GRAYMATTER

Proposal for Industrial Control System Network Upgrade

INDIAN RIVER COUNTY
Department of Utility Service (IRCDUS)
IRCDUS Project ID 00.23.545
Sept 18, 2024

Industrial Control System Network Upgrade Implementation Support Services

Proposal Request for: Industrial Control System Network Upgrade Implementation Support Services

GrayMatter Opportunity: 266603

IRCDUS Project ID: 00.23.545

GrayMatter is pleased to provide a proposal as requested by IRCDUS for Upgrade and Implementation support services for the ICS Network Deployment project.

It is the intent of GrayMatter that no professional services, as defined in F.S. 287.055 will be completed under this scope.

At GrayMatter, our goal is to transform operations and empower people. As digital transformations in every industry are underway, we help some of the biggest companies in the world harness data and use it to work smarter. They lean on us to protect and connect their critical assets with their people, so every operator is empowered to be the best operator.

TECH CONSULTING

We're a services-first company that starts with your problem and works backwards to help you fix it.

IMPLEMENTATION

We help your people and your industrial assets become smarter and more visible.

TECHNOLOGY CURATION

We focus on co-innovation and curating the best process and technology to drive industrial, digital transformations.

We provide specialized domain knowledge in water, wastewater, energy and OEM applications. We co-innovate with progressive water utilities like the City of Cincinnati and disruptive energy companies like CNX.

Thank you for your confidence in GrayMatter. We look forward to working with you in the near future. If I can be of further assistance, please do not hesitate to contact me at 239-351-0882.

Sincerely,

AARON CROMER,

Director of Strategic Partnerships, GrayMatter

Table of Contents

GrayMatter Background and Offerings

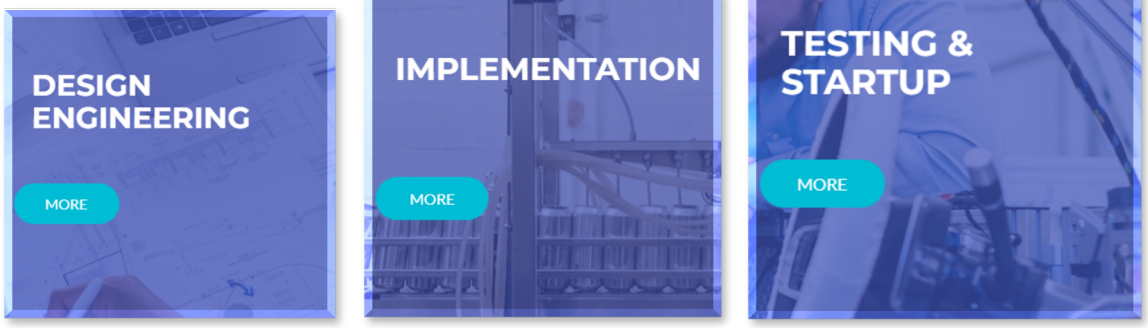
A broad background for GrayMatter Systems is presented below, followed by a focused, details scope, proposal and fee aimed and supporting the technical deployment of the Industrial Controls network.

Municipal Water/Wastewater Experts

GrayMatter has deep-domain expertise in the water and wastewater markets at facilities throughout the US and Canada. Solutions include business process optimization, technology implementations, program management, SCADA, historian, CMMS integration, EPA reporting, RTUs, video monitoring, panels, and data collection among others. All engineering skill sets are founded in technology and technical implementation services related to SCADA and Industrial controls deployments.

Client	SCADA Master Plan	System Design	Build & Field Support	Annual Maintenance	Cyber Security	Netwroking	Server Virtulization	SCADA Programming	PLC Programming	Telemetry	Data Analysis	Change Management	Instrumentation	Reporting
Collier County - Stormwater	•	•	•	•	•	•	•	•	•	•	•		•	•
Collier County - Landfill	•		•	•		•		•	•	•	•		•	•
Palm Beach County, FL	•	•	•	•	•	•	•	•	•	•	•			
Lake Worth Drainage District	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bonita Springs, FL		•	•	•		•	•	•	•		•			•
Babcock Ranch, FL	•	•	•	•	•	•	•	•	•	•	•			
Norfolk, VA	•	•	•		•	•	•	•	•	•			•	•
JCSA, VA		•	•	•		•	•	•	•		•			
Hanover, VA	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Chesterfield, VA		•	•	•			•	•	•	•				
Richmond, VA		•	•	•		•	•	•	•		•			

We review the current topology, setup, documentation and implementation and overall system operability. Interview people involved/impacted by the system then develop the best long-term solution. This utilizes the best of what exists and creates an expandable system that is cost effective to implement, easy to own and reduces learning curves. Our team of dedicated consultants, technical engineers, and IT specialists can help you leverage current assets to uncover ROI.



