Project Title: Improving Statewide GIS Data by Restoring the PLS

Category: H. Proposals seeking $200,000 or less in funding

Sub-Category: A. Foundational Natural Resource Data and Information

Total Project Budget: $135,250

Proposed Project Time Period for the Funding Requested: June 30, 2021 (2 yrs)

Summary:
Restoring the Public Land Survey (PLS) will improve foundational GIS data that resource managers and citizens utilize on ENRTF projects and conservation easements.

Name: Patrick Veraguth

Sponsoring Organization: Minnesota Association of County Surveyors

Title: Douglas Co Surveyor

Department: Grant County

Address: 526 Willow Dr, PO Box 398

Alexandria, MN 56308

Telephone Number: (320) 762-2964

Email patv@co.douglas.mn.us

Web Address: http://www.macsinfo.org/

Location
Region: Central
County Name: Grant

City / Township: Elbow Lake

Alternate Text for Visual:
Attached Map is a map of all the PLS corners we will be working on in Lawrence Township.

Funding Priorities Multiple Benefits Outcomes Knowledge Base
Extent of Impact Innovation Scientific/Tech Basis Urgency
Capacity Readiness Leverage TOTAL %
If under $200,000, waive presentation?
I. PROJECT STATEMENT

The Minnesota Association of County Surveyors (MACS) goal is to protect the land rights of all land owners and land users in the state of Minnesota by re-establishing all the Public Land Survey (PLS) corners in the state to accurately reflect their original locations. These corners directly affect conservation easements and ENRTF projects, both established and yet to be established.

The original PLS was performed in Minnesota from 1847 to 1905. Most of these PLS corners were set with wooden posts which deteriorate and disappear over time. The Government Land Office (GLO) originally set these corners and gave the power of maintaining them to the State. The state, in turn, gave that responsibility to the counties. Traditional funding sources, which are linked to general county fees, leave greater Minnesota short of necessary funds to accomplish this task. It is the job of the licensed Land Surveyor to assure that these corners are where they were originally set to protect land rights.

These corners affect every land owner in the state. PLS monuments are necessary to accurately depict land ownership and interest in real property, which impacts land transfers; parcel subdivisions; property taxation; hunting and mineral rights; as well as granting of easements. The environmental tie to this proposal is clear in that all resources, their use and delineation, require some description related to the corners of the PLS system. With the loss of one quarter-section corner every parcel of land within two sections is affected, the loss of one section corner has the same adverse effect in four sections.

Grant County and the MACS PLS Committee is seeking funding for a pilot project in Grant County to remonument Township 130 North, Range 44 West of the Fifth Principal Meridian (Lawrence Township). This proposal is the pilot project to support the development of statewide PLS remonumentation.

This project will help reestablish and protect land rights now and in the future; it will also guard previously allocated funds by ensuring the PLS is restored in areas where conservation easements and other ENRTF developments have been completed.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Remonumenting Lawrence Township in Grant County

- Initial Research will review the GLO notes, GLO plats, Historical County Surveyor Books, filed surveys and other survey sources. This information will be compiled into a Statement of Evidence for each corner in the township.

- Initial survey shall search for all monuments in the township, perform excavations at any corners that are buried in roads and collect survey grade geodetic coordinates for each corner. Grant County has volunteered their backhoe services for this project.

- Final Survey shall analyze data with the County Surveyor and all final corner positions will be approved by the County Surveyor. Upon approval, all corners will be set with durable magnetic monuments.

- Certify all corners with a standard corner certificate and final Statement of Evidence and record documents in the County Recorder’s office.

ENRTF BUDGET: $135,250

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initial Research</td>
<td>August 1, 2019</td>
</tr>
<tr>
<td>2. Initial survey</td>
<td>October 31, 2019</td>
</tr>
<tr>
<td>3. Initial Excavations</td>
<td>July 1, 2020</td>
</tr>
<tr>
<td>4. Final survey and monument setting</td>
<td>September 31, 2020</td>
</tr>
<tr>
<td>5. Certify and record Corner Certificates</td>
<td>December 31, 2020</td>
</tr>
</tbody>
</table>
III. PROJECT PARTNERS:

A. Partners receiving ENRTF funding

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrick Veraguth</td>
<td>Douglas County Surveyor</td>
<td>Create RFP contract</td>
<td>Approve corner Locations</td>
</tr>
<tr>
<td>RFP winner</td>
<td>MN Licensed Land Surveyor</td>
<td>Section work</td>
<td>Surveyor doing remonumentation work</td>
</tr>
</tbody>
</table>

B. Partners NOT receiving ENRTF funding

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracey Vonbargen</td>
<td>Grant County Engineer</td>
<td>County contact</td>
<td>Incharge of scheduling for corner excavations</td>
</tr>
<tr>
<td>Diann Giese</td>
<td>Grant County Recorder</td>
<td>County Recorder</td>
<td>Provide copies and file corner certificates.</td>
</tr>
<tr>
<td>To be determined</td>
<td>Mndot Technician</td>
<td>Mndot</td>
<td>Corner research</td>
</tr>
<tr>
<td>Thomas Harper</td>
<td>Land Survey Principal</td>
<td>Mndot D-4 Surveys</td>
<td>Excavate and Remonument corners in TH 55 (11 corners)</td>
</tr>
</tbody>
</table>

IV. LONG-TERM IMPLEMENTATION AND FUNDING:
This is a pilot project for remonumenting the PLS across the entire state. MACS is looking for funding partners to implement a state wide remonumentation program. This project is the first step in this process. This will be a model for other counties to follow in the future.

