MONTANA LAND INFORMATION GRANT APPLICATION

STATE FISCAL YEAR 2018

APPLICATION MLIA GRANT FUNDING

SECTION 1 – APPLICANT, PARTNER, AND PROPOSAL INFORMATION

Primary Applicant:	
Name of principle individual:	Haley Velk
Name of agency/entity:	Blaine County
Street:	420 Ohio Street
City:	Chinook
County:	Blaine
State:	Montana
Zip Code:	59523
Contact email address:	hvelk@blainecounty-mt.gov
Contact fax address:	406-357-2199
Contact phone:	406-357-3310
Department:	Disaster & Emergency Services
Division:	

Funding Partners: *(required for each partner, copy box as needed)*	
Name of contact:	Frank DePriest
Name of Agency:	Blaine County
Street:	420 Ohio Street
City:	Chinook
County:	Blaine
State:	Montana

Zip Code:	59523
Contact email address:	fdepriest@blainecounty-mt.gov
Contact phone:	406-357-3250

Project Partners: *(required for each partner, copy box as needed)*	
Name of contact:	Ken Wall
Name of Agency:	Geodata Services, Inc.
Street:	PO Box 8081
City:	Missoula
County:	Missoula
State:	Montana
Zip Code:	59807
Contact email address:	kwall@geodataservicesinc.com
Contact phone:	406-203-4684
Project Partners: (continued)	
Name of contact:	Tuan Le
Name of Agency:	GeoComm
Street:	601 W. Saint Germain Street
City:	Saint Cloud
County:	
State:	MN
Zip Code:	56301
Contact email address:	tle@geo-comm.com
Contact phone:	320-240-0040

Proposal Information	
Date Submitted:	February 15, 2017
Date Received by State:	
Short Title of Proposal: Blaine County Initial NG 9-1-1 Data Standardization Project	
Executive Summary (*required – 200 maximum word count*): Blaine County proposes to update its existing Geographic Information Systems (GIS) layers that include our road centerline, PSAP boundary, and Authoritative Boundary layers, thus resulting in a highly accurate GIS dataset for Next Generation 9-1-1 (NG9-1-1). The final layers will adhere to National Emergency Number Association (NENA) NG9-1-1 GIS Standards.	

List All Past Awarded MLIA Grants:
MLIA_2015_13 – Blaine County GIS Development

SECTION 2 – RELEVANCE

300-WORD COUNT LIMIT FOR NARRATIVE

Our proposed project will allow Blaine County to access, improve, and maintain our road centerline, Public Safety Answering Point (PSAP) boundary, and Authoritative Boundary layers in preparation for the Next Generation 9-1-1(NG9-1-1) implementation and will reflect the National Emergency Number Association (NENA) standards. In the process of reviewing and editing the current road centerline layer the County will be able to verify the accuracy and standardize the data, as well as add new attribute fields. Such fields might include access type, surface class, and ownership type. This will help the County resolve current road data issues regarding public access, road ownership, and road maintenance questions received from our stakeholders. By updating the current road centerline data layer the County will be able to offer information that is more accurate and reliable to the public as well as improve public safety as the process prepares us for Next Generation 911. We will also be establishing maintenance workflows for our Geographic Information Systems (GIS) map data to ensure updates are made in an effective manner. In turn, our project will improve the quality of data in the statewide MSDI transportation layer which will be shared with the Montana Department of Transportation.

Blaine County proposes to hire Geo-Comm, Inc. (GeoComm) to update existing GIS layers and to develop new layers which will result in a highly accurate GIS dataset for Next Generation 9-1-1 (NG9-1-1). The final GIS data layers will adhere to NENA NG9-1-1 GIS Standards. Their approach includes leveraging leading industry experts who will complete the phases explained in section 4 to provide an exceptional end product that will meet our NG9-1-1 needs.

SECTION 3 – PUBLIC BENEFIT

300-WORD COUNT LIMIT FOR NARRATIVE

Blaine County's proposed project will have numerous benefits to local public safety organizations, local, regional and state government offices, as well as associated benefits to the public at large. Project benefits for the citizens of Montana will be realized by updating the county road map sold by the Blaine County Clerk and Recorder's office. The updated road map will be available to the general public, County departments, and outside agencies and will accurately depict all the roads within the county that are open to public travel. Blaine County also plans to share the improved data with the State of Montana for their statewide MSDI transportation layer and with the Montana Department of Transportation. Updating the data in the Public Safety Answering Point (PSAP) dispatching software will allow for accurately routing any emergency responses by County fire, EMS, and law enforcement personnel.

