EXPRESSION OF INTEREST

State of West Virginia

DIVISION OF NATURAL RESOURCES
324 4TH AVENUE
SOUTH CHARLESTON, WV 25303-1228

RECEIVED
2019 FEB 22 PM 1:05
WV PURCHASING DIVISION

Due by 1:30 PM on February 22, 2019

Professional A/E Consulting Services
Cass Scenic Railroad State Park:
Wastewater Collection and Treatment Improvements
AEOI 0310 DNR19*02

Civil & Environmental Consultants, Inc.

Cass Scenic Railroad State Park:
Wastewater Collection and Treatment Improvements

West Virginia Division of Natural Resources

EXPRESSION OF INTEREST

CEC | BRIDGEPORT
600 Marketplace Ave., Suite 200
Bridgeport, WV 26330
P. 855-488-9539
www.cecinc.com

Table of Contents

Appendices

1.0 Firm Overview

Civil & Environmental Consultants, Inc. (CEC) provides comprehensive market-oriented consulting services that advance client strategic business objectives. Consistently ranked among the Top 500 Design Firms and Top 200 Environmental Firms by Engineering News-Record, CEC is recognized for providing innovative design solutions and integrated expertise in the primary practice areas of civil engineering, ecological sciences, environmental engineering and sciences, survey, waste management and water resources.

CEC was founded in Pittsburgh in 1989 by four individuals (three engineers and one geologist) with varying backgrounds. In its beginning stages, CEC focused on providing engineering consulting services. Over the years, CEC added new practices, expanded service offerings and opened regional offices – all with a focus on client satisfaction. Today, CEC has 24 offices and more than 950 employees nationwide. This project will be staffed out of our Bridgeport, WV office in which we have 107 employees and the time to dedicate to this project.

Embedded within our approach for delivering exceptional services is the fact that CEC professionals embrace and are guided by the firm's three core principles: Senior Leadership, Integrated Services, and Personal Business Relationships.

Senior Leadership

he CEC Team will advocate the use of senior leadership in working with the WVDNR. Having senior level staff working on all of our projects results in early identification of potential issues and allows for value engineering to be continuously incorporated into a project. Although senior leadership rarely equates to traditional cost savings, it often results in budget and schedule control that minimizes the risk for costly design overruns and mistakes. Additionally, senior leadership allows for good communication and maximizes the potential for a positive project experience.

Integrated Services

One of CEC's core company goals is service excellence. In order to create excellent service, CEC takes a hands-on approach to our projects with our clients. We start by identifying the client's goals and looking at each project as if it is a new stream or wetland that we have never seen before and identify clear opportunities to conserve, enhance, or restore our natural resources. Next, we see if the identified opportunities are feasible for design, construction, and functional geomorphological and ecological uplifts. Identifying opportunities and goals of the client help clearly define a scope for the project, create a schedule, and assign responsibilities and ongoing support.

Our successful field work, design, and permitting is based on CEC's personal knowledge, experience, and understanding through past projects, along with our ability to be open minded and try new techniques as technology changes (i.e. using custom sub-assemblies in AutoCAD Civil 3D during the design, professional grade unmanned aerial aircraft (i.e. drone) LiDAR, bathymetric remote-controlled boat surveys, and 3D laser scanning during survey in order to provide clients more accurate data and increased efficiency). CEC has worked for a wide range of clients (public or private) with different stream restoration needs. Many of these clients have had challenging projects and demanding schedules. With these challenging and demanding projects, our team has been able to invent and innovate new ways to provide clients more accurate data in a more efficient manner.

Personal Business Relationships

CEC's approach to personal business relationships takes place on two fronts: with members of the regulatory community and with our clients. CEC maintains and is able to leverage established, long-standing close relationships with local, state and federal regulatory officials in an effort to streamline permitting processes. CEC navigates complex project permitting programs using these professional working relationships and is willing to challenge regulators to think outside the box as we are helping clients negotiate with regulatory agencies.

On the client side, CEC develops its business relationships through superior project performance. To enhance our understanding of the client's unique needs, CEC stays in front of emerging issues through active participation in industry associations and strategically adds industry experts to our staff who drive us to deliver services from the owner's perspective. With robust knowledge of our clients' business, CEC is able to put itself in the clients' shoes and make recommendations from their strategic vantage point. Having this personal knowledge of their business allows CEC to not only advocate for the client's best interests, but also anticipate their needs, and we will frequently broaden or establish new services to respond to those needs. But more than that, we consider our clients to be peers and friends, making ourselves accessible, being responsive, and operating with integrity. Because of that personal approach, we hold ourselves to a higher standard of accountability and responsibility for results.

2.0 Personnel Qualifications

CEC is proud to offer water and wastewater design capabilities in West Virginia with over 81 years of combined experience for the project team in the firm's Bridgeport, WV office. Detailed resumes for each of the following Key Personnel have been included in Appendix B.

Matthew Fluharty, P.E. – Project Manager

Mr. Fluharty has over 19 years of experience in the engineering and consulting industry servicing private commercial and industrial, Oil and Gas, and government sectors. His project practice focus includes design and engineering of fluid hydraulics, hydraulic modeling and treatment systems, Mr. Fluharty's engineering experience includes: detailed engineering including water pipelines and pumping stations, water storage tanks, plant layouts, equipment sizing and selection, hydraulics analysis; plans and specifications for bidding and construction; engineering cost estimating including project control-level budgeting and life-cycle costs; bidding and procurement; project planning and permitting. He has worked with a variety of projects including: wastewaters, raw waters, produced waters, and brine water.

Erasmo Rizo – Assistant Project Manager

Mr. Rizo, Project Manager, has more than 13 years of experience in urban land, transportation engineering, oil and gas, and public utilities. He has performed site layout, profiles, cross sections, grading, earthwork analysis, drainage, water lines, hydraulic analysis, and erosion and sediment control for numerous projects. Mr. Rizo's project experience for the Oil and Gas industry includes design and quality assurance of pipelines, well pads and associated pits & impoundments, and ASTs. He has permitting experience for Army Corp of Engineers, state DOH and environmental permits. His water and wastewater project experience includes emergency action plan review, HEC-RAS modeling, stormwater detention and retention modeling and analysis, dam observation and inspections. Mr. Rizo has also directed a sanitary sewer department, which include the wastewater treatment plant, the collections system for sanitary sewer and stormwater, and the maintenance section. Mr. Rizo also served in the Army National Guard as a part of the maintenance and recovery section. He held first-line leader responsibilities, and served in Operation Iraqi Freedom II.

Steve A. Cain, P.E. – Quality Assurance / Quality Control

Mr. Cain, a professional engineer with CEC, has more than 25 years of experience in civil engineering design and project management. His experience in civil engineering design encompasses many aspects of civil engineering design including land surveying, mapping, site development, sanitary sewer system design, storm sewer system design, potable water distribution system design and hydraulic modeling. Additionally, Mr. Cain also has experience in water treatment system design and rehabilitation as well as wastewater treatment design. Mr. Cain has also spent a large part of his career in managing projects from conception to completion. As a project manager he has assisted clients in identifying potential project needs, assisting the client in securing project funds, performed and directed detail design, and participated in and managed construction activities.

Jason B. Heflin – Designer / Permitting

Mr. Heflin has over 23 years of experience working under engineers as a utility designer in West Virginia. His design experience has been in sanitary and wastewater treatment plant designs. His experience ranges from updating existing aging facilities to new start of the art systems. To add to his extensive sanitary and wastewater designs, Mr. Heflin also has experience in the water industry with lines and plants.

3.0 Project Experience

CEC is located in strategically located in North Central West Virginia in the City of Bridgeport adjacent to I-79. CEC is a full-service engineering firm that supports our clients by providing civil, environmental, and survey services to clients in the public sector as well as the mining, oil and gas, and real estate industries.

3a. Wastewater Experience

Lost River State Park Sewer Project

Lost River State Park – Mathias, West Virginia
Contact: Lost River State Park – (304) 897-5372
Project Technical Lead: Steve Cain
This project consisted of the design of a sanitary collection treatment system to service rental cabins, restaurant, and permanent staff residents at Lost River State Park in Mathias, WV. The design included the preparation of construction plans and specifications for over 6000 LF of gravity collection lines and the design of a 15,000 GPD package sewage treatment plant.

