RESOLUTION NO. 2021-662

(Professional Engineering Services Agreement)

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PARKER APPROVING THE TERMS AND CONDITIONS OF THE PROFESSIONAL ENGINEERING SERVICES AGREEMENT OF THE CITY OF PARKER AND BIRKHOFF, HENDRICKS & CARTER REGARDING THE AMERICAN WATER INFRASTRUCTURE ACT OF 2018 WATER SYSTEM RISK AND RESILIENCE ANALYSIS AND EMERGENCY RESPONSE PLAN; AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT; PROVIDING FOR A REPEALER CLAUSE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Parker originally entered into an agreement for professional engineering services with Birkhoff, Hendricks & Carter LLP authorized by Resolution 2016-504 and approved by the City Council on April 5, 2016; and

WHEREAS, the April 2016 agreement requires a separate agreement for projects with a construction value above a certain threshold; and

WHEREAS, the project related to the American Water Infrastructure Act of 2018 Water System Risk and Resilience Analysis and Emergency Response Plan has a value above that threshold; and

WHEREAS, the City of Parker requested a proposed agreement from the firm of Birkhoff, Hendricks & Carter, LLP for the herein described project, which is attached as Exhibit A (the "Agreement"); and

WHEREAS, the City of Parker finds that the terms and conditions of the Agreement are in the best interest of the City and should be approved;

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PARKER, COLLIN COUNTY, TEXAS, AS FOLLOWS:

SECTION 1. The terms and conditions of the Agreement are approved.

SECTION 2. The Mayor is hereby authorized to execute the Agreement and all other necessary documents in connection therewith on behalf of the City of Parker.

SECTION 3. That all provisions of any and all resolutions of the City of Parker found to be in conflict with the provisions of this Resolution be, and the same are hereby, repealed to the extent of the conflict, and all other provisions of the resolutions of the City of Parker not in conflict with the provisions of this Resolution shall remain in full force and effect.

DULY PASSED AND APPROVED by the City Council of the City of Parker, Collin County, Texas on this the __16th__ day of __March__, 2021.

CITY OF PARKER:

Lee Pettle, Mayor

ATTEST:

Patti Scott Grey, City Secretary

APPROVED AS TO FORM:

Brandon Shelby, City Attorney

PROFESSIONAL ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT is made and entered into by and between the **City of Parker, Texas**, hereinafter referred to as "City", and **Birkhoff, Hendricks & Carter, L.L.P.**, hereinafter referred to as "Engineer", to be effective from and after the date as provided herein.

The City desires to engage the services of the Engineer to complete services for the preparation of America Water Infrastructure Act of 2018 ***Water System Risk and Resilience Analysis and Emergency Response Plan*** , hereinafter referred to as the "Project"; and the Engineer desires to render such engineering design services for the City under the terms and conditions provided herein. That for and in consideration of the covenants contained herein, and for the mutual benefits to be obtained hereby, the parties hereto agree as follows:

I. Employment of the Engineer

The City hereby agrees to retain the Engineer to perform professional engineering services in connection with the Project; Engineer agrees to perform such services in accordance with the terms and condition of this Agreement.

II. Scope of Services

The parties agree that Engineer shall perform such services as expressly set forth and described in Exhibit "A", which is attached hereto and thereby made a part of this Agreement. The parties understand and agree that deviations or modifications, in the form of written changes may be authorized from time to time by the City. Engineer shall have no further obligations or responsibilities for the project except as agreed to in writing. Engineer's services and work product are intended for the sole use and benefit of Client and are non-intended to create any third party rights or benefits, or for any use by any other entity or person for any other purpose.

Engineer shall perform his or her professional engineering services with the professional skill and care ordinarily provided by competent engineers practicing in North Central Texas and under the same or similar circumstances and professional license. Professional services shall be performed as expeditiously as is prudent, considering the ordinary professional skill and care of a competent engineer.

III. Schedule of Work

The Engineer agrees to commence services immediately upon execution of this Agreement, and to proceed diligently with said service, except for delays beyond the reasonable control of Engineer, to completion, as described in the Completion Schedule attached hereto as Exhibit "B" and thereby made a part of this Agreement.

IV. Compensation and Method of Payment

The parties agree that Engineer shall be compensated for all services provided pursuant to this Agreement in the amount and manner described and set forth in the Payment Schedule attached hereto as Exhibit "C" and thereby made a part of this Agreement. Engineer further agrees that it will prepare and present such monthly progress reports and itemized statements as are described in said Exhibit "C". City agrees to pay invoices upon receipt. Statement for services shall include a line for previous payments, contract amount, and amount due current invoice.