SECTION 4 – SCOPE OF WORK

Goal: Blaine County will update its existing Geographic Information Systems (GIS) layers that include our road centerline, PSAP boundary, and Authoritative Boundary layers. This will result in a highly accurate GIS dataset for Next Generation 9-1-1 (NG9-1-1). The final layers will adhere to National Emergency Number Association (NENA) NG9-1-1 GIS Standards.

Objective: Project Initiation

Task: We will review and sign a contract for service from GeoComm.

Task: We will hold a project initiation conference call with GeoComm to:

- Introduce our GIS Department to the GeoComm project team
- Provide a single point of contact for communication throughout the project and system implementation to GeoComm
- Review our project objectives and goals
- Define our mutual expectations
- Establish communication processes
- Review the project timeline, including periodic progress reporting and create a project schedule
- Review Statewide NG9-1-1 GIS data standards
- Discuss initial GIS data schema
- Discuss existing resources that may be used in developing the GIS data layers

Task: We will submit required GIS information (e.g. GIS map data, public safety databases, and/or other resources) to GeoComm

Task: We will provide pertinent project information, documentation and will be responsible for the following project- specific support:

- Assist in coordinating and attend periodic conference calls
- Verify existing GIS data is in Esri format including map projection information

Review preliminary Emergency Service Zones (ESZ) map and provide input on updates needed

Objective: NG9-1-1 GIS Layer Development and Updates

Task: GeoComm along with assistance from Blaine County staff will make numerous updates to the road centerline layer which include:

Field Structure Updates

NG9-1-1 attributes will be added to the roads layer to bring our GIS data schema in line with the NENA NG9-1-1 GIS Standards. At minimum, GIS layer attributes categorized as “Mandatory” will be populated if there are resources for them. GeoComm will notify us of any unpopulated “Mandatory” fields. “Optional” and “Conditional” attributes will be populated if attributes already exist in the current roads layer.

Task: GeoComm along with assistance from Blaine County staff will develop the PSAP Boundary and Authoritative Boundary layers.

Public Safety Answering Point (PSAP) Boundary

Development in a NG9-1-1 system, the PSAP boundary is the most critical GIS data layer for initial routing of 9-1-1 calls to the correct PSAP. GeoComm will develop a PSAP boundary layer for us based on existing municipal and/or county boundary layers. GeoComm will make minor topological adjustments along borders; ensuring boundaries are snapped to roads where applicable. The data schema of the PSAP boundary layer will follow the NENA NG9-1-1 GIS Data Model.

Authoritative Boundary Development

In an NG9-1-1 system, GIS data will be provided from a variety of sources and then coalesced into a statewide GIS dataset used for 9-1-1 call routing and location validation. An authoritative boundary is intended to represent the boundary extent (city,

county, region) for which the GIS data is provided. It will be used primarily for reporting GIS data discrepancies back to the source for remediation. GeoComm will develop an authoritative boundary for us, consisting of a single polygon representing the county boundary. The foundation for this layer will be an existing Blaine County provided boundaries layer. GeoComm will make minor topological adjustments along county borders, ensuring boundaries are snapped to roads where applicable. The data schema of the authoritative boundary layer will follow the NENA NG9-1-1 GIS Data Model.

Task: Quality Assurance/Quality Control

Quality control is an integral part of our project and we will be assisting GeoComm throughout the project with ongoing Quality Assurance/Quality Control (QA/QC).

GeoComm's GIS Specialists will complete numerous QA/QC audits to ensure the final map data deliverables are accurate. GeoComm's QA/QC methods are specific to the GIS data needs of the public safety industry; They have developed and implemented a structured QA/QC program consisting of over 25 procedures to increase the accuracy of public safety GIS data. Many of GeoComm's QA/QC procedures are automated using GeoLynx DMS, which offers the ability to export a detailed report of results and zoom directly to the problem area for efficient error correction.

