIGHWAY 22, IN THE NORTHEAST CORNER OF A TRUNK HIGHWAY 22 BOX CULVERT.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
970.500	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
970.507	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
970.349	.033	3				VERTICAL CONTROL SURVEY	1955	CS5205

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
970.510	.262		878.122	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.385 12B = -92.388 09 = -92.316 03 = -92.162

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 26.39160	94 03 24.68381	554848.852	297884.736	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2609804.890	835037.685	1364253.523	16127945.651	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_B-DQ2804-3E-03JUN2015.jpg	E	Jun 3, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_B-DQ2804-2-03JUN2015.jpg		Jun 3, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_B-DQ2804-1-03JUN2015.jpg		Jun 3, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 C

NGS Name: 5205 C

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	111 N	28 W	442448.00	941125.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	2015	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (2019)

Stamping:

0.4 MILE NORTH OF NEW SWEDEN, NEAR THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111, AT TRUNK HIGHWAY 22 STATION 775+50, 61.0 FEET WEST AND 85.0 FEET NORTH OF THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 11.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.222	.033	3				VERTICAL CONTROL SURVEY	1955	CS5205

Geoid Separations(ft): GEOID18 = -92.093 12B = -92.103 09 = -92.004 03 = -91.883

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5205 D **NGS Name:** 5205 D

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5663 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	16	111 N	28 W	442517.00	941149.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	2015	DESTROYED	Horz=NO Vert=NO	NO	6729	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (1990) **Stamping:** 5205 D 1990

1.01 MILES NORTH-NORTHWEST OF NEW SWEDEN, 0.65 MILE NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22 IN NEW SWEDEN, AT TRUNK HIGHWAY 22 MILEPOINT 80.35, 17.5 FEET NORTHEAST OF TRUNK HIGHWAY 22, IN THE NORTHEAST CORNER OF TRUNK HIGHWAY 22 BRIDGE NUMBER 6729 OVER JUDICIAL DITCH 1 A.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
974.050	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
974.050	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
973.781	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
973.846	.033	3				VERTICAL CONTROL SURVEY	1963	CS5205

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.077 09 = -91.975 03 = -91.857

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5205 E

NGS Name: 5205 E

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	9	111 N	28 W	442540.00	941202.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1991)

Stamping:

1.48 MILES NORTHWEST OF NEW SWEDEN, 1.2 MILES NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22 IN NEW SWEDEN, 58.0 FEET WEST OF TRUNK HIGHWAY 22, AT TRUNK HIGHWAY 22 STATION 837+05.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
971.825	.033	3				VERTICAL CONTROL SURVEY	1963	CS5205

Geoid Separations(ft): GEOID18 = -92.047 12B = -92.057 09 = -91.955 03 = -91.837

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5205 F

NGS Name: 5205 F

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	111 N	28 W	442604.00	941200.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	2015	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1991)

Stamping:

1.91 MILES NORTHWEST OF NEW SWEDEN, 1.7 MILES NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22, AT THE SOUTHEAST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 1, 54.0 FEET EAST OF TRUNK HIGHWAY 22, AT TRUNK HIGHWAY 22 STATION 863+21.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.732	.033	3				VERTICAL CONTROL SURVEY	1955	CS5205

Geoid Separations(ft): GEOID18 = -92.034 12B = -92.047 09 = -91.942 03 = -91.824

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5205 G

NGS Name: 5205 G

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5662 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	111 N	28 W	442448.00	941125.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5205 G 1990

9.47 MILES NORTH OF NICOLLET, 0.4 MILE NORTH OF NEW SWEDEN, 9.55 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 AT NICOLLET, AT THE JUNCTION OF TRUNK HIGHWAY 22 (NORTH AND EAST) -TRUNK HIGHWAY 111 (SOUTH) AND COUNTY ROAD 69 (WEST), AT TRUNK HIGHWAY 22 MILEPOINT 79.65, 136.0 FEET NORTH OF COUNTY ROAD 69, 74.5 FEET WEST OF TRUNK HIGHWAY 22, 2.9 FEET SOUTHEAST OF A WITNESS POST, 2.2 FEET EAST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.813	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
992.816	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.554	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC

Geoid Separations(ft): GEOID18 = -92.093 12B = -92.103 09 = -92.004 03 = -91.883

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5205 H **NGS Name:** 5205 H

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5664 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	9	111 N	28 W	442604.44	941204.37	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5205 H 1990

8.7 MILES SOUTH OF GAYLORD, 9.0 MILES SOUTH-SOUTHEAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 5 IN GAYLORD, AT THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 1, AT TRUNK HIGHWAY 22 MILEPOINT 81.3, 200.0 FEET WEST OF TRUNK HIGHWAY 22, 43.0 FEET SOUTH OF COUNTY ROAD 1, 1.9 FEET EAST OF A POWER POLE, 1.3 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.575	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1000.575	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1000.575	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1000.572	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS
1000.572	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
1000.572	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.293	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.664	.262		908.620	.197	2011	GPS - RTRN	2019	RTRN2019
1000.549	.262		908.505	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.034 12B = -92.044 09 = -91.939 03 = -91.821

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 04.43619	94 12 04.36925	517098.096	313827.276	.131	3	GPS - RTRN	2019	RTRN2019
44 26 04.43631	94 12 04.37029	517098.021	313827.288	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572110.771	851100.937	1326766.778	16144464.344	.131	3	GPS - RTRN	2019	RTRN2019
2572110.696	851100.949	1326766.702	16144464.357	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_H-DL5664-3S-24JUN2019.jpg	S	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_H-DL5664-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_H-DL5664-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 J **NGS Name:** 5205 J

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6563 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	4	111 N	28 W	442647.26	941202.08	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2016	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 17 FT)

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (1990)

Stamping: 5205 J 1990

7.8 MILES SOUTH OF GAYLORD, 8.4 MILES SOUTH-SOUTHEAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 5 AND TRUNK HIGHWAY 22 IN GAYLORD, AT TRUNK HIGHWAY 22 MILEPOINT 82.1, 69.5 FEET EAST OF TRUNK HIGHWAY 22, 34.0 FEET NORTH OF A FIELD ENTRANCE, 0.9 FOOT WEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.780	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
981.783	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS
981.835	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
981.839	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.550	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.835			889.788	.010	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
981.835			889.788	.010	2011	GPS - STATIC	2016	HNORS
981.783	.131		889.988	.066	1996	GPS - STATIC	2016	HNORS
981.766	.262		889.746	.197	2011	GPS - RTRN	2015	RTRN2015
			889.788	.011	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			889.877	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
981.822	.131		889.995	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
981.822	.131		889.995	.066	1996	GPS - STATIC	2007	HSIBL
			889.877	.031	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
981.822	.131		889.995	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
981.822	.131		889.995	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.011 12B = -92.021 09 = -91.916 03 = -91.798

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 47.26476	94 12 02.08148	517260.619	318164.826	.007		ADJUSTMENT	2016	GPS3139
44 26 47.26476	94 12 02.08148	517260.619	318164.826	.007	C	GPS - STATIC	2016	HNORS
44 26 47.26523	94 12 02.07975	517260.745	318164.874	.131	3	GPS - RTRN	2015	RTRN2015
44 26 47.26476	94 12 02.08148	517260.619	318164.826	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 47.26456	94 12 02.08178	517260.598	318164.806	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 47.26451	94 12 02.08157	517260.613	318164.801	.043		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 47.26509	94 12 02.08214	517260.571	318164.860	.033	C	GPS - STATIC	2016	HNORS
44 26 47.26395	94 12 02.08087	517260.664	318164.744	.033	C	ADJUSTMENT	2008	GPS2397
44 26 47.26395	94 12 02.08087	517260.664	318164.744	.033	C	GPS - STATIC	2007	HSIBL
44 26 47.26395	94 12 02.08087	517260.664	318164.744	.033	C	ADJUSTMENT	2003	GPS1882
44 26 47.26395	94 12 02.08087	517260.665	318164.744	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572287.399	855437.393	1326996.329	16148797.407	.007		ADJUSTMENT	2016	GPS3139
2572287.399	855437.393	1326996.329	16148797.407	.007	C	GPS - STATIC	2016	HNORS
2572287.525	855437.441	1326996.455	16148797.453	.131	3	GPS - RTRN	2015	RTRN2015
2572287.399	855437.393	1326996.329	16148797.407	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572287.377	855437.373	1326996.307	16148797.387	.033	C	ADJUSTMENT	2009	GPS2397-B
2572287.393	855437.368	1326996.322	16148797.382	.043		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572287.351	855437.427	1326996.282	16148797.441	.033	C	GPS - STATIC	2016	HNORS
2572287.443	855437.311	1326996.372	16148797.325	.033	C	ADJUSTMENT	2008	GPS2397
2572287.443	855437.311	1326996.372	16148797.325	.033	C	GPS - STATIC	2007	HSIBL
2572287.443	855437.311	1326996.372	16148797.325	.033	C	ADJUSTMENT	2003	GPS1882
2572287.443	855437.311	1326996.372	16148797.324	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_J-DF6563-3E-03JUN2015.jpg	E	Jun 3, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_J-DF6563-2-03JUN2015.jpg		Jun 3, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_J-DF6563-1-03JUN2015.jpg		Jun 3, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5205 J RESET

Mn/DOT Name: 5205 J RESET
NGS Name: 5205 J RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6204 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	4	111 N	28 W	442647.26	941202.08	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 17 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description:

Stamping: 5205 J RESET 2019

7.8 MILES SOUTH OF GAYLORD, 8.4 MILES SOUTH-SOUTHEAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 5 AND TRUNK HIGHWAY 22 IN GAYLORD, AT TRUNK HIGHWAY 22 MILEPOINT 82.1, 69.5 FEET EAST OF TRUNK HIGHWAY 22, 34.0 FEET NORTH OF A FIELD ENTRANCE, 0.9 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.583	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
981.583	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.543	.262		889.522	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.011 12B = -92.021 09 = -91.916 03 = -91.798

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 47.26359	94 12 02.08010	517260.719	318164.708	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572287.499	855437.275	1326996.427	16148797.287	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_J_RESET-DR6204-3E-14JUL2019.jpg	E	Jul 14, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_J_RESET-DR6204-2-14JUL2019.jpg		Jul 14, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_J_RESET-DR6204-1-14JUL2019.jpg		Jul 14, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 K **NGS Name:** 5205 K

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2796 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	8	110 N	26 W	442054.45	935832.05	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 44 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5205 K 2015

1.2 MILES WEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 67.15, 75.3 FEET SOUTH OF TRUNK HIGHWAY 22, 60.4 FEET EAST OF COUNTRY ROAD 15, 6.5 FEET SOUTHWEST OF A SIDEWALK, 11.9 FEET SOUTHEAST OF A CABLE BOX, 1.5 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
903.427	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
903.427	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
903.427	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
903.446	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
903.407	.262		810.720	.197	2011	GPS - RTRN	2019	RTRN2019
903.446			810.746	.027	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
903.446			810.746	.027	2011	GPS - STATIC	2016	HNORS
903.446	.131		810.917	.066	1996	GPS - STATIC	2016	HNORS
903.305	.262		810.618	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.687 12B = -92.687 09 = -92.605 03 = -92.454

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 54.44535	93 58 32.05137	576153.342	282561.609	.131	3	GPS - RTRN	2019	RTRN2019
44 20 54.44476	93 58 32.05205	576153.293	282561.549	.020		ADJUSTMENT	2016	GPS3139
44 20 54.44476	93 58 32.05205	576153.293	282561.549	.020	C	GPS - STATIC	2016	HNORS
44 20 54.44463	93 58 32.05249	576153.261	282561.536	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 54.44473	93 58 32.05260	576153.253	282561.546	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631057.080	819647.353	1385311.156	16112300.906	.131	3	GPS - RTRN	2019	RTRN2019
2631057.031	819647.293	1385311.105	16112300.847	.020		ADJUSTMENT	2016	GPS3139
2631057.031	819647.293	1385311.105	16112300.847	.020	C	GPS - STATIC	2016	HNORS
2631056.999	819647.280	1385311.073	16112300.834	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631056.991	819647.290	1385311.065	16112300.845	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_K-DQ2796-3SW-04JUN2019.jpg	SW	Jun 4, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_K-DQ2796-2-04JUN2019.jpg		Jun 4, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_K-DQ2796-1-04JUN2019.jpg		Jun 4, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 L **NGS Name:** 5205 L

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2799 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	110 N	26 W	442209.02	935950.32	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2015) **Stamping:** 5205 L 2015

3.7 MILES NORTHWEST OF ST. PETER, 3.1 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 69.05, 41.5 FEET SOUTHWEST OF TRUNK HIGHWAY 22, 1.5 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.723	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
980.743	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.743			888.204	.027	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
980.743			888.204	.027	2011	GPS - STATIC	2016	HNORS
980.743	.131		888.335	.066	1996	GPS - STATIC	2016	HNORS
980.684	.262		888.122	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.559 12B = -92.559 09 = -92.490 03 = -92.336

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 09.02193	93 59 50.31710	570441.143	290094.705	.020		ADJUSTMENT	2016	GPS3139
44 22 09.02193	93 59 50.31710	570441.143	290094.705	.020	C	GPS - STATIC	2016	HNORS
44 22 09.02082	93 59 50.31706	570441.146	290094.592	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 09.02192	93 59 50.31774	570441.096	290094.703	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625369.985	827198.043	1379718.020	16119918.537	.020		ADJUSTMENT	2016	GPS3139
2625369.985	827198.043	1379718.020	16119918.537	.020	C	GPS - STATIC	2016	HNORS
2625369.988	827197.931	1379718.021	16119918.424	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625369.939	827198.042	1379717.973	16119918.536	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_L-DQ2799-3SW-22JUN2015.jpg	SW	Jun 22, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_L-DQ2799-2-22JUN2015.jpg		Jun 22, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_L-DQ2799-1-22JUN2015.jpg		Jun 22, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 103892

5205 M

04/28/2026
Sheet Help

Mn/DOT Name: 5205 M
NGS Name: 5205 M
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2800 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	36	111 N	27 W	442235.48	940047.59	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5205 M 2015

4.5 MILES NORTHWEST OF ST. PETER, 4.0 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 70.0, 59.5 FEET NORTHEAST OF TRUNK HIGHWAY 22, 16.1 FEET SOUTHEAST OF A FIELD ENTRANCE, 5.0 FEET NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
976.350	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
976.363	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
976.363			883.840	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
976.363			883.840	.026	2011	GPS - STATIC	2016	HNORS
976.363	.131		883.948	.066	1996	GPS - STATIC	2016	HNORS
976.324	.262		883.817	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.506 12B = -92.503 09 = -92.434 03 = -92.277

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 35.47769	94 00 47.59187	566272.263	292760.704	.016		ADJUSTMENT	2016	GPS3139
44 22 35.47769	94 00 47.59187	566272.263	292760.704	.016	C	GPS - STATIC	2016	HNORS
44 22 35.47743	94 00 47.59155	566272.286	292760.678	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 35.47762	94 00 47.59240	566272.224	292760.697	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621210.260	829877.229	1375592.320	16122647.625	.016		ADJUSTMENT	2016	GPS3139
2621210.260	829877.229	1375592.320	16122647.625	.016	C	GPS - STATIC	2016	HNORS
2621210.283	829877.203	1375592.343	16122647.599	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621210.221	829877.222	1375592.282	16122647.619	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_M-DQ2800-3NE-22JUN2015.jpg	NE	Jun 22, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_M-DQ2800-2-22JUN2015.jpg		Jun 22, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_M-DQ2800-1-22JUN2015.jpg		Jun 22, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 N **NGS Name:** 5205 N

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2803 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	27	111 N	27 W	442318.12	940258.65	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2015)

Stamping: 5205 N 2015

6.6 MILES NORTHWEST OF ST. PETER, 6.05 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 72.05, 109.4 FEET NORTH NORTH-EAST OF TRUNK HIGHWAY 22, 37.7 FEET WEST OF COUNTY ROAD 19 (391ST AVENUE), 20.1 FEET NORTH OF A FIELD ENTRANCE, 5.0 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
973.620	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
973.627	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
973.627			881.212	.025	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
973.627			881.212	.025	2011	GPS - STATIC	2016	HNORS
973.627	.131		881.376	.066	1996	GPS - STATIC	2016	HNORS
973.502	.262		881.097	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.405 12B = -92.408 09 = -92.336 03 = -92.182

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 18.12103	94 02 58.64517	556741.907	297052.062	.020		ADJUSTMENT	2016	GPS3139
44 23 18.12103	94 02 58.64517	556741.907	297052.062	.020	C	GPS - STATIC	2016	HNORS
44 23 18.12092	94 02 58.64449	556741.957	297052.051	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 18.12092	94 02 58.64575	556741.865	297052.051	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2611695.007	834198.971	1366132.814	16127084.129	.020		ADJUSTMENT	2016	GPS3139
2611695.007	834198.971	1366132.814	16127084.129	.020	C	GPS - STATIC	2016	HNORS
2611695.056	834198.960	1366132.864	16127084.117	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2611694.965	834198.960	1366132.772	16127084.118	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_N-DQ2803-3W-23JUN2015.jpg	W	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_N-DQ2803-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_N-DQ2803-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 103911

5205 P

04/28/2026
Sheet Help

Mn/DOT Name: 5205 P
NGS Name: 5205 P
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2805 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	111 N	27 W	442337.94	940400.18	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2015)

Stamping: 5205 P 2015

7.0 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 73.0, 47.5 FEET SOUTH-SOUTHWEST OF TRUNK HIGHWAY 22, 31.5 FEET WEST-NORTHWEST OF A FIELD ENTRANCE, 5.0 FEET EAST-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.724	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
987.728	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.728			895.326	.025	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
987.728			895.326	.025	2011	GPS - STATIC	2016	HNORS
987.728	.131		895.477	.066	1996	GPS - STATIC	2016	HNORS
987.570	.262		895.205	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.359 12B = -92.362 09 = -92.293 03 = -92.139

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 37.93952	94 04 00.18071	552268.333	299047.801	.020		ADJUSTMENT	2016	GPS3139
44 23 37.93952	94 04 00.18071	552268.333	299047.801	.020	C	GPS - STATIC	2016	HNORS
44 23 37.93918	94 04 00.17971	552268.406	299047.767	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 37.93944	94 04 00.18130	552268.290	299047.793	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607228.469	836208.982	1361692.200	16129148.032	.020		ADJUSTMENT	2016	GPS3139
2607228.469	836208.982	1361692.200	16129148.032	.020	C	GPS - STATIC	2016	HNORS
2607228.542	836208.947	1361692.272	16129147.996	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607228.426	836208.974	1361692.157	16129148.024	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_P-DQ2805-3SW-23JUN2015.jpg	SW	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_P-DQ2805-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_P-DQ2805-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 Q **NGS Name:** 5205 Q

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2808 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	20	111 N	27 W	442417.17	940611.72	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2015) **Stamping:** 5205 Q 2015

9.9 MILES NORTHEAST OF NICOLLET, 4.5 MILES EAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 75.05, 48.6 FEET NORTHEAST OF TRUNK HIGHWAY 22, 32.6 FEET NORTHWEST OF A FIELD ENTRANCE, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1009.680	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1009.676	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1009.676			917.351	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
1009.676			917.351	.026	2011	GPS - STATIC	2016	HNORS
1009.676	.131		917.505	.066	1996	GPS - STATIC	2016	HNORS
1009.588	.262		917.308	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.270 12B = -92.277 09 = -92.201 03 = -92.057

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 17.17412	94 06 11.71782	542709.132	303000.099	.020		ADJUSTMENT	2016	GPS3139
44 24 17.17412	94 06 11.71782	542709.132	303000.099	.020	C	GPS - STATIC	2016	HNORS
44 24 17.17356	94 06 11.71750	542709.155	303000.042	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 17.17411	94 06 11.71838	542709.091	303000.098	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2597683.307	840191.830	1352198.581	16133246.179	.020		ADJUSTMENT	2016	GPS3139
2597683.307	840191.830	1352198.581	16133246.179	.020	C	GPS - STATIC	2016	HNORS
2597683.331	840191.774	1352198.603	16133246.122	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2597683.267	840191.829	1352198.540	16133246.178	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_Q-DQ2808-3NE-23JUN2015.jpg	NE	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_Q-DQ2808-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_Q-DQ2808-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 103913

5205 R

04/28/2026
Sheet Help

Mn/DOT Name: 5205 R
NGS Name: 5205 R
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2809 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	19	111 N	27 W	442447.44	940707.05	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2015)
Stamping: 5205 R 2015

10.1 MILES NORTH-NORTHEAST OF NICOLLET, 3.6 MILES EAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 76.05, 51.6 FEET SOUTH-SOUTHWEST OF TRUNK HIGHWAY 22, 31.0 FEET WEST OF A FIELD ENTRANCE, 1.5 FEET NORTH-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1004.463	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1004.460	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1004.460			912.196	.027	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
1004.460			912.196	.027	2011	GPS - STATIC	2016	HNORS
1004.460	.131		912.314	.066	1996	GPS - STATIC	2016	HNORS
1004.417	.262		912.177	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.234 12B = -92.241 09 = -92.162 03 = -92.021

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.43527	94 07 07.05127	538686.427	306057.131	.020		ADJUSTMENT	2016	GPS3139
44 24 47.43527	94 07 07.05127	538686.427	306057.131	.020	C	GPS - STATIC	2016	HNORS
44 24 47.43492	94 07 07.05149	538686.411	306057.095	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.43528	94 07 07.05189	538686.382	306057.132	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593671.048	843261.548	1348225.010	16136363.956	.020		ADJUSTMENT	2016	GPS3139
2593671.048	843261.548	1348225.010	16136363.956	.020	C	GPS - STATIC	2016	HNORS
2593671.032	843261.513	1348224.993	16136363.920	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593671.003	843261.549	1348224.965	16136363.957	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_R-DQ2809-3SW-23JUN2015.jpg	SW	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_R-DQ2809-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_R-DQ2809-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 S **NGS Name:** 5205 S

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2812 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	111 N	28 W	442446.54	940922.51	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5205 S 2015

9.5 MILES NORTH-NORTHEAST OF NICOLLET, 1.7 MILES EAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 77.95, 46.9 FEET SOUTH OF TRUNK HIGHWAY 22, 22.0 FEET EAST OF A FIELD ENTRANCE, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.751	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
987.738	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.724	.262		895.559	.197	2011	GPS - RTRN	2019	RTRN2019
987.793	.262		895.628	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.155 12B = -92.165 09 = -92.077 03 = -91.949

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 46.54093	94 09 22.51025	528853.670	305951.111	.131	3	GPS - RTRN	2019	RTRN2019
44 24 46.54051	94 09 22.51023	528853.671	305951.068	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2583839.197	843187.517	1338395.175	16136409.989	.131	3	GPS - RTRN	2019	RTRN2019
2583839.198	843187.474	1338395.176	16136409.947	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_S-DQ2812-3S-24JUN2019.jpg	S	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_S-DQ2812-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_S-DQ2812-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 T **NGS Name:** 5205 T

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2813 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	22	111 N	28 W	442446.11	941012.47	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5205 T 2015

9.4 MILES NORTH OF NICOLLET, 1.0 MILES EAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 78.6, 49.0 FEET SOUTH OF TRUNK HIGHWAY 22, 17.8 FEET WEST OF 451ST AVENUE EXTENDED, 17.8 FEET WEST OF A FIELD ENTRANCE, 6.7 FEET NORTHWEST OF A CABLE BOX, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.507	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
986.507	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
986.507	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
986.494	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.497	.262		894.358	.197	2011	GPS - RTRN	2019	RTRN2019
986.494			894.398	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
986.494			894.398	.026	2011	GPS - STATIC	2016	HNORS
986.494	.131		894.565	.066	1996	GPS - STATIC	2016	HNORS
986.422	.262		894.283	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.129 12B = -92.139 09 = -92.047 03 = -91.919

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 46.10654	94 10 12.46817	525227.292	305902.557	.131	3	GPS - RTRN	2019	RTRN2019
44 24 46.10706	94 10 12.46965	525227.184	305902.609	.020		ADJUSTMENT	2016	GPS3139
44 24 46.10706	94 10 12.46965	525227.184	305902.609	.020	C	GPS - STATIC	2016	HNORS
44 24 46.10684	94 10 12.46927	525227.212	305902.587	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 46.10700	94 10 12.47026	525227.140	305902.603	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2580213.122	843150.769	1334769.711	16136417.523	.131	3	GPS - RTRN	2019	RTRN2019
2580213.015	843150.822	1334769.605	16136417.577	.020		ADJUSTMENT	2016	GPS3139
2580213.015	843150.822	1334769.605	16136417.577	.020	C	GPS - STATIC	2016	HNORS
2580213.043	843150.800	1334769.632	16136417.555	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2580212.971	843150.816	1334769.560	16136417.572	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_T-DQ2813-3S-24JUN2019.jpg	S	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_T-DQ2813-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_T-DQ2813-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5205 U **NGS Name:** 5205 U

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2814 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	15	111 N	28 W	442447.42	941121.84	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** 5205 U 2015

9.5 MILES NORTH OF NICOLLET, AT THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 79.6, 60.5 FEET NORTH OF TRUNK HIGHWAY 22 EAST, 217.0 FEET EAST OF TRUNK HIGHWAY 22 NORTH (EXTENDED TRUNK HIGHWAY 111), 2.2 FEET SOUTHWEST OF A RIGHT-OF-WAY POST, 1.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.009	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
992.009	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
992.009	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
991.996	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.035	.262		899.933	.197	2011	GPS - RTRN	2019	RTRN2019
991.996			899.929	.025	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
991.996			899.929	.025	2011	GPS - STATIC	2016	HNORS
991.996	.131		900.090	.066	1996	GPS - STATIC	2016	HNORS
992.045	.262		899.939	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.093 12B = -92.103 09 = -92.004 03 = -91.886

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.41926	94 11 21.84230	520191.309	306030.180	.131	3	GPS - RTRN	2019	RTRN2019
44 24 47.41914	94 11 21.84235	520191.306	306030.168	.020		ADJUSTMENT	2016	GPS3139
44 24 47.41914	94 11 21.84235	520191.306	306030.168	.020	C	GPS - STATIC	2016	HNORS
44 24 47.41846	94 11 21.84180	520191.346	306030.099	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.41907	94 11 21.84299	520191.259	306030.161	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575178.196	843294.769	1329738.000	16136622.953	.131	3	GPS - RTRN	2019	RTRN2019
2575178.192	843294.757	1329737.996	16136622.941	.020		ADJUSTMENT	2016	GPS3139
2575178.192	843294.757	1329737.996	16136622.941	.020	C	GPS - STATIC	2016	HNORS
2575178.232	843294.688	1329738.035	16136622.871	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575178.146	843294.750	1329737.949	16136622.934	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_U-DQ2814-3N-24JUN2019.jpg	N	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_U-DQ2814-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5205_U-DQ2814-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 A

NGS Name: 5206 A

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	110 N	28 W	441700.00	940749.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2019	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1965) **Stamping:** 5206 A 1947

2.9 MILES NORTHEAST OF NICOLLET, 3.06 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, 65.0 FEET NORTH AND WEST ON TOWNSHIP ROAD 99, AT TRUNK HIGHWAY 99 STATION 541+40.

Station Notes

THE DISTRICT COULD NOT FIND THE MONUMENT IN 1948.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.222	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.362 12B = -92.382 09 = -92.287 03 = -92.162

*** No Horizontal Positions in the Database ***

5206 B

Mn/DOT Name: 5206 B

NGS Name: 5206 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	32	110 N	27 W	441700.00	940634.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	1990	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1990) **Stamping:** 5206 B 1947

4.0 MILES EAST OF NICOLLET, 4.05 MILES EAST ON TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, 75.0 FEET NORTH OF TRUNK HIGHWAY 99, 33.0 FEET EAST OF COUNTY ROAD 17 EXTENDED, 10.0 FEET NORTH OF A TELEPHONE POLE, 2.0 FEET EAST OF A GUARD POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.146	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.385 12B = -92.398 09 = -92.313 03 = -92.191

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5206 C

NGS Name: 5206 C

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	32	110 N	27 W	441706.00	940524.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2009	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1994) **Stamping:** 5206 C 1947

4.9 MILES EAST OF NICOLLET, 5.0 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, 198.41 FEET NORTH-NORTHEAST OF THE CENTER OF THE JUNCTION OF TRUNK HIGHWAY 99 AND OSHAWA/BELGRADE TOWNSHIP ROAD 186 (411TH AVENUE), 74.0 FEET RIGHT OF TRUNK HIGHWAY 99, AT TRUNK HIGHWAY 99 STATION 642+10.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.980	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.421 12B = -92.431 09 = -92.352 03 = -92.228

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5206 D

NGS Name: 5206 D

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3320 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	33	110 N	27 W	441724.00	940447.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	1990	GOOD	Horz=NO Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	MNDT

Description: (1991) **Stamping:** 5206 D 1948

5.5 MILES EAST-NORTHEAST OF NICOLLET, 5.65 MILES EAST-NORTHEAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 6.25, 84.0 FEET NORTH OF TRUNK HIGHWAY 99, 58.0 FEET WEST OF A POWER POLE WITH A GUY WIRE, 37.0 FEET EAST OF AN ENTRANCE TO A HOUSE, 0.7 FOOT SOUTH OF A WITNESS POST.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.930	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
986.937	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.757	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE
986.586	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.437 12B = -92.447 09 = -92.369 03 = -92.244

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_D-AI3320-3N-25JUN2019.jpg	N	Jun 25, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_D-AI3320-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_D-AI3320-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 E

NGS Name: 5206 E

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	34	110 N	27 W	441738.00	940336.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2009	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1994) **Stamping:** 5206 E 1947

5.5 MILES SOUTHWEST OF ST. PETER, 5.1 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, 0.51 MILE NORTHEAST OF THE CENTER OF THE JUNCTION OF TRUNK HIGHWAY 99 AND TOWNSHIP ROAD 100, 72.0 FEET SOUTH OF TRUNK HIGHWAY 99, AT TRUNK HIGHWAY 99 STATION 734+55.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.008	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.497 09 = -92.418 03 = -92.293

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5206 F **NGS Name:** 5206 F

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3318 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	110 N	27 W	441800.30	940224.19	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1947	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	MNDT

Description: (1991) **Stamping:** 5206 F 1947

4.0 MILES WEST-SOUTHWEST OF ST. PETER, 3.95 MILES WEST-SOUTHWEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 8.35, 122.2 FEET EAST-NORTHEAST OF A POWER POLE, 93.3 FEET NORTHWEST OF THE NORTHEAST CORNER OF A TOWN HALL, 83.5 FEET NORTH OF THE NORTHWEST CORNER OF A TOWN HALL, 56.5 FEET SOUTHEAST OF TRUNK HIGHWAY 99, 1.0 FOOT NORTH OF A WITNESS POST.

Station Pair: AWA MNDT - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.810	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
982.810	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
982.810	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
982.816	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.633	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE
979.699	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.780	.262		890.225	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.546 12B = -92.552 09 = -92.477 03 = -92.342

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 00.30436	94 02 24.18937	559332.747	264873.146	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2614181.118	802015.506	1368225.657	16094880.482	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_F-AI3318-3SE-25JUN2019.jpg	SE	Jun 25, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_F-AI3318-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_F-AI3318-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 G

NGS Name: 5206 G

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	110 N	27 W	441835.00	940145.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2009	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1994) **Stamping:** 5206 G 1947

3.7 MILES SOUTHWEST OF ST. PETER, 3.1 MILES WEST ON TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 SOUTH OF ST. PETER, AT TRUNK HIGHWAY 99 STATION 838+05, 0.05 MILE SOUTH OF THE CENTER OF THE JUNCTION OF TRUNK HIGHWAY 99 AND TOWNSHIP ROAD 86, 76.0 FEET NORTH OF TRUNK HIGHWAY 99.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.661	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.565 12B = -92.575 09 = -92.497 03 = -92.355

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5206 I **NGS Name:** 5206 I

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	20	110 N	26 W	441844.00	935848.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2013	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 12 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5206 I 1947

IN ST. PETER, 0.65 MILE WEST ALONG TRUNK HIGHWAY 99 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 AT ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 11.6, 40.0 FEET NORTH OF TRUNK HIGHWAY 99, 40.0 FEET NORTH OF THE END OF A CONCRETE CULVERT APRON.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
904.687	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.779 12B = -92.782 09 = -92.690 03 = -92.556

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5206 J

NGS Name: 5206 J

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3315 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	20	110 N	26 W	441848.00	935819.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2005	DESTROYED	Horz=NO Vert=NO	NO	6422	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CONCRETE MAT FOUNDATION (NON-PAVEMENT)	BENCH MARK DISK	MNDT

Description: (2001) **Stamping:** 5206 J 1948

0.5 MILE SOUTH-SOUTHWEST OF ST. PETER, IN A SIDEWALK AT THE SOUTHEAST CORNER OF TRUNK HIGHWAY 99 BRIDGE NUMBER 6422, 0.3 MILE WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169, 17.5 FEET SOUTH OF TRUNK HIGHWAY 99, AT TRUNK HIGHWAY 99 MILEPOINT 12.05, 1.4 FEET WEST OF THE EAST END OF A BRIDGE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
836.888	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
836.891	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
836.701	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE
836.573	.033	3				VERTICAL CONTROL SURVEY	1948	CS5206

Geoid Separations(ft): GEOID18 = -92.815 12B = -92.815 09 = -92.723 03 = -92.588

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5206 K

NGS Name: 5206 K

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1750 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	109 N	28 W	441623.00	941112.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	1990	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MAT FOUNDATION (NON-PAVEMENT)	VERTICAL CONTROL DISK	MNDT

Description: (1991) **Stamping:** 5206 K 1987

IN THE SOUTH PART OF NICOLLET, 2.0 BLOCKS EAST AND 3.0 BLOCKS SOUTH OF THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111, IN THE NORTHEAST CORNER OF THE JUNCTION OF PINE STREET AND 6TH STREET, ON TOP OF THE SOUTH SIDE OF A CONCRETE BASE OF THE SOUTHWEST LEG OF THE CITY WATER TANK , 96.0 FEET EAST OF PINE STREET, 55.0 FEET NORTH OF 6TH STREET, 9.0 FEET EAST-SOUTHEAST OF THE NORTHEAST CORNER OF A PUMP HOUSE BUILDING.

Station Notes

NEW WATER TANK, CANNOT LOCATE THE FOOTINGS FOR THE OLD WATER TANK, LOCATED THE OLD DOWNSPOUT.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.966	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
1000.966	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
1000.966	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC
1000.966	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE
1000.966	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.795	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE
1000.795	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
1000.795	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.408 12B = -92.424 09 = -92.339 03 = -92.205

*** No Horizontal Positions in the Database ***

5206 L

Mn/DOT Name: 5206 L

NGS Name: 5206 L

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3317 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	110 N	27 W	441835.00	940152.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5206 L 1990

3.5 MILES WEST-SOUTHWEST OF ST. PETER, 3.15 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 9.15, 134.0 FEET SOUTHEAST OF TRUNK HIGHWAY 99, 29.5 FEET WEST OF A GRAVEL ROAD, 2.4 FEET EAST OF A POWER POLE, 1.0 FOOT NORTH OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.412	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
986.419	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.235	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Geoid Separations(ft): GEOID18 = -92.559 12B = -92.569 09 = -92.490 03 = -92.352

*** No Horizontal Positions in the Database ***

5206 L RESET

Mn/DOT Name: 5206 L RESET **NGS Name:** 5206 L RESET

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6212 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	110 N	27 W	441832.82	940147.14	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description:

Stamping: 5206 L RESET 2019

3.5 MILES WEST-SOUTHWEST OF ST. PETER, 3.15 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 9.15, 134.0 FEET SOUTHEAST OF TRUNK HIGHWAY 99, 29.5 FEET WEST OF 381ST AVENUE (GRAVEL ROAD), 2.4 FEET EAST OF A POWER POLE, 1.0 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.222	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
986.222	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Geoid Separations(ft): GEOID18 = -92.565 12B = -92.572 09 = -92.497 03 = -92.355

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_L_RESET-DR6212-3S-14JUL2019.jpg	S	Jul 14, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_L_RESET-DR6212-2-14JUL2019.jpg		Jul 14, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_L_RESET-DR6212-1-14JUL2019.jpg		Jul 14, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 M
NGS Name: 5206 M
County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3319 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	34	110 N	27 W	441735.25	940349.98	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (1990)

Stamping: 5206 M 1990

5.0 MILES WEST-SOUTHWEST OF ST. PETER, 5.25 MILES WEST-SOUTHWEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 7.05, 146.5 FEET EAST OF A FIELD ENTRANCE, 67.5 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 99, 0.7 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.440	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
979.440	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
979.440	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
979.447	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.266	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.437	.262		886.954	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.477 12B = -92.487 09 = -92.408 03 = -92.283

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 35.24628	94 03 49.98415	553099.284	262319.225	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607940.082	799482.108	1361955.727	16092423.927	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_M-AI3319-3S-25JUN2019.jpg	S	Jun 25, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_M-AI3319-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_M-AI3319-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 N
NGS Name: 5206 N
County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3321 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	33	110 N	27 W	441704.00	940523.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2009	DISTURBED	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1998) **Stamping:** 5206 N 1990

5.0 MILES EAST OF NICOLLET, 5.5 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 14 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 5.6, 151.0 FEET EAST-NORTHEAST OF A GRAVEL ROAD, 62.0 FEET SOUTHEAST OF TRUNK HIGHWAY 99, 1.8 FEET NORTHWEST OF A POWER POLE NUMBER 3, 1.8 FEET NORTHEAST OF A WITNESS POST.

Station Notes

8-25-2009 FOUND THE DISK OFF THE ROD, PVC ENCASEMENT DAMAGED AND THE WITNESS POST WAS GONE. POUNDED THE DISK BACK ON THE ROD.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.797	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
987.803	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.623	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Geoid Separations(ft): GEOID18 = -92.424 12B = -92.434 09 = -92.355 03 = -92.231

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_N-AI3321-3E-25AUG2009.jpg	E	Aug 25, 2009
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_N-AI3321-2-25AUG2009.jpg		Aug 25, 2009
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_N-AI3321-1-25AUG2009.jpg		Aug 25, 2009

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 P **NGS Name:** 5206 P

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3322 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	5	109 N	27 W	441657.96	940634.68	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5206 P 1990

4.0 MILES EAST OF NICOLLET, 4.0 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 4.6, 95.0 FEET EAST OF COUNTY ROAD 17, 71.0 FEET SOUTH OF TRUNK HIGHWAY 99, 2.0 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.970	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
981.970	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
981.970	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
981.973	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.796	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.944	.262		889.559	.197	2011	GPS - OPUS	2021	GPSBM
981.793	.262		889.408	.197	2011	GPS - OPUS	2021	GPSBM
981.921	.262		889.536	.197	2011	GPS - RTRN	2021	RTRN2021
981.944	.262		889.545	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.385 12B = -92.398 09 = -92.316 03 = -92.191

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 57.95749	94 06 34.67614	541127.281	258516.786	.131	3	GPS - OPUS	2021	GPSBM
44 16 57.95836	94 06 34.67678	541127.234	258516.874	.131	3	GPS - OPUS	2021	GPSBM
44 16 57.95790	94 06 34.67523	541127.347	258516.828	.131	3	GPS - RTRN	2021	RTRN2021
44 16 57.95894	94 06 34.67485	541127.375	258516.933	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2595957.092	795718.990	1349930.622	16088807.938	.131	3	GPS - OPUS	2021	GPSBM
2595957.046	795719.078	1349930.577	16088808.026	.131	3	GPS - OPUS	2021	GPSBM
2595957.158	795719.031	1349930.689	16088807.978	.131	3	GPS - RTRN	2021	RTRN2021
2595957.186	795719.136	1349930.718	16088808.083	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_P-AI3322-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_P-AI3322-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_P-AI3322-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 Q **NGS Name:** 5206 Q

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3323 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	6	109 N	27 W	441658.76	940738.05	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5206 Q 1990

3.0 MILES EAST OF NICOLLET, 3.2 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 3.75, 61.5 FEET SOUTH OF TRUNK HIGHWAY 99, 7.1 FEET WEST OF A POWER POLE NUMBER 100 WITH 2 GUY WIRES, 1.0 FOOT SOUTH OF A WITNESS POST.

Station Pair: HAWA - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.584	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
983.584	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
983.584	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
983.584	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.410	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.535	.262		891.173	.197	2011	GPS - OPUS	2021	GPSBM
983.433	.262		891.071	.197	2011	GPS - OPUS	2021	GPSBM
983.705	.262		891.340	.197	2011	GPS - RTRN	2021	RTRN2021
983.640	.262		891.255	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.365 12B = -92.382 09 = -92.290 03 = -92.165

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 58.76299	94 07 38.04924	536516.758	258590.051	.131	3	GPS - OPUS	2021	GPSBM
44 16 58.76321	94 07 38.05000	536516.703	258590.073	.131	3	GPS - OPUS	2021	GPSBM
44 16 58.76258	94 07 38.04934	536516.751	258590.010	.131	3	GPS - RTRN	2021	RTRN2021
44 16 58.76286	94 07 38.04943	536516.744	258590.038	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2591347.330	795807.233	1345323.343	16088952.292	.131	3	GPS - OPUS	2021	GPSBM
2591347.274	795807.255	1345323.288	16088952.315	.131	3	GPS - OPUS	2021	GPSBM
2591347.322	795807.191	1345323.335	16088952.251	.131	3	GPS - RTRN	2021	RTRN2021
2591347.316	795807.220	1345323.329	16088952.279	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_Q-AI3323-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_Q-AI3323-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_Q-AI3323-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 R **NGS Name:** 5206 R

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3324 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	109 N	28 W	441652.63	940841.65	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	GOOD	Horz=NO Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5206 R 1990

2.0 MILES EAST OF NICOLLET, 2.3 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 2.85, 49.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 99, 21.5 FEET WEST OF A FIELD ENTRANCE, 1.6 FEET NORTHEAST OF A POWER POLE NUMBER 1, 1.0 FOOT WEST-NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.484	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
980.484	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
980.484	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
980.484	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.310	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.480	.262		888.099	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.359 12B = -92.382 09 = -92.287 03 = -92.162

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 52.62736	94 08 41.64976	531890.764	257961.350	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2586719.815	795193.646	1340689.756	16088395.240	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_R-AI3324-3S-07JUL2019.jpg	S	Jul 7, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_R-AI3324-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_R-AI3324-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 S
NGS Name: 5206 S
County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3325 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	2	109 N	28 W	441647.72	940943.17	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5206 S 1990

1.4 MILES EAST OF NICOLLET, 1.45 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 2.0, 106.0 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 99, 4.5 FEET WEST OF A FIELD ENTRANCE EXTENDED, 0.7 FOOT SOUTH-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.645	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
981.645	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
981.645	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
981.645	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
981.645	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
981.645	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.471	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.668	.262		889.283	.197	2011	GPS - RTRN	2019	RTRN2019
981.645			889.286	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
981.645	.131		889.477	.066	1996	GPS - STATIC	2013	HNMAN
981.645			889.286	.010	2011	GPS - STATIC	2013	HNMAN
981.494	.262		889.194	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.369 12B = -92.385 09 = -92.300 03 = -92.168

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 47.72194	94 09 43.17423	527415.383	257458.417	.131	3	GPS - RTRN	2019	RTRN2019
44 16 47.72218	94 09 43.17494	527415.332	257458.441	.023		ADJUSTMENT	2013	GPS2964
44 16 47.72218	94 09 43.17494	527415.332	257458.441	.023	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 47.72259	94 09 43.17646	527415.221	257458.483	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 47.72147	94 09 43.17493	527415.332	257458.370	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2582243.305	794705.330	1336208.641	16087961.576	.131	3	GPS - RTRN	2019	RTRN2019
2582243.253	794705.354	1336208.589	16087961.601	.023		ADJUSTMENT	2013	GPS2964
2582243.253	794705.354	1336208.589	16087961.601	.023	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2582243.143	794705.396	1336208.479	16087961.645	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2582243.254	794705.282	1336208.589	16087961.529	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_S-AI3325-3N-25JUN2019.jpg	N	Jun 25, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_S-AI3325-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_S-AI3325-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 T **NGS Name:** 5206 T

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3326 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	109 N	28 W	441633.24	941025.09	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5206 T 1990

0.5 MILE EAST OF NICOLLET, 0.8 MILE EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 1.35, 63.0 FEET SOUTH OF TRUNK HIGHWAY 99, 1.5 FEET WEST-NORTHWEST OF A POWER POLE NUMBER 8, 1.4 FEET NORTHEAST OF A WITNESS POST.

Station Pair: CLINIC - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.520	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
980.520	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
980.520	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
980.520	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
980.520	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
980.520	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.346	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.428	.262		888.023	.197	2011	GPS - RTRN	2019	RTRN2019
980.520			888.141	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
980.520	.131		888.335	.066	1996	GPS - STATIC	2013	HNMAN
980.520			888.141	.009	2011	GPS - STATIC	2013	HNMAN
980.533	.262		888.213	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.388 12B = -92.405 09 = -92.319 03 = -92.188

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 33.24272	94 10 25.08810	524367.664	255988.443	.131	3	GPS - RTRN	2019	RTRN2019
44 16 33.24240	94 10 25.08871	524367.619	255988.410	.020		ADJUSTMENT	2013	GPS2964
44 16 33.24240	94 10 25.08871	524367.619	255988.410	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 33.24282	94 10 25.08880	524367.613	255988.453	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 33.24167	94 10 25.08869	524367.621	255988.336	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2579191.145	793245.439	1333139.614	16086539.278	.131	3	GPS - RTRN	2019	RTRN2019
2579191.100	793245.407	1333139.569	16086539.247	.020		ADJUSTMENT	2013	GPS2964
2579191.100	793245.407	1333139.569	16086539.247	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2579191.094	793245.450	1333139.563	16086539.289	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2579191.102	793245.333	1333139.569	16086539.173	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_T-AI3326-3S-25JUN2019.jpg	S	Jun 25, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_T-AI3326-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_T-AI3326-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 U **NGS Name:** 5206 U

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3316 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	29	110 N	26 W	441841.03	935845.27	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2025	GOOD	Horz=NO Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (1990)

Stamping: 5206 U 1990

0.5 MILE SOUTHWEST OF ST. PETER, 0.6 MILE WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 11.75, 77.5 FEET EAST OF TRUNK HIGHWAY 333, 75.7 FEET SOUTH OF TRUNK HIGHWAY 99, 2.5 FEET EAST OF CABLE BOX NUMBER 50 DA 05, 2.2 FEET WEST-SOUTHWEST OF A WITNESS POST.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
907.255	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
907.255	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
907.255	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
907.255	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
907.255	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
907.275	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
907.275	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
907.275	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
907.278	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
907.088	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
907.301	.262		814.519	.197	2011	GPS - RTRN	2025	RTRN2025
907.075	.262		814.290	.197	2011	GPS - RTRN	2019	RTRN2019
907.341	.262		814.555	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.785 12B = -92.789 09 = -92.697 03 = -92.562

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 41.02588	93 58 45.26916	575240.035	269046.764	.131	3	GPS - RTRN	2025	RTRN2025
44 18 41.02383	93 58 45.26918	575240.035	269046.556	.131	3	GPS - RTRN	2019	RTRN2019
44 18 41.02486	93 58 45.26905	575240.044	269046.661	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2630100.097	806137.066	1384189.736	16098806.696	.131	3	GPS - RTRN	2025	RTRN2025
2630100.095	806136.858	1384189.732	16098806.489	.131	3	GPS - RTRN	2019	RTRN2019
2630100.105	806136.962	1384189.743	16098806.593	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_U-AI3316-3S-18SEP2025.jpg	S	Sep 18, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_U-AI3316-2-18SEP2025.jpg		Sep 18, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_U-AI3316-1-18SEP2025.jpg		Sep 18, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 V **NGS Name:** 5206 V

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6213 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	33	110 N	27 W	441722.75	940444.33	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5206 V 2019

5.5 MILES EAST OF NICOLLET, 5.35 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND COUNTY ROAD 42 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 6.3, 86.5 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 99, 65.5 FEET WEST-SOUTHWEST OF COUNTY ROAD 13, 19.8 FEET NORTH-NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.853	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
983.856	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.810	.262		891.360	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.441 12B = -92.451 09 = -92.372 03 = -92.247

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 22.74825	94 04 44.33131	549149.121	261044.166	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603986.230	798220.021	1357987.737	16091210.401	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_V-DR6213-3S-15JUL2019.jpg	S	Jul 15, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_V-DR6213-2-15JUL2019.jpg		Jul 15, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_V-DR6213-1-15JUL2019.jpg		Jul 15, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5206 W
NGS Name: 5206 W
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6214 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	32	110 N	27 W	441700.04	940546.83	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5206 W 2019

4.7 MILES EAST OF NICOLLET, 4.4 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND COUNTY ROAD 42 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 5.3, 63.2 FEET NORTH OF TRUNK HIGHWAY 99, 17.3 FEET WEST OF A FIELD ENTRANCE, 3.2 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
977.465	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
977.465	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
977.341	.262		884.933	.197	2011	GPS - OPUS	2021	GPSBM
977.442	.262		885.034	.197	2011	GPS - OPUS	2021	GPSBM
977.570	.262		885.162	.197	2011	GPS - RTRN	2021	RTRN2021
977.065	.262		884.644	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.408 12B = -92.421 09 = -92.339 03 = -92.218

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 00.04225	94 05 46.83347	544607.391	258734.836	.131	3	GPS - OPUS	2021	GPSBM
44 17 00.04196	94 05 46.83296	544607.428	258734.806	.131	3	GPS - OPUS	2021	GPSBM
44 17 00.04153	94 05 46.83299	544607.426	258734.763	.131	3	GPS - RTRN	2021	RTRN2021
44 17 00.04146	94 05 46.83319	544607.411	258734.756	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2599437.516	795925.706	1353412.491	16088972.203	.131	3	GPS - OPUS	2021	GPSBM
2599437.553	795925.677	1353412.528	16088972.173	.131	3	GPS - OPUS	2021	GPSBM
2599437.551	795925.633	1353412.525	16088972.130	.131	3	GPS - RTRN	2021	RTRN2021
2599437.536	795925.626	1353412.510	16088972.123	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_W-DR6214-3N-12MAY2021.jpg	N	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_W-DR6214-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5206_W-DR6214-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 A
NGS Name: 5208 A
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	3	109 N	28 W	441656.57	941124.38	2	C

NGS ACRN: PQ1751 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1990) **Stamping:** 5208 A 1987

0.5 MILE NORTH OF NICOLLET, 0.4 MILE NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 0.75, 275.0 FEET SOUTH OF A FARM ENTRANCE, 75.0 FEET EAST OF TRUNK HIGHWAY 111, 8.6 FEET NORTH-NORTHEAST OF A POWER POLE, 7.5 FEET NORTH OF AN EAST-WEST FENCE, 0.7 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.628	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
995.628	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
995.628	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
995.628	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
995.628	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
995.628	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC
995.628	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.457	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
995.457	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM
995.441	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.526	.262		903.145	.197	2011	GPS - OPUS	2021	GPSBM
995.739	.262		903.361	.197	2011	GPS - RTRN	2021	RTRN2021
995.621	.262		903.223	.197	2011	GPS - RTRN	2019	RTRN2019
995.628			903.263	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
995.628	.131		903.450	.066	1996	GPS - STATIC	2013	HNMAN
995.628			903.263	.008	2011	GPS - STATIC	2013	HNMAN
995.326	.262		903.017	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.382 12B = -92.398 09 = -92.310 03 = -92.178

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 56.57149	94 11 24.37638	520051.744	258346.501	.131	3	GPS - OPUS	2021	GPSBM
44 16 56.57156	94 11 24.37589	520051.779	258346.508	.131	3	GPS - RTRN	2021	RTRN2021
44 16 56.57183	94 11 24.37577	520051.788	258346.535	.131	3	GPS - RTRN	2019	RTRN2019
44 16 56.57174	94 11 24.37612	520051.763	258346.526	.016		ADJUSTMENT	2013	GPS2964
44 16 56.57174	94 11 24.37612	520051.763	258346.526	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 56.57157	94 11 24.37662	520051.726	258346.509	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 56.57105	94 11 24.37598	520051.773	258346.456	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574883.390	795617.281	1328862.001	16088962.866	.131	3	GPS - OPUS	2021	GPSBM
2574883.425	795617.288	1328862.037	16088962.873	.131	3	GPS - RTRN	2021	RTRN2021
2574883.434	795617.315	1328862.046	16088962.900	.131	3	GPS - RTRN	2019	RTRN2019
2574883.409	795617.306	1328862.020	16088962.891	.016		ADJUSTMENT	2013	GPS2964
2574883.409	795617.306	1328862.020	16088962.891	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574883.372	795617.289	1328861.984	16088962.875	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574883.418	795617.237	1328862.030	16088962.821	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_A-PQ1751-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_A-PQ1751-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_A-PQ1751-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 B **NGS Name:** 5208 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5655 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	33	110 N	28 W	441747.63	941126.53	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	GOOD	Horz=NO Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1990) **Stamping:** 5208 B 1990

1.5 MILES NORTHWEST OF NICOLLET, 1.4 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 1.75, 75.0 FEET WEST OF TRUNK HIGHWAY 111, 21.5 FEET SOUTH OF AN EXTENDED FIELD ENTRANCE, 4.0 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.958	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
993.958	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
993.958	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
993.958	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.778	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
993.801	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.896	.262		901.547	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.336 12B = -92.349 09 = -92.264 03 = -92.136

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 47.63474	94 11 26.53476	519889.945	263517.543	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574738.447	800788.260	1328780.066	16094134.100	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_B-DL5655-3W-23JUN2019.jpg	W	Jun 23, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_B-DL5655-2-23JUN2019.jpg		Jun 23, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_B-DL5655-1-23JUN2019.jpg		Jun 23, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 C

NGS Name: 5208 C

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	110 N	28 W	441843.00	941126.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	1990	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1990)

Stamping:

2.5 MILES NORTHWEST OF NICOLLET, 2.4 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND A RAILROAD IN NICOLLET, AT TRUNK HIGHWAY 111 STATION 130+88, 111.95 FEET SOUTHEAST OF THE CENTER OF THE JUNCTION OF TRUNK HIGHWAY 111 AND COUNTY ROAD 64, 75.0 FEET WEST OF TRUNK HIGHWAY 111.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.888	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Geoid Separations(ft): GEOID18 = -92.290 12B = -92.300 09 = -92.218 03 = -92.093

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5208 D **NGS Name:** 5208 D

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5657 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	110 N	28 W	441936.23	941127.50	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 10 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (1990) **Stamping:** 5208 D 1990

3.5 MILES NORTHWEST OF NICOLLET, 3.45 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 3.85, 75.0 FEET WEST OF TRUNK HIGHWAY 111, 53.5 FEET NORTH OF A DRAINAGE DITCH, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
981.153	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
981.153	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
981.136	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
981.136	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
980.936	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
980.959	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
981.117	.262		888.870	.197	2011	GPS - OPUS	2021	GPSBM
981.002	.262		888.755	.197	2011	GPS - OPUS	2021	GPSBM
981.182	.262		888.935	.197	2011	GPS - RTRN	2021	RTRN2021
981.123	.262		888.863	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.247 12B = -92.257 09 = -92.175 03 = -92.054

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position Latitude	Longitude	Nicollet County X	Y	Acc	Order	Determination Method	Project Info Year	Reference
44 19 36.22840	94 11 27.50370	519809.352	274514.837	.131	3	GPS - OPUS	2021	GPSBM
44 19 36.22919	94 11 27.50370	519809.351	274514.918	.131	3	GPS - OPUS	2021	GPSBM
44 19 36.22861	94 11 27.50308	519809.397	274514.859	.131	3	GPS - RTRN	2021	RTRN2021
44 19 36.22864	94 11 27.50265	519809.428	274514.862	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone X	Y	UTM - Zone 15 X	Y	Acc	Order	Determination Method	Project Info Year	Reference
2574693.670	811784.537	1328869.265	16105127.724	.131	3	GPS - OPUS	2021	GPSBM
2574693.671	811784.617	1328869.266	16105127.804	.131	3	GPS - OPUS	2021	GPSBM
2574693.716	811784.558	1328869.310	16105127.745	.131	3	GPS - RTRN	2021	RTRN2021
2574693.747	811784.561	1328869.341	16105127.747	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_D-DL5657-3W-12MAY2021.jpg	W	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_D-DL5657-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_D-DL5657-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 E

NGS Name: 5208 E

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	110 N	28 W	442033.00	941126.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	1990	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1990) **Stamping:** 5208 E

4.6 MILES NORTHWEST OF NICOLLET, 4.5 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND AN ABANDONED RAILROAD IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 5.0, 0.15 MILE SOUTH OF THE CENTER OF THE JUNCTION OF TRUNK HIGHWAY 111 AND COUNTY ROAD 5, 75.0 FEET LEFT OF TRUNK HIGHWAY 111.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.629	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Geoid Separations(ft): GEOID18 = -92.211 12B = -92.221 09 = -92.139 03 = -92.018

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5208 F
NGS Name: 5208 F
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5659 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	110 N	28 W	442119.00	941124.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2019	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 4 IN.	MARKER W/BAR MAGNET

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (1990)

Stamping: 5208 F 1990

5.5 MILES NORTH OF NICOLLET, 5.4 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 5.8, 75.0 FEET EAST OF TRUNK HIGHWAY 111, 28.5 FEET SOUTH OF A FIELD ENTRANCE EXTENDED, 0.6 FOOT NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.999	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
987.003	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.780	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
986.950	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Geoid Separations(ft): GEOID18 = -92.185 12B = -92.191 09 = -92.113 03 = -91.991

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5208 G **NGS Name:** 5208 G

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6564 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	3	110 N	28 W	442210.27	941124.90	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 12 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (2003) **Stamping:** 5208 G 1990

6.5 MILES NORTHWEST OF NICOLLET, 6.35 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 6.8, 113.0 FEET WEST-SOUTHWEST OF A POWER POLE, 75.0 FEET EAST OF TRUNK HIGHWAY 111, 50.0 FEET SOUTH OF 400TH STREET, 2.0 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.390	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
988.390	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
988.308	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
988.308	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.075	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
987.058	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
988.413	.262		896.255	.197	2011	GPS - RTRN	2021	RTRN2021
988.331	.262		896.163	.197	2011	GPS - RTRN	2019	RTRN2019
			896.288	.009	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			896.373	.010	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
988.449	.131		896.504	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
988.449	.131		896.504	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.159 12B = -92.168 09 = -92.083 03 = -91.962

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.26725	94 11 24.89526	519984.482	290114.772	.131	3	GPS - RTRN	2021	RTRN2021
44 22 10.26693	94 11 24.89561	519984.457	290114.740	.131	3	GPS - RTRN	2019	RTRN2019
44 22 10.26728	94 11 24.89544	519984.469	290114.775	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.26728	94 11 24.89622	519984.412	290114.775	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.26671	94 11 24.89568	519984.451	290114.717	.033	C	ADJUSTMENT	2003	GPS1882
44 22 10.26671	94 11 24.89568	519984.452	290114.718	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574919.574	827382.024	1329285.267	16120717.946	.131	3	GPS - RTRN	2021	RTRN2021
2574919.549	827381.992	1329285.241	16120717.913	.131	3	GPS - RTRN	2019	RTRN2019
2574919.561	827382.027	1329285.253	16120717.949	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574919.505	827382.027	1329285.197	16120717.949	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574919.544	827381.969	1329285.235	16120717.891	.033	C	ADJUSTMENT	2003	GPS1882
2574919.544	827381.969	1329285.235	16120717.891	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_G-DF6564-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_G-DF6564-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_G-DF6564-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 H **NGS Name:** 5208 H

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5660 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	33	111 N	28 W	442259.13	941126.45	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2019	GOOD	Horz=NO Vert=YES	YES		RECESSED 3 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1990) **Stamping:** 5208 H 999.20

7.5 MILES NORTHWEST OF NICOLLET, 7.3 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 7.75, 75.0 FEET WEST OF TRUNK HIGHWAY 111, 104.0 FEET NORTH OF DRIVEWAYS NUMBER 39118 AND 39112, 5.2 FEET NORTH-NORTHEAST OF A CORNER STEEL FENCE POST, 0.6 FOOT EAST OF A WITNESS POST.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.342	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
999.342	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
999.342	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
999.345	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.102	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
999.201	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.184	.262		907.036	.197	2011	GPS - RTRN	2019	RTRN2019
999.138	.262		906.990	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.139 12B = -92.149 09 = -92.060 03 = -91.939

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 59.12729	94 11 26.45453	519866.641	295062.834	.131	3	GPS - RTRN	2019	RTRN2019
44 22 59.12681	94 11 26.45511	519866.599	295062.786	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574817.859	832329.860	1329243.940	16125665.596	.131	3	GPS - RTRN	2019	RTRN2019
2574817.817	832329.811	1329243.898	16125665.548	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_H-DL5660-3W-24JUN2019.jpg	W	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_H-DL5660-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_H-DL5660-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 I **NGS Name:** 5208 I

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6565 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	21	111 N	28 W	442355.36	941126.01	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1990) **Stamping:** 5208 I 989.36

8.5 MILES NORTH OF NICOLLET, 8.35 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 8.85, 76.0 FEET WEST OF TRUNK HIGHWAY 111, 59.5 FEET NORTH OF COUNTY ROAD 61 (380TH STREET), 18.7 FEET NORTH OF A POWER POLE WITH 3 GUY WIRES, 1.3 FEET SOUTH OF A WITNESS POST.

Station Pair: SWEDEN - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
989.594	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
989.594	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
989.565	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
989.568	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
989.312	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC
989.362	.033	3				VERTICAL CONTROL SURVEY	1959	CS5208

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
989.594	.262		897.472	.197	2011	GPS - RTRN	2019	RTRN2019
989.486	.262		897.364	.197	2011	GPS - RTRN	2015	RTRN2015
			897.475	.011	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			897.557	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
989.565	.131		897.688	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
989.565	.131		897.688	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.116 12B = -92.123 09 = -92.031 03 = -91.909

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position Latitude	Longitude	Nicollet County X	Y	Acc	Order	Determination Method	Project Info Year	Reference
44 23 55.36016	94 11 26.00989	519893.665	300757.715	.131	3	GPS - RTRN	2019	RTRN2019
44 23 55.36004	94 11 26.00938	519893.701	300757.703	.131	3	GPS - RTRN	2015	RTRN2015
44 23 55.36013	94 11 26.00922	519893.713	300757.712	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position Latitude	Longitude	Nicollet County X	Y	Acc	Order	Determination Method	Project Info Year	Reference
44 23 55.36014	94 11 26.00996	519893.659	300757.713	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position Latitude	Longitude	Nicollet County X	Y	Acc	Order	Determination Method	Project Info Year	Reference
44 23 55.35958	94 11 26.00940	519893.700	300757.657	.033	C	ADJUSTMENT	2003	GPS1882
44 23 55.35958	94 11 26.00940	519893.701	300757.656	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574863.422	838023.941	1329358.975	16131357.483	.131	3	GPS - RTRN	2019	RTRN2019
2574863.459	838023.929	1329359.012	16131357.470	.131	3	GPS - RTRN	2015	RTRN2015
2574863.470	838023.938	1329359.024	16131357.479	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574863.417	838023.939	1329358.970	16131357.481	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574863.457	838023.882	1329359.010	16131357.424	.033	C	ADJUSTMENT	2003	GPS1882
2574863.457	838023.882	1329359.010	16131357.424	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_I-DF6565-3W-24JUN2019.jpg	W	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_I-DF6565-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_I-DF6565-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 J **NGS Name:** 5208 J

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5656 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	110 N	28 W	441846.00	941121.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5208 J 1990

2.5 MILES NORTHWEST OF NICOLLET, 2.45 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 2.8, THEN 350.0 FEET EAST ON TOWNSHIP ROAD 83, 34.0 FEET NORTH OF A GRAVEL TOWNSHIP ROAD 83, 2.5 FEET WEST OF A POWER POLE, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.661	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
986.661	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.471	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC

Geoid Separations(ft): GEOID18 = -92.287 12B = -92.296 09 = -92.214 03 = -92.090

*** No Horizontal Positions in the Database ***

5208 J RESET

Mn/DOT Name: 5208 J RESET **NGS Name:** 5208 J RESET

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6208 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	110 N	28 W	441845.44	941122.53	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2023	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description:

Stamping: 5208 J RESET 2019

2.5 MILES NORTHWEST OF NICOLLET, 2.45 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 2.8, THEN 350.0 FEET EAST ON TOWNSHIP ROAD 83, 34.0 FEET NORTH OF A GRAVEL TOWNSHIP ROAD 83, 2.5 FEET WEST OF A POWER POLE, 1.0 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.330	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
986.330	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.301	.262		894.004	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.287 12B = -92.296 09 = -92.214 03 = -92.090

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 45.43676	94 11 22.52963	520175.765	269371.457	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575043.294	806640.567	1329156.110	16099980.989	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_J_RESET-DR6208-3N-14JUL2019.jpg	N	Jul 14, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_J_RESET-DR6208-2-14JUL2019.jpg		Jul 14, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_J_RESET-DR6208-1-14JUL2019.jpg		Jul 14, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 K

NGS Name: 5208 K

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AC4890 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	15	110 N	28 W	442008.20	941125.40	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2022	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	VERTICAL CONTROL DISK	MNDT

Description: (2008) **Stamping:** 5208 K 1990

4.1 MILES NORTHWEST OF NICOLLET, 4.05 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 4.4, 69.0 FEET EAST OF TRUNK HIGHWAY 111, 18.5 FEET NORTHEAST OF THE SOUTH END OF A 24.0 INCH DIAMETER METAL CULVERT, 11.0 FEET SOUTH OF A FIELD ENTRANCE EXTENDED, 5.0 FEET NORTHWEST OF A WITNESS POST.

Station Pair: 5208 L - NICOLLET, MN

Station Notes
DISTRICT 7 BELIEVES WHEN THEY PLACED THE NEW UTILITY PEDESTAL, THEY TOOK OUT THE MONUMENT.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.285	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
982.285	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
982.285	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
982.285	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.075	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.193	.262		889.956	.197	2011	GPS - RTRN	2019	RTRN2019
982.285			890.061	.011	2011	HORIZONTAL ADJUSTMENT	2018	GPS3119
982.285	.131		890.280	.066	1996	GPS - STATIC	2017	HMNCORS07
982.285			890.061	.011	2011	GPS - STATIC	2017	HMNPH
982.285			890.061	.010	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
982.285			890.061	.010	2011	GPS - STATIC	2016	HNORS
982.285	.131		890.280	.066	1996	GPS - STATIC	2016	HNORS
982.347	.262		890.110	.197	2011	GPS - RTRN	2015	RTRN2015
			890.057	.011	2011	HORIZONTAL ADJUSTMENT	2015	GPS3023
982.285			890.061	.006	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
982.285	.131		890.254	.066	1996	GPS - STATIC	2013	HNMAN
982.285			890.064	.006	2011	GPS - STATIC	2013	HNMAN
			890.061	.006	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
982.219	.262		890.067	.197	2007	GPS - RTRN	2011	RTRN2011
			890.146	.049	2007	HORIZONTAL ADJUSTMENT	2009	GPS2259-B
			890.146	.008	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
982.281	.098		890.280	.049	1996	HORIZONTAL ADJUSTMENT	2006	GPS2259
982.281	.098		890.280	.049	1996	GPS - STATIC	2006	HJADA
982.281	.098		890.280	.049	1996	GPS - STATIC	2005	GPS2036
982.281	.131		890.280	.066	1996	HORIZONTAL ADJUSTMENT	2004	GPS2043
982.281	.131		890.280	.066	1996	GPS - STATIC	2004	HHAMB
982.281	.131		890.280	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
982.281	.131		890.280	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
982.281	.131		890.280	.066	1996	GPS - STATIC	2002	HNICO
982.281	.131		890.280	.066	1996	GPS - STATIC	2002	HSUER
982.334	.098		890.280	.049	1996	GPS - STATIC	1997	GPS805-B

Geoid Separations(ft): GEOID18 = -92.224 12B = -92.237 09 = -92.152 03 = -92.031

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 08.20118	94 11 25.40003	519959.277	277752.900	.131	3	GPS - RTRN	2019	RTRN2019
44 20 08.20125	94 11 25.40042	519959.249	277752.907	.007		ADJUSTMENT	2018	GPS3119
44 20 08.20125	94 11 25.40042	519959.249	277752.907	.007	C	GPS - STATIC	2017	HMNPH
44 20 08.20125	94 11 25.40042	519959.249	277752.907	.007		ADJUSTMENT	2016	GPS3139
44 20 08.20125	94 11 25.40042	519959.249	277752.907	.007	C	GPS - STATIC	2016	HNORS
44 20 08.20085	94 11 25.39987	519959.289	277752.867	.131	3	GPS - RTRN	2015	RTRN2015
44 20 08.20115	94 11 25.40019	519959.266	277752.897	.007		ADJUSTMENT	2015	GPS3023
44 20 08.20125	94 11 25.40042	519959.249	277752.907	.007		ADJUSTMENT	2013	GPS2964
44 20 08.20121	94 11 25.40032	519959.256	277752.903	.007	C	GPS - STATIC	2013	HNMAN
44 20 08.20125	94 11 25.40042	519959.249	277752.907	.003		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 08.20132	94 11 25.40059	519959.236	277752.914	.131	3	GPS - RTRN	2011	RTRN2011
44 20 08.20125	94 11 25.40113	519959.197	277752.907	.016	B	ADJUSTMENT	2009	GPS2259-B
44 20 08.20125	94 11 25.40123	519959.190	277752.907	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	GPS - STATIC	2017	HMNCORS07
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	GPS - STATIC	2016	HNORS
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	GPS - STATIC	2013	HNMAN
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.016	B	ADJUSTMENT	2006	GPS2259
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.016	B	GPS - STATIC	2006	HJADA
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.016	B	GPS - STATIC	2005	GPS2036
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	ADJUSTMENT	2004	GPS2043
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	GPS - STATIC	2004	HHAMB
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	ADJUSTMENT	2003	GPS1882
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	ADJUSTMENT	2003	GPS1847
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	GPS - STATIC	2002	HNICO
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.033	C	GPS - STATIC	2002	HSUER
44 20 08.20068	94 11 25.40073	519959.226	277752.850	.016	B	GPS - STATIC	1997	GPS805-B

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574854.122	815021.728	1329069.123	16108362.021	.131	3	GPS - RTRN	2019	RTRN2019
2574854.093	815021.734	1329069.094	16108362.028	.007		ADJUSTMENT	2018	GPS3119
2574854.093	815021.734	1329069.094	16108362.028	.007	C	GPS - STATIC	2017	HMNPH
2574854.093	815021.734	1329069.094	16108362.028	.007		ADJUSTMENT	2016	GPS3139
2574854.093	815021.734	1329069.094	16108362.028	.007	C	GPS - STATIC	2016	HNORS
2574854.133	815021.694	1329069.134	16108361.987	.131	3	GPS - RTRN	2015	RTRN2015
2574854.110	815021.724	1329069.111	16108362.018	.007		ADJUSTMENT	2015	GPS3023
2574854.093	815021.734	1329069.094	16108362.028	.007		ADJUSTMENT	2013	GPS2964
2574854.101	815021.731	1329069.102	16108362.024	.007	C	GPS - STATIC	2013	HNMAN
2574854.093	815021.734	1329069.094	16108362.028	.003		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574854.081	815021.742	1329069.082	16108362.036	.131	3	GPS - RTRN	2011	RTRN2011
2574854.042	815021.735	1329069.043	16108362.029	.016	B	ADJUSTMENT	2009	GPS2259-B
2574854.035	815021.735	1329069.035	16108362.029	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574854.071	815021.677	1329069.071	16108361.971	.033	C	GPS - STATIC	2017	HMNCORS07
2574854.071	815021.677	1329069.071	16108361.971	.033	C	GPS - STATIC	2016	HNORS
2574854.071	815021.677	1329069.071	16108361.971	.033	C	GPS - STATIC	2013	HNMAN
2574854.071	815021.677	1329069.071	16108361.971	.016	B	ADJUSTMENT	2006	GPS2259
2574854.071	815021.677	1329069.071	16108361.971	.016	B	GPS - STATIC	2006	HJADA
2574854.071	815021.677	1329069.071	16108361.971	.016	B	GPS - STATIC	2005	GPS2036
2574854.071	815021.677	1329069.071	16108361.971	.033	C	ADJUSTMENT	2004	GPS2043
2574854.071	815021.677	1329069.071	16108361.971	.033	C	GPS - STATIC	2004	HHAMB
2574854.071	815021.677	1329069.071	16108361.971	.033	C	ADJUSTMENT	2003	GPS1882
2574854.071	815021.677	1329069.071	16108361.971	.033	C	ADJUSTMENT	2003	GPS1847
2574854.071	815021.677	1329069.071	16108361.971	.033	C	GPS - STATIC	2002	HNICO
2574854.071	815021.677	1329069.071	16108361.971	.033	C	GPS - STATIC	2002	HSUER
2574854.071	815021.677	1329069.071	16108361.971	.016	B	GPS - STATIC	1997	GPS805-B

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_K-AC4890-3E-24JUN2019.jpg	E	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_K-AC4890-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_K-AC4890-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 L **NGS Name:** 5208 L

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DL5658 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	110 N	28 W	442041.07	941122.47	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	POOR	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)	VERTICAL CONTROL DISK	MNDT

Description: (1990) **Stamping:** 5208 L 1990

4.7 MILES NORTHWEST OF NICOLLET, 4.7 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 290.0 FEET EAST ON COUNTY ROAD 5, 52.5 FEET NORTH OF COUNTY ROAD 5, 4.2 FEET SOUTH-SOUTHEAST OF A POWER POLE, 1.0 FEET SOUTH OF A WITNESS POST.

Station Pair: 5208 K - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.905	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
982.905	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
982.905	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
982.905	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.692	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.839	.262		890.625	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.208 12B = -92.214 09 = -92.132 03 = -92.011

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 41.06730	94 11 22.46886	520169.210	281081.497	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575074.867	818349.243	1329330.366	16111685.881	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_L-DL5658-3NE-24JUN2019.jpg	NE	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_L-DL5658-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_L-DL5658-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 M
NGS Name: 5208 M
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	22	111 N	28 W	442432.54	941124.12	2	3

NGS ACRN: DL5661 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)
Disk Type: VERTICAL CONTROL DISK
Mon. Agency: MNDT

Description: (1990)
Stamping: 5208 M 1990

9.2 MILES NORTHWEST OF NICOLLET, 9.25 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, 0.25 MILE SOUTH OF THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111, AT TRUNK HIGHWAY 111 MILEPOINT 9.55, 66.5 FEET EAST OF TRUNK HIGHWAY 111, 50.0 FEET SOUTH OF A FIELD ENTRANCE, 1.3 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.482	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
992.482	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
992.482	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
992.462	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS
992.462	.016	2/1				VERTICAL ADJUSTMENT	2013	00000800
992.465	.016	2/1				VERTICAL CONTROL SURVEY	1996	VNIC

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.203	.016	2/1				VERTICAL CONTROL SURVEY	1991	VNIC

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.350	.262		900.241	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.100 12B = -92.109 09 = -92.014 03 = -91.893

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 32.53909	94 11 24.11700	520027.594	304523.064	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575009.595	841788.378	1329551.056	16135119.053	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_M-DL5661-3E-07JUL2019.jpg	E	Jul 7, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_M-DL5661-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_M-DL5661-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 N **NGS Name:** 5208 N

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6209 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	27	110 N	28 W	441753.49	941124.69	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5208 N 2019

1.5 NORTH OF NICOLLET, 1.5 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 1.85, 63.7 FEET EAST OF TRUNK HIGHWAY 111, 12.5 FEET SOUTH OF A FIELD ENTRANCE, 29.0 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.005	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
991.005	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.150	.262		898.807	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.329 12B = -92.346 09 = -92.257 03 = -92.132

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 53.49054	94 11 24.68849	520023.679	264110.686	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574874.096	801380.900	1328922.894	16094724.915	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_N-DR6209-3E-16JUL2019.jpg	E	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_N-DR6209-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_N-DR6209-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 P **NGS Name:** 5208 P

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6207 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	110 N	28 W	442132.87	941124.78	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 41 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5208 P 2019

6.0 MILES NORTH OF NICOLLET, 5.8 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 6.1, 46.2 FEET EAST OF TRUNK HIGHWAY 111, 15.7 FEET SOUTH OF A FIELD ENTRANCE, 1.9 FEET EAST OF THE END OF A GUARD RAIL, 3.4 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.039	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
983.039	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.039	.262		890.851	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.178 12B = -92.185 09 = -92.103 03 = -91.981

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 32.86638	94 11 24.77923	519996.431	286327.120	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574919.189	823594.795	1329238.692	16116931.815	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_P-DR6207-3E-16JUL2019.jpg	E	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_P-DR6207-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_P-DR6207-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5208 Q **NGS Name:** 5208 Q

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6206 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	28	111 N	28 W	442303.11	941126.29	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 24 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** 5208 Q 2019

8.0 MILES NORTH OF NICOLLET, 7.5 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 7.8, 66.6 FEET WEST OF TRUNK HIGHWAY 111, 48.0 FEET NORTH OF COUNTY ROAD 15, 11.1 FEET EAST OF A FIELD ENTRANCE, 2.8 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.963	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
996.963	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.940	.262		904.795	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.139 12B = -92.145 09 = -92.057 03 = -91.936

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 03.11409	94 11 26.29134	519878.120	295466.598	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574830.651	832733.536	1329261.654	16126069.000	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_Q-DR6206-3W-16JUL2019.jpg	W	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_Q-DR6206-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5208_Q-DR6206-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 A

NGS Name: 5209 A

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3327 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	21	110 N	26 W	441849.00	935756.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	1999	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	MNDT

Description: (1991) **Stamping:** 5209 A 1990

AT THE SOUTH EDGE OF ST. PETER, AT THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22, 34.5 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 20.5 FEET NORTH OF EASTBOUND TRUNK HIGHWAY 22, AT TRUNK HIGHWAY 22 MILEPOINT 64.1, 11.7 FEET EAST OF THE WEST NOSE OF A MEDIAN, 7.0 FEET WEST OF A STOP SIGN.

Station Notes

THE STOP SIGN WITH A WITNESS SIGN DISK WAS REPORTED AS BEING RETURNED TO THE GEODETIC UNIT OCTOBER 1999 BY DISTRICT 6 SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
777.876	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
777.876	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
777.685	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE
777.754	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Geoid Separations(ft): GEOID18 = -92.844 12B = -92.844 09 = -92.749 03 = -92.615

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5209 B

NGS Name: 5209 B

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	15	110 N	26 W	442012.00	935652.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5209 B 1966

1.1 MILES NORTHEAST OF ST. PETER, 0.95 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169/TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 67.3, 300.0 FEET BEHIND A CAR WASH, 95.0 FEET NORTH OF SOUTHBOUND TRUNK HIGHWAY 169, 30.0 FEET NORTH OF THE SAINT PETER WELCOMES YOU, HOME OF 5 GOVERNORS SIGN, 1.0 FOOT SOUTHEAST OF A FENCE POST.

Station Notes

RECOVERED BY DOUG SCHAFFER, DEPARTMENT OF NATURAL RESOURCES (DNR)-WATERS. REPORTED THAT THE POST IS BROKEN, AND THE DISK IS GONE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
755.159	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Geoid Separations(ft): GEOID18 = -92.841 12B = -92.838 09 = -92.743 03 = -92.598

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5209 C

NGS Name: 5209 C

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	9	110 N	26 W	442056.00	935702.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1968	2013	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 3 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5209 C 1966

1.8 MILES NORTHEAST OF ST. PETER, 1.8 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 68.2, 100.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 30.0 FEET SOUTH OF A TOWNSHIP ROAD CROSSING EXTENDED, 1.5 FEET WEST OF A FENCE POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
754.405	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Geoid Separations(ft): GEOID18 = -92.785 12B = -92.782 09 = -92.693 03 = -92.546

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5209 D

NGS Name: 5209 D

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1993 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	9	110 N	26 W	442119.18	935720.76	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2019	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1979) **Stamping:** 5209 D 1966

2.3 MILES NORTHEAST OF ST. PETER, 0.45 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 NORTH IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 68.65, 71.5 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 1.0 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
771.176	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
771.176	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
771.166	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
771.193	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
771.193	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
771.098	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
771.166	.262		678.424	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.743 12B = -92.743 09 = -92.654 03 = -92.506

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 19.18319	93 57 20.76214	581324.364	285085.792	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636235.654	822154.482	1390518.620	16114744.041	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_D-DP1993-3W-28AUG2013.jpg	W	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_D-DP1993-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_D-DP1993-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 E **NGS Name:** 5209 E

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1994 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	4	110 N	26 W	442156.09	935748.97	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2019	GOOD	Horz=NO Vert=YES	YES	52001	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	BENCH MARK DISK	MNDT

Description: (1979) **Stamping:** 5209 E 1966

2.9 MILES NORTH OF ST. PETER, 1.25 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 69.5, IN THE SOUTHEAST BRIDGE ABUTMENT OF SOUTHBOUND TRUNK HIGHWAY 169 BRIDGE NUMBER 52001 OVER ROGERS CREEK, 18.0 FEET EAST OF SOUTHBOUND TRUNK HIGHWAY 169.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
758.388	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
758.414	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
758.414	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
758.296	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
758.266	.262		665.586	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.684 12B = -92.684 09 = -92.602 03 = -92.447

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 56.08607	93 57 48.97183	579260.875	288815.343	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634184.493	825890.262	1388513.712	16118503.624	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_E-DP1994-3N-28AUG2013.jpg	N	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_E-DP1994-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_E-DP1994-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 F

NGS Name: 5209 F

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	33	111 N	26 W	442219.00	935750.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5209 F 1966

3.5 MILES NORTHEAST OF ST. PETER, 3.5 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 69.9, 80.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169. THE CONCRETE IS BROKEN OFF.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
748.837	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Geoid Separations(ft): GEOID18 = -92.667 12B = -92.664 09 = -92.585 03 = -92.428

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5209 G

NGS Name: 5209 G

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	111 N	26 W	442238.00	935749.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5209 G 1966

3.7 MILES NORTHEAST OF ST. PETER, 3.9 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169/ TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 70.4, 80.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 0.5 FOOT SOUTH OF A FENCE POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
739.359	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Geoid Separations(ft): GEOID18 = -92.654 12B = -92.651 09 = -92.569 03 = -92.415

*** No Horizontal Positions in the Database ***

5209 H

Mn/DOT Name: 5209 H

NGS Name: 5209 H

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	111 N	26 W	442305.00	935754.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5209 H 1966

4.25 MILES NORTHEAST OF ST. PETER, 4.35 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 70.8, 95.0 FEET NORTH OF NORTHBOUND TRUNK HIGHWAY 169, 25.0 FEET NORTH OF LAND LINE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
747.098	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Geoid Separations(ft): GEOID18 = -92.628 12B = -92.624 09 = -92.542 03 = -92.388

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5209 H 1 **NGS Name:** 5209 H 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1996 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	111 N	26 W	442422.88	935736.94	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1980	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER IS STEEL ROD

Monument Type	Disk Type	Mon. Agency
COPPER CLAD ROD (NO SLEEVE)	VERTICAL CONTROL DISK	MNDT

Description: (1980) **Stamping:** 5209 H 1 1980

5.7 MILES NORTH OF ST. PETER, 4.15 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 NORTH IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 72.4, 72.5 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 2.5 FEET EAST OF A FENCE LINE, 0.5 FOOT EAST OF A WITNESS POST.