Town of Flemington Sewer Improvements Project

Town of Flemington – Taylor County, West Virginia
Contact: Town of Flemington – (304) 739-4402
Project Technical Lead: Steve Cain
The project consisted of the preparation of the preliminary engineering report, funding applications, overall design, bidding documents with technical specifications, bidding procedures, construction engineering, and budget control for a sanitary sewer collection and treatment system. The project replaced nearly six miles of gravity and pressure collections lines. The project also included the design and construction of four sewage lift stations and a 50,000-GPD extended aeration wastewater treatment plant. Other responsibilities included the acquiring of a wasteload allocation permit, West Virginia Public Service Commission certificate, West Virginia Division of Environmental Protection National Pollutant Discharge Elimination System permit, West Virginia Division of Highways permit and all other permits necessary for construction.

City of Shinnston Sanitary Sewer Improvements – Phase I

City of Shinnston – Harrison County, West Virginia
Contact: Debra Herndon – (304) 592-5631
Project Technical Lead: Steve Cain
This project included the preliminary and final engineering design services for the sanitary sewer system improvements for the City of Shinnston Sanitary Board. The project consisted of the study of the city's entire sanitary sewer system and identifying areas where significant amounts of inflow and infiltration were entering the sanitary sewer system and proposing corrective action. Preliminary engineering services included extensive sanitary sewer evaluation surveys, which included detailed field inspections of existing facilities, smoke and dye testing, flow monitoring, line videos, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design of accepted alternatives, bid package preparation, construction management and inspection services, and as-built drawing preparation were also part of this project.

Pea Ridge PSD Sanitary Sewer System Improvements and Upgrades

Pea Ridge PSD – Cabell County, West Virginia
Contact: Pea Ridge PSD – (304) 736-6711
Project Technical Lead: Steve Cain

The Pea Ridge PSD Sanitary Sewer System Improvements and Upgrades project consisted of the planning and design of a $10M sanitary sewer system upgrades and improvements project. The project included the design and construction management of a 0.85 MGD and a 0.35MGD sewer treatment plant upgrades, including installation of new UV Disinfection systems, sludge lime applicator, replacement of existing aeration tank, fine bubble air diffusers, replacement of existing mechanical bar screens, grit removal systems, and centrifugal air blowers. The project also included the design for rehabilitation of several thousand LF of existing gravity sewer line, the rehabilitation and/or replacement of several existing manholes, replacement and upgrade of over 3,500 LF of 10-inch force main, and the upgrades to over ten existing lift stations. The Project also included the design of several thousand LF of new gravity sewer line, six-inch force main, and four new lift stations to provide sanitary sewer service to over 250 customers.

4.0 Client References

Mr. Dave Sago
City of Fairmont
Utilities Manager
(304) 366-6231

Matt Hourihan
Chemung County Sewer District
Executive Director
607-331-3750

Rick Scott
Town of Lumberport
Mayor
304-669-0099

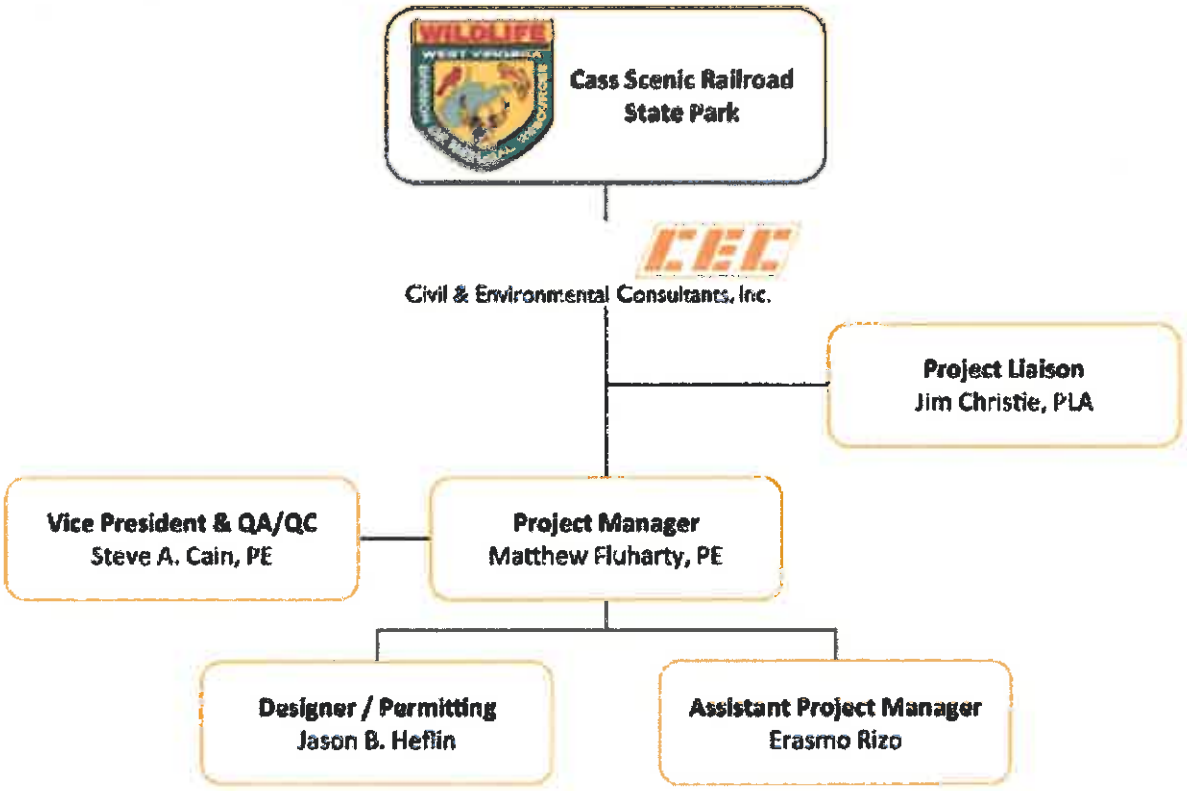
Jerry Arnold
City of Buckhannon
Director of public works
(304) 924-5698

Ms. Kim Mayne
Alpine Lake Public Utilities Company
General Manager
(304) 789-6996

5.0 Personnel Certifications

KEY PERSONNEL	PROJECT ROLE	EDUCATION	REGISTRATIONS / CERTIFICATIONS
Matthew Fluharty	Project Manager	B.S., Civil Engineering, West Virginia University	Professional Engineer – WV 16375, PA PE076002, MD 33491, OH 75521
Erasmo Rizo	Assistant Project Manager	B.S., Civil Engineering Technology, West Virginia Institute of Technology	10-hour Construction Safety SafeLand USA - Basic Orientation Certified Wastewater Treatment Plant Operator Class II Nuclear Gauge
Steve A. Cain, P.E.	Quality Assurance / Quality Control	B.S., Engineering Technology, Fairmont State University	Professional Engineer - WV 15264, PA PE056215, MD 33727
Jason B. Heflin	Designer / Permitting	A.S., Applied Science, West Virginia University of Parkersburg	

6.0 Staffing Plan / Organizational Chart



7.0 Project Planning

7a. Communication

CEC takes communication seriously with our clients. It is a large part of a successful project. Communication between our organizations will primarily consist of e-mail, regular mail, telephone conversations, project conference including file sharing calls, file-transfer protocol sites and project face-to-face meetings. These same forms of communication will also be used to communicate between CEC offices and between CEC and our team members.

Project deliverables have been provided in conjunction with these forms of communications, either electronically or in hard copy. These forms of communication will continue to be utilized to provide the services requested by the West Virginia DNR.

In addition to the aforementioned methods of communication, CEC has implemented the CEC*Go!* project delivery system, which allows CEC personnel to provide an improved, value-added experience for clients over the course of a project's life with functionality beyond that of the limited file-sharing/delivery systems in use today, such as Dropbox or an FTP site.

In addition to the aforementioned methods of communication, CEC has implemented the CEC*Go!* project delivery system, which allows CEC personnel to provide an improved, value-added experience for clients

over the course of a project's life with functionality beyond that of the limited file-sharing/delivery systems in use today, such as Dropbox or an FTP site.

CEC*Go!* serves as a one-stop solution for sharing and accessing project data and deliverables in real time, replacing the need to manage multiple traditional sources that house draft and final documents, datasets, CAD drawing files, photographs, renderings, Revit models, videos and multi-media files, and any other electronic project-related asset. Clients now have a singular point of access available at any time, from anywhere, on any device with an internet connection. CEC*Go!* brings your project's information to you, wherever you are.

