AUTHORIZATION NO. 93
TO
AGREEMENT BETWEEN
CITY OF SMITHVILLE, MISSOURI
AND
HDR ENGINEERING, INC.
FOR
PROFESSIONAL ENGINEERING SERVICES

AWIA – RISK AND RESILIENCY ASSESSMENT

In accordance with Section 1.A. of the December 18, 2003 Agreement, ENGINEER is hereby authorized to provide engineering services to assist the City with the development of a Risk and Resilience Assessment (RRA) of the drinking water system as required by the America's Water Infrastructure Act (AWIA) of 2018.

BACKGROUND

The following addresses the work tasks and deliverables requested by the City of Smithville (City) to complete a Risk and Resilience Assessment (RRA) of the drinking water system. A formal scope of work is provided for the RRA (Phase I), together with an optional scope of work to support an update to the City's existing Water System Emergency Response Plan (ERP) upon completion of the RRA.

America's Water Infrastructure Act of 2018 requires all public water systems serving populations greater than 3,300 persons to assess the risks to, and resilience of, its system (referred to as the Risk and Resilience Assessment or "RRA"). The RRA is to include:

- Risk to the City's drinking water system from malevolent acts and natural hazards
- Resilience of the infrastructure, including SCADA/cyber resilience
- The monitoring practices of the system
- The financial infrastructure of the system
- The use, storage, or handling of various chemicals by the system
- The operation and maintenance of the system

The detailed RRA will culminate with an implementation plan for capital and operational needs for risk and resilience management of the system. For the City, the RRA needs to be finalized and then certified to the Administrator of the Environmental Protection Agency (EPA) by June 30, 2021.

The RRA must be reviewed at least every five years to determine if the assessment will be revised. Upon review, the water system shall recertify the original assessment or certify a revision to the assessment.

Within six months of completion of the RRA, America's Water Infrastructure Act of 2018 also requires each system to submit a letter of certification to the EPA that the Emergency Response Plan (ERP) for a utility was created or updated (where necessary), and at least every 5 years thereafter. For your system, the ERP certification is required by December 30, 2021.

Community water systems shall to the extent possible coordinate with local emergency planning committees established under the Emergency Planning and Community Right-To-Know Act of 1986

when preparing or revising an assessment or emergency response plan under AWIA. Further, systems must maintain a copy of the assessment and emergency response plan for five years after certifying the plan to the EPA.

OBJECTIVE

The primary objective of this Risk and Resilience Assessment (RRA) is to identify and prioritize risks and provide guidance to support decisions by the utility in allocating resources to risk-reduction initiatives.

The RRA will assess risks from natural hazards and malevolent acts, including physical and cyber-attacks. This work will consider risk (likelihood of threat occurrence, consequence of failure, and system vulnerabilities) for critical water system assets, pump/lift stations, storage reservoirs/tanks/vaults, service connections, and control systems. HDR will work with the City to identify representative asset types to gain efficiencies in determining vulnerabilities common to particular system components. This information may then be extrapolated by the City to apply to other assets in the system. HDR will conduct meetings with the City's staff to assist the City in the development of the critical asset list, threats to consider, and consequence analysis.

The City will determine which mitigation measures to implement for improved resiliency. Mitigation measures will address water system resilience regarding physical, operational, and network/financial control system vulnerabilities.

HDR will review documents, such as local hazard mitigation plans, City vulnerability assessment, existing emergency plans, security procedures, etc. As required by the AWIA, the project meetings may periodically include invitations to members of local emergency planning organizations such as law enforcement, fire department, and other intelligence advisors such as the Department of Homeland Security Protective Service Advisors. These agencies, along with City staff will provide information on local threats to aid in defining the physical and cybersecurity hazards of relevance to the City's system.

Standards Used for AWIA-Related Assessments
To prepare the Risk and Resilience Assessment, HDR will use the following standards:

1. ANSI/AWWA J100-10(R13), American Water Works Association, Risk Analysis and Management for Critical Asset Protection (RAMCAP®) Standard for Risk and Resilience Management of Water and Wastewater Systems Using the ASME-ITI RAMCAP Plus® Methodology, July 1, 2010,
2. EPA Office of Water (MC 140), Baseline Information for Malevolent Acts for Community Water Systems, EPA 817-K-19-001, July 2019, and
3. Update the City's existing Water System Emergency Response Plan utilizing ANSI/AWWA G440-17, Emergency Preparedness Practices, Revised August, 2017.