GRAYMATTER PROFILE	
Number of years in business (1991)	33
Number of years involved with water/wastewater SCADA	33
Total number of employees	Over 250

CYBERSECURITY OFFERINGS

GrayMatter's Managed Detection & Response program (MDR) & our Cyber Acceleration Program are engineered to provide expertise & real-world solutions. We aim to ensure that cybersecurity measures are about deploying advanced technology while also integrating human oversight to safeguard digital assets comprehensively.

- Security Monitoring
  Continuously monitor networks, systems, & applications for security events & incidents. Use security information & event management (SEIM) tools to analyze & correlate data.
- Threat Detection and Response
  Employ advanced threat detection technologies to identify & respond to potential security threats. Use behavior analytics, threat intelligence & real-time monitoring to detect & mitigate security incidents.
- Incident Response
  Provide services to help effectively manage & respond to security incidents. This may involve investigating the root cause of incidents, containing the threat & implementing remediation measures.
- Firewall & Intrusion Detection/Prevention Management
  Manage & maintain firewalls, intrusion detection systems (IDS) & intrusion prevention systems (IPS) on behalf of clients. Ensure that these security devices are properly configured & updated to protect against emerging threats.
- Vulnerability Management
  Conduct regular vulnerability assessments to identify weaknesses in systems and applications. Assist in prioritizing and patching vulnerabilities to reduce the risk of exploitation.
- Endpoint Security
  Manage endpoint security solutions, including antivirus, anti-malware & endpoint detection & response (EDR) tools. They ensure that endpoint devices are protected against malicious activities.
- Security Awareness Training
  Offer security awareness training programs for employees to educate them about cybersecurity best practices. Training helps organizations reduce the risk of human-centric security threats, such as phishing attacks.
- Network Security Management
  Help manage network security devices, such as routers, switches & VPNs to ensure a secure network infrastructure. May implement & enforce security policies at the network level.

GrayMatter has over thirty years of experience helping water and wastewater customers. Our staff is well versed in assisting those customers and are attuned to their needs. It is a core part of what GrayMatter does.

With an abundance of technical and operational staff, GrayMatter is well positioned to provide resources to more than one location at a time if needed. We have over 10 resources in the State of Florida alone and over 200 engineers throughout the United States. Our technical skillsets are documented below and in our resumes which are also attached. We have abilities ranging from networking, cyber security, HMI\SCADA programming, PLC programming, electrical design, instrumentation and controls, drawings, and documentation.

As you speak with our references, especially those with whom we've done business for many years, you'll learn that we are not focused on a single transaction but rather on the longer-term goals of our clients. We endeavor to develop a relationship that facilitates our ability to anticipate challenges and work proactively to develop solutions that will provide best-in-class service for years to come.

SCADA and I&C Offerings

GrayMatter has the following Electrical\Instrumentation and Control System capabilities:

A. Provide design services for SCADA system architecture, communications networks, electrical power systems, motor control systems, lighting, grounding, and process and instrumentation diagrams.
B. Provide SCADA technical services as needed for utility facilities, including design, permitting, planning, procurement assistance, construction management, and other related services for electrical improvements to utility facilities.
C. Provide technical services to smoothly integrate projects into the Indian River County Department of Utility Service sexisting SCADA infrastructure. Develop logical and technically sound phasing and scheduling of individual components for all projects to maintain continuity of operations.
D. Planning and integration of multiple independent SCADA systems into a unified utility- wide system best suited for the Indian River County Department of Utility Service .
E. Design, maintain, install, and program remote telemetry units, programmable logic controllers, servers, network equipment, and associated electrical and instrumentation equipment associated with operation of the Indian River County Department of Utility Service ssystems.
F. Properly document all system changes, revisions, modifications, and improvements such that a chronological list of activities is maintained throughout the duration of each work authorization. Provide as-built documentation using a Indian River County Department of Utility Service compatible computer-aided design (CAD) software. Operation and Maintenance manuals for all work performed shall be provided in printed and electronic formats.
G. Provide as-needed services to quickly resolve problems, restore connections, and maintain network connectivity of all Indian River County Department of Utility Service systems.
H. Provide all work in accordance with Indian River County Department of Utility Service and local Codes, existing standards, and preferences.
I. Provide SCADA programming for new automated control processes and to modify existing automated control processes in coordination with existing standards and systems.
J. Design and implement server systems in support of SCADA specific applications and general server infrastructure such as active directory, disaster recovery, routine backups, and services such as domain name system (DNS) and Active Directory Services (AD).
K. Design and implement network security rules, system routing, and network configurations for high availability and secure network communications in accordance with Indian River County Department of Utility Service and industry standards.
L. Support the Indian River County Department of Utility Services electrical safety program through safe and reliable electrical installations and safety studies including short circuit current and coordination studies.

