

PSAP Grant Program Grant Ranker

View Application--10--Nottoway County GIS

Grant Period: 2010

Tier: Replacement of technically outdated wireless E-911 equipment or service to enable primary PSAP to maintain current service levels to the general public (**TECHNICALLY OUTDATED**)

Grant Program: Continuity and Consolidation **Grant Type:** Individual PSAP

Priority: GIS: high priority (refer to GIS-related Grant Request Prioritization Matrix for a description of GIS projects that would have a high funding priority) (**GIS HIGH PRIORITY**)

Primary PSAP Applicants: Nottoway County

Jurisdictions Served: Blackstone, Town of
Burkeville, Town of
Crewe, Town of

Project Director:

Steve Ferguson
County Planner
3951 Military Road Blackstone VA 23824
434-292-3438 (phone)
434-292-3437 (fax)
nottowayplanner@hotmail.com

Project Description:

Total Project Cost \$149,698.00

Amount Requested: \$149,698.00

Statement of Need:

Identification of funding priorities The Nottoway GIS project directly relates to the high priority for Data Manipulation that the Virginia Wireless E-911 Services Board and the PSAP Grant Program's Grant Committee have established as a funding priority. The PSAP in Nottoway County cannot provide first responders with accurate addressing or mapping when a wireless E-911 emergency call is received. To correct this problem, the PSAP has asked the County to seek funding to perform Address Point Layer Development and Parcel Mapping Conversion. The County wishes to work with a consolidated, comprehensive, single provider that will correct old addressing and mapping problems and maintain the new system when completed. The Nottoway GIS project will also allow us to develop an address standard that matches regional/national formats and will reduce redundancy on address maintenance. The County of Nottoway requested a RFP from GeoComm and King-Moore Inc. for address development and mapping conversion. The county was hopeful that software/software support and maintenance for 5 years could be included in our project. The original RFP totaled \$199,774.00. Because of grant funding constraints for an individual PSAP, the county will continue its current yearly contract with GeoComm to provide all mapping and addressing entry for new 911 addresses once the project has been completed. By removing the software and maintenance elements, total funding requested for our project will be \$149,698.00. Impact on operational services Over the past decade, the county has used several different service providers for PSAP addressing and mapping needs. Most of these companies are now out of business and the equipment/software that is currently being used is either obsolete or incompatible with newer technology.

This impact on operational services has hindered the ability of the primary PSAP to perform their critical life-saving work. The Nottoway GIS project will allow us to correct these problems from the past and develop a system that will work well into the future. Addressing that was incorrectly done years ago has only compounded the errors for new addressing. Our PSAP is very fortunate to have several dispatchers that were born and raised in the county. Without them, many of the emergency calls would not be dispatched to the correct location. As our County continues to grow and more calls placed to the PSAP are wireless, local knowledge by our dispatchers may no longer be helpful. Our PSAP cannot afford to rely on "local Knowledge" alone to provide for the safety of our citizens. Consequences of not receiving funding Nottoway County does not have funding to resolve the PSAP addressing and mapping problems. The County budget is currently experiencing a shortfall of \$128,000 only four months into our new budget year and this deficit is projected to get worse based on the proposed reductions in funding by the Commonwealth to the County. The County is also experiencing a tremendous growth in wireless E-911 calls and the current addressing and mapping problems are compounding an already obsolete system used by the PSAP. The County of Nottoway feels that the Nottoway GIS project is very important for the safety and well being of our citizens. Without the Virginia Wireless E-911 Services Board grant funding, the PSAP will not be able to provide life saving support to the first responders and the citizens of our county. The County is also committed to our PSAP and will continue to contract with our service provider if needed to ensure that updates are completed. Inclusion of project in a long-term or a strategic plan Nottoway County, the primary PSAP, and the Nottoway Planning Council Office have worked very hard to develop both a comprehensive and strategic plan that follows the DHS and the Commonwealth's Strategic Plan to address public safety issues. In the Nottoway County Comprehensive Plan (revised 2006) it states that the County will continue to work to provide proper resources for the safety and well being of the ever-changing needs of its citizens. The County of Nottoway and the PSAP have also developed a strategic plan to deal with current and future wireless communication needs in the County. The PSAP plays a vital role for first responders in our large and rural county that includes three incorporated towns. We are currently implementing the Emergency Medical Dispatch (EMD) program and will be the first primary PSAP in the region to have this important life-saving program. Four new dispatchers were hired for the PSAP to ensure this project will be successful. The county has also worked with the Town of Blackstone to secure grant funding for Instant Alert and Reverse E-911. We are also installing 2 additional satellite receivers in the county and new P-25 mobile radios in the Sheriff's vehicles that will improve both mobile and portable communication capability. COMLINC is also currently located in the PSAP. We are also working with CICO, VITA and the counties of Amelia and Brunswick on a regional interoperability approach for narrow-band and interoperability compliance communication issues. All of these projects are important but we feel the Nottoway GIS project will be the cornerstone that will ensure that our other projects are successful. Likelihood of completing project without grant funding – availability of other funding source for project. The County of Nottoway is very appreciative of the Virginia Wireless E-911 Services Board for making funding available for PSAP projects. The County and our primary PSAP shares the Wireless Board's vision that supports the continuity and enhancement of wireless E-911. Because the County of Nottoway and the local PSAP is not financially able to fund our own GIS project, addressing and mapping updates that are so desperately needed will not happen unless PSAP grant funding is awarded. Over the past decade, wireless calls to our PSAP have increased from 10% to 75%. Many improvements have been made to the PSAP but there are no other available funding sources for our GIS project. Percent of grant funding request to total project cost Funding requested for the Nottoway GIS project from the Virginia Wireless E-911 Services Board will cover the cost to Address Point Layer Development and Parcel Mapping Conversion. Because the total price of our project exceeded the allowable funding limits for an individual PSAP project, the County will continue its service and maintenance contract with GeoComm to update new 911 addresses once the project has been completed and all addressing and mapping has been updated. It was hopeful that the county could have included the cost of new software and training for the county and PSAP staff. We would like to be able to maintain our own system and be trained to utilize the many features of the new GIS software. Producing data layers for mapping that show building blueprints, fire hydrants, hazardous material sites, Med-Flight landing zones, better defined emergency services areas and other important information would be helpful to first responders and the PSAP. Local sustainability Local sustainability will be achieved by consolidating all of our addressing and mapping needs with one service provider. A single service provider will be able to maintain and provide or recommend software and equipment changes/upgrades as technology advances. This will allow our PSAP to stay ahead of changes and advancements in technology and constantly improve the services they provide to the citizens of the county.