The CEC*Go!* Dashboard

Managing and accessing your project's latest information by searching through a collection of various past emails, hyperlinks, and services with individual logins can be time consuming, especially when not at your desk. Project-relevant tools and deliverables can now be combined into one maintained, secure, and reliable website with an intuitive easy-to-navigate single-page dashboard. The CEC*Go!* client dashboard makes CEC's Site Intelligence mapping, UAV videos, mobile 3D models, CAD Files, and traditional PDF documents and reports easily accessible by scanning a QR code, clicking your CEC*Go!* desktop icon, or via an individualized web address bookmarked in your internet browser.

Customization

The CEC*Go!* dashboard can support snap-in fields to create a custom-tailored landing page that presents only the information you need most – whether you have engaged CEC for one large-scale project or a multitude of smaller-scale projects over time. Examples of items that can be accessible via the dashboard:

- **Documents – Reports, Word files, Excel files, PowerPoint presentations, PDFs, etc.**
- **Drawings Sets – PDF/DWF of submitted drawing sets**
- **Design Files – CAD files, Revit files, 3D laser scans, UAV collected data, etc.**
- **Interactive 3D Models – Augmented Reality/Virtual Reality for use in the field with a mobile device or VR goggles**
- **Project-related photographs**
- **Renderings – 2D rendered plans**
- **Videos & Animations – Fly-throughs, footage from UAVs, 3D models, etc.**
- **Meetings – Pertinent meeting info (plans and documents); Links to Skype, GoToMeeting, etc.**
- **CEC's Site Intelligence mapping – Link to ArcGIS online and related mapping**

Mobility

The dashboard eliminates the need to send or download enormous files. An embedded viewer allows clients to access, view, and share their dynamic 3D renderings and models without the need to own the expensive software to run the programs that created these deliverables in the first place.

Clients can enjoy the benefits of utilizing the latest technologies through the simplicity of a browser. Using available tools such as web-based GIS, 3D modeling software, or Augmented Reality scenes together with mobile/location technologies,

clients can go to their proposed sites and view their project concepts in place where and how they are envisioned or slated to be constructed. Imagine standing on an empty site or in a busy urban block with stakeholders and viewing a 3D flyover of your proposed project using an embedded viewer.

Interactive Two-Way Street

With upload capabilities for clients, the dashboard creates a virtual environment for sharing, communication and dialogue. Here, clients and CEC can interact with dynamic information and the latest technological models. Clients can also share access to and send information from CECGo! so that their own stakeholders and team members are connected to the latest details.

7b. Budget Management

CEC has written quality policies that are provided to all employees; these policies define critical work quality and internal control procedures. Employees are instructed and required to record hours worked daily in the Deltek system and each employee-prepared time sheet is reviewed and approved by a system defined supervisor. Project management personnel have online access to project budgets, project cost and hours, billing and accounts receivable information. In addition to online access, each month the Accounting Department distributes to the project manager and principal-in-charge copies of a summary project status report showing budget and actual project information.

Project cost controls are provided by our fully integrated accounting system. The management information system is used to compile and control costs by project and by task, independent of personnel used, or their office location. Costs specific to the project are consolidated by accounting and verified by the CEC project manager for accuracy. Further accounting control is provided for monthly reviews of all projects. The costs incurred are compared to progress on the projects to confirm that the expenditures of budgeted funds correlate to the overall progress on the projects.

7c. Schedule Adherence

CEC professionals pride themselves on providing superior service to all of our clients. CEC understands that providing superior service means completing high quality work in a timely and cost effective manner. In order to insure this happens, CEC maintains a Quality Assurance Program (QAP) that addresses the various aspects of its professional, technical and support activities. It is the objective of this program to maintain the quality of all company activities, particularly service to clients. This program is subject to continuing review, and modifications are made as required to reflect changes in company organization or operation, or to clarify or improve the program.

All of our offices follow a company-wide set of quality standards that focus on document and drawing preparation, work procedure and equipment use, employee and project safety, project management and records as well as communications and client confidentiality. These quality standards are reviewed and revised by a multi-office team of experienced professionals, on a regular basis. This multi office team is tasked with understanding and improving our internal standards while looking to our clients and project services to track and implement new and changing trends and standards.

Our goal and objective is a consistent delivery of quality services driven by our people, focused on our clients. CEC maintains a QA/QC program with approvals noted by an internal sign-off procedure. Proposals, reports, drawings, specifications and project communication letters have two signatures. The review and signature process is outlined in the QAP, with senior managers in the firm who have technical expertise responsible for review and signoff on deliverables. It is CEC's policy for senior managers to hand sign all reports, letters and other documents issued by CEC to indicate completed review and approval.

7d. Professional Capabilities

Wastewater

Wastewater is often complex, variable and difficult to treat. Successful systems often involve more than one technology or approval. CEC serves municipalities, utilities, private and industrial clients with determining appropriate technologies by conducting bench-scale and pilot-scale tests in our Treatability Laboratories or on-site. The design team provides assistance ranging from initial studies, through to complete project design and production of bid-ready documents that can apply to:

- Wastewater Treatment Design & Permitting
- Wastewater Pump Stations & Force mains
- Metals Removal Treatment System for Landfill Leachates
- Expansion and Upgrades of the Municipal WWTP
- Design-Build Leachate Pretreatment Plant
- Landfill Leachate Nitrification Treatment System
- Water Filtration System
- Water Treatment System Upgrade Evaluation
- Wastewater Treatment System Improvements
- Wastewater Collection Systems
- Water Treatment, Storage & Distribution
- Leachate Pretreatment Plant Design and Treatment Study
- Various On-Site Wastewater Treatment Plants for Travel Centers
- Design-Build Expansion and Upgrades of Leachate Pretreatment Plants
- Leachate Treatment Wetland
- WWTP Influent Pump Station Upgrade
- Sanitary and Landfill Leachate Force Mains and Pump Stations

Investigation & Treatment Technologies

CEC's experience with designing, building and operating treatment plants and in-depth knowledge of the complex processes and critical details provide the basis for the resultant impact on treatment solutions for new and retrofitted treatment facilities.

Physical Chemical Technologies

- pH
- Solids removal
- Ion exchange
- Air stripping
- Membrane Technology
- Oxidation Technologies

Biologic Treatment

- Aerobic-fixed film & supported growth
- Anaerobic systems
- Nitrogen removal
- Residual organic removal
- Selenium treatment
- Solids dewatering & management

Passive Systems

- Surface flow wetlands
- Vertical flow wetlands
- Subsurface flow wetlands
- Vertical biochemical
- Sulfite reducing reactors
- Phyto-remediation systems

Pump Stations

Pumping stations are used to boost area pressures and to separate pressure zones hydraulically. This commonly occurs in larger systems or when surface topography reduces area pressures significantly. CEC analyzes the community's specific needs and designs in-line booster pumps or pump stations with associated ground or elevated storage to increase area pressures. Reservoir usage can be enhanced by adding recreational features such as picnic areas, trails, or boat launches, and ecological features such as fish reefs and spawning areas.

7e. Supplemental Firm Capabilities

AIR QUALITY

- Air Emissions Testing
- Air Compliance and Permitting
- Greenhouse Gas Reporting
- Air Dispersion Modeling
- Vapor Intrusion Analysis

CIVIL ENGINEERING

- Predevelopment Site Investigations
- Stormwater Management / BMP Design
- Erosion & Sedimentation Control / NPDES Permitting
- Utility Design
- Site Infrastructure Maintenance / Rehabilitation
- Geotechnical Engineering
- Site Grading / Earthwork Analysis
- Slope Stability/Retaining Structure Design
- Landslide Assessment/Remediation
- Pavement Evaluation and Rehabilitation
- ADA Accessibility Analysis
- Integrated Project Delivery
- Traffic Engineering
- Transportation Planning
- Traffic Signal Design
- Roadway Design
- Landscape Architecture
- Sustainability Planning / Design

ECOLOGICAL SCIENCES

- Wetlands and Waters Delineations
- Clean Water Act, Section 401/404 Permitting
- Ecosystem Restoration
- Soil Science & Phytoremediation
- Water Quality & Sediment Surveys
- Threatened & Endangered Species Surveys/ Wildlife Surveys
- Fish & Macroinvertebrate Surveys
- Aquatic & Terrestrial Habitat Surveys
- Clean Water Act, 316 (a) & (b) Permitting
- Wetland & Stream Mitigation Design
- Ecological Risk Assessment & Land Restoration
- Wetland AMD Treatment