Methodology Used for AWIA-Related Assessments
The methodology used for the development of this RRA is based on the seven steps contained in the J100 Standard workflow process. The scope items outlined in this RRA Work Plan will include the following:

1) Asset Characterization
2) Threat Characterization
3) Consequence Analysis
4) Vulnerability Analysis

5) Threat Analysis
6) Risk and Resilience Analysis
7) Risk and Resilience Management

All materials and information concerning the City's RRA are considered confidential. Federal Freedom of Information Act (FOIA) exemptions allow utilities to keep this information confidential. During the initial organizational phases, HDR will discuss security guidelines with project participants and how to apply them. A secure file-sharing system will be used for the remote transfer of sensitive information between the HDR Team and the City through the course of this project.

SCOPE OF SERVICES

BASIC SERVICES: RISK AND RESILIENCE ASSESSMENT

TASK 1 - Project Initiation/Project Management

Project management activities include contract execution and set-up, monthly budget tracking and reporting, invoicing, coordination of staff and coordination of quality control activities, and project close-out activities. The task also includes a 1-hour kick-off meeting/call with staff at the beginning of the project to review information and coordinate project schedule and execution. Additional coordination will be handled via email and phone conference.

Deliverables

- Project initiation meeting agenda and meeting minutes
- Monthly invoices and progress reports

Assumptions

- 1 one-hour project initiation meeting to be held virtually and attended by City staff and up to three HDR staff members.
- Deliverables will be provided to attendees and others as requested in electronic pdf format.
- Up to 6 monthly invoices and progress reports will be prepared

TASK 2 – Data Collection and RRA Kickoff

The objective of this task is to charter the project, coordinate and introduce the City and HDR's project teams, review the AWIA and RRA requirements, the Scope of Work, project schedule, the J100 ANSI methodology, identify existing information to be reviewed by the HDR team, and begin identification of potential threats and critical assets for the water system.

Task 2.01 RRA Kickoff Meeting

HDR will conduct a 2-hour RRA Kickoff meeting with the City virtually. HDR will provide a list of staff to participate in the project and the RRA Kickoff Meeting. We anticipate the participants in the Kickoff to be limited to HDR and Water Utilities staff.

Task 2.02 Data Collection and Review

HDR will prepare a data request for information needed to complete the RRA, which may include but not be limited to the following:

- Security plans and procedures
- Vulnerability and risk assessments
- Existing emergency response plan
- Business continuity plans (Continuity of Operations Plans - COOP)

- Department of Homeland Security (DHS) assessment, if available
- Human resources policies
- Door lock/key policies
- Security camera use and policies
- Long range water resources plan
- Comprehensive plan
- Water system master plan
- Local natural hazard mitigation plan(s)
- Control system network diagrams and asset inventory
- Other documents that may be related to the vulnerability and resiliency of the water system/utilities, as appropriate.

Deliverables

- RRA Kickoff meeting materials and meeting notes
- Data Request list (noting those items already available to HDR)

Assumptions

- The City will coordinate the RRA kick-off meeting including scheduling and issuing invitations. HDR will provide a virtual host for the meeting.
- HDR will prepare one draft and one final agenda for the RRA kick-off meeting.
- The City will coordinate with external partners (such as from police or fire departments) who are part of the RRA Team. The City will provide documents to external partners as appropriate.
- The City will provide data within two weeks of request to HDR in electronic format when possible.
- All documents not publicly accessible will be shared electronically through a secure file-sharing platform.

TASK 3 – RRA Meetings and Field Assessment

To complete the RRA, two meetings will be conducted to guide the City through the identification of critical assets, threats, and consequences of failure. This information will be used in the J100 process. The meetings outlined below will be conducted to gather the existing knowledge of the water system from the City and interpret that information into the risk and resilience assessment.

Additional participants on the RRA team may include representatives from the City's wholesale water customers, local law enforcement, the local hazardous materials team and fire department, state and local regulatory agencies, and a local Department of Homeland Security representative. Including the additional participants in some of the project meetings provides additional information about threats to the utility and promotes an understanding of the water system to all participants, particularly first responders.

