Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1 H **NGS Name:** 1 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	161 N	43 W	484447.36	961103.30		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** 1929 H 1

3.5 MILES NORTH OF GREENBUSH, 29.0 FEET NORTH AND 99.0 FEET WEST OF THE JUNCTION OF COUNTY ROAD 7 AND A CROSSROAD, 1.5 FEET NORTH AND 36.0 FEET WEST OF A FENCE CORNER.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.702 12B = -90.702 09 = -90.600 03 = -90.561

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26613.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26613.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1 J

NGS Name: 1 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	162 N	41 W	484909.00	960024.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: 1 J 1929

2.4 MILES NORTH OF BADGER, 2.3 MILES NORTH ALONG COUNTY ROAD 3 FROM THE SOUTHERN JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN BADGER, 77.0 FEET NORTH OF COUNTY ROAD 26, 31.0 FEET EAST OF COUNTY ROAD 3, 99.0 FEET NORTH AND 31.0 FEET EAST OF A CONCRETE CULVERT OVER A DITCH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.096 12B = -91.102 09 = -90.994 03 = -90.935

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80059.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80059.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1 W

NGS Name: 1 W

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	30	163 N	43 W	485426.00	961502.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1929)

Stamping: 1 W 1929

9.0 MILES WEST OF DUXBY, 80.0 FEET NORTH AND 22.0 FEET WEST OF THE CROSSROADS.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.387 12B = -90.390 09 = -90.305 03 = -90.174

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26615.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26615.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 10 HEH **NGS Name:** 10 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	162 N	41 W	485237.00	955630.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1971	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1971) **Stamping:** 10 HEH 1966 1038

2.24 MILES SOUTHWEST OF ROSS, 1.0 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 10 IN ROSS, THEN 0.99 MILE WEST ALONG 340TH STREET, THEN 1.01 MILE SOUTH ALONG 310TH STREET, THEN 0.04 MILE EAST ALONG COUNTY ROAD 16.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.289 12B = -91.286 09 = -91.171 03 = -91.125

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26616.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26616.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 10 KEE **NGS Name:** 10 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2321 Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	32	162 N	44 W	484818.46	962215.96		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2020	GOOD	Horz=YES Vert=YES	YES		PROJECTS 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** 10 KEE 1966

1.0 MILE SOUTH AND 8.6 MILES WEST OF HAUG, 1.0 MILE SOUTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 26 IN HAUG, THEN 8.6 MILES WEST ON 280TH STREET, 77.0 FEET NORTH OF 280TH STREET, 1.0 FOOT SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.351 12B = -90.357 09 = -90.259 03 = -90.167

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 48 18.45962	96 22 15.95880	446712.743	195392.127	136158.317	59555.639	282.726		2012	GPS2800
NAD83(2007)	48 48 18.45955	96 22 15.95980	446712.676	195392.120	136158.296	59555.637	282.757	C	2009	GPS2522
NAD83(1996)	48 48 18.45942	96 22 15.95973	446712.681	195392.107	136158.298	59555.633	282.764	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/10_KEE-DL2321-3N-24JUN2020.jpg	N	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/10_KEE-DL2321-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/10_KEE-DL2321-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26617.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26617.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 10 WHV **NGS Name:** 10 WHV

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	27	160 N	42 W	483841.00	960220.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1958) **Stamping:** 10 WHV 1958 1121

3.5 MILES SOUTH AND 6.5 MILES EAST OF GREENBUSH, 31.0 FEET NORTH AND 236.0 FEET WEST OF THE CROSSROADS, 1.0 FOOT SOUTH OF A RIGHT-OF-WAY FENCE LINE.

Station Notes
THE TIES FALL IN DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.472 09 = -90.361 03 = -90.433

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26618.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26618.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 102 KW

NGS Name: 102 KW

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	9	160 N	44 W	484121.00	962026.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1954)

Stamping: 102 KW 1954 1030

0.5 MILE SOUTH AND 7.5 MILES WEST OF GREENBUSH, 140.0 FEET NORTH AND 729.0 FEET EAST OF THE CROSSROADS, 43.0 FEET NORTH AND 96.0 FEET EAST OF THE NORTHEAST CORNER OF A HOUSE.

Station Notes

THE HOUSE IS GONE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.456 12B = -90.459 09 = -90.331 03 = -90.334

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26619.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26619.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 103 KW

NGS Name: 103 KW

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	4	160 N	44 W	484241.00	962034.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1954) **Stamping:** 103 KW 1954 1025

1.0 MILE NORTH AND 7.5 MILES WEST OF GREENBUSH, NEAR THE QUARTER CORNER BETWEEN SECTION 4 AND SECTION 5, 166.0 FEET EAST OF A NORTH-SOUTH SECTION LINE, 56.0 FEET SOUTH AND 16.0 FEET WEST OF THE SOUTHWEST CORNER OF A HOUSE.

Station Notes

THE HOUSE IS GONE, THE AREA IS NOW A CULTIVATED FIELD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.453 12B = -90.459 09 = -90.334 03 = -90.315

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26620.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26620.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 104 KW

NGS Name: 104 KW

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096134/
USGS Quad: PELAN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	32	161 N	44 W	484302.00	962255.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1954)

Stamping: 104 KW 1954 1020

1.5 MILES NORTH AND 9.2 MILES WEST OF GREENBUSH, NEAR THE SOUTH CORNER BETWEEN SECTION 31 AND SECTION 32, 35.0 FEET NORTH OF AN EAST-WEST ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.397 12B = -90.403 09 = -90.289 03 = -90.262

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26621.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26621.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1075 **NGS Name:** 1075

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0016 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	2	160 N	43 W	484246.00	960936.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1907	1981	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	USGS

Description: (1940) **Stamping:** 1075

1.15 MILES NORTH FROM GREENBUSH, 1.15 MILES NORTH OF THE GREAT NORTHERN RAILROAD WATER TANK AT GREENBUSH, 62.3 FEET EAST OF A FENCE LINE WHICH IS WEST OF A GRAVEL ROAD PARALLELING A TRACK, 48.8 FEET WEST OF THE WEST RAIL, 1.0 FOOT SOUTH OF A WHITE MARKER POST.

Station Notes

THE SURVEY MARK IS ON RAILROAD PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1074.762	0.007	327.588	0.002	1/2	1991	00000025
NGVD29	1073.439	0.007	327.185	0.002	1/2	1992	UNCHECKD

Geoid Separations(ft): GEOID18 = -90.656 12B = -90.656 09 = -90.544 03 = -90.548

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51861.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51861.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1080 **NGS Name:** 1080

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	161 N	42 W	484403.20	960634.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	1956	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON POST	BENCH MARK DISK	USGS

Description: **Stamping:** 1080

3.6 MILES NORTHEAST OF GREENBUSH, 3.4 MILES NORTH ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 4 IN GREENBUSH, 90.0 FEET NORTHEAST OF A SCHOOLHOUSE, 20.0 FEET WEST OF A ROAD.

Station Notes
THE SET DATE AND THE CONDITION DATE ARE UNKNOWN.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.797 12B = -90.794 09 = -90.682 03 = -90.672

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_79819.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_79819.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1084 MINN

NGS Name: 1084 MINN

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484653.00	960057.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON POST	SEE DESCRIPTION	USGS

Description: (1929)

Stamping: 1084 MINNNESOTA

IN BADGER, 54.0 FEET SOUTH AND 10.0 FEET EAST OF THE JUNCTION OF TRUNK HIGHWAY 11 AND A ROAD SOUTHEAST, AT THE NORTHWEST CORNER OF THE BADGER SCHOOL YARD, 6.5 FEET SOUTHWEST OF A FENCE CORNER, 3.0 FEET FROM THE EDGE OF A SIDEWALK.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.066 12B = -91.069 09 = -90.958 03 = -90.922

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26622.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26622.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1086 **NGS Name:** 1086

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	161 N	42 W	484458.30	960340.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON POST	BENCH MARK DISK	USGS

Description: **Stamping:** 1086

6.4 MILES NORTHEAST OF GREENBUSH, 4.0 FEET NORTH OF THE 3RD TELEPHONE POLE NORTH OF A HOUSE, 21.0 FEET WEST OF A ROAD.

Station Notes

THE SET DATE AND THE CONDITION DATE ARE UNKNOWN.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.922 12B = -90.925 09 = -90.810 03 = -90.794

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80819.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80819.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1092 **NGS Name:** 1092

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	27	162 N	41 W	484958.00	955513.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2004	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON POST	SEE DESCRIPTION	USGS

Description: (1929) **Stamping:**

1.0 MILE SOUTHWEST OF THE FOX RAILROAD STATION, 135.0 FEET SOUTH AND 20.0 FEET WEST OF THE NORTH CORNER OF SECTION 26 AND SECTION 27.

Station Notes

THE STATION FALLS IN A DITCH ROW.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.361 12B = -91.358 09 = -91.250 03 = -91.220

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26623.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26623.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 1094 **NGS Name:** 1094

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485049.00	955002.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

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
IRON POST	SEE DESCRIPTION	USGS

Description: (1950) **Stamping:** 1094

3.3 MILES WEST OF ROSEAU, 3.0 MILES NORTHEAST OF THE RAILROAD STATION AT FOX, 24.0 FEET WEST OF COUNTY ROAD 15, AT A FENCE CORNER, IN LINE WITH A NORTH-SOUTH FENCE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.752 12B = -91.755 09 = -91.630 03 = -91.607

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26624.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26624.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 11 H

NGS Name: 11 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	162 N	44 W	485057.00	961859.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** 1929 H 11

NEAR THE SOUTHEAST CORNER OF SECTION 15, 32.0 FEET NORTH AND 74.0 FEET WEST OF COUNTY ROAD 7 AT A TEE-ROAD SOUTH.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.377 12B = -90.390 09 = -90.292 03 = -90.167

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26625.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26625.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 11 HEH

NGS Name: 11 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	18	163 N	41 W	485657.00	960024.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 11 HEH 1966 1034

11.5 MILES NORTH AND 0.5 MILE EAST OF BADGER, 29.0 FEET SOUTH AND 97.0 FEET EAST OF COUNTY ROAD 3 AT A TRAIL EAST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.063 12B = -91.063 09 = -90.948 03 = -90.863

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26626.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26626.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 11 WHV
NGS Name: 11 WHV

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	160 N	42 W	483841.00	960601.94		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	1962	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: 11 WHV 1958

5.0 MILES SOUTHEAST OF GREENBUSH, 3.7 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, THEN 3.3 MILES EAST ON COUNTY ROAD 22, 0.2 MILE WEST OF A CHURCH AND A CEMETERY, 669.0 FEET EAST OF A CROSSROAD, 29.0 FEET NORTH OF COUNTY ROAD 22, 12.0 FEET SOUTH AND 33.0 FEET EAST OF A POWER POLE, 1.0 FOOT NORTH AND 1.0 FOOT EAST OF A T-FENCE NORTH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.420 12B = -90.407 09 = -90.295 03 = -90.374

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_79817.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_79817.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 12 H **NGS Name:** 12 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	17	162 N	42 W	485058.00	962137.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1965	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: **Stamping:** 12 H 1929

10.0 MILES NORTH AND 8.0 MILES WEST OF GREENBUSH, 106.0 FEET NORTH OF COUNTY ROAD 7, 27.0 FEET WEST OF DROSS ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.285 12B = -90.302 09 = -90.200 03 = -90.082

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80099.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80099.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 12 HEH **NGS Name:** 12 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2322 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	162 N	42 W	485000.07	960027.15		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2009	GOOD	Horz=YES Vert=YES	YES		PROJECTS 3 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** 12 HEH 1966 1047

3.5 MILES NORTH AND 0.5 MILE EAST OF BADGER, 2.7 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 3 AT MILEPOINT 58.7, 38.0 FEET SOUTH OF 300TH STREET, 62.0 FEET WEST OF COUNTY ROAD 3, AT A CROSSROAD, 1.0 FOOT EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.089 12B = -91.089 09 = -90.984 03 = -90.915

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 00.06736	96 00 27.14473	534315.025	205644.991	162859.545	62680.719	291.736		2012	GPS2800
NAD83(2007)	48 50 00.06734	96 00 27.14561	534314.966	205644.989	162859.527	62680.718	291.772	C	2009	GPS2522
NAD83(1996)	48 50 00.06729	96 00 27.14554	534314.971	205644.984	162859.529	62680.716	291.769	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/12_HEH-DL2322-3W-24JUL2007.jpg	W	Jul 24, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/12_HEH-DL2322-2-24JUL2007.jpg		Jul 24, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/12_HEH-DL2322-1-24JUL2007.jpg		Jul 24, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26629.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26629.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 13 H **NGS Name:** 13 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	5	162 N	44 W	485334.00	962139.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** 13 H 1929

NEAR THE NORTHEAST CORNER OF SECTION 5, 200.0 FEET SOUTHWEST OF THE JUNEBERRY CHURCH, 75.0 FEET SOUTH AND 25.0 FEET WEST OF A CROSSROADS.

Station Notes
THE CHURCH IS GONE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.174 12B = -90.190 09 = -90.088 03 = -89.974

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26630.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26630.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 13 HEH **NGS Name:** 13 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2323 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	162 N	42 W	485146.28	960410.43		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 5 IN.	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** 1032 13 HEH 1966

5.5 MILES NORTH AND 2.5 MILES WEST OF BADGER, 4.8 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN BADGER, THEN 2.8 MILES WEST ALONG COUNTY ROAD 16 (370TH STREET), 75.0 FEET NORTH OF COUNTY ROAD 16, 387.0 FEET WEST OF A DRIVE NORTH, 9.0 FEET EAST OF A POWER POLE, 11.5 FEET SOUTHWEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.882 12B = -90.886 09 = -90.784 03 = -90.686

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 51 46.28117	96 04 10.42742	519363.875	216388.126	158302.426	65955.233	287.422		2012	GPS2800
NAD83(2007)	48 51 46.28117	96 04 10.42829	519363.817	216388.126	158302.408	65955.233	287.459	C	2009	GPS2522
NAD83(1996)	48 51 46.28108	96 04 10.42820	519363.823	216388.117	158302.410	65955.230	287.456	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/13_HEH-DL2323-3N-11OCT2021.jpg	N	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/13_HEH-DL2323-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/13_HEH-DL2323-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26631.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26631.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 14 H **NGS Name:** 14 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	163 N	45 W	485429.00	962418.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1965	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	SEE DESCRIPTION	USGS

Description:

Stamping: 14 H 1929

5.2 MILES SOUTH AND 2.0 MILES EAST OF CARIBOU, 8.0 FEET NORTH AND 21.0 FEET EAST OF A ROAD AT A TEE-ROAD EAST, IN THE NORTHWEST CORNER OF A CONCRETE BOX CULVERT.

Station Notes

THE BOX CULVERT WAS REMOVED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.052 12B = -90.065 09 = -89.960 03 = -89.865

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80301.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80301.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 14 H RESET

NGS Name: 14 H RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	163 N	45 W	485429.02	962418.02		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2006	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	SEE DESCRIPTION	USGS

Description: (1966)

Stamping: 14 H 1929 RESET 1966

5.2 MILES SOUTH AND 2.0 MILES EAST OF CARIBOU, 8.0 FEET NORTH AND 21.0 FEET EAST OF A ROAD AT A TEE-ROAD EAST, IN THE NORTHWEST CORNER OF A CONCRETE BOX CULVERT.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.052 12B = -90.065 09 = -89.960 03 = -89.865

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_14669.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_14669.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 14 HEH **NGS Name:** 14 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2324 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	11	162 N	43 W	485241.05	960948.40		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2020	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** 14 HEH 1966 1031

12.0 MILES NORTH AND 1.0 MILE EAST OF GREENBUSH, 3.1 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 (THE JUNCTION IS 6.0 MILES WEST OF ROSEAU) TO TRUNK HIGHWAY 89 MILEPOINT 134.5, THEN 11.3 MILES WEST ON 330TH STREET, 40.0 FEET SOUTH OF 330TH STREET, 40.0 FEET WEST OF 210TH AVENUE, 11.5 FEET NORTH OF A POWER POLE, 2.0 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.620 12B = -90.623 09 = -90.535 03 = -90.410

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 52 41.05233	96 09 48.40378	496764.192	221929.389	151414.029	67644.213	287.047		2012	GPS2800
NAD83(2007)	48 52 41.05232	96 09 48.40467	496764.132	221929.388	151414.010	67644.213	287.083	C	2009	GPS2522
NAD83(1996)	48 52 41.05224	96 09 48.40461	496764.137	221929.380	151414.012	67644.210	287.082	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/14_HEH-DL2324-3S-24JUN2020.jpg	S	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/14_HEH-DL2324-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/14_HEH-DL2324-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26632.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26632.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 14 KEE

NGS Name: 14 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	18	161 N	43 W	484632.00	961503.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 14 KEE 1966

5.3 MILES NORTH AND 3.0 MILES WEST OF GREENBUSH, 58.0 FEET SOUTH AND 42.0 FEET WEST OF THE CROSSROADS, 15.0 FEET SOUTHEAST OF A POWER POLE.

Station Notes

THE TIES FALL NEAR A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.607 12B = -90.610 09 = -90.512 03 = -90.436

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26633.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26633.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 14 WHV

NGS Name: 14 WHV

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096122/
USGS Quad: GREENBUSH SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	159 N	42 W	483421.00	960054.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2007	DESTROYED	Horz=NO Vert=NO	NO	TWP RD		SEE DESCRIPTION

Monument Type
CULVERT - ANY SIZE, ANY TYPE

Disk Type
SEE DESCRIPTION

Mon. Agency
USGS

Description: (1958)

Stamping: 14 WHV 1958 1190

1.3 MILES NORTH AND 6.9 MILES EAST OF STRATHCONA, 36.0 FEET SOUTH AND 10.0 FEET EAST OF COUNTY ROAD 6 AT A TEE-ROAD SOUTH, IN THE CENTER OF THE EAST HEADWALL OF A CONCRETE BOX CULVERT.

Station Notes
THE HEADWALL BOX CULVERT HAS BEEN REPLACED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -89.983 12B = -89.990 09 = -89.875 03 = -89.941

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26634.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26634.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 15 HEH

NGS Name: 15 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	19	162 N	43 W	485055.00	961504.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 15 HEH 1966

10.0 MILES NORTH AND 3.0 MILES WEST OF GREENBUSH, 136.0 FEET SOUTH AND 34.0 FEET WEST OF COUNTY ROAD 7 AT A TEE-ROAD SOUTH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.499 12B = -90.512 09 = -90.416 03 = -90.289

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26635.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26635.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 15 KEE

NGS Name: 15 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2325 Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	31	162 N	43 W	484841.93	961503.65		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2020	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	BAR MAG IN DRILL HOLE

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

Description: (2007) **Stamping:** 15 KEE 1966

0.5 MILE SOUTH AND 3.0 MILES WEST OF HAUG, 3.0 MILES WEST ALONG 290TH STREET FROM THE JUNCTION OF 290TH STREET AND COUNTY ROAD 7 IN HAUG, THEN 0.5 MILE SOUTH ON 170TH AVENUE, 49.0 FEET SOUTH OF A DRIVEWAY, 41.0 FEET WEST OF 170TH AVENUE, 1.0 FOOT EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.577 12B = -90.587 09 = -90.492 03 = -90.380

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 48 41.92724	96 15 03.65161	475657.649	197709.418	144980.742	60261.951	284.266		2012	GPS2800
NAD83(2007)	48 48 41.92722	96 15 03.65251	475657.589	197709.416	144980.723	60261.951	284.301	C	2009	GPS2522
NAD83(1996)	48 48 41.92711	96 15 03.65246	475657.593	197709.405	144980.724	60261.947	284.302	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/15_KEE-DL2325-3W-24JUN2020.jpg	W	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/15_KEE-DL2325-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/15_KEE-DL2325-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26636.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26636.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 16 HEH **NGS Name:** 16 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2326 Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	162 N	44 W	485057.72	961858.05		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** 1019 16 HEH 1966

12.0 MILES NORTHWEST OF GREENBUSH, 9.9 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 4 IN GREENBUSH, THEN 6.0 MILES WEST ON COUNTY ROAD 7 (310TH STREET), 92.0 FEET NORTH OF COUNTY ROAD 7, 74.0 FEET EAST OF A TRAIL NORTH, 1.0 FOOT SOUTH OF A WITNESS POST.

Station Notes
HIP BOOTS ARE NEEDED IF NOT FROZEN.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.377 12B = -90.390 09 = -90.295 03 = -90.167

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 57.72173	96 18 58.05301	459997.164	211499.907	140207.416	64465.301	283.409		2012	GPS2800
NAD83(2007)	48 50 57.72169	96 18 58.05396	459997.101	211499.903	140207.397	64465.299	283.442	C	2009	GPS2522
NAD83(1996)	48 50 57.72152	96 18 58.05401	459997.097	211499.885	140207.396	64465.294	283.444	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/16_HEH-DL2326-3N-12OCT2021.jpg	N	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/16_HEH-DL2326-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/16_HEH-DL2326-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26637.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26637.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 17 HEH

NGS Name: 17 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	6	161 N	42 W	484725.00	960701.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1966	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 17 HEH 1966 1039

6.0 MILES NORTH AND 3.0 MILES EAST OF GREENBUSH, 256.0 FEET NORTH AND 42.0 FEET WEST OF A NORTH-SOUTH ROAD AT A TEE-ROAD EAST, 4.0 FEET SOUTH OF A POWER POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.856 12B = -90.863 09 = -90.754 03 = -90.682

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26638.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26638.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 18 HEH

NGS Name: 18 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	162 N	43 W	484912.00	960824.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 18 HEH 1966 1033

8.0 MILES NORTH AND 2.0 MILES EAST OF GREENBUSH, 44.0 FEET NORTH AND 43.0 FEET WEST OF THE CROSSROADS, 3.0 FEET NORTH OF A POWER POLE.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.777 12B = -90.787 09 = -90.686 03 = -90.587

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26639.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26639.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 19 HEH

NGS Name: 19 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	31	164 N	43 W	485853.00	961458.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	POOR	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 19 HEH 1966 1032

13.0 MILES NORTH AND 11.0 MILES WEST OF BADGER, 32.0 FEET WEST OF A ROAD, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes

THE MARK HAS BEEN HIT AND IS TILTED 15 DEGREES, NOT USEABLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.397 12B = -90.403 09 = -90.308 03 = -90.170

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26641.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26641.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 2 H

NGS Name: 2 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	161 N	43 W	484634.00	961101.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** 1929 H 2

3.0 MILES SOUTH OF THE HAUG POST OFFICE, 37.0 FEET NORTH AND 116.0 FEET EAST OF THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 2.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.728 12B = -90.728 09 = -90.630 03 = -90.564

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26642.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26642.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 2 J

NGS Name: 2 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	162 N	42 W	485146.00	960026.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: 2 J 1929

5.6 MILES NORTH OF BADGER, 5.3 MILES NORTH ALONG COUNTY ROAD 3 FROM THE SOUTHERN JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN ROSEAU, 74.0 FEET NORTH OF COUNTY ROAD 16, 33.0 FEET EAST OF COUNTY ROAD 3, 40.0 FEET NORTH OF A CORNER FENCE POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.063 12B = -91.063 09 = -90.958 03 = -90.886

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80060.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80060.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 20 HEH **NGS Name:** 20 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2327 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	163 N	43 W	485702.70	961229.04		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2020	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	BAR MAG IN DRILL HOLE

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

Description: (2008) **Stamping:** 1031 20 HEH 1966

11.5 MILES NORTH AND 9.0 MILES WEST OF BADGER, 4.5 MILES WEST AND SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINE CREEK TO THE ROSEAU RIVER WILDLIFE MANAGEMENT AREA ENTRANCE, THEN 9.5 MILES WEST ON A GRAVEL ROAD, 0.6 MILE EAST OF A WYE JUNCTION IN A ROAD, 19.0 FEET SOUTH OF A ROAD, 1.0 FOOT EAST OF A STEEL POST, 12.0 FEET EAST OF A WITNESS POST.

Station Notes

BEFORE GOING TO THE MARK, CHECK WITH THE MANAGEMENT HEADQUARTERS (CONTACT 218-463-1130) TO GET KEY FOR THE GATE AND TO LET THEM KNOW HOW LONG YOU WILL BE THERE. HEADQUARTERS ARE 2.9 MILES WEST ON COUNTY ROAD 3 FROM PINE CREEK.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.472 12B = -90.479 09 = -90.384 03 = -90.243

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 57 02.70279	96 12 29.03705	486046.020	248453.621	148147.123	75728.815	286.968		2012	GPS2800
NAD83(2007)	48 57 02.70277	96 12 29.03796	486045.959	248453.619	148147.105	75728.814	287.002	C	2009	GPS2522
NAD83(1996)	48 57 02.70262	96 12 29.03803	486045.955	248453.603	148147.103	75728.810	287.001	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/20_HEH-DL2327-3S-24JUN2020.jpg	S	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/20_HEH-DL2327-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/20_HEH-DL2327-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26644.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26644.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 20 KEE

NGS Name: 20 KEE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	18	163 N	44 W	485636.00	962417.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966)

Stamping: 20 KEE 1966

2.7 MILES SOUTH AND 2.0 MILES EAST OF CARIBOU, 46.0 FEET SOUTH AND 70.0 FEET EAST OF THE CENTER OF A WOOD BRIDGE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.026 12B = -90.036 09 = -89.937 03 = -89.839

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26645.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26645.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 21 H

NGS Name: 21 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	6	163 N	44 W	485847.00	962417.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2009	DESTROYED	Horz=NO Vert=NO	NO	L4466		NO MAG MATERIAL

Monument Type
BRIDGE ABUTMENT

Disk Type
SEE DESCRIPTION

Mon. Agency
USGS

Description: (1929)

Stamping: 21 H 1929

2.0 MILES EAST OF CARIBOU, AT THE EAST END OF THE CONCRETE PIER OF KITTSON COUNTY ROAD 24 BRIDGE L4466 OVER THE ROSEAU RIVER.

Station Notes
THE BRIDGE IS GONE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.059 12B = -90.065 09 = -89.974 03 = -89.862

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26646.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26646.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 21 HEH

NGS Name: 21 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	18	163 N	42 W	485646.00	960822.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 21 HEH 1966 1028

12.5 MILES NORTH-NORTHWEST OF BADGER, 21.0 FEET SOUTH AND 20.0 FEET EAST OF A ROAD AT A TRAIL SOUTH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.653 12B = -90.656 09 = -90.561 03 = -90.430

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26647.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26647.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 22 HEH

NGS Name: 22 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	163 N	42 W	485710.00	960422.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 3 IN.	SEE DESCRIPTION

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

Description: (1966) **Stamping:** 22 HEH 1966 1032

11.7 MILES NORTH AND 3.0 MILES WEST OF BADGER, 26.0 FEET SOUTH OF A ROAD AT A FENCE SOUTH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.850 12B = -90.853 09 = -90.745 03 = -90.633

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/22_HEH-3S-01MAY2007.jpg	S	May 1, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/22_HEH-2-01MAY2007.jpg		May 1, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/22_HEH-1-01MAY2007.jpg		May 1, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26648.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26648.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 23 HEH
NGS Name: 23 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	163 N	40 W	485448.00	955004.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966)
Stamping: 23 HEH 1966 1032

4.5 MILES NORTH AND 3.0 MILES WEST OF ROSEAU, NEAR THE QUARTER CORNER BETWEEN SECTION 28 AND SECTION 29, 17.0 FEET SOUTH AND 35.0 FEET WEST OF A NORTH-SOUTH ROAD AT A FIELD ENTRANCE WEST.

Station Notes
THE TIES FALL IN A DITCH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.788 12B = -91.791 09 = -91.660 03 = -91.637

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26649.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26649.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 24 HEH

NGS Name: 24 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	17	163 N	40 W	485636.00	955122.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 24 HEH 1966 1032

6.6 MILES NORTH AND 4.0 MILES WEST OF ROSEAU, 44.0 FEET SOUTH OF A ROAD AT A CURVE AND A SMALL DITCH EAST, 2.0 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.696 12B = -91.696 09 = -91.568 03 = -91.539

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26650.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26650.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 25 HEH **NGS Name:** 25 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2328 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	11	163 N	41 W	485748.48	955407.10		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2021	GOOD	Horz=NO Vert=NO	YES		PROJECTS 8 IN.	STEEL ROD IMBED IN MON

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

Description: (2008) **Stamping:** 1041 25 HEH 1966

8.0 MILES NORTH AND 6.0 MILES WEST OF ROSEAU, 3.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU TO TRUNK HIGHWAY 310 MILEPOINT 2.95, THEN 3.0 MILES WEST ALONG 340TH STREET, THEN 5.2 MILES NORTH ALONG 390TH AVENUE, THEN 0.9 MILE WEST ON 390TH STREET, THEN 2.0 MILES WEST ON COUNTY ROAD 118, 75.0 FEET SOUTH OF COUNTY ROAD 118, 161.0 FEET WEST OF A DRIVE SOUTH, 3.5 FEET EAST OF A POWER POLE WITH A WITNESS POST.

Station Notes

DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS. THE SURVEY MARK IS TIPPED TO THE SOUTH AND NO LONGER GOOD FOR GEODETIC WORK.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.499 12B = -91.496 09 = -91.371 03 = -91.329

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 57 48.47860	95 54 07.09952	559589.136	253184.884	170563.110	77170.907	289.826		2012	GPS2800
NAD83(2007)	48 57 48.47867	95 54 07.10034	559589.081	253184.891	170563.093	77170.909	289.862	C	2009	GPS2522
NAD83(1996)	48 57 48.47850	95 54 07.10020	559589.090	253184.873	170563.096	77170.904	289.859	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/25_HEH-DL2328-3S-11OCT2021.jpg	S	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/25_HEH-DL2328-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/25_HEH-DL2328-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26651.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26651.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 26 HEH

NGS Name: 26 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	164 N	41 W	485934.00	955753.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2017	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 26 HEH 1966

10.0 MILES NORTH AND 9.0 MILES WEST OF ROSEAU, 51.0 FEET NORTH AND 33.0 FEET EAST OF THE CROSSROADS.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.273 12B = -91.273 09 = -91.148 03 = -91.086

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26652.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26652.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 3 H **NGS Name:** 3 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	35	162 N	43 W	484910.06	961101.96		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 1929 H 3

IN HAUG, 130.0 FEET SOUTHEAST OF THE POST OFFICE, 101.0 FEET SOUTH AND 34.0 FEET EAST OF THE CROSSROADS.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.689 12B = -90.695 09 = -90.600 03 = -90.495

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26656.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26656.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 31 KEE **NGS Name:** 31 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8603 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	36	161 N	40 W	484305.71	954554.02	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2012	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 2 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	USGS

Description: (1998) **Stamping:** 31 KEE 1966

9.2 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 116.30, 74.0 FEET NORTH OF COUNTY ROAD 33, 69.0 FEET WEST-SOUTHWEST OF TRUNK HIGHWAY 89, 13.0 FEET NORTH-NORTHEAST OF A POWER POLE, 13.0 FEET NORTH OF A TELEPHONE CABLE BOX, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1085.142	0.016	330.752	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.624 12B = -91.627 09 = -91.522 03 = -91.509

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 43 05.70649	95 45 54.02092	592947.405	163851.960	180730.731	49942.177	302.840		2012	GPS2800
NAD83(2007)	48 43 05.70664	95 45 54.02178	592947.347	163851.975	180730.713	49942.182	302.869		2007	GPS2300
NAD83(1996)	48 43 05.70643	95 45 54.02174	592947.350	163851.953	180730.714	49942.175	302.867	C	2002	GPS1666

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/31_KEE-AJ8603-3SW-07JUL2009.jpg	SW	Jul 7, 2009
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/31_KEE-AJ8603-2-07JUL2009.jpg		Jul 7, 2009
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/31_KEE-AJ8603-1-07JUL2009.jpg		Jul 7, 2009

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26662.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26662.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 32 KEE

NGS Name: 32 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	160 N	40 W	484215.00	954423.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2012	DESTROYED	Horz=NO Vert=NO	NO	8696		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE WING WALL	SEE DESCRIPTION	USGS

Description: (1973)

Stamping: 32 KEE 1966

10.5 MILES SOUTH OF ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 114.80, IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 89 BRIDGE NUMBER 8696 OVER A STREAM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.644 12B = -91.650 09 = -91.548 03 = -91.525

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26664.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26664.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 33 KEE

NGS Name: 33 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	13	160 N	40 W	484055.00	954405.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 33 KEE 1966

1.7 MILES NORTH OF WANNASKA, 127.0 FEET SOUTH AND 74.0 FEET WEST OF TRUNK HIGHWAY 89 AT A PRIVATE DRIVE EAST AND A FIELD ENTRANCE WEST, 2.5 FEET EAST OF A FENCE CORNER, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.532 12B = -91.542 09 = -91.437 03 = -91.404

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26665.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26665.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 34 KEE

NGS Name: 34 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8604 Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	159 N	40 W	483342.65	954400.02	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2012	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 2 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	USGS

Description: (1998) **Stamping:** 34 KEE 1966

6.8 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA, 46.0 FEET NORTH OF A ROAD, 72.0 FEET WEST OF TRUNK HIGHWAY 89 AT A TEE-ROAD WEST, 3.7 FEET EAST-NORTHEAST OF A RIGHT-OF-WAY MONUMENT, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1158.492	0.016	353.109	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -90.430 12B = -90.423 09 = -90.338 03 = -90.364

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 33 42.65465	95 44 00.02426	600904.323	106828.504	183156.004	32561.393	325.535		2012	GPS2800
NAD83(2007)	48 33 42.65478	95 44 00.02507	600904.269	106828.517	183155.987	32561.397	325.567		2007	GPS2300
NAD83(1996)	48 33 42.65473	95 44 00.02519	600904.260	106828.511	183155.985	32561.395	325.560	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26666.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26666.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 37 KEE

NGS Name: 37 KEE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	160 N	40 W	484014.00	954603.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 37 KEE 1966

1.0 MILE NORTH AND 1.5 MILES WEST OF WANNASKA, 29.0 FEET SOUTH AND 8.0 FEET WEST OF A ROAD AT A FIELD LINE SOUTH, 0.5 FOOT NORTH OF A WITNESS POST.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.338 12B = -91.355 09 = -91.247 03 = -91.217

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26667.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26667.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 38 KEE

NGS Name: 38 KEE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	17	160 N	40 W	484103.00	955038.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 38 KEE 1966

6.6 MILES SOUTH AND 7.8 MILES EAST OF BADGER, 571.0 FEET SOUTH AND 42.0 FEET EAST OF THE JUNCTION OF COUNTY ROAD 4 (WEST AND SOUTH) AND COUNTY ROAD 15 (NORTH), 1.0 FOOT WEST OF A WITNESS POST.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.148 12B = -91.161 09 = -91.046 03 = -91.053

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26668.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26668.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 39 KEE

NGS Name: 39 KEE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	15	160 N	41 W	484112.00	955430.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 39 KEE 1966

6.5 MILES SOUTH AND 4.8 MILES EAST OF BADGER, 49.0 FEET SOUTH AND 38.0 FEET WEST OF COUNTY ROAD 4 AT A CROSSROAD, 3.0 FEET WEST OF A POWER POLE, 1.0 FOOT NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.961 12B = -90.974 09 = -90.859 03 = -90.886

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26670.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26670.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 40 KEE

NGS Name: 40 KEE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	18	160 N	41 W	484115.00	955824.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1966	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	SEE DESCRIPTION	USGS

Description: (1966)

Stamping: 40 KEE 1966

6.5 MILES SOUTH AND 1.8 MILES EAST OF BADGER, 23.0 FEET SOUTH AND 11.0 FEET WEST OF THE CROSSROADS, AT THE NORTHWEST CORNER OF THE RAILING OF A CONCRETE BOX CULVERT.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.820 12B = -90.830 09 = -90.705 03 = -90.745

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26673.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26673.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 41 KEE

NGS Name: 41 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	160 N	40 W	484303.00	955112.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966)

Stamping: 41 KEE 1966

4.5 MILES SOUTH AND 7.2 MILES EAST OF BADGER, 40.0 FEET SOUTH OF COUNTY ROAD 15 AT THE EAST END OF A CURVE, 1.0 FOOT NORTH OF A WITNESS POST.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.299 12B = -91.289 09 = -91.204 03 = -91.207

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26675.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26675.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

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

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2330 Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	4	159 N	41 W	483648.19	955700.22		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2020	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** 44 KEE 1966

11.5 MILES SOUTH AND 2.8 MILES EAST OF BADGER, 2.2 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE ROSEAU RIVER IN WANNASKA TO TRUNK HIGHWAY 89 MILEPOINT 109.4, THEN 6.9 MILES WEST, SOUTH AND WEST ALONG COUNTY ROAD 8, THEN 4.15 MILES WEST ALONG 150TH STREET, 40.4 FEET EAST-SOUTHEAST OF A WOODEN GATE POST, 36.0 FEET EAST OF A WOODEN BRACE POST, 29.5 FEET NORTH OF 150TH STREET, 22.2 FEET SOUTH-SOUTHWEST OF AN 8.0 INCH DIAMETER OAK TREE, 14.0 FEET EAST OF A DIM TRAIL NORTH, 9.8 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.380 12B = -90.367 09 = -90.279 03 = -90.338

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 36 48.18550	95 57 00.21965	548370.923	125419.223	167143.792	38227.856	331.896		2012	GPS2800
NAD83(2007)	48 36 48.18553	95 57 00.22057	548370.862	125419.225	167143.773	38227.856	331.940	C	2009	GPS2522
NAD83(1996)	48 36 48.18533	95 57 00.22048	548370.868	125419.205	167143.775	38227.850	331.918	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/44_KEE-DL2330-3N-23JUN2020.jpg	N	Jun 23, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/44_KEE-DL2330-2-23JUN2020.jpg		Jun 23, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/44_KEE-DL2330-1-23JUN2020.jpg		Jun 23, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26676.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26676.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 45 KEE

NGS Name: 45 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	159 N	41 W	483653.00	955422.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 45 KEE 1966

11.5 MILES SOUTH AND 4.7 MILES EAST OF BADGER, 240.0 FEET NORTH OF COUNTY ROAD 6 AT A TEE-ROAD WEST, 9.0 FEET EAST OF A PRIVATE DRIVE, 1.0 FOOT SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.492 12B = -90.469 09 = -90.390 03 = -90.436

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26677.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26677.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 46 KEE **NGS Name:** 46 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2331 Get Map
NGS Quad / Sta Num : 48095432/
USGS Quad: THIEF LAKE SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	8	159 N	40 W	483645.74	954917.40		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2020	GOOD	Horz=YES Vert=YES	YES		PROJECTS 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** 46 KEE 1966

3.0 MILES SOUTH AND 4.0 MILES WEST OF WANNASKA, 2.2 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE ROSEAU RIVER IN WANNASKA TO TRUNK HIGHWAY 89 MILEPOINT 109.4, THEN 5.0 MILES WEST AND SOUTH ON COUNTY ROAD 8, 56.0 FEET SOUTH OF COUNTY ROAD 8, 24.0 FEET WEST OF A GRAVEL ROAD SOUTH, 1.0 FOOT WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.712 12B = -90.702 09 = -90.620 03 = -90.636

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 36 45.73524	95 49 17.39443	579474.777	125278.761	176624.265	38185.043	321.831		2012	GPS2800
NAD83(2007)	48 36 45.73537	95 49 17.39534	579474.715	125278.773	176624.247	38185.047	321.867	C	2009	GPS2522
NAD83(1996)	48 36 45.73530	95 49 17.39539	579474.712	125278.766	176624.246	38185.044	321.857	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/46_KEE-DL2331-3S-23JUN2020.jpg	S	Jun 23, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/46_KEE-DL2331-2-23JUN2020.jpg		Jun 23, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/46_KEE-DL2331-1-23JUN2020.jpg		Jun 23, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26679.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26679.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 47 KEE

NGS Name: 47 KEE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095432/
USGS Quad: THIEF LAKE SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	159 N	40 W	483646.00	954646.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
USGS

Description: (1966)

Stamping: 47 KEE 1966

3.0 MILES SOUTH AND 2.0 MILES WEST OF WANNASKA, 51.0 FEET NORTH AND 42.0 FEET WEST OF THE JUNCTION OF COUNTY ROAD 8 AND COUNTY ROAD 125, 7.0 FEET SOUTH OF A FENCE CORNER, 1.0 FOOT SOUTH OF A WITNESS POST.

Station Notes
THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.843 12B = -90.840 09 = -90.751 03 = -90.748

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26681.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26681.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 5 H

NGS Name: 5 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	43 W	485426.00	961105.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** 1929 H 5

6.0 MILES NORTH OF THE HAUG POST OFFICE, 83.0 FEET NORTH AND 67.0 FEET EAST OF THE CROSSROADS.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.538 12B = -90.538 09 = -90.453 03 = -90.315

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26685.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26685.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 5 HEH **NGS Name:** 5 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2332 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	162 N	40 W	484817.10	955235.23		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 5 IN.	STEEL ROD IMBED IN MON

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

Description: (2007) **Stamping:** 1102 5 HEH 1966

6.0 MILES SOUTHWEST OF ROSEAU, 5.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 IN ROSEAU, THEN 2.6 MILES SOUTH ON 340TH AVENUE, 41.0 FEET NORTH OF COUNTY ROAD 114, 47.0 FEET EAST OF 340TH AVENUE, 7.5 FEET EAST OF A POWER POLE, 1.0 FOOT SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.496 12B = -91.493 09 = -91.388 03 = -91.374

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 48 17.09537	95 52 35.22492	565928.436	195294.894	172495.332	59526.003	308.441		2012	GPS2800
NAD83(2007)	48 48 17.09538	95 52 35.22578	565928.378	195294.895	172495.315	59526.003	308.478	C	2009	GPS2522
NAD83(1996)	48 48 17.09529	95 52 35.22574	565928.381	195294.886	172495.316	595260000	308.475	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/5_HEH-DL2332-3N-12OCT2021.jpg	N	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/5_HEH-DL2332-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/5_HEH-DL2332-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26686.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26686.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6 H **NGS Name:** 6 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	31	163 N	42 W	485422.00	960701.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** 1929 H 6

8.5 MILES NORTH AND 4.5 MILES WEST OF BADGER, NEAR THE NORTHEAST CORNER OF SECTION 31, 152.0 FEET SOUTH AND 27.0 FEET WEST OF A ROAD AT A TEE-ROAD SOUTH.

Station Notes
THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.708 12B = -90.708 09 = -90.617 03 = -90.492

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26694.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26694.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6 HEH **NGS Name:** 6 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	4	161 N	40 W	484724.00	954958.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1966	GOOD	Horz=? Vert=YES	NO	NONE		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE HEADWALL	SEE DESCRIPTION	USGS

Description: (1966) **Stamping:** 6 HEH 1966 1098

4.0 MILES SOUTH AND 3.0 MILES WEST OF ROSEAU, 39.0 FEET NORTH AND 11.0 FEET EAST OF COUNTY ROAD 15 AT A TEE-ROAD EAST, IN THE CENTER OF THE EAST HEADWALL OF A CONCRETE BRIDGE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.644 12B = -91.640 09 = -91.529 03 = -91.525

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26695.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26695.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 A

NGS Name: 6801 A

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9442 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	160 N	44 W	483903.37	962157.15	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2017	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: (2014) **Stamping:** 6801 A 19

9.0 MILES EAST-NORTHEAST OF KARLSTAD, 9.25 MILES EAST-NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 59 IN KARLSTAD, AT TRUNK HIGHWAY 11 MILEPOINT 38.45, 67.5 FEET EAST-NORTHEAST OF STATION K 371, 36.0 FEET EAST-NORTHEAST OF A FIELD ENTRANCE, 3.3 FEET WEST-NORTHWEST OF A FENCE CORNER, 0.5 FOOT SOUTH-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1067.691	0.016	325.433	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.426 12B = -90.426 09 = -90.298 03 = -90.321

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_A-DP9442-3NW-18JUN2014.jpg	NW	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_A-DP9442-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_A-DP9442-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26699.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26699.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 B

NGS Name: 6801 B

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	160 N	44 W	483939.00	961921.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1971) **Stamping:** 6801 B 1971

7.6 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, 103.0 FEET SOUTH OF TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 STATION 1540+25.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.456 12B = -90.456 09 = -90.325 03 = -90.351

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26700.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26700.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 C **NGS Name:** 6801 C

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9443 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	160 N	44 W	483957.40	961806.01	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2014	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (2014) **Stamping:** 6801 C 19

6.6 MILES WEST-SOUTHWEST OF GREENBUSH, 6.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 41.65, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 23, AT TRUNK HIGHWAY 11 STATION 1594+85, 104.8 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 45.0 FEET EAST OF COUNTY ROAD 23 (140TH AVENUE), 3.0 FEET NORTH OF A POWER POLE, 0.5 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1066.642	0.016	325.113	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.469 12B = -90.469 09 = -90.334 03 = -90.364

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_C-DP9443-3N-18JUN2014.jpg	N	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_C-DP9443-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_C-DP9443-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26701.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26701.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 D **NGS Name:** 6801 D

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9444 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	160 N	44 W	484002.94	961649.25	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2018	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (2014) **Stamping:** 6801 D 19

5.6 MILES SOUTHWEST OF GREENBUSH, 5.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 42.6, AT TRUNK HIGHWAY 11 STATION 1646+65, 100.0 FEET SOUTH OF TRUNK HIGHWAY 11, 35.0 FEET EAST OF 150TH AVENUE, 3.0 FEET EAST OF A CABLE BOX, 0.5 FOOT NORTH OF A WITNESS POST.

Station Pair: MASUMO MNDT RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1067.380	0.016	325.338	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.476 12B = -90.476 09 = -90.344 03 = -90.377

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 40 02.94296	96 16 49.25425	468498.766	145121.097	142798.709	44232.999	297.764		2020	GPS3390
NAD83(1996)	48 40 02.94277	96 16 49.25489	468498.723	145121.078	142798.696	44232.993	297.812	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_D-DP9444-3S-18JUN2014.jpg	S	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_D-DP9444-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_D-DP9444-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26702.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26702.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 E

NGS Name: 6801 E

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	160 N	44 W	484010.00	961530.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1971) **Stamping:** 6801 E 1971

4.6 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 11 STATION 1698+85, 135.0 FEET SOUTH OF TRUNK HIGHWAY 11.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.482 09 = -90.357 03 = -90.390

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26703.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26703.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 F **NGS Name:** 6801 F

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	19	160 N	43 W	484015.47	961418.21		3

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2014	GOOD	Horz=NO Vert=YES	YES		FLUSH	MARKER IS STEEL ROD

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	MNDT

Description: (2014) **Stamping:** 6801 F 1971

3.7 MILES WEST OF GREENBUSH, 3.6 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 44.5, AT TRUNK HIGHWAY 11 STATION 1748+90, 157.0 FEET SOUTH OF TRUNK HIGHWAY 11, 105.7 FEET WEST OF COUNTY ROAD 29 (170TH AVENUE), 23.5 FEET WEST-SOUTHWEST OF A POWER POLE, 0.5 FOOT NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.495 12B = -90.489 09 = -90.367 03 = -90.400

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_F-3S-18JUN2014.jpg	S	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_F-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_F-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26704.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26704.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 G **NGS Name:** 6801 G

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	17	160 N	43 W	484038.00	961258.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1971	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1971) **Stamping:** 6801 G 1971

2.6 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, 99.0 FEET NORTH OF TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 STATION 1807+45.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.515 12B = -90.512 09 = -90.390 03 = -90.423

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26705.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26705.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 H **NGS Name:** 6801 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	31	160 N	44 W	483842.00	962312.76		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096134/
USGS Quad: PELAN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2014	GOOD	Horz=NO Vert=NO	YES	68006	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	SURVEY DISK	MNDT

Description: (2014) **Stamping:** 6801 H 2003

9.8 MILES SOUTHWEST OF GREENBUSH, 9.8 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 37.4, IN A RAIL IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 11 BRIDGE NUMBER 68006 OVER THE SOUTH BRANCH OF TWO RIVERS, 20.9 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11.

Station Notes

IF THE COORDINATES AND/OR ELEVATIONS ARE ESTABLISHED OR PUBLISHED ON THIS GEODETIC CONTROL DISK, THEY SHOULD BE USED WITH CAUTION. THE GEODETIC CONTROL DISK IS LOCATED ON AN INTEGRAL ABUTMENT AND/OR A JOINTLESS BRIDGE AND IS SUBJECT TO MOVEMENT BEYOND GEODETIC TOLERANCES.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.416 12B = -90.416 09 = -90.289 03 = -90.308

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_H-3S-25JUN2014.jpg	S	Jun 25, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_H-2-25JUN2014.jpg		Jun 25, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_H-1-25JUN2014.jpg		Jun 25, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101741.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101741.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 J **NGS Name:** 6801 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9441 Get Map
NGS Quad / Sta Num : 48096134/
USGS Quad: PELAN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	160 N	44 W	483843.86	962310.20	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2018	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 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: (2014) **Stamping:** 6801 J 2014

9.8 MILES SOUTHWEST OF GREENBUSH, 10.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 37.45, 82.7 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 30.4 FEET EAST-NORTHEAST OF A DRIVEWAY, 1.5 FEET WEST-SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1053.538	0.016	321.119	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.416 12B = -90.416 09 = -90.289 03 = -90.308

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 38 43.85632	96 23 10.19959	442900.963	137167.309	134996.484	41808.679	293.573		2020	GPS3390
NAD83(1996)	48 38 43.85614	96 23 10.20024	442900.920	137167.291	134996.470	41808.674	293.622	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_J-DP9441-3NW-30JUL2014.jpg	NW	Jul 30, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_J-DP9441-2-30JUL2014.jpg		Jul 30, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_J-DP9441-1-30JUL2014.jpg		Jul 30, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101959.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101959.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 K **NGS Name:** 6801 K

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9446 Get Map
NGS Quad / Sta Num : 48096134/
USGS Quad: PELAN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	19	160 N	43 W	484010.52	961517.18	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2018	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 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: (2014) **Stamping:** 6801 K 2014

3.8 MILES SOUTHWEST OF GREENBUSH, 4.35 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 43.75, 89.1 FEET SOUTH OF TRUNK HIGHWAY 11, 85.4 FEET WEST OF A DRIVEWAY, 56.9 FEET WEST-NORTHWEST OF CABLE BOX NUMBER C 27, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1069.749	0.016	326.060	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.485 09 = -90.357 03 = -90.390

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 40 10.51617	96 15 17.17907	474680.862	145879.096	144683.016	44464.037	298.473		2020	GPS3390
NAD83(1996)	48 40 10.51598	96 15 17.17972	474680.819	145879.076	144683.003	44464.031	298.521	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_K-DP9446-3S-30JUL2014.jpg	S	Jul 30, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_K-DP9446-2-30JUL2014.jpg		Jul 30, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_K-DP9446-1-30JUL2014.jpg		Jul 30, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101960.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101960.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 L **NGS Name:** 6801 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9448 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	10	160 N	43 W	484158.90	961115.58	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 18 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014) **Stamping:** 6801 L 2014

IN GREENBUSH, 0.45 MILE WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 47.7, 63.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 100.6 FEET WEST OF RED WILLOW ROAD 43.5 FEET EAST-SOUTHEAST OF A POWER POLE, 1.5 FEET SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.791	0.016	324.549	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.587 12B = -90.584 09 = -90.466 03 = -90.485

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 41 58.89935	96 11 15.58002	490904.262	156848.487	149627.918	47807.515	296.944		2020	GPS3390
NAD83(1996)	48 41 58.89919	96 11 15.58065	490904.219	156848.471	149627.905	47807.510	296.991	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_L-DP9448-3NW-25JUN2025.jpg	NW	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_L-DP9448-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_L-DP9448-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101961.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101961.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6801 M **NGS Name:** 6801 M

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9449 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	160 N	43 W	484158.20	961042.00	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	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: (2014) **Stamping:** 6801 M 2014

IN GREENBUSH, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 48.15, 56.1 FEET SOUTH OF TRUNK HIGHWAY 11, 82.8 FEET WEST OF TRUNK HIGHWAY 32, 27.6 FEET WEST-SOUTHWEST OF A POWER POLE WITH A LIGHT, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.712	0.016	324.525	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.594 12B = -90.594 09 = -90.476 03 = -90.495

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 41 58.19921	96 10 42.00497	493156.705	156776.553	150314.464	47785.589	296.930		2020	GPS3390
NAD83(1996)	48 41 58.19887	96 10 42.00527	493156.685	156776.519	150314.458	47785.579	296.966	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_M-DP9449-3S-25JUN2025.jpg	S	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_M-DP9449-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6801_M-DP9449-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101962.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101962.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 A

NGS Name: 6802 A

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484633.00	960100.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1956)

Stamping:

0.5 MILE SOUTHEAST OF BADGER, 105.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 STATION 60+10.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.060 12B = -91.063 09 = -90.951 03 = -90.915

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26706.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26706.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 B
NGS Name: 6802 B

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8552 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	7	161 N	41 W	484659.54	960033.40		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2014	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (2004) **Stamping:** 6802 B 1956

IN BADGER, 0.05 MILE NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 58.0, 20.0 FEET OF TRUNK HIGHWAY 11, IN THE SOUTHEAST CORNER OF A TRUNK HIGHWAY 11 BOX CULVERT.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.082 12B = -91.086 09 = -90.974 03 = -90.938

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 46 59.53931	96 00 33.40281	533930.093	187347.482	162742.218	57103.627	298.898		2012	GPS2800
NAD83(2007)	48 46 59.53931	96 00 33.40362	533930.039	187347.482	162742.201	57103.627	298.934		2007	GPS2300
NAD83(1996)	48 46 59.53930	96 00 33.40351	533930.046	187347.481	162742.204	57103.626	298.931	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_B-DG8552-3E-04AUG2004.jpg	E	Aug 4, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_B-DG8552-2-04AUG2004.jpg		Aug 4, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_B-DG8552-1-04AUG2004.jpg		Aug 4, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26707.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26707.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 C **NGS Name:** 6802 C

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8543 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	161 N	41 W	484728.62	960026.07	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2025	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 3 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (2008) **Stamping:** 6802 C 1956

0.3 MILE NORTHEAST OF BADGER, 0.65 MILE NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 58.55, AT THE SOUTHWEST CORNER OF THE BADGER CREEK CEMETERY, 31.5 FEET EAST OF TRUNK HIGHWAY 11, 27.0 FEET NORTHWEST OF A GRAVEL ROAD, 1.6 FEET SOUTHEAST OF A WITNESS POST.

Station Pair: SKAGEN RESET - ROSEAU, MN

Station Notes
THE SURVEY MARK WAS HIT BY A MOWER AND THE CAP WAS OFF.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1077.600	0.016	328.453	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.092 12B = -91.099 09 = -90.991 03 = -90.948

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 47 28.61978	96 00 26.07459	534415.389	190295.723	162890.136	58002.253	300.707		2020	GPS3390
NAD83(2007)	48 47 28.61978	96 00 26.07537	534415.336	190295.723	162890.120	58002.253	300.742		2007	GPS2300
NAD83(1996)	48 47 28.61977	96 00 26.07526	534415.344	190295.722	162890.123	58002.252	300.739	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_C-DG8543-3E-23JUN2014.jpg	E	Jun 23, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_C-DG8543-2-23JUN2014.jpg		Jun 23, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_C-DG8543-1-23JUN2014.jpg		Jun 23, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26708.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26708.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 D **NGS Name:** 6802 D

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8544 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	32	162 N	41 W	484830.09	955850.91		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2014	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (2004) **Stamping:** 6802 D 1956

2.5 MILES NORTHEAST OF BADGER, 2.35 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 60.30, 21.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, IN THE SOUTHEAST CORNER OF A BOX CULVERT.

Station Notes
THE CULVERT WAS REPLACED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.165 12B = -91.171 09 = -91.063 03 = -91.017

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 48 30.08617	95 58 50.91431	540774.022	196538.446	164828.252	59905.038	299.696		2012	GPS2800
NAD83(2007)	48 48 30.08615	95 58 50.91514	540773.966	196538.444	164828.235	59905.037	299.732		2007	GPS2300
NAD83(1996)	48 48 30.08614	95 58 50.91504	540773.973	196538.443	164828.237	59905.037	299.729	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_D-DG8544-3SE-03AUG2004.jpg	SE	Aug 3, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_D-DG8544-2-03AUG2004.jpg		Aug 3, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_D-DG8544-1-03AUG2004.jpg		Aug 3, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26709.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26709.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 E

NGS Name: 6802 E

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	32	162 N	41 W	484903.00	955752.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1956) **Stamping:**

2.7 MILES NORTHEAST OF BADGER, 88.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 STATION 280+00.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.210 12B = -91.214 09 = -91.109 03 = -91.066

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26710.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26710.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 F

NGS Name: 6802 F

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	28	162 N	41 W	484934.00	955632.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2004	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1956) **Stamping:** 6802 F 1956

2.2 MILES SOUTHWEST OF FOX, 125.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 51.0 FEET NORTH AND 47.0 FEET WEST OF THE JUNCTION OF A RAILROAD AND A NORTH-SOUTH ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.283 12B = -91.279 09 = -91.174 03 = -91.138

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26711.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26711.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 G

NGS Name: 6802 G

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	162 N	41 W	485024.00	955346.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1956) **Stamping:**

NEAR FOX, 50.0 FEET NORTH OF TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 STATION 463+00.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.463 12B = -91.460 09 = -91.345 03 = -91.322

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26712.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26712.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 H **NGS Name:** 6802 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8617 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	162 N	40 W	485053.35	954725.27	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1951	2025	GOOD	Horz=YES 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: (2004) **Stamping:** 6802 H 1951

IN ROSEAU, 1.0 MILE WEST ALONG TRUNK HIGHWAY 11/TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 11/TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 11 MILEPOINT 69.65, AT TRUNK HIGHWAY 11 STATION 122+77, 75.0 FEET NORTH OF TRUNK HIGHWAY 11, 48.0 FEET WEST OF 380TH AVENUE, 12.0 FEET WEST OF A RIGHT-OF-WAY POST, 4.2 FEET WEST-SOUTHWEST OF A POWER POLE WITH 4 GUY WIRES, 1.7 FEET EAST OF A WITNESS POST.