Station Pair: 5209 S - NICOLLET, MN

Station Notes
THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
787.177	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
787.177	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
787.177	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
787.213	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
787.216	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
787.059	.033	3				VERTICAL CONTROL SURVEY	1980	CS5209

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
787.243	.262		694.680	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.569 12B = -92.565 09 = -92.487 03 = -92.329

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 22.87830	93 57 36.93772	580079.748	303684.503	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635051.419	840754.922	1389561.801	16133352.849	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_H_1-DP1996-3W-16AUG2019.jpg	W	Aug 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_H_1-DP1996-2-16AUG2019.jpg		Aug 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_H_1-DP1996-1-16AUG2019.jpg		Aug 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5209 H 2

Mn/DOT Name: 5209 H 2 **NGS Name:** 5209 H 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	111 N	26 W	442450.00	935730.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1980	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	SURVEY DISK	MNDT

Description: (1980) **Stamping:** 5209 H 2 1980

6.25 MILES NORTH OF ST. PETER, 6.5 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169/ TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 72.9, 120.0 FEET WEST OF NORTHBOUND TRUNK HIGHWAY 169, 69.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
828.945	.033	3				VERTICAL CONTROL SURVEY	1980	CS5209

Geoid Separations(ft): GEOID18 = -92.549 12B = -92.546 09 = -92.467 03 = -92.306

*** No Horizontal Positions in the Database ***

5209 H 3

Mn/DOT Name: 5209 H 3 **NGS Name:** 5209 H 3

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	16	111 N	26 W	442515.00	935720.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1980	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
COPPER CLAD ROD (NO SLEEVE)	SURVEY DISK	MNDT

Description: (1980) **Stamping:** 5209 H 3 1980

6.7 MILES NORTH OF ST. PETER, 7.0 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169/ TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 73.4, 74.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
815.871	.033	3				VERTICAL CONTROL SURVEY	1980	CS5209

Geoid Separations(ft): GEOID18 = -92.533 12B = -92.533 09 = -92.451 03 = -92.287

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5209 J

NGS Name: 5209 J

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	16	111 N	26 W	442528.00	935708.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5209 J 1966

7.0 MILES NORTH OF ST. PETER, 7.3 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169/ TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 73.7, 70.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169. THE CONCRETE WAS BROKEN OFF.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
774.500	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Geoid Separations(ft): GEOID18 = -92.529 12B = -92.526 09 = -92.444 03 = -92.277

*** No Horizontal Positions in the Database ***

5209 K RESET 1979

Mn/DOT Name: 5209 K RESET 1979 **NGS Name:** 5209 K RESET

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1998 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	111 N	26 W	442554.23	935654.66	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1979	2013	GOOD	Horz=NO Vert=NO	YES	52004	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	VERTICAL CONTROL DISK	MNDT

Description: (1979) **Stamping:** 5209 K RESET 1979

2.6 MILES SOUTHWEST OF LE SUEUR, 2.4 MILES SOUTH ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 93 SOUTH OF LE SUEUR, AT TRUNK HIGHWAY 169 MILEPOINT 74.3, IN THE SOUTHEAST ABUTMENT OF NORTHBOUND TRUNK HIGHWAY 169 DOUBLE BOX CULVERT NUMBER 52004 AT BARNEY FRY CREEK, 46.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169.

Station Notes

THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
753.384	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
753.427	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
753.427	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
753.365	.033	3				VERTICAL CONTROL SURVEY	1979	CS5209

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
753.407	.262		660.904	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.506 12B = -92.503 09 = -92.424 03 = -92.254

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 54.22683	93 56 54.66429	583112.905	312947.261	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2638114.180	850006.675	1392736.558	16142564.172	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_K_RESET-DP1998-3E-28AUG2013.jpg	E	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_K_RESET-DP1998-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_K_RESET-DP1998-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5209 L RESET 1979

Mn/DOT Name: 5209 L RESET 1979 **NGS Name:** 5209 L RESET

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1999 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	111 N	26 W	442639.44	935632.16	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1979	2019	GOOD	Horz=NO Vert=NO	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	VERTICAL CONTROL DISK	MNDT

Description: (1979) **Stamping:** 5209 L RESET 1979

1.8 MILES SOUTHWEST OF LE SUEUR, 1.5 MILES SOUTH ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 93 AND TRUNK HIGHWAY 169 SOUTH IN LE SUEUR, AT TRUNK HIGHWAY 169 MILEPOINT 75.2, IN THE SOUTHEAST HEADWALL OF A NORTHBOUND TRUNK HIGHWAY 169 BOX CULVERT, 46.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
753.089	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
753.132	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
753.132	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
753.037	.033	3				VERTICAL CONTROL SURVEY	1979	CS5209

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
753.138	.262		660.684	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.457 12B = -92.457 09 = -92.378 03 = -92.205

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 39.43948	93 56 32.15974	584727.913	317532.466	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2639743.822	854586.056	1394421.616	16147122.142	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:		E	
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_L_RESET-DP1999-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_L_RESET-DP1999-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 21010

5209 M

04/28/2026
Sheet Help

Mn/DOT Name: 5209 M
NGS Name: 5209 M
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP2000 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	111 N	26 W	442639.60	935635.17	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1979) **Stamping:** 5209 M 1966

2.6 MILES SOUTHWEST OF LE SUEUR, 1.5 MILES SOUTH ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 93 SOUTH IN LE SUEUR, AT TRUNK HIGHWAY 169 MILEPOINT 75.2, 88.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 98.0 FEET SOUTH OF DRIVEWAY NUMBER 34876, 1.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
754.880	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
754.880	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
754.880	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
754.926	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
754.923	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
754.805	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
755.002	.262		662.548	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.454 12B = -92.454 09 = -92.378 03 = -92.205

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 39.60499	93 56 35.16532	584509.791	317548.369	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2639525.780	854602.662	1394203.847	16147141.407	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_M-DP2000-3W-28AUG2013.jpg	W	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_M-DP2000-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_M-DP2000-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 N
NGS Name: 5209 N
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6566 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	111 N	26 W	442659.28	935628.84	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (2006) **Stamping:** 5209 N 1966

1.6 MILES SOUTHWEST OF LE SUEUR, 1.15 MILES SOUTH ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 93 SOUTH IN LE SUEUR, AT TRUNK HIGHWAY 169 MILEPOINT 75.55, 74.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 1.0 FOOT EAST-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
754.437	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
754.441	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
754.437	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
754.483	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
754.483	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
754.349	.033	3				VERTICAL CONTROL SURVEY	1966	CS5209

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
754.483			662.066	.010	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
754.483			662.059	.010	2011	GPS - STATIC	2013	HSUEUR
754.483	.131		662.269	.066	1996	GPS - STATIC	2013	HSUEUR
754.395	.262		661.964	.197	2011	GPS - RTRN	2013	RTRN2013
			662.066	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			662.154	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
754.493	.131		662.269	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
754.493	.131		662.269	.066	1996	GPS - STATIC	2007	HSIBL
			662.154	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
754.493	.131		662.269	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
754.493	.131		662.269	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.428 12B = -92.431 09 = -92.355 03 = -92.182

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 59.28309	93 56 28.84105	584960.738	319543.046	.007		ADJUSTMENT	2014	GPS2977
44 26 59.28305	93 56 28.84103	584960.740	319543.041	.007	C	GPS - STATIC	2013	HSUEUR
44 26 59.28281	93 56 28.84058	584960.772	319543.017	.131	3	GPS - RTRN	2013	RTRN2013
44 26 59.28309	93 56 28.84105	584960.738	319543.046	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 59.28319	93 56 28.84189	584960.677	319543.055	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 59.28320	93 56 28.84190	584960.676	319543.056	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 59.28268	93 56 28.84121	584960.726	319543.004	.033	C	GPS - STATIC	2013	HSUEUR
44 26 59.28268	93 56 28.84121	584960.726	319543.004	.033	C	ADJUSTMENT	2008	GPS2397
44 26 59.28268	93 56 28.84121	584960.726	319543.004	.033	C	GPS - STATIC	2007	HSIBL
44 26 59.28268	93 56 28.84121	584960.726	319543.004	.033	C	ADJUSTMENT	2003	GPS1882
44 26 59.28268	93 56 28.84121	584960.726	319543.003	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2639983.125	856595.618	1394685.396	16149128.121	.007		ADJUSTMENT	2014	GPS2977
2639983.126	856595.615	1394685.397	16149128.117	.007	C	GPS - STATIC	2013	HSUEUR
2639983.159	856595.590	1394685.429	16149128.092	.131	3	GPS - RTRN	2013	RTRN2013
2639983.125	856595.618	1394685.396	16149128.121	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2639983.064	856595.629	1394685.335	16149128.132	.033	C	ADJUSTMENT	2009	GPS2397-B
2639983.063	856595.630	1394685.334	16149128.133	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2639983.113	856595.577	1394685.384	16149128.080	.033	C	GPS - STATIC	2013	HSUEUR
2639983.113	856595.577	1394685.384	16149128.080	.033	C	ADJUSTMENT	2008	GPS2397
2639983.113	856595.577	1394685.384	16149128.080	.033	C	GPS - STATIC	2007	HSIBL
2639983.113	856595.577	1394685.384	16149128.080	.033	C	ADJUSTMENT	2003	GPS1882
2639983.113	856595.577	1394685.383	16149128.080	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_N-DF6566-3W-28AUG2013.jpg	W	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_N-DF6566-2-11APR2007.jpg		Apr 11, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_N-DF6566-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 P **NGS Name:** 5209 P

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0992 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	110 N	26 W	441933.99	935721.26	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5209 P 2013

IN ST. PETER, AT THE JUNCTION OF TRUNK HIGHWAY 169 AND COUNTY ROAD 5 (BROADWAY AVENUE) IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 66.45, 77.1 FEET NORTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 40.8 FEET NORTHEAST OF COUNTY ROAD 5 (BROADWAY AVENUE), 1.5 FEET SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
764.795	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
764.795	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
764.795	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
764.795	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
764.795	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
764.811	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
764.811	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
764.788	.262		671.944	.197	2011	GPS - RTRN	2025	RTRN2025
764.831	.262		671.990	.197	2011	GPS - RTRN	2019	RTRN2019
764.811			671.951	.014	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
764.811			671.951	.014	2011	GPS - STATIC	2013	HSUEUR
764.811	.131		672.148	.066	1996	GPS - STATIC	2013	HSUEUR
764.743	.262		671.902	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.844 12B = -92.841 09 = -92.746 03 = -92.608

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 33.98696	93 57 21.25638	581328.700	274432.357	.131	3	GPS - RTRN	2025	RTRN2025
44 19 33.98671	93 57 21.25716	581328.643	274432.331	.131	3	GPS - RTRN	2019	RTRN2019
44 19 33.98683	93 57 21.25696	581328.658	274432.344	.016		ADJUSTMENT	2014	GPS2977
44 19 33.98683	93 57 21.25696	581328.658	274432.344	.016	C	GPS - STATIC	2013	HSUEUR
44 19 33.98650	93 57 21.25678	581328.671	274432.310	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 33.98630	93 57 21.25709	581328.649	274432.290	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636205.492	811502.306	1390358.542	16104095.738	.131	3	GPS - RTRN	2025	RTRN2025
2636205.436	811502.281	1390358.485	16104095.713	.131	3	GPS - RTRN	2019	RTRN2019
2636205.450	811502.293	1390358.499	16104095.725	.016		ADJUSTMENT	2014	GPS2977
2636205.450	811502.293	1390358.499	16104095.725	.016	C	GPS - STATIC	2013	HSUEUR
2636205.463	811502.260	1390358.512	16104095.691	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636205.441	811502.240	1390358.490	16104095.671	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_P-DP0992-3NW-18SEP2025.jpg	NW	Sep 18, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_P-DP0992-2-18SEP2025.jpg		Sep 18, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_P-DP0992-1-18SEP2025.jpg		Sep 18, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 Q **NGS Name:** 5209 Q

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1991 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	15	110 N	26 W	442002.00	935654.20	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5209 Q 2013

IN ST. PETER, 0.65 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 67.1, 31.1 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 137.5 FEET NORTHEAST OF AN EXTENDED WEST UNION STREET, 75.7 FEET NORTHEAST OF A LIGHT POLE, 1.5 FEET NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
759.195	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
759.195	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
759.195	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
759.195	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
759.195	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
759.214	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS
759.214	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
759.211	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
759.159	.262		666.311	.197	2011	GPS - RTRN	2025	RTRN2025
759.227	.262		666.380	.197	2011	GPS - RTRN	2019	RTRN2019
759.136	.262		666.288	.197	2011	GPS - RTRN	2015	RTRN2015
759.126	.262		666.281	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.848 12B = -92.848 09 = -92.749 03 = -92.608

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 01.99824	93 56 54.20496	583284.257	277276.591	.131	3	GPS - RTRN	2025	RTRN2025
44 20 01.99855	93 56 54.20528	583284.233	277276.622	.131	3	GPS - RTRN	2019	RTRN2019
44 20 01.99759	93 56 54.20565	583284.207	277276.525	.131	3	GPS - RTRN	2015	RTRN2015
44 20 01.99838	93 56 54.20465	583284.279	277276.605	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2638170.027	814339.872	1392357.032	16106908.409	.131	3	GPS - RTRN	2025	RTRN2025
2638170.004	814339.903	1392357.009	16106908.441	.131	3	GPS - RTRN	2019	RTRN2019
2638169.977	814339.806	1392356.981	16106908.344	.131	3	GPS - RTRN	2015	RTRN2015
2638170.049	814339.886	1392357.055	16106908.423	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_Q-DP1991-3SE-17SEP2025.jpg	SE	Sep 17, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_Q-DP1991-2-17SEP2025.jpg		Sep 17, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_Q-DP1991-1-17SEP2025.jpg		Sep 17, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 R **NGS Name:** 5209 R

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0993 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	110 N	26 W	442155.27	935747.85	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 10 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5209 R 2013

2.75 MILES NORTH OF ST. PETER, 1.25 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 69.5, 33.5 FEET SOUTHWEST OF NORTHBOUND TRUNK HIGHWAY 169, 51.3 FEET NORTHEAST OF SOUTHBOUND TRUNK HIGHWAY 169, 1.5 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
756.180	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
756.180	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
756.199	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
756.226	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
756.229	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
756.229			663.529	.016	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
756.229			663.529	.016	2011	GPS - STATIC	2013	HSUEUR
756.229	.131		663.742	.066	1996	GPS - STATIC	2013	HSUEUR
756.124	.262		663.440	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.687 12B = -92.684 09 = -92.605 03 = -92.451

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 55.27423	93 57 47.85393	579342.391	288733.426	.020		ADJUSTMENT	2014	GPS2977
44 21 55.27423	93 57 47.85393	579342.391	288733.426	.020	C	GPS - STATIC	2013	HSUEUR
44 21 55.27369	93 57 47.85329	579342.437	288733.371	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 55.27371	93 57 47.85401	579342.385	288733.373	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634265.733	825808.091	1388593.924	16118420.488	.020		ADJUSTMENT	2014	GPS2977
2634265.733	825808.091	1388593.924	16118420.488	.020	C	GPS - STATIC	2013	HSUEUR
2634265.780	825808.037	1388593.970	16118420.433	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634265.728	825808.039	1388593.917	16118420.436	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_R-DP0993-3SW-18SEP2013.jpg	SW	Sep 18, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_R-DP0993-2-18SEP2013.jpg		Sep 18, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_R-DP0993-1-18SEP2013.jpg		Sep 18, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 S **NGS Name:** 5209 S

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0994 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	21	111 N	26 W	442433.89	935733.09	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5209 S 2013

5.5 MILES NORTH OF ST. PETER, 4.4 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 72.6, 87.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 16.3 FEET WEST OF A FENCE, 1.5 FEET EAST OF A WITNESS POST.

Station Pair: 5209 H 1 - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
791.068	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
791.071	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
791.071	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
791.111	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
791.114	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
791.058	.262		698.496	.197	2011	GPS - OPUS	2021	GPSBM
791.045	.262		698.483	.197	2011	GPS - RTRN	2021	RTRN2021
791.114			698.542	.011	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
791.114			698.542	.011	2011	GPS - STATIC	2013	HSUEUR
791.114	.131		698.752	.066	1996	GPS - STATIC	2013	HSUEUR
790.953	.262		698.394	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.562 12B = -92.559 09 = -92.480 03 = -92.319

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 33.88540	93 57 33.09437	580354.598	304800.260	.131	3	GPS - OPUS	2021	GPSBM
44 24 33.88533	93 57 33.09358	580354.656	304800.253	.131	3	GPS - RTRN	2021	RTRN2021
44 24 33.88562	93 57 33.09397	580354.627	304800.282	.010		ADJUSTMENT	2014	GPS2977
44 24 33.88562	93 57 33.09397	580354.627	304800.282	.010	C	GPS - STATIC	2013	HSUEUR
44 24 33.88561	93 57 33.09346	580354.664	304800.281	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 33.88530	93 57 33.09426	580354.606	304800.250	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635329.847	841869.647	1389853.751	16134463.811	.131	3	GPS - OPUS	2021	GPSBM
2635329.905	841869.640	1389853.808	16134463.803	.131	3	GPS - RTRN	2021	RTRN2021
2635329.876	841869.670	1389853.780	16134463.833	.010		ADJUSTMENT	2014	GPS2977
2635329.876	841869.670	1389853.780	16134463.833	.010	C	GPS - STATIC	2013	HSUEUR
2635329.913	841869.669	1389853.817	16134463.832	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635329.855	841869.637	1389853.759	16134463.801	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_S-DP0994-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_S-DP0994-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_S-DP0994-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5209 T **NGS Name:** 5209 T

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1997 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	111 N	26 W	442520.71	935714.08	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5209 T 2013

6.4 MILES NORTH OF ST. PETER, 5.35 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 73.55, 36.9 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
794.861	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
794.867	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
794.867	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
794.907	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
794.910	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
794.818	.262		702.289	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.533 12B = -92.529 09 = -92.447 03 = -92.283

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 20.70763	93 57 14.07843	581717.004	309547.273	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636707.451	846611.643	1391288.818	16139187.434	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_T-DP1997-3E-18SEP2013.jpg	E	Sep 18, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_T-DP1997-2-18SEP2013.jpg		Sep 18, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5209_T-DP1997-1-18SEP2013.jpg		Sep 18, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 A
NGS Name: 5211 A
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1702 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	108 N	26 W	441032.00	940016.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2022	DESTROYED	Horz=NO Vert=NO	NO			STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1986) **Stamping:** 5211 A 1986

IN NORTH MANKATO, IN THE SOUTHWEST QUADRANT OF THE JUNCTION OF TRUNK HIGHWAY 169 AND MONROE AVENUE, 0.5 MILE NORTH OF THE JUNCTION OF TRUNK HIGHWAY 169 AND BELGRADE AVENUE, AT TRUNK HIGHWAY 169 MILEPOINT 54.4, 230.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 54.5 FEET SOUTH OF MONROE AVENUE, 27.7 FEET SOUTH-SOUTHEAST OF A REALTY WORLD SIGNPOST, 4.2 FEET EAST OF A FENCE, 0.8 FOOT WEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE. THE CONCRETE WAS FOUND WITH THE DISK MISSING.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
767.889	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
767.790	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1
767.830	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Geoid Separations(ft): GEOID18 = -92.910 12B = -92.913 09 = -92.811 03 = -92.700

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 C
NGS Name: 5211 C
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0995 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	36	109 N	27 W	441157.63	940119.17	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2014	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (2013) **Stamping:** 5211 C 1969 168 MANKATO

2.7 MILES NORTHWEST OF MANKATO, 0.6 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN THE NORTHWEST PART OF MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 56.2, 102.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 84.5 FEET NORTH OF LAKE STREET, 36.0 FEET EAST OF AN ENTRANCE TO WACO SCAFFOLDING, 0.5 FOOT EAST OF A WITNESS POST. STATION 5211 C WAS SET IN 1964 AND STAMPED IN 1969 WHEN FIRST USED.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
770.563	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
770.573	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
770.569	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
770.537	.033	3				VERTICAL CONTROL SURVEY	1977	CS5211

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
770.445	.262		677.659	.197	2011	GPS - RTRN	2014	RTRN2014
770.569			677.778	.014	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
770.569			677.778	.014	2011	GPS - STATIC	2013	HSUEUR
770.569	.131		677.984	.066	1996	GPS - STATIC	2013	HSUEUR
770.494	.262		677.709	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.779 12B = -92.782 09 = -92.693 03 = -92.575

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 57.62927	94 01 19.16738	564170.938	228158.952	.131	3	GPS - RTRN	2014	RTRN2014
44 11 57.62944	94 01 19.16816	564170.881	228158.969	.013		ADJUSTMENT	2014	GPS2977
44 11 57.62944	94 01 19.16816	564170.881	228158.969	.013	C	GPS - STATIC	2013	HSUEUR
44 11 57.62908	94 01 19.16859	564170.850	228158.932	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 57.62886	94 01 19.16833	564170.869	228158.910	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2618899.681	765289.649	1372495.583	16058109.027	.131	3	GPS - RTRN	2014	RTRN2014
2618899.625	765289.666	1372495.527	16058109.045	.013		ADJUSTMENT	2014	GPS2977
2618899.625	765289.666	1372495.527	16058109.045	.013	C	GPS - STATIC	2013	HSUEUR
2618899.594	765289.629	1372495.495	16058109.009	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2618899.612	765289.607	1372495.514	16058108.986	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_C-DP0995-3W-26AUG2013.jpg	W	Aug 26, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_C-DP0995-2-26AUG2013.jpg		Aug 26, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_C-DP0995-1-26AUG2013.jpg		Aug 26, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 D

NGS Name: 5211 D

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	109 N	27 W	441250.23	940139.80	2	

NGS ACRN: CO7821 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2013	GOOD	Horz=NO Vert=YES	YES		RECESSED 2 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (1976) **Stamping:** 5211 D

1.5 MILES NORTH OF NORTH MANKATO, 1.7 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND NEW TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 57.3, 137.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 101.50 FEET WEST OF STATION BENN MNDT, 22.0 FEET SOUTH OF A WOODED ENTRANCE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
789.175	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
789.185	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
789.185	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
789.152	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Geoid Separations(ft): GEOID18 = -92.739 12B = -92.739 09 = -92.657 03 = -92.542

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_D-CO7821-3SW-26AUG2013.jpg	SW	Aug 26, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_D-CO7821-2-26AUG2013.jpg		Aug 26, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_D-CO7821-1-26AUG2013.jpg		Aug 26, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 E
NGS Name: 5211 E
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0996 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	109 N	27 W	441329.20	940139.76	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1976) **Stamping:** 5211 E

3.0 MILES NORTH-NORTHEAST OF NORTH MANKATO, 2.4 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND NEW TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 58.05, 60.3 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 47.5 FEET SOUTH OF 500TH STREET.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
767.515	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
767.528	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
767.525	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
766.954	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
767.797	.262		675.061	.197	2011	GPS - OPUS	2021	GPSBM
767.853	.262		675.120	.197	2011	GPS - RTRN	2021	RTRN2021
767.525			674.772	.018	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
767.525			674.772	.018	2011	GPS - STATIC	2013	HSUEUR
767.525	.131		674.972	.066	1996	GPS - STATIC	2013	HSUEUR
767.403	.262		674.671	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.736 12B = -92.736 09 = -92.654 03 = -92.536

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 29.20116	94 01 39.76180	562643.647	237427.865	.131	3	GPS - OPUS	2021	GPSBM
44 13 29.20178	94 01 39.76135	562643.679	237427.928	.131	3	GPS - RTRN	2021	RTRN2021
44 13 29.20192	94 01 39.76147	562643.671	237427.942	.020		ADJUSTMENT	2014	GPS2977
44 13 29.20192	94 01 39.76147	562643.671	237427.942	.020	C	GPS - STATIC	2013	HSUEUR
44 13 29.20129	94 01 39.76031	562643.755	237427.879	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 29.20137	94 01 39.76165	562643.658	237427.886	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617402.615	774562.535	1371111.821	16067397.101	.131	3	GPS - OPUS	2021	GPSBM
2617402.648	774562.598	1371111.855	16067397.163	.131	3	GPS - RTRN	2021	RTRN2021
2617402.639	774562.612	1371111.846	16067397.177	.020		ADJUSTMENT	2014	GPS2977
2617402.639	774562.612	1371111.846	16067397.177	.020	C	GPS - STATIC	2013	HSUEUR
2617402.723	774562.548	1371111.930	16067397.113	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617402.626	774562.556	1371111.832	16067397.122	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_E-DP0996-3W-11MAY2021.jpg	W	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_E-DP0996-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_E-DP0996-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5211 EE

Mn/DOT Name: 5211 EE **NGS Name:** 5211 EE

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	109 N	27 W	441402.00	940138.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	SURVEY DISK	MNDT

Description: (1986) **Stamping:** 5211 EE

5.05 MILES NORTHWEST OF MANKATO, 3.0 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 58.7, IN THE SOUTHEAST CORNER OF A TRUNK HIGHWAY 169 BOX CULVERT, 40.0 FEET EAST OF A TRUNK HIGHWAY 169.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
774.556	.033	3				VERTICAL CONTROL SURVEY	1986	CS5211

Geoid Separations(ft): GEOID18 = -92.733 12B = -92.733 09 = -92.651 03 = -92.529

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 F **NGS Name:** 5211 F

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0700 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	109 N	27 W	441409.50	940139.07		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (1964) **Stamping:** 5211 F

3.5 MILES NORTH OF NORTH MANKATO, 3.2 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 58.8, 106.0 FEET NORTH OF COUNTY ROAD 28, 64.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 0.9 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
774.424	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
774.539	.262		682.108	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.729 12B = -92.729 09 = -92.651 03 = -92.526

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 09.49585	94 01 39.06810	562682.299	241508.599	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 09.49231	94 01 39.06218	562682.731	241508.242	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 09.60943	94 01 38.22065			.100	3	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617454.499	778642.704	1371213.345	16071475.314	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617454.930	778642.345	1371213.772	16071474.951	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1992849.324	450566.010			.100	3	CLASSICAL SURVEY	1980	16297

5211 FF

Mn/DOT Name: 5211 FF

NGS Name: 5211 FF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	13	109 N	27 W	441503.00	940140.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 50 FT)	SURVEY DISK	MNDT

Description: (1986) **Stamping:** 5211 FF

6.2 MILES NORTH OF MANKATO, 4.2 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 59.5, 118.0 FEET WEST OF TRUNK HIGHWAY 169, 3.0 FEET EAST AND 197.0 FEET SOUTH OF A FENCE CORNER.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
780.277	.033	3				VERTICAL CONTROL SURVEY	1986	CS5211

Geoid Separations(ft): GEOID18 = -92.710 12B = -92.710 09 = -92.631 03 = -92.506

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 G

NGS Name: 5211 G

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	109 N	27 W	441521.00	940138.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1979) **Stamping:** 5211 G

5.16 MILES NORTH OF NORTH MANKATO, 2.0 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND THE CITY OF MANKATO DUMP ROAD/ TOWNSHIP ROAD 16, 4.5 MILES NORTH OF NEW TRUNK HIGHWAY 14, AT TRUNK HIGHWAY 169 MILEPOINT 60.2, 63.0 FEET EAST OF TRUNK HIGHWAY 169.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
791.527	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Geoid Separations(ft): GEOID18 = -92.707 12B = -92.707 09 = -92.624 03 = -92.500

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 H **NGS Name:** 5211 H

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1968 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	109 N	27 W	441615.74	940110.80	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (1976) **Stamping:** 5211 H

5.5 MILES SOUTHWEST OF ST. PETER, 3.95 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 61.3, 45.2 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 39.5 FEET NORTH OF DRIVEWAY NUMBER 46821, 1.0 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
809.575	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
809.588	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
809.588	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
760.845	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
809.595	.262		716.882	.197	2011	GPS - RTRN	2025	RTRN2025
809.546	.262		716.829	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.713 12B = -92.716 09 = -92.631 03 = -92.503

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 15.73807	94 01 10.79981	564702.048	254299.111	.131	3	GPS - RTRN	2025	RTRN2025
44 16 15.73820	94 01 10.79979	564702.049	254299.124	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619515.509	791425.255	1373429.323	16084228.638	.131	3	GPS - RTRN	2025	RTRN2025
2619515.511	791425.268	1373429.325	16084228.651	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_H-DP1968-3E-22SEP2025.jpg	E	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_H-DP1968-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_H-DP1968-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5211 HH

Mn/DOT Name: 5211 HH **NGS Name:** 5211 HH

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	109 N	27 W	441645.00	940041.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	SURVEY DISK	MNDT

Description: (1986) **Stamping:** 5211 HH

4.0 MILES SOUTHWEST OF ST. PETER, 3.4 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, 90.0 FEET EAST OF TRUNK HIGHWAY 169, 75.0 FEET NORTH OF TRUNK HIGHWAY 169 MILEPOST 62.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
793.479	.033	3				VERTICAL CONTROL SURVEY	1986	CS5211

Geoid Separations(ft): GEOID18 = -92.729 12B = -92.733 09 = -92.651 03 = -92.519

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 I

NGS Name: 5211 I

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	109 N	27 W	441617.00	940109.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2013	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1976) **Stamping:** 5211 I 1964

6.27 MILES NORTH-NORTHEAST OF NORTH MANKATO, 3.2 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND THE CITY OF MANKATO DUMP ROAD, 58.0 FEET RIGHT OF TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 169 STATION 521+89.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
809.510	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Geoid Separations(ft): GEOID18 = -92.716 12B = -92.716 09 = -92.631 03 = -92.503

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 J **NGS Name:** 5211 J

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0672 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	110 N	26 W	441707.10	940018.25	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2025	GOOD	Horz=NO Vert=YES	YES		PROJECTS 2 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (1964)

Stamping: 5211 JJ

4.0 MILES SOUTHWEST OF ST. PETER, 3.8 MILES SOUTHWEST ON TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 62.6, 44.0 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 0.8 FOOT EAST-SOUTHEAST OF A WITNESS POST.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
772.134	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
772.147	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
772.147	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
771.980	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
772.052	.262		679.303	.197	2011	GPS - RTRN	2025	RTRN2025
772.111	.262		679.687	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.746 12B = -92.749 09 = -92.667 03 = -92.529

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 07.09894	94 00 18.25299	568509.028	259512.222	.131	3	GPS - RTRN	2025	RTRN2025

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 07.10003	94 00 18.25992	568508.523	259512.331	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 07.09605	94 00 18.25419	568508.941	259511.929	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 07.21381	94 00 17.41189			.100	3	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623338.963	796625.434	1377314.886	16089380.559	.131	3	GPS - RTRN	2025	RTRN2025

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623338.459	796625.545	1377314.384	16089380.675	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623338.875	796625.142	1377314.796	16089380.267	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1998733.441	468548.718			.100	3	CLASSICAL SURVEY	1980	16297

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_J-PQ0672-3W-22SEP2025.jpg	W	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_J-PQ0672-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_J-PQ0672-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5211 JJ

Mn/DOT Name: 5211 JJ

NGS Name: 5211 JJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	32	110 N	26 W	441750.00	935921.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 29 FT)	SURVEY DISK	MNDT

Description: (1986) **Stamping:** 5211 JJ

2.4 MILES SOUTHWEST OF ST. PETER, 1.7 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 63.7, 73.0 FEET RIGHT OF TRUNK HIGHWAY 169. THE STATION WAS RESET.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
759.690	.033	3				VERTICAL CONTROL SURVEY	1986	CS5211

Geoid Separations(ft): GEOID18 = -92.785 12B = -92.789 09 = -92.700 03 = -92.565

*** No Horizontal Positions in the Database ***

5211 JJ RESET

Mn/DOT Name: 5211 JJ RESET
NGS Name: 5211 JJ RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1969 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	32	110 N	26 W	441749.28	935922.40	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=NO Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 29 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5211 JJ RESET 2013

2.4 MILES SOUTHWEST OF ST. PETER, 1.55 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 WEST IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 63.7, 55.8 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 1.0 FOOT WEST OF A WITNESS POST.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
759.710	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
759.710	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
759.710	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
759.723	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
759.723	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
759.838	.262		667.052	.197	2011	GPS - RTRN	2025	RTRN2025
759.706	.262		666.918	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.782 12B = -92.789 09 = -92.700 03 = -92.565

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 49.28385	93 59 22.39801	572557.889	263797.582	.131	3	GPS - RTRN	2025	RTRN2025
44 17 49.28453	93 59 22.39824	572557.872	263797.651	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2627401.251	800897.182	1381427.906	16093601.417	.131	3	GPS - RTRN	2025	RTRN2025
2627401.235	800897.251	1381427.890	16093601.487	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_JJ_RESET-DP1969-3E-22SEP2025.jpg	E	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_JJ_RESET-DP1969-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_JJ_RESET-DP1969-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

5211 JJJ

Mn/DOT Name: 5211 JJJ

NGS Name: 5211 JJJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	110 N	26 W	441803.00	935849.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	SURVEY DISK	MNDT

Description: (1986) **Stamping:** 5211 JJJ

2.2 MILES SOUTHWEST OF ST. PETER, 1.2 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 64.2, 126.0 FEET EAST OF TRUNK HIGHWAY 169, 55.0 FEET SOUTH OF THE SOUTH ENTRANCE TO A HOSPITAL.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
762.899	.033	3				VERTICAL CONTROL SURVEY	1986	CS5211

Geoid Separations(ft): GEOID18 = -92.818 12B = -92.821 09 = -92.729 03 = -92.595

*** No Horizontal Positions in the Database ***

5211 JJJJ

Mn/DOT Name: 5211 JJJJ

NGS Name: 5211 JJJJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	110 N	26 W	441817.00	935822.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)	SURVEY DISK	MNDT

Description: (1986) **Stamping:** 5211 JJJJ

1.5 MILES SOUTHWEST OF ST. PETER, 0.75 MILE SOUTH ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 64.7, 76.0 FEET EAST OF TRUNK HIGHWAY 169, AT THE EDGE OF A ROCK AND A SWAMP.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
758.388	.033	3				VERTICAL CONTROL SURVEY	1986	CS5211

Geoid Separations(ft): GEOID18 = -92.844 12B = -92.844 09 = -92.746 03 = -92.615

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 K

NGS Name: 5211 K

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	110 N	26 W	441759.00	935857.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1964	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1976) **Stamping:** 5211 K

2.4 MILES SOUTHWEST OF ST. PETER, 1.4 MILES SOUTHWEST OF THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 64.1, AT THE SOUTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 169 AND THE SOUTH ENTRANCE TO THE STATE HOSPITAL.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
761.629	.033	3				VERTICAL CONTROL SURVEY	1964	CS5211

Geoid Separations(ft): GEOID18 = -92.811 12B = -92.815 09 = -92.723 03 = -92.588

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 5211 L **NGS Name:** 5211 L

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1703 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	108 N	26 W	441053.91	940027.54	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2022	GOOD	Horz=NO Vert=YES	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CONCRETE MAT FOUNDATION (NON-PAVEMENT)	VERTICAL CONTROL DISK	MNDT

Description: (2016) **Stamping:** 5211 L 1986

IN NORTH MANKATO, AT THE NORTHEAST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 169/TRUNK HIGHWAY 60 AND WEBSTER AVENUE, 0.85 MILE SOUTH ALONG TRUNK HIGHWAY 169/TRUNK HIGHWAY60 FROM THE JUNCTION OF TRUNK HIGHWAY 169/TRUNK HIGHWAY 60 AND TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 54.85, 58.4 FEET NORTH-NORTHWEST OF WEBSTER AVENUE, 34.6 FEET EAST-NORTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, IN A LIGHT STAND BASE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
778.306	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
778.315	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
778.312	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
778.312	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
778.384	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
778.292	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
778.296	.262		685.415	.197	2011	GPS - RTRN	2022	RTRN2022
778.214	.262		685.330	.197	2011	GPS - RTRN	2016	RTRN2016
778.246	.262		685.360	.197	2011	GPS - RTRN	2013	RTRN2013
778.306	.262		685.520	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.880 12B = -92.887 09 = -92.785 03 = -92.670

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.90791	94 00 27.53521	567952.783	221717.550	.131	3	GPS - RTRN	2022	RTRN2022
44 10 53.90711	94 00 27.53612	567952.716	221717.469	.131	3	GPS - RTRN	2016	RTRN2016
44 10 53.90635	94 00 27.53716	567952.641	221717.392	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.90662	94 00 27.53648	567952.691	221717.419	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2622660.247	758836.650	1376176.428	16051612.421	.131	3	GPS - RTRN	2022	RTRN2022
2622660.181	758836.569	1376176.361	16051612.341	.131	3	GPS - RTRN	2016	RTRN2016
2622660.105	758836.492	1376176.284	16051612.265	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2622660.155	758836.520	1376176.334	16051612.291	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_L-PQ1703-3N-23AUG2022.jpg	N	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_L-PQ1703-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_L-PQ1703-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 N **NGS Name:** 5211 N

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1967 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	109 N	27 W	441249.27	940136.69	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2013	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5211 N 2013

3.5 MILES NORTH OF NORTH MANKATO, 1.6 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 57.3, 34.2 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
776.130	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
776.137	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
776.137	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
776.022	.262		683.279	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.746 12B = -92.746 09 = -92.664 03 = -92.546

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 49.26590	94 01 36.68987	562879.138	233384.337	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617624.966	770518.674	1371284.895	16063351.850	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_N-DP1967-3E-16SEP2013.jpg	E	Sep 16, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_N-DP1967-2-16SEP2013.jpg		Sep 16, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_N-DP1967-1-16SEP2013.jpg		Sep 16, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 P
NGS Name: 5211 P
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0997 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	109 N	27 W	441427.80	940137.25	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 47 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5211 P 2013

4.6 MILES NORTH OF NORTH MANKATO, 3.45 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 59.2, 59.4 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
777.029	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
777.039	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
777.036	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
777.013	.262		684.290	.197	2011	GPS - RTRN	2025	RTRN2025
777.036			684.306	.017	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
777.036			684.306	.017	2011	GPS - STATIC	2013	HSUEUR
777.036	.131		684.520	.066	1996	GPS - STATIC	2013	HSUEUR
776.964	.262		684.237	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.726 12B = -92.726 09 = -92.647 03 = -92.523

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 27.80174	94 01 37.25027	562809.249	243362.799	.131	3	GPS - RTRN	2025	RTRN2025
44 14 27.80230	94 01 37.25147	562809.162	243362.855	.016		ADJUSTMENT	2014	GPS2977
44 14 27.80230	94 01 37.25147	562809.162	243362.855	.016	C	GPS - STATIC	2013	HSUEUR
44 14 27.80189	94 01 37.25086	562809.206	243362.814	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 27.80176	94 01 37.25163	562809.150	243362.801	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617587.450	780496.290	1371368.815	16073326.683	.131	3	GPS - RTRN	2025	RTRN2025
2617587.363	780496.347	1371368.728	16073326.740	.016		ADJUSTMENT	2014	GPS2977
2617587.363	780496.347	1371368.728	16073326.740	.016	C	GPS - STATIC	2013	HSUEUR
2617587.407	780496.306	1371368.772	16073326.698	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617587.351	780496.293	1371368.716	16073326.686	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_P-DP0997-3E-22SEP2025.jpg	E	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_P-DP0997-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_P-DP0997-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 Q
NGS Name: 5211 Q
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0998 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	109 N	27 W	441618.20	940108.32	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5211 Q 2013

5.4 MILES SOUTHWEST OF ST. PETER, 3.95 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 61.4, 37.5 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 0.1 MILE NORTH OF 381ST AVENUE, 1.0 FOOT NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
813.735	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
813.748	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
813.745	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
813.722	.262		721.002	.197	2011	GPS - RTRN	2025	RTRN2025
813.647	.262		720.930	.197	2011	GPS - OPUS	2021	GPSBM
813.752	.262		721.035	.197	2011	GPS - RTRN	2021	RTRN2021
813.745			721.029	.015	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
813.745			721.029	.015	2011	GPS - STATIC	2013	HSUEUR
813.745	.131		721.229	.066	1996	GPS - STATIC	2013	HSUEUR
813.663	.262		720.943	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.716 12B = -92.716 09 = -92.631 03 = -92.503

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 18.19513	94 01 08.31723	564881.941	254548.479	.131	3	GPS - RTRN	2025	RTRN2025
44 16 18.19538	94 01 08.31821	564881.870	254548.504	.131	3	GPS - OPUS	2021	GPSBM
44 16 18.19560	94 01 08.31752	564881.920	254548.527	.131	3	GPS - RTRN	2021	RTRN2021
44 16 18.19561	94 01 08.31806	564881.881	254548.528	.016		ADJUSTMENT	2014	GPS2977
44 16 18.19561	94 01 08.31806	564881.881	254548.528	.016	C	GPS - STATIC	2013	HSUEUR
44 16 18.19531	94 01 08.31753	564881.919	254548.497	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 18.19509	94 01 08.31833	564881.861	254548.475	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619696.191	791674.012	1373612.977	16084475.114	.131	3	GPS - RTRN	2025	RTRN2025
2619696.120	791674.037	1373612.906	16084475.140	.131	3	GPS - OPUS	2021	GPSBM
2619696.170	791674.060	1373612.957	16084475.162	.131	3	GPS - RTRN	2021	RTRN2021
2619696.131	791674.061	1373612.917	16084475.163	.016		ADJUSTMENT	2014	GPS2977
2619696.131	791674.061	1373612.917	16084475.163	.016	C	GPS - STATIC	2013	HSUEUR
2619696.169	791674.030	1373612.955	16084475.132	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619696.111	791674.008	1373612.897	16084475.111	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_Q-DP0998-3SE-22SEP2025.jpg	SE	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_Q-DP0998-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_Q-DP0998-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 R **NGS Name:** 5211 R

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP0999 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	109 N	27 W	441646.16	940038.40	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 24 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5211 R 2013

4.5 MILES SOUTHWEST OF ST. PETER, 3.15 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 62.1, 35.1 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
781.632	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
781.645	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
781.645	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
781.649	.262		688.916	.197	2011	GPS - RTRN	2025	RTRN2025
781.645			688.886	.014	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
781.645			688.886	.014	2011	GPS - STATIC	2013	HSUEUR
781.645	.131		689.087	.066	1996	GPS - STATIC	2013	HSUEUR
781.652	.262		688.919	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.733 12B = -92.736 09 = -92.654 03 = -92.519

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 46.16405	94 00 38.39817	567050.134	257387.543	.131	3	GPS - RTRN	2025	RTRN2025
44 16 46.16461	94 00 38.39878	567050.090	257387.599	.016		ADJUSTMENT	2014	GPS2977
44 16 46.16461	94 00 38.39878	567050.090	257387.599	.016	C	GPS - STATIC	2013	HSUEUR
44 16 46.16470	94 00 38.39887	567050.083	257387.608	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 46.16410	94 00 38.39902	567050.073	257387.548	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621873.346	794505.725	1375823.921	16087279.392	.131	3	GPS - RTRN	2025	RTRN2025
2621873.302	794505.782	1375823.877	16087279.449	.016		ADJUSTMENT	2014	GPS2977
2621873.302	794505.782	1375823.877	16087279.449	.016	C	GPS - STATIC	2013	HSUEUR
2621873.295	794505.791	1375823.871	16087279.458	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621873.284	794505.731	1375823.859	16087279.398	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_R-DP0999-3E-22SEP2025.jpg	E	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_R-DP0999-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_R-DP0999-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 S **NGS Name:** 5211 S

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1000 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	31	110 N	26 W	441729.03	935952.52	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 34 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 5211 S 2013

3.6 MILES SOUTHWEST OF ST. PETER, 2.1 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 63.1, 42.1 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 40.0 FEET NORTHEAST OF DRIVEWAY NUMBERS 45453 AND 45461, 1.5 FEET NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
772.325	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
772.325	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
772.325	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
772.338	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
772.338	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
772.243	.262		679.477	.197	2011	GPS - RTRN	2025	RTRN2025
772.197	.262		679.434	.197	2011	GPS - OPUS	2021	GPSBM
772.266	.262		679.500	.197	2011	GPS - RTRN	2021	RTRN2021
772.236	.262		679.470	.197	2011	GPS - RTRN	2019	RTRN2019
772.338			679.562	.015	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
772.338			679.562	.015	2011	GPS - STATIC	2013	HSUEUR
772.338	.131		679.743	.066	1996	GPS - STATIC	2013	HSUEUR
772.393	.262		679.628	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.762 12B = -92.766 09 = -92.680 03 = -92.546

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 29.02562	93 59 52.51924	570373.813	261738.766	.131	3	GPS - RTRN	2025	RTRN2025
44 17 29.02560	93 59 52.52042	570373.727	261738.763	.131	3	GPS - OPUS	2021	GPSBM
44 17 29.02569	93 59 52.52031	570373.735	261738.772	.131	3	GPS - RTRN	2021	RTRN2021
44 17 29.02656	93 59 52.52003	570373.755	261738.860	.131	3	GPS - RTRN	2019	RTRN2019
44 17 29.02611	93 59 52.52003	570373.755	261738.815	.016		ADJUSTMENT	2014	GPS2977
44 17 29.02611	93 59 52.52003	570373.755	261738.815	.016	C	GPS - STATIC	2013	HSUEUR
44 17 29.02621	93 59 52.51939	570373.802	261738.825	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 29.02558	93 59 52.52029	570373.737	261738.761	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625210.753	798845.679	1379213.121	16091577.276	.131	3	GPS - RTRN	2025	RTRN2025
2625210.667	798845.677	1379213.036	16091577.275	.131	3	GPS - OPUS	2021	GPSBM
2625210.675	798845.686	1379213.043	16091577.284	.131	3	GPS - RTRN	2021	RTRN2021
2625210.696	798845.774	1379213.065	16091577.372	.131	3	GPS - RTRN	2019	RTRN2019
2625210.696	798845.729	1379213.064	16091577.327	.016		ADJUSTMENT	2014	GPS2977
2625210.696	798845.729	1379213.064	16091577.327	.016	C	GPS - STATIC	2013	HSUEUR
2625210.742	798845.739	1379213.111	16091577.336	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625210.677	798845.675	1379213.045	16091577.273	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_S-DP1000-3SE-22SEP2025.jpg	SE	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_S-DP1000-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_S-DP1000-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5211 T **NGS Name:** 5211 T

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1001 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	110 N	26 W	441802.74	935850.94	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2017	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 34 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2013) **Stamping:** 5211 T 2013

2.25 MILES SOUTHWEST OF ST. PETER, 1.05 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE SOUTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 64.25, 50.0 FEET NORTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 20.0 FEET SOUTHWEST OF A BITUMINOUS ENTRANCE, 1.5 FEET SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.527	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
765.543	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
765.540	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.540			672.705	.016	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
765.540			672.705	.016	2011	GPS - STATIC	2013	HSUEUR
765.540	.131		672.892	.066	1996	GPS - STATIC	2013	HSUEUR
765.573	.262		672.755	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.815 12B = -92.818 09 = -92.726 03 = -92.595

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 02.73652	93 58 50.94361	574840.896	265167.761	.020		ADJUSTMENT	2014	GPS2977
44 18 02.73652	93 58 50.94361	574840.896	265167.761	.020	C	GPS - STATIC	2013	HSUEUR
44 18 02.73589	93 58 50.94358	574840.899	265167.697	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 02.73607	93 58 50.94378	574840.884	265167.715	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2629688.436	802259.805	1383730.950	16094935.721	.020		ADJUSTMENT	2014	GPS2977
2629688.436	802259.805	1383730.950	16094935.721	.020	C	GPS - STATIC	2013	HSUEUR
2629688.438	802259.741	1383730.952	16094935.658	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2629688.424	802259.759	1383730.938	16094935.676	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_T-DP1001-3NW-17SEP2013.jpg	NW	Sep 17, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_T-DP1001-2-17SEP2013.jpg		Sep 17, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5211_T-DP1001-1-17SEP2013.jpg		Sep 17, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5212 A **NGS Name:** 5212 A

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1700 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	108 N	26 W	441011.07	940017.55	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2022	GOOD	Horz=NO Vert=NO	YES	52009	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (2016) **Stamping:** 5212 A 1986

IN MANKATO, 1.75 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOST 54.0, IN THE SOUTHEAST BRIDGE RAILING OF BELGRADE AVENUE BRIDGE NUMBER 52009 OVER TRUNK HIGHWAY 169, 26.8 FEET EAST OF A LIGHT STAND, 25.0 FEET SOUTH OF EASTBOUND BELGRADE AVENUE, 20.9 FEET WEST OF THE SOUTHEAST CORNER OF A BRIDGE RAILING.

Station Notes

THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
791.252	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
791.150	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height Height	Acc	Order (/Class)	Ellipsoid (NAD83) Height	Acc	Adj	Determination Method	Project Info Year	Reference
791.275	.262		698.361	.197	2011	GPS - RTRN	2022	RTRN2022
791.157	.262		698.338	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.916 12B = -92.916 09 = -92.815 03 = -92.703

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position Latitude	Longitude	Nicollet County X	Y	Acc	Order	Determination Method	Project Info Year	Reference
44 10 11.06642	94 00 17.55147	568694.146	217381.405	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

Geodetic Position Latitude	Longitude	Nicollet County X	Y	Acc	Order	Determination Method	Project Info Year	Reference
44 10 11.06762	94 00 17.55468	568693.912	217381.526	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone X	Y	UTM - Zone 15 X	Y	Acc	Order	Determination Method	Project Info Year	Reference
2623387.478	754498.543	1376850.668	16047266.914	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

MN State Plane - South Zone X	Y	UTM - Zone 15 X	Y	Acc	Order	Determination Method	Project Info Year	Reference
2623387.244	754498.665	1376850.436	16047267.038	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5212_A-PQ1700-3W-23AUG2022.jpg	W	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5212_A-PQ1700-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5212_A-PQ1700-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 5212 B **NGS Name:** 5212 B

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1701 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	108 N	26 W	441010.16	940015.59	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2022	GOOD	Horz=NO Vert=NO	YES	07042	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	VERTICAL CONTROL DISK	MNDT

Description: (2016) **Stamping:** 5212 B 1986

IN MANKATO, 1.75 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOST 54.0, IN THE SOUTHWEST CORNER OF MULBERRY STREET BRIDGE NUMBER 07042 OVER THE MINNESOTA RIVER, ON THE TOP OF A CONCRETE RAILING, 32.5 FEET SOUTH OF EASTBOUND MULBERRY STREET, 26.4 FEET WEST OF A LIGHT STANDARD, 20.7 FEET EAST OF THE END OF A RAILING AT THE SOUTHWEST CORNER OF A BRIDGE.

Station Notes

THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
797.029	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
796.928	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
797.111	.262		704.192	.197	2011	GPS - RTRN	2022	RTRN2022
796.914	.262		704.096	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.920 12B = -92.920 09 = -92.818 03 = -92.707

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 10.16218	94 00 15.58720	568837.612	217290.291	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

Geodetic Position		Blue Earth County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 10.16195	94 00 15.59109	568837.328	217290.267	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623530.633	754406.973	1376992.662	16047173.634	.131	3	GPS - RTRN	2022	RTRN2022

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623530.350	754406.950	1376992.379	16047173.614	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5212_B-PQ1701-3E-23AUG2022.jpg	E	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5212_B-PQ1701-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/5212_B-PQ1701-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

526 USE

Mn/DOT Name: 526 USE

NGS Name: 526 USE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	111 N	32 W	442640.00	944331.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1905	1952	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	SEE DESCRIPTION	USACE

Description: (1952)

Stamping:

10.14 MILES NORTH OF SLEEPY EYE, 10.5 MILES NORTH ON TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 14 IN SLEEPY EYE, THEN 0.3 MILE WEST ON COUNTY ROAD 30/ COUNTY ROAD 21, 1600.0 FEET NORTH OF THE SOUTHEAST CORNER OF SECTION 6, AT A ROAD FORK, 0.16 MILE SOUTH OF COUNTY ROAD 21.

Station Notes

THE SURVEY MARK IS ON RAILROAD PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
830.379	.033	3				VERTICAL CONTROL SURVEY	1929	CS5201

Geoid Separations(ft): GEOID18 = -91.457 12B = -91.457 09 = -91.378 03 = -91.273

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 53 GJS

NGS Name: 53 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	4	109 N	28 W	441630.00	941237.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2019	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1987) **Stamping:** 53 GJS 1963 1002

0.75 MILE WEST OF NICOLLET, 0.5 MILE WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, 56.0 FEET NORTH AND 33.0 FEET EAST OF THE CROSSROADS OF TRUNK HIGHWAY 14 AND TOWNSHIP ROAD 173.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.619	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.424 12B = -92.437 09 = -92.352 03 = -92.214

*** No Horizontal Positions in the Database ***

534 USE

Mn/DOT Name: 534 USE

NGS Name: 534 USE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	2	109 N	30 W	441654.00	942338.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1905	1987	POOR	Horz=? Vert=YES	NO		PROJECTS 12 IN.	MARK IS STEEL PIPE

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SEE DESCRIPTION	USACE

Description: (1987)

Stamping:

2.8 MILES NORTHWEST OF COURTLAND, 2.5 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 1200.0 FEET SOUTH ON TOWNSHIP ROAD 150, 0.09 MILE WEST OF THE CENTERLINE OF TOWNSHIP ROAD 150, 550.0 FEET WEST OF THE NORTHEAST CORNER OF SECTION 2.

Station Notes

PROJECTING AND TIPPED AT ABOUT A 30 DEGREE ANGLE, THE MARK IS BRASS PLUG IN A CONCRETE FILLED PIPE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
928.122	.033	3				VERTICAL CONTROL SURVEY	1929	CS5202

Geoid Separations(ft): GEOID18 = -92.329 12B = -92.319 09 = -92.244 03 = -92.093

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 556 USE

NGS Name: 556 USE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094231/
USGS Quad: CAMBRIA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	109 N	29 W	441441.00	941728.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1905	2011	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SEE DESCRIPTION	USACE

Description: (1905)

Stamping:

3.24 MILES SOUTHEAST OF COURTLAND, 2.8 MILES EAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 1.4 MILES SOUTH ON COUNTY ROAD 11, 950.0 FEET SOUTH OF THE NORTH QUARTER CORNER OF SECTION 15, ON THE SLOPE OF A BLUFF, 20.0 FEET WEST OF A LINE TO A FARM NEAR A RIVER.

Station Notes

THE SURVEY MARK IS A BRASS PLUG.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
911.350	.033	3				VERTICAL CONTROL SURVEY	1929	CS5202

Geoid Separations(ft): GEOID18 = -92.556 12B = -92.569 09 = -92.470 03 = -92.313

*** No Horizontal Positions in the Database ***

601 USE

Mn/DOT Name: 601 USE

NGS Name: 601 USE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	27	110 N	30 W	441816.00	942529.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1905	1987	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	SEE DESCRIPTION	USACE

Description: (1987)

Stamping:

1.5 MILES SOUTHEAST OF NEW ULM, 1.5 MILES SOUTH-SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, THEN 279.0 FEET EAST ON TOWNSHIP ROAD 92, AT THE SOUTHEAST CORNER OF THE ROAD JUNCTION AT THE FEET OF A BLUFF.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
841.691	.033	3				VERTICAL CONTROL SURVEY	1929	CS5202

Geoid Separations(ft): GEOID18 = -92.214 12B = -92.195 09 = -92.126 03 = -91.985

*** No Horizontal Positions in the Database ***

616 USE

Mn/DOT Name: 616 USE

NGS Name: 616 USE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	8	109 N	29 W	441541.00	942029.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1905	2011	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SEE DESCRIPTION	USACE

Description: (1905)

Stamping:

IN COURTLAND, 0.4 MILE SOUTH ALONG COUNTY ROAD 24 FROM THE JUNCTION OF COUNTY ROAD 24 AND TRUNK HIGHWAY 14, 0.09 MILE SOUTH OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 24 AND SHADY OAK ROAD/ZIMMERMAN ROAD, 20.0 FEET EAST OF THE ROAD, ON THE TOP OF A BLUFF.

Station Notes

THE MARK IS A BRASS PLUG IN A CONCRETE FILLED PIPE. THE BLUFF IS CUT BACK ABOUT 100.0 FEET FROM COUNTY ROAD 24.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
915.270	.033	3				VERTICAL CONTROL SURVEY	1929	CS5202

Geoid Separations(ft): GEOID18 = -92.477 12B = -92.477 09 = -92.392 03 = -92.231

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 65 GJS

NGS Name: 65 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1758 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	13	109 N	28 W	441424.00	940825.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2011	NOT FOUND	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	USGS

Description: (1987) **Stamping:** 65 GJS 1963 990

3.2 MILES SOUTHEAST OF NICOLLET, 3.2 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 (NORTH) /COUNTY ROAD 23 (SOUTH) IN NICOLLET, THEN 0.2 MILE EAST ON TOWNSHIP ROAD 110, 72.3 FEET NORTH-NORTHWEST OF A POWER POLE, 36.0 FEET NORTH OF AN EAST-WEST ROAD, 30.0 FEET WEST OF A TEE-ROAD NORTH, 0.6 FOOT SOUTH OF A WITNESS POST.

Station Notes
USED THE TIES, NOTHING WAS FOUND. 6/15/11

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.359	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.218	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM
990.241	.033	3				VERTICAL CONTROL SURVEY	1984	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.451 12B = -92.464 09 = -92.382 03 = -92.250

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 66 GJS

NGS Name: 66 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	109 N	28 W	441559.00	940747.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1964	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 66 GJS 1963 1008

3.08 MILES EAST-SOUTHEAST OF NICOLLET, 3.1 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 1.0 MILE SOUTH ON TOWNSHIP ROAD 184, THEN 0.1 MILE EAST-SOUTHEAST ON TOWNSHIP ROAD 104, 19.0 FEET WEST AND 24.0 FEET NORTH OF A TEE-ROAD NORTH.

Station Notes

SEE STATION MUD MNDT.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.395 12B = -92.415 09 = -92.329 03 = -92.201

Mn/DOT Name: 67 GJS

NGS Name: 67 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	5	109 N	27 W	441658.00	940634.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2019	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 67 GJS 1963 981

3.5 MILES EAST OF NICOLLET, 4.1 MILES EAST ON TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, 74.0 FEET SOUTH AND 32.0 FEET EAST OF TRUNK HIGHWAY 99 AT A TEE-ROAD SOUTH (COUNTY ROAD 17).

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.159	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.385 12B = -92.401 09 = -92.316 03 = -92.191

*** No Horizontal Positions in the Database ***

68 GJS

Mn/DOT Name: 68 GJS

NGS Name: 68 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	20	110 N	27 W	441859.00	940600.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 68 GJS 1963 996

3.6 MILES WEST OF ST. PETER, 6.0 MILES WEST ON TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, THEN 0.5 MILE NORTH ON COUNTY ROAD 13, THEN 0.9 MILE WEST CONTINUED ON COUNTY ROAD 13, THEN 1.4 MILES NORTH CONTINUED ON COUNTY ROAD 13, 35.0 FEET EAST AND 12.0 FEET NORTH OF A ROAD AT A FIELD ENTRANCE EAST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.451	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.346 12B = -92.359 09 = -92.277 03 = -92.152

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 69 GJS

NGS Name: 69 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	8	110 N	27 W	442035.00	940619.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 69 GJS 1963 984

6.0 MILES NORTHEAST OF NICOLLET, 4.7 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 4.3 MILES EAST ON COUNTY ROAD 5, 80.0 FEET WEST AND 30.0 FEET NORTH OF COUNTY ROAD 5 AT A TEE-ROAD SOUTH (COUNTY ROAD 13).

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
984.480	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.310 12B = -92.323 09 = -92.241 03 = -92. 113

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 70 GJS

NGS Name: 70 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	25 W	442305.00	940748.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1982	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description:

Stamping: 70 GJS 1963 987

2.01 MILES SOUTHWEST OF NORSELAND, 0.6 MILE WEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 52 IN NORSELAND, THEN 2.0 MILES SOUTH ON COUNTY ROAD 3, 53.0 FEET NORTH AND 33.0 FEET WEST OF THE CROSSROADS OF COUNTY HIGHWAY 15 AND COUNTY ROAD 3.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.249	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.237 12B = -92.247 09 = -92.168 03 = -92.034

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 71 GJS **NGS Name:** 71 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	111 N	28 W	442447.00	940748.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1982	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1981) **Stamping:** 71 GJS 1963 990

0.74 MILE WEST OF NORSELAND, 0.7 MILE WEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 52 IN NORSELAND, THEN 135.0 FEET SOUTH ON COUNTY ROAD 3, 59.0 FEET SOUTH AND 35.0 FEET WEST OF THE CROSSROADS OF TRUNK HIGHWAY 22 AND COUNTY ROAD 3.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.594	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.211 12B = -92.214 09 = -92.139 03 = -92.001

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 72 GJS **NGS Name:** 72 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6567 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	7	111 N	27 W	442606.28	940712.27		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	SURVEY DISK	USGS

Description: (2006) **Stamping:** 72 GJS 1963 977

1.5 MILES NORTH OF NORSELAND, 1.90 MILES NORTH AND EAST ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 22 (THE JUNCTION IS 0.75 MILE WEST OF NORSELAND), 42.0 FEET SOUTH OF COUNTY ROAD 18 (356TH STREET), 16.0 FEET EAST OF COUNTY ROAD 3 (425TH AVENUE), 0.6 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
977.423	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
977.642	.262		885.444	.197	2011	GPS - OPUS	2021	GPSBM
977.564	.262		885.366	.197	2011	GPS - OPUS	2021	GPSBM
977.606	.262		885.408	.197	2011	GPS - RTRN	2021	RTRN2021
977.761	.262		885.556	.197	2011	GPS - RTRN	2015	RTRN2015
			885.474	.009	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			885.585	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
977.656	.131		885.707	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
977.656	.131		885.707	.066	1996	GPS - STATIC	2007	HSIBL
			885.585	.016	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
977.688	.131		885.707	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
977.688	.131		885.707	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.201 12B = -92.205 09 = -92.123 03 = -91.981

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 06.27853	94 07 12.27392	538293.089	314041.175	.131	3	GPS - OPUS	2021	GPSBM
44 26 06.27875	94 07 12.27439	538293.055	314041.197	.131	3	GPS - OPUS	2021	GPSBM
44 26 06.27818	94 07 12.27383	538293.096	314041.139	.131	3	GPS - RTRN	2021	RTRN2021
44 26 06.27832	94 07 12.27313	538293.147	314041.154	.131	3	GPS - RTRN	2015	RTRN2015
44 26 06.27867	94 07 12.27371	538293.104	314041.189	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 06.27842	94 07 12.27438	538293.056	314041.164	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 06.27839	94 07 12.27439	538293.055	314041.161	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 06.27786	94 07 12.27374	538293.102	314041.107	.033	C	ADJUSTMENT	2008	GPS2397
44 26 06.27786	94 07 12.27374	538293.102	314041.107	.033	C	GPS - STATIC	2007	HSIBL
44 26 06.27786	94 07 12.27374	538293.102	314041.107	.033	C	ADJUSTMENT	2003	GPS1882
44 26 06.27786	94 07 12.27374	538293.103	314041.107	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593303.713	851245.845	1347955.294	16144350.344	.131	3	GPS - OPUS	2021	GPSBM
2593303.679	851245.868	1347955.260	16144350.367	.131	3	GPS - OPUS	2021	GPSBM
2593303.719	851245.810	1347955.299	16144350.309	.131	3	GPS - RTRN	2021	RTRN2021
2593303.770	851245.824	1347955.350	16144350.322	.131	3	GPS - RTRN	2015	RTRN2015
2593303.728	851245.860	1347955.309	16144350.358	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593303.680	851245.834	1347955.260	16144350.334	.033	C	ADJUSTMENT	2009	GPS2397-B
2593303.679	851245.831	1347955.259	16144350.331	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593303.726	851245.777	1347955.306	16144350.276	.033	C	ADJUSTMENT	2008	GPS2397
2593303.726	851245.777	1347955.306	16144350.276	.033	C	GPS - STATIC	2007	HSIBL
2593303.726	851245.777	1347955.306	16144350.276	.033	C	ADJUSTMENT	2003	GPS1882
2593303.726	851245.777	1347955.305	16144350.276	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/72_GJS-DF6567-3S-11MAY2021.jpg	S	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/72_GJS-DF6567-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/72_GJS-DF6567-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: 75 GJS

NGS Name: 75 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	109 N	27 W	441616.00	940112.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 75 GJS 1963 812

3.0 MILES SOUTHWEST OF ST. PETER, 4.1 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 (SOUTH) IN ST. PETER, 73.0 FEET WEST AND 40.0 FEET SOUTH OF SOUTHBOUND TRUNK HIGHWAY 169 OPPOSITE A TEE-ROAD SOUTH AND WEST. THE STATION IS ON PRIVATE PROPERTY, NOT USED BY MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT).

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
811.757	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.713 12B = -92.713 09 = -92.628 03 = -92.503

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 76 GJS

NGS Name: 76 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	36	110 N	27 W	441739.00	940054.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 76 GJS 1963 992

2.6 MILES SOUTHWEST OF ST. PETER, 3.2 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 (SOUTH) IN ST. PETER, 1.0 MILE NORTH ALONG TOWNSHIP ROAD 203, 126.0 FEET NORTH AND 27.0 FEET WEST OF A TEE-ROAD WEST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.612	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.664 12B = -92.667 09 = -92.595 03 = -92.457

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 77 GJS **NGS Name:** 77 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	110 N	26 W	441854.96	940014.71		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 77 GJS 1963 1000

1.0 MILE WEST OF ST. PETER, 1.8 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, 0.2 MILE NORTH ALONG 367TH AVENUE, 117.0 FEET EAST OF 367TH AVENUE, 32.0 FEET SOUTH OF 436TH STREET. NO WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.909	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.001	.262		907.347	.197	2011	GPS - RTRN	2025	RTRN2025
999.890	.262		907.232	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.654 12B = -92.657 09 = -92.579 03 = -92.437

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 54.96267	94 00 14.70568	568732.213	270436.405	.131	3	GPS - RTRN	2025	RTRN2025
44 18 54.96261	94 00 14.70587	568732.199	270436.399	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623597.536	807547.635	1377706.483	16100296.075	.131	3	GPS - RTRN	2025	RTRN2025
2623597.522	807547.629	1377706.469	16100296.069	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/77_GJS-3S-18SEP2025.jpg	S	Sep 18, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/77_GJS-2-18SEP2025.jpg		Sep 18, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/77_GJS-1-18SEP2025.jpg		Sep 18, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

78 GJS

Mn/DOT Name: 78 GJS **NGS Name:** 78 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	18	110 N	26 W	442015.00	940033.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1974	GOOD	Horz=? Vert=YES	NO			STEEL SPIKE IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 78 GJS 1963 1003

1.0 MILE SOUTHEAST OF TRAVERSE, 0.7 MILE SOUTH-SOUTHWEST ON COUNTY ROAD 40 FROM THE JUNCTION OF COUNTY ROAD 40 AND COUNTY ROAD 15 IN TRAVERSE, 15.0 FEET SOUTH AND 32.0 FEET EAST OF THE JUNCTION OF A TOWNSHIP ROAD AND THE CROSS DRIVES, 4.0 FEET SOUTH OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.934	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.582 12B = -92.588 09 = -92.510 03 = -92.362

*** No Horizontal Positions in the Database ***

79 GJS

Mn/DOT Name: 79 GJS **NGS Name:** 79 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	111 N	26 W	442355.00	940016.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2015	DESTROYED	Horz=NO Vert=NO	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 79 GJS 1963 958

3.11 MILES NORTHWEST OF OTTAWA, 5.1 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 93 IN OTTAWA, THEN 1.3 MILES WEST ON COUNTY ROAD 26, THEN 1.0 MILE NORTH AND WEST ON COUNTY ROAD 20, THEN 0.2 MILE SOUTH AND WEST ON A TOWNSHIP ROAD (380TH STREET), 26.0 FEET SOUTH AND 28.0 FEET EAST OF A TEE-ROAD NORTH.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
957.928	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.487 12B = -92.487 09 = -92.418 03 = -92.254

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 7UP MNDT **NGS Name:** 7UP

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF5870 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	111 N	26 W	442348.53	935746.25		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1997	2013	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2002) **Stamping:** 7UP 1997

4.0 MILES NORTH OF ST. PETER, 3.55 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN THE NORTH PART OF ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 71.70, 110.8 FEET NORTH OF A TELEPHONE PEDESTAL, 87.0 FEET WEST-SOUTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 74.0 FEET NORTH-NORTHEAST OF A GRAVEL ROAD, 44.6 FEET EAST-NORTHEAST OF A FENCE, 21.0 FEET EAST-NORTHEAST OF A GRAVEL ROAD, 3.0 FEET SOUTH OF A WITNESS POST. THE STATION WAS RESET.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			680.596	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			680.691	.008	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
773.227	.131		680.822	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
773.227	.131		680.822	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
773.227	.131		680.822	.066	1996	GPS - STATIC	2002	HNICO
773.227	.131		680.822	.066	1996	GPS - STATIC	2002	HSUER

Geoid Separations(ft): GEOID18 = -92.595 12B = -92.592 09 = -92.513 03 = -92.355

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 48.53249	93 57 46.25179	579416.419	300203.717	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 48.53254	93 57 46.25256	579416.362	300203.722	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 48.53205	93 57 46.25198	579416.405	300203.673	.033	C	ADJUSTMENT	2003	GPS1882
44 23 48.53205	93 57 46.25198	579416.405	300203.673	.033	C	ADJUSTMENT	2003	GPS1847
44 23 48.53205	93 57 46.25198	579416.404	300203.671	.033	C	GPS - STATIC	2002	HNICO
44 23 48.53205	93 57 46.25198	579416.405	300203.673	.033	C	GPS - STATIC	2002	HSUER

7UP MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634376.900	837276.723	1388845.034	16129884.020	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634376.844	837276.728	1388844.979	16129884.026	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634376.886	837276.678	1388845.020	16129883.975	.033	C	ADJUSTMENT	2003	GPS1882
2634376.886	837276.678	1388845.020	16129883.975	.033	C	ADJUSTMENT	2003	GPS1847
2634376.886	837276.678	1388845.020	16129883.975	.033	C	GPS - STATIC	2002	HNICO
2634376.886	837276.678	1388845.020	16129883.975	.033	C	GPS - STATIC	2002	HSUER

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/7UP-DF5870-3N-14MAY2004.jpg	N	May 14, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/7UP-DF5870-2-14MAY2004.jpg		May 14, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/7UP-DF5870-1-14MAY2004.jpg		May 14, 2004

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

7UP MNDT RESET

Mn/DOT Name: 7UP MNDT RESET
NGS Name: 7UP RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1995 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	111 N	26 W	442348.53	935746.25	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 49 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** 7UP 1997 2013

4.0 MILES NORTH OF ST. PETER, 3.55 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN THE NORTH PART OF ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 71.70, 110.8 FEET NORTH OF A TELEPHONE PEDESTAL, 87.0 FEET WEST-SOUTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 74.0 FEET NORTH-NORTHEAST OF VALLEY VIEW ROAD, 44.6 FEET EAST-NORTHEAST OF A FENCE, 21.0 FEET EAST-NORTHEAST OF VALLEY VIEW ROAD, 3.0 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
773.105	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
773.109	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
773.109	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
773.141	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
773.145	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
773.043	.262		680.451	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.595 12B = -92.592 09 = -92.513 03 = -92.355

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 48.53220	93 57 46.25222	579416.387	300203.688	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634376.869	837276.694	1388845.003	16129883.991	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/7UP_RESET-DP1995-3W-28AUG2013.jpg	W	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/7UP_RESET-DP1995-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/7UP_RESET-DP1995-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

80 GJS

Mn/DOT Name: 80 GJS **NGS Name:** 80 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	111 N	26 W	442620.00	940002.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2010	GOOD	Horz=? Vert=YES	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 80 GJS 1963 955

4.0 MILES WEST-SOUTHWEST OF LE SUEUR, 1.4 MILES SOUTH ON TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 93 IN LE SUEUR, THEN 2.8 MILES WEST ON A PEACEFUL VALLEY ROAD, THEN 0.8 MILE SOUTH ON COUNTY ROAD 20, 41.0 FEET WEST AND 32.0 FEET NORTH OF COUNTY ROAD 20 AT A TEE-ROAD WEST (COUNTY ROAD 18).

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
955.179	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.395 12B = -92.392 09 = -92.329 03 = -92.155

*** No Horizontal Positions in the Database ***

Mn/DOT Name: 83 GJS **NGS Name:** 83 GJS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	32	111 N	27 W	442303.00	940534.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** 83 GJS 1963 1003

9.0 MILES NORTHEAST OF NICOLLET, 7.5 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 4.8 MILES EAST ON COUNTY ROAD 15, 257.0 FEET WEST AND 52.0 FEET NORTH OF COUNTY ROAD 15 AT A DRIVE NORTH, 2.0 FEET EAST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.777	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.310 12B = -92.316 09 = -92.244 03 = -92.103

*** No Horizontal Positions in the Database ***

84 GJS

Mn/DOT Name: 84 GJS

NGS Name: 84 GJS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	110 N	27 W	442120.00	940314.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1974	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** 84 GJS 1963 995

2.0 MILES NORTHWEST OF TRAVERSE, 2.2 MILES NORTHWEST ON COUNTY ROAD 15 FROM THE JUNCTION OF COUNTY ROAD 15 AND COUNTY ROAD 40 IN TRAVERSE, THEN 52.0 FEET SOUTHWEST ON COUNTY ROAD 68, 63.0 FEET SOUTH OF COUNTY ROAD 15, 59.0 FEET EAST OF COUNTY ROAD 68, 4.0 FEET EAST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.739	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.418 12B = -92.428 09 = -92.349 03 = -92.208

*** No Horizontal Positions in the Database ***

Geodetic Data Sheet (Feet)
GSID Station # 103917

AUGST

04/28/2026
Sheet Help

Mn/DOT Name: AUGST
NGS Name: AUGST
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2801 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	36	111 N	27 W	442258.70	940128.43	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2015)

Stamping: AUGST 2015

5.0 MILES NORTHWEST OF ST. PETER, 4.75 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 70.7, 51.0 FEET NORTH-NORTHEAST OF TRUNK HIGHWAY 22, 22.7 FEET WEST-NORTHWEST OF A FIELD, 5.0 FEET EAST-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
963.472	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
963.486	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
963.486			871.038	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
963.486			871.038	.026	2011	GPS - STATIC	2016	HNORS
963.486	.131		871.183	.066	1996	GPS - STATIC	2016	HNORS
963.341	.262		870.871	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.470 09 = -92.398 03 = -92.241

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 58.69762	94 01 28.43001	563299.095	295103.297	.020		ADJUSTMENT	2016	GPS3139
44 22 58.69762	94 01 28.43001	563299.095	295103.297	.020	C	GPS - STATIC	2016	HNORS
44 22 58.69727	94 01 28.42937	563299.141	295103.261	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 58.69756	94 01 28.43062	563299.050	295103.291	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2618245.056	832229.174	1372656.762	16125035.010	.020		ADJUSTMENT	2016	GPS3139
2618245.056	832229.174	1372656.762	16125035.010	.020	C	GPS - STATIC	2016	HNORS
2618245.103	832229.139	1372656.808	16125034.974	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2618245.012	832229.169	1372656.717	16125035.004	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AUGST-DQ2801-3NE-22JUN2015.jpg	NE	Jun 22, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AUGST-DQ2801-2-22JUN2015.jpg		Jun 22, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AUGST-DQ2801-1-22JUN2015.jpg		Jun 22, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

AWA MNDT

Mn/DOT Name: AWA MNDT **NGS Name:** AWA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0678 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	35	110 N	27 W	441748.53	940250.58	2	2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1991) **Stamping:** AWA 1978

4.5 MILES WEST-SOUTHWEST OF ST. PETER, 4.4 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 7.9, 52.77 FEET NORTHWEST OF AWA MNDT RM 1, 20.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 99, 10.5 FEET NORTH-NORTHWEST OF A WITNESS POST.

Station Pair: 5206 F - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.739	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
985.753	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
985.828	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
985.835	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.651	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.569	.262		893.040	.197	2011	GPS - OPUS	2021	GPSBM
985.762	.262		893.233	.197	2011	GPS - RTRN	2021	RTRN2021
985.667	.262		893.135	.197	2011	GPS - RTRN	2019	RTRN2019
985.562	.197		893.332	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
985.201						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.529 12B = -92.533 09 = -92.457 03 = -92.326

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 48.53328	94 02 50.57718	557416.782	263675.886	.131	3	GPS - OPUS	2021	GPSBM
44 17 48.53336	94 02 50.57618	557416.855	263675.894	.131	3	GPS - RTRN	2021	RTRN2021
44 17 48.53284	94 02 50.57645	557416.835	263675.841	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 48.53109	94 02 50.58423	557416.270	263675.663	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 48.52690	94 02 50.57966	557416.603	263675.239	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 48.64531	94 02 49.72995			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612261.488	800824.600	1366292.125	16093713.345	.131	3	GPS - OPUS	2021	GPSBM
2612261.561	800824.608	1366292.198	16093713.352	.131	3	GPS - RTRN	2021	RTRN2021
2612261.542	800824.555	1366292.178	16093713.300	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612260.976	800824.379	1366291.610	16093713.130	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612261.308	800823.954	1366291.937	16093712.702	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1987656.084	472747.525			.100	2	CLASSICAL SURVEY	1980	16297

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA-PQ0678-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA-PQ0678-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA-PQ0678-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

AWA MNDT RM 1

Mn/DOT Name: AWA MNDT RM 1 **NGS Name:** AWA RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3111 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	35	110 N	27 W	441748.16	940250.08	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
REFERENCE MARK DISK

Mon. Agency
MNDT

Description: (1991) **Stamping:** AWA NO 1 1978

4.5 MILES WEST-SOUTHWEST OF ST. PETER, 4.4 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 7.9, 71.3 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 99, 52.77 SOUTHEAST OF STATION AWA MNDT, 1.8 FEET EAST-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.925	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
982.938	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
982.938	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
982.944	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.761	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.852	.262		890.316	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.529 12B = -92.536 09 = -92.457 03 = -92.326

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 48.15807	94 02 50.07932	557453.094	263637.985	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612297.673	800786.585	1366327.836	16093674.902	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA_RM_1-AI3111-3S-25JUN2019.jpg	S	Jun 25, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA_RM_1-AI3111-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA_RM_1-AI3111-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

AWA MNDT RM 2

Mn/DOT Name: AWA MNDT RM 2 **NGS Name:** AWA RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO7788 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	35	110 N	27 W	441747.97	940250.69	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: **Stamping:** AWA NO 2 1978

1.58 MILES NORTHEAST OF NORTH STAR, 1.6 MILES NORTHEAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND COUNTY ROAD 13 (SOUTH) IN NORTH STAR, 63.7 FEET SOUTH-SOUTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 99, 1.5 FEET NORTH-NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.026	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
983.043	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.984	.262		890.451	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.529 12B = -92.533 09 = -92.457 03 = -92.326

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 47.97127	94 02 50.69473	557408.384	263618.948	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612252.907	800767.696	1366282.853	16093656.564	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA_RM_2-CO7788-3S-25JUN2019.jpg	S	Jun 25, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA_RM_2-CO7788-2-25JUN2019.jpg		Jun 25, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/AWA_RM_2-CO7788-1-25JUN2019.jpg		Jun 25, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: B 126 **NGS Name:** B 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0117 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	111 N	30 W	442651.00	942334.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2015	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (2002) **Stamping:** B 126 1934

IN LAFAYETTE, AT THE SOUTHWEST CORNER OF 9TH STREET (OLD TRUNK HIGHWAY 15) AND PIONEER AVENUE, 73.6 FEET EAST-NORTHEAST OF THE NORTHEAST CORNER OF AN ELEVATOR, 71.0 FEET WEST OF 9TH STREET, 67.5 FEET SOUTH-SOUTHWEST OF A POWER POLE, 67.0 FEET SOUTH OF PIONEER AVENUE, 1.1 FEET EAST OF A WITNESS POST.