ENVIRONMENTAL ENGINEERING AND SCIENCES

- Auditing & Compliance Plans
- Phase I & II Assessments
- Property Condition Assessments
- Site Characterization
- Risk Assessments
- RCRA/CERCLA
- Brownfield Redevelopment Services
- Soil/Groundwater Remediation Systems
- Groundwater Monitoring & Assessment
- Hydrogeology & Groundwater Modeling
- Stormwater Sampling & Permitting
- NPDES Permitting Support
- Environmental Management Systems Development

SURVEYING

- Topographic Surveys
- ALTA NSPS Land Title Surveys
- Boundary Retracement Surveys
- Horizontal & Vertical Control Surveys
- 3-D Scanning Services
- Volumetric Surveys
- Construction Surveys / Staking
- Oil and Gas Pipeline Surveys
- Unmanned Aerial Services
- Highway R/W Surveys
- As-built Surveys
- Bathymetric/Hydrographic Surveys
- LiDAR Surveys – Short and Long Range

WASTE MANAGEMENT

- Site Selection and Characterization
- Merger & Acquisition Due Diligence
- Landfill Design & Permitting
- Transfer Station & MRF Design & Permitting
- Hydrogeologic Site Investigations
- Environmental Monitoring/Compliance
- Leachate Management and Treatment
- Air Compliance & Permitting
- Landfill Gas Management
- LFGTE and Renewables
- O & M of Control Systems
- CCR & Industrial Waste Management
- Waste Characterization
- Facility Operations Audits and Consulting
- Construction Quality Assurance

WATER RESOURCES

- Stormwater BMP Design & Inspections
- Compliance Audits
- NPDES Permit Negotiation
- Watershed Planning & Restoration
- Flood Routing and FEMA Map Revisions
- TMDL Modeling & Monitoring
- Water Quality & Quantity Modeling
- Low Impact Development Design
- Erosion & Sediment Control Design and Inspection
- Water Quality BMP Testing
- Stream Assessments & Restoration
- Stormwater Piping & Culvert Inspections
- Municipal Water & Wastewater Treatment
- Industrial Process Water Design
- Industrial Wastewater Treatment

SPECIALTY SERVICES

- Cultural Resource Management
- Architectural History Investigations
- Archaeological Investigations
- GPS / GIS Services
- Web and Mobile Application Development
- Asset and Information Management
- Economic Master Plans
- Facility Master Plans
- Site Selection Studies
- Airport –Related Development Planning
- Site Capacity / Development Feasibility
- Site Reuse Planning
- Business Attraction Strategies
- Structural Engineering
- Forensic Engineering
- Expert Witness Testimony
- Design/Build Services
- Construction Services
- Construction Management
- IBC Inspection Services

8.0 Project Objectives and Goals

CEC's project understanding includes the EOI's goals and objectives but with our experience in these types of projects, it is essential for a project kickoff meeting with all of the stakeholders involved to truly create detailed goals and objectives along with proper scope of work, services needed and schedule. CEC finds an organized project is a successful project and ongoing consistent communication during all aspects of the project will eventually lead to successfully completing the project goals in objectives.

CEC's understanding of the project includes the evaluation of the current system, understanding of future needs, preliminary design, final design and construction management for the replacement of a wastewater treatment system for the existing aging treatment system in place at Cass Scenic Railroad State Park.

CEC's experience with the design of wastewater collection, transmission and treatment systems allows CEC the capabilities of using the newest technologies to provide the most effective solutions to Cass Scenic Railroad State park. The new or updated treatment facility will be recommended upon further evaluation of the existing system, future needs and allowable stream loading for the treatment facility. The proposed facility will be constructed separately from the existing facility in order to allow Cass Scenic Railroad State Park to operate normally until the proposed plant is completed. Once the proposed plant is completed, it can then be brought online to allow for a seamless transition from the old plant to the new to minimize the disruption of the Cass Scenic Railroad State park's daily operations.

CEC looks forward to establishing its professional working relationship with the West Virginia Division of Natural Resources, Cass Scenic Railroad State Park and to execute the successful completion of this project.

EOI Stated Goals and Objectives:

Goal/Objective 1: Review existing plans and conditions as well as the operation of the park and evaluate while communicating effectively with the owner to determine a plan that can be implemented in a manner that will minimize disruption to concurrent operation of the facility and meet all objectives.

Goal/Objective 2: As a portion of this process outlined in Objective 1, provide all necessary services to design the facilities described in this EOI in a manner that is consistent with The Division of Natural Resources needs, objectives, current law, and current code; while following the plan to design and execute the project within the project budget.

Goal/Objective 3: Provide Construction Contract Administration Services with competent professionals that ensures the project is constructed and functions as designed

Appendix A

Executed RFQ/Addendum Documentation

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Steven A. Cain -Vice President
(Name, Title)
Steven A. Cain -Vice President
(Printed Name and Title)
600 Marketplace Avenue, Suite 200, Bridgeport, WV 26330
(Address)
304-933-3119 / 304-933-3327
(Phone Number) / (Fax Number)
SCain@cecinc.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Civil & Environmental Consultants, Inc.
(Company)

Steven A. Cain -Vice President
(Authorized Signature) (Representative Name, Title)

Steven A. Cain -Vice President
(Printed Name and Title of Authorized Representative)

February 22, 2019
(Date)

304-933-3119 / 304-933-3327
(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

- ☐ Addendum No. 1
- ☐ Addendum No. 2
- ☐ Addendum No. 3
- ☐ Addendum No. 4
- ☐ Addendum No. 5
- ☐ Addendum No. 6
- ☐ Addendum No. 7
- ☐ Addendum No. 8
- ☐ Addendum No. 9
- ☐ Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Civil & Environmental Consultants, Inc.
Company

Authorized Signature

February 22, 2019
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Civil & Environmental Consultants, Inc.

Authorized Signature: _____ Date: February 22, 2019

State of West Virginia

County of Harrison, to-wit:

Taken, subscribed, and sworn to before me this 22 day of February, 2019.

My Commission expires March 24, 2021.

NOTARY PUBLIC OFFICIAL SEAL
STATE OF WEST VIRGINIA
JEFFREY JACOBS
State of West Virginia
My Comm. Expires Mar 24, 2021
Civil & Environmental Consultants Inc
500 Morgantown Suite 200
Bridgeport WV 26330

NOTARY PUBLIC _____

Appendix B

Key Personnel Detailed Resumes

Matthew Fluharty, P.E.

Principal

Mr. Fluharty has over 19 years of experience in the engineering and consulting industry servicing private commercial and industrial, Oil and Gas, and government sectors. His project practice focus includes design and engineering of fluid hydraulics, hydraulic modeling and treatment systems.

Mr. Fluharty's engineering experience includes: detailed engineering including water pipelines and pumping stations, water storage tanks, plant layouts, equipment sizing and selection, hydraulics analysis; plans and specifications for bidding and construction; engineering cost estimating including project control-level budgeting and life-cycle costs; bidding and procurement; project planning and permitting. He has worked with a variety of projects including: wastewaters, raw waters, produced waters, and brine water.

EDUCATION

B.S., Civil Engineering, West Virginia University

REGISTRATIONS

Professional Engineer

- *WV* [redacted]
- *PA* [redacted]
- *MD*
- *OH* [redacted]

CERTIFICATIONS

10-hour Construction Safety

SafeLand USA - Basic Orientation

Aggregate Certified Technician

Certified Compaction Technician

Certified Concrete Field Testing Technician

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

American Water Works Association

PROJECT EXPERIENCE

Well Water System Analysis, Curtiss Wright, Cheswick, PA

Completed a water system analysis of the current water well system that provides water for testing loops throughout the facility. Water system analysis consisted of gathering field information and building a hydraulic model using KY Pipe 2018 software to determine flow restrictions and low pressures while the system is operations. With the results of this analysis I was able to provide recommendations needed to correct the problems currently happening with the water system.

Natural Gas Fired Power Station

Power Station, Harrison County Power, LLC, Clarksburg, Harrison County, WV

Assisted with the development, planning, permitting, and West Virginia Public Service Commission - Siting Certificate for proposed new 500 MW natural gas fired power station that is proposed for construction near Clarksburg, WV.

