

911 Grant Programs

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1. Purpose

Each county, group of counties or region applying for E911 State Grant, to be further known as 911 State Grant, to assist counties with the replacement or upgrade of 911 Systems; for counties to develop and maintain statewide 911 routing using Emergency Services Internet Protocol (IP) networks (ESInet), Geographic Information Systems (GIS) and services, and Management Information Systems (MIS); and develop and maintain Next Generation 911 (NG-911) systems and services.

The State 911 Grant Programs distributes funds collected pursuant to section 365.172-173, Florida Statutes. Federal Grant funding uses the 911 Grant Programs for approval and disbursement of federal funds to assist counties in implementing and improving NG-911 system and services.

2. Eligibility

Any county, group of counties, or region in the State of Florida is eligible to apply for these grant programs. Only a region, as defined below, may qualify for a grant award for a 5-year Regional Next Generation 911 Routing Project.

3. Definitions

- 3.1. **Enhanced 911 (E911):** An enhanced 911 system or enhanced 911 service that is an emergency telephone system or service that provides a subscriber with 911 service and also directs 911 calls to appropriate public safety answering points by selective routing based on the geographical location from which the call originated, or as otherwise provided in the state plan under section 365.171, Florida Statutes, and that provides for automatic number identification and automatic location-identification features.
- 3.2. **NG-911 Equipment:** Hardware equipment and peripherals needed to implement and maintain NG-911 services.
- 3.3. **E911 System:** The Public Safety Answering Point equipment, in accordance with the State E911 Plan, including 911 call routing, processing, mapping, and call answering communications equipment.
- 3.4. **Alternate Contract Source (ACS) –** A competitively procured contract led by a federal, state, or local government. The ACS contract is cost-effective, contains language contemplating its use for cooperative purchasing, and the best interest of the county to use for purchases. Provided that the county's purchase is not over expansive in size and scope.
- 3.5. **Grantee/Subrecipient:** The county, group of counties, or region awarded a grant.

- 3.6. **Grantor:** The Florida E911 Board.
- 3.7. **Government Accounting Standards Board (GASB):** The independent organization that establishes and improves standards of accounting and financial reporting for U.S. state and local governments.
- 3.8. **Hosted Services:** Hosted Services are technology services using the vendor's servers for a fee.
- 3.9. **Maintenance Contract:** A business agreement between a contractor and customer covering the maintenance of equipment over a specified period.
- 3.10. **Next Generation 911 (NG-911):** The designation for an advanced 911 emergency communications system or service that provides a communications service subscriber with 911 service. NG-911 also directs 911 emergency requests for assistance to appropriate public safety answering points based on the geographical location from which the call/signal originated, or as otherwise provided in the State E911 Plan and that provides for automatic number identification and automatic location identification features and emergency data information through managed IP-based networks.
- 3.11. **Next Generation 911 Core Services (NGCS):** The base set of services needed to process a 911 call/signal on an ESInet. Includes the Emergency Service Routing Proxy (ESRP), Emergency Call Routing Function (ECRF), Location Validation Function (LVF), Border Control Function (BCF), Bridge, Policy Store, Logging Services, and typical IP services such as Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP). The term NG-911 Core Services encompass the services but does not include the network on which they operate.
- 3.12. **Next Generation 911 Routing Project:** A Next Generation service that incorporates multiple counties.
- 3.13. **Public Safety Answering Point (PSAP):** The public safety agency that receives incoming 911 requests for assistance and dispatches appropriate public safety agencies to respond to the requests in accordance with the State E911 plan.
- 3.14. **Region:** Refers to the counties grouped by the Florida 911 Regional Map. All systems within a region must be interoperable.
- 3.15. **Service Contract:** A written contract to perform, over a fixed period or for a specified duration, duties relating to informational and technical services.
- 3.16. **Warranty contract:** A written guarantee given to the purchaser of a new item by the manufacturer or dealer, usually specifying that the manufacturer will make any repairs or replace defective parts free of charge for a stated period.

4. 911 Grant Programs Calendar

The E911 Board will accept applications as noticed in the Florida Administrative Register.

Action	
Eligible entity submits application	Submission date(s) as published in the Florida Administrative Register
E911 Board Members evaluate applications	Within two months of the submission date
E911 Board votes on applications to fund at regularly scheduled meeting	Within three months of the submission date
E911 Board sends notification letter of awards approved for funding to the counties.	Within four months of the submission date

Performance Period	
County, group of counties or regional implementation/ installation period	Two years from receipt of award notification
Next Generation 911 Regional Routing Project	Maximum of five years
Next Generation Projects	Maximum implementation Period of five years however may be shorter time dependent upon board approval.
Service and Data Maintenance Projects outside of a NG-911 Regional Routing Project	An annual grant may be funded.
Initial Database synchronization (such as ALI, MSAG, and Centerline)	Two years from receipt of award notification

Database maintenance (such as ALI, MSAG, Centerline...)	Approved only with Regional Routing Project
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5. General Conditions

Applications must be delivered to the following address:

**State of Florida E911 Board
ATTN: E911 Board Administrative Staff
4030 Esplanade Way, Suite 135
Tallahassee, FL 32399-0950**

Or electronically to E911BoardElectronicGrantReports@dms.fl.gov
Electronic receipt of the grant application and all attachments is preferred.

- 5.1. The applicant shall provide Application Form items 1 through 14 and the applicable procurement documents. The grant application package must be postmarked or delivered on or before the submission date specified in the E911 Board notification of an E911 Grant Programs published in the Florida Administrative Register. Failure to timely provide these documents will result in a rejection of the grant application.
- 5.2. Pursuant to sections 365.172(6), 365.172(10), 365.173(2) Florida Statutes, grant funds must only be used for the following items/services: to upgrade or replace 911 systems; to develop and maintain statewide or regional 911 routing; geographic information and management information systems (GIS and MIS); to develop and maintain Next-Generation 911 (NG-911) services and equipment; and remotely provided hosted 911 answering point call-taking equipment and network services directly attributable to establishing and provisioning E911 or NG-911 services. Warranty costs shall be calculated to account for only the first-year warranty.
- 5.3. To be considered for a grant award, all Next Generation projects must meet the NENA i3 technical standards.
- 5.4. GIS grants may be limited to funding to achieve the 98% accuracy rate as identified in the NENA GIS Data Model.
- 5.5. Although a Next Generation 911 Regional Routing Project may be awarded for up to five years, the cost shall be accounted for on a yearly basis. The application must also include a detailed breakdown of costs by year one through year five and if applicable a monthly breakdown. This would include an expected reimbursement schedule.

- 5.6.** All Next Generation 911 project vendors must certify in writing that their systems will be interoperable with bordering counties, regions, and adjacent state lines.
- 5.7.** Only the percentage of service and equipment directly attributable to provisioning of 911 services is eligible.
- 5.8.** All maintenance requests, within a single priority, for eligible services and equipment shall be combined into a single application, including the breakdown of line-item costs.
- 5.9.** All grant applications shall be accompanied by at least one complete quote for equipment or services.
 - 5.9.1.** Grant applications totaling \$35,000.00 or more must be accompanied by at least three written substantiated quotes from different vendors. Complete quote submittals shall include a detailed scope of work, all pages included in the vendor proposal, breakdown of all costs, including equipment, service tasks, and deliverables. Any county, group of counties, or region that has made a good faith effort to obtain at least three quotes in accordance with the competitive procurement process in 287.057(1), Florida Statutes and has not been able to obtain the quotes can request E911 Board review based on substantiated proof of posting of the request with documentation of the limited responses. Subject to the following exceptions:
 - a)** When purchasing from a DMS State Term Contract or DMS authorized Alternate Contract Source, the county shall follow the DMS State Purchasing ordering instructions and their county procurement rules and policies. Should the DMS State Purchasing ordering instructions and their county procurement rules and policies conflict, the county procurement rules and policies shall prevail, with provision of a letter from the county's purchasing department.
 - b)** When purchasing from an Alternate Contract Source that has not been approved by DMS State Purchasing, the county shall follow their county procurement rules and policies, with provision of a letter from the county's purchasing department.
 - c)** Services or commodities provided by governmental entities do not require more than one quote.
 - d)** The county, group of counties, or region can initiate a request for approval to procure from a single source vendor. These will be considered on a case-by-case basis. Justification for single source procurement shall be provided with the application, which shall include a costs analysis that reviews the allowability, necessity and reasonableness of all cost elements. The single source

procurement will be considered if provided in accordance with Chapter 287 Florida Statutes. A letter from the applicable county's purchasing department(s) that the project is a single source procurement based on Section 287.057(3)(c), Florida Statutes, shall be provided with this grant application.

- 5.10.** Applicants requesting items from different funding priorities should complete a separate Budget Report (Rule 60FF1-5.0035(1), F.A.C) for each priority. See Addendum I -Funding Priorities for the 911 Grant Programs for a listing of funding priorities. Items from the same funding priorities should be combined in the same Budget Report and shall comply with General Conditions items 5.9 and 5.10.
- 5.11.** An individual county application must include:
 - 5.11.1.** A detailed description of line item and cost. This would include the item, model, or version. Additional requests may be made for more clarification as needed.
 - 5.11.2.** If possible, software service/maintenance dates.
 - 5.11.3.** Budget Report
 - 5.11.4.** Most current 6A. (Rule 60FF1-5.006(2), F.A.C)
 - 5.11.5.** If applicable, detailed legacy 911 service information.
- 5.12.** Should a region or two or more counties apply for a grant, the following additional information needs to be provided:
 - 5.12.1.** A summary of the costs for entire region or two or more counties detailing the following:
 - a)** Total amount of funds being requested.
 - b)** The scope of work (SOW) that clearly establishes the tasks and deliverables being performed for successful completion of the project. All deliverables must be directly related to the SOW.
 - c)** Quote(s) must include quantifiable and measurable deliverables with detailed descriptions of each line item. Services dates must be included as well, if applicable.
 - d)** Single source documentation if applicable.
 - e)** Any letters required from the county purchasing department.
 - f)** All individual county application(s).
- 5.13.** A memorandum of understanding (MOU) or an inter-local agreement from all counties involved must be completed within 3 months of E911 Board award. The MOU shall contain the financial procurement processes, the disbursement process, and all termination language.

- 5.14. Procurement shall be based on the county's procurement processes and the applicable State purchasing requirements, including but not limited to sections 112.061, 287.057, 287.017, and 287.058. Florida Statutes.
- 5.15. Funding application requests must include a scope of work that establishes the tasks and deliverables to be performed. The applications shall include all tasks that are required for the successful completion of the project. The project shall be divided into quantifiable units of deliverables that shall be received and accepted in writing by the county, group of counties, or region before payment. Each deliverable must be directly related to the scope of work and must specify the required minimum level of service to be performed and the criteria for evaluating the successful completion of each deliverable.
- 5.16. Funding requests must include all necessary costs required for full implementation of the proposed solution including that of any third party. Should the county, group of counties or region grant application request or grant award be less than the projected cost of the equipment or service, the county, group of counties or region should provide verification of the ability to fund the difference. Pricing submitted cannot be contingent upon "yet to be" determined fees for products and services by the proposer or any other third party required for implementation.
- 5.17. The county shall provide information on the county's preceding year E911 fee revenue amount and the preceding year's carryforward amount.
- 5.18. A State grant award may be limited by the carry forward balance in compliance with sub-paragraph 365.172(6)(a) 3.c., Florida Statutes.
- 5.19. Detailed information is required for any grant application requesting funding for systems that require immediate system replacement for provisioning of enhanced 911 in the county, group of counties, or region. Include detailed justification and explanation for any 911 system with an expected remaining life of less than one year.
- 5.20. Funding requests contingent upon "beta testing" or products and services not in general production and installation will not be funded.

6. Guidelines for 911 Grant Expenses

- 6.1. The following expenses will not be funded through grant award:
 - 6.1.1. Salaries and associated expenses for 911 coordinators, call takers, or other 911 personnel.
 - 6.1.2. Wireline database costs
 - 6.1.3. Vehicle expenses
- 6.2. Funding limitations are specified on the following items:

- 6.2.1. Hosted 911 answering point call-taking equipment and network services, recurring network and circuit costs, equipment maintenance and warranty costs will not be funded for more than the first-year implementation period.
- 6.2.2. Service contracts for Next Generation 911 Regional Routing Projects may be approved for up to 5 years on a case by case basis.
- 6.2.3. GIS data support services to maintain NENA's 98% synchronization standard will be limited to one year of service unless combined with a Next Generation 911 Regional Routing Project.
- 6.2.4. Grant funding shall be limited (per grant cycle) to eligible expenditures for one PSAP per county, either one primary or one secondary PSAP. Counties with only one PSAP with no other primary or secondary PSAPs, may be eligible for grant funding for one backup PSAP. Geo-diverse systems may be considered one PSAP for the purpose of grant funding.
- 6.2.5. Except for NGCS, selective router equipment costs are limited to the primary PSAP system and are limited to one per county.
- 6.2.6. Training cost funding is limited to new system & equipment training.
- 6.2.7. The allowable grant funding for travel expenses is limited to the authorized amounts established in Section 112.061, Florida Statutes, and the Department of Financial Services Guidelines for State Expenditures.
- 6.2.8. Reimbursement requests for services that extend beyond a year will be reimbursed on an annual basis. Reimbursement will not be provided prior to services being rendered.
- 6.2.9. A federally funded project must comply with reimbursement in accordance with the federal project timetable.