M. Install and calibrate instrumentation including but not limited to pressure transmitters, level transmitters, flow meters, and analyzers.
N. Evaluate, design, implement, and maintain cyber security measures.
O. Troubleshooting and installing VFD's: Allen Bradley (AB), Schneider, and Yaskawa.
P. Integration of access control and monitoring systems used: Camera monitoring, gate controls, door locks, smoke detector and security systems.
Q. Provide evaluations and recommendations with proposed equipment modifications and upgrades.

Sampling of Skills - SCADA

In addition, GrayMatter is highly competent in the following skills;

A. SCADA Technical Competency
    a. Provide expertise necessary to design, maintain, inspect, and implement SCADA systems consisting of, but not limited to:
        i. Design of SCADA system architectures and creation of PIDs for process control systems.
        ii. Configuration and integration of third-party process control systems or software
        iii. Configuration and programming of PLCs specifically including the following:
        iv. Rockwell Automation PLC platforms (including legacy Allen Bradley systems)
        v. RSLogix / Studio 5000 / Control and Compact Logix
        vi. Siemens Simatic PLC's / S505 Workshop
    b. Configuration and programming of HMI systems specifically including the following:
        i. Data Flow Systems (DFS)
        ii. Rockwell Automation (Allen Bradley)
        iii. Aveva/Wonderware
        iv. Factory Talk SE
    c. Industrial communication networks including the following:
        i. Modbus and Modbus TCP
        ii. EtherNet/IP
        iii. Fiber Optic Networks
        iv. DLR and other ring technologies

GrayMatter Response:
GrayMatter has been a front runner in design and delivery of SCADA and SCADA system in Florida since the early 2000's. It is a testament to the prowess of GrayMatter that we have provided and supported SCADA systems throughout the state. With over 100 customers in Florida, it is clear that GrayMatter has the expertise to:

- Evaluate
- Design
- Implement
- Support

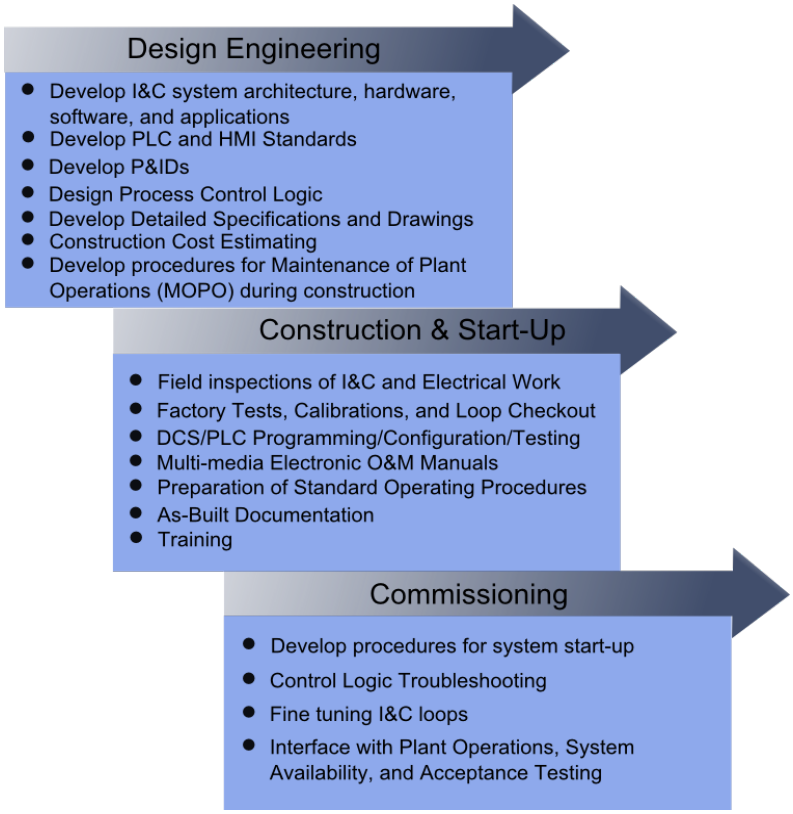
All aspects of SCADA and SCADA systems.

SCADA System Methodology

To fully implement SCADA, GrayMatter must know the solution from the field (instrumentation, PLC, etc.) through the network (fiber, radio, etc), to the HOST (SCADA DB, HMI, etc) including the protocols that are used to communicate.

Instrumentation Services

GrayMatter Instrumentation and Controls (I&C) and Electrical services include:



Technologies

We believe that our process background provides us with the necessary perspective in encapsulating "data" and "creating knowledge". This differentiates us from pure information technology companies. We can go into any manufacturing facility, figure out the manufacturing processes, document them, and come up with an appropriate solution to satisfy the customer requirements. Technologies like PLCs and/or HMI systems are our tools to monitor and control the processes.