Station Notes

PART OF THE ELEVATOR WAS REMOVED, CO-OP WORKER THOUGHT THE MARK WAS ALSO REMOVED.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1013.896	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1013.571	.007	1				VERTICAL CONTROL SURVEY	1941	L43 MINN

Geoid Separations(ft): GEOID18 = -91.778 12B = -91.752 09 = -91.663 03 = -91.561

*** No Horizontal Positions in the Database ***

BAUMAN MNDT

Mn/DOT Name: BAUMAN MNDT **NGS Name:** BAUMAN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2942 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	31	110 N	26 W	441732.42	935950.51	2	2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 12 IN.	STEEL ROD IMBED IN MON

Monument Type: CONCRETE MONUMENT (CAST-IN-PLACE)
Disk Type: HORIZONTAL CONTROL DISK
Mon. Agency: MNDT

Description: (1978) **Stamping:** BAUMAN 1978

3.0 MILES SOUTHWEST OF ST. PETER, 2.1 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 WEST IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 63.2, 32.09 FEET NORTHEAST OF BAUMAN MNDT RM 1, 23.8 FEET NORTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 14.0 FEET SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
773.627	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
773.627	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
773.627	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
773.640	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
773.640	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
773.660	.262		680.901	.197	2011	GPS - RTRN	2025	RTRN2025
773.561	.262		680.799	.197	2011	GPS - RTRN	2019	RTRN2019
773.778	.262		681.016	.197	2011	GPS - RTRN	2013	RTRN2013
773.752	.197		681.318	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
773.588						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.759 12B = -92.766 09 = -92.680 03 = -92.542

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 32.41556	93 59 50.51498	570518.477	262082.541	.131	3	GPS - RTRN	2025	RTRN2025
44 17 32.41579	93 59 50.51507	570518.470	262082.564	.131	3	GPS - RTRN	2019	RTRN2019
44 17 32.41519	93 59 50.51434	570518.524	262082.503	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 32.41605	93 59 50.52036	570518.085	262082.589	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 32.41196	93 59 50.51477	570518.493	262082.176	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 32.52975	93 59 49.67263			.100	2	CLASSICAL SURVEY	1980	16297

BAUMAN MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625356.515	799188.946	1379363.018	16091918.656	.131	3	GPS - RTRN	2025	RTRN2025
2625356.508	799188.970	1379363.012	16091918.679	.131	3	GPS - RTRN	2019	RTRN2019
2625356.561	799188.909	1379363.064	16091918.618	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625356.124	799188.996	1379362.628	16091918.710	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625356.530	799188.582	1379363.029	16091918.291	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2000751.134	471112.143			.100	2	CLASSICAL SURVEY	1980	16297

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BAUMAN-PP2942-3NW-22SEP2025.jpg	NW	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BAUMAN-PP2942-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BAUMAN-PP2942-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BAUMAN MNDT RM 1

Mn/DOT Name: BAUMAN MNDT RM 1 **NGS Name:** BAUMAN RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CJ3826 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	31	110 N	26 W	441732.37	935950.95	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (2013) **Stamping:** BAUMAN NO 1 1978

3.0 MILES SOUTHWEST OF ST. PETER, 2.1 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 WEST IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 63.2, 44.2 FEET NORTHWEST OF THE CENTERLINE OF THE SOUTHBOUND LANE OF TRUNK HIGHWAY 169, 32.09 FEET SOUTHWEST OF STATION BAUMAN MNDT, 1.0 FOOT SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
771.275	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
771.275	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
771.255	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
771.268	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
771.265	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
771.340	.262		678.581	.197	2011	GPS - RTRN	2025	RTRN2025

Geoid Separations(ft): GEOID18 = -92.759 12B = -92.762 09 = -92.680 03 = -92.542

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 32.36659	93 59 50.94888	570486.932	262077.478	.131	3	GPS - RTRN	2025	RTRN2025

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2625324.957	799183.987	1379331.411	16091914.082	.131	3	GPS - RTRN	2025	RTRN2025

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BAUMAN_RM_1-CJ3826-3NW-23SEP2025.jpg	NW	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BAUMAN_RM_1-CJ3826-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BAUMAN_RM_1-CJ3826-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BAUMAN MNDT RM 2

Mn/DOT Name: BAUMAN MNDT RM 2

NGS Name: BAUMAN RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CJ3827 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	31	110 N	26 W	441732.71	935950.54		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: BAUMAN NO 2 1978

3.1 MILES SOUTHWEST OF ST. PETER, 2.11 MILES WEST OF KASOTA, 2.1 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 (WEST) IN ST. PETER, 24.6 FEET NORTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169 AND 23.3 FEET SOUTHWEST OF A STEEL WITNESS POST.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.762 12B = -92.766 09 = -92.680 03 = -92.546

BELGRADE 10 MN103

Mn/DOT Name: BELGRADE 10 MN103 **NGS Name:** BELGRADE 10

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6568 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	109 N	27 W	441605.83	940351.96		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** BELGRADE 10 2001

6.2 MILES NORTH OF NORTH MANKATO, 6.2 MILES NORTH ALONG COUNTY 13 FROM THE JUNCTION OF COUNTY ROAD 13 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, 202.0 FEET SOUTH OF DRIVEWAY NUMBERS 47005 AND 47009, 55.0 FEET NORTH OF A POWER POLE, 51.0 FEET EAST OF COUNTY ROAD 13, 27.0 FEET SOUTH OF A FIELD ENTRANCE, 5.0 FEET NORTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.586	.262		889.063	.197	2011	GPS - OPUS	2021	GPSBM
981.612	.262		889.089	.197	2011	GPS - OPUS	2021	GPSBM
981.714	.262		889.191	.197	2011	GPS - RTRN	2021	RTRN2021
981.668			889.126	.019	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
981.668			889.139	.019	2011	GPS - STATIC	2013	HSUEUR
981.707	.131		889.355	.066	1996	GPS - STATIC	2013	HSUEUR
981.543	.262		889.021	.197	2011	GPS - RTRN	2013	RTRN2013
			889.126	.024	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
981.566	.262		889.112	.197	2007	GPS - RTRN	2011	RTRN2011
			889.224	.027	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
981.658	.131		889.355	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
981.658	.131		889.355	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.523 12B = -92.523 09 = -92.451 03 = -92.329

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 05.82661	94 03 51.96197	552977.687	253263.360	.131	3	GPS - OPUS	2021	GPSBM
44 16 05.82604	94 03 51.96168	552977.708	253263.302	.131	3	GPS - OPUS	2021	GPSBM
44 16 05.82641	94 03 51.96114	552977.747	253263.340	.131	3	GPS - RTRN	2021	RTRN2021
44 16 05.82626	94 03 51.96128	552977.737	253263.325	.016		ADJUSTMENT	2014	GPS2977
44 16 05.82629	94 03 51.96112	552977.749	253263.327	.016	C	GPS - STATIC	2013	HSUEUR
44 16 05.82603	94 03 51.96104	552977.755	253263.301	.131	3	GPS - RTRN	2013	RTRN2013
44 16 05.82626	94 03 51.96128	552977.737	253263.325	.020		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 05.82531	94 03 51.96124	552977.740	253263.228	.131	3	GPS - RTRN	2011	RTRN2011
44 16 05.82626	94 03 51.96214	552977.674	253263.325	.023		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 05.82571	94 03 51.96134	552977.733	253263.269	.033	C	GPS - STATIC	2013	HSUEUR
44 16 05.82571	94 03 51.96134	552977.733	253263.269	.033	C	ADJUSTMENT	2003	GPS1882
44 16 05.82571	94 03 51.96134	552977.733	253263.270	.033	C	GPS - STATIC	2002	HNICO

BELGRADE 10 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607789.100	790427.662	1361694.509	16083374.172	.131	3	GPS - OPUS	2021	GPSBM
2607789.121	790427.605	1361694.530	16083374.114	.131	3	GPS - OPUS	2021	GPSBM
2607789.160	790427.642	1361694.569	16083374.151	.131	3	GPS - RTRN	2021	RTRN2021
2607789.150	790427.627	1361694.559	16083374.136	.016		ADJUSTMENT	2014	GPS2977
2607789.161	790427.630	1361694.571	16083374.139	.016	C	GPS - STATIC	2013	HSUEUR
2607789.167	790427.604	1361694.576	16083374.112	.131	3	GPS - RTRN	2013	RTRN2013
2607789.150	790427.627	1361694.559	16083374.136	.020		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607789.153	790427.531	1361694.561	16083374.040	.131	3	GPS - RTRN	2011	RTRN2011
2607789.087	790427.627	1361694.496	16083374.137	.023		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607789.145	790427.571	1361694.554	16083374.080	.033	C	GPS - STATIC	2013	HSUEUR
2607789.145	790427.571	1361694.554	16083374.080	.033	C	ADJUSTMENT	2003	GPS1882
2607789.145	790427.571	1361694.554	16083374.080	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_10-DF6568-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_10-DF6568-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_10-DF6568-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BELGRADE 21 MN103

Mn/DOT Name: BELGRADE 21 MN103 **NGS Name:** BELGRADE 21

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6569 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	109 N	27 W	441357.99	940505.12		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2011	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** BELGRADE 21 2001

3.6 MILES NORTH OF NORTH MANKATO, 3.6 MILES NORTH ALONG COUNTY ROAD 13 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 13 IN NORTH MANKATO, THEN 1.4 MILES WEST ON TOWNSHIP ROAD 112, 34.0 FEET NORTH OF TOWNSHIP ROAD 112, 29.0 FEET EAST OF TOWNSHIP ROAD 111, 7.0 FEET SOUTH-SOUTHWEST OF A POWER POLE WITH A GUY WIRE, 5.0 FEET SOUTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.963			903.423	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
995.959	.131		903.643	.066	1996	GPS - STATIC	2013	HNMAN
995.963			903.450	.010	2011	GPS - STATIC	2013	HNMAN
			903.423	.015	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
995.867	.262		903.433	.197	2007	GPS - RTRN	2011	RTRN2011
			903.522	.017	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
995.930	.131		903.663	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
995.930	.131		903.663	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.506 12B = -92.513 09 = -92.434 03 = -92.316

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 57.98690	94 05 05.12007	547682.776	240304.704	.013		ADJUSTMENT	2013	GPS2964
44 13 57.98692	94 05 05.12011	547682.773	240304.706	.013	C	GPS - STATIC	2013	HNMAN
44 13 57.98690	94 05 05.12007	547682.776	240304.704	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 57.98721	94 05 05.11976	547682.799	240304.736	.131	3	GPS - RTRN	2011	RTRN2011
44 13 57.98689	94 05 05.12102	547682.707	240304.703	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 57.98634	94 05 05.12004	547682.778	240304.648	.033	C	GPS - STATIC	2013	HNMAN
44 13 57.98634	94 05 05.12004	547682.778	240304.648	.033	C	ADJUSTMENT	2003	GPS1882
44 13 57.98634	94 05 05.12004	547682.779	240304.647	.033	C	GPS - STATIC	2002	HNICO

BELGRADE 21 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602452.691	777487.625	1356202.273	16070503.170	.013		ADJUSTMENT	2013	GPS2964
2602452.689	777487.627	1356202.270	16070503.172	.013	C	GPS - STATIC	2013	HNMAN
2602452.691	777487.625	1356202.273	16070503.170	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602452.714	777487.656	1356202.296	16070503.200	.131	3	GPS - RTRN	2011	RTRN2011
2602452.623	777487.624	1356202.204	16070503.169	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602452.694	777487.568	1356202.274	16070503.113	.033	C	GPS - STATIC	2013	HNMAN
2602452.694	777487.568	1356202.274	16070503.113	.033	C	ADJUSTMENT	2003	GPS1882
2602452.694	777487.568	1356202.274	16070503.113	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_21-DF6569-3N-14JUN2011.jpg	N	Jun 14, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_21-DF6569-2-14JUN2011.jpg		Jun 14, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_21-DF6569-1-14JUN2011.jpg		Jun 14, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BELGRADE 9 MN103

Mn/DOT Name: BELGRADE 9 MN103 **NGS Name:** BELGRADE 9

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6570 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	9	108 N	27 W	441007.49	940449.20		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2011	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2003) **Stamping:** BELGRADE 9 2001

1.3 MILES SOUTH OF NORTH MANKATO, 1.4 MILES SOUTH ALONG COUNTY ROAD 41 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 41 IN NORTH MANKATO, 106.0 FEET SOUTHEAST OF A STOP SIGN, 99.0 FEET SOUTHEAST OF COUNTY ROAD 41, 64.0 FEET SOUTHWEST OF COUNTY ROAD 71, 2.9 FEET NORTH OF A WITNESS POST, STAMPED A YEAR LATER.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
840.792			748.233	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
840.786	.131		748.427	.066	1996	GPS - STATIC	2013	HNMAN
840.792			748.227	.007	2011	GPS - STATIC	2013	HNMAN
			748.233	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
840.750	.262		748.263	.197	2007	GPS - RTRN	2011	RTRN2011
			748.322	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
840.845	.131		748.463	.066	1996	HORIZONTAL ADJUSTMENT	2004	GPS1986
840.845	.131		748.463	.066	1996	GPS - STATIC	2003	HEARTH
840.812	.131		748.463	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
840.812	.131		748.463	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.569 12B = -92.585 09 = -92.487 03 = -92.359

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 07.48509	94 04 49.20075	548894.760	216964.798	.007		ADJUSTMENT	2013	GPS2964
44 10 07.48507	94 04 49.20075	548894.760	216964.796	.007	C	GPS - STATIC	2013	HNMAN
44 10 07.48509	94 04 49.20075	548894.760	216964.798	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 07.48524	94 04 49.20101	548894.741	216964.813	.131	3	GPS - RTRN	2011	RTRN2011
44 10 07.48504	94 04 49.20153	548894.703	216964.793	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 07.48454	94 04 49.20055	548894.775	216964.742	.033	C	GPS - STATIC	2013	HNMAN
44 10 07.48454	94 04 49.20055	548894.775	216964.742	.033	C	ADJUSTMENT	2004	GPS1986
44 10 07.48454	94 04 49.20055	548894.775	216964.742	.033	C	GPS - STATIC	2003	HEARTH
44 10 07.48454	94 04 49.20055	548894.775	216964.742	.033	C	ADJUSTMENT	2003	GPS1882
44 10 07.48454	94 04 49.20055	548894.775	216964.743	.033	C	GPS - STATIC	2002	HNICO

BELGRADE 9 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603588.744	754146.224	1357054.130	16047155.371	.007		ADJUSTMENT	2013	GPS2964
2603588.744	754146.222	1357054.130	16047155.369	.007	C	GPS - STATIC	2013	HNMAN
2603588.744	754146.224	1357054.130	16047155.371	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603588.725	754146.239	1357054.111	16047155.386	.131	3	GPS - RTRN	2011	RTRN2011
2603588.687	754146.218	1357054.073	16047155.366	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603588.759	754146.168	1357054.143	16047155.315	.033	C	GPS - STATIC	2013	HNMAN
2603588.759	754146.168	1357054.143	16047155.315	.033	C	ADJUSTMENT	2004	GPS1986
2603588.759	754146.168	1357054.143	16047155.315	.033	C	GPS - STATIC	2003	HEARTH
2603588.759	754146.168	1357054.143	16047155.315	.033	C	ADJUSTMENT	2003	GPS1882
2603588.759	754146.168	1357054.143	16047155.315	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_9-DF6570-3S-14JUN2011.jpg	S	Jun 14, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_9-DF6570-2-14JUN2011.jpg		Jun 14, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BELGRADE_9-DF6570-1-14JUN2011.jpg		Jun 14, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BENN MNDT

Mn/DOT Name: BENN MNDT **NGS Name:** BENN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0699 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	109 N	27 W	441250.33	940138.41	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2013	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
HORIZONTAL CONTROL DISK

Mon. Agency
MNDT

Description: (1985) **Stamping:** BENN 1978

1.5 MILES NORTH OF NORTH MANKATO, 1.7 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 57.35, 101.50 FEET EAST OF STATION 5211 D, 93.64 FEET SOUTHEAST OF BENN MNDT RM 2, 88.7 FEET EAST OF A RIGHT-OF-WAY POST, 35.8 FEET WEST-SOUTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 10.0 FEET NORTH-NORTHWEST OF A WOODED ENTRANCE, 3.2 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
777.311	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
777.321	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
777.321	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
777.387	.262		684.648	.197	2011	GPS - RTRN	2013	RTRN2013
			684.621	.018	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
777.351	.262		684.690	.197	2007	GPS - RTRN	2011	RTRN2011
			684.710	.019	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
777.361	.131		684.854	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
777.361	.131		684.854	.066	1996	GPS - STATIC	2002	HNICO
777.426	.197		684.982	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
777.295						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.743 12B = -92.743 09 = -92.661 03 = -92.542

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 50.32550	94 01 38.40988	562753.549	233491.276	.131	3	GPS - RTRN	2013	RTRN2013
44 12 50.32554	94 01 38.40986	562753.551	233491.280	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 50.32580	94 01 38.40908	562753.608	233491.307	.131	3	GPS - RTRN	2011	RTRN2011
44 12 50.32549	94 01 38.41065	562753.493	233491.275	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 50.32497	94 01 38.40972	562753.561	233491.223	.033	C	ADJUSTMENT	2003	GPS1882
44 12 50.32497	94 01 38.40972	562753.563	233491.223	.033	C	GPS - STATIC	2002	HNICO
44 12 50.32532	94 01 38.41096	562753.471	233491.258	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 50.32192	94 01 38.40525	562753.888	233490.914	.033	C	GPS - STATIC	1987	HBLUE
44 12 50.32192	94 01 38.40525	562753.888	233490.915	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 50.43853	94 01 37.56466			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617499.737	770626.009	1371161.013	16063460.674	.131	3	GPS - RTRN	2013	RTRN2013
2617499.738	770626.013	1371161.015	16063460.678	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617499.795	770626.039	1371161.072	16063460.704	.131	3	GPS - RTRN	2011	RTRN2011
2617499.681	770626.008	1371160.957	16063460.674	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617499.749	770625.955	1371161.024	16063460.620	.033	C	ADJUSTMENT	2003	GPS1882
2617499.749	770625.955	1371161.024	16063460.620	.033	C	GPS - STATIC	2002	HNICO
2617499.658	770625.991	1371160.935	16063460.657	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617500.074	770625.646	1371161.346	16063460.307	.033	C	GPS - STATIC	1987	HBLUE
2617500.074	770625.646	1371161.346	16063460.307	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1992894.423	442549.336			.100	2	CLASSICAL SURVEY	1980	16297

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BENN-PQ0699-3SW-15JUN2011.jpg	SW	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BENN-PQ0699-2-26AUG2013.jpg		Aug 26, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BENN-PQ0699-1-26AUG2013.jpg		Aug 26, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BENN MNDT RM 2

Mn/DOT Name: BENN MNDT RM 2 **NGS Name:** BENN RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO7822 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	109 N	27 W	441250.94	940139.37	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2013	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (2013) **Stamping:** BENN NO 2 1978

1.5 MILES NORTH OF NORTH MANKATO, 1.7 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 57.3, 96.5 FEET WEST-SOUTHWEST OF SOUTHBOUND LANE OF TRUNK HIGHWAY 169, 93.64 FEET NORTHWEST OF STATION BENN MNDT, 78.0 FEET NORTH-NORTHEAST OF THE STATION AND A WITNESS POST, 58.0 FEET NORTH OF A WOODED ENTRANCE, 14.2 FEET NORTH-NORTHEAST OF A RIGHT-OF-WAY POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.124	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
786.134	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
786.134	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Geoid Separations(ft): GEOID18 = -92.739 12B = -92.743 09 = -92.661 03 = -92.542

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BENN_RM_2-CO7822-3SW-26AUG2013.jpg	SW	Aug 26, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BENN_RM_2-CO7822-2-26AUG2013.jpg		Aug 26, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BENN_RM_2-CO7822-1-26AUG2013.jpg		Aug 26, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BERNADOTTE 12 MN103

Mn/DOT Name: BERNADOTTE 12 MN103 **NGS Name:** BERNADOTTE 12

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6571 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	111 N	29 W	442605.31	941503.65		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2007) **Stamping:** BERNADOTTE 12 2001

7.3 MILES EAST OF LAFAYETTE, 7.3 MILES EAST ALONG COUNTY ROAD 1 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, THEN 0.1 MILE SOUTH ON COUNTY ROAD 4, 100.0 FEET WEST OF A POWER POLE, 48.0 FEET WEST OF COUNTY ROAD 4, 28.0 FEET SOUTH OF A FIELD ENTRANCE, 3.0 FEET EAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.780	.262		904.811	.197	2011	GPS - OPUS	2021	GPSBM
996.806	.262		904.837	.197	2011	GPS - OPUS	2021	GPSBM
996.839	.262		904.867	.197	2011	GPS - RTRN	2021	RTRN2021
			904.857	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			904.939	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
996.848	.131		905.051	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
996.848	.131		905.051	.066	1996	GPS - STATIC	2007	HSIBL
			904.936	.022	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
996.816	.131		905.051	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
996.816	.131		905.051	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.968 12B = -91.965 09 = -91.870 03 = -91.765

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 05.30894	94 15 03.64608	504089.199	313909.249	.131	3	GPS - OPUS	2021	GPSBM
44 26 05.30934	94 15 03.64597	504089.206	313909.290	.131	3	GPS - OPUS	2021	GPSBM
44 26 05.30916	94 15 03.64580	504089.219	313909.271	.131	3	GPS - RTRN	2021	RTRN2021
44 26 05.30909	94 15 03.64584	504089.216	313909.264	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 05.30920	94 15 03.64678	504089.148	313909.275	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 05.30922	94 15 03.64690	504089.139	313909.277	.033		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 05.30863	94 15 03.64626	504089.185	313909.218	.033	C	ADJUSTMENT	2008	GPS2397
44 26 05.30863	94 15 03.64626	504089.185	313909.218	.033	C	GPS - STATIC	2007	HSIBL
44 26 05.30863	94 15 03.64626	504089.185	313909.218	.033	C	ADJUSTMENT	2003	GPS1882
44 26 05.30863	94 15 03.64626	504089.185	313909.218	.033	C	GPS - STATIC	2002	HNICO

BERNADOTTE 12 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559103.826	851225.292	1313764.996	16144747.532	.131	3	GPS - OPUS	2021	GPSBM
2559103.834	851225.333	1313765.005	16144747.572	.131	3	GPS - OPUS	2021	GPSBM
2559103.846	851225.314	1313765.017	16144747.554	.131	3	GPS - RTRN	2021	RTRN2021
2559103.843	851225.307	1313765.014	16144747.547	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559103.775	851225.319	1313764.946	16144747.559	.033	C	ADJUSTMENT	2009	GPS2397-B
2559103.766	851225.321	1313764.937	16144747.561	.033		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559103.813	851225.261	1313764.983	16144747.501	.033	C	ADJUSTMENT	2008	GPS2397
2559103.813	851225.261	1313764.983	16144747.501	.033	C	GPS - STATIC	2007	HSIBL
2559103.813	851225.261	1313764.983	16144747.501	.033	C	ADJUSTMENT	2003	GPS1882
2559103.813	851225.261	1313764.983	16144747.501	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_12-DF6571-3W-12MAY2021.jpg	W	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_12-DF6571-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_12-DF6571-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BERNADOTTE 25 MN103

Mn/DOT Name: BERNADOTTE 25 MN103 **NGS Name:** BERNADOTTE 25

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6572 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	29 W	442328.29	941502.66		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** BERNADOTTE 25 2001

2.2 MILES NORTH OF KLOSSNER, 2.2 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 8.0 MILES EAST ON COUNTY ROAD 15, 72.0 FEET SOUTH OF COUNTY ROAD 15, 39.0 FEET WEST OF COUNTY ROAD 4, 21.0 FEET NORTH OF A FIELD ENTRANCE, 3.0 FEET EAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
980.503	.262		888.437	.197	2011	GPS - OPUS	2021	GPSBM
980.592	.262		888.525	.197	2011	GPS - OPUS	2021	GPSBM
980.674	.262		888.610	.197	2011	GPS - RTRN	2021	RTRN2021
			888.555	.012	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			888.643	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
980.608	.131		888.765	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
980.608	.131		888.765	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.060 09 = -91.975 03 = -91.860

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.28944	94 15 02.66432	504163.517	298007.388	.131	3	GPS - OPUS	2021	GPSBM
44 23 28.28886	94 15 02.66414	504163.530	298007.330	.131	3	GPS - OPUS	2021	GPSBM
44 23 28.28853	94 15 02.66371	504163.561	298007.296	.131	3	GPS - RTRN	2021	RTRN2021
44 23 28.28942	94 15 02.66380	504163.554	298007.386	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.28943	94 15 02.66462	504163.495	298007.387	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.28885	94 15 02.66405	504163.536	298007.328	.033	C	ADJUSTMENT	2003	GPS1882
44 23 28.28885	94 15 02.66405	504163.536	298007.327	.033	C	GPS - STATIC	2002	HNICO

BERNADOTTE 25 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559126.284	835325.213	1313593.342	16128851.564	.131	3	GPS - OPUS	2021	GPSBM
2559126.297	835325.154	1313593.354	16128851.505	.131	3	GPS - OPUS	2021	GPSBM
2559126.328	835325.121	1313593.384	16128851.472	.131	3	GPS - RTRN	2021	RTRN2021
2559126.322	835325.211	1313593.379	16128851.562	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559126.262	835325.212	1313593.320	16128851.564	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559126.303	835325.153	1313593.360	16128851.504	.033	C	ADJUSTMENT	2003	GPS1882
2559126.303	835325.153	1313593.360	16128851.504	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_25-DF6572-3W-12MAY2021.jpg	W	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_25-DF6572-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_25-DF6572-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BERNADOTTE 27 MN103

Mn/DOT Name: BERNADOTTE 27 MN103 **NGS Name:** BERNADOTTE 27

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6573 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	111 N	29 W	442328.70	941840.96		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** BERNADOTTE 27 2001

2.2 MILES NORTH OF KLOSSNER, 2.2 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 5.0 MILES EAST ON COUNTY ROAD 15, 52.0 FEET SOUTH OF COUNTY ROAD 15 ON COUNTY ROAD 10, 43.0 FEET NORTH-NORTHWEST OF A TELEPHONE PEDESTAL, 38.0 FEET EAST OF COUNTY ROAD 10, 3.5 FEET SOUTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.040	.262		897.022	.197	2011	GPS - OPUS	2021	GPSBM
989.076	.262		897.059	.197	2011	GPS - OPUS	2021	GPSBM
989.155	.262		897.137	.197	2011	GPS - RTRN	2021	RTRN2021
			897.177	.023	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			897.282	.026	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
989.204	.131		897.400	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
989.204	.131		897.400	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.018 12B = -91.998 09 = -91.919 03 = -91.801

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.69901	94 18 40.95806	488311.811	298051.640	.131	3	GPS - OPUS	2021	GPSBM
44 23 28.69858	94 18 40.95842	488311.786	298051.596	.131	3	GPS - OPUS	2021	GPSBM
44 23 28.69866	94 18 40.95809	488311.809	298051.604	.131	3	GPS - RTRN	2021	RTRN2021
44 23 28.69895	94 18 40.95819	488311.802	298051.634	.033		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.69903	94 18 40.95906	488311.739	298051.642	.036		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.69844	94 18 40.95844	488311.784	298051.582	.033	C	ADJUSTMENT	2003	GPS1882
44 23 28.69844	94 18 40.95844	488311.783	298051.582	.033	C	GPS - STATIC	2002	HNICO

BERNADOTTE 27 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543276.704	835421.183	1297749.217	16129140.896	.131	3	GPS - OPUS	2021	GPSBM
2543276.678	835421.139	1297749.190	16129140.853	.131	3	GPS - OPUS	2021	GPSBM
2543276.702	835421.147	1297749.214	16129140.860	.131	3	GPS - RTRN	2021	RTRN2021
2543276.695	835421.177	1297749.207	16129140.890	.033		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543276.632	835421.185	1297749.144	16129140.899	.036		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543276.677	835421.125	1297749.188	16129140.839	.033	C	ADJUSTMENT	2003	GPS1882
2543276.677	835421.125	1297749.189	16129140.838	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_27-DF6573-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_27-DF6573-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_27-DF6573-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BERNADOTTE 3 MN103

Mn/DOT Name: BERNADOTTE 3 MN103 **NGS Name:** BERNADOTTE 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6574 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	111 N	29 W	442636.38	941806.32		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2007) **Stamping:** BERNADOTTE 3 2001

4.4 MILES EAST OF LAFAYETTE, 4.4 MILES EAST ALONG COUNTY ROAD 1 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, THEN 0.10 MILE NORTH ON COUNTY ROAD 10, 45.0 FEET WEST OF COUNTY ROAD 10, 20.0 FEET SOUTH OF A FIELD ENTRANCE, 12.0 FEET NORTHEAST OF A POWER POLE, 3.0 FEET EAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.132	.262		923.236	.197	2011	GPS - OPUS	2021	GPSBM
1015.126	.262		923.230	.197	2011	GPS - OPUS	2021	GPSBM
1015.293	.262		923.397	.197	2011	GPS - RTRN	2021	RTRN2021
			923.361	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			923.522	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
1015.254	.131		923.637	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
1015.254	.131		923.637	.066	1996	GPS - STATIC	2007	HSIBL
			923.522	.028	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1015.319	.131		923.637	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1015.319	.131		923.637	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.896 12B = -91.883 09 = -91.791 03 = -91.683

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 36.37795	94 18 06.32333	490834.967	317057.296	.131	3	GPS - OPUS	2021	GPSBM
44 26 36.37846	94 18 06.32344	490834.960	317057.347	.131	3	GPS - OPUS	2021	GPSBM
44 26 36.37790	94 18 06.32238	490835.036	317057.290	.131	3	GPS - RTRN	2021	RTRN2021
44 26 36.37819	94 18 06.32277	490835.008	317057.320	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 36.37850	94 18 06.32375	490834.937	317057.351	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 36.37855	94 18 06.32377	490834.936	317057.356	.039		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 36.37796	94 18 06.32316	490834.980	317057.297	.033	C	ADJUSTMENT	2008	GPS2397
44 26 36.37796	94 18 06.32316	490834.980	317057.297	.033	C	GPS - STATIC	2007	HSIBL
44 26 36.37796	94 18 06.32316	490834.980	317057.297	.033	C	ADJUSTMENT	2003	GPS1882
44 26 36.37796	94 18 06.32316	490834.980	317057.296	.033	C	GPS - STATIC	2002	HNICO

BERNADOTTE 3 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2545861.590	854416.172	1300565.317	16148099.302	.131	3	GPS - OPUS	2021	GPSBM
2545861.582	854416.224	1300565.309	16148099.353	.131	3	GPS - OPUS	2021	GPSBM
2545861.659	854416.167	1300565.385	16148099.295	.131	3	GPS - RTRN	2021	RTRN2021
2545861.630	854416.197	1300565.358	16148099.325	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2545861.560	854416.228	1300565.287	16148099.358	.033	C	ADJUSTMENT	2009	GPS2397-B
2545861.558	854416.233	1300565.286	16148099.363	.039		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2545861.602	854416.173	1300565.329	16148099.302	.033	C	ADJUSTMENT	2008	GPS2397
2545861.602	854416.173	1300565.329	16148099.302	.033	C	GPS - STATIC	2007	HSIBL
2545861.602	854416.173	1300565.329	16148099.302	.033	C	ADJUSTMENT	2003	GPS1882
2545861.602	854416.173	1300565.329	16148099.302	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_3-DF6574-3W-12MAY2021.jpg	W	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_3-DF6574-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_3-DF6574-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BERNADOTTE 30 MN103

Mn/DOT Name: BERNADOTTE 30 MN103 **NGS Name:** BERNADOTTE 30

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6575 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	111 N	29 W	442328.70	942107.55		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2016	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** BERNADOTTE 30 2001

2.2 MILES NORTHEAST OF KLOSSNER, 2.2 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER TO TRUNK HIGHWAY 15 MILEPOINT 65.2, THEN 3.0 MILES EAST ON COUNTY ROAD 15, 61.0 FEET SOUTH OF COUNTY ROAD 15, 40.0 FEET WEST OF COUNTY ROAD 12, 37.0 FEET NORTH OF A FIELD ENTRANCE, 9.0 FEET WEST OF A TELEPHONE MARKER POST, 4.0 FEET NORTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.560			920.622	.015	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1012.570	.131		920.864	.066	1996	GPS - STATIC	2016	HKLOS
1012.560			920.622	.015	2011	GPS - STATIC	2016	HKLOS
1012.505	.262		920.553	.197	2011	GPS - RTRN	2015	RTRN2015
			920.622	.024	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			920.749	.032	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1012.629	.131		920.864	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1012.629	.131		920.864	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.975 12B = -91.949 09 = -91.870 03 = -91.749

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.69822	94 21 07.54625	477667.114	298059.980	.010		ADJUSTMENT	2016	GPS3141
44 23 28.69822	94 21 07.54625	477667.114	298059.980	.010	C	GPS - STATIC	2016	HKLOS
44 23 28.69804	94 21 07.54542	477667.174	298059.962	.131	3	GPS - RTRN	2015	RTRN2015
44 23 28.69822	94 21 07.54625	477667.114	298059.980	.033		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.69837	94 21 07.54693	477667.064	298059.995	.046		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.69778	94 21 07.54633	477667.108	298059.936	.033	C	GPS - STATIC	2016	HKLOS
44 23 28.69778	94 21 07.54633	477667.108	298059.936	.033	C	ADJUSTMENT	2003	GPS1882
44 23 28.69778	94 21 07.54633	477667.109	298059.935	.033	C	GPS - STATIC	2002	HNICO

BERNADOTTE 30 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2532633.364	835464.297	1287109.170	16129313.853	.010		ADJUSTMENT	2016	GPS3141
2532633.364	835464.297	1287109.170	16129313.853	.010	C	GPS - STATIC	2016	HKLOS
2532633.424	835464.278	1287109.230	16129313.834	.131	3	GPS - RTRN	2015	RTRN2015
2532633.364	835464.297	1287109.170	16129313.853	.033		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2532633.315	835464.312	1287109.120	16129313.869	.046		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2532633.358	835464.252	1287109.163	16129313.809	.033	C	GPS - STATIC	2016	HKLOS
2532633.358	835464.252	1287109.163	16129313.809	.033	C	ADJUSTMENT	2003	GPS1882
2532633.358	835464.252	1287109.163	16129313.809	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_30-DF6575-3SW-03JUN2015.jpg	SW	Jun 3, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_30-DF6575-2-03JUN2015.jpg		Jun 3, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_30-DF6575-1-03JUN2015.jpg		Jun 3, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BERNADOTTE 7 MN103

Mn/DOT Name: BERNADOTTE 7 MN103 **NGS Name:** BERNADOTTE 7

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6576 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	111 N	29 W	442631.52	942145.62		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2006	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2007) **Stamping:** BERNADOTTE 7 2001

1.3 MILES EAST OF LAFAYETTE, 1.3 MILES EAST ALONG COUNTY ROAD 1 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, 84.0 FEET WEST OF COUNTY ROAD 82, 33.0 FEET SOUTH OF COUNTY ROAD 1, 24.0 FEET EAST OF A FIELD ENTRANCE, 5.0 FEET NORTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.230	.262		907.419	.197	2011	GPS - RTRN	2015	RTRN2015
			907.413	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			907.603	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
999.243	.131		907.721	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
999.243	.131		907.721	.066	1996	GPS - STATIC	2007	HSIBL
			907.606	.026	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
999.342	.131		907.721	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
999.342	.131		907.721	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.808 09 = -91.712 03 = -91.611

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.51548	94 21 45.61699	474924.165	316577.532	.131	3	GPS - RTRN	2015	RTRN2015
44 26 31.51461	94 21 45.61703	474924.162	316577.444	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.51450	94 21 45.61792	474924.098	316577.433	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 31.51446	94 21 45.61791	474924.098	316577.429	.023		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.51393	94 21 45.61739	474924.136	316577.375	.033	C	ADJUSTMENT	2008	GPS2397
44 26 31.51393	94 21 45.61739	474924.136	316577.375	.033	C	GPS - STATIC	2007	HSIBL
44 26 31.51393	94 21 45.61739	474924.136	316577.375	.033	C	ADJUSTMENT	2003	GPS1882
44 26 31.51393	94 21 45.61739	474924.135	316577.375	.033	C	GPS - STATIC	2002	HNICO

BERNADOTTE 7 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2529951.296	853988.450	1284653.919	16147866.041	.131	3	GPS - RTRN	2015	RTRN2015
2529951.293	853988.362	1284653.914	16147865.953	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2529951.228	853988.351	1284653.849	16147865.943	.033	C	ADJUSTMENT	2009	GPS2397-B
2529951.229	853988.347	1284653.850	16147865.939	.023		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2529951.267	853988.293	1284653.887	16147865.885	.033	C	ADJUSTMENT	2008	GPS2397
2529951.267	853988.293	1284653.887	16147865.885	.033	C	GPS - STATIC	2007	HSIBL
2529951.267	853988.293	1284653.887	16147865.885	.033	C	ADJUSTMENT	2003	GPS1882
2529951.267	853988.293	1284653.887	16147865.885	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_7-DF6576-3S-02JUN2015.jpg	S	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_7-DF6576-2-18DEC2006.jpg		Dec 18, 2006
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BERNADOTTE_7-DF6576-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BITNER

Mn/DOT Name: BITNER
NGS Name: BITNER
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9558 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	108 N	27 W	441024.74	940257.56	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2015	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** BITNER 2011

IN NORTH MANKATO, 0.6 MILE SOUTH-SOUTHEAST ALONG LOOKOUT DRIVE FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 13 IN NORTH MANKATO, 22.5 FEET EAST OF AN ELECTRIC METER BOX, 92.0 FEET EAST OF WESTBOUND LOOKOUT DRIVE, 24.8 FEET EAST OF THE EAST EDGE OF THE SOUTH CENTRAL COLLEGE SIGN, 105.3 FEET NORTH OF A SIDEWALK, 50.8 FEET EAST OF A SIDEWALK, 125.0 FEET NORTH OF LEE BOULEVARD, 100.9 FEET NORTHEAST OF A LIGHT POLE, 37.8 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.373	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
996.373	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.373			903.722	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
996.373	.131		903.909	.066	1996	GPS - STATIC	2013	HNMAN
996.373			903.722	.007	2011	GPS - STATIC	2013	HNMAN
996.297	.262		903.719	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.661 12B = -92.664 09 = -92.575 03 = -92.464

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 24.73808	94 02 57.56419	557027.349	218731.932	.010		ADJUSTMENT	2013	GPS2964
44 10 24.73808	94 02 57.56419	557027.349	218731.932	.010	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 24.73793	94 02 57.56399	557027.363	218731.917	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 24.73755	94 02 57.56410	557027.355	218731.878	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2611726.245	755886.776	1365210.154	16048796.455	.010		ADJUSTMENT	2013	GPS2964
2611726.245	755886.776	1365210.154	16048796.455	.010	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2611726.259	755886.761	1365210.169	16048796.439	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2611726.251	755886.722	1365210.160	16048796.401	.033	C	GPS - STATIC	2013	HNMAN

BITNER

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BITNER-DO9558-3N-21NOV2012.jpg	N	Nov 21, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BITNER-DO9558-2-21NOV2012.jpg		Nov 21, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BITNER-DO9558-1-21NOV2012.jpg		Nov 21, 2012

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BR 4930

Mn/DOT Name: BR 4930 **NGS Name:** BR 4930

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	110 N	26 W	441829.00	935736.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2024	DESTROYED	Horz=NO Vert=NO	NO	4930		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	SURVEY DISK	MNDT

Description: (1948)

Stamping:

IN ST. PETER, 0.5 MILE SOUTHEAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169, IN THE WEST END OF A TRUNK HIGHWAY 22 BRIDGE NUMBER 4930 OVER THE MINNESOTA RIVER, AT TRUNK HIGHWAY 22 STATION 0+00, 155.34 FEET NORTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 22.

Station Notes

THE MARK IS A BRASS PLUG.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
762.932	.033	3				VERTICAL CONTROL SURVEY	1948	CS5207

Geoid Separations(ft): GEOID18 = -92.887 12B = -92.884 09 = -92.789 03 = -92.657

*** No Horizontal Positions in the Database ***

BR 52X01 SE

Mn/DOT Name: BR 52X01 SE **NGS Name:** BR 52X01 SE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2815 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	16	111 N	28 W	442516.78	941151.12	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2019	GOOD	Horz=NO Vert=NO	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	VERTICAL CONTROL DISK	MNDT

Description: (2015) **Stamping:** BR 52X01 SE 2015

10.0 MILES NORTH OF NICOLLET, IN A BOX CULVERT IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 22 BOX CULVERT NUMBER 52X01 OVER A DITCH, 0.75 MILE NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 80.3, 43.0 FEET SOUTHWEST OF TRUNK HIGHWAY 22.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
972.505	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
972.505	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
972.505	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
972.495	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
972.485	.262		880.412	.197	2011	GPS - RTRN	2019	RTRN2019
972.357	.262		880.280	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.073 09 = -91.975 03 = -91.857

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 16.77952	94 11 51.11698	518063.779	309001.700	.131	3	GPS - RTRN	2019	RTRN2019
44 25 16.77912	94 11 51.11768	518063.728	309001.659	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2573060.613	846272.838	1327657.385	16139626.023	.131	3	GPS - RTRN	2019	RTRN2019
2573060.562	846272.797	1327657.334	16139625.983	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BR_52X01_SE-DQ2815-3SW-24JUN2019.jpg	SW	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BR_52X01_SE-DQ2815-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BR_52X01_SE-DQ2815-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BRIGHTON 10 MN103

Mn/DOT Name: BRIGHTON 10 MN103 **NGS Name:** BRIGHTON 10

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6577 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	110 N	29 W	442107.70	941840.00		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** BRIGHTON 10 2001

5.8 MILES EAST OF KLOSSNER, 5.8 MILES EAST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, 58.0 FEET SOUTH OF A FIELD ENTRANCE, 54.0 FEET NORTH OF COUNTY ROAD 5, 52.0 FEET EAST OF COUNTY ROAD 10, 9.0 FEET SOUTH OF A TELEPHONE PEDESTAL, 3.6 FEET SOUTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.108	.262		909.969	.197	2011	GPS - OPUS	2019	GPSBM
1002.068	.262		909.929	.197	2011	GPS - OPUS	2019	GPSBM
1002.265	.262		910.123	.197	2011	GPS - RTRN	2019	RTRN2019
1002.075			909.956	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1002.049	.131		910.129	.066	1996	GPS - STATIC	2013	HNMAN
1002.075			909.956	.010	2011	GPS - STATIC	2013	HNMAN
			909.956	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1001.993	.262		909.942	.197	2007	GPS - RTRN	2011	RTRN2011
			910.034	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1002.098	.131		910.149	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1002.065	.131		910.149	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.142 12B = -92.129 09 = -92.050 03 = -91.919

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 07.70389	94 18 40.00234	488373.497	283772.718	.131	3	GPS - OPUS	2019	GPSBM
44 21 07.70393	94 18 40.00230	488373.500	283772.721	.131	3	GPS - OPUS	2019	GPSBM
44 21 07.70347	94 18 40.00219	488373.508	283772.675	.131	3	GPS - RTRN	2019	RTRN2019
44 21 07.70434	94 18 40.00233	488373.498	283772.763	.013		ADJUSTMENT	2013	GPS2964
44 21 07.70432	94 18 40.00228	488373.502	283772.761	.013	C	GPS - STATIC	2013	HNMAN
44 21 07.70434	94 18 40.00233	488373.498	283772.763	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 07.70404	94 18 40.00415	488373.366	283772.733	.131	3	GPS - RTRN	2011	RTRN2011
44 21 07.70433	94 18 40.00312	488373.441	283772.762	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 07.70374	94 18 40.00252	488373.484	283772.702	.033	C	GPS - STATIC	2013	HNMAN
44 21 07.70374	94 18 40.00252	488373.484	283772.702	.033	C	ADJUSTMENT	2003	GPS1882
44 21 07.70374	94 18 40.00252	488373.485	283772.703	.033	C	GPS - STATIC	2002	HNICO

BRIGHTON 10 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543291.758	821143.814	1297590.150	16114867.124	.131	3	GPS - OPUS	2019	GPSBM
2543291.761	821143.818	1297590.153	16114867.128	.131	3	GPS - OPUS	2019	GPSBM
2543291.768	821143.771	1297590.160	16114867.081	.131	3	GPS - RTRN	2019	RTRN2019
2543291.759	821143.859	1297590.151	16114867.169	.013		ADJUSTMENT	2013	GPS2964
2543291.762	821143.857	1297590.154	16114867.167	.013	C	GPS - STATIC	2013	HNMAN
2543291.759	821143.859	1297590.151	16114867.169	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543291.626	821143.829	1297590.018	16114867.141	.131	3	GPS - RTRN	2011	RTRN2011
2543291.701	821143.858	1297590.093	16114867.169	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543291.744	821143.799	1297590.136	16114867.109	.033	C	GPS - STATIC	2013	HNMAN
2543291.744	821143.799	1297590.136	16114867.109	.033	C	ADJUSTMENT	2003	GPS1882
2543291.744	821143.799	1297590.136	16114867.109	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BRIGHTON_10-DF6577-3N-29OCT2019.jpg	N	Oct 29, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BRIGHTON_10-DF6577-2-29OCT2019.jpg		Oct 29, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BRIGHTON_10-DF6577-1-29OCT2019.jpg		Oct 29, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

BRIGHTON 7 MN103

Mn/DOT Name: BRIGHTON 7 MN103 **NGS Name:** BRIGHTON 7

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6578 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	110 N	29 W	442105.28	942217.49		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** BRIGHTON 7 2001

2.6 MILES EAST OF KLOSSNER, 2.6 MILES EAST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 0.9 MILE SOUTH ON TOWNSHIP ROAD 154, 32.0 FEET EAST OF 551ST AVENUE 154, 20.0 FEET NORTH OF A FIELD ENTRANCE, 3.5 FEET EAST OF A TELEPHONE RISER POST, 3.0 FEET SOUTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.258	.262		910.169	.197	2011	GPS - OPUS	2021	GPSBM
1002.295	.262		910.205	.197	2011	GPS - OPUS	2021	GPSBM
1002.396	.262		910.307	.197	2011	GPS - RTRN	2021	RTRN2021
1002.373			910.339	.011	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1002.363	.131		910.510	.066	1996	GPS - STATIC	2013	HNMAN
1002.373			910.330	.011	2011	GPS - STATIC	2013	HNMAN
			910.339	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1002.278	.262		910.284	.197	2007	GPS - RTRN	2011	RTRN2011
			910.405	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1002.393	.131		910.520	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1002.393	.131		910.520	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.090 12B = -92.070 09 = -91.991 03 = -91.857

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 05.28390	94 22 17.48507	472569.900	283541.983	.131	3	GPS - OPUS	2021	GPSBM
44 21 05.28379	94 22 17.48478	472569.921	283541.972	.131	3	GPS - OPUS	2021	GPSBM
44 21 05.28361	94 22 17.48361	472570.006	283541.954	.131	3	GPS - RTRN	2021	RTRN2021
44 21 05.28365	94 22 17.48414	472569.968	283541.958	.013		ADJUSTMENT	2013	GPS2964
44 21 05.28361	94 22 17.48415	472569.967	283541.954	.013	C	GPS - STATIC	2013	HNMAN
44 21 05.28365	94 22 17.48414	472569.968	283541.958	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 05.28361	94 22 17.48552	472569.867	283541.954	.131	3	GPS - RTRN	2011	RTRN2011
44 21 05.28370	94 22 17.48481	472569.919	283541.963	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 05.28307	94 22 17.48418	472569.965	283541.899	.033	C	GPS - STATIC	2013	HNMAN
44 21 05.28307	94 22 17.48418	472569.965	283541.899	.033	C	ADJUSTMENT	2003	GPS1882
44 21 05.28307	94 22 17.48418	472569.964	283541.900	.033	C	GPS - STATIC	2002	HNICO

BRIGHTON 7 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527489.315	820964.747	1281789.620	16114880.716	.131	3	GPS - OPUS	2021	GPSBM
2527489.336	820964.736	1281789.641	16114880.705	.131	3	GPS - OPUS	2021	GPSBM
2527489.421	820964.717	1281789.725	16114880.685	.131	3	GPS - RTRN	2021	RTRN2021
2527489.382	820964.721	1281789.687	16114880.690	.013		ADJUSTMENT	2013	GPS2964
2527489.382	820964.717	1281789.686	16114880.686	.013	C	GPS - STATIC	2013	HNMAN
2527489.382	820964.721	1281789.687	16114880.690	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527489.282	820964.718	1281789.587	16114880.687	.131	3	GPS - RTRN	2011	RTRN2011
2527489.334	820964.727	1281789.639	16114880.696	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527489.379	820964.663	1281789.683	16114880.631	.033	C	GPS - STATIC	2013	HNMAN
2527489.379	820964.663	1281789.683	16114880.631	.033	C	ADJUSTMENT	2003	GPS1882
2527489.379	820964.663	1281789.683	16114880.631	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BRIGHTON_7-DF6578-3E-29APR2021.jpg	E	Apr 29, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BRIGHTON_7-DF6578-2-29APR2021.jpg		Apr 29, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/BRIGHTON_7-DF6578-1-29APR2021.jpg		Apr 29, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: C 126 **NGS Name:** C 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0118 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	111 N	30 W	442514.00	942354.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2015	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1979) **Stamping:** C 126 1934

1.9 MILES SOUTH OF LAFAYETTE, 1.4 MILES SOUTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 38 IN LAFAYETTE, THEN 0.3 MILE WEST ON COUNTY ROAD 8, 1920.0 FEET WEST OF TRUNK HIGHWAY 15, 52.0 FEET WEST OF A FIELD ENTRANCE, 19.0 FEET NORTH OF COUNTY ROAD 8, 16.0 FEET SOUTH OF A WOOD POST, 11.0 FEET EAST OF A FIELD ENTRANCE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.725	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.407	.007	1				VERTICAL CONTROL SURVEY	1941	L43 MINN

Geoid Separations(ft): GEOID18 = -91.840 12B = -91.804 09 = -91.726 03 = -91.621

*** No Horizontal Positions in the Database ***

CHURCH CROSS

Mn/DOT Name: CHURCH CROSS
NGS Name: CHURCH CROSS
County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO7911 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	18	109 N	28 W	441507.77	941442.47		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
	2010	UNKNOWN	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH CROSS	UNK

Description:

3.5 MILES SOUTHWEST OF NICOLLET, 1.5 MILES SOUTH ALONG 461ST AVENUE FROM THE JUNCTION OF 461ST AVENUE AND TRUNK HIGHWAY 14 IN NICOLLET, THEN 2.8 MILES WEST ON 478TH STREET.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.526 12B = -92.539 09 = -92.454 03 = -92.296

CLARK

Mn/DOT Name: CLARK
NGS Name: CLARK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1004 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	111 N	26 W	442636.63	935633.44	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** CLARK 2013

2.0 MILES SOUTHWEST OF LE SUEUR, 1.55 MILES SOUTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 93 SOUTH (THE JUNCTION IS 1.0 MILE WEST OF LE SUEUR), AT TRUNK HIGHWAY 169 MILEPOINT 75.15, 28.4 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 4.9 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
755.422	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
755.422	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
755.418	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
755.464	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
755.461	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
755.366	.262		662.905	.197	2011	GPS - OPUS	2021	GPSBM
755.432	.262		662.971	.197	2011	GPS - RTRN	2021	RTRN2021
755.461			663.004	.010	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
755.461			663.004	.010	2011	GPS - STATIC	2013	HSUEUR
755.461	.131		663.214	.066	1996	GPS - STATIC	2013	HSUEUR
755.402	.262		662.945	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.460 12B = -92.460 09 = -92.382 03 = -92.208

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 36.62513	93 56 33.43819	584636.284	317247.082	.131	3	GPS - OPUS	2021	GPSBM
44 26 36.62481	93 56 33.43753	584636.332	317247.050	.131	3	GPS - RTRN	2021	RTRN2021
44 26 36.62507	93 56 33.43801	584636.297	317247.075	.010		ADJUSTMENT	2014	GPS2977
44 26 36.62507	93 56 33.43801	584636.297	317247.075	.010	C	GPS - STATIC	2013	HSUEUR
44 26 36.62556	93 56 33.43775	584636.315	317247.125	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 36.62462	93 56 33.43815	584636.287	317247.030	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2639651.281	854301.005	1394325.622	16146838.316	.131	3	GPS - OPUS	2021	GPSBM
2639651.329	854300.973	1394325.669	16146838.283	.131	3	GPS - RTRN	2021	RTRN2021
2639651.294	854300.999	1394325.635	16146838.310	.010		ADJUSTMENT	2014	GPS2977
2639651.294	854300.999	1394325.635	16146838.310	.010	C	GPS - STATIC	2013	HSUEUR
2639651.313	854301.049	1394325.654	16146838.359	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2639651.284	854300.953	1394325.624	16146838.264	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/CLARK-DP1004-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/CLARK-DP1004-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/CLARK-DP1004-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

CLINIC

Mn/DOT Name: CLINIC **NGS Name:** CLINIC

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6216 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	3	109 N	28 W	441634.04	941053.59	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 42 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** CLINIC 2019

IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 0.95, 35.0 FEET NORTH OF TRUNK HIGHWAY 99, ABOUT 275.0 FEET EAST OF COUNTY ROAD 42 EXTENDED (BIRCH STREET), 40.6 FEET EAST OF THE ENTRANCE TO NICOLLET VETERINARY CLINIC, 2.8 FEET SOUTH OF A WITNESS POST.

Station Pair: 5206 T - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.270	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
979.270	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.394	.262		886.983	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.395 12B = -92.411 09 = -92.326 03 = -92.191

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 34.04062	94 10 53.59486	522293.473	256067.000	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2577117.445	793330.739	1331067.564	16086649.798	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/CLINIC-DR6216-3N-15JUL2019.jpg	N	Jul 15, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/CLINIC-DR6216-2-15JUL2019.jpg		Jul 15, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/CLINIC-DR6216-1-15JUL2019.jpg		Jul 15, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

COREY

Mn/DOT Name: COREY
NGS Name: COREY
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2810 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	13	111 N	28 W	442448.48	940816.95	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2015)
Stamping: COREY 2015

9.8 MILES NORTH-NORTHEAST OF NICOLLET, 2.6 MILES EAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 77.0, 49.5 FEET NORTH OF TRUNK HIGHWAY 22, 39.7 FEET EAST OF A FIELD ENTRANCE, 36.0 FEET NORTHWEST OF MILEPOST 77, 1.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.495	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
998.486	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.486			906.347	.028	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
998.486			906.347	.028	2011	GPS - STATIC	2016	HNORS
998.486	.131		906.501	.066	1996	GPS - STATIC	2016	HNORS
998.449	.262		906.251	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.191 12B = -92.198 09 = -92.119 03 = -91.985

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 48.47660	94 08 16.94924	533612.415	306154.057	.020		ADJUSTMENT	2016	GPS3139
44 24 48.47660	94 08 16.94924	533612.415	306154.057	.020	C	GPS - STATIC	2016	HNORS
44 24 48.47660	94 08 16.94837	533612.478	306154.057	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 48.47663	94 08 16.94983	533612.372	306154.060	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2588597.997	843374.959	1343154.858	16136539.273	.020		ADJUSTMENT	2016	GPS3139
2588597.997	843374.959	1343154.858	16136539.273	.020	C	GPS - STATIC	2016	HNORS
2588598.060	843374.959	1343154.921	16136539.272	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2588597.954	843374.962	1343154.815	16136539.277	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COREY-DQ2810-3N-23JUN2015.jpg	N	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COREY-DQ2810-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COREY-DQ2810-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

COURTLAND 15 MN103

Mn/DOT Name: COURTLAND 15 MN103 **NGS Name:** COURTLAND 15

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6579 Get Map
NGS Quad / Sta Num : 44094231/
USGS Quad: CAMBRIA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	109 N	29 W	441442.76	941730.14		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2003) **Stamping:** COURTLAND 15 2001

3.0 MILES SOUTHEAST OF COURTLAND, 2.5 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 1.4 MILES SOUTH ON COUNTY ROAD 21, THEN 200.0 FEET WEST ON 506TH STREET, 73.0 FEET EAST OF A MAILBOX POST, 23.0 FEET NORTH OF 506TH STREET, 3.5 FEET SOUTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
903.486	.262		810.930	.197	2011	GPS - OPUS	2021	GPSBM
903.502	.262		810.947	.197	2011	GPS - OPUS	2021	GPSBM
903.656	.262		811.101	.197	2011	GPS - RTRN	2021	RTRN2021
903.597			811.061	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
903.587	.131		811.278	.066	1996	GPS - STATIC	2013	HNMAN
903.597			811.061	.009	2011	GPS - STATIC	2013	HNMAN
			811.061	.009	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
903.538	.262		811.068	.197	2007	GPS - RTRN	2011	RTRN2011
			811.143	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
903.607	.131		811.294	.066	1996	HORIZONTAL ADJUSTMENT	2004	GPS1986
903.607	.131		811.294	.066	1996	GPS - STATIC	2003	HEARTH
903.607	.131		811.294	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
903.607	.131		811.294	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.556 12B = -92.565 09 = -92.467 03 = -92.313

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 42.75589	94 17 30.14113	493438.066	244786.698	.131	3	GPS - OPUS	2021	GPSBM
44 14 42.75618	94 17 30.14131	493438.053	244786.728	.131	3	GPS - OPUS	2021	GPSBM
44 14 42.75579	94 17 30.14075	493438.094	244786.688	.131	3	GPS - RTRN	2021	RTRN2021
44 14 42.75588	94 17 30.14037	493438.121	244786.697	.010		ADJUSTMENT	2013	GPS2964
44 14 42.75591	94 17 30.14044	493438.116	244786.700	.010	C	GPS - STATIC	2013	HNMAN
44 14 42.75588	94 17 30.14037	493438.121	244786.697	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 42.75636	94 17 30.14218	493437.989	244786.746	.131	3	GPS - RTRN	2011	RTRN2011
44 14 42.75583	94 17 30.14116	493438.064	244786.692	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 42.75513	94 17 30.13990	493438.156	244786.621	.033	C	GPS - STATIC	2013	HNMAN
44 14 42.75513	94 17 30.13990	493438.156	244786.621	.033	C	ADJUSTMENT	2004	GPS1986
44 14 42.75513	94 17 30.13989	493438.156	244786.621	.033	C	GPS - STATIC	2003	HEARTH
44 14 42.75513	94 17 30.13989	493438.156	244786.621	.033	C	ADJUSTMENT	2003	GPS1882
44 14 42.75513	94 17 30.13989	493438.157	244786.620	.033	C	GPS - STATIC	2002	HNICO

COURTLAND 15 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548228.471	782145.748	1302050.735	16075819.485	.131	3	GPS - OPUS	2021	GPSBM
2548228.458	782145.777	1302050.723	16075819.514	.131	3	GPS - OPUS	2021	GPSBM
2548228.499	782145.738	1302050.763	16075819.474	.131	3	GPS - RTRN	2021	RTRN2021
2548228.526	782145.747	1302050.791	16075819.483	.010		ADJUSTMENT	2013	GPS2964
2548228.521	782145.750	1302050.786	16075819.486	.010	C	GPS - STATIC	2013	HNMAN
2548228.526	782145.747	1302050.791	16075819.483	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548228.395	782145.796	1302050.660	16075819.533	.131	3	GPS - RTRN	2011	RTRN2011
2548228.469	782145.742	1302050.733	16075819.479	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548228.560	782145.671	1302050.824	16075819.406	.033	C	GPS - STATIC	2013	HNMAN
2548228.560	782145.671	1302050.824	16075819.406	.033	C	ADJUSTMENT	2004	GPS1986
2548228.561	782145.671	1302050.825	16075819.406	.033	C	GPS - STATIC	2003	HEARTH
2548228.561	782145.671	1302050.825	16075819.406	.033	C	ADJUSTMENT	2003	GPS1882
2548228.561	782145.671	1302050.825	16075819.406	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_15-DF6579-3NE-12MAY2021.jpg	NE	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_15-DF6579-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_15-DF6579-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

COURTLAND 28 MN103

Mn/DOT Name: COURTLAND 28 MN103 **NGS Name:** COURTLAND 28

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6580 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	110 N	29 W	441840.21	941919.08		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2001) **Stamping:** COURTLAND 28 2001

3.5 MILES NORTHEAST OF COURTLAND, 2.7 MILES NORTH ALONG COUNTY ROAD 12 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 12 IN COURTLAND, THEN 1.5 MILES EAST ON COUNTY ROAD 21, 83.0 FEET NORTHEAST OF COUNTY ROAD 21, 42.0 FEET NORTHWEST OF 525TH AVENUE, 41.0 FEET NORTHEAST OF A STOP SIGN, 24.0 FEET SOUTHWEST OF A FIELD ENTRANCE, 3.0 FEET NORTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.395	.262		913.092	.197	2011	GPS - OPUS	2021	GPSBM
1005.503	.262		913.200	.197	2011	GPS - OPUS	2021	GPSBM
1005.579	.262		913.272	.197	2011	GPS - RTRN	2021	RTRN2021
1005.529			913.223	.011	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1005.533	.131		913.456	.066	1996	GPS - STATIC	2013	HNMAN
1005.529			913.230	.011	2011	GPS - STATIC	2013	HNMAN
			913.223	.012	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1005.477	.262		913.259	.197	2007	GPS - RTRN	2011	RTRN2011
			913.289	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1005.510	.131		913.420	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1005.510	.131		913.420	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.303 12B = -92.296 09 = -92.218 03 = -92.080

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 40.20840	94 19 19.08232	485523.725	268837.391	.131	3	GPS - OPUS	2021	GPSBM
44 18 40.20768	94 19 19.08167	485523.773	268837.318	.131	3	GPS - OPUS	2021	GPSBM
44 18 40.20800	94 19 19.08131	485523.799	268837.350	.131	3	GPS - RTRN	2021	RTRN2021
44 18 40.20787	94 19 19.08115	485523.810	268837.337	.016		ADJUSTMENT	2013	GPS2964
44 18 40.20786	94 19 19.08110	485523.814	268837.336	.016	C	GPS - STATIC	2013	HNMAN
44 18 40.20787	94 19 19.08115	485523.810	268837.337	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 40.20739	94 19 19.08204	485523.746	268837.289	.131	3	GPS - RTRN	2011	RTRN2011
44 18 40.20787	94 19 19.08181	485523.763	268837.337	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 40.20724	94 19 19.08091	485523.828	268837.273	.033	C	GPS - STATIC	2013	HNMAN
44 18 40.20724	94 19 19.08091	485523.828	268837.273	.033	C	ADJUSTMENT	2003	GPS1882
44 18 40.20724	94 19 19.08091	485523.829	268837.274	.033	C	GPS - STATIC	2002	HNICO

COURTLAND 28 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2540393.549	806219.565	1294510.878	16099982.144	.131	3	GPS - OPUS	2021	GPSBM
2540393.596	806219.492	1294510.924	16099982.070	.131	3	GPS - OPUS	2021	GPSBM
2540393.623	806219.524	1294510.950	16099982.102	.131	3	GPS - RTRN	2021	RTRN2021
2540393.634	806219.511	1294510.962	16099982.089	.016		ADJUSTMENT	2013	GPS2964
2540393.638	806219.510	1294510.965	16099982.088	.016	C	GPS - STATIC	2013	HNMAN
2540393.634	806219.511	1294510.962	16099982.089	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2540393.569	806219.463	1294510.896	16099982.041	.131	3	GPS - RTRN	2011	RTRN2011
2540393.586	806219.511	1294510.914	16099982.090	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2540393.651	806219.447	1294510.978	16099982.025	.033	C	GPS - STATIC	2013	HNMAN
2540393.651	806219.447	1294510.978	16099982.025	.033	C	ADJUSTMENT	2003	GPS1882
2540393.651	806219.447	1294510.978	16099982.025	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_28-DF6580-3NW-12MAY2021.jpg	NW	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_28-DF6580-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_28-DF6580-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

COURTLAND MNDT

Mn/DOT Name: COURTLAND MNDT
NGS Name: COURTLAND
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0759 Get Map
NGS Quad / Sta Num : 44094243/1043
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	110 N	30 W	441816.14	942410.89	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2014	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	MNDT

Description: (1989) **Stamping:** COURTLAND 1970

3.0 MILES EAST-SOUTHEAST OF NEW ULM, 1.7 MILES SOUTHEAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14, THEN 1.2 MILES EAST ON TOWNSHIP ROAD 92 (446TH STREET), 20.0 FEET SOUTH OF TOWNSHIP ROAD 92 (446TH STREET), IN THE CENTER OF A FIELD ENTRANCE, 56.8 FEET WEST-NORTHWEST OF COURTLAND MNDT RM 1, 45.95 FEET SOUTH OF COURTLAND MNDT RM 2.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1017.977	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1017.984	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1017.977			925.730	.009	2011	HORIZONTAL ADJUSTMENT	2014	GPS3033
1017.977	.131		925.979	.066	1996	GPS - STATIC	2014	HMADE
1017.977			925.726	.009	2011	GPS - STATIC	2014	HMADE
1017.938	.262		925.720	.197	2011	GPS - RTRN	2014	RTRN2014
1017.984			925.730	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1017.984	.131		925.979	.066	1996	GPS - STATIC	2013	HNMAN
1017.984			925.730	.009	2011	GPS - STATIC	2013	HNMAN
			925.730	.014	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1017.908	.262		925.756	.197	2007	GPS - RTRN	2011	RTRN2011
			925.818	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1017.944	.131		925.936	.066	1996	HORIZONTAL ADJUSTMENT	2004	GPS2043
1017.944	.131		925.936	.066	1996	GPS - STATIC	2004	HHAMB
1017.058	.197		925.120	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1017.813						RECIPROCAL VERTICAL ANGLE	1970	HORZ

Geoid Separations(ft): GEOID18 = -92.234 12B = -92.218 09 = -92.152 03 = -92.004

COURTLAND MNDT

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.14048	94 24 10.89443	464300.576	266424.740	.007		ADJUSTMENT	2014	GPS3033
44 18 16.14055	94 24 10.89440	464300.578	266424.747	.007	C	GPS - STATIC	2014	HMADE
44 18 16.14082	94 24 10.89338	464300.652	266424.774	.131	3	GPS - RTRN	2014	RTRN2014
44 18 16.14048	94 24 10.89443	464300.576	266424.740	.007		ADJUSTMENT	2013	GPS2964
44 18 16.14056	94 24 10.89448	464300.572	266424.748	.007	C	GPS - STATIC	2013	HNMAN
44 18 16.14048	94 24 10.89443	464300.576	266424.740	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.14019	94 24 10.89434	464300.582	266424.710	.131	3	GPS - RTRN	2011	RTRN2011
44 18 16.14049	94 24 10.89524	464300.517	266424.741	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.13992	94 24 10.89469	464300.557	266424.683	.033	C	GPS - STATIC	2014	HMADE
44 18 16.13992	94 24 10.89469	464300.557	266424.683	.033	C	GPS - STATIC	2013	HNMAN
44 18 16.13992	94 24 10.89469	464300.557	266424.683	.033	C	ADJUSTMENT	2004	GPS2043
44 18 16.13992	94 24 10.89469	464300.557	266424.683	.033	C	GPS - STATIC	2004	HHAMB
44 18 16.13873	94 24 10.89746	464300.355	266424.563	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.13231	94 24 10.89275	464300.696	266423.912	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.26303	94 24 09.99864			.100	2	CLASSICAL SURVEY	1977	16059

COURTLAND MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519164.976	803876.577	1273259.225	16097898.219	.007		ADJUSTMENT	2014	GPS3033
2519164.978	803876.585	1273259.227	16097898.226	.007	C	GPS - STATIC	2014	HMADE
2519165.052	803876.611	1273259.302	16097898.252	.131	3	GPS - RTRN	2014	RTRN2014
2519164.976	803876.577	1273259.225	16097898.219	.007		ADJUSTMENT	2013	GPS2964
2519164.972	803876.585	1273259.222	16097898.227	.007	C	GPS - STATIC	2013	HNMAN
2519164.976	803876.577	1273259.225	16097898.219	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519164.982	803876.548	1273259.231	16097898.189	.131	3	GPS - RTRN	2011	RTRN2011
2519164.917	803876.579	1273259.166	16097898.221	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519164.956	803876.521	1273259.205	16097898.162	.033	C	GPS - STATIC	2014	HMADE
2519164.956	803876.521	1273259.205	16097898.162	.033	C	GPS - STATIC	2013	HNMAN
2519164.956	803876.521	1273259.205	16097898.162	.033	C	ADJUSTMENT	2004	GPS2043
2519164.956	803876.521	1273259.205	16097898.162	.033	C	GPS - STATIC	2004	HHAMB
2519164.755	803876.401	1273259.002	16097898.045	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519165.094	803875.750	1273259.333	16097897.389	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1894560.443	475800.263			.100	2	CLASSICAL SURVEY	1977	16059

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND-PQ0759-3S-07APR2014.jpg	S	Apr 7, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND-PQ0759-2-07APR2014.jpg		Apr 7, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND-PQ0759-1-07APR2014.jpg		Apr 7, 2014

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

COURTLAND MNDT RM 1

Mn/DOT Name: COURTLAND MNDT RM 1 **NGS Name:** COURTLAND RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8383 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	110 N	30 W	441816.00	942410.14	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2011	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (2011) **Stamping:** COURTLAND NO 1 1970

3.0 MILES EAST-SOUTHEAST OF NEW ULM, 1.7 MILES SOUTHEAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14, THEN 1.2 MILES EAST ON TOWNSHIP ROAD 92 (446TH STREET), 20.0 FEET SOUTH OF TOWNSHIP ROAD 92 (446TH STREET), 56.8 FEET EAST-SOUTHEAST OF STATION COURTLAND, 56.0 FEET EAST OF A FIELD ENTRANCE, 32.0 FEET SOUTH OF 446TH STREET, 1.6 FEET WEST OF A POWER POLE AND A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.903	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1015.910	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.926	.262		923.771	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.234 12B = -92.218 09 = -92.155 03 = -92.004

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 16.00155	94 24 10.13760	464355.592	266410.579	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519219.939	803862.238	1273314.000	16097883.214	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_RM_1-CO8383-3S-29NOV2011.jpg	S	Nov 29, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_RM_1-CO8383-2-29NOV2011.jpg		Nov 29, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_RM_1-CO8383-1-29NOV2011.jpg		Nov 29, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

COURTLAND MUN WATER TANK

Mn/DOT Name: COURTLAND MUN WATER TANK
NGS Name: COURTLAND MUN WATER TANK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	109 N	29 W	441609.35	942032.42		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SURVEY DISK	MNDT

Description: (1987)

Stamping:

IN COURTLAND, 1.0 BLOCK NORTH ON 4TH STREET FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND 4TH STREET, THEN 0.5 BLOCK WEST ON RAILROAD STREET, 247.97 FEET NORTHWEST OF THE CENTER OF THE JUNCTION OF RAILROAD STREET AND 3RD STREET, 120.09 FEET NORTH OF THE CENTERLINE OF A RAILROAD STREET.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
932.642	.262		840.195	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.447 12B = -92.447 09 = -92.365 03 = -92.208

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 09.35141	94 20 32.42244	480176.744	253564.310	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2534997.283	790965.697	1288930.379	16084797.981	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/COURTLAND_MUN_WATER_TANK-3NE-08JUL2019.jpg	NE	Jul 8, 2019
Monument:			
Disk:			

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

COURTLAND RM 2

Mn/DOT Name: COURTLAND RM 2 **NGS Name:** COURTLAND RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8384 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	110 N	30 W	441816.59	942410.90		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2011	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: COURTLAND NO 2 1970

3.67 MILES NORTHWEST OF COURTLAND, 2.5 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, 1.4 MILES NORTH ON TOWNSHIP ROAD 150, THEN 0.5 MILE WEST ON TOWNSHIP ROAD 92, 26.0 FEET SOUTH OF THE CENTERLINE OF TOWNSHIP ROAD 92.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.234 12B = -92.218 09 = -92.155 03 = -92.004

CROSS ON CHURCH

Mn/DOT Name: CROSS ON CHURCH

NGS Name: CROSS ON CHURCH

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8393 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	110 N	27 W	442131.68	940744.43		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
	2010	UNKNOWN	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH CROSS	UNK

Description:

8.25 MILES NORTHWEST OF ST. PETER, 3.0 MILES EAST ALONG COUNTY ROAD 5/ FORT ROAD FROM THE JUNCTION OF COUNTY ROAD 5/FORT ROAD AND TRUNK HIGHWAY 111 WEST OF ST. PETER, THEN 1.2 MILES NORTH ON 425TH AVENUE.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.257 12B = -92.267 09 = -92.185 03 = -92.057

Mn/DOT Name: D 126 **NGS Name:** D 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0119 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	111 N	30 W	442405.00	942415.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2015	DESTROYED	Horz=NO Vert=NO	NO	NONE		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1979) **Stamping:** ELEV. 1005.257

3.5 MILES SOUTH OF LAFAYETTE, 2.8 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 38 IN LAFAYETTE, IN THE CENTER OF THE WEST HEADWALL OF A TRUNK HIGHWAY 15 CULVERT, AT TRUNK HIGHWAY 15 MILEPOINT 65.63, 27.5 FEET NORTHWEST OF TRUNK HIGHWAY 15.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.569	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.257	.007	1				VERTICAL CONTROL SURVEY	1941	L43 MINN

Geoid Separations(ft): GEOID18 = -91.883 12B = -91.853 09 = -91.771 03 = -91.666

*** No Horizontal Positions in the Database ***

DANIEL

Mn/DOT Name: DANIEL
NGS Name: DANIEL
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9559 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	32	109 N	27 W	441147.79	940540.80	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2011	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** DANIEL 2011

3.0 MILES NORTHWEST OF NORTH MANKATO, 0.4 MILE WEST ALONG COUNTY ROAD 6 FROM THE JUNCTION OF COUNTY ROAD 6 AND TRUNK HIGHWAY 14, 45.0 FEET NORTH OF COUNTY ROAD 6, 26.1 FEET EAST OF AN ENTRANCE TO A TOWER, 42.9 FEET SOUTH OF A CORNER FENCE POST, 1.2 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.696	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
989.693	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.693			897.183	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
989.693	.131		897.383	.066	1996	GPS - STATIC	2013	HNMAN
989.693			897.183	.007	2011	GPS - STATIC	2013	HNMAN
989.608	.262		897.173	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.506 12B = -92.516 09 = -92.434 03 = -92.310

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.78957	94 05 40.80153	545112.330	227114.228	.013		ADJUSTMENT	2013	GPS2964
44 11 47.78957	94 05 40.80153	545112.330	227114.228	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.78977	94 05 40.80260	545112.252	227114.248	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.78896	94 05 40.80130	545112.346	227114.166	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2599839.670	764306.897	1353429.758	16057358.380	.013		ADJUSTMENT	2013	GPS2964
2599839.670	764306.897	1353429.758	16057358.380	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2599839.592	764306.918	1353429.680	16057358.402	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2599839.687	764306.835	1353429.774	16057358.318	.033	C	GPS - STATIC	2013	HNMAN

DANIEL

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DANIEL-DO9559-3N-21NOV2012.jpg	N	Nov 21, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DANIEL-DO9559-2-21NOV2012.jpg		Nov 21, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DANIEL-DO9559-1-21NOV2012.jpg		Nov 21, 2012

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

DECKO

Mn/DOT Name: DECKO **NGS Name:** DECKO

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2816 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	16	111 N	28 W	442526.40	941159.19	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** DECKO 2015

10.1 MILES NORTH OF NICOLLET, 0.95 MILE NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 80.55, 63.4 FEET NORTHEAST OF TRUNK HIGHWAY 22, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Station Pair: WHIM - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.684	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
981.684	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
981.684	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
981.675	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.599	.262		889.532	.197	2011	GPS - RTRN	2019	RTRN2019
981.675			889.634	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
981.675			889.634	.026	2011	GPS - STATIC	2016	HNORS
981.675	.131		889.798	.066	1996	GPS - STATIC	2016	HNORS
981.602	.262		889.536	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.057 12B = -92.067 09 = -91.965 03 = -91.847

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 26.40070	94 11 59.19388	517476.770	309975.585	.131	3	GPS - RTRN	2019	RTRN2019
44 25 26.40019	94 11 59.19361	517476.789	309975.534	.020		ADJUSTMENT	2016	GPS3139
44 25 26.40019	94 11 59.19361	517476.789	309975.534	.020	C	GPS - STATIC	2016	HNORS
44 25 26.39992	94 11 59.19339	517476.805	309975.506	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 26.40018	94 11 59.19430	517476.739	309975.533	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572476.851	847248.510	1327085.704	16140608.545	.131	3	GPS - RTRN	2019	RTRN2019
2572476.871	847248.458	1327085.723	16140608.493	.020		ADJUSTMENT	2016	GPS3139
2572476.871	847248.458	1327085.723	16140608.493	.020	C	GPS - STATIC	2016	HNORS
2572476.887	847248.431	1327085.739	16140608.465	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572476.821	847248.457	1327085.673	16140608.493	.033	C	GPS - STATIC	2016	HNORS

DECKO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DECKO-DQ2816-3NE-24JUN2019.jpg	NE	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DECKO-DQ2816-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DECKO-DQ2816-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 109728

DERMY

04/28/2026
Sheet Help

Mn/DOT Name: DERMY
NGS Name: DERMY
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6211 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	109 N	28 W	441559.32	941125.73	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 27 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** DERMY 2019

IN NICOLLET, AT THE JUNCTION OF COUNTY ROAD 23/TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 14 IN NICOLLET, 71.4 FEET SOUTH-SOUTHWEST OF THE OFF RAMP FROM WESTBOUND TRUNK HIGHWAY 14 TO TRUNK HIGHWAY 111, 87.5 FEET SOUTH-SOUTHEAST OF THE ON RAMP FROM TRUNK HIGHWAY 111 TO WESTBOUND TRUNK HIGHWAY 14, 3.0 FEET SOUTH OF A WITNESS POST.

Station Pair: TAXI - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1007.590	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1007.590	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1007.429	.262		914.982	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.434 12B = -92.447 09 = -92.365 03 = -92.228

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 59.31968	94 11 25.72854	519958.744	252548.523	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574771.521	789820.259	1328679.600	16083168.905	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DERMY-DR6211-3S-15JUL2019.jpg	S	Jul 15, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DERMY-DR6211-2-15JUL2019.jpg		Jul 15, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DERMY-DR6211-1-15JUL2019.jpg		Jul 15, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

DICK MNDT

Mn/DOT Name: DICK MNDT **NGS Name:** DICK

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0599 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	108 N	27 W	441129.46	940107.71	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2005	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** DICK 1978

2.2 MILES NORTHWEST OF MANKATO, 1.6 MILES WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND RIVERFRONT DRIVE IN MANKATO, 65.0 FEET SOUTH-SOUTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169 RAMP, 62.0 FEET NORTHEAST OF DICK MNDT RM 2, 55.68 FEET NORTHWEST OF DICK MNDT RM 1, 53.8 FEET NORTH-NORTHWEST OF A LIGHT STANDARD, 47.8 FEET NORTH OF A CONCRETE MEDIAN, 28.6 FEET NORTH OF WESTBOUND TRUNK HIGHWAY 14, 7.9 FEET EAST-SOUTHEAST OF A WITNESS POST. FOUND THE REMNANTS OF A CONCRETE POST ON 04-05-2011.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
805.805	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135
805.874	.016	2				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
805.763	.016	2/1				UNKNOWN/APPROXIMATE	1992	UNCHECKD
805.723	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1
805.760	.016	2				VERTICAL CONTROL SURVEY	1980	L24529

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			712.948	.030	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			713.030	.026	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
805.805	.131		713.151	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1860
805.805	.131		713.151	.066	1996	GPS - STATIC	2002	HPETE
805.740	.197		713.240	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.805 12B = -92.808 09 = -92.716 03 = -92.598

DICK MNDT

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 29.45783	94 01 07.71175	565014.104	225308.588	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 29.45782	94 01 07.71261	565014.041	225308.587	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 29.45735	94 01 07.71211	565014.078	225308.540	.033	C	ADJUSTMENT	2003	GPS1860
44 11 29.45735	94 01 07.71211	565014.077	225308.539	.033	C	GPS - STATIC	2002	HPETE
44 11 29.45708	94 01 07.71197	565014.088	225308.512	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 29.45370	94 01 07.70681	565014.464	225308.171	.033	C	GPS - STATIC	1987	HBLUE
44 11 29.45370	94 01 07.70681	565014.465	225308.171	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 29.57399	94 01 06.86523			.100	2	CLASSICAL SURVEY	1991	17504
44 11 29.56973	94 01 06.86790			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619733.516	762436.847	1373294.446	16055247.021	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619733.453	762436.846	1373294.383	16055247.021	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619733.490	762436.799	1373294.419	16055246.973	.033	C	ADJUSTMENT	2003	GPS1860
2619733.490	762436.799	1373294.419	16055246.973	.033	C	GPS - STATIC	2002	HPETE
2619733.500	762436.771	1373294.429	16055246.945	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619733.876	762436.429	1373294.801	16055246.599	.033	C	GPS - STATIC	1987	HBLUE
2619733.876	762436.429	1373294.801	16055246.598	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1995128.384	434360.576			.100	2	CLASSICAL SURVEY	1991	17504
1995128.189	434360.144			.100	2	CLASSICAL SURVEY	1980	16297

DICK MNDT RM 1

Mn/DOT Name: DICK MNDT RM 1 **NGS Name:** DICK RM 1

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	108 N	27 W	441129.12	940107.12	2	

NGS ACRN: PQ1684 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1986	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
WALL	REFERENCE MARK DISK	MNDT

Description: (1978) **Stamping:** DICK NO 1 1978

1.5 MILES NORTHWEST OF MANKATO, AT THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, IN A CONCRETE MEDIAN, AT TRUNK HIGHWAY 14 MILEPOINT 129.9, 61.7 FEET SOUTHEAST OF A WITNESS POST, 55.6 FEET SOUTHEAST OF STATION DICK MNDT, 16.6 FEET SOUTH OF WESTBOUND TRUNK HIGHWAY 14, 7.5 FEET NORTHEAST OF LIGHT STANDARD 52-29, 1.3 FEET NORTH OF A BARRIER WALL.