7. Approval and Award

- 7.1. The E911 Board will review each application for compliance with the requirements of terms and conditions.
- 7.2. Award agreements shall be signed by the Board of County Commissioner Chair or the County Manager.
- 7.3. Grant awards will be withheld for any county, group of counties, or region that has a grant with a past-due quarterly report or past-due final documentation and closeout of previous E911 Board grant awards. Grant awards may also be withheld if the county, group of counties, or region is not in compliance with Board reporting requirements.
- 7.4. Applications will be awarded based upon the priorities set by the E911 Board as listed in Addendum I - Funding Priorities for the 911 Grant Programs.
- 7.5. The E911 Board will adjust the amount awarded to a county, group of counties, or region based upon the availability of funds, the reasonableness of the cost of

requested items, published quotes, increased effectiveness of grant funds, minimum system requirements for performing the needed E911 function as specified in section 365.173(2)(h)1.,2., and 3., Florida Statutes, E911 State Plan, or documented factors provided in the grant application submission. NG-911 network systems should include a comparative presentation of network alternatives, including applicable LEC, CLEC, County, group of counties or region, and State alternatives. All stepped pricing should be thoroughly explained, including the corresponding benefits for the county, group of counties or region, and the E911 Board.

- 7.6. Additional documentation must be signed by the local Board of County Commissioner Chair or County Manager. Resulting in third party contracts and sub-contracts, please see DMS agreement.
- 7.7. A signed vendor contract with the county, group of counties, or region contract must be provided.

8. Financial and Administrative Requirements

- 8.1. Grant funds are provided on a cost-reimbursement basis.
- 8.2. Each grantee may submit reimbursement claims to the E911 Board as needed; however, each county is limited to only a single claim request per grant, per month. Receipt of reimbursement funds from the E911 Board is contingent on the timely and accurate submittal of funding requests. Requests for reimbursement of expenditures must be submitted on the approved Financial Reimbursement of Expenditures Form (Rule 60FF1-5.0035(4), F.A.C). Incomplete claim forms or claims not submitted on the correct form cannot be processed and will be returned for corrections. Submit only for the amounts in each budget categories in which you have incurred expenditures.
- 8.3. Upon written request and with documentation justifying the need, a progress disbursement may be considered with a completed Financial Reimbursement of Expenditures Form, signed vendor contract, itemized purchase order and vendor itemized invoice. All items must comply with the Florida Department of Financial Services (DFS) Reference Guide for State Expenditures. Within 45 days of receipt of funding, the grantee shall submit verification of vendor payment.
- 8.4. Reimbursement claims shall include only expenditures related to the specific grant and include copies of signed contracts, purchase orders, itemized invoices, and proof of successful payment to the vendor. The reimbursement request must match the scope of work and budget proposed in the grant applications to include the quote provided with the application. Grants that include cost defined by a set number of work hours dedicated to a project must include additional documents as requested by DMS staff. All items must comply with the DFS Reference Guide for State Expenditures.

- 8.5. To assure prompt processing, complete reimbursement claims should be e-mailed to: E911BoardElectronicGrantReports@dms.fl.gov**
- 8.6.** Grant funds can only be used between the beginning and end dates of the grant term unless the E911 Board authorizes an extension.
- 8.7.** It is the county, group of counties, or region's responsibility to maintain the property, equipment, or services in accordance with the scope of work. If a sale or transfer of such property or equipment occurs within five years after a grant ends, funds must be returned to the E911 Board on a pro-rata basis. If the equipment cost over \$5,000 and the grant is federal, funded a county, group of counties, or region must maintain an inventory of 5 years. This applies to state grants unless the item becomes obsolete.
- 8.8.** If a grantee terminates a contract for prepaid services, the unused portion must be returned to the E911 Board on a pro-rata basis.
- 8.9.** The grantee agrees that any improvement, expansion, or other effect brought about in whole or part by grant funds will be maintained until the system or equipment becomes obsolete (On average five years).
- 8.10.** If a grantee materially fails to comply with any term of an award, the Board shall take one or more of the following actions, as appropriate in the circumstances:
- Withhold grant payments pending grantee correction of the deficiency.
 - Disapprove all or part of the cost of the activity or action not in compliance.
 - Suspend or terminate the current award for the grantee's project.
 - Suspend or deny future grant awards.
- 8.11.** The Board will provide the grantee an opportunity for a hearing, appeal, or other administrative proceeding to which the grantee is entitled under Florida Statutes.
- 8.12.** Grant awards or portion thereof may be terminated by the grantee upon written notification to the E911 Board, detailing the reasons for such termination, the effective date, and the release of allocated funds.
- 8.13.** 911 Staff may require additional documentation to confirm proof of payment and deliverables met in accordance with DFS Reference Guide for State Expenditures.

9. Grant Reporting Procedures

9.1. Grantees will be required to submit:

9.1.1. Quarterly Status Report. (Rule 60FF1-5.0035(2), F.A.C)

9.1.2. Reporting will begin at the conclusion of the first full quarter after the award. The report periods will end on March 31, June 30, September 30, and December 31 of each year. Reports are due within 30 days of the ending report period.

9.1.3. The Quarterly Status Report shall inform the E911 Board of significant impacts on grant-supported activities. Significant impacts include project status developments affecting time schedules and objectives, anticipated lower costs, or producing beneficial results in addition to those originally planned. Additionally, problems, delays, or adverse conditions that will materially impair the ability to meet the timely completion of the award must be reported. The disclosure must include a statement of the action taken or contemplated and any assistance needed to resolve the situation.

9.1.4. Federal documentation as requested.

9.2. Final Reporting Documentation includes:

9.2.1. Upon receipt of final reimbursement from DFS, a final Quarterly Status Report, shall be submitted based on the same reporting requirements described in grant reporting item 9.1.

9.2.2. Final documentation, including copies of all expenditures and corresponding invoices, shall be submitted within 90 days of the final report. The "Final Report" box on the Quarterly Status Report, shall be marked and include your project completion date.

9.2.3. Final document submission and closeout of a grant does not affect the E911 Board's right to disallow costs and recover funds based on an audit or financial review. The county, group of counties, or region shall remain obligated to return any funds expended that do not comply with the terms and conditions of the grant award.

9.2.4. The counties must provide DMS a copy of the Comprehensive Annual Financial Report (CAFR), consistent with section 218.32 Florida Statutes, no later than August 1 following the completion of the county.

9.3. All reports and associated information, federally required documentation, and final reporting documents should be e-mailed to:

E911BoardElectronicGrantReports@dms.fl.gov

10. Change Requests

10.1. Change requests shall be submitted prior to deviation from any awarded grant application. No changes or departures from the original request are authorized unless approved in writing by the E911 Board. Such requests shall be submitted using the Change Request form.

- 10.2.** Prior to a county, group of counties, or region signing a contract with a different vendor from the original vendor stated in the grant application, the county, group of counties, or region must request a grant change on Change Request (Rule 60FF1-5.0035(3), F.A.C) and include an itemized quote and a copy of the new contract to be approved by the E911 Board.

- 10.3.** Time extension requests will not be granted unless the county, group of counties or region has executed a contract for the grant equipment and services or demonstrates good cause for failure to execute a contract within one year of the award. Good cause documentation shall include a new project timeline schedule.

- 10.4.** Time extensions shall be limited to a maximum of one additional year when approved by the E911 Board for a total of three years.

- 10.5.** Change requests must be submitted ten (10) business days prior to Board meeting to be reviewed. Any reports submitted late will be reviewed at the next month's E911 Board meeting.

- 10.6.** The Change Request form and associated information should be e-mailed to **E911BoardElectronicGrantReports@dms.fl.gov**.

Application

County, group
of counties or
region LEVY

Total Amount Requested: \$127,836.00

Project Title: LEVY GIS MAINTENANCE 2023-2024

**1. Board of County, group of counties or
region Commissioners Chair:**

Matt Brooks

Mailing Address: P.O. Box 310

310 School St

City: Bronson

State: FL Zip: 32621 -

Phone: (352) 486-5218 Fax: (352) 486-5167

Email Address: levybocc@levycounty.org

**2. County, group of counties
or region 911 Coordinator:** Mike West

Mailing Address: 9150 NE 80TH AVE

City: Bronson

State: FL Zip: 32621 -

Phone: (352) 486-5214 Fax: 352-486-5160

Email Address: mwest@levyso.com

3. Federal Tax ID Number: 59-6000717

4. County, group of counties or region fact information

Number of PSAP's	1
Number of Call-taking Positions per PSAP	5
PSAP(s) in which grant funding will apply.	1

a. Financial Information

- i. What are the current annual costs for your E911 system (circuits, customer records hardware and software, etc.) not including maintenance?
\$55,368.76
- ii. What are the current annual costs for maintenance of items included in 1?
\$40,821.23
- iii. Total amount of E911 fee revenue received in the preceding year.
\$188,944.06
- iv. Total amount of county, group of counties or region carry-forward funding retained in the preceding year.
\$1,278.91
- v. Current total amount of county, group of counties or region carry forward funding?
\$ 99,449.91
- vi. Two-year maximum calculated amount for applied carry forward funding.
\$113,366.44
- vii. Minimum calculated amount for applied carry forward funding (Calculation (Subtract the amount in 5 from the amount in 6).
(negative) - \$13,916.53
- viii. Insert in Budget Report as "carry forward funds applied".

5. Describe your county, group of counties or region's existing 911 system. Include specific information on existing system equipment upgrades and when the installation of this equipment was completed. Please include the PSAP(s) that the grant will be implemented at to include the type of PSAP(s), primary system, and number of position seats.

Levy County's existing primary E911 system is a Type 4, E911 Intrado Viper call handling equipment with MapFlex mapping display, located in the Levy County Sheriff's Office. This system has been serving Levy County since October 2009. The original system was upgraded in July of 2015 and again in December of 2021. Levy County's PSAP consists of 5 positions. The system includes a Nice recorder and Power Metrics is used for MIS.

6. Describe the scope of work for the proposed project including any goal(s) and objectives. Include the tasks to be performed as part of the project. Provide scope of work in quantifiable units of deliverables that shall be received and accepted. For each deliverable specify the required minimum level of service to be performed and the criteria for evaluating the successful completion of each deliverable. For any scope of work that includes milestones, please describe in detail what deliverables are expected to be provided in each milestone.

Hands-on data management, data editing and data sustainment, using NENA standards, industry standards and best practices, as well as innovative processes and procedures that improve and ensure the accuracy of the caller's location. This includes continuous GIS, MSAG and ALI synchronization in preparation for NG9-1-1. The key elements of the project include:

- Comprehensive operational analysis and planning to validate the approach
- Address Management support validating addressing for Public Safety use
- Sustaining and continuously synchronizing GIS to MSAG and vice versa, and ALI to GIS to improve 9-1-1 caller location accuracy in preparation for NG9-1-1
- Implementing corrective action plans and data enhancements for GIS, MSAG, and ALI database accuracy to include wireless and dispatchable location information
- Establishing NENA compliant data in preparation for the NG9-1-1 network
- GIS administration, analysis, and reporting

Tasks: Task 1: Professional Services – GIS Database Services
Task 2: MSAG and ALI Database Services
Task 3: 9-1-1 Wireless Database Services
Task 4: Database Synchronization
Task 5: GIS Administration and Project Management

- 7. Justification of the need for the proposed project. Provide detailed information on the existing system's/component's which needs replacement. Document the condition with details to justify any system with an expected lifespan of less than 1 year. Each component on the system, (memory, hardware (size of drives) updates of software and/or replacement versions needed, standalone equipment and additional upgrades include UPS in the requests.**

Due to lack of funding and without a Levy County E9-1-1 GIS department E9-1-1 does not have the technical and maintenance capabilities to maintain the county's GIS. Therefore to ensure adequate maintenance, we need to contract these services to a vendor with the expertise in GIS. With these funds Levy County will be able to update our public safety GIS data (mapping) location accuracy for our emergency responders.

- 8. Describe why your county, group of counties or region will not be able to complete this project without this grant funding.**

Levy County is requesting this State Grant due to its small rural population and low E9-1-1 fee revenue. Levy County's current annual funding is not sufficient to cover the costs associated with updating and maintaining our GIS database. Therefore, Levy County is requesting financial assistance to fund this project.

- 9. Describe the required steps with an anticipated time schedule with procurement and payment milestones and a total project completion date.**

The table below indicates the payment milestones.

Milestone	Payment
1. Project Kickoff meeting	\$34,708.00
2. Three months following Project Kickoff meeting	\$34,708.00
3. Six months following Project Kickoff meeting	\$34,708.00
4. Nine months following Project Kickoff meeting	\$34,708.00

10. If applicable, sole source justification must meet the state procurement guidelines and chapter 287.057 (3)(c), F.S.

Akimeka, LLC has been performing 9-1-1 MSAG, ALI and the GIS database synchronization services since February 2018. Akimeka has been successful in furthering the goals of the 9-1-1 department moving towards achieving and sustaining the required NENA standards of a minimum match percentage of 98% in preparation for NG9-1-1. At this time, we believe it would provide Levy County the best value to continue our services with Akimeka for 2023 on a sole source basis. Akimeka is providing a unique capability to Levy County by providing the hands-on and in-depth analysis service to progressively sustain the standardization and synchronization of our MSAG, ALI and GIS data. By maintaining continuity of services with Akimeka, Levy County is reducing overall cost of service by (1) removing additional procurement requirements, grant processing, and review/evaluation periods, (2) mitigating delays of continuity of service during transitions between support vendors ensuring more timely completion of tasks for NG9-1-1 preparedness, and (3) providing known services reducing the risk for required scope changes or cost increase to ensure similar services are provided to Levy County. In addition to the overall reduction in cost provided by continued services, Akimeka has existing knowledge and experience with Levy County's 9-1-1 data. Due to these facts, we believe it is advantageous to continue services with Akimeka on a sole source basis as approved in the previous contract and grant.