Connectivity Standards, Products

The first step is to provide a way for data residing in one device to be available to other applications to develop an information repository. Data from ID systems, proprietary controllers, programmable logic controllers, motors, valves, sensors, etc. is becoming easier to share because of new standard, product-based solutions using:

- TCP/IP, Ethernet, and wireless LAN for networking;
- HTTP, HTML, and XML for Internet transactions; and
- OPC, ODBC, and OLE DB for interoperability.

Getting data into information repositories is only part of the problem; making use of data and information to create knowledge is another.

In partnering with our customers during early phases of the project, we identify the functionality required by the system. We then design our systems to, not only control individual processes or sub systems, but also ensure that these various sub systems work in harmony with one another. We choose technologies that are appropriate for the process and in keeping with the technological direction of the customer.

Project Approach and Methodology

GrayMatter will address the project with an approach that emphasizes what we believe are the critical factors to the success of any large project:

- Experienced Project Personnel
- Proven Methodology Emphasizing Customer Partnership
- Right System Design and Architecture

These factors will be especially relevant for subsequent implementation phases. Such approaches mitigate technical and cost risks.

Personnel and Project Management

Selecting a team with relevant experience is a top priority and will be made according to several factors. Experience, training, and availability. Please take care to review our team's resumes and feel free to ask for additional project references.

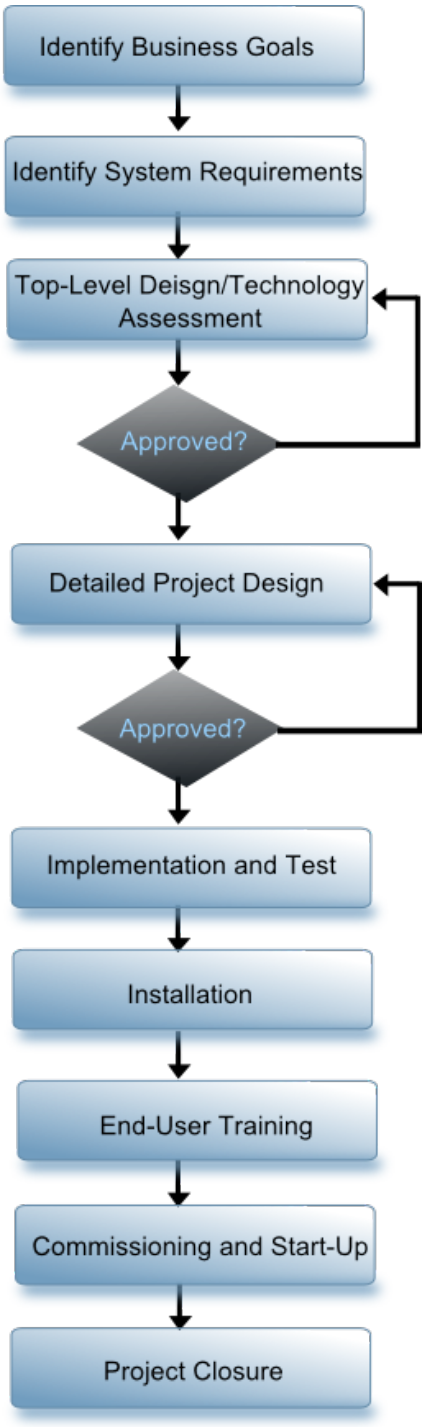
Proven Design Methodology

GrayMatter will use a proven approach in the design of system architecture. Existing plant documentation will be used as a baseline to understand plant operations. Meetings with key plant personnel will identify perceived problems with the current system capabilities and provide valuable input on requirements for the new systems.

The design will be documented using established standards and tools resulting in well-defined deliverables. At each major design iteration, the design will be reviewed with, and approved by, the client before continuing to the next phase. Clarifications and corrections to the design documentation will ensure that the design is complete and correct.

This structured, methodical approach to the project will be propagated throughout its life cycle, from the design phase through to the "future" implementation phases as shown in the Project Methodology Timeline.

Development of a comprehensive Master Plan that includes a detailed conversion and switchover plan with active participation of client personnel minimizes operational disruptions and facilitates a smooth transition to new systems.



Project Methodology Timeline

Right System Design and Architecture

A client server/web-based architecture and scalable hardware provides for future growth. Its use of standard products and protocols ensures that new technologies can be readily integrated in the future. We intend to collaborate with your team to determine the right architecture and solution to meet your needs.

