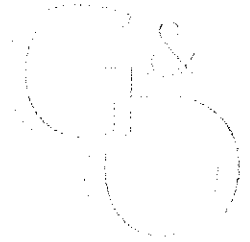


# Expression of Interest

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# WVDEP AML Hawkinberry Hollow Portals & Subs Design



Buyer CB-23 | Req # DEP15220

Opening Date 12/2/2010 | Opening Time 1:30 PM

Submitted to:

**The West Virginia Purchasing Division,  
for the Department of Environmental Protection**



2019 Washington Street East | Charleston, WV 25305

west virginia department of environmental protection

Submitted by:



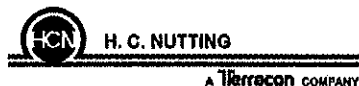
**GREENHORNE & O'MARA**  
CONSULTING ENGINEERS

*Inspired Solutions, Improving Lives*

111 Elkins Street | Fairmont, WV 26554

In Association with:

**AERO-METRIC INC.**



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PURCHASING DIVISION  
STATE OF WV



**GREENHORNE & O'MARA**  
CONSULTING ENGINEERS

December 2, 2010

Mr. Chuck Bowman, Buyer  
State of West Virginia  
Department of Administration  
Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305

**Re: Hawkinberry Hollow Portals & Subs Design  
Requisition # DEP15220**

Dear Mr. Bowman:

Greenhorne & O'Mara (G&O) in association with H.C. Nutting- A Terracon Company **accepts the terms of the WVDEP's request for quotations** as stated in the request released on November 03, 2010 and is pleased to respond to the same request for the Hawkinberry Hollow Portals & Subs Design Project. Prepared in our expression of interest, you will find an abundance of information that describes in detail the team's qualifications and experience with respect to this project. The information includes a statement of the team's qualifications, personnel summaries and projects to reflect the broader scope of services identified in your EOI. Specifically, we have provided the following requested information:

1. A cover letter that includes **a statement accepting the specified terms** of the request for quotations (this document).
2. A section summarizing the Team's technical qualifications, including the pertinent qualifications, experience, and location of key project team members; where each project team member will be physically located; a synopsis of each key project team member's assignments and responsibilities; and the percentage of his/her time each key project team member will devote to the project during the life of the project.
3. A section to describe the locality of the G&O team.
4. References who are familiar with G&O's work on similar projects.
5. A section for the Consultant Confidential Qualification Questionnaire and the Related Project Experience Matrix.
6. A signed Purchasing Affidavit from the State of West Virginia Purchasing Division, which indicates that G&O and our subconsultants are not in debt of any kind to the State of West Virginia.

If you have any questions or concerns regarding our submittal, please do not hesitate to contact me at (304) 367-9401 or mretton@G-and-O.com, or our proposed Project Manager, Mr. Steven A. Cain, at (304) 367-9401 or scain@G-and-O.com.

Sincerely,

Michael A. Retton, PE, PS  
Regional Vice President  
Enclosures

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## OVERALL CAPABILITIES



**GREENHORNE & O'MARA**  
CONSULTING ENGINEERS

(G&O) is a full-service, multidisciplinary consulting engineering firm with a **culture of personalized client service, innovative problem solving, and on-time project delivery**. With 16 offices, we serve clients in the private and public sectors on projects located throughout the United States and overseas. Founded in 1950, G&O is an employee-owned firm that is consistently ranked by Engineering News Record among the top 25 percent of architectural/engineering design firms in the United States.

Our large and diversified staff of more than 550 knowledgeable and quality-oriented employees offers our clients a broad spectrum of engineering expertise in the areas of civil, structural, environmental, transportation, and water resources engineering; site, facility, and military master planning; hazards mitigation and security; surveying and mapping; environmental services; site infrastructure design; landscape architecture; computer sciences; cultural resources; and other related services.

G&O provides comprehensive consulting services to perform studies, prepare plans, and secure permits for erosion control and the installation of water mains, sewer, and appurtenances. G&O's professionals are experienced in the design of a broad range of engineering projects that include preparation of cost estimates, plans, and specifications, and the performance of soil and geologic studies to establish project feasibility. Our detailed design services include traffic studies, grading plans, water and sewer systems, earthwork analysis, stormwater management, site plans, sediment and erosion control, storm drainage and paving plans, roadway and railroad realignments/grade changes, feasibility studies and site analyses, and permit application assistance.

The quality of G&O's work is tied to its effective project management, its process of clearly identifying the client's goals and expectations, conducting the work using motivated, highly qualified professional staff, and implementing the firm's quality control plan. Inherent in this process is the fundamental effort to meet or exceed expectations every time, and also to identify process failures, mitigate the errors, and incorporate the lessons learned for continual improvement.

G&O has one of the largest civil engineering staffs in the Northeast Region of the United States. We have provided engineering services for thousands of industrial, commercial, educational, institutional, residential, and multi-use developments. Our engineers can provide the following relevant services:

- ◆ Utilities extension/relocation
- ◆ Water treatment design/replacement
- ◆ Site infrastructure design
- ◆ Sewage treatment and collection systems
- ◆ Water distribution
- ◆ Sediment and erosion control
- ◆ Storm drainage and paving plans
- ◆ Renovation/alterations
- ◆ Pavement analysis/resurfacing
- ◆ Structural modifications
- ◆ Structural analysis
- ◆ Roads and parking design/rehabilitation
- ◆ Surveying/mapping/GIS systems
- ◆ Grading plans
- ◆ Permit/waiver application
- ◆ Stormwater management
- ◆ Landscape plans

In addition to the above services, G&O also provides Land and Bathymetric Surveying, Land Ownership Research and Preparation of Plats/Easement/Right-of-Ways, Utility Coordination and Relocation Design, Transportation/Traffic, Engineering, Landscape Architecture and Public Outreach & Education.

G&O works with various governmental transportation agencies to implement projects such as road relocations and road widening. G&O's work on these projects includes, among other tasks, traffic impact studies, access studies, data collection and analysis, signal timing, traffic control plans, and concept plans for roadway improvements.

Over the years, G&O has worked for nearly all federal, state, county and local government agency within WVDEP's domain. We have worked in many communities in the State of West Virginia (examples to follow).



**GREENHORNE & O'MARA**  
CONSULTING ENGINEERS

## HC NUTTING PROJECTS

### ***McCOMAS AML COAL MINE REFUSE PILE MERCER COUNTY, WV***



During the summer of 2008, H. C. Nutting, a Terracon Company (HCN) performed a comprehensive geotechnical investigation of the McComas Refuse Pile in Mercer County, West Virginia. The study included an assessment of slope stability and recommendations for reconstruction of the refuse pile. The study also included setting thermocouples at the bottom of selected boreholes to measure the in-ground temperature, to determine if spontaneous heating has caused combustion to occur within the refuse bank. Compaction requirements were included to minimize exposure to air when the refuse pile is regraded to prevent spontaneous heating from developing in the future.

HCN provided selected samples of the mine refuse to a laboratory for float / sink separation, and for short proximate analyses on the float fraction to determine whether the mine refuse could be reprocessed to remove the coal fines. Because only a small fraction of high-ash coal could be recovered, reprocessing was not an economical alternative for this mine refuse pile. Selected samples of mine refuse were tested for acid-base accounting to determine if they need to be specially handled to prevent acid generation. Results of these analyses indicated that the mine refuse had a strong net alkalinity; therefore, no special treatment was necessary to prevent contact with seepage water.

The HCN geotechnical study also included borings in nearby borrow areas that may be used to provide cover soil for the regraded stockpile. Selected samples of both the cover soil and the mine refuse were tested for pH, macronutrients and fertilizer requirements necessary to support growth of the proposed seed mixes needed to stabilize the regraded refuse pile.

Results of the HCN mine refuse study were used by the design engineer, Stafford Consultants, Inc., of Princeton, WV to prepare plans and specifications for the West Virginia Office of Abandoned Mine Lands and Reclamation. These documents also included specifications for sealing two mine portals and for the removal of abandoned equipment. These plans and specifications are currently under review and should be sent out for bid by the end of the year.

### ***Mayo Hollow Mine Spoil Slide Repair Martin, KY***

In the spring of 2004, a large slide occurred on the face of the Mayo Hollow Mine Spoil Embankment in Martin, Kentucky. H. C. Nutting, a Terracon Company (HCN) was asked to implement an emergency repair of the slide before the failure could progress further up the slope.

HCN provided an engineer and a field operations supervisor to investigate the slide and implement an emergency repair. Heavy equipment was brought onsite under the supervision of HCN to excavate the slope failure so the engineer could assess the probable cause. The failed slope was saturated with water, and it



was determined that flowing water from the perimeter drainage ditch was infiltrating and taking a "short-cut" through a portion of the embankment, saturating the mine spoil.

The slide was repaired by removing the failed section and spreading the wet mine spoil over open ground, allowing it to dry. A French Drain was installed using No. 2 stone at the base of the slide, to allow the infiltrating water to drain. After the French Drain was installed and flow measurements were taken to assure that it was operating properly, mine spoil was placed back to reconstruct the original slope. The reconstructed slope was then vegetated with grass seed and mulch to blend in with the remaining face of the spoil pile. The entire project was completed during the course of about three days and was observed by a representative of the state mine inspector's office because the owner's reclamation bond had not yet been released when the slide occurred.

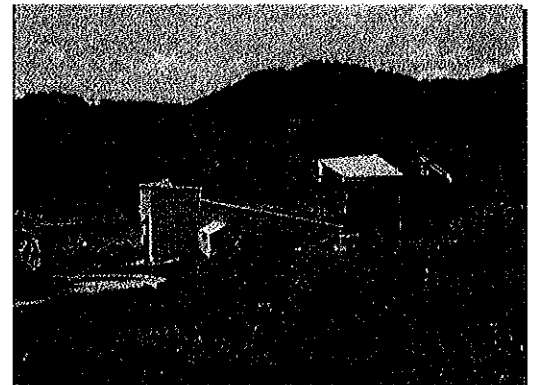
Since the slide was repaired in April of 2004, the face of the embankment has remained stable and the French Drain continues to relieve water pressure from infiltration through the perimeter ditch.

### ***Black Diamond Mine- Coal Mining Company Audit Floyd and Magoffin Counties, KY***

A Chicago law firm retained H. C. Nutting, a Terracon Company (HCN) to produce a Phase I ESA for a 41,000-acre coal mining property in eastern, Kentucky. The mining company had 46 separate parcels, of which 31 have active permits and 15 more are pending. The entire operation includes coal production from both surface and underground mines, plus three preparation plants and load-outs. The procedures used were in accordance with ASTM E 2247-08, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland and Rural Property. Because of the compressed time schedule, HCN/Terracon was given only two weeks from the date of authorization to the date the draft report was due.



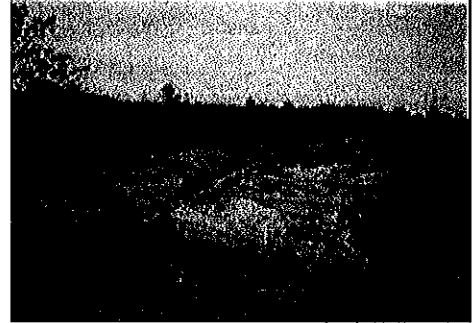
HCN/Terracon immediately dispatched a team of mining engineers and geologists to work with the mining company personnel. All of the permitted operations were physically inspected, documented, and photographed to determine if recognized environmental conditions (REC's) may be present. Several of the un-permitted properties, mostly orphaned strip jobs, were also examined for environmental impacts that could be interpreted as REC's. Underground mines, all of which are operated by contract miners, were examined to assess conditions at the working face and to inspect for containers and other waste materials that may have been discarded in the gob.



Concurrently, environmental scientists in the office were organizing information that was being sent in daily by the field team. Environmental data bases were being reviewed and portions of the report were being written even while some of the remaining data was being gathered. The draft Phase I ESA report was delivered to the client on time, along with recommendations for dealing with a small number of environmental concerns.

