

Request for Proposals (RFP)

for

GIS Services

for

MERCER COUNTY, PENNSYLVANIA
Mercer, Pennsylvania

May 26, 2007

Prepared by:

Daniel Gracenin
Executive Director
Mercer County Regional Planning Commission
2491 Highland Rd.
Hermitage, PA 16148
Voice (724) 981-2412 x220
Fax (724) 981-7677
E-mail: dgracenin@mcrpc.com

Matt Gilara, GISP
Manager, GIS/Community Development
Northwest Commission
395 Seneca Street – P.O. Box 1127
Oil City, PA 16301
Voice (814) 677-4800 x102
Fax (814) 677-7663
E-mail: mattg@nwcommission.org

Section 1 – Purpose (Services Required)

Mercer County is seeking proposals from qualified firms for a GIS Services project consisting of two components.

Component 1

Mercer County, Pennsylvania is soliciting proposals from contractors experienced in providing parcel data conversion services for tax mapping and implementation of GIS (Geographic Information System) based parcel maintenance systems. Mercer County will be implementing GIS using the ArcGIS 9.X suite of products from Environmental Systems Research Institute (ESRI).

- Create a 100% seamless digital parcel layer delivered in an ESRI geodatabase format.
- Integrate Assessment Data (database) with Parcel Data
- Develop a Parcel Maintenance Procedure
 - Parcel maintenance software tools
- Provide Parcel Maintenance Training

Component 2

Mercer County, Pennsylvania is soliciting proposals from contractors experienced in providing planimetric data capture. Mercer County will be implementing these GIS layers using the ArcGIS 9.X suite of products from Environmental Systems Research Institute (ESRI).

- Create Geocoded road centerline coverage
- Attribute with Existing Addressing Schema
- Create Master Street Address Guide (MSAG)
- Link MSAG and Computer Aided Dispatch for Emergency Services
- Create Building Footprint or Centroid layer
- Create Hydrography coverage

Potential consultants must submit on both Components (1 & 2). The Mercer County Regional Planning Commission intends to award a contract for GIS services described in the Scope of Work sections in this Request for Proposals. The RFP contains the scope of work for the project (Component 1 & 2) and the instructions to submit a proposal.

Section 2 – Introduction to the Project (Background)

Mercer County is located in western Pennsylvania along the border with Ohio. The 2000 census for Mercer County was 120,293. The land area for the County is approximately 673 square miles. There are approximately 60,000 parcels in Mercer County, contained

GIS Services – Request For Proposals

on 221 tax maps. There are also some sub-maps that are in the urban areas of Mercer County. For cost purposes in this request for proposals, Mercer County is estimating a total of 60,000 parcels.

The Mercer County Tax Assessment Office is responsible for creating and maintaining parcel data in accordance with the Pennsylvania State Regulations. In an effort to automate parcel mapping, as well as to meet state requirements, an accurate digital cadastral layer is crucial to the successful implementation of a County-wide GIS. This database will replace the existing tax map base (mylar) in all functions.

Mercer County is also seeking to have planimetric data created as part of this project. Mercer County Emergency Services (to become Phase II Compliant) is looking to have geocoded road centerlines, building footprints or centroids and have everything linked through their CAD system.

Mercer County is also looking to have a Hydrography coverage created for the County.

Both components of the project will use the 2004 EarthData digital orthophotos as the base into which the data creation/conversion will be performed. Mercer County will provide the 2004 EarthData imagery and any other required data to the successful bidder. Database design, maintenance processes/procedures, and training of county personnel will be included in the scope of this project. Mercer County's participation in the PAMAP project, and its acceptance of responsibilities under the PAMAP cooperative agreement and state guidelines as defined in the PGDSS (Pennsylvania Geospatial Data Sharing Standards) and the PAMAGIC's (Pennsylvania Mapping and Geographic Information Consortium) "Local Government Handbook for GIS Implementation Within the Commonwealth of Pennsylvania", along with requirements specific to Mercer County, will affect the conduct of this project and its scope of work.