11. If applicable, please include your previous service dates for any maintenance or support services.

Levy County has been using Akimeka's annual GIS maintenance support continuously since 2018.

12. Please submit the Budget Report

13. Assurances

ACCEPTANCE OF TERMS AND CONDITIONS: The grantee accepts all grant terms and conditions. Grantee understands that grants are contingent upon the availability of funds.

DISCLAIMER: The grantee certifies that the facts and information contained in this application and any attached documents are true and correct. A violation of this requirement may result in revocation of the grant and return of all grant funds and interest accrued (if any), pursuant to the E911 Board authority and any other remedy provided by law.

NOTIFICATION OF AWARDS: The grantee understands and accepts that the notice of award will be advertised on the Florida E911 website.

MAINTENANCE OF IMPROVEMENT AND EXPANSION: The grantee agrees that any improvement, expansion or other effect brought about in whole or part by grant funds will be maintained. No substantial changes or departures from the original proposal shall be permitted unless the E911 Board gives prior written authorization. Any unauthorized change will necessitate the return of grant funds, and accrued interest (if any) to the E911 Board.

The county, group of counties or region certifies that all applicable county, group of counties or region procurement rules/procedures has been met.

Failure to utilize grant funds as represented may jeopardize eligibility to be considered for future funding.

14. Authority

I hereby affirm my authority and responsibility for the use of funds requested.

SIGNATURE – CHAIR, BOARD OF COUNTY COMMISSIONERS DATE
OR COUNTY MANGER

Printed Name

Position

Regional Signatures if Applicable (add additional lines if needed)

Appendix I: Authorized Expenditures of E911 Fee, Chapter 365.172, F.S.

NO requests for funding will be acknowledged for any items not specified in Section 365.172, Florida Statutes, Emergency communication number “E911”; paragraph (10) (shown below).

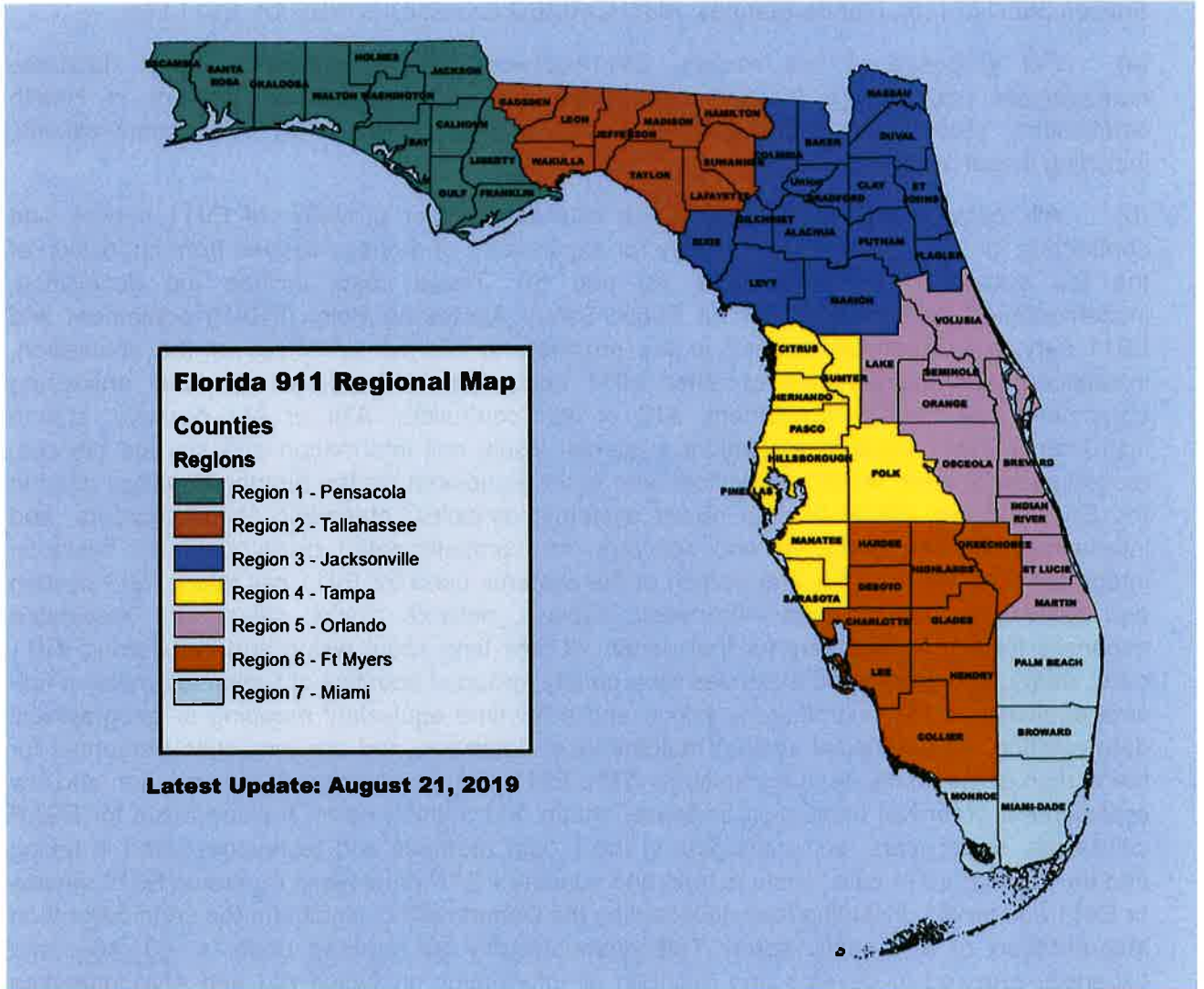
Section 365.172 (10), Florida Statutes: AUTHORIZED EXPENDITURES OF E911 FEE. —

(a) For purposes of this section, E911 service includes the functions of database management, call taking, location verification, and call transfer. Department of Health certification, recertification, and training costs for 911 public safety telecommunications, including dispatching, are functions of 911 services.

(b) All costs directly attributable to the establishment or provision of E911 service and contracting for E911 services are eligible for expenditure of moneys derived from imposition of the fee authorized by subsections (8) and (9). These costs include the acquisition, implementation, and maintenance of Public Safety Answering Point (PSAP) equipment and E911 service features, as defined in the providers' published schedules or the acquisition, installation, and maintenance of other E911 equipment, including circuits; call answering equipment; call transfer equipment; ANI or ALI controllers; ANI or ALI displays; station instruments; E911 telecommunications systems; visual call information and storage devices; recording equipment; telephone devices and other equipment for the hearing impaired used in the E911 system; PSAP backup power systems; consoles; automatic call distributors, and interfaces, including hardware and software, for computer-aided dispatch (CAD) systems; integrated CAD systems for that portion of the systems used for E911 call taking; GIS system and software equipment and information displays; network clocks; salary and associated expenses for E911 call takers for that portion of their time spent taking and transferring E911 calls, salary, and associated expenses for a county, group of counties or region to employ a full-time equivalent E911 coordinator position and a full-time equivalent mapping or geographical data position, and technical system maintenance, database, and administration personnel for the portion of their time spent administrating the E911 system; emergency medical, fire, and law enforcement prearrival instruction software; charts and training costs; training costs for PSAP call takers, supervisors, and managers in the proper methods and techniques used in taking and transferring E911 calls, costs to train and educate PSAP employees regarding E911 service or E911 equipment, including fees collected by the Department of Health for the certification and recertification of 911 public safety Telecommunicator's as required under s. 401.465; and expenses required to develop and maintain all information, including ALI and ANI databases and other information source repositories, necessary to properly inform call takers as to location address, type of emergency, and other information directly relevant to the E911 call-taking and transferring function. Moneys derived from the fee may also be used for next-generation E911 network services, next-generation E911 database services, next-generation E911 equipment, and wireless E911 routing systems.

(c) The moneys should not be used to pay for any item not listed in this subsection, including, but not limited to, any or operational costs for emergency responses. Even any which occur after the call transfer to the responding public safety entity and the costs for constructing, leasing, maintaining, or renovating buildings, except for those building modifications necessary to maintain the security and environmental integrity of the PSAP and E911 equipment rooms.

Appendix II: Florida 911 Regional Map



Application and instructions for 911 Grant Programs, revised July 2021
 W Form 3A, incorporated by reference in Fla. Admin. Code R. 60FF1-5.003 911 Grant Programs

Addendum I: Funding Priorities

The criteria for determining acceptability for disbursement of funds from the State of Florida 911 Grant Programs will be made on a PRIORITY basis. Federal funding will be applied in accordance with federal grant guidelines. Regional 911 system project requests related to systems and equipment will be considered the highest priority within each priority category. If you do not see your specific 911 project listed, you may still apply, as the E911 Board does have some discretion depending on the funding source, availability of funds, and spending authority.

1.0 Prepaid and Wireless Funding Priorities

PRIORITY 1: Primary and Secondary PSAP systems that require immediate system replacement to provision enhanced 911 status or when the expected remaining life of the system is less than one year.

PRIORITY 2: Development and maintenance of 911 routing statewide, geographic, and management information systems.

- A) Statewide routing system
- B) Regional, as an incremental step towards statewide routing

PRIORITY 3: Information System

- A) GIS Data support-assisting counties in meeting the 98% NENA GIS Data minimum standards
- B) GIS Maintenance Tools
- C) Management Information System

PRIORITY 4: Develop and maintain next generation 911 services and equipment.

- A) Next Generation 911 Equipment and Emergency Services IP based network
- B) Next Generation Core Services

PRIORITY 5: Mapping system and services necessary for provisioning Geographic Information Systems (GIS). This may include the following, listed in order of funding priority:

- A) Map System Equipment - map generation hardware and software licensing are limited to components for two stations.
- B) GIS Centerline point generation and map accuracy systems.
- C) Synchronization of GIS, ALI, and MSAG database meets the minimum standard 98 % for Geospatial call routing-per NENA i3 standard.

PRIORITY 6: Systems that require new or replacement of critical or necessary hardware or software. This may include the following back-up PSAPs system equipment, listed in order of funding priority A-H:

- A) Hardware and software for communications or terminal equipment located at a PSAP for 911 call processing, ANI and ALI display, and call answering.
- B) Map Display Equipment
- C) Logging Equipment
- D) Lightning Protection Equipment
- E) Uninterruptible Power Supply system and or Generator Equipment
- F) County, group of counties or region Standalone ALI Database Equipment
- G) 911 Call Taker Position Equipment
- H) Net clock

PRIORITY 7: GIS sub-addressing projects

PRIORITY 8: Aerial Photography / Imaging

- I) Overhead (Nadir) images

PRIORITY 9: Infrastructure cabling and building entrance buildout cost.

PRIORITY 10: 911 Call taker workstation console/furniture (the portion related to 911 Telecommunicator Workstation Console/Furniture)

2.0 Federally Funded Awards

- 2.1 Eligible costs will be consistent with cost principles identified in 2 CFR Part 200, including Subpart E of regulations. In addition, costs must be reasonable, necessary, allocable, and allowable for the proposed project, and conform to generally accepted.

Eligible Costs:

- A) Contractual costs associated with carrying out programmatic activities of the 911 grant, including for the provision of NG-911 services for consulting services. Recipients are responsible for monitoring the activities and expenditures of vendors and are responsible for ensuring that all solicitation documents reflect activities within the scope of the 911 Grant Program.
- B) Costs to purchase hardware, software, and hosted services.
- C) Costs to purchase hardware, software, and hosted services associated with enabling NG-911 calls to be received, processed, and dispatched. Recipients must specify that the purchase of hardware, software, and

services comply with current NG-911 standards, as listed in the Department of Homeland Security's SAFECOM guidance. Each individual product, however, need not meet every listed standard.

- D) Training costs directly related to NG-911- implementation for public safety personnel. The "Recommended Minimum Training Guidelines" for Telecommunicators must serve as a base level for the training provided. Recipients must submit documentation describing the training being provided, which identifies the included elements from the Minimum Training Guidelines.
- E) Operational Costs to operate the NG-911 system as a dual system to the current legacy 911 system until the legacy E911 or 911 system is shut down and the system is fully operational using only NG-911 technology.

2.2 Ineligible Costs

- A) Ineligible costs include those costs that are unallowable under the Cost Principles of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. Please note that costs ineligible for 911 Grant Program support may not be included as matching funds.



703.960.4600 • vsecorp.com
6348 Walker Lane • Alexandria, VA 22310 • United States

TECHNICAL & COST PROPOSAL WITH STATEMENT OF WORK (SOW)

Maintenance and sustainment of 9-1-1 Geographic Information System (GIS), Master Street Address Guide (MASG), Automatic Location Identification (ALI) Database Correction and Sustainment

LEVY COUNTY, FLORIDA

SUBMITTED TO:

Levy County
Board of County Commissioners
Mr. Matt Brooks
310 School Street
Bronson, FL 32621

AUTHORIZED CONTACT:

Mr. Mike West
E-911 Coordinator
Levy County
Phone: 352.486.5214
Email: mwest@levyso.com

SUBMITTED BY:

VSE Corporation
6348 Walker Lane
Alexandria, VA 22310
DUNS:969675123

**PERSON AUTHORIZED TO SIGN THIS
STATEMENT OF WORK:**

Stefanie Iwami
Contracts Administrator
Email: sniwami@vsecorp.com



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February 17, 2023

Levy County
Board of County Commissioners
310 School Street
Bronson, FL 32621

Attention: Mr. Matt Brooks,

Subject: Technical and Cost Proposal with Statement of Work (SOW) for the Maintenance and Sustainment of 9-1-1 Geographic Information System (GIS), Master Street Address Guide (MSAG), Automatic Location Identification (ALI) Database Correction and Sustainment

Dear Mr. Meeks:

VSE is pleased to submit the enclosed Technical and Cost Proposal, including a Statement of Work (SOW) for the subject effort. This document presents the details of how we plan to complete the work for Levy County; it also includes assumptions about the work itself and what we will need from you in order to complete the project successfully.

