



—AN ATLAS COMPANY—

ATC Group Services LLC  
1000 Technology Drive  
Fairmont, WV 26554  
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February 18, 2020

Mr. Guy Nisbet  
Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

**Re: Expression of Interest**  
West Virginia Division of Natural Resources  
Public Shooting Range Improvements and Lead Management Plan

RECEIVED  
2020 FEB 19 AM 8:54  
WV PURCHASING  
DIVISION

Dear Mr. Nisbet:

ATC Group Services LLC (ATC) is pleased to have the opportunity to express our interest and submit our qualifications to perform engineering and other professional services to evaluate and provide design improvements to 29 public shooting ranges owned and operated by the West Virginia Division of Natural Resources (DNR).

ATC is a multi-disciplinary environmental engineering and consulting firm providing a wide range of services to a broad client base from both the public and private sectors since its establishment in 1987. We are a national, full-service firm specializing in environmental remediation, geotechnical engineering, construction management and inspection, construction materials testing, surveying, laboratory services, and water, wastewater, and stormwater engineering services.

With a dedicated and committed team of highly qualified engineers and scientists, the West Virginia DNR will have the highest standard of service and immediate availability of our team while receiving innovative and cost-effective solutions designed to address the Agency's unique and individual challenges.

We appreciate this opportunity to express our interest in working with the West Virginia DNR and look forward to having an opportunity to assist on this effort.

Sincerely,

Dan Miller, PE  
Senior Project Manager  
Direct Line: (304) 964-9085  
Email: [daniel.miller@atcgs.com](mailto:daniel.miller@atcgs.com)

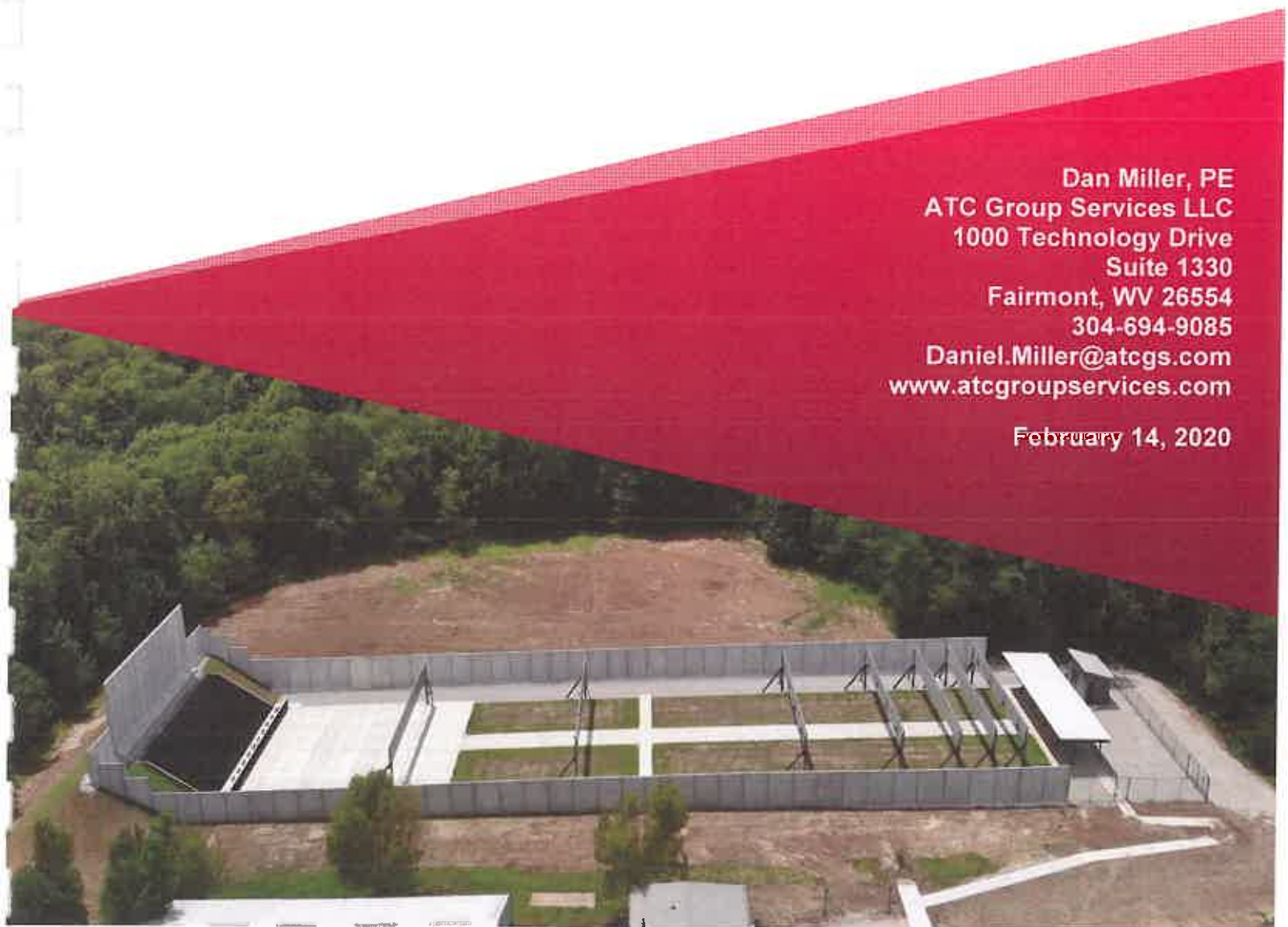
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Engineering Division Manager  
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# West Virginia Division of Natural Resources

## Public Shooting Range Improvements and Lead Management Plan

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February 14, 2020



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## SECTION A: FIRM DESCRIPTION

**ATC Group Services** (ATC) is pleased to submit our qualifications to perform Engineering and Other Professional Services to Evaluate and Design Improvements to the Agency's 29 Public Shooting Ranges and provide a Specific Lead Management Plan for each site and for the West Virginia Division of Natural Resources (DNR).

The following is the pertinent information on our firm:

ATC is one of the most-diversified environmental firms in the United States. Over the past 30 years, ATC has become one of the leading national providers of environmental and engineering support services. We are a national, full-service firm specializing in environmental remediation, geotechnical engineering, construction management and inspection, construction materials testing, surveying, laboratory services, and water, wastewater, and stormwater engineering services.

Clients turn to ATC for help navigating complex environmental and engineering challenges because of our reputation for integrity, responsiveness, and innovation.

ATC maintains over 140 offices throughout the United States with over 3,000 employees providing our clients' access to a diverse group of qualified professionals with an in-depth knowledge of local, state and federal regulatory standards. Our professionals have managed thousands of projects providing safe, effective solutions for many varied and unique challenges.

ATC Group Services has been named to Engineering News-Record's (ENR) list of the Top 200 Environmental Firms. Published annually in August, the list ranks the top environmental services companies worldwide based on the previous year's percentage of gross revenue for environmental services. ATC is ranked No. 62 on this year's list. In addition, ATC was ranked at the No. 7 spot on this year's Top 10 Environmental Management sector list. The Top 10 Environmental Management sector includes companies that earn top revenue amounts from compliance, due diligence, audits, and remediation.

Equally important to all of our technical qualifications is our commitment to health and safety. ATC's Safety First policy is a comprehensive health and safety program that includes weekly, monthly, and annual training of all employees, web-based training modules for all staff, site-specific health and safety plans for all projects, safety audits and pre-qualification surveys for subcontractors, job safety analyses for field tasks, and designated health and safety officers in each office location. Safety is a number one priority for our employees, our subcontractors, and our clients and stakeholders.





## **SECTION B: PROJECT APPROACH and PLAN**

### **Project Understanding**

Based on ATC's understanding of the project, the West Virginia Division of Natural Resources (DNR) is seeking qualified firms to provide evaluations and design improvements as well as develop a lead management plan, for each of the DNR's 29 state owned shooting ranges located throughout the state of West Virginia. Based on ATC's review of the Request for Qualifications (RFQ) dated January 21, 2020, key elements of the scope of work can be summarized as follows:

- Review existing plans and conditions as well as the operation of each facility to develop a plan that can be implemented in a manner that will minimize disruption to operation of the facility and meet all DNR objectives.
- Throughout the evaluation and design process, provide consistent updates to DNR to ensure a cohesive, cost effective, and mutually acceptable strategy is developed.
- Provide all necessary services to design the facilities described in a manner that is consistent with the DNR's needs, objectives, current law, and current code. Provide services in accordance with DNR's plan to design and execute the project within the project budget.
- Provide Construction Contract Administration Services to ensure the project is constructed and functions as designed.

ATC recognizes the complexity of this project, and understands that changes in scope based on information gathered during Site investigations may be necessary. ATC's project team is capable of adapting as needed to meet the DNR's objectives.

### **Project Execution Plan**

#### **Firing Range Design and Initial Evaluation**

ATC will meet with DNR staff to obtain additional information on the ranges. The ranges will be assigned priority ranking to ensure that the primary focus for the contract is placed on the highest priority ranges. We suggest priority should be placed on the ranges with highest volume of use. If there are ranges in proximity to residential areas that may be experiencing some issues or complaints, then those may be prioritized higher. Type of range may also provide higher prioritization, such as pistol/rifle ranges over trap and skeet or archery ranges. DNR staff may even have their own internal priorities that we are not aware of.

ATC will work with the DNR to establish criteria by which the ranges will be evaluated. This will limit the scope of items that we are considering when evaluating a range. We don't want to open the criteria up to just anything that may be of interest in an area. Some suggestions for evaluation criteria would be:

1. Range safety – Safety is priority. This would include safety for range users and safety for general public in the vicinity of the range.

2. Bullet/lead containment –This dovetails in with safety but will evaluate how bullets are contained within the range as well as the potential for accumulated lead to migrate off site (storm water typically)
3. Function of the range – How is the range laid out for range users. Is the range set up such that users can easily access the range? Is supervision provided at the range? Are there fees for targets?
4. Support features - Are other ancillary services provided or desired (bathrooms, concessions, shooting supplies)? How does the range function with regard to the firing area (is it one long firing line or is there a more intimate area that can be reserved for one or two people)?
5. Future range usage -- Is expansion of the range or supporting structures anticipated?
6. Other ancillary issues at the range – parking, stormwater, noise (effect on adjacent neighbors), trash at range.

Following communication between ATC and the DNR, ATC will generate an outline of expected deliverables required for the evaluation of each range. These may include:

1. Written reports detailing findings, issues and recommendations for correcting issues
2. Permit applications and/or other state, county, or local municipality approvals
3. Conceptual designs
4. Bid specifications
5. Budgetary cost estimates for construction or repairs

Based on ATC's experience with similar projects, ATC anticipates that the project scope may require a wide variety of engineering and architectural capabilities to fully support the DNR's project needs. Some of the tasks that may be encountered may include:

1. Environmental due diligence (Phase I Environmental Site Assessment)
2. Planning, zoning, and code compliance review
3. Topographic survey
4. Environmental remediation and regulatory
5. Wetlands and watercourse investigation
6. Noise survey and design of noise mitigation measures
7. Stormwater mitigation measures and Erosion and Sedimentation Control Plans
8. Design of support structures (restrooms, concessions, pavilions, ect.) or recreational site features.

ATC's multi-disciplinary project team is fully capable of providing the services outlined above as necessary to meet the DNR's objectives.

### ***Project Communications***

ATC will serve as the principle project manager and will be responsible for coordinating all work associated with the project. ATC will utilize single point of contact and will assign Mr. Dan Miller as the dedicated project manager and Engineer of Record for the project.

ATC recognizes the value in frequent communications with its partners, subcontractors, and the DNR. ATC proposes to conduct weekly project progress calls with the DNR, and others as necessary to ensure project goals are being met.

## SECTION C: QUALIFICATIONS of TEAM

ATC's highly qualified professionals in our Fairmont, WV office will be leading and providing services for the project. Depending on project requirements, ATC may partner with highly qualified architectural, engineering and technical consulting firms, as needed, to strengthen and expand our capabilities for this project.

As detailed in the following sections of this proposal, our proposed team brings flexibility and unique qualifications that are summarized in the following bulleted list. Additional details of each item can be found throughout this SOQ.

- ATC Group Services LLC and potential teaming firms Miller Engineering, Inc., Montum Architecture, LLC, Keystone Consultants, LLC, and Range Design Services (RDS) have local offices in West Virginia, Pennsylvania and Idaho.
- Extensive shooting range design experience:
  - Range Evaluation
  - Safety Analysis
  - Design of Firing Range Elements
- Expertise in providing other state agencies and cities with similar requested services.
- The ability to create flexible project teams, with other highly qualified firms, to address site-specific concerns or desired design elements, as each shooting range may present its own challenges.

### **ATC's RELEVANT WORK EXPERIENCE**

#### ***Lead Remediation***

ATC has designed and completed remedial actions at thousands of properties, which has given us a very good understanding of regulatory requirements and various remediation techniques. Gun ranges typically do not require full remediation unless the course has been or will be abandoned, in which case the federal Resource Conservation and Recovery Act (RCRA) could cause spent lead bullets and shot to be viewed as a solid waste or possibly a hazardous waste. Lead that is recycled or reused from active gun ranges is considered a scrap metal, which is excluded from RCRA regulation. ATC can design a lead reclamation program for the WVDNR gun ranges that will recover spent lead fragments and permit reuse of soils on site, with no need for extensive site characterization or remediation.

#### ***Geotechnical Engineering***

ATC's engineers have extensive experience addressing subsurface conditions and geotechnical issues throughout all project phases including feasibility, planning, design, development, construction, and post-construction.

ATC helps mitigate geotechnical issues up front to assure an efficient foundation design while minimizing change orders, delays, and overall costs. ATC's resources are complemented by our full-service AASHTO-certified laboratories, fleet of in-house and qualified subcontractor all-terrain and truck-mounted drill rigs, and exploration equipment to evaluate soil and rock conditions.

ATC's geotechnical engineering services include soil borings/drilling, In-situ testing, laboratory testing, site feasibility studies, foundations design, groundwater control, slope stability analysis,

ICC shear wave velocity profile investigations, ICC site-specific seismic assessments and computerized engineering evaluations.