Comprehensive Project Description:

Comprehensive Project Description: The County of Nottoway, the PSAP, and GoeComm have worked very closely together to develop a comprehensive project outline for Address Point Layer Development and Parcel Mapping Conversion. A RFP has been developed by GeoComm and King-Moore Inc. and approved by the Nottoway County Board of Supervisors for our project. The RFP provides a detailed time line for our project along with how the address layer will be developed, address assessment, project management, project implementation, communication, public awareness and a detailed project description of how Parcel Mapping Conversion will take place. See attached RFP from GeoComm and King-Moore Inc.

How will the equipment purchased will support future technologies for PSAP readiness?:

Identification of the longevity or sustainability of the project The proposed Nottoway GIS project will enable the County and the PSAP to work with one service provide for all addressing and mapping needs. GeoComm will develop and implement the project. The county of Nottoway will continue its service and maintenance contract with GeoComm to ensure that all data is correctly entered and kept current, as new 911 addresses are needed. How will the equipment purchased support future technologies for PSAP readiness? The Nottoway GIS project will support future technologies for PSAP readiness by allowing the county to consolidate with one service provider. This consolidation will make it much easier for new technology to be incorporated into existing equipment/software, allow for a smoother transition when changes are needed and allow the PSAP to stay on the cutting edge of technology.

Budget and Budget Narrative:

Budget and Budget Narrative: A budget narrative has also been included in the RFP for the Nottoway GIS project. Both GeoComm who will perform the Address Point Layer Development and King-Moore, Inc. who will perform the Parcel Mapping Conversion have included a detailed narrative for each line item in the budget. Both budgets are as follows: Cost Proposal Summary from GeoComm: Description: Price Project Management \$4,000 Address Point Layer Development \$84,698 Address Assessment \$2,600 Total \$91,298 Cost Proposal Summary from King-Moore: Schedule King-Moore proposes a 14 month timeline to complete the project once a contract has been signed. Price Proposal Based on 11,000 parcels for best-fit and 200 parcel split updates Digitization and conflation \$52,800 Parcel updates from splits \$2,400 Training \$3,000 \$58,200 Price breakdown Digitization and conflation \$3.50/parcel Annotation / Labeling \$1.30/parcel Training of Staff \$750/day Splits with Plat document \$12/plat Splits with Deed document \$18/deed Splits with digital map file \$9/file (acad or deed plotter format) Payment Schedule King-Moore will invoice the County on a monthly basis based on number of parcel mapped and/or services provided. Deliverables Unless otherwise arranged, deliverables will include: •Check plots and a preliminary digital parcel file covering the pilot area. •Digitization phase and the conflation phase. •Digital parcel mapping in ESRI File Geodatabase format. •A single seamless digital parcel file containing all parcels for the entire County. •Any digital files needed to reproduce required annotation in order to produce hard copy map sheets. •Documentation on printing map sheets. The County of Nottoway will need to purchase a portable GPS unit in order to collect field date that will then be sent to Geo-Comm to calculate the addresses. The budgeted price for the GPS unit is \$ 200.00 Total Budget for the Nottoway GIS project will be \$149,698.00

Evaluation:

Evaluation: How will project be evaluated and measured for achievement and success: The Nottoway GIS project will be evaluated and measured for achievement and success once the Address Point Layer Development and Parcel Layer Conversion has been completed. When grant funding is awarded, services outlined in the RFP by both GeoComm and King-Moore Inc. will be completed in their entirety. Project management will also ensure that all aspects of the project will be completed. The completion of this project will ensure that our long rang planning will become reality by allowing the PSAP to provide the most efficient and accurate addressing and mapping services to our citizens when time can be the difference in life or death.

Attachments

RFP for GoeComm and King-Moore.doc
Budget Summary for Nottoway GIS Project.doc

GeoComm proposes to assist Nottoway County in developing a spatially accurate address point layer. In addition, GeoComm will also provide Nottoway County with an address assessment which will result in a report detailing discrepancies found in the addresses during on-site field collection.

