

Grant Application Montana Land Information Act Fiscal Year 2017

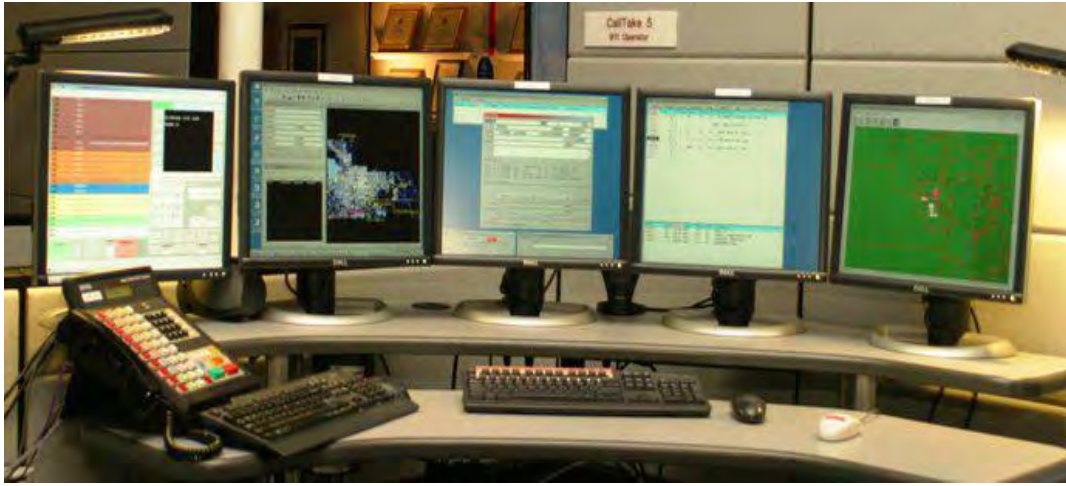


Photo courtesy of the National Public Safety Telecommunications Council

Produced by the Grant Review Subcommittee of the
Montana Land Information Advisory Council in cooperation
with the Montana State Library

Pursuant to Section 4(c) of the Montana Land Information
Act (Senate Bill 98) and Administrative Rule IV of the
Montana Land Information Act.

January 15, 2016

APPLICATION FOR GRANT FUNDING

STEP 1 – Applicant and Partner Information

Primary Applicant (Required):

Name of principle individual: *Allen Kelm*
Name of agency/entity: *City of Miles City*
Street: *17 S. 8th Street, PO Box 910*
City: *Miles City*
County: *Custer*
State: *MT*
Zip Code: *59301*
Contact email address: *akelm@milescity-mt.org*
Contact fax address: *406-234-6392*
Contact phone: *406-234-3492*

Organizational Unit (if applicable)

Department: *Public Utilities/Public Works*
Division: *N/A*

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

Name of contact: *Quinn Wright*
Name of Agency: *Dowl*
Street: *713 Pleasant*
City: *Miles City*
County: *Custer*
State: *MT*
Zip Code *59301*
Contact email address *QWright@dowl.com*
Contact phone: *406-234-6666*

Name of contact: *Stephen Zabriskie*
Name of Agency: *MT Dept of Transportation*
Street: *2701 Prospect Ave*
City: *Helena*
County: *Lewis & Clark*
State: *MT*
Zip Code *59620*
Contact email address *szabriskie@mt.gov*
Contact phone: *406-444-2489*

Name of contact: *Carl Jackson*
Name of Agency: *Kadmas, Lee & Jackson Engineering*
Street: *2611 Gabel Road*
City: *Billings*
County: *Yellowstone*
State: *MT*

Zip Code 59102
Contact email address *Carl.Jackson@kljeng.com*
Contact phone: 406-245-5499

Date Submitted (Required): Feb 16, 2016 Date Received by State:

Descriptive Title of Applicant's Project (Required):

City of Miles City GPS/GIS Capacity Building Project

Relevance and Public Benefit

The City of Miles City's proposal to purchase and utilize hand-held GPS/CORS equipment and provide access to a certified Continuously Operating Reference Station (CORS) to serve the immediate area provides public benefit in the following ways:

- 1) The City's access to the MT State Library (MSL) GIS data layers enhances analysis capabilities*
- 2) Improved accuracy for the Cadastral layer (current margin of error is up to 40')*
- 3) Saving time & money for local survey and geolocation projects by reducing set-up time*
- 4) Improve data accuracy for all local surveying and geolocation projects*
- 5) Saving taxpayer dollars by reducing repair and replacement time*
- 6) City crews will have access to digital maintenance records in the field*
- 7) GPS data collected by City crews may lower costs for future surveying tasks by providing existing data.*
- 8) Improvement of location-based services*
- 9) Contributes to stronger grant applications for planning and construction projects*
- 10) Fills a large gap in the CORS network in Eastern Montana*

The proposed project meets the following priorities in the MT Land Plan:

1.a. Future Implementation of the NG-911 system will benefit by having City crews collecting and submitting standardized address points to the Custer-Garfield NG-911 Coalition for all new construction within City Limits. This information improves MSL's Structures & Addresses database.