GeoComm's QA/QC curriculum consists of several audits for the following layers:

Polygon Boundary Layers

GeoComm will perform several audits to ensure the quality of the Emergency Service Zone, Municipal, MSAG Community, PSAP, and Authoritative boundary layers. The audits used for checking these boundary layers include:

Topology Audit – to locate gaps and overlaps in polygon coverage,

Missing Attribute Audit - to identify missing or invalid values in pertinent attribute fields

Duplicate Audit – to check for duplicate attributes

Multi-Layer Topology

The Multi-Layer Topology audit verifies road centerline segments to determine if they touch or cross ESZ, Municipal, MSAG Community, PSAP, and Authoritative boundary layers. All roads will be broken where they cross these polygon boundaries to ensure that addresses (based on address ranges) are properly located within the correct boundary on the map. Boundaries that are coincident with road segments will be snapped to those road segments at each vertex.

Task: Final Review and Updates

When the final updates are complete, GeoComm will provide us with the following NG9-1-1 compliant map data layers:

Road centerline Layer

PSAP Boundary Layer

Authoritative Boundary Layer

PROJECT TIMELINE												
	07/01/17	08/01/17	09/01/17	10/01/17	11/01/17	12/01/17	01/01/18	02/01/18	03/01/18	04/01/18	05/01/18	06/01/18
Project Initiation												
Review and sign contract												
Hold project initial conference call												
Submit required GIS information												
Provide pertinent project information												
Layer Development and Update												
Update road centerline layer												
Develop PSAP and authoratative boundary layers												
QA/QC												
Final review and update												

SECTION 5 – PROJECT MANAGEMENT AND ORGANIZATIONAL CAPABILITY

Haley Velk, Blaine County Emergency Manager, will manage Blaine County's data standardization project. Local county coordination will take place with the county transportation department, IT department, County Emergency Responders and County Commissioners.

As we implement this project, the county transportation department will be assisting in the accuracy of the road location, along with verifying information on access type, surface class, and ownership type of all of the roads. The Commissioners office will research historic road right-of-ways and help the transportation department validate the information. County reproduced road maps and plat books will reflect the updates to the road centerline layer completed during this project.

The following GIS department staff; Eric, Dirk and Savannah from the county transportation department, Dave with the IT department, Charlie with the County Commissioners, Christian with the weed department, Haley and Laurie with the Emergency Management Department all attended the 50 weeks of training and capability building provided by Geodata Services funded by our successful FY 2015 MLIA grant. We have since continued our partnership with Geodata Services for continued technical assistance, consulting and additional project work. This same group all took a basic ArcMap course taught by Geodata Services. Blaine County's goal with the FY2015 MLIA grant was to build a self-sustaining GIS department. Our primary goal has been attained and the group continues to meet monthly to address any issues and plan for the future of the Blaine County GIS program.

Haley Velk has been with Blaine County for 15 years. She started and completed the initial Enhanced 911 project. Her current title is the Emergency Manager with includes Disaster and Emergency Services Coordinator, Rural Address and 911 Coordinator. Haley also served as the project manager for the successful Blaine County FY 2015 MLIA grant. Haley has no formal GIS trainings, however does have fifteen years on the job knowledge and experience of GIS. The on the job knowledge and experience includes three years of basic ArcGIS classes at cabin fever at MSU-Northern, State Transportation Framework project in 2002, Rural Addressing/Enhanced 911 in 2003-2005, Upkeep of Rural Addressing/Enhanced 911 data, State Right of Way Project and Transportation Asset Data Collection with the county transportation director. She has working knowledge of Trimble Juno SB's, ArcGIS Desktop and ArcPad.

Geodata Services Inc.:

Geodata Services, Inc. currently provides technical assistance, consulting and project work for the county will continue to do so in this project. The work they will be doing will focus on the county road map and plat book that we reproduce for the public. They will assist us with questions in regards to coded value domains and labeling, etc.

Geodata Services, Inc. specializes in GIS services. For 21 years, Geodata has provided training and services in GIS including, spatial analysis, image analysis, database development, collaborative GIS, suitability modeling, and 3D scenario visualizations. The two primary staff who will provide training, consulting and support will be Ken Wall and Kyle Balke. Ken Wall has 24 years of experience in GIS experience, founder and president of Geodata Services, Inc. Kyle Balke has 11 years of applied GIS experience in planning, engineering fields.

GeoComm:

Blaine County currently uses GeoComm services and products in their Public Safety Answering Point. They currently manage the 911 GIS Dataset for Blaine County including cities of Chinook, and Harlem, and the Fort Belknap Indian Community. They also provide GeoLynx Desktop, which is an emergency dispatch GIS system that adds integral mapping and geographic based decision support to enhanced 9-1-1 call handling and CAD dispatch systems (GeoComm website). GeoComm will provide training, support services and consulting for the project.