Address Point Layer Development

GeoComm proposes to assist Nottoway County with the development of an address point layer which includes all habitable structures within the county and included municipalities. This address point layer will be developed in the field by qualified GIS Field Specialists with assistance from in-house GIS staff.

GeoComm has the resources and staff necessary to complete Nottoway County address point layer field collection in an efficient matter. Trimble GeoXH GPS data collection system will be used by GIS Field Specialists to complete field collection. This system uses GPS Analyst software and can result in sub-foot GPS accuracy.



To enhance the GPS collection process, existing county-provided data such as a road centerline layer will be inserted as a backdrop for reference during the GPS field collection process. Additionally, the initial address point layer will be used as a reference in the field to ensure a GPS point is collected for all habitable structures in Nottoway County and included municipalities.

Field Collection

GeoComm GIS Field Specialists will collect a GPS point, using Trimble GeoXH GPS data collection software, for each habitable structure in Nottoway County and included incorporated municipalities. Collecting GPS points will result in an address point layer that includes a point near the location where entrance can be gained to each habitable structure's driveway within the unincorporated portions of Nottoway County and a point at the front of each habitable structure in the incorporated municipalities.

During field collection, GIS Field Specialists will also collect address information that will be used to attribute the points.

If an address is visible on the structure, GIS Field Specialists will enter the address into the address point. If the address is not visible, GeoComm will collect the address by conducting a face-to-face interview with available residents.

If there is no one available and the address was not visible, the GIS Field Specialists will enter any other miscellaneous information into the corresponding point such as structure color, structure type, etc. and leave an information packet including a self-addressed, stamped envelope, and survey to obtain the necessary address information. Alternatively, the resident will be provided a link to an online survey.

Resident's Name Information:
Resident's Last Name _____
Resident's First Name _____
Resident's Middle Initial _____
Resident's Spouse _____

Business Information:
Is there a business located at this establishment? NO YES, please indicate the name below
Business Name _____

Telephone Information:

Phone Number	Location (E.g., home, bank, SMALL, etc.)	Type (E.g., voice, security, fax, computer, etc.)
Primary Number _____	_____	_____
Additional Number _____	_____	_____
Additional Number _____	_____	_____

If you have more than 3 telephone numbers, please check here and list on the back

Telephone Company _____
Name on Telephone Bill _____
What is your street or service address? _____
What is your City, State, and Zip Code? _____

Do you share a mail box with another resident? _____

Mailing Address: If it is not the same as your street address, please provide it here.
What is your mailing address? _____
What is your City, State, and Zip Code? _____
If located in a County other than CUSTOMER, _____

Important! Please complete this survey on a self-addressed, stamped envelope. Make sure to fill in your street address, make sure to fill in your mailing address if for a separate mailing.

GeoComm
Dickinson County, VA
Address Survey

Reference ID: _____
Note: The Reference ID is located on the 8-11 Information Request pamphlet.

Last Name: _____
First Name: _____
Physical Address: _____
Note: Your physical address is the address assigned to your home or business. This does not include a PO Box.

Mailing Address: _____
Example: 123 Main St, or PO box 123

City / Town: _____ State: [VA] Zip Code: _____

Yes - I have landline telephone service (non-cellular telephone) No - I do not have landline telephone service

Landline telephone number(s) at this address (this includes fax and computer lines but not cellular telephones): _____

These surveys, either online or hard copy, are to be filled out by the resident. GeoComm will have the hard copy surveys sent to the Nottoway County office to increase the response rate. Surveys will be uniquely tied to each point for easy cross-reference back to the corresponding GPS point. The received surveys will then be forwarded to GeoComm and the points will be updated by the in-house GIS Specialists with the corresponding address information supplied on the surveys.

After GIS Field Specialists have visited each habitable structure once and addresses on returned surveys are entered into GPS points, the final address point layer will be delivered to Nottoway County in ESRI format in an agreed upon projection. Only points where information could be obtained in the field or points where an address was supplied by the resident/business will include an address.

Optional Second Pass

Optionally, GeoComm can provide Nottoway County with an additional field collection pass for GPS points not containing an address. During the second pass of field collection, GIS Field Specialists will only visit habitable structures where an address could not be obtained in the field or a survey was not returned during the first pass. There will be no need to collect GPS points during this pass. GeoComm will visit each habitable structure not containing an address. The

GIS Field Specialist will attempt to complete a face-to-face survey. If again the resident is not available a survey packet will be left behind.

This second pass does not guarantee that all address information will be obtained in the field. It may be necessary for assistance from Nottoway County to gather the remaining information from unresponsive residents and businesses. A price can be provided for this second pass upon completion of the first pass.

Address Assessment

During field collection of address points, GeoComm proposes to also do an address assessment review of all unincorporated and incorporated addresses in Nottoway County. This assessment will be completed to determine which addressable structures need a new address assigned based on specific guidelines. Reasons structures may need to be readdressed include:

- It was on a private drive that contained more than two addressable structures that were addressed off the main road.
- It is addressed opposite (odd or even) of all other addresses on the same side of the road.
- It is out of sequence based on other surrounding addresses.
- It is using the same address as another structure.
- It is a stacked address (contains an a,b,c or 1,2,3 after the house number: 123a, 123b, etc).

GIS Field Specialists will attribute each address point that appears to be a possible addressing issue with unique code to depict the type of addressing issue.

The assessment of the addresses will be based on guidelines set forth between GeoComm and Nottoway County prior to field collection.