Task 3.01 Critical Asset Identification and Threat Characterization

The HDR team will conduct a two-hour virtual meeting to facilitate discussion of the critical water system assets including water treatment facility, storage tanks and pump stations will be identified to evaluate the criticality.

In addition, HDR will review the wholesale water connections to evaluate their criticality. The HDR team will summarize critical assets and characterizing threats to the system. The assets will be ranked by consequence to determine the most critical assets. By the J100 Standard definition, a critical asset is an item of value to the utility that, if incapacitated, could result in significant damage to the utility or

community to the extent that the utility would be unable to meet its mission. Assets include physical elements, cyber elements, and human elements (critical knowledge or functions of people).

Assumptions

- The top ten (10) critical threats, as voted on by City staff, will be carried forward in the threat-asset pair analysis.

Task 3.02 Field Assessment and Staff Interviews

Using appropriate social distancing and personal protective equipment procedures, the HDR team, accompanied by City staff, will visit up to 10 high-consequence assets with detailed field assessment criteria. HDR will interview City staff and visually evaluate the assets to assess policies and procedures, physical security, O&M needs, financial data back-up, monitoring practices, chemical storage/use, and other important aspects of your water system. For the physical security vulnerabilities, HDR will conduct an assessment on the vulnerabilities associated with the physical threats to the identified critical assets and the potential measures that could be used to mitigate the risks. The findings will be documented in the asset summary field review sheets.

City staff is encouraged to coordinate the DHS field assessment prior to HDR's assessment or in parallel. The DHS guidance and recommendations can be used to supplement and support the HDR findings.

Task 3.03 Confirm Threats and Consequence Levels

The HDR team will conduct a four-hour virtual meeting (or two two-hour virtual meetings) to facilitate discussion of viable threats to the City's public water system. Development of the list of threats begins with the previous water system vulnerability assessments (if any), the list of threats from J100, knowledge of threats by the HDR Team from past projects, and utility staff's institutional knowledge. From the refined list of threats resulting from this meeting, the HDR Team will develop probability of occurrence values for each threat, based on J100 information and historical values.

During the second part of the meeting, attendees will establish the consequence levels to consider if an asset is lost. These are typically categorized by:

1. Environmental impact
2. Sickness/Injury and loss of life
3. Cost to remediate and economic loss
4. Public perception
5. Loss of service

Following this Threat/Consequence Meeting, the HDR Team will finalize the threat list and develop a consequence table to be used in the Draft RRA report under a subsequent task under this scope of work.

Assumptions

- The top ten (10) threats, as voted on by City staff, will be carried forward in the threat-asset pair analysis.

Task 3.04 – Asset Characterization

The HDR Team will work with the City to develop an overall consequence of loss value and monetary amount for loss of each potentially critical asset (based on the consequence table developed in Task 3.02). The assets will be ranked by consequence for each utility, and the list of critical assets to be considered in the risk analysis will be approved by the City.

Task 3.05 –Risk Calculations and Results, Mitigation Measures for Critical Assets and Cost-Benefit Analysis

The HDR Team will conduct a four-hour virtual meeting (or two two-hour virtual meetings) to develop risk values for each critical asset. The risk calculation will pair each threat with each critical asset in an electronic table to assess risk, which is defined in this process as a function of threat likelihood, vulnerability, and consequence.

Along with the development of risk values, the HDR Team will assist the City with the identification of potential mitigation measures that may be used to lower risk. The work and discussions during this meeting will result in risk information that focuses mitigation strategies on critical assets with the highest risk. With the understanding of which threat-asset pairs have the greatest risk, the HDR Team will work with the City to develop mitigation measures for critical assets. Mitigation measures may include policy and procedure changes, physical security improvements, general changes at facilities, needs for additional hires, etc.

The HDR Team will document the suggested mitigation measures for each of the high-risk threat-asset pairs, and the overall mitigation measures in the draft RRA report described in a subsequent task under this scope of work. The City will select which mitigation measures are most practical and efficient to retain in the final RRA report. HDR will develop order-of-magnitude conceptual costs to implement the mitigation strategies.