VSE CORPORATION, is an Information Technology / Information Management (IT/IM) company with a focus on Enhanced 9-1-1 Location Data Accuracy Services to include Master Street Address Guide (MSAG), Automation Location Identification (ALI), and Geographic Information System (GIS) database support, delivering complete, accurate, and useful data.

VSE is licensed to do business in Florida.

If you have any questions about this Statement of Work, please contact either myself or Scott Gabriel, Senior Vice President, at 321-662-0502.

Sincerely,



Stefanie Iwami
Contracts Administrator



EXECUTIVE SUMMARY

STAY SYNCHRONIZED WITH ACCURATE AND USEFUL DATA FOR EVERY CALL

The need for seamless, interoperable 9-1-1 data exchange between systems increases with the transition from an Enhanced 9-1-1 (E9-1-1) environment to i3 Next Generation 9-1-1 (NG9-1-1). The 9-1-1 system relies on multiple communication systems, networks and separate databases to verify and locate 9-1-1 callers. While Levy County determines the county's needs and requirements for the NG9-1-1 transition, the continued sustainment of the E9-1-1 legacy environment requires database and data sustainment and enhancements.

Since 2018, VSE, LLC is the trusted information technology (IT) service provider performing database synchronization, data management and data enhancement for Levy County's public safety Geographic Information System (GIS) data. Levy County receives a low-risk solution for the continuation of GIS services due to VSE's ability to leverage our **existing unique operational knowledge** of Levy County's GIS workflow, data layers, systems and environment. VSE prepares, standardizes, corrects, synchronizes and enhances the accuracy of the GIS data in accordance with National Emergency Number Association (NENA) standards to ensure proper data exchange between networks and systems.

When receiving a 9-1-1 call, an exact match between the caller location data delivered at the Public Safety Answering Point (PSAP) needs to exist between the Automatic Location Identifier (ALI) record and the GIS used with the PSAP's 9-1-1 systems and subsystems. **VSE's goal, objective and scope of this contract is to ensure the synchronized and enhanced information displays accurately on Levy County's PSAP systems.**

The Trusted Advisor

Establishing accurate GIS data for Public Safety use is enhanced through **sustained working relationships**.

Levy County receives the benefit of VSE's expertise with their 9-1-1 data that other vendors have not developed, thereby making knowledge exchange more efficient. Together with Levy County, VSE established procedures for coordination and collaboration between VSE and Levy County's Incumbent Local Exchange Carrier (AT&T) and Database Management Service Provider (DBMSP) as well as 9-1-1 service provider, Intrado. These relationships have had a positive impact on meeting and exceeding NENA Standards for public safety database synchronization. Continuing support from VSE will streamline the coordination of GIS data sustainment and enhancements. VSE GIS experts hold the **institutional knowledge** for Levy County's mission and goals working toward that vision together.

An All-Inclusive Package

Working with Levy County, VSE's **qualified experts** understand the County's addressing standards. VSE personnel provide sustainment services for GIS, Master Street Address Guide (MSAG) and ALI databases. The enhancements to GIS map layers can include wireless call routing, enhancements to address points which may involve indoor mapping. Such data can provide important information to emergency responders.

Indoor mapping and sub-addressing information adds an extra layer of critical information to 9-1-1 calls. VSE can create map displays that include the site/structure maps provided by Levy County's schools to add dispatchable location information within a school building. This feature can improve response times.

The most accurate and useful levels of GIS, MSAG, and ALI data involves intervention from experienced and knowledgeable professionals. VSE's competent and skilled professionals ensure that Levy County's day-to-day GIS responsibilities continue without delay and with no learning curve.

¹ In 2015, FCC Chairman, Tom Wheeler identified the State of Hawaii as a "model of success" in GIS Public Safety; following a process innovated and implemented by VSE for accurate and useful data/database synchronization at a county, regional, and state-level.



STATEMENT OF WORK

1.0 PERFORMANCE WORK STATEMENT

In a continuation of our partnership, Levy County sustains a higher level of accuracy through continuous synchronization, management and enhancement of GIS, MSAG and ALI databases. In the last four years, VSE and Levy County GIS and Public Safety increased the GIS/MSAG match percentage by 96.25%. Today, VSE remains alongside Levy County sustaining synchronization match percentages, while supporting the provisioning of GIS data for Next Generation 9-1-1 (NG9-1-1) transition. Current focus remains on ALI/GIS synchronization reflecting a 98.8% match, with 135 address validations remaining. Since the initial ALI/GIS synchronization in March 2019, VSE and Levy County GIS have increased the ALI/GIS match percentage by 17.3%.

VSE uses NENA standards, industry standards and best practices, as well as innovative processes and procedures to improve and ensure the accuracy of the caller's location. In the case of ALI/GIS synchronization, VSE works with Levy County's E9-1-1 Database Manager to validate address information.

VSE's Project Management is the foundation to ease the burden of inundating the county with address validation requests. VSE's Project Manager meets weekly with each team member to clarify project priorities and status of tasks, ensuring accurate and streamlined tracking of remaining data fallouts. VSE's GIS Analysts shall remain embedded to the Levy County 9-1-1 Office operations to continued sustainment and enhancements of GIS, MSAG and ALI data for NG9-1-1 preparedness.

Assuming a start date of 20 July 2023, VSE recommends a base period of 12 months (20 July 2023 - 19 July 2024), with an option period of 12 months.

Key elements of the project include:

- Comprehensive operational analysis to validate the approach proposed here
- Address Management support validating addressing for Public Safety use
- Sustaining and continuously synchronizing GIS to MSAG and vice versa, and ALI to GIS to improve 9-1-1 caller location accuracy in preparation for NG9-1-1
- Implementing corrective action plans and data enhancements for GIS, MSAG, and ALI database accuracy to include wireless and dispatchable location information
- Establishing NENA compliant data in preparation for the NG9-1-1 network
- Qualified full-time staff with strengths in GIS administration, analysis, and reporting

VSE performs quality assurance/quality control (QA/QC) checks on each layer before providing delivering updates to Levy County, to ensure the accuracy of all layers. The accuracy of the geographic and attribute information provides caller location information for telecommunicators, dispatchers and emergency responders.

1.1 PROFESSIONAL SERVICES FOR GIS, MSAG AND ALI COORDINATION

As a leader in data management for county public safety, VSE is a "one-stop-shop" service provider, delivering an all-inclusive solution to meet Levy County's goals, objectives and requirements. With a team of qualified and experienced professionals, VSE's experts provide trusted advisory support in preparation for NG9-1-1.

VSE's GIS professionals manage address information requests. Due to development in Levy County, new addresses come in almost daily. VSE's GIS Analyst promptly enters the new record and notifies Levy County E9-1-1 Database Manager upon completion, implementing the same workflow for new street requests, should there be any.

STATEMENT OF WORK

In accordance with

Table 1, VSE works collaboratively with Levy County’s Sheriff’s Office to “own” the data editing and management of the Road Centerline (RCL), Site/Structure Address Point (SSAP), MSAG Community and PSAP/Provisioning Boundary layers.

VSE is actively planning development efforts for the Emergency Service Boundary (ESB) layers in preparation and delivery for NG9-1-1.

Table 1. VSE GIS Layer Ownership (“Playbook” est. 2020).

With the Data Synch Cycle, Levy County and VSE focus on resolving discrepancies. VSE’s qualified professionals with the operational GIS knowledge work alongside Levy County GIS to make the necessary changes to sustain the 98% NENA Standard.

Layers	Administrator	Root Data Owner	Workflow Details
Road Centerline (RCL)	VSE	E9-1-1 Admin	<ul style="list-style-type: none"> County to confirm road names per Road Naming Process Communicate any changes to VSE to be included in base file for future update VSE updates and adds street information to GIS database
Site/Structure Address Point (SSAP)	VSE	E9-1-1 Admin	<ul style="list-style-type: none"> County to confirm address points per Road Naming process Communicate any changes to VSE to be included in base file for future update VSE updates and adds address information to GIS database
Emergency Service Number (ESN)	VSE	E9-1-1 Admin	<ul style="list-style-type: none"> VSE to maintain and revise as needed
MSAG Community	VSE	E9-1-1 Admin	<ul style="list-style-type: none"> VSE to maintain and revise as needed
PSAP/Provisioning	VSE	E9-1-1 Admin	<ul style="list-style-type: none"> VSE to maintain and revise as needed
Emergency Service Boundary (ESB) (Law, Fire, Medic)	VSE	E9-1-1 Admin	<ul style="list-style-type: none"> VSE reviews current Law, Fire and Medic layers VSE validates information against ESN/ELT list and jurisdictional boundaries
Wireless Tower	VSE	E9-1-1 Admin	<ul style="list-style-type: none"> Leverage current tower locations in the SSAP layer VSE to maintain and revise as needed in coordination with Wireless Service Providers (WSP)
Phase 1 Cell Sectors	VSE	Wireless Service Providers (WSPs)	<ul style="list-style-type: none"> Receive CRS from WSPs VSE to maintain and revise as needed
Indoor Mapping Layer	VSE	E9-1-1 Admin School Resources	<ul style="list-style-type: none"> County/School resources provide floor plans to VSE VSE creates digitized floor plan, with all attributes and features in accordance with floor plans VSE updates AP layer/ALI with available sub-addressing information Ensure functionality in MapFlex



STATEMENT OF WORK

1.1.1 9-1-1, E9-1-1 and NG9-1-1 GIS DATABASE SERVICES

The GIS database provides call-takers and dispatchers with a mapping display indicating the 9-1-1 caller's location. VSE proactively began preparing Levy County for an NG9-1-1 environment on day one of the first contract. VSE's Data Synchron Cycle models the data schema after the NENA Standard for NG9-1-1 GIS Data Model. The GIS database requires several critical layers needed to support the functionality of location validation in the E9-1-1 and NG9-1-1 systems. These layers include:

- Road Centerline
- Site/Structure Address Points
- Emergency Service Numbers (ESNs)/Emergency Service Zones (ESZs)
- PSAP/Provisioning Boundary
- Emergency Service Boundary (ESB)

GIS Data Layer Sustainment: VSE's GIS Analyst worked with Levy County to standardize the data model for NG9-1-1. At that time, Levy County had their street name field already. Both teams collaboratively prepared the data schema for easy acceptance by the 9-1-1 Mapping System, MapFlex by Intrado Safety Services.

Regardless of the 9-1-1 system, VSE ensures the base data is accurate. Considering this operational impact to the Levy County PSAP, VSE places a high priority on the development, sustainment, and/or enhancement of the critical GIS layers in accordance with the NG9-1-1 Data Model. In the proposed contract, VSE will continue to develop NG9-1-1 specific layers with Levy County to create all Emergency Service Boundary (ESB) layers, which involves establishing the response area boundaries for each responding agency (fire, EMS and law enforcement).

To ensure all GIS layers have no attribute or spatial errors, VSE performs thorough data checks before each delivery. The synchronization discrepancy reports of the GIS database specify the data VSE's GIS Analysts will need to update, so the location information will be an exact match to MSAG and ALI databases, which will remain in use during the current E9-1-1 operation and for a period after the transition to NG9-1-1. VSE provides Levy County updated 9-1-1 GIS layers (Deliverable 3) on a monthly basis.

Field Work: As the project continues, a time may come when field work is necessary to validate address points or locate missing or unverifiable addresses that are not visible using aerial imagery. VSE shall conduct field work for specific addressing scenarios resulting from structure/address validation tasks.

Our GIS Analyst will work directly with Levy County's Assistant County Administrator to schedule this travel and plan appropriate routes to ensure public awareness and limited possible disruption that could compromise public safety. Recognizing that field work is dependent on the initial quality of the data, VSE takes a conservative approach to provide the most cost-effective solution and ensure that all stakeholders are made aware well in advance.

VSE understands that there are fields in Levy County's data that are necessary for county use and, therefore, shall continue to maintain the data schema according to Levy County's field requirements.

STATEMENT OF WORK

Levy County GIS can then use the monthly GIS layer deliverables (Deliverable 3) for county data sharing and map uploads according to their data sharing procedures, detailed in [Table 2](#).

Table 2. Levy County GIS Layers for Public Safety.

VSE's qualified and experienced team sustain the required GIS layers for NG9-1-1.