Project Management

One key to a successful project is to have a well-implemented project management process in place. Based on our established methodologies and past project experience, GeoComm's process encompasses all facets of project management. This methodology is critical to the success of any project.

GeoComm pledges to work closely with the local staff for the duration of the project. Our goal is to involve the local staff as much as possible to better enable the Nottoway County staff to maintain the data upon project completion.

GeoComm has the needed staff, resources, processes, and procedures in place to perform this work in an efficient manner within an agreed on timeline.

Project management starts at GeoComm on day one with the development of a project team. This team is made up of individuals from different areas of expertise, each specializing in different aspects of the project.

One of the first steps is to make certain the project team has an in-depth understanding of Nottoway County's project goals. Detailed knowledge of all the systems involved is essential and results from staff research, analysis, and assessments.



During an initial internal meeting, project leaders provide the team with information regarding any nuances in the scope of work, the overall schedule, and their individual responsibilities during the course of the project. This is an effective step in assuring the project's successful and timely completion.

Immediately following GeoComm's internal project team meeting, the project team will schedule a conference call with the Nottoway County project team. At the meeting, the overall schedule and project scope will be discussed. Upon completion of this meeting, GeoComm will schedule monthly status conference calls with Nottoway County. The communication during these calls is necessary to ensure timely completion of the project.

Through open communication between Nottoway County and the project team, an understanding of the depth of the project scope is gained. This open communication between team members and Nottoway County will be ongoing throughout the entire project and has proven to be an essential part of successful project implementation.

Project Implementation

Public safety projects are a learning experience for our customers that help them make educated decisions about their system. We will welcome Nottoway County's involvement at all phases of the project.

Team members will be assigned specific duties related to the technical and administrative elements of the project. The project manager(s) will provide the supervision necessary for all elements of the project to be implemented correctly and in a timely manner.

Nottoway County is an integral part of project implementation with regular meetings scheduled to keep them abreast of the project schedule. The team will continually identify milestones in the process, track all factors, and inform Nottoway County of the project status.

Project management processes in place at GeoComm have the flexibility for changes to be implemented as the project demands and the project plan may be adjusted to meet the needs of Nottoway County.

GeoComm has an established level of security and follows standard operating procedures that eliminate the risk of unauthorized access to confidential customer data throughout project implementation.

Project Communication

GeoComm and Nottoway County will review the overall schedule and determine the frequency of regular conference calls.

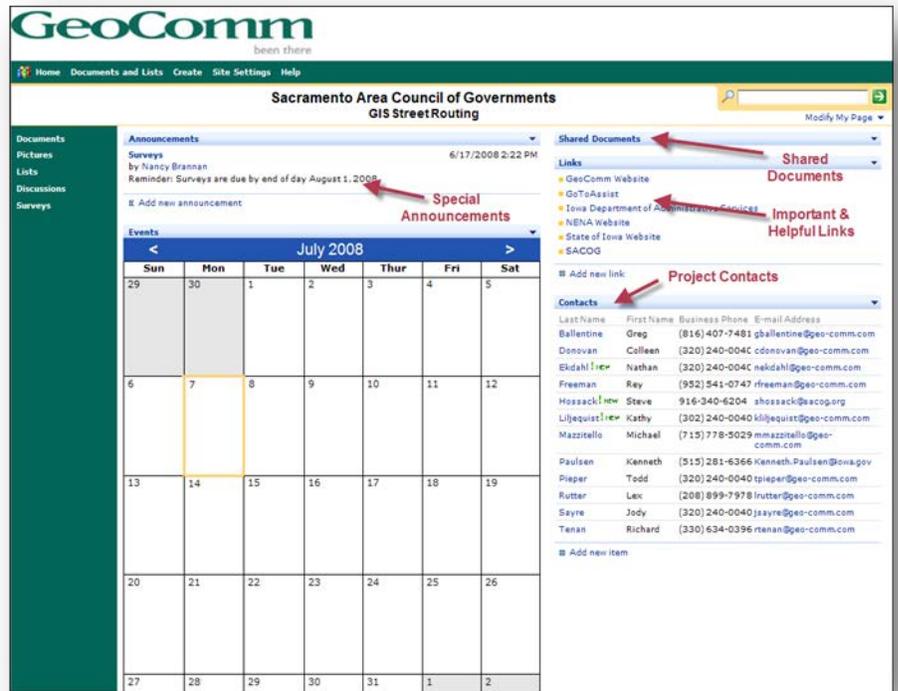
During this project, GeoComm's GIS professionals will prepare and send formal monthly status reports outlining the following:

- Areas completed including map(s)
- Meetings held, planned, or needed
- Issues/problems encountered or anticipated
- Production goals for the next reporting period
- Schedule review

During the regular conference calls, these items, as well as any other project elements, will be discussed. GeoComm will communicate frequently with the Nottoway County contact to provide awareness of the status of the project and to maintain ongoing communication among project team members.

In addition to conference calls and status reporting, GeoComm utilizes several other methods to communicate project status to the team. To ensure the highest level of ongoing project communication, GeoComm will not only utilize conference calls and status reports but will also utilize online technology (Web meetings and a project Web portal).

If desired, GeoComm will configure and host a password-protected Web portal, accessed via the Internet, to serve as a data gateway and project management tool. This Web portal will include items to ensure timely sharing of data and necessary communication for this project.