### ***Stormwater Design***

ATC specializes in the management of water and stormwater to effectively protect the environment and enhance the quality of life. ATC engineers have extensive experience in water resources management and stormwater management. ATC engineers integrate regulatory permitting and compliance to ensure its clients' needs are met.

### ***Erosion and Sediment Control Plans***

ATC provides erosion and sediment controls design, installation, inspection, maintenance, and reporting services for large and small construction sites, pipelines, etc. ATC ensures compliance with required permits and regulations. Erosion and sediment control plans will identify and protect regulated resources such as wetlands, protected species areas, streams, and cultural resource sites from erosion and sedimentation.

## **PARTNERS**

ATC is proud to present a highly skilled and diversified team with tremendous experience and dedication to this project. Our partners include:

### **Range Design Services, LLC (Minority-Owned Business Enterprise)**

ATC plans to utilize Range Design Services, LLC (RDS) as an essential team member throughout this project. RDS has a well-established expert team with over 85 years of combined experience in the shooting range industry. RDS' team has worked on over 200 indoor and outdoor range facilities, providing a variety of services. RDS can assist with the many challenges that come with building, owning and operating a range; including the following services:

#### **Range Evaluations & Safety Analysis**

RDS' range evaluations will include a site visit by an RDS Range Expert to assess current range operations, safety features and procedures. For new ranges (if any are planned as a result of site evaluations), RDS will evaluate the area to determine the proper placement and orientation of a range. RDS will not only identify potential safety problems at firing ranges, but also works to provide customized workable solutions to correct problems such as; sound mitigation, ballistic containment, surface danger zone, and feasibility.

#### **Design**

RDS' design team helps navigate the process of developing a workable range design that will meet the range owner's objectives. RDS typically recommends a phased approach for range construction projects to help maximize budgetary resources on new construction or existing range modifications.

RDS is an expert in all of the following small arms range features: overhead baffles (indoor/outdoor), sound abatement, indoor ventilation systems, bullet traps, berms, targetry, lead collection/removal and more.



RDS designs outdoor and indoor ranges as well as multi-use classrooms, live fire shoot houses, sniper towers, ammunition storage buildings, firing line canopies, shooter bleacher buildings, office/command buildings, logistical supply warehouses and vehicle storage structures.

### **Keystone Consultants, LLC**

Keystone Consultants, LLC (Keystone) is a highly responsive, cost-effective, civil engineering, surveying, and environmental consulting firm with over 25 years of experience serving the energy and telecommunications markets in the tristate region.

Keystone is a Contract Land Staff (CLS) company. CLS is one of the largest independent providers of right of way consulting services in North America. CLS's services include land management solutions, such as right of way acquisition, training, staffing, along with land and real estate administration services. Industries served includes pipeline, utility, electric transmission/distribution, rail, public sector, solar and wind generation, and telecommunications. Keystone will primarily provide survey services related to this project. ATC anticipates utilizing Keystone on all of the firing range evaluations that are part of this project, although the scope of their services may vary from site to site. Their primary services within this project may include:

#### Surveying:

- Property/Boundary Surveys
- Site Features and Topographical Survey
- Construction Stakeouts for Linear or Site Development Projects
- Well Plat/Unit Surveys
- Well Pad Permitting and Design
- GPS Monumentation
- Field Data Collection for Asset Management
- UAS Mapping

#### GIS/Mapping:

- Field Data Collection Applications
- Map Production
- Corridor Design and Environmental Constraints Analysis
- Right-of-Way Tracking and Management

#### Land/Right-of-Way:

- R/W Acquisition and Negotiation
- Title Research
- Land Use/Zoning
- Oil/Gas Leasing
- Damage Assessment
- Relocation Services

### **Miller Engineering, Inc.**

Miller Engineering, Inc. (MEI) provides engineering design for mechanical, electrical, plumbing, HVAC, feasibility studies, construction administration, and aquatic facilities. Miller Engineering, Inc. also specializes in construction administration, observation, project management, and code

compliance reviews. The firm operates and supervises construction in West Virginia, Pennsylvania, Maryland and Ohio.

Their team has experience in public parks and recreation, local and state government education, commercial development, healthcare, oil and gas industry, and historic preservation. Their expertise may be called upon for certain design features, once those are established, especially in light of their public park experience.

### **Montum Architecture, LLC**

Montum Architecture, LLC (Montum) was founded in 2017 to provide architectural design services to clients in West Virginia and western Maryland. Staff includes one licensed architect performing all tasks and duties. This ensures the utmost coordination of building plans and specifications with minimal potential for miscommunication. If designs are developed that require architectural design of certain site features, ATC will utilize Montum for those efforts.

If the need arises for specialty services beyond those described above, ATC will procure the services of additional qualified companies. ATC will present the qualifications of such companies to the Agency for consideration before using them to perform work.

## **MANAGEMENT AND STAFFING**

### **Point of Contact / Primary Project Manager – Dan Miller, P.E.**

ATC is pleased to offer Mr. Dan Miller, P.E., as the Project Manager and the principal professional engineer assigned to the Agency to oversee evaluation, design of the shooting ranges and the development of a lead management plan for each of the 29 shooting ranges. Mr. Miller is a Senior Engineer for ATC in the Engineering & Environmental Services Division. Mr. Miller has over 40 years of combined experience in Environmental, Process Engineering and Construction Management services on both public and private projects.

Mr. Miller will serve as the primary point of contact and principle project manager. He will be supported by a team experienced with providing engineering, survey, architecture and design services. He is ATC's Project Manager for the project recently awarded to ATC involving the in-city firing range utilized for training by the Pittsburgh Bureau of Police. Mr. Miller's resume and the resumes for key support personnel are provided in **Appendix A**. An organizational chart outlining the ATC project team and support staff is included in **Appendix B**.

**Mr. Brandt Elwell** is a Range Design Specialist & Senior Project Manager for Range Design Services. Mr. Elwell has over 11 years of project experience designing and permitting firearms training facilities and over 16 years' experience in environmental and construction consultations. Mr. Elwell assists in project management during the planning, design and construction phases of range design. His duties primarily include the management of subconsultants and communication with the client on project progress.

In addition, Mr. Elwell develops initial site designs using AutoCAD; performs site evaluations on existing and proposed ranges; writes site best management practice documents and develops site health and safety plans; assists in construction management, by scheduling and

communicating with suppliers in regards to material deliveries. Mr. Elwell performs many roles in the design and construction phases of ranges and has an exceptional understanding of the entire process.

**Kerry O'Neal** is the Owner & Range Specialist at Range Design Services. Mr. O'Neal has over 30 years of experience in the small arms firing range industry. As a representative for the National Rifle Association, Mr. O'Neal was tasked to understand lead hazards and their impact on closing ranges. During that study, Mr. O'Neal developed a greater understanding of the environmental aspects of the firing range industry, including lead recycling and range remediation. Mr. O'Neal then developed a patent for a bullet containment system to minimize the impacts of lead as well as provide a safe shooting environment. He is the patent inventor of the Granular Ballistic Rubber Trap (US Patent No. 6173956) and recognized as a Ballistics Expert and Product Development Expert by Weatherby, Inc. Mr. O'Neal was also recently awarded a patent for a portable projectile trap assembly (US Patent No. 8313103) and a removable breach inspection panel (US Patent No. 8875613).

In 2000, Mr. O'Neal began to integrate his construction experience with his small arms firing range expertise and became the Range Services Program Director for several consulting firms. In 2005, Mr. O'Neal founded TRS Range Services with Ms. Noreen Powers as a small disadvantaged small business (Case No. 300828) that specializes in construction of small arms qualification courses and training facilities throughout the United States. Mr. O'Neal is a nationally recognized expert on small arms firing ranges. He provided expert witness testimony numerous times and has conducted site assessments for federal, state, and local facilities.

**Michael K. Harrigan** is a Range Evaluation Specialist for Range Design Services. Mr. Harrigan has over 32 years of experience serving in various senior level roles within the Federal Bureau of Investigations, as police officer in the Norwalk Police Department, and as a military police officer in the U.S. Army. Mr. Harrigan also served on various assignments including combat deployments for the U.S. Army.

Mr. Harrigan experience includes leading the FBI's firearms training program and setting the training standards agency-wide. Mr. Harrigan also successfully implemented a comprehensive multi-million dollar range-management plan for the FBI to recover and recycle decades of accumulated projectiles, while upgrading the facility to national range standards. Mr. Harrigan was SWAT Team member, firearm instructor and tactical instructor for the FBI.

**Larry R. Sweeney, LRS** is a Senior Project Manager for ATC and has over 30 years of experience managing operations, programs, and projects in environmental consulting. Mr. Sweeney is a West Virginia Licensed Remediation Specialist and has significant experience managing and mentoring staff, and managing environmental projects. His experience includes managing site assessments and remediation, providing expert testimony, leading agency negotiations, and managing global environmental projects in approximately 20 countries. He is responsible for developing a lead remediation plan for the City of Pittsburgh project recently awarded to ATC involving the in-city firing range utilized for training by the Pittsburgh Bureau of Police.

**Mr. Chris Lovgren, P.E.** is an Engineering Division Manager for ATC Group Services in the Engineering & Environmental Services Division. Mr. Lovgren is a licensed Professional Engineer with over 10 years of project management experience with projects in the engineering and

environmental industries. Mr. Lovgren has extensive experience in construction management, due diligence, management of environmental permitting, and knowledge of state and federal regulations. Mr. Lovgren will provide Quality Assurance and Quality Control for the project. He is ATC's QA/QC Manager for the project recently awarded to ATC involving the in-city firing range utilized for training by the Pittsburgh Bureau of Police.

**Timothy P. Wilson, RLA, LEED AP** is a Senior Landscape Architect for ATC Group Services with 14 years of professional experience. Mr. Wilson has led many successful projects as a project manager and landscape architect from concept and feasibility to construction including bid documentation and construction management. These projects have included park master site plans, recreational development projects, streetscapes, trail and park development projects, open space recreation planning (including trail and greenway development), town walkability/bikeability and connection studies, and land development.

As an LEED AP, Mr. Wilson also possesses a vast knowledge of sustainable ("green") design practices and concept principles that can be aptly applied to site design and construction processes. He has developed an expert grasp of working with state environmental agencies and County Conservation Districts on issues including E&S design, sustainable stormwater management BMPs, NPDES and Joint Permit applications and the overall project approval process.

**Thomas Pritts, AIA, LEED-AP, CSI-CCS** is the founder and architect for Montum Architecture. Mr. Pritts has more than 15 years of experience in design, specification, and project management. Mr. Pritts has designed and managed dozens of built projects. His experience encompasses a wide range of projects including K-12 and higher education facilities, financial Institutions, emergency services buildings, and automotive dealerships. Mr. Pritts is a member of the West Virginia Chapter of American Institute of Architects and was involved in the establishment of the US Green Building Council's West Virginia chapter. Mr. Pritts is highly skilled in the design of complex building systems, technical construction detailing and specifying, and construction contract administration.

**B. Craig Miller, PE** is the founder of Miller Engineering, Inc. and serves as its President and Principal Engineer. He has more than 20 years of experience in design, specification, operations and project management. Mr. Miller previously served as a staff engineer at West Virginia University and was directly involved with approximately \$130 million in new capital construction. Mr. Miller's experience with a wide range of projects including HVAC, electrical, plumbing, infrastructure upgrades, building automation, energy efficiency and maintenance/renovation, among others, allows him to serve in multiple capacities within a given project.

## SECTION D. TEAM EXPERIENCE

ATC is pleased to present the following brief project descriptions detailing our experience and capabilities on projects similar in nature to the DNR solicitation. Additional information on these projects can be found in **Appendix C**.

### 1. **Project Description:** Ohio Department of Natural Resources

**Location:** Ohio – Statewide

**Scope of Work:** Range Design Services, LLC was contracted by the Ohio DNR to complete a statewide evaluation of public shooting ranges. The RDS team evaluated ranges throughout the State of Ohio. Upon further evaluation, one (1) range was selected to proceed with design and construction of improvements.

RDS provided an in-depth analysis of the range, including concept designs and budgetary estimates of costs to construct. In conjunction with the recommendations for site improvements, RDS provided a review of shop drawings and submittals in assistance to the Engineer of Record during the design approval process. RDS assisted in the final detailed construction drawings, specifications and construction cost estimates for select sites. RDS participated in administration of the construction of the firing range by performing a site visit to evaluate current construction progress. The site visit evaluated the proper installation of range safety measures and provided guidance to rectify deficiencies.

Site improvement recommendations for the selected range site included:

- Installation of granular rubber bullet traps to augment bullet capture at the existing dirt berms being utilized at the range.
- Granular Rubber Bullet Traps with an integrated storm water filtration unit, to manage lead run-off from lead captured at the range.
- Ballistic concrete walls to separate ranges and increase range safety
- Increased berm height to better contain bullets within the range area
- Installation of shooting benches and covered canopy area at the firing line.
- Advised on developing a sensible flow for checking in users at the range and for monitoring safety on the firing line using a camera system.

**Contact:** Megan Cyr, Project Manager, 614.882.4311

### 2. **Project Description:** Idaho Department of Fish & Game

**Location:** Idaho – Statewide

**Scope of Work:** Range Design Services, LLC staff worked on Idaho Department of Fish & Game (IDFG) shooting ranges throughout the State of Idaho in a variety of different support capacities. Each region within the state required different levels of assistance, including but not limited to; litigation support, safety recommendations and public relations recommendations for the ranges. RDS was able to successfully work with each IDFG region to address their specific concerns. A more detailed description of work completed in each region is provided in Appendix C.



