

PSAP Grant Program Grant Ranker

View Application--65--Building Footprints and address points

Grant Period: 2009

Tier: Replacement of non-vendor supported wireless E-911 equipment or service to enable primary PSAP to maintain current service levels to the general public (**NON-VENDOR SUPPORTED**)

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

Priority: Structural addressing (**ADDRESS**)

Primary PSAP Applicants: Roanoke County Police Communications

Jurisdictions Served: Roanoke

Project Director:

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Project Description:

Roanoke County has fallen far behind in the maintenance and clean up of our building footprints and address point creation or correction. We are requesting funds to purchase building footprints from VGIN corresponding to our aerials, as our footprints are from 1995. With corrected building footprints, we will contract for address point creation. The County is in dire need of this information ahead of CAD software upgrade during the 2008 calendar year. About 8000 address points have been created to date and they are not on the structures, but rather centered on the parcel, and need point location correction.

Total Project Cost \$150,000.00

Amount Requested: \$120,000.00

Matching Funds: \$30,000.00

Additional Local Funds: \$0.00

Statement of Need:

The area is faced with numerous challenges in serving its residents. - The County has seen Overall growth: The 2000 Census indicates a 12% increase in housing units from 1990-2000. Data from Community Development shows an 8.5% increase in housing units from 2000-2006. - The county has a large number of large parcels and undeveloped tracts of land. - Previously underdeveloped rural areas are now being used more for development. Much of our "prime" developable land has been built on, and building has shifted to terrain that was once not attractive for development. Many of those places are extremely rural and far from emergency services; the steep slopes can make access challenging or impossible. It also often means that structures are not located near the roads or centers of parcels, but often on the extreme edges

of this land. - Our last building footprints were developed in 1995. - Many parcels have more than one livable structure on them. Current data only shows one address per parcel. - There are an estimated 80,000 structures in the county. Only 10% have address points and those points were created on the center of the parcel and do not match the structure(s) location. - Address points are required for optimal geoverification before the county can update to the next version of our CAD software. - We currently lack the expertise to develop and clean all of the required data in the allotted timeframe. - We are already past our budget cycle for the timeframe in which this must occur. Our proposed solution is to take advantage of VGIN updated building footprint options. We will pair this with address point creation efforts for Roanoke County using contractors with experience in this field. Some potential uses and advantages to using address points and updated footprints are: • Optimize 9-1-1 operations by minimizing misroutes and thus reduce risk to personnel and property. Nearly 15% of calls are currently misrouted. • Decrease response times and increase service to citizens. Dispatchers will be able to describe the accurate location to responders. Eventually we will be able to push images to responders. It will also help us verify address information with callers. • Approximate size and shape of structures will help to speed rescues and evacuations. • Fully integrated with CAD systems • Provide Community Development office current addressing/structure information. They will adopt updated maintenance processes for the future We feel it is important to note that the county has never requested funds to support GIS addressing initiatives. Additionally, all mapping and data handling is handled by county personnel and is not contracted or supported elsewhere.

Project Impact:

It is required in order to remain current with our CAD software. This is especially important because our vendor will only support software that is current within 6 months and address points are needed in order to complete this upgrade. Additionally, any new reporting requirements for 2009 will require us to be on the most current software version available.

Consequence of Not Receiving:

The work will have to be done, but without funding we will have to wait for county staff to be trained and complete the work. This could take us into next year. We will also have to forgo the building footprints update. Having updated building footprints substantially decreases the time require to build accurate address points. Without funding, we will not be able to complete the update in time.

Part of Long Term or Strategic Plan?: Yes

Likelihood of Completion Unfunded?: 100%

Other Available Funding Sources?: No

Percent of Grant Funding Requested To Total Funding Cost?: 80%

Is Project Locally Sustainable?: Yes

Comprehensive Project Description:

If funding is granted, we will immediately contract with VGIN for updated building footprints. Concurrently, our Community Development department will audit their records for any structures either under construction or constructed after the date of the fly overs. The County's IT department will select an appropriate vendor for address point creation and structures update. We have ongoing efforts with Woolpert and they have agreed that they could do the work for us, if funds are granted. Once VGIN provides updated footprints, our department will pass the additional structures information and required addressing information to the selected vendor. They in turn will return the complete building footprints and address point information in a form that is fully integrated with our current GIS and CAD systems. Appropriate updates will be provided to the grant board and work will conclude within the grant cycle. Every effort is being made to bring the data up to the current moment, once this is done, the county should be able to maintain and update this information on a near real-time basis.

What type of interface or compatibility solution will be used between existing equipment and/or software and that which you intend to purchase?:

Today our CAD software will currently accept any GIS created shape files, on a scheduled but not fully automated process. However, once we go to the next version this calendar year, the software will automatically pull updates from the County's Enterprise GIS system - thus allowing us to have near real-time CAD updates.

What is the overall relationship of your project to your PSAP or locality's established long-range future plans?:

As stated above, this project is crucial to our ability to maintain support of our CAD software. It will also improve efficiency and service to our residents and reduce misdirected calls and cut down response times.

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

Since the data will be compliant and integrated with our enterprise GIS system, it can easily be use or moved to any new technologies that come along in the future. Our Enterprise GIS is an ESRI solution. ESRI is the most popular vendor in GIS software, by far.

Budget and Budget Narrative:

Since an acceptable contractor (VGIN) has already been located, the project will begin immediately. A preliminary budget is outlined below. The following listed budget items are a based on good faith estimates provided by VGIN and average data correction cost. Since a contractor has not been selected for the address point creation and the footprints are needed to speed this process, only a rough estimate can be given at this time. This budget will continue to be refined as the participating PSAPs move through the procurement process. A finalized cost proposal will be presented to the PSAP Grant Coordinator before any approved funding is requested. We have also attached the good faith estimate from VGIN. We feel it is important to note that the county has never requested funds to support GIS addressing initiatives. Additionally, all mapping and data handing is handled by county personnel and is not contracted or supported elsewhere. Building Foot Prints from VGIN \$44,827.00 Audit of structures since fly over N/A Contracting hours for address point creation on ~80,000 points \$105,100.00

Ongoing Expenses:

There will be no ongoing expenses. Any ongoing data updates will be handled by the County's GIS staff, in conjunction with Information Technologies and PSAP staff.

Evaluation:

The most immediate measure will be the successful upgrade of our CAD software. Additionally, we hope to see a drop in misdirected calls and response times. These metrics are already tracked in our CAD software. Finally, there would be a substantial drop in data correction requests from Dispatch to our Community Development Department.

What are the short term, intermediate, and/or long-term outcomes desired for this project?:

The most immediate outcome will be the successful upgrade of our CAD software. Additionally, we foresee this effort allowing the county to stay current on all of its addressing information. These items will in turn increase our effectiveness for our citizens and improve outcomes. As with any dispatching initiative, we hope to improve the number of successful calls (whether in terms of lives saved/improved or structure/property protected). We also hope to decrease the number of misdirected calls.

What measures will be used to determine outcomes?:

We will review metrics for misdirected calls, response times and data correct requests in addition to the initial CAD upgrade.

How will data be collected and how will evaluations be conducted?:

Metrics are already collected by our CAD system, our MagIC call counting equipment and a tracking mechanism is in place for Dispatch data correction requests. We will be able to analyze these numbers to measure effectiveness beyond the initial CAD upgrade.

How will data be presented?:

This data is already part of our overall metrics for the dispatching software. We will adjust any other measures that seem appropriate or are recommended by the board.

Attachments