

# MCCONE COUNTY PLSS ENHANCEMENT

## STATE FISCAL YEAR 2020

### JULY 1, 2019 – JUNE 30, 2020

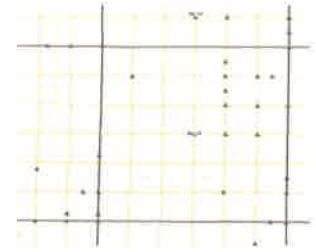
#### Data Accuracy Improvement Workflow



Survey control is collected by surveyors



Surveyors submit survey control to the Mapping Control theme lead at the Montana State Library



Mapping control is used to adjust the Montana CadNSDI PLSS



Datasets such as parcels, boundaries, public lands, and conservation easements are adjusted to the CadNSDI PLSS



After adjustment cadastral parcels that previously looked like this...



now better reflect the surveys on the ground

Data Accuracy Improvement Workflow (nd). Geographic Clearing House, Cadastral, CadNSDI, Montana State Library Website.  
Retrieved from <http://geoinfo.msl.mt.gov/msdi/cadastral/CadNSDI>

Application for MLIA Grant Funding

**SECTION 1 – APPLICANT, PARTNER, AND PROPOSAL INFORMATION**

<b>Primary Applicant Contact Information</b> <i>(Please fill this section out in its entirety)</i>	
Name of Agency/Entity:	McCone County
Department:	Geographic Information Systems (GIS)
Division/Section:	
Street:	1004 C Avenue
City:	Circle
County:	McCone
State:	Montana
Zip Code:	59215
<i>Project Manager Contact Information:</i>	
Name:	Nancy Stempel
Title:	Geographic Information Systems (GIS) Coordinator
Email Address:	mcongis@midrivers.com
Phone Number:	406 485-2347
Fax Number:	406 485 2199
<i>Secondary Project Manager Contact Information:</i>	
Name:	Sara Hodge
Title:	Disaster Emergency Service (DES)Coordinator
Email Address:	mcondes@midrivers.com
Phone Number:	406 485 2347
<b>MLIA Grant Funding Request &amp; Match:</b>	
Total Requested MLIA Funds:	24,035
Total Matched Funds:	7,540

**Proposal Information**

Date Submitted:	February 14, 2019
Identified Grant Priority:	III. Improve Land Records.
Annual or Multi-Year Proposal:	In phase I, survey points will be collected in Brockway and the Town of Circle areas. In phase II, points will be collected between Circle and Vida areas. The final phases will collect points with greater than 20 feet variance as well as administrative boundaries.
Proposal Prepared By:	Nancy Stempel
Short Title of Proposal:	McCone County & Town of Circle PLSS Enhancement FY2020

*Executive Summary (required – 250 maximum word count):*

This Request is supporting **Improve Land Records** and is asking for funding for Enhancing the Mapping Control of McCone County by inventorying Certified survey records and collecting Certified Corner Recordation Survey. These Survey controls will improve the (PLSS) Public Land Survey System data for the Cadastral National Spatial Data Infrastructure (CADNSDI) to improve the parcel variance to less than twenty feet. All phases will have two parts and McCone County will collaborate with the Montana State Library (MSL), a Montana Professional Land Surveyor, and the Town of Circle where needed.

The First Phase Part 1 will include researching/inventorying Survey Records of McCone County and collecting survey control points starting with the Town of Circle and Community of Brockway. The survey points will be entered into the Multi-State Control Point Database (MCPD) for the MSL to calculate Mapping Control.

In First Phase Part 2. McCone County will collaborate with the County Land Planner and MSL to explore options of capturing more cost effective ways of collecting survey control during normal county procedures. We will analyze current procedures, determine feasibility and develop a plan to capture control points.

The first phase will capture control points and help parcel data to line up with the aerial photo. The second phase will investigate and plan more cost effective methods to capture the control points during normal business activities.

These activities will be continued in Phases II-V.