Station Pair: C 318 RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1049.532	0.016	319.898	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.962 12B = -91.968 09 = -91.844 03 = -91.824

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 53.35482	95 47 25.27104	586604.243	211218.107	178797.331	64379.408	291.805		2012	GPS2800
NAD83(2007)	48 50 53.35491	95 47 25.27202	586604.177	211218.116	178797.311	64379.411	291.825		2007	GPS2300
NAD83(1996)	48 50 53.35435	95 47 25.27164	586604.203	211218.060	178797.319	64379.393	291.883	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_H-AJ8617-3N-08DEC2025.jpg	N	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_H-AJ8617-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_H-AJ8617-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26713.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26713.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 J
NGS Name: 6802 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9457 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	13	161 N	42 W	484614.74	960118.29	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014)

Stamping: 6802 J 2014

IN BADGER, 0.95 MILE SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 56.95, 77.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 42.3 FEET SOUTHWEST OF AN ENTRANCE TO THE STORAGE UNITS, 1.5 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1082.048	0.016	329.809	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.040 12B = -91.043 09 = -90.935 03 = -90.899

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 46 14.74285	96 01 18.29096	530931.289	182802.026	161828.181	55718.169	302.090		2020	GPS3390
NAD83(1996)	48 46 14.74270	96 01 18.29162	530931.245	182802.011	161828.167	55718.164	302.138	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_J-DP9457-3NW-01JUL2025.jpg	NW	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_J-DP9457-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_J-DP9457-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101963.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101963.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 K
NGS Name: 6802 K

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9458 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484656.78	960037.47	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014)

Stamping: 6802 K 2014

IN BADGER, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 57.95, 59.5 FEET NORTHWEST OF TRUNK HIGHWAY 11, 47.0 FEET SOUTH OF COUNTY ROAD 2 (EAST UNIVERSITY AVENUE), 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1067.498	0.016	325.374	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.079 12B = -91.082 09 = -90.971 03 = -90.935

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 46 56.78278	96 00 37.46797	533658.336	187067.605	162659.386	57018.320	297.637		2020	GPS3390
NAD83(1996)	48 46 56.78263	96 00 37.46862	533658.292	187067.590	162659.373	57018.315	297.686	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_K-DP9458-3NW-01JUL2025.jpg	NW	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_K-DP9458-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_K-DP9458-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101964.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101964.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 L **NGS Name:** 6802 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9450 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	160 N	43 W	484237.24	960946.00	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2014) **Stamping:** 6802 L 2014

1.0 MILE NORTHEAST OF GREENBUSH, 1.0 MILE NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 49.25, 69.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 14.3 FEET SOUTHWEST OF A FIELD ENTRANCE, 10.0 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1067.859	0.016	325.484	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.646 12B = -90.643 09 = -90.531 03 = -90.538

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 42 37.23944	96 09 46.00357	496914.382	160732.249	151459.807	48991.288	297.880		2020	GPS3390
NAD83(1996)	48 42 37.23928	96 09 46.00421	496914.340	160732.233	151459.794	48991.283	297.928	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_L-DP9450-3SE-30JUN2025.jpg	SE	Jun 30, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_L-DP9450-2-30JUN2025.jpg		Jun 30, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_L-DP9450-1-30JUN2025.jpg		Jun 30, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101965.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101965.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 M **NGS Name:** 6802 M

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9453 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	31	161 N	42 W	484341.25	960734.85	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	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: (2014) **Stamping:** 6802 M 2014

3.0 MILES NORTHEAST OF GREENBUSH, 3.1 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 51.35, 62.3 FEET NORTHWEST OF TRUNK HIGHWAY 11, 4.2 FEET NORTHEAST OF A FIELD ENTRANCE, 1.0 FOOT SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1078.948	0.016	328.864	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.751 12B = -90.748 09 = -90.636 03 = -90.630

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 43 41.25177	96 07 34.85317	505709.077	167220.512	154140.435	50968.914	301.210		2020	GPS3390
NAD83(1996)	48 43 41.25161	96 07 34.85380	505709.034	167220.496	154140.422	50968.909	301.257	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_M-DP9453-3NW-01JUL2025.jpg	NW	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_M-DP9453-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_M-DP9453-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101972.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101972.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 N **NGS Name:** 6802 N

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9454 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	29	161 N	42 W	484418.79	960544.30	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2018	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 36 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014) **Stamping:** 6802 N 2014

4.7 MILES NORTHEAST OF GREENBUSH, 4.65 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 52.85, 67.4 FEET NORTHWEST OF TRUNK HIGHWAY 11, 20.7 FEET SOUTHWEST OF AN ENTRANCE, 16.7 FEET EAST OF A POWER POLE, 10.0 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1081.560	0.016	329.660	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.833 12B = -90.830 09 = -90.718 03 = -90.708

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 44 18.79105	96 05 44.29555	513119.225	171028.913	156399.053	52129.717	301.979		2020	GPS3390
NAD83(1996)	48 44 18.79089	96 05 44.29618	513119.183	171028.897	156399.040	52129.712	302.027	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_N-DP9454-3NW-29JUL2014.jpg	NW	Jul 29, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_N-DP9454-2-29JUL2014.jpg		Jul 29, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_N-DP9454-1-29JUL2014.jpg		Jul 29, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101974.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101974.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 P
NGS Name: 6802 P

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9456 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	161 N	42 W	484511.94	960301.80	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2014)

Stamping: 6802 P 2014

1.9 MILES SOUTHWEST OF BADGER, 2.8 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 55.15, 75.8 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 36.8 FEET SOUTHWEST OF A DRIVEWAY, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1078.699	0.016	328.788	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.951 12B = -90.951 09 = -90.843 03 = -90.820

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 45 11.94364	96 03 01.79601	524005.489	176426.935	159717.192	53775.037	301.077		2020	GPS3390
NAD83(1996)	48 45 11.94349	96 03 01.79666	524005.445	176426.920	159717.179	53775.033	301.123	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_P-DP9456-3SE-29JUL2014.jpg	SE	Jul 29, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_P-DP9456-2-29JUL2014.jpg		Jul 29, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_P-DP9456-1-29JUL2014.jpg		Jul 29, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101975.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101975.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 Q
NGS Name: 6802 Q

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9460 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	161 N	41 W	484801.50	955946.78	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	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: (2014)

Stamping: 6802 Q 2014

2.2 MILES NORTHEAST OF BADGER, 1.45 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 59.45, 35.0 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 8.0 FEET SOUTH-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1071.248	0.016	326.517	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.125 12B = -91.132 09 = -91.023 03 = -90.974

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 48 01.49911	95 59 46.78225	537039.904	193633.192	163690.090	59019.515	298.753		2020	GPS3390
NAD83(1996)	48 48 01.49897	95 59 46.78292	537039.859	193633.178	163690.076	59019.511	298.800	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_Q-DP9460-3NW-02JUL2025.jpg	NW	Jul 2, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_Q-DP9460-2-02JUL2025.jpg		Jul 2, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_Q-DP9460-1-02JUL2025.jpg		Jul 2, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101976.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101976.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 R
NGS Name: 6802 R

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9462 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	32	162 N	41 W	484846.69	955826.18	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 37 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014)

Stamping: 6802 R 2014

3.4 MILES NORTHEAST OF BADGER, 2.8 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 60.8, 64.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 20.0 FEET SOUTHWEST OF A FIELD ENTRANCE, 5.0 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1072.226	0.016	326.815	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.184 12B = -91.187 09 = -91.082 03 = -91.037

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 48 46.68648	95 58 26.18361	542425.678	198224.657	165331.677	60418.996	299.054		2020	GPS3390
NAD83(1996)	48 48 46.68632	95 58 26.18428	542425.633	198224.641	165331.664	60418.991	299.103	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_R-DP9462-3NW-02JUL2025.jpg	NW	Jul 2, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_R-DP9462-2-02JUL2025.jpg		Jul 2, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_R-DP9462-1-02JUL2025.jpg		Jul 2, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101977.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101977.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 S **NGS Name:** 6802 S

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9464 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	27	162 N	41 W	484956.59	955519.82	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2023	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 59 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014) **Stamping:** 6802 S 2014

6.0 MILES NORTHEAST OF BADGER, 5.5 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 63.45, 79.7 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 1.5 FEET NORTH-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1088.341	0.016	331.727	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.355 12B = -91.352 09 = -91.243 03 = -91.214

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 49 56.59073	95 55 19.82269	554878.874	205342.599	169127.419	62588.549	303.893		2020	GPS3390
NAD83(1996)	48 49 56.59058	95 55 19.82338	554878.828	205342.584	169127.405	62588.545	303.942	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_S-DP9464-3S-26JUL2023.jpg	S	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_S-DP9464-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_S-DP9464-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101978.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101978.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6802 T **NGS Name:** 6802 T

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9466 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	162 N	41 W	485032.50	955237.44	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2023	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: (2014) **Stamping:** 6802 T 2014

5.0 MILES WEST OF ROSEAU, 5.0 MILES WEST ALONG TRUNK HIGHWAY 11/TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 65.65, 76.6 FEET NORTH OF TRUNK HIGHWAY 11, 31.5 FEET WEST OF 340TH AVENUE, 7.6 FEET EAST OF A RIGHT-OF-WAY POST, 1.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1092.130	0.016	332.882	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.545 12B = -91.545 09 = -91.430 03 = -91.407

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 32.50250	95 52 37.44301	565730.777	209018.008	172435.086	63708.816	305.001		2020	GPS3390
NAD83(1996)	48 50 32.50236	95 52 37.44369	565730.731	209017.994	172435.072	63708.812	305.048	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_T-DP9466-3N-26JUL2023.jpg	N	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_T-DP9466-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6802_T-DP9466-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101979.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101979.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6803 N **NGS Name:** 6803 N

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7878 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	162 N	40 W	485053.34	954536.85	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2023	GOOD	Horz=NO Vert=YES	YES	5814	FLUSH	NO MAG MATERIAL

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

Description: (1998) **Stamping:** 6803 N 1998

IN ROSEAU, IN THE SIDEWALK OF AN ABUTMENT AT THE NORTHEAST CORNER OF BRIDGE NUMBER 5814 OVER THE ROSEAU RIVER, 0.35 MILE EAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 310 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 71.05, 32.0 FEET NORTH OF TRUNK HIGHWAY 11, 0.8 FOOT SOUTH OF A BRIDGE RAILING, 19.8 FEET WEST OF THE NORTHEAST CORNER OF A BRIDGE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1052.258	0.016	320.729	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.109 09 = -91.985 03 = -91.972

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_N-DE7878-3N-26JUL2023.jpg	N	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_N-DE7878-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_N-DE7878-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_39573.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_39573.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6803 N 1 **NGS Name:** 6803 N 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DM5204 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	162 N	40 W	485045.75	954643.07	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2009	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2009) **Stamping:** 6803 N 1 2009

IN ROSEAU, 0.1 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, THEN 0.45 MILE WEST ON CENTER STREET WEST, 40.0 FEET SOUTH OF CENTER STREET WEST, 20.0 FEET EAST OF AN ENTRANCE TO THE MINNESOTA DEPARTMENT OF TRANSPORTATION TRUCK STATION, 21.5 FEET NORTH OF A CHAIN LINK FENCE AND A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1049.191	0.016	319.794	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.014 12B = -92.021 09 = -91.896 03 = -91.880

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_N_1-DM5204-3S-08DEC2025.jpg	S	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_N_1-DM5204-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_N_1-DM5204-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_87068.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_87068.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6803 Q

NGS Name: 6803 Q

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9471 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485051.56	954534.18	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	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: (2014)

Stamping: 6803 Q 2014

IN ROSEAU, 0.45 MILE EAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 71.1, 152.2 FEET SOUTH OF TRUNK HIGHWAY 11, 44.0 FEET WEST OF 3RD AVENUE NORTHEAST, 3.1 FEET NORTH OF THE NORTH LEG OF THE RIVER VIEW GAZEBO PARK SIGN, 2.8 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1047.554	0.016	319.295	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.113 09 = -91.988 03 = -91.975

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 51.56401	95 45 34.18420	594035.694	211073.188	181062.442	64335.237	291.223		2020	GPS3390
NAD83(1996)	48 50 51.56385	95 45 34.18482	594035.652	211073.172	181062.429	64335.232	291.272	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_Q-DP9471-3S-08DEC2025.jpg	S	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_Q-DP9471-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6803_Q-DP9471-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101985.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101985.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 A

NGS Name: 6805 A

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4569 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	159 N	43 W	483422.40	961013.30	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2012	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 3 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (2003)

Stamping: 6805 A

9.0 MILES SOUTH OF GREENBUSH, 1.0 MILE NORTH OF THE NORTH LIMITS OF STRATHCONA, 8.90 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, 141.0 FEET WEST OF TRUNK HIGHWAY 32, AT TRUNK HIGHWAY 32 STATION NUMBER 1477+45, 120.0 FEET SOUTH OF AN EAST-WEST ROAD, 41.0 FEET WEST OF A RAILROAD, 1.0 FOOT EAST OF A WITNESS POST. FOUND THE CONCRETE LOOSE.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1113.676	0.016	339.449	0.005	2/1	2004	00000425-3

Geoid Separations(ft): GEOID18 = -89.878 12B = -89.898 09 = -89.764 03 = -89.842

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26744.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26744.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 B

NGS Name: 6805 B

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4566 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	35	160 N	43 W	483818.45	961015.26	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2012	GOOD	Horz=NO Vert=YES	YES	6087	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	BENCH MARK DISK	MNDT

Description: (2003)

Stamping: 6805 B 1957

4.3 MILES SOUTH OF GREENBUSH, 4.35 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 140.53, IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 32 BOX CULVERT NUMBER 6087 OVER A DITCH, 29.0 FEET EAST OF TRUNK HIGHWAY 32.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1081.113	0.016	329.524	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.364 12B = -90.351 09 = -90.233 03 = -90.305

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_B-DG4566-3S-10JUL2012.jpg	S	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_B-DG4566-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_B-DG4566-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26745.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26745.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 C **NGS Name:** 6805 C

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	160 N	43 W	483948.00	961006.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2003	DESTROYED	Horz=NO Vert=NO	NO	4831	FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	SURVEY DISK	MNDT

Description: (1958) **Stamping:** 6805 C

2.0 MILES SOUTH OF THE SOUTH LIMITS OF GREENBUSH, IN THE SOUTHEAST WING WALL OF TRUNK HIGHWAY 32 BRIDGE NUMBER 4831, AT TRUNK HIGHWAY 32 MILEPOINT 142.19, 18.0 FEET OF TRUNK HIGHWAY 32.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.489 12B = -90.476 09 = -90.361 03 = -90.420

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26746.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26746.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 D

NGS Name: 6805 D

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	160 N	43 W	484034.00	961004.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	1986	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: 6805 D

1.7 MILES SOUTH OF GREENBUSH, 0.2 MILE EAST ALONG CENTRAL AVENUE FROM THE JUNCTION OF CENTRAL AVENUE AND MAIN STREET IN GREENBUSH, THEN 1.7 MILES SOUTH ALONG TRUNK HIGHWAY 32.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.531 12B = -90.525 09 = -90.410 03 = -90.453

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26747.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26747.pdf

6805 D RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 D RESET
NGS Name: 6805 D RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4563 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	160 N	43 W	484019.40	961004.18	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2012	GOOD	Horz=YES Vert=YES	YES	6088	FLUSH	NO MAG MATERIAL

Monument Type
CULVERT - ANY SIZE, ANY TYPE

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6805 D RESET 1986

2.0 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 142.86, 50.0 FEET EAST OF TRUNK HIGHWAY 32, IN THE SOUTH END OF THE EAST HEADWALL OF TRUNK HIGHWAY 32 BOX CULVERT NUMBER 6088.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1066.491	0.016	325.067	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.518 12B = -90.508 09 = -90.394 03 = -90.443

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_D_RESET-DG4563-3E-10JUL2012.jpg	E	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_D_RESET-DG4563-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_D_RESET-DG4563-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26748.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26748.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 E

NGS Name: 6805 E

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	160 N	43 W	484036.00	961004.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	1986	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:** 6805 E

1.7 MILES SOUTH OF GREENBUSH, 0.2 MILE EAST ALONG CENTRAL AVENUE FROM THE JUNCTION OF CENTRAL AVENUE AND MAIN STREET IN GREENBUSH, THEN 1.7 MILES SOUTH ALONG TRUNK HIGHWAY 32.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.535 12B = -90.528 09 = -90.410 03 = -90.453

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26749.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26749.pdf

6805 E RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 E RESET
NGS Name: 6805 E RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4562 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	160 N	43 W	484036.77	961006.66	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1986	2012	GOOD	Horz=NO Vert=YES	YES	6089	FLUSH	NO MAG MATERIAL

Monument Type
CULVERT - ANY SIZE, ANY TYPE

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6805 E RESET 1986

1.65 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 143.19, 50.0 FEET EAST OF TRUNK HIGHWAY 32, IN THE SOUTH END OF THE EAST HEADWALL OF TRUNK HIGHWAY 32 BOX CULVERT NUMBER 6089.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1067.541	0.016	325.387	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.535 12B = -90.528 09 = -90.410 03 = -90.453

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_E_RESET-DG4562-3E-10JUL2012.jpg	E	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_E_RESET-DG4562-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_E_RESET-DG4562-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26750.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26750.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 F

NGS Name: 6805 F

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	160 N	43 W	484156.00	961037.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2003	DESTROYED	Horz=NO Vert=NO	NO	4832		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	SURVEY DISK	MNDT

Description: (1958) **Stamping:** 6805 F

IN GREENBUSH, IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 32 BRIDGE NUMBER 4832, 18.0 FEET SOUTHEAST OF TRUNK HIGHWAY 32, AT TRUNK HIGHWAY 32 STATION 1941+30, NEW CULVERTS INSTALLED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.594 12B = -90.594 09 = -90.472 03 = -90.495

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26751.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26751.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 G **NGS Name:** 6805 G

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4561 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	15	160 N	43 W	484118.93	961029.53	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 32 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2014)

Stamping: 6805 G 2003

1.0 MILE SOUTH OF GREENBUSH, 0.8 MILE SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 144.05, 99.2 FEET EAST OF TRUNK HIGHWAY 32, 17.5 FEET SOUTH OF A DRIVEWAY, 1.9 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1069.102	0.016	325.863	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.564 12B = -90.564 09 = -90.443 03 = -90.476

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 41 18.92562	96 10 29.52935	493992.368	152795.907	150569.175	46572.286	298.272		2012	GPS2800
NAD83(2007)	48 41 18.92560	96 10 29.53018	493992.313	152795.905	150569.158	46572.285	298.309	C	2009	GPS2522
NAD83(1996)	48 41 18.92551	96 10 29.53003	493992.322	152795.896	150569.161	46572.282	298.308	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_G-DG4561-3E-25JUN2025.jpg	E	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_G-DG4561-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_G-DG4561-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50166.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50166.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 H
NGS Name: 6805 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4564 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	160 N	43 W	483944.68	961009.66	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1979	2012	GOOD	Horz=NO Vert=YES	YES	68004	FLUSH	NO MAG MATERIAL

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

Description: (2003) **Stamping:** 6805 H 2003

2.5 MILES SOUTH OF GREENBUSH, IN AN ABUTMENT IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 32 BRIDGE NUMBER 68004 OVER A DRAINAGE DITCH, 2.65 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 142.20, 26.9 FEET EAST OF TRUNK HIGHWAY 32.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1075.267	0.016	327.742	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.469 09 = -90.354 03 = -90.413

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_H-DG4564-3E-10JUL2012.jpg	E	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_H-DG4564-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_H-DG4564-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50172.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50172.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 J
NGS Name: 6805 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4565 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	27	160 N	43 W	483851.59	961019.99	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2012	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6805 J 2003

3.5 MILES SOUTH OF GREENBUSH, 3.7 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 141.15, 148.2 FEET WEST OF TRUNK HIGHWAY 32, 17.0 FEET NORTH OF 170TH STREET, 2.0 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1072.645	0.016	326.943	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.413 12B = -90.400 09 = -90.285 03 = -90.354

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 38 51.59432	96 10 19.98582	494628.407	137863.831	150763.040	42020.980	299.395		2012	GPS2800
NAD83(2007)	48 38 51.59431	96 10 19.98675	494628.345	137863.830	150763.021	42020.979	299.433	C	2009	GPS2522
NAD83(1996)	48 38 51.59420	96 10 19.98663	494628.353	137863.818	150763.023	42020.976	299.429	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_J-DG4565-3N-10JUL2012.jpg	N	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_J-DG4565-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_J-DG4565-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50167.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50167.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 K **NGS Name:** 6805 K

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4567 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	159 N	43 W	483634.89	961009.54	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2012	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
UNKNOWN

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** 6805 K 2003

6.5 MILES SOUTH OF GREENBUSH, 6.4 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 138.5, 65.8 FEET EAST OF TRUNK HIGHWAY 32, 13.2 FEET SOUTH OF AN ENTRANCE, 4.6 FEET NORTH OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1096.123	0.016	334.099	0.005	2/1	2004	00000425-3

Geoid Separations(ft): GEOID18 = -90.167 12B = -90.164 09 = -90.036 03 = -90.128

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 36 34.88757	96 10 09.54283	495326.212	124008.624	150975.731	37797.904	306.620		2012	GPS2800
NAD83(2007)	48 36 34.88758	96 10 09.54378	495326.148	124008.625	150975.712	37797.905	306.657	C	2009	GPS2522
NAD83(1996)	48 36 34.88746	96 10 09.54367	495326.156	124008.613	150975.714	37797.901	306.653	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_K-DG4567-3E-31JUL2007.jpg	E	Jul 31, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_K-DG4567-2-31JUL2007.jpg		Jul 31, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_K-DG4567-1-31JUL2007.jpg		Jul 31, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50168.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50168.pdf

6805 K RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 K RESET
NGS Name: 6805 K RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8031 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	159 N	43 W	483634.89	961009.54	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: 6805 K RESET 2012

6.5 MILES SOUTH OF GREENBUSH, 6.4 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 138.5, 65.8 FEET EAST OF TRUNK HIGHWAY 32, 13.2 FEET SOUTH OF A FIELD ENTRANCE, 4.6 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1095.910	0.016	334.034	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.167 12B = -90.164 09 = -90.036 03 = -90.128

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 36 34.88776	96 10 09.54344	495326.171	124008.643	150975.719	37797.910	306.566		2018	GPS3227
NAD83(1996)	48 36 34.88740	96 10 09.54377	495326.149	124008.607	150975.712	37797.899	306.603	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_K_RESET-DO8031-3E-10JUL2012.jpg	E	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_K_RESET-DO8031-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_K_RESET-DO8031-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_96826.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_96826.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 L
NGS Name: 6805 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4568 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	159 N	43 W	483451.02	961012.50	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2012	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2003) **Stamping:** 6805 L 2003

8.0 MILES SOUTH OF GREENBUSH, 8.25 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 136.60, 80.1 FEET WEST OF TRUNK HIGHWAY 32, 8.3 FEET NORTH OF AN ENTRANCE, 16.6 FEET EAST OF THE EAST RAIL, 4.1 FEET SOUTH OF A WITNESS POST. PULLED THE CAP OFF.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1110.972	0.016	338.625	0.005	2/1	2004	00000425-3

Geoid Separations(ft): GEOID18 = -89.941 12B = -89.954 09 = -89.819 03 = -89.901

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 34 51.01667	96 10 12.50132	495124.597	113481.567	150914.279	34589.251	311.227		2012	GPS2800
NAD83(2007)	48 34 51.01672	96 10 12.50234	495124.528	113481.572	150914.258	34589.252	311.259	C	2009	GPS2522
NAD83(1996)	48 34 51.01659	96 10 12.50224	495124.535	113481.559	150914.260	34589.248	311.252	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_L-DG4568-3W-31JUL2007.jpg	W	Jul 31, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_L-DG4568-2-31JUL2007.jpg		Jul 31, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_L-DG4568-1-31JUL2007.jpg		Jul 31, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50169.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50169.pdf

6805 L RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 L RESET
NGS Name: 6805 L RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8034 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	159 N	43 W	483451.02	961012.50	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2012	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: 6805 L RESET 2012

8.0 MILES SOUTH OF GREENBUSH, 8.25 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 136.60, 80.1 FEET WEST OF TRUNK HIGHWAY 32, 8.3 FEET NORTH OF AN ENTRANCE, 16.6 FEET EAST OF THE EAST RAIL OF A RAILROAD, 4.1 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1110.900	0.016	338.603	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.941 12B = -89.954 09 = -89.819 03 = -89.901

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_L_RESET-DO8034-3W-10JUL2012.jpg	W	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_L_RESET-DO8034-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_L_RESET-DO8034-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_96824.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_96824.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 M **NGS Name:** 6805 M

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8038 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	159 N	43 W	483344.71	961010.18	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2012) **Stamping:** 6805 M 2012

0.5 MILE NORTH OF STRATHCONA, 0.55 MILE NORTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND LINCOLN AVENUE IN STRATHCONA, AT TRUNK HIGHWAY 32 MILEPOINT 135.3, 0.15 MILE NORTH OF 110TH STREET, 77.1 FEET EAST OF TRUNK HIGHWAY 32, 25.0 FEET SOUTH OF A FIELD ENTRANCE, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1120.178	0.016	341.431	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.800 12B = -89.823 09 = -89.691 03 = -89.767

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 33 44.71479	96 10 10.18119	495278.897	106761.982	150961.310	32541.117	314.080		2018	GPS3227
NAD83(1996)	48 33 44.71444	96 10 10.18156	495278.872	106761.947	150961.302	32541.106	314.118	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_M-DO8038-3E-07AUG2012.jpg	E	Aug 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_M-DO8038-2-07AUG2012.jpg		Aug 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_M-DO8038-1-07AUG2012.jpg		Aug 7, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97266.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97266.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 N **NGS Name:** 6805 N

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8035 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	159 N	43 W	483437.07	961009.95	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 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: (2012) **Stamping:** 6805 N 2012

1.5 MILES NORTH OF STRATHCONA, 1.55 MILES NORTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND LINCOLN AVENUE IN STRATHCONA, AT TRUNK HIGHWAY 32 MILEPOINT 136.3, 0.25 MILE NORTH OF COUNTY ROAD 6, 90.2 FEET EAST OF TRUNK HIGHWAY 32, 3.9 FEET WEST OF A RIGHT-OF-WAY POST AND A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1109.548	0.016	338.191	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.908 12B = -89.924 09 = -89.790 03 = -89.872

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 34 37.06745	96 10 09.94843	495295.908	112067.799	150966.495	34158.334	310.794		2018	GPS3227
NAD83(1996)	48 34 37.06709	96 10 09.94881	495295.882	112067.763	150966.487	34158.323	310.833	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_N-DO8035-3E-08AUG2012.jpg	E	Aug 8, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_N-DO8035-2-08AUG2012.jpg		Aug 8, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_N-DO8035-1-08AUG2012.jpg		Aug 8, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97267.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97267.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 N 1 **NGS Name:** 6805 N 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8036 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	159 N	43 W	483423.14	960901.44	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2012	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: (2012) **Stamping:** 6805 N 1 2012

2.0 MILES NORTHEAST OF STRATHCONA, 1.35 MILES NORTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND LINCOLN AVENUE IN STRATHCONA TO TRUNK HIGHWAY 32 MILEPOINT 136.1, THEN 0.9 MILE EAST ON COUNTY ROAD 6, 54.5 FEET NORTH OF COUNTY ROAD 6, 29.2 FEET EAST OF A FIELD ENTRANCE, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1115.244	0.016	339.927	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.875 12B = -89.892 09 = -89.760 03 = -89.839

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_N_1-DO8036-3N-26SEP2012.jpg	N	Sep 26, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_N_1-DO8036-2-26SEP2012.jpg		Sep 26, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_N_1-DO8036-1-26SEP2012.jpg		Sep 26, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97771.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97771.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 P **NGS Name:** 6805 P

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8030 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	159 N	43 W	483706.88	961009.27	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 17 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012) **Stamping:** 6805 P 2012

5.5 MILES SOUTH OF GREENBUSH, 5.65 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 139.15, 0.15 MILE NORTH OF 150TH STREET, 95.8 FEET EAST OF TRUNK HIGHWAY 32, 38.8 FEET SOUTH OF A FIELD ENTRANCE, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1088.174	0.016	331.676	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.233 12B = -90.223 09 = -90.102 03 = -90.190

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 37 06.88425	96 10 09.26627	495345.618	127251.427	150981.646	38786.312	304.187		2018	GPS3227
NAD83(1996)	48 37 06.88389	96 10 09.26660	495345.596	127251.390	150981.640	38786.301	304.224	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_P-DO8030-3E-07AUG2012.jpg	E	Aug 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_P-DO8030-2-07AUG2012.jpg		Aug 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_P-DO8030-1-07AUG2012.jpg		Aug 7, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97268.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97268.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 Q
NGS Name: 6805 Q

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8027 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	160 N	43 W	483946.11	961009.14	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 17 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: 6805 Q 2012

2.2 MILES SOUTH OF GREENBUSH, 2.65 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 142.25, 28.7 FEET EAST OF TRUNK HIGHWAY 32, 28.5 FEET SOUTH OF 180TH STREET, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1071.724	0.016	326.662	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.472 09 = -90.357 03 = -90.416

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 39 46.11437	96 10 09.13578	495358.454	143389.175	150985.559	43705.108	299.094		2018	GPS3227
NAD83(1996)	48 39 46.11399	96 10 09.13601	495358.438	143389.136	150985.554	43705.096	299.130	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_Q-DO8027-3E-07AUG2012.jpg	E	Aug 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_Q-DO8027-2-07AUG2012.jpg		Aug 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_Q-DO8027-1-07AUG2012.jpg		Aug 7, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97269.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97269.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6805 R **NGS Name:** 6805 R

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8026 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	160 N	43 W	484038.54	961006.53	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2012) **Stamping:** 6805 R 2012

1.7 MILES SOUTH OF GREENBUSH, 1.6 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 143.25, 107.0 FEET EAST OF TRUNK HIGHWAY 32, 26.5 FEET NORTH OF 190TH STREET, 1.5 FEET SOUTH OF A WITNESS POST.

Station Pair: BISON - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1064.926	0.016	324.590	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.535 12B = -90.528 09 = -90.413 03 = -90.456

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 40 38.54452	96 10 06.52623	495534.939	148702.875	151039.352	45324.727	297.021		2018	GPS3227
NAD83(1996)	48 40 38.54413	96 10 06.52645	495534.925	148702.836	151039.347	45324.715	297.057	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_R-DO8026-3E-25JUN2025.jpg	E	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_R-DO8026-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6805_R-DO8026-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97270.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97270.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 A

NGS Name: 6806 A

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7858 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	160 N	39 W	483928.30	954405.20	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1947	2012	DESTROYED	Horz=NO Vert=NO	NO	6780	FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (1998)

Stamping: 6806 A 1947

IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 111.50, IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 89 BRIDGE NUMBER 6780 OVER THE SOUTH FORK OF THE ROSEAU RIVER, 19.0 FEET EAST OF TRUNK HIGHWAY 89.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1107.235	0.016	337.486	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.365 12B = -91.381 09 = -91.273 03 = -91.237

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26752.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26752.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 B

NGS Name: 6806 B

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8618 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	162 N	40 W	485000.61	954600.63	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2023	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1998)

Stamping: 6806 B 1998

1.0 MILE SOUTH OF ROSEAU, 1.0 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU TO TRUNK HIGHWAY 89 MILEPOINT 124.3, THEN 0.05 MILE EAST ON A ROAD, 36.0 FEET SOUTH OF A ROAD, 9.8 FEET WEST OF A POWER POLE, 2.4 FEET EAST OF A WITNESS POST.

Station Notes
THE COORDINATES PUT THE SURVEY MARK UNDER A BITUMINOUS ROAD.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1053.085	0.016	320.981	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -92.050 12B = -92.054 09 = -91.932 03 = -91.916

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 00.61354	95 46 00.63004	592292.704	205900.341	180531.177	62758.550	292.925		2012	GPS2800
NAD83(2007)	48 50 00.61360	95 46 00.63099	592292.641	205900.347	180531.158	62758.551	292.959		2007	GPS2300
NAD83(1996)	48 50 00.61319	95 46 00.63073	592292.658	205900.306	180531.163	62758.539	292.966	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36723.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36723.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 C **NGS Name:** 6806 C

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8619 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	161 N	40 W	484816.19	954603.42	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1998) **Stamping:** 6806 C 1998

3.0 MILES SOUTH OF ROSEAU, 3.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 122.3, 81.0 FEET EAST OF TRUNK HIGHWAY 89, 39.0 FEET SOUTH OF A ROAD, 75.2 FEET SOUTH OF A POWER POLE, 4.7 FEET EAST-NORTHEAST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1057.436	0.016	322.307	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.975 12B = -91.975 09 = -91.860 03 = -91.850

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 48 16.19479	95 46 03.41896	592159.216	195316.535	180490.490	59532.599	294.261		2012	GPS2800
NAD83(2007)	48 48 16.19458	95 46 03.41982	592159.159	195316.513	180490.473	59532.592	294.304		2007	GPS2300
NAD83(1996)	48 48 16.19429	95 46 03.41969	592159.168	195316.484	180490.475	59532.583	294.306	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_C-AJ8619-3E-01AUG2007.jpg	E	Aug 1, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_C-AJ8619-2-01AUG2007.jpg		Aug 1, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_C-AJ8619-1-01AUG2007.jpg		Aug 1, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36709.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36709.pdf

6806 C RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 C RESET
NGS Name: 6806 C RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8823 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	161 N	40 W	484816.20	954603.42	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 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: (2012)

Stamping: 6806 C RESET 2012

3.0 MILES SOUTH OF ROSEAU, 3.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 122.3, 81.0 FEET EAST OF TRUNK HIGHWAY 89, 39.0 FEET SOUTH OF 280TH STREET, 4.7 FEET EAST-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1057.232	0.016	322.245	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.975 12B = -91.975 09 = -91.860 03 = -91.850

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 48 16.19557	95 46 03.41918	592159.201	195316.614	180490.486	59532.623	294.218		2018	GPS3232
NAD83(1996)	48 48 16.19536	95 46 03.41966	592159.169	195316.592	180490.476	59532.616	294.270	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_C_RESET-DO8823-3E-05SEP2012.jpg	E	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_C_RESET-DO8823-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_C_RESET-DO8823-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97453.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97453.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 D **NGS Name:** 6806 D

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8620 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	161 N	40 W	484725.39	954604.99	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1998) **Stamping:** 6806 D 1998

4.0 MILES SOUTH OF ROSEAU, 4.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 121.3, 119.0 FEET WEST OF TRUNK HIGHWAY 89, 39.0 FEET NORTH OF A ROAD, 6.9 FEET EAST-SOUTHEAST OF A POWER POLE, 51.6 FEET WEST OF AN UNDERGROUND CABLE MARKER, 2.9 FEET WEST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1058.558	0.016	322.649	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.926 12B = -91.926 09 = -91.814 03 = -91.808

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 47 25.39360	95 46 04.98615	592080.109	190167.314	180466.378	57963.113	294.626		2012	GPS2800
NAD83(2007)	48 47 25.39356	95 46 04.98702	592080.051	190167.310	180466.360	57963.112	294.661		2007	GPS2300
NAD83(1996)	48 47 25.39326	95 46 04.98690	592080.059	190167.279	180466.363	57963.103	294.663	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36708.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36708.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 D RESET
NGS Name: 6806 D RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8824 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	161 N	40 W	484725.39	954604.99	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 5 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: (2012)

Stamping: 6806 D RESET 2012

4.0 MILES SOUTH OF ROSEAU, 4.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 121.3, 119.0 FEET WEST OF TRUNK HIGHWAY 89, 39.0 FEET NORTH OF 270TH STREET, 51.6 FEET WEST OF AN UNDERGROUND CABLE MARKER, 6.9 FEET EAST-SOUTHEAST OF A POWER POLE, 2.9 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1058.292	0.016	322.568	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.926 12B = -91.926 09 = -91.814 03 = -91.808

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 47 25.39320	95 46 04.98606	592080.115	190167.274	180466.380	57963.101	294.549		2018	GPS3232
NAD83(1996)	48 47 25.39301	95 46 04.98655	592080.083	190167.255	180466.370	57963.095	294.601	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_D_RESET-DO8824-3N-05SEP2012.jpg	N	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_D_RESET-DO8824-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_D_RESET-DO8824-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97455.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97455.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 E
NGS Name: 6806 E

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8621 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	161 N	40 W	484541.44	954559.64	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1998)
Stamping: 6806 E 1998

6.0 MILES SOUTH OF ROSEAU, 6.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 119.30, 71.0 FEET EAST OF TRUNK HIGHWAY 89, 44.0 FEET NORTH OF A ROAD, 10.5 FEET NORTHWEST OF A POWER POLE, 2.7 FEET NORTH OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.719	0.016	324.527	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.817 12B = -91.817 09 = -91.709 03 = -91.709

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 45 41.44123	95 45 59.63524	592491.462	179633.597	180591.759	54752.430	296.542		2012	GPS2800
NAD83(2007)	48 45 41.44133	95 45 59.63612	592491.403	179633.607	180591.741	54752.433	296.569		2007	GPS2300
NAD83(1996)	48 45 41.44110	95 45 59.63606	592491.407	179633.583	180591.742	54752.426	296.566	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36707.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36707.pdf

6806 E RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 E RESET
NGS Name: 6806 E RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8827 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	161 N	40 W	484541.44	954559.63	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 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: (2012)

Stamping: 6806 E RESET 2012

6.0 MILES SOUTH OF ROSEAU, 6.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 119.30, 71.0 FEET EAST OF TRUNK HIGHWAY 89, 44.0 FEET NORTH OF 250TH STREET, 10.5 FEET NORTHWEST OF A POWER POLE, 2.7 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.509	0.016	324.463	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.817 12B = -91.817 09 = -91.709 03 = -91.709

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 45 41.44091	95 45 59.63562	592491.436	179633.564	180591.751	54752.420	296.479		2018	GPS3232
NAD83(1996)	48 45 41.44070	95 45 59.63611	592491.404	179633.543	180591.741	54752.413	296.531	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_E_RESET-DO8827-3E-05SEP2012.jpg	E	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_E_RESET-DO8827-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_E_RESET-DO8827-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97456.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97456.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 J **NGS Name:** 6806 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8625 Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	12	159 N	40 W	483644.05	954404.71	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1998) **Stamping:** 6806 J 1998

3.0 MILES SOUTH OF WANNASKA, 3.25 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 108.35, 75.0 FEET WEST OF TRUNK HIGHWAY 89, 53.0 FEET SOUTH OF AN ENTRANCE, 12.0 FEET SOUTH OF A POWER POLE, 24.3 SOUTH-SOUTHWEST OF A CABLE MARKER, 2.7 FEET SOUTH OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1130.401	0.016	344.547	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -90.978 12B = -90.984 09 = -90.886 03 = -90.866

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 36 44.05334	95 44 04.70931	600488.933	125210.887	183029.393	38164.355	316.815		2012	GPS2800
NAD83(2007)	48 36 44.05359	95 44 04.71003	600488.885	125210.913	183029.378	38164.363	316.848		2007	GPS2300
NAD83(1996)	48 36 44.05350	95 44 04.71012	600488.879	125210.903	183029.376	38164.360	316.842	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36759.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36759.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 J RESET **NGS Name:** 6806 J RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8841 Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	12	159 N	40 W	483644.05	954404.71	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012) **Stamping:** 6806 J RESET 2012

3.0 MILES SOUTH OF WANNASKA, 3.25 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 108.35, 75.0 FEET WEST OF TRUNK HIGHWAY 89, 53.0 FEET SOUTH OF A MINIMUM MAINTENANCE ROAD (COUNTY ROAD 131 EXTENDED), 12.0 FEET SOUTH OF A POWER POLE, 24.3 SOUTH-SOUTHWEST OF A CABLE MARKER, 2.7 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1130.152	0.016	344.471	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -90.978 12B = -90.984 09 = -90.886 03 = -90.866

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 36 44.05333	95 44 04.70884	600488.965	125210.887	183029.403	38164.355	316.744		2018	GPS3232
NAD83(1996)	48 36 44.05324	95 44 04.70947	600488.922	125210.877	183029.390	38164.352	316.794	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_J_RESET-DO8841-3W-05SEP2012.jpg	W	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_J_RESET-DO8841-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_J_RESET-DO8841-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97475.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97475.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 L
NGS Name: 6806 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8627 Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	159 N	40 W	483249.56	954358.11	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2016	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
SEE DESCRIPTIVE TEXT

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2008)

Stamping: 6806 L 1998

8.0 MILES SOUTH OF WANNASKA, 7.85 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 103.85, 73.0 FEET WEST OF TRUNK HIGHWAY 89, 41.0 FEET SOUTH OF 105TH STREET, 4.6 FEET SOUTHEAST OF A FENCE CORNER, 2.4 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1164.994	0.016	355.091	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -90.266 12B = -90.259 09 = -90.167 03 = -90.207

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 32 49.55753	95 43 58.11041	601062.534	101448.027	183204.227	30921.421	327.568		2012	GPS2800
NAD83(2007)	48 32 49.55762	95 43 58.11119	601062.482	101448.036	183204.211	30921.423	327.600		2007	GPS2300
NAD83(1996)	48 32 49.55758	95 43 58.11130	601062.475	101448.032	183204.209	30921.422	327.592	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_L-AJ8627-3W-30AUG2012.jpg	W	Aug 30, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_L-AJ8627-2-30AUG2012.jpg		Aug 30, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_L-AJ8627-1-30AUG2012.jpg		Aug 30, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36757.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36757.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 M
NGS Name: 6806 M

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7879 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	162 N	40 W	484931.79	954605.09	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	GOOD	Horz=NO Vert=YES	YES		FLUSH	NO MAG MATERIAL

Monument Type
CULVERT - ANY SIZE, ANY TYPE

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (1998)

Stamping: 6806 M 1998

1.6 MILES SOUTH OF ROSEAU, AT THE SOUTHEAST CORNER OF A BOX CULVERT OVER A DRAINAGE DITCH, 1.6 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 123.7, 39.7 FEET EAST OF TRUNK HIGHWAY 89, 101.3 FEET NORTH-NORTHWEST OF A POWER POLE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1056.733	0.016	322.093	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -92.027 12B = -92.031 09 = -91.913 03 = -91.896

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_M-DE7879-3E-05SEP2012.jpg	E	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_M-DE7879-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_M-DE7879-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_39575.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_39575.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 P
NGS Name: 6806 P

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8845 Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	159 N	40 W	483342.63	954400.03	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: 6806 P 2012

7.0 MILES SOUTH OF WANNASKA, 6.85 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 104.85, 71.5 FEET WEST OF TRUNK HIGHWAY 89, 44.2 FEET NORTH OF 115TH STREET, 1.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1157.747	0.016	352.882	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -90.430 12B = -90.423 09 = -90.338 03 = -90.364

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_P-DO8845-3W-07JUL2025.jpg	W	Jul 7, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_P-DO8845-2-07JUL2025.jpg		Jul 7, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_P-DO8845-1-07JUL2025.jpg		Jul 7, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97905.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97905.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 R **NGS Name:** 6806 R

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8838 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	160 N	40 W	483922.30	954405.87	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012) **Stamping:** 6806 R 2012

IN WANNASKA, 0.1 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 111.4, 45.3 FEET WEST OF TRUNK HIGHWAY 89, 55.3 FEET NORTH OF A GRAVEL ROAD, 20.4 FEET NORTHEAST OF A POWER POLE WITH A GUY WIRE, 1.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1101.920	0.016	335.866	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.352 12B = -91.368 09 = -91.260 03 = -91.224

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 39 22.30452	95 44 05.87028	600323.543	141248.747	182978.982	43052.704	308.029		2018	GPS3232
NAD83(1996)	48 39 22.30442	95 44 05.87087	600323.503	141248.736	182978.970	43052.701	308.079	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_R-DO8838-3W-09OCT2012.jpg	W	Oct 9, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_R-DO8838-2-09OCT2012.jpg		Oct 9, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_R-DO8838-1-09OCT2012.jpg		Oct 9, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97907.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97907.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 S
NGS Name: 6806 S

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8837 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	160 N	40 W	483928.17	954405.15	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2009	2014	GOOD	Horz=NO Vert=NO	YES	68003	FLUSH	NO MAG MATERIAL

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

Description: (2012)
Stamping: 6806 S 2009

IN WANNASKA, IN A RAIL IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 89 BRIDGE NUMBER 68003 OVER THE ROSEAU RIVER, AT THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 111.55, 21.4 FEET EAST OF TRUNK HIGHWAY 89.

Station Notes

IF THE COORDINATES AND/OR ELEVATIONS ARE ESTABLISHED OR PUBLISHED ON THIS GEODETIC CONTROL DISK, THEY SHOULD BE USED WITH CAUTION. THE GEODETIC CONTROL DISK IS LOCATED ON AN INTEGRAL ABUTMENT AND/OR A JOINTLESS BRIDGE AND IS SUBJECT TO MOVEMENT BEYOND GEODETIC TOLERANCES.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1109.099	0.016	338.054	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.365 12B = -91.381 09 = -91.273 03 = -91.237

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_S-DO8837-3E-05SEP2012.jpg	E	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_S-DO8837-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_S-DO8837-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97528.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97528.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 T **NGS Name:** 6806 T

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8832 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	160 N	40 W	484244.68	954523.94	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2016	GOOD	Horz=YES Vert=YES	YES		FLUSH	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: (2012) **Stamping:** 6806 T 2012

9.75 MILES SOUTH OF ROSEAU, 9.45 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89, TRUNK HIGHWAY 310, AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 115.75, 76.3 FEET SOUTHWEST OF TRUNK HIGHWAY 89, 36.4 FEET EAST OF 390TH AVENUE, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1087.796	0.016	331.561	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.624 12B = -91.630 09 = -91.525 03 = -91.509

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_T-DO8832-3SW-03OCT2012.jpg	SW	Oct 3, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_T-DO8832-2-03OCT2012.jpg		Oct 3, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_T-DO8832-1-03OCT2012.jpg		Oct 3, 2012

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

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Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97908.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97908.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 U
NGS Name: 6806 U

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8831 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	35	161 N	40 W	484319.55	954600.72	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 18 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: 6806 U 2012

8.9 MILES SOUTH OF ROSEAU, 8.65 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 116.6, 60.8 FEET WEST OF TRUNK HIGHWAY 89, 13.2 FEET NORTH OF A FIELD ENTRANCE, 1.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1081.149	0.016	329.535	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.637 12B = -91.637 09 = -91.535 03 = -91.522

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 43 19.55323	95 46 00.72156	592490.989	165253.041	180591.615	50369.228	301.608		2018	GPS3232
NAD83(1996)	48 43 19.55313	95 46 00.72215	592490.950	165253.031	180591.603	50369.225	301.657	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_U-DO8831-3W-09OCT2012.jpg	W	Oct 9, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_U-DO8831-2-09OCT2012.jpg		Oct 9, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_U-DO8831-1-09OCT2012.jpg		Oct 9, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97909.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97909.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 V **NGS Name:** 6806 V

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8828 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	161 N	40 W	484448.46	954559.42	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	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: (2012) **Stamping:** 6806 V 2012

7.0 MILES SOUTH OF ROSEAU, 6.95 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 118.3, 62.2 FEET EAST OF TRUNK HIGHWAY 89, 63.2 FEET SOUTH OF COUNTY ROAD 126 (240TH STREET), 10.8 FEET WEST OF A CABLE BOX, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1070.510	0.016	326.292	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.755 12B = -91.752 09 = -91.647 03 = -91.644

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 44 48.46146	95 45 59.41884	592532.989	174264.219	180604.416	53115.840	298.328		2018	GPS3232
NAD83(1996)	48 44 48.46128	95 45 59.41934	592532.956	174264.200	180604.406	53115.835	298.379	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_V-DO8828-3E-03OCT2012.jpg	E	Oct 3, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_V-DO8828-2-03OCT2012.jpg		Oct 3, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_V-DO8828-1-03OCT2012.jpg		Oct 3, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97910.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97910.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6806 W **NGS Name:** 6806 W

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8821 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	162 N	40 W	485000.01	954607.01	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2025	GOOD	Horz=YES Vert=YES	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: (2012) **Stamping:** 6806 W 2012

1.0 MILE SOUTH OF ROSEAU, 1.0 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89, TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 124.3, 73.2 FEET WEST OF TRUNK HIGHWAY 89, 94.5 FEET SOUTH OF COUNTY ROAD 120 (300TH STREET), 50.4 FEET NORTH OF A CABLE BOX, 1.5 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1054.171	0.016	321.312	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -92.040 12B = -92.047 09 = -91.922 03 = -91.909

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 00.01092	95 46 07.00548	591866.437	205837.125	180401.251	62739.281	293.267		2018	GPS3232
NAD83(1996)	48 50 00.01071	95 46 07.00597	591866.405	205837.104	180401.241	62739.275	293.320	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_W-DO8821-3W-08DEC2025.jpg	W	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_W-DO8821-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6806_W-DO8821-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97911.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97911.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 A

NGS Name: 6807 A

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	2	162 N	41 W	485328.00	955513.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2003	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1956) **Stamping:**

1.0 MILE SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 10 AT ROSS, 75.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 534+80.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.378 12B = -91.378 09 = -91.256 03 = -91.214

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26753.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26753.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 B

NGS Name: 6807 B

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	162 N	41 W	485236.00	955513.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2003	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2003)

Stamping:

2.0 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 10 AT ROSS, 75.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 587+90.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.378 12B = -91.374 09 = -91.256 03 = -91.217

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26754.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26754.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 C

NGS Name: 6807 C

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	162 N	41 W	485146.00	955512.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2003	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2003) **Stamping:** 6807 C

3.0 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 10 AT ROSS, 75.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 640+00, IN THE NORTHEAST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 89 AND AN EAST-WEST ROAD, FOUND BROKEN OFF CONCRETE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.374 12B = -91.371 09 = -91.260 03 = -91.224

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26755.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26755.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 D **NGS Name:** 6807 D

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8880 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	22	162 N	41 W	485052.08	955515.16	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1955	2023	GOOD	Horz=YES Vert=YES	YES		PROJECTS 8 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
MNDT

Description: (2014) **Stamping:** 6807 D 1955

7.0 MILES WEST OF ROSEAU, 1.0 MILE NORTH ALONG TRUNK HIGHWAY 308 FROM THE JUNCTION OF TRUNK HIGHWAYS 308 AND 11 (THE JUNCTION IS 7.0 MILES WEST OF ROSEAU), AT TRUNK HIGHWAY 308 MILEPOINT 1.0, AT TRUNK HIGHWAY 308 STATION 53+55, 71.5 FEET WEST OF TRUNK HIGHWAY 308, 37.5 FEET SOUTH OF 310TH STREET, 8.0 FEET SOUTH-SOUTHEAST OF A RIGHT-OF-WAY POST, 0.8 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1059.922	0.016	323.065	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.368 12B = -91.365 09 = -91.253 03 = -91.220

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 52.07906	95 55 15.15508	555174.274	210967.362	169217.457	64302.980	295.200		2020	GPS3390
NAD83(2007)	48 50 52.07910	95 55 15.15596	555174.215	210967.365	169217.439	64302.982	295.228		2007	GPS2300
NAD83(1996)	48 50 52.07903	95 55 15.15610	555174.206	210967.358	169217.436	64302.979	295.275	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_D-DF8880-3W-26JUL2023.jpg	W	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_D-DF8880-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_D-DF8880-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26760.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26760.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 E

NGS Name: 6807 E

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	41 W	485436.00	955524.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2003	DESTROYED	Horz=NO Vert=NO	NO	6781	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	SURVEY DISK	MNDT

Description: (2003)

Stamping: 6807 E

IN ROSS, IN THE SOUTHEAST WING WALL OF TRUNK HIGHWAY 89 BRIDGE NUMBER 6781 OVER THE ROSEAU RIVER, AT TRUNK HIGHWAY 89 MILEPOINT 136.75.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.371 12B = -91.371 09 = -91.243 03 = -91.201

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26756.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26756.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 F

NGS Name: 6807 F

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	22	163 N	41 W	485540.00	955515.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2003	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (2003) **Stamping:** 6807 F

1.5 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 10 IN ROSS, 75.0 FEET WEST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 319+25.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.388 12B = -91.391 09 = -91.263 03 = -91.214

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26757.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26757.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 G

NGS Name: 6807 G

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	163 N	41 W	485659.00	955512.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2003	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2003) **Stamping:** 6807 G

3.0 MILES NORTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 10 AT ROSS, 74.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 238+75, FOUND A BROKEN OFF CONCRETE POST IN 2003.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.407 12B = -91.407 09 = -91.283 03 = -91.230

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26758.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26758.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 H

NGS Name: 6807 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	33	164 N	41 W	485844.00	955652.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2003	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (2003) **Stamping:** 6807 H

0.25 MILE NORTHWEST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND A TOWNSHIP ROAD IN PINE CREEK, 73.0 FEET SOUTHWEST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 109+60.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.319 12B = -91.319 09 = -91.194 03 = -91.135

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26759.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26759.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 J

NGS Name: 6807 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8891 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	33	164 N	41 W	485842.10	955654.90	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2017	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6807 J 2003

0.5 MILE WEST OF PINECREEK, 0.15 MILE WEST ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINECREEK, 55.6 FEET NORTH OF COUNTY ROAD 3, 16.6 FEET EAST OF A FIELD ENTRANCE, 9.3 FEET NORTH-NORTHWEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1046.980	0.016	319.120	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.315 12B = -91.315 09 = -91.187 03 = -91.132

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_J-DF8891-3N-18JUL2007.jpg	N	Jul 18, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_J-DF8891-2-18JUL2007.jpg		Jul 18, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_J-DF8891-1-18JUL2007.jpg		Jul 18, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50042.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50042.pdf

6807 J RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 J RESET **NGS Name:** 6807 J RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6086 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	33	164 N	41 W	485842.28	955654.92		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017) **Stamping:** 6807 J RESET 2017

0.5 MILE WEST OF PINECREEK, 0.15 MILE WEST ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINECREEK, 55.6 FEET NORTH OF COUNTY ROAD 3, 16.6 FEET EAST OF A FIELD ENTRANCE, 22.0 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.315 12B = -91.315 09 = -91.187 03 = -91.132

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 58 42.27734	95 56 54.92212	548374.842	258604.592	167144.986	78822.837	291.228		2020	GPS3390
NAD83(1996)	48 58 42.27718	95 56 54.92281	548374.795	258604.576	167144.972	78822.833	291.276	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_J_RESET-DR6086-3N-16SEP2019.jpg	N	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_J_RESET-DR6086-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_J_RESET-DR6086-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108455.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108455.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 K **NGS Name:** 6807 K

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8890 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	3	163 N	41 W	485824.95	955624.00	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2017	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** 6807 K 2003

0.5 MILE SOUTHEAST OF PINECREEK, 0.5 MILE SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 141.40, 62.5 FEET SOUTHWEST OF TRUNK HIGHWAY 89, 14.4 FEET NORTHWEST OF A FIELD ENTRANCE, 6.3 FEET SOUTHEAST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1043.715	0.016	318.125	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.345 12B = -91.342 09 = -91.217 03 = -91.161

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 58 24.95391	95 56 24.00317	550442.488	256854.353	167775.206	78289.363	290.276		2012	GPS2800
NAD83(2007)	48 58 24.95397	95 56 24.00409	550442.426	256854.359	167775.187	78289.365	290.341	C	2009	GPS2522
NAD83(1996)	48 58 24.95378	95 56 24.00400	550442.433	256854.340	167775.189	78289.359	290.305	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_K-DF8890-3SW-18JUL2007.jpg	SW	Jul 18, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_K-DF8890-2-18JUL2007.jpg		Jul 18, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_K-DF8890-1-18JUL2007.jpg		Jul 18, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50043.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50043.pdf

6807 K RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 K RESET
NGS Name: 6807 K RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6087 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	3	163 N	41 W	485824.95	955624.00	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 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: (2017)

Stamping: 6807 K RESET 2017

0.5 MILE SOUTHEAST OF PINECREEK, 0.5 MILE SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 141.40, 62.5 FEET SOUTHWEST OF TRUNK HIGHWAY 89, 14.4 FEET NORTHWEST OF A FIELD ENTRANCE, 15.5 FEET SOUTH-SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1043.495	0.016	318.058	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.345 12B = -91.342 09 = -91.217 03 = -91.161

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 58 24.95383	95 56 24.00273	550442.517	256854.345	167775.215	78289.361	290.219		2020	GPS3390
NAD83(1996)	48 58 24.95368	95 56 24.00341	550442.472	256854.330	167775.201	78289.356	290.268	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_K_RESET-DR6087-3SW-16SEP2019.jpg	SW	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_K_RESET-DR6087-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_K_RESET-DR6087-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108456.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108456.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 L

NGS Name: 6807 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8889 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	163 N	41 W	485750.00	955531.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2018	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6807 L 2003

1.5 MILES SOUTHEAST OF PINECREEK, 1.4 MILES SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 140.50, 68.6 FEET EAST OF TRUNK HIGHWAY 89, 54.8 FEET NORTHEAST OF COUNTY ROAD 118, 1.0 FOOT WEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1040.969	0.016	317.288	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.397 12B = -91.394 09 = -91.270 03 = -91.217

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_L-DF8889-3NE-16AUG2017.jpg	NE	Aug 16, 2017
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_L-DF8889-2-09OCT2017.jpg		Oct 9, 2017
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_L-DF8889-1-16AUG2017.jpg		Aug 16, 2017

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50044.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50044.pdf

6807 L RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 L RESET
NGS Name: 6807 L RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6088 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	3	163 N	41 W	485749.95	955532.86	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2018	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 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: (2018)

Stamping: 6807 L RESET 2018

1.5 MILES SOUTHEAST OF PINECREEK, 1.4 MILES SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 140.50, 68.6 FEET EAST OF TRUNK HIGHWAY 89, 54.8 FEET NORTHEAST OF COUNTY ROAD 118 (390TH STREET), 1.0 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1040.753	0.016	317.222	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.394 12B = -91.394 09 = -91.266 03 = -91.217

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 57 49.94801	95 55 32.85639	553865.594	253316.078	168818.571	77210.895	289.367		2020	GPS3390
NAD83(1996)	48 57 49.94786	95 55 32.85706	553865.549	253316.062	168818.557	77210.890	289.416	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_L_RESET-DR6088-3E-16SEP2019.jpg	E	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_L_RESET-DR6088-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_L_RESET-DR6088-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_109275.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_109275.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 M

NGS Name: 6807 M

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8888 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	14	163 N	41 W	485657.00	955514.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2017	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 37 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6807 M 2003

2.5 MILES SOUTHEAST OF PINECREEK, 2.45 MILES SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 139.45, 77.5 FEET EAST OF TRUNK HIGHWAY 89, 37.8 FEET SOUTH OF 380TH STREET, 4.2 FEET SOUTH-SOUTHWEST OF A POWER POLE, 4.4 FEET SOUTH OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1038.863	0.016	316.646	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.404 12B = -91.404 09 = -91.279 03 = -91.227

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50046.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50046.pdf

6807 M RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 M RESET **NGS Name:** 6807 M RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6089 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	14	163 N	41 W	485657.79	955514.26	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 37 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017) **Stamping:** 6807 M RESET 2017

2.5 MILES SOUTHEAST OF PINECREEK, 2.45 MILES SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 139.45, 77.5 FEET EAST OF TRUNK HIGHWAY 89, 37.8 FEET SOUTH OF 380TH STREET, 4.2 FEET SOUTH-SOUTHWEST OF A POWER POLE, 4.4 FEET SOUTH OF A WITNESS POST.

Station Pair: RICE - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1038.761	0.016	316.615	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.404 12B = -91.404 09 = -91.279 03 = -91.227

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 56 57.79218	95 55 14.25904	555122.619	248033.568	169201.713	75600.783	288.756		2020	GPS3390
NAD83(1996)	48 56 57.79202	95 55 14.25969	555122.575	248033.552	169201.699	75600.778	288.804	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_M_RESET-DR6089-3E-16SEP2019.jpg	E	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_M_RESET-DR6089-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_M_RESET-DR6089-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108457.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108457.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 N **NGS Name:** 6807 N

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8887 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	163 N	41 W	485604.98	955513.96	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2018	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** 6807 N 2003

3.5 MILES SOUTHEAST OF PINECREEK, 3.45 MILES SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 138.45, 34.0 FEET SOUTH OF 370TH STREET, 73.0 FEET EAST OF TRUNK HIGHWAY 89, 3.0 FEET WEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1040.674	0.016	317.198	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.394 12B = -91.394 09 = -91.270 03 = -91.220

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 56 04.98042	95 55 13.96346	555158.471	242680.961	169212.640	73969.305	289.334		2012	GPS2800
NAD83(2007)	48 56 04.98048	95 55 13.96430	555158.415	242680.966	169212.623	73969.307	289.370	C	2009	GPS2522
NAD83(1996)	48 56 04.98032	95 55 13.96418	555158.423	242680.950	169212.626	73969.302	289.366	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_N-DF8887-3E-16AUG2017.jpg	E	Aug 16, 2017
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_N-DF8887-2-16AUG2017.jpg		Aug 16, 2017
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_N-DF8887-1-16AUG2017.jpg		Aug 16, 2017

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50047.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50047.pdf

6807 N RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 N RESET
NGS Name: 6807 N RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6090 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	163 N	41 W	485604.98	955513.96	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2018	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2018)

Stamping: 6807 N RESET 2018

3.5 MILES SOUTHEAST OF PINECREEK, 3.45 MILES SOUTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 138.45, 34.0 FEET SOUTH OF 370TH STREET, 73.0 FEET EAST OF TRUNK HIGHWAY 89, 3.0 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1040.447	0.016	317.129	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.394 12B = -91.394 09 = -91.270 03 = -91.220

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 56 04.98028	95 55 13.96317	555158.490	242680.946	169212.646	73969.300	289.279		2020	GPS3390
NAD83(1996)	48 56 04.98011	95 55 13.96379	555158.449	242680.929	169212.634	73969.295	289.327	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_N_RESET-DR6090-3E-16SEP2019.jpg	E	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_N_RESET-DR6090-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_N_RESET-DR6090-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_109274.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_109274.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 P

NGS Name: 6807 P

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8886 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	163 N	41 W	485513.80	955515.50	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2017	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6807 P 2003

4.5 MILES SOUTH-SOUTHEAST OF PINECREEK, 4.45 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINE CREEK, AT TRUNK HIGHWAY 89 MILEPOINT 137.50, 39.0 FEET NORTH OF COUNTY ROAD 112, 66.0 FEET WEST OF TRUNK HIGHWAY 89, 1.1 FEET EAST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1038.354	0.016	316.491	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.384 12B = -91.384 09 = -91.260 03 = -91.210

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50048.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50048.pdf

6807 P RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 P RESET
NGS Name: 6807 P RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6091 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	163 N	41 W	485513.80	955515.83	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017)

Stamping: 6807 P RESET 2017

4.5 MILES SOUTH-SOUTHEAST OF PINECREEK, 4.45 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINE CREEK, AT TRUNK HIGHWAY 89 MILEPOINT 137.50, 66.0 FEET WEST OF TRUNK HIGHWAY 89, 39.0 FEET NORTH OF COUNTY ROAD 112 (360TH STREET), 1.1 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1038.105	0.016	316.415	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.384 12B = -91.384 09 = -91.260 03 = -91.210

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 55 13.80258	95 55 15.82754	555049.584	237493.539	169179.452	72388.176	288.556		2020	GPS3390
NAD83(1996)	48 55 13.80241	95 55 15.82817	555049.542	237493.522	169179.439	72388.170	288.604	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_P_RESET-DR6091-3W-16SEP2019.jpg	W	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_P_RESET-DR6091-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_P_RESET-DR6091-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108459.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108459.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 Q **NGS Name:** 6807 Q

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8885 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	41 W	485435.30	955515.00	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1984	2019	GOOD	Horz=NO Vert=NO	YES	68005	FLUSH	NO MAG MATERIAL

Monument Type
BRIDGE ABUTMENT

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** 6807 Q 2003

IN ROSS, IN THE ABUTMENT IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 11 BRIDGE NUMBER 68005 OVER THE ROSEAU RIVER, AT TRUNK HIGHWAY 89 MILEPOINT 136.75, 21.7 FEET EAST OF TRUNK HIGHWAY 89.

Station Notes

THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1042.596	0.016	317.784	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.384 12B = -91.381 09 = -91.256 03 = -91.210

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_Q-DF8885-3E-17AUG2017.jpg	E	Aug 17, 2017
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_Q-DF8885-2-17AUG2017.jpg		Aug 17, 2017
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_Q-DF8885-1-17AUG2017.jpg		Aug 17, 2017

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50049.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50049.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 R

NGS Name: 6807 R

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8884 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	35	162 N	41 W	485355.30	955514.40	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2017	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6807 R 2003

0.5 MILE SOUTH OF ROSS, 0.5 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 136.0, 64.3 FEET EAST OF TRUNK HIGHWAY 89, 14.4 FEET SOUTH OF A FIELD ENTRANCE, 1.7 FEET WEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1038.561	0.016	316.554	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.381 12B = -91.378 09 = -91.253 03 = -91.210

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50057.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50057.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 R RESET
NGS Name: 6807 R RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6092 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	35	162 N	41 W	485355.24	955514.43		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017)

Stamping: 6807 R RESET 2017

0.5 MILE SOUTH OF ROSS, 0.5 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 136.0, 64.3 FEET EAST OF TRUNK HIGHWAY 89, 14.4 FEET SOUTH OF A FIELD ENTRANCE, 1.7 FEET WEST OF A WITNESS POST.

Station Pair: 6807 S RESET - ROSEAU, MN

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.378 12B = -91.378 09 = -91.253 03 = -91.210

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 53 55.23633	95 55 14.42974	555166.917	229530.898	169215.215	69961.158	288.641		2020	GPS3390
NAD83(1996)	48 53 55.23616	95 55 14.43037	555166.875	229530.880	169215.202	69961.152	288.689	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_R_RESET-DR6092-3E-16SEP2019.jpg	E	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_R_RESET-DR6092-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_R_RESET-DR6092-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108460.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108460.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 S **NGS Name:** 6807 S

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8883 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	2	162 N	41 W	485328.78	955514.51	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2018	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** 6807 S 2003

1.0 MILE SOUTH OF ROSS, 1.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 135.45, 74.6 FEET EAST OF TRUNK HIGHWAY 89, 40.2 FEET SOUTH OF 340TH STREET, 1.1 FEET WEST OF A WITNESS POST.

Station Pair: 6807 R RESET - ROSEAU, MN

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1036.271	0.016	315.856	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.378 12B = -91.374 09 = -91.253 03 = -91.214

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 53 28.78430	95 55 14.51146	555169.525	226849.898	169216.010	69143.987	287.995		2012	GPS2800
NAD83(2007)	48 53 28.78434	95 55 14.51231	555169.468	226849.902	169215.992	69143.988	288.032	C	2009	GPS2522
NAD83(1996)	48 53 28.78420	95 55 14.51220	555169.475	226849.888	169215.995	69143.984	288.028	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_S-DF8883-3E-16AUG2017.jpg	E	Aug 16, 2017
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_S-DF8883-2-16AUG2017.jpg		Aug 16, 2017
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_S-DF8883-1-16AUG2017.jpg		Aug 16, 2017

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50058.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50058.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 S RESET
NGS Name: 6807 S RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6093 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	2	162 N	41 W	485328.78	955514.51		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2018	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2018)

Stamping: 6807 S RESET 2018

1.0 MILE SOUTH OF ROSS, 1.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 135.45, 74.6 FEET EAST OF TRUNK HIGHWAY 89, 40.2 FEET SOUTH OF 340TH STREET, 1.1 FEET WEST OF A WITNESS POST.

Station Pair: 6807 R RESET - ROSEAU, MN

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.378 12B = -91.374 09 = -91.253 03 = -91.214

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 53 28.78417	95 55 14.51118	555169.544	226849.885	169216.015	69143.983	287.939		2020	GPS3390
NAD83(1996)	48 53 28.78400	95 55 14.51185	555169.499	226849.867	169216.002	69143.978	287.988	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_S_RESET-DR6093-3E-16SEP2019.jpg	E	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_S_RESET-DR6093-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_S_RESET-DR6093-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_109271.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_109271.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 T

NGS Name: 6807 T

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8882 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	162 N	41 W	485234.60	955515.10	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2017	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6807 T 2003

2.0 MILES SOUTH OF ROSS, 2.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 134.40, 51.0 FEET WEST OF TRUNK HIGHWAY 89, 11.2 FEET SOUTH OF A CEMETERY ENTRANCE, 1.7 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1041.963	0.016	317.591	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.374 12B = -91.371 09 = -91.256 03 = -91.217

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50059.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50059.pdf

6807 T RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 T RESET
NGS Name: 6807 T RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6094 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	162 N	41 W	485234.21	955515.91	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017)

Stamping: 6807 T RESET 2017

2.0 MILES SOUTH OF ROSS, 2.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 134.40, 51.0 FEET WEST OF TRUNK HIGHWAY 89, 11.2 FEET SOUTH OF THE MELLUM CEMETERY ENTRANCE, 1.7 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1041.714	0.016	317.515	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.374 12B = -91.371 09 = -91.253 03 = -91.214

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 52 34.20937	95 55 15.91214	555092.534	221318.316	169192.543	67457.958	289.683		2020	GPS3390
NAD83(1996)	48 52 34.20921	95 55 15.91281	555092.489	221318.299	169192.529	67457.953	289.732	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_T_RESET-DR6094-3W-16SEP2019.jpg	W	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_T_RESET-DR6094-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_T_RESET-DR6094-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108461.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108461.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 U **NGS Name:** 6807 U

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8881 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	162 N	41 W	485145.00	955513.10	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2017	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 33 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003)

Stamping: 6807 U 2003

3.0 MILES SOUTH OF ROSS, 3.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 133.45, 74.6 FEET EAST OF TRUNK HIGHWAY 89, 50.0 FEET NORTH OF 320TH STREET, 1.0 FOOT WEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1054.434	0.016	321.392	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.374 12B = -91.371 09 = -91.256 03 = -91.220

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50060.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50060.pdf

6807 U RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 U RESET
NGS Name: 6807 U RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6095 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	162 N	41 W	485145.03	955513.52	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2017)

Stamping: 6807 U RESET 2017

3.0 MILES SOUTH OF ROSS, 3.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 133.45, 74.6 FEET EAST OF TRUNK HIGHWAY 89, 50.0 FEET NORTH OF 320TH STREET, 1.0 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1054.309	0.016	321.354	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.374 12B = -91.371 09 = -91.256 03 = -91.220

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 51 45.03183	95 55 13.51603	555267.739	216334.551	169245.945	65938.903	293.529		2020	GPS3390
NAD83(1996)	48 51 45.03167	95 55 13.51670	555267.694	216334.535	169245.932	65938.898	293.578	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_U_RESET-DR6095-3E-16SEP2019.jpg	E	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_U_RESET-DR6095-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_U_RESET-DR6095-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108462.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108462.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 V
NGS Name: 6807 V

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6096 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	164 N	41 W	485911.32	955730.31	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 53 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017)

Stamping: 6807 V 2017

1.0 MILE NORTHWEST OF PINECREEK, 0.8 MILE NORTHWEST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 142.7, 30.2 FEET NORTHEAST OF TRUNK HIGHWAY 89, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1052.413	0.016	320.776	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.286 12B = -91.289 09 = -91.161 03 = -91.102

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 59 11.31966	95 57 30.30999	546006.481	261542.082	166423.108	79718.186	292.961		2020	GPS3390
NAD83(1996)	48 59 11.31949	95 57 30.31065	546006.437	261542.065	166423.095	79718.181	293.009	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_V-DR6096-3NE-16SEP2019.jpg	NE	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_V-DR6096-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_V-DR6096-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108190.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108190.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6807 W **NGS Name:** 6807 W

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6097 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	27	163 N	41 W	485447.08	955516.32	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 66 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017) **Stamping:** 6807 W 2017

0.5 MILE NORTH OF ROSS, 0.52 MILE NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 137.0, 100.2 FEET WEST OF TRUNK HIGHWAY 89, 36.2 FEET SOUTH OF AN UNMARKED TOWNSHIP ROAD WEST, 2.2 FEET NORTH OF A RIGHT-OF-WAY POST, 2.2 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1034.765	0.016	315.397	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.381 12B = -91.381 09 = -91.256 03 = -91.210

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 54 47.08433	95 55 16.32036	555024.799	234785.462	169171.897	71562.752	287.545		2020	GPS3390
NAD83(1996)	48 54 47.08416	95 55 16.32100	555024.757	234785.445	169171.884	71562.747	287.593	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_W-DR6097-3W-16SEP2019.jpg	W	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_W-DR6097-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6807_W-DR6097-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108191.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108191.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6808 A

NGS Name: 6808 A

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	22	162 N	41 W	485052.00	955514.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1955	2014	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

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

Description: (1955) **Stamping:** 6808 A 1955

1.01 MILES NORTH ALONG TRUNK HIGHWAY 308 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 308 IN FOX, 75.0 FEET LEFT OF TRUNK HIGHWAY 308 AT STATION 53+55.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.368 12B = -91.368 09 = -91.253 03 = -91.220

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_72141.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_72141.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 A **NGS Name:** 6809 A

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	162 N	40 W	485053.00	954601.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2009	DESTROYED	Horz=NO Vert=NO	YES			STEEL ROD IMBED IN MON

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

Description: (1966) **Stamping:** 6809 A 1966

IN ROSEAU, 38.0 FEET NORTH OF THE JUNCTION OF TRUNK HIGHWAY 11-TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310, 75.0 FEET EAST OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 0+38.