## **Acid Mine Spoil Neutralization, Wellston Landfill Vegetative Cover Wellston, OH**

H. C. Nutting, a Terracon Company (HCN) was given the responsibility for inspecting the grading and final cover of the Wellston Sanitary Landfill, located in Jackson County, Ohio. After the first few years, it was apparent that the vegetation was sparse in some portions of the landfill cover and restored borrow area, and that some of the sedimentation ponds had developed an acid condition that exceeded NPDES discharge limits. Although leachate seeps were visible on some parts of the landfill cap, the primary problem appeared to be caused by acidic surface mine spoil, which was used as final cover for the landfill.



HCN engineers collected soil samples from selected portions of the site where grass would not grow successfully. These soil samples were tested for neutralization potential and for pyritic sulfur, which was mathematically converted to compute the maximum potential acidity. These data, along with paste pH, were used to compute an application rate for the amount of pulverized limestone needed to maintain a neutral pH condition so that the landfill cover could be successfully re-vegetated. Soil samples were also tested for macronutrients, so that fertilizer requirements could be established. At the same time, the sedimentation basins were cleaned out and lined with crushed limestone so that acid mine drainage that may be collected from other parts of the landfill cover could be neutralized prior to discharge.

After the calcium carbonate application rates were determined for the mine spoil cover, HCN prepared a detailed specification for application of the pulverized agricultural limestone, the depth of mixing, seed blends, fertilizer mixes and mulch materials so the project could go out for bid. After the work awarded, HCN inspectors observed the soil cover stabilization project to assure the owner that the work was being done correctly.

At this time, vegetation has been re-established and the storm water discharge has remained within NPDES permit limits.

## **GREENHORNE & O'MARA PROJECTS**

### ***LENNOX / CUZZART WATER LINE EXTENSION PRESTON COUNTY, WV***



G&O provided engineering design for a water main extension which will connect to the Preston County Public Service District No. 4 service area system. The project was initiated and financed by the West Virginia Department of Environmental Protection – Abandoned Mine Land Reclamation Department (AML). The project included the design of 42 miles of new water distribution line, 3 new water booster pump stations and 5 new water storage tanks. The project will provide service to nearly 400 new customers. G&O's services included hydraulic modeling the entire existing PSD #4 system and evaluation of all extension areas identified in a preliminary study provided by the WVDEP.

### ***LYONSOUTH, COMMERCIAL DEVELOPMENT PROPERTY Nutter Fort, WV***

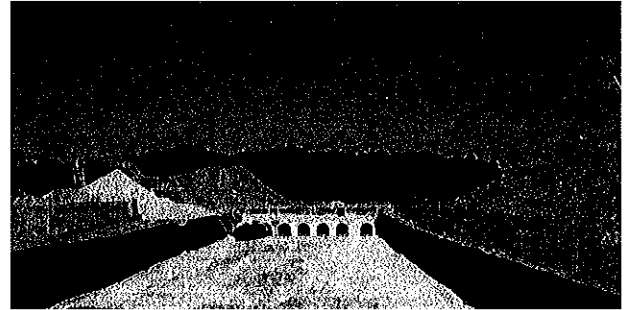


LyonSouth is a multi-phased commercial property development site for a private land developer. The phases consist of working with the developer to obtain cut and fill information along with permanent storm retention pond sizing and location on a 15 acre parcel of land, permitting for the phases that include permits to the Department of Environmental Protection for an MR-4C Incidental Coal Removal Permit, an update to the WV Construction Storm Water General Permit. Another phase consisted of assisting the developer in obtaining status of approval for limestone being removed from the property to be qualified for use on a public damn project.



**FAIRMONT GENERAL HOSPITAL HEALTHPLEX**  
**Fairmont, WV**

Fairmont General Hospital's Healthplex is a medical-fitness facility that will integrate physical therapy, cardiac rehabilitation, occupational medicine, and pulmonary rehabilitation. The focus of the project is to enhance the health status and improve the overall quality of life of the community.



Physician offices will be located at the facility to provide the community with an all-inclusive location for outpatient medical and rehabilitation services. The medical office area will house a variety of medical practices. The facility will serve the dual purpose of providing the necessary rehab for recovering patients and medically based fitness services for the community. In addition to rehabilitative medicine and medical offices, the Healthplex will include a therapy pool, heated lap pool and modern fitness area.

G&O was selected by Fairmont General Hospital and Browning Day Mullins Dierdorf Architects of Indianapolis, IN as the site design sub-consultant for the 6.3 acre parcel. Initially, G&O prepared the boundary and topographic survey for the site and coordinated the preliminary geotechnical investigations. The site design included, building location; parking lot layout; site access road; detailed utility design and location for water, sanitary sewer, storm drainage, gas and electric; stormwater management; erosion/sediment control; and finished grade elevations. As part of the site package G&O prepared NPDES application as required by the WVDEP.

The on-site stormwater management and drainage system was comprised of approximately six drop inlets/storm manholes, approximately 250 LF of storm sewer and an underground pipe gallery which provides approximately 10,000 cubic feet of on-site detention beneath the parking lot. The system consists of approximately 1350 linear feet of 36" diameter H.D.P.E. pipe with manifolds at each end. The outfall is a control structure utilizing an orifice/weir combination designed to limit stormwater discharges to pre-development levels.

Approximately 628 LF of PVC sanitary sewer was constructed on-site, with all necessary manholes and appurtenances. A small sanitary lift station was required to provide service to the bottom floor of the facility to drain a swimming pool.

**Weatherford - Sand Silos and Siding Track**  
**Century, WV**

Weatherford International, Inc. is a Texas company which services the oil and gas industry for development of supply wells. The purpose of this project was to construct a railroad siding track and silos to store sand for their business.

G&O was selected as the site designer in charge of surveying, design and permitting for this project. G&O completed topographic surveying of the site as a support to the design initiative. The site design includes railroad siding track roads with two switches, parking, storm drainage, erosion/sediment control; and finished grade elevations. As part of the site package G&O is preparing an NPDES application as required by the WVDEP.

**Flowers Bakery**  
**Fairmont, WV**



Flowers Bakery is a local distributor of baked goods which is relocating from an old location in Marion County to the new 6,600 SF distribution center. The center includes different truck dock heights for both the relay and delivery trucks as well as adequate drive areas to maneuver tractor trailer.

G&O was selected by Butler Properties, Inc. of Atlanta, GA as the site designer for a 1.75 acre parcel in the Marion Regional Business Park. Initially, G&O prepared the boundary and topographic survey for the site. The site design included, building location; parking lot layout; detailed utility design and location for water, sanitary sewer, storm drainage, gas and electric; stormwater management; erosion/sediment control; and

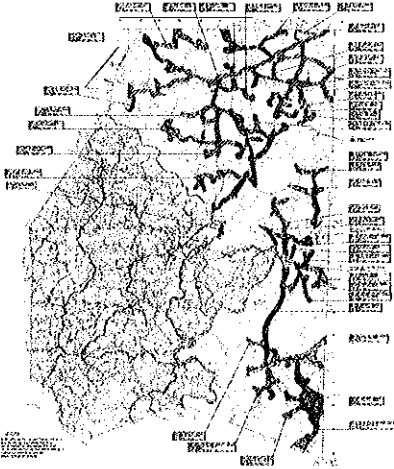
finished grade elevations. As part of the site package G&O prepared NPDES application as required by the WVDEP.

The on-site stormwater management and drainage system was comprised of approximately five drop inlets/storm manholes, approximately 460 LF of storm sewer pipe which empties into an on-site open detention pond located adjacent to the parking lot. The outfall is a control structure utilizing a multiple orifice's designed to limit stormwater discharges to pre-development levels.

**Preston County PSD #4 Water System Planning**  
**Preston County, WV**

G&O performed feasibility studies for potential water main extensions, reviewed requests for service and/or main line extensions, provided cost estimating, water rate evaluations, system troubleshooting, and engineering design and construction inspection services for water main extensions within the Preston County Public Service District No. 4 service area.

G&O analyzed the entire existing system and evaluated all potential extension areas. Each area had a cost estimate prepared and a count of potential customers; these areas were then ranked by parameters such as cost per customer, total cost, and potential for funding. Preston County Public Service District #4 has many unique aspects to its system that required this evaluation to develop the understanding of the entire system to ensure stability throughout the expansion process.



**Jane Lew PSD - Proposed Potable Water System Improvements**  
**Lewis County, WV**

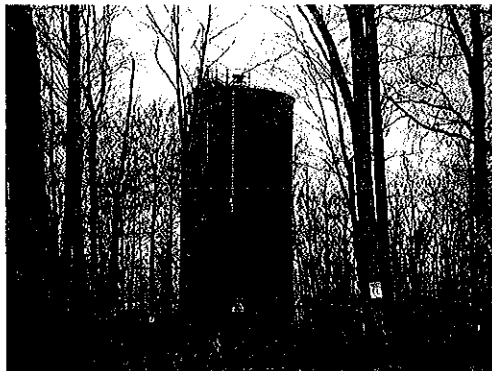
G&O provided engineering design and construction management services for a water system improvement project. The improvements consisted of 11,500 lineal feet of galvanized waterline replacement, removal and replacement of 25 existing gate valves, installation of 17 new gate valves in the existing distribution system, installation of 13 by-pass leak detection meters, installation of an 8" diameter river crossing pipe to replace an existing crossing, installation of a SCADA controlled solenoid valve station and booster chlorination station,. The project also included an extension of the existing system of 1,500 lineal feet of 2" PVC water line and a 37 gpm booster pump station to provide service to six new customers.

**City of Shinnston Sanitary Sewer Collection and Treatment System  
Improvement Project  
Harrison County, WV**

G&O is currently providing final engineering design services as well as construction management and inspection services for upgrades and improvements to the City of Shinnston's wastewater collection and treatment system. The project consists of the rehabilitation of the City's existing 380,000 GPD wastewater treatment facility and extensive sanitary and storm sewer separation work. The wastewater treatment facility will receive improvements to the sludge handling and disposal systems. Additionally, the reduction of inflow and infiltration (I&I) will be achieved by the rehabilitation of many parts of the collection system by pipe lining and the construction of new sanitary and storm sewer systems.

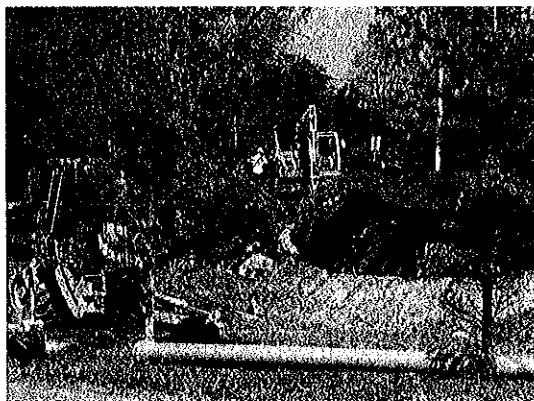


**Preston County PSD #4 Clifton Mills Extension  
Preston County, WV**



G&O is responsible for design of a project that includes a main line extension to four areas of Preston County, WV. The extensions into the Clifton Mills area, Glade Farms/Dennis Road area, areas South of Rt. 26 and North of I-68, and Pisgah area will provide potable water service to nearly one hundred ninety-six (196) new customers and a proposed housing development along Rt. 8/2. The project will parallel the Lennox/Cuzzart extension project and will combined total of nearly 600 new customers to the Service District.

**Alpine Lake Public Utility Company Improvements to the Alpine Lake  
Water Treatment & Distribution System  
Preston County, WV**



G&O provided the preliminary study, final design and construction management for various improvements to the Alpine Lake potable water treatment and distribution system. The project included the preparation of a Preliminary Engineering Report (PER) for submission to the West Virginia Infrastructure and Jobs Development Council (WVIJDC). The PER evaluated the existing operation and condition of the water system, identified recommendations for improvements and upgrades, identified project costs, and proposed project funding scenarios. System improvements included the installation of (3) new water booster pumping stations with discharge meters and SCADA controls with radio telemetry,

abandoning existing booster stations, installation of 355 new water meter settings. The project also included the painting of (3) existing water storage tanks, the design and construction of new water treatment facility and the replacement of 4500 LF of 10" SDR-26 water line with C-900 CL-200 water line.