1.b. - A certified CORS benefits federal, state and local agencies, along with private companies that conduct surveys and other data collection activities. Data collection activities will save precious time by eliminating the need to set up a mobile base station and the CORS provides position corrections 'on-the-fly". Precision farming operations may also utilize the reference station. Utilization of a CORS insures recorded surveys submitted to the MT State Library will improve the Administrative Boundaries and the Cadastral & Mapping Control layer. This project will also improve Geodetic control and assist the GCDB corner recordation efforts.

3 – Purchase of this equipment will expand the City's capabilities in order to save the public time & tax dollars by reducing repair & maintenance time of public infrastructure. As employees expand their GPS/GIS capabilities, maps of public interest will be available on the City's website.

Local GIS solutions, as described above, improve the lives of local taxpayers by improving the efficiency of city services. As the regional populations grow more accustomed to location-based services, they will demand improved services. Expansion of those services may draw more business and tourism to the area, improving the lives of all citizens. This proposal also helps the MSL to carry out data development and GIS coordination work and expand Montana's spatial data archive.

Scope of Work Narrative

Miles City is the regional hub for 16 counties in Eastern Montana and has recently updated plans and policies intended to improve local and regional services, and boost tourism. Those plans and policies include Subdivision regulations, Urban Renewal Plan, Growth Policy, and creation of a Tax Increment Finance District.

The City has very limited GIS and no GPS capabilities right now. Developing GPS capabilities will improve our digital presence to attract tourism, lower design & construction costs, and improve the planning and analysis processes. GPS capabilities also contribute to the Administrative Boundaries and Cadastral & Mapping framework layers by providing improved accuracy for County land records. The Structures & Address database will benefit from address points collected by City and County crews. As GIS technology grows, our capabilities will grow with it, for example, the ability to publish GIS maps of public interest on the City website. The product of the project will also build a stronger case for future loan and grant applications for planning and construction projects.

City staff is moving toward providing the public better access to city services & public information. The proposed project in this application is one of the many steps we are taking to reach that goal. Staff has identified the end goal of this project as having the ability to collect GPS coordinates of public infrastructure via the use of a CORS station located at Frank Wiley Field in Miles City. To date, Staff has identified the preferred equipment and financial partners. We will delay purchase of the equipment until the MLIA grant awards are announced. At that time, we will obtain three quotes for the equipment and move forward with the purchase. Vendors will provide training on using the handheld equipment. City Staff will also work with project partners and the NGS to identify the best location for a permanent location of the CORS. In the meantime, staff will begin work on the GIS requirements to store the information, analysis method, and information presentation for public use. We plan a project completion date of Dec 31, 2016.

The City has been working with numerous federal, state and local agencies to plan this project. We will continue collaborating to insure that this project will be sustainable well into the future.

Goal 1: Obtain equipment for City mapping efforts & CORS – City Staff/vested partners

Objective: Acquire GPS equipment by Sept 1, 2016

1.a - Identify equipment needs - Complete

*1.b - Purchase equipment –July 1, 2016**

1.c - Define maintenance plan for monitoring CORS equipment - ongoing

1.d – Install CORS and go live – Aug 1, 2016

1.e - Notify public users that CORS is operational – Sept 1, 2016

Deliverable: Receive and install GPS equipment

**Date dependent on receipt of grant award*

Goal 2: Data Collection – City Staff

Objective: Begin data collection

Tasks – Complete database setup and configuration,

2.a – Train City Crews to use handheld equipment – complete Aug 15, 2016

2.b - Set up ArcMap database file using ESRI's public works data model – Feb 15, 2016 - Sept 1, 2016

2.c - Begin data collection – City Crews - Begin August 15, 2016

2.d - Review process for accuracy and efficiency –ongoing

Deliverables: A fully operational COR station to serve the Miles City area.

*Crews actively collecting data on City infrastructure
An operational database to store, map, and analyze GPS data*

Goal 3: Publish Public Information Maps on website – City Staff

Objective: Informational maps available to public via City website

Tasks – Post certain mapped information to website

3.a - Determine what information should be published – Jan 2017

3.b - Determine format of publication to suit website capabilities –Mar 2017

3.c - Publish information on website – ongoing

Deliverable: Publish informational maps on the City's website

Project Management and Organizational Capability Narrative

The City of Miles City's Public Utilities Director Allen Kelm and Public Works Director Scott Gray will manage this project.

