

APPLICATION FOR GRANT FUNDING

STEP 1 – Applicant and Partner Information

Primary Applicant (Required): City of Lewistown

Name of principle individual: Holly Phelps
Name of agency/entity: City of Lewistown
Street: 305 W Watson Street
City: Lewistown
County: Fergus
State: Montana
Zip Code: 59457
Contact email address: hphelps@ci.lewistown.mt.us
Contact fax address:
Contact phone: 406-535-1771

Organizational Unit (if applicable)

Department: Public Works
Division:

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

Name of contact: Molly Hirschi
Name of Agency: Stahly Engineering & Associates
Street: 851 Bridger Drive Suite 1
City: Bozeman
County: Gallatin
State: MT
Zip Code: 59715
Contact email address: mhirschi@seaeng.com
Contact phone: 406-522-8594

Date Submitted (Required):

Date Received by State:

Descriptive Title of Applicant's Project (Required):

City of Lewistown Comprehensive GIS

STEP 2 – Relevance and Public Benefit

The City of Lewistown intends to develop a standardized, sustainable method to collect, maintain, and disseminate information regarding planning and public works in a digital format. Lewistown has an extensive network of water, sewer and storm water infrastructure as well as zoning and floodplain data encompassing 5.32 square miles. City staff has recognized the need for a GIS database in order to map City infrastructure with associated attributes to be able to increase efficiency within the City. This increased efficiency will not only assist City staff, but will benefit local citizens as well.

This proposed project will meet grant categories 3. Rural County and Tribal GIS Development, in which an emphasis is placed on localized GIS solutions that demonstrate the value of GIS in improving the quality of life for Montana citizens and building grass roots support for location based services, and 1a. Next Generation 9-1-1 Data Standardization, which places an emphasis on collection of data such as road centerlines, address points, and jurisdictional boundaries according to NENA standards.

In 2015, the City began the process of creating a GIS by contracting Stahly Engineering & Associates to collect points for water, sewer, storm water and signs. This data was collected using a tablet connected to a Trimble R1 receiver using Arc Collector in order to prepare it for transfer to the City. In 2016, the intent of the City is to purchase the software and hardware to put the previously collected features into a master database and obtain training for City staff. The City currently has a layer for each feature type with attribute fields including water control boxes, air release valves, fire hydrants, storm drain inlets, storm manholes, and sewer manholes with customized attribute fields which include (as applicable) feature number, coordinates, pressure, flow, flush date, address, and pipe size, among others. The attribute fields are in place; however, the attribute data for each feature still needs to be entered using City records. The City currently holds line work for water and sewer lines in AutoCAD and plans to incorporate that into the GIS after the purchase of GIS software.

The larger picture for this project is more comprehensive. The City will phase the project throughout the next 5 years at which time a comprehensive database will include all public infrastructure, expanding this to include addressing, road centerlines and other data that will set the City and Fergus County up for success when the Next Generation 9-1-1 program is implemented. Creating this GIS will benefit many local entities including Lewistown Public Works, Lewistown and Fergus County Planning, and the local fire department, among others. It is critical for municipalities to maintain an accurate database of infrastructure, addressing, roads, and other pertinent features in a world that is becoming increasingly digitized.

The City will sustain the subsequent phases financially utilizing the equipment purchased and training received during the 2016 phase. Since the data has already been collected and is in a useable format, the City intends to purchase software and hardware in order to maintain the current features and collect new features as needed as well as obtain training for staff members responsible for maintaining the GIS.

STEP 3 – Scope of Work Narrative

Scope of Work (Required) – Provide a detailed narrative (up to 4 pages) of the work that needs to be accomplished in order to complete a successful project. The statement must include:

Goal: Create GIS from data previously collected to include water, sewer, and storm features

Objective 1: Purchase hardware and software

Tasks:

1. Purchase two Panasonic Toughpad MZ-F1 tablets and load with Arc Collector Application by July 15th, 2016. These tablets will be crucial in allowing public works staff to update attribute information from the field.
2. Purchase ArcGIS for Desktop Basic (which includes ArcGIS Online Subscription) by July 15th, 2016 in order to create a map and master database of previously collected City features.

Objective 2: Train assigned City staff on software and hardware

Tasks:

1. Assign duties to 2 City staff who will be trained on using the tablets and ArcGIS software (Holly Phelps, Matt Birdwell) by July 30th, 2016.
2. Train additional field staff on collecting new features and updating feature attributes by September 30th, 2016.

Objective 3: Update attributes for previously collected features

Tasks:

1. Using paper as-built records, office staff (Shawna Williams) to assign attributes to previously collected features to begin October 3rd, 2016 and be completed by June 30th, 2017.

Project Schedule:

Purchase software and hardware	July 15 th , 2016
Train City staff on hardware and software	September 30 th , 2016
Assign attributes to features to begin	October 3 rd , 2016
Feature assignments to be completed	June 30 th , 2017

STEP 4 – Project Management and Organizational Capability Narrative

Holly Phelps will serve as the project manager. Holly obtained a BS in Mechanical Engineering Technology from Montana State University and currently serves as the Public Works Director for the City of Lewistown. She has over 15 years of CADD experience and 10 years of GIS experience.