**List All Past Awarded MLIA Grants:**

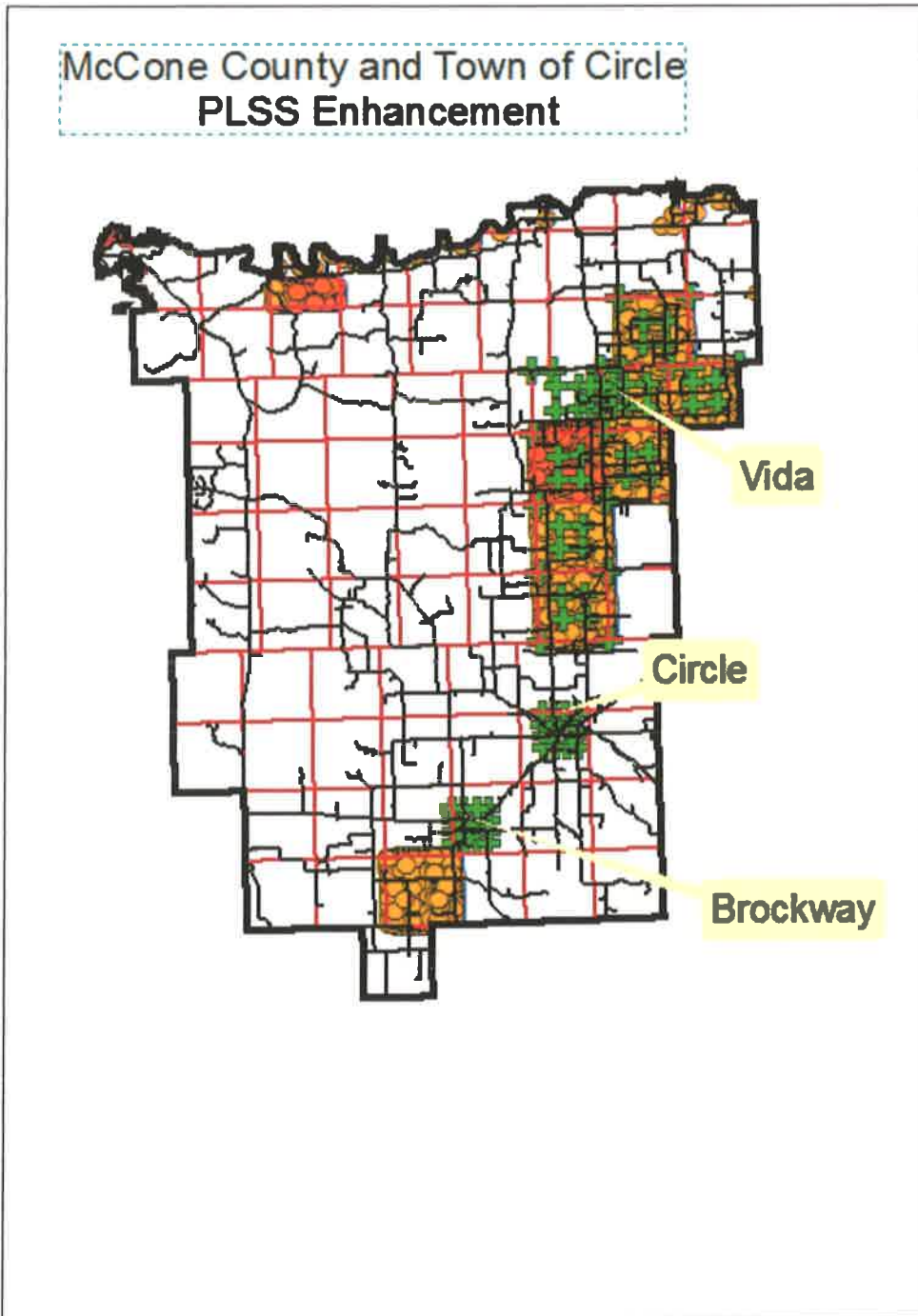
**FY2017**  
**FY2015**

<b>Funding Partners:</b> <i>(required for each partner, copy box as needed)</i>	
Name of Contact:	Maridel Kasner
Name of Agency:	McCone County Clerk Recorder
Street:	PO Box 199
City:	Circle
County:	McCone
State:	MT
Zip Code:	59215
Contact Email Address:	clerk@midrivers.com
Contact Phone Number:	406 485-3505
<b>Funding Partners:</b> <i>(required for each partner, copy box as needed)</i>	
Name of Contact:	Ty R Taylor
Name of Agency:	Board of Commission
Street:	PO Box 199
City:	Circle
County:	McCone
State:	MT
Zip Code:	59215
Contact Email Address:	mcconeco@midrivers.com
Contact Phone Number:	406.485.3500