Items included are:

- support and maintenance issue tracking
- a documentation library
- schedules
- the ability to post data files
- tracking data delivery status
- project status reports

Specifically, this project management Web portal will be used for continued communication and uploading and downloading data. These features allow easier access to data and offer enhanced communication among project members.

An advanced feature of the Web portal is the ability to setup multiple security groups. With password protection and cascading security groups, administrators control information accessible to individual users or groups of users. For example, all of the key stakeholders, as

determined by Nottoway County, will be able to view all elements on the Web portal, where a GIS Specialist may only be able to view the GIS map data elements.

Project Completion

Successful project completion includes deliverables and the complete execution of the scope of work as established during the earlier phases of the project.

Public Awareness

Another element to a successful project such as this is the level of support for the project by the local residents and businesses. One way to increase the level of support by residents is to keep them informed on what to expect and the general status of the project. Our experience tells us there is always a certain amount of resistance from residents to provide information that is requested during field collection. In order to raise the level of acceptance, GeoComm has developed several public awareness and educational materials. GeoComm will work with the Nottoway County contact in establishing the general logistics required at the onset of the project.

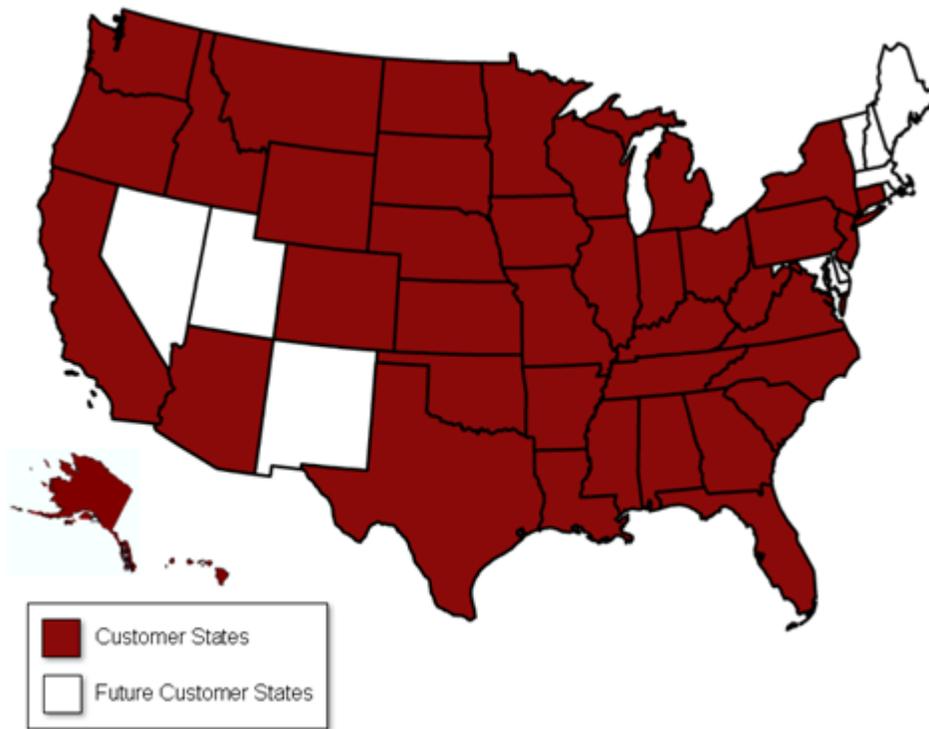
Prior to the start of field collection, GeoComm will provide the Nottoway County contact with detailed information for educating the community on the field collection methods used.

This awareness and educational packet will include:

- Sample public awareness documents
- Tracking forms
- NENA standards
- Press release examples
- Various press release approaches

GeoComm's experience specifically relating to the public safety industry is demonstrated by the following projects and client references. These projects illustrate our broad range of 9-1-1 expertise and our ability to successfully accomplish highly technical projects across the United States.

The highlighted states on the map below depict GeoComm's nationwide customer base.



Population: 16,168

Customer Since: March 2008

Services:

- GPS Field Collection/Verification
- GIS Data Updates
- Project Management
- Standard Operating Procedures Development
- Training

Customer Contact:

Mark Cvetnich
E9-1-1 Manager and Director of Operations
5444 Dickenson Highway
P.O. Box 2050
Clintwood, VA 24228
(276) 926-6330
markc@dc911.org

Dickenson County, Virginia

Project: GeoComm is currently assisting Dickenson County in updating essential databases for E9-1-1 purposes, delivering correct addresses to residents, and updating essential GIS data layers. The following tasks are being completed to ensure proper synchronization of the GIS data layers and databases:

- Task One: Address Notification and Fieldwork
- Task Two: GIS Data Layer Updates
- Task Three: Quality Assurance/Quality Control (QA/QC)
- Task Four: Standard Operating Procedures Development
- Task Five: Training

Task one includes verifying structures have correct addresses based on the county's current master address points and notifying residents of their correct address. Included with this process is updating databases for the E9-1-1 system.

While in the field during task one Field Specialists are collecting any new points and roads to add to the master point and road layers.

Task two includes verifying and enhancing the county's existing GIS data layers for accurate 9-1-1 call plotting.

Throughout the project GIS Specialists are completing the necessary QA/QC procedures to ensure a quality final deliverables to Dickenson County.

