PSAP Grant Program Grant Ranker

View Application--126--Geometry Update

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Tier: Replacement of technically outdated wireless E-911 equipment or service to enable primary PSAP to maintain current service levels to the general public (**TECHNICALLY OUTDATED**)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

Jurisdictions Served: Farmville, Town of
Prince Edward, County of

Project Director:
Jonathan Pickett
County Planner
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Project Description:

Total Project Cost $86,300.00
Amount Requested: $86,300.00

Statement of Need:
Relationship to the Current Funding Priorities This grant request is categorized as both GIS low priority and GIS high priority as stated the Grant Guidelines for 2010. Data – Data manipulation of: Parcels (MSAG address applied) Data – Data manipulation of: Address Points (MSAG address applied) Evidence of Financial Need Successful accomplishment of this project will improve our ability to provide current and reliable information to the PSAP from the GIS. We do not have the financial or technical resources to successfully develop and implement this project. We intend to hire a consultant to perform this work. Impact on Operational Services This project vastly improves the ability of 911 in Farmville and Prince Edward by providing a visually current representation of the address structure points and parcel polygons to dispatchers trying to direct emergency responders to the correct location of an emergency call. Consequences of not receiving funding The County has some available funding for maintenance, but lacks the in-house time and expertise to perform this project. If this funding is not received, the County will not have a GIS or E-911 with accurate address structure point or parcel locations. Inclusion of Project in PSAP Planning This project is part of our long-term commitment to improve local response capability through establishment of a common base data set using the Virginia Base Mapping Program.

Comprehensive Project Description:
Project Description This project involves updating the County and Town's parcel data to match the 2006/2007 Virginia Base Mapping Program imagery. The County currently participates in the VBMP on a

quarterly basis by routinely providing data to both VGIN and their surrounding neighbors. Part of their participation in the program involves keeping their centerlines on this imagery, and in the future will be maintaining parcels and address structure points on this imagery to also incorporate in the program. The PSAP plans to have all data used in dispatch updated and current with VBMP releases, as well as using the imagery itself as an aid to dispatchers. Through this project, not only will the parcel data be updated, but the address structure points will also be verified. Updated parcels will be used to detect out of place structure points by verifying the addresses contained in them through spatial analysis. Address points which do not match the updated parcel will be investigated to determine correct address placement. Implementation Strategy and Work plan Phase 1: Receiving, Verifying and Loading Data This phase of the project will include receiving and verifying the existing parcel, centerline and structure point data and 2006/2007 orthoimagery. Orthoimagery and GIS data will be loaded into an Enterprise geodatabase platform for viewing and editing environment. The anticipated duration of Phase 1 is one week. Phase 2: Pilot Area Creation, Delivery and Acceptance The phase will involve establishing a pilot area of within the County for the initial geometry update. Once this pilot delivery is complete, the County will have the opportunity to review and comment on the data. Once pilot area data is agreed upon, work will continue on Phase 3. The anticipated duration of this phase is three weeks. Phase 3: Aligning Geometry to Orthoimagery Aligning GIS data to the orthoimagery will take place in the ArcSDE environment, allowing Specialists ease of use and continuity throughout the County. All data will be visually inspected by Specialists with immediate focus on areas of development since 2002. Any discrepancies or adjustments that need County involvement will also be dealt with in this phase. The anticipated duration of this phase is eight weeks. Phase 4: Structure Point Data Transfer and Verification Upon completion of Phase 3, structure points and parcel data will be analyzed both spatially and by real estate and address records. Structure points that do not align or match real estate data will be verified by the County. Phase 5: Quality Control Phase 5 involves quality control of the adjusted geometry. A QA/QC Specialist will inspect all data for errors or needed improvements to the performed work. Topology checks of the geometry will also be performed to rule out overlapping geometry, duplication, multi-part segments, and other geometric errors that hinder connectivity. These issues will be addressed to ensure a quality product. The anticipated duration of this phase is two weeks. Phase 6: Final Delivery and Data Prep Phase 6 involves the creation of a new geometric export file matching the requirements of the CAD mapping system in use by the PSAP for both address structure points and parcels. The anticipated duration of this phase is one week. Goals and Objectives Goal The goal of this project is improve the spatial accuracy and data of the address structure points and parcel polygons in the GIS, PSAP mapping and CAD systems. Project Objectives 1. Determine the structures and parcels that need updating based on the new imagery and fallout. 2. Move the features to more closely overlay the features on the 2007 imagery 3. Load the updated features into the PSAP system. Project Timeline (days from grant award) • 15 - Phase 1: Receiving, Verifying and Loading Data • 30 - Phase 2: Pilot Area Creation, Delivery and Acceptance • 60 - Phase 3: Aligning Geometry to Orthoimagery • 120 - Phase 4: Address Structure Point Data Transfer and Verification • 140 – Phase 5: Quality Control • 200 - Phase 6: Creation of a new geometric export files matching the requirements of the CAD mapping system in use by the County.

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

Once complete, the products delivered from this project will be incorporated into the standard data work processes of the PSAP and GIS and provide more accurate data to aid future work.

Budget and Budget Narrative:

budget also attached Proposed Project Fee Phase Tasks Fee 1 Receiving, Verifying, and Loading Data $3,000.00 2 Pilot Area Creation, Delivery and Acceptance $8,000.00 3 Aligning Geometry to Imagery $40,300.00 4 Structure Point Data Transfer and Verification $18,000.00 5 Quality Control $14,000.00 6 Final Delivery $3,000.00 Total Fee $86,300.00

Evaluation:

Evaluation data will be collected throughout the project as specific milestones are achieved. The data sources will include regular project status reports, milestone testing and acceptance documents, and final project acceptance documents. Project milestones and status reports will follow our specific tasks and phases: 1 Receiving, Verifying, and Loading Data 2 Pilot Area Creation, Delivery and Acceptance 3 Aligning Geometry to Imagery 4 Structure Point Data Transfer and Verification 5 Quality Control 6 Final Delivery

Attachments

Geometry_Update.pdf

Budget and Budget Narrative Section

Budget and Budget Narrative - Purpose

List the planned expenditures to be made with grant funds. In lieu of a line item breakdown, an itemized cost schedule or detailed vendor.

Shown below is the proposed fee for providing the services described previously.

Proposed Project Fee

Phase	Tasks	Fee
1	Receiving, Verifying, and Loading Data	$3,000.00
2	Pilot Area Creation, Delivery and Acceptance	$8,000.00
3	Aligning Geometry to Imagery	$40,300.00
4	Structure Point Data Transfer and Verification	$18,000.00
5	Quality Control	$14,000.00
6	Final Delivery	$3,000.00
	Total Fee	**$86,300.00**