Matt Birdwell will serve as the project superintendent. Matt is the Superintendent of Operations for the City of Lewistown and has 13 years of CADD experience and 5 years locating and mapping features for the City.

Technical Advisor for the project will be Dorothy Gremaux who currently serves as 911 Coordinator/Dispatcher and IT for Lewistown. Dorothy has been with the City for 18 years and has extensive prior experience as a GIS Specialist. She currently maintains a database of structure points and polygons which include access points, road centerlines, bridges/cattle guards, mile markers, parks, drug free zones, emergency service zones, landmarks, fire hydrants, railroads, railroad mile markers, and city and county boundaries.

Data acquisition will be completed by two public works employees, Nick Nowak and Carmen Larson.

Office data input will be completed by Shawna Williams, City Clerk.

Molly Hirschi is a GIS Specialist/Planner with Stahly Engineering & Associates and has a B.S. in Earth Science GIS/Planning option from Montana State University. She will provide training to City staff on using the tablets, ArcGIS software, ArcGIS online and the Collector Application. She will also be available for on-call support for this project as the City needs.

Project Manager: Holly Phelps, Public Works Director
Key Personnel: Matt Birdwell, Superintendent of Operations
Dorothy Gremaux, 911 Coordinator and Dispatcher
Nick Nowak, public works employee
Carmen Larson, public works employee
Shawna Williams, Clerk
Subcontractors: Molly Hirschi, Stahly Engineering & Associates

STEP 5 – Budget Justification Narrative and Tables

This phase of the project is expected to cost \$19,405. The City of Lewistown will be contributing \$4165 in personnel costs as in kind match funding for this phase in addition to the \$4500 previously spent on large scale data collection. **The City requests \$10,740 in MLIA funding for the remaining costs associated with the first phase of the project.**

The long term plan is for the subsequent phases of the project to be financially sustained by the City as budgeted items for the Public Works Department. The personnel tasked with collecting data and researching attribute information will be permanent City Public Works employees. The maintenance of the database will be conducted by Holly Phelps and two permanent City employees. Stahly Engineering will continue to be available to provide training and support to the City on an as-needed basis.

1. Personnel

City of Lewistown field staff, to be directed by Holly Phelps, will conduct field data collection and will update the GIS attributes for each feature collected as needed. Approximately 2-5 hours per week will be assigned to this task.

The GIS attribute data will be updated by Shawna Williams, City Clerk, with direction from Holly Phelps for approximately 5-10 hours per week for approximately 40 weeks for a total of 200 to 400 hours.

Estimated in-kind attributed to City of Lewistown staff is \$3500. A fringe benefit factor, estimated to be 19% of the total wage has also been included as in-kind contribution from the City.

Stahly Engineering will contribute up to 60 hours in training (as-needed) with the tablets, Arc Online, Arc Collector and ArcGIS Desktop software at a rate of \$65 per hour for a total of \$3900, with a travel budget set at \$680 to include mileage, hotel and per diem for a total overall cost of \$4580. Stahly Engineering's involvement in this project is necessary to assist the City in implementing this new program. As project manager for the data collection project, Molly Hirschi has intimate knowledge of the data and the methods by which they were collected. As the long-standing term engineer for Fergus County, Stahly Engineering will help to facilitate data collaboration between our City and the County.

2. Equipment

Two tablets (Panasonic Toughpad FZ-M1) will be purchased and will be loaded with the Collector Application (Free) for a total cost of \$2660.

ESRI ArcGIS Basic concurrent license (\$3500) will be purchased to update the database from collected data points and assign additional attributes. This

software will be installed and used on two desktop computer to be used by Office staff.

ArcGIS online account (free-included in price of Desktop software) will be created to manage day to day changes to feature attributes from edits made via the Collector Application. This will be used in conjunction with ArcGIS for desktop. The total cost for equipment is anticipated to be \$6,160.

Applicant budget summary

Category	MLIA Share	Applicant Share	Other Share	Total
a. Personnel		3500		3500
a.1 Fringe Benefits		665		665
b. Travel	680			680
c. Equipment	6160			6160
d. Supplies				
e. Contractual (Stahly Engineering)	3900	4500		8400
f. Other				
g/Totals	10740	8665		19405

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	Partner 1	Partner 2	Partner 3	Total
a. Personnel	3900			3900
a.1 Fringe Benefits				
b. Travel	680			680
c. Equipment				
d. Supplies				
e. Contractual				
f. Other				
Totals	4580			4580

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.

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.

Holly Phelps

Name (print or type)

Public Works Director

Title (print or type)

Holly Phelps

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

2/16/2016

Date



February 15, 2016

Holly Phelps
City of Lewistown Director of Public Works
305 W Watson Street
Lewistown, MT 59457

RE: City of Lewistown MLIA Grant Application Letter of Support

Dear Ms. Phelps:

Stahly Engineering completely supports the City of Lewistown's request for grant funding from the Montana Land Information Act Grant program in order to create a City GIS database. This project aligns with the City's planning for digitizing infrastructure records. The use of GIS within the City will open the door for the City to implement many new projects and would assist with the planning and prioritization of current projects.

Sincerely,

Stahly Engineering & Associates

Greg Benjamin, P.E.
Vice President