V. TIME LINE REQUIREMENTS:
- Work will begin in July of 2019.
- Research, survey work and certifying corners can be done at any time.
- Corner excavations and monument setting can only be done when there is no frost in the ground from May 1 to October 31. This will stretch this project into all of 2020.

VI. SEE ADDITIONAL PROPOSAL COMPONENTS:
A. Proposal Budget Spreadsheet  
B. Visual Component or Map  
C. Project Manager Qualifications and Organization Description  
D. Letter or Resolution  
E. Letters of Support (3)
## 2019 Proposal Budget Spreadsheet

**Project Title:** Improving Statewide GIS Data by Restoring The PLS

### IV. TOTAL ENRTF REQUEST BUDGET 1.5 years

<table>
<thead>
<tr>
<th>BUDGET ITEM</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel: Douglas County Surveyor approves each corner certificate (15 minutes per cert) 137 certs. The Douglas County Surveyor is contracted by Grant County to check these corner certificates.</td>
<td>$ 2,400</td>
</tr>
<tr>
<td>Professional/Technical/Service Contracts: RFP for Land Survey work (Estimate $1000/corner)</td>
<td>$ 126,000</td>
</tr>
<tr>
<td>Equipment/Tools/Supplies: PLS corner monuments ($50/monument)</td>
<td>$ 6,850</td>
</tr>
<tr>
<td>Acquisition (Fee Title or Permanent Easements):</td>
<td>$ -</td>
</tr>
<tr>
<td>Travel:</td>
<td>$ -</td>
</tr>
<tr>
<td>Additional Budget Items:</td>
<td>$ -</td>
</tr>
</tbody>
</table>

**TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND $ REQUEST =** $ 135,250

### V. OTHER FUNDS

(This entire section must be filled out. Do not delete rows. Indicate “N/A” if row is not applicable.)

<table>
<thead>
<tr>
<th>SOURCE OF FUNDS</th>
<th>AMOUNT</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Non-State $ To Be Applied To Project During Project Period:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excavator +/- 100 corners</td>
<td>$ 15,000</td>
<td>Secured</td>
</tr>
<tr>
<td>County Recorder Research</td>
<td>$ 200</td>
<td>Secured</td>
</tr>
<tr>
<td>County Recorder Recording Certs</td>
<td>$ 6,302</td>
<td>Secured</td>
</tr>
<tr>
<td>Other State $ To Be Applied To Project During Project Period:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mndot Technician Research work</td>
<td>$ 2,000</td>
<td>Secured</td>
</tr>
<tr>
<td>Mndot D4 PLS work on TH 55</td>
<td>$ 11,000</td>
<td>Secured</td>
</tr>
<tr>
<td>In-kind Services To Be Applied To Project During Project Period:</td>
<td>$ -</td>
<td></td>
</tr>
<tr>
<td>Past and Current ENRTF Appropriation:</td>
<td>$ -</td>
<td></td>
</tr>
<tr>
<td>Other Funding History:</td>
<td>$ -</td>
<td></td>
</tr>
</tbody>
</table>
Grant County MN
Lawrence Township
T130N R44W

Red dots are corners that will be remonumented by this project
Blue Dots are corners that MnDOT will remonument
No dots represent a corner that is certified already
Improving Statewide GIS Data by Restoring The PLS

Project Manager:
  Patrick D. Veraguth, LS  
  Douglas County Surveyor for 5 years  
  526 Willow Drive  
  PO Box 398  
  Alexandria, MN 56308  
  (320) 762-2964  
  Contract Land Surveyor for Grant County for 5 years  
  Winona County Surveyor for 20 years  
  2006 and 2017 President of MACS  
  Minnesota Association of County Surveyors (MACS) representative on this project  
  Current Chair of MACS Public Land Survey (PLS) Committee

Assistant Project Manager:
  Tracey Von Bargen, PE  
  Grant County Engineer  
  224 3rd Street SE  
  PO Box 1005  
  Elbow Lake, MN 56531  
  (218) 685-8300

Organization Description:

  - Grant County was established to take care of the interest of their citizens.

  - Minnesota Association of County Surveyors two goals are to protect the land rights of all land owners and land users in the state of Minnesota by re-establishing all the Public Land Survey (PLS) corners in the state to accurately reflect their original locations and establish County Surveyors in every county.

  - Grant County Engineer Tracey Von Bargen, PE and MACS representative Patrick D. Veraguth, LS are working together on all aspects of this pilot project in Lawrence Township.
    - Patrick Veraguth will contact Mndot for work on researching corners.
      - Research will need to be done in 3 counties.
    - MACS will write an RFP for this work in Lawrence Township.
    - Grant County and MACS will advertise, review and award RFP.
    - RFP winner will proceed with Land Survey work.
    - Patrick Veraguth will oversee this work.
    - Thomas Harper, Mndot D4 Land Survey Principal will remonument all corners in TH 55.
    - Tracey Von Bargen will coordinate county staff for corner excavations.
    - Patrick Veraguth will approve final corner positions.
    - RFP winner will create corner certificates and record them in the County Recorder’s Office.
    - Tracey Von Bargen will review and process regular payments during process of work and make final payment once all work is completed.