**Contact:** Multiple contacts based on region. Contact info provided in description of work in **Appendix C**.

**3. Project Description:** Pickle Butte Range Evaluation

**Location:** Canyon County, ID

**Scope of Work:** Range Design Services, LLC was asked to evaluate existing conditions at the Pickle Butte Shooting Range (PBSR) and make recommendations for improvements to functionality and safety for range users. The PBSR is an unsupervised shooting range open for public use year-round. The range is operated by the Canyon County Department of Parks & Recreation and is located on the back side of the county's sanitary landfill facility. Due to its open access, the range has experienced issues with range safety and the accumulation of trash with a variety of items being used as targets at the range. The parks director asked RDS to provide recommendations to improve the range design to make the area more favorable for use by shooting enthusiasts of all skill levels and to promote a safe and family friendly atmosphere at the range. RDS' recommendations for the range included a redesign of the range's shooting bays to eliminate excessively long firing lines and create a more enjoyable location for people to shoot.

Additionally, RDS outlined suggestions to end unsupervised public access to the range and implement a nominal fee structure to use the range. It was communicated that a fee structure would create an atmosphere of ownership among the range users. This practice tends to encourage self-policing and cleanup of the range by users. Recommendations were also made for better range signage and secure access to help eliminate illicit use of the range.

**Contact:** Nicki Schwend, Director, Canyon County Parks, Cultural & Natural Resources, (208) 869-2412, nschwend@canyonco.org

**4. Project Description:** Wenas Micro Range – Washington Department of Fish & Wildlife

**Location:** Yakima, WA

**Scope of Work:** Range Design Services, LLC was brought on as a consultant for the prime contractor, Traho Architects (Traho), to evaluate an existing range site and to make recommendations for relocating the existing range or for making improvements to the existing range site. RDS provided an initial range evaluation for the existing Wenas range. In conjunction with the evaluation of the existing range, RDS' Range Expert evaluated three (3) potential alternative sites to move the existing range to. Written evaluations were given of each site under consideration for construction of a new range. Each site was evaluated for available space to construct a new range, accessibility of the site and available space to construct all of the requested facilities. RDS provided conceptual designs for each of the 3 sites, along with a budgetary cost estimate to construct or renovate the range. RDS also responded to questions from State officials with regard to standards for range safety and lead management at ranges. These recommendations were provided to the Washington Department of Fish & Wildlife for further review and determinations for budget for construction.

**Contact:** Nancy Charron, AIA, NCARB, Traho Architects, P.S., Nancy@traho.com

# Appendix A

Resumes



## Daniel L. Miller, P.E.

Senior Engineer

### Education

- B.S., Engineering Physics/ Chemistry, West Virginia Wesleyan College, 1978
- Associate Applied Sciences, Chemistry/ Physics, Butler County Community College, 1976

### Professional Registrations/ Certifications

- Pennsylvania Professional Engineer, [REDACTED]

### Specialized Training

- OSHA 1910.120 40-Hour Safety Training
- AWWA - Risk Assessment Methodology for Water Systems

### ATC Start Date

- ATC re-hire date: September 2019

**Mr. Miller** is a Senior Engineer for ATC Group Services Pittsburgh office in the Engineering & Environmental Services Division. Mr. Miller has over 40 years of combined experience in environmental and process engineering. His expertise is in the area of water, wastewater, groundwater and stormwater management and treatment systems. He has extensive experience with physical/chemical and biological treatment systems. He has experience with all aspects of the design and construction process. He has performed process design; detailed design; and equipment procurement, installation, startup, and troubleshooting activities. He has been responsible for the implementation and construction management for numerous projects at a variety of industrial and municipal sites. He has served as project manager for numerous treatment facility projects and has assisted with regulatory compliance, negotiations, permitting, and the approvals process.

### Areas of Expertise

- Construction Management
- Municipal Water, Wastewater, Groundwater and Stormwater Management and Treatment
- Regulatory Compliance
- Subsurface Investigations and Site Remediation Design

### Project Experience

#### Construction Management

##### City of Pittsburgh Firing Range Project, Pittsburgh, Pennsylvania

**Project Role:** - Responsible for overall project management and point of contact for the evaluation and design of a new shooting range for the City of Pittsburgh's Bureau of Police. Additional services included the development of a stormwater management plan, geotechnical evaluation for new shooting range related facilities and access road, survey of City owned property, development of a lead management plan, an erosion and sediment control plan, wetland delineation, and a Phase I environmental assessment.

##### Private 501 (c)(3) Non-profit Organization/School Sewage Treatment Plant, Ligonier, Pennsylvania

**Project Role:** - Project Manager and Design Engineer to performed a feasibility analysis to expand capacity and add ammonia treatment for the existing wastewater treatment plant. Activities included all NPDES permitting requirements, design, engineering during construction services, construction management, and oversight of the new wastewater plant start up and certification.

##### Water Treatment System Construction and Startup, City of Romney, West Virginia

**Project Role:** Provided project management services, managed project budgets, supervised construction management, performed startup, and provided ongoing operation support for a 1.2 MGD surface water treatment system which included both physical and chemical pretreatment to remove turbidity, iron, and manganese followed by conventional sand filtration, chlorination, and fluoride addition. This project also included waterline extensions, construction of a new waterline, construction of a new raw water intake, a 450,000- gallon additional storage tank, and computer controls with a telemetry system.

**Emergency Waterline Replacement Project, Town of Rivesville, West Virginia**

**Project Role:** Provided project management and design services for the preparation of design documents and construction oversight for an emergency replacement of a municipal waterline that crossed beneath the railroad. The project was required to be completed on an emergency basis due to the onset of winter weather. The entire project was completed in less than three months from design to operation. The total cost of the project was approximately \$410,000 and was 100% grant funded.

**Water Treatment System Improvements Project, Las Vegas, Nevada**

**Project Role:** Provided onsite engineering services for field testing and construction management of this multi-million dollar water improvement project which included doubling the treatment capacity of the existing Alfred Merritt Smith treatment plant from 200 MGD to 400 MGD. Within the existing filter, the existing underdrains were converted to air/water concurrent backwash capability and water agitators were removed. The entire plant was duplicated through a mirror expansion to the opposite side of the existing control building. The filter bays were the largest filter units in the United States at the time of the expansion, with the treatment plant capacity at the time only exceeded by the Chicago WTP.

**Wastewater****Small-Scale Remote Community Decentralized Sewage Treatment System for NPDES Surface Discharge; Fulton Run, Pennsylvania**

**Project Role:** Provided engineering services for this remote community sewage collection, conveyance, and treatment system. A small, decentralized sewage treatment system was designed to replace failing on-lot septic systems within the community. Activities included obtaining the NPDES Part 1 and Part 2 Construction Permits, preparation of design drawings, specifications, and bid documents for construction. This design incorporated a Septic Tank Effluent Pumping (S.T.E.P.) and treatment system that consisted of small diameter force mains that collect effluent from each home's septic tank and transport the sewage flow to the package treatment facility. This \$600,000 dollar project was funded with >50% grant funding.

**Engineer of Record, White Township, Indiana, Pennsylvania**

**Project Role:** - Engineering Consultant for a wastewater system that included 112,000 feet of gravity sewers, 14,000 feet of force mains, 1,200 manholes, 5 pumping stations, and 2 wastewater treatment plants. Work consisted of meeting attendance, assistance with capital budget, permitting assistance, negotiations of inter-municipal agreements, grant application preparation, preparation of plans and specifications for ongoing projects, preparation of the annual Chapter 94 reports, and review of developer-proposed projects.

**Gravity Sewer Line Capacity Evaluation, Upgrade Design and Construction, White Township, Indiana, Pennsylvania**

**Project Role:** Performed an evaluation to determine the capacity and condition of the main interceptor, project the future needs, and determine the upgrades/rehabilitation required to meet the future needed projections. The work was completed in conjunction with an update of Municipality's 537 Plan to eliminate the need for separate planning requirements. The recommendation was to make upgrades to the existing interceptor as opposed to a previously planned construction of parallel interceptor. Approximately 11,000 feet of the interceptor were upgraded. The overall project was completed for \$1.8 million, a saving of \$3.2 million as compared to the planned parallel construction proposed by the former Engineer of Record.

**Potable Water****Water Supply Line Project, Town of Rivesville, West Virginia**

**Project Role:** Provided project management and design services for the preparation of design documents and bid package for the replacement of the main water supply line from the City of Fairmont to the Town of Rivesville. This project was unique in that there were competing projects submitted to the West Virginia Infrastructure and Jobs Development Council (WVIJDC). Additionally, this project was selected over competing project to move forward by the IJDC's Consolidation Committee.

**Water System Improvements Project, Rivesville, West Virginia**

**Project Role:** Provided project management and engineering services for the preparation of the design and bid package for this \$5.1 million water improvement project which included line replacement, line extensions, addition of fire protection, chlorine booster stations, and multiple storage tanks ranging from new construction to upgrades and repairs.

**Schuylkill River Trail – Phoenixville Section / Phoenixville Borough / Chester County, PA.**

**Project Role:** - TPW Design Studios was retained, along with Campbell Thomas & Co., to design, permit and oversee construction of a 1-mile multi-use recreation and commuter trail along the north side of French Creek through the former Phoenixville Steel site in the Borough of Phoenixville. The trail alignment generally follows French Creek in a north westerly direction along former railroad corridors through the steel site. This section of the project is Phase I of the SRT through Phoenixville. TPW has also been commissioned to see Phase II through design and construction. Phase II proposes to extend Phase I north to the municipal boundary where the trail will meet the existing completed Schuylkill River Trail.

**Powdermill Trail / Feasibility Study, Design, and Construction / Lackawanna Heritage Valley Authority / Lackawanna County, PA.**

**Project Role:** - As Project Manager and Senior Landscape Architect provided feasibility analysis, design, permitting, construction documents and construction management services for the Powdermill Trail in Archbald, PA. The project is a 2.8-mile section of the overall Lackawanna River Heritage Trail that uses a portion of the abandoned Ontario & Western Rail corridor and is "on road" through downtown Archbald. The "on road" portion of the trail project included an analysis of the existing transportation corridor through town and the development of alternatives of how to most efficiently and safely use the existing cartway width of the street to accommodate bicycle use with pedestrian use being contained to a sidewalk streetscape. Successfully met all PennDOT design, plan and construction requirements and produced a set of plans and specifications that was easily inputted into their ECMS system of contractors to bid.

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**Project Role:** - TPW Design Studios was retained, along with Campbell Thomas & Co., to study the September 11<sup>th</sup> National Memorial Trail evolving network of off-road multi-use trails, greenways and scenic roads and byways that link the three National Memorials dedicated to the memory of those who died in the tragic events of September 11, 2001; the World Trade Center Memorial in New York City, Pentagon Memorial in Washington, DC, and United Airlines Flight 93 Memorial near Shanksville, Pennsylvania.

Conceptually, they form a roughly triangular pilgrimage route that eventually will not only link the national memorials, but will link to cities, towns and communities along the way that are home to local memorials and significant sites that reflect that spirit of American patriotism, resilience and perseverance that brought the nation back from the tragic events of the day and forged a great nation. Our teams' work also included developing the preliminary design for the first section of the trail to be officially opened in Pennsylvania, the link from the Great Allegheny Passage to the Flight 93 Memorial.

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**Project Role:** - As Project Manager and Senior Landscape Architect provided planning, design, permitting, construction documents and construction management services for the Scranton CNJ Trail Extension. Funded by DCNR, the project is a 2-mile section of the overall Lackawanna River Heritage Trail and the old Central New Jersey Railroad Right-Of-Way south of Scranton. This rail corridor is to be developed into a multi-use pedestrian trail connection between Taylor and downtown Scranton. This project included a Master Site Plan with biddable construction documents and consisted of identifying and obtaining all necessary environmental permits to construct the project. Successfully met all PennDOT design, plan and construction requirements and produced a set of plans and specifications that was easily inputted into their ECMS system of contractors to bid.

**Susquehanna Warrior Trail Extension / Master Site Development Plan and Construction Documents / Susquehanna Warrior Trail Council / Luzerne County, PA.**

**Project Role:** - TPW Design Studios was retained to extend the existing SWT from the Garden Drive in through West Nanticoke and to the Plymouth Recreation ballfields (3.16 miles) within Plymouth Township and fill a 0.39 mile gap in their existing trail in Salem Township. The rail trail project involved the construction of 3.55 miles (total) of multi-use recreational bicycle/pedestrian trail, consisting of a crushed stone surface that will be typically





### Education

- B.S., Environmental Systems Engineering, Pennsylvania State University, 2009

### Professional Registrations/ Certifications

- Pennsylvania Professional Engineer, [REDACTED]
- Ohio Professional Engineer, [REDACTED]

### Specialized Training

- OSHA 1910.120 40-Hour Safety Training
- OSHA 1910.120 8-Hour Refresher Training (Current)

### ATC Start Date

- ATC hire date: January 2018

**Mr. Lovgren** is an Engineering Division Manager for ATC Group Services Pittsburgh office in the Engineering & Environmental Services Division. Mr. Lovgren is a licensed Professional Engineer in Pennsylvania and Ohio with over 10 years of experience with projects in the engineering and environmental industries. Mr. Lovgren's current areas of focus are on remediation system design, regulatory compliance and construction management. Prior to joining ATC, Mr. Lovgren was employed as an Environmental Engineer with the Pennsylvania Department of Environmental Protection (PADEP) and has extensive experience with the design, construction and operation of waste management systems including landfills, oil and gas wastewater treatment facilities, beneficial reuse facilities and RCRA facilities. Additionally, Mr. Lovgren's experience includes construction management, due diligence, management of environmental permitting, and knowledge of state and federal regulations.

### Areas of Expertise

- Subsurface Investigations and Site Remediation Design
- Regulatory Compliance
- Construction Management

### Project Experience

#### Environmental

#### City of Pittsburgh Firing Range Project, Pittsburgh, Pennsylvania

**Project Role:** - Responsible for QA/QC for the evaluation and design of a new shooting range for the City of Pittsburgh's Bureau of Police. Additional services included the development of a stormwater management plan, geotechnical evaluation for new shooting range related facilities and access road, survey of City owned property, development of a lead management plan, an erosion and sediment control plan, wetland delineation, and a Phase I environmental assessment.

#### Superfund Site; Ohio (effort is ongoing)

**Project Role:** Manage the operation and maintenance of a 1,100 acre remediation project regulated under the US EPA's CERCLA (proposed NPL status). Responsible for the technical oversight of operations including active groundwater pumping systems, wastewater treatment and storage, monitoring and maintenance of a capped landfill, and associated systems to support site operations. Responsible for managing special projects involving site improvements and equipment upgrades.