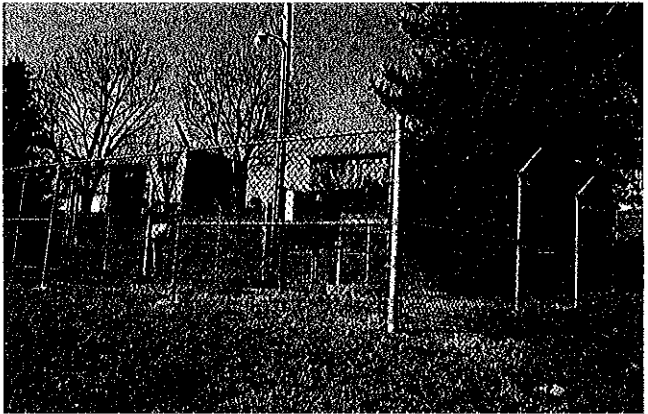
***Sanitary Sewer Extension to the Meredith Springs/Dakota Camp Area  
Marion County, WV***

G&O provided engineering design, construction management, and resident project inspection services for the sanitary sewer extension to the Meredith Springs area of Marion County, WV. The project involved the planning and design of a new sanitary sewer and lift stations to provide service to approximately 100 homes in the Meredith Springs area of Marion County, just outside of the corporate limits of the City of Fairmont. The project included the design of approximately 11,000 linear feet of gravity sanitary sewer, 500 linear feet of force main, four grinder pump stations and two duplex non-clog sewage pumping stations.



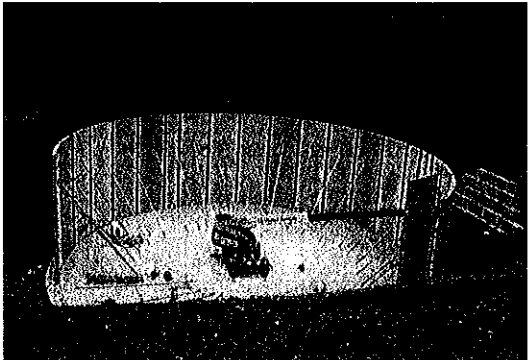
***Kingmill Valley Sanitary Sewer Improvements  
Marion County, WV***

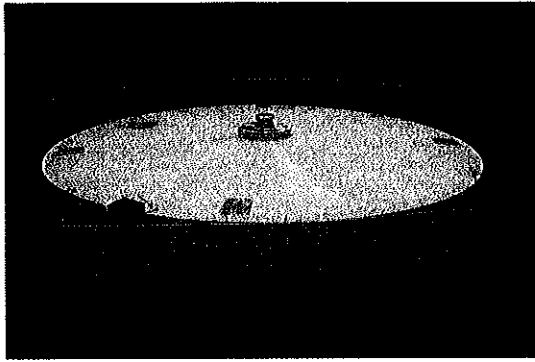
G&O provided preliminary planning, final design, and construction management services for sanitary sewer improvements to Millersville and surrounding areas of the Kingmill Valley Public Service District service area. The project required the preparation of a Preliminary Engineering Report (PER) for submission to the West Virginia Infrastructure and Jobs Development Council (WVIJDC) and the USDA Rural Utility Service to secure funding for the new collection system and nine sanitary sewer pump station rehabilitations. The PER identified the necessary improvements to Millersville and surrounding areas, provided corrective action alternatives and preliminary costs. G&O completed the detail design, construction drawings, technical specifications, and contract bid documents. G&O is also providing construction management and resident project inspection services to insure compliance with approved plans and specifications.



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

G&O is provided preliminary and final engineering design services and construction management and inspection services for improvements to the City's existing sanitary sewer collection system to meet the Long Term Control Plan as mandated by the EPA and WVDEP. The project consisted of the study of the City's existing sanitary sewer collection system to identify and propose correction of areas of significant inflow and infiltration (I&I) entering the sewer system.

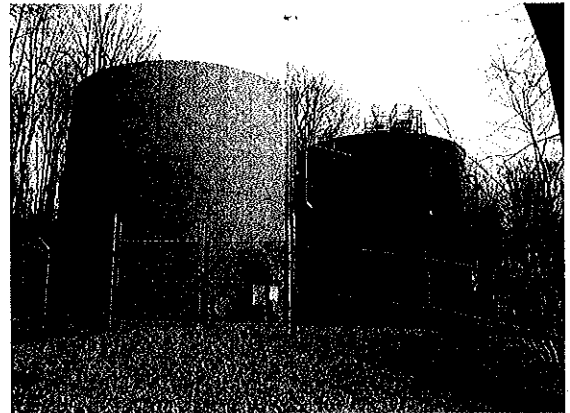




Preliminary engineering services included an extensive sanitary sewer evaluation survey (SSES). The SSES included detailed field inspection of existing facilities, smoke and dye testing, flow monitoring, CCTV inspection, manhole inspections, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design included a 600,000 Gallon Equalization Basin, gravity sewer line replacement, H2S protection, and sanitary and storm sewer separation.

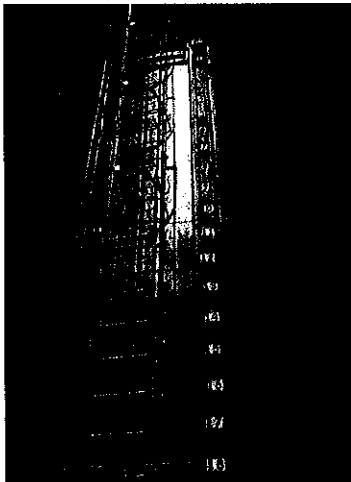
### ***City of Shinnston Water System Upgrades and Improvements Harrison County, WV***

G&O provided preliminary engineering, detailed design, and construction management and inspection services for a major upgrade to the City of Shinnston's water distribution system. The project consisted of the study and evaluation of the City's water supply and distribution system to determine system deficiencies and areas needing repair.



Preliminary engineering services included extensive hydraulic modeling, water use forecasting, the preparation of a facilities plan for submission to the WVIJDC, and assistance in identifying and securing project funding. Final engineering services included, bid package preparation, construction management and inspection services, and record drawing preparation.

### ***Town of Grant Town Water System Improvements Marion County, WV***



G&O provided a detailed hydraulic study for the planning and design for a water system improvement project for the Town of Grant Town, Marion County, WV. Preliminary design services included the submission of a preliminary engineering report and preparation of funding applications to the WV Infrastructure and Jobs Development Council (WVIDJC). Final design services included the design of approximately 23,000 L.F. of water main replacement, a new 300 GPM water booster pump station, the painting of the 200,000 gallon water storage tank, and the installation of a system wide SCADA control system with radio telemetry. G&O will also provide construction management and resident project inspection to ensure compliance with the approved plans and detailed specifications.

**Fairmont to Mannington Waterline Extension  
Marion County, WV**

G&O was responsible for design and construction management of a project that included a major service line extended from City of Fairmont to serve the residents of the City of Mannington. The new service line replaced the aging City of Mannington's potable water treatment plant. The project consisted of the design and construction of 67,000 L.F. of 12" and 16" diameter water main, construction of a 1000 GPM booster pump station with booster chlorination, and a telemetry SCADA control system to provide potable water from the City of Fairmont to the City of Mannington. This project was awarded the American Council of Engineering Companies (ACEC) "Bronze Award" for engineering excellence.



**Realignment of the Intersection of Stewart Street, Protzman Street,  
Vangilder Street & Hoffman Avenue  
City of Morgantown, WV**

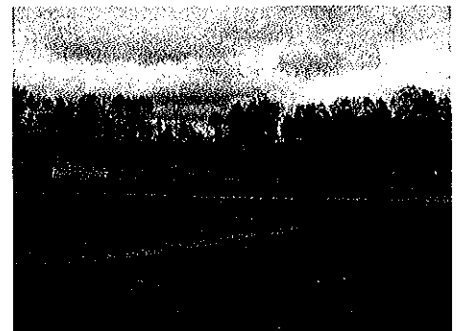


G&O was retained to provide engineering services which included a design study, final design, preparation of specifications, contract and bid documents, and construction management and inspection services for the evaluation, planning, and design of the intersection realignment of Stewart Street, Protzman Street, Vangilder Street, and Hoffman Avenue in the City of Morgantown.

**Ferguson Memorial Park Paving  
Shinnston, WV**



The project consisted of approximately 700 tons of asphalt base course, 350 tons of asphalt wearing course, crushed aggregate base course, drop inlet risers and existing concrete sidewalk removal and installation of handicap ramps. G&O is



responsible for the design and construction management services for this project. Design included site and drainage analysis, quantifying materials and cost estimates. Construction included inspection and engineering during construction.

# TECHNICAL QUALIFICATIONS

## ***GRASP OF PROJECT REQUIREMENTS***

G&O shall comply with the following WVDEP design guidelines, specifications and requirements to implement the project:

- ◆ WVDEP Design Guidelines
- ◆ In accordance with Federal, State & Local Regulations
- ◆ General Conditions and Standard Specifications

These standards cover a broad range of design and submittal requirements relating to topography, drainage design, grading plans, details for bat gates and wet seals, specifications, materials, etc.

G&O is experienced in complying with design requirements for the construction of mass grading, erosion control, site planning and appurtenances. In preparing the design plans for WVDEP G&O shall take into account such matters as:

- ◆ Constructability / cost effectiveness
- ◆ Impacts to surrounding property
- ◆ Serviceability to proposed customers
- ◆ System maintenance and overall cost-effectiveness
- ◆ Environmental and customer impacts

## ***APPROACH / METHODOLOGY***

This section describes our understanding of the project and our approach to the tasks to be assigned under this contract. We have obtained this understanding from the expression of interest.

### **Project Kickoff Meeting**

Prior to commencement of any project assessment or design, G&O will meet with WVDEP to clearly identify project goals, schedules, constraints and the design criteria. This step is useful in ensuring a quality project on the part of all parties and helps eliminate delays and cost overruns.

### **Pre-Design Feasibility Reports**

G&O shall perform a detailed review of the Final Feasibility Study and, if requested, provide design alternatives and cost estimates to help select the optimum design option. This study would utilize G&O's design experience and existing relationship with subconsultants to best accomplish the WVDEP's goal. Pre-design feasibility studies facilitate evaluation of viable alternatives and will allow the WVDEP to select the preferred alternative.

## **WVDEP DESIGN GUIDELINES**

G&O shall comply with the following WVDEP design guidelines, specifications and requirements:

- ◆ WVDEP Design Guidelines
- ◆ In accordance with Federal, State & Local Regulations
- ◆ General Conditions and Standard Specifications

In order to produce the overall most cost-effective design, G&O shall take the following into account when preparing design plans:

- ◆ Constructability / cost effectiveness
- ◆ Impacts to the surrounding property
- ◆ Serviceability to proposed customers
- ◆ System maintenance
- ◆ Environmental and customer impacts

## **Design Phase, Bid-Ready Contract Drawings & Specifications**

G&O is highly experienced in the development of construction bid documents, including plans, specification, estimates, and bid forms. We have developed these documents for public agencies at all levels. We subscribe to many of the governmental specifications systems and Master Spec. We are also very familiar with standard specifications and details approved by the WVDEP. Our past project experience has enabled us to develop a thorough understanding of specific design requirements such as mapping reference styles, standard notes, bid forms, and details to best convey to our clients and ultimately contractors the intent of the design. This leads to better bid cost upfront and fewer change orders during construction.

The design phase includes the collection of aerial mapping to determine existing conditions and preparation of grading and erosion control plans. Plan packages will include details and specifications for excavation, backfill, wet seals, bat gates, and other required items pertaining to relevant areas.

In preparing design plans, G&O shall take into account **environmental impacts, maintenance of vehicular traffic, constructability, maintenance, impact to the surrounding area to produce the overall most cost-effective design.**

### **Geotechnical Investigation**

The design of fill slopes and wet seals could require soil borings and geotechnical study for proper design. G&O's sub-consultant, H.C. Nutting, has geotechnical staff well experienced in field sub-surface studies, laboratory materials testing, data analyses, design recommendations, and construction methods for various projects in both private and public sectors.