Layer	Purpose of Support	VSE Service
Road Centerline (RCL)	<p>Ensures routing of public safety resources to the incident by providing turn-by-turn directions to the dispatcher and public safety responders, if equipped with the proper systems</p> <p>Used for address validation when there is not an address point, but there is a street range</p>	<p>Performing topology, validations and routing checks</p> <p>Splitting street segment geometry at appropriate boundaries</p> <p>Maintaining street ranges and boundary information via the attributes</p> <p>Edits and updates to ensure feature class meets requirements of the GIS components in the "to-be" NG9-1-1 network, PSAP CPE, PSAP mapping systems utilizing GIS</p> <p>Adding driveways for address points located substantially away from addressed street</p>
Site/Structure Address Point (SSAP)	<p>Ensures interoperability between databases and systems by updating the address points utilizing the geographic coordinate systems identified by NENA as aiding in accurate displays required for NG9-1-1</p> <p>Used for address validation in CAD</p>	<p>Adding sub-addressing information to appropriate address/structure points to include details on building number, floor number, apartment or unit number or such information as described in FCC 15-9 as a "dispatchable location"</p> <p>Deploy resources to perform field data collection, verifying and conducting address validation for PSAP identified addressing discrepancies when other methodologies cannot determine accurate locations/addresses</p>
Emergency Service Number (ESN)	Ensures call routing to the proper PSAP in E9-1-1 environment	Routine edits and updates for sustainment
MSAG Community	Community boundary layer used MSAG Translation Services to build an MSAG-valid address	Routine edits and updates for sustainment
PSAP Boundary	Ensures call routing to the proper PSAP in NG9-1-1 environment	Routine edits and updates for sustainment
Provisioning Boundary	Ensures GIS data errors are addressed by the proper GIS authorities	Routine edits and updates for sustainment
Emergency Service Boundaries (ESBs)	Establishes geographic coverage area for the primary providers of response services (i.e., law, fire, EMS, etc.)	Development for use in the upcoming NG9-1-1 network; then routine edits and updates for sustainment
Wireless Tower	Assists Telecommunicators in quickly locating 9-1-1 callers	Routine edits and updates for sustainment
Phase 1 Cell Sector	Assists Telecommunicators in quickly locating 9-1-1 callers	Routine edits and updates for sustainment
Supplemental • Indoor Mapping	Assists Telecommunicators in quickly locating 9-1-1 callers	Development and routine edits and updates for sustainment

STATEMENT OF WORK

1.1.2 Sub-Addressing and Indoor Mapping for Dispatchable Locations

Sub-Addressing for Dispatchable Locations: The size, scope and complexity of the Levy County GIS project for public safety is steadily increasing in order to adapt to the advancements in NG9-1-1 standards and technologies. This includes the insertion of sub-addressing information for dispatchable locations to conform with the requirements of FCC Report and Order 15-9: iWireless E911 Location Accuracy Requirements released February 3, 2015.

Similar to that illustrated in [Figure 1](#), VSE's GIS Analysts shall provide this information for the completion of all residential and commercial properties (e.g., schools, condos, apartment buildings, shopping centers, commercial buildings, nursing homes, hospitals and government buildings) throughout Levy County.

Dispatchable location information provides enhanced caller location capabilities that integrate with an Automatic Vehicle Location (AVL) system. Dispatchable location data helps navigate emergency response to the door of residential and business locations as well as locations within a building.

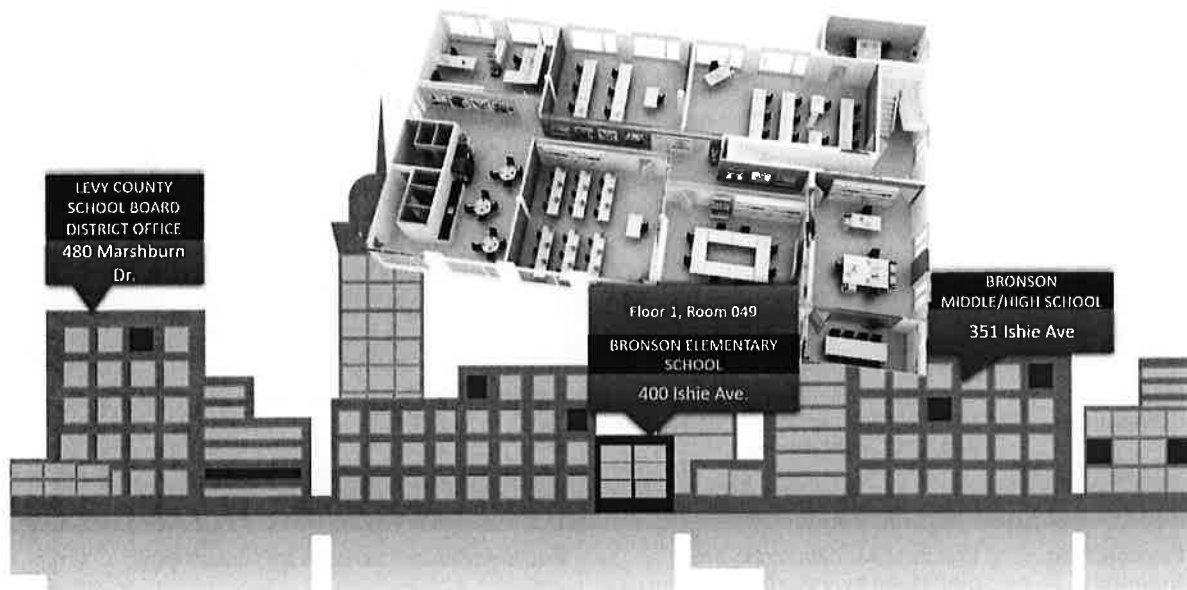


Figure 1. Sub-addressing for Dispatchable Locations.

Designing the 9-1-1 GIS and ALI database to include dispatchable location information can improve public safety in Levy County.

Indoor Mapping: VSE shall provide the digitization of indoor mapping of schools throughout Levy County. There are approximately 17 schools (public and private) in Levy County. VSE will work with the Levy County Sheriff's Office and school resources/representative to obtain these maps for digitization.

VSE's GIS experts focus on the assurance of a verified address, leveraging the Levy County Address Point layer.

VSE's GIS Analysts build this layer with NENA standard fields transcribed in the "to-be-developed" Indoor Mapping layer (Deliverable 3).

STATEMENT OF WORK

In addition, VSE's GIS Analyst verifies the inclusion of the sub-address/dispatchable location information in Levy County's Address Point layer, in accordance with the determined approach discussed during project kick-off. VSE's method automates the population of this data for these layers using Esri ArcGIS software and VSE's uniquely designed automated tools.

VSE adheres to laws and regulations, NENA standards and industry best practices in providing the enhanced GIS data Levy County requires. Some of these documents include, but are not limited to:

1. NENA Standard for NG9-1-1 GIS Data Model NENA-STA-006.2.2022, September 21, 2022
2. NENA Information Document for Development of Site/Structure Address Point GIS Data for 9-1-1 NENA-INF-014.1-2015, September 18, 2015
3. NENA Next Generation 9-1-1 (NG9-1-1) United States Civic Location Data Exchange Format (CLDXF) - March 23, 2014

The additional data fields, which VSE will identify to comply with dispatchable location mandates, include:

- 1) Landmark_Name, 2) Place Type, 3) Building, 4) Floor, 5) Room_Number, 6) General_Function (e.g., is it a classroom, cafeteria, orchestra hall, or closet?) and 7) Additional Location Information.

VSE shall implement the procedure we currently follow with other Florida counties, such as Sumter, Levy and Holmes counties.

Initially, this project will involve the indoor mapping and digitization of the 17 public and private schools. The level of effort to create the dispatchable points involves the most complexity upfront in establishing the refined workflow that conforms to Levy County's requirements and current operational procedures.

After that, creating dispatchable points is achievable through VSE's tailored and county-specific tool.

Figure 2 illustrates the vector-based digitized site map sample VSE's GIS Analysts developed using sample sub-addressing data.

The additional task of creating the dispatchable points and providing the sub-addressing information is a combination of manual and automated processes with astute human intervention for QA.

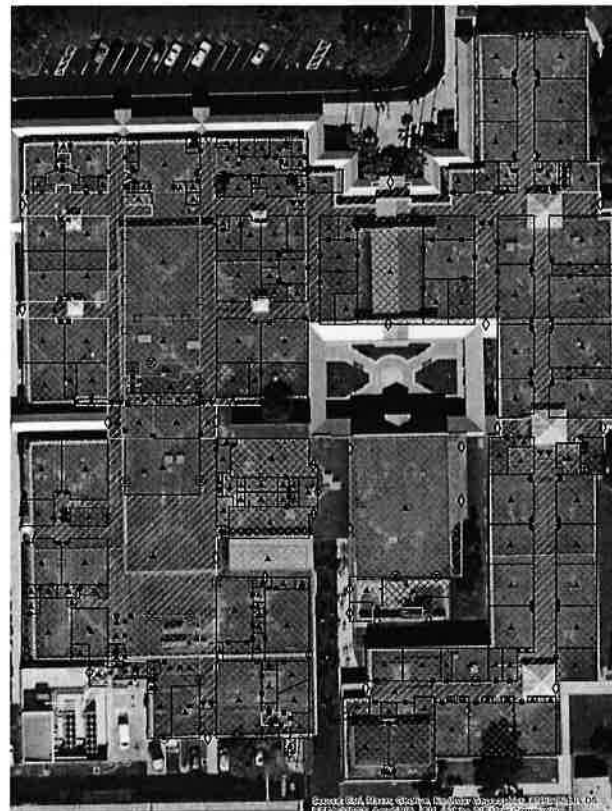


Figure 2. Sample School Vector-Based Digitized Site Map.

Indoor mapping and sub-addressing require talented personnel for the labor-intensive process, using unique tools that add efficiencies to an already complex project of this size and magnitude. Akimeka's forward-thinking solution includes the build-out of building footprints, the digitization of 17 of public and private schools, and the inclusion of the sub-addressing points for dispatchable locations. Our solution provides Levy County GIS data with high accuracy. Implementing Akimeka's methodology combined with rigorous data management and quality management delivers a low risk for possible errors.

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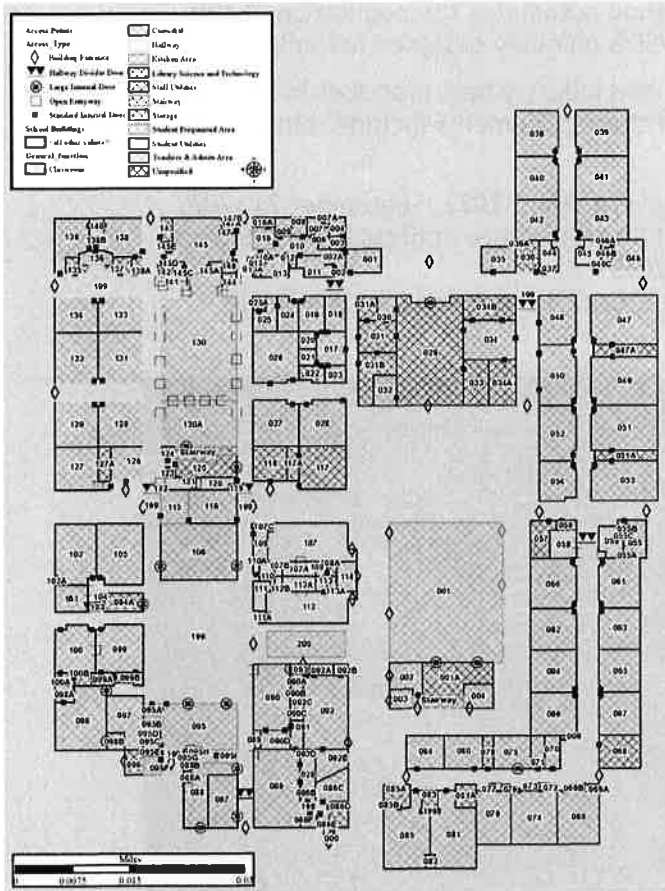


Figure 3. Sample School Overview Summary.

Having the ability to turn-on the indoor mapping layer provides Levy County the complete solution necessary for the Indoor Mapping & Sub-addressing for Dispatchable Locations project. As an added value, Akimaka includes PDF exports with monthly GIS layers with no additional cost, providing all areas of public safety the information they need should there be an instance of system outages.

The GIS database provides call-takers and dispatchers with a visual map indicating the 9-1-1 caller's location. In a NG9-1-1 environment and the continuous enhancement of public safety addressing data, the GIS database is able to support the functionality of location validation. VSE will develop and deliver GIS layers (Deliverable 3) to Levy County that include an **Indoor Mapping layer**. The layer will display all buildings and associated features from the provided floor plans (e.g., classrooms, hallways, offices, including entry-way points with additional details and intricacies, such as entrances and exits to the building, room/closet entryways and stairwells.)

Digitizing indoor mapping and building footprints empowers emergency telecommunicators with critical information that improves emergency response. Wireless emergency calls originating from large multi-story buildings do not provide telecommunicators with the level of detail needed to make split second decisions that can save lives. Building this additional level of detail saves time, improves response and increases efficiency of PSAP operations. VSE's solution for indoor mapping combines tools, resources, staff and methodology to complete indoor mapping projects accurately, on time and within budget.

VSE's GIS experts have the experience and skills to provide geodetic and dispatchable locations with all required attribute information. We know how to mitigate any risk of missing data during the build out process. Figure illustrates the PDF sample that VSE's GIS Analyst's built and shall provide to Levy County for each completed school. Error! Reference source not found. includes sample PDF exports of the layer build-out.

With Levy County sharing the parcel layer, VSE's GIS Analyst can create the School Boundary layer. To produce an accurate representation of the floorplan data in a GIS format, VSE's GIS Analysts already have developed a county-focused workflow.

- ◆ In conclusion, Levy County receives prepared GIS data in the format ready for NG9-1-1 transition. VSE's GIS services will ensure that Levy County's PSAP telecommunicators have accurate maps of streets and address information, as well as indoor mapping and sub-addressing for dispatchable locations to improve emergency response times. ◆



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1.2 MASTER STREET ADDRESS GUIDE (MSAG)/ AUTOMATIC LOCATION IDENTIFICATION (ALI) DATABASE SERVICES

The NENA standards require a minimum 98.0% exact match between the MSAG and ALI databases with the 9-1-1 GIS database prior to the implementation of a NG911 system.