The PAMAP Cooperative Agreement with Mercer County specifies that in exchange for digital orthophotography updated tri-annually, the County shall maintain and make available to the state the following data layers:

Digital Orthophotography
Road Centerlines
Edge of Roadway
Hydrography
DEM and Political Boundaries
Buildings
Parcels

Section 3A – General Scope of Work (Component 1)

The project (Component 1) will consist of the following tasks:

GIS Services – Request For Proposals

- Task 1:** Register, rectify, and digitize tax maps to evidence of property on digital orthophoto base using best/enhance fit methodology. Bidders should explain in their submissions in detail the methodology and equipment that will be used to scan and rectify the existing property maps. If any work on the project is to be performed out of the country the contractor must provide a cost estimate (Option 1/Option 2) for work performed in the United States versus out of the country.
- Task 2:** Attribute each polygon feature with the tax parcel number used by the Mercer County Assessment Office.
- Task 3:** Describe how parcel layer will conform to the PGDSS standards set forth by the State of Pennsylvania. (It is expected that the Parcel layer will be produced according to PGDSS guidelines. Therefore, the pertinent sections of the “Local Government Handbook for GIS Implementation Within the Commonwealth of Pennsylvania” as well as the PGDSS 2.5 document should be referred to by prospective bidders as they prepare their proposals).
- Task 4:** Propose software suitable for maintaining (digitizing/editing) parcel data, indicating the cost of a one-user software license. This software shall be compatible with ArcGIS 9.X suite of products.
- Task 5:** Provide training to County staff responsible for maintaining parcel data and provide a rate for additional telephone support.

Section 3B – General Scope of Work (Component 2)

The project (Component 2) will consist of the following tasks:

- Task 1:** Create a geocoded road centerline coverage that incorporates the existing addressing schema (road names, address range, direction, etc.)
- Task 2:** Create both a building footprint layer and a building centroid layer. Attributes for either data type created should be populated with the existing building attribute data.
- Task 3:** Create a Hydrography coverage consisting of ponds/lakes > ¼ acre, river/stream centerlines, river/stream edge > 20 feet in width. River/stream centerlines will be delivered as continuous xyz line in direction of flow, broken only at intersections. Feature ID attributed. County will attribute any necessary additional. River/stream edge for streams > 20 feet in width, delivered as continuous xyz line in direction of flow, broken only at intersections. Feature ID attributed. County will attribute any necessary additional. Ponds/lakes >1/4 acre, xyz polygon. Feature ID attributed. County will attribute any necessary additional.

Section 4 – Digitizing Production Requirements

The Bidder must adhere to the following compilation requirements:

- 1) **Edgematching**—All digitized features must be both visual and coordinate edgematched with features in adjacent sheet files and at model breaks or other artificial boundaries within a sheet. Attributes for adjoining features must also be identical.
- 2) **Common Boundaries**—All graphic features that share a common boundary, regardless of digital map layer, must have the exact same digital representation of that feature in all common layers.
- 3) **No duplication of points** that occur within a data string is permitted.
- 4) **Connectivity**—Where graphic elements visually meet, they must also digitally meet. All confluences of line, area, and polygon data must be exact mathematically; that is, no “overshoots,” “undershoots,” or “offsets” are permitted. Lines that connect polygons must intersect those polygons precisely; that is, every end point must be an intersection point of the respective polygon.
- 5) **Line Quality**—A high quality cartographic appearance shall be achieved. Transitions from straight line to curvilinear line segments shall be smooth, and without angular inflections at the point of intersection. The digital representation must not contain extraneous data at a non-visible level. There shall be no jags or hooks or zero length segments. Curvilinear graphic features should be smooth with a minimum number of points. When appropriate, line-smoothing programs should be used to minimize the angular inflection in curvilinear lines. Any lines that are straight, or should be straight, should be digitized using only two points that represent the beginning and ending points of the line.
- 6) **Segmentation**—The digital representation of linear elements must reflect the visual network structure of the data type. An element should not be broken or segmented unless that segmentation reflects a visual or attribute code characteristic, or unless the break is forced by database limitations.
- 7) **Area and Polygon Closure and Centroids**—For area features being digitized, the last coordinate pair must be exactly (mathematically) equal to the first coordinate pair.
- 8) **Point Criteria**—All point features shall be digitized as a single x, y coordinate pair at the visual center of that graphic feature.