Station Notes
J-BARRIER IN PLACE OF CONCRETE SLAB.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
804.267	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
804.185	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Geoid Separations(ft): GEOID18 = -92.805 12B = -92.811 09 = -92.716 03 = -92.598

*** No Horizontal Positions in the Database ***

DICK MNDT RM 2

Mn/DOT Name: DICK MNDT RM 2 **NGS Name:** DICK RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1685 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	108 N	27 W	441128.91	940108.10	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1986	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
WALL	REFERENCE MARK DISK	MNDT

Description: (1978) **Stamping:** DICK NO 2 1978

1.5 MILES NORTHWEST OF MANKATO, AT THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, IN A CONCRETE MEDIAN, AT TRUNK HIGHWAY 14 MILEPOINT 129.9, 67.6 FEET WEST OF LIGHT STANDARD 52-29, 62.1 FEET SOUTHWEST OF STATION DICK MNDT, 58.3 FEET SOUTH-SOUTHWEST OF A WITNESS POST, 16.6 FEET SOUTH OF WESTBOUND TRUNK HIGHWAY 14, 1.3 FEET NORTH OF A BARRIER WALL.

Station Notes
J-BARRIER IN PLACE OF CONCRETE SLAB.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
805.271	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
805.189	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Geoid Separations(ft): GEOID18 = -92.805 12B = -92.811 09 = -92.716 03 = -92.598

*** No Horizontal Positions in the Database ***

Mn/DOT Name: DUFFYS **NGS Name:** DUFFYS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3146 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	34	111 N	30 W	442229.02	942512.78	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=NO Vert=NO	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 24 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2015) **Stamping:** DUFFYS 2015

0.65 MILE NORTH OF KLOSSNER, 0.7 MILE NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 63.60, 86.8 FEET EAST-SOUTHEAST OF TRUNK HIGHWAY 15, 174.0 FEET SOUTH-SOUTHWEST OF A FIELD ENTRANCE, THE NEAREST CROSS STREET IS COUNTY ROAD 5, 12.0 FEET WEST-SOUTHWEST OF A WITNESS POST.

Station Pair: LARSON - NICOLLET, MN

Station Notes
THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.845	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
986.848	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.848			894.910	.018	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
986.848	.131		895.077	.066	1996	GPS - STATIC	2016	HKLOS
986.848			894.910	.018	2011	GPS - STATIC	2016	HKLOS
986.701	.262		894.778	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.952 12B = -91.919 09 = -91.847 03 = -91.729

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 29.01722	94 25 12.78244	459847.690	292041.817	.010		ADJUSTMENT	2016	GPS3141
44 22 29.01722	94 25 12.78244	459847.690	292041.817	.010	C	GPS - STATIC	2016	HKLOS
44 22 29.01694	94 25 12.78284	459847.661	292041.788	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 29.01706	94 25 12.78293	459847.654	292041.800	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514796.466	829505.167	1269204.023	16123573.763	.010		ADJUSTMENT	2016	GPS3141
2514796.466	829505.167	1269204.023	16123573.763	.010	C	GPS - STATIC	2016	HKLOS
2514796.437	829505.139	1269203.993	16123573.735	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514796.431	829505.152	1269203.987	16123573.747	.033	C	GPS - STATIC	2016	HKLOS

DUFFYS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DUFFYS-DQ3146-3SE-24JUN2015.jpg	SE	Jun 24, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DUFFYS-DQ3146-2-24JUN2015.jpg		Jun 24, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DUFFYS-DQ3146-1-24JUN2015.jpg		Jun 24, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

DWYER

Mn/DOT Name: DWYER
NGS Name: DWYER
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	15	110 N	30 W	441950.02	942553.94	2	C

NGS ACRN: DQ3147 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 44 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** DWYER 2015

1.8 MILES NORTHEAST OF NEW ULM, 0.7 MILE NORTH ALONG TRUNK HIGHWAY 15 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, AT TRUNK HIGHWAY 15 MILEPOINT 60.25, 94.3 FEET EAST OF TRUNK HIGHWAY 15, 1.5 FEET WEST OF A WITNESS POST.

Station Pair: FLINNS - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.283	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
990.283	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
990.283	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
990.287	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.287	.262		898.184	.197	2011	GPS - RTRN	2025	RTRN2025
990.221	.262		898.141	.197	2011	GPS - RTRN	2019	RTRN2019
990.287			898.207	.017	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
990.287	.131		898.371	.066	1996	GPS - STATIC	2016	HKLOS
990.287			898.207	.017	2011	GPS - STATIC	2016	HKLOS
990.205	.262		898.125	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.080 09 = -92.018 03 = -91.886

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 50.02076	94 25 53.94258	456825.660	275945.789	.131	3	GPS - RTRN	2025	RTRN2025
44 19 50.02091	94 25 53.94206	456825.698	275945.804	.131	3	GPS - RTRN	2019	RTRN2019
44 19 50.02078	94 25 53.94233	456825.679	275945.791	.010		ADJUSTMENT	2016	GPS3141
44 19 50.02078	94 25 53.94233	456825.679	275945.791	.010	C	GPS - STATIC	2016	HKLOS
44 19 50.02047	94 25 53.94239	456825.674	275945.760	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 50.02062	94 25 53.94284	456825.641	275945.775	.033	C	GPS - STATIC	2016	HKLOS

DWYER

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511722.103	813420.980	1265934.384	16107530.917	.131	3	GPS - RTRN	2025	RTRN2025
2511722.140	813420.995	1265934.422	16107530.931	.131	3	GPS - RTRN	2019	RTRN2019
2511722.121	813420.982	1265934.402	16107530.918	.010		ADJUSTMENT	2016	GPS3141
2511722.121	813420.982	1265934.402	16107530.918	.010	C	GPS - STATIC	2016	HKLOS
2511722.116	813420.951	1265934.397	16107530.887	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511722.084	813420.966	1265934.365	16107530.903	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DWYER-DQ3147-3E-23SEP2025.jpg	E	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DWYER-DQ3147-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/DWYER-DQ3147-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: E 126 **NGS Name:** E 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0120 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	34	111 N	30 W	442236.00	942510.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1984) **Stamping:** ELEV. 990.359

0.9 MILE NORTHEAST OF KLOSSNER, 0.8 MILE NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, 0.6 MILE NORTH ON A RAILROAD FROM THE KLOSSNER RAILROAD DEPOT, 148.5 FEET NORTH OF RAILROAD MILEPOST 93, OPPOSITE A RAILROAD BRIDGE, 75.0 FEET EAST OF A RAILROAD, IN THE CENTER OF THE WEST HEADWALL OF A TRUNK HIGHWAY 15 CULVERT, 27.0 FEET WEST OF TRUNK HIGHWAY 15, AT TRUNK HIGHWAY 15 MILEPOINT 63.75.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.664	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
990.215	.033	3				VERTICAL CONTROL SURVEY	1968	CS5204
990.359	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT
990.359	.007	1				VERTICAL CONTROL SURVEY	1941	L43 MINN

Geoid Separations(ft): GEOID18 = -91.945 12B = -91.916 09 = -91.840 03 = -91.726

*** No Horizontal Positions in the Database ***

E 2 USE

Mn/DOT Name: E 2 USE

NGS Name: E 2 USE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	121 N	46 W	441003.00	940124.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	1951	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	SURVEY DISK	USGS

Description:

Stamping: E 2 1951

1.25 MILES WEST OF MANKATO, 1.9 MILES SOUTH-SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, THEN 0.6 MILE WEST ON LOOKOUT DRIVE, AT THE SOUTH END OF ROBEL STREET IN NORTH MANKATO, 107.10 FEET SOUTH OF THE CENTERLINE OF SOUTH AVENUE, 86.97 FEET EAST-SOUTHEAST OF THE END OF ROBEL STREET, 81.62 FEET NORTH OF THE WESTBOUND CENTERLINE OF LOOKOUT DRIVE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.808 12B = -92.811 09 = -92.713 03 = -92.605

E 3 USE

Mn/DOT Name: E 3 USE

NGS Name: E 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	108 N	26 W	441046.00	940018.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE FOUNDATION	SURVEY DISK	USACE

Description: (1951) **Stamping:** E 3 1951

1.49 MILES EAST OF NORTH MANKATO, 0.8 MILE SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, THEN 197.0 FEET EAST ON WEBSTER AVENUE, THEN 0.2 MILE SOUTHEAST ON A RIVER DRIVE, 331.36 FEET EAST-NORTHEAST OF THE CENTER OF THE JUNCTION MCKINLEY AVENUE AND LYNDALE STREET, 175.84 FEET EAST OF THE CENTERLINE OF RIVER DRIVE, AT THE EAST END OF MCKINLEY AVENUE, ON THE LEFT BANK OF THE MINNESOTA RIVER, IN A CONCRETE PLATFORM AT A BRICK SEWER LIFT PLANT, 1.9 FEET EAST OF THE WEST EDGE OF A CONCRETE PLATFORM ON THE WEST SIDE OF A BRICK BUILDING, 0.5 FOOT SOUTH OF THE NORTH EDGE OF THE PLATFORM.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
772.200	.033	3				VERTICAL CONTROL SURVEY	1951	CS5211

Geoid Separations(ft): GEOID18 = -92.900 12B = -92.903 09 = -92.802 03 = -92.690

*** No Horizontal Positions in the Database ***

ENCAMP MNDT

Mn/DOT Name: ENCAMP MNDT **NGS Name:** ENCAMP

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF5868 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	9	110 N	26 W	442056.52	935703.77		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1997	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2002) **Stamping:** ENCAMP 1997

IN THE NORTH PART OF ST. PETER, AT THE NORTHEAST CORNER OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 169 MILEPOINT 68.2 IN ST. PETER, 83.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 56.9 FEET EAST-NORTHEAST OF A LIGHT POLE, 47.2 NORTH-NORTHWEST OF A FIRE HYDRANT, 21.0 FEET SOUTH OF AN ENTRANCE TO THE TREATY SITE HISTORY CENTER, 2.1 FEET WEST OF A WITNESS POST. THE STATION WAS RESET.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			663.037	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			663.132	.008	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
755.838	.131		663.240	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
755.838	.131		663.240	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
755.838	.131		663.240	.066	1996	GPS - STATIC	2002	HNICO
755.838	.131		663.240	.066	1996	GPS - STATIC	2002	HSUER

Geoid Separations(ft): GEOID18 = -92.782 12B = -92.782 09 = -92.690 03 = -92.542

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 56.52310	93 57 03.77190	582567.682	282795.684	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 56.52313	93 57 03.77266	582567.627	282795.686	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 56.52254	93 57 03.77210	582567.668	282795.627	.033	C	ADJUSTMENT	2003	GPS1882
44 20 56.52254	93 57 03.77210	582567.668	282795.627	.033	C	ADJUSTMENT	2003	GPS1847
44 20 56.52254	93 57 03.77210	582567.667	282795.625	.033	C	GPS - STATIC	2002	HNICO
44 20 56.52254	93 57 03.77210	582567.668	282795.627	.033	C	GPS - STATIC	2002	HSUER

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2637471.407	819860.625	1391725.983	16112435.862	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2637471.351	819860.628	1391725.927	16112435.866	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2637471.392	819860.568	1391725.967	16112435.806	.033	C	ADJUSTMENT	2003	GPS1882
2637471.392	819860.568	1391725.967	16112435.806	.033	C	ADJUSTMENT	2003	GPS1847
2637471.392	819860.568	1391725.967	16112435.806	.033	C	GPS - STATIC	2002	HNICO
2637471.392	819860.568	1391725.967	16112435.806	.033	C	GPS - STATIC	2002	HSUER

ENCAMP MNDT RESET

Mn/DOT Name: ENCAMP MNDT RESET
NGS Name: ENCAMP RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1005 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	9	110 N	26 W	442056.52	935703.77	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** ENCAMP 1997 2013

IN ST. PETER, AT THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 NORTH IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 68.2, 83.0 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 47.2 NORTH-NORTHWEST OF A FIRE HYDRANT, 24.0 FEET SOUTH OF TRUNK HIGHWAY 22 NORTH EXTENDED, 21.0 FEET SOUTH OF AN ENTRANCE TO THE TREATY SITE HISTORY CENTER, 2.1 FEET WEST OF A WITNESS POST.

Station Pair: WOLFFE MNDT RESET - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
755.635	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
755.635	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
755.635	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
755.658	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS
755.658	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
755.658	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
755.589	.262		662.807	.197	2011	GPS - RTRN	2025	RTRN2025
755.632	.262		662.850	.197	2011	GPS - RTRN	2019	RTRN2019
755.658			662.863	.014	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
755.658			662.863	.014	2011	GPS - STATIC	2016	HNORS
755.658	.131		663.070	.066	1996	GPS - STATIC	2016	HNORS
755.566	.262		662.784	.197	2011	GPS - RTRN	2015	RTRN2015
755.658			662.863	.015	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
755.658			662.863	.015	2011	GPS - STATIC	2013	HSUEUR
755.658	.131		663.070	.066	1996	GPS - STATIC	2013	HSUEUR
755.605	.262		662.823	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.782 12B = -92.782 09 = -92.690 03 = -92.542

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 56.52304	93 57 03.77126	582567.729	282795.678	.131	3	GPS - RTRN	2025	RTRN2025
44 20 56.52317	93 57 03.77066	582567.773	282795.691	.131	3	GPS - RTRN	2019	RTRN2019
44 20 56.52285	93 57 03.77148	582567.713	282795.658	.013		ADJUSTMENT	2016	GPS3139
44 20 56.52285	93 57 03.77148	582567.713	282795.658	.013	C	GPS - STATIC	2016	HNORS
44 20 56.52298	93 57 03.77157	582567.707	282795.672	.131	3	GPS - RTRN	2015	RTRN2015
44 20 56.52285	93 57 03.77148	582567.713	282795.658	.016		ADJUSTMENT	2014	GPS2977
44 20 56.52285	93 57 03.77148	582567.713	282795.658	.016	C	GPS - STATIC	2013	HSUEUR
44 20 56.52271	93 57 03.77070	582567.770	282795.644	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 56.52237	93 57 03.77147	582567.714	282795.610	.033	C	GPS - STATIC	2016	HNORS
44 20 56.52237	93 57 03.77147	582567.714	282795.610	.033	C	GPS - STATIC	2013	HSUEUR

ENCAMP MNDT RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2637471.453	819860.619	1391726.029	16112435.855	.131	3	GPS - RTRN	2025	RTRN2025
2637471.497	819860.632	1391726.073	16112435.868	.131	3	GPS - RTRN	2019	RTRN2019
2637471.437	819860.599	1391726.013	16112435.836	.013		ADJUSTMENT	2016	GPS3139
2637471.437	819860.599	1391726.013	16112435.836	.013	C	GPS - STATIC	2016	HNORS
2637471.431	819860.613	1391726.006	16112435.850	.131	3	GPS - RTRN	2015	RTRN2015
2637471.437	819860.599	1391726.013	16112435.836	.016		ADJUSTMENT	2014	GPS2977
2637471.437	819860.599	1391726.013	16112435.836	.016	C	GPS - STATIC	2013	HSUEUR
2637471.494	819860.585	1391726.069	16112435.822	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2637471.438	819860.551	1391726.013	16112435.788	.033	C	GPS - STATIC	2016	HNORS
2637471.438	819860.551	1391726.013	16112435.788	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ENCAMP_RESET-DP1005-3E-17SEP2025.jpg	E	Sep 17, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ENCAMP_RESET-DP1005-2-17SEP2025.jpg		Sep 17, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ENCAMP_RESET-DP1005-1-17SEP2025.jpg		Sep 17, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

ET 1 EDJ USGS

Mn/DOT Name: ET 1 EDJ USGS
NGS Name: ET 1 EDJ
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0687 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	110 N	27 W	442131.54	940745.29		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	USGS

Description: (1963) **Stamping:** ET 1 EDJ 1963

6.4 MILES NORTHEAST OF NICOLLET, 4.7 MILES NORTH ON TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 3.0 MILES EAST ON COUNTY ROAD 5, THEN 1.2 MILES NORTH ON COUNTY ROAD 3, 157.5 FEET EAST OF COUNTY ROAD 3 AT A NORTH DRIVE ENTRANCE, 151.69 FEET SOUTHEAST OF ET 1 EDJ USGS RM 1, 123.0 FEET WEST OF THE NORTHWEST CORNER OF A METAL BUILDING, 62.0 FEET NORTHWEST OF THE NORTHWEST CORNER OF A WOODEN GRANARY, 9.0 FEET NORTH OF AN ELECTRIC SERVICE ENTRANCE POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.335	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.092	.262		902.121	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.254 12B = -92.267 09 = -92.185 03 = -92.057

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.53774	94 07 45.28936	535943.893	286213.298	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.53302	94 07 45.28446	535944.250	286212.820	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.67689	94 07 44.43014			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590864.344	823429.098	1345177.130	16116571.707	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590864.699	823428.620	1345177.480	16116571.224	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1966259.138	495354.497			.100	3	CLASSICAL SURVEY	1982	16847

ET 1 EDJ USGS RM 1

Mn/DOT Name: ET 1 EDJ USGS RM 1

NGS Name: ET 1 EDJ RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8476 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	110 N	27 W	442132.00	940746.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	USGS

Description: (1984) **Stamping:** ET 1 EDJ 1963 RM 1

6.48 MILES NORTHEAST OF NICOLLET, 4.7 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 3.0 MILES EAST ON COUNTY ROAD 5, THEN 1.2 MILES NORTH ON COUNTY ROAD 3, 151.69 FEET NORTHWEST OF STATION ET 1 EDJ USGS, 101.0 FEET EAST OF THE CENTER OF COUNTY ROAD 3, 4.0 FEET SOUTH AND 4.0 FEET WEST OF THE SOUTHWEST CORNER OF A GARAGE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.409	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.254 12B = -92.267 09 = -92.185 03 = -92.057

*** No Horizontal Positions in the Database ***

ET 2 EDJ AZ MK

Mn/DOT Name: ET 2 EDJ AZ MK
NGS Name: ET 2 EDJ AZ MK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8478 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	111 N	27 W	442148.64	940110.40		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2015	POOR	Horz=NO Vert=NO	YES		RECESSED 8 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
REFERENCE MARK DISK

Mon. Agency
USGS

Description: (1964)

Stamping: ET 2 EDJ 1963 AZ

4.5 MILES NORTHWEST OF ST. PETER, 4.4 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 70.4, THEN 1.15 MILES SOUTH ON 375TH AVENUE, 24.0 FEET WEST OF 375TH AVENUE, 383.0 FEET NORTH OF 410TH STREET.

Station Notes
THE MARK HAS BEEN AND IS NOT SUITABLE FOR GEODETIC USE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.192	.262		898.683	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.506 12B = -92.510 09 = -92.434 03 = -92.283

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 48.63672	94 01 10.39729	564630.059	288011.999	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619552.859	825134.432	1373877.576	16117926.562	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ET_2_EDJ_AZ_MK-CO8478-3W-04JUN2015.jpg	W	Jun 4, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ET_2_EDJ_AZ_MK-CO8478-2-04JUN2015.jpg		Jun 4, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ET_2_EDJ_AZ_MK-CO8478-1-04JUN2015.jpg		Jun 4, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

ET 2 EDJ RM 1

Mn/DOT Name: ET 2 EDJ RM 1 **NGS Name:** ET 2 EDJ RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8479 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	111 N	27 W	442237.00	940108.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	USGS

Description: (1963) **Stamping:** RM 1 ET 2 EDJ 1963

2.0 MILES NORTH OF TRAVERSE, 0.7 MILE NORTHWEST ON COUNTY ROAD 15 FROM THE JUNCTION OF COUNTY ROAD 15 AND COUNTY ROAD 40 IN TRAVERSE, THEN 0.7 MILE NORTH ON COUNTY ROAD 19, THEN 0.2 MILE EAST CONTINUED ON COUNTY ROAD 19 (410TH STREET), THEN 0.7 MILE NORTH ON TOWNSHIP ROAD 28, THEN 0.3 MILE CONTINUED NORTH ON TOWNSHIP ROAD 70, 70.13 FEET SOUTH OF STATION 2 EDJ USGS, 36.0 FEET SOUTH OF A TEE-ROAD WEST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.931	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.490 09 = -92.418 03 = -92.264

*** No Horizontal Positions in the Database ***

ET 2 EDJ USGS

Mn/DOT Name: ET 2 EDJ USGS **NGS Name:** ET 2 EDJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0671 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	36	111 N	27 W	442237.11	940109.33		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2015	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	SURVEY DISK	USGS

Description: (1963) **Stamping:** ET 2 EDJ 1963 984

4.5 MILES NORTHWEST OF ST. PETER, 4.4 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 70.4, THEN 0.25 MILE SOUTH ON 375TH AVENUE, 31.0 FEET EAST OF 375TH AVENUE, 14.0 FEET NORTH OF A FIELD ROAD EXTENDED, 3.0 FEET SOUTHEAST OF A POWER POLE, 2.0 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.827	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.892	.262		891.402	.197	2011	GPS - RTRN	2015	RTRN2015
984.250	.262		892.098	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.490 09 = -92.418 03 = -92.264

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 37.11023	94 01 09.33246	564692.654	292921.226	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 37.11240	94 01 09.33546	564692.436	292921.446	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 37.10747	94 01 09.33095	564692.765	292920.948	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 37.25069	94 01 08.49289			.100	3	CLASSICAL SURVEY	1982	16847

ET 2 EDJ USGS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619631.367	830042.855	1374015.951	16122832.466	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619631.150	830043.074	1374015.736	16122832.688	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619631.477	830042.575	1374016.057	16122832.185	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1995025.533	501968.408			.100	3	CLASSICAL SURVEY	1982	16847

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ET_2_EDJ-PQ0671-3E-03JUN2015.jpg	E	Jun 3, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ET_2_EDJ-PQ0671-2-03JUN2015.jpg		Jun 3, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ET_2_EDJ-PQ0671-1-03JUN2015.jpg		Jun 3, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

ET 4 JA RM 1

Mn/DOT Name: ET 4 JA RM 1 **NGS Name:** ET 4 JA RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8482 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	29 W	442310.00	941503.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** RM 1 ET 4 JA 1963

4.25 MILES SOUTH AND 6.0 MILES EAST OF LAFAYETTE, 3.3 MILES SOUTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 38 IN LAFAYETTE, THEN 7.9 MILES EAST ON COUNTY ROAD 15, THEN 0.4 MILE SOUTH ON COUNTY ROAD 4, 1.13 MILES NORTH OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 4 (NORTH) AND COUNTY ROAD 4 (EAST) /TOWNSHIP ROAD 66 (WEST), 186.28 FEET NORTH OF STATION 4 JA.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.101	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.077 12B = -92.073 09 = -91.988 03 = -91.873

*** No Horizontal Positions in the Database ***

ET 4 JA USGS

Mn/DOT Name: ET 4 JA USGS **NGS Name:** ET 4 JA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0738 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	29 W	442309.94	941502.42		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	USGS

Description: (1963) **Stamping:** ET 4 JA 1963 994

4.25 MILES SOUTH AND 6.0 MILES EAST OF LAFAYETTE, 3.3 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 38 IN LAFAYETTE, THEN 7.9 MILES EAST ON COUNTY ROAD 15, THEN 0.4 MILE SOUTH ON COUNTY ROAD 4, 186.28 FEET SOUTH OF ET 4 JA USGS RM 1, 56.0 FEET NORTH AND 31.0 FEET WEST OF A DRIVE EAST, 5.0 FEET NORTH AND 1.0 FOOT EAST OF A POWER POLE WITH A TRANSFORMER AND A GUY WIRE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.467	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.092	.262		902.295	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.077 12B = -92.073 09 = -91.988 03 = -91.873

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 09.93696	94 15 02.42070	504181.569	296148.788	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 09.93288	94 15 02.41513	504181.973	296148.375	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 10.07845	94 15 01.54196			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559138.274	833466.785	1313582.653	16126993.504	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2559138.677	833466.371	1313583.051	16126993.085	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1934533.554	505392.234			.100	3	CLASSICAL SURVEY	1982	16847

ET 5 JA USGS

Mn/DOT Name: ET 5 JA USGS
NGS Name: ET 5 JA
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0740 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	31	111 N	29 W	442253.53	942217.07		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1994	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	USGS

Description: (1994) **Stamping:** ET 5 JA 1963

4.7 MILES SOUTHEAST OF LAFAYETTE, 3.3 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 38 IN LAFAYETTE, THEN 1.9 MILES EAST ON COUNTY ROAD 15, THEN 0.8 MILE SOUTH ON TOWNSHIP ROAD 76, NEAR THE NORTH 1/16 CORNER OF SECTION 31 AND SECTION 36, 147.65 FEET SOUTH OF ET 5 JA USGS RM 1, 92.0 FEET SOUTH AND 33.0 FEET EAST OF A FIELD ROAD WEST, 4.0 FEET NORTH AND 1.0 FOOT WEST OF A TELEPHONE POLE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1027.885	.262		936.199	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1027.590						RECIPROCAL VERTICAL ANGLE	1963	HORZ

Geoid Separations(ft): GEOID18 = -91.981 12B = -91.955 09 = -91.880 03 = -91.755

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 53.53216	94 22 17.07246	472613.842	294504.462	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 53.52780	94 22 17.06709	472614.231	294504.020	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 53.67259	94 22 16.17726			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527569.097	831925.741	1282003.023	16125837.972	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527569.485	831925.298	1282003.405	16125837.524	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1902964.679	503851.002			.100	3	CLASSICAL SURVEY	1982	16847

ET 5 JA USGS RM 1

Mn/DOT Name: ET 5 JA USGS RM 1

NGS Name: ET 5 JA RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8483 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	31	111 N	29 W	442254.00	942218.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1994	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	USGS

Description: (1974) **Stamping:** RM 1 ET 5 JA 1963

2.79 MILES NORTHEAST OF KLOSSNER, 2.6 MILES EAST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, THEN 1.2 MILES NORTH ON TOWNSHIP ROAD 154, 147.65 FEET FROM STATION ET 5 JA USGS, 12.38 FEET WEST OF THE CENTERLINE OF TOWNSHIP ROAD 154.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.981 12B = -91.955 09 = -91.880 03 = -91.752

ET 9 EDJ

Mn/DOT Name: ET 9 EDJ **NGS Name:** ET 9 EDJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2948 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	111 N	26 W	442342.43	935851.77		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2007	UNKNOWN	Horz=YES Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description: (2007)

Stamping:

4.8 MILES NORTHWEST OF ST. PETER, 2.09 MILES NORTH AND WEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 99 IN ST. PETER, THEN 3.9 MILES NORTH ON COUNTY ROAD 20, THEN 0.5 MILE EAST ON COUNTY ROAD 26, 391.48 FEET WEST-NORTHWEST OF CENTER OF THE JUNCTION OF COUNTY ROAD 26 AND A DRIVE SOUTH, 23.10 FEET NORTH OF CENTERLINE OF COUNTY ROAD 26.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
974.736	.262		882.531	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.546 12B = -92.546 09 = -92.474 03 = -92.316

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.42688	93 58 51.76591	574661.643	299568.345	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.42198	93 58 51.76166	574661.954	299567.850	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.56494	93 58 50.92925			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2629620.663	836656.833	1384082.773	16129322.397	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2629620.972	836656.337	1384083.076	16129321.897	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2005014.883	508582.111			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: F 126 **NGS Name:** F 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0121 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	3	110 N	30 W	442203.00	942529.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	1968	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1968) **Stamping:** ELEV. 1005.037

0.13 MILE NORTH OF KLOSSNER, 0.1 MILE NORTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 85.0 FEET WEST ON A DRIVE WEST, 67.68 FEET SOUTH OF THE CENTER OF A DRIVE WEST, 57.94 FEET WEST OF THE CENTERLINE OF TRUNK HIGHWAY 15, 25.30 FEET EAST-SOUTHEAST OF THE CENTER OF THE FIRST SILO CLOSEST TO A DRIVE WEST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.339	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.037	.007	1				VERTICAL CONTROL SURVEY	1934	L43 MINN

Geoid Separations(ft): GEOID18 = -91.972 12B = -91.942 09 = -91.870 03 = -91.752

*** No Horizontal Positions in the Database ***

FAY MNDT

Mn/DOT Name: FAY MNDT **NGS Name:** FAY

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF5871 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	111 N	26 W	442557.88	935656.04	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1997	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 50 FT)	SURVEY DISK	MNDT

Description: (2002) **Stamping:** FAY 1997

2.5 MILES SOUTHWEST OF LE SUEUR, 2.35 MILES SOUTH-SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND SOUTH TRUNK HIGHWAY 93 IN LE SUEUR, AT TRUNK HIGHWAY 169 MILEPOINT 74.30, 72.0 FEET WEST-NORTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 44.0 FEET NORTH OF 358TH STREET, 11.5 FEET NORTHEAST OF A POWER POLE, 2.0 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
756.153	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
756.153	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
756.153	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
756.196	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
756.196	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
756.081	.262		663.585	.197	2011	GPS - RTRN	2013	RTRN2013
			663.680	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			663.765	.008	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
756.166	.131		663.900	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
756.166	.131		663.900	.066	1996	GPS - STATIC	2002	HSUER

Geoid Separations(ft): GEOID18 = -92.500 12B = -92.500 09 = -92.421 03 = -92.247

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 57.88380	93 56 56.03514	583011.997	313317.229	.131	3	GPS - RTRN	2013	RTRN2013
44 25 57.88409	93 56 56.03600	583011.934	313317.258	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 57.88411	93 56 56.03683	583011.874	313317.260	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 57.88362	93 56 56.03617	583011.922	313317.211	.033	C	ADJUSTMENT	2003	GPS1847
44 25 57.88362	93 56 56.03617	583011.921	313317.211	.033	C	GPS - STATIC	2002	HSUER

FAY MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2638014.483	850376.922	1392641.417	16142935.516	.131	3	GPS - RTRN	2013	RTRN2013
2638014.420	850376.951	1392641.355	16142935.546	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2638014.360	850376.953	1392641.295	16142935.548	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2638014.408	850376.903	1392641.342	16142935.498	.033	C	ADJUSTMENT	2003	GPS1847
2638014.408	850376.903	1392641.342	16142935.498	.033	C	GPS - STATIC	2002	HSUER

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/FAY-DF5871-3W-28AUG2013.jpg	W	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/FAY-DF5871-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/FAY-DF5871-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

FLINNS

Mn/DOT Name: FLINNS **NGS Name:** FLINNS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3148 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	15	110 N	30 W	442007.26	942549.10	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** FLINNS 2015

2.1 MILES NORTHEAST OF NEW ULM, 1.05 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, AT TRUNK HIGHWAY 15 MILEPOINT 60.55, 76.9 FEET EAST OF TRUNK HIGHWAY 15, 0.15 MILE NORTH OF 422ND STREET, 3.5 FEET WEST OF A WITNESS POST.

Station Pair: DWYER - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.328	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1003.331	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.325	.262		911.238	.197	2011	GPS - RTRN	2025	RTRN2025
1003.269	.262		911.206	.197	2011	GPS - RTRN	2019	RTRN2019
1003.331			911.284	.018	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1003.331	.131		911.448	.066	1996	GPS - STATIC	2016	HKLOS
1003.331			911.284	.018	2011	GPS - STATIC	2016	HKLOS
1003.226	.262		911.166	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.086 12B = -92.060 09 = -91.998 03 = -91.867

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 07.25923	94 25 49.09732	457181.340	277690.844	.131	3	GPS - RTRN	2025	RTRN2025
44 20 07.25841	94 25 49.09733	457181.339	277690.761	.131	3	GPS - RTRN	2019	RTRN2019
44 20 07.25884	94 25 49.09737	457181.336	277690.805	.010		ADJUSTMENT	2016	GPS3141
44 20 07.25884	94 25 49.09737	457181.336	277690.805	.010	C	GPS - STATIC	2016	HKLOS
44 20 07.25841	94 25 49.09755	457181.323	277690.761	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 07.25867	94 25 49.09785	457181.302	277690.787	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512083.454	815164.663	1266316.888	16109269.779	.131	3	GPS - RTRN	2025	RTRN2025
2512083.453	815164.580	1266316.886	16109269.696	.131	3	GPS - RTRN	2019	RTRN2019
2512083.450	815164.624	1266316.883	16109269.739	.010		ADJUSTMENT	2016	GPS3141
2512083.450	815164.624	1266316.883	16109269.739	.010	C	GPS - STATIC	2016	HKLOS
2512083.437	815164.580	1266316.870	16109269.696	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512083.415	815164.607	1266316.848	16109269.723	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/FLINNS-DQ3148-3E-23SEP2025.jpg	E	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/FLINNS-DQ3148-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/FLINNS-DQ3148-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: G 126 **NGS Name:** G 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0122 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	110 N	30 W	442126.00	942518.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2015	DESTROYED	Horz=NO Vert=NO	NO	4180		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1977) **Stamping:** ELEV. 976.632

0.7 MILE SOUTH OF KLOSSNER, 0.6 MILE SOUTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 62.3, IN THE CENTER OF THE WEST HEADWALL OF A TRUNK HIGHWAY 15 BRIDGE NUMBER 4180 OVER A CREEK.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
976.930	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
976.632	.007	1				VERTICAL CONTROL SURVEY	1941	L43 MINN

Geoid Separations(ft): GEOID18 = -92.014 12B = -91.985 09 = -91.916 03 = -91.791

*** No Horizontal Positions in the Database ***

GAB MNDT

Mn/DOT Name: GAB MNDT **NGS Name:** GAB

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0673 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	110 N	27 W	441843.18	940058.52	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1991) **Stamping:** GAB 1978

2.5 MILES WEST OF ST. PETER, 2.4 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 9.9, 67.4 FEET NORTH OF TRUNK HIGHWAY 99, 33.65 FEET SOUTHWEST OF GAB MNDT RM 1, 28.96 FEET SOUTHEAST OF GAB MNDT RM 2, 20.3 FEET WEST-SOUTHWEST OF A POWER POLE NUMBER 1041, 3.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.976	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
995.976	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
995.976	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
995.982	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.795	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.904	.262		903.292	.197	2011	GPS - RTRN	2025	RTRN2025
995.874	.262		903.263	.197	2011	GPS - OPUS	2021	GPSBM
995.959	.262		903.351	.197	2011	GPS - RTRN	2021	RTRN2021
995.972	.262		903.358	.197	2011	GPS - RTRN	2019	RTRN2019
995.976			903.354	.013	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
995.976			903.361	.013	2011	GPS - STATIC	2013	HSUEUR
995.976	.131		903.555	.066	1996	GPS - STATIC	2013	HSUEUR
995.861	.262		903.246	.197	2011	GPS - RTRN	2013	RTRN2013
			903.354	.014	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			903.450	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
995.963	.131		903.555	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
995.963	.131		903.555	.066	1996	GPS - STATIC	2002	HNICO
995.405	.197		903.102	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.405						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.611 12B = -92.618 09 = -92.539 03 = -92.398

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.18314	94 00 58.51956	565550.153	269233.554	.131	3	GPS - RTRN	2025	RTRN2025
44 18 43.18362	94 00 58.52012	565550.112	269233.603	.131	3	GPS - OPUS	2021	GPSBM
44 18 43.18308	94 00 58.51933	565550.170	269233.548	.131	3	GPS - RTRN	2021	RTRN2021
44 18 43.18370	94 00 58.52009	565550.115	269233.611	.131	3	GPS - RTRN	2019	RTRN2019
44 18 43.18364	94 00 58.51941	565550.164	269233.605	.013		ADJUSTMENT	2014	GPS2977
44 18 43.18371	94 00 58.51937	565550.167	269233.612	.013	C	GPS - STATIC	2013	HSUEUR
44 18 43.18384	94 00 58.51932	565550.170	269233.625	.131	3	GPS - RTRN	2013	RTRN2013
44 18 43.18364	94 00 58.51941	565550.164	269233.605	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.18367	94 00 58.52018	565550.108	269233.608	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.18313	94 00 58.51959	565550.151	269233.553	.033	C	GPS - STATIC	2013	HSUEUR
44 18 43.18313	94 00 58.51959	565550.151	269233.553	.033	C	ADJUSTMENT	2003	GPS1882
44 18 43.18313	94 00 58.51959	565550.152	269233.553	.033	C	GPS - STATIC	2002	HNICO
44 18 43.18196	94 00 58.52663	565549.640	269233.433	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.17765	94 00 58.52190	565549.985	269232.998	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.29618	94 00 57.67561			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620411.948	806355.242	1374507.386	16099142.896	.131	3	GPS - RTRN	2025	RTRN2025
2620411.907	806355.291	1374507.346	16099142.945	.131	3	GPS - OPUS	2021	GPSBM
2620411.965	806355.236	1374507.402	16099142.890	.131	3	GPS - RTRN	2021	RTRN2021
2620411.910	806355.299	1374507.348	16099142.953	.131	3	GPS - RTRN	2019	RTRN2019
2620411.959	806355.292	1374507.397	16099142.947	.013		ADJUSTMENT	2014	GPS2977
2620411.962	806355.300	1374507.400	16099142.954	.013	C	GPS - STATIC	2013	HSUEUR
2620411.966	806355.313	1374507.404	16099142.967	.131	3	GPS - RTRN	2013	RTRN2013
2620411.959	806355.292	1374507.397	16099142.947	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620411.903	806355.295	1374507.341	16099142.950	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620411.946	806355.241	1374507.384	16099142.895	.033	C	GPS - STATIC	2013	HSUEUR
2620411.946	806355.241	1374507.384	16099142.895	.033	C	ADJUSTMENT	2003	GPS1882
2620411.946	806355.241	1374507.384	16099142.895	.033	C	GPS - STATIC	2002	HNICO
2620411.434	806355.123	1374506.870	16099142.783	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620411.778	806354.686	1374507.209	16099142.343	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1995806.522	478278.241			.100	2	CLASSICAL SURVEY	1980	16297

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GAB-PQ0673-3N-22SEP2025.jpg	N	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GAB-PQ0673-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GAB-PQ0673-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

GAB MNDT RM 1

Mn/DOT Name: GAB MNDT RM 1 **NGS Name:** GAB RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AE3586 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	110 N	27 W	441843.33	940058.11	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	GOOD	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1991) **Stamping:** GAB NO 1 1978

2.5 MILES WEST OF ST. PETER, 2.4 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 9.9, 82.0 FEET NORTH OF TRUNK HIGHWAY 99, 33.65 FEET NORTHEAST OF STATION GAB MNDT, 16.4 FEET NORTH-NORTHEAST OF A POWER POLE NUMBER 41, 32.0 FEET EAST-NORTHEAST OF A WITNESS POST.

Station Notes

THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.868	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
996.871	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.688	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Geoid Separations(ft): GEOID18 = -92.611 12B = -92.618 09 = -92.539 03 = -92.398

*** No Horizontal Positions in the Database ***

GAB MNDT RM 2

Mn/DOT Name: GAB MNDT RM 2 **NGS Name:** GAB RM 2

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	110 N	27 W	441843.33	940058.86	2	

NGS ACRN: AI3110 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	GOOD	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1991) **Stamping:** GAB NO 2 1978

2.5 MILES WEST OF ST. PETER, 2.4 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 9.9, 82.4 FEET NORTH OF TRUNK HIGHWAY 99, 46.9 FEET WEST-NORTHWEST OF A POWER POLE NUMBER 41, 28.96 FEET NORTHWEST OF STATION GAB MNDT, 27.4 FEET NORTHWEST OF A WITNESS POST.

Station Notes

THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.760	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
997.767	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.580	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Geoid Separations(ft): GEOID18 = -92.611 12B = -92.618 09 = -92.539 03 = -92.398

*** No Horizontal Positions in the Database ***

GRANBY 25 MN103

Mn/DOT Name: GRANBY 25 MN103 **NGS Name:** GRANBY 25

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6582 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	110 N	28 W	441843.16	940811.76		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2001) **Stamping:** GRANBY-25 2001

10.0 MILES NORTHWEST OF NORTH MANKATO, 10.3 MILES NORTH ALONG COUNTY ROAD 13 FROM THE JUNCTION OF COUNTY ROAD 13 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, THEN 1.8 MILES WEST ALONG 436TH STREET, 31.0 FEET SOUTH OF 436TH STREET, 19.0 FEET WEST OF A FIELD ENTRANCE, 6.0 FEET WEST OF A POWER POLE, 5.5 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.591	.262		907.295	.197	2011	GPS - OPUS	2021	GPSBM
999.558	.262		907.262	.197	2011	GPS - OPUS	2021	GPSBM
999.608	.262		907.311	.197	2011	GPS - RTRN	2021	RTRN2021
			907.341	.014	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
999.522	.262		907.295	.197	2007	GPS - RTRN	2011	RTRN2011
			907.423	.018	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
999.670	.131		907.544	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
999.670	.131		907.544	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.296 12B = -92.316 09 = -92.228 03 = -92.106

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.15874	94 08 11.75687	534047.824	269158.227	.131	3	GPS - OPUS	2021	GPSBM
44 18 43.15900	94 08 11.75701	534047.813	269158.253	.131	3	GPS - OPUS	2021	GPSBM
44 18 43.15908	94 08 11.75632	534047.864	269158.261	.131	3	GPS - RTRN	2021	RTRN2021
44 18 43.15918	94 08 11.75650	534047.851	269158.271	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.15896	94 08 11.75593	534047.892	269158.249	.131	3	GPS - RTRN	2011	RTRN2011
44 18 43.15925	94 08 11.75717	534047.802	269158.278	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.15871	94 08 11.75662	534047.842	269158.224	.033	C	ADJUSTMENT	2003	GPS1882
44 18 43.15871	94 08 11.75662	534047.843	269158.225	.033	C	GPS - STATIC	2002	HNICO

GRANBY 25 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2588913.043	806382.222	1343018.607	16099553.736	.131	3	GPS - OPUS	2021	GPSBM
2588913.032	806382.248	1343018.597	16099553.763	.131	3	GPS - OPUS	2021	GPSBM
2588913.083	806382.256	1343018.647	16099553.770	.131	3	GPS - RTRN	2021	RTRN2021
2588913.070	806382.266	1343018.634	16099553.780	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2588913.111	806382.244	1343018.675	16099553.758	.131	3	GPS - RTRN	2011	RTRN2011
2588913.021	806382.273	1343018.586	16099553.788	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2588913.061	806382.219	1343018.625	16099553.733	.033	C	ADJUSTMENT	2003	GPS1882
2588913.061	806382.219	1343018.625	16099553.733	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GRANBY_25-DF6582-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GRANBY_25-DF6582-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GRANBY_25-DF6582-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

GUEMMER

Mn/DOT Name: GUEMMER **NGS Name:** GUEMMER

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6222 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	35	110 N	30 W	441706.24	942336.33	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 11 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (219) **Stamping:** GUEMMER 2019

4.0 MILE SOUTHEAST OF NEW ULM, 5.2 MILES EAST AND SOUTH ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 108.02, 23.7 FEET SOUTHWEST OF THE EASTBOUND TRUNK HIGHWAY 14 FOG LINE, 20.7 FEET NORTHWEST OF AN ENTRANCE, 3.0 FEET NORTHEAST OF A WITNESS POST.

Station Pair: PIT - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
925.267	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
925.264	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
925.238	.262		832.931	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.316 12B = -92.306 09 = -92.234 03 = -92.083

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 06.24384	94 23 36.33096	466803.233	259342.267	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2521644.172	796786.729	1275651.520	16090779.968	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GUEMMER-DR6222-3SW-16JUL2019.jpg	SW	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GUEMMER-DR6222-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/GUEMMER-DR6222-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

H 126

Mn/DOT Name: H 126 **NGS Name:** H 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0123 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	110 N	30 W	442119.00	942553.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2015	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1977) **Stamping:** H-126 1934

0.5 MILE WEST AND 0.75 MILE SOUTH OF KLOSSNER, 0.4 MILE WEST ON COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, THEN 0.7 MILE SOUTH ON TOWNSHIP ROAD 146, 32.0 FEET EAST OF A GRAVEL ROAD (TOWNSHIP ROAD 146), 8.0 FEET EAST OF A FENCE LINE, 8.3 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
948.036	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
947.741	.007	1				VERTICAL CONTROL SURVEY	1941	L43 MINN

Geoid Separations(ft): GEOID18 = -92.011 12B = -91.981 09 = -91.916 03 = -91.791

*** No Horizontal Positions in the Database ***

HALF MNDT TEMP

Mn/DOT Name: HALF MNDT TEMP
NGS Name: HALF MNDT TEMP
County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	108 N	27 W	441104.34	940135.94		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	1985	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SURVEY DISK	MNDT

Description: (1985) **Stamping:** HALF 1985

2.0 MILES NORTHWEST OF MANKATO, 0.3 MILE NORTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 13 IN NORTH MANKATO, 178.0 FEET NORTHEAST OF THE NORTHWEST LEG OF A SIGN, 27.8 FEET SOUTHEAST OF EASTBOUND TRUNK HIGHWAY 14, 9.8 FEET NORTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.759 12B = -92.766 09 = -92.677 03 = -92.559

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 04.34004	94 01 35.94667	562964.274	222758.866	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 04.45590	94 01 35.10690			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617675.627	759894.035	1371206.310	16052730.071	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1993069.949	431817.750			.100	2	CLASSICAL SURVEY	1950	UNK

HAPPY

Mn/DOT Name: HAPPY **NGS Name:** HAPPY

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1006 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	108 N	27 W	441138.07	940105.07	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 34 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2016)

Stamping: HAPPY 2013

IN NORTH MANKATO, 0.15 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 55.85, 61.1 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 106.8 FEET NORTH OF A POWER POLE, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
770.894	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
770.904	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
770.901	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
770.861	.262		678.047	.197	2011	GPS - RTRN	2016	RTRN2016
770.865	.262		678.050	.197	2011	GPS - RTRN	2014	RTRN2014
770.901			678.086	.014	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
770.901			678.086	.014	2011	GPS - STATIC	2013	HSUEUR
770.901	.131		678.299	.066	1996	GPS - STATIC	2013	HSUEUR
770.802	.262		677.991	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.808 12B = -92.811 09 = -92.716 03 = -92.598

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 38.07206	94 01 05.07303	565203.730	226181.513	.131	3	GPS - RTRN	2016	RTRN2016
44 11 38.07202	94 01 05.07297	565203.734	226181.509	.131	3	GPS - RTRN	2014	RTRN2014
44 11 38.07242	94 01 05.07278	565203.748	226181.550	.013		ADJUSTMENT	2014	GPS2977
44 11 38.07242	94 01 05.07278	565203.748	226181.550	.013	C	GPS - STATIC	2013	HSUEUR
44 11 38.07241	94 01 05.07297	565203.734	226181.548	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 38.07185	94 01 05.07295	565203.736	226181.492	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619925.953	763309.066	1373497.428	16056116.613	.131	3	GPS - RTRN	2016	RTRN2016
2619925.958	763309.062	1373497.432	16056116.609	.131	3	GPS - RTRN	2014	RTRN2014
2619925.971	763309.103	1373497.447	16056116.649	.013		ADJUSTMENT	2014	GPS2977
2619925.971	763309.103	1373497.447	16056116.649	.013	C	GPS - STATIC	2013	HSUEUR
2619925.958	763309.102	1373497.433	16056116.648	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619925.959	763309.045	1373497.434	16056116.591	.033	C	GPS - STATIC	2013	HSUEUR

HAPPY

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HAPPY-DP1006-3E-16SEP2013.jpg	E	Sep 16, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HAPPY-DP1006-2-16SEP2013.jpg		Sep 16, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HAPPY-DP1006-1-16SEP2013.jpg		Sep 16, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

HAVEMEIER MNDT

Mn/DOT Name: HAVEMEIER MNDT
NGS Name: HAVEMEIER
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0746 Get Map
NGS Quad / Sta Num : 44094242/1046
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	110 N	29 W	441750.58	941929.66		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1994	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (2000) **Stamping:** HAVEMEIER 1970

2.0 MILES NORTH-NORTHEAST OF COURTLAND, 0.5 MILE EAST ON TRUNK HIGHWAY 14 FROM THE POST OFFICE IN COURTLAND, THEN 2.1 MILES NORTH ON TOWNSHIP ROAD 91 TO A HIGH TENSION POWER LINE CROSSING, THEN EAST ALONG THE POWER LINE TO A DOUBLE POLE ON THE HIGHEST HILL, 138.6 FEET SOUTHEAST OF A POWER POLE, 8.3 FEET NORTH OF A HIGH TENSION POWER POLE, 6.2 FEET SOUTH OF A HIGH TENSION POWER POLE, 4.0 FEET SOUTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1025.588	.197		933.525	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1024.998						RECIPROCAL VERTICAL ANGLE	1970	HORZ

Geoid Separations(ft): GEOID18 = -92.362 12B = -92.352 09 = -92.277 03 = -92.129

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 50.58333	94 19 29.65928	484751.064	263812.362	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 50.57727	94 19 29.65486	484751.385	263811.748	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 50.70196	94 19 28.76987			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2539604.564	801197.641	1293660.957	16094971.157	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2539604.883	801197.026	1293661.268	16094970.538	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1915000.156	473121.016			.100	2	CLASSICAL SURVEY	1977	16059

HAVEMEIER MNDT RM 1

Mn/DOT Name: HAVEMEIER MNDT RM 1 **NGS Name:** HAVEMEIER RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0745 Get Map
NGS Quad / Sta Num : 44094242/1047
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	110 N	29 W	441814.16	941922.34		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1998	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1998) **Stamping:** HAVEMEIER NO 1 1970

2.5 MILES NORTH-NORTHEAST OF COURTLAND, 0.5 MILE EAST ALONG TRUNK HIGHWAY 14 FROM THE POST OFFICE IN COURTLAND, THEN 2.6 MILES NORTH ON TOWNSHIP ROAD 91 (0.5 MILE NORTH OF A POWER LINE CROSSING), THEN EAST 0.45 MILE CONTINUED ON TOWNSHIP ROAD 91, 300.0 FEET WEST OF THE JUNCTION OF TOWNSHIP ROAD 91 AND COUNTY ROAD 11, 24.0 FEET SOUTH OF TOWNSHIP ROAD 91, 3.0 FEET EAST OF A WITNESS POST, 2.5 FEET EAST OF A TELEPHONE POLE.

Station Notes

IN 1998, THE MONUMENT WAS REMOVED BY A CONTRACTOR WHO NEEDED THE DIRT, THE DISK WAS SENT IN TO THE GEODETIC UNIT.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1004.263	.197		912.223	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.935						DIGITIZED FROM MAP	1970	HORZ

Geoid Separations(ft): GEOID18 = -92.336 12B = -92.326 09 = -92.250 03 = -92.106

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 14.15995	94 19 22.34245	485284.862	266199.608	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 14.15387	94 19 22.33816	485285.174	266198.992	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 14.27870	94 19 21.45246			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2540146.099	803582.868	1294231.387	16097349.159	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2540146.408	803582.251	1294231.689	16097348.539	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1915541.741	475506.234			.100	2	CLASSICAL SURVEY	1977	16059

HAVEMEIER MNDT RM 2

Mn/DOT Name: HAVEMEIER MNDT RM 2 **NGS Name:** HAVEMEIER RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0744 Get Map
NGS Quad / Sta Num : 44094242/1048
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	27	110 N	29 W	441754.26	941834.46		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1981	GOOD	Horz=? Vert=YES	NO		PROJECTS 3 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1994) **Stamping:** HAVEMEIER NO 2 1970

2.5 MILES NORTHEAST OF COURTLAND, 0.5 MILE EAST ON TRUNK HIGHWAY 14 FROM THE POST OFFICE IN COURTLAND, THEN 2.6 MILES NORTH ON TOWNSHIP ROAD 91 (0.5 MILE NORTH OF A POWER LINE CROSSING), THEN 0.5 MILE EAST AND SOUTHEAST ON TOWNSHIP ROAD 91 TO THE JUNCTION OF TOWNSHIP ROAD 91 AND COUNTY ROAD 11, THEN 0.75 MILE SOUTHEAST ON COUNTY ROAD 11, 2.17 FEET WEST OF A WITNESS POST, 27.0 FEET WEST OF COUNTY ROAD 11, 4.0 FEET NORTH OF A TELEPHONE POLE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.140	.197		899.066	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.140						DIGITIZED FROM MAP	1970	HORZ

Geoid Separations(ft): GEOID18 = -92.365 12B = -92.359 09 = -92.283 03 = -92.136

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 54.26158	94 18 34.46126	488765.919	264182.392	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 54.25565	94 18 34.45695	488766.232	264181.791	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 54.37952	94 18 33.57298			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543620.166	801554.517	1297679.833	16095279.052	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2543620.477	801553.915	1297680.136	16095278.447	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1919015.789	473477.830			.100	2	CLASSICAL SURVEY	1977	16059

HAWA

Mn/DOT Name: HAWA **NGS Name:** HAWA

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	110 N	27 W	441659.67	940712.29	2	3

NGS ACRN: DR6215 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 29 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2019)

Stamping: HAWA 2019

3.5 MILES EAST OF NICOLLET, 3.2 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND COUNTY ROAD 42 IN NICOLLET, AT TRUNK HIGHWAY 99 MILEPOINT 4.1, 67.8 FEET NORTH OF TRUNK HIGHWAY 99, 16.0 FEET WEST OF A FIELD ENTRANCE, 1.5 FEET SOUTH-SOUTHEAST OF A WITNESS POST.

Station Pair: 5206 Q - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
984.283	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
984.283	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
984.211	.262		891.826	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.372 12B = -92.388 09 = -92.300 03 = -92.175

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 59.67032	94 07 12.29110	538390.489	258685.194	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593221.157	795896.274	1347197.684	16089018.487	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HAWA-DR6215-3N-15JUL2019.jpg	N	Jul 15, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HAWA-DR6215-2-15JUL2019.jpg		Jul 15, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HAWA-DR6215-1-15JUL2019.jpg		Jul 15, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

HENTGES MNDT

Mn/DOT Name: HENTGES MNDT
NGS Name: HENTGES
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2952 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	21	111 N	26 W	442402.99	935754.98		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2002	GOOD	Horz=NO Vert=NO	YES		RECESSED 2 IN.	STEEL ROD IMBED IN MON

Monument Type: CONCRETE MONUMENT (CAST-IN-PLACE)
Disk Type: HORIZONTAL CONTROL DISK
Mon. Agency: MNDT

Description: (2004) **Stamping:** HENTGES 1981

5.4 MILES NORTH OF ST. PETER, 5.2 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER TO TRUNK HIGHWAY 169 MILEPOINT 71.70, THEN NORTH 0.3 MILE NORTHWEST ON VALLEY VIEW ROAD, THEN 0.2 MILE WEST-NORTHWEST ON HILLSIDE DRIVE, THEN 0.1 MILE SOUTH ON A GRASS TRAIL ALONG A FENCE LINE, 66.69 FEET SOUTHEAST OF HENTGES MNDT RM 2, 57.3 FEET NORTHEAST OF THE NORTHEAST CORNER OF A CONCRETE BASE FOR A POWER BOX, 53.97 FEET NORTHEAST OF HENGES MNDT RM 1, 46.8 FEET EAST OF A NORTH-SOUTH FENCE, 45.9 FEET EAST OF A WITNESS POST, 2.6 FEET SOUTH OF A WITNESS POST.

Station Notes
THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			841.081	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			841.166	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
933.660	.131		841.281	.066	1996	HORIZONTAL ADJUSTMENT	2004	GPS2027
933.660	.131		841.281	.066	1996	GPS - STATIC	2004	HLESU
933.069	.197		840.851	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
933.397						GPS - STATIC	1991	HORZ

Geoid Separations(ft): GEOID18 = -92.572 12B = -92.569 09 = -92.493 03 = -92.336

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 02.99151	93 57 54.97783	578777.464	301665.683	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 02.99160	93 57 54.97863	578777.405	301665.692	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 02.99104	93 57 54.97812	578777.443	301665.636	.033	C	ADJUSTMENT	2004	GPS2027
44 24 02.99104	93 57 54.97812	578777.443	301665.636	.033	C	GPS - STATIC	2004	HLESU
44 24 02.99501	93 57 54.98439	578776.986	301666.036	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 02.99018	93 57 54.97957	578777.338	301665.548	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 03.11727	93 57 54.11600			.100	2	CLASSICAL SURVEY	1982	16778

HENTGES MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633742.760	838740.574	1388228.974	16131355.137	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633742.702	838740.584	1388228.915	16131355.147	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633742.739	838740.527	1388228.952	16131355.090	.033	C	ADJUSTMENT	2004	GPS2027
2633742.739	838740.527	1388228.952	16131355.090	.033	C	GPS - STATIC	2004	HLESU
2633742.284	838740.929	1388228.501	16131355.497	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633742.634	838740.440	1388228.846	16131355.004	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2009138.920	510664.604			.100	2	CLASSICAL SURVEY	1982	16778

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HENTGES-PP2952-3S-14MAY2004.jpg	S	May 14, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HENTGES-PP2952-2-14MAY2004.jpg		May 14, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HENTGES-PP2952-1-14MAY2004.jpg		May 14, 2004

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

HENTGES MNDT RM 1

Mn/DOT Name: HENTGES MNDT RM 1 **NGS Name:** HENTGES RM 1

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	21	111 N	26 W	442402.68	935755.58		

NGS ACRN: CJ3582 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2019	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: **Stamping:** HENTGES NO 1 1981

4.45 MILES NORTHEAST OF TRAVERSE, 2.0 MILES EAST ALONG COUNTY ROAD 15 FROM THE JUNCTION OF COUNTY ROAD 15 AND COUNTY ROAD 40 IN TRAVERSE, THEN 1.2 MILES CONTINUED EAST ON TRUNK HIGHWAY 22, THEN 3.5 MILES NORTH ON TRUNK HIGHWAY 169, THEN 0.3 MILE WEST AND NORTH ON VALLEY VIEW ROAD, THEN 0.1 MILE NORTHWEST ON HILLSIDE DRIVE, 36.1 FEET SOUTH OF A STEEL WITNESS POST, 22.0 FEET WEST OF THE CENTER OF THE TRAIL, 7.7 FEET NORTH-NORTHWEST OF THE NORTHEAST CORNER OF THE CONCRETE BASE OF A POWER BOX, 2.0 FEET EAST OF A NORTH-SOUTH FENCE LINE.

Station Notes

THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.572 12B = -92.569 09 = -92.493 03 = -92.336

HENTGES MNDT RM 2

Mn/DOT Name: HENTGES MNDT RM 2 **NGS Name:** HENTGES RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CJ3583 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	21	111 N	26 W	442403.48	935755.59		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2002	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: **Stamping:** HENTGES NO 2 1981

4.45 MILES NORTHEAST OF TRAVERSE, 2.0 MILES EAST ALONG COUNTY ROAD 15 FROM THE JUNCTION OF COUNTY ROAD 15 AND COUNTY ROAD 40, THEN 1.2 MILES CONTINUED EAST ON TRUNK HIGHWAY 22, THEN 3.5 MILES NORTH ON TRUNK HIGHWAY 169, THEN 0.3 MILE WEST AND NORTH ON VALLEY VIEW ROAD, THEN 0.1 MILE NORTHWEST ON HILLSIDE DRIVE, 88.5 FEET NORTH-NORTHWEST OF THE NORTHEAST CORNER OF THE CONCRETE BASE FOR A POWER BOX, 44.6 FEET NORTH OF A STEEL WITNESS POST, 40.5 FEET WEST OF THE CENTER OF THE TRAIL, 2.3 FEET EAST OF A NORTH-SOUTH FENCE LINE.

Station Notes

THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.572 12B = -92.569 09 = -92.493 03 = -92.336

HEYMAN 2 MNDT

Mn/DOT Name: HEYMAN 2 MNDT
NGS Name: HEYMAN 2
County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	15	110 N	30 W	442005.76	942502.14		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2015	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SURVEY DISK	MNDT

Description: (1987) **Stamping:** HEYMAN 2 1987

2.0 MILES NORTHEAST OF NEW ULM, 2.3 MILES EAST-NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 68 IN NEW ULM, THEN 0.7 MILE EAST ON TOWNSHIP ROAD 78, 0.1 MILE NORTH OF THE CENTER OF THE JUNCTION OF TOWNSHIP ROAD 78 AND A DRIVE NORTH, 10.02 FEET EAST OF THE CENTER OF A DRIVE NORTH.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.077 09 = -92.011 03 = -91.880

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 05.76703	94 25 02.14763	460593.606	277533.208	3.281		CLASSICAL SURVEY	1991	H1991

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2515494.799	814995.875	1269725.351	16109059.477	3.281		CLASSICAL SURVEY	1991	H1991

HEYMAN MNDT

Mn/DOT Name: HEYMAN MNDT **NGS Name:** HEYMAN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0761 Get Map
NGS Quad / Sta Num : 44094243/1049
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.25	942508.52		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	1987	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1989) **Stamping:** HEYMAN 1975

2.0 MILES NORTHEAST OF NEW ULM, 2.3 MILES EAST-NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 68 IN NEW ULM, THEN 0.6 MILE EAST ON TOWNSHIP ROAD 78, 93.5 FEET SOUTHEAST OF A POWER POLE, 25.0 FEET SOUTH OF TOWNSHIP ROAD 78, 5.0 FEET EAST OF A FIELD ENTRANCE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.935	.197		912.118	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.705						RECIPROCAL VERTICAL ANGLE	1975	HORZ

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.083 09 = -92.018 03 = -91.883

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.24996	94 25 08.52184	460129.259	276975.342	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.24336	94 25 08.51716	460129.598	276974.673	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.37593	94 25 07.61594			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2515028.680	814439.595	1269252.569	16108509.010	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2515029.016	814438.925	1269252.898	16108508.336	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1890424.731	486363.513			.100	2	CLASSICAL SURVEY	1977	16059

HEYMAN MNDT AZ MK

Mn/DOT Name: HEYMAN MNDT AZ MK
NGS Name: HEYMAN AZ MK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0760 Get Map
NGS Quad / Sta Num : 44094243/1050
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	110 N	30 W	442106.01	942457.91		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	AZIMUTH MARK DISK	MNDT

Description: (1989) **Stamping:** HEYMAN 1975

3.0 MILES NORTHEAST OF NEW ULM, 3.6 MILES EAST-NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 68 IN NEW ULM, TO TRUNK HIGHWAY 15 MILEPOINT 61.85, THEN 0.45 MILE EAST ON 412TH STREET, 144.0 FEET EAST-SOUTHEAST OF A POWER POLE, 18.0 FEET NORTH OF 412TH STREET, 11.0 FEET EAST OF A FIELD ENTRANCE, 7.6 FEET SOUTHWEST OF A WITNESS POST.

Station Notes
USED THE REAL TIME REFERENCE NETWORK (RTRN), NO STATION WAS FOUND IN THE AREA.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.717	.197		904.969	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.995						RECIPROCAL VERTICAL ANGLE	1975	HORZ

Geoid Separations(ft): GEOID18 = -92.040 12B = -92.014 09 = -91.945 03 = -91.814

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 06.01021	94 24 57.91467	460912.365	283633.556	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 06.00353	94 24 57.91008	460912.697	283632.879	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 06.13672	94 24 57.00563			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2515833.487	821094.448	1270138.263	16115152.439	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2515833.817	821093.770	1270138.585	16115151.757	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1891229.768	493018.360			.100	2	CLASSICAL SURVEY	1977	16059

HEYMAN MNDT RM 1

Mn/DOT Name: HEYMAN MNDT RM 1
NGS Name: HEYMAN RM 1
County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8640 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.00	942508.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	1987	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: HEYMAN NO 1 1975

2.24 MILES SOUTH OF KLOSSNER, 2.3 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 0.6 MILE EAST ON TOWNSHIP ROAD 78, 61.0 FEET SOUTH OF A POWER POLE, 49.3 FEET WEST OF A TELEPHONE POLE, 28.0 FEET SOUTH OF THE CENTERLINE OF A ROAD, 3.5 FEET EAST OF A STEEL WITNESS POST.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.083 09 = -92.018 03 = -91.883

HEYMAN MNDT RM 2

Mn/DOT Name: HEYMAN MNDT RM 2

NGS Name: HEYMAN RM 2

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.00	942508.00		

NGS ACRN: CO8641 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	1987	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: HEYMAN NO 2 1975

2.24 MILES SOUTH OF KLOSSNER, 2.3 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 0.6 MILE EAST ON TOWNSHIP ROAD 78, 32.5 FEET NORTH OF THE CENTERLINE OF A ROAD, 78.5 FEET NORTHWEST OF A TELEPHONE POLE, 61.0 FEET NORTH OF A STEEL WITNESS POST, 3.0 FEET EAST-SOUTHEAST OF A POWER POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.083 09 = -92.018 03 = -91.883

HINIKER

Mn/DOT Name: HINIKER **NGS Name:** HINIKER

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1007 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	13	109 N	27 W	441517.25	940138.73	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** HINIKER 2013

6.1 MILES NORTH OF NORTH MANKATO, 4.45 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 60.15, 27.6 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 9.3 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
792.305	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
792.315	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
792.315	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
792.233	.262		699.529	.197	2011	GPS - RTRN	2025	RTRN2025
792.315			699.608	.016	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
792.315			699.608	.016	2011	GPS - STATIC	2013	HSUEUR
792.315	.131		699.812	.066	1996	GPS - STATIC	2013	HSUEUR
792.246	.262		699.539	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.707 12B = -92.710 09 = -92.628 03 = -92.503

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 17.25160	94 01 38.73036	562686.933	248370.221	.131	3	GPS - RTRN	2025	RTRN2025
44 15 17.25141	94 01 38.73067	562686.910	248370.202	.016		ADJUSTMENT	2014	GPS2977
44 15 17.25141	94 01 38.73067	562686.910	248370.202	.016	C	GPS - STATIC	2013	HSUEUR
44 15 17.25153	94 01 38.73139	562686.858	248370.214	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 17.25088	94 01 38.73091	562686.893	248370.148	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617481.389	785503.561	1371323.747	16078333.626	.131	3	GPS - RTRN	2025	RTRN2025
2617481.366	785503.542	1371323.724	16078333.607	.016		ADJUSTMENT	2014	GPS2977
2617481.366	785503.542	1371323.724	16078333.607	.016	C	GPS - STATIC	2013	HSUEUR
2617481.314	785503.554	1371323.672	16078333.620	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617481.349	785503.488	1371323.706	16078333.553	.033	C	GPS - STATIC	2013	HSUEUR

HINIKER

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HINIKER-DP1007-3E-22SEP2025.jpg	E	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HINIKER-DP1007-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HINIKER-DP1007-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: HINTGEN **NGS Name:** HINTGEN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2797 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	110 N	26 W	442125.51	935923.06	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 63 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** HINTGEN 2015

2.7 MILES NORTHWEST OF ST. PETER, 2.1 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 22 MILEPOINT 68.1, 52.3 FEET SOUTHWEST OF TRUNK HIGHWAY 22, 13.2 FEET SOUTHEAST OF A FIELD ENTRANCE, 5.0 FEET NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
908.765	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
908.784	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
908.784			816.196	.028	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
908.784			816.196	.028	2011	GPS - STATIC	2016	HNORS
908.784	.131		816.344	.066	1996	GPS - STATIC	2016	HNORS
908.732	.262		816.117	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.611 12B = -92.615 09 = -92.539 03 = -92.385

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 25.51301	93 59 23.05969	572436.043	285695.069	.020		ADJUSTMENT	2016	GPS3139
44 21 25.51301	93 59 23.05969	572436.043	285695.069	.020	C	GPS - STATIC	2016	HNORS
44 21 25.51298	93 59 23.05995	572436.024	285695.066	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 25.51301	93 59 23.06030	572435.998	285695.069	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2627350.382	822792.479	1381644.027	16115490.230	.020		ADJUSTMENT	2016	GPS3139
2627350.382	822792.479	1381644.027	16115490.230	.020	C	GPS - STATIC	2016	HNORS
2627350.364	822792.476	1381644.008	16115490.227	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2627350.338	822792.479	1381643.983	16115490.230	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HINTGEN-DQ2797-3SW-22JUN2015.jpg	SW	Jun 22, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HINTGEN-DQ2797-2-22JUN2015.jpg		Jun 22, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HINTGEN-DQ2797-1-22JUN2015.jpg		Jun 22, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

HORSE MNDT

Mn/DOT Name: HORSE MNDT **NGS Name:** HORSE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0674 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	109 N	27 W	441626.16	940100.08		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1978) **Stamping:** HORSE 1978

5.0 MILES SOUTHWEST OF ST. PETER, 3.7 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, 71.5 FEET WEST OF A POWER POLE, 62.77 FEET WEST-SOUTHWEST OF HORSE MNDT RM 1, 48.38 FEET NORTH OF HORSE MNDT RM 2, 22.8 FEET SOUTHEAST OF NORTHBOUND 169, 33.0 FEET WEST-NORTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
817.912	.197		725.504	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
817.912						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.720 12B = -92.723 09 = -92.638 03 = -92.510

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 26.16164	94 01 00.07680	565479.090	255357.057	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 26.15772	94 01 00.07098	565479.515	255356.661	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 26.27565	94 00 59.22819			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620295.895	792480.563	1374222.311	16085274.099	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2620296.318	792480.166	1374222.729	16085273.697	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1995690.844	464403.790			.100	2	CLASSICAL SURVEY	1980	16297

HORSE MNDT RM 1

Mn/DOT Name: HORSE MNDT RM 1 **NGS Name:** HORSE RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8666 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	109 N	27 W	441626.40	940059.28		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2013	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: **Stamping:** HORSE NO 1 1978

4.68 MILES SOUTHWEST OF ST. PETER, 5.0 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 (EAST) IN ST. PETER, 55.3 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 8.3 FEET WEST OF A POWER POLE, 54.2 FEET NORTHEAST OF A STEEL WITNESS POST.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.720 12B = -92.723 09 = -92.638 03 = -92.510

HORSE MNDT RM 2

Mn/DOT Name: HORSE MNDT RM 2 **NGS Name:** HORSE RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8667 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	109 N	27 W	441625.69	940100.03		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (2013) **Stamping:** HORSE NO 1 1978

4.68 MILES SOUTHWEST OF ST. PETER, 5.0 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 (EAST) IN ST. PETER, 55.3 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 8.3 FEET WEST OF A POWER POLE, 54.2 FEET NORTHEAST OF A STEEL WITNESS POST.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.720 12B = -92.723 09 = -92.638 03 = -92.510

HOSP MNDT

Mn/DOT Name: HOSP MNDT **NGS Name:** HOSP

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2940 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	110 N	26 W	441804.85	935840.33		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 2 IN.	MARK IS STEEL PIPE

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	MNDT

Description: (1978) **Stamping:** HOSP 1978

1.5 MILES SOUTHWEST OF ST. PETER, 0.95 MILE SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 64.35, 61.6 FEET SOUTH-SOUTHWEST OF A STEEL POST, 22.7 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 11.5 FEET NORTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
762.794	.197		670.304	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
762.794						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.828 12B = -92.831 09 = -92.736 03 = -92.605

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 04.85304	93 58 40.33233	575611.875	265384.797	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 04.84880	93 58 40.32711	575612.256	265384.369	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 04.96642	93 58 39.48595			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2630460.029	802474.318	1384504.905	16095140.759	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2630460.408	802473.888	1384505.279	16095140.326	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2005855.077	474397.416			.100	2	CLASSICAL SURVEY	1980	16297

HUEL MNDT

Mn/DOT Name: HUEL MNDT **NGS Name:** HUEL

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DG8461 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.29	942509.83	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	HORIZONTAL CONTROL DISK	MNDT

Description: (2003) **Stamping:** HUEL 1988

2.0 MILES NORTHEAST OF NEW ULM, 0.8 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, TO TRUNK HIGHWAY 15 MILEPOINT 60.5, THEN 0.6 MILE EAST ALONG 422ND STREET, 68.45 FEET SOUTHEAST OF HUEL MNDT RM 2, 52.19 FEET SOUTH-SOUTHWEST OF HUEL MNDT RM 1, 20.0 FEET SOUTH OF 422ND STREET, 10.0 FEET EAST OF A FIELD ENTRANCE, 6.3 FEET NORTHWEST OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

Station Notes
THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.858	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1005.864	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.854	.262		913.745	.197	2011	GPS - RTRN	2025	RTRN2025
1005.697	.262		913.591	.197	2011	GPS - OPUS	2021	GPSBM
1005.930	.262		913.824	.197	2011	GPS - RTRN	2021	RTRN2021
1005.762	.262		913.683	.197	2011	GPS - RTRN	2015	RTRN2015
1005.861			913.725	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1005.861	.131		913.978	.066	1996	GPS - STATIC	2013	HNMAN
1005.861			913.738	.010	2011	GPS - STATIC	2013	HNMAN
			913.725	.013	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1005.776	.262		913.761	.197	2007	GPS - RTRN	2011	RTRN2011
			913.814	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1005.838	.131		913.922	.066	1996	HORIZONTAL ADJUSTMENT	2004	GPS2043
1005.805	.131		913.922	.066	1996	GPS - STATIC	2004	HHAMB

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.215						RECIPROCAL VERTICAL ANGLE	1988	HORZ

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.080 09 = -92.018 03 = -91.883

HUEL MNDT

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.28675	94 25 09.82708	460034.391	276979.244	.131	3	GPS - RTRN	2025	RTRN2025
44 20 00.28698	94 25 09.82808	460034.318	276979.268	.131	3	GPS - OPUS	2021	GPSBM
44 20 00.28751	94 25 09.82780	460034.339	276979.321	.131	3	GPS - RTRN	2021	RTRN2021
44 20 00.28671	94 25 09.82673	460034.417	276979.240	.131	3	GPS - RTRN	2015	RTRN2015
44 20 00.28714	94 25 09.82740	460034.368	276979.284	.010		ADJUSTMENT	2013	GPS2964
44 20 00.28713	94 25 09.82743	460034.366	276979.283	.010	C	GPS - STATIC	2013	HNMAN
44 20 00.28714	94 25 09.82740	460034.368	276979.284	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.28685	94 25 09.82776	460034.342	276979.254	.131	3	GPS - RTRN	2011	RTRN2011
44 20 00.28715	94 25 09.82821	460034.309	276979.285	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.28658	94 25 09.82767	460034.348	276979.227	.033	C	GPS - STATIC	2013	HNMAN
44 20 00.28658	94 25 09.82767	460034.348	276979.227	.033	C	ADJUSTMENT	2004	GPS2043
44 20 00.28658	94 25 09.82767	460034.348	276979.227	.033	C	GPS - STATIC	2004	HHAMB

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.27917	94 25 09.82583	460034.480	276978.475	.033	C	GPS - STATIC	1988	7204-13

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514933.836	814443.807	1269157.800	16108514.376	.131	3	GPS - RTRN	2025	RTRN2025
2514933.763	814443.830	1269157.727	16108514.400	.131	3	GPS - OPUS	2021	GPSBM
2514933.784	814443.884	1269157.749	16108514.454	.131	3	GPS - RTRN	2021	RTRN2021
2514933.861	814443.803	1269157.825	16108514.371	.131	3	GPS - RTRN	2015	RTRN2015
2514933.813	814443.847	1269157.777	16108514.416	.010		ADJUSTMENT	2013	GPS2964
2514933.811	814443.846	1269157.775	16108514.415	.010	C	GPS - STATIC	2013	HNMAN
2514933.813	814443.847	1269157.777	16108514.416	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514933.786	814443.817	1269157.750	16108514.387	.131	3	GPS - RTRN	2011	RTRN2011
2514933.754	814443.848	1269157.718	16108514.418	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514933.793	814443.790	1269157.756	16108514.359	.033	C	GPS - STATIC	2013	HNMAN
2514933.793	814443.790	1269157.756	16108514.359	.033	C	ADJUSTMENT	2004	GPS2043
2514933.793	814443.790	1269157.756	16108514.359	.033	C	GPS - STATIC	2004	HHAMB

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514933.923	814443.039	1269157.877	16108513.607	.033	C	GPS - STATIC	1988	7204-13

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL-DG8461-3S-23SEP2025.jpg	S	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL-DG8461-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL-DG8461-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

HUEL MNDT RM 1

Mn/DOT Name: HUEL MNDT RM 1 **NGS Name:** HUEL RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DH4701 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.78	942509.60		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2015	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 6 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	MNDT

Description: (1988) **Stamping:** HUEL NO 1 1988

2.0 MILES NORTHEAST OF NEW ULM, 0.8 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, TO TRUNK HIGHWAY 15 MILEPOINT 60.5, THEN 0.6 MILE EAST ALONG TOWNSHIP ROAD 78, 31.5 FEET NORTH OF TOWNSHIP ROAD 78, 1.3 FEET WEST OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.360	.262		910.346	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.080 09 = -92.014 03 = -91.883

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.77556	94 25 09.60016	460050.977	277028.716	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514950.582	814493.218	1269175.143	16108563.571	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_1-DH4701-3N-04AUG2011.jpg	N	Aug 4, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_1-DH4701-2-04AUG2011.jpg		Aug 4, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_1-DH4701-1-04AUG2011.jpg		Aug 4, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

HUEL MNDT RM 1 RESET

Mn/DOT Name: HUEL MNDT RM 1 RESET
NGS Name: HUEL RM 1 RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3238 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.78	942509.60	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** HUEL NO 1 1988 2015

2.0 MILES NORTHEAST OF NEW ULM, 0.8 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, TO TRUNK HIGHWAY 15 MILEPOINT 60.5, THEN 0.6 MILE EAST ALONG 422ND STREET, 52.19 FEET NORTH-NORTHEAST OF STATION HUEL MNDT, 65.5 FEET EAST OF HUEL RM 2 RESET, 1.0 FEET SOUTH OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.262	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1002.268	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.229	.262		910.123	.197	2011	GPS - RTRN	2025	RTRN2025
1002.160	.262		910.077	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.080 09 = -92.014 03 = -91.883

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.77554	94 25 09.59828	460051.114	277028.713	.131	3	GPS - RTRN	2025	RTRN2025
44 20 00.77545	94 25 09.59874	460051.081	277028.704	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514950.719	814493.216	1269175.280	16108563.567	.131	3	GPS - RTRN	2025	RTRN2025
2514950.685	814493.207	1269175.246	16108563.558	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_1_RESET-DQ3238-3N-23SEP2025.jpg	N	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_1_RESET-DQ3238-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_1_RESET-DQ3238-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

HUEL MNDT RM 2

Mn/DOT Name: HUEL MNDT RM 2 **NGS Name:** HUEL RM 2

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.75	942510.50		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2015	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	REFERENCE MARK DISK	MNDT

Description: (2015) **Stamping:** HUEL NO 2 1988

2.0 MILES NORTHEAST OF NEW ULM, 0.8 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, TO TRUNK HIGHWAY 15 MILEPOINT 60.5, THEN 0.6 MILE EAST ALONG 422ND STREET, 30.5 FEET NORTH OF 422ND STREET, 65.5 FEET EAST OF HUEL RM 1 RESET, 1.0 FEET SOUTH OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.080 09 = -92.014 03 = -91.883

HUEL MNDT RM 2 RESET

Mn/DOT Name: HUEL MNDT RM 2 RESET
NGS Name: HUEL RM 2 RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3237 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	110 N	30 W	442000.76	942510.50	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** HUEL NO 2 1988 2015

2.0 MILES NORTHEAST OF NEW ULM, 0.8 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND TRUNK HIGHWAY 14 IN NEW ULM, TO TRUNK HIGHWAY 15 MILEPOINT 60.5, THEN 0.6 MILE EAST ALONG 422ND STREET, 30.5 FEET NORTH OF 422ND STREET, 65.5 FEET EAST OF HUEL RM 1 RESET, 1.0 FEET SOUTH OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.619	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1001.625	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.665	.262		909.559	.197	2011	GPS - RTRN	2025	RTRN2025
1001.520	.262		909.437	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.080 09 = -92.014 03 = -91.883

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 00.75808	94 25 10.50296	459985.352	277027.067	.131	3	GPS - RTRN	2025	RTRN2025
44 20 00.75800	94 25 10.50253	459985.383	277027.059	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2514884.959	814491.785	1269109.519	16108562.938	.131	3	GPS - RTRN	2025	RTRN2025
2514884.990	814491.777	1269109.550	16108562.929	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_2_RESET-DQ3237-3N-23SEP2025.jpg	N	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_2_RESET-DQ3237-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/HUEL_RM_2_RESET-DQ3237-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: J 126 **NGS Name:** J 126

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0124 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	8	110 N	30 W	442046.00	942749.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	1934	GOOD	Horz=? Vert=YES	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1934) **Stamping:** J-126 1934

2.6 MILES NORTH ON A RAILROAD FROM THE RAILROAD STATION AT NEW ULM, AT RAILROAD MILEPOST 97, AT A ROAD CROSSING, 49.0 FEET WEST OF A RAILROAD, 40.0 FEET SOUTH OF A ROAD, 7.0 FEET SOUTH OF A POLE, AT A FENCE CORNER.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
819.139	.016	2/0				VERTICAL ADJUSTMENT	1991	00000025

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
818.857	.016	2/0				UNKNOWN/APPROXIMATE	1992	UNCHECKD
818.857	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT
818.857	.007	1				VERTICAL CONTROL SURVEY	1941	L43 MINN

Geoid Separations(ft): GEOID18 = -92.021 12B = -91.991 09 = -91.922 03 = -91.804

*** No Horizontal Positions in the Database ***

Mn/DOT Name: JAKE **NGS Name:** JAKE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2807 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	29	111 N	27 W	442342.84	940523.92	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** JAKE 2015

8.0 MILES NORTHWEST OF ST. PETER, 8.1 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 74.1, 48.0 FEET SOUTHWEST OF TRUNK HIGHWAY 22, 46.1 FEET NORTHWEST OF A FIELD ENTRANCE, 1.5 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1021.218	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1021.218	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1021.218			928.929	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
1021.218			928.929	.026	2011	GPS - STATIC	2016	HNORS
1021.218	.131		929.076	.066	1996	GPS - STATIC	2016	HNORS
1021.186	.262		928.873	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.306 12B = -92.313 09 = -92.237 03 = -92.093

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.84031	94 05 23.92465	546186.367	299530.195	.020		ADJUSTMENT	2016	GPS3139
44 23 42.84031	94 05 23.92465	546186.367	299530.195	.020	C	GPS - STATIC	2016	HNORS
44 23 42.83958	94 05 23.92446	546186.381	299530.121	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.84030	94 05 23.92520	546186.327	299530.194	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2601148.832	836711.066	1355620.561	16129724.170	.020		ADJUSTMENT	2016	GPS3139
2601148.832	836711.066	1355620.561	16129724.170	.020	C	GPS - STATIC	2016	HNORS
2601148.846	836710.992	1355620.574	16129724.096	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2601148.792	836711.065	1355620.521	16129724.170	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JAKE-DQ2807-3SW-23JUN2015.jpg	SW	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JAKE-DQ2807-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JAKE-DQ2807-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 103922

JENNY

04/28/2026
Sheet Help

Mn/DOT Name: JENNY
NGS Name: JENNY
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2806 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	111 N	27 W	442342.48	940500.24	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** JENNY 2015

7.8 MILES NORTHWEST OF ST. PETER, 7.8 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 73.8, 50.6 FEET SOUTH OF TRUNK HIGHWAY 22, 152.0 FEET EAST OF A FIELD ENTRANCE, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1004.854	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1004.857	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1004.857			912.534	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
1004.857			912.534	.026	2011	GPS - STATIC	2016	HNORS
1004.857	.131		912.682	.066	1996	GPS - STATIC	2016	HNORS
1004.732	.262		912.410	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.319 12B = -92.326 09 = -92.254 03 = -92.106

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.47824	94 05 00.24312	547905.997	299497.290	.020		ADJUSTMENT	2016	GPS3139
44 23 42.47824	94 05 00.24312	547905.997	299497.290	.020	C	GPS - STATIC	2016	HNORS
44 23 42.47771	94 05 00.24318	547905.993	299497.236	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.47828	94 05 00.24369	547905.956	299497.294	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602868.139	836672.579	1357338.872	16129664.709	.020		ADJUSTMENT	2016	GPS3139
2602868.139	836672.579	1357338.872	16129664.709	.020	C	GPS - STATIC	2016	HNORS
2602868.134	836672.526	1357338.867	16129664.656	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602868.098	836672.584	1357338.831	16129664.714	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JENNY-DQ2806-3S-23JUN2015.jpg	S	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JENNY-DQ2806-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JENNY-DQ2806-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

JERKY MNDT

Mn/DOT Name: JERKY MNDT **NGS Name:** JERKY

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1764 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	109 N	27 W	441310.00	940705.10	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	1987	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	HORIZONTAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** JERKY 1985

5.75 MILES NORTHWEST OF MANKATO, 6.45 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 123.6, 227.0 FEET WEST-NORTHWEST OF A WITNESS POST, 53.2 FEET NORTHEAST OF TRUNK HIGHWAY 14, 25.20 FEET WEST-NORTHWEST OF JERKY MNDT RM 1, 23.9 FEET EAST-SOUTHEAST OF A WITNESS POST, 21.76 FEET EAST-SOUTHEAST OF A JERKY MNDT RM 2, 3.5 FEET NORTHWEST OF AN ENTRANCE.