V. Information to Be Provided by The City

The City agrees to furnish, prior to commencement of work, all information requested by Engineer that is available to the City.

VI. Insurance

Engineer agrees to procure and maintain for the duration of the contract Professional Liability Insurance ($2,000,000), Worker's Compensation, General Liability and Automobile Insurance.

VII. Assignment and Subletting

The Engineer agrees that neither this Agreement nor the services to be performed hereunder will be assigned or sublet without the prior written consent of the City. The Engineer further agrees that the assignment or subletting of any portion or feature of the work or materials required in the performance of this Agreement shall not relieve the Engineer from its full obligations to the City as provided by this Agreement.

VIII. Contract Termination

The parties agree that City or the Engineer shall have the right to terminate this Agreement without cause upon thirty (30) days written notice to the other. In the event of such termination without cause, Engineer shall deliver to City all finished or unfinished documents, data, studies, surveys, drawings, maps, models, reports, photographs or other items prepared by Engineer in connection with this Agreement. Engineer shall be entitled to compensation for any and all services completed to the satisfaction of City in accordance with the provisions of this Agreement prior to termination.

IX. Engineer's Opinion of Cost

The parties recognize and agree that any and all opinions of cost prepared by Engineer in connection with the Project represent the best judgment of Engineer as a design professional familiar with the construction industry, but that the Engineer does not guarantee that bids solicited or received in connection with the Project will not vary from the opinion by the Engineer.

X. Construction

On projects that include construction, the Owner recognizes that the Contractor and Subcontractors will be solely in control of the Project site and exclusively responsible for construction means, methods, scheduling, sequencing, jobsite safety, safety programs, and compliance with all construction documents and directions from Owner or Building Officials. Construction contracts are between the Client and the Construction Contractor. Consultant shall not be responsible for construction related damages, losses, costs, or claims; except only to the extent caused by Consultant's sole negligence.

XI. Ownership of Documents

All materials and documents prepared or assembled by CONSULTANT under this Contract shall become the sole property of CITY and shall be delivered to CITY without restriction on future use. CONSULTANT may retain in its file's copies of all drawings, specifications and all other pertinent information for the work. CONSULTANT shall have no liability for changes made to any materials or other documents by others subsequent to the completion of the Contract.

XII. Complete Contract

This Agreement, including the exhibits hereto numbered "A" through "C" constitutes the entire agreement by and between the parties regarding the subject matter hereof, and supersedes all prior or contemporaneous written or oral understanding. This agreement may only be amended, supplemented, modified or canceled by a duly executed written agreement.

XIII. Mailing of Notices

Unless instructed otherwise in writing, Engineer agrees that all notices or communications to City permitted or required under this Agreement shall be addressed to City at the following address:

Mr. Luke Olson
City Manager
City of Parker
5700 East Parker Road
Parker, Texas 75002

City agrees that all notices or communications to Engineer permitted or required under this Agreement shall be addressed to Engineer at the following address:

John W. Birkhoff, P.E.
Birkhoff, Hendricks & Carter, L.L.P.
11910 Greenville Ave., #600
Dallas, Texas 75243
Phone: (214) 361-7900

All notices or communications required to be given in writing by one party or the other shall be considered as having been given to the addressee on the date such notice or communication is posted by the sending party.

XIV. Texas Board of Professional Land Surveying Contact Information

Recipients of professional land surveying services under this agreement may direct complaints regarding such services to the Texas Board of Professional Land Surveying, 12100 Park 35 Circle, Building A, Suite 156, MC 230, Austin, TX 78753, Phone (512) 239-5263, Fax (512) 239-5253.

XV. Contract Amendments

This Agreement may be amended only by the mutual agreement of the parties expressed in writing.

XVI. Indemnification Clause

CONSULTANT AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY, ITS CITY COUNCIL, OFFICERS, EMPLOYEES, AND AGENTS, FROM AND AGAINST ALL LIABILITY, CAUSES OF ACTION, CITATIONS, CLAIMS, COSTS, DAMAGES, DEMANDS, EXPENSES, FINES, JUDGMENTS, LOSSES, PENALTIES OR SUITS, WHICH IN ANY WAY ARISE OUT OF, RELATE TO, OR RESULT FROM CONSULTANT'S PERFORMANCE UNDER THIS CONTRACT OR WHICH ARE CAUSED BY THE INTENTIONAL WRONGFUL ACTS OR NEGLIGENT ACTS OR OMISSIONS OF CONSULTANT, SUBJECT TO THE LIMITATIONS IN TEXAS LOCAL GOVERNMENT CODE § 271.904 (A) AND TEXAS CIVIL PRACTICE AND REMEDIES CODE, § 130.002 (B).