Station Notes

10-12-2009 FOUND THE MONUMENT, THE DISK WAS GONE, AND THE TOP BUSTED OFF EXPOSING A BENT OVER RE-BAR.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.073 12B = -92.080 09 = -91.955 03 = -91.939

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_A-3NW-12OCT2009.jpg	NW	Oct 12, 2009
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_A-2-12OCT2009.jpg		Oct 12, 2009
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_A-1-12OCT2009.jpg		Oct 12, 2009

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26761.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26761.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 B

NGS Name: 6809 B

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	162 N	40 W	485146.00	954603.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 6809 B 1966

1.0 MILE NORTH ON TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310-TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AT ROSEAU, 74.0 FEET WEST OF TRUNK HIGHWAY 310, AT THE TRUNK HIGHWAY 310 STATION 53+20, AT THE NORTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 310 AND A TOWNSHIP ROAD. THE CONCRETE WAS BUSTED, THE DISK WAS MISSING.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.090 12B = -92.093 09 = -91.968 03 = -91.952

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26762.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26762.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 C

NGS Name: 6809 C

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	162 N	40 W	485238.00	954603.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1998	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 6809 C 1966

2.0 MILES NORTH ALONG TRUNK HIGHWAY 310/TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, 74.0 FEET WEST OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 106+04, AT THE NORTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 310/COUNTY ROAD 16 AND A TOWNSHIP ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.100 12B = -92.106 09 = -91.978 03 = -91.962

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26763.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26763.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 D

NGS Name: 6809 D

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	162 N	40 W	485328.00	954603.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 6809 D 1966

3.0 MILES NORTH ON TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310-TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AT ROSEAU, 74.0 FEET EAST OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 157+03, AT THE SOUTHEAST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 310-COUNTY ROAD 28 AND A TOWNSHIP ROAD REBUILT, THE UNSTAMPED DISK REMOVED FROM THE MONUMENT.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.109 09 = -91.981 03 = -91.968

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26764.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26764.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 E

NGS Name: 6809 E

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	26	163 N	40 W	485422.00	954604.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 6809 E 1966

4.0 MILES NORTH ON TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310-TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AT ROSEAU, 74.0 FEET WEST OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 211+02, AT THE NORTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 310 AND A TOWNSHIP ROAD. FOUND THE CONCRETE CRACKED, REMOVED THE UNSTAMPED DISK, 3-3-98.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.109 12B = -92.109 09 = -91.978 03 = -91.972

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26765.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26765.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 F

NGS Name: 6809 F

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	163 N	40 W	485606.00	954608.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2023	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966)

Stamping: 6809 F 1966

6.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, 74.0 FEET WEST OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 317+00, AT THE NORTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 310 AND A TOWNSHIP ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.103 09 = -91.975 03 = -91.978

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26766.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26766.pdf

6809 G RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 G RESET

NGS Name: 6809 G RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7863 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	163 N	40 W	485522.00	954604.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1972	1998	GOOD	Horz=NO Vert=NO	NO	68002	FLUSH	NO MAG MATERIAL

Monument Type
BRIDGE ABUTMENT

Disk Type
VERTICAL CONTROL DISK

Mon. Agency
MNDT

Description: (1998)

Stamping: 6809 G RESET 1972

5.2 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 11/TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 IN ROSEAU, 22.6 FEET EAST OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 274+65, IN THE TOP OF THE CONCRETE RAILING OF TRUNK HIGHWAY 310 BRIDGE NUMBER 68002 OVER THE ROSEAU RIVER, AT TRUNK HIGHWAY 89 MILEPOINT 5.20, 215.2 FEET NORTH OF THE SOUTH END OF A BRIDGE, 2.5 FEET ABOVE THE BRIDGE DECK. THE DISK WAS UNSTAMPED UNTIL 3-3-98, IN THE CENTER 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 Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1048.207	0.016	319.494	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.109 09 = -91.975 03 = -91.978

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26767.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26767.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 H **NGS Name:** 6809 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8639 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	162 N	40 W	485145.60	954607.07	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2014	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
UNKNOWN

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1998) **Stamping:** 6809 H 1998

1.0 MILE NORTH OF ROSEAU, AT THE NORTHWEST CORNER OF THE JUNCTION OF TRUNK HIGHWAY 310TH AND 320TH STREET (GRAVEL ROAD), 1.0 MILE NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310, TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 1.0, 74.7 FEET WEST OF TRUNK HIGHWAY 310, 44.5 FEET NORTH OF 320TH STREET, 11.8 FEET NORTH-NORTHWEST OF A TELEPHONE CABLE PEDESTAL, 1.6 FEET NORTH-NORTHEAST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1044.893	0.016	318.484	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -92.083 12B = -92.086 09 = -91.965 03 = -91.945

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 51 45.60011	95 46 07.07462	591808.243	216538.657	180383.513	66001.115	290.421		2012	GPS2800
NAD83(2007)	48 51 45.60021	95 46 07.07558	591808.178	216538.667	180383.494	66001.118	290.456		2007	GPS2300
NAD83(1996)	48 51 45.59998	95 46 07.07546	591808.186	216538.643	180383.496	66001.111	290.462	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_H-AJ8639-3W-02AUG2004.jpg	W	Aug 2, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_H-AJ8639-2-02AUG2004.jpg		Aug 2, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_H-AJ8639-1-02AUG2004.jpg		Aug 2, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36716.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36716.pdf

6809 H RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 H RESET

NGS Name: 6809 H RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9470 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	162 N	40 W	485145.60	954607.07	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2014)

Stamping: 6809 H 1998 2014

1.0 MILE NORTH OF ROSEAU, 1.0 MILE NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310, TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 1.0, 74.7 FEET WEST OF TRUNK HIGHWAY 310, 44.5 FEET NORTH OF 320TH STREET, 11.8 FEET NORTHWEST OF CABLE BOX NUMBER 200 2A, 1.0 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1044.690	0.016	318.422	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.083 12B = -92.086 09 = -91.965 03 = -91.945

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_H_RESET-DP9470-3W-08DEC2025.jpg	W	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_H_RESET-DP9470-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_H_RESET-DP9470-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101743.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101743.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 J **NGS Name:** 6809 J

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8640 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	162 N	40 W	485238.54	954607.26	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2025	POOR	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2014)

Stamping: 6809 J 1998

2.0 MILES NORTH OF ROSEAU, 2.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 2.0, 137.0 FEET NORTH OF COUNTY ROAD 16/330TH STREET, 73.3 FEET WEST OF TRUNK HIGHWAY 310, 29.8 FEET SOUTH-SOUTHEAST OF A POWER POLE, 1.5 FEET EAST OF A WITNESS POST AND A RIGHT-OF-WAY POST.

Station Notes

THE SURVEY MARK WAS HIT BY A MOWER AND THE CAP IS LOOSE, THE SURVEY MARK NEEDS TO BE RESET IN THE FUTURE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1042.311	0.016	317.697	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.093 12B = -92.100 09 = -91.972 03 = -91.955

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 52 38.54229	95 46 07.26437	591768.698	221904.352	180371.460	67636.582	289.625		2012	GPS2800
NAD83(2007)	48 52 38.54240	95 46 07.26530	591768.636	221904.363	180371.441	67636.585	289.667		2007	GPS2300
NAD83(1996)	48 52 38.54212	95 46 07.26520	591768.643	221904.335	180371.443	67636.577	289.672	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_J-AJ8640-3W-08DEC2025.jpg	W	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_J-AJ8640-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_J-AJ8640-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36720.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36720.pdf

Geodetic Data Sheet (Brief)
GSID Station # 36719

6809 K

04/28/2026
Sheet Help

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 K
NGS Name: 6809 K

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8641 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	162 N	40 W	485328.01	954605.47	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2023	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2014)

Stamping: 6809 K 1998

3.0 MILES NORTH OF ROSEAU, 3.0 MILES NORTH ALONG TRUNK HIGHWAY 310/TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 2.95, 75.0 FEET EAST OF TRUNK HIGHWAY 310, 59.5 FEET SOUTH OF COUNTY ROAD 28/340TH STREET, 2.7 FEET NORTH OF A RIGHT-OF-WAY POST, 147.4 FEET SOUTH-SOUTHEAST OF MILEPOST 3, 3.7 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1040.779	0.016	317.230	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.106 09 = -91.978 03 = -91.965

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 53 28.00660	95 46 05.46797	591863.664	226918.241	180400.406	69164.818	289.153		2012	GPS2800
NAD83(2007)	48 53 28.00660	95 46 05.46846	591863.632	226918.241	180400.396	69164.818	289.193		2007	GPS2300
NAD83(1996)	48 53 28.00629	95 46 05.46840	591863.636	226918.210	180400.397	69164.809	289.196	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_K-AJ8641-3E-26JUL2023.jpg	E	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_K-AJ8641-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_K-AJ8641-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36719.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36719.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 L **NGS Name:** 6809 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8642 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	26	163 N	40 W	485421.30	954608.44	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2023	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1998)

Stamping: 6809 L 1998

4.0 MILES NORTH OF ROSEAU, 4.05 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310, TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 4.0, 73.2 FEET WEST OF TRUNK HIGHWAY 310, 43.5 FEET NORTH OF 350TH STREET, 6.2 FEET NORTH-NORTHEAST OF A POWER POLE, 25.3 FEET SOUTH OF A FIELD ENTRANCE, 11.2 FEET NORTH-NORTHEAST OF A RIGHT-OF-WAY POST, 2.3 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1035.713	0.016	315.686	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.103 09 = -91.972 03 = -91.965

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 54 21.29990	95 46 08.44076	591637.976	232318.624	180331.616	70810.858	287.619		2012	GPS2800
NAD83(2007)	48 54 21.30002	95 46 08.44136	591637.936	232318.636	180331.604	70810.862	287.657		2007	GPS2300
NAD83(1996)	48 54 21.29969	95 46 08.44132	591637.938	232318.603	180331.604	70810.852	287.659	C	2002	GPS1666

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_L-AJ8642-3W-26JUL2023.jpg	W	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_L-AJ8642-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_L-AJ8642-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36718.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36718.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 M
NGS Name: 6809 M

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8643 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	163 N	40 W	485749.90	954607.14	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2023	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1998)

Stamping: 6809 M 1998

8.0 MILES NORTH OF ROSEAU AT THE NORTHWEST CORNER OF TRUNK HIGHWAY 310 AND A GRAVEL ROAD, 8.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 8.0, 22.0 FEET WEST OF TRUNK HIGHWAY 310, 57.0 FEET EAST-SOUTHEAST OF A GUYED POWER POLE, 49.0 FEET WEST OF MILEPOST 8, 13.2 FEET EAST OF A WITNESS POST.

Station Notes

FOUND CAP OFF OF ROD. USE WITH CAUTION.
THE DISK WAS RETURNED TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1044.962	0.016	318.505	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.109 09 = -91.981 03 = -91.995

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 57 49.89818	95 46 07.13815	591619.181	253461.065	180325.887	77255.087	290.436		2012	GPS2800
NAD83(2007)	48 57 49.89835	95 46 07.13871	591619.144	253461.082	180325.876	77255.092	290.467		2007	GPS2300
NAD83(1996)	48 57 49.89794	95 46 07.13875	591619.142	253461.040	180325.875	77255.080	290.465	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36717.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36717.pdf

6809 M RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 M RESET

NGS Name: 6809 M RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS1966 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	163 N	40 W	485749.90	954607.14	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2023)

Stamping: 6809 M RESET 2023

8.0 MILES NORTH OF ROSEAU AT THE NORTHWEST CORNER OF TRUNK HIGHWAY 310 AND A GRAVEL ROAD, 8.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 8.0, 22.0 FEET WEST OF TRUNK HIGHWAY 310, 49.0 FEET WEST OF MILEPOST 8, 15.4 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1044.329	0.016	318.312	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_M_RESET-DS1966-3W-27JUL2023.jpg	W	Jul 27, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_M_RESET-DS1966-2-27JUL2023.jpg		Jul 27, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_M_RESET-DS1966-1-27JUL2023.jpg		Jul 27, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110958.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110958.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 N **NGS Name:** 6809 N

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7864 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	36	164 N	40 W	485841.60	954606.50	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2006	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: (1998) **Stamping:** 6809 N 1998

9.0 MILES NORTH OF ROSEAU, IN A HEADWALL IN THE SOUTHEAST CORNER OF BOX CULVERT NUMBER 91224 OVER A DRAINAGE DITCH, 9.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 310 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 9.0, 21.3 FEET EAST OF TRUNK HIGHWAY 310, 1.4 FEET EAST OF THE BACK OF A GUARDRAIL, 0.6 FOOT NORTH OF THE SOUTH END OF A HEADWALL.

Station Notes

THE BENCHMARK DISK WAS SET IN THE BRIDGE WHEN BUILT IN 1966, THEN STAMPED WHEN USED IN 1998. THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1049.401	0.016	319.858	0.005	2/1	2009	00000591

Geoid Separations(ft): GEOID18 = -92.116 12B = -92.123 09 = -91.991 03 = -92.004

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_N-DE7864-3E-19JUN2006.jpg	E	Jun 19, 2006
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_N-DE7864-2-19JUN2006.jpg		Jun 19, 2006
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_N-DE7864-1-19JUN2006.jpg		Jun 19, 2006

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_39577.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_39577.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 P
NGS Name: 6809 P

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS1962 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	163 N	40 W	485512.42	954606.36	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 63 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2023)

Stamping: 6809 P 2023

5.0 MILES NORTH OF ROSEAU, 5.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 5.0, 69.7 FEET EAST OF TRUNK HIGHWAY 310, 59.2 FEET SOUTH OF 360TH STREET EXTENDED, 12.9 FEET SOUTHEAST OF MILEPOST NUMBER 5, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1034.352	0.016	315.271	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_P-DS1962-3E-08AUG2023.jpg	E	Aug 8, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_P-DS1962-2-08AUG2023.jpg		Aug 8, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_P-DS1962-1-08AUG2023.jpg		Aug 8, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110953.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110953.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 Q
NGS Name: 6809 Q

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS1963 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	163 N	40 W	485551.24	954604.30	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 54 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2023)

Stamping: 6809 Q 2023

5.7 MILES NORTH OF ROSEAU, 5.7 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 5.70, 37.1 FEET EAST OF TRUNK HIGHWAY 310, 39.0 FEET NORTH OF A FIELD ENTRANCE, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1036.838	0.016	316.029	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_Q-DS1963-3E-08AUG2023.jpg	E	Aug 8, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_Q-DS1963-2-08AUG2023.jpg		Aug 8, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_Q-DS1963-1-08AUG2023.jpg		Aug 8, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110954.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110954.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 R
NGS Name: 6809 R

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS1967 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	163 N	40 W	485837.51	954606.37	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 51 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2023)

Stamping: 6809 R 2023

8.9 MILES NORTH OF ROSEAU, 8.9 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 8.90, 29.0 FEET EAST OF TRUNK HIGHWAY 310, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1047.212	0.016	319.191	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_R-DS1967-3E-08AUG2023.jpg	E	Aug 8, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_R-DS1967-2-08AUG2023.jpg		Aug 8, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_R-DS1967-1-08AUG2023.jpg		Aug 8, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110955.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110955.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 6809 S
NGS Name: 6809 S

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS1968 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	36	161 N	40 W	485922.00	954606.27	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 46 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2023)

Stamping: 6809 S 2023

9.75 MILES NORTH OF ROSEAU, 9.75 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 9.75, 29.2 FEET EAST OF TRUNK HIGHWAY 310, 1.5 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1054.253	0.016	321.337	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_S-DS1968-3E-08AUG2023.jpg	E	Aug 8, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_S-DS1968-2-08AUG2023.jpg		Aug 8, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/6809_S-DS1968-1-08AUG2023.jpg		Aug 8, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110957.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110957.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 7 H **NGS Name:** 7 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	36	163 N	40 W	485330.00	954604.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2023	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** 1929 H 7

3.0 MILES NORTH OF ROSEAU, 115.0 FEET NORTH AND 30.0 FEET EAST OF TRUNK HIGHWAY 310 AT THE JUNCTION OF TRUNK HIGHWAY 310-COUNTY ROAD 28 AND A TOWNSHIP ROAD.

Station Notes

THE TIES FALL INTO A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.109 09 = -91.978 03 = -91.965

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26769.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26769.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 7 HEH **NGS Name:** 7 HEH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7857 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	161 N	40 W	484449.50	954557.30	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	USGS

Description: (1998) **Stamping:** 7 HEH 1966 1071

7.0 MILES SOUTH OF ROSEAU, 7.15 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 118.35, IN THE SOUTHEAST CORNER OF A 3.0 FEET SQUARE CONCRETE BASE OF A STEEL POWER POLE, 51.0 FEET NORTH OF COUNTY ROAD 126, 9.4 FEET SOUTHWEST OF THE SOUTHWEST CORNER OF A METAL BUILDING, 202.0 FEET EAST OF TRUNK HIGHWAY 89.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1072.855	0.016	327.007	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.758 12B = -91.755 09 = -91.650 03 = -91.647

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26770.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26770.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 8 H

NGS Name: 8 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	162 N	42 W	484819.78	960822.60		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: NO 8 H 1929

5.8 MILES WEST-NORTHWEST OF BADGER, 5.8 MILES WEST ALONG COUNTY ROAD 2 (UNIVERSITY AVENUE) FROM THE JUNCTION OF COUNTY ROAD 2 (UNIVERSITY AVENUE) AND TRUNK HIGHWAY 11 IN BADGER, THEN 4.5 MILES NORTH ON COUNTY ROAD 11, 82.0 FEET NORTH OF 280TH STREET, 28.0 FEET EAST OF COUNTY ROAD 11.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.800 12B = -90.807 09 = -90.702 03 = -90.613

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80090.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80090.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 8 HEH **NGS Name:** 8 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	8	162 N	40 W	485230.00	955004.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1966	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 8 HEH 1966

2.0 MILES NORTH AND 3.0 MILES WEST OF ROSEAU, 575.0 FEET SOUTH AND 50.0 FEET WEST OF THE CROSSROADS, IN THE SOUTHEAST CORNER OF A SCHOOL YARD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.778 12B = -91.778 09 = -91.650 03 = -91.624

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26771.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26771.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 8 KEE

NGS Name: 8 KEE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	161 N	43 W	484447.00	961340.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 8 KEE 1966

3.2 MILES NORTH AND 2.0 MILES WEST OF GREENBUSH, 45.0 FEET SOUTH AND 43.0 FEET EAST OF THE CROSSROADS, 3.0 FEET SOUTH OF A POWER POLE.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.633 12B = -90.636 09 = -90.528 03 = -90.482

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26772.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26772.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 9 H **NGS Name:** 9 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	9	161 N	42 W	484656.23	960504.08		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: **Stamping:** NO 9 H 1929

3.1 MILES WEST OF BADGER, 3.4 MILES WEST ALONG COUNTY ROAD 2 (UNIVERSITY AVENUE) FROM THE JUNCTION OF COUNTY ROAD 2 (UNIVERSITY AVENUE) AND TRUNK HIGHWAY 11 IN BADGER, 35.0 FEET SOUTH OF COUNTY ROAD 2, 87.0 FEET EAST OF A DRIVE SOUTH, 70.0 FEET EAST OF A FENCE CORNER, OPPOSITE THE TOWN HALL.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.922 12B = -90.928 09 = -90.817 03 = -90.758

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80089.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80089.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 9 HEH **NGS Name:** 9 HEH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	1	162 N	41 W	485237.00	955334.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 9 HEH 1966 1041

2.0 MILES NORTH AND 6.0 MILES WEST OF ROSEAU, 55.0 FEET NORTH AND 161.0 FEET EAST OF COUNTY ROAD 16 AT A TEE-ROAD NORTH, 1.0 FOOT SOUTH OF A POWER POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.499 12B = -91.496 09 = -91.374 03 = -91.345

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26774.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26774.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 9 KEE

NGS Name: 9 KEE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	18	161 N	44 W	484632.00	962414.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096143/
USGS Quad: JUNEBERRY RIDGE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966)

Stamping: 9 KEE 1966

5.5 MILES NORTH AND 10.0 MILES WEST OF GREENBUSH, 10.0 FEET SOUTH OF A ROAD, 1.0 FOOT NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.311 12B = -90.315 09 = -90.220 03 = -90.161

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26775.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26775.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 96 KW

NGS Name: 96 KW

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	160 N	45 W	483800.00	962316.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096134/
USGS Quad: PELAN

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2008	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1954)

Stamping: 96 KW 1954 1056

3.8 MILES NORTH AND 6.0 MILES EAST OF KARLSTAD, 0.3 MILE SOUTH OF A CURVE IN A ROAD, 25.0 FEET WEST OF A NORTH-SOUTH ROAD, 3.0 FEET NORTH AND 2.0 FEET WEST OF A FENCE CORNER. FALLS IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.407 12B = -90.407 09 = -90.279 03 = -90.302

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_14768.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_14768.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 97 KW

NGS Name: 97 KW

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	18	159 N	44 W	483606.00	962319.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096133/
USGS Quad: TWISTAL SWAMP

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1954)

Stamping: 97 KW 1954 1066

1.8 MILES NORTH AND 6.0 MILES EAST OF KARLSTAD, 238.0 FEET SOUTH AND 43.0 FEET EAST OF A NORTH-SOUTH ROAD AT A TEE-ROAD EAST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.357 12B = -90.357 09 = -90.223 03 = -90.266

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26776.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26776.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 98 KW

NGS Name: 98 KW

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2337 Get Map
NGS Quad / Sta Num : 48096132/
USGS Quad: PELAN SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	18	159 N	44 W	483519.74	962205.88		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

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

Description: (2008) **Stamping:** 1075 98 KW 1954

7.0 MILES EAST ALONG COUNTY ROAD 9 FROM THE JUNCTION OF COUNTY ROAD 9 AND TRUNK HIGHWAY 59 IN KARLSTAD (COUNTY ROAD 9 TURNS INTO COUNTY ROAD 6 AT THE COUNTY BORDER), THEN 1.05 MILES NORTH ON 110TH AVENUE, 360.0 FEET NORTH OF 130TH STREET, 38.0 FEET WEST OF 110TH AVENUE, 2.4 FEET NORTH OF A POWER POLE, 1.0 FOOT EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.315 12B = -90.318 09 = -90.174 03 = -90.226

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 35 19.74472	96 22 05.87876	447161.438	116468.148	136295.079	35499.563	300.420		2012	GPS2800
NAD83(2007)	48 35 19.74475	96 22 05.87962	447161.380	116468.152	136295.061	35499.564	300.457	C	2009	GPS2522
NAD83(1996)	48 35 19.74459	96 22 05.87960	447161.382	116468.135	136295.062	35499.559	300.449	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/98_KW-DL2337-3W-12OCT2021.jpg	W	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/98_KW-DL2337-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/98_KW-DL2337-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26777.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26777.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: 99 KW **NGS Name:** 99 KW

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DK6165 Get Map
NGS Quad / Sta Num : 48096132/
USGS Quad: PELAN SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	159 N	44 W	483332.23	962158.77		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2020	GOOD	Horz=YES Vert=YES	YES		FLUSH	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: (2008) **Stamping:** 1079 99 KW 1954

6.6 MILES EAST-SOUTHEAST OF KARLSTAD, 6.9 MILES EAST ALONG COUNTY ROAD 9/COUNTY ROAD 6 FROM THE JUNCTION OF COUNTY ROAD 9/COUNTY ROAD 6 AND TRUNK HIGHWAY 59 IN KARLSTAD, THEN 1.0 MILE SOUTH ALONG 110TH AVENUE, 300.0 FEET EAST OF 110TH AVENUE, 44.0 FEET NORTH OF 110TH STREET, 0.5 FOOT NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.197 12B = -90.203 09 = -90.059 03 = -90.115

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 33 32.22685	96 21 58.76740	447608.630	105570.134	136431.383	32177.841	301.801		2012	GPS2800
NAD83(2007)	48 33 32.22691	96 21 58.76821	447608.575	105570.141	136431.367	32177.843	301.837	C	2009	GPS2522
NAD83(1996)	48 33 32.22676	96 21 58.76822	447608.574	105570.125	136431.366	32177.839	301.828	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/99_KW-DK6165-3N-23JUN2020.jpg	N	Jun 23, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/99_KW-DK6165-2-23JUN2020.jpg		Jun 23, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/99_KW-DK6165-1-23JUN2020.jpg		Jun 23, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26778.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26778.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: A 220 **NGS Name:** A 220

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	11	163 N	40 W	485752.00	954604.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** A 220 1935

7.5 MILES NORTH ON TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310-TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AT ROSEAU, 27.0 FEET EAST OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 422+00.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.109 12B = -92.116 09 = -91.988 03 = -91.998

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26781.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26781.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: A 374 **NGS Name:** A 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0522 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	20	162 N	40 W	485044.55	955120.68	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 36 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2004) **Stamping:** A 374 1981

4.05 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 66.70, 74.0 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 36.0 FEET EAST-NORTHEAST OF 350TH AVENUE, 11.0 FEET WEST OF A TELEPHONE JUNCTION BOX, 0.5 FOOT EAST OF A RIGHT-OF-WAY POST, 1.0 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1088.695	0.016	331.835	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.647 12B = -91.647 09 = -91.529 03 = -91.506

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 44.54879	95 51 20.68105	570861.234	210258.030	173998.852	64086.776	303.927		2020	GPS3390
NAD83(2007)	48 50 44.54882	95 51 20.68191	570861.176	210258.033	173998.834	64086.777	303.962		2007	GPS2300
NAD83(1996)	48 50 44.54875	95 51 20.68205	570861.167	210258.026	173998.832	64086.774	303.960	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_374-TC0522-3N-26JUL2023.jpg	N	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_374-TC0522-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_374-TC0522-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26785.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26785.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: A 375 **NGS Name:** A 375

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0812 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	16	160 N	43 W	484038.64	961257.33	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 16 FT)	METAL ROD	NGS

Description: (2014) **Stamping:** A 375 1981

2.6 MILES WEST OF GREENBUSH, 2.6 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 45.6, 76.6 FEET NORTH OF TRUNK HIGHWAY 11, 84.4 FEET EAST OF 180TH AVENUE, 3.0 FEET WEST OF A POWER POLE WITH A GUY WIRE, 12.4 FEET NORTH-NORTHWEST OF A GUY WIRE ANCHOR, 1.0 F00T EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1070.585	0.016	326.315	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.515 12B = -90.512 09 = -90.390 03 = -90.423

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 40 38.64229	96 12 57.32944	484071.100	148719.134	147545.167	45329.683	298.725		2020	GPS3390
NAD83(1996)	48 40 38.64209	96 12 57.33009	484071.057	148719.114	147545.153	45329.677	298.773	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_375-TD0812-3NW-30JUN2025.jpg	NW	Jun 30, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_375-TD0812-2-30JUN2025.jpg		Jun 30, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_375-TD0812-1-30JUN2025.jpg		Jun 30, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26786.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26786.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: A 67 **NGS Name:** A 67

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0038 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	29	160 N	44 W	483922.24	962042.19	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2018	GOOD	Horz=YES Vert=YES	YES		PROJECTS 1 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (2014) **Stamping:** A 67 1934

8.0 MILES SOUTHWEST OF GREENBUSH, 8.75 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 39.50, 105.5 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 63.0 FEET WEST-SOUTHWEST OF A FIELD ENTRANCE, 30.0 FEET EAST-NORTHEAST OF COUNTY ROAD 105 (120TH AVENUE), 6.0 FEET NORTH OF A CEMETERY FENCE CORNER, 0.8 FEET SOUTH-SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1065.401	0.016	324.735	0.005	2/1	2019	00000941
NGVD29	1064.063	0.007	324.327	0.002	1/2	1992	UNCHECKD

Geoid Separations(ft): GEOID18 = -90.443 12B = -90.439 09 = -90.311 03 = -90.334

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 39 22.24150	96 20 42.18548	452851.463	141029.454	138029.402	42985.864	297.180		2020	GPS3390
NAD83(1996)	48 39 22.24131	96 20 42.18612	452851.420	141029.435	138029.389	42985.858	297.229	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_67-TD0038-3NW-18JUN2014.jpg	NW	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_67-TD0038-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/A_67-TD0038-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26787.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26787.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: AMERIC
NGS Name: AMERIC

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8545 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	162 N	40 W	485119.22	954607.13		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2004	2014	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
UNKNOWN

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2004)

Stamping: AMERIC 2004

0.5 MILE NORTH OF ROSEAU, 0.5 MILE NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 0.50, 57.6 FEET WEST OF TRUNK HIGHWAY 310, 11.0 FEET NORTH OF A FIELD ENTRANCE, 5.0 FEET SOUTH OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.073 12B = -92.080 09 = -91.955 03 = -91.939

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 51 19.21883	95 46 07.12680	591818.137	213864.868	180386.529	65186.142	290.755		2012	GPS2800
NAD83(2007)	48 51 19.21893	95 46 07.12776	591818.073	213864.878	180386.509	65186.145	290.789		2007	GPS2300
NAD83(1996)	48 51 19.21866	95 46 07.12764	591818.081	213864.850	180386.512	65186.137	290.792	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/AMERIC-DG8545-3W-12OCT2009.jpg	W	Oct 12, 2009
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/AMERIC-DG8545-2-12OCT2009.jpg		Oct 12, 2009
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/AMERIC-DG8545-1-12OCT2009.jpg		Oct 12, 2009

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50881.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50881.pdf

AMERIC RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: AMERIC RESET
NGS Name: AMERIC RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9469 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	162 N	40 W	485119.22	954607.13	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014)

Stamping: AMERIC 2004 2014

0.5 MILE NORTH OF ROSEAU, 0.5 MILE NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAYS 310, 89 AND 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 0.50, 57.6 FEET WEST OF TRUNK HIGHWAY 310, 15.0 FEET NORTH OF A FIELD ENTRANCE, 5.0 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1045.769	0.016	318.751	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.073 12B = -92.080 09 = -91.955 03 = -91.939

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/AMERIC_RESET-DP9469-3W-08DEC2025.jpg	W	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/AMERIC_RESET-DP9469-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/AMERIC_RESET-DP9469-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101746.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101746.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: B 202 **NGS Name:** B 202

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0414 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	162 N	41 W	485023.00	955353.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2014	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** B 202 1935

IN FOX, AT A DRIVEWAY TO A SERVICE STATION, 31.2 FEET NORTHWEST OF THE NORTHWEST CORNER OF A SERVICE STATION, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND NORTH-SOUTH ROAD, 41.7 FEET SOUTH OF TRUNK HIGHWAY 11, 35.5 FEET EAST OF A ROAD, 13.7 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1094.830	0.007	333.705	0.002	1/2	1991	00000025
NGVD29	1093.482	0.007	333.294	0.002	1	1941	Q480954

Geoid Separations(ft): GEOID18 = -91.453 12B = -91.450 09 = -91.338 03 = -91.315

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26793.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26793.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: B 220 **NGS Name:** B 220

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	163 N	40 W	485658.00	954604.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** B 220 1935

6.5 MILES NORTH ON TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310-TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AT ROSEAU, 60.0 FEET OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 362+51.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.109 09 = -91.981 03 = -91.991

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26795.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26795.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: B 374 **NGS Name:** B 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0523 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	162 N	41 W	485029.00	955236.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	GOOD	Horz=NO Vert=NO	YES		RECESSED 2 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
STEEL ROD (IN SLEEVE) (DEPTH 28 FT)	METAL ROD	NGS

Description: (1981) **Stamping:** B 374 1981

5.05 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 65.7, 0.05 MILE SOUTH OF TRUNK HIGHWAY 11, 61.0 FEET NORTHWEST OF A RAILROAD CROSSING OF A GRAVEL ROAD, 44.0 FEET WEST OF 340TH AVENUE (GRAVEL ROAD), 39.0 FEET NORTH-NORTHWEST OF THE NORTH-NORTHWEST RAIL OF THE RAILROAD TRACKS, 35.0 FEET NORTHWEST OF A RAILROAD CROSSING SIGN, 3.5 FEET WEST OF A POWER POLE, 1.0 FOOT EAST-NORTHEAST OF A WITNESS POST.

Station Notes

THE SURVEY MARK IS ON RAILROAD PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1094.007	0.007	333.454	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.548 12B = -91.545 09 = -91.430 03 = -91.407

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/B_374-TC0523-3N-03AUG2004.jpg	N	Aug 3, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/B_374-TC0523-2-03AUG2004.jpg		Aug 3, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/B_374-TC0523-1-03AUG2004.jpg		Aug 3, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26799.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26799.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: B 375 **NGS Name:** B 375

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0811 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	16	160 N	43 W	484116.41	961153.50	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2025	GOOD	Horz=NO Vert=YES	YES		RECESSED 5 IN.	STEEL SPIKE ADJ TO MON

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 24 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2003) **Stamping:** B 375 1981

1.4 MILES WEST-SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 46.70, 75.5 FEET EAST-SOUTHEAST OF TRUNK HIGHWAY 11, 240.0 FEET EAST OF THE NORTHEAST CORNER OF A SMALL CEMETERY, 19.8 FEET SOUTH OF A DRIVEWAY, 1.7 FEET SOUTH OF A RIGHT-OF-WAY POST, 1.0 FOOT NORTH-NORTHEAST OF A WITNESS POST.

Station Notes

DUE TO TREES IN THE SOUTHEAST, THIS SURVEY MARK MAY BE UNSUITABLE FOR MNDOT GEODETIC HORIZONTAL SURVEYS WHEN THE TREES HAVE FOLIAGE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1070.162	0.016	326.186	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.548 12B = -90.544 09 = -90.430 03 = -90.456

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 41 16.40869	96 11 53.49939	488357.618	152543.520	148851.700	46495.358	298.606		2012	GPS2800
NAD83(2007)	48 41 16.40868	96 11 53.50022	488357.563	152543.519	148851.683	46495.358	298.645	C	2009	GPS2522
NAD83(1996)	48 41 16.40859	96 11 53.50007	488357.573	152543.510	148851.686	46495.355	298.644	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/B_375-TD0811-3E-25JUN2025.jpg	E	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/B_375-TD0811-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/B_375-TD0811-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26800.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26800.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: B 67 **NGS Name:** B 67

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0039 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	160 N	44 W	483956.00	961806.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** B 67 1934

6.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM GREENBUSH, 2.1 MILES EAST OF A CHURCH, 39.0 FEET NORTH OF TRUNK HIGHWAY 11, 27.0 FEET WEST OF A TEE-ROAD NORTH, 6.0 FEET NORTH OF A FENCE CORNER.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1070.497	0.007	326.288	0.002	1	1993	POSTED
NGVD29	1069.115	0.007	325.867	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.466 12B = -90.466 09 = -90.334 03 = -90.364

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26801.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26801.pdf

BADGER

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BADGER **NGS Name:** BADGER

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0800 Get Map
NGS Quad / Sta Num : 48096112/1003
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484652.14	960059.17	1	1

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2008	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRIANGULATION STATION DISK	NGS

Description: (1994) **Stamping:** BADGER 1941

IN THE SOUTH EDGE OF BADGER, 45.0 FEET EAST OF TRUNK HIGHWAY 11, 47.5 FEET WEST OF THE WEST CORNER OF THE HIGH SCHOOL, 15.0 FEET EAST OF A SIDEWALK, 85.5 FEET SOUTHEAST OF BADGER RM 1, 77.4 FEET NORTHEAST OF BADGER RM 2, 141.7 FEET SOUTH-SOUTHWEST OF STATION MINNESOTA USGS.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1083.476	0.007	330.244	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.066 12B = -91.066 09 = -90.958 03 = -90.918

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 46 52.14395	96 00 59.16751	532205.780	186594.851	162216.646	56874.224	302.660	1	1999	17648
NAD83(1986)	48 46 52.13487	96 00 59.14853	532207.053	186593.933	162217.034	56873.945		1	1986	17289
NAD27	48 46 52.21300	96 00 58.13600						1	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26802.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26802.pdf

BADGER AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BADGER AZ MK **NGS Name:** BADGER AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0802 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	161 N	42 W	484633.91	960114.56	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2025	GOOD	Horz=NO Vert=YES	YES		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	NGS

Description: (2014) **Stamping:** BADGER 1941

0.5 MILE SOUTH ALONG SOUTH MAIN STREET FROM THE JUNCTION OF SOUTH MAIN STREET AND COUNTY ROAD 2 IN BADGER, IN THE NORTHWEST CORNER OF THE JUNCTION OF MAIN STREET AND STOKES AVENUE IN BADGER, 32.0 FEET WEST-NORTHWEST OF MAIN STREET, 17.0 FEET SOUTH-SOUTHWEST OF STOKES AVENUE, 27.0 FEET NORTH-NORTHEAST OF A POWER POLE WITH A STREET LIGHT, 96.0 FEET NORTHWEST OF A POWER POLE WITH A TRANSFORMER, 40.5 FEET SOUTH-SOUTHWEST OF A FIRE PLUG, 2.0 FEET WEST-SOUTHWEST OF A STOP SIGN.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1085.362	0.016	330.819	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.050 12B = -91.053 09 = -90.945 03 = -90.905

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BADGER_AZ_MK-TD0802-3NW-01JUL2025.jpg	NW	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BADGER_AZ_MK-TD0802-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BADGER_AZ_MK-TD0802-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26803.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26803.pdf

BADGER N SEED GRAIN CO ELEV

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BADGER N SEED GRAIN CO ELEV **NGS Name:** BADGER N SEED GRAIN CO ELEV

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0908 Get Map
NGS Quad / Sta Num : 48096112/1014
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	161 N	42 W	484656.16	960106.60		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BLANK	GRAIN ELEVATOR	NGS

Description: (1941)

Stamping:

IN THE SOUTHWEST EDGE OF BADGER, 324.0 FEET SOUTH-SOUTHWEST OF THE RAILROAD DEPOT, 162.0 FEET SOUTH OF AN EAST-WEST ROAD, 54.0 FEET WEST OF THE RAILROAD TRACKS.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.063 12B = -91.066 09 = -90.955 03 = -90.915

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 46 56.16191	96 01 06.60238	531707.096	187001.208	162064.647	56998.082		4	1999	17648
NAD83(1986)	48 46 56.15318	96 01 06.58367	531708.351	187000.325	162065.030	56997.813		4	1986	17289
NAD27	48 46 56.23100	96 01 05.56900						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26804.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26804.pdf

BADGER OUR SAVIORS NOR LUTH CH

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BADGER OUR SAVIORS NOR LUTH CH **NGS Name:** BADGER OUR SAVIORS NOR LUTH CH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0906 Get Map
NGS Quad / Sta Num : 48096112/1015
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	12	161 N	42 W	484701.89	960042.64		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BLANK	CHURCH SPIRE	NGS

Description: (1941) **Stamping:**

IN BADGER, 1.0 BLOCK NORTH OF THE POST OFFICE, IN THE NORTHEAST QUADRANT OF THE JUNCTION OF THE ROADS, 72.0 FEET EAST OF TRUNK HIGHWAY 11, 69.0 FEET NORTH OF AN EAST-WEST STREET.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.076 12B = -91.079 09 = -90.971 03 = -90.932

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 47 01.89331	96 00 42.64427	533310.701	187584.929	162553.427	57176.001		4	1999	17648
NAD83(1986)	48 47 01.88529	96 00 42.62329	533312.108	187584.119	162553.856	57175.754		4	1986	17289
NAD27	48 47 01.96300	96 00 41.61200						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26805.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26805.pdf

BADGER RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BADGER RM 1 **NGS Name:** BADGER RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO7300 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484652.68	960100.15		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: **Stamping:** BADGER NO 1 1941

IN BADGER, 0.26 MILE WEST ALONG COUNTY ROAD 2 FROM THE JUNCTION OF COUNTY ROAD 2 AND TRUNK HIGHWAY 11, THEN 0.10 MILE SOUTHWEST ON SOUTH MAIN STREET.

Station Notes

MOST LIKELY GRADED OUT.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.066 12B = -91.066 09 = -90.958 03 = -90.918

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70105.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70105.pdf

BADGER RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BADGER RM 2 **NGS Name:** BADGER RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0801 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484651.53	960059.85	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2009	DESTROYED	Horz=NO Vert=NO	NO			STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: (1994) **Stamping:** BADGER NO 2 1941

IN BADGER, AT THE SOUTHWEST CORNER OF THE SCHOOL GROUNDS, 40.5 FEET EAST-SOUTHEAST OF MAIN STREET, 91.0 FEET WEST-SOUTHWEST OF THE WEST CORNER OF THE SCHOOL, 1.5 FEET EAST-SOUTHEAST OF THE EAST-SOUTHEAST EDGE OF A SIDEWALK, 77.3 FEET SOUTH-SOUTHWEST OF STATION BADGER, IN 1994 THE GEODETIC UNIT COULD NOT FIND STATION BADGER RM 2-A NEW SCHOOL HAS BEEN BUILT OVER THE STATION SITE-THE STATION IS NOW CONSIDERED LOST.

Station Notes

MOST LIKELY GRADED OUT.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1083.797	0.007	330.342	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.066 12B = -91.069 09 = -90.958 03 = -90.922

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26806.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26806.pdf

BARTO MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BARTO MNDT **NGS Name:** BARTO

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2317 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	160 N	43 W	484057.81	961219.30		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2014	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1994) **Stamping:** BARTO 1994

2.0 MILES SOUTHWEST OF GREENBUSH, 1.9 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 46.2, 72.6 FEET NORTHWEST OF TRUNK HIGHWAY 11, 139.0 FEET NORTHEAST OF A DRIVEWAY, 81.6 FEET SOUTHWEST OF A POWER POLE, 2.4 FEET SOUTHEAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.531 12B = -90.528 09 = -90.410 03 = -90.439

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 40 57.81014	96 12 19.29746	486625.113	150659.748	148323.631	45921.183	298.179		2012	GPS2800
NAD83(2007)	48 40 57.81012	96 12 19.29829	486625.058	150659.746	148323.614	45921.182	298.218		2007	GPS2300
NAD83(1996)	48 40 57.81001	96 12 19.29808	486625.072	150659.734	148323.619	45921.179	298.217	C	1999	17648
NAD83(1986)	48 40 57.80121	96 12 19.28357	486626.045	150658.842	148323.915	45920.907		C	1996	GPS925

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26807.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26807.pdf

BARTO MNDT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BARTO MNDT RESET
NGS Name: BARTO RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9447 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	160 N	43 W	484057.81	961219.30	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 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: (2014)

Stamping: BARTO 1994 2014

2.0 MILES SOUTHWEST OF GREENBUSH, 1.9 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 46.2, 72.6 FEET NORTHWEST OF TRUNK HIGHWAY 11, 139.0 FEET NORTHEAST OF DRIVEWAY NUMBER 18369, 81.6 FEET SOUTHWEST OF A POWER POLE, 1.5 FEET SOUTHEAST OF A WITNESS POST.

Station Pair: BLES MNDT - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1068.544	0.016	325.693	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.531 12B = -90.528 09 = -90.410 03 = -90.439

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 40 57.81015	96 12 19.29742	486625.116	150659.749	148323.632	45921.183	298.107		2020	GPS3390
NAD83(1996)	48 40 57.80996	96 12 19.29807	486625.072	150659.730	148323.619	45921.177	298.155	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BARTO_RESET-DP9447-3NW-30JUN2025.jpg	NW	Jun 30, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BARTO_RESET-DP9447-2-30JUN2025.jpg		Jun 30, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BARTO_RESET-DP9447-1-30JUN2025.jpg		Jun 30, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101744.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101744.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BISON **NGS Name:** BISON

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8025 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	160 N	43 W	484102.03	961020.23	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012) **Stamping:** BISON 2012

1.2 MILES SOUTH OF GREENBUSH, 1.15 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 143.7, 0.45 MILE NORTH OF 190TH STREET, 74.2 FEET NORTHEAST OF TRUNK HIGHWAY 32, 18.4 FEET SOUTHEAST OF A FIELD ENTRANCE, 39.0 FEET SOUTH-SOUTHWEST OF A POWER POLE WITH A GUY WIRE, 1.5 FEET NORTHWEST OF A WITNESS POST.

Station Pair: 6805 R - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1068.938	0.016	325.813	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.551 12B = -90.548 09 = -90.433 03 = -90.466

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 41 02.03187	96 10 20.23055	494615.839	151083.545	150759.209	46050.357	298.232		2018	GPS3227
NAD83(1996)	48 41 02.03152	96 10 20.23079	494615.823	151083.510	150759.204	46050.346	298.268	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BISON-DO8025-3E-25JUN2025.jpg	E	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BISON-DO8025-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BISON-DO8025-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97271.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97271.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BLES MNDT **NGS Name:** BLES

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2318 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	16	160 N	43 W	484111.95	961201.55	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2008) **Stamping:** BLES 1994

1.0 MILE SOUTHWEST OF GREENBUSH, 1.55 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 46.6, 71.8 FEET NORTHWEST OF TRUNK HIGHWAY 11, 36.3 FEET EAST-NORTHEAST OF A POWER POLE, 11.0 FEET WEST-NORTHWEST OF A CEMETERY ENTRANCE, 5.0 FEET SOUTHWEST OF A WITNESS POST.

Station Pair: BARTO MNDT RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1074.138	0.016	327.398	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.544 12B = -90.541 09 = -90.423 03 = -90.453

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 41 11.94940	96 12 01.55418	487816.816	152091.924	148686.863	46357.711	299.819		2020	GPS3390
NAD83(2007)	48 41 11.94939	96 12 01.55506	487816.757	152091.923	148686.845	46357.711	299.857		2007	GPS2300
NAD83(1996)	48 41 11.94929	96 12 01.55488	487816.769	152091.913	148686.849	46357.708	299.856	C	2021	HKTAD
NAD83(1986)	48 41 11.94048	96 12 01.54034	487817.745	152091.019	148687.146	46357.435		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BLES-AB2318-3NW-25JUN2025.jpg	NW	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BLES-AB2318-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BLES-AB2318-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26811.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26811.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOILER **NGS Name:** BOILER

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8028 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	2	159 N	43 W	483756.41	961012.73	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 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: (2012) **Stamping:** BOILER 2012

4.65 MILES SOUTH OF GREENBUSH, 4.7 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 140.10, 96.2 FEET EAST OF TRUNK HIGHWAY 32, 79.0 FEET SOUTH OF COUNTY ROAD 106, 22.6 FEET SOUTHWEST OF A POWER POLE WITH A GUY WIRE, 1.5 FEET NORTH OF A WITNESS POST.

Station Pair: CENTRAL - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1082.144	0.016	329.838	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.325 12B = -90.315 09 = -90.193 03 = -90.272

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 37 56.40935	96 10 12.72812	495114.328	132270.776	150911.149	40316.213	302.321		2018	GPS3227
NAD83(1996)	48 37 56.40898	96 10 12.72839	495114.310	132270.738	150911.144	40316.202	302.357	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BOILER-DO8028-3E-08AUG2012.jpg	E	Aug 8, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BOILER-DO8028-2-08AUG2012.jpg		Aug 8, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BOILER-DO8028-1-08AUG2012.jpg		Aug 8, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97272.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97272.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BORDER **NGS Name:** BORDER

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6099 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	164 N	41 W	485955.11	955834.30	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 46 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017) **Stamping:** BORDER 2017

1.95 MILES NORTHWEST OF PINECREEK, 1.95 MILES NORTHWEST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 143.85, 54.3 FEET NORTHEAST OF TRUNK HIGHWAY 89, 21.1 FEET SOUTHEAST OF AN ENTRANCE, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Station Pair: PATROL - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1070.493	0.016	326.287	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.237 12B = -91.237 09 = -91.115 03 = -91.050

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 59 55.10973	95 58 34.30298	541727.646	265970.192	165118.917	81067.877	298.468		2020	GPS3390
NAD83(1996)	48 59 55.10957	95 58 34.30362	541727.603	265970.176	165118.904	81067.872	298.515	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BORDER-DR6099-3NE-16SEP2019.jpg	NE	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BORDER-DR6099-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BORDER-DR6099-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108192.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108192.pdf

BOUNDARY MON 870 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 870 CD US
NGS Name: BOUNDARY MON 870 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1394 Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	164 N	44 W	490000.27	962407.17		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1970	GOOD	Horz=? Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND ---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE ---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

Station Notes

IN 1970, THE MONUMENT WAS REPLUMBED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.102 12B = -90.108 09 = -90.020 03 = -89.892

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.26584	96 24 07.17469	439502.435	266545.245	133960.610	81243.153	289.730	3	1999	17648
NAD83(1986)	49 00 00.25491	96 24 07.15605	439503.674	266544.134	133960.988	81242.814		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51862.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51862.pdf

BOUNDARY MON 871 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 871 CD US
NGS Name: BOUNDARY MON 871 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1395 Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	164 N	44 W	490000.23	962242.14		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1970	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
NGS

Description: (1919)

Stamping:

1.25 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM THE KITTSON-ROSEAU COUNTY LINE, 4.1 MILES NORTHEAST OF THE CARIBOU TOWN HALL, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

Station Notes
THE MONUMENT WAS REPLUMBED IN 1966 AND 1970.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.144 12B = -90.147 09 = -90.062 03 = -89.931

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.22867	96 22 42.13580	445173.470	266523.600	135689.145	81236.556	291.718	3	1999	17648
NAD83(1986)	49 00 00.21828	96 22 42.11724	445174.704	266522.543	135689.521	81236.234		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26895.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26895.pdf

BOUNDARY MON 872 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 872 CD US
NGS Name: BOUNDARY MON 872 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1396 Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	164 N	44 W	490000.20	962128.71		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1970	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
NGS

Description: (1912)

Stamping:

2.25 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM THE KITTSON-ROSEAU COUNTY LINE, 4.7 MILES NORTHEAST OF THE CARIBOU TOWN HALL, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

Station Notes
THE MONUMENT WAS REPLUMBED IN 1966 AND 1970.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.180 12B = -90.187 09 = -90.102 03 = -89.964

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.20202	96 21 28.70859	450070.158	266506.877	137181.659	81231.459	288.707	3	1999	17648
NAD83(1986)	49 00 00.19196	96 21 28.69010	450071.388	266505.854	137182.034	81231.147		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26896.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26896.pdf

BOUNDARY MON 873 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 873 CD US
NGS Name: BOUNDARY MON 873 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1397 Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	164 N	44 W	490000.18	962003.63		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
NGS

Description: (1912)

Stamping:

3.25 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM THE KITTSON-ROSEAU COUNTY LINE, 0.2 MILE EAST OF THE EAST LINE OF SECTION 28, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

Station Notes

THE MONUMENT WAS REPLUMBED IN 1966 AND 1970.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.229 12B = -90.236 09 = -90.151 03 = -90.006

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.17780	96 20 03.63322	455743.642	266489.814	138910.940	81226.258	287.693	3	1999	17648
NAD83(1986)	49 00 00.16811	96 20 03.61481	455744.868	266488.829	138911.314	81225.958		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26897.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26897.pdf

BOUNDARY MON 874 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 874 CD US
NGS Name: BOUNDARY MON 874 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1398 Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	164 N	44 W	490000.17	961850.04		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	GOOD	Horz=? Vert=YES	YES			SEE DESCRIPTION

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
NGS

Description: (1912)

Stamping:

4.25 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM THE KITTSON-ROSEAU COUNTY LINE, 0.1 MILE EAST OF THE EAST LINE OF SECTION 27, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

Station Notes
THE MONUMENT WAS REPLUMBED IN 1938, 1966, AND 1970.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.272 12B = -90.279 09 = -90.190 03 = -90.049

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.16599	96 18 50.03514	460651.739	266477.400	140406.931	81222.474	286.681	3	1999	17648
NAD83(1986)	49 00 00.15662	96 18 50.01681	460652.959	266476.448	140407.303	81222.184		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26898.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26898.pdf

BOUNDARY MON 875 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 875 CD US
NGS Name: BOUNDARY MON 875 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1399 Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	164 N	44 W	490000.13	961725.01		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	GOOD	Horz=? Vert=YES	YES			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
NGS

Description: (1912)

Stamping:

5.25 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM THE KITTSON-ROSEAU COUNTY LINE, 0.2 MILE EAST OF THE EAST LINE OF SECTION 26, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.325 12B = -90.331 09 = -90.243 03 = -90.098

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.13266	96 17 25.00559	466322.176	266462.703	142135.284	81217.994	287.665	3	1999	17648
NAD83(1986)	49 00 00.12365	96 17 24.98731	466323.393	266461.787	142135.655	81217.715		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26899.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26899.pdf

BOUNDARY MON 876 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 876 CD US
NGS Name: BOUNDARY MON 876 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1400 Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	164 N	43 W	490000.11	961611.40		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1978	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BOUNDARY MONUMENT	NGS

Description: (1966)

Stamping:

6.25 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM THE KITTSON-ROSEAU COUNTY LINE, 0.15 MILE EAST OF THE RANGE LINE BETWEEN RANGE 44 AND RANGE 45, AND THE YEAR SET DATE IS APPROXIMATE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.374 12B = -90.380 09 = -90.289 03 = -90.147

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.11265	96 16 11.39966	471230.802	266452.295	143631.436	81214.822	286.650	3	1999	17648
NAD83(1986)	49 00 00.10393	96 16 11.38145	471232.015	266451.410	143631.806	81214.552		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26825.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26825.pdf

BOUNDARY MON 877 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 877 CD US
NGS Name: BOUNDARY MON 877 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1401 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	164 N	43 W	490000.06	961446.25		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	GOOD	Horz=NO Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND ---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE ---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.433 12B = -90.436 09 = -90.348 03 = -90.207

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.05869	96 14 46.24672	476909.475	266438.776	145362.299	81210.701	288.631	3	1999	17648
NAD83(1986)	49 00 00.05031	96 14 46.22858	476910.683	266437.925	145362.667	81210.442		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51867.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51867.pdf

BOUNDARY MON 878 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 878 CD US
NGS Name: BOUNDARY MON 878 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1260 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	164 N	43 W	490000.04	961332.60		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1988	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912)

Stamping:

24.5 MILES NORTHWEST OF ROSEAU, 7.5 MILES SOUTH-SOUTHEAST OF SUNDOWN, MANITOBA, 0.5 MILE SOUTH ON AN UN-NUMBERED PAVED ROAD FROM THE SAINT PETER AND SAINT PAUL UKRAINIAN ORTHODOX CHURCH IN SUNDOWN (THE JUNCTION OF PROVINCIAL HIGHWAY 201 AND PROVINCIAL HIGHWAY 402), 5.65 MILES SOUTH ON A GRAVEL ROAD TO A TEE-INTERSECTION AND A STOP SIGN, 2.1 MILES EAST ON A GRAVEL ROAD TO A SIDE ROAD RIGHT, 0.3 MILE SOUTH ON A SIDE ROAD RIGHT TO A DRIVEWAY ON THE RIGHT, 0.8 MILE SOUTH ON A TRACK ROAD TO THE BOUNDARY AND THE MONUMENT ON THE RIGHT.

Station Notes

FARMERS HAVE PLACED FARM EQUIPMENT ACROSS THE TRACK ROAD 0.20 MILE NORTH OF THE MONUMENT. THE OBSTRUCTION CAN BE DRIVEN AROUND DURING DRY WEATHER.
THE POINT POSITIONED WAS THE APEX OF THE OBELISK.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.492 09 = -90.397 03 = -90.259

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	49 00 00.04291	96 13 32.59556	481821.125	266431.635	146859.373	81208.525	288.295	C	1999	17648
NAD83(1986)	49 00 00.03487	96 13 32.57752	481822.327	266430.819	146859.739	81208.276		1	1989	GPS138
NAD27	49 00 00.09736	96 13 31.53837						1	1991	17504

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51868.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51868.pdf

BOUNDARY MON 879 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 879 CD US **NGS Name:** BOUNDARY MON 879 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1402 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	164 N	43 W	485959.99	961207.61		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	GOOD	Horz=NO Vert=YES	YES		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND ---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE ---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

Station Notes

RECOVERY NOTE BY INTERNATIONAL BOUNDARY COMMISSION 1978.
RECOVERED IN GOOD CONDITION IN 1947 AND 1956. THE MONUMENT WAS.
REPLUMBED IN 1938, 1966 AND 1970. A NEW BASE WAS ALSO BUILT IN 1970.
THE BASE CRACKED IN 1978.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.548 12B = -90.551 09 = -90.456 03 = -90.321

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.99413	96 12 07.60716	487488.834	266421.936	148586.894	81205.569	287.596	3	1999	17648
NAD83(1986)	48 59 59.98657	96 12 07.58849	487490.078	266421.169	148587.273	81205.335		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51869.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51869.pdf

BOUNDARY MON 880 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 880 CD US **NGS Name:** BOUNDARY MON 880 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1403 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	164 N	43 W	485959.98	961048.31		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	POOR	Horz=NO Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912) **Stamping:**

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND ---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

Station Notes

RECOVERY NOTE BY INTERNATIONAL BOUNDARY COMMISSION 1978. RECOVERED IN GOOD CONDITION IN 1947 AND 1956. A NEW BASE WAS BUILT. IN 1938. IN 1970, THE MONUMENT WAS RECOVERED LOOSE, AND THE CONCRETE DISINTEGRATED. NO REPAIRS WERE MADE AS THIS MONUMENT IS IN VERY. SWAMPY GROUND AT THE WEST END OF THE GREAT ROSEAU SWAMP. THE MONUMENT WAS RECOVERED LEANING IN 1978.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.610 12B = -90.610 09 = -90.512 03 = -90.380

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.97547	96 10 48.31407	492776.739	266417.193	150198.650	81204.123	287.576	3	1999	17648
NAD83(1986)	48 59 59.96838	96 10 48.29477	492778.026	266416.473	150199.043	81203.904		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51870.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51870.pdf

BOUNDARY MON 881 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 881 CD US **NGS Name:** BOUNDARY MON 881 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1404 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	164 N	43 W	485959.95	960928.82		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1978	POOR	Horz=NO Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912) **Stamping:**

DESCRIBED BY INTERNATIONAL BOUNDARY COMMISSION 1912 (CHS), THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

Station Notes

RECOVERY NOTE BY INTERNATIONAL BOUNDARY COMMISSION 1978.
RECOVERED IN GOOD CONDITION IN 1938, 1947 AND 1956. IT WAS REPLUMBED.
IN 1970 BUT IS IN VERY SWAMPY GROUND AND COULD NOT BE IMPROVED VERY
MUCH. RECOVERED LEANING IN 1978.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.669 12B = -90.669 09 = -90.567 03 = -90.446

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.94693	96 09 28.81532	498078.360	266412.974	151814.588	81202.837	288.556	3	1999	17648
NAD83(1986)	48 59 59.94029	96 09 28.79541	498079.688	266412.301	151814.993	81202.632		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51871.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51871.pdf

BOUNDARY MON 882 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 882 CD US
NGS Name: BOUNDARY MON 882 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1405 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	164 N	42 W	485959.92	960809.55		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1978	POOR	Horz=? Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (2021)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND ---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE ---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

Station Notes

RECOVERY NOTE BY INTERNATIONAL BOUNDARY COMMISSION 1978. RECOVERED IN GOOD CONDITION IN 1947. A NEW TOP WAS BUILT IN 1938. IT WAS REPLUMBED IN 1970 BUT IS IN VERY SWAMPY GROUND AND NOTHING COULD BE DONE TO IMPROVE THE CONDITION OF THE MONUMENT. LYING FLAT ON THE GROUND IN 1978.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.731 12B = -90.728 09 = -90.626 03 = -90.508

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.91835	96 08 09.54878	503364.498	266410.286	153425.806	81202.018	288.536	3	1999	17648
NAD83(1986)	48 59 59.91213	96 08 09.52828	503365.865	266409.656	153426.223	81201.826		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51872.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51872.pdf

BOUNDARY MON 883 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 883 CD US
NGS Name: BOUNDARY MON 883 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1406 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	164 N	42 W	485959.90	960650.39		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1978	POOR	Horz=? Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND ---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE ---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

Station Notes

THIS MONUMENT IS AT THE EAST END OF THE GREAT ROSEAU SWAMP. IN 1970 THE MONUMENT WAS RECOVERED LOOSE AROUND THE BASE AS THE CONCRETE IS BADLY DISINTEGRATED. NO REPAIRS WERE MADE. BASE CRACKED IN 1978.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.791 12B = -90.791 09 = -90.686 03 = -90.577

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.89777	96 06 50.39149	508643.351	266409.933	155034.803	81201.910	289.515	3	1999	17648
NAD83(1986)	48 59 59.89190	96 06 50.37038	508644.759	266409.339	155035.233	81201.729		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51873.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51873.pdf

BOUNDARY MON 884 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 884 CD US
NGS Name: BOUNDARY MON 884 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1407 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	164 N	42 W	485959.85	960531.18		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1978	POOR	Horz=NO Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH, 8.0 INCHES SQUARE AT THE BOTTOM, 4.0 INCHES SQUARE AT THE TOP, WITH A SOLID PYRAMIDAL CAP, AND A HEAVY FLANGE AT THE BOTTOM. UPON OPPOSITE FACES, THE SOUTH AND THE NORTH, ARE CAST, IN RAISED LETTERS 2.0 INCHES HIGH, THE INSCRIPTIONS---CONVENTION OF LONDON---AND---OCTOBER 20, 1818---. THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE, CORRESPONDING TO THE PRESENT NUMBERING 748 TO 832, WERE SET WEST OF THE RED RIVER. ABOUT 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13, BEARS THE FOLLOWING INSCRIPTIONS, CAST IN RAISED LETTERS--ON THE NORTH FACE---CANADA---, ON THE SOUTH FACE---UNITED STATES---, ON THE EAST FACE---CONVENTION OF 1818---, ON THE WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

Station Notes

RECOVERY NOTE BY INTERNATIONAL BOUNDARY COMMISSION 1978.
RECOVERED IN GOOD CONDITION IN 1938, 1947, 1956. IT WAS REPLUMBED IN
1970 AND THE BASE IS UNDER WATER. RECOVERED LEANING IN 1978.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.853 12B = -90.853 09 = -90.741 03 = -90.646

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.85298	96 05 31.17962	513925.846	266408.653	156644.911	81201.520	289.493	3	1999	17648
NAD83(1986)	48 59 59.84734	96 05 31.15791	513927.294	266408.082	156645.353	81201.346		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51874.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51874.pdf

BOUNDARY MON 885 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 885 CD US
NGS Name: BOUNDARY MON 885 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1408 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	27	164 N	42 W	485959.84	960412.11		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	POOR	Horz=NO Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH SQUARE AT THE BOTTOM PYRAMIDAL CAP UPON OPPOSITE FACES LETTERS 2.0 INCHES HIGH ---OCTOBER 20 THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE THE PRESENT NUMBERING 748 TO 832 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13 IN RAISED LETTERS--ON THE NORTH FACE---CANADA--- ---UNITED STATES--- WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED. REPLUMBED AND THE BASE WAS UNDER WATER. RECOVERED LEANING IN 1978.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.922 12B = -90.918 09 = -90.807 03 = -90.718

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.84030	96 04 12.10599	519199.120	266412.142	158252.208	81202.583	290.471	3	1999	17648
NAD83(1986)	48 59 59.83475	96 04 12.08367	519200.610	266411.581	158252.662	81202.412		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51875.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51875.pdf

BOUNDARY MON 886 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 886 CD US

NGS Name: BOUNDARY MON 886 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1409 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	164 N	42 W	485959.81	960253.00		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	POOR	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
NGS

Description: (1929)

Stamping:

3.2 MILES WEST ALONG THE UNITED STATES-CANADA BORDER FROM TRUNK HIGHWAY 89, 1.8 MILES WEST OF THE EAST RANGE LINE OF RANGE 42, 600.0 FEET WEST OF PINE CREEK DITCH, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

Station Notes
THE MONUMENT WAS REPLUMBED IN 1938 AND 1970.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.991 12B = -90.987 09 = -90.876 03 = -90.794

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.80974	96 02 53.00139	524474.462	266415.343	159860.136	81203.559	290.447	3	1999	17648
NAD83(1986)	48 59 59.80417	96 02 52.97846	524475.992	266414.780	159860.602	81203.387		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26900.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26900.pdf

BOUNDARY MON 887 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 887 CD US
NGS Name: BOUNDARY MON 887 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1410 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	164 N	42 W	485959.80	960133.67		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1978	GOOD	Horz=? Vert=YES	YES			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MONUMENT

Mon. Agency
NGS

Description: (1929)

Stamping:

2.2 MILES WEST ALONG THE UNITED STATES-CANADA BORDER FROM TRUNK HIGHWAY 89, 0.8 MILE WEST OF THE EAST RANGE LINE OF RANGE 42, 3400.0 FEET EAST OF PINE CREEK DITCH, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.060 12B = -91.060 09 = -90.945 03 = -90.869

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.79572	96 01 33.67343	529764.695	266421.765	161472.602	81205.517	297.423	3	1999	17648
NAD83(1986)	48 59 59.79006	96 01 33.64988	529766.267	266421.195	161473.081	81205.343		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26901.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26901.pdf

BOUNDARY MON 888 A CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 888 A CD US
NGS Name: BOUNDARY MON 888 A CD US

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	164 N	41 W	485959.65	955839.69		3

NGS ACRN: TC1287 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1938	2009	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BOUNDARY MARKER DISK	IBWC

Description: (1938) **Stamping:** 888 A

A SMALL CONCRETE MONUMENT, ON THE STRAIGHT LINE COURSE OF THE BOUNDARY BETWEEN MONUMENTS 888 AND 889, OPPOSITE SIDE OF THE PUBLIC ROAD FROM MONUMENT 889, MARKS THE BOUNDARY CROSSING OF THE HIGHWAY LEADING SOUTH FROM PINEY TO PINECREEK.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.233 12B = -91.233 09 = -91.112 03 = -91.046

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.64955	95 58 39.69047	541367.315	266429.511	165009.088	81207.877	298.368	3	1999	17648
NAD83(1986)	48 59 59.64350	95 58 39.66620	541368.934	266428.902	165009.581	81207.692		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51876.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51876.pdf

BOUNDARY MON 888 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 888 CD US
NGS Name: BOUNDARY MON 888 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1411 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	164 N	41 W	485959.77	960016.59		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2009	GOOD	Horz=NO Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BOUNDARY MONUMENT	IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH SQUARE AT THE BOTTOM PYRAMIDAL CAP UPON OPPOSITE FACES LETTERS 2.0 INCHES HIGH ---OCTOBER 20 THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE THE PRESENT NUMBERING 748 TO 832 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13 IN RAISED LETTERS--ON THE NORTH FACE---CANADA--- ---UNITED STATES--- WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED. WAS RECOVERED LEANING IN 1946 AND REPLUMBED IN 1947.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.135 12B = -91.135 09 = -91.017 03 = -90.945

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.77250	96 00 16.58853	534905.344	266428.500	163039.475	81207.569	299.999	3	1999	17648
NAD83(1986)	48 59 59.76668	96 00 16.56433	534906.959	266427.913	163039.967	81207.390		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51877.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51877.pdf

BOUNDARY MON 888 ECC

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 888 ECC **NGS Name:** BOUNDARY MON 888 ECC

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD1261 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	164 N	41 W	485959.75	960016.44		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1988	1988	GOOD	Horz=YES Vert=YES	NO		RECESSED 3 IN.	MARKER IS STEEL ROD

Monument Type	Disk Type	Mon. Agency
STEEL ROD (IN SLEEVE) (DEPTH 42 FT)	METAL ROD	NGS

Description: (1988) **Stamping:** 888 ECC IBC 1988

16.0 MILES NORTHWEST OF ROSEAU, 6.1 MILES WEST ALONG TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 IN ROSEAU TO WHERE THE HIGHWAYS SEPARATE, 10.6 MILES NORTH ON TRUNK HIGHWAY 89 TO COUNTY ROAD 3 ON THE LEFT, 2.7 MILES WEST ON COUNTY ROAD 3 TO A GRAVEL ROAD (WHERE COUNTY ROAD 3 TURNS SOUTH), 0.1 MILE NORTHWEST ON A GRAVEL ROAD TO A GRAVEL CROSSROAD AT THE ROSEAU RIVER WILDLIFE AREA HEADQUARTERS OF THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES, 1.0 MILE NORTH ON A GRAVEL ROAD TO WHERE THE GRAVEL ROAD TURNS RIGHT AND A DIRT TRACK ROAD CONTINUES STRAIGHT AHEAD, 0.55 MILE NORTH ON THE TRACK ROAD, THEN 0.1 MILE EAST TO STATION BOUNDARY MON 888 ECC ON THE LEFT, 30.0 FEET NORTH OF THE TRACK ROAD, 6.0 FEET SOUTH OF A FENCE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.135 12B = -91.135 09 = -91.017 03 = -90.945

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.74763	96 00 16.44010	534915.247	266425.998	163042.493	81206.807	299.401	C	1999	17648
NAD83(1986)	48 59 59.74176	96 00 16.41561	534916.882	266425.406	163042.992	81206.626		1	1989	GPS138
NAD27	48 59 59.80155	96 00 15.41410						1	1989	GPS138

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51878.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51878.pdf

BOUNDARY MON 889 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 889 CD US
NGS Name: BOUNDARY MON 889 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1288 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	29	164 N	41 W	485959.64	955831.96		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2009	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1958) **Stamping:** USCB SURVEY 1070

600.0 FEET EAST ALONG THE UNITED STATES-CANADA BORDER FROM TRUNK HIGHWAY 89, THE YEAR SET DATE IS APPROXIMATE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.240 12B = -91.240 09 = -91.119 03 = -91.056

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.63878	95 58 31.96323	541882.632	266429.592	165166.157	81207.902	298.365	3	1999	17648
NAD83(1986)	48 59 59.63270	95 58 31.93896	541884.252	266428.980	165166.650	81207.715		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26902.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26902.pdf

BOUNDARY MON 890 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 890 CD US
NGS Name: BOUNDARY MON 890 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1289 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	164 N	41 W	485959.49	955637.50		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	GOOD	Horz=NO Vert=YES	YES			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
NGS

Description: (1929)

Stamping:

1.4 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM TRUNK HIGHWAY 89, 1.6 MILES NORTH OF PINE CREEK VILLAGE, 0.95 MILE WEST OF PINE CREEK, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.368 12B = -91.368 09 = -91.237 03 = -91.187

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.48911	95 56 37.50319	549515.788	266433.493	167492.747	81209.091	297.324	3	1999	17648
NAD83(1986)	48 59 59.48265	95 56 37.48086	549517.279	266432.843	167493.202	81208.893		3	1989	17090

Station Photos

Type	File Name	Dir	Date
Location:			
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BOUNDARY_MON_890_CD_US-TC1289-2-30APR2007.jpg		Apr 30, 2007
Disk:			

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26903.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26903.pdf

BOUNDARY MON 891 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 891 CD US
NGS Name: BOUNDARY MON 891 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1290 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	164 N	41 W	485959.34	955511.46		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1971	GOOD	Horz=? Vert=YES	YES			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
NGS

Description: (1929)

Stamping:

2.4 MILES EAST ALONG THE UNITED STATES-CANADA BORDER FROM TRUNK HIGHWAY 89, 1.75 MILES NORTHEAST OF VILLAGE OF PINE CREEK, 600.0 FEET EAST OF PINE CREEK, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.466 12B = -91.466 09 = -91.335 03 = -91.296

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.33567	95 55 11.46368	555253.639	266434.374	169241.648	81209.360	292.292	3	1999	17648
NAD83(1986)	48 59 59.32887	95 55 11.44132	555255.133	266433.690	169242.103	81209.151		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26904.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26904.pdf

BOUNDARY MON 892 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 892 CD US
NGS Name: BOUNDARY MON 892 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1291 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	164 N	41 W	485959.13	955249.33		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1971	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH SQUARE AT THE BOTTOM PYRAMIDAL CAP UPON OPPOSITE FACES LETTERS 2.0 INCHES HIGH ---OCTOBER 20 THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE THE PRESENT NUMBERING 748 TO 832 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13 IN RAISED LETTERS--ON THE NORTH FACE---CANADA--- ---UNITED STATES--- WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.634 12B = -91.634 09 = -91.506 03 = -91.476

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 59.13439	95 52 49.32726	564732.505	266445.064	172130.812	81212.618	293.237	3	1999	17648
NAD83(1986)	48 59 59.12695	95 52 49.30481	564734.004	266444.315	172131.269	81212.390		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51879.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51879.pdf

BOUNDARY MON 893 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 893 CD US
NGS Name: BOUNDARY MON 893 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1292 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	164 N	40 W	485959.00	955108.47		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1971	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH SQUARE AT THE BOTTOM PYRAMIDAL CAP UPON OPPOSITE FACES LETTERS 2.0 INCHES HIGH ---OCTOBER 20 THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE THE PRESENT NUMBERING 748 TO 832 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13 IN RAISED LETTERS--ON THE NORTH FACE---CANADA--- ---UNITED STATES--- WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.749 12B = -91.752 09 = -91.624 03 = -91.611

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 58.99547	95 51 08.47344	571458.296	266456.023	174180.837	81215.958	301.196	3	1999	17648
NAD83(1986)	48 59 58.98757	95 51 08.45093	571459.800	266455.228	174181.295	81215.716		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51880.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51880.pdf

BOUNDARY MON 894 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 894 CD US **NGS Name:** BOUNDARY MON 894 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1293 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	164 N	40 W	485958.81	954906.52		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1971	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH SQUARE AT THE BOTTOM PYRAMIDAL CAP UPON OPPOSITE FACES LETTERS 2.0 INCHES HIGH ---OCTOBER 20 THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE THE PRESENT NUMBERING 748 TO 832 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13 IN RAISED LETTERS--ON THE NORTH FACE---CANADA--- ---UNITED STATES--- WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.899 12B = -91.906 09 = -91.778 03 = -91.775

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 58.80976	95 49 06.52074	579591.149	266470.781	176659.735	81220.456	303.146	3	1999	17648
NAD83(1986)	48 59 58.80121	95 49 06.49817	579592.657	266469.921	176660.195	81220.194		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51881.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51881.pdf

BOUNDARY MON 895 A CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 895 A CD US
NGS Name: BOUNDARY MON 895 A CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1295 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	164 N	40 W	485958.52	954533.45		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1945	1971	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MARKER DISK

Mon. Agency
IBWC

Description: (1945)

Stamping:

A SMALL CONCRETE MONUMENT, ON A STRAIGHT LINE COURSE OF THE BOUNDARY BETWEEN MONUMENTS 895 AND 896, MARKS BOUNDARY CROSSING OF THE HIGHWAY BETWEEN ROSEAU AND THE SOUTH JUNCTION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.175 12B = -92.188 09 = -92.060 03 = -92.077

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 58.52076	95 45 33.44514	593800.841	266508.840	180990.858	81232.057	298.057	3	1999	17648
NAD83(1986)	48 59 58.51098	95 45 33.42245	593802.359	266507.857	180991.321	81231.757		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51882.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51882.pdf

BOUNDARY MON 895 B CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 895 B CD US

NGS Name: BOUNDARY MON 895 B CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CU8069 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	164 N	40 W	485958.00	954532.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
	1957	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	CONCRETE POST	UNK

Description:

10.5 MILES NORTH OF ROSEAU, 10.38 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 IN ROSEAU, THEN 0.37 MILE NORTHEAST OF BITUMINOUS WALKING TRAIL.