SCOPE OF SERVICE

Task Order Definition

OBJECTIVE

Provide technical and support services related to Request for Proposal (RFP) development and implementation support to Indian River County Department of Utility Services (IRCDUS) for execution of the Cyber Security enhancements and posturing requirements for the Industrial Control Systems Network (ICSN) – implementation phase. IRCDUS Project ID 00.23.545.

It is the intent of GrayMatter that no professional services, as defined in F.S. 287.055 will be completed under this scope.

GRAYMATTER DELIVERABLES

GrayMatter will provide resource(s) for administrative and technical support related to the Industrial Control System Network Upgrade Implementation project. GrayMatter will provide services including support, guidance and technical oversight for progression into the implementation phase, including the satisfactory delivery of a highly technical and configuration specific SCADA and Industrial Control System architecture with a topology aligned for optimal Cyber Security risk management, mitigation and standardization.

Task 1 – RFP DEVELOPMENT AND SOLICITATION SUPPORT

GrayMatter will provide field services to validate and verify as built network infrastructure and configuration of specific segments of the existing and recently completed ICSN topology. The County has current infrastructure that is in construction phases. To finalize the RFP, its delivery and sequence of operations, field validation is required to set the baseline assets and infrastructure for the RFP deliverables.

GrayMatter will provide and perform value added technical review services to the approved design to support simplification and cost reduction while maintaining functionality and security posture. The efforts will be aimed at reduction of cost through the evaluation of value to IRCDUS versus the cost of the deliverable. The outcome will be a reduction of the cost of the implementation phase relative to the original proposed BOM and deployment out of the approved design.

GrayMatter will provide final updates to all drawings.

GrayMatter will develop and issue for implementation, the drawings labeled ‘conformed for implementation’.

GrayMatter, as the representative for IRCDUS, will provide the following services in relation to the Request for proposal (RFP) development, solicitation and proposal support. It is assumed the front-end specifications (boiler plate forms and language) will be provided by IRCDUS with limited front-end spec creation is

included in GrayMatter's scope. The following deliverables will be the focal point of the task:

Creation and issuing of the Request for Proposal (RFP) bid documents for the Cyber and Industrial Control Systems Network RFP development.

- Graymatter will create the RFP which will contain the:
  - Summarization of the network deployment project specifications
  - bill of materials (BOM) for equipment (specific and no equal) to be used on the project
  - list the required documentation and testing to be submitted by the proposer
- Scheduling and participation in one (1) pre-proposal meeting for the interested parties to review the design and implementation requirements and allow for proposer questions. The pre-proposal meeting may include one site visit.
- Providing responses to proposal document questions received during the Q&A portion of RFP solicitation from the interested proposers.

IRCDUS will convene their own internal committee. The internal committee will score the proposals appropriately based upon the IRC internal processes. GrayMatter will provide support services to the IRCDUS scoring committee, as appropriate, in support of final scoring and award of the project to the selected proposer.

GrayMatter's proposal review for project award support services will be based on cost and proposer qualifications, as well as other criteria requested by IRCDUS.

GrayMatter will develop an Estimate of Probable Implementation Cost, to include material (BOM including hardware and software), implementation labor services, and engineering and project management. Following IRCDUS Engineering Division guidance, the EPIC will utilize a range of costs provided with a confidence interval to develop a range of anticipated price for implementation. This estimated cost range will be used to support GrayMatter's evaluated recommendation to IRCDUS.

GrayMatter will support IRCDUS in negotiation, as appropriate, with the recommended proposer.

TASK 2 – PROPOSAL AWARD AND PRE-IMPLEMENTATION SERVICES

GrayMatter, representing IRCDUS, will assist in the Notice of award/Notice to proceed (NTP) to the selected proposer and will hold a mandatory Pre-Implementation meeting. The one (1) meeting will focus on:

- Physical Job site locations
- IRCDUS contact information (mgmt. and coordination of information)
- IRCDUS codes of conduct to be adhered too while on site
- Safety policies and planning
- Project schedule
    - County availability
    - Coordination with other projects and potential outages
- Project documentation requirements such as:
    - Submittals
    - Safety plans
    - Permitting (if required)
- Hardware and Software licensing confirmation/sizing
- Software configuration planning
- Operation and Maintenance Manuals (O&Ms) – in electronic format
- Asset onboarding support services for digital inclusion of assets for CMMS and work management – to be an electronic excel file provided by IRCDUS.
    - To be managed and submitted by Selected proposer but validated by GrayMatter for completeness and accuracy.
- selected proposer schedule documentation requirements
- process for submission of RFIs or project schedule adjustments will also be covered
- Implementation Administration such as billing, invoicing, pay apps
- Work start/stop procedures

With project management oversight and controls throughout the entire project, and key tasks presented in Task 4, some core competencies that are present will be:

- The development and maintenance of a Project RISK Register (PRR)
- Project task list and Project Action list with assignment (PAI)
- support the development of variance reporting for project execution against proposed schedule and financial performance with IRCDUS and the selected proposer for management of project controls.