XVII. Effective Date

This Agreement shall be effective from and after execution by both parties hereto, with originals in the hand of both parties.

WITNESS OUR HANDS AND SEALS on the date indicated below.

CITY OF PARKER, TEXAS

By: Lee Pettle
Lee Pettle, Mayor

Date: March 16, 2021

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
A Texas Limited Liability Partnership
Texas Board of Professional Engineers Firm No. 526
Texas Board of Professional Land Surveyors Firm No. 100318-00

By: John W Birkhoff
John W. Birkhoff, P.E.

Date: 3/3/2021

ATTEST

By: Patti Scott Grey
Patti Scott Grey, City Secretary

EXHIBIT "A"

SCOPE OF SERVICES

In October 2018 the America's Water Infrastructure Act (AWIA) was signed into law. The act requires systems serving over 3,300 persons to improve the overall sustainability of their water system involving a two-step process. For Cities with populations greater than 3,300-persons such as the City of Parker, the Risk and Resilience Analysis (RRA) must be completed no later than June 30, 2021 to avoid a **$25,000** per day fine. Step 1 is to conduct an RRA for malevolent acts and natural hazards of the City's water infrastructure. Step 2 is to create the City's Emergency Response Plan (ERP) with strategies and resources to improve the resilience of the system with physical security and cyber security to aid in the detection of malevolent acts and natural hazards. The AWIA requires the ERP update (or creation) for Royse City to be completed no later than December 31, 2021. The American Water Works Association J100-10(R13), First Edition standards for Risk and Resilience Management of Water and Wastewater Systems Risk Analysis and Management Critical Asset Protection (RAMCAP) methodology will be utilized on the RRA process with the aid of the Environmental Protection agency (EPA) VSAT Web 2.0 software and the AWWA Cybersecurity Tool spreadsheet. For each step of the process outlined below, the Engineer will prepare an agenda, attend and run a workshop with the City's RRA committee and the engineer's subconsultants, if applicable. All tasks summarized below include input and participation from the City's RRA Committee.

PART A:

I. Project Kickoff

a. Provide a summary of the steps required to complete the Risk and Resilience Analysis (RRA).

b. With City input, form the City's RAA committee.

c. Gather information – Provide a request for information on system assets, system controls and operational management of the water system.

d. Develop a water system diagram exhibit showing locations of critical assets for workshops.

e. Initiate the City to begin work with the SCADA subconsultant to introduce Cybersecurity questions that will need to be answered about the City's existing SCADA controls and protective measures that will be required for the Cybersecurity portion of the RRA.

f. Once the Committee is formed, prepare an RRA mission statement based on guidance from the Engineer.

II. Conduct Asset Characterization

a. Identify assets and which are critical, that if compromised, can result in widespread service interruptions or degradation , injuries, fatalities, detrimental economic impact.

i. Identify mission or critical functions.

ii. Identify list of potentially critical assets.

iii. Identify internal and external supporting infrastructures.

iv. Identify and document protective countermeasures and mitigation measures.

v. Estimate worst reasonable consequences resulting from destruction or loss of each asset without regard to the threat.

vi. Prioritize critical assets from consequences in EPA Vulnerability Self-Assessment Tool (VSAT 2.0) Program.

III. Conduct Threat Characterization

a. Identify threats to be considered (General and specific threat Scenarios with attacks by insiders (current or past employees), outsiders (adversaries, criminals & vandals) and natural (hurricanes, floods, tornadoes, earthquakes, wildfires & dependency hazards).

b. Utilize a uniform and consistent reference of threats to evaluate vulnerability and consequence for cross-asset comparisons.

   i. Describe malevolent threats – Numbers and capabilities of adversaries.

      1. Weapons, equipment, tools, explosives, tactics & delivery/transport.

   ii. Describe Natural Hazards

      1. Hurricanes, floods, tornadoes, earthquakes, wildfires & dependency hazards that have occurred or could occur in the location of the facility.