## **Other Design Requirements**

Other design considerations and information on the plans may include:

- ◆ Typical Details (drainage structures, ditches, wet seals and bat gates)
- ◆ Sediment and erosion control
- ◆ Soils boring and geotechnical considerations
- ◆ Access roads and site plans

## **Construction Cost Estimating**

We believe that cost estimating must be an interactive part of the design process, providing budgetary feedback and value engineering on design alternatives. It is this participatory upfront input that allows the team to produce design concepts and drawing that are within the client's budget. Our cost control program builds value engineering into each design project. G&O will prepare, monitor, and finalize construction budgets and time estimates. Communication will occur at every phase of the project to ensure realistic costs. **G&O shall provide cost estimates with WVDEP approved unit items.**

## **Environmental Permitting**

The G&O Team includes an environmental team experienced in minimizing and mitigating any impacts to environmentally sensitive areas associated with infrastructure projects. G&O shall assist WVDEP in identifying, avoiding if possible and/or minimizing impacts to environmental constraints e.g. forest cover, historical sensitive areas, wetlands and waters of the US. We shall also provide reports, impact sketches and supporting material to help WVDEP obtain a Nationwide Permit from the Army Corp of Engineers and clearance from Culture & History if necessary.





**At the Federal level, we have in-depth familiarity with the following:**

- ◆ National Environmental Policy Act regulations, issued by Council on Environmental Quality, 40 CFR 1500-1508
- ◆ Section 9/10 of the Rivers and Harbors Act
- ◆ Sections 404 and 401 of the Clean Water Act of 1977/Water Quality of 1987 (33 USC 125101376)
- ◆ Sections 10, 309, and 176 of the Clean Air Act of 1970, as amended (42 USC 7401 et seq.); and the Clean Air Act Amendments of 1987
- ◆ EPA Section 404(b)(1) Guideline
- ◆ Section 2, Fish & Wildlife Coordination Act (16 USC 1533)
- ◆ Executive Order, 11990, Protection of Wetlands
- ◆ Executive Order, 11988, Floodplain Management
- ◆ Federal Noise Control Act of 1972
- ◆ Section 106, National Historic Preservation Act of 1996, as amended (16 USC 470) regulations of the Advisory Council of Historic Preservation (36 CFR 800)

**At the state and local levels, we have significant experience with the following:**

- ◆ Sediment and Erosion Control Regulations
- ◆ Stormwater Management Regulations
- ◆ WV Culture and History
- ◆ Water Quality Certification (Section 401)
- ◆ Fish and Wildlife

**Coordination**

Coordination between G&O, WVDEP, subconsultants and current property owners where the project is located will be extremely important to the success of the project. G&O will initialize and maintain effective communication between all parties involved in the project.

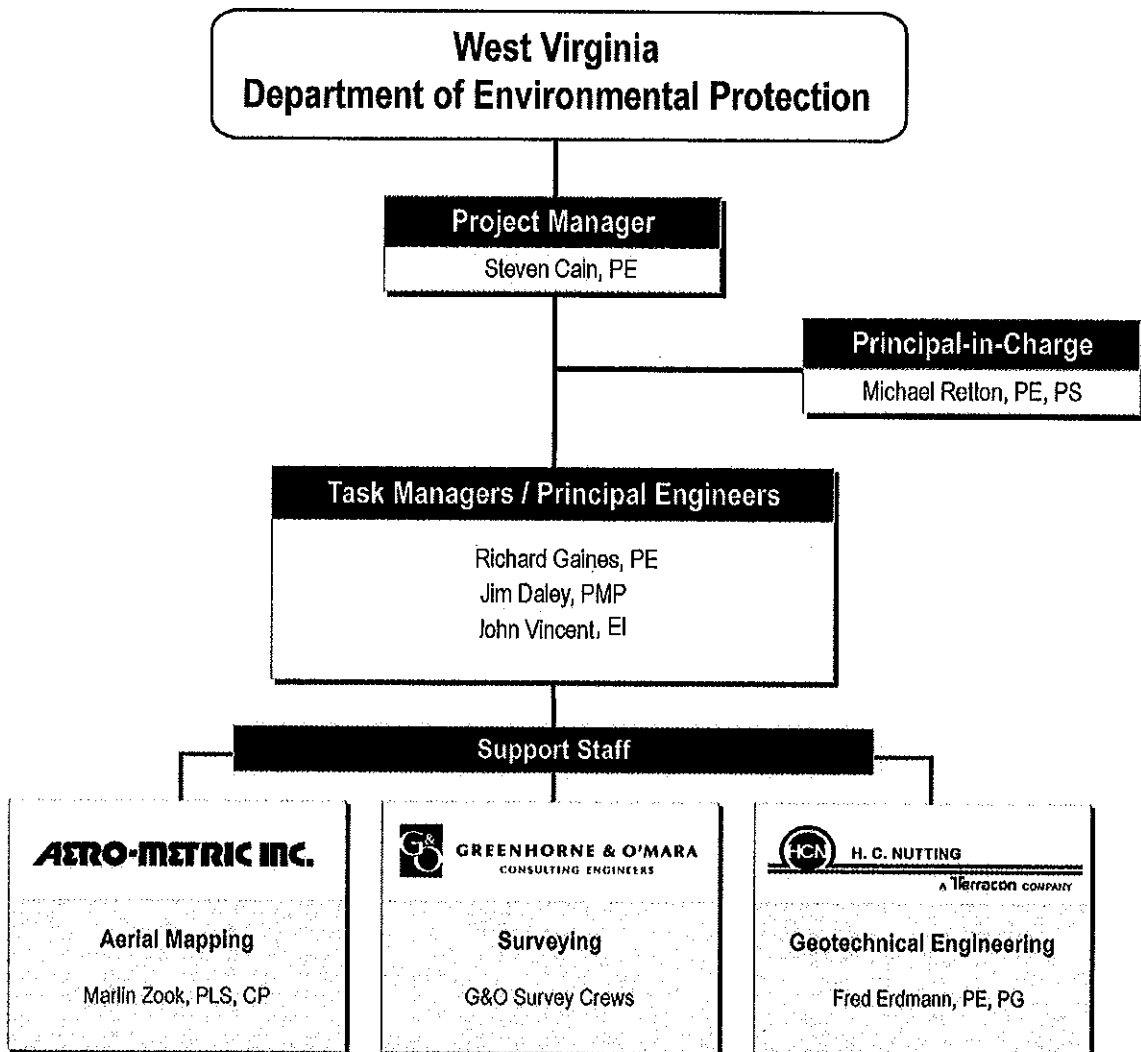


## KEY PROJECT TEAM MEMBERS - QUALIFICATIONS AND EXPERIENCE

G&O's project organization for WVDEP has been carefully selected for this contract to offer top professionals from our Fairmont Office. Individuals offered in this proposal possess pertinent local experience in conducting studies and preparing plans associated with projects of this nature. We have also included professionals from our subconsultant team to provide ancillary services if required by WVDEP, including geotechnical engineering and aerial mapping.

G&O's project organization for WVDEP has been carefully selected for this contract to offer high caliber professionals from our Fairmont office.

We present in this section our Team organization, followed by a summary of the pertinent **qualifications, experience, and location** of select **key project team members**, as well as the **percentage of time** each key team member will devote to the project during the life of the contract. **Additional staff information is included in our Expression of Interest.**



**Steven Cain, PE**

**Project Manager**

**Percent of Time Devoted to this Contract: 30%**

**Firm:** Greenhorne & O'Mara  
**Highest Degree:** BS  
**Years of Experience:** 15  
**Office Location:** Fairmont, WV

**Assignment / Responsibilities**

- ◆ Serve as primary point-of-contact for WVDEP
- ◆ Organize and apply personnel resources to meet contract commitments
- ◆ Designate task order managers and oversee task order execution
- ◆ Prepare progress reports and invoices
- ◆ Direct or execute work on individual task orders
- ◆ Report progress, expenditures, and results to the Project Manager
- ◆ Contract documents
- ◆ Ensure that all activities are accomplished to advance the goals of WVDEP's programs and projects

**Capabilities & Experience.** Mr. Cain, Department Head for G&O's Fairmont Civil Engineering Department, has more than 15 years of experience. His career has encompassed many aspects of civil engineering including land surveying, site development, sanitary sewer condition assessment, capacity evaluation, data management, rehabilitation design, wastewater treatment system design, potable water system design, hydraulic modeling, utility planning, computer aided drafting, and construction engineering.

**Relevant projects include:**

- ◆ Kingmill Valley Sanitary Sewer Improvements, Marion County, WV
- ◆ Alpine Lake Water Distribution System Reconstruction, Preston County, WV
- ◆ Mannington Waterline Extension, Marion County, WV
- ◆ Shinnston Waterline Reconstruction, Harrison County, WV
- ◆ Fairmont Sanitary Sewer Improvements, Marion County, WV
- ◆ Street Paving Project- Phase 1, Shinnston, WV
- ◆ Ferguson Memorial Park Paving, Shinnston, WV

**Michael Retton, PE, PS**

**Principal-in-Charge**

**Percent of Time Devoted to this Contract: 2%**

**Firm:** Greenhorne & O'Mara  
**Highest Degree:** BS  
**Years of Experience:** 26  
**Office Location:** Fairmont, WV

**Assignment / Responsibilities**

- ◆ Ensure availability of personnel and corporate financial resources
- ◆ Provide general guidance and advice to the Project Manager
- ◆ Solicit feedback on G&O contract performance from WVDEP

**Capabilities & Experience.** As Vice President of Engineering Services for the Mid-Atlantic Region, Mr. Retton is responsible for all civil/land development and general civil services projects performed in the Mid-Atlantic Region. He has 26 years of experience in land development planning, engineering, utility engineering and design, hydrologic/hydraulic analyses, design of sediment control ponds, and stormwater detention facilities.

**Relevant projects include:**

- ◆ AMD Treatment/Settlement Pond, Eastern Association Coal Corp, Martinka Mine, Levels WV
- ◆ Fairmont General Hospital Healthplex, Marion County, WV
- ◆ Mannington Waterline Extension, Marion County, WV
- ◆ Alpine Lake Sewer System Improvements, Preston County, WV
- ◆ Grant Town Water System Improvements, Marion Co., WV



**Richard Gaines, PE**

**Task Manager/Principal Engineer**  
 Percent of Time Devoted to this Contract: 20%

**Firm:** Greenhorne & O'Mara  
**Highest Degree:** BS  
**Years of Experience:** 23  
**Office Location:** Fairmont, WV

**Assignment / Responsibilities**

- ◆ Coordinate work with the G&O Project Manager
- ◆ Direct or execute work on individual task orders
- ◆ Report progress, expenditures, and results to the Project Manager
- ◆ Contract documents
- ◆ On-site takeover system services
- ◆ WVDEP permitting

**Capabilities & Experience.** A Senior Project Manager in G&O's Fairmont office, Mr. Gaines is experienced in design, plan preparation, and permit processing for land development projects. Design expertise includes storm drainage, water and sewer, sediment control, and land grading. He also is experienced in earthwork analysis, cost estimates, and feasibility studies.

**Relevant projects include:**

- ◆ Lyonsouth, Commercial Development Property, Nutter Fort, WV
- ◆ Lennox/ Cuzzart Water Line Extension, Preston County, WV
- ◆ Flowers Bakery - Commercial Site Plan, Marion County, WV
- ◆ The Havens – Commercial Site Plan, Mercer County, WV
- ◆ Weatherford Sand Plant - Commercial Site Plan, Barbour County, WV
- ◆ Winebrenners Crossing – Commercial Site Plan, Berkley County, WV
- ◆ Fisher Mountain Estates – Residential Subdivision, Pendleton County, WV
- ◆ Fairmont General Hospital Healthplex, Marion County, WV
- ◆ Preston County PSD #4 Water System Extensions
- ◆ Jane Lew PSD Potable Water System Improvements, Lewis County, WV

**Jim Daley, PMP**

**Task Manager/Principal Engineer**  
 Percent of Time Devoted to this Contract: 20%

**Firm:** Greenhorne & O'Mara  
**Highest Degree:** BS  
**Years of Experience:** 28  
**Office Location:** Fairmont, WV

**Assignment / Responsibilities**

- ◆ Prepare Work Plans for review by the Project Manager and WVDEP
- ◆ Coordinate work with the G&O Project Manager
- ◆ Direct or execute work on individual task orders
- ◆ Report progress, expenditures, and results to the Project Manager

**Capabilities & Experience.** Mr. Daley recently joined Greenhorne & O'Mara as its Director of Natural Gas and Energy Programs. In this position, he serves as our resident expert on the oil and gas industry, notably the Marcellus Shale play in Pennsylvania, West Virginia and Maryland. He represents G&O on several committees of the Pennsylvania Oil and Gas Association, notably the Environmental, Health and Safety, and Transportation and Marketing Committees, and soon will be representing G&O at the Marcellus Shale Coalition (beginning January 2011). He regularly meets with E&P and midstream companies to understand the regulatory and operational issues they face and to bring G&O services to these firms.