Brooke County Power Station, Brooke County Power, LLC, Follansbee, Brooke County, WV

Assisted with the development, planning, permitting, and West Virginia Public Service Commission - Siting Certificate for proposed new 500 MW natural gas fired power station that is proposed for construction.

Oil and Gas

Ohio River Intake Pump Station and Water Line, Range Resources, Beech Bottom, Brooke County, WV*

Served as Project Manager to manage and direct the design, construction, and permitting for a 2,500 GPM water intake pump station and 10 miles of 20" HDPE water line to provide water for natural gas development.

West Fork Water Intake Pump Station, Antero Resources, Good Hope, Harrison County, WV*

Served as Project Manager to manage and direct the design, construction, and permitting for a 3,000 GPM water intake pump station and 8 miles of 24" HDPE water line to provide water for natural gas development.

Brine Water Treatment Facility, Appalachian Oil Producers (AOP Clearwater), Fairmont, Marion County, WV

As Construction Project Manager, oversaw the civil construction of a new state-of-the-art treatment facility to treat bine water that was a byproduct of drilling Marcellus Shale natural gas well. Project included earthwork, access road and building pads, lined impoundments, truck offloading facility, treatment plant, and utilities.

Grave Creek Water Intake Pump Station and Water System, Chevron, Moundsville, Marshal County, WV

Served as Project Manager to manage and direct the design, construction, and permitting for a 2,800 GPM water intake pump station and 50 miles of 20" HDPE water line to provide water for natural gas development throughout Marshall County WV.

Public Utilities - Water and Wastewater

Booster Pump Station, Melanson Bros. Inc., Lancaster, MA

Designed a 44 GPM constant pressure water booster pump that included a 750 GPM fire pump to provide water service and fire protection to a new residential development located near Lancaster, MA. Design included building a hydraulic model of the proposed water system using KY Pipe 2018. With the completed model I was able to ensure adequate pressures and flow rates for various operational conditions as well as ensure adequate flows for fire protection.

Masontown 0.5 MGD SBR Wastewater Treatment Plant, Town of Masontown, Masontown, Preston County, WV

Served as Project Manager and was responsible for the project funding, design, permitting, and construction for a 0.5 MGD SBR Wastewater Treatment Plant to replace an existing outdated 0.2 MGD BioLac treatment plant.

Engineer, Clarksburg Water Board, Clarksburg, Harrison County, WV*

Severed as General Engineer for the Clarksburg Water Board on various projects and tasks. Related projects, Perry Hollow water line extension, Cedar Heights water system improvements, water storage tank rehabilitation, Chestnut Street water line replacement, Farland Avenue River Crossing, VA Park river crossing, Upgrades to electrical generator for 20 MGD water treatment plant, replacement of 8,000 water meters with automatic read

Wastewater Collection System Improvement, Extension, and WWTP Improvments, City of Kingwood, Kingwood, Preston County, WV*

Served as Project Manager for a $16 million dollar project that included 1.3 MGD wastewater treatment plant upgrades, wastewater collection system replacement and extensions, and new wastewater pumping stations. Was responsible for the project funding, design, permitting, and construction.

Water Line Extension Project, Masontown Water Works, Masontown, Preston County, WV*

Water line extension project involving 15 miles of water line to extend to 90 new customers. Project also involves adding additional 250,000 gallon water storage tank, 200 GPM booster pump station, solenoid operated pressure reducing valve station, and telemetering system.

1.2M Gallon Water Storage Tank Replacement, Kingwood Water Works, Kingwood, Preston County, WV*

Project involves the replacement of an existing water storage tank with a new 1,200,000 gallon water storage tank and valve vault, and a new 100 GPM constant pressure booster station.

Southern Lewis County Water Line Extension Project, Lewis County Commission and Lewis County EDA, Weston, Lewis County, WV*

Water line extension project involving approximately 42 miles of water line to serve 400 new customers. Project involved two (2) new 100,000 gallon glass-lined bolted steel water tanks and a 200 GPM booster pump station. Project provided water service along Georgetown Road to US RT 119 and served the communities of Walkersville, Ireland, Duffy, and Vandalia.

State Route 5 Water Line Extension Project, Gilmer County Public Service District, Glenville, Gilmer County, WV*

Water line extension project to extend water service throughout Gilmer County. Project involved the construction of 19 miles of water line to serve 115 new customers.

Freemansburg Water Line Extension Project, Lewis County Commission and Lewis County EDA, Weston, Lewis County, WV

Water line extension project involving approximately 30 miles of water line to serve 300 new customers. Project involved a new 100,000 gallon welded steel water tank and a 100 GPM package water booster pump station, with telemetering.

Hodgesville Water Line Extension Project, Hodgesville Public Service District, Buckhannon, Upshur County, WV*

Water distribution extension involving approximately 30 miles of water line to serve 250 new customers. Project involved a new 240,000 gallon welded steel water tank and a 250 GPM package water booster pump station and telemetering system.

Emergency Water System Extension, Town of Tunnelton, Tunnelton, Preston County, WV

Emergency water line extension project to supply water to the Town of Tunnelton when their existing water wells went dry. Project included approximately 8 miles of water line, (2) 150 GPM booster pump stations, 100,000 gallon water storage tanks, solenoid controlled pressure reducing valve station, and telemetering system.

Water Treatment Plant Upgrades, City of Parsons, Parsons, Tucker County, WV

This project involved the replacement of the existing clearwell with a new 500,000 gallon glass lined water storage tank, new backwash pump station, new filter to waste piping, and new plant water pump supply system.

Charles Point Water System, Bridgeport Utility Board, Bridgeport, Harrison County, WV*

Water system extension for proposed new development of Charles Pointe and the new United Hospital Center. Project involved the construction of 16" and 12" water line distribution system, two 500,000 gallon water storage tanks, 700 GPM booster pump station, and telemetering system.

** Work performed prior to joining CEC*

Steve A. Cain, P.E.

Senior Principal

Mr. Cain, a professional engineer in CEC's Bridgeport, West Virginia office, has more than 25 years of experience in civil engineering design and project management. Steve's experience in civil engineering design encompasses many aspects of civil engineering design including land surveying, mapping, site development, sanitary sewer system design, storm sewer system design, potable water distribution system design and hydraulic modeling. Additionally, Steve also has experience in water treatment system design and rehabilitation as well as wastewater treatment design.

Mr. Cain has also spent a large part of his career in managing projects from conception to completion. And as a project manager Steve has assisted clients in identifying potential project needs, assisting the client in securing project funds, performed and directed detail design, and participated in and managed construction activities.

EDUCATION

B.S., Engineering Technology - (Civil Emphasis), Fairmont State University

REGISTRATIONS

Professional Engineer

- *WV*
- *PA*
- *MD*

PROFESSIONAL AFFILIATIONS

American Society of Highway Engineers

Fairmont State University Technology Advisory Board

West Virginia Rural Water Association

PROJECT EXPERIENCE

Public Sector

Wastewater Treatment Facility Consolidation Study, Chemung County Sewer District, Elmira, New York

Evaluated two publicly owned wastewater treatment plants and developed recommendations for upgrades based on long term reliability, improving treatment performance, and achieving compliance with Total Maximum Daily Loads (TMDLs) for total nitrogen and phosphorous, which take effect in 2025 as part of the Chesapeake Bay TMDL. Developed budgetary capital costs for two upgrade alternatives: 1) upgrading each facility separately at the current locations, and 2) abandoning the 50+ year old facility and consolidating all treatment at the location of the 30+ year old facility.

FEMA Damage Assessment for the Virgin Islands Wastewater Collection and Pumping System, Virgin Islands Waste Management Authority , US Virgin Islands

Evaluated 30 wastewater pumping stations for damage and operational issues resulting from Hurricane Maria in September of 2017. Engineering service consisted of in field inspections of all electrical components, structural components, and mechanical components to assess physical condition as it related to the storm event. Scope of work included providing detailed cost estimates and damage assessment forms to FEMA for determination of replacement costs.

Wastewater

Barry Street Sanitary Sewer Evaluation Survey (SSES), City of Fairmont, Fairmont, WV*

Steve was the Project Manager for providing SSES to determine the cause of basement flooding of 10 residents from the sanitary sewer system along Barry Street in the City of Fairmont. The work included smoke testing the Barry Street drainage shed that provides sanitary and storm sewer service to approximately 200 City of Fairmont customers to determine illegal connections to the sanitary sewer system. Steve performed dye testing and coordinated Close Circuit TV inspection services to determine the cross connections of the storm sewer to the sanitary sewer. A written report was provided summarizing the deficiencies found and provided a written recommendation for corrections that included a preliminary cost estimate for construction.