#### Remediation System Design, Construction, and Implementation; Numerous Locations throughout the United States (effort is ongoing)

**Project Role:** Designed and provided support for construction and operation of various remedial systems including: soil vapor extraction systems, groundwater pump and treat systems, multi-phase extraction systems, oxygen injection systems, along with associated secondary treatment technologies. Responsible for obtaining required permits including NPDES and Underground Injection permits, and ensuring compliance during implementation.

**Superfund Remediation Project; Moon Township; Pennsylvania**

**Project Role:** Provided engineering support for a Superfund remediation project involving a site impacted with PCB's and chromium. Remedial activities consisted of excavation, construction of an engineered cap system, and groundwater pump and treat. Provided technical guidance for the excavation and design of the synthetic cap system and storm water management at the site.

**Brownfield Redevelopment; McKees Rocks, Pennsylvania (effort is on-going)**

**Project Role:** Responsible for the management of efforts required to remediate a historically impacted property under the Special Industrial Area (SIA) provisions contained in the Pennsylvania Land Recycling Program (Act 2). The project consisted of the preparation of numerous documents required by PADEP including a Baseline Environmental Report, Soil and Groundwater Management Plan, and Environmental Covenant. During construction of the new retail facility, responsible for the management of field activities required to maintain compliance with PADEP requirements that included installation of a dewatering system and management of potentially impacted soils. Managed regulatory communications throughout the design and construction phase.

**Tank Truck Releases; Various Clients; West Virginia and Kentucky**

**Project Role:** Managed environmental response efforts for releases resulting from fuel tanker accidents along roadways. These efforts have included initial release assessment, installation of soil borings and monitoring wells, excavation of impacted media, and evaluation of potential impact to utilities. Was responsible for ensuring regulatory compliance and obtaining environmental and transportation related permits required to complete remediation.

**Spill Prevention, Control, and Countermeasure (SPCC) Plans; Various Clients in Pennsylvania**

**Project Role:** Prepared numerous SPCC plans for a variety of retail and industrial clients. Responsible for determining qualifying oil inventory and applicability of 40 CFR part 112 to the facility. Presents best management practices to ensure compliance with regulations. Provides recommendations to improve SPCC plan implementation, communication, and training.

**Large-Scale Remedial Excavation; Pittsburgh, Pennsylvania**

**Project Role:** Provided senior-level planning oversight for a large remedial excavation in support of a construction project for a major university. The effort consists of caisson construction techniques along with a complex segregation strategy to minimize cost and effort while maintaining compliance with regulations.

**Landfill Gas System Management; McClellandtown, Pennsylvania**

**Project Role:** Oversaw the permitting and design of landfill gas system upgrades at an active municipal solid waste landfill to address off-site migration of landfill gas and ongoing odor complaints. Provided general guidance and design oversight for the design and installation of a series of upgrades which included geosynthetic capping, new vertical and horizontal extraction wells and pumping systems for watered-in wells. Served as PADEP's technical representative during a public outreach meeting.

**Oil and Gas Solid Waste Disposal; Various MSW Landfills; South-Western Pennsylvania**

**Project Role:** Worked collaboratively with sites and senior engineers to determine the potential impact of disposal of high-moisture content drilling waste into municipal waste landfills. Identified potential concerns with regard to gas generation (increased biodegradation rates), slope stability (reduced shear strength of the mass), and leachate generation rates. Reviewed data to determine maximum ratios of municipal solid waste to drilling waste that could be disposed of without impacting the performance of landfills.

**Residual Waste Landfill Expansion Project; New Stanton, Pennsylvania**

**Project Role:** Responsible for the permitting and design oversight of a vertical landfill expansion to ensure compliance with PADEP regulations. The project involved steepening perimeter landfill slopes to increase disposal capacity, and construction of additional controls to manage leachate and contact water. Evaluated soil boring data collected from existing waste mass to ensure that placement of additional material would not compromise slope stability. Analyzed leachate quality and quantity data to determine appropriate selection and sizing of leachate management features. Oversaw the construction and ring wall design for a 1.3 million

gallon, double-walled, above-ground leachate storage tank. Served as PADEP's technical representative during a public meeting and hearing.

### **Spent Carbon Thermal Treatment System Rebuild; RCRA Permitted Site; Pittsburgh, Pennsylvania**

**Project Role:** Oversaw permitting for a project consisting of a full system rebuild of a thermal carbon regeneration facility permitted as a RCRA TSD. The rebuild consisted of the replacement of spent carbon conveyance and piping, upgrades to above ground waste storage tanks, and replacement of air pollution controls (ceramic baghouse, scrubber, and afterburner). Provided technical oversight for all process engineering, waste storage tanks, air pollution abatement controls and general site engineering. Coordinated public comments received during permitting process from the EPA, Local Township and citizens and was responsible for formally addressing all comments.

### **Beneficial Reuse Permitting; Various Sites: South-Western Pennsylvania**

**Project Role:** Reviewed and issued permits submitted under the PADEP's beneficial reuse program for both municipal and residual wastes. Regularly issued permits for the beneficial reuse of regulated fill, drinking water treatment solids, and slag to allow for proper management of these materials, while reducing the need for landfilling.

## **Oil & Gas**

### **Mobile Permitting Initiative; Various locations in South-Western Pennsylvania**

**Project Role:** Created a streamlined permitting process for clients operating under General Permit WMGR123 for the treatment and reuse of flow back water who desired to operate temporary installations or similarly designed facilities operating simultaneously at multiple locations. Implementation of this process was successful with reducing application preparation time and PADEP review time for sites meeting the aforementioned criteria.

### **Beneficial Reuse Permitting; WMGR123 Site; Various locations in South-Western Pennsylvania**

**Project Role:** Managed permitting for numerous zero discharge oil and gas wastewater treatment facilities. Evaluated all aspects of permitting including process design, wastewater storage and general site engineering. Provided design, regulatory and permitting guidance to client. Coordinated the review of other required permits such as air quality, NDPES and highway occupancy.

### **Management of Spills at WMGR123 Sites; Various locations in South-Western Pennsylvania**

**Project Role:** Collaborated with sites and PADEP staff to manage spills of untreated oil and gas wastewater at sites operating under WMGR123. Assisted with immediate response and control measures to limit extent of the spills resulting from process piping/pump failures. Provided guidance with regard to objective clean-up standards and remediation methods to be employed. Recommended system upgrades to minimize the potential for recurring problems.

## **Construction Materials Testing**

### **Geotechnical Investigations; Various locations in Pennsylvania**

**Project Role:** Provided senior-level oversight to conduct geotechnical investigations for a wide variety of commercial and retail clients. Designed the test boring layouts and determine appropriate laboratory testing requirements. Responsible for the preparation of final reports and providing recommendations and pertinent design considerations.

### **Construction Materials Testing Laboratory; ATC Pittsburgh, Pennsylvania**

**Project Role:** Managed the start-up of ATC's geotechnical laboratory. Provide technical guidance with respect to adherence to lab specifications. Serve as the lab manager and engineer of record for lab testing services.

### **Construction Oversight; Various locations in Pennsylvania**

**Project Role:** Responsible for providing engineering support to field staff during construction materials testing projects. Make final recommendations for soil remediation requirements to address unsuitable building conditions. These projects involved construction of retail stores and involved pavement installation, concrete strip footings, canopy footing and general site drainage.

**Landfill Construction Projects; Various locations in Pennsylvania**

**Project Role:** Served as the certifying engineer for numerous large-scale landfill construction projects including landfill expansions and final cap and cover installations. Responsible for ensuring the regulatory and design conformance of all components including geosynthetic liner systems, drainage materials, and soils and aggregates used in the projects.



# Larry R. Sweeney

Division Manager, Environmental

## Branch Location

- Pittsburgh, PA

## Education

- M.S., Agronomy/Soil Science, Virginia Tech
- B.S., Agriculture, Berea College

## Professional Registrations/Certifications

- West Virginia Licensed Remediation Specialist (No. [REDACTED])
- HAZWOPER 40-Hour Certification

## Specialized Training

- ASTM Phase I-II Environmental Site Assessments for Commercial Real Estate
- ITRC Vapor Intrusion Workshop
- Principles of Ground Water Flow, Transport, and Remediation (NGWA)
- The Masters Institute in Environmental Law

## PROFESSIONAL AFFILIATIONS

- Pennsylvania Association of Environmental Professionals
- Sustainable Pittsburgh

## Publications

- Surface Mining Reclamation in Appalachia: Impact of the 1977 Surface Mining Control and Reclamation Act"
- "Case History: Pre-Divestiture Site Assessments at Several Hundred Sites for a Single Client."

## ATC Start Date

- January 2018

non-sparking tools for sampling. Once the contents were characterized, drums were grouped and staged for proper offsite treatment or disposal. Excavated gas cylinders were placed in an excavation on site for eventual neutralization by an explosives expert.

**Mr. Sweeney** is the Environmental Division Manager for ATC and has over 30 years of experience managing operations, programs, and projects in environmental consulting. Mr. Sweeney is a West Virginia Licensed Remediation Specialist and has significant experience managing and mentoring staff, and managing environmental projects. His experience includes managing site assessments and remediation, providing expert testimony, leading agency negotiations, and managing global environmental projects in approximately 20 countries.

## Areas of Expertise

- Due Diligence
- Subsurface Investigations and Site Remediation
- Litigation Support and Expert Testimony

## Project Experience

### Environmental – Superfund/CERCLA/State Programs

#### Technical Representative for PRP Group, Superfund Site in Ohio

**Project Role:** Served as the Technical Representative for a group of Potentially Responsible Parties (PRPs) associated with an Ohio Superfund site for approximately 15 years. Regularly met with outside counsel, PRP company representatives, and USEPA Region 5 representatives to discuss site findings and proposed courses of action. Provided expert testimony in two legal proceedings concerning this site, as well as to the USEPA's Science Advisory Board (regarding adequacy of site investigations for potential radioactive contamination within a landfill). Participated in numerous public meetings concerning this site, and reviewed/commented upon virtually all documents prepared by USEPA or their contractors concerning site findings and planned remedial actions. Assisted clients in securing a final Record of Decision from the USEPA for this site.

#### Project Manager, Treated Timber Manufacturing Facility, Oregon

**Project Role:** Managed site assessment activities and remedial design planning for a closed telephone pole and treated timber plant near Portland, Oregon. Provided regular updates for client, and regularly attended meetings with Oregon DEQ and USEPA Region 10 to review site progress and discuss agency expectations for site closure.

#### Site Supervisor, Abandoned Drum Disposal Site, Philadelphia, Pennsylvania Supervised

**Project Role:** Supervised site workers in the excavation of metallic anomalies identified by a ground penetrating radar survey. Those found to be drums were carefully removed, checked for labelling indicative of potential contents and source, and then opened using



**Principal Investigator, Former Auto Manufacturing Waste Disposal Property, Flint, Michigan**

**Project Role:** Spent one year on site, along with other investigators, assessing the extent of soil and groundwater impacts on a property that had been historically used as a disposal facility by various automobile manufacturers near Flint, MI. Solvents and metals were found to be the main contaminants of concern. Nearby residents depended on groundwater as their potable water source, and deep groundwater at the site was found to be impacted. Michigan DNR provided continuous onsite oversight.

**Licensed Remediation Specialist (LRS), Various Sites in West Virginia**

**Project Role:** Prepared and signed documents as client's LRS for several sites in West Virginia. The majority of these sites were petroleum-impacted sites, and were closed or managed using the state's Uniform Environmental Covenant Act (UECA), which provides a mechanism for reducing site-associated risks through implementation of a land use covenant.

**Environmental – Site Assessment and Remediation****Petroleum Impacted Sites, Various States**

**Project Role:** Principal Investigator and/or Project Manager for numerous site investigations on petroleum-impacted sites, primarily in Pennsylvania and West Virginia. Investigative techniques included soil gas sampling; Geoprobe, split-spoon, and hand augered soil sampling; surface water sampling; and, groundwater monitoring well installations.

**Industrial Site Investigations, Various States**

**Project Role:** Principal Investigator and/or Project Manager for a variety of industrial sites where environmental impacts were either known or suspected. Types of contaminants studied included solvents, coal mining processing by-products, chromium, and other heavy metals.

**Solvent and Metals Remediation, Pachuca, Mexico**

**Project Role:** Project Manager for remediation of a former industrial site in Mexico that had significant solvent and metals impacts to site soils. A local buyer was interested in the property, which motivated the client to make the property suitable for sale. A regional consultant was retained to oversee the daily operations and interact on the client's behalf with local agencies, subcontractors, and nearby residents. Excavation was selected as the remedial action of choice due to its expediency, and a nearby clean fill source was extensively sampled to evaluate the quality of the fill material prior to purchase.

**Due Diligence – Phase I Environmental Site Assessments****Preliminary Site Assessments on 1,100 Properties, Western United States**

**Project Role:** Project Manager for a quick-turn project for a major railroad that wanted to evaluate current site use and potential for environmental concerns on approximately 1,100 properties owned by the railroad. The properties were either currently or historically leased to third parties, oftentimes with little oversight or follow-up by the railroad. The goal of the assessments was to identify and prioritize properties according to their potential environmental

risk, and potentially prepare some properties for sale. Company resources were utilized from across the country in order to visit all sites and prepare reports within the timeframe promised.

### **Phase I Environmental Site Assessments, Specialty Metals Manufacturing Sites**

**Project Role:** Completed several Phase I site assessments in accordance with ASTM Standard E1527-13 for a manufacturer of specialty metals, at properties across the United States and in several other countries. The client had a standard procedure of completing a Phase I ESA for all properties it purchased or leased, both prior to purchase (or initiation of the lease) and when exiting the property. Numerous properties were obtained when the client's business was expanding, and several were divested whenever market conditions declined. Many of these Phase I ESAs were done for large portfolios of sites that the client was evaluating for potential acquisition.



