

# Grant Application Montana Land Information Act Fiscal Year 2017

## *Design and Development of Corner Recordation GIS Feature Class*

Submitted By  
Lewis & Clark County, MT

### **CERTIFIED CORNER RECORDATION**

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S35|S36 T. \_\_\_\_\_ R. \_\_\_\_\_ P.M.,M  
Corner S1 T. 15N R. 4W P.M.,M. LEWIS AND CLARK County

1869 GLO Original Survey by Marsh, Book 3136 Page \_\_\_\_\_ :

*sets the original corner monument*

1890 GLO Retracement Survey by Bickel, Book 2290 Page 10:

*found the original stone 16x8x5ins in a mound of stone properly marked*

1898 GLO Retracement Survey by Davis, Book 3425 Page 14:

*found the original stone in a mound of stone properly marked*

1898 GLO Survey by Davis, Book 3427 Page 12:

*found the original stone in a mound of stone properly marked (sets closing corner to west)*

1963 MDT Hwy Plans for 115-4(13)218:

*Plans show finding CC but symbol for the section corner east is assumed to be a "not found" monument*

February 11, 2016

## STEP 1 – Applicant and Partner Information

**Primary Applicant (Required): Lewis and Clark County, MT**

Name of principle individual: Eric Spangenberg

Name of agency/entity: Lewis and Clark County

Street: 316 N. Park Ave.

City: Helena

County: Lewis and Clark

State: MT

Zip Code: 59623

Contact email address: [espangenberg@lccountymt.gov](mailto:espangenberg@lccountymt.gov)

Contact fax address: 406-447-8386

Contact phone: 406-447-8389

**Organizational Unit (if applicable)**

Department: Information Technology & Services

Division: Geographic Information System (GIS) Services

**Other Project Partners – complete for each partner (copy box as needed):**

Name of contact:

Name of Agency:

Street:

City:

County:

State:

Zip Code

Contact email address

Contact phone:

**Date Submitted (Required):**

**Date Received by State:**

**Descriptive Title of Applicant's Project (Required):**

Design and Development of Corner Recordation GIS Feature Class

## STEP 2 – Relevance and Public Benefit

This project will create a digital feature class representing Corner Recordation (CR) locations. The primary objective will result in the ability to represent the CR in a visual manner through a geographic information system (GIS). The project will make the scanned CR document more readily searchable and available to users through a GIS interface. In the long-term, these files will be available via the Internet to all parties, public and private.

The Corner Recordation represents a vital link to maintaining the accuracy of the Public Land Survey System (PLSS). As noted in the FY16/17 Land Plan, section 1.b. County Land Records; “Ongoing work to support the Montana CadNSDI will require continued coordination ....MSL will make accuracy adjustments to the CadNSDI by incorporating additional control data created from corner recordation records held by county governments....” (Montana Land Information Plan, FY16/17, page 9)

The Corner Recordation Act of Montana states; “It is the purpose of this part to protect and perpetuate public land survey corners and information concerning the location of such corners by requiring the systematic establishment of monuments and recording of information concerning the marking of the location of such public land survey corners and to allow the systematic location of other property corners thereby providing for property security and a coherent system of property location and identification of ownerships and thereby eliminating the repeated necessity for reestablishment and relocations of such corners where once they are established and located.” (MCA 70-22-102)

As noted in both the Land Plan, and the Corner Recordation Act, improving land information accuracy is an ongoing priority. Having this feature available will aid in that priority. Through the implementation of a standard methodology for feature development and database structure utilizing a GIS, we intend to make it easier for staff, public, and private entities to access this important building block of cadastral and land information. The GIS feature will provide the link to the originating document, making the information more readily available via a graphic user interface to assist the land use planners and surveyors

As proposed in this project, the GIS will serve as a functional visual tool for representing the CR as well as providing a point of entry to access the scanned document from the Clerk and Recorder’s application. With the use of GIS, the CR location is visible to the end user, providing a better picture of work completed.

This CR feature will improve access to the data used by the surveying community, assisting in priority 1 of the Land Plan. Additionally, the CR information may assist improvement to the accuracy of the CadNSDI theme, as noted in priority 1.b of the Land Plan. The county will incorporate the feature into their robust online mapping and GIS applications to improve public access to this important data.

## STEP 3 – Scope of Work Narrative

1. Goals and Objectives –
  - a. Goal - The development of a comprehensive CR point feature class.
    - i. Objective – design and development of an Esri enterprise geodatabase point feature class that represents locations of corner records.
  