Sanitary Sewer Improvements Phase II, City of Shinnston, Shinnston, WV*

Steve was the Project Manager for the preliminary and final engineering design services for the sanitary sewer system extensions for the Shinnston Sanitary Board. The project consists of the extension of gravity sewer collection and transmission system into areas outside of the City of Shinnston corporate limits to provide public wastewater treatment to approximately 170 new customers. The project area encompasses areas know as Drain Hill, WV20

(Haywood Road), Gypsy Hill, and Gypsy Hill Road. The new system will include six new duplex pump stations and will transport customer wastewater to the City of Shinnston existing wastewater treatment plant.

Sanitary Sewer Improvement Project, City of Grafton, Grafton, WV*

Steve was the Project Engineer for investigating and recommending sanitary sewer improvements that were necessary for compliance with the City of Grafton's Long Term Control Plan (LTCP). The planned improvements included the installation of a new sanitary collection system in the older downtown area of the city that currently has a combined storm/sanitary system. The project will include approximately 10,000 LF of line installation, along with 54 manholes.

Wastewater System Improvements, Town of Franklin, Franklin, WV*

Steve prepared for submission to the West Virginia Infrastructure Jobs and Development Council for a preliminary engineering report detailing the proposed upgrades and improvements to the Town of Franklin's existing 200,000 GPD lagoon system wastewater treatment plant. The project also included collection system improvements by means of internal pipe lining systems and the installation of the new manholes within the Town's older downtown collection system. Steve also provided final design of the proposed improvements.

Kingmill Valley PSD Sewer Upgrades Phase II, KMVPSD, Marion County, WV*

Steve prepared the preliminary engineering report for the submission to the West Virginia Infrastructure Jobs and Development Council for the design and construction of a new wastewater collection system for the Millersville area of Pleasant Valley, West Virginia. The project also included the design of upgrades to nine existing wastewater pumping stations. Preliminary engineering report included preliminary engineering design, cost estimates, and proposed funding scenarios.

Sanitary Sewer Improvements Phase I, City of Shinnston, Shinnston, WV*

Steve was the Project Manager for the preliminary and final engineering design services for the sanitary sewer system improvements for the Shinnston Sanitary Board. The project consisted of the study of the city's entire sanitary sewer system and identifying areas where significant amounts of inflow and infiltration are entering the sanitary sewer system and proposing corrective action. Preliminary engineering services included extensive sanitary sewer evaluation surveys, which included detailed field inspections of existing facilities, smoke and dye testing, flow monitoring, line videos, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design of accepted alternatives, bid package preparation, construction management and inspection services, and as-built drawing preparation were also part of this project.

Sanitary Sewer Improvements, City of Fairmont, Fairmont, WV*

Steve was the Project Engineer for the preliminary and final engineering design services for the sanitary sewer system improvements for the Fairmont Sanitary Board. The project consisted of the study of the city's entire sanitary sewer system and identifying areas where significant amounts of inflow and infiltration are entering the sanitary sewer system and proposing corrective action. Preliminary engineering services included extensive sanitary sewer evaluation surveys, which included detailed field inspection of existing facilities, smoke and dye testing, flow monitoring, line videos, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design of accepted alternatives, bid package preparation, construction management and inspection services, and as-built drawing preparation were also part of this project.

Dakota/Meredith Springs Wastewater System Extension, City of Fairmont, Marion County, WV*

Steve was the Project Engineer for the planning, design, and construction inspection services for a sanitary sewer extension serving approximately 100 residences in the Meredith Springs/Dakota Camp Area within the City of Fairmont service area. The project also included the preparation of a facilities plan and funding applications for submission to the West Virginia Department of Environmental Protection. Design services included the routing and design of a gravity sewer system, manholes, lift stations, and all appurtenances, the preparation of specifications,

bidding, and contact documents, solicitation of bidders, and recommendation for award. Steve was also responsible for providing construction management services and overseeing construction inspection services including constructability review, project inspection, contractor pay request reviews and as-built drawing preparation.

Town Of Flemington Sewer System, Town of Flemington, Taylor County, WV*

Steve was responsible for the preparation of the preliminary engineering report, funding applications, overall design, bidding documents with technical specifications, bidding procedures, construction engineering, and budget control for a sanitary sewer collection and treatment system. The project consisted of nearly six miles of gravity and pressure collections lines. The project also included the design and construction of four sewage lift stations and a 50,000-GPD extended aeration wastewater treatment plant. Other responsibilities included the acquiring of a wasteload allocation, West Virginia Public Service Commission certificate, West Virginia Division of Environmental Protection National Pollutant Discharge Elimination System permit, West Virginia Division of Highways permit and all other permits necessary for construction.

Town of Farmington Wastewater Improvements, Town of Farmington, Farmington, WV*

Steve performed inflow and infiltration investigation by means of visual inspection, smoke testing, dye testing, and television video. Steve was also responsible for overall design of improvements, bidding documents with technical specifications, bidding procedures, construction engineering, and budget control. Steve provided construction management duties during the construction phase of improvements that included the construction of a 125,000-GPD oxidation ditch wastewater treatment plant.

Water

Kanawha Falls Water System Improvements, Kanawha Falls PSD, Gauley Bridge, WV*

Steve was the Project Manager for the preliminary design and detailed design services for a water system extension project to provide potable water service to approximately 50 new customers in the Kanawha Falls and Boonesborough area of Fayette County, West Virginia. The project includes the construction of a new distribution system and a 30 GPM hydro-pneumatic booster pump station.

Water System Improvements Phase II, City of Shinnston, Shinnston, WV*

Steve was the Project Manager for the preliminary and final engineering design services for the replacement of approximately 11 miles of existing 10" cast iron water line with new 12" PVC water line from the City's water treatment facility to the connection point in the City limits. Preliminary engineering services included the planning of proposed line replacement improvements, feasibility studies, and assistance in obtaining project funding. Final design included the line replacement, the design of a Johnson Screen at the raw water intake, and bid package preparation.

Stonewood Water System Improvements, City of Stonewood, Stonewood, WV*

Steve was the Project Manager for conducting a water loss study for the City of Stonewood that identified that the unaccounted water loss ranged on average from 15 to 30 percent. The water loss study included the review of the existing system data, acoustical testing, correlation testing, pressure evaluations, evaluation of break reports and review of the billing records. Steve also provided oversight of design for the proposed improvements. The project was designed for the replacement of the 50 year old existing water distribution system throughout the City of Stonewood's residential communities. The construction was completed in 2015.

Jane Lew Water System Improvements, Jane Lew PSD, Lewis County, WV*

Steve was the Project Manager for the design and construction of approximately 11,500 LF of two-inch galvanized waterline including valves, the removal and replacement of 25 existing gate valves, the installation of 17 new gate valves in the existing distribution system, and installation of 13 bypass meters. The project also included the installation of an eight-inch diameter river crossing pipe to replace an existing crossing, the installation of a supervisory control and data acquisition (SCADA) controlled solenoid valve station and booster chlorination station. Additionally, the project included the extension of 1,500 LF of two-inch polyvinyl chloride water line and a 37 GPM

booster pump station to provide service to six new customers and included the fencing of the existing 100,000 gallon water storage tank for security purposes.

Fairmont-Mannington Water Main, City of Fairmont, Marion County, WV*

Steve was the Project Manager for the planning, design, and construction inspection of a 13-mile water main extension from the City of Fairmont to serve the City of Mannington. The project included mapping, route surveys utilizing GPS, assistance in obtaining project funding, design of the 13-mile, 12-inch, and 16-inch water main, preparation of specifications, bid and contract documents, right-of-way acquisition, construction surveys, and construction management and inspection services.

Alpine Lake Water System Improvements, ALPUC, Preston County, WV*

Steve was the project engineer for the preliminary design, detailed design, and construction services for a water system improvement project. Improvements to the water system included the design of four booster pump station upgrades, distribution line replacement, and storage tank improvements. The project also included the planning and design of two new source wells and the design and construction of a new potable water treatment facility.

Water System Improvements, City of Shinnston, Shinnston, WV*

Steve was the Project Engineer for the planning, design, and construction inspection services for a water distribution system upgrade for the City of Shinnston. Services included the mapping and hydraulic modeling of the existing water distribution network, the identification of problem areas, forecasting future water usage for projected growth areas and the completion of funding applications, detailed design drawings, specifications, bidding, and contract documents, solicitation of bidders and recommendations for award. CEI services include constructability reviews, construction management, project inspection, processing routine pay requests and the preparation of as-builts drawings. The project successfully reduced unaccounted for water from 35% to 10%.