## Timothy P. Wilson, RLA, LEED AP

Senior Landscape Architect

### Education

- BLA, Landscape Architecture, University of Maryland at College Park, 2003

### Professional Registrations/Certifications

- Professional Landscape Architect, PA, MD and DE

### Specialized Training

- CLARB, Certified Landscape Architect
- USGBC: Leadership in Energy and Environmental Design (LEED) Accredited Professional

Mr. Wilson has 14 years of professional experience, Mr. Wilson has led many successful projects as a project manager and landscape architect from concept and feasibility to construction including bid documentation and construction management. These projects have included park master site plans, recreational development projects, streetscapes, trail and park development projects, open space recreation planning (including trail and greenway development), town walkability/bikeability and connection studies, and land development. He prides himself on his timely project delivery and highly successful public outreach work that includes leading highly productive public workshops that tend to be critical to a positive project outcome.

Mr. Wilson has an outstanding work ethic and has established trusting relationships with his clients and the municipalities and authorities with whom he has worked. As an LEED AP, he also possesses a vast knowledge of sustainable ("green") design practices and concept principles that can be aptly applied to site design and construction processes. He has developed an expert grasp of E&S design, sustainable stormwater management BMPs, NPDES and Joint Permit applications and the overall project approval process.

### Areas of Expertise

- Project Management
- LEED AP

### Project Experience

#### **Northern Electric Trolley Trail Phases I & II / Feasibility Study/Master Site Plan/Final Construction Drawings / Countryside Conservancy and Keystone College / Lackawanna County, PA.**

**Project Role:** - Project Manager and Landscape Architect for the Feasibility Study, Master Site Plan and final construction drawing production for the Northern Electric Trolley Trail between Clarks Summit and Dalton responsible for all analysis, plans, specification production, permitting and construction management for the project and a Trailhead associated with the project. Funded by DCNR, Tim had to adhere to the requirements and parameters set forth by DCNR from start to finish. Phase II was a 1.3 mile trail section on the campus of Keystone College in Factoryville, PA. The design through construction process was very similar to Phase I; the main difference being the funding source being PennDOT. Successfully met all PennDOT design, plan and construction requirements and produced a set of plans and specifications that was easily inputted into their ECMS system of contractors to bid.

#### **Open Space Recreation and Greenway Plan / Site Development Plans for Six County Parks / Delaware County Planning Department / Delaware County, PA.**

**Project Role:** - TPW Design Studios, along with Campbell Thomas & Co. and Toole Recreation Planning, provided Delaware County with a needs analysis and general consulting for their County Parks and their Open Space Recreation and Greenway Plan.

The team also provided Site Development Plans (according to DCNR parameters) for 6 of their 11 County Parks including the following: Kent, Smedley, Rose Tree, Glen Providence, Upland, and Clayton. Was the lead

consultant for the project and conducted a large county-wide public involvement process and handled all project deliverables including final site development plans, renderings and reports.

### **Schuylkill River Trail – Phoenixville Section / Phoenixville Borough / Chester County, PA.**

**Project Role:** - TPW Design Studios was retained, along with Campbell Thomas & Co., to design, permit and oversee construction of a 1-mile multi-use recreation and commuter trail along the north side of French Creek through the former Phoenixville Steel site in the Borough of Phoenixville. The trail alignment generally follows French Creek in a north westerly direction along former railroad corridors through the steel site. This section of the project is Phase I of the SRT through Phoenixville. TPW has also been commissioned to see Phase II through design and construction. Phase II proposes to extend Phase I north to the municipal boundary where the trail will meet the existing completed Schuylkill River Trail.

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**Rails to Trails Feasibility Study - Master Site Plan / Hamilton Township and the GREATR Study Committee / Adams County, PA.**

**Project Role:** - TPW Design Studios was retained to study and provide a comprehensive assessment of the potential to develop a multi-use rail trail that would connect communities and commerce in the East Berlin area of Adams County. The study mainly consisted of identifying potential trail alignments and coordination with business and land owners to evaluate the potential for the granting of lands for trail right-of-way through acquisition or easement.

**Previous Work History**

**TPW Design Studios / York, PA. Owner/Landscape Architect**

Responsibilities included:

- Administrative and Client Management
- Prepare site plans, specifications, and cost estimates
- Produce feasibility studies and documentation for client grant and funding submittals
- Facilitate and conduct public, municipal and other meetings providing graphic presentations and materials
- Construction Observation and Inspection





# Chad J. Harrison, P.E

Area Manager

## Branch Location

- Pittsburgh, PA

## Education

- B.S., Geo-Environmental Engineering, The Pennsylvania State University, 1997

## Professional Registrations/ Certifications

- 49 CFR 172.704 Hazardous Materials Transportation
- 40 CFR 260/265.16, 40 CFR 270, and 40 CFR 172 Field Chemist Training
- Professional Engineer, Pennsylvania [REDACTED]
- Professional Engineer, Ohio E-[REDACTED]
- Professional Engineer, West Virginia [REDACTED]

## Specialized Training

- OSHA 1910.120 40-Hour Safety Training (current refreshers)
- OSHA 1910.120 Supervisor Training
- OSHA 1910.1030 Occupational Exposure to Bloodborne Pathogens

## ATC Start Date

- January 2013

**Mr. Harrison** is the Operations Manager for ATC and has over 20 years of experience managing operations, programs, and projects in engineering and environmental consulting. Mr. Harrison is a licensed professional engineer and has extensive experience in environmental due diligence, site assessment, and remediation and has worked within the requirements of numerous state and federal regulations. Mr. Harrison's experience also includes managing projects in support of production and transmission of oil and gas, mineral acreage acquisition support, oil and gas permitting, beneficial reuse permitting, as well as release response and remediation.

In addition to his position at ATC, Mr. Harrison is an instructor for a Professional Engineer exam review course focusing on the topics of regulations and laws, geology and hydrogeology, chemistry, fate and transport of contaminants, environmental site assessments, hazardous material spill response, remedial technologies and applications, workplace ambient air exposure assessments, ventilation, thermal stress evaluation, sound and noise evaluation and attenuation, toxicology, radiation shielding and exposure assessment, and human health risk assessment.

## Areas of Expertise

- Due Diligence
- Subsurface Investigations and Site Remediation

## Project Experience

### Environmental Consulting

#### Transmission Client, Facility Construction Management on Superfund Site – Moundsville, West Virginia

**Project Role:** Managed the environmental and health and safety aspects of constructing a shale gas fractionation plant on a Superfund site. Provided general guidance on conducting excavation activities in accordance with the environmental covenant by developing a comprehensive soil management plan for all activities conducted within the impacted area.

#### U.S. DOD, Department of the Navy, Northern Division, Naval Facilities Engineering Command, CERCLA Feasibility Study – Kittery, ME

**Project Role:** As project engineer, prepared a feasibility study for the remediation of a landfill at Portsmouth Naval Shipyard. Remedial options included capping and complete excavation and off-site transport and disposal. The landfill was historically used for general waste, munitions, and equipment. All options were evaluated under OSHA Level B personal protective requirements and explosive hazards.

#### U.S. DOD, Department of the Navy, Southern Division, Naval Facilities Engineering Command, RCRA Corrective Measures Study – Jacksonville, FL

**Project Role:** As project engineer, prepared a feasibility study for the remediation of volatile organic carbon contaminated soil and groundwater at NAS Cecil Field. Several technologies were evaluated including permeable reactive barriers and extraction in order to prevent the migration of contaminants from the site and to address residual source contributions from the free product area, part of which was located underneath an active runaway.

**U.S. DOD, Department of the Navy, Southern Division, Naval Facilities Engineering Command, RCRA Corrective Measures Study – Charleston, SC**

**Project Role:** As project engineer, prepared a corrective measures study for the remediation of a high-concentration chlorinated volatile organic carbon contaminated groundwater plume at NWS Charleston. Contaminants included tetrachloroethene, trichloroethene, and trichloroethane as well as degradation products. The technologies evaluated in the corrective measures study included: six-phase heating, bioremediation, and groundwater extraction and treatment. The study evaluated all remedial concepts with respect to several complex site characteristics including: high contaminant concentrations; a fluctuating potentiometric surface that produced two distinct seasonal groundwater flow directions; a forested wetland overlaying the contaminated groundwater plume; and the potential for discharge of the contaminants to protected marshland.

**U.S. DOD, Department of the Navy, Southern Division, Naval Facilities Engineering Command, Treatability Study under RCRA – Charleston, SC**

**Project Role:** As lead engineer, prepared a treatability study for the evaluation and remediation of recalcitrant cis-1,2-DCE in groundwater at NWS Charleston. The result of this evaluation indicated that the natural attenuation was not efficient potentially because of the lack of adequate bacteria, low organic carbon, elevated dissolved oxygen, and an oxidation/reduction potential outside of the acceptable range for the biodegradation of chlorinated VOCs. The technology evaluation recommended enhanced bioremediation with bioaugmentation using food-grade polylactate ester injections.

**U.S. DOD, Department of the Navy, Southern Division, Naval Facilities Engineering Command, Monitored Natural Attenuation Evaluation under RCRA – Charleston, SC**

**Project Role:** As lead engineer, prepared a natural attenuation evaluation for chlorinated solvents in groundwater at NWS Charleston. The evaluation concluded that the parent material 1,1,1-trichloroethane was being degraded into 1,1-dichloroethane and 1,1-dichloroethene (daughter products) through iron reduction. The daughter products were then reduced to ethene and ethane through methanogenesis followed by a return of the aquifer's dissolved oxygen to pre-contaminant release conditions. Monitored natural attenuation was found to be viable and met the target cleanup timeframe.

**Retail****Retail Client, Risk Assessment – Somerset, PA**

**Project Role:** Managed the risk assessment of over 1,500 receptor exposure scenarios associated with a petroleum release that affected eight properties over a nine-acre area. Based on the risk assessment, the remedial approach was modified to incorporate a site-specific standard that significantly reduced the active remediation duration. A relief of liability was granted for all properties.

**Retail Client, Risk Assessment – Meadowlands, PA**

**Project Role:** Performed risk assessment to evaluate impact of petroleum hydrocarbons on off-site receptors under both residential and non-residential scenarios. Results of risk assessment allowed for site closure without off-site property use restrictions.

**Municipality of Peters Township, Evaluation of Residential Risk-Based Setback Distances for Gas Well Operations – Peters Township, Pennsylvania**

**Project Role:** Managed a team of toxicologists and risk assessors to evaluate all aspects of risk-based setback distances, which included the identification of all publicly-available gas well emission data and parameters appropriate for modeling and risk calculations. In order for the municipality to set policy, the final deliverable included a decision process for selecting Volatile Organic Compounds to support the Risk Assessment, an itemized evaluation of potential source documents, a list of Chemicals of Concern emitted from

**Subsurface Investigations and Site Remediation****Various Clients, Numerous Groundwater and Soil Remediation System Designs, Risk Assessment – Multiple States**

**Project Role:** As the lead engineer, designed new systems, designed and oversaw retrofits to an existing systems; provided system operation oversight and data evaluation; and optimized system recoveries. The technologies included air sparging, soil vapor extraction, groundwater extraction, ex-situ treatment, chemical oxidation, oxygen injection, and bioremediation.

**Retail Client, Targeted Excavation of Smear Zone Soils – Butler, Pennsylvania**

**Project Role:** As the lead engineer, developed an excavation plan to target impacted smear zone soils that were acting as a continuous source to groundwater. The smear zone soils were determined to be accessible via remediation systems (dual-phase) since a former foundry floor was at the depth of the impacted soil and prevented hydraulic and pneumatic communication throughout the contaminated zone. Several thousand cubic yards of soil were excavated; however, less than

100 cubic yards were disposed with the remaining soil being backfilled. Organic Compounds to support the Risk Assessment, an itemized evaluation of potential source documents, a list of Chemicals of Concern emitted from

### **Numerous and Various Clients, Tank Truck Releases – Michigan, Pennsylvania, West Virginia, Virginia, Kentucky, and Maryland**

**Project Role:** Managed the environmental response to releases resulting from ruptures of fuel tanker and saddle tanks along roadways. Activities have included investigation of release extent, removal of impacted media, evaluation of impact to utilities and replacement of utilities, reconstruction of roadways and structures.

### **Pipelines and terminals**

#### **Upstream (Producer) Client, Beneficial Reuse Permitting – Northwestern, Northcentral, and Northeastern Pennsylvania**

**Project Role:** Managed permitting efforts to operate wastewater processing facilities (ranging from 300 to 1,500 barrels per day capacity) at numerous locations to beneficially reuse production water. The primary technology for pre-treating the production water for reuse was heavy metal precipitation followed by evaporation and condensation using energy sources consisting of waste heat from compressor station engines and natural gas-fired flares. Performed complete radiological and chemical analysis of oil and gas wastewaters to support permitting, process engineering, and operation plan preparation.

#### **Midstream (Transmission) Client, Catastrophic Pipeline Failure Response – Proctor, West Virginia**

**Project Role:** Managed the response, investigation, and regulatory closure of a catastrophic pipeline failure resulting from landslides associated with heavy precipitation. The released material was natural gas liquids and the regulatory closure was conducted in accordance with the West Virginia voluntary remediation program. In addition to the primary investigation and remediation, a surface water and potable water well sampling program was developed and implemented to evaluate exposure of nearby residents.

#### **Midstream (Transmission) Client, Pipeline Release – Murrysville, Pennsylvania**

**Project Role:** Managed all activities related to a 12,000-gallon gasoline release from an eight-inch transmission pipeline that affected multiple businesses and property owners and directly impacted several miles of a stocked trout stream. Several schools and residential communities were evacuated and major roadways were closed during the initial incident. Prepared and implemented a public relations plan since all aspects of the project, from initial response through remediation, were extensively covered through press, radio, and television media. Project had continuous senior-level PADEP involvement including: the Director of the Land Recycling Program; several Environmental Program Managers from several divisions; and multiple personnel from the PADEP counsel staff. Additionally, this project had the involvement of the Pennsylvania Fish and Boat Commission, the Conservation District, the watershed association, public action groups, and multiple other entities to varying extents. The project included several remedial technologies including: high vacuum extraction of vapors, groundwater, and gasoline from bedrock fractures, subslab vapor mitigation systems within several buildings, numerous excavation areas, recovery trenches, and stream bank remediation and restoration). A release of liability was granted using groundwater modelling and risk assessment. Provided technical support for Client's defense during depositions and penalty assessments, which were significantly reduced from the initial assessment.