GeoComm was founded in 1995 to provide county government with turnkey emergency 911 development services. Over the subsequent 19 years, the company has grown to serve more than 12,000 dispatchers in 800 emergency 911call centers in the United States, helping to keep more that 84 million people safe. Today GeoComm has a national reputation as a leading provider of geographic information and communication systems for local, regional, and state government agencies. The company's systems route emergency calls to the appropriate call center, map the caller's location on a dispatchers map, and guide emergency responders to the accident on mobile displays within police, fire and ambulance vehicles. (GeoComm's website:www.geo-comm.com)

SECTION 6 – BUDGET JUSTIFICATION AND BUDGET TABLE

Consulting work with Geodata Services has already been set up with Blaine County and will continue through the grant period. Blaine County staff will work with Geodata Services, Inc. for continued technical assistance, consulting and project work. The work they will be doing will focus on the county road map and plat book that we reproduce for the public. They will assist us with questions in regards to coded value domains, labeling, etc.

These services will not exceed $1500.00, with the county contributing the full amount as county cash match for this project.

Blaine County currently uses GeoComm services and products in their Public Safety Answering Point. They currently manage the 9-1-1 Geographic Information Systems (GIS) Dataset for Blaine County including cities of Chinook, and Harlem, and the Fort Belknap Indian Community. GeoComm will provide training, support services and consulting for the project. They also provide GeoLynx Desktop that is mapping and geographic based decision support software to enhanced 9-1-1 call handling.

The additional services GeoComm is providing will update existing GIS layers and develop new layers, which will result in a highly accurate GIS dataset for Next Generation 9-1-1 (NG9-1-1). We are asking that the FY2018 MLIA grant cover the additional service cost of $1,195.00.

Blaine County will be contributing in-kind funds to the project through staffing cost for all the participants to accomplish this project at a cost of $2500.00.

One of the County's goals with the FY2015 MLIA grant was to build self-sustaining GIS department. We have accomplished our initial goal and the GIS Department meets monthly to address any issues with the county GIS data and plan for the future of the Blaine County GIS program. A department has an established budget to help fund the program's goals and provide continued training to our staff.

	Applicant Summary				
Category	MLIA Share	Applicant Cash	Other Cash	In-kind	Applicant Subtotal
a. Personnel	0	0	0	2,500.00	
b. Travel	0	0	0	0	0
c. Equipment	0	0	0	0	0
d. Supplies	0	0	0	0	0
e. Contractual	1,195.00	1,500.00	0	0	2,695.00
f. Other	0	0	0	0	0
Total	1,195.00	1,500.00	0	2,500.00	**5,195.00**

**See Page MLIA Grant Compliance section for the definition of a project partner.*

SECTION 7 – STATEMENTS OF SUPPORT

BLAINE COUNTY COMMISSIONERS

Frank DePriest, Chair
Dolores Plumage
Charles Kulbeck

P.O. Box 278
(406)357-3250

Chinook, Montana
59523-0278

February 10, 2017

Grant Review Subcommittee
Montana Land Information Advisory Council
PO Box 201800
Helena, MT 59620-1800

To Whom It May Concern,

On behalf of Blaine County, we are writing this letter in support of the Blaine County GIS Department's application for your Fiscal Year 2018 Montana Land Information Act Grant.

These grant funds will be utilized by the GIS Department to access, improve and maintain our road centerline, EMS boundary, jurisdictional boundary, and PSAP boundary layers in preparation for the Next Generation 9-1-1 implementation and will reflect the National Emergency Number Association (NENA) standards. These improvements will be beneficial to multiple County offices, as well as, the citizens of Blaine County and the state of Montana as a whole. By updating and creating a new road centerline data layer the county will offer information that is more accurate to the public and increase public safety as it prepares us for Next Generation 9-1-1.

Thank you for your consideration of our support of the Blaine County GIS Department's application for a Montana Land Information Act Grant.