Section 4 – Instructions for Bidders

A. General steps in the Proposal

Bidders will submit a proposal for the GIS Services requested by Mercer County that describes how the tasks listed above will be accomplished. A cost proposal is also to be submitted that references the costs for each Task and provides a lump sum for the entire proposal. The Bidder shall indicate Tasks with which they take exception, or for which they feel could be improved by a different methodology. Such exceptions or improvements shall be explicitly described along with a narrative of how any change in methodology would impact the cost as compared to the process described within this RFP.

The Bidder shall fill out a price form based on the Tasks in the RFP and then, only then, offer alternate fees for alternate methods.

The Bidder shall submit their price quote separately from their technical proposal.

The Bidder shall submit a timeline detailing when they will fulfill each task and when the project will be complete.

Bidder must include a statement in their proposal stating: **“We understand that payment of invoices will be tied to progress reports on each Task. No payment will be made without a progress report for each Task accompanying the invoice”**

B. References

The Bidder shall provide three (3) references, indicating their experience in the GIS Services requested in this RFP. Bidder shall provided documentation on projects performed for counties in Pennsylvania and elsewhere, for work performed in the previous five years.

C. Performance Bond

The Bidder shall demonstrate the ability to obtain a performance bond in an amount equivalent to the amount of the contract proposal. The Bidder will be required to provide such a performance bond upon award and execution of the contract.

D. Timeline

The Bidder shall provide a timeline of events, including a schedule of milestones and major goals.

E. Submission

The Bidder shall submit one original and (6) copies of the proposal by close of business

GIS Services – Request For Proposals

(4:00 p.m.) on Friday June 29, 2007. In addition, the Bidder shall submit one (1) price quote in a separately sealed envelope to:

Daniel Gracenin
Executive Director
Mercer County Regional Planning Commission
2491 Highland Rd.
Hermitage, PA 16148
Voice (724) 981-2412 x220
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e-mail: dgracenin@mcrpc.com

Submissions must include a statement on the envelope:

“Proposals for Mercer County GIS Services”

Copies of the full RFP are available between 8:00 a.m. and 4:00 p.m. Monday through Friday at the above address.

F. Price quotes

The Bidder shall include these price quotes sheets in the proposal

1. Price quote for each Component indicating the cost for the task with a list of responsibilities.
2. A lump sum price quote for all Tasks necessary to complete the project.

These quotes shall remain valid for 120 days from date of submission of the RFP.

G. Project Team

The proposal shall list members of the Project Team along with their qualifications and experience. The proposal shall designate a Project Coordinator.

H. Project Management

Proposals shall specify a schedule for project status meetings including schedules for data exchange with Mercer County

I. Decision of Mercer County

Mercer County will select a firm weighted on the following criteria:

- Timeline
- Price
- References

GIS Services – Request For Proposals

- Qualifications

Dependant on the number of submissions a shortlist of firms will be selected to make presentations to the GIS selection Committee. Presentation will be limited to 30-45 minutes. Consultant selection will be completed following the presentation.

J. Pre-Bid Meeting

A pre-bid meeting will be held at the MCRPC offices on June 6, 2007 at 1:30 p.m. The purpose of this meeting will be to review and discuss any questions that potential bidders may have concerning the RFP.

Mercer County retains the option of rejecting any and all proposals.