#### **Horizontal Drilling Client, Well Pad Diesel Release – Yukon, Pennsylvania**

**Project Role:** On-site delegate and representative for a drilling company and their insurer after a diesel release from a storage tank at a Marcellus well pad during. Over 12,000 tons of soil was removed from the site and closure was granted.

#### **Confidential Upstream Oil and Gas Client, Marcellus Asset Evaluation – Southwestern Pennsylvania**

**Project Role:** Managed a team of environmental professionals and equipment specialists to evaluate the environmental liabilities and the equipment condition of assets in support of purchase. The effort was conducted by selecting a representative group of locations for on-site inspection. The environmental liabilities were evaluated from a housekeeping, containment, and evidence of impact perspective. The equipment was evaluated from a lifetime duration/replacement cost perspective based on actual conditions observed. Acquisition of acreage was completed.

#### **Upstream (Producer) Client, Marcellus/Utica Asset Evaluation – Northwestern Pennsylvania and Northeastern Ohio**

**Project Role:** Managed a multidisciplinary team of professionals to evaluate the environmental liabilities and the permitting status of assets in support of mineral rights purchase. The acquisition was for the deep mineral rights from a shallow zone (conventional) producer and the eventual co-location of equipment. The environmental liabilities were evaluated based on adding or expanding

pad locations and the impacts on permitting and leasing. General environmental conditions were evaluated along with wetland delineation at several locations.

**Upstream (Producer) Client, Marcellus/Utica Asset Evaluation – Indiana County, Pennsylvania**

**Project Role:** Assisted client in sale of multi-facility business by addressing environmental concerns and Recognized Environmental Conditions.



**B. Craig Miller, PE**

Craig founded Miller Engineering in 2003, and serves as President and Principal Engineer. He has more than 20 years experience in design, specification, operations and project management. During his employment with WVU, Craig was directly involved with approximately \$130 million in new capital construction. His experience with a wide range of projects including HVAC, electrical, plumbing, infrastructure upgrades, building automation, energy efficiency and maintenance/renovation, among others, allows him to serve in multiple capacities within a given project. Craig will serve as the “Relationship

Manager” for Miller Engineering as the main communication interface between the Owner, the design team, contractors and end users.

**Project Role: Relationship Manager – Primary Point of Contact**

- *Engineer in Responsible Charge*
- *Design and Project Management of Mechanical, Electrical, Plumbing Projects*
- *Concept and Construction Design*
- *Business Operations and Financial Management Oversight*
- *Quality Assurance and Control*

**Professional Project Highlights**

- WVU Recreation Center Indoor Pool – Owner’s Engineer
- WVU Life Sciences Building and Student Recreation Center – Owner’s Engineer
- Camp Virgil Tate
- Mapletown High School HVAC Replacement
- Advanced Surgical Hospital
- Holly River State Park Primary Electric Service Replacements Phase I & II
- Beech Fork State Park – MEP New Construction Design
- WVU Willowdale Walkway

**Professional History**

2003- Present	Miller Engineering, Inc.	President, Relationship Manager
2002-2003	Casto Technical Services	Existing Building Services Staff Engineer
2001-2002	Uniontown Hospital	Supervisor of Engineering
1995-2001	West Virginia University	Staff Engineer
1990-1995	BOPARC	Caretaker – Krepps Park
1983-1988	University of Charleston	Electrician/HVAC Mechanic

**Education**

1995	West Virginia University	BS- Mechanical Engineering
1988	University of Charleston	BA- Mass Communications

**Licenses and Certifications**

- Professional Engineer (West Virginia, Pennsylvania, Maryland, and Ohio)
- Licensed Master Plumber
- LEED-AP Certified





## **Joseph Machnik**

Joe has extensive experience with AutoCAD, MEP and Revit MEP. He provides design modeling, drafting and supervised design services and construction support for Miller Engineering.

### **Project Role: MEP Designer**

- *Revit/CADD Coordination of New Construction and Renovation Designs*
- *Building Information Modeling*

### **Professional Project Highlights**

- Bobtown Elementary HVAC
- Suncrest Middle Gym HVAC
- MHS Area 4 HVAC
- North Elementary Boilers
- Freedom Dealerships (Ford, Kia, Volkswagen)
- Pipestem Lodge HVAC Piping Replacement
- Blackwater Falls Lodge (2nd Fl, Spa, Boiler)
- Cacapon Old Inn

### **Professional History**

2010 – Present Miller Engineering, Inc. MEP Designer

### **Education**

2008 Penn State – Fayette, AS - Building Engineering Systems Technology: *Building Environmental Systems Technology*

2007 Penn State – Fayette, AS - Building Engineering Systems Technology: *Architectural Engineering Technology*



**Travis Taylor, PE**

Experience in project management facilitates Travis’s ability to create and design constructible projects. Prior to joining the Miller Engineering team he was directly responsible for managing \$10 million in electrical construction budgets. His experiences encompass both new construction and renovation. Travis maintains professional competencies by attending seminars and continuing education classes. As lead engineer he provides HVAC, mechanical, plumbing and electrical design solutions and services for our clients. In addition, he is part of our team’s complete assessment process in both

planning and MEP design through construction administration.

**Project Role: Lead MEP Engineer**

- *Design of Mechanical, Electrical, and Plumbing Systems*
- *Constructible Materials Evaluation*
- *Site Evaluation and Mechanical System Review*
- *Submittal and RFP Review*
- *RFI Coordination, Review, and Response*
- *Construction Observation*

**Professional Project Highlights**

- Krepps Park ADA Upgrades
- Holly River State Park Primary Electric Service Replacements Phase I & II
- Beech Fork State Park Lodge Design Development
- Pipestem Lodge McKeever Lodge HVAC Piping Replacement
- WV Veterans Memorial Restoration
- Bobtown Elementary School HVAC Upgrades

**Professional History**

2011-Present	Miller Engineering, Inc.	Staff Engineer
2006-2011	Tri-County Electric, Co.	Project Manager
2006-2006	Schlumberger	Field Engineer Trainee - MWD

**Education**

2006 West Virginia University, BS – Mechanical Engineering

**Licenses and Certifications**

- Professional Engineer - State of West Virginia
- OSHA 10-hour Course: Construction Safety & Health



## Brandt Elwell

**Range Design Specialist & Senior Project Manager**



**RANGE DESIGN SERVICES**

### Career Summary

Mr. Elwell has over 11 years of project experience designing and permitting firearms training facilities and over 16 years' experience in environmental and construction consultations. He assists in project management during the planning, design and construction phases of range design. His duties primarily include the management of sub-consultants and communication with the client on project progress. In addition, Mr. Elwell develops initial site designs using AutoCAD; performs site evaluations on existing and proposed ranges; writes site best management practice documents and develops site health and safety plans; assists in construction management, by scheduling and communicating with suppliers in regards to material deliveries. Mr. Elwell performs many roles in the design and construction phases of ranges and has an exceptional understanding of the entire process.

### Project Experience

Mr. Elwell has provided his expertise in range design and safety evaluations at over 50 firing ranges nationwide, including:

#### **Idaho Fish & Game Range Evaluations – Idaho, Statewide**

Mr. Elwell provided written documentation for range evaluations at four separate locations across the State of Idaho. Individual projects included range design and litigation support for the Farragut State Park firing range; range safety evaluation of the Gate City Sportsmen Shooting Range; improvement recommendations for the Black's Creek Shooting Range Complex and siting of a proposed new range near Lewiston, ID.

#### **Ohio Department of Natural Resources – Multiple Sites, State of Ohio**

Mr. Elwell performed all project management for this contract including documentation of site visits, preliminary concept designs, advisement to client on product selection and design review. One range is currently under construction based on the range evaluation conducted for this project.

#### **Pickle Butte Range Evaluation – Canyon County, ID**

Mr. Elwell served as the main point of contact with the Canyon County Parks Department for this project. He attended the site visit and provided the reporting for this site. Mr. Elwell developed an alternative range design concept, to assist with many of the security access issues, they are currently experiencing at the range. Canyon County is currently reviewing documents to determine how to implement recommended changes.

Total Years of Experience: 27

#### Education:

B.S. Geography, University of Georgia, 1992

M.S. Forestry, University of Idaho, 1996

#### Certifications and Training:

40 HR HAZWOPER Training

AutoCAD

Arc/Info GIS

MS Project

Eagle, ID.

[belwell@rangedesignservices.com](mailto:belwell@rangedesignservices.com)

Cell: (208) 949-4244

Office: (208) 332-4533



**Wenas Micro Range – Washington Department of Fish & Wildlife, Yakima, WA**

Mr. Elwell provided assistance for all phases of the evaluation and planning on the renovation or relocation of the Wenas Micro Range located near Yakima, WA. Mr. Elwell developed conceptual site designs for the current range location as well as two (2) alternative locations, currently available for use as a public range. Mr. Elwell provided all documentation reports for the site, which included costs to construct or renovate the range.

**Noel's Draw Shooting Range, Estes Park, CO**

Mr. Elwell assisted with the evaluation and planning for upgrades to the Noel's Draw Shooting Range facility, located near Estes Park, CO. He was in charge of developing the report for the range evaluation, providing recommendations for range safety products and presenting the client with the proposed renovations to address safety issues.

**Outdoor Range Renovations and Lead Mining - Federal Bureau of Investigation Academy, Quantico, VA**

Served as the Manager on a multi -range clean up and renovation project for the FBI Academy. Mr. Elwell was in charge of contract management, job cost estimating, oversight of reporting and communications with the client and oversight of the project design. This project consisted of the reclamation of spent bullets from 6 existing firearms ranges, that had been in use for over 40 years. After completion of the lead reclamation phase, the ranges were updated with granular rubber bullet traps and an updated storm water drainage system. This project was completed within budget and was on an accelerated schedule to accommodate training.

**Ada County Sheriff's Department, Ada County, Idaho**

Mr. Elwell provided site development and permitting support for a proposed Ada County Firearms Training facility. He also developed initial site design drawings, coordinated sub-consultants for required hillside development plans and provided visual aids for all of the public meetings.

**Garden Ridge Range Safety Evaluation, Litigation Support for Neighboring Residential Area – Garden Ridge, TX**

Mr. Elwell provided litigation support to the residential development adjacent to Garden Ridge Firing Range. Responsibilities included documentation of safety issues that were noted during site visit to the range and produced graphics and written descriptions of proposed range safety improvements.

**Multiple Range Evaluations – Colorado Department of Corrections, Statewide**

Mr. Elwell worked with engineers at Alfred Benesch & Associates (Engineering Firm) to provide range safety evaluations for six (6) ranges across the State of Colorado operated by the Department of Corrections. Mr. Elwell provided a report detailing the site evaluations and recommendations for the ranges, as well as, a conceptual site design and budgetary cost estimate to construct.



# Michael K. Harrigan

## Range Evaluation Specialist



### Summary of Qualifications

- Highly engaged and passionate leader invested in bringing greater value to the mission.
- Critical thinker who examines current best practices to ensure maximum organizational effectiveness.
- Effective team-builder known for leveraging individual talents to increase work unit impact.

### Work Experience

#### TRS Range Services, LLC. - Eagle, ID

Consultant, Range Operations

January 2019 - Present

- Provides expert advice and consultation on firearms range operations.
- Conducts comprehensive reviews of firearm range safety, features, and procedures.
- Expert testimony related to issues arising from the operations of firearm ranges.

#### Federal Bureau of Investigation - Quantico, VA

Chief, Firearms Training Program

January 2016 to December 2018

- Responsible for leading the FBI's firearms training program, setting training standards agency-wide.
- Developed a comprehensive communication strategy to forge a cohesive relationship between the dispersed field instructors and the national program.
- Integrated a philosophy of change with the goal of shifting training methodologies to support the mission.
- Launched a national recruiting initiative to identify external experts to diversify the philosophy of the program.
- Conducted a comprehensive analysis of agency use-of-force incidents to adjust training as needed.
- Successfully implemented a comprehensive multi-million dollar range-management plan to recover and recycle decades of accumulated projectiles, while upgrading the facility to current national range standards.

#### Federal Bureau of Investigation - Quantico, VA

Chief, National Academy Program

August 2013 to January 2016

- Oversaw operations of the leading national law enforcement executive leadership institution, graduating over 1800 senior law enforcement officers from every state and more than 40 countries.

### Total Years of Experience:

32

### Education:

Bachelors of Science in Finance

Sacred Heart University

Fairfield, CT.

### Professional Memberships & Affiliations:

FBI National Academy Associates, honorary life membership granted by the executive board.

Veterans of Foreign Wars, Life Member

Society of Former Special Agents of the FBI

National Rifle Association, Life Member

Manassas, VA.

EMAIL:

Cell: (703) 763-6262





- Developed a real-time communication strategy to increase the flow of information between FBI leadership and attendees.
- Restructured the NA speaker bureau to address relevant, emerging global law enforcement issues, focused on the reality of post-Ferguson policing.
- Deepened the role of the NA in purpose-driven policing.
- FBI representative on the executive board of the FBI National Academy Associates, Inc.
- Established an Advisory Board for the integration of external ideas and philosophies into the strategy of the NA.

#### **Federal Bureau of Investigation - Albuquerque, NM**

Supervisory Senior Special Agent

*August 2010 to August 2013*

- Responsible for overseeing all federal investigations on three Native American reservations.
- Established a leadership role in the regional crisis management agency operating in one of the largest petroleum drilling areas in the country.
- Established a regional intelligence-sharing network to increase communication among law enforcement agencies in a widely-dispersed geographic area.
- Shifted the investigative strategy to more effectively leverage the expertise of tribal investigators.
- Increased the effectiveness of child investigations through increased roles for the regional child forensic interviewers.
- Developed a publicity project to highlight investigations in Indian Country, culminating in an article that ran in the annual FBI Story publication and a filmed interview for FBI.gov.