Beginning in 2018, Levy County and VSE worked together to standardize and synchronize the Public Safety databases. Starting at an average GIS/MSAG match percentage of 3.75%, with VSE's implementation of the Data Synch Cycle, GIS/MSAG remains at 100% match and the ALI/GIS match percentage continues to improve to exceed the 98% standard.

As both ALI and GIS databases constantly must be updated, VSE's database synchronization services are specifically designed to identify any discrepancies and perform immediate corrective actions. VSE performs quarterly synchronization audits throughout project duration. VSE's database synchronization services ensure Levy County's 9-1-1 GIS data complies with current and emerging NENA standards and provides Levy County with a performance measurement matrix through Quarterly Synchronization Reports (QSRs).

Levy County received unique MSAG services from Akimeka delivering elevated data quality and consistency from facilitating more than 6,000 MSAG changes since 2018.

VSE's MSAG Coordinator facilitated more than 6,000 MSAG and 500 ALI changes since 2018. VSE's long-standing working relationship with Intrado works to Levy County's advantage. The transition plan for establishing an NG9-1-1 environment include maintenance of the MSAG/ALI databases for the foreseeable future.

1.2.1 MSAG TRANSLATION SUSTAINMENT SERVICES

The MSAG database contains street names and high/low address number ranges, pre/post street directional, odd/even restrictors, response areas defining ESZs and their associated ESNs. Together, this data enables proper routing of 9-1-1 calls.

VSE maintains the public safety GIS and ALI database through its coordination with Intrado and Levy County's addressing authority.

The most critical aspect of identifying locations within a 9-1-1 service area is the translation of county-approved civic addresses to MSAG addresses. The basic rule is that all civic addresses must be translated into a format compatible to the format used with existing PSAP equipment, such as CAD, mapping and Customer Premise Equipment (CPE)). VSE works to ensure successful data exchange between the telephone company, 9-1-1 System Network, and PSAP equipment. NENA Standards identify this process as the "Civic to MSAG Address Translation".

1.2.2 MSAG CORRECTION SERVICES

VSE's database correction services improve Intrado's database as well as Levy County's GIS data. VSE investigates and submits MSAG and ALI database change requests in Intrado's Integrated Unified Portal (IUP), ensuring an exact match condition exists within the GIS database. This improved level of database accuracy can reduce the time it takes for the telecommunicator to dispatch emergency response personnel.

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VSE and Intrado have a strong working relationship. VSE's MSAG Coordinator is responsible for data analysis, editing and tracking in the MSAG & ALI databases. This previously established relationship with Intrado mitigates a potential risk of upfront project delays due to team introductions, vendor-to-vendor agreements and procedure development.

VSE reports ongoing maintenance activity or changes made to the 9-1-1 MSAG during the period of performance (PoP) on a quarterly basis via the QSR (Deliverable 2). Regularly, VSE's analysts and coordinators perform three-way synchronization audits that illustrates any discrepancies, reporting the status of database synchronization quarterly.

VSE immediately enters the change requests (CRs) and ensures processing by Intrado. Together, we support Levy County in maintaining the 98% NENA standard and shall continue to do so in support of a future transition to NG9-1-1.

Standardize, Synchronize, Sustain and Enhance



GIS to MSAG
MSAG to GIS



ALI to GIS

- Standardized with required fields
- Synchronized to 98% match (or better)
- Additional recommended fields and GIS layers can be added for greater usefulness and accuracy

NENA Standard 71-501

Figure 4. VSE Database Synchronization.

VSE applies a quarterly synchronization audit process, instilling regular comparisons for reporting the database match percentages for E9-1-1. Approaching public safety GIS data management with a "standardize, synchronize, sustain and enhance" method ensures quality control and provides supplemental information for emergency response.

In a full NG9-1-1 environment, the approach to MSAG sustainment changes. [Section 1.1.1](#) above details the importance of GIS in a full NG9-1-1 environment. Because in NG9-1-1 call routing of wireline and VoIP calls is based on the PSAP boundary layer, the location of addresses in GIS is critical. However, for the foreseeable future, Levy County's MSAG shall be maintained while the Selective Router remains in place during the transition to a NG9-1-1 environment.

VSE's processes conform to the NENA NG9-1-1 GIS Data Model from day one, ensuring any new address is properly located in GIS, for both call routing and first responder dispatching, regardless of whether the system is operating in NG9-1-1 or E9-1-1 environment.



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1.2.3 AUTOMATIC LOCATION IDENTIFICATION (ALI) SUSTAINMENT SERVICES

The ALI database is a relational database with the MSAG and the telephone number records are supplied to and updated by AT&T within Intrado's database. The ALI database contains proprietary information regarding the caller's name and telephone number and address/location information. The MSAG assigns the information to the ALI database regarding the location from which the call originated, which routes the call to the proper PSAP jurisdiction.

As a trusted advisor and partner to Levy County, VSE obtains Levy County's ALI database information, which is run through a synchronization process against the address points in GIS to ensure every wireline and VoIP phone in the ALI database has a matching address point in GIS. Two types of change requests may be needed during the routine sustainment cycle. A telephone number change request (TN CR) differs from an ALI Discrepancy Report (ALI DR). The TN CR is submitted for MSAG Community, Street Name, or a Public Safety Service Area boundary corrections or modifications. An ALI DR comes from the PSAP as a result of an ALI record having the wrong location, which is discovered during a 9-1-1 call. This type of request is reported to VSE and the MSAG Coordinator submits and ALI DR to Intrado. The GIS Analyst ensures a correct address point exists map.

An important task with respect to the ALI database will involve the addition of sub-addressing data for dispatchable locations. Dispatchable Locations are main addresses utilized in the ALI record with supplemental location information such as building number, floor level, room number, apartment number and unit number. This information must appear in the ALI record and the address point information in the GIS address point (or SSAP) layer. This information is only useful when it displays at the PSAP on the ALI screen. As VSE continues GIS sub-addressing and adding this data to the ALI database, our GIS Analysts will work with Levy County to establish data displays for Telecommunicators on the map, taking into consideration any limitations of the PSAP's call taking equipment.

1.3 9-1-1 WIRELESS DATABASE SERVICES

Nationwide, Wireless 9-1-1 calls account for approximately 80% of the total 9-1-1 calls for assistance. VSE's wireless database maintenance services follow the NENA Standard 57-002 Wireless Maintenance Call Routing and Testing Validation Standard. To satisfy this requirement by accurately identifying the cell tower and associated sectors that register the 9-1-1 call. Specifically, Levy County receives useful data elements from the Wireless Service Provider (WSPs), and VSE services use those elements to display the 9-1-1 caller's location on the 9-1-1 systems.

1.3.1 9-1-1 WIRELESS ENHANCED 9-1-1 (E9-1-1) LOCATION DATABASE MAINTENANCE SERVICES

Many factors affect wireless caller location accuracy. What is not widely known, is there are additional accuracy challenges in the GIS mapping layer that compound the uncertainty. Of importance is understanding how many Wireless Phase 1 (WPH1) calls Levy County is still receiving at the PSAP, as well as the confidence factor of Wireless Phase 2 (WPH2). Today, Levy County PSAPs may not always receive Phase II information immediately, which shows the callers X,Y coordinates. Although uncommon, a wireless call may initially come in as Phase I containing the tower location and the caller's call back number.

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The cell towers and coverage area layers may contain errors from potentially old or recently adjusted cell tower coverage capabilities. This can skew call routing and caller location information and cause incorrect dispatching of 9-1-1 resources. If appropriately maintained and used, the Phase 1 layer containing accurate information of Levy County cell towers and cell sectors can assist call takers in determining the location of callers when Phase 2 data is unavailable or slow to populate.

In the current E9-1-1 environment for Levy County, VSE's wireless experts shall work with the Wireless Service Providers to ensure accuracy of the Wireless Cell Sector layer by:

- Ensuring proper location identification of the cell sector that registers the wireless call
- Ensuring the accuracy of the routing information utilized by the WSP in their database
- Providing GIS products to enable the PSAP to display to telecommunicators the "theoretical coverage area" of the cell site and its cell sectors allowing dispatchers to identify the potential location of the 9-1-1 caller, when a caller is unable to provide that information



Figure 5. Phase 1 Layer versus Phase 2 Location.

While Phase 2 location is ideal, it is not always available to PSAPs. In these cases, access to Phase 1 location information and GIS display may save precious time getting help to a 9-1-1 wireless caller, if they can't say where they are located.

1.3.2 WIRELESS CELL SITES/ SECTORS ADDRESSING AND TOWER ADDRESS STANDARDIZATION

An important part of the caller location puzzle is to maintain the wireless cell site and cell sector GIS layer, or Phase I layer, in the event Phase 2 location cannot be obtained. Used in combination with an accurate GIS layer, callers can be queried on their surroundings to pinpoint their location.

This process involves identifying the location of the wireless towers, identifying the sector information, assigning an MSAG-valid address, or referencing pseudo tower address using a unique tower addressing schema, and then coordinating and communicating these changes with the WSPs and the 9-1-1 DBMSP.

Levy County's CRS update turnaround time takes on average, 48 hours, from time of receipt of the Call Routing Sheet (CRS) with Akimeka's wireless services. The NENA standard calls for a 10-working day period from time of receipt of the CRS from the WSP.

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VSE performs these functions by communicating the coordinates of the cell tower and cell site sector addressing schema using the call routing sheet (CRS) (Deliverable 4) and then documenting the actions.

Within the CRS process, VSE extracts the pertinent location and theoretical coverage area data from the CRS and incorporates this information within the appropriate GIS layers. VSE performs this function on an on-going basis with constant communication and coordination with the WSPs 9-1-1 DBMSP to ensure timely updates occur to the WSPs database.

Cell Tower										PSAP to receive wireless 9-1-1 calls																	
Location	Latitude	Longitude	Altitude	Source	Device	Service	Ring	Map Link	Update	State of	Example	PSAP to Receive Wireless 9-1-1 Calls (Routing PSAP)	Wireless ESN	Selective Router	Default PSAP	Default ESN	Alternate Route (Route Advance)	Customer Name Field	House Number Field	House No. Suffix (4 char. max)	Prefix Directional (2 char. max)	Street Field/Name (Exception's Data Exchange Sides = 40 char. max) (Var. 2, 3 & Letter = 60 char. max)	Street Suffix (4 char. max)	Post Directional (2 char. max)	Community Field (Character length variable per IEC - NENA D37.37)	State (2 char. max)	Location (Exception 2 Data Exchange Sides = 20 char. max) (Exception 2, 3 & Letter = 40 char. max)
FL	28.54200	-81.27100	35	2000	W	911	1	Map Link	Update	FL	Levy County Sheriff's Office	260						VERIZON	10281		NE	STATE ROAD 121			WILLISTON	FL	TOWER 802-1 V-WF
FL	28.54200	-81.27100	35	2000	W	911	1	Map Link	Update	FL	Levy County Sheriff's Office	260						VERIZON	10281		NE	STATE ROAD 121			WILLISTON	FL	TOWER 802-2 V-WF
FL	28.54200	-81.27100	35	2000	W	911	1	Map Link	Update	FL	Levy County Sheriff's Office	260						VERIZON	10281		NE	STATE ROAD 121			WILLISTON	FL	TOWER 502-3 V-WF

Figure 6. Wireless Service Provide Call Routing Sheet Example.

Levy County's CRS update turnaround time takes on average, 48 hours, from time of receipt of the CRS with VSE's wireless services. The NENA standard calls for a 10-working day period from time of receipt of the CRS from the WSP.

If necessary, upon receipt of a complete CRS - in accordance with NENA Standard 57-002 - VSE is required to return the CRS files to the DBMSP on behalf of the PSAP no later than ten (10) working days after receiving the CRS files.

VSE's wireless services allows our wireless experts to return completed CRS files to the WSP within 48 hours (two business days) as a value-added benefit to ensure the wireless 9-1-1 database is up to date. This requires cell tower/sector addressing to ensure accurate display at the PSAP by equipment capable of displaying this data.

VSE wireless experts:

- Ensure tower and cell sector addresses conform to the character limitations set by the ALI data stream
- The Location field is used as a unique identifier for each cell sector
- Record the community as the proper MSAG community
- Assign the proper wireless ESN within the CRS to ensure the 9-1-1 call routes to the appropriate PSAP
- Remove the cell site/cell sector (or both) from the wireless database should the PSAP receive a notification from the WSP that a cell site, or cell sector, has been decommissioned.



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1.3.3 WIRELESS 9-1-1 CELL SITES/SECTOR AUDIT AND CORRECTION PROCESS

The duration of the wireless audits depends on the number of cell sites/sectors involved, the level of accuracy of the records, cooperation from the WSPs, and requirements of Levy County. It is recommended that at a minimum, VSE conduct an annual audit of each WSP database - AT&T, Verizon, T-Mobile (including Sprint) - that provide wireless 9-1-1 service coverage within Levy County.

In the event of major discrepancies between wireless databases, VSE may request cooperation from WSPs to ensure synchronization between the wireless database maintained by the WSP and the PSAPs wireless 9-1-1 database.