      2. Define range of magnitude from smallest that could cause harm to the largest reasonable case.

   iii. Describe dependency hazards

      1. Interruptions of utilities, suppliers, employees, customers, transportation or dangerous neighboring sites.

   iv. Evaluate and rank threat-asset pairs.

   v. Identify all threats included in the analysis and which threats apply to which assets.

   vi. Select critical threat-asset pairs to be included in the analysis.

IV. Conduct Consequence Analysis

a. Determine what happens to assets from threat or hazard.

b. Estimate the results of the threat analysis using quantitative metrics.

   i. Number of fatalities.

   ii. Number of serious injuries.

   iii. Financial losses to City.

   iv. Economic losses to community.

c. Employ 5-step procedure for the Consequence Analysis.

   i. Apply worst-reasonable-case assumptions for each threat scenario.

      1. For malevolent threats, assume adversary is intelligent, adaptive and knowledgeable of utility structure and will attempt to maximize consequences.

   ii. Estimate consequences in terms of loss of life, serious injuries and financial losses to City and economic losses to the community.

   iii. Evaluate additional consequences such as loss of public confidence or environmental degradation.

   iv. Document specific assumptions and procedures utilized for preparation of the Consequence Analysis.

   v. Record consequence values utilizing the Water Health and Economic Analysis Tool (WHEAT) in compliance with AWWA J-100 estimated ranges for use in RRA.

V. Conduct Vulnerability Analysis

a. Determine vulnerabilities that would allow a threat or hazard to cause the consequences.

b. Conduct 4-step procedure for the Vulnerability Analysis.

i. Review details of facility construction, systems and layout, including countermeasures, mitigation measures and impediments that provide detection, delay and response measures. Identify weaknesses in the protection system.

ii. Analyze the vulnerability of each critical asset an estimate the likelihood the threat consequences in 3. Will result.

1. Utilize the VSAT 2.0 vulnerability calculator to determine the vulnerability percentage for each critical asset.

iii. Document the method used for performing Vulnerability Analysis.

iv. Record the venerability estimates from the RAMCAP scales.

1. Attack success can be measured as a fraction, a probability or number of successes among the attempts.

VI. Conduct Threat Analysis

a. Determine likelihood a terrorist, natural hazard or dependency hazard will strike an asset

i. Malevolent Threats – Three approaches for estimating malevolent threat likelihood.

1. Proxy Measure – based on attractiveness of utility size, area – WHEAT calculator with VSAT 2.0 Program

2. Best Estimate – Based on informed experience of City, federal, state and local law enforcement determine a probability number between 0.0 and 1.0 from the WHEAT calculator.

3. Conditional Assignment – Use Likelihood of 1.0 (Good for Worst Case Scenario).

*- Use same method between analysis for a comparison to be valid.

ii. Natural Hazards — Estimate probability of natural hazards from historical records or optionally, **Appendix G** of AWWA J-100 that is incorporated into the VSAT program.

iii. Dependency and Proximity Hazards – Likelihood of incurring collateral damage from attack on a nearby asset is based on local situation.

iv. Record the method utilized and whether they are single value estimates or ranges.

VII. Conduct Risk and Resilience Analysis

a. Combines results from Consequence Analysis (CA), Threat Characterization (TC), Vulnerability Analysis (VA) and Threat Analysis (TA).

b. Using the Following Equations Determine City's Risk:

i. RISK = Consequences X Vulnerability X Threat Likelihood.

1. Consequences - from CA for each TA pair in terms of fatalities, serious injuries financial loss of City and economic losses of the community.

2. Vulnerability - Likelihood when the threat occurs to a particular asset, results in the estimated consequences.

3. Threat Likelihood – Probability of a specific threat occurring to the asset in question. Unit of measure is the probability or frequency of occurrence over a given time period (1-Year).

*- When estimates are utilized, they shall be used directly in the calculations. When RAMCAP ranges are utilized, the midpoint of the range shall be used in the calculations.

ii. RESILIENCE = Duration X Severity X Vulnerability X Threat Likelihood; At the threat-asset pair level, estimate asset and economic metrics of resilience of the estimated consequences.

1. Duration – time period of service denial, in days.
2. Severity – the amount of daily service denied in gallons per day.
3. Vulnerability - Vulnerability - Likelihood when the threat occurs to a particular asset, results in the estimated consequences.
4. Threat Likelihood – Probability of a specific threat occurring to the asset in question. Unit of measure is the probability or frequency of occurrence over a given time period (1-Year).
5. *- Perfect asset resilience is a value of zero.