Station Notes

USED THE REAL TIME REFERENCE NETWORK (RTRN) AND PULLED THE TIES, UNABLE TO FIND ANY DISK OR ROD FOR THE STATION.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.182	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.050	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.470 12B = -92.487 09 = -92.405 03 = -92.273

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 09.97981	94 07 05.05658	538958.814	235425.540	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 10.10010	94 07 04.20090			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593713.812	772637.332	1347407.119	16065760.701	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1969108.578	444561.307			.100	2	CLASSICAL SURVEY	1950	UNK

JERKY MNDT RM 1

Mn/DOT Name: JERKY MNDT RM 1 **NGS Name:** JERKY RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1765 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	109 N	27 W	441309.87	940704.75	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	2011	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)

Disk Type
REFERENCE MARK DISK

Mon. Agency
MNDT

Description: (1987)

Stamping: JERKY NO 1 1985

6.5 MILES NORTHWEST OF NORTH MANKATO, 6.45 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 123.65, 61.0 FEET NORTHEAST OF TRUNK HIGHWAY 14, 19.0 FEET SOUTHEAST OF AN ENTRANCE, 1.7 FEET NORTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.447	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
999.447	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
999.447	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.316	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.447			906.967	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
999.447	.131		907.173	.066	1996	GPS - STATIC	2013	HNMAN
999.447			906.967	.008	2011	GPS - STATIC	2013	HNMAN
999.384	.262		906.983	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.470 12B = -92.487 09 = -92.405 03 = -92.273

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 09.86620	94 07 04.75495	538980.802	235414.076	.013		ADJUSTMENT	2013	GPS2964
44 13 09.86620	94 07 04.75495	538980.802	235414.076	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 09.86646	94 07 04.75600	538980.726	235414.102	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 09.86562	94 07 04.75479	538980.814	235414.017	.033	C	GPS - STATIC	2013	HNMAN

JERKY MNDT RM 1

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593735.760	772625.796	1347428.920	16065748.902	.013		ADJUSTMENT	2013	GPS2964
2593735.760	772625.796	1347428.920	16065748.902	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593735.684	772625.823	1347428.844	16065748.929	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593735.772	772625.737	1347428.931	16065748.843	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JERKY_RM_1-PQ1765-3NE-15JUN2011.jpg	NE	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JERKY_RM_1-PQ1765-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JERKY_RM_1-PQ1765-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

JERKY MNDT RM 2

Mn/DOT Name: JERKY MNDT RM 2 **NGS Name:** JERKY RM 2

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	109 N	27 W	441310.00	940706.00	2	

NGS ACRN: PQ1763 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	1987	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	REFERENCE MARK DISK	MNDT

Description: (1987) **Stamping:** JERKY NO 2 1985

4.9 MILES NORTHWEST OF NORTH MANKATO, 6.45 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 123.65, 61.0 FEET NORTHEAST OF TRUNK HIGHWAY 14, 43.78 FEET NORTHWEST OF JERKY MNDT RM 1, 25.2 FEET EAST-SOUTHEAST OF STATION JERKY MNDT, 19.0 FEET SOUTHEAST OF AN ENTRANCE, 1.7 FEET NORTHWEST OF A WITNESS POST.

Station Notes

6/15/11 FOUND THE STATION BENT OVER, UNABLE TO REUSE THE ROD. RECOVERED THE DISK.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.611	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.480	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.470 12B = -92.487 09 = -92.405 03 = -92.273

*** No Horizontal Positions in the Database ***

JERKY MNDT RM 3

Mn/DOT Name: JERKY MNDT RM 3 **NGS Name:** JERKY RM 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1767 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	109 N	27 W	441239.45	940631.15	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	2011	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	REFERENCE MARK DISK	MNDT

Description: (2011) **Stamping:** JERKY NO 3 1985

5.0 MILES NORTHWEST OF MANKATO, 5.7 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION WITH TRUNK HIGHWAY 169 TO TRUNK HIGHWAY 14 MILEPOINT 124.25, THEN 0.1 MILE SOUTH ON COUNTY ROAD 77, AT THE SOUTH EDGE OF A COUNTY SHED LINE, 146.5 FEET EAST OF COUNTY ROAD 77, 57.8 FEET EAST OF A POWER POLE, 2.1 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.862	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
991.862	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
991.862	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.740	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.730	.262		899.316	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.483 12B = -92.497 09 = -92.415 03 = -92.287

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.44923	94 06 31.14728	541434.294	232338.356	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.44182	94 06 31.14615	541434.376	232337.606	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.56110	94 06 30.29260			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2596178.995	769542.429	1349833.896	16062636.780	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2596179.077	769541.678	1349833.968	16062636.029	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1971573.766	441465.588			.100	2	CLASSICAL SURVEY	1950	UNK

JERKY MNDT RM 3

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JERKY_RM_3-PQ1767-3E-15JUN2011.jpg	E	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JERKY_RM_3-PQ1767-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/JERKY_RM_3-PQ1767-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KAS MNDT

Mn/DOT Name: KAS MNDT **NGS Name:** KAS

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	109 N	27 W	441525.11	940138.73	2	2

NGS ACRN: PQ0677 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=NO Vert=YES	YES		RECESSED 24 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1978) **Stamping:** KAS 1978

5.0 MILES NORTH OF NORTH MANKATO, 4.7 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 60.3, 38.57 FEET SOUTHWEST OF KAS MNDT RM 1, 27.99 FEET NORTHWEST OF KAS MNDT RM 2, 23.4 FEET EAST OF NORTHBOUND 169, 23.4 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
790.333	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
790.343	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
790.343	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
790.474	.262		697.774	.197	2011	GPS - RTRN	2025	RTRN2025
790.386	.197		697.984	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
790.287						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.703 12B = -92.707 09 = -92.624 03 = -92.500

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 25.11412	94 01 38.72504	562685.004	249166.453	.131	3	GPS - RTRN	2025	RTRN2025

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 25.11396	94 01 38.73218	562684.484	249166.435	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 25.11030	94 01 38.72615	562684.924	249166.066	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 25.22791	94 01 37.88357			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617482.043	786299.711	1371334.095	16079129.511	.131	3	GPS - RTRN	2025	RTRN2025

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617481.524	786299.695	1371333.576	16079129.501	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617481.962	786299.324	1371334.009	16079129.125	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1992876.411	458222.966			.100	2	CLASSICAL SURVEY	1980	16297

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS-PQ0677-3E-23SEP2025.jpg	E	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS-PQ0677-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS-PQ0677-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KAS MNDT RM 1

Mn/DOT Name: KAS MNDT RM 1 **NGS Name:** KAS RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CQ5853 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	109 N	27 W	441525.41	940138.39	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (2013) **Stamping:** KAS NO 1 1978

5.0 MILES NORTH OF NORTH MANKATO, 4.7 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 60.3, 46.7 FEET EAST OF THE CENTERLINE OF THE NORTHBOUND LANE OF TRUNK HIGHWAY 169, 38.57 FEET NORTHEAST OF STATION KAS MNDT, 51.4 FEET NORTH OF KAS MNDT RM 2.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.052	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
786.065	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
786.061	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.271	.262		693.568	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.703 12B = -92.707 09 = -92.624 03 = -92.500

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 25.40675	94 01 38.39061	562709.258	249196.158	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617506.391	786329.334	1371358.796	16079158.828	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS_RM_1-CQ5853-3E-23SEP2025.jpg	E	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS_RM_1-CQ5853-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS_RM_1-CQ5853-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KAS MNDT RM 2

Mn/DOT Name: KAS MNDT RM 2 **NGS Name:** KAS RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CQ5854 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	109 N	27 W	441524.91	940138.47	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (2013) **Stamping:** KAS NO 2 1978

5.0 MILES NORTH OF NORTH MANKATO, 4.7 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 60.3, 41.2 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 51.4 FEET SOUTH OF KAS MNDT RM 1, 27.99 FEET SOUTHEAST OF STATION KAS MNDT.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
787.052	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
787.065	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
787.065	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.957	.262		694.254	.197	2011	GPS - RTRN	2025	RTRN2025
787.223	.262		694.520	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.703 12B = -92.707 09 = -92.624 03 = -92.500

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 24.90577	94 01 38.47442	562703.306	249145.407	.131	3	GPS - RTRN	2025	RTRN2025
44 15 24.90458	94 01 38.47439	562703.308	249145.286	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617500.275	786278.607	1371352.064	16079108.192	.131	3	GPS - RTRN	2025	RTRN2025
2617500.277	786278.487	1371352.064	16079108.072	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS_RM_2-CQ5854-3E-23SEP2025.jpg	E	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS_RM_2-CQ5854-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KAS_RM_2-CQ5854-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KELSO

Mn/DOT Name: KELSO **NGS Name:** KELSO

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2798 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	110 N	26 W	442140.32	935922.42	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 59 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** KELSO 2015

2.8 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 68.35, 45.0 FEET EAST OF TRUNK HIGHWAY 22, 17.0 FEET NORTH OF A FIELD ENTRANCE, 5.0 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
906.803	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
906.822	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
906.822			814.218	.027	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
906.822			814.218	.027	2011	GPS - STATIC	2016	HNORS
906.822	.131		814.372	.066	1996	GPS - STATIC	2016	HNORS
906.635	.262		814.031	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.605 12B = -92.605 09 = -92.529 03 = -92.375

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 40.31786	93 59 22.42365	572477.205	287194.532	.020		ADJUSTMENT	2016	GPS3139
44 21 40.31786	93 59 22.42365	572477.205	287194.532	.020	C	GPS - STATIC	2016	HNORS
44 21 40.31691	93 59 22.42346	572477.220	287194.435	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 40.31786	93 59 22.42429	572477.159	287194.532	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2627396.399	824291.626	1381708.319	16116988.331	.020		ADJUSTMENT	2016	GPS3139
2627396.399	824291.626	1381708.319	16116988.331	.020	C	GPS - STATIC	2016	HNORS
2627396.413	824291.530	1381708.332	16116988.234	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2627396.353	824291.626	1381708.273	16116988.332	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KELSO-DQ2798-3E-22JUN2015.jpg	E	Jun 22, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KELSO-DQ2798-2-22JUN2015.jpg		Jun 22, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KELSO-DQ2798-1-22JUN2015.jpg		Jun 22, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KERN MNDT

Mn/DOT Name: KERN MNDT **NGS Name:** KERN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0697 Get Map
NGS Quad / Sta Num : 44094221/1035
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	109 N	27 W	441239.41	940501.94	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	MNDT

Description: (1985) **Stamping:** KERN 1970

5.0 MILES NORTHWEST OF MANKATO, 5.6 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN MANKATO, THEN 1.15 MILES EAST ON BELGRADE TOWNSHIP ROAD 120, 50.48 FEET SOUTH-SOUTHWEST OF KERN MNDT RM 1, 33.9 FEET WEST-NORTHWEST OF KERN MNDT RM 2, 23.0 FEET SOUTH OF BELGRADE TOWNSHIP ROAD 120, 16.0 FEET EAST OF A FIELD ENTRANCE, 6.8 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.723	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1005.726	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.694	.262		913.174	.197	2011	GPS - OPUS	2021	GPSBM
1005.818	.262		913.295	.197	2011	GPS - RTRN	2021	RTRN2021
1005.726			913.207	.009	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1005.726	.131		913.400	.066	1996	GPS - STATIC	2013	HNMAN
1005.726			913.207	.009	2011	GPS - STATIC	2013	HNMAN
1005.684	.262		913.236	.197	2007	GPS - RTRN	2011	RTRN2011
1005.903	.197		913.653	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1006.002						RECIPROCAL VERTICAL ANGLE	1970	HORZ

Geoid Separations(ft): GEOID18 = -92.519 12B = -92.526 09 = -92.447 03 = -92.326

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.41032	94 05 01.94086	547931.942	232347.877	.131	3	GPS - OPUS	2021	GPSBM
44 12 39.41038	94 05 01.94017	547931.992	232347.883	.131	3	GPS - RTRN	2021	RTRN2021
44 12 39.41041	94 05 01.94057	547931.963	232347.886	.020		ADJUSTMENT	2013	GPS2964
44 12 39.41041	94 05 01.94057	547931.963	232347.886	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.41022	94 05 01.94051	547931.967	232347.866	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.40984	94 05 01.94036	547931.978	232347.828	.033	C	GPS - STATIC	2013	HNMAN
44 12 39.40729	94 05 01.94372	547931.734	232347.569	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.40377	94 05 01.93980	547932.021	232347.212	3.281		CLASSICAL SURVEY	1987	HBLUE
44 12 39.40377	94 05 01.93980	547932.020	232347.213	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 12 39.52137	94 05 01.08901			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602675.987	769530.838	1356328.703	16062546.178	.131	3	GPS - OPUS	2021	GPSBM
2602676.037	769530.844	1356328.753	16062546.183	.131	3	GPS - RTRN	2021	RTRN2021
2602676.008	769530.847	1356328.724	16062546.187	.020		ADJUSTMENT	2013	GPS2964
2602676.008	769530.847	1356328.724	16062546.187	.020	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602676.012	769530.828	1356328.728	16062546.167	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602676.023	769530.789	1356328.739	16062546.129	.033	C	GPS - STATIC	2013	HNMAN
2602675.778	769530.531	1356328.491	16062545.874	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2602676.063	769530.175	1356328.771	16062545.514	3.281		CLASSICAL SURVEY	1987	HBLUE
2602676.063	769530.175	1356328.772	16062545.514	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1978070.737	441453.932			.100	2	CLASSICAL SURVEY	1977	16059

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN-PQ0697-3S-11MAY2021.jpg	S	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN-PQ0697-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN-PQ0697-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KERN MNDT AZ MK

Mn/DOT Name: KERN MNDT AZ MK
NGS Name: KERN AZ MK
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	33	109 N	27 W	441147.76	940512.76	2	C

NGS ACRN: PQ0698 Get Map
NGS Quad / Sta Num : 44094221/1036
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2011	GOOD	Horz=YES Vert=YES	YES		PROJECTS 3 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	MNDT

Description: (2011) **Stamping:** KERN 1970

3.0 MILES NORTHWEST OF MANKATO, 2.0 MILES NORTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 125.85, 75.0 FEET SOUTHWEST OF TRUNK HIGHWAY 14, 33.8 FEET NORTH OF A COUNTY ROAD, 29.8 FEET SOUTHEAST OF A POWER POLE, 2.0 FEET SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.457	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
989.460	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
989.457	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.345	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
989.460			896.931	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
989.460	.131		897.134	.066	1996	GPS - STATIC	2013	HNMAN
989.460			896.931	.007	2011	GPS - STATIC	2013	HNMAN
989.414	.262		896.967	.197	2007	GPS - RTRN	2011	RTRN2011
989.467	.262		897.203	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.519 12B = -92.529 09 = -92.447 03 = -92.326

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.75657	94 05 12.75685	547155.557	227115.255	.013		ADJUSTMENT	2013	GPS2964
44 11 47.75657	94 05 12.75685	547155.557	227115.255	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.75537	94 05 12.75676	547155.564	227115.133	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.75594	94 05 12.75657	547155.578	227115.191	.033	C	GPS - STATIC	2013	HNMAN
44 11 47.75231	94 05 12.75859	547155.431	227114.823	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.74887	94 05 12.75471	547155.713	227114.474	3.281		CLASSICAL SURVEY	1987	HBLUE
44 11 47.74887	94 05 12.75471	547155.715	227114.475	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.86609	94 05 11.90332			.100	3	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2601882.688	764301.287	1355472.061	16057327.932	.013		ADJUSTMENT	2013	GPS2964
2601882.688	764301.287	1355472.061	16057327.932	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2601882.695	764301.165	1355472.066	16057327.810	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2601882.708	764301.223	1355472.080	16057327.868	.033	C	GPS - STATIC	2013	HNMAN
2601882.561	764300.856	1355471.928	16057327.502	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2601882.843	764300.507	1355472.206	16057327.150	3.281		CLASSICAL SURVEY	1987	HBLUE
2601882.843	764300.507	1355472.206	16057327.150	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1977277.553	436224.274			.100	3	CLASSICAL SURVEY	1977	16059

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN_AZ_MK-PQ0698-3SW-13JUN2011.jpg	SW	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN_AZ_MK-PQ0698-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN_AZ_MK-PQ0698-1-13JUN2011.jpg		Jun 13, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KERN MNDT RM 1

Mn/DOT Name: KERN MNDT RM 1 **NGS Name:** KERN RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CQ5868 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	109 N	27 W	441239.94	940501.76		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1985	GOOD	Horz=YES Vert=YES	NO		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1970) **Stamping:** KERN NO 1 1970

3.16 MILES NORTHWEST OF NORTH MANKATO, 5.6 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN MANKATO, THEN 1.1 MILES EAST ON BELGRADE TOWNSHIP ROAD 120, 50.48 FEET NORTH-NORTHEAST OF STATION KERN MNDT, 3.0 FEET WEST OF A TELEPHONE POLE AND 33.0 FEET NORTH OF THE CENTERLINE OF BELGRADE TOWNSHIP ROAD 120.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.519 12B = -92.526 09 = -92.447 03 = -92.326

KERN MNDT RM 2

Mn/DOT Name: KERN MNDT RM 2 **NGS Name:** KERN RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CQ5869 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	109 N	27 W	441239.30	940501.50	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2011	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1970) **Stamping:** KERN NO 2 1970

5.0 MILES NORTHWEST OF NORTH MANKATO, 5.6 MILES NORTHWEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN MANKATO, THEN 1.15 MILES EAST ON BELGRADE TOWNSHIP ROAD 120, 33.90 FEET EAST-SOUTHEAST OF STATION KERN, 3.0 FEET WEST OF A TELEPHONE POLE AND 33.0 FEET NORTH OF THE CENTERLINE OF BELGRADE TOWNSHIP ROAD 120.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.316	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1005.320	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Geoid Separations(ft): GEOID18 = -92.519 12B = -92.526 09 = -92.447 03 = -92.326

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN_RM_2-CQ5869-3S-21NOV2012.jpg	S	Nov 21, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN_RM_2-CQ5869-2-21NOV2012.jpg		Nov 21, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KERN_RM_2-CQ5869-1-21NOV2012.jpg		Nov 21, 2012

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: KLOSSNER MNDT **NGS Name:** KLOSSNER

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0771 Get Map
NGS Quad / Sta Num : 44094244/1051
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	111 N	30 W	442352.37	942330.09	2	2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 10 IN.	STEEL SPIKE IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1989) **Stamping:** KLOSSNER 1975

2.5 MILES NORTHEAST OF KLOSSNER, 2.15 MILES NORTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 65.2, THEN 0.9 MILE EAST ON COUNTY ROAD 15, THEN 0.2 MILE NORTH ON TOWNSHIP ROAD 76, 19.0 FEET WEST OF TOWNSHIP ROAD 76, 4.0 FEET SOUTH OF A FIELD ENTRANCE, 12.6 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1035.129	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1035.132	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1034.998	.262		943.089	.197	2011	GPS - RTRN	2025	RTRN2025
1035.228	.262		943.348	.197	2011	GPS - RTRN	2015	RTRN2015
1035.103	.197		943.482	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1035.004						RECIPROCAL VERTICAL ANGLE	1975	HORZ

Geoid Separations(ft): GEOID18 = -91.909 12B = -91.880 09 = -91.798 03 = -91.686

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 52.37062	94 23 30.08709	467319.968	300470.588	.131	3	GPS - RTRN	2025	RTRN2025
44 23 52.37008	94 23 30.08616	467320.036	300470.534	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 52.36798	94 23 30.08471	467320.141	300470.321	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 52.36154	94 23 30.08038	467320.454	300469.668	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 52.49150	94 23 29.16901			.100	2	CLASSICAL SURVEY	1977	16059

KLOSSNER MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522295.398	837908.437	1276803.624	16131883.510	.131	3	GPS - RTRN	2025	RTRN2025
2522295.466	837908.382	1276803.690	16131883.455	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522295.570	837908.169	1276803.792	16131883.240	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522295.881	837907.515	1276804.095	16131882.583	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1897692.462	509831.640			.100	2	CLASSICAL SURVEY	1977	16059

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KLOSSNER-PQ0771-3W-23SEP2025.jpg	W	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KLOSSNER-PQ0771-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KLOSSNER-PQ0771-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KLOSSNER MNDT AZ MK

Mn/DOT Name: KLOSSNER MNDT AZ MK
NGS Name: KLOSSNER AZ MK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0775 Get Map
NGS Quad / Sta Num : 44094244/1051
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	111 N	30 W	442341.54	942410.11	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2025	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL SPIKE IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	MNDT

Description: (1989) **Stamping:** KLOSSNER 1975

2.5 MILES NORTHEAST OF KLOSSNER, 2.15 MILES NORTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 65.2, THEN 0.25 MILE EAST ON COUNTY ROAD 15, 62.0 FEET SOUTH OF COUNTY ROAD 15, 5.4 FEET EAST-NORTHEAST OF A POWER POLE, 3.8 FEET WEST-NORTHWEST OF A WITNESS POST.

Station Notes

DUE TO THE PROXIMITY TO A POWER POLE, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1026.120	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1026.123	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1026.094	.262		934.191	.197	2011	GPS - RTRN	2025	RTRN2025
1026.097	.262		934.221	.197	2011	GPS - RTRN	2015	RTRN2015
1025.917	.262		934.299	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1026.015						RECIPROCAL VERTICAL ANGLE	1975	HORZ

Geoid Separations(ft): GEOID18 = -91.906 12B = -91.873 09 = -91.794 03 = -91.683

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 41.54424	94 24 10.11225	464412.000	299378.785	.131	3	GPS - RTRN	2025	RTRN2025
44 23 41.54490	94 24 10.11138	464412.063	299378.852	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 41.54109	94 24 10.10986	464412.173	299378.466	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 41.53462	94 24 10.10551	464412.488	299377.810	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 41.66571	94 24 09.19351			.100	3	CLASSICAL SURVEY	1977	16059

KLOSSNER MNDT AZ MK

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519384.222	836826.286	1273879.960	16130837.144	.131	3	GPS - RTRN	2025	RTRN2025
2519384.286	836826.352	1273880.025	16130837.210	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519384.394	836825.966	1273880.128	16130836.822	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519384.707	836825.309	1273880.433	16130836.162	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1894781.255	508749.549			.100	3	CLASSICAL SURVEY	1977	16059

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KLOSSNER_AZ_MK-PQ0775-3S-23SEP2025.jpg	S	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KLOSSNER_AZ_MK-PQ0775-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KLOSSNER_AZ_MK-PQ0775-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

KLOSSNER MNDT RM 1

Mn/DOT Name: KLOSSNER MNDT RM 1 **NGS Name:** KLOSSNER RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9122 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	111 N	30 W	442352.35	942329.62		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2015	DESTROYED	Horz=NO Vert=NO	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	MNDT

Description:

Stamping: KLOSSNER NO 1 1975

2.72 MILES NORTHEAST OF KLOSSNER, 2.2 MILES NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 0.8 MILE EAST ON COUNTY ROAD 15, THEN 0.2 MILE NORTH ON TOWNSHIP ROAD 76, 107.0 FEET SOUTH OF A DRIVEWAY TO THE EAST, 62.8 FEET NORTHEAST OF A POWER POLE, 36.0 FEET EAST-NORTHEAST OF A STEEL WITNESS POST, 14.5 FEET EAST OF THE CENTERLINE OF TOWNSHIP ROAD 76.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.909 12B = -91.880 09 = -91.801 03 = -91.686

KLOSSNER MNDT RM 2

Mn/DOT Name: KLOSSNER MNDT RM 2 **NGS Name:** KLOSSNER RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9123 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	111 N	30 W	442351.99	942330.30		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2015	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	MNDT

Description: **Stamping:** KLOSSNER NO 2 1975

2.72 MILES NORTHEAST OF KLOSSNER, 2.2 MILES NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, THEN 0.8 MILE EAST ON COUNTY ROAD 15, THEN 0.2 MILE NORTH ON TOWNSHIP ROAD 76, 107.0 FEET SOUTH OF A DRIVEWAY TO THE EAST, 62.8 FEET NORTHEAST OF A POWER POLE, 36.0 FEET EAST-NORTHEAST OF A STEEL WITNESS POST, 14.5 FEET EAST OF THE CENTERLINE OF TOWNSHIP ROAD 76.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.909 12B = -91.880 09 = -91.801 03 = -91.686

KOTASEK MNDT

Mn/DOT Name: KOTASEK MNDT
NGS Name: KOTASEK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF5872 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	111 N	26 W	442553.04	935719.05		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1997	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2002) **Stamping:** KOTASEK 1997

2.5 MILES SOUTHWEST OF LE SUEUR, 2.35 MILES SOUTH-SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND SOUTH TRUNK HIGHWAY 93 IN LE SUEUR, TO TRUNK HIGHWAY 169 MILEPOINT 74.30, THEN 0.35 MILE WEST-SOUTHWEST ON TOWNSHIP ROAD 25, 32.0 FEET NORTH-NORTHWEST OF TOWNSHIP ROAD 25, 14.0 FEET EAST-NORTHEAST OF AN ENTRANCE, 4.4 FEET SOUTHEAST OF A WOOD GATE POST, 3.2 FEET WEST-SOUTHWEST OF A WITNESS POST, 2.0 FEET SOUTH-SOUTHEAST OF A FENCE. THE STATION WAS RESET.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			673.092	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			673.178	.008	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
765.582	.131		673.319	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
765.582	.131		673.319	.066	1996	GPS - STATIC	2002	HSUER

Geoid Separations(ft): GEOID18 = -92.493 12B = -92.490 09 = -92.418 03 = -92.244

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 53.03793	93 57 19.05391	581343.502	312820.085	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 53.03796	93 57 19.05474	581343.442	312820.088	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 53.03747	93 57 19.05407	581343.490	312820.039	.033	C	ADJUSTMENT	2003	GPS1847
44 25 53.03747	93 57 19.05407	581343.490	312820.040	.033	C	GPS - STATIC	2002	HSUER

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636344.594	849885.244	1390966.067	16142464.399	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636344.533	849885.247	1390966.007	16142464.403	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636344.582	849885.198	1390966.055	16142464.352	.033	C	ADJUSTMENT	2003	GPS1847
2636344.582	849885.198	1390966.055	16142464.352	.033	C	GPS - STATIC	2002	HSUER

KOTASEK MNDT RESET

Mn/DOT Name: KOTASEK MNDT RESET
NGS Name: KOTASEK RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1008 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	111 N	26 W	442553.04	935719.05	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 80 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** KOTASEK 1997 2013

2.5 MILES SOUTHWEST OF LE SUEUR, 2.35 MILES SOUTH-SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 93 IN LE SUEUR TO TRUNK HIGHWAY 169 MILEPOINT 74.3, THEN 0.35 MILE WEST-SOUTHWEST ALONG 358TH STREET, 32.0 FEET NORTH-NORTHWEST OF 358TH STREET, 14.0 FEET EAST-NORTHEAST OF AN ENTRANCE, 4.4 FEET SOUTHEAST OF A WOOD GATE POST, 2.0 FEET SOUTH-SOUTHEAST OF A FENCE, 3.2 FEET WEST-SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.369	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
765.382	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
765.382	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
765.425	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
765.425	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.425			672.955	.027	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
765.425			672.955	.027	2011	GPS - STATIC	2013	HSUEUR
765.425	.131		673.161	.066	1996	GPS - STATIC	2013	HSUEUR
765.409	.262		672.915	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.493 12B = -92.490 09 = -92.418 03 = -92.244

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 53.03785	93 57 19.05405	581343.492	312820.077	.020		ADJUSTMENT	2014	GPS2977
44 25 53.03785	93 57 19.05405	581343.492	312820.077	.020	C	GPS - STATIC	2013	HSUEUR
44 25 53.03803	93 57 19.05362	581343.523	312820.096	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 53.03736	93 57 19.05418	581343.482	312820.028	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636344.584	849885.236	1390966.057	16142464.391	.020		ADJUSTMENT	2014	GPS2977
2636344.584	849885.236	1390966.057	16142464.391	.020	C	GPS - STATIC	2013	HSUEUR
2636344.615	849885.254	1390966.088	16142464.409	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636344.574	849885.186	1390966.047	16142464.341	.033	C	GPS - STATIC	2013	HSUEUR

KOTASEK MNDT RESET

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KOTASEK_RESET-DP1008-3NW-28AUG2013.jpg	NW	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KOTASEK_RESET-DP1008-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/KOTASEK_RESET-DP1008-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LABO MNDT

Mn/DOT Name: LABO MNDT **NGS Name:** LABO

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0782 Get Map
NGS Quad / Sta Num : 44094312/1025
USGS Quad: ESSIG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	110 N	31 W	442210.91	943009.06		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2011	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1971) **Stamping:** LABO 1971

2.5 MILES SOUTHEAST OF ST. GEORGE, 1.6 MILES EAST ALONG COUNTY ROAD 5 FROM ST. GEORGE CATHOLIC CHURCH, THEN 1.1 MILES SOUTH ON COUNTY ROAD 14, 173.3 FEET NORTH-NORTHWEST OF A POWER POLE, 172.24 FEET NORTHWEST OF LABO MNDT RM 2, 87.6 FEET NORTH OF A TELEPHONE POLE, 85.0 FEET SOUTH OF A TELEPHONE POLE, 84.24 FEET SOUTH OF LABO MNDT RM 1, 39.0 FEET WEST OF COUNTY ROAD 14, 14.0 FEET NORTH OF A FIELD ENTRANCE, 3.4 FEET EAST OF A WITNESS POST.

Station Notes

USED THE REAL TIME REFERENCE NETWORK (RTRN). THE STATION FALLS IN THE CENTER OF DRIVEWAY NUMBER 40004, RIGHT OVER A CULVERT.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.859	.197		896.248	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.990						RECIPROCAL VERTICAL ANGLE	1971	HORZ

Geoid Separations(ft): GEOID18 = -91.890 12B = -91.860 09 = -91.785 03 = -91.680

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.90614	94 30 09.05580	438322.151	290258.612	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.89981	94 30 09.05003	438322.569	290257.970	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 11.03900	94 30 08.13588			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2493267.731	827792.717	1247659.408	16122124.192	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2493268.147	827792.074	1247659.815	16122123.544	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1868664.142	499717.141			.100	2	CLASSICAL SURVEY	1977	16059

LABO MNDT RM 1

Mn/DOT Name: LABO MNDT RM 1 **NGS Name:** LABO RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9142 Get Map
NGS Quad / Sta Num : 44094312/
USGS Quad: ESSIG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	110 N	31 W	442211.74	943009.02		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	1971	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: LABO NO 1 1971

4.51 MILES NORTHWEST OF NEW ULM, 4.0 MILES NORTHWEST ALONG COUNTY ROAD 21 FROM THE JUNCTION OF COUNTY ROAD 21 AND TRUNK HIGHWAY 15 IN NEW ULM, THEN 0.5 MILE NORTH ON COUNTY ROAD 14, 98.0 FEET NORTH OF THE CENTERLINE OF A FIELD ENTRANCE, 98.0 FEET WEST-SOUTHWEST OF A POWER POLE, 84.24 FEET NORTH OF STATION LABO MNDT, 36.0 FEET WEST OF THE CENTERLINE OF THE ROAD, 21.0 FEET SOUTH OF THE CENTERLINE OF A FIELD ENTRANCE, 2.8 FEET EAST-SOUTHEAST OF A TELEPHONE POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.890 12B = -91.860 09 = -91.785 03 = -91.680

LABO MNDT RM 2

Mn/DOT Name: LABO MNDT RM 2 **NGS Name:** LABO RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9143 Get Map
NGS Quad / Sta Num : 44094312/
USGS Quad: ESSIG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	110 N	31 W	442209.38	943008.01		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	1971	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: **Stamping:** LABO NO 2 1971

4.51 MILES NORTHWEST OF NEW ULM, 4.0 MILES NORTHWEST ALONG COUNTY ROAD 21 FROM THE JUNCTION OF COUNTY ROAD 21 AND TRUNK HIGHWAY 15 IN NEW ULM, THEN 0.5 MILE NORTH ON COUNTY ROAD 14, 98.0 FEET NORTH OF THE CENTERLINE OF A FIELD ENTRANCE, 98.0 FEET WEST-SOUTHWEST OF A POWER POLE, 84.24 FEET NORTH OF STATION LABO MNDT, 36.0 FEET WEST OF THE CENTERLINE OF THE ROAD, 21.0 FEET SOUTH OF THE CENTERLINE OF A FIELD ENTRANCE, 2.8 FEET EAST-SOUTHEAST OF A TELEPHONE POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.890 12B = -91.860 09 = -91.785 03 = -91.683

LAF 1

Mn/DOT Name: LAF 1 **NGS Name:** LAF 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DK3395 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	111 N	30 W	442722.76	942224.04	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2006	2024	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-143

Description: (2007) **Stamping:** LAF 1 2006

1.0 MILE NORTH OF LAFAYETTE, 1.3 MILES NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 70.5, 91.0 FEET NORTHWEST OF TRUNK HIGHWAY 15, 70.0 FEET SOUTH OF COUNTY ROAD 38 (340TH STREET), 41.6 FEET NORTH-NORTHWEST OF A RIGHT-OF-WAY POST, 2.0 FEET NORTH OF A WITNESS POST.

Station Pair: RUNGE - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1006.839	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1006.839	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1006.862	.262		915.080	.197	2011	GPS - RTRN	2024	RTRN2024
1006.839			914.992	.010	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1006.839	.131		915.284	.066	1996	GPS - STATIC	2016	HKLOS
1006.839			914.992	.010	2011	GPS - STATIC	2016	HKLOS
1006.714	.262		914.952	.197	2011	GPS - RTRN	2015	RTRN2015
			914.992	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			915.169	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
1006.757	.131		915.284	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
1006.757	.131		915.284	.066	1996	GPS - STATIC	2007	HSIBL

Geoid Separations(ft): GEOID18 = -91.781 12B = -91.762 09 = -91.660 03 = -91.561

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.76338	94 22 24.03987	472143.171	321771.053	.131	3	GPS - RTRN	2024	RTRN2024
44 27 22.76370	94 22 24.03916	472143.222	321771.085	.007		ADJUSTMENT	2016	GPS3141
44 27 22.76370	94 22 24.03916	472143.222	321771.085	.007	C	GPS - STATIC	2016	HKLOS
44 27 22.76372	94 22 24.03818	472143.293	321771.087	.131	3	GPS - RTRN	2015	RTRN2015
44 27 22.76370	94 22 24.03916	472143.222	321771.085	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.76367	94 22 24.04007	472143.156	321771.082	.033	C	ADJUSTMENT	2009	GPS2397-B

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.76310	94 22 24.03954	472143.194	321771.024	.033	C	GPS - STATIC	2016	HKLOS
44 27 22.76310	94 22 24.03954	472143.194	321771.024	.033	C	ADJUSTMENT	2008	GPS2397
44 27 22.76310	94 22 24.03954	472143.194	321771.024	.033	C	GPS - STATIC	2007	HSIBL

LAF 1

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527187.647	859190.382	1281954.517	16153100.429	.131	3	GPS - RTRN	2024	RTRN2024
2527187.699	859190.414	1281954.569	16153100.460	.007		ADJUSTMENT	2016	GPS3141
2527187.699	859190.414	1281954.569	16153100.460	.007	C	GPS - STATIC	2016	HKLOS
2527187.770	859190.416	1281954.640	16153100.461	.131	3	GPS - RTRN	2015	RTRN2015
2527187.699	859190.414	1281954.569	16153100.460	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527187.633	859190.412	1281954.503	16153100.459	.033	C	ADJUSTMENT	2009	GPS2397-B

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527187.671	859190.353	1281954.540	16153100.400	.033	C	GPS - STATIC	2016	HKLOS
2527187.671	859190.353	1281954.540	16153100.400	.033	C	ADJUSTMENT	2008	GPS2397
2527187.671	859190.353	1281954.540	16153100.400	.033	C	GPS - STATIC	2007	HSIBL

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAF_1-DK3395-3S-30APR2024.jpg	S	Apr 30, 2024
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAF_1-DK3395-2-30APR2024.jpg		Apr 30, 2024
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAF_1-DK3395-1-30APR2024.jpg		Apr 30, 2024

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAFAYETTE 28 MN103

Mn/DOT Name: LAFAYETTE 28 MN103 **NGS Name:** LAFAYETTE 28

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6583 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	111 N	30 W	442342.46	942613.53		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2016	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** LAFAYETTE 28 2001

4.0 MILES SOUTHWEST OF LAFAYETTE, 3.5 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 65.2, THEN 1.4 MILES WEST ON 382ND STREET, 28.0 FEET SOUTH OF 382ND STREET, 17.0 FEET EAST OF A POWER POLE WITH GUY WIRES, 15.0 FEET WEST OF A FIELD ENTRANCE, 4.0 FEET NORTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.425			909.565	.014	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1001.448	.131		909.762	.066	1996	GPS - STATIC	2016	HKLOS
1001.425			909.565	.014	2011	GPS - STATIC	2016	HKLOS
1001.392	.262		909.559	.197	2011	GPS - RTRN	2015	RTRN2015
			909.565	.018	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			909.644	.019	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1001.442	.131		909.762	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1001.442	.131		909.762	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.863 12B = -91.834 09 = -91.755 03 = -91.650

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.46463	94 26 13.52517	455450.953	299488.694	.010		ADJUSTMENT	2016	GPS3141
44 23 42.46463	94 26 13.52517	455450.953	299488.694	.010	C	GPS - STATIC	2016	HKLOS
44 23 42.46486	94 26 13.52370	455451.060	299488.717	.131	3	GPS - RTRN	2015	RTRN2015
44 23 42.46463	94 26 13.52517	455450.953	299488.694	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.46473	94 26 13.52583	455450.905	299488.704	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 42.46411	94 26 13.52520	455450.951	299488.642	.033	C	GPS - STATIC	2016	HKLOS
44 23 42.46411	94 26 13.52520	455450.951	299488.642	.033	C	ADJUSTMENT	2003	GPS1882
44 23 42.46411	94 26 13.52520	455450.949	299488.643	.033	C	GPS - STATIC	2002	HNICO

LAFAYETTE 28 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2510424.659	836965.516	1264924.255	16131085.649	.010		ADJUSTMENT	2016	GPS3141
2510424.659	836965.516	1264924.255	16131085.649	.010	C	GPS - STATIC	2016	HKLOS
2510424.766	836965.538	1264924.362	16131085.670	.131	3	GPS - RTRN	2015	RTRN2015
2510424.659	836965.516	1264924.255	16131085.649	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2510424.611	836965.526	1264924.207	16131085.659	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2510424.657	836965.463	1264924.251	16131085.596	.033	C	GPS - STATIC	2016	HKLOS
2510424.657	836965.463	1264924.251	16131085.596	.033	C	ADJUSTMENT	2003	GPS1882
2510424.657	836965.463	1264924.252	16131085.596	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_28-DF6583-3S-02JUN2015.jpg	S	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_28-DF6583-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_28-DF6583-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAFAYETTE 3 MN103

Mn/DOT Name: LAFAYETTE 3 MN103 **NGS Name:** LAFAYETTE 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6584 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	111 N	30 W	442648.64	942554.56		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2006) **Stamping:** LAFAYETTE 3 2001

2.3 MILES NORTHWEST OF LAFAYETTE, 2.1 MILES WEST ALONG COUNTY ROAD 1 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, THEN 0.4 MILE NORTH ON 581ST AVENUE, 33.0 FEET EAST OF 581ST AVENUE, 16.0 FEET NORTH OF A FIELD ENTRANCE, 6.0 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1032.787	.262		941.058	.197	2011	GPS - OPUS	2021	GPSBM
1032.685	.262		940.956	.197	2011	GPS - OPUS	2021	GPSBM
1032.780	.262		941.051	.197	2011	GPS - RTRN	2021	RTRN2021
1032.764	.262		941.064	.197	2011	GPS - RTRN	2015	RTRN2015
			940.995	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			941.189	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
1032.708	.131		941.301	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
1032.708	.131		941.301	.066	1996	GPS - STATIC	2007	HSIBL
			941.192	.025	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1032.839	.131		941.301	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1032.839	.131		941.301	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.729 12B = -91.699 09 = -91.614 03 = -91.512

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 48.63498	94 25 54.55549	456866.225	318339.962	.131	3	GPS - OPUS	2021	GPSBM
44 26 48.63498	94 25 54.55549	456866.225	318339.962	.131	3	GPS - OPUS	2021	GPSBM
44 26 48.63529	94 25 54.55494	456866.265	318339.993	.131	3	GPS - RTRN	2021	RTRN2021
44 26 48.63488	94 25 54.55505	456866.257	318339.952	.131	3	GPS - RTRN	2015	RTRN2015
44 26 48.63527	94 25 54.55535	456866.235	318339.991	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 48.63524	94 25 54.55629	456866.167	318339.988	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 48.63525	94 25 54.55631	456866.166	318339.989	.023		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 48.63472	94 25 54.55573	456866.208	318339.935	.033	C	ADJUSTMENT	2008	GPS2397
44 26 48.63472	94 25 54.55573	456866.208	318339.935	.033	C	GPS - STATIC	2007	HSIBL
44 26 48.63472	94 25 54.55573	456866.208	318339.935	.033	C	ADJUSTMENT	2003	GPS1882
44 26 48.63472	94 25 54.55573	456866.209	318339.934	.033	C	GPS - STATIC	2002	HNICO

LAFAYETTE 3 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511901.482	855809.732	1266630.777	16149907.365	.131	3	GPS - OPUS	2021	GPSBM
2511901.482	855809.732	1266630.777	16149907.365	.131	3	GPS - OPUS	2021	GPSBM
2511901.522	855809.763	1266630.817	16149907.396	.131	3	GPS - RTRN	2021	RTRN2021
2511901.514	855809.722	1266630.808	16149907.354	.131	3	GPS - RTRN	2015	RTRN2015
2511901.492	855809.761	1266630.787	16149907.394	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511901.424	855809.759	1266630.719	16149907.392	.033	C	ADJUSTMENT	2009	GPS2397-B
2511901.423	855809.760	1266630.718	16149907.393	.023		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2511901.464	855809.706	1266630.759	16149907.339	.033	C	ADJUSTMENT	2008	GPS2397
2511901.464	855809.706	1266630.759	16149907.339	.033	C	GPS - STATIC	2007	HSIBL
2511901.464	855809.706	1266630.759	16149907.339	.033	C	ADJUSTMENT	2003	GPS1882
2511901.464	855809.706	1266630.759	16149907.339	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_3-DF6584-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_3-DF6584-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_3-DF6584-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAFAYETTE 7 MN103

Mn/DOT Name: LAFAYETTE 7 MN103 **NGS Name:** LAFAYETTE 7

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6585 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	111 N	30 W	442628.87	942920.34		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2006	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** LAFAYETTE 7 2001

4.9 MILES WEST OF LAFAYETTE, 4.9 MILES WEST ALONG COUNTY ROAD 1 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, 0.3 MILE WEST OF THE JUNCTION OF COUNTY ROAD 57 AND COUNTY ROAD 1, 54.0 FEET SOUTH OF COUNTY ROAD 1, 28.0 FEET EAST OF A FIELD ENTRANCE, 5.0 FEET SOUTHWEST OF A POWER POLE, 4.0 FEET SOUTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			933.069	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			933.184	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
1024.735	.131		933.299	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
1024.735	.131		933.299	.066	1996	GPS - STATIC	2007	HSIBL
			933.184	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1024.768	.131		933.299	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1024.768	.131		933.299	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.680 12B = -91.650 09 = -91.571 03 = -91.463

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 28.86672	94 29 20.34303	441931.384	316373.119	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 28.86669	94 29 20.34377	441931.330	316373.116	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 28.86669	94 29 20.34376	441931.331	316373.116	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 28.86612	94 29 20.34307	441931.381	316373.059	.033	C	ADJUSTMENT	2008	GPS2397
44 26 28.86612	94 29 20.34307	441931.381	316373.059	.033	C	GPS - STATIC	2007	HSIBL
44 26 28.86612	94 29 20.34307	441931.381	316373.059	.033	C	ADJUSTMENT	2003	GPS1882
44 26 28.86612	94 29 20.34307	441931.380	316373.058	.033	C	GPS - STATIC	2002	HNICO

LAFAYETTE 7 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2496962.148	853892.084	1251671.470	16148172.644	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2496962.094	853892.081	1251671.416	16148172.642	.033	C	ADJUSTMENT	2009	GPS2397-B
2496962.095	853892.081	1251671.417	16148172.642	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2496962.145	853892.023	1251671.466	16148172.584	.033	C	ADJUSTMENT	2008	GPS2397
2496962.145	853892.023	1251671.466	16148172.584	.033	C	GPS - STATIC	2007	HSIBL
2496962.145	853892.023	1251671.466	16148172.584	.033	C	ADJUSTMENT	2003	GPS1882
2496962.145	853892.023	1251671.466	16148172.584	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_7-DF6585-3E-18DEC2006.jpg	E	Dec 18, 2006
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_7-DF6585-2-18DEC2006.jpg		Dec 18, 2006
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_7-DF6585-1-18DEC2006.jpg		Dec 18, 2006

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAFAYETTE MNDT

Mn/DOT Name: LAFAYETTE MNDT
NGS Name: LAFAYETTE
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0773 Get Map
NGS Quad / Sta Num : 44094244/1053
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442543.33	942330.98		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	1989	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1989) **Stamping:** LAFAYETTE 1975

1.0 MILE SOUTH OF LAFAYETTE, 0.9 MILE SOUTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 67.75, 136.0 FEET NORTHWEST OF A POWER POLE, 109.3 FEET SOUTHWEST OF A POWER POLE, 45.0 FEET WEST OF TRUNK HIGHWAY 15, 3.6 FEET NORTH-NORTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1031.822	.197		940.280	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1031.002						RECIPROCAL VERTICAL ANGLE	1975	HORZ

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.794 09 = -91.709 03 = -91.607

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 43.33290	94 23 30.98161	467272.133	311708.185	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 43.32654	94 23 30.97747	467272.432	311707.541	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 43.45608	94 23 30.05972			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522284.332	849144.759	1276929.712	16143117.195	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522284.629	849144.114	1276930.001	16143116.546	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1897681.636	521068.091			.100	2	CLASSICAL SURVEY	1977	16059

LAFAYETTE MNDT RM 1

Mn/DOT Name: LAFAYETTE MNDT RM 1 **NGS Name:** LAFAYETTE RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9144 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442543.00	942330.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2015	DESTROYED	Horz=NO Vert=NO	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	MNDT

Description: (2007) **Stamping:** LAFAYETTE NO 1 1975

1.24 MILES SOUTH OF LAFAYETTE, 0.9 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, 62.0 FEET NORTH OF A FIELD ENTRANCE, 44.5 FEET EAST OF THE CENTERLINE OF TRUNK HIGHWAY 15, 2.6 FEET SOUTH-SOUTHWEST OF A POWER POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.798 09 = -91.712 03 = -91.607

LAFAYETTE MNDT RM 2

Mn/DOT Name: LAFAYETTE MNDT RM 2 **NGS Name:** LAFAYETTE RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9145 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442543.00	942330.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1975	2015	DESTROYED	Horz=NO Vert=NO	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	MNDT

Description:

Stamping: LAFAYETTE NO 2 1975

1.24 MILES SOUTH OF LAFAYETTE, 0.9 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, 81.6 FEET WEST OF THE CENTERLINE OF TRUNK HIGHWAY 15, 62.0 FEET NORTH OF A FIELD ENTRANCE, 48.5 FEET SOUTH OF THE CENTERLINE OF COUNTY ROAD 8, 44.5 FEET EAST OF THE CENTERLINE OF TRUNK HIGHWAY 15, 39.0 FEET WEST- SOUTHWEST OF A CABLE MARKER POST, 19.4 FEET SOUTHEAST OF A 40.0 INCH DIAMETER COTTONWOOD TREE, 2.6 FEET SOUTH-SOUTHWEST OF A POWER POLE, 0.7 FOOT SOUTHEAST OF A STEEL WITNESS POST.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.798 09 = -91.712 03 = -91.607

LAFAYETTE MWT

Mn/DOT Name: LAFAYETTE MWT
NGS Name: LAFAYETTE MWT
County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9146 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	36	111 N	30 W	442253.67	942216.18		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
	2010	UNKNOWN	Horz=? Vert=?	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNSPECIFIC DISK TYPE (SEE TEXT)	UNK

Description: (2010)

Stamping:

2.9 MILES NORTHEAST OF KLOSSNER, 2.6 MILES EAST ALONG FORT ROAD FROM THE JUNCTION OF FORT ROAD AND TRUNK HIGHWAY 15 IN KLOSSNER, THEN 1.2 MILES NORTH ON 551ST AVENUE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.981 12B = -91.958 09 = -91.880 03 = -91.755

LAFAYETTE WATER TANK

Mn/DOT Name: LAFAYETTE WATER TANK
NGS Name: LAFAYETTE WATER TANK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	111 N	30 W	442646.34	942318.88		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1989	2015	GOOD	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
STRUCTURE (MASSIVE)	WATER TOWER	MNDT

Description: (1989)

Stamping:

IN THE EAST PART OF LAFAYETTE, 0.3 MILE NORTH ON COUNTY ROAD 38 FROM THE JUNCTION OF COUNTY ROAD 38 AND COUNTY ROAD 1, THEN 285.0 FEET EAST ON LAFAYETTE AVENUE, THEN 384.0 FEET NORTH ON 10TH STREET, THEN 0.1 MILE EAST ON MAIN AVENUE, 392.47 FEET SOUTHEAST OF THE CENTER OF THE JUNCTION OF MAIN AVENUE AND 11TH STREET, 154.24 FEET SOUTH OF THE END OF MAIN AVENUE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -91.788 12B = -91.762 09 = -91.670 03 = -91.568

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 46.34330	94 23 18.88516	468159.434	318088.166	3.281		CLASSICAL SURVEY	1989	7204-13

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2523192.387	855521.010	1277915.420	16149480.782	3.281		CLASSICAL SURVEY	1989	7204-13

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAFAYETTE_WATER_TANK-3S-02JUN2015.jpg	S	Jun 2, 2015
Monument:			
Disk:			

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAKE PRAIRIE 24 MN103

Mn/DOT Name: LAKE PRAIRIE 24 MN103 **NGS Name:** LAKE PRAIRIE 24

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6586 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	26 W	442355.66	940043.35		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** LAKE PRAIRIE 24 2001

4.5 MILES NORTHWEST OF ST. PETER, 4.2 MILES NORTH ALONG COUNTY ROAD 20 FROM THE JUNCTION OF COUNTY ROAD 20 AND TRUNK HIGHWAY 22 IN ST. PETER, THEN 0.4 MILE WEST ALONG 380TH STREET, 32.0 FEET NORTH OF 380TH STREET, 24.0 FEET EAST OF A FIELD ENTRANCE, 3.5 FEET SOUTHWEST OF A POWER POLE, 3.0 FEET EAST-SOUTHEAST OF A WITNESS POST. THE SET DATE AND STAMPED DATE ARE NOT THE SAME FOR UNKNOWN CAUSES.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
955.822	.262		863.351	.197	2011	GPS - OPUS	2021	GPSBM
955.628	.262		863.158	.197	2011	GPS - OPUS	2021	GPSBM
955.808	.262		863.338	.197	2011	GPS - RTRN	2021	RTRN2021
955.785	.262		863.315	.197	2011	GPS - RTRN	2015	RTRN2015
955.910			863.446	.057	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
955.910			863.446	.057	2011	GPS - STATIC	2013	HSUEUR
955.917	.131		863.532	.066	1996	GPS - STATIC	2013	HSUEUR
955.707	.262		863.233	.197	2011	GPS - RTRN	2013	RTRN2013
			863.312	.018	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			863.410	.020	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
955.772	.131		863.532	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
955.772	.131		863.532	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.474 12B = -92.470 09 = -92.401 03 = -92.237

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 55.65534	94 00 43.34728	566555.431	300881.416	.131	3	GPS - OPUS	2021	GPSBM
44 23 55.65588	94 00 43.34792	566555.384	300881.471	.131	3	GPS - OPUS	2021	GPSBM
44 23 55.65511	94 00 43.34725	566555.433	300881.393	.131	3	GPS - RTRN	2021	RTRN2021
44 23 55.65505	94 00 43.34732	566555.428	300881.387	.131	3	GPS - RTRN	2015	RTRN2015
44 23 55.65555	94 00 43.34710	566555.444	300881.437	.020		ADJUSTMENT	2014	GPS2977
44 23 55.65547	94 00 43.34706	566555.447	300881.429	.020	C	GPS - STATIC	2013	HSUEUR
44 23 55.65501	94 00 43.34665	566555.476	300881.383	.131	3	GPS - RTRN	2013	RTRN2013
44 23 55.65555	94 00 43.34710	566555.444	300881.437	.023		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 55.65547	94 00 43.34783	566555.391	300881.429	.026		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 55.65492	94 00 43.34718	566555.438	300881.374	.033	C	GPS - STATIC	2013	HSUEUR
44 23 55.65492	94 00 43.34718	566555.438	300881.374	.033	C	ADJUSTMENT	2003	GPS1882
44 23 55.65492	94 00 43.34718	566555.438	300881.373	.033	C	GPS - STATIC	2002	HNICO

LAKE PRAIRIE 24 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621519.723	837996.013	1376000.781	16130760.045	.131	3	GPS - OPUS	2021	GPSBM
2621519.677	837996.067	1376000.736	16130760.100	.131	3	GPS - OPUS	2021	GPSBM
2621519.726	837995.989	1376000.783	16130760.022	.131	3	GPS - RTRN	2021	RTRN2021
2621519.721	837995.983	1376000.778	16130760.016	.131	3	GPS - RTRN	2015	RTRN2015
2621519.737	837996.034	1376000.795	16130760.066	.020		ADJUSTMENT	2014	GPS2977
2621519.740	837996.026	1376000.798	16130760.058	.020	C	GPS - STATIC	2013	HSUEUR
2621519.769	837995.979	1376000.827	16130760.011	.131	3	GPS - RTRN	2013	RTRN2013
2621519.737	837996.034	1376000.795	16130760.066	.023		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621519.683	837996.026	1376000.742	16130760.059	.026		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621519.731	837995.970	1376000.788	16130760.002	.033	C	GPS - STATIC	2013	HSUEUR
2621519.731	837995.970	1376000.788	16130760.002	.033	C	ADJUSTMENT	2003	GPS1882
2621519.731	837995.970	1376000.788	16130760.002	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_24-DF6586-3N-12MAY2021.jpg	N	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_24-DF6586-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_24-DF6586-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAKE PRAIRIE 28 MN103

Mn/DOT Name: LAKE PRAIRIE 28 MN103 **NGS Name:** LAKE PRAIRIE 28

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6587 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	111 N	27 W	442355.76	940450.19	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2016	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** LAKE PRAIRIE 28 2001

6.75 MILES NORTHWEST OF ST. PETER, 7.8 MILES NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, THEN 0.25 MILE NORTH ON COUNTY ROAD 63, 27.0 FEET WEST OF COUNTY ROAD 63, 9.0 FEET EAST OF A PROPERTY LINE MARKER, 7.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.708	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
997.711	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.711			905.346	.011	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
997.711			905.346	.011	2011	GPS - STATIC	2016	HNORS
997.711	.131		905.562	.066	1996	GPS - STATIC	2016	HNORS
997.642	.262		905.313	.197	2011	GPS - RTRN	2015	RTRN2015
			905.346	.011	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			905.441	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
997.669	.131		905.562	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
997.669	.131		905.562	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.323 12B = -92.329 09 = -92.254 03 = -92.106

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 55.75938	94 04 50.18986	548632.937	300843.944	.013		ADJUSTMENT	2016	GPS3139
44 23 55.75938	94 04 50.18986	548632.937	300843.944	.013	C	GPS - STATIC	2016	HNORS
44 23 55.75869	94 04 50.18939	548632.971	300843.874	.131	3	GPS - RTRN	2015	RTRN2015
44 23 55.75938	94 04 50.18986	548632.937	300843.944	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 55.75930	94 04 50.19060	548632.883	300843.936	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 55.75876	94 04 50.18995	548632.930	300843.881	.033	C	GPS - STATIC	2016	HNORS
44 23 55.75876	94 04 50.18995	548632.930	300843.881	.033	C	ADJUSTMENT	2003	GPS1882
44 23 55.75876	94 04 50.18995	548632.932	300843.880	.033	C	GPS - STATIC	2002	HNICO

LAKE PRAIRIE 28 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603599.361	838016.704	1358086.277	16130999.495	.013		ADJUSTMENT	2016	GPS3139
2603599.361	838016.704	1358086.277	16130999.495	.013	C	GPS - STATIC	2016	HNORS
2603599.395	838016.634	1358086.310	16130999.425	.131	3	GPS - RTRN	2015	RTRN2015
2603599.361	838016.704	1358086.277	16130999.495	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603599.307	838016.695	1358086.223	16130999.488	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603599.354	838016.641	1358086.269	16130999.432	.033	C	GPS - STATIC	2016	HNORS
2603599.354	838016.641	1358086.269	16130999.432	.033	C	ADJUSTMENT	2003	GPS1882
2603599.354	838016.641	1358086.269	16130999.432	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_28-DF6587-3W-03JUN2015.jpg	W	Jun 3, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_28-DF6587-2-03JUN2015.jpg		Jun 3, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_28-DF6587-1-03JUN2015.jpg		Jun 3, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAKE PRAIRIE 7 MN103

Mn/DOT Name: LAKE PRAIRIE 7 MN103 **NGS Name:** LAKE PRAIRIE 7

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6588 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	7	111 N	26 W	442631.17	940000.63		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2006) **Stamping:** LAKE PRAIRIE 7 2001

7.2 MILES NORTH OF ST. PETER, 7.2 MILES NORTH ALONG COUNTY ROAD 20 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 20 IN ST. PETER, 38.0 FEET EAST OF COUNTY ROAD 20, 18.0 FEET SOUTH OF PRIVATE DRIVEWAY NUMBER 35007, 12.0 FEET WEST-NORTHWEST OF A TELEPHONE PEDESTAL, 11.0 FEET WEST-SOUTHWEST OF A CUT OFF POWER POLE, 7.0 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
959.775	.262		867.390	.197	2011	GPS - OPUS	2021	GPSBM
959.719	.262		867.334	.197	2011	GPS - OPUS	2021	GPSBM
959.772	.262		867.387	.197	2011	GPS - RTRN	2021	RTRN2021
959.700	.262		867.318	.197	2011	GPS - RTRN	2013	RTRN2013
			867.403	.009	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			867.488	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
959.775	.131		867.610	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
959.775	.131		867.610	.066	1996	GPS - STATIC	2007	HSIBL
			867.488	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
959.775	.131		867.610	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
959.808	.131		867.610	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.385 12B = -92.382 09 = -92.323 03 = -92.145

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.17073	94 00 00.62701	569606.188	316640.737	.131	3	GPS - OPUS	2021	GPSBM
44 26 31.17052	94 00 00.62723	569606.172	316640.716	.131	3	GPS - OPUS	2021	GPSBM
44 26 31.17063	94 00 00.62705	569606.185	316640.727	.131	3	GPS - RTRN	2021	RTRN2021
44 26 31.17064	94 00 00.62745	569606.156	316640.728	.131	3	GPS - RTRN	2013	RTRN2013
44 26 31.17092	94 00 00.62726	569606.170	316640.756	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.17087	94 00 00.62804	569606.113	316640.751	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 31.17086	94 00 00.62805	569606.112	316640.750	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.17034	94 00 00.62733	569606.165	316640.698	.033	C	ADJUSTMENT	2008	GPS2397
44 26 31.17034	94 00 00.62733	569606.165	316640.698	.033	C	GPS - STATIC	2007	HSIBL
44 26 31.17034	94 00 00.62733	569606.165	316640.698	.033	C	ADJUSTMENT	2003	GPS1882
44 26 31.17034	94 00 00.62733	569606.164	316640.699	.033	C	GPS - STATIC	2002	HNICO

LAKE PRAIRIE 7 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624621.180	853743.426	1379293.574	16146464.560	.131	3	GPS - OPUS	2021	GPSBM
2624621.164	853743.405	1379293.558	16146464.539	.131	3	GPS - OPUS	2021	GPSBM
2624621.177	853743.416	1379293.571	16146464.550	.131	3	GPS - RTRN	2021	RTRN2021
2624621.148	853743.417	1379293.542	16146464.551	.131	3	GPS - RTRN	2013	RTRN2013
2624621.162	853743.445	1379293.556	16146464.579	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624621.106	853743.440	1379293.500	16146464.575	.033	C	ADJUSTMENT	2009	GPS2397-B
2624621.105	853743.439	1379293.499	16146464.574	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624621.157	853743.387	1379293.551	16146464.521	.033	C	ADJUSTMENT	2008	GPS2397
2624621.157	853743.387	1379293.551	16146464.521	.033	C	GPS - STATIC	2007	HSIBL
2624621.157	853743.387	1379293.551	16146464.521	.033	C	ADJUSTMENT	2003	GPS1882
2624621.157	853743.387	1379293.551	16146464.521	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_7-DF6588-3E-11MAY2021.jpg	E	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_7-DF6588-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_7-DF6588-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LAKE PRAIRIE 9 MN103

Mn/DOT Name: LAKE PRAIRIE 9 MN103 **NGS Name:** LAKE PRAIRIE 9

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6589 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	9	111 N	26 W	442631.85	940446.63		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2006) **Stamping:** LAKE PRAIRIE 9 2001

2.8 MILES NORTHEAST OF NORSELAND, 1.9 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 3 IN NORSELAND, THEN 2.0 MILES EAST ON COUNTY ROAD 18, THEN 0.5 MILE NORTH ON A TOWNSHIP ROAD (405TH AVENUE), 79.0 FEET SOUTHEAST OF A POWER POLE, 30.0 FEET EAST OF 405TH AVENUE, 28.0 FEET SOUTH OF A FIELD ENTRANCE, 3.5 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
958.548	.262		866.284	.197	2011	GPS - OPUS	2021	GPSBM
958.532	.262		866.268	.197	2011	GPS - OPUS	2021	GPSBM
958.548	.262		866.288	.197	2011	GPS - RTRN	2021	RTRN2021
			866.320	.009	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			866.416	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
958.594	.131		866.534	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
958.594	.131		866.534	.066	1996	GPS - STATIC	2007	HSIBL
			866.416	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
958.561	.131		866.534	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
958.561	.131		866.534	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.260 12B = -92.264 09 = -92.195 03 = -92.034

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.84732	94 04 46.63268	548855.267	316652.052	.131	3	GPS - OPUS	2021	GPSBM
44 26 31.84706	94 04 46.63250	548855.281	316652.025	.131	3	GPS - OPUS	2021	GPSBM
44 26 31.84731	94 04 46.63182	548855.330	316652.051	.131	3	GPS - RTRN	2021	RTRN2021
44 26 31.84760	94 04 46.63251	548855.280	316652.080	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.84753	94 04 46.63324	548855.227	316652.073	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 31.84754	94 04 46.63325	548855.226	316652.074	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 31.84700	94 04 46.63256	548855.276	316652.020	.033	C	ADJUSTMENT	2008	GPS2397
44 26 31.84700	94 04 46.63256	548855.276	316652.020	.033	C	GPS - STATIC	2007	HSIBL
44 26 31.84700	94 04 46.63256	548855.276	316652.020	.033	C	ADJUSTMENT	2003	GPS1882
44 26 31.84700	94 04 46.63256	548855.277	316652.021	.033	C	GPS - STATIC	2002	HNICO

LAKE PRAIRIE 9 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603873.002	853822.065	1358552.850	16146796.667	.131	3	GPS - OPUS	2021	GPSBM
2603873.015	853822.039	1358552.863	16146796.640	.131	3	GPS - OPUS	2021	GPSBM
2603873.064	853822.064	1358552.913	16146796.665	.131	3	GPS - RTRN	2021	RTRN2021
2603873.014	853822.094	1358552.863	16146796.695	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603872.961	853822.087	1358552.810	16146796.689	.033	C	ADJUSTMENT	2009	GPS2397-B
2603872.960	853822.088	1358552.809	16146796.690	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2603873.010	853822.033	1358552.859	16146796.634	.033	C	ADJUSTMENT	2008	GPS2397
2603873.010	853822.033	1358552.859	16146796.634	.033	C	GPS - STATIC	2007	HSIBL
2603873.010	853822.033	1358552.859	16146796.634	.033	C	ADJUSTMENT	2003	GPS1882
2603873.010	853822.033	1358552.859	16146796.634	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_9-DF6589-3E-11MAY2021.jpg	E	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_9-DF6589-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LAKE_PRAIRIE_9-DF6589-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LANE MNDT TEMP

Mn/DOT Name: LANE MNDT TEMP
NGS Name: LANE TEMP
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	110 N	30 W	442032.11	942546.08		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	1988	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	SURVEY DISK	MNDT

Description: (1988)

Stamping:

1.5 MILES SOUTH OF KLOSSNER, ON THE NORTH EDGE OF A GRAVEL FARM ROAD, 1.65 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5, 365.0 FEET EAST OF TRUNK HIGHWAY 15, 190.4 FEET WEST-SOUTHWEST OF A RIGHT-OF-WAY POST, 14.0 FEET NORTH OF A FARM ROAD.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.060 12B = -92.034 09 = -91.972 03 = -91.840

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 32.10684	94 25 46.08202	457405.489	280206.756	3.281		CLASSICAL SURVEY	1988	7204-13

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2512315.813	817679.541	1266579.828	16111781.222	3.281		CLASSICAL SURVEY	1988	7204-13

Mn/DOT Name: LARSON **NGS Name:** LARSON

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3149 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	34	111 N	30 W	442247.51	942502.48	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** LARSON 2015

1.0 MILE NORTH OF KLOSSNER, 1.1 MILES NORTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, AT TRUNK HIGHWAY 15 MILEPOINT 64.0, 62.6 FEET EAST-SOUTHEAST OF TRUNK HIGHWAY 15, 37.6 FEET EAST OF MILEPOST NUMBER 64, 1.5 FEET WEST-NORTHWEST OF A WITNESS POST.

Station Pair: DUFFYS - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.402	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
991.405	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.435	.262		899.500	.197	2011	GPS - RTRN	2025	RTRN2025
991.405			899.473	.019	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
991.405	.131		899.660	.066	1996	GPS - STATIC	2016	HKLOS
991.405			899.473	.019	2011	GPS - STATIC	2016	HKLOS
991.330	.262		899.424	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.936 12B = -91.906 09 = -91.831 03 = -91.716

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 47.50825	94 25 02.47982	460599.468	293913.059	.131	3	GPS - RTRN	2025	RTRN2025
44 22 47.50870	94 25 02.48008	460599.450	293913.105	.010		ADJUSTMENT	2016	GPS3141
44 22 47.50870	94 25 02.48008	460599.450	293913.105	.010	C	GPS - STATIC	2016	HKLOS
44 22 47.50848	94 25 02.48039	460599.427	293913.083	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 47.50852	94 25 02.48049	460599.420	293913.087	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2515554.277	831373.718	1269984.437	16125432.621	.131	3	GPS - RTRN	2025	RTRN2025
2515554.259	831373.764	1269984.419	16125432.667	.010		ADJUSTMENT	2016	GPS3141
2515554.259	831373.764	1269984.419	16125432.667	.010	C	GPS - STATIC	2016	HKLOS
2515554.236	831373.742	1269984.396	16125432.645	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2515554.229	831373.746	1269984.389	16125432.649	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LARSON-DQ3149-3SE-23SEP2025.jpg	SE	Sep 23, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LARSON-DQ3149-2-23SEP2025.jpg		Sep 23, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LARSON-DQ3149-1-23SEP2025.jpg		Sep 23, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LENZEN

Mn/DOT Name: LENZEN **NGS Name:** LENZEN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3150 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	111 N	30 W	442447.73	942333.75	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** LENZEN 2015

2.25 MILES SOUTH OF LAFAYETTE, 2.05 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 66.85, 85.3 FEET EAST-SOUTHEAST OF TRUNK HIGHWAY 15, 35.0 FEET NORTH-NORTHEAST OF 561ST AVENUE, 1.5 FEET WEST-NORTHWEST OF A WITNESS POST.

Station Pair: ROY - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.960	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1016.963	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.963			925.064	.018	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1016.963	.131		925.257	.066	1996	GPS - STATIC	2016	HKLOS
1016.963			925.064	.018	2011	GPS - STATIC	2016	HKLOS
1016.783	.262		924.952	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.863 12B = -91.834 09 = -91.752 03 = -91.647

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.73194	94 23 33.74747	467062.786	306077.597	.010		ADJUSTMENT	2016	GPS3141
44 24 47.73194	94 23 33.74747	467062.786	306077.597	.010	C	GPS - STATIC	2016	HKLOS
44 24 47.73200	94 23 33.74794	467062.752	306077.603	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.73177	94 23 33.74785	467062.758	306077.580	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522056.591	843515.578	1276633.304	16137492.182	.010		ADJUSTMENT	2016	GPS3141
2522056.591	843515.578	1276633.304	16137492.182	.010	C	GPS - STATIC	2016	HKLOS
2522056.557	843515.584	1276633.270	16137492.189	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522056.563	843515.561	1276633.276	16137492.165	.033	C	GPS - STATIC	2016	HKLOS

LENZEN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LENZEN-DQ3150-3SE-24JUN2015.jpg	SE	Jun 24, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LENZEN-DQ3150-2-24JUN2015.jpg		Jun 24, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LENZEN-DQ3150-1-24JUN2015.jpg		Jun 24, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LORAY MNDT

Mn/DOT Name: LORAY MNDT **NGS Name:** LORAY

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1688 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	108 N	27 W	441050.50	940207.20	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	2011	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	HORIZONTAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** LORAY 1985

IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 128.8, IN THE SOUTHWEST CORNER OF COUNTY ROAD 13 BRIDGE NUMBER 52007 OVER TRUNK HIGHWAY 14, 107.88 FEET WEST-SOUTHWEST OF STATION 5203 L1, 30.5 FEET WEST-SOUTHWEST OF SOUTHBOUND COUNTY ROAD 13, 22.52 FEET SOUTHEAST OF LORAY MNDT RM 2, 22.3 FEET SOUTH-SOUTHEAST OF THE SOUTHWEST CORNER OF A BRIDGE, 9.5 FEET SOUTHEAST OF THE SOUTHEAST LEG OF A SIGN

Station Notes
THE DISK WAS LOOSE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.951	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.862	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Geoid Separations(ft): GEOID18 = -92.713 12B = -92.716 09 = -92.634 03 = -92.519

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 50.51640	94 02 07.18315	560691.989	221352.454	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 50.63230	94 02 06.34260			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2615399.013	758495.141	1368913.434	16051359.317	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1990793.337	430418.864			.100	2	CLASSICAL SURVEY	1950	UNK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY-PQ1688-3SW-05APR2011.jpg	SW	Apr 5, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY-PQ1688-2-05APR2011.jpg		Apr 5, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY-PQ1688-1-05APR2011.jpg		Apr 5, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LORAY MNDT RESET

Mn/DOT Name: LORAY MNDT RESET
NGS Name: LORAY RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9560 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	108 N	27 W	441050.52	940207.19	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** LORAY 1985 2011

IN NORTH MANKATO, AT THE SOUTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 13
IN NORTH MANKATO, AT TRUNK HIGHWAY 14 MILEPOINT 128.8, 30.5 FEET SOUTHWEST OF SOUTHBOUND COUNTY ROAD 13, 22.52 FEET SOUTHEAST OF LORAY MNDT RM 2, 22.3 FEET SOUTHEAST OF THE SOUTHWEST CORNER OF BRIDGE NUMBER 52007 OVER TRUNK HIGHWAY 14, NO WITNESS POST WAS SET.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.708	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1012.711	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1012.678	.262		919.965	.197	2011	GPS - OPUS	2021	GPSBM
1012.708	.262		919.995	.197	2011	GPS - RTRN	2021	RTRN2021
1012.711			920.005	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1012.711	.131		920.192	.066	1996	GPS - STATIC	2013	HNMAN
1012.711			920.005	.008	2011	GPS - STATIC	2013	HNMAN
1012.655	.262		920.021	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.713 12B = -92.716 09 = -92.634 03 = -92.519

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 50.51989	94 02 07.19099	560691.416	221352.807	.131	3	GPS - OPUS	2021	GPSBM
44 10 50.52036	94 02 07.19054	560691.448	221352.855	.131	3	GPS - RTRN	2021	RTRN2021
44 10 50.52013	94 02 07.19062	560691.443	221352.832	.016		ADJUSTMENT	2013	GPS2964
44 10 50.52013	94 02 07.19062	560691.443	221352.832	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 50.52065	94 02 07.19168	560691.365	221352.884	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 50.51963	94 02 07.19050	560691.451	221352.781	.033	C	GPS - STATIC	2013	HNMAN

LORAY MNDT RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2615398.442	758495.494	1368912.867	16051359.677	.131	3	GPS - OPUS	2021	GPSBM
2615398.475	758495.542	1368912.901	16051359.725	.131	3	GPS - RTRN	2021	RTRN2021
2615398.469	758495.519	1368912.894	16051359.701	.016		ADJUSTMENT	2013	GPS2964
2615398.469	758495.519	1368912.894	16051359.701	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2615398.392	758495.571	1368912.818	16051359.755	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2615398.478	758495.468	1368912.903	16051359.651	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY_RESET-DO9560-3SW-11MAY2021.jpg	SW	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY_RESET-DO9560-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY_RESET-DO9560-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

LORAY MNDT RM 2

Mn/DOT Name: LORAY MNDT RM 2 **NGS Name:** LORAY RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1689 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	108 N	27 W	441052.00	940209.00	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	2011	GOOD	Horz=NO Vert=YES	YES	52007		NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
STRUCTURE (MASSIVE)	REFERENCE MARK DISK	MNDT

Description: (2011) **Stamping:** LORAY NO 2 1985

IN NORTH MANKATO, IN THE WEST BRIDGE RAILING OF COUNTY ROAD 13 BRIDGE NUMBER 52007 OVER TRUNK HIGHWAY 14, AT TRUNK HIGHWAY 14 MILEPOINT 128.8, 28.5 FEET WEST-SOUTHWEST OF COUNTY ROAD 13, 0.4 FOOT NORTH-NORTHWEST OF THE SOUTHWEST CORNER OF A BRIDGE, 22.52 FEET NORTHWEST OF STATION LORAY MNDT.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.025	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.940	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.986	.262		923.348	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.713 12B = -92.716 09 = -92.634 03 = -92.519

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 50.72239	94 02 07.31878	560682.045	221373.288	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2615389.139	758516.003	1368903.817	16051380.293	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY_RM_2-PQ1689-3SW-13JUN2011.jpg	SW	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY_RM_2-PQ1689-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LORAY_RM_2-PQ1689-1-13JUN2011.jpg		Jun 13, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 109724

LUCKY

04/28/2026
Sheet Help

Mn/DOT Name: LUCKY
NGS Name: LUCKY
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR3239 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	21	110 N	26 W	441858.56	935749.38	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 11 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** LUCKY 2019

IN ST. PETER, AT THE JUNCTION OF TRUNK HIGHWAY 169 AND WEST PINE STREET IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 65.65, 13.9 FEET SOUTHEAST OF THE NORTHBOUND TRUNK HIGHWAY 169 FOG LINE, 73.0 FEET SOUTHWEST OF WEST PINE STREET, 6.0 FEET SOUTHWEST OF A SIDEWALK, 47.5 FEET SOUTHWEST OF A WITNESS POST.