**Relevant projects include:**

- ◆ Underground Mine/Coal Preparation Plant Permanent Program Permit Applications
- ◆ Pursglove Mine No. 15 Permitting Efforts
- ◆ Emerald Mine No. 1 Re-permitting
- ◆ Skyline Preparation Plant Surface Disturbance Mining Permit Applications
- ◆ Incidental Mining Permit to Allow Relocation of Air Surveillance Radar for Midfield Construction



**John Vincent, EI**

**Task Manager/Principal Engineer**

Percent of Time Devoted to this Contract: 20%

**Firm:** Greenhorne & O'Mara  
**Highest Degree:** BS  
**Years of Experience:** 15  
**Office Location:** Fairmont, WV

Mr. Vincent has over 15 years experience in civil engineering projects. His career has encompassed many aspects of civil engineering including highway design, site development, sanitary sewer and surveying. Most recently he performed surface mining reclamation plans in conjunction with a public/private highway project in Mingo County.

**Assignment / Responsibilities**

- ◆ Prepare Work Plans for review by the Project Manager and WVDEP
- ◆ Coordinate work with the G&O Project Manager
- ◆ Direct or execute work on individual task orders  
Report progress, expenditures, and results to the Project Manager

Relevant projects include:

- ◆ Fairmont General Hospital Healthplex, Marion County, WV
- ◆ Kingmill Valley Sanitary Sewer Improvements, Marion County, WV
- ◆ Mannington Waterline Extension, Marion County, WV
- ◆ Shinnston Waterline Reconstruction, Harrison County, WV
- ◆ King Coal Highway (Red Jacket Section), Mingo County, WV
- ◆ King Coal Highway (Sharon Heights Section), Mingo County, WV
- ◆ Realignment of the Intersection of Stewart Street, Protzman Street, Vangilder Street, & Hoffman Avenue

**Marlin Zook, PLS, CP**

**Key Staff – Aerial Mapping**

Percent of Time Devoted to this Contract: 10%

- ◆ **Firm:** Aero-Metric, Inc.
- ◆ **Highest Degree:** AS
- ◆ **Years of Experience:** 30
- ◆ **Office Location:** Dulles, VA

**Assignment / Responsibilities**

- ◆ Ground Surveying
- ◆ Digital Mapping
- ◆ Digital Orthophoto Production
- ◆ Review of Final Delivery Items to the WVDEP

**Capabilities & Experience.** Mr. Zook has over 30 years experience in all aspects of photogrammetry. His career at Aero-Metric began in photogrammetric compilation and extended to all other mapping related operations such as flight planning, ground control surveys, drafting, analytical triangulation, volume computations, interactive graphics and data collection for input to a GIS. Current responsibilities include overseeing all phases of the photogrammetric process including aerial triangulation, compilation and digital edit. He is also responsible for directing the quality control and the survey team efforts. He has been in charge of all mapping projects from the planning phase to production for the past eighteen years at Aero-Metric.

Relevant projects include:

- ◆ PSD #4 Waterline Project, Brandonville, Preston County, WV (with G&O)
- ◆ Racket/Newberne Compressor Station Bridge Site, Newberne, Ritchie County, WV
- ◆ Hanlin-Allied-Olin Plant Site, Moundsville, Marshall County, WV
- ◆ Lewisburg Sewer Extension, Lewisburg, Greenbrier County, WV



**Fred Erdmann, PE, PG**

**Key Staff – Geotechnical Engineering**

Percent of Time Devoted to this Contract: 10%

**Firm:** H.C. Nutting/A Terracon Co.  
**Highest Degree:** MS  
**Years of Experience:** 40  
**Office Location:** Charleston, WV

**Capabilities & Experience.** Mr. Erdmann has over 40 years of experience in the areas of applied geological engineering. He provides project management and technical assistance to clients seeking solutions to tunnelling, mining engineering projects and mineral resource investigations.

**Assignment / Responsibilities**

- ◆ Coal Reserve Assessments
- ◆ Mining Feasibility Studies
- ◆ Coal Source Investigations Studies for Utilities
- ◆ Roof Support Plans and Studies
- ◆ Ground Subsidence Investigations
- ◆ Geotechnical Investigations
- ◆ Environmental Site Assessments
- ◆ Litigation Support

Relevant projects include:

- ◆ Conversion of Former Limestone Mines in Olive Hill, KY U.S. Army Corps of Engineers, Louisville District
- ◆ Marion County 911 Center near Fairmont, WV
- ◆ Liner Evaluation of the Elsinore Water Tunnel
- ◆ Geotechnical Study of a Deep Manhole
- ◆ Geotechnical Investigation for Proposed Access Shaft
- ◆ Tunnel Remediation and Test Pit Study for the Marathon Fuel Terminal
- ◆ Mine Subsidence Investigations in Eastern Ohio
- ◆ Mine Subsidence Assessment

**Rome Bruce, PE**

**Key Staff – Geotechnical Engineering**

Percent of Time Devoted to this Contract: 10%

**Firm:** H.C. Nutting/A Terracon Co.  
**Highest Degree:** BS  
**Years of Experience:** 30  
**Office Location:** Charleston, WV

**Capabilities & Experience.** Mr. Bruce has over 30 years of experience in the areas of applied geological engineering. He provides project management and technical assistance to clients seeking solutions to tunnelling, mining engineering projects and mineral resource investigations.

**Assignment / Responsibilities**

- ◆ Coal Reserve Assessments
- ◆ Mining Feasibility Studies
- ◆ Coal Source Investigations Studies for Utilities
- ◆ Roof Support Plans and Studies
- ◆ Ground Subsidence Investigations
- ◆ Geotechnical Investigations
- ◆ Environmental Site Assessments
- ◆ Litigation Support

Relevant projects include:

- ◆ Conversion of Former Limestone Mines in Olive Hill, KY U.S. Army Corps of Engineers, Louisville District
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- ◆ Tunnel Remediation and Test Pit Study for the Marathon Fuel Terminal
- ◆ Mine Subsidence Investigations in Eastern Ohio
- ◆ Mine Subsidence Assessment



## SUBCONSULTANTS



Greenhorne & O'Mara, Inc. (G&O) has put together an outstanding team to provide the consulting engineering services requested by the West Virginia Department of Environmental Protection (WVDEP) under this Expression of Interest. Together, G&O and its subconsultants, H.C. Nutting- A Terracon Company and Aero-Metric, Inc. blends discipline expertise and relevant experience with similar award-winning programs, local knowledge, and a solid background of working together. Team professionals possess the strong relevant experience, capability, and roll-up-your-sleeves know-how to get the job done right.



H. C. NUTTING

A Terracon COMPANY

H.C. Nutting/A Terracon Company routinely provides geotechnical/mining engineering, drilling, and testing services to the mining industry. From exploration studies to quality control during construction, they provide many services to help your operation succeed. H.C. Nutting will also be providing individual and definitive tasks for the Geotechnical Engineering aspects of the work for this project. With more than 150 geotechnical engineers and one of the largest drilling fleets in the country, HCN/Terracon is well positioned to deliver quality, responsive and cost-effective geotechnical engineering services, regardless of project size. Design and construction of functional, cost-effective structures require a thorough understanding of local soil, rock and groundwater conditions. HCN/Terracon provides a wide range of services to support all phases of a project, from preliminary design through completion of the building process.

H.C. Nutting/Terracon is a dynamic and growing consulting firm providing multiple related service lines to clients at local, regional and national levels. Their services are delivered on a timely basis with consistently high value and attention to client needs.

### **AERO-METRIC INC.**

Aero-Metric, Inc. is a leading provider of high-quality geospatial services to government and corporate clients. Geospatial services involve defining the earth's topographic shape, identifying and measuring its natural and man-made features and chronicling its condition using a variety of photogrammetric and image processing technologies.

Aero-Metric provides these services to clients in the form of planimetric mapping, topographic mapping, digital orthophoto imagery, digital elevation modeling, terrain mapping and other cartographic services. Aero-Metric's clients rely on these geospatial information services for feasibility studies, natural resource evaluation, engineering design and construction, temporal change detection and assessment, mapping, environmental monitoring, and numerous related applications. Aero-Metric has developed a blue-chip client base that includes some of the top domestic engineering and manufacturing firms, as well as a wide variety of federal, state and local government agencies.





# REFERENCES

## ***PRESTON COUNTY PUBLIC SERVICE DISTRICT #4***

Point of Contact	Mr. Robert (Al) Bailey, Chairman
Address	Preston County Public Service District #4 PO Box 370 Bruceeton Mills, WV 26525
Phone number	(304) 379-3130
Project Name Location	Clifton Mills Waterline Extension Preston County PSD #4, WV

## ***LYONSOUTH, LLC***

Point of Contact	Mr. James Lyons, President
Address	Lyonsouth, LLC. P.O. Box 669 Clarksburg, WV 26301
Phone number	(304) 624-6418
Project Name Location	LyonSouth- Commercial Development Property Clarksburg, WV

## ***JANE LEW PUBLIC SERVICE DISTRICT***

Point of Contact	Ms. Nancy Gee, General Manager
Address	Jane Lew Public Service District PO Box 845 Jane Lew, WV 26378
Phone number	(304) 884-7111
Project Name Location	Jane Lew Water Improvements Lewis County, WV

**MARION COUNTY COMMISSION**

Point of Contact	Mr. Richard Walton
Address	Marion County Commission 200 Jackson Street Fairmont, WV 26554
Phone number	(304) 367-5431
Project Name Location	Meredith Springs/Dakota Camp Area Sanitary Sewer Improvements and Extensions Project

**LGI LAND, INC.**

Point of Contact	Mr. Butch Alanis, Executive Vice President
Address	LGI Land, Inc. 19221 I-45 South, Suite 200 Conroe, TX 77385
Phone number	(281) 362-8998
Project Name Location	Fisher Mountain Pendleton County, WV

**CITY OF SHINNSTON**

Point of Contact	Ms. Debra Herndon, City Manager
Address	City of Shinnston 40 Main Street Shinnston, WV 26431
Phone number	(304) 789-6996
Project Name Location	Shinnston Water and Sewer System Improvements and Sewer Treatment Plant Harrison County, WV

***TOWN OF GRANT TOWN***

Point of Contact	Mr. Robert Riggs, Jr., Mayor
Address	Town of Grant Town PO Box 40 Grant Town, WV 26574
Phone number	(304) 278-7381
Project Name Location	Grant Town Water System Improvements Marion County, WV

***KINGMILL VALLEY PUBLIC SERVICE DISTRICT***

Point of Contact	Mr. Edd Abbadini, Chairman
Address	Kingmill Valley Public Service District 1707 Pleasant Valley Road Fairmont, WV 26554
Phone number	(304) 366-3928
Project Name Location	Kingmill Valley Sanitary Sewer Improvements Marion County, WV

***WEST FORK ON-SITE COMMUNITY COOPERATIVE, INC.***

Point of Contact	Mr. Paul Hamrick, Chairman
Address	West Fork On-Site Community Cooperative, Inc. Route 3 Box 352 Clarksburg, WV 26301
Phone number	(304) 622-5664
Project Name Location	West Fork On-Site Community Cooperative Demonstration Project Harrison County, WV

**FAIRMONT GENERAL HOSPITAL, INC**

Point of Contact	Mr. Albert Pilkington, III, CEO
Address	Fairmont General Hospital, Inc. 1325 Locust Avenue Fairmont, WV 26554
Phone number	(304) 367-7454
Project Name Location	Fairmont General Hospital Healthplex Marion County, WV

**WEATHERFORD INTERNATIONAL, INC.**

Point of Contact	Mr. Bryson VanNostrand, President
Address	VanNostrand Architects 29 East Main Street, Suite 4 Buckhannon, WV 26201
Phone number	(304) 473-0555
Project Name Location	Weatherford Sand Silos and Siding Century, WV

**BUTLER PROPERTIES, INC.**

Point of Contact	Mr. Clarke Coole, Vice President
Address	Butler Properties, Inc. One Paces West 2727 Paces Ferry Road, Suite 255 Atlanta, GA 30339
Phone number	(770) 433-9500 ext. 13
Project Name Location	Flowers Bakery Marion County, WV

## SUMMARY

### **LOCAL KNOWLEDGE**

**G&O has been in the Fairmont area since 1999.** We have been in business at our headquarters in Laurel, MD since its inception in 1950. During this time, **we have developed strong working relationships with nearly every state, county, and local government agency that operates within WVDEP boundaries, and are intimately familiar with all relevant codes, policy and procedures to successfully navigate jobs through to completion.**

G&O's Key Project Team Members have worked on similar projects in West Virginia while employed with other firms. Our staff members have also worked on multiple mass grading, drainage and erosion control projects throughout West Virginia and surrounding states.