The HDR Team will estimate the relative benefit of each mitigation measure for high-risk threat-asset pairs in terms of risk reduction and will summarize the simple cost-benefit analysis for each of the mitigation strategies based on the J100 Standard, EPA 817-K-19-001 Baseline Standard, in the preparation of the Draft RRA report.

The Utility Resilience Index (URI) is a questionnaire in J100, which will also be completed to provide information on risk to the City. The HDR Team will use the City's information to complete the URI and results will be included in the RRA report.

The requirements of the RRA include a limited overview of the operation and maintenance of the public water system. The HDR Team will meet with the City's Operations Manager(s) and other staff to discuss the status of an asset management program, chemical storage and handling, and any gaps that could be improved to make the City's water operations more resilient. The results of this discussion will be included in the RRA Report.

<u>Deliverables</u>

- Meeting materials and summaries.
- Asset Summary Sheets

<u>Assumptions</u>

- HDR will provide a summary of each meeting within seven days to summarize major discussion items, issues, and action items.
- The City is responsible for coordinating scheduling and meeting invitations. HDR will provide virtual meeting host.
- HDR will provide meeting materials at least one week prior to the meeting and will facilitate the conversations.
- Scope does not include any Site visits.

TASK 4 – Cybersecurity Assessment Review

The objective of this task is to assist the City's review of their cybersecurity system through use of the AWWA Cybersecurity Guidance Questionnaire.

Task 4.01 Cybersecurity Assessment Incorporation

HDR will assist the City by providing guidance on the use of the AWWA Cybersecurity Guidance Questionnaire.

Deliverables

- Incorporate the results of the AWWA Cybersecurity Guidance Questionnaire into the RRA report.

Assumptions

- The City will have completed a preliminary review of the City's Cybersecurity system using the latest AWWA Cybersecurity Tool.
- The City will provide comments on the draft TM within one week of receipt.
- The City will apply J100 Standard, EPA 817-K-19-001 Baseline Standard, and the AWWA Cybersecurity Guidance and Assessment Tool as the industry standard references for assessing risk and resilience.
- Network penetration testing or other hands-on detailed evaluation is not included in this scope.
- HDR will not provide any cyber or network recommendations or testing as part of this scope.

TASK 5 – RRA Report and Implementation Plan

The objective of this task is to document the methods and findings of the RRA analysis in report format. The RRA report is not to be submitted to EPA. The City is to formally certify the completion of the RRA with EPA.

The HDR Team will prepare the Draft RRA report to describe the information from the J100 process and provide the data and results of the assessment. The mitigation measures selected by the City will be established in an implementation plan, which can be used by the City to prioritize and schedule implementation of the mitigation measures. The report will include brief summaries of the risk assessment and mitigation measures for each critical asset.

The HDR Team will submit the draft RRA report, including the implementation plan, to the City for review. It is assumed that the City's comments will be received within two weeks after receipt of the draft. A virtual meeting with the City and HDR teams will be held to clarify and resolve comments on the draft report and implementation plan. The HDR Team will revise the report and provide the final document to the City in electronic format with one paper copy.

Deliverables

- One draft and one final RRA Report to include the implementation plan and Cybersecurity Assessment appendix, delivered in electronic form.

Assumptions

- The City will provide comments on the draft report and implementation plan within two weeks or receipt.
- HDR will provide a final draft within 10 days of receipt of the City's comments on the draft materials.
- The City will certify completion of the RRA with the EPA as required.

OPTIONAL SERVICES – WATER SYSTEM EMERGENCY RESPONSE PLAN

The following addresses the work tasks and deliverables requested by the City to complete an update to their Emergency Response Plans (ERP) for the water system. America's Water Infrastructure Act (AWIA) of 2018 requires all public water systems serving populations greater than 3,300 persons to assess the risks to, and resilience of, its system (referred to as the Risk and Resilience Assessment or "RRA").

Within six months of completion of the RRA, America's Water Infrastructure Act of 2018 also requires each system to submit a letter of certification to the EPA that the Emergency Response Plan (ERP) for a utility was created or updated (where necessary), and at least every 5 years thereafter. For systems serving a population of more than 3,300, the ERP certification is required by December 30, 2021 at the latest or six months after certifying completion of the RRA. The ERP must contain the following elements:

- Strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system;
- Plans and procedures that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water;
- Actions, procedures, and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals; and
- Strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system.