Stamping:

Station Notes

SURVEY GROUP NAME IS IBC.

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*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.175 12B = -92.188 09 = -92.060 03 = -92.077

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70109.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70109.pdf

BOUNDARY MON 895 B CD US RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 895 B CD US RESET **NGS Name:** BOUNDARY MON 895 B CD US RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1296 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	164 N	40 W	485958.52	954531.61		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	1971	GOOD	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BOUNDARY MARKER DISK

Mon. Agency
IBWC

Description: (1957)

Stamping:

A SMALL CONCRETE MONUMENT, SET ON COURSE OF THE BOUNDARY BETWEEN MONUMENTS 895 AND 896, THE CONCRETE SHAFT WAS BROKEN AT THE GROUND LINE AND A STOVE PIPE LENGTH FILLED WITH CONCRETE WAS PUT IN, MARKS THE BOUNDARY CROSSING OF THE HIGHWAY BETWEEN ROSEAU AND THE SOUTH JUNCTION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.178 12B = -92.191 09 = -92.060 03 = -92.080

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 58.51813	95 45 31.60707	593923.419	266509.203	181028.220	81232.168	298.056	3	1999	17648
NAD83(1986)	48 59 58.50834	95 45 31.58437	593924.938	266508.218	181028.683	81231.867		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51883.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51883.pdf

BOUNDARY MON 895 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 895 CD US
NGS Name: BOUNDARY MON 895 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1294 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	164 N	40 W	485958.64	954659.97		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1971	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
IBWC

Description: (1912)

Stamping:

THE GENERAL TYPE OF CAST - IRON MONUMENT OF 1872-76 ARE HOLLOW IRON CASTINGS IN THE FORM OF A TRUNCATED PYRAMID 8.0 FEET HIGH SQUARE AT THE BOTTOM PYRAMIDAL CAP UPON OPPOSITE FACES LETTERS 2.0 INCHES HIGH ---OCTOBER 20 THESE MONUMENTS HAD BEEN SET ALONG THE SOUTHERN BOUNDARY OF MANITOBA BY THE COMMISSION OF 1872-76. EIGHTY FIVE OF THESE THE PRESENT NUMBERING 748 TO 832 60 WERE FOUND TO BE IN GOOD CONDITION IN 1911. THEY WERE FILLED WITH CONCRETE AND RESET IN CONCRETE BASES WITH THE TOP OF THE OBELISK 5.0 FEET ABOVE THE GROUND. THE BROKEN ONES AND ALSO THOSE THAT HAD ORIGINALLY BEEN SET EAST OF THE RED RIVER WERE DISMANTLED AND REPLACED BY NEW CAST - IRON MONUMENTS OF THE STYLE MADE IN 1908-13. THE MONUMENTS CAST IN 1908-13 IN RAISED LETTERS--ON THE NORTH FACE---CANADA--- ---UNITED STATES--- WEST FACE---TREATY OF 1908---. THE INSCRIPTIONS READ VERTICALLY FROM BOTTOM TO TOP. THE NUMBER OF THE MONUMENT IS OUTLINED WITH DRILL HOLES TO THE FACE OF THE SHAFT. THE MONUMENTS SET IN THE---MERIDIAN LINE---WERE TURNED SO THAT---UNITED STATES---APPEARS ON THE EAST SIDE AND---CANADA---ON THE WEST SIDE. THESE MONUMENTS WERE FILLED WITH CONCRETE AND SET IN CONCRETE BASES WITH THE TOP OF THE SHAFT 5.0 FEET ABOVE THE GROUND. THEY WERE USED IN 1908-13 TO MARK THE LINE FROM MONUMENT 303 EASTWARD TO THE NORTHWESTERN MOST POINT OF LAKE OF THE WOODS EXCEPT WHERE THE CAST - IRON MONUMENTS OF 1872-76 WERE RESET AS HERETOFORE DESCRIBED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.060 12B = -92.070 09 = -91.942 03 = -91.952

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 58.63545	95 46 59.96654	588030.861	266491.785	179232.165	81226.859	298.094	3	1999	17648
NAD83(1986)	48 59 58.62616	95 46 59.94388	588032.376	266490.851	179232.627	81226.574		3	1989	17090

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51884.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51884.pdf

BOUNDARY MON 896 CD US

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BOUNDARY MON 896 CD US
NGS Name: BOUNDARY MON 896 CD US

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC1264 Get Map
NGS Quad / Sta Num : 48095414/
USGS Quad: SALOL NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	164 N	40 W	485958.46	954452.63		3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1988	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BOUNDARY MARKER DISK	IBWC

Description: (1912)

Stamping:

ABOUT 11.0 MILES NORTH NORTHEAST OF ROSEAU BORDER CROSSING, 1.50 MILES EAST OF THE ROSEAU SOUTH JUNCTION BORDER CROSSING, 0.45 MILE NORTH ON MANITOBA HIGHWAY 310 TO A GRAVEL SIDE ROAD RIGHT. TURN RIGHT AND GO EAST AND SOUTH ON THE GRAVEL ROAD FOR 1.30 MILES TO A DRIVEWAY ON THE LEFT. TURN LEFT AND FOLLOW THE DRIVEWAY EAST FOR 0.30 MILE TO A FARMHOUSE AND A BOARD FENCE. THE MONUMENT IS APPROXIMATELY 0.50 MILE SOUTHWESTERLY FROM THIS POINT. FOLLOW ALONG THE BOARD FENCE SOUTHWESTERLY TO A GATE ON THE LEFT. CROSS THROUGH THE GATE AND CONTINUE SOUTHWESTERLY ACROSS A PASTURE TO A GATE IN AN EAST WEST FENCE LINE. PASS THROUGH THE GATE AND CONTINUE SOUTHWESTERLY ACROSS A ROUGH PASTURE TO THE BOUNDARY. BEAR RIGHT AND GO WEST ALONG THE BOUNDARY FOR 0.10 MILE TO THE MONUMENT. THE MONUMENT IS A CAST IRON OBELISK WHICH PROJECTS ABOUT 5.0 FEET ABOVE A 3.0 FEET SQUARE CONCRETE BASE THAT PROJECTS ABOUT 1.0 FOOT ABOVE THE SURFACE. INSCRIBED ON THE OBELISK IN RAISED TREATY OF 1908 ON THE WEST SIDE AND CANADA ON THE NORTH SIDE. THE NUMBER 896 IS DRILLED NEAR THE TOP OF THE EAST SIDE OF THE OBELISK. THE POINT POSITIONED IS THE APEX OF THE OBELISK. TYPED BY E.A.R.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.231 12B = -92.244 09 = -92.116 03 = -92.136

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 59 58.46040	95 44 52.62724	596522.928	266516.885	181820.552	81234.509	302.202	C	1999	17648
NAD83(1986)	48 59 58.45039	95 44 52.60440	596524.456	266515.878	181821.018	81234.202		1	1989	GPS138
NAD27	48 59 58.50471	95 44 51.65473						1	1989	GPS138

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_51885.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_51885.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BR 68007 **NGS Name:** BR 68007

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	163 N	40 W	485633.00	954607.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2001	2014	GOOD	Horz=NO Vert=NO	YES	68007	FLUSH	NO MAG MATERIAL

Monument Type	Disk Type	Mon. Agency
BRIDGE RAILING	SURVEY DISK	MNDT

Description:

Stamping: BR 68007 2001

6.5 MILES NORTH OF ROSEAU, IN A RAIL IN THE SOUTHEAST CORNER OF TRUNK HIGHWAY 310 BRIDGE NUMBER 68007, 6.50 MILES NORTH ALONG TRUNK HIGHWAY 210 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 6.50, 70.0 FEET EAST OF TRUNK HIGHWAY 310.

Station Notes

IF THE COORDINATES AND/OR ELEVATIONS ARE ESTABLISHED OR PUBLISHED ON THIS GEODETIC CONTROL DISK, THEY SHOULD BE USED WITH CAUTION. THE GEODETIC CONTROL DISK IS LOCATED ON AN INTEGRAL ABUTMENT AND/OR A JOINTLESS BRIDGE AND IS SUBJECT TO MOVEMENT BEYOND GEODETIC TOLERANCES. THE SURVEY MARK HAS BEEN DEEMED UNSAFE DUE TO FALL RISK AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.103 09 = -91.978 03 = -91.981

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BR_68007-3E-18NOV2014.jpg	E	Nov 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BR_68007-2-18NOV2014.jpg		Nov 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BR_68007-1-18NOV2014.jpg		Nov 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_102706.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_102706.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BR 68503 **NGS Name:** BR 68503

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	163 N	41 W	485440.00	960024.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1966	GOOD	Horz=? Vert=YES	NO	68503	FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE WING WALL	SURVEY DISK	MNDT

Description: (1966) **Stamping:**

9.0 MILES NORTH AND 0.5 MILE EAST OF BADGER, IN THE SOUTHEAST CORNER OF A COUNTY ROAD 3 BRIDGE NUMBER 68503 OVER THE ROSEAU RIVER, 14.0 FEET EAST OF A ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.050 12B = -91.046 09 = -90.938 03 = -90.856

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26812.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26812.pdf

BURK MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: BURK MNDT **NGS Name:** BURK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2319 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	161 N	42 W	484455.02	960344.49		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2014	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2002) **Stamping:** BURK 1994

3.0 MILES SOUTHWEST OF BADGER, 3.45 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF COUNTY ROAD 2 AND TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 54.5, 71.9 FEET SOUTHWEST OF TRUNK HIGHWAY 11, 1.3 FEET NORTHWEST OF A FENCE, 30.6 FEET NORTHEAST OF A RIGHT-OF-WAY POST, 11.0 FEET SOUTHWEST OF AN ENTRANCE, 3.9 FEET NORTH-NORTHWEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.918 12B = -90.918 09 = -90.807 03 = -90.791

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 44 55.02065	96 03 44.49304	521146.068	174708.272	158845.639	53251.188	302.916		2012	GPS2800
NAD83(2007)	48 44 55.02067	96 03 44.49386	521146.013	174708.274	158845.623	53251.188	302.952		2007	GPS2300
NAD83(1996)	48 44 55.02064	96 03 44.49370	521146.024	174708.271	158845.626	53251.187	302.950	C	2004	GPS2053
NAD83(1986)	48 44 55.01169	96 03 44.47842	521147.049	174707.365	158845.938	53250.911		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BURK-AB2319-3SW-03AUG2004.jpg	SW	Aug 3, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BURK-AB2319-2-03AUG2004.jpg		Aug 3, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/BURK-AB2319-1-03AUG2004.jpg		Aug 3, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26816.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26816.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: C 202 **NGS Name:** C 202

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0413 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	19	162 N	40 W	485031.50	955236.50	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1981	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** C 202 1935

1.03 MILE NORTHEAST OF FOX, 1.0 MILE NORTHEAST ALONG TRUNK HIGHWAYS 11 AND 89 FROM THE JUNCTION OF TRUNK HIGHWAYS 11 AND 89 AND 330TH AVENUE NORTH OF FOX.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1097.819	0.007	334.616	0.002	1/2	1991	00000025
NGVD29	1096.468	0.007	334.204	0.002	1	1941	Q480954

Geoid Separations(ft): GEOID18 = -91.548 12B = -91.548 09 = -91.430 03 = -91.411

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26817.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26817.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: C 318 **NGS Name:** C 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0407 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	162 N	40 W	485054.00	954705.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	1948	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description:

Stamping: C 318 1940

1.0 MILE WEST FROM ROSEAU, 1.0 MILE WEST ALONG TRUNK HIGHWAY 11 FROM ROSEAU, ROSEAU COUNTY, 315.0 FEET WEST OF A FARM ENTRANCE, 36.5 FEET NORTH OF THE CENTERLINE OF THE HIGHWAY, 5.7 FEET WEST OF A CORNER FENCE POST, AND 3.3 FEET NORTH OF A WHITE REFERENCE POST. A STANDARD DISK STAMPED C 318 1940 AND SET IN THE TOP OF A CONCRETE POST PROJECTING ABOUT 4.0 INCH DIAMETER ABOVE THE GROUND.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1048.364	0.007	319.542	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.988 12B = -91.998 09 = -91.873 03 = -91.853

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_53929.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_53929.pdf

C 318 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: C 318 RESET **NGS Name:** C 318 RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	162 N	40 W	485053.47	954704.86	2	C

NGS ACRN: TC0408 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	2025	GOOD	Horz=YES Vert=YES	YES		PROJECTS 3 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** C 318 RESET 1948

IN ROSEAU, 0.75 MILE WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 69.90, AT TRUNK HIGHWAY 11 STATION 136+45, 75.0 FEET NORTH OF TRUNK HIGHWAY 11, 315.0 FEET WEST OF A FARM ENTRANCE, 48.0 FEET WEST OF 15TH AVENUE NORTHWEST EXTENDED, 21.0 FEET WEST OF A POWER POLE WITH 2 GUY WIRES, 1.0 FOOT EAST OF A WITNESS POST.

Station Pair: 6802 H - ROSEAU, MN

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1048.620	0.016	319.620	0.005	2/1	2024	VTH310
NGVD29	1047.062	0.007	319.145	0.002	1	1948	L56 MINN

Geoid Separations(ft): GEOID18 = -91.988 12B = -91.998 09 = -91.873 03 = -91.853

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 53.46744	95 47 04.86185	587969.345	211236.017	179213.415	64384.867	291.588		2020	GPS3390
NAD83(2007)	48 50 53.46753	95 47 04.86283	587969.280	211236.026	179213.395	64384.869	291.621		2007	GPS2300
NAD83(1996)	48 50 53.46713	95 47 04.86276	587969.285	211235.985	179213.396	64384.857	291.621	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/C_318_RESET-TC0408-3N-08DEC2025.jpg	N	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/C_318_RESET-TC0408-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/C_318_RESET-TC0408-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26819.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26819.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: C 374 **NGS Name:** C 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0524 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	162 N	41 W	485021.00	955357.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	METAL ROD	NGS

Description: (1981) **Stamping:** C 374 1981

6.45 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND MAIN AVENUE NORTH IN ROSEAU, 7.5 MILES NORTHEAST ON TRUNK HIGHWAY 11 FROM THE BADGER POST OFFICE, 79.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 158.0 FEET WEST-SOUTHWEST OF A DRIVEWAY, 63.0 FEET EAST-NORTHEAST OF THE NORTHWEST CORNER OF A GARAGE, 50.5 FEET WEST-SOUTHWEST OF THE NORTHEAST CORNER OF A GARAGE, 3.0 FEET WEST-SOUTHWEST OF A POWER POLE, 2.5 FEET NORTH-NORTHWEST OF A GARAGE, 0.6 FOOT EAST-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1093.036	0.007	333.158	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.450 12B = -91.447 09 = -91.332 03 = -91.309

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26821.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26821.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: C 67 **NGS Name:** C 67

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0040 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	19	160 N	43 W	484012.27	961505.08	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2014	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (2014) **Stamping:** C 67 1634

3.7 MILES SOUTHWEST OF GREENBUSH, 240.0 FEET WEST OF A GRAVEL PIT, 120.0 FEET WEST OF A FARM HOUSE, 33.0 FEET SOUTH OF TRUNK HIGHWAY 11, 9.0 FEET SOUTH OF A DITCH.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1073.820	0.007	327.301	0.002	1	1993	POSTED
NGVD29	1072.462	0.007	326.887	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.489 12B = -90.485 09 = -90.361 03 = -90.394

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26822.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26822.pdf

CANUCK MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: CANUCK MNDT **NGS Name:** CANUCK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8672 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	163 N	40 W	485646.29	954607.65	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2023	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2008) **Stamping:** CANUCK 1998

6.8 MILES NORTH OF THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 6.8, 30.0 FEET WEST OF TRUNK HIGHWAY 310, 120.0 FEET NORTH-NORTHEAST OF A POWER POLE, 0.25 MILE NORTH OF SPRAGUE CREEK, 4.2 FEET EAST OF A WITNESS POST.

Station Notes
THE DISK WAS RETURNED TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1036.891	0.016	316.045	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.103 09 = -91.978 03 = -91.985

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 56 46.28692	95 46 07.64991	591617.288	247013.689	180325.310	75289.923	287.976		2012	GPS2800
NAD83(2007)	48 56 46.28714	95 46 07.65038	591617.256	247013.712	180325.300	75289.930	288.008		2007	GPS2300
NAD83(1996)	48 56 46.28675	95 46 07.65040	591617.255	247013.672	180325.300	75289.918	288.006	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CANUCK-AJ8672-3W-24JUN2020.jpg	W	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CANUCK-AJ8672-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CANUCK-AJ8672-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36721.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36721.pdf

CANUCK MNDT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: CANUCK MNDT RESET
NGS Name: CANUCK RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS1965 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	14	163 N	40 W	485646.29	954607.65	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 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: (2023)

Stamping: CANUCK 1998 2023

6.8 MILES NORTH OF THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 6.8, 30.0 FEET WEST OF TRUNK HIGHWAY 310, 120.0 FEET NORTH-NORTHEAST OF A POWER POLE, 4.2 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1036.770	0.016	316.008	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CANUCK_RESET-DS1965-3W-27JUL2023.jpg	W	Jul 27, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CANUCK_RESET-DS1965-2-27JUL2023.jpg		Jul 27, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CANUCK_RESET-DS1965-1-27JUL2023.jpg		Jul 27, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110961.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110961.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: CBC

NGS Name: CBC

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	42 W	485431.00	960302.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	SEE DESCRIPTION	NGS

Description: (1912) **Stamping:** USCBC SURVEY

IN DUXBY, 250.0 FEET EAST OF THE POST OFFICE, IN THE SOUTHWEST PART OF A LOT, 26.2 FEET NORTH OF A ROAD, 328.0 FEET SOUTH OF THE ROSEAU RIVER, IN THE SOUTH TRACK OF A ROAD, THE YEAR SET, AND ELEVATION DATES ARE APPROXIMATE.

Station Notes

ALL THE TIES ARE GONE. THIS MAY BE THE SAME AS DUXBY RESET, A FIELD CREW NEEDS TO VERIFY.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.905 12B = -90.902 09 = -90.800 03 = -90.702

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26824.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26824.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: CENTRAL

NGS Name: CENTRAL

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8029 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	35	160 N	43 W	483757.08	960924.04	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: CENTRAL 2012

4.7 MILES SOUTH OF GREENBUSH, 4.7 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH TO TRUNK HIGHWAY 32 MILEPOINT 140.10, THEN 0.65 MILE EAST ON COUNTY ROAD 106, 41.2 FEET NORTH OF COUNTY ROAD 106, 24.0 FEET WEST OF A FIELD ENTRANCE, 1.5 FEET EAST OF A WITNESS POST.

Station Pair: BOILER - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1085.155	0.016	330.756	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.325 12B = -90.315 09 = -90.193 03 = -90.272

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 37 57.07834	96 09 24.04222	498384.917	1323380000	151908.026	40336.703	303.238		2018	GPS3227
NAD83(1996)	48 37 57.07795	96 09 24.04243	498384.903	132337.961	151908.022	40336.691	303.274	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CENTRAL-DO8029-3N-07AUG2012.jpg	N	Aug 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CENTRAL-DO8029-2-07AUG2012.jpg		Aug 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CENTRAL-DO8029-1-07AUG2012.jpg		Aug 7, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97276.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97276.pdf

CLEMENT MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: CLEMENT MNDT
NGS Name: CLEMENT
County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8650 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	161 N	40 W	484633.35	954641.80	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type: UNKNOWN
Disk Type: SURVEY DISK
Mon. Agency: MNDT

Description: (1998)
Stamping: CLEMENT 1998

5.0 MILES SOUTH OF ROSEAU, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU TO TRUNK HIGHWAY 89 MILEPOINT 120.3, THEN 0.5 MILE WEST ON COUNTY ROAD 2, 54.0 FEET NORTH OF COUNTY ROAD 2, 14.0 FEET WEST OF AN ENTRANCE, 10.5 FEET SOUTHEAST OF A POWER POLE, 4.3 FEET EAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1059.499	0.016	322.936	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.827 09 = -91.716 03 = -91.712

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 46 33.34747	95 46 41.79914	589640.622	184880.262	179722.821	56351.617	294.948		2012	GPS2800
NAD83(2007)	48 46 33.34752	95 46 41.80002	589640.563	184880.267	179722.803	56351.618	294.976		2007	GPS2300
NAD83(1996)	48 46 33.34728	95 46 41.79995	589640.567	184880.243	179722.804	56351.611	294.974	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36727.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36727.pdf

CLEMENT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: CLEMENT RESET **NGS Name:** CLEMENT RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8826 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	161 N	40 W	484633.35	954641.80	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	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: (2012) **Stamping:** CLEMENT 1998 2012

5.0 MILES SOUTH OF ROSEAU, 5.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU TO TRUNK HIGHWAY 89 MILEPOINT 120.3, THEN 0.5 MILE WEST ON COUNTY ROAD 2 (260TH STREET), 54.0 FEET NORTH OF COUNTY ROAD 2, 14.0 FEET WEST OF A FIELD ENTRANCE, 10.5 FEET SOUTHEAST OF A POWER POLE, 9.7 FEET SOUTHEAST OF A WITNESS POST.

Station Pair: TOKES - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1059.060	0.016	322.802	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.827 12B = -91.827 09 = -91.716 03 = -91.712

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 46 33.34647	95 46 41.80053	589640.529	184880.161	179722.793	56351.586	294.810		2018	GPS3232
NAD83(1996)	48 46 33.34627	95 46 41.80102	589640.496	184880.140	179722.783	56351.580	294.863	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CLEMENT_RESET-DO8826-3N-05SEP2012.jpg	N	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CLEMENT_RESET-DO8826-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/CLEMENT_RESET-DO8826-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97503.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97503.pdf

CONCORDIA LUTHERAN CH SPIRE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: CONCORDIA LUTHERAN CH SPIRE
NGS Name: CONCORDIA LUTHERAN CH SPIRE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0758 Get Map
NGS Quad / Sta Num : 48095444/1013
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	163 N	41 W	485422.46	955752.28		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1946	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BLANK	CHURCH SPIRE	NGS

Description: (1946)

Stamping:

2.0 MILES WEST OF ROSS, 60.0 FEET NORTH OF AN EAST-WEST ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.201 12B = -91.201 09 = -91.082 03 = -91.020

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 54 22.45967	95 57 52.27557	544612.522	232261.350	165998.229	70793.401		4	1999	17648
NAD83(1986)	48 54 22.45275	95 57 52.25760	544613.725	232260.652	165998.595	70793.188		4	1986	17289
NAD27	48 54 22.52000	95 57 51.25000						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26833.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26833.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 202 **NGS Name:** D 202

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0411 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	20	162 N	40 W	485047.00	955104.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1956	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (2006) **Stamping:** D 202 1935

2.3 MILES EAST FROM FOX, 2.3 MILES EAST ALONG TRUNK HIGHWAY 11 FROM FOX, ROSEAU COUNTY, AT THE ENTRANCE TO A FARM WITH A LARGE RED BARN, 37.1 FEET NORTH OF THE CENTERLINE OF THE HIGHWAY, 54.5 FEET EAST OF THE CENTERLINE OF A FARM ROAD, 2.0 FEET NORTH OF A CORNER FENCE POST, AND 3.0 FEET NORTHEAST OF A WHITE REFERENCE POST. A STANDARD DISK SET IN THE TOP OF A CONCRETE POST PROJECTING ABOUT 6.0 INCH DIAMETER ABOVE THE GROUND.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1093.869	0.007	333.412	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.666 12B = -91.670 09 = -91.548 03 = -91.525

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_53931.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_53931.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 202 RESET

NGS Name: D 202 RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	20	162 N	40 W	485046.00	955105.00		

NGS ACRN: TC0412 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2014	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	MNDT

Description: (1956)

Stamping: D 202 RESET 1956

2.3 MILES EAST FROM FOX, 2.3 MILES EAST ALONG TRUNK HIGHWAY 11 FROM FOX, 100.0 FEET EAST OF A FARM ENTRANCE, 70.0 FEET NORTH OF TRUNK HIGHWAY 11 AT STATION 576+35, PROJECTS 0.5 FOOT.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.666 12B = -91.670 09 = -91.548 03 = -91.525

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_42753.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_42753.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 220 **NGS Name:** D 220

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	163 N	40 W	485525.00	954606.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1998	SEE DESCRIPTION	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** D 220 1935

5.22 MILES NORTH ON TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 11-TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 AT ROSEAU, 84.0 FEET OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 275+82.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.106 09 = -91.975 03 = -91.975

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26835.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26835.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 251 **NGS Name:** D 251

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	159 N	40 W	483501.00	954403.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** D 251 1935

5.0 MILES SOUTH OF WANNASKA, 30.0 FEET WEST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 1031+91.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.679 12B = -90.672 09 = -90.587 03 = -90.594

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26836.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26836.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 318 **NGS Name:** D 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0426 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485053.00	955004.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	1972	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description:

3.2 MILES WEST OF ROSEAU, 3.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 130, 40.0 FEET SOUTH OF TRUNK HIGHWAY 11.

Stamping:

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1081.195	0.007	329.549	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.749 12B = -91.752 09 = -91.627 03 = -91.604

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_53961.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_53961.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 374 **NGS Name:** D 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0526 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	162 N	41 W	484935.04	955633.51	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 8 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** D 374 1981

4.7 MILES NORTHEAST OF BADGER, 4.5 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF COUNTY ROAD 2 AND TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 62.55, 75.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 50.0 FEET WEST OF 310TH AVENUE, 3.5 FEET WEST-SOUTHWEST OF A POWER POLE WITH A GUY WIRE, 1.0 FOOT EAST-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1080.772	0.016	329.420	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.279 12B = -91.279 09 = -91.174 03 = -91.138

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 49 35.04384	95 56 33.51484	549954.016	203144.710	167626.319	61918.631	301.633		2020	GPS3390
NAD83(2007)	48 49 35.04383	95 56 33.51573	549953.956	203144.709	167626.301	61918.631	301.666		2007	GPS2300
NAD83(1996)	48 49 35.04381	95 56 33.51569	549953.958	203144.707	167626.302	61918.630	301.664	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/D_374-TC0526-3NE-24JUN2020.jpg	NE	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/D_374-TC0526-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/D_374-TC0526-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26839.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26839.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 67 **NGS Name:** D 67

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0041 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	16	160 N	43 W	484050.00	961226.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	1957	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1957) **Stamping:** D 67 1934

1.0 MILE SOUTHWEST OF GREENBUSH, 0.2 MILE SOUTHWEST ALONG OLD RIDGE ROAD FROM THE JUNCTION OF OLD RIDGE ROAD AND 200TH STREET IN GREENBUSH, THEN 0.7 MILE SOUTHWEST ALONG TRUNK HIGHWAY 11.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1069.565	0.007	326.004	0.002	1	1993	POSTED
NGVD29	1068.233	0.007	325.598	0.002	1	1934	L51 MINN

Geoid Separations(ft): GEOID18 = -90.525 12B = -90.521 09 = -90.403 03 = -90.436

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26840.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26840.pdf

D 67 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D 67 RESET

NGS Name: D 67 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0043 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	16	160 N	43 W	484050.00	961225.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2014	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 1 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (1981)

Stamping: D 67 RESET 1957

1.5 MILES SOUTHWEST OF GREENBUSH, 75.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 2.0 FEET NORTHEAST OF A WITNESS POST, AT TRUNK HIGHWAY 11 STATION 1807+45=136+02.6.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NGVD29	1068.266	0.007	325.608	0.002	1	1972	L51 MINN

Geoid Separations(ft): GEOID18 = -90.525 12B = -90.521 09 = -90.403 03 = -90.436

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26841.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26841.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: D =1126 USGS
NGS Name: 1126

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0030 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	35	159 N	43 W	483315.00	961012.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	USGS

Description: (1940) **Stamping:** 1126

IN STRATHCONA, AT A ROAD CROSSING NEAR THE RAILROAD STATION, 103.9 FEET WEST OF THE WEST RAIL OF THE RAILROAD TRACKS, 24.0 FEET NORTH OF A ROAD, 40.0 FEET EAST OF A GRAVEL ROAD ALONG A RAILROAD, 1.0 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1125.802	0.007	343.145	0.002	1/2	1991	00000025
NGVD29	1124.489	0.007	342.745	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -89.744 12B = -89.770 09 = -89.639 03 = -89.718

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26842.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26842.pdf

DAWN MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DAWN MNDT **NGS Name:** DAWN

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8651 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	160 N	40 W	484224.14	954439.88	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1998) **Stamping:** DAWN 1998

3.65 MILES NORTH OF WANNASKA, 3.65 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 115.1, 97.0 FEET NORTHEAST OF TRUNK HIGHWAY 89, 38.0 FEET SOUTH OF A ROAD, 69.4 FEET WEST OF A POWER POLE, 48.3 FEET EAST OF A CABLE MARKER, 3.2 FEET SOUTH OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1089.929	0.016	332.211	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.640 12B = -91.647 09 = -91.545 03 = -91.522

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 42 24.14406	95 44 39.87786	597942.012	159665.479	182253.090	48666.135	304.283		2012	GPS2800
NAD83(2007)	48 42 24.14430	95 44 39.87872	597941.954	159665.503	182253.072	48666.143	304.318		2007	GPS2300
NAD83(1996)	48 42 24.14408	95 44 39.87869	597941.957	159665.481	182253.073	48666.136	304.315	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DAWN-AJ8651-3SW-01AUG2007.jpg	SW	Aug 1, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DAWN-AJ8651-2-01AUG2007.jpg		Aug 1, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DAWN-AJ8651-1-01AUG2007.jpg		Aug 1, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36728.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36728.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DAWN RESET **NGS Name:** DAWN RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8833 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	160 N	40 W	484224.14	954439.88	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012) **Stamping:** DAWN 1998 2012

3.65 MILES NORTH OF WANNASKA, 3.65 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 115.1, 97.0 FEET NORTHEAST OF TRUNK HIGHWAY 89, 38.0 FEET SOUTH OF 215TH STREET, 69.4 FEET WEST OF A POWER POLE, 48.3 FEET EAST OF A CABLE MARKER, 3.2 FEET SOUTH OF A WITNESS POST.

Station Pair: MICKI RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1089.709	0.016	332.144	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.640 12B = -91.647 09 = -91.545 03 = -91.522

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 42 24.14374	95 44 39.87759	597942.030	159665.446	182253.095	48666.125	304.213		2018	GPS3232
NAD83(1996)	48 42 24.14362	95 44 39.87816	597941.992	159665.434	182253.084	48666.122	304.263	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DAWN_RESET-DO8833-3S-05SEP2012.jpg	S	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DAWN_RESET-DO8833-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DAWN_RESET-DO8833-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97504.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97504.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DEWEY **NGS Name:** DEWEY

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8033 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	159 N	43 W	483518.34	961009.89	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2012) **Stamping:** DEWEY 2012

2.35 MILES NORTH OF STRATHCONA, 2.3 MILES NORTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND LINCOLN AVENUE IN STRATHCONA, AT TRUNK HIGHWAY 32 MILEPOINT 137.05, 81.4 FEET EAST OF TRUNK HIGHWAY 32, 14.4 FEET NORTH OF 130TH STREET, 1.5 FEET SOUTH OF A WITNESS POST.

Station Pair: RATH - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1103.334	0.016	336.297	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -900000 12B = -90.010 09 = -89.872 03 = -89.960

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 35 18.34438	96 10 09.88511	495301.232	116251.127	150968.117	35433.414	308.879		2018	GPS3227
NAD83(1996)	48 35 18.34402	96 10 09.88546	495301.208	116251.090	150968.110	35433.403	308.918	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DEWEY-DO8033-3E-07AUG2012.jpg	E	Aug 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DEWEY-DO8033-2-07AUG2012.jpg		Aug 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DEWEY-DO8033-1-07AUG2012.jpg		Aug 7, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97277.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97277.pdf

DIETER MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DIETER MNDT **NGS Name:** DIETER

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8893 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	163 N	41 W	485840.45	955913.99	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2019	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2004)

Stamping: DIETER 2003

2.0 MILES WEST OF PINECREEK, 1.9 MILES WEST ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINECREEK, 120.0 FEET SOUTH OF COUNTY ROAD 3, 37.0 FEET WEST OF A GRAVEL ROAD, 6.6 FEET NORTH OF A POWER POLE, 1.1 FEET EAST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1045.529	0.016	318.678	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.165 12B = -91.168 09 = -91.043 03 = -90.968

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 58 40.44544	95 59 13.99309	539096.890	258396.745	164317.061	78759.485	290.893		2012	GPS2800
NAD83(2007)	48 58 40.44556	95 59 13.99406	539096.826	258396.756	164317.041	78759.489	290.925		2007	GPS2300
NAD83(1996)	48 58 40.44526	95 59 13.99403	539096.828	258396.726	164317.042	78759.480	290.918	C	2004	GPS2053

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50064.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50064.pdf

DIETER MNDT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DIETER MNDT RESET
NGS Name: DIETER RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR8803 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	163 N	41 W	485840.45	955913.99	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 3 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: (2019)

Stamping: DIETER 2003 2019

2.0 MILES WEST OF PINECREEK, 1.9 MILES WEST ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINECREEK, 120.0 FEET SOUTH OF COUNTY ROAD 3, 37.0 FEET WEST OF 290TH AVENUE, 6.6 FEET NORTH OF A POWER POLE, 6.0 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1045.349	0.016	318.623	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.165 12B = -91.168 09 = -91.043 03 = -90.968

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DIETER_RESET-DR8803-3S-16SEP2019.jpg	S	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DIETER_RESET-DR8803-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DIETER_RESET-DR8803-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110060.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110060.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DUXBY

NGS Name: DUXBY

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	42 W	485431.00	960257.00		

NGS ACRN: CU8065 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1941	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	SEE DESCRIPTION

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

Description:

Stamping: DUXBY 1912

12.5 MILES NORTHWEST OF ROSEAU, 7.0 MILES SOUTH OF CANADA, 0.15 MILE NORTH FROM THE JUNCTION OF COUNTY ROAD 139 AND COUNTY ROAD 10, THEN THE 0.1 MILE EAST ON A DRIVEWAY, 328.1 FEET SOUTH OF THE ROSEAU RIVER, 295.3 FEET EAST OF THE STORE AND THE POST OFFICE, IN THE SOUTH TRACK OF THE TRAVELED ROAD.

Station Notes

THE IBC REPORTED IN 1941 THAT THE MARK WAS FOUND AND RE-MARKED, THE ORIGINAL DISK WAS PLACED AS A SURFACE MARK, SEE "DUXBY RESET TD0904".

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.909 12B = -90.905 09 = -90.804 03 = -90.705

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70129.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70129.pdf

DUXBY AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DUXBY AZ MK

NGS Name: DUXBY AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6781 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	42 W	485420.00	960139.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2004	GOOD	Horz=NO Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	IBWC

Description: (2007) **Stamping:** DUXBY 1941

42.0 FEET SOUTHWEST OF THE CENTER OF AN INTERSECTION, 29.0 FEET SOUTH OF THE CENTER OF COUNTY ROAD, 29.0 FEET WEST OF THE CENTER OF A ROAD, 4.0 FEET SOUTHEAST OF A TELEPHONE LINE POLE AND 2.8 FEET NORTHEAST OF 4.0 INCH DIAMETER BY 4.0 INCH DIAMETER WOODEN POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.978 12B = -90.974 09 = -90.869 03 = -90.781

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70131.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70131.pdf

DUXBY IBC RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DUXBY IBC RM 1 **NGS Name:** DUXBY RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2305 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	42 W	485431.64	960255.68		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2004	GOOD	Horz=NO Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	IBWC

Description: (2007) **Stamping:** DUXBY NO 1 1941

12.5 MILES NORTHWEST OF ROSEAU, 7.0 MILES SOUTH OF CANADA, 26.0 FEET NORTH OF THE CENTER OF A ROAD, 21.0 FEET SOUTHEAST OF A TRIANGLE BLAZED TREE AND 1.0 FOOT NORTH OF A FENCE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.909 12B = -90.909 09 = -90.807 03 = -90.705

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70133.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70133.pdf

DUXBY IBC RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DUXBY IBC RM 2 **NGS Name:** DUXBY RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2306 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	42 W	485431.65	960257.99		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2004	GOOD	Horz=NO Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	IBWC

Description: (2007) **Stamping:** DUXBY NO 2 1941

12.5 MILES NORTHWEST OF ROSEAU, 7.0 MILES SOUTH OF CANADA, 24.0 FEET NORTH OF THE CENTER OF A ROAD AND 2.0 FEET NORTH OF A FENCE LINE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.909 12B = -90.905 09 = -90.804 03 = -90.705

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70134.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70134.pdf

DUXBY RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: DUXBY RESET
NGS Name: DUXBY RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0904 Get Map
NGS Quad / Sta Num : 48096111/1001
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	42 W	485431.53	960256.85		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2010	GOOD	Horz=NO Vert=YES	YES		RECESSED 1 IN.	STEEL SPIKE ADJ TO MON

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
IBWC

Description: (2002) **Stamping:** DUXBY 1912 1941

12.5 MILES NORTHWEST OF ROSEAU, 7.0 MILES SOUTH OF CANADA, 0.15 MILE NORTH FROM THE JUNCTION OF COUNTY ROAD 139 AND COUNTY ROAD 10, THEN 470.0 FEET EAST ON A DRIVEWAY, 0.1 MILE SOUTH OF THE ROSEAU RIVER, 15.0 FEET NORTH OF A ROAD, 3.0 FEET NORTH OF A WITNESS POST, 78.99 FEET WEST OF DUXBY RM 1, 76.53 FEET EAST OF DUXBY RM 2.

Station Notes
DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.909 12B = -90.905 09 = -90.804 03 = -90.705

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 54 31.53363	96 02 56.85331	524261.637	233142.784	159795.267	71062.063	286.708		2012	GPS2800
NAD83(2007)	48 54 31.53365	96 02 56.85418	524261.579	233142.786	159795.249	71062.063	286.744		2007	GPS2300
NAD83(1996)	48 54 31.53368	96 02 56.85365	524261.615	233142.789	159795.260	71062.064	286.743	C	2004	GPS2053
NAD83(1986)	48 54 31.52469	96 02 56.83859	524262.622	233141.879	159795.567	71061.787		C	1996	GPS925
NAD27	48 54 31.59300	96 02 55.82100						1	1944	06239

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DUXBY_RESET-TD0904-3N-18JUL2007.jpg	N	Jul 18, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DUXBY_RESET-TD0904-2-18JUL2007.jpg		Jul 18, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/DUXBY_RESET-TD0904-1-18JUL2007.jpg		Jul 18, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26843.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26843.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: E 202 **NGS Name:** E 202

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	162 N	40 W	485052.00	954957.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1963) **Stamping:** E 202 1935

2.97 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11, 89, AND 310 IN ROSEAU, THEN TO TRUNK HIGHWAY 11 AND STATION 618+70. THE STATION IS LOCATED 290.0 FEET RIGHT AND IS A STANDARD DISK. THE DISK IS SET IN A CONCRETE POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.758 12B = -91.762 09 = -91.637 03 = -91.614

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_72132.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_72132.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: E 318 **NGS Name:** E 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0003 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	13	161 N	42 W	484613.54	960137.87	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2025	GOOD	Horz=NO Vert=YES	YES		PROJECTS 7 IN.	STEEL SPIKE ADJ TO MON

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (2004) **Stamping:** E 318 1940

1.0 MILE SOUTHWEST OF BADGER, 1.85 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, THEN 0.8 MILE NORTH AND NORTHEAST ON SOUTH MAIN STREET, 38.0 FEET NORTHWEST OF SOUTH MAIN STREET, 23.6 FEET SOUTH-SOUTHEAST OF THE SOUTHEAST CORNER OF THE ANDERSON HEADSTONE, 0.4 FOOT SOUTHWEST OF A WITNESS POST.

Station Notes

DUE TO TREE COVER ADN DIFFICULTY SETTING UP A TRIPOD WITH THE HEIGHT PROJECTION, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1083.853	0.016	330.359	0.005	2/1	2019	00000941
NGVD29	1082.596	0.007	329.976	0.002	1/2	1992	UNCHECKD

Geoid Separations(ft): GEOID18 = -91.030 12B = -91.033 09 = -90.922 03 = -90.886

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 46 13.53921	96 01 37.86704	529620.026	182677.875	161428.507	55680.328	302.632		2012	GPS2800
NAD83(2007)	48 46 13.53921	96 01 37.86785	529619.972	182677.875	161428.490	55680.328	302.667		2007	GPS2300
NAD83(1996)	48 46 13.53920	96 01 37.86774	529619.979	182677.874	161428.493	55680.328	302.664	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/E_318-TD0003-3NW-01JUL2025.jpg	NW	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/E_318-TD0003-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/E_318-TD0003-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26844.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26844.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: E 374 **NGS Name:** E 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0527 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	162 N	41 W	484902.71	955751.18	1	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	GOOD	Horz=NO Vert=NO	YES		RECESSED 4 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 32 FT)	METAL ROD	NGS

Description: (2002) **Stamping:** E 374 1981

3.5 MILES NORTHEAST OF BADGER, 3.4 MILES NORTHEAST ON TRUNK HIGHWAY 11 FROM THE JUNCTION OF COUNTY ROAD 2 AND TRUNK HIGHWAY 11 IN BADGER, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 26 (NORTH-GRAVEL ROAD SOUTH), 75.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 61.3, 32.0 FEET EAST OF 300TH AVENUE (GRAVEL ROAD), 77.0 FEET SOUTH-SOUTHEAST OF THE JUNCTION OF TRUNK HIGHWAY 11 AND A CROSSROAD, 95.0 FEET NORTH-NORTHEAST OF THE JUNCTION OF A RAILROAD AND 300TH AVENUE, 47.0 FEET NORTHWEST OF THE NORTHWEST RAIL OF THE RAILROAD TRACKS, 2.0 FEET NORTHEAST OF A RIGHT-OF-WAY POST, 1.0 FOOT SOUTHWEST OF A WITNESS POST.

Station Notes

THE SURVEY MARK IS ON RAILROAD PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1079.890	0.007	329.151	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.210 12B = -91.214 09 = -91.109 03 = -91.066

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 49 02.71126	95 57 51.17426	544765.129	199854.352	166044.744	60915.728	301.344		2012	GPS2800
NAD83(2007)	48 49 02.71117	95 57 51.17522	544765.065	199854.343	166044.724	60915.726	301.381		2007	GPS2300
NAD83(1996)	48 49 02.71116	95 57 51.17514	544765.070	199854.342	166044.726	60915.725	301.378	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/E_374-TC0527-3S-24JUL2007.jpg	S	Jul 24, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/E_374-TC0527-2-24JUL2007.jpg		Jul 24, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/E_374-TC0527-1-24JUL2007.jpg		Jul 24, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26846.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26846.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: E 67 **NGS Name:** E 67

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0042 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	160 N	43 W	484149.00	961109.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** E 67 1934

IN GREENBUSH, AT THE WEST CITY LIMITS, AT THE HOSPITAL, 36.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11 AT A CURVE, 18.0 FEET WEST AND 3.0 FEET NORTH OF THE NORTHWEST CORNER OF THE HOSPITAL.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1076.245	0.007	328.040	0.002	1/2	1991	00000025
NGVD29	1074.926	0.007	327.638	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.581 12B = -90.577 09 = -90.459 03 = -90.482

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26847.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26847.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: E =1120 USGS
NGS Name: 1120

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0029 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	159 N	43 W	483350.00	961012.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	USGS

Description: (1940) **Stamping:** 1120

0.7 MILE NORTH ON A RAILROAD FROM STRATHCONA, 38.2 FEET NORTHWEST OF THE 1ST POLE SOUTH OF RAILROAD MILEPOST 51, 48.0 FEET WEST OF A TRACK, 0.6 MILE SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1119.227	0.007	341.141	0.002	1/2	1991	00000025
NGVD29	1117.911	0.007	340.740	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -89.813 12B = -89.832 09 = -89.701 03 = -89.777

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26848.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26848.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: EDDY MNDT **NGS Name:** EDDY

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8652 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	35	161 N	40 W	484356.55	954639.99	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2008) **Stamping:** EDDY 1998

8.0 MILES SOUTH OF ROSEAU, 8.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU TO TRUNK HIGHWAY 89 MILEPOINT 117.3, THEN 0.5 MILE WEST ON A ROAD, 33.0 FEET SOUTH OF 230TH STREET, 14.0 FEET EAST OF AN ENTRANCE, 69.0 FEET EAST OF A POWER POLE, 3.2 FEET WEST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1079.250	0.016	328.956	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.644 12B = -91.644 09 = -91.542 03 = -91.535

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 43 56.54537	95 46 39.99081	589839.395	168989.093	179783.407	51507.979	301.025		2012	GPS2800
NAD83(2007)	48 43 56.54546	95 46 39.99168	589839.336	168989.102	179783.389	51507.981	301.051		2007	GPS2300
NAD83(1996)	48 43 56.54629	95 46 39.98787	589839.592	168989.187	179783.467	51508.007	301.031	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/EDDY-AJ8652-3S-01AUG2007.jpg	S	Aug 1, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/EDDY-AJ8652-2-01AUG2007.jpg		Aug 1, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/EDDY-AJ8652-1-01AUG2007.jpg		Aug 1, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36729.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36729.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: EDDY RESET
NGS Name: EDDY RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8830 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	35	161 N	40 W	484356.55	954639.98	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: EDDY 1998 2012

8.0 MILES SOUTH OF ROSEAU, 8.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, TO TRUNK HIGHWAY 89 MILEPOINT 117.3, THEN 0.5 MILE WEST ON 230TH STREET, 33.0 FEET SOUTH OF 230TH STREET, 14.0 FEET EAST OF A CEMETERY ENTRANCE, 69.0 FEET EAST OF A POWER POLE, 3.2 FEET WEST OF A WITNESS POST.

Station Pair: WANN RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1078.984	0.016	328.875	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.644 12B = -91.644 09 = -91.542 03 = -91.535

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 43 56.54627	95 46 39.98551	589839.750	168989.186	179783.515	51508.007	300.943		2018	GPS3232
NAD83(1996)	48 43 56.54611	95 46 39.98602	589839.716	168989.170	179783.505	51508.002	300.993	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/EDDY_RESET-DO8830-3S-05SEP2012.jpg	S	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/EDDY_RESET-DO8830-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/EDDY_RESET-DO8830-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97505.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97505.pdf

ET 1 JA

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ET 1 JA **NGS Name:** ET 1 JA

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2338 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	21	161 N	40 W	484448.46	954845.35		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 6 IN.	BAR MAG IN DRILL HOLE

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

Description: (2008) **Stamping:** 1111 ET 1 JA 1965

7.0 MILES SOUTH AND 2.0 MILES WEST OF ROSEAU, 2.1 MILES WEST ALONG COUNTY ROAD 126 FROM THE JUNCTION OF COUNTY ROAD 126 AND TRUNK HIGHWAY 89, 8.0 MILES SOUTH OF ROSEAU, 48.0 FEET NORTH OF COUNTY ROAD 126, 485.0 FEET WEST OF COUNTY ROAD 121, 3.0 FEET SOUTHEAST OF A POWER POLE NUMBER 80, 2.0 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.571 12B = -91.565 09 = -91.466 03 = -91.473

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 44 48.46336	95 48 45.34522	581411.906	174211.796	177214.703	53099.862	311.346		2012	GPS2800
NAD83(2007)	48 44 48.46342	95 48 45.34614	581411.844	174211.802	177214.685	53099.864	311.378	C	2009	GPS2522
NAD83(1996)	48 44 48.46320	95 48 45.34606	581411.850	174211.780	177214.686	53099.857	311.376	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_1_JA-DL2338-3N-12OCT2021.jpg	N	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_1_JA-DL2338-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_1_JA-DL2338-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26851.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26851.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ET 2 DM
NGS Name: ET 2 DM

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2339 Get Map
NGS Quad / Sta Num : 48096134/
USGS Quad: PELAN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	161 N	44 W	484446.31	962257.77		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	2020	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2007)

Stamping: ET 2 DM 1965

9.0 MILES WEST OF GREENBUSH, 9.6 MILES NORTHWEST OF GREENBUSH, 2.8 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 4 IN GREENBUSH, THEN 9.1 MILES WEST ON 240TH STREET, 71.0 FEET SOUTH OF 240TH STREET, 36.8 FEET SOUTH-SOUTHEAST OF A CULVERT UNDER AN ENTRANCE, 30.0 FEET EAST OF A FIELD ENTRANCE, 1.0 FOOT WEST OF A WITNESS POST.

Station Notes

THE MARK LEANS SLIGHTLY TO THE SOUTHEAST BUT IS SOLID.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.380 12B = -90.380 09 = -90.272 03 = -90.236

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 44 46.31000	96 22 57.76753	443848.097	173899.040	135285.170	53004.533	281.024		2012	GPS2800
NAD83(2007)	48 44 46.30990	96 22 57.76856	443848.027	173899.030	135285.149	53004.530	281.058	C	2009	GPS2522
NAD83(1996)	48 44 46.30979	96 22 57.76838	443848.039	173899.019	135285.153	53004.527	281.066	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_2_DM-DL2339-3SE-24JUN2020.jpg	SE	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_2_DM-DL2339-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_2_DM-DL2339-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26852.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26852.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ET 2 JA

NGS Name: ET 2 JA

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	1	159 N	40 W	483737.00	954405.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	1987	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SEE DESCRIPTION	USGS

Description: (1987) **Stamping:** ET 2 JA 1966

2.2 MILES SOUTH OF WANNASKA, 2.2 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND 181ST STREET IN WANNASKA.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.112 12B = -91.128 09 = -91.020 03 = -90.991

Geodetic Position

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD27	48 37 37.00000	95 44 04.80000							1950	UNK

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26853.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26853.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ET 3 DM **NGS Name:** ET 3 DM

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2340 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	20	161 N	42 W	484448.75	960702.58	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	2020	GOOD	Horz=YES Vert=YES	YES		PROJECTS 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SURVEY DISK

Mon. Agency
USGS

Description: (2008) **Stamping:** ET 3 DM 1965

4.3 MILES NORTHEAST OF GREENBUSH, 3.55 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH TO MILEPOINT 51.7, THEN 1.05 MILES NORTH ALONG 230TH AVENUE, 262.0 FEET NORTH OF 240TH STREET AND 32.0 FEET EAST OF 230TH AVENUE, 68.0 FEET EAST-SOUTHEAST OF A POWER POLE, 1.0 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1053.512	0.016	321.111	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.817 12B = -90.813 09 = -90.705 03 = -90.682

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 44 48.75265	96 07 02.57937	507870.099	174062.531	154799.116	53054.366	293.443		2012	GPS2800
NAD83(2007)	48 44 48.75266	96 07 02.58017	507870.045	174062.532	154799.099	53054.366	293.479	C	2009	GPS2522
NAD83(1996)	48 44 48.75262	96 07 02.58009	507870.051	174062.528	154799.101	53054.365	293.477	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_3_DM-DL2340-3E-24JUN2020.jpg	E	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_3_DM-DL2340-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_3_DM-DL2340-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26854.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26854.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ET 4 DM **NGS Name:** ET 4 DM

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	7	162 N	43 W	485215.65	961516.24		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	1965	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: **Stamping:** ET 4 DM 1965

12.0 MILES NORTH OF GREENBUSH, 13.3 MILES NORTH AND WEST ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND TRUNK HIGHWAY 11 IN GREENBUSH, THEN 1.5 MILES NORTH ON A DIRT ROAD, ON A SMALL KNOLL, 12.06 FEET WEST OF A ROAD ALONG A DITCH BANK, 300.0 FEET SOUTH OF THE EAST END OF A ROW OF POPPLE TREES, 8.0 FEET SOUTH AND 3.0 FEET EAST OF MOST SOUTHEASTERLY OAK TREE OF A GROUP OF 4 OAK TREES.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.443 12B = -90.453 09 = -90.364 03 = -90.229

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80067.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80067.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ET 5 DM

NGS Name: ET 5 DM

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	5	162 N	42 W	485239.00	960542.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	1965	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1965) **Stamping:** ET 5 DM 1965

6.5 MILES NORTH AND 3.5 MILES WEST OF BADGER, 51.0 FEET NORTH OF A NORTH-SOUTH ROAD AT A TEE-ROAD WEST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.794 12B = -90.797 09 = -90.699 03 = -90.587

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26855.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26855.pdf

ET 6 DM

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ET 6 DM **NGS Name:** ET 6 DM

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2341 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	5	162 N	41 W	485237.00	955908.53		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 8 IN.	STEEL ROD IMBED IN MON

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

Description: (2008) **Stamping:** ET 6 DM 1965 1036

7.0 MILES NORTH OF BADGER, 5.9 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN BADGER, THEN 1.0 MILE EAST ON COUNTY ROAD 142, 72.0 FEET NORTH OF COUNTY ROAD 142, 140.0 FEET EAST OF 290TH AVENUE, 55.0 FEET WEST-NORTHWEST OF A POWER POLE, 1.0 FOOT EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.125 12B = -91.125 09 = -91.014 03 = -90.951

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 52 37.00179	95 59 08.53217	539540.665	221561.204	164452.324	67531.990	288.534		2012	GPS2800
NAD83(2007)	48 52 37.00180	95 59 08.53305	539540.606	221561.205	164452.306	67531.990	288.570	C	2009	GPS2522
NAD83(1996)	48 52 37.00169	95 59 08.53295	539540.613	221561.194	164452.308	67531.987	288.567	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_6_DM-DL2341-3N-11OCT2021.jpg	N	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_6_DM-DL2341-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ET_6_DM-DL2341-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26856.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26856.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: F 202 **NGS Name:** F 202

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0409 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	162 N	40 W	485052.80	954843.50	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1948	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (2006) **Stamping:** F 202 1935

2.3 MILES WEST FROM ROSEAU, 2.3 MILES WEST ALONG TRUNK HIGHWAY 11 FROM ROSEAU, ROSEAU COUNTY, AT THE JUNCTION OF A SECTION-LINE ROAD, 25.5 FEET EAST OF THE CENTERLINE OF THE ROAD, 31.0 FEET NORTH OF THE CENTERLINE OF THE HIGHWAY, 1.2 FEET SOUTHEAST OF A STEEL CORNER FENCE POST, 0.9 FOOT WEST OF A WHITE REFERENCE POST. A STANDARD DISK SET IN THE TOP OF A CONCRETE POST PROJECTING ABOUT 6.0 INCH DIAMETER ABOVE THE GROUND.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1056.307	0.007	321.963	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.857 12B = -91.860 09 = -91.739 03 = -91.716

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_53930.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_53930.pdf

F 202 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: F 202 RESET

NGS Name: F 202 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0410 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	160 N	40 W	485053.00	954843.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1948	1948	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1948) **Stamping:** F 202 RESET 1948

2.2 MILES WEST OF ROSEAU, 2.2 MILES WEST ALONG 3RD STREET FROM THE JUNCTION OF 3RD STREET AND MAIN AVENUE IN ROSEAU.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NGVD29	1054.919	0.007	321.540	0.002	1	1948	L56 MINN

Geoid Separations(ft): GEOID18 = -91.857 12B = -91.863 09 = -91.739 03 = -91.716

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26857.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26857.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: F 318 **NGS Name:** F 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0004 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	161 N	42 W	484531.00	960211.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1940) **Stamping:** F 318 1940

2.0 MILES SOUTHWEST FROM BADGER ON TRUNK HIGHWAY 11 AT A FARM ROAD, 42.0 FEET SOUTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 10.9 FEET WEST OF THE CENTER OF A FARM ROAD, ACROSS TRUNK HIGHWAY 11 FROM A VACANT FARM HOUSE, 3.0 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1079.995	0.007	329.183	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -90.991 12B = -90.991 09 = -90.879 03 = -90.856

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_40235.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_40235.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: F 318 RESET

NGS Name: F 318 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0005 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	161 N	42 W	484531.00	960211.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2014	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: (1981) **Stamping:** F 318 RESET 1957

2.0 MILES SOUTHWEST FROM BADGER ALONG TRUNK HIGHWAY 11 AT A FARM ROAD, 76.0 FEET SOUTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 15.0 FEET WEST OF CENTER OF A FARM ROAD, ACROSS TRUNK HIGHWAY 11 FROM A VACANT FARM HOUSE, 3.0 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.991 12B = -90.991 09 = -90.879 03 = -90.856

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_42897.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_42897.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: F 374 **NGS Name:** F 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0528 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	6	161 N	41 W	484817.01	955909.46	1	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	GOOD	Horz=NO Vert=NO	YES		FLUSH	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 28 FT)	METAL ROD	NGS

Description: (1981) **Stamping:** F 374 1981

2.1 MILES NORTHEAST OF BADGER, 2.05 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 60.0, 114.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 64.0 FEET SOUTH-SOUTHWEST OF COUNTY ROAD 114, 21.0 FEET NORTHWEST OF THE NORTHWEST RAIL OF THE RAILROAD TRACKS, 79.0 FEET SOUTHWEST OF THE JUNCTION OF A RAILROAD AND COUNTY ROAD 114 SOUTH, 37.5 FEET EAST OF A RIGHT-OF-WAY POST, 2.8 FEET FROM RAILROAD MILEPOST 72, 1.5 FEET NORTH-NORTHEAST OF A WITNESS POST.