Sincerely,

Frank DePriest, Chairman Board of Commissioners

Glenn Huestis, Blaine County Sheriff

Laurie Huestis, Blaine County EMS Council

Sandra L. Boardman, Clerk & Recorder & Election Administrator

Kraig Hansen, Blaine County Fire Council

Dirk Drugge, Blaine County Road Supervisor

SECTION 7 – STATEMENTS OF SUPPORT CONTINUED

geodata

Erin Fashoway
State GIS Coordinator
Montana State Library

I am writing in support of this proposal in our role as funding partner and consultant. I have worked with Blaine County on the tasks she outlined for the last two years and understand she wants to repeat and continue that contract agreement this year. I understand that Blaine County is including this Geodata contract as a direct cash match in a FY 2018 proposal and as such use of the Geodata contract defines us as a funding partner using the distinction between project partners from funding partners made this year in the MLIA grant application package. Geodata is prepared to provide continued technical assistance, consulting and project work. The work we will be doing will focus on the county road map and plat book that Blaine County reproduces for the public. We will assist Blaine County with questions in regards to coded value domains, labeling and similar topics relating to the road map and plat book maps.

Sincerely,

Kenneth E Wall

Ken Wall
President
Geodata Services, Inc.
P.O. Box 8081, Missoula, MT 59807

SECTION 7 – STATEMENTS OF SUPPORT CONTINUED

GeoComm

Ms. Haley Velk
Emergency Manager
Blaine County
PO Box 576
Chinook, MT 59523

Dear Ms. Haley Velk:
GeoComm is pleased to support Blaine County with this proposal in support of their quest to achieve improved GIS data. For over two decades we have been assisting our customers in implementing public safety GIS best practices and we have worked closely with Blaine County on the development of this proposal.

GIS data will play a mission critical role in NG9-1-1 systems and consistent data across local jurisdictions, regions, and states will be key to a successful NG9-1-1 system implementation. GeoComm has over 20 years of long standing relationships with many county governments throughout the country working on GIS data assessment, improvement, and maintenance projects. In fact, we have many county level GIS customers in states throughout the region including: South Dakota, North Dakota, Iowa, Nebraska, Kansas, Idaho, Washington, and in Montana.

In addition, as a leading provider of public safety GIS services since 1995, our team members are closely involved with industry standards for public safety GIS, including participation in NENA workgroups that set NG91-1 GIS standards. Our industry standards knowledge is passed on to our customers and applied to their GIS data, ensuring its reliability for NG9-1-1 systems.

For this proposed project GeoComm would assist Blaine County with GIS data assessment, data development, and data improvement. This project would consist of GeoComm conducting a full assessment of Blaine County's Emeregency Services Number (ESN)/Emergency Services Zone (ESZ) boundaries layer and the Community boundaries layer. During the assessment GeoComm would ensure that both layers are free of topological errors such as gaps and overlaps. In addition, GeoComm would be conducting a full assessment of Blaine County's Road Centerline Layer to ensure that it meets the National Emergency Number Association (NENA) NG9-1-1 GIS data standards. After the GIS assessment is complete GeoComm would improve the GIS data layers and ensure that each road segment is broken at the ESN/ESZ boundaries and Community boundaries. Finally, NG9-1-1 requires a PSAP boundary layer and an Authoritative boundary layer. Since these two layers are not currently present in Blaine County's GIS data, GeoComm will be developing them. By completing this project, Blaine County will benefit from our proven processes and become a example, and resource for other counties in the State of Montana on how to prepare and improve GIS data for NG9-1-1.

Sincerely.

Tuan Le
Customer Account Manager

Uniting Public Safety GIS and Communications
www.geo-comm.com
Main: 320.240.0040 **Fax:** 320.240.2389 **Toll-free:** 888.436.2666
601 West St. Germain Street St. Cloud, MN 56301

SECTION 8 – RENEWABLE GRANT ACCOUNTABILITY

N/A

SECTION 9 – 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.

FRANK DePriest

Name (print or type)

Commission Chair

Title (print or type

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

10 Feb 17

Date

SECTION 10 – CHECKLIST – SIGNATURES REQUIRED

Initial or mark n/a	Completed Required Task
	Section 1 – Applicant, Partner, and Proposal Information
HV	Primary Applicant Information
HV	Funding Partner *(if applicable)*
HV	Project Partner *(if applicable)*
HV	Proposal Information
HV	List All Past Awarded MLIA Grants
HV	**Section 2 – Relevance** *(300 max word limit)*
HV	**Section 3 – Public Benefit**
HV	**Section 4 – Scope of Work Narrative** *(4-page limit)*
HV	**Section 5 – Project Management and Organizational Capability Narrative**
HV	**Section 6 – Budget Justification Narrative and Table**
HV	Budget Justification Narrative
HV	Complete Budget Table
HV	**Section 7 – Statements of Support** *(if applicable)*
N/A	**Section 8 – Renewable Grant Accountability Narrative** *(if applicable)*