#### **Federal Bureau of Investigation - Washington, D.C.**

Chief, Violent Criminal Apprehension Program (ViCAP)

*November 2006-August 2010*

- Oversaw operation of the largest repository of serial violent crime cases in the country.
- Restructured the ViCAP Web database project that was over budget and years behind schedule by redefining its goal and scope.
- Refocused the analytical process for the benefit of victims and the larger law enforcement community.
- Developed a national media strategy to increase public and law enforcement awareness of the Highway Serial Killings Initiative, which resulted in multiple media appearances.
- Established a development process for Crime Analysts to link promotions to professional development.

#### **Federal Bureau of Investigation - Washington, D.C**

Special Agent, Police Training Coordinator



*January 2006 - October 2006*

- Coordinated the delivery of FBI training to law enforcement agencies within the National Capital Region.

**Federal Bureau of Investigation - Washington, D.C.**

Special Agent, Attorney General's Protection Detail

*November 2003-January 2006*

- Conducted all aspects of close protection for two Attorney Generals.

**Federal Bureau of Investigation - Topeka, KS**

Special Agent

*October 1996 - October 2003*

- Conducted all FBI investigative matters in a six-county area
- SWAT Team member, Firearm Instructor, and Tactical Instructor
- Established the Topeka Regional Joint Terrorism Task Force

**Norwalk Police Department - Norwalk, CT**

Police Officer

*October 1992-October 1996*

- Patrol, Tactical Narcotics Team, Community Policing
- SCUBA and SWAT team member

**U.S. Army - Germany and Fort Bragg, NC**

Military Police

*June 1987-July 1991*

- Various assignments, to include combat deployments to Panama and Desert Storm



## Kerry O'Neal

### Owner & Range Specialist



**RANGE DESIGN**  
SERVICES

#### Career Summary

Mr. O'Neal has over 30 years of experience in the small arms firing range industry; he has experience at more than 200 shooting range facilities throughout the United States. Interest in the gun and firing range industries stems from Mr. O'Neal's lifelong passion for hunting. As a representative for the National Rifle Association, Mr. O'Neal was tasked to understand lead hazards and their impact on closing ranges. During that study, Mr. O'Neal developed a greater understanding of the environmental aspects of the firing range industry, including lead recycling and range remediation. Mr. O'Neal then developed a patent for a bullet containment system to minimize the impacts of lead as well as provide a safe shooting environment. He is the patent inventor of the Granular Ballistic Rubber Trap (US Patent No. 6173956) and recognized as a Ballistics Expert and Product Development Expert by Weatherby, Inc. Mr. O'Neal was also recently awarded a patent for a portable projectile trap assembly (US Patent No. 8313103) and a removable breach inspection panel (US Patent No. 8875613).

Also, during this time, Mr. O'Neal was a General Contractor, involved with costing, managing, and constructing residential and commercial properties. In 2000, Mr. O'Neal began to integrate his construction experience with his small arms firing range expertise and became the Range Services Program Director for several consulting firms. In 2005, Mr. O'Neal founded TRS Range Services with Ms. Noreen Powers as a small disadvantaged small business (Case No. 300828) that specializes in construction of small arms qualification courses and training facilities throughout the United States.

Mr. O'Neal is a nationally recognized expert on small arms firing ranges. He provided expert witness testimony numerous times and has conducted site assessments for federal, state, and local facilities.

#### Selected Project Experience

Mr. O'Neal has provided his expertise in range design, evaluations and range construction at over 200 indoor and outdoor firing ranges. Select range evaluation and design projects he has completed include:

##### Idaho Fish & Game Range Evaluations – Idaho, Statewide

Mr. O'Neal performed range evaluations for State managed shooting ranges at four separate locations across the State of Idaho. He was the primary advisor and expert witness for investigations and litigation of the Farragut State Park firing range in Northern Idaho. Additionally, Mr. O'Neal visited and evaluated the Gate City Sportsmen Shooting Range near Pocatello, ID. He also provided expert advice for improvement recommendations on the Black's Creek Shooting Range Complex in southwest Idaho and recommended design and siting of a proposed new range near Lewiston, ID.

Total Years of Experience: 30

#### Education:

Fullerton Junior College, Wildlife  
Biology, Fullerton, California

#### Registrations:

General Contractor License-  
Idaho, Alaska

#### Certifications and Non- Professional Licenses:

40 HR HAZWOPER Training  
California Dept. of Fish and Game  
Firearms Instructor  
Representative National Rifle  
Association  
Police Academy PC832  
Course  
Hunting Educational Program  
Teacher  
San Bernardino Sheriff's  
Department – Sheriff's Training  
School

Eagle, ID.

neal@rangedesignservices.com

Cell: (951) 314-3121

Office: (208) 332-4533



### **Ohio Department of Natural Resources – Multiple Sites, State of Ohio**

Mr. O’Neal served as the range expert for evaluation of all range sites evaluated under this contract. Mr. O’Neal provided conceptual designs and safety recommendations for ranges evaluated. He also provided budgetary cost estimates and final design review of ranges selected for construction renovations under this contract.

### **Pickle Butte Range Evaluation – Canyon County, ID**

Mr. O’Neal served as the range expert for design recommendations and costing of upgrades to the Pickle Butte range. Mr. O’Neal provided all design recommendations and provided examples of existing ranges that would better illustrate how the proposed range should operate. Mr. O’Neal had final authority over the submitted design product and estimated costs.

### **Wenas Micro Range – Washington Department of Fish & Wildlife, Yakima, WA**

Mr. O’Neal provided the site visit, conceptual designs and budgetary cost estimates for recommendations on the current range site. Mr. O’Neal also provided these same services for alternate sites in the vicinity where a replacement range might be located. Mr. O’Neal’s cost estimates were used as a comparison standard for making decisions on how to proceed with range construction versus updating the existing range.

### **Noel’s Draw Shooting Range, Estes Park, CO**

Mr. O’Neal provided expert evaluation of the existing range area and made improvement recommendations based on issues that he identified at the range. Mr. O’Neal oversaw the development of range concept designs that would address issues identified at the range during the site visit. Improvements included changes to general site layout for increased safety and recommendations for improved abilities to mitigate lead at the range. Mr. O’Neal oversaw the final reporting for the site and had final authority on the content of those reports. He also made recommendations for materials to aid in lead containment such as; shot curtains and granular rubber bullet traps.

### **Department of Homeland Security, Modernization of Ranges, Laurel, MD**

Three (3) existing training ranges were evaluated for the United States Secret Service to provide updates to safety and the modernization of the facility. Mr. O’Neal, led the team in designing and constructing the renovations to the pistol and rifle ranges as well as a live fire shoot house. Due to a compressed schedule, Mr. O’Neal was able to provide concurrent design and construction services to meet the client’s needs, while limiting interference to training.

### **Federal Bureau of Investigation Academy, Ranges 1 through 8, Quantico Marine Corps Base, VA.**

From the construction of Range 1, to the renovation of Ranges 2 through 8 Mr. O’Neal has been a guiding presence for the FBI Academy’s outdoor ranges. Ranges varied in size and use, including pistol ranges, rifle ranges and reactive steel target ranges. Designs and construction also included several ancillary range buildings, including a range control tower, storage building, range briefing area and restroom facilities. Mr. O’Neal also





guided the renovation of multiple ranges through the installation of Granular Rubber Bullet Traps and for upgrades to grading and drainage structures to deal with long standing storm water issues on the outdoor ranges. Mr. O’Neal guided the design team for range design and managed the construction crew during the building phase.

**Virginia Commonwealth University, Indoor Range Construction, Richmond, VA.**

The concept and design for the construction of an indoor range facility inside the basement of the VCU Police Department Headquarters building, was developed by Mr. O’Neal. The design utilized existing space and provided a cost-effective solution for the range by building a substructure inside the existing building. Mr. O’Neal led the construction team and implemented his range design.

**City of Independence, Indoor Training Range, Independence, MO.**

Contracted by the City of Independence, Mr. O’Neal led his team in designing and constructing a complete renovation of their 4-lane, 25-yard indoor firing range. With new ballistic protection, updated lighting and a new air handling system. This project was completed on time and within budget for the city.

**Cedar Rapids Police Department Range Improvements, Cedar Rapids, IA**

This project included the evaluation of the current Police Department shooting facility and a completed design package for bid out of range construction. Facilities included 3 new pistol and rifle ranges, range tower, classroom facilities, simunition houses and a live fire shoot house. Mr. O’Neal was the primary range consultant for this project. He completed a site visit, made design and functional use recommendations for range improvements and provided a budgetary cost estimate for construction. Mr. O’Neal proceeded to oversee the construction of the bullet traps for Phase 1 of this project.

**List of additional Clients for Range Evaluations**

US Dept. of Justice – Multiple Locations	Colorado Dept. of Corrections	Drake Landing, Private Range, NC
Riley County PD, KS	CA Inland Fish & Game	NJ Transit Authority
Ada County Sheriff, ID	Volusia County, FL	City of Overland Park, KS
City of Boise, ID	City of Garden Ridge, TX	City of Long Beach, CA
City of Meridian, ID	Five Square Range, OH	City of Ft. Lupton, CO
City of Sacramento, CA	City of Gig Harbor, WA	Guardian Centers, GA
Ontario County, NY	St. Martins Parish, LA	Nampa Rod & Gun, ID
York County, SC	City of Washington, IL	Cherokee Gun Club, GA





### **Thomas Pritts, AIA, LEED-AP, CSI-CCS**

Tom founded Montum Architecture in 2017. He has more than 15 years experience in design, specification, and project management. During his former employment, Tom has designed and managed dozens of built projects. His experience encompasses a wide range of projects including K-12 and higher education facilities, financial Institutions, emergency services buildings, and automotive dealerships. A native of Mineral County, Tom is member of the West Virginia Chapter of American Institute of Architects and was involved in the establishment of the US Green Building Council's West Virginia chapter. He is highly skilled in the design of complex building systems, technical construction detailing and specifying, and construction contract administration. These skills were critical in the development and maintaining of many multi-year, multi-project relationships with Clients in his previous employment.

#### **Project Role: Relationship Manager – Primary Point of Contact**

- Principal in Charge
- Design and Project Management
- Concept and Construction Design
- Quality Assurance and Control

#### **Professional History**

2017- Present	Montum Architecture	Architect
2004-2017	Alpha Associates	Associate and Architect
2003	Marshall Craft Associates	Architectural Intern

#### **Education**

2004	Virginia Tech	Bachelors of Architecture
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#### **Licenses and Certifications**

- Licensed Architect (West Virginia, Maryland)
- NCARB Certificate
- Construction Specifier Institute – Certified Construction Specifier
- LEED-AP Certified
- Part 107 Remote Pilot
- 30-hour OSHA Card

#### **Associations and Memberships**

- American Institute of Architects
- Mineral County Chamber of Commerce – 1<sup>st</sup> Vice President

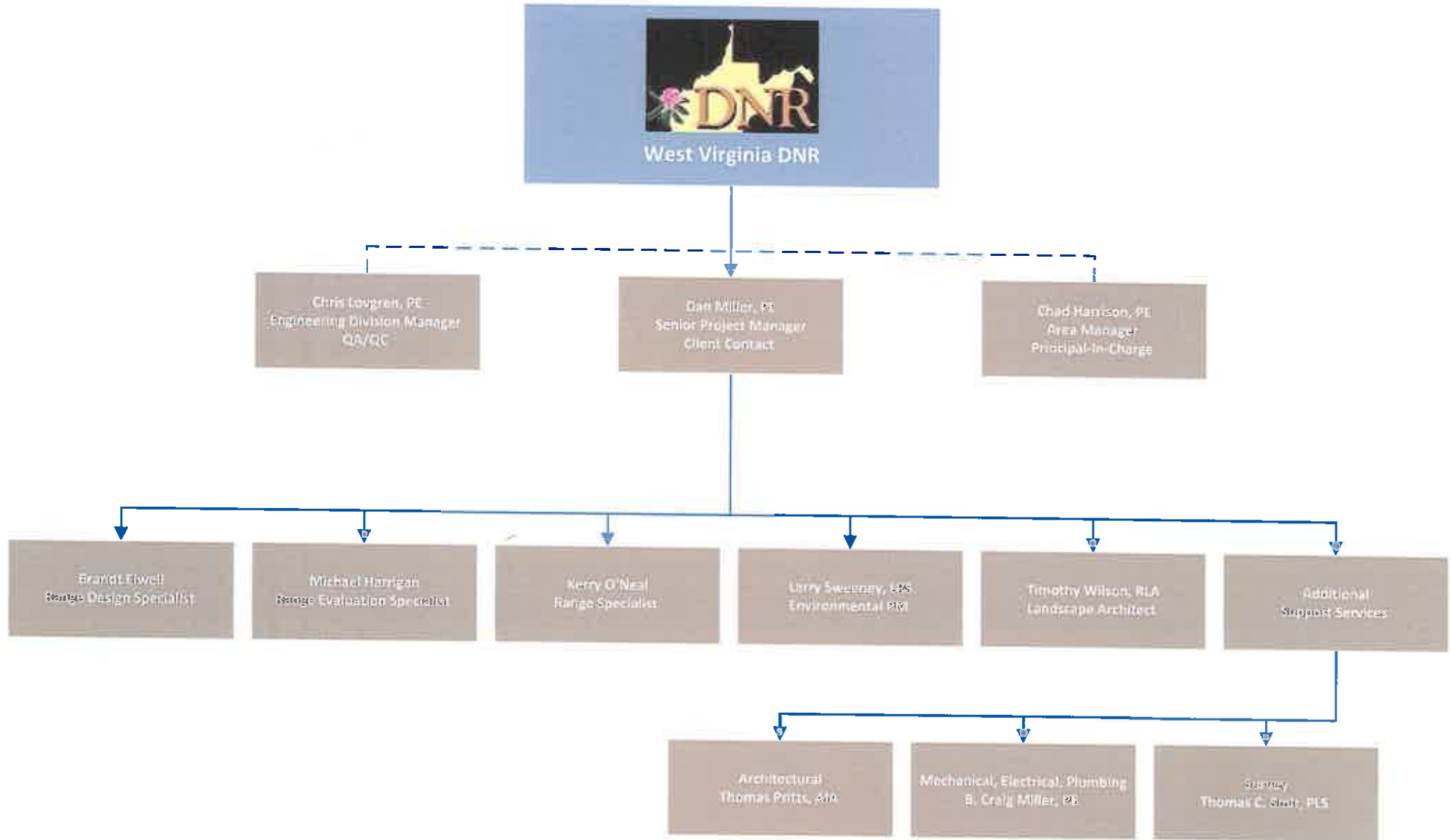
#### **Professional Project Highlights**