Station Pair: TUCKY MNDT - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
776.970	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
776.970	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
776.970	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
776.970	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
776.964	.262		684.119	.197	2011	GPS - RTRN	2025	RTRN2025
776.855	.262		684.011	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.844 12B = -92.844 09 = -92.746 03 = -92. 611

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 58.56029	93 57 49.38205	579297.286	270837.059	.131	3	GPS - RTRN	2025	RTRN2025
44 18 58.56087	93 57 49.38296	579297.220	270837.118	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2634162.674	807914.009	1388272.644	16100533.530	.131	3	GPS - RTRN	2025	RTRN2025
2634162.608	807914.068	1388272.578	16100533.590	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LUCKY-DR3239-3SW-18SEP2025.jpg	SW	Sep 18, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LUCKY-DR3239-2-18SEP2025.jpg		Sep 18, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/LUCKY-DR3239-1-18SEP2025.jpg		Sep 18, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

MANKATO BLUE EARTH CO RAD MAST

Mn/DOT Name: MANKATO BLUE EARTH CO RAD MAST **NGS Name:** MANKATO BLUE EARTH CO RAD MAST

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0701 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	108 N	27 W	441052.37	940146.18		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1986	GOOD	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	RADIO/TV MAST	MNDT

Description: (1986)

Stamping:

IN THE NORTH PART OF NORTH MANKATO, 0.2 MILE SOUTH ON COUNTY ROAD 13 FROM THE JUNCTION OF COUNTY ROAD 13 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, THEN 0.2 MILE EAST ON COMMERCE DRIVE, THEN 331.0 FEET NORTH ON COLLETTE DRIVE, AT THE NORTH END OF COLLETTE DRIVE, 228.58 FEET NORTH OF THE END OF THE PAVEMENT ON COLLETE DRIVE.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.746 12B = -92.749 09 = -92.664 03 = -92.549

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 52.36718	94 01 46.18301	562221.840	221544.238	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 52.36278	94 01 46.17732	562222.256	221543.793	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 52.48085	94 01 45.33858			.100	4	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2616929.331	758681.941	1370445.521	16051527.449	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2616929.745	758681.495	1370445.930	16051526.998	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1992323.978	430605.445			.100	4	CLASSICAL SURVEY	1980	16297

MANKATO KEYC TV MAST

Mn/DOT Name: MANKATO KEYC TV MAST
NGS Name: MANKATO KEYC TV MAST
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0703 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	108 N	27 W	441021.59	940252.56		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1986	GOOD	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	RADIO/TV MAST	MNDT

Description: (1986)

Stamping:

IN THE WEST PART OF NORTH MANKATO, 2.0 MILES WEST AND NORTH ON LOOKOUT DRIVE FROM THE JUNCTION OF LOOKOUT DRIVE AND TRUNK HIGHWAY 169, THEN 381.0 FEET EAST ON LEE BOULEVARD, 200.0 FEET EAST OF LOOKOUT DRIVE, 150.0 FEET SOUTH OF LEE BOULEVARD.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.667 12B = -92.670 09 = -92.582 03 = -92.470

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 21.59473	94 02 52.56474	557392.576	218414.579	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 21.59606	94 02 52.56556	557392.516	218414.713	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 21.68376	94 02 51.69365			.100	4	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612090.405	755568.270	1365570.324	16048473.625	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612090.345	755568.404	1365570.266	16048473.761	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1987486.865	427489.294			.100	4	CLASSICAL SURVEY	1980	16297

MANKATO LORENTZ TRUCK CO MAST

Mn/DOT Name: MANKATO LORENTZ TRUCK CO MAST **NGS Name:** MANKATO LORENTZ TRUCK CO MAST

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0702 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	109 N	27 W	441439.22	940151.37		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1978	GOOD	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	MICROWAVE MAST	MNDT

Description: (1978) **Stamping:**

3.0 MILES NORTH OF MANKATO, 3.1 MILES NORTH ON TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, THEN 492.0 FEET WEST ON 492ND STREET, THEN 0.6 MILE NORTH ON BELGRADE TOWNSHIP ROAD 193, 0.1 MILE WEST OF THE CENTERLINE OF BELGRADE TOWNSHIP ROAD 193.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.700 12B = -92.700 09 = -92.624 03 = -92.500

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 39.22096	94 01 51.36952	561778.039	244516.240	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 39.21744	94 01 51.36332	561778.492	244515.885	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 39.33317	94 01 50.52195			.100	4	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2616560.094	781652.951	1370355.871	16074495.475	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2616560.545	781652.594	1370356.318	16074495.113	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1991954.893	453576.087			.100	4	CLASSICAL SURVEY	1980	16297

MERK MNDT

Mn/DOT Name: MERK MNDT **NGS Name:** MERK

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF5869 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	111 N	26 W	442324.93	935801.71	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1997	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)	SURVEY DISK	MNDT

Description: (2002) **Stamping:** MERK 1997

4.0 MILES NORTH OF ST. PETER, 3.0 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN THE NORTH PART OF ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 71.2, 119.0 FEET EAST OF SOUTHBOUND TRUNK HIGHWAY 169, 116.5 FEET WEST OF NORTHBOUND TRUNK HIGHWAY 169, 51.0 FEET SOUTH OF A CROSSOVER, 67.6 FEET EAST OF A POWER POLE, 3.0 FEET NORTH OF A WITNESS POST.

Station Pair: ROOT - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.746	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
765.750	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
765.756	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
765.789	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
765.789	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.714	.262		673.109	.197	2011	GPS - OPUS	2021	GPSBM
765.815	.262		673.211	.197	2011	GPS - RTRN	2021	RTRN2021
765.789			673.178	.007	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
765.789			673.175	.007	2011	GPS - STATIC	2013	HSUEUR
765.789	.131		673.391	.066	1996	GPS - STATIC	2013	HSUEUR
765.678	.262		673.073	.197	2011	GPS - RTRN	2013	RTRN2013
			673.178	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			673.270	.008	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
765.812	.131		673.391	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
765.812	.131		673.391	.066	1996	GPS - STATIC	2002	HSUER

Geoid Separations(ft): GEOID18 = -92.605 12B = -92.602 09 = -92.519 03 = -92.365

MERK MNDT

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 24.92653	93 58 01.71430	578302.405	297808.975	.131	3	GPS - OPUS	2021	GPSBM
44 23 24.92629	93 58 01.71322	578302.483	297808.951	.131	3	GPS - RTRN	2021	RTRN2021
44 23 24.92660	93 58 01.71429	578302.405	297808.982	.007		ADJUSTMENT	2014	GPS2977
44 23 24.92657	93 58 01.71425	578302.408	297808.979	.007	C	GPS - STATIC	2013	HSUEUR
44 23 24.92631	93 58 01.71405	578302.423	297808.953	.131	3	GPS - RTRN	2013	RTRN2013
44 23 24.92660	93 58 01.71429	578302.405	297808.982	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 24.92663	93 58 01.71505	578302.350	297808.985	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 24.92613	93 58 01.71448	578302.392	297808.935	.033	C	GPS - STATIC	2013	HSUEUR
44 23 24.92613	93 58 01.71448	578302.392	297808.935	.033	C	ADJUSTMENT	2003	GPS1847
44 23 24.92613	93 58 01.71448	578302.393	297808.935	.033	C	GPS - STATIC	2002	HSUER

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633255.270	834885.889	1387694.582	16127507.657	.131	3	GPS - OPUS	2021	GPSBM
2633255.348	834885.864	1387694.660	16127507.632	.131	3	GPS - RTRN	2021	RTRN2021
2633255.271	834885.896	1387694.583	16127507.664	.007		ADJUSTMENT	2014	GPS2977
2633255.274	834885.893	1387694.585	16127507.661	.007	C	GPS - STATIC	2013	HSUEUR
2633255.288	834885.866	1387694.600	16127507.635	.131	3	GPS - RTRN	2013	RTRN2013
2633255.271	834885.896	1387694.583	16127507.664	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633255.215	834885.898	1387694.527	16127507.668	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633255.257	834885.848	1387694.568	16127507.617	.033	C	GPS - STATIC	2013	HSUEUR
2633255.257	834885.848	1387694.568	16127507.617	.033	C	ADJUSTMENT	2003	GPS1847
2633255.257	834885.848	1387694.568	16127507.617	.033	C	GPS - STATIC	2002	HSUER

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MERK-DF5869-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MERK-DF5869-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MERK-DF5869-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 103924

MINK

04/28/2026
Sheet Help

Mn/DOT Name: MINK
NGS Name: MINK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2811 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	111 N	28 W	442447.95	940847.91	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** MINK 2015

9.7 MILES NORTH-NORTHEAST OF NICOLLET, 2.15 MILES EAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 77.4, 53.0 FEET NORTH OF TRUNK HIGHWAY 22, 24.8 FEET EAST OF A FIELD ENTRANCE, 1.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.531	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
982.521	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
982.521			890.369	.027	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
982.521			890.369	.027	2011	GPS - STATIC	2016	HNORS
982.521	.131		890.523	.066	1996	GPS - STATIC	2016	HNORS
982.531	.262		890.349	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.175 12B = -92.182 09 = -92.100 03 = -91.965

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.95350	94 08 47.91167	531364.961	306097.684	.020		ADJUSTMENT	2016	GPS3139
44 24 47.95350	94 08 47.91167	531364.961	306097.684	.020	C	GPS - STATIC	2016	HNORS
44 24 47.95285	94 08 47.91063	531365.036	306097.618	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 47.95350	94 08 47.91226	531364.918	306097.684	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2586350.645	843325.902	1340907.573	16136517.670	.020		ADJUSTMENT	2016	GPS3139
2586350.645	843325.902	1340907.573	16136517.670	.020	C	GPS - STATIC	2016	HNORS
2586350.720	843325.836	1340907.647	16136517.604	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2586350.602	843325.902	1340907.530	16136517.671	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MINK-DQ2811-3N-23JUN2015.jpg	N	Jun 23, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MINK-DQ2811-2-23JUN2015.jpg		Jun 23, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MINK-DQ2811-1-23JUN2015.jpg		Jun 23, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

MUD MNDT

Mn/DOT Name: MUD MNDT **NGS Name:** MUD

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0682 Get Map
NGS Quad / Sta Num : 44094213/1037
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	109 N	27 W	441558.77	940746.99		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2009	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL ROD ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MNDT

Description: (1994) **Stamping:** MUD 1970

3.0 MILES EAST-SOUTHEAST OF NICOLLET, 3.05 MILES EAST ON TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111, THEN 1.1 MILES SOUTH ON A GRAVEL ROAD (OSHAWA TOWNSHIP ROAD 184), 600.0 FEET WEST-SOUTHWEST OF AN ENTRANCE, 76.55 FEET WEST-NORTHWEST OF MUD MNDT RM 1.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1009.565	.033	3				VERTICAL CONTROL SURVEY	1984	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1009.840	.197		917.715	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.395 12B = -92.415 09 = -92.329 03 = -92.201

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 58.76526	94 07 46.98734	535876.630	252513.000	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 58.76146	94 07 46.98293	535876.953	252512.615	3.281		CLASSICAL SURVEY	1987	HBLUE
44 15 58.76146	94 07 46.98293	535876.952	252512.615	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 58.87961	94 07 46.12401			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590687.515	789732.946	1344589.771	16082887.887	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590687.836	789732.561	1344590.087	16082887.498	3.281		CLASSICAL SURVEY	1987	HBLUE
2590687.836	789732.561	1344590.087	16082887.498	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1966082.700	461656.147			.100	2	CLASSICAL SURVEY	1977	16059

MUD MNDT RM 1

Mn/DOT Name: MUD MNDT RM 1

NGS Name: MUD RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9294 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	108 N	27 W	441558.82	940745.94		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1978	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: MUD NO 1 1970

3.08 MILES EAST-SOUTHEAST OF NICOLLET, 3.1 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 1.0 MILE SOUTH ON OSHAWA TOWNSHIP ROAD 184, THEN 0.1 MILE SOUTHEAST ON OSHAWA TOWNSHIP ROAD 104, 27.0 FEET SOUTH OF THE CENTERLINE OF THE ROAD, 2.0 FEET WEST OF A POWER POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.398 12B = -92.415 09 = -92.329 03 = -92.201

MUD MNDT RM 2

Mn/DOT Name: MUD MNDT RM 2 **NGS Name:** MUD RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9295 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	108 N	27 W	441557.99	940748.20		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1974	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description:

Stamping: 66 GJS 1963

3.08 MILES EAST-SOUTHEAST OF NICOLLET, 3.1 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 1.0 MILE SOUTH ON OSHAWA TOWNSHIP ROAD 184, THEN 0.1 MILE SOUTHEAST ON OSHAWA TOWNSHIP ROAD 104, 27.0 FEET SOUTH OF THE CENTERLINE OF THE ROAD, 2.0 FEET WEST OF A POWER POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.398 12B = -92.415 09 = -92.332 03 = -92.201

MUD MNDT RM 3

Mn/DOT Name: MUD MNDT RM 3 **NGS Name:** MUD RM 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6590 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	109 N	27 W	441603.27	940740.97		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2021	GOOD	Horz=YES Vert=NO	YES		RECESSED 4 IN.	MARKER W/BAR MAGNET

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE)
Disk Type: REFERENCE MARK DISK
Mon. Agency: MNDT

Description: (1987) **Stamping:** MUD NO 3 1987

3.0 MILES EAST OF NICOLLET, 3.05 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 1.0 MILE SOUTH ON 431ST AVENUE, 0.9 MILE WEST OF COUNTY ROAD 17, 0.1 MILE EAST ON 470TH STREET, 19.0 FEET NORTHWEST OF A FIELD ENTRANCE, 18.0 FEET SOUTH OF 470TH STREET, 13.8 FEET NORTHEAST OF A WITNESS POST.

Station Notes
THE ROD DEPTH IS UNKNOWN.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.465	.262		910.070	.197	2011	GPS - RTRN	2021	RTRN2021
1002.459			910.061	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1002.472	.131		910.274	.066	1996	GPS - STATIC	2013	HNMAN
1002.459			910.067	.010	2011	GPS - STATIC	2013	HNMAN
			910.061	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1002.380	.262		910.054	.197	2007	GPS - RTRN	2011	RTRN2011
			910.152	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1002.459	.131		910.297	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1002.459	.131		910.297	.066	1996	GPS - STATIC	2002	HNICO

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.295						RECIPROCAL VERTICAL ANGLE	1988	HORZ

Geoid Separations(ft): GEOID18 = -92.395 12B = -92.411 09 = -92.326 03 = -92.201

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 03.27372	94 07 40.96954	536313.777	252970.303	.131	3	GPS - RTRN	2021	RTRN2021
44 16 03.27365	94 07 40.96951	536313.779	252970.296	.013		ADJUSTMENT	2013	GPS2964
44 16 03.27368	94 07 40.96956	536313.775	252970.299	.013	C	GPS - STATIC	2013	HNMAN
44 16 03.27365	94 07 40.96951	536313.779	252970.296	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 03.27428	94 07 40.97051	536313.706	252970.360	.131	3	GPS - RTRN	2011	RTRN2011
44 16 03.27364	94 07 40.97029	536313.722	252970.295	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 03.27301	94 07 40.96924	536313.799	252970.232	.033	C	GPS - STATIC	2013	HNMAN
44 16 03.27301	94 07 40.96924	536313.799	252970.232	.033	C	ADJUSTMENT	2003	GPS1882
44 16 03.27301	94 07 40.96924	536313.799	252970.232	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 03.26565	94 07 40.97052	536313.708	252969.484	.033	C	GPS - STATIC	1991	H1991

MUD MNDT RM 3

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2591126.100	790188.778	1345033.772	16083338.240	.131	3	GPS - RTRN	2021	RTRN2021
2591126.103	790188.770	1345033.774	16083338.233	.013		ADJUSTMENT	2013	GPS2964
2591126.099	790188.773	1345033.770	16083338.236	.013	C	GPS - STATIC	2013	HNMAN
2591126.103	790188.770	1345033.774	16083338.233	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2591126.030	790188.834	1345033.702	16083338.298	.131	3	GPS - RTRN	2011	RTRN2011
2591126.046	790188.769	1345033.717	16083338.233	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2591126.122	790188.705	1345033.793	16083338.168	.033	C	GPS - STATIC	2013	HNMAN
2591126.122	790188.705	1345033.793	16083338.168	.033	C	ADJUSTMENT	2003	GPS1882
2591126.122	790188.705	1345033.793	16083338.168	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2591126.028	790187.961	1345033.689	16083337.424	.033	C	GPS - STATIC	1991	H1991

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MUD_RM_3-DF6590-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MUD_RM_3-DF6590-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/MUD_RM_3-DF6590-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

MUD MNDT RM 4

Mn/DOT Name: MUD MNDT RM 4 **NGS Name:** MUD RM 4

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	12	109 N	28 W	441607.10	940748.80		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2001	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	SURVEY DISK	MNDT

Description: (2001) **Stamping:** MUD NO 4 1987

3.0 MILES EAST OF NICOLLET, 3.05 MILES EAST ON TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 0.95 MILE SOUTH ON A GRAVEL ROAD (OSHAWA TOWNSHIP ROAD 184), 114.8 FEET SOUTHEAST OF A POWER POLE WITH AN ANCHOR, 84.0 FEET WEST OF A GRAVEL ROAD, 40.5 FEET WEST OF A TELEPHONE CABLE POST NUMBER 17, 21.0 FEET SOUTH OF A GRAVEL ROAD, 10.7 FEET NORTH OF A STEEL POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.392 12B = -92.411 09 = -92.323 03 = -92.195

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.10607	94 07 48.80770	535742.761	253357.449	3.281		CLASSICAL SURVEY	1991	H1991

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590556.407	790577.738	1344468.988	16083734.018	3.281		CLASSICAL SURVEY	1991	H1991

Geodetic Data Sheet (Feet)
GSID Station # 100756

NELSON

04/28/2026
Sheet Help

Mn/DOT Name: NELSON
NGS Name: NELSON
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP4165 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	8	111 N	32 W	442607.51	944302.90	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2014	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 24 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2014)
Stamping: NELSON 2013

6.25 MILES SOUTH OF FAIRFAX, 6.5 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, AT TRUNK HIGHWAY 4 MILEPOINT 72.85, 34.0 FEET EAST OF TRUNK HIGHWAY 4, 50.3 FEET SOUTH OF AN ENTRANCE TO THE MINNESOTA RIVER WILDLIFE MANAGEMENT AREA , 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
820.435	.016	2/1				VERTICAL ADJUSTMENT	2015	00000851
820.431	.016	2/1				VERTICAL CONTROL SURVEY	2014	VHECT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
820.431			728.952	.022	2011	HORIZONTAL ADJUSTMENT	2014	GPS3022
820.431			728.952	.022	2011	GPS - STATIC	2014	HHECT
820.431	.131		729.136	.066	1996	GPS - STATIC	2014	HHECT
820.353	.262		728.854	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -91.499 12B = -91.496 09 = -91.420 03 = -91.312

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 07.50974	94 43 02.89661	382239.882	314454.430	.023		ADJUSTMENT	2014	GPS3022
44 26 07.50974	94 43 02.89661	382239.882	314454.430	.023	C	GPS - STATIC	2014	HHECT
44 26 07.50995	94 43 02.89595	382239.930	314454.451	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 07.50920	94 43 02.89678	382239.869	314454.376	.033	C	GPS - STATIC	2014	HHECT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2437272.102	852169.887	1191972.134	16147179.742	.023		ADJUSTMENT	2014	GPS3022
2437272.102	852169.887	1191972.134	16147179.742	.023	C	GPS - STATIC	2014	HHECT
2437272.150	852169.908	1191972.182	16147179.763	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2437272.089	852169.833	1191972.120	16147179.688	.033	C	GPS - STATIC	2014	HHECT

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NELSON-DP4165-3E-26AUG2013.jpg	E	Aug 26, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NELSON-DP4165-2-26AUG2013.jpg		Aug 26, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NELSON-DP4165-1-26AUG2013.jpg		Aug 26, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NEW SWEDEN 25 MN103

Mn/DOT Name: NEW SWEDEN 25 MN103 **NGS Name:** NEW SWEDEN 25

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6591 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	111 N	28 W	442356.09	940747.90		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2015	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** NEW SWEDEN 25 2001

1.0 MILE SOUTH OF NORSELAND, 1.0 MILE SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 22 (THE JUNCTION IS 0.75 MILE WEST OF NORSELAND), 49.0 FEET WEST OF COUNTY ROAD 3 (425TH AVENUE), 78.0 FEET SOUTH OF COUNTY ROAD 61 (380TH STREET), 47.0 FEET SOUTH OF A STOP SIGN, 5.5 FEET NORTHWEST OF A POWER POLE, 5.0 FEET WEST OF A WITNESS POST. THE SET DATE AND STAMPED DATE ARE NOT THE SAME FOR UNKNOWN CAUSES.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.136	.262		902.902	.197	2011	GPS - RTRN	2015	RTRN2015
			902.944	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			903.043	.014	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
995.175	.131		903.164	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
995.175	.131		903.164	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.224 12B = -92.231 09 = -92.155 03 = -92.018

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 56.09191	94 07 47.89903	535729.956	300852.306	.131	3	GPS - RTRN	2015	RTRN2015
44 23 56.09184	94 07 47.89931	535729.936	300852.299	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 56.09175	94 07 47.90005	535729.883	300852.290	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 56.09122	94 07 47.89944	535729.927	300852.237	.033	C	ADJUSTMENT	2003	GPS1882
44 23 56.09122	94 07 47.89944	535729.926	300852.236	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590698.031	838066.993	1345189.467	16131207.251	.131	3	GPS - RTRN	2015	RTRN2015
2590698.010	838066.986	1345189.447	16131207.244	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590697.956	838066.977	1345189.393	16131207.236	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590698.000	838066.924	1345189.437	16131207.182	.033	C	ADJUSTMENT	2003	GPS1882
2590698.000	838066.924	1345189.437	16131207.182	.033	C	GPS - STATIC	2002	HNICO

NEW SWEDEN 25 MN103

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NEW_SWEDEN_25-DF6591-3S-03JUN2015.jpg	S	Jun 3, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NEW_SWEDEN_25-DF6591-2-03JUN2015.jpg		Jun 3, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NEW_SWEDEN_25-DF6591-1-03JUN2015.jpg		Jun 3, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NICOLLET 1 MN103

Mn/DOT Name: NICOLLET 1 MN103 **NGS Name:** NICOLLET 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6592 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	108 N	28 W	441147.04	940837.77		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2003) **Stamping:** NICOLLET 1 2001

5.75 MILES SOUTHEAST OF NICOLLET, 4.9 MILES SOUTH ALONG COUNTY ROAD 23 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 23 IN NICOLLET, THEN 2.5 MILES EAST ON COUNTY ROAD 41, 52.0 FEET NORTH OF COUNTY ROAD 41, 34.0 FEET SOUTHEAST OF A FENCE CORNER POST, 18.0 FEET EAST OF A DRIVEWAY, 2.0 FEET WEST OF A WITNESS POST, STAMPED A YEAR LATER.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
822.840	.262		730.323	.197	2011	GPS - OPUS	2021	GPSBM
822.787	.262		730.271	.197	2011	GPS - OPUS	2021	GPSBM
822.938	.262		730.422	.197	2011	GPS - RTRN	2021	RTRN2021
822.941			730.435	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
822.918	.131		730.625	.066	1996	GPS - STATIC	2013	HNMAN
822.941			730.425	.008	2011	GPS - STATIC	2013	HNMAN
			730.435	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
822.948	.262		730.510	.197	2007	GPS - RTRN	2011	RTRN2011
			730.520	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
822.964	.131		730.668	.066	1996	HORIZONTAL ADJUSTMENT	2004	GPS1986
822.964	.131		730.668	.066	1996	GPS - STATIC	2003	HEARTH
822.964	.131		730.668	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
822.964	.131		730.668	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.513 12B = -92.536 09 = -92.437 03 = -92.296

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.04511	94 08 37.77270	532219.041	227015.730	.131	3	GPS - OPUS	2021	GPSBM
44 11 47.04554	94 08 37.77284	532219.030	227015.774	.131	3	GPS - OPUS	2021	GPSBM
44 11 47.04521	94 08 37.77191	532219.098	227015.740	.131	3	GPS - RTRN	2021	RTRN2021
44 11 47.04550	94 08 37.77207	532219.086	227015.770	.010		ADJUSTMENT	2013	GPS2964
44 11 47.04548	94 08 37.77207	532219.086	227015.767	.010	C	GPS - STATIC	2013	HNMAN
44 11 47.04550	94 08 37.77207	532219.086	227015.770	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.04419	94 08 37.77223	532219.075	227015.637	.131	3	GPS - RTRN	2011	RTRN2011
44 11 47.04545	94 08 37.77286	532219.029	227015.764	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 47.04485	94 08 37.77179	532219.107	227015.704	.033	C	GPS - STATIC	2013	HNMAN
44 11 47.04485	94 08 37.77179	532219.107	227015.704	.033	C	ADJUSTMENT	2004	GPS1986
44 11 47.04485	94 08 37.77179	532219.107	227015.704	.033	C	GPS - STATIC	2003	HEARTH
44 11 47.04485	94 08 37.77179	532219.107	227015.704	.033	C	ADJUSTMENT	2003	GPS1882
44 11 47.04485	94 08 37.77179	532219.106	227015.704	.033	C	GPS - STATIC	2002	HNICO

NICOLLET 1 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2586947.404	764250.322	1340540.822	16057458.552	.131	3	GPS - OPUS	2021	GPSBM
2586947.394	764250.365	1340540.812	16057458.595	.131	3	GPS - OPUS	2021	GPSBM
2586947.461	764250.331	1340540.880	16057458.561	.131	3	GPS - RTRN	2021	RTRN2021
2586947.450	764250.361	1340540.868	16057458.591	.010		ADJUSTMENT	2013	GPS2964
2586947.450	764250.359	1340540.868	16057458.589	.010	C	GPS - STATIC	2013	HNMAN
2586947.450	764250.361	1340540.868	16057458.591	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2586947.438	764250.228	1340540.855	16057458.458	.131	3	GPS - RTRN	2011	RTRN2011
2586947.392	764250.356	1340540.811	16057458.586	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2586947.470	764250.295	1340540.888	16057458.524	.033	C	GPS - STATIC	2013	HNMAN
2586947.470	764250.295	1340540.888	16057458.524	.033	C	ADJUSTMENT	2004	GPS1986
2586947.470	764250.295	1340540.888	16057458.524	.033	C	GPS - STATIC	2003	HEARTH
2586947.470	764250.295	1340540.888	16057458.524	.033	C	ADJUSTMENT	2003	GPS1882
2586947.470	764250.295	1340540.888	16057458.524	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_1-DF6592-3N-11MAY2021.jpg	N	May 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_1-DF6592-2-11MAY2021.jpg		May 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_1-DF6592-1-11MAY2021.jpg		May 11, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NICOLLET 2 MNDT

Mn/DOT Name: NICOLLET 2 MNDT
NGS Name: NICOLLET 2
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1745 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	9	109 N	28 W	441548.20	941238.20	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 5 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	HORIZONTAL CONTROL DISK	MNDT

Description: (1987) **Stamping:** NICOLLET 2 1987

1.0 MILE WEST-SOUTHWEST OF NICOLLET, 0.4 MILE WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN THE WEST EDGE OF NICOLLET, THEN 0.8 MILE SOUTH ON 471ST AVENUE (TOWNSHIP ROAD 173), 217.0 FEET SOUTH OF A FARM ENTRANCE, 73.0 FEET NORTH-NORTHWEST OF A POWER POLE, 69.37 FEET NORTH-NORTHWEST OF NICOLLET 2 MNDT RM 3, 68.4 FEET NORTH-NORTHWEST OF A WITNESS POST, 41.5 FEET EAST OF A WITNESS POST, 41.12 FEET EAST OF NICOLLET 2 MNDT RM 4, 11.0 FEET EAST OF 471ST AVENUE.

Station Notes
THE CAP WAS LOOSE, RESET WITH A REMOVABLE DISK.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.707	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.527	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.474 09 = -92.395 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.16731	94 12 38.16252	514688.492	251414.888	3.281		CLASSICAL SURVEY	1991	H1991

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569498.164	788703.915	1323394.195	16082117.062	3.281		CLASSICAL SURVEY	1991	H1991

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2-PQ1745-3E-23JUN2019.jpg	E	Jun 23, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2-PQ1745-2-23JUN2019.jpg		Jun 23, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2-PQ1745-1-23JUN2019.jpg		Jun 23, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NICOLLET 2 MNDT RESET

Mn/DOT Name: NICOLLET 2 MNDT RESET
NGS Name: NICOLLET 2 RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9561 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	9	109 N	28 W	441548.18	941238.16	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 9 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2011) **Stamping:** NICOLLET 2 1987 2011

1.0 MILE SOUTHWEST OF NICOLLET, 0.4 MILE WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.8 MILE SOUTH ON 471ST AVENUE (TOWNSHIP ROAD 173), 11.0 FEET EAST OF 471ST AVENUE, 73.0 FEET NORTH-NORTHWEST OF A POWER POLE, 69.37 FEET NORTH-NORTHWEST OF NICOLLET 2 MNDT RM 3, 41.12 FEET EAST OF NICOLLET 2 MNDT RM 4, 68.4 FEET NORTH-NORTHWEST OF A WITNESS POST FOR NICOLLET 2 MNDT RM 3.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.570	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1001.566	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1001.560	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1001.560	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.524	.262		909.050	.197	2011	GPS - RTRN	2019	RTRN2019
1001.560			909.125	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1001.560	.131		909.309	.066	1996	GPS - STATIC	2013	HNMAN
1001.560			909.125	.007	2011	GPS - STATIC	2013	HNMAN
1001.547	.262		909.152	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.474 09 = -92.395 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.17689	94 12 38.16046	514688.640	251415.859	.131	3	GPS - RTRN	2019	RTRN2019
44 15 48.17648	94 12 38.16126	514688.582	251415.817	.016		ADJUSTMENT	2013	GPS2964
44 15 48.17648	94 12 38.16126	514688.582	251415.817	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.17692	94 12 38.16218	514688.515	251415.862	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.17601	94 12 38.16111	514688.593	251415.770	.033	C	GPS - STATIC	2013	HNMAN

NICOLLET 2 MNDT RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569498.316	788704.885	1323394.359	16082118.030	.131	3	GPS - RTRN	2019	RTRN2019
2569498.258	788704.843	1323394.300	16082117.989	.016		ADJUSTMENT	2013	GPS2964
2569498.258	788704.843	1323394.300	16082117.989	.016	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569498.191	788704.888	1323394.234	16082118.035	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569498.269	788704.796	1323394.311	16082117.941	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RESET-DO9561-3S-14JUN2011.jpg	S	Jun 14, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RESET-DO9561-2-14JUN2011.jpg		Jun 14, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RESET-DO9561-1-14JUN2011.jpg		Jun 14, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NICOLLET 2 MNDT RM 3

Mn/DOT Name: NICOLLET 2 MNDT RM 3 **NGS Name:** NICOLLET 2 RM 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1746 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	9	109 N	28 W	441547.51	941237.92	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=NO Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	REFERENCE MARK DISK	MNDT

Description: (1987) **Stamping:** NICOLLET 2 RM 3 1987

1.0 MILE SOUTHWEST OF NICOLLET, 0.4 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.8 MILE SOUTH ON 471ST AVENUE (TOWNSHIP ROAD 173), 250.0 FEET SOUTH OF A FARM ENTRANCE, 96.9 FEET SOUTHEAST OF NICOLLET 2 MNDT RM 4, 69.37 FEET SOUTH-SOUTHEAST OF STATION NICOLLET 2 MNDT RESET, 28.0 FEET EAST OF 471ST AVENUE, 3.5 FEET NORTH-NORTHWEST OF A POWER POLE, 1.3 FEET SOUTH-SOUTHWEST OF A WITNESS POST.

Station Notes

DUE TO THE PROXIMITY TO A POWER POLE, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.883	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
999.883	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
999.873	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
999.873	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
999.873	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.690	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.988	.262		907.515	.197	2011	GPS - RTRN	2019	RTRN2019
999.926	.262		907.531	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.474 09 = -92.395 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 47.51460	94 12 37.91763	514706.358	251348.801	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 47.51518	94 12 37.91863	514706.285	251348.860	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569515.813	788637.776	1323411.035	16082050.728	.131	3	GPS - RTRN	2019	RTRN2019

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569515.741	788637.835	1323410.963	16082050.788	.131	3	GPS - RTRN	2011	RTRN2011

NICOLLET 2 MNDT RM 3

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RM_3-PQ1746-3E-23JUN2019.jpg	E	Jun 23, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RM_3-PQ1746-2-23JUN2019.jpg		Jun 23, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RM_3-PQ1746-1-23JUN2019.jpg		Jun 23, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NICOLLET 2 MNDT RM 4

Mn/DOT Name: NICOLLET 2 MNDT RM 4 **NGS Name:** NICOLLET 2 RM 4

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1747 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	8	109 N	28 W	441548.29	941238.71	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	REFERENCE MARK DISK	MNDT

Description: (1987) **Stamping:** NICOLLET 2 RM 4 1987

1.4 MILES SOUTHWEST OF NICOLLET, 0.4 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.8 MILE SOUTH ON 471ST AVENUE (TOWNSHIP ROAD 173), 200.0 FEET SOUTH OF A FARM ENTRANCE, 100.5 FEET NORTHWEST OF A POWER POLE, 96.9 FEET NORTHWEST OF NICOLLET 2 MNDT RM 3, 41.12 FEET WEST-NORTHWEST OF STATION NICOLLET 2 MNDT, 29.0 FEET WEST OF 471ST AVENUE, 1.0 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.007	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
998.007	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
997.997	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.816	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.010	.262		905.536	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.474 09 = -92.395 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.28684	94 12 38.70525	514648.986	251426.967	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569458.703	788716.120	1323354.894	16082129.744	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RM_4-PQ1747-3W-23JUN2019.jpg	W	Jun 23, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RM_4-PQ1747-2-23JUN2019.jpg		Jun 23, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_2_RM_4-PQ1747-1-23JUN2019.jpg		Jun 23, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NICOLLET 22 MN103

Mn/DOT Name: NICOLLET 22 MN103 **NGS Name:** NICOLLET 22

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6593 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	109 N	28 W	441342.81	941109.50		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** NICOLLET 22 2001

3.0 MILES SOUTH OF NICOLLET, 2.5 MILES SOUTH ALONG COUNTY ROAD 23 FROM THE JUNCTION OF COUNTY ROAD 23 AND TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 0.2 MILE EAST ON COUNTY ROAD 25, 54.0 FEET SOUTH OF COUNTY ROAD 25, 17.0 FEET EAST OF A FIELD ENTRANCE, 4.0 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.561	.262		901.035	.197	2011	GPS - OPUS	2021	GPSBM
993.640	.262		901.110	.197	2011	GPS - RTRN	2021	RTRN2021
993.630			901.120	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
993.627	.131		901.311	.066	1996	GPS - STATIC	2013	HNMAN
993.630			901.124	.010	2011	GPS - STATIC	2013	HNMAN
			901.120	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
993.686	.262		901.219	.197	2007	GPS - RTRN	2011	RTRN2011
			901.202	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
993.633	.131		901.347	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
993.633	.131		901.347	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.529 12B = -92.536 09 = -92.467 03 = -92.316

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 42.81305	94 11 09.50233	521153.086	238725.714	.131	3	GPS - OPUS	2021	GPSBM
44 13 42.81319	94 11 09.50151	521153.146	238725.728	.131	3	GPS - RTRN	2021	RTRN2021
44 13 42.81326	94 11 09.50170	521153.132	238725.735	.013		ADJUSTMENT	2013	GPS2964
44 13 42.81326	94 11 09.50175	521153.128	238725.735	.013	C	GPS - STATIC	2013	HNMAN
44 13 42.81326	94 11 09.50170	521153.132	238725.735	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 42.81232	94 11 09.50182	521153.123	238725.640	.131	3	GPS - RTRN	2011	RTRN2011
44 13 42.81319	94 11 09.50247	521153.076	238725.728	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 13 42.81256	94 11 09.50137	521153.156	238725.664	.033	C	GPS - STATIC	2013	HNMAN
44 13 42.81256	94 11 09.50137	521153.156	238725.664	.033	C	ADJUSTMENT	2003	GPS1882
44 13 42.81256	94 11 09.50137	521153.157	238725.664	.033	C	GPS - STATIC	2002	HNICO

NICOLLET 22 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575920.727	775995.076	1329660.271	16069333.821	.131	3	GPS - OPUS	2021	GPSBM
2575920.787	775995.090	1329660.331	16069333.835	.131	3	GPS - RTRN	2021	RTRN2021
2575920.773	775995.097	1329660.317	16069333.842	.013		ADJUSTMENT	2013	GPS2964
2575920.769	775995.097	1329660.313	16069333.842	.013	C	GPS - STATIC	2013	HNMAN
2575920.773	775995.097	1329660.317	16069333.842	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575920.764	775995.002	1329660.307	16069333.747	.131	3	GPS - RTRN	2011	RTRN2011
2575920.717	775995.090	1329660.261	16069333.836	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575920.797	775995.026	1329660.340	16069333.771	.033	C	GPS - STATIC	2013	HNMAN
2575920.797	775995.026	1329660.340	16069333.771	.033	C	ADJUSTMENT	2003	GPS1882
2575920.797	775995.026	1329660.340	16069333.770	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_22-DF6593-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_22-DF6593-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NICOLLET_22-DF6593-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NICOLLET IMM LUTH CH SPIRE

Mn/DOT Name: NICOLLET IMM LUTH CH SPIRE
NGS Name: NICOLLET IMM LUTH CH SPIRE
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0742 Get Map
NGS Quad / Sta Num : 44094242/1042
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	109 N	29 W	441514.65	941634.32		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1972	1987	GOOD	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	MNDT

Description: (1987)

Stamping:

4.51 MILES SOUTHWEST OF NICOLLET, 1.5 MILES SOUTH ON COUNTY ROAD 23 FROM THE JUNCTION OF COUNTY ROAD 23 AND TRUNK HIGHWAY 14 IN NICOLLET, THEN 4.3 MILES WEST ON COUNTY ROAD 25, 0.77 MILE EAST OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 25 AND COUNTY ROAD 11, 110.57 FEET NORTH OF THE CENTERLINE OF COUNTY ROAD 25.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.526 12B = -92.539 09 = -92.451 03 = -92.293

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 14.64825	94 16 34.31523	497502.355	248015.565	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 14.64294	94 16 34.31007	497502.730	248015.028	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 14.76411	94 16 33.43519			.100	4	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2552302.850	785360.998	1306163.091	16078984.294	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2552303.224	785360.458	1306163.459	16078983.751	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1927698.171	457284.280			.100	4	CLASSICAL SURVEY	1977	16059

NICOLLET KGAC RADIO MAST

Mn/DOT Name: NICOLLET KGAC RADIO MAST **NGS Name:** NICOLLET KGAC RADIO MAST

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	109 N	27 W	441324.51	940700.92		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	1987	GOOD	Horz=? Vert=?	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SURVEY DISK	MNDT

Description: (1987) **Stamping:**

5.0 MILES SOUTHEAST OF NICOLLET, 4.9 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 23 IN NICOLLET, THEN 0.2 MILE EAST ON COUNTY ROAD 25, 0.26 MILE NORTHEAST OF STATION 5203 Y, 0.12 MILE NORTH OF THE CENTERLINE OF COUNTY ROAD 25.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.483 09 = -92.401 03 = -92.270

NICOLLET MNDT

Mn/DOT Name: NICOLLET MNDT **NGS Name:** NICOLLET

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0685 Get Map
NGS Quad / Sta Num : 44094213/1038
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	9	109 N	28 W	441548.30	941237.96		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2009	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	STEEL ROD ADJ TO MON

Monument Type: CONCRETE MONUMENT (CAST-IN-PLACE)
Disk Type: SURVEY DISK
Mon. Agency: MNDT

Description: (1994) **Stamping:** NICOLLET 1970

1.0 MILE SOUTHWEST OF NICOLLET, 0.5 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.75 MILE SOUTH ON TOWNSHIP ROAD 173, 84.3 FEET NORTH OF A POWER POLE, 26.0 FEET EAST OF A ROAD, 20.7 FEET SOUTH OF A DRIVEWAY.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.342	.197		907.157	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.014						RECIPROCAL VERTICAL ANGLE	1970	HORZ

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.474 09 = -92.395 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.30094	94 12 37.95883	514703.305	251428.432	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.29648	94 12 37.95411	514703.649	251427.980	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 48.41600	94 12 37.08600			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569513.021	788717.408	1323409.212	16082130.370	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569513.363	788716.955	1323409.548	16082129.914	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1944908.297	460640.628			.100	2	CLASSICAL SURVEY	1977	16059

NICOLLET MNDT RM 1

Mn/DOT Name: NICOLLET MNDT RM 1

NGS Name: NICOLLET RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9310 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	9	109 N	28 W	441546.00	941238.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: NICOLLET NO 1 1970

1.32 MILES SOUTHWEST OF NICOLLET, 0.5 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.8 MILE SOUTH ON TOWNSHIP ROAD 173, 27.0 FEET EAST OF THE CENTERLINE OF A ROAD, 3.0 FEET NORTHWEST OF A POWER POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.467 12B = -92.477 09 = -92.398 03 = -92.254

NICOLLET MNDT RM 2

Mn/DOT Name: NICOLLET MNDT RM 2 **NGS Name:** NICOLLET RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0686 Get Map
NGS Quad / Sta Num : 44094213/1038
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	5	109 N	28 W	441629.02	941238.59	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1994) **Stamping:** NICOLLET NO 2 1970

1.2 MILES WEST OF NICOLLET, 0.4 MILE WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 117.45, THEN 77.0 FEET NORTH ON TOWNSHIP ROAD 173, 28.9 FEET NORTH OF A TELEPHONE POLE, 25.6 FEET SOUTH OF THE SOUTH RAIL OF THE RAILROAD TRACKS, 23.0 FEET THE WEST OF THE ROAD, 2.0 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.461	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.280	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.457	.262		908.312	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.428 12B = -92.437 09 = -92.355 03 = -92.214

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 29.01951	94 12 38.59359	514654.307	255551.962	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 29.01500	94 12 38.58910	514654.634	255551.506	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 29.13479	94 12 37.72045			.100	3	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569477.460	792840.637	1323423.843	16086252.838	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2569477.786	792840.179	1323424.163	16086252.377	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1944872.745	464763.840			.100	3	CLASSICAL SURVEY	1977	16059

NICOLLET MUN TANK

Mn/DOT Name: NICOLLET MUN TANK
NGS Name: NICOLLET MUN TANK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0683 Get Map
NGS Quad / Sta Num : 44094213/1041
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	109 N	28 W	441623.50	941114.39		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1972	2006	GOOD	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	ELEVATED TANK	MNDT

Description: (1987)

Stamping:

IN NICOLLET, 0.2 MILE EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 0.2 MILE SOUTH ON CEDAR STREET, AT THE NORTHEAST CORNER OF PINE STREET AND 6TH STREET, 126.61 FEET NORTHEAST OF THE CENTER OF THE JUNCTION OF PINE STREET AND 6TH STREET, 92.66 FEET EAST OF THE CENTERLINE OF PINE STREET, 78.38 FEET NORTH OF THE CENTERLINE OF 6TH STREET.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.411 12B = -92.424 09 = -92.339 03 = -92.205

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.50123	94 11 14.39489	520781.132	254998.164	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.49711	94 11 14.39005	520781.484	254997.747	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.61453	94 11 13.52828			.100	4	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575601.793	792266.948	1329539.408	16085604.769	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575602.144	792266.530	1329539.754	16085604.347	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1950996.779	464189.975			.100	4	CLASSICAL SURVEY	1977	16059

NICOLLET TRINITY LUTH CH CROSS

Mn/DOT Name: NICOLLET TRINITY LUTH CH CROSS **NGS Name:** NICOLLET TRINITY LUTH CH CROSS

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0684 Get Map
NGS Quad / Sta Num : 44094213/1040
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	109 N	28 W	441623.46	941121.77		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1972	1972	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH CROSS	MNDT

Description: (1972)

Stamping:

IN NICOLLET, 0.2 MILE SOUTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99, THEN 269.0 FEET EAST ON 6TH STREET, 80.82 FEET NORTHWEST OF THE CENTER OF THE JUNCTION OF 6TH STREET AND ASH STREET, 64.60 FEET NORTH OF THE CENTERLINE OF 6TH STREET, 62.29 FEET WEST OF THE CENTERLINE OF ASH STREET.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.411 12B = -92.424 09 = -92.342 03 = -92.205

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.45896	94 11 21.76881	520244.596	254993.373	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.45471	94 11 21.76422	520244.931	254992.942	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 23.57356	94 11 20.89890			.100	4	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575065.302	792263.904	1329003.038	16085608.257	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2575065.635	792263.472	1329003.366	16085607.822	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1950460.513	464187.060			.100	4	CLASSICAL SURVEY	1977	16059

NISIB MNDT RM 3

Mn/DOT Name: NISIB MNDT RM 3 **NGS Name:** NISIB RM 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DK3401 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	112 N	30 W	442723.57	942214.26	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2024	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 4 IN.	MARKER W/BAR MAGNET

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)
Disk Type: REFERENCE MARK DISK
Mon. Agency: MNDT

Description: (2007) **Stamping:** NISIB NO 3 1988

0.75 MILE NORTHEAST OF LAFAYETTE, ON THE COUNTY LINE, 1.35 MILES NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE TO TRUNK HIGHWAY 15 MILEPOINT 70.5, THEN 0.1 MILE EAST ON 340TH STREET, 19.0 FEET NORTH-NORTHWEST OF 340TH STREET, 108.0 FEET EAST-NORTHEAST OF AN ENTRANCE, 105.6 FEET WEST-SOUTHWEST OF A POWER POLE, 5.6 FEET SOUTH-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1022.377	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1022.377	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1022.249	.262		930.484	.197	2011	GPS - RTRN	2015	RTRN2015
			930.546	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			930.723	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
1022.308	.131		930.835	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
1022.308	.131		930.835	.066	1996	GPS - STATIC	2007	HSIBL

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1022.406						RECIPROCAL VERTICAL ANGLE	1988	HORZ

Geoid Separations(ft): GEOID18 = -91.785 12B = -91.765 09 = -91.663 03 = -91.561

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Sibley County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 23.57172	94 22 14.25835	568600.226	100269.846	.131	3	GPS - RTRN	2015	RTRN2015
44 27 23.57300	94 22 14.25804	568600.248	100269.976	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Sibley County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 23.57296	94 22 14.25896	568600.181	100269.972	.033	C	ADJUSTMENT	2009	GPS2397-B

NAD83(1996)

Geodetic Position		Sibley County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 23.57240	94 22 14.25843	568600.219	100269.915	.033	C	ADJUSTMENT	2008	GPS2397
44 27 23.57240	94 22 14.25843	568600.219	100269.915	.033	C	GPS - STATIC	2007	HSIBL

NAD83(1986)

Geodetic Position		Sibley County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 23.56458	94 22 14.24913	568600.897	100269.124	3.281		CLASSICAL SURVEY	1988	7204-13

NISIB MNDT RM 3

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527897.437	859269.007	1282665.089	16153170.361	.131	3	GPS - RTRN	2015	RTRN2015
2527897.460	859269.136	1282665.114	16153170.490	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527897.393	859269.133	1282665.047	16153170.487	.033	C	ADJUSTMENT	2009	GPS2397-B

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527897.431	859269.075	1282665.085	16153170.430	.033	C	ADJUSTMENT	2008	GPS2397
2527897.431	859269.075	1282665.085	16153170.430	.033	C	GPS - STATIC	2007	HSIBL

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527898.102	859268.281	1282665.746	16153169.627	3.281		CLASSICAL SURVEY	1988	7204-13

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NISIB_RM_3-DK3401-3NE-16JUN2010.jpg	NE	Jun 16, 2010
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NISIB_RM_3-DK3401-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NISIB_RM_3-DK3401-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NISIB MNDT RM 3 RESET

Mn/DOT Name: NISIB MNDT RM 3 RESET
NGS Name: NISIB RM 3 RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	112 N	30 W	442723.57	942214.26		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2024	2024	GOOD	Horz=YES Vert=YES	NO		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)	REFERENCE MARK DISK	MNDT

Description: (2024) **Stamping:** NISIB NO 3 1988 2024

0.75 MILE NORTHEAST OF LAFAYETTE, ON THE COUNTY LINE, 1.35 MILES NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE TO TRUNK HIGHWAY 15 MILEPOINT 70.5, THEN 0.1 MILE EAST ON 340TH STREET, 19.0 FEET NORTH-NORTHWEST OF 340TH STREET, 108.0 FEET EAST-NORTHEAST OF AN ENTRANCE, 105.6 FEET WEST-SOUTHWEST OF A POWER POLE, 5.6 FEET SOUTH-SOUTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1022.232	.262		930.448	.197	2011	GPS - RTRN	2024	RTRN2024

No Geoid Separations Available

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 23.57237	94 22 14.25751	472852.850	321852.074	.131	3	GPS - RTRN	2024	RTRN2024

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2527897.498	859269.072	1282665.151	16153170.426	.131	3	GPS - RTRN	2024	RTRN2024

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NISIB_RM_3_RESET-3N-08MAY2024.jpg	N	May 8, 2024
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NISIB_RM_3_RESET-2-08MAY2024.jpg		May 8, 2024
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NISIB_RM_3_RESET-1-08MAY2024.jpg		May 8, 2024

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NOMAN MNDT

Mn/DOT Name: NOMAN MNDT
NGS Name: NOMAN
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1691 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	108 N	27 W	441053.47	940314.17	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	2015	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	HORIZONTAL CONTROL DISK	MNDT

Description: (2011) **Stamping:** NOMAN 1985

IN NORTHWEST NORTH MANKATO, AT THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE, AT TRUNK HIGHWAY 14 MILEPOINT 127.9, 17.9 FEET NORTH OF THE NORTHWEST CORNER OF BRIDGE NUMBER 52006 (LOOKOUT DRIVE OVER TRUNK HIGHWAY 14), 45.45 FEET WEST OF NOMAN MNDT RM 1, 26.4 FEET WEST OF SOUTHBOUND LOOKOUT DRIVE, 13.37 FEET NORTH OF NOMAN MNDT RM 2, 2.5 FEET WEST OF THE BACK OF A GUARDRAIL, 2.2 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.546	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1015.546	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
1015.618	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.411	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM
1015.520	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.618			922.948	.008	2011	HORIZONTAL ADJUSTMENT	2014	GPS2997
1015.618			922.944	.008	2011	GPS - STATIC	2014	HGWYN
1015.618	.131		923.112	.066	1996	GPS - STATIC	2014	HGWYN
1015.618			922.948	.007	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
1015.618			922.944	.007	2011	GPS - STATIC	2013	HSUEUR
1015.546	.131		923.112	.066	1996	GPS - STATIC	2013	HSUEUR
1015.618			922.948	.007	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
1015.546	.131		923.112	.066	1996	GPS - STATIC	2013	HNMAN
1015.618			922.928	.007	2011	GPS - STATIC	2013	HNMAN
1015.418	.262		922.787	.197	2011	GPS - RTRN	2013	RTRN2013
			922.948	.010	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
1015.467	.262		922.918	.197	2007	GPS - RTRN	2011	RTRN2011
			923.036	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1015.615	.131		923.181	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1015.615	.131		923.181	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.628 12B = -92.631 09 = -92.549 03 = -92.437

NOMAN MNDT

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.47163	94 03 14.16828	555809.647	221638.548	.010		ADJUSTMENT	2014	GPS2997
44 10 53.47162	94 03 14.16829	555809.647	221638.547	.010	C	GPS - STATIC	2014	HGWYN
44 10 53.47163	94 03 14.16828	555809.647	221638.548	.007		ADJUSTMENT	2014	GPS2977
44 10 53.47161	94 03 14.16833	555809.644	221638.546	.007	C	GPS - STATIC	2013	HSUEUR
44 10 53.47163	94 03 14.16828	555809.647	221638.548	.007		ADJUSTMENT	2013	GPS2964
44 10 53.47162	94 03 14.16836	555809.641	221638.547	.007	C	GPS - STATIC	2013	HNMAN
44 10 53.47131	94 03 14.16866	555809.620	221638.515	.131	3	GPS - RTRN	2013	RTRN2013
44 10 53.47163	94 03 14.16828	555809.647	221638.548	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.47162	94 03 14.16797	555809.670	221638.547	.131	3	GPS - RTRN	2011	RTRN2011
44 10 53.47159	94 03 14.16906	555809.590	221638.544	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.47108	94 03 14.16813	555809.658	221638.492	.033	C	GPS - STATIC	2014	HGWYN
44 10 53.47108	94 03 14.16813	555809.658	221638.492	.033	C	GPS - STATIC	2013	HSUEUR
44 10 53.47108	94 03 14.16813	555809.658	221638.492	.033	C	GPS - STATIC	2013	HNMAN
44 10 53.47108	94 03 14.16813	555809.658	221638.492	.033	C	ADJUSTMENT	2003	GPS1882
44 10 53.47108	94 03 14.16813	555809.659	221638.494	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.46760	94 03 14.16228	555810.086	221638.139	.033	C	GPS - STATIC	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.58410	94 03 13.31940			.100	C	CLASSICAL SURVEY	1950	UNK

NOMAN MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610518.101	758797.047	1364037.782	16051720.467	.010		ADJUSTMENT	2014	GPS2997
2610518.100	758797.046	1364037.782	16051720.466	.010	C	GPS - STATIC	2014	HGWYN
2610518.101	758797.047	1364037.782	16051720.467	.007		ADJUSTMENT	2014	GPS2977
2610518.098	758797.045	1364037.779	16051720.465	.007	C	GPS - STATIC	2013	HSUEUR
2610518.101	758797.047	1364037.782	16051720.467	.007		ADJUSTMENT	2013	GPS2964
2610518.095	758797.046	1364037.777	16051720.466	.007	C	GPS - STATIC	2013	HNMAN
2610518.074	758797.015	1364037.755	16051720.435	.131	3	GPS - RTRN	2013	RTRN2013
2610518.101	758797.047	1364037.782	16051720.467	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610518.124	758797.046	1364037.805	16051720.466	.131	3	GPS - RTRN	2011	RTRN2011
2610518.044	758797.043	1364037.726	16051720.464	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610518.112	758796.992	1364037.793	16051720.411	.033	C	GPS - STATIC	2014	HGWYN
2610518.112	758796.992	1364037.793	16051720.411	.033	C	GPS - STATIC	2013	HSUEUR
2610518.112	758796.992	1364037.793	16051720.411	.033	C	GPS - STATIC	2013	HNMAN
2610518.112	758796.992	1364037.793	16051720.411	.033	C	ADJUSTMENT	2003	GPS1882
2610518.112	758796.991	1364037.793	16051720.411	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610518.538	758796.639	1364038.214	16051720.053	.033	C	GPS - STATIC	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1985912.887	430720.414			.100	C	CLASSICAL SURVEY	1950	UNK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN-PQ1691-3W-12AUG2013.jpg	W	Aug 12, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN-PQ1691-2-12AUG2013.jpg		Aug 12, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN-PQ1691-1-12AUG2013.jpg		Aug 12, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NOMAN MNDT RM 1

Mn/DOT Name: NOMAN MNDT RM 1 **NGS Name:** NOMAN RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1690 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	108 N	27 W	441053.45	940313.54	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	2015	DESTROYED	Horz=NO Vert=NO	YES	52006	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	MNDT

Description: (2011) **Stamping:** NOMAN NO 1 1985

IN NORTHWEST MANKATO, IN THE WEST CURB OF A MEDIAN ON THE EAST SIDE OF LOOKOUT DRIVE BRIDGE NUMBER 52006 OVER TRUNK HIGHWAY 14, 45.45 FEET EAST OF STATION NOMAN MNDT, AT TRUNK HIGHWAY 14 MILEPOINT 127.9, 45.3 FEET EAST-NORTHEAST OF THE NORTHWEST CORNER OF A BRIDGE, 18.2 FEET EAST OF SOUTHBOUND LOOKOUT DRIVE, 43.0 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.366	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1016.366	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
1016.442	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.343	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.271	.262		923.719	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.628 12B = -92.631 09 = -92.552 03 = -92.437

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.44675	94 03 13.54433	555855.124	221636.146	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610563.565	758794.498	1364083.201	16051717.366	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN_RM_1-PQ1690-3W-13JUN2011.jpg	W	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN_RM_1-PQ1690-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN_RM_1-PQ1690-1-05APR2011.jpg		Apr 5, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NOMAN MNDT RM 2

Mn/DOT Name: NOMAN MNDT RM 2 **NGS Name:** NOMAN RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1692 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	108 N	27 W	441053.30	940314.15	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	2011	GOOD	Horz=NO Vert=YES	YES	52006	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	REFERENCE MARK DISK	MNDT

Description: (2011) **Stamping:** NOMAN NO 2 1985

IN NORTHWEST-NORTH MANKATO, IN A RAILING ON THE WEST SIDE OF LOOKOUT DRIVE BRIDGE NUMBER 52006 OVER TRUNK HIGHWAY 14, 2.15 MILES WEST OF THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 14 MILEPOINT 127.9, 25.2 FEET WEST OF SOUTHBOUND LOOKOUT DRIVE, 17.5 FEET SOUTH OF A WITNESS POST, 0.5 FOOT SOUTH OF THE NORTH END OF A BRIDGE, 13.37 FEET SOUTH OF STATION NOMAN MNDT.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.119	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
1019.119	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
1019.119	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.024	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.056	.262		926.507	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.628 12B = -92.631 09 = -92.552 03 = -92.437

Lat/Lon and County Coordinates (Feet)

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 53.30087	94 03 14.14737	555811.216	221621.260	.131	3	GPS - RTRN	2011	RTRN2011

State Plane and UTM Coordinates (Feet)

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610519.613	758779.755	1364039.084	16051703.162	.131	3	GPS - RTRN	2011	RTRN2011

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN_RM_2-PQ1692-3W-13JUN2011.jpg	W	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN_RM_2-PQ1692-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/NOMAN_RM_2-PQ1692-1-13JUN2011.jpg		Jun 13, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

NORTH MANKATO RAD STA KYSM TWR

Mn/DOT Name: NORTH MANKATO RAD STA KYSM TWR **NGS Name:** NORTH MANKATO RAD STA KYSM TWR

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0694 Get Map
NGS Quad / Sta Num : 44094221/1014
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	108 N	27 W	441020.11	940223.72		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1972	1978	GOOD	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	RADIO/TV TOWER	MNDT

Description: (1986) **Stamping:**

0.64 MILE SOUTH OF NORTH MANKATO, 0.4 MILE EAST ON LEE BOULEVARD FROM THE JUNCTION OF LEE BOULEVARD AND LOOKOUT DRIVE, THEN 300.0 FEET SOUTH ON HOVER DRIVE, 0.07 MILE SOUTH OF THE CENTERLINE OF LEE BOULEVARD, 0.07 MILE EAST OF THE CENTERLINE OF HOOVER DRIVE.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.703 12B = -92.710 09 = -92.621 03 = -92.510

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 20.10999	94 02 23.72432	559495.032	218269.915	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 20.10658	94 02 23.72063	559495.302	218269.570	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 20.22376	94 02 22.87755			.100	4	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2614192.178	755416.798	1367669.569	16048296.654	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2614192.447	755416.453	1367669.834	16048296.305	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1989586.927	427340.336			.100	4	CLASSICAL SURVEY	1977	16059

NORTH MANKATO TANK

Mn/DOT Name: NORTH MANKATO TANK
NGS Name: NORTH MANKATO TANK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0695 Get Map
NGS Quad / Sta Num : 44094221/1013
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	108 N	27 W	441019.09	940238.98		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1972	1978	GOOD	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	ELEVATED TANK	MNDT

Description: (1986)

Stamping:

0.76 MILE SOUTHWEST OF NORTH MANKATO, 0.25 MILE EAST ON LEE BOULEVARD FROM THE JUNCTION OF LEE BOULEVARD AND LOOKOUT DRIVE, THEN 400.0 FEET SOUTH ON TOWER BOULEVARD, 77.67 FEET WEST OF THE CENTERLINE OF TOWER BOULEVARD.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.684 12B = -92.687 09 = -92.602 03 = -92.490

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 19.08974	94 02 38.98240	558383.215	218163.560	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 19.08639	94 02 38.97887	558383.473	218163.221	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 19.20324	94 02 38.13568			.100	4	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2613080.128	755314.061	1366556.635	16048207.469	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2613080.386	755313.722	1366556.888	16048207.127	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1988474.843	427237.570			.100	4	CLASSICAL SURVEY	1977	16059

Geodetic Data Sheet (Feet)
GSID Station # 103925

OLSEN

04/28/2026
Sheet Help

Mn/DOT Name: OLSEN
NGS Name: OLSEN
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2802 Get Map
NGS Quad / Sta Num : 44094211/
USGS Quad: NORSELAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	26	111 N	27 W	442305.71	940151.16	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2015)
Stamping: OLSEN 2015

5.9 MILES NORTHWEST OF ST. PETER, 5.1 MILES NORTHWEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 71.05, 52.8 FEET NORTH-NORTHEAST OF TRUNK HIGHWAY 22, 19.5 FEET WEST-NORTHWEST OF THE EAST ENTRANCE TO LAKE PRAIRIE TOWN HALL NUMBER 38973, 1.5 FEET EAST-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
976.990	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
976.999	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
976.999			884.526	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
976.999			884.526	.026	2011	GPS - STATIC	2016	HNORS
976.999	.131		884.654	.066	1996	GPS - STATIC	2016	HNORS
977.137	.262		884.683	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.451 12B = -92.454 09 = -92.382 03 = -92.224

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 05.71040	94 01 51.15718	561646.468	295808.701	.020		ADJUSTMENT	2016	GPS3139
44 23 05.71040	94 01 51.15718	561646.468	295808.701	.020	C	GPS - STATIC	2016	HNORS
44 23 05.70984	94 01 51.15787	561646.418	295808.644	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 05.71035	94 01 51.15778	561646.425	295808.696	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2616594.923	832939.852	1371015.824	16125765.602	.020		ADJUSTMENT	2016	GPS3139
2616594.923	832939.852	1371015.824	16125765.602	.020	C	GPS - STATIC	2016	HNORS
2616594.873	832939.795	1371015.773	16125765.546	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2616594.880	832939.847	1371015.780	16125765.597	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/OLSEN-DQ2802-3NE-22JUN2015.jpg	NE	Jun 22, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/OLSEN-DQ2802-2-22JUN2015.jpg		Jun 22, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/OLSEN-DQ2802-1-22JUN2015.jpg		Jun 22, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: OSH MNDT **NGS Name:** OSH

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0679 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	30	110 N	27 W	441804.65	940704.25		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1978	GOOD	Horz=? Vert=YES	NO		FLUSH	MARK IS STEEL PIPE

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	MNDT

Description: (1978) **Stamping:** OSH 1978

4.0 MILES EAST-NORTHEAST OF NICOLLET, 4.7 MILES EAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 1.1 MILES NORTH ON OSHAWA TOWNSHIP ROAD 89, THEN 0.6 MILE NORTHWEST AND WEST CONTINUED ON OSHAWA TOWNSHIP ROAD 89, 105.0 FEET EAST OF A DRIVEWAY SOUTH, 20.8 FEET SOUTH-SOUTHEAST OF A POWER POLE, 14.0 FEET NORTH OF A ROAD, 20.2 FEET SOUTH-SOUTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
984.578	.197		892.511	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
984.184						RECIPROCAL VERTICAL ANGLE	1978	HORZ

Geoid Separations(ft): GEOID18 = -92.339 12B = -92.355 09 = -92.270 03 = -92.145

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 04.64670	94 07 04.24812	538963.705	265266.415	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 04.64273	94 07 04.24341	538964.048	265266.013	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 04.76172	94 07 03.38537			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593815.701	802474.878	1347872.176	16095587.843	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2593816.043	802474.475	1347872.513	16095587.437	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1969210.895	474398.037			.100	2	CLASSICAL SURVEY	1980	16297

Mn/DOT Name: OSHAWA 20 MN103 **NGS Name:** OSHAWA 20

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6594 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	27	110 N	27 W	441842.86	940354.20		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** OSHAWA 20 2001

10.5 MILES NORTH OF NORTH MANKATO, 10.3 MILES NORTH ALONG COUNTY ROAD 13 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 13 IN NORTH MANKATO, THEN 1.8 MILES EAST ALONG 436TH STREET, 32.0 FEET SOUTH OF 436TH STREET, 23.0 FEET WEST OF PRIVATE DRIVEWAY NUMBER 39801, 5.0 FEET EAST OF A POWER POLE WITH A GUY WIRE, 6.0 FEET EAST-SOUTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
981.294	.262		888.853	.197	2011	GPS - RTRN	2021	RTRN2021
981.114	.262		888.663	.197	2011	GPS - RTRN	2013	RTRN2013
			888.998	.019	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			889.083	.021	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
981.461	.131		889.214	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
981.461	.131		889.214	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.444 12B = -92.451 09 = -92.372 03 = -92.241

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.86342	94 03 54.19910	552775.918	269166.077	.131	3	GPS - RTRN	2021	RTRN2021
44 18 42.86366	94 03 54.19874	552775.944	269166.101	.131	3	GPS - RTRN	2013	RTRN2013
44 18 42.86384	94 03 54.19877	552775.942	269166.120	.030		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.86387	94 03 54.19949	552775.890	269166.122	.030		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.86335	94 03 54.19892	552775.931	269166.070	.033	C	ADJUSTMENT	2003	GPS1882
44 18 42.86335	94 03 54.19892	552775.932	269166.069	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607638.981	806329.220	1361738.152	16099272.560	.131	3	GPS - RTRN	2021	RTRN2021
2607639.007	806329.244	1361738.178	16099272.584	.131	3	GPS - RTRN	2013	RTRN2013
2607639.005	806329.262	1361738.176	16099272.602	.030		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607638.953	806329.265	1361738.124	16099272.606	.030		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607638.994	806329.213	1361738.165	16099272.553	.033	C	ADJUSTMENT	2003	GPS1882
2607638.994	806329.213	1361738.164	16099272.553	.033	C	GPS - STATIC	2002	HNICO

OSHAWA 20 MN103

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/OSHAWA_20-DF6594-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/OSHAWA_20-DF6594-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/OSHAWA_20-DF6594-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

OTA MNDT TEMP

Mn/DOT Name: OTA MNDT TEMP
NGS Name: OTA TEMP
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	108 N	27 W	441121.38	940123.83		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	1985	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SURVEY DISK	MNDT

Description: (1985) **Stamping:** OTA 1985

IN THE NORTHWEST PART OF MANKATO, 0.35 MILE SOUTHWEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169, 45.5 FEET NORTHWEST OF WESTBOUND TRUNK HIGHWAY 14, 4.5 FEET NORTHEAST OF AN ENTRANCE, 3.4 FEET SOUTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.775 12B = -92.782 09 = -92.693 03 = -92.575

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 21.38647	94 01 23.83585	563841.687	224487.710	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 11 21.50250	94 01 22.99650			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2618558.559	761619.857	1372109.940	16054444.589	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1993952.874	433543.574			.100	2	CLASSICAL SURVEY	1950	UNK

PETE MNDT

Mn/DOT Name: PETE MNDT **NGS Name:** PETE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2936 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	110 N	26 W	441836.78	935806.81		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARK IS STEEL PIPE

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	MNDT

Description: (1978) **Stamping:** PETE 1978

IN THE SOUTHWEST EDGE OF ST. PETER, 0.1 MILE SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99, AT TRUNK HIGHWAY 169 MILEPOINT 65.2, 151.0 FEET SOUTH-SOUTHWEST OF A LIGHT STANDARD, 148.0 FEET SOUTH-SOUTHWEST OF A CROSSING EXTENDED, 89.3 FEET SOUTH-SOUTHWEST OF THE WEST LEG OF A SPEED SIGN, 27.3 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 9.1 FEET WEST-NORTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
770.340	.197		677.840	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
770.307						RECIPROCAL VERTICAL ANGLE	1979	HORZ

Geoid Separations(ft): GEOID18 = -92.844 12B = -92.844 09 = -92.746 03 = -92.615

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 36.77997	93 58 06.80674	578038.361	268626.734	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 36.77554	93 58 06.80172	578038.727	268626.287	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 36.89344	93 58 05.96084			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2632896.736	805708.020	1386980.229	16098343.699	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2632897.101	805707.571	1386980.589	16098343.246	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2008291.810	477631.104			.100	2	CLASSICAL SURVEY	1980	16297

Mn/DOT Name: PIT **NGS Name:** PIT

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6223 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	35	110 N	30 W	441719.04	942406.12	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 11 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** PIT 2019

3.5 MILES SOUTHEAST OF NEW ULM, 4.7 MILES EAST AND SOUTH ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, AT TRUNK HIGHWAY 14 MILEPOINT 107.5, 59.3 FEET NORTHEAST OF TRUNK HIGHWAY 14, 17.0 FEET SOUTHEAST OF FIELD ENTRANCE, 2.4 FEET SOUTHWEST OF A WITNESS POST.

Station Pair: GUEMMER - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
926.878	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
926.878	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
926.845	.262		834.562	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.293 12B = -92.283 09 = -92.211 03 = -92.060

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 19.04325	94 24 06.12193	464638.155	260641.913	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2519483.593	798093.311	1273507.379	16092112.512	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/PIT-DR6223-3NE-16JUL2019.jpg	NE	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/PIT-DR6223-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/PIT-DR6223-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

PITAL MNDT

Mn/DOT Name: PITAL MNDT **NGS Name:** PITAL

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2938 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	110 N	26 W	441812.39	935825.74		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARK IS STEEL PIPE

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	HORIZONTAL CONTROL DISK	MNDT

Description: (1978) **Stamping:** PITAL 1978

1.5 MILES SOUTHWEST OF ST. PETER, 0.65 MILE SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 64.65, 27.5 FEET EAST-SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 4.9 FEET NORTH-NORTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
766.731	.197		674.231	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
766.698						RECIPROCAL VERTICAL ANGLE	1979	HORZ

Geoid Separations(ft): GEOID18 = -92.844 12B = -92.844 09 = -92.746 03 = -92.615

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 12.38512	93 58 25.74473	576670.066	266151.321	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 12.38080	93 58 25.73965	576670.438	266150.884	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 12.49851	93 58 24.89855			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631520.582	803237.325	1385574.410	16095890.590	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631520.951	803236.888	1385574.774	16095890.149	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2006915.644	475160.421			.100	2	CLASSICAL SURVEY	1980	16297

RAMP MNDT TEMP

Mn/DOT Name: RAMP MNDT TEMP
NGS Name: RAMP TEMP
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	108 N	27 W	441049.36	940318.30		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	1985	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SURVEY DISK	MNDT

Description: (1985) **Stamping:** RAMP 1985

0.98 MILE WEST OF NORTH MANKATO, 350.0 FEET WEST OF LOOKOUT DRIVE, 21.4 FEET EAST-SOUTHEAST OF THE NORTH LEG OF A SIGN, 15.0 FEET SOUTH-SOUTHWEST OF TRUNK HIGHWAY 14 EXIT RAMP TO LOOKOUT DRIVE, 6.8 FEET NORTH-NORTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.624 12B = -92.628 09 = -92.546 03 = -92.431

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 49.36517	94 03 18.30684	555509.122	221221.920	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 49.48170	94 03 17.46390			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2610216.254	758381.436	1363730.981	16051308.660	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1985610.602	430305.212			.100	2	CLASSICAL SURVEY	1950	UNK

Mn/DOT Name: RENNIC **NGS Name:** RENNIC

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0794 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	111 N	32 W	442722.24	944203.50		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2013	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 18 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	TRIANGULATION STATION DISK	NGS

Description: (1935)

Stamping:

5.2 MILES SOUTHEAST OF FAIRFAX, 11.2 MILES NORTH ALONG TRUNK HIGHWAY 4 FROM A CITY BUILDING IN SLEEPY EYE, THEN 0.8 MILE EAST ALONG COUNTY ROAD 5, TO THE SUMMIT OF A GRADE AND THE STATION ON THE RIGHT, 0.21 MILE EAST OF THE JUNCTION OF 480TH STREET AND COUNTY ROAD 5, 30.0 FEET SOUTH OF THE EAST AND WEST COUNTY LINE ROAD. THE STATION WAS RESET IN 1988.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1023.620	.197		932.439	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -91.440 12B = -91.443 09 = -91.371 03 = -91.250

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.24337	94 42 03.50455	386589.390	321999.721	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.23695	94 42 03.49852	386589.824	321999.069	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.37100	94 42 02.54900			.100	2	CLASSICAL SURVEY	1938	03789

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2441645.908	859699.855	1196437.173	16154655.009	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2441646.340	859699.202	1196437.596	16154654.350	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1817043.318	531623.289			.100	2	CLASSICAL SURVEY	1938	03789

RENNIC AZ MK

Mn/DOT Name: RENNIC AZ MK
NGS Name: RENNIC AZ MK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9438 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	111 N	32 W	442722.00	944206.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2006	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	NGS

Description:

Stamping: RENNIC 1935 1988

5.17 MILES SOUTH OF FAIRFAX, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, THEN 0.8 MILE EAST ON COUNTY ROAD 5 (J 27129C), 43.84 FEET SOUTHEAST OF STATION RENNIC, 35.0 FEET NORTH OF THE CENTERLINE OF A GRAVEL ROAD.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.440 12B = -91.443 09 = -91.371 03 = -91.250

RENNIC RESET

Mn/DOT Name: RENNIC RESET
NGS Name: RENNIC RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6607 Get Map
NGS Quad / Sta Num : 44094314/1006
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	111 N	32 W	442722.24	944203.50	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (2006) **Stamping:** RENNIC 1935 1988

5.0 MILES SOUTH OF FAIRFAX, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX TO TRUNK HIGHWAY 4 MILEPOINT 74.30, THEN 0.6 MILE EAST ON COUNTY ROAD 5 (FORT ROAD), THEN 0.15 MILE NORTHEAST ON 711TH AVENUE, THEN 0.2 MILE EAST ON 340TH STREET, 67.0 FEET SOUTH-SOUTHWEST OF A POWER POLE, 65.10 FEET SOUTH-SOUTHWEST OF RENNIC RM 3, 32.69 FEET EAST OF RENNIC RM 4, 32.5 FEET SOUTH OF 340TH STREET, 16.0 FEET WEST OF A FIELD ENTRANCE, 2.9 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1021.291	.016	2/1				VERTICAL ADJUSTMENT	2015	00000851
1021.291	.016	2/1				VERTICAL CONTROL SURVEY	2014	VHECT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1021.218	.262		929.778	.197	2011	GPS - OPUS	2021	GPSBM
1021.274	.262		929.831	.197	2011	GPS - RTRN	2021	RTRN2021
1021.163	.262		929.719	.197	2011	GPS - RTRN	2013	RTRN2013
			929.877	.008	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			929.975	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
1021.356	.131		930.090	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
1021.356	.131		930.090	.066	1996	GPS - STATIC	2007	HSIBL
			929.975	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1021.356	.131		930.090	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1021.356	.131		930.090	.066	1996	GPS - STATIC	2002	HNICO

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1023.587						RECIPROCAL VERTICAL ANGLE	1935	HORZ

Geoid Separations(ft): GEOID18 = -91.440 12B = -91.443 09 = -91.371 03 = -91.250

RENNIC RESET

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.24336	94 42 03.50471	386589.378	321999.720	.131	3	GPS - OPUS	2021	GPSBM
44 27 22.24351	94 42 03.50434	386589.405	321999.735	.131	3	GPS - RTRN	2021	RTRN2021
44 27 22.24314	94 42 03.50315	386589.491	321999.697	.131	3	GPS - RTRN	2013	RTRN2013
44 27 22.24334	94 42 03.50435	386589.404	321999.718	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.24348	94 42 03.50538	386589.330	321999.732	.033	C	ADJUSTMENT	2009	GPS2397-B
44 27 22.24348	94 42 03.50539	386589.329	321999.732	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.24288	94 42 03.50447	386589.395	321999.671	.033	C	ADJUSTMENT	2008	GPS2397
44 27 22.24288	94 42 03.50447	386589.395	321999.671	.033	C	GPS - STATIC	2007	HSIBL
44 27 22.24288	94 42 03.50447	386589.395	321999.671	.033	C	ADJUSTMENT	2003	GPS1882
44 27 22.24288	94 42 03.50447	386589.394	321999.671	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.23695	94 42 03.49852	386589.824	321999.067	.033	C	GPS - STATIC	1991	H1991

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 22.37100	94 42 02.54900			.100	C	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2441645.897	859699.854	1196437.161	16154655.008	.131	3	GPS - OPUS	2021	GPSBM
2441645.923	859699.869	1196437.188	16154655.023	.131	3	GPS - RTRN	2021	RTRN2021
2441646.009	859699.831	1196437.274	16154654.984	.131	3	GPS - RTRN	2013	RTRN2013
2441645.923	859699.852	1196437.187	16154655.006	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2441645.848	859699.867	1196437.113	16154655.021	.033	C	ADJUSTMENT	2009	GPS2397-B
2441645.847	859699.867	1196437.112	16154655.021	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2441645.914	859699.806	1196437.178	16154654.959	.033	C	ADJUSTMENT	2008	GPS2397
2441645.914	859699.806	1196437.178	16154654.959	.033	C	GPS - STATIC	2007	HSIBL
2441645.914	859699.806	1196437.178	16154654.959	.033	C	ADJUSTMENT	2003	GPS1882
2441645.914	859699.806	1196437.178	16154654.959	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2441646.340	859699.202	1196437.597	16154654.350	.033	C	GPS - STATIC	1991	H1991

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1817043.320	531623.290			.100	C	CLASSICAL SURVEY	1950	UNK

RENNIC RESET

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RENNIC_RESET-DF6607-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RENNIC_RESET-DF6607-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RENNIC_RESET-DF6607-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

RENNIC RM 1

Mn/DOT Name: RENNIC RM 1

NGS Name: RENNIC RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9439 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	111 N	32 W	442722.92	944202.70		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2006	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description:

5.17 MILES SOUTH-SOUTHEAST OF FAIRFAX, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, THEN 0.5 MILE EAST ON COUNTY ROAD 5 (OLD FORT ROAD), THEN 0.3 MILE CONTINUED EAST ON COUNTY ROAD 5, 90.28 FEET NORTHEAST OF STATION RENNIC, IN AN EAST-WEST FENCE LINE, 27.0 FEET NORTH OF THE CENTERLINE OF A GRAVEL ROAD.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.440 12B = -91.443 09 = -91.371 03 = -91.250

RENNIC RM 2

Mn/DOT Name: RENNIC RM 2

NGS Name: RENNIC RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO9440 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	111 N	32 W	442722.92	944204.48		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1972	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description:

5.17 MILES SOUTH-SOUTHEAST OF FAIRFAX, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, THEN 0.5 MILE EAST ON COUNTY ROAD 5 (OLD FORT ROAD), THEN 0.3 MILE CONTINUED EAST ON COUNTY ROAD 5, 98.57 FEET NORTHWEST OF STATION RENNIC, IN AN EAST-WEST FENCE LINE, 28.0 FEET NORTH OF THE CENTERLINE OF A GRAVEL ROAD.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.440 12B = -91.443 09 = -91.371 03 = -91.250

RENNIC RM 3

Mn/DOT Name: RENNIC RM 3 **NGS Name:** RENNIC RM 3

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	111 N	32 W	442722.24	944203.50		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094314/1006
USGS Quad: SLEEPY EYE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2013	GOOD	Horz=YES Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description:

5.0 MILES SOUTH OF FAIRFAX, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX TO TRUNK HIGHWAY 4 MILEPOINT 74.30, THEN 0.6 MILE EAST ON COUNTY ROAD 5 (FORT ROAD), THEN 0.15 MILE NORTHEAST ON 711TH AVENUE, THEN 0.2 MILE EAST ON 340TH STREET, 67.0 FEET SOUTH-SOUTHWEST OF A POWER POLE, 65.10 FEET NORTH-NORTHEAST OF STATION RENNIC.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.440 12B = -91.443 09 = -91.371 03 = -91.250

RENNIC RM 4

Mn/DOT Name: RENNIC RM 4 **NGS Name:** RENNIC RM 4

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094314/1006
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	111 N	32 W	442722.24	944203.50		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2013	GOOD	Horz=YES Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description:

5.0 MILES SOUTH OF FAIRFAX, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX TO TRUNK HIGHWAY 4 MILEPOINT 74.30, THEN 0.6 MILE EAST ON COUNTY ROAD 5 (FORT ROAD), THEN 0.15 MILE NORTHEAST ON 711TH AVENUE, THEN 0.2 MILE EAST ON 340TH STREET, 67.0 FEET SOUTH-SOUTHWEST OF A POWER POLE, 32.69 FEET WEST OF STATION RENNIC.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.440 12B = -91.443 09 = -91.371 03 = -91.250

Mn/DOT Name: REST MNDT **NGS Name:** REST

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0693 Get Map
NGS Quad / Sta Num : 44094221/1012
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	108 N	27 W	440954.80	940213.78	2	2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2013	GOOD	Horz=NO Vert=YES	YES		RECESSED 4 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	MNDT

Description: (1985) **Stamping:** REST 1971

IN NORTH MANKATO, 1.45 MILES SOUTH ALONG LOOKOUT DRIVE FROM THE JUNCTION OF LOOKOUT DRIVE AND TRUNK HIGHWAY 14 IN NORTH MANKATO, 64.0 FEET SOUTH OF LOOKOUT DRIVE, 47.3 FEET WEST OF AN 8.0 INCH DIAMETER ELM TREE, 35.2 FEET SOUTH OF A WOOD SIGN (LOOKOUT REST AREA), 5.9 FEET NORTHWEST OF THE NORTHWEST CORNER OF A BRONZE TABLET, 1.7 FEET NORTH OF A STONE WALL. THE MONUMENT IS LOCATED UNDER A 24.0 INCH DIAMETER STORM SEWER MANHOLE COVER.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
900.323	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
900.326	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
900.323	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
900.323	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
900.408	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
900.303	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
900.395	.262		807.656	.197	2011	GPS - RTRN	2013	RTRN2013
900.392	.197		807.954	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.736 12B = -92.739 09 = -92.644 03 = -92.536

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 54.80447	94 02 13.78354	560226.723	215709.299	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 54.80422	94 02 13.78656	560226.503	215709.273	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 54.80094	94 02 13.78322	560226.747	215708.942	3.281		CLASSICAL SURVEY	1987	HBLUE
44 09 54.80094	94 02 13.78322	560226.748	215708.941	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 09 54.91724	94 02 12.94189			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2614915.488	752854.067	1368361.490	16045725.971	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2614915.268	752854.042	1368361.270	16045725.949	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2614915.511	752853.710	1368361.509	16045725.614	3.281		CLASSICAL SURVEY	1987	HBLUE
2614915.511	752853.710	1368361.509	16045725.614	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1990309.891	424777.531			.100	2	CLASSICAL SURVEY	1977	16059

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/REST-PQ0693-3S-07FEB2012.jpg	S	Feb 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/REST-PQ0693-2-07FEB2012.jpg		Feb 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/REST-PQ0693-1-07FEB2012.jpg		Feb 7, 2012

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

REST MNDT RM 1

Mn/DOT Name: REST MNDT RM 1 **NGS Name:** REST RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1697 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	14	108 N	27 W	440954.89	940213.50	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	1986	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
WALL	REFERENCE MARK DISK	MNDT

Description: (1972) **Stamping:** REST NO 1 1971

IN NORTH MANKATO, IN A STONE WALL, 1.45 MILES SOUTHEAST ALONG LOOKOUT DRIVE FROM THE JUNCTION OF LOOKOUT DRIVE AND A BRIDGE OVER TRUNK HIGHWAY 14, 61.7 FEET SOUTH OF LOOKOUT DRIVE, 38.6 FEET SOUTHEAST OF A WOOD SIGN, 16.4 FEET EAST-NORTHEAST OF THE NORTHEAST CORNER OF A METAL PLAQUE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
903.013	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
902.905	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Geoid Separations(ft): GEOID18 = -92.736 12B = -92.739 09 = -92.644 03 = -92.536

*** No Horizontal Positions in the Database ***

REST MNDT RM 2

Mn/DOT Name: REST MNDT RM 2 **NGS Name:** REST RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1696 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	14	108 N	27 W	440955.11	940214.13	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	1986	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1972) **Stamping:** REST NO 2 1971

IN NORTH MANKATO, 1.45 MILES SOUTHEAST ALONG LOOKOUT DRIVE FROM THE JUNCTION OF LOOKOUT DRIVE AND A BRIDGE OVER TRUNK HIGHWAY 14, 44.5 FEET NORTH-NORTHWEST OF THE NORTHWEST CORNER OF A METAL PLAQUE, 28.0 FEET SOUTH OF LOOKOUT DRIVE, 17.4 FEET WEST OF A WOOD SIGN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
901.642	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
901.534	.016	2/1				VERTICAL CONTROL SURVEY	1986	VPASS1

Geoid Separations(ft): GEOID18 = -92.733 12B = -92.736 09 = -92.641 03 = -92.533

*** No Horizontal Positions in the Database ***

RIDGELY 1 MN103

Mn/DOT Name: RIDGELY 1 MN103 **NGS Name:** RIDGELY 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6595 Get Map
NGS Quad / Sta Num : 44094341/
USGS Quad: MORGAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	111 N	33 W	442712.83	944528.61		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2014	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** RIDGELY 1 2001

5.49 MILES SOUTHWEST OF FAIRFAX, 5.9 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, THEN 2.0 MILES WEST ALONG COUNTY ROAD 21, 40.0 FEET SOUTH OF COUNTY ROAD 21, 32.0 FEET EAST OF A FIELD ENTRANCE, 16.0 FEET SOUTH OF A NO PASSING SIGN, 10.0 FEET WEST OF A POWER POLE, 4.0 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
839.418			748.040	.012	2011	HORIZONTAL ADJUSTMENT	2014	GPS3022
839.418			748.040	.012	2011	GPS - STATIC	2014	HHECT
839.427	.131		748.273	.066	1996	GPS - STATIC	2014	HHECT
839.372	.262		747.981	.197	2011	GPS - RTRN	2013	RTRN2013
			748.040	.011	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			748.155	.066	2007	HORIZONTAL ADJUSTMENT	2010	GPS2250-B
			748.155	.020	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
839.434	.131		748.273	.066	1996	HORIZONTAL ADJUSTMENT	2006	GPS2250
839.434	.131		748.273	.066	1996	GPS - STATIC	2006	HBRWN
839.467	.131		748.273	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
839.467	.131		748.273	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.384 12B = -91.391 09 = -91.302 03 = -91.191

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 12.82945	94 45 28.61384	371706.023	321130.054	.010		ADJUSTMENT	2014	GPS3022
44 27 12.82944	94 45 28.61384	371706.023	321130.053	.010	C	GPS - STATIC	2014	HHECT
44 27 12.82782	94 45 28.61406	371706.006	321129.889	.131	3	GPS - RTRN	2013	RTRN2013
44 27 12.82945	94 45 28.61384	371706.023	321130.054	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 12.82966	94 45 28.61491	371705.946	321130.076	.033	C	ADJUSTMENT	2010	GPS2250-B
44 27 12.82966	94 45 28.61491	371705.946	321130.076	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 12.82905	94 45 28.61398	371706.012	321130.014	.033	C	GPS - STATIC	2014	HHECT
44 27 12.82905	94 45 28.61398	371706.012	321130.014	.033	C	ADJUSTMENT	2006	GPS2250
44 27 12.82905	94 45 28.61398	371706.012	321130.014	.033	C	GPS - STATIC	2006	HBRWN
44 27 12.82905	94 45 28.61398	371706.012	321130.014	.033	C	ADJUSTMENT	2003	GPS1882
44 27 12.82905	94 45 28.61398	371706.012	321130.014	.033	C	GPS - STATIC	2002	HNICO

RIDGELY 1 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2426761.636	858879.378	1181545.320	16154016.520	.010		ADJUSTMENT	2014	GPS3022
2426761.636	858879.377	1181545.320	16154016.519	.010	C	GPS - STATIC	2014	HHECT
2426761.619	858879.213	1181545.301	16154016.356	.131	3	GPS - RTRN	2013	RTRN2013
2426761.636	858879.378	1181545.320	16154016.520	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2426761.559	858879.400	1181545.243	16154016.543	.033	C	ADJUSTMENT	2010	GPS2250-B
2426761.559	858879.400	1181545.243	16154016.543	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2426761.626	858879.337	1181545.309	16154016.480	.033	C	GPS - STATIC	2014	HHECT
2426761.626	858879.337	1181545.309	16154016.480	.033	C	ADJUSTMENT	2006	GPS2250
2426761.626	858879.337	1181545.309	16154016.480	.033	C	GPS - STATIC	2006	HBRWN
2426761.626	858879.337	1181545.309	16154016.480	.033	C	ADJUSTMENT	2003	GPS1882
2426761.626	858879.337	1181545.309	16154016.480	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RIDGELY_1-DF6595-3E-24JAN2006.jpg	E	Jan 24, 2006
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RIDGELY_1-DF6595-2-24JAN2006.jpg		Jan 24, 2006
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RIDGELY_1-DF6595-1-24JAN2006.jpg		Jan 24, 2006

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

RIDGELY 22 MN103

Mn/DOT Name: RIDGELY 22 MN103 **NGS Name:** RIDGELY 22

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6596 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	15	111 N	32 W	442458.98	944103.07		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2006	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** RIDGELY 22 2001

7.99 MILES SOUTH-SOUTHEAST OF FAIRFAX, 5.9 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, THEN 2.1 MILES SOUTHEAST ON COUNTY ROAD 21, THEN 0.9 MILE SOUTH ON TOWNSHIP ROAD 50 (701ST AVENUE), 29.0 FEET WEST OF A PRIVATE PROPERTY POST, 16.0 FEET EAST OF 701ST AVENUE, 15.0 FEET SOUTH OF A PROPERTY LINE MARKER, 4.5 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			725.113	.008	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			725.222	.066	2007	HORIZONTAL ADJUSTMENT	2010	GPS2250-B
			725.222	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
816.665	.131		725.336	.066	1996	HORIZONTAL ADJUSTMENT	2006	GPS2250
816.665	.131		725.336	.066	1996	GPS - STATIC	2006	HBRWN
816.763	.131		725.336	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
816.763	.131		725.336	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.601 12B = -91.598 09 = -91.496 03 = -91.411

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 58.98389	94 41 03.07361	390899.138	307468.771	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 58.98397	94 41 03.07458	390899.068	307468.779	.033	C	ADJUSTMENT	2010	GPS2250-B
44 24 58.98397	94 41 03.07458	390899.068	307468.779	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 58.98336	94 41 03.07366	390899.135	307468.717	.033	C	ADJUSTMENT	2006	GPS2250
44 24 58.98336	94 41 03.07366	390899.135	307468.717	.033	C	GPS - STATIC	2006	HBRWN
44 24 58.98336	94 41 03.07366	390899.135	307468.717	.033	C	ADJUSTMENT	2003	GPS1882
44 24 58.98336	94 41 03.07366	390899.133	307468.716	.033	C	GPS - STATIC	2002	HNICO

RIDGELY 22 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2445907.225	845156.594	1200520.159	16140062.245	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2445907.155	845156.603	1200520.088	16140062.254	.033	C	ADJUSTMENT	2010	GPS2250-B
2445907.155	845156.603	1200520.088	16140062.254	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2445907.221	845156.540	1200520.154	16140062.191	.033	C	ADJUSTMENT	2006	GPS2250
2445907.221	845156.540	1200520.154	16140062.191	.033	C	GPS - STATIC	2006	HBRWN
2445907.221	845156.540	1200520.154	16140062.191	.033	C	ADJUSTMENT	2003	GPS1882
2445907.221	845156.541	1200520.154	16140062.191	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RIDGELY_22-DF6596-3E-24JAN2006.jpg	E	Jan 24, 2006
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RIDGELY_22-DF6596-2-24JAN2006.jpg		Jan 24, 2006
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RIDGELY_22-DF6596-1-24JAN2006.jpg		Jan 24, 2006

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: RIV MNDT **NGS Name:** RIV

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0675 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	109 N	27 W	441612.85	940117.19		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1978	GOOD	Horz=? Vert=YES	NO		FLUSH	MARK IS STEEL PIPE

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	SURVEY DISK	MNDT

Description: (1978) **Stamping:** RIV 1978

6.0 MILES NORTH OF NORTH MANKATO, 5.8 MILES NORTH ON TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 169 IN MANKATO, THEN 0.1 MILE SOUTHWEST ON A GRAVEL ROAD (OSHAWA TOWNSHIP ROAD 199), 16.0 FEET EAST-SOUTHEAST OF A GRAVEL ROAD (OSHAWA TOWNSHIP ROAD 199), 4.2 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
818.896	.197		726.498	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
818.896						RECIPROCAL VERTICAL ANGLE	1979	HORZ

Geoid Separations(ft): GEOID18 = -92.707 12B = -92.710 09 = -92.624 03 = -92.497

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 12.85046	94 01 17.19061	564237.899	254005.293	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 12.84664	94 01 17.18466	564238.333	254004.907	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 12.96451	94 01 16.34181			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619050.459	791132.975	1372960.864	16083942.117	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2619050.892	791132.589	1372961.292	16083941.724	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1994445.391	463056.216			.100	2	CLASSICAL SURVEY	1980	16297

ROOT

Mn/DOT Name: ROOT **NGS Name:** ROOT

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1011 Get Map
NGS Quad / Sta Num : 44093344/
USGS Quad: LE SUEUR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	111 N	26 W	442254.88	935752.57	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 19 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** ROOT 2013

4.0 MILES NORTH OF ST. PETER, 2.4 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 70.6, 34.8 FEET EAST OF NORTHBOUND TRUNK HIGHWAY 169, 1.5 FEET WEST OF A WITNESS POST.