### **WHY CHOOSE G&O?**

G&O provides comprehensive consulting services to perform studies, prepare plans and secure permits for projects of this nature. G&O has put together an outstanding team to provide the consulting engineering services WVDEP needs under this EOI.

**Technical Competence.** G&O has extensive experience with conceptual studies, designs, cost estimating, preparation of plans and specifications, and construction-related engineering and inspection services for engineering projects.

**Firm's Experience.** Founded in Prince George's County in 1950, our business revolves around surveying, planning, and engineering for transportation, land development, and sanitary engineering projects.

**Individual Experience.** The management and technical team is highly capable and experienced. G&O's project organization for WVDEP has been carefully selected for this project to offer top professionals mainly from our Fairmont office.

**Responsiveness.** WVDEP will find the G&O Team to be very responsive because G&O is committed to establishing our relationship with the WVDEP.

**Resources.** G&O and its Team members are committing over 600 professionals from our Mid-Atlantic offices.

**Prime / Sub Working Relationship.** G&O's working relationship with our team members date back to the late 1990s to early 2000.

**Quality of Work.** G&O is committed to the assurance of quality deliverables, free of errors and omissions, and to meeting and exceeding our customer's expectations.

**Timeliness.** A comprehensive budget, schedule, and quality assurance culture using customized cost-control and project management tools will ensure timely response.

**Cooperation.** G&O is committed to maintaining reliable day-to-day communication, providing monthly progress reports, and following established procedures to facilitate prompt communication with WVDEP. We will also adjust resources and schedules as required to meet WVDEP's project requirements.

**Location.** G&O will coordinate and perform all of the work required under this contract from our Fairmont office, at 111 Elkins Street.

**Principal Participation.** Senior management staff from G&O's Fairmont office will provide the day-to-day management and quality assurance for task orders under this contract.

**Bottom line.** G&O wants to earn your business and will work hard to retain your trust. We look forward to solidifying our relationship with you.

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

**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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (*West Virginia Code §61-5-3*), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Greenhorne & O'Mara, Inc.

Authorized Signature: [Signature] Date: 12/2/2010

State of West Virginia

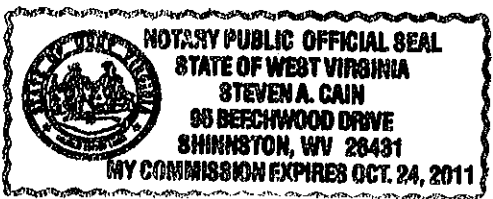
County of Marion, to-wit:

Taken, subscribed, and sworn to before me this 2 day of December, 2010

My Commission expires October 24, 2011.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]



PROJECT NAME  
**Hawkinberry Hollow Portals & Subs Design**

DATE (DAY, MONTH, YEAR)  
**December 2, 2010**

FEIN  
**04-476-0510**

1. FIRM NAME  
**Greenhorne & O'Mara, Inc.**

2. HOME OFFICE BUSINESS ADDRESS  
**6110 Frost Place  
 Laurel, Maryland 20707**

3. FORMER FIRM NAME

4. HOME OFFICE TELEPHONE  
**301-982-2800**

5. ESTABLISHED (YEAR)  
**1950**

6. TYPE OWNERSHIP  
**Individual Corporation**

6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)  
 YES **NO**

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE  
**111 Elkins St., Fairmont, WV 26554 / 304-367-9401 / Michael A. Retton, PE, PS / 24 Fairmont Office / 587 Company-wide**

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM  
**Michael A. Retton, PE, PS Gary Fazalare, PE / Department Head/Branch Manager / 304-367-9401**

9. PERSONNEL BY DISCIPLINE

93 ADMINISTRATIVE	—	ECOLOGISTS	11	LANDSCAPE ARCHITECTS	28	STRUCTURAL ENGINEERS
4 ARCHITECTS	—	ECONOMISTS	—	MECHANICAL ENGINEERS	87	<b>SURVEYORS</b>
— BIOLOGIST	—	ELECTRICAL ENGINEERS	—	<b>MINING ENGINEERS</b>	52	TRANSPORTATION ENGINEERS
33 CADD OPERATORS	43	ENVIRONMENTAL ENGINEER/SCIENTIST	—	PHOTOGRAMMETRISTS	85	OTHER
— CHEMICAL ENGINEERS	—	ESTIMATORS	15	PLANNERS: URBAN/REGIONAL	—	
73 CIVIL ENGINEERS	1	<b>GEOLOGISTS</b>	—	SANITARY ENGINEERS	—	
93 CONSTRUCTION INSPECTORS	1	HISTORIANS	—	SOILS ENGINEERS	—	
— DESIGNERS	1	HYDROLOGISTS	9	TECHNICAL WRITERS	629	* TOTAL PERSONNEL
— DRAFTSMEN	—					

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?  YES  NO **N/A**

\* COMPANY WIDE

PROJECT NAME <b>Hawkinberry Hollow Portals &amp; Subs Design</b>	DATE (DAY, MONTH, YEAR) <b>December 2, 2010</b>	FEIN <b>31-0394550</b>
1. FIRM NAME <b>H.C. Nutting- A Terracon Company</b>	2. HOME OFFICE BUSINESS ADDRESS <b>611 Lunken Park Drive, Cincinnati, OH 45226</b>	3. FORMER FIRM NAME
4. HOME OFFICE TELEPHONE <b>513-321-5816</b>	5. ESTABLISHED (YEAR) <b>1921</b>	6. TYPE OWNERSHIP <b>Individual Corporation Partnership Joint-Venture</b>
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE <b>PRIMARY AML DESIGN OFFICE: 912 Morris Street, Charleston, WV 25301 / 304.344.8021 / John Blair / 38</b> <b>ALL OTHER H.C. NUTTING/TERRACON OFFICES:</b> <b>611 Lunken Park Drive, Cincinnati, OH 45226 / 513.321.5816 / Jess A. Schroeder / 101</b> <b>790 Morrison Road, Columbus, OH 43230 / 614.863.3113 / Prasad Rege / 32</b> <b>349 Walnut Street, Suite 8, Lawrenceburg, IN 47025 / 812.539.4300 / Fred Erdmann / 1</b> <b>470-B Conway Court, Suite B-8, Lexington, KY 40511 / 859.455.8530 / Jess A. Schroeder / 9</b> <b>1414 E Schaaf Rd, Brooklyn Heights, OH 44131 / 216.459.8378 / Jim Prinic / 20</b>		
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM <b>R. Jackson Scott, James P. Cahill, Jess A. Schroeder, George C. Webb, Ronald J. Ebelhar, Swaminathan Srinivasan, Terry Stransky, Jason Sander, Ron Lech</b>		
8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS		
9. PERSONNEL BY DISCIPLINE		
12 ADMINISTRATIVE	— ECOLOGISTS	— LANDSCAPE ARCHITECTS
4 ARCHITECTS	— ECONOMISTS	— MECHANICAL ENGINEERS
— BIOLOGIST	— ELECTRICAL ENGINEERS	<b>1 MINING ENGINEERS</b>
<b>2 CADD OPERATORS</b>	6 ENVIRONMENTAL ENGINEER/SCIENTIST	— PHOTOGRAMMETRISTS
— CHEMICAL ENGINEERS	— ESTIMATORS	PLANNERS: URBAN/REGIONAL
<b>8 CIVIL ENGINEERS</b>	<b>3 GEOLOGISTS</b>	— SANITARY ENGINEERS
107 CONSTRUCTION INSPECTORS	HISTORIANS	41 SOILS ENGINEERS
— DESIGNERS	4 HYDROLOGISTS	— TECHNICAL WRITERS
1 DRAFTSMEN		201 TOTAL PERSONNEL
		* Company wide
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <b>3</b>		
*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.		
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input type="checkbox"/> NO <b>N/A</b>		



11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire".

NAME AND ADDRESS:  
**H.C. Nutting/A Terracon Company**  
 912 Morris Street  
 Charleston, WV 25301

SPECIALTY:  
 HCN/Terracon is well positioned to deliver quality, responsive and cost-effective geotechnical engineering services, regardless of project size. Design and construction of functional, cost-effective structures require a thorough understanding of local soil, rock and groundwater conditions. HCN/Terracon provides a wide range of services to support all phases of a project, from preliminary design through completion of the building process. H.C. Nutting/Terracon is a dynamic and growing consulting firm providing multiple related service lines to clients at local, regional and national levels. Their services are delivered on a timely basis with consistently high value and attention to client needs.

WORKED WITH BEFORE  
 Yes  
 No

NAME AND ADDRESS  
**Aero-Metric, Inc.**  
 45180 Business Court  
 Dulles, VA 20166

SPECIALTY:  
 At AERO-METRIC, professionals design and implement effective solutions to meet client requirements. Experienced pilots, aerial photographers, surveyors, photogrammetrists, cartographers, image processing experts, GIS analysts, and lab technicians blend their skills with sophisticated hardware and software systems to produce results our clients expect, using the latest technological innovations.

WORKED WITH BEFORE  
 Yes  
 No

NAME AND ADDRESS:

SPECIALTY:

WORKED WITH BEFORE  
 Yes  
 No

NAME AND ADDRESS:

SPECIALTY:

WORKED WITH BEFORE  
 Yes  
 No

NAME AND ADDRESS:

SPECIALTY:

WORKED WITH BEFORE  
 Yes  
 No

12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

**YES** Description and Number of Projects:

Our team of Greenhorne & O'Mara/ HC Nutting has experience in AML Remediation/ Mine Reclamation Engineering. The following projects are a few indications of this experience: McComas AML Coal Mine Refuse Pile, Mayo Hollow Mine Spoil Slide Repair, and Black Diamond Mine- Coal Company Audit. Full descriptions of these projects can be found in the Overall Capabilities section under Projects.

NO

B. Is your firm experienced in Soil Analysis?

**YES** Description and Number of Projects:

G&O has completed more than 180 projects requiring soil analysis. However, the majority of this analysis has been done to detect potential soil contamination. G&O routinely inspects and tests soils during the excavation of project sites for the presence of petroleum and other contaminants, in order to characterize the excavated materials as clean fill, petroleum contaminated, or hazardous materials. G&O's standards for environmental site assessments meet and/or exceed the requirements outlined in the current American Society for Testing and Materials (ASTM) standards, and the protocols established by OSHA and the EPA for work at hazardous waste sites.

NO

C. Is your firm experienced in hydrology and hydraulics?

**YES** Description and Number of Projects:

G&O has completed more than 250 projects involving hydrology and hydraulics (H&H). Services include H&H analysis and design, automated H&H modeling, floodplain hydrology and hydraulics, floodplain/floodway analysis and delineation, highway hydraulic structures, stormwater management, and reservoir analysis.