- Potomac State College – Bachelor of Nursing Renovation
- Wyoming East High School HVAC Renovation – Wyoming County Schools, WV
- Mountainview and MTEC HVAC Renovation – Monongalia County Schools, WV
- Berkeley Springs State Park – Pool Bathhouse Roof Replacement
- Berkeley Springs State Park – Old Roman Bath Renovation
- Blackwater Falls State Park – Boiler Room Renovation
- Our Lady of the Mountains Parish – Bathroom Renovation
- Mountain View Assembly of God – Rec Hall Ceiling Design

## **Appendix B**

### Organizational Chart

**WEST VIRGINIA DIVISION OF NATURAL RESOURCES  
ORGANIZATIONAL CHART  
A/E Services for DNR Lead Management Plan Project**



## **Appendix C**

### Project Experience

# Idaho Department of Fish & Game



RANGE DESIGN  
SERVICES

## Site Evaluations & Range Design

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**Project Name:** Idaho Department of Fish & Game

**Project Location:** Idaho – Statewide

**Client Contact Information:**

Multiple contacts based on region. See below descriptions

**Key Personnel:**

Kerry O’Neal – Range Expert

Brandt Elwell – Project Manager

**Project Overview:**

Range Design Services, LLC (RDS) staff worked on Idaho Department of Fish & Game (IDFG) shooting ranges throughout the State of Idaho in a variety of different support capacities. Each region within the state required different levels of assistance, including but not limited to; litigation support, safety recommendations and public relations recommendations for the ranges. RDS was able to successfully work with each IDFG region to address their specific concerns. A brief description of work completed in each region is provided below.

**Northern Idaho Region – Farragut State Park Range Facility:**

Project Contact: Jeanne McFall, Engineer Supervisor

Phone: (208) 401-6129

Email: [jeanne.mcfall@idfg.idaho.gov](mailto:jeanne.mcfall@idfg.idaho.gov)

RDS’ staff was initially contacted by the IDFG staff to provide expert witness testimony for the Farragut State Park Shooting Range. They were facing litigation from an adjacent development, regarding complaints of noise and rounds leaving the range’s property. The existing shooting range had been in use since the 1940’s, and since the early 2000’s residential development has been encroaching in on the surrounding area. IDFG hired our staff to assist them with evaluating the noise complaints, as well as, developing an inexpensive overhead baffle system that they may construct, in order to increase range safety. After consultation with the range’s staff, RDS’ staff designed an overhead baffle



Constructed baffle system – Farragut SP Range, ID





system that fell within IDFG's budgetary constraints for the range improvements, while at the same time providing the necessary round containment for pistols and rifle calibers used at the range. Additionally, our design facilitated the construction of the baffles by local range staff. Our extensive range experience allows, RDS, to provide innovative solutions for range issues that are both functional and cost effective.

### Eastern Idaho Region – Gate City Sportsmen Association Range

Project Contact: Mark Gamblin, IDFG

Phone: (208) 232-4703

Email: mark.gamblin@idfg.idaho.gov

RDS was contacted through the Eastern Region of the IDFG to provide a range safety evaluation for the Gate City Sportsmen Association Range. This range is operated by private citizens under a lease with the State of Idaho. RDS' staff was asked to evaluate the range's safety. The range complex included 7 different ranges, all of which were evaluated. These ranges included:

- Multi-length Target Range up to 400 yards
- Gullyville Cowboy Action Shooting Area
- 25 yard, 3 lane pistol range
- 50 yard, 4 lane pistol/rifle range
- 100 yard, 2 lane rifle range
- 100 yard, 2 lane rifle range
- Clay Trap Club Shooting range

RDS' staff provided a final report to the club with recommendations for some operational changes to improve range safety such as; providing line supervision to assist in assuring club rules are followed. RDS also recommended construction of new berms between ranges to improve safety. Recommendations were implemented by the Gun Club under the supervision of IDFG's staff.



Shooting canopy at 200-yard range, Gate City Range



### Southwestern Idaho Region – Black’s Creek Range Evaluation

Project Contact: Evin O’Neale, Regional Conservation Educator

Phone: (208) 465-8465

Email: [evin.oneale@idfg.idaho.gov](mailto:evin.oneale@idfg.idaho.gov)

RDS’ staff was contracted to assist IDFG’s staff with recommendations to improve the Black’s Creek Firing Range Complex for general public use. The Black’s Creek Range serves a populated region of Idaho, which includes the greater Boise metro area. The range was underutilized, considering the local population size and the high instance of firearm ownership. The Blacks Creek Range complex includes:

- Hunters Education Range
- Trap Range
- 200-yard Schuetzen House Range
- 200-yard Main Range “open to the public” 46 lanes wide.
- 200-yard Pistol/Silhouette range
- Cowboy action range
- Pistol Pits
- Black Powder Cartridge Rifle Silhouette Range (BPCRS) - 500 meters



Black’s Creek primary firing range

Discussions were held with the gun club members that manage and maintain the range under contract with the IDFG. RDS’ staff developed recommendations for making the range more user friendly for patrons of all skill levels. One such recommendation was to split the 46-lane range into multiple ranges, allowing for a quicker fire/cease-fire cycle. Range design recommendations, such as, addition of walls between ranges to reduce line of sight, were provided to ensure all ranges have adequate containment for the safety of others utilizing adjacent ranges.



### Central Idaho Region – Sighting of New Ranges

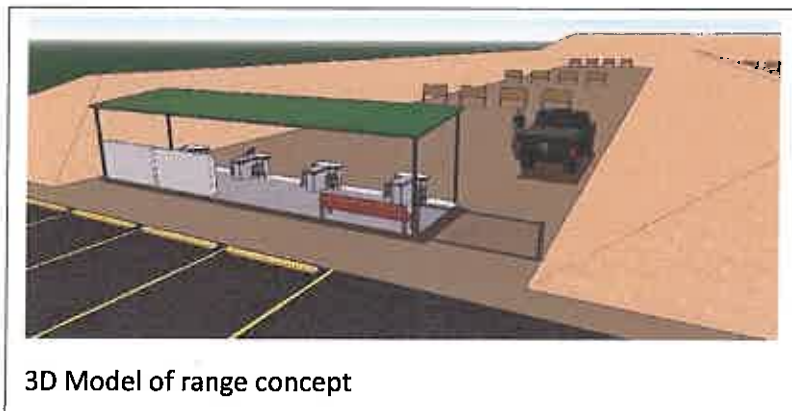
Project Contact: William Seybold

Phone: (208) 799-5010

Email: [william.seybold@idfg.idaho.gov](mailto:william.seybold@idfg.idaho.gov)

RDS was contracted by IDFG's staff in the Central Region of the state to assist with a conceptual design for two new ranges outside of Lewiston, ID. IDFG is partnering with local private and Federal Government entities, to develop shooting ranges for the region. Due to the vast availability of open land in this region, firearm owners tend to shoot in a number of random distributed areas. By consolidating the shooting into designated areas, the IDFG hopes to increase safety and environmental conditions, by reducing the proliferation of trash and lead contaminated sites in the area.

RDS' staff visited the proposed range sites and discussed potential site designs with the IDFG staff and representatives from the entities donating the land. Based on this information, RDS developed conceptual site designs and budgetary cost estimates for developing these range sites. These were provided to the IDFG for presentation to administrators and the public. Construction of these ranges is still pending.



3D Model of range concept

# Ohio Department of Natural Resources



RANGE DESIGN  
SERVICES

## Site Evaluations & Range Design

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**Project Name:** Ohio Department of Natural Resources

**Project Location:** Ohio – Statewide

**Client Contact Information:**

Megan Cyr, Project Manager  
The Kleingers Group  
350 Worthington Rd, Suite B  
Westerville, OH 43082  
Phone: 614.882.4311

**Key Personnel:**

Kerry O’Neal – Range Expert  
Brandt Elwell – Project Manager

**Project Overview:**

Range Design Services, LLC (RDS) staff was brought on as a consultant for the prime contractor, The Kleingers Group, to complete a statewide evaluation of public shooting ranges. The RDS team initially visited a total of eight (8) ranges as a cursory look at the current condition of ranges throughout the State of Ohio. From initial evaluations of the ranges three (3) high profile ranges were selected for in depth analysis with one (1) range selected to proceed with design and construction of improvements. RDS’ staff performed a site visit to this range which included discussion with the range staff to identify known issues and range needs for the future.



Original bullet trap system



Granular Rubber Bullet Trap after renovation

RDS, then provided an in-depth analysis of the range, including concept designs and budgetary estimates of costs to construct. In conjuncture with the recommendations for site improvements, RDS, provided a review of shop drawings and submittals in assistance to the Engineer of Record during the design approval process. Additional assistance was provided to, The Kleingers Group, with responses to Requests for Information (RFI) for the project. Our team assisted in the final detailed construction drawings, specifications and construction cost estimates for select sites. RDS participated in administration of the construction of the firing range by performing a site visit to evaluate current construction progress. The site visit reviewed the proper installation of range safety measures and provided guidance to rectify deficiencies.

### Site improvement recommendations for the selected range site:

- Installation of granular rubber bullet traps to augment bullet capture at the existing dirt berms being utilized at the range.
- Granular Rubber Bullet Traps with an integrated storm water filtration unit, to manage lead run-off from lead captured at the range.
- Ballistic concrete walls to separate ranges and increase range safety
- Increased berm height to better contain bullets within the range area
- Installation of shooting benches and covered canopy area at the firing lines for each range.
- Advised on developing a sensible flow for checking in users at the range and for monitoring safety on the firing line using a camera system.







# WA Dept. of Fish & Wildlife Wenas Micro Range



RANGE DESIGN  
SERVICES

## Site Evaluations & Range Design

**Project Name:** Wenas Micro Range – Washington Department of Fish & Wildlife

**Project Location:** Yakima, WA

### Client Contact Information:

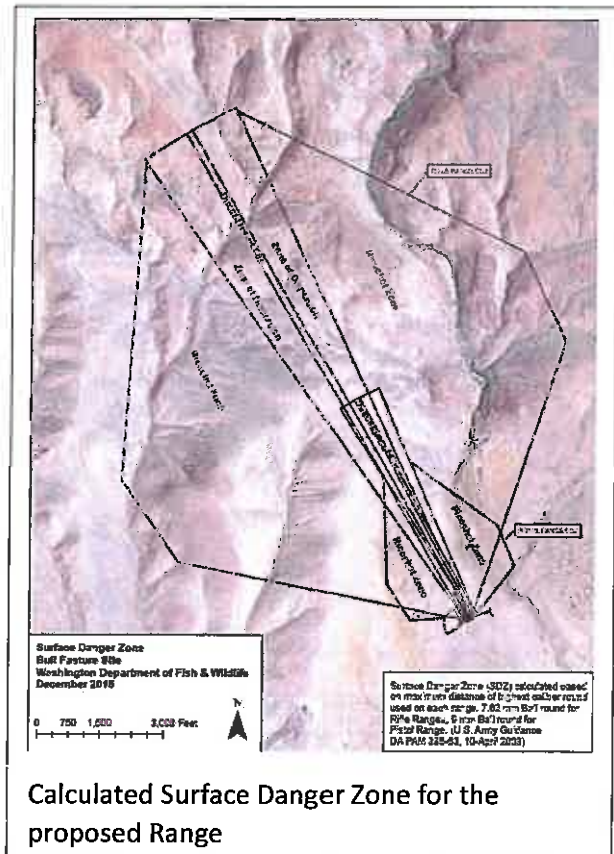
Nancy Charron, AIA, NCARB  
Traho Architects, P.S.  
1460 North 16<sup>th</sup> Avenue, Suite A  
Yakima, WA 98902  
Email: nancy@traho.com

### Key Personnel:

Kerry O'Neal – Range Expert  
Brandt Elwell – Project Manager

### Project Overview:

Range Design Services, LLC (RDS) staff was brought on as a consultant for the prime contractor, Traho Architects (Traho), to evaluate an existing range site and to make recommendations for relocating the existing range or for making improvements to the existing range site. RDS provided an initial range evaluation for the existing Wenas range. In conjunction with the evaluation of the existing range, RDS' Range Expert evaluated three (3) potential alternative sites to move the existing range to. Written evaluations were given of each site under consideration for construction of a new range. Each site was evaluated for available space to construct a new range, accessibility of the site and available space to construct all of the requested facilities. RDS provided conceptual designs for each of the 3 sites, along with a budgetary cost estimate to construct or renovate the range. RDS also responded to questions from State officials with regard to standards for range safety and lead management at ranges. These recommendations were provided to the Washington Department of Fish & Wildlife for further review and determinations for budget for construction.



Calculated Surface Danger Zone for the proposed Range



## Appendix D

West Virginia Certificate of Authorization

# CERTIFICATE OF

# Authorization

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

*The West Virginia State Board of Registration for Professional Engineers  
having verified the person in responsible charge is registered in  
West Virginia as a professional engineer for the noted firm, hereby certifies*

**ATC GROUP SERVICES LLC  
C01371-00**

**Engineer in Responsible Charge: CHAD JOHN HARRISON - WV PE 023116**

*has complied with section §30-13-17 of the West Virginia Code governing  
the issuance of a Certificate of Authorization. The Board hereby notifies you of its  
certification with issuance of this Certification of Authorization for the period of:*

**January 1, 2020 - December 31, 2021**

*providing for the practice of engineering services in the State of West Virginia.*

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE,  
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.



IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF  
REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA  
UNDER ITS SEAL, AND SIGNED BY THE PRESIDENT OF SAID BOARD.

BOARD PRESIDENT