Station Notes

THE SURVEY MARK IS ON RAILROAD PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1077.091	0.007	328.298	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -91.151 12B = -91.158 09 = -91.046 03 = -91.004

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 48 17.00587	95 59 09.45683	539535.586	195210.029	164450.776	59500.136	300.507		2012	GPS2800
NAD83(2007)	48 48 17.00585	95 59 09.45766	539535.531	195210.027	164450.759	59500.135	300.542		2007	GPS2300
NAD83(1996)	48 48 17.00584	95 59 09.45755	539535.538	195210.025	164450.761	59500.135	300.540	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/F_374-TC0528-3N-03AUG2004.jpg	N	Aug 3, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/F_374-TC0528-2-03AUG2004.jpg		Aug 3, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/F_374-TC0528-1-03AUG2004.jpg		Aug 3, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26861.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26861.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: F=1099 USGS

NGS Name: 1099

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0026 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	159 N	43 W	483628.00	961010.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	USGS

Description: (1940) **Stamping:** 1099

3.8 MILES NORTH OF STRATHCONA, 33.0 FEET SOUTH OF RAILROAD MILEPOST 54, 54.4 FEET WEST OF TRUNK HIGHWAY 32, 44.5 FEET EAST OF THE EAST RAIL OF THE RAILROAD TRACKS, 4.4 FEET WEST OF A RIGHT-OF-WAY FENCE, 0.7 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1098.636	0.007	334.865	0.002	1/2	1991	00000025
NGVD29	1097.314	0.007	334.462	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.154 12B = -90.151 09 = -90.023 03 = -90.111

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26862.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26862.pdf

FLATLAND MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FLATLAND MNDT **NGS Name:** FLATLAND

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8897 Get Map
NGS Quad / Sta Num : 48096144/
USGS Quad: CARIBOU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	6	163 N	44 W	485845.40	962419.30	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2003	GOOD	Horz=YES Vert=YES	NO		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** FLATLAND 2003

2.0 MILES EAST OF CARIBOU, 2.05 MILES EAST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 53 IN CARIBOU, 40.8 FEET EAST OF COUNTY ROAD 24/COUNTY ROAD 7, 40.6 FEET SOUTH OF COUNTY ROAD 4, 4.5 FEET SOUTHWEST OF THE NORTH LEG OF THE ROSEAU RIVER WILDLIFE MANAGEMENT AREA SIGN, 19.8 FEET NORTH OF AN ENTRANCE, 0.25 MILE NORTH OF STATION CARIBOU, 1.3 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1018.633	0.016	310.480	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -90.056 12B = -90.062 09 = -89.970 03 = -89.859

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50040.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50040.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FOX

NGS Name: FOX

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/1007
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485045.01	955010.39		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1987	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1987) **Stamping:** FOX 1941

2.93 MILES NORTHEAST OF FOX, 2.97 MILES NORTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND 330TH AVENUE IN FOX, THEN 0.09 MILE SOUTH ALONG COUNTY ROAD 15, THEN 0.11 MILE SOUTHWEST ALONG BITUMINOUS WALKING PATH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.739 12B = -91.742 09 = -91.617 03 = -91.594

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1986)	48 50 45.01020	95 50 10.39803	575562.471	210323.556	175431.792	64106.748			1991	H1991
NAD27	48 50 45.08100	95 50 09.41900							1950	UNK

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26864.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26864.pdf

FOX AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FOX AZ MK

NGS Name: FOX AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6847 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	20	162 N	40 W	485047.00	955049.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	AZIMUTH MARK DISK	NGS

Description: (1987)

Stamping: FOX 1941

3.9 MILES WEST ALONG TRUNK HIGHWAY 11 FROM MAIN STREET IN ROSEAU, 0.5 MILE WEST OF STATION FOX, 140.0 FEET SOUTH OF TRUNK HIGHWAY 11, ON A BANK.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.686 12B = -91.689 09 = -91.571 03 = -91.545

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26865.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26865.pdf

FOX RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FOX RESET

NGS Name: FOX RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0751 Get Map
NGS Quad / Sta Num : 48095442/1007
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485045.02	955010.42		1

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1956	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRIANGULATION STATION DISK	NGS

Description: (2002) **Stamping:** FOX 1941 1956

2.8 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 310 IN ROSEAU, TO AN OLD BLACK TOP ROAD, THEN 0.3 MILE WEST-SOUTHWEST ON AN OLD BLACK TOP ROAD, 100.0 FEET SOUTH OF AN OLD BLACK TOP ROAD, ABOUT 170.0 FEET NORTH OF THE RAILROAD TRACKS, THE STATION WAS RESET IN 1956 WITH NO GOOD DESCRIPTION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.739 12B = -91.742 09 = -91.617 03 = -91.594

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 45.02046	95 50 10.42049	575560.964	210324.589	175431.333	64107.063	303.204	1	1999	17648
NAD83(1986)	48 50 45.01020	95 50 10.39803	575562.471	210323.555	175431.792	64106.748		1	1986	17289
NAD27	48 50 45.08100	95 50 09.41900						1	1960	12443

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_41690.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_41690.pdf

FOX RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FOX RM 1 **NGS Name:** FOX RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6848 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485045.16	955009.11		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2004	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: **Stamping:** FOX NO 1 1941

2.93 MILES NORTHEAST OF FOX, 2.97 MILES NORTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND 330TH AVENUE IN FOX, THEN 0.09 MILE SOUTH ALONG COUNTY ROAD 15, THEN 0.11 MILE SOUTHWEST ALONG BITUMINOUS WALK PATH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.739 12B = -91.742 09 = -91.617 03 = -91.598

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70143.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70143.pdf

FOX RM 1 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FOX RM 1 RESET

NGS Name: FOX RM 1 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6849 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485044.04	955010.19		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2004	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description:

2.93 MILES NORTHEAST OF FOX, 2.97 MILES NORTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND 330TH AVENUE IN FOX, THEN 0.09 MILE SOUTH ALONG COUNTY ROAD 15, THEN 0.11 MILE SOUTHWEST ALONG BITUMINOUS WALK PATH.

Stamping:

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.739 12B = -91.742 09 = -91.617 03 = -91.598

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70144.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70144.pdf

FOX RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FOX RM 2 **NGS Name:** FOX RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6850 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485044.25	955010.87		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2004	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: **Stamping:** FOX NO 2 1941

2.93 MILES NORTHEAST OF FOX, 2.97 MILES NORTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND 330TH AVENUE IN FOX, THEN 0.09 MILE SOUTH ALONG COUNTY ROAD 15, THEN 0.11 MILE SOUTHWEST ALONG BITUMINOUS WALK PATH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.739 12B = -91.742 09 = -91.617 03 = -91.598

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70145.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70145.pdf

FOX RM 2 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FOX RM 2 RESET

NGS Name: FOX RM 2 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6851 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485045.00	955010.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2004	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description:

2.93 MILES NORTHEAST OF FOX, 2.97 MILES NORTHEAST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND 330TH AVENUE IN FOX, THEN 0.09 MILE SOUTH ALONG COUNTY ROAD 15, THEN 0.11 MILE SOUTHWEST ALONG BITUMINOUS WALK PATH.

Stamping:

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.739 12B = -91.742 09 = -91.617 03 = -91.598

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70146.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70146.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: FRED **NGS Name:** FRED

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9451 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	161 N	43 W	484311.26	960845.26	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2014) **Stamping:** FRED 2014

2.0 MILES NORTHEAST OF GREENBUSH, 2.0 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 50.25, 37.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 10.0 FEET SOUTHEAST OF A WITNESS POST.

Station Pair: PIONEER - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1072.747	0.016	326.974	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.695 12B = -90.695 09 = -90.584 03 = -90.584

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 43 11.26323	96 08 45.25587	500988.754	164180.319	152701.678	50042.261	299.350		2020	GPS3390
NAD83(1996)	48 43 11.26307	96 08 45.25650	500988.712	164180.302	152701.665	50042.256	299.397	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/FRED-DP9451-3NW-30JUN2025.jpg	NW	Jun 30, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/FRED-DP9451-2-30JUN2025.jpg		Jun 30, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/FRED-DP9451-1-30JUN2025.jpg		Jun 30, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_102027.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_102027.pdf

G 253 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: G 253 RESET

NGS Name: G 253 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	161 N	40 W	484658.00	954600.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2000) **Stamping:** G 253 RESET 1946

4.5 MILES SOUTH OF ROSEAU, 73.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 237+62.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.903 12B = -91.903 09 = -91.791 03 = -91.788

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26869.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26869.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: G 262 **NGS Name:** G 262

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	160 N	41 W	484208.00	955939.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1962	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: **Stamping:** G 262 1935

5.4 MILES SOUTH OF BADGER, 5.7 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND COUNTY ROAD 2 IN BADGER, 30.0 FEET NORTH AND 48.0 FEET EAST OF THE CROSSROADS.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.863 12B = -90.863 09 = -90.745 03 = -90.781

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_79816.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_79816.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: G 318 **NGS Name:** G 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0006 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	161 N	42 W	484458.00	960343.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2008	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1940) **Stamping:** G 318 1940

3.3 MILES SOUTHWEST FROM BADGER, ALONG A HIGHWAY, 0.07 MILE, NORTHWEST OF A DRIVEWAY TO A WHITE FARM HOUSE, AT A FENCE CORNER, 51.5 FEET NORTHWEST OF THE CENTERLINE, 2.0 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1084.151	0.007	330.450	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -90.918 12B = -90.922 09 = -90.810 03 = -90.791

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_40234.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_40234.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: G 318 RESET

NGS Name: G 318 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0007 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	161 N	42 W	484458.00	960343.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2014	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: (1981) **Stamping:** G 318 1940

3.3 MILES SOUTHWEST FROM BADGER ALONG TRUNK HIGHWAY 11, 0.1 MILE NORTHWEST OF A DRIVEWAY TO A WHITE FARM HOUSE, AT A FENCE CORNER, 75.0 FEET NORTHWEST OF THE CENTERLINE, 1.5 FEET SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.918 12B = -90.922 09 = -90.810 03 = -90.791

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_42899.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_42899.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: G 374 **NGS Name:** G 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0798 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	161 N	41 W	484731.43	960025.40	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2025	GOOD	Horz=NO Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 28 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** G 374 1981

0.75 MILE NORTHEAST OF BADGER, 0.75 MILE NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF COUNTY ROAD 2 AND TRUNK HIGHWAY 11 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 58.65, AT THE NORTHWEST CORNER OF THE BADGER CREEK CEMETERY, 74.0 FEET EAST OF TRUNK HIGHWAY 11, 0.1 MILE NORTH OF THE RAILROAD CROSSING, 44.0 FEET EAST OF A CEMETERY FENCE CORNER, 54.0 FEET SOUTH OF A TELEPHONE WARNING POST, 1.5 FEET WEST OF A RIGHT-OF-WAY POST, 3.0 FEET 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 Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1073.994	0.016	327.354	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.096 12B = -91.099 09 = -90.991 03 = -90.948

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/G_374-TD0798-3E-02JUL2025.jpg	E	Jul 2, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/G_374-TD0798-2-02JUL2025.jpg		Jul 2, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/G_374-TD0798-1-02JUL2025.jpg		Jul 2, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26872.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26872.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: G =1071 USGS
NGS Name: 1071

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0023 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	160 N	43 W	483905.00	961017.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	USGS

Description: (1940) **Stamping:** 1071

3.3 MILES SOUTH ON A RAILROAD FROM GREENBUSH, 33.0 FEET SOUTH OF RAILROAD MILEPOST 57, 135.0 FEET SOUTH OF THE SOUTHBOUND WHISTLE POST, 46.2 FEET WEST OF THE WEST RAIL OF THE RAILROAD TRACKS, 1.2 FEET EAST OF A RIGHT-OF-WAY FENCE, 0.8 FOOT SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1070.510	0.007	326.292	0.002	1/2	1991	00000025
NGVD29	1069.194	0.007	325.891	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.433 12B = -90.416 09 = -90.305 03 = -90.371

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26873.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26873.pdf

GAGING STATION

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GAGING STATION

NGS Name: GAGING STATION

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	163 N	40 W	485523.80	954605.88		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2023	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

5.22 MILES NORTH OF ROSEAU, 5.22 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 IN ROSEAU, 82.0 FEET NORTH OF A BRIDGE OVER THE ROSEAU RIVER, ON THE NORTH BANK OF A RIVER.

Stamping:

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.106 12B = -92.106 09 = -91.975 03 = -91.975

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82300.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82300.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GRAPHIX **NGS Name:** GRAPHIX

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8546 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	162 N	41 W	485020.56	955400.18		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2004	2014	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2004) **Stamping:** GRAPHIX 2004

6.5 MILES WEST OF ROSEAU, 6.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 64.6, 80.9 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 42.5 FEET NORTHEAST OF A ROAD, 1.0 FOOT WEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.443 12B = -91.440 09 = -91.329 03 = -91.306

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 20.56139	95 54 00.18242	560199.694	207788.766	170749.208	63334.143	303.735		2012	GPS2800
NAD83(2007)	48 50 20.56138	95 54 00.18323	560199.640	207788.765	170749.192	63334.142	303.773		2007	GPS2300
NAD83(1996)	48 50 20.56135	95 54 00.18328	560199.636	207788.762	170749.191	63334.141	303.772	C	2008	HRO50

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GRAPHIX-DG8546-3SE-10AUG2004.jpg	SE	Aug 10, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GRAPHIX-DG8546-2-10AUG2004.jpg		Aug 10, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GRAPHIX-DG8546-1-10AUG2004.jpg		Aug 10, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50883.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50883.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GRAPHIX RESET
NGS Name: GRAPHIX RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9465 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	162 N	41 W	485020.56	955400.18	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014)

Stamping: GRAPHIX 2004 2014

6.5 MILES WEST OF ROSEAU, 6.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 64.6, 80.9 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 42.5 FEET NORTHWEST OF A ROAD, 1.0 FOOT SOUTHWEST OF A WITNESS POST.

Station Pair: ROSS RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1087.695	0.016	331.530	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.443 12B = -91.440 09 = -91.329 03 = -91.306

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 20.56166	95 54 00.18271	560199.675	207788.793	170749.202	63334.151	303.676		2020	GPS3390
NAD83(1996)	48 50 20.56150	95 54 00.18338	560199.630	207788.777	170749.189	63334.146	303.725	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GRAPHIX_RESET-DP9465-3S-26JUL2023.jpg	S	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GRAPHIX_RESET-DP9465-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GRAPHIX_RESET-DP9465-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101745.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101745.pdf

GREENBUSH

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GREENBUSH

NGS Name: GREENBUSH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0917 Get Map
NGS Quad / Sta Num : 48096124/1007
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484216.02	961031.59		1

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2014	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
TRIANGULATION STATION DISK

Mon. Agency
NGS

Description: (1941)

Stamping: GREENBUSH 1941

IN THE NORTH EDGE OF GREENBUSH, 80.0 FEET WEST OF THE WEST RAIL OF A RAILROAD SIDING, 30.0 FEET EAST OF A GRAVEL ROAD, 40.0 FEET WEST OF THE SOUTHWEST CORNER OF A HONEY EXTRACTING PLANT, 30.0 FEET NORTHEAST OF A POWER POLE, 6.0 FEET NORTHEAST OF A WITNESS POST, 89.2 FEET NORTH OF GREENBUSH RM 1, 89.2 FEET EAST OF GREENBUSH RM 2.

Station Notes
FALLS UNDER THE CONCRETE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.610 12B = -90.613 09 = -90.495 03 = -90.508

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 42 16.01717	96 10 31.59180	493855.905	158582.148	150527.581	48335.935	300.548	1	1999	17648
NAD83(1986)	48 42 16.00904	96 10 31.57455	493857.062	158581.324	150527.934	48335.684		1	1986	17289
NAD27	48 42 16.09300	96 10 30.52500						1	1960	12443

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26875.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26875.pdf

GREENBUSH AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GREENBUSH AZ MK **NGS Name:** GREENBUSH AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6899 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484216.00	960944.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	AZIMUTH MARK DISK	NGS

Description:

Stamping: GREENBUSH 1941

36.0 FEET SOUTH OF AN EAST-WEST ROAD, 3.0 FEET SOUTH OF A WHITE REFERENCE POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.626 12B = -90.626 09 = -90.508 03 = -90.525

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70149.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70149.pdf

GREENBUSH MUNICIPAL TANK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GREENBUSH MUNICIPAL TANK
NGS Name: GREENBUSH MUNICIPAL TANK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0915 Get Map
NGS Quad / Sta Num : 48096124/1010
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484201.22	961057.36		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	ELEVATED TANK	NGS

Description: (1941)

Stamping:

IN THE CENTER OF GREENBUSH, IN THE NORTH CENTRAL PART OF BLOCK 11.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.594 12B = -90.594 09 = -90.472 03 = -90.492

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 42 01.21717	96 10 57.36404	492126.428	157082.834	150000.435	47878.944		4	1999	17648
NAD83(1986)	48 42 01.21041	96 10 57.34480	492127.719	157082.148	150000.829	47878.735		4	1986	17289
NAD27	48 42 01.29300	96 10 56.29600						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26876.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26876.pdf

GREENBUSH N SEED GRAIN N ELEV

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GREENBUSH N SEED GRAIN N ELEV **NGS Name:** GREENBUSH N SEED GRAIN N ELEV

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0914 Get Map
NGS Quad / Sta Num : 48096124/1008
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484211.20	961038.07		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	GRAIN ELEVATOR	NGS

Description: (1941) **Stamping:**

0.4 MILE NORTH-NORTHEAST OF THE CENTER OF GREENBUSH, 99.0 FEET EAST OF OLD TRUNK HIGHWAY 11, 60.0 FEET WEST OF THE RAILROAD TRACKS, 105.0 FEET NORTH OF THE SOUTH ELEVATOR.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.607 12B = -90.607 09 = -90.489 03 = -90.505

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 42 11.20254	96 10 38.06791	493421.305	158094.338	150395.115	48187.251		4	1999	17648
NAD83(1986)	48 42 11.19540	96 10 38.04940	493422.546	158093.614	150395.493	48187.030		4	1986	17289
NAD27	48 42 11.27900	96 10 37.00000						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26877.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26877.pdf

GREENBUSH N SEED GRAIN S ELEV

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GREENBUSH N SEED GRAIN S ELEV **NGS Name:** GREENBUSH N SEED GRAIN S ELEV

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0916 Get Map
NGS Quad / Sta Num : 48096124/1009
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484210.15	961039.85		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	GRAIN ELEVATOR	NGS

Description: (1941) **Stamping:**

0.4 MILE NORTH-NORTHEAST OF THE CENTER OF GREENBUSH, 99.0 FEET EAST OF OLD TRUNK HIGHWAY 11, 60.0 FEET WEST OF THE RAILROAD TRACKS, 105.0 FEET SOUTH OF THE NORTH ELEVATOR.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.603 12B = -90.603 09 = -90.485 03 = -90.505

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 42 10.14781	96 10 39.84620	493301.973	157987.484	150358.742	48154.682		4	1999	17648
NAD83(1986)	48 42 10.14066	96 10 39.82767	493303.216	157986.759	150359.121	48154.461		4	1986	17289
NAD27	48 42 10.22400	96 10 38.77800						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26878.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26878.pdf

GREENBUSH RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GREENBUSH RM 1 **NGS Name:** GREENBUSH RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6900 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484215.20	961032.08		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	NGS

Description:

Stamping: GREENBUSH NO 1 1941

66.0 FEET SOUTHEAST OF THE CENTERLINE OF OLD HIGHWAY 11 EAST, 40.0 FEET WEST OF THE WEST RAIL OF A SIDING AND 22.0 FEET SOUTH OF A POWER POLE.

Station Notes

FALLS UNDER THE CONCRETE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.610 12B = -90.613 09 = -90.495 03 = -90.508

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70150.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70150.pdf

GREENBUSH RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GREENBUSH RM 2 **NGS Name:** GREENBUSH RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6901 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484215.99	961032.92		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2014	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	REFERENCE MARK DISK	NGS

Description:

Stamping: GREENBUSH NO 1 1941

21.0 FEET WEST OF THE CENTERLINE OF A GRAVEL ROAD, 3.0 FEET NORTH OF A POWER POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.610 12B = -90.613 09 = -90.495 03 = -90.508

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70151.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70151.pdf

GUSBEV MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GUSBEV MNDT **NGS Name:** GUSBEV

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8671 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	163 N	40 W	485618.27	954608.39	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2007	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1998) **Stamping:** GUSBEV 1998

6.50 MILES NORTH OF ROSEAU, 6.30 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310, TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 6.25, 75.5 FEET WEST OF TRUNK HIGHWAY 310, 10.0 FEET NORTH OF A FIELD ENTRANCE, 188.5 FEET SOUTH OF A POWER POLE, 142.6 FEET NORTH OF A POWER POLE, 10.2 FEET SOUTH OF A WITNESS POST.

Station Notes
FOUND THE DISK POPPED OFF, GUSBEV MNDT RESET NOW IN PLACE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1034.578	0.016	315.340	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.103 09 = -91.975 03 = -91.978

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 56 18.26942	95 46 08.39229	591581.928	244173.787	180314.532	74424.319	287.270		2012	GPS2800
NAD83(2007)	48 56 18.26960	95 46 08.39280	591581.894	244173.805	180314.522	74424.325	287.303		2007	GPS2300
NAD83(1996)	48 56 18.26922	95 46 08.39281	591581.894	244173.766	180314.522	74424.313	287.301	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36722.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36722.pdf

GUSBEV MNDT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GUSBEV MNDT RESET **NGS Name:** GUSBEV RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2342 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	163 N	40 W	485618.27	954608.39		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2007	2023	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2007)

Stamping: GUSBEV RESET 2007

6.5 MILES NORTH OF ROSEAU, 6.3 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 89, AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 6.25, 188.5 FEET SOUTH OF A POWER POLE, 142.6 FEET NORTH OF A POWER POLE, 75.5 FEET WEST OF TRUNK HIGHWAY 310, 10.0 FEET NORTH OF A FIELD ENTRANCE, 2.3 FEET SOUTH OF A WITNESS POST.

Station Notes
THE DISK WAS RETURNED TO THE OFFICE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.103 09 = -91.975 03 = -91.978

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 56 18.26967	95 46 08.39172	591581.966	244173.812	180314.544	74424.327	287.272		2012	GPS2800
NAD83(2007)	48 56 18.26985	95 46 08.39223	591581.932	244173.831	180314.534	74424.332	287.305	C	2009	GPS2522
NAD83(1996)	48 56 18.26955	95 46 08.39221	591581.934	244173.800	180314.534	74424.323	287.304	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GUSBEV_RESET-DL2342-3W-17JUL2007.jpg	W	Jul 17, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GUSBEV_RESET-DL2342-2-17JUL2007.jpg		Jul 17, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GUSBEV_RESET-DL2342-1-17JUL2007.jpg		Jul 17, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_69674.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_69674.pdf

GUSBEV MNDT RESET 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: GUSBEV MNDT RESET 2 **NGS Name:** GUSBEV RESET 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	163 N	40 W	485618.27	954608.39	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2023) **Stamping:** GUSBEV 2007 2023

6.5 MILES NORTH OF ROSEAU, 6.3 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 6.25, 75.5 FEET WEST OF TRUNK HIGHWAY 310, 188.5 FEET SOUTH OF A POWER POLE, 142.6 FEET NORTH OF A POWER POLE, 10.0 FEET NORTH OF A FIELD ENTRANCE, 2.3 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1034.443	0.016	315.299	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GUSBEV_RESET_2-3W-27JUL2023.jpg	W	Jul 27, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GUSBEV_RESET_2-2-27JUL2023.jpg		Jul 27, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/GUSBEV_RESET_2-1-27JUL2023.jpg		Jul 27, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110960.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110960.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H

NGS Name: H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	164 N	44 W	485931.00	962121.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
STEP	SEE DESCRIPTION	USGS

Description: (1929) **Stamping:** 1929 H

IN NORACRES, 80.0 FEET SOUTHWEST OF THE POST OFFICE, IN THE WEST END OF THE MIDDLE STEP AT THE NORTH ENTRANCE TO THE POSTMASTERS HOUSE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.170 12B = -90.177 09 = -90.088 03 = -89.957

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26880.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26880.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H 10 **NGS Name:** H 10

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	17	162 N	43 W	485058.00	961500.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: **Stamping:** H 10 1929

10.4 MILES NORTH OF GREENBUSH, 13.2 MILES NORTH AND WEST ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND TRUNK HIGHWAY 11 IN GREENBUSH, 119.0 FEET EAST OF COUNTY ROAD 103, 22.0 FEET NORTH OF COUNTY ROAD 7.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.499 12B = -90.512 09 = -90.416 03 = -90.289

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80058.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80058.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H 18 **NGS Name:** H 18

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	161 N	44 W	484447.00	962020.40		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	POOR	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	STEEL SPIKE ADJ TO MON

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

Description: (2007) **Stamping:** 18 H 1929

3.2 MILES NORTH AND 7.0 MILES WEST OF GREENBUSH, 7.0 MILES WEST ALONG COUNTY ROAD 102 FROM THE JUNCTION OF COUNTY ROAD 102 AND COUNTY ROAD 7, 2.0 MILES NORTH OF BADGER, THEN 1.0 MILE NORTH ON 130TH AVENUE, 52.0 FEET NORTH OF 130TH AVENUE AND 23.0 FEET EAST OF THE CROSSROADS, 1.0 FOOT EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.456 12B = -90.462 09 = -90.348 03 = -90.305

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/H_18-3N-24JUL2007.jpg	N	Jul 24, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/H_18-2-24JUL2007.jpg		Jul 24, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/H_18-1-24JUL2007.jpg		Jul 24, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26881.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26881.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H 261 **NGS Name:** H 261

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0415 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	27	162 N	41 W	484955.00	955515.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2005	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 7 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** H 261 1935

1.0 MILE WEST OF FOX, 36.0 FEET WEST OF A ROAD, 45.8 FEET SOUTH OF THE SOUTH RAIL OF THE RAILROAD TRACKS, 1.8 FEET NORTH OF A RIGHT-OF-WAY FENCE, 2.5 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1087.898	0.007	331.592	0.002	1/2	1991	00000025
NGVD29	1086.553	0.007	331.182	0.002	1	1941	Q480954

Geoid Separations(ft): GEOID18 = -91.358 12B = -91.355 09 = -91.247 03 = -91.220

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26884.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26884.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H 318 **NGS Name:** H 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0008 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	161 N	42 W	484429.00	960505.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1940) **Stamping:** H 318 1940

4.5 MILES SOUTHWEST FROM BADGER, ON TRUNK HIGHWAY 11 AT A FENCE CORNER, 0.35 MILE NORTHEAST OF A YELLOW FARM HOUSE, 41.5 FEET NORTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 2.8 FEET NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1084.030	0.007	330.413	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -90.859 12B = -90.856 09 = -90.745 03 = -90.731

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_40233.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_40233.pdf

H 318 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H 318 RESET

NGS Name: H 318 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0009 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	161 N	42 W	484428.00	960505.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2014	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1957) **Stamping:** H 318 RESET 1957

4.5 MILES SOUTHWEST FROM BADGER, 4.5 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11, 0.4 MILE NORTHEAST OF A PINK FARMHOUSE, 75.0 FEET SOUTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 2.0 FEET NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.859 12B = -90.856 09 = -90.745 03 = -90.731

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_42904.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_42904.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H 374 **NGS Name:** H 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0803 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	161 N	42 W	484533.25	960212.66	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 32 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2004) **Stamping:** H 374 1981

2.1 MILES SOUTHWEST OF BADGER, 2.1 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 55.90, 79.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, AT A POWER LINE CROSSING, 40.0 FEET NORTH-NORTHEAST OF THE NORTHEAST END OF A METAL CULVERT, 38.0 FEET NORTHEAST OF A FIELD ROAD ENTRANCE, 30.0 FEET NORTHEAST OF A FENCE CORNER, 3.0 FEET NORTHEAST OF A POWER POLE, 1.0 FOOT SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1077.508	0.016	328.425	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.991 12B = -90.991 09 = -90.879 03 = -90.856

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 45 33.24558	96 02 12.66327	527294.972	178590.488	160719.829	54434.490	300.716		2020	GPS3390
NAD83(2007)	48 45 33.24559	96 02 12.66408	527294.918	178590.489	160719.812	54434.490	300.751		2007	GPS2300
NAD83(1996)	48 45 33.24557	96 02 12.66397	527294.925	178590.487	160719.815	54434.489	300.748	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/H_374-TD0803-3NW-01JUL2025.jpg	NW	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/H_374-TD0803-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/H_374-TD0803-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26886.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26886.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H 4 **NGS Name:** H 4

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	11	162 N	43 W	485149.34	961104.39		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: **Stamping:** H 4 1929

11.2 MILES NORTH OF GREENBUSH, 0.5 MILE WEST OF KELLY SCHOOL, 10.3 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND TRUNK HIGHWAY 11 IN GREEN BUSH, THEN 1.0 MILE NORTH ON 200TH AVENUE, 66.0 FEET NORTH OF 320TH STREET, 31.0 FEET EAST OF 200TH AVENUE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.600 12B = -90.603 09 = -90.518 03 = -90.390

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80056.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80056.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: H =1073 USGS
NGS Name: 1073

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0018 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	160 N	43 W	484140.00	961045.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2003	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	USGS

Description: (1980) **Stamping:** 1073

0.4 MILE SOUTH ON A RAILROAD FROM THE RAILROAD STATION AT GREENBUSH, 0.1 MILE SOUTH OF THE JUNCTION OF TRUNK HIGHWAY 11 AND A RAILROAD, 36.2 FEET WEST OF THE WEST RAIL OF THE RAILROAD TRACKS, 37.0 FEET EAST OF A GRAVEL ROAD, AT RAILROAD MILEPOST 60.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1072.255	0.007	326.824	0.002	1/2	1991	00000025
NGVD29	1070.936	0.007	326.422	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.577 12B = -90.577 09 = -90.456 03 = -90.485

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26887.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26887.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HAUG **NGS Name:** HAUG

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0909 Get Map
NGS Quad / Sta Num : 48096113/1002
USGS Quad: HAUG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	162 N	43 W	485055.41	961104.17		1

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2007	NOT FOUND	Horz=? Vert=YES	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRIANGULATION STATION DISK	NGS

Description: (2002) **Stamping:** HAUG 1941

2.0 MILES NORTH OF HAUG, IN THE SOUTHEAST QUADRANT OF THE JUNCTION OF COUNTY ROAD 7-COUNTY ROAD 10 AND A TOWNSHIP ROAD, 44.0 FEET EAST OF A NORTH-SOUTH ROAD, 50.0 FEET SOUTH OF AN EAST-WEST ROAD, 14.5 FEET SOUTHEAST OF A WITNESS POST, 93.4 FEET NORTH OF HAUG RM 1, 1.2 FEET SOUTHEAST OF HAUG RM 2.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.630 12B = -90.633 09 = -90.548 03 = -90.423

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 55.40751	96 11 04.16567	491694.639	211223.623	149868.826	64381.089	286.568	1	1999	17648
NAD83(1986)	48 50 55.40125	96 11 04.14773	491695.839	211222.988	149869.191	64380.895		1	1986	17289
NAD27	48 50 55.47100	96 11 03.10100						1	1944	06239

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HAUG-TD0909-3S-17APR2012.jpg	S	Apr 17, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HAUG-TD0909-2-17APR2012.jpg		Apr 17, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HAUG-TD0909-1-17APR2012.jpg		Apr 17, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26888.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26888.pdf

HAUG AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HAUG AZ MK
NGS Name: HAUG AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6953 Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	162 N	43 W	485111.39	961104.62		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
AZIMUTH MARK DISK

Mon. Agency
NGS

Description: (2007)

Stamping: HAUG 1941

10.5 MILES NORTH OF GREENBUSH, 10.2 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND TRUNK HIGHWAY 11 IN GREENBUSH, THEN CONTINUE 0.35 MILE NORTH ON 200TH AVENUE, 45.7 FEET EAST OF 200TH AVENUE, 16.0 FEET NORTH OF A DRIVEWAY, 10.0 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.620 12B = -90.623 09 = -90.538 03 = -90.413

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 51 11.39096	96 11 04.61712	491665.178	212843.594	149859.846	64874.857	286.938		2012	GPS2800
NAD83(2007)	48 51 11.39095	96 11 04.61801	491665.118	212843.593	149859.828	64874.857	286.974	C	2009	GPS2522
NAD83(1996)	48 51 11.39086	96 11 04.61795	491665.122	212843.584	149859.829	64874.854	286.973	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HAUG_AZ_MK-CO6953-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HAUG_AZ_MK-CO6953-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HAUG_AZ_MK-CO6953-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26889.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26889.pdf

HAUG RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HAUG RM 1 **NGS Name:** HAUG RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6954 Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	162 N	43 W	485054.49	961104.33		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1947	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: **Stamping:** HAUG NO 1 1941

SOUTH OF STATION HAUG, 33.0 FEET EAST OF THE CENTERLINE OF A NORTH-SOUTH ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.630 12B = -90.636 09 = -90.548 03 = -90.423

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70152.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70152.pdf

HAUG RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HAUG RM 2 **NGS Name:** HAUG RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO6955 Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	23	162 N	43 W	485056.21	961105.43		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1947	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: **Stamping:** HAUG NO 2 1941

NORTHWEST OF STATION HAUG, 39.0 FEET WEST OF THE CENTERLINE OF A NORTH-SOUTH ROAD, 32.0 FEET NORTH OF THE CENTERLINE OF AN EAST-WEST ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.630 12B = -90.636 09 = -90.548 03 = -90.423

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70154.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70154.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HUSS **NGS Name:** HUSS

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0748 Get Map
NGS Quad / Sta Num : 48095433/1002
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	159 N	41 W	483611.50	955934.20		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1994	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1994) **Stamping:** HUSS 1941

12.0 MILES SOUTH OF BADGER, 12.55 MILES SOUTH ON COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 AT ROSEAU, 233.0 FEET EAST OF COUNTY ROAD 3, 25.0 FEET SOUTH OF A FARM DRIVEWAY, 177.4 FEET EAST-SOUTHEAST OF A POWER POLE NUMBER 66, 100.1 FEET WEST-NORTHWEST OF A POWER POLE, 73.7 FEET NORTHWEST OF A WITNESS POST, 72.8 FEET SOUTH-SOUTHEAST OF A WITNESS POST, 72.72 FEET NORTHWEST OF HUSS RM 1, 71.55 FEET SOUTH-SOUTHEAST OF HUSS RM 2.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.220 12B = -90.229 09 = -90.121 03 = -90.174

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1986)	48 36 11.49221	95 59 34.21687	538029.639	121676.181	163991.762	37086.974		C	1991	H1991
NAD27	48 36 11.58500	95 59 33.19200						1	1960	12443

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26894.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26894.pdf

HUSS AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HUSS AZ MK

NGS Name: HUSS AZ MK

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	159 N	41 W	483605.00	960015.00		

NGS ACRN: CO7003 Get Map
NGS Quad / Sta Num : 48096122/
USGS Quad: GREENBUSH SE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1987	POOR	Horz=? Vert=YES	NO		PROJECTS 6 IN.	SEE DESCRIPTION

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

Description:

Stamping: HUSS 1941

12.0 MILES SOUTH OF BADGER, 12.55 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN ROSEAU, THEN 0.5 MILE WEST ON COUNTY ROAD 8, 33.0 FEET SOUTH OF COUNTY ROAD 8, 5.0 FEET EAST OF A TELEPHONE POLE, 3.0 FEET EAST OF A REFERENCE POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.190 12B = -90.203 09 = -90.095 03 = -90.144

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70156.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70156.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HUSS RESET **NGS Name:** HUSS RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2323 Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	159 N	41 W	483611.50	955934.23		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2007	GOOD	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
HORIZONTAL CONTROL DISK

Mon. Agency
MNDT

Description: (1994) **Stamping:** HUSS 1941 1994

12.0 MILES SOUTH OF BADGER, 12.55 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN ROSEAU, 233.0 FEET EAST OF COUNTY ROAD 3, 177.4 FEET EAST-SOUTHEAST OF A POWER POLE NUMBER 66, 100.1 FEET WEST-NORTHWEST OF A POWER POLE, 73.7 FEET NORTHWEST OF A WITNESS POST, 72.8 FEET SOUTH-SOUTHEAST OF A WITNESS POST, 72.72 FEET NORTHWEST OF HUSS RM 1, 71.55 FEET SOUTH-SOUTHEAST OF HUSS RM 2, 25.0 FEET SOUTH OF A FARM DRIVEWAY.

Station Notes

TALL TREES 40.0 FEET TO THE SOUTH AND SOUTHEAST. THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.220 12B = -90.229 09 = -90.121 03 = -90.174

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 36 11.50127	95 59 34.23285	538028.562	121677.095	163991.434	37087.253	335.248		2012	GPS2800
NAD83(2007)	48 36 11.50124	95 59 34.23376	538028.501	121677.092	163991.415	37087.252	335.302		2007	GPS2300
NAD83(1996)	48 36 11.50086	95 59 34.23363	538028.510	121677.054	163991.418	37087.240	335.263	C	2008	HROSO
NAD83(1986)	48 36 11.49221	95 59 34.21688	538029.637	121676.179	163991.761	37086.974		C	1996	GPS925
NAD27	48 36 11.58500	95 59 33.19200						C	1950	UNK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HUSS_RESET-AB2323-3S-26JUL2007.jpg	S	Jul 26, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HUSS_RESET-AB2323-2-26JUL2007.jpg		Jul 26, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/HUSS_RESET-AB2323-1-26JUL2007.jpg		Jul 26, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36483.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36483.pdf

HUSS RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HUSS RM 1 **NGS Name:** HUSS RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2307 Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	159 N	41 W	483610.92	955933.60		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=? Vert=YES	NO		PROJECTS 6 IN.	SEE DESCRIPTION

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

Description: **Stamping:** HUSS NO 1 1941

12.0 MILES SOUTH OF BADGER, 12.55 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN ROSEAU, SOUTHEAST OF STATION HUSS RESET, 1.0 FOOT NORTH OF AN EAST-WEST FENCE, 50.0 FEET EAST OF A FENCE CORNER.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.220 12B = -90.226 09 = -90.121 03 = -90.174

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70164.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70164.pdf

HUSS RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: HUSS RM 2

NGS Name: HUSS RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2308 Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	159 N	41 W	483612.17	955934.59		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=? Vert=YES	NO		PROJECTS 4 IN.	SEE DESCRIPTION

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

Description:

Stamping: HUSS NO 2 1941

12.0 MILES SOUTH OF BADGER, 12.55 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN ROSEAU, NORTH-NORTHWEST OF STATION HUSS RESET, 1.0 FOOT NORTH OF THE CENTERLINE OF A FARM ENTRANCE, 31.0 FEET NORTHWEST OF THE NORTHWEST CORNER OF A LOG CABIN, 3.0 FEET EAST OF A RAIL FENCE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.220 12B = -90.226 09 = -90.121 03 = -90.174

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70165.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70165.pdf

IGLOO MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: IGLOO MNDT **NGS Name:** IGLOO

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4572 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	159 N	42 W	483422.52	960734.50	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2012	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2003) **Stamping:** IGLOO 2003

9.5 MILES SOUTHEAST OF GREENBUSH, 8.9 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 136.05, THEN 1.95 MILES EAST ON COUNTY ROAD 6, 71.0 FEET NORTH OF COUNTY ROAD 6, 23.3 FEET EAST OF AN ENTRANCE, 1.0 FOOT SOUTH OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1122.517	0.016	342.144	0.005	2/1	2004	00000425-3

Geoid Separations(ft): GEOID18 = -89.892 12B = -89.898 09 = -89.770 03 = -89.865

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 34 22.51548	96 07 34.49876	505750.492	110593.286	154153.058	33708.901	314.756		2012	GPS2800
NAD83(2007)	48 34 22.51559	96 07 34.49981	505750.422	110593.298	154153.037	33708.905	314.788	C	2009	GPS2522
NAD83(1996)	48 34 22.51545	96 07 34.49970	505750.429	110593.283	154153.039	33708.900	314.780	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/IGLOO-DG4572-3N-24MAY2007.jpg	N	May 24, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/IGLOO-DG4572-2-24MAY2007.jpg		May 24, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/IGLOO-DG4572-1-24MAY2007.jpg		May 24, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50170.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50170.pdf

IGLOO RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: IGLOO RESET
NGS Name: IGLOO RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8037 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	159 N	42 W	483422.52	960734.50	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2012	GOOD	Horz=YES Vert=YES	YES		RECESSED 5 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: IGLOO 2003 2012

9.5 MILES SOUTHEAST OF GREENBUSH, 8.9 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH TO TRUNK HIGHWAY 32 MILEPOINT 136.05, THEN 2.0 MILES EAST ON COUNTY ROAD 6, 71.0 FEET NORTH OF COUNTY ROAD 6, 23.3 FEET EAST OF A FIELD ENTRANCE, 1.2 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1122.288	0.016	342.074	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.892 12B = -89.898 09 = -89.770 03 = -89.865

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/IGLOO_RESET-DO8037-3N-10JUL2012.jpg	N	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/IGLOO_RESET-DO8037-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/IGLOO_RESET-DO8037-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_96823.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_96823.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: J 261 **NGS Name:** J 261

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0416 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	28	162 N	41 W	484933.00	955633.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** J 261 1935

2.1 MILES WEST OF FOX, 42.2 FEET NORTH OF THE NORTH RAIL OF A RAILROAD, 36.0 FEET WEST OF A ROAD, 40.0 FEET SOUTH OF TRUNK HIGHWAY 11, 1.8 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1089.722	0.007	332.148	0.002	1/2	1991	00000025
NGVD29	1088.377	0.007	331.738	0.002	1	1941	Q480954

Geoid Separations(ft): GEOID18 = -91.279 12B = -91.279 09 = -91.174 03 = -91.138

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26908.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26908.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: J 318 **NGS Name:** J 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0010 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	161 N	42 W	484409.00	960618.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1940) **Stamping:** J 318 1940

4.2 MILES NORTHEAST FROM GREENBUSH, ON TRUNK HIGHWAY 11 AT A GRAVEL PIT, 64.6 FEET NORTHWEST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 44.0 FEET SOUTHEAST OF THE SOUTHEAST END OF A PIT, 3.2 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1080.936	0.007	329.470	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -90.807 12B = -90.807 09 = -90.695 03 = -90.686

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_40232.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_40232.pdf

J 318 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: J 318 RESET

NGS Name: J 318 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0011 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	161 N	42 W	484407.00	960623.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2014	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: (1957) **Stamping:** J 318 RESET 1957

4.2 MILES NORTHEAST OF GREENBUSH ALONG TRUNK HIGHWAY 11 AT A GRAVEL PIT, 76.0 FEET NORTHWEST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 2.3 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.804 12B = -90.804 09 = -90.692 03 = -90.682

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_42908.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_42908.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: J 374 **NGS Name:** J 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0804 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	22	161 N	42 W	484503.78	960326.71	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	GOOD	Horz=NO Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 32 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** J 374 1981

3.35 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 54.60, 75.5 FEET NORTHWEST OF TRUNK HIGHWAY 11, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1082.268	0.016	329.876	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.932 12B = -90.935 09 = -90.823 03 = -90.804

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 45 03.78406	96 03 26.70864	522336.943	175597.855	159208.619	53522.333	302.175		2012	GPS2800
NAD83(2007)	48 45 03.78407	96 03 26.70946	522336.888	175597.856	159208.602	53522.334	302.210		2007	GPS2300
NAD83(1996)	48 45 03.78406	96 03 26.70935	522336.896	175597.855	159208.604	53522.333	302.207	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/J_374-TD0804-3NW-18JUN2014.jpg	NW	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/J_374-TD0804-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/J_374-TD0804-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26910.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26910.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: JADIS **NGS Name:** JADIS

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8547 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	20	162 N	40 W	485018.40	955003.16	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2004	2023	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2014) **Stamping:** JADIS 2004

3.0 MILES WEST OF ROSEAU, 3.05 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU TO TRUNK HIGHWAY 11 MILEPOINT 67.7, THEN 0.65 MILE SOUTH ON COUNTY ROAD 15, 61.9 FEET WEST OF COUNTY ROAD 15 (360TH AVENUE), 27.2 FEET NORTH OF DRIVEWAY NUMBER 30314, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes
THE DISK WAS RETURNED TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1072.396	0.016	326.867	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.739 12B = -91.742 09 = -91.617 03 = -91.598

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 18.40375	95 50 03.16412	576057.543	207628.960	175582.690	63285.434	298.905		2012	GPS2800
NAD83(2007)	48 50 18.40386	95 50 03.16511	576057.477	207628.971	175582.670	63285.437	298.939		2007	GPS2300
NAD83(1996)	48 50 18.40373	95 50 03.16539	576057.458	207628.958	175582.665	63285.433	298.942	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/JADIS-DG8547-3W-24JUN2014.jpg	W	Jun 24, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/JADIS-DG8547-2-24JUN2014.jpg		Jun 24, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/JADIS-DG8547-1-24JUN2014.jpg		Jun 24, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50882.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50882.pdf

JADIS RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: JADIS RESET

NGS Name: JADIS RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS1961 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	20	162 N	40 W	485018.40	955003.16	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	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: (2023)

Stamping: JADIS 2004 2023

3.0 MILES WEST OF ROSEAU, 3.05 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU TO TRUNK HIGHWAY 11 MILEPOINT 67.7, THEN 0.65 MILE SOUTH ON COUNTY ROAD 15, 61.9 FEET WEST OF COUNTY ROAD 15 (360TH AVENUE), 27.2 FEET NORTH OF DRIVEWAY NUMBER 30314, 1.0 FOOT EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1072.160	0.016	326.795	0.005	2/1	2024	VTH310

No Geoid Separations Available

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/JADIS_RESET-DS1961-3W-26JUL2023.jpg	W	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/JADIS_RESET-DS1961-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/JADIS_RESET-DS1961-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110959.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110959.pdf

JUNEBERRY

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: JUNEBERRY **NGS Name:** JUNEBERRY

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0919 Get Map
NGS Quad / Sta Num : 48096143/1004
USGS Quad: JUNEBERRY RIDGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	18	162 N	44 W	485114.48	962312.92		1

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=? Vert=YES	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRIANGULATION STATION DISK	NGS

Description: (1941) **Stamping:** JUNEBERRY 1941

9.0 MILES WEST-NORTHWEST OF HAUG, 2.0 MILES NORTH ALONG COUNTY ROAD 7 (200TH AVENUE) FROM THE JUNCTION OF COUNTY ROAD 7 (200TH AVENUE) AND 290TH STREET IN HAUG, THEN 9.0 MILES WEST ON COUNTY ROAD 7, THEN 0.3 MILE NORTH ON 110TH AVENUE, THEN 0.2 MILE WEST-NORTHWEST OF 110TH AVENUE, 46.0 FEET SOUTHWEST FROM THE CENTER OF 110TH AVENUE, 5.0 FEET SOUTH OF A WITNESS POST, 59.4 FEET WEST-NORTHWEST OF JUNEBERRY RM 1, 74.145 FEET SOUTH-SOUTHEAST OF JUNEBERRY RM 2.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.213 12B = -90.229 09 = -90.128 03 = -90.020

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 51 14.47812	96 23 12.92137	442954.744	213243.288	135012.876	64996.684	287.699	1	1999	17648
NAD83(1986)	48 51 14.47170	96 23 12.90760	442955.663	213242.635	135013.156	64996.485		1	1986	17289
NAD27	48 51 14.54100	96 23 11.81100						1	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26911.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26911.pdf

JUNEBERRY AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: JUNEBERRY AZ MK

NGS Name: JUNEBERRY AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO7030 Get Map
NGS Quad / Sta Num : 48096143/
USGS Quad: JUNEBERRY RIDGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	18	162 N	44 W	485052.00	962251.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	NGS

Description: (2007)

Stamping: JUNEBERRY 1941

0.5 MILE SOUTHEAST OF STATION JUNEBERRY, IN THE NORTHWEST ANGLE OF A TEE-ROAD INTERSECTION, 41.0 FEET NORTH OF THE CENTERLINE OF AN EAST-WEST GRAVEL ROAD, 23.0 FEET WEST OF THE CENTERLINE OF A NORTH-SOUTH TEE-ROAD LEADING NORTH, 2.5 FEET EAST-NORTHEAST OF A WHITE REFERENCE POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.239 12B = -90.259 09 = -90.157 03 = -90.046

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70166.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70166.pdf

JUNEBERRY RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: JUNEBERRY RM 1 **NGS Name:** JUNEBERRY RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO7031 Get Map
NGS Quad / Sta Num : 48096143/
USGS Quad: JUNEBERRY RIDGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	18	162 N	44 W	485114.30	962311.99		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: (2007) **Stamping:** JUNEBERRY NO 1 1941

9.0 MILES WEST-NORTHWEST OF HAUG, 2.0 MILES NORTH ALONG COUNTY ROAD 7 FROM HAUG, THEN 9.0 MILES WEST ON COUNTY ROAD 7, THEN 0.3 MILE NORTH ON 110TH AVENUE, THEN 0.2 MILE WEST ON 110TH AVENUE, IS EAST BY SOUTH OF STATION JUNEBERRY AND 14.0 FEET SOUTH OF THE CENTERLINE OF WOODS ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.213 12B = -90.229 09 = -90.128 03 = -90.020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70167.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70167.pdf

JUNEBERRY RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: JUNEBERRY RM 2 **NGS Name:** JUNEBERRY RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO7032 Get Map
NGS Quad / Sta Num : 48096143/
USGS Quad: JUNEBERRY RIDGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	18	162 N	44 W	485115.19	962313.47		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: (2007) **Stamping:** JUNEBERRY NO 2 1941

9.0 MILES WEST-NORTHWEST OF HAUG, 2.0 MILES NORTH ALONG COUNTY ROAD 7 FROM HAUG, THEN 9.0 MILES WEST ON COUNTY ROAD 7, THEN 0.3 MILE NORTH ON 110TH AVENUE, THEN 0.2 MILE WEST ON 110TH AVENUE, NORTH-NORTHWEST OF STATION JUNEBERRY AND 14.0 FEET NORTH OF THE CENTERLINE OF WOODS ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.213 12B = -90.229 09 = -90.128 03 = -90.020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70169.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70169.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: K 220 **NGS Name:** K 220

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0755 Get Map
NGS Quad / Sta Num : 48095442/1005
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	162 N	40 W	485001.25	954605.77		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1946	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	NGS

Description: (1946) **Stamping:** K 220 1935

0.75 MILE SOUTH-SOUTHWEST OF ROSEAU, 1.0 MILE SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, IN THE NORTHWEST QUADRANT OF THE JUNCTION OF TRUNK HIGHWAY 89 AND A CROSSROAD, 36.0 FEET WEST OF TRUNK HIGHWAY 89, 28.0 FEET NORTH OF A ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.044 12B = -92.047 09 = -91.926 03 = -91.909

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 01.24597	95 46 05.76609	591948.736	205962.713	180426.336	62777.561	293.109	2	1999	17648
NAD83(1986)	48 50 01.23489	95 46 05.74396	591950.223	205961.598	180426.789	62777.221		2	1986	17289
NAD27	48 50 01.30600	95 46 04.77400						2	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26914.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26914.pdf

K 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: K 220 RESET

NGS Name: K 220 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0752 Get Map
NGS Quad / Sta Num : 48095442/1005
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	162 N	40 W	485001.36	954607.02		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	2009	DESTROYED	Horz=NO Vert=NO	NO			MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
IRON ROD	SURVEY DISK	NGS

Description: (2000)

Stamping: K 220 RESET 1946

1.0 MILE SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 AT ROSEAU, 74.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 52+37, 40.0 FEET NORTH OF A CROSSROAD.

Station Notes

THE POSITION IS IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.040 12B = -92.047 09 = -91.922 03 = -91.909

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 01.36466	95 46 07.01740	591864.953	205974.324	180400.798	62781.099	293.109	2	1999	17648
NAD83(1986)	48 50 01.35355	95 46 06.99533	591866.435	205973.205	180401.250	62780.758		2	1986	17289
NAD27	48 50 01.42500	95 46 06.02500						2	1947	07308

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26915.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26915.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: K 261 **NGS Name:** K 261

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0417 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	162 N	41 W	484901.00	955751.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1981	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** K 261 1935

3.37 MILES SOUTHWEST OF FOX, 3.3 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 (330TH AVENUE) IN FOX, THEN 0.04 MILE SOUTH ALONG AN UNNAMED ROAD.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1083.728	0.007	330.321	0.002	1/2	1991	00000025
NGVD29	1082.386	0.007	329.912	0.002	1	1941	Q480954

Geoid Separations(ft): GEOID18 = -91.210 12B = -91.214 09 = -91.109 03 = -91.066

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26916.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26916.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: K 318 **NGS Name:** K 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0012 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	31	161 N	42 W	484341.00	960735.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	1980	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1980) **Stamping:** K 318 1940

3.3 MILES NORTHEAST OF GREENBUSH, 3.3 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND CENTRAL AVENUE IN GREENBUSH.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1079.988	0.007	329.181	0.002	1/2	1991	00000025
NGVD29	1078.663	0.007	328.777	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.751 12B = -90.748 09 = -90.636 03 = -90.630

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26917.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26917.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: K 371 **NGS Name:** K 371

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0819 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	30	160 N	44 W	483903.14	962158.09	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 26 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** K 371 1981

9.0 MILES EAST-NORTHEAST OF KARLSTAD, 9.25 MILES EAST-NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 59 IN KARLSTAD, AT TRUNK HIGHWAY 11 MILEPOINT 38.45, 103.5 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 67.5 FEET WEST-SOUTHWEST OF STATION 6801 A, 24.0 FEET WEST-SOUTHWEST OF A FIELD ENTRANCE, 19.6 FEET EAST-NORTHEAST OF A RIGHT-OF-WAY POST, 3.8 FEET EAST-NORTHEAST OF A POWER POLE WITH A GUY WIRE, 1.3 FEET WEST-SOUTHWEST OF A WITNESS POST.

Station Pair: PARK MNDT RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1067.002	0.016	325.223	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.426 12B = -90.426 09 = -90.298 03 = -90.321

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 39 03.13884	96 21 58.09079	447749.290	139107.184	136474.256	42399.955	297.675		2020	GPS3390
NAD83(2007)	48 39 03.13880	96 21 58.09174	447749.226	139107.180	136474.237	42399.953	297.716		2007	GPS2300
NAD83(1996)	48 39 03.13861	96 21 58.09157	447749.237	139107.161	136474.240	42399.948	297.717	C	2021	HKTAD
NAD83(1986)	48 39 03.12971	96 21 58.07867	447750.101	139106.257	136474.504	42399.672		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/K_371-TD0819-3N-23JUN2020.jpg	N	Jun 23, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/K_371-TD0819-2-23JUN2020.jpg		Jun 23, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/K_371-TD0819-1-23JUN2020.jpg		Jun 23, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26919.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26919.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: K 374 **NGS Name:** K 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0805 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	28	161 N	42 W	484440.06	960433.16	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2018	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (IN SLEEVE) (DEPTH 32 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** K 374 1981

4.15 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 53.8, 73.0 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 139.0 FEET EAST-NORTHEAST OF A DRIVEWAY NORTHWEST, 112.0 FEET EAST-NORTHEAST OF A POWER POLE, 1.0 FOOT SOUTHWEST OF A WITNESS POST.

Station Pair: NERE - ROSEAU, MN

Station Notes
THE ACCESS COVER WAS BROKEN OFF - 8/3/04.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1083.010	0.016	330.102	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.882 12B = -90.882 09 = -90.771 03 = -90.754

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 44 40.06326	96 04 33.16252	517885.593	173188.875	157851.845	52788.075	302.419		2020	GPS3390
NAD83(2007)	48 44 40.06328	96 04 33.16336	517885.537	173188.877	157851.827	52788.075	302.453		2007	GPS2300
NAD83(1996)	48 44 40.06327	96 04 33.16332	517885.540	173188.876	157851.828	52788.075	302.450	B	2004	GPS1954
NAD83(1986)	48 44 40.05428	96 04 33.14807	517886.563	173187.966	157852.140	52787.798		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/K_374-TD0805-3N-27SEP2018.jpg	N	Sep 27, 2018
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/K_374-TD0805-2-27SEP2018.jpg		Sep 27, 2018
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/K_374-TD0805-1-27SEP2018.jpg		Sep 27, 2018

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26920.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26920.pdf

L 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: L 220 RESET

NGS Name: L 220 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	162 N	40 W	484910.00	954604.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1947	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2000) **Stamping:** L 220 RESET 1947

1.9 MILES SOUTH OF ROSEAU, 2.0 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, 75.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 105+12.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.014 12B = -92.018 09 = -91.899 03 = -91.886

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26923.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26923.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: L 261 **NGS Name:** L 261

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0419 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	5	161 N	41 W	484815.00	955910.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1981	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** L 261 1935

1.93 MILES NORTHEAST OF BADGER, 2.06 MILE NORTH-NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 (UNIVERSITY AVENUE) IN BADGER, THEN 0.07 MILE SOUTHEAST ALONG COUNTY ROAD 114, THEN 0.07 MILE SOUTHWEST ALONG OLD HIGHWAY 11.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1082.993	0.007	330.097	0.002	1/2	1991	00000025
NGVD29	1081.651	0.007	329.688	0.002	1	1941	Q480954

Geoid Separations(ft): GEOID18 = -91.148 12B = -91.155 09 = -91.046 03 = -91.004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26924.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26924.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: L 318 **NGS Name:** L 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0013 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	161 N	43 W	484315.00	960839.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	1980	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1980) **Stamping:** L 318 1940

2.3 MILES NORTHEAST OF GREENBUSH, 2.3 MILES NORTHEASTERLY ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND MAIN STREET

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1077.458	0.007	328.410	0.002	1/2	1991	00000025
NGVD29	1076.133	0.007	328.006	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.702 12B = -90.699 09 = -90.590 03 = -90.587

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26925.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26925.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: L 371 **NGS Name:** L 371

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0817 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	160 N	44 W	483940.50	961921.97	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2018	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 26 FT)	METAL ROD	NGS

Description: (2014) **Stamping:** L 371 1981

7.6 MILES SOUTHWEST OF GREENBUSH, 7.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND 130TH AVENUE, AT TRUNK HIGHWAY 11 MILEPOINT 40.5, 101.0 FEET NORTH-NORTHWEST OF TRUNK HIGHWAY 11, 67.0 FEET EAST OF 130TH AVENUE, 5.6 FEET EAST OF A FENCE CORNER, 1.0 FOOT SOUTH OF A FENCE LINE, 1.0 FOOT SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1064.762	0.016	324.540	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.456 12B = -90.456 09 = -90.325 03 = -90.351

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 39 40.49592	96 19 21.97236	458241.592	142866.513	139672.317	43545.800	296.973		2020	GPS3390
NAD83(2007)	48 39 40.49579	96 19 21.97342	458241.521	142866.500	139672.295	43545.796	297.008	C	2009	GPS2522
NAD83(1996)	48 39 40.49566	96 19 21.97322	458241.534	142866.487	139672.299	43545.792	297.017	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/L_371-TD0817-3N-18JUN2014.jpg	N	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/L_371-TD0817-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/L_371-TD0817-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26927.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26927.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: L 374 **NGS Name:** L 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0806 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	161 N	42 W	484417.36	960544.04	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	GOOD	Horz=NO Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 36 FT)	METAL ROD	NGS

Description: (2014) **Stamping:** L 374 1981

4.6 MILES NORTHEAST OF GREENBUSH, 4.65 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 52.85, 74.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 56.0 FEET SOUTHWEST OF DRIVEWAY NUMBER 24004 SOUTHEAST, 46.0 FEET SOUTH-SOUTHWEST OF THE SOUTHWEST END OF A METAL CULVERT, 30.0 FEET SOUTHWEST OF A RIGHT-OF-WAY POST, 12.0 FEET SOUTHWEST OF A FENCE CORNER, 4.0 FEET NORTH OF A TELEPHONE JUNCTION BOX, 1.0 FOOT EAST-NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1079.519	0.016	329.038	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.833 12B = -90.830 09 = -90.718 03 = -90.708

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/L_374-TD0806-3SE-18JUN2014.jpg	SE	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/L_374-TD0806-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/L_374-TD0806-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26928.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26928.pdf

LUNG MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: LUNG MNDT **NGS Name:** LUNG

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8656 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	162 N	40 W	484909.17	954529.13	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2004) **Stamping:** LUNG 1998

2.0 MILES SOUTH OF ROSEAU, 2.05 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 TO TRUNK HIGHWAY 89 MILEPOINT 123.3, THEN 0.5 MILE EAST ON A ROAD, 33.0 FEET NORTH OF A ROAD, 21.0 FEET WEST OF AN ENTRANCE, 81.7 FEET NORTH-NORTHWEST OF A CABLE MARKER, 49.0 FEET EAST-NORTHEAST OF THE NORTH END OF A 30.0 INCH DIAMETER CORRUGATED METAL PIPE (EAST ONE OF TWO), 2.7 FEET EAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1052.833	0.016	320.904	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -92.057 12B = -92.060 09 = -91.942 03 = -91.929

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 49 09.17489	95 45 29.12988	594427.157	200697.737	181181.760	61172.793	292.838		2012	GPS2800
NAD83(2007)	48 49 09.17487	95 45 29.13080	594427.096	200697.734	181181.741	61172.792	292.875		2007	GPS2300
NAD83(1996)	48 49 09.17451	95 45 29.13062	594427.108	200697.698	181181.745	61172.781	292.880	C	2002	GPS1666

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36733.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36733.pdf

LUNG RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: LUNG RESET
NGS Name: LUNG RESET
County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8822 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	162 N	40 W	484909.17	954529.13	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 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: (2012)

Stamping: LUNG 1998 2012

2.0 MILES SOUTH OF ROSEAU, 2.05 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU TO TRUNK HIGHWAY 89 MILEPOINT 123.3, THEN 0.5 MILE EAST ON 290TH STREET, 33.0 FEET NORTH OF 290TH STREET, 21.0 FEET WEST OF A FIELD ENTRANCE, 81.7 FEET NORTH-NORTHWEST OF A CABLE MARKER, 49.0 FEET EAST-NORTHEAST OF THE NORTH END OF A 30.0 INCH DIAMETER CORRUGATED METAL PIPE (EAST ONE OF TWO), 2.7 FEET EAST OF A WITNESS POST.

Station Pair: SUNSTEN MNDT - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1052.609	0.016	320.836	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -92.057 12B = -92.060 09 = -91.942 03 = -91.929

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 49 09.17447	95 45 29.12972	594427.168	200697.694	181181.763	61172.780	292.785		2018	GPS3232
NAD83(1996)	48 49 09.17426	95 45 29.13021	594427.136	200697.673	181181.753	61172.773	292.837	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/LUNG_RESET-DO8822-3N-08DEC2025.jpg	N	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/LUNG_RESET-DO8822-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/LUNG_RESET-DO8822-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97508.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97508.pdf

M 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: M 220 RESET

NGS Name: M 220 RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	161 N	40 W	484816.00	954603.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1998)

Stamping:

3.0 MILES SOUTH OF ROSEAU, 3.0 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAYS 89 AND 11 (3RD STREET NORTHWEST) IN ROSEAU, THEN 112.0 FEET EAST ALONG 280TH STREET.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.975 12B = -91.975 09 = -91.860 03 = -91.850

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26932.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26932.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: M 253 **NGS Name:** M 253

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	28	161 N	40 W	484447.00	954956.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** M 253 1935

7.0 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, THEN 4.0 MILES WEST ON COUNTY ROAD 14, 35.0 FEET SOUTH AND 30.0 FEET EAST OF THE CROSSROADS.

Station Notes

THE TIES FALL IN A DITCH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.496 12B = -91.486 09 = -91.394 03 = -91.401

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26933.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26933.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: M 261 **NGS Name:** M 261

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0001 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	161 N	41 W	484738.00	960007.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1981	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** M 261 1935

1.0 MILE NORTHEAST OF BADGER, 0.58 MILE NORTH-NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, THEN 0.34 MILE NORTHEAST ALONG NORTH MAIN STREET.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1080.083	0.007	329.210	0.002	1/2	1991	00000025
NGVD29	1078.741	0.007	328.801	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -91.109 12B = -91.112 09 = -91.004 03 = -90.961

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26934.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26934.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: M 318 **NGS Name:** M 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0014 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	160 N	43 W	484238.00	960947.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2014	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 0 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1940) **Stamping:** M 318 1940

1.0 MILE NORTHEAST OF GREENBUSH, 1.0 MILE NORTHEAST OF GREENBUSH ON TRUNK HIGHWAY 11 AT A FARM ROAD, 51.0 FEET NORTHEAST OF A FARM ROAD, 50.0 FEET SOUTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 7.7 FEET SOUTHWEST OF A FENCE CORNER, 3.1 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1070.647	0.007	326.334	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -90.646 12B = -90.646 09 = -90.531 03 = -90.538

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_40231.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_40231.pdf

M 318 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: M 318 RESET

NGS Name: M 318 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0015 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	160 N	43 W	484238.00	960946.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	1981	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description:

Stamping: M 318 RESET 1957

1.0 MILE NORTHEAST FROM GREENBUSH, 1.0 MILE NORTHEAST OF GREENBUSH ON TRUNK HIGHWAY 11 AT A FARM ROAD, 51.0 FEET NORTHEAST OF A FARM ROAD, 50.0 FEET SOUTHEAST OF THE CENTERLINE OF TRUNK HIGHWAY 11, 7.7 FEET SOUTHWEST OF A FENCE CORNER, 3.1 FEET SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.646 12B = -90.646 09 = -90.531 03 = -90.538

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70173.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70173.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: M 374 **NGS Name:** M 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0807 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	32	161 N	42 W	484353.20	960657.12	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2018	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 29 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** M 374 1981

3.5 MILES NORTHEAST OF GREENBUSH, 3.65 MILES NORTHEAST ON TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 51.85, 75.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 0.05 MILE EAST-NORTHEAST OF A SUB-STATION, 252.5 FEET NORTHEAST OF THE NORTHEAST CORNER OF A FENCE AT A SUB-STATION, 147.0 FEET NORTHWEST OF A POWER POLE WITH A TRANSFORMER, 24.0 FEET WEST-SOUTHWEST OF DRIVEWAY NUMBER 23060 SOUTHEAST, 7.7 FEET SOUTH-SOUTHEAST OF A GRAVEL ROAD. NO WITNESS POST IN THE YARD.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1075.123	0.016	327.698	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.777 12B = -90.774 09 = -90.663 03 = -90.656

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 43 53.20429	96 06 57.11676	508238.752	168432.859	154911.481	51338.438	300.039		2020	GPS3390
NAD83(1996)	48 43 53.20413	96 06 57.11739	508238.709	168432.843	154911.468	51338.433	300.086	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/M_374-TD0807-3SE-18JUN2014.jpg	SE	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/M_374-TD0807-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/M_374-TD0807-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26936.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26936.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: M=1084 USGS
NGS Name: 1084

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0418 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	32	162 N	41 W	484852.30	955802.60	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2014	POOR	Horz=NO Vert=NO	YES		PROJECTS 30 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
IRON POST	BENCH MARK DISK	USGS

Description: (2004) **Stamping:** 1084 DATUM

3.5 MILES NORTHEAST OF BADGER, 3.5 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, THEN 0.1 MILE SOUTH ON A GRAVEL ROAD, THEN 0.2 MILE WEST THROUGH AN OLD GRAVEL PIT TO STATION M=1084 USGS ON THE LEFT.