Upon conclusion of tasks one through three, a GeoComm GIS Consultant will develop standard operating procedures and train the Dickenson County staff on the proper procedures for ensuring the addresses and GIS data enhanced throughout the project maintain their quality well into the future.

Whitfield County, Georgia

Project: GeoComm was contracted by Whitfield County to

Population: 92,999

Square Miles: 300

Customer Since: May 2007

Services:

- GIS Address Analysis
- GPS Field Collection – In Progress
- GIS Data Development – In Progress
- MSAG and Telephone Database Updates – In Progress

Customer Contact:

Tim Miller
301 West Crawford Street
Dalton, Georgia 30720
Phone: (706) 281-4800
tmiller@whitfieldcountygga.com

complete a study of current and future E9-1-1 GIS addressing needs in the county. During the study, GeoComm analyzed options for GIS data development, reviewed procedures, made recommendations, and provided assistance in addressing problems identified within the county.

To ensure a thorough understanding of the county's current GIS addressing, GeoComm captured sample data, reviewed existing telephone database and MSAG files, and facilitated agency interviews to outline GIS needs and procedures. Upon completion of the project GeoComm provided Whitfield County with options for the creation of their GIS database to meet or exceed the current and anticipated GIS addressing needs.

GeoComm is now currently in the process of completing GIS services for Whitfield County. Specifically, GeoComm is assisting Whitfield County with:

- Field data collection
- Readdressing necessary structures
- Developing new GIS data layers
- Enhancing existing GIS data layers
- Updating the existing MSAG and telephone database
- Providing residence and business with their new addresses.

All to provide a high quality end product in an efficient matter for future use by the county and emergency service personnel.

Population: 24,032

Roadway Miles: 1,337

Square Miles: 762

Customer Since:
September 2001

Software:

- 3 licenses of GeoLynx 9-1-1
- 2 licenses of GeoLynx AVL
- 6 licenses of GeoLynx Mobile
- 1 license of GeoPoint
- 1 license of Atlas Generator

Services:

- GPS Field Collection
- Address Conversion
- GIS Data Development
- MSAG Development
- ALI Database Development
- Communications Consulting and Engineering
- Project Management
- Software Installation and Training
- Software Support and Maintenance

Customer Contact:

Jim Porter
Washington County Central
Dispatch 9-1-1
12252 N. State Hwy 21
Cadet, MO 63630
(573) 438-0040
jporter@wccd911.org

Washington County, Missouri

Project: GeoComm developed and implemented an E9-1-1 system for Washington County, which has a land area of 639 square miles including four incorporated municipalities. GeoComm provided geographic services and software systems solutions. Geographic services included developing a locatable addressing system, digital base map, MSAG, and ALI database.

Washington County contracted with GeoComm to implement GeoLynx 9-1-1, which provides fully automated E9-1-1 dispatch mapping information for wire line and wireless calls.

Washington County purchased GeoComm's GeoPoint system to maintain the map data for use in the GeoLynx system.

In addition, Washington County also selected GeoComm's GeoLynx AVL and GeoLynx Mobile software modules. GeoLynx AVL enables dispatchers to locate all emergency vehicles equipped with tracking units (squad cars, fire trucks, ambulance, water patrol boats, ATV, etc.) on a digital map while GeoLynx Mobile allows emergency responders in those vehicles to view the same map data as the dispatchers

Population: 1,349

Roadway Miles: 1400

Square Miles: 778 square miles

Customer Since: 2006

Software:

- 2 licenses of GeoLynx 9-1-1
- 1 license of GeoPoint

Services:

- Address Conversion
- GIS Map Data Development
- MSAG and ALI Database Development
- GPS Field Collection
- Installation and Training
- Software Support and Maintenance

Customer Contact:

Mark Rine
208 Harper
Tribune, KS 67879
(620) 376-4233
sheriff@sunflowertelco.com

Greeley County, Kansas

Project: GeoComm developed and implemented an E9-1-1 system for Greeley County, which has a land area of 778 square miles including two incorporated municipalities. GeoComm provided geographic services, software systems solutions, and project management services. Geographic services included developing a locatable addressing system, digital base map, MSAG, and ALI database. Initial database construction involved 803 phone records.

Greeley County contracted with GeoComm for wireline and wireless Phase I implementation management services in addition to the implementation of GeoLynx 9-1-1, which provides fully automated E9-1-1 dispatch mapping information for wire line and wireless calls.

This project was completed in a record amount of time. From contract signing to GeoLynx 9-1-1 implementation the project only took 10 months. This included developing an approved addressing scheme, field collection of all rural addressable structures, addressing, postal coordination, and notification to residents of their new address, map data development, MSAG and ALI database development, software setup and implementation, and software training.

Population: 11,488

Roadway Miles: 1,325

Project Start Date: December 2006

Project End Date: March 2006

Software:

- 2 licenses of GeoLynx 9-1-1
- 1 license of GeoPoint

Services:

- GPS Field Collection
- Address Conversion
- GIS Data Development
- MSAG Development
- ALI Database Development
- Project Management
- Telecommunications Consulting
- Aerial Image Integration

Customer Contact:

Isaac S. Brown
Chief of Police
McCook Police Department
526 West B. Street
McCook, NE 69001
Phone: (308) 345-3450
Fax: (308) 345-4369
ibrown@cityofmccook.com
<http://www.co.red-willow.ne.us/officials.html>

City of McCook and Red Willow County, Nebraska

Project: GeoComm was hired by the City of McCook and Red Willow County to develop and implement an E9-1-1 system. Located in south central Nebraska, Red Willow's 21 townships and six municipalities, with the City of McCook as the county seat, have a total land area of 750 square miles. GeoComm provided geographic services including addressing and mapping services to develop a locatable addressing system. GeoComm also provided digital base map development, and MSAG and ALI database development. Database construction involved 7,271 records.