The ERP can be developed based on existing emergency plans and is required to include response protocols for any type of emergency or event identified as a threat during the RRA. The suggested format for the ERP is based on the Federal Emergency Management Agency Comprehensive Preparedness Guide (CPG101) and on American Water Works Association guidance M19, with sections including the basic plan, hazard-specific procedures, and communication/coordination information.

Community water systems shall, to the extent possible, coordinate with local emergency planning committees established under the Emergency Planning and Community Right-To-Know Act of 1986 when preparing or revising an assessment or emergency response plan under AWIA. Further, systems must maintain a copy of the assessment and emergency response plan for five years after certifying the plan to the EPA.

TASK 6 –ERP Kickoff

HDR will conduct a kickoff meeting with the City to detail the project schedule, review the work plan, identify utility staff to participate in ERP development (including utility leaders, finance, human resources, operations, field, and customer-service staff), discuss utility background/history in emergencies and emergency exercises, and identify additional information to be reviewed. Information such as existing emergency plans/information

collected during the RRA or already available to HDR will be reviewed by the HDR team prior to the kickoff meeting.

Deliverables

- ERP Kickoff meeting materials and meeting notes

Assumptions

- The City will coordinate the ERP kick-off meeting including scheduling and issuing invitations. HDR will provide a virtual host for the meeting.
- HDR will prepare one draft and one final agenda for the ERP kick-off meeting.
- The City will provide data within two weeks of request to HDR in electronic format when possible.
- All documents not publicly accessible will be shared electronically through a secure file-sharing platform.

TASK 7 – ERP Workshops

To complete the ERP update, a series of up to three (3) workshops will be conducted to help guide the City through the process. HDR will conduct workshops with the City's ERP Team, and applicable representatives from outside agencies such as emergency management, police, fire, HAZMAT, Department of Homeland Security, and other agencies selected by the City that may support emergency response efforts. It is important that appropriate City decision-makers attend these workshops so that the contents of the ERP contain procedures that meet with leadership approval. These workshops will include development of up to 15 incident-specific emergency response checklists (Incident Action Checklists (IACs)). The City will designate the incident management team, including identifying three people for each role. Attendees will also discuss resiliency measures and equipment needed.

Cybersecurity Procedures

This section includes adding cybersecurity system procedures and an incident action plan based on the threat and hazards identified in the Risk and Resilience Assessment (RRA).

- Cybersecurity threats are constantly changing and cannot be completely eliminated. The client is expected to be an active participant in all discussions regarding cybersecurity risks and action plan development. HDR will facilitate a discussion of the cybersecurity IACs among City staff using industry standards, best practices and threat information available at the time of this project.

Clarification on Operational Technology Systems

City agrees that the effectiveness of operational technology systems ("OT Systems") and features are dependent upon City's continued operation and maintenance of the OT Systems in accordance with all standards, best practices, laws, and regulations that govern the operation and maintenance of the OT Systems. City shall be solely responsible for operating and maintaining the OT System in accordance with applicable industry standards (i.e. ISA, NIST, etc.) and best practices, which generally include but are not limited to, cyber security policies and procedures, Incident Action Checklists (IACs) and Emergency Response Plans (ERPs), documentation and training requirements, continuous monitoring of assets for tampering and intrusion, periodic evaluation for asset vulnerabilities, implementation and

update of appropriate technical, physical, and operational standards, and offline testing of all software/firmware patches/updates prior to placing updates into production. Additionally, City recognizes and agrees that OT Systems are subject to internal and external breach, compromise, and similar incidents Accordingly, HDR is assisting the City in developing a baseline cybersecurity Incident Action Checklist to support the documentation of the City-selected resources to prepare, respond, and support recovery of a cybersecurity-related event. With this limited role in emergency planning, City agrees to waive any claims against HDR resulting from any such incidents or responses that relate to or affect the City's IT and OT Systems.

Deliverables

- Meeting agendas, materials and notes

Assumptions

- HDR will provide a summary of each meeting within seven days to summarize major discussion items, issues, and action items.
- The City is responsible for coordinating scheduling and meeting invitations. It is assumed that the same key City Management staff that participated in the RRA will be involved in the ERP workshops.
- HDR will serve as the virtual meeting host.
- HDR will develop agendas, provide meeting materials at least one week prior to the meetings, and will facilitate the conversations.