   **- Anything greater than zero is an opportunity for asset resilience enhancement.
6. City's economic resilience is lost revenue due to loss of the threat-asset pair. Lost revenue is the asset resilience times the unit price of the pre-disruption service.
7. Community Economic Resilience is the lost economic activity to the community served by the City.

VIII. Review Risk and Resilience Management Strategies

a. Risk and Resilience management is the deliberate process of deciding whether improvements are needed to enhance all-hazards security or resilience or both, an if needed implementing one or more options such as security countermeasures, improving consequence mitigation tactics, providing redundancy, entering into mutual aid pacts, creating ERP's, training and exercises in business continuity to achieve an acceptable risk and resilience level at an acceptable cost to the utility and community.

b. Utility Shall:

i. Decide if risk and resilience levels are acceptable by examining results for each threat asset pair. For threat-asset pair not within acceptable risk to the City shall:

1. Define countermeasures and mitigation / resilience options for the threat-asset pairs that are not acceptable.
2. Estimate the investment and O & M costs for each item. Adjust future costs to present value.
3. Assess the options with an analysis of the asset or facility the option has been implemented by revisiting Sections III through V of this outline. Re-estimate Risk and resilience calculations. Difference between the risk with and without the new options in place = Resilience.
4. Identify the options that have benefits that apply to multiple threat-asset pairs.
5. Calculate the benefits and benefit-cost ratio that are relevant to the City to estimate the total value and risk reduction efficiency of each option.
6. Review the options considering fatalities, serious injuries, financial losses to the City and economic losses to the community. Allocate resources to the selected options that are favored that have the highest net benefits.

7. Monitor and Evaluate the performance of the selected options. Manage the operation of the selected options, evaluate their effectiveness and make mid-course adjustments for maximum effectiveness.

IX. Conduct Cybersecurity Analysis

a. Prepare and run Cybersecurity workshops with City and the Subconsultants during two meetings.

b. Input Cybersecurity questions into the "AWWA Cybersecurity Tool" spreadsheet (Tool).

c. Review the Tool recommended controls and identify the recommended controls current status (Fully Implemented and Maintained, Partially Implemented, Planned and Not Implemented or Not Planned and/or Not implemented – Risk Accepted).

d. Add notes in the column of the Tool to document answers of the control status.

e. Review the Tools' recommended priority of controls implementation status summary.

f. Prepare opinions of probable cost to implement improvements in the Tool provided format.

g. Assist the City with completing the Tools' optional Declaration of Due Diligence form if the committee prefers the form to be completed.

h. Develop a formal Cybersecurity Improvement Plan. Based on RRA Committee Input:

   i. Assign roles and responsibilities to implement the program.

   ii. Establish budget and implantation schedule.

   iii. Prioritize projects based on available time, budget and City's objectives.

i. Utilize Cybersecurity Tool output and improvement plan in Sections II though VIII of this scope.

X. Risk and Resilience Analysis Summary

a. Prepare Summary Report of RRA analysis.

b. Prepare EPA Certification letter for City execution.

c. Submit the EPA Certification letter electronically though the EPA website or by email.

PART B:

I. Kick-off meeting and data gathering:

a. Prepare agenda and lead one workshop with the ERP committee
b. In conjunction with the City, develop ERP team.
c. Review mutual aid programs available for inclusion into the ERP
d. Research FEMA accounting requirements for Federal assistance following an incident.
e. Explore interdependencies with critical customers and suppliers.
f. Explore partnership opportunities with adjacent communities.

II. Determine ERP requirements with regards to AWIA requirements:

a. Prepare agenda and lead one workshop with the ERP committee.
b. Develop and list interdependences.
c. Review emergency power requirements and resilience.
d. Establish strategies to ensure critical resources are available.
e. Explore and identify emergency water supplies.
f. Develop mutual aid partnerships.
g. Develop a crisis communication plan, if not provided in the existing ERP
h. Assist the City with preparing updated contact information lists.
i. Prepare hazard specific plans for critical water system assets identified in the RRA.
j. Assist the City with updating Standard Operating Procedures (SOP).
k. Review the City's current ERP testing and exercise plan. Provide recommendations for improvements. Coordination will be with a workshop to discuss the "Gaps".