Software system services included implementation, training, and installation of GeoLynx 9-1-1 dispatch mapping software, which provides fully automated E9-1-1 dispatch mapping information for both wired and wireless calls.

In addition, the county contracted for telecommunications engineering services by GeoComm to consult with them on designs for E9-1-1 network specifications, E9-1-1 database system, and dispatch center equipment.

GeoComm proposes to subcontract the work for parcel conversion to King-Moore, Inc. King-Moore's scope of work, company overview, reference, schedule, price proposal, and key personnel resume are included on the following pages.

Below is the RFP from King-Moore Inc.:

Introduction

King-Moore, Inc. will provide the services needed to create a digital parcel layer that is conflating to approximately match an accurate base map such as the VGIN digital orthophotography. The following seven items outline what King-Moore will follow in this process:

1. Convert the current hard copy tax parcel maps to a digital format.
2. Add an identifier to each property.
3. Link the digital parcel file to the real estate database.
4. Create a seamless County-wide parcel layer.
5. Conflate the digitized parcels to fit the digital orthophotography and planimetrics.
6. Identify problem parcels.

Characteristics of the Tax Maps

- County's land area = 308 sq mi.
- Total number of parcels on the tax maps = approx. 11,000
- The total number of map sheets at a scale of 1" = 600' = 63
- The total number of map sheets at a scale of 1" = 200' = 200
- The dimensions of the existing map sheets are 24" by 30".
- The County uses, and will continue to use, the map/double-circle/(block)/lot numbering system. Numbering should be formatted as follows: map-dblcir-(block)-lot. Ex. 41-A-29 or 2-1-2-6 or 80A-4-6.
- The County averages approximately 200 parcel splits per year.

Information Provided by the County

The County will provide King-Moore:

- access to the updated, hard-copy tax maps used in the Commissioner of the Revenue's office,
- a copy of the real estate database in dbase or similar format,
- a copy of the digital orthophotography created by the VBMP in 2007
- a copy of the planimetric base data layers such as roads, structures, streams etc.,
- copies of deeds and plats from splits not shown on existing hard copy maps.

PROJECT SPECIFICATIONS

Standard for Digital Parcel Files

King-Moore will work to comply with the following standards:

1. Convert the most current hard copy tax parcel maps to a digital format so that maps can be reproduced as needed in same format as used currently,
2. Add an identifier to each property in the digital parcel file that makes possible a link to the Commissioner of Revenue's real estate database,
3. Link the digital parcel mapping to the County provided real estate database based on the parcel number,
4. Add a polygon type identification attribute (this deals with polygons such as right-of-ways, rivers, easements, etc. that are not parcels but are areas that may exist on the map),
5. Edge-match all map sheets and inserts so that a seamless County-wide parcel coverage can be created when neatlines, gridlines, annotation, etc. is turned off.
6. Use a "best-fit" conflation process to fit the parcel boundaries to the digital orthophotography and planimetrics,
7. Identify problem parcels: parcels that are missing or do not link to the real estate database,
8. Link the E9-1-1 address to the parcel,
9. Deliver in ESRI File Geodatabase format.
10. Deliver mapping in phases so the County can begin reviewing and using the mapping,
11. Provide metadata.

Software

King-Moore will use ESRI ArcGIS software to create parcel data layers. The format provided will be ESRI File Geodatabase format that the County can use with other ESRI 9.x software.

Pilot Project

King-Moore will begin the project with a pilot area of four contiguous 1"=600' scale map sheets (including any inserts) to be specified after the contract is signed. All necessary base mapping will be provided by the County along with appropriate hard copy tax maps and real estate database. Check plots of each map will be provided to the County for review. Further work on the project will not begin until this pilot area has been signed off by the County. Both the County and King-Moore can use this time to make any needed adjustments to the overall process as agreed to.

Reconciling Real Estate Database and Parcel Maps

It is likely that there will not be a one-to-one correspondence between the parcels depicted on the tax parcel maps and the records in the real estate database. King-Moore shall provide a list of the map parcels with no real estate property record match and vice-versa. Any reconciliation of these discrepancies provided to the King-Moore will be incorporated into the digital parcel file before the final version is delivered.

Text or Annotation on Maps

Unless directed by the County, King-Moore shall produce the necessary parcel annotation so that the County can print individual tax maps on a large format printer. This includes the ability to print the 1"=600' scale and 1"=200' scale inserts. Annotation will include:

- Property identifiers (Map, double-circle, (block), lot)
- Cross-over symbols
- Street names and route numbers
- Names of rivers or streams as shown on parcel maps
- Names of publicly owned properties and buildings as shown on maps
- Easement labels as shown on maps

Whether the text features on existing maps are recreated as separate annotation data layers in the GIS database or by using GIS software to label features will be determined by the capabilities of the GIS software being used by the County.