Station Pair: MERK MNDT - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
752.692	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
752.692	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
752.692	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
752.722	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
752.725	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
752.725			660.068	.010	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
752.725			660.068	.010	2011	GPS - STATIC	2013	HSUEUR
752.725	.131		660.291	.066	1996	GPS - STATIC	2013	HSUEUR
752.633	.262		659.995	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.638 12B = -92.634 09 = -92.552 03 = -92.395

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 54.88080	93 57 52.57063	578977.566	294768.616	.010		ADJUSTMENT	2014	GPS2977
44 22 54.88080	93 57 52.57063	578977.566	294768.616	.010	C	GPS - STATIC	2013	HSUEUR
44 22 54.88079	93 57 52.57031	578977.589	294768.615	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 54.88030	93 57 52.57090	578977.546	294768.565	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633920.500	831843.720	1388322.461	16124458.360	.010		ADJUSTMENT	2014	GPS2977
2633920.500	831843.720	1388322.461	16124458.360	.010	C	GPS - STATIC	2013	HSUEUR
2633920.523	831843.719	1388322.484	16124458.359	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633920.480	831843.670	1388322.441	16124458.310	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ROOT-DP1011-3E-18SEP2013.jpg	E	Sep 18, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ROOT-DP1011-2-18SEP2013.jpg		Sep 18, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ROOT-DP1011-1-18SEP2013.jpg		Sep 18, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: ROY **NGS Name:** ROY

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3152 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	111 N	30 W	442435.13	942348.41	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** ROY 2015

2.55 MILES SOUTH OF LAFAYETTE, 2.4 MILES SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 66.55, 59.0 FEET WEST-NORTHWEST OF TRUNK HIGHWAY 15, 37.8 FEET SOUTH-SOUTHWEST OF A FIELD ENTRANCE, 0.3 MILE SOUTHWEST OF 561ST AVENUE, 1.5 FEET EAST-SOUTHEAST OF A WITNESS POST.

Station Pair: LENZEN - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1020.861	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1020.864	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1020.864			928.981	.018	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1020.864	.131		929.175	.066	1996	GPS - STATIC	2016	HKLOS
1020.864			928.981	.018	2011	GPS - STATIC	2016	HKLOS
1020.723	.262		928.889	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.870 12B = -91.837 09 = -91.755 03 = -91.650

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 35.13061	94 23 48.41295	465996.211	304803.079	.010		ADJUSTMENT	2016	GPS3141
44 24 35.13061	94 23 48.41295	465996.211	304803.079	.010	C	GPS - STATIC	2016	HKLOS
44 24 35.13027	94 23 48.41248	465996.245	304803.045	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 35.13044	94 23 48.41334	465996.183	304803.062	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2520985.982	842244.712	1275547.447	16136234.696	.010		ADJUSTMENT	2016	GPS3141
2520985.982	842244.712	1275547.447	16136234.696	.010	C	GPS - STATIC	2016	HKLOS
2520986.016	842244.677	1275547.480	16136234.661	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2520985.954	842244.694	1275547.418	16136234.679	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ROY-DQ3152-3NW-24JUN2015.jpg	NW	Jun 24, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ROY-DQ3152-2-24JUN2015.jpg		Jun 24, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ROY-DQ3152-1-24JUN2015.jpg		Jun 24, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Geodetic Data Sheet (Feet)
GSID Station # 103869

RUNGE

04/28/2026
Sheet Help

Mn/DOT Name: RUNGE
NGS Name: RUNGE
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3153 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	111 N	30 W	442709.68	942237.57	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2016	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 24 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** RUNGE 2015

0.9 MILE NORTHEAST OF LAFAYETTE, 0.95 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 70.0, 62.7 FEET NORTHWEST OF TRUNK HIGHWAY 15, 0.3 MILE NORTHEAST OF 15TH AVENUE, 1.5 FEET SOUTHEAST OF A WITNESS POST.

Station Pair: LAF 1 - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.104	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1001.104	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.104			909.303	.017	2011	HORIZONTAL ADJUSTMENT	2016	GPS3141
1001.104	.131		909.493	.066	1996	GPS - STATIC	2016	HKLOS
1001.104			909.303	.017	2011	GPS - STATIC	2016	HKLOS
1000.979	.262		909.214	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.785 12B = -91.765 09 = -91.666 03 = -91.565

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 09.67544	94 22 37.56807	471160.106	320446.876	.010		ADJUSTMENT	2016	GPS3141
44 27 09.67544	94 22 37.56807	471160.106	320446.876	.010	C	GPS - STATIC	2016	HKLOS
44 27 09.67568	94 22 37.56722	471160.168	320446.900	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 27 09.67530	94 22 37.56852	471160.073	320446.862	.033	C	GPS - STATIC	2016	HKLOS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2526200.382	857869.595	1280951.360	16151792.035	.010		ADJUSTMENT	2016	GPS3141
2526200.382	857869.595	1280951.360	16151792.035	.010	C	GPS - STATIC	2016	HKLOS
2526200.444	857869.619	1280951.422	16151792.058	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2526200.349	857869.581	1280951.327	16151792.021	.033	C	GPS - STATIC	2016	HKLOS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RUNGE-DQ3153-3NW-24JUN2015.jpg	NW	Jun 24, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RUNGE-DQ3153-2-24JUN2015.jpg		Jun 24, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RUNGE-DQ3153-1-24JUN2015.jpg		Jun 24, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

RUSH

Mn/DOT Name: RUSH **NGS Name:** RUSH

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1012 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	13	109 N	27 W	441449.98	940140.31	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 69 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** RUSH 2013

5.6 MILES NORTH OF NORTH MANKATO, 3.9 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 59.6, 84.2 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 1.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
787.033	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
787.042	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
787.042	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
787.010	.262		694.297	.197	2011	GPS - OPUS	2019	GPSBM
787.190	.262		694.477	.197	2011	GPS - RTRN	2019	RTRN2019
787.042			694.319	.017	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
787.042			694.319	.017	2011	GPS - STATIC	2013	HSUEUR
787.042	.131		694.529	.066	1996	GPS - STATIC	2013	HSUEUR
786.934	.262		694.221	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.713 12B = -92.716 09 = -92.638 03 = -92.513

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 49.98322	94 01 40.30982	562579.990	245608.445	.131	3	GPS - OPUS	2019	GPSBM
44 14 49.98226	94 01 40.30948	562580.015	245608.348	.131	3	GPS - RTRN	2019	RTRN2019
44 14 49.98296	94 01 40.30942	562580.019	245608.419	.016		ADJUSTMENT	2014	GPS2977
44 14 49.98296	94 01 40.30942	562580.019	245608.419	.016	C	GPS - STATIC	2013	HSUEUR
44 14 49.98314	94 01 40.30919	562580.036	245608.437	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 49.98242	94 01 40.30967	562580.001	245608.364	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617365.500	782742.435	1371174.279	16075574.803	.131	3	GPS - OPUS	2019	GPSBM
2617365.524	782742.338	1371174.303	16075574.705	.131	3	GPS - RTRN	2019	RTRN2019
2617365.529	782742.409	1371174.308	16075574.776	.016		ADJUSTMENT	2014	GPS2977
2617365.529	782742.409	1371174.308	16075574.776	.016	C	GPS - STATIC	2013	HSUEUR
2617365.545	782742.427	1371174.325	16075574.794	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617365.511	782742.354	1371174.289	16075574.721	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RUSH-DP1012-3W-29OCT2019.jpg	W	Oct 29, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RUSH-DP1012-2-29OCT2019.jpg		Oct 29, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/RUSH-DP1012-1-29OCT2019.jpg		Oct 29, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: SAVIDGE **NGS Name:** SAVIDGE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DP1013 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	9	110 N	26 W	442115.47	935716.73	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 11 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2013) **Stamping:** SAVIDGE 2013

1.8 MILES NORTH OF ST. PETER, 0.4 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE NORTH JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 22 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 68.6, 55.3 FEET SOUTHWEST OF NORTHBOUND TRUNK HIGHWAY 169, 26.8 FEET NORTHEAST OF SOUTHBOUND TRUNK HIGHWAY 169, 105.7 FEET NORTHWEST OF OLD MINNESOTA AVENUE EXTENDED, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
773.821	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
773.821	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
773.821	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
773.844	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS
773.844	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
773.847	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
773.804	.262		681.052	.197	2011	GPS - RTRN	2015	RTRN2015
773.847			681.094	.016	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
773.847			681.094	.016	2011	GPS - STATIC	2013	HSUEUR
773.847	.131		681.298	.066	1996	GPS - STATIC	2013	HSUEUR
773.722	.262		680.973	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.749 12B = -92.749 09 = -92.661 03 = -92.513

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 15.47492	93 57 16.73299	581618.547	284711.360	.131	3	GPS - RTRN	2015	RTRN2015
44 21 15.47437	93 57 16.73297	581618.549	284711.304	.016		ADJUSTMENT	2014	GPS2977
44 21 15.47437	93 57 16.73297	581618.549	284711.304	.016	C	GPS - STATIC	2013	HSUEUR
44 21 15.47459	93 57 16.73299	581618.547	284711.327	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 15.47391	93 57 16.73294	581618.551	284711.258	.033	C	GPS - STATIC	2013	HSUEUR

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636528.589	821779.143	1390806.880	16114365.251	.131	3	GPS - RTRN	2015	RTRN2015
2636528.590	821779.087	1390806.881	16114365.196	.016		ADJUSTMENT	2014	GPS2977
2636528.590	821779.087	1390806.881	16114365.196	.016	C	GPS - STATIC	2013	HSUEUR
2636528.589	821779.110	1390806.879	16114365.218	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2636528.592	821779.041	1390806.882	16114365.149	.033	C	GPS - STATIC	2013	HSUEUR

SAVIDGE

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SAVIDGE-DP1013-3NE-18SEP2013.jpg	NE	Sep 18, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SAVIDGE-DP1013-2-18SEP2013.jpg		Sep 18, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SAVIDGE-DP1013-1-18SEP2013.jpg		Sep 18, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

SHORTER

Mn/DOT Name: SHORTER **NGS Name:** SHORTER

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DO9562 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	4	108 N	27 W	441051.62	940417.93	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2011	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2011) **Stamping:** SHORTER 2011

2.0 MILES WEST OF NORTH MANKATO, 0.3 MILE SOUTHWEST ALONG COUNTY ROAD 41 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 41, 41.2 FEET EAST-SOUTHEAST OF COUNTY ROAD 41, 31.7 FEET SOUTH-SOUTHWEST OF A FIELD ENTRANCE, 7.6 FEET EAST-SOUTHEAST OF THE EASTERLY EDGE OF A PAVED TRAIL, 1.7 FEET NORTH-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.348	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
979.345	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
979.345			886.786	.006	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
979.345	.131		886.970	.066	1996	GPS - STATIC	2013	HNMAN
979.345			886.786	.006	2011	GPS - STATIC	2013	HNMAN
979.325	.262		886.832	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.572 12B = -92.575 09 = -92.493 03 = -92.375

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 51.61766	94 04 17.93409	551163.196	221439.283	.010		ADJUSTMENT	2013	GPS2964
44 10 51.61766	94 04 17.93409	551163.196	221439.283	.010	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 51.61809	94 04 17.93402	551163.201	221439.327	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 51.61713	94 04 17.93399	551163.204	221439.230	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2605871.480	758612.887	1359390.422	16051592.854	.010		ADJUSTMENT	2013	GPS2964
2605871.480	758612.887	1359390.422	16051592.854	.010	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2605871.485	758612.930	1359390.428	16051592.897	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2605871.487	758612.833	1359390.429	16051592.800	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SHORTER-DO9562-3E-06SEP2011.jpg	E	Sep 6, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SHORTER-DO9562-2-06SEP2011.jpg		Sep 6, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SHORTER-DO9562-1-06SEP2011.jpg		Sep 6, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

SIB MNDT TEMP

Mn/DOT Name: SIB MNDT TEMP
NGS Name: SIB TEMP
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	14	108 N	27 W	440956.04	940232.89		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	1985	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SURVEY DISK	MNDT

Description: (1985) **Stamping:** SIB 1985

IN NORTH MANKATO, 1.2 MILES SOUTHEAST ALONG LOOKOUT DRIVE FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE, 84.0 FEET SOUTHWEST OF LOOKOUT DRIVE, 15.5 FEET SOUTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.707 12B = -92.710 09 = -92.618 03 = -92.506

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position Latitude	Geodetic Position Longitude	Nicollet County X	Nicollet County Y	Acc	Order	Determination Method	Project Info Year	Project Info Reference
44 09 56.04555	94 02 32.89097	558833.558	215831.137	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position Latitude	Geodetic Position Longitude	X	Y	Acc	Order	Determination Method	Project Info Year	Project Info Reference
44 09 56.16190	94 02 32.04910			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone X	MN State Plane - South Zone Y	UTM - Zone 15 X	UTM - Zone 15 Y	Acc	Order	Determination Method	Project Info Year	Project Info Reference
2613522.856	752980.415	1366970.851	16045869.204	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone X	MN State Plane - South Zone Y	X	Y	Acc	Order	Determination Method	Project Info Year	Project Info Reference
1988917.236	424904.235			.100	2	CLASSICAL SURVEY	1950	UNK

SNOMAN MNDT

Mn/DOT Name: SNOMAN MNDT **NGS Name:** SNOMAN

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DE9660 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441001.27	940041.31	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1999	2013	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1999) **Stamping:** SNOMAN 1999

IN MANKATO, 0.75 MILE NORTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND RIVER FRONT DRIVE, AT TRUNK HIGHWAY 169 MILEPOINT 53.6, 63.5 FEET WEST OF A LIGHT POLE, 54.0 FEET NORTH-NORTHWEST OF THE LOOKOUT DRIVE ENTRANCE RAMP TO NORTHBOUND TRUNK HIGHWAY 169, 39.0 FEET SOUTH-SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 3.0 FEET EAST OF A WITNESS POST. THE STATION WAS RESET.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.458	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
786.455	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.455			693.588	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
786.455	.131		693.785	.066	1996	GPS - STATIC	2013	HNMAN
786.455			693.585	.010	2011	GPS - STATIC	2013	HNMAN
			693.588	.012	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
786.363	.262		693.581	.197	2007	GPS - RTRN	2011	RTRN2011
			693.676	.013	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
786.481	.131		693.804	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1768
786.481	.131		693.804	.066	1996	GPS - STATIC	2002	HMATH

Geoid Separations(ft): GEOID18 = -92.880 12B = -92.884 09 = -92.782 03 = -92.670

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 01.26917	94 00 41.30996	566965.497	216383.821	.016		ADJUSTMENT	2013	GPS2964
44 10 01.26914	94 00 41.30995	566965.498	216383.818	.016	C	GPS - STATIC	2013	HNMAN
44 10 01.26917	94 00 41.30996	566965.497	216383.821	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 01.26784	94 00 41.31015	566965.484	216383.687	.131	3	GPS - RTRN	2011	RTRN2011
44 10 01.26915	94 00 41.31063	566965.448	216383.819	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 01.26878	94 00 41.30996	566965.497	216383.782	.033	C	GPS - STATIC	2013	HNMAN
44 10 01.26878	94 00 41.30996	566965.497	216383.782	.033	C	ADJUSTMENT	2003	GPS1768
44 10 01.26878	94 00 41.30996	566965.497	216383.783	.033	C	GPS - STATIC	2002	HMATH

SNOMAN MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621655.769	753506.665	1375107.477	16046296.419	.016		ADJUSTMENT	2013	GPS2964
2621655.770	753506.662	1375107.478	16046296.416	.016	C	GPS - STATIC	2013	HNMAN
2621655.769	753506.665	1375107.477	16046296.419	.016		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621655.755	753506.531	1375107.461	16046296.285	.131	3	GPS - RTRN	2011	RTRN2011
2621655.720	753506.663	1375107.428	16046296.418	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621655.769	753506.626	1375107.476	16046296.380	.033	C	GPS - STATIC	2013	HNMAN
2621655.769	753506.626	1375107.476	16046296.380	.033	C	ADJUSTMENT	2003	GPS1768
2621655.769	753506.626	1375107.476	16046296.380	.033	C	GPS - STATIC	2002	HMATH

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SNOMAN-DE9660-3S-14JUN2011.jpg	S	Jun 14, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SNOMAN-DE9660-2-14JUN2011.jpg		Jun 14, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SNOMAN-DE9660-1-14JUN2011.jpg		Jun 14, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

SNOMAN MNDT RESET

Mn/DOT Name: SNOMAN MNDT RESET
NGS Name: SNOMAN RESET
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441001.27	940041.31	2	C

NGS ACRN: DP1014 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2022	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2016) **Stamping:** SNOMAN 1999 2013

IN NORTH MANKATO, 0.75 MILE NORTHEAST ALONG TRUNK HIGHWAY 169/ TRUNK HIGHWAY 60 FROM THE JUNCTION OF TRUNK HIGHWAY 169/TRUNK HIGHWAY 60 AND RIVER FRONT DRIVE IN MANKATO, AT TRUNK HIGHWAY 169 MILEPOINT 53.6, 63.5 FEET WEST OF LIGHT POLE NUMBER 6, 54.0 FEET NORTH-NORTHWEST OF AN ENTRANCE RAMP FROM LOOKOUT DRIVE TO NORTHBOUND TRUNK HIGHWAY 169/ TRUNK HIGHWAY 60, 39.0 FEET SOUTH-SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169/ TRUNK HIGHWAY 60, 3.0 FEET EAST OF A WITNESS POST.

Station Pair: RIVFRO MNDT - BLUE EARTH, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.225	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
786.229	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
786.225	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.242	.262		693.361	.197	2011	GPS - RTRN	2022	RTRN2022
786.124	.262		693.243	.197	2011	GPS - OPUS	2021	GPSBM
786.235	.262		693.355	.197	2011	GPS - RTRN	2021	RTRN2021
786.101	.262		693.220	.197	2011	GPS - RTRN	2016	RTRN2016
786.225			693.302	.019	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
786.225			693.302	.019	2011	GPS - STATIC	2013	HSUEUR
786.225	.131		693.499	.066	1996	GPS - STATIC	2013	HSUEUR
786.147	.262		693.266	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.880 12B = -92.884 09 = -92.782 03 = -92.670

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 01.26839	94 00 41.31015	566965.484	216383.742	.131	3	GPS - RTRN	2022	RTRN2022
44 10 01.26862	94 00 41.31040	566965.465	216383.765	.131	3	GPS - OPUS	2021	GPSBM
44 10 01.26855	94 00 41.31012	566965.485	216383.759	.131	3	GPS - RTRN	2021	RTRN2021
44 10 01.26852	94 00 41.31019	566965.481	216383.755	.131	3	GPS - RTRN	2016	RTRN2016
44 10 01.26894	94 00 41.30976	566965.512	216383.798	.013		ADJUSTMENT	2014	GPS2977
44 10 01.26894	94 00 41.30976	566965.512	216383.798	.013	C	GPS - STATIC	2013	HSUEUR
44 10 01.26896	94 00 41.30982	566965.507	216383.800	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 01.26872	94 00 41.30982	566965.507	216383.776	.033	C	GPS - STATIC	2013	HSUEUR

SNOMAN MNDT RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621655.755	753506.586	1375107.462	16046296.341	.131	3	GPS - RTRN	2022	RTRN2022
2621655.737	753506.609	1375107.444	16046296.364	.131	3	GPS - OPUS	2021	GPSBM
2621655.757	753506.603	1375107.465	16046296.357	.131	3	GPS - RTRN	2021	RTRN2021
2621655.752	753506.600	1375107.459	16046296.354	.131	3	GPS - RTRN	2016	RTRN2016
2621655.784	753506.642	1375107.491	16046296.396	.013		ADJUSTMENT	2014	GPS2977
2621655.784	753506.642	1375107.491	16046296.396	.013	C	GPS - STATIC	2013	HSUEUR
2621655.779	753506.644	1375107.487	16046296.398	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621655.779	753506.620	1375107.487	16046296.374	.033	C	GPS - STATIC	2013	HSUEUR

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SNOMAN_RESET-DP1014-3S-23AUG2022.jpg	S	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SNOMAN_RESET-DP1014-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SNOMAN_RESET-DP1014-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: SOTA MNDT **NGS Name:** SOTA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2941 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	31	110 N	26 W	441749.66	935924.59		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARK IS STEEL PIPE

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	SURVEY DISK	MNDT

Description: (1978) **Stamping:** SOTA 1978

2.5 MILES SOUTHWEST OF ST. PETER, 1.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 IN ST. PETER, AT TRUNK HIGHWAY 169 MILEPOINT 63.7, 222.0 FEET NORTH-NORTHEAST OF A STEEL POST, 28.0 FEET SOUTHEAST OF THE FACE OF A ROCK LEDGE, 22.8 FEET NORTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 23.3 FEET SOUTHEAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
766.403	.197		673.952	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
766.403						RECIPROCAL VERTICAL ANGLE	1979	HORZ

Geoid Separations(ft): GEOID18 = -92.779 12B = -92.785 09 = -92.697 03 = -92.562

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 49.66232	93 59 24.59195	572398.190	263835.373	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 49.65815	93 59 24.58651	572398.587	263834.952	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 17 49.77595	93 59 23.74460			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2627241.694	800935.485	1381268.867	16093641.653	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2627242.089	800935.063	1381269.257	16093641.226	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2002636.725	472858.615			.100	2	CLASSICAL SURVEY	1980	16297

ST GEORGE

Mn/DOT Name: ST GEORGE **NGS Name:** ST GEORGE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0777 Get Map
NGS Quad / Sta Num : 44094311/1008
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	111 N	31 W	442333.76	943253.90		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1968	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRIANGULATION STATION DISK	NGS

Description: (1968) **Stamping:** ST GEORGE 1935

7.03 MILES NORTHWEST OF NEW ULM, 5.4 MILES NORTHWEST ON COUNTY ROAD 21 FROM THE JUNCTION OF COUNTY ROAD 21 AND TRUNK HIGHWAY 15 IN NEW ULM, THEN 0.9 MILE NORTH ON COUNTY ROAD 16/COUNTY ROAD 56, THEN 1.3 MILES WEST ON COUNTY ROAD 5, 0.23 MILE EAST-SOUTHEAST OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 5 AND TOWNSHIP ROAD 136, 58.55 FEET SOUTH OF THE CENTERLINE OF COUNTY ROAD 5.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.935	.197		912.442	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.902						RECIPROCAL VERTICAL ANGLE	1935	HORZ

Geoid Separations(ft): GEOID18 = -91.768 12B = -91.745 09 = -91.670 03 = -91.568

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 33.75602	94 32 53.89936	426376.213	298686.640	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 33.74946	94 32 53.89354	426376.633	298685.973	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 33.88300	94 32 52.97400			.100	2	CLASSICAL SURVEY	1938	03789

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2481350.932	836258.902	1235848.430	16130733.852	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2481351.350	836258.235	1235848.839	16130733.179	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1856747.365	508182.616			.100	2	CLASSICAL SURVEY	1938	03789

ST GEORGE AZ MK

Mn/DOT Name: ST GEORGE AZ MK

NGS Name: ST GEORGE AZ MK

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8793 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	111 N	31 W	442334.00	943257.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2001	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	NGS

Description:

6.47 MILES WEST-NORTHWEST OF KLOSSNER, 6.7 MILES WEST-NORTHWEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, 0.19 MILE EAST-SOUTHEAST OF THE JUNCTION OF COUNTY ROAD 5 AND TOWNSHIP ROAD 136, 86.92 FEET SOUTH OF THE CENTERLINE OF COUNTY ROAD 5.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.768 12B = -91.745 09 = -91.670 03 = -91.568

ST GEORGE CATH CH SPIRE

Mn/DOT Name: ST GEORGE CATH CH SPIRE
NGS Name: ST GEORGE CATH CH SPIRE
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0778 Get Map
NGS Quad / Sta Num : 44094311/1014
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	27	111 N	31 W	442321.04	943157.69		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1935	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	NGS

Description: (1935)

Stamping:

5.63 MILES NORTHWEST OF KLOSSNER, 5.8 MILES NORTHWEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, STATION ST GEORGE CATH CH SPIRE IS IN ST. GEORGE, ON THE SOUTH SIDE OF MAIN STREET, 1.04 MILES SOUTHEAST OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 5 AND TOWNSHIP ROAD 136, 76.93 FEET SOUTH OF THE CENTERLINE OF COUNTY ROAD 5.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.794 12B = -91.765 09 = -91.693 03 = -91.591

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 21.03974	94 31 57.68655	430453.898	297385.246	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 21.03307	94 31 57.68051	430454.334	297384.569	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 21.16700	94 31 56.76400			.100	4	CLASSICAL SURVEY	1938	03789

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2485423.835	834944.285	1239904.430	16129369.838	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2485424.269	834943.607	1239904.856	16129369.155	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1860820.185	506868.052			.100	4	CLASSICAL SURVEY	1938	03789

ST GEORGE RM 1

Mn/DOT Name: ST GEORGE RM 1

NGS Name: ST GEORGE RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8794 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	111 N	31 W	442333.00	943253.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2001	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description:

6.49 MILES NORTHWEST OF KLOSSNER, 6.7 MILES NORTHWEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, 0.19 MILE EAST-SOUTHEAST OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 5 AND TOWNSHIP ROAD 136, 85.85 FEET SOUTH OF THE CENTERLINE OF COUNTY ROAD 5.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.771 12B = -91.745 09 = -91.670 03 = -91.568

ST GEORGE RM 2

Mn/DOT Name: ST GEORGE RM 2

NGS Name: ST GEORGE RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8795 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	111 N	31 W	442337.00	943305.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2001	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description:

6.61 MILES NORTHWEST OF KLOSSNER, 6.8 MILES NORTHWEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, 0.07 MILE EAST OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 5 AND TOWNSHIP ROAD 136, 89.16 FEET NORTH OF THE CENTERLINE OF COUNTY ROAD 5.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.765 12B = -91.739 09 = -91.663 03 = -91.565

ST PETER COLLEGE CH SPIRE

Mn/DOT Name: ST PETER COLLEGE CH SPIRE
NGS Name: ST PETER COLLEGE CH SPIRE
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2937 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	110 N	26 W	441920.81	935817.81		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	MNDT

Description: (1978)

Stamping:

IN THE SOUTHWEST PART OF ST. PETER, 0.7 MILE NORTHWEST ALONG COUNTY ROAD 5 (GRACE STREET) FROM THE JUNCTION OF COUNTY ROAD 5 (GRACE STREET) AND TRUNK HIGHWAY 169 IN ST. PETER, THEN 492.0 FEET WEST CONTINUED ON COUNTY ROAD 5, THEN 0.2 MILE WEST-SOUTHWEST ON COUNTY ROAD 5 (OLD FORT ROAD), THEN 0.2 MILE CONTINUED SOUTHWEST ON THE GUSTAVUS ADOLPHUS COLLEGE, THEN 0.2 MILE SOUTHEAST ON COLLEGE AVENUE, ON GUSTAVUS ADOLPHUS COLLEGE CAMPUS.

Station Notes

TORNADIC LOSS, NEW CHURCH SPIRE TO BEGIN ERECTION IN LATE 10/98.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.782 12B = -92.785 09 = -92.693 03 = -92.556

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 20.80516	93 58 17.81055	577222.219	273082.291	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 20.80064	93 58 17.80549	577222.588	273081.834	.328	4	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 20.91911	93 58 16.96423			.100	4	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2632095.122	810165.699	1386233.224	16102809.689	.328	4	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2632095.490	810165.242	1386233.586	16102809.227	.328	4	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2007490.190	482088.788			.100	4	CLASSICAL SURVEY	1980	16297

ST PETER DOD

Mn/DOT Name: ST PETER DOD

NGS Name: ST PETER

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP1709 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	21	110 N	26 W	441909.00	935700.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1874	1931	DESTROYED	Horz=NO Vert=NO	NO			NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
STRUCTURE (MASSIVE)	BOLT	DOD

Description: (1930)

Stamping:

IN ST. PETER, 0.5 MILE SOUTHEAST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169, THEN 0.2 MILE SOUTHWEST ON COUNTY ROAD 102, AT THE SAINT PETER BRIDGE OVER THE MINNESOTA RIVER AND IN THE NORTH END OF THE CAPSTONE ON THE WEST ABUTMENT.

Station Notes

A COPPER BOLT.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
762.154	.007	1/2				VERTICAL ADJUSTMENT	1991	00000025

Geoid Separations(ft): GEOID18 = -92.894 12B = -92.887 09 = -92.795 03 = -92.654

*** No Horizontal Positions in the Database ***

ST PETER MNDT

Mn/DOT Name: ST PETER MNDT
NGS Name: ST PETER
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2939 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	20	110 N	26 W	441842.91	935831.61	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (2002) **Stamping:** ST PETER 1978

AT THE SOUTHWEST EDGE OF ST. PETER, 0.4 MILE WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 99 MILEPOINT 11.95, 127.0 FEET NORTH OF TRUNK HIGHWAY 99, 88.6 FEET NORTHWEST OF HIGH TENSION POLE NUMBER 79, 38.85 FEET SOUTH-SOUTHWEST OF ST PETER MNDT RM 1, 27.71 FEET EAST-SOUTHEAST OF ST PETER MNDT RM 2, 3.3 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
901.865	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
901.865	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
901.865	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
901.878	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
901.875	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
901.885	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
901.888	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
901.701	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
901.940	.262		809.142	.197	2011	GPS - RTRN	2025	RTRN2025
901.914	.262		809.109	.197	2011	GPS - RTRN	2019	RTRN2019
901.786	.262		808.985	.197	2011	GPS - RTRN	2013	RTRN2013
			809.060	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			809.152	.007	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
901.901	.131		809.263	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1860
901.901	.131		809.263	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
901.868	.131		809.263	.066	1996	GPS - STATIC	2002	HSUER
901.901	.131		809.263	.066	1996	GPS - STATIC	2002	HPETE
901.671	.197		809.204	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
901.540						LEVELING	1979	HORZ

Geoid Separations(ft): GEOID18 = -92.802 12B = -92.805 09 = -92.710 03 = -92.579

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.91396	93 58 31.60504	576232.935	269241.465	.131	3	GPS - RTRN	2025	RTRN2025
44 18 42.91406	93 58 31.60490	576232.945	269241.475	.131	3	GPS - RTRN	2019	RTRN2019
44 18 42.91424	93 58 31.60580	576232.880	269241.493	.131	3	GPS - RTRN	2013	RTRN2013
44 18 42.91500	93 58 31.60601	576232.864	269241.570	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.91495	93 58 31.60663	576232.819	269241.565	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.91439	93 58 31.60599	576232.866	269241.508	.033	C	ADJUSTMENT	2003	GPS1860
44 18 42.91439	93 58 31.60599	576232.866	269241.508	.033	C	ADJUSTMENT	2003	GPS1847
44 18 42.91439	93 58 31.60599	576232.866	269241.508	.033	C	GPS - STATIC	2002	HPETE
44 18 42.91439	93 58 31.60599	576232.867	269241.509	.033	C	GPS - STATIC	2002	HSUER
44 18 42.91512	93 58 31.61226	576232.410	269241.581	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 42.91071	93 58 31.60741	576232.764	269241.135	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.02878	93 58 30.76578			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631093.512	806328.527	1385185.160	16098985.985	.131	3	GPS - RTRN	2025	RTRN2025
2631093.522	806328.537	1385185.171	16098985.995	.131	3	GPS - RTRN	2019	RTRN2019
2631093.457	806328.555	1385185.106	16098986.014	.131	3	GPS - RTRN	2013	RTRN2013
2631093.441	806328.632	1385185.091	16098986.091	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631093.396	806328.627	1385185.046	16098986.086	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631093.443	806328.570	1385185.092	16098986.029	.033	C	ADJUSTMENT	2003	GPS1860
2631093.443	806328.570	1385185.092	16098986.029	.033	C	ADJUSTMENT	2003	GPS1847
2631093.443	806328.570	1385185.092	16098986.029	.033	C	GPS - STATIC	2002	HPETE
2631093.443	806328.570	1385185.092	16098986.029	.033	C	GPS - STATIC	2002	HSUER
2631092.987	806328.644	1385184.637	16098986.108	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631093.340	806328.198	1385184.984	16098985.658	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2006488.049	478251.737			.100	2	CLASSICAL SURVEY	1980	16297

ST PETER MNDT

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER-PP2939-3N-18SEP2025.jpg	N	Sep 18, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER-PP2939-2-18SEP2025.jpg		Sep 18, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER-PP2939-1-18SEP2025.jpg		Sep 18, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

ST PETER MNDT RM 1

Mn/DOT Name: ST PETER MNDT RM 1 **NGS Name:** ST PETER RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3107 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	20	110 N	26 W	441843.21	935831.33	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	GOOD	Horz=NO Vert=NO	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1991) **Stamping:** ST PETER NO 1 1978

AT THE SOUTHWEST EDGE OF ST. PETER, 0.4 MILE WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 99 MILEPOINT 11.95, 140.0 FEET NORTH OF TRUNK HIGHWAY 99, 100.0 FEET NORTH-NORTHWEST OF A POWER POLE NUMBER 79, 38.85 FEET NORTH-NORTHEAST OF STATION ST. PETER MNDT, 47.0 FEET EAST-NORTHEAST OF ST. PETER RM 2, 33.6 FEET NORTH-NORTHEAST OF A WITNESS POST.

Station Notes
THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
902.672	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
902.685	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
902.685	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
902.685	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
902.685	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
902.498	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
902.554	.262		809.752	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.802 12B = -92.805 09 = -92.710 03 = -92.579

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.20894	93 58 31.33105	576252.752	269271.408	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631113.423	806358.402	1385205.430	16099015.608	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER_RM_1-AI3107-3NW-27AUG2013.jpg	NW	Aug 27, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER_RM_1-AI3107-2-27AUG2013.jpg		Aug 27, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER_RM_1-AI3107-1-27AUG2013.jpg		Aug 27, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

ST PETER MNDT RM 2

Mn/DOT Name: ST PETER MNDT RM 2 **NGS Name:** ST PETER RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3108 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	20	110 N	26 W	441843.05	935831.93	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2019	GOOD	Horz=NO Vert=NO	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1991) **Stamping:** ST PETER NO 2 1978

AT THE SOUTHWEST EDGE OF ST. PETER, 0.4 MILE WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169, AT TRUNK HIGHWAY 99 MILEPOINT 11.95, 127.0 FEET NORTH OF TRUNK HIGHWAY 99, 27.71 FEET WEST-NORTHWEST OF STATION ST. PETER MNDT, 47.0 FEET WEST-SOUTHWEST OF ST. PETER MNDT RM 1, 26.6 FEET WEST-NORTHWEST OF A WITNESS POST.

Station Notes
THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
905.290	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
905.307	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
905.300	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
905.300	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
905.303	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
905.113	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
905.248	.262		812.446	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.802 12B = -92.805 09 = -92.710 03 = -92.575

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.05297	93 58 31.93444	576208.934	269255.458	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631069.558	806342.596	1385161.386	16099000.341	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER_RM_2-AI3108-3SW-27AUG2013.jpg	SW	Aug 27, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER_RM_2-AI3108-2-27AUG2013.jpg		Aug 27, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/ST_PETER_RM_2-AI3108-1-27AUG2013.jpg		Aug 27, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

ST PETER ST MARYS CATH CH

Mn/DOT Name: ST PETER ST MARYS CATH CH

NGS Name: ST PETER ST MARYS CATH CH

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	110 N	26 W	441924.10	935743.94		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	1981	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SURVEY DISK	MNDT

Description: (1981)

Stamping:

IN THE SOUTHWEST PART OF ST. PETER, 0.3 MILE SOUTHWEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND BROADWAY AVENUE, THEN 0.2 MILE NORTHWEST ON MULBERRY STREET, 184.0 FEET SOUTH ON 4TH STREET, AT THE CORNER OF SOUTH THIRD STREET AND WEST MYRTLE STREET.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.825 12B = -92.825 09 = -92.729 03 = -92.592

ST PETER WATER TANK

Mn/DOT Name: ST PETER WATER TANK
NGS Name: ST PETER WATER TANK
County: NICOLLET, MN (Sheet 1)

NGS ACRN: CJ4734 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	110 N	26 W	441843.03	935830.77		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	1991	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	ELEVATED TANK	MNDT

Description: (1978)
Stamping:

IN THE SOUTHWEST PART OF ST. PETER, ON THE GUSTAVUS ADOLPHUS COLLEGE CAMPUS, 150.0 FEET WEST OF THE NORTH HALL, 0.2 MILE WEST ON BROADWAY AVENUE FROM THE JUNCTION OF BROADWAY AVENUE AND SUNSET DRIVE.

*** No Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.752 12B = -92.752 09 = -92.667 03 = -92.523

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 19 50.68390	93 58 20.74384	576998.144	276107.361	.066	2	CLASSICAL SURVEY	1991	HPETE

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2631880.872	813191.138	1386055.936	16105836.751	.066	2	CLASSICAL SURVEY	1991	HPETE

STA 10 JSA

Mn/DOT Name: STA 10 JSA **NGS Name:** STA 10 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0747 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	109 N	29 W	441618.21	941504.74		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

3.18 MILES WEST OF NICOLLET, 2.5 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.1 MILE NORTH ON TOWNSHIP ROAD 166, 0.11 MILE NORTH-NORTHWEST OF STATION 5202 AC, 8.52 FEET WEST OF THE CENTERLINE OF TOWNSHIP ROAD 166.

Stamping:

Station Notes

THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
995.733	.262		903.555	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.464 12B = -92.477 09 = -92.388 03 = -92.241

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 18.21496	94 15 04.74444	504020.592	254453.178	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 18.21029	94 15 04.73732	504021.111	254452.705	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 18.35450	94 15 03.86171			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2558841.360	791776.633	1312777.828	16085318.587	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2558841.876	791776.159	1312778.339	16085318.106	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1934237.050	463702.271			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: STA 11 JSA **NGS Name:** STA 11 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0689 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	16	110 N	28 W	442002.40	941213.99		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2019	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

4.0 MILES NORTH OF NICOLLET, 1.85 MILES EAST OF THE POOR FAMILY LANDING, 2.5 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 1.6 MILES WEST AND NORTH ON COUNTY ROAD 64, THEN 0.8 MILE EAST AND NORTH ON TOWNSHIP ROAD 175, 0.15 MILE WEST OF THE CENTERLINE OF TOWNSHIP ROAD 175.

Stamping:

Station Notes

THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1015.090	.262		923.131	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.228 12B = -92.234 09 = -92.152 03 = -92.031

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 02.40200	94 12 13.98588	516428.267	277162.625	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 02.39788	94 12 13.97954	516428.729	277162.208	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 02.54316	94 12 13.11128			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2571321.610	814443.021	1325530.576	16107826.537	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2571322.069	814442.603	1325531.031	16107826.113	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1946716.994	486368.648			.100	3	CLASSICAL SURVEY	1982	16847

STA 12 JSA

Mn/DOT Name: STA 12 JSA **NGS Name:** STA 12 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0691 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	110 N	28 W	442122.68	941442.29		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

4.45 MILES SOUTH-SOUTHWEST OF NEW SWEDEN, 1.9 MILES NORTH OF THE POOR FAMILY LANDING, 4.7 MILES SOUTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22 IN NEW SWEDEN, THEN 2.5 MILES WEST ON COUNTY ROAD 5, THEN 0.6 MILE NORTH ON COUNTY ROAD 4, 1.22 MILES NORTHEAST OF STATION 43 GJS, 0.21 MILE WEST OF THE CENTERLINE OF COUNTY ROAD 4.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1010.169	.262		918.286	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.155 12B = -92.155 09 = -92.073 03 = -91.952

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 22.67810	94 14 42.29183	505646.234	285286.782	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 22.67389	94 14 42.28605	505646.654	285286.356	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 22.81917	94 14 41.41330			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2560567.344	822601.338	1314878.805	16116113.642	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2560567.763	822600.911	1314879.218	16116113.210	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1935962.683	494526.849			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: STA 14 JSA **NGS Name:** STA 14 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0739 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	33	111 N	29 W	442250.25	941846.26		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

6.1 MILES SOUTH-SOUTHEAST OF LAFAYETTE, 5.17 MILES SOUTH-SOUTHWEST OF BERNADOTTE, 1.0 MILE SOUTH ON COUNTY ROAD 10 FROM THE JUNCTION OF COUNTY ROAD 10 AND TOWNSHIP ROAD 13 IN BERNADOTTE, THEN 0.5 MILE WEST ON COUNTY ROAD 1, THEN 4.3 MILES SOUTH ON COUNTY ROAD 10, 0.73 MILE SOUTH OF STATION BERNADOTTE 27 MN103, 0.07 MILE WEST OF THE CENTERLINE OF COUNTY ROAD 10.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.683	.262		927.928	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.044 12B = -92.027 09 = -91.952 03 = -91.824

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 50.24719	94 18 46.26118	487924.532	294157.739	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 50.24294	94 18 46.25568	487924.931	294157.308	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 50.38815	94 18 45.37380			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2542876.758	831529.031	1297301.895	16125254.651	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2542877.156	831528.599	1297302.287	16125254.215	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1918272.208	503454.395			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: STA 16 JSA **NGS Name:** STA 16 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0776 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	17	111 N	30 W	442448.51	942740.55		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

4.04 MILES SOUTHWEST OF LAFAYETTE, 1.5 MILES SOUTH ON TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, THEN 2.5 MILES WEST ON COUNTY ROAD 8/COUNTY ROAD 88, THEN 0.4 MILE SOUTH ON COUNTY ROAD 8, THEN 1.0 MILE WEST CONTINUED ON COUNTY ROAD 8, 0.05 MILE EAST OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 8 AND 595TH AVENUE, 26.95 FEET NORTH OF THE CENTERLINE OF COUNTY ROAD 8.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1045.602	.262		954.099	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -91.781 12B = -91.749 09 = -91.673 03 = -91.568

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 48.50898	94 27 40.55139	449147.674	306191.207	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 48.50454	94 27 40.54640	449148.035	306190.757	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 48.64863	94 27 39.64505			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2504144.133	843687.830	1258727.229	16137883.027	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2504144.493	843687.378	1258727.583	16137882.571	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1879539.818	515612.832			.100	3	CLASSICAL SURVEY	1982	16847

STA 17 JSA

Mn/DOT Name: STA 17 JSA **NGS Name:** STA 17 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0779 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	111 N	31 W	442511.78	943008.36		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

5.7 MILES WEST-SOUTHWEST OF LAFAYETTE, 5.4 MILES WEST ALONG COUNTY ROAD 1 FROM THE JUNCTION OF COUNTY ROAD 1 AND TRUNK HIGHWAY 15 IN LAFAYETTE, THEN 0.4 MILE SOUTH CONTINUED ON COUNTY ROAD 1, THEN 1.1 MILES CONTINUED SOUTH ON TOWNSHIP ROAD 138, 0.47 MILE NORTH OF THE CENTER OF THE JUNCTION OF TOWNSHIP ROAD 138 AND TOWNSHIP ROAD 41, 0.48 MILE NORTH OF STATION 36 GJS, 8.89 FEET WEST OF THE CENTERLINE OF TOWNSHIP ROAD 138.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1027.557	.262		936.110	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -91.726 12B = -91.696 09 = -91.621 03 = -91.512

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 11.77986	94 30 08.36030	438425.151	308575.977	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 11.77527	94 30 08.35540	438425.505	308575.511	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 11.91860	94 30 07.44835			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2493430.798	846107.448	1248045.854	16140432.865	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2493431.151	846106.981	1248046.201	16140432.393	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1868826.576	518032.303			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: STA 18 JSA **NGS Name:** STA 18 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0780 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	22	111 N	31 W	442443.11	943157.37		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

7.28 MILES WEST-SOUTHWEST OF LAFAYETTE, 5.4 MILES WEST ALONG COUNTY ROAD 1 FROM THE JUNCTION OF COUNTY ROAD 1 AND TRUNK HIGHWAY 15 IN LAFAYETTE, THEN 0.4 MILE SOUTH CONTINUED ON COUNTY ROAD 1, THEN 1.6 MILES CONTINUED WEST ON COUNTY ROAD 1, THEN 1.6 MILES SOUTH ON COUNTY ROAD 16, 0.44 MILE NORTH OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 16 AND TOWNSHIP ROAD 49, 5.28 FEET WEST OF THE CENTERLINE OF COUNTY ROAD 16.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1019.683	.262		928.240	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -91.722 12B = -91.696 09 = -91.624 03 = -91.516

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 43.11362	94 31 57.37315	430503.528	305696.991	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 43.10885	94 31 57.36810	430503.894	305696.507	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 24 43.25148	94 31 56.45612			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2485500.741	843254.820	1240082.709	16137677.649	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2485501.104	843254.335	1240083.066	16137677.160	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1860896.671	515179.587			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: STA 2 EDJ
NGS Name: STA 2 EDJ
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0748 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	36	110 N	29 W	442210.97	941542.41		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

4.4 MILES SOUTHWEST OF NEW SWEDEN, 1.0 MILE SOUTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 22 IN NEW SWEDEN, THEN 2.0 MILES WEST ON COUNTY ROAD 61, THEN 0.5 MILE SOUTH ON TOWNSHIP ROAD 168, THEN 1.0 MILE WEST ON COUNTY ROAD 15, THEN 1.5 MILES SOUTH ON COUNTY ROAD 4, THEN 0.6 MILE WEST ON TOWNSHIP ROAD 66, 0.45 MILE EAST OF THE CENTER OF THE JUNCTION OF TOWNSHIP ROAD 66 AND TOWNSHIP ROAD 62, 13.33 FEET SOUTH OF THE CENTERLINE OF TOWNSHIP ROAD 66.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.859	.262		896.028	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.109 12B = -92.106 09 = -92.024 03 = -91.906

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.97080	94 15 42.41323	501277.555	290176.777	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.96647	94 15 42.40784	501277.946	290176.339	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 11.11147	94 15 41.53370			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2556215.143	827504.983	1310587.605	16121069.002	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2556215.534	827504.543	1310587.989	16121068.557	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1931610.416	499430.395			.100	3	CLASSICAL SURVEY	1982	16847

STA 3 EDJ

Mn/DOT Name: STA 3 EDJ **NGS Name:** STA 3 EDJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0690 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	110 N	28 W	442210.50	941215.43		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2019	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

5.27 MILES SOUTHWEST OF NORSELAND, 3.6 MILES WEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 52 IN NORSELAND, THEN 3.0 MILES SOUTH ON TRUNK HIGHWAY 111, THEN 0.7 MILE WEST ON TOWNSHIP ROAD 67, 0.20 MILE EAST OF NORTHERN BEND IN TOWNSHIP ROAD 67, 9.57 FEET SOUTH OF THE CENTERLINE OF TOWNSHIP ROAD 67.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.421	.262		902.551	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.145 12B = -92.152 09 = -92.067 03 = -91.949

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.50381	94 12 15.43080	516313.402	290135.632	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.49934	94 12 15.42559	516313.781	290135.180	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.64389	94 12 14.55988			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2571249.013	827414.836	1325616.159	16120795.519	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2571249.390	827414.383	1325616.531	16120795.061	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1946644.087	499340.234			.100	3	CLASSICAL SURVEY	1982	16847

STA 4 EDJ

Mn/DOT Name: STA 4 EDJ
NGS Name: STA 4 EDJ
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0688 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	2	110 N	28 W	442210.93	940912.50		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

3.55 MILES SOUTH-SOUTHWEST OF NORSELAND, 1.8 MILES WEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 52 IN NORSELAND, THEN 3.0 MILES SOUTH ON TOWNSHIP ROAD 181, THEN 0.2 MILE WEST ON TOWNSHIP ROAD 67, 0.35 MILE EAST OF THE CENTER OF THE JUNCTION OF TOWNSHIP ROAD 67 AND TOWNSHIP ROAD 177, 6.15 FEET SOUTH OF THE CENTERLINE OF TOWNSHIP ROAD 67.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
997.701	.262		905.779	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.208 12B = -92.221 09 = -92.136 03 = -92.008

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.93455	94 09 12.49536	529602.333	290193.436	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 10.92990	94 09 12.49031	529602.701	290192.966	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 11.07392	94 09 11.63216			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2584536.502	827429.376	1338899.965	16120647.977	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2584536.868	827428.904	1338900.325	16120647.501	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1959931.394	499354.741			.100	3	CLASSICAL SURVEY	1982	16847

STA 6 EDJ

Mn/DOT Name: STA 6 EDJ
NGS Name: STA 6 EDJ
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	110 N	27 W	442131.92	940329.61		3

NGS ACRN: PQ0681 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

4.7 MILES SOUTH-SOUTHEAST OF NORSELAND, 2.6 MILES SOUTHEAST ON TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 52 IN NORSELAND, THEN 1.6 MILES SOUTH ON COUNTY ROAD 63, THEN 1.4 MILES SOUTHEAST ON COUNTY ROAD 15, 0.16 MILE WEST ALONG A WATER PASSAGE FROM A COUNTY ROAD 15 BRIDGE OVER THE WATER.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
986.218	.262		894.119	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.405 12B = -92.415 09 = -92.336 03 = -92.195

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.91735	94 03 29.61167	554520.383	286290.795	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.91241	94 03 29.60688	554520.732	286290.296	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 32.05563	94 03 28.76275			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2609438.829	823446.238	1363746.139	16116362.283	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2609439.176	823445.737	1363746.480	16116361.779	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1984833.403	495371.602			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: STA 7 EDJ **NGS Name:** STA 7 EDJ

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0680 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	110 N	27 W	442145.58	940047.12		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	2015	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

6.26 MILES SOUTHEAST OF NORSELAND, 5.5 MILES SOUTHEAST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 52 IN NORSELAND, THEN 0.5 MILE SOUTH ON TOWNSHIP ROAD 70, THEN 0.7 MILE CONTINUED SOUTH ON TOWNSHIP ROAD 28, THEN 0.3 MILE EAST ON TOWNSHIP ROAD 28, 0.17 MILE WEST OF A SOUTHERLY BEND IN TOWNSHIP ROAD 28, 83.62 FEET NORTH OF THE CENTERLINE OF TOWNSHIP ROAD 28.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.358	.262		906.160	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.526 12B = -92.529 09 = -92.454 03 = -92.303

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 45.57918	94 00 47.12467	566321.775	287707.503	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 45.57419	94 00 47.12010	566322.109	287706.999	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 45.71713	94 00 46.28277			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621243.382	824824.487	1375563.779	16117596.091	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2621243.714	824823.982	1375564.105	16117595.582	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1996637.778	496749.840			.100	3	CLASSICAL SURVEY	1982	16847

STA 8 JSA

Mn/DOT Name: STA 8 JSA **NGS Name:** STA 8 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0750 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	109 N	29 W	441534.85	941729.82		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

5.14 MILES WEST-SOUTHWEST OF NICOLLET, 1.8 MILES NORTH-NORTHEAST OF CAMBRIA, 4.6 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.4 MILE SOUTH ON COUNTY ROAD 11, 0.30 MILE NORTH OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 11 AND COUNTY ROAD 25, 32.05 FEET EAST OF THE CENTERLINE OF COUNTY ROAD 11.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
983.594	.262		891.383	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.510 12B = -92.519 09 = -92.431 03 = -92.273

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 34.84580	94 17 29.82363	493462.779	250061.810	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 34.84090	94 17 29.81623	493463.317	250061.313	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 34.98482	94 17 28.93486			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548270.398	787420.197	1302156.800	16081091.975	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548270.935	787419.699	1302157.330	16081091.471	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1923666.242	459345.791			.100	3	CLASSICAL SURVEY	1982	16847

Mn/DOT Name: STA 9 JSA **NGS Name:** STA 9 JSA

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0749 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	109 N	29 W	441535.55	941617.40		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1963	1963	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	UNMONUMENTED	USGS

Description:

4.15 MILES WEST-SOUTHWEST OF NICOLLET, 2.56 MILES NORTHEAST OF CAMBRIA, 3.8 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 0.8 MILE SOUTH ON TOWNSHIP ROAD 101, 391.81 FEET SOUTH OF A WEST AND A SOUTH BEND IN TOWNSHIP ROAD 101, 14.40 FEET EAST OF THE CENTERLINE OF TOWNSHIP ROAD 101.

Stamping:

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.654	.262		908.437	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.510 12B = -92.519 09 = -92.434 03 = -92.277

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 35.55027	94 16 17.39743	498733.847	250132.197	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 35.54549	94 16 17.39011	498734.379	250131.713	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 35.68953	94 16 16.51156			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2553541.111	787473.377	1307426.704	16081081.024	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2553541.642	787472.891	1307427.229	16081080.532	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1928936.893	459399.011			.100	3	CLASSICAL SURVEY	1982	16847

STAUDINGER MNDT

Mn/DOT Name: STAUDINGER MNDT
NGS Name: STAUDINGER
County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0743 Get Map
NGS Quad / Sta Num : 44094242/1044
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	29 W	441558.02	941731.33	2	2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1994	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	MNDT

Description: (1994) **Stamping:** STAUDINGER 1970

2.4 MILES EAST OF COURTLAND, 2.55 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 113.35, 134.0 FEET NORTH-NORTHWEST OF A POWER POLE, 126.70 FEET NORTH-NORTHWEST OF STAUDINGER MNDT RM 3, 121.5 FEET SOUTHWEST OF A POWER POLE, 100.4 FEET WEST OF COUNTY ROAD 11 (GRAVEL ROAD), 59.0 FEET NORTH OF TRUNK HIGHWAY 14, 50.36 FEET EAST OF STAUDINGER MNDT RM 4, 43.0 FEET SOUTH OF THE SOUTH RAIL OF A RAILROAD, 2.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.731	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.518	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.721	.197		910.536	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.497 09 = -92.411 03 = -92.254

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 58.02004	94 17 31.33164	493353.752	252408.691	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 58.01454	94 17 31.32674	493354.108	252408.134	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 58.13674	94 17 30.44904			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548169.043	789767.174	1302084.024	16083439.542	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2548169.398	789766.616	1302084.372	16083438.980	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1923564.420	461690.487			.100	2	CLASSICAL SURVEY	1977	16059

STAUDINGER MNDT AZ MK

Mn/DOT Name: STAUDINGER MNDT AZ MK **NGS Name:** STAUDINGER AZ MK

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0741 Get Map
NGS Quad / Sta Num : 44094242/1045
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	109 N	29 W	441607.69	941600.28		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1970	1987	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	MNDT

Description: (2009) **Stamping:** STAUDINGER 1970

3.82 MILES WEST OF NICOLLET, 3.3 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, 0.49 MILE EAST-NORTHEAST OF THE CENTER OF THE JUNCTION OF TRUNK HIGHWAY 14 AND TOWNSHIP ROAD 101, 63.64 FEET NORTH OF THE CENTERLINE OF TRUNK HIGHWAY 14.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1006.560	.197		914.368	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1006.002						RECIPROCAL VERTICAL ANGLE	1970	HORZ

Geoid Separations(ft): GEOID18 = -92.480 12B = -92.487 09 = -92.405 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.68660	94 16 00.27584	499979.928	253386.597	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.68142	94 16 00.27103	499980.278	253386.073	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.80262	94 15 59.39607			.100	2	CLASSICAL SURVEY	1977	16059

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2554797.670	790723.350	1308722.453	16084314.804	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2554798.018	790722.824	1308722.795	16084314.275	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1930193.025	462646.605			.100	2	CLASSICAL SURVEY	1977	16059

STAUDINGER MNDT RM 1

Mn/DOT Name: STAUDINGER MNDT RM 1 **NGS Name:** STAUDINGER RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8811 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	29 W	441601.00	941728.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: STAUDINGER NO 1 1970

2.74 MILES EAST OF COURTLAND, 2.8 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 89.0 FEET SOUTH ON COUNTY ROAD 11, 124.1 FEET NORTHEAST OF THE STATION, 44.3 FEET NORTH OF THE NORTH RAIL OF THE TRACKS, 28.0 FEET WEST OF THE CENTERLINE OF THE ROAD, 3.0 FEET SOUTH OF A POWER POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.500 09 = -92.411 03 = -92.257

STAUDINGER MNDT RM 2

Mn/DOT Name: STAUDINGER MNDT RM 2 **NGS Name:** STAUDINGER RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8812 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	29 W	441559.00	941726.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	REFERENCE MARK DISK	MNDT

Description:

Stamping: STAUDINGER NO 2 1970

2.74 MILES EAST OF COURTLAND, 2.8 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, THEN 89.0 FEET SOUTH ON COUNTY ROAD 11, 65.0 FEET NORTH OF THE CENTERLINE OF TRUNK HIGHWAY 14, 27.5 FEET EAST OF THE CENTERLINE OF A GRAVEL ROAD, 3.0 FEET SOUTH OF A TELEPHONE POLE.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.500 09 = -92.411 03 = -92.257

STAUDINGER MNDT RM 3

Mn/DOT Name: STAUDINGER MNDT RM 3 **NGS Name:** STAUDINGER RM 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1735 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	29 W	441557.00	941731.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)

Disk Type
REFERENCE MARK DISK

Mon. Agency
MNDT

Description: (1987) **Stamping:** STAUDINGER NO 3 1987

2.4 MILES EAST OF COURTLAND, 2.55 MILES EAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 113.5, 145.7 FEET SOUTHEAST OF STAUDINGER MNDT RM 4, 126.7 FEET SOUTH-SOUTHEAST OF STATION STAUDINGER, 75.7 FEET WEST OF COUNTY ROAD 11, 68.0 FEET SOUTH OF TRUNK HIGHWAY 14, 25.3 FEET WEST OF A POWER POLE, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes
THE STATION TIES FALL IN THE BOTTOM OF A DITCH.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.390	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.176	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.500 09 = -92.411 03 = -92.257

*** No Horizontal Positions in the Database ***

STAUDINGER MNDT RM 4

Mn/DOT Name: STAUDINGER MNDT RM 4 **NGS Name:** STAUDINGER RM 4

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1734 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	109 N	29 W	441558.00	941731.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	REFERENCE MARK DISK	MNDT

Description: (1987) **Stamping:** STAUDINGER NO 4 1987

2.4 MILES EAST OF COURTLAND, 2.55 MILES EAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND COUNTY ROAD 24 IN COURTLAND, AT TRUNK HIGHWAY 14 MILEPOINT 113.35, 159.0 FEET NORTHWEST OF A POWER POLE, 158.5 FEET WEST OF COUNTY ROAD 11, 152.8 FEET SOUTHWEST OF A POWER POLE, 147.7 FEET NORTHEAST OF STAUDINGER MNDT RM 3, 65.3 FEET NORTH OF TRUNK HIGHWAY 14, 50.4 FEET WEST OF A WITNESS POST, 50.36 FEET WEST OF STATION STAUDINGER MNDT.

Station Notes
THE TIES FALL IN A DITCH BOTTOM.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.799	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.586	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.497 09 = -92.411 03 = -92.254

*** No Horizontal Positions in the Database ***

STAUDINGER MNDT RM 5

Mn/DOT Name: STAUDINGER MNDT RM 5 **NGS Name:** STAUDINGER RM 5

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1738 Get Map
NGS Quad / Sta Num : 44094242/
USGS Quad: COURTLAND

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	109 N	29 W	441607.40	941601.30	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1987	2011	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 23 FT)	REFERENCE MARK DISK	MNDT

Description: (1987) **Stamping:** STAUDINGER RM 5 1970 1987

4.0 MILES WEST OF NICOLLET, 3.2 MILES WEST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 14 MILEPOINT 114.6, 51.4 FEET NORTH OF TRUNK HIGHWAY 14, 39.6 FEET EAST OF A TELEPHONE CABLE MARKER POST, 21.5 FEET EAST OF A FARM ENTRANCE, 1.0 FOOT WEST OF A WITNESS POST.

Station Notes
USED THE REAL TIME REFERENCE NETWORK (RTRN). NO STATION WAS FOUND. FALLS IN A DITCH BOTTOM.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.244	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.041	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM

Geoid Separations(ft): GEOID18 = -92.480 12B = -92.490 09 = -92.405 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 07.44482	94 16 01.29036	499906.103	253362.111	3.281		CLASSICAL SURVEY	1991	H1991

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2554723.774	790699.109	1308648.283	16084291.469	3.281		CLASSICAL SURVEY	1991	H1991

SWAN LAKE LUTHER CH STEEPLE

Mn/DOT Name: SWAN LAKE LUTHER CH STEEPLE
NGS Name: SWAN LAKE LUTHER CH STEEPLE
County: NICOLLET, MN (Sheet 1)

NGS ACRN: CO8857 Get Map
NGS Quad / Sta Num : 44094241/
USGS Quad: BERNADOTTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	111 N	29 W	442310.08	941501.54		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
	2010	UNKNOWN	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	UNK

Description:

8.3 MILES SOUTHEAST OF LAFAYETTE, 7.2 MILES EAST ALONG 350TH STREET/COUNTY ROAD 1 FROM THE JUNCTION OF 350TH STREET/COUNTY ROAD 1 AND TRUNK HIGHWAY 15 IN LAFAYETTE, THEN 3.5 MILES SOUTH ON COUNTY ROAD 4.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.077 12B = -92.073 09 = -91.988 03 = -91.873

Geodetic Data Sheet (Feet)
GSID Station # 109722

SWEDEN

04/28/2026
Sheet Help

Mn/DOT Name: SWEDEN
NGS Name: SWEDEN
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	111 N	28 W	442328.87	941124.37	2	3

NGS ACRN: DR6205 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 24 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2019) **Stamping:** SWEDEN 2019

8.5 MILES NORTH OF NICOLLET, 8.0 MILES NORTH ALONG TRUNK HIGHWAY 111 FROM THE JUNCTION OF TRUNK HIGHWAY 111 AND TRUNK HIGHWAY 99 IN NICOLLET, AT TRUNK HIGHWAY 111 MILEPOINT 8.3, 36.4 FEET EAST OF TRUNK HIGHWAY 111, 21.4 FEET NORTH OF A FIELD ENTRANCE, 3.0 FEET SOUTH OF A WITNESS POST.

Station Pair: 5208 I - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.495	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
987.495	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.429	.262		895.293	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.129 12B = -92.136 09 = -92.044 03 = -91.926

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 28.86611	94 11 24.36966	520015.254	298074.701	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574976.260	835340.867	1329439.037	16128673.804	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SWEDEN-DR6205-3E-16JUL2019.jpg	E	Jul 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SWEDEN-DR6205-2-16JUL2019.jpg		Jul 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/SWEDEN-DR6205-1-16JUL2019.jpg		Jul 16, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TAXI

Mn/DOT Name: TAXI **NGS Name:** TAXI

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DR6210 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	4	109 N	28 W	441617.42	941126.50	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2019	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 27 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2019) **Stamping:** TAXI 2019

IN NICOLLET, AT THE JUNCTION OF TRUNK HIGHWAY 111 AND 7TH STREET IN NICOLLET, 56.7 FEET WEST OF TRUNK HIGHWAY 111, 140.2 FEET SOUTH OF 7TH STREET, 343.2 FEET NORTH OF 8TH STREET, 2.1 FEET NORTH OF A WITNESS POST.

Station Pair: DERMY - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.955	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
993.955	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.024	.262		901.593	.197	2011	GPS - RTRN	2019	RTRN2019

Geoid Separations(ft): GEOID18 = -92.418 12B = -92.431 09 = -92.349 03 = -92. 211

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 16 17.41633	94 11 26.50345	519900.661	254381.115	.131	3	GPS - RTRN	2019	RTRN2019

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2574719.412	791652.835	1328649.811	16085001.577	.131	3	GPS - RTRN	2019	RTRN2019

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TAXI-DR6210-3W-15JUL2019.jpg	W	Jul 15, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TAXI-DR6210-2-15JUL2019.jpg		Jul 15, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TAXI-DR6210-1-15JUL2019.jpg		Jul 15, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TBM 3 L3076

Mn/DOT Name: TBM 3 L3076 **NGS Name:** TBM 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: BK8212 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	34	111 N	30 W	442302.00	942455.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	1934	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	UNMONUMENTED	NGS

Description:

1.32 MILES NORTH-NORTHEAST OF KLOSSNER, 1.3 MILES NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 5 IN KLOSSNER, 0.17 MILE NORTHEAST OF STATION 5204 D, 27.27 FEET EAST OF THE CENTERLINE OF TRUNK HIGHWAY 15.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.926 12B = -91.893 09 = -91.821 03 = -91.706

TBM 73 L144-1

Mn/DOT Name: TBM 73 L144-1 **NGS Name:** TBM 73

County: NICOLLET, MN (Sheet 1)

NGS ACRN: BU5476 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	110 N	26 W	442057.00	935609.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1930	1930	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	UNMONUMENTED	NGS

Description:

4.0 MILES EAST OF TRAVERSE, 1.0 MILE EAST ALONG COUNTY ROAD 15 FROM THE JUNCTION OF COUNTY ROAD 15 AND COUNTY ROAD 40 IN TRAVERSE, THEN 1.7 MILES SOUTH AND EAST CONTINUED ON COUNTY ROAD 15, THEN 0.4 MILE SOUTH ON A SUNRISE DRIVE, THEN 1.0 MILE SOUTHEAST ON BROADWAY AVENUE, THEN 0.9 MILE CONTINUED SOUTHEAST ON TRUNK HIGHWAY 99, THEN 3.5 MILES NORTH ON COUNTY ROAD 23, THEN 0.6 MILE SOUTHWEST ON MINIMUM MICE, 0.21 MILE SOUTH-SOUTHWEST OF THE SOUTHERNMOST CURVE OF MINIMUM MICE, 0.15 MILE WEST OF A RAILROAD TRACKS AT 0.21 MILE SOUTHEAST ALONG THE RAILROAD TRACKS FROM A MINIMUM MICE BRIDGE OVER THE TRACKS.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.834 12B = -92.834 09 = -92.733 03 = -92.588

TBM 89 L144-1

Mn/DOT Name: TBM 89 L144-1

NGS Name: TBM 89

County: NICOLLET, MN (Sheet 1)

NGS ACRN: BU5492 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	108 N	26 W	441042.00	940011.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1930	1930	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	UNMONUMENTED	NGS

Description:

1.61 MILES EAST OF NORTH MANKATO, 1.12 MILES SOUTHEAST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, 0.1 MILE EAST OF CENTERLINE OF NORTHBOUND TRUNK HIGHWAY 169, 0.06 MILE NORTHEAST OF STATION VALVE MN013.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.910 12B = -92.913 09 = -92.815 03 = -92.700

TBM 90 L144-1

Mn/DOT Name: TBM 90 L144-1

NGS Name: TBM 90

County: NICOLLET, MN (Sheet 1)

NGS ACRN: BU5493 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	108 N	27 W	441021.00	940043.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1930	1930	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	UNMONUMENTED	NGS

Description:

1.3 MILES SOUTHEAST OF NORTH MANKATO, 1.3 MILES SOUTH ON TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, THEN 0.5 MILE WEST ON BELGRADE AVENUE, THEN 0.1 MILE NORTH ON CROSS STREET, THEN 210.0 FEET WEST ON PAGE AVENUE, 495.15 FEET NORTHEAST OF THE CENTER OF THE JUNCTION OF PAGE AVENUE AND CENTER STREET, 118.51 FEET NORTH OF THE CENTERLINE OF PAGE AVENUE.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.871 12B = -92.874 09 = -92.772 03 = -92.661

TBM 91 L144-1

Mn/DOT Name: TBM 91 L144-1

NGS Name: TBM 91

County: NICOLLET, MN (Sheet 1)

NGS ACRN: BU5494 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	108 N	27 W	441002.00	940112.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1930	1930	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	UNMONUMENTED	NGS

Description:

1.22 MILES SOUTHEAST OF NORTH MANKATO, 1.9 MILES SOUTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, THEN 0.9 MILE ON LOOKOUT DRIVE, 49.52 FEET NORTH OF THE CENTERLINE OF LOOKOUT DRIVE EASTBOUND EXIT TO SOUTHBOUND TRUNK HIGHWAY 169, 35.24 FEET SOUTH OF THE CENTERLINE OF WESTBOUND LOOKOUT DRIVE.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.831 12B = -92.831 09 = -92.733 03 = -92.621

TBM 93 L144-1

Mn/DOT Name: TBM 93 L144-1

NGS Name: TBM 93

County: NICOLLET, MN (Sheet 1)

NGS ACRN: BU5496 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	108 N	27 W	440923.00	940249.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1930	1930	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	UNMONUMENTED	NGS

Description:

2.5 MILES SOUTHWEST OF MANKATO, 4.1 MILES SOUTH AND WEST ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN MANKATO, 0.24 MILE NORTH-NORTHWEST OF STATION 0713 C, 0.25 MILE NORTH OF THE CENTERLINE OF WESTBOUND TRUNK HIGHWAY 169, 0.19 MILE NORTH OF THE RAILROAD TRACKS.