GrayMatter will have up to (4) four internal pre meetings with the County to develop specific requirements to be included within the proposal and scope documents relating to above topics including communication, documentation, availability and coordination efforts.

AWIA and Operational Continuity – GrayMatter will work with the existing program and project to align with the IRCDUS AWIA reporting update. Every five (5) years,

IRCDUS performs a Risk and Resiliency audit (RRA) that includes an Industrial Control System audit. This audit will have impact on the project design and delivery, therefore GrayMatter will allot time and resources to support the continuity of the RRA with the delivery of the design and implementation phase of the Industrial Control system network and its security model. It is anticipated that the RRA will not have an impact on the implementation of the approved design, merely a compliance checklist and audit performance review related to compliance conformance.

Any AWIA and RRA impacts on design or implementation phase will require a change control notice and could impact not only the Implementation support services but also the underlying implementation contract.

TASK 3 – TECHNICAL IMPLEMENTATOIN AND SUPPORT SERVICES

GrayMatter will provide Technical Implementation and support services for the duration of the project in support of representing IRCDUS. Implementation is anticipated to occur over a 16-week period. Technical support services will consist of:

- Scheduling, leading and managing regularly scheduled deployment meetings anticipated to be bi-weekly for the duration of the project.
- Providing meeting minutes after deployment meetings
- Scheduling, leading and managing regularly scheduled internal team meetings with IRCDUS staff with meeting and agenda
- Selected proposer submittal review and submission for approval to IRCDUS
    - GrayMatter anticipates 50% of submittals will require a re-submission and additional technical review for approval.
- O&M reviews and approvals for alignment with design and deployment specifications.
- Scheduling support for IRCDUS and selected proposer to perform work
    - Support and coordination of IRCDUS staff and selected proposer and location
    - Impact of work on Operations – outage coordination
- SCADA support as needed for testing
    - Coordinate with IRCDUS to support testing
    - SCADA configuration support as needed for addressing or communication issues
- Network deployment inspection – onsite and in person
    - providing signoffs for selected proposer led network testing
    - obtain approval for project phased substantial and final completion.

- Hardware and Virtual infrastructure configuration validation for:
  - Hardware installation
  - Hardware configuration
  - Software installation
  - Software configuration
  - Documentation management
  - Licensing transfer support
- Request for Information or Clarification (RFI) receipt and response development, coordination for approval with IRCDUS
- Develop, support and review with selected proposer and IRCDUS, the project controls variance reporting
  - Define and monitor trends and outliers
  - Develop and support mitigation strategies for the developing risk
- Change Order review and approval if required
- Review of selected proposer payment applications (technical review)
  - Approval support and Pay App certification
  - IRCDUS coordination and communication
  - Review of invoice percent complete in relation to project completion percentage to present to IRCDUS true project status.

TASK 4 – PROJECT CONTROLS AND CLOSEOUT

GrayMatter will provide the project and phase closeout tasks to support a substantial completion milestone and final completion milestone that will include but not be limited to:

- Network and documentation reviews for ‘As Built’ documentation for all systems and segments
- Review of the actual code implemented in the hardware devices for:
  - Consistency
  - Efficiency
  - Security
  - Compliance
- Hardware and Software Licensing ownership transfer confirmation
  - Virtual infrastructure configuration review
  - Software configuration validation and review
- Develop and submit ‘punch-list’ documentation and outstanding delivery items to be completed for substantial completion milestone
- Status tracking of ‘punch list’

- Testing approval and 'sign off' from all parties for acceptance
- Review of Punch list completion to move to Final completion

Final completion will only be awarded once the final product is tested and confirmed to meet specification. In addition, the selected proposer shall have all pay applications submitted, provide proof that all vendors have been paid (partial and final lien releases), and there are no outstanding documentation requirements to be turned over to IRCDUS.

After receipt of order, GrayMatter will assign a dedicated Project Manager to the project. The GrayMatter Project Manager acts as the customer's single point of contact through the duration of the project, ensuring that our team is meeting the customer's expectations for exceptional service and technical expertise.

As discussed in Task 2, the initial setup of these items will be required for pre-implementation services. GrayMatter, through the duration of execution, will work with the selected proposer to provide IRCDUS with implementation management services related to maintenance and upkeep of the following:

- In progress status reports (PAI)
- Look ahead reports (PAI)
- Completed progress reports (PAI)
- Schedule status, drift, lag, etc (VAR)
- Risk register (PRR)

The project manager will also support and manage the project controls portion of the project through strict governance including change control processes will be in place to support changes related to:

- Scope
- Schedule
- Budget

Graymatter will also review and recommend for approval (or denial) of any and all change requests as appropriate technically and administratively for IRCDUS.