2. Tasks or Activities –
  - a. The project funding will contract the work of CR research and GIS feature development. A proposed process for CR feature development is as follows:
    - Contractor to be selected by competitive RFP
    - Contractor will meet with county staff to develop feature class database design
    - The contractor will be provided a complete list of CR's from the Clerk and Recorder (approximately 3,600)
    - Create a point feature at the corner location described by each corner record
    - Attributes for the feature class identified during the design step, at a minimum we expect the CadNSDI corner ID and the county document number.
    - Feature class deliverable will be Esri geodatabase, preferably in ArcGIS 10.3.x file geodatabase.

3. Project Schedule –

<b>Task</b>	<b>Start</b>	<b>Duration</b>
Notification of grant award	May 15, 2016	
Identify additional stakeholders or interested parties to discuss feature attribute needs	May - June	
Write a detailed RFP/RFQ to select best contractor to complete project	June	
Advertise RFP/RFQ	July	+/- 30 days
Select contractor	TBD	2 weeks
Meet with contractor and finalize contract needs and requirements	TBD	
Contractor begins work as outlined by grant and RFP/RFQ	late August	until completed or funds are final
Monthly QA/QC of project work from contractor	TBD	
Interim Project report	TBD	
Final Project report	September, 2017	

## **STEP 4 – Project Management and Organizational Capability Narrative**

Project management by Lewis & Clark County GIS, with contractor selected via response to advertised RFP/RFQ.

Lewis and Clark County GIS Coordinator, Eric Spangenberg, GISP, will provide project management. Similar project management includes the successful completion of 2008 MLIAC grant; '*GCDB Enhancement for Portions of Lewis and Clark County*' and 2013 MLIAC grant; '*Design and Development of Certificate of Survey GIS Feature*'.

Other project management includes the county's 2006 and 2012 aerial image update.

Eric has 20 years of GIS experience; 17 of those years are Montana based and all in either local or state level government. He has experience in all levels of GIS, from data digitizing to high-level GIS database design and management and web mapping applications.

Lewis and Clark County GIS has a staff committed to maintenance of all enterprise GIS data. The CR feature will be added to the list of enterprise data that is regularly updated.

## STEP 5 – Budget Justification Narrative and Tables

Preliminary budget estimates place the proposed cost of this project at approximately \$37,500.

Lewis & Clark GIS staff completed test feature class development; the average time per point feature build and attribute was 2-3 minutes. To account for administrative billing, and regular interruptions in the business day, a 5-minute build time is used for preliminary budget estimate. The price per hour is based on an the GIS Lead hourly rate billed for our 2013 MLIAC grant

$$3,600 \text{ CR} \times 5 \text{ minutes} / 60 \text{ minutes} = 300 \text{ hours} \times \$125 = \underline{\$37,500}$$

Based on contractor response to a competitive RFP/RFQ process, the county would sign an Independent Contractor contract for the delivery of the CR feature. This will be a fixed-price contract.

In addition to the grant request of \$27,000, the county will provide \$10,500 additional MLIA funds from their local account, leveraging MLIA collections for this project.

As noted earlier, the county is committed to this enterprise feature. The CR feature will be added to the list of enterprise data that is regularly updated. In the case of the CR feature, staff will edit the feature when the CR is filed with the Clerk & Recorder's office.

### ***Applicant budget summary***

Category	MLIA Share	Applicant Share	Other Share	Total
<b>a. Personnel</b>				
<b>a.1 Fringe Benefits</b>				
<b>b. Travel</b>				
<b>c. Equipment</b>				
<b>d. Supplies</b>				
<b>e. Contractual</b>	<b>\$27,000</b>			<b>\$27,000</b>
<b>f. Other</b>		<b>\$10,500</b>		<b>\$10,500</b>
<b>Totals</b>	<b>\$27,00</b>	<b>\$10,500</b>		<b>\$37,500</b>

## STEP 6 – Statements of Support

Statements of support must be included from any party listed as a project partner (see page six for the definition of a project partner). **DO NOT** include other statements of support as they will not be evaluated.

*\*If the proposal proposes to support MSDI framework layer(s), applicant **must** include a letter of support from the framework steward(s). See mandatory criteria # 3.*

## STEP 7 – Renewable Grant Accountability Narrative

Not applicable

## STEP 8 – Sign the Application

### Authorizing Statement

I hereby certify that the information and all statements in this application are true, complete and accurate to the best of my knowledge and that the project or activity complies with all applicable state, local and federal laws and regulations.

I further certify that this project will comply with applicable statutory and regulatory standards.

I further certify that I am (by my signature) authorized to enter into a binding agreement with the Montana State Library to obtain a grant if this application receives approval.

\_\_\_\_\_  
Name (print or type)

\_\_\_\_\_  
Title (print or type)

\_\_\_\_\_  
Signature and Title of Authorized Representative(s) of Public Entity Applicant

\_\_\_\_\_  
Date