

# CERTIFICATE OF SURVEY

### LEGEND

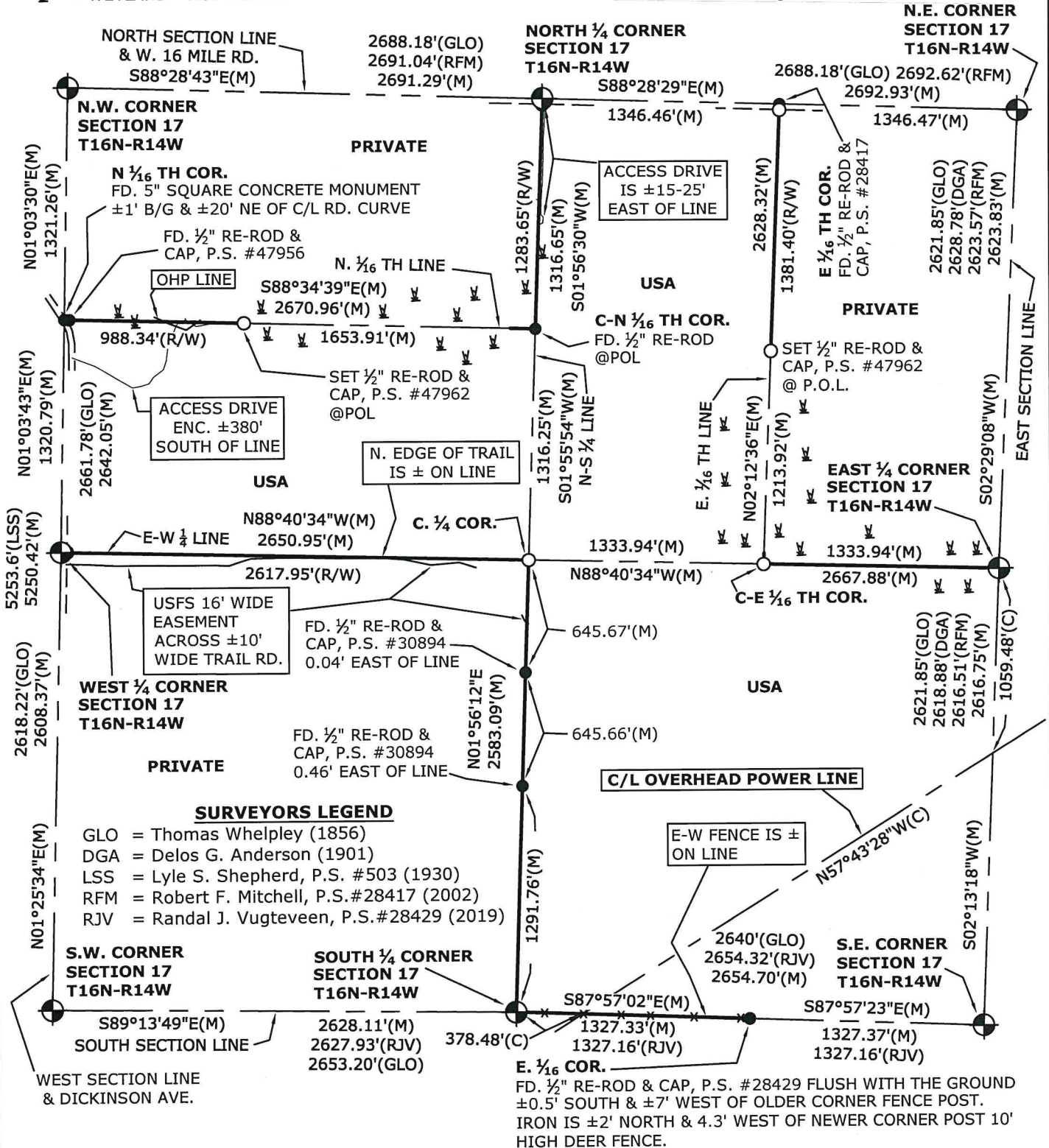
- = EXISTING PLSS CORNER POSITION ACCEPTED
- = SET 1/2" x 18" LONG RE-BAR & CAP, P.S. #47962
- = SECTION SUBDIVISION CORNER FOUND AS NOTED
- (M) = MEASURED GRID DISTANCE
- (C) = CALCULATED GRID DISTANCE
- = BOUNDARY LINE POSTED & MARKED
- = FENCE LINE
- (R/W) = DISTANCE TO THE ROAD R/W
- = WETLAND - NOT POSTED