Furthermore, regularly scheduled selected proposer meetings will produce variance reports aimed at providing insight into the health of the project with leading indicators of:

- Cost variance
- Budget variance

- Schedule variance
- Quality variance

These above items associated with project and risk management will be complementary to the processes outlined within the IRCDUS Engineering divisions project execution guidelines provided below:

Risk Management Process (RMP)

1. *The Consultant PM task shall include the development of a Project Risk Register (PRR)*
2. *The Engineer shall conduct a Risk Management Planning workshop at the appropriate time during the Design Phase, with key IRCDUS 's staff*
3. *The PRR shall be carried through to the Implementation Phase of the project*
4. *The PRR shall be reviewed and updated at every Project Status Meeting to update risks, take risk actions (explore, mitigate, avoid), add new identified risks, etc.*
5. *The Design Phase PRR deliverable shall accompany the Engineer's OPCC and shall inform the Contingency amount (i.e., the contingency is proportioned to the assessed risks)*
6. *IRCDUS 's CPM will determine if a Management Reserve is required, set the amount, and update the IRCDUS Implementation Phase budget*
7. *The Contingency and/or Management Reserve may not be part of the technical implementor's Contract Value (CV)*

Variance Analysis Report (VAR)

1. *The technical implementor's Implementation Schedule shall be based on CPM and shall show as a minimum:*
    a. *The overall implementation contract timeline per the NTP*
    b. *Key milestones including, start date, SC date and FC date established by the NTP*
2. *The schedule shall be reviewed and accepted by the CM and IRCDUS, then subsequently baselined*
3. *An Earned Value Schedule (EVS) is developed based on the baseline schedule*
4. *The "original planned dates" in the schedule shall be retained for the duration of the project (unless the schedule is changed)*
5. *The implementation schedule and EVS shall be completed and approved before the selected proposer mobilizes to the project site*
6. *The implementation schedule can only be re-baselined and/or EVS revised by an IRCDUS approved change directive or change order*
7. *The CM shall evaluate variances for schedule and budget at least monthly based on verified earned values*
8. *The CM shall submit a Variance Analysis Report (VAR) with each certified selected proposer pay application. The VAR shall include explanation of significant variance and course of action to get the project back on track if required.*

Project Action Items (PAI)

1. *The Engineer/CM shall maintain a Project Action Item (PAI) list that defines - action, owner, status, due date, date closed*
2. *The Engineer/CM shall maintain the PAI for the project lifecycle*
3. *The history of the PAI shall be retained*

GrayMatter anticipates utilizing these tools to communicate efficiently and effectively with IRCDUS. These Risk, Variance and Action item analyses will be provided to support the entire project through all phases and not limited to Task 4 alone. The goal of these critical factors and their analysis is to provide insight to project health before the project begins to have variances that are impactful to scope, schedule or budget. In the event of the risks being identified and unable to be mitigated, the potential for change will be presented to the team for decision and action as appropriate.

It is anticipated that any material changes projected and outlined within the variance reporting structure will incur a change notice.

GrayMatter will work with the selected proposer to produce partial and final Lien wavers related to the assets procured, installed and transferred to the county.

GrayMatter's Project Manager will work collaboratively with the customer and project team to understand the customer's expectations and requirements, both from a technical perspective and regarding any key critical success factors related to the project (e.g., schedule, business goals, etc.).

Any change to these items will be authorized by the county through a change waiver or change/work directive in an official capacity.

Task 5 – Contingency

Contingency allotment of dollars to be consumed as needed and are estimated at 5 % of the project total. GrayMatter will propose a request to the county through a change request, and upon award and authorization from the county, GrayMatter will allocate the requested hours from the contingency allotment to the requested task and its dollars.

Hours allotted will be tracked and billed with the approval for IRCDUS documentation as appropriate.

Assumptions

IRCDUS will provide all documentation related to:

- Procurement
- Legal and contracting
- Safety and Employee/HR
- Operational contacts
- Site location information

It is anticipated that five (5) proposals from interested proposers will be received.

IRCDUS will provide badging for selected proposers and GrayMatter resources as appropriate.

Badging will have the appropriate permissions to access locations/sites

Documentation

- Project Notes
- Meeting Notes
- Communication and Coordination lists
- Selected proposer communications (as available/appropriate)

FEE PROPOSAL

All work shall be performed on a *Fixed Bid* basis. See Definitions section below for additional detail on work agreement.