Station Notes

THE YEAR SET DATE IS APPROXIMATE,
THE PIPE MOVES AND IS A POOR QUALITY MONUMENT TO USE FOR A CONTROL POINT. THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1085.457	0.007	330.848	0.002	1/2	1991	00000025
NGVD29	1084.112	0.007	330.438	0.002	1/2	1992	UNCHECKD

Geoid Separations(ft): GEOID18 = -91.201 12B = -91.204 09 = -91.099 03 = -91.056

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/1084-TC0418-3S-03AUG2004.jpg	S	Aug 3, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/1084-TC0418-2-03AUG2004.jpg		Aug 3, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/1084-TC0418-1-03AUG2004.jpg		Aug 3, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26937.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26937.pdf

MASUMO MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MASUMO MNDT **NGS Name:** MASUMO

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2324 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	160 N	44 W	484006.79	961621.76		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2014	DESTROYED	Horz=NO Vert=NO	NO			MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2006) **Stamping:** MASUMO 1994

5.0 MILES SOUTHWEST OF GREENBUSH, 5.15 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 42.95, 80.2 FEET NORTH OF TRUNK HIGHWAY 11, 14.5 FEET EAST OF AN ENTRANCE, 24.8 FEET SOUTH-SOUTHWEST OF A POWER POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.482 12B = -90.479 09 = -90.351 03 = -90.380

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 40 06.78981	96 16 21.76115	470345.015	145507.906	143361.447	44350.898	298.985		2012	GPS2800
NAD83(2007)	48 40 06.78975	96 16 21.76207	470344.954	145507.900	143361.429	44350.897	299.026		2007	GPS2300
NAD83(1996)	48 40 06.78961	96 16 21.76188	470344.966	145507.885	143361.433	44350.892	299.027	C	1999	17648
NAD83(1986)	48 40 06.78078	96 16 21.74827	470345.879	145506.989	143361.711	44350.619		C	1996	GPS925

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26938.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26938.pdf

MASUMO MNDT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MASUMO MNDT RESET **NGS Name:** MASUMO RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9445 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	160 N	44 W	484006.79	961621.76	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2018	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description:

Stamping: MASUMO 1994 2014

5.0 MILES WEST-SOUTHWEST OF GREENBUSH, 5.15 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 42.95, 80.2 FEET NORTH OF TRUNK HIGHWAY 11, 14.5 FEET EAST OF A DRIVEWAY, 24.8 FEET SOUTH-SOUTHWEST OF A POWER POLE, 22.3 FEET SOUTH-SOUTHWEST OF A WITNESS POST.

Station Pair: 6801 D - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1071.264	0.016	326.522	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.482 12B = -90.479 09 = -90.351 03 = -90.380

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 40 06.78954	96 16 21.76140	470344.999	145507.878	143361.442	44350.890	298.962		2020	GPS3390
NAD83(1996)	48 40 06.78935	96 16 21.76205	470344.955	145507.859	143361.429	44350.884	299.011	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MASUMO_RESET-DP9445-3N-18JUN2014.jpg	N	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MASUMO_RESET-DP9445-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MASUMO_RESET-DP9445-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101762.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101762.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MERLE
NGS Name: MERLE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8039 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	35	159 N	43 W	483259.64	961007.36	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: MERLE 2012

IN STRATHCONA, 0.25 MILE SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND LINCOLN AVENUE IN STRATHCONA, AT TRUNK HIGHWAY 32 MILEPOINT 134.4, 0.15 MILE SOUTH OF OAKLAND AVENUE, 55.2 FEET EAST OF TRUNK HIGHWAY 32, 19.0 FEET NORTH OF A FIELD ENTRANCE, 1.5 FEET SOUTH OF A WITNESS POST.

Station Pair: KAREN - MARSHALL, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1125.838	0.016	343.156	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.714 12B = -89.741 09 = -89.609 03 = -89.688

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 32 59.63755	96 10 07.35584	495467.836	102193.467	151018.899	31148.631	315.837		2018	GPS3227
NAD83(1996)	48 32 59.63719	96 10 07.35621	495467.812	102193.430	151018.891	31148.620	315.875	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MERLE-DO8039-3E-07AUG2012.jpg	E	Aug 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MERLE-DO8039-2-07AUG2012.jpg		Aug 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MERLE-DO8039-1-07AUG2012.jpg		Aug 7, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97286.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97286.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MICKI MNDT **NGS Name:** MICKI

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8657 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	160 N	40 W	484223.51	954406.22	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2007	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 17 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1998) **Stamping:** MICKI 1998

3.5 MILES NORTH OF WANNASKA, 3.65 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 115.1, THEN 0.5 MILE EAST ON A ROAD, 7.0 FEET SOUTHWEST OF A ROAD, 93.0 FEET SOUTH OF A ROAD, 43.0 FEET WEST OF A ROAD, 59.0 FEET SOUTH-SOUTHWEST OF A POWER POLE, 17.6 FEET NORTHEAST OF A WITNESS POST, 80.5 FEET NORTHWEST OF STATION V 220.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1090.861	0.016	332.495	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.673 12B = -91.680 09 = -91.578 03 = -91.555

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 42 23.50943	95 44 06.22013	600200.032	159613.318	182941.336	48650.237	304.557		2012	GPS2800
NAD83(2007)	48 42 23.50964	95 44 06.22095	600199.977	159613.339	182941.319	48650.243	304.589		2007	GPS2300
NAD83(1996)	48 42 23.50944	95 44 06.22093	600199.979	159613.318	182941.319	48650.237	304.586	C	2002	GPS1666

Station Photos

Type	File Name	Dir	Date
Location:			
Monument:			
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MICKI-AJ8657-1-28JUN2007.jpg		Jun 28, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36734.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36734.pdf

MICKI RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MICKI RESET **NGS Name:** MICKI RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8834 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	160 N	40 W	484223.51	954406.22	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 17 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2016) **Stamping:** MICKI 1998 2012

3.5 MILES NORTH OF WANNASKA, 3.65 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND THE ROSEAU RIVER IN WANNASKA TO TRUNK HIGHWAY 89 MILEPOINT 115.1, THEN 0.5 MILE EAST ON 215TH STREET, 93.0 FEET SOUTH OF 215TH STREET, 43.0 FEET WEST OF 400TH AVENUE, 7.0 FEET SOUTHWEST OF A ROAD, 59.0 FEET SOUTH-SOUTHWEST OF A POWER POLE, 17.6 FEET NORTHEAST OF A WITNESS POST.

Station Pair: DAWN RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1090.631	0.016	332.425	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.673 12B = -91.680 09 = -91.578 03 = -91.555

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 42 23.50803	95 44 06.22294	600199.845	159613.175	182941.279	48650.193	304.484		2018	GPS3232
NAD83(1996)	48 42 23.50790	95 44 06.22350	600199.807	159613.161	182941.267	48650.189	304.534	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MICKI_RESET-DO8834-3SW-05SEP2012.jpg	SW	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MICKI_RESET-DO8834-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MICKI_RESET-DO8834-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97509.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97509.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MINNESOTA USGS **NGS Name:** MINNESOTA

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0907 Get Map
NGS Quad / Sta Num : 48096112/1003
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484653.42	960058.32		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2008	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)	PIPE CAP	USGS

Description: (1994) **Stamping:** MINNESOTA ELEV 1084

AT THE SOUTH EDGE OF BADGER, 85.0 FEET NORTH OF THE NORTH CORNER OF THE HIGH SCHOOL, 6.5 FEET SOUTH OF A FENCE, 2.8 FEET WEST OF A FENCE, 43.195 FEET NORTH-NORTHEAST OF STATION BADGER. THE GEODETIC UNIT FOUND IN 1994, THAT A NEW SCHOOL HAD BEEN BUILT OVER THE STATION SITE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.066 12B = -91.069 09 = -90.958 03 = -90.922

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 46 53.42421	96 00 58.31652	532262.551	186724.706	162233.950	56913.804	302.417	2	1999	17648
NAD83(1986)	48 46 53.41512	96 00 58.29755	532263.823	186723.787	162234.338	56913.524		2	1986	17289
NAD27	48 46 53.49300	96 00 57.28500						2	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26939.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26939.pdf

MNCORS ROSE ROSEAU ARP

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MNCORS ROSE ROSEAU ARP **NGS Name:** ROSEAU MNCORS ARP

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DS3085 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	162 N	40 W	485045.30	954644.94	3	A

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2009	2024	GOOD	Horz=YES Vert=?	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SEE DESCRIPTION	MNDT

Description: (2024) **Stamping:**

IN ROSEAU AT THE MINNESOTA DEPARTMENT OF TRANSPORTATION TRUCK STATION, 0.12 MILE SOUTH ALONG TRUNK HIGHWAY 89 (5TH AVENUE SOUTHWEST) FROM THE JUNCTION OF TRUNK HIGHWAY 89 (5TH AVENUE SOUTHWEST) AND TRUNK HIGHWAY 11 (3RD STREET NORTHWEST), THEN 0.5 MILE WEST ALONG COUNTY ROAD 72 (CENTER STREET WEST). THE ANTENNA IS AFFIXED TO A SECO ADJUSTABLE MOUNT WHICH IS THREADED ONTO A 2 INCH STEEL PIPE ATTACHED TO THE TOP EAST SIDE OF THE TRUCK STATION BUILDING.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.011 12B = -92.018 09 = -91.896 03 = -91.876

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 45.30014	95 46 44.93745	589306.104	210414.692	179620.860	64134.527	301.405	A	2015	HMNCORS
NAD83(1996)	48 50 45.29999	95 46 44.93800	589306.067	210414.677	179620.849	64134.522	301.443	C	2017	HMNCORS

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_MNCORS_ARP-DS3085-3S-13JUN2011.jpg	S	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_MNCORS_ARP-DS3085-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_MNCORS_ARP-DS3085-1-13JUN2011.jpg		Jun 13, 2011

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_93655.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_93655.pdf

MNCORS ROSE ROSEAU L1PC1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MNCORS ROSE ROSEAU L1PC1 **NGS Name:** ROSEAU CORS L1 PHASE CENTER

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	162 N	40 W	485045.30	954644.94		

NGS ACRN: !95758 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2009	2011	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SEE DESCRIPTION	MNDT

Description: (2012) **Stamping:**

IN ROSEAU, 0.12 MILE SOUTH ALONG TRUNK HIGHWAY 89 (5TH AVENUE SOUTHWEST) FROM THE JUNCTION OF TRUNK HIGHWAY 89 (5TH AVENUE SOUTHWEST) AND TRUNK HIGHWAY 11 (3RD STREET NORTHWEST), THEN 0.50 MILE WEST ALONG COUNTY ROAD 72 (CENTER STREET WEST), ATTACHED TO THE ROOF OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION TRUCK STATION BUILDING. THE STATION IS IN A ZEPHYR GEODETIC ANTENNA SERIAL NUMBER 12532426.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.011 12B = -92.018 09 = -91.896 03 = -91.876

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_CORS_L1_PHASE_CENTER-!95758-3SW-02JUN2010.jpg	SW	Jun 2, 2010
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_CORS_L1_PHASE_CENTER-!95758-2-02JUN2010.jpg		Jun 2, 2010
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_CORS_L1_PHASE_CENTER-!95758-1-02JUN2010.jpg		Jun 2, 2010

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_95758.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_95758.pdf

MNCORS ROSE ROSEAU L1PC2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MNCORS ROSE ROSEAU L1PC2 **NGS Name:** ROSEAU CORS L1 PHASE CENTER

County: ROSEAU, MN (Sheet 1)

NGS ACRN: !95759 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	162 N	40 W	485045.30	954644.94		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2011	2011	GOOD	Horz=YES Vert=?	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	SEE DESCRIPTION	MNDT

Description: (2012) **Stamping:**

IN ROSEAU, 0.12 MILE SOUTH ALONG TRUNK HIGHWAY 89 (5TH AVENUE SOUTHWEST) FROM THE JUNCTION OF TRUNK HIGHWAY 89 (5TH AVENUE SOUTHWEST) AND TRUNK HIGHWAY 11 (3RD STREET NORTHWEST), THEN 0.5 MILE WEST ALONG COUNTY ROAD 72 (CENTER STREET WEST), ATTACHED TO THE ROOF OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION TRUCK STATION BUILDING. STATION MNCORS ROSE ROSEAU L1PC2 IS IN A ZEPHYR GEODETIC LF MODEL 2 ANTENNA SERIAL NUMBER 1441109109.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.011 12B = -92.018 09 = -91.896 03 = -91.876

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_CORS_L1_PHASE_CENTER-!95759-3SW-13JUN2011.jpg	SW	Jun 13, 2011
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_CORS_L1_PHASE_CENTER-!95759-2-13JUN2011.jpg		Jun 13, 2011
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_CORS_L1_PHASE_CENTER-!95759-1-13JUN2011.jpg		Jun 13, 2011

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_95759.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_95759.pdf

MOOSE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: MOOSE
NGS Name: MOOSE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9459 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	161 N	42 W	484740.91	960026.66	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014)

Stamping: MOOSE 2014

1.2 MILES NORTHEAST OF BADGER, 0.7 MILE NORTH ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER TO TRUNK HIGHWAY 11 MILEPOINT 58.75, THEN 0.1 MILE NORTH ON COUNTY ROAD 3, 19.0 FEET WEST OF COUNTY ROAD 3 (280TH AVENUE), 8.0 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1070.178	0.016	326.191	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.096 12B = -91.102 09 = -90.994 03 = -90.945

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 47 40.91273	96 00 26.65891	534373.927	191541.552	162877.499	58381.982	298.441		2020	GPS3390
NAD83(1996)	48 47 40.91258	96 00 26.65956	534373.884	191541.536	162877.486	58381.977	298.488	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MOOSE-DP9459-3W-02JUL2025.jpg	W	Jul 2, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MOOSE-DP9459-2-02JUL2025.jpg		Jul 2, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/MOOSE-DP9459-1-02JUL2025.jpg		Jul 2, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_102030.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_102030.pdf

N 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: N 220 RESET

NGS Name: N 220 RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	11	161 N	40 W	484723.00	954603.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2000) **Stamping:** N 220 RESET 1946

4.0 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11-TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 AT ROSEAU, 75.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 211+22.0.

Station Notes

MOST LIKELY GRADED OUT BY CONSTRUCTION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.926 12B = -91.926 09 = -91.814 03 = -91.808

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26944.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26944.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: N 253 **NGS Name:** N 253

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	19	161 N	40 W	484447.00	955117.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** N 253 1935

2.5 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN BADGER, THEN 7.2 MILES EAST ON COUNTY ROAD 14, 30.0 FEET NORTH AND 23.0 FEET WEST OF THE CROSSROADS.

Station Notes

THE TIES FALL IN A DITCH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.417 12B = -91.407 09 = -91.315 03 = -91.322

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26945.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26945.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: N 261 **NGS Name:** N 261

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0002 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	12	161 N	42 W	484658.00	960102.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1981	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** N 261 1935

IN BADGER, 0.33 MILE WEST ALONG COUNTY ROAD 2 FROM THE JUNCTION OF COUNTY ROAD 2 AND TRUNK HIGHWAY 11 IN BADGER.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1071.500	0.007	326.594	0.002	1/2	1991	00000025
NGVD29	1070.162	0.007	326.186	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -91.063 12B = -91.066 09 = -90.958 03 = -90.918

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26946.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26946.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: N 318 **NGS Name:** N 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0017 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	160 N	43 W	484206.50	961045.10	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2014	NOT FOUND	Horz=NO Vert=YES	YES		FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE FOUNDATION	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** N 318 1940

IN GREENBUSH, IN AN ABANDONED RAILROAD WATER TANK FOUNDATION, 23.7 FEET WEST OF THE WEST RAIL OF THE RAILROAD TRACKS.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1073.725	0.007	327.272	0.002	1/2	1991	00000025
NGVD29	1072.406	0.007	326.870	0.002	1/2	1992	UNCHECKD

Geoid Separations(ft): GEOID18 = -90.600 12B = -90.600 09 = -90.482 03 = -90.499

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_318-TD0017-3NW-03SEP2008.jpg	NW	Sep 3, 2008
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_318-TD0017-2-03SEP2008.jpg		Sep 3, 2008
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_318-TD0017-1-03SEP2008.jpg		Sep 3, 2008

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26947.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26947.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: N 371 **NGS Name:** N 371

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0816 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	160 N	44 W	483957.39	961805.90	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2018	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 28 FT)	METAL ROD	NGS

Description: (2014) **Stamping:** N 371 1981

6.6 MILES WEST OF GREENBUSH, 6.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 23, AT TRUNK HIGHWAY 11 MILEPOINT 41.65, 104.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 51.0 FEET EAST-NORTHEAST OF COUNTY ROAD 23 (104TH AVENUE), 17.0 FEET NORTHEAST OF A RIGHT-OF-WAY MARKER, 6.5 FEET EAST OF A POWER POLE WITH A GUY WIRE, 1.5 FEET WEST-SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1065.979	0.016	324.911	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.469 12B = -90.469 09 = -90.334 03 = -90.364

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 39 57.39009	96 18 05.89842	463352.497	144567.842	141230.124	44064.366	297.347		2020	GPS3390
NAD83(1996)	48 39 57.38990	96 18 05.89907	463352.453	144567.823	141230.110	44064.361	297.396	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_371-TD0816-3N-18JUN2014.jpg	N	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_371-TD0816-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_371-TD0816-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26949.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26949.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: N 374 **NGS Name:** N 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0808 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	161 N	42 W	484320.59	960822.55	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2025	GOOD	Horz=NO Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 32 FT)	METAL ROD	NGS

Description: (2014) **Stamping:** N 374 1981

2.5 MILES NORTHEAST OF GREENBUSH, 2.45 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 50.5, 68.0 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 195.0 FEET NORTHEAST OF A FIELD ROAD ENTRANCE, 0.5 FOOT 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 Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1072.124	0.016	326.784	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.712 12B = -90.712 09 = -90.600 03 = -90.597

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_374-TD0808-3SE-30JUN2025.jpg	SE	Jun 30, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_374-TD0808-2-30JUN2025.jpg		Jun 30, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/N_374-TD0808-1-30JUN2025.jpg		Jun 30, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26950.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26950.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: NERE **NGS Name:** NERE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9455 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	161 N	42 W	484450.28	960357.47	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2018	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 35 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014) **Stamping:** NERE 2014

2.7 MILES SOUTHWEST OF BADGER, 3.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 54.35, 74.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 1.4 FEET NORTH-NORTHWEST OF A RIGHT-OF-WAY POST, 1.5 FEET NORTH OF A WITNESS POST.

Station Pair: K 374 - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1083.731	0.016	330.322	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.909 12B = -90.909 09 = -90.797 03 = -90.781

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 44 50.27892	96 03 57.46542	520277.157	174226.717	158580.795	53104.410	302.642		2020	GPS3390
NAD83(1996)	48 44 50.27877	96 03 57.46607	520277.114	174226.702	158580.781	53104.405	302.689	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/NERE-DP9455-3SE-29JUL2014.jpg	SE	Jul 29, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/NERE-DP9455-2-29JUL2014.jpg		Jul 29, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/NERE-DP9455-1-29JUL2014.jpg		Jul 29, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_102031.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_102031.pdf

OILAND LUTHERAN CHURCH SPIRE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: OILAND LUTHERAN CHURCH SPIRE **NGS Name:** OILAND LUTHERAN CHURCH SPIRE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0910 Get Map
NGS Quad / Sta Num : 48096113/1011
USGS Quad: HAUG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	43 W	485041.41	960944.56		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	NGS

Description: (1941) **Stamping:**

9.75 MILES NORTH AND 1.0 MILE EAST OF GREENBUSH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.686 12B = -90.689 09 = -90.597 03 = -90.482

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 41.40814	96 09 44.55856	497019.276	209803.119	151491.778	63948.119		4	1999	17648
NAD83(1986)	48 50 41.40166	96 09 44.54011	497020.510	209802.463	151492.155	63947.919		4	1986	17289
NAD27	48 50 41.47200	96 09 43.49800						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26952.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26952.pdf

P 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: P 220 RESET **NGS Name:** P 220 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB9941 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	12	161 N	40 W	484633.39	954600.75	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2012	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 3 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1994) **Stamping:** P 220 1935

5.0 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11-TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 AT ROSEAU, 75.5 FEET EAST OF TRUNK HIGHWAY 89, AT STATION 263+50, TRUNK HIGHWAY 89 MILEPOINT 120.35, 42.5 FEET NORTH OF AN ENTRANCE, 23.6 FEET SOUTH-SOUTHWEST OF A POWER POLE, 0.7 FOOT WEST-SOUTHWEST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1059.365	0.016	322.895	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.876 12B = -91.876 09 = -91.765 03 = -91.762

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 46 33.39270	95 46 00.74520	592390.612	184898.470	180561.020	56357.166	294.890		2012	GPS2800
NAD83(2007)	48 46 33.39280	95 46 00.74608	592390.553	184898.480	180561.002	56357.169	294.915		2007	GPS2300
NAD83(1996)	48 46 33.39253	95 46 00.74600	592390.558	184898.452	180561.003	56357.161	294.912	B	2004	GPS1954

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_220_RESET-AB9941-3E-03DEC2008.jpg	E	Dec 3, 2008
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_220_RESET-AB9941-2-03DEC2008.jpg		Dec 3, 2008
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_220_RESET-AB9941-1-03DEC2008.jpg		Dec 3, 2008

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26954.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26954.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: P 251 **NGS Name:** P 251

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	159 N	40 W	483409.00	954402.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** P 251 1935

6.0 MILES SOUTH OF WANNASKA, 37.0 FEET OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 1084+44.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.512 12B = -90.505 09 = -90.423 03 = -90.443

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26955.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26955.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: P 318 **NGS Name:** P 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0019 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	15	160 N	43 W	484103.00	961019.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	1957	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1957) **Stamping:** P 318 1940

1.23 MILES SOUTHEAST OF GREENBUSH, 1.12 MILES SOUTH-SOUTHEAST ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1070.779	0.007	326.374	0.002	1/2	1991	00000025
NGVD29	1069.463	0.007	325.973	0.002	1	1940	L56 MINN

Geoid Separations(ft): GEOID18 = -90.554 12B = -90.551 09 = -90.433 03 = -90.469

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26956.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26956.pdf

P 318 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: P 318 RESET

NGS Name: P 318 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0020 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	160 N	43 W	484103.00	961024.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2012	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1980) **Stamping:** P 318 RESET 1957

1.1 MILES SOUTH ON TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 AT GREENBUSH, 144.0 FEET WEST OF TRUNK HIGHWAY 32, 44.0 FEET WEST OF A RAILROAD, 11.0 FEET WEST AND 16.0 FEET SOUTH OF THE 3RD TELEPHONE POLE NORTH OF A ROAD SOUTH.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NGVD29	1068.771	0.007	325.762	0.002	1	1957	Q480961

Geoid Separations(ft): GEOID18 = -90.551 12B = -90.551 09 = -90.433 03 = -90.466

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26957.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26957.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: P 371 **NGS Name:** P 371

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0815 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	160 N	44 W	484004.80	961651.25	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 32 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** P 371 1981

5.5 MILES SOUTHWEST OF GREENBUSH, 5.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 42.6, 101.5 FEET NORTH OF TRUNK HIGHWAY 11, 92.0 FEET WEST OF 150TH AVENUE, 60.5 FEET WEST OF A RIGHT-OF-WAY MARKER, 39.0 FEET WEST-SOUTHWEST OF A POWER POLE, 4.1 FEET EAST OF A POWER POLE NUMBER 115, 1.4 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1070.641	0.016	326.332	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.479 12B = -90.476 09 = -90.344 03 = -90.377

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 40 04.79617	96 16 51.24895	468365.184	145309.147	142757.994	44290.317	298.771		2012	GPS2800
NAD83(2007)	48 40 04.79609	96 16 51.24990	468365.120	145309.139	142757.974	44290.314	298.813		2007	GPS2300
NAD83(1996)	48 40 04.79594	96 16 51.24970	468365.133	145309.124	142757.978	44290.310	298.817	C	2008	HROSO
NAD83(1986)	48 40 04.78705	96 16 51.23635	468366.028	145308.221	142758.251	44290.034		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_371-TD0815-3N-18JUN2014.jpg	N	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_371-TD0815-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_371-TD0815-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26959.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26959.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: P 374 **NGS Name:** P 374

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0809 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	2	160 N	43 W	484244.72	960940.31	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	GOOD	Horz=NO Vert=NO	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 32 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (1994) **Stamping:** P 374 1981

1.2 MILES NORTHEAST OF GREENBUSH, 1.15 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 49.4, 256.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 125.0 FEET SOUTHWEST OF A POWER POLE, 110.0 FEET NORTHEAST OF A POWER POLE, 104.0 FEET NORTHWEST OF THE NORTHWEST RAIL OF THE RAILROAD TRACKS, 56.0 FEET EAST OF A TRACK ROAD NORTH, 30.0 FEET NORTHWEST OF A GRAVEL ROAD, 3.0 FEET EAST OF A FENCE LINE, 1.0 FOOT SOUTHWEST OF A WITNESS POST.

Station Notes
THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1073.600	0.016	327.234	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.653 12B = -90.653 09 = -90.541 03 = -90.544

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 42 44.72057	96 09 40.31139	497296.288	161490.399	151576.212	49222.372	299.621		2012	GPS2800
NAD83(2007)	48 42 44.72058	96 09 40.31222	497296.232	161490.400	151576.195	49222.372	299.658		2007	GPS2300
NAD83(1996)	48 42 44.72049	96 09 40.31209	497296.241	161490.391	151576.197	49222.370	299.658	C	2008	HRO50
NAD83(1986)	48 42 44.71159	96 09 40.29698	497297.254	161489.489	151576.506	49222.095		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_374-TD0809-3NW-18JUN2014.jpg	NW	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_374-TD0809-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/P_374-TD0809-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26960.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26960.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: PARK MNDT **NGS Name:** PARK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2326 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	160 N	44 W	483910.44	962120.65	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2018	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2014)

Stamping: PARK 1994

10.0 MILES NORTHEAST OF KARLSTAD, 9.9 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 59 AND TRUNK HIGHWAY 11 IN KARLSTAD, AT TRUNK HIGHWAY 11 MILEPOINT 38.95, 76.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 26.0 FEET WEST-SOUTHWEST OF A GRAVEL PIT ENTRANCE, 1.2 FEET NORTH-NORTHWEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1063.984	0.016	324.303	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.433 12B = -90.433 09 = -90.305 03 = -90.328

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 39 10.43715	96 21 20.64883	450265.600	139839.895	137241.230	42623.285	296.756		2012	GPS2800
NAD83(2007)	48 39 10.43705	96 21 20.64984	450265.533	139839.885	137241.209	42623.282	296.796		2007	GPS2300
NAD83(1996)	48 39 10.43689	96 21 20.64967	450265.544	139839.869	137241.212	42623.277	296.801	C	1999	17648
NAD83(1986)	48 39 10.42797	96 21 20.63662	450266.418	139838.962	137241.479	42623.001		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PARK-AB2326-3SE-18JUN2014.jpg	SE	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PARK-AB2326-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PARK-AB2326-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26961.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26961.pdf

PARK MNDT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: PARK MNDT RESET **NGS Name:** PARK RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6101 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	29	160 N	44 W	483910.44	962120.65		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2018	2018	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:

Stamping: PARK 1994 2018

10.0 MILES NORTHEAST OF KARLSTAD, 9.9 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 59 AND TRUNK HIGHWAY 11 IN KARLSTAD, AT TRUNK HIGHWAY 11 MILEPOINT 38.95, 76.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 26.0 FEET WEST-SOUTHWEST OF A GRAVEL PIT ENTRANCE, 1.2 FEET NORTH-NORTHWEST OF A WITNESS POST.

Station Pair: K 371 - ROSEAU, MN

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.433 12B = -90.433 09 = -90.305 03 = -90.328

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 39 10.43717	96 21 20.64934	450265.566	139839.897	137241.219	42623.286	296.704		2020	GPS3390
NAD83(1996)	48 39 10.43699	96 21 20.64998	450265.523	139839.879	137241.206	42623.280	296.753	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PARK_RESET-DR6101-3SE-27SEP2018.jpg	SE	Sep 27, 2018
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PARK_RESET-DR6101-2-27SEP2018.jpg		Sep 27, 2018
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PARK_RESET-DR6101-1-27SEP2018.jpg		Sep 27, 2018

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_109278.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_109278.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: PATROL
NGS Name: PATROL

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6102 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	164 N	41 W	485934.21	955806.18	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 55 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (17)

Stamping: PATROL 2017

1.5 MILE NORTHWEST OF PINECREEK, 1.4 MILE NORTHWEST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 143.3, 74.1 FEET SOUTHWEST OF TRUNK HIGHWAY 89, 39.9 FEET NORTH OF 410TH STREET, 2.5 FEET NORTH OF A RIGHT-OF-WAY POST, 2.5 FEET NORTH OF A WITNESS POST.

Station Pair: BORDER - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1060.526	0.016	323.249	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.256 12B = -91.256 09 = -91.135 03 = -91.069

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 59 34.21415	95 58 06.18377	543607.957	263856.692	165692.037	80423.681	295.445		2020	GPS3390
NAD83(1996)	48 59 34.21398	95 58 06.18443	543607.913	263856.675	165692.023	80423.675	295.492	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PATROL-DR6102-3N-16SEP2019.jpg	N	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PATROL-DR6102-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PATROL-DR6102-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108193.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108193.pdf

PINE CREEK LUTHERAN CH SPIRE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: PINE CREEK LUTHERAN CH SPIRE **NGS Name:** PINE CREEK LUTHERAN CH SPIRE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	5	163 N	41 W	485840.56	955755.41		4

NGS ACRN: TC0759 Get Map
NGS Quad / Sta Num : 48095444/1014
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1946	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type
SEE DESCRIPTIVE TEXT

Disk Type
CHURCH SPIRE

Mon. Agency
NGS

Description: (1946)

Stamping:

1.0 MILE WEST OF PINECREEK, AT THE JUNCTION OF 400TH STREET AND A GRAVEL ROAD, 105.0 FEET SOUTH OF COUNTY ROAD 115, 42.0 FEET EAST OF A PRIVATE DRIVEWAY.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.247 12B = -91.250 09 = -91.125 03 = -91.056

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 58 40.56376	95 57 55.40942	544339.754	258420.690	165915.089	78766.784		4	1999	17648
NAD83(1986)	48 58 40.55749	95 57 55.38507	544341.380	258420.058	165915.585	78766.591		4	1986	17289
NAD27	48 58 40.62500	95 57 54.39000						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26962.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26962.pdf

PINEY MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: PINEY MNDT **NGS Name:** PINEY

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB9942 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	6	163 N	41 W	485841.14	960023.43	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2019	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (IN SLEEVE) (DEPTH 24 FT)

Disk Type
METAL ROD

Mon. Agency
MNDT

Description: (2003) **Stamping:** PINEY 1994

2.65 MILES WEST OF PINECREEK, 2.65 MILES WEST ALONG COUNTY ROAD 3 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, THEN 0.05 MILE WEST ON 280TH AVENUE, 158.0 FEET SOUTHWEST OF A POWER POLE, 126.4 FEET SOUTHEAST OF A POWER POLE, 31.0 FEET SOUTH OF 280TH AVENUE, 11.5 FEET EAST OF A FIELD ENTRANCE, 6.0 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1049.752	0.016	319.965	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.092 12B = -91.092 09 = -90.974 03 = -90.895

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 58 41.13597	96 00 23.42615	534464.367	258457.422	162905.065	78777.980	292.204		2018	GPS3119
NAD83(2007)	48 58 41.13609	96 00 23.42710	534464.304	258457.434	162905.046	78777.984	292.237		2007	GPS2300
NAD83(1996)	48 58 41.13579	96 00 23.42710	534464.304	258457.404	162905.046	78777.974	292.230	B	2004	GPS1954

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PINEY-AB9942-3S-16SEP2019.jpg	S	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PINEY-AB9942-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PINEY-AB9942-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26964.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26964.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: PIONEER
NGS Name: PIONEER

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9452 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	161 N	42 W	484321.64	960820.47	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 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: (2014)

Stamping: PIONEER 2014

2.35 MILES NORTHEAST OF GREENBUSH, 2.4 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 50.6, 55.4 FEET SOUTHEAST OF TRUNK HIGHWAY 11, 119.0 FEET EAST OF COUNTY ROAD 149 (220TH AVENUE), 8.7 FEET NORTHWEST OF A CABLE BOX, 6.4 FEET NORTHWEST OF A WITNESS POST.

Station Pair: FRED - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1073.111	0.016	327.085	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.715 12B = -90.712 09 = -90.600 03 = -90.600

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 43 21.63890	96 08 20.47055	502650.728	165232.055	153208.248	50362.831	299.440		2020	GPS3390
NAD83(1996)	48 43 21.63874	96 08 20.47118	502650.685	165232.039	153208.235	50362.826	299.487	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PIONEER-DP9452-3SE-01JUL2025.jpg	SE	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PIONEER-DP9452-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/PIONEER-DP9452-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101973.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101973.pdf

POHLITZ MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: POHLITZ MNDT **NGS Name:** POHLITZ

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8892 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	5	163 N	41 W	485841.09	955755.15	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2012	DESTROYED	Horz=NO Vert=NO	NO		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (2004) **Stamping:** POHLITZ 2003

1.0 MILE WEST OF PINECREEK, 0.9 MILE WEST ALONG COUNTY ROAD 3/400TH STREET FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINECREEK, TO TRUNK HIGHWAY 89 MILEPOINT 141.90, 58.7 FEET WEST OF COUNTY ROAD 115/300TH AVENUE, 56.4 FEET SOUTH OF COUNTY ROAD 3, 5.5 FEET SOUTH OF A WITNESS POST.

Station Notes

DISTRICT 2 SURVEYS REPORTED THAT ROSEAU COUNTY NOTED THAT THE DISK HAD POPPED OFF.
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1046.904	0.016	319.097	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.250 12B = -91.250 09 = -91.125 03 = -91.056

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 58 41.08884	95 57 55.15194	544356.804	258473.951	165920.286	78783.018	291.278		2012	GPS2800
NAD83(2007)	48 58 41.08897	95 57 55.15294	544356.737	258473.964	165920.265	78783.022	291.309		2007	GPS2300
NAD83(1996)	48 58 41.08866	95 57 55.15291	544356.739	258473.932	165920.266	78783.012	291.302	C	2008	HROSO

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50063.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50063.pdf

POHLITZ RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: POHLITZ RESET
NGS Name: POHLITZ RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR8802 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	5	163 N	41 W	485841.09	955755.15	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: POHLITZ 2003 2012

1.0 MILE WEST OF PINECREEK, 0.9 MILE WEST ALONG COUNTY ROAD 3/400TH STREET FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 141.90, 58.7 FEET WEST OF COUNTY ROAD 115/300TH AVENUE, 56.4 FEET SOUTH OF COUNTY ROAD 3, 5.5 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1046.694	0.016	319.033	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.250 12B = -91.250 09 = -91.125 03 = -91.056

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/POHLITZ_RESET-DR8802-3S-16SEP2019.jpg	S	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/POHLITZ_RESET-DR8802-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/POHLITZ_RESET-DR8802-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97741.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97741.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Q 251

NGS Name: Q 251

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	36	159 N	40 W	483343.00	954400.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2005	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

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

Description: (1935) **Stamping:** Q 251 1935

7.0 MILES SOUTH OF WANNASKA, 38.0 FEET WEST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 1137+15.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.430 12B = -90.423 09 = -90.341 03 = -90.367

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26967.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26967.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Q 318 **NGS Name:** Q 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0021 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	160 N	43 W	484002.00	961008.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	1957	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1957) **Stamping:** Q 318 1940

2.3 MILES SOUTH OF GREENBUSH, 0.2 MILE EAST ALONG CENTRAL AVENUE FROM THE JUNCTION OF CENTRAL AVENUE AND MAIN STREET IN GREENBUSH, THEN 2.3 MILES SOUTH ALONG TRUNK HIGHWAY 32.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1067.242	0.007	325.296	0.002	1/2	1991	00000025
NGVD29	1065.926	0.007	324.895	0.002	1	1940	L56 MINN

Geoid Separations(ft): GEOID18 = -90.502 12B = -90.492 09 = -90.374 03 = -90.430

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26968.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26968.pdf

Q 318 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Q 318 RESET

NGS Name: Q 318 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0022 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	160 N	43 W	484002.00	961009.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1957	2012	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 6 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1957)

Stamping: Q 318 RESET 1957

2.2 MILES SOUTH OF GREENBUSH, 2.2 MILES SOUTH ON TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11, 144.0 FEET WEST OF TRUNK HIGHWAY 32, 44.0 FEET WEST OF A RAILROAD, 12.0 FEET NORTH AND 11.0 FEET WEST OF A TELEPHONE POLE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NGVD29	1065.254	0.007	324.690	0.002	1	1957	Q480961

Geoid Separations(ft): GEOID18 = -90.502 12B = -90.492 09 = -90.374 03 = -90.430

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26969.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26969.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Q 371 **NGS Name:** Q 371

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0814 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	160 N	44 W	484008.55	961532.00	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2014	GOOD	Horz=NO Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 28 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** Q 371 1981

4.6 MILES WEST OF GREENBUSH, 4.6 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 43.6, 142.5 FEET SOUTH OF TRUNK HIGHWAY 11, 40.2 FEET WEST OF 160TH AVENUE, 10.1 FEET SOUTH OF A TRACK ROAD, 2.6 FEET EAST OF A POWER POLE WITH 2 GUY WIRES, 47.4 FEET SOUTHWEST OF A RIGHT-OF-WAY POST, 1.0 FOOT WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1071.556	0.016	326.611	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.482 09 = -90.354 03 = -90.387

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Q_371-TD0814-3S-18JUN2014.jpg	S	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Q_371-TD0814-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Q_371-TD0814-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26971.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26971.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: R 201 **NGS Name:** R 201

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2343 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	3	163 N	41 W	485841.63	955516.68		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2009	GOOD	Horz=YES Vert=YES	YES		PROJECTS 18 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (2008) **Stamping:** R 201 1935

9.0 MILES NORTH AND 7.0 MILES WEST OF ROSEAU, 1.1 MILES EAST ALONG 400TH STREET FROM THE JUNCTION OF 400TH STREET AND TRUNK HIGHWAY 89 IN PINECREEK AT TRUNK HIGHWAY 89 MILEPOINT 141.8, 34.0 FEET SOUTH AND 40.0 FEET WEST OF A NORTH-SOUTH ROAD AT A TEE-ROAD WEST, 0.8 FOOT WEST OF A WITNESS POST.

Station Notes
NEEDS TO BE BRUSHED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.430 12B = -91.430 09 = -91.299 03 = -91.253

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 58 41.62606	95 55 16.67815	554929.540	258557.084	169142.862	78808.357	291.655		2012	GPS2800
NAD83(2007)	48 58 41.62611	95 55 16.67900	554929.483	258557.089	169142.845	78808.358	291.691	C	2009	GPS2522
NAD83(1996)	48 58 41.62594	95 55 16.67889	554929.490	258557.071	169142.847	78808.353	291.687	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/R_201-DL2343-3S-30APR2007.jpg	S	Apr 30, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/R_201-DL2343-2-30APR2007.jpg		Apr 30, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/R_201-DL2343-1-30APR2007.jpg		Apr 30, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26973.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26973.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: R 202 **NGS Name:** R 202

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0405 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485040.00	954540.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2009	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** R 202 1935

IN ROSEAU, 115.0 FEET EAST OF THE SOUTHEAST CORNER OF THE RAILROAD STATION, 30.0 FEET WEST OF THE WEST PILLARS OF THE RAILROAD WATER TANK, 18.0 FEET NORTH OF THE NORTH RAIL OF THE RAILROAD TRACKS, AT A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1050.608	0.007	320.226	0.002	1/2	1991	00000025
NGVD29	1049.237	0.007	319.808	0.002	1	1941	Q480954

Geoid Separations(ft): GEOID18 = -92.096 12B = -92.100 09 = -91.975 03 = -91.962

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26974.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26974.pdf

R 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: R 220 RESET

NGS Name: R 220 RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	23	161 N	40 W	484450.00	954601.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	2009	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

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

Description: (2000)

Stamping: R 220 RESET 1946

7.0 MILES SOUTH OF ROSEAU, 78.0 FEET WEST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 368+50.

Station Notes

GRADED OUT BY CONSTRUCTION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.755 12B = -91.752 09 = -91.647 03 = -91.644

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26978.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26978.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: R 318 **NGS Name:** R 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0024 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	35	160 N	43 W	483813.00	961016.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2012	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (2003) **Stamping:** R 318 1940

4.3 MILES SOUTH OF GREENBUSH, 4.3 MILES SOUTH ON TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11, 0.5 POLE SOUTH OF RAILROAD MILEPOST 56, 55.8 FEET EAST OF TRUNK HIGHWAY 32, AT A FARM ROAD CROSSING, 12.6 FEET SOUTH OF A ROAD, 2.1 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1079.978	0.007	329.178	0.002	1/2	1991	00000025
NGVD29	1078.659	0.007	328.776	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.354 12B = -90.341 09 = -90.223 03 = -90.298

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26979.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26979.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: R 371 **NGS Name:** R 371

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	19	160 N	43 W	484018.22	961416.89	2	C

NGS ACRN: TD0813 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 28 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2014) **Stamping:** R 371 1981

3.6 MILES WEST OF GREENBUSH, 3.6 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT TRUNK HIGHWAY 11 MILEPOINT 44.5, 101.0 FEET NORTH OF TRUNK HIGHWAY 11, 63.0 FEET EAST OF THE BASE OF A STEEL POWER POLE, 39.0 FEET WEST OF 170TH AVENUE, 7.5 FEET WEST OF A RIGHT-OF-WAY SIGN, 1.2 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1068.587	0.016	325.706	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.495 12B = -90.492 09 = -90.367 03 = -90.403

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 40 18.21678	96 14 16.89055	478728.788	146654.424	145916.826	44700.358	298.141		2012	GPS2800
NAD83(2007)	48 40 18.21675	96 14 16.89150	478728.724	146654.421	145916.807	44700.357	298.180	C	2009	GPS2522
NAD83(1996)	48 40 18.21663	96 14 16.89140	478728.731	146654.409	145916.809	44700.353	298.178	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/R_371-TD0813-3N-18JUN2014.jpg	N	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/R_371-TD0813-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/R_371-TD0813-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26981.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26981.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RATH **NGS Name:** RATH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8032 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	159 N	43 W	483544.22	961009.78	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012) **Stamping:** RATH 2012

2.95 MILES NORTH OF STRATHCONA, 2.85 MILES NORTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND LINCOLN AVENUE IN STRATHCONA, AT TRUNK HIGHWAY 32 MILEPOINT 137.55, 0.5 MILE SOUTH OF COUNTY ROAD 8, 75.7 FEET EAST OF TRUNK HIGHWAY 32, 20.5 FEET SOUTH OF A FIELD ENTRANCE, 1.5 FEET NORTH OF A WITNESS POST.

Station Pair: DEWEY - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1100.720	0.016	335.500	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.059 12B = -90.062 09 = -89.928 03 = -90.020

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 35 44.21753	96 10 09.78189	495308.839	118873.316	150970.436	36232.659	308.064		2018	GPS3227
NAD83(1996)	48 35 44.21719	96 10 09.78226	495308.814	118873.281	150970.429	36232.649	308.104	C	2018	HCONA

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RATH-DO8032-3E-07AUG2012.jpg	E	Aug 7, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RATH-DO8032-2-07AUG2012.jpg		Aug 7, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RATH-DO8032-1-07AUG2012.jpg		Aug 7, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97289.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97289.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 01 **NGS Name:** RCHD 01

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2344 Get Map
NGS Quad / Sta Num : 48096132/
USGS Quad: PELAN SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	159 N	43 W	483334.85	961528.15		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 7 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 17 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 01 2008

4.0 MILES WEST-NORTHWEST OF STRATHCONA, 4.0 MILES WEST ALONG COUNTY ROAD 6 (120TH STREET) FROM THE JUNCTION OF (200TH AVENUE) TRUNK HIGHWAY 32, THEN 1.0 MILE SOUTH ON COUNTY ROAD 107 (160TH AVENUE), 38.4 FEET NORTH OF 120TH STREET, 45.0 FEET EAST OF 160TH AVENUE, 27.0 FEET NORTHEAST OF THE NORTH END OF A CULVERT, 2.8 FEET WEST OF A WITNESS POST.

Station Notes
ELLIPSOID HEIGHT -308.4.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.006 12B = -90.003 09 = -89.872 03 = -89.964

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 33 34.85302	96 15 28.14870	473887.749	105780.388	144441.275	32241.927	309.355		2012	GPS2800
NAD83(2007)	48 33 34.85300	96 15 28.14960	473887.689	105780.386	144441.256	32241.926	309.392	C	2009	GPS2522
NAD83(1996)	48 33 34.85288	96 15 28.14958	473887.690	105780.374	144441.257	32241.923	309.384	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_01-DL2344-3E-23JUN2020.jpg	E	Jun 23, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_01-DL2344-2-23JUN2020.jpg		Jun 23, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_01-DL2344-1-23JUN2020.jpg		Jun 23, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82010.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82010.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 02 **NGS Name:** RCHD 02

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2345 Get Map
NGS Quad / Sta Num : 48096132/
USGS Quad: PELAN SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	159 N	44 W	483611.93	961811.05		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 13 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 02 2008

6.0 MILES NORTHWEST OF STRATHCONA, 2.0 MILES NORTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF COUNTY ROAD 6 (THE JUNCTION IS 1.0 MILE NORTH OF STRATHCONA), THEN 6.0 MILES WEST ON COUNTY ROAD 8 (140TH STREET), 51.0 FEET NORTH OF 140TH STREET, 65.5 FEET WEST OF 140TH AVENUE (COUNTY ROAD 23), 25.0 FEET NORTHEAST OF A FIELD ENTRANCE, 3.0 FEET SOUTH OF A WITNESS POST.

Station Notes
ELLIPSOID HEIGHT -297.79.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.305 12B = -90.305 09 = -90.167 03 = -90.229

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 36 11.93031	96 18 11.04663	462960.978	121718.563	141110.788	37099.892	300.095		2012	GPS2800
NAD83(2007)	48 36 11.93028	96 18 11.04752	462960.918	121718.560	141110.770	37099.891	300.133	C	2009	GPS2522
NAD83(1996)	48 36 11.93016	96 18 11.04750	462960.919	121718.548	141110.770	37099.888	300.126	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_02-DL2345-3W-12OCT2021.jpg	W	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_02-DL2345-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_02-DL2345-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82039.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82039.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 04 **NGS Name:** RCHD 04

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2347 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	160 N	43 W	483800.20	961529.76		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 13 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 04 2008

5.0 MILES NORTHWEST OF STRATHCONA, 4.0 MILES NORTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND COUNTY ROAD 6 (THE JUNCTION IS 1.0 MILE NORTH OF STRATHCONA), THEN 4.0 MILES WEST ON 160TH STREET, 52.3 FEET NORTH OF 160TH STREET, 60.3 FEET EAST OF 160TH AVENUE, 48.0 FEET NORTHEAST OF THE NORTH END OF A CULVERT, 3.0 FEET SOUTH OF A WITNESS POST.

Station Notes
ELLIPSOID HEIGHT -295.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.387 12B = -90.380 09 = -90.249 03 = -90.305

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 38 00.19921	96 15 29.76217	473817.420	132672.828	144419.839	40438.759	296.852		2012	GPS2800
NAD83(2007)	48 38 00.19918	96 15 29.76311	473817.357	132672.826	144419.819	40438.758	296.890	C	2009	GPS2522
NAD83(1996)	48 38 00.19905	96 15 29.76304	473817.362	132672.812	144419.821	40438.754	296.886	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_04-DL2347-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_04-DL2347-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_04-DL2347-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82041.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82041.pdf

Geodetic Data Sheet (Brief)
GSID Station # 82063

RCHD 05

04/28/2026
Sheet Help

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 05 **NGS Name:** RCHD 05

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2348 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	31	161 N	43 W	484302.91	961501.67		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (<10 FT) (DEPTH 9 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 05 2008

3.2 MILES NORTHWEST OF GREENBUSH, 1.0 MILE NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 7 IN GREENBUSH, THEN 3.0 MILES WEST ON 220TH STREET, 54.0 FEET NORTH OF 220TH STREET, 33.0 FEET WEST OF 170TH AVENUE, 3.0 FEET SOUTH OF A WITNESS POST.

Station Notes
THE ROD WAS POUNDED TO ABSOLUTE REFUSAL.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.564 12B = -90.571 09 = -90.453 03 = -90.433

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 43 02.90908	96 15 01.66445	475745.360	163349.592	145007.476	49789.055	288.247		2012	GPS2800
NAD83(2007)	48 43 02.90904	96 15 01.66534	475745.300	163349.588	145007.458	49789.054	288.284	C	2009	GPS2522
NAD83(1996)	48 43 02.90895	96 15 01.66519	475745.310	163349.579	145007.461	49789.051	288.286	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_05-DL2348-3W-12OCT2021.jpg	W	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_05-DL2348-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_05-DL2348-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82063.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82063.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 06 **NGS Name:** RCHD 06

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2349 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	4	160 N	44 W	484213.18	961929.63		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (<10 FT) (DEPTH 8 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 06 2008

6.5 MILES WEST OF GREENBUSH, 6.5 MILES WEST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 4 IN GREENBUSH, 514.0 FEET WEST OF 130TH AVENUE, 60.0 FEET NORTH OF 210TH STREET (COUNTY ROAD 4), 44.0 FEET WEST OF A PEDESTAL, 3.0 FEET EAST OF A WITNESS POST.

Station Notes
THE ROD WAS POUNDED TO ABSOLUTE REFUSAL.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.469 12B = -90.479 09 = -90.348 03 = -90.338

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 42 13.18206	96 19 29.63325	457762.774	158342.265	139526.373	48262.819	285.627		2012	GPS2800
NAD83(2007)	48 42 13.18192	96 19 29.63432	457762.702	158342.251	139526.351	48262.815	285.662	C	2009	GPS2522
NAD83(1996)	48 42 13.18180	96 19 29.63412	457762.716	158342.239	139526.355	48262.811	285.671	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_06-DL2349-3N-12OCT2021.jpg	N	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_06-DL2349-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_06-DL2349-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82064.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82064.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 07 **NGS Name:** RCHD 07

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2350 Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	159 N	41 W	483438.09	955936.65		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2008	POOR	Horz=NO Vert=NO	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 07 2008

9.0 MILES NORTHEAST OF STRATHCONA, 8.0 MILES EAST ALONG COUNTY ROAD 6 (120TH STREET) FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND COUNTY ROAD 6, 168.5 FEET NORTH OF 120TH STREET (COUNTY ROAD 6), 42.0 FEET EAST OF 280TH AVENUE (COUNTY ROAD 3), 15.0 FEET NORTHWEST OF A UTILITY POLE, 3.2 FEET WEST OF A WITNESS POST.

Station Notes
FOUND CAP LOOSE. USE WITH CAUTION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.020 12B = -90.033 09 = -89.918 03 = -89.977

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 34 38.09504	95 59 36.64728	537885.718	112210.252	163947.895	34201.753	339.489		2012	GPS2800
NAD83(2007)	48 34 38.09507	95 59 36.64823	537885.654	112210.255	163947.875	34201.754	339.531	C	2009	GPS2522
NAD83(1996)	48 34 38.09487	95 59 36.64812	537885.661	112210.234	163947.878	34201.748	339.511	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_07-DL2350-3E-10JUN2008.jpg	E	Jun 10, 2008
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_07-DL2350-2-10JUN2008.jpg		Jun 10, 2008
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_07-DL2350-1-10JUN2008.jpg		Jun 10, 2008

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82065.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82065.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 08 **NGS Name:** RCHD 08

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2351 Get Map
NGS Quad / Sta Num : 48096122/
USGS Quad: GREENBUSH SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	159 N	42 W	483658.13	960332.88		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 7 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 51 FT)	SURVEY DISK	MN-135

Description: (2008) **Stamping:** 08 2008

5.5 MILES SOUTHEAST OF GREENBUSH, 3.6 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 11 IN GREENBUSH, THEN 5.0 MILES EAST ON COUNTY ROAD 22 (170TH STREET), THEN 2.0 MILES SOUTH ON COUNTY ROAD 25 (250TH AVENUE), 70.8 FEET EAST OF COUNTY ROAD 25, 23.4 FEET NORTH OF A FIELD ENTRANCE, 14.0 FEET SOUTHEAST OF A PEDESTAL, 2.0 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.256 12B = -90.256 09 = -90.131 03 = -90.213

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 36 58.12746	96 03 32.87671	521982.269	126376.462	159100.514	38519.623	317.449		2012	GPS2800
NAD83(2007)	48 36 58.12750	96 03 32.87768	521982.203	126376.466	159100.494	38519.624	317.487	C	2009	GPS2522
NAD83(1996)	48 36 58.12736	96 03 32.87758	521982.210	126376.452	159100.496	38519.620	317.475	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_08-DL2351-3E-11OCT2021.jpg	E	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_08-DL2351-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_08-DL2351-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82068.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82068.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 09 **NGS Name:** RCHD 09

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2352 Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	160 N	42 W	483840.20	955941.89		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 16 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 09 2008

8.0 MILES SOUTHEAST OF GREENBUSH, 8.0 MILES EAST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 4 IN GREENBUSH, THEN 4.0 MILES SOUTH ON COUNTY ROAD 3 (280TH AVENUE), 58.0 FEET WEST OF COUNTY ROAD 3, 54.0 FEET NORTH OF COUNTY ROAD 22 (170TH STREET), 19.0 FEET SOUTHWEST OF A PEDESTAL, 1.0 FOOT SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.538 12B = -90.531 09 = -90.426 03 = -90.489

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 38 40.20359	95 59 41.88982	537483.226	136746.748	163825.215	41680.492	316.748		2012	GPS2800
NAD83(2007)	48 38 40.20363	95 59 41.89072	537483.165	136746.752	163825.196	41680.493	316.789	C	2009	GPS2522
NAD83(1996)	48 38 40.20347	95 59 41.89062	537483.172	136746.736	163825.199	41680.489	316.774	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_09-DL2352-3W-23JUN2020.jpg	W	Jun 23, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_09-DL2352-2-23JUN2020.jpg		Jun 23, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_09-DL2352-1-23JUN2020.jpg		Jun 23, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82069.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82069.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 10 **NGS Name:** RCHD 10

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2353 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	22	161 N	44 W	484446.99	962020.06		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 18 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 10 2008

7.6 MILES NORTHWEST OF GREENBUSH, 3.0 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 7 IN GREENBUSH, THEN 7.0 MILES WEST ON 240TH STREET, 57.1 FEET NORTH OF 240TH STREET, 44.8 FEET EAST OF 130TH AVENUE, 2.5 FEET SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.456 12B = -90.462 09 = -90.348 03 = -90.305

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 44 46.99050	96 20 20.05413	454419.085	173938.759	138507.214	53016.640	282.195		2012	GPS2800
NAD83(2007)	48 44 46.99040	96 20 20.05514	454419.017	173938.750	138507.193	53016.637	282.228	C	2009	GPS2522
NAD83(1996)	48 44 46.99029	96 20 20.05497	454419.028	173938.738	138507.197	53016.634	282.236	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_10-DL2353-3N-12OCT2021.jpg	N	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_10-DL2353-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_10-DL2353-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82102.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82102.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 11 **NGS Name:** RCHD 11

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2354 Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	15	161 N	43 W	484540.83	961220.51		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (<10 FT) (DEPTH 9 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 11 2008

4.0 MILES NORTHWEST OF GREENBUSH, 4.0 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 7 IN GREENBUSH, THEN 1.0 MILE WEST ON 250TH STREET, 58.9 FEET NORTH OF 240TH STREET, 45.1 FEET EAST OF 190TH AVENUE, 3.0 FEET SOUTH OF A WITNESS POST.

Station Notes
POUNDED TO ABSOLUTE REFUSAL.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.682 12B = -90.682 09 = -90.581 03 = -90.525

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 45 40.82722	96 12 20.50542	486565.016	179343.533	148305.313	54664.018	287.539		2012	GPS2800
NAD83(2007)	48 45 40.82721	96 12 20.50629	486564.957	179343.532	148305.296	54664.018	287.575	C	2009	GPS2522
NAD83(1996)	48 45 40.82713	96 12 20.50618	486564.965	179343.525	148305.298	54664.016	287.575	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_11-DL2354-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_11-DL2354-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_11-DL2354-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82119.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82119.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 12 **NGS Name:** RCHD 12

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2355 Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	4	162 N	44 W	485335.21	962058.71		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 5 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 12 2008

15.0 MILES NORTHWEST OF GREENBUSH, 10.0 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 7 IN GREENBUSH, THEN 8.0 MILES WEST ON COUNTY ROAD 7 (310TH STREET), THEN 3.0 MILES NORTH ON 120TH AVENUE, THEN 0.52 MILE EAST ON 340TH STREET, 50.0 FEET EAST OF 120TH AVENUE, 40.0 FEET NORTH OF 340TH STREET, 29.0 FEET NORTHWEST OF THE CENTER OF A FIELD ENTRANCE, 3.0 FEET SOUTH OF A WITNESS POST.