Government

Water Distribution System Study, AFCENT, Thumrait, Oman*

Steve was part of a team assigned to field investigate the water distribution system at the Thumrait Air Base, Oman, for the U.S. Air Forces Central. The project included an in country field evaluation, assembling a base map of existing system components, preparation of a hydraulic model for determining system deficiencies, and preparing a 60%, 90%, and final report document.

Rehabilitation of Water Intake Structure, National Park Service, Williamsport, WV*

Steve provided project management and engineering design services for a new water intake structure in the Conococheague Creek for the National Park Service's Cushwa Basin, an interpretive historic site, which is part of the Chesapeake and Ohio Canal system. In addition to the water intake structure, this project included the design of a pneumatic backwash system for the water intake screen, a coffer dam for construction, pump station improvements, access road design, storm water design, a precast concrete building with controls for the backwash system, and electrical system upgrades. Additional services included providing a Condition Assessment Report, Cost Estimates, permitting, construction plans and specifications, meeting minutes, and product data cut sheets.

Water Distribution System Improvements, Department of Homeland Security, Winchester, VA*

Steve was the Project Manager for a water distribution system improvements project that included the design of two (2) 388,000 gallon water storage tanks, a 2,000 GPM constant discharge pressure pump station, new vertical turbine high service pumps, approximately 8,000 LF of 12" ductile iron water line, pressure reducing valve stations, and SCADA system improvements. The project also included the inspection and evaluation of the facilities existing raw water line from its raw water intake to the water treatment plant. Additional services included design charrettes, narratives, cost estimates, and permitting.

Residential/Commercial Development

Fisher Mountain Estates, LGI, Pendleton County, WV*

Steve was the Assistant Project Manager for a 1000-lot residential subdivision which includes conceptual land plans, final construction drawings for roads, utilities, water treatment plant and storage tanks, wastewater treatment plant, and permitting.

Roadways

I-495 Capital Beltway HOT/HOV Lanes, Fluor-Lane, Fairfax, VA*

Steve was the Project Designer responsible for water and sanitary utility relocation services for 12 miles of widening and reconstruction with four high occupancy toll/high occupancy vehicle (HOT/HOV) lanes in each direction.

Route 250 Waterline Relocation, City of Fairmont, Fairmont, WV*

Steve was the Assistant Project Manager in the creation of plans for the relocation of the 12-inch water line located along the east side of US Route 250 south of Fairmont for the City of Fairmont in preparation for a road widening project. Steve served as a contact point for the projects, as well as project engineer compiling field notes, developing construction plans, and assembling construction details.

Route 250 (Raw) Waterline Relocation, City of Shinnston, Fairmont, WV*

Steve was the Assistant Project Manager in the creation of plans for the relocation of the 16-inch raw water line located along US Route 250 South of Fairmont for the City of Shinnston in preparation for a road widening project. Served as a contact point for the projects, as well as project engineer compiling field notes, developing construction plans, and assembling construction details; engineering and inspection for the construction of a retaining wall to stabilize High Street embankment. The project also included the rehabilitation of the sidewalks and pedestrian access steps that connected High Street to the downtown area.

** Work performed prior to joining CEC*

TRAINING

OSHA-Confined Space-Permit & Non Permit Confined Space Entry

OSHA-Construction Training (10-Hour)-OSHA 10-Hour Construction Safety & Health

Erasmo Rizo

Project Manager II

Mr. Rizo, Project Manager, has 13.5 years of experience in urban land, transportation engineering, oil and gas, and public utilities. He has performed site layout, profiles, cross sections, grading, earthwork analysis, drainage, water lines, hydraulic analysis, and erosion and sediment control for numerous projects. Mr. Rizo's project experience for the Oil and Gas industry includes design and quality assurance of pipelines, well pads and associated pits & impoundments, and ASTs. He has permitting experience for the US Army Corp of Engineers, state DOH and environmental permits. His water and wastewater project experience includes emergency action plan review, HEC-RAS modeling, stormwater detention and retention modeling and analysis, dam observation and inspections.

Mr. Rizo has also directed a sanitary sewer department which include the wastewater treatment plant, the collections system for sanitary sewer and stromwater, and the maintenance section. Mr. Rizo also served in the Army National Guard as a part of the maintenance and recovery section. He held first-line leader responsibilities, and served in Operation Iraqi Freedom II.

EDUCATION

B.S., Civil Engineering Technology, *West Virginia Institute of Technology*

CERTIFICATIONS

10-hour Construction Safety

SafeLand USA - Basic Orientation

Adult and Pediatric First Aid/CPR/AED

Certified Wastewater Treatment Plant Operator Class II

Nuclear Gauge

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

PROJECT EXPERIENCE

Waste Water Clarifier Upgrade*

Rehabilitation construction management of two 300,000 gallon concrete and steel wastewater clarifiers/settling tanks. The project included evaluation of steel components to be replaced and refabricated, Selection of blaster media and appropriate paints to withstand a corrosive wastewater environment.

Civil & Site Development Engineering

Building 100, Sterile Manufacturing Facility, Becton and Dickinson & Company, Wilson, NC*

Project consisted of a new pharmaceutical facility installation on 60-acre site, Duties included: Site design, grading, stormwater management, erosion and sediment control, BMP design, and utility design for a 114,000 square foot sterile syringe plant for BD. Procurement of NCDENR permits, and Civil LEED accredited designs.

On Lake Wylie Phase 1, The Vineyards, Charlotte, NC*

Project consisted of 327 single family homes and 105 town homes on 243 plus acres of residential development. Great measures were taken to ensure plenty of undisturbed common open space and tree save. Duties included: Profile over 26,000 linear feet of road, Fine grade all lots, Storm design with Storm water Best Management Practices (BMP), Organize Construction documents for submittal.

The Pringle House, WODA Group, Buckhannon*

Project consisted of a two story senior citizen living facility with associated parking and access drive. The site development is situated on five acres, site duties included: Site design, grading, stormwater management, erosion and sediment control. Procurement of WVDEP, city of Buckhannon and county permits.

Power Generation Facilities

John Sevier Fossil Plant, Rodgersville, Tennessee Valley Authority, TN*

Project consisted of embankment grading, a seepage collection, toe drain system with over 2,800 LF of perforated pipe, 8,400 LF of forcemain and 3 pump stations to intercept and convey fly ash leachate water to the stilling ponds within the plant area. Duties included: Toe collection system, Forcemain, equalization pipes design, embankment grading, pump station placement, Specification and a Storm Water Pollution Prevention Plan.

Cumberland Fossil Plant, Tennessee Valley Authority, Stewart County, TN*

Project consisted of construction documents for a slurry diversion system, settling ponds, water quality ponds, and hydraulic structures. Duties included: Site design, grading, and erosion and sedimentation control for the proposed

facility improvements. Independent submittals were developed for the Storm Water Pollution Prevention plan, 1 To 7 Year Operations plan for the gypsum, and Ash stacks.

Marathon Petroleum, Catlettsburg Refinery Site Work, Marathon Petroleum Company, LLC, Catlettsburg, KY*

Project included civil/site design that involved aspects of site grading, Refinery Drainage and Oily Sewer water analysis and re-routing, construction plan and specification preparation.

Public Sector

Boggess Street Sewer and Stormwater Project *

Design, permitting, and construction management of 300 Linear feet of eight inch SDR 35 PVC pipe, to address old and badly configured existing clay system. Installation of new 300 Linear feet of 12 inch HDPE corrugated pipe to provide stormwater relief in a low lying area. This project allowed the removal of downspouts from the sewer system from homes along project limits.

Wood Street Sewer Upgrade *

Design, permitting, and construction management of 1,800 Linear feet of various size SDR 35 PVC pipe. The Sanitary Sewer main upgrade and associated collection system was constructed while maintaining service to 40 customers.

Brushy Fork Road Sewer Extension, *

Design, permitting, and Right of Away acquisition of 2,500 Linear feet of eight- inch SDR 35 PVC pipe, three-Jack and bore locations, all manholes and apparatus, and associated creek crossings to serve 45 new sewer customers.