TASK 8– Emergency Plan (Development, Review, and Final Version)

Based on information gained from earlier tasks, the City's existing emergency plans, and on industry guidance, HDR will prepare a draft ERP for City review. The document will be reviewed during a workshop with the City's ERP Team. The workshop will consist of active discussions to check the information throughout the document. HDR will update the draft ERP and deliver final ERP documents in a digital file format after the draft ERP review workshop. The City will then certify, by letter to the Administrator of the EPA, that the water ERP has been completed, copying HDR on the correspondence. Such certification will remain valid for five years. It is recommended that the City performs a review yearly with significant revision within five years, recertifying to EPA following each revision.

Deliverables

- Revised ERP (Digital submittal in Microsoft Word file format)
- Workshop agendas, materials and notes

Assumptions

- HDR will provide a summary of each workshop within seven days to summarize major discussion items, issues, and action items.
- The City is responsible for coordinating scheduling and meeting invitations. HDR will provide virtual meeting host if required.

- HDR will develop agendas, provide meeting materials at least one week prior to the meetings, and will facilitate the conversations.
- Scope does not include any additional Site visits or facilitated desktop ERP Exercise Training.

FEE

The CITY shall compensate ENGINEER for the Basic Services – Risk and Resiliency Assessment, an amount not to exceed $37,300.00.

If the CITY elects to proceed with the Optional Services – Water System Emergency Response Plan, the CITY shall compensate ENGINEER, an amount not to exceed $31,900.00.

The total fee for Basic Services plus Optional Services shall not exceed $69,200.00.

SCHEDULE

BASIC SERVICES (Task 1 through 5):

The anticipated duration for the proposed scope of work is approximately 4 months. The key target date is the delivery of the Final RRA Report by 6/1/21, to accommodate the City's Certification by 6/30/21 in accordance with the requirements of the America's Water Infrastructure Act. (AWIA). Given the number of meetings necessary for a successful project, and the uncertainty surrounding the current COVID-19 workplace restrictions, a final project deliverable work plan and meetings schedule will be provided following the project initiation task kick off meeting.

OPTIONAL SERVICES (Task 6 through 8):

The anticipated duration for the proposed scope of work is approximately 6 months. The target dates for the key milestones for the project are ERP certification by December 30, 2021.

This AUTHORIZATION shall be binding on the parties hereto only after it has been duly executed and approved by the CITY and ENGINEER.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this AGREEMENT in duplicate on the respective dates indicated below.

CITY: SMITHVILLE, MISSOURI

By: _____

_____
Type or Print Name

Title _____

Date _____

ENGINEER: HDR Engineering, Inc. (formally E.T. ARCHER CORPORATION)

By: Joseph Drimmel (Feb 3, 2021 07:52 CST)

Joseph Drimmel, P.E.
Type or Print Name

Title Senior Vice President

Date Feb 3, 2021

CITY OF SMITHVILLE - AWIA RISK & RESILIENCY ASSESSMENT
AUTHORIZATION 93
Scope and Fee
Prepared: 2/1/2021