Description	Total
TASK 1- RFP DEVELOPMENT AND SOLICITATION SUPPORT As Built Network Documentation Value Added Tech Review Finalization (Spec and BOM) RFP Development, Solicitation and Proposal Support Estimate of Prob Cost (Range) Project Mgmt.	**$ 59,908.40**
TASK 2 – PROPOSAL AWARD AND PRE-IMPLEMENTATION SERVICES Project Setup/Alignment Internal Controls Definitions AWIA Risk Audit Support Proposer Award and NTP Project Mgmt	**$ 44,931.30**
TASK 3 – TECHNICAL IMPLEMENTATION SUPPORT Technical/Tactical Administration/Site support SCADA and Network Support Services Project Mgmt	**$ 104,839.69**
TASK 4- PROJECT CONTROLS AND CLOSEOUT Project Controls Services Risk Register and Variance Report Project Close Out services Change Control Mgmt Project Mgmt	**$ 89,862.60**
PROJECT SUB TOTAL	$ 299,541.98
TASK 5 – CONTINGENCY Contingency Allotment (5% of total price)	**$ 13,135.00**
TOTAL	**$ 312,676.98**

The prices contained in this Proposal and Statement of Work shall be valid for **ninety (90) days** from the date of receipt, or upon Seller's prior notification of a price change to Purchaser, whichever occurs first. Hardware and software quotes related to this services proposal may have individual expiration dates that will supersede the 90-day proposal expiration.

SCHEDULE

The proposed duration of the projects is listed within the invoicing section. The schedule of the implementation phase is dependent upon the proposals received from the prospective selected proposers.

GrayMatter will provide support throughout the duration of the proposed schedules.

The selected proposer will develop a phased, risk-based schedule to account for the known impacts. Upon review and approval by IRCDUS and GrayMatter, the proposed schedule shall be promoted to 'baseline.'

GrayMatter will negotiate on IRCDUS's behalf, the schedule with the selected proposers to ensure efficient delivery of the project. During negotiation the schedule will be defined and should account for all known impacts of existing operational and other construction projects.

GrayMatter will support directly, with the selected proposer, updates to the schedule based all factors and document the effects on the schedule, the deliverable and the required outcomes.

Subsequently, the duration of the project and the schedule of events and milestones will be defined upon the contract award and negotiation with the selected proposer.

STANDARD RATE SCHEDULE

Standard business hours are Monday thru Friday 7 am -3 pm or as defined by IRCDUS operations. Work schedule may change, however will be documented with the appropriate operations teams during the pre-implementation and kick off meetings. The work schedule may be impacted by other construction or operational activities during the proposed duration. Work outside normal business hours is subject to premium overtime rates. Overtime shall not be performed without customer pre-approval.

INVOICING

Work will be invoiced based on milestone delivery and percentage complete of the Tasks. The proposed Tasks and milestone deliveries are listed as:

Tasks	Milestones	% Payable	Duration (weeks)	Hours Per Task	$ Payable Per Task	Milestones
TASK 1		20	9	310	$ 59,908.40	
	Field Verification and Tech Value Review	5				$ 14,977.10
	RFP development	5				$ 14,977.10
	RFP solicitation support	5				$ 14,977.10
	EPCC and Proposal Support	5				$ 14,977.10
TASK 2		15	7	230	$ 44,931.30	
	RFP award and NTP	5				$ 14,977.10
	Project Setup and Alignment	5				$ 14,977.10
	Pre-Implementation Meeting	5				$ 14,977.10
TASK 3		35	16	540	$ 104,839.69	
	Field Services	25				$ 74,885.50
	Substantial Completion	10				$ 29,954.20
TASK 4		30	20	460	$ 89,862.60	
	Project Controls	10				$ 29,954.20
	Risk, Variance and Project Management	10				$ 29,954.20
	Punch List/Warranty	5				$ 14,977.10
	Project Close out	5				$ 14,977.10
Total Task Cost					$ 299,541.98	
Contingency		5			$ 13,135.00	
Total Project Cost					$ 312,676.98	

The '% Payable' column in the table represents the forecasted effort for completion of that task in relation to the overall project effort. Therefore, the forecasted % payable for the Task is expressed similar to an earned value of a project.

The ‘hours allotted’ column is provided to gauge the effort per each task and is only an estimate and is not provided as a billing or NTE value.

Due the various deliverables in each Task, the resources proposed in each Task will be a mixture of Senior Technical Resources, Cyber and Networking technicians, Field technicians and Project Management resources and not a singular resource.

Each Task (1, 2, and 3) within the project will have a portion of Task 4, the Project Controls milestone as well as the Risk, Variance and Project Management milestone associated with it, which is directly related to overall project management including the specific PRR, PAI and Variance analyses. Therefor a portion of Task 4 will be billed in a consistent manner throughout the entire duration of the project as the deliverables are presented in each progressive Task.

GRAYMATTER