SPACE RECEIVED

01/21/2021 10:08:29 AM  
Newaygo County, Michigan  
Stewart Sanders, Register



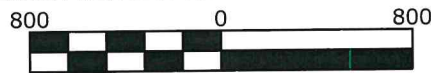
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Recorded: 01/21/2021 02:44 PM  
Newaygo County, Michigan  
Stewart Sanders, Register of Deeds



### SURVEYORS LEGEND

- GLO = Thomas Whelpley (1856)
- DGA = Delos G. Anderson (1901)
- LSS = Lyle S. Shepherd, P.S. #503 (1930)
- RFM = Robert F. Mitchell, P.S.#28417 (2002)
- RJV = Randal J. Vugteveen, P.S.#28429 (2019)

I CHRISTOPHER J. MCCRIMMON BEING A LICENSED PROFESSIONAL SURVEYOR, HEREBY CERTIFY TO USDA Forest Service THAT I HAVE SURVEYED AND MAPPED THE PARCEL(S) HEREON DESCRIBED AND THAT THE RELATIVE POSITIONAL PRECISION OF EACH CORNER IS WITHIN THE LIMITS ACCEPTED BY THE PRACTICE OF PROFESSIONAL SURVEYING AND THAT ALL THE REQUIREMENTS OF P.A. 132 OF 1970, AS AMENDED, HAVE BEEN COMPLIED WITH. THIS SURVEY PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS, OR ENTITY NAMED IN THE CERTIFICATE HEREON. SAID CERTIFICATE DOES NOT EXTEND TO ANY UNNAMED THIRD PERSON WITHOUT AN EXPRESS RE-CERTIFICATION BY THE SURVEYOR NAMING SAID THIRD PERSON.



Scale 1" = 800'

BASIS OF BEARING: NAD 83 MICHIGAN CENTRAL STATE PLANE GRID

Christopher J. McCrимmon  
Professional Surveyor No. 47962

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225 E. MAIN ST. MARION, MI 49665

DATE: 1/24 /2020
DRN BY: CJM
CHD BY: CJM
SHEET 1 OF 4

CLIENT: USDA Forest Service
Part of Section 17, T16N, R14W, Troy Twp., Newaygo Co., MI.

FB/PG: FS1/1-8
JOB NO.: 19216

# LEGALS AND COORDINATES

COORDINATE LIST  
 NAD83 MICHIGAN CENTRAL ZONE INTERNATIONAL FEET STATE PLANE COORDINATES  
 ELEVATIONS SHOWN TO TWO DECIMAL PLACES ARE ORTHOMETRIC HEIGHTS DERIVED FROM GPS  
 MEASUREMENTS AND THE GEOID09 MODEL. ALL OTHER ELEVATIONS ARE SCALED.  
 NAD83 GEOGRAPHIC COORDINATES ARE SHOWN AS NORTH LATITUDE AND WEST LONGITUDE.  
 (DEG MIN SEC.SSSS)

POINT	NORTHING	EASTING	ELEVATION	LATITUDE	LONGITUDE	S.F.	C.S.F.	CONVERGENCE
S141716N14W	170333.82	19251369.53	778.57	43 46 18.56195	86 00 30.01667	1.000119649	1.000087752	-1 09 34.87955
SE1716N14W	170239.01	19254022.54	768.45	43 46 18.15457	85 59 53.84546	1.000119689	1.000088272	-1 09 09.32794
NE1716N14W	175475.15	19254237.78	784.74	43 47 09.89188	85 59 52.34796	1.000114658	1.000082464	-1 09 08.27009
SW1716N14W	170369.13	19248741.66	803.89	43 46 18.38378	86 01 05.82900	1.000119666	1.000086561	-1 10 00.17764
W141716N14W	172976.69	19248806.58	777.22	43 46 44.14019	86 01 05.66804	1.000117154	1.000085326	-1 10 00.06394
E141716N14W	172853.79	19254123.98	800	43 46 43.98953	85 59 53.18006	1.000117169	1.000084244	-1 09 08.85789
NW1716N14W	175618.28	19248855.46	800	43 47 10.22949	86 01 05.73500	1.000114625	1.000081709	-1 10 00.11125
N141716N14W	175546.83	19251545.80	800	43 47 10.06329	86 00 29.05268	1.000114641	1.000081721	-1 09 34.19858

SP,



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**LEGAL DESCRIPTION OF THE NATIONAL FOREST SYSTEM LAND:**

The West 1/2 of the Northeast 1/4 AND the Southeast 1/4 AND the South 1/2 of the Northwest 1/4, Section 17,  
 T16N-R14W, Twp. of Troy, Newaygo County, Michigan.