Tasks during this time can include:

- Request for new CRS once the audit has been coordinated with the WSP
- Ensure the 9-1-1 WSP cell tower layer(s) are updated, with sites and sectors, based on the audit providing any corrections required based on the CRS
- Update each WSPs' wireless cell tower addressing/naming protocol changes, as provided by the CRS
- Update the following WSP cell tower layers:
 - WSP cell tower point layer, which shows the location of the cell tower sites based on the latitude and longitude provided by the WSP
 - WSP cell sector polygon layer, which indicated the projected coverage area, based on the attributes provided by the WSP that may be limited by the system's functionality within the PSAP
- Report the number of CRSs received and processed during the reporting quarter via QSRs (Deliverable 2)

1.4 DATABASE SYNCHRONIZATION

Since 2018, Levy County and VSE GIS Analysts prepared Levy County's RCL and SSAP layers for use in Public Safety. The quality of these layers allows Levy County to establish master single-source GIS data prepared for configuration and acceptance into the Spatial Interface (SI) function.

Having a continuous database sustainment and maintenance effort ensures Levy County's PSAP and first responders continue to have the most up-to-date and accurate location information, thereby enabling them to execute their public safety duties in a more efficient and effective manner.

VSE continues to work to update the data with new addresses and development, ensuring we sustain the NENA required match percentage. Next Generation has very strong data correction requirements. If a GIS data element is in error resulting in a misroute that requires correction, VSE takes the responsibility to make sure that the correction is made within the timeframe specified by NENA Standards.

VSE works closely with Levy County to determine the nature of the error and the correction needed and then makes the update to the data.



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1.5 GIS ADMINISTRATION AND PROJECT MANAGEMENT

In the four years of support to Levy County, VSE refined GIS workflows and operational procedures to streamline the communication of information resulting in the success of achieving the 98% NENA standard. VSE works jointly with Levy County to validate addressing information to maintain the NENA-required match percentage or better.

VSE assists by reviewing existing business processes alongside the Levy County 9-1-1 Coordinator and E9-1-1 Database Manager making recommendations of value-add improvements. This includes as the GIS Layer update process, maps for public safety and documented workflows.

◆ VSE's goal, objective and scope of this contract is to make sure that the synchronized and enhanced GIS information displays accurately on Levy County's PSAP systems and maps are precise for use in emergency response ◆

VSE understands the importance of a thorough understanding of project requirements and client needs. Therefore, completing the Kick-off Meeting (Deliverable 1) ensures that both parties (Levy County and VSE) understand the essential elements of the continuing E9-1-1 and NG9-1-1 GIS Sustainment and Enhancement. The Kick-off Meeting is a time where VSE and Levy County can identify areas for improvement and identify priorities in project tasks.

VSE's project management methodology ensures excellence in tracking task progress, meeting deliverable deadlines and providing consistent communication. The success of the Levy County requirements for GIS, MSAG and ALI data sustainment for the E9-1-1 legacy environment and NG9-1-1 correlates to appropriately providing the qualified and knowledgeable staffing that understands the uniqueness of the tasks to meet Levy County's mission.

While we staff our projects from a conservative approach, unlike other vendors with larger proposed teams, VSE offers the one-on-one personal service to Levy County, where larger teams are susceptible to constant project knowledge transfer to someone new for each task. VSE's existing relationship with Levy County provides the competent and skilled resources to continue GIS services with minimal impact or delays.

1.5.1 QUALITY ASSURANCE / QUALITY CONTROL

VSE Quality Management System (QMS) ensures VSE's service delivery processes provided to Levy County are measured and monitored appropriately. The QMS processes, based on industry best practices and the proven quality frameworks of International Organization of Standardization (ISO) 9001:2015 - ensures a repeatable and efficient process minimizing cost, improving consistency and supporting continuous improvement.

The established quality process framework, backed by Project Management Institute (PMI) and Project Management Book of Knowledge (PMBOK), includes 9001:2015 for operations support.

Levy County benefits from a program-tested Quality Control Plan (QCP) that monitors and maximizes quality. The QCP defines the techniques, procedures and methodologies used to assure timely delivery of services described in the PWS ([Sections 1.1-5.4](#)). VSE's corporate management fully supports a strong commitment to implement Quality Assurance and Control effectively on each task performed.



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The goals of a QCP ensure:

- Project outcomes/results meet Levy County’s expectations
- The project is being accomplished within the agreed upon time frame and costs
- Communication of results and conclusions to all involved, with an understanding of the recommendations and the ability to implement action plans
- Utilization of satisfactory methods and appropriate techniques during fact finding and analysis
- The presentation and format of all deliverables that meet client standards
- Identification, communication and management of risks in a timely manner

VSE’s GIS Analysts regularly perform QA/QC checks to the data prior to provisioning deliverables for submission, ensuring that layers have no attribute or spatial error.

VSE commits to meeting these quality assurance goals using two primary techniques:

1. Performing a formal review of work in progress during scheduled meetings
2. Soliciting client satisfaction feedback

VSE follows Quality Management Principles in all aspects of this contract. VSE communicates any critique, suggestions for improvement as well as the corrective action taken as warranted via meeting minutes and within the QSR (Deliverable 2). Depending on the severity and nature of the situation, VSE develops a formal (written) action plan, sharing with Levy County representatives to correct any identified deficiencies.

1.5.2 RESPONSIBILITIES AND ASSUMPTIONS

As with any partnership, both parties play vital roles to ensure a successful project outcome. VSE is fully prepared to deliver on the roles and responsibilities outlined throughout the intended Performance Work Statement (PWS). (The following identifies the roles and responsibilities of both parties.

The items in this section and sub-sections are vital to the project where timely delivery in a timely manner avoids project delays and/or changes in project scope.

1.5.2.1 VSE’S RESPONSIBILITIES

VSE has a clear understanding of the requirements and responsibilities associated with this SOW. VSE, unless further directed to do otherwise, shall:

- Provide appropriate project personnel (e.g., Team Lead, MSAG Coordinator, GIS Analysts, Wireless Coordinator, Project Manager, etc.).
- Provide any and all tools and/or software required to perform the tasks set out in this SOW
- Maintain a list of VSE employees authorized to work on Levy County’s GIS, MSAG and ALI databases.

Implement an effective project management strategy that ensures successful and accurate submission of project deliverables in accordance with [Table 3](#), unless otherwise agreed to.

- Table 1 and any additional for the use of public safety 9-1-1 systems.



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- Coordinate with Levy County GIS Public Safety vendors (Intrado, Wireless Service Providers, VoIP Providers, etc.) under a Letter of Authorization (LOA) as required and agreed to.
- Perform wireless database support services to include call-routing sheet audits, cell sector analysis and wireless GIS layer sustainment.

1.5.2.2 LEVY COUNTY RESPONSIBILITIES

Levy County coordinates these services with VSE and has a clear understanding of the requirements and responsibilities associated with this SOW. As such Levy County will:

- Ensure the solution to transfer files securely between Levy County and VSE remains intact.
- Notify VSE of any changes in (county or vendor) personnel responsible for providing information and or data essential to the completion of the project.
- Inform VSE in the event there will be a change to the existing Customer Premise Equipment (CPE) that uses GIS, MSAG and ALI information within 30 days of impact.
- Provide specifications of the Levy County Computer Aided Dispatch (CAD) and Mapping systems so that VSE can deliver the appropriately formatted deliverables for those systems.
- Notify VSE in the event there will be a new CAD system or, the CAD system vendor performs a modification to the system that may affect the display of the mapping products and/or updates made by VSE for Levy County.
- Notify VSE if access to the MSAG and/or ALI databases for VSE employees has changed for any reason.
- Ensure VSE's access to Levy County's MSAG remains with continued access through the duration of the contract to view, query, initiate record corrections and pull extracts to perform corrections and synchronization work.
- Deliver to VSE one ALI TN and address report download from the DBMSP, within two weeks of VSE's request, within the contract timeframe.
- Make available to VSE copies of all newly acquired maps (electronic or hard copy), used by Levy County that can serve as a resource and would be useful for GIS layer updates, corrections, and/or modifications.
- Contact VSE with timely information regarding address updates or discrepancies, especially those resulting from a 9-1-1 call, so updates can be performed to the location data.
- Provide support and validation related to any 9-1-1 data discrepancies within 72 hours of request made by VSE, unless agreed upon otherwise.
- Coordinate map uploads to the 9-1-1 systems and data sharing for the purposes of the public safety network, as required.
- Ensure that third party providers fulfill their related responsibilities within the timeframes needed to keep the project on track.



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1.5.2.3 PROJECT ASSUMPTIONS

VSE works with Levy County and other required organizations and service providers to progressively standardize, synchronize and sustain Levy County's GIS, MSAG and ALI data to facilitate an increase in 9-1-1 caller location accuracy.

In order to achieve the desired goal of this project, VSE assumes the following:

- Levy County has disclosed all relevant information about their E9-1-1 System and will respond in a timely basis to any requests for clarification, address and other conflicting data resolution, etc.
- **MSAG and ALI Record Edits/Corrections and Transaction Inputs** - There will be no restrictions regarding the number and types of corrections or edits made to the MSAG records imposed by the DBMSP, Intrado, during a given day/week/month period.
- **Third Party Support** - Levy County's signed Letter of Authorization (LOA) remains intact with service providers that support VSE with data access, bulk change, etc. This includes support from vendors/solution providers associated with Levy County 9-1-1 software and systems.
 - Intrado will work with VSE under the LOA provided to them by Levy County to:
 - Provide data requested.
 - Perform database updates per requests.
 - Work with VSE to resolve record issues.
 - Provide VSE with access to on demand MSAG reports.
 - Coordinate data access for VSE's employees within 30 days from the start of the contract.
- Placement of sub-addressing information and indoor mapping features is based on information given to VSE, and therefore, we assume the accuracy of these placements in the data with which we are provided.
- Provide indoor digital map developed for 17 public and private schools, including all floors with details from provided floorplans only.
- **Any Moving of the Levy County PSAP and Installing New Equipment** to another building will be done in a manner that will not affect the contractual services that VSE performs. Should this occur, Levy County and VSE together will determine a resolution collaboratively for any issues or challenges that result.
- **The CAD and Mapping Systems** are capable of utilizing the map files delivered by VSE to Levy County for Levy County to share and upload.
- **Map Imagery of Levy County** - VSE will provide high quality NENA compliant map imagery downloaded from the State of Florida Department of Transportation (FDOT), providing the imagery data is available through their website. If the FDOT imagery data becomes unobtainable, VSE will alternatively use the good quality, standard, NENA-compliant ESRI basemap imagery.

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1.5.3 DELIVERABLES

VSE’s customer-focused approach provides Levy County synchronization sustainment with GIS, MSAG and ALI database updates. Levy County shall continue to receive data improvements. These improvements will enable the Levy County PSAP and emergency responders to locate 9-1-1 callers, thus achieving faster response times and an increased potential more location accuracy for saving lives and property.

Table 3. GIS, MSAG and ALI Database Correction Services Deliverables

Deliverable	Title/Details	Initial	Subsequent	Task Cross Reference
Deliverable 1	Kick-off Meeting – A pre-start meeting to review strategy, workflows and milestones	30 days after Contract Kick-off	N/A	1.1 1.5
Deliverable 2	<p>Quarterly Synchronization Report (QSR) – <i>All activity undertaken during the quarter of the 9-1-1 databases complying with NENA standards and ensuring operational accuracy.</i></p> <p><i>Details within this report include:</i></p> <ul style="list-style-type: none"> • GIS changes • MSAG changes • ALI Changes • Summary of Impact – <i>items that impacted Levy County's 9-1-1 systems and operations that VSE is aware of</i> • Final Synchronization Report included only in the final month of service in this PoP 	Agreed to as a result of project kick-off meeting	Agreed to as a result of project kick-off meeting	1.1 1.2 1.3 1.4 1.5
Deliverable 3	<p>9-1-1 GIS Layers – <i>Updated GIS files which include work completed that month with details provided in the QSR on a quarterly basis outlining the number, and types of updates/ corrections to the GIS layers</i></p> <p><i>These layers include:</i></p> <ul style="list-style-type: none"> • Road Centerline layer • Address Point (or Structure Point) layer • MSAG Community • ESN and ESZ boundary layers • PSAP Boundary layer • Provisioning Boundary layer • ESB layers • Supplemental GIS layers (to include but not limited to, wireless towers, Phase 1 Cell Sector, and Indoor Mapping layers) 	Agreed to as a result of project kick-off meeting	Agreed to as a result of project kick-off meeting	1.1 1.3 1.5
Deliverable 4	Wireless Call Routing Sheets (CRS) - <i>complete CRS files – in accordance with NENA Standard 57-002 – to the WSP on behalf of the PSAP ensuring timely updates occur to the FMCC database.</i>	No later than ten (10) working days after receiving the CRS files.	No later than ten (10) working days after receiving the CRS files.	1.3

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1.5.4 RISK MITIGATION STRATEGY

VSE provides a risk management strategy that involves how to structure and perform risk management for Levy County to ensure that identification, management and mitigation of risks are at acceptable levels. The purpose of this exercise is to provide a framework of how to identify and manage these potential events (risks) before they become actual events (issues).

Based on the company-wide risk management strategy, the risk management strategy entails customized use for Levy County's project requirements. The purpose and approach focus on identifying, evaluating, mitigating and responding to risks that could affect any aspect of the SOW. Our objective is to minimize the impact of unplanned incidents by identifying and addressing potential risks before negative consequences occur.

For each task, VSE identifies potential risks, and evaluates the probability of occurrence and potential impact for each risk. The developed risk mitigation plan includes a risk register (as illustrated in Table 4 below), that is proactively monitored during the program for the manifestation of known risks and any addition of new risks as they are identified. In this way, risk is managed effectively. We meet on a weekly basis as a part of our regular team meetings to review the status of all identified risks as well as actions for the project. Risk status is part of our regular status review and reporting process. This plan contains a revision history log which is part of the meeting minutes and QSR (Deliverable 2).