**Pipeline designs have included raw water supply, water distribution, and water transmission mains, repair and reconstruction and relocations. We are experienced in pipeline sleeve and tunnel crossings, pipeline suspension on bridges and other structures, and subaqueous stream and river crossings. G&O has developed computer models for water distribution systems, both for sizing new systems, and for analyzing existing systems for expansion and upgrading. These analyses have been performed both for peak normal demands and for fire flow conditions. We have the complete Haestad, INFOWORKS, KYPIPE, and SURGE software systems in-house, which we use routinely for hydraulic modeling.**

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

**YES** Description and Number of Projects:

NO

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

**YES** Description and Number of Projects:

G&O has provided **thousands of miles of domestic waterline design services** on nearly all of the residential development projects we've been involved with since 1950. **Projects number in the tens of thousands**, reaching from Pennsylvania to Florida. In addition to the domestic waterlines connecting directly to the water mains, we have also designed new service wells and evaluated existing wells as needed.

NO

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

**YES** Description and Number of Projects:

Our Greenhorne & O'Mara/HC Nutting team has 2 projects that are Acid Mine Drainage and Abatement Design Projects; Acid Mine Spoil Neutralization, Wellston Landfill Vegetative Cover Project and the Acid Mine Design Treatment/Settlement Pond for the Eastern Association Coal Corporation, Martinka Mine in Levels, West Virginia. Full descriptions of these projects are in the Overall Capabilities section under Projects.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Retton, Michael A.</b> Vice President, Engineering Services Mid-Atlantic	1	24	24
Brief Explanation of Responsibilities Mr. Retton is a Professional Engineer and Professional Surveyor with more than 25 years of experience in engineering design and project management. Mr. Retton has a vast array of municipal engineering experience, from detailed utility planning, design, and construction, to detailed site design and stormwater management. Mining/Grading experience includes the design and preparation plans for the AMD treatment/settlement pond for Eastern Association Coal Corp, Martinka Mine in Levels, WV.			
EDUCATION (Degree, Year, Specialization) B.S./1984/Civil Engineering Coursework/1986/Land Planning/Land Development Coursework/1987/Geotechnical Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS National Council of Examiners for Engineers and Surveyors, National Society of Professional Engineers, American Public Works Association, West Virginia Rural Water Association, National Public Works Association, American Society of Highway Engineers, American Council of Engineering Companies, West Virginia Contractors Association			
REGISTRATION (Type, Year, State) Professional Engineer / 1990 / WV Professional Surveyor / 1995 / WV Additional P.E. Registrations: VA, MD, PA, KY, NC, OH			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Fazalare, Gary J.</b> Department Head/Branch Manager	1	17	17
Brief Explanation of Responsibilities Mr. Fazalare has more than 16 years of experience in project management and civil engineering design. His career has encompassed many aspects of civil engineering including site development, sanitary sewer collection system design, wastewater pumping systems and transmission design, wastewater treatment systems design, water distribution system design, raw water intake design, raw and finished water transmission pipeline design, water treatment plant design, utility planning, computer aided drafting, and construction engineering.			
EDUCATION (Degree, Year, Specialization) B.S./1992/Engineering Technology Short Course/Design of Water Treatment Plants/Safe Drinking Water Act Short Course/Erosion and Sediment Control Short Course/KYPIPE Hydraulic Modeling			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS West Virginia Association of Consulting Engineers, West Virginia Rural Water Association, West Virginia Contractors Association, American Council of Engineering Companies, American Society of Highway Engineers, American Water Works Associations, Fairmont State University Technology Advisory Board			
REGISTRATION (Type, Year, State) Professional Engineer / 2000 / WV Additional P.E. Registrations: PA			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Cain, Steven A.</b> Department Head	1	16	16
Brief Explanation of Responsibilities			
Mr. Cain has more than 15 years experience in project management and civil engineering design. His career has encompassed many aspects of civil engineering including land surveying, site development, sanitary sewer network design, wastewater treatment system design, potable water system design, hydraulic modeling, utility planning, computer aided drafting, and construction engineering and inspection of all water and sewer facilities.			
EDUCATION (Degree, Year, Specialization) B.S./1992/Civil Engineering, Technology Short Course/Contemporary Wastewater Treatment Plant Design and Operation Short Course/Erosion and Sediment Control Short Course/Essential MicroStation			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Council of Engineering Companies, West Virginia Chapter; American Society of Highway Engineers; Water Environment Federation, West Virginia Contractors Association, West Virginia Rural Water Association			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Gaines, Richard L.</b> Senior Project Manager	1	20	20
Brief Explanation of Responsibilities			
Mr. Gaines has 23 years of experience in project management and civil engineering related to land development projects. His design experience includes potable water distribution systems, sewer collection and pumping systems, drainage and grading plans and permitting.			
EDUCATION (Degree, Year, Specialization) B.S./1987/Civil Engineering Technology A.S./1987/Mechanical Engineering Technology			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Member of National Society of Professional Engineers, Member of the Florida Engineering Society-Chapter President 2005-2006, West Virginia Contractors Association, West Virginia Rural Water Association, American Council of Engineering Companies			
REGISTRATION (Type, Year, State) Professional Engineer / 2007 / WV Professional Engineer / 2002 / VA			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Daley, Jim R.</b> Project Manager	10	28	0
Brief Explanation of Responsibilities			
Mr. Daley recently joined Greenhorne & O'Mara as its Director of Natural Gas and Energy Programs. In this position, he serves as our resident expert on the oil and gas industry, notably the Marcellus Shale play in Pennsylvania, West Virginia and Maryland. He represents G&O on several committees of the Pennsylvania Oil and Gas Association, notably the Environmental, Health and Safety, and Transportation and Marketing Committees, and soon will be representing G&O at the Marcellus Shale Coalition (beginning January 2011). He regularly meets with E&P and midstream companies to understand the regulatory and operational issues they face and to bring G&O services to these firms.			
EDUCATION (Degree, Year, Specialization)			
B.S., Environmental Resource Management, 1978, Penn State University Master's Certificate in Project Management, 2007, University of Pittsburgh Katz School of Business			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
West Virginia Oil and Gas Association Pennsylvania Oil and Gas Association National Coal Association and American Mining Congress			
REGISTRATION (Type, Year, State)			
Project Management Professional (PMP) # 456475 (Project Management Institute) National Charrette Institute, Charrette Planner Certification, August 2005			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Vincent, John D.</b> Project Designer	1	13	13
Brief Explanation of Responsibilities			
Mr. Vincent has 15 years experience in civil engineering projects. His career has encompassed many aspects of civil engineering including highway design, site development, sanitary sewer and surveying.			
EDUCATION (Degree, Year, Specialization)			
A.S./1994/Architectural Tech B.S./1994/Civil Engineering Tech			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
American Society of Highway Engineers, West Virginia Contractors Association, West Virginia Rural Water Association, American Council of Engineering Companies			
REGISTRATION (Type, Year, State)			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Zook, Marlin</b> Production Manager	0	30
Brief Explanation of Responsibilities		
Mr. Zook has over 30 years experience in all aspects of photogrammetry. His career at Aero-Metric began in photogrammetric compilation and extended to all other mapping related operations such as flight planning, ground control surveys, drafting, analytical triangulation, volume computations, Interactive graphics and data collection for input to a GIS.		
EDUCATION (Degree, Year, Specialization)		
A.S./1976/Civil Engineering-Survey		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		
REGISTRATION (Type, Year, State) Certified Photogrammetrist / 1993 Professional Land Surveyor / 1999 / NC		
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>Fred Erdmann, P.E., P.G.</b> Geotechnical Services Vice President	0	40
Brief Explanation of Responsibilities		
Mr. Erdmann has over 40 years of experience in the areas of applied geological engineering. He provides project management and technical assistance to clients seeking solutions to tunnelling, mining engineering projects and mineral resource investigations.		
EDUCATION (Degree, Year, Specialization)		
M.S./ Civil Engineering B.S./ Civil Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		
REGISTRATION (Type, Year, State) Professional Engineer / WV		

<p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>			
<p>NAME &amp; TITLE (Last, First, Middle Init.)</p>			
<p><b>Bruce, Rome E.</b>          Geotechnical Services          HCN- A Terracon Company</p>		<p>YEARS OF AML DESIGN EXPERIENCE:</p> <p style="text-align: center;"><b>0</b></p>	<p>YEARS OF AML RELATED DESIGN EXPERIENCE:</p> <p style="text-align: center;"><b>30</b></p>
		<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:</p> <p style="text-align: center;"><b>0</b></p>	
<p>Brief Explanation of Responsibilities</p> <p>Responsibilities include conceptual and final design, report and drawing preparation, development of construction specifications, construction bidding and contract documents, coordination and management of construction observation, volume and cost estimate calculations, hydrologic analysis, and hydraulic analysis of drainage channels, spillways, and detention ponds.</p>			
<p>EDUCATION (Degree, Year, Specialization)</p> <p>B.S./1979/CEE          A.A.S./1974/Civil Engineering</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>American Society of Civil Engineers          Solid Waste Assoc. of North America</p>		<p>REGISTRATION (Type, Year, State)</p> <p>Professional Engineer / IN, 1991/KY, 1995/MI, 1988/OH, 1988/WI, 1982</p>	



14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES

**Hardware**

**Network Servers:** 1) 1-IBM X-Series, 226 3.2 GHz, 1 GB Ram, 40 GB Data Storage Capacity, Windows 2000; 2) 7- Pent IV Workstation, 2.8 – 3.4 GHz, 512MB - 1Gig Ram, 40 – 80 Gig Hard drive, Dual 17" or 19" SVGA Monitor, 48 – 52X CD Rom, 128 – 256 MB VGA Video Ram; 3) 2- Pentium III, 700 -733MHz, 700 - 733MHz Ram, 40GB hard drive, 17" SVGA Monitor

**Portable Computers:** 1) 5-Laptop Computer, 1.5 – 2GHz, 512MB – 2GB Ram, 40 - 60Gig Hard Drive, 13" or 15" SVGA Monitor, 24 – 48X CD Rom, 8 – 16 MB Video Ram; 2) 1- BlackBerry Devices

**CADD Plotters and Printers:** 1) 1- HP1050 Wide Format Color Plotter; 2) 1- HP 1050c Wide Format Color Plotter; 3) 1- HP 8000 Laser Printer; 4) 1- Lexmark C920 Wide Format Color Printer; 5) 1- Ricoh 3045 Multifunction System (Printer, Scanner & Copier)

**Software - APPLICATION FOR CONTRACT**

**Geometric Design:** 1) MicroStation V8-CADD Software for Highway Planning, Bridge Design and Drafting; 2) MicroStation J- CADD Software for Highway Planning, Bridge Design and Drafting; 3) InRoads SelectCAD- Highway Design and Bridge Package, Interactive with MicroStation; 4) AutoCAD 2002 – 2006-CADD Design and Drafting software; 5) Land Desktop 2006- Design application software with CAD drafting software provides a base level of land development functionality to streamline the completion of common land planning and analysis tasks.; 6) Civil 3D 2006- CADD Design, Drafting and management software; 7) KYP/PIPE- Hydraulic Modeling software; 8) Pondpack 10- Detention Pond Design & Urban Hydrology Modeling software

**Project Management & Engineering Analysis & Documentation:** 1) MS Project 98- Graphical Project Management; 2) MS Office Suite 2003 & 2007- Word Processing, Spreadsheet, Database, Presentation

**Presentation & Public Involvement:** 1) Adobe Photoshop Element- Photo Enhancement; 2) MS Publisher 2003- Newsletter Publications; 3) MS PowerPoint 2003- Interactive Computer Presentations; 4) Adobe Acrobat 5, 7- PDF Creator

**Operating Systems:** 1) Win XP / Win2000 Pro- Operating System for Administrative Workstations; 2) Win XP / Win2000 Pro- Operating System for CADD Workstations; 3) Veritas BackupExec- Daily System Backup Software; 4) Outlook 2003 & 2007- eMail