Stamping:

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.707 12B = -92.707 09 = -92.618 03 = -92.503

TRAV MNDT

Mn/DOT Name: TRAV MNDT **NGS Name:** TRAV

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PP2943 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	110 N	26 W	441841.63	935959.04	2	2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	HORIZONTAL CONTROL DISK	MNDT

Description: (1991) **Stamping:** TRAV 1978

1.5 MILES WEST-SOUTHWEST OF ST. PETER, 1.65 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 10.7, 71.0 FEET SOUTH OF TRUNK HIGHWAY 99, 20.78 FEET EAST-NORTHEAST OF TRAV MNDT RM 2, 1.0 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.507	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1001.510	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1001.550	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
1001.556	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.366	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.419	.262		908.735	.197	2011	GPS - RTRN	2025	RTRN2025
1001.412	.262		908.722	.197	2011	GPS - RTRN	2019	RTRN2019
1001.504	.262		908.817	.197	2011	GPS - RTRN	2013	RTRN2013
1000.982	.197		908.614	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1001.310						RECIPROCAL VERTICAL ANGLE	1979	HORZ

Geoid Separations(ft): GEOID18 = -92.680 12B = -92.687 09 = -92.608 03 = -92.467

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 41.62574	93 59 59.04138	569875.540	269089.436	.131	3	GPS - RTRN	2025	RTRN2025
44 18 41.62609	93 59 59.04141	569875.538	269089.472	.131	3	GPS - RTRN	2019	RTRN2019
44 18 41.62495	93 59 59.04132	569875.545	269089.356	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 41.62471	93 59 59.04838	569875.032	269089.330	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 41.62034	93 59 59.04347	569875.390	269088.889	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 41.73872	93 59 58.19933			.100	2	CLASSICAL SURVEY	1980	16297

TRAV MNDT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624736.365	806197.117	1378828.481	16098932.111	.131	3	GPS - RTRN	2025	RTRN2025
2624736.362	806197.153	1378828.479	16098932.147	.131	3	GPS - RTRN	2019	RTRN2019
2624736.369	806197.037	1378828.484	16098932.031	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624735.856	806197.013	1378827.971	16098932.013	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624736.212	806196.570	1378828.322	16098931.567	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2000130.924	478120.124			.100	2	CLASSICAL SURVEY	1980	16297

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAV-PP2943-3S-22SEP2025.jpg	S	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAV-PP2943-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAV-PP2943-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TRAV MNDT RM 1

Mn/DOT Name: TRAV MNDT RM 1 **NGS Name:** TRAV RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AE3585 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	110 N	26 W	441841.52	935958.79	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1991) **Stamping:** TRAV NO 1

1.5 MILES WEST-SOUTHWEST OF ST. PETER, 1.65 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 10.7, 82.0 FEET SOUTH OF TRUNK HIGHWAY 99, 21.47 FEET EAST-SOUTHEAST OF STATION TRAV MNDT, 20.1 FEET EAST-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1003.121	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
1003.125	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.938	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Geoid Separations(ft): GEOID18 = -92.690 12B = -92.697 09 = -92.615 03 = -92.477

*** No Horizontal Positions in the Database ***

TRAV MNDT RM 2

Mn/DOT Name: TRAV MNDT RM 2 **NGS Name:** TRAV RM 2

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AI3118 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	110 N	26 W	441841.57	935959.32	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	MNDT

Description: (1991) **Stamping:** TRAV NO 2 1978

1.5 MILES WEST-SOUTHWEST OF ST. PETER, 1.65 MILES WEST ALONG TRUNK HIGHWAY 99 FROM THE JUNCTION OF TRUNK HIGHWAY 99 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 99 MILEPOINT 10.7, 77.5 FEET SOUTH OF TRUNK HIGHWAY 99, 20.78 FEET WEST-SOUTHWEST OF STATION TRAV MNDT, 1.0 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.623	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
1002.626	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
1002.665	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
1002.669	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.482	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1002.547	.262		909.864	.197	2011	GPS - RTRN	2025	RTRN2025
1002.541	.262		909.851	.197	2011	GPS - RTRN	2019	RTRN2019
1002.636	.262		909.946	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.680 12B = -92.687 09 = -92.608 03 = -92.467

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 41.56698	93 59 59.31594	569855.596	269083.421	.131	3	GPS - RTRN	2025	RTRN2025
44 18 41.56720	93 59 59.31531	569855.641	269083.443	.131	3	GPS - RTRN	2019	RTRN2019
44 18 41.56711	93 59 59.31578	569855.607	269083.434	.131	3	GPS - RTRN	2013	RTRN2013

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624716.402	806191.167	1378808.452	16098926.407	.131	3	GPS - RTRN	2025	RTRN2025
2624716.448	806191.189	1378808.499	16098926.428	.131	3	GPS - RTRN	2019	RTRN2019
2624716.414	806191.180	1378808.464	16098926.420	.131	3	GPS - RTRN	2013	RTRN2013

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAV_RM_2-AI3118-3S-22SEP2025.jpg	S	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAV_RM_2-AI3118-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAV_RM_2-AI3118-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TRAVERSE 10 MN103

Mn/DOT Name: TRAVERSE 10 MN103 **NGS Name:** TRAVERSE 10

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6597 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	110 N	27 W	442118.93	940356.46		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** TRAVERSE 10 2001

5.0 MILES NORTHWEST OF ST. PETER, 4.2 MILES WEST ALONG COUNTY ROAD 15 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 15 IN ST. PETER, THEN 0.6 MILE WEST ON 403RD AVENUE, 155.0 FEET WEST OF A POWER POLE, 32.0 FEET SOUTH OF 403RD AVENUE, 18.0 FEET EAST OF A FIELD ENTRANCE, 5.0 FEET NORTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
987.875	.262		895.484	.197	2011	GPS - OPUS	2021	GPSBM
987.810	.262		895.418	.197	2011	GPS - OPUS	2021	GPSBM
988.095	.262		895.704	.197	2011	GPS - RTRN	2021	RTRN2021
987.875	.262		895.480	.197	2011	GPS - RTRN	2015	RTRN2015
			895.517	.016	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			895.602	.018	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
987.925	.131		895.736	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
987.925	.131		895.736	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.388 12B = -92.398 09 = -92.319 03 = -92.182

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 18.93348	94 03 56.45578	552573.208	284971.045	.131	3	GPS - OPUS	2021	GPSBM
44 21 18.93384	94 03 56.45534	552573.240	284971.081	.131	3	GPS - OPUS	2021	GPSBM
44 21 18.93359	94 03 56.45378	552573.353	284971.056	.131	3	GPS - RTRN	2021	RTRN2021
44 21 18.93326	94 03 56.45719	552573.105	284971.022	.131	3	GPS - RTRN	2015	RTRN2015
44 21 18.93386	94 03 56.45526	552573.245	284971.083	.023		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 18.93390	94 03 56.45599	552573.192	284971.087	.026		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 18.93338	94 03 56.45541	552573.234	284971.034	.033	C	ADJUSTMENT	2003	GPS1882
44 21 18.93338	94 03 56.45541	552573.235	284971.034	.033	C	GPS - STATIC	2002	HNICO

TRAVERSE 10 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607487.606	822132.969	1361779.505	16115073.224	.131	3	GPS - OPUS	2021	GPSBM
2607487.638	822133.005	1361779.537	16115073.260	.131	3	GPS - OPUS	2021	GPSBM
2607487.751	822132.979	1361779.650	16115073.233	.131	3	GPS - RTRN	2021	RTRN2021
2607487.503	822132.946	1361779.402	16115073.203	.131	3	GPS - RTRN	2015	RTRN2015
2607487.643	822133.007	1361779.543	16115073.262	.023		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607487.590	822133.011	1361779.490	16115073.266	.026		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2607487.632	822132.958	1361779.532	16115073.213	.033	C	ADJUSTMENT	2003	GPS1882
2607487.632	822132.958	1361779.532	16115073.213	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_10-DF6597-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_10-DF6597-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_10-DF6597-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TRAVERSE 6 MN103

Mn/DOT Name: TRAVERSE 6 MN103 **NGS Name:** TRAVERSE 6

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6598 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	110 N	26 W	442131.36	940008.81		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2015	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** TRAVERSE 6 2001

0.8 MILE NORTH OF ST. PETER, 2.0 MILES WEST AND NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, TO TRUNK HIGHWAY 22 MILEPOINT 67.95, THEN 0.9 MILE WEST AND NORTH ALONG 410TH STREET, 173.0 FEET EAST OF A CURVE SIGN, 38.0 FEET SOUTH OF 410TH STREET, 18.0 FEET EAST OF A FIELD ENTRANCE, 3.0 FEET NORTH OF A WITNESS POST. THE SET DATE AND STAMPED DATE ARE NOT THE SAME FOR UNKNOWN CAUSES.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
978.997	.262		886.429	.197	2011	GPS - RTRN	2015	RTRN2015
979.089			886.504	.014	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
979.089			886.504	.014	2011	GPS - STATIC	2013	HSUEUR
979.096	.131		886.714	.066	1996	GPS - STATIC	2013	HSUEUR
978.948	.262		886.383	.197	2011	GPS - RTRN	2013	RTRN2013
			886.504	.014	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			886.596	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
979.066	.131		886.714	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
979.066	.131		886.714	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.565 12B = -92.569 09 = -92.493 03 = -92.339

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.36039	94 00 08.81076	569109.955	286276.307	.131	3	GPS - RTRN	2015	RTRN2015
44 21 31.36139	94 00 08.81062	569109.965	286276.408	.013		ADJUSTMENT	2014	GPS2977
44 21 31.36141	94 00 08.81050	569109.973	286276.410	.013	C	GPS - STATIC	2013	HSUEUR
44 21 31.36095	94 00 08.80993	569110.015	286276.364	.131	3	GPS - RTRN	2013	RTRN2013
44 21 31.36139	94 00 08.81062	569109.965	286276.408	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.36141	94 00 08.81139	569109.909	286276.410	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 31.36087	94 00 08.81083	569109.950	286276.356	.033	C	GPS - STATIC	2013	HSUEUR
44 21 31.36087	94 00 08.81083	569109.950	286276.356	.033	C	ADJUSTMENT	2003	GPS1882
44 21 31.36087	94 00 08.81083	569109.951	286276.357	.033	C	GPS - STATIC	2002	HNICO

TRAVERSE 6 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624026.582	823384.426	1378328.519	16116122.536	.131	3	GPS - RTRN	2015	RTRN2015
2624026.592	823384.527	1378328.531	16116122.637	.013		ADJUSTMENT	2014	GPS2977
2624026.601	823384.529	1378328.539	16116122.639	.013	C	GPS - STATIC	2013	HSUEUR
2624026.642	823384.483	1378328.580	16116122.592	.131	3	GPS - RTRN	2013	RTRN2013
2624026.592	823384.527	1378328.531	16116122.637	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624026.536	823384.529	1378328.475	16116122.640	.016		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2624026.577	823384.475	1378328.515	16116122.585	.033	C	GPS - STATIC	2013	HSUEUR
2624026.577	823384.475	1378328.515	16116122.585	.033	C	ADJUSTMENT	2003	GPS1882
2624026.577	823384.475	1378328.515	16116122.585	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_6-DF6598-3S-28AUG2013.jpg	S	Aug 28, 2013
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_6-DF6598-2-28AUG2013.jpg		Aug 28, 2013
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_6-DF6598-1-28AUG2013.jpg		Aug 28, 2013

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TRAVERSE 7 MN103

Mn/DOT Name: TRAVERSE 7 MN103 **NGS Name:** TRAVERSE 7

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	110 N	27 W	442119.71	940746.84		C

NGS ACRN: DF6599 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** TRAVERSE 7 2001

4.0 MILES SOUTH OF NORSELAND, 4.0 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND COUNTY ROAD 3 IN NORSELAND, 51.0 FEET SOUTHWEST OF A TWIN ASH TREE, 47.0 FEET EAST OF COUNTY ROAD 3, 29.0 FEET SOUTH OF A PRIVATE DRIVEWAY, 6.0 FEET SOUTHWEST OF A POWER POLE, 5.0 FEET WEST-SOUTHWEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.985	.262		902.728	.197	2011	GPS - OPUS	2021	GPSBM
995.136	.262		902.879	.197	2011	GPS - OPUS	2021	GPSBM
995.096	.262		902.839	.197	2011	GPS - RTRN	2021	RTRN2021
			902.859	.013	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			902.944	.015	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
995.142	.131		903.072	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
995.142	.131		903.072	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -92.257 12B = -92.267 09 = -92.185 03 = -92.057

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 19.70521	94 07 46.83929	535833.276	285014.809	.131	3	GPS - OPUS	2021	GPSBM
44 21 19.70521	94 07 46.83950	535833.261	285014.809	.131	3	GPS - OPUS	2021	GPSBM
44 21 19.70524	94 07 46.83840	535833.341	285014.813	.131	3	GPS - RTRN	2021	RTRN2021
44 21 19.70552	94 07 46.83900	535833.297	285014.841	.020		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 19.70553	94 07 46.83972	535833.245	285014.842	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 19.70498	94 07 46.83916	535833.286	285014.786	.033	C	ADJUSTMENT	2003	GPS1882
44 21 19.70498	94 07 46.83916	535833.285	285014.784	.033	C	GPS - STATIC	2002	HNICO

TRAVERSE 7 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590749.843	822231.115	1345048.054	16115375.479	.131	3	GPS - OPUS	2021	GPSBM
2590749.828	822231.115	1345048.039	16115375.479	.131	3	GPS - OPUS	2021	GPSBM
2590749.908	822231.118	1345048.119	16115375.481	.131	3	GPS - RTRN	2021	RTRN2021
2590749.865	822231.146	1345048.076	16115375.510	.020		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590749.812	822231.148	1345048.023	16115375.512	.020		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2590749.853	822231.092	1345048.063	16115375.456	.033	C	ADJUSTMENT	2003	GPS1882
2590749.853	822231.092	1345048.064	16115375.456	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_7-DF6599-3E-12MAY2021.jpg	E	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_7-DF6599-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TRAVERSE_7-DF6599-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TT 15 MF

Mn/DOT Name: TT 15 MF

NGS Name: TT 15 MF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094231/
USGS Quad: CAMBRIA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	109 N	29 W	441337.00	941512.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	1965	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1965) **Stamping:** TT 15 MF 1950

3.5 MILES WEST AND 3.5 MILES SOUTH OF NICOLLET, 2.5 MILES WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 3.0 MILES SOUTH ON TOWNSHIP ROAD 166, THEN 39.0 FEET WEST ON TOWNSHIP ROAD 109, 70.0 FEET EAST OF A PRIVATE TEE-ROAD SOUTH, 25.0 FEET SOUTH OF AN EAST-WEST ROAD, 1.0 FOOT NORTH AND 1.0 FOOT WEST OF A TELEPHONE POLE OPPOSITE OF A TEE-ROAD NORTH.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
829.116	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.592 12B = -92.608 09 = -92.516 03 = -92.352

*** No Horizontal Positions in the Database ***

TT 16 MF USGS

Mn/DOT Name: TT 16 MF USGS **NGS Name:** TT 16 MF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0692 Get Map
NGS Quad / Sta Num : 44094213/
USGS Quad: NICOLLET

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	18	109 N	28 W	441507.63	941443.36		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	1950	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRAVERSE STATION DISK	USGS

Description: (1950) **Stamping:** TT 16 MF 1950

1.5 MILES SOUTH AND 3.5 MILES WEST OF NICOLLET, 2.5 MILES WEST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 99 IN NICOLLET, THEN 1.2 MILES SOUTH ON TOWNSHIP ROAD 166, THEN 0.3 MILE EAST ON COUNTY ROAD 25, 48.0 FEET EAST OF A PRIVATE TEE-ROAD SOUTH, 31.0 FEET SOUTH OF COUNTY ROAD 25, 1.0 FOOT NORTH OF A FENCE POST.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.594	.033	3				VERTICAL CONTROL SURVEY	1963	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1000.654	.262		908.420	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -92.526 12B = -92.539 09 = -92.454 03 = -92.296

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 07.63281	94 14 43.35657	505578.700	247305.692	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 07.62815	94 14 43.34903	505579.249	247305.221	.131	3	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 07.77227	94 14 42.47358			.100	3	CLASSICAL SURVEY	1982	16847

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2560375.990	784624.862	1314225.010	16078150.165	.131	3	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2560376.538	784624.388	1314225.552	16078149.685	.131	3	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1935771.765	456550.563			.100	3	CLASSICAL SURVEY	1982	16847

TT 17 MF

Mn/DOT Name: TT 17 MF

NGS Name: TT 17 MF

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	16	109 N	28 W	441452.00	941218.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	1974	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** TT 17 MF 1950

2.0 MILES SOUTH AND 1.5 MILES WEST OF NICOLLET, 1.5 MILES SOUTH ON COUNTY ROAD 23 FROM THE JUNCTION OF COUNTY ROAD 23 AND TRUNK HIGHWAY 14 IN NICOLLET, THEN 0.7 MILE WEST ON COUNTY ROAD 25, 0.2 MILE EAST OF A TEE-ROAD NORTH, 34.0 FEET SOUTH OF COUNTY ROAD 25, 2.0 FEET SOUTH AND 1.0 FOOT EAST OF A FENCE CORNER.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.370	.033	3				VERTICAL CONTROL SURVEY	1957	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.506 12B = -92.516 09 = -92.441 03 = -92.293

*** No Horizontal Positions in the Database ***

TT 18 MF

Mn/DOT Name: TT 18 MF

NGS Name: TT 18 MF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	109 N	28 W	441423.00	941040.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	1974	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** TT 18 MF 1950

2.0 MILES SOUTH OF NICOLLET, 1.3 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 0.6 MILE SOUTH ON TOWNSHIP ROAD 179, THEN 0.4 MILE WEST ON TOWNSHIP ROAD 108, THEN 0.7 MILE SOUTH ON TOWNSHIP ROAD 176, THEN 82.0 FEET EAST ON TOWNSHIP ROAD 110, 25.0 FEET WEST OF A ROAD AT A TEE-ROAD EAST, 1.0 FOOT NORTH AND 1.0 FOOT WEST OF A FENCE CORNER.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.153	.033	3				VERTICAL CONTROL SURVEY	1957	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.493 12B = -92.500 09 = -92.428 03 = -92.287

*** No Horizontal Positions in the Database ***

Mn/DOT Name: TT 19 MF **NGS Name:** TT 19 MF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ1759 Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	13	109 N	28 W	441423.50	940807.20	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	2011	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	USGS

Description: (1987) **Stamping:** TT 19 MF 1950

3.2 MILES SOUTHEAST OF NICOLLET, 3.2 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 0.4 MILE EAST ON 490TH STREET, 88.5 FEET NORTHWEST OF A POWER POLE, 32.5 FEET NORTH OF 490TH STREET, 1.0 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.295	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
998.295	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN
998.295	.016	2/1				VERTICAL ADJUSTMENT	1995	00000135

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.157	.016	2/1				VERTICAL CONTROL SURVEY	1987	VNULM
998.102	.033	3				VERTICAL CONTROL SURVEY	1957	USGS-VERT

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
998.295			905.861	.008	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
998.295	.131		906.048	.066	1996	GPS - STATIC	2013	HNMAN
998.295			905.861	.008	2011	GPS - STATIC	2013	HNMAN
998.239	.262		905.858	.197	2007	GPS - RTRN	2011	RTRN2011

Geoid Separations(ft): GEOID18 = -92.447 12B = -92.464 09 = -92.382 03 = -92.250

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 23.50398	94 08 07.20476	534420.808	242863.551	.013		ADJUSTMENT	2013	GPS2964
44 14 23.50398	94 08 07.20476	534420.808	242863.551	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 23.50439	94 08 07.20651	534420.681	242863.592	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 14 23.50342	94 08 07.20444	534420.832	242863.494	.033	C	GPS - STATIC	2013	HNMAN

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2589200.477	780089.294	1342985.823	16073265.273	.013		ADJUSTMENT	2013	GPS2964
2589200.477	780089.294	1342985.823	16073265.273	.013	C	GPS - STATIC	2013	HNMAN

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2589200.350	780089.336	1342985.696	16073265.317	.131	3	GPS - RTRN	2011	RTRN2011

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2589200.500	780089.237	1342985.846	16073265.216	.033	C	GPS - STATIC	2013	HNMAN

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TT_19_MF-PQ1759-3N-15JUN2011.jpg	N	Jun 15, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TT_19_MF-PQ1759-2-15JUN2011.jpg		Jun 15, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TT_19_MF-PQ1759-1-15JUN2011.jpg		Jun 15, 2011

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

TT 20 MF

Mn/DOT Name: TT 20 MF **NGS Name:** TT 20 MF

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	109 N	27 W	441423.00	940523.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	1963	POOR	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** TT 20 MF 1950

2.0 MILES SOUTH AND 4.5 MILES EAST OF NICOLLET, 4.2 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 0.2 MILE NORTH ON BELGRADE TOWNSHIP ROAD 112, THEN 1.0 MILE EAST CONTINUED ON BELGRADE TOWNSHIP ROAD 112, THEN 0.5 MILE NORTH ON COUNTY ROAD 17, THEN 1.0 EAST ON BELGRADE TOWNSHIP ROAD 111, 30.0 FEET EAST OF A TEE-ROAD NORTH, 21.0 FEET SOUTH OF A ROAD.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.571	.033	3				VERTICAL CONTROL SURVEY	1957	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.490 12B = -92.497 09 = -92.418 03 = -92.296

*** No Horizontal Positions in the Database ***

TT 21 MF

Mn/DOT Name: TT 21 MF **NGS Name:** TT 21 MF

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	15	109 N	27 W	441437.00	940337.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	USGS

Description: (1974) **Stamping:** TT 21 MF 1950

6.82 MILES SOUTHEAST OF NICOLLET, 4.2 MILES SOUTHEAST ALONG TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 0.2 MILE NORTH ON BELGRADE TOWNSHIP ROAD 112, THEN 3.6 MILES EAST CONTINUED ON BELGRADE TOWNSHIP ROAD 112, THEN 0.8 MILE NORTH ON COUNTY ROAD 13, 0.29 MILE SOUTHEAST OF THE CENTER OF THE JUNCTION OF COUNTY ROAD 13 AND TOWNSHIP ROAD 107, 85.12 FEET EAST OF THE CENTERLINE OF COUNTY ROAD 13.

Station Notes

8-25-2009 THE POSITION IS IN A DITCH BOTTOM.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
992.252	.033	3				VERTICAL CONTROL SURVEY	1957	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.569 12B = -92.569 09 = -92.497 03 = -92.378

*** No Horizontal Positions in the Database ***

TT 22 MF

Mn/DOT Name: TT 22 MF

NGS Name: TT 22 MF

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	109 N	27 W	441405.00	940143.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** TT 22 MF 1950

8.4 MILES SOUTHEAST OF NICOLLET, 3.1 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 IN NORTH MANKATO, THEN 492.0 FEET WEST ALONG 492ND STREET, THEN 338.0 FEET SOUTH ALONG BELGRADE TOWNSHIP ROAD 193, 800.0 FEET SOUTH OF A TEE-ROAD WEST, 115.0 FEET NORTH OF A PRIVATE TEE-ROAD EAST, 28.0 FEET EAST OF A ROAD.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
786.271	.033	3				VERTICAL CONTROL SURVEY	1966	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.726 12B = -92.723 09 = -92.644 03 = -92.523

*** No Horizontal Positions in the Database ***

TT 23 MF

Mn/DOT Name: TT 23 MF

NGS Name: TT 23 MF

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	109 N	28 W	441318.00	940845.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	1974	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1974) **Stamping:** TT 23 MF 1950

3.0 MILES SOUTH AND 2.0 MILES EAST OF NICOLLET, 4.9 MILES SOUTHEAST ON TRUNK HIGHWAY 14 FROM THE JUNCTION OF TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 111 IN NICOLLET, THEN 1.2 MILES WEST ON COUNTY ROAD 25, 29.0 FEET SOUTH AND 135.0 FEET EAST OF THE JUNCTION OF COUNTY ROAD 25 (EAST-WEST) AND COUNTY ROAD 66 (SOUTH), 3.0 FEET WEST OF A TELEPHONE POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
996.140	.033	3				VERTICAL CONTROL SURVEY	1957	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.480 12B = -92.497 09 = -92.415 03 = -92.273

*** No Horizontal Positions in the Database ***

TT 24 MF

Mn/DOT Name: TT 24 MF

NGS Name: TT 24 MF

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094224/
USGS Quad: JUDSON

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	108 N	28 W	441146.00	940842.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1950	1950	GOOD	Horz=? Vert=?	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1950) **Stamping:** TT 24 MF 1950

5.5 MILES SOUTH AND 2.0 MILES EAST OF NICOLLET, 4.9 MILES SOUTH ON COUNTY ROAD 23 FROM THE JUNCTION OF COUNTY ROAD 23 AND TRUNK HIGHWAY 14 IN NICOLLET, THEN 2.4 MILES EAST ON COUNTY ROAD 71, 500.0 FEET NORTH OF THE MINNESOTA RIVER, 37.0 FEET SOUTH OF A ROAD, 37.0 FEET EAST OF A FENCE SOUTH, 22.0 FEET EAST OF A GATE.

Station Notes
NEW ROAD

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
801.426	.033	3				VERTICAL CONTROL SURVEY	1957	USGS-VERT

Geoid Separations(ft): GEOID18 = -92.516 12B = -92.539 09 = -92.441 03 = -92.296

*** No Horizontal Positions in the Database ***

TT 50 KW

Mn/DOT Name: TT 50 KW
NGS Name: TT 50 KW
County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	111 N	32 W	442719.00	944407.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	2013	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	USGS

Description: (1963) **Stamping:** TT 50 KW 1951

ON THE WEST SIDE OF FORT RIDGELY STATE PARK, 6.5 MILES SOUTH ALONG TRUNK HIGHWAY 4 FROM THE JUNCTION OF TRUNK HIGHWAY 4 AND TRUNK HIGHWAY 19 IN FAIRFAX, THEN 1.2 MILES NORTHWEST ALONG COUNTY ROAD 30, 360.0 FEET SOUTH AND 24.0 FEET EAST OF A CURVE IN A GRAVEL ROAD FROM NORTH TO WEST, 9.0 FEET SOUTH AND 4.0 FEET EAST OF A POWER POLE.

Leveling-Derived Orthometric Heights (Feet)

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
993.974	.033	3				VERTICAL CONTROL SURVEY	1966	USGS-VERT

Geoid Separations(ft): GEOID18 = -91.407 12B = -91.414 09 = -91.332 03 = -91.217

*** No Horizontal Positions in the Database ***

TUCKY MNDT

Mn/DOT Name: TUCKY MNDT **NGS Name:** TUCKY

County: NICOLLET, MN (Sheet 1)

NGS ACRN: AC4906 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	21	110 N	26 W	441843.95	935800.41	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1990	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (<10 FT) (DEPTH 8 FT)	HORIZONTAL CONTROL DISK	MNDT

Description: (2008) **Stamping:** TUCKY 1990

AT THE SOUTH EDGE OF ST. PETER, AT THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 99 WEST, AT TRUNK HIGHWAY 169 MILEPOINT 65.45, 90.0 FEET NORTHEAST OF TRUNK HIGHWAY 99 EXTENDED, 45.5 FEET SOUTHEAST OF NORTHBOUND TRUNK HIGHWAY 169, 41.2 FEET NORTHEAST OF A LIGHT POLE, 1.0 FOOT NORTHWEST OF A WITNESS POST.

Station Pair: LUCKY - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
774.821	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
774.821	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
774.821	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
774.821	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
774.821	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
774.838	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
774.838	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
774.838	.016	2/1				VERTICAL ADJUSTMENT	2000	00000360
774.838	.016	2/1				VERTICAL CONTROL SURVEY	1996	VPETE

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
774.647	.016	2/1				VERTICAL CONTROL SURVEY	1991	VPETE

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
774.966	.262		682.125	.197	2011	GPS - RTRN	2025	RTRN2025
774.798	.262		681.954	.197	2011	GPS - RTRN	2019	RTRN2019
774.838			681.970	.007	2011	HORIZONTAL ADJUSTMENT	2018	GPS3119
774.838	.131		682.161	.066	1996	GPS - STATIC	2017	HMNCORS07
774.838			681.970	.007	2011	GPS - STATIC	2017	HMNPH
774.838			681.970	.006	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
774.838			681.970	.006	2011	GPS - STATIC	2016	HNORS
774.838	.131		682.161	.066	1996	GPS - STATIC	2016	HNORS
774.706	.262		681.862	.197	2011	GPS - RTRN	2015	RTRN2015
774.838			681.970	.006	2011	HORIZONTAL ADJUSTMENT	2014	GPS2977
774.838			681.970	.006	2011	GPS - STATIC	2013	HSUEUR
774.838	.131		682.161	.066	1996	GPS - STATIC	2013	HSUEUR
774.953	.262		682.108	.197	2011	GPS - RTRN	2013	RTRN2013
			681.970	.005	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			682.066	.049	2007	HORIZONTAL ADJUSTMENT	2009	GPS2259-B
			682.066	.007	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
774.834	.098		682.161	.049	1996	HORIZONTAL ADJUSTMENT	2006	GPS2259
774.834	.098		682.161	.049	1996	HORIZONTAL ADJUSTMENT	2006	GPS2243
774.834	.098		682.161	.049	1996	GPS - STATIC	2006	HJADA
774.834	.098		682.161	.049	1996	GPS - STATIC	2005	GPS2036
774.834	.131		682.161	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1911
774.834	.131		682.161	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
774.834	.131		682.161	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1860
774.834	.131		682.161	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
774.834	.131		682.161	.066	1996	GPS - STATIC	2003	HSUEU
774.834	.131		682.161	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1832
774.834	.131		682.161	.066	1996	GPS - STATIC	2002	HNICO
774.834	.131		682.161	.066	1996	HORIZONTAL ADJUSTMENT	2002	GPS1747
774.834	.131		682.161	.066	1996	GPS - STATIC	2002	HLESR
774.834	.131		682.161	.066	1996	GPS - STATIC	2002	HPETE
774.834	.131		682.161	.066	1996	GPS - STATIC	2002	HSUER
774.834	.131		682.161	.066	1996	GPS - STATIC	2002	HKATO
774.766	.098		682.161	.049	1996	GPS - STATIC	1997	GPS805-B

Geoid Separations(ft): GEOID18 = -92.844 12B = -92.844 09 = -92.746 03 = -92.615

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.94729	93 58 00.41432	578500.544	269354.259	.131	3	GPS - RTRN	2025	RTRN2025
44 18 43.94774	93 58 00.41402	578500.566	269354.305	.131	3	GPS - RTRN	2019	RTRN2019
44 18 43.94726	93 58 00.41438	578500.540	269354.256	.007		ADJUSTMENT	2018	GPS3119
44 18 43.94726	93 58 00.41438	578500.540	269354.256	.007	C	GPS - STATIC	2017	HMNPH
44 18 43.94726	93 58 00.41438	578500.540	269354.256	.003		ADJUSTMENT	2016	GPS3139
44 18 43.94726	93 58 00.41438	578500.540	269354.256	.003	C	GPS - STATIC	2016	HNORS
44 18 43.94679	93 58 00.41470	578500.517	269354.209	.131	3	GPS - RTRN	2015	RTRN2015
44 18 43.94726	93 58 00.41438	578500.540	269354.256	.003		ADJUSTMENT	2014	GPS2977
44 18 43.94725	93 58 00.41438	578500.540	269354.255	.003	C	GPS - STATIC	2013	HSUEUR
44 18 43.94724	93 58 00.41453	578500.529	269354.254	.131	3	GPS - RTRN	2013	RTRN2013
44 18 43.94726	93 58 00.41438	578500.540	269354.256	.003		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.94728	93 58 00.41512	578500.486	269354.258	.016	B	ADJUSTMENT	2009	GPS2259-B
44 18 43.94731	93 58 00.41517	578500.482	269354.261	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2017	HMNCORS07
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2016	HNORS
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2013	HSUEUR
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.016	B	ADJUSTMENT	2006	GPS2259
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.016	B	ADJUSTMENT	2006	GPS2243
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.016	B	GPS - STATIC	2006	HJADA
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.016	B	GPS - STATIC	2005	GPS2036
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	ADJUSTMENT	2003	GPS1911
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	ADJUSTMENT	2003	GPS1882
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	ADJUSTMENT	2003	GPS1860
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	ADJUSTMENT	2003	GPS1847
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2003	HSUEU
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	ADJUSTMENT	2003	GPS1832
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2002	HNICO
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	ADJUSTMENT	2002	GPS1747
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2002	HLESR
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2002	HPETE
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2002	HSUER
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.033	C	GPS - STATIC	2002	HKATO
44 18 43.94682	93 58 00.41460	578500.524	269354.212	.016	B	GPS - STATIC	1997	GPS805-B

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 18 43.94329	93 58 00.41579	578500.437	269353.854	.033	C	GPS - STATIC	1991	HPETE

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633361.222	806433.963	1387453.412	16099063.741	.131	3	GPS - RTRN	2025	RTRN2025
2633361.244	806434.009	1387453.434	16099063.787	.131	3	GPS - RTRN	2019	RTRN2019
2633361.218	806433.960	1387453.408	16099063.738	.007		ADJUSTMENT	2018	GPS3119
2633361.218	806433.960	1387453.408	16099063.738	.007	C	GPS - STATIC	2017	HMNPH
2633361.218	806433.960	1387453.408	16099063.738	.003		ADJUSTMENT	2016	GPS3139
2633361.218	806433.960	1387453.408	16099063.738	.003	C	GPS - STATIC	2016	HNORS
2633361.195	806433.912	1387453.384	16099063.691	.131	3	GPS - RTRN	2015	RTRN2015
2633361.218	806433.960	1387453.408	16099063.738	.003		ADJUSTMENT	2014	GPS2977
2633361.218	806433.959	1387453.408	16099063.737	.003	C	GPS - STATIC	2013	HSUEUR
2633361.207	806433.958	1387453.397	16099063.737	.131	3	GPS - RTRN	2013	RTRN2013
2633361.218	806433.960	1387453.408	16099063.738	.003		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633361.164	806433.962	1387453.354	16099063.741	.016	B	ADJUSTMENT	2009	GPS2259-B
2633361.160	806433.965	1387453.350	16099063.744	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2017	HMNCORS07
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2016	HNORS
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2013	HSUEUR
2633361.202	806433.915	1387453.391	16099063.694	.016	B	ADJUSTMENT	2006	GPS2259
2633361.202	806433.915	1387453.391	16099063.694	.016	B	ADJUSTMENT	2006	GPS2243
2633361.202	806433.915	1387453.391	16099063.694	.016	B	GPS - STATIC	2006	HJADA
2633361.202	806433.915	1387453.391	16099063.694	.016	B	GPS - STATIC	2005	GPS2036
2633361.202	806433.915	1387453.391	16099063.694	.033	C	ADJUSTMENT	2003	GPS1911
2633361.202	806433.915	1387453.391	16099063.694	.033	C	ADJUSTMENT	2003	GPS1882
2633361.202	806433.915	1387453.391	16099063.694	.033	C	ADJUSTMENT	2003	GPS1860
2633361.202	806433.915	1387453.391	16099063.694	.033	C	ADJUSTMENT	2003	GPS1847
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2003	HSUEU
2633361.202	806433.915	1387453.391	16099063.694	.033	C	ADJUSTMENT	2003	GPS1832
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2002	HNICO
2633361.202	806433.915	1387453.391	16099063.694	.033	C	ADJUSTMENT	2002	GPS1747
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2002	HLESR
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2002	HPETE
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2002	HSUER
2633361.202	806433.915	1387453.391	16099063.694	.033	C	GPS - STATIC	2002	HKATO
2633361.202	806433.915	1387453.391	16099063.694	.016	B	GPS - STATIC	1997	GPS805-B

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2633361.115	806433.558	1387453.301	16099063.338	.033	C	GPS - STATIC	1991	HPETE

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TUCKY-AC4906-3SE-22SEP2025.jpg	SE	Sep 22, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TUCKY-AC4906-2-22SEP2025.jpg		Sep 22, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/TUCKY-AC4906-1-22SEP2025.jpg		Sep 22, 2025

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

VALVE MN013

Mn/DOT Name: VALVE MN013 **NGS Name:** VALVE

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6600 Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	108 N	26 W	441040.15	940014.61	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2022	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	SURVEY DISK	MN-103

Description: (1988) **Stamping:** VALVE 1988

IN NORTH MANKATO, ON THE WEST SIDE OF THE MINNESOTA RIVER, 0.5 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND MULBERRY STREET (EXIT TO DOWNTOWN), AT TRUNK HIGHWAY 169 MILEPOINT 54.5, EAST OF TRUNK HIGHWAY 169 BETWEEN HIGHWAY AND A PATH, 54.3 FEET EAST OF THE EAST EDGE OF TRUNK HIGHWAY 169, 27.8 FEET SOUTHEAST OF A MANHOLE COVER, 23.2 FEET SOUTHWEST OF THE SOUTHWEST CORNER OF A FENCE AROUND A GATE VALVE STRUCTURE, 1.0 FOOT WEST OF THE WEST EDGE OF A PATH.

Station Notes
THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
783.916	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
783.922	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
783.922	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR
783.922	.016	2/1				VERTICAL CONTROL SURVEY	2013	VNMAN

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
783.853	.262		690.950	.197	2011	GPS - RTRN	2022	RTRN2022
783.775	.262		690.865	.197	2011	GPS - RTRN	2016	RTRN2016
783.922			691.012	.014	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
783.922	.131		691.226	.066	1996	GPS - STATIC	2013	HNMAN
783.922			691.012	.014	2011	GPS - STATIC	2013	HNMAN
783.850	.262		690.943	.197	2011	GPS - RTRN	2013	RTRN2013
			691.377	.011	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
783.880	.262		691.071	.197	2007	GPS - RTRN	2011	RTRN2011
			691.465	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
784.283	.131		691.606	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
784.283	.131		691.606	.066	1996	GPS - STATIC	2002	HNICO

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
784.316						GPS - STATIC	1988	HORZ

Geoid Separations(ft): GEOID18 = -92.907 12B = -92.910 09 = -92.808 03 = -92.697

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 40.14517	94 00 14.60970	568899.167	220326.818	.131	3	GPS - RTRN	2022	RTRN2022
44 10 40.14480	94 00 14.60931	568899.196	220326.781	.131	3	GPS - RTRN	2016	RTRN2016
44 10 40.14509	94 00 14.60923	568899.201	220326.810	.010		ADJUSTMENT	2013	GPS2964
44 10 40.14508	94 00 14.60921	568899.203	220326.809	.010	C	GPS - STATIC	2013	HNMAN
44 10 40.14509	94 00 14.60942	568899.188	220326.810	.131	3	GPS - RTRN	2013	RTRN2013
44 10 40.14509	94 00 14.60923	568899.201	220326.810	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 40.14548	94 00 14.60954	568899.179	220326.849	.131	3	GPS - RTRN	2011	RTRN2011
44 10 40.14505	94 00 14.61003	568899.143	220326.806	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 40.14450	94 00 14.60903	568899.216	220326.750	.033	C	GPS - STATIC	2013	HNMAN
44 10 40.14450	94 00 14.60903	568899.216	220326.750	.033	C	ADJUSTMENT	2003	GPS1882
44 10 40.14450	94 00 14.60903	568899.217	220326.751	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 40.14080	94 00 14.60435	568899.558	220326.377	.033	C	GPS - STATIC	1988	CO07

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623602.027	757442.992	1377100.947	16050207.774	.131	3	GPS - RTRN	2022	RTRN2022
2623602.055	757442.955	1377100.975	16050207.736	.131	3	GPS - RTRN	2016	RTRN2016
2623602.061	757442.984	1377100.981	16050207.765	.010		ADJUSTMENT	2013	GPS2964
2623602.062	757442.983	1377100.982	16050207.764	.010	C	GPS - STATIC	2013	HNMAN
2623602.047	757442.984	1377100.967	16050207.766	.131	3	GPS - RTRN	2013	RTRN2013
2623602.061	757442.984	1377100.981	16050207.765	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623602.038	757443.024	1377100.959	16050207.805	.131	3	GPS - RTRN	2011	RTRN2011
2623602.002	757442.980	1377100.923	16050207.762	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623602.076	757442.924	1377100.995	16050207.705	.033	C	GPS - STATIC	2013	HNMAN
2623602.076	757442.924	1377100.995	16050207.705	.033	C	ADJUSTMENT	2003	GPS1882
2623602.075	757442.925	1377100.995	16050207.706	.033	C	GPS - STATIC	2002	HNICO

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2623602.416	757442.550	1377101.331	16050207.327	.033	C	GPS - STATIC	1988	CO07

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/VALVE-DF6600-3E-23AUG2022.jpg	E	Aug 23, 2022
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/VALVE-DF6600-2-23AUG2022.jpg		Aug 23, 2022
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/VALVE-DF6600-1-23AUG2022.jpg		Aug 23, 2022

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: VAR MNDT **NGS Name:** VAR

County: NICOLLET, MN (Sheet 1)

NGS ACRN: PQ0676 Get Map
NGS Quad / Sta Num : 44094212/
USGS Quad: NORTH STAR

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	12	109 N	27 W	441543.49	940136.58		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1978	2011	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARK IS STEEL PIPE

Monument Type
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1978) **Stamping:** VAR 1978

5.5 MILES NORTH OF NORTH MANKATO, 5.1 MILES NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND TRUNK HIGHWAY 14 TO THE ENTRANCE TO A NICOLLET COUNTY PARK, THEN 75.0 FEET WEST ON AN ENTRANCE, AT TRUNK HIGHWAY 169 MILEPOINT 60.7, 77.5 FEET WEST OF SOUTHBOUND TRUNK HIGHWAY 169, 60.0 FEET SOUTHEAST OF A POWER POLE, 16.0 FEET NORTH OF A NICOLLET COUNTY PARK ENTRANCE, 6.0 FEET SOUTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.746	.197		673.352	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

NGVD29

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
765.714						RECIPROCAL VERTICAL ANGLE	1979	HORZ

Geoid Separations(ft): GEOID18 = -92.697 12B = -92.700 09 = -92.615 03 = -92.490

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 43.48825	94 01 36.57587	562835.998	251027.642	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 43.48455	94 01 36.56983	562836.439	251027.269	.066	2	ADJUSTMENT	1986	17289

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 15 43.60228	94 01 35.72702			.100	2	CLASSICAL SURVEY	1980	16297

State Plane and UTM Coordinates (Feet)

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617639.058	788160.204	1371513.714	16080987.492	.066	2	ADJUSTMENT	1999	17648

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2617639.497	788159.829	1371514.148	16080987.112	.066	2	ADJUSTMENT	1986	17289

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1993033.961	460083.466			.100	2	CLASSICAL SURVEY	1980	16297

WEST NEWTON 1 MN103

Mn/DOT Name: WEST NEWTON 1 MN103 **NGS Name:** WEST NEWTON 1

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	110 N	31 W	442144.66	942957.23		C

NGS ACRN: DF6601 Get Map
NGS Quad / Sta Num : 44094243/
USGS Quad: NEW ULM

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** WEST NEWTON-1 2001

4.0 MILES NORTH OF NEW ULM, 4.2 MILES NORTHWEST ALONG COUNTY ROAD 21 FROM THE JUNCTION OF COUNTY ROAD 21 AND TRUNK HIGHWAY 14 IN NEW ULM, THEN 0.1 MILE SOUTH ALONG COUNTY ROAD 14, 85.0 FEET NORTHWEST OF A BRIDGE RAIL, 27.0 FEET WEST OF COUNTY ROAD 14, 3.0 FEET WEST OF A GUARDRAIL, 3.0 FEET EAST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
818.807	.262		726.885	.197	2011	GPS - OPUS	2021	GPSBM
818.709	.262		726.787	.197	2011	GPS - OPUS	2021	GPSBM
818.863	.262		726.944	.197	2011	GPS - RTRN	2021	RTRN2021
818.755	.262		726.869	.197	2011	GPS - RTRN	2014	RTRN2014
818.912			726.980	.010	2011	HORIZONTAL ADJUSTMENT	2013	GPS2964
818.939	.131		727.230	.066	1996	GPS - STATIC	2013	HNMAN
818.912			726.980	.010	2011	GPS - STATIC	2013	HNMAN
			726.980	.009	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
818.817	.262		727.000	.197	2007	GPS - RTRN	2011	RTRN2011
			727.069	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
818.896	.131		727.180	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
818.896	.131		727.180	.066	1996	GPS - STATIC	2007	HSIBL
			727.069	.013	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
818.896	.131		727.180	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
818.896	.131		727.180	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.922 12B = -91.890 09 = -91.817 03 = -91.712

WEST NEWTON 1 MN103

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 44.65908	94 29 57.22966	439173.718	287598.083	.131	3	GPS - OPUS	2021	GPSBM
44 21 44.65962	94 29 57.22951	439173.730	287598.138	.131	3	GPS - OPUS	2021	GPSBM
44 21 44.65951	94 29 57.22871	439173.788	287598.126	.131	3	GPS - RTRN	2021	RTRN2021
44 21 44.65922	94 29 57.22855	439173.799	287598.097	.131	3	GPS - RTRN	2014	RTRN2014
44 21 44.65936	94 29 57.22900	439173.766	287598.111	.010		ADJUSTMENT	2013	GPS2964
44 21 44.65936	94 29 57.22899	439173.767	287598.111	.010	C	GPS - STATIC	2013	HNMAN
44 21 44.65936	94 29 57.22900	439173.766	287598.111	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 44.65989	94 29 57.23038	439173.666	287598.165	.131	3	GPS - RTRN	2011	RTRN2011
44 21 44.65924	94 29 57.22938	439173.739	287598.099	.033	C	ADJUSTMENT	2009	GPS2397-B
44 21 44.65923	94 29 57.22929	439173.745	287598.098	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 21 44.65864	94 29 57.22866	439173.791	287598.038	.033	C	GPS - STATIC	2013	HNMAN
44 21 44.65864	94 29 57.22866	439173.791	287598.038	.033	C	ADJUSTMENT	2008	GPS2397
44 21 44.65864	94 29 57.22866	439173.791	287598.038	.033	C	GPS - STATIC	2007	HSIBL
44 21 44.65864	94 29 57.22866	439173.791	287598.038	.033	C	ADJUSTMENT	2003	GPS1882
44 21 44.65864	94 29 57.22866	439173.790	287598.037	.033	C	GPS - STATIC	2002	HNICO

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2494110.468	825129.720	1248469.496	16119451.518	.131	3	GPS - OPUS	2021	GPSBM
2494110.480	825129.775	1248469.509	16119451.572	.131	3	GPS - OPUS	2021	GPSBM
2494110.538	825129.763	1248469.566	16119451.560	.131	3	GPS - RTRN	2021	RTRN2021
2494110.549	825129.734	1248469.578	16119451.530	.131	3	GPS - RTRN	2014	RTRN2014
2494110.517	825129.748	1248469.545	16119451.545	.010		ADJUSTMENT	2013	GPS2964
2494110.517	825129.748	1248469.546	16119451.545	.010	C	GPS - STATIC	2013	HNMAN
2494110.517	825129.748	1248469.545	16119451.545	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2494110.417	825129.803	1248469.446	16119451.600	.131	3	GPS - RTRN	2011	RTRN2011
2494110.489	825129.737	1248469.517	16119451.533	.033	C	ADJUSTMENT	2009	GPS2397-B
2494110.495	825129.736	1248469.524	16119451.532	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2494110.541	825129.676	1248469.568	16119451.472	.033	C	GPS - STATIC	2013	HNMAN
2494110.541	825129.676	1248469.568	16119451.472	.033	C	ADJUSTMENT	2008	GPS2397
2494110.541	825129.676	1248469.568	16119451.472	.033	C	GPS - STATIC	2007	HSIBL
2494110.541	825129.676	1248469.568	16119451.472	.033	C	ADJUSTMENT	2003	GPS1882
2494110.541	825129.676	1248469.569	16119451.472	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_1-DF6601-3W-12MAY2021.jpg	W	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_1-DF6601-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_1-DF6601-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

WEST NEWTON 10 MN103

Mn/DOT Name: WEST NEWTON 10 MN103 **NGS Name:** WEST NEWTON 10

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6602 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	111 N	31 W	442630.23	943240.71		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2007) **Stamping:** WEST NEWTON 10 2001

3.8 MILES NORTHWEST OF ST. GEORGE, 2.4 MILES WEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 16 AND COUNTY ROAD 5 IN ST. GEORGE, THEN 2.5 MILES NORTH ON COUNTY ROAD 22, THEN 1.4 MILES EAST ON TOWNSHIP ROAD 21, 32.0 FEET SOUTH OF 350TH STREET, 12.0 FEET WEST OF A FIELD ENTRANCE, 4.0 FEET EAST OF A WITNESS POST, 3.5 FEET EAST-NORTHEAST OF A POWER POLE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1030.418	.262		938.791	.197	2011	GPS - OPUS	2021	GPSBM
1030.431	.262		938.804	.197	2011	GPS - OPUS	2021	GPSBM
1030.510	.262		938.883	.197	2011	GPS - RTRN	2021	RTRN2021
			938.843	.009	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			938.948	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
1030.444	.131		939.063	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
1030.444	.131		939.063	.066	1996	GPS - STATIC	2007	HSIBL
			938.948	.012	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
1030.510	.131		939.063	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
1030.510	.131		939.063	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.627 12B = -91.607 09 = -91.529 03 = -91.414

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 30.22732	94 32 40.71232	427394.174	316555.121	.131	3	GPS - OPUS	2021	GPSBM
44 26 30.22768	94 32 40.71224	427394.180	316555.158	.131	3	GPS - OPUS	2021	GPSBM
44 26 30.22780	94 32 40.71180	427394.212	316555.170	.131	3	GPS - RTRN	2021	RTRN2021
44 26 30.22759	94 32 40.71198	427394.199	316555.149	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 30.22764	94 32 40.71283	427394.137	316555.154	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 30.22764	94 32 40.71282	427394.138	316555.154	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 30.22705	94 32 40.71200	427394.197	316555.094	.033	C	ADJUSTMENT	2008	GPS2397
44 26 30.22705	94 32 40.71200	427394.197	316555.094	.033	C	GPS - STATIC	2007	HSIBL
44 26 30.22705	94 32 40.71200	427394.197	316555.094	.033	C	ADJUSTMENT	2003	GPS1882
44 26 30.22705	94 32 40.71200	427394.198	316555.095	.033	C	GPS - STATIC	2002	HNICO

WEST NEWTON 10 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2482427.430	854121.759	1237142.726	16148579.795	.131	3	GPS - OPUS	2021	GPSBM
2482427.436	854121.795	1237142.733	16148579.831	.131	3	GPS - OPUS	2021	GPSBM
2482427.468	854121.807	1237142.765	16148579.843	.131	3	GPS - RTRN	2021	RTRN2021
2482427.455	854121.786	1237142.752	16148579.822	.010		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2482427.393	854121.791	1237142.690	16148579.828	.033	C	ADJUSTMENT	2009	GPS2397-B
2482427.394	854121.791	1237142.691	16148579.828	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2482427.453	854121.731	1237142.749	16148579.767	.033	C	ADJUSTMENT	2008	GPS2397
2482427.453	854121.731	1237142.749	16148579.767	.033	C	GPS - STATIC	2007	HSIBL
2482427.453	854121.731	1237142.749	16148579.767	.033	C	ADJUSTMENT	2003	GPS1882
2482427.453	854121.731	1237142.749	16148579.767	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_10-DF6602-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_10-DF6602-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_10-DF6602-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

WEST NEWTON 22 MN103

Mn/DOT Name: WEST NEWTON 22 MN103 **NGS Name:** WEST NEWTON 22

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6603 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	111 N	31 W	442353.96	943310.00		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2007) **Stamping:** WEST NEWTON 22 2001

6.8 MILES WEST OF KLOSSNER, 6.85 MILES WEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND TRUNK HIGHWAY 15 IN KLOSSNER, THEN 0.3 MILE NORTH ON 641ST AVENUE, 21.0 FEET EAST OF 641ST AVENUE, 2.0 FEET NORTH OF A FENCE LINE, 4.6 FEET WEST OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
994.083	.262		902.334	.197	2011	GPS - OPUS	2019	GPSBM
994.037	.262		902.288	.197	2011	GPS - OPUS	2019	GPSBM
994.253	.262		902.505	.197	2011	GPS - RTRN	2019	RTRN2019
			902.341	.008	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			902.446	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
994.125	.131		902.557	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
994.125	.131		902.557	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.749 12B = -91.726 09 = -91.650 03 = -91.545

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 53.95722	94 33 09.99644	425214.452	300736.493	.131	3	GPS - OPUS	2019	GPSBM
44 23 53.95700	94 33 09.99594	425214.488	300736.470	.131	3	GPS - OPUS	2019	GPSBM
44 23 53.95617	94 33 09.99608	425214.478	300736.386	.131	3	GPS - RTRN	2019	RTRN2019
44 23 53.95670	94 33 09.99577	425214.500	300736.440	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 53.95676	94 33 09.99667	425214.435	300736.446	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 53.95619	94 33 09.99582	425214.496	300736.388	.033	C	ADJUSTMENT	2003	GPS1882
44 23 53.95619	94 33 09.99582	425214.497	300736.390	.033	C	GPS - STATIC	2002	HNICO

WEST NEWTON 22 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2480196.048	838312.314	1234718.837	16132800.918	.131	3	GPS - OPUS	2019	GPSBM
2480196.084	838312.291	1234718.872	16132800.895	.131	3	GPS - OPUS	2019	GPSBM
2480196.073	838312.207	1234718.861	16132800.811	.131	3	GPS - RTRN	2019	RTRN2019
2480196.096	838312.260	1234718.884	16132800.864	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2480196.031	838312.267	1234718.819	16132800.871	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2480196.092	838312.209	1234718.880	16132800.812	.033	C	ADJUSTMENT	2003	GPS1882
2480196.092	838312.209	1234718.880	16132800.812	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_22-DF6603-3E-29OCT2019.jpg	E	Oct 29, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_22-DF6603-2-29OCT2019.jpg		Oct 29, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_22-DF6603-1-29OCT2019.jpg		Oct 29, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

WEST NEWTON 30 MN103

Mn/DOT Name: WEST NEWTON 30 MN103 **NGS Name:** WEST NEWTON 30

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6604 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	111 N	31 W	442335.13	943703.59		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** WEST NEWTON 30 2001

10.0 MILES NORTHWEST OF NEW ULM, 10.3 MILES WEST ALONG COUNTY ROAD 21 FROM THE JUNCTION OF COUNTY ROAD 21/ TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, 31.0 FEET SOUTH OF COUNTY 21, 23.0 FEET WEST OF COUNTY ROAD 59/ 667TH AVENUE EXTENDED, 13.0 FEET WEST OF A DOUBLE ARROW SIGN, 3.0 FEET NORTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
836.622	.262		744.903	.197	2011	GPS - OPUS	2021	GPSBM
836.642	.262		744.923	.197	2011	GPS - OPUS	2021	GPSBM
836.704	.262		744.985	.197	2011	GPS - RTRN	2021	RTRN2021
836.524	.262		744.818	.197	2011	GPS - RTRN	2013	RTRN2013
			745.025	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			745.123	.066	2007	HORIZONTAL ADJUSTMENT	2010	GPS2250-B
			745.123	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
836.744	.131		745.238	.066	1996	HORIZONTAL ADJUSTMENT	2006	GPS2250
836.744	.131		745.238	.066	1996	GPS - STATIC	2006	HBRWN
836.777	.131		745.238	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
836.777	.131		745.238	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.719 12B = -91.706 09 = -91.624 03 = -91.525

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 35.13145	94 37 03.58943	408245.788	298895.654	.131	3	GPS - OPUS	2021	GPSBM
44 23 35.13134	94 37 03.58936	408245.793	298895.643	.131	3	GPS - OPUS	2021	GPSBM
44 23 35.13167	94 37 03.58880	408245.834	298895.676	.131	3	GPS - RTRN	2021	RTRN2021
44 23 35.13127	94 37 03.58855	408245.852	298895.635	.131	3	GPS - RTRN	2013	RTRN2013
44 23 35.13185	94 37 03.58864	408245.846	298895.694	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 35.13202	94 37 03.58960	408245.776	298895.712	.033	C	ADJUSTMENT	2010	GPS2250-B
44 23 35.13202	94 37 03.58960	408245.776	298895.712	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 23 35.13141	94 37 03.58868	408245.843	298895.650	.033	C	ADJUSTMENT	2006	GPS2250
44 23 35.13141	94 37 03.58868	408245.843	298895.650	.033	C	GPS - STATIC	2006	HBRWN
44 23 35.13141	94 37 03.58868	408245.843	298895.650	.033	C	ADJUSTMENT	2003	GPS1882
44 23 35.13141	94 37 03.58868	408245.844	298895.649	.033	C	GPS - STATIC	2002	HNICO

WEST NEWTON 30 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2463223.465	836527.469	1217727.913	16131223.461	.131	3	GPS - OPUS	2021	GPSBM
2463223.470	836527.458	1217727.918	16131223.449	.131	3	GPS - OPUS	2021	GPSBM
2463223.511	836527.491	1217727.959	16131223.482	.131	3	GPS - RTRN	2021	RTRN2021
2463223.528	836527.450	1217727.976	16131223.441	.131	3	GPS - RTRN	2013	RTRN2013
2463223.522	836527.509	1217727.971	16131223.500	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2463223.453	836527.527	1217727.902	16131223.519	.033	C	ADJUSTMENT	2010	GPS2250-B
2463223.453	836527.527	1217727.902	16131223.519	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2463223.519	836527.464	1217727.967	16131223.456	.033	C	ADJUSTMENT	2006	GPS2250
2463223.519	836527.464	1217727.967	16131223.456	.033	C	GPS - STATIC	2006	HBRWN
2463223.519	836527.464	1217727.967	16131223.456	.033	C	ADJUSTMENT	2003	GPS1882
2463223.519	836527.464	1217727.967	16131223.455	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_30-DF6604-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_30-DF6604-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_30-DF6604-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

WEST NEWTON 34 MN103

Mn/DOT Name: WEST NEWTON 34 MN103 **NGS Name:** WEST NEWTON 34

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	34	111 N	31 W	442241.29	943249.19		C

NGS ACRN: DF6605 Get Map
NGS Quad / Sta Num : 44094311/
USGS Quad: ST GEORGE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2000	2006	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** WEST NEWTON 34 2001

6.5 MILES NORTHWEST OF NEW ULM, 6.8 MILES WEST ALONG COUNTY ROAD 21 FROM THE JUNCTION OF COUNTY ROAD 21/TRUNK HIGHWAY 14 AND TRUNK HIGHWAY 15 IN NEW ULM, 200.0 FEET EAST OF THE JUNCTION OF COUNTY ROAD 21 AND TOWNSHIP ROAD 136, 59.0 FEET WEST OF A BRIDGE HAZARD SIGN, 34.0 FEET SOUTH OF COUNTY ROAD 21, 21.0 FEET WEST OF A FIELD ENTRANCE, 18.0 FEET NORTH OF AN 18.0 INCH DIAMETER CORRUGATED METAL PIPE, 4.0 FEET NORTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			727.459	.007	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			727.561	.066	2007	HORIZONTAL ADJUSTMENT	2010	GPS2250-B
			727.561	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
819.290	.131		727.676	.066	1996	HORIZONTAL ADJUSTMENT	2006	GPS2250
819.290	.131		727.676	.066	1996	GPS - STATIC	2006	HBRWN
819.323	.131		727.676	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
819.323	.131		727.676	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.824 12B = -91.794 09 = -91.716 03 = -91.621

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 41.28810	94 32 49.19307	426699.848	293371.943	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 41.28820	94 32 49.19396	426699.783	293371.954	.033	C	ADJUSTMENT	2010	GPS2250-B
44 22 41.28820	94 32 49.19396	426699.783	293371.954	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 22 41.28761	94 32 49.19311	426699.845	293371.894	.033	C	ADJUSTMENT	2006	GPS2250
44 22 41.28761	94 32 49.19311	426699.845	293371.894	.033	C	GPS - STATIC	2006	HBRWN
44 22 41.28761	94 32 49.19311	426699.845	293371.894	.033	C	ADJUSTMENT	2003	GPS1882
44 22 41.28761	94 32 49.19311	426699.845	293371.894	.033	C	GPS - STATIC	2002	HNICO

WEST NEWTON 34 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2481657.076	830943.805	1236089.693	16125416.145	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2481657.012	830943.815	1236089.628	16125416.157	.033	C	ADJUSTMENT	2010	GPS2250-B
2481657.012	830943.815	1236089.628	16125416.157	.013		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2481657.073	830943.755	1236089.689	16125416.096	.033	C	ADJUSTMENT	2006	GPS2250
2481657.073	830943.755	1236089.689	16125416.096	.033	C	GPS - STATIC	2006	HBRWN
2481657.073	830943.755	1236089.689	16125416.096	.033	C	ADJUSTMENT	2003	GPS1882
2481657.073	830943.755	1236089.689	16125416.096	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_34-DF6605-3E-25JAN2006.jpg	E	Jan 25, 2006
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_34-DF6605-2-25JAN2006.jpg		Jan 25, 2006
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_34-DF6605-1-25JAN2006.jpg		Jan 25, 2006

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

WEST NEWTON 7 MN103

Mn/DOT Name: WEST NEWTON 7 MN103 **NGS Name:** WEST NEWTON 7

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF6606 Get Map
NGS Quad / Sta Num : 44094314/
USGS Quad: SLEEPY EYE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	111 N	31 W	442629.16	943730.36		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SURVEY DISK	MN-103

Description: (2002) **Stamping:** WEST NEWTON 7 2001

6.0 MILES NORTHWEST OF ST. GEORGE, 2.4 MILES WEST ALONG COUNTY ROAD 5 FROM THE JUNCTION OF COUNTY ROAD 5 AND COUNTY ROAD 16 IN ST. GEORGE, THEN 2.5 MILES NORTH ALONG COUNTY ROAD 22, THEN 2.6 MILES WEST ALONG 350TH STREET, 70.0 FEET SOUTH-SOUTHWEST OF A POWER POLE, 30.0 FEET EAST OF A DRAINAGE CULVERT, 29.0 FEET SOUTH OF 350TH STREET, 13.0 FEET WEST OF A FIELD ENTRANCE, 5.0 FEET SOUTH OF A WITNESS POST.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
991.773	.262		900.205	.197	2011	GPS - OPUS	2021	GPSBM
991.750	.262		900.182	.197	2011	GPS - OPUS	2021	GPSBM
991.999	.262		900.431	.197	2011	GPS - RTRN	2021	RTRN2021
991.717	.262		900.152	.197	2011	GPS - RTRN	2013	RTRN2013
			900.274	.008	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			900.379	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2397-B
991.862	.131		900.490	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2397
991.862	.131		900.490	.066	1996	GPS - STATIC	2007	HSIBL
			900.379	.011	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
991.862	.131		900.490	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1882
991.862	.131		900.490	.066	1996	GPS - STATIC	2002	HNICO

Geoid Separations(ft): GEOID18 = -91.568 12B = -91.565 09 = -91.483 03 = -91.365

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 29.15880	94 37 30.35827	406378.806	316528.203	.131	3	GPS - OPUS	2021	GPSBM
44 26 29.15880	94 37 30.35820	406378.812	316528.203	.131	3	GPS - OPUS	2021	GPSBM
44 26 29.15878	94 37 30.35740	406378.870	316528.201	.131	3	GPS - RTRN	2021	RTRN2021
44 26 29.15896	94 37 30.35774	406378.845	316528.219	.131	3	GPS - RTRN	2013	RTRN2013
44 26 29.15900	94 37 30.35703	406378.897	316528.223	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 29.15903	94 37 30.35801	406378.825	316528.227	.033	C	ADJUSTMENT	2009	GPS2397-B
44 26 29.15901	94 37 30.35803	406378.824	316528.225	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 29.15841	94 37 30.35712	406378.890	316528.164	.033	C	ADJUSTMENT	2008	GPS2397
44 26 29.15841	94 37 30.35712	406378.890	316528.164	.033	C	GPS - STATIC	2007	HSIBL
44 26 29.15841	94 37 30.35712	406378.890	316528.164	.033	C	ADJUSTMENT	2003	GPS1882
44 26 29.15841	94 37 30.35712	406378.889	316528.163	.033	C	GPS - STATIC	2002	HNICO

WEST NEWTON 7 MN103

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2461414.715	854163.905	1216134.761	16148878.573	.131	3	GPS - OPUS	2021	GPSBM
2461414.720	854163.905	1216134.766	16148878.573	.131	3	GPS - OPUS	2021	GPSBM
2461414.778	854163.902	1216134.824	16148878.569	.131	3	GPS - RTRN	2021	RTRN2021
2461414.754	854163.921	1216134.800	16148878.588	.131	3	GPS - RTRN	2013	RTRN2013
2461414.805	854163.925	1216134.851	16148878.591	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2461414.734	854163.928	1216134.780	16148878.596	.033	C	ADJUSTMENT	2009	GPS2397-B
2461414.733	854163.926	1216134.779	16148878.594	.010		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2461414.798	854163.865	1216134.844	16148878.532	.033	C	ADJUSTMENT	2008	GPS2397
2461414.798	854163.865	1216134.844	16148878.532	.033	C	GPS - STATIC	2007	HSIBL
2461414.798	854163.865	1216134.844	16148878.532	.033	C	ADJUSTMENT	2003	GPS1882
2461414.798	854163.865	1216134.844	16148878.532	.033	C	GPS - STATIC	2002	HNICO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_7-DF6606-3S-12MAY2021.jpg	S	May 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_7-DF6606-2-12MAY2021.jpg		May 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WEST_NEWTON_7-DF6606-1-12MAY2021.jpg		May 12, 2021

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

Mn/DOT Name: WHIM
NGS Name: WHIM
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ2817 Get Map
NGS Quad / Sta Num : 44094214/
USGS Quad: NEW SWEDEN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	111 N	28 W	442554.06	941200.20	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** WHIM 2015

10.65 MILES NORTH ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 111 (THE JUNCTION IS 9.5 MILES NORTH OF NICOLLET), AT TRUNK HIGHWAY 22 MILEPOINT 81.15, 69.3 FEET EAST OF A FIELD ENTRANCE, 1.5 FEET WEST OF A WITNESS POST.

Station Pair: DECKO - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.467	.016	2/1				VERTICAL ADJUSTMENT	2021	00000967
999.467	.016	2/1				VERTICAL CONTROL SURVEY	2020	VNIC2
999.467	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
999.460	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
999.483	.262		907.429	.197	2011	GPS - RTRN	2019	RTRN2019
999.460			907.426	.026	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
999.460			907.426	.026	2011	GPS - STATIC	2016	HNORS
999.460	.131		907.593	.066	1996	GPS - STATIC	2016	HNORS
999.604	.262		907.554	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -92.040 12B = -92.050 09 = -91.949 03 = -91.831

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 54.05753	94 12 00.20285	517401.275	312776.433	.131	3	GPS - RTRN	2019	RTRN2019
44 25 54.05804	94 12 00.20343	517401.232	312776.484	.016		ADJUSTMENT	2016	GPS3139
44 25 54.05804	94 12 00.20343	517401.232	312776.484	.016	C	GPS - STATIC	2016	HNORS
44 25 54.05723	94 12 00.20303	517401.261	312776.402	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 54.05806	94 12 00.20412	517401.182	312776.486	.033	C	GPS - STATIC	2016	HNORS

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572410.487	850049.242	1327053.563	16143409.289	.131	3	GPS - RTRN	2019	RTRN2019
2572410.445	850049.294	1327053.522	16143409.341	.016		ADJUSTMENT	2016	GPS3139
2572410.445	850049.294	1327053.522	16143409.341	.016	C	GPS - STATIC	2016	HNORS
2572410.474	850049.212	1327053.550	16143409.258	.131	3	GPS - RTRN	2015	RTRN2015

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2572410.395	850049.296	1327053.472	16143409.344	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WHIM-DQ2817-3E-24JUN2019.jpg	E	Jun 24, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WHIM-DQ2817-2-24JUN2019.jpg		Jun 24, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WHIM-DQ2817-1-24JUN2019.jpg		Jun 24, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

WOLFFE MNDT

Mn/DOT Name: WOLFFE MNDT
NGS Name: WOLFFE
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DF5867 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	110 N	26 W	442052.48	935730.15		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1997	2013	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2002) **Stamping:** WOLFFE 1997

IN THE NORTH PART OF ST. PETER, 0.35 MILE WEST ALONG TRUNK HIGHWAY 22 FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169, 53.5 FEET SOUTH OF TRUNK HIGHWAY 22, 32.0 FEET SOUTH-SOUTHWEST OF A LIGHT POLE, 15.5 FEET EAST-NORTHEAST OF THE NORTHEAST CORNER OF A TELEPHONE CABLE BOX, 11.3 FEET SOUTH OF THE SOUTH EDGE OF A SIDEWALK, 2.0 FEET NORTH OF A WITNESS POST. THE STATION WAS RESET.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

*** No Leveling-Derived Orthometric Heights in the Database ***

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
			724.533	.006	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			724.625	.007	2007	HORIZONTAL ADJUSTMENT	2007	GPS2300
817.288	.131		724.736	.066	1996	HORIZONTAL ADJUSTMENT	2003	GPS1847
817.288	.131		724.736	.066	1996	GPS - STATIC	2002	HSUER

Geoid Separations(ft): GEOID18 = -92.756 12B = -92.756 09 = -92.667 03 = -92.523

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 52.47689	93 57 30.15184	580652.244	282378.650	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 52.47690	93 57 30.15258	580652.190	282378.651	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 52.47638	93 57 30.15200	580652.232	282378.599	.033	C	ADJUSTMENT	2003	GPS1847
44 20 52.47638	93 57 30.15200	580652.231	282378.599	.033	C	GPS - STATIC	2002	HSUER

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635554.848	819449.844	1389805.043	16112048.596	.007		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635554.794	819449.845	1389804.989	16112048.598	.007		ADJUSTMENT	2007	GPS2300

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635554.836	819449.792	1389805.031	16112048.545	.033	C	ADJUSTMENT	2003	GPS1847
2635554.836	819449.792	1389805.031	16112048.545	.033	C	GPS - STATIC	2002	HSUER

WOLFFE MNDT RESET

Mn/DOT Name: WOLFFE MNDT RESET
NGS Name: WOLFFE RESET
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	110 N	26 W	442052.48	935730.15	2	C

NGS ACRN: DP1992 Get Map
NGS Quad / Sta Num : 44093343/
USGS Quad: ST PETER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2013	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type: ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 27 FT)
Disk Type: METAL ROD (WITH REMOVABLE ID DISK)
Mon. Agency: MNDT

Description: (2013)
Stamping: WOLFFE 1997 2013

IN ST. PETER, 0.35 MILE WEST ALONG TRUNK HIGHWAY 22 NORTH FROM THE JUNCTION OF TRUNK HIGHWAY 22 AND TRUNK HIGHWAY 169 IN ST. PETER, AT TRUNK HIGHWAY 22 MILEPOINT 66.25, 53.5 FEET SOUTH OF TRUNK HIGHWAY 22, 32.0 FEET SOUTH-SOUTHWEST OF A LIGHT POLE, 15.5 FEET EAST-NORTHEAST OF THE NORTHEAST CORNER OF A CABLE BOX, 11.3 FEET SOUTH OF THE SOUTH EDGE OF A SIDEWALK, 2.0 FEET NORTH OF A WITNESS POST.

Station Pair: ENCAMP MNDT RESET - NICOLLET, MN

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
817.134	.016	2/1				VERTICAL ADJUSTMENT	2020	00000949
817.137	.016	2/1				VERTICAL CONTROL SURVEY	2019	VLECE
817.246	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
817.265	.016	2/1				VERTICAL CONTROL SURVEY	2016	VNORS
817.265	.016	2/1				VERTICAL ADJUSTMENT	2014	00000825
817.269	.016	2/1				VERTICAL CONTROL SURVEY	2013	VSUEUR

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
817.147	.262		724.392	.197	2011	GPS - RTRN	2019	RTRN2019
817.265			724.487	.027	2011	HORIZONTAL ADJUSTMENT	2016	GPS3139
817.265			724.487	.027	2011	GPS - STATIC	2016	HNORS
817.265	.131		724.634	.066	1996	GPS - STATIC	2016	HNORS
817.216	.262		724.460	.197	2011	GPS - RTRN	2015	RTRN2015
817.174	.262		724.418	.197	2011	GPS - RTRN	2013	RTRN2013

Geoid Separations(ft): GEOID18 = -92.756 12B = -92.756 09 = -92.667 03 = -92.523

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 52.47660	93 57 30.15115	580652.294	282378.621	.131	3	GPS - RTRN	2019	RTRN2019
44 20 52.47693	93 57 30.15220	580652.218	282378.654	.020		ADJUSTMENT	2016	GPS3139
44 20 52.47693	93 57 30.15220	580652.218	282378.654	.020	C	GPS - STATIC	2016	HNORS
44 20 52.47641	93 57 30.15217	580652.220	282378.602	.131	3	GPS - RTRN	2015	RTRN2015
44 20 52.47634	93 57 30.15177	580652.249	282378.594	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 20 52.47692	93 57 30.15275	580652.178	282378.653	.033	C	GPS - STATIC	2016	HNORS

WOLFFE MNDT RESET

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635554.898	819449.815	1389805.093	16112048.566	.131	3	GPS - RTRN	2019	RTRN2019
2635554.822	819449.848	1389805.017	16112048.600	.020		ADJUSTMENT	2016	GPS3139
2635554.822	819449.848	1389805.017	16112048.600	.020	C	GPS - STATIC	2016	HNORS
2635554.824	819449.795	1389805.019	16112048.548	.131	3	GPS - RTRN	2015	RTRN2015
2635554.853	819449.788	1389805.047	16112048.540	.131	3	GPS - RTRN	2013	RTRN2013

NAD83(1996)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2635554.782	819449.847	1389804.977	16112048.600	.033	C	GPS - STATIC	2016	HNORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WOLFFE_RESET-DP1992-3S-04JUN2019.jpg	S	Jun 4, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WOLFFE_RESET-DP1992-2-04JUN2019.jpg		Jun 4, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/WOLFFE_RESET-DP1992-1-04JUN2019.jpg		Jun 4, 2019

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

YETTE MNDT

Mn/DOT Name: YETTE MNDT
NGS Name: YETTE MNDT
County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442544.52	942330.69		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2015	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	SURVEY DISK	MNDT

Description: (1988) **Stamping:** YETTE 1988

1.0 MILE SOUTH OF LAFAYETTE, 0.9 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 68, 66.6 FEET SOUTHWEST OF MILEPOST 68, 52.6 FEET NORTHEAST OF A WITNESS POST, 51.58 FEET NORTHEAST OF YETTE MNDT RM 1, 47.6 FEET SOUTHEAST OF A WITNESS POST, 46.73 FEET SOUTHEAST OF YETTE MNDT RM 2, 25.0 FEET WEST OF TRUNK HIGHWAY 15. THE ROD DEPTH IS UNKNOWN.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.794 09 = -91.709 03 = -91.607

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 44.52455	94 23 30.68942	467293.521	311828.835	3.281		CLASSICAL SURVEY	1988	7204-13

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522306.112	849265.324	1276952.959	16143237.464	3.281		CLASSICAL SURVEY	1988	7204-13

YETTE MNDT RM 1

Mn/DOT Name: YETTE MNDT RM 1 **NGS Name:** YETTE RM 1

County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3240 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442544.21	942331.24	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2015	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	REFERENCE MARK DISK	MNDT

Description: (2015) **Stamping:** YETTE NO 1 1988

1.0 MILE SOUTH OF LAFAYETTE, 0.9 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 68.0, 64.5 FEET WEST OF TRUNK HIGHWAY 15, 58.0 FEET SOUTH OF YETTE MNDT RM 2 RESET, 1.5 FEET EAST OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1018.361	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1018.361	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1018.210	.262		926.415	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.794 09 = -91.709 03 = -91.607

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 44.20558	94 23 31.24172	467253.391	311796.594	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522265.882	849233.218	1276912.347	16143205.857	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_1-DQ3240-3W-02JUN2015.jpg	W	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_1-DQ3240-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_1-DQ3240-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

YETTE MNDT RM 2

Mn/DOT Name: YETTE MNDT RM 2 **NGS Name:** YETTE RM 2

County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442544.77	942331.74		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2015	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	REFERENCE MARK DISK	MNDT

Description: (2015) **Stamping:** YETTE NO 2 1988

1.0 MILE SOUTH OF LAFAYETTE, 0.9 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 68.0, 64.0 FEET WEST OF TRUNK HIGHWAY 15, 58.0 FEET NORTH OF YETTE MNDT RM 1, 1.5 FEET EAST OF A WITNESS POST. THE ROD IS DEPTH UNKNOWN.

*** No Horizontal or Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.824 12B = -91.794 09 = -91.709 03 = -91.607

YETTE MNDT RM 2 RESET

Mn/DOT Name: YETTE MNDT RM 2 RESET
NGS Name: YETTE RM 2 RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3241 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	111 N	30 W	442544.78	942331.24	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2015	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015) **Stamping:** YETTE NO 2 1988 2015

1.0 MILE SOUTH OF LAFAYETTE, 0.9 MILE SOUTH ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 68.0, 64.0 FEET WEST OF TRUNK HIGHWAY 15, 58.0 FEET NORTH OF YETTE MNDT RM 1, 1.5 FEET EAST OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1017.006	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1017.006	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1016.947	.262		925.152	.197	2011	GPS - RTRN	2015	RTRN2015

Geoid Separations(ft): GEOID18 = -91.824 12B = -91.794 09 = -91.709 03 = -91.607

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 25 44.77880	94 23 31.24158	467253.490	311854.646	.131	3	GPS - RTRN	2015	RTRN2015

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2522266.170	849291.262	1276913.344	16143263.883	.131	3	GPS - RTRN	2015	RTRN2015

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_2_RESET-DQ3241-3W-02JUN2015.jpg	W	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_2_RESET-DQ3241-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_2_RESET-DQ3241-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

YETTE MNDT RM 3

Mn/DOT Name: YETTE MNDT RM 3 **NGS Name:** YETTE RM 3

County: NICOLLET, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	111 N	30 W	442644.15	942305.88		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	2015	DESTROYED	Horz=NO Vert=NO	NO			MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	SURVEY DISK	MNDT

Description: (1988) **Stamping:** YETTE NO 3 1988

0.5 MILE EAST OF LAFAYETTE, 0.35 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 69.3, 69.0 FEET NORTHWEST OF TRUNK HIGHWAY 15, 28.0 FEET EAST-NORTHEAST OF A RIGHT-OF-WAY POST, 12.5 FEET SOUTHWEST OF AN ENTRANCE, 9.7 FEET NORTHEAST OF A WITNESS POST.

Station Notes
THE ROD DEPTH IS UNKNOWN.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -91.794 12B = -91.768 09 = -91.676 03 = -91.575

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 26 44.15351	94 23 05.88189	469102.484	317865.020	3.281		CLASSICAL SURVEY	1988	7204-13

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2524134.585	855294.808	1278854.621	16149243.127	3.281		CLASSICAL SURVEY	1988	7204-13

YETTE MNDT RM 3 RESET

Mn/DOT Name: YETTE MNDT RM 3 RESET
NGS Name: YETTE RM 3 RESET
County: NICOLLET, MN (Sheet 1)

NGS ACRN: DQ3242 Get Map
NGS Quad / Sta Num : 44094244/
USGS Quad: LAFAYETTE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	111 N	30 W	442644.15	942305.88	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2015	2015	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE)	METAL ROD (WITH REMOVABLE ID DISK)	MNDT

Description: (2015)
Stamping: YETTE NO 3 1988 2015

0.5 MILE EAST OF LAFAYETTE, 0.35 MILE NORTHEAST ALONG TRUNK HIGHWAY 15 FROM THE JUNCTION OF TRUNK HIGHWAY 15 AND COUNTY ROAD 1 IN LAFAYETTE, AT TRUNK HIGHWAY 15 MILEPOINT 69.4, 69.0 FEET NORTHWEST OF TRUNK HIGHWAY 15, 12.5 FEET SOUTHWEST OF A FIELD ENTRANCE, 9.7 FEET NORTHEAST OF A WITNESS POST. THE ROD DEPTH IS UNKNOWN.

Leveling-Derived Orthometric Heights (Feet)

NAVD88

Orthometric Height			Ellipsoid (NAD83)				Project Info	
Height	Acc	Order (/Class)	Height	Acc	Adj	Determination Method	Year	Reference
1005.320	.016	2/1				VERTICAL ADJUSTMENT	2019	00000938
1005.320	.016	2/1				VERTICAL CONTROL SURVEY	2016	VKLOS

Geoid Separations(ft): GEOID18 = -91.794 12B = -91.768 09 = -91.676 03 = -91.575

*** No Horizontal Positions in the Database ***

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_3_RESET-DQ3242-3NW-02JUN2015.jpg	NW	Jun 2, 2015
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_3_RESET-DQ3242-2-02JUN2015.jpg		Jun 2, 2015
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/nicollet/YETTE_RM_3_RESET-DQ3242-1-02JUN2015.jpg		Jun 2, 2015

** All station images can be viewed at: ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos **

YSM MNDT TEMP

Mn/DOT Name: YSM MNDT TEMP
NGS Name: YSM MNDT TEMP
County: NICOLLET, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	108 N	27 W	441003.91	940243.48		

NGS ACRN: Get Map
NGS Quad / Sta Num : 44094221/
USGS Quad: MANKATO WEST

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1985	1985	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SURVEY DISK	MNDT

Description: (1985) **Stamping:** YSM 1985

IN NORTH MANKATO, 1.0 MILE SOUTHEAST OF THE JUNCTION OF TRUNK HIGHWAY 14 AND LOOKOUT DRIVE, 81.2 FEET SOUTHEAST OF A CABLE MARKER POST, 26.3 FEET SOUTHWEST OF LOOKOUT DRIVE, 4.9 FEET EAST-NORTHEAST OF THE EAST LEG OF A SIGN.

*** No Leveling-Derived Orthometric Heights in the Database ***

Geoid Separations(ft): GEOID18 = -92.690 12B = -92.690 09 = -92.602 03 = -92.490

Lat/Lon and County Coordinates (Feet)

NAD83(1986)

Geodetic Position		Nicollet County					Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 03.91404	94 02 43.48200	558059.389	216625.869	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

Geodetic Position							Project Info	
Latitude	Longitude	X	Y	Acc	Order	Determination Method	Year	Reference
44 10 04.03040	94 02 42.63990			.100	2	CLASSICAL SURVEY	1950	UNK

State Plane and UTM Coordinates (Feet)

NAD83(1986)

MN State Plane - South Zone		UTM - Zone 15					Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
2612751.347	753777.578	1366209.284	16046675.484	3.281		CLASSICAL SURVEY	1987	HBLUE

NAD27

MN State Plane - South Zone							Project Info	
X	Y	X	Y	Acc	Order	Determination Method	Year	Reference
1988145.723	425701.393			.100	2	CLASSICAL SURVEY	1950	UNK