Table 4. SAMPLE Project Risk Reporting

Identify	Evaluate	Mitigate	Monitor / Report
Computer Aided Dispatch (CAD) data requirements may require manual configuration	Probability: Medium Impact: Moderate Overall Risk Level: Moderate	Work with CAD vendor to determine a work-around	Publish minutes on meetings with the vendor to the team.
Protection of MSAG and ALI data	Probability: Low Impact: Moderate Overall Risk Level: Moderate	Data changes, additions, and deletions must be reported in writing to Levy County	Report completed data changes/updates to Levy County via weekly/monthly/as needed status meetings

2.0 PROPOSED COST FOR SERVICES

Levy County can remain confident that all services described in VSE's Statement of Work together with its assumptions are from a one-stop-shop with no hidden fees or additional costs, unlike other service providers, that may not price for all necessary tasks at time of proposal.

The total fixed price for the Base Period of the project is **\$127,836.00** for the 12-month period of performance. This cost, paid in installments, align with the project milestones listed in Table 5 below. Upon reaching each milestone, VSE will submit a Milestone Acceptance Signoff and an invoice to Levy County. Levy County will then submit the signed Milestone Acceptance Signoff and the invoice to the State of Florida 9-1-1 Board.

Payment terms are Net 30 days from the date of invoice submission.

STATEMENT OF WORK

Table 5. Base Period: Milestone and Payments (20 July 2023 – 19 July 2024)

Milestone	Payment
1. Project Kickoff meeting	\$31,959.00
2. Delivery of Quarterly Status Report (QSR 1)	\$31,959.00
3. Delivery of Quarterly Status Report (QSR 2)	\$31,959.00
4. Delivery of Quarterly Status Report (QSR 3)	\$31,959.00
Total Value of Base Period	\$127,836.00

2.1 OPTION PERIODS

By approving the continuity of data and database management services provided by VSE, Levy County receives assured stability in their GIS data; stability that is necessary and essential for public safety. VSE shall continue providing 9-1-1 data and database management through a series of corrective and synchronization cycles for the base period of 12 months, with one (1) optional follow-on 12 month period of performance; the 12 month follow-on extension, at Levy County’s option, will continue the work anticipated by this proposal upon the same terms and conditions. Levy County can exercise this option by providing written notice to VSE at least 30 days prior to the end of the base period.

VSE continues to ensure that Levy County receives accurate and up to date information through continuous sustainment of GIS, MSAG and ALI databases. With a fixed price solution, VSE synchronizes databases, corrects and updates the data in all databases - GIS, MSAG and ALI - and continues to sustain the 98% match post-achievement.

2.1.1 OPTION PERIOD 1: MILESTONES AND PAYMENT TERMS

The total fixed price for Option Period 1 contract of this project is **\$130,392.00** for the 12-month period of performance, assumed for 20 July 2024 - 19 July 2025. The pricing for the Option Period is valid until 8 March 2024.

The total fixed price of the project is further detailed by milestones in [Table 6](#) below. Upon reaching each milestone, VSE will submit a Milestone Acceptance Signoff and an invoice to Levy County.

Table 6. Option Period 1: Milestones & Payments (20 July 2024 – 19 July 2025)

Milestone	Payment
1. Kickoff meeting	\$32,598.00
2. Delivery of Quarterly Status Report (QSR 1)	\$32,598.00
3. Delivery of Quarterly Status Report (QSR 2)	\$32,598.00
4. Delivery of Quarterly Status Report (QSR 3)	\$32,598.00
Total Value of Option Period 1	\$130,392.00



STATEMENT OF WORK

2.2 PRICING ASSUMPTIONS

In the development of the pricing of the GIS, MSAG and ALI Database Corrections for NG9-1-1 in support of Levy County, VSE has made the following assumptions:

- The anticipated base period of performance of 12 months will begin 20 July 2023 and end 19 July 2024, with option period timelines assumed as described in [Section 2.1.1](#).
- Tasks will be accomplished as outlined in [Sections 1.1-5.4](#) including each party's responsibilities ([Section 1.5.2](#))
 - Any deviations from the proposed tasks will result in the need to reevaluate the proposed price unless previously discussed and agreed upon during proposal negotiations
- Invoices will be submitted in accordance with the above Milestones & Payments tables, with NET 30 terms from the date of invoice submission
- With the option to extend for one additional 12-month period at the prices shown in [Section 2.1.1](#) Levy County may exercise the option by issuing a Purchase Order to VSE in the amount of the applicable option price by 8 March 2024, 30 days prior to the start of the applicable option period.

3.0 TERMS AND CONDITIONS

VSE, CORPORATION has developed and submitted this proposal in compliance with Florida Statute 119.01 General State Policy on Public Records.

Levy County will coordinate and ensure that all its employees, agents and other related contractors will: (1) follow existing guidelines it currently uses to protect similar proprietary information, but not less than reasonable care appropriate to the type of information; and (2) reproduce all proprietary notices, legends or markings on all copies or extracts of the GIS data.

Levy County is responsible for training and ensuring that such notices are observed by its employees, agents and contractors.

The data evaluated, generated, and distributed under this scope of work is intended for use by Levy County, FL 9-1-1 mapping systems only. This data is provided by VSE, CORPORATION, with the assistance of third-party subcontractors, as is, without warranty of any kind, including by not limited to the implied warranties of merchantability or fitness for a particular purpose. Thus, this data is not intended for public release, nor is it implied to be complete or accurate.

No commitment, contract, exclusivity or obligation for any business dealings or relationship is created by the disclosure and use of the GIS data. Levy County, FL may procure, market or independently develop similar products or services or pursue discussions or business relationships with others, provided Levy County, FL does not violate the above-mentioned restrictions regarding the use of Proprietary Information.

VSE, CORPORATION and Levy County, FL retain all right, title, and interest to the GIS data. No patent, copyright, trademark, or other proprietary right or license is granted or implied by the disclosure of the 9-1-1 GIS data.



STATEMENT OF WORK

4.0 ACCEPTANCE

By signing below, you confirm that you are authorized to sign on behalf of your agency/organization and agree to the scope and terms set forth in this document.

VSE Corporation/VSE, CORPORATION

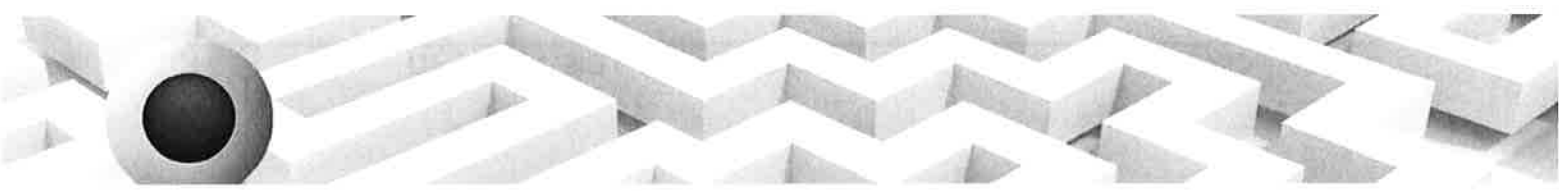
Levy County

Stefanie Iwami, Contracts Manager

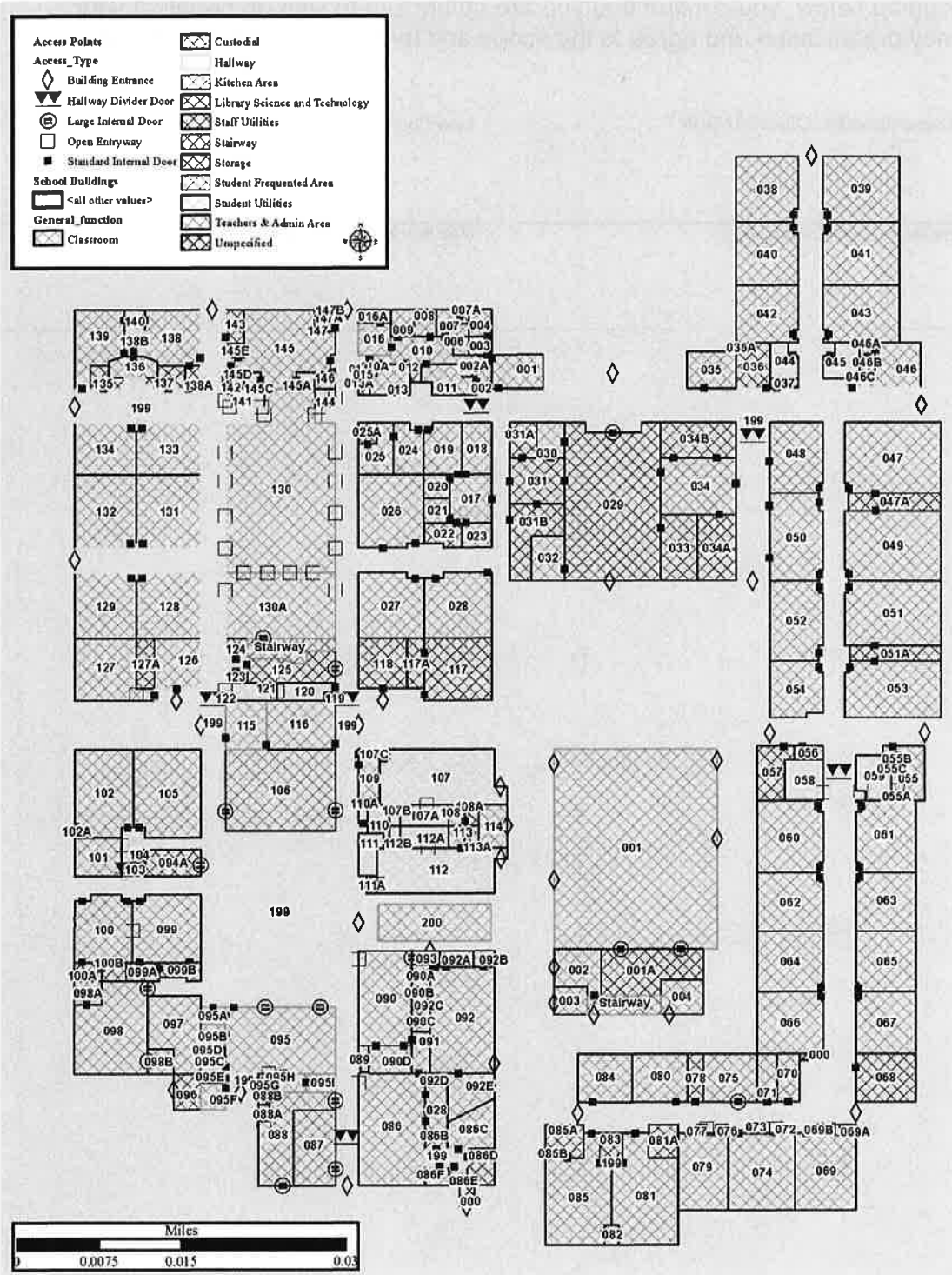
Matt Brooks, Levy County

Date

Date



STATEMENT OF WORK APPENDIX A



Budget Report

Prepare an itemized Grant Budget ("Line Item" breakdown should include separated systems, i.e.; 911 system, logging recorder, centerline mapping, etc. and services items). If there is insufficient space, please include details in an attachment. Budget costs should match requested vendor quote

County: Levy Project Name: Levy GIS Maintenance 2023-2024

Budget Categories

Deliverables	Unit Price (\$)	Quantity	Total Amount (\$)
A. System (Hardware, Software, Equipment, & Labor)			
B. Services (Training, Maintenance, and Warranty Items)			
9-1-1 Master Street Address Guide (MSAG) Automatic Location Identification (ALI), and Geographic Information System (GIS) Database Correction and Maintenance	\$31,959.00	4	\$127,836.00
Overall Project Total			\$127,836.00
Carry Forward Funds Applied			
Grant Request Total Less Carry Forward Applied			\$127,836.00

Notes:



Signature, 911 County Coordinator

County E911 Fiscal Information

Item No.	E911 Fee Revenue		
1	County	LEVY	Fiscal Year 2021-2022
2	Wireless Fee Revenue	\$124,017.40	
3	Non-Wireless Fee Revenue	\$29,161.32	(LEC, Wireline, & VoIP)
4	Pre-Paid Fee Revenue	\$35,765.34	
5	Total Fee Revenue	\$188,944.06	Carry Forward Fee Revenue Calculation (Item #2 + Item #3 + Item #4)

Item No.	E911 Allowable Expenditures	
6	Fee Revenue Expenditures	184,665.15

Item No.	E911 Carry Forward & Excess Carry Forward		
9	Allowable Carry Forward	\$56,683.22	Maximum Allowable (30% of Item #5)
10	Actual Carry Forward	\$1,278.91	Limited by Para 365.173(2)(d). Florida Statutes. Assure amount is equal (=) to or less than (<) Item #9
11	Excess Carry Forward Recovery	\$0.00	

Item No.	Contact Information	
12	Preparer's Name	Mike West
13	Preparer's Title / Position	911 Coordinator
14	Telephone Number	352-486-5214
15	Preparer's Email	mwest@levyso.com
16	Date	11/30/2022

In accordance with Paragraph 365.173(2)(d) and 365.172(6)(a)3., Florida Statutes

County E911 Fiscal Information

Incorporated by reference in Fla Admin. Code Rule 60FF1-5.006
Requirements for County Carry Forward Funds & Excess Funding
04/2020