Station Notes
POUNDED TO ABSOLUTE REFUSAL.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.193 12B = -90.210 09 = -90.111 03 = -89.997

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 53 35.21387	96 20 58.71168	451968.338	227481.463	137760.225	69336.489	284.111		2012	GPS2800
NAD83(2007)	48 53 35.21383	96 20 58.71261	451968.276	227481.460	137760.206	69336.488	284.144	C	2009	GPS2522
NAD83(1996)	48 53 35.21366	96 20 58.71270	451968.270	227481.442	137760.204	69336.482	284.145	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_12-DL2355-3N-24JUN2020.jpg	N	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_12-DL2355-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_12-DL2355-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82121.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82121.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 13 **NGS Name:** RCHD 13

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2356 Get Map
NGS Quad / Sta Num : 48096143/
USGS Quad: JUNEBERRY RIDGE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	18	162 N	44 W	485056.87	962415.15		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2013	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 3 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MN-135

Description: (2008) **Stamping:** 13 2008

14.1 MILES NORTHWEST OF GREENBUSH, 10.0 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 7 IN GREENBUSH, THEN 10.0 MILES WEST ON COUNTY ROAD 7 (310TH STREET), 127.0 FEET NORTHEAST OF THE INTERSECTION OF 310TH STREET AND 100TH AVENUE, 98.0 FEET EAST-NORTHEAST OF A STREET AVENUE SIGN, 3.0 FEET SOUTHWEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.187 12B = -90.200 09 = -90.098 03 = -900000

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 56.87007	96 24 15.15394	438786.553	211472.099	133742.409	64456.825	282.395		2012	GPS2800
NAD83(2007)	48 50 56.87003	96 24 15.15490	438786.489	211472.095	133742.389	64456.824	282.429	C	2009	GPS2522
NAD83(1996)	48 50 56.86985	96 24 15.15497	438786.484	211472.077	133742.388	64456.818	282.431	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_13-DL2356-3E-12JUN2008.jpg	E	Jun 12, 2008
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_13-DL2356-2-12JUN2008.jpg		Jun 12, 2008
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_13-DL2356-1-12JUN2008.jpg		Jun 12, 2008

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82122.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82122.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 14 **NGS Name:** RCHD 14

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2357 Get Map
NGS Quad / Sta Num : 48096114/
USGS Quad: BADGER NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	27	163 N	43 W	485425.26	961224.38		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 27 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 14 2008

13.9 MILES NORTH-NORTHWEST OF GREENBUSH, 11.9 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 4 IN GREENBUSH, THEN 2.0 MILES NORTH ON 200TH AVENUE, THEN 1.0 MILE WEST ON 330TH STREET, THEN 2.0 MILES NORTH ON 190TH AVENUE, 80.2 FEET EAST OF 190TH AVENUE, 12.5 FEET SOUTH OF 350TH STREET, 2.8 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.485 12B = -90.489 09 = -90.400 03 = -90.262

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 54 25.25509	96 12 24.37908	486345.065	232495.459	148238.272	70864.758	285.699		2012	GPS2800
NAD83(2007)	48 54 25.25508	96 12 24.37999	486345.005	232495.458	148238.254	70864.757	285.735	C	2009	GPS2522
NAD83(1996)	48 54 25.25493	96 12 24.38002	486345.002	232495.442	148238.253	70864.753	285.735	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_14-DL2357-3E-24JUN2020.jpg	E	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_14-DL2357-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_14-DL2357-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82123.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82123.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 15 **NGS Name:** RCHD 15

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2358 Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	43 W	485037.77	960945.72		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 14 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 15 2008

2.0 MILES NORTHEAST OF HAUG, 1.0 MILE EAST ALONG COUNTY ROAD 26 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 26 IN HAUG, THEN 2.6 MILES NORTH ON COUNTY ROAD 11 (220TH AVENUE), 55.0 FEET EAST OF 220TH AVENUE (COUNTY ROAD 11), 16.0 FEET EAST OF THE NORTH END OF A CULVERT, 300.0 FEET SOUTHWEST OF A CHURCH, 2.3 FEET SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.686 12B = -90.692 09 = -90.597 03 = -90.485

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 37.77187	96 09 45.71615	496941.778	209434.589	151468.157	63835.790	287.230		2012	GPS2800
NAD83(2007)	48 50 37.77186	96 09 45.71704	496941.719	209434.588	151468.139	63835.790	287.266	C	2009	GPS2522
NAD83(1996)	48 50 37.77177	96 09 45.71698	496941.723	209434.579	151468.140	63835.787	287.265	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_15-DL2358-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_15-DL2358-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_15-DL2358-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82124.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82124.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 16 **NGS Name:** RCHD 16

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2359 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	15	163 N	42 W	485656.38	960422.98		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 28 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 16 2008

11.2 MILES NORTHWEST OF BADGER, 9.0 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 3 IN BADGER, THEN 3.0 MILES WEST ON COUNTY ROAD 112 (360TH STREET), THEN 2.0 MILES NORTH ON COUNTY ROAD 113 (250TH AVENUE), 51.9 FEET EAST OF COUNTY ROAD 113 (250TH AVENUE), 39.3 FEET SOUTH OF 380TH STREET, 3.0 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.846 12B = -90.846 09 = -90.741 03 = -90.630

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 56 56.38203	96 04 22.97985	518492.744	247817.006	158036.904	75534.774	287.243		2012	GPS2800
NAD83(2007)	48 56 56.38204	96 04 22.98078	518492.682	247817.007	158036.885	75534.775	287.277	C	2009	GPS2522
NAD83(1996)	48 56 56.38186	96 04 22.98080	518492.680	247816.988	158036.885	75534.769	287.270	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_16-DL2359-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_16-DL2359-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_16-DL2359-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82125.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82125.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 17 **NGS Name:** RCHD 17

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2360 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	163 N	41 W	485420.00	955752.74		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 5 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 39 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 17 2008

9.1 MILES NORTH-NORTHEAST OF BADGER, 7.15 MILES NORTH ALONG COUNTY ROAD 3 FROM THE NORTH JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN BADGER, THEN 2.0 MILES EAST ON COUNTY ROAD 148, 160.7 FEET SOUTH OF COUNTY ROAD 148 (359TH STREET), 50.2 FEET EAST OF COUNTY ROAD 115 (400TH AVENUE), 96.0 FEET SOUTH OF A WELL, 2.7 FEET SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.197 12B = -91.201 09 = -91.079 03 = -91.020

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 54 19.99521	95 57 52.74392	544581.838	232011.494	165988.876	70717.245	287.929		2012	GPS2800
NAD83(2007)	48 54 19.99525	95 57 52.74477	544581.782	232011.498	165988.859	70717.246	287.965	C	2009	GPS2522
NAD83(1996)	48 54 19.99510	95 57 52.74466	544581.789	232011.482	165988.861	70717.241	287.962	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_17-DL2360-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_17-DL2360-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_17-DL2360-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82126.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82126.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 18 **NGS Name:** RCHD 18

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2361 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	29	163 N	40 W	485428.09	955004.92		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 60 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 18 2008

5.1 MILES NORTHWEST OF ROSEAU, 3.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 89 SOUTH (310 NORTH) AND TRUNK HIGHWAY 11 ROSEAU, THEN 4.1 MILES NORTH ON COUNTY ROAD 123 (360TH AVENUE), 830.0 FEET NORTHWEST OF THE NORTHWEST CORNER OF A BRIDGE, 65.0 FEET WEST OF 360TH AVENUE, 50.0 FEET NORTHWEST OF A MIDDLE FIELD ENTRANCE, 12.0 FEET SOUTHEAST OF A WILDLIFE SIGN, 3.7 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.785 12B = -91.788 09 = -91.660 03 = -91.634

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 54 28.09099	95 50 04.92178	575835.223	232934.719	175514.927	70998.645	287.368		2012	GPS2800
NAD83(2007)	48 54 28.09107	95 50 04.92256	575835.171	232934.727	175514.911	70998.647	287.406	C	2009	GPS2522
NAD83(1996)	48 54 28.09088	95 50 04.92246	575835.177	232934.708	175514.913	70998.641	287.403	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_18-DL2361-3W-06OCT2021.jpg	W	Oct 6, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_18-DL2361-2-06OCT2021.jpg		Oct 6, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_18-DL2361-1-06OCT2021.jpg		Oct 6, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82127.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82127.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

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

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2364 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	4	160 N	42 W	484209.49	960335.81		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 18 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 21 2008

5.0 MILES EAST OF GREENBUSH, 5.0 MILES EAST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 4 IN GREENBUSH, 133.0 FEET NORTH OF COUNTY ROAD 4 (210TH STREET), 21.0 FEET WEST OF COUNTY ROAD 111 (250TH AVENUE), 2.0 FEET NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.754 12B = -90.754 09 = -90.630 03 = -90.666

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 42 09.49480	96 03 35.81051	521747.822	157932.936	159029.054	48138.055	303.789		2012	GPS2800
NAD83(2007)	48 42 09.49484	96 03 35.81137	521747.764	157932.940	159029.037	48138.056	303.826	C	2009	GPS2522
NAD83(1996)	48 42 09.49476	96 03 35.81129	521747.769	157932.932	159029.038	48138.054	303.820	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_21-DL2364-3W-11OCT2021.jpg	W	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_21-DL2364-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_21-DL2364-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82131.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82131.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 22 **NGS Name:** RCHD 22

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2365 Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	8	160 N	41 W	484205.89	955709.19		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 18 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 22 2008

5.0 MILES EAST OF BADGER, 5.7 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 2 EAST AND COUNTY ROAD 3 SOUTH, THEN 2.0 MILES EAST ON COUNTY ROAD 4 (210TH STREET), 56.1 FEET WEST OF 300TH AVENUE, 15.3 FEET SOUTH OF 210TH STREET EXTENDED, 2.0 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.941 12B = -90.941 09 = -90.833 03 = -90.863

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 42 05.88494	95 57 09.19384	547684.394	157616.014	166934.537	48041.457	311.250		2012	GPS2800
NAD83(2007)	48 42 05.88500	95 57 09.19470	547684.336	157616.020	166934.520	48041.459	311.287	C	2009	GPS2522
NAD83(1996)	48 42 05.88490	95 57 09.19464	547684.340	157616.010	166934.521	48041.456	311.280	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_22-DL2365-3W-23JUN2020.jpg	W	Jun 23, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_22-DL2365-2-23JUN2020.jpg		Jun 23, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_22-DL2365-1-23JUN2020.jpg		Jun 23, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82188.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82188.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 23 **NGS Name:** RCHD 23

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2366 Get Map
NGS Quad / Sta Num : 48095432/
USGS Quad: THIEF LAKE SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	35	159 N	40 W	483227.46	954632.83		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 16 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 23 2008

9.0 MILES SOUTH-SOUTHWEST OF WANNASKA, 6.5 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF COUNTY ROAD 4 EAST AND TRUNK HIGHWAY 89 IN WANNASKA, THEN 2.0 MILES WEST ON 105TH STREET, THEN 0.5 MILE SOUTH ON COUNTY ROAD 125 (380TH AVENUE), 21.6 FEET EAST OF COUNTY ROAD 125 (320TH AVENUE NORTHEAST), 4.0 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.042 12B = -90.059 09 = -89.947 03 = -89.977

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 32 27.46395	95 46 32.83386	590662.241	99154.8530	180034.211	30222.460	330.270		2012	GPS2800
NAD83(2007)	48 32 27.46406	95 46 32.83483	590662.175	99154.8630	180034.191	30222.463	330.302	C	2009	GPS2522
NAD83(1996)	48 32 27.46402	95 46 32.83492	590662.169	99154.8590	180034.189	30222.462	330.294	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_23-DL2366-3E-07JUL2025.jpg	E	Jul 7, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_23-DL2366-2-07JUL2025.jpg		Jul 7, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_23-DL2366-1-07JUL2025.jpg		Jul 7, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82189.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82189.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 24 **NGS Name:** RCHD 24

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2367 Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	27	159 N	41 W	483411.41	955440.38		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 16 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 24 2008

11.7 MILES EAST-NORTHEAST OF STRATHCONA, 8.0 MILES EAST ALONG COUNTY ROAD 6 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND COUNTY ROAD 6 (THE JUNCTION IS 1.0 MILE NORTH OF STRATHCONA), THEN 2.15 MILE SOUTH AND EAST ON COUNTY ROAD 3, THEN CONTINUE 1.75 MILES EAST ON COUNTY ROAD 38, 50.0 FEET SOUTHEAST OF 120TH STREET AND A FIELD ENTRANCE, 15.0 FEET SOUTHEAST OF THE EAST END OF A CULVERT, 3.0 FEET WEST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.039 12B = -90.056 09 = -89.934 03 = -89.987

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 34 11.41168	95 54 40.37456	557818.610	109557.652	170023.452	33393.239	331.935		2012	GPS2800
NAD83(2007)	48 34 11.41177	95 54 40.37552	557818.545	109557.661	170023.433	33393.242	331.976	C	2009	GPS2522
NAD83(1996)	48 34 11.41170	95 54 40.37556	557818.543	109557.654	170023.432	33393.240	331.959	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_24-DL2367-3S-11OCT2021.jpg	S	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_24-DL2367-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_24-DL2367-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82190.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82190.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 38 **NGS Name:** RCHD 38

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2381 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	162 N	42 W	484959.98	960144.48		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 16 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 38 2008

3.0 MILES NORTHWEST OF BADGER, 3.0 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 3 IN BADGER, THEN 1.0 MILE WEST ON 300TH STREET, 62.1 FEET EAST OF 270TH AVENUE, 16.7 FEET NORTH OF 300TH STREET, 8.0 FEET SOUTHEAST OF THE WEST END OF A CULVERT, 21.0 FEET SOUTHEAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.030 12B = -91.033 09 = -90.925 03 = -90.853

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 49 59.98128	96 01 44.47574	529140.844	205627.321	161282.452	62675.333	289.407		2012	GPS2800
NAD83(2007)	48 49 59.98127	96 01 44.47661	529140.786	205627.320	161282.434	62675.332	289.444	C	2009	GPS2522
NAD83(1996)	48 49 59.98122	96 01 44.47652	529140.792	205627.315	161282.436	62675.331	289.441	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_38-DL2381-3N-11OCT2021.jpg	N	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_38-DL2381-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_38-DL2381-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82204.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82204.pdf

RCHD 39

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 39 **NGS Name:** RCHD 39

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2382 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	7	161 N	42 W	484656.66	960713.00		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (<10 FT) (DEPTH 9 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008)

Stamping: 39 2008

5.1 MILES WEST OF BADGER, 5.1 MILES WEST ALONG COUNTY ROAD 2 FROM THE JUNCTION OF TRUNK HIGHWAY 11 IN BADGER, 755.0 FEET WEST OF 230TH AVENUE, 39.0 FEET NORTH OF 265TH STREET (COUNTY ROAD 2), IN THE SOUTHWEST CORNER OF A FIELD ENTRANCE, 14.9 FEET SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.850 12B = -90.853 09 = -90.745 03 = -90.679

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 46 56.66111	96 07 12.99842	507166.706	187025.837	154584.721	57005.589	290.481		2012	GPS2800
NAD83(2007)	48 46 56.66110	96 07 12.99927	507166.649	187025.836	154584.704	57005.589	290.518	C	2009	GPS2522
NAD83(1996)	48 46 56.66104	96 07 12.99918	507166.655	187025.830	154584.706	57005.587	290.516	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_39-DL2382-3N-12OCT2021.jpg	N	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_39-DL2382-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_39-DL2382-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82205.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82205.pdf

RCHD 42

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RCHD 42 **NGS Name:** RCHD 42

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2385 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	31	161 N	40 W	484305.42	955109.73		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2008	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 32 FT)

Disk Type
SURVEY DISK

Mon. Agency
MN-135

Description: (2008) **Stamping:** 42 2008

9.0 MILES SOUTHWEST OF ROSEAU, 5.0 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11 IN ROSEAU, THEN 4.0 MILES WEST ON COUNTY ROAD 2 (260TH STREET), THEN 4.0 MILES SOUTH ON COUNTY ROAD 15 (350TH AVENUE), 76.0 FEET SOUTHWEST OF COUNTY ROAD 15, 16.5 FEET EAST OF 220TH STREET, 21.0 FEET SOUTHWEST OF THE EAST END OF A CULVERT, 40.0 FEET SOUTHEAST OF A STREET AVENUE SIGN, 2.5 FEET NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.302 12B = -91.296 09 = -91.207 03 = -91.214

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 43 05.42474	95 51 09.73349	571775.124	163728.601	174277.406	49904.577	317.529		2012	GPS2800
NAD83(2007)	48 43 05.42482	95 51 09.73435	571775.066	163728.609	174277.389	49904.580	317.564	C	2009	GPS2522
NAD83(1996)	48 43 05.42471	95 51 09.73429	571775.070	163728.598	174277.390	49904.576	317.559	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_42-DL2385-3SW-12OCT2021.jpg	SW	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_42-DL2385-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCHD_42-DL2385-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82208.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82208.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RICE **NGS Name:** RICE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6104 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	14	163 N	41 W	485644.24	955514.28	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2017	2019	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 61 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2017) **Stamping:** RICE 2017

2.75 MILE NORTH OF ROSS, 2.75 MILE NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 139.23, 69.5 FEET EAST OF TRUNK HIGHWAY 89, 16.5 FEET SOUTH OF A FIELD ENTRANCE, 5.5 FEET WEST OF A RIGHT-OF-WAY POST, 5.5 FEET WEST OF A WITNESS POST.

Station Pair: 6807 M RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1039.273	0.016	316.771	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.401 12B = -91.404 09 = -91.279 03 = -91.227

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 56 44.23588	95 55 14.27617	555125.612	246659.582	169202.625	75181.991	288.904		2020	GPS3390
NAD83(1996)	48 56 44.23571	95 55 14.27679	555125.570	246659.564	169202.612	75181.986	288.952	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RICE-DR6104-3E-16SEP2019.jpg	E	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RICE-DR6104-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RICE-DR6104-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_108194.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_108194.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSE **NGS Name:** ROSE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8548 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	162 N	40 W	485043.29	955002.07		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2004	2014	GOOD	Horz=NO Vert=NO	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2004) **Stamping:** ROSE 2004

3.0 MILES WEST OF ROSEAU, 3.05 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU TO TRUNK HIGHWAY 11 MILEPOINT 67.7, THEN 0.2 MILE SOUTH ON COUNTY ROAD 15 (360TH AVENUE), 39.5 FEET EAST OF COUNTY ROAD 15 (360TH AVENUE), 34.5 FEET NORTH OF THE NORTH RAIL OF THE RAILROAD TRACKS, 12.6 FEET SOUTH OF A FENCE LINE, 5.0 FEET WEST OF A WITNESS POST.

Station Notes
THE SURVEY MARK IS ON RAILROAD PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.749 12B = -91.752 09 = -91.627 03 = -91.607

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 43.29411	95 50 02.06458	576120.639	210151.932	175601.922	64054.437	303.925		2012	GPS2800
NAD83(2007)	48 50 43.29420	95 50 02.06551	576120.577	210151.941	175601.903	64054.440	303.961		2007	GPS2300
NAD83(1996)	48 50 43.29412	95 50 02.06577	576120.559	210151.932	175601.898	64054.437	303.965	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSE-DG8548-3E-10AUG2004.jpg	E	Aug 10, 2004
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSE-DG8548-2-10AUG2004.jpg		Aug 10, 2004
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSE-DG8548-1-10AUG2004.jpg		Aug 10, 2004

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50880.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50880.pdf

ROSE LUTHERAN CHURCH SPIRE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSE LUTHERAN CHURCH SPIRE
NGS Name: ROSE LUTHERAN CHURCH SPIRE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0749 Get Map
NGS Quad / Sta Num : 48095442/1008
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	162 N	40 W	485040.35	954955.48		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1946	GOOD	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	NGS

Description: (1946)

Stamping:

3.5 MILES WEST OF ROSEAU, IN THE SOUTHEAST QUADRANT OF THE CROSSROADS, 0.1 MILE EAST OF A NORTH-SOUTH ROAD, 0.1 MILE SOUTH OF TRUNK HIGHWAY 11, 300.0 FEET SOUTH OF A RAILROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.758 12B = -91.762 09 = -91.637 03 = -91.614

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 40.35059	95 49 55.48173	576562.232	209855.435	175736.520	63964.064		4	1999	17648
NAD83(1986)	48 50 40.34006	95 49 55.45815	576563.814	209854.374	175737.002	63963.741		4	1986	17289
NAD27	48 50 40.41000	95 49 54.48000						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26993.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26993.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU
NGS Name: ROSEAU

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0757 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485053.00	954604.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1966	DESTROYED	Horz=NO Vert=NO	NO		FLUSH	NO MAG MATERIAL

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
TRIANGULATION STATION DISK

Mon. Agency
USGS

Description:

Stamping: ROSEAU 1941

AT THE WEST EDGE OF ROSEAU, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, 37.0 FEET SOUTH OF TRUNK HIGHWAY 11, 44.0 FEET WEST OF THE CENTERLINE OF A GRAVEL ROAD, 27.0 FEET NORTHEAST OF THE NORTHWEST CORNER OF A FRAME BUILDING, 24.7 FEET NORTHWEST OF THE NORTHEAST CORNER OF A BUILDING.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.070 12B = -92.077 09 = -91.949 03 = -91.936

Geodetic Position

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD27	48 50 52.74900	95 46 02.74100						1	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70185.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70185.pdf

ROSEAU AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU AZ MK
NGS Name: ROSEAU AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0518 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	162 N	40 W	485053.00	954540.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1991	DESTROYED	Horz=NO Vert=NO	YES	5814		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE ABUTMENT	AZIMUTH MARK DISK	NGS

Description: (1991) **Stamping:** ROSEAU 1941

0.2 MILE EAST ON TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, IN THE NORTHWEST ABUTMENT OF TRUNK HIGHWAY 11 BRIDGE NUMBER 5814 OVER THE ROSEAU RIVER, 10.5 FEET EAST OF A TELEPHONE POLE, 25.5 FEET NORTH OF TRUNK HIGHWAY 11.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1049.434	0.007	319.868	0.002	1/2	1991	00000025

Geoid Separations(ft): GEOID18 = -92.100 12B = -92.106 09 = -91.981 03 = -91.968

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26997.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26997.pdf

ROSEAU CO BM

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU CO BM
NGS Name: RCBM 1
County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2387 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	163 N	41 W	485421.79	960024.69		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2007	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 2 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	MN-135

Description: (2008) **Stamping:** RCBM 1 2007

5.1 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11, ABOUT 6.2 MILES WEST OF ROSEAU TO TRUNK HIGHWAY 89 MILEPOINT 136.45, THEN 4.0 MILES WEST ON COUNTY ROAD 178, 56.2 FEET NORTH OF COUNTY ROAD 148 (350TH STREET), 62.8 FEET EAST OF ROAD 3 (280TH AVENUE), 5.5 FEET NORTH OF A POWER POLE WITH GUY WIRES, 2.8 FEET SOUTH OF A TELEPHONE PEDESTALS NUMBER BN B16, 1.1 FEET NORTH OF A WITNESS POST. STATION ROSEAU CO BM IS A PRIMARY PROJECT CONTROL POINT (PPCP) FOR ROSEAU RIVER-DUXBY LEVEE PROJECT AND THE PRIMARY REFERENCE POINT FOR RIVER GAUGE 05105000. STATION ROSEAU CO BM IS 5.54 FEET ABOVE ZERO GAGE REFERENCE POINT AT ROSEAU RIVER AT ROSEAU US11. STATION ROSEAU CO BM IS 1.53 FEET ABOVE NGVD29 AT ROSEAU RIVER AT ROSEAU US11. STATION ROSEAU CO BM IS 20.29 FEET BELOW RM 1, BRASS TABLET, STAMPED 1050.68 FEET, AT RIGHT DOWNSTREAM CORNER OF BRIDGE. STATION ROSEAU CO BM IS 19.85 FEET BELOW RM 2, CHISELED SQUARE, PAINTED ORANGE, ON LEFT DOWNSTREAM CORNER OF CITY BUILDING. RM 3 - TOP OF SEWER PIPE ELBOW 75 FEET NORTHWEST OF RM 2 AT DOWNSTREAM CORNER OF CITY BUILDING.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.046 12B = -91.043 09 = -90.938 03 = -90.856

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 54 21.79332	96 00 24.68450	534429.799	232171.853	162894.529	70766.122	286.774		2012	GPS2800
NAD83(2007)	48 54 21.79335	96 00 24.68538	534429.741	232171.856	162894.511	70766.123	286.841	C	2009	GPS2522
NAD83(1996)	48 54 21.79320	96 00 24.68529	534429.747	232171.840	162894.513	70766.119	286.806	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCBM_1-DL2387-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCBM_1-DL2387-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RCBM_1-DL2387-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26998.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26998.pdf

ROSEAU CO BM 1035

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU CO BM 1035 **NGS Name:** ROSEAU CO BM 1035

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	162 N	42 W	485146.00	960025.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	MN-135

Description: (1966) **Stamping:**

5.5 MILES NORTH AND 0.5 MILE EAST OF BADGER, 64.0 FEET NORTH AND 62.0 FEET WEST OF THE JUNCTION OF COUNTY ROAD 3 AND COUNTY ROAD 16.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.063 12B = -91.066 09 = -90.961 03 = -90.889

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26999.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26999.pdf

ROSEAU CO BM 1121

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU CO BM 1121 **NGS Name:** ROSEAU CO BM 1121

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	160 N	41 W	483931.00	955939.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	GOOD	Horz=NO Vert=YES	NO	68508		SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE WING WALL	SEE DESCRIPTION	MN-135

Description: (1966) **Stamping:**

8.5 MILES SOUTH AND 0.8 MILE EAST OF BADGER, 49.0 FEET SOUTH AND 17.0 FEET EAST OF COUNTY ROAD 3 AT A CROSSROAD, IN THE SOUTHEAST CORNER OF COUNTY ROAD 3 CONCRETE BRIDGE NUMBER 68508 OVER STATE DITCH NUMBER 91.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.623 12B = -90.626 09 = -90.505 03 = -90.558

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27000.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27000.pdf

ROSEAU CO BM 1141

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU CO BM 1141 **NGS Name:** ROSEAU CO BM 1141

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	6	159 N	41 W	483747.00	955936.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	GOOD	Horz=NO Vert=YES	YES	68509	FLUSH	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
BRIDGE WING WALL	SEE DESCRIPTION	MN-135

Description: (1966) **Stamping:**

10.5 MILES SOUTH AND 0.8 MILE EAST OF BADGER, IN THE SOUTHEAST CORNER OF COUNTY ROAD 3 CONCRETE BRIDGE NUMBER 68509 OVER A DITCH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.439 12B = -90.430 09 = -90.331 03 = -90.397

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

Station Photos

Type	File Name	Dir	Date
Location:			
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_CO_BM_1141-2-01MAY2007.jpg		May 1, 2007
Disk:			

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27001.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27001.pdf

ROSEAU FARMERS COOP ELEVATOR

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU FARMERS COOP ELEVATOR **NGS Name:** ROSEAU FARMERS COOP ELEVATOR

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0754 Get Map
NGS Quad / Sta Num : 48095442/1012
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485037.95	954538.41		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	2009	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
UNKNOWN	GABLE	NGS

Description: (1946) **Stamping:**

IN THE SOUTH PART OF ROSEAU, 525.0 FEET EAST OF MAIN STREET, 66.0 FEET SOUTH OF THE MAIN RAILROAD TRACK. THE POINT LOCATED IS THE CENTER OF A GABLED ROOF AT THE HIGHEST PART OF AN ELEVATOR, APPROXIMATELY 100.0 FEET ABOVE THE GROUND.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.096 12B = -92.103 09 = -91.978 03 = -91.962

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 37.94612	95 45 38.40831	593760.197	209691.559	180978.470	63914.115		4	1999	17648
NAD83(1986)	48 50 37.93608	95 45 38.38884	593761.504	209690.548	180978.869	63913.807		4	1986	17289
NAD27	48 50 38.00700	95 45 37.42300						4	1944	06239

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_FARMERS_COOP_ELEVATOR-TC0754-3NW-27OCT2009.jpg	NW	Oct 27, 2009
Monument:			
Disk:			

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27002.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27002.pdf

ROSEAU FIRST LUTHERAN CH SPIRE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU FIRST LUTHERAN CH SPIRE **NGS Name:** ROSEAU FIRST LUTHERAN CH SPIRE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0753 Get Map
NGS Quad / Sta Num : 48095442/1011
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485045.62	954558.82		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2009	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	NGS

Description: (1941) **Stamping:**

IN THE WEST PART OF ROSEAU, 2.0 BLOCKS SOUTH OF A POST OFFICE, IN THE SOUTHWEST QUADRANT OF THE CROSS-STREETS, 90.0 FEET WEST OF A STREET, 102.0 FEET SOUTH OF PEARL STREET.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.073 12B = -92.080 09 = -91.955 03 = -91.939

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 45.61892	95 45 58.82392	592390.580	210462.275	180561.010	64149.030		4	1999	17648
NAD83(1986)	48 50 45.60800	95 45 58.80150	592392.085	210461.176	180561.469	64148.695		4	1986	17289
NAD27	48 50 45.67800	95 45 57.83200						4	1944	06239

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_FIRST_LUTHERAN_CH_SPIRE-TC0753-3SW-26OCT2009.jpg	SW	Oct 26, 2009
Monument:			
Disk:			

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27003.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27003.pdf

Geodetic Data Sheet (Brief)
GSID Station # 26994

ROSEAU RESET

04/28/2026
Sheet Help

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU RESET
NGS Name: ROSEAU RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0519 Get Map
NGS Quad / Sta Num : 48095442/1010
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485052.69	954603.73	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	TRIANGULATION STATION DISK	NGS

Description: (2009) **Stamping:** ROSEAU 1941 1966

IN ROSEAU, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 70.7, 174.3 FEET EAST OF TRUNK HIGHWAY 89, 48.0 FEET WEST OF 4TH AVENUE NORTHWEST, 35.0 FEET SOUTH OF TRUNK HIGHWAY 11, 9.4 FEET SOUTH OF THE SOUTH CURB ON TRUNK HIGHWAY 11, 42.4 FEET NORTHWEST OF THE NORTHEAST CORNER OF A LIQUOR STORE, 16.0 FEET WEST OF A HYDRANT, 0.5 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1048.679	0.016	319.638	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.070 12B = -92.077 09 = -91.952 03 = -91.936

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 52.69068	95 46 03.73338	592058.579	211177.353	180459.816	64366.986	291.589		2018	GPS3232
NAD83(2007)	48 50 52.69075	95 46 03.73432	592058.516	211177.360	180459.797	64366.988	291.624		2007	GPS2300
NAD83(1996)	48 50 52.69043	95 46 03.73413	592058.529	211177.327	180459.801	64366.978	291.636	C	2018	HGATK
NAD83(1986)	48 50 52.67911	95 46 03.71164	592060.039	211176.188	180460.261	64366.631		1	1986	17289
NAD27	48 50 52.74900	95 46 02.74100						C	1950	UNK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_RESET-TC0519-3S-08DEC2025.jpg	S	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_RESET-TC0519-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSEAU_RESET-TC0519-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_26994.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_26994.pdf

ROSEAU RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU RM 1 **NGS Name:** ROSEAU RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO8240 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485051.59	954602.76		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2009	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 8 IN.	NO MAG MATERIAL

Monument Type
CONCRETE POST (PREFABRICATED)

Disk Type
REFERENCE MARK DISK

Mon. Agency
USGS

Description:

Stamping: ROSEAU NO 1 1941

AT THE WEST EDGE OF ROSEAU, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, 155.0 FEET SOUTH OF TRUNK HIGHWAY 11, 32.0 FEET EAST OF 4TH AVENUE, 18.0 FEET SOUTH OF A GRAVEL ALLEY, 5.0 FEET NORTH OF A TELEPHONE POLE, 129.49 FEET SOUTHEAST OF THE STATION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.070 12B = -92.077 09 = -91.952 03 = -91.936

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70186.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70186.pdf

ROSEAU RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSEAU RM 2 **NGS Name:** ROSEAU RM 2

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485052.74	954605.15		

NGS ACRN: CO8241 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2009	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 3 IN.	NO MAG MATERIAL

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

Description: (1941) **Stamping:** ROSEAU NO 2 1941

AT THE WEST EDGE OF ROSEAU, AT THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, 84.0 FEET SOUTHEAST OF THE INTERSECTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, 38.5 FEET SOUTH OF TRUNK HIGHWAY 11, 9.5 FEET SOUTHEAST OF THE EAST END OF A CURB OF TRUNK HIGHWAY 11, 5.0 FEET SOUTH-SOUTHEAST OF THE WEST END OF A HOSPITAL SIGN.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.070 12B = -92.077 09 = -91.952 03 = -91.936

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27005.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27005.pdf

ROSELUND LUTHERAN CHURCH SPIRE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSELUND LUTHERAN CHURCH SPIRE
NGS Name: ROSELUND LUTHERAN CHURCH SPIRE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0905 Get Map
NGS Quad / Sta Num : 48096112/1012
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	14	162 N	42 W	485119.89	960302.92		4

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	1941	GOOD	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH SPIRE	NGS

Description: (1941)

Stamping:

1.7 MILES WEST AND 5.0 MILES NORTH OF BADGER, 0.5 MILE SOUTH OF THE CROSSROADS, 75.0 FEET EAST OF A ROAD, 165.0 FEET NORTH OF A FARM ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.945 12B = -90.948 09 = -90.843 03 = -90.754

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 51 19.89424	96 03 02.91816	523881.735	213719.073	159679.472	65141.704		4	1999	17648
NAD83(1986)	48 51 19.88707	96 03 02.89835	523883.061	213718.348	159679.876	65141.483		4	1986	17289
NAD27	48 51 19.95800	96 03 01.88300						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27006.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27006.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSITAS **NGS Name:** ROSITAS

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8549 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	162 N	41 W	484926.08	955751.03	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2004	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2014) **Stamping:** ROSITAS 2004

3.5 MILES NORTHEAST OF BADGER, 3.4 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER TO TRUNK HIGHWAY 11 MILEPOINT 61.3, THEN 0.05 MILE NORTH ON COUNTY ROAD 26 (300TH AVENUE), THEN 0.4 MILE NORTH ON COUNTY ROAD 115, 46.4 FEET EAST OF COUNTY ROAD 115, 18.0 FEET SOUTH OF A POWER POLE, 1.0 FOOT NORTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.949	0.016	324.597	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.210 12B = -91.214 09 = -91.109 03 = -91.063

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 49 26.08352	95 57 51.03246	544768.842	202223.184	166045.875	61637.750	296.817		2012	GPS2800
NAD83(2007)	48 49 26.08347	95 57 51.03338	544768.781	202223.179	166045.857	61637.748	296.852		2007	GPS2300
NAD83(1996)	48 49 26.08345	95 57 51.03330	544768.786	202223.177	166045.858	61637.748	296.849	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSITAS-DG8549-3E-03JUL2025.jpg	E	Jul 3, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSITAS-DG8549-2-03JUL2025.jpg		Jul 3, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSITAS-DG8549-1-03JUL2025.jpg		Jul 3, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50885.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50885.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSS **NGS Name:** ROSS

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8550 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	162 N	41 W	485035.80	955434.11	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2004	2018	DESTROYED	Horz=NO Vert=NO	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 34 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2014) **Stamping:** ROSS 2004

6.5 MILES WEST OF ROSEAU, 6.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU TO TRUNK HIGHWAY 11 MILEPOINT 64.6, THEN 0.5 MILE NORTHWEST ON TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 MILEPOINT 131.9, 72.9 FEET NORTHEAST OF TRUNK HIGHWAY 89, 13.5 FEET SOUTHEAST OF A FIELD ENTRANCE, 4.0 FEET SOUTHWEST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.457	0.016	324.447	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.411 12B = -91.407 09 = -91.292 03 = -91.266

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 35.80065	95 54 34.11447	557924.700	209325.980	170055.789	63802.686	296.598		2012	GPS2800
NAD83(2007)	48 50 35.80067	95 54 34.11531	557924.644	209325.982	170055.772	63802.687	296.632		2007	GPS2300
NAD83(1996)	48 50 35.80064	95 54 34.11532	557924.643	209325.979	170055.771	63802.686	296.630	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSS-DG8550-3NE-23JUN2014.jpg	NE	Jun 23, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSS-DG8550-2-23JUN2014.jpg		Jun 23, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSS-DG8550-1-23JUN2014.jpg		Jun 23, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50884.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50884.pdf

Geodetic Data Sheet (Brief)
GSID Station # 109269

ROSS RESET

04/28/2026
Sheet Help

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: ROSS RESET
NGS Name: ROSS RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6105 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	23	162 N	41 W	485035.80	955434.11	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2018	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	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: (2018)

Stamping: ROSS 2004 2018

6.5 MILES WEST OF ROSEAU, 6.0 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU TO TRUNK HIGHWAY 11 MILEPOINT 64.6, THEN 0.5 MILE NORTHWEST ON TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 MILEPOINT 131.9, 72.9 FEET NORTHEAST OF TRUNK HIGHWAY 89, 13.5 FEET SOUTHEAST OF A FIELD ENTRANCE, 4.0 FEET SOUTHWEST OF A WITNESS POST.

Station Pair: GRAPHIX RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.388	0.016	324.426	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.411 12B = -91.407 09 = -91.292 03 = -91.266

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 35.80032	95 54 34.11468	557924.686	209325.947	170055.784	63802.676	296.600		2020	GPS3390
NAD83(1996)	48 50 35.80018	95 54 34.11535	557924.641	209325.933	170055.771	63802.672	296.649	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSS_RESET-DR6105-3NE-26JUL2023.jpg	NE	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSS_RESET-DR6105-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/ROSS_RESET-DR6105-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_109269.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_109269.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RRWD 007 **NGS Name:** RRWD 007

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2390 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	31	164 N	40 W	485931.82	955123.54		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2005	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 16 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2008) **Stamping:** 007

10.0 MILES NORTH AND 4.0 MILES WEST OF ROSEAU, 3.0 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310/TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU TO TRUNK HIGHWAY MILEPOINT 2.95, THEN 3.0 MILES WEST ALONG 340TH STREET, THEN 5.2 MILES NORTH ALONG 390TH AVENUE, THEN 0.9 MILE WEST ALONG 390TH STREET, THEN 1.9 MILES NORTH ALONG COUNTY ROAD 118 (350TH AVENUE), 29.5 FEET WEST AND 4.0 FEET SOUTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.722 12B = -91.729 09 = -91.598 03 = -91.578

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 59 31.81697	95 51 23.54297	570463.950	263697.456	173877.760	80375.145	295.963		2012	GPS2800
NAD83(2007)	48 59 31.81706	95 51 23.54372	570463.900	263697.464	173877.744	80375.148	295.998	C	2009	GPS2522
NAD83(1996)	48 59 31.81694	95 51 23.54347	570463.916	263697.452	173877.750	80375.144	295.996	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_007-DL2390-3W-24JUN2020.jpg	W	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_007-DL2390-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_007-DL2390-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65845.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65845.pdf

RRWD 008

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RRWD 008 **NGS Name:** RRWD 008

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2391 Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	31	164 N	43 W	485940.58	961614.80		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2005	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 12 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 18 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2008) **Stamping:** 008

8.0 MILES EAST AND 1.0 MILE NORTH OF CARIBOU, 3.85 MILES NORTH, EAST, AND SOUTH ALONG COUNTY ROAD 53 FROM THE JUNCTION OF COUNTY ROAD 53 AND COUNTY ROAD 4 IN CARIBOU, THEN 3.1 MILES EAST AND NORTH ON 400TH STREET, THEN 4.1 MILES EAST ALONG 410TH STREET, 0.6 MILE EAST OF 155TH AVENUE, 16.0 FEET SOUTH OF 410TH STREET, 0.9 FOOT NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.361 12B = -90.367 09 = -90.279 03 = -90.134

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 59 40.57585	96 16 14.79464	471001.259	264472.493	143561.471	80611.377	287.015		2012	GPS2800
NAD83(2007)	48 59 40.57583	96 16 14.79555	471001.198	264472.492	143561.452	80611.377	287.049	C	2009	GPS2522
NAD83(1996)	48 59 40.57567	96 16 14.79565	471001.192	264472.475	143561.450	80611.372	287.048	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_008-DL2391-3SE-24JUN2020.jpg	SE	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_008-DL2391-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_008-DL2391-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65857.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65857.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RRWD 009 **NGS Name:** RRWD 009

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2392 Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	8	162 N	42 W	485236.20	960540.55		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2005	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2008) **Stamping:** 009

6.5 MILES NORTH AND 4.0 MILES WEST OF BADGER, 5.8 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 AT MILEPOINT 58.7, THEN 4.0 MILES WEST ALONG 330TH STREET, 266.0 FEET SOUTH OF 330TH STREET, 56.2 FEET EAST OF 240TH AVENUE, 31.0 FEET SOUTH OF A FIELD ENTRANCE, 1.0 FOOT NORTH OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.797 12B = -90.797 09 = -90.702 03 = -90.590

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 52 36.20078	96 05 40.55280	513333.464	221442.233	156464.353	67495.728	286.405		2012	GPS2800
NAD83(2007)	48 52 36.20077	96 05 40.55369	513333.405	221442.232	156464.335	67495.727	286.441	C	2009	GPS2522
NAD83(1996)	48 52 36.20068	96 05 40.55360	513333.411	221442.223	156464.337	67495.725	286.438	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_009-DL2392-3E-24JUN2020.jpg	E	Jun 24, 2020
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_009-DL2392-2-24JUN2020.jpg		Jun 24, 2020
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_009-DL2392-1-24JUN2020.jpg		Jun 24, 2020

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65858.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65858.pdf

RRWD 010

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: RRWD 010 **NGS Name:** RRWD 010

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2393 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	162 N	40 W	485145.06	954752.11		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2005	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2008) **Stamping:** 010

1.9 MILES NORTHWEST OF ROSEAU, 1.0 MILE WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89/TRUNK HIGHWAY 310 IN ROSEAU TO TRUNK HIGHWAY 11 MILEPOINT 69.65, THEN 1.0 MILE NORTH ALONG 380TH AVENUE, THEN 0.35 MILE WEST ALONG 320TH STREET, 47.0 FEET WEST OF A DRIVEWAY, 30.0 FEET NORTH OF 320TH STREET, 6.0 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.945 12B = -91.949 09 = -91.824 03 = -91.801

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 51 45.05881	95 47 52.10786	584784.920	216449.982	178242.800	65974.087	289.513		2012	GPS2800
NAD83(2007)	48 51 45.05888	95 47 52.10863	584784.869	216449.989	178242.785	65974.089	289.555	C	2009	GPS2522
NAD83(1996)	48 51 45.05861	95 47 52.10842	584784.883	216449.962	178242.789	65974.080	289.556	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_010-DL2393-3N-06OCT2021.jpg	N	Oct 6, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_010-DL2393-2-06OCT2021.jpg		Oct 6, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/RRWD_010-DL2393-1-06OCT2021.jpg		Oct 6, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65844.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65844.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: S 201 **NGS Name:** S 201

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	2	163 N	41 W	485751.00	955515.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2003	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

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

Description: (2003) **Stamping:** S 201 1935

4.0 MILES NORTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 10 AT ROSS, 1200.0 FEET OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 185+60.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.417 12B = -91.414 09 = -91.289 03 = -91.240

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27007.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27007.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: S 202 **NGS Name:** S 202

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0406 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	24	162 N	40 W	485046.06	954555.46	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2023	GOOD	Horz=NO Vert=YES	YES		PROJECTS 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (1998) **Stamping:** S 202 1935

IN ROSEAU, 0.15 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, THEN 0.15 MILE EAST ON COUNTY ROAD 72 (CENTER STREET WEST), IN THE NORTH LAWN OF THE OLD COUNTY COURTHOUSE, 142.0 FEET EAST OF 3RD AVENUE SOUTHWEST, 47.0 FEET SOUTH OF COUNTY ROAD 72 (CENTER STREET WEST), 64.8 FEET NORTHWEST OF A FLAGPOLE, 48.1 FEET NORTH-NORTHWEST OF THE NORTHEAST CORNER OF VITAL FITNESS (OLD COURTHOUSE), 47.6 FEET NORTH OF THE NORTH WALL FRONT OF VITAL FITNESS.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1049.499	0.016	319.888	0.005	2/1	2024	VTH310
NGVD29	1047.885	0.007	319.396	0.002	1/2	1992	UNCHECKD

Geoid Separations(ft): GEOID18 = -92.077 12B = -92.083 09 = -91.958 03 = -91.942

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/S_202-TC0406-3S-26JUL2023.jpg	S	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/S_202-TC0406-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/S_202-TC0406-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27008.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27008.pdf

S 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: S 220 RESET

NGS Name: S 220 RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	26	161 N	40 W	484358.00	954600.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2000)

Stamping: S 220 RESET 1946

8.0 MILES SOUTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11-TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 AT ROSEAU, 81.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 421+90.

Station Notes

MOST LIKELY GRADED OUT BY CONSTRUCTION.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.689 12B = -91.689 09 = -91.584 03 = -91.578

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27010.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27010.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: S 318 **NGS Name:** S 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0025 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	3	159 N	43 W	483723.50	961014.20	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2012	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 4 IN.	STEEL SPIKE ADJ TO MON

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (2003) **Stamping:** S 318 1940

4.8 MILES NORTH ON A RAILROAD FROM STRATHCONA, 5.50 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, AT TRUNK HIGHWAY 32 MILEPOINT 139.45, 32.8 FEET WEST-SOUTHWEST OF RAILROAD MILEPOST 55, 51.6 FEET WEST OF THE WEST RAIL OF THE RAILROAD TRACKS, 64.0 FEET NORTH OF THE END OF A RIGHT-OF-WAY FENCE, 4.0 FEET WEST OF THE EXTENDED RIGHT-OF-WAY FENCE, 2.0 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1087.586	0.016	331.497	0.005	2/1	2004	00000449
NGVD29	1086.130	0.007	331.053	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.266 12B = -90.256 09 = -90.134 03 = -90.220

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27011.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27011.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SANDY
NGS Name: SANDY

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CU8128 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	17	162 N	40 W	485143.00	955122.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	1941	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1928)

Stamping:

9.75 MILES SOUTH OF THE INTERNATIONAL BOUNDARY, ON A SANDY RIDGE ABOUT 98.4 FEET SOUTH OF THE NORTHWEST CORNER OF SECTION 17 T 162 N R 40 W, ON THE EAST SIDE OF THE ROAD LIMIT.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.660 12B = -91.663 09 = -91.542 03 = -91.512

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70222.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70222.pdf

SANDY AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SANDY AZ MK **NGS Name:** SANDY AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO8279 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	17	162 N	40 W	485220.00	955122.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2004	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	IBWC

Description: (2007) **Stamping:** SANDY 1941

0.7 MILE NORTH OF THE STATION, JUST OUTSIDE THE SOUTHEAST CORNER OF A FENCE PASTURE, 39.0 FEET WEST OF THE CENTERLINE OF THE SOUTH-SOUTHEAST OF A WHITE REFERENCE POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.666 12B = -91.670 09 = -91.545 03 = -91.519

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70223.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70223.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SANDY IBC
NGS Name: SANDY RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0750 Get Map
NGS Quad / Sta Num : 48095442/1006
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	17	162 N	40 W	485143.66	955121.25		1

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2004	NOT FOUND	Horz=? Vert=YES	NO		FLUSH	SEE DESCRIPTION

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

Description: (1987) **Stamping:** SANDY 1941

4.0 MILES NORTHWEST OF ROSEAU, 100.0 MILES SOUTH OF THE NORTHWEST CORNER OF SECTION 17, AT A JOGGED ROAD JUNCTION, 13.0 FEET WEST OF A NORTH-SOUTH DIRT ROAD, 30.0 FEET SOUTH OF AN EXTENDED ROAD TO EAST, 6.0 FEET SOUTHEAST OF A WITNESS POST, 113.5 FEET WEST-SOUTHWEST OF SANDY RM 1, 91.1 FEET NORTH-NORTHEAST OF SANDY RM 2.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.660 12B = -91.663 09 = -91.542 03 = -91.516

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 51 43.66396	95 51 21.24820	570800.167	216249.294	173980.239	65912.917	296.229	1	1999	17648
NAD83(1986)	48 51 43.65411	95 51 21.22549	570801.690	216248.302	173980.703	65912.614		1	1986	17289
NAD27	48 51 43.72300	95 51 20.24300						1	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27018.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27018.pdf

SANDY RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SANDY RM 1 **NGS Name:** SANDY RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO8280 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	17	162 N	40 W	485144.18	955119.74		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2004	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	IBWC

Description: (2007) **Stamping:** SANDY 1941

4.0 MILES NORTHWEST OF ROSEAU, 100.0 MILES SOUTH OF THE NORTHWEST CORNER OF SECTION 17, AT A JOGGED ROAD JUNCTION, 7.0 FEET NORTH OF THE CENTERLINE OF AN EAST-WEST DIRT ROAD AND 91.0 FEET EAST OF THE CENTERLINE OF A NORTH-SOUTH DIRT ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.660 12B = -91.663 09 = -91.542 03 = -91.516

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70224.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70224.pdf

SANDY RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SANDY RM 2 **NGS Name:** SANDY RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO8281 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	17	162 N	40 W	485142.83	955121.74		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1912	2004	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	IBWC

Description: (2007) **Stamping:** SANDY NO 2 1941

4.0 MILES NORTHWEST OF ROSEAU, 100.0 MILES SOUTH OF THE NORTHWEST CORNER OF SECTION 17, AT A JOGGED ROAD JUNCTION, 18.0 FEET WEST OF THE CENTERLINE OF A NORTH-SOUTH DIRT ROAD, 47.0 FEET NORTH OF THE NORTHWEST CORNER OF A CULTIVATED FIELD, AT THE EAST EDGE OF BRUSH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.660 12B = -91.663 09 = -91.542 03 = -91.516

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_70225.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_70225.pdf

SCHOENECK MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SCHOENECK MNDT **NGS Name:** SCHOENECK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DF8894 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	164 N	31 W	485842.17	955953.58	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 30 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** SCHOENECK 2003

2.0 MILES WEST OF PINECREEK, 2.3 MILES WEST ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 89 IN PINECREEK, 64.0 FEET NORTH OF COUNTY ROAD 3, 10.0 FEET WEST OF A FIELD ENTRANCE, 7.3 FEET NORTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1046.838	0.016	319.077	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.125 12B = -91.125 09 = -91.004 03 = -90.928

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 58 42.17238	95 59 53.58219	536455.261	258566.326	163511.891	78811.174	291.306		2012	GPS2800
NAD83(2007)	48 58 42.17250	95 59 53.58316	536455.196	258566.338	163511.871	78811.177	291.338		2007	GPS2300
NAD83(1996)	48 58 42.17220	95 59 53.58313	536455.199	258566.307	163511.872	78811.168	291.331	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SCHOENECK-DF8894-3N-11OCT2021.jpg	N	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SCHOENECK-DF8894-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SCHOENECK-DF8894-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50065.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50065.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SKAGEN **NGS Name:** SKAGEN

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG8551 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	12	161 N	42 W	484716.10	960027.68	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2004	2017	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2004) **Stamping:** SKAGEN 2004

IN BADGER, 0.4 MILE NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 58.35, 62.5 FEET WEST OF TRUNK HIGHWAY 11, 82.6 FEET SOUTHEAST OF NORTH MAIN STREET, 1.0 FOOT NORTH OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1077.458	0.016	328.410	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.089 12B = -91.092 09 = -90.984 03 = -90.945

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 47 16.10282	96 00 27.68034	534310.228	189026.918	162858.083	57615.520	300.664		2012	GPS2800
NAD83(2007)	48 47 16.10281	96 00 27.68114	534310.174	189026.917	162858.067	57615.520	300.699		2007	GPS2300
NAD83(1996)	48 47 16.10280	96 00 27.68104	534310.181	189026.916	162858.069	57615.519	300.697	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKAGEN-DG8551-3W-23JUN2014.jpg	W	Jun 23, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKAGEN-DG8551-2-23JUN2014.jpg		Jun 23, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKAGEN-DG8551-1-23JUN2014.jpg		Jun 23, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50886.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50886.pdf

SKAGEN RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SKAGEN RESET **NGS Name:** SKAGEN RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR6106 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	12	161 N	42 W	484716.10	960027.68		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2018	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 5 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:

Stamping: SKAGEN 2004 2018

IN BADGER, 0.4 MILE NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 58.35, 62.5 FEET WEST OF TRUNK HIGHWAY 11, 82.6 FEET SOUTHEAST OF NORTH MAIN STREET, 1.0 FOOT NORTH OF A WITNESS POST.

Station Pair: 6802 C - ROSEAU, MN

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.089 12B = -91.092 09 = -90.984 03 = -90.945

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 47 16.10248	96 00 27.68029	534310.232	189026.884	162858.084	57615.509	300.589		2020	GPS3390
NAD83(1996)	48 47 16.10232	96 00 27.68094	534310.188	189026.867	162858.071	57615.504	300.636	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKAGEN_RESET-DR6106-3W-02JUL2025.jpg	W	Jul 2, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKAGEN_RESET-DR6106-2-02JUL2025.jpg		Jul 2, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKAGEN_RESET-DR6106-1-02JUL2025.jpg		Jul 2, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_109277.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_109277.pdf

SKIME MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SKIME MNDT **NGS Name:** SKIME

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB9946 Get Map
NGS Quad / Sta Num : 48095423/
USGS Quad: WANNASKA SW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	24	159 N	40 W	483433.86	954401.27	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER IS STEEL ROD

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 20 FT)

Disk Type
METAL ROD

Mon. Agency
MNDT

Description: (2008) **Stamping:** SKIME 1994

5.7 MILES SOUTH OF WANNASKA, 5.7 MILE SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK IHGHWAY 80 AND THE ROSEAU RIVER IN WANNASKA, AT TRUNK HIGHWAY 89 MILEPOINT 105.85, 71.0 FEET WEST OF TRUNK HIGHWAY 89, 45.2 FEET SOUTH-SOUTHEAST OF A POLE, 23.0 FEET SOUTH OF A FIELD ENTRANCE, 12.2 FEET SOUTHEAST OF A GATE POST, 7.8 FEET NORTHEAST OF A RIGHT-OF-WAY MONUMENT, 5.0 FEET EAST OF A FENCE, 1.0 FOOT EAST OF A WITNESS POST.

Station Pair: BEMIS RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1154.555	0.016	351.909	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -90.594 12B = -90.587 09 = -90.502 03 = -90.515

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 34 33.85705	95 44 01.27160	600792.059	112017.213	183121.786	34142.915	324.284		2018	GPS3232
NAD83(2007)	48 34 33.85717	95 44 01.27244	600792.003	112017.224	183121.769	34142.918	324.317		2007	GPS2300
NAD83(1996)	48 34 33.85709	95 44 01.27259	600791.993	112017.216	183121.766	34142.916	324.311	B	2004	GPS1954

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKIME-AB9946-3W-07JUL2025.jpg	W	Jul 7, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKIME-AB9946-2-07JUL2025.jpg		Jul 7, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SKIME-AB9946-1-07JUL2025.jpg		Jul 7, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27019.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27019.pdf

SQUIRT MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SQUIRT MNDT **NGS Name:** SQUIRT

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8646 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	160 N	40 W	483738.14	954427.56	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (<10 FT) (DEPTH 10 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2008)

Stamping: SQUIRT 1998

2.2 MILES SOUTH OF THE ROSEAU RIVER IN WANNASKA TO TRUNK HIGHWAY 89 MILEPOINT 109.40, THEN 0.3 MILE WEST ON COUNTY ROAD 8, 64.0 FEET NORTH OF COUNTY ROAD 8, 100.5 FEET EAST-SOUTHEAST OF A POWER POLE, 9.0 FEET WEST OF AN ENTRANCE, 2.7 FEET EAST OF A WITNESS POST.

Station Notes
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1118.587	0.016	340.946	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.096 12B = -91.112 09 = -91.004 03 = -90.978

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 37 38.14417	95 44 27.55630	598924.118	130684.517	182552.436	39832.720	313.177		2012	GPS2800
NAD83(2007)	48 37 38.14447	95 44 27.55696	598924.073	130684.547	182552.423	39832.730	313.210		2007	GPS2300
NAD83(1996)	48 37 38.14438	95 44 27.55704	598924.068	130684.538	182552.421	39832.727	313.204	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SQUIRT-AJ8646-3N-01AUG2007.jpg	N	Aug 1, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SQUIRT-AJ8646-2-01AUG2007.jpg		Aug 1, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SQUIRT-AJ8646-1-01AUG2007.jpg		Aug 1, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36743.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36743.pdf

SQUIRT RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SQUIRT RESET
NGS Name: SQUIRT RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8840 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	36	160 N	40 W	483738.14	954427.56	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 4 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 10 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: SQUIRT 1998 2012

2.2 MILES SOUTH OF WANNASKA, 2.2 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE ROSEAU RIVER IN WANNASKA TO TRUNK HIGHWAY 89 MILEPOINT 109.40, THEN 0.3 MILE WEST ON COUNTY ROAD 8 (160TH STREET), 64.0 FEET NORTH OF COUNTY ROAD 8, 100.5 FEET EAST-SOUTHEAST OF A POWER POLE, 9.0 FEET WEST OF DRIVEWAY NUMBER 39705, 2.7 FEET EAST OF A WITNESS POST.

Station Pair: PALMVIL MNDT - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1118.328	0.016	340.867	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.096 12B = -91.112 09 = -91.004 03 = -90.978

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 37 38.14409	95 44 27.55638	598924.113	130684.508	182552.435	39832.718	313.103		2018	GPS3232
NAD83(1996)	48 37 38.14400	95 44 27.55701	598924.071	130684.499	182552.422	39832.715	313.152	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SQUIRT_RESET-DO8840-3N-05SEP2012.jpg	N	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SQUIRT_RESET-DO8840-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SQUIRT_RESET-DO8840-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97515.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97515.pdf

Geodetic Data Sheet (Brief)
GSID Station # 101980

STANLEY

04/28/2026
Sheet Help

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: STANLEY
NGS Name: STANLEY

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9463 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	28	162 N	41 W	484909.73	955740.84	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 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: (2014)

Stamping: STANLEY 2014

4.3 MILES NORTHEAST OF BADGER, 3.5 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 61.50, 71.1 FEET NORTHWEST OF TRUNK HIGHWAY 11, 22.0 FEET NORTHEAST OF A FIELD ENTRANCE, 1.5 FEET SOUTHEAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1076.087	0.016	327.992	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.220 12B = -91.220 09 = -91.115 03 = -91.073

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 49 09.73329	95 57 40.83868	545455.135	200567.743	166255.058	61133.170	300.211		2020	GPS3390
NAD83(1996)	48 49 09.73314	95 57 40.83935	545455.091	200567.728	166255.044	61133.166	300.260	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STANLEY-DP9463-3NW-03JUL2025.jpg	NW	Jul 3, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STANLEY-DP9463-2-03JUL2025.jpg		Jul 3, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STANLEY-DP9463-1-03JUL2025.jpg		Jul 3, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101980.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101980.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: STELLA **NGS Name:** STELLA

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9467 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	40 W	485051.98	955004.16	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 45 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014) **Stamping:** STELLA 2014

3.1 MILES WEST OF ROSEAU, 3.05 MILES WEST ALONG TRUNK HIGHWAY 11/TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 67.65, 38.3 FEET SOUTH OF TRUNK HIGHWAY 11, 93.8 FEET WEST OF COUNTY ROAD 15, 1.5 FEET NORTH OF A WITNESS POST.

Station Pair: WAAGE - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1071.766	0.016	326.675	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.749 12B = -91.752 09 = -91.627 03 = -91.604

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 51.98451	95 50 04.15513	575977.148	211032.135	175558.186	64322.723	298.740		2020	GPS3390
NAD83(1996)	48 50 51.98435	95 50 04.15580	575977.103	211032.118	175558.172	64322.718	298.789	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STELLA-DP9467-3S-26JUL2023.jpg	S	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STELLA-DP9467-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STELLA-DP9467-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101983.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101983.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: STRATH MNDT **NGS Name:** STRATH

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB9949 Get Map
NGS Quad / Sta Num : 48096122/
USGS Quad: GREENBUSH SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	30	159 N	42 W	483421.01	960632.70	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2017	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
STEEL ROD (IN SLEEVE) (DEPTH 28 FT)	METAL ROD	MNDT

Description: (2008) **Stamping:** STRATH 1994

9.5 MILES SOUTH-SOUTHEAST OF GREENBUSH, 8.9 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH TO TRUNK HIGHWAY 32 MILEPOINT 136.05, THEN 2.75 MILES EAST ON COUNTY ROAD 6, 46.6 FEET SOUTH OF COUNTY ROAD 6, 22.0 FEET EAST OF A FIELD ENTRANCE, 12.3 FEET OF NORTH-NORTHEAST OF THE EAST END OF A 24.0 INCH DIAMETER METAL CULVERT, 4.9 FEET WEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1127.406	0.016	343.634	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.908 12B = -89.908 09 = -89.787 03 = -89.885

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 34 21.01293	96 06 32.70129	509906.839	110442.770	155419.915	33663.024	316.239		2018	GPS3227
NAD83(2007)	48 34 21.01306	96 06 32.70236	509906.767	110442.783	155419.894	33663.028	316.270		2007	GPS2300
NAD83(1996)	48 34 21.01292	96 06 32.70224	509906.775	110442.769	155419.896	33663.023	316.263	B	2004	GPS1954

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STRATH-AB9949-3S-10JUL2012.jpg	S	Jul 10, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STRATH-AB9949-2-10JUL2012.jpg		Jul 10, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/STRATH-AB9949-1-10JUL2012.jpg		Jul 10, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27020.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27020.pdf

STRATHCONA GUSTAV VASA LUTH CH

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: STRATHCONA GUSTAV VASA LUTH CH **NGS Name:** STRATHCONA GUSTAV VASA LUTH CH

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	35	159 N	42 W	483321.06	961007.94		4

NGS ACRN: TD0912 Get Map
NGS Quad / Sta Num : 48096123/1013
USGS Quad: STRATHCONA

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
SEE DESCRIPTIVE TEXT	CHURCH CROSS	NGS

Description: (1941) **Stamping:**

16.18 MILES EAST OF KARLSTAD, 5.73 MILES EAST ALONG COUNTY ROAD 9 FROM THE JUNCTION OF COUNTY ROAD 9 AND TRUNK HIGHWAY 59 IN KARLSTAD, 9.98 MILES EAST ALONG COUNTY ROAD 6, 1.21 MILES SOUTH ALONG TRUNK HIGHWAY 32, 72.0 FEET EAST OF TRUNK HIGHWAY 32.

Station Notes

THE CHURCH IS IN PLACE, BUT THE SPIRE IS GONE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -89.754 12B = -89.780 09 = -89.649 03 = -89.724

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 33 21.05520	96 10 07.93844	495429.173	104364.102	151007.114	31810.242		4	1999	17648
NAD83(1986)	48 33 21.04819	96 10 07.92317	495430.200	104363.391	151007.427	31810.025		4	1986	17289
NAD27	48 33 21.14000	96 10 06.87000						4	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27021.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27021.pdf

SUNSTEN MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: SUNSTEN MNDT **NGS Name:** SUNSTEN

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8665 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	36	162 N	40 W	484908.35	954604.26	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2025	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 20 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1999) **Stamping:** SUNSTEN 1998

2.0 MILES SOUTH OF ROSEAU, 2.05 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 123.3, 85.0 FEET EAST OF TRUNK HIGHWAY 89 MILEPOINT 123.3, 53.0 FEET SOUTH OF 290TH STREET, 3.0 FEET NORTH OF A POWER POLE, 2.6 FEET EAST OF A WITNESS POST.

Station Pair: LUNG RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1056.248	0.016	321.945	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -92.011 12B = -92.014 09 = -91.899 03 = -91.883

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 49 08.34697	95 46 04.26347	592076.166	200601.882	180465.176	61143.576	293.892		2018	GPS3232
NAD83(2007)	48 49 08.34696	95 46 04.26439	592076.105	200601.880	180465.158	61143.575	293.929		2007	GPS2300
NAD83(1996)	48 49 08.34661	95 46 04.26421	592076.117	200601.845	180465.161	61143.565	293.935	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SUNSTEN-AJ8665-3E-08DEC2025.jpg	E	Dec 8, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SUNSTEN-AJ8665-2-08DEC2025.jpg		Dec 8, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/SUNSTEN-AJ8665-1-08DEC2025.jpg		Dec 8, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_37005.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_37005.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: T 201 **NGS Name:** T 201

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	163 N	41 W	485804.00	955515.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2003	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2003) **Stamping:** T 201 1935

3.1 MILES NORTH OF ROSS, 34.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 239+30, THE STATION FALLS IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.420 12B = -91.417 09 = -91.292 03 = -91.243

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27023.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27023.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: T 220 **NGS Name:** T 220

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	36	161 N	40 W	484356.00	954558.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	CGS

Description: (1946) **Stamping:** T 220 1935

5.4 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM BRIDGE NUMBER 6601 IN WANNASKA, 150.0 FEET RIGHT OF TRUNK HIGHWAY 89 STATION 474+05.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.689 12B = -91.689 09 = -91.584 03 = -91.578

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_71987.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_71987.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: T 318 **NGS Name:** T 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0027 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	14	159 N	43 W	483539.59	961013.16	1	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2012	DESTROYED	Horz=NO Vert=NO	YES		PROJECTS 2 IN.	STEEL ROD IMBED IN MON

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
BENCH MARK DISK

Mon. Agency
NGS

Description: (2003) **Stamping:** T 318 1940

7.5 MILES SOUTH OF GREENBUSH, 2.8 MILES NORTH ON A RAILROAD FROM STRATHCONA, 7.5 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH, 41.5 FEET SOUTHWEST OF RAILROAD MILEPOST 53, 46.6 FEET WEST OF THE WEST RAIL OF A RAILROAD, AT TRUNK HIGHWAY 32 MILEPOINT 137.45, 2.0 FEET NORTH OF A WITNESS POST. FOUND THE CONCRETE HIT BY A FARMER.

Station Notes

USE CAUTION IN DRIVING OUT TO THE MARK, CATALYTIC CONVERTER ON VEHICLE MAY START A GRASS FIRE. PACK TO STATION AND USE BATTERIES. FOUND CONCRETE HIT BY FARMER.
THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1101.845	0.007	335.843	0.002	1/2	2004	00000425-3
NGVD29	1100.526	0.007	335.441	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.049 12B = -90.052 09 = -89.918 03 = -90.010

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 35 39.59227	96 10 13.15689	495081.826	118404.614	150901.242	36089.799	308.431		2012	GPS2800
NAD83(2007)	48 35 39.59231	96 10 13.15790	495081.758	118404.618	150901.222	36089.800	308.464	C	2009	GPS2522
NAD83(1996)	48 35 39.59218	96 10 13.15780	495081.765	118404.605	150901.224	36089.796	308.457	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/T_318-TD0027-3W-31JUL2007.jpg	W	Jul 31, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/T_318-TD0027-2-31JUL2007.jpg		Jul 31, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/T_318-TD0027-1-31JUL2007.jpg		Jul 31, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27026.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27026.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: T 368 **NGS Name:** T 368

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0517 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	13	162 N	40 W	485053.51	954526.08	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2023	GOOD	Horz=NO Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
STEEL ROD (NO SLEEVE) (DEPTH 32 FT)	METAL ROD	NGS

Description: (1996) **Stamping:** T 368 1981

IN ROSEAU, 0.5 MILE EAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, 52.0 FEET NORTH OF TRUNK HIGHWAY 11 (3RD STREET), 138.0 FEET EAST OF 4TH AVENUE NORTHEAST, 38.0 FEET EAST-NORTHEAST OF A TELEPHONE JUNCTION BOX, 11.0 FEET NORTH OF THE SOUTH END OF A FENCE, 102.0 FEET SOUTH-SOUTHWEST OF THE SOUTHWEST CORNER OF THE HIGH SCHOOL, 14.0 FEET WEST-NORTHWEST OF THE NORTHWEST EDGE OF A SIDEWALK, 0.5 FOOT EAST OF A FENCE, 1.0 FOOT 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 Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1048.384	0.016	319.548	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -92.119 12B = -92.123 09 = -92.001 03 = -91.985

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/T_368-TC0517-3W-26JUL2023.jpg	W	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/T_368-TC0517-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/T_368-TC0517-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27027.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27027.pdf

TBM 1 VPINE2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TBM 1 VPINE2 **NGS Name:** TBM 1 VPINE2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR8804 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	10	162 N	41 W	485328.77	955514.50	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=NO Vert=NO	YES		FLUSH	MARKER IS STEEL ROD

Monument Type	Disk Type	Mon. Agency
IRON ROD (DEPTH 3 FT)	METAL ROD	MNDT

Description: (2023) **Stamping:**

2.0 MILES SOUTH OF ROSS, 2.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 148 IN ROSS, AT TRUNK HIGHWAY 89 MILEPOINT 134.40, 51.0 FEET WEST OF TRUNK HIGHWAY 89, 11.2 FEET SOUTH OF THE MELLUM CEMETERY ENTRANCE, 1.7 FEET EAST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1039.650	0.016	316.886	0.005	2/1	2023	VPINE2

No Geoid Separations Available

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110787.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110787.pdf

TBM 1 VSTRA

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TBM 1 VSTRA **NGS Name:** TBM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4570 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	26	159 N	43 W	483422.00	960923.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	SEE DESCRIPTION	MNDT

Description: (2013) **Stamping:**

TBM 1 VSTRA, 0.1 MILE EAST ALONG COUNTY ROAD 6 FROM THE JUNCTION OF COUNTY ROAD 6 AND TRUNK HIGHWAY 32 (THE JUNCTION IS 1.0 MILE NORTH OF STRATHCONA), 33.0 FEET NORTH OF COUNTY ROAD 6, 15.0 FEET WEST OF AN ENTRANCE, A 24.0 INCH DIAMETER IRON PIN SET IN THE SHOULDER.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1117.081	0.016	340.487	0.005	2/1	2004	00000425-3

Geoid Separations(ft): GEOID18 = -89.872 12B = -89.888 09 = -89.757 03 = -89.836

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_57871.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_57871.pdf

TBM 2 VPINE2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TBM 2 VPINE2 **NGS Name:** TBM 2 VPINE2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DR8805 Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	33	164 N	41 W	485842.27	955654.91	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2023	2023	GOOD	Horz=NO Vert=NO	YES		FLUSH	MARKER IS STEEL ROD

Monument Type	Disk Type	Mon. Agency
IRON ROD (DEPTH 3 FT)	METAL ROD	MNDT

Description: (2023) **Stamping:**

1.0 MILE NORTHWEST OF PINECREEK, 0.8 MILE NORTHWEST ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND COUNTY ROAD 3 IN PINECREEK, AT TRUNK HIGHWAY 89 MILEPOINT 142.7, 30.2 FEET NORTHEAST OF TRUNK HIGHWAY 89, 1.5 FEET SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1049.030	0.016	319.745	0.005	2/1	2023	VPINE2

No Geoid Separations Available

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_110791.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_110791.pdf

TBM 2 VSTRA

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TBM 2 VSTRA
NGS Name: TBM 2
County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4571 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	159 N	43 W	483422.00	960853.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON ROD	SEE DESCRIPTION	MNDT

Description:

TBM 2 VSTRA, 1.1 MILES EAST ALONG COUNTY ROAD 6 FROM THE JUNCTION OF COUNTY ROAD 6 AND TRUNK HIGHWAY 32 (THE JUNCTION IS 1.0 MILE NORTH OF STRATHCONA), 34.0 FEET NORTH OF COUNTY ROAD 6, 21.0 FEET WEST OF AN ENTRANCE, A 24.0-INCH DIAMETER IRON PIN SET IN THE SHOULDER.

Stamping:

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1118.649	0.016	340.965	0.005	2/1	2004	00000425-3

Geoid Separations(ft): GEOID18 = -89.872 12B = -89.888 09 = -89.757 03 = -89.839

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_57687.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_57687.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TBM 5 L3605 **NGS Name:** TBM 5

County: ROSEAU, MN (Sheet 1)

NGS ACRN: BI5408 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	10	160 N	43 W	484144.00	961057.00		

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:

IN GREENBUSH, 0.12 MILE WEST ALONG 200TH STREET FROM THE JUNCTION OF 200TH STREET AND TRUNK HIGHWAY 32 IN GREENBUSH.

Stamping:

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.577 12B = -90.577 09 = -90.459 03 = -90.482

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_62022.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_62022.pdf

TBM CHECK POINT 3001 VGRYG

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TBM CHECK POINT 3001 VGRYG **NGS Name:** TBM CHECK POINT 3001

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7872 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	22	162 N	40 W	485051.00	954835.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2011	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type
SEE DESCRIPTIVE TEXT

Disk Type
SEE DESCRIPTION

Mon. Agency
MNDT

Description:

2.1 MILES WEST OF ROSEAU, 1.9 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAYS 11 (3RD STREET NORTHWEST) AND 310 (5TH AVENUE) IN ROSEAU.