DISTANCES ARE SHOWN IN NAD 83 MICHIGAN CENTRAL  
 STATE PLANE GRID IN INTERNATIONAL FEET.  
 1 INTERNATIONAL FOOT = 0.3048 METERS. COMBINED  
 GRID FACTOR FOR THE PROJECT = 1.000086152.

GRID DISTANCE \_\_\_\_\_ = GROUND DISTANCE  
 COMBINED GRID FACTOR

*CJM*

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# WITNESSES

SF



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NW Corner, Sec. 17, T16N, R14W

This corner falls in the river, there is a 5" x 60" square concrete monument which is a witness monument on the section line and 70' record distance north of the true corner position.

- North - 5" square concrete monument - 69.81'(M) 70'(R)
- N55E - nail in SE face of 16" R. Pine - 64.24'
- S63E - 60d nail in S face of P. Pole - 69.98'
- S77W - 60d nail in N face of 5" Oak - 18.77'
- N28W - U.S.G.S. Monument - 39.39'

N. 1/4 Corner, Sec. 17, T16N, R14W

- 2 1/2" pipe with brass cap +/-0'5' below grade and 7' south of the c/l of e-w gravel road
- N28E - nail in SE face of 20" R. Pine - 49.94'
- S52-40-18E - 5" square concrete monument (Griffin 1973) - 44.54'
- S33E - nail in SW face of 12" R. Pine - 78.21'
- S20W - nail in W face of 16" R. Oak - 84.16'
- N36W - SW Corner of foundation - 78.66'
- North - 1/2" re-rod and cap #28417 - 33.00'

NE Corner, Sec. 17, T16N, R14W

- Found broken 4 1/2" diameter x 14" long cast iron monument 0.5' b/g in c/l e-w gravel road +/-10' east of c/l drive south.
- S40E - nail in NE face of 18" W. Pine - 46.40'
- S30W - 60d spike in SE face of 20" Oak - 75.67'
- S36W - 5/8" rod - 41.49'
- N77W - stone with "x" - 103.15'
- N37-45W - 1/2" re-rod with cap 24675 - 40.79'
- N0-26W - 1/2" re-rod with cap 28417 - 33.00'

W. 1/4 Corner, Sec. 17, T16N, R14W

- Found r/r spike 0.2' b/g, +/-2' west of c/l n-s asphalt road & +/-60' north of c/l drive east.
- N47E - dock spike in SE face of 16" R. Pine - 104.09'
- N81E - spike in N face of 32" W. Oak - 50.53'
- N83E - dock spike in N face of 16" R. Pine - 87.92'
- N08W - dock spike in SW face of 18" W. Oak - 128.09'

C. 1/4 Corner, Sec. 17, T16N, R14W

- 1/2" x 18" long re-rod and cap, P.S. #47962, flush with the ground in swampy area
- S15E - 60d spike in NE face of 16" Maple - 46.28'
- S37W - 60d spike in SE face of 13" Triple Cedar - 23.00'
- N88W - 60d spike in N face of 9" Poplar - 42.02'
- N33W - 60d spike in NE face of 16" Cedar - 44.36'
- West - fiberglass post - 1'

E. 1/4 Corner, Sec. 17, T16N, R14W

- 2 1/2" pipe with 3 1/4" brass cap
- S58E - 10" Ash - 14.00'
- S16W - 1" iron pipe with cap 26457 - 18.86' (Hepworth, 1986)
- S88W - 6" Cedar - 76.88'
- N59W - 12" Maple - 59.88'
- North - fiberglass post - 0.7'

SW Corner, Sec. 17, T16N, R14W

- Found 5" square concrete monument in monument box +/-1.5' below grade, +/-3' east of c/l n-s asphalt road, extension of fence east & +/-25' north of c/l drive west.
- N36E - spike in E face of 36" W. Oak - 104.51'
- East - nail in north side of 6"x6" treated post - 34.33'
- S62W - spike in W face of 24" W. Oak - 144.32'
- N37W - spike in NE face of 24" R. Oak - 43.09'

S. 1/4 Corner, Sec. 17, T16N, R14W

- 5" square concrete monument +/-1' b/g, +/-0.5' north of 3 strand barb wire fence & +/-4' north of 10' high deer fence.
- North - Pine post - 33.08'
- N65E - nail in NW face of 16" Aspen - 22.21'
- S15W - nail in E face of 4"x4"x10" tall post - 4.23'
- N43W - nail in NE face of 6" W. Oak - 39.41'
- N88W - nail in N face of 8" B. Oak - 47.14'