Right-of-Way Data Layer

Using the road centerlines from the County roads layer, King-Moore shall develop rights-of-way (ROW) in the new tax parcel mapping. Unless shown otherwise, ROW's along public roads will be 30' and private roads will use 20'.

Training

King-Moore shall provide training to the County related to the parcel mapping developed through this project. Training shall be provided to a selected person or persons' designated by the County and shall be done on-site at the County. An initial 2 days of training will be provided with a follow-up of an additional 2 days after a period of time such as 4 weeks.

Linking the E9-1-1 address to the Parcel

King-Moore will link the E9-1-1 address to the parcel. This will be completed by first spatially joining the newly developed address point layer to the completed parcel layer. A parcel ID field will then be created in the address point layer and populated with the associated parcel identifier. This parcel ID within the address point layer will be used to determine parcels that have multiple E9-1-1 addresses residing in within the parcel boundary and parcels that have only a single address residing within the parcel boundary.

Some parcels will have multiple E9-1-1 addresses residing within the parcel boundary. Populating the Address point layer with the parcel ID allows for these instances to be identified. Parcels with multiple E9-1-1 addresses will be delivered to the county for determination of the correct situs address of the parcel.

Many parcels will have a single E9-1-1 address which resides in the parcel boundary. For these parcel the E9-1-1 address of the address point file will be populated in the parcel layer as the situs address for the parcel.

Company description and History

Company Overview

King-Moore, Inc. has two offices, Bristol, VA and Wytheville, VA. Our company has been providing GIS/IT services for over 6 years. The focus of our company is to serve clients in their individual needs in the areas of Geographic Information Systems (GIS) and Information Technology (IT). Brandon Moore specializes in GIS services and has been involved in this field of expertise for over 18 years. Before starting King-Moore, Inc. he worked over 10 years with Anderson & Associates in GIS services and 2 years as GIS Manager in Washington County, VA. Mr. Moore has also taught as an adjunct professor, teaching an on-line GIS certificate course. Chris King specializes in Information Technology (IT) and has also worked in this field for over 17 years. As the new information age is advancing, GIS and IT are becoming more closely integrated and critical to one another. This allows King-Moore to be at the front-edge of this technology and provide innovative solutions to our clients.

Related specifically to this project, King-Moore has worked with GeoComm, Inc. on numerous projects in Virginia. We have been involved with all aspects of parcel related mapping such as parcel map conversion, parcel conflation and adjustment, parcel updates, parcel analysis, etc. for many years. We are currently working on parcel conversion and parcel updating projects in Floyd and Bland counties as well as doing parcel updates from deeds/plats for several others. We have also trained many clients on doing their own parcel conversion and then the process of how to keep the mapping up to date as land is divided and boundaries change. Having worked with a surveying company for 10 years we have the experience of understanding surveying concepts along with GPS technology.

Offices

Brandon Moore– President of GIS Services
Abingdon Office
20221 Colony Lane
Bristol, VA 24202
Tel: 276-356-8224
Email: moore@king-moore.com

Christopher W. King– President of IT Services
Wytheville Office
323 South Fork Drive
Wytheville, VA 24382
Tel: 540-920-5093
Email: king@king-moore.com

Key Personnel (See resume at the end of this section)

Brandon Moore

Mr. Moore will serve as the Project Manager throughout the project. He will oversee all aspects of the project to make sure timelines are on schedule, resources are available, etc. Mr. Moore will coordinate all activities with GeoComm and work closely with the County to coordinate the review process, database relating, parcel updates, and training.

References

- 1) Ford Wirt

Floyd County VA
120 West Oxford
Floyd, VA 24091
540-745-9313

2) Nadine Culberson
Washington County, VA
205 Academy Dr.
Abingdon, VA 24210
276-676-6529

3) Bryan Reed
Giles County, VA
315 N Main St.
Pearisburg, VA 24134

Cost Proposal Summary

Description	Price
Project Management	\$4,000
Address Point Layer Development	\$84,698
Address Assessment	\$2,600
Total	\$91,298

Schedule

King-Moore proposes a 14 month timeline to complete the project once a contract has been signed.

Price Proposal

Based on 11,000 parcels for best-fit and 200 parcel split updates	
Digitization and conflation	\$52,800
Parcel updates from splits	\$ 2,400
Training	<u>\$ 3,000</u>
	\$58,200

Price breakdown

Digitization and conflation	\$3.50/parcel
Annotation / Labeling	\$1.30/parcel
Training of Staff	\$750/day
Splits with Plat document	\$12/plat
Splits with Deed document	\$18/deed
Splits with digital map file (acad or deed plotter format)	\$9/file

Payment Schedule

King-Moore will invoice the County on a monthly basis based on number of parcel mapped and/or services provided.

Deliverables

Unless otherwise arranged, deliverables will include:

- Check plots and a preliminary digital parcel file covering the pilot area.
- Digitization phase and the conflation phase.
- Digital parcel mapping in ESRI File Geodatabase format.
- A single seamless digital parcel file containing all parcels for the entire County.
- Any digital files needed to reproduce required annotation in order to produce hard copy map sheets.
- Documentation on printing map sheets.

The County of Nottoway will need to purchase a portable GPS unit in order to collect field data that will then be sent to Geo-Comm to calculate the addresses. The budgeted price for the GPS unit is \$200.00

Total Budget for the Nottoway GIS project will be \$149,698.00