III. Crate ERP document:

a. Prepare agenda and lead two workshops with the ERP committee.
b. Review RRA results.
c. Coordinate with partner agencies to update contact information and procedures.
d. Create the ERP report body and appendices.

One loose final paper copy and one pdf copy of the report will be provided to the City for reproduction.

IV. Terms and Conditions for Electronic File Transfers

a. Electronic files are transmitted on the terms and conditions below:

b. By opening, accessing, copying or otherwise using the transmitted electronic files, these terms and conditions are accepted by the user.

c. The electronic files are compatible with the following software packages operating on a PC using Windows operating systems:

d. AutoCAD 2017

e. Microsoft Office 365

f. Adobe Acrobat (PDF)

g. Birkhoff, Hendricks & Carter, L.L.P. does not make any warranty as to the compatibility of these files beyond the specified release of the above stated software.

h. Because data stored on electronic media can deteriorate undetected or be modified, Birkhoff, Hendricks & Carter, L.L.P. will not be held liable for completeness or correctness of electronic media.

i. The electronic files are instruments of our service. Where there is a conflict between the hard copy drawings and the electronic files, Birkhoff, Hendricks & Carter, L.L.P.'s hard copy file will govern in all cases.

j. Electronic files may only be modified in accordance with the Texas Engineering Practice Act for modifying another Engineer's design.

V. Exclusions

The intent of this scope of services is to include only the services specifically listed herein and no others. Services specifically excluded from this scope of services include, but are not necessarily limited to the following:

A. Consulting services by others not included in Scope of Services.

B. Fiduciary responsibility to the Client.

C. Risk assessment of wastewater facilities.

EXHIBIT B

PAYMENT SCHEDULE

Payment for Professional Services described under Part A (I through Part X) and Part B (I Through III) shall be on a lump sum basis.

The maximum overall fee established herein shall not be exceeded without written authorization from the City, based on increased scope of services.

The following is a summary of the estimated charges for the various elements of the proposed services:

PART A – RISK AND RESILIENCE ANALYSIS (RRA)

I - Kickoff / Data Collection/Setup	$4,000
II - Asset Characterization	$2,475
III – Threat Characterization	$2,900
IV - Consequence Analysis	$2,900
V - Vulnerability Analysis	$2,250
VI – Threat Analysis	$2,350
VII – Risk & Resilience Analysis	$2,100
VIII – Risk Management Strategies	$1,500
IX – Cybersecurity Analysis	$5,000
X – Project Summary Report & Certification	$1,585
SUBTOTAL:	**$27,060**

PART B – EMERGENCY RESPONSE PLAN (ERP)

I - Kickoff / Data Collection	$2,800
II – Determine ERP Requirements	$5,850
III – Amendment to Existing ERP	$4,000
SUBTOTAL:	**$12,650**

LUMP SUM NOT TO EXCEED TOTAL: $39,710

EXHIBIT "C"

MEETING SCHEDULE

City shall schedule all meetings, meeting time and conference room upon Notice to Proceed.

PART A – RISK AND RESILIENCE ANALYSIS (RRA)

Council Action	February 16, 2021
Notice to Proceed	February 17, 2021
Part I - Kick Off / Begin Cybersecurity Analysis/Setup	February 23, 2021
Part II – Asset Characterization	March 2, 2021
Part III – Threat Characterization	March 9, 2021
Part IV – Consequence Analysis	March 16, 2021
Part V – Vulnerability Analysis	April 23, 2021
Part VI – Threat Analysis	April 23, 2021
Part VII – Risk & Resilience Analysis	May 7, 2021
Part VIII – Risk & Resilience Management Strategy	May 14, 2021
Part IX – Cybersecurity Analysis	May 7 - 14, 2021
Part X – RRA summary and Report	June 17, 2001
Submit Certification of RRA Completion to EPA	June 30, 2021

PART B – EMERGENCY RESPONSE PLAN (ERP)

Notice to Proceed	July 1, 2021
Part I - Kick Off / Data Gathering	August 5, 2021
Part II – Update ERP to Include AWIA Provisions	October 7, 2021
Part III – Update ERP Document	November 4, 2021
Submit Certification of ERP Completion to EPA	December 31, 2021

Dates are subject to change based on Notice to proceed dates and availability of the RRA committee to attend meetings.

EXHIBIT "D"

SUB-CONSULTANTS

Cybersecurity Enhancements and Opinions of Cost

John Segovia
Texas Industrial Solutions
817-901-4646