		Staff Name	Bresette	Robison	Lewis	Newport	Null	Mynatt	Fuller			
		Rate Schedule Code	Senior Project Manager I	Engineer V	Engineer II	Project Manager III	Senior Technical Specialist	Project Assistant	Project Accountant I			
		Project Role:	Principal in Charge	Sr. Tech Advisor	Project Manager	Process Engineer	QC Reviewer	Project Assistant	Project Accountant I			
		Billing Rate:	$230.00	$230.00	$135.00	$195.00	$275.00	$95.00	$95.00	*HDR Expenses*	*Subconsultants*	*Total*
		TASKS										
A.		**Task 1 - Project Management**										
	1	Project Management, Accounting and Quality Control	2		6			6	5	$35		$2,350
		Subtotal Hours	**2**	**0**	**6**	**0**	**0**	**6**	**5**			
		Subtotal Dollars	**$460**	**$0**	**$810**	**$0**	**$0**	**$570**	**$475**	**$35**	**$0**	**$2,350**
		Total Task 1										**$2,350**
B.		**Task 2 - Data Collection & RRA Kickoff**										
	1	RRA Kickoff Meeting (virtual)	2	2	4	2				$30		$1,880
	2	Data Collection and Review		2	24	2				$30		$4,120
		Subtotal Hours	**2**	**4**	**28**	**4**	**0**	**0**	**0**			
		Subtotal Dollars	**$460**	**$920**	**$3,780**	**$780**	**$0**	**$0**	**$0**	**$60**	**$0**	**$6,000**
		Total Task 2										**$6,000**
C.		**Task 3 - RRA Workshop & Assessment**										
	1	Critical Asset Identification and Threat Characterization		2	20	2				$20		$3,570
	2	Confirm Threats and Consequence Levels (Virtual Workshop)		4	20	4				$20		$4,420
	3	Asset Characterization		2	16					$20		$2,640
	4	Site Visits (one)			8	8				$70		$2,710
	5	Risk Calculations and Results, Mitigation Measures for Critical Assets and Cost-Benefit Analysis (Virtual Workshop)		4	24	4				$20		$4,960
		Subtotal Hours	**0**	**12**	**88**	**18**	**0**	**0**	**0**			
		Subtotal Dollars	**$0**	**$2,760**	**$11,880**	**$3,510**	**$0**	**$0**	**$0**	**$150**	**$0**	**$18,300**
		Total Task 3										**$18,300**
D.		**Task 4 - Cybersecurity Assessment Integration**										
	1	Cybersecurity Assessment Integration - Assume we are just pulling their info into the report		2	2					$20		$750
		Subtotal Hours	**0**	**2**	**2**	**0**	**0**	**0**	**0**			
		Subtotal Dollars	**$0**	**$460**	**$270**	**$0**	**$0**	**$0**	**$0**	**$20**	**$0**	**$750**
		Total Task 4										**$750**
E.		**Task 5 - RRA Study & Implementation Plan**										
	1	RRA Study and Implementation Plan	2	2	36	16	3			$175		$9,900
		Subtotal Hours	**2**	**2**	**36**	**16**	**3**	**0**	**0**			
		Subtotal Dollars	**$460**	**$460**	**$4,860**	**$3,120**	**$825**	**$0**	**$0**	**$175**	**$0**	**$9,900**
		Total Task 5										**$9,900**

F.	**Task 6 - Emergency Response Plan (ERP) - Kickoff Meeting**										
1	ERP - Kickoff Meeting & Additional Project Management	2	2	8	2		6	6	$70		$3,600
	Subtotal Hours	**2**	**2**	**8**	**2**	**0**	**6**	**6**			
	Subtotal Dollars	**$460**	**$460**	**$1,080**	**$390**	**$0**	**$570**	**$570**	**$70**	**$0**	**$3,600**
	Total Task 6										**$3,600**
G.	**Task 7 - ERP Workshops**										
1	Workshop #1		2	12	2				$30		$2,500
2	Workshop #2		2	12	2				$30		$2,500
3	Workshop #3		2	12	2				$30		$2,500
	Subtotal Hours	**0**	**6**	**36**	**6**	**0**	**0**	**0**			
	Subtotal Dollars	**$0**	**$1,380**	**$4,860**	**$1,170**	**$0**	**$0**	**$0**	**$90**	**$0**	**$7,500**
	Total Task 7										**$7,500**
H.	**Task 8 - ERP (Development, Review, Final Version)**										
1	ERP Document Development	4	8	60	8	4			$70		$13,590
2	ERP Review Workshop		2	12	2						$2,470
3	ERP Final Document Development & Submittal	2	2	24	2				$190		$4,740
	Subtotal Hours	**6**	**12**	**96**	**12**	**4**	**0**	**0**			
	Subtotal Dollars	**$1,380**	**$2,760**	**$12,960**	**$2,340**	**$1,100**	**$0**	**$0**	**$260**	**$0**	**$20,800**
	Total Task 8										**$20,800**
	Total Hours	**14**	**40**	**300**	**58**	**7**	**12**	**11**			**442**
	Total Billing Amount	**$3,220**	**$9,200**	**$40,500**	**$11,310**	**$1,925**	**$1,140**	**$1,045**	**$860**	**$0**	**$69,200**

Estimated Project Fee **$69,200**