Swisher Street Culvert Replacement *

Design, Permitting, and construction management of the relocation of an existing eight-inch Sewer to control elevation for the replacement of the Swisher Street Culvert. Relocated 380 Linear feet of existing vitrified clay line with 8" SDR-35 PVC pipe. Installed a 60 inch HDPE Corrugated culvert and associated traffic rated decking, reinforced grouted rip rap wing walls and aprons.

Transportation

Parkway Route 606/ Route 621, Loudoun County, Loudoun County, VA*

Project consisted of designing 3, 4, and 6-lane divided highway. Approximately 15,000 linear feet of roadway was designed, and over 63 acres will be disturbed. Duties included: Design geometric layout and alignments, Watermain design, Curb ramp design, Storm sewer design and computations, Forebay and sediment trap calculations, Sight distance profiles, Bond estimate and Comment response adjustments.

Route 50 Improvements, John Mosby Highway, Loudoun County, Loudoun County, VA*

Project consisted of widening approximately 3,400 linear feet of roadway by an additional 12 feet. A left turn lane will also be provided to accommodate nearby residential and commercial sections. Primary engineer to develop construction plans and profiles to completion. Duties included: Grade surface with respect to construction baseline/existing edge of pavement, Design curve and gutter and shoulder section, Geometric layout and alignments, Ditch computations, Sight distance, Storm sewer profiles and computations, Typical section, Outfall section computations, Research soil types, Erosion and sediment control phases 1 and 2, and Bond estimate.

Route 659 Relocated, Loudoun County, Loudoun County, VA*

Project consists of approximately 28,000 linear feet of 4-lane divided highway. Project is divided into 5 phases, 3 have been designed. Duties included: Storm sewer design and computations, Watermain design, Soil type research, Curb ramp design, Center line profile, Sight distance, Erosion and sediment control phases 1 and 2, Parcel impact research, Bond estimate, and Organize construction plan and profile sets for submission.

** Work performed prior to joining CEC*

February 22, 2019

West Virginia Division of Natural Resources
Property & Procurement Office
324 4th Avenue
South Charleston, WV 25303

To Whom It May Concern:

Subject: Expression of Interest – DNR1900000002
A/E Services for Cass Scenic Railroad State Park Wastewater Improvements
CEC Project 184-716

Civil & Environmental Consultants, Inc. (CEC) values the opportunity to provide the State of West Virginia – Division of Natural Resources (WVDNR) with professional services to evaluate, design and provide construction administration services for the repairs/renovations to the wastewater collection system at the Cass Scenic Roadway State Park.

CEC is a local, full-service engineering firm that proudly offers water and wastewater engineering design capabilities in West Virginia. Matthew Fluharty, P.E. (Project Manager), Erasmo Rizo, Steven Cain, P.E., and Jason Heflin, bring a combined 80 years of design experience in water and wastewater engineering to CEC. The Bridgeport office has seen continual growth in staff and clientele since opening in 2012, offering civil, environmental, and survey services to clients to meet their specific needs. Our Bridgeport office currently employs a professional staff of 107 engineers, scientists, surveyors and technicians.

The water and wastewater design professionals in CEC's Bridgeport, WV office have the experience to maintain constant contact with the owner during each phase of the project. CEC will communicate with the owner during the preliminary design phase to clearly establish the project goals and objectives, budget to design and plan accordingly. Throughout the design process, the owner will be communicated with to ensure the construction of the design can be successfully completed while also minimizing disruption to the park operations. Once the final design is accepted, the professionals at CEC will be able to follow the bidding requirements necessary for each respective project to acquire a qualified Contractor to construct the design. CEC can then provide the WVDNR with construction management to include construction quality assurance and construction management to ensure the project is constructed as designed and completed within the project budget.

In regard to the project budget, the total will be broken into specific items that can be quantified and progressively tracked throughout to ensure the project remains on track to meet the established budget.

The design professionals at CEC have extensive experience monitoring design budgets and construction management to ensure the project can be completed on time and on budget.

A new innovative technology that CEC would like to propose for communication and project coordination is CECGo! which is a project delivery system. This system allows for complete project access and collaboration for the WVDNR's project team. Whether at the office or on a mobile device, the WVDNR will be able to access files, review progress or upload information to the team with ease. For additional information on the CECGo! system, please see section 7a Communication in this submittal.

CEC proudly offers our undivided attention of our experienced design professionals for the successful completion of your project at the Cass Scenic Railroad State Park and the West Virginia water and wastewater markets.

We trust the enclosed qualifications will provide the West Virginia Division of Natural Resources with the information you need to assess our qualifications to successfully complete your project.

Should you have any questions or require additional information, please do not hesitate to contact the undersigned at 304-848-7156 or via email at scain@cecinc.com.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Steven A. Cain, PE
Vice President

Jim Christie, PLA
Client Liaison

Jason B. Heflin

Designer

Mr. Heflin has over 23 years of experience working under engineers as a utility designer. His primary design experience has been in sanitary and wastewater treatment plant designs also has experience in the water industry with lines and plants

EDUCATION

A.S., Applied Science, West Virginia University of Parkersburg

PROJECT EXPERIENCE

Sanitary sewer extension, wastewater treatment plant and upgrades, Greater Harrison County PSD, West Milford, Harrison County, WV*

Multiple sanitary sewer line extensions and pump stations, existing wastewater treatment plant upgrades, proposed new wastewater treatment plant.

Sanitary sewer extension, wastewater treatment plant and upgrades, City of Ripley, Ripley, Jackson County, WV*

Existing sanitary sewer line and pump station upgrades, existing wastewater treatment plant upgrades.

Sanitary sewer extension, wastewater treatment plant and upgrades, City of Bridgeport, Bridgeport, Harrison County, WV*

Multiple sanitary sewer line extensions and pump stations upgrades and extensions, existing wastewater treatment plant upgrades, proposed new wastewater treatment plant.

Sanitary sewer extension, wastewater treatment plant and upgrades, Preston County PSD, Bruceton Mills, Preston County, WV*

Proposed SBR wastewater treatment plant and upgrades to existing pump stations

Sanitary sewer extension, wastewater treatment plant and existing sanitary sewer upgrades, Malden PSD, Malden, Kanawha County, WV*

Existing sanitary sewer system upgrades on lines and pump stations, new wastewater treatment plant effluent pipe

Sanitary sewer extension, wastewater treatment plant and upgrades, Town of West Union, West Union, Doddridge County, WV*

Existing sanitary sewer line and pump station upgrades, new wastewater treatment plant

Sanitary sewer extension, wastewater treatment plant and upgrades, Town of Junior, Junior, Barbour County, WV*

Existing wastewater treatment plant upgrade and sanitary sewer line extensions with pump stations

Wastewater treatment plant, Town of Belmont, Belmont, Pleasants County, WV*

Existing wastewater treatment plant upgrades

Sanitary sewer extension, wastewater treatment plant and upgrades, City of Weston, Weston, Lewis County, WV*

Existing sanitary sewer upgrades to lines and pump stations, proposed new line extensions and wastewater treatment plant upgrades

Elevated raw water intake structure and raw water lines, Chevron, Moundsville, Marshall County, WV*

Proposed elevated raw water intake structure and multiple raw water lines

Elevated raw water intake structure and raw water lines, Stone Energy, Proctor, Wetzel County, WV*

Proposed elevated raw water intake structure and multiple raw water lines

Elevated raw water intake structure, Antero, West Milford, Harrison County, WV*

Proposed elevated raw water intake structure

Elevated raw water intake structure, Southwestern Energy Corporation, Proctor, Wetzel County, WV*

Proposed elevated raw water intake structure

Raw water intake structure, Southwestern Energy Corporation, McMechen, Marshall County, WV*

Proposed raw water intake structure

Sanitary sewer extension and upgrades, Brooke County PSD, Follansbee, Brooke County, WV*
Proposed sanitary sewer extensions and pump stations

Sanitary sewer extension, wastewater treatment plant and upgrades, City of Clarksburg, Clarksburg, Harrison County, WV
Multiple sanitary sewer upgrades and upgrades to existing wastewater treatment plant

Wastewater treatment plant, Preston County PSD, Masontown, Preston County, WV*
Proposed MBR wastewater treatment plant

Proposed sanitary sewer extensions, pump stations and wastewater treatment plant, Hepzibah PSD, Hepzibah, Harrison County, WV*
Proposed sanitary sewer extensions, pump stations and wastewater treatment plant

* ***Work performed prior to joining CEC***