<b>Funding Partners:</b> <i>(required for each partner, copy box as needed)</i>	
Name of Contact:	John T Hrubes
Name of Agency:	McCone County Attorney
Street:	PO Box 199
City:	Circle
County:	McCone
State:	MT
Zip Code:	59215
Contact Email Address:	<a href="mailto:mcconecountyattorney@gmail.com">mcconecountyattorney@gmail.com</a>
Contact Phone Number:	406.485.3530

<b>Funding Partners:</b> <i>(required for each partner, copy box as needed)</i>	
Name of Contact:	Kenneth Ehli
Name of Agency:	Town of Circle Mayor
Street:	
City:	Circle
County:	McCone
State:	MT
Zip Code:	59215
Contact Email Address:	Townofcircle@midrivers.com
Contact Phone Number:	406.485.2524

SECTION 5 – SCOPE OF WORK



Collect Survey Control Points to enhance the PLSS so that the Cadastral Data has less than 20 feet variance and exploring more cost effective options of collecting survey control. In Phase I, we will collect Survey Points in the areas of Brockway and Town of Circle. In Phase II, McCone County will explore options of capturing more cost effective ways of collecting survey control during normal county business procedures. *All tasks in Part I Objectives 1-4 are dependent on the completion of the tasks in the prior objective while Part 2 Objective 5 will occur at the same time. All objectives will begin in 2019.*

Phase I. July 1.

1. McCone County will clarify the Scope of Work with MSL and a Montana Professional Land Surveyor. GIS will work with the McCone Clerk and Recorder and DES to research, inventory, digitize and map all Section Corner Recordation documents. GIS will share digital documents with MSL. GIS will seek approval of Survey Point Collection with MSL.

August 25.

2. McCone County will contract with a Certified Land Surveyor and seek landowner permission. GIS/DES will collaborate with the Clerk and Recorder, County Attorney, and Board of Commission to create/review contract for Professional Land Surveyor in accordance with county procurement procedures. Surveyor will be selected based on knowledge of survey point collection with Montana State Library and cost. Our objective is to collect 30 points, but as long as time, money are available we will continue to collect more points with MSL approval.

August 28.

3. McCone County GIS finalizes the plan with the surveyor on the planned order of point collection and GPS points are collected in the spreadsheet mandated by the MCPD and are in the Coordinate System below.

- a. Coordinate System: NAD 1983 (2011) HARN State Plane Montana (METERS).
- b. Vertical Coordinate System: NAVD 1988.

GIS/DES will prepare maps for field collection sites if needed and seek landowners for permission. Collect at the minimum of 30 points within the budget.

December 29.

4. GIS/DES will review Control points from the Professional Land Surveyor and submit to MSL. After filing the Certified Corner Recordation Documents with the Clerk and Recorder, GIS/DES/Clerk and Recorder will digitize Certified Corner Recordation Documents and share with MSL. McCone County will also update the County Survey Control Map for the next phase analysis.

Part 2 September 23

5. McCone GIS will collaborate with MSL and County Land Planner to evaluate normal county procedures where additional survey control could be captured and implemented into MCPD. We will evaluate all areas of Survey Collection by exploring county recording and legal procedures. Examples are but not limited to public surveys, retracement surveys, change of surveys, and subdivision review. We will brainstorm how to capture survey control legally, efficiently and cost effectively. If determined feasible for the county, public and MSL, create a prioritized plan on what can be implemented and courses of action to take to accomplish objectives of the plan.