Stamping:

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1057.865	0.016	322.438	0.005	2/1	2000	VGRYG

Geoid Separations(ft): GEOID18 = -91.867 12B = -91.873 09 = -91.749 03 = -91.726

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_57818.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_57818.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TICK MNDT **NGS Name:** TICK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DG4573 Get Map
NGS Quad / Sta Num : 48096122/
USGS Quad: GREENBUSH SE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	159 N	42 W	483422.00	960703.08	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2021	GOOD	Horz=YES Vert=YES	YES		FLUSH	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (2003) **Stamping:** TICK 2003

9.5 MILES SOUTHEAST OF GREENBUSH, 8.9 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11 IN GREENBUSH TO TRUNK HIGHWAY 32 MILEPOINT 136.05, THEN 2.35 MILES EAST ON COUNTY ROAD 6, 42.5 FEET NORTH OF COUNTY ROAD 6, 25.0 FEET EAST OF AN ENTRANCE, 1.1 FEET SOUTH OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1126.582	0.016	343.383	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -89.901 12B = -89.901 09 = -89.777 03 = -89.875

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 34 22.00132	96 07 03.07793	507863.761	110541.957	154797.184	33693.256	315.989		2012	GPS2800
NAD83(2007)	48 34 22.00142	96 07 03.07898	507863.691	110541.968	154797.163	33693.259	316.021	C	2009	GPS2522
NAD83(1996)	48 34 22.00128	96 07 03.07887	507863.698	110541.953	154797.165	33693.255	316.013	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TICK-DG4573-3N-11OCT2021.jpg	N	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TICK-DG4573-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TICK-DG4573-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_50171.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_50171.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TOBA MNDT **NGS Name:** TOBA

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB9952 Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	25	164 N	40 W	485955.37	954558.67	2	B

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 48 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (2012) **Stamping:** TOBA 1994

10.0 MILES NORTH OF ROSEAU, 10.35 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 310 MILEPOINT 10.45, ABOUT 300.0 FEET NORTHEAST OF THE AMERICAN CUSTOM OFFICE, 96.6 FEET NORTH OF A POWER POLE, 81.0 FEET EAST-SOUTHEAST OF TRUNK HIGHWAY 310, 29.3 FEET EAST-SOUTHEAST OF THE NORTH END OF AN 18.0 INCH DIAMETER METAL CULVERT, 19.0 FEET NORTH-NORTHEAST OF A FIELD ENTRANCE, 5.1 FEET SOUTH-SOUTHWEST OF A WITNESS POST.

Station Notes

THE STATION IS A PUNCH MARK ON A 0.5 INCH DIAMETER BY 48.0 FEET LONG DRIVEN STAINLESS STEEL ROD WITH AN ACCESS COVER AND PINK PLASTIC STABILIZER SLEEVE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1084.617	0.016	330.592	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -92.139 12B = -92.152 09 = -92.024 03 = -92.037

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 59 55.36892	95 45 58.66962	592120.285	266180.839	180478.624	81132.082	302.500		2018	GPS3119
NAD83(2007)	48 59 55.36903	95 45 58.67048	592120.228	266180.850	180478.606	81132.085	302.531		2007	GPS2300
NAD83(1996)	48 59 55.36978	95 45 58.66942	592120.298	266180.926	180478.628	81132.109	302.525	B	2004	GPS1954

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TOBA-AB9952-3E-26JUL2023.jpg	E	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TOBA-AB9952-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TOBA-AB9952-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27029.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27029.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TOKES **NGS Name:** TOKES

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8825 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	13	161 N	40 W	484632.79	954600.76	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	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: (2012) **Stamping:** TOKES 2012

5.0 MILES SOUTH OF ROSEAU, 4.95 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89, TRUNK HIGHWAY 310, AND TRUNK HIGHWAY 11 IN ROSEAU, AT TRUNK HIGHWAY 89 MILEPOINT 120.25, 72.2 FEET EAST OF TRUNK HIGHWAY 89, 25.6 FEET SOUTH OF COUNTY ROAD 2 (260TH STREET) EXTENDED, 17.2 FEET SOUTH OF A FIELD ROAD, 1.5 FEET NORTH OF A WITNESS POST.

Station Pair: CLEMENT RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1059.381	0.016	322.900	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.876 12B = -91.873 09 = -91.765 03 = -91.762

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 46 32.78819	95 46 00.76383	592389.672	184837.197	180560.733	56338.490	294.901		2018	GPS3232
NAD83(1996)	48 46 32.78813	95 46 00.76438	592389.635	184837.190	180560.722	56338.488	294.955	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TOKES-DO8825-3E-09OCT2012.jpg	E	Oct 9, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TOKES-DO8825-2-09OCT2012.jpg		Oct 9, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TOKES-DO8825-1-09OCT2012.jpg		Oct 9, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97913.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97913.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TRWD 006 **NGS Name:** TRWD 006

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	161 N	43 W	484730.31	960824.15		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2005	2008	GOOD	Horz=YES Vert=YES	NO		RECESSED 3 IN.	MARKER IS STEEL ROD

Monument Type
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)

Disk Type
SEE DESCRIPTION

Mon. Agency

Description: (2007) **Stamping:** 006

0.6 MILE NORTH AND 6.0 MILES WEST OF BADGER, 5.9 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 4 IN GREENBUSH, THEN 2.0 MILES EAST ON 270TH STREET, THEN 400.0 FEET NORTH OF 270TH STREET, 18.0 FEET NORTHWEST OF THE NORTH END OF AN 18.0 INCH DIAMETER CORRUGATED METAL PIPE, 66.6 FEET NORTHWEST OF THE SOUTH END OF AN 18.0 INCH DIAMETER CORRUGATED METAL PIPE, 46.7 FEET NORTH OF THE CENTERLINE OF A DRIVEWAY, 45.7 FEET WEST OF THE CENTERLINE OF COUNTY ROAD 11, 1.15 FEET SOUTHEAST OF A WITNESS POST.

Station Notes
SET BY J.O.R, ENGINEERING FOR TWO RIVERS WATERSHED DISTRICT 05-02-03.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.807 12B = -90.813 09 = -90.708 03 = -90.633

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65855.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65855.pdf

Geodetic Data Sheet (Brief)
GSID Station # 69630

TRWD 014

04/28/2026
Sheet Help

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TRWD 014 **NGS Name:** TRWD 014

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2400 Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	26	160 N	41 W	483926.88	955404.72		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2002	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 6 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2008) **Stamping:** 014

10.0 MILES SOUTH-SOUTHEAST OF BADGER, 8.9 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND COUNTY ROAD 2 IN BADGER, THEN 4.3 MILES EAST ON 180TH STREET, 50.4 FEET SOUTH OF 180TH STREET, 14.5 FEET NORTHWEST OF A TRAIL, 0.6 FEET SOUTHEAST OF A CAMPING PERMITTED SIGN POST, 3.7 FEET NORTH OF A WITNESS POST.

Station Notes
SET BY J.O.R, ENGINEERING FOR TWO RIVERS WATERSHED DISTRICT 05-02-03.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.804 12B = -90.820 09 = -90.699 03 = -90.725

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 39 26.87607	95 54 04.71499	560112.711	141536.918	170722.696	43140.539	318.676		2012	GPS2800
NAD83(2007)	48 39 26.87615	95 54 04.71585	560112.654	141536.926	170722.678	43140.541	318.712	C	2009	GPS2522
NAD83(1996)	48 39 26.87602	95 54 04.71580	560112.657	141536.913	170722.679	43140.537	318.705	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_014-DL2400-3S-12OCT2021.jpg	S	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_014-DL2400-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_014-DL2400-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_69630.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_69630.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TRWD 015 **NGS Name:** TRWD 015

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2401 Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	33	160 N	41 W	483745.61	955628.22		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2002	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2007) **Stamping:** 015

11.2 MILES SOUTHEAST OF BADGER, 11.0 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND COUNTY ROAD 2 AND TRUNK HIGHWAY 11 IN BADGER, THEN 2.5 MILES EAST ON 160TH STREET (MINIMUM MAINTENANCE ROAD), 85.0 FEET NORTH OF 160TH STREET, 17.5 FEET WEST OF A TRAIL, 3.0 FEET NORTHWEST OF A WATER FOWLERS SIGN POST, 3.0 FEET NORTH OF A WITNESS POST.

Station Notes

SET BY J.O.R, ENGINEERING FOR TWO RIVERS WATERSHED DISTRICT 05-02-02.
THE MINIMUM MAINTENANCE ROAD MAY BE IMPASSABLE IN THE WINTER. THE ROD DEPTH IS UNKNOWN.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.531 12B = -90.515 09 = -90.426 03 = -90.479

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 37 45.61189	95 56 28.21569	550505.706	131245.040	167794.475	40003.568	320.886		2012	GPS2800
NAD83(2007)	48 37 45.61196	95 56 28.21657	550505.647	131245.047	167794.457	40003.570	320.929	C	2009	GPS2522
NAD83(1996)	48 37 45.61179	95 56 28.21649	550505.653	131245.030	167794.459	40003.565	320.909	C	2008	HRO50

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_015-DL2401-3W-11OCT2021.jpg	W	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_015-DL2401-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_015-DL2401-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_69633.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_69633.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TRWD 020 **NGS Name:** TRWD 020

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2402 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	7	161 N	41 W	484632.72	955514.00		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2021	GOOD	Horz=YES Vert=YES	NO		RECESSED 3 IN.	MARKER IS STEEL ROD

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2008) **Stamping:** 020

4.0 MILES EAST AND 0.5 MILE SOUTH OF BADGER, 5.0 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU TO MILEPOINT 120.35, THEN 7.0 MILES WEST ALONG COUNTY ROAD 2, 84.0 FEET NORTH OF COUNTY ROAD 2 (260TH STREET), 53.0 FEET EAST OF 320TH AVENUE, 51.5 FEET NORTHEAST OF THE EAST END OF A 24.0 INCH DIAMETER CORRUGATED METAL PIPE, 8.0 FEET NORTH OF A TELEPHONE PEDESTAL, 5.0 FEET NORTH OF A WITNESS POST.

Station Notes
SET BY J.O.R, ENGINEERING FOR TWO RIVERS WATERSHED DISTRICT 05-02-03.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.292 12B = -91.286 09 = -91.191 03 = -91.181

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 46 32.71850	95 55 13.99654	555330.933	184681.153	169265.207	56290.928	307.596		2012	GPS2800
NAD83(2007)	48 46 32.71853	95 55 13.99740	555330.876	184681.156	169265.189	56290.929	307.633	C	2009	GPS2522
NAD83(1996)	48 46 32.71845	95 55 13.99735	555330.879	184681.148	169265.190	56290.926	307.628	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_020-DL2402-3E-12OCT2021.jpg	E	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_020-DL2402-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_020-DL2402-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65842.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65842.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TRWD 021 **NGS Name:** TRWD 021

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2403 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	31	160 N	42 W	483839.73	960701.04		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2008) **Stamping:** 021

3.0 MILES SOUTHEAST OF GREENBUSH, 3.5 MILES SOUTH ALONG TRUNK HIGHWAY 32 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 TO TRUNK HIGHWAY 32 MILEPOINT 141.15, THEN 2.53 MILES EAST ON COUNTY ROAD 22, 68.0 FEET SOUTH OF COUNTY ROAD 22, 43.0 FEET EAST OF A DRIVEWAY, 6.3 FEET WEST-NORTHWEST OF A PEDESTAL, 31.0 FEET SOUTHEAST OF THE EAST END OF A CULVERT, 5.0 FEET EAST OF A WITNESS POST.

Station Notes
SET BY J.O.R, ENGINEERING FOR TWO RIVERS WATERSHED DISTRICT 05-02-03.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.410 12B = -90.394 09 = -90.282 03 = -90.357

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 38 39.73253	96 07 01.04249	507989.329	136662.603	154835.457	41654.845	306.384		2012	GPS2800
NAD83(2007)	48 38 39.73255	96 07 01.04340	507989.267	136662.605	154835.438	41654.845	306.422	C	2009	GPS2522
NAD83(1996)	48 38 39.73244	96 07 01.04328	507989.276	136662.594	154835.441	41654.842	306.416	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_021-DL2403-3S-11OCT2021.jpg	S	Oct 11, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_021-DL2403-2-11OCT2021.jpg		Oct 11, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_021-DL2403-1-11OCT2021.jpg		Oct 11, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_69640.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_69640.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TRWD 027 **NGS Name:** TRWD 027

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2404 Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	20	162 N	43 W	485056.02	961501.98		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2003	2021	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 12 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2007) **Stamping:** 027

10.8 MILES NORTHWEST OF GREENBUSH, 9.9 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 7 AND COUNTY ROAD 4 IN GREENBUSH, THEN 3.0 MILES WEST ALONG COUNTY ROAD 7, 97.5 FEET SOUTH OF COUNTY ROAD 7, 42.0 FEET EAST OF 170TH AVENUE, 23.0 FEET EAST-NORTHEAST OF THE NORTH END OF A 24.0 INCH DIAMETER CORRUGATED METAL PIPE, 5.0 FEET WEST OF A WITNESS POST.

Station Notes
SET BY J.O.R, ENGINEERING FOR TWO RIVERS WATERSHED DISTRICT 05-02-03.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.499 12B = -90.512 09 = -90.420 03 = -90.289

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 56.02266	96 15 01.97539	475787.790	211300.067	145020.408	64404.389	284.966		2012	GPS2800
NAD83(2007)	48 50 56.02262	96 15 01.97632	475787.728	211300.063	145020.389	64404.388	285.002	C	2009	GPS2522
NAD83(1996)	48 50 56.02248	96 15 01.97630	475787.729	211300.049	145020.390	64404.384	285.003	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_027-DL2404-3S-12OCT2021.jpg	S	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_027-DL2404-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_027-DL2404-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65856.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65856.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TRWD 031 **NGS Name:** TRWD 031

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9461 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	32	162 N	41 W	484817.38	955904.08	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2005	2025	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 22 FT)

Disk Type
SURVEY DISK

Mon. Agency

Description: (2014) **Stamping:** 031

2.5 MILES NORTHEAST OF BADGER, 2.05 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND COUNTY ROAD 2 IN BADGER TO TRUNK HIGHWAY 11 MILEPOINT 60, THEN 0.1 MILE SOUTHEAST ON COUNTY ROAD 114, 158.0 FEET NORTHEAST OF COUNTY ROAD 114, 19.5 FEET SOUTHEAST OF OLD TRUNK HIGHWAY 11, 4.0 FEET SOUTHWEST OF A WITNESS POST.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1084.122	0.016	330.441	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.155 12B = -91.161 09 = -91.053 03 = -91.007

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 48 17.38266	95 59 04.07791	539895.610	195248.996	164560.511	59512.013	302.685		2020	GPS3390
NAD83(1996)	48 48 17.38250	95 59 04.07857	539895.566	195248.979	164560.498	59512.008	302.734	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_031-DP9461-3SE-02JUL2025.jpg	SE	Jul 2, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_031-DP9461-2-02JUL2025.jpg		Jul 2, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TRWD_031-DP9461-1-02JUL2025.jpg		Jul 2, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_65843.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_65843.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 1 L

NGS Name: TT 1 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	163 N	41 W	485422.00	960024.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1966)

Stamping: TT 1 L 1929

8.0 MILES NORTH AND 0.5 MILE EAST OF BADGER, 2.0 FEET NORTH AND 76.0 FEET EAST OF A FENCE CORNER.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.046 12B = -91.043 09 = -90.938 03 = -90.856

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27031.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27031.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 10 L

NGS Name: TT 10 L

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	163 N	44 W	485604.00	961620.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON POST	BENCH MARK DISK	USGS

Description:

Stamping: TT 10 L 1929

8.6 MILES SOUTHEAST OF CARIBOU, 2.0 MILES EAST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 53 IN CARIBOU, THEN 0.2 MILE NORTH AND 2.0 MILES EAST ON COUNTY ROAD 24, THEN 4.8 MILES SOUTH AND EAST ON DIKE ROAD, 1.0 MILE SOUTH OF A ROAD ON THE NORTH SIDE OF THE ROSEAU RIVER.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.315 12B = -90.321 09 = -90.233 03 = -90.105

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80307.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80307.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 11 L

NGS Name: TT 11 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096141/
USGS Quad: CARIBOU NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	164 N	43 W	485802.00	961619.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
IRON POST	BENCH MARK DISK	USGS

Description:

Stamping: TT STA NO 11 L 1929

8.0 MILES EAST OF CARIBOU, 2.0 MILES EAST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 53 IN CARIBOU, THEN 0.1 MILE NORTH AND 2.0 MILES WEST ON COUNTY ROAD 24, THEN CONTINUE ON A ROAD 1.0 MILE NORTH AND 4.0 MILES EAST, 1.0 MILE SOUTH OF A ROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.325 12B = -90.328 09 = -90.243 03 = -90.105

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80233.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80233.pdf

TT 12 H RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 12 H RESET

NGS Name: TT 12 H RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	17	162 N	44 W	485058.00	962136.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096142/
USGS Quad: LEO

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1965) **Stamping:** TT 12 H 1929 RESET 1965

10.0 MILES NORTH AND 8.0 MILES WEST OF GREENBUSH, 94.0 FEET NORTH AND 29.0 FEET WEST OF COUNTY ROAD 7 AT A CROSSROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.285 12B = -90.302 09 = -90.200 03 = -90.082

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27032.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27032.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 17 H **NGS Name:** TT 17 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2405 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	19	161 N	43 W	484447.63	961619.96		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 3 IN.	STEEL ROD IMBED IN MON

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

Description: (2008) **Stamping:** H 17 1929

5.2 MILES NORTHWEST OF GREENBUSH, 2.8 MILES NORTH ALONG COUNTY ROAD 7 FROM THE JUNCTION OF COUNTY ROAD 4 AND COUNTY ROAD 7 IN GREENBUSH, THEN 4.0 MILES WEST ALONG 240TH STREET, 81.0 FEET EAST OF 160TH AVENUE, 30.0 FEET NORTH OF 240TH STREET, 1.0 FOOT EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.561 12B = -90.571 09 = -90.453 03 = -90.403

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 44 47.63439	96 16 19.95789	470511.724	173971.161	143412.260	53026.516	285.055		2012	GPS2800
NAD83(2007)	48 44 47.63437	96 16 19.95880	470511.663	173971.159	143412.242	53026.515	285.092	C	2009	GPS2522
NAD83(1996)	48 44 47.63427	96 16 19.95867	470511.672	173971.149	143412.244	53026.512	285.094	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TT_17_H-DL2405-3N-12OCT2021.jpg	N	Oct 12, 2021
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TT_17_H-DL2405-2-12OCT2021.jpg		Oct 12, 2021
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TT_17_H-DL2405-1-12OCT2021.jpg		Oct 12, 2021

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27033.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27033.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 38 RE **NGS Name:** TT 38 RE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	161 N	42 W	484450.98	960027.88		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	1958	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: TT 38 RE 1958

2.3 MILES SOUTH OF BADGER, 2.4 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND COUNTY ROAD 2 IN BADGER, 410.0 FEET NORTH OF 300TH STREET, 50.0 FEET WEST COUNTY ROAD 3, 5.0 FEET WEST OF A POWER POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.023 12B = -91.020 09 = -90.912 03 = -90.905

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_79820.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_79820.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 39 RE **NGS Name:** TT 39 RE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	160 N	41 W	484241.00	955942.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2007	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

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

Description: (1966) **Stamping:** TT 39 RE 1958

5.0 MILES SOUTH AND 0.5 MILE EAST OF BADGER, 45.0 FEET SOUTH AND 33.0 FEET EAST OF COUNTY ROAD 3 AT A FIELD ENTRANCE AND A ROAD NORTH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.909 12B = -90.905 09 = -90.794 03 = -90.820

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

Station Photos

Type	File Name	Dir	Date
Location:			
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/TT_39_RE-2-01MAY2007.jpg		May 1, 2007
Disk:			

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27036.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27036.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 4 L

NGS Name: TT 4 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	33	163 N	41 W	485421.00	955634.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=? Vert=YES	YES			SEE DESCRIPTION

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

Description: (1929) **Stamping:** TT 4 L 1929

1.0 MILE WEST OF ROSS, 997.0 FEET SOUTH AND 25.0 FEET WEST OF COUNTY ROAD 10 AT A TEE-ROAD SOUTH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.286 12B = -91.283 09 = -91.165 03 = -91.112

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27037.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27037.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 40 RE **NGS Name:** TT 40 RE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	24	160 N	42 W	484020.70	955940.47		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	1958	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: TT 40 RE 1958

7.6 MILES SOUTH OF BADGER, 7.8 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND COUNTY ROAD 2 IN BADGER, 310.0 FEET SOUTH COUNTY ROAD 116, 30.0 FEET WEST OF COUNTY ROAD 3, 17.0 FEET NORTH OF A TELEPHONE POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.695 12B = -90.705 09 = -90.577 03 = -90.626

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_79876.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_79876.pdf

TT 40 RE RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 40 RE RESET
NGS Name: TT 40 RE RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	18	160 N	41 W	484025.00	955934.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1966	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** TT 40 RE 1958 RESET 1966

7.5 MILES SOUTH AND 1.0 MILE EAST OF BADGER, 42.0 FEET NORTH AND 474.0 FEET EAST OF COUNTY ROAD 3 AT A CROSSROAD, 2.0 FEET WEST OF A POWER POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.705 12B = -90.715 09 = -90.587 03 = -90.633

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27038.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27038.pdf

TT 41 RE

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 41 RE **NGS Name:** TT 41 RE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	6	159 N	41 W	483744.00	955936.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095434/
USGS Quad: THIEF LAKE NW

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1958) **Stamping:** TT 41 RE 1958

10.5 MILES SOUTH AND 1.0 MILE EAST OF BADGER, 370.0 FEET SOUTH AND 50.0 FEET EAST OF COUNTY ROAD 3 AT A CROSSROAD, 5.0 FEET WEST OF A POWER POLE.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.433 12B = -90.423 09 = -90.325 03 = -90.390

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27039.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27039.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 42 RE **NGS Name:** TT 42 RE

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	19	159 N	41 W	483412.00	955820.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095433/
USGS Quad: THIEF LAKE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1958	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1958) **Stamping:** TT 42 RE 1958

9.5 MILES NORTH AND 9.0 MILES EAST OF MIDDLE RIVER, 200.0 FEET WEST AND 35.0 FEET NORTH OF A ROAD AT A TEE-ROAD NORTH, 5.0 FEET SOUTH OF A TELEPHONE POLE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -89.980 12B = -89.993 09 = -89.878 03 = -89.937

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27040.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27040.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 5 L

NGS Name: TT 5 L

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	1	162 N	41 W	485328.00	955355.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=YES Vert=YES	YES			SEE DESCRIPTION

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

Description: (1929) **Stamping:** TT STA NO 5 L 1929

1.0 MILE EAST AND 1.0 MILE SOUTH OF ROSS, 227.0 FEET SOUTH AND 26.0 FEET EAST OF A ROAD AT A TEE-ROAD WEST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.479 12B = -91.473 09 = -91.352 03 = -91.315

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27041.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27041.pdf

TT 56 KW

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 56 KW **NGS Name:** TT 56 KW

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	30	159 N	43 W	483428.00	961528.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096132/
USGS Quad: PELAN SE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CULVERT - ANY SIZE, ANY TYPE	SEE DESCRIPTION	USGS

Description: (1954) **Stamping:** TT 56 KW 1954 1100

8.5 MILES SOUTH AND 3.5 MILES WEST OF GREENBUSH, 15.0 FEET SOUTH AND 27.0 FEET EAST OF COUNTY ROAD 6 AT THE CROSSROADS, IN THE CENTER OF THE SOUTH HEADWALL OF A CONCRETE BOX CULVERT.

Station Notes

THE HEADWALL BOX CULVERT HAS BEEN REPLACED.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.092 12B = -90.085 09 = -89.954 03 = -90.042

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27042.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27042.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 57 KW **NGS Name:** TT 57 KW

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	159 N	44 W	483625.00	961531.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096132/
USGS Quad: PELAN SE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1954) **Stamping:** TT 57 KW 1954 1077

6.5 MILES SOUTH AND 3.5 MILES WEST OF GREENBUSH, 1050.0 FEET NORTH AND 44.0 FEET WEST OF THE CROSSROADS.

Station Notes

THE TIES FALL IN A CULTIVATED FIELD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.266 12B = -90.262 09 = -90.128 03 = -90.203

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27043.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27043.pdf

TT 58 KW

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 58 KW **NGS Name:** TT 58 KW

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	31	160 N	43 W	483851.00	961527.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
USGS

Description: (1954) **Stamping:** TT 58 KW 1954

3.5 MILES SOUTH AND 3.5 MILES WEST OF GREENBUSH, 27.0 FEET SOUTH AND 55.0 FEET EAST OF THE CROSSROADS.

Station Notes
THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.433 12B = -90.430 09 = -90.302 03 = -90.348

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27044.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27044.pdf

TT 59 KW

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 59 KW

NGS Name: TT 59 KW

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	7	160 N	43 W	484129.00	961434.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1954)

Stamping: TT 59 KW 1954 1043

0.5 MILE SOUTH AND 2.5 MILES WEST OF GREENBUSH, 43.0 FEET NORTH AND 1000.0 FEET WEST OF THE CROSSROADS, 43.0 FEET NORTH AND 175.0 FEET EAST OF A ROAD AT A PRIVATE DRIVE NORTH, 6.0 FEET NORTH AND 2.0 FEET WEST OF A FENCE CORNER.

Station Notes

THE TIES FALL IN A CULTIVATED FIELD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.528 12B = -90.531 09 = -90.407 03 = -90.420

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27045.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27045.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 60 KW

NGS Name: TT 60 KW

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	31	161 N	43 W	484313.00	961501.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1954	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1954)

Stamping: TT 60 KW 1954 1033

1.5 MILES NORTH AND 3.1 MILES WEST OF GREENBUSH, 1045.0 FEET NORTH AND 45.0 FEET WEST OF AN EAST-WEST ROAD AT A TEE-ROAD NORTH, 2.0 FEET SOUTH AND 18.0 FEET WEST OF A FENCE CORNER.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.567 12B = -90.574 09 = -90.459 03 = -90.436

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27046.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27046.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 7 L

NGS Name: TT 7 L

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	17	163 N	40 W	485658.00	955005.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
SEE DESCRIPTION

Mon. Agency
USGS

Description: (2004)

Stamping: TT STA NO 7 L 1929

7.0 MILES NORTH AND 3.0 MILES WEST OF ROSEAU, 62.0 FEET SOUTH AND 32.0 FEET WEST OF A ROAD AT A TEE-ROAD WEST.

Station Notes
THE TIES FALL IN A DITCH.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.798 12B = -91.798 09 = -91.670 03 = -91.650

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27047.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27047.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 723 **NGS Name:** TT 723

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0756 Get Map
NGS Quad / Sta Num : 48095442/1010
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	162 N	40 W	485053.36	954605.02		2

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2008	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 14 IN.	SEE DESCRIPTION

Monument Type
PIPE (CAPPED) DRIVEN IN GROUND (<10 FT)

Disk Type
BENCH MARK DISK

Mon. Agency
USGS

Description: (1979) **Stamping:** TT 723

IN THE WEST EDGE OF ROSEAU, IN THE NORTHEAST QUADRANT OF THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, 31.5 FEET NORTH OF TRUNK HIGHWAY 11, 39.0 FEET EAST OF TRUNK HIGHWAY 89, 109.70 FEET NORTHWEST OF STATION ROSEAU.

Station Notes
THE SETTING DATE IS NOT CERTAIN. STAMPING IS NOTED AS "ILLEGIBLE" IN 1941.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.073 09 = -91.949 03 = -91.932

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 50 53.35877	95 46 05.02426	591971.893	211244.631	180433.394	64387.492	291.102	2	1999	17648
NAD83(1986)	48 50 53.34745	95 46 05.00176	591973.404	211243.492	180433.854	64387.145		2	1986	17289
NAD27	48 50 53.41700	95 46 04.03100						2	1944	06239

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27048.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27048.pdf

TT 723 RESET 1950

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 723 RESET 1950 **NGS Name:** TT 723 RESET 1950

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	162 N	40 W	485053.40	954605.02		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/1010
USGS Quad: ROSEAU

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 POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description: (1950) **Stamping:** 1049

IN THE WEST EDGE OF ROSEAU, IN THE NORTHEAST QUADRANT OF THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, 40.0 FEET NORTH OF TRUNK HIGHWAY 11, 39.0 FEET EAST OF TRUNK HIGHWAY 89, 109.70 FEET NORTHWEST OF STATION ROSEAU.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.073 09 = -91.949 03 = -91.932

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80048.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80048.pdf

TT 723 RESET 1965

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 723 RESET 1965 **NGS Name:** TT 723 RESET 1965

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	13	162 N	40 W	485053.35	954605.02		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095442/1010
USGS Quad: ROSEAU

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1965	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
PIPE (<10 FT)	BENCH MARK DISK	USGS

Description: (1979) **Stamping:** TT 723 RESET 1965

IN THE WEST EDGE OF ROSEAU, IN THE NORTHEAST QUADRANT OF THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89, 31.5 FEET NORTH OF TRUNK HIGHWAY 11, 39.0 FEET EAST OF TRUNK HIGHWAY 89, 109.70 FEET NORTHWEST OF STATION ROSEAU.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.067 12B = -92.073 09 = -91.949 03 = -91.932

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80047.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80047.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 8 H **NGS Name:** TT 8 H

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	162 N	42 W	484819.78	960822.60		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096113/
USGS Quad: HAUG

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1966) **Stamping:** 8 H 1929

1.0 MILE SOUTH AND 2.0 MILES EAST OF HAUG, 84.0 FEET NORTH AND 30.0 FEET EAST OF COUNTY ROAD 11 AT A CROSSROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.800 12B = -90.807 09 = -90.702 03 = -90.613

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27049.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27049.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 8 L

NGS Name: TT 8 L

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	14	163 N	40 W	485632.00	954608.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2023	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1929) **Stamping:** TT STA NO 8 L 1929

6.5 MILES NORTH AND 0.25 MILE WEST OF ROSEAU, 280.0 FEET SOUTH AND 30.0 FEET WEST OF THE CENTER OF A WOOD BRIDGE OVER MUD CREEK, 0.4 MILE NORTHEAST OF THE JUNCTION OF MUD CREEK AND THE ROSEAU RIVER, 7.0 FEET NORTH OF A FENCE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.103 12B = -92.103 09 = -91.975 03 = -91.981

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27050.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27050.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT 9 H

NGS Name: TT 9 H

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	9	161 N	42 W	484656.23	960504.08		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	2007	NOT FOUND	Horz=YES Vert=YES	NO			SEE DESCRIPTION

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

Description: (1942) **Stamping:** 9 H 1929

3.0 MILES WEST OF BADGER, 35.0 FEET SOUTH AND 87.0 FEET EAST OF COUNTY ROAD 2 AT A TEE-ROAD SOUTH, 70.0 FEET EAST OF A FENCE CORNER, OPPOSITE THE TOWN HALL.

Station Notes

THE TIES FALL IN A DITCH BOTTOM.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.922 12B = -90.928 09 = -90.817 03 = -90.758

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27051.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27051.pdf

TT STA NO 2 L

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT STA NO 2 L

NGS Name: TT STA NO 2 L

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	13	163 N	42 W	485656.49	960025.76		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: TT STA NO 2 L 1929

11.5 MILES NORTH OF BADGER, 11.3 MILES NORTH ALONG COUNTY ROAD 3 FROM THE SOUTHERN JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN BADGER, 103.0 FEET SOUTH OF A TEE-ROAD WEST, 28.0 FEET WEST OF COUNTY ROAD 3, 79.0 FEET SOUTH OF A FENCE CORNER, IN A FENCE LINE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.063 12B = -91.063 09 = -90.948 03 = -90.859

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80062.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80062.pdf

TT STA NO 3 L

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT STA NO 3 L

NGS Name: TT STA NO 3 L

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	31	164 N	41 W	485841.68	960025.04		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48096111/
USGS Quad: BADGER NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: TT STA NO 3 L 1929

24.7 MILES NORTH OF BADGER, 24.4 MILES NORTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND TRUNK HIGHWAY 11 IN BADGER, THEN 0.1 MILE NORTH ON 280TH AVENUE, 20.0 FEET NORTH AND 93.0 FEET EAST OF THE CORNER OF SECTION 1, 6, 31 AND 36, 1.0 FOOT SOUTH AND 74.0 FEET EAST OF A FENCE CORNER.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.092 12B = -91.092 09 = -90.974 03 = -90.895

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80064.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80064.pdf

TT STA NO 6 L

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: TT STA NO 6 L

NGS Name: TT NO 6 L

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	33	163 N	40 W	485329.61	955001.96		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USGS

Description:

Stamping: TT STA NO 6 L 1929

4.2 MILES NORTHWEST OF ROSEAU, 2.9 MILES NORTH ALONG TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310, TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, THEN 3.0 MILES WEST ON COUNTY ROAD 28, 67.0 FEET NORTH OF COUNTY ROAD 28, 26.0 FEET EAST OF COUNTY ROAD 123, 31.0 FEET NORTH OF THE CORNER OF A T-FENCE EAST, 83.0 FEET NORTH AND 53.0 FEET EAST OF A T-FENCE WEST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.788 12B = -91.788 09 = -91.660 03 = -91.634

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_80051.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_80051.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: U 220 **NGS Name:** U 220

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	2	160 N	40 W	484305.00	954636.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	CGS

Description: (1946) **Stamping:** U 220 1935

4.2 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM BRIDGE NUMBER 6601 IN WANNASKA, 0.5 MILE WEST ALONG COUNTY ROAD 33, 0.5 MILE WEST OF TRUNK HIGHWAY 89 STATION 537+00.

Station Notes

MOST LIKELY GRADED OUT, NEWER DITCHES.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.581 12B = -91.584 09 = -91.476 03 = -91.466

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_71988.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_71988.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: U 318 **NGS Name:** U 318

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0028 Get Map
NGS Quad / Sta Num : 48096123/
USGS Quad: STRATHCONA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	159 N	43 W	483450.00	961013.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1940	2005	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1994) **Stamping:** U 318 1940

1.8 MILES NORTH ON A RAILROAD FROM STRATHCONA, AT RAILROAD MILEPOINT 52.15, AT TRUNK HIGHWAY 32 MILEPOINT 136.55, AT A FARM ROAD CROSSING, 52.3 FEET WEST OF THE WEST RAIL OF THE RAILROAD TRACKS, 9.5 FEET SOUTH OF A FARM ROAD.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1109.368	0.007	338.136	0.002	1/2	1991	00000025
NGVD29	1108.049	0.007	337.734	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -89.937 12B = -89.951 09 = -89.816 03 = -89.901

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27056.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27056.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: U 368 **NGS Name:** U 368

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0520 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	22	162 N	40 W	485051.72	954843.08	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 10 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 36 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
NGS

Description: (2014) **Stamping:** U 368 1981

2.1 MILES WEST OF ROSEAU, 2.05 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, 75.0 FEET SOUTH OF TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 68.60, 41.0 FEET EAST OF 370TH AVENUE, 38.0 FEET SOUTH-SOUTHEAST OF A CULVERT, 2.5 FEET SOUTHEAST OF A TELEPHONE JUNCTION BOX, 1.0 FOOT NORTH OF A WITNESS POST.

Station Notes
06-01-2009 THE CONCRETE WAS BROKEN AROUND THE ACCESS COVER. THE MARK IS STABLE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1055.264	0.016	321.645	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.857 12B = -91.860 09 = -91.739 03 = -91.716

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 50 51.71830	95 48 43.07938	581400.425	211028.414	177211.204	64321.589	293.652		2020	GPS3390
NAD83(2007)	48 50 51.71843	95 48 43.08042	581400.355	211028.427	177211.183	64321.593	293.688		2007	GPS2300
NAD83(1996)	48 50 51.71802	95 48 43.07937	581400.425	211028.386	177211.204	64321.581	293.692	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/U_368-TC0520-3S-26JUL2023.jpg	S	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/U_368-TC0520-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/U_368-TC0520-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27057.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27057.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: US AND CBC

NGS Name: US AND CBC

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	26	163 N	42 W	485935.00	955501.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095444/
USGS Quad: PINECREEK

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1929	1929	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE POST (PREFABRICATED)	BENCH MARK DISK	USFS

Description:

12.0 MILES NORTHWEST OF ROSEAU, 8.4 MILES NORTH ALONG TRUNK HIGHWAY 89 FROM THE WESTERN JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 WEST OF ROSEAU, THEN 2.6 MILES NORTH ON 320TH AVENUE, THEN 0.2 MILE EAST ON 410TH STREET, ON THE SOUTHWEST PART OF AN ACRE LOT OF N. M. CADERHOLM, 26.0 FEET NORTH OF A ROAD, 328.1 FEET SOUTH OF THE ROSEAU RIVER, IN THE SOUTH TRACK OF A TRAVELED ROAD.

Stamping:

Station Notes

THE SET DATE AND THE CONDITION DATE ARE APPROXIMATE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.470 12B = -91.470 09 = -91.338 03 = -91.296

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_82301.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_82301.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: V 220 **NGS Name:** V 220

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DE7862 Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	6	160 N	39 W	484223.00	954406.00	2	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2012	DESTROYED	Horz=NO Vert=NO	NO			STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
UNKNOWN	BENCH MARK DISK	NGS

Description: (1998) **Stamping:** V 220 1935

3.65 MILES NORTH OF WANNASKA, 3.65 MILES NORTH ON TRUNK HIGHWAY 89 FROM THE JUNCTION OF THE ROSEAU RIVER AND TRUNK HIGHWAY 89 IN WANNASKA TO TRUNK HIGHWAY 89 MILEPOINT 115.1, THEN 0.5 MILE EAST ON A GRAVEL ROAD, 31.0 FEET EAST OF A ROAD, 113.0 FEET SOUTHEAST OF A POWER POLE, 80.5 FEET SOUTHEAST OF STATION MICKI MNDT, 3.0 FEET EAST OF A NORTH-SOUTH FENCE LINE, 3.0 FEET EAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1091.484	0.016	332.685	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.673 12B = -91.680 09 = -91.578 03 = -91.555

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_39574.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_39574.pdf

V 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: V 220 RESET

NGS Name: V 220 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	1	160 N	40 W	484224.00	954405.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
	2012	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	CGS

Description: (1947) **Stamping:** V 220 RESET

11.1 MILES SOUTH OF ROSEAU ON TRUNK HIGHWAY 89, 1400.0 FEET NORTHEAST OF STATION 557+00.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.676 12B = -91.683 09 = -91.581 03 = -91.558

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_71989.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_71989.pdf

V 253 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: V 253 RESET **NGS Name:** V 253 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DL2406 Get Map
NGS Quad / Sta Num : 48096121/
USGS Quad: GREENBUSH NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NE	25	161 N	42 W	484446.35	960030.79		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2021	GOOD	Horz=NO Vert=YES	YES		PROJECTS 3 IN.	STEEL ROD IMBED IN MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (2007) **Stamping:** V 253 1935

2.5 MILES SOUTH AND 0.2 MILE EAST OF BADGER, 2.5 MILES SOUTH ALONG COUNTY ROAD 3 FROM THE JUNCTION OF COUNTY ROAD 3 AND COUNTY ROAD 2 IN BADGER, 56.0 FEET SOUTH AND 69.0 FEET WEST OF COUNTY ROAD 3, AT THE JUNCTION OF COUNTY ROAD 3/COUNTY ROAD 14 AND 240TH STREET, 2.0 FEET EAST OF A NORTH-SOUTH FENCE, 1.0 FOOT EAST OF A WITNESS POST.

Station Notes

DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.017 12B = -91.014 09 = -90.905 03 = -90.902

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 44 46.34916	96 00 30.78894	534130.222	173848.934	162803.217	52989.261	302.070		2012	GPS2800
NAD83(2007)	48 44 46.34921	96 00 30.78979	534130.165	173848.939	162803.200	52989.263	302.106	C	2009	GPS2522
NAD83(1996)	48 44 46.34912	96 00 30.78974	534130.169	173848.930	162803.201	52989.260	302.101	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/V_253_RESET-DL2406-3W-31JUL2007.jpg	W	Jul 31, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/V_253_RESET-DL2406-2-31JUL2007.jpg		Jul 31, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/V_253_RESET-DL2406-1-31JUL2007.jpg		Jul 31, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27064.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27064.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: V 368 **NGS Name:** V 368

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0521 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	162 N	40 W	485051.64	954949.70	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2023	GOOD	Horz=NO Vert=YES	YES		RECESSED 6 IN.	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (NO SLEEVE) (DEPTH 40 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (1981) **Stamping:** V 368 1981

3.0 MILES WEST OF ROSEAU, 2.9 MILES WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 67.85, 75.0 FEET SOUTH OF TRUNK HIGHWAY 11, 96.0 FEET EAST-SOUTHEAST OF A BITUMINOUS ROAD, 59.0 FEET WEST OF DRIVEWAY NUMBER 36174, 14.5 FEET WEST OF A TELEPHONE JUNCTION BOX, 0.5 FOOT EAST OF A RIGHT-OF-WAY POST, 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 Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1067.167	0.016	325.273	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.768 12B = -91.771 09 = -91.647 03 = -91.624

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 51.63992	95 49 49.70339	576943.972	211001.239	175852.874	64313.306	297.309		2012	GPS2800
NAD83(2007)	48 50 51.64002	95 49 49.70433	576943.909	211001.249	175852.855	64313.309	297.345		2007	GPS2300
NAD83(1996)	48 50 51.63993	95 49 49.70460	576943.891	211001.239	175852.850	64313.306	297.349	C	2004	GPS2053

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/V_368-TC0521-3S-26JUL2023.jpg	S	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/V_368-TC0521-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/V_368-TC0521-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27065.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27065.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: W 368 **NGS Name:** W 368

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0525 Get Map
NGS Quad / Sta Num : 48095443/
USGS Quad: FOX

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	23	162 N	41 W	484959.04	955509.42	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2019	GOOD	Horz=NO Vert=NO	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type	Disk Type	Mon. Agency
STEEL ROD (IN SLEEVE) (DEPTH 40 FT)	METAL ROD	NGS

Description: (1981) **Stamping:** W 368 1981

6.0 MILES NORTHEAST OF BADGER, 5.6 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND OLD COUNTY ROAD 2 IN BADGER, AT TRUNK HIGHWAY 11 MILEPOINT 63.65, 156.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 64.5 FEET WEST-NORTHWEST OF THE NORTHEAST CORNER OF A HOUSE, 79.5 FEET WEST-SOUTHWEST OF A LIGHT POLE WITH A TRANSFORMER, 9.5 FEET NORTH-NORTHWEST OF THE NORTHWEST CORNER OF HOUSE NUMBER 32055, 21.0 FEET EAST-SOUTHEAST OF A TWIN OAK TREE.

Station Notes

THE SURVEY MARK IS ON PRIVATE PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1089.493	0.016	332.078	0.005	2/1	2023	VPINE2

Geoid Separations(ft): GEOID18 = -91.365 12B = -91.361 09 = -91.253 03 = -91.227

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/W_368-TC0525-3S-16SEP2019.jpg	S	Sep 16, 2019
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/W_368-TC0525-2-16SEP2019.jpg		Sep 16, 2019
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/W_368-TC0525-1-16SEP2019.jpg		Sep 16, 2019

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27070.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27070.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WAAGE **NGS Name:** WAAGE

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DP9468 Get Map
NGS Quad / Sta Num : 48095442/
USGS Quad: ROSEAU

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	16	162 N	40 W	485053.02	954928.77	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2014	2023	GOOD	Horz=YES Vert=YES	YES		RECESSED 3 IN.	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 64 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2014) **Stamping:** WAAGE 2014

2.7 MILES WEST OF ROSEAU, 2.6 MILES WEST ALONG TRUNK HIGHWAY 11/TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 310 IN ROSEAU, AT TRUNK HIGHWAY 11 MILEPOINT 68.15, 61.4 FEET NORTH OF TRUNK HIGHWAY 11, 39.0 FEET EAST OF A DRIVEWAY, 4.8 FEET EAST OF A CABLE BOX, 1.5 FEET SOUTH OF A WITNESS POST.

Station Pair: STELLA - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1064.191	0.016	324.366	0.005	2/1	2024	VTH310

Geoid Separations(ft): GEOID18 = -91.798 12B = -91.801 09 = -91.676 03 = -91.653

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 50 53.01972	95 49 28.76968	578343.634	211147.009	176279.492	64357.737	296.408		2020	GPS3390
NAD83(1996)	48 50 53.01956	95 49 28.77035	578343.589	211146.993	176279.478	64357.732	296.457	C	2021	HKTAD

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WAAGE-DP9468-3N-26JUL2023.jpg	N	Jul 26, 2023
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WAAGE-DP9468-2-26JUL2023.jpg		Jul 26, 2023
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WAAGE-DP9468-1-26JUL2023.jpg		Jul 26, 2023

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_101989.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_101989.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WAHL MNDT **NGS Name:** WAHL

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AB2332 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	36	161 N	43 W	484302.41	960906.09		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1994	2014	GOOD	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 25 FT)

Disk Type
SURVEY DISK

Mon. Agency
MNDT

Description: (1994) **Stamping:** WAHL 1994

2.0 MILES NORTHEAST OF GREENBUSH, 1.65 MILES NORTHEAST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 32 AND TRUNK HIGHWAY 11, AT TRUNK HIGHWAY 11 MILEPOINT 49.9, 127.0 FEET NORTHWEST OF TRUNK HIGHWAY 11, 41.5 FEET NORTHEAST OF A ROAD, 35.5 FEET SOUTHEAST OF THE SOUTHEAST RAIL OF THE RAILROAD TRACKS, 12.4 FEET WEST-NORTHWEST OF A RIGHT-OF-WAY POST, 55.0 FEET SOUTH-SOUTHWEST OF A POWER POLE NUMBER 3, 3.1 FEET SOUTH-SOUTHWEST OF A WITNESS POST.

Station Notes
THE SURVEY MARK IS ON RAILROAD PROPERTY AND HAS BEEN ABANDONED FOR MNDOT GEODETIC USE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -90.682 12B = -90.679 09 = -90.571 03 = -90.567

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 43 02.40608	96 09 06.09158	499591.474	163282.626	152275.786	49768.644	300.498		2012	GPS2800
NAD83(2007)	48 43 02.40606	96 09 06.09225	499591.429	163282.624	152275.772	49768.643	300.536		2007	GPS2300
NAD83(1996)	48 43 02.40599	96 09 06.09212	499591.437	163282.617	152275.775	49768.641	300.536	C	2008	HROSO
NAD83(1986)	48 43 02.39707	96 09 06.07705	499592.448	163281.713	152276.083	49768.366		C	1996	GPS925

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WAHL-AB2332-3NW-25JUL2007.jpg	NW	Jul 25, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WAHL-AB2332-2-25JUL2007.jpg		Jul 25, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WAHL-AB2332-1-25JUL2007.jpg		Jul 25, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27071.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27071.pdf

WANN MNDT

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WANN MNDT **NGS Name:** WANN

County: ROSEAU, MN (Sheet 1)

NGS ACRN: AJ8668 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	26	161 N	40 W	484357.44	954604.53	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1998	2012	DESTROYED	Horz=NO Vert=NO	YES		RECESSED 1 IN.	MARKER W/BAR MAGNET

Monument Type	Disk Type	Mon. Agency
UNKNOWN	SURVEY DISK	MNDT

Description: (1998) **Stamping:** WANN 1998

8.0 MILES SOUTH OF ROSEAU, 8.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU, TO TRUNK HIGHWAY 89 MILEPOINT 117.3, THEN 0.05 MILE WEST ON A ROAD, 36.0 FEET NORTH OF A ROAD, 13.0 FEET WEST OF AN ENTRANCE, 189.0 FEET EAST-NORTHEAST OF A POWER POLE, 3.3 FEET EAST OF A WITNESS POST.

Station Notes

THE DISK WAS TURNED IN TO THE OFFICE.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1077.088	0.016	328.297	0.005	2/1	2004	00000425-2

Geoid Separations(ft): GEOID18 = -91.686 12B = -91.683 09 = -91.581 03 = -91.571

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Geodetic Positions Longitude	County (Feet) X	County (Feet) Y	County (Meters) X	County (Meters) Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Project Info Reference
NAD83(2011)	48 43 57.44241	95 46 04.53091	592216.288	169091.775	180507.886	51539.276	300.355		2012	GPS2800
NAD83(2007)	48 43 57.44252	95 46 04.53179	592216.229	169091.786	180507.868	51539.280	300.382		2007	GPS2300
NAD83(1996)	48 43 57.44230	95 46 04.53173	592216.233	169091.764	180507.869	51539.273	300.379	C	2002	GPS1666

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANN-AJ8668-3N-01AUG2007.jpg	N	Aug 1, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANN-AJ8668-2-01AUG2007.jpg		Aug 1, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANN-AJ8668-1-01AUG2007.jpg		Aug 1, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_36741.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_36741.pdf

WANN RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WANN RESET
NGS Name: WANN RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: DO8829 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	26	161 N	40 W	484357.44	954604.53	2	C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
2012	2017	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 15 FT)

Disk Type
METAL ROD (WITH REMOVABLE ID DISK)

Mon. Agency
MNDT

Description: (2012)

Stamping: WANN 1998 2012

8.0 MILES SOUTH OF ROSEAU, 8.1 MILES SOUTH ALONG TRUNK HIGHWAY 89 FROM THE JUNCTION OF TRUNK HIGHWAY 89 AND TRUNK HIGHWAY 11 IN ROSEAU TO TRUNK HIGHWAY 89 MILEPOINT 117.3, THEN 0.05 MILE WEST ON 230TH STREET, 36.0 FEET NORTH OF 230TH STREET, 13.0 FEET WEST OF A FIELD ENTRANCE, 189.0 FEET EAST-NORTHEAST OF A POWER POLE, 3.3 FEET EAST OF A WITNESS POST.

Station Pair: EDDY RESET - ROSEAU, MN

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1076.766	0.016	328.199	0.005	2/1	2013	00000795

Geoid Separations(ft): GEOID18 = -91.686 12B = -91.683 09 = -91.581 03 = -91.571

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 43 57.44152	95 46 04.53239	592216.189	169091.684	180507.856	51539.249	300.256		2018	GPS3232
NAD83(1996)	48 43 57.44135	95 46 04.53289	592216.156	169091.667	180507.845	51539.243	300.307	C	2018	HGATK

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANN_RESET-DO8829-3N-05SEP2012.jpg	N	Sep 5, 2012
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANN_RESET-DO8829-2-05SEP2012.jpg		Sep 5, 2012
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANN_RESET-DO8829-1-05SEP2012.jpg		Sep 5, 2012

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_97516.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_97516.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WANNASKA **NGS Name:** WANNASKA

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TC0746 Get Map
NGS Quad / Sta Num : 48095431/1003
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	160 N	40 W	484015.84	954829.11		1

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2007	NOT FOUND	Horz=? Vert=YES	NO		PROJECTS 4 IN.	SEE DESCRIPTION

Monument Type
CONCRETE MONUMENT (CAST-IN-PLACE)

Disk Type
TRIANGULATION STATION DISK

Mon. Agency
NGS

Description: (1987) **Stamping:** WANNASKA 1941

12.0 MILES SOUTHWEST OF ROSEAU, 3.35 MILES WEST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 4 AND TRUNK HIGHWAY 89 (THE JUNCTION IS 1.0 MILE NORTH OF WANNASKA), 45.0 FEET NORTH OF AN EAST-WEST GRAVEL ROAD, 6.0 FEET SOUTHEAST OF A WITNESS POST, 90.4 FEET WEST-SOUTHWEST OF WANNASKA RM 1, 95.5 FEET SOUTHEAST OF WANNASKA RM 2.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.194 12B = -91.210 09 = -91.102 03 = -91.089

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(1996)	48 40 15.84093	95 48 29.10824	582624.176	146586.746	177584.204	44679.729	320.358	1	1999	17648
NAD83(1986)	48 40 15.82996	95 48 29.09068	582625.359	146585.639	177584.565	44679.392		1	1986	17289
NAD27	48 40 15.91700	95 48 28.11100						1	1960	12443

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27072.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27072.pdf

WANNASKA AZ MK

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WANNASKA AZ MK
NGS Name: WANNASKA AZ MK

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO7665 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
NW	21	160 N	40 W	484015.40	954920.59		C

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2021	GOOD	Horz=YES Vert=YES	YES		PROJECTS 4 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	AZIMUTH MARK DISK	NGS

Description: (1987) **Stamping:** WANNASKA 1941

4.0 MILES WEST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 4 AND TRUNK HIGHWAY 89 (1.0 MILE NORTH OF WANNASKA), 0.65 MILE WEST OF STATION WANNASKA, 60.0 FEET SOUTH OF COUNTY ROAD 4, 20.0 FEET EAST OF A NORTH-SOUTH DIRT ROAD, 4.0 FEET EAST OF A WITNESS POST.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.142 12B = -91.158 09 = -91.046 03 = -91.043

Geodetic Position and Roseau County Coordinates

Datum and Adjustment	Geodetic Positions Latitude	Longitude	County (Feet) X	Y	County (Meters) X	Y	Ellipsoid Hgt (m)	Surv Ord	Project Info Year	Reference
NAD83(2011)	48 40 15.40405	95 49 20.59079	579168.598	146527.284	176530.942	44661.606	320.502		2012	GPS2800
NAD83(2007)	48 40 15.40421	95 49 20.59165	579168.540	146527.300	176530.924	44661.610	320.532	C	2009	GPS2522
NAD83(1996)	48 40 15.40407	95 49 20.59163	579168.541	146527.286	176530.925	44661.606	320.526	C	2008	HROSO

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANNASKA_AZ_MK-CO7665-3S-01AUG2007.jpg	S	Aug 1, 2007
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANNASKA_AZ_MK-CO7665-2-01AUG2007.jpg		Aug 1, 2007
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/WANNASKA_AZ_MK-CO7665-1-01AUG2007.jpg		Aug 1, 2007

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27073.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27073.pdf

WANNASKA RM 1

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WANNASKA RM 1 **NGS Name:** WANNASKA RM 1

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO7666 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	160 N	40 W	484016.13	954827.84		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2007	NOT FOUND	Horz=NO Vert=NO	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: (1987) **Stamping:** WANNASKA NO 1 1941

12.0 MILES SOUTH-SOUTHWEST OF ROSEAU, 3.35 MILES WEST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 4 AND TRUNK HIGHWAY 89 (THE JUNCTION IS 1.0 MILE NORTH OF WANNASKA), 90.4 FEET NORTHEAST OF STATION WANNASKA, 76.0 FEET NORTH OF COUNTY ROAD 4.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.194 12B = -91.210 09 = -91.102 03 = -91.092

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27074.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27074.pdf

WANNASKA RM 2

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: WANNASKA RM 2 **NGS Name:** WANNASKA RM 2

County: ROSEAU, MN (Sheet 1)

NGS ACRN: CO7667 Get Map
NGS Quad / Sta Num : 48095431/
USGS Quad: THIEF LAKE NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	16	160 N	40 W	484016.43	954830.21		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1941	2007	NOT FOUND	Horz=? Vert=YES	NO			SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	REFERENCE MARK DISK	NGS

Description: (1987) **Stamping:** WANNASKA NO 2 1941

12.0 MILES SOUTH-SOUTHWEST OF ROSEAU, 3.35 MILES WEST ALONG COUNTY ROAD 4 FROM THE JUNCTION OF COUNTY ROAD 4 AND TRUNK HIGHWAY 89 (THE JUNCTION IS 1.0 MILE NORTH OF WANNASKA), 95.2 FEET NORTHWEST OF STATION WANNASKA, 135.0 FEET NORTH OF COUNTY ROAD 4.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.194 12B = -91.210 09 = -91.102 03 = -91.092

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27075.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27075.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: X 219 **NGS Name:** X 219

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	25	164 N	40 W	485958.00	954529.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1935	GOOD	Horz=? Vert=YES	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** X 219 1935

10.5 MILES NORTH OF ROSEAU, ON THE WEST SIDE OF A ROAD AT A BEND, ON THE SOUTH SIDE OF THE CANADIAN BOUNDARY, 0.4 MILE WEST OF A BOUNDARY MARK, 1720.0 FEET OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 554+05.6.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.182 12B = -92.195 09 = -92.067 03 = -92.083

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27093.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27093.pdf

X 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: X 220 RESET

NGS Name: X 220 RESET

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	13	160 N	40 W	484026.00	954405.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	2005	DESTROYED	Horz=NO Vert=NO	YES			SEE DESCRIPTION

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

Description: (1950)

Stamping: X 220 RESET 1946

1.1 MILES NORTH OF BRIDGE NUMBER 6601 IN WANNASKA, 75.0 FEET EAST OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 700+99.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.479 12B = -91.493 09 = -91.384 03 = -91.352

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27094.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27094.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: X 368 **NGS Name:** X 368

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0799 Get Map
NGS Quad / Sta Num : 48096112/
USGS Quad: BADGER

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	12	161 N	42 W	484655.78	960055.74	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2025	GOOD	Horz=NO Vert=YES	YES		RECESSED 4 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
STEEL ROD (IN SLEEVE) (DEPTH 36 FT)	METAL ROD	NGS

Description: (1981) **Stamping:** X 368 1981

IN BADGER, 0.25 MILE WEST ALONG COUNTY ROAD 2 FROM THE JUNCTION OF COUNTY ROAD 2 AND TRUNK HIGHWAY 11 IN BADGER, NEAR A WATER TOWER, ON THE SOUTH SIDE OF A TOWER AND IN LINE WITH A DOOR, 93.0 FEET EAST OF MAIN STREET, 32.5 FEET WEST-SOUTHWEST OF THE SOUTHWEST CORNER OF A METAL BUILDING, 18.0 FEET NORTHWEST OF THE NORTHWEST CORNER OF A SMALL SHED, 7.5 FEET SOUTH OF A DOOR ON THE SOUTH SIDE OF A WATER TOWER.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1081.556	0.016	329.659	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -91.066 12B = -91.069 09 = -90.961 03 = -90.922

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/X_368-TD0799-3N-01JUL2025.jpg	N	Jul 1, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/X_368-TD0799-2-01JUL2025.jpg		Jul 1, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/X_368-TD0799-1-01JUL2025.jpg		Jul 1, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27096.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27096.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Y 220 **NGS Name:** Y 220

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	24	160 N	40 W	483930.00	954405.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	2009	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (2000) **Stamping:** Y 220 1935

IN WANNASKA, 81.0 FEET SOUTH AND 48.0 FEET WEST OF THE CROSSROADS, 23.0 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF A CAFE.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.368 12B = -91.384 09 = -91.276 03 = -91.240

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27099.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27099.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Y 368 **NGS Name:** Y 368

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0810 Get Map
NGS Quad / Sta Num : 48096124/
USGS Quad: GREENBUSH

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	10	160 N	43 W	484152.02	961107.65	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2025	GOOD	Horz=NO Vert=YES	YES		RECESSED 4 IN.	STEEL SPIKE ADJ TO MON

Monument Type	Disk Type	Mon. Agency
STEEL ROD (IN SLEEVE) (DEPTH 44 FT)	METAL ROD	NGS

Description: (1981) **Stamping:** Y 368 1981

IN GREENBUSH, AT THE BETHEL LUTHERAN CHURCH, AT THE JUNCTION OF WEST 6TH STREET AND MCKENZIE AVENUE, IN THE SOUTHWEST CORNER OF A LAWN, 0.3 MILE WEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, THEN 0.15 MILE SOUTH ON 6TH STREET, 37.0 FEET NORTH OF THE NORTH CURB ON WEST MCKENZIE AVENUE, 93.0 FEET EAST OF 6TH STREET, 33.5 FEET SOUTH OF THE WEST-SOUTHWEST CORNER AND 66.5 FEET WEST-NORTHWEST OF THE EAST-SOUTHWEST CORNER OF A CHURCH, 8.0 FEET NORTHEAST OF A BELL.

Station Notes

DUE TO TREE COVER, THIS SURVEY MARK HAS BEEN ABANDONED FOR MNDOT GEODETIC HORIZONTAL SURVEYS.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Orthometric (Feet) Accuracy	Orthometric (Meters) Height	Orthometric (Meters) Accuracy	Survey Order/(Class)	Project Info Year	Project Info Reference
NAVD88	1075.644	0.016	327.857	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.581 12B = -90.581 09 = -90.462 03 = -90.485

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Y_368-TD0810-3N-25JUN2025.jpg	N	Jun 25, 2025
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Y_368-TD0810-2-25JUN2025.jpg		Jun 25, 2025
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Y_368-TD0810-1-25JUN2025.jpg		Jun 25, 2025

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27101.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27101.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Z 219 **NGS Name:** Z 219

County: ROSEAU, MN (Sheet 1)

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	2	163 N	40 W	485843.00	954604.00		

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095441/
USGS Quad: ROSEAU NE

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1935	1998	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1935) **Stamping:** Z 219 1935

8.5 MILES NORTH ON TRUNK HIGHWAY 310 FROM THE JUNCTION OF TRUNK HIGHWAY 310 AND TRUNK HIGHWAY 11, 27.0 FEET OF TRUNK HIGHWAY 310, AT TRUNK HIGHWAY 310 STATION 475+34.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -92.119 12B = -92.126 09 = -91.995 03 = -92.008

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27105.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27105.pdf

Z 220 RESET

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Z 220 RESET

NGS Name: Z 220 RESET

County: ROSEAU, MN (Sheet 1)

NGS ACRN: Get Map
NGS Quad / Sta Num : 48095424/
USGS Quad: WANNASKA

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SE	25	160 N	40 W	483831.00	954405.00		

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1946	1950	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

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

Description: (1946) **Stamping:** Z 220 RESET 1946

1.1 MILES SOUTH OF BRIDGE NUMBER 6601 IN WANNASKA, 75.0 FEET OF TRUNK HIGHWAY 89, AT TRUNK HIGHWAY 89 STATION 819+10, 50.0 FEET NORTH OF A CROSSROAD.

*** No 1st or 2nd Order Vertical Positions in the Database ***

Geoid Separations(ft): GEOID18 = -91.240 12B = -91.260 09 = -91.151 03 = -91.115

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27106.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27106.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Z 368 **NGS Name:** Z 368

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0818 Get Map
NGS Quad / Sta Num : 48096131/
USGS Quad: PELAN NE

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	29	160 N	44 W	483910.99	962113.95	2	3

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1981	2017	GOOD	Horz=YES Vert=YES	YES		FLUSH	BAR MAG IN DRILL HOLE

Monument Type
STEEL ROD (IN SLEEVE) (DEPTH 44 FT)

Disk Type
METAL ROD

Mon. Agency
NGS

Description: (1981) **Stamping:** Z 368 1981

9.2 MILES SOUTHWEST ALONG TRUNK HIGHWAY 11 FROM THE JUNCTION OF TRUNK HIGHWAY 11 AND TRUNK HIGHWAY 32 IN GREENBUSH, AT A CHAPEL IN PELAN PIONEER PARK, AT TRUNK HIGHWAY 11 MILEPOINT 39.05, 186.0 FEET SOUTH-SOUTHEAST OF TRUNK HIGHWAY 11, 74.0 FEET NORTHWEST OF THE NORTHEAST CORNER OF A CHURCH, 65.5 FEET NORTH-NORTHWEST OF THE NORTHWEST CORNER OF A CHURCH, 9.0 FEET WEST-SOUTHWEST OF A FLAGPOLE, 8.9 FEET WEST-SOUTHWEST OF A WITNESS POST.

Station Notes
THE FLAG POLE HAS BEEN CUT OFF, BUT THE BASE REMAINS.

Leveling-Derived Orthometric Height (Elevation)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1061.838	0.016	323.649	0.005	2/1	2019	00000941

Geoid Separations(ft): GEOID18 = -90.433 12B = -90.436 09 = -90.305 03 = -90.328

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

Station Photos

Type	File Name	Dir	Date
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Z_368-TD0818-3SE-18JUN2014.jpg	SE	Jun 18, 2014
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Z_368-TD0818-2-18JUN2014.jpg		Jun 18, 2014
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/roseau/Z_368-TD0818-1-18JUN2014.jpg		Jun 18, 2014

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27108.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27108.pdf

Data Sheet Selection By County Name & Map Sheet (Without Photos)

Mn/DOT Name: Z 66 **NGS Name:** Z 66

County: ROSEAU, MN (Sheet 1)

NGS ACRN: TD0037 Get Map
NGS Quad / Sta Num : 48096134/
USGS Quad: PELAN

1/4	Sec	Twp	Rng	Reference Latitude	Reference Longitude	Vert Order	Horz Order
SW	30	160 N	44 W	483845.00	962310.00	1	

Year Set	Last Recovery	Condition	Geodetic Usability	Photos	Bridge Num	F/P/R	Magnetic Properties
1934	2014	DESTROYED	Horz=NO Vert=NO	NO		PROJECTS 2 IN.	SEE DESCRIPTION

Monument Type	Disk Type	Mon. Agency
CONCRETE MONUMENT (CAST-IN-PLACE)	BENCH MARK DISK	NGS

Description: (1981) **Stamping:** Z 66 1934

8.7 MILES EAST OF KARLSTAD, 0.3 MILE EAST ALONG TRUNK HIGHWAY 11 FROM A BRIDGE OVER THE SOUTH FORK OF TWO RIVERS, 36.0 FEET NORTH OF TRUNK HIGHWAY 11, 21.0 FEET EAST OF AN ENTRANCE, 3.0 FEET NORTHEAST OF A POLE, NEAR THE COUNTY LINE.

Leveling-Derived Orthometric Heights (Elevations)

Vertical Datum	Orthometric (Feet) Height	Accuracy	Orthometric (Meters) Height	Accuracy	Survey Order/(Class)	Project Info Year	Reference
NAVD88	1063.131	0.007	324.043	0.002	1/2	1991	00000025
NGVD29	1061.747	0.007	323.621	0.002	1	1941	Q480961

Geoid Separations(ft): GEOID18 = -90.416 12B = -90.416 09 = -90.289 03 = -90.308

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

Caution: Any positions shown above were selected based on specific criteria. To evaluate all positions, see detailed versions of this data sheet:

Download the Complete ENGLISH Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Single%20Sheet/GSID_27109.pdf
Download the Complete METRIC Data Sheet: ftp://ftp.olmweb.dot.state.mn.us/Geod/PDF%20Metric%20Sheet/M_GSID_27109.pdf