15. CURRENT ACTIVITIES ON WHICH **GREENHORNE & O'MARA, INC.** IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
<b>Lenox/Cuzzart Waterline Extension</b>	WVDEP Office of AML&R 601 57 <sup>th</sup> Street SE Charleston, WV 25304	Preliminary engineering, design, final design, and permit applications	\$10M	95%
<b>Lyonsoth Commerical Site Development</b>	Lyonsoth, LLC. P.O. Box 669 Clarksburg, WV 26301	Preliminary engineering, design and construction engineering & inspection	\$750K	90%
<b>Stonewood Sanitary Sewer Improvements Project</b>	City of Stonewood 112 Southern Avenue Stonewood, WV 26301	Preliminary engineering, design and construction engineering & inspection	\$2.5M	15%
<b>Grafton Sanitary Sewer Separation Project</b>	City of Grafton 1 West Main Street Grafton, WV 26354	Preliminary engineering, design and construction engineering & inspection	\$2.5M	20%
<b>Clarksburg- Harrison Regional Housing Authority Sanitary Sewer Improvements Project</b>	Clarksburg-Harrison Regional Housing Authority 433 Baltimore Avenue Clarksburg, WV 26301	Preliminary engineering, design and construction engineering & inspection	\$500K	25%
<b>Preston County PSD #4 Clifton Mills Waterline Extension</b>	Preston County PSD #4 PO Box 370 Bruceeton Mills, WV 26525	Preliminary engineering, design and construction engineering & inspection	\$4.1M	75%
<b>Shinnston I&amp;I &amp; WWTP Improvements</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	Preliminary engineering, design and construction engineering & inspection	\$3.5M	90%
<b>Kingmill Valley Sewer Improvements</b>	Kingmill Valley PSD 1707 Pleasant Valley Road Pleasant Valley, WV 26554	Preliminary engineering, design and construction engineering & inspection	\$2M	95%

<b>Grant Town Water Distribution Upgrade</b>	Town of Grant Town PO Box 40 Grant Town, WV 26574	Design and construction engineering & inspection	\$105K	90%
TOTAL NUMBER OF PROJECTS: <b>8</b>				
<b>15. CURRENT ACTIVITIES ON WHICH YOUR HCN- A TERRACON COMPANY IS THE DESIGNATED ENGINEER OF RECORD</b>				
<b>US 65 Iowa Falls Bridge</b>	Iowa Department of Transportation	Retaining Wall Design	\$2M	0%
TOTAL NUMBER OF PROJECTS: <b>1</b>				
TOTAL ESTIMATED CONSTRUCTION COSTS: <b>\$25,955,000.00</b>				
TOTAL ESTIMATED CONSTRUCTION COSTS: <b>\$2,000,000.00</b>				



16. CURRENT ACTIVITIES ON WHICH **HCN- A TERRACON COMPANY** IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Coalfields Expressway, Helen, WV	Geotechnical Engineering Analysis and Design	WVDOH, M. C. S & T			\$29,000
Appalachian Corridor H - Section 6, Moorefield, WV	Geotechnical Engineering Analysis and Design	WVDOH c/o Michael Baker, Jr., Inc.			\$14,000
Corridor H - Bismarck to Forman Section, Bismarck, WV	Geotechnical Engineering Analysis and Design	WVDOH c/o Chapman Technical Group			\$14,000
Corridor H Bismarck RTO Form, Grant County, WV	Geotechnical Engineering Analysis and Design	WVDOH C/O Buchart Horn, Inc.			\$150,000
Six Proposed Design Build Bridges, Charleston, WV	Geotechnical Engineering Analysis and Design	WVDOH c/o Wilbur Smith Associates			\$30,000
WV 10 - Dabney to Stollings, Dabney, WV	Geotechnical Engineering Analysis and Design	WVDOH C/O Chapman Technical Group			\$97,000
South Branch Bridge Abutment 1 Slope Protection, Moorefield, WV	Geotechnical Engineering Analysis and Design	WVDOH C/O Michael Baker, Jr., Inc.			\$23,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH GREENHORNE & O'MARA, INC WAS THE DESIGNATED ENGINEER OF RECORD		ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER			
Jane Lew Water Improvements	Jane Lew PSD PO Box 845 Jane Lew, WV 26378	\$750K	2010	Yes
Alpine Lake WWTP & Collection System Improvements	Alpine Lake Public Utility Co. 700 W. Alpine Drive Terra Alta, WV 26764	\$3M	2009	Yes
Fairmont – Mannington Water Transmission Main Extension	City of Fairmont 200 Jackson Street Fairmont, WV 26554	\$4M	2009	Yes
Rt. 250 Waterline Relocation	City of Shinnston 40 Main Street Shinnston, WV 26431	\$185K	2010	Yes
Rt. 250 Sewer Relocation	City of Fairmont 200 Jackson Street Fairmont, WV 26554	\$390K	2009	Yes
West Fork Coop – WW & Collection System Improvements	West Fork On-Site Community Cooperative, Inc. Rt. 3 Box 352 Clarksburg, WV 26301	\$3.5M	2009	Yes
Beincosa Sewer Extension	John Benincosa 36 Byers Lane Clarksburg, WV 26301	\$20K	2009	No
Walnut Streetscape Beautification	Paradigm Architecture 2223 Cheat Road, Suite 300 Morgantown, WV 26508	\$325K	2009	Yes

<b>Shinnston Water System Improvements Project</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	\$3.5M	2007	Yes
<b>Fairmont Sanitary Sewer Improvements</b>	City of Fairmont 200 Jackson Street Fairmont, WV 26554	\$4.7M	2008	No
<b>Alpine Lake Water Treatment and Distribution System Upgrades</b>	Alpine Lake Public Utility Co. 700 W. Alpine Drive Terra Alta, WV 26764	\$1.6M	2007	No
<b>Rt. 19 &amp; 20 Sewer Extension</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	\$50K	2005	Yes
<b>US Route 19 Sewer Line Extension</b>	City of Clarksburg 222 West Main Street Clarksburg, WV 26301	\$235K	2006	Yes
<b>Hundred-Littleton Waterline Project</b>	Hundred-Littleton PSD PO Box 880 Hundred, WV 26575	\$2.5M	2005	Yes
<b>Golf Estates Water Treatment Facility</b>	Golf Estates PO Box 340 Franklin, WV 26807	\$500K	2006	No
<b>Spruce Knob Mountain Center Water System Design</b>	The Mountain Institute 906 Rawley Avenue Morgantown, WV 26505	\$130K	2006	No
<b>Gypsy Bridge Waterline</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	\$26K	2006	Yes

<b>Morgantown House Demolition</b>	City of Morgantown 389 Spruce Street Morgantown, WV 26505	\$130K	2005	Yes
<b>Fairview Sidewalk Improvements</b>	Town of Fairview PO Box 119 Fairview, WV 26570	\$110K	2005	Yes
<b>Patteson Drive Sidewalk Improvements</b>	City of Morgantown 389 Spruce Street Morgantown, WV 26505	\$250K	2006	Yes
<b>Street Lighting and Sidewalk Repair</b>	Town of Lumberport PO Box 519 Lumberport, WV 26386	\$60K	2005	Yes
<b>Clarksburg Building Demolition</b>	City of Clarksburg 222 West Main Street Clarksburg, WV 26301	\$500K	2006	Yes
<b>Shinnston Route 19 Sidewalk Improvements</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	\$90K	2007	Yes
<b>James and Darst Streets Sidewalk Improvements</b>	City of Morgantown 389 Spruce Street Morgantown, WV 26505	\$115K	2006	Yes
<b>High Street Improvements Project Retaining Wall and Sidewalks</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	\$300K	2006	Yes
<b>Ray Dental Office Site Plan</b>	Linda Ray, DDS 100 Village Drive Suite 301 Fairmont, WV 26554	\$100K	2005	Yes



<b>Morgantown Welcome Sign</b>	City of Morgantown 389 Spruce Street Morgantown, WV 26505	\$25K	2007	Yes
<b>Riverdale Estates Inspection</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	\$50K	2006	Yes
<b>Maple Lane Estates</b>	Craig Marple 3456 Sandflat Road Oakland, MD 21550	\$75K	2005	No
<b>Morgantown Wayfinding Signs</b>	City of Morgantown 389 Spruce Street Morgantown, WV 26505	\$90K	2007	Yes
<b>City of Morgantown 4 Way Intersection Traffic Calming</b>	City of Morgantown 389 Spruce Street Morgantown, WV 26505	\$50K	2007	Yes
<b>Shinnston Park Paving</b>	City of Shinnston 40 Main Street Shinnston, WV 26431	\$75K	2006	Yes
<b>Boothsville T-Beam Bridge Replacement</b>	West Virginia Division of Highways 1900 Kanawha Blvd, East Charleston, WV 25305	\$750K	2007	Yes

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH <b>HCN- A TERRACON COMPANY</b> WAS THE DESIGNATED ENGINEER OF RECORD	PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Proposed New Dormitories, Mine Subsidence Assessment and Grouting Specifications	Hocking College, Nelsonville, Ohio	\$110K	2006	Yes	
Mine Grouting Specifications for the Proposed Marion County 911 Building, Fairmont, WV	WVDOH C/O Burgess & Niple 4424 Emerson Avenue Parkersburg, West Virginia 26104	Unknown	2006	No	
Ventilation Tunnel Remediation and Sealing, Marathon Fuel Terminal, Covington, KY	Marathon Petroleum, LLC Finlay, Ohio	Unknown	2006	Yes	
Mine Subsidence Assessment, Melody Mountain Development Project, Ashland, KY	R.G. Properties 8163 Old Yankee Road Suite B Dayton, Ohio 45458	\$200K	2006	No	
Peoples Bank of Mullens, Mine Subsidence Assessment and Preparation of Grouting Specifications	Peoples Bank of Mullens P.O. Box 817 Mullens, WV 25882	Unknown	2007	No	
James Rumsey Potomac River Bridge Shepherdstown, West Virginia and Sharpsburg, Maryland	West Virginia DOT	\$600K	2006	Yes	
St. Anthony Falls I-35W Bridge St. Anthony Falls, Minnesota	Minnesota DOT	\$40,000	2007	Yes	

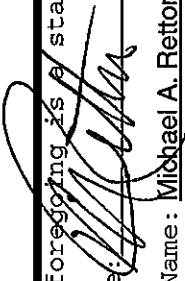
18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH GREENHORNE & O'MARA, INC HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Jacksons Mill Road Design	WVU	\$400K	2007	Yes	VanNostrand Architects
Appalachian Corridor H	West Virginia Division of Highways 1900 Kanawha Blvd, East Charleston, WV 25305	\$8.5M	2006	Yes	Johnson Mirmiran and Thompson
Fairmont General Hospital Healthplex	Fairmont General Hospital 1325 Locust Ave. Fairmont, WV 26554	\$4.5M	2008	Yes	Browning Day Mullins Dierdorf Architects
Weatherford Sand Silos and Siding	Weatherford International, Inc. Barbour County, WV	\$28K	2008	No	VanNostrand Architects
The Havens Commerical Site Plan	Ridge Care, Inc. Princeton, WV	\$6K	2008	No	VanNostrand Architects

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH <b>HCN-A TERRACON COMPANY</b> HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)						
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH	
<b>McComas AML Coal Mine Refuse Pile Mercer County, West VA</b>	West Virginia Office of Abandoned Mined Lands and Reclamation.	\$28,000	2008	Yes	Stafford Consultants Incorporated, Princeton, WV	
<b>Mine Subsidence Assessment, Mountain View High School Addition, Welch, WV</b>	Mountain View High School	Unknown	2006	Yes	ZMM, Inc.	
<b>Highwall Stability Assessment and Rock Fall Protection Design, Welch, WV</b>	U.S. Bureau of Prisons	\$172K	2006	Yes	DMJM Harris	
<b>Stabilization of Mine Spoil by Dynamic Compaction for Substations and Transmission Towers.</b>	GenPower Longview Power Project Maidville, WV and Dunkard, PA	Unknown	2006	Not Yet	Beta Engineering	
<b>Marmet Locks and Dam Construction Belle, West Virginia</b>	USACE	\$100K	2008	Yes	Kokosing Fru-Con	

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.


20. The foregoing is a statement of facts for Greenhorne & O'Mara, Inc.

Signature:  Title: Vice President, Mid-Atlantic Transportation

Printed Name: Michael A. Retton, PE, PS

Date: December 2, 2010

20. The foregoing is a statement of facts for H.C. Nutting- A Terracon Company.

Signature:  Title: Office Manager-Charleston, WV

Printed Name: John T. Blair

Date: December 2, 2010