July 1

6. GIS/DES will create quarterly points. McCone County GIS/DES, Board of Commission, Town of Circle and Clerk and Recorder will collaborate quarterly to review progress and approve quarterly reports. GIS/DES will submit to MSL.

Fiscal Year 2020 Montana Land Information Act Grant Application Package

McCone County and Town of Circle PLSS Enhancement																																			
McCone County GIS																																			
Project starts July 1, 2019.																																			
				1																															
				July		August				Sept				Oct				Nov				Dec		Jan		Feb		Mar		April		May		Jun	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
TASK	START	END	DAYS																																
<b>1. Clarify Scope of work. RESEARCH.</b>																																			
a. Create map to inventory of Documents	7/1/19	7/31/19	31																																
b. Digitize all Section Corner Recordation documents	7/1/19	7/31/19	31																																
c. GIS/DES will send digital copy to State Library	7/31/19	8/3/19	4																																
d. Collaborate for collection process	8/3/19	8/8/19	6																																
e. Seek approval from MSL	8/8/19	8/13/19	6																																
<b>2. Select and Contract Certified Land.</b>																																			
a. All will create/review contract for Surveyor Collection.	8/13/19	8/20/19	8																																
b. Observe County Procurement Process to hire surveyor.	8/13/19	8/21/19	9																																
c. ALL will select surveyor by MSL Experience and Cost following.	8/21/19	8/28/19	8																																
<b>3. Prepare for Field Collection and Collect.</b>																																			
a. GIS Finalize plan with Surveyor	8/28/19	9/2/19	6																																
b. GIS will Prepare Maps for Field Collection	9/2/19	9/17/19	6																																
c. GIS/DES will Contact Landowners for permission	9/17/19	9/25/19	9																																
d. Surveyor Collect finalized points	9/17/19	11/15/19	60																																
e. Review Point Collected in MCPD Spread Sheet	11/19/19	12/23/19	41																																
<b>4. Process Field Control Points.</b>																																			
a. Clerk and Recorder Record Corner Recordation Documents	12/23/19	1/8/20	11																																
b. Clerk and Recorder Digitize Documents	12/23/19	1/2/20	5																																
c. GIS/DES Send Digitized Documents to MSL	1/23/20	1/27/20	5																																
d. GIS/DES will send Survey Control to the MSL	1/23/20	1/27/20	5																																
<b>5. Collaborate to explore alternative ways capturing survey control</b>																																			
<b>a. Explore Procedures to capture regular survey</b>																																			
i. Find Areas to explore	9/26/19	11/24/19	60																																
ii. Evaluate areas for Priority and Feasibility	11/24/19	1/23/20	61																																
<b>b. Create Plan to capture quarter section corners and section corners.</b>																																			
i. Consult MSL and Planner for Feasibility, County Attorney	1/23/20	2/17/20																																	
ii. Prioritize Plan	2/22/20	4/1/20																																	
iii. Plan Approval	4/15/20	5/15/20																																	
<b>6. Create Quarterly Reports and Update Everyone</b>																																			
a. Create Reports																																			
b. Review Reports with All and submit to MSL																																			

Tasks that are scheduled after Higher Task is finished are dependent on the completion of that Task.