Mr. Kelm has served the City of Miles City for 30 years in the Public Utilities Department. He has worked in all areas of the Water and Wastewater Department, taking over as Director in 2009. Al is a Certified Operator who has won multiple awards for his work and leadership in the field. Mr. Kelm has managed numerous projects to upgrade the treatment facilities and construction of water/wastewater infrastructure. He managed Phase I of the \$2.2MM Wastewater Treatment Plant upgrade project and is currently guiding Phase II, a \$6.6MM project. Al also served as the interim Director for the Public Works Department from 2011 through 2013. Although the City is just beginning implementation of GIS services, Al understands how this project will enhance the City's current operations and benefits for future planning efforts, and fully supports the proposed project.

Scott Gray has served the City of Miles City for 21 years in the Public Works Department. He began as a temporary employee in the Streets Department and worked his way up to Shop Supervisor. He took over the position of Public Works Director in 2013. Scott is very knowledgeable in all areas of services provided by the City, including repair, maintenance and construction of infrastructure. Since becoming Director, Scott has supervised street and sidewalk construction projects, parks/trails improvements, flood levee upgrades, storm sewer management and pavement preservation projects. Scott also understands the benefit and fully supports the proposed project.

Robert Hutchings, Heavy Equipment Operator – Public Utilities Dept., is the mastermind behind this proposal. He has been employed by the City for 5 years and is a self-proclaimed computer geek. Robert has been researching this project for the last year and understands the system well. He will be in charge of training City crews in the proper use and maintenance of the equipment, and implementing the standards and data collection efforts by City crews.

Dawn Colton has been the City Planner and Grants Administrator since 2013. In 2012, she began using ArcGIS for analysis and mapping of city planning projects and making relevant maps for related grant applications. Dawn has an A.A.S. Degree in automated drafting and has experience with many technical applications. Dawn will be in charge of mapping and analyzing the data collected by the City crews. She will also produce and post relevant public information maps to the city website.

Although current City Staff has little experience with GIS/GPS technology, all are deeply involved with the service providers, local experts and other GIS professionals to understand how the components of this project work together. All staff members have successfully managed complex projects that involved the need to gain new knowledge and understand unfamiliar components of proposed projects.

STEP 5 – Budget Justification Narrative and Tables

Applicant budget summary

Category	MLIA Share	Applicant Share	Other Share	Total
a. Personnel				
a.1 Fringe Benefits				
b. Travel				
c. Equipment	13,700	13,567	18,700	45,967
d. Supplies		1,500		1,500
e. Contractual				
f. Other – Administration				
Totals	13,700	15,067	18,700	47,467

Project Partner budget summary (provide a separate budget summary for each partner (including subcontracts). See page 6 for a definition of a project partner.

Category	Dowl	MDT	KLJ	Total
a. Personnel				
a.1 Fringe Benefits				
b. Travel				
c. Equipment		17,100		17,100
d. Supplies				
e. Contractual				
f. Other – Cash	600		1,000	1,600
Totals	600	17,100	1,000	18,700

Total cost of this project is \$47,467. Cost of the equipment alone is \$45,967. The estimate for the permanent reference station equipment is \$25,500, including approximately \$1500 for the mounting structure and installation. The estimate for the handheld collector and tablet is \$20,817. Please see attached quotes from Selby's for Leica brand equipment (Exh A).

The City discussed the shared benefit of this project with several federal, state and private local companies and proposed cost sharing. Dowl and KLJ Engineering have confirmed contributions of \$1,600 cash. In addition, the MT Dept. of Transportation will contribute a Trimble brand NETR9 GNSS Receiver and the Zephyr Geodetic Model 2 Antenna, valued at \$17,100. See attached quote from Electronic Data Solutions for reference (Exh B). This equipment is brand new and has never been installed or used. MDT and The City will sign an agreement stating that should the permanent reference station not gain certification as a CORS,

the equipment must be returned to MDT. In addition, MDT requires that they have the feed from the live data stream. The City is happy to agree to these conditions.

In the budget cycle for FY 2015-2016, four City departments budgeted a total of \$40,000 to complete this project. Breakdown is as follows:

<i>Public Utilities:</i>	<i>\$15,000</i>
<i>Public Works:</i>	<i>\$15,000</i>
<i>Floodplain Administration:</i>	<i>\$ 5,000</i>
<i>Community Services & Planning:</i>	<i>\$ 5,000</i>

Custer County funds are not available for this project. The County has allocated those funds to a mapping project currently in process.

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

This application is the first for Miles City’s proposed project.

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.

__John Hollowell_____
Name (print or type)

__Mayor_____
Title (print or type)

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

__Feb_____
Date