SE Corner, Sec. 17, T16N, R14W

- Found 5" square concrete monument in monument +/-1' a/g, +/-6' south of c/l e-w trail & +/-10' west of extension of c/l trail south
- N11E - dock spike in W face of 16" R. Pine - 35.48'
- S38E - dock spike in SW face of 20" R. Pine - 64.92'
- S62W - dock spike in S face of 16" R. Pine - 4.98'
- N50W - dock spike in SW face of 12" R. Pine - 58.95'
- South - fiberglass post - 1'



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# REPORT OF SURVEY



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**MONUMENT ANALYSIS:**

- The Northwest Corner falls in the river. I computed this position from 2002 Robert Mitchell information. I also found the 5" square brass cap concrete monument (BCM) witness corner set by Robert Griffin in 1969 on the section line and 70.0' north of the corner position. The 2002 Mitchell position checks 69.81' -vs- 70.0'(R) and is consistent with recovered corners 1/2 and 1 mile east.
- The North 1/4 Corner is a 2 1/2" pipe with brass cap set by Bob Mitchell in 2002 at a found axle shaft and wood stake.
- The Northeast Corner is a broken 4 1/2" diameter x 14" cast iron Harrison monument 0.5' below grade in c/l e-w road and +/-10' east of c/l drive south. Excavated to the bottom of the found monument and didn't find any other evidence of a corner. Bob Mitchell had found a cedar stake point at this position in 2002 and set a 2 1/2" flanged bottom steel pipe with brass cap. There is a newer culvert running under the road in this location and I'm assuming the pipe was destroyed when the culvert was updated. The position of the found cast iron monument fits existing Mitchell witnesses and 2002 control measurements.
- The West 1/4 Corner is a found r/r spike +/-0.2' below grade, +/-2' west of c/l n-s asphalt road & +/-60' north of c/l drive east. The r/r spike checked with existing witnesses and the road had been newly resurfaced and therefore I didn't excavate this corner to find the BCM. This position is a perpetuation by Robert Griffin in 1969 of undated county surveyor records for the corner.
- The East 1/4 Corner is a 2 1/2" pipe with brass cap set by Bob Mitchell in 2002 at a found cedar stake and remains of witness #1 regrowth of the 1856 GLO resurvey.
- The Southwest Corner is a BCM in monument box +/-1.5' below grade, +/-3' east of c/l n-s asphalt road in extension of fence east & +/-25' north of c/l drive west. This corner is a perpetuation of a found rod in n-s road by Robert Griffin in 1969.
- The South 1/4 Corner is a BCM in e-w fence and is a perpetuation of a 1 1/4" iron pipe found by Robert Griffin in 1970. The pipe was identified as being in the proper location by a landowner in Section 20.
- The Southeast Corner is a found BCM at the +/- intersection of trails E-W & South. The monument was set in 1969 by Robert Griffin at record bearing and distance from witness #2 of the GLO resurvey.

**ENCROACHMENTS:**

- There is an access drive encroachment running south from the N. 1/4 Corner. This drive services private land owners located in the N.W. 1/4 and the drive encroaches +/-15-25' over the line.
- There is an access drive encroachment located in the S. 1/2 of the N.W. 1/4. This drive services a cabin located in the N. 1/2 of the N.W. 1/4. The drive starts on the West Section Line +/-215' south of the N. 1/16<sup>th</sup> Corner and then meanders east and north to the 1/16<sup>th</sup> line. The cabin also has a circle drive that encroaches onto National Forest land.

**OCCUPATION/FENCES:**

- The South line of this section from the S. 1/4 Corner to the E. 1/16<sup>th</sup> Corner runs along an older e-w fence which is +/- on the property line. There is also a 10' high deer fence running along this line which is +/-2-5' south of line. There is an existing overhead power line crossing over the line and shown on the Control Diagram.
- There is an overhead power line located +/- 570' east of the N. 1/16<sup>th</sup> Corner on the West Section Line that crosses National Forest land and provides service to the private land owner located in the N. 1/2 of the N.W. 1/4.

**SECTION SUBDIVISION:** This section was computed proportionally holding the intersection of 1/4 lines as the Center 1/4 Corner. For the purpose of this project NFS boundaries that fell within the bottom lands of the South Branch of the Pere-Marquette River were not posted. Points on line (POL) where posting stopped were set at the toe or top of slope of the bottom lands.

If interior NFS property corners were found within acceptable limits I honored those monuments and put a deflection at said position.

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