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## SECTION 6 – BUDGET JUSTIFICATION AND BUDGET TABLE

1. McCone County will clarify Scope of Work with the MSL. GIS will take approximately 24 hours to digitize and label documents, another 10 hours to inventory into a map. 1 hour each will be used to collaborate with the MSL, Town of Circle Mayor, Board of Commission, Clerk and Recorder and County Planner to verify collection plan.
2. Select Certified Land Surveyor by evaluating knowledge of MSL requirements and cost per survey point. GIS will Create Land Maps for Field Survey Point Collection (4 hours). GIS/DES will collaborate with Clerk and Recorder, County Attorney, and Board of Commission to create/review contract for Surveyor Collection (1 hour ea.). Clerk and Recorder will advertise for Surveyor if needed (1 hour). Clerk and Recorder, GIS/DES, and Board of Commission will Contract with selected surveyor (1 hour ea.).
3. McCone County will prepare for Field Collection and Collect points. GIS will finalize plan with Surveyor to ensure proper collection. GIS will prepare maps for field collection (4 hours). GIS/DES will contact landowners for permission (10 Hours). Surveyor will collect finalized points in MCDP format. We are anticipating collecting at the minimum of 30 points around Brockway and Circle. We received several preliminary estimates which ranged from \$300 to \$800 a point from several different surveyors. We are assuming we can get an average of \$650 per point. GIS/DES will review point collected in MCDP spreadsheet (3 hours).
4. Process Field Control Points. Clerk and Recorder will Record Certified Corner Recordation Documents for Survey Control (4 hours). Clerk and Recorder will digitize newly filed Survey Corner Recordation (2 hours). GIS/DES will label and send digitized certified documents to MSL (2 hours). GIS will update County Survey Control Map (5 hours).
5. McCone GIS will collaborate with MSL, County Land Planner, County Attorney, and Clerk and Recorder to evaluate normal county procedures where additional survey control could be captured and implemented into MCPD (5 hours each). GIS/DES will document feasibility of each plan and the plan to implement (5 hours).
6. McCone County GIS/DES, Board of Commission, Town of Circle, and Clerk and Recorder will collaborate quarterly to review progress and approve quarterly reports (1hour ea.) per quarter). GIS/DES will need additional 2 hours a quarter to prepare reports and plan.

McCone County is asking for additional funds to compensate part-time GIS/DES Coordinators for at the rate of \$21 per hour and the County Planner which is currently contracted at \$140 per hour.

The In-Kind funds contributed by McCone County Board of Commission members, the Clerk and Recorder are at the rate \$ 50 per hour and the County Attorney at \$100 per hour.

The majority of the In-Kind funds for GIS/DES will be used in the first Objective when the quarter section corners are researched. Only the documents since 2008 have been digitized. The earlier documents are fragile and larger size so care and time will be needed.

Fiscal Year 2020 Montana Land Information Act Grant Application Package

McCone County Clerk and Recorder, Land Planner, Board of Commission and GIS/DES will evaluate county procedures to capture additional survey control activities to capture corner section corners

Check for survey point collection types with survey information on it.

Check regulations for collecting/ filing of these documents.

Review the procedures to capture the survey control information.

Evaluate feasibility.

Create Plan.

This whole process shall cost \$3000.

After our In-Kind funds have been depleted, we will use administration costs as needed. We plan to collect as many points as possible, so we may have to contact many landowners. We cannot estimate the postage cost and map printing costs.

We are working with several very professional surveyors. We are excited and confident that we will collect as many points as possible for \$20,000 with a minimum goal of 30. We received a wide range of estimates per point so we know that some points will be more difficult to collect if original monuments were destroyed.

**MLIA GRANT BUDGET SUMMARY TABLE**

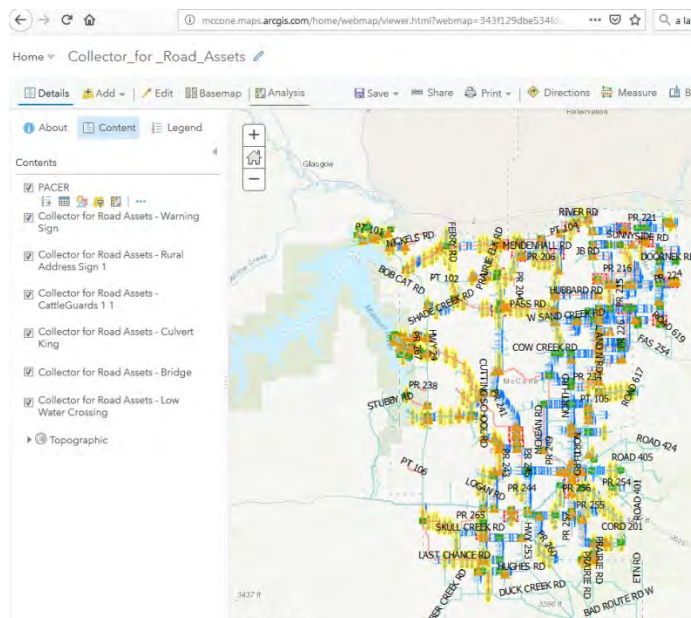
<b>MLIA GRANT BUDGET SUMMARY</b>								
	<b>MLIA Summary</b>	<b>Applicant Summary</b>			<b>Funding Partner Summary*</b>			<b>Total:</b>
Category	MLIA Share	Applicant Cash	Applicant In-kind	Applicant Subtotal	Hours	Rate+Ben	Partner Subtotal	<i>MLIA Share, Applicant Subtotal, Partner Subtotal</i>
a. Personnel								31,575
Mayor Town of Circle			250	250	5	50		
County Attorney			900	900	9	100		
Clerk and Recorder			900	900	18	50		
Board of Commission			700	700	14	50		
GIS/DES	1785		840	840	125	21		
b. Travel								
c. Equipment Computer ArcGIS			3800	3800				
d. Supplies & Materials			150	150				
e. Contractual see below								
Part I Certified Surveyor	20,000							
Part 2 County Planner	1250							
f. Other	1000							
<b>Total</b>	<b>24,035</b>			<b>7540</b>				

## SECTION 7 – RENEWABLE GRANT ACCOUNTABILITY

Although FY2017 Grant for Road Assets Inventory Phase I (FY2015) and II (FY2017) was very successful, we did not meet the time requirements. We were able to complete the tasks in II phases instead of 3 and they were under budget. McCone County Road Crew's work came to a crawl when they had to assign a water truck to all mowing operations they performed. The Lodge Pole Complex Fire occurred in our neighboring county of Garfield. This fire burned over 270,000 acres which was the largest fire in 2017 in the nation. Our Fire Fighters were covering our county as well as parts of Garfield County. The road crew supervisor managed every operation with fire risk in mind. With this added time commitment, the road crew supervisor will was unable to assist in the project. The project manager was also very ill.

The FY2015 Grant Road Assets Inventory Phase I was completed later than the grant due time. We had to hire temporary workers that were over age of 18. We knew this would be a constraint going into the project because most college students have obtained a job by July 1 that will last all summer. We did not anticipate competing with our neighboring counties' oil boom and the impacts it have on our workforce pool.

We have mitigated some of these challenges by having DES as a Secondary Manager and the Clerk and Recorder aiding in the administrative processes where appropriate.



*This map shows the ArcGIS Online Collector Web Map of both Phases of the Road Asset Inventory project.*

**SECTION 8 – CHECKLIST**

*Applicant's Project Manager, defined Section 1, must initial in ink or mark 'n/a' if a section is not applicable.*

Initial or mark n/a	Completed Required Task
	<b>Proposal Prepared by an outside party – I have read this document in its entirety. (if applicable)</b>
	<b>Section 1 – Applicant, Partner, and Proposal Information</b>
NS	Primary Applicant Information
NS/NA	Funding Partner (if applicable)
NS	Proposal Information
NS	List All Past Awarded MLIA Grants
NS/NA	<b>Section 2 – Relevance (300 max word limit)</b>
NS/NA	<b>Section 3 – Public Benefit (if applicable)</b>
NS/NA	<b>Section 4 – Project Management (if applicable)</b>
NS	<b>Section 5 – Scope of Work Narrative (4-page limit)</b>
NS	<b>Section 6 – Budget Justification Narrative and Table (3-page limit)</b>
NS ✓	Budget Justification Narrative
NS ✓	Complete Budget Table
NS	<b>Section 7 – Funding Partner Statements of Support (if applicable)</b>
NS	<b>Section 8 – Renewable Grant Accountability Narrative (if applicable)</b>
NA	FY2019 Grantee Report (if applicable)
NS	Past MLIA Grant Project Narratives (FY2018 - FY2015) (if applicable)
NS	<b>Section 9 – A Signed Authorizing Statement</b>

**SECTION 9 – AUTHORIZING STATEMENT**

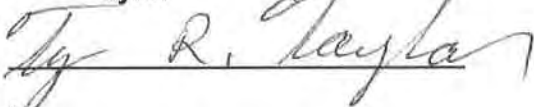
**Authorizing Statement**

I hereby certify that I have read the application and 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.

TY R Taylor



Name

**McCone County Board of Commission**

Title: Presiding Officer

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

2/14/19

Date



# McCone County

1004 C Ave. • P.O. Box 199  
Circle, Montana 59215  
(406) 485-3500 • Fax (406) 485-2689

February 10, 2019

Montana Land Information Advisory Council  
And Erin Fashoway, State GIS Coordinator,  
Montana State Library  
1515 E 6th Avenue  
Helena, MT 59620

RE: McCone County PLSS Enhancement Grant Request

To Council Members and Administration Staff:

I am writing in support of the McCone County GIS grant request to help improve the Montana Cadastral website data. Funding would be used to improve the owner parcel data layer to align better with the aerial photo. This would be done by collecting Survey Points in the most populated areas and the areas that the Montana State Library has determined to be in need of adjustment.


By approving the grant request McCone County is working with the Town of Circle would be able to hire a surveyor to collect section corner recordation markers and certify them, as well as collect the coordinate points (GPS). This will help the Montana State Library align the owner parcel data with the aerial imagery. Once completed McCone County's owner parcel and Town of Circle boundary will be more clearly defined.

This project will save the county money as well as the public. Improving the boundaries for will aid in the County for Next Gen 911 preparedness. Commissioner districts, school districts, and etc. will also need less adjustment after this occurs.

Please fund the McCone County GIS PLSS Enhancement grant request.

Sincerely,

McCone County Commissioners



Ty Taylor, Acting Presiding Officer



# *McCone County Clerk & Recorder*

*P.O. Box 199  
Circle, Montana 59215  
(406) 485-3505 • Fax (406) 485-2689*

February 5, 2019

Montana Land Information Advisory Council  
and Erin Fashoway, State GIS Coordinator,  
Montana State Library  
1515 E 6th Avenue  
Helena, MT 59620

RE: McCone County PLSS Enhancement Grant Request

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By approving the grant request, McCone County in cooperative with the Town of Circle would be able to hire a surveyor to collect section corner recordation markers and certify them, as well as collect the coordinate points (GPS). This will help the Montana State Library align the owner parcel data with the aerial imagery. Once completed McCone County's Owner parcel and Town of Circle Boundaries will be more clearly defined.

On a day to day business our job includes searching boundaries for the Town of Circle, 911, Commissioner Districts, school districts, land ownership, levy voting and much more. This will be able to increase our efficiency and effectiveness.

Please fund the McCone County GIS PLSS Enhancement grant request.

Cooperatively,



Maridel L. Kassner  
McCone County Clerk and Recorder



TOWN OF CIRCLE  
105 Main Street  
PO Box 140  
Circle, MT 59215-0140  
(406) 485-2524



Kenneth Ehli  
**MAYOR**

**TOWN OF CIRCLE**

**TOWN COUNCIL**

CLINT HAYNIE  
CHAIRMAN

GARRY JOHNSON  
COUNCIL

C C. ARNSTON  
COUNCIL

CASEY NAY  
COUNCIL

Kelly Doan, Clerk/Treasurer  
Joe Paine, Public Works Director  
Shelby Hoy, Deputy Clerk

Town Attorney: Rich Batterman  
Town Prosecutor: John Hrubas

February 14, 2019

Montana Land Information Advisory Council and  
Erin Fashoway, State GIS Coordinator,  
Montana State Library  
1515 E 6th Avenue  
Helena, MT 59620

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With the approval of the grant request, McCone County will be working with the Town of Circle to hire a surveyor to collect section corner recordation markers and certify them, as well as collecting the coordinate points (GPS). This will help the Montana State Library align the owner parcel data with the aerial imagery. Once completed McCone County's owner parcel and Town of Circle boundary will be more clearly defined.

Our day to day business that includes boundaries for the Town of Circle, 911, commissioner districts, school districts, etc. will be corrected and we would increase our efficiency and effectiveness.

Please fund the McCone County GIS PLSS Enhancement grant request.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth Ehli".

Kenneth